

TOWN OF RIDGEFIELD
Office of the Town Engineer

RIDGEFIELD, CONNECTICUT

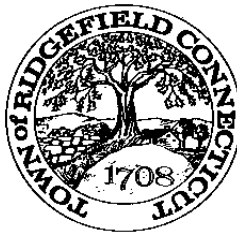
***Energy Conservation & Building
Maintenance***

***Venus Municipal Complex Renovations
Phase 1, Demolition and Abatement
90 East Ridge, Ridgefield, Connecticut***

July, 2018

DETAILED SPECIFICATIONS:

**BIDDING REQUIREMENTS
PROJECT DESCRIPTION
Plans**



**RUDY MARCONI
FIRST SELECTMAN**

**CHARLES R. FISHER, P.E., L.S.
TOWN ENGINEER**

Bid Number 2019-01

LEGAL NOTICE

INVITATION to BID

The **Town of Ridgefield** invites all interested parties to submit sealed bids on the following:

BID DUE DATE: August 24, 2018

BID DUE TIME: 11:00 AM

BID ITEM: Energy Conservation & Building
Maintenance, Venus Municipal Complex
Renovations, Phase 1, Demolition and
Abatement, 90 East Ridge, Ridgefield, CT

BID NUMBER: 2019-01

Terms and conditions as well as the description of items being bid are stated in the specifications. **Specifications may be obtained at the following address:**

**Town of Ridgefield
Kenneth Sandberg
400 Main Street
Ridgefield, CT. 06877
203 - 431 – 2720**

The return bid envelope must be marked and addressed to the following:

**TOWN OF RIDGEFIELD
DIRECTOR OF PURCHASING
BID NUMBER: 2019-01
400 MAIN STREET
RIDGEFIELD, CT. 06877**

Bids must be received no later than the date and time stated above at the Purchasing Director's office on the second floor. **For further information,** please call **Kenneth Sandberg** at (203) 431-2720 or E-Mail at **purchasing@ridgefieldct.org**

Bid Documents available at www.ridgefieldct.org in the Purchasing section under Departments

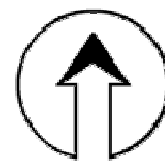
Results may be viewed at www.ridgefieldct.org in the Purchasing Section under Departments after the bid opening.



The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

Venus Municipal Complex Renovations, Location Plan

7/20/2018 9:30:46 AM



1:2400
1"=200'



TOWN OF RIDGEFIELD CONNECTICUT

BOARD OF SELECTMEN

INSTRUCTIONS TO BIDDERS

1. Submit proposals in a sealed envelope plainly marked with bid number to identify this particular proposal.
2. Withdrawals of or amendments to bids received later than the time and date specified for bid opening will not be considered.
3. The Board of Selectmen of the Town of Ridgefield reserves the right to accept or reject any or all options, bids or proposals; to waive any technicality in any bid or part thereof, and to accept any bid deemed to be in the best interest of the Town of Ridgefield, Connecticut.
4. Bidders may be present at the opening of bids.
5. Bids may be held by the Town of Ridgefield for a period not to exceed sixty (60) days from the opening of bids for the purpose of reviewing the bids and investigating the qualifications of bidders prior to the awarding of the contract.
6. Insurance requirements, if any, must be submitted with the bid. This includes any Hold Harmless requirements as well as Certificates of Insurance for the full amounts specified. **Unauthorized changes** to these forms, i.e. adding, striking out and/or changing any words, language or limits **will cause the bidder to be disqualified**.

Please Note: Certificates of Insurance, if required, MUST name the Town of Ridgefield as **Additional Insured**. Failure to do so will mean disqualification from the Bid. There will no exceptions.

7. **Permits:** It is the Contractor's responsibility to obtain any necessary permits prior to the start of construction. All work shall be completed in compliance with the latest edition of the prevailing fire prevention and building codes in effect in the State of Connecticut, the latest edition of the State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Town of

Ridgefield Road Construction Standards, or as set forth in these specifications.

8. **Emergency Work:** The Contractor shall file with the Engineer a telephone number of a person authorized by him who may be contacted regarding emergency work at the job site that may be required during non-working hours for reasons of public safety. The person shall be readily available and have full authority to deal with any emergency that may occur.
9. **Sales Tax:** In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.
12. **Contractor's Qualification Statement:** The Contractor's Qualification Statement must be filled out as part of the bid package and the experience and references listed therein will be one to the determining factors in the awarding of the bid.
13. **Hold Harmless Agreement:** In order for the bid to be considered valid, the Contractor **must** sign the enclosed hold harmless agreement. Bids submitted without the signed hold harmless agreement will be rejected.
14. **Prevailing Wage Rates:** This project **is** subject to the State of Connecticut's prevailing wage rates.
15. **SBE/MBE and Contract Compliance Requirements:** This project **is not** subject to the State of Connecticut SBE/MBE set aside and contract compliance requirements.
16. **Time of Completion:** All work must be completed within **60 days** from receipt of the notice to proceed
17. **Bonds:** A Payment and Performance bond in the full amount of the Proposal will be required of the successful bidder. The bond must be in the form of a surety bond of a type satisfactory to the Town of Ridgefield. All sureties must be listed on the most recent IRS Circular 570. The bond shall be delivered to the Office of the Town Engineer before commencing the work.
18. **Bid Bond:** A Bid Bond in the amount 5% of the base bid in a format similar to that required for both the payment and performance bonds is required.

19. **Project Locations:** The project is located at on Town of Ridgefield property at 90 East Ridge, Ridgefield, Connecticut.
20. **Pre-Bid Meeting:** An on-site pre-bid meeting will be held on August 10, 2018 at 10:00 AM.
21. **Further Information:** Questions regarding bid procedures should be directed to Kenneth Sandberg, Director of Purchasing at 203-431-2720. Technical questions regarding the demolition aspects of the project should be submitted to Jeff Mose, Project Architect, Mose Associates, Architects PC at 203-438-5355. Technical questions regarding the abatement aspects of the project should be submitted to Matthew Myers, Senior Hazmat Specialist, Langan at 203-784-3078.
22. **Bid Submissions:** The following items shall be submitted for a bid to be considered complete:
 - (a) Executed proposal sheets, Forms 004113, 004322, and 004323
 - (b) Executed Hold Harmless Agreement
 - (c) Certificates of Insurance in conformance to Item 6 above
 - (d) Contractor's List of Subcontractor's (if none, state none)
 - (e) Contractor's Qualification Statement
 - (f) Bid Bond in the amount of 5% of the base bid
 - (g) A break-down of the lump sum price bid under Section A, Form 004113 noted above

Supplemental Information for Bidders and General Contract Provisions**1. PREPARATION OF PROPOSALS**

Proposals must be made upon forms contained herein or as directed elsewhere. The blank spaces in the Proposal must be filled in correctly where indicated. The Bidder must state the prices for which he proposes to do each item of the work contemplated. In case of discrepancy where both words and the numerals are requested, the words shall govern. Ditto marks are not considered writing or printing and shall not be used. The Bidder shall sign his Proposal correctly. If the Proposal is made by an individual, his name, post office addresses and telephone number must be shown. If made by a firm, partnership, or corporation, the Proposal must be signed by an official of the firm, partnership, or corporation authorized to sign contracts, and must show the post office address and telephone number of the firm, partnership, or corporation. Failure to do so may disqualify the bid.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the Bidder, post office address, bid number, and name of the project for which the bid is submitted. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to: The Purchasing Director, Town Hall, 400 Main Street, Ridgefield, CT 06877.

All information shall be entered in ink or by typewriter. Mistakes may be crossed out and corrections inserted before submission of your bid. The person signing the bid shall initial corrections in ink.

Corrections and/or modifications received after the closing time specified will not be accepted.

2. SUBMISSION OF PROPOSALS

Descriptive literature containing complete specifications must accompany each bid. If a bidder wishes to furnish additional information, more sheets may be added.

3. INCURRING COSTS

The Town of Ridgefield is not liable for any cost incurred for the preparation of proposals or submission of samples by the firms submitting proposals for the work requested in this bid document or request for proposals.

4. FAMILIARITY WITH THE WORK

Each bidder is considered to have examined the work to fully acquaint him with the exact existing conditions relating to the work and has fully informed himself as to the work involved and the difficulties and restrictions attending the performance of this bid. The submission of a bid will be considered as conclusive evidence that the bidder has made such examination.

5. CONSIDERATION OF PRIOR SERVICE

Previous performance, quality of service and merchandise will be considered.

6. ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS

At the time of the opening of bids each bidder will be presumed to have inspected the work and to have read and to be thoroughly familiar with all of the Contract Documents (including all addenda). The failure or omission of any bidder to receive or examine any form, instruction or document shall in no way relieve any bidder from any obligation in respect to his bid.

If any person contemplating submitting a proposal is in doubt as to the true meaning of any part of these specifications, he may submit a written request for an interpretation to the Purchasing Director. No interpretations as to the meaning of the plans, specifications or other Contract Documents will be made to any bidder orally. Every request for such interpretation should be in writing addressed to the Town of Ridgefield, Purchasing Director, 400 Main Street, Ridgefield, Connecticut 06877, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of Bids. Any and all such interpretations and any supplementary instructions will be in the form of written Addenda to the Specifications which, if issued, will be mailed by Registered Mail with Return Receipt Requested to all prospective bidders at the respective addresses furnished for such purposes, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such Addendum or interpretations shall not relieve any bidder from any obligations under his bid as submitted. All Addenda so issued shall become part of the Contract Documents. Oral explanations will not be binding on the Town.

The specifications listed are to be interpreted as meaning the minimum acceptable by the Town of Ridgefield. Bidders are requested to submit quotations on the basis of these specifications. Alternative bids providing a broader scope and/or services than requested in these specifications may receive consideration providing such equipment and/or service is clearly explained. Any exceptions to the specifications requested herein must be clearly noted in writing and are to be included as a part of your bid proposal. If none are included it will be assumed that there are none.

Definition of the word "complete" means that each unit of the equipment proposed shall include all appurtenances, fasteners, parts, accessories, and services ordinarily catalogued.

An item equal to that named or described in the specifications may be furnished by the Bidder, except where expressly noted as "no substitutions." The naming of any commercial name, trademark, or other identification shall not be construed to exclude any item of any manufacturer not mentioned by name, nor limit competition, but shall establish a standard of equality only. An item shall be considered equal to the item so

named or described if:

- a. It is at least equal in quality, durability, appearance, strength and design.
- b. It will perform at least equally the function imposed by the design for the work being contracted for or the material being purchased.
- c. It conforms substantially, even with deviations, to the detailed requirements for the item in the specifications.

The Bidder shall hold the Town of Ridgefield, its officers, agents, servants, and employees, harmless from liability of any nature or kind because of use of any copyrighted or uncopyrighted compositions, secret process, patented or unpatented inventions, articles or appliances furnished or used under this bid, and agrees to defend, at his own expense, any and all actions brought against the Town of Ridgefield or himself because of the unauthorized use of such articles.

7. QUOTATION LIMITATION

Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. If an or-equal item is to be bid, the bidder is to select the brand and model that meets or exceeds the specified item, and submit his bid for that item.

8. ESTIMATE OF WORK

For bidding purposes, the work has been subdivided into unit price items. The quantities shown are to be considered as approximate only. The Purchasing Agent does not expressly or by implication agree that the actual quantity will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work as deemed necessary.

9. SAMPLES

Samples of articles, when required shall be furnished free of cost of any sort to the Town of Ridgefield. Samples received may be retained by the Town for future comparison. Samples which are not destroyed by testing, or which are not retained for future comparison will be returned upon request at the bidder's expense.

10. WITHDRAWAL OF BID

Bidders may withdraw their proposals at any time prior to the bid date. No agent/broker shall withdraw or cancel their proposal for a period of sixty (60) days after the bid closing date. The successful agent/broker shall not withdraw, cancel or modify their proposal.

11. POWER OF ATTORNEY

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

12. SUBCONTRACTORS

Each bidder contemplating the use of any subcontractor shall submit a list of subcontractors as listed on the Bid Form. The apparent low bidder shall file with the Town of Ridgefield, within five (5) days after the date of bid opening, a complete list of the names and addresses of competent, responsible and qualified subcontractors who are actually to perform major portions of the work. This in no way restricts or limits the requirement that all subcontractors must be approved by the Town. Subcontractors listed on the Bid Form or those previously approved may not be changed without the approval of the Town of Ridgefield. Local subcontractors, material suppliers, and labor in the Town of Ridgefield should be considered and sought insofar, as is practical in the performance of this project.

13. QUALIFICATION OF BIDDER

In determining the qualifications of a bidder, the Town may consider his record in the performance of any contracts for similar work into which he may have previously entered; and the Town expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Town, has not properly performed such contracts or has habitually, and without just cause, neglected the payment of bills or has otherwise disregarded his obligations to subcontractors, suppliers, state or local codes, men or employees of subcontractors. The Town may make such investigation as he deems necessary to determine the ability of the bidder to perform the work and the bidder shall furnish to the Town all such information and data for this purpose as the Town may request. The Town reserves the right to reject any bid if the evidence submitted by or the investigation of such bidder fails to satisfy the Town that such bidder is properly qualified, or that such bidder misrepresented material facts in the bid documents.

14. DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such Bidder is interested. Any or all proposals in which such Bidder is interested will be rejected if there is reason for believing that collusion exists among the Bidders and all participants in such collusion will not be considered in future proposals for the same work. Proposals in which the prices are obviously unbalanced may be rejected. No Contract will be awarded except to competent Bidders capable of performing the class of work contemplated.

15. DELIVERY

Inasmuch as this work concerns a needed public improvement, the provisions of this bid relating to the time of delivery, performance and completion of the work are of the essence of this bid. Accordingly, the successful bidder shall commence work **upon receipt of the signed Purchase Order** unless the Town shall authorize or direct a further

delay. Time of delivery shall be stated as the number of calendar days following receipt of the Purchase Order by the Bidder to receipt of the goods or services by the Town of Ridgefield. Prices quoted must include delivery to the Town of Ridgefield as specified on the Purchase Order. No charges will be allowed for parking, crating, freight, express or cartage unless specifically stated and included in this bid.

Time of delivery may be considered in the award.

16. PAYMENT

The Town, after inspection and acceptance of workmanship, and in consideration of the faithful performance by the Bidder of all and singular his covenants, promises, and agreements contained herein, agrees to pay the Bidder for the full completion by him of the work embraced in this Contract, within (30) Thirty Days of the receipt of the final invoice. When subcontractors or suppliers are utilized, the successful Bidder for this project shall be required to submit a Mechanics Lien Waiver, acceptable to the Town, with each progress payment and/or at time of final payment prior to any payment being made.

Time, in connection with any discount offered, will be computed from the date of delivery to the Town or from the date a correct invoice is received by the Town's Finance Department, if the latter date is later than the date of delivery. Prices will be considered as **NET**, if no cash or payment discount is shown.

The successful bidder shall submit invoices to the following address:

Town of Ridgefield
Office of the Town Engineer
66 Prospect Street
Ridgefield, CT 06877

IT IS UNDERSTOOD AND AGREED THAT SHOULD A BID BE ACCEPTED, IT WILL AUTOMATICALLY BECOME THE CONTRACT OR AN ADDENDUM TO ANY CONTRACT AGREED UPON.

Notification of the bid award will be made by issuance of a purchase order. Bidders are to list their bids on the appropriate attached sheets. Bidders may attach a letter of explanation. A clear notification should be made on the standard bid sheets at the appropriate point of explanation that there is a letter of explanation attached. All bids must be NET prices.

The successful bidder shall submit an itemized invoice to the Town of Ridgefield for the work as described herein.

The bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Ridgefield, with each progress payment and at time of final payment prior to any

payment being made.

At the time of award the successful bidder shall be required to supply the Town of Ridgefield a Certificate of Good Standing, certifying that the corporation is in fact a valid corporation and presently licensed to conduct business in the State of Connecticut.

17. SALES TAX

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

18. CARE AND PROTECTION OF PROPERTY

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

19. COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES

The Bidder shall be responsible for full compliance with any Federal, State and/or Local codes, laws, regulations and standards, as applicable.

20. AWARD

The Town of Ridgefield reserves the right to accept or reject any bid to best serve its interests, or to hold the bids for sixty (60) days before decision.

The Town reserves the right to reject any and all bids (or any part thereof), to waive defects in proposals, or to accept any proposal deemed to be in its best interest.

Exceptions will be considered to the specification provided, providing they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS"

Each exception will be considered as to its degree of impact and total effect on the bid. The purchaser shall determine which (if any taken) exceptions are acceptable, and this determination shall be final.

The Town of Ridgefield reserves the right:

- a. To award bids received on the basis of individual items, or groups of items, or on the entire list of items.
- b. To reject any or all bids, or any part thereof.

- c. To waive any informality in the bids.
- d. To accept the bid that is in the best interest of the Town of Ridgefield. The Purchasing Agent's decision shall be final.

21. INSURANCE

Insurance requirements are detailed under the attached "Insurance Requirements."

22. GUARANTEE

The bidder shall unconditionally guarantee for a period of one (1) year, except as specifically noted within these documents, from the date of acceptance, all materials, supplies, equipment, and services; including but not limited to its workmanship, delivery and installation. If within the guarantee period there are any defects or signs of deterioration the bidder shall repair, adjust or replace the item(s) to the complete satisfaction of the Town. These repairs, adjustments, or replacements are at the sole expense of the bidder and shall be made at such times that are agreeable to the Purchasing Agent so that it is least detrimental to instructional programs.

23. PERMITS

When required all licenses and permits for complying with any applicable Federal, State, and Municipal laws, codes, regulations in connection with the prosecution of the work shall be obtained by the Bidder, at no additional cost to the Town.

24. NONDISCRIMINATION IN EMPLOYMENT

The successful bidder shall agree and warrant that, in the performance of this contract, he will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, sex, religion, or national origin in any manner prohibited by State, Federal, County, or Municipal law. A certification of Non-segregated Facilities and a Certification Regarding Equal Employment Opportunity shall be considered a part of this contract.

25. MECHANICS LIEN WAIVERS

The successful Bidder shall be required to submit a Mechanics Lien Waiver, acceptable to the Town of Ridgefield, with each progress payment, and/or at time of final payment, prior to any payment made.

Purchasing Department, Town of Ridgefield, 400 Main Street, Ridgefield, CT.
06877

203-431-2720 & purchasing@ridgefieldct.org

APPENDIX - INSURANCE REQUIREMENTS

Each bidder shall carry and maintain the following insurance coverage during the period of the contract : The Certificate of Insurance for the Limits of Liability stated below should be submitted with your bid to the Purchasing Department at Town Hall. **Bidders may not perform any work until all insurance requirements are met.**

1. **Comprehensive General Liability Insurance** as will protect him, the Town, and any subcontractor performing work covered by this Contract, from claims for damages for personal injury, including accidental or wrongful death, as well as claims for property damages, which may arise from operations under this Contract whether such operations be by himself or by any subcontractor or by anyone directly or indirectly employed by either of them. Liability insurance shall include premises and operations, products, contractual, owners, and contractors protective. The minimum amounts of such insurance shall be as follows:
 - Bodily Injury Liability and Property Damage Liability:
\$1,000,000 each occurrence.
 - **The Town shall be named as an Additional Insured**
This **MUST** be stated explicitly on the Certificate or you will be **disqualified**
2. **Worker's Compensation Insurance and Employer's Liability** for all of his employees, employed at the site and in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all employees of the later unless such employees are covered by the protection afforded by the Contractor.
 - Worker's Compensation and Employer Liability:
Statutory Limits
3. **Comprehensive Auto Liability Insurance:**
 - **Bodily Injury Insurance and Property Damage Insurance** covering the operation of all Motor Vehicles owned, hired and/or non-owned by the Contractor, or used by the Contractor in the Prosecution of the work

under the Contract, shall be in the minimum of **\$1,000,000 each occurrence.**

All policies relating to this Contract shall be so written so that the Town shall be notified of cancellation or change at least thirty (30) days prior to the effective date for each policy and type of coverage except for nonpayment which shall be ten (10) days prior to the cancellation. Renewal certificate covering the renewal of all policies expiring during the life of the Contract shall be filed with the Town not less than ten (10) days before the expiration of such policies. Failure to do so will result in work stoppage and possible contract cancellation.

HOLD HARMLESS AGREEMENT

The undersigned covenants and agrees to and shall at all times indemnify, protect and save harmless the Town of Ridgefield from and against all costs or expenses resulting from any and all losses, damages, detriments, claims, demands, cost and charges including attorneys fees the Town of Ridgefield may directly or indirectly suffer, sustain or be subjected to by reason or on account of the work to be performed pursuant to this Contract or any activities in connection with said Contract whether such losses and damages be suffered or sustained by the Town of Ridgefield directly or by its employees, licenses or invitees or be suffered or sustained by other persons or corporations who may seek to hold the Town of Ridgefield liable therefore.

The Contractor shall comply with the Provisions of the Immigration Reform and Control Act of 1986 effective and enforceable as of June 6, 1987 which Act makes unlawful the hiring for employment or subcontracting individuals failing to provide documentation of legal eligibility to work in the United States. The Contractor shall hold the Town of Ridgefield harmless for the failure of the Contractor to comply with the provisions of said Act.

IN WITNESS WHEREOF, the parties hereto have set their hand and seal this on the _____ day of _____

Signed, Seated and Delivered in the
Presence of:

Signed:

Notary Public

CONTRACTOR'S QUALIFICATION STATEMENT

List below references for similar projects, including all information requested. This page must be completed and submitted with the bid.

1. Client: _____

Project Address: _____

Approximate Value: _____ Date: Started _____ Completed _____

Contact: Name _____ Telephone _____

2. Client: _____

Project Address: _____

Approximate Value: _____ Date: Started _____ Completed _____

Contact: Name _____ Telephone _____

3. Client: _____

Project Address: _____

Approximate Value: _____ Date: Started _____ Completed _____

Contact: Name _____ Telephone _____

4. Client: _____

Project Address: _____

Approximate Value: _____ Date: Started _____ Completed _____

Contact: Name _____ Telephone _____

Company: _____ Bid Title: _____

Street: _____ Bid No.: _____

City, State: _____ Telephone No.: _____

CONTRACTOR'S LIST OF SUBCONTRACTORS

List below the subcontractors intended to be utilized for this project. This page must be completed and submitted with the bid.

1. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

2. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

3. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

4. Firm: _____

Firm's Address: _____

Contact: Name _____ Telephone _____

Type of Work to be Performed: _____

Company: _____

Bid Title: _____

Street: _____

Bid No.: _____

City, State: _____

Telephone No.: _____

CONTRACTOR'S LIST OF SUBTRACTORS

Q-2

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

(Here insert full name and address or legal title of Contractor)

as Principal, hereinafter called the Principal, and

(Here insert full name and address or legal title of Surety)

a corporation duly organized under the laws of the State of

as Surety, hereinafter called, the Surety, are held and firmly bound unto

(Here insert full name and address or legal title of Owner)

as Obligee, hereinafter called the Obligee, in the sum of

Dollars (\$),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for

(Here insert full name, address and description of project)

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this

day of

19

_____	{	_____	(Seal)
(Witness)		(Principal)	
		_____	(Title)
_____	{	_____	(Seal)
(Witness)		(Surety)	
		_____	(Title)



THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A312

Performance Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond:

☐ None

☐ See Page 3

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: _____

Name and Title:

Signature: _____

Name and Title:

(Any additional signatures appear on page 3)

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3 If there is no Owner Default, the Surety's obligation under this Bond shall arise after:

3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and

3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and

3.3 The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4 When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or

4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or

4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor's default; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

.1 After investigation, determine the amount for

which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5 If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6 After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:

6.1 The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

6.2 Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and

6.3 Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

7 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators or successors.

8 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

9 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation avail-

able to sureties as a defense in the jurisdiction of the suit shall be applicable.

10 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

11 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12 DEFINITIONS

12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Con-

tractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

12.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.

12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corporate Seal)

SURETY

Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

Signature: _____
Name and Title: _____
Address: _____

THE AMERICAN INSTITUTE OF ARCHITECTS



AIA Document A312

Payment Bond

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT

Date:

Amount:

Description (Name and Location):

BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond:

☐ None

☐ See Page 6

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: _____

Name and Title:

Signature: _____

Name and Title:

(Any additional signatures appear on page 6)

(FOR INFORMATION ONLY—Name, Address and Telephone)

AGENT or BROKER:

OWNER'S REPRESENTATIVE (Architect, Engineer or
other party):

1 The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

2 With respect to the Owner, this obligation shall be null and void if the Contractor:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

3 With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4 The Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2 Claimants who do not have a direct contract with the Contractor:

- 1 Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
- 2 Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and
- 3 Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5 If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6 When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2 Pay or arrange for payment of any undisputed amounts.

7 The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any Construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

9 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

11 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this

Bond shall be construed as a statutory bond and not as a common law bond.

14 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15 DEFINITIONS

15.1 Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the

Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2 Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

MODIFICATIONS TO THIS BOND ARE AS FOLLOWS:

:

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company:

(Corporate Seal)

SURETY

Company:

(Corporate Seal)

Signature: _____

Name and Title:

Address:

Signature: _____

Name and Title:

Address:

DOCUMENT 004113 - BID FORM - STIPULATED SUM (SINGLE-PRIME CONTRACT)

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: Venus Complex Renovations, Phase 1 Demolition and Abatement.
- C. Project Location: 90 East Ridge.
- D. Owner: Town of Ridgefield.
- E. Owner Project Number: 19-01.

1.2 CERTIFICATIONS AND BASE BID

- A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, as prepared by Mose and Associates, Architects and Langan, Environmental Consultants and Architect's consultants, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, **for all demolition and abatement work as shown on the Plans and specified within these specifications** according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:
 - 1. _____ Dollars (\$_____).
 - 2. The above amount may be modified by amounts indicated by the Bidder on the attached Document 004322 "Unit Prices Form" and Document 004323 "Alternates Form."

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within 7 seven days after a written Notice of Award, if offered within 60 sixty days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting five percent (5%) of the Base Bid amount above:
 - 1. _____ Dollars (\$_____).
- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 SUBCONTRACTORS AND SUPPLIERS

A. The following companies shall execute subcontracts for the portions of the Work indicated:

1. Concrete Work: _____
2. Masonry Work: _____
3. Roofing Work: _____
4. Plumbing Work: _____
5. HVAC Work: _____
6. Electrical Work: _____
7. Abatement Work: _____
8. Environmental Disposal Work: _____

1.5 TIME OF COMPLETION

A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Architect, and shall fully complete the Work within 60 sixty calendar days.

1.6 ACKNOWLEDGEMENT OF ADDENDA

A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.
2. Addendum No. 2, dated _____.
3. Addendum No. 3, dated _____.
4. Addendum No. 4, dated _____.

1.7 BID SUPPLEMENTS

A. The following supplements are a part of this Bid Form and are attached hereto.

1. Bid Form Supplement - Alternates.
2. Bid Form Supplement - Unit Prices.
3. Bid Form Supplement - Bid Bond Form (AIA Document A310).

1.8 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in Connecticut, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

DOCUMENT CONTINUES

1.9 SUBMISSION OF BID

Respectfully submitted this ____ day of _____, 2010.

Submitted By: _____
(Name of bidding firm or corporation)

Authorized
Signature: _____
(Handwritten signature)

Signed By: _____
(Type or print name)

Title: _____
(Owner/Partner/President/Vice President)

Witness By: _____
(Handwritten signature)

Attest: _____
(Handwritten signature)

By: _____
(Type or print name)

Title: _____
(Corporate Secretary or Assistant Secretary)

Street Address: _____

City, State, Zip _____

Phone: _____

License No.: _____

Federal ID No.: _____

(Affix Corporate Seal Here)

END OF DOCUMENT 004113

DOCUMENT 004322 - UNIT PRICES FORM

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Prime Contract: Venus Complex, Phase 1 Demolition and Abatement.
- C. Project Name: Venus Complex, Phase 1 Demolition and Abatement.
- D. Project Location: 90 East Ridge, Ridgefield, CT.
- E. Owner: Town of Ridgefield.
- F. Owner Project Number: 19-01.

1.2 BID FORM SUPPLEMENT

- A. This form is required to be attached to the Bid Form.
- B. A unit price is an amount proposed by Bidders and stated on the Bid Form as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the project Scope of Work is altered.
- C. Unit prices include material, any direct or indirect expenses of the Contractor or Sub-Contractor, profit, insurance, bonding and any applicable taxes. The same unit price shall apply whether the work is added or deducted.
- D. If the unit price does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."

1.3 UNIT PRICES

- A. Unit-Price No. 1: Small Containment Preparation Containment (Less than 160 square\260 linear feet of asbestos containing material) Pricing for containments with larger amounts of materials are to be INCLUDED in the unit prices themselves listed below. There is no separate unit price for containments with larger amounts.

1. _____Dollars (\$_____) per
containment.

- B. Unit-Price No. 2: Floor Tile/Flooring Materials and Mastics (Includes All layers of carpeting, adhesives, multiple layers of floor tiles/ flooring materials/ vinyl stairwell flooring/wood/ ceramic/ grout/mud bed/terrazzo/ concrete /mastics, levelastics, contaminated flooring materials, etc.) Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square
foot.

- C. Unit-Price No. 3: Flooring and/or Carpeting Mastic (includes carpet over carpet mastic, floor tile, multiple layers of floor tiles/ flooring materials/ wood/ ceramic/ terrazzo/ concrete/ etc.) Removal and Disposal as ACM
1. _____Dollars (\$_____) per square foot.
- D. Unit-Price No. 4: Mudded Pipe Fitting Insulation Removal and Disposal as ACM.
1. _____Dollars (\$_____) per fitting/joint.
- E. Unit-Price No. 5: Glove Bag Removal and Disposal as ACM.
1. _____Dollars (\$_____) per bag.
- F. Unit-Price No. 6: Pipe and Pipe Fitting Insulation Removal and Disposal as ACM.
1. _____Dollars (\$_____) per linear foot.
- G. Unit-Price No. 7: Duct Seam Sealant (including contaminated substrates) Removal and Disposal as ACM.
1. _____Dollars (\$_____) per linear foot.
- H. Unit-Price No. 8: Duct Insulation and/or Duct Adhesives (including contaminated substrates) Removal and Disposal as ACM.
1. _____Dollars (\$_____) per square foot.
- I. Unit-Price No. 9: Ceiling Tile and Support System (suspended metal grid or ceiling tiles adhesive/contaminated substrate) Removal and Disposal as ACM.
1. _____Dollars (\$_____) per square foot.
- J. Unit-Price No. 10: Light Backing Paper Insulation Removal and Disposal as ACM.
1. _____Dollars (\$_____) per light fixture.
- K. Unit-Price No. 11: Air Duct Vibration Isolation Cloth Removal and Disposal as ACM.
1. _____Dollars (\$_____) per cloth.
- L. Unit-Price No. 12: Sink Undercoating Removal and Disposal as ACM.
1. _____Dollars (\$_____) per sink.

M. Unit-Price No. 13: Countertop/Adhesive Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square foot.

N. Unit-Price No. 14: Transite Cement Board Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square foot.

O. Unit-Price No. 15: Fire Door/Insulation Removal and Disposal as ACM.

1. _____Dollars (\$_____) per door.

P. Unit-Price No. 16: Wall Adhesives Including Contaminated Substrates (mirrors/blackboards/bulletin boards, etc.) Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square foot.

Q. Unit-Price No. 17: Vermiculite and Associated Wall/Ceiling Materials Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square foot.

R. Unit-Price No. 18: Sheetrock/Taping Compound Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square foot.

S. Unit-Price No. 19: Wall and Ceiling Plaster (all layers and backing/metal lath/wood/etc.) Removal and Disposal as ACM.

1. _____Dollars (\$_____) per square foot.

T. Unit-Price No. 20: Electrical Insulation Removal and Disposal as ACM.

1. _____Dollars (\$_____) per linear foot.

U. Unit-Price No. 21: Water Fountain/Damp-proofing Removal and Disposal as ACM.

1. _____Dollars (\$_____) per fountain.

V. Unit-Price No. 22: Damp-proofing/Tars/Mastics – Interior/Exterior Walls/Floors and Associated Substrate/Adjacent Materials (includes multiple layers, contaminated materials and substrates) Removal and Disposal as ACM.

1. _____ Dollars (\$_____) per square foot.

1.4 SUBMISSION OF BID SUPPLEMENT

Respectfully submitted this ____ day of _____, 2018.

Submitted By: _____
(Insert name of bidding firm or corporation)

Authorized
Signature: _____
(Handwritten signature)

Signed By: _____
(Type or print name)

Title: _____
(Owner/Partner/President/Vice President)

END OF DOCUMENT 004322

DOCUMENT 004323 - ALTERNATES FORM

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Prime Contract: _____.
- C. Project Name: Venus Complex Renovations, Phase 1 Demolition and Abatement.
- D. Project Location: 90 East Ridge, Ridgefield.
- E. Owner: Town of Ridgefield.
- F. Owner Project Number: 19-01.

1.2 BID FORM SUPPLEMENT

- A. This form is required to be attached to the Bid Form.

1.3 DESCRIPTION

- A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.
 - 1. Cost-Plus-Fee Contract: Alternate price given below includes adjustment to Contractor's Fee.
- B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."
- C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."
- D. The Bidder shall be responsible for determining from the Contract Documents the affects of each alternate on the Contract Time and the Contract Sum.
- E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within 60 days of the Notice of Award unless otherwise indicated in the Contract Documents.
- F. Acceptance or non-acceptance of any alternates by the Owner shall have no affect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

1.4 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Abatement and disposal of AC Mirror Adhesive:

1. ADD____ DEDUCT____ NO CHANGE____ NOT APPLICABLE____.
2. _____ Dollars (\$_____).
3. ADD____ DEDUCT____ calendar days to adjust the Contract Time for this alternate.

1.5 SUBMISSION OF BID SUPPLEMENT

Respectfully submitted this ____ day of _____, 2010.

Submitted By:

(Name of bidding firm or corporation)Authorized
Signature:_____
(Handwritten signature)

Signed By:

(Type or print name)

Title:

(Owner/Partner/President/Vice President)

END OF DOCUMENT 004323

SUPPLEMENTAL GENERAL CONDITIONS, BUILDINGS**1. CONTRACTOR'S UNDERSTANDING:**

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character quality and quantity of materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can in any way affect the work under this Contract. No verbal agreement or conversation with any officer, agent or employee of the Owner, either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

2. DEFINITIONS:**OWNER:**

The word "Owner" when it appears in the Contract Documents shall mean The Town of Ridgefield, Connecticut.

ENGINEER:

The word "Engineer" when it appears in the contract Documents shall mean: Charles R. Fisher, P.E., L.S. Town Engineer, or his specifically designated Agent.

CONTRACTOR:

The word "Contractor" when it appears in the Contract Documents shall mean the party to whom the Contract has been awarded.

3. MATERIALS, APPLIANCES AND EMPLOYEES:

The Contractor shall at all times endorse strict discipline and good order among his employees and shall not employ on the work any unfit person or any one not skilled in the work assigned to him.

4. PROTECTION OF WORK AND PROPERTY:

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's property from injury or loss arising in connection with this Contract. He shall make good any such damage, injury or loss, except such as may be directly due to errors in the Contract Documents or caused by agents or employees of the Owner. He shall adequately protect adjacent property as provided by

law and the Contract Documents. He shall provide and maintain all passageways, guard fences, lights and other facilities for protection required by public authority or local conditions.

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act at his discretion, to prevent such threatened loss or injury, and he shall so act, without appeal, if so instructed or authorized. Any compensation claimed by the Contractor on account of emergency work, shall be determined by agreement or arbitration.

5. CHANGES IN THE WORK:

The Owner, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

In giving instructions, the Engineer shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the work, but otherwise, except in an emergency, endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Engineer, and no claim for an addition to the Contract Sum shall be valid unless so ordered.

The value of any such extra work or change shall be determined in one or more of the following ways:

- (a) By estimate and acceptance in a lump sum.
- (b) By unit prices named in the Contract subsequently agreed upon.
- (c) By cost and percentage or by cost and a fixed fee.

If none of the above methods is agreed upon, the Contractor, provided he receives an order as above, shall proceed with the work. In such case, and also under case (c), he shall keep and present in such form as the Engineer may direct, a correct account of the net cost of labor and materials, together with vouchers. In any case, the Engineer shall certify to the amount, including reasonable allowance for overhead and profit, due to the Contractor. Pending final determination of value, payments on account of changes shall be made on the Engineer's estimate.

6. CLAIMS FOR EXTRA COST:

If the Contractor claims that any instructions by drawings or otherwise involve extra cost under this Contract, he shall give the Engineer written notice thereof within a reasonable

time after the receipt of such instructions and in any event before proceeding to execute the work, except in emergency endangering life or property, and the procedure shall then be as provided for changes in the work. No such claim shall be valid unless so made.

7. SUSPENSION OF WORK:

The Owner may at any time suspend the work, or any part thereof by giving 24 hours notice to the Contractor in writing. The work shall be resumed by the Contractor within ten (10) days after the date fixed in the written notice from the owner to the Contractor to do so. The Owner shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this contract as a result of such suspension.

8. THE OWNER'S RIGHT TO DO WORK:

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Owner, after three days written notice to the Contractor may, without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

9. PAYMENTS WITHHELD:

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to such extent as may be necessary to protect him from loss on account of the following:

- (a) Defective work not remedied.
- (b) Claims filed or reasonable evidence indicating probable filing of claims.
- (c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- (d) A reasonable doubt that the Contract can be completed for the balance then unpaid.
- (e) Damage to another Contractor.

When the above grounds are removed, payment shall be made for amount withheld because of them.

10. CONTRACTOR'S LIABILITY INSURANCE:

The Contractor shall maintain such insurance as will protect him from claims under workmen's compensation acts and from any other claims for damages for personal injury, including death, which may arise from operations under this Contract, whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them. Certificates of such insurance shall be filed with the engineer, if he so requires and shall be subject to his approval for adequacy of protection.

11. INDEMNITY:

The Contractor shall indemnify and save harmless the Owner from and against all losses and all claims, demands, payments, suits, actions, recoveries and judgments of every nature and description brought or recovered against him, by reason of any act or omission of the said Contractor, his agents or employees, in the execution of the work or in the guarding of it.

The Contractor shall and is hereby authorized to maintain and pay for such insurance, issued in the name of the Owner, as will protect the Owner from his contingent liability under this Contract, and the Owner's right to force against the Contractor any provision of this article shall be contingent upon the full compliance by the Owner with the terms of such insurance policy or policies, a copy of which shall be deposited with the Owner.

12. DAMAGES:

Any claim for damage arising under this Contract shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except as expressly stipulated otherwise in the case of faulty work or materials and shall be adjusted by agreement or arbitration.

13. ASSIGNMENT:

Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due to or to become due to him hereunder, without the previous written consent of the Engineer.

14. ENGINEER'S STATUS:

The Engineer shall have general supervision and direction of the work. He has authority to stop the work whenever such stoppage may be necessary to insure the proper execution of the Contract. He shall also have authority to reject all work and materials which do not conform to the Contract, to direct the application of forces to any portion of the work, as in his judgment is required, and to order the force increased or diminished, and to decide questions which arise in the execution of the work.

15. METHOD OF PAYMENT:

At the end of each calendar month, the Contractor shall submit to the Engineer a requisition for payment which requisition shall be based upon the actual amount of the work performed during the previous month. The requisition may include materials stored on the site but not installed. The Engineer shall, within ten (10) days, check the requisition against his review of the work which has been done and submit it to the Owner, a written statement as to the validity of the requisition. The Owner shall then pay to the Contractor **ninety-five percent (95%)** of the amount stated in the Engineer's report. **No payment shall be made until the Contractor has satisfied all prevailing wage reporting requirements if prevailing wages are a part of this contract.**

16. FINAL PAYMENT:

When the Contract has been completed, the Contractor shall notify the Engineer in writing. Upon receipt of this notification, the Engineer shall proceed to make final measurements of the work done under the provisions of this Contract. The Engineer shall then submit to the Owner a written statement setting forth these final measurements and the amount due the Contractor consistent with the unit prices and lump sum bid in the Proposal. The Owner shall within sixty (60) days pay to the Contractor this sum except that he may deduct any moneys which are to be retained under the terms of the Contract for repairs or otherwise.

17. ORDER OF THE WORK:

The order of the work shall be subject to the approval of the Engineer in all cases. The Contractor may be required to submit a work schedule in writing to the Engineer for his approval.

18. (OMITTED)**19. PROTECTION TO PUBLIC:**

The Contractor shall conduct the work in such a manner as to offer minimum disturbance to the traveling public. He shall not close off traffic without specific permission of the Engineer and shall provide flagmen if such becomes necessary, in the opinion of the Engineer. Proper barricades, lights, and other protective devices shall be supplied at the Contractor's expense and properly maintained during the entire course of the work.

20. GUARANTEE:

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

21. RATE OF PROGRESS AND TIME OF COMPLETION:

The Contractor shall commence work within seven (7) days after receipt of the Notice to Proceed and, unless an extension of time shall be made in the manner herein provided, shall progress therewith to final completion within *sixty (60) consecutive calendar days* after receipt of the Notice to Proceed excluding the time required to complete soil remediation by others.

22. EXTENSION OF TIME:

The Contractor expressly covenants and agrees that, in undertaking to complete the work within the time specified, he has taken into consideration and made allowance for all of the ordinary delays and hindrances incident to such work, whether growing out of delays

in securing materials, workmen, or otherwise. Should the Contractor, however, be substantially delayed in the prosecution and completion of the work by any changes, additions, or omissions therein ordered in writing by the engineer, or by fire, lightning, earthquake, tornado, cyclone, riot, insurrection of war, or by the abandonment of the work by the workmen engaged therein, through no fault of the Contractor, or by the discharge of all or any material number of workmen in consequence of difficulties arising between the Contractor and such workmen, or by the neglect, delay, or default of any other contractor of the town, then the Contractor may, within five (5) days after the occurrence of the delay for which he claims allowance, notify the Engineer in writing, and thereupon, and otherwise, the Contractor shall be allowed such additional time for the completion of the work, as the Engineer in his discretion shall award in writing, and his decision shall be final and conclusive upon the parties. Such additional time shall be the sole and exclusive remedy for any delay claimed by the Contractor.

23. SALES TAX:

In accordance with the provisions of Special Act No. 77-98, as amended, and Section 12-412(a) of the Connecticut General Statutes, sales of tangible personal property and services to the Town are not subject to the Connecticut Sales and Use Tax, and such tax shall not be included as part of the bid.

24. Termination of the Contract:

If the Owner fails to make payment thereon for a period of 30 days, the Contractor may, upon seven additional days written notice to the Owner, terminate the Contract and recover from the Owner payment for work executed and for proven loss with respect to materials, equipment tools, and construction equipment and machinery, including reasonable overhead, profit and damages applicable to the project.

If the contractor defaults or persistently fails or neglects to carry out the work in accordance with the Contract Documents or fails to perform a provision of the Contract, the Owner, after seven days written notice to the Contractor and without prejudice to any other remedy the Owner may have, may make good such deficiencies and may deduct the cost thereof, including compensation for the Engineer's services and expenses made necessary thereby, from the payment then or thereafter due the Contractor. Alternatively, at the Owner's option, and upon certification by the Engineer that sufficient cause exists to justify such action, the Owner may terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method the Owner may deem expedient. If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Engineer's services and expenses made necessary thereby, such excess shall be paid to the Contractor, but if such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

SUPPLEMENTAL SPECIAL CONDITIONS, BUILDINGS**1. Soil and Groundwater Conditions:**

The Town assumes no responsibility whatsoever with respect to ascertaining for the Contractor such facts concerning physical characteristics at the site of the project. The Contractor agrees that he will make no claim for and has no right to additional payment or extension of time for completion of the work, or any other concession because of any interpretations or misunderstanding on his part of this Contract, or because of any failure on his part to fully acquaint himself with all conditions relating to the work.

2. Existing Structures:

All known surface structures immediately adjacent to the work, are shown on the Plans. This information is shown for the convenience of the contractor in accordance with the best information available but is not guaranteed to be correct or complete. Underground structures in the path of the project are **not** shown. The Contractor shall explore the route ahead of trenching and shall uncover all known obstructing pipes sufficiently to determine their location. Necessary changes in location may be made by the Engineer to avoid unanticipated obstruction.

The Contractor shall, at his own expense, sustain in their places and protect from direct or indirect injury all utilities, pipes, poles, conduits, walls, buildings, and other structures, utilities, and property in the vicinity of his work. Such sustaining and protecting shall be done carefully by the Contractor and as required by the party owning or controlling the structure. Before proceeding with such work, the Contractor shall satisfy the Engineer that the methods and procedures to be used have been approved by the party owning said structure. The Contractor shall take all risks attending the presence or proximity of pipes, poles, conduits, walls, buildings, wires, or other structures, utilities, and property in the vicinity of his work, and he shall be responsible for all damage and assume all expense for direct or indirect injury caused by his work to any of them or to any person or property by reason of injury to them.

The Contractor must notify “Call Before You Dig” at 1-800-922-4455 prior to start of construction.

3. Dust Control:

The Contractor shall take all necessary precautions to prevent and abate nuisance caused by dust arising from his operation, by the application of water spray.

4. Sedimentation and Erosion Control:

The Contractor shall control sedimentation and erosion in accordance with the publication entitled, “Erosion and Sedimentation Control Handbook,” latest edition, U. S. Department of Agriculture, Soil conservation Service, Storrs, Connecticut, and as approved by the Engineer.

5. Payment for Miscellaneous Work:

No direct or separate payment will be made for furnishing and providing miscellaneous temporary works, plant and services, including Contractor's office, sanitary requirements, water supply, power, tools, equipment, lighting, telephone systems, store houses, store yards, safety devices, and watchmen, or other items specified under these special conditions. Compensation for all such services and materials shall be considered as having been included in the prices stipulated for the Items of the Contract.

6. Clean-up of Site:

During the progress of the work, the Contractor shall keep the site in a generally neat condition. Lunch papers, bottles, lumber cut-offs, drinking cups, and like rubbish shall be removed from the site daily. The work shall be cleaned up as the various portions of the project are completed.

Upon completion of the work and before acceptance and final payment will be made, the Contractor shall, except as otherwise expressly directed or permitted in writing, clean and remove from the site all surplus and discarded materials, rubbish, and temporary structures. He shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and leave the whole in a neat and presentable condition. He shall also remove all plant, surplus, and waste materials from the site.

7. Emergency Work:

The Contractor shall file with the Engineer a telephone number of a person authorized by him who may be contacted regarding emergency work at the job site that may be required during non-working hours for reasons of public safety. The person shall be readily available and have full authority to deal with any emergency that may occur.

8. Work in Bad Weather:

During freezing, stormy, or inclement weather, no work shall be done except that which can be done satisfactorily and, in a manner, as to secure first-class construction throughout.

9. Night, Saturday, and Sunday Work:

Unless otherwise permitted or stipulated under a State or Town encroachment permit, no work shall be done between the hours of 6:00 p.m. and 7:00 am, nor on Saturday or Sunday, except as necessary for the proper care and protection of the work already performed. If it shall become absolutely necessary to perform work at night or on Saturday or Sunday, the Engineer shall be informed at least twenty-four (24) hours in advance of the beginning of performance or such work. Only such work shall be done at night as can be done satisfactorily and in a first-class manner. Good light and other necessary facilities for performing and inspecting the work shall be provided and maintained at all points where such work is being done.

10. Material Disposal:

The Contractor shall be responsible for the disposal of all construction debris generated by the project. The Town cannot accept the disposal of any material at this time with the exception of those areas specifically mentioned within the technical specifications.

11. Wage Rates:

This project IS subject to prevailing wage rates.

12. Permits:

It is the Contractor's responsibility to obtain all necessary building or construction permits, including those that may be required from either the Town of Ridgefield or the State of Connecticut, prior to the start of construction. All work shall be completed in compliance with the latest edition of the prevailing fire prevention and building codes in effect in the State of Connecticut or the State of Connecticut department of Transportation Standard Specifications, latest edition, as applicable.

13. Temporary Sanitary Facilities:

The Contractor shall provide sanitary facilities for his workers. The Contractor's employees are prohibited from entering the school buildings except under emergency circumstances.

14. Pedestrian Access: The Contractor shall provide continuous safe pedestrian access where indicated on the plans. Suitable protection methods as deemed safe by either the Building Official or Fire Marshall shall be provided by the Contractor to protect pedestrians at no additional cost.

15. Liquidated Damages:

Failure to complete the work on time. It is mutually agreed by and between the parties that time shall be of the essence with regard to the completion date set forth herein, and because the amount of damages is difficult, if not impossible to ascertain and prove, it is hereby agreed that in the event the contract is not completed by the date set forth herein the contractor shall pay as liquidated damages and not as a penalty, the sum of one hundred dollars (\$100) for every working days delay in finishing the work. The contractor hereby agrees that said sum shall be deducted from any monies due him hereunder.

SPECIMEN CONTRACT

This Agreement made as of the _____ day of _____
the year _____ by and between the Town of Ridgefield, 400 Main
Street, Ridgefield, Connecticut, (herein after called the Owner), and
_____, doing business at
_____, (herein after called the
Contractor).

Witnesseth that the Owner and the Contractor in consideration of the mutual
covenants herein after set forth, agree as follows:

Article 1. Work:

The contractor will perform all work as shown in the Contract Documents for the
completion of the Project generally described as follows:

**Venus Municipal Complex Renovations, Phase 1, Demolition and
Abatement**

The work to be done consists of the furnishing of all labor, materials, tools, and
equipment necessary to construct the project as shown on the plans and as
described in the specifications prepared by Charles R. Fisher, P.E.,L.S. Town
Engineer, Mose Associates, project architect, and Langan, environmental
consultant.

Article 2. Engineer:

Charles R. Fisher, P.E.,L.S., Town Engineer, will act as the Engineer in
connection with completion of the Project in accordance with the Contract
Documents.

Article 3. Contract Time:

The work shall be completed within **sixty (60) calendar days** after the date which the Contractor is to start the work as provided in the Contract Documents.

Article 4. Contract Price:

The Owner will pay the Contractor for performance of the Work and completion of the Project in accordance with the Contract Documents subject to adjustment by modifications as provided therein in current funds as follows:

Article 5. Progress and Final Payments:

The Owner will make progress payments on account of the Contract Price as provided in the General Conditions. Progress and final payments will be on the basis of the Contractor's application for payment as approved by the Engineer.

Article 6. Contract Documents:

The Contract Documents which comprise the contract between the Owner and the Contractor are attached hereto and made a part hereof and consist of the following:

- A. This agreement
- B. Exhibits to this Agreement
- C. Contractor's Bid and Bid Bonds
- D. Specifications
- E. Drawings as referenced by the Specifications or attached hereto
- F. Addenda numbers: _____
- G. Any modifications, including change orders, duly delivered after execution of this agreement.

Article 7. Miscellaneous:

- A. Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.
- B. Neither the Owner nor the Contractor shall, without the prior written consent of the other, assign or sublet in whole or in part his interest under any of the Contract Documents and, specifically, the Contractor shall not assign any moneys due or to become due without the prior written consent of the Owner.
- C. The Owner and the Contractor each binds himself, his partners, successors, assigns and legal representatives to the other party hereto in respect of all covenants, agreements and obligations contained in the Contract Documents.
- D. The Contract Documents constitute the entire agreement between the Owner and the Contractor and may only be altered, amended or repealed by a duly executed written instrument.

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

Signed and sealed in
the presence of:

Town of Ridgefield

By _____

Date _____

Contractor

By _____

Date _____

Technical Specifications

SECTION 012300 – ALTERNATES**PART 1 – GENERAL****1.01 SUMMARY**

- A. List price for substitution of each alternate. Include cost of modifications to other work to accommodate alternate.

PART 2 – PRODUCTS - Not Applicable to This Section**PART 3 – EXECUTION****3.01 SCHEDULE OF ALTERNATES:**

- A. Add alternates
- B. Deduct alternates
- C. Cost-comparison alternates (e.g. change of systems)
- D. Change of scope alternates (e.g. change of project size/systems)

3.02 PROCEDURE

- A. Indicate in writing which alternates have been accepted, rejected, or deferred.
- B. Execute accepted alternates under the same conditions as other work of the contract. No other adjustments are made to the contract sum.
- C. Except as otherwise indicated, complete work described in alternates with no increase in project time.

END OF SECTION

SECTION 012900 – PROCEDURES, CONTROLS, & PAYMENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. Hold pre-construction conference
- B. Supervisory personnel on the job site whenever subcontractors or tradesmen are working
- C. Provide coordination of work and including between trades
- D. Hold weekly job meetings with Owner, Architect, Engineer and any relevant subcontractors
- E. Other meetings
- F. Distribute minutes

1.02 ADDITIONAL INFORMATION

- A. All contractors are required to visit the site before submitting bids, to inspect the premises and view the existing conditions to verify all conditions, sizes, and quantities. Existing conditions which might preclude or interfere with the proposed work as drawn or specified shall be brought to the attention of the Architect for resolution before Work commences.
- B. The contractor shall verify all dimensions in the field. Discrepancies between actual conditions and drawings and/or specifications shall be reported to the Architect for clarification before Work commences.
- C. The Contractor shall be insured under the types and limits required by law and shall include the Owner and Architect as insured, where and when required.
- D. The Contractor shall obtain and pay for all permits required to perform the work, unless otherwise notified, and shall secure all required inspections and the Certificate of Occupancy. A copy of all permits and the Certificate of Occupancy are to be sent to the Architect. Reimbursement for permit expenses shall be included in Payment Applications under General Conditions.
- E. Should unforeseen conditions or other causes necessitate construction details not in accordance with these plans, the Contractor shall notify the Architect and submit details showing the proposed change.
- F. All work shall conform to the Connecticut State Building and Energy Codes and all other applicable municipal, state, and federal rules and regulations.
- G. Scope of work shall include all necessary tree cutting, stump removal and grubbing required to perform the work indicated. Erection and maintenance of all necessary erosion control barriers such as sedimentation fences.
- H. Disconnect and safely cap all utilities serving the site prior to commencement of any demolition work. Provide any temporary services as needed.
- I. The contractor's Surveyor shall lay out the work and provide a survey of the "as built" foundation.

- J. Contractor shall make such tests of his workmanship and materials as are required by the Building Code, State and Municipal Laws, and Specification Sections at his own expense, unless otherwise noted.
- K. Submit progress schedule, bar-chart type, updated monthly and resubmitted with every Application for Payment.
- L. Applications for payment will be submitted to the Architect monthly, and recorded on AIA DOCUMENT G702 "APPLICATION AND CERTIFICATE FOR PAYMENT". Applications for payment should be accompanied by a schedule of values indicating the value of work completed during the period.
- M. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- N. Install materials and systems in accordance with manufacturer's instructions and approved submittal. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of all sections.
- O. Restore damaged finishes. Clean and protect work from damage.

PART 2 – PRODUCTS - Not Applicable To This Section

PART 3 – EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 015000 – TEMPORARY FACILITIES**PART 1 – GENERAL****1.01 SUMMARY**

- A. Provide temporary services and utilities:
 - 1. Water (potable and non-potable)
 - 2. Sewer sediment
 - 3. Power
 - 4. Telephone and communications
- B. Provide construction facilities:
 - 1. Construction equipment
 - 2. De-watering and pumping
 - 3. Enclosure
 - 4. Heating
 - 5. Lighting
 - 6. Access
- C. Provide security and protection requirements:
 - 1. Fire Extinguishers
 - 2. Site enclosure fence, barricades, warning signs, and lights.
 - 3. Building enclosure and lock-up
 - 4. Environmental Protection
 - 5. Pest Control
- D. Provide personnel support facilities:
 - 1. Contractor's field office
 - 2. Sanitary facilities
 - 3. Drinking water
 - 4. Display Architects identification sign
 - 5. Cleaning and trash removal

PART 2 – PRODUCTS - Not Applicable to This Section

PART 3 – EXECUTION - Not Applicable to This Section

END OF SECTION

SECTION 016000 – PRODUCT REQUIREMENTS**PART 1 – GENERAL****1.01 SUMMARY**

- A. Provide types of submittals listed in individual sections and number of copies required.
 - 1. Shop drawings: PDF or hard copy, reviewed and annotated by the Contractor
 - 2. Product data: 1copy
 - 3. Samples: 1 plus extra samples as required to indicate range of color, finish, and texture to be expected
 - 4. Mock-ups: as required in the individual sections
 - 5. Inspection and test reports: provide at Owner's request (not in budget)
 - 6. Warranties: 2 copies
 - 7. Survey data: 2 copies

1.02 ADDITIONAL INFORMATION

- A. Provide required re-submittals; provide distribution of approved copies.
- B. Samples and shop drawings shall be prepared specifically for this project. Shop drawings shall include dimensions and details, including adjacent construction.
- C. Provide warranties as specified; warranties shall not limit length of time for remedy of damages Owner may have by legal statute. Warranties shall be signed by Manufacturer and Contractor.
- D. Provide products selected or approved equal. Products submitted for substitution shall be submitted with acceptable documentation and include costs of substitution including related work.
- E. Substitutions shall be submitted prior to award of contract unless otherwise acceptable.

PART 2 – PRODUCTS - Not Applicable to This Section**PART 3 – EXECUTION - Not Applicable to This Section****END OF SECTION**

SECTION 017000 – PROJECT CLOSEOUT**PART 1 – GENERAL****1.01 SUMMARY**

- A. Provide prerequisites to substantial completion:
 - 1. Punch list
 - 2. Supporting documentation
 - 3. Manufactures' warranties
 - 4. Certificate of occupancy
 - 5. Start-up and testing of building systems
 - 6. Changeover of locks
- B. Provide prerequisites to final acceptance:
 - 1. Final payment request with supporting affidavits
 - 2. Completed Punch List
 - 3. Signed and notarized lien releases from all subcontractors
 - 4. Changeover of insurance
- C. Provide final cleaning:
 - 1. Remove temporary facilities
 - 2. Remove labels and film from all windows and doors; clean glass inside and out
 - 3. Remove all construction debris; broom clean construction area

PART 2 – PRODUCTS - Not Applicable To This Section

PART 3 – EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 017329 – CUTTING AND PATCHING**PART 1 – GENERAL****1.01 SUMMARY**

- A. Provide cutting and patching work, complying with project requirements for:
 - 1. Structural work
 - 2. Mechanical/electrical systems
 - 3. Visual requirements, including special detailing.
 - 4. Building Construction
 - 5. Cleaning

PART 2 – PRODUCTS**2.01 MATERIALS**

- A. Match existing materials for cutting and patching work with new materials conforming to project requirements.

PART 3 – EXECUTION**3.01 INSTALLATION**

- A. Inspect conditions prior to work to identify scope and type of work required. Notify Owner of work requiring interruption to building services or Owner's operations. Conform to project requirements listed above.
- B. Clean work area and areas affected by cutting and patching operations.
- C. Provide protection from adverse weather conditions for portions of the Project that might be exposed during cutting and patching.
- D. The contractor shall be responsible for increasing or adding structural supports as may be required as a result of any cutting, removal or demolition work.

END OF SECTION

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Action Submittals:

1. Waste Management Plan: Submit plan within seven days of date established for commencement of the Work.

B. Informational Submittals:

1. Waste Reduction Progress Reports: Submit concurrent with each Application for Payment. Include total quantity of waste, total quantity of waste salvaged and recycled, and percentage of total waste salvaged and recycled.
2. Records of Donations and Sales: Receipts for salvageable waste donated or sold to individuals and organizations. . Indicate whether organization is tax exempt.
3. Recycling and Processing Facility Records: Manifests, weight tickets, receipts, and invoices.
4. Landfill and Incinerator Disposal Records: Manifests, weight tickets, receipts, and invoices.
5. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations.

C. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.

D. Waste Management Conference: Conduct conference at Project site to comply with requirements in Section 013000 "Administrative Requirements." Review methods and procedures related to waste management.

E. Waste Management Plan: Develop a waste management plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.

1. Salvaged Materials for Reuse: Identify materials that will be salvaged and reused.
2. Salvaged Materials for Sale: Identify materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
3. Salvaged Materials for Donation: Identify materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
5. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan.

PART 2 - EXECUTION

2.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work occurring at Project site.
 - 1. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.

2.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work: Clean salvaged items and install salvaged items to comply with installation requirements for new materials and equipment.
- B. Salvaged Items for Sale and Donation: Not permitted on Project site.
- C. Salvaged Items for Owner's Use: Clean salvaged items and store in a secure area until delivery to Owner.
- D. Doors and Hardware: Brace open end of door frames. Except for removing door closers, leave door hardware attached to doors.
- E. Equipment: Drain tanks, piping, and fixtures. Seal openings with caps or plugs.
- F. Plumbing Fixtures: Separate by type and size.
- G. Lighting Fixtures: Separate lamps by type and protect from breakage.

2.3 RECYCLING WASTE

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Packaging:
 - 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 - 2. Polystyrene Packaging: Separate and bag materials.
 - 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 - 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
- C. Asphaltic Concrete Paving: Grind asphalt to maximum 1-1/2-inch size.

- D. Asphaltic Concrete Paving: Break up and transport paving to asphalt-recycling facility.
- E. Concrete: Remove reinforcement and other metals from concrete and sort with other metals.
 - 1. Pulverize concrete to maximum 1-1/2-inch size.
- F. Masonry: Remove metal reinforcement, anchors, and ties from masonry and sort with other metals.
 - 1. Pulverize masonry to maximum 1-1/2-inch size.
 - 2. Clean and stack undamaged, whole masonry units on wood pallets.
- G. Wood Materials:
 - 1. Sort and stack reusable members according to size, type, and length. Separate lumber, engineered wood products, panel products, and treated wood materials.
 - 2. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
 - 3. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.
- H. Metals: Separate metals by type.
- I. Asphalt Shingle Roofing: Remove and dispose of nails, staples, and accessories.
- J. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location. Remove edge trim and sort with other metals. Remove and dispose of fasteners.
- K. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location.
- L. Metal Suspension System: Separate metal members including trim, and other metals from acoustical panels and tile and sort with other metals.
- M. Carpet and Pad: Roll large pieces tightly after removing debris, trash, adhesive, and tack strips.
 - 1. Store clean, dry carpet and pad in a closed container or trailer provided by Carpet Reclamation Agency or carpet recycler.
- N. Piping: Reduce piping to straight lengths and store by type and size. Separate supports, hangers, valves, sprinklers, and other components by type and size.
- O. Conduit: Reduce conduit to straight lengths and store by type and size.

2.4 DISPOSAL OF WASTE

- A. 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.
- B. Do not burn waste materials.

END OF SECTION 017419

SECTION 024100 – DEMOLITION**PART 1 – GENERAL****1.01 SUMMARY**

- A. Building demolition including the removal of hazardous materials and toxic substances.
- B. Selective demolition of building elements for alteration purposes.

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Divisions 1, 31, 32, and 33 specifications.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2009.

1.04 QUALITY ASSURANCE

- A. Demolition firm qualifications: Company specializing in the type of work required including insurance requirements.

PART 2 – PRODUCTS**2.01 MATERIALS**

- A. Fill material: As specified in Section 31 2300 – Excavation and Fill

PART 3 – EXECUTION**3.01 SCOPE**

- A. Carefully read and follow the demolition drawings and notes in the Contract Documents to determine items to be removed, saved, and reused.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with other requirements specified in Section 01 7000 – Project Closeout.
- B. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits.
 - 2. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 3. Provide, erect, and maintain temporary barriers and security devices.
 - 4. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 - 5. Do not close or obstruct roadways or sidewalks without permit.
 - 6. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.

7. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- C. Do not begin removal until receipt of notification to proceed from Architect or Owner.
- D. Do not begin removal until built elements to be salvaged or relocated have been removed.
- E. Protect existing structures and other elements that are not to be removed.
 1. Provide bracing and shoring.
 2. Prevent movement or settlement of adjacent structures.
 3. Stop work immediately if adjacent structures appear to be in danger.
- F. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- G. If hazardous materials are discovered during removal operations, stop work and notify Architect and Owner; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- H. Perform demolition in a manner that maximizes salvage and recycling of materials.
 1. Dismantle existing construction and separate materials.
 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.

3.03 EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain from damage.
- C. Do not disrupt public utilities without permit from authority having jurisdiction.
- D. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- E. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.
- F. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- G. Unused underground piping may be abandoned in place, provided it is completely drained and capped; remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.
- H. Prepare building demolition areas by disconnecting and capping utilities outside the demolition zone; identify and mark utilities to be subsequently reconnected, in same manner as other utilities to remain.

3.04 SELECTIVE DEMOLITION FOR ALTERATIONS

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 1. Verify that construction and utility arrangements are as shown.

2. Report discrepancies to Architect before disturbing existing installation.
 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
 - B. Maintain weatherproof exterior building enclosure except for interruptions required for replacement or modifications; take care to prevent water and humidity damage.
 - C. Remove existing work as indicated and as required to accomplish new work.
 1. Remove rotted wood, corroded metals, and deteriorated masonry and concrete; replace with new construction specified.
 2. Remove items indicated on drawings.
 - D. Services (Including but not limited to HVAC, Plumbing, Fire Protection, Electrical, and Telecommunications): Remove existing systems and equipment as indicated.
 1. Maintain existing active systems that are to remain in operation; maintain access to equipment and operational components.
 2. Verify that abandoned services serve only abandoned facilities before removal.
 3. Remove abandoned pipe, ducts, conduits, and equipment, including those above accessible ceilings; remove back to source of supply where possible, otherwise cap stub and tag with identification.
 - E. Protect existing work to remain.
 1. Prevent movement of structure; provide shoring and bracing if necessary.
 2. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 3. Repair adjacent construction and finishes damaged during removal work.
 4. Patch as specified for patching new work.
- 3.05 DEBRIS AND WASTE REMOVAL
- A. Remove debris, junk, and trash from site and leave site in clean condition on a daily basis, ready for subsequent work.
 - B. Remove from site all materials not to be reused on site.
 - C. Leave site in clean condition, ready for subsequent work.

END OF SECTION

**SECTION 028200 - SELECTIVE HAZARDOUS BUILDING MATERIALS
ABATEMENT DEMOLITION****PART 1 - GENERAL****1.1 SUMMARY**

- A. Provide selective demolition to remove existing carpeting/multiple layers of flooring/wood/concrete and demolish ceilings/ walls/ floors/ doors/ millwork/ shelving/ countertops/ window systems/ door systems/concrete/chases/ mechanical systems/ ductwork/ cubicles/ wall and ceiling structures/raised flooring/ etc. as necessary to access all asbestos/other hazardous containing materials as specified herein, and as required for complete and proper abatement.
- B. Please note there are several layers of flooring, ceilings and walls as well as chases requiring demolition to access all asbestos containing materials, some of which are contaminated with asbestos and require disposal as such.
- C. Required permits shall be obtained by the Contractor at no additional cost to the Owner.
- D. Notes: Contractor is responsible for removing all asbestos containing materials (behind walls, ceilings, windows, chases, doors, windows, concrete, etc.) in demolition areas as noted by the architect's specifications and drawings.
- E. The contractor will be required to remove carpeting and flooring (contaminated with asbestos flooring materials), wood floors, wall and ceiling structures, raised flooring, multiple layers of mixed flooring to gain access to the asbestos flooring and/or mastic and carpet adhesives in all areas. There is more than one layer of flooring in most locations. All layers of floor tile, leveling materials, mastic, concrete, wood, thinset, sheet flooring, carpet adhesives, etc. are included in the base work, no extra change will be accepted. Demolition or moving typical non-movable objects by the abatement contractor may be required to gain access to all flooring materials to be removed. MSD sheets for chemicals to be used during the project must be submitted to the owners' representative prior to site delivery.
- F. The contractor will be required to remove interior windows and doors systems, mechanical systems, walls/floors/ceilings to access all asbestos containing materials for abatement and packaging for recycling/removal/abatement and disposal.
- G. Related Sections:
 - 1. Section 028213 – Asbestos Abatement
 - 2. Section 028313 – Lead-Based Paint Awareness
 - 3. Section 028416 – Universal Waste Removal and Recycling
 - 4. HBM – 01 & 02 – Hazardous Building Materials Abatement Drawings

1.2 PROJECT CONDITIONS

A. Occupancy:

1. Areas of the buildings in which demolition will occur will be unoccupied during work.

B. Existing Conditions:

1. After the project is begun, the Contractor is responsible for the condition of the structures to be selectively demolished.
2. Unforeseen Conditions: Should unforeseen conditions be encountered that affect design or function of project, investigate and fully submit an accurate, detailed, written report to the office of the Consultant. While awaiting a response, reschedule operations if necessary to avoid delay of overall project.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and sealed.
- B. Insofar as is practicable, arrange operations to reveal unknown or concealed conditions for examination and verification before removal or demolition.
- C. Verify actual conditions to determine, in advance, whether removal or demolition of any element will result in structural deficiency, overloading, failure, or unplanned collapse.
 1. Demolish and remove connections to all electrical gas, and plumbing fixtures required to remove asbestos containing materials.

3.2 PREPARATION

- A. Traffic: Do not obstruct walks or public ways without the written permission of governing authorities and of the Owner. Where routes are permitted to be closed, provide alternate routes if required.

B. Protection:

1. Provide for the protection of persons passing around or through the area of demolition.
2. Perform demolition so as to prevent damage to adjacent improvements and facilities to remain.
3. Protect walls, floors, and other new or existing work from damage during demolition operations.

C. Damages: Without cost to the Owner and without delay, repair any damage caused to facilities to remain.

3.3 POLLUTION CONTROLS

- A. Control as much as practicable the spread of dust and dirt.
- B. Observe environmental regulations.
- C. Do not allow water usage resulting in freezing or flooding.
- D. Do not allow adjacent improvements to remain to become soiled by demolition operations.

3.4 DEMOLITION - GENERAL

- A. Remove: Items indicated to be removed shall be removed by the Contractor.
- B. Existing to Remain: Construction or items indicated to remain shall be protected against damage during demolition operations. Where practical, and with the Owner's permission, the Contractor may elect to remove items to a suitable storage location during demolition and then properly clean and reinstall the items.
- C. Perform work in a systematic manner.
- D. Demolish and remove existing construction only to the extent required, as indicated in the Contract Documents.
- E. Perform selective demolition using methods that are least likely to damage work to remain and which will provide proper surfaces for patching.
- F. Remove debris daily.
- G. Use any methods permitted by governing regulations and the requirements of the Contract Documents.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Promptly dispose of materials resulting from demolition operations. Non-contaminated material (materials not containing residue asbestos, lead, pcb or other hazardous, regulated or special waste) may be disposed of as construction waste. Do not allow materials to accumulate on site.
- B. All rubbish and waste material from the Work shall be neatly stacked or kept in suitable containers and removed from the premises daily. The premises shall be kept clean and in an orderly condition at all times to the satisfaction of the Owner and the Consultant.
- C. Transport materials resulting from demolition operations and legally dispose of off-site.
- D. Off-site disposal location shall not be within one-half mile of any portion of the project site or within sight of the project site.
- E. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

3.6 CLEANING

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

END OF SECTION 028200

SECTION 028213 - ASBESTOS ABATEMENT**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and General Provisions of Contract, including General Supplementary Conditions and Division 1 Specifications Sections, apply to this Section.
- B. Sections containing requirements related to this Section include, but are not limited to:
 - 1. Section 028200 – Selective Hazardous Building Materials Abatement Demolition
 - 2. Section 028313 – Lead-Based Paint Awareness
 - 3. Section 028416 – Universal Waste Removal and Recycling
 - 4. HBM – 01 & 02 – Hazardous Building Materials Abatement Drawings

1.2 CONSULTANT

- A. The Owner shall retain Langan for the purposes of project management and monitoring during Asbestos Abatement. The Consultant will represent the Owner in all phases of the abatement project at the discretion of the Owner. The Asbestos Abatement Contractor will regard the Consultant's direction as authoritative and binding as provided herein, in matters particularly but not limited to approval of work areas, review of monitoring results, completion of the various segments of work, final completion of the abatement, submission of data, and daily field punch list items. The State of Connecticut licensed Asbestos Consultant — Project Designer is Matthew Myers (license no. 000058).

1.3 USE OF THE CONTRACT DOCUMENTS

- A. It shall be incumbent upon the Contractor to visit the Site and determine what exists, its condition, and what will be required to accomplish the Work intended by the Contract Documents. No increase in the Contract Sum will be permitted as a result of the Contractor's failure to visit the Site and understand the existing conditions.
- B. All work shall comply with the Contract Documents and with applicable Codes, laws, regulations, and ordinances wherever applicable. The most stringent of all the foregoing shall govern.
- C. It is not intended that the Specifications show every detail of the Work, but the Contractor shall be required to furnish within the Contract Sum all material and labor necessary for the completion of the Work in accordance with the intent of the Specifications.

- D. In case of ambiguity among the Contract documents, the more stringent requirement as determined by the Consultant shall prevail.
- E. The Work of this Contract includes making modifications as necessary, subject to approval by Owner in consultation with the Consultant, to correct any conflicts.
- F. All items, not specifically mentioned in the Specifications but implied by trade practices to complete the work, shall be included.
- G. This specification and drawings cover the proper and legal removal and disposal of all asbestos-containing materials (ACM) and asbestos contaminated waste from the Venus Building project site located in Ridgefield, Connecticut. The abatement activities shall comply with all aspects of the contract documents and Federal, State and local requirements.
- H. Whenever there is a conflict or overlap within these specifications and between applicable codes and regulations, the most stringent provision specified shall apply.

1.4 EXAMINATION OF THE SITE

- A. It is understood that the Contractor has examined the Site and made his own estimates of the facilities and difficulties attending the execution of the Work, and has based his price thereon.
- B. Except for unforeseeable concealed conditions as determined by the Consultant, the Contractor shall make no claim for additional cost due to the existing conditions at the Site.

1.5 CONTRACTOR QUALIFICATIONS

- A. All bidders shall submit a record of prior experience in asbestos abatement projects, listing no less than three (3) completed jobs in the past year, with all projects of similar size and scope. The Contractor shall list the experience and training of the project foremen and all on-site personnel. The information that should be included is as follows:
 - 1. Project Name and Address
 - 2. Owner's Name and Address
 - 3. Architect/Consultant
 - 4. Contract Amount
 - 5. Date of Completion
 - 6. Extras and Changes
- B. The Contractor selected must appear on the approved list of Asbestos Abatement contractors on file at the State of Connecticut Department of Public Health (CT DPH) and hold a valid license for asbestos abatement within the State of Connecticut.

- C. Submit a written statement regarding whether the Contractor has ever been found out-of-compliance with federal or state asbestos and/or lead regulations pertaining to worker protection, removal, transport, or disposal.
- D. The Contractor shall be responsible for obtaining all necessary or required permits from the Federal, State and local agencies having jurisdiction over this asbestos abatement project. Failure on behalf of the Contractor to obtain these permits shall not result in any extension for the timely results of completion of the work set forth in the Contract. The Contractor shall be responsible and shall be required to pay any administrative penalties imposed on the owner for actions taken or lack thereof by the Contractor.
- E. Work includes any and all selective demolition and protective measures required to access and remove ACM and maintain a safe working environment.
- F. Upon completion of asbestos removal, the contractor shall provide completed, signed and notarized statements indicating that all asbestos-containing materials identified in the scope of work and project description (Section 1.08 and 1.09) were properly removed and disposed of in accordance with applicable Federal, State, and local regulations.
- G. All contractors submitting a bid for this work shall visit the work site, attend a pre-bid meeting and walk-through, to be scheduled by the Owner, and be familiar with the work in its entirety. The contractors pre-meeting attendance and bid submission affirms his/her acceptance of the work, site, and building conditions as is.
- H. The contractor shall be responsible for paying the utility bills for the use of power and water (unless owner agrees to supply at no cost to contractor). However, if any such temporary facilities cannot be provided, it shall be the contractor's responsibility to provide all temporary connections and hook-ups as well as obtaining permits and paying all fees for making such services available for his work as is necessary. If necessary, the Contractor shall provide temporary services as specified herein, and as required or as necessary to carry out the work. This may include such items as portable generators, water tank trucks, pumps and necessary accessories or the means and equipment and services necessary to temporarily connect to and maintain such services from adjacent utility systems. The use of portable generators will require 24 hour a day, 7 day a week continuous operation if negative air machines in containments are powered by them. This continuous operation must remain in place from the time the pre-abatement visual is completed up until clearance re-occupancy sampling results have passed. The contractor will pay the owner a \$2,500 penalty should the power found to not be running the negative air machines in active abatement containments. This penalty will apply daily and the contractor is also responsible for paying all CT DPH fines that may be imposed on the contractor and owner. The contractor shall also comply with any local permits that may be required as well as local noise ordinances.
- I. All Contractor personnel involved with asbestos removal work must be thoroughly familiar with the standard operating procedures of the Contractor for removal work as well as all applicable Federal and State regulations governing asbestos removal work.

- J. The Supervisor and Asbestos Abatement workers shall be accredited in accordance with EPA regulation 40 CFR Part 763, subpart E, Appendix C; and CT DPH regulations as outlined in Section 19a-332a-1 through 19a-332a-16 (Standards for Asbestos Abatement), and Section 20-440-1 through 20-440-9 (Licensure and Training Requirements for Persons Engaged in Asbestos Abatement and Consulting Services).
- K. The Contractor shall be aware of all conditions of the Project and is responsible for verifying quantities and locations of all Work to be performed. Failure to do so shall not relieve the Contractor of its obligation to furnish all labor and materials necessary to perform the work. Any discrepancies noted shall be brought to the attention of the Owner and Engineer prior to bidding the project. No claims for extras shall be made during construction/abatement /demolition.
- L. Work includes necessary selective demolition and protective measures required to access and remove ACM and maintain a safe working environment. Asbestos containing materials that would be impacted by selective demolition of wall, ceiling and floor cavities shall be performed within negative pressure enclosure.
- M. It is the sole responsibility of the Contractor to determine what, if any patents are applicable to the Project. The Contractor will pay all royalties and/or license fees, and will defend all suits or claims for infringement of any patent rights and save the Owner, Architect, Asbestos Safety Control Monitor, Design Sub-Consultant, and Construction Manager harmless from loss, including attorney's fees, on account thereof.
- N. The Contractor shall coordinate with the Consultant and maintain the project schedule.
- O. The abatement contractor shall hold and document daily pre-abatement safety tool box meeting to review safe work practices and emergency communication program for the project. The abatement contractor's supervisor and the consultant's project monitor must also ensure that proper fire extinguishing equipment is present. The supervisor shall be knowledgeable in use of fire extinguishing equipment, and emergency exit plans.

1.6 TESTING LABORATORY SERVICES

- A. The Contractor shall submit to the Consultant the name; address and qualifications of proposed laboratories intended to be utilized for sample analysis as required by this section and the laboratories must be approved by CT DPH.

1.7 ADDITIONAL GENERAL REQUIREMENTS

- A. The Asbestos Abatement Contractor shall employ a competent Asbestos Abatement Supervisor with at least three (3) years' experience on projects of similar scope and magnitude who shall be responsible for all work involving asbestos abatement as described in the specifications and defined in applicable regulations, and have full time

daily supervision of the same. The Supervisor shall be the competent person as defined by OSHA regulations.

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

1.8 SCOPE OF WORK

- A. This specification and drawings HM -01 & 02 cover the proper and legal removal and disposal of all asbestos-containing materials (ACM) and asbestos contaminated waste from the Venus/Annex Building project site located in Ridgefield, Connecticut. The abatement activities shall comply with all aspects of the contract documents and Federal, State and local requirements. There is interior friable and non-friable asbestos containing materials (thermal system insulation and miscellaneous materials) identified on the site. Lead based paint was found on the door systems, plaster walls and concrete baseboards. Universal wastes are located throughout the building.

1.9 PROJECT DESCRIPTION

- A. The Venus/Annex Building was constructed circa 1917 with additions in 1920. It is three stories and the approximate total square footage is 95,000 square feet.
- B. The base bid includes the removal and disposal of all asbestos containing materials as identified herein, and on the architects drawings by workers meeting requirements of OSHA 1926.1101 for Class 1 and 2 work. The base bid will include the cost for removal and disposal of asbestos containing flooring materials, pipe and pipe fitting insulation, black mirror adhesives and red/brown duct seam sealants. Work includes filing and permitting all necessary applications, notifications, requirements and fees; insurance; necessary design services; providing skilled, licensed and certified labor; materials; and equipment necessary for proper preparation, handling, removal and legal disposal of all asbestos-containing materials and asbestos contaminated waste from the subject building in accordance with all requirements of applicable Federal, State and

local regulations, these specifications and the contract drawings. The following materials and amounts are included in the base bid work.

BASE BID

Material	Location	Estimated Quantity of ACM to be abated
Flooring Materials – Floor Tiles/Mastic/Flooring (contaminated carpeting as well), Carpeting/Adhesives and Contaminated Newer Flooring Materials, Vinyl/Sheet Flooring, Plywood and other Flooring Materials – Multiple Layers, Non-Movable Objects Throughout Require Demolition to Access, Including Walls, Raised/Platform Flooring, etc.	Basement Corridors, Room 011, Room adjacent Room 011, Room adjacent Stairwell, VA Affairs and BOE Storage Areas, First Floor Corridors, Rooms 133/133A, 129B, 126/126A,B,C, 136A&B, Landings Throughout Two Stairwells	All – 7,000 Square Feet
Pipe/Pipe Fitting Insulation - including adjacent attached fiberglass insulation.	Basement Health Department and Town Storage Areas, Toilet Room Chases, First Floor Toilet Rooms/136A,B and Toilet Room off Room 129	All – 150 Linear Feet (amount of fiberglass insulation is not included)
Black Mirror Adhesive	Basement and First Floor Toilet Rooms/136A,B and Toilet Room off Room 129	All – 125 Square Feet (includes contaminated substrates)
Red Duct Seam Sealant	Throughout Basement and First Floor	All affected by demolition, renovation and HVAC work (includes contaminated substrates)

ALTERNATE

Material	Location	Estimated Quantity of ACM to be abated
Alternate #1 – Mirror Adhesive	Basement Playhouse/ Dance Room	All – 500 Square Feet

- C. **Contractor will be responsible for performing abatement during building occupancy and responsible for sealing all opening between work areas and occupied areas including gaps along ceiling, on walls (piping and ductwork) as well as installing hard barriers that are approved by the local fire marshal (solid barriers and sheetrock/taping compound, caulked, etc.). Abatement in all areas will start with performing enough demolition to access all asbestos containing materials and investigating for additional asbestos containing materials. Asbestos containing materials will be removed at the ceiling level and end with the materials at the flooring level. The contractor shall assume they will be setting up full containments throughout all areas. The contractor will pay for all contamination/remediation/ abatement of interior and exterior surfaces, including ground surfaces. The contractor will supply lifts, scaffolding, staging, etc. to Langan in areas of remediation/abatement until all visual inspections have passed.**
- D. Additional materials as discovered outside of those listed will be covered by unit prices if all is not listed as the quantity. Quantities are estimates only and should be verified by the Contractor. Some of the work will be performed in multiple mobilizations at different periods of time in conjunction with other trades (i.e., other trades work, demolition work, etc.). SD sheets for chemicals to be used during the project must be submitted to the Owner's Representative prior to site delivery. The contractor is responsible for providing temporary water, power, and heat as needed at the Site. Temporary lighting within the work areas must be connected to Ground Fault Circuit Interrupter (GFCI) Power Panels installed by a State of Connecticut licensed

electrician and located outside of the work areas. The contractor shall be responsible for paying for the use of power and water. It shall also be the contractor's responsibility to provide all fixed and temporary connections and hook-ups as well as obtaining permits and paying all fees for making such services available for his work as is necessary. The Contractor shall provide services as specified herein, and as required or as necessary to carry out the work. This will include such items as temporary hard line installation, portable generators for short term work, water tank trucks, pumps and necessary accessories or the means and equipment and services necessary to temporarily connect to and maintain such services from adjacent utility systems. The contractor is responsible for contacting all utility services and getting power connections from the electrical lines located on or adjacent to the properties. All power and water must be supplied 24 hours a day throughout the abatement project. CT DPH will be notified immediately if active containments do not have sufficient negative pressure throughout the abatement process until acceptable reoccupancy air results are received. The use of portable generators will require 24 hour a day, 7 day a week continuous operation if negative air machines in containments are powered by them. This continuous operation must remain in place from the time the pre-abatement visual is completed up until clearance re-occupancy sampling results have passed. The contractor will pay the owner a \$2,500 penalty should the power found to not be running the negative air machines in active abatement containments. This penalty will apply daily and the contractor is also responsible for paying all CT DPH fines that may be imposed on the contractor and owner.

- E. The remediation/asbestos abatement contractor, their subcontractors, waste transporters and/or landfill(s) do not have permission to take/analyze building materials for PCB content/ concentrations without written permission from the building owner prior to such sampling. Should the contractor or other parties listed above take/analyze PCB samples without the owner's permission and PCB's are found to be >1 ppm, the hazardous materials/remediation contractor will be responsible for **all costs** associated with the abatement/ remediation/replacement of all the interior/exterior building materials and adjacent surfaces, including soil/asphalt/concrete/etc. as well as all costs associated with project delays, attorney fees for all parties affected and all costs resulting from CT DEEP/EPA requirements that may occur as a result.
- F. The remediation/asbestos abatement contractor, their subcontractors, waste transporters must submit landfill information to Langan and the owner prior to the shipment of any waste. The contractor(s)/hauler(s) cannot ship waste until Langan and the owner have approved the landfill the contractor/hauler is/are proposing to ship the waste to.
- G. The Owner shall retain a Consultant for the purposes of project management and monitoring during Asbestos Abatement. The Consultant will represent the Owner in all phases of the abatement project at the discretion of the Owner. The Asbestos Abatement Contractor will regard the Consultant's direction as authoritative and binding as provided herein, in matters particularly but not limited to approval of work areas, review of monitoring results, completion of the various segments of work, final completion of the abatement, submission of data, and daily field punch list items. The

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1.10 DEFINITIONS

A. The following definitions relative to asbestos abatement apply:

1. Abatement - Procedures to control fiber release from asbestos-containing materials; includes removal, encapsulation, and enclosure.
2. Air Monitoring - The process of measuring the fiber concentration of an area or of a person.
3. Amended Water - Water to which a surfactant has been added.
4. Asbestos - The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically altered.
5. Asbestos Felt - a product made by saturating felted asbestos with asphalt or other suitable bindery, such as a synthetic elastomer.
6. Asbestos Fibers - Those particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.
7. Asbestos Work Area - a regulated area as defined by OSHA 29 CFR 1926.1101 where asbestos abatement operations are performed which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.
8. Asphalt Shingles, Composition Shingles or Strip Slates: (Pitched Roof Shingle) - a roofing material manufactured by saturating a dry felt with asphalt then coating the saturated felt with a harder asphalt mixed with a fine mineral, glass fiber, asbestos or organic stabilizer. All or part of the weather side may be covered with mineral granules, or with powdered talc or mica.
9. Base Flashing (roof) - the flashing provided by upturned edges of a water tight membrane on a roof. May contain metal and associated waterproofing material or combination of roofing felts and waterproofing at the joint between a roofing surface and a vertical surface such as a wall or parapet. Also base flashing may be present at perimeter of completely flat roof.
10. Built-Up Roofing (Composition Roofing, Felt and Gravel Roofing, Gravel Roofing) - a continuous roof covering made up of laminations or plies of saturated or coated roofing felts, alternated with layers of asphalt or coal-tar pitch and surfaced with gravel, paint or finish coat.
11. Caulking - resilient mastic compound often having a silicone bituminous or rubber base; used to seal cracks, fill joints, and prevent leakage. Typical applications: around windows, and doors. Caulking is at joints between two dissimilar materials. (i.e. masonry to wood, masonry to steel)

12. Clean Room - An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.
13. Clearance Sampling - Final air sampling performed aggressively after the completion of the abatement project in a regulated area.
Air samples collected by the air sampling professional having a fiber concentration of less than 0.01 fibers/cc of air in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy.
or
Five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter of air will denote acceptable clearance sampling for Transmission Electron Microscopy.
14. Competent Person - As defined by 29 CFR 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. Who has authority to take prompt corrective measures to eliminate such hazards during asbestos removal. Competent person shall be properly trained in accordance with EPA's Model Accreditation Plan.
15. Curtained Doorway - A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.
16. Damp Proofing - application of a water impervious material to surface such as wall to prevent penetration of moisture, typically at foundation or below grade surface.
17. Decontamination Enclosure System - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
18. Encapsulant - A liquid material which can be applied to asbestos-containing materials which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).
19. Equipment Room - Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.
20. Fixed Object - Unit of equipment or furniture in the work areas that cannot be removed from the work area.
21. Friable Asbestos Materials - Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized or reduced to powder by hand pressure.
22. Glazing Compound - any compound used to hold window glass in place, also referred to as putty, or glazier's putty, is not field applied, usually installed during manufacture of windows.

23. Hepa Filter - High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2-1979.
24. Hepa Vacuum Equipment - Vacuum equipment equipped with an I IEPA filter system for filtering the effluent air from the unit.
25. Movable Object - Unit of equipment of furniture in the work area that can be removed from the work area.
26. Negative Air Pressure Equipment - A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.
27. NESHAPS - National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.
28. Permissible Exposure Level (PEL) - The maximum airborne concentration of asbestos fibers to which an employee is allowed to be exposed. The new level established by OSHA 29 CFR 1926.1101 is 0.1 fibers per cubic centimeter of air as an eight (8) hour time weighted average and 1.0 fibers /cc averaged over a sampling period of 30 minutes as an Excursion Limit. The Contractor is responsible for maintaining work areas in a manner that this standard is not exceeded.
29. Project Monitor - A professional capable of conducting air monitoring and analysis of schemes. This individual should be an industrial hygienist, an environmental scientist, or an engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in conducting air sample collection in accordance with 29 CFR 1910.1001 and 29 CFR 1926.1101.
30. Regulated Area - An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which airborne concentrations of asbestos exceed or there is a reasonable possibility that they may exceed the PEL.
31. Shower Room - A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.
32. Waterproofing - material, usually a membrane or applied compound (tar/mastic), used to make a surface impervious to water, includes concealed conditions (applications around doors, windows, and in wall cavities). Sometimes combined with felts.

1.11 SUBMITTALS

- A. Pre-Work Submittals: Within 7 days prior to the pre-construction conference, the Contractor shall submit 3 copies of the documents listed below to the Owner and Engineer for review:

1. Valid Contractor's Asbestos Removal license issued by the Connecticut Department of Public Health (CT DPH).
2. Certificate of insurance covering work of this Contract.
3. Name, experience of supervisors, and copies of valid Asbestos Supervisor permits issued by the CT DPH.
4. Citations/Violations/Legal Proceedings: Submit a statement describing:
 - a. Any citations, violations, criminal charges, or legal proceedings undertaken or issued within the past two years by any law enforcement, regulatory agency, or consultant concerning performance on previous abatement contracts. Briefly describe the circumstances citing the Project and involved persons and agencies as well as the outcome of any actions.
 - b. Any litigation or arbitration proceedings arising out of performance on past Projects.
5. Work Schedule:
 - a. Show the complete sequence of abatement activities and the sequencing of Work within each building section.
 - b. Show the dates for the beginning and completion of each major element of Work including substantial completion dates for each Work Area, building, or phase.
 - c. Show projected percentage of completion for each item, as of the first day of each month.
 - d. Show final inspection dates.
6. Project Notifications: As required by Federal, State, and local regulatory agencies together with proof of transmittal (i.e. certified mail return receipt). The contractor shall notify the Connecticut Department of Public Health and EPA Region 1 at least ten (10) days prior to the start of asbestos abatement, as required by the Regulations of Connecticut State Agencies, Section 19a-332a-3.
7. Abatement Work Plan: The Contractor shall design, prepare and submit to the Authority for review and approval, a detailed asbestos removal plan for the project in accordance with the applicable regulations and these specifications. The plan shall, at minimum, show limits of containment and work areas, methods of removal, location of decontamination units, number and location of negative air units, waste routes, waste storage location, entrance and exits, emergency exits, and any necessary details. Work shall not commence until the Authority has reviewed, commented and approved the Contractor's asbestos removal plan. Provide plans which clearly indicate the following:
 - a. All Work Areas/containment numbered sequentially.
 - b. Locations and types of all decontamination enclosures.
 - c. Entrances and exits to the Work Areas/containment.
 - d. Type of abatement activity/technique for each Work Area/containment.
 - e. Number and location of negative air units and exhaust. Also provide calculations for determining number of negative air pressure units.

- f. Proposed location and construction of storage facilities and field office.
 - g. Location of water and electrical connections to building services.
 - h. Waste transport routes through the building to the waste storage container.
 - 8. Contingency plan.
 - 9. Name, location, and applicable licenses for primary and secondary landfill for disposal of asbestos-containing material and asbestos contaminated waste.
 - 10. Summary of proposed materials, and equipment to be used.
 - 11. Certification that vacuums, temporary ventilation equipment, and other equipment to be used meet the ANSI 29.2-79 requirement for airborne fiber filtration.
 - 12. If rental equipment is to be used in work area or to transport asbestos contaminated waste, provide notice to rental agency stating intended use of equipment, with copy to the Authority.
 - 13. Summary of the Contractor's workforce by disciplines. Include a notarized statement signed by the Contractor documenting that all proposed workers, by name, have received all required medical examinations and have been properly trained and certified in asbestos removal work, respirator use, to appropriate EPA and OSHA standards for asbestos removal. Include on statement Contractor's compliance with OSHA medical surveillance requirements.
 - 14. The Contractor shall submit his/her Health and Safety Plan and Standard Operating Procedures for this project for use in complying with the requirements of these Specifications and applicable regulations. The Plan shall include, but shall not be limited to: distribution and use of amended water, the sequencing of asbestos work, detailed schedules and dates, shift times, and work activities during that shift, the interface of other trades involved in the performance of work, methods to be used to assure the safety of building occupants and visitors to the Site, security of the work areas, and a detailed description of the methods to be employed to control airborne fiber concentrations.
 - 15. Written description of emergency procedures to be followed in case of injury or fire. This section must also include evacuation procedures, sources of medical assistance and procedures for access by medical personnel.
 - 16. Level of respiratory protection intended for each operation for the project.
- B. Project Closeout Submittals: Submit the following to Owner and Consultant at the close out of the Project (no later than 15 days subsequent to site demobilization):
- 1. Originals of all waste disposal manifests, seals, and disposal logs.
 - 2. OSHA compliance air monitoring records conducted during the Work.
 - 3. Daily progress log.
 - a. A list of all Workers used in the performance of the Project, including name, social security number, and CT DPH certification number.

- b. For each Worker used in the performance of the Project, submit required employee statements including Medical Examination Statement, Worker's Acknowledgment Statement, Respirator Fit Test, and Employee Training Statement.
- c. Certification for the laboratory that analyzed the OSHA personnel air samples.
- d. A notarized "Release of Liens" in a form acceptable to the owner. Such notarized release of liens shall certify that all sub-Contractors, labor suppliers, etc. have been paid their pro rate share of all payments to date for the project, that the Contractor has no basis for further claims, and will not make further claims for payment in any account after the first payment is made to him.

1.12 MEDICAL REQUIREMENTS

- A. Prior to potential exposure to airborne asbestos fibers, provide workers with a comprehensive medical examination as required by 29 CFR 1910.1001, and 29 CFR 1926.1101.
 - 1. This examination is not required if adequate records show the employee has been examined as required by 29 CFR 1910.1001, and 29 CFR 1926.1101 within the past year.
 - 2. The same medical examination shall be given on an annual basis to employees engaged in an occupation involving asbestos fibers and within thirty (30) calendar days before or after the termination of employment in such occupations.
- B. As required by 29 CFR 1910.1001, and 29 CFR 1926.1101 maintain complete and accurate records of employees' medical examinations for a period of thirty (30) years after termination of employment and make records of the required medical examinations available for inspection and copying to: The Assistant Secretary of Labor for Occupational Safety and Health, the Director of the National Institute for Occupational Safety and Health (NIOSH), authorized representatives of either of them, and an employee's physician upon the request of the employee or former employee.
- C. The Contractor shall furnish the Owner evidence of its firm's medical surveillance program required under 29 CFR 1910.1001, and 29 CFR 1926.1101.

1.13 REGULATIONS AND STANDARDS

Regulatory compliance includes but is not necessarily limited to applicable requirements set forth by:

- A. Federal Regulations:
 - 1. 29 CFR 1910 and 1926 – Construction and General Industry Standards
 - 2. 29 CFR 1910.1001, "Asbestos" (OSHA)
 - 3. 29 CFR 1910.1200, "Hazard Communication" (OSHA)
 - 4. 29 CFR 1910.134, "Respiratory Protection" (OSHA)

5. 29 CFR 1910.145, "Specification for Accident Prevention Signs and Tags" (OSHA)
6. 29 CFR 1910.146, "Permit Required Confined Spaces" (OSHA)
7. 29 CFR 1926, "Construction Industry" (OSHA)
8. 29 CFR 1926.1101, "Asbestos, Tremolite, Anthophyllite, and Actinolite" (OSHA)
9. 29 CFR 1926.500 "Guardrails, Handrails and Covers" (OSHA)
10. 40 CFR 61, Subpart A, "General Provisions" (EPA)
11. 40 CFR 61, Subpart M, "National Emission Standards for Hazardous Air Pollutants (NESHAP)" (EPA)
12. 40 CFR 763 Subpart E, "Asbestos in Schools Regulations" (EPA)
13. 49 CFR 171-172, Transportation Standards (DOT)

B. Connecticut Regulations:

State requirements which govern asbestos abatement work and hauling and disposal of asbestos waste materials include but are not necessarily limited to the following:

1. Connecticut Department of Energy and Environmental Protection (Solid Waste Management Regulations).
2. Connecticut Department of Public Health (CT-DPH) regulations outlined in Section 19a-332a-1 through 19a-332a-16 "Standards for Asbestos Abatement"
3. CT-DPH regulations outlined in Section 20-440-1 through 20-440-9 "Licensure and Training Requirements for Persons Engaged in Asbestos Abatement and Consulting Services"
4. Connecticut Department of Labor (CT-DOL)
5. Connecticut Department of Transportation (DOT)

C. Local Regulations:

Local agencies which may govern or have certain requirements regarding asbestos abatement work or hauling and disposal of asbestos waste materials include but are not necessarily limited to the following:

1. Building Department
2. Health Department
3. Fire Department

D. Standards and Guidance Documents:

1. American National Standard Institute (ANSI) Z88.2-80, Practices for Respiratory Protection
2. ANSI Z9.2-79, Fundamentals Governing the Design and Operation of Local Exhaust Systems
3. EPA 560/585-024, Guidance for Controlling Asbestos Containing Materials in Buildings (Purple Book)
4. EPA 530-SW-85-007, Asbestos Waste Management Guidance

1.14 EXEMPTIONS

- A. Any deviations from these specifications require the written approval and authorization from the Owner and Consultant.
- B. Any modifications from the standard work practices identified in the CT DPH Standards for Asbestos Abatement, Sections 19a-332a-1 to 19a-332a-16 must be requested in writing, and approved in writing from the CT DPH.

1.15 FINAL AIR CLEARANCE

- A. Following the completion of the encapsulation phase of the work, the Consultant shall collect final air clearance samples inside the work area per AHERA regulation 40 CFR Part 763 and in compliance with CT DPH regulations. The Owner of the facility shall be responsible for payment of the sampling and analysis of the initial final air clearance samples only. The Contractor shall be responsible for payment of all costs associated with the collection and analysis of additional final air clearance samples if the first set of samples fail to satisfy the clearance criteria.

1.16 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

- A. The Contractor shall make the following notifications, and provide the submittals to the following agencies prior to the commencement of removal work. This notification is required ten (10) calendar days prior to the start of the abatement project:
 - 1. Connecticut Department of Public Health
410 Capital Avenue MS #12 AIR
P.O. Box 340308
Hartford, CT 06134
 - 2. US EPA Region 1
5 Post Office Square, Suite 100 (OES05-4)
Boston, MA 02109-3912
- B. The minimum information included in the notification to these agencies includes:
 - 1. Name and address of building Owner/Operator
 - 2. Building location
 - 3. Building size, age, and use
 - 4. Amount of friable asbestos
 - 5. Work schedule, including proposed start and completion date
 - 6. Asbestos removal procedures to be used
 - 7. Name and location of disposal site for generated asbestos waste, residue, and debris
 - 8. If landfill opens in Connecticut to accept ACM waste, Consultant will notify CT DEEP prior to utilizing said landfill.

1.17 WORK SITE SAFETY PLAN

- A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following:
 - 1. Evacuation of injured workers.
 - 2. Emergency and fire exit routes from all work areas.
 - 3. Emergency first aid treatment
 - 4. Local telephone numbers for emergency services including ambulance, fire, and police.
 - 5. A method to notify occupants of the building in the event of a fire or other emergency requiring evacuation of the building.
- B. The Contractor is responsible for training all workers in these procedures.

1.18 INDEPENDENT AIR SAMPLING AND ASBESTOS ABATEMENT MONITORING

- A. This section describes independent air sampling work being performed on behalf of the Owner. This work is not in the Contract Sum. This section describes air monitoring carried out by the Owner's Consultant to verify that the building beyond the work area and the outside environment remains uncontaminated. (Personal air monitoring required by OSHA is work to be performed by the Contractor and is within the Contract Sum.)
- B. The purpose of the Owner's Consultant's air monitoring is to detect faults in the work area isolation such as:
 - 1. Contamination of the building outside of the work area by airborne asbestos fibers
 - 2. Failure of filtration or rupture in the differential pressure system
 - 3. Contamination of air outside the building envelope by airborne asbestos fibers.
Should any of the above occur the Contractor shall immediately cease asbestos abatement activities until the fault is corrected. Do not recommence work until authorized by the Owner's Consultant.
- C. The Owner's Consultant will monitor airborne fiber counts in the Work Area. The purpose of this air monitoring will be to detect airborne asbestos concentrations, which may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.
- D. To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to an acceptable level, the Consultant will sample and analyze air in accordance with clearance air sampling requirements.
- E. The Owner's Consultant will perform on-site monitoring throughout the course of the project, as follows:

1. All work procedures shall be continuously monitored by the Consultant to assure that areas outside the designated work locations in the buildings will not be contaminated.
2. Prior to work on any given day, the Contractor's designated "competent person" shall discuss the day's work schedule with the Consultant to evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination of the building or the employees. This includes a visual survey of the work area and the decontamination of the building or the employees. This includes a visual survey of the work area and the decontamination enclosure systems.

1.19 CONTRACTOR'S AIR SAMPLING RESPONSIBILITY

- A. The Contractor shall independently retain a CT licensed asbestos project monitor to monitor airborne asbestos concentrations in the workers' breathing zone and to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001 and 1926.1101.
- B. The Contractor's project monitor shall document all air sampling results and provide a report to the Consultant within 24 hours after sample collection.
- C. All air sampling shall be conducted in accordance with methods described in OSHA Standards 29 CFR 1910.1001 and 1926.1101 and the OSHA Respiratory Protection Standard 29 CFR 1910.134.
- D. A minimum of 20% of all workers in each working category (i.e., gross removal, final clearance, etc.) must be monitored each day of asbestos removal activities.
- E. Phase Contrast Microscopy may be used to analyze personal air samples. The Contractor shall arrange and pay for all costs of the testing. Laboratories used shall be currently enrolled in the American Industrial Hygiene Association Proficiency Analytical Testing Program or an equivalent recognized program and approved by CT DPH.

1.20 PROPER WORKER PROTECTION

- A. This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.
- B. All workers are to be accredited as Abatement Workers as required by the AHERA regulation 40 CFR 763 Appendix C to Subpart E, February 3, 1994.
- C. The Contractor is required to be certified and accredited as required by the State of Connecticut Department of Public Health Services.

- D. In accordance with 29 CFR 1926 and 20-440-7 RCSA, all workers shall receive a training course covering the dangers inherent in handling asbestos, the dangers of breathing asbestos dust, proper work procedures, and proper worker protective measures. This course must include but is not limited to the following:
1. Methods of recognizing asbestos
 2. Health effects associated with asbestos
 3. Relationship between smoking and asbestos in producing lung cancer
 4. Nature of operations that could result in exposure to asbestos
 5. Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
 - a. Engineering controls
 - b. Work Practices
 - c. Respirators
 - d. Housekeeping procedures
 - e. Hygiene facilities
 - f. Protective clothing
 - g. Decontamination procedures
 - h. Emergency procedures
 6. Waste disposal procedures
 7. Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134
 8. Appropriate work practices for the work
 9. Requirements of medical surveillance program
 10. Review of 29 CFR 1926
 11. Pressure Differential Systems
 12. Work practices including hands on or on-job training
 13. Personal Decontamination procedures
 14. Air monitoring, personal and area
- E. The Contractor shall provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 F/cc or greater for an 8 hour Time Weighted Average and/or enter regulated areas. In the absence of specific airborne fiber data provide medical examinations for all workers who will enter the Work Area for any reason. Examination shall, at a minimum, meet OSHA requirements as set forth in 29 CFR 1926. In addition, provide an evaluation of the individual's ability to work in environments capable of producing heat stress in the worker.
- F. Submit the following to the Consultant for review. The Contractor shall not start work until these submittals are returned with Consultant action stamp indicating that they are approved.

1. Submit copies of certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each asbestos Abatement Worker is accredited as required by the AHERA Regulation 40 CFR 763 Appendix C to Subpart E, February 3, 1994.
2. Submit evidence that the Contractor is certified to perform asbestos abatement work by the State of Connecticut Department of Public Health services.
3. Submit documents verifying that each worker has had a medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Submit, at a minimum, for each worker the following:
 - a. Name and Social Security Number
 - b. Physicians Written Opinion from examining physician including at a minimum the following:
 4. Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.
 5. Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.
 6. Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.
 7. Copy of information that was provided to physician in compliance with 29 CFR 1926
 8. Statement that worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat stress in the worker.
 9. Submit copies of certificates for the site supervisor and the workers issued by CT DPH.
- G. Submit certification signed by an officer of the abatement-contracting firm and notarized that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926.
- H. The Contractor shall maintain control of and be responsible for access to all work areas to ensure the following requirements:
 1. Non-essential personnel are prohibited from entering the area
 2. All authorized personnel entering the work area shall read the "Worker Protection Procedures" which are posted at the entry points to the enclosure system, and shall be equipped with properly fitted respirators and protective clothing
 3. All personnel who are exiting from the decontamination enclosure system shall be properly decontaminated
 4. Asbestos waste that is taken out of the work area must be properly bagged and labeled in accordance with these specifications. The surface of the bags shall be decontaminated. Asbestos leaving the enclosure system must be immediately transported off-site or immediately placed in locked, posted temporary storage on-site, and removed within 24 hours of the project conclusion.

5. Any material, equipment, or supplies that are brought out of the decontamination enclosure system shall be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming of all surfaces.

1.21 ALTERNATE WORK PRACTICES

- A. The Contractor and/or Consultant may obtain services of a CT DPH certified asbestos project designer and submit application for variances to the CT DPH, as applicable for any alterations, modifications or non-conforming methods intended of asbestos removal. Methods requiring variances include but are not necessarily limited to glove-bagging, use of tent procedures, remote decons, etc. The alternative procedures shall be submitted in writing and hand delivered or post marked at least ten (10) days before the project start date. CT-DPH may approve an alternative procedure for an asbestos abatement project with certain conditions that would provide equivalent or a greater measure of asbestos emission control than the conventional work practices. The alternate work practice request form shall be signed and sealed by a Licensed Designer. Any fees associated with the application shall be paid by the Contractor. All alternative work practices must be approved and accepted by Langan's project designer regardless if they have been approved by CT DPH.

1.22 POST-PROJECT CLOSEOUT

- A. The Contractor shall provide all required documentation as required by this specification once his/her work is complete, final clearances passed and asbestos waste disposed of. This should include but not be limited to: bound copy of the daily log containing log of daily work activities, all supervisor and worker certificates of training and Connecticut licenses, certificates of insurance, daily sign in sheets, containment entry/exit logs, copy of recording manometer charts, waste shipment records, personal air monitoring laboratory reports and chain-of-custody documentation, and project completion certificate. Final payment shall not be made to the Contractor until all required documentation is submitted and verified.

PART 2 - PRODUCTS

2.1 MATERIALS

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

- C. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to the job site with factory label indicating 4 or 6 mil.
- D. Polyethylene disposable bags shall be six (6) mil with pertinent pre-printed label. Tie wraps for bags shall be plastic, five (5) inches long (minimum), pointed and looped to secure filled plastic bags.
- E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
- F. Surfactant (wetting agent), shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one (1) ounce surfactant to five (5) gallons of water or as directed by manufacturer.
- G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant found acceptable to Consultant. Usage shall be in accordance with manufacturer's printed technical data.
- H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas with asbestos.
- I. Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site. The containers shall be labeled in accordance with OSHA Standard 29 CFR 1926.1101. Containers must be both air and watertight.
- J. Labels and signs, as required by OSHA Standard 29 CFR 1926.1101, will be used.
- K. Encapsulant shall be bridging or penetrating type which has been found acceptable to the Consultant. Usage shall be in accordance with manufacturer's printed technical data.
- L. HEPA filtered local exhaust ventilation shall be utilized during the installation of enclosures and supports where asbestos-containing materials may be disturbed.

2.2 TOOLS AND EQUIPMENT

- A. The Contractor shall provide all tools and equipment necessary for asbestos removal, encapsulation and enclosure.
- B. The Contractor's air monitoring professional shall have air-monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.

- C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape and air filters.
- D. The Contractor shall provide (as needed) temporary electrical power panels, electrical power cables, and electrical power sources (such as generators). Any electrical connection work affecting the building electrical power system shall be performed by a State of Connecticut licensed electrician and the contractor shall obtain all necessary local permits.
- E. The Contractor shall have available shower stalls and plumbing to support same to include sufficient hose length and drain system or an acceptable alternate.
- F. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative pressure of -0.02 inches of water within enclosure with respect to outside area. Equipment shall be checked for proper operation by smoke tubes or differential pressure gauge before the start of each shift and at least twice during the shift. Adequate exhaust air shall be provided for a minimum of four (4) air changes per hour within the enclosure. No air movement system or air filtering equipment shall discharge unfiltered air outside.
- G. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.
- H. The Contractor will have reserve units so that systems will operate continuously

2.3 RESPIRATORY PROTECTION

- A. Select respirators from those approved by the Mine Safety and Health Administration (MSHA), and the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.
- B. Respirators shall be individually fit-tested to personnel under the direction of an Industrial Hygienist on a yearly basis. Fit-tested respirators shall be permanently marked to identify the individual fitted, and use shall be limited to that individual. Fit-test records shall be maintained on-site for each employee.
- C. Where fiber levels permit, and in compliance with regulatory requirements, Powered Air Purifying Respirators (PAPR) are the minimum allowable respiratory protection permitted to be utilized during gross removal operations. The Contractor shall use supplied air respirator for confined space requirements. PAPR's are the minimal respiratory protection required for all thermal system insulation and surfacing asbestos abatement.
- D. No respirators shall be issued to personnel without such personnel participating in a respirator training program.

- E. High Efficiency Particulate Air (HEPA) respirator filters shall be approved by NIOSH and shall conform to the OSHA requirements in 29 CFR 1910.134 and 29 CFR 1926.1101.
- F. A storage area for respirators shall be provided by the Contractor in the clean room side of the personnel decontamination enclosure where they will be kept in a clean environment.
- G. The Contractor shall provide and make available a sufficient quantity of respirator filters so that filter changes can be made as necessary during the Work day. Filters will be removed and discarded during the decontamination process. Filters cannot be reused. Filters must be changed if breathing becomes difficult.
- H. Filters used with negative pressure air purifying respirators shall not be used any longer than one eight (8) hour work day.
- I. Any authorized visitor, worker, or supervisor found in the Work Area not wearing the required respiratory protection shall be removed from the project site and not be permitted to return.
- J. The Contractor shall have at least two (2) Powered Air Purifying Respirators stored on-site designated for authorized visitors use. Appropriate respirator filters for authorized visitors shall be made available by the Contractor.
- K. Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134, and 29 CFR 1926.1101. Provide respirator training and fit-testing.

2.4 PROTECTIVE CLOTHING

- A. Provide personnel utilized during the Project with disposable protective whole body clothing, head coverings, gloves and foot coverings. Provide disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber for comfort, but shall not be used alone. Make sleeves secure at the wrists and make foot coverings secure at the ankles by the use of tape, or provide disposable coverings with elastic wrists or tops.
- B. Provide sufficient quantities of protective clothing to assure a minimum of four (4) complete disposable outfits per day for each individual performing abatement Work.
- C. Eye protection and hard hats shall be provided and made available for all personnel entering any Work Area.
- D. Authorized visitors shall be provided with suitable protective clothing, headgear, eye protection, and footwear whenever they enter the Work Area.

PART 3 - EXECUTION

3.1 PRE-ABATEMENT MEETING

- A. At least one week prior to the start of work a Pre-Construction Meeting will be scheduled and must be attended by the Contractor and any Sub-Contractors. The assigned Contractor Site Supervisor is also required to attend this meeting.
- B. The Contractor shall present a detailed project schedule and project submittals at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and Consultant will inform the Contractor of any scheduling adjustments for this project.
- C. Following the Pre-Construction Meeting, the Contractor shall submit a revised schedule (if needed) no later than one week after the meeting.

3.2 WORK AREA PREPARATION

- A. Where necessary, shut down electrical power, including receptacles and light fixtures. Under no circumstances during the decontamination procedures will lighting fixtures be permitted to be operating when the spraying of amended water may contact the fixture. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a State of Connecticut licensed electrician.
- B. Shut down and/or isolate heating, cooling, and ventilation air systems or zones to prevent contamination and fiber dispersal to other areas of the structure. During the work, vents within the work area shall be "criticalled" with duct tape and polyethylene sheeting.
- C. The Contractor shall be responsible for removing furniture from the work areas. The Contractor shall pre-clean moveable objects within the proposed work areas using HEPA vacuum equipment and/or wet cleaning methods as appropriate and remove such objects from work areas to a temporary location. For example, cabinets to gain access to floor tile and associated mastic.
- D. Seal off all openings, including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetration of the work areas, with polyethylene sheeting a minimum of six (6) mils thick, sealed with duct tape. This includes doorways and corridors that will not be used for passage during work areas and occupied areas.
- E. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum six (6) mil plastic sheeting sealed with duct tape.

- F. Clean the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- G. After HEPA vacuum cleaning, cover fixed walls with two (2) layers of four (4) mil polyethylene sheeting to the floor level. Where fixed walls are not used, two layers of six (6) mil polyethylene sheeting will be applied to a rigid framework of wood, metal, or PVC. Where floor tile/mastic is not being abated, cover the floor with two (2) layers of six-mil polyethylene sheeting. All overlaps shall be sealed with tape or spray adhesive.
- H. Maintain emergency and fire exits from the work areas, or establish alternate exits satisfactory to fire officials.
- I. Clean and remove ceiling mounted objects, such as lights and other items not sealed off, which interfere with asbestos abatement. Use hand-held amended water spraying or HEPA vacuuming equipment during fixture removal to reduce settled fiber dispersal.
- J. Create pressure differential between work areas and uncontaminated areas by the use of acceptable negative air pressure equipment sufficient to provide four (4) air changes per hour and create negative pressure of -0.02 inches of water within enclosure with respect to outside area as measured on a water gauge.

3.3 DECONTAMINATION SYSTEM

- A. The following requirements shall be followed for the worker decontamination unit:
 - 1. At all asbestos abatement projects, work areas shall be equipped with decontamination facilities consisting of: a clean room, a shower room, and an equipment room attached to each containment.
 - 2. The decontamination enclosure system chambers shall be constructed to meet the criteria of the Specification. The decontamination enclosure shall be installed watertight to prevent water leaks. The interior shall be lined with two layers of 6-mil fire-retardant plastic sheeting, with a minimum overlap of 16 inches at seams and sealed (airtight) by tape and adhesive. The interior floor shall be sheathed with (2) layers of reinforced fire retardant plastic sheeting with a minimum overlap on the wall of sixteen (16) inches. The contractor shall ensure compliance with local building codes and other regulations governing temporary structures.
 - 3. Curtained Doorways: Three overlapping sheets of 6-mil polyethylene shall be placed over a framed doorway and secured along the top of the doorway. Secure the vertical edge of the outer sheets along one vertical side of the doorway and the vertical edge of the center sheet along the opposite vertical side of the doorway. The sheets shall be weighted so that they close quickly after being released.
 - 4. Air Locks: Air locks shall consist of two curtained doorways placed a minimum of three feet apart.

- a. Clean Room: In this room, persons remove and leave all street clothes and put on clean disposable coveralls. Approved respiratory protection equipment is stored in this area. The floor of the clean room must be kept dry at all times. At the end of each shift, the room must be cleaned using wet rags. Also, a lockable door may be installed. No asbestos-containing materials are allowed in this room. The clean room shall be equipped with suitable hooks, lockers, shelves, etc. for workers to store personal articles and clothing. THIS IS NOT A CONTAMINATED AREA.
- b. Shower Room: Provide a completely watertight operational shower to be used by cleanly dressed workers heading for the Work area from the clean room or for showering workers headed out of the Work Area after dressing in the Equipment Room. Shower must be constructed so that water leakage is minimized. The shower shall have one shower per six full shift abatement people, calculated on the basis of the largest shift. Any leaking water must be cleaned immediately. Showers must be equipped with hot and cold running water, soap and sufficient disposable towels for the number of workers at the job site. Arrange water shut off and drain pump operation controls, so that a single individual can shower without assistance from either inside or outside the Work Area. THIS IS A CONTAMINATED AREA.

Pump wastewater into a polyethylene lined 55-gallon drum located in the Work Area to be added to the asbestos waste. If the water is allowed by the work treatment workers to be pumped into a drain, provide 20 micron and 5 micron waste water filters in line to drain. Change filters at a minimum of once a day. Locate filters inside the shower unit, so that the shower pan catches the water lost during filter change.

- c. Equipment Room: Work equipment, footwear, and all other contaminated work clothing are to be left here upon exiting Work Area. A walk-off pan filled with water shall be located in the work area just outside the equipment room for workers to clean foot coverings while exiting the work area. This is a change and transit area for workers. Provide a drop cloth layer of sheet plastic on the floor of the Equipment Room for every shift change. Roll drop cloth layer in upon itself at the end of each shift and dispose of as contaminated waste. THIS IS A CONTAMINATED AREA.

Each room shall be separated from the other and from the work area by airlocks such as will prevent the free passage of air or asbestos fibers and shall be accessible through doorways protected with three (3) overlapping 6 mil polyethylene sheets which shall be weighed, so as to fall into place when people pass through the area. The shower room shall be contiguous to the clean room and equipment room. All personnel entering or leaving the work area shall pass through the shower room. The number of showers provided shall satisfy the requirements of OSHA 29 CFR 1910.141. Hot and cold water shall be supplied to the showers. The equipment room (dirty room) shall be situated between the shower room and the work area and separated from both by means of suitable barriers or overlapping flaps such as will prevent the free passage of air or asbestos fibers.

Decontamination chamber doors shall be of sufficient height and width to enable replacement of equipment, which may fall, and to safely stretch or carry an injured worker from the Site without destruction of the chamber or unnecessary risk to the integrity of the work area. Such doors must be at least four (4) feet wide, and the distance between sets of doors must be at least four (4) feet.

5. No person or equipment shall leave the asbestos abatement project work area unless first decontaminated by showering, wet washing or HEPA vacuuming to remove all asbestos debris. No asbestos contaminated materials or persons shall enter the clean room.
6. Where feasible, decontamination systems shall abut the work area. In situations where it is not possible, due to unusual conditions, to establish decontamination systems contiguous to the work area, personnel shall be directed to remove visible asbestos debris from their persons by HEPA-filtered vacuuming prior to donning clean disposable coveralls while still in the work area, and proceeding directly to a remote decontamination system to shower and change clothes to follow work area exit procedures.
7. In specific situations where the asbestos contractor determines that it is not feasible to establish a contiguous decontamination system at a work site, the asbestos contractor shall utilize a remote decontamination system if approved by Langan. Such systems must be operated in conformance with 29 CFR 1926.1101, Appendix F.

B. Remote Decontamination Facility:

For exterior work on the roof, glove bag or tent procedures, when full containment enclosure is not feasible, the Contractor shall provide remote personnel decontamination enclosure system if approved by the Consultant - Langan.

- C. Occupied areas and/or building space not within the work areas shall be separated from asbestos abatement work areas by means of airtight barriers.
- D. Construct the decontamination system with wood or metal framing, 3/8" sheathing and cover both sides with a double layer of six (6) mil polyethylene sheeting, spray glued or taped at the joints. Caulk joints watertight at floor, walls, and ceiling.
- E. The Contractor and the Consultant shall visually inspect barrier several times daily to assure effective seal and the Contractor shall repair defects immediately
- F. Waste/Equipment Decontamination Enclosure System:
This system is located adjacent to the work area. The equipment decontamination enclosure system, consisting of two totally enclosed spaces, shall be constructed as follows:

1. Equipment Washroom: An equipment washroom shall have two air locks: one adjacent to the work area and one common air lock which separate it from the holding area. The washroom shall have facilities for washing material containers and equipment. Gross removal of dust and debris from contaminated material containers and equipment shall be accomplished in the work area, prior to moving to the washroom.
2. Holding Area: A holding area shall share a common air lock with the equipment washroom and shall have a curtained doorway to outside areas. A hinged, lockable door shall be placed at the holding area entrance to prevent unauthorized access into the work area.
3. Remote Decontamination Facility: For exterior work on the roof, glove bag or tent procedures, when full containment enclosure is not required, the Contractor shall provide remote Waste/Equipment decontamination enclosure system as specified.

3.4 ABATEMENT REMOVAL PROCEDURES

- A. Regulatory compliance will include, but is not necessarily limited to, applicable requirements set forth by the Federal Environmental Protection Agency (EPA), Connecticut Departments of Public Health (CT DPH), Connecticut Department of Environmental Protection, and Stonington/local Health and Building Departments.
- B. The following procedures shall be followed while performing the abatement activities:
 1. No asbestos abatement work, including preparation, shall be performed or continued without having proper notification and a certified supervisor at the work area. The Contractor shall have a designated "competent person" on the job at all times to ensure establishment of a proper enclosure system and proper work practices throughout the project.
 2. Abatement work will not commence until authorized by the Consultant.
 3. Provide and display danger signs at every entrance to the work areas in clearly visible locations indicating that asbestos removal work is being conducted and unauthorized and not protected persons should not enter.
Signs must use the following legend:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
RESPIRATORS AND PROTECTIVE CLOTHINGS
ARE REQUIRED IN THIS AREA

Signs shall be posted which meet the specifications set forth in 29 CFR 1926.1101 at all approaches to the work area. Signs shall be posted a sufficient distance from the work area to permit a person to read the sign and take precautionary measures to avoid exposure to asbestos.

4. The worker decontamination enclosure system shall be installed or constructed prior to plasticizing the work area or before disturbing ACM. The waste decontamination enclosure system shall be installed or constructed prior to commencement of gross removal work.
5. All asbestos handlers shall wear disposable suits, including gloves, hood and footwear, and appropriate respiratory equipment, after removing street clothes in the clean room.
6. Abatement of asbestos-containing materials shall be done by wet methods only.
7. ACM shall be sprayed with amended water in sufficient frequency and quantity for enhanced penetration. Sufficient time shall be allowed for penetration to occur prior to removal action or other disturbance-taking place. Dry removal of asbestos materials is prohibited.
8. In order to maintain indoor asbestos concentrations to the minimum, the wet asbestos must be removed in manageable sections. Material drop shall not exceed eight (8) feet. For heights up to 15 feet, provide inclined chutes or scaffolding to intercept drop.
9. Remove asbestos containing materials as appropriate by standard methods. Fill disposal containers as removal proceeds; seal filled containers and clean containers before removal to equipment decontamination system. Wet clean each container thoroughly, double bag and apply caution label. Ensure that workers do not exit the work area thorough the equipment decontamination enclosure.
10. After completion of stripping work, all surfaces from which asbestos has been removed shall be wet brushed, using a nylon brush, wet wiped, and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.
11. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. During cleanup, utilize brooms, rubber dustpan, and rubber squeegees to minimize damage to floor covering.
12. Retrieve all free water in contaminated areas and place in plastic lined leak-tight drums.
13. Sealed disposal containers, and all equipment used in the work area, shall be included in the cleanup and shall be removed from work areas via the equipment decontamination enclosure at an appropriate time in the cleaning sequence. All asbestos waste in 6-mil polyethylene disposal bags shall be double bagged in the equipment decontamination enclosure before removal from the Site.
14. At any time during asbestos removal, should the Consultant suspect contamination of areas outside the work area(s), he shall cause all abatement work to stop until the Contractor takes steps to decontaminate these areas and eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspections certify decontamination.

15. After completion of the initial final cleaning procedure including removal of the inner layers of polyethylene sheeting, but prior to encapsulation, a pre-sealant inspection shall be conducted by the Consultant. The pre-sealant inspection shall verify that ACM and residual dust has been removed from the work area.
16. After the work area has been inspected by the Engineer and rendered free of visible debris, a thin coat of a pigmented (non-transparent) encapsulating agent shall be applied to all surfaces in the work area from which ACM was removed, to lockdown nonvisible fibers.
17. Removal of asbestos containing materials shall be done under negative pressure containment. All OSHA Class I, Class III, and interior Class II asbestos abatement projects shall employ HEPA negative air pressure equipment ventilation. The negative air pressure equipment shall operate continuously, twenty-four (24) hours a day, from startup of negative air pressure equipment, through the cleanup operations. A negative air pressure, relative to areas outside of the enclosure, shall be maintained at all times in the regulated abatement work area during the asbestos abatement project to ensure that contaminated air in the regulated abatement work area does not escape back to an uncontaminated area. A manometer shall be used to document the pressure differential for all OSHA Class I Large and Small size asbestos project regulated abatement work areas. A minimum of -0.02 column inches of water pressure differential, relative to pressure outside the regulated abatement work area, shall be maintained within the regulated abatement work area, as evidenced by manometric measurements.

3.5 CONSULTANT

- A. The Owner has retained Langan Engineering (Langan) as the Hazardous Materials Consultant for the purpose of project design, construction administration, and project monitoring during Asbestos Abatement. Mr. Matthew Myers (License #000058) of Langan is the DPH-approved Asbestos Project Designer for this project. The Consultant will represent the Owner in all tasks of the abatement project at the discretion of the Owner. The Asbestos Abatement Contractor will regard the Consultant's direction as authoritative and binding as provided herein, in matters particularly but not limited to approval of work areas, review of monitoring results, completion of the various segments of work, final completion of the abatement, submission of data, and daily field punch list items.

3.6 CONSULTANT'S RESPONSIBILITIES

- A. Air sampling shall be conducted by the Consultant to ascertain the integrity of controls that protect the building from asbestos contamination. Independently, the Contractor shall monitor air quality within the work area to ascertain the protection of employees and to comply with OSHA regulations.

- B. The Consultant's CT DPH licensed asbestos project monitor shall collect and analyze air samples during two time periods:
1. Abatement Period: If required, the Consultant's project monitor shall collect samples on a daily basis during the work period. A sufficient number of area samples shall be taken outside of the work area, at the exhaust of the negative pressure system, and outside of the building to judge the degree of cleanliness or contamination of the building during removal. Additional samples may be taken inside the work area and decontamination enclosure system, at the discretion of the project monitor.
 2. Post-Abatement Period: The Consultant's project monitor shall conduct air sampling following the final cleanup phase of the project, once the "no visible residue" criterion, as established by the project monitor, has been met. Five (5) samples shall be collected inside the work area utilizing aggressive methods to comply with the State of Connecticut Department of Public Health Standards for Asbestos Abatement, sections 19a-332a-12. Analysis of the samples to determine airborne concentrations of asbestos shall be conducted by Transmission Electron Microscopy (TEM) method with an average limit of 70.0 structures per square millimeter of filter surface or by Phase Contrast Microscopy (PCM) with a limit of 0.010 fibers per cubic centimeters of air in accordance with the above Connecticut regulation sections.
- C. The Consultant's project monitor shall provide continual evaluation of the air quality of the building during removal, using his/her best professional judgment in respect to the State of Connecticut Department of Public Health guideline of 0.010 fibers/cc and the background air quality established during the pre-abatement period.
- D. If the project monitor determines that the building air quality has become contaminated from the project, he/she shall immediately inform the Contractor to cease all removal operations and implement a work stoppage clean up procedure. The Contractor shall conduct a thorough cleanup of the areas of the building designated by the Consultant. No further removal work can take place until the project monitor has assessed that the building air has been decontaminated.
- E. Pre-abatement and abatement air samples shall be collected as required to obtain a volume of 1,200 liters. Samples shall be analyzed by Phase Contrast Microscopy (PCM) methodology using the NIOSH 7400 protocol.

3.7 CONSULTANT'S INSPECTION RESPONSIBILITIES

- A. The Consultant shall conduct inspection throughout the progress of the abatement project. Inspections shall be conducted in order to document the progress of the abatement work as well as the procedures and practices employed by the abatement Contractor.
- B. The Consultant shall perform the following inspections during the course of abatement activities:

1. Pre-commencement Inspection: Pre-commencement inspections shall be performed at the time requested by the abatement Contractor. The Consultant shall be informed 12 hours prior to the time the inspection is needed. If, during the course of the pre-commencement inspection, deficiencies are found, the Contractor shall perform the necessary adjustments in order to obtain compliance.
2. Work Area Inspections: Work area inspections shall be conducted on a daily basis at the discretion of the Consultant. During the course of the work inspections, the Consultant shall observe the Contractor's removal procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the abatement Contractor of specific remedial activities if deficiencies are noted.
3. Pre-encapsulation Inspection: The Consultant, upon the request of the abatement Contractor, shall conduct a pre-sealant inspection. The Consultant shall be informed 12 hours prior the time that the inspection is needed. The pre-encapsulation inspection shall be conducted after completion of the initial cleaning procedures, but prior to encapsulation. The pre-encapsulation inspection shall verify that all ACM and residual debris have been removed from the work area. If, during the course of the pre-encapsulation inspection, the Consultant identifies residual dust or debris, the Contractor shall comply with the request of the Consultant in order to render the area "dust free."
4. Final Visual Inspection: The Consultant, upon request of the abatement Contractor, shall conduct a final visual inspection. Following the removal of the inner layer of polyethylene sheeting and prior to final air clearance, the Consultant shall conduct a final visual inspection inside the work area. If residual dust or debris is identified during the course of the final inspection, the Contractor shall comply with the request of the Consultant in order to render the area "dust free."

3.8 CLEARANCE AIR TESTING

- A. After the visual inspection is completed and all surfaces in the abatement area have dried, final air clearance sampling shall be performed by the Consultant. Aggressive air monitoring will be used. Selection of location and samples shall be the responsibility of the Consultant. Air monitoring volumes shall be sufficient to provide a detection limit of 0.010 f/cm' using NIOSH-approved method for PCM analysis. For air clearance by Transmission Electron Microscopy, air-monitoring volumes shall be sufficient to provide a detection limit of 0.005 f/cm³ using the AHERA Level II Yamate Method.
- B. Areas which do not comply with the Standard for Cleaning for Initial Clearance shall continue to be cleaned by and at the Contractor's expense until the specified Standard of Cleaning is achieved as evidenced by results of air testing as previously specified.

3.9 ASBESTOS WASTE DISPOSAL

- A. The Contractor shall package, label, and remove all asbestos waste from the work area in accordance with Connecticut DEEP and DPH regulations, all other applicable regulations, and as specified below. Packaging shall be accomplished in a manner that minimizes waste volume, but insures waste containers shall not tear or break. All waste shall be transported in leak tight containers.
- B. Asbestos wastes may include building materials, insulation, disposable clothing and protective equipment, plastic sheeting and tape, exhaust systems or vacuum filters, contractor equipment, or other materials designated by state or local authorities which have been potentially contaminated with asbestos and have not been fully cleaned.
- C. Waste Labeling
 - 1. Warning labels, having waterproof print and permanent adhesive in compliance with OSHA, EPA, CT DEEP/DOT and CT DPH requirements, shall be affixed to or printed on the sides of all waste bags or transfer containers. Warning labels shall be conspicuous and legible, and contain the following words:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
 - 2. In compliance with NESHAP, 40 CFR, Part 61.150, all waste containers or bags shall be labeled with the following generator information:
 - a. Name of waste generator
 - b. Location of where waste was generated
- D. Wetting of Waste: A fine water spray shall be used to keep the top layers of waste in containers thoroughly wet at all times. When a waste bag is full, air within the bags shall be evacuated with a HEPA equipped vacuum and be securely sealed with tape or other secure fastener.
- E. Use and Decontamination of Fiber Drums: The Contractor's use and decontamination of fiber drums shall be in accordance with CT DPH, EPA and DOT requirements. The drums shall be lined with a minimum of two layers of 6-mil asbestos waste bags. The waste will be appropriately labeled and sealed. The drums shall be sealed with an airtight lid and shall be decontaminated and/or additionally bagged if the drums are filled inside the containment and visible debris/contamination is observed on the exterior of the drums. All waste shall be labeled as previously described. The drums and waste will be re-containerized should their integrity be compromised and/or liquid is visibly passing through or staining the container.

- F. Waste Container Storage: The container used for the storage of bagged contaminated waste shall be an enclosed dumpster. The dumpster shall have a solid metal roof and a solid metal door with padlock. At a minimum, line the cargo area with two layers of a 6-mil polyethylene sheeting to prevent contamination from damaged or leaking containers. Floor sheeting shall be installed first and shall extend up the sidewalls 24 inches minimum. Wall sheeting shall be overlapped and taped securely into place. No un-bagged contaminated waste or non-asbestos waste shall be stored in these dumpsters. Ensure that bags placed in dumpsters are undamaged. Warning signs shall be posted on the dumpster in accordance with Sections 29 CFR 1926.1101 of the OSHA regulations.
- G. Waste Removal Scheduling: All waste containers shall be decontaminated and removed from the Site before final cleanup is started and isolation barriers are taken down.
- H. Waste Transportation and Disposal
1. It is the responsibility of the Contractor to determine and insure that the Contractor and his/her subcontractor are complying with: 1) current waste handling regulations; and 2) the current regulations for transporting and disposing waste at the ultimate disposal landfill. The Contractor must comply fully with these regulations, and with all U.S. Department of Transportation, State, local, and EPA requirements.
 2. The Contractor's waste hauler and disposal contractor shall maintain a valid hazardous waste transporter's permit and identification number; and obtain complete, and fully comply with any other local hazardous waste manifesting requirements.
 3. Exercise care before and during transport to ensure that no unauthorized persons have access to the containerized ACW.
 4. Do not transport ACW on open trucks. Treat and dispose of drums that have been contaminated as asbestos-containing waste.
 5. A copy of ACW manifest forms shall be sent to the Owner after each disposal is completed and all required data and signatures have been inserted.
 6. The Contractor shall return the original Disposal Certificate (landfill receipt) to the Owner within 10 working days of waste shipment from the Site.

END OF SECTION 028213

SECTION 028313 – LEAD-BASED PAINT AWARENESS**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. General Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Refer to all drawings and/or other Sections of these specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.
- C. Sections containing requirements related to this Section include, but are not limited to:
 - 1. Section 028200 – Selective Hazardous Building Materials Abatement Demolition
 - 2. Section 028213 – Asbestos Abatement
 - 3. Section 028416 – Universal Waste Removal And Recycling
 - 4. HM – 01 & 02 – Hazardous Building Materials Abatement Drawings

1.2 SUMMARY OF WORK

- A. Work of this Section includes, requirements for worker protection and waste disposal related to the renovation/demolition work involving components and surfaces containing lead at the Ridgefield Venus Building Site. All materials should be considered to contain lead. Limited wood door and door trims as well as plaster walls and cement baseboards were found to contain elevated levels of lead.
- B. The procedures referenced herein shall be utilized during required renovation/demolition work specified elsewhere in the Architect's Specification that might impact lead.
- C. The removal, painting or other renovations/demolition impacting lead based paint may result in dust and debris exposing workers to levels of lead above the OSHA Action Level. Worker protection, training, and engineering controls referenced herein shall be strictly adhered to, until completion of exposure assessment with results indicating exposures below the "Action Level". This section does not involve lead abatement by CT DPH regulation, but identified worker protection requirements for trades involved in the renovation/demolition and disposal procedures if lead is involved in the waste stream.

1.3 DEFINITIONS

A. The following definitions relative to lead paint as used in this Section are offered:

1. Action Level (AL): The allowable employee exposure, without regard to use of respiratory protection, to an airborne concentration of lead over an eight (8) hour time weighted average (TWA), as defined by OSHA. The current action level is thirty micrograms per cubic meter of air (30 ug/m³).
2. Area Monitoring: The sampling of lead concentrations, which is representative of the airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.
3. Biological Monitoring: The analysis of a person's blood and/or urine, to determine the level of lead concentration in the body.
4. Change Room: An area provided with separate facilities for clean protective work clothing and equipment and for street clothes, which prevents cross-contamination.
5. Competent Person: A person employed by the Contractor who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions, and who has authorization to take prompt corrective measures to eliminate them as defined by OSHA.
6. Exposure Assessment: An assessment conducted by an employer to determine if any employee may be exposed to lead at or above the action level.
7. "High Efficiency Particulate Air" (HEPA): A type of filtering system capable of filtering out particles of 0.3 microns diameter from a body of air at 99.97% efficiency or greater.
8. Lead: Refers to metallic lead, inorganic lead compounds and organic lead soaps. Excluded from this definition are other organic lead compounds.
9. Lead Work Area: An area enclosed in a manner to prevent the spread of lead dust, paint chips, or debris resulting from lead-containing paint disturbance.
10. Lead Paint: Refers to paints, glazes and other surface coverings containing a toxic level of lead.
11. Permissible Exposure Limit (PEL): The maximum allowable limit of exposure to an airborne concentration of lead over an eight (8) hour time weighted average (TWA), as defined by OSHA. The current PEL is fifty micrograms per cubic meter of air (50 ug/m³). Extended workdays lower the PEL by the formula: PEL equals 400 divided by the number of hours of work.
12. Personal Monitoring: Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 29 CFR 1926.62 and 29 CFR 1910.1025. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a sphere with a radius of 18 inches and centered at the nose or mouth of an employee.
13. Resource Conservation Recovery Act (RCRA): RCRA establishes regulatory levels of hazardous chemicals. There are eight (8) heavy metals of concern for disposal: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and

silver. Six (6) of the metals are typically found in paints, excluding selenium and silver.

14. Toxic Level Of Lead: A level of lead, when present in dried paint or plaster, contains more than 0.50% lead by dry weight as measured by atomic absorption spectrophotometry (AAS) or 1.0 mg/cm' as measured by on-site testing utilizing an x-ray fluorescence analyzer. (Term is specific to State of CT regulations and HUD guidelines only)
15. Toxicity Characteristic Leachate Procedure (TCLP): The U.S. Environmental Protection Agency (USEPA) required sample preparation and analysis for determining the hazard characteristics of a waste material.

1.4 REGULATIONS AND STANDARDS

- A. The following regulations, standards, and ordinances of federal, state, and local agencies are applicable and made a part of this specification by reference:
 1. American National Standards Institute (ANSI) ANSI 288.2 - 1980 Respiratory Protection
 2. Code of Federal Regulation (CFR)
 - a. 29 CFR 1910.134 - Respiratory Protection
 - b. 29 CFR 1910.1025 - Lead
 - c. 29 CFR 1926.62 - Lead in Construction Interim Final Rule
 - d. 29 CFR 1910.1200 - Hazard Communication
 - e. 29 CFR 1926.59 - Hazard Communication in Construction
 - f. 29 CFR 1926.55 - Gases, Vapors, Fumes, Dusts, and Mists
 - g. 29 CFR 1926.57 - Ventilation
 - h. 40 CFR 260 - Hazardous Waste Management Systems: General
 3. 40 CFR 261 - Identification and Listing of Hazardous Waste
 4. 40 CFR 262 - Generators of Hazardous Waste
 5. 40 CFR 263 - Transporters of Hazardous Waste
 6. 40 CFR 264 - Owner and Operators of Hazardous Waste Treatment, Storage, and
 7. Disposal Facilities
 - a. 40 CFR 265 - Interim Statutes for Owner and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - b. 40 CFR 268 - Lead Disposal Restrictions
 - c. 40 CFR 172 - Hazardous Materials Tables and Communication Regulations
 - d. 40 CFR 178 - Shipping Container Specifications
 - e. 40 CFR 270 and 124 - Hazardous Waste Permits
 8. Underwriters Laboratories, Inc. (UL) UL586 - 1990 High Efficiency Particulate Air Filter Units

1.5 QUALITY ASSURANCE

A. Hazard Communication Program

The Contractor shall establish and implement a Hazard Communication Program as required by 29 CFR 1926.59.

B. Compliance Plan (Site Specific)

The contractor shall establish a written compliance plan, which is specific to the project site, to include the following:

1. A description of work activity involving lead including equipment used, material included, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices.
2. Methods of engineering controls to be used to control lead exposure.
3. The proposed technology the Contractor will implement in meeting the PEL.
4. Air monitoring data documenting the source of lead emissions.
5. A detailed schedule for implementing the program, including documentation of appropriate supply of equipment, etc.
6. Proposed work practice which establishes proper protective work clothing, housekeeping methods, hygiene facilities, and practices.
7. Worker rotation schedule, if proposed, to reduce TWA.
8. A description of methods for informing workers of potential lead exposure.

C. Hazardous Waste Management

The Contractor shall establish a Hazardous Waste Management Plan, which shall comply with applicable regulations and address the following:

1. Identification of hazardous wastes
2. Estimated quantity of waste to be disposed of
3. Names and qualifications of each sub-contractor that will be transporting, storing, treating, and disposing of wastes
4. Disposal facility location and 24 hour point of contact
5. Establish EPA state hazardous waste and identification numbers if applicable
6. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes
7. List of waste handling equipment to be used in performing the work to include cleaning, volume reduction, if applicable, and transport equipment
8. Qualifications of laboratory to be utilized for TCLP sampling and analysis
9. Spill prevention, containment, and cleanup contingency measures
10. Work plan and schedule for waste containment, removal, treatment, and disposal

D. Medical Examinations

1. Before exposure to lead contaminated dust, provide workers with a comprehensive medical examination as required by 29 CFR 1910.1025 and 29 CFR 1926.62.

2. The examination shall not be required if adequate records show that employees have been examined as required by 29 CFR 1926.62 within the last year.
3. Medical examination shall include, at a minimum, approval to wear respiratory protection and biological monitoring.

E. Training

1. The Contractor shall ensure that workers are trained to perform lead paint disturbing activities and disposal operations prior to the start of work in accordance with 29 CFR 1926.62.

F. Respiratory Protection Program

1. The Contractor shall furnish each employee required to wear a negative pressure respirator with a respirator fit test at the time of initial fitting and at least once every six (6) months thereafter as required by 29 CFR 1926.62.
2. The Contractor shall establish a Respiratory Protection Program in accordance with ANSI Z88.2, 29 CFR 1910.134, and 29 CFR 1926.62.

1.6 SUBMITTALS

A. The Contractor shall submit to the Owner the following submittals prior to start of work:

1. Copies of medical records for each employee to be used on the project, including results of biological monitoring and a notarized statement by the examining physician that such an examination took place.
2. Copies of workers' training certificates.
3. Submit record of successful respirator fit testing performed by a qualified individual within the previous six (6) months, for each employee to be used on this project with the employee's name and social security number with each record.
4. The name and address of Contractor's blood lead testing lab, OSHA-CDC listing, and Certification in the State of Connecticut.
5. The name and address of Contractor's personal air monitoring and waste disposal lead testing laboratory/ies.
6. Name, address, and ID number of the hazardous waste hauler, waste transfer route, and proposed disposal site.

B. The Contractor shall submit to the Owner the following submittals during the job:

1. Results from personal air samples.
2. Medicals, certificates, and fit test 24 hours in advance of any new employee starting on the project.

C. The Contractor shall submit to the Owner the following submittals upon completion of the work:

1. Copies of manifests and receipts acknowledging disposal of all hazardous waste material from the project showing delivery date, quantity, and appropriate signature of landfill's authorized representative.

1.7 PERSONAL PROTECTION

A. Exposure Assessment

1. The Contractor shall determine if any worker will be exposed to lead at or above the action level.
2. The exposure assessment shall identify the level of exposure a worker would be subjected to without respiratory protection.
3. The exposure assessment shall be achieved by obtaining personal monitoring samples representative of a full shift at least (8-hour TWA).
4. During the period of the exposure assessment, the Contractor shall institute the following procedures for protection of workers.
 - a. Protective clothing shall be utilized
 - b. Respiratory protection
 - c. Change areas shall be provided
 - d. Hand washing facilities and shower
 - e. Biological monitoring
 - f. Training of workers

B. Respiratory Protection

1. The Contractor shall furnish appropriate respirators approved by NIOSH/MSHA for use in atmospheres containing lead dust.
2. Respirators shall comply with the requirements of 29 CFR 1926.62.
3. Workers shall be instructed in all aspects of respiratory protection.
4. The Contractor shall have an adequate supply of HEPA filter elements and spare parts on site for all types of respirators in use.
5. The following minimum respirator protection for use during paint removal or demolition of components and surfaces with lead paint shall be the 1/2 mask air purifying respirator with high efficiency filters for exposures (not in excess of 500 ug/m³ or 10 x PEL).

C. Protective Clothing

1. Personal protective clothing shall be provided for all workers, supervisors, and authorized visitors entering the work area.
2. Each worker shall be provided with a minimum of two (2) complete disposable coverall suits.
3. Removal workers shall not be limited to two (2) suits, and the Contractor shall supply additional suits as necessary.

4. Under no circumstances shall anyone entering the abatement area be allowed to re-use a contaminated disposable suit.
5. Disposable suits, such as TYVEK suits, and other personal protective equipment (PPE) shall be donned prior to entering the lead control area. A change room shall be provided for workers to put on suits and other personal protective equipment with separate areas to store their street clothes.
6. Eye protection for personnel engaged in lead operations shall be furnished when the use of a full-face respirator is not required.
7. Goggles with side shields shall be worn when working with power tools or a material that may splash or fragment, or if protective eye wear is specified on the Safety Data Sheet (SDS) for a particular product to be used on the project.

1.8 PERSONAL MONITORING

- A. General: The Contractor is required to perform the personal air sampling activities during lead paint disturbing work. The results of such sampling shall be posted, provided to individual workers and submitted to the Owner as described herein.
- B. Sampling: Samples shall be taken for the duration of the work shift or for eight hours, whichever is less. Personal samples need not be taken every day after the first day if working conditions remain unchanged, but must be taken every time there is a change in removal operations, either in terms of the location or the type of work. Sampling will be used to determine eight-hour Time-weighted averages (TWA). The Contractor is responsible for personal sampling as outlined in OSHA Standard 29 CFR 1926.62 and 29 CFR 1910.1025.
- C. Sampling Results: Air sampling results shall be reported to individual workers in written form no more than forty-eight (48) hours after the completion of a sampling cycle. The reporting document shall list each sample's result, sampling time and date, personnel monitored and their social security numbers, flow rate, sample duration, sample yield, cassette size, and analysts' name and company, and shall include an interpretation of the results. Air sample analysis results will be reported in micrograms/cubic meter ($\mu\text{g}/\text{m}^3$).
- D. Testing Laboratory: The Contractor's testing lab shall be participating in AIHA's Environmental Lead Laboratory Accreditation Program (ELLAP). The Contractor shall submit to the Consultant for review and acceptance, the name and address of the laboratory, certification(s) of AIHA participation, a listing of relevant experience in air lead analysis, and presentation of a documented Quality Assurance and Quality Control Program.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Any substitution in materials, equipment, or methods to those specified shall be approved by the Owner prior to use. Any requests for substitution shall be provided in writing to the Owner. The request shall clearly state the rationale for the substitution.
- B. Submit to the Owner product data of all materials and equipment and samples of all materials to be considered as an alternate.
- C. Product data shall consist of manufacturer; catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, safety data sheets (SDS), and other standard descriptive data. Submittal data shall be clearly marked to identify pertinent materials, products or equipment and show performance characteristics and capacities.
- D. Samples shall be of sufficient size and quantity to clearly illustrate the functional characteristics of the product or material with integrally related parts and attachment devices.

2.2 MATERIALS AND PRODUCTS

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Damaged or deteriorating materials shall not be used and shall be removed from the premises.
- C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape, and air filters.
- D. Materials:
 - 1. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to job site with factory label indicating 6 mil.
 - 2. Polyethylene disposable bags shall be six (6) mil. Tie wraps for bags shall be plastic, five (5) inches long (minimum), pointed and looped to secure filled plastic bags.
 - 3. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
 - 4. Impermeable containers are to be used to receive and retain any lead containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with EPA and DOT standards.)

5. HEPA filtered exhaust systems shall be used during powered dust generating abatement operations. The use of powered equipment without HEPA exhausts is prohibited.

2.3 TOOLS AND EQUIPMENT

- A. Provide suitable tools for all lead disturbing operations.
- B. The Contractor shall have available power cables or sources such as generators (where required).
- C. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining 99.97% of all mono-dispersed particles of 0.3 micrometers in diameter.

PART 3 - EXECUTION

3.1 WORKER PROTECTION/TRAINING

- A. The Contractor shall provide appropriate training, respiratory and other personal protection, and biological monitoring for each worker and ensure proper usage during potential lead exposure and the initial exposure assessment.
- B. Workers who will perform procedures must have completed one of the following training courses:
 1. EPA Lead Abatement Supervisor (40 hours)
 2. EPA Lead Abatement Worker (32 hours)
 3. HUD/EPA course "Work Smart, Work Wet, and Work Clean to Work Lead Safe" (8 hours)
 4. HUD/NARI course "The Remodeler's and Renovator's Lead Based Paint Training Program" (8 hours).
 5. HUD "Lead Safe Work Practices" (8 hours)

3.2 CONTRACTOR'S RESPONSIBILITIES

- A. The Contractor is responsible for establishing and maintaining controls referenced herein to prevent dispersal of lead contamination from the lead work area.
- B. The Contractor is also responsible for conducting work with applicable federal, state, and local regulations as referenced herein.

3.3 WORKER HYGIENE PRACTICES (REQUIRED DURING INITIAL EXPOSURE ASSESSMENT AND IF RESULTS OF AIR SAMPLING ARE ABOVE OSHA ACTION LEVEL)

- A. Work Area Entry: Workers shall don personal protective equipment prior to entering work area, including respiratory protection, disposable coveralls, gloves, headgear, and footwear.
- B. Work Area Departure: While leaving respirators on, workers shall remove all gross contamination, debris, and dust from disposable coveralls and proceed to change room and remove coveralls and footwear and place in hazardous waste disposal container.
- C. Hand washing Facilities: All workers must wash their hands and faces upon leaving the work area.
- D. Equipment: All equipment used by workers inside the work area shall be wet wiped or bagged for later decontamination before removal from the work area.
- E. Prohibited Activities: Under no circumstances shall workers eat, drink, smoke, chew gum, or tobacco, or remove their respirators in the work area.
- F. Shock Hazards: The Contractor is responsible for using safe procedures to avoid electrical hazards. All temporary electrical wiring will be protected by ground fault circuit interrupters (GFI).

3.4 LEAD WORK AREA (REQUIRED DURING INITIAL EXPOSURE ASSESSMENT AND IF RESULTS OF AIR SAMPLING ARE ABOVE OSHA ACTION LEVEL)

- A. The Contractor shall place warning signs at all entrances and exits from the work area. Signage shall be a minimum of 20" x 14" and shall state the following:
WARNING
LEAD WORK AREA
POISON
NO SMOKING OR EATING OR DRINKING
UNAUTHORIZED ENTRY PROHIBITED
- B. The Contractor shall designate a change room as specified in this Section. The change room shall consist of two (2) layers of sheeting on the floor surface adjacent to the lead work area. The change room shall have separate storage facilities for street clothes to avoid cross contamination.
- C. The Contractor shall provide potable water for hand and face washing and provide a portable shower unit.
- D. The Contractor shall place six-mil polyethylene drop cloths on floor/ ground surfaces prior to beginning removal work to facilitate clean-up.

3.5 WORK AREA CLEAN UP

- A. The Contractor shall remove all loose chips and debris from floor surfaces and place in hazardous waste disposal bags.
- B. The Contractor shall HEPA vacuum adjacent surfaces to remove dust and debris.
- C. Polyethylene drop cloths shall be properly disposed of,

3.6 WASTE DISPOSAL

- A. The Contractor's contractual liability shall be the proper disposal of all non-hazardous and hazardous wastes generated at the site in accordance with all applicable federal, state, and local regulations as referenced herein. Metal lead based paint components may be segregated for recycling at an approved facility. TCLP sampling from the area of renovation waste must be performed by the contractor to properly classify the waste as normal construction debris or regulated lead hazardous waste. Langan may also perform TCLP sampling of the building waste to confirm the contractor's sample results and Langan's results will supersede the contractor's results if there is a different classification result.

END OF SECTION 028313

SECTION 028416 - UNIVERSAL WASTE REMOVAL AND RECYCLING**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. General Provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Refer to all drawings and/or other Sections of these specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.
- C. Sections containing requirements related to this Section include, but are not limited to:
 - 1. Section 028200 – Selective Hazardous Building Materials Abatement Demolition
 - 2. Section 028213 – Asbestos Abatement
 - 3. Section 028313 – Lead-Based Paint Awareness
 - 4. HBM – 01 & 02 – Hazardous Building Materials Abatement Drawings

1.2 SUMMARY OF WORK

- A. Work of this Section includes, but is not necessarily limited to, all which is necessary for complete removal and recycling/disposal of all PCB-containing ballasts, newer ballasts, mercury containing devices, electronics, alarms, emergency lighting, signage, paints, chemicals, science equipment/chemicals/contaminated piping/waste traps, batteries, CFC's, air conditioners, boiler and HVAC controls, other hazardous materials, wastes and special wastes that exist in the interior/exterior of the building structure(s) that might be impacted by proposed renovation/demolition of the buildings/additions. The hazardous materials contractor will supply the packaging materials and pay for the proper disposal of these materials. The hazardous materials contractor will provide the labor to put the materials into the proper packaging for disposal.
 - 1. All work including the removal, characterization (any testing that may be required by disposal facility) and disposal of hazardous materials and chemicals.
 - 2. Removal, characterization (any testing that may be required by disposal facility) and disposal of fluorescent light ballasts and capacitors throughout all site structures.
 - 3. Removal, characterization (any testing that may be required by disposal facility) and disposal of all containers, drums and unknown materials as well as fire extinguishers.
 - 4. Removal, characterization (any testing that may be required by disposal facility) and disposal of contained gear oils, hydraulic oils and refrigeration liquids, etc. from various pieces of equipment.

5. Removal, characterization (any testing that may be required by disposal facility) and recycling/disposal of batteries, electronic devices, lighting signage, etc.
 6. Removal, characterization (any testing that may be required by disposal facility) and recycling/disposal of science equipment, contaminated piping, chemicals, waste traps, etc.
 7. 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.
 8. Comply with Health and Safety Plans.
- B. The Contractor, under this Section, shall provide all materials, labor, equipment and appliances as necessary to properly remove and recycle/dispose of materials.

1.3 DESCRIPTION OF WORK

- A. This specification covers the proper and legal removal and disposal of all Hazardous/Universal Waste from areas of renovation at the New Ridgefield Board of Education in the lower and first floor level of the Venus Building located in Ridgefield, Connecticut. The removal and disposal activities shall comply with all aspects of the contract documents and Federal, State and local requirements.
- B. Universal Wastes shall include, but not be limited to, fluorescent bulbs, light fixture ballasts containing polychlorinated bi-phenyls (PCBs) or DEHP, mercury lamps, thermostats and switches, batteries, fire extinguishers, Halon fire suppression systems, alarms, emergency lighting, paint, chemicals, air conditioners, science equipment/chemicals/contaminated piping/waste traps, refrigerants, electronic devices (computers, monitors and signage), and other compressed gases, mechanical fluids, oils, and lubricants. Whenever there is a conflict or overlap within these specifications and between applicable codes and regulations, the most stringent provision specified shall apply.
- C. The Venus Building was constructed circa 1917 with additions in 1920. It is three stories and the approximate total square footage is 95,000 square feet.
- D. The proposed redevelopment consists of renovation to portions of the lower and first floor areas.
- E. The Contractor shall independently identify and quantify all Universal Waste Items.

1.4 SUBMITTALS

- A. Before Start of Work: Submit the following to the Owner's Representative for review. Do not start work until these submittals are returned with Owner's Representative's approval.

1. Copy of State or local license for hazardous waste hauler;
2. Certification of at least one on-site supervisor which has satisfactorily completed the OSHA 40 Hour Health and Safety Course for Handling Hazardous Materials;
3. Certificates of workers which have successfully completed at least the OSHA 40-Hour Health and Safety Course for Hazardous Materials;
4. Certificates of workers which have successfully completed the required employee training for universal/hazardous waste or appropriate type of training to the type of wastes being managed;
5. Name and address of the universal waste handler and/or a destination facility where the waste materials is to be treated, deposited or recycled in accordance with all regulatory requirements (include contact person and telephone numbers), if the universal waste meets the definition of hazardous waste, the name and address of the hazardous waste treatment, storage and disposal (TSD) facility;
6. Work Plan: Provide a detailed written work plan that describes the procedures for the removal,
 - a. Proposed level of worker training for each type of regulated and/or hazardous material to be removed.
 - b. Names and applicable licenses of key personnel.
 - c. Proof of appropriate training for workers.
 - d. Proof of a current medical surveillance program for all personnel.
 - e. Safety Data Sheets (SDS) for any chemicals to be used on the project. All products to be used on this project must have SDS approved by the Owner's Environmental Consultant.
 - f. Proposed detailed work schedule.
7. Following final removal, and disposal or destruction, provide Owner with waste transport and disposal documents (e.g., manifests), as well as certificates of destruction and recycling as appropriate.

1.5 CODES AND REGULATIONS

- A. Regulatory compliance includes but is not necessarily limited to applicable requirements set forth by :

1. Federal Regulations:
 - a. 29 CFR 1910, "Occupational Safety and Health Standards"(General Industry Standards)
 - b. 29 CFR 1910.134 "Respiratory Protection"
 - c. 29 CFR 1910.1200 "Hazard Communication"
 - d. 29 CFR 1926, "Safety and Health Regulations for Construction" (Construction Industry Standards)
 - e. 40 CFR 50, "National Primary and Secondary Ambient Air Quality Standards"
 - f. 40 CFR 60, "Standards of Performance for New Stationary Sources," Appendix B, "Test Methods"

- g. 40 CFR 117, "Determination of Reportable Quantities for Hazardous Substances"
 - h. 40 CFR 122, "USEPA Administered Permit Program: The National Pollutant Discharge Elimination System"
 - 2. 40 CFR 172, "Hazardous Waste Transportation"
 - 3. 40 CFR 261, "Identification and Listing of Hazardous Waste"
 - 4. 40 CFR 262, "Standards Applicable to Generators of Hazardous Waste"
 - a. 40 CFR 263, "Standards Applicable to Transporters of Hazardous Waste"
 - b. 40 CFR 268, "Land Disposal Restrictions"
 - c. 40 CFR 273, "Universal Waste Rule"
 - d. 40 CFR 300, "National Oil and Hazardous Substances Pollution Contingency Plan"
 - e. 40 CFR 302, "Designation, Reportable Quantities, and Notification"
 - f. 40 CFR 112 (oil pollution prevention)
 - g. 40 CFR 279 (used oil)
 - h. 40 CFR 273 (Universal Wastes)
 - i. 40 CFR 761 (PCBs)
 - j. Toxic Substances Control Act (TSCA), US-EPA
 - 5. Resource Conservation and Recovery Act (RCRA)
 - a. Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) (Superfund Law)
 - 6. Connecticut Regulations:
State requirements which govern universal waste removal and disposal include but are not necessarily limited to the following:
 - a. Connecticut Department of Environmental Protection (DEEP) (Hazardous and Universal Waste Management Regulations); Section 22a-454, 456 Waste Facility and Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA), respectively.
 - b. Connecticut DEEP; 310 CMR 40 Connecticut Contingency Plan, 310 CMR 30 Hazardous Waste Regulations, 310 CMR 1-7 Clean Water Act, 310 CMR 16, 19 Solid Waste Regulations, 314 CMR 1-8 Clean Air Act
 - c. Local Town, City or County Bylaws, rules and regulations.
- B. Under TSCA, items that contain more than 500 parts per million (PPM) of PCB's are classified as PCB material, items that contain between 50 ppm and 500 ppm of PCB are classified as PCB-contaminated and items that contain less than 50 ppm of PCB's are classified as non-PCB items.

Under the Small Capacitor Exemption, TSCA has allowed the disposal of non-leaking, intact “small capacitors”, defined as containing less than three pounds of PCB dielectric fluid, in a municipal solid waste landfill. Light ballasts containing a small PCB capacitor are covered under this category. The intent of the “small capacitor” disposal rule is for “random disposal” in a landfill by “householders and other infrequent disposers”. When commercial and industrial entities dispose of large quantities of small PCB capacitors, the EPA strongly encourages voluntary collection and disposal of PCB capacitors in chemical waste landfills or high-temperature incinerators.

- C. Under the “Superfund” laws, PCB’s are specifically listed as a hazardous substance. The “release” of more than one pound of PCB’s into the environment triggers a “Superfund” notification and cleanup requirement.

Since twenty-five ballasts collectively contain approximately one pound of PCB’s, the disposal of twenty five or more PCB-containing ballast in a landfill would trigger a “Superfund” action.

- D. The State of Connecticut General Hazardous Waste Statue 22A 454, 456 requires that PCB ballast must be incinerated or sent to a chemical waste landfill. The statue defines PCB waste, including PCB ballast, as Connecticut Regulated Wastes.

- E. Other Regulations: The other relevant regulations affecting disposal of PCB’s include the following:

1. Department of Transportation (DOT) regulations – DOT regulation HM-181 regulates transportation of hazardous materials, including PCB’s.
2. Occupational Safety and Health Administration (OSHA) – OSHA regulates worker’s safety and exposure to a variety of chemicals including PCB’s.
3. Resource Conservation and Recovery Act (RCRA) – RCRA regulates wastes, which fail Toxic Characteristic Leachate Procedure (TCLP) and which contain more than 50 ppm of PCB’s.

PART 2 - PRODUCTS

2.1 GENERAL

- A. 35 or 55-gallon metal, fiber drums or containers with lids that can be secured and sealed, DOT approved.
- B. Appropriate waste labels identifying contents as regulated and hazardous wastes as defined by 49 CFR 172.
- C. Fluorescent Lamp Disposal (Crusher) units, such as DexTrite Fluorescent® Lamp Disposal equipment, or equivalent. Such equipment must be capable of capturing fugitive mercury vapors during the bulb crushing process, as well as the fractured and broken waste products.

- D. HEPA and charcoal filter equipped mercury capture vacuum.
- E. Cardboard boxes and sleeves for packaging lamps that will be removed from the site intact or unbroken.
- F. Recovery tanks to temporarily hold compressed gasses.
- G. Health & Safety equipment complying with health and safety plan.

PART 3 - EXECUTION

3.1 GENERAL

- A. Procedures and methods contained herein are to provide guidance to protect from the contamination of the environment, and exposure to workers, while handling hazardous waste and regulated waste-streams for disposal/recycling/destruction.
- B. Owner to Stop Work: The Owner's representative and the Owner's Environmental Consultant shall have the authority to stop the work at any time that conditions are not within Specification and/or applicable regulations. The stoppage of work shall continue until conditions have been corrected to the satisfaction of the Owner's representative or Owner's Environmental Consultant. Standby time to resolve the problems shall be at the Contractor's expense.
- C. Personal Protective Equipment:
 - 1. Personal protective equipment shall consist of (at a minimum) safety goggles or other protective eye-ware, work shoes with non-slip soles (e.g., neoprene), chemical resistant gloves that cover the hand and an apron that covers the front of the worker's body from shoulder to toes (e.g., neoprene or nitrile gloves).
 - 2. Personal protective equipment contaminated by handling operations should be disposed of as contaminated waste.
 - 3. Hammering or sudden impact methods for removing ballasts from the light fixture shall not be employed, as such methods may cause leakage in an otherwise non-leaking ballast.
 - 4. Throwing and tossing of ballasts into disposal drums shall not be conducted, as such activities may cause leakage in an otherwise non-leaking ballast.
- D. Work Procedures
 - 1. Contractor shall obtain a hazardous waste generator number from Region I, USEPA for the Owner.
 - 2. During the light fixture removal stage during demolition, the following procedures (or equivalent alternate but protective measures) shall be followed:

- a. Carefully remove fixtures, and stack them in a designated portion of the work area.
 - b. Designate an area where the fixtures can be disassembled, and components removed and segregated (e.g., lamps, ballasts). The area should be remote from other demolition activities, and have adequate ventilation and lighting.
 - c. The work area for fixture disassembly shall (at a minimum) have the floor lined with one layer of 6-mil fire-retardant polyethylene plastic to control accidental spills or breakage. The work area should have a table or other solid work platform to facilitate disassembly of the fixtures, and the protective plastic sheeting should cover the work table area and waste drums/lamp crushing/lamp repackaging equipment.
 - d. Carefully remove lamps from fixtures, and either crush them or repackage them for disposal.
 - e. In the event a lamp breaks, utilize the mercury capture vacuum to remove all debris generated.
3. Carefully remove ballasts, and segregate for disposal in the following manner:
 - a. Ballasts labeled as "No-PCBs" shall NOT be segregated and shall be treated as PCB waste as potting material may contain PCBs and DEHP. Handle and dispose of in the same manner as ballasts containing PCBs and/or DEHP.
 - b. Non-leaking ballasts shall be segregated and drummed for disposal as hazardous wastes. These ballasts may be destroyed by high temperature incineration, or land filled at a properly permitted facility.
 - c. Leaking ballasts shall be segregated and drummed. Punctures or damage to these ballasts exposes an oily or tar-like substance. These ballasts, and all materials it contacts, MUST be incinerated under TSCA; they cannot be landfilled.

E. Miscellaneous Stored Materials In Containers

1. Miscellaneous materials may include antifreeze, cleaning solutions, paints, and other miscellaneous materials.
2. During removing/recycling of materials enclosed in their original container, the Contractor shall package, and label (lab packed) by waste classification in accordance with appropriate RCRA and Connecticut Department of Transportation (ConnDOT). In turn these containers shall be transported, under proper manifesting procedures, to a recycling facility. The facility shall forward a certificate of recycling or disposal to the Contractor, who shall submit this information to the Owner.

F. Universal Waste

Universal waste includes, but is not limited to, fluorescent bulbs, light fixture ballasts containing polychlorinated bi-phenyls (PCBs) or DEHP, mercury lamps and switches, batteries, fire extinguishers, Halon fire suppression systems, paint, refrigerants, electronic devices (computers and monitors), and other compressed gases, mechanical fluids, oils, and lubricants, as defined in 40 CFR 273 and Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA). Follow procedures for handling, storage, labeling, shipping, recording keeping and other procedures as required in 40 CFR 273 and Section 22a-449(c)-113.

G. Regulated Waste

1. Non-thermostat mercury switches: Handle and dispose of in accordance with State regulation and applicable Federal regulations.
2. Used oil: Handle and dispose of in accordance with State regulations.
3. Refrigerants: Prior to disposal of refrigerant containing equipment, verify that refrigerant has been removed per the requirements of 40 CFR Part 82 (Protection of Stratospheric Ozone).
4. Diesel fuel: If possible, use on site to run equipment. Dispose of or recycle any remaining fuel as per applicable regulations.
5. Fire extinguishers: Contact manufacturer for recycling or donate to local fire department.
6. Halon Fire Suppression System: For recovery and management of Halon, utilize a technician EPA certified in appropriate level for the system. Technician is to use an EPA-certified reclaimer for disposal.

H. Transportation

1. Transport waste materials using properly permitted vehicles operated by drivers with Commercial Drivers Licenses (CDLs) and Hazardous Materials endorsements. Coordinate transportation routes with Connecticut Department of Transportation (ConnDOT). Provide Owner with copies of transporter certifications and EPA ID number a minimum of seven (7) days prior to first use. Chain of custody records shall be maintained which include the date of pickup, number of drums, name of transporter and destination.

I. Waste Disposal Documentation

1. Waste shipment records and manifests for all materials transported from the site as required by regulations and disposal facility are to be provided to the Owner every five (5) business days. Incorporate this information into the close out package to be provided to the Owner. Within thirty (30) days of generation, Contractor shall provide waste manifests/shipment records and Certificates of Recycling and Disposal (CRD) to Owner.
2. Certificates of Discontinuance for all equipment and fixtures.

J. Disposal Facilities

1. Contractor shall use only disposal facilities which have been pre-approved by the Owner and its insurers and with valid regulatory permits for type of waste being handled. Provide Owner with copies of disposal facility regulatory permits and EPA identification number a minimum of seven (7) days prior to shipping to that facility. Provide disposal facility required documentation including additional waste sampling.

END OF SECTION 028416

SECTION 040100 – MASONRY RESTORATION & CLEANING**PART 1 – GENERAL****1.01 SUMMARY**

- A. Provide restoration and cleaning of existing masonry:
 - 1. Removal of plant growth
 - 2. Repair of damaged masonry
 - 3. Chemical cleaning exposed masonry surfaces
 - 4. Re-pointing mortar joints
 - 5. Repair of damaged stone

1.02 MOCK-UP

- A. Perform test cleaning to demonstrate and select appropriate cleaning materials, mixes, and methods.
- B. Provide sample area of re-pointing to establish quality of work, color, and profile of joints.

1.03 FIELD CONDITIONS

- A. Protect persons and property from injury and damage from cleaning operations. Do no work when winds prevent control of cleaners or rinse water.
- B. Dispose of run-off in a legal manner.
- C. For chemical cleaning, clean only when ambient temperature of 40 degrees F and above will be maintained during cleaning and for 7 days after.

PART 2 – PRODUCTS**2.01 MATERIALS**

- A. Re-pointing mortar: Match existing units and mortar in color, texture, and setting with formulation based on project conditions.
 - 1. If historic structure or structure suspected to have lime-based mortar, or as directed by Architect, conduct a mortar analysis through a qualified testing lab.
 - 2. The compressive strength of the repointing mortar shall be equal to or less than the compressive strength of the original mortar and surrounding brick or stone.
- B. Masonry cleaners, in dilution suitable for project conditions:
 - 1. Acidic cleaner; SureKlean Heavy Duty Restoration Cleaner by ProSoCo, Inc. or approved equal. Do not use acidic cleansers on masonry that is acid sensitive. In those cases, substitute an alkaline-based cleaner.
 - 2. Limestone cleaner; SureKlean Limestone Prewash and Afterwash by ProSoCo, Inc or approved equal.
 - 3. Chemical paint remover; SureKlean Heavy-Duty Paint Stripper by ProSoCo, Inc. or approved equal.
 - 4. No abrasive cleaning (e.g. sand or grit blasting, grinding, sanding discs, etc.) permitted unless authorized by Architect.

PART 3 – EXECUTION**3.01 INSTALLATION**

- A. Chemical cleaning: Comply with cleaning chemical manufacturer's instructions, recommendations, and precautions. Protect adjacent surfaces with masking agent or other effective means. Clean surfaces in strict conformance with approved field tests and match mock-up panels. Provide uniform final appearance as approved by Architect.
- B. Re-pointing: Obtain materials from one source to maintain consistency of color, texture, and quality. Work only when ambient temperature of 40 degrees F to 80 degrees F will be maintained until 72 hours after completion. Remove old mortar by hand chisel and mallet unless Contractor can demonstrate how power tools will not damage masonry. Rake out old mortar to depth equal to 2-1/2 times joint width and in no case less than 1/2 inch or depth required to expose sound mortar. Do not damage masonry units. Rinse joints and install pointing mortar in 1/2" deep layers. Tool joints to match existing and cure mortar for not less than 72 hours. After pointing, clean masonry using Tampico fiber brushes and running water.

END OF SECTION

SECTION 061000 – ROUGH CARPENTRY

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes:

1. Structural dimension lumber framing
2. Engineered wood products
3. Fire stop blocking provided where indicated and where required by code
4. Non-structural dimension lumber framing
5. Rough opening framing for doors, windows, and roof openings
6. Sheathing
7. Subflooring and underlayment
8. Preservative treated wood materials
9. Fire retardant treated wood materials
10. Communications and electrical room mounting boards
11. Concealed wood blocking, furring, sleepers, nailers, and supports
12. Miscellaneous wood nailers, furring, and grounds
13. Water resistive barrier over wall sheathing and base of wood framed wall adjacent masonry, slabs, or grade
14. Prefabricated engineered wood trusses

1.02 RELATED REQUIREMENTS

- ##### **A. Refer to interior elevations for locations of bath accessories and associated blocking.**

1.03 SUBMITTALS

- ##### **A. Provide shop drawings and calculations for prefabricated wood trusses.**

PART 2 – PRODUCTS

2.01 GENERAL REQUIREMENTS

- ##### **A. Dimension lumber: Comply with PS 20 and requirements of specified grading agencies. Finished 4 sides, 15% max moisture content.**
1. Light framing: Species: Douglas Fir or Southern Pine, unless otherwise indicated. Appearance grade where exposed.
 2. Structural framing and timbers: No.1 grade Douglas fir or southern pine or better, appearance grade where exposed.
 3. Wood for nailers, blocking, furring and sleepers: Construction grade, finished 4 sides, 15% maximum moisture content. Pressure preservative treat items in contact with roofing, flashing, waterproofing, masonry, concrete, or the ground.
 4. Grading Agency: Any grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee (www.alsc.org) and who provides

grading service for the species and grade specified. Provide lumber stamped with grade mark unless otherwise indicated.

- B. Lumber fabricated from old growth timber is not permitted.

2.02 STRUCTURAL COMPOSITE LUMBER

- A. Structural composite lumber: Factory fabricated beams, headers, and columns, of sizes and types indicated on drawings; structural capacity as published by manufacturer.

1. Beams: Use laminated veneer lumber, laminated strand lumber, or parallel strand lumber with manufacturer's published E (modulus of elasticity): 1,800,000 psi (12,410 MPa), minimum.

2.03 CONSTRUCTION PANELS

1. Subfloor/underlayment combination: Any PS 2 type, rated Single Floor. Exposure class: exterior, 16-inch span rating, 3/4-inch nominal thickness, square edges
2. Subflooring: APA PRP-108 rated sheathing. Exposure class: exterior, span rating: 32/16 inches.

- B. Underlayment: APA Underlayment; plywood, Exposure 2, 3/4 inch (19 mm) thick. Fully sanded faces at resilient flooring

- C. Roof sheathing: APA PRP-108, Structural I Rated Sheathing, Exterior Exposure Class. Span rating: 24/0 (610/0). Thickness: 3/4 inch (19 mm), nominal.

- D. Wall sheathing: APA PRP-108, Structural I Rated Sheathing, Exterior Exposure Class. Span rating: 24/0 (610/0). Thickness: 5/8 inch (17 mm), nominal.

- E. Communications and electrical room mounting boards: PS 1 A-D plywood, or medium density fiberboard; 3/4 inch (19 mm) thick; flame spread index of 25 or less, smoke developed index of 450 or less, when tested in accordance with ASTM E84.

2.04 ACCESSORIES

- A. Fasteners and anchors:

1. Metal and finish: hot-dipped galvanized steel per ASTM A 153/A 153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere. Simpson or approved equal.

- B. Die-stamped connectors: Hot dipped galvanized steel, sized to suit framing conditions.

- C. Joist hangers: Hot dipped galvanized steel, sized to suit framing conditions.

- D. Sill flashing: As specified in Division 7.

- E. Subfloor glue: Waterproof, water base, air cure type, cartridge dispensed.

- F. Building paper: asphalt saturated felt, non-perforated, ASTM D 226, Type 1. 30# at roof, 15# at walls.

2.05 FACTORY WOOD TREATMENT

- A. Treated lumber and plywood: Comply with requirements of AWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.

1. Fire-retardant treated wood: Mark each piece of wood with producer's stamp indicating compliance with specified requirements.

- B. Preservative-treated wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWWPA standards.
- C. Fire retardant treatment: C27 pressure impregnated, to comply with ASTM E84, Class A, and with AWWPA C20; provide where indicated and where required by code.
- D. Preservative treatment:
 - 1. Preservative pressure treatment of lumber above grade: AWWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative to 0.25 lb./cu ft (4.0 kg/cu m) retention.
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - b. Treat lumber in contact with roofing, flashing, waterproofing, or masonry, concrete or less than 18" above the ground,
- E. Preservative pressure treatment of lumber in contact with soil: AWWPA U1, Use Category UC4A, Commodity Specification A using waterborne preservative to 0.4 lb./cu ft (6.4 kg/cu m) retention.
 - 1. Preservative for field application to cut surfaces: As recommended by manufacturer of factory treatment chemicals for brush-application in the field.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Where wood framing bears on cementitious foundations install continuous, full width sill flashing over top of foundation, lap ends a minimum of 4 inches (100 mm), and seal.

3.02 GENERAL INSTALLATION NOTES

- A. Select material sizes to minimize waste.
- B. Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C. Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.03 FRAMING INSTALLATION

- A. Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B. Make provisions for temporary construction loads and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C. Install structural members full length without splices unless otherwise specifically detailed.
- D. Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes and AFPA Wood Frame Construction Manual.

- E. Construct double joist headers at floor and ceiling openings and under wall stud partitions that are parallel to floor joists; use metal joist hangers unless otherwise detailed.
- F. Frame wall openings with two or more studs at each jamb; support headers on jack studs.
- G. Framing for areas to receive drywall shall be spaced at 16 inches on center typical unless otherwise noted.

3.04 BLOCKING, NAILERS, AND SUPPORTS

- A. Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B. In framed assemblies that have concealed spaces, provide solid wood fire blocking as required by applicable local code to close concealed draft openings between floors and between top story and roof/attic space. Other material acceptable to code authorities may be used in lieu of solid wood blocking.
- C. In walls, provide blocking attached to studs as backing and support for wall-mounted items unless item can be securely fastened to two or more studs, or another method of support is explicitly indicated.
- D. Where ceiling mounting is indicated, provide blocking and supplementary supports above ceiling, unless another method of support is explicitly indicated.

3.05 INSTALLATION OF CONSTRUCTION PANELS

- A. Subflooring or subflooring/underlayment combination: glue and screw to framing at 8 inches on center; staples are not permitted.
- B. Roof sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing. Screw panels to framing; staples are not permitted.
- C. Wall sheathing: Secure with long dimension perpendicular to wall studs and with ends over firm bearing and staggered. Fasten using nails, screws, or staples.
- D. Communications and electrical room mounting boards: Secure with screws to studs with edges over firm bearing; space fasteners at maximum 24 inches (610 mm) on center on all edges and into studs in field of board.
 - 1. At fire-rated walls, install board over wall board indicated as part of the fire-rated assembly.
 - 2. Where boards are indicated as full floor-to-ceiling height, install with long edge of board parallel to studs.
 - 3. Install adjacent boards without gaps.

3.06 TOLERANCES

- A. Framing members: 1/4 inch (6 mm) from true position, maximum.
- B. Surface flatness of floor: 1/8 inch in 10 feet (1 mm/m) maximum, and 1/4 inch in 30 feet (7 mm in 10 m) maximum.
- C. Variation from plane (other than floors): 1/4 inch in 10 feet (2 mm/m) maximum, and 1/4 inch in 30 feet (7 mm in 10 m) maximum.

END OF SECTION

Appendix A
Prevailing Wage Rates

**Minimum Rates and Classifications
for Building Construction**

ID# : B 25082

**Connecticut Department of Labor
Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: 2019-01

Project Town: Ridgefield

State#:

FAP#:

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

CLASSIFICATION	Hourly Rate	Benefits
1a) Asbestos Worker/Insulator (Includes application of insulating materials, protective coverings, coatings, & finishes to all types of mechanical systems; application of firestopping material for wall openings & penetrations in walls, floors, ceilings	38.25	27.96
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Asbestos Worker/Heat and Frost Insulator	40.21	29.30

As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

2) Boilermaker	38.34	26.01
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3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	33.48	33.09 + a
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3b) Tile Setter	34.90	25.87
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3c) Terrazzo Mechanics and Marble Setters	31.69	22.35
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3d) Tile, Marble & Terrazzo Finishers	26.70	21.75
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3e) Plasterer	33.48	32.06
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

-----LABORERS-----

4) Group 1: Laborers (common or general), acetylene burners, carpenter tenders, concrete specialists, wrecking laborers, fire watchers.	30.05	20.10
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4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofers/mixer/nozzlemans (Person running mixer and spraying fireproof only).	30.30	20.10
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4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	30.55	20.10
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4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew whose primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	30.55	20.10
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4d) Group 5: Air track operator, sand blaster and hydraulic drills.	30.55	20.10
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

4e) Group 6: Blasters, nuclear and toxic waste removal.	31.80	20.10
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4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	31.05	20.10
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4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	28.38	20.10
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4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	27.86	20.10
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4i) Group 10: Traffic Control Signalman	16.00	20.10
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5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	32.60	25.34
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

5a) Millwrights	33.14	25.74
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6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	38.82	26.25+3% of gross wage
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7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	51.71	32.645+a+b
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-----LINE CONSTRUCTION-----

Groundman	26.50	6.5% + 9.00
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Linemen/Cable Splicer	48.19	6.5% + 22.00
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

8) Glazier (Trade License required: FG-1,2)	37.18	21.05 + a
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9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	35.47	35.14 + a
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----OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over), work boat 26 ft. and over and Tunnel Boring Machines. (Trade License Required)	39.55	24.05 + a
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Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	39.23	24.05 + a
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Group 3: Excavator; Backhoe/Excavator under 2 cubic yards; Cranes (under 100 ton rated capacity), Grader/Blade; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	38.49	24.05 + a
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper).	38.10	24.05 + a
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Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell)	37.51	24.05 + a
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Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller; Pile Testing Machine.	37.51	24.05 + a
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Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	37.20	24.05 + a
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Group 7: Asphalt roller, concrete saws and cutters (ride on types), vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrell).	36.86	24.05 + a
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Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine.	36.46	24.05 + a
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

Group 9: Front end loader (under 3 cubic yards), skid steer loader regardless of attachments, (Bobcat or Similar): forklift, power chipper; landscape equipment (including Hydroseeder).	36.03	24.05 + a
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Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	33.99	24.05 + a
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Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	33.99	24.05 + a
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Group 12: Wellpoint operator.	33.93	24.05 + a
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Group 13: Compressor battery operator.	33.35	24.05 + a
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Group 14: Elevator operator; tow motor operator (solid tire no rough terrain).	32.21	24.05 + a
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	31.80	24.05 + a
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Group 16: Maintenance Engineer/Oiler.	31.15	24.05 + a
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Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	35.46	24.05 + a
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Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license).	33.04	24.05 + a
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-----PAINTERS (Including Drywall Finishing)-----

10a) Brush and Roller	33.62	21.05
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

10b) Taping Only/Drywall Finishing	34.37	21.05
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10c) Paperhanger and Red Label	34.12	21.05
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10e) Blast and Spray	36.62	21.05
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11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	42.62	31.21
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12) Well Digger, Pile Testing Machine	37.26	24.05 + a
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Roofer: Cole Tar Pitch	41.50	17.00 + a
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	40.00	17.00 + a
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15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	43.70	42.40
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16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	42.62	31.21
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-----TRUCK DRIVERS-----

17a) 2 Axle	29.13	23.33 + a
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17b) 3 Axle, 2 Axle Ready Mix	29.23	23.33 + a
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As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

17c) 3 Axle Ready Mix	29.28	23.33 + a
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17d) 4 Axle, Heavy Duty Trailer up to 40 tons	29.33	23.33 + a
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17e) 4 Axle Ready Mix	29.38	23.33 + a
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17f) Heavy Duty Trailer (40 Tons and Over)	29.58	23.33 + a
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17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	29.38	23.33 + a
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18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	43.92	15.84 + a
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As of: Wednesday, July 18, 2018

19) Theatrical Stage Journeyman	25.76	7.34
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Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)

2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson

3) Cranes (under 100 ton rated capacity)

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

As of: Wednesday, July 18, 2018

Project: Venus Municipal Complex Renovations Phase I, Abatement And Demolition

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: Wednesday, July 18, 2018

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

November 29, 2006

Notice
To All Mason Contractors and Interested Parties
Regarding Construction Pursuant to Section 31-53 of the
Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.



CONNECTICUT DEPARTMENT OF

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STATUTE 31-55a

- SPECIAL NOTICE -

To All State and Political Subdivisions, Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractor

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, rehabilitation, alteration or repair of any public works project that falls under the provisions of s shall contact the Labor Commissioner on or before July first of each year, for the duration of such rate of wages on an hourly basis and the amount of payment or contributions paid or payable on worker employed upon the work contracted to be done, and shall make any necessary adjustments and such payment or contributions paid or payable on behalf of each such employee, effective e

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002, shall be adjusted each July 1st for the duration of any project which was originally advertised for
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate, as posted by the Department of Labor.
- It is the **contractor's** responsibility to obtain the annual adjusted prevailing wage rate information from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web Site. Those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to contractors. All subsequent annual adjustments will be posted on our Web Site for contractor reference.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790

[Workplace Laws](#)

200 Folly Brook Boulevard, Wethersfield, CT 06109 / Phone: 860-263-6000

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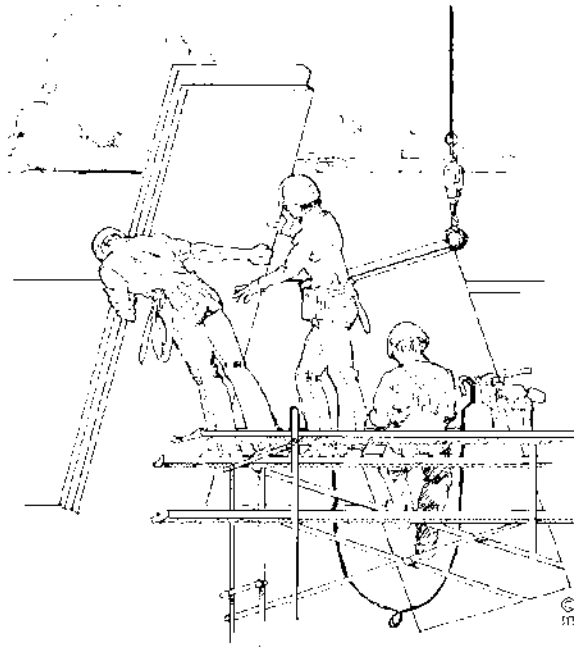
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
project name and number address

shall be \$_____, which includes all work, regardless of whether such project
consists of one or more contracts.

CONTRACTOR INFORMATION

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

Return To: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

Information Bulletin

Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53.

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification.

Below are additional clarifications of specific job duties performed for certain classifications:

- **ASBESTOS WORKERS**

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

- **ASBESTOS INSULATOR**

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

- **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILIENT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

- **CLEANING LABORER**

The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification*.

- **DELIVERY PERSONNEL**

If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer/tradesman and not a delivery personnel.

- **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring.

***License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.**

- **ELEVATOR CONSTRUCTORS**

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ***License required by Connecticut General Statutes: R-1,2,5,6.**

- **FORK LIFT OPERATOR**

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

- **GLAZIERS**

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce.

- **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which requires either a blended rate or equal composite workforce. Insulated metal and insulated composite panels are still installed by the Ironworker.

- **INSULATOR**

Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

- **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

- **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

- **LEAD PAINT REMOVAL**

Painter's Rate

1. Removal of lead paint from bridges.
2. Removal of lead paint as preparation of any surface to be repainted.
3. Where removal is on a Demolition project prior to reconstruction.

Laborer's Rate

1. Removal of lead paint from any surface NOT to be repainted.
2. Where removal is on a *TOTAL* Demolition project only.

- **PLUMBERS AND PIPEFITTERS**

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

- **POWER EQUIPMENT OPERATORS**

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ***License required, crane operators only, per Connecticut General Statutes.**

- **ROOFERS**

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (tear-off and/or removal of any type of roofing and/or clean-up of any and all areas where a roof is to be relaid)

- **SHEETMETAL WORKERS**

Fabricate, assemble, install and repair sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters.

Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, wall panel siding, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc.

The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Insulated metal and insulated composite panels are still installed by the Iron Worker. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers.

- **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

***License required per Connecticut General Statutes: F-1,2,3,4.**

- **TILE MARBLE AND TERRAZZO FINISHERS**

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

- **TRUCK DRIVERS**

Definitions:

1) “Site of the work” (29 Code of Federal Regulations (CFR) 5.2(l)(b) is the physical place or places where the building or work called for in the contract will remain and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project;

(a) Except as provided in paragraph (l) (3) of this section, job headquarters, tool yards, batch plants, borrow pits, etc. are part of the “site of the work”; provided they are dedicated exclusively, or nearly so, to the performance of the contract or project, and provided they are adjacent to “the site of work” as defined in paragraph (e)(1) of this section;

(b) Not included in the “site of the work” are permanent home offices, branch plant establishments, fabrication plants, tool yards etc, of a contractor or subcontractor whose location and continuance in operation are determined wholly without regard to a particular State or political subdivision contract or uncertain and indefinite periods of time involved of a few seconds or minutes duration and where the failure to count such time is due to consideration justified by industrial realities (29 CFR 785.47)

2) “Engaged to wait” is waiting time that belongs to and is controlled by the employer which is an integral part of the job and is therefore compensable as hours worked. (29 CFR 785.15)

3) “Waiting to be engaged” is waiting time that an employee can use effectively for their own purpose and is not compensable as hours worked. (29 CFR 785.16)

4) “De Minimus” is a rule that recognizes that unsubstantial or insignificant periods of time which cannot as a practical administrative matter be precisely recorded for payroll purposes, may be disregarded. This rule applies only where there are uncertain and indefinite periods of time involved of a short duration and where the failure to count such time is due to consideration justified by worksite realities. For example, with respect to truck drivers on prevailing wage sites, this is typically less than 15 minutes at a time.

Coverage of Truck Drivers on State or Political subdivision Prevailing Wage Projects

Truck drivers are covered for payroll purposes under the following conditions:

- Truck Drivers for time spent working on the site of the work.
- Truck Drivers for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimus

- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract or project where a significant portion of such building or work is constructed and the physical places where the building or work outlined in the contract will remain.

For example: Truck drivers delivering asphalt are covered under prevailing wage while "engaged to wait" on the site and when directly involved in the paving operation, provided the total time is not "de minimus"

Truck Drivers are not covered in the following instances:

- Material delivery truck drivers while off "the site of the work"
- Truck Drivers traveling between a prevailing wage job and a commercial supply facility while they are off the "site of the work"
- Truck drivers whose time spent on the "site of the work" is de minimus, such as under 15 minutes at a time, merely to drop off materials or supplies, including asphalt.

These guidelines are similar to U.S. Labor Department policies. The application of these guidelines may be subject to review based on factual considerations on a case by case basis.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

Any questions regarding the proper classification should be directed to:

*Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543*

Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES

Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons
(Building Construction) and
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

- a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

- a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

- a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

- a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

- a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Appendix B

Extracted Pre-Renovation Hazardous Building Materials Survey Report

(Full report on file in the Town Engineer's Office)

LIMITED PRE-RENOVATION HAZARDOUS BUILDING MATERIALS SURVEY REPORT

for

**Richard E. Venus Municipal Building
90 East Ridge Road
Ridgefield, Connecticut**

Prepared for:

**Town of Ridgefield
Engineering Department
66 Prospect Street
Ridgefield, CT 06877**

Prepared By:

**Langan CT, Inc.
555 Long Wharf Drive
New Haven, CT 06511**



**Matthew A. Myers
Senior Hazmat Specialist**



**Jamie P. Barr, L.E.P.
Senior Associate/Vice President**

**23 February 2018
140112404**

LANGAN

TABLE OF CONTENTS

	<u>Page No.</u>
ACRONYMS	i
1.0 INTRODUCTION	1
2.0 ASBESTOS-CONTAINING MATERIALS (ACM)	1
3.0 LEAD-BASED PAINT (LBP) XRF SCREENING	7
4.0 UNIVERSAL WASTE ASSESSMENT	8
5.0 CONCLUSIONS AND RECOMMENDATIONS	8
6.0 LIMITATIONS	9

TABLES

Table 1	Summary of Asbestos Containing Materials
Table 2	Summary of Non-Asbestos Containing Materials
Table 3	XRF Lead-Based Paint Screening Results over 1.0 mg/cm ²

APPENDICES

Appendix A	Analytical Laboratory Results and Chain of Custody – Asbestos Samples
Appendix B	Lead XRF Testing Data Sheets
Appendix C	Drawings
Appendix D	Previous Bulk Sampling Reports for Areas
Appendix E	Langan Certifications and Accreditations

ACRONYMS

USEPA	United States Environmental Protection Agency
ASHERA	Asbestos Hazard Emergency Response Act
OSHA	Occupational Safety and Health Administration
CFR	Code of Federal Regulation
NESHAPS	National Standards for Hazardous Air Pollutants
HUD	Housing and Urban Development
CTDPH	Connecticut Department of Public Health
RCRA	Resource Conservation and Recovery Act
PLM	Polarized Light Microscopy
TEM	Transmission Electron Microscopy
ACM	Asbestos-Containing Materials
LBP	Lead-Based Paint
PCB	Polychlorinated Biphenyls (PCB)
SF	Square Feet
LF	Linear Feet
mg/cm ²	Milligrams per square centimeter
XRF	X-ray Fluorescence
AAS	Atomic Absorption Spectrometry

1.0 INTRODUCTION

Langan CT, Inc. (Langan) prepared this limited Pre-Renovation Hazardous Building Materials (Hazmat) Survey Report on behalf of the Town of Ridgefield to identify potential hazardous building materials associated with the partial renovation (limited areas of basement and first floor – old high school) of the Richard E. Venus Municipal Building in Ridgefield, Connecticut. The objectives of this limited Pre-Renovation Hazmat Survey were to identify the presence or absence of accessible asbestos-containing materials (ACM), lead-based paint (LBP) and universal wastes so these materials can be quantified and assessed in support of scheduled renovation activities.

PROJECT INFORMATION

Client Name:	Town of Ridgefield	Property Visit Date:	8 February 2018
Professional's project #:	140112404	Construction Dates:	1917, additions in 1920
Consultant's Project Manager:	Matthew A. Myers	No. Buildings:	One
Phone No.:	203-562-5571	No. of Stories:	Three Story
Email:	mmyers@langan.com	Bldgs. Gross Footage:	95,000 Square Feet
Property Address:	90 East Ridge Road	Property Use:	Town Building – Multiple Uses
Property Town, State:	Ridgefield, Connecticut		

The following sections summarize Hazmat findings for the limited basement and first floor portions of the building surveyed (see appendix C for locations/areas of survey).

2.0 ASBESTOS-CONTAINING MATERIALS (ACM)

Terminology

Suspect Asbestos-Containing Materials

Asbestos was used in certain types of construction and building materials. Until a material is examined by using polarized light microscopy (PLM) or a similar technique, the building material is considered as a suspect asbestos-containing material. A few examples of these materials include wall and ceiling plasters, sheetrock/taping compound, flooring materials, ceiling panels, thermal system insulation, fireproofing insulation, roofing materials, adhesives, damp-proofing/waterproofing materials, caulking and glazing compounds, etc. Any suspect ACM and/or building material of unknown asbestos content should be assumed to be an asbestos containing material and handled and disposed of accordingly. Demolition, renovation,

maintenance or daily activities should not disturb building materials that are found to contain asbestos, assumed to contain asbestos or that have not been tested for possible asbestos content.

Asbestos-Containing Material

A material with an asbestos concentration greater than 1% by weight is considered ACM by the United States Environmental Protection Agency (USEPA). Thus, a material which contains asbestos in concentrations greater than 1% by weight is considered "positive" while materials that do not contain asbestos or asbestos is detected in concentrations less than 1% by weight are considered "negative".

Regulatory Guidelines and Requirements

Federal

In accordance with the Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) established National Emission Standards for hazardous Air Pollutants (NESHAP) to protect the public from exposure to airborne pollutants. Asbestos was one of the air pollutants, which was addressed under the NESHAP 40 CFR Part 61. The purpose of asbestos NESHAP regulations is to protect the public health by minimizing the release of asbestos when facilities, which contain ACM, are being renovated or demolished. EPA is responsible for enforcing regulations related to asbestos during renovation and demolition activities, however, the CAA allows the EPA to delegate this authority to State and Local Agencies. Even after EPA delegates responsibility to a state or Local agency, EPA retains the authority to oversee agency performance and to enforce NESHAP regulations as appropriate. OSHA considers any amount of asbestos to be regulated.

State

Asbestos in Connecticut is regulated by the State of Connecticut Department of Public Health (CTDPH), under Standards for Asbestos Abatement – Section 19a-333a-1 through 16 of Regulations of Connecticut State Agencies (RCSA) and Licensing and Training Requirements for Persons Engaged in Asbestos Abatement and Asbestos Consulting Services – Section 20-440-1 through 9 and Section 20-441 of RCSA.

Limited Asbestos Inspection

During this limited inspection, suspect ACM were separated into three USEPA categories: thermal system insulation (TSI), surfacing materials and miscellaneous materials. TSI includes all materials used to prevent heat gain or loss or water condensation on mechanical systems. Typical examples of TSI are boiler, duct and tank insulation, pipe and pipe fitting insulation.

Surfacing materials are sprayed, troweled or otherwise applied to an existing surface and common uses are fireproofing, decorative and acoustical plaster applications. Miscellaneous materials include all ACM not listed as TSI or surfacing and include: flooring materials, ceiling tiles, adhesives, caulking and glazing compounds, damp-proofing/tars/mastics, roofing materials, transite cement board, sink undercoating, sheetrock/taping compounds, cove base materials and other materials. State of Connecticut DPH licensed asbestos inspectors Matthew Myers (#000041) and Willie L Thompson III (#000673) performed the inspection.

ACM Results Summary

A total of 163 bulk samples were collected and 156 were analyzed for asbestos content. Detailed bulk sampling results are included in Tables 1 and 2 below. The complete analytical asbestos laboratory data is provided in Appendix A. As required by the USEPA, samples were analyzed by individual layers (e.g. floor tile & the associated mastic were analyzed as two separate samples, rough and finish coat plasters, etc.). Bulk samples of the suspect asbestos-containing materials (ACM) were analyzed using the Polarized Light Microscopy (PLM) analytical methodology in accordance with EPA Protocol 600/R-93/116 and Non-friable Organically Bound (NOB) (e.g. flooring materials, roofing materials, mastics) may have been additionally analyzed using PLM Point Count. The samples were analyzed by EMSL of Cinnaminson, New Jersey accredited by the National Voluntary Laboratory Program (NVLAP) and American Industrial Hygiene Association (AIHA).

Utilizing the USEPA protocols and criteria, the following materials were determined to be **ACM**:

Table 1 – Summary of Asbestos-Containing Materials

Material	Location	% Asbestos and Sample ID	Estimated Quantity of ACM
Pipe and Pipe Fitting Insulation - Thermal System Insulation	Health Department and Town Storage Areas (probably also exists behind walls, chases and ceilings throughout - inaccessible)	ACM 40%Chrysotile 020708A	40 LF

Material	Location	% Asbestos and Sample ID	Estimated Quantity of ACM
Flooring Materials - Miscellaneous Materials (Multiple Layers of Flooring and Wood)	Basement – Corridors, Room 011, VA Affairs, BOE Storage Areas First Floor – Corridors, Rooms 133/133A, 129B, 126/126 A,B,C, 136A&B (may also exist in other rooms/areas throughout)	ACM 3% - 10% Chrysotile - 020724, 020726-28, 020732, 020733, 020735A, 020765, 020767, 020773, 020776A, 020777B, 020786A, 020788A	6,100 SF
Black Mirror Adhesive - Miscellaneous Material (Substrates Contaminated)	Basement and First Floor Toilet Rooms	ACM 6 % Chrysotile- 020735A	125 SF
Red Duct Seam Sealant- Miscellaneous Material (Substrates Contaminated)	Throughout Basement and First Floor	ACM 4% - 5% Chrysotile - 020711A,B	Unknown

Utilizing the USEPA protocol and criteria, the following materials were determined to be **non-ACM or <1% Asbestos**:

Table 2 - Summary of Non-Asbestos Containing Materials

Material	Location	Sample ID
Ceiling Tiles (various sizes and types) - Miscellaneous Materials	Throughout Basement and First Floor	020701-05, 020706A,B, 020743A-C - 020747A,B
Ceiling Tile Glue Daubs - Miscellaneous Materials	Throughout Basement and First Floor	020707A-C, 020748A-C
Gray Adhesive at Handrail – Miscellaneous Material	Basement Playhouse	020709A,B
Beige Duct Seam Sealant - Miscellaneous Materials	Throughout Basement and First Floor	020710A,B
Sheetrock/Taping Compound - Miscellaneous Materials	Throughout Basement and First Floor	020712A-B, 020713A-B
Plaster Finish and Rough Coats - Surfacing Materials	Throughout Basement and First Floor	020714A-E, 020715A-E, 020716A-C, 020717A-C (one sample in toilet room was <1%), 020737A-C, 020738A-C, 020739A-C, 020740A-C
Cove Bases and Adhesives - Miscellaneous Materials	Throughout Basement and First Floor	020718A-C, 020719A-C, 020749A-C, 020750A,B, 020751A-C
Wallboard Material – Miscellaneous Material	Room 129B - Closet	020736A,B
Gray Sink Undercoating - Miscellaneous Materials	Throughout Basement and First Floor	020734A-C

Ceramic Floor Tile Mud Bed, Grout and Yellow Adhesive – Miscellaneous Materials	Toilet Room 136 C & D	020752A,B – 020754A,B
Flooring Materials – Miscellaneous Materials	Throughout Basement and First Floor (some areas have asbestos containing flooring materials in same rooms/locations and many are considered contaminated)	020720A,B, 020721A,B, 020722A,B, 020723, 020725, 020729-31, 020755, 020756A-C, 020757 - 61, 020762A,B, 020763A,B, 020764, 020766, 020768, 020769, 020770A,B, 020771A-C, 020772, 020777A, 020778A,B – 81A,B, 020782-85, 020787A,B

DISCLAIMERS: Some locations/materials were not surveyed during this inspection due to inaccessibility, the destructive nature required to access or not identified as scope of work.

Inaccessible/Hidden Materials

Please note the inspectors were not able to access certain areas/materials due to the destructive nature that sampling requires. Additional asbestos containing materials may exist within doors (door insulation), wall adhesives behind mirrors and other wall materials (playhouse, etc.), materials behind walls, chases and ceilings throughout.

Limited plaster materials were found to contain less than one percent asbestos. All applicable OSHA regulations must be complied with, including training, engineering controls (water during disturbance and personal exposure compliance - exposure air testing, PPE, etc.) should the materials be disturbed by renovation or other activities.

3.0 LEAD-BASED PAINT (LBP) XRF SCREENING

A lead paint screening was performed throughout using an X-Ray Fluorescence (XRF) lead paint analyzer. Matthew Myers, a State of Connecticut DPH Certified Lead Inspector (#000191) performed the lead screening using a Niton XLp300.

LBP was identified exceeding the HUD/EPA action level of equal to or greater than 1.0 mg/cm². Detailed XRF screening result field sheets are provided in Appendix B.

Table 3 – XRF Lead-Based Paint Screening Results over 1.0 mg/cm²

Survey ID#	Component	Substrate	Paint Color	Test Location	XRF Readings Total Lead - mg/cm ²	Results	Comments
6	Door	Wood	Yellow	Playhouse - Basement	9.2	Positive	
8	Door Trim (going to exterior)	Wood	White	Playhouse - Basement	14.3	Positive	
47	Wall	Plaster	Yellow	133B – First Floor	2.9	Positive	
54	Wall	Plaster	Dark Pink	132 – First Floor	3.6	Positive	
59	Wall	Plaster	Yellow	131C – First Floor	3.4	Positive	
66	Baseboard	Cement	Yellow	131C – First Floor	1.4	Positive	
67	Wall	Plaster	Yellow	131C – First Floor	1.5	Positive	
68	Wall	Plaster	Tan	128 – First Floor	2.2	Positive	
75	Wall	Plaster	Yellow	126 – First Floor	6.7	Positive	

Contractors completing demolition or renovation activities should be aware that OSHA has not established a level of lead in a material below which 29 CFR 1926.62 does not apply. The contractor shall comply with exposure assessment criteria, interim worker protection and other requirements of the regulation as necessary to protect workers and occupants/residents.

The information in this report does not constitute a comprehensive lead inspection under the Connecticut Department of Public Health Regulations, Section 19a-111-1 to 11. The inspection was an XRF lead screening utilizing an XRF and does not satisfy the testing requirements of US EPA's Renovation, Repair and Painting Rule (RRP) under 40 CFR 745.80 through 92. Reliance on this report for determining RRP or CT DPH applicability is not authorized by Langan.

A TCLP lead waste characterization sample should be obtained from representative building materials prior to removing and disposing of these materials in order to classify the appropriate disposal method.

4.0 UNIVERSAL WASTE ASSESSMENT

Completion of detailed Universal Waste Assessment (identifying the number and location of Universal Waste items) was not conducted as part of this limited Pre-Renovation Hazardous Building Materials Survey. However, several universal waste items were observed during our building walkthrough. Universal wastes include suspect PCB/DEHP (di (2-ethylhexyl) phthalate) ballasts/capacitors associated with light fixtures, air conditioner and refrigerator coolants, mercury-containing florescent and other mixed used high intensity light bulbs, smoke detectors and other alarms/sensors containing suspect radioactive materials, batteries and emergency lighting, mercury-containing thermostats, gauges, electronics, paints, wiring, cleaning and other chemicals.

All universal waste to be disturbed/removed by planned renovations will need to be properly removed, recycled, and/or disposed of at a landfill permitted to accept such waste. The removal, handling, recycling, and disposal must be performed in accordance with applicable Federal, State, and local regulations.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Langan provides the following conclusions and recommendations, based on the findings of the limited Pre-Renovation Hazardous Building Materials Surveys:

Friable and Non-friable ACM was identified. Prior to renovation activities that would disturb them, the identified ACM must be properly removed and disposed in accordance with applicable Federal, State and Local regulations by a CT DPH licensed asbestos abatement contractor. A licensed asbestos project designer should develop an asbestos abatement specification section for the project. An Asbestos Project Monitor should perform project oversight in accordance with the Federal and State regulations. These are all requirements of the CT DPH Standards.

Additional sampling/destructive sampling/visual investigation may be required for materials that have not been sampled to date and may be disturbed by renovation activities (inaccessible materials, materials behind walls, ceilings and floors, buried materials, door insulation, damp-proofing, materials inside the elevator shaft, etc.).

Contractors completing demolition or renovation activities should be aware that OSHA has not established a level of lead in a material below which 29 CFR 1926.62 does not apply. All contractors working on the project are responsible for having adequate training (RRP or greater amount) and performing their own OSHA compliance requirements. Contractor shall comply with exposure assessment criteria, interim worker protection and other requirements of the regulation as necessary to protect workers and occupants/residents. All contractors must comply with all applicable State and Federal regulations, including but not limited to the lead OSHA regulations. Toxicity Characteristic Leaching Procedure (TCLP) lead waste characterization sampling should be performed to confirm the waste disposal method for lead based painted components to be removed/disposed. Langan recommends a lead-based paint awareness specification section for the project.

All universal waste that is present in the building that will need to be removed/replaced will need to be properly removed, recycled, and/or disposed of at a landfill permitted to accept such waste. The removal, handling, recycling and disposal must be performed in accordance with applicable Federal, State, and local regulations. Langan recommends a universal waste recycling/disposal specification section for the project.

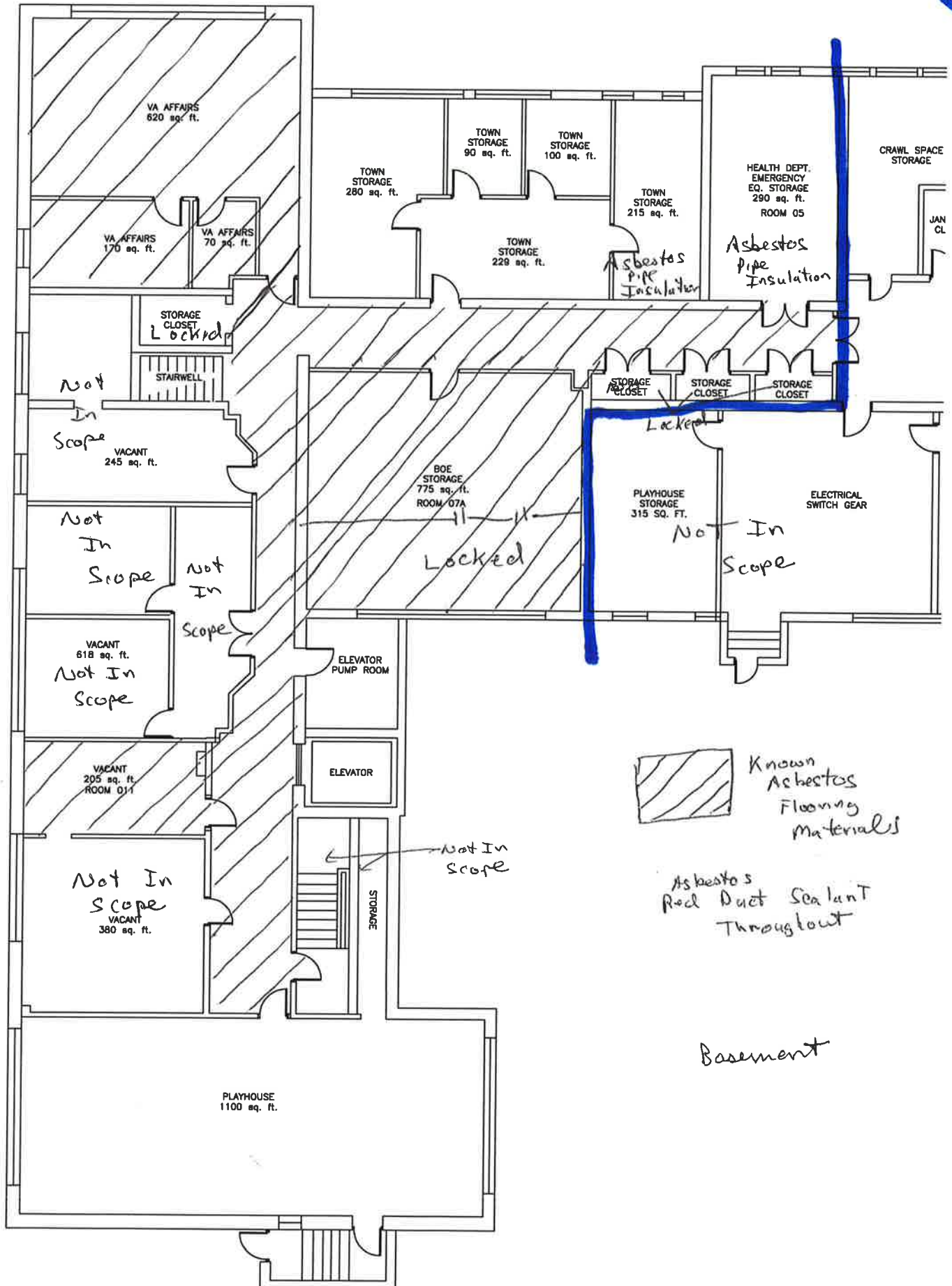
6.0 LIMITATIONS

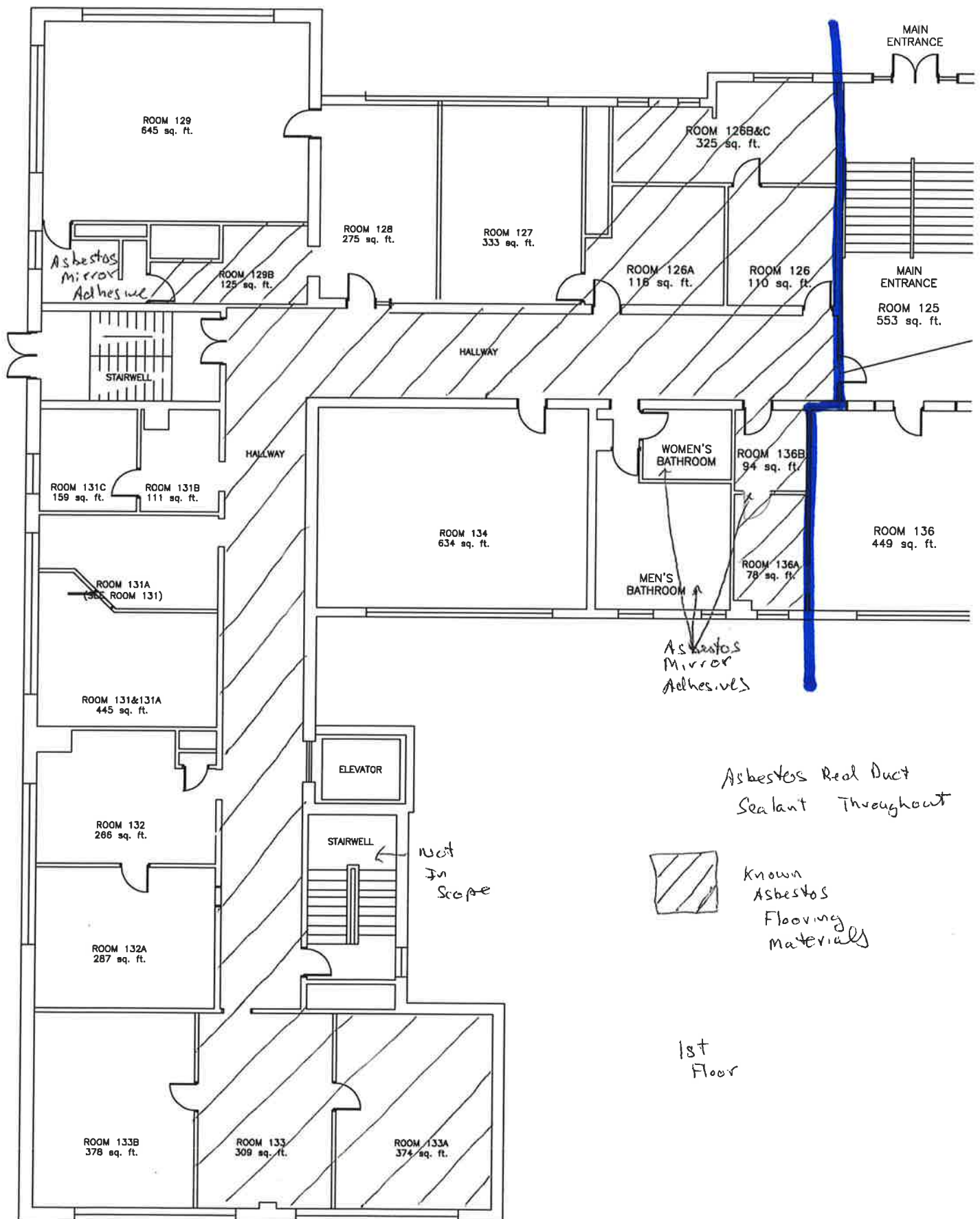
The conclusions and recommendations presented in this report are professional opinions based solely upon Langan's visual observations, laboratory test data, and current regulatory requirements. These conclusions and recommendations are intended exclusively for the purpose stated herein, at the site indicated, and for the project indicated.

It is important to recognize that even the most comprehensive scope of services may fail to detect all hazardous materials that may be associated with the property. Therefore, Langan cannot act as insurers and cannot "certify" that all hazmat associated with the property have been identified, and no expressed or implied representation or warranty is included or intended in our report, except that our services were performed, within the limits prescribed by our client, with the customary thoroughness and competence of our profession. Any suspect material that is not listed in this report must be assumed as a regulated and/or hazardous material (asbestos, lead, PCB, etc.) until confirmed otherwise via laboratory testing. Langan did not perform sampling and analysis for possible PCB containing materials such as sealant compounds, paint, roofing, etc.

2 Toilet Rooms
(one was locked during inspection)

Assume Asbestos Mirror
Adhesives





Appendix D

Previous Bulk Sampling Reports For Areas

LIMITED PRE-RENOVATION HAZARDOUS BUILDING MATERIALS SURVEY REPORT

for

**Richard E. Venus Municipal Building
90 East Ridge Road
Ridgefield, Connecticut**

Prepared for:

**Town of Ridgefield
Engineering Department
66 Prospect Street
Ridgefield, CT 06877**

Prepared By:

**Langan CT, Inc.
555 Long Wharf Drive
New Haven, CT 06511**



**Matthew A. Myers
Senior Hazmat Specialist**



**Jamie P. Barr, L.E.P.
Senior Associate/Vice President**

**30 October 2017
140112403**

LANGAN

TABLE OF CONTENTS

	<u>Page No.</u>
ACRONYMS	i
1.0 INTRODUCTION	1
2.0 ASBESTOS-CONTAINING MATERIALS (ACM)	1
3.0 LEAD-BASED PAINT (LBP) XRF SCREENING	4
4.0 CONCLUSIONS AND RECOMMENDATIONS	6
5.0 LIMITATIONS	6

TABLES

Table 1	Summary of Asbestos Containing Materials
Table 2	Summary of Non-Asbestos Containing Materials
Table 3	XRF Lead-Based Paint Screening Results

APPENDICES

Appendix A	Analytical Laboratory Results and Chain of Custody – Asbestos Samples
Appendix B	Lead XRF Testing Data Sheets
Appendix C	Langan Certifications and Accreditations

ACRONYMS

USEPA	United States Environmental Protection Agency
AHERA	Asbestos Hazard Emergency Response Act
OSHA	Occupational Safety and Health Administration
CFR	Code of Federal Regulation
NESHAPS	National Standards for Hazardous Air Pollutants
HUD	Housing and Urban Development
CTDPH	Connecticut Department of Public Health
RCRA	Resource Conservation and Recovery Act
PLM	Polarized Light Microscopy
TEM	Transmission Electron Microscopy
ACM	Asbestos-Containing Materials
LBP	Lead-Based Paint
PCB	Polychlorinated Biphenyls (PCB)
Sq. ft.	Square Feet
Ln. ft.	Linear Feet
mg/cm ²	Milligrams per square centimeter
XRF	X-ray Fluorescence
AAS	Atomic Absorption Spectrometry

1.0 INTRODUCTION

Langan CT, Inc. (Langan) prepared this limited Pre-Renovation Hazardous Building Materials (Hazmat) Survey Report on behalf of the Town of Ridgefield to identify potential hazardous materials associated with the renovation of the elevator, associated pump/mechanical room, and loading dock for the Richard E. Venus Municipal Building in Ridgefield, Connecticut. The objectives of this limited Pre-Renovation Hazmat Survey were to identify the presence or absence of accessible asbestos-containing materials (ACM), and lead-based paint (LBP) so these materials can be quantified and assessed in support of scheduled limited renovation activities.

PROJECT INFORMATION

Client Name:	Town of Ridgefield	Property Visit Date:	20 & 23 October 2017
Professional's project #:	140112401	Construction Dates:	1917, additions in 1920
Consultant's Project Manager:	Matthew A. Myers	No. Buildings:	One
Phone No.:	203-562-5571	No. of Stories:	Three Story
Email:	mmyers@langan.com	Bldgs. Gross Footage:	95,000 Square Feet
Property Address:	90 East Ridge Road		
Property Town, State:	Ridgefield, Connecticut	Property Use:	Town Building – Multiple Uses

The following sections summarize Hazmat findings for the elevator, pump/mechanical room, and loading dock portions of the building surveyed.

2.0 ASBESTOS-CONTAINING MATERIALS (ACM)

Terminology

Suspect Asbestos-Containing Materials

Asbestos was used in certain types of construction and building materials. Until a material is examined by using polarized light microscopy (PLM) or a similar technique, the building material is considered as a suspect asbestos-containing material. A few examples of these materials include wall and ceiling plasters, sheetrock/taping compound flooring materials, ceiling panels, thermal system insulation, fireproofing insulation, roofing materials, adhesives, damp-proofing/waterproofing materials, caulking and glazing compounds, etc. Any suspect ACM and/or building material of unknown asbestos content should be assumed to be an asbestos containing material and handled and disposed of accordingly. Demolition, renovation,

maintenance or daily activities should not disturb building materials that are found to contain asbestos, assumed to contain asbestos or that have not been tested for possible asbestos content.

Asbestos-Containing Material

A material with an asbestos concentration greater than 1% by weight is considered ACM by the United States Environmental Protection Agency (USEPA). Thus, a material which contains asbestos in concentrations greater than 1% by weight is considered "positive" while materials that do not contain asbestos or asbestos is detected in concentrations less than 1% by weight are considered "negative".

Regulatory Guidelines and Requirements

Federal

In accordance with the Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) established National Emission Standards for hazardous Air Pollutants (NESHAP) to protect the public from exposure to airborne pollutants. Asbestos was one of the air pollutants, which was addressed under the NESHAP 40 CFR Part 61. The purpose of asbestos NESHAP regulations is to protect the public health by minimizing the release of asbestos when facilities, which contain ACM, are being renovated or demolished. EPA is responsible for enforcing regulations related to asbestos during renovation and demolition activities, however, the CAA allows the EPA to delegate this authority to State and Local Agencies. Even after EPA delegates responsibility to a state or Local agency, EPA retains the authority to oversee agency performance and to enforce NESHAP regulations as appropriate. OSHA considers any amount of asbestos to be regulated.

State

Asbestos in Connecticut is regulated by the State of Connecticut Department of Public Health (CTDPH), under Standards for Asbestos Abatement – Section 19a-333a-1 through 16 of Regulations of Connecticut State Agencies (RCSA) and Licensing and Training Requirements for Persons Engaged in Asbestos Abatement and Asbestos Consulting Services – Section 20-440-1 through 9 and Section 20-441 of RCSA.

Limited Asbestos Inspection

During this limited inspection, suspect ACM were separated into three USEPA categories: thermal system insulation (TSI), surfacing materials and miscellaneous materials. TSI includes all materials used to prevent heat gain or loss or water condensation on mechanical systems. Typical examples of TSI are boiler, duct and tank insulation, pipe and pipe fitting insulation.

Surfacing materials are sprayed, troweled or otherwise applied to an existing surface and common uses are fireproofing, decorative and acoustical plaster applications. Miscellaneous materials include all ACM not listed as TSI or surfacing and include: flooring materials, ceiling tiles, adhesives, caulking and glazing compounds, damp-proofing/tars/mastics, roofing materials, transite cement board, sink undercoating, sheetrock/taping compounds, cove base materials and other materials. State of Connecticut DPH licensed asbestos inspectors Matthew Myers (#000041) and Brian Quinlan (#000921) performed the inspection.

ACM Results Summary

A total of 19 bulk samples were collected and 16 analyzed for asbestos content. Detailed bulk sampling results are included in Tables 1 and 2 below. The complete analytical asbestos laboratory data is provided in Appendix A. As required by the USEPA, samples were analyzed by individual layers (e.g. floor tile & the associated mastic were analyzed as two separate samples, rough and finish coat plasters, etc.). Bulk samples of the suspect asbestos-containing materials (ACM) were analyzed using the Polarized Light Microscopy (PLM) analytical methodology in accordance with EPA Protocol 600/R-93/116 and Non-friable Organically Bound (NOB) (e.g. flooring materials, roofing materials, mastics) may have been additionally analyzed using PLM Point Count. The samples were analyzed by EMSL of Cinnaminson, New Jersey accredited by the National Voluntary Laboratory Program (NVLAP) and American Industrial Hygiene Association (AIHA).

Utilizing the USEPA protocols and criteria, the following materials were determined to be **ACM**:

Table 1 – Summary of Asbestos-Containing Materials

Material	Location	% Asbestos and Sample ID	Estimated Quantity of ACM
Roofing Materials – Flashing, Field/Core Tar, and Tar Papers – Miscellaneous Materials	Loading Dock Roof	ACM <0.25-8% Chrysotile 102006A 102007A 102008A 102009A,B	50 Square Feet

Utilizing the USEPA protocol and criteria, the following materials were determined to be **non-ACM**:

Table 2 - Summary of Non-Asbestos Containing Materials

Material	Location	Sample ID
White Fiberglass Insulation Paper – Miscellaneous Material	Elevator Pump/Mechanical Room	102001A,B
Brick Grout, Concrete Wall, Wall Paint – Miscellaneous Materials	Elevator Pump/Mechanical Room	102002A,B – 102004A-C
Black Floor Tread – Miscellaneous Material	Elevator	102005A,B

DISCLAIMERS: Some locations/materials were not surveyed during this inspection due to inaccessibility, the destructive nature required to access or not identified as scope of work.

Inaccessible/Hidden Materials

Please note the inspectors were only able to access limited materials in the elevator, pump/mechanical room, and loading dock. Additional materials may exist behind the brick in pump mechanical room, inside the elevator shaft, and inside the elevator doors, walls, and ceiling.

3.0 LEAD-BASED PAINT (LBP) XRF SCREENING

A lead paint screening was performed at limited window locations using an X-Ray Fluorescence (XRF) lead paint analyzer. Brian Quinlan, a State of Connecticut DPH Certified Lead Inspector (#002240) performed the lead screening using a Niton XLp300.

LBP was not identified exceeding the HUD/EPA action level of equal to or greater than 1.0 mg/cm². Detailed XRF screening result field sheets are provided in Appendix B.

Table 3 – XRF Lead-Based Paint Screening Results

Survey ID#	Component	Substrate	Paint Color	Test Location	XRF Readings Total Lead - mg/cm ²	Results	Comments
1	Calibration				Internal		
2	Calibration				1.0		
3	Calibration				1.0		
4	Wall	Wood	Brown	Exterior Loading Dock	0.01	Negative	

Survey ID#	Component	Substrate	Paint Color	Test Location	XRF Readings Total Lead - mg/cm ²	Results	Comments
5	Door	Metal	White	Exterior Loading Dock	0.0	Negative	
6	Door Frame	Metal	White	Exterior Loading Dock	0.0	Negative	
7	Soffit	Wood	White	Exterior Loading Dock	0.0	Negative	
8	Window Casing	Wood	White	Exterior Loading Dock	0.0	Negative	
9	Railing	Metal	Black	Exterior Loading Dock	0.0	Negative	
10	Wall	Concrete	White	Elevator Pump Room	0.0	Negative	
11	Wall	Brick	White	Elevator Pump Room	0.0	Negative	
12	Floor	Concrete	Red	Elevator Pump Room	0.0	Negative	
13	Elevator Pump Cabinet	Metal	Green	Elevator Pump Room	0.0	Negative	
14	Ceiling	Concrete	White	Elevator Pump Room	0.0	Negative	
15	Door	Metal	White	Elevator Pump Room	0.0	Negative	
16	Door Frame	Metal	White	Elevator Pump Room	0.03	Negative	
17	Door Frame	Metal	White	Elevator	0.0	Negative	
18	Door	Metal	White	Elevator	0.0	Negative	
19	Ceiling	Metal	White	Elevator	0.0	Negative	
20	Elevator Door	Metal	White	Interior Loading Dock	0.0	Negative	
21	Elevator Door Frame	Metal	White	Interior Loading Dock	0.0	Negative	
22	Ceiling	Wood	White	Interior Loading Dock	0.0	Negative	
23	Wall	Wood	Brown	Interior Loading Dock	0.0	Negative	
24	Calibration				1.0		
25	Calibration				1.1		

Contractors completing demolition or renovation activities should be aware that OSHA has not established a level of lead in a material below which 29 CFR 1926.62 does not apply. The contractor shall comply with exposure assessment criteria, interim worker protection and other requirements of the regulation as necessary to protect workers and occupants/residents.

The information in this report does not constitute a comprehensive lead inspection under the Connecticut Department of Public Health Regulations, Section 19a-111-1 to 11. The inspection was an XRF lead screening utilizing an XRF and does not satisfy the testing requirements of US

EPA's Renovation, Repair and Painting Rule (RRP) under 40 CFR 745.80 through 92. Reliance on this report for determining RRP or CT DPH applicability is not authorized by Langan.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Langan provides the following conclusions and recommendations, based on the findings of the limited Pre-Renovation Hazardous Building Materials Surveys:

Non-friable ACM was identified on the loading dock roof. Prior to renovation, the identified ACM must be properly removed and disposed in accordance with applicable Federal, State and Local regulations by a CT DPH licensed asbestos abatement contractor or a roofing contractor that has completed the proper training requirements. An Asbestos Project Monitor should perform project oversight in accordance with the Federal and State regulations. These are all requirements of the CT DPH Standards. Additional sampling/destructive sampling/visual investigation may be required for materials that have not been sampled to date and may be disturbed by renovation activities (inaccessible materials, materials behind walls, ceilings and floors, buried materials, door insulation, damp-proofing, materials inside the elevator shaft, etc.).

Contractors completing demolition or renovation activities should be aware that OSHA has not established a level of lead in a material below which 29 CFR 1926.62 does not apply. All contractors working on the project are responsible for having adequate training (RRP or greater amount) and performing their own OSHA compliance requirements. Contractor shall comply with exposure assessment criteria, interim worker protection and other requirements of the regulation as necessary to protect workers and occupants/residents. All contractors must comply with all applicable State and Federal regulations, including but not limited to the lead OSHA regulations..

5.0 LIMITATIONS

The conclusions and recommendations presented in this report are professional opinions based solely upon Langan's visual observations, laboratory test data, and current regulatory requirements. These conclusions and recommendations are intended exclusively for the purpose stated herein, at the site indicated, and for the project indicated.

It is important to recognize that even the most comprehensive scope of services may fail to detect all hazardous materials that may be associated with the property. Therefore, Langan cannot act as insurers and cannot "certify" that all hazmat associated with the property have been identified, and no expressed or implied representation or warranty is included or intended in our report, except that our services were performed, within the limits prescribed by our

client, with the customary thoroughness and competence of our profession.

Any suspect material that is not listed in this report must be assumed as a regulated and/or hazardous material until confirmed otherwise via laboratory testing. Langan did not perform sampling and analysis for possible PCB containing materials such as sealant compounds, paint, roofing, etc.

\\langan.com\data\NHV\data4\140112403\Project Data\Discipline\Environmental\Haz Building Materials\Pre-Renovation Elevator Replacement HAZMAT Report.doc

Plans, Demolition

GENERAL NOTES:

1. EXTERIOR DIMENSIONS GIVEN TO THE EXTERIOR FACE OF MASONRY WALLS. DIMENSIONS TO INTERIOR PARTITIONS ARE TO THE FACE OF FINISHED OR CMU UNLESS NOTED OTHERWISE.
2. LARGE SCALE DETAILS AND PLANS TAKE PRECEDENCE OVER SMALL SCALE DRAWINGS.
3. ALL ITEMS ARE CONSIDERED TO BE "NEW" UNLESS NOTED OTHERWISE.
4. COORDINATE AND VERIFY ALL DIMENSIONS, OPENING AND CONDITIONS WITH CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND ALL OTHER PERTINENT DRAWINGS AND TRADE PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT OF DISCREPANCIES AS SOON AS POSSIBLE.
5. DO NOT SCALE DRAWINGS.
6. ALL DETAILS ARE TYPICAL, INCORPORATE INTO PROJECT AT APPROPRIATE LOCATIONS WHETHER SPECIFICALLY INDICATED OR NOT.
7. HINGE SIDE OF ALL DORS ARE LOCATED 6" FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
8. THE CONTRACT DOCUMENTS INCLUDE BOTH DRAWINGS AND WRITTEN SPECIFICATIONS. THE CONTRACT DOCUMENTS ARE SUPPLEMENTARY AND MUST BE CONSULTED JOINTLY IN ORDER TO PROPERLY EXECUTE AND COMPLETE THE WORK OF THE CONTRACT.
9. THE DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY DOCUMENTS NEITHER TAKE PRECEDENT OVER THE OTHER. CONFLICT IN SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.
10. THIS SET OF DRAWINGS INDICATES GENERAL SCOPE OF THE PROJECT. THE DRAWINGS DO NOT NECESSARILY INDICATE OR DESCRIBE ALL WORK REQUIRED FOR FULL PERFORMANCE AND COMPLETION OF THE REQUIREMENTS OF THE CONTRACT. ON BASIS OR SCOPE INDICATED OR DESCRIBED, CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT REQUIRED FOR PROPER EXECUTION AND COMPLETION OF THE WORK.
11. ALL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES OR REGULATIONS.
12. ALL RE CONSTRUCTION SHALL MEET CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.
13. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES BEFORE PROCEEDING WITH EXCAVATION, TRANCHING OR SIMILAR WORK. THESE DRAWINGS DO NOT CERTIFY THE EXISTENCE OF UTILITIES WHICH MAY BE PRESENT BUT UNRECORDED OR UNDETECTED.
14. PROVIDE LINTELS OR HEADERS AS REQUIRED OR DIRECTED OVER OPENINGS PENETRATED BY MECHANICAL EQUIPMENT.
15. PROVIDE MIN. 2X6 FIRE RETARDANT WOOD OR STEEL PLATE BLOCKING BETWEEN STUDS AT MOUNTING LOCATIONS FOR TOILET ACCESSORIES, HANDRAILS GUARDRAILS, MILLWORK AND OTHER WALL MOUNTED ITEMS.
16. PROVIDE CODE COMPLIANT NON-COMBUSTIBLE BLOCKING, SUPPORTS, ETC. FOR SECURE INSTALLATION OF WALL MOUNTED ITEMS. CONTRACTOR TO DETERMINE TYPE OF BLOCKING AND ANCHORING AS REQUIRED TO SUIT INSTALLATION AND WALL CONDITION. REFER TO ARCHITECTURAL DRAWINGS FOR STANDARD DETAILS AND MOUNTING HEIGHTS.
17. PROVIDE SECURE AND PERMANENT ANCHORAGE FOR CEILING FURRING AND OTHER CEILING MOUNTED ITEMS, WHERE SEISMIC REQUIREMENTS APPLY.
18. PROVIDE FIRE STOPPING AT ALL PENETRATIONS OF WALL AND FLOORS AS SPECIFIED IN SPEC SECTION - FIRESTOPPING. ALL PENETRATIONS INTO EXISTING BRICK/CMU FROM NEW ADJACENT WORK SHALL BE SEALED AND FIRE STOPPED.
19. NOT USED.
20. ALL SUBSTITUTIONS OF MATERIALS AND ASSEMBLIES MUST BE SUBMITTED IN WRITING AND APPROVED BY ARCHITECT IN ACCORDANCE WITH DIVISION 1 SPECIAL CONDITIONS.
21. CONTRACTOR IS REQUIRED TO PROVIDE CONTROL AND EXPANSION JOINTS IN ALL ASSEMBLIES PER SPECIFICATIONS.
22. CONTRACTOR SHALL PROVIDE ACCESS TO ALL FIRE DAMPER ASSEMBLIES.
23. ALL PIPING, DUCTWORK AND CONDUIT TO BE CONCEALED UNLESS NOTED OTHERWISE.
24. ALL EXISTING SITE COMPONENTS TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION. ALL DAMAGED SURFACES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED BY CONTRACTOR AS REQUIRED BY THE OWNERS REPRESENTATIVE.
25. SITE SURVEY IS PROVIDED BY OTHERS AND IS INCLUDED FOR INFORMATION ONLY. ALL CONDITIONS TO BE FIELD VERIFIED BY CONTRACTOR.
26. CONTRACTOR SHALL MAINTAIN SITE DRAINAGE DURING CONSTRUCTION.
27. CONTRACTOR SHALL MAINTAIN A CLEAN AND SECURE SITE AS REQUIRED BY DIVISION 1 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS.
28. VERIFY THE FOLLOWING WITH THE RESPECTIVE TRADES:
A - SIZES AND LOCATIONS FOR BACKING/BLOCKING REQUIRED FOR MOUNTING MECH. AND/OR ELEC. EQUIPMENT.
B - SIZES AND LOCATIONS OF MECH. AND/OR ELEC. PENETRATIONS.
C - CUTTING AND PATCHING FOR WORK REQUIRED BY MECH. AND/OR ELEC.
29. HOT WATER LINES AND DRAIN LINES UNDERNEATH ACCESSIBLE SINKS SHALL BE INSULATED.
30. NOT USED.
31. WHEN NECESSARY PROVIDE SEISMIC PSY WIRES AND PROVIDE COMPRESSION STRUTS FOR ACOUSTICAL TILE AND GYPSUM BOARD SUSPENSION SYSTEMS.
32. ALL CONSTRUCTION SHALL COMPLY TO RESPECTIVE SEISMIC REQUIREMENTS. SEE STRUCTURAL DRAWINGS FOR SEISMIC CHARACTERISTICS.
33. EXPOSED ENDS OF ALL PROJECTING ELEMENTS SUCH AS SILLS, LEDGES AND SIMILAR COMPONENTS FABRICATED IN METAL, STONE AND OTHER MATERIALS SHALL BE FINISHED SAME AS FACE.
34. IF REQUIRED FOR SPRAY-APPLIED AND INTUMESCENT FIRE PROTECTION SCOPE, REFER TO SCHEDULE AT END OF SECTION 07 81 23 INTUMESCENT FIREPROOFING.
35. PRIOR TO SUBMISSION OF BID, THE CONTRACTOR SHALL PERFORM A SITE SURVEY SO AS TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS THEY PERTAIN TO THE SCOPE OF WORK.
36. CONTRACTOR SHALL COORDINATE ALL SHUT-DOWNS AND REMOVALS WITH THE DESIGNATED CONSTRUCTION MANAGER PRIOR TO COMMENCEMENT OF WORK.
37. CONTRACTOR SHALL REMOVE ALL BRANCH WIRING AND DEVICES IN THE AFFECTED BUILDING AREA BACK TO THEIR SOURCES.
38. CONTRACTOR SHALL REMOVE ALL LIGHTING FIXTURES IN THE AFFECTED BUILDING AREA AND ASSOCIATED CONDUIT AND WIRE BACK TO THEIR SOURCE. EXTERIOR WALL MOUNT LIGHT FIXTURES ARE TO REMAIN UNLESS NOTED OTHERWISE. EXTERIOR LIGHT FIXTURES SHALL REMAIN OPERATIONAL DURING DEMOLITION AND CONSTRUCTION.
39. CONTRACTOR SHALL MAINTAIN ALL FIRE ALARM DEVICES IN THE BUILDING AND ASSOCIATED WIRING. UPON INSTALLATION OF NEW FIRE ALARM SYSTEM, THE EXISTING SYSTEM AND ASSOCIATED DEVICES AND WIRING SHALL BE REMOVED.
40. CONTRACTOR SHALL DE-ENERGIZE ALL MECHANICAL EQUIPMENT FOR REMOVAL BY OTHERS. AS DIRECTED. DISCONNECT AND SHUT OFF WIRING FROM EQUIPMENT AS DIRECTED.



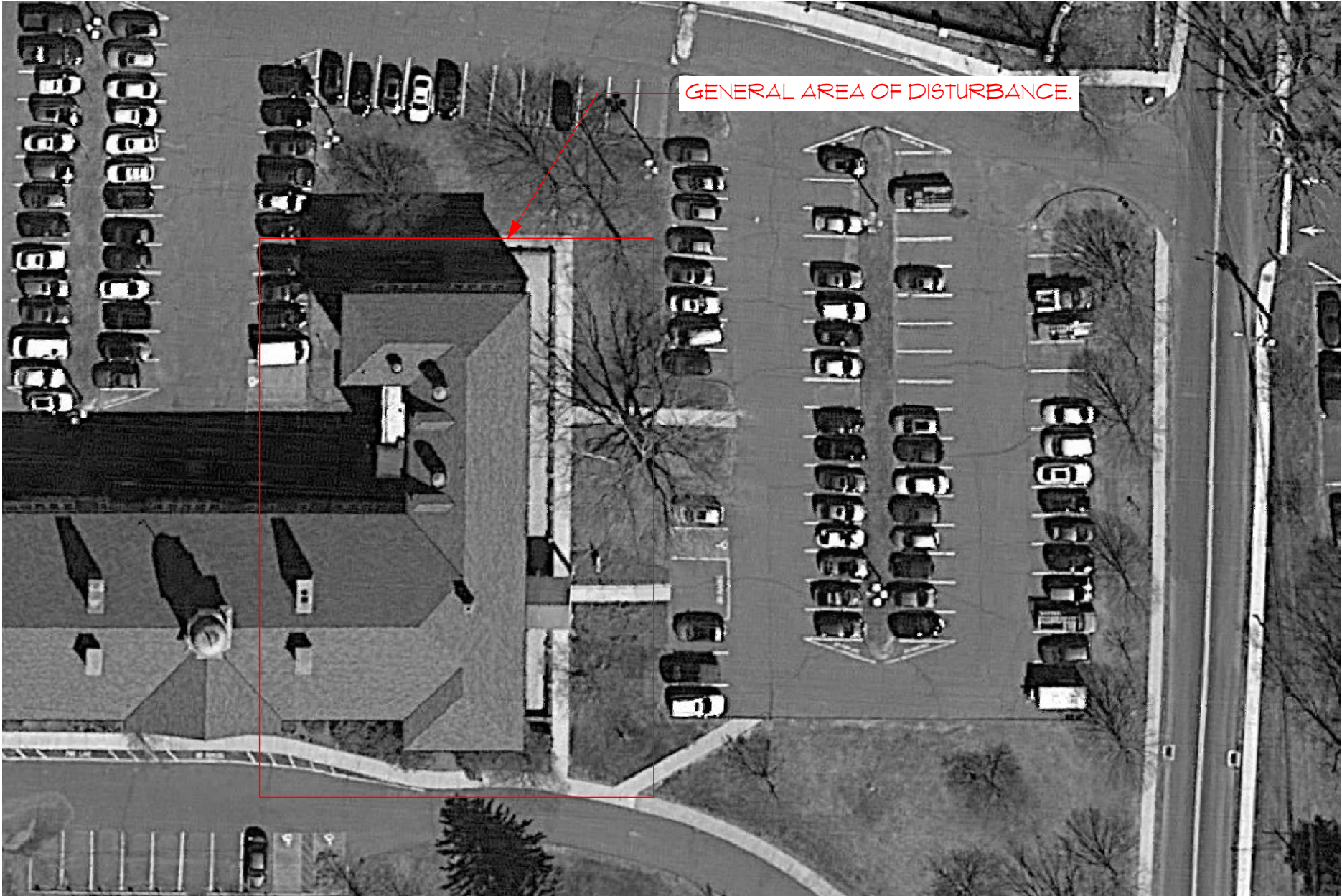
PROPOSED SELECTIVE DEMOLITION FOR
TOWN OF RIDGEFIELD - VENUS BUILDING
100 EAST RIDGE ROAD
RIDGEFIELD, CONNECTICUT 06877

GENERAL PROJECT NARRATIVE:
PREMISES OF DEFINED WORK AREA SHALL BE VACATED PRIOR TO START OF ANY DEMOLITION OR CONSTRUCTION.

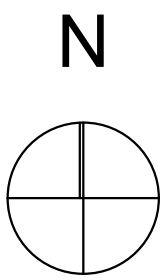
- DRAWING LIST
- AD-001SELECTIVE DEMOLITION TITLE SHEET
- AD-100GARDEN LEVEL DEMOLITION PLAN
- AD-101FIRST FLOOR DEMOLITION PLAN
- AD-500DEMOLITION DETAILS
- AD-600DEMOLITION FINISH SCHEDULE
- AD-700GARDEN LEVEL RCP DEMOLITION PLAN
- AD-701FIRST FLOOR RCP DEMOLITION PLAN



2 SITE LOCATION MAP
SCALE: 1/8" = 1'-0"



1 IMMEDIATE OVERHEAD WORK SITE
SCALE: 1/8" = 1'-0"



MOSE
ASSOCIATES ARCHITECTS PC

23 CATOONAH STREET
RIDGEFIELD, CT 06877
203 438 5355

DATE / REVISIONS
11-10-2017 Preliminary Budget
7-18-2018 - BID SUBMISSION SET

CONTRACTOR

ENGINEER

CERTIFICATION & SEAL

THIS DRAWING AND THE DETAILS ON IT, AS AN INSTRUMENT OF SERVICE, IS THE PROPERTY OF THE ARCHITECT, AND MAY BE USED ONLY FOR THIS SPECIFIC PROJECT AND SHALL NOT BE LOANED, COPIED OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF MOSE ASSOCIATES ARCHITECTS, P.C. THE PURCHASE OF THIS SET OF PLANS IN NO WAY TRANSFERS ANY COPYRIGHT OR OTHER OWNERSHIP INTEREST IN IT TO THE BUYER EXCEPT FOR LIMITED LICENSE TO USE THIS SPECIFIC PLAN FOR CONSTRUCTION FOR ONE AND ONLY ONE PROJECT.

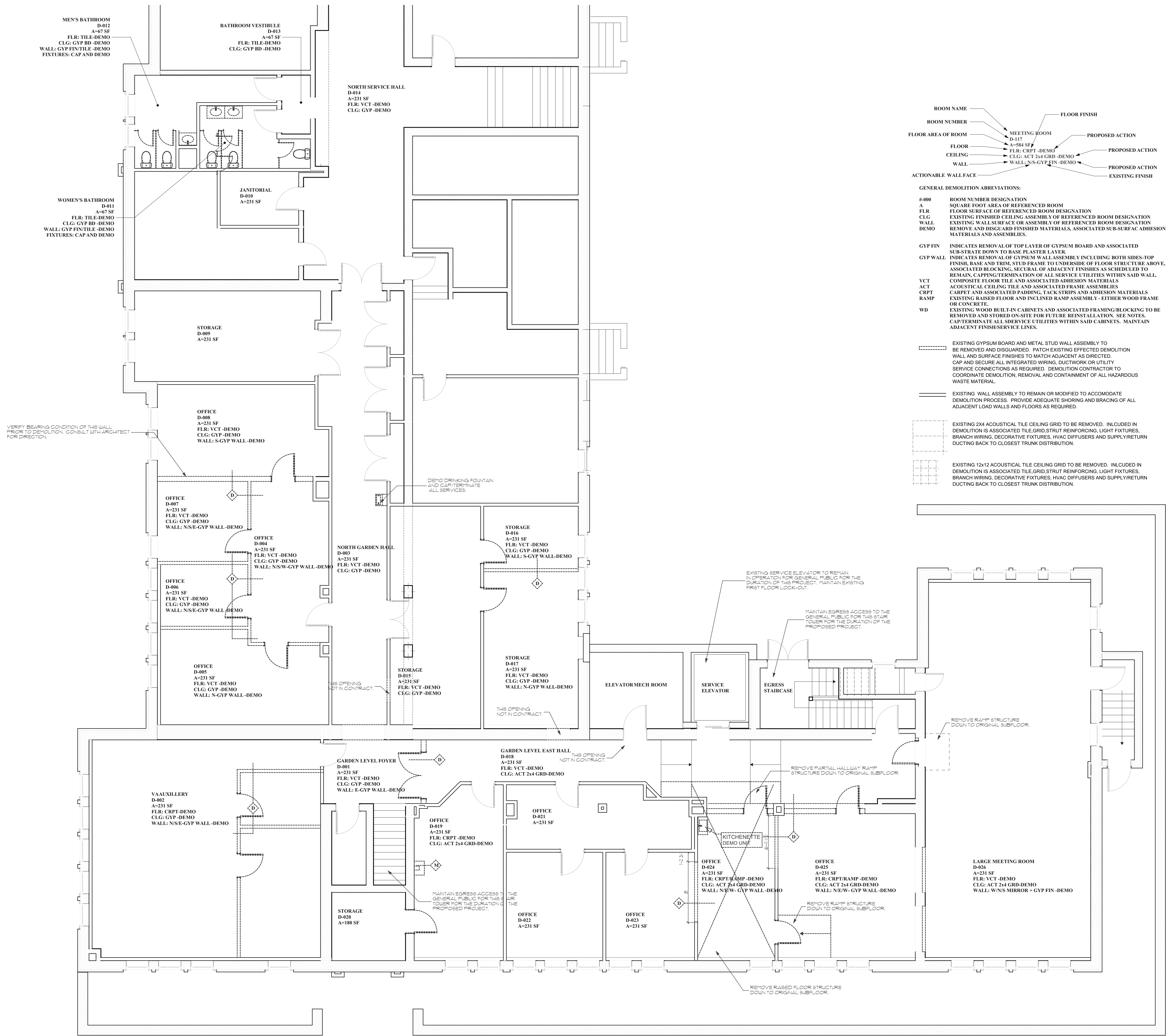
PROJECT
TOWN OF RIDGEFIELD
ANNEX & VENUS BUILDING
RENOVATIONS

100 East Ridge Road
Ridgefield, Connecticut
06877

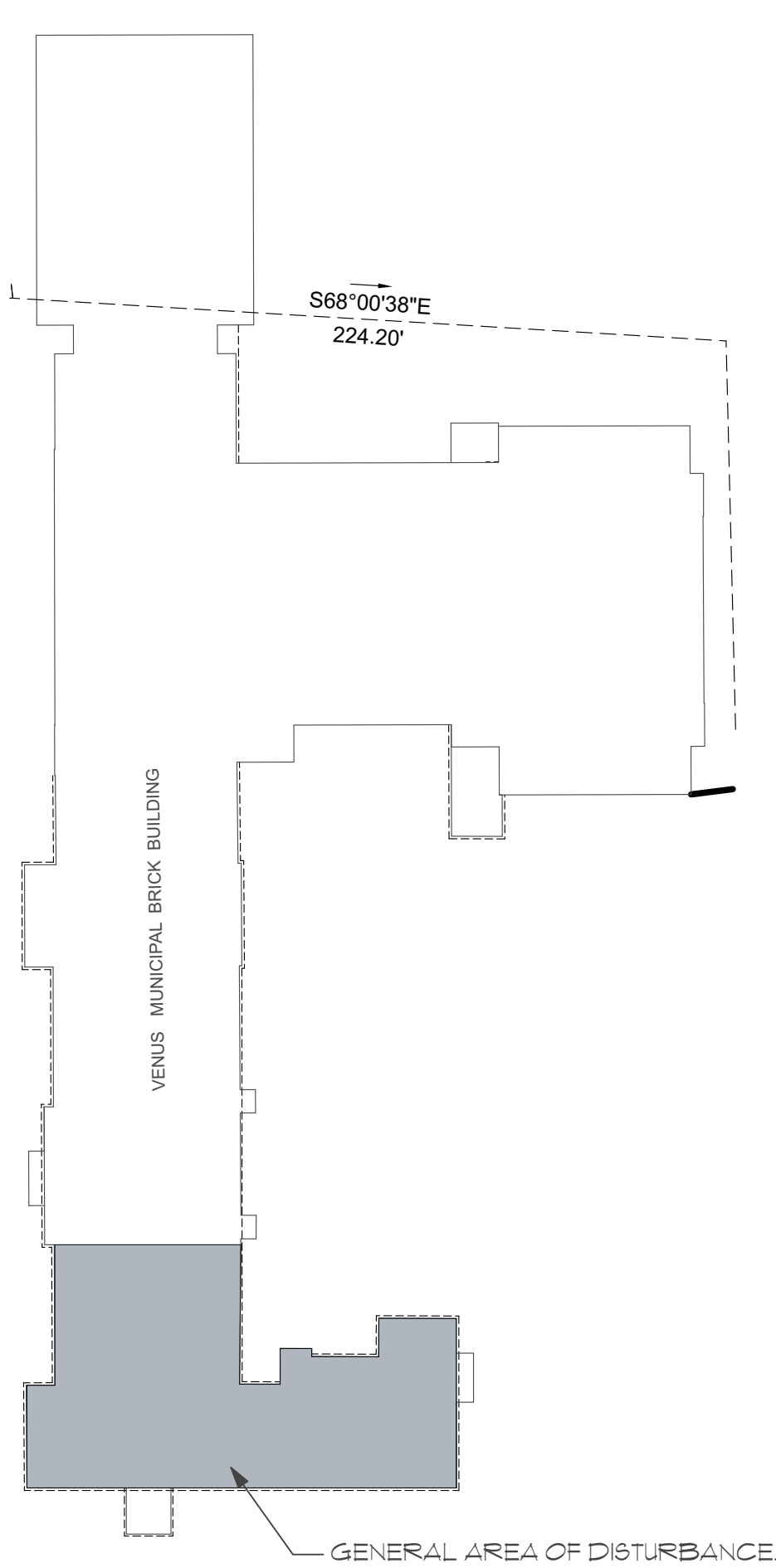
DRAWING TITLE
TITLE SHEET

DATE: 7/20/2018
BY: JM
JOB NO: 175
DWG. NO:

AD-001



1 BASEMENT - DEMOLITION PLAN
SCALE: 3/16" = 1'-0"



- ROOM NAME
ROOM NUMBER
FLOOR AREA OF ROOM
FLOOR
CEILING
WALL
ACTIONABLE WALL FACE
- FLOOR FINISH
MEETING ROOM
A-584 SF
FLR: CRPT-DEMO
CLG: ACT 2x4 GRD-DEMO
WALL: NSW-GYP FIN-DEMO
- PROPOSED ACTION
PROPOSED ACTION
PROPOSED ACTION
EXISTING FINISH
- GENERAL DEMOLITION ABBREVIATIONS:
- #400 ROOM NUMBER DESIGNATION
A SQUARE FOOT AREA OF REFERENCED ROOM
FLR FLOOR SURFACE OF REFERENCED ROOM DESIGNATION
CLG EXISTING FINISHED CEILING ASSEMBLY OF REFERENCED ROOM DESIGNATION
WALL EXISTING WALL SURFACE OR ASSEMBLY OF REFERENCED ROOM DESIGNATION
DEMO REMOVE AND DISCARD FINISHED MATERIALS, ASSOCIATED SUB-SURFAC ADHESION MATERIALS AND ASSEMBLIES.
- GYP FIN INDICATES REMOVAL OF TOP LAYER OF GYPSUM BOARD AND ASSOCIATED SUB-STRATE DOWN TO BASE PLASTER LAYER.
GYP WALL INDICATES REMOVAL OF GYPSUM WALL ASSEMBLY INCLUDING BOTH SIDES-TOP FINISH, BASE AND TRIM, STUD FRAME TO UNDERSIDE OF FLOOR STRUCTURE ABOVE, ASSOCIATED BLOCKING, SECURAL OF ADJACENT FINISHES AS SCHEDULED TO REMAIN, CAPPING/TERMINATION OF ALL SERVICE UTILITIES WITHIN SAID WALL. COMPOSITE FLOOR TILE AND ASSOCIATED ADHESION MATERIALS.
VCT ACOUSTICAL CEILING TILE AND ASSOCIATED FRAME ASSEMBLIES.
ACT CARPET AND ASSOCIATED PADDING, TACK STRIPS AND ADHESION MATERIALS.
CRPT EXISTING RAISED FLOOR AND INCLINED RAMP ASSEMBLY, EITHER WOOD FRAME OR CONCRETE.
WD EXISTING WOOD BUILT-IN CABINETS AND ASSOCIATED FRAMING/BLOCKING TO BE REMOVED AND STORED ON-SITE FOR FUTURE REINSTALLATION. SEE NOTES. CAP/TERMINATE ALL SERVICE UTILITIES WITHIN SAID CABINETS. MAINTAIN ADJACENT FINISH/SERVICE LINES.
- EXISTING GYPSUM BOARD AND METAL STUD WALL ASSEMBLY TO BE REMOVED AND DISCARDED. PATCH EXISTING EFFECTED DEMOLITION WALL AND SURFACE FINISHES TO MATCH ADJACENT AS DIRECTED. CAP AND SECURE ALL INTEGRATED WIRING, DUCTWORK OR UTILITY SERVICE CONNECTIONS AS REQUIRED. DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION, REMOVAL AND CONTAINMENT OF ALL HAZARDOUS WASTE MATERIAL.
- EXISTING WALL ASSEMBLY TO REMAIN OR MODIFIED TO ACCOMMODATE DEMOLITION PROCESS. PROVIDE ADEQUATE SHORING AND BRACING OF ALL ADJACENT LOAD WALLS AND FLOORS AS REQUIRED.
- EXISTING 2x4 ACOUSTICAL TILE CEILING GRID TO BE REMOVED. INCLUDED IN DEMOLITION IS ASSOCIATED TILE GRID/STRUT REINFORCING, LIGHT FIXTURES, BRANCH WIRING, DECORATIVE FIXTURES, HVAC DIFFUSERS AND SUPPLY/RETURN DUCTING BACK TO CLOSEST TRUNK DISTRIBUTION.
- EXISTING 12x12 ACOUSTICAL TILE CEILING GRID TO BE REMOVED. INCLUDED IN DEMOLITION IS ASSOCIATED TILE GRID/STRUT REINFORCING, LIGHT FIXTURES, BRANCH WIRING, DECORATIVE FIXTURES, HVAC DIFFUSERS AND SUPPLY/RETURN DUCTING BACK TO CLOSEST TRUNK DISTRIBUTION.



MOSE

ASSOCIATES ARCHITECTS PC

23 CATOONAH STREET
RIDGEFIELD, CT 06877
203 438 5355

DATE / REVISIONS

11-10-2017 Preliminary Budget

7-18-2018 - BID SUBMISSION SET

CONTRACTOR

ENGINEER

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PROJECT
**TOWN OF RIDGEFIELD
ANNEX & VENUS BUILDING
RENOVATIONS**

100 East Ridge Road
Ridgefield, Connecticut
06877

DRAWING TITLE

GARDEN LEVEL DEMO

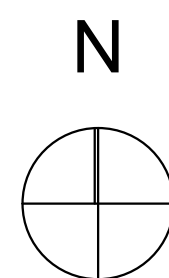
DATE: 7/20/2018

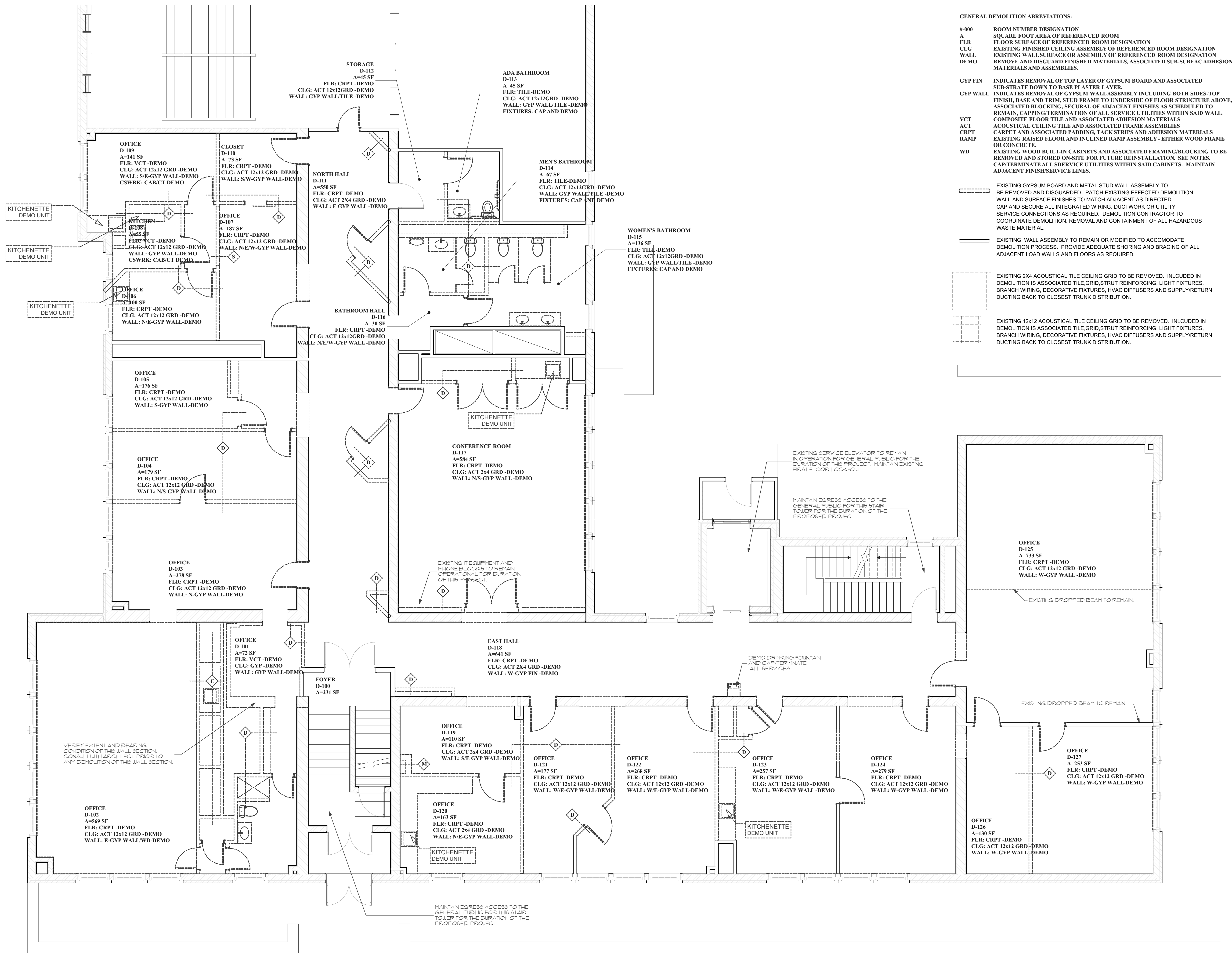
BY: JM

JOB NO: 175

DWG. NO:

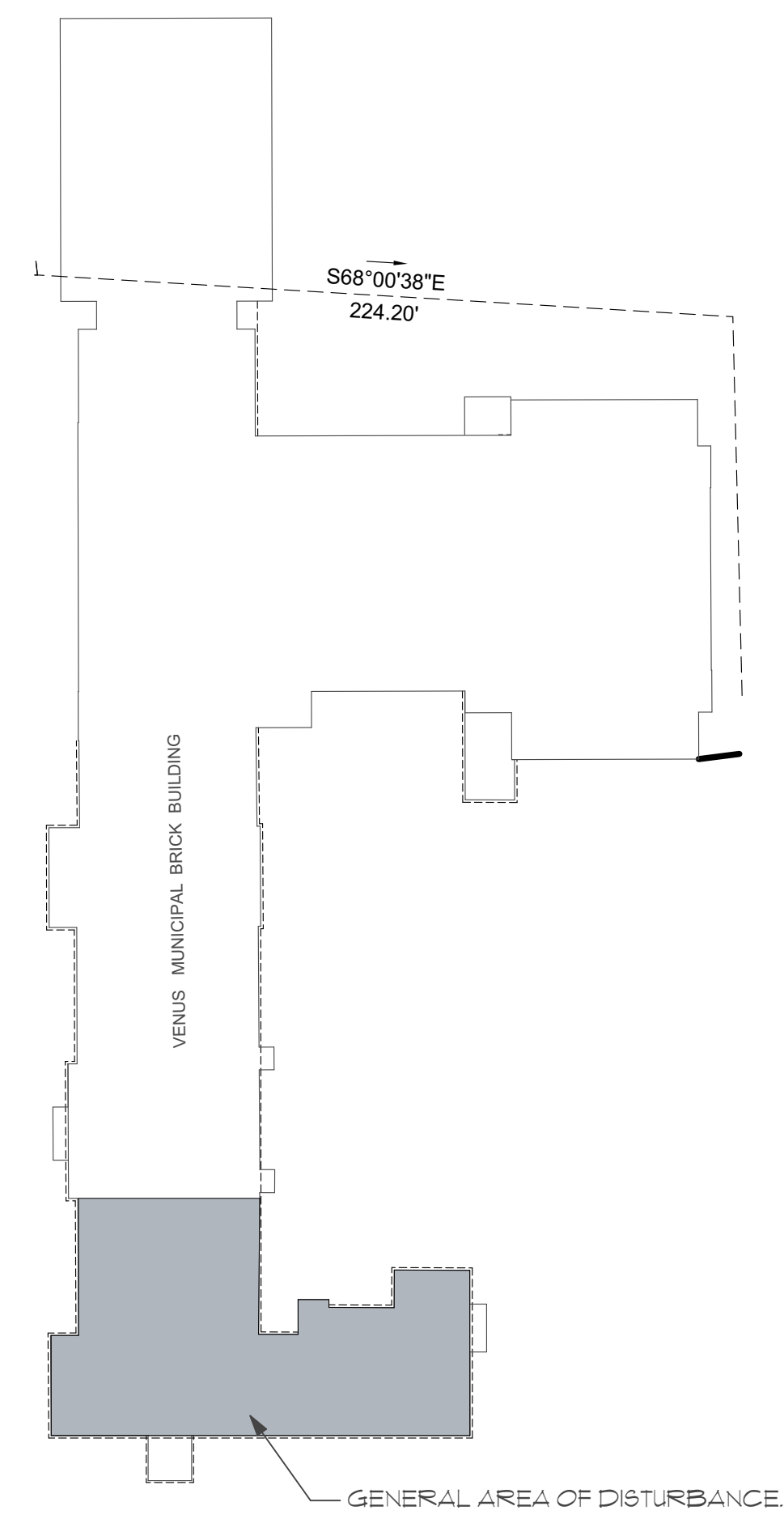
AD-100





1 FIRST FLOOR - DEMOLITION
SCALE: 3/16" = 1'-0"

- GENERAL DEMOLITION ABBREVIATIONS:
- #-000 ROOM NUMBER DESIGNATION
A SQUARE FOOT AREA OF REFERENCED ROOM
FLR FLOOR SURFACE OF REFERENCED ROOM DESIGNATION
CLG EXISTING FINISHED CEILING ASSEMBLY OF REFERENCED ROOM DESIGNATION
WALL EXISTING WALL SURFACE OR ASSEMBLY OF REFERENCED ROOM DESIGNATION
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GYP WALL INDICATES REMOVAL OF GYPSUM WALL ASSEMBLY INCLUDING BOTH SIDES-TOP FINISH, BASE AND TRIM, STUD FRAME TO UNDERSIDE OF FLOOR STRUCTURE ABOVE, ASSOCIATED BLOCKING, SECURE OF ADJACENT FINISHES AS SCHEDULED TO REMAIN, CAPPING/TERMINATION OF ALL SERVICE UTILITIES WITHIN SAID WALL, COMPOSITE FLOOR TILE AND ASSOCIATED ADHESION MATERIALS
VCT ACUSTICAL CEILING TILE AND ASSOCIATED FRAME ASSEMBLIES
ACT CARPET AND ASSOCIATED PADDING, TACK STRIPS AND ADHESION MATERIALS
CRPT EXISTING BASED FLOOR AND INCLINED RAMP ASSEMBLY - EITHER WOOD FRAME OR CONCRETE
WD EXISTING WOOD BUILT-IN CABINETS AND ASSOCIATED FRAMING/BLOCKING TO BE REMOVED AND STORED ON-SITE FOR FUTURE REINSTALLATION. SEE NOTES. CAP/TERMINATE ALL SDRVICE UTILITIES WITHIN SAID CABINETS. MAINTAIN ADJACENT FINISH/SERVICE LINES.
- EXISTING GYPSUM BOARD AND METAL STUD WALL ASSEMBLY TO BE REMOVED AND DISCARDED. PATCH EXISTING EFFECTED DEMOLITION WALL AND SURFACE FINISHES TO MATCH ADJACENT AS DIRECTED. CAP AND SECURE ALL INTEGRATED WIRING, DUCTWORK OR UTILITY SERVICE CONNECTIONS AS REQUIRED. DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION, REMOVAL AND CONTAINMENT OF ALL HAZARDOUS WASTE MATERIAL.
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- EXISTING 12x12 ACUSTICAL TILE CEILING GRID TO BE REMOVED. INCLUDED IN DEMOLITION IS ASSOCIATED TILE, GRID, STRUT REINFORCING, LIGHT FIXTURES, BRANCH WIRING, DECORATIVE FIXTURES, HVAC DIFFUSERS AND SUPPLY/RETURN DUCTING BACK TO CLOSEST TRUNK DISTRIBUTION.



GENERAL SHORING AND BRACING NOTE:

PROVIDE ALL SHORING AND BRACING WHERE REQUIRED TO PREVENT MOVEMENT, DISPLACEMENT, AND DEFORMATION OF AND TO PREVENT EXCESS STREE ON ALL BUILDING ELEMENTS AND MATERIALS TO REMAIN AND ALL SHORING AND BRACING REQUIRED TO PREVENT IMPOSITION OF STRESSES THAT MIGHT DAMAGE OR DETERIORATE ALL ELEMENETS AND MATERIALS TO REMAIN AND ALL ELEMENETS AND MATERIALS TO BE REMOVED AND SALVAGED.
SHORING AND BRACING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENCED IN THE STATE OF CONNECTICUT, EMPLOYED OR ENGAGED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE AND SHALL BE SUBMITTED FOR REVIEW PRIOR TO START OF WORK IMPLEMENTATION.

HISTORIC PLASTER RESTORATION NOTES:

- WHERE ORIGINAL PLASTER IS TO REMAIN, COMPLY WITH SECRETARY OF THE INTERIORS STANDARDS FOR RESTORATION OF HISTORIC PLASTER. COMPLY WITH NATIONAL PARK SERVICE PRESERVATION BRIEF 21 FOR REPAIRING HISTORIC FLAT PLASTER - WALLS AND CEILINGS AS ENCOUNTERED.
- FOR LARGE HOLES GREATER THAN 4 INCHES IN DIAMETER, REMOVE SECTIONS OF DETERIORATED/DAMAGED PLASTER AS INDICATED WITH WATER STAINS, CHIPPING, FLAKING AND DELAMINATION. CAREFULLY CUT TO MAKE REGULAR GEOMETRIC OPENINGS BAK TO NEAREST WOOD LATHE STRIP OR STUD. RESECURE LATHE. A GYPSUM BOARD PATCH MAY BE USED ENSURING THAT THE PATCH FIT NEATLY IN THE OPENING. FOLLOW GUIDELINES OF THE U.S. GYPSUM ASSOCIATION FOR BEST PRACTICE IN SECURING OF GYPSUM BOARD, JOINT INFILL, TAPING AND COMPOUND COATS (MINIMUM (3) COATS) TOUCH UP WITH COMPOUND AND LIGHT SANDING WITH WET SANDING SPONGE.
- FOR SMALL CHIPS, CRACKS AND DEPRESSIONS IN PLASTER: SCRAPE LOOSE OR DAMAGED FINISH PLASTER AND PEELING PAINT FROM SURFACE, REMOVE MATERIALS AS REQUIRED TO ENLARGE CRACK, CHIPS, AND HOLES TO AT LEAST 1/2 INCH ACROSS. UNDERCUT TO IMPROVE BONDING. CONFORM TO ANSI A42.1 FOR GYPSUM PLASTERING MATERIALS CONFORMING TO BEST PRACTICE FOR PLASTER APPLICATION.



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CONTRACTOR

ENGINEER

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PROJECT

TOWN OF RIDGEFIELD
ANNEX & VENUS BUILDING
RENOVATIONS

100 East Ridge Road
Ridgefield, Connecticut
06877

DRAWING TITLE

FIRST FLOOR DEMO

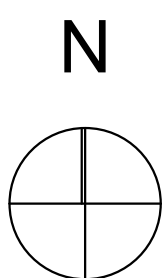
DATE: 7/20/2018

BY: JM

JOB NO: 175

DWG. NO:

AD-101





KITCHEN CABINETRY TO BE REMOVED



KITCHEN CABINETRY TO BE REMOVED



KITCHEN CABINETRY TO BE REMOVED



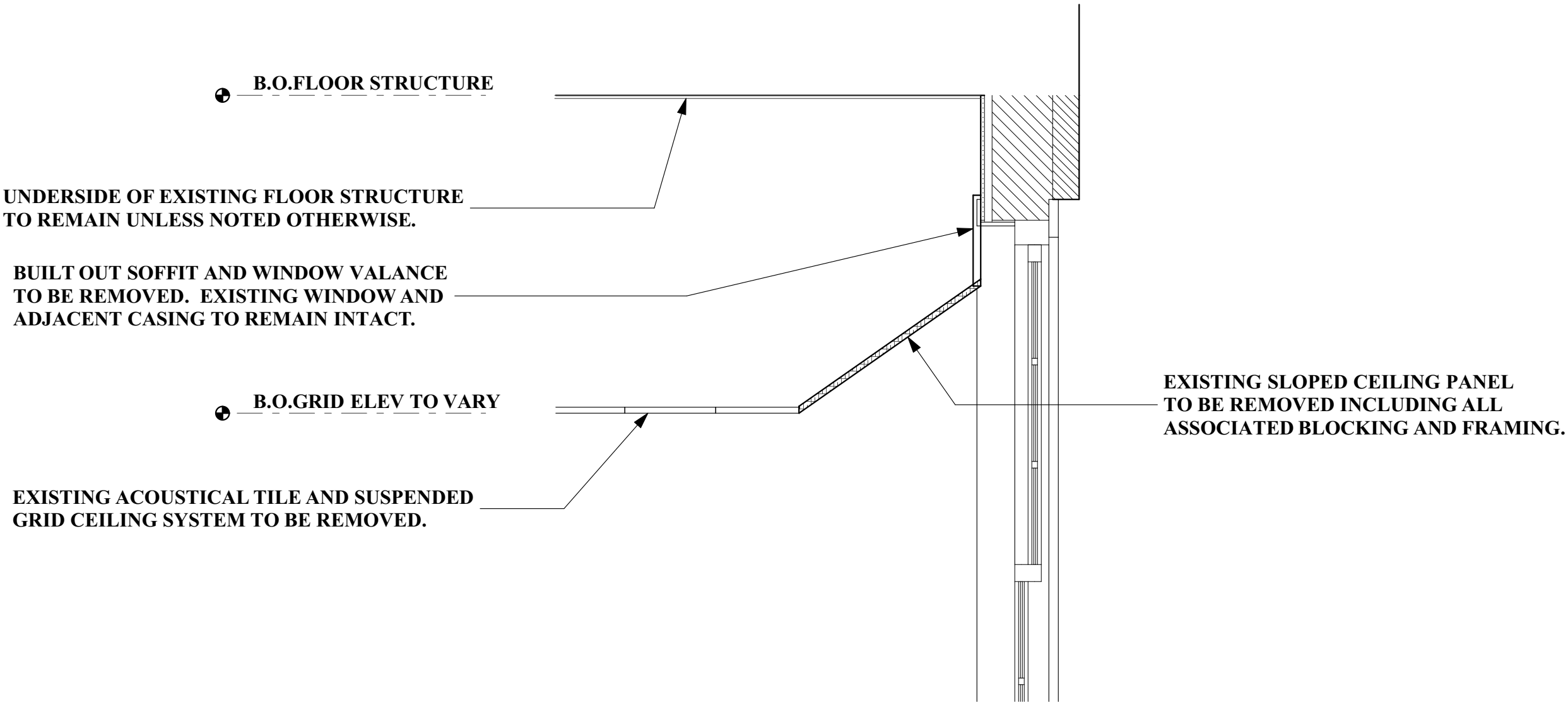
KITCHEN CABINETRY TO BE REMOVED



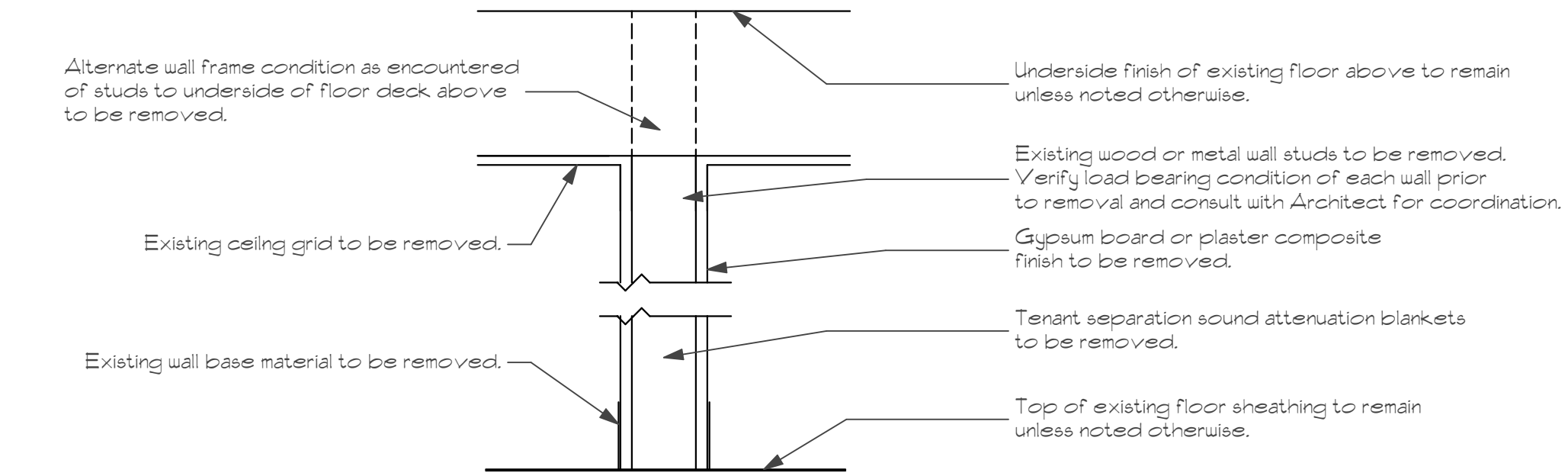
EXISTING WOOD WORK CASEGOODS TO BE REMOVED AND STORED AT THE DIRECTION OF THE OWNER.



BATHROOM TO BE REMOVED



1 WINDOW SOFFIT SECTION
SCALE: 3/4" = 1'-0"



D TYPICAL INTERIOR PARTITION WALL TO BE DEMOLISHED
Scale: 1 1/2"=1'-0"



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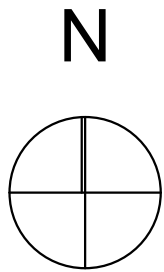
PROJECT
TOWN OF RIDGEFIELD
ANNEX & VENUS BUILDING
RENOVATIONS

100 East Ridge Road
Ridgefield, Connecticut
06871

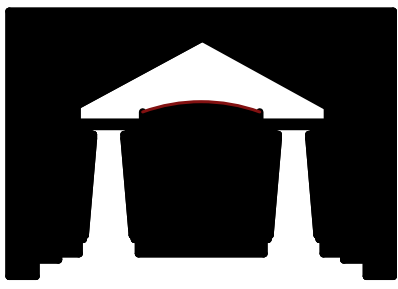
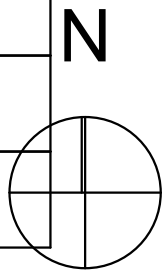
DRAWING TITLE
DEMOLITION DETAILS

DATE: 7/20/2018
BY: JM
JOB NO: 1715
DWG. NO:

AD-500



DEMOLITION ROOM FINISH SCHEDULE - JULY 11, 2018													
ROOM		Floor Type	WALLS				BASE				CEILING	REMARKS	Calculated Area
NUMBER	NAME		NORTH	EAST	SOUTH	WEST	NORTH	EAST	SOUTH	WEST			
D-001	GARDEN FOYER	Demo VCT	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---			107.48
D-002	VAAUXILLERY	Demo Carpet and Padding	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		884.56
D-003	NORTH SERVICE HALL	Demo VCT	Gypsum to remain	Gypsum to remain	Plaster to remain	Gypsum to remain	---	---	---	---	ACT Grid to be removed		449.92
D-004	RECEPTION	Demo VCT	Plaster to remain	Gypsum to remain	Gypsum to remain	Gypsum to remain	---	---	---	---	ACT Grid to be removed		217.17
D-005	OFFICE	Demo VCT	Demo Wall	Gypsum to remain	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		253.40
D-006	OFFICE	Demo VCT	Demo wall assembly	Demo wall assembly	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		93.39
D-007	OFFICE	Demo VCT	Demo Wall Assembly	Demo Wall Assembly	Demo Wall Assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		125.18
D-008	STORAGE	Demo VCT	Plaster to remain	Plaster to remain	Demo Wall Assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		261.66
D-009	STORAGE	No finish changes	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	No finish changes		285.49
D-010	JANITORIAL	No finish changes	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	No finish changes		73.55
D-011	WOMEN'S BATH	Demo Floor Tile	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	No finish changes		107.94
D-012	MEN'S BATH	Demo Floor Tile	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	No finish changes		128.78
D-013	BATHROOM VESTIBULE	Demo VCT	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	No finish changes		30.80
D-014	NORTH SERVICE HALL	Demo VCT	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	No finish changes		686.14
D-015	STORAGE	Demo VCT	Plaster to remain	Gypsum to remain	Plaster to remain	Plaster to remain	---	---	---	---	No finish changes		342.60
D-016	STORAGE	Demo VCT	Plaster to remain	Plaster to remain	Demo wall assembly	Gypsum Wall to remain	---	---	---	---	No finish changes		153.06
D-017	STORAGE	Demo VCT	Demo wall assembly	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	No finish changes		199.46
D-018	GARDEN LEVEL EAST HALL	Demo VCT	Plaster to remain	Plaster to remain	Demo Partial Wall Assembly	Demo Partial Wall Assembly	---	---	---	---	ACT Grid to be removed		470.49
D-019	OFFICE	Demo Carpet and Padding	No finish changes	No finish changes	No finish changes	Remove Door Assembly	---	---	---	---	No finish changes		251.23
D-020	STORAGE	No Finish Changes	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	No finish changes		86.60
D-021	OFFICE	No Finish Changes	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	No finish changes		189.41
D-022	OFFICE	No Finish changes	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	No finish changes		175.63
D-023	OFFICE	No Finish Changes	No finish changes	Demo Partial Wall Assembly	No finish changes	No finish changes	---	---	---	---	No finish changes		161.51
D-024	OFFICE	Demo Carpet and Padding	Demo wall assembly	Demo Partial Wall Assembly	Plaster to remain	Demo Partial Wall Assembly	---	---	---	---	ACT Grid to be removed		191.47
D-025	OFFICE	Demo Carpet and Padding	Demo Partial Wall Assembly	Demo Partial Wall Assembly	Plaster to remain	Demo Partial Wall Assembly	---	---	---	---	ACT Grid to be removed		341.93
D-026	LARGE MEETING ROOM	Demo Carpet and Padding	Gypsum Wall to remain	Gypsum Wall to remain	Demo Mirror/Gyp Finish	Demo Mirror/Gyp Finish	---	---	---	---	ACT Grid to be removed		1,073.29
D-100	STAIRCASE	No Finish Changes	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	No finish changes		175.81
D-101	HALL	Demo Carpet and Padding	Demo Partial Wall Assembly	Demo Partial Wall Assembly	See Remarks	Demo Partial Wall Assembly	---	---	---	---	ACT Grid to be removed	Verify Bearing/Load status of this wall prior to demolition	70.93
D-102	OFFICE	Demo Carpet and Padding	Plaster to remain	Demo Wood Wall	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed	Existing cabinetry to be removed and stored for reuse.	572.68
D-102-B	BATH	Demo Floor Tile and Sub-floor	Demo wall assembly	Plaster to remain	Plaster to remain	Demo wall assembly	---	---	---	---	ACT Grid to be removed		83.72
D-103	OFFICE	Demo Carpet and Padding	Demo wall assembly	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		277.65
D-104	OFFICE	Demo Carpet and Padding	Demo wall assembly	Plaster to remain	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		176.32
D-105	OFFICE	Demo Carpet and Padding	Plaster to remain	Demo wall assembly	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		174.33
D-106	OFFICE	Demo Carpet and Padding	Demo wall assembly	Demo wall assembly	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		100.45
D-107	RECEPTION	Demo Carpet and Padding	Demo wall assembly	Plaster to remain	Plaster to remain	Demo wall assembly	---	---	---	---	ACT Grid to be removed		186.85
D-108	KITCHEN	Demo VCT	Demo wall assembly	Demo wall assembly	Demo wall assembly	Demo wall assembly	---	---	---	---	ACT Grid to be removed		56.25
D-109	OFFICE	Demo Carpet and Padding	Plaster to remain	Demo wall assembly	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		131.33
D-110	STORAGE	Demo Carpet and Padding	Plaster to remain	Plaster to remain	Demo wall assembly	Demo wall assembly	---	---	---	---	ACT Grid to be removed		73.46
D-111	NORTH HALL	Demo Carpet and Padding	Plaster to remain	Demo Partial Wall Assembly	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		541.67
D-112	STORAGE	Demo VCT	Plaster to remain	Demo wall assembly	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		44.77
D-113	ADA BATH	Demo Floor Tile and Sub-floor	Plaster to remain	Plaster to remain	Demo wall assembly	Demo wall assembly	---	---	---	---	ACT Grid to be removed		48.91
D-114	MEN'S BATH	Demo Floor Tile and Sub-floor	Demo wall assembly	Demo wall assembly	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		66.63
D-115	WOMEN'S BATH	Demo Floor Tile and Sub-floor	Demo wall assembly	Plaster to remain	Plaster to remain	Demo wall assembly	---	---	---	---	ACT Grid to be removed		136.25
D-116	BATH HALL	Demo Carpet and Padding	Demo wall assembly	Demo wall assembly	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		42.50
D-117	CONFERENCE ROOM	Demo Carpet and Padding	Demo wall assembly	Plaster to remain	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		607.54
D-118	EAST HALL	Demo Carpet and Padding	Plaster to remain	Plaster to remain	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		640.65
D-119	LOUNGE	Demo Carpet and Padding	Plaster to remain	Demo wall assembly	Demo wall assembly	Plaster to remain	---	---	---	---	ACT Grid to be removed		114.00
D-120	KITCHEN	Demo VCT	Demo wall assembly	Demo wall assembly	Plaster to remain	Plaster to remain	---	---	---	---	ACT Grid to be removed		164.66
D-121	OFFICE	Demo Carpet and Padding	Plaster to remain	Demo wall assembly	Plaster to remain	Demo wall assembly	---	---	---	---	ACT Grid to be removed		175.21
D-122	OFFICE	Demo Carpet and Padding	Plaster to remain	Demo wall assembly	Plaster to remain	Demo wall assembly	---	---	---	---	ACT Grid to be removed		268.32
D-123	OFFICE	Demo Carpet and Padding	Plaster to remain	Demo wall assembly	Plaster to remain	Demo wall assembly	---	---	---	---	ACT Grid to be removed		262.73
D-124	OFFICE	Demo Carpet and Padding	Plaster to remain	Plaster to remain	Plaster to remain	Demo Partial Wall Assembly	---	---	---	---	ACT Grid to be removed		278.63
D-125	MEETING ROOM	Demo Carpet and Padding	No finish changes	No finish changes	No finish changes	No finish changes	---	---	---	---	ACT Grid to be removed		735.47
D-126	STORAGE	Demo Carpet and Padding	No finish changes	Demo wall assembly	No finish changes	No finish changes	---	---	---	---	ACT Grid to be removed		130.30
D-127	OFFICE	Demo Carpet and Padding	No finish changes	No finish changes	No finish changes	Demo wall assembly	---	---	---	---	ACT Grid to be removed		253.48



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PROJECT

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100 East Ridge Road
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06871

DRAWING TITLE

DEMOLITION ROOM SCHEDULE

DATE: 7/20/2018

BY: JM

JOB NO: 175

DWG. NO:

A-600



MOSE

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RENOVATIONS**

100 East Ridge Road
Ridgefield, Connecticut
06877

DRAWING TITLE

GARDEN LEVEL RCP DEMO

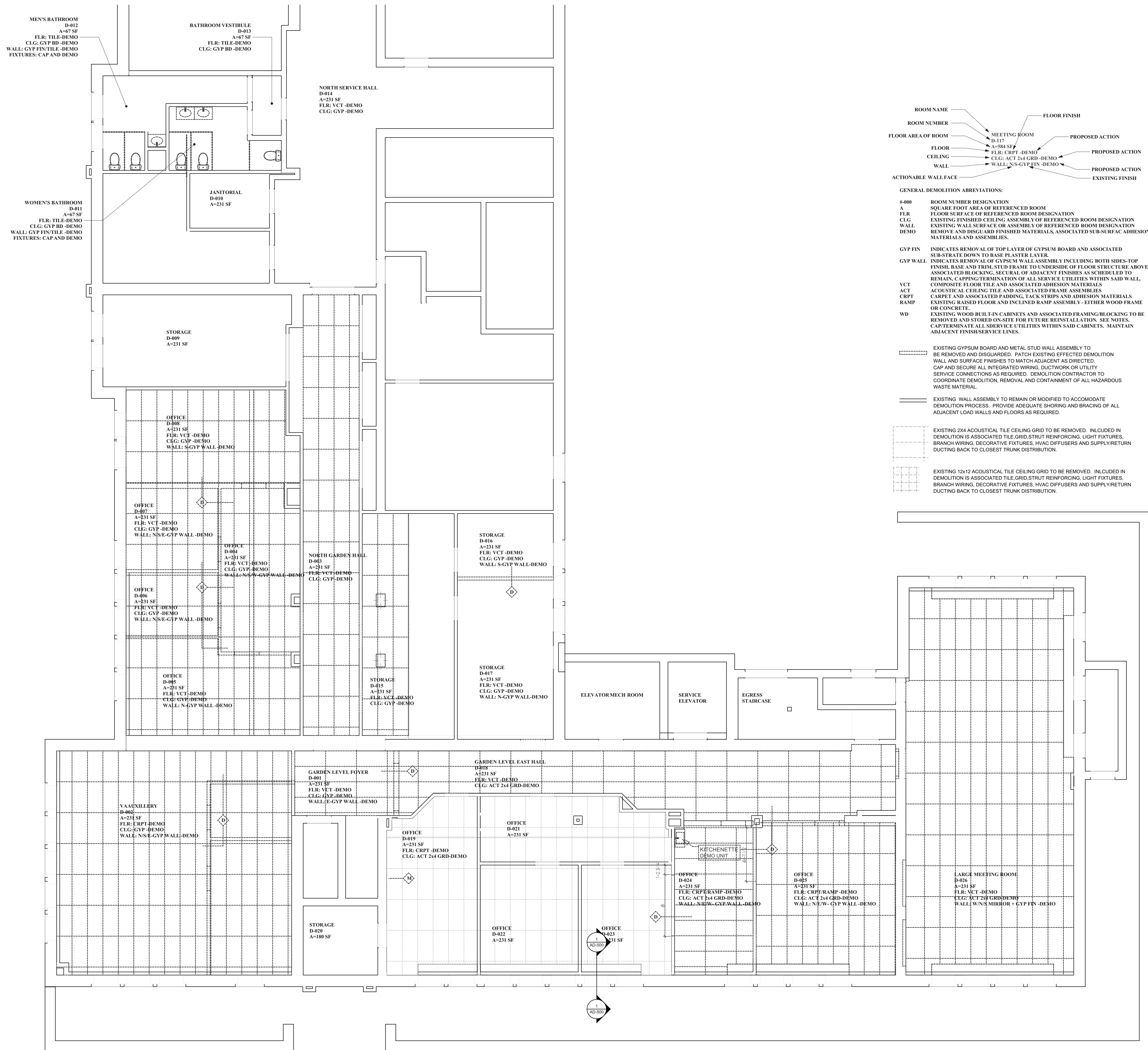
DATE: 7/20/2018

BY: JM

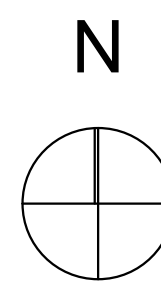
JOB NO: 175

DWG. NO:

AD-700



1 GARDEN LEVEL - DEMO-RCP
SCALE: 3/16" = 1'-0"





MOSE

ASSOCIATES ARCHITECTS PC

23 CATOONAH STREET
RIDGEBFIELD, CT 06877
203 438 5355

DATE / REVISIONS

11-10-2017 Preliminary Budget

7-18-2018 - BID SUBMISSION SET

CONTRACTOR

ENGINEER

CERTIFICATION & SEAL

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PROJECT
**TOWN OF RIDGEBFIELD
ANNEX & VENUS BUILDING
RENOVATIONS**

100 East Ridge Road
Ridgfield, Connecticut
06877

DRAWING TITLE

FIRST FLOOR RFP DEMO

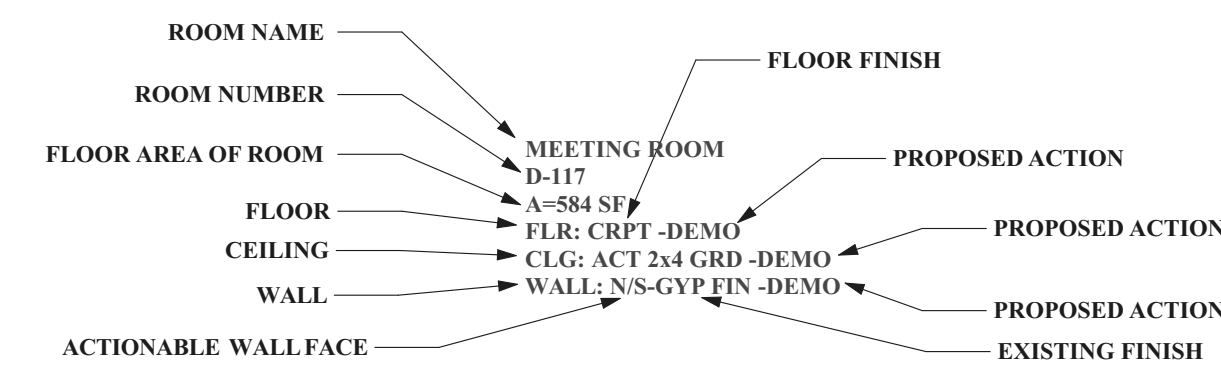
DATE: 7/20/2018

BY: JM

JOB NO: 175

DWG. NO:

AD-701



GENERAL DEMOLITION ABBREVIATIONS:

#-000 ROOM NUMBER DESIGNATION
A SQUARE FOOT AREA OF REFERENCED ROOM
FLR FLOOR SURFACE OF REFERENCED ROOM DESIGNATION
CLG EXISTING FINISHED CEILING ASSEMBLY OF REFERENCED ROOM DESIGNATION
WALL EXISTING WALL SURFACE OR ASSEMBLY OF REFERENCED ROOM DESIGNATION
DEMO REMOVE AND DISCARD FINISHED MATERIALS, ASSOCIATED SUB-SURFACE ADHESION MATERIALS AND ASSEMBLIES.

GYP FIN INDICATES REMOVAL OF TOP LAYER OF GYPSUM BOARD AND ASSOCIATED SUB-STRATE DOWN TO BASE PLASTER LAYER.

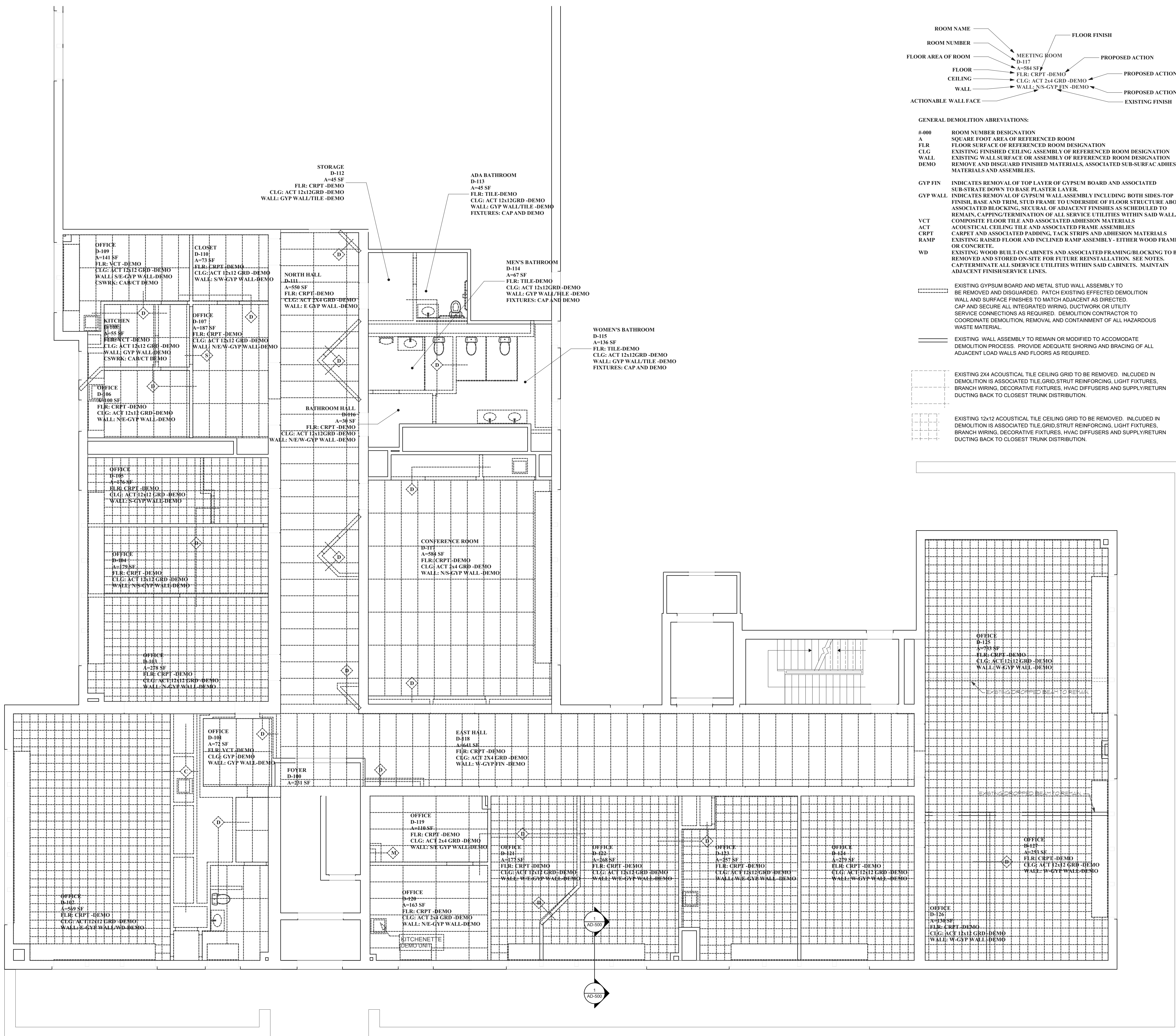
GYP WALL INDICATES REMOVAL OF GYPSUM WALL ASSEMBLY INCLUDING BOTH SIDES-TOP FINISH, BASE AND TRIM, STUD FRAME TO UNDERSIDE OF FLOOR STRUCTURE ABOVE, ASSOCIATED BLOCKING, SECURAL OF ADJACENT FINISHES AS SCHEDULED TO REMAIN, CAPPING/TERMINATION OF ALL SERVICE UTILITIES WITHIN SAID WALL, COMPOSITE FLOOR TILE AND ASSOCIATED ADHESION MATERIALS
VCT ACOUSTICAL CEILING TILE AND ASSOCIATED FRAME ASSEMBLIES
CRPT CARPET AND ASSOCIATED PADDING, TACK STRIPS AND ADHESION MATERIALS
RAMP EXISTING RAISED FLOOR AND INCLINED RAMP ASSEMBLY - EITHER WOOD FRAME OR CONCRETE
WD EXISTING WOOD BUILT-IN CABINETS AND ASSOCIATED FRAMING/BLOCKING TO BE REMOVED AND STORED ON-SITE FOR FUTURE REINSTALLATION. SEE NOTES. CAP/TERMINATE ALL SERVICE UTILITIES WITHIN SAID CABINETS. MAINTAIN ADJACENT FINISH/SERVICE LINES.

EXISTING GYPSUM BOARD AND METAL STUD WALL ASSEMBLY TO BE REMOVED AND DISCARDED. PATCH EXISTING EFFECTED DEMOLITION WALL AND SURFACE FINISHES TO MATCH ADJACENT AS DIRECTED. CAP AND SECURE ALL INTEGRATED WIRING, DUCTWORK OR UTILITY SERVICE CONNECTIONS AS REQUIRED. DEMOLITION CONTRACTOR TO COORDINATE DEMOLITION, REMOVAL AND CONTAINMENT OF ALL HAZARDOUS WASTE MATERIAL.

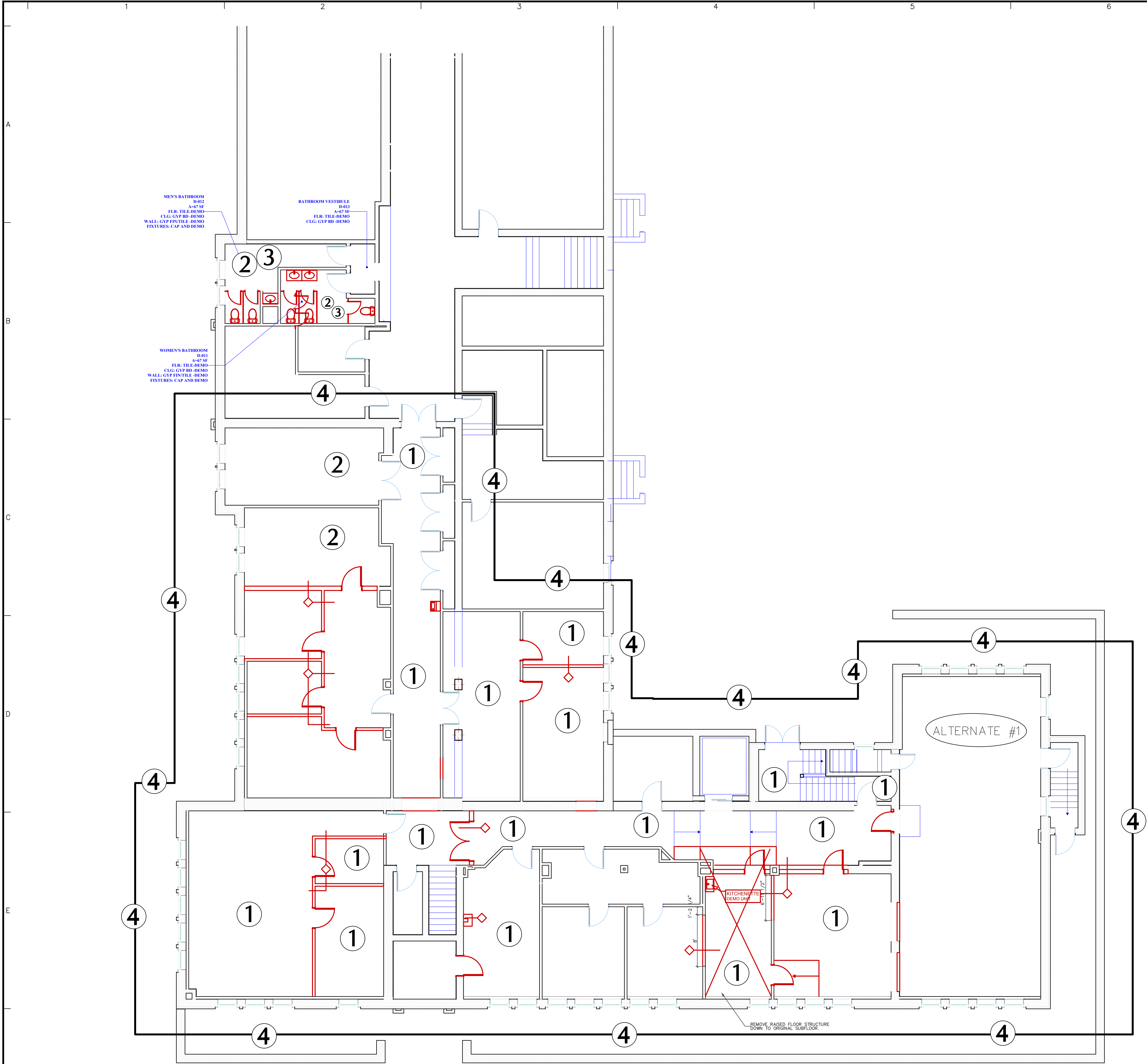
EXISTING WALL ASSEMBLY TO REMAIN OR MODIFIED TO ACCOMMODATE DEMOLITION PROCESS. PROVIDE ADEQUATE SHORING AND BRACING OF ALL ADJACENT LOAD WALLS AND FLOORS AS REQUIRED.

EXISTING 2x4 ACOUSTICAL TILE CEILING GRID TO BE REMOVED. INCLUDED IN DEMOLITION IS ASSOCIATED TILE GRID, STRUT REINFORCING, LIGHT FIXTURES, BRANCH WIRING, DECORATIVE FIXTURES, HVAC DIFFUSERS AND SUPPLY/RETURN DUCTING BACK TO CLOSEST TRUNK DISTRIBUTION.

EXISTING 12x12 ACOUSTICAL TILE CEILING GRID TO BE REMOVED. INCLUDED IN DEMOLITION IS ASSOCIATED TILE GRID, STRUT REINFORCING, LIGHT FIXTURES, BRANCH WIRING, DECORATIVE FIXTURES, HVAC DIFFUSERS AND SUPPLY/RETURN DUCTING BACK TO CLOSEST TRUNK DISTRIBUTION.



Plans, Demolition



GENERAL NOTES:

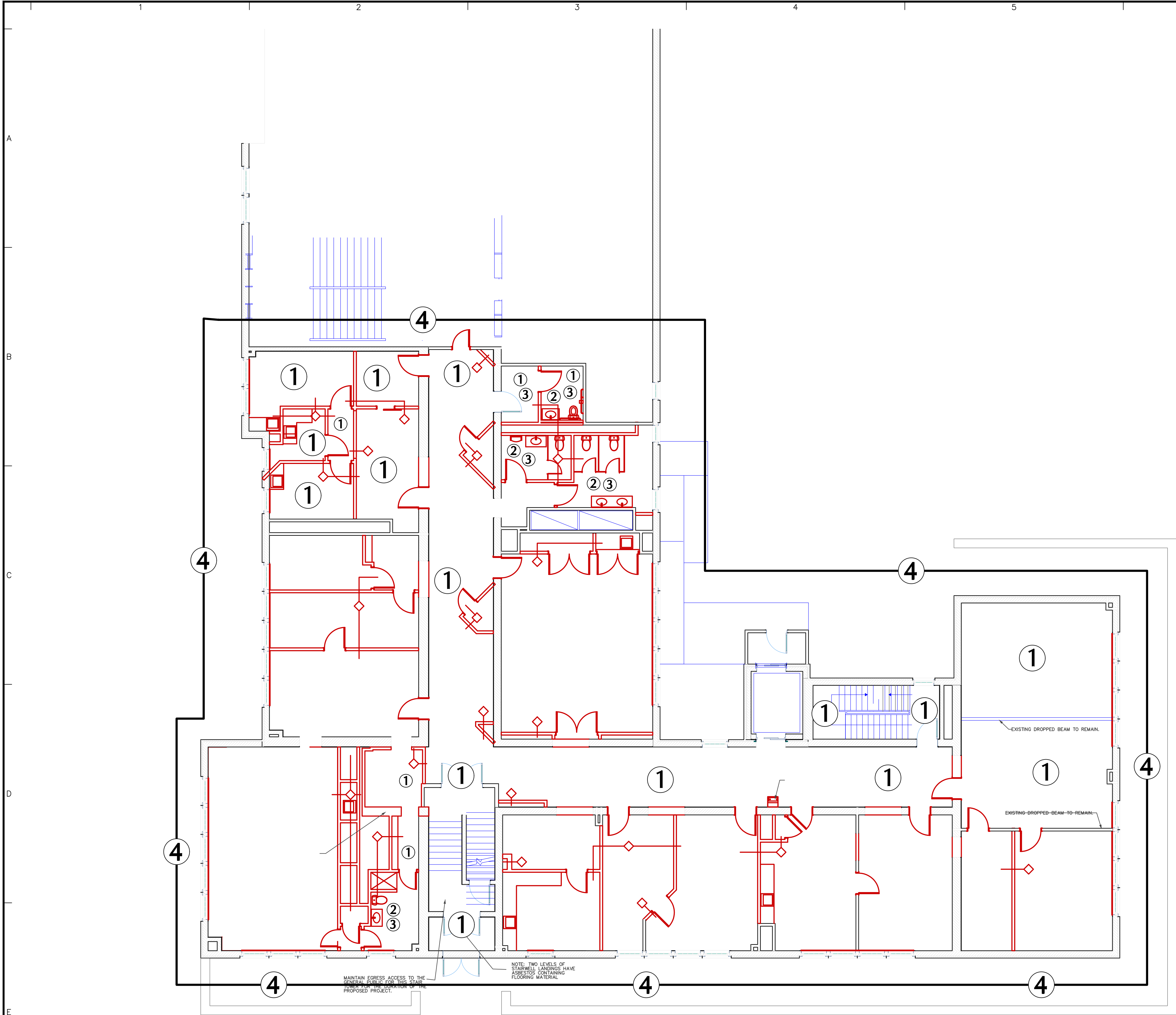
1. THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING CONDITIONS AND FOR NOTIFYING THE CONSULTANT OF ANY DISCREPANCIES PRIOR TO FINALIZING BID.
2. THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY WATER, POWER, AND HEAT AS NEEDED AT THE SITE (24 HOURS A DAY). TEMPORARY LIGHTING WITHIN THE WORK AREAS MUST BE CONNECTED TO GROUND FAULT CIRCUIT INTERRUPTER (GFCI) POWER PANELS INSTALLED BY A STATE OF CONNECTICUT LICENSED ELECTRICIAN AND LOCATED OUTSIDE OF THE WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYING FOR THE USE OF POWER AND WATER UNLESS THE OWNER AGREES IN WRITING TO PAY FOR THESE UTILITIES. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ALL FIXED AND TEMPORARY CONNECTIONS AND HOOK-UPS AS WELL AS OBTAINING PERMITS AND PAYING ALL FEES FOR MAKING SUCH SERVICES AVAILABLE FOR HIS WORK AS IS NECESSARY.
3. THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR MUST PERFORM ENOUGH DEMOLITION TO ACCESS ALL ASBESTOS CONTAINING MATERIALS TO BE REMOVED. THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR SHALL ASSUME ASBESTOS CONTAINING FLOORING MATERIALS EXIST UNDER WALLS AND OTHER NONMOVEABLE OBJECTS AND SHALL PERFORM DEMOLITION PRIOR TO ABATEMENT TO ACCESS ALL MATERIALS.
4. THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR IS RESPONSIBLE FOR MULTIPLE MOBILIZATIONS AND CONTAINMENTS. THE HAZARDOUS MATERIALS CONTRACTOR IS RESPONSIBLE FOR COORDINATING ABATEMENT WORK WITH THE GENERAL AND DEMOLITION CONTRACTORS, CONSTRUCTION MANAGER, BUILDING OWNER, ARCHITECTS, ENGINEERS AND CONSULTANTS.

HAZARDOUS MATERIALS ABATEMENT NOTES (SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT INCLUDED ON DRAWINGS):

- ① THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ASBESTOS CONTAINING FLOORING MATERIALS (INCLUDES MULTIPLE LAYERS OF CARPETING, FLOOR TILES/MASTIC, CARPET ADHESIVES, AND OTHER FLOORING MATERIALS) AS ACM.
- ② THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ASBESTOS CONTAINING PIPE AND PIPE FITTING INSULATION INCLUDING ADJACENT ATTACHED FIBERGLASS INSULATION AS ACM.
- ③ THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ASBESTOS CONTAINING BLACK MIRROR ADHESIVES (INCLUDES CONTAMINATED SUBSTRATES/MATERIALS) AS ACM.
- ④ THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ASBESTOS CONTAINING BROWN/RED DUCT SEAM SEALANT AS AFFECTED BY DEMOLITON/RENOVATION AND HVAC WORK (INCLUDES CONTAMINATED SUBSTRATES/MATERIALS) AS ACM.

ALTERNATE #1 - THE HAZARDOUS MATERIALS ABATEMENT CONTRACTOR SHALL REMOVE AND DISPOSE OF ASBESTOS CONTAINING MIRROR ADHESIVES (INCLUDING CONTAMINATED SUBSTRATES) AS ACM.

Date	Description	No.
REVISIONS		
SIGNATURE _____ DATE SIGNED _____ PROFESSIONAL XXXXXXXXXX STATE LIC. No. XXXXX		
LANGAN Langan CT, Inc. 555 Long Wharf Drive New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com		
Project TOWN OF RIDGEFIELD ANNEX AND VENUS BUILDING RENOVATIONS 100 EAST RIDGE ROAD		
RIDGEFIELD CONNECTICUT Drawing Title HAZARDOUS BUILDING MATERIALS ABATEMENT PLAN- BASEMENT FLOOR		
Project No. 140112404	HBM-01	
Date 12 JULY 2018		
Drawn By ESS		
Checked By MM		
Sheet ##### of #####		



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Date	Description	No.
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SIGNATURE _____ DATE SIGNED _____ PROFESSIONAL XXXXXXXXXX STATE LIC. No. XXXXX		
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Drawn By ESS		
Checked By MM		
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