TOWN OF RIDGEFIELD Director of Facilities

RIDGEFIELD, CONNECTICUT

Facilities & Building Maintenance

Emergency Operations Center and Playhouse Roof Replacement 66 Prospect Street

May, 2019

DETAILED SPECIFICATIONS:

BIDDING REQUIREMENTS PROJECT DESCRIPTION PLANS



RUDY MARCONI FIRST SELECTMAN

JACOB MULLER FACILITIES DIRECTOR

BID 19-15

LEGAL NOTICE

INVITATION to BID

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

BID DUE DATE:	Thursday, June 6, 2019
BID DUE TIME:	11:00 AM
BID ITEM:	EOC and Playhouse Roof Re-Construction
BID NUMBER:	19-15

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 Jacob Muller 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: 19-15 400 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 Jacob Muller at (203) 431-2720 or E-Mail at purchasing@ridgefieldct.org

Bid Documents available at <u>www.ridgefieldct.org</u> in the Purchasing section under Departments

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

TOWN OF RIDGEFIELD CONNECTICUT

BOARD OF SELECTMAN

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 Selectman 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, if required, for the full amounts specified. **Unauthorized changes** to these forms, i.e. adding, striking out and/or changing any words, language or limits **may cause the bidder to be disqualified**.

Please Note : Certificates of Insurance, if required, **MUST** name the <u>Town of Ridgefield</u> as "<u>Additional Insured</u>". Failure to do so may mean disqualification from the Bid.

PROJECT MANUAL

ROOF REPLACEMENT

YANITY BUILDING EOC ROOF AND PLAYHOUSE ROOF 66 PROSPECT STREET RIDGEFIELD, CONNECTICUT

ROOF CONSULTANT

STRUCTURAL ENGINEER:

CLIENT:

H. B. FISHMAN & CO., INC. 300 Pleasant Valley Road South Windsor, CT 06074 Telephone: (860) 282-9036 Fax: (860) 282-7144 THE DISALVO ENGINEERING GROUP Lee Farms Corporate Park 83 Wooster Heights Road Danbury, CT 06810 Telephone: (203) 490-4140 TOWN OF RIDGEFIELD Director of Purchasing 400 Main Street Ridgefield, CT 06877 Telephone: (203) 431-2720

CN 18058524 6 May 2019

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END OF SECTION

00 11 16 INVITATION TO BID - ROOF PROJECT

Bids for the Roof Replacement of the Yanity Building EOC and Playhouse Roofs in Ridgefield, CT will be received by Mr. Jake Muller, Director of Purchasing, Town of Ridgefield, 400 Main Street, Ridgefield, CT 06877, until 11:00 a.m. EST on 6 June 2019.

Bids must be submitted on an exact duplicate of the Bid Form indicated and shall be completely filled out as requested. Bid proposals are to be sealed in double envelopes, conspicuously identified with the name of the project and bid due date.

After opening of Bids, all Bids shall stand available for acceptance until 6 August 2019. Re-roofing work to begin on 3 September 2019.

There will be a **mandatory** Pre-Bid meeting on Wednesday, 22 May 2019 at 11:00 a.m. Contractors are to meet at 66 Prospect Street in Ridgefield, CT. Plans and specifications will be available at the meeting.

Bidders questions or requests for additional information must be received in writing by 24 May 2019; answers will be provided via Addenda by 31 May 2019.

The successful Bidder shall furnish to the Owner on the form specified, prior to the execution of the Contract, a performance and labor and material payment bond in an amount not less than one hundred percent (100%) of the Contract sum.

The Owner reserves the right to reject or accept any or all Bids and to waive any informalities, omissions, excess verbiage or technical defects in the bidding if, in the opinion of the Town of Ridgefield and H. B. Fishman & Co., Inc., it would be in the best interest to do so.

END OF SECTION

EOC and Playhouse Roofs Ridgefield, CT

Supplemental Information for Bidders and General Contract Provisions

1. <u>PREPARATION OF PROPOSALS</u>

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. <u>SUBMISSION OF PROPOSALS</u>

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

3. <u>INCURRING COSTS</u>

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. <u>FAMILIARITY WITH THE WORK</u>

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. <u>CONSIDERATION OF PRIOR SERVICE</u>

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

6. <u>ADDENDA AND INTERPRETATIONS & ALTERNATE PROPOSALS</u>

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 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. <u>QUOTATION LIMITATION</u>

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. <u>ESTIMATE OF WORK</u>

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. <u>SAMPLES</u>

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. <u>WITHDRAWAL OF BID</u>

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. <u>POWER OF ATTORNEY</u>

Attorneys-in-fact who sign contract bonds must file, with each bond, a certified and

effectively dated copy of their power of attorney.

12. <u>SUBCONTRACTORS</u>

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. <u>QUALIFICATION OF BIDDER</u>

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. <u>DELIVERY</u>

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. <u>PAYMENT</u>

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 Director of Facilities 400 Main 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. <u>SALES TAX</u>

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. <u>CARE AND PROTECTION OF PROPERTY</u>

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. <u>COMPLIANCE WITH FEDERAL, STATE AND LOCAL CODES</u>

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

20. <u>AWARD</u>

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. <u>INSURANCE</u>

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

22. <u>GUARANTEE</u>

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. <u>PERMITS</u>

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. <u>NONDISCRIMINATION IN EMPLOYMENT</u>

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. <u>MECHANICS LIEN WAIVERS</u>

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.

00 22 13 SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

SITE EXAMINATION

- A. The Bidder shall be held to have examined the site and to have compared it with the drawings and specifications and to have satisfied himself of the conditions existing, the storage and handling of materials, and all other matters that may be incidental to the work under the contract, before submitting his proposal.
- B. Submission of a proposal will be considered as evidence that an examination has been made. No allowance will subsequently be made to the Contractor by reason of any error on his part, due to his neglect to comply with the requirements of this clause.
- C. Submission of bid will be considered presumptive evidence that the Bidder is conversant with local facilities and difficulties, the requirements of the documents and of pertinent local and state codes, state labor and material markets, and has made due allowance in his bid for all contingencies.
- D. No compensation will be allowed by reason of any difficulties which the Bidder could have discovered or reasonably anticipated prior to bidding.
- E. The <u>Bidder shall make his own measurements</u> to determine the size of the roof. The dimensions given in the drawings are <u>offered only for convenience</u> and are not warranted to be correct.
- F. Other construction work may be in progress. This contractor shall coordinate its work with all others.
- G. The work must be done without interfering with the operations of the building in any way.
- H. A completed Statement of Bidders Qualifications (Section 00 45 13) and sample roofing systems guarantee/warranty (Sections 01 78 36 and 07 53 23.01) shall accompany the bid.
- I. The successful Bidder shall furnish to the Owner on the form specified, prior to the execution of the Contract, a performance and labor and material payment bond in an amount not less than one hundred percent (100%) of the Contract sum.
- J. The Owner reserves the right to reject or accept any or all Bids and to waive any informalities, omissions, excess verbiage or technical defects in the bidding if, in

the opinion of H. B. Fishman & Co., Inc. and Town of Ridgefield it would be in the best interest to do so.

K. After opening of Bids, all bids shall stand available for acceptance for a period of sixty (60) days.

L. <u>GUARANTEE/WARRANTEE APPROVAL</u>

The roofing systems guarantee/warrantee provisions are of the essence to this contract. Submit the guarantee/warrantee requirements specified in Section 07 53 23.01 Ethylene – Propylene – Diene – Monomer Roofing (Fully Adhered), attached to the bid proposal form for pre-approval in the format specified in Section 01 78 36.

END OF SECTION

00 25 13 PRE-BID MEETINGS, SITE VISITATION/OWNER'S REPRESENTATION

1. PRE-BID CONFERENCE

A mandatory Pre Bid Conference will be held on Wednesday, 22 May 2019 at 11:00 a.m. at the site, 66 Prospect Street in Ridgefield, CT.

END OF SECTION

00 41 00 BID FORM

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

- To: Mr. Jake Muller Director of Purchasing Town of Ridgefield Bid No. 2012-033 400 Main Street Ridgefield, CT 06877
- Re: Reroofing of Yanity Building EOC Roof and Playhouse Roof Ridgefield, CT

Dear Mr. Muller:

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 6 May 2019, 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 ______ calendar days from the start of work. The anticipated work start-up date is 3 September 2019. Workdays are limited to Monday through Friday and Saturday only upon written request and written permission by the owner.

- 1. BASE BID All work for the Sum of \$_____(\$____) Dollars.
 - 1.1 BASE BID FOR ONLY YANITY EOC ROOF: All work for the sum of \$______(\$_____).
 - 1.2 BASE BID FOR ONLY PLAYHOUSE ROOF: All work for the sum of \$______.
- 2. UNIT PRICES:
 - A. Remove/replace deteriorated wood decking: \$____/SF.
 - B. Remove and replace deteriorated existing wood blocking: \$______per board foot.

- 3. Base Bid includes \$_____ for asbestos containing roofing materials removal for both Yanity Building EOC Roof and Playhouse Roof.
 - 3.1 Base Bid for only Yanity Building EOC Roof includes ______ for asbestos contaminated roofing material removal.
 - 3.2 Base Bid for only Playhouse Roof includes ______ for asbestos contaminated roofing material removal.

The above Bid and Unit 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 one hundred and twenty 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.

EOC and Playhouse Roofs Ridgefield, CT

00 41 00 Page 2 END OF SECTION

FRACKING WASTE ORDANINCE NOTICE

On January 9, 2019, The Town of Ridgefield approved and adopted an Ordinance prohibiting the storage, disposal or use of fracking waste on Town of Ridgefield land and/or projects. The complete Ordinance can be viewed at the Town Clerk's Office located at 400 Main Street, Ridgefield, CT or on the town website at the following link;

https://ecode360.com/RI2176/laws/LF1067113.pdf#search=fracking

Bidders shall follow this Ordinance in preparation and submission of their bid.

- 1.) No materials containing natural gas or oil waste shall be utilized in providing and retaining services to construct or maintain publicly owned and/or maintained road or real property with the Town of Ridgefield.
- 2.) No materials containing natural gas or oil waste shall be utilized in the purchase or acquisition of materials to construct or maintain publicly owned and/or maintained road or real property with the Town of Ridgefield.
- 3.) We _______hereby submit a bid for materials, equipment and/or labor for the Town of Ridgefield. The bid is for bid documents titled _______. We hereby certify under penalty of perjury that no natural gas waste or oil waste will be used by the undersigned bidder or any contractor, sub-contractor, agent or vendor agent in connection with the bid; nor will the undersigned bidder or any sub-contractor, agent or vendor agent thereof apply any natural gas waste or oil waste to any road or real property within the Town of Ridgefield as a result of the submittal of this bid if selected.

4.) The successful bidder shall submit certificates of origin for project materials, fill and other.

Signed and sealed in the presence of:

Contractor

 By______

 Date______

 Date______

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

 Signed, Seated and Delivered in the signed:

 Presence of:

Notary Public

SPECIMEN CONTRACT

This Agreement made a	is of the	day of	
the year	by and betwee	en the Town of Ridgefie	eld, 400 Main
Street, Ridgefield, Conn	ecticut, (hereir	n after called the Owne	r), and
		, (doing business at
		, (her	ein 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:

Emergency Operations Center and Playhouse Roof Replacement

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 Jacob Muller, Director of Facilities, H.B. Fishman, project engineer, and The DiSalvo Engineering Group, structural consultant.

Article 2. Engineer:

Jacob Muller, Director of Facilities, will act as the Engineer in connection with completion of the Project in accordance with the Contract Documents.

Article 3. <u>Contract Time</u>:

The work shall be completed within **ninety (90) calendar days** after the date which the Contractor is to start the work as provided in the Contract Documents.

Article 4. <u>Contract Price</u>:

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. <u>Miscellaneous:</u>

- 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.

May 2019

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

Ву_____

Date_____

Contractor

By_____

Date_____

CONTRACTOR'S QUALIFICATION STATEMENT

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

Date: Started	Completed
	Telephone
Date: Started	Completed
	Telephone
Date: Started	Completed
	Telephone
Date: Started	Completed
	Telephone
Bid Ti	itle:
Bid No	0.:
Telephone No	D.:
	Date: Started

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

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:

Signed:

Notary Public

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 <u>all</u> insurance requirements are met.

- 1. <u>Comprehensive General Liability Insurance</u> 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 <u>Additional Insured</u> This MUST be stated explicitly on the Certificate or you will be disqualified
- 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:

• <u>Bodily Injury Insurance and Property Damage Insurance</u> 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.

00 52 00 AGREEMENT FORMS

- <u>PART 1</u> <u>GENERAL</u>: Standard AIA Document Forms to be used for this Contract are as follows:
 - A101 Standard Form of Agreement Between Owner and Contractor (1997 Edition)
 - A201 General Conditions of the Contract for Construction (1997 Edition)
 - A311 Performance Bond and Labor and Material Payment Bond (1970 Edition)
 - B352 Duties, Responsibilities and Limitations of Authority of the Consultant's Project Representative (1979 Edition)
 - G701 Change Order (1987 Edition)
 - G702 Application &
 - G703 Certificate for Payment (1983 Edition)
 - G704 Certificate of Substantial Completion (1978 Edition)
 - G705 Certificate of Insurance (1978 Edition)
 - G706 Contractor Affidavit of Payment of Debts and Claims (1970 Edition)
 - G706A Contractor's Affidavit of Release of Liens (1970 Edition)
 - G707 Consent of Surety Company to Final Payment (1970 Edition)

Copies of the above forms are available for inspection at the office of the Consultant and may be purchased from the office of The Connecticut Society of Architects, 85 Willow Street, New Haven, Connecticut 06511, telephone (203) 865-2195. The Consultant will furnish copies of all documents to the successful bidder.

END OF SECTION

Margin Alon and Alon

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a STIPULATED SUM

AGREEMENT made as of the in the year of (*In words, indicate day, month and year*) day of

BETWEEN the Owner: *(Name, address and other information)*

and the Contractor: (Name, address and other information)

The Project is: (Name and location)

The Architect is: (Name, address and other information)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201-1997, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

This document has been approved and endorsed by The Associated General Contractors of America.

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The Owner and Contractor agree as follows.

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner. (Insert the date of commencement if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)

If, prior to the commencement of the Work, the Owner requires time to file mortgages, mechanic's liens and other security interests, the Owner's time requirement shall be as follows:

§ 3.2 The Contract Time shall be measured from the date of commencement.

§ 3.3 The Contractor shall achieve Substantial Completion of the entire Work not later than from the date of commencement, or as follows:

(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. Unless stated elsewhere in the Contract Documents, insert any requirements for earlier Substantial Completion of certain portions of the Work.)

, subject to adjustments of this Contract Time as provided in the Contract Documents. (Insert provisions, if any, for liquidated damages relating to failure to complete on time or for bonus payments for early completion of the Work.)

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be Dollars
 (\$), subject to additions and deductions as provided in the Contract Documents.

days

2

§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

(State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires)

§ 4.3 Unit prices, if any, are as follows:

ARTICLE 5 PAYMENTS § 5.1 PROGRESS PAYMENTS

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

3

§ 5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- Take that portion of the Contract Sum properly allocable to completed Work as determined by .1 multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of %). Pending final determination of cost to the Owner of changes in the Work, percent (amounts not in dispute shall be included as provided in Section 7.3.8 of AIA Document A201-1997;
- Add that portion of the Contract Sum properly allocable to materials and equipment delivered and .2 suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage percent (%); of
- Subtract the aggregate of previous payments made by the Owner; and .3
- Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as .4 provided in Section 9.5 of AIA Document A201-1997.

§ 5.1.7 The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

- add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the .1 full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and (Section 9.8.5 of AIA Document A201-1997 requires release of applicable retainage upon Substantial
- Completion of Work with consent of surety, if any.) add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, .2 any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201-1997.

§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 FINAL PAYMENT

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

- the Contractor has fully performed the Contract except for the Contractor's responsibility to correct .1 Work as provided in Section 12.2.2 of AIA Document A201-1997, and to satisfy other requirements, if any, which extend beyond final payment; and
- a final Certificate for Payment has been issued by the Architect. .2

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

ARTICLE 6 TERMINATION OR SUSPENSION

§ 6.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201-1997.

§ 6.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201-1997.

4

Init.

ARTICLE 7 MISCELLANEOUS PROVISIONS

§ 7.1 Where reference is made in this Agreement to a provision of AIA Document A201–1997 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 7.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located. (Insert rate of interest agreed upon, if any.)

(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Contractor's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Legal advice should be obtained with respect to deletions or modifications, and also regarding requirements such as written disclosures or waivers.)

§ 7.3 The Owner's representative is: (*Name, address and other information*)

§ 7.4 The Contractor's representative is: (*Name, address and other information*)

§ 7.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

§ 7.6 Other provisions:

Init.

5

ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

§ 8.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

§ 8.1.1 The Agreement is this executed 1997 edition of the Standard Form of Agreement Between Owner and Contractor, AIA Document A101–1997.

§ 8.1.2 The General Conditions are the 1997 edition of the General Conditions of the Contract for Construction, AIA Document A201–1997.

§ 8.1.3 The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated , and are as follows:

Document

Title

Pages

§ 8.1.4 The Specifications are those contained in the Project Manual dated as in Section 8.1.3, and are as follows: (Either list the Specifications here or refer to an exhibit attached to this Agreement.)

Section

Title

Pages

6

§ 8.1.5 The Drawings are as follo	ows, and are dated		unless a different date is shown
below: (Either list the Drawings here or	r refer to an exhibit attached to	this Agreement.)	
Number	Title	Date	

§ 8.1.6 The Addenda, if any, are as follows:

Number

Date

Pages

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

§ 8.1.7 Other documents, if any, forming part of the Contract Documents are as follows:

(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201– 1997 provides that bidding requirements such as advertisement or invitation to bid, Instructions to Bidders, sample forms and the Contractor's bid are not part of the Contract Documents unless enumerated in this Agreement. They should be listed here only if intended to be part of the Contract Documents.)

This Agreement is entered into as of the day and year first written above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the Architect for use in the administration of the Contract, and the remainder to the Owner.

OWNER (Signature)

CONTRACTOR (Signature)

(Printed name and title)

(Printed name and title)

7

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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00 73 01 SUPPLEMENTARY GENERAL CONDITIONS

PART 1 GENERAL

- 1.01 General Conditions:
 - (a) The General Conditions of the Contract shall be the American Institute of Architects (AIA) Document A201, "General Conditions of the Contract for Construction" fifteenth edition, 1997, herein referred to as the General Conditions.
- 1.02 Supplementary Conditions:
 - (a) The following items consist of changes and additions to the General Conditions as if bound therein. Where any part of an article of the General Conditions is modified or deleted, the remaining unaltered portion shall remain in effect.
 - (b) The contractor shall be an Equal Employment Opportunity employer.

PART 2 AMENDMENTS TO THE GENERAL CONDITIONS

ARTICLE 1 - GENERAL PROVISIONS

1.1 Basic Definitions

ADD: "1.1.8, ARCHITECT – The term "Architect" shall mean the H. B. Fishman & Co., Inc. for the purpose of this Contract and all documents pertaining to the roof project. The term "Architect" includes and means the H. B. Fishman & Co., Inc. or its authorized representative(s)."

1.2 Correlation and Intent of the Contract Documents

ADD: "1.2.4, Following is a listing of the Contract Documents and, in the event of conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities:

- .1 The Agreement.
- .2 Addenda, with those of a later date having precedence over those of an earlier date.
- .3 The General Conditions of the Contract for Construction.
- .4 Drawings and Specifications. Stated dimensions shall take precedence over implied dimensions (DO NOT SCALE DRAWINGS). Large scale drawings shall take precedence over smaller scale drawings.

.5 Contractor's Bid and required Supplemental information.

In case of an inconsistency between or within Drawings and/or Specifications, which is not clarified by addendum or other written interpretation by the Architect, the better quality or greater quantity of Work shall be provided in accordance with the Architect's interpretation.

> ADD: "1.2.5, If any item, material, product or equipment is found to be specified in more than one division, section or article of the Specifications, or Contract Documents, the Contractor shall be responsible for determining which subcontractor or supplier shall provide the item.

ADD: "1.2.5.1, When applied to materials and equipment, the words 'furnish', 'install', and 'provide' shall mean the following:

The word 'provide' shall mean to furnish, pay for, deliver, install, adjust, clean and otherwise make materials and equipment fit for their intended use, as specified in Paragraph 4.4.1 of the General Conditions.

The word 'furnish' shall mean to secure, pay for, deliver to site, unload, uncrate and score materials.

The word 'install' shall mean to place in position, incorporate in the work, adjust, clean, make fit for use, and perform all services specified in General Conditions Paragraph 4.4.1 except those included under the definition of the word 'furnish' above."

- 1.6 Ownership and Use of Drawings, Specifications and Other Instruments of Service
 - 1.6.1 ADD: "Reproduction or use of the Contract Documents without the written consent of the Architect is strictly prohibited."
- 1.7 ADD the following paragraph 1.7: "Any provisions, requirements, or clauses required by applicable law to be included in these contract documents shall be deemed to be so included, whether or not set forth herein. Upon notice to the other party, the contract documents may be physically modified by either party to reflect any such provisions."

ARTICLE 2 – OWNER

- 2.1 General
 - 2.1.2 DELETE in its entirety.

2.2 Information and Services Required of the Owner

2.2.1 DELETE in its entirety.

2.2.5 DELETE and SUBSTITUTE: "The Owner shall furnish to the Contractor up to five (5) sets of Contract Documents. The Contractor may purchase additional sets of Contract Documents as he desires."

ARTICLE 3 – CONTRACTOR

3.2 Review of Contract Documents and Field Conditions by Contractor

3.2.1 ADD: "Notice of any discrepancy, inconsistency, error or omission shall be forwarded in writing to the Architect within twenty-four (24) hours. After reporting to the Architect any error, inconsistency, or omission which he may discover in the Contract Documents, the Contractor is not to proceed with any work so affected without the Architect's written modifications to the drawings and/or Specifications. If the Contractor proceeds with any such Work prior to receiving clarification from the Architect, the Contractor will be responsible for the cost of said Work. The Contractor is responsible for measuring the work. Dimensions on the drawings are offered as a guide only."

ADD: "3.2.4 After reporting to the Architect any error, inconsistency or omission in the Contract Documents that it may discover, the Contractor shall not proceed with any Work so affected without the Architect's written authorization. If the Contractor proceeds with any such Work prior to the Architect's response, the cost of such Work shall be the responsibility of the Contractor."

3.4 Labor and Materials

3.4.2 DELETE in its entirety.

3.5 Warranty

3.5.2 ADD: "The Contractor shall provide manufacturer's warranties on products incorporated into the Work. Notwithstanding the duration of any such warranties, the Contractor shall guarantee all materials and workmanship for a period of five (5) years from the date of substantial completion of the building(s). The manufacturer's warranty shall be in addition to the Contractor's guarantee."

3.5.5 ADD the following:

- "3.5.5.1 The Contractor shall repair, restore, or remove and replace Work found to be defective or deficient during the warranty period with Work complying with the requirements of the contract documents."
- 3.7 Permits, Fees and Notices

ADD: "3.7.1.3, Before beginning the Work, the Contractor must submit proof in writing that all the required permits have been obtained."

ADD: "3.7.3, The requirements of Subparagraph 3.7.3 do not waive the Contractor's responsibility of complying with the requirements of the Contract Documents when such requirements exceed those of any laws, ordinances, rules, regulations, and orders of any public authority bearing on that Work."

- 3.8 Allowances
 - 3.8.2.3 ADD: "except when installation is specified as part of the allowance in the General Requirements (Division 1 of the Specifications)."
- 3.12 Shop Drawings, Product Data and Samples
 - 3.12.7 Line 2, DELETE: "approved" and SUBSTITUTE: "reviewed and returned to the Contractor stamped "No Exceptions Taken".
- 3.15 Cleaning Up

ADD: "3.15.3, If the Owner finds, in his opinion, that waste materials or debris are adversely affecting the function of the facility, he shall give the Contractor written notice to remove same. If the Contractor fails to remove same within forty-eight (48) hours of receipt of notice, the Owner shall do so and the cost thereof shall be charged to the Contractor. The area shall be inspected and cleaned at the end of each work day."

- 3.18 Indemnification
 - 3.18.1 MODIFY as follows:

In the 1st, 2d and 3d lines, DELETE: "and to the extent claims, damages, losses or expenses are not covered by Project Management Protective Liability Insurance purchased by the contractor in accordance with Paragraph 11.3,";

In the 3d line, INSERT "defend", before "indemnify";

In the 9th line, DELETE "negligent";

ARTICLE 4 – ADMINISTRATION OF THE CONTRACT

- 4.2 Architect's Administration of the Contract
 - 4.2.7 lines 1 and 2, CHANGE TO READ: "The Architect will review and take appropriate action upon Contractor's submittals..."
 - 4.2.7 line 14, DELETE: "approval" and SUBSTITUTE: "review and stamping "no exceptions taken"
 - 4.2.9 ADD: "The undertaking of any inspections by the Architect is not to be construed as supervision of actual construction, nor to make him responsible for providing a safe place for the performance of work by the Contractor of the Contractor's employees, or those of suppliers of subcontractors for access, visits, work, travel, or occupancy by any person."
 - 4.2.10 lines 1 and 2, CHANGE TO READ: "The Owner may at its discretion provide a full-time Project Representative to..."
- 4.3 Claims and Disputes
 - 4.3.2 MODIFY to read: "Time Limit on Claims by either party must be initiated within the time periods prescribed in Paragraph 13, 7.1, Statute of Limitations."
 - 4.3.4 Claims for Concealed or Unknown Conditions, MODIFY : lines 7 and 8 to read, ". . . disturbed and within a reasonable time after discovery after first . . .". CHANGE: lines 15 and 16 to read, ". . . within a reasonable time after . . .".
 - 4.3.10 DELETE in its entirety.
- 4.4 Resolutions of Claims and Disputes

 - 4.4.5 line 4 MODIFY to read: "the parties".
 - 4.4.6 DELETE in its entirety.

- 4.4.8 line 3 MODIFY to read: "Prior to resolution of the claim by the Architect."
- 4.5 Mediation DELETE in its entirety.
- 4.6 Arbitration DELETE in its entirety.

ARTICLE 5 – SUBCONTRACTORS

- 5.2 Award of Subcontracts and Other Contracts for Portions of the Work
 - 5.2.1 lines 2, 3 DELETE: "as soon as practicable" and SUBSTITUTE: "Not later than fifteen (15) calendar days."
- 5.3 Subcontractual Relations
 - 5.3.1 lines 1, 2 DELETE and SUBSTITUTE: "By an appropriate written agreement, a copy of which shall be forwarded to the Architect under the provisions of Article 5.2.1, above, the Contractor shall require each..."

ARTICLE 6 – CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

- 6.2 Mutual Responsibility
 - 6.2.2 ADD: "If any part of a Contractor's work depends for proper and timely execution or results upon the interfacing or coordinating of the work of any other separate Contractor, or the Owner, the Contractor shall allow for this interrelationship in the planning and performance of his work, without interference to any other Contractor."

ARTICLE 7 – CHANGES IN THE WORK

- 7.3 Construction Change Directives
 - 7.3.3 paragraph .2, DELETE and SUBSTITUTE: "unit prices applicable to this Project shall be Contractor's total unit price and shall include overhead and profit as stated in the Contract Documents or subsequently agreed upon;"
 - 7.3.3 ADD the following as sub-paragraph .5:

".5 A 'reasonable allowance for overhead and profit' for work solely performed by the Contractor as indicated above and utilized in the compilation of cost and credit figures in Article 7.3.3, shall not exceed fifteen percent (15%) of the net cost of the work."

73.3. ADD the following as sub-paragraph .6:

".6 For work performed by subcontractors, cost to Owner may include an allowance for subcontractor's overhead and profit not to exceed fifteen percent (15%) of subcontractor's net cost, plus an allowance for General Contractor's overhead and profit not to exceed five (5%) of the subcontractor's net cost."

ARTICLE 8 – TIME

8.3.1 line 5, DELETE: "pending mediation and arbitration"

ARTICLE 9 – PAYMENTS AND COMPLETION

- 9.3 Applications for Payment
 - 9.3.1 ADD: "Application for Payment shall be on AIA Document G702, Application and Certificate for Payment, and AIA Document G703, Continuation Sheet."
- 9.4 Certificates for Payment
 - 9.4.1 lines 2 and 3, DELETE: "a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due," and SUBSTITUTE: "with a copy to the Contractor, the Contractor's Application for Payment (AIA Document G702) properly certified for payment, in triplicate, for such amount as the Architect determines is properly due,"
- 9.6 Progress Payments
 - 9.6.1 ADD: "The Owner shall forward one (1) copy of both the standard requisition form and the Application and Certificate for Payment, properly signed, to the Architect and to the Contractor for record."
- 9.7 Failure of Payment
 - 9.7.1 CHANGE lines 3, 4 and 5 to read: "within 30 days after the date established in the contract documents the amount certified by the Architect, than the Contractor may, upon ten additional days."

- 9.8 Substantial Completion
 - 9.8.2 ADD: "Certificate of Substantial Completion shall be standard AIA Document G704; three (3) copies of document shall be circulated for signature and distributed for record."
- 9.10 Final Completion and Final Payment
 - 9.10.4 DELETE in its entirety.

ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY

- 10.2 Safety of Persons and Property
 - 10.2.1 CHANGE paragraph .1 to read "Owner's employees, the general public, and employees ..."
 - 10.2.1 ADD: paragraph .4, "The Contractor shall provide and pay for whatever security measures he deems necessary to protect his work until acceptance by the Owner."
 - 10.2.5 CHANGE: lines 2, 3 and 4 to read, "to any property referred to in clauses 10.2.1.2 and 10.2.1.3 and indemnify and save the Owner harmless for all damage or injury to referenced persons and property caused in."
 - 10.2.8 ADD: "The Contractor shall comply with the requirements of the Occupational Safety and Health Act of 1970 (OSHA) and the Construction Safety Act of 1969, including all standards and regulations issued by governmental authorities that administer those Acts, which requirements, standards and regulations are incorporated herein by reference.
- 10.3 Hazardous Materials
 - 10.3.1 CHANGE to read: "Abatement of hazardous materials, including but not limited to asbestos, lead based paint, PCB or other toxic substances, is not part of the scope of work under this Contract, unless the existence of those materials is specified, contemplated, or reasonably inferable from the requirements of the contract documents. These materials shall be removed under separate Contract. The Contractor shall notify the Owner immediately if hazardous materials are encountered. Should the Contractor's work depend upon removal of such hazardous materials, the Owner will then make arrangements to have the hazardous materials removed in a

timely fashion. However, the Contractor shall be responsible for compliance with the State and Federal Regulations if any construction activity triggers the requirements for such compliance including but not limited to protecting the workers and other occupants of the Building. The Owner may grant an extension of time, if reasons exist for such an extension."

10.3.3 DELETE in its entirety.

ARTICLE 11 – INSURANCE AND BONDS

- 11.1 Contractors' Liability Insurance
 - 11.1.2 CHANGE to read: "The insurance required by subparagraph 11.1.1 shall have the coverages and limits as specified below, or required by the Town of Ridgefield (enclosed Appendix Insurance Requirements), whichever is greater:
 - .1 <u>Commercial General Liability:</u> With limits no less than \$1,000,000 each occurrence/\$2,000,000 aggregate Bodily Injury and Property Damage and including coverage for:
 - a) Products/Completed Operations
 - b) Personal Injury
 - c) X C U Coverage if any digging or excavation work is involved
 - .2 <u>Worker's Compensation & Employers Liability Policy:</u> covering operations in the State of Connecticut. (Allow proper time to order certificate if coverage is written through the NY State Insurance Fund.)
 - .3 <u>Contractor's Equipment:</u> The contractor should insure all equipment, tools, vehicles owned, leased, or used by them and shall evidence coverage with a certificate of insurance. The contractor shall hold the Town of Ridgefield, Ridgefield, Connecticut harmless for any loss or damage to such equipment, tools, etc.
 - .4 <u>Comprehensive Automobile Policy:</u> with limits of no less than \$1,000,000 Bodily Injury and Property Damage (Combined Single Limit) Liability including coverage for owned, non owned, and hired private passenger and commercial vehicles.

- .5 <u>Excess Liability:</u> with limits not less than \$5,000,000 each occurrence.
- .6 The Town of Ridgefield, Ridgefield, Connecticut and H. B. Fishman & Co., Inc., 300 Pleasant Valley Road, South Windsor, Connecticut 06074 must be named as "Additional Insured" on all policies and Certificates of Insurance should show this.
- .7 Certificates shall provide that 15 days written notice prior to cancellation be given to the Town of Ridgefield. Policies that lapse and/or expire during the term of occupancy shall be recertified and received by the Town of Ridgefield no less than 30 days prior to renewal.

11.1.3 ADD:

- ".1 Submit three (3) copies of AIA Document G705, Certificate of Insurance, properly executed, including the title and signature of the authorized representative and the following statement: copy of this certificate is on file in the office of the insurance company which underwrites the policies.
- .2 All Certificates shall name the Owner, and the Architect and its representatives, as additional named insureds on any liability coverage and/or policies identified therein.
- .3 On the back of all copies of insurance certificates type paragraph 3.18 (Indemnification) of the AIA General Conditions in full, as amended.
- .4 Submit three (3) copies of any endorsements that are subsequently issued amending coverage or limits."
- 11.2 Owner's Liability Insurance
 - 11.2.1 DELETE and SUBSTITUTE: "The Contractor shall procure, pay for and maintain, and provide a Certificate of Insurance reflecting Owner's Protective Liability Insurance naming the Owner and Architect as additional named insureds to protect the Owner and Architect from any liability which might be incurred against them as a result of any operation of the Contractor or his subcontractors or their employees. Such insurance shall be written for the same limits as the Contactor's Liability Insurance, and shall include the same coverage."

11.4 Property Insurance

- 11.4.1 ADD the following conditions:
 - ".1 Names and addresses of all subcontractors shall be recorded with the Owner at the time of award or contract so that policies being effected by the Owner may be filled out properly.
 - .2 The above property insurance maintained by Owner shall include materials and supplies on site whether installed or intended for use in the alteration or repair of the building.
 - .3 The Contractor shall purchase and maintain any insurance they deem necessary for protection against loss to equipment or tools of Contractor, Sub-Contractor, or Sub-Sub-Contractor on site. In no way shall the Owner become responsible for deductibles for any loss. These are the sole responsibility of the Contractor."
- Loss of Use of Insurance DELETE and SUBSTITUTE: "The 11.4.3 Contractor shall provide the Owner with insurance against loss of use of his property, including consequential losses due to fire or other hazards however caused, in an amount not less than two hundred fifty thousand dollars (\$250,000) for the construction period unless equivalent protection is provided and operations' clause of the under 'premises the Comprehensive General Liability Insurance specified in Article 11, paragraph 11.1 above."
- 11.4.4 CHANGE to read: "The Owner shall make available for inspection by the Contractor all policies of property insurance as provided in Article 11.3.1."
- 11.4.6 CHANGE line 1 to read: "The Owner shall file ...".
- 11.4.7 DELETE in its entirety.
- 11.4.9 DELETE in its entirety.
- 11.4.10 DELETE in its entirety.

ARTICLE 12 - UNCOVERING AND CORRECTION OF WORK - No Change

ARTICLE 13 - MISCELLANEOUS PROVISIONS

- 13.4 Rights and Remedies
 - 13.4.1 ADD: "or specified herein."
- 13.5 Tests and Inspections
 - 13.5.1 CHANGE the third sentence to read: "The Contractor shall schedule the above and shall notify the Architect not later than forty-eight (48) hours prior to the inspection so that the Architect may observe such inspection, testing, or approval. The Contractor shall bear all costs of such inspection, tests, or approvals required by public authorities or specified herein." The Owner shall bear costs ...
- 13.6 Interest
 - 13.6.1 DELETE in its entirety.

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT

- 14.1 Termination by the Contractor
 - 14.1.3 lines 3 through 5, CHANGE to read: "payment for all work executed in accordance with the Contract Documents."
 - 14.2.1 ADD the following as 14.2.1.5: "fails to perform in accordance with the contract schedule, or causes the Architect to reasonably believe that the Contractor will not complete the Work by the date or duration specified in the contract documents."

END OF SECTION

00 73 43 WAGE RATE REQUIREMENTS

PART 1 GENERAL

- 1.01 The wages paid on an hourly basis to any mechanic, laborer, or workman employed for the work contracted, and the amount of payment or contribution paid or payable on behalf of each employee welfare fund as defined in the Connecticut General Statutes shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed.
- 1.02 Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each payday.
- 1.03 In accordance with Connecticut General Statute 31-53 and 31-54, all contractors are required to complete and submit the following forms:
 - a. "Contractors Wage Certification Form"
 - b. "Contracting Agency Certification Form"
 - c. "Payroll Certification for Public Works Projects Weekly Payroll"
- PART 2 MINIMUM WAGE RATES
- 2.01 The current wage and benefit rates as provided by Connecticut Department of Labor Wage and Workplace Standards Division are as attached:

END OF SECTION

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM Construction Manager at Risk/General Contractor/Prime Contractor

I,		of
Officer, Owner, Auth	orized Rep.	of Company Name
do hereby certify that the		
		Company Name
-		Street
_		City
and all of its subcontractors	s will pay all work	kers on the
	Project Name an	nd Number
	Street and City	y
the wages as listed in the sc attached hereto).	hedule of prevaili	ing rates required for such project (a copy of which is
		Signed
Subscribed and sworn to be	efore me this	day of
		Notary Public
Return to:		
	t Department of L orkplace Standard	
200 Folly B	rook Blvd.	
Wethersfiel	d, CT 06109	
Rate Schedule Issued (De	ate):	

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:							
1) Medical or hospital care	4) Disability						
2) Pension or retirement	5) Vacation, holiday						
3) Life Insurance	6) Other (please specify)						
CERTIFIED STATEMENT OF COMPLIANCE							
For the week ending date of,							
I, of	, (hereafter known as						

Employer) in my capacity as ______ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

a) The records submitted are true and accurate;

b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;

c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);

d) Each such person is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;

e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor relating to a prime contractor; and

f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

(Signature)

(Title)

Submitted on (Date)

THIS IS A PUBLIC DOCUMENT ***DO NOT INCLUDE SOCIAL SECURITY NUMBERS*** [New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

In accordance with Con Certified Payrolls with a shall be submitted mont	statement of	f compli	iance			PAYR	OLL CI	ERTIFIC	CATIC		PUBLIC LY PAY	C WORKS PI ROLL	ROJECTS				Wage and 200 F			ion			
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																POLICY #							
PAYROLL NUMBER	Week-Ending Date	g PR	OJECT NAME & A	ADDRES	ESS							EFFECTIVE DATE: EXPIRATION DATE:											
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					FICATION FOR PUBLIC WORKS PROJECTS								Week-Ending Date:								
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Weekly Payroll Certification For

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

Minimum Rates and Class for Building Construction							
ID#: B 26076Connecticut Department of LaborWage and Workplace Standards Division							
5	ested in the Labor Commissioner under provisions of Section 31-53 of the General amended, the following are declared to be the prevailing rates and welfare payments						
established. Any contractor	he contract is advertised for bid within 20 days of the date on which the rates are r or subcontractor not obligated by agreement to pay to the welfare and pension to each employee as part of his/her hourly wages.						

Project: EOC And Playhouse Roof Reconstruction On Sixty Prospect Street

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

2) Boilermaker	38.34	26.01
3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	34.72	33.58 + a
3b) Tile Setter	34.90	25.87
3c) Terrazzo Mechanics and Marble Setters	31.69	22.35
3d) Tile, Marble & Terrazzo Finishers	26.70	21.75
3e) Plasterer	33.48	32.06
	<i>33.</i> 48	52.00

-----LABORERS------

4) Group 1: Laborers (common or general), acetylene burners, concrete specialists, wrecking laborers, fire watchers.	30.05	20.10
4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofer/mixer/nozzleman (Person running mixer and spraying fireproof only).	30.30	20.10
4b) Group 3: Jackhammer operators/pavement breaker, mason tender (brick), mason tender (cement/concrete), forklift operators and forklift operators (masonry).	30.55	20.10
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 who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80.	30.55	20.10
4d) Group 5: Air track operator, sand blaster and hydraulic drills.	30.55	20.10

4e) Group 6: Blasters, nuclear and toxic waste removal.	31.80	20.10
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
4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	28.38	20.10
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	27.86	20.10
4i) Group 10: Traffic Control Signalman	16.00	20.10
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

5a) Millwrights	33.14	25.74
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
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	53.37	33.705+a+b
LINE CONSTRUCTION		
Groundman	26.50	6.5% + 9.00
Linemen/Cable Splicer	48.19	6.5% + 22.00

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

Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper).	38.10	24.30 + a
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	24.30 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller; Pile Testing Machine.	37.51	24.30 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	37.20	24.30 + a
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	24.30 + a
Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine.	36.46	24.30 + a

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	24.30 + a
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	33.99	24.30 + a
Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	33.99	24.30 + a
Group 12: Wellpoint operator.	33.93	24.30 + a
Group 13: Compressor battery operator.	33.35	24.30 + a
Group 14: Elevator operator; tow motor operator (solid tire no rough terrain).	32.21	24.30 + a

Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	31.80	24.30 + a
Group 16: Maintenance Engineer/Oiler.	31.15	24.30 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	35.46	24.30 + a
Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license).	33.04	24.30 + a
PAINTERS (Including Drywall Finishing)		
10a) Brush and Roller	33.62	21.05

10b) Taping Only/Drywall Finishing	34.37	21.05
10c) Paperhanger and Red Label	34.12	21.05
10e) Blast and Spray	36.62	21.05
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
12) Well Digger, Pile Testing Machine	37.26	24.05 + a
Roofer: Cole Tar Pitch	41.50	17.00 + a

Roofer: Slate, Tile, Composition, Shingles, Singly Ply and Damp/Waterproofing	40.00	17.00 + a
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
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
TRUCK DRIVERS		
17a) 2 Axle	29.13	23.33 + a
17b) 3 Axle, 2 Axle Ready Mix	29.23	23.33 + a

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

19) Theatrical Stage Journeyman

25.76 7.34

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 journeyperson 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.

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.

GENERAL CONDITIONS

1. <u>CONTRACTOR'S UNDERSTANDING</u>:

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:

<u>OWNER:</u>	The word "Owner" when it appears in the Contract Documents shall mean The Town of Ridgefield, Connecticut.
<u>ENGINEER:</u>	The word "Engineer" when it appears in the contract Documents shall mean: Jacob Muller, Director of Facilities 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:

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

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, it so instructed or authorized. Any compensation claimed by the Contractor on account of emergency work, shall be determined by agreement or arbitration.

5. <u>CHANGES IN THE WORK</u>:

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. <u>METHOD OF PAYMENT</u>:

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 **one hundred percent (100%)** 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. <u>(OMITTED)</u>

19. <u>PROTECTION TO PUBLIC</u>:

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. <u>GUARANTEE:</u>

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.

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 de default it 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 he final and conclusive upon the parties. Such additional time shall be the sole and exclusive remedy for any delay claimed by the Contractor.

23. <u>SALES TAX</u>:

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. It 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.

01 11 01 SUMMARY OF GENERAL PROVISIONS

PART 1 GENERAL

1.01 WORK INCLUDED

This Division applies to and forms a part of each Section of this Specification.

- 1.02 DIVISION OF WORK
 - A. These Specifications are divided for convenience into Sections as set forth in the Table of Contents.
 - B. Any mention in these Sections or indication on Drawings of articles, materials, products, operations or methods, requires that Contractor furnish each item mentioned or indicated, of kind, type of design and quality specified or shown on Drawings; and that Contractor furnish all labor, equipment, incidentals and superintendence necessary to complete work in accordance with Drawings and true meaning and intent of these Specifications, even though such mention of articles, materials, operations, methods, quality, qualifications or conditions is not completely expressed.
 - C. Where devices, items or parts thereof, are referred to in singular, it is intended that such reference applies to as many such devices, items or parts as are required to properly complete the work.
 - D. Description of work included in each Section is given for convenience and is not to be considered as a comprehensive list of items necessary to complete the work of any Section.
 - E. Coordinate the work covered in each Section with work of other Sections. Deliver necessary information and items, accessories, anchors, connections, patterns, templates, etc., when required in order to prevent any delay in progress and completion of the Work.

1.03 SAFETY PROVISIONS

Provide a safe work environment including deactivation of all utilities and/or services in work area during any time work is in progress and complying with all Safety Orders of all legally constituted public authorities having jurisdiction. Approval of Shop Drawings by Consultant does not in any way relieve Contractor of his responsibilities.

1.04 PROTECTION OF EXISTING IMPROVEMENTS

Protect buildings, active utilities, etc., which are to remain from damage during construction. Repair any damage to existing facilities at no cost to Owner.

1.05 GUARANTEES

- A. Furnish and install all new material under this Contract free from defects, and provide a contractor's guarantee, for a period of **two (2) years**, a 20 year, No Dollar Limit, manufacturer's roof system warranty and as specified elsewhere from date of acceptance of the Work. Should any trouble develop during this period, due to defective material or faulty workmanship, furnish all necessary materials and labor to correct the trouble without any cost to Owner.
- B. Submit in writing all special guarantees required by this Specification, in form required and delivered to Consultant before final payment is made.

1.06 WATCHMAN SERVICE

Provide such watchman's services as are necessary to properly safeguard all materials, tools and appliances on job site. Owner will not assume any responsibility for loss of or damage to materials, tools, appliances or work arising from acts of theft, vandalism, malicious mischief or other causes.

1.07 SURVEY OF EXISTING CONDITIONS

- A. Before submitting Bid, examine premises and ascertain conditions under which Work will be scheduled and performed. Be informed of any and all peculiarities and limitations of spaces available for the Work.
- B. Before commencement of Work, make a thorough survey of the building site and approaches thereto.
- C. Locate all drainage lines, water, gas, communications, smoke detectors, under deck conduit and other utility service lines or piping in work and provide protection as required.
- D. Make certain that all subcontractors, prior to starting their work, carefully inspect the work of other trades and verify that all such work is complete to the point where work may commence.

01 11 13 SUMMARY OF WORK

PART 1 GENERAL

1.01 Description: The Base Bid work consists of the removal and replacement of roof areas at the Yanity EOC and Playhouse, approximately 5,300 SF. It should be noted that due to structural limitations of the building, no storage of materials (either new or removed existing) will be allowed on the roof levels.

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 drawings 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 plans and specifications that a complete, watertight, expertly fabricated system of work be delivered to the owner.

- A. All Roofs
 - 1. Completely remove and dispose of the existing gravel surfaced built-up roof membrane, insulations, flashings, stripping to the wood deck and/or existing wood blocking. Remove and dispose of asbestos containing roof materials per Section 02 82 33.01.
 - 2. Prepare wood deck and repair per Unit Price A.
 - 3. Replace deteriorated wood blocking per Unit Price B.
 - 4. Over prepared wood deck provide and install felt base sheet.
 - 5. Provide and install layers of flat and tapered polyisocyanurate insulation, mechanically fastened.
 - Mechanical fasteners shall be installed at a rate of 16 fasteners per 4'x8' in field of roof with enhancements at corners and perimeter edges as specified.
 - b. Tapered insulation on EOC Roof shall be ¹/₄" per foot, Playhouse Roof tapered insulation shall be 1/8" per foot with ¹/₄" per foot cricket.
 - 6. Over installed mechanically fastened insulation layers, provide and install 1/2" HD overlayment set in modified application of foam adhesive

- 7. Provide and install new, fully adhered, .060" reinforced, FR, EPDM membrane with associated base flashings, terminations, and transitions as shown in detail drawings.
- 8. Provide and install new metal counterflashings, ES-1 metal edging, and pipe flashings on EOC Roof.
- 9. Provide and install new drain assemblies to match existing with cast iron strainer, above and below clamping rings and stainless steel bolts.
 - a. Provide and install new overflow scuppers at locations shown on the Drawings on EOC Roof.
- 10. Provide and install membrane manufacturer approved walkway pads at designated locations as shown in detail drawings.
- 11. On Playhouse Roof, provide and install new 20 oz. copper gutter with new copper leaders to match existing as shown on the Drawings.
- 12. On Playhouse Roof, provide and install new control joint as shown on the Drawings.
- 13. On EOC Roof, provide and install new duct supports with manufacturer provided leg pads.
- 14. On EOC Roof, prime and paint wood fascia at perimeters.
- 15. Provide warranties as required including 20 year "No Dollar Limit" EPDM manufacturer's roof system warranty with 72 mph wind speed and metal edge coverages.
- 1.02 Building: Yanity Building Emergency Operations Center and Playhouse, 66 Prospect Street, Ridgefield, Connecticut.
- 1.03 Specification: The specifications are arranged in Section and Division according to the Uniform System of Construction.
- 1.04 Occupancy: It is intended that the building owner may maintain normal occupancy and continued operations during the reroofing operations. The contractor shall provide protection for his materials, tools, equipment and the building openings in his care, custody or control. Contractor to coordinate and cooperate with the building owner.

01 11 13.01 SUMMARY OF WORK - STRUCTURAL

PART 1 GENERAL

- 1.01 DESCRIPTION:
 - A. The Yanity Building EOC Roof and Playhouse Roof Replacement project includes the removal of existing capped curbs and in filling the deck openings with new wood decking.

01 12 16 WORK SEQUENCE

PART 1 EQUIPMENT

- 1.01 Various items of equipment may not be closed down. Each item to be flashed, moved, or raised, remounted, etc., must be checked prior to work.
- 1.02 The Contractor shall coordinate these activities with the Owner's representative.
- 1.03 The Contractor shall notify building owner's representative prior to each day's scheduled work as to location and extent of activities.

01 22 13 UNIT_PRICE MEASUREMENT

PART 1 GENERAL

- 1.01 Definition:
 - A. Amount the Contractor acknowledges in the Bid Proposal Form as a price per unit of measurement for materials and/or services as described in the project specification.
- 1.02 Unit price work shall be approved by the Owner's Representative prior to execution of work.
- 1.03 Final contract amount will be adjusted for all approved unit price work.
- 1.04 Related work specified elsewhere:
 - A. Section 01 32 33 Photographic Documentation
- 1.05 Unit Price Schedule

Designation	Section	Item	Quantity Included	Unit
Α.	06 10 53 1.03	Remove & replace deteriorated wood decking	N/A	sq. ft.
В.	06 10 53 1.03	Remove & replace deteriorated wood blocking	N/A	Bd.ft.

01 23 00.01 SCHEDULE OF ALTERNATES

PART 1 GENERAL

- 1.01 All materials and workmanship shall be in strict accordance with the original specifications and drawings.
- 1.02 There are no alternates at this time.

01 25 13 PRODUCT SUBSTITUTION PROCEDURES

PART 1 GENERAL

- 1.01 After the award of the contract, substitutions for materials or proprietary items specified will be considered only if the following procedures are adhered to:
- 1.02 Whenever the Contractor proposes a substitute, he will compile and submit brochures to the Consultant consisting of the following:
 - A. A request for approval of the substitute materials in the form of a proposed credit which must be supported by the following:
 - 1. A statement of the reason for the substitution and that its approval will not extend the contract time.
 - 2. A statement that the substitution will not change the function or any part of the work of the contract.
 - 3. The manufacturer's specifications and brochures and the Contractor's original quotation, including delivery dates, for the materials specified in the contract.
 - 4. The manufacturer's specifications and brochures and the Contractor's original quotation, including delivery dates, for the proposed substitution.
- 1.03 Where Contractor proposes to use an item of equipment which differs from that upon which design was based and which requires a redesign of the structural, mechanical, or architectural layout, all such redesign, new drawings, etc., required shall be prepared by the Contractor at his own expense for approval by the Consultant.
- 1.04 Where approved substitutions or deviations require a different quantity, size or arrangement of structural support, wiring, conduit, piping, ductwork and equipment from that upon which design was based, all additional items required by the system shall, with approval of the Consultant, be furnished by Contractor at no additional cost to Owner.

01 29 73 SCHEDULE OF VALUES

PART 1 GENERAL

1.01 GENERAL

- A. Submit to Consultant a Schedule of Values allocated to various portions of the Work, within ten days after award of contract.
- B. Upon request of Consultant, support values with data which will substantiate their correctness.
- C. Use Schedules of Values, unless objected to by Consultant, only as basis for Contractor's Applications for Payment.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE
 - 00 73 01 Supplementary General Conditions
- 1.03 FORM AND CONTENT OF SCHEDULE OF VALUES
 - A. Type schedule on 8-1/2 in x 11 in. white paper; Contractors' standard forms and automated printout will be considered for approval by Consultant upon Contractor's request. Identify schedule with:
 - 1. Title of Project and location.
 - 2. Consultant and Project number.
 - 3. Name and Address of Contractor.
 - 4. Date of submission.
 - B. Schedule to list installed value of component parts of Work in sufficient detail to serve as a basis for computing values for progress payments during construction.
 - C. Follow Table of Contents of Project Manual as format for listing component items. Identify each line item with number and title of respective major section of Specifications.
 - D. For each major line item list sub-values of major products or operations under item. Consult Consultant for sub-item listings after Contract award.

- E. For various portions of the Work:
 - 1. Each item to include a directly proportional amount of Contractor's overhead and profit.
 - 2. For items which progress payments will be requested for stored materials, break down value onto:
 - a. Cost of the materials, delivered and unloaded, with taxes paid.
 - b. Total installed value.
- F. Sum of all values listed in schedule to equal total Contract Sum.

END OF	SECTION
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01 31 19 PROJECT MEETINGS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Schedule and administer pre-construction conference with Owner, Contractor, subcontractors, testing laboratory personnel, membrane manufacturer's representative and Consultant before beginning any work.
- B. Schedule and administer progress meetings.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE

Α.	01 31 19.13	Pre Construction Meeting
	01 33 23	Shop Drawings, Product Data and Samples
	01 45 29	Testing Laboratory Services
	01 77 19	Close Out Requirements
	01 78 39	Project Record Documents
		-

B. Individual Specification Sections: Pre-installation conferences.

1.03 DESCRIPTION

- A. Schedule and administer pre-construction conference, and weekly construction progress meetings, called meetings, and pre-installation conferences, throughout progress of Work.
- B. Make physical arrangements, prepare agenda, and distribute notice of each meeting to participants, Owner and Consultant, four days in advance of meeting date.
- C. Preside at meetings, record minutes, and distribute copies within two days after meeting to participants, to entities affected by decisions at meetings, with one copy each to Owner and Consultant.
- D. Location of meetings to be as directed by the building owner.
- E. Attendance: Contractor, job superintendent, subcontractors, testing laboratory personnel and suppliers as appropriate to agenda; Owner, Consultant, and professional consultants, may attend as appropriate.

- F. Minimum Agenda:
 - 1. Approval of minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems and decisions.
 - 4. Identification of problems which impede planned progress.
 - 5. Review of submittal schedule and status of submittal.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of progress schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of project progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on progress schedule and coordination.
 - 13. Other business relating to Work.

01 31 19.13 PRE-CONSTRUCTION MEETINGS

PART 1 GENERAL:

- 1.01 Prior to the start of roofing and associated work, meet at project site with suppliers, installer and/or manufacturer of each component of associated work, roofing work, installer of roof-top units and other work in and around which must precede or follow roofing work (including mechanical work if any), and other representatives directly concerned with performance of the work including (where applicable) Owner's insurers, test agencies, product manufacturers, Consultant and Owner. The Contractor shall record discussions of conference and decisions and agreements (or disagreements) reached, and furnish copy of record to each party attending. Review foreseeable methods and procedures related to roofing work including, but not necessarily limited to, the following:
 - A. Review inspection to be performed to detect deficiencies in existing deck materials.
 - B. Review roofing system requirements (drawings, specifications, and other contract documents).
 - C. Review required submittals, both completed and yet to be completed.
 - D. Review status of substrate work (not by roofing installer), including drying, structural loading limitations, and similar considerations.
 - E. Review availability of materials, tradesmen, equipment and facilities needed to make progress and avoid delays.
 - F. Review required inspection, testing, certifying and material usage accounting procedures.
 - G. Review weather and forecasted weather conditions, and procedures for coping with unfavorable conditions, including possibility of temporary roofing.
 - H. Review regulations concerning code compliance, storm water retention, environmental protection, health, safety, fire and similar considerations.
 - I. Review use of on-site pollution and odor control devices.
 - J. Review removal and disposal of existing roofing materials.

- J. Review procedures needed for protection of roofing during remainder of construction period.
- K. Consider each party's expert advice and judgment as expressed in the interest of successful completion of the work.
- L. Contractor shall provide and distribute a bar chart showing the projected schedule of work for the project. This chart shall be discussed at the meeting.
- M. Contractor shall provide a list of emergency telephone numbers and contact names to the building owner's representative.

01 32 00 CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

- 1.01 General:
 - A. Within 14 days after award of Contract, prepare and submit to Owner/Consultant estimated construction progress schedules for the Work, with subschedules of related activities which are essential to progress.
 - B. Submit revised progress schedules periodically.
 - C. Submit plan for temporary protections to be employed during construction.
- 1.02 Related Work Specified Elsewhere Includes:

01 11 13Summary of Work01 31 19Project Meetings01 31 19.13Pre-Construction Meetings

- 1.03 Form of Schedules:
 - A. Prepare schedules in form of a horizontal bar chart.
 - 1. Provide separate horizontal bar for each trade or operation.
 - 2. Horizontal Time Scale: Identify first work day of each week.
 - 3. Scale and Spacing: To allow space for notations and future revisions.
 - 4. Minimum Sheet Size: 11" x 17".
 - B. Format of Listings: Chronological order of start of each item of work.
- 1.04 Content of Schedules:
 - A. Construction Progress Schedule:
 - 1. Show complete sequence of construction by activity.
 - 2. Show dates for beginning, and completion of, each major trade or operation.

- B. Submittal Schedule for Shop Drawings, Product Data and Samples. Show:
 - 1. Dates for Contractor's submittal.
 - 2. Dates approved submittal will be required from Consultant.
- C. Products Delivery Schedule.
- D. Prepare and submit subschedules for each separate stage of work specified in Section 01 11 13.
- E. Provide subschedules to define critical portions of prime schedules.
- 1.05 Progress Revisions:
 - A. Indicate progress of each activity to date of submission.
 - B. Show changes occurring since previous submission of schedule:
 - 1. Major changes in scope.
 - 2. Activity modified since previous submission.
 - 3. Revised projections of progress and completion.
 - 4. Other identifiable changes.
 - C. Provide a narrative report as needed to define:
 - 1. Problem areas, anticipated delays and impact on schedule.
 - 2. Corrective action recommended and its effect.
 - 3. Temporary protections and their implementation.
- 1.06 Submissions:
 - A. Submit initial schedule within 7 days after award of Contract.
 - 1. Consultant will review schedules and return review copy within 7 days after receipt.

- 2. If required, resubmit within 7 days after return of review copy.
- B. Submit one reproducible transparency and one opaque reproduction.
- C. Submit revised progress schedules with each application for payment.
- 1.07 Distribution
 - A. Distribute copies of reviewed schedules to Owner, job site file, subcontractors and other concerned parties.
 - B. Instruct recipients to report promptly to Contractor, in writing, any problems anticipated by projections shown in schedules.

01 32 33 PHOTOGRAPHIC DOCUMENTATION

PART 1 GENERAL

- 1.01 Take 35 mm or digital color prints for documentation of installation of unit price items. Note on each print the date the picture was taken, the project number, the unit item and quantity installed as shown in the photograph. Photographs shall be keyed into the roof plan showing extent of unit price repair. Deliver 3 sets of prints and roof plan to the designated building owner's representative.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE:
 - 01 22 13 Unit Price Measurement

01 33 23 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 SHOP DRAWINGS

- 1.01 Shop Drawing submittals shall consist of one (1) reproducible transparency and two (2) prints.
 - A. Sepia transparency shall be capable of producing legible prints without excessive background as determined by the Consultant. Transparencies of poor quality shall be returned, marked, "resubmit."
 - B. Allow a 3" margin on the right side of all drawings for processing stamp.
- 1.02 Each drawing shall be properly identified with the following:
 - A. Subcontractor's and Contractor's name, address, and telephone number.
 - B. Project title and number.
 - C. Identification of drawing content.
 - D. Date prepared.
- 1.03 At the time of submission, the contractor shall inform the Consultant in writing of any deviation in the shop drawings from the requirements of the Contract Documents.
 - A. If deviations between shop drawing submittals and the Contract Documents are discovered either prior to or after shop drawing submittals are processed, the Contract Documents shall control and shall be followed.
- 1.04 The Contractor shall field verify all dimensions on shop drawings relating to existing or new construction and shall record them on drawings.
- 1.05 Drawings submitted directly to the Consultant by subcontractors or vendors shall not be accepted.
- 1.06. The Consultant will review shop drawings with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the Project and with the information given in the Contract Documents.
- 1.07 The Contractor shall make any corrections required by the Consultant and shall resubmit the specified number of corrected copies.

PART 2 PRODUCT DATA

- 2.01 Product Data submittals shall consist of four (4) sets of original documents, identified and processed in accordance with the provisions for shop drawings above, edited to delete all information not applicable to the Project.
 - A. Original documents shall be Manufacturer's published specifications, installation directions and recommendations, and standard details.
- 2.02 For all items specified to be installed in accordance with manufacturer's directions, indicate that the Installer has been forwarded a data submittal.

PART 3 SAMPLES

- 3.01 Sample submittals shall consist of four (4) sets, identified and processed in accordance with the provisions for shop drawings above.
- 3.02 Submit samples of size sufficient to show quality, type, range of color, finish, or texture. Submit product data describing items or materials submitted. Samples will be reviewed for appearance and finish only. Compliance with other requirements is the exclusive responsibility of the Contractor. The Consultant's unqualified determination shall be final. Materials furnished at the Site shall be equal in all respects to submitted samples.

01 35 23 OWNER SAFETY REQUIREMENTS

PART 1 GENERAL

- 1.01 Take all precautions to insure that the Owner's existing operations and facilities are not adversely affected by pollutants (i.e. dust, noise, vibration, water, odors, etc.) generated directly or indirectly by the work.
- 1.02 If so directed by the Owner, cease work immediately and until the cause of the pollution is detected and eliminated.
- 1.03 Schedule all work known to generate pollutants detrimental to the Owner's operation, after consultation with the Owner, for non-critical periods of time.

1.04 NO SMOKING SHALL BE ALLOWED ON THE PROJECT SITE.

1.05 Related Work Specified Elsewhere:

04.40.40	
01 12 16	Work Sequence
01 73 29	Cutting and Patching
02 41 19.01	Selective Structure Demolition (Roofing)
02 82 33.01	Removal and Disposal of Asbestos Containing Roof
	Materials
06 10 53	Miscellaneous Rough Carpentry
07 21 13	Board Insulation
07 53 23.01	Ethylene-Propylene-Diene-Monomer Roofing (Fully Adhered EPDM)
	(Fully Auhereu EFDM)

01 35 29 HEALTH, SAFETY AND EMERGENCY RESPONSE PROCEDURES

PART 1 GENERAL

- 1.01 The Contractor shall exercise proper precautions and effect all applicable safety measures required for the protection of persons and/or property and shall be responsible for all injuries and/or damage to all persons and/or property, either on or off the Site, which occur as a result of his prosecution of the work under this Contract. The safety provisions of all applicable local/state/federal/OSHA laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the Owner may determine to be reasonable and necessary.
- 1.02 The Contractor shall maintain accurate records of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on the work under this Contract in accordance with the requirements of the applicable state/local/federal regulations. The Contractor shall promptly furnish the Owner with copies of the above records if so requested.
- 1.03 The Contractor shall indemnify and save harmless the Owner and from any and all claims for damages resulting from personal injury, death and/or property damage, suffered or alleged to have been suffered, by any person as a result of any work conducted under this Contract.
- 1.04 The work described in these bid documents may involve hazardous material, operations, and equipment. These specifications do not purport to address all of the safety problems associated with the installation of this work. It is the responsibility of the Contractor to establish appropriate safety and health practices and to maintain compliance with regulations.
- 1.05 The Contractor shall provide fire extinguishers as required by state/local/federal requirements, but not less than one extinguisher within easy access to each area where power tools, roofing kettles, and/or torches are being used.

01 35 53 SECURITY PROCEDURES

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide a project security program to:
 - 1. Protect Work, stored products and construction equipment from theft and vandalism.
 - 2. Protect premises from entry by unauthorized persons from Contract Areas.
- B. Protect Owner's operations at Site from theft, vandalism or damage from Contractor's work or employees.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE
 - 01 50 00 Temporary Facilities and Controls
 - 01 51 00 Temporary Utilities
 - 01 51 33 Temporary Telecommunications
 - 01 56 33 Temporary Security Barriers
 - 01 61 00 Common Product Requirements
 - 01 66 00 Product Storage and Handling Requirements
- 1.03 MAINTENANCE OF SECURITY
 - A. Initiate security program promptly after job mobilization.
 - B. Maintain security program throughout construction period, until Owner acceptance precludes need for Contractor security.
- 1.04 GENERAL
 - A. Provide to the Owner and its representatives names and telephone numbers of at least two workers to respond to emergency leak situations.
 - B. The contractor shall be solely responsible for damage, loss or liability due to theft or vandalism.

01 42 13 ABBREVIATIONS AND ACRONYMS

PART 1 GENERAL

1.01 Abbreviations and symbols used on the drawings are from the following master list:

BLKG BF	Blocking Board Feet
Ø	Diameter
EA EX.	Each Existing
FLSHG	Flashing
GA	Gage
HT.	Height
INSUL	Insulation
L.C.C. L.F. LN. FT,	Lead Coated Copper Lineal Foot Lineal Feet
MAX MIN	Maximum Minimum
O.C. OZ.	On Center Ounce
P.T.	Pressure Treated
SIM S.S. Sq. Ft.	Similar Stainless Steel Square Foot
T.C.	Test Cut
V.S.	Vent Stack
W/ WD	With Wood

01 45 13 SOURCE QUALITY CONTROL PROCEDURES

PART 1 GENERAL

- 1.01 All manufactured articles, material, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer, unless indicated otherwise.
- 1.02 If printed instructions are not available or do not apply to Project conditions, consult the manufacturer's technical representative for specific recommendations before proceeding with the work.
- 1.03 Indicate on Product Data Submittal, Section 01 33 23(2.02) that the Installer has been forwarded a copy of the manufacturer's directions for installation.

01 45 16.13 CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

- 1.01 The Installer of materials or specified products shall examine the substrate and the conditions under which the work is to be performed, and notify the Contractor and Building Owner's Representative in writing of conditions detrimental to the proper and timely completion of the work.
- 1.02 Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer. To proceed constitutes acceptance of the substrata and the inherent risks therein.
- 1.03 Employ competent persons. The Contractor shall employ only competent persons on the Work and shall not employ persons or means which may cause strikes, work stoppages or any disturbances by workmen employed by the Contractor, any Sub-Contractor, the Owner, the Consultant or any other Contractor. Whenever the Owner or Consultant notifies the Contractor in writing that in his opinion any person on the Work is incompetent, unfaithful, disorderly, or otherwise unsatisfactory, or not employed in accordance with the provisions of the Contract, such person shall be discharged from the Work and shall not again be employed on it, except with the written consent of the Owner.
- 1.04 Intoxicating liquors. The Contractor shall not sell and shall neither permit nor suffer the introduction or use of intoxicating liquors or controlled substances upon or about the Work.

01 45 29 TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 GENERAL

- A. Owner may employ and pay for services on an Independent Testing Laboratory and/or Independent Inspection Service to perform specified testing and inspection.
 - 1. Cooperate with laboratory and/or inspection service to facilitate execution of its required services.
 - 2. Employment of laboratory and/or inspection service does not relieve Contractor's obligations to perform the Work of the Contract.
- B. Consultant reserves right to demand tests or special examination of any material or part thereof to insure compliance with Specifications, and may reject for satisfactory replacement, any material or part judged defective as a result thereof. Applies also to materials or sources of same substituted for those previously approved. Such tests or examinations, even though not specified, to be performed as and when required.
- C. Costs of tests or inspection ordered especially by authorized persons for purposes of proving existence of faulty material or workmanship, and prove to be faulty, to be borne by Contractor. If faulty standards are not discovered, costs of tests or inspections to be borne by Owner.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Certification of products: Respective sections of Specifications.
- B. Laboratory tests required, and standards for testing: Each Specification section listed.

1.03 CODE COMPLIANCE TESTING

Inspections and tests required by codes, or ordinances or by a plan approval authority, and made by a legally constituted authority to be responsibility of and to be paid for by Contractor, unless otherwise provided in Contract Documents.

1.04 CONTRACTOR'S CONVENIENCE TESTING

Inspection or testing performed exclusively for Contractor's convenience to be sole responsibility of Contractor.

1.05 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel and/or inspectors, provide access to work to manufacturer's operations.
- B. Secure and deliver to laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Furnish copies of Products test reports as required.
- D. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - To obtain and handle samples at Project site or at source of product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.
- E. Notify laboratory and/or inspection service sufficiently in advance of operations, minimum 24 hours, to allow for laboratory and/or inspection assignment of personnel and scheduling of tests.
 - 1. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.

1.06 PAYMENT FOR TESTING SERVICES REQUIRED BY OWNER

- A. Owner will pay for initial testing and inspection services requested by Owner, as outlined in Article 1.09.
- B. Retesting: When initial tests indicate non-compliance with Contract Documents, subsequent retesting occasioned by Non-compliance to be performed by same testing laboratory and costs thereof will be deducted by Owner from Contract Sum.

1.07 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY OR INSPECTION SERVICE

- A. Laboratory or inspector is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.

- 2. Approve or accept any portion of the work.
- 3. Perform any duties of the Contractor.

1.08 LABORATORY AND INSPECTOR DUTIES

- A. Promptly submit written report on each test and inspection; one copy each to Architect, Structural Engineer, Owner, Contractor and governing Building Department, as required. Each report to include:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Testing laboratory name, address and telephone number.
- B. Perform additional tests and inspections as required by Engineer or Owner.
- 1.09 OWNER'S TESTING REQUIREMENTS
 - A. Roofing Systems: Refer to Ethylene-Propylene-Diene-Monomer Roofing (Fully Adhered EPDM), and Joint Sealants: Sections 07 53 23.01 and 07 92 00.

01 50 00 TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish, install and maintain required construction aids, remove on completion of work.
- B. Comply with Federal, OSHA, State and local codes and regulations.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE:

01	35	23	Owner Safety Requirements
01	35	29	Health, Safety and Emergency Response Procedures
01	35	53	Security Procedures
01	45	13	Source Quality Control Procedures
01	45	29	Testing Laboratory Services
01	51	00	Temporary Utilities
01	51	33	Temporary Telecommunications
01	52	19	Sanitary Facilities
01	54	23	Temporary Scaffolding and Platforms
01	55	00	Vehicle Access and Parking
01	57	30	Pollution Control
01	57	35	Preparation of Bitumen, Fume, Odor and Dust Control
01	61	00	Common Product Requirements
01	74	13	Progress Cleaning

PART 2 PRODUCTS

2.01 MATERIALS, GENERAL

Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

2.02 CONSTRUCTION AIDS

- A. Provide construction aids and equipment required by personnel and to facilitate execution of work; ladders, fall protection, stairs, ramps, runways, staging and such facilities and equipment. Refer to respective sections for particular requirements for each trade.
- B. Maintain all facilities and equipment in a first-class condition.

PART 3 EXECUTION

3.01 PREPARATION

Consult with Consultant, review site conditions and factors which affect construction procedures and construction aids, including adjacent properties which may be affected by execution of work.

3.02 GENERAL

- A. Comply with applicable requirements specified in technical sections.
- B. Relocate construction aids as required by progress of construction, by storage or work requirements, and to accommodate legitimate requirements of Owner.

3.03 REMOVAL

- A. Completely remove temporary materials, equipment and services.
 - 1. When construction needs can be met by use of permanent construction.
 - 2. At completion of project.
- B. Clean, repair damage caused by installation or by use of temporary facilities.
 - 1. Remove foundations and underground installations for construction aids.
 - 2. Grade areas of site affected by temporary installations to required elevations and slopes, restore surfaces and clean the area.
- C. Restore existing facilities used for temporary purposes to original condition.

01 51 00 TEMPORARY UTILITIES

PART 1 GENERAL

1.01 WORK INCLUDED

Furnish, install and maintain temporary utilities required for construction, remove on completion of work.

1.02 RELATED WORK SPECIFIED ELSEWHERE:

01 52 13	Field Office and Sheds
01 51 33	Temporary Telecommunications
01 52 19	Sanitary Facilities

- 1.03 REQUIREMENTS OF REGULATORY AGENCIES
 - A. Comply with National Electric Code.
 - B. Comply with Federal, State and local codes and regulations and with utility company requirements.

PART 2 PRODUCTS

2.01 MATERIALS

Materials may be new or used, as specified, but must be adequate in capacity for required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICTY AND LIGHTING

- A. Power is available on the Site. Owner will provide point of connection for temporary power during construction period and pay costs for power used. Contractor shall provide connections to existing facilities, size to provide service required for power and lighting.
- B. Install circuit and branch wiring, with area distribution boxes located so that power and lighting is available throughout construction without too much use of construction-type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to public.

2.03 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of work, to meet specified minimum conditions for installation of materials, and to protect materials and finishes from damage due to temperature or humidity.
- B. Provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dusts, fumes, vapors or gases.
- C. Portable heaters to be standard approved units complete with controls.
- D. Pay all costs of installation maintenance, operation and removal, and for fuel consumed.

2.04 TEMPORARY WATER

- A. Make connections to existing facilities, provide water for construction purposes; Owner will pay costs of water used.
- B. Install branch piping with taps located so that water is available throughout construction by use of hoses. Protect piping and fittings against freezing.

2.05 TEMPORARY SANITARY FACILITIES

A. Provide and maintain at all times the number of chemical toilet facilities required by governing code, including suitable enclosures. Temporary toilet facilities shall be kept in sanitary condition and shall be removed when no longer required; all damage to surroundings caused thereby shall be repaired. These facilities shall be kept padlocked whenever there is no work in progress. Use of toilet facilities within the building is prohibited to construction personnel. Location of temporary toilets to be acceptable to the Owner.

PART 3 EXECUTION

3.01 GENERAL

A. Maintain and operate systems to assure continuous service. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore existing facilities used for temporary services to original condition.

01 51 33 TEMPORARY TELECOMMUNICATIONS

PART 1 GENERAL

- 1.01 Provide and maintain at all times a working cellular telephone on the roof.
- 1.02 Provide to the Owner and its representatives names and telephone numbers of at least two workers to respond to emergency situations.
- 1.03 Related Work Specified Elsewhere:
 - 01 51 00 Temporary Utilities

01 52 13 FIELD OFFICE AND SHEDS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish, install and maintain storage facilities as needed for construction.
- B. At completion of work, remove storage facilities.

1.02 RELATED WORK SPECIFIED ELSEWHERE

01 51 00	Temporary Utilities
01 61 00	Common Product Requirements

1.03 REQUIREMENTS OF REGULATORY AGENCIES

Comply with requirements of Federal, OSHA, State and local codes and regulations.

1.04 OTHER REQUIREMENTS

Prior to installation of office and storage facilities, consult with Consultant/Building Owner on location, access and related facilities.

1.05 REQUIREMENTS FOR FACILITIES

- A. Portable or mobile buildings may be used. Location and size of mobile buildings to be approved by Owner.
- B. Storage Facilities:
 - 1. To requirements of various trades.
 - 2. Dimensions: Adequate for storage and handling of products.
 - 3. Ventilation: Comply with specified and code requirements for products stored.
 - 4. Heating: Adequate to maintain temperatures specified in the respective sections for products stored.

PART 2 PRODUCTS

2.01 MATERIALS, EQUIPMENT, FURNISHINGS

A. May be new or used, but must be serviceable, adequate for the required purpose and must not violate applicable codes or regulations.

PART 3 EXECUTION

- 3.01 PREPARATION
 - A. Fill and grade sites for temporary structures to provide surface drainage.
- 3.02 INSTALLATION
 - A. Secure portable or mobile buildings when used.
 - B Provide steps and landings at entrance doors.
- 3.03 MAINTENANCE AND CLEANING.

Provide periodic maintenance and cleaning for temporary structures, furnishings, equipment and services.

- 3.04 REMOVAL
 - A. Remove temporary storage facilities, contents and services at a time they are no longer needed.
 - B. Remove foundations and debris; grade site to required elevations and restore storage area to former condition.

01 52 19 SANITARY FACILITIES

PART 1 GENERAL

- 1.01 Provide and maintain at all times the number of chemical toilet facilities required by governing code, including suitable enclosures. Temporary toilet facilities shall be kept in sanitary condition and shall be removed when no longer required; all damage to surroundings caused thereby shall be repaired. These facilities shall be kept padlocked whenever there is no work in progress. Use of toilet facilities within the building is prohibited to construction personnel.
- 1.02 If women are employed in the work, provide separate, designated facilities for them of the same kind. Provide an adequate number of each kind of facility for each gender.
- 1.03 Related Work Specified Elsewhere:
 - 01 51 00 Temporary Utilities

01 54 23 TEMPORARY SCAFFOLDS AND PLATFORMS

PART 1 GENERAL

- 1.01 Work Includes But is Not Limited to the Following:
 - A. Furnish, install and maintain required scaffolds, remove on completion of work.
 - B. Comply with Federal, State and local codes and regulations.
 - C. Provide protected access for public right of way.
 - D. Obtain required permits from local municipality.
 - E. Provide scaffolding shop drawing showing layout, tie backs, type of anchors, etc., to consultant. Shop drawing to have Engineer's stamp.
 - F. Provide materials and equipment to prevent intrusion or theft on the scaffolding.
- 1.02 Related Work Specified Elsewhere
 - 01 35 23 Owner Safety Requirements
 - 01 35 29 Health, Safety, and Emergency Response Procedures
 - 01 35 53 Security Procedures
 - 01 56 33 Temporary Security Barriers

PART 2 PRODUCTS

2.01 Materials:

Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

- 2.02 Construction Aids:
 - A. Provide construction aids and equipment required by personnel and to facilitate execution of work; scaffolds, staging, ladders, stairs, ramps, runways, such facilities and equipment. Refer to respective sections for particular requirements for each trade.
 - B. Maintain all facilities and equipment in a first-class condition.

PART 3 EXECUTION

3.01 Preparation:

Review site conditions and factors which affect construction procedures and construction aids, including adjacent properties which may be affected by

execution of work. Discuss conditions with Consultant and Owner's representative.

- 3.02 General:
 - A. Comply with applicable requirements specified in technical sections.
 - B. Relocate construction aids as required by progress of construction, by storage or work requirements, and to accommodate legitimate requirements of Owner.
 - C. Provide tie backs to building after discussion with Consultant and Owner's representative.
 - D. Provide a minimum 4" high toe boards at both inside and outside perimeter edges of all planked levels.
 - E. All planks are to be wired to scaffolding.
 - F. The use of tie backs at window opening will not be permitted.
- 3.03 Removal:
 - A. Completely remove temporary materials, equipment and services.
 - 1. When construction needs can be met by use of permanent construction.
 - 2. At completion of project.
 - B. Clean, repair damage caused by installation or by use of temporary facilities.
 - 1. Remove foundations and underground installations for construction aids.
 - Restore areas of site affected by temporary installations to required elevations and slopes, restore surfaces and clean the area.
 - C. Restore existing facilities used for temporary purposes to original condition.

01 55 00 VEHICULAR ACCESS AND PARKING

PART 1 ACCESS ROADS

- 1.01 The Contractor shall have use of the existing access roads but shall bear the responsibility for, and shall restore them to, their original condition.
- 1.02 No parking or storage of equipment shall be allowed on existing roadways, nor shall they be blocked by standing trucks or construction operations.
- 1.03 Repair all related site constructions damaged during the course of the work.

PART 2 PARKING AREAS

- 2.01 The Contractor shall consult with the Owner's Representative and shall confine his use of the site for parking, storage, and related functions to the area(s) agreed upon.
- 2.02 At the completion of his operations, the Contractor shall remove all rubbish and debris.

01 56 33 TEMPORARY SECURITY BARRIERS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Provide suitable barriers as required to prevent public entry, and to protect Work. Remove them after completion of Work.
- B. Comply with Federal, OSHA, State and local codes and regulations.
- C. Do not block egress from occupied building unless necessary to further the work of the contract. In this case, secure the building owner's approval of an alternate egress plan.

1.02 RELATED WORK SPECIFIED ELSEWHERE

01 11 13	Summary of Work
01 35 53	Security Procedures
01 50 00	Temporary Facilities and Controls
01 57 30	Pollution Control
01 57 35	Preparation of Bitumen, Fume, Odor and Dust Control
01 74 13	Progress Cleaning

PART 2 PRODUCTS

2.01 MATERIALS

Materials may be new or used, suitable for intended purpose, but must not violate requirements for applicable codes and standards.

2.03 BARRIERS

Materials to be Contractor's option, appropriate to serve required purpose.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install facilities of a neat and reasonable uniform appearance, structurally adequate for required purposes.
- B. Maintain barriers during entire construction period.
- C. Relocate barriers as required by progress of construction.

3.02 REMOVAL

- A. Completely remove barricades, including foundations, when construction has progressed to point that they are no longer needed, and when approved by Consultant.
- B. Clean and repair damage caused by installation, fill and grade areas of Site to required elevations and slopes, restore surface and clean area.

01 57 30 POLLUTION CONTROL

PART 1 GENERAL

- 1.01 Take all precautions to insure that the Owner's existing operations and facilities are not adversely affected by pollutants (i.e. dust, noise, vibration, water, odors, etc.) generated directly or indirectly by the work.
- 1.02 If so directed by the Owner, cease work immediately and until the cause of the pollution is detected and eliminated.
- 1.03 Schedule all work known to generate pollutants detrimental to the Owner's operation, after consultation with the Owner, for non-critical periods of time.
- 1.04 Related Work Specified Elsewhere:
 - 01 57 35 Preparation of Bitumen, Fume, Odor and Dust Control
 - 01 73 29 Cutting and Patching
 - 02 41 19.01 Selective Structural Demolition (Roofing)
 - 02 82 33.01 Removal and Disposal of Asbestos Containing Roof Material
 - 06 10 53 Miscellaneous Rough Carpentry

01 57 35 PREPARATION OF BITUMEN, FUME, ODOR, AND DUST CONTROL

PART 1 GENERAL

- 1.01 Take all precautions to insure that the Owner's existing operations and facilities are not adversely affected by pollutants (i.e. dust, noise, vibration, water, odors, etc.) generated directly or indirectly by the work.
- 1.02 If so directed by the Owner, cease work immediately and until the cause of the pollution is detected and eliminated.
- 1.03 Schedule all work known to generate pollutants detrimental to the Owner's operation, after consultation with the Owner, for non-critical periods of time.
- 1.04 WORK INCLUDED
 - A. This Division applies to and forms a part of each Section of this Specification.
- 1.05 DIVISION OF WORK
 - A. Related Work Specified Elsewhere Includes:

01 57 30 Pollution Control 02 41 19.01 Selective Structural Demolition (Roofing)

1.06 SPECIAL PROVISIONS

- A. Provide a safe work environment during the preparation of bitumen. Comply with all safety orders of all legally constituted public authorities having jurisdiction.
- 1.07 USE OF TANKERS
 - A. If tankers are employed for the preparation of hot bitumen, the maximum tanker or kettle temperature shall not exceed 425°F for hot steep asphalt.
 - B. Tankers and kettles and other conveyances employed to transfer hot bitumen must be maintained in a closed condition at all times except when bitumen is being transferred. Transfer time shall be held to a minimum.
 - C. Kettles for the preparation of asphalt must be equipped with safety loading devices and afterburner units such as are manufactured by Reeves Roofing Equipment Co., Inc., P. O. Box 720, Helotes, TX 78023, telephone 210-695-3567, or be equipped with a fume recovery system by Aercology 1-800-558-8665 or approved equal.

- D. All equipment employed for the purpose of conveying asphalt to the roof shall be in clean, prime condition.
- E. If excessive fumes are vented to the air, the owner will require that the heat source be turned off such equipment and that it be removed from the site as soon as it is safe to remove same.
- F. The contractor is admonished that closing down the heat sources may cause stoppage of the work in progress. <u>All this will be at the risk of the contractor and at no expense to the owner.</u>
- G. The above in no way relieves the contractor from the responsibility of maintaining the building in a watertight condition at the end of each day's work.
- H. The contractor shall coordinate with the building owner the closing off of all fresh air intakes on mechanical equipment. The contractor shall notify the owner's representative in a timely manner (24 hour) prior to the use of bitumens so that mechanical equipment may be changed over to low intake mode.
- I. The contractor shall provide removable covers at all penthouse louvers and roof top intakes.
- J. The contractor shall provide portable fans with sufficient capacity to move fumes away from critical openings in building envelope.
- K. Provide roof top first aid kit at all roof levels where work is in progress.
- L. Provide fire extinguishing equipment sufficient to extinguish kettle fire sized for equipment to be employed.
- M. During demolition of the roof components, the contractor shall mist the cutters and employ vacuum removal wherever possible.
- N. The contractor is admonished that this facility is occupied and may have personnel that may be sensitive to fumes generated by its work. The above precautions are deemed necessary to minimize fumes from the contractors work. During the premobilization meeting the contractor will be afforded information concerning location for various types of preparation equipment and hoisting equipment.

01 61 00 COMMON PRODUCT REQUIREMENTS

PART 1 GENERAL

- 1.01 RELATED WORK SPECIFIED ELSEWHERE:
 - 01 11 13 Summary of Work
 - 01 33 23 Shop Drawings, Product Data and Samples
 - 01 66 00 Product Storage and Handling Requirements
 - 01 74 13 Progress Cleaning
- 1.02 STANDARDS AND REGULATIONS
 - A. Industry Standards: Applicable standards of construction industry have same force and effect on performance of the work as if copied directly into contract document or bound therewith. Standards referenced in contract documents or in governing regulations have precedence over nonreferenced standards, insofar as different standards may contain overlapping or conflicting requirements. Comply with standards in effect as of the date of contract documents, unless otherwise indicated. References shall include their addenda, if any, and shall be considered a part of this specification as if they were printed herein in full.

1.03 PRODUCTS, MATERIALS AND EQUIPMENT

- A. General Limitations: Where possible, provide entire required quantity of each generic product, material or equipment from a single source. In selection process provide compatible products, materials and equipment. In complying with requirements provide standard products which have been used previously and successfully in similar applications, and which are recommended by the manufacturer for the application indicated.
- B. Product selection: Comply with the following for selection of products, materials and equipment.
 - 1. Conform to applicable Specifications and standards.
 - 2. Comply with size, make, type and quality specified, or as specifically approved in writing by Consultant.
 - 3. Manufactured and Fabricated Products:
 - a. Design, fabricate and assemble in accord with best engineering and shop practices.

- b. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
- c. Two or more items of same kind to be identical, by same manufacturer.
- d. Products to be suitable for service conditions.
- e. Equipment capacities, sizes and dimensions shown or specified to be adhered to, unless variations are specifically approved in writing.
- 4. Do not use material or equipment for any purpose other than that for which it is designed or is specified.
- 5. Do not use material or equipment in an approved system that is not compatible, approved or recommended by manufacturer of system.
- 6. Single Product Named: Provide only that product, unless determined to be unavailable, non-compatible with the work, or non-complying with requirements or governing regulations.
- 7. Two or More Products Named: Contractor shall submit product for approval which complies with requirements, including applicable standards.
- 8. Compliance with Standards: Contractor shall submit product for approval which complies with requirements, including applicable standards.
- 9. Performance Requirements: Contractor shall submit product for approval which has been tested to show compliance with requirements, including indicated performances.
- 10. Prescriptive Requirements: Contractor shall submit products for approval which have been certified by manufacturer to comply with requirements, including prescriptive requirements.
- 11. Visual Requirements: Where indicated to be selected from manufacturer's standard options, selection will be made by Roofing Consultant/Engineer, subsequent to selection of manufacturer by Contractor. Where indicated to be selected from among standard

options available within industry, selection will be made by Roofing Consultant/Engineer prior to Contractor's selection of manufacturer.

- C. Manufacturer's Instructions
 - 1. When Contract Documents require that installation of work comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in installation, including two copies to Consultant. Maintain one set of complete instructions at job site during installation and until completion.
 - 2. Handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformity with specified requirements.
 - a. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with Consultant for further instructions.
 - b. Do not proceed with work without clear instructions.
 - 3. Perform work in accord with manufacturer's instructions using approved or recommended components. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents.
- D. Installation shall comply with manufacturer's instructions and recommendations. Anchor securely in place, accurately located and aligned with other work. Clean and protect to ensure that products, materials and equipment will be free from damage and deterioration at time of acceptance.

1.04 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of products in accord with construction schedules, coordinate to avoid conflict with work and conditions at Site.
 - 1. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
 - 2. Immediately on delivery, inspect shipments to assure compliance with requirements of Contract Documents and approved submittals, and that products are properly protected and undamaged.

B. Provide equipment and personnel to handle products by methods to prevent soiling or damage to products or packaging.

1.05 STORAGE AND PROTECTION

- A. Store products in accord with manufacturer's instructions, with seals and labels intact and legible.
 - 1. Store products subject to damage by elements in weathertight enclosures.
 - 2. Maintain temperature and humidity within ranges required by manufacturer's instructions.
 - 3. Store materials a minimum of 6 inches (150 MM) above ground on framework or blocking and cover with protective waterproof covering providing of adequate air circulation or ventilation.
 - 4. Use means necessary to protect materials before, during and after installation and to protect installed work and materials of all other trades.
 - 5. Protect sheet materials from corners breaking and damaging surfaces, while unloading.
 - 6. Protect fire-retardant materials against high humidity and moisture during storage and erection.
 - 7. Store loose granular materials in a well-drained area on solid surfaces to prevent mixing with foreign matter.
- B. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored products to assure that products are maintained under specified conditions, and free from damage or deterioration.
- C. Packages, materials, and equipment showing evidence of damage shall, at the discretion of the Consultant, be removed from the site.
 - 1. Salvageable items shall be repaired and/or refinished at the contractor's risk, and presented for the Owner's written approval. If rejected, they shall be removed from the site at no cost or penalty to the Owner.

- D. In event of damage, immediately make repairs and replacements necessary to approval of Consultant at no additional cost to Owner.
- E. Protection after Installation: Provide substantial coverings as necessary to protect installed products from damage from traffic and subsequent construction operations. Remove when no longer needed.

1.06 SUBSTITUTIONS

- A. Conditions: Requests by Contractor will be considered when reasonable, timely, fully documented and qualifying under one or more of the following circumstances:
 - 1. Required product cannot be supplied in time for compliance with Contract time requirements.
 - 2. Required product is not acceptable to governing authority, or determined to be non-compatible, or cannot be property coordinated, warranted or insured, or has other recognized disability as certified by Contractor.
 - 3. Substantial advantage is offered Owner after deducting offsetting disadvantages including delays, additional compensation to Consultant/Engineer for redesign, investigation, evaluation and other necessary services and similar considerations.
- B. Submittals: Include full documentation, including product data, samples where appropriate, detailed performance comparisons and evaluation, testing laboratory reports where applicable, coordination information for effect on other work and time schedule, warranties and bonds, cost information for proposed change order, Contractor's general certification of recommended substitution, and similar information germane to circumstance.
- C. Consultant to be sole judge of acceptability of proposed substitution.
- D. Contractor is cautioned that unauthorized substitutions will not be acceptable at any time.
- E. Substitutions will not be considered if they are indicated or implied on shop drawing submissions.

01 66 00 PRODUCT STORAGE AND HANDLING REQUIREMENTS

PART 1 GENERAL

- 1.01 All materials and equipment shall be delivered, handled, and stored as required to prevent intrusion of foreign matter, damage by weather, breakage, or theft.
 - A. All lumber, metals, and similar materials shall be stored on platforms under weathertight covers.
 - B. Store all rolled sheet products (i.e. roofing sheets, building paper) and insulation materials on platforms, under weathertight covers.
 - C. Do not store adhesives, solvents, or insulation within existing structures. Protect from ignition and fire.
- 1.02 Packages, materials, equipment showing evidence of damage shall, at the discretion of the Consultant, be removed from the site.
 - A. Salvageable items shall be repaired and/or refinished at the contractor's risk, and presented for the Owner's written approval. If rejected, they shall be removed from the site at no cost or penalty to the Owner.
- 1.03 Do not overload the existing structure.

01 73 29 CUTTING AND PATCHING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Be responsible for all cutting, fitting and patching required to complete the Work or to:
 - 1. Make its several parts fit together properly.
 - 2. Uncover portions of Work to provide for installation of ill-timed work.
 - 3. Remove and replace defective work.
 - 4. Remove and replace work not conforming to requirements of Contract Documents.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 RELATED WORK SPECIFIED ELSEWHERE

01 11 13	Summary of Work
01 61 00	Common Product Requirements
02 26 23	Asbestos Assessment
02 41 19.01	Selective Structure Demolition (Roofing)
02 82 33.01	Removal and Disposal of Asbestos Containing Roof
	Material
06 10 53	Miscellaneous Rough Carpentry

1.03 SUBMITTALS

- A. Submit a written request to Consultant one (1) week in advance of executing any cutting or alteration which affects:
 - 1. Structural value or integrity of any element of Project.
 - 2. Integrity of effectiveness of weather-exposed or moisture-resistant elements or systems.
 - 3. Efficiency, operational life, maintenance or safety of operational elements.

- 4. Visual quality of sight-exposed elements.
- B. Request to include:
 - 1. Description of the affected work.
 - 2. Necessity for cutting, alteration or excavation.
 - 3. Effect on work of Owner, any separate contractor, on structural or weatherproof integrity of Project.
 - 4. Description of the proposed work:
 - (a) Scope of cutting, patching, alteration or excavation.
 - (b) Trades who will execute work.
 - (c) Products proposed to be used.
 - (d) Extent of refinishing to be done.
 - 5. Alternatives to cutting and patching.
 - 6. Cost proposal, when applicable.
- C. Should conditions of work schedule indicate a change of products from original installation, submit a request for substitution as specified in Sections 01 25 13 and 01 61 00.
- D. Submit a written notice to Consultant designating date and time work will be uncovered.

PART 2 PRODUCTS

2.01 MATERIALS

Comply with Specifications and standards for each specific product involved.

PART 3 EXECUTION

3.01 INSPECTION

A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.

- B. After uncovering work, inspect conditions, affecting installation of Products or performance of work.
- C. Discrepancies shall be submitted to the building owner's representative prior to proceeding with work.
- D. Report unsatisfactory or questionable conditions to Consultant in writing; do not proceed with work until the Consultant has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of Work.
- B. Provide devices and methods to protect other portions of Project from damage.
- C. Provide protection from elements for that portion of Project which may be exposed by cutting and patching work, and maintain free from water.
- D. Verify dimensions for built in work and/or with adjoining that of other trades before ordering any materials or doing any work.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Employ original installer or fabricator to perform cutting and patching for:
 - 1. Weather-exposed or moisture-resistant elements.
 - 2. Sight-exposed finished surfaces.
- C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- D. Restore work which has been cut or removed; install new products to provide completed Work in accord with requirements of Contract Documents.
- E. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.

- F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

01 74 13 PROGRESS CLEANING

PART 1 GENERAL

1.01 WORK INCLUDED

Execute cleaning, during process of Work, and at completion of Work, as required by General Conditions.

1.02 RELATED WORK SPECIFIED ELSEWHERE

Α.	01 11 13	Summary of Work
	01 35 23	Owner Safety Requirements
	01 35 29	Health, Safety and Emergency Response Procedures

1.03 DISPOSAL REQUIREMENTS

Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by manufacturer of surface material to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute daily cleaning to keep work, site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for collection of waste materials, debris and rubbish.

C. Remove waste materials, debris and rubbish from site periodically and dispose of at legal disposal areas away from site.

3.02 DUST CONTROL

A. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels and other foreign materials from sight-exposed interior and exterior surfaces.
- C. Wash and shine glazing.
- D. Broom clean exterior paved surfaces; rake clean other surfaces of grounds.
- E. Grounds around the specified roof area will be magnetically swept for a distance of 30'.
- F. Prior to final completion, or Owner occupancy, Contractor to conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas, to verify that entire work is clean.

01 76 00 PROTECTING INSTALLED CONSTRUCTION

PART 1 COMPLETED WORK

- 1.01 Unless indicated otherwise, the Installers of specialized assemblies and the Applicators of specialized coatings shall advise the Contractor of the proper procedures required for the protection of their work from damage or deterioration until the acceptance of the Project.
 - A. Inform the contractor of all cleaning agents that may be detrimental to finish surfaces.

PART 2 FIRE PROTECTION

- 2.01 The Contractor shall, during the progress of construction, assume all responsibility for loss or damage by fire to the Work included in his contract until the date of transfer of insurance coverage.
 - A. All fire used within the structure for working purposes shall be extinguished when not in use.
 - B. No flammable materials shall be stored in the structure in excess of amounts allowed by the governing authorities. No gasoline or other liquid with a vapor flash point lower than gasoline shall be stored in or close to the building at any time, and none shall be left in the structure outside of working hours.
 - C. Contractor shall provide adequate portable fire extinguishers (fully charged and properly serviced) in the work areas.
 - D. No smoking at the job site shall be allowed during any phase of this reroofing project.

PART 3 VANDALISM AND/OR THEFT

3.01 The Contractor shall be solely responsible for damage, loss or liability due to theft or vandalism to the Work included in his contract 24 hours per day, every calendar day from the date of contract signing to the date of transfer of insurance coverage. The Contractor may, if he chooses, employ a watchman during said periods at no additional cost to the Owner.

01 77 19 CLOSE OUT REQUIREMENTS

PART 1 GENERAL

1.01 DESCRIPTION

- A. Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the Work.
- B. Fiscal provisions, legal submittals and additional administrative requirements in Conditions of the Contract.
- 1.02 RELATED WORK SPECIFIED ELSEWHERE

Α.	01 74 13	Progress Cleaning
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- 01 78 37 Warranties and Bonds
 - 01 78 39 Project Record Documents
- B. Close-out submittals required of trades: Respective Sections of Specifications.
- 1.03 SUBSTANTIAL COMPLETION
 - A. When Contractor considers Work is substantially complete, submit to Consultant:
 - 1. A written notice that Work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
 - B. Within a reasonable time after receipt of such notice, Consultant will make an inspection to determine status of completion.
 - C. Should Consultant determine that work is not substantially complete:
 - 1. Consultant will promptly notify Contractor in writing, giving reasons therefore.
 - 2. Contractor to remedy deficiencies in Work and send a second written notice of substantial completion to Consultant.
 - 3. Consultant will reinspect Work.

- D. When Consultant concurs that Work is Substantially complete, he will:
 - 1. Prepare a Certificate of Substantial Completion on AIA Form G704, accompanied by Contractor's list of items to be completed or corrected, as verified and amended by Consultant.
 - 2. Submit Certificate to Owner and Contractor for their written acceptance.
- 1.04 FINAL INSPECTION
 - A. When Contractor considers Work is complete, submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Equipment and system have been tested in the presence of Owner's representative and are operational.
 - 5. Work is completed and ready for final inspection.
 - B. Consultant will make an inspection to verify status of completion with reasonable promptness after receipt of such certification.
 - C. Should Consultant consider that Work is incomplete or defective:
 - 1. Consultant will promptly notify Contractor in writing, listing incomplete or defective work.
 - 2. Contractor to take immediate steps to remedy stated deficiencies, and send a second written certificate to Consultant that Work is complete.
 - 3. Consultant will reinspect Work.
 - D. When Consultant finds that Work is acceptable under Contract Documents, he will request Contractor to make close-out submittals.

1.05 REINSPECTION FEES

- A. Owner will compensate Consultant for such additional services, should Consultant perform reinspection due to failure of Work to comply with claims of status of completion made by Contractor.
- B. Owner will deduct amount of such compensation from final payment to Contractor.

1.06 CONTRACTOR'S CLOSEOUT SUBMITTALS TO CONSULTANT

- A. Evidence of compliance with requirements of governing authorities:
 - 1. Certificates of Inspection for various trades.
- B. Project Record Documents: To requirements of Section 01 78 39.
- C. Warranties and Bonds: To requirements of Section 01 78 37.
- D. Evidence of Payment and Release of Liens: To requirements of General and Supplementary Conditions.
- E. Certificate of Insurance for Products and Completed Operations.
- 1.07 FINAL ADJUSTMENT OF ACCOUNTS
 - A. Submit a final statement of accounting to Consultant.
 - B. Statement to reflect all adjustments to Contract Sum:
 - 1. Original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Deductions for uncorrected Work.
 - c. Deductions for liquidated damages.
 - d. Deductions for reinspection payments.
 - e. Other adjustments.
 - 3. Total Contract Sum, as adjusted.

- 4. Previous payments.
- 5. Sum remaining due.
- C. Consultant will prepare a final Change Order, reflecting approved adjustments to Contract Sum which were not previously made by Change Orders.
- 1.08 FINAL APPLICATION FOR PAYMENT

Contractor to submit final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

01 78 36 WARRANTIES

PART 1 GENERAL

1.01 Submit Guarantees or Warranties in triplicate on firm's letterhead, properly executed and enacted. Submit in the following form, unless specified otherwise.

Town of Ridgefield 66 Prospect Street Ridgefield, CT 06877

We, (firm name) , hereby guarantee (or warrant) all (description of work or product) for a period of years after the substantial completion date of (<u>date</u>) the Project indicated above, against (<u>description of the specific types of failures of materials and/or workmanship</u>), in accordance with the requirements of Section (<u>number</u>) , (<u>section title</u>, page (<u>number</u>), Article (<u>number</u>), of the Contract Documents.

Signed	Subcontractor)	

by_____(Authorized Agent)

Title

Business Address

Signed	(Contractor)

by _____(Authorized Agent)

Title

Business Address

- 1.02 All Guarantees or Warranties supplied by suppliers or manufacturers shall be countersigned by the Subcontractor and the General Contractor.
- 1.03 All signatures and seals (if required) shall be originals. No copies shall be accepted.
 - A. Section 07 53 23.01, Ethylene-Propylene-Diene-Monomer Roofing (Fully Adhered EPDM)
 - 1. Contractor 2 Year Roofing Guarantee
 - 2. Manufacturers 20 year, No Dollar Limit Roof System Warranty
 - B. Section 07 60 00, Flashing and Sheet Metal

- 1. Contractor 2 Year Guarantee
- C. Section 07 92 00, Joint Sealants
 - 1. Contractor 2 Year Guarantee

01 78 37 WARRANTIES AND BONDS

PART 1 GENERAL

- 1.01 DESCRIPTION
 - A. Compile specified warranties and bonds.
 - B. Review submittals to verify compliance with Contract documents.
 - C. Submit to Consultant for review and transmittal to Owner.
- 1.02 RELATED REQUIREMENTS IN OTHER PARTS OF PROJECT MANUAL
 - A. Bid or Proposal Bonds: Instructions to Bidders.
 - B. Performance Bond and Labor and Material Payment Bond: Conditions of the Contract.
 - C. General Warranty of Construction: Conditions of the Contract,
- 1.03 RELATED ITEMS SPECIFIED ELSEWHERE
 - A. 01 77 19 Close Out Requirements 01 78 36 Warranties
 - B. Warranties and Bonds Required for Specific Products: Each respective Section of Specifications.
 - C. Provisions of Warranties and Bonds, Duration: Each respective Section of Specifications which specifies product.
- 1.04 SUBMITTAL REQUIREMENTS
 - A. Assemble warranties, bonds and service and maintenance contracts, executed by each of respective manufacturers, suppliers and subcontractors.
 - B. Number of original signed copies required: One each.
 - C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item

- 2. Firm, with name of responsible principal, address and telephone number
- 3. Scope
- 4. Date of beginning of warranty, bond or service and maintenance contract
- 5. Duration of warranty, bond or service maintenance contract
- 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure
 - b. Instances which might affect the validity of warranty or bond

1.05 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
 - 1. Size 8-1/2 inch x 11 inch, punch sheets for 3-ring binder
 - a. Fold larger sheets to fit into binders
 - 2. Cover: Identify each packet with typed or printed title, "WARRANTIES AND BONDS." List
 - a. Title of Project
 - b. Name of Contractor
- C. Binders: Commercial quality, 3-ring, with durable and cleanable plastic covers.
- 1.06 TIME OF SUBMITTALS
 - A. Otherwise make submittals within ten days after Date of Substantial Completion, prior to final request for payment.
 - B. For items of work, where acceptance is delayed materially beyond Date of Substantial Completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.
- 1.07 SUBMITTALS REQUIRED

Submit warranties, bonds, service and maintenance contracts as specified in respective sections of Specifications.

01 78 39 PROJECT RECORD DOCUMENTS

PART 1 GENERAL

- A. Maintain at project site for owner one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda
 - 4. Change orders and other modifications to Contract.
 - 5. Consultant field orders or written instructions.
 - 6. Approved shop drawings, product data and samples.
 - 7. Field test records.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Conditions of the Contract.
- B. 01 33 23 Shop Drawings, Product Data and Samples

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples apart from documents used for construction.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents and samples available at all times for inspection by Consultant.

1.04 MARKING DEVICES

Provide felt-tip marking pens for recording information in color code designated by Consultant.

1.05 RECORDING

- A. Label each document 'PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.

- C. Drawings: Legibly mark to record actual construction:
 - 1. Location of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of structure.
 - 2. Field changes of dimension and detail.
 - 3. Changes made by Field Order or by Approved Change Order.
 - 4. Details not shown in original Contract Drawings.
 - 5. All access doors.
 - 6. Any approved substitutions.
- D. Specifications and Addenda: Legibly mark each section to record:
 - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 - 2. Changes made by Field Order or by Change Order.
- E. Prior to submitting Project Record Drawings to Consultant for Owner, Contractor to record on each sheet, Contractor's name and address, statement attesting that the recorded information are the actual conditions with his or his authorized representative's signature.
- 1.05 SUBMITTAL
 - A. At Contract closeout, deliver Record Documents to Consultant for Owner.
 - B. Accompany submittal with transmittal letter in duplicate containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each Record Document.
 - 5. Signature of Contractor or his authorized representative.

02 25 29.23 ROOFING INVESTIGATIONS

PARTI GENERAL

- 1.01 The contractor is advised that information provided is for convenience only and not warranted for accuracy.
- 1.02 Contractor shall investigate existing conditions such that compliance with all local, state and federal regulations and guidelines are observed and followed.
- 1.03 Test cuts taken at locations as shown on the roof plan revealed the following:
 - A. EOC ROOF
 - 1. The existing roof system includes: tongue and groove wood decking, 2.0" isocyanurate insulation and a gravel surfaced built-up roof membrane.
 - B. PLAYHOUSE ROOF
 - 1. The existing roof system includes: tongue and groove wood decking, 2.0" isocyanurate insulation and a gravel surfaced built-up membrane.
 - C. Asbestos Containing Materials (ACM) have been identified in base flashings, perimeter stripping felts and mastic repairs on both roofs, see Section 02 26 23 Asbestos Assessment.

02 25 29.24 ROOFING INVESTIGATIONS - FASTENER PULLOUT TEST RESULTS

PARTI GENERAL

- 1.01 The contractor is advised that no fastener pull out tests have been conducted.
- 1.02 Contractor shall investigate existing conditions such that compliance with all local, state and federal regulations and guidelines and roof manufacturer's requirements and recommendations are observed and followed.

02 26 23 ASBESTOS ASSESSMENT

PARTI GENERAL

- 1.01 The contractor is advised that information provided is for convenience only.
- 1.02 Contractor shall investigate existing conditions such that compliance with all local, state and federal regulations and guidelines are observed and followed.
- 1.03 Asbestos containing materials (ACM) have been identified as being present in base flashings, perimeter stripping felts and mastic repairs on the roofs of the EOC and Playhouse.
 - A. See attached testing sample results for test cuts taken at locations shown on Drawing R1.



Mystic Air Quality Consultants, Inc.

1204 North Road, Groton, Connecticut 06340

December 14, 2018

Mr. John R. Wooten H.B. Fishman & Co., Inc. 300 Pleasant Valley Road, Suite C South Windsor, CT 06074-3488



Laboratory Analysis of Bulk Samples Re: Redeetield FOC Building Ridgefield, CT

Locations: Roof Samples

Dear Mr. Wooten:

As requested. Mystic Air Quality Consultants, Inc. received samples to be analyzed for asbestos content. The samples were received on December 7th, 2018 and were analyzed by polarized light microscopy at Environmental Hazards Services (NVLAP # 101882-0) in Virginia.

Summary of the findings-

Upon testing by polarized light microscopy, any samples above 1% asbestos are considered to be asbestos containing materials. A summary of the bulk analysis results is enclosed. See Enclosure (1) for the Lab Results and Enclosure (2) for the Chain of Custody.

We thank you for selecting Mystic Air Quality to perform these industrial hygiene services.

Sincerely.

Ruder

Christopher J. Eident CIII, CSP, RS CEŌ

Environmental Ha 7469 V	<i>boratories</i> azards Services. L.I Whitepine Rd	C.		Asbestos Bulk Analysis Repo	
	nd, VA 23237 e: 800.347.4010		Report N	umber: 18-12-01046	
12	ystic Air Quality Co 204 North Road Rt. roton, CT 06340		Received Analyzed Reported	Date: 12/13/2018	6 52
Project/Test Ad Client Number: 07-2564	dress: Ridgefield I		ory Results		<u>Number:</u> 449-8860
Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
18-12-01046-001	ATC #1		Black Tar-Like; Black Tar- Like Fibrous; Inhomogeneous	20% Chrysotile	20% Cellulose 60% Non-Fibrous
			Total Asbestos:	20%	
Chrysotile presen	t in black tar-like fib	rous material			
18-12-01046-002	ATC #2		Black Tar-Like; Homogeneous	NAD	10% Cellulose 5% Fibrous Glass 85% Non-Fibrous
18-12-01046-003	ATC #3		Silver Paint-Like: Black Tar-Like: Inhomogeneous	Trace <1% Chrysolile	10% Cellulose 90% Non-Fibrous
			Total Asbestos:	Trace <1%	
Chrysotile present	t in silver paint mate	erial. This mater	ial alone contains 2% Chrysc		
18-12-01046-004	ATC #4		Black Tar-Like; Black Tar- Like Fibrous; Yellow Foam-Like; Inhomogeneous	NAD	15% Fibrous Glass 85% Non-Fibrous

Achastas Bulk

Enclosure | Page 1 of 3

Environmental Hazards Services, L.L.C

07-2564

Client Number:

Report Number:

18-12-01046

Project/Test Address: Ridgefield EOC Bldg; Roof Samples Other Lab Gross Description Asbestos Layer Type **Client Sample** Lab Sample **Materials** Number Number 15% Fibrous Glass Black Tar-Like; Black Tar-NAD ATC #5 18-12-01046-005 85% Non-Fibrous Like Fibrous; Yellow Foam-Like; Inhomogeneous 15% Fibrous Glass NAD Black Tar-Like; Black Tar-ATC #6 18-12-01046-006 85% Non-Fibrous Like Fibrous; Yellow Foam-Like; Inhomogeneous 10% Cellulose Black Tar-Like; Black Tar- 35% Chrysotile ATC #7 18-12-01046-007 55% Non-Fibrous Like Fibrous: Inhomogeneous Total Asbestos: 35% Chrysotile present throughout Black Tar-Like; Black Tar- 35% Chrysotile 10% Cellulose **ATC #8** 18-12-01046-008 55% Non-Fibrous Like Fibrous; Inhomogeneous Total Asbestos: 35% Chrysotile present throughout 10% Cellulose Black Tar-Like; Black Tar- 35% Chrysotile ATC #9 18-12-01046-009 55% Non-Fibrous Like Fibrous: Inhomogeneous Total Asbestos: 35% Chrysotile present throughout 10% Cellulose 35% Chrysotile Silver Paint-Like; Black 18-12-01046-010 ATC #10 55% Non-Fibrous Tar-Like; Black Tar-Like Fibrous; Inhomogeneous Total Asbestos: 35% Chrysotile present throughout 10% Cellulose 35% Chrysotile ATC #11 Silver Paint-Like; Black 18-12-01046-011 55% Non-Fibrous Tar-Like; Black Tar-Like Fibrous; Inhomogeneous Total Asbestos: 35% Chrysotile present throughout

Enclosure | Page 2 of 3

Environmental Hazards Services, L.L.C

Client Number: 07-2564 Project/Test Address: Ridgefield EOC Bldg; Roof Samples

Other Lab Gross Description Asbestos Layer Type **Client Sample** Lab Sample **Materials** Number Number 10% Cellulose Silver Paint-Like; Black 35% Chrysotile 18-12-01046-012 ATC #12 55% Non-Fibrous Tar-Like: Black Tar-Like Fibrous: Inhomogeneous Total Asbestos: 35% Chrysotile present throughout 2% Cellulose NAD Silver Paint-Like; Gray 18-12-01046-013 ATC #13 2% Wollastonite Brittle; Inhomogeneous 96% Non-Fibrous

QC Sample:27-M12009-3QC Blank:SRM 1866 FiberglassReporting Limit:1% AsbestosMethod:EPA Method 600/R-93/116, EPA Method 600/M4-82-020Analyst:Meredith Outlaw

Reviewed By Authorized Signatory:

Jasha Eaddy

Tasha Eaddy QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND:

NAD = no asbestos detected

Report Number: 18-12-01046

12/12/18 no positive stop-sm aboratories.

> Environmental Hazards Services, LLC 7469 Whitepine Rd Richmond, VA 23237 <u>www.leadiab.com</u> (600)347-4010 (804)275-4907 (fax)

Asbestos Chain-of-Custody

18-12-01046 Due Date: 12/13/2018 (Thursday) AE

CompanyName: Mystic Air Quality Consultants Address: 1204 North Rd., Groton, CT 06340

	companyismic. Intrati	CAL Quality CO		Augu: 033. 1204	fiorar ital, distoin, or ous to	5. C	
	Phone: 860 449 890			x: 860 449 890	B-mail: maqc2@aol.com		r. <u>07-2564</u>
	Project Name and Addr	ess: Ridgefi	eld EC	SC Bldg.	(Roof Samples)	City/State(required)_Ridsefie	1.
	Collected by John	Weden	s	ignature_		Mystic Air Client: H. B. Fish	man + Co. Ins.
	Turn around time:	Standard	One day_	(will call a	ahead)	•	
<i>.</i>	Client's Sample	Date Collected	PLM Analysis	Other Analysis	Materiai Description	Sample Location	Comments

No.	Client's Sample No.	Date Collected	PLM Analysis	Analysis Specify	Material Description		Sample L			Comments
1	ATC #1	12-6-18			Mastic Repair	- Ridge	Field EOC.	Building Rid	Setting .	
2	ATC #2				Mastic Repair			0		
3	ATC #3			CE 12 - 02 4	Mastic Repairedrain					
4	ATC -4	i			Membrane	_				
5	ATC = 5				Membrane				1	-
6	ATC =6				Membrane			11		
7	ATC =7			1000-11	Stripping Plies -	_				
8	ATC #8				Strigging Plies -	_				
9	ATC #9				Stripping Plies	_				
10	ATE #10				Rase Flashing -					
11	ATC-TI				Base Flashins _					
12	A+C #12				Base Flashing -	_				
13	ATC = 13	¥			Alumium Just work	- 1		1		
14										
15										
elease	d by: √. \∧`);\ ; a. d by: ►TH	ARRIS		Signature: \ Signature: \	Aanut		00		date:) date:	2-7-18

ENCLOSURE 2 PAGE 1 OF 2

12



H.B. FISHMAN & CO., INC. 300 Pleasant Valley Road. Suite C South Windsor. CT 06074-3488 (860) 282-9036 / Fax (860) 282-7144 www.hbfishman.com

Herbert B. Fishman, B. C. E., M. Met. E.

6 December 2018

Via Overnight Mail

Mystic Air Quality Consultants, Inc. Attention: Chris Eident 1204 North Road Groton, CT 06340

Re: Testing of ACM Roof Samples Ridgefield - EOC Building Ridgefield, CT

Dear Mr. Eident:

Attached please find thirteen (13) material samples as extracted from the Ridgefield – EOC Building, Ridgefield CT.

We ask that these samples be tested in accordance with the requirements of the State of Connecticut and that all reporting be provided to H. B. Fishman & Co., Inc. utilizing the numbers as provided with each sample.

Sample No. ATC #1	Mastic Repair
Sample No. ATC #2	Mastic Repair
Sample No. ATC #3	Mastic Repair at drain
Sample No. ATC #4	Membrane
Sample No. ATC #5	Membrane
Sample No. ATC #6	Membrane
Sample No. ATC #7	Stripping Plies
Sample No. ATC #8	Stripping Plies
Sample No. ATC #9	Stripping Plies
Sample No. ATC #10	Base Flashing
Sample No. ATC #11	Base Flashing
Sample No. ATC #12	Base Flashing
Sample No. ATC #13	Aluminum Coating from Duct Work

Should you have any questions or require any additional information, please do not hesitate to contact our office.

ENCLOSURE 2 PAGE 2 OF 2

Respectfully submitted,

H. B. FISHMAN & CO., INC.

in

John R. Wooten, R.R.C., P.E. President Registered Roof Consultant, Professional Engineer

JRW/cew CN 18058525:3



Mystic Air Quality Consultants, Inc. 1204 North Road, Groton, Connecticut 06340

www.mysticair.com

maqc2@aol.com

800 247-7746

December 14, 2018

Mr. John R. Wooten H.B. Fishman & Co., Inc. 300 Pleasant Valley Road, Suite C South Windsor, CT 06074-3488

PLAYHOUSE

DEC 2 0 2018

H. B. FISHMAN & CO., INC.

RECEIVED

Re: Laboratory Analysis of Bulk Samples Ridgefield Playhouse Building Ridgefield, CT

Locations: ACM Roof Samples

Dear Mr. Wooten:

As requested, Mystic Air Quality Consultants, Inc. received samples to be analyzed for asbestos content. The samples were received on December 7th, 2018 and were analyzed by polarized light microscopy at Environmental Hazards Services (NVLAP # 101882-0) in Virginia.

Summary of the findings-

Upon testing by polarized light microscopy, any samples above 1% asbestos are considered to be asbestos containing materials. A summary of the bulk analysis results is enclosed. See Enclosure (1) for the Lab Results and Enclosure (2) for the Chain of Custody.

We thank you for selecting Mystic Air Quality to perform these industrial hygiene services.

Sincerely, & clet

Christopher J. Eident CIH, CSP, RS CEO



Environmental Hazards Services, L.L.C. 7469 Whitepine Rd Richmond, VA 23237

Telephone: 800.347.4010

Asbestos Bulk Analysis Report

...

Report Number: 18-12-01047

Client: Mystic Air Quality Consultants 1204 North Road Rt.117 Groton, CT 06340
 Received Date:
 12/10/2018

 Analyzed Date:
 12/10/2018

 Reported Date:
 12/12/2018

Project/Test Address: Ridgefield Playhouse Building; ACM Roof Samples; Ridgefield, CT

<u>Client Number:</u> 07-2564	L	.aborat	ory Results		Fax Number: 860-449-8860
Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
18-12-01047-001	ATC #1		Black Pliable to Brittle; Black Fibrous; Inhomogeneous	NAD	5% Cellulose 25% Fibrous Glass 70% Non-Fibrous
18-12-01047-002	ATC #2		Black Pliable to Brittle; Black Fibrous; Inhomogeneous	NAD	8% Cellulose 22% Fibrous Glass 70% Non-Fibrous
18-12-01047-003	ATC #3		Black Brittle; Black Pliable to Brittle; Black Fibrous; Inhomogeneous	NAD	3% Cellulose 35% Fibrous Glass 62% Non-Fibrous
18-12-01047-004	ATC #4	(HH)	Black Pliable to Brittle; Black/Off-White Fibrous; Inhomogeneous	3% Chrysotile	5% Cellulose 30% Fibrous Glass 62% Non-Fibrous
			Total Asbestos:	3%	
Chrysotile present	t in black pliable to	brittle sealant/m	nastic-type material.		

Environmental Hazards Services, L.L.C

07-2564

Client Number:

Report Number: 18-12-01047

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description A	sbestos	Other Materials
18-12-01047-005	ATC #5		Black Pliable to Brittle; Off- White Fibrous; Inhomogeneous	10% Chrysotile	5% Cellulose 25% Fibrous Glass 60% Non-Fibrous
			Total Asbestos:	10%	
Chrysotile presen	t in black pliable to	brittle sealant	/mastic-type material,		
18-12-01047-006	ATC #6		Black Pliable to Brittle; Black/Off-White Fibrous; Inhomogeneous	5% Chrysotile	5% Cellulose 20% Fibrous Glass 70% Non-Fibrous
			Total Asbestos:	5%	
Chrysotile presen	t in black pliable to	brittle sealant	/mastic-type material.		
18-12-01047-007	ATC #7	-	Black Pliable to Brittle; Black Brittle; Inhomogeneous	12% Chrysotile	3% Cellulose 85% Non-Fibrous
			Total Asbestos:	12%	
Chrysotile present	t in black pliable to	brittle sealant	mastic-type material.		
18-12-01047-008	ATC #8	(and)	Black Pliable to Brittle; Black Brittle; Inhomogeneous	12% Chrysotile	3% Cellulose 85% Non-Fibrous
			Total Asbestos:	12%	
Chrysotile present	t in black pliable to	brittle sealant/	mastic-type material.		
18-12-01047-009	ATC #9	3576	Black Pliable to Brittle; Homogeneous	15% Chrysotile	2% Cellulose 83% Non-Fibrous
			Total Asbestos:	15%	
18-12-01047-010	ATC #10	(5 5)	Black Pliable to Brittle; Off- White Fibrous; Inhomogeneous	12% Chrysotile	3% Cellulose 15% Fibrous Glass 70% Non-Fibrous
			Total Asbestos:	12%	
			mastic-type material.		
Chrysotile present	in black pliable to	brittle sealant/	instat office		
Chrysotile present 18-12-01047-011	in black pliable to ATC #11	brittle sealant/	Black Pliable to Brittle; Homogeneous	15% Chrysotile	2% Cellulose 1% Fibrous Glass 82% Non-Fibrous

Enclosure | Page 2 of 3

Environmental Hazards Services, L.L.C

Report Number: 18-12-01047

 Client Number:
 07-2564

 Project/Test Address:
 Ridgefield Playhouse Building; ACM Roof Samples; Ridgefield, CT

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
QC Sample:	25-M22013-4				
QC Blank:	SRM 1866 Fiber	glass			
Reporting Limit:	1% Asbestos				
Method:	EPA Method 60	0/R-93/116, El	PA Method 600/M4-82-020		
Analyst:	Mark Case			$m \wedge$	1/ 1
			Reviewed By Authorized S	Signatory:	isoa Kanode
				Missy Kar	

Missy Kanode QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND.

NAD = no asbestos detected

Enclosure | Page 3 of 3

	I I I I I				Achacta	c		19-12-0104/	
	Laboratories	ories		Č	Asuesius	0 10010		Due Date:	
	Environmental Hazards Services, LLC	rds Services, LLC		5		siouy		12/13/2018 (Thursday)	
-22	<u>www.leadiab.com</u> (800)347-4010 (804)275-4907 (fax)	7469 Whitepine Rd Richmond, VA 23237					<u>_</u>	AE AE	
0	CompanyName: <u>Mystic Air Quality Consultants</u>	c Air Quality Co	nsultants	Address: 1204	Address: 1204 North Rd., Groton, CT 06340	5340)5	City/statc/zip: Groton. Ct. 06340	Ct. 06340
, ,	Phone: 860 449 8903 Project Name and Address: Ridcofield	03 ess: Ride field	Plo	Fax: 860 449 8903	03 E-mail: magc2@	lol.com	Acct. Number: <u>07-2</u> City/Slate(required) <u>الأن</u> طج <u>و</u> 24 هراط	Acct. Number: 07-2564	4
J 1-	Collected by John Werten		One dav	Signature(will call;	e call ahead)		Mystic Air Client: <u>H.B.F.shman 4 Co</u>	B.Fishman & C	ò. Jnc.
No.		ected	PLM Analysis	Other Analysis Specify	Material Description	3 G. 1	Sample Location		Comments
	ATC#1	12-6-18			Membrane	Ridgefield	Ridge Field Playhouse Building	Ridsefield	**
15	ATC #2				Membrane				
m	ATC #3				Membrane				
4	ATC #4				Baseflashing				
2	ATC #5				Baceflishing				1
6	ATC # 6				Base Jacking				
7	ATC *7				Stripping Plives				
8	ATC #8				Stripsine Plies				
6	A+C +9				Mastic Repair			e	
10	ATC #10				Mastic Recar				
11	ATC # 11	>	>						
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eas	V. 13	DEC		Signature:	1/. (vistleman		8	date:	12-0-12
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163

Herbert B. Fishman, B. C. E., M. Met. E.



H.B. FISHMAN & CO., INC. 300 Pleasant Valley Road, Suite C South Windsor, CT 06074-3488 (860) 282-9036 / Fax (860) 282-7144 www.hbfishman.com

6 December 2018

Via Overnight Mail

Mystic Air Quality Consultants, Inc. Attention: Chris Eident 1204 North Road Groton, CT 06340

Re: Testing of ACM Roof Samples Ridgefield - Playhouse Building Ridgefield, CT

Dear Mr. Eident:

Attached please find eleven (11) material samples as extracted from the Ridgefield – Playhouse Building, Ridgefield, CT.

We ask that these samples be tested in accordance with the requirements of the State of Connecticut and that all reporting be provided to H. B. Fishman & Co., Inc. utilizing the numbers as provided with each sample.

Sample No. ATC #1	Membrane
Sample No. ATC #2	Membrane
Sample No. ATC #3	Membrane
Sample No. ATC #4	Base Flashing
Sample No. ATC #5	Base Flashing
Sample No. ATC #6	Base Flashing
Sample No. ATC #7	Stripping Plies
Sample No. ATC #8	Stripping Plies
Sample No. ATC #9	Mastic Repair
Sample No. ATC #10	Mastic Repair
Sample No. ATC #11	Mastic Repair

Should you have any questions or require any additional information, please do not hesitate to contact our office.

Respectfully submitted,

H. B. FISHMAN & CO., INC.

John R. Wooten, R.R.C., P.E. President Registered Roof Consultant, Professional Engineer

JRW/cew CN 18058524.2

ENCLOSURE PAGE 2 OF 2

02 41 19.01 SELECTIVE STRUCTURE DEMOLITION (ROOFING)

PART 1 GENERAL

1.01 Related Documents:

The General Conditions, the Supplementary General Conditions and any Special Requirements are hereby made a part of this section.

- 1.02 This Contractor shall provide all labor, equipment and materials required to perform the work called for in this Section. This Contractor shall coordinate his work with other trades and work in other sections.
- 1.03 Work of this Section includes but is not limited to the following:
 - A. Removal and disposal of all metal flashings, roof membranes and flashings, roof insulation and bituminous roofing materials, felt underlayments, base flashings, edging, vent stacks, flashing, etc., down to surface of deck substrate.
- 1.04 Related work specified elsewhere includes:

01 57 30	Pollution Control
01 74 13	Progress Cleaning
02 26 23	Asbestos Assessment
02 82 33.01	Removal and Disposal of Asbestos Containing Roof
	Material
06 10 53	Miscellaneous Rough Carpentry
07 53 23.01	Ethylene-Propylene-Diene-Monomer Roofing (Fully Adhered
	EPDM)

1.05 Quality Assurance:

All work of this Section shall be carried out in accordance with the State Demolition Code.

- PART 2 MATERIAL
- 2.01 Poly tarps.

PART 3 EXECUTION

3.01 Prior to commencing any work called for in this Section, carefully examine the substrata and conditions under which the work is to be performed and notify the Architect/Consultant in writing of any unsatisfactory conditions. Do not proceed

with the work until unsatisfactory conditions have been corrected. Start of work shall indicate acceptance of conditions.

- 3.02 Contractor at no time shall uncover more roof area than can be covered with new roofing and made watertight by the end of the working day or in case of a sudden storm. Contractor shall have on hand sufficient quantities of temporary covers in case of a sudden rain storm to dry-in the area. At the end of each day, install a temporary patch between new roofing and existing roofing to completely seal against moisture penetration.
- 3.03 Remove roof membranes, insulations, underlayment felt, bituminous roofing, vapor retarders, and miscellaneous flashings from roof area, taking care not to damage existing roof deck.
- 3.04 Contractor shall not drop materials from the roof or remove materials or equipment in such a manner as to cause unnecessary noise or dust. All debris to be trash chuted into covered containers. No debris shall be visible on the grounds at the end of each work day.
- 3.05 All debris resulting from the work performed under this Section shall be cleaned up daily, loaded in proper containers, and removed from the site and disposed of by the Contractor.
- 3.06 Deck surface shall be left clean, dry, and dust free, ready for application of new roofing materials.
- 3.07 Temporarily remove with care roof mounted mechanical equipment and all other roof accessories as required for the proper execution of the work called for in other sections of the specifications. Notify the Owner at least two (2) days prior to temporary removal of equipment.
- 3.08 Reinstall all items which were disturbed after other work is complete. Restore to original condition.
- 3.09 Remove all bituminous products from parapets and walls.
- 3.10 Those items which are not to be incorporated into the new roofing are to be removed and properly disposed of.

SECTION 02 82 33.01 - ASBESTOS PROJECT DESIGN SPECIFICATIONS

NOTE: This section was prepared by Christopher J. Eident, CIH, CSP, Mystic Air Quality Consultants, Inc., 1204 North Road, Groton, Connecticut 06340, (203) 449-8903. Licensed Asbestos Project Designer Number 00015 (State of Connecticut).

SUMMARY: The work involves the removal of asbestos containing roofing materials which include all base flashings, stripping felts and mastic repairs from the Ridgefield EOC and Playhouse, Ridgefield, Connecticut prior to re-roofing. The lab results were presented in Mystic Air Quality Consultants analysis report dated December 14, 2018. **The locations are presented in the drawings.**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

Instructions to bidders, AIA Document A201, The General Condition of the Contract for Construction," 14th Edition, 1997, the supplementary General Conditions and Division 1, General Requirements, are part of this Section and shall be binding on the Contractor and/or Subcontractors who perform this work. Note also all Addenda.

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

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

1.2.2 All work and work areas shall be in conformance with the requirements of EPA AHERA regulations (40 CFR Part 763), NESHAPS regulations (40 CFR 61 Subpart M) OSHA regulations (29 CFR 1910.1001 and 1926.1101), and Connecticut Department of Health Services standards for Asbestos Abatement, Section 19a-332a-1 to Section 19a-332a-13.

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

1.2.4 This contractor must be or employ a licensed Asbestos Abatement Contractor in the State of Connecticut (Department of Public Health, Asbestos Division).

1.2.5 The Contractor selected to execute the work shall, before the actual execution, notify the Asbestos Consultant of any discrepancies or errors that might have been discovered in the drawings or the specifications for the purpose of making such corrections or adjustments as may be necessary. If it should appear that the work called for is not in accordance with State, local or Federal laws or ordinances, the Contractor

shall immediately notify the Asbestos Consultant before proceeding. No work shall be performed if uncertainties exist.

1.2.6 The contractor must carry Workers Compensation Insurance for all employees, and a minimum of \$1,000,000 per occurrence General Liability and Asbestos Liability insurance from a B+ or better rated (Best's Rated) Insurance Company.

1.3 DESCRIPTION OF WORK

1.3.1 Asbestos Removal:

The work involves the removal of asbestos containing roofing materials which include all base flashings, stripping felts and mastic repairs from the Ridgefield EOC and Playhouse, Ridgefield, Connecticut prior to re-roofing. The lab results were presented in Mystic Air Quality Consultants analysis report dated December 14, 2018. The locations are presented in the drawings.

The materials are not friable and will not become friable by the nature of the removal. After lightly misting the surfaces, the roofing can be cut into sections using hatchets or other none dust generating methods, placed directly into 6 mil poly waste bags (or wrapped in two layers of 6 mil poly), labeled with asbestos waste labels, and lowered to the ground. The roofing could also be placed into a dust proof chute that empties directly into a lined waste container instead of placing in waste bags. Any debris on the roof or adjacent ground will be HEPA vacuumed after each removal.

All removal work will be done by workers with asbestos training (minimum annual 1 day NESHAPS Course) who have appropriate physical exams and experience. Workers will use a minimum of half face negative pressure respirators with high efficiency filters and full body "Tyvek" coveralls.

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

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

1.5 SUBMITTALS AND NOTICES

1.5.1 Prior to Commencement of Work:

1.5.1.1 Submit notification to the following agencies in the stipulated amount of time before work commences on the project:

A. Submit notification to the Regional USEPA, Coordinator, not fewer than ten working (10) days before work commences on the project .

Director, Enforcement Division Air & Hazardous Materials Division Pesticides & Toxic Substances Branch USEPA Region 1 JFK Federal Building Boston, Mass. 02203

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

Department of Energy and Environmental Protection 79 Elm Street, Hartford, CT 06106-5127 / Phone: 860-424-3000

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

(1) The name, address and telephone number of the asbestos contractor(2) The name, address and telephone number of the facility owner;

(3) The exact location of the facility;

(4) The nature of the asbestos abatement;

(5) The type of asbestos abatement activity;

(6) A description of the facility including the size, age and use of the facility;

(7) The amount of asbestos-containing material to be removed, enclosed or encapsulated or contained in the facility or part thereof to be demolished; $\$

(8) The scheduled starting and completion dates;

(9) A description of the work practices to be followed to comply with DOHS Section 19a-332a-5 to Section 19a-332a-13;

(10) The name and the location of the authorized asbestos disposal facility where asbestos-containing materials will be disposed.

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

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

1.5.1.5 Contractor must submit a written statement regarding whether he/she has ever been found out-of-compliance with pertinent Federal and State asbestos removal regulations. If previously found out-of-compliance, details must be submitted regarding each item of the alleged or proven non-compliance. 1.5.1.6 Submit documentation to the owner indicating that each employee has instruction on the hazards of asbestos exposure, on use and fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures and understands this instruction. Also submit verification that all employees have received medical examinations as required by OSHA regulations.

1.5.1.7 Post signs in and around the Work Area to comply with OSHA standard 29 CFR 1910.1001 and 1926.1101. Post one (1) copy of each of the following documents at the work site:

Title 29, Code of Federal Regulations, Part 1910.1001 and 1926.1101 OSHA Asbestos Standards

Title 40, Code of Federal Regulations, Part 6l, Subparts A and B, National Emission Standard for Hazardous Air Pollutants

In addition, the Abatement Contractor must notify all other building occupants and contractors at the site that an asbestos abatement is about to be performed and indicate what control measures are being taken in accordance with OSHA 1926.1101.

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

1.6.0 ASBESTOS REMOVAL

The contractor will spray asbestos materials with amended water, using airless spray equipment capable of providing a "mist" application to reduce the release of fibers. The asbestos material will be sprayed with water mist containing a wetting agent to enhance penetration. The wetting agent will be a commercial product produced specifically as an asbestos wetting agent. A fine spray of the amended water will be applied to reduce fiber release preceding the removal of the asbestos material.

In order to maintain asbestos concentrations at a minimum, the wet asbestos will be removed in manageable sections. Materials will not be allowed to dry out. Material drop will not exceed 8 feet. For heights up to 15 feet provide inclined chutes or scaffolding to intercept drop. For heights exceeding 15 feet provide enclosed dust-proof chutes.

The contractor will Place danger labels on containers in accordance with OSHA standard 29 CFR 1910.1001 (g) (2) if not already pre-printed on containers.

1.6.1 CLEAN-UP

The contractor must remove visible accumulations of asbestos material and debris.

If the Project Monitor finds visible accumulations of dust or bulk asbestos containing materials in the Work Area, the Contractor will repeat the cleaning until the work area is in compliance.

1.6.2. DISPOSAL OF ASBESTOS-CONTAINING MATERIALS

The asbestos materials will be packaged in impermeable dust tight containers (i.e. two heavy duty six (6) mil plastic bags or sealed fiber pack drums). The waste vehicle will be lined and sealed with 6 mil poly.:

All containers will be labeled in large legible letter: DANGER CONTAINS ASBESTOS FIBERS AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD

The labels will also have the DOT label and NESHAPS required generator identification and site label information.

The landfill accepting the wastes will be notified before shipping for scheduling to insure that adequate personnel and apparatus are available at the time of disposal; and the asbestos materials will be delivered in separate shipments. It will not be transported with any other materials. The contractor will not be paid until the signed waste manifest is received.

1.6.3 AIR MONITORING AND ANALYSIS

The following schedule will be utilized for air sampling during the project (in addition to OSHA compliance monitoring):

Air sampling will be conducted by the Contractor, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1910.1001 and 1926.58.

06 10 53 MISCELLANEOUS ROUGH CARPENTRY

PART 1 GENERAL

- 1.01 The General Conditions, the Supplementary General Conditions and any Special Requirements are hereby made a part of this Section.
- 1.02 This Contractor shall provide all labor, equipment and materials to perform the work called for in this Section. This Contractor shall coordinate his work with other trades and work in other sections.
- 1.03 Work includes but is not limited to the following:
 - A. All items required to complete rough carpentry including plywood, curbs, wood blocking, nailing strips, furring, anchoring, shoring, bracing, rough bucks, cant strips, shims and nailers, and miscellaneous closures for all work, including electrical, mechanical work requiring such work as described elsewhere in the specifications and plans.
 - B. All rough hardware required for fabrication and installation of the work, including bolts, spikes, anchors, nails, braces, insulation, joist hangers and similar items.
 - C. Temporary enclosures as required for protection of work, equipment and materials and at building entrances.
 - D. Installation of wood blocking at perimeter edges as shown in detailed drawings.
 - E. Replacement of deteriorated wood decking and blocking per Unit Price "A" and "B".
 - F. Included in Base Bid: Decking over designated locations where capped curbs are shown for removal per roof plan and detail drawings.
- 1.04 Special Unit Prices
 - A. Special Unit Prices are required for certain work of this Section. The actual quantity used will be verified by the contractor and construction coordinator/specialist.
- 1.05 Related Work Specified Elsewhere
 - 07 21 13 Board Insulation
 - 07 53 23.01 Ethylene-Diene-Propylene-Monomer (Fully Adhered EPDM)
 - 07 60 00 Flashing and Sheet Metal
- 1.06 Submittals

- A. Submit sample of new wood blocking.
- B. Submit certification of pressure treatment and kiln drying.
- C. Sample of fasteners.
- D. Certification of fastener corrosion resistance.
- 1.07 Quality Assurance
 - A. National Forest Products Association (NFPA): NFPA-1977 "National Design Specification for Wood Construction"
 - B. Southern Forest Products Association (SFPA): SFPA-1977 "Grading Rules"
 - C. Western Wood Products Association (WWPA): WWPA-1977 "Grading Rules for Western Lumber"
 - D. National Lumber Grades Authority (NLGA): NLGA-1978 "Standard Grading Rules"
 - E. American Wood Preserver's Bureau (AWPB): UC3B "Exterior Construction, above ground"
 - F. American Plywood Association (APA): (WB50) "Design Construction Guide" - APA Panel Roof Sheathing
 - G. Keep materials dry during delivery and storage. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber and plywood, and provide air circulation within the stacks.
 - H. Factory-mark each piece of lumber and plywood with type, grade, mill and grading agency identification and submit mill certificate that material has been inspected and graded in accordance with requirements.

PART 2 PRODUCTS

- 2.01 Lumber for blocking, nailing and similar concealed work shall be graded and marked by the Manufacturer's Association recognized as responsible for the grading rules of the species involved. All rough lumber shall be air-seasoned or kiln dried to a moisture content not to exceed 19%.
- 2.02 All lumber shall be surfaced four sides and dressed to mill sizes.
- 2.03 Lumber species for blocking, nailing strips, wood cants and the like shall be Douglas Fir-Larch or Southern Pine No. 2 or better.

- 2.04 All lumber shall be pressure treated with water-borne preservatives in accordance with AWPA standard U1-13 to the requirements of use category UC3B.
 - A. Each treated item shall be tagged AWPA U1 UC3B.
 - B. After treatment, all lumber shall be kiln-dried to a maximum moisture content of 19 and 15% respectively.
 - C. Apply field treatment complying with AWPA M4 to cut surfaces of treatment lumber and plywood.
- 2.05 Plywood shall be: APA rated 40/20, 1/2", 5/8", and 3/4" Exposure 1, complying with Doc PS1, Species: Douglas FIR.
 - A. Fasten all new plywood including at vertical walls/parapets maximum 12" O.C. in both directions.
- 2.06 Fasteners shall be corrosion resistant and suitable for the intended use, unless shown otherwise.
 - A. Screw fasteners for wood to wood shall be stainless steel #12 or larger. They shall meet the requirements of FM document 4470 as it relates to corrosion, as manufactured by Olympic, Buildex, Dekfast or membrane manufacturer's approved equal for securement into pressure treated wood.
 - B. Concrete or masonry fasteners shall be type 304 stainless steel and meet requirements of FM document 4470 as it relates to corrosion, RawL "Drive" or "Tapper," Gripcon or approved equal.

PART 3 EXECUTION

- 3.01 Inspection:
 - A. Contractor shall investigate underside of roof deck for items which may become penetrated by mechanical fasteners. Contractor shall exercise caution to avoid damaging items below the deck. Contractor shall repair at his cost any items damaged by mechanical fasteners.
 - B. Top surface of prepared roof deck surface shall be clean of dirt, debris and dry.
- 3.02 Workmanship:
 - A. Measurements required to insure proper fitting of all work will be obtained or verified at the building.

- 1. Fastening shall be as recommended by State Building Code Anchor and Nail schedule.
- B. Crooked, warped, bowed, or cracked materials shall not be employed. Where found they shall be replaced.
- 3.03 Blocking, etc.
 - A. All necessary underlayment for various roofs, nailing strips, cant strips, and blocking, shall be installed to fulfill the purposes for which they are to be used and as detailed. Top of blocking shall finish flush with top of insulation.
- 3.04 Rough Hardware:
 - A. All rough hardware and metal fastenings specified herein, or required for proper installation of carpentry shall be provided and installed. Nails, screws, bolts, anchors and similar items shall be stainless steel or hot dipped galvanized, sized, and of types shown or of approved size and types required to secure members rigidly in place.
- 3.05 Furnish and install pressure treated lumber for all roof nailers, stripping, fillers, blocking and nailing for all sheet metal work. Coat or paint all cuts and holes required with a concentrated solution of the preservative, in accordance with AWPA Standard M-4.
- 3.06 Temporary Protection
 - A. Provide temporary protection such as wood doors, wood railings, protection on stairs, at floor openings and the like; maintain in good condition and satisfactory repair during life of contract.
- 3.07 Job Conditions
 - A. Prior to commencing any work called for in this Section, carefully examine the substrata and conditions under which the work is to be performed and notify the owner's representative in writing of any unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected. Start of work shall indicate acceptance of conditions.

07 21 13 BOARD INSULATION

PART 1 GENERAL

- 1.01 The General Conditions, the Supplementary General Conditions and any Special Requirements are hereby made a part of this Section.
- 1.02 This Contractor shall provide all labor, equipment and materials to perform the work called for in this Section. This Contractor shall coordinate his work with other trades and work in other sections.
- 1.03 Work includes but is not limited to the following:
 - A. Installation of 15# felt base sheet.
 - B. Multiple layers of tapered and flat roof insulation and 1/2" overlayment board under fully adhered EPDM membrane as manufactured by Carlisle or approved equal.
- 1.04 Related work specified elsewhere includes:

01 57 30	Pollution Control
01 73 29	Cutting and Patching
06 10 53	Miscellaneous Rough Carpentry
07 53 23.01	Ethylene-Propylene-Diene-Monomer Roofing (Fully Adhered
	EPDM)
07 60 00	Flashing and Sheet Metal

- 1.05 Reference Standards:
 - A. FM 1-90 Fastening Pattern
 - B. FS-HH-I-1972/Gen Foam Plastic Insulation
 - C. FS-HH-I-1972/2 Foam Plastic Insulation.
 - D. American Society for Testing and Materials (ASTM)
- 1.06 Submittals: Submit product data and samples of all materials. Submit certification of corrosion resistance of fasteners.
- 1.07 Product Handling: Deliver materials in manufacturer's original containers, in sufficient quantity to allow continuity of work. Store on clean, raised platforms with approved weather protection when stored outdoors. Insulation shall be completely protected while in storage and during application to keep it dry at all times.

1.08 Job Conditions: Proceed with work only when weather conditions are in compliance with manufacturer's recommendations. Do not work in wet weather.

PART 2 PRODUCTS

- 2.01 Base Sheet
 - A. 15# Asphalt Felt

2.02 Insulation

- A. Polyisocyanurate insulation with glass facers top and bottom as manufactured by Carlisle, Firestone, Versico or Johns Manville, base layers of flat stock, size 4'x8', thickness 1.0" and 2.0", aged R-5.0 (1.0") minimum, compressive strength of 20 psi. Tapered insulation 1/8" and 1/4" per foot and adhered flat stock, size 4'x4', aged R=5.0 (1.0") as provided by membrane manufacturer or approved equal.
 - 1. Reference Standards
 - a. ASTM D2126 Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging.
 - b. ASTM D1621 Test Method for Compressive Properties of Rigid Cellular Plastics
 - c. ASTM C209 Test Method for Cellular Fiber Insulating Board
 - d. ASTM E96 Test Method for Water Vapor Transmission of Materials
 - e. ASTM D1622 Test Method for Apparent Density of Rigid Cellular Plastics
 - f. ASTM E84 Test Method for Surface Burning Characteristics of Building Materials
- 2.03 Overlayment board
 - A. High density, closed cell, polyisocyanurate foam core with coated glass facer as provided by membrane manufacturer or approved equal. Size: 4'x4,' Thickness: ".5," R-Value: 2.5, Compressive Strength: 120psi
- 2.04 High performance fasteners for securement of layers of flat insulation board to wood deck, with minimum 3" washers as manufactured by membrane

manufacturer or membrane manufacturer approved equal. Fasteners shall be FM approved. Fasteners shall be sized to penetrate into wood deck minimum of 1".

- A. Contractor is informed that, beneath the wood deck, electrical conduit is attached to the underside of the deck. All necessary precautions shall be taken to not penetrate. Contractor shall repair/replace penetrated conduit and lining at no cost to the building owner.
- 2.05 Foam adhesive shall be as manufactured by Carlisle or as approved by insulation and membrane manufacturer.
- 2.06 Cant and Edge Strips: Preformed meeting ASTM C728. Edge strips 18" wide, as manufactured by Johns Manville or manufacturer's approved equal.

PART 3 EXECUTION

- 3.01 Inspection: Verify that substrate is clean, dry, and proper for application of insulation. All work of other trades penetrating the roof deck must be complete. Verify that all wood blocking is installed. Do not proceed until all defects are corrected.
 - A. Contractor shall investigate underside of deck. Contractor shall exercise caution to avoid damaging items below the deck. Contractor shall repair at his cost any items damaged.
- 3.02 Base Sheet Installation:
 - A. Install base sheet with 2" side laps and 6" minimum end laps.
 - B. Temporarily secure base sheet to deck prior to installation of insulation.
- 3.03 Insulation Installation:
 - A. Mechanically fasten layers of flat and tapered insulation using high performance fasteners with 3" washers over prepared wood decking. Lay each subsurface layer of flat insulation with staggered joint construction offsetting all joints the maximum possible with a minimum of 6" from joints of the previous layer. Boards must be fitted to obtain a smooth, flat surface with no breaks or ridges. Fill voids greater than 1/8" in width with insulation.
 - 1. Fastener insulation at the rate of 16 fasteners per 4'x8' sheet with perimeter edge and corner enhancements as required by membrane manufacturer (24 and 36 fasteners).

- B. Over installed mechanically fastened layers of insulation, install 4'x4' 1/2" HD overlayment board set in foam adhesive as manufactured by membrane manufacturer or approved equal.
 - 1. Insulation shall be set in foam adhesive.
 - 2. Foam adhesive shall be applied in 1/2" to 3/4" wide continuous ribbons spaced 3" on center.
 - 3. Roll layers of insulation into place with 150 pound roller.
 - 4. Insulation shall be installed with staggered joint construction offsetting all joints.
 - 5. Apply additional weight to installed insulation as required and recommended by manufacturer to obtain proper adhesion.
- 3.04 Cant and Edge Strips: Adhere at same rate as insulation boards.
- 3.05 Form drain sumps using tapered insulation as shown on Drawings.
- 3.06 Protection: Do not install more insulation at one time than will be protected from wetting or other damage by installation of roofing membrane on the same day or prior to rain or dew. Remove installed insulation that has become wet and replace with dry material. Protect installed insulation at all times against damage by roof traffic.
- 3.07 Insulation shall be staggered and protected at the end of each day.
- 3.08 Leave surface ready to receive fully adhered EPDM membrane.

07 53 23.01 ETHYLENE-PROPYLENE-DIENE-MONOMER ROOFING (FULLY ADHERED EPDM)

PART 1 GENERAL

1.01 Related Documents:

The General Conditions, the Supplementary General Conditions and any Special Requirements are hereby made a part of this Section.

- 1.02 This Contractor shall provide all labor, equipment and materials required to perform the work called for in this Section. This Contractor shall coordinate his work with other trades and work in other sections.
- 1.03 Work of this section includes but is not limited to the following:
 - A. Provide and install new fully adhered, .060", reinforced FR EPDM membrane. Manufacturers: Carlisle, Firestone, Johns Manville.
 - B. Fully adhered .060" FR EPDM flashings and strippings.

NOTE: The work described herein 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 drawings 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 plans and specifications that a complete, watertight, expertly fabricated system of work be delivered to the Owners.

- 1.04 Related work specified elsewhere includes:
 - 02 41 13Selective Demolition07 21 13Board Insulation07 60 00Flashing and Sheet Metal07 92 00Joint Sealant22 14 26.14Roof Drainage: Supplementary
- 1.05 Quality Assurance
 - A. Installer shall be thoroughly trained and experienced in the materials and methods required for application of the EPDM Roof Membrane System and shall be by an applicator approved by the EPDM product manufacturer. Applicator shall have a minimum of 5 years experience in this type of roofing.

- B. All materials and workmanship shall comply with the recommendations of the National Roofing Contractors Association and S.P.R.I.
- C. Manufacturer materials shall meet the latest standards for individual components of the roofing system of the American Society for testing and materials (ASTM).
- D. Owner may retain the services of a roof consultant to observe the roof construction.
- E. See section 01 31 19.13 Pre-Construction Meetings.
- F. Fully adhered .060" reinforced FR EPDM roof membrane, equal to Carlisle, Firestone or Johns Manville.
- G. System shall carry FM 1-90 wind storm rating.
- H. Roofing System Design: tested by qualified testing agency to resist the following uplift pressures.
 - 1. All Roofs:
 - a. Corner Uplift Pressure: 126.5 lbs/sf
 - b. Perimeter Uplift Pressure: 92.8 lbs/sf
 - c. Field of Roof Uplift Pressure: 70.3 lbs/sf

1.06 Submittals

- A. Approved Applicator: Submit evidence of contractor's status as an approved applicator of the E. P. D. M. Roof Membrane System.
- B. Manufacturer's Warranty: The manufacturer shall provide the Owner with a twenty (20) year NDL (20 year details) written labor and material warranty for the system including 72 mph wind warranty. This must be submitted prior to award of contract with letter from manufacturer stating that they will provide said warranty with no exclusions upon completion of installation. The original copy of this warranty shall be delivered to the Owner when the job is completed and the terms of the warranty are satisfied. See Section 01 78 36 for details of warranties and guarantees.
- C. Shop Drawings: Proposed sheet layout, 20 year details at edges, curbs and all penetrations, shall be submitted to and approved by the Architect/Consultant prior to start of work.
- D. Certification of corrosion resistance of fastener assemblies.

- 1.07 Product delivery, storage and handling
 - A. Use all means necessary to protect roofing materials before, during and after installation and to protect the work of all other trades. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Consultant and at no additional cost to the Owner.
 - B. All materials shall be delivered to the site in the original unopened packaging with legible manufacturer's identification and shall be stored in a fashion to provide continuous protection from damage and the weather.
 - C. Carefully inspect all materials from suppliers when unloading and reject immediately any damaged or unsuitable materials.
 - D. Adhesives shall be stored between 60°F and 80°F. If subject to lower or higher temperatures they shall be returned to room temperature for 3 days before use. Do not use materials damaged in handling or storage.
 - E. All materials determined to have been damaged shall be removed from this job site and replaced with new materials.

PART 2 MATERIALS

- 2.01 All materials used in the EPDM Roof system shall be furnished by the system manufacturer, or its distributor except as noted herein.
 - A. Roof Membrane: Membrane shall be an average $.060" \pm 10\%$ thick, fire retardant, reinforced EPDM rubber sheet. No location may be less than .055" thick.
 - 1. EPDM shall conform to ASTM D-4637, Type I, Class U.
 - 2. EPDM shall be fire rated and carry a Class A rating.
 - B. Base Flashing: Flashing shall be .060" minimum cured fire retardant EPDM sheet for straight run applications, and .060" minimum uncured EPDM sheet for corners and metal flange applications.
 - C: EPDM Reinforced Termination Strip: Termination strip shall be .045" reinforced EPDM membrane. Width of termination strip shall be as recommended by the membrane manufacturer.
 - D. Membrane Cover Strip: Cover strip shall be cured EPDM laminated to cured pre-applied pressure sensitive tape. Width, 6".

- E. Bonding Adhesive: Shall be a contact adhesive as furnished by the system manufacturer. It shall be compatible to all materials to which the EPDM Roof Membrane, or flashing, is to be bonded. Not to be used to bond EPDM to EPDM.
 - 1. Bonding adhesive shall comply with State of Connecticut regulations for low VOC; Section 22a-174-44, "Adhesive and Sealants".
 - 2. Water based bonding adhesive is not acceptable.
- F. Primer: Shall be as furnished by the manufacturer of the system.
- G. External lap sealant as supplied by the membrane manufacturer.
- H. Water Cut-off Mastic: Shall be furnished by the manufacturer of EPDM system.
- I. Termination Bars: Shall be as furnished by the manufacturer of the system or fabricated from 1/8" x 1" aluminum strip. Corners shall be rounded and free of burrs.
- J. Internal seam tape shall be 6" or as supplied by the membrane manufacturer.
- K. Screws, Washers, Nailing Strips, and Accessories: Shall be as furnished by the manufacturer of the system, and as shown in the drawings. Fasteners and washers shall be treated so that they are corrosion resistant. **Fasteners which penetrate pressure treated lumber shall be stainless steel.** Fasteners shall pass the requirements of Factory Mutual Document 4470 as it relates to corrosion.
- L. Walkway Pads: EPDM membrane manufacturer approved walkway pads equal to Sure-Seal Pressure-Sensitive Molded Walkway Pads by Carlisle.
 - 1. .090" EPDM walkway Pad underlayment

- 3.01 Preparation of Surfaces
 - A. Prior to commencing any work called for in this Section, carefully examine the substrate and conditions under which the work is to be performed, and notify the Consultant in writing of any unsatisfactory substrate or conditions. Do not proceed with the work until unsatisfactory conditions

and substrate have been corrected. Start of work shall indicate acceptance of conditions.

- B. Surfaces on which the EPDM Roof Membrane is to be applied shall be clean, smooth, free of fins, sharp edges, loose and foreign material, oil, grease, roof cement and solvents.
- C. Before laying base layer and insulation board, the deck surfaces shall be inspected, cleaned, and repaired if unsatisfactory conditions are noted. (See Section 06 10 53).
- D. Provide pressure treated wood blocking as shown in Drawings. (See Section 06 10 53).
- 3.02 Installation
 - A. General: Comply with manufacturer's instruction for installation of all materials. EPDM Roof Membrane shall be installed in the maximum sizes possible. Where there is a difference between the manufacturer's recommendation and the Project Manual, the more stringent mode will be chosen. The Consultant shall decide.
 - B. EPDM Membrane
 - 1. Inspect each sheet of membrane on both sides before installation. Sheets which are defective will be returned to manufacturer.
 - 2. Position the EPDM roof membrane over the insulation substrate without stretching. Allow membrane to relax approximately 1/2 hour prior to bonding.
 - 3. Exercise care to locate all field splices away from low spots and out of drain sumps, all field splices shall be shingled to prevent bucking of water.
 - 4. Fold sheet back such that half of the underside of the sheet is exposed. Sheet fold shall be smooth without wrinkles or buckles.
 - 5. Apply bonding adhesive evenly, without gobs or puddles in accordance with membrane manufacturer's published instructions. DO NOT APPLY BONDING ADHESIVE TO THE SPLICE AREA.
 - 6. Allow adhesive to dry until it is tacky but will not string or stick to a dry finger touch.

- 7. Roll the coated membrane into the coated substrate while avoiding wrinkles.
- 8. Brush down the bonded half of the sheet immediately after rolling the sheet into the adhesive, with a soft bristle push broom to achieve maximum contact.
- 9. Fold back the unbonded half of the sheet and repeat the bonding procedure.
- 10. Install adjoining sheets in the same manner, overlap edges a **minimum of 6**".
- D. Splicing procedure
 - 1. Remove dirt and excess dust from the mating surfaces of both sheets by wiping with a clean rag. If necessary scrub the sheet with splice cleaner or primer as recommended by the membrane manufacturer. Extra cleaning is required where a factory seam intersects a field seam.
 - 2. Fold back the top sheet and clean both mating surfaces with primer as recommended by the membrane manufacturer. Change rags frequently; soiled/contaminated rags to be discarded. Allow surface to dry. Where splice tape is not pre-applied, contractor shall apply 6" splice tape to bottom sheet in accordance with manufacturer's published literature. Press tape onto sheet using hand pressure. Overlap tape roll ends a minimum of 1". Remove release film and press top sheet of membrane onto tape. Roll seam with 2" wide steel roller. Provide and install pressure sensitive membrane cover strip over all field seams, flashing seams and intersections. Seal edges of flashings with lap sealant.
- E. EPDM Attachment:
 - 1. Fully adhered membrane system
 - a. EPDM to be fastened 6" on center through nailing strips to perimeter walls, adjoining vertical walls, penetrations and curbs as shown on Drawings.

3.03 Flashing

A. Flash all perimeters, curb flashings, and flashings around roof projections (vent pipes, etc.). Straight runs of base flashing shall be done with cured .060" EPDM material. All other flashing (including gravel stop flanges)

shall be done with uncured .060" flashing sheet. The Flashing shall be fully spliced to the main sheet as per splicing procedure including in-seam sealant. Bonding adhesive shall be applied to the flashing and the surface to which it is to be bonded, and when dry to the touch, roll the Flashing onto the surface.

- 1. No membrane field seam shall be installed so as to buck water.
- 2. All flashing shall have a minimum 8" height.
- 3. Provide additional 6"x6" target patch (.060") over all three and four way intersections of membrane and flashing laps.
- 4. Provide and install pressure sensitive membrane cover strips over all field seams in flashings.
- B. Flashing shall be done in accordance with details by the manufacturer of the system or as detailed herein, whichever is more stringent.
- C. Termination Bars: The perimeter of the roof and top edge of all projections shall be sealed as shown in the detail drawing or with termination bar fastened 6" on center, lap sealant, and water cut-off mastic, whichever is more stringent.
- D. Walkway Pads: Install EPDM manufacturer provided walkway pads over full adhered .090" EPDM underlayment at locations shown on Drawing R1.
- 3.04 Repair of Deficiencies in Roof Membrane System
 - A. Correction of splices, fishmouths, tears, etc., may be accomplished by splicing a membrane section over the affected area.
 - 1. Select repair membrane which is the same material as that to be repaired.
 - a. Inseam sealant to be used with cured sheet.
 - 2. Extend the repair membrane section at least 6" in every direction from the splice, tear, etc. to be corrected.
 - 3. Remove field dirt by scrubbing the splice area with warm soapy water; rinse with clean water, and dry.
 - 4. Follow the splicing procedure found in Paragraph 3.02, d, above.

Note: Surface splices at drains shall extend 8" onto the horizontal surface of the roof membrane.

- 3.05 Performance Requirements
 - A. It is required that the roofing and associated work be watertight and not deteriorate excessively or at rates more rapid than indicated by manufacturer's published literature. Any failure of the work to comply with these requirements will be considered a failure of materials and workmanship under the guarantee.
 - B. It is intended that the whole system of roofing and associated work, under normal conditions and with normal maintenance, will perform without failure, including any necessity for excessive maintenance, for at least 20 years after the time of final acceptance.
 - C. Wind blow-off of roofing or associated work, when independent of structural failure, will be considered a failure of materials and workmanship, unless there is reasonable evidence that blow-off occurred at a time when wind velocities exceed the uplift requirements of these specifications.
- 3.06 Inspection and Warranty
 - A. Inspection: Upon completion of installation of the Membrane and Flashing, the manufacturer of the system, or its representatives shall inspect the installation to ascertain if the EPDM Roof Membrane System is installed in accordance with specifications and details. The issuance of the manufacturer's Warranty shall indicate the manufacturer's approval of the installation.
 - B. Shop Drawings: Shop drawings are required for final inspection. They may be provided by the manufacturer of the system, its representative, as built" drawings by the approved applicator. Shop drawings shall include:
 - 1. Outline and size of the roof.
 - 2. Location and type of penetrations.
 - 3. Perimeter and penetration details.
 - C. The contractor and manufacturer shall issue the pre-approved guarantees and warrantees each countersigned by all parties as follows:

- 1. Manufacturer's twenty (20) year NDL guarantee including all materials (insulation, adhesives, factory metal edging) and workmanship.
- 2. Roofing contractor's two (2) year warrantee including materials and workmanship.

07 60 00 FLASHING AND SHEET METAL

PART 1 GENERAL

1.01 Related Documents:

The General Conditions, the Supplementary General Conditions and any Special Requirements are hereby made a part of this Section.

- 1.02 This Contractor shall provide all labor, equipment and materials to perform the work called for in this Section. This Contractor shall coordinate his work with other trades and work in other sections.
- 1.03 Work includes but is not limited to the following:
 - A. New .018" Type 304 stainless steel counterflashings, closures, and overflow scuppers.
 - B. Provide and install premanufactured metal edge system with associated accessories including but not limited to edge extension, inside and outside corners, premanufactured metal work shall be as provided by membrane manufacturer or manufacturers approved equal and shall meet ANSI/SPRI ES-1 and shall be included in the 20 year NDL roof warranty.
 - C. Provide and install 20 oz. copper gutters and fascia/closures.
 - D. Provide and install new copper leaders to match existing.
 - E. Provide and install vent pipe extensions.
 - F. Provide and install pipe and duct supports.
- 1.04 Related Work Specified Elsewhere

02 41 19.01 06 10 53	Selective Structure Demolition (Roofing) Miscellaneous Rough Carpentry			
07 21 13	Board Insulation			
07 53 23.01	Ethylene-Propylene-Diene-Monomer	Roofing	(Fully	Adhered
	EPDM)			
07 92 00	Joint Sealants			
22 14 26.14	Roof Drainage: Supplementary			

- 1.05 Quality Assurance
 - A. Preconstruction Conference: Review all proposed materials and procedures with the Owner and Consultant prior to starting work. All work

may be inspected by the Roofing Consultant and complete approval must be obtained before final acceptance by the Owner.

- B. Comply with all applicable codes and regulations and all pertinent recommendations contained in "Architectural Sheet Metal Manual", latest edition, published by the Sheet Metal and Air Conditioning Contractors Association.
- C. Comply with all pertinent recommendations of the National Roofing Contractors Association as contained in the Association Manual of Roofing Practice.
- D. Comply with all applicable recommendations of Revere Copper & Brass, Inc., as contained in "Copper and Common Sense," latest edition.
- 1.06 Reference Standards
 - A. American Society for Testing & Materials (ASTM):
 - 1. B32-76 Solder Metals
 - 2. A167-63 Stainless Steel
 - B. "SMACNA", latest edition
 - C. ANSI/SPRS ES-1-2003
- 1.07 Submittals
 - A. Submit samples and product data on all materials. Submit shop drawings of flashing details as may be requested by the Consultant. Submit two copies of warrantee to the Owner.
- 1.08 Delivery, Storage and Handling
 - A. Deliver, store and handle materials in manner to prevent damage and deterioration. Provide packaging as required for protection. Schedule delivery of materials to coincide with use on job. Store materials indoors protected from weather until installed.
- 1.09 Job Conditions
 - A. Install materials in dry weather on dry, smooth surfaces only.
 - 1. If when installing roofing, waterproofing, insulation, flashings, etc., it is disclosed that repairs must be made to the structure before roofing work may continue, it shall be immediately called to the

attention of the Consultant for their examination, documentation and solution. A price for such repairs or replacement as may be deemed necessary shall be presented to the Owners for their approval and authorization to issue a change order. Unless otherwise ordered the roofing contractor shall employ such tradesmen as may be required to perform corrective work.

2. The contractor shall during his operations and at all times protect workmen of all trades, building personnel, general public and the structure against injury or damage. Provide roof top/edge protection for workmen as required by O.S.H.A.

1.10 Warranty

A. Prior to start of work, furnish sample of Contractor's written warranty for two (2) years for the Owners approval. See Section 01 78 36.

PART 2 PRODUCTS

- 2.01 Nails for fastening shall be: stainless steel of Stronghold type with a large flat head. Not smaller than #12 gauge with length sufficient to penetrate roof deck/blocking not less than 7/8".
- 2.02 Stainless steel ASTM A 167-63 Type 302, 304, .015", .018" thickness.
- 2.03 Mill aluminum alloy 3003 H14, ASTM B209.
- 2.04 Fasteners: Stainless steel equal to Rawl Zamac Nailin for sheet metal.
- 2.05 Screws, Bolts and Rivets: Rivets shall be 1/8" diameter, stainless steel pop-type for stainless steel and copper work.
- 2.06 Expansion Inserts: Lead, bronze, nylon or plastic as approved.
- 2.07 Nails for Fastening Stainless Steel: Stainless steel of Stronghold type with a large flat head. Not smaller than #12 gauge with length sufficient to penetrate roof deck/blocking not less than 7/8".
- 2.08 Sealant: Approved type of silicone meeting requirements of FS-TT-S- 00230C, Type II, Class A.
- 2.09 Premanufactured decorative metal edge system with continuous extruded aluminum bar ("ANCHOR-TITE") as manufactured by Metal-Era or roof system manufacturers approved equal.
 - A. Premanufactured decorative metal edge system shall be certified to comply with ANSI/SPRI ES-1.

- B. Extruded bar shall be continuous 6063-R alloy aluminum in 12'0' lengths with pre-punched slotted holes and welded miters.
- C. Fasteners shall be #9x12" Type 304 stainless steel as provided or recommended by metal edge system manufacturer.
- D. Premanufactured metal edge system shall include all corner, connections, splices and terminations.
- E. Provide .040" Kynar coated aluminum fascia closures and hook strips as shown on detail drawings.
- 2.10 Vent pipe extensions, TUBOS by OMG Roofing Products.
- 2.11 Duct supports: Adjustable duct supports; hot dipped galvanized steel channels and polycarbonate bases as manufactured by Miro Industries, Inc., 2700 South 900 West, Salt Lake City, UT 84110.
 - A. Duct supports shall be field adjustable to accommodate varied heights.
 - B. Duct supports shall be spaced at a maximum of 6' on center.

- 3.01 Sheet metal work of every description shall be performed by expert tradesmen thoroughly familiar with and normally engaged in this type of roofing. Execute all work in accordance with standards of Architectural Sheet Metal Manual unless otherwise indicated.
- 3.02 The contractor shall have been engaged in the type of work required of this specification for not less than five (5) years. He shall upon demand (prior to executing a contract) show evidence of work he has performed of similar scope of this caliber and magnitude.
- 3.03 Inspection: Verify that all surfaces to which sheet metal is to be applied is smooth, clean, dry and free of defects that will adversely affect application. Check that all wood blocking is properly installed. Do not proceed with work until defects are corrected.
- 3.04 Surfaces: Surfaces to be covered with sheet metal shall be smooth and free from defects of every description. All such surfaces shall be cleaned of dirt, rubbish and other foreign materials before sheet metal work is started. All projecting nails shall be driven flush with roof boarding.
 - A. Protect all work against breakage, staining or damage of any character. All such damage shall be repaired or replaced as ordered by the

Owner/Consultant to his complete satisfaction and at the roofers full expense.

- B. The roofing contractor shall remove by mechanical or other means (including hand chipping) all products found on the structure which will interfere with the proper installation of new work or in its performance after installation. Solvents will not be permitted except for unusual conditions and then only at the express approval of the Owner.
- 3.05 Rivet and continuously solder all fabricated sheet metal work. All fabrications to be watertight.
- 3.06 Cleaning: Remove all printing and marks on exposed metal and leave in clean, watertight condition.
- 3.07 Rivets where employed for soldered lap joints shall generally be staggered at 3" intervals (1-1/2" between rivets). Where staggering of rivets is not possible they shall be installed at 1" intervals. All rivet heads shall be soldered.
- 3.08 If a particular piece of work has been inadvertently omitted from these specifications or not shown on the drawings, the design principle and techniques carried in "Architectural Sheet Metal Manual" as published by Sheet Metal and Air Conditioning Contractors Association shall govern.
- 3.09 Pre-manufactured Metal edge system installation:
 - A. Install pre-manufactured decorative metal edge system per manufacturer's recommended instructions.
 - 1. Apply 3-1/2"x1/4" base of water cut off mastic prior to application.
 - 2. Install anchor bar flange in maximum lengths (12') and fastener to wood blocking through pre-punched slotted holes 12" on center using #12x1-5/8" corrosion resistant fasteners as provided or recommended by metal edge system manufacturer.
 - 3. Install .040" aluminum fascia closures and accessories shown on the detail drawings.
 - 4. Contractor shall coordinate installation of associated components, flashings and terminations with installations of metal edging.
- 3.10 Provide and install new OMG TUBOS vent pipe extensions to meet 18" minimum height requirements above roof membrane elevation.
- 3.11 Provide and install new Miro Industries duct supports per manufacturer's requirements and at locations as shown on detail drawings.

- 3.12 Provide and install all metal work as shown in detail drawings and as required for a complete system.
- 3.13 Coordination
 - A. The contractor shall be responsible for directing and coordinating all trades engaged in performing work in each section of specifications, properly schedule their operations to keep the overall work flowing smoothly with minimum intrusion.
 - B. If in the judgment of the consultant, the contractor and/or his subcontractor can better serve the progress and general quality of the project as a whole by redirecting their efforts they shall comply with such directive forthwith, said compliance shall be without recourse.
 - C. The roofing contractor in his absence shall delegate a job superintendent to attend all job meetings and make all manner of decisions in his behalf which shall, once made, be as binding as though they were made by the Principal of the company.
 - D. The Contractor shall be required to fully cooperate with and coordinate his and his subcontractors work with the contracting persons or project managers selected and designated by the owners.

07 92 00 JOINT SEALANTS

PART 1 GENERAL

1.01 Related Documents:

The General Conditions, the Supplementary General Conditions and any Special Requirements are hereby made a part of this Section.

- 1.02 This Contractor shall provide all labor, equipment and materials to perform the work called for in this Section. This Contractor shall coordinate his work with other trades and work in other sections.
- 1.03 Work includes but is not limited to caulking of exterior joints, masonry and metal, metal and metal, and joints between dissimilar materials.
- 1.04 Related work specified elsewhere includes:
 - 07 60 00 Flashing and Sheet Metal
 - 09 91 13 Exterior Painting
- 1.05 Submittals: Submit product data and samples of all materials. Submit warrantees at completion of work.

PART 2 PRODUCTS

- 2.01 General: Sealants equal to products listed by Pecora Corporation, Harleysville, PA 19438.
- 2.02 Sealants: colors as selected by the Owners.
 - A. One-part Silicone, (Non-Sag): TT-S-230C, Class A, Type II: #864 Architectural Silicone Sealant.
- 2.03 Foam Back-up: Polyethylene rod equal to Denverfoam by Pecora.
- 2.04 Surface Primers: As recommended by sealant manufacturer.

- 3.01 Inspection: Verify that joints to receive sealants are proper depth, clean, dry, frost-free, and appropriate for application of sealants.
- 3.02 Preparation: Prime required surfaces with proper materials in accordance with manufacturer's instructions.

- 3.03 Application: For joints up to 1/2" width, sealant depth shall equal width. Sealant joints over 1/2" width shall have depth equal one-half width. Fill excessive depth with back-up material. Fill joint with sealant to required depth using filler to obtain concave shape. Do not caulk when temperature is below 40°F. Leave surfaces neat, smooth, clean and watertight. Exterior joints to have foam back-up material as indicated. Apply sealant with hand gun, tooling if necessary to obtain concave surface within ten minutes. Remove any masking tape immediately. Clean any excess sealant on surfaces. Exterior joints will not be painted.
- 3.04 Guarantee
 - A. Furnish written guarantee stating that the Contractor at his own expense will repair or replace all caulking work which becomes defective due to faulty materials or workmanship within a period of two (2) years from the date of acceptance of the work.

09 91 13 EXTERIOR PAINTING

PART 1 GENERAL

1.01 Related Documents:

The General Conditions, the Supplementary Conditions and any Special Requirements are hereby made a part of this Section.

- 1.02 This contractor shall provide all materials, labor, equipment and services necessary to furnish, deliver and for work of this section as shown on the drawings, specified herein and/or required by job conditions.
- 1.03 Work of this Section includes but is not limited to the following:
 - A. Prime and paint wood fascia at perimeter of EOC Roof.
- 1.04 Related work specified elsewhere:
 - 06 10 53 Miscellaneous Rough Carpentry 07 60 00 Flashing and Sheet Metal
- 1.05 Quality Assurance
 - A. The following manufacturers are approved.

Benjamin Moore Pratt and Lambert Sherwin Williams

- 1.06 Submittals
 - A. Submit complete list of proposed materials and, for each, copies of the manufacturer's product literature. For each surface, list materials by manufacturer and name, and list number of coats. List thinners if other than water or mineral spirits. For each painting system list manufacturer's recommended surface preparation and recommended environmental conditions during application.
 - B. Submit samples of selected colors to Consultant. Samples shall be approximately 12" square or 8"x16".
 - C. Submit selected paint manufacturer's master specifications and product description, if requested by Consultant.
- 1.07 Product Handling

- 1.07 Product Handling
 - A. Store products so as to minimize danger of fire and so as to protect building surfaces and equipment from spills. Do not store flammable materials in building.
- 1.08 Environmental Conditions
 - A. Areas requiring painting preparation shall be based on existing painted surfaces containing lead based products. Provide barriers and protection as required by State and Local requirements.
 - B. Do not paint when temperature of air or surfaces being painted is below 40°F. Do not paint when atmosphere is damp. Do not paint when the temperature is lower than 5° above the dew point. Do not paint damp surfaces. Paint only when the environmental conditions are as recommended in the paint manufacturer's product literature.
 - C. Do not paint unless temporary lighting is adequate.
 - D. Provide ventilation during painting and drying periods.
- 1.09 Definition
 - A. The verb "to paint" and the noun "paint", as used in these Contract Documents, mean the application of liquid coatings which cure to a durable film. Both clear and opaque coatings are included under the definition.

PART 2 PRODUCTS

- 2.01 Materials
 - A. Paint for Wood:
 - 1. Primer: Alkyd Exterior Primer 176
 - 2. Top Coat: DTM Alkyd Semi Gloss M24, color as selected by building owner's representative from list of manufacturer's standard colors.
 - C. Ship materials in unopened manufacturer's containers.
 - D. Use thinners recommended by paint manufacturers.

3.01 Preparation

A. Sand surfaces and remove surface dust of light debris with tack cloth.

3.02 Application

- A. Follow manufacturer's direction for application and rate of coverage.
- B. Apply paint evenly to produce a uniform surface. Avoid runs, sags or brush marks. Spray application is not acceptable.
- C. All items to be painted shall have 1 coat primer and 2 coats finish paint. Color selection shall be by owner.
- D. All new lumber shall be fully primed, back, front and edges.

22 14 26.14 ROOF DRAINAGE: SUPPLEMENTARY

PART 1 GENERAL

1.01 Related Documents

The General Conditions, the Supplementary Conditions and any Special Requirements are hereby made a part of this Section.

- 1.02 This contractor shall provide all materials, labor, equipment and services necessary to furnish, deliver and for work of this section as shown on the drawings, specified herein and/or required by job conditions. This contractor shall coordinate his work with other trades and work in other sections.
 - A. Contractor shall install all products associated with new drains and plumbing lines in accordance with all Local and State Building Codes.

1.03 References

- A. The General Documents, as listed on the Table of Contents and applicable parts of Division 1, General Documents, shall be included in and made a part of this Section. Where there is a conflict between paragraphs of this Section and similar paragraphs of other Divisions, the most stringent requirements shall prevail.
- B. Examine all other Sections of the specifications for requirements which affect work under this Section whether or not such work is specifically mentioned in this Section.
- C. Coordinate work with that of all other trades and the building owner affecting, or affected by work of this Section. Cooperate with such trades and the building owner to assure the steady progress of all work under the contract.
- 1.04 Scope of Work
 - A. Prior to start of any roofing related work, contractor shall water test all roof drains and piping.
 - B. Removal and replacement of existing roof drain assemblies with new to match existing.
 - C. Provide and install new cast iron membrane clamp rings and drain strainers to match existing along with new stainless steel nuts, bolts, and washers at new drain locations.

- D. Water test all roof drains and connections at conclusion of roofing project.
- E. The work under this contract shall include all labor, fixtures, materials, tools, equipment, rigging, hoisting, staging, transportation, insurance, temporary protection, supervision and incidental items essential for proper installation and operation of all systems as indicated on the drawings and specified herein, even though not specifically mentioned or indicated on the drawings but which are usually provided or are essential for proper installation and operation of all systems as indicated on the drawings and specified herein.
- F. The specifications and drawings describe the minimum requirements that must be met by the Plumbing subcontractor for the installation of all work as shown on drawings and as specified herein under. Without limiting the generality thereof, the scope of work includes, but is not necessarily limited to, the following:
 - 1. Roof drains
 - 2. Above and below deck clamping rings
- 1.05 Related Work Specified Elsewhere
 - 02 41 19.01 Selective Structure Demolition (Roofing)
 - 06 10 53 Miscellaneous Rough Carpentry
 - 07 21 13 Board Insulation
 - 07 53 23.01 Ethylene-Propylene-Diene-Monomer Roofing (Fully Adhered EPDM)
- 1.06 Submittals
 - A. Samples: submit samples of all materials for approval in accordance with the General Documents and the Supplementary Documents.
 - B. Shop drawings: submit shop drawings and manufacturer's data for approval as required by the General Documents and the Supplementary Documents. Prior to submitting shop drawings, submit a list of proposed manufacturers for approval of the various plumbing equipment.
 - C. Record drawings: maintain and submit record drawings as required by the Supplementary General Documents.
- 1.07 Codes, ordinances and permits

- A. All work and materials are to comply in every respect with the State Building Code, and such applicable building laws and regulations are to be considered as part of these specifications.
- B. The Plumbing subcontractor is to give all requisite notices, file all requisite plans relating to his work with the proper authorities, and is to secure all permits and pay all fees for same. If any work is performed and changes are necessary to conform to the ordinances, these changes shall be made at the Plumbing subcontractor's expense.
- C. The drawings and specifications shall be followed when in excess of the minimum requirements of the code.
- 1.08 Guarantee
 - A. Furnish, before the final payment is made, a 2 year written guarantee per Section 01 78 36.
- 1.09 Protection
 - A. The Plumbing subcontractor shall be responsible for his work until its completion and final acceptance, and he shall replace any work or materials that have been damaged, lost, or stolen without additional cost to the Owner.
- 1.10 Drawings and specifications
 - A. The drawings and these specifications are complementary, each to the other, and any labor or material called for by either, whether or not by both, shall be furnished and installed by this subcontractor.
 - B. The drawings indicate the various systems and piping. The Plumbing subcontractor shall carefully investigate the structure and finish conditions affecting all his work and shall arrange such work accordingly for the complete, satisfactory operation of all systems, providing such fittings, and accessories as may be required to meet such conditions. Work shall be performed in accordance with the best practices of the trade; and to the satisfaction of the Owner and at no additional cost to either.
- 1.11 Cleanup
 - A. After completion of the work, all tools and other equipment shall be removed from the building. All excess materials shall be removed and the building left clean.
- 1.12 Testing of piping systems interior

- A. Contractor shall be responsible for testing water tight connections.
- B. Defective work: If inspection or tests show defects, such defective work or material shall be replaced and inspection and tests shall be repeated. All repairs to piping shall be made with new material. No caulking of screwed joints or holes will be acceptable.
- C. Additional tests
 - 1. Provide all additional tests; such as smoke or pressure tests, as required by the regulations or as directed by authorities making the inspection.
 - 2. Provide for any repeated test, as directed by the Local Building Code Official, to make all systems tight, as required.
 - 3. Visual inspections of joints, valves, etc., shall be made as directed by the Local Building Code Official.

PART 2 PRODUCTS

- 2.01 Materials
 - A. New roof drain assemblies: Drains shall match existing in diameter and depth with cast iron basket, clamping ring, under deck clamp and caulked outlet. Match existing drain pipe diameter and connection, or equal by Josam, Wade, Zurn or J. B. Smith.
 - 1. All new drain lines, connections, insulation and associated components shall match existing and comply with all Local and State Building regulations.
- 2.02 Roof drains
 - A. Setting grades: Before setting any drains, the Plumbing subcontractor shall obtain from the General Contractor the exact information relative to finish grade of the top of the drains. Note type of roof construction for roof drain installation.

- 3.01 Roof drainage system installations
 - A. Furnish and install the new roof drains with connections essentially as indicated on the drawings.

- B. Set new drains to match existing elevations.
- C. Insulate new drain assemblies and connections to match existing,
- 3.02 Water testing drains and piping
 - A. Prior to the start of any roofing related work, the contractor shall water test all drains and pipes to show that they are clear and free flowing.
 - B. During the construction phase of the project the contractor shall maintain clear and flowing drains.
 - C. At the conclusion of the reroofing project the contractor shall water test all drains and pipes to show that they are clear and free flowing.







