TOWN OF RIDGEFIELD
Office of the Town Engineer

RIDGEFIELD, CONNECTICUT

Energy Conservation & Building Maintenance

East Ridge Middle School Roof Repair
10 East Ridge, Ridgefield, Connecticut

October, 2016

DETAILED SPECIFICATIONS:
BIDDING REQUIREMENTS
PROJECT DESCRIPTION

RUDY MARCONI
FIRST SELECTMAN

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

Bid Number 2017-13
LEGAL NOTICE

INVITATION to BID

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

BID DUE DATE: December 2, 2016
BID DUE TIME: 11:00 AM
BID ITEM: Energy Conservation & Building Maintenance, East Ridge Middle School Roof Repair, 10 East Ridge
BID NUMBER: 2017-13

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: 2017-13
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.

East Ridge Middle School Roof Repair, Location Plan

10/12/2016 11:14:18 AM

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 not** subject to the State of Connecticut 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. **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.

17. **Time of Completion:** All work must be completed within sixty (60) days of the notice to proceed.

18. **Facility Inspection:** Technical questions and requests for access to the site shall be directed to Brian Hubbard, Building Maintainer, at 203-994-0347 during normal business hours. General bidding questions may be directed to Kenneth Sandberg, Purchasing Agent, at 203-431-2720.
19. **Bid Submissions:** The following items shall be submitted for a bid to be considered complete:

(a) Insurance certificates  
(b) Hold Harmless Agreement  
(c) Contractor’s Qualification Statement  
(d) Contractor’s List of Subcontractors  
(e) Signed bid proposal  
(f) A copy of the Contractor’s Home Improvement License  
(g) Project Schedule
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 Agent, Town Hall, and 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 Agent. 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 Agent, 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 supplemental 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.
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, Sealed and Delivered in the Presence of:

__________________________                        _________________________
Notary Public

Signed:
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-3
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:

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 5 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 Surey 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 mitigate 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 shall be four years.
able to sureties as a defense in the jurisdiction of the suit shall be applicable.

10 Notices 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 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 Contractor 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:

CONTRACTOR AS PRINCIPAL
Company: (Corporate Seal)

SURETY
Company: (Corporate Seal)

Signature: ___________________________  Signature: ___________________________
Name and Title: _______________________  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 423, 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: ____________________________
00 41 00 BID FORM

(To be typed on Letterhead of Bidder. Submit in duplicate; fill in all blanks.)

To: Mr. Kenneth Sandberg
   Director of Purchasing
   Town of Ridgefield
   Bid No. ___________
   400 Main Street
   Ridgefield, CT 06877

Re: Roof Repairs – East Ridge Middle School
   Ridgefield, CT

Dear Mr. Sandberg:

The signer of this Bid as Bidder declares that he has visited and carefully examined the site, the Drawings and Specifications and other bidding documents for the proposed work, dated 14 October 2016, and all Addenda received before the bid opening date; that he, or his representative, has made such investigation as is necessary to determine the character and extent of the work; and he hereby agrees that, if this Bid be accepted, he will contract with the Owner to provide all labor, materials, and equipment required by the Project Manual in strict accordance with all the requirements of the said Project Manual within ten (10) calendar days, after notification of the award of the Contract.

If awarded the Contract, we, the undersigned, shall pursue the work continuously and shall complete the work specified for each unit within 90 calendar days from the start of work. Workdays are limited to Monday through Friday and Saturday only upon written request and written permission by the owner.

1. BASE BID (Roofs 1, 2, 12, 13, 14, 15, 16, 16A and 17) – For the Sum of $____________________ Dollars.

2. Alternates:
   A. In lieu of Base Bid, perform all work associated with Roofs 3, 4, 4A, 5, 6, 7, 8 and 8A only for the sum of $____________________ Dollars.
   B. In lieu of Base Bid, perform all work associated with Roofs 10 and 11 only for the sum of $____________________ Dollars.

The above Bid and Alternate Prices given are the final price to the Owner and include all taxes, overhead and profit to the Contractor, and is not subject to extras or escalator clauses.
Performance and Labor and Material Payment Bonds

By signing and submitting this Bid, the Bidder certifies that he will furnish Performance and Labor and Material Payment Bonds in amounts sufficient to cover the total proposed cost of the Work. The bonds will be amended and maintained current with all additions to the contract work.

Initial receipt of Addenda as listed below:

Addenda No. 1 Addenda No. 2 Addenda No. 3

Contractor shall charge for additional or changed work authorized by Change Order:

A. For Overhead and Profit: 15%

This proposal shall remain valid for acceptance by the ______________ for a period of sixty days from bid due date.

Signed and sealed this __________ day of __________, 20__

______________________________________
(Legal Name of Bidder)

*by________________________________
(Signature of Bidder)

(Seal where required)

______________________________________
(Title)

______________________________________
(Business Address)

*Note: If signed by an agent of the Bidder, attach current power of attorney certifying agent’s authority.

END OF SECTION
01 11 13 SUMMARY OF WORK

Part 1 GENERAL

1. Description: The Base Bid work consists of the repair of various roof membrane components, stripping in of all field seams and penetration flashings at the East Ridge Middle School on Roofs 1, 2, 12, 13, 14, 15, 16, 16A and 17.

   Note: The work described in the Summary of Work is not intended to be a final and/or specific list of work to be performed or materials to be provided, but rather it is to be used as a guide. The roofing contractor is admonished to examine and review the information provided and these specifications in order to properly assess those items of work which are obviously requisite whether they are specifically noted or not. It is implicit in the intent of the specifications that a complete watertight, expertly fabricated system of work be delivered to the owner.

   Lineal footage of repairs and patches provided within this Scope of Work are estimated. Contractor shall be responsible for verification of measurements.

2. Building: East Ridge Middle School, East Ridge Road, Ridgefield, CT

3. Occupancy: It is the intent that the building owner will maintain full and normal occupancy and continued operations during the roof repairs. The contractor shall provide protection for his materials, tools, equipment and the building openings in his care, custody or control. Contractor shall coordinate his activities and coordinate with the building owner.

4. Safety and Protection: the contractor shall, at all times, take every precaution against injuries to persons or damage to the property and for the safety of persons on or about the site or engaged in the performance of the work and shall comply will all safety as required by City, State and Federal regulations.

   a. The contractor shall be responsible for the initiation, maintenance and supervision of all safety precautions and programs in connection with their work.

   b. The contractor shall provide a Site Specific Safety Plan to the building Owners Representative and shall provide copies to each of its workers.

Roof Repairs – East Ridge Middle School
Ridgefield, CT
14 October 2016
c. The contractor shall take all necessary precautions to protect the property from damage or loss arising out of their execution of the work. The contractor shall assume responsibility for any such damage or loss caused by them and shall, at their expense, repair or replace any property damaged or destroyed.

d. The Contractor shall have full responsibility to protect and maintain all materials and supplies on the site and replace any damaged materials.

e. The contractor shall protect adjoining properties and shall repair or replace any property damaged or destroyed as a result of their work.

f. No smoking shall be allowed on the project site.

g. No open flame shall be used in the application/installation of any product on the project site.

h. Contractor shall have available, at the job site, at all times, Material Safety Data Sheets for all materials to be used.

i. Contractor upon completion of this Scope of Work shall; remove all waste materials, containers and other supplies utilized in executing the work. Contractor shall properly dispose of all waste items per City, State and Federal regulations.

Part 2 PRODUCTS

1. Membrane Cleaner: Carlisle Weathered Membrane Cleaner.

2. Primer: Carlisle Low-VOC Primer, VOC less than 250 g/l.


4. EPDM Stripping: Carlisle Sure-Seal EPDM Pressure-Sensitive Overlayment Strip, thickness: 70 mils, width, 6”, 9” and 12”, for use in stripping in perimeter edges and end laps.

5. Lap Sealant: Carlisle Sure-Seal EPDM Lap Sealant.

7. Splicing cement, bonding adhesive and water cut-off mastic as recommended by
the membrane manufacturer.

PART 3 EXECUTION

A. All Roof Areas (Roof 9 Not Included)

1. All work shall be performed during clear weather conditions and with
   temperatures 40 degrees and rising.

2. Contractor shall recoat all pitch pockets with application of one part pourable
   sealer to fill cracks, voids and around penetrations.

3. At perimeter edges; contractor shall examine all field seams, clean under all
   loose and curled EPDM stripping and re-adhere, clean surface of lap with
   weathered membrane cleaner, prime with low-VOC primer and strip-in with
   pressure-sensitive overlayment strip, extending beyond the lap 3" (Detail
   Drawing C/R2).

4. At membrane field seam side and end laps; contractor shall examine all
   seams, clean under all loose and curled EPDM, clean surface of lap with
   weathered membrane cleaner, prime with low-VOC primer and strip-in with 6"
   pressure-sensitive “SecurTape”, extending 3” in each direction of the lap
   (Detail Drawing A/R2)

5. At all curled and lifted membrane patches, contractor shall provide and install
   an overlayment patch extending beyond the existing patch a minimum of 6” in
   all directions (Detail Drawing B/R2 similar).

   a. Clean surface of patch and underlying exposed membrane with weathered
      membrane cleaner, prime and re-adhere prior to application of
      overlayment patch.

6. At locations of fastener head back out, insulation fastener plates, contractor
   shall prepare the surface of the EPDM membrane and apply a 6” patch with
   all edges caulked with EPDM lap sealant (Detail Drawing B/R2).
7. At all base flashing end laps, inside and outside corners laps, contractor shall clean with weathered membrane cleaner, prime with low-VOC primer and strip in with 6" pressure-sensitive “SecurTape” (Detail Drawing E/R2).

8. At outside corners of all curb flashings laps, contractor shall clean with weathered membrane cleaner, prime with low-VOC primer and strip in with 6" pressure-sensitive “SecurTape” (Detail Drawing G/R2).

9. At all vent stack flashings, contractor shall provide and install an overlayment patch extending beyond the existing flashing a minimum of 6" in all directions (Detail Drawing D/R2).

   a. Clean surface of patch and underlying exposed membrane with weathered membrane cleaner, prime and re-adhere prior to application of overlayment patch.

10. When installing a membrane patch, stripping at field seams and end laps, stripping at base flashing end and corner laps, and stripping at perimeter edges, contractor shall:

   a. Immediately roll the overlayment strip in with a 2" wide roller, using positive pressure.

   b. Where new stripping and/or patch is field cut, and there is no exposed adhesive edge, contractor shall apply a bead of lap sealant.

---

**Part 4 ESTIMATED LINEAR FOOTAGE OF STRIPPING, REPAIRS AND PATCHES**

<table>
<thead>
<tr>
<th>Roof Number</th>
<th>Lineal Feet</th>
<th>Roof Number</th>
<th>Lineal Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof 1</td>
<td>4,165</td>
<td>Roof 2</td>
<td>1,548</td>
</tr>
<tr>
<td>Roof 3</td>
<td>139</td>
<td>Roof 4</td>
<td>2,339</td>
</tr>
<tr>
<td>Roof 4A</td>
<td>142</td>
<td>Roof 5</td>
<td>1,221</td>
</tr>
<tr>
<td>Roof 6</td>
<td>1,830</td>
<td>Roof 7</td>
<td>2,354</td>
</tr>
<tr>
<td>Roof 8</td>
<td>3,356</td>
<td>Roof 8A</td>
<td>125</td>
</tr>
</tbody>
</table>

---

Roof Repairs – East Ridge Middle School  
Ridgefield, CT  
14 October 2016  
01 11 13  
Page 4
Roof 9 Not Included Roof 10 1,139
Roof 11 1,658 Roof 12 220
Roof 13 1,312 Roof 14 1,117
Roof 15 1,391 Roof 16 175
Roof 16A 62 Roof 17 1,347

PART 5 ATTACHMENTS

1. Roof Sketch w/ Roof Numbers
2. HBF Detail Drawing R2 (Details A/R2 thru I/R2)

END SECTION
NOTE: ALL ROOFS ARE FULLY ADHERED EPDM MEMBRANES

EAST RIDGE MIDDLE SCHOOL
In this 3D model, facets appear as semi-transparent to reveal overhangs.

**Report Details**

- Report: 6843461

**Roof Details**

- Total Roof Area = 119,533 sq ft
- Total Roof Facets = 21
- Predominant Pitch = 0/12
- Number of Stories = 1
- Total Ridges/Hips = 0 ft
- Total Valleys = 0 ft
- Total Rakes = 0 ft
- Total Eaves = 0 ft
- Total Wall Area = 7,762 sq ft
- Total Wall Facets = 127
- Total Penetrations Perimeter = 1,797 ft
- Total Penetrations Area = 1,775 sq ft

**Report Contents**

- Images ........................................... 2
- Length Diagram .................................. 5
- Pitch Diagram .................................... 6
- Area Diagram .................................... 7
- Notes Diagram ................................... 8
- Penetrations Diagram ............................ 9
- Report Summary ................................ 10
- Additional Property Information ........ 12

Contact: John Wooten  
Company: H.B. FISCHMAN CO. INC.  
Address: 300 PLEASANT VALLEY ROAD  
SOUTH WINDSOR, CT 06074  
Phone: 860-528-6036

Measurements provided by www.eagleview.com

Certified Accurate  
www.eagleview.com/Guarantee.aspx

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Images
The following aerial images show different angles of this structure for your reference.

Top View
Length Diagram

Total Line Lengths:
- Ridges = 0 ft
- Hips = 0 ft

Valleys = 0 ft
Rakes = 0 ft
Eaves = 0 ft

Flashing = 0 ft
Step flashing = 0 ft
Parapets = 6,492 ft

Note: This diagram contains segment lengths (rounded to the nearest whole number) over 5 feet. In some cases, segment labels have been removed for readability. Plus signs preface some numbers to avoid confusion when rotated (e.g. +6 and +9).
Pitch Diagram
Pitch values are shown in inches per foot, and arrows indicate slope direction. The predominant pitch on this roof is 0/12.

Note: This diagram contains labeled pitches for facet areas larger than 20 square feet. In some cases, pitch labels have been removed for readability. Gray shading indicates flat, 1/12 or 2/12 pitches. If present, a value of "F" indicates a flat facet (no pitch).
Area Diagram
Total Area = 119,533 sq ft, with 21 facets.

Note: This diagram shows the square feet of each roof facet (rounded to the nearest foot). The total area in square feet, at the top of this page, is based on the non-rounded values of each roof facet (rounded to the nearest square foot after being totaled).
Notes Diagram
Roof facets are labeled from smallest to largest (A to Z) for easy reference.
Penetrations Notes Diagram

Penetrations are labeled from smallest to largest for easy reference.

Total Penetrations = 127
Total Penetrations Perimeter = 1,797 ft
Total Penetrations Area = 1,775 sq ft
Total Roof Area Less Penetrations = 117,758 sq ft
Report Summary
Below is a measurement summary using the values presented in this report.

Areas per Pitch

<table>
<thead>
<tr>
<th></th>
<th>0/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roof Pitches</td>
<td></td>
</tr>
<tr>
<td>Area (sq ft)</td>
<td>119532.9</td>
</tr>
<tr>
<td>% of Roof</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table above lists each pitch on this roof and the total area and percent (both rounded) of the roof with that pitch.

Waste Calculation Table

<table>
<thead>
<tr>
<th>Waste %</th>
<th>0%</th>
<th>10%</th>
<th>12%</th>
<th>15%</th>
<th>17%</th>
<th>20%</th>
<th>22%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>119,533</td>
<td>131,486</td>
<td>133,877</td>
<td>137,463</td>
<td>139,854</td>
<td>143,440</td>
<td>145,830</td>
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<tr>
<td>Area (sq ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squares</td>
<td>1195.3</td>
<td>1314.9</td>
<td>1338.8</td>
<td>1374.6</td>
<td>1398.5</td>
<td>1434.4</td>
<td>1458.3</td>
</tr>
</tbody>
</table>

This table shows the total roof area and squares (rounded up to the nearest decimal) based upon different waste percentages. The waste factor is subject to the complexity of the roof, individual roofing techniques and your experience. Please consider this when calculating appropriate waste percentages. Note that only roof area is included in these waste calculations. Ridge, hip, valley, and starter lengths may require additional material.

Penetrations

<table>
<thead>
<tr>
<th></th>
<th>1-8</th>
<th>9-31</th>
<th>32-44</th>
<th>45</th>
<th>46</th>
<th>47</th>
<th>48-67</th>
<th>68</th>
<th>69</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (sq ft)</td>
<td>4</td>
<td>6.2</td>
<td>6.3</td>
<td>6.4</td>
<td>7.2</td>
<td>7.4</td>
<td>9</td>
<td>10</td>
<td>10.3</td>
<td>11.2</td>
</tr>
<tr>
<td>Perimeter (ft)</td>
<td>8</td>
<td>10</td>
<td>10</td>
<td>10.8</td>
<td>10.8</td>
<td>11</td>
<td>12</td>
<td>12.6</td>
<td>13.2</td>
<td>13.4</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>71</th>
<th>72-73</th>
<th>74-76</th>
<th>77</th>
<th>78</th>
<th>79</th>
<th>80-91</th>
<th>92</th>
<th>93</th>
<th>94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (sq ft)</td>
<td>11.6</td>
<td>12.2</td>
<td>12.3</td>
<td>12.2</td>
<td>14.7</td>
<td>13.3</td>
<td>12.5</td>
<td>13.5</td>
<td>13</td>
<td>13.9</td>
</tr>
<tr>
<td>Perimeter (ft)</td>
<td>13.8</td>
<td>14</td>
<td>14</td>
<td>14.2</td>
<td>14.5</td>
<td>14.8</td>
<td>15</td>
<td>15</td>
<td>15.4</td>
<td>15.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>95</th>
<th>96-102</th>
<th>103</th>
<th>104</th>
<th>105</th>
<th>106</th>
<th>107</th>
<th>108</th>
<th>109</th>
<th>110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area (sq ft)</td>
<td>13</td>
<td>16</td>
<td>15.5</td>
<td>16.1</td>
<td>16.2</td>
<td>18.9</td>
<td>17.5</td>
<td>17.8</td>
<td>17.9</td>
<td>20.9</td>
</tr>
<tr>
<td>Perimeter (ft)</td>
<td>15.6</td>
<td>16</td>
<td>16.4</td>
<td>16.8</td>
<td>16.8</td>
<td>17.4</td>
<td>17.6</td>
<td>17.8</td>
<td>18.2</td>
<td>18.8</td>
</tr>
</tbody>
</table>

Any measured penetration smaller than 3x3 feet may need field verification. Accuracy is not guaranteed. The total penetration area is not subtracted from the total roof area.

Lengths, Areas and Pitches

- Ridges = 0 ft (0 Ridges)
- Hips = 0 ft (0 Hips)
- Valleys = 0 ft (0 Valleys)
- Rakes* = 0 ft (0 Rakes)
- Eaves/Starters** = 0 ft (0 Eaves)
- Drip Edge (Eaves + Rakes) = 0 ft (0 Lengths)
- Parapet Walls = 6,492 (104 Lengths)
- Flashing = 0 ft (0 Lengths)
- Step flashing = 0 ft (0 Lengths)
- Total Area = 119,533 sq ft
- Total Penetrations Area = 1,775 sq ft
- Total Roof Area Less Penetrations = 117,758 sq ft
- Total Penetrations Perimeter = 1,797 ft
- Predominant Pitch = 0/12

Property Location

- Longitude: -73.4900543
- Latitude: 41.2771155

Notes

This was ordered as a commercial property. It was reported to be single structure. There were no changes to the structure in the past four years.
# Parapet Wall Area Table

<table>
<thead>
<tr>
<th>Wall Height (ft)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical Wall Area (sq ft)</td>
<td>6492</td>
<td>12984</td>
<td>19476</td>
<td>25968</td>
<td>32460</td>
<td>38952</td>
<td>45444</td>
</tr>
</tbody>
</table>

This table provides common parapet wall heights to aid you in calculating the total vertical area of these walls. Note that these values assume a 90 degree angle at the base of the wall. Allow for extra materials to cover cant strips and tapered edges.

**Online Maps**

Online map of property

http://maps.google.com/maps?f=q&source=s_q&geocode=&saddr=10+East+Ridge,Ridgefield,CT.06877

Directions from H.B. FISHMAN CO. INC. to this property

http://maps.google.com/maps?f=d&saddr=300+PLEASANT+VALLEY+ROAD,SOUTH+WINDSOR,CT.06074&daddr=10+East+Ridge,Ridgefield,CT.06877
## Additional Property Information

<table>
<thead>
<tr>
<th>Property Details</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year Built/Effective Year Built:</strong></td>
<td>N/A N/A</td>
</tr>
<tr>
<td>Effective Year Built is when the property's major components were revised to meet that year's code.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weather Data</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Last Hail Event:</strong></td>
<td>7/21/2010</td>
</tr>
<tr>
<td><strong>Hail Count:</strong></td>
<td>9</td>
</tr>
</tbody>
</table>

Last hail event is the date of the last recorded hail event (greater than or equal to 3/4") within a one-mile radius.

Hail count is the number of recorded hail events (greater than or equal to 3/4") within a one-mile radius in the past three years.

Data such as weather and property information has been included to enhance your EagleView experience. The data is provided through strategic partners and is not verified by EagleView for accuracy, completeness or reliability.
Businesses Near This Property
The links on this page point to businesses near this property (marked by a green arrow in the maps).

**Restaurants**
http://maps.google.com/maps?near=10+East+Ridge,Ridgefield,CT,06877&q=Restaurants

**Fast Food**
http://maps.google.com/maps?near=10+East+Ridge,Ridgefield,CT,06877&q=Fast+Food

**Medical Centers**
http://maps.google.com/maps?near=10+East+Ridge,Ridgefield,CT,06877&q=Medical+Centers

**Hospitals**
http://maps.google.com/maps?near=10+East+Ridge,Ridgefield,CT,06877&q=Hospitals

**Doctors**
http://maps.google.com/maps?near=10+East+Ridge,Ridgefield,CT,06877&q=Doctors

**Gas Stations**
http://maps.google.com/maps?near=10+East+Ridge,Ridgefield,CT,06877&q=Gas+Stations
LIMITED ASBESTOS BULK SAMPLING REPORT

for

East Ridge Middle School
Surface Roofing Materials
10 East Ridge Road
Ridgefield, Connecticut

Prepared for:

Mr. Charles Fisher
Town Engineer
Town of Ridgefield
66 Prospect Street
Ridgefield, CT 06877

Prepared By:

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

[Signature]

Matthew A. Myers
Senior Hazmat Specialist

[Signature]

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

21 October 2016
140152701
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1.0 INTRODUCTION ..................................................................................................................... 1
2.0 ASBESTOS-CONTAINING MATERIALS (ACM) ............................................................... 1
3.0 CONCLUSIONS AND RECOMMENDATIONS ................................................................. 4
4.0 LIMITATIONS ......................................................................................................................... 4

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Table 1 Table 1 – Non-Asbestos Containing Materials

APPENDICES

Appendix A Analytical Laboratory Results and Chain of Custody – Asbestos Samples
Appendix B Langan Certifications and Accreditations
## ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>USEPA</td>
<td>United States Environmental Protection Agency</td>
</tr>
<tr>
<td>AHERA</td>
<td>Asbestos Hazard Emergency Response Act</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulation</td>
</tr>
<tr>
<td>NESHAPS</td>
<td>National Standards for Hazardous Air Pollutants</td>
</tr>
<tr>
<td>HUD</td>
<td>Housing and Urban Development</td>
</tr>
<tr>
<td>CTDPH</td>
<td>Connecticut Department of Public Health</td>
</tr>
<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
</tr>
<tr>
<td>PLM</td>
<td>Polarized Light Microscopy</td>
</tr>
<tr>
<td>TEM</td>
<td>Transmission Electron Microscopy</td>
</tr>
<tr>
<td>ACM</td>
<td>Asbestos-Containing Materials</td>
</tr>
<tr>
<td>LBP</td>
<td>Lead-Based Paint</td>
</tr>
<tr>
<td>PCB</td>
<td>Polychlorinated Biphenyls (PCB)</td>
</tr>
<tr>
<td>Sq. ft.</td>
<td>Square Feet</td>
</tr>
<tr>
<td>Ln. ft.</td>
<td>Linear Feet</td>
</tr>
<tr>
<td>mg/cm²</td>
<td>Milligrams per square centimeter</td>
</tr>
<tr>
<td>XRF</td>
<td>X-ray Fluorescence</td>
</tr>
<tr>
<td>AAS</td>
<td>Atomic Absorption Spectrometry</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

Langan CT, Inc. (Langan) prepared this limited asbestos bulk sampling report on behalf of the Town of Ridgefield to identify potential asbestos containing materials associated with surface roofing materials on East Ridge Middle School. The objectives of this limited asbestos sampling was to identify the presence/absence of accessible asbestos-containing materials (ACM) so these materials can be quantified and assessed in support of scheduled roof work (lap joint resealing).

PROJECT INFORMATION

<table>
<thead>
<tr>
<th>Client Name:</th>
<th>Town of Ridgefield Engineering Department</th>
<th>Property Visit Date:</th>
<th>20 October 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional’s project #:</td>
<td>140152701</td>
<td>Construction Dates:</td>
<td></td>
</tr>
<tr>
<td>Consultant’s Project Manager:</td>
<td>Matthew A. Myers</td>
<td>No. Buildings:</td>
<td>One</td>
</tr>
<tr>
<td>Phone No.:</td>
<td>203-562-5571</td>
<td>No. of Stories:</td>
<td>Two</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:mmyers@langan.com">mmyers@langan.com</a></td>
<td>Property Address:</td>
<td>10 East Ridge Road</td>
</tr>
<tr>
<td>Property Town, State:</td>
<td>Ridgefield, Connecticut</td>
<td>Property Use:</td>
<td>Town Middle School</td>
</tr>
</tbody>
</table>

The following sections summarize the asbestos findings for the surface roofing materials sampled at the building.

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 one percent by weight is considered as ACM by the United States Environmental Protection Agency (USEPA). Thus, a material which contains asbestos in concentrations greater than 1% by weight is considered as “positive” while materials that do not contain asbestos or asbestos is detected in concentrations less than one percent by weight are considered as “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 Survey
During this limited survey, 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 inspector Matthew Myers (#000041) performed the survey.

**ACM Results Summary**

A total of 6 bulk samples from surface roofing materials in the area of proposed work were collected and analyzed for asbestos content. Detailed bulk sampling results are included in Tables 1 below. The complete analytical asbestos laboratory data is provided in Appendix A. As required by the USEPA, samples were analyzed by individual layers. 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. Bulk sample materials, both friable and non-friable were additionally analyzed using PLM Point Count if they were found to contain low amounts of asbestos. The samples were analyzed by EMSL of Cinnaminson, New Jersey, a National Voluntary Laboratory Program (NVLAP) and American Industrial Hygiene Association (AIHA) accredited laboratory.

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

<table>
<thead>
<tr>
<th>Material</th>
<th>Location</th>
<th>Sample ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black Roof Mats</td>
<td>Surface of Exterior Roof</td>
<td>102001A, B</td>
</tr>
<tr>
<td>Black Roofing Cover Material</td>
<td>Surface of Exterior Roof</td>
<td>102002A, B</td>
</tr>
<tr>
<td>Black Roofing Seam/Lap Joint Sealant</td>
<td>Surface of Exterior Roof</td>
<td>102003A, B</td>
</tr>
</tbody>
</table>

**DISCLAIMERS:** Some locations/materials were not surveyed during this survey due to inaccessibility or not identified as scope of work. The layers of roofing below the surface,
exterior flashing cement, interior roof drain insulation, etc. were not sampled for possible asbestos content.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Langan provides the following conclusions and recommendations, based on the findings of this limited bulk sampling report:

ACM was not identified in the roofing materials sampled and can be disturbed and/or removed by a general contractor and disposed of as normal construction debris.

4.0 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. No lead based paint or PCB sampling was performed as part of this survey.
Appendix A

Analytical Laboratory Results and Chain of Custody – Asbestos Samples

<table>
<thead>
<tr>
<th>Sample</th>
<th>Description</th>
<th>Appearance</th>
<th>% Fibrous</th>
<th>% Non-Fibrous</th>
<th>Asbestos % Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>102001A</td>
<td>Roofs - Black Roof</td>
<td>Black</td>
<td>100%</td>
<td>Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td></td>
<td>Mats</td>
<td>Non-Fibrous Homogeneous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041629176-0001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102001B</td>
<td>Roofs - Black Roof</td>
<td>Black</td>
<td>100%</td>
<td>Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td></td>
<td>Mats</td>
<td>Non-Fibrous Homogeneous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041629176-0002</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102002A</td>
<td>Roofs - Black Roofing</td>
<td>Black</td>
<td>100%</td>
<td>Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td></td>
<td>Cover</td>
<td>Non-Fibrous Homogeneous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041629176-0003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102002B</td>
<td>Roofs - Black Roofing</td>
<td>Black</td>
<td>100%</td>
<td>Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td></td>
<td>Cover</td>
<td>Non-Fibrous Homogeneous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>102003A</td>
<td>Roofs - Black Roof</td>
<td>Black</td>
<td>100%</td>
<td>Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td></td>
<td>Seam Sealant</td>
<td>Non-Fibrous Homogeneous</td>
<td></td>
<td></td>
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<tr>
<td>041629176-0005</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>102003B</td>
<td>Roofs - Black Roof</td>
<td>Black</td>
<td>100%</td>
<td>Non-fibrous (Other)</td>
<td>None Detected</td>
</tr>
<tr>
<td></td>
<td>Seam Sealant</td>
<td>Non-Fibrous Homogeneous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>041629176-0006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analyst(s)
Keisha Vasquez Caraballo (3)
William Bradford (3)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

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

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ. NVLAP Lab Code 101046-0; AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 00036, PA-ID# 68-00387.

Initial report from: 10/21/2016 14:24:50

ASB_PLM_0008 - 1.71 Printed: 10/21/2016 2:24 PM
# Asbestos Bulk Building Material
## Chain of Custody
### EMSL Order Number (Lab Use Only)

- **Company:** Langan CT
- **Street:** 555 Long Wharf Drive
- **City:** New Haven
- **State/Province:** CT
- **Zip/Postal Code:** 06511
- **Country:** USA
- **Telephone:** 203.562.5771
- **Fax:** 203.789.6142
- **Email Address:** MMyers@Langan.com
- **Project Name/Number:** 140152701
- **U.S. State Samples Taken:** CT
- **Purchase Order:**
- **Please Provide Results:** Fax, Email
- **Board of Trade:**
- **Turnaround Time (TAT) Options**

<table>
<thead>
<tr>
<th>Option</th>
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<tbody>
<tr>
<td>3 Hour</td>
</tr>
<tr>
<td>6 Hour</td>
</tr>
<tr>
<td>24 Hour</td>
</tr>
<tr>
<td>48 Hour</td>
</tr>
<tr>
<td>72 Hour</td>
</tr>
<tr>
<td>96 Hour</td>
</tr>
<tr>
<td>1 Week</td>
</tr>
<tr>
<td>2 Week</td>
</tr>
</tbody>
</table>

- **Note:** For TEM, Air 3 hr through 5 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL’s Terms and Conditions located in the Analytical Price Guide.

- **PLM - Bulk (reporting limit):**
  - PLM EPA 600/R-93/116 (<1%)
  - PLM EPA NOB (<1%)
  - Point Count: 400 (<0.25%) 1000 (<0.1%) If <3%
  - Point Count w/Gasometric: 400 (<0.25%) 1000 (<0.1%)
  - NIOSH 9002 (<1%)
  - NY ELAP Method 198.1 (frangible in NY)
  - NY ELAP Method 198.6 NOB (non-frangible-NY)
  - OSHA ID-191 Modified
  - Standard Addition Method

- **TEM - Bulk:**
  - TEM EPA NOB - EPA 600/R-93/116 Section 2.5.5.1
  - NY ELAP Method 198.4 (TEM)
  - Chatfield Protocol (semi-quantitative)
  - TEM % by Mass - EPA 600/R-93/116 Section 2.5.5.2
  - TEM Qualitative via Filtration Prep Technique
  - TEM Qualitative via Drop Mount Prep Technique

- **Check For Positive Stop - Clearly Identify Homogenous Group:**
- **Date Sampled:**
- **Sampler Name:** Matt Myers
- **Sampler's Signature:**

<table>
<thead>
<tr>
<th>Sample #</th>
<th>HA #</th>
<th>Sample Location</th>
<th>Material Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>102001A</td>
<td>B</td>
<td>Roof Mats</td>
<td>Black</td>
</tr>
<tr>
<td>102002A</td>
<td>A</td>
<td>Roofing Cover</td>
<td>Black</td>
</tr>
<tr>
<td>102003A</td>
<td>A</td>
<td>Roof Sealant</td>
<td>Black</td>
</tr>
</tbody>
</table>

- **Client Sample # (s):**
- **Total # of Samples:**
- **Relinquished (Client):**
- **Date:** 10/20/16
- **Time:** 6:30 PM
- **Received (Lab):**
- **Date:** 10/21/2016
- **Time:** 10:30 AM

Comments/Special Instructions:

Page 1 of 1 pages
Appendix B

Langan Certifications and Accreditations
Quality Environmental Solutions & Technologies, Inc
1376 Route 9, Wappingers Falls, NY 12590
Phone 845-298-6031    Fax 845-298-6251

HEREBY CERTIFIES THAT

MATTHEW MYERS

HAS SUCCESSFULLY COMPLETED A TRAINING SEMINAR IN:

NYS/EP A INSPECTOR REFRESHER

MEETING THE REQUIREMENTS OF NYSDOH 10 NYCRR, PART 73 AND
TSCA TITLE 11 AND RECEIVED THIS CERTIFICATE BY:

KENNETH C. ECK
TRAINING DIRECTOR

NOTE: Official record of successful completion is DOH 2832 Certificate of Completion of
Asbestos Safety Training

Note: DOH 2832 - A $20 fee shall be charged for replacement of Certificate of Completion DOH 2832

ON THIS DATE: 8/16/2016

CERTIFICATE NUMBER: 762537    EXPIRATION DATE: 8/16/2017