Request for Proposal

Exterior Renovations at Cumberland Senior Center

BID #2020-1022-21

Town of Cumberland

45 Broad Street

Cumberland, RI 02864

Date issued:	September 30, 2020
Date due:	October 22, 2020 at 10:00AM
	Town of Cumberland, Finance Department
	45 Broad Street
	Cumberland, RI 02864
Phone:	401-728-2400 x134

SCOPE OF WORK

The Town of Cumberland seeks proposals for the removal/construction of a portico, exterior improvements, replace of existing roof, and additional renovations as outlined in this RFP for the Cumberland Senior Center located at 1464 Diamond Hill Road, Suite 1, Cumberland, RI 02864.

Refer to Cumberland Senior Center, Project Manual Including Specification, Construction Documents included in this RFP for complete details as to the requirements for this project.

PRE-PROPOSAL MEETING

A non-mandatory pre-proposal meeting is scheduled for October 7, 2020 at 1:00 PM at the Cumberland Senior Center located at 1464 Diamond Hill Road, Suite 1, Cumberland, RI 02864.

The pre-proposal meeting will provide an opportunity to assist prospective firms with site conditions, technical matters, and the extent and type of work required to be performed.

Although the prep-proposal meeting is non-mandatory, contractors are strongly encouraged to attend to become familiar with the building. Due to the COVID pandemic, access into the building at times other than this meeting time will be very limited.

QUESTIONS and ADDENDA

To provide prompt answers to questions, the Town requests that all Bidders submit written questions in a timely manner. Accordingly, questions must be emailed to gmodica@cumberlandri.org by 4:30 PM on October 14, 2020. The Town will compile written answers which will be available by Addendum on the Cumberland Finance Department's webpage and the State Purchasing website. No interpretation on the meaning of the Plans, Specifications or other Contract Document will be made to any bidder orally.

There is to be NO private communication with any Official or Building Committee Member from the release date through the selection of contractor. Bidders who initiate private communication or attempt to violate the process outlined herein may be disqualified.

REFERENCES

Bids must include three references for similar type of project. Include: Project Name, Project Total, Date of Project, Contact, Title, Phone and Email.

SUBMISSION OF BIDS:

1. SEALED Bids are due by 10:00 AM on October 22, 2020 and no proposal received thereafter will be considered.
2. Six (6) copies of the bid will be submitted and should include literature, a written proposal, and drawings. Three references must also be included with the proposal.
3. Envelopes containing bids must be sealed and addressed to the Office of the Finance Director, Cumberland Town Hall, 45 Broad St., Cumberland, RI, 02864, and labeled with name and

address of the bidder and "Exterior Renovations at Cumberland Senior Center, Bid ##2020-1022-21.

4. Any consultant may withdraw his proposal by written request at any time prior to the advertised time for opening. Telephonic bids, amendments, or withdrawals will not be accepted.
5. Unless otherwise specified, no proposal may be withdrawn for a period of sixty (60) days from time of bid opening.
6. Proposals received prior to the time opening will be securely kept, unopened. No responsibility will be attached to an officer or person for the premature opening of a proposal not properly addressed and identified.
7. Any deviation from the specifications must be noted in writing and attached as part of the bid proposal. The bidder shall indicate the item or part with the deviation and indicate how the bid will deviate from specifications.
8. Bids will be opened and read aloud publicly via Zoom meeting. Contact Glenn Modica at gmodica@cumberlandri.org for the link to the opening.
9. Please e-mail an electronic copy of the bid to the Finance Director at rchauvin@cumberlandri.org within 24 hours after the bid opening."

HOLD HARMLESS:

The contractor shall be responsible for his work and every part thereof, and for all materials, tools, appliances, and property of every description used in connection therewith. The contractor agrees to indemnify and save harmless the Town of Cumberland, its employees and agents, against loss or expense by reason of the liability imposed by law upon the contractor, all sub-contractors, or owner for damage because of bodily injuries, including person or persons or on account of damage to property arising out of or in consequence of the performance of this work whether such injuries to persons or damage to property are due or claimed to be due to any negligence, including gross negligence, of a sub-contractor, the owner, the general contractor, his or their employees or agents, or any other person

ALL BIDDERS/OFFERORS MUST ATTEST TO THE FOLLOWING:

The vendor acknowledges, under the pains and penalties of perjury, that he/she has not been offered, paid, or solicited for any contribution or compensation, nor has he/she been granted a gift, gratuity, or other consideration, either directly or indirectly by any officer, employee or member of the governing body of the Town of Cumberland who exercises any functions or responsibilities in connection with either the award or execution of the project to which this contract pertains.

Further, the vendor acknowledges, under the pains and penalties of perjury, that he/she has not offered, paid, or solicited by way of any contribution or compensation, nor has he/she granted a gift, gratuity or other consideration either directly or indirectly to any officer, employee, or member of the governing body of the Town of Cumberland who exercises any functions or responsibilities in connection with either the award or execution of the project to which this project or contract pertains.

Signature of Officer	Date
Title	Company
Title of RFP	

GENERAL TERMS AND CONDITIONS

The Town of Cumberland's Finance Office may, from time to time, make amendments to the General Terms and Conditions when the Town of Cumberland's Finance Director determines that such amendments are in the best interest of the Town of Cumberland. Amendments shall be made available for public inspection at the Finance Office located in Cumberland Town Hall and online at https://www.cumberlandri.org/finance/ but shall not require formal public notice and hearing. Copies of the Terms and Conditions shall be provided to any individual or firm requesting them.

TOWN OF CUMBERLAND'S PURCHASING OFFICE GENERAL CONDITIONS OF PURCHASE

All Town of Cumberland purchase orders, contracts, solicitations, delivery orders and service requests shall incorporate and be subject to the provisions of Rhode Island General Laws 8-15-4 and the Town of Cumberland purchasing rules and regulations adopted pursuant thereto, all other applicable provisions of the Rhode Island General Laws, the Cumberland Town Charter, specific requirements described in the Request or Contract, and the following General Conditions of Purchase:

1. GENERAL

   All purchase orders, contracts, solicitations, delivery orders, and service requests are for specified goods and services, in accordance with express terms and conditions of purchase, as defined herein. For the purposes of this document, the terms "bidder" and "contractor" refer to any individual, firm, corporation, or other entity presenting a proposal indicating a desire to enter into contracts with the Town of Cumberland, or with whom a contract is executed by the Town of Cumberland's Finance Director, and the term "contractor" shall have the same meaning as "vendor".

2. ENTIRE AGREEMENT

   The Town of Cumberland's Purchase Order, or other Town of Cumberland contract endorsed by the Town of Cumberland Finance Office, shall constitute the entire and exclusive agreement between the Town of Cumberland and any contractor receiving an award. In the event any conflict between the bidder's standard terms of sale, these conditions or more specific provisions contained in the solicitation shall govern.

   All communication between the Town of Cumberland and any contractor pertaining to any award or contract shall be accomplished in writing.

   A) Each proposal will be received with the understanding that the acceptance, in writing, by contract or Purchase Order by the Town of Cumberland Finance Director of the offer to do work or to furnish any or all the materials, equipment, supplies or services described therein shall constitute a contract between the bidder and the Town of Cumberland. This shall bind the bidder on his part to furnish and deliver at the prices and in accordance with the conditions of said accepted proposal and detailed specifications and the Town of Cumberland on its part to order from such contractor (except in case of emergency) and to pay for at the agreed prices, all materials, equipment, supplies or services specified and delivered. A contract shall be deemed executory only to the extent of funds available for payment of the amounts shown on Purchase Orders issued by the Town of Cumberland to the contractors.

B) No alterations or variations of the terms of the contract shall be valid or binding upon the Town of Cumberland unless submitted in writing and accepted by the Town of Cumberland Finance Director. All orders and changes thereof must emanate from the Town of Cumberland Purchasing Office: no oral agreement or arrangement made by a contractor with a department or employee will be considered to be binding on the Town of Cumberland Finance Director, and may be disregarded.

C) Contracts will remain in force for the contract period specified or until all articles or services ordered before date of termination shall have been satisfactorily delivered or rendered and accepted and thereafter until all terms and conditions have been met, unless:

   i) terminated prior to expiration date by satisfactory delivery against orders of entire quantities, or
   ii) extended upon written authorization of the Town of Cumberland Finance Director and accepted by the contractor, to permit ordering of the unordered balances or additional quantities at the contract price and in accordance with the contract terms, or
   iii) canceled by the Town of Cumberland in accordance with other provisions stated herein.

D) It is mutually understood and agreed that the contractor shall not assign, transfer, convey, sublet or otherwise dispose of this contract or his right, title or interest therein, or his power to execute such contract, to any other person, company or corporation, without the previous consent, in writing, of the Town of Cumberland Finance Director.

E) If, subsequent to the submission of an offer or issuance of a purchase order or execution of a contract, the bidder or contractor shall merge with or be acquired by another entity, the contract may be terminated, except as a corporate resolution prepared by the contractor and the new entity ratifying acceptance of the original bid or contract terms, condition, and pricing is submitted to the Town of Cumberland Purchasing Office, and expressly accepted.

F) The contractor or bidder further warrants by submission of an offer or acceptance of a purchase order or other contract that he has no knowledge at the time of such action of any outstanding and delinquent or otherwise unsettled debt owed by him to the Town of Cumberland, and agrees that later discovery by the Town of Cumberland Finance Director that this warranty was given in spite of such knowledge, except where the matter is pending in hearing or from any appeal therefrom, shall form reasonable grounds for termination of the contract.

3. SUBCONTRACTS

No subcontracts or collateral agreements shall be permitted, except with the Town of Cumberland's express written consent. Upon request, contractors must submit to the Town of Cumberland Purchasing Office a list of all subcontractors to be employed in the performance of any Purchase Order or other contract arising from this Request.

4. RELATIONSHIP OF PARTIES

The contractor or bidder warrants, by submission of an offer or acceptance of a purchase order or other contract, that he is not an employee, agent, or servant of the Town of Cumberland, and that he is fully qualified and capable in all material regards to provide the specified goods and services. Nothing herein shall be construed as creating any contractual relationship or obligation between the Town of Cumberland and any sub-bidder, subcontractor, supplier, or employee of the contractor or offeror.

5. COSTS OF PREPARATION

All costs associated with the preparation, development, or submission of bids or other offers will be borne by the offeror. The Town of Cumberland will not reimburse any offeror for such costs.

6. SPECIFIED QUANTITY REQUIREMENT

Except where expressly specified to the contrary, all solicitations and contracts are predicated on a specified quantity of goods or services, or for a specified level of funding.

A) The Town of Cumberland reserves the right to modify the quantity, scope of service, date of delivery or completion, or funding of any contract, with no penalty or charge, by written notice to the contractor, except where alternate terms have been expressly made a part of the contract.

B) The Town of Cumberland shall not accept quantities in excess of the specified quantity except where the item is normally sold by weight (where sold by weight, the Town of Cumberland will not accept quantities greater than ten per cent [10%] of the specified quantity), or where the Request or Contract provides for awards for other than exact quantities.

C) Purchase Orders or other contracts may be increased in quantity or extended in term without subsequent solicit with the mutual consent of the contractor and the Town of Cumberland, where determined by the Town of Cumberland Finance Director to be in the Town of Cumberland's best interest.

7. TERM AND RENEWAL

Where offers have been requested or contracts awarded for terms exceeding periods of twelve (12) months, it is mutually understood and agreed that the Town of Cumberland's commitment is limited to a base term not to exceed twelve (12) months, subject to renewal annually at the Town of Cumberland's sole option for successive terms as otherwise described, except where expressly specified to the contrary. Purchase orders appearing to commit to obligations of funding or terms of performance may be executed for administrative convenience, but are otherwise subject to this provision, and in such cases the Town of Cumberland's renewal shall be deemed to be automatic, conditional on the continued availability of appropriated funds for the purpose, except as written notice of the Town of Cumberland's intent not to renew is served.

8. DELIVERY/COMPLETION

Delivery must be made as ordered and/or projects completed in accordance with the proposal. If delivery qualifications do not appear on the bidder's proposal, it will be interpreted to mean that goods are in stock and that shipment will be made within seven (7) calendar days. If the project completion date is not specified in the proposal, the date shall be determined by the Town of Cumberland Finance Director. The decision of the Town of Cumberland Finance Director, as to reasonable compliance with the delivery terms, and date of completion shall be final. Burden of proof of delay in receipt of order shall rest with the contractor. No delivery charges shall be added to invoices except when authorized on the Purchase Order.

9. FOREIGN CORPORATIONS

In accordance with Title 7 Chapter 1.1 ("Business Corporations") of the General Laws of Rhode Island, no foreign corporation shall have the right to transact business in this state until it shall have procured a certificate of authority so to do from the Secretary of State.

10. COLLUSION

Bidder or contractor warrants that he has not, directly or indirectly, entered into any agree participated in any collusion or otherwise taken any action in restraint of full competitive bidding. In special circumstances, an executed affidavit will be required as a part of the bid.

11. PROHIBITION AGAINST CONTINGENT FEES AND GRATUITIES

Bidder or contractor warrants that he has not paid, and agrees not to pay, any bonus, commission, fee, or gratuity to any employee or official of the Town of Cumberland for the purpose of obtaining any contract or award issued by the Town of Cumberland. Bidder or contractor further warrants that no commission or other payment has been or will be received from or paid to any third party contingent on the award of any contract by the Town of Cumberland, except as shall have been expressly communicated to the Town of Cumberland Finance Director in writing prior to acceptance of the contract or award in question. Subsequent discovery by the Town of Cumberland of non-compliance with these provisions shall constitute sufficient cause for immediate termination of all outstanding contracts and suspension or debarment of the bidder(s) or contractor(s) involved.

12. AWARDS

Awards will be made with reasonable promptness and by written notice to the successful bidder (only); bids are considered to be irrevocable for a period of ninety (90) days following the bid opening unless expressly provided for to the contrary in the Request, and may not be withdrawn during this period without the express permission of the Town of Cumberland Finance Director.

A) Awards shall be made to the bidder(s) whose offer(s) constitutes the lowest responsive price offer (or lowest responsive price offer on an evaluated basis) for the item(s) in question or for the Request as a whole, at the option of the Town of Cumberland. The Town of Cumberland reserves the right to determine those offers which are responsive to the Request, or which otherwise serve its best interests.

B) The Town of Cumberland reserves the right, before making award, to initiate investigations as to whether or not the materials, equipment, supplies, qualifications or facilities offered by the bidder meet the requirements set forth in the proposal and specification, and are ample and sufficient to insure the proper performance of the contract in the event of award. If upon such examination it is found that the conditions of the proposal are not complied with or that articles or equipment proposed to be furnished do not meet the requirements called for, or that the qualifications or facilities are not satisfactory, the Town of Cumberland may reject such a bid. It is distinctly understood, however, that nothing in the foregoing shall mean or imply that it is obligatory upon the Town of Cumberland to make any examinations before awarding a contract; and it is further understood that if such examination is made, it in no way relieves the contractor from fulfilling all requirements and conditions of the contract.

C) Qualified or conditional offers which impose limitations of the bidder's liability or modify the requirements of the bid, offers for alternate specifications, or which are made subject to different terms and conditions than those specified by the Town of Cumberland may, at the option of the Town of Cumberland, be
   i) rejected as being non-responsive, or
   ii) set aside in favor of the Town of Cumberland's terms and conditions (with the consent of the bidder), or
   iii) accepted, where the Town of Cumberland Finance Director determines that such acceptance best serves the interests of the Town of Cumberland.

   Acceptance or rejection of alternate or counter-offers by the Town of Cumberland shall not constitute a precedent which shall be considered to be binding on successive solicitations or procurements.

D) Bids submitted in pencil, or which do not bear an original signature, in ink, by an owner or authorized agent thereof, will not be accepted.

E) The Town of Cumberland Finance Director reserves the right to determine the responsibility of any bidder for a particular procurement.

F) The Town of Cumberland Finance Director reserves the right to reject any and all bids in whole or in part, to waive technical defects, irregularities, and omissions, and to give consideration to past performance of the offerors where, in his judgment the best interests of the Town of Cumberland will be served by so doing.

G) The Town of Cumberland Finance Director reserves the right to make awards by items, group of items or on the total low bid for all the items specified as indicated in the detailed specification, unless the bidder specifically indicates otherwise in his bid.

H) The impact of discounted payment terms shall not be considered in evaluating responses to any Request.

I) The Town of Cumberland Finance Director reserves the right to act in the Town of Cumberland's best interests regarding awards caused by clerical errors by the Town of Cumberland Purchasing Office.

13. SUSPENSION AND DEBARMENT

The Town of Cumberland Finance Director may suspend or debar any vendor or potential bidder, for good cause shown:

A) A debarment or suspension against a part of a corporate entity constitutes debarment or suspension of all of its divisions and all other organizational elements, except where the action has been specifically limited in scope and application, and may include all known corporate affiliates of a contractor, when such offense or act occurred in connection with the affiliate's performance of duties for or on behalf of the contractor, or with the knowledge, approval, or acquiescence of the contractor or one or more of its principals or directors (or where the contractor otherwise participated in, knew of, or had reason to know of the acts).

B) The fraudulent, criminal or other serious improper conduct of any officer, director, shareholder, partner, employee, or any other individual associated with a contractor may be imputed to the contractor when the conduct occurred in connection with the individual's performance of duties for or on behalf of the contractor, or with the contractor's knowledge, approval or acquiescence. The contractor's acceptance of benefits derived from the conduct shall be evidence of such knowledge, approval, or acquiescence.

C) A vendor or contractor who knowingly engages as a subcontractor for a contract awarded by the Town of Cumberland to a vendor or contractor then under a ruling of suspension or debarment by the Town of Cumberland shall be subject to disallowance of cost, annulment or termination of award, issuance of a stop work order, or debarment or suspension, as may be judged to be appropriate by the Town of Cumberland's Finance Director.

14. PUBLIC RECORDS

Contractors and bidders are advised that certain documents, correspondence, and other submissions to the Town of Cumberland's Purchasing Office may be voluntarily made public by the Town of Cumberland absent specific notice that portions of such submittals may contain confidential or proprietary information, such that public access to those items should be withheld.

15. PAYMENT

Unless otherwise provided for by the Request or Contract, payment shall not be made until delivery has been made, or services performed, in full, and accepted. Payment shall not be due prior to thirty (30) working days following the latest of completion, acceptance, or the rendering of a properly submitted invoice. Payments will be released ONLY upon the completion of all certified payrolls incurred during the project and all required close out reports.

A) Payment terms other than the foregoing may be rejected as being nonresponsive.

B) No partial shipments, or partial completion will be accepted, unless provided for by the Request or Contract.

C) Where a question of quality is involved, or failure to complete a project by the specified due date, payment in whole or part against which to charge back any adjustment required, shall be withheld at the direction of the Town of Cumberland Finance Director. In the event a cash discount is stipulated, the withholding of payments, as herein described, will not deprive the Town of Cumberland from taking such discount.

D) Payments for used portion of inferior delivery or late delivery will be made by the Town of Cumberland on an adjusted price basis.

E) Payments on contracts under architectural or engineering supervision must be accompanied by a Certificate of Payment and Statement of Account signed by the architect or engineer and submitted to the Town of Cumberland Purchasing Office for approval.

16. THIRD-PARTY PAYMENTS

The Town of Cumberland recognizes no assigned or collateral rights to any purchase agreement except as may be expressly provided for in the bid or contract documents, and will not accede to any request for third party or joint payment(s), except as provided for in specific orders by a court of competent jurisdiction, or by express written permission of the Town of Cumberland's Finance Director. Where an offer is contingent upon such payment(s), the offeror is obligated to serve affirmative notice in his bid submission.

17. SET-OFF AGAINST PAYMENTS

Payments due the contractor may be subject to reduction equal to the amount of unpaid and delinquent state taxes (or other just debt owed to the State), except where notice of delinquency has not been served or while the matter is pending in hearing or from any appeal therefrom.

18. EQUAL OPPORTUNITY COMPLIANCE, HANDICAPPED ACCESS AND AFFIRMATIVE ACTION

Contractors of the Town of Cumberland are required to demonstrate the same commitment to equal opportunity as prevails under federal contracts controlled by Federal Executive Orders 11246, 11625, 11375 and 11830, and Title 28 Chapter 5.1 of the General Laws of Rhode Island.

Affirmative action plans shall be submitted by the contractor for review by the State Equal Opportunity Office. A contractor's failure to abide by the rules, regulations, contract terms and compliance reporting provisions as established shall be grounds for forfeiture and penalties as shall be established, including but not limited to suspension.

19. INSURANCE

All construction contractors, independent tradesmen, or firms providing any type of maintenance, repair, or other type of service to be performed on Town of Cumberland premises, buildings, or

grounds are required to purchase and maintain coverage with a company or companies licensed to do business in the state as follows:

A) Comprehensive General Liability Insurance
Combined Single Limit not less than $1,000,000 each occurrence for bodily Injury and property damage.
   i) Independent Contractors;
   ii) Contractual - including construction hold harmless and other types of contracts or agreements in effect for insured operations;
   iii) Products and Completed Operations;
   iv) Personal Injury (with employee exclusion deleted)

B) Automobile Liability Insurance
Combined Single Limit not less than $1,000,000 each occurrence for bodily Injury and property damage including non-owned and/or hired vehicle coverage.

OR

Bodily Injury, per person, $500,000/ Bodily Injury, $1,000,000 per accident/ Property Damage, $500,000 per accident including non-owned and/or hired vehicle coverage.

C) Workers' Compensation Insurance
As required by the General Laws of Rhode Island.

D) Employers liability $500,000

The Town of Cumberland shall be named as an additional insured on the vendor's Comprehensive General Liability Policy and Automobile Liability Policy.

The Town of Cumberland's Finance Director reserves the right to consider and accept alternate forms and plans of insurance or to require additional or more extensive coverage for any individual requirement. Successful bidders shall provide certificates of coverage, reflecting the Town of Cumberland as an additional insured, to the Town of Cumberland Purchasing Office, forty-eight (48) hours prior to the commencement of work, as a condition of award. Failure to comply with this provision shall result in rejection of the offeror's bid.

20. SUSPENSION, DEFAULT AND TERMINATION

A) Suspension of a Contract by the Town of Cumberland
The Town of Cumberland reserves the right at any time and for any reason to suspend all or part of this contract, for a reasonable period, not to exceed sixty days, unless the parties agree to a longer period. The Town of Cumberland shall provide the contractor with written notice of the suspension order signed by the Finance Director or his or her designee, which shall set forth the date upon which the suspension shall take effect, the date of its expiration, and all applicable instructions. Upon receipt of said order, the contractor shall immediately comply with the order and suspend all work under this contract as specified in the order. The contractor shall take all

reasonable steps to mitigate costs and adverse impact to the work specified in the contract during the suspension period. Before the order expires, the Town of Cumberland shall either:

i. cancel the suspension order;

ii. extend the suspension order for a specified time period not to exceed thirty (30) days; or

iii. terminate the contract as provided herein.

The contractor shall resume performance once a suspension order issued under this section is canceled or expires. If as a result of the suspension of performance, there is a financial or schedule impact upon the contract, an appropriate adjustment may be made by, or with the approval of, the Town of Cumberland's Finance Director. Any adjustment shall be set forth in writing. After a suspension order has been canceled or expires, the contractor shall provide any request for adjustment to the Town of Cumberland's Finance Director within thirty (30) days after resuming work performance.

B) Termination of a Contract by the Town of Cumberland

i. Termination for Default or Nonperformance

If, for any reason, the contractor breaches the contract by failing to satisfactorily fulfill or perform any obligations, promises, terms, or conditions, and having been given reasonable notice of and opportunity to cure such default, fails to take satisfactory corrective action within the time specified by the Town of Cumberland, the Town of Cumberland may terminate the contract, in whole or in part, the termination of all outstanding contracts or sub-contracts held by the contractor, and the suspension or debarment of the contractor from future procurements by giving written notice to the contractor specifying the date for termination. The Town of Cumberland shall endeavor to provide such notice at least seven (7) calendar days before the effective date of the termination.

A contractor who fails to commence within the time specified or complete an award made for repairs, alterations, construction, or any other service will be considered in default of contract. If contractor consistently fails to deliver quantities or otherwise perform as specified, the Town of Cumberland's Finance Director reserves the right to terminate the contract and contract for completion of the work with another contractor and seek recourse from the defaulting contractor or his surety. In the event of a termination for default or nonperformance, in whole or in part, the Town of Cumberland may procure similar goods or services in a manner and upon terms it deems appropriate, and the contractor shall be liable for the excess costs incurred by the Town of Cumberland as a result of the contractor's default. The contractor, or its surety, agrees to promptly reimburse the Town of Cumberland for the excess costs, but shall have no claim to the difference should the replacement cost be less.

ii. Termination Without Cause

The Town of Cumberland may terminate the contract in whole or in part without cause at any time by giving written notice to the contractor of such termination at least thirty (30) days before the effective date of such termination. The notice shall specify the part(s) of the contract being terminated and the effective termination date.

Within thirty (30) days of the effective date of the termination of the contract the contractor shall compile and submit to the Town of Cumberland an accounting of the work performed up to the date of termination. The Town of Cumberland may consider the following claims in determining reasonable compensation owed to the contractor for work performed up to the date of termination:

a. contract prices for goods or services accepted under the contract;
b. costs incurred in preparing to perform and performing the terminated portion of the contract; or
c. any other reasonable costs incurred by the contractor as a result of the termination.

The total sum to be paid to the contractor shall not exceed the total contract price, less any payments previously made to the contractor, the proceeds from any sales of goods or manufacturing materials, and the contract price for work not terminated.

iii. Contractor's Obligations in the Event of Termination

If the contract is terminated for any reason, or expires pursuant to its terms, the contractor shall transfer and deliver to the Town of Cumberland in the manner and to the extent directed by the Town of Cumberland:

a. all finished or unfinished material prepared by the contractor; and
b. all material, if any, provided to the contractor by the Town of Cumberland.

For the purposes of the contract, "material" shall include, but is not limited to, goods, supplies, parts, tools, machinery, equipment, furniture, fixtures, information, data, reports, summaries, tables, maps, charts, photographs, studies, recommendations, files, audiotapes, videotapes, records, keys, security badges, and documents.

If the contract is terminated for cause, the contractor shall not be relieved of liability to the Town of Cumberland for damages sustained because of any breach by the contractor. In such event, the Town of Cumberland may retain any amounts which may be due and owing to the contractor until such time as the exact amount of damages due the Town of Cumberland from the contractor has been determined by the Town of Cumberland Finance Director. The Town of Cumberland may also set off any damages so determined against the amounts retained.

Upon termination of the contract, the contractor shall stop performance on the date specified, terminate any outstanding orders and subcontracts applicable to the terminated portion of the contract, and shall incur no further commitments or obligations in connection with the

terminated performance. The contractor shall settle all liabilities and claims arising out of the termination of subcontracts and order generating from the terminated performance. The Town of Cumberland may direct the contractor to assign the contractor's right, title and interest under terminated orders or subcontracts to the Town of Cumberland or a third party.

Terminations of Purchase Order Contracts or Master Pricing Agreements shall require the signature of the Town of Cumberland Finance Director or his designee. Notice of termination by either party shall be submitted in writing to the other party in accordance with the termination clause of the contract, or where no specific termination clause is included, written notice shall be provided no later than thirty (30) days before the expiration of the contract.

21. INDEMNITY

The contractor guarantees:

A) To save the Town of Cumberland, its agents and employees, harmless from any liability imposed upon the Town of Cumberland arising from the negligence, either active or passive, of the contractor, as well as for the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of the contract of which the contractor is not the patentee, assignee or licensee.

B) To pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the Town of Cumberland and of the State of Rhode Island.

C) That the equipment offered is standard new equipment, latest model of regular stock product with all parts regularly used with the type of equipment offered; also, that no attachment or part has been substituted or applied contrary to manufacturer's recommendations and standard practice.

22. FORCE MAJEURE

All orders shall be filled by the contractor with reasonable promptness, but the contractor shall not be held responsible for any losses resulting if the fulfillment of the terms of the contract shall be delayed or prevented by wars, acts of public enemies, strikes, fires, floods, acts of God, or for any other acts not within the control of the contractor and which by the exercise of reasonable diligence, the contractor is unable to prevent.

Cumberland Senior Center

CUMBERLAND, RI

PROJECT MANUAL INCLUDING SPECIFICATIONS
CONSTRUCTION DOCUMENTS

SEPTEMBER 24, 2020

Owners/Developers:

TOWN OF CUMBERLAND
45 BROAD STREET
CUMBERLAND, RI 02864
401.728-2400

Architect:

Union Studio Architecture & Community Design, Inc.
140 Union Street
Providence, RI 02903
401.272.4724

UNION STUDIO
ARCHITECTURE & COMMUNITY DESIGN

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012200	UNIT PRICES
012300	ALTERNATES
012900	PAYMENT PROCEDURES
013100	PROJECT MANAGEMENT AND COORDINATION
015000	TEMPORARY FACILITIES AND CONTROLS
016000	PRODUCT REQUIREMENTS

Facility Construction Subgroup

DIVISION 02 - EXISTING CONDITIONS
022210 ENVIRONMENTAL
024119 SELECTIVE DEMOLITION

DIVISION 03 - CONCRETE
033000 CAST-IN-PLACE CONCRETE

DIVISION 04 - MASONRY
043018 MANUFACTURED MASONRY VENEER

DIVISION 05 - METALS
055213 PIPE AND TUBE RAILINGS

DIVISION 06 - WOOD, PLASTICS, AND COMPOSITES
061000 ROUGH CARPENTRY
066500 EXTERIOR SYNTHETIC TRIM

DIVISION 07 - THERMAL AND MOISTURE PROTECTION
074113 METAL ROOF PANELS
074646 FIBER-CEMENT SIDING
075300 FULLY ADHERED EPDM ROOFING SYSTEM
077100 ROOF SPECIALTIES
077230 SOFFIT AND SIDING VENTS
079200 JOINT SEALANTS

DIVISION 08 - OPENINGS
081113 HOLLOW METAL DOORS AND FRAMES
081743 COMPOSITE FIBERGLASS DOORS
087100 DOOR HARDWARE

DIVISION 09 – FINISHES
099123 PAINT

DIVISION 31 – EARTHWORK
312000 EARTH MOVING

DIVISION 32 – EXTERIOR IMPROVEMENTS
321216 ASPHALT PAVING

END OF TABLE OF CONTENTS

BID FORM

Bid To: Town of Cumberland
45 Broad Street
Cumberland, RI 02864
Tel: 401-728-2400

Project: Cumberland Senior Center
Cumberland, RI

Bidder: _____
Legal name of entity

_____
Address

_____
Contact name | Contact email

_____
Contact telephone | Contact fax

BASE BID PRICE

The Bidder submits this bid proposal to perform all of the work (including labor and materials) as described in the solicitation for this Base Bid Price, (including the costs for all Allowances, Bonds, and Addenda):

Trade Costs including, Bonds $_____

General Requirements and Conditions (lump sum) $ _____

TOTAL Project Cost (Base Bid) $_____

(Base Bid Price *in figures* printed electronically, typed, or handwritten legibly in ink)

_____

(Base Bid Price *in words* electronically, typed, or handwritten legibly in ink)

BONDS

The Base Bid Price ***includes*** the costs for all Payment and Performance Bonds required by the solicitation.

ADDENDA

The Bidder has examined the entire solicitation (including the following Addenda), and the Base Bid Price ***includes*** the costs of any modifications required by the Addenda.

All Addenda must be acknowledged.

Addendum No. 1, dated _____

Addendum No. 2, dated _____

Addendum No. 3, dated _____

Addendum No. 4, dated _____

ALLOWANCES

Various Allowances are given throughout the Drawings & Specifications relative to quantities in addition to those that may be listed below. Base bid is to include these as stated. Pre-approved increases or decreases in scope during construction shall conform to unit prices submitted within this bid form. Use of allowances listed here are to be used only upon review and approval by Owner and Architect. Any and all unused amounts shall be provided back to the Owner.

The Base Bid Price ***includes*** the costs for the following Allowances:

Allowance No. 01 – Rotted plywood sheathing: Quantity Allowance: Include an additional **500 sf of rotted plywood sheathing replacement.** This shall include removal of the rotted plywood and installation of the new plywood. Based on 5/8" thick roof sheathing.

Allowance No. 02 – Portico Allowance: Lump Sum Allowance: Include **$25,000** for the materials and labor of the Portico**.** This is for the portico itself only from the column bases up to and including the roof. This does not include the concrete work at the ground level.

Allowance No. 03 – Planting and Mulch: Lump Sum Allowance: Include **$15,000** for Material and Labor for **plantings and mulch** along the front and sides of the building. Any necessary grading, loam, and fixing of landscaping due to construction activities shall be included in the base bid.

ALTERNATES *(Additions to Base Bide Price)*

The Bidder offers to: (i) perform the work described in these Alternates as selected by the Owner, based on the availability of funds and the best interest of the Owner; and (ii) increase the Base Bid Price by the amount set forth below for each Alternate selected.

Alt. #	Description	Cost
1	**WINDOW SHUTTERS** Include a cost for material and labor to add the vinyl window shutters on the front of the building. Shutters to be 24" wide open weave board-n-batten, BC-1 configuration by Perfect Shutters, Inc. Color to be determined.	
2	**CONDENSER LINE RELOCATIONS** Provide a deduct to not relocate the condensate lines, and instead remove and remount over new wall cladding, encase with plastic covering and paint to match adjacent surfaces.	
3	**INTERIOR DOORS** Provide a deduct to not provide do any work scope associated with the interior doors, except for the new entry vestibule door which is to stay within the base contract and not be included in this deduct.	
4	**INTERIOR WORK SCOPE ITEMS** Provide a deduct to not perform the interior work noted on sheet A101.	
5	**ADA ACTUATORS** Provide a deduct to not install any of the 3 ada actuator systems at the entry doors.	

UNIT PRICES

The Bidder submits these predetermined Unit Prices as the Basis for any change orders approved in advance by the State. These Unit Prices include ***all*** costs, including labor, materials, services, regulatory compliance, overhead, and profit.

Unit #	Description	Contractor's Unit Cost
1	Provide and install more or less **rotted roof sheathing replacement** than indicated in the drawings and as Contained within the Allowances section of these specifications. Price to include all associated costs including but not limited to equipment, labor, supervision, transit, travel, etc.	$_____ sf
2	Provide and install **more asphalt paving** than indicated in the drawings. Cost shall include removal and disposal of existing asphalt, 6" new compacted gravel base, and new asphalt as detailed in drawings.	$_____ per 200 sf.

CONTRACT TIME

The Bidder offers to perform the work in accordance with the timeline specified below:

- Estimated Start of Construction ..... November 1, 2019
- Project Completion ..... May 30, 2020

LIQUIDATED DAMAGES

None

TAXES:

Refer to section 8.6 of AIA A105 General Conditions of the Contract for Construction.

PROJECT BREAKDOWN

Provide a cost breakdown (Schedule of Values) using the 16 Division approach and format.

GENERAL CONDITIONS/REQUIREMENTS SHALL INCLUDE:

- Building permit application fees
- Local fire dept. review fees
- Any utility disconnect/reconnect fees that may be applicable
- All field staff including full time supervision
- Project management and/or any other non-field staff, ie: general super, accounting, project executives etc
- Field storage including but not limited to storage containers, sheds, etc
- Field office
- Portable restrooms
- Temporary utilities including consumption
- Consumption costs from permanent utilities
- All pre-construction costs
- Temporary fencing
- Temporary barricades and construction as required for safety etc
- Disposal costs except for demolition related disposal
- Final cleaning
- Removal of including but not limited to all temporary construction, barricades, field offices, fencing and storage etc
- Project close out

ADDITIONAL INFORMATION FOR BIDDING

- Interim progress cleaning to be part of trade costs
- Traffic control and police details if required to be part of trade costs
- Dust control to be part of trade costs
- Any other items not mentioned as included shall be part of trade costs

- Bidders shall NOT include any contingencies, all contingencies will be included in the owner's master budget
- Winter conditions and any other weather related impacts shall be included within trades cost

BID FORM SIGNATURE(S)

The person signing below certifies that he or she has been duly authorized to execute and submit this bid proposal on behalf of the Bidder.

Date: _____

BIDDER _____

_____
Name of Bidder

_____
Signature in ink

_____
Printed name and title of person signing on behalf of Bidder

_____
Bidder's Contractor Registration Number

END OF BID FORM

DOCUMENT 000003 - LIST OF DRAWING SHEETS

PART 1 -

1.1 LIST OF DRAWINGS

A. List of Drawings: Drawings consist of the following Contract Drawings and other drawings of type indicated:

SHEET TITLE	DESCRIPTION	LATEST REVISION DATE
G000	TITLE SHEET	9/21/20
EXISTING CONDITIONS		
EC101	EXISTING CONDITIONS / DEMOLITION PLAN	9/21/20
ARCHITECTURAL		
A001	ARCHITECTURAL SITE PLAN	9/21/20
A101	FIRST FLOOR PLAN	9/21/20
A102	ROOF PLAN & DETAILS	9/21/20
A201	EXTERIOR ELEVATIONS	9/21/20
A301	BUILDING & WALL SECTIONS	9/21/20
A302	TYPICAL WALL SECTIONS	9/21/20
A501	TYPICAL EXTERIOR DETAILS	9/21/20
A502	DOOR AND WINDOW DETAILS & SCHEDULES	9/21/20

END OF SECTION 000103

FEDERAL CONSTRUCTION CONTRACT PROVISIONS

(Contracts over $100,000)

STATE OF RHODE ISLAND

COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

RI Office of Housing & Community Development

One Capitol Hill, 3rd Floor

Providence, RI 02908

Note: This document is to be used as a guide for contractors and subcontractors working on Community Development Block Grant projects in the State of Rhode Island. It is not verified to be all inclusive and the contractor is fully responsible for complying with all federal regulations applicable to the CDBG program.

REQUIRED CONTRACT PROVISIONS <u>TO BE PROVIDED BY RECIPIENT</u>

(To the best of our knowledge, federal templates are not currently available for items A and B, below. Grant recipients must develop/use their own contract language to meet the requirements specified below.)

(A) Contracts for more than the simplified acquisition threshold currently set at $150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

(B) All contracts in excess of $10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.

Certification Regarding Debarment and Suspension

U.S. Department of Housing and Urban Development

Certification A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief that its principals;

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal debarment or agency;

b. Have not within a three-year period preceding this proposal, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Instructions for Certification (A)

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was place when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms **covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded**, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of these regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines this eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph (6) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

Certification B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Instructions for Certification (B)

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms **covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded**, as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of these regulations.

5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph (5) of these instructions, if a participant in a lower covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies including suspension and/or debarment.

Applicant	Date

Signature of Authorized Certifying Official	Title

Equal Employment Opportunity Certification

Excerpt From 41 CFR §60-1.4(b)

U.S. Department of Housing and Urban Development
Office of Housing
Federal Housing Commissioner

Department of Veterans Affairs

OMB Control No. 2502-0029
(exp. 9/30/2016)

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin, such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: **Provided, however,** That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work:

Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and Federally-assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed

Firm Name and Address	By
	Title

upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Excerpt from HUD Regulations

200.410Definition of term "applicant".

(a) In multifamily housing transactions where controls over the mortgagor are exercised by the Commissioner either through the ownership of corporate stock or under the provisions of a regulatory agreement, the term "applicant" as used in this subpart shall mean the mortgagor.

(b) In transactions other than those specified in paragraph(a) of this section, the term "applicant" as used in this subpart shall mean the builder, dealer or contractor performing the construction, repair or rehabilitation work for the mortgagor or other borrower.

200.420Equal Opportunity Clause to be included in contracts and subcontracts.

(a) The following equal opportunity clause shall be included in each contract and subcontract which is not exempt:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensured that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of the nondiscrimination clause.

(2)The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard race, creed, color, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notices in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 10925 of March 6 1961, as amended, and of the regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.

(5) The contractor will furnish all information and reports required by Executive Order 10925 of March 6, 1961, as amended, and by the regulations, and orders of the said Committee , or pursuant thereto, and will permit access to his books, records, and accounts by HUD and the Committee for purposes of investigation to ascertain compliance with such regulations, and orders.

(6) In the event of the contractor's non-compliance with the nondiscrimination clause of this contract or with any of the said regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or Federally-assisted construction contracts in accordance with procedures authorized in Executive Order 10925 of March 6, 1961, as amende, and such other sanctions may be imposed and remedies invoke s provided in the said Executive Order or by regulations, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

(7) The contractor will include the provisions of Paragraphs(1) through (7) in every subcontract or purchase order unless exempted by regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to Section 303 of Executive Order 10925 of March 6, 1961, as amended, so that such provisions will be binding upon each subcontractor or vender. The contractor will take such action with respect to any subcontract or purchase orders as HUD may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vender as a result of such direction by HUD, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(b) Except in subcontracts for the performance of construction work at the site of construction, the clause is not required to be inserted in subcontracts below the second tier. Subcontracts may incorporate by referenced to the equal opportunity clause.

200.425Modification in and exemptions from the regulations in this subpart.

(a) The following transactions and contracts are exempt from the regulations in this subpart:

(1) Loans, mortgages, contracts and subcontracts not exceeding $10,000.

(2) Contract and subcontracts not exceeding $100,000 for standard commercial supplies or raw material;

(3)Contracts and subcontracts under which work is to be or has been performed outside the United States and where no recruitment of workers within the United States in involved. To the extent that work pursuant to such contracts is done within the Untied States, the equal opportunity clause shall be applicable;

(4) Contracts for the sale of Government property where no appreciable amount of work is involved; and

(5) Contracts and subcontracts for an indefinite quantity which are not to extend for ore than one year if the purchaser determines that the amounts to be ordered under any such contract or subcontract are not reasonably expected to exceed $100,000 in the case of contracts or subcontracts for standard commercial supplies and raw materials, or $10,000 in the case of all other contracts and subcontracts.

§401.14 Standard patent rights clauses.

(a) The following is the standard patent rights clause to be used as specified in §401.3(a).

Patent Rights (Small Business Firms and Nonprofit Organizations)

(a) Definitions

(1) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).

(2) *Subject invention* means any invention of the *contractor* conceived or first actually reduced to practice in the performance of work under this *contract,* provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of *contract* performance.

(3) *Practical Application* means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) *Made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) *Small Business Firm* means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) *Nonprofit Organization* means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) Allocation of Principal Rights

The *Contractor* may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the *Contractor* retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Application by *Contractor*

(1) The *contractor* will disclose each subject invention to the *Federal Agency* within two months after the inventor discloses it in writing to *contractor* personnel responsible for patent matters. The disclosure to the agency shall be in the form of a written report and shall identify the *contract* under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the

invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the *agency,* the *Contractor* will promptly notify the *agency* of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the *contractor.*

(2) The *Contractor* will elect in writing whether or not to retain title to any such invention by notifying the *Federal agency* within two years of disclosure to the *Federal agency.* However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the *agency* to a date that is no more than 60 days prior to the end of the statutory period.

(3) The *contractor* will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The *contractor* will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the *agency,* be granted.

(d) Conditions When the Government May Obtain Title

The *contractor* will convey to the *Federal agency,* upon written request, title to any subject invention—

(1) If the *contractor* fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that the *agency* may only request title within 60 days after learning of the failure of the *contractor* to disclose or elect within the specified times.

(2) In those countries in which the *contractor* fails to file patent applications within the times specified in (c) above; provided, however, that if the *contractor* has filed a patent application in a country after the times specified in (c) above, but prior to its receipt of the written request of the *Federal agency,* the *contractor* shall continue to retain title in that country.

(3) In any country in which the *contractor* decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to *Contractor* and Protection of the *Contractor* Right to File

(1) The *contractor* will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the *contractor* fails to disclose the invention within the times specified in (c), above. The *contractor's* license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the *contractor* is a party and includes the right to grant sublicenses of the same scope to the extent the *contractor* was legally obligated to do so at the time the *contract* was awarded. The license is transferable only with the approval of the *Federal agency* except when transferred to the successor of that party of the *contractor's* business to which the invention pertains.

(2) The *contractor's* domestic license may be revoked or modified by the *funding Federal agency* to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and *agency* licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the *contractor* has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the *funding Federal agency* to the extent the *contractor,* its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the *funding Federal agency* will furnish the *contractor* a written notice of its intention to revoke or modify the license, and the *contractor* will be allowed thirty days (or such

other time as may be authorized by the *funding Federal agency* for good cause shown by the *contractor*) after the notice to show cause why the license should not be revoked or modified. The *contractor* has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and *agency* regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) *Contractor* Action to Protect the Government's Interest

(1) The *contractor* agrees to execute or to have executed and promptly deliver to the *Federal agency* all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the *contractor* elects to retain title, and (ii) convey title to the *Federal agency* when requested under paragraph (d) above and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The *contractor* agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the *contractor* each subject invention made under *contract* in order that the *contractor* can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The *contractor* shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The *contractor* will notify the *Federal agency* of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The *contractor* agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, “This invention was made with government support under (identify the *contract*) awarded by (identify the Federal agency). The government has certain rights in the invention.”

(g) Subcontracts

(1) The *contractor* will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the *contractor* in this clause, and the *contractor* will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The *contractor* will include in all other subcontracts, regardless of tier, for experimental developmental or research work the patent rights clause required by (*cite section of agency implementing regulations or FAR*).

(3) In the case of subcontracts, at any tier, when the prime award with the Federal agency was a contract (but not a grant or cooperative agreement), the *agency,* subcontractor, and the contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Federal agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) Reporting on Utilization of Subject Inventions

The *Contractor* agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the *contractor* or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the contractor, and such other data and information as the *agency* may reasonably specify. The *contractor* also agrees to provide additional reports as may be requested by the *agency* in connection with any march-in proceeding undertaken by the *agency* in accordance with paragraph (j) of this clause.

As required by 35 U.S.C. 202(c)(5), the *agency* agrees it will not disclose such information to persons outside the government without permission of the *contractor.*

(i) Preference for United States Industry

Notwithstanding any other provision of this clause, the *contractor* agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the *Federal agency* upon a showing by the *contractor* or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in Rights

The *contractor* agrees that with respect to any subject invention in which it has acquired title, the *Federal agency* has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the *agency* to require the *contractor,* an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the *contractor,*assignee, or exclusive licensee refuses such a request the *Federal agency* has the right to grant such a license itself if the *Federal agency* determines that:

(1) Such action is necessary because the *contractor* or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the *contractor,* assignee or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the *contractor,* assignee or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for *Contracts* with Nonprofit Organizations

If the *contractor* is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the *Federal agency,* except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the *contractor;*

(2) The *contractor* will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the *contractor* with respect to subject inventions, after payment of expenses (including payments to inventors) incidential to the administration of subject inventions, will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the *contractor* determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the *contractor* is also satisfied that the small business firm has the

capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the *contractor.* However, the *contractor* agrees that the Secretary may review the *contractor's* licensing program and decisions regarding small business applicants, and the *contractor* will negotiate changes to its licensing policies, procedures, or practices with the Secretary when the Secretary's review discloses that the *contractor* could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communication

(Complete According to Instructions at 401.5(b))

(b) When the Department of Energy (DOE) determines to use alternative provisions under §401.3(a)(4), the standard clause at §401.14(a), of this section, shall be used with the following modifications unless a substitute clause is drafted by DOE:

(1) The title of the clause shall be changed to read as follows: *Patent Rights to Nonprofit DOE Facility Operators*

(2) Add an “(A)” after “(1)” in paragraph (c)(1) and add subparagraphs (B) and (C) to paragraph (c)(1) as follows:

(B) If the subject invention occurred under activities funded by the naval nuclear propulsion or weapons related programs of *DOE,* then the provisions of this subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). In such cases the contractor agrees to assign the government the entire right, title, and interest thereto throughout the world in and to the subject invention except to the extent that rights are retained by the contractor through a greater rights determination or under paragraph (e), below. The contractor, or an employee-inventor, with authorization of the contractor, may submit a request for greater rights at the time the invention is disclosed or within a reasonable time thereafter. *DOE* will process such a request in accordance with procedures at 37 CFR 401.15. Each determination of greater rights will be subject to paragraphs (h)-(k) of this clause and such additional conditions, if any, deemed to be appropriate by the *Department of Energy.*

(C) At the time an invention is disclosed in accordance with (c)(1)(A) above, or within 90 days thereafter, the contractor will submit a written statement as to whether or not the invention occurred under a naval nuclear propulsion or weapons-related program of the *Department of Energy.* If this statement is not filed within this time, subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). The contractor statement will be deemed conclusive unless, within 60 days thereafter, the Contracting Officer disagrees in writing, in which case the determination of the Contracting Officer will be deemed conclusive unless the contractor files a claim under the Contract Disputes Act within 60 days after the Contracting Officer's determination. Pending resolution of the matter, the invention will be subject to subparagraph (c)(1)(B).

(3) Paragraph (k)(3) of the clause will be modified as prescribed at §401.5(g).

(c) As prescribed in §401.3, replace (b) of the basic clause with the following paragraphs (1) and (2):

(b) Allocation of principal rights. (1) The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause, including (2) below, and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(2) If the Contractor performs services at a Government owned and operated laboratory or at a Government owned and contractor operated laboratory directed by the Government to fulfill the Government's obligations under a Cooperative Research and Development Agreement (CRADA) authorized by 15 U.S.C. 3710a, the Government may require the Contractor to negotiate an agreement with the CRADA collaborating party or parties regarding the allocation of rights to any subject invention the Contractor makes, solely or jointly, under the CRADA. The agreement shall be negotiated prior to the Contractor undertaking the CRADA work or, with the permission of the Government, upon the identification of a subject invention. In the absence of such an agreement, the Contractor agrees to grant

the collaborating party or parties an option for a license in its inventions of the same scope and terms set forth in the CRADA for inventions made by the Government.

[52 FR 8554, Mar. 18, 1987, as amended at 69 FR 17301, Apr. 2, 2004]

Clean Water Requirements

33 U.S.C. 1251

Clean Water - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq . The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to OHCD/HUD and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by the State.

CLEAN AIR

42 U.S.C. 7401 et seq
40 CFR 15.61
49 CFR Part 18

Clean Air - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 *et seq*. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to OHCD/HUD and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by OHCD/HUD.

Source: Federal Transit Administration. http://www.fta.dot.gov/12831_6195.html#BM7

Lobbying

31 U.S.C. 1352
49 CFR Part 19
49 CFR Part 20

APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding $100,000)

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq* .)]
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.]

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq., apply* to this certification and disclosure, if any.

_____ Signature of Contractor's Authorized Official

_____ Name and Title of Contractor's Authorized Official

_____ Date

Source: Federal Transit Administration. http://www.fta.dot.gov/12831_6195.html#BM7

Title 37: Patents, Trademarks, and Copyrights
PART 401—RIGHTS TO INVENTIONS MADE BY NONPROFIT ORGANIZATIONS AND SMALL BUSINESS FIRMS UNDER GOVERNMENT GRANTS, CONTRACTS, AND COOPERATIVE AGREEMENTS

§401.14 Standard patent rights clauses.

(a) The following is the standard patent rights clause to be used as specified in §401.3(a).

Patent Rights (Small Business Firms and Nonprofit Organizations)

(a) Definitions

(1) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq.*).

(2) *Subject invention* means any invention of the *contractor* conceived or first actually reduced to practice in the performance of work under this *contract,* provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of *contract* performance.

(3) *Practical Application* means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) *Made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) *Small Business Firm* means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) *Nonprofit Organization* means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) Allocation of Principal Rights

The *Contractor* may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the *Contractor* retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Application by *Contractor*

(1) The *contractor* will disclose each subject invention to the *Federal Agency* within two months after the inventor discloses it in writing to *contractor* personnel responsible for patent matters. The disclosure

to the agency shall be in the form of a written report and shall identify the *contract* under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the*agency,* the *Contractor* will promptly notify the *agency* of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the *contractor.*

(2) The *Contractor* will elect in writing whether or not to retain title to any such invention by notifying the *Federal agency* within two years of disclosure to the *Federal agency.* However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the *agency* to a date that is no more than 60 days prior to the end of the statutory period.

(3) The *contractor* will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The *contractor* will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the *agency,* be granted.

(d) Conditions When the Government May Obtain Title

The *contractor* will convey to the *Federal agency,* upon written request, title to any subject invention—

(1) If the *contractor* fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that the *agency* may only request title within 60 days after learning of the failure of the *contractor* to disclose or elect within the specified times.

(2) In those countries in which the *contractor* fails to file patent applications within the times specified in (c) above; provided, however, that if the *contractor* has filed a patent application in a country after the times specified in (c) above, but prior to its receipt of the written request of the *Federal agency,* the *contractor* shall continue to retain title in that country.

(3) In any country in which the *contractor* decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to *Contractor* and Protection of the *Contractor* Right to File

(1) The *contractor* will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the *contractor* fails to disclose the invention within the times specified in (c), above. The*contractor's* license extends to its domestic subsidiary and

affiliates, if any, within the corporate structure of which the *contractor* is a party and includes the right to grant sublicenses of the same scope to the extent the *contractor* was legally obligated to do so at the time the *contract* was awarded. The license is transferable only with the approval of the *Federal agency* except when transferred to the sucessor of that party of the *contractor's* business to which the invention pertains.

(2) The *contractor's* domestic license may be revoked or modified by the *funding Federal agency* to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and *agency* licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the *contractor* has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the *funding Federal agency* to the extent the *contractor,* its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the *funding Federal agency* will furnish the *contractor* a written notice of its intention to revoke or modify the license, and the *contractor* will be allowed thirty days (or such other time as may be authorized by the *funding Federal agency* for good cause shown by the *contractor*) after the notice to show cause why the license should not be revoked or modified. The *contractor* has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and*agency* regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) *Contractor* Action to Protect the Government's Interest

(1) The *contractor* agrees to execute or to have executed and promptly deliver to the *Federal agency* all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the*contractor* elects to retain title, and (ii) convey title to the *Federal agency* when requested under paragraph (d) above and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The *contractor* agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the *contractor* each subject invention made under *contract* in order that the *contractor* can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The *contractor* shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The *contractor* will notify the *Federal agency* of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The *contractor* agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, “This invention was made with government support under (identify the *contract*) awarded by (identify the Federal agency). The government has certain rights in the invention.”

(g) Subcontracts

(1) The *contractor* will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the *contractor* in this clause, and the *contractor* will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The *contractor* will include in all other subcontracts, regardless of tier, for experimental developmental or research work the patent rights clause required by (*cite section of agency implementing regulations or FAR*).

(3) In the case of subcontracts, at any tier, when the prime award with the Federal agency was a contract (but not a grant or cooperative agreement), the *agency,* subcontractor, and the contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Federal agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) Reporting on Utilization of Subject Inventions

The *Contractor* agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the *contractor* or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commerical sale or use, gross royalties received by the contractor, and such other data and information as the *agency* may reasonably specify. The *contractor* also agrees to provide additional reports as may be requested by the *agency* in connection with any march-in proceeding undertaken by the *agency* in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), the *agency* agrees it will not disclose such information to persons outside the government without permission of the *contractor.*

(i) Preference for United States Industry

Notwithstanding any other provision of this clause, the *contractor* agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the *Federal agency* upon a showing by the *contractor* or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commerically feasible.

(j) March-in Rights

The *contractor* agrees that with respect to any subject invention in which it has acquired title, the *Federal agency* has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the *agency* to require the *contractor,* an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the *contractor,*assignee, or exclusive licensee refuses such a request the *Federal agency* has the right to grant such a license itself if the *Federal agency* determines that:

(1) Such action is necessary because the *contractor* or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the *contractor,* assignee or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the *contractor,* assignee or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for *Contracts* with Nonprofit Organizations

If the *contractor* is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the *Federal agency,* except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the *contractor;*

(2) The *contractor* will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the *contractor* with respect to subject inventions, after payment of expenses (including payments to inventors) incidential to the administration of subject inventions, will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the *contractor*determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the *contractor* is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the *contractor.* However, the *contractor*agrees that the Secretary may review

the *contractor's* licensing program and decisions regarding small business applicants, and the *contractor* will negotiate changes to its licensing policies, procedures, or practices with the Secretary when the Secretary's review discloses that the *contractor* could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communication

(Complete According to Instructions at 401.5(b))

(b) When the Department of Energy (DOE) determines to use alternative provisions under §401.3(a)(4), the standard clause at §401.14(a), of this section, shall be used with the following modifications unless a substitute clause is drafted by DOE:

(1) The title of the clause shall be changed to read as follows: *Patent Rights to Nonprofit DOE Facility Operators*

(2) Add an “(A)” after “(1)” in paragraph (c)(1) and add subparagraphs (B) and (C) to paragraph (c)(1) as follows:

(B) If the subject invention occurred under activities funded by the naval nuclear propulsion or weapons related programs of*DOE,* then the provisions of this subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). In such cases the contractor agrees to assign the government the entire right, title, and interest thereto throughout the world in and to the subject invention except to the extent that rights are retained by the contractor through a greater rights determination or under paragraph (e), below. The contractor, or an employee-inventor, with authorization of the contractor, may submit a request for greater rights at the time the invention is disclosed or within a reasonable time thereafter. *DOE* will process such a request in accordance with procedures at 37 CFR 401.15. Each determination of greater rights will be subject to paragraphs (h)-(k) of this clause and such additional conditions, if any, deemed to be appropriate by the *Department of Energy.*

(C) At the time an invention is disclosed in accordance with (c)(1)(A) above, or within 90 days thereafter, the contractor will submit a written statement as to whether or not the invention occurred under a naval nuclear propulsion or weapons-related program of the *Department of Energy.* If this statement is not filed within this time, subparagraph (c)(1)(B) will apply in lieu of paragraphs (c)(2) and (3). The contractor statement will be deemed conclusive unless, within 60 days thereafter, the Contracting Officer disagrees in writing, in which case the determination of the Contracting Officer will be deemed conclusive unless the contractor files a claim under the Contract Disputes Act within 60 days after the Contracting Officer's determination. Pending resolution of the matter, the invention will be subject to subparagraph (c)(1)(B).

(3) Paragraph (k)(3) of the clause will be modified as prescribed at §401.5(g).

(c) As prescribed in §401.3, replace (b) of the basic clause with the following paragraphs (1) and (2):

(b) Allocation of principal rights. (1) The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause, including (2) below, and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(2) If the Contractor performs services at a Government owned and operated laboratory or at a Government owned and contractor operated laboratory directed by the Government to fulfill the Government's obligations under a Cooperative Research and Development Agreement (CRADA) authorized by 15 U.S.C. 3710a, the Government may require the Contractor to negotiate an agreement with the CRADA collaborating party or parties regarding the allocation of rights to any subject invention the Contractor makes, solely or jointly, under the CRADA. The agreement shall be negotiated prior to the Contractor undertaking the CRADA work or, with the permission of the Government, upon the identification of a subject invention. In the absence of such an agreement, the Contractor agrees to grant the collaborating party or parties an option for a license in its inventions of the same scope and terms set forth in the CRADA for inventions made by the Government.

[52 FR 8554, Mar. 18, 1987, as amended at 69 FR 17301, Apr. 2, 2004]

Procurement of Recovered Materials

a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.

b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of $10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of $10,000 of the item both under and outside that contract.

Source: form HUD-5370-C

§ 135.38 Section 3 Clause.

All section 3 covered contracts shall include the following clause (referred to as the section 3 clause):

A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

ANNUAL SECTION 3 SUMMARY REPORTING REQUIREMENTS

FOR RECIPIENTS OF HUD COMMUNITY PLANNING & DEVELOPMENT FUNDING

*TECHNICAL ASSISTANCE ON FORM HUD-60002

Why HUD Enforces Section 3?

Each year the U.S. Department of Housing and Urban Development invests billions of federal dollars into distressed communities for projects designed to build and rehabilitate housing, improve roads, develop community centers, and otherwise assist families achieve the American Dream.

The Section 3 regulation recognizes that HUD funding typically results in projects/activities that generate new employment, training and contracting opportunities. These economic opportunities not only provide "bricks and mortar", but can also positively impact the lives of local residents who live in the neighborhoods being redeveloped.

Section 3 of the Housing and Urban Development Act of 1968 [12 U.S.C. 1701u and 24 CFR Part 135] is HUD's legislative directive for providing preference to low- and very low-income residents of the local community (regardless of race or gender), and the businesses that substantially employ these persons, for new employment, training, and contracting opportunities resulting from HUD-funded projects.

Further, as a condition of receiving HUD Community Planning and Development assistance, recipients certify that they will comply with the requirements of Section 3 annually pursuant to 24 CFR 570.607(b). Accordingly, the Department has the legal responsibility to monitor recipients for compliance and can impose penalties upon those that fail to meet these obligations.

Applicability of Section 3 to Community Planning & Development Assistance

The requirements of Section 3 apply to recipients of HUD Community Planning and Development funding exceeding **$200,000**.

Section 3 covered projects are those in which a *combined* (or aggregate) amount of covered funding exceeding $200,000, is invested into activities involving **housing construction, demolition, rehabilitation, or other public construction—i.e., roads, sewers, community centers, etc.** [Example: Section 3 applies to the combined investment of more than $200,000 into multiple single-family housing rehabilitation projects during a program year].

Contractors or subcontractors that receive contracts in excess of **$100,000** for Section 3 covered projects/activities are required to comply with the Section 3 regulations in the same manner as direct recipients.

If the recipient agency receives Section 3 covered funding and invests these funds into covered projects/activities, but no individual contract exceeds $100,000, <u>responsibility for complying with Section 3 only applies to the recipient</u>.

Accordingly, the recipient must attempt to reach the Section 3 minimum numerical goals found at 24 CFR Part 135.30 by: 1) Awarding 10 percent of the total dollar amount of all covered construction contracts to Section 3 businesses; and 2) Offering 30 percent of new employment opportunities to Section 3 businesses.

Section 3 Covered Community Planning and Development funding

- Community Development Block Grants (CDBG)
- Home Investment Partnership Assistance
- Housing Opportunities for Persons with Aids (HOPWA)
- Economic Development Initiative (EDI)
- Brownfield Economic Development Initiative (BEDI)
- Emergency Shelter Grants
- Homeless Assistance
- University Partnership Grants
- Neighborhood Stimulus Program (NSP)
- Certain Grants Awarded Under HUD Notices of Funding Availability (NOFAs)

*NOTE: The requirements of Section 3 only apply to the portion(s) of covered funding that were used for project/activities involving housing construction, rehabilitation, demolition, or other public construction.

Section 3 applies to the **entire** covered project or activity regardless of whether the activity was fully or partially funded with covered assistance.

Section 3 Covered Recipient Agencies

"Recipient" refers to any entity that receives Section 3 covered financial assistance directly from HUD or from another recipient and includes, but is not limited to any of the following:

- States; Units of Local Government; Native American Tribes; or other Public Bodies
- Public or Private Nonprofit Organizations
- Private Agencies or Institutions
- Mortgagors; Developers; Limited Dividend Sponsors; Builders; Property Managers; Community Housing Development Organizations
- Successors, assignees or transferees of any such entity listed above

- Recipients do **NOT** include any ultimate beneficiary under the HUD program that Section 3 applies and does **NOT** refer to contractors.

Triggering the Requirements of Section 3

Section 3 is triggered when the normal completion of construction and rehabilitation projects creates the need for **new** employment, contracting, or training opportunities.

The Section 3 regulations should not be construed to mean that recipients are required to hire Section 3 residents or award contracts to Section 3 businesses other than what is needed to complete covered projects/activities.

If the expenditure of covered funding does not result in new employment, contracting, or training opportunities, the requirements of Section 3 have not been triggered. However, each agency must sill submit Section 3 annual reports indicating this information.

Recipient Responsibilities Pursuant to Section 3

Each recipient (and their covered contractors, subcontractors, or subrecipients) are required to comply with the requirements of Section 3 for ***new*** employment, training, or contracting opportunities resulting from the expenditure of covered funding. This responsibility includes:

1. Implementing procedures to notify Section 3 residents and business concerns about training, employment, and contracting opportunities generated by Section 3 covered assistance;

2. Notifying potential contractors working on Section 3 covered projects of their responsibilities;

3. Incorporating the Section 3 Clause into all covered solicitations and contracts [see 24 CFR Part 135.38];

4. Facilitating the training and employment of Section 3 residents and the award of contracts to Section 3 business concerns;

5. Assisting and actively cooperating with the Department in making contractors and subcontractors comply;

6. Refraining from entering into contracts with contractors that are in violation of Section 3 regulations;

7. Documenting actions taken to comply with Section 3; and

8. Submitting Section 3 Annual Summary Reports (form HUD-60002) in accordance with 24 CFR Part 135.90.

In addition to the responsibilities described above, **State and County agencies or consortia** that distribute covered funds to units of local government, nonprofit organizations, or other subrecipients, must attempt to reach the minimum numerical goals set forth at 24 CFR Part 135.30, regardless of the number of subrecipients that receive covered funding. State or County agencies must also do the following:

1. Inform subrecipients about the requirements of Section 3;

2. Assist subrecipients and their contractors with achieving compliance;

3. Monitor subrecipients' performance with respect to meeting the requirements of Section 3; and

4. Report to HUD on the cumulative Section 3 activities taking place within their jurisdiction on an annual basis.

Section 3 Residents and Business Concerns

Section 3 Residents Are:

1. Residents of Public and Indian Housing; or

2. Individuals that reside in the metropolitan area or nonmetropolitan county in which the Section 3 covered assistance is expended and whose income do not exceed the local HUD income limits set forth for low- or very low-income households.

Section 3 Business Concerns Are One of the Following:

1. Businesses that are 51 percent or more owned by Section 3 residents;

2. Businesses whose permanent, full-time employees include persons, at least 30 percent of whom are currently Section 3 residents, or within three years of the date of first employment with the firm were Section 3 residents; or

3. Businesses that provide evidence of a commitment to subcontract in excess of 25 percent of the dollar amount of all subcontracts to be awarded to businesses that meet the qualifications described above.

In accordance with the regulation, residents and businesses concerns seeking Section 3 preference shall certify, or submit evidence to the recipient, contractor, subcontractor or subrecipient (if requested) verifying that they meet the definitions provided above.

Recipients can use their discretion for determining the type of verification that is required by prospective Section 3 residents and business concerns. Some examples include: proof of residency in a public housing authority; proof of federal subsidies for housing, food stamps, or unemployment benefits; and payroll data or other relevant business information.

Section 3 Summary Reports (Form HUD-60002)

Annually, each direct recipient of Community Planning and Development funding is required to submit form HUD-60002 to HUD's Economic Opportunity Division in Washington, DC. , preferably online from the following website: www.hud.gov/section3.

Due Date: **Form HUD-60002 is due at the same time as annual performance (e.g., CAPERS) reports**

The Section 3 Summary Report shall follow the same program, fiscal, or calendar year as the annual performance report and should correspond to the covered projects and activities that were administered during the reporting period.

NOTE: Section 3 reports must be submitted by all agencies that receive Community Planning and Development funding in excess of $200,000 whether the requirements were triggered or not.

Determining What Should Be Reported on Form HUD-60002

Section 3 Annual Summary Reports are intended to measure each recipient's efforts to comply with the statutory and regulatory requirements of Section 3 in its own operations **AND** those of its covered contractors, subcontractors, and subrecipients. Each submission of form HUD-60002 should indicate the following:

- The total dollar amount of HUD funding that was received by the recipient for covered projects/ activities during the specified reporting period.
- The total number of new employees that were hired by the recipient and/or its covered contractors, subcontractors, and subrecipients, as a result of performing or completing covered project/activities.
- The number of new employees that were hired by the recipient (or its covered contractors, subcontractors, and subrecipients), as a result of covered projects/activities, that met the definition of a Section 3 resident.
- The total number of man hours worked on covered projects (optional).
- The aggregate number of hours worked by Section 3 residents on covered projects (optional).
- The total number of Section 3 residents that participated in training opportunities that were made available by the recipient agency, its contractors, subrecipients, or other local community resource agencies.
- The total dollar amount of construction and/or non-construction contracts (or subcontracts) that were awarded with covered funding.
- The dollar amount of the recipient's construction or non-construction contracts (or subcontracts) that were awarded to Section 3 business concerns.
- Detailed narrative descriptions of the specific actions that were taken by the recipient (or its covered contractors, subcontractors, subrecipients, or others) to comply with the requirements of Section 3 and/or meet the minimum numerical goals for employment and contracting opportunities.

Section 3 Reporting and Compliance Determinations

Absent evidence to the contrary, the Department considers recipients of covered funding to be in compliance with Section 3 if they meet the minimum numerical goals set forth at 24 CFR Part 135.30. Specifically:

a. 30 percent of the aggregate number of new hires shall be Section 3 residents;

b. 10 percent of the total dollar amount of all covered construction contracts shall be awarded to Section 3 business concerns; and

c. 3 percent of the total dollar amount of all covered non-construction contracts shall be awarded to Section 3 business concerns.

Recipients that fail to meet the minimum numerical goals above bear the burden of demonstrating why it was not possible to do so. Such justifications should describe the efforts that were taken, barriers encountered, and other relevant information that will enable the Department to make a compliance determination.

Recipients that submit Section 3 reports containing **all zeros**, without a sufficient explanation to justify their submission, are in **noncompliance** with the requirements of Section 3.

Failure to comply with the requirements of Section 3 may result in sanctions, including: debarment, suspension, or limited denial of participation in HUD programs pursuant to 24 CFR Part 24.

Recipients that are subject to annual A-133 Audits may also receive an audit finding for failure to submit form HUD-60002 to HUD.

Important Notes for Submitting Form HUD-60002

- Recipients must submit a separate form HUD-60002 for each type of covered funding (*e.g.,* separate reports must be submitted for CDBG and HOME funding).

- Use the online Section 3 Summary Reporting System at: www.hud.gov/section3 to ensure that form HUD- 60002 is received by the Economic Opportunity Division in HUD Headquarters in a timely manner.

- The "reporting period" option in the online Section 3 Summary Reporting System (box #7) lists quarters but the Section 3 reporting is an annual requirement. Accordingly, recipients should select **Quarter 4** to document the total amount of covered activities/projects that were completed during the entire reporting period.

- If the recipient (or its covered contractors, subcontractors and subrecipients) did not hire any new employees during the reporting period, and/or if no covered construction or non-construction contracts were awarded, the recipient must indicate this in Part III of form HUD-60002 and certify that this information is true and accurate by penalty of law.

Where Are Reports Submitted

Form HUD-60002 must be submitted to HUD's Economic Opportunity Division, in Washington, DC. Recipients are strongly encouraged to submit form HUD-60002 online at: www.hud.gov/section3.

Recipients can also download a hard copy of form-HUD 60002 from the website listed above. Hard copies shall be submitted via fax or mail to:

U.S. Department of Housing and Urban Development
Attn: Economic Opportunity Division
451 Seventh Street, SW
Room 5235
Washington, DC 20410
202-708-1286 (fax)

Additional Section 3 Guidance and Technical Assistance

The Economic Opportunity Division is committed to providing recipient's guidance and technical assistance for compliance with the requirements of Section 3.

For additional information, please visit the Section 3 website at: www.hud.gov/section3. This webpage provides the following tools and information:

- Section 3 Statute—12 U.S.C. 1701u
- Section 3 Regulation—24 CFR Part 135
- Frequently Asked Questions
- Section 3 Model Programs
- Guidance on Section 3 and Economic Stimulus Funding
- Guidance on Section 3 and the Neighborhood Stimulus Program (NSP)
- Sample Section 3 Certification Forms (residents and business concerns)
- Link to HUD's Local Income Eligibility Calculator
- Link to Section 3 Annual Reporting System(form HUD-60002)
- Downloadable Forms
- Contact Information for Economic Opportunity Division staff
- Email inquiries on Section 3 can be sent to section3@hud.gov

CERTIFICATION OF BIDDER REGARDING SECTION 3 AND SEGREGATED FACILITIES

_____ _____

Name of Prime Contractor Project Name & Number

The undersigned hereby certifies that:

1. Section 3 provisions are included in the Contract.

2. A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds $100,000).

3. No segregated facilities will be maintained.

_____

Name & Title of Signer (Print or Type):

_____

Signature Date

SECTION 3 PLAN CERTIFICATION

_____ agrees to implement the following specific affirmative action
Name of Contractor
directed at increasing the utilization of lowest income residents and businesses with in the City/Town of_____
_____.

A. To ascertain from the locality's CDBG program official the exact boundaries of the Section 3 covered project area and were advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.

B. To attempt to recruit from within the city /town the necessary number of lower income residents through: Local advertising media, sign placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area such as Service Employment and Redevelopment (SER), Opportunities Industrialization Center (OIC), Urban League, Concentrated Employment Program, Hometown Plan, or the U.S. Employment Service.

C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.

D.* To insert this Section 3 plan in all bid documents, and to require all bidders and subcontractors to submit a Section 3 affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.

E.* To insure that subcontracts which are typically let on a negotiated rather than bid basis in areas other than Section 3 covered project areas, are also let on a negotiated basis, whenever feasible, when let in a Section 3 covered project area.

F. To formally contact unions, subcontractors and trade associations to secure their cooperation for this program.

G. To insure that all appropriated project area business concerns are notified of pending subcontractual opportunities.

H. To maintain records, including copies of correspondence, memoranda, etc., which document that all the above affirmative action steps have been taken.

I. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of the Section 3 Plan.

As officers and representatives of _____ we, the undersigned, have read and
(Name of Contractor)
fully agree to this Affirmative Action Plan, and become a party to the full implementation of this program.

Signature	Title	Date
Signature	Title	Date

Section 3 Summary Report

Economic Opportunities for
Low – and Very Low-Income Persons

U.S. Department of Housing
and Urban Development
Office of Fair Housing
And Equal Opportunity

OMB Approval No: 2529-0043
(exp. 11/30/2010)

HUD Field Office:

Section back of page for Public Reporting Burden statement

1. Recipient Name & Address: (street, city, state, zip)	2. Federal Identification: (grant no.)	3. Total Amount of Award:
	4. Contact Person	5. Phone: (Include area code)
	6. Length of Grant:	7. Reporting Period:
8. Date Report Submitted:	9. Program Code: (Use separate sheet for each program code)	10. Program Name:

Part I: Employment and Training (** Columns B, C and F are mandatory fields. Include New Hires in E &F)

A Job Category	B Number of New Hires	C Number of New Hires that are Sec. 3 Residents	D % of Aggregate Number of Staff Hours of New Hires that are Sec. 3 Residents	E % of Total Staff Hours for Section 3 Employees and Trainees	F Number of Section 3 Trainees
Professionals					
Technicians					
Office/Clerical					
Construction by Trade (List) Trade					
Trade					
Trade					
Trade					
Trade					
Other (List)					
Total					

* Program Codes
1 = Flexible Subsidy
2 = Section 202/811
3 = Public/Indian Housing
A = Development,
B = Operation
C = Modernization
4 = Homeless Assistance
5 = HOME
6 = HOME State Administered
7 = CDBG Entitlement
8 = CDBG State Administered
9 = Other CD Programs
10 = Other Housing Programs

form HUD 60002 (6/2001)
Ref 24 CFR 135

Part II: Contracts Awarded

1. Construction Contracts:

A. Total dollar amount of all contracts awarded on the project	$
B. Total dollar amount of contracts awarded to Section 3 businesses	$
C. Percentage of the total dollar amount that was awarded to Section 3 businesses	%
D. Total number of Section 3 businesses receiving contracts	

2. Non-Construction Contracts:

A. Total dollar amount all non-construction contracts awarded on the project/activity	$
B. Total dollar amount of non-construction contracts awarded to Section 3 businesses	$
C. Percentage of the total dollar amount that was awarded to Section 3 businesses	%
D. Total number of Section 3 businesses receiving non-construction contracts	

Part III: Summary

Indicate the efforts made to direct the employment and other economic opportunities generated by HUD financial assistance for housing and community development programs, to the greatest extent feasible, toward low-and very low-income persons, particularly those who are recipients of government assistance for housing. (Check all that apply.)

_____ Attempted to recruit low-income residents through: local advertising media, signs prominently displayed at the project site, contracts with the community organizations and public or private agencies operating within the metropolitan area (or nonmetropolitan county) in which the Section 3 covered program or project is located, or similar methods.

_____ Participated in a HUD program or other program which promotes the training or employment of Section 3 residents.

_____ Participated in a HUD program or other program which promotes the award of contracts to business concerns which meet the definition of Section 3 business concerns.

_____ Coordinated with Youthbuild Programs administered in the metropolitan area in which the Section 3 covered project is located.

_____ Other; describe below.

Public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB number.

Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u, mandates that the Department ensures that employment and other economic opportunities generated by its housing and community development assistance programs are directed toward low- and very-low income persons, particularly those who are recipients of government assistance housing. The regulations are found at 24 CFR Part 135. The information will be used by the Department to monitor program recipients' compliance with Section 3, to assess the results of the Department's efforts to meet the statutory objectives of Section 3, to prepare reports to Congress, and by recipients as self-monitoring tool. The data is entered into a database and will be analyzed and distributed. The collection of information involves recipients receiving Federal financial assistance for housing and community development programs covered by Section 3. The information will be collected annually to assist HUD in meeting its reporting requirements under Section 808(e)(6) of the Fair Housing Act and Section 916 of the HCDA of 1992. An assurance of confidentiality is not applicable to this form. The Privacy Act of 1974 and OMB Circular A-108 are not applicable. The reporting requirements do not contain sensitive questions. Data is cumulative; personal identifying information is not included.

Form HUD-60002, **Section 3 Summary Report, Economic Opportunities for Low- and Very Low-Income Persons.**

Instructions: This form is to be used to report annual accomplishments regarding employment and other economic opportunities provided to low- and very low-income persons under Section 3 of the Housing and Urban Development Act of 1968. The Section 3 regulations apply to any ***public and Indian housing programs*** that receive: (1) development assistance pursuant to Section 5 of the U.S. Housing Act of 1937; (2) operating assistance pursuant to Section 9 of the U.S. Housing Act of 1937; or (3) modernization grants pursuant to Section 14 of the U.S. Housing Act of 1937 and to **recipients of housing and community development assistance in excess of $200,000** expended for: (1) housing rehabilitation (including reduction and abatement of lead-based paint hazards); (2) housing construction; or (3) other public construction projects; and to ***contracts and subcontracts in excess of $100,000*** awarded in connection with the Section-3-covered activity.

Form HUD-60002 has three parts, which are to be completed for all programs covered by Section 3. Part I relates to ***employment and training***. The recipient has the option to determine numerical employment/training goals either on the basis of the number of hours worked by new hires (columns B, D, E and F). Part II of the form relates to ***contracting***, and Part III summarizes recipients' ***efforts*** to comply with Section 3.

Recipients or contractors subject to Section 3 requirements must maintain appropriate documentation to establish that HUD financial assistance for housing and community development programs were directed toward low- and very low-income persons.* A recipient of Section 3 covered assistance shall submit one copy of this report to HUD Headquarters, Office of Fair Housing and Equal Opportunity. Where the program providing assistance requires an annual performance report, this Section 3 report is to be submitted at the same time the program performance report is submitted. Where an annual performance report is not required, this Section 3 report is to be submitted by January 10 and, if the project ends before December 31, within 10 days of project completion. ***Only Prime Recipients are required to report to HUD. The report must include accomplishments of all recipients and their Section 3 covered contractors and subcontractors.***

HUD Field Office: Enter the Field Office name .

1. Recipient: Enter the name and address of the recipient submitting this report.
2. Federal Identification: Enter the number that appears on the award form (with dashes). The award may be a grant, cooperative agreement or contract.
3. Dollar Amount of Award: Enter the dollar amount, rounded to the nearest dollar, received by the recipient.

4 & 5. Contact Person/Phone: Enter the name and telephone number of the person with knowledge of the award and the recipient's implementation of Section 3.

6. Reporting Period: Indicate the time period (months and year) this report covers.
7. Date Report Submitted: Enter the appropriate date.
8. Program Code: Enter the appropriate program code as listed at the bottom of the page.
9. Program Name: Enter the name of HUD Program corresponding with the "Program Code" in number 8.

Part I: Employment and Training Opportunities

Column A: Contains various job categories. Professionals are defined as people who have special knowledge of an occupation (i.e. supervisors, architects, surveyors, planners, and computer programmers). For construction positions, list each trade and provide data in columns B through F for each trade where persons were employed. The category of "Other" includes occupations such as service workers.

Column B: (Mandatory Field) Enter the number of new hires for each category of workers identified in **Column A** in connection with this award. New hire refers to a person who is not on the contractor's or recipient's payroll for employment at the time of selection for the Section 3 covered award or at the time of receipt of Section 3 covered assistance.

Column C: (Mandatory Field) Enter the number of Section 3 new hires for each category of workers identified in **Column A** in connection with this award. Section 3 new hire refers to a Section 3 resident who is not on the contractor's or recipient's payroll for employment at the time of selection for the Section 3 covered award or at the time of receipt of Section 3 covered assistance.

Column D: Enter the percentage of all the staff hours of new hires (Section 3 residents) in connection with this award.

Column E: Enter the percentage of the total staff hours worked for Section 3 employees and trainees (including new hires) connected with this award. Include staff hours for part-time and full-time positions.

Column F: (Mandatory Field) Enter the number of Section 3 residents that were trained in connection with this award.

Part II: Contract Opportunities

Block 1: Construction Contracts

Item A: Enter the total dollar amount of all contracts awarded on the project/program.

Item B: Enter the total dollar amount of contracts connected with this project/program that were awarded to Section 3 businesses.

Item C: Enter the percentage of the total dollar amount of contracts connected with this project/program awarded to Section 3 businesses.

Item D: Enter the number of Section 3 businesses receiving awards.

Block 2: Non-Construction Contracts

Item A: Enter the total dollar amount of all contracts awarded on the project/program.

Item B: Enter the total dollar amount of contracts connected with this project awarded to Section 3 businesses.

Item C: Enter the percentage of the total dollar amount of contracts connected with this project/program awarded to Section 3 businesses.

Item D: Enter the number of Section 3 businesses receiving awards.

Part III: Summary of Efforts – Self -explanatory

Submit one (1) copy of this report to the HUD Headquarters Office of Fair Housing and Equal Opportunity, at the same time the performance report is submitted to the program office. The Section 3 report is submitted by January 10. Include only contracts executed during the period specified in item 8. PHAs/IHAs are to report all contracts/subcontracts.

* The terms "low-income persons" and very low-income persons" have the same meanings given the terms in section 3 (b) (2) of the United States Housing Act of 1937. ***Low-income persons*** mean families (including single persons) whose incomes do not exceed 80 percent of the median income for the area, as determined by the Secretary, with adjustments for smaller and larger families, except that The Secretary may establish income ceilings higher or lower than 80 percent of the median for the area on the basis of the Secretary's findings such that variations are necessary because of prevailing levels of construction costs or unusually high- or low-income families. ***Very low-income persons*** mean low-income families (including single persons) whose incomes do not exceed 50 percent of the median family income area, as determined by the Secretary with adjustments or smaller and larger families, except that the Secretary may establish income ceilings higher or lower than 50 percent of the median for the area on the basis of the Secretary's findings that such variations are necessary because of unusually high or low family incomes.

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section l(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section l(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section l(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at *http://www.dol.gov/esa/whd/forms/wh347instr.htm* or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant ',to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by

the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than $5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds $100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds $100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

CERTIFICATION OF BIDDER

FEDERAL LABOR STANDARDS PROVISIONS- DAVIS BACON ACT AND "RELATED ACTS"

This certification is required to insure that the Bidder understands that the Project or Program to which the construction work covered by any construction greater than $2,000, is being assigned by the United States of America and that the various Federal Labor Standards Provisions, summarized in the form HUD-4010, "Federal Labor Standards Provisions" are included in any such contract, pursuant to the provisions applicable to such Federal assistance.

The Bidder certifies receipt of form HUD-4010, "Federal Labor Standards Provisions", must be included and attached to each and every construction bid document and/or construction contract greater than $2,000, that is subject to the Davis-Bacon Act and "Related Acts."

Wage Determination – The Wage Determination applicable to this project is:

Determination Number:

Modification Number:

Date:

A hard copy of this Determination must be included within these bid specifications.

Wage Determination Posting – Contractors and sub-contractors shall post the prevailing wage rates for each craft and classification in a prominent and easily accessible place at the site of the work, or at such places as are used by them to pay workers.

The undersigned is required to ensure that all specifications and/or contracts include all applicable Federal wage rate determinations and the required labor standards provisions summarized by form **HUD-4010, "Federal Labor Standards Provisions."**

Weekly Certified Payrolls – It is the responsibility of each contractor and sub-contractor to submit weekly certified payrolls for project work (http://www.dol.gov/whd/forms/wh347.pdf**). It is the responsibility of the undersigned (prime contractor) to review payrolls submitted by subcontractors to ensure that there are no discrepancies or underpayments.**

CERTIFICATION BY BIDDER

Name and Address of Bidder (Include ZIP Code):

Name and Title of Signer (Please print or type below:)

_____ _____

Signature Date

EMPLOYEE RIGHTS
UNDER THE DAVIS-BACON ACT

FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

PREVAILING WAGES

You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

OVERTIME

You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

ENFORCEMENT

Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

APPRENTICES

Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

PROPER PAY

If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

or contact the U.S. Department of Labor's Wage and Hour Division.

For additional information:

1-866-4-USWAGE

(1-866-487-9243) TTY: 1-877-889-5627

WWW.WAGEHOUR.DOL.GOV

WHD U.S. Wage and Hour Division

U.S. Department of Labor
Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

U.S. Wage and Hour Division

Rev. Dec. 2008

NAME OF CONTRACTOR OR SUBCONTRACTOR	ADDRESS	OMB No.: 1235-0008 Expires: 02/28/2018

PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION	PROJECT OR CONTRACT NO.

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE / HOURS WORKED EACH DAY							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
			O																	
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

Print Form

Labor Standards Section

Form 6

Wage/Fringe Benefit Certification

(To be completed by contractor/subcontractors prior to contract award.)

GRANTEE: _____ **GRANT:** _____ **PROJECT:** _____

This is to certify that _____ **plans to use the following classifications of workers on the above referenced project:**

From Applicable Wage Decision				Base Wage to be paid by Contractor	Fringe Benefits to be provided by Contractor		Total Package to be paid by **Contractor**
Classification	Base Wage Due	Fringe Benefits Due	Total Package Due		Benefit	Hourly Amount	

Certified by: _____ **Title:** _____ **Date:** _____

(Must be certified by Owner or Chief Financial Officer)

Attach

Applicable Davis Bacon

Wage Determination

HERE

"General Decision Number: RI20200001 08/14/2020

Superseded General Decision Number: RI20190001

State: Rhode Island

Construction Types: Building, Heavy (Heavy and Marine) and Highway

Counties: Rhode Island Statewide.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories) HEAVY, HIGHWAY AND MARINE CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020
2	02/21/2020
3	03/06/2020
4	03/13/2020
5	05/01/2020
6	05/22/2020
7	06/05/2020
8	06/19/2020
9	07/24/2020
10	08/14/2020

ASBE0006-006 12/01/2019

	Rates	Fringes
HAZARDOUS MATERIAL HANDLER (Includes preparation, wetting, stripping, removal scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems).....	$ 36.60	22.40

ASBE0006-008 09/01/2019

	Rates	Fringes
Asbestos Worker/Insulator Includes application of all insulating materials, protective coverings,		

coatings & finishes to all
types of mechanical systems.$ 43.60 29.90

BOIL0029-001 01/01/2017

	Rates	Fringes
BOILERMAKER	$ 42.42	24.92

BRRI0003-001 06/01/2020

	Rates	Fringes
Bricklayer, Stonemason, Pointer, Caulker & Cleaner	$ 42.55	28.02

BRRI0003-002 03/01/2020

	Rates	Fringes
Marble Setter, Terrazzo Worker & Tile Setter	$ 40.78	28.92

BRRI0003-003 03/01/2020

	Rates	Fringes
Marble, Tile & Terrazzo Finisher	$ 34.10	27.88

CARP0330-001 06/05/2020

	Rates	Fringes
CARPENTER (Includes Soft Floor Layer)	$ 39.13	28.60
Diver Tender	$ 40.13	28.60
DIVER	$ 50.73	28.60
Piledriver	$ 39.13	28.60
WELDER	$ 40.13	28.60

FOOTNOTES:

When not diving or tending the diver, the diver and diver tender shall receive the piledriver rate. Diver tenders shall receive $1.00 per hour above the pile driver rate when tending the diver.

Work on free-standing stacks, concrete silos & public utility electrical power houses, which are over 35 ft. in height when constructed: $.50 per hour additional.

Work on exterior concrete shear wall gang forms, 45 ft. or more above ground elevation or on setback: $.50 per hour additional.

The designated piledriver, known as the ""monkey"": $1.00 per hour additional.

CARP1121-002 01/06/2020

	Rates	Fringes
MILLWRIGHT	$ 39.07	29.15

ELEC0099-002 06/01/2020

	Rates	Fringes
ELECTRICIAN	$ 41.61	57.24%
Teledata System Installer	$ 31.21	13.10%+14.93

FOOTNOTES:

Work of a hazardous nature, or where the work height is 30 ft. or more from the floor, except when working OSHA-approved lifts: 20% per hour additional.

Work in tunnels below ground level in combined sewer outfall: 20% per hour additional.

ELEV0039-001 01/01/2020

	Rates	Fringes
ELEVATOR MECHANIC	$ 53.25	34.765+a+b

FOOTNOTES:

A. PAID HOLIDAYS: New Years Day; Memorial Day; Independence Day; Labor Day; Veterans' Day; Thanksgiving Day; the Friday after Thanksgiving Day; and Christmas Day.

B. Employer contributes 8% basic hourly rate for 5 years or more of service of 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

ENGI0057-001 06/01/2020

	Rates	Fringes
Operating Engineer: (power plants, sewer treatment plants, pumping stations, tunnels, caissons, piers, docks, bridges, wind turbines, subterranean & other marine and heavy construction work)		
GROUP 1	$ 42.55	26.95+a
GROUP 2	$ 40.55	26.95+a
GROUP 3	$ 36.17	26.95+a
GROUP 4	$ 33.32	26.95+a
GROUP 5	$ 39.60	26.95+a
GROUP 6	$ 30.40	26.95+a
GROUP 7	$ 24.40	26.95+a
GROUP 8	$ 36.25	26.95+a
GROUP 9	$ 40.17	26.95+a

a. BOOM LENGTHS, INCLUDING JIBS:

150 feet and over + $ 2.00
180 feet and over + $ 3.00
210 feet and over + $ 4.00
240 feet and over + $ 5.00
270 feet and over + $ 7.00
300 feet and over + $ 8.00
350 feet and over + $ 9.00
400 feet and over + $10.00

a. PAID HOLIDAYS:
New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTES:
Hazmat work: $2.00 per hour additional.
Tunnel/Shaft work: $5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks

GROUP 2: Digging machine, Ross Carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, graders, front end loader (3 yds. and over), vibratory hammer & vacuum truck, roadheaders, forklifts, economobile type equipment, tunnel boring machines, concrete pump and on site concrete plants.

GROUP 3: Oilers on cranes.

GROUP 4: Oiler on crawler backhoe.

GROUP 5: Bulldozer, bobcats, skid steer loader, tractor, scraper, combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile-powered sweeper (3-yd. capacity), 8-ft. sweeper minimum 65 HP).

GROUP 6: Well-point installation crew.

GROUP 7: Utility Engineers and Signal Persons

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator and light plant, gas and electric driven pump and air compressor.

GROUP 9: Boat & tug operator.

ENGI0057-002 05/01/2020

	Rates	Fringes
Power Equipment Operator (highway construction projects; water and sewerline projects which are incidental to highway construction projects; and bridge projects that do not span water)		
GROUP 1	$ 35.70	26.95+a
GROUP 2	$ 30.40	26.95+a
GROUP 3	$ 24.40	26.95+a
GROUP 4	$ 30.98	26.95+a
GROUP 5	$ 34.68	26.95+a
GROUP 6	$ 34.30	26.95+a
GROUP 7	$ 29.95	26.95+a
GROUP 8	$ 31.33	26.95+a
GROUP 9	$ 33.28	26.95+a

a. FOOTNOTE: a. Any employee who works three days in the week in which a holiday falls shall be paid for the holiday.

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Digging machine, crane, piledriver, lighter, locomotive, derrick, hoist, boom truck, John Henry's, directional drilling machine, cold planer, reclaimer, paver, spreader, grader, front end loader (3 yds. and over), vacuum truck, test boring machine operator, veemere saw, water blaster, hydro-demolition robot, forklift, economobile, Ross Carrier, concrete pump operator and boats

GROUP 2: Well point installation crew

GROUP 3: Utlity engineers and signal persons

GROUP 4: Oiler on cranes

GROUP 5: Combination loader backhoe, front end loader (less than 3 yds.), forklift, bulldozers & scrapers and boats

GROUP 6: Roller,skid steer loaders, street sweeper

GROUP 7: Gas and electric drive heater, concrete mixer, light plant, welding machine, pump & compressor

GROUP 8: Stone crusher

GROUP 9: Mechanic & welder

ENGI0057-003 06/01/2020

BUILDING CONSTRUCTION

	Rates	Fringes
Power Equipment Operator		
GROUP 1	$ 41.82	26.95+a
GROUP 2	$ 39.82	26.95+a
GROUP 3	$ 39.60	26.95+a
GROUP 4	$ 35.60	26.95+a
GROUP 5	$ 32.75	26.95+a
GROUP 6	$ 38.90	26.95+a
GROUP 7	$ 38.47	26.95+a
GROUP 8	$ 35.79	26.95+a

a.BOOM LENTHS, INCLUDING JIBS:

150 ft. and over: + $ 2.00
180 ft. and over: + $ 3.00
210 ft. and over: + $ 4.00
240 ft. and over: + $ 5.00
270 ft. and over: + $ 7.00
300 ft. and over: + $ 8.00
350 ft. and over: + $ 9.00
400 ft. and over: + $10.00

a. PAID HOLIDAYS: New Year's Day, President's Day, Memorial Day, July Fourth, Victory Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day & Christmas Day. a: Any employee who works 3 days in the week in which a holiday falls shall be paid for the holiday.

a. FOOTNOTE: Hazmat work: $2.00 per hour additional.
Tunnel/Shaft work: $5.00 per hour additional.

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, lighters, boom trucks and derricks.

GROUP 2: Digging machine, Ross carrier, locomotive, hoist, elevator, bidwell-type machine, shot & water blasting machine, paver, spreader, front end loader (3 yds. and over), vibratory hammer and vacuum truck

GROUP 3: Telehandler equipment, forklift, concrete pump & on-site concrete plant

GROUP 4: Fireman & oiler on cranes

GROUP 5: Oiler on crawler backhoe

GROUP 6: Bulldozer,skid steer loaders,bobcats, tractor, grader, scraper,combination loader backhoe, roller, front end loader (less than 3 yds.), street and mobile powered sweeper (3 yds. capacity), 8-ft. sweeper (minimum 65 hp)

GROUP 7: Well point installation crew

GROUP 8: Heater, concrete mixer, stone crusher, welding machine, generator for light plant, gas and electric driven pump & air compressor

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IRON0037-001 09/16/2019

	Rates	Fringes
IRONWORKER	$ 36.27	28.98

LABO0271-001 06/02/2019

BUILDING CONSTRUCTION

	Rates	Fringes
LABORER		
GROUP 1	$ 31.80	25.05

GROUP 2	$ 32.05	25.05
GROUP 3	$ 32.55	25.05
GROUP 4	$ 32.80	25.05
GROUP 5	$ 33.80	25.05

LABORERS CLASSIFICATIONS

GROUP 1: Laborer, Carpenter Tender, Mason Tender, Cement Finisher Tender, Scaffold Erector, Wrecking Laborer, Asbestos Removal [Non-Mechanical Systems]

GROUP 2: Asphalt Raker, Adzemen, Pipe Trench Bracer, Demolition Burner, Chain Saw Operator, Fence & Guard Rail Erector, Setter of Metal Forms for Roadways, Mortar Mixer, Pipelayer, Riprap & Dry Stonewall Builder, Highway Stone Spreader, Pneumatic Tool Operator, Wagon Drill Operator, Tree Trimmer, Barco-Type Jumping Tamper, Mechanical Grinder Operator

GROUP 3: Pre-Cast Floor & Roof Plank Erectors

GROUP 4: Air Track Operator, Hydraulic & Similar Self-Powered Drill, Block Paver, Rammer, Curb Setter, Powderman & Blaster

GROUP 5: Toxic Waste Remover

LABO0271-002 06/02/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
LABORER		
COMPRESSED AIR		
Group 1	$ 49.23	23.50
Group 2	$ 38.75	23.50
Group 3	$ 51.23	23.50
FREE AIR		
Group 1	$ 41.30	23.50
Group 2	$ 38.75	23.50
Group 3	$ 43.30	23.50
LABORER		
Group 1	$ 31.80	23.05
Group 2	$ 32.05	23.05
Group 3	$ 32.80	23.05
Group 4	$ 25.30	23.05
Group 5	$ 33.80	23.05
OPEN AIR CAISSON, UNDERPINNING WORK AND BORING CREW		
Bottom Man	$ 37.80	23.05
Top Man & Laborer	$ 36.85	23.05
TEST BORING		
Driller	$ 38.25	23.05
Laborer	$ 36.85	23.05

LABORER CLASSIFICATIONS

GROUP 1: Laborer; Carpenter tender; Cement finisher tender; Wrecking laborer; Asbestos removers [non-mechanical systems]; Plant laborer; Driller in quarries

GROUP 2: Adzeperson; Asphalt raker; Barcotype jumping tamper; Chain saw operators; Concrete and power buggy operator; Concrete saw operator; Demolition burner; Fence and guard rail erector; Highway stone spreader; Laser beam operator; Mechanical grinder operator; Mason tender; Mortar mixer; Pneumatic tool operator; Riprap and dry stonewall builder; Scaffold erector; Setter of metal forms for roadways; Wagon drill operator; Wood chipper operator; Pipelayer; Pipe trench bracer

GROUP 3: Air track drill operator; Hydraulic and similar powered drills; Brick paver; Block paver; Rammer and curb setter; Powderperson and blaster

GROUP 4: Flagger & signaler

GROUP 5: Toxic waste remover

LABORER - COMPRESSED AIR CLASSIFICATIONS

GROUP 1: Mucking machine operator, tunnel laborer, brake person, track person, miner, grout person, lock tender, gauge tender, miner: motor person & all others in compressed air

GROUP 2: Change house attendant, powder watchperson, top person on iron

GROUP 3: Hazardous waste work within the ""HOT"" zone

LABORER - FREE AIR CLASSIFICATIONS

GROUP 1: Grout person - pumps, brake person, track person, form mover & stripper (wood & steel), shaft laborer, laborer topside, outside motorperson, miner, conveyor operator, miner welder, heading motorperson, erecting operator, mucking machine operator, nozzle person, rodperson, safety miner, shaft & tunnel, steel & rodperson, mole nipper, concrete worker, form erector (wood, steel and all accessories), cement finisher (this type of work only), top signal person, bottom person (when heading is 50' from shaft), burner, shield operator and TBM operator

GROUP 2: Change house attendant, powder watchperson

GROUP 3: Hazardous waste work within the ""HOT"" zone

PAIN0011-005 06/01/2020

	Rates	Fringes
PAINTER		
Brush and Roller	$ 35.62	22.55
Epoxy, Tanks, Towers, Swing Stage & Structural Steel	$ 37.62	22.55
Spray, Sand & Water Blasting	$ 38.62	22.55
Taper	$ 36.37	22.55
Wall Coverer	$ 36.12	22.55

PAIN0011-006 06/01/2020

	Rates	Fringes
GLAZIER	$ 39.18	22.55

FOOTNOTES:

SWING STAGE: $1.00 per hour additional.

PAID HOLIDAYS: Labor Day & Christmas Day.

PAIN0011-011 06/01/2020

	Rates	Fringes
Painter (Bridge Work)	$ 52.25	22.55

PAIN0035-008 06/01/2011

	Rates	Fringes
Sign Painter	$ 24.79	13.72

PLAS0040-001 06/03/2019

BUILDING CONSTRUCTION

	Rates	Fringes

CEMENT MASON/CONCRETE FINISHER...$ 36.00 27.15

FOOTNOTE: Cement Mason: Work on free swinging scaffolds under 3 planks width and which is 20 or more feet above ground and any offset structure: $.30 per hour additional.

PLAS0040-002 07/01/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	$ 32.85	22.20

PLAS0040-003 07/01/2019

	Rates	Fringes
PLASTERER.....	$ 37.55	27.50

PLUM0051-002 03/02/2020

	Rates	Fringes
Plumbers and Pipefitters.....	$ 43.69	30.05

ROOF0033-004 06/01/2020

	Rates	Fringes
ROOFER.....	$ 39.15	27.31

SFRI0669-001 01/02/2020

	Rates	Fringes
SPRINKLER FITTER.....	$ 45.67	24.74

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* SHEE0017-002 07/01/2020

	Rates	Fringes
Sheet Metal Worker.....	$ 38.29	36.72

TEAM0251-001 05/01/2019

HEAVY AND HIGHWAY CONSTRUCTION

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....	$ 27.96	26.8525+A+B+C
GROUP 2.....	$ 27.61	26.8525+A+B+C
GROUP 3.....	$ 27.66	26.8525+A+B+C
GROUP 4.....	$ 27.71	26.8525+A+B+C
GROUP 5.....	$ 27.81	26.8525+A+B+C
GROUP 6.....	$ 28.21	26.8525+A+B+C
GROUP 7.....	$ 28.41	26.8525+A+B+C
GROUP 8.....	$ 27.91	26.8525+A+B+C
GROUP 9.....	$ 28.16	26.8525+A+B+C
GROUP 10.....	$ 27.96	26.8525+A+B+C

FOOTNOTES:

A. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, plus Presidents' Day, Columbus Day, Veteran's Day & V-J Day, providing the employee has worked at least one day in the calendar week in which the holiday falls.

B. Employee who has been on the payroll for 1 year or more but less than 5 years and has worked 150 Days during the last year of employment shall receive 1 week's paid vacation; 5 to 10 years - 2 weeks' paid vacation; 10 or more years - 3 week's paid vacation.

C. Employees on the seniority list shall be paid a one hundred dollar ($100.00) bonus for every four hundred (400) hours worked, up to a maximum of five hundred dollars ($500.00)

All drivers working on a defined hazard material job site shall be paid a premium of $2.00 per hour over applicable rate.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up trucks, station wagons, & panel trucks

GROUP 2: Two-axle on low beds

GROUP 3: Two-axle dump truck

GROUP 4: Three-axle dump truck

GROUP 5: Four- and five-axle equipment

GROUP 6: Low-bed or boom trailer.

GROUP 7: Trailers when used on a double hook up (pulling 2 trailers)

GROUP 8: Special earth-moving equipment, under 35 tons

GROUP 9: Special earth-moving equipment, 35 tons or over

GROUP 10: Tractor trailer

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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 clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed

in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal

process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

220-RICR-80-10-2

TITLE 220 – DEPARTMENT OF ADMINISTRATION

CHAPTER 80 – DIVERSITY, EQUITY AND OPPORTUNITY

SUBCHAPTER 10 – MINORITY BUSINESS ENTERPRISE

PART 2 – Regulations Governing Participation by Small Business Enterprises in State Purchase of Goods and Services and in Public Works Projects

2.1 Authority

The Regulations published herein have been approved and established by the Director of Administration pursuant to R.I. Gen. Laws §§ 37-14.1-6, 37-14.1-7, and 37-2.2-3.1 and have been promulgated by the Department of Administration in accordance with the "Administrative Procedures Act", R.I. Gen. Laws Chapter 42-35.

2.2 Purpose

To support the fullest possible participation of businesses owned and controlled by individuals who are minorities, individuals who are women, and individuals with disabilities in State public works projects and in State purchases of goods and services.

2.3 Scope

All State Agencies as defined herein shall comply with these Regulations; provided, however, that pursuant to R.I. Gen. Laws §§ 37-14.1-7 and 37-14.1-8 the Director of the Department of Transportation has received delegated authority to adopt regulations consistent with R.I. Gen. Laws Chapter 37-14.1 thereby exempting the Department of Transportation from the requirements of these Regulations.

2.4 Waivers

The Director of Administration may waive strict application of these Regulations when it has been determined in writing that the Proposer or Bidder must satisfy requirements of federal law which achieve the goals and purpose of these Regulations. The Director must provide written notice of any waiver to the ODEO and the Governor's Commission on Disabilities. All such notices shall be available for public inspection.

2.5 Severability

If any part or provision of these Regulations or the application of any part or provision to any person, entity, or circumstances is judged invalid by any court of competent jurisdiction, the judgment shall be confined in its operation to the part of or provision of or application directly involved in the controversy in which the judgment has been rendered and shall not affect or impair the validity of the remainder of these Regulations or it applications to other persons, entities, or circumstances.

2.6 Definitions

A. The following words and terms shall have the following meanings whenever used in these Regulations.

1. "Aggregate Utilization Rate" means the overall percentage goal of the State's total dollar value of procurement contracts and public works projects being made directly or indirectly to MBEs/WBEs.

2. "Associate Director of ODEO" means the head of the ODEO as established by R.I. Gen. Laws § 42-11-2.7(b).

3. "Bidder" means any individual, organization, corporation, partnership, sole proprietorship, joint stock company, joint venture, or any other legal entity through which business is conducted that is submitting a quote or bid in response to a solicitation issued by the Division of Purchases or any other State Agency.

4. "Disability Business Enterprise" means a small business concern that is owned and controlled by one or more individuals with disabilities as defined by R.I. Gen. Laws § 37-2.2-2. To be recognized under these Regulations as a Disability Business Enterprise, the business must be certified as a Disability Business Enterprise by the Governor's Commission on Disabilities.

5. "Director" means the Director of the Department of Administration. The Director may delegate his or her duties under these Regulations to a designee provided that the issuance of any waivers from or amendments to these Regulations must be approved in writing by the Director.

6. "Division" means the Department of Administration's Division of Purchases. If the solicitation is not issued by the Division of Purchases, then Division shall mean the division or department within the State Agency that is issuing the solicitation.

7. "ISBE" means a small business enterprise that is owned and controlled by one or more individuals who are women or minorities as defined by R.I.

Gen. Laws § 37-14.1-3 or a small business enterprise that is owned and controlled by one or more individuals with disabilities as defined by R.I. Gen. Laws § 37-2.2-2. To be recognized under these Regulations as an ISBE, the business must be certified as either:

a. an MBE by the ODEO;

b. a WBE by the ODEO; or

c. a Disability Business Enterprise by the Governor's Commission on Disabilities

8. "ISBE Participation Rate" means the ratio of the amount of work performed in connection with a State procurement contract or public works project by ISBEs to the amount of work performed by all contractors and subcontractors.

9. "MBE/WBE Compliance Plan" is a Bidder's plan to achieve the Aggregate Utilization Rate in connection with a State procurement contract or public works project.

10. "MBE/WBE Coordinator" means a State Agency's MBE coordinator as defined by R.I. Gen. Laws § 37-14.1-3(g). The MBE/WBE Coordinator is to have overall responsibility for promotion of MBEs and WBEs within his or her department.

11 "MBECO" means the Minority Business Enterprise Compliance Office within the ODEO.

12. "Minority Business Enterprise" or "MBE" means a small business enterprise that is owned and controlled by one or more individuals who are minorities as defined by R.I. Gen. Laws § 37-14.1-3. To be recognized under these Regulations as an MBE, the business must be certified as an MBE by the ODEO.

13. "ODEO" means the Office of Diversity, Equity and Opportunity that has been established as a division with the Department of Administration pursuant to R.I. Gen. Laws § 42-11-2.7.

14. "Proposer" means any individual, organization, corporation, partnership, sole proprietorship, joint stock company, joint venture, or any other legal entity through which business is conducted that is submitting a proposal in response to a solicitation issued by the Division of Purchases or any other State agency.

15. "Regulations" means the regulations published herein which are entitled Regulations Governing Participation by ISBEs in State Purchases of Goods and Services and Public Works Projects.

16. “Request for Proposals” or “RFP” means a solicitation for competitive offers where lowest price is not the sole or primary consideration to be used in determining an award or any other solicitation that is identified and classified by the Division as a request for proposals.

17. “Request for Quotes” or “RFQ” means a solicitation for competitive offers where lowest price is the sole or primary consideration to be used in determining an award or any other solicitation that is identified and classified by the Division as a request for quotes.

18. “State” means the state of Rhode Island and any of its departments or agencies and public agencies.

19. “State Agency” includes any state department, board, bureau, agency, or public agency as defined by R.I. Gen. Laws § 37-2-7(16).

20. “Sub Goal” means a percentage goal of the total dollar value of a State procurement contract or public works project being made directly or indirectly to a subcategory of MBEs/WBEs.

21. “Using Agency” means any state government entity which utilizes any supplies, services, or construction purchased under R.I. Gen. Laws Chapter 37-2.

22. “Woman Business Enterprise” or “WBE” means a small business enterprise that is owned and controlled by one or more individuals who are women as defined by R.I. Gen. Laws § 37-14.1-3. To be recognized under these Regulations as a WBE, the business must be certified as a WBE by the ODEO.

2.7 Request for Proposals

A. This section applies whenever the Division or a State Agency seeks to procure goods, services, and/or public works projects through the issuance of an RFP.

B. ISBE Participation Criterion

1. Criterion. All RFP solicitations for goods, services, and/or public works projects must include a criterion for ISBE participation.

2. Weight. The standard weight for the ISBE participation criteria shall be 6 points out of a total of 106 evaluation points available to the Proposers.

3. Periodic Review. The ODEO shall periodically review the standard weight for the ISBE participation criterion.

C. Calculation of ISBE Participation Rate

1. ISBE Participation Rate for Proposer That Is Not an ISBE. The ISBE Participation Rate for a Proposer that is not an ISBE shall be expressed as a percentage and shall be calculated by dividing the Proposer's total contract price that is subcontracted to ISBEs for work performed by ISBEs by the Proposer's total contract price. For example if the Proposer's total contract price is $100,000.00 and it subcontracts a total of $12,000.00 to ISBEs, the Proposer's ISBE Participation Rate would be 12%. In the event an RFP does not request a total contract price, the ISBE Participation Rate for a Proposer that is not an ISBE shall be expressed as a percentage and shall be determined as specified by the RFP.

2. ISBE Participation Rate for Proposer That Is an ISBE. The ISBE Participation Rate for a Proposer that is an ISBE shall be expressed as a percentage and shall be calculated by dividing the sum of the Proposer's total contract price that is subcontracted to ISBEs for work performed by ISBEs and the Proposer's total contract price that is performed by the Proposer itself by the Proposer's total contract price. For example if the Proposer's total contract price is $100,000.00 and it subcontracts a total of $12,000.00 to ISBEs and will perform a total of $8,000.00 of the work itself as an ISBE, the Proposer's ISBE Participation Rate would be 20%. In the event an RFP does not request a total contract price, the ISBE Participation Rate for a Proposer that is an ISBE shall be expressed as a percentage and shall be determined as specified by the RFP.

D. MBE/WBE Coordinator. For each RFP issued, the Using Agency shall designate an MBE/WBE Coordinator no later than the time the RFP is issued. For each RFP assigned to him or her, the MBE/WBE Coordinator shall be responsible for compliance oversight and tracking and recordkeeping all data and information that is required to be reported by each State Agency under § 2.11 of this Part.

E. Proposer's Responsibilities

1. Proposal of ISBE Participation Rate. Unless otherwise indicated in the RFP, a Proposer must submit its proposed ISBE Participation Rate in a sealed envelope or via sealed electronic submission at the time it submits its proposed total contract price. The Proposer shall be responsible for completing and submitting all standard forms adopted pursuant to § 2.9 of this Part and submitting all substantiating documentation as reasonably requested by either the Using Agency's MBE/WBE Coordinator, Division, ODEO, or Governor's Commission on Disabilities including but not limited to the names and contact information of all proposed subcontractors and the dollar amounts that correspond with each proposed subcontract.

2. Failure to Submit ISBE Participation Rate. Any Proposer that fails to submit a proposed ISBE Participation Rate or any requested substantiating documentation in a timely manner shall receive zero (0) ISBE participation points.

3. Execution of Proposed ISBE Participation Rate. Proposers shall be evaluated and scored based on the amounts and rates submitted in their proposals. If awarded the contract, Proposers shall be required to achieve their proposed ISBE Participation Rates. During the life of the contract, the Proposer shall be responsible for submitting all substantiating documentation as reasonably requested by the Using Agency's MBE/WBE Coordinator, Division, ODEO, or Governor's Commission on Disabilities including but not limited to copies of purchase orders, subcontracts, and cancelled checks.

4. Change Orders. If during the life of the contract, a change order is issued by the Division, the Proposer shall notify the ODEO of the change as soon as reasonably possible. Proposers are required to achieve their proposed ISBE Participation Rates on any change order amounts.

5. Notice of Change to Proposed ISBE Participation Rate. If during the life of the contract, the Proposer becomes aware that it will be unable to achieve its proposed ISBE Participation Rate, it must notify the Division and ODEO as soon as reasonably possible. The Division, in consultation with ODEO and Governor's Commission on Disabilities, and the Proposer may agree to a modified ISBE Participation Rate provided that the change in circumstances was beyond the control of the Proposer or the direct result of an unanticipated reduction in the overall total project cost.

F. Awarding ISBE Participation Points

1. Technical Viability. A Proposer's proposed ISBE participation shall only be considered when the Proposer's proposed price is considered. A Proposer that does not have its proposed price considered because it failed to attain the requisite minimum technical score or otherwise failed to meet all technical requirements shall not have its proposed ISBE participation considered.

2. Points for ISBE Participation Rate. The Proposer with the highest ISBE Participation Rate shall receive the maximum ISBE participation points. All other Proposers shall receive ISBE participation points by applying the following formula:

The Proposer's ISBE Participation Rate

÷

The highest ISBE Participation Rate

X

The maximum ISBE participation points

a. For example, assuming the weight given by the RFP to ISBE participation is 6 points, if Proposer A has the highest ISBE Participation Rate at 20% and Proposer B's ISBE Participation Rate is 12%, Proposer A will receive the maximum 6 points and Proposer B will receive (12% ÷ 20%) x 6 which equals 3.6 points.

G. Compliance. A Proposer that achieves its contractual proposed ISBE Participation Rate shall be deemed to be in compliance with R.I. Gen. Laws Chapters 37-14.1 and 37-2.2. A Proposer that fails to achieve its contractual proposed ISBE Participation Rate, refuses to submit a proposed ISBE Participation Rate, or otherwise fails to comply with these Regulations shall be in non-compliance with R.I. Gen. Laws Chapters 37-14.1 and 37-2.2 and shall be subject to the sanctions as prescribed in R.I. Gen. Laws § 37-14.1-8.

2.8 Request for Quotes

A. This section applies whenever the Division or a State Agency seeks to procure goods, services, and/or public works projects through the issuance of an RFQ.

B. Aggregate Utilization Rate. The Aggregate Utilization Rate is ten percent (10%) provided that, in the event the percentage set forth by R.I. Gen. Laws § 37-14.1-6 is amended, the Aggregate Utilization Rate herein shall also be amended so that it always reflects the percentage set forth by R.I. Gen. Laws § 37-14.1-6.

C. Sub Goals. With the approval of the Director, the ODEO may establish Sub Goals. Sub Goals shall not be approved unless the ODEO demonstrates that the Sub Goals are consistent with underutilization data received through a disparity study and/or pertinent analytic data derived from the recordkeeping of State Agencies.

D. State Agency Responsibilities

1. MBE/WBE Coordinator. For each RFQ issued, the Using Agency shall designate an MBE/WBE Coordinator no later than the time the RFQ is issued. For each RFQ assigned to him or her, the MBE/WBE Coordinator shall be responsible for compliance oversight and tracking and recordkeeping all data and information that is required to be reported by each State Agency under § 2.11 of this Part.

2. Agency Procedures. Each State Agency shall attempt to achieve the Aggregate Utilization Rate by applying one of the two methods as described in §§ 2.8(D)(3) and (4) of this Part.

3. Prime Contractor Method. For each procurement where Bidders will be serving as a prime contractor, the Using Agency shall ensure that it tries to achieve, at a minimum, the Aggregate Utilization Rate. The Using Agency shall ensure that the Bidder either meets or exceeds this requirement or has been granted a good faith waiver.

4. No Prime Contractors. In lieu of using the prime contractor method described in § 2.8(D)(3) of this Part above, the Using Agency may meet the Aggregate Utilization Rate by ensuring that the rate is met in the aggregate for each fiscal year. MBEs/WBEs may be solicited directly to accomplish this requirement.

5. Compliance with Sub Goals. In the event Sub Goals are established by the ODEO, State Agencies must track all data and keep records relating to the established Sub Goals.

E. Bidder Responsibilities

1. Acknowledgement. A Bidder shall include with its bid or quote, a statement acknowledging the provisions of R.I. Gen. Laws Chapter 37-14.1 and its obligation to meet the Aggregate Utilization Rate. Satisfying this requirement means that a minimum of the Aggregate Utilization Rate of the total dollar value of work to be performed in relation to the procurement will be performed by certified MBEs/WBEs. If a Bidder is an MBE/WBE, it may satisfy this requirement by performing a minimum of the Aggregate Utilization Rate of the total dollar value of work itself.

2. Submission of MBE/WBE Compliance Plan. Bidders must submit an MBE/WBE Compliance Plan to the Division. The MBE/WBE Compliance Plan shall identify each MBE/WBE name, each subcontract dollar amount and type, and each subcontract that the Bidder projects will be awarded to MBEs/WBEs over the period of the project. Unless otherwise indicated in the solicitation, the Bidder must submit this MBE/WBE Compliance Plan within five business days of receipt of a tentative award issued by the Division.

3. MBE/WBE Liaison Officer. The chief executive officer of each Bidder shall designate an MBE/WBE liaison officer who shall be responsible for coordinating with the ODEO, Division and the Using Agency through the life of the contract.

F. Approval or Disapproval of MBE/WBE Plan

1. Review. The MBECO shall review MBE/WBE Compliance Plans. Any MBE/WBE Compliance Plan that reasonably ensures compliance with the Aggregate Utilization Rate requirement shall be approved.

2. Impossibility of Compliance. Where the Bidder has proved that for reasons beyond its control, compliance with the Aggregate Utilization Rate requirement is impossible, the MBECO may approve an MBE/WBE Compliance Plan that ensures compliance with an MBE/WBE utilization rate of less than the Aggregate Utilization Rate. To prove impossibility of compliance, the Bidder must demonstrate the following:

   a. The Bidder is making all appropriate good faith efforts as listed in § 2.8(G)(4) of this Part to increase MBE/WBE participation to the Aggregate Utilization Rate level.

   b. Despite the Bidder's efforts, the Bidder's MBE/WBE Compliance Plan represents a reasonable exception to the Aggregate Utilization Rate due to valid reasons such as the lack of availability and/or willingness of qualified MBEs/WBEs to work on the contract.

3. Revised Plan. If the MBECO does not approve the MBE/WBE Compliance Plan that the Bidder has initially submitted, the Bidder, after consulting with the MBECO, shall present a revised plan to the MBECO for review.

4 Reconsideration. Within five business days of having its MBE/WBE Compliance Plan denied by the MBECO, the Bidder may appeal to the Associate Director of ODEO for reconsideration. All appeals must be in writing and addressed to the Associate Director of ODEO, One Capitol Hill, 3rd Floor, Providence, RI 02908. A written reconsideration decision will be issued by the Associate Director of ODEO within thirty (30) business days of receipt provided that the Associate Director of ODEO may extend such time upon good cause.

5. Failure to Have an Approved Plan. A Bidder's failure to have an approved MBE/WBE Compliance Plan constitutes non-compliance with the provisions of R.I. Gen. Laws Chapter 37-14.1.

G. Continuing Disclosure

1. On-Site Inspections. The Division, ODEO and the Using Agency's MBE/WBE Coordinator are permitted to periodically conduct on-site inspections to determine compliance with the provisions of R.I. Gen. Laws Chapter 37-14.1 and § 2.8 of this Part. The Division, ODEO, or the Using Agency's MBE/WBE Coordinator may require a Bidder to furnish copies of purchase orders, subcontracts, cancelled checks, and other records needed to substantiate a Bidder's compliance with its approved MBE/WBE Compliance Plan.

2. Change Orders. If during the life of the contract or project, a change order is issued by the Division, the Proposer shall notify the ODEO of the change as soon as reasonably possible. Proposers must submit to the

ODEO a revised MBE/WBE Compliance Plan consistent with achieving the Aggregate Utilization Rate on any change order amounts.

3. Notice of Failure. If a Bidder fails to meet the requirements outlined in its approved MBE/WBE Compliance Plan, it shall explain to the Division, in writing, why the requirements could not be met and why meeting the requirement was beyond the Bidder's control.

4. Good Faith Waivers. The Division in consultation with the ODEO may issue a good faith waiver which shall exempt the Bidder from meeting its MBE/WBE requirements. To determine whether a Bidder has a good faith reason for failing to meet its requirements, the Division may consider, among other factors:

   a. Whether the Bidder attended any pre-solicitation or pre-bid meetings that were scheduled by the Division to inform MBEs/WBEs of contracting or subcontracting opportunities;

   b. Whether the Bidder advertised in general circulation, trade association, and minority focus media concerning the subcontracting opportunities;

   c. Whether the Bidder provided written notice to a reasonable number of specific MBEs/WBEs that their interest in a contract was being solicited, in sufficient time to allow the MBEs/WBEs to participate;

   d. Whether the Bidder followed up with MBEs/WBEs that showed an initial interest by contacting the firms to determine whether they were interested;

   e. Whether the Bidder selected portions of work to be performed by MBEs/WBEs in order to increase the likelihood of meeting MBE/WBE participation requirements (including, where appropriate, breaking down contracts into economically feasible units to facilitate MBE/WBE participation);

   f. Whether the Bidder provided interested MBEs/WBEs with adequate information about the plans, specifications and requirements of the contract;

   g. Whether the Bidder negotiated in good faith with interested MBEs/WBEs;

   h. Whether the Bidder made suggestions to interested MBEs/WBEs to assist them in obtaining bonding, lines of credit, or insurance required by the Bidder;

i. Whether the Bidder effectively used the services of available minority community organizations, minority contractors' groups, local, state, and federal minority business assistance offices; and other organizations that provide assistance in the recruitment and placement of MBEs/WBEs.

5. Remedial Action. If the Bidder does not make such an explanation, or if the Division determines that the Bidder's explanation does not justify its failure to meet the requirements in its approved MBE/WBE Compliance Plan, the Division may direct the Bidder to take appropriate remedial action. Failure to take remedial action directed by the Division constitutes non-compliance with the provisions of R.I. Gen. Laws Chapter 37-14.1 and the Bidder shall be subject to the sanctions as prescribed in R.I. Gen. Laws § 37-14.1-8.

H. Concurrent Compliance with Federal Law. The Aggregate Utilization Rate requirements set forth in § 2.8 of this Part can be satisfied concurrently with similar requirements mandated under federal law.

I. Exceeding Lowest Bid by Five Percent. Nothing in § 2.8 of this Part shall be construed to require the award of a contract to an MBE/WBE whose bid exceeds the lowest bid by five percent (5%). Nothing in § 2.8 of this Part shall be construed to require the acceptance of non-conforming goods or services.

2.9 Standard Forms

The ODEO in consultation with the Division and the Governor's Commission on Disabilities is authorized to develop, adopt, and publish uniform documents and standard forms as the ODEO deems appropriate to ensure consistency in effectuating these Regulations.

2.10 RFP/RFQ Language

All solicitations covered by these Regulations should include language that references R.I. Gen. Laws Chapters 37-14.1 and 37-2.2.

2.11 Recordkeeping

State Agencies shall keep records relating to the utilization of ISBEs for each of their solicitations and resulting contracts. The records shall include at a minimum the name of the Proposer or Bidder that is awarded the contract, the name of each ISBE that subcontracts with the Proposer or Bidder, the subcategory of each ISBE (i.e. WBE, MBE, Disability Business Enterprise), any additional MBE/WBE subcategories that have established Sub Goals, the dollar value that corresponds with each subcontract, the Proposer's proposed ISBE Participation Rate, the Bidder's proposed MBE/WBE utilization rate as indicated in the Bidder's approved MBE/WBE Compliance Plan, the Proposer's actual ISBE

Participation Rate, and the Bidder's actual MBE/WBE utilization rate. State agencies shall complete and submit all standard forms adopted pursuant to § 2.9 of this Part and shall report such information to the ODEO and the Governor's Commission on Disabilities on an annual basis or as requested by the ODEO or the Governor's Commission on Disabilities.

2.12 Amendments

The Regulations may be rescinded or amended from time to time with the approval of the Director. Any amendments must be promulgated by the Department of Administration on behalf of the Director in accordance with the "Administrative Procedures Act", R.I. Gen. Laws Chapter 42-35.

Good Faith Efforts to achieve MBE participation

To determine whether a vendor, consultant or prime contractor has a good faith reason for failing to meet the minimum 10% MBE participation requirement pursuant to RIGL 37-14.1, the following factors, amongst others, may be considered. The efforts employed by the vendor, consultant, or prime contractor should be those that one could reasonably expect if the firm were actively and aggressively trying to obtain MBE participation sufficient to meet the minimum MBE participation requirement. Mere *pro forma* efforts are not good faith efforts to meet the MBE participation requirement.

(1) Whether the vendor, consultant or prime contractor attended any pre-solicitation or pre-bid meetings that were scheduled by the state contracting authority to inform MBEs of contracting or subcontracting opportunities;

(2) Whether the vendor, consultant, or prime contractor advertised in general circulation, trade association, and minority focus media concerning the subcontracting opportunities;

(3) Whether the vendor, consultant, or prime contractor provided written notice to a reasonable number of specific MBEs that their interest in a contract was being solicited, in sufficient time to allow the MBEs to participate effectively;

(4) Whether the vendor, consultant, or prime contractor followed up initial solicitations of interest by contacting MBEs to determine with certainty whether the MBEs were interested;

(5) Whether the vendor, consultant, or prime contractor selected portions of work to be performed by MBEs in order to increase the likelihood of meeting MBE participation requirements (including, where appropriate, breaking down contracts into economically feasible units to facilitate MBE participation even when the prime contractor might otherwise prefer to perform these work items with its own forces);

(6) Whether the vendor, consultant, or prime contractor provided interested MBEs with adequate information about the plans, specifications and requirements of the contract;

(7) Whether the vendor, consultant, or prime contractor negotiated in good faith with interested MBEs; (Evidence of such negotiation may include, but not be limited to, the names, addresses, and telephone numbers of MBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for MBEs to perform the work.)

(8) Whether the vendor, consultant, or prime contractor made suggestions to interested MBEs to assist them in obtaining bonding, lines of credit, or insurance required;

(9) Whether the vendor, consultant, or prime contractor effectively used the services of

available minority community organizations, minority contractors' groups, local, State and Federal minority business assistance offices, including the RI MBE Compliance Office; and other organizations that provide assistance in the recruitment and placement of MBEs.

(10) A vendor using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using MBEs is not in itself sufficient reason for a bidder's failure to meet the MBE participation requirement, as long as such costs are reasonable. Also, the ability or desire of a vendor, consultant, or prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Firms are not, however, required to accept higher quotes from MBEs if the price difference is excessive or unreasonable.

(11) Not rejecting MBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The firm’s standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the vendor's efforts to meet the MBE participation requirement.

(12) In determining whether a vendor, consultant, or prime contractor has made good faith efforts, you may take into account the performance of other bidders in meeting the participation requirement. For example, when the apparent successful bidder fails to meet the requirement, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the requirement.

How is MBE/WBE/DBE Participation Counted towards goals?

(a) When a MBE/WBE/DBE participates in a contract, you count only the value of the work actually performed by the MBE/WBE/DBE toward MBE/WBE/DBE goals.

(1) Count the entire amount of that portion of a construction contract (or other contract not covered by paragraph (a)(2) of this section) that is performed by the MBE/WBE/DBE's own forces. Include the cost of supplies and materials obtained by the MBE/WBE/DBE for the work of the contract, including supplies purchased or equipment leased by the MBE/WBE/DBE (except supplies and equipment the MBE/WBE/DBE subcontractor purchases or leases from the prime contractor or its affiliate).

(2) Count the entire amount of fees or commissions charged by a MBE/WBE/DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of the contract, toward MBE/WBE/DBE goals, provided you determine the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services.

(3) When a MBE/WBE/DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward MBE/WBE/DBE goals only if the MBE/WBE/DBE's subcontractor is itself a MBE/WBE/DBE. Work that a MBE/WBE/DBE subcontracts to a non-MBE/WBE/DBE firm does not count toward MBE/WBE/DBE goals.

(b) When a MBE/WBE/DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the MBE/WBE/DBE performs with its own forces toward MBE/WBE/DBE goals.

(c) Count expenditures to a MBE/WBE/DBE contractor toward MBE/WBE/DBE goals only if the MBE/WBE/DBE is performing a commercially useful function on that contract.

(1) A MBE/WBE/DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the MBE/WBE/DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a MBE/WBE/DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the MBE/WBE/DBE credit claimed for its performance of the work, and other relevant factors.

(2) A MBE/WBE/DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of MBE/WBE/DBE participation. In determining whether a MBE/WBE/DBE is such an extra participant, you must examine similar transactions, particularly those in which MBE/WBE/DBEs do not participate.

(3) If a MBE/WBE/DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the MBE/WBE/DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, you must presume that it is not performing a commercially useful function.

(4) When a MBE/WBE/DBE is presumed not to be performing a commercially useful function as provided in paragraph (c)(3) of this section, the MBE/WBE/DBE may present evidence to rebut this presumption. You may determine that the firm is performing a commercially useful function given the type of work involved and normal industry practices.

(5) Your decisions on commercially useful function matters are subject to review by the concerned operating administration.

(d) Use the following factors in determining whether a MBE/WBE/DBE trucking company is performing a commercially useful function:

(1) The MBE/WBE/DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting MBE/WBE/DBE goals.

(2) The MBE/WBE/DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

(3) The MBE/WBE/DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates, using drivers it employs.

(4) The MBE/WBE/DBE may lease trucks from another MBE/WBE/DBE firm, including an owner-operator who is certified as a MBE/WBE/DBE. The MBE/WBE/DBE who leases trucks from another MBE/WBE/DBE receives credit for the total value of the transportation services the lessee MBE/WBE/DBE provides on the contract.

(5) The MBE/WBE/DBE may also lease trucks from a non-MBE/WBE/DBE firm, including an owner-operator. The MBE/WBE/DBE who leases trucks from a non-MBE/WBE/DBE is entitled to credit for the total value of transportation services provided by non-MBE/WBE/DBE lessees not to exceed the value of transportation services provided by MBE/WBE/DBE-owned trucks on the contract. Additional participation by non-MBE/WBE/DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangement.

(6) For purposes of this paragraph (d), a lease must indicate that the MBE/WBE/DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the MBE/WBE/DBE, so long as the lease gives the MBE/WBE/DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the MBE/WBE/DBE.

(e) Count expenditures with MBE/WBE/DBEs for materials or supplies toward MBE/WBE/DBE goals as provided in the following:

(1) (i) If the materials or supplies are obtained from a MBE/WBE/DBE manufacturer, count 100 percent of the cost of the materials or supplies toward the MBE/WBE/DBE goals.

(ii) For purposes of this paragraph (e)(1), a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

(2) (i) If the materials or supplies are purchased from a MBE/WBE/DBE regular dealer, count 60 percent of the cost of the materials or supplies toward MBE/WBE/DBE goals.

(ii) For the purposes of this section, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

(A) To be regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale, or lease of the products in question.

(B) A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided it this paragraph (e)(2)(ii) if the person both owns and operates distribution equipment for the products. *Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad-hoc or contract-by-contract basis.*

(C) Packagers, brokers, manufacturers' representatives, or other persons *who arrange or expedite transactions* are not regular dealers within the meaning of this paragraph (e)(2).

(3) With respect to materials or supplies purchased from a MBE/WBE/DBE which is neither a manufacturer or a regular dealer, count the entire amount of the fees or commissions charged for the assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward MBE/WBE/DBE goals, provided you determine the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. Do not count any portion of the cost of the materials and supplies themselves toward MBE/WBE/DBE goals, however.

(f) If a firm is not currently certified as a MBE/WBE/DBE in accordance with the certification standards of RIDOA at the time of the execution of the contract, do not count the firm's participation toward any MBE/WBE/DBE goals, except for the following:

(1) If the MBE/WBE/DBE's ineligibility is caused solely by its having exceeded the size standards during the performance of the contract, you may continue to count its participation on that contract toward the overall and contract goals.

(2) If a contractor has executed a contract with a certified firm prior to the MBE/WBE/DBE firm being notified of its ineligibility, you may count the use of this firm on the contract and may continue to receive credit toward your MBE/WBE/DBE goal for the firm's work.

(g) Do not count the dollar value of work performed under a contract with a firm after it has ceased to be certified toward your overall goal.

(h) Do not count the participation of a MBE/WBE/DBE subcontractor toward the contractor's final compliance with its MBE/WBE/DBE obligations on a contract until the amount being counted has actually been paid to the MBE/WBE/DBE.

State of Rhode Island and Providence Plantations
Office of Diversity, Equity and Opportunity (ODEO)
Minority Business Enterprise Compliance Office
Minority Business Enterprise Utilization Plan

Company Name: _____

Representative's Name who administers MBE Program: _____

Street Address: _____

City, State, Zip: _____ Telephone: _____

Email: _____ Project Location: _____

Bid or Project #: _____ Date Bid Opened: _____

Description of Work: _____

Contract Value: _____ MBE % Assigned: _____

Total # of All Subcontractors/Suppliers used: _____ # of MBE Subcontractors/Suppliers used: _____

List All Subcontractors/Suppliers/Consultants/Independent Contractors – Total Dollar Amounts – Scope of Work:

Subcontractor / Supplier	Dollar Award	Scope/Description of Work	RI Certified M/WBE Yes/No

Please note that all MBE/WBE firms must be certified by the RI MBE Compliance Office, and that MBE/WBE firms must self-perform 100% of the work with their own forces or subcontract to another RI certified MBE/WBE in order to receive participation credit. Vendors may count 60% of expenditures for materials and supplies obtained from an MBE certified as a regular dealer/supplier, and 100% of such expenditures obtained from an MBE/WBE certified as a manufacturer. For firms certified as a broker, you may receive MBE participation credit only for the fees and commissions charged for the procurement of the good and materials, but not the cost of the materials themselves.

The above referenced contract will not be released until this plan has been approved by the Director of the Department of Administration or its designee.

For assistance and advice in identifying MBE/WBE firms, please call the Minority Business Enterprise Compliance Office at (401) 574-8670. The directory of all certified MBE firms is also located at www.mbe.ri.gov .

Signature of Authorized Agent of Business: _____ Date: _____

Send Completed Form to:

Dorinda Keene, Assistant Administrator - MBE
Office of Diversity, Equity and Opportunity (ODEO)
Minority Business Enterprise Compliance Office
One Capitol Hill, 3rd Floor
Providence, RI 02908
Phone: (401) 574-8670
Dorinda.Keene@doa.ri.gov

Office of Diversity, Equity and Opportunity (ODEO)
MBE Compliance Office
1 Capitol Hill, 3rd Floor
Providence, RI 02908

(401) 574-8670
www.mbe.ri.gov

Pursuant to RIGL 37-14.1 as well as the regulations promulgated thereto, the MBE Compliance Office requires that you complete the following table. Please note that these figures will be verified with the MBEs identified. If there are outstanding issues, such as retainage or a dispute, please indicate and attach supporting documentation for same. Also note that copies of invoice and cancelled checks for payment to all MBE subcontractors and suppliers are required.

Contractor/Vendor Name:
Project Name & Location:
Original Prime Contract Amount: $_____ Current Prime Contract Amount: $_____ % Complete: _____

MBE/WBE Subcontractor	Original Contract Amount	Change Orders	Revised Contract Value	% Completed To Date	Amount Paid To Date	Amount Due	Retainage %	Retainage Amount	Explanation

I declare, under penalty of perjury, that the information provided in this verification form and supporting documents is true and correct.

_____ Signature

_____ Date

_____ Printed Name

Notary Certificate:

Sworn before me this _____ day of _____ , 20___.

_____ Notary Signature

_____ Commission Expires

Sub-Contractor & Supplier
Waiver of Lien

Contractor/Subcontractor: _____ Date: _____

Project: _____
Location: _____
_____

To the Owner of the above mentioned property:

For the sum of: _____ which is full payment for all work up to our most recent billing, date of which is: _____ , for and in consideration of this sum and other good and valuable considerations, the receipt whereof is hereby acknowledged, do hereby waive and release any and all lien, or claim or right to lien said above described building and premises under the Statutes of the State of Rhode Island relating to Mechanic's Liens, on account of labor or materials, or both, furnished or which may be furnished, by the undersigned to or on account of payment noted above which is exclusively for this project and this premises.

* *Balance remaining for entire project:* _____

Name: _____

Company: _____

Address: _____

Date: _____

Signature: _____

Subscribed and sworn to before me on this date: _____

Notary Public: _____

Expiration: _____

Final

Sub-Contractor & Supplier
Waiver of Lien

Contractor/ Supplier: _____ Date: _____

Project: _____
Location: _____
_____

To the Owner of the above mentioned property:

My Total Contract Amount for This Project is: $_____ . I have as of this date been paid this full amount which represents all moneys billed and/or owed relative to this project, and for and in consideration of this sum and other good and valuable considerations, the receipt whereof is hereby acknowledged, do hereby waive and release any and all lien, or claim or right to lien said above described building and premises under the Statutes of the State of Rhode Island relating to Mechanic's Liens, on account of labor or materials, or both, furnished or which may be furnished, by the undersigned to or on account of payment noted above which is exclusively for this project and this premises.

Name: _____ Company: _____

Address: _____ Date: _____

Signature: _____

---

or: I have not been paid in full. I have been paid: $_____, so I am still owed $_____ relative to the above.

Name: _____ Company: _____

Address: _____ Date: _____

Signature: _____

Subscribed and sworn to before me on this date: _____

Notary Public: _____

Expiration: _____

Contractor's Guaranty Form

Contractor: _____ Date: _____

Project: _____
Location: _____
_____

To the Owner of the above mentioned property:

I hereby guarantee all of the work performed on the above mentioned project including all of the materials furnished as part of my contract, against all defects in materials or workmanship for a period of **one year** from the date of Substantial Completion unless the specifications state otherwise.

Name: _____

Company: _____

Address: _____

Date: _____

Signature: _____

Final Completion Form:

As General Contractor for the above mentioned project, I certify the following:

Completion of Final Punch List/ Conformance with Contract Documents:
All work listed in the Final Punch List has now been satisfactorily completed. All project work has been constructed in complete accordance with the Contract Documents.

Insurance to Remain in Force:
Insurance required by the Contract Documents and currently in effect will remain in force after final payment and will not be canceled or allowed to expire until at least 30 days written notice has been given to the Owner. I know of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents.

Attached Documents:
The following documents are signed and attached:
AIA G704: Certificate of Substantial Completion
AIA G706: Contractor's Affidavit of Payment of Debts and Claims
AIA G707: Consent of Surety to Final Payment
Contractor's Guarantee Form
Final Sub-Contractor & Supplier Waiver of Lien

Non-resident tax payment certificate

_____
General Contractor's Signature/ Date

AIA® Document G704™ – 2000

Certificate of Substantial Completion

PROJECT:
(Name and address):

PROJECT NUMBER: /
CONTRACT FOR:
CONTRACT DATE:

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
FIELD: ☐
OTHER: ☐

TO OWNER:
(Name and address):

TO CONTRACTOR:
(Name and address):

PROJECT OR PORTION OF THE PROJECT DESIGNATED FOR PARTIAL OCCUPANCY OR USE SHALL INCLUDE:

The Work performed under this Contract has been reviewed and found, to the Architect's best knowledge, information and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion designated above is the date of issuance established by this Certificate, which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

Warranty **Date of Commencement**

ARCHITECT **BY** **DATE OF ISSUANCE**

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Unless otherwise agreed to in writing, the date of commencement of warranties for items on the attached list will be the date of issuance of the final Certificate of Payment or the date of final payment.

Cost estimate of Work that is incomplete or defective: $ 0.00

The Contractor will complete or correct the Work on the list of items attached hereto within Zero (0) days from the above date of Substantial Completion.

CONTRACTOR **BY** **DATE**

The Owner accepts the Work or designated portion as substantially complete and will assume full possession at (time) on (date).

OWNER **BY** **DATE**

The responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance shall be as follows:
(Note: Owner's and Contractor's legal and insurance counsel should determine and review insurance requirements and coverage.)

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User Notes:
(3787338396)

AIA® Document G706™ – 1994

Contractor's Affidavit of Payment of Debts and Claims

PROJECT: *(Name and address)*
X

TO OWNER: *(Name and address)*

ARCHITECT'S PROJECT NUMBER:

CONTRACT FOR: General Construction
CONTRACT DATED:

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
SURETY: ☐
OTHER: ☐

STATE OF:
COUNTY OF:

The undersigned hereby certifies that, except as listed below, payment has been made in full and all obligations have otherwise been satisfied for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or Owner's property might in any way be held responsible or encumbered.

EXCEPTIONS:

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA Document G707, Consent of Surety, may be used for this purpose

Indicate Attachment ☐ Yes ☒ No

The following supporting documents should be attached hereto if required by the Owner:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.

2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

3. Contractor's Affidavit of Release of Liens (AIA Document G706A).

CONTRACTOR: *(Name and address)*

BY: _____
(Signature of authorized representative)

_____
(Printed name and title)

Subscribed and sworn to before me on this date:

Notary Public:
My Commission Expires:

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User Notes:

(2056601047)

Certification Regarding Tax Payments:

I hereby certify to comply with provisions of the “Non-Resident Contractor Provisions Article 3, form of which is included in these Contract Documents.

Signature: _____

Title: _____

Subscribed and sworn to me on this date: _____

Name: _____ Title: _____

My commission expires: _____

R.I. ANALYTICAL
41 Illinois Avenue - Warwick, RI 02888
P: (401) 737-8500 F: (401) 732-8034

September 4, 2020

Ms. Linda Teel
Chief of Staff to Mayor Jeffrey Mutter
Town of Cumberland
45 Broad St
Cumberland, RI 02864

P: 401.728.2400 x134
E: **LTeel@cumberlandri.org**

RE: Report - Limited Inspection and Sampling of Materials Suspected of Containing Asbestos
Site: Main Roof, Cumberland Senior Center, 1464 Diamond Hill Road, Cumberland, RI 02864
RI Analytical Laboratories, Inc. Project # 2020131

Dear Ms. Teel:

RI Analytical Laboratories, Inc. (RI Analytical), Exposure Assessment, and Management (EAM) Division would like to thank you for the opportunity to provide the Town of Cumberland (the "Client") with environmental consulting services.

BACKGROUND

RI Analytical conducted a limited asbestos inspection and sampling of visible, accessible materials suspected of containing asbestos ("Suspect Materials") in the following areas at the above-referenced Site on August 26, 2020.

- Main Roof - Cumberland Senior Center.

The purpose of this asbestos inspection was to identify, sample, and analyze Suspect Materials at the Site which would likely be impacted by renovation activities. The inspection and sampling was completed by **RIDOH**[1]-certified and **EPA**[2]-accredited Asbestos Inspectors, Michael Weydt (#AI01000) and Olivia Smaracko (#AI01102).

Destructive investigative techniques were performed in representative locations at the Site to access inaccessible and concealed areas that may contain Suspect Materials that were hidden or obstructed from normal view.

Reasonable efforts were made to reseal the roof sample locations using appropriate materials. RI Analytical does not guarantee the roof patches against failure, weather damage or water intrusion.

RI Analytical did not conduct a comprehensive inspection of the whole building that would be required prior to renovation or demolition, or sub-slab or subsurface (underground) investigations to identify concealed Suspect Materials throughout the subject property.

[1] **RIDOH** = State of Rhode Island Department of Health
[2] **EPA** = United State Environmental Protection Agency

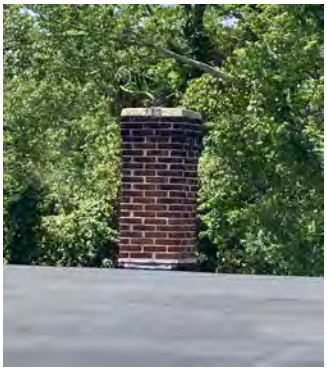
METHODOLOGY

Suspect Materials were classified into **Homogeneous Material (HM) groups**[3] to be sampled and analyzed for asbestos content by **PLM**[4]. In addition, **NOB**[5] materials were analyzed using PLM with gravimetric preparation. Samples were analyzed by RI Analytical, a RIDOH-certified Asbestos Analytical Laboratory (#PLM00142).

OBSERVATIONS AND RESULTS

Sealers (black and gray) were observed on pipe penetrations and the chimney flashing. These sealers are also likely under pipe boots and chimney flashing.

The pictures shown below depict Site conditions on the day of the inspection.

		
Rubber roof top layer with pipe penetrations with pipe boots visible	Brick chimney with flashing at roof level and with chimney cap	Roofing material wraps around roof edge

The roof materials appear to be homogeneous throughout the field and at the edges with the comprising layers shown in **Table** 1 below.

Table 1 – Roof Material Layers

Layer #	HM #	Description (from top layer to bottom)	Asbestos Content
1	N/A	EPDM (Synthetic rubber)	N/A
2	01	Pressed board (tan)	Not Detected
3	**02**	**Rolled asphalt roofing**	**Trace Chrysotile**
4	**05**	**Felt paper (black)**	**<1 % Chrysotile**
5	**03**	**Rolled asphalt roofing**	**<1 % Chrysotile**
6	**06**	**Felt paper (black)**	**<1 % Chrysotile**
7	04	Underlayment paper (white)	Not Detected
8	N/A	Wood plank deck	N/A

[3] **Homogeneous Material groups** = groups of materials similar in color, texture, and typically application
[4] **PLM** = Polarized Light Microscopy, EPA/600/R-93/116 (1993) "Method for the Determination of Asbestos in Bulk Building Materials."
[5] **NOB** = Non-Friable, Organically-Bound Materials

EPA, OSHA, and RIDOH define a material that contains greater than one percent (>1%) asbestos utilizing PLM analysis as an **ACM**[6]. Any material found to contain ≤1% asbestos by PLM laboratory analysis are defined as **ACWM**[7] and must be handled appropriately. Materials that are identified as "Not Detected" are specified as not containing asbestos.

The sample results are summarized in **Table 2** below. Materials determined to be ACM are highlighted in **yellow**. Materials determined to be ACWM are highlighted in **green**. The laboratory analytical report and chain-of-custody form are attached.

Table 2 - Work Order #2008-14150
Suspect Asbestos Materials - Laboratory Analytical Data Summary

Line #	HM#/ Sample #	Material	Sample Location	Result
1	01A	Pressed Board (tan) under EPDM on 02A	Field #1	Not Detected
2	**02A**	**Rolled asphalt under 01A on 03A**	**Field #1**	**Trace Chrysotile**
3	**03A**	**Rolled asphalt under 02A on 04A**	**Field #1**	**<1 % Chrysotile**
4	04A	Underlayment paper under 03A on wood deck	Field #1	Not Detected
5	01B	Pressed Board (tan) under EPDM on 01B	Field #2	Not Detected
6	**02B**	**Rolled asphalt under 01B on 03B**	**Field #2**	**Trace Chrysotile**
7	**03B**	**Rolled asphalt under 02B on 04B**	**Field #2**	**<1 % Chrysotile**
8	05A	Felt paper (black) under 03B on 06A	Field #2	Not Detected
9	06A	Felt paper (black) under 05A on 04A	Field #2	Not Detected
10	04B	Underlayment paper under 06A on wood deck	Field #2	Not Detected
11	01C	Pressed Board (tan) under EPDM on 02C	Field #3	Not Detected
12	02C	Rolled asphalt under 01A on 03A	Field #3	Not Detected
13	07A	Felt paper (black) under 02C on 08A	Field #3	Not Detected
14	08A	Felt paper (black) under 07A on wood deck	Field #3	Not Detected
15	**03C**	**Rolled asphalt under 08A on 05B**	**Field #3**	**<1 % Chrysotile**
16	05B	Felt paper (Black) under 03C on 04C	Field #3	Not Detected
17	04C	Underlayment paper under 05A on wood deck	Field #3	Not Detected
18	01D	Pressed Board (tan) under EPDM on 02D	Field #4	Not Detected
19	02D	Rolled asphalt under 01D on 07B	Field #4	Not Detected
20	07B	Felt paper (black) under 02D on 03D	Field #4	Not Detected
21	**03D**	**Rolled asphalt under 07B on 04H**	**Field #4**	**<1 % Chrysotile**
22	04D	Underlayment paper under 03D on wood 09A	Field #4	Not Detected
23	09A	Tar (black) under 04D on wood deck	Field #4	Not Detected
24	01E	Pressed Board (tan) under EPDM on 02E	Field #5	Not Detected
25	02E	Rolled Asphalt under 01E on 07C	Field #5	Not Detected
26	07C	Felt Paper (black) under 02E on 03E	Field #5	Not Detected
27	03E	Rolled Asphalt under 07C on 05C	Field #5	Not Detected
28	**05C**	**Felt Paper (black) under 03E on 06B**	**Field #5**	**<1 % Chrysotile**
29	06B	Felt Paper (black) under 05C on 04E	Field #5	Not Detected
30	04E	Underlayment paper under 06B on wood deck	Field #5	Not Detected
31	01F	Pressed Board (tan) under EPDM on 02F	Field #6	Not Detected

[6] **ACM** = Asbestos-Containing Materials
[7] **ACWM** = Asbestos-Containing Waste Materials

Table 2 - Work Order #2008-14150
Suspect Asbestos Materials - Laboratory Analytical Data Summary

Line #	HM#/ Sample #	Material	Sample Location	Result
32	02F	Rolled Asphalt under 01F on 07D	Field #6	Not Detected
33	07D	Felt Paper (black) under 07D on 10A	Field #6	Not Detected
34	10A	Tar (black) under 07D on 05D	Field #6	Not Detected
35	05D	Felt paper (black) under 10A on 3F	Field #6	Not Detected
36	**03F**	**Rolled Asphalt under 05D on 06C**	**Field #6**	**<1 % Chrysotile**
37	**06C**	**Felt Paper (black) under 03F on 04F**	**Field #6**	**<1 % Chrysotile**
38	04F	Underlayment Paper under 06C on wood deck	Field #6	Not Detected
39	01G	Pressed Board (tan) under EPDM on 02G	Edge Above Main Entrance	Not Detected
40	02G	Rolled Asphalt under 01G on 07E	Edge Above Main Entrance	Not Detected
41	07E	Felt Paper (black) under 02G on 03G	Edge Above Main Entrance	Not Detected
42	03G	Rolled Asphalt under 07E on 06D	Edge Above Main Entrance	Not Detected
43	**06D**	**Felt Paper (black) under 03G on 08B**	**Edge Above Main Entrance**	**<1 % Chrysotile**
44	08B	Felt Paper (black) under 06D on wood deck	Edge Above Main Entrance	Not Detected
45	**11A**	**Sealer (black)**	**At chimney cap patch**	**5-15% Chrysotile**
46	12A	Caulking (gray)	At chimney termination bar	Not Detected
47	12B	Caulking (gray)	At chimney termination bar	Not Detected
48	**11B**	**Sealer (black)**	**At chimney cap patch**	**5-15% Chrysotile**
49	13A	Sealer (black)	Asphalt roof and chimney	Not Detected
50	13B	Sealer (black)	Asphalt roof and chimney	Not Detected
51	**14A**	**Sealer (gray)**	**West capped pipe penetration**	**5-15% Chrysotile**
52	**14B**	**Sealer (gray)**	**East capped pipe penetration**	**5-15% Chrysotile**
53	15A	Sealer (black)	On copper pipe penetration	Not Detected
54	15B	Sealer (black)	On copper pipe penetration	Not Detected
55	**14C**	**Sealer (gray)**	**On 6" pipe penetration**	**5-15% Chrysotile**
56	15C	Sealer (black)	On 6" pipe penetration	Not Detected
57	16A	EPDM seam sealer (black)	South	Not Detected
58	16B	EPDM seam sealer (black)	North	Not Detected

Utilizing the EPA, OSHA, and RIDOH protocol and criteria, laboratory analyses identified homogeneous materials noted in **Table 3** as **RACM (Regulated ACM)** and **ACWM**.

Table 3 - RACM & ACWM Inventory Summary					
HM #	**Material Type**	**Location**	**Sample #** / **Asbestos Content**	**Condition**	**Estimated Quantity**
02, 03	**Rolled asphalt**	**Throughout Roof**	**02A,02B** / **Trace Chrysotile**	**(I)(NF)**	**7,500 SF ACWM**
			03A, 03B, 03C, 03D, 03F / **<1 % Chrysotile**	**(I)(NF)**	
05, 06	**Felt Paper (black)**		**05C** / **<1 % Chrysotile**	**(I)(NF)**	
			06C, 06D / **<1 % Chrysotile**	**(I)(NF)**	
11, 14	**Sealers (black & gray)**	**Roof penetrations, chimney flashing & chimney cap crack**	**11A, 11B** / **5-15% Chrysotile**	**(I)(NF)**	**8 SF RACM** (Black & gray sealers on 5 pipes; on chimney flashing & cap crack, and adjacent materials out to 1 ft.)
			14A, 14B, 14C / **5-15% Chrysotile**	**(I)(NF)**	

HM = Homogenous Material; F = **Friable**[8]; NF = Non-Friable; I = Intact; D = Damaged (i.e. <10% of the material is damaged); SD = Significantly Damaged (i.e. >10% of the material is damaged); EA = Each; LF = Linear Feet; SF = Square Feet; CF = Cubic Feet

CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, sample collection, and laboratory analysis, RACM and ACWM were identified at the Site as identified in **Table 3** above.

The quantity of RACM identified does not exceed the RIDOH trigger quantity of 10 LF/25 SF of RACM, therefore it is not required that an Asbestos Abatement Plan be prepared and submitted to RIDOH for review and approval prior to commencing any roof work.

However, the RACM sealers (black & gray) on 5 pipes (on the pipes and boots and under the boots); on chimney flashing & cap crack, and adjacent materials out to 1 ft. must be removed and disposed of appropriately prior to commencing the roof materials demolition and replacement work.

All work related to asbestos abatement (i.e., removal, repair, encapsulation, and enclosure) must be completed by a RIDOH-licensed Asbestos Abatement Contractor in accordance with federal, state, and local rules and regulations, ***including those of OSHA***, as required.

Disturbance and removal of roof materials containing Trace amounts of asbestos or <1% asbestos may generate dust that contains asbestos which may become airborne and pose an exposure and health risk to workers, building occupants and nearby personnel, therefore wet removal methods must be used for

[8] **Friable** = Material that, when dry, can be crumbled, shattered, pulverized or reduced to powder by hand pressure

dust suppression and to avoid visible emissions. Contractors and workers must use appropriate removal methods and appropriate PPE and respiratory protection when removing the roof materials with Trace and <1% asbestos and performing cleanup prior to installation of the new roof materials, as well as comply with OSHA Asbestos in Construction standard 29CFR1926.1101 and other applicable regulations.

Packaging, storage, transportation, and disposal of RACM must also comply with applicable federal, state, and local rules and regulations. RIDOH has indicated that transport and disposal of ACWM is an issue for **RIDEM**[9]**.** RIDEM and RIRRC both indicated that if materials were found to only have <1% asbestos, they are not ACM or RACM and can therefore be transported to and disposed of at RIRRC landfill facility in Johnston, RI as "Solid Waste".

If Suspect Materials should be encountered during renovation activities that are not identified in this report as not containing asbestos, these Suspect Materials must be assumed to be ACM and removed and disposed of as ACM or they must be sampled by a licensed Asbestos Inspector and laboratory analyzed to prove presence or absence of asbestos.

[9] **RIDEM** = RI Department of Environmental Management.

LIMITATIONS

RI Analytical does not consider this to be a complete and comprehensive asbestos inspection of the whole building, but rather a limited inspection and sampling of building materials designated by Client. Destructive investigations were conducted to sample roof materials suspected of containing asbestos. Other materials in the building may contain asbestos and must be sampled for laboratory analysis prior to being impacted in any way.

All observations documented in this report were made under the conditions existing at the time of this investigation. Should changes from existing conditions occur in the future, warranting laboratory analysis, they should be brought to the attention of RI Analytical.

This report was prepared at the request of the Client. We further confirm that Client, its affiliates and subsidiaries, and their successors, assigns, and grantees may rely on the report within the limitations and recommendations contained therein as if it were prepared for the benefit of and addressed to them.

This report should not be represented, reproduced, or disseminated without the written approval of RI Analytical or Client. No warranties other than those expressed in the contract for this project are expressed or implied.

Please do not hesitate to contact our EAM Division at 401-737-8500 if you have any questions concerning this report or if we may be of further assistance

Sincerely,

RI Analytical Laboratories, Inc.
Exposure Assessment and Management Division

Michael J Weydt

Mr. Michael J Weydt
Environmental Science Consultant
EAM Division
RIDOH #AI01000

Mr. Kenneth Davis
Senior Environmental Scientist
Manager EAM Division
RIDOH #AI00510

Doc: 2020131-AsbRpt-CumberlandSeniorCtr,1464DiamondHillRd,Cumberland-mw-jj_kd

Attachments: Laboratory Analytical Report and Chain-of-Custody Form
Sample Location Drawing

Laboratory Analytical Report and Chain-of-Custody Form

R.I. ANALYTICAL
Specialists in Environmental Services

LABORATORY REPORT

R.I. Analytical Laboratories
Attn: Michael Weydt
E.A.M. Division
15 Lark Industrial Parkway
Smithfield, RI 02828

Date Received: 8/27/2020
Date Reported: 9/1/2020
Work Order #: 2008-14150

Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

Enclosed please find your sample(s) analysis results for asbestos content. The six asbestos types include amosite, chrysotile, crocidolite, anthophyllite, tremolite, and actinolite.

Analysis by Polarized Light Microscopy (PLM) was performed in accordance with EPA 40 CFR Appendix E Subpart E of Part 763 and/or EPA 600/R-93/116.

R.I. Analytical Laboratories, Inc. maintains bulk asbestos fiber NVLAP accreditation under Lab Code 101440-0. This report does not serve as a product certification, approval, and/or endorsement by NVLAP, NIST, or any federal agency.

The sample(s) submitted for analysis were accepted by R.I. Analytical unless otherwise noted in the report. If a sample is found to be inhomogeneous, individual components will be analyzed separately. If individual components cannot be separated, the sample will be homogenized and a single result will be provided. These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

Samples submitted for analysis will be retained for three months for future reference.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department.

Approved by:

Asbestos Signatory

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
001	01A PRESSED BOARD (TAN) UNDER EPDM ON 02A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN
002	02A ROLLED ASPHALT UNDER 01A ON 03A	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	Trace	%	9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
003	03A ROLLED ASPHALT UNDER 02A ON 04A	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
004	04A UNDERLAYMENT PAPER UNDER 03A ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN
005	01B PRESSED BOARD (TAN) UNDER EPDM ON 01B	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN
006	02B ROLLED ASPHALT UNDER 01B ON 03B	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	Trace	%	9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
007	03B ROLLED ASPHALT UNDER 02B ON 04B	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
008	05A FELT PAPER (BLACK) UNDER 03B ON 06A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
009	06A FELT PAPER (BLACK) UNDER 05A ON 04A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
010	04B UNDERLAYMENT PAPER UNDER 06A ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN
011	01C PRESSED BOARD (TAN) UNDER EPDM ON 02C	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN
012	02C ROLLED ASPHALT UNDER 01A ON 03A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
013	07A FELT PAPER (BLACK) UNDER 02C ON 08A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
014	08A FELT PAPER (BLACK) UNDER 07A ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
015	03C ROLLED ASPHALT UNDER 08A ON 05B	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
016	05B FELT PAPER (BLACK) UNDER 03C ON 04C	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
017	04C UNDERLAYMENT PAPER UNDER 05A ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN
018	01D PRESSED BOARD (TAN) UNDER EPDM ON 02D	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
019	02D ROLLED ASPHALT UNDER 01D ON 07B	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN
020	07B FELT PAPER (BLACK) UNDER 02D ON 03D	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
021	03D ROLLED ASPHALT UNDER 07B ON 04H	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
022	04D UNDERLAYMENT PAPER UNDER 03D ON WOOD 09A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN
023	09A TAR (BLACK) UNDER 04D ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
024	01E PRESSED BOARD (TAN) UNDER EPDM ON 02E	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

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Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
025	02E ROLLED ASPHALT UNDER 01E ON 07C	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
026	07C FELT PAPER (BLACK) UNDER 02E ON 03E	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
027	03E ROLLED ASPHALT UNDER 07C ON 05C	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
028	05C FELT PAPER (BLACK) UNDER 03E ON 06B	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
029	06B FELT PAPER (BLACK) UNDER 05C ON 04E	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
030	04E UNDERLAYMENT PAPER UNDER 06B ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
031	01F PRESSED BOARD (TAN) UNDER EPDM ON 02F	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN
032	02F ROLLED ASPHALT UNDER 01F ON 07D	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Brown		9/1/2020	EDN
033	07D FELT PAPER (BLACK) UNDER 07D ON 10A	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
034	10A TAR (BLACK) UNDER 07D ON 05D	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
035	05D FELT PAPER (BLACK) UNDER 10A ON 03F	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
036	03F ROLLED ASPHALT UNDER 05D ON 06C	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
037	06C FELT PAPER (BLACK) UNDER 03F ON 04F	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
038	04F UNDERLAYMENT PAPER UNDER 06C ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
039	01G PRESSED BOARD (TAN) UNDER EPDM ON 02G	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Tan		9/1/2020	EDN
040	02G ROLLED ASPHALT UNDER 01G ON 07E	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
041	07E FELT PAPER (BLACK) UNDER 02G ON 03G	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
042	03G ROLLED ASPHALT UNDER 07E ON 06D	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
043	06D FELT PAPER (BLACK) UNDER 03G ON 08B	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	<1	%	9/1/2020	EDN
		Non-fibrous	>99	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
044	08B FELT PAPER (BLACK) UNDER 06D ON WOOD DECK	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
045	11A SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	5-15	%	9/1/2020	EDN
		Non-fibrous	85-95	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
046	12A CAULKING (GRAY)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Gray		9/1/2020	EDN
047	12B CAULKING (GRAY)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Gray		9/1/2020	EDN
048	11B SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	5-15	%	9/1/2020	EDN
		Non-fibrous	85-95	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
Date Received: 8/27/2020
Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
049	13A SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
050	13B SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
051	14A SEALER (GRAY)	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	5-15	%	9/1/2020	EDN
		Non-fibrous	85-95	%	9/1/2020	EDN
		Sample Color	Gray		9/1/2020	EDN
052	14B SEALER (GRAY)	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	5-15	%	9/1/2020	EDN
		Non-fibrous	85-95	%	9/1/2020	EDN
		Sample Color	Gray		9/1/2020	EDN
053	15A SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
054	15B SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

R.I. Analytical Laboratories, Inc

LABORATORY REPORT

R.I. Analytical Laboratories
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Work Order #: 2008-14150
Site Location:PROJECT #2020131, TOWN OF CUMBERLAND

METHOD: EPA 600/R-93/116

SAMPLE NO.	SAMPLE DESCRIPTION	PARAMETER	SAMPLE RESULTS / UNITS		DATE ANALYZED	ANALYST
055	14C SEALER (GRAY)	PLM Fiber Analysis				
		Asbestos	Detected		9/1/2020	EDN
		Chrysotile	5-15	%	9/1/2020	EDN
		Non-fibrous	85-95	%	9/1/2020	EDN
		Sample Color	Gray		9/1/2020	EDN
056	15C SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
057	16A EPDM SEAM SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN
058	16B EPDM SEAM SEALER (BLACK)	PLM Fiber Analysis				
		Asbestos	Not Detected		9/1/2020	EDN
		Non-fibrous	100	%	9/1/2020	EDN
		Sample Color	Black		9/1/2020	EDN

EAM Project #2020131
Town of Cumberland
Cumberland Senior Center
Main Roof
1464 Diamond Hill Road
Cumberland, RI 02864

R.I. ANALYTICAL
41 Illinois Avenue - Warwick, RI 02888
P: (401) 737-8500 F: (401) 732-8034

SAMPLE DATA SHEET & CHAIN OF CUSTODY

Project: Town of Cumberland, Cumberland Senior Center	**Client Purchase Order #:**
Address: Main Roof, 1464 Diamond Hill Road, Cumberland, RI 02864	**RI Analytical EAM Project #:** 2020131
Sampled By (Name): Weydt	**RI Analytical Work Order#:** 2008-14150
Sampled By (Certification #): AI1000	**Inspection Date:** 8/26/20 — Page 1 of 3

Line	Sample #	Description	Location	Notes
1	01A	Pressed Board (tan) under EPDM on 02A	Field #1	
2	02A	Rolled asphalt under 01A on 03A	Field #1	
3	03A	Rolled asphalt under 02A on 04A	Field #1	
4	04A	Underlayment paper under 03A on wood deck	Field #1	Multiple Layers
5	01B	Pressed Board (tan) under EPDM on 01B	Field #2	
6	02B	Rolled asphalt under 01B on 03B	Field #2	
7	03B	Rolled asphalt under 02B on 04B	Field #2	
8	05A	Felt paper (black) under 03B on 06A	Field #2	
9	06A	Felt paper (black) under 05A on 04A	Field #2	
10	04B	Underlayment paper under 06A on wood deck	Field #2	
11	01C	Pressed Board (tan) under EPDM on 02C	Field #3	
12	02C	Rolled asphalt under 01A on 03A	Field #3	
13	07A	Felt paper (black) under 02C on 08A	Field #3	
14	08A	Felt paper (black) under 07A on wood deck	Field #3	
15	03C	Rolled asphalt under 08A on 05B	Field #3	
16	05B	Felt paper (Black) under 03C on 04C	Field #3	
17	04C	Underlayment paper under 05A on wood deck	Field #3	
18	01D	Pressed Board (tan) under EPDM on 02D	Field #4	
19	02D	Rolled asphalt under 01D on 07B	Field #4	
20	07B	Felt paper (black) under 02D on 03D	Field #4	
21	03D	Rolled asphalt under 07B on 04H	Field #4	Multiple layers
22	04D	Underlayment paper under 03D on wood 09A	Field #4	
23	09A	Tar (black) under 04D on wood deck	Field #4	
24	01E	Pressed Board (tan) under EPDM on 02E	Field #5	
25	02E	Rolled Asphalt under 01E on 07C	Field #5	

COMMENTS: Email report to: Name: M. Weydt & K.Davis ; Email to: mweydt & kdavis @rianalytical.com
A. (1) Analysis = ☒ PLM, Asbestos (EPA 600/R-93/116); ☒ PLM NOB as needed; ☐ ___ point count if friable and <10% ASB; ☐ TEM NOB
(2) TAT = 3 Days ; (3) No. samples submitted = 58 ; (4) ☐ Y or ☒ N - Positive stop by Homogeneous # shown.

RELINQUISHED BY: (SIGNATURE) Michael Weydt	DATE/TIME 8/26/20 16:00	RECEIVED BY: (SIGNATURE)	DATE/TIME 8/27/20
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME

R.I. ANALYTICAL
41 Illinois Avenue - Warwick, RI 02888
P: (401) 737-8500 F: (401) 732-8034

SAMPLE DATA SHEET & CHAIN OF CUSTODY

Project: Town of Cumberland, Cumberland Senior Center	**Client Purchase Order #:**
Address: Main Roof, 1464 Diamond Hill Road, Cumberland, RI 02864	**RI Analytical EAM Project #:** 2020131
Sampled By (Name): Weydt	**RI Analytical Work Order#:** 2008-14150
Sampled By (Certification #): AI1000	**Inspection Date:** 8/26/20 — Page 2 of 5

Line	Sample #	Description	Location	Notes
26	07C	Felt Paper (black) under 02E on 03E	Field #5	
27	03E	Rolled Asphalt under 07C on 05C	Field #5	Multiple Layers
28	05C	Felt Paper (black) under 03E on 06B	Field #5	Multiple Layers
29	06B	Felt Paper (black) under 05C on 04E	Field #5	
30	04E	Underlayment paper under 06B on wood deck	Field #5	Saturated w/ tar
31	01F	Pressed Board (tan) under EPDM on 02F	Field #6	
32	02F	Rolled Asphalt under 01F on 07D	Field #6	
33	07D	Felt Paper (black) under 07D on 10A	Field #6	Inseperable
34	10A	Tar (black) under 07D on 05D	Field #6	Possible patch
35	05D	Felt paper (black) under 10A on 3F	Field #6	
36	03F	Rolled Asphalt under 05D on 06C	Field #6	
37	06C	Felt Paper (black) under 03F on 04F	Field #6	
38	04F	Underlayment Paper under 06C on wood deck	Field #6	
39	01G	Pressed Board (tan) under EPDM on 02G	Edge Above Main Entrance	Opposite Edge Homogenous
40	02G	Rolled Asphalt under 01G on 07E	Edge Above Main Entrance	Inseperable
41	07E	Felt Paper (black) under 02G on 03G	Edge Above Main Entrance	
42	03G	Rolled Asphalt under 07E on 06D	Edge Above Main Entrance	
43	06D	Felt Paper (black) under 03G on 08B	Edge Above Main Entrance	Multiple layers
44	08B	Felt Paper (black) under 06D on wood deck	Edge Above Main Entrance	
45	11A	Sealer (black)	at chimney cap patch	
46	12A	Caulking (gray)	at chimney termination bar	
47	12B	Caulking (gray)	at chimney termination bar	
48	11B	Sealer (black)	at chimney cap patch	
49	13A	Sealer (black)	asphalt roof and chimney	

COMMENTS: Email report to: Name: M. Weydt & K.Davis ; Email to: mweydt & kdavis @rianalytical.com
A. (1) Analysis = ☒ PLM, Asbestos (EPA 600/R-93/116); ☒ PLM NOB as needed; ☐ ___ point count if friable and <10% ASB; ☐ TEM NOB
(2) TAT = 3 Days ; (3) No. samples submitted = 58 ; (4) ☐ Y or ☒ N - Positive stop by Homogeneous # shown.

RELINQUISHED BY: (SIGNATURE) Michael Weydt	DATE/TIME 8/26/20 16:00	RECEIVED BY: (SIGNATURE)	DATE/TIME 8/27/20
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME

R.I. ANALYTICAL
41 Illinois Avenue - Warwick, RI 02888
P: (401) 737-8500 F: (401) 732-8034

SAMPLE DATA SHEET & CHAIN OF CUSTODY

Project: Town of Cumberland, Cumberland Senior Center	**Client Purchase Order #:**
Address: Main Roof, 1464 Diamond Hill Road, Cumberland, RI 02864	**RI Analytical EAM Project #:** 2020131
Sampled By (Name): Weydt	**RI Analytical Work Order#:** 2008-14150
Sampled By (Certification #): AI1000	**Inspection Date:** 8/26/20 — Page 3 of 3

Line	Sample #	Description	Location	Notes
50	13B	Sealer (black)	Asphalt roof and chimney	
51	14A	Sealer (gray)	West capped pipe penetration	
52	14B	Sealer (gray)	East capped pipe penetration	
53	15A	Sealer (black)	On copper pipe penetration	
54	15B	Sealer (black)	On copper pipe penetration	
55	14C	Sealer (gray)	On 6" pipe penetration	
56	15C	Sealer (black)		
57	16A	EPDM seam sealer (black)	South	
58	16B	EPDM seam sealer (black)	North	
59				
60				
61				
62				
63				
64				
65				
66				
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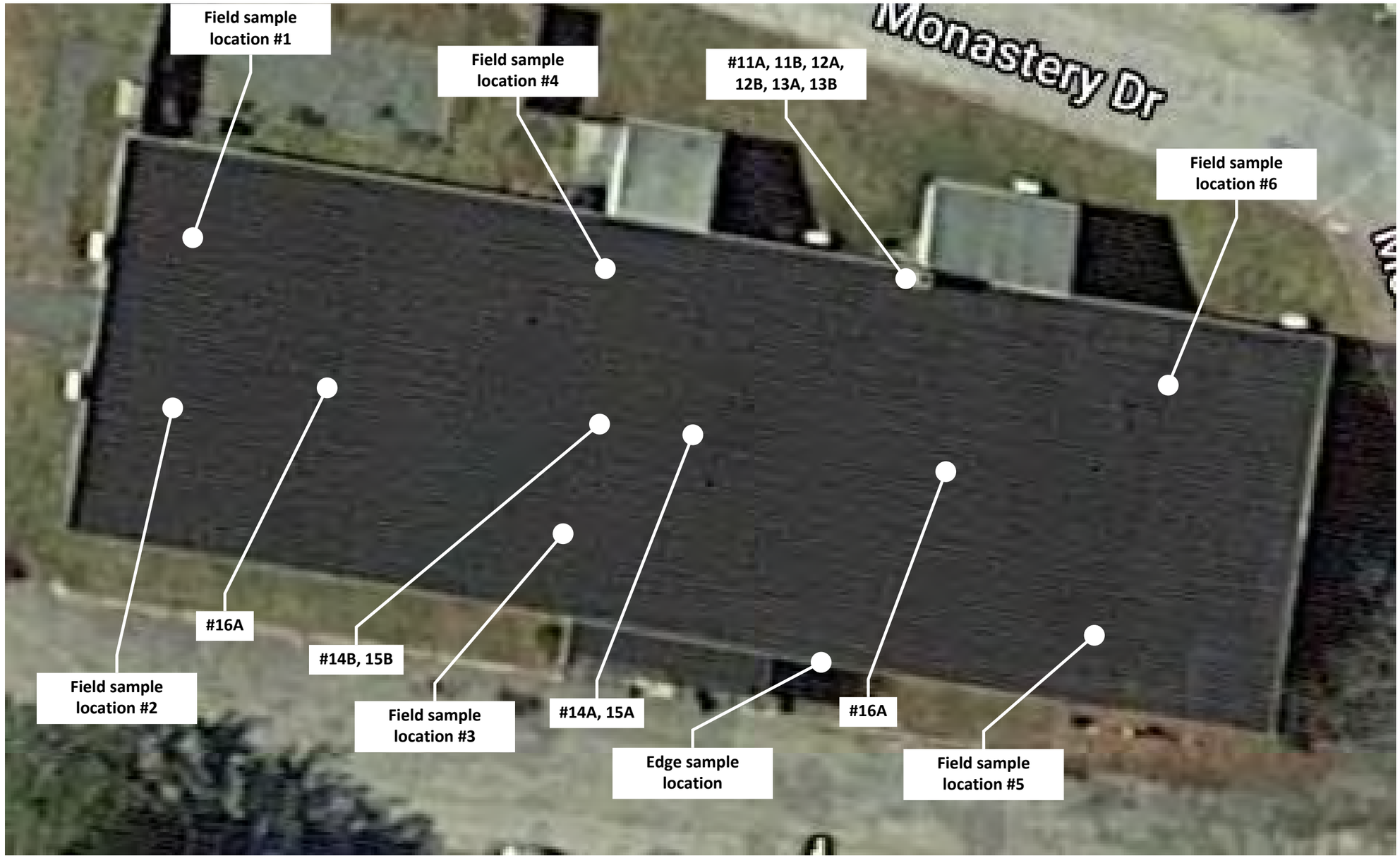
72				
73				
74				

COMMENTS: Email report to: Name: M. Weydt & K.Davis ; Email to: mweydt & kdavis @rianalytical.com
A. (1) Analysis = ☒ PLM, Asbestos (EPA 600/R-93/116); ☒ PLM NOB as needed; ☐ ___ point count if friable and <10% ASB; ☐ TEM NOB
(2) TAT = 3 Days ; (3) No. samples submitted = 58 ; (4) ☐ Y or ☒ N - Positive stop by Homogeneous # shown.

RELINQUISHED BY: (SIGNATURE) Michael Weydt	DATE/TIME 8/26/20 16:00	RECEIVED BY: (SIGNATURE)	DATE/TIME 8/27/20
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME

Sample Location Drawing



N

R. I. Analytical
Specialists in Environmental Services

COMPANY	CLIENT	PROJECT	PROJECT #	DRAWN BY	ISSUE DATE
RI Analytical Laboratories, Inc. 15 Lark Industry Drive Smithfield, RI 02828 Tel: 401.737.8500	Town of Cumberland 45 Broad St Cumberland, RI 02864	Asbestos Inspection - Main Roof Cumberland Senior Center, 1464 Diamond Hill Road, Cumberland, RI 02864	2020131	MW	9/1/2020

Sample Location Drawing - Roofing Materials

SLD.01

DRAFT

AIA® Document A105™ – 2017

Standard Short Form of Agreement Between Owner and Contractor

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

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

«»«»
«»
«»
«»Town of Cumberland
45 Broad Street
Cumberland, RI 02864

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

« »« »
« »
« »
« »

for the following Project:
(Name, location and detailed description)

«Cumberland Senior Center»
«1464 Diamond Hill Rd.
Cumberland, RI»
«Exterior improvements»

The Architect:
(Name, legal status, address and other information)

« »« »
« »
« »
« »

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS: The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

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

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ARTICLE 1 THE CONTRACT DOCUMENTS

The Contractor shall complete the Work described in the Contract Documents for the Project. The Contract Documents consist of

.1 this Agreement signed by the Owner and Contractor;

.2 the drawings and specifications prepared by the Architect, dated « », and enumerated as follows:

Drawings:

Number	Title	Date

Specifications:

Section	Title	Pages

.3 addenda prepared by the Architect as follows:

Number	Date	Pages

.4 written orders for changes in the Work, pursuant to Article 10, issued after execution of this Agreement; and

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.5 other documents, if any, identified as follows:

« »

ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 2.1 The Contract Time is the number of calendar days available to the Contractor to substantially complete the Work.

§ 2.2 Date of Commencement:
Unless otherwise set forth below, the date of commencement shall be the date of this Agreement.
(Insert the date of commencement if other than the date of this Agreement.)

« »

§ 2.3 Substantial Completion:
Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion, as defined in Section 12.5, of the entire Work:
(Check the appropriate box and complete the necessary information.)

[« »] Not later than « » (« ») calendar days from the date of commencement.

[« »] By the following date: « »

ARTICLE 3 CONTRACT SUM

§ 3.1 The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work. Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

« » ($ « »)

§ 3.2 For purposes of payment, the Contract Sum includes the following values related to portions of the Work:
(Itemize the Contract Sum among the major portions of the Work.)

Portion of the Work	Value

§ 3.3 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and hereby accepted by the Owner:
(Identify the accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates 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.)

« »

§ 3.4 Allowances, if any, included in the Contract Sum are as follows:
(Identify each allowance.)

Item	Price

§ 3.5 Unit prices, if any, are as follows:
(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit ($0.00)

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ARTICLE 4 PAYMENTS

§ 4.1 Based on Contractor's Applications for Payment certified by the Architect, the Owner shall pay the Contractor, in accordance with Article 12, as follows:
(Insert below timing for payments and provisions for withholding retainage, if any.)

« »

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

« » % « »

ARTICLE 5 INSURANCE

§ 5.1 The Contractor shall maintain the following types and limits of insurance until the expiration of the period for correction of Work as set forth in Section 14.2, subject to the terms and conditions set forth in this Section 5.1:

§ 5.1.1 Commercial General Liability insurance for the Project, written on an occurrence form, with policy limits of not less than « » ($ « ») each occurrence, « » ($ « ») general aggregate, and « » ($ « ») aggregate for products-completed operations hazard.

§ 5.1.2 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than « » ($ « ») per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance, and use of those motor vehicles along with any other statutorily required automobile coverage.

§ 5.1.3 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided that such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 5.1.1 and 5.1.2, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ 5.1.4 Workers' Compensation at statutory limits.

§ 5.1.5 Employers' Liability with policy limits not less than « » ($ « ») each accident, « » ($ « ») each employee, and « » ($ « ») policy limit.

§ 5.1.6 The Contractor shall provide builder's risk insurance to cover the total value of the entire Project on a replacement cost basis.

§ 5.1.7 Other Insurance Provided by the Contractor
(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage	Limits

§ 5.2 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance and shall provide property insurance to cover the value of the Owner's property. The Contractor is entitled to receive an increase in the Contract Sum equal to the insurance proceeds related to a loss for damage to the Work covered by the Owner's property insurance.

§ 5.3 The Contractor shall obtain an endorsement to its Commercial General Liability insurance policy to provide coverage for the Contractor's obligations under Section 8.12.

§ 5.4 Prior to commencement of the Work, each party shall provide certificates of insurance showing their respective coverages.

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§ 5.5 Unless specifically precluded by the Owner's property insurance policy, the Owner and Contractor waive all rights against (1) each other and any of their subcontractors, suppliers, agents, and employees, each of the other; and (2) the Architect, Architect's consultants, and any of their agents and employees, for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance or other insurance applicable to the Project, except such rights as they have to the proceeds of such insurance.

ARTICLE 6 GENERAL PROVISIONS

§ 6.1 The Contract

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

§ 6.2 The Work

The term "Work" means the construction and services required by the Contract Documents, and includes all other labor, materials, equipment, and services provided, or to be provided, by the Contractor to fulfill the Contractor's obligations.

§ 6.3 Intent

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.

§ 6.4 Ownership and Use of Architect's Drawings, Specifications and Other Documents

Documents prepared by the Architect are instruments of the Architect's service for use solely with respect to this Project. The Architect shall retain all common law, statutory, and other reserved rights, including the copyright. The Contractor, subcontractors, sub-subcontractors, and suppliers are authorized to use and reproduce the instruments of service solely and exclusively for execution of the Work. The instruments of service may not be used for other Projects or for additions to this Project outside the scope of the Work without the specific written consent of the Architect.

§ 6.5 Electronic Notice

Written notice under this Agreement may be given by one party to the other by email as set forth below.
(Insert requirements for delivering written notice by email such as name, title, and email address of the recipient, and whether and how the system will be required to generate a read receipt for the transmission.)

« »

ARTICLE 7 OWNER

§ 7.1 Information and Services Required of the Owner

§ 7.1.1 If requested by the Contractor, the Owner shall furnish all necessary surveys and a legal description of the site.

§ 7.1.2 Except for permits and fees under Section 8.7.1 that are the responsibility of the Contractor, the Owner shall obtain and pay for other necessary approvals, easements, assessments, and charges.

§ 7.1.3 Prior to commencement of the Work, at the written request of the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence.

§ 7.2 Owner's Right to Stop the Work

If the Contractor fails to correct Work which is not in accordance with the Contract Documents, the Owner may direct the Contractor in writing to stop the Work until the correction is made.

§ 7.3 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, correct such

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deficiencies. In such case, the Architect may withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the cost of correction, provided the actions of the Owner and amounts charged to the Contractor were approved by the Architect.

§ 7.4 Owner's Right to Perform Construction and to Award Separate Contracts

§ 7.4.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project.

§ 7.4.2 The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

ARTICLE 8 CONTRACTOR

§ 8.1 Review of Contract Documents and Field Conditions by Contractor

§ 8.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 8.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies, or omissions discovered to the Architect.

§ 8.2 Contractor's Construction Schedule

The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work.

§ 8.3 Supervision and Construction Procedures

§ 8.3.1 The Contractor shall supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work.

§ 8.3.2 The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner, through the Architect, the names of subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any subcontractor or supplier to whom the Owner or Architect have made a timely and reasonable objection.

§ 8.4 Labor and Materials

§ 8.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work.

§ 8.4.2 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

§ 8.5 Warranty

The Contractor warrants to the Owner and Architect that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents. Any material or equipment warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 12.5.

§ 8.6 Taxes

The Contractor shall pay sales, consumer, use, and similar taxes that are legally required when the Contract is executed.

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§ 8.7 Permits, Fees and Notices

§ 8.7.1 The Contractor shall obtain and pay for the building permit and other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work.

§ 8.7.2 The Contractor shall comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs. The Contractor shall promptly notify the Architect in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules, and regulations.

§ 8.8 Submittals

The Contractor shall promptly review, approve in writing, and submit to the Architect shop drawings, product data, samples, and similar submittals required by the Contract Documents. Shop drawings, product data, samples, and similar submittals are not Contract Documents.

§ 8.9 Use of Site

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents, and the Owner.

§ 8.10 Cutting and Patching

The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

§ 8.11 Cleaning Up

The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery, and surplus material; and shall properly dispose of waste materials.

§ 8.12 Indemnification

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them, from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.

ARTICLE 9 ARCHITECT

§ 9.1 The Architect will provide administration of the Contract as described in the Contract Documents. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 9.2 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work.

§ 9.3 The Architect will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

§ 9.4 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor.

§ 9.5 The Architect has authority to reject Work that does not conform to the Contract Documents.

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§ 9.6 The Architect will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 9.7 On written request from either the Owner or Contractor, the Architect will promptly interpret and decide matters concerning performance under, and requirements of, the Contract Documents.

§ 9.8 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from the Contract Documents, and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions rendered in good faith.

§ 9.9 The Architect's duties, responsibilities, and limits of authority as described in the Contract Documents shall not be changed without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

ARTICLE 10 CHANGES IN THE WORK

§ 10.1 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract, consisting of additions, deletions or other revisions, and the Contract Sum and Contract Time shall be adjusted accordingly, in writing. If the Owner and Contractor cannot agree to a change in the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and profit.

§ 10.2 The Architect may authorize or order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Such authorization or order shall be in writing and shall be binding on the Owner and Contractor. The Contractor shall proceed with such minor changes promptly.

§ 10.3 If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to equitable adjustment.

ARTICLE 11 TIME

§ 11.1 Time limits stated in the Contract Documents are of the essence of the Contract.

§ 11.2 If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable adjustment.

§ 11.3 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the responsible party.

ARTICLE 12 PAYMENTS AND COMPLETION

§ 12.1 Contract Sum

The Contract Sum stated in this Agreement, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 12.2 Applications for Payment

§ 12.2.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for Work completed in accordance with the values stated in this Agreement. The Application shall be supported by data substantiating the Contractor's right to payment as the Owner or Architect may reasonably require, such as evidence of payments made to, and waivers of liens from, subcontractors and suppliers. Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

§ 12.2.2 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment,

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all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or other encumbrances adverse to the Owner's interests.

§ 12.3 Certificates for Payment

The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in part; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole. If certification or notification is not made within such seven day period, the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time and the Contract Sum shall be equitably adjusted due to the delay.

§ 12.4 Progress Payments

§ 12.4.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner provided in the Contract Documents.

§ 12.4.2 The Contractor shall promptly pay each subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

§ 12.4.3 Neither the Owner nor the Architect shall have responsibility for payments to a subcontractor or supplier.

§ 12.4.4 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the requirements of the Contract Documents.

§ 12.5 Substantial Completion

§ 12.5.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 12.5.2 When the Contractor believes that the Work or designated portion thereof is substantially complete, it will notify the Architect and the Architect will make an inspection to determine whether the Work is substantially complete. When the Architect determines that the Work is substantially complete, the Architect shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, establish the responsibilities of the Owner and Contractor, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 12.6 Final Completion and Final Payment

§ 12.6.1 Upon receipt of a final Application for Payment, the Architect will inspect the Work. When the Architect finds the Work acceptable and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment.

§ 12.6.2 Final payment shall not become due until the Contractor submits to the Architect releases and waivers of liens, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests, or encumbrances arising out of the Contract.

§ 12.6.3 Acceptance of final payment by the Contractor, a subcontractor or supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 13 PROTECTION OF PERSONS AND PROPERTY

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take

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reasonable precautions to prevent damage, injury, or loss to employees on the Work and other persons who may be affected thereby, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

ARTICLE 14 CORRECTION OF WORK

§ 14.1 The Contractor shall promptly correct Work rejected by the Architect as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement, and additional testing.

§ 14.2 In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of one year after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

§ 14.3 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

ARTICLE 15 MISCELLANEOUS PROVISIONS

§ 15.1 Assignment of Contract

Neither party to the Contract shall assign the Contract as a whole without written consent of the other.

§ 15.2 Tests and Inspections

§ 15.2.1 At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections, and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

§ 15.2.2 If the Architect requires additional testing, the Contractor shall perform those tests.

§ 15.2.3 The Owner shall bear cost of tests, inspections, or approvals that do not become requirements until after the Contract is executed. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 15.3 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules.

ARTICLE 16 TERMINATION OF THE CONTRACT

§ 16.1 Termination by the Contractor

If the Work is stopped under Section 12.3 for a period of 14 days through no fault of the Contractor, the Contractor may, upon seven additional days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and profit, and costs incurred by reason of such termination.

§ 16.2 Termination by the Owner for Cause

§ 16.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 is otherwise guilty of substantial breach of a provision of the Contract Documents.

§ 16.2.2 When any of the above reasons exist, the Owner, after consultation with the Architect, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may

- .1 take possession of the site and of all materials thereon owned by the Contractor, and
- .2 finish the Work by whatever reasonable method the Owner may deem expedient.

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§ 16.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 16.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of the Contract.

§ 16.3 Termination by the Owner for Convenience

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

ARTICLE 17 OTHER TERMS AND CONDITIONS

(Insert any other terms or conditions below.)

« »

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

(If required by law, insert cancellation period, disclosures or other warning statements above the signatures.)

« »

OWNER *(Signature)*	**CONTRACTOR** *(Signature)*
« »« »	« »« »
(Printed name and title)	*(Printed name and title)* LICENSE NO.: JURISDICTION:

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work Phasing
4. Work under separate contracts.
5. Access to site.
6. Coordination with Tenants
7. Work restrictions.
8. Specification and drawing conventions.
9. Miscellaneous provisions.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.2 PROJECT INFORMATION

A. Project Identification: **Cumberland Senior Center**

1. Project Location: **1464 Diamond Hill Road, Cumberland, RI**

B. Owner: **Town of Cumberland**

1. Owner's Representative: **Linda Teel** and **Glenn Modica**

C. Architect: Union Studio Architecture and Community Planning, Inc. 140 Union Studio, Providence, RI

1. Architect’s Representative: **Kevin Beaulieu**

D. Contractor: **T.B.D.**

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and consists of the following:

1. The **“Cumberland Senior Center”** project consists of renovations to the existing senior center building on the Cumberland Monastery site. Renovations include the installation

of fibercement cladding and manufactured stone veneer on the façade, the demo and reconstruction of the front portico area, minor interior plan reconfigurations, the removal and replacement of existing doors, and front entry accessibility. Renovations focus on the building but also take into consideration the surrounding site, including parking, connection to the existing gazebo, and landscaping.

B. Type of Contract.

1. Project will be constructed under a single prime contract.

1.4 WORK PHASES

The site is vacant and work may commence at any time the Owner is ready to proceed with construction.

1.5 PRODUCTS ORDERED IN ADVANCE

A. General: If Owner has negotiated Purchase Orders with suppliers of material and equipment to be incorporated into the Work, The Owner will assign these Purchase Order to Contractor. Cost for receiving, handling, storage if required, and installation of material and equipment are included in the Contract Sum.

B. List of Products Ordered in Advance:
1. No Products ordered in advance at this time.

1.6 ACCESS TO SITE

A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Use of Site: Limit use of Project site to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Limits: Confine construction operations to areas where work is to be performed only.

1.7 COORDINATION WITH OCCUPANTS

A. Not Used.

1.8 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7 a.m. to 5 p.m., Monday through Friday, unless otherwise indicated or adjusted by the Owner.

C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.

1. Notify Owner not less than two days in advance of proposed disruptive operations.
2. Obtain Owner's written permission before proceeding with disruptive operations.

D. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor-air intakes.

E. Controlled Substances: Use of tobacco products and other controlled substances within the existing building is not permitted.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:

1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.10 MISCELLANEOUS PROVISIONS

A. This project IS exempt from state sales tax.

B. This project is a residential prevailing rate wage job under the Davis-Bacon Act

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:

1. Lump-sum allowances.
2. Unit-cost allowances.
3. Quantity allowances.
4. Contingency allowances.
5. Testing and inspecting allowances.

C. Related Requirements:

1. Section 012200 "Unit Prices" for procedures for using unit prices.
2. Section 014000 "Quality Requirements" for procedures governing the use of allowances for testing and inspecting.

1.2 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.

B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

C. Purchase products and systems selected by Architect from the designated supplier.

1.3 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.

1.4 INFORMATIONAL SUBMITTALS

A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.

B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance.

C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 LUMP-SUM, UNIT-COST AND QUANTITY ALLOWANCES

A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner or selected by Architect under allowance and shall include freight and delivery to Project site.

B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner and selected by Architect under allowance shall be included as part of the Contract Sum and not part of the allowance.

C. Unused Materials: Return unused materials purchased under an allowance to manufacturer or supplier for credit to Owner, after installation has been completed and accepted.

1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

1.7 CONTINGENCY ALLOWANCES

A. Use the contingency allowance only as directed by Architect for Owner's purposes and only by Change Orders that indicate amounts to be charged to the allowance.

B. Contractor's related costs for products and equipment ordered by Owner under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation, insurance, equipment rental, and similar costs.

C. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.

D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

1.8 TESTING AND INSPECTING ALLOWANCES

A. Testing and inspecting allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results.

B. The allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspections result in failure. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.

C. Costs of services not required by the Contract Documents are not included in the allowance.

D. At Project closeout, credit unused amounts remaining in the testing and inspecting allowance to Owner by Change Order.

1.9 ADJUSTMENT OF ALLOWANCES

A. Allowance Adjustment: To adjust allowance amounts, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.

1. Include installation costs in purchase amount only where indicated as part of the allowance.
2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
4. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.

B. Submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's handling, labor, installation, overhead, and profit.

1. Do not include Contractor's or subcontractor's indirect expense in the Change Order cost amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
2. No change to Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

For all Allowances, refer to Bid Form

END OF SECTION 012100

SECTION 012200 - UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

1.2 DEFINITIONS

A. Unit price is an amount incorporated in the Agreement, applicable during the duration of the Work as a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to or deducted from the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: See individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

For all unit prices, refer to Bid Form

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.2 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

For a list of Alternate prices, refer to Bid Form in Contract

END OF SECTION 012300

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Requirements:

1. Section 012100 "Allowances" for procedural requirements governing the handling and processing of allowances.
2. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.

1.2 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:

a. Application for Payment forms with continuation sheets.
b. Submittal schedule.
c. Items required to be indicated as separate activities in Contractor's construction schedule.

2. Submit the schedule of values to Architect at earliest possible date but no later than 30 days after Owner and Contractor have formalized a contract.

B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:

a. Project name and location.
b. Name of Architect.
c. Architect's project number.
d. Contractor's name and address.
e. Date of submittal.

2. Arrange schedule of values consistent with format of AIA Document G703.
3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project

Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.

4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.3 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.

C. Payment Application Times: Submit Application for Payment to Architect by the 3rd day of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.

D. Application for Payment Forms: Use forms acceptable to Owner and Architect for Applications for Payment. Sample copies are included in Project Manual.

E. Change Orders: When preparing Application for Payment, Contractor cannot include Change Order on requisition until Owner and Architect has signed a Proposed Change Order.

F. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

G. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

H. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
2. When an application shows completion of an item, submit conditional final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
4. Waiver Forms: Submit executed waivers of lien on forms acceptable to Owner.

I. Section 3 Hiring Reporting: With each Application for Payment, submit section 3 hiring requirements forms which are provided in the project manual section of the specifications. This shall be completed by ever subcontractor and submitted with every application for payment regardless if there were any new hires or not

J. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors including their total contract values.
2. Schedule of values.
3. Contractor's construction schedule (preliminary if not final).
4. Schedule of unit prices.
5. Submittal schedule (preliminary if not final).
6. Initial progress report.
7. Report of preconstruction conference.
8. Certificates of insurance and insurance policies.

K. Application for Payment at Substantial Completion: After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

L. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707-1994, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. Coordination drawings.
2. Requests for Information (RFIs).
3. Project Web site.
4. Project meetings.
5. Coordination with other campus projects.

B. Related Requirements:

1. Section 011200 "Multiple Contract Summary" for a description of the division of work among separate contracts and responsibility for coordination activities not in this Section.
2. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.2 DEFINITIONS

A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.3 INFORMATIONAL SUBMITTALS

A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.
3. Drawing number and detail references, as appropriate, covered by subcontract.

1.4 GENERAL COORDINATION PROCEDURES

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.
2. Preparation of the schedule of values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.

1.5 COORDINATION DRAWINGS

A. Coordination Drawings, General: Prepare coordination drawings according to requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.

1. Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:

a. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
b. Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.

B. Coordination Drawing Organization: Organize coordination drawings as follows:

1. Floor Plans and Reflected Ceiling Plans: Show architectural and structural elements, and mechanical, plumbing, fire-protection, fire-alarm, and electrical Work. Show locations of visible ceiling-mounted devices relative to acoustical ceiling grid.
2. Plenum Space: Indicate sub-framing for support of ceiling and wall systems, mechanical and electrical equipment, and related Work. Locate components within ceiling plenum to accommodate layout of light fixtures indicated on Drawings.
3. Mechanical Rooms: Provide coordination drawings for mechanical rooms showing plans and elevations of mechanical, plumbing, fire-protection, fire-alarm, and electrical equipment.
4. Structural Penetrations: Indicate penetrations and openings required for all disciplines.
5. Slab Edge and Embedded Items: Indicate slab edge locations and sizes and locations of embedded items for metal fabrications, sleeves, anchor bolts, bearing plates, angles, door floor closers, slab depressions for floor finishes, curbs and housekeeping pads, and similar items.
6. Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are Contractor's responsibility.

1.6 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project number.
3. Date.
4. Name of Contractor.
5. Name of Architect.
6. RFI number, numbered sequentially.
7. RFI subject.
8. Specification Section number and title and related paragraphs, as appropriate.
9. Drawing number and detail references, as appropriate.
10. Field dimensions and conditions, as appropriate.
11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
12. Contractor's signature.
13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

C. RFI Forms: Form bound in Project Manual.

D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow 10 working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:

a. Requests for approval of submittals.
b. Requests for approval of substitutions.
c. Requests for coordination information already indicated in the Contract Documents.
d. Requests for adjustments in the Contract Time or the Contract Sum.
e. Requests for interpretation of Architect's actions on submittals.
f. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.

E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log weekly. Include the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Architect.
4. RFI number including RFIs that were dropped and not submitted.
5. RFI description.
6. Date the RFI was submitted.
7. Date Architect's response was received.

F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
3. Minutes: *Contractor* is responsible for conducting meeting and will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.

B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.

1. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following:

    a. To be provided by Architect prior to meeting

3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Progress Meetings: Conduct progress meetings *bi-weekly except as otherwise determined by the project team.*

1. Attendees: In addition to representatives of Owner, Architect, and General Contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings as deemed necessary by Owner, Architect, and/or General Contractor. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

        1) Review schedule for next period.

    b. Review present and future needs of each entity present, including the following:

        1) Interface requirements.
        2) Sequence of operations.
        3) Status of submittals.
        4) Deliveries.

5) Off-site fabrication.
6) Access.
7) Site utilization.
8) Temporary facilities and controls.
9) Progress cleaning.
10) Quality and work standards.
11) Status of correction of deficient items.
12) Field observations.
13) Status of RFIs.
14) Status of proposal requests.
15) Pending changes.
16) Status of Change Orders.
17) Pending claims and disputes.
18) Documentation of information for payment requests.

3. Minutes: ***Contractor*** *is* responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

   a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting. Retain "Pre-installation Conferences" Paragraph below if Project requires pre-installation conferences. Limit pre-installation conferences to major assemblies if the Work requires tight control and coordination. If necessary, individual Sections should specify pre-installation conferences as a requirement and should reference this Section.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Requirements:

1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Contractor may use Owner’s existing water service.

C. Electric Power Service from Existing System: Contractor may use Owner’s existing electrical service

1.3 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

B. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:

1. Keep temporary services and facilities clean and neat.
2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices, General: Coordinate with Owner for use of designated area for field office use.

B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
   1. Any use of storage or fabrication sheds are not allowed unless approved by Owner.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

   1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

B. Self-Contained Toilet Units: Single-occupant units of chemical, aerated recirculation, or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
adequate for construction.

C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

E. Heating and Cooling: Provide temporary heating required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

3.3 SUPPORT FACILITIES INSTALLATION

A. Traffic Controls: Comply with requirements of authorities having jurisdiction.

   1. Protect existing site improvements to remain including curbs, pavement, and utilities.
   2. Maintain access for fire-fighting equipment and access to fire hydrants.

B. Parking: Use designated areas of Owner's existing parking areas for construction personnel.

C. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations.

D. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.

F. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire prevention program.

1. Prohibit smoking in construction areas.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.

3.5 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period.

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Requirements:

1. Section 012500 "Substitution Procedures" for requests for substitutions.

1.2 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product

request. Architect will notify Contractor of approval or rejection of proposed comparable product request within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.

a. Form of Approval: As specified in Section 013300 "Submittal Procedures."
b. Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

B. Basis-of-Design Product Specification Submittal: Comply with requirements in Section 013300 "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.
3. Refer to other Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.

2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:

    a. Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.
    b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.

4. Manufacturers:

    a. Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.
    b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.

5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

    1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:

1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 022210 - ENVIRONMENTAL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Asbestos.

B. Lead-Based Paint (LBP)

C. Other hazardous materials

1.2 SUBMITTALS

A. Submit copies of all licenses, permits, approvals, test results, disposal manifests, clearance testing reports to the Owner upon completion of the work.

PART 2 - STANDARDS

2.1 All work shall be performed in a manner as may be required and approved by, but not limited to, Rhode Island Department of Health (RIDOH), Department of Environmental Management (DEM), Occupational Safety and Health Administration (OSHA), and any other federal, state and/or local regulating authorities having jurisdiction therein.

2.2 All work shall be performed in a manner as may be required and approved by the Owner.

2.3 RIDOH Environmental Lead Program - "Rules and Regulations for Lead Poisoning Prevention" (R23-24.6-PB), February 1992, and all Amends.

2.4 RIDEM, Air Pollution Control Regulation No. 24.

PART 3 - EXECUTION

3.1 All existing materials, or suspected materials, containing asbestos, shall be removed and/or abated in the manner as defined in the Asbestos Containing Material Sampling Report prepared by the Owner's environmental engineer. Clearance documents and dump receipts for asbestos abatement shall be required as a condition of project closeout.

3.2 All existing materials, or suspected materials, containing lead based paint shall be removed and/or abated in a manner as defined, approved and regulated as per 2.2.1, 2.2.2, 2.2.4, 2.2.5 and per state regulations.

3.3 All other existing or suspected hazardous materials including, but not limited to, paints, thinners, gasoline and kerosene shall be removed and disposed of in a manner as approved, and regulated as per 2.2.1, 2.2.2, 2.2.4, 2.2.5.

PART 4 - COSTS

4.1 The costs of all licenses, permits, fees, inspections, approvals, disposal and/or abatement of hazardous materials, or suspected hazardous materials shall be paid for by the Contractor.

4.2 Asbestos Abatement Plan shall be paid for by the Owner.

4.3 Lead Testing by Owner.

PART 5 - REFERENCES

5.1 Asbestos Containing Material Sampling Report, Prepared by RI Analytical, dated 9/4/20

END OF SECTION 022210

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Demolition and removal of selected site elements.
3. Salvage of existing items to be reused or recycled.

1.2 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.3 PREINSTALLATION MEETINGS

A. Predemolition Conference: Conduct conference at Project site.

1.4 INFORMATIONAL SUBMITTALS

A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and, for noise control. Indicate proposed locations and construction of barriers.

B. Schedule of selective demolition activities with starting and ending dates for each activity.

C. Predemolition photographs or video.

1.5 CLOSEOUT SUBMITTALS

A. Inventory of items that have been removed and salvaged.

1.6 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

1. Before selective demolition, Owner will remove the following items:

a. To be determined at a site walkthrough with the Owner and Contractor prior to commencing construction.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

G. Arrange selective demolition schedule so as not to interfere with Owner's operations.

1.7 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

C. Inventory and record the condition of items to be removed and salvaged.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems are to be removed in their entirety.

B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Arrange to shut off utilities with utility companies.
2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.

    a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
    b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
    c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
    d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
    e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
    f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
    g. Ducts to Be Abandoned in Place: Not applicable. Contractor shall not abandon any ducts in place.

3.3 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
4. Maintain fire watch during and for at least 30 minutes after flame-cutting operations.
5. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

C. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable,

protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 CLEANING

A. Remove demolition waste materials from Project site and recycle or dispose of them.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
4. Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."

B. Burning: Do not burn demolished materials.

C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

B. Work scope:
   1. Exterior sidewalk/patio
   2. Concrete footings

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Design Mixtures: For each concrete mixture.

C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement.

D. Formwork Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, and support of formwork.

1.3 INFORMATIONAL SUBMITTALS

A. Material certificates.

B. Material test reports.

C. Floor surface flatness and levelness measurements.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

   1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

B. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.

C. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:

1. ACI 301, "Specifications for Structural Concrete," Sections 1 through 5.
2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

D. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.

B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.2 STEEL REINFORCEMENT

A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.

B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed, black (protected from rust prior to installing).

C. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain, fabricated from as-drawn steel wire into flat sheets.

D. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.

E. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice.

2.3 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:

1. Portland Cement: ASTM C 150, Type I,.

a. Fly Ash: ASTM C 618, Class F.
b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.

B. Normal-Weight Aggregates: ASTM C 33, graded.

C. Water: ASTM C 94/C 94M.

2.4 VAPOR RETARDERS (*Not applicable*)

A. Sheet Vapor Retarder: ASTM E 1745, Class A B C. Include manufacturer's recommended adhesive or pressure-sensitive tape.

B. Sheet Vapor Retarder: Polyethylene sheet, ASTM D 4397, not less than 10 mils thick.

2.5 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.

C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

D. Water: Potable.

E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.

F. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

1. VOC Content: Curing and sealing compounds shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

G. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

1. VOC Content: Curing and sealing compounds shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.6 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

2.7 CONCRETE MIXTURES

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

B. Cementitious Materials: Use fly ash, pozzolan, ground granulated blast-furnace slag, and silica fume as needed to reduce the total amount of portland cement, which would otherwise be used, by not less than 40 percent.

C. Admixtures: Use admixtures according to manufacturer's written instructions.

1. Use water-reducing or plasticizing admixture in concrete, as required, for placement and workability.
2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a water-cementitious materials ratio below 0.50.

D. Proportion normal-weight concrete mixture as follows:

1. Minimum Compressive Strength: 3000 psi for foundations and footings at 28 days. Slabs to be 4000 psi at 28 days
2. Maximum Water-Cementitious Materials Ratio: 0.50.
3. Slump Limit: 4 inches, plus or minus 1 inch.
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-inch nominal maximum aggregate size.
5. Air Content: Do not allow air content of trowel-finished floors to exceed 3 percent.

2.8 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.9 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 VAPOR RETARDERS (*Not applicable*)

A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.

1. Lap joints 6 inches and seal with manufacturer's recommended tape.

3.4 STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.5 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

E. Waterstops: Install in construction joints and at other joints indicated according to manufacturer's written instructions.

3.6 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.

C. Cold-Weather Placement: Comply with ACI 306.1.

D. Hot-Weather Placement: Comply with ACI 301.

3.7 FINISHING FORMED SURFACES

A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

1. Apply to concrete surfaces exposed to public view,.

B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.8 FINISHING FLOORS AND SLABS

A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.

B. Scratch Finish: While still plastic, texture concrete surface that has been screeded and bull-floated or darbied. Use stiff brushes, brooms, or rakes to produce a profile amplitude of 1/4 inch in one direction.

C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.

D. Trowel Finish: After applying float finish, apply first troweling and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.

E. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.

3.9 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

    a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer unless manufacturer certifies curing compound will not interfere with bonding of floor covering used on Project.

4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.10 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

3.11 FIELD QUALITY CONTROL

A. Testing and Inspecting: Contractor to engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.

B. Inspections:

1. Steel reinforcement placement.

2. Steel reinforcement welding.

3. Verification of use of required design mixture.

4. Concrete placement, including conveying and depositing.

5. Curing procedures and maintenance of curing temperature.

C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:

1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day.

a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.

3. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.

4. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.

5. Unit Weight: ASTM C 567, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.

6. Compression Test Specimens: ASTM C 31/C 31M.

a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.

7. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at 7 days and one set of two specimens at 28 days.

a. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.

8. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

9. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.

10. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.

11. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.

12. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

13. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

D. Measure floor and slab flatness and levelness according to ASTM E 1155 (ASTM E 1155M) within 48 hours of finishing.

END OF SECTION 033000

SECTION 047300 - MANUFACTURED MASONRY VENEER

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Portland cement based manufactured [stone] [and] [brick] veneer and trim.

B. Related Sections:
   1. 076000–Flashing and Sheet Metal.
   2. 079200–Joint Sealants.

C. American National Standards Institute (ANSI):
   1. ANSI A118.4 Specifications for Latex-Portland Cement Mortar.

D. American Society for Testing and Materials (ASTM):
   1. ASTM C 67 – Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile.
   2. ASTM C 144 – Standard Specification for Aggregate for Masonry Mortar.
   3. ASTM C 207 – Standard Specification for Hydrated Lime for Masonry Purposes.
   4. ASTM C 270 – Standard Specification for Mortar for Unit Masonry.
   5. ASTM C 847 – Standard Specification for Metal Lath.
   6. ASTM C 932 – Standard Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
   7. ASTM C 979 – Standard Specification for Pigments for Integrally Colored Concrete.
   8. ASTM C 1032 – Standard Specification for Woven Wire Plaster Base.
   9. ASTM C1063 –Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
   10. ASTM C1329 Standard specification for Portland cement
   11. ASTM E2556/E2556M – Standard Specification for Vapor Permeable Flexible Sheet Water-Resistive Barriers Intended for Mechanical Attachment

E. International Code Council (ICC):
   1. ESR Report.

F. Underwriter's Laboratory (UL): Building Materials Directory.

1.02 SUBMITTALS

A. Reference Section 01 33 00–Submittal Procedures; submit following items:
   1. Product Data.
   2. Samples:
      a. Standard sample board consisting of small-scale pieces of veneer units showing full range of textures and colors.
      b. Full range of mortar colors.
   3. Quality Assurance/Control Submittals:
      a. Qualifications:
         1) Proof of manufacturer qualifications.
         2) Proof of installer qualifications.

b. Regulatory Requirements: Evaluation reports.
c. Veneer manufacturer's installation instructions.
d. Installation instructions for other materials.

B. Closeout Submittals: Reference Section 01 78 00–Closeout Submittals; submit following items:
1. Maintenance Instructions.
2. Special Warranties.

1.03 QUALITY ASSURANCE

A. Qualifications:
1. Manufacturer Qualifications: Eldorado Stone, LLC.
2. Installer Qualifications: Experienced mason familiar with installation procedures and related local, state and federal codes masonry.

B. Certifications:
1. ICC Evaluation Service – Evaluation Report ESR-1215.
2. ICC ESR-1215, Florida Building Code Supplement
3. ASTM C1670
4. LARR – Research Report RR25589
5. HUD – Material Release Number 910F
6. UL – Classification listing in Building Materials Directory: UL 546T (F8002).

C. Field Sample/Mock Up:
1. Prepare 4 by 4 foot sample at a location on the structure as selected by the Architect. Use approved selection sample materials and colors.
2. Obtain Architect's approval.
3. Coordinate local product rep to review on site with installing contractor and laborers.
4. Protect and retain sample as a basis for approval of completed manufactured stone work. Approved sample may be incorporated into completed work.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Reference Section 01 66 00–Product Storage and Handling Requirements.

B. Follow manufacturer's instructions.

1.05 PROJECT/SITE CONDITIONS

A. Environmental Requirements: When air temperature is 40 degrees F (4.5 degrees C) or below, consult local building code for Cold-Weather Construction requirements.

1.06 WARRANTY

A. Special Warranty: Manufacturer's standard warranty coverage against defects in materials when installed in accordance with manufacturer's installation instructions.

PART 2 - PRODUCTS

2.01 MANUFACTURER

A. Eldorado Stone, LLC
1370 Grand Ave., Bldg. B
San Marcos, CA 92069

Tel: (800) 925-1491
Fax: (760) 736-3840
E-Mail: customerservice@eldoradostone.com
Website: www.eldoradostone.com

B. Product: Manufactured Stone Veneer

C. Substitutions: None Allowed.

2.02 MATERIALS

A. Stone Veneer:
1. Profile: Cypress Ridge Include matching corner pieces.

2. Stone Accents:
a. Wainscot Sill 20”x3”x2.5”(back)x2”(face).
1) Color: Blue Steel
2) Texture: Split Edge

B. Veneer Unit properties: Precast veneer units consisting of portland cement, lightweight aggregates, and mineral oxide pigments.
1. Compressive Strength: ASTM C 192 and ASTM C 39, 5 sample average: greater than 1,800 psi (12.4MPa).
2. Shear Bond: ASTM C 482: 50 psi (345kPa), minimum.
3. Freeze-Thaw Test: ASTM C 67: Less than 3 percent weight loss and no disintegration.
4. Thermal Resistance: ASTM C 177: 0.473 at 1.387 inches thick
5. Weight per square foot: 2012 IBC and 2012 IRC, ASTM C1670, 15 pounds, saturated.

C. Reinforcing: ASTM C 847, 2.5lb/yd^2 (1.4kg/m^2) galvanized expanded metal lath complying with code agency requirements for the type of substrate over which stone veneer is installed.

D. Mortar:
1. Cement: Portland cement complying with ASTM C 1329.
2. Lime: ASTM C 207.
3. Sand: ASTM C 144, natural or manufactured sand.
4. Color Pigment: ASTM C 979, mineral oxide pigments.
5. Water: Potable.
6. Pre-Packaged Latex-Portland Cement Mortar: ANSI A118.4.

E. Bonding Agent: Exterior integral bonding agent meeting ASTM C 932

F. Water Repellent: Water based silane or siloxane masonry water repellent

2.03 MORTAR MIXES

A. Standard Installation (Grouted Joints):
1. Mix mortar in accordance with ASTM C 270,
2. Polymer modified mortar complying with ANSI A118.4

a. Add color pigment in grout joint mortar in accordance with pigment manufacturer's instructions not to exceed 10% by weight of cement.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates upon which work will be installed.

B. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.

C. Commencement of work by installer is acceptance of substrate.

3.02 PREPARATION

A. Protection: Protect adjacent work from contact with mortar.

B. Surface Preparation: Prepare substrate in accordance with manufacturer's installation instructions for the type of substrate being covered.

3.03 INSTALLATION

A. Install and clean stone in accordance with manufacturer's installation instructions for Standard Installation (Grouted Joint) or Jointless/Dry-Stacked installation as specified above.

B. Apply repellent in accordance with repellent manufacturer's application instructions.

3.04 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Manufacturer's Field Service Representative shall make two periodic site visits review of on-going installation process and shall issue a report documenting any issues that may be noticed.

3.05 CLEANING

A. Reference Section 01 74 00–Cleaning and Waste Management.

B. Remove protective coverings from adjacent work.

C. Cleaning Veneer Units:
   1. Wash with soft bristle brush and water/granulated detergent solution
   2. Rinse immediately with clean water

D. Removing Effloresence:
   1. Allow veneer to dry thoroughly
   2. Scrub with soft bristle brush and clean water
   3. Rinse immediately with clean water; allow to dry
   4. If efflorescence is still visible, contact ES Customer Service for assistance

END OF SECTION[1]

[1] This specification was prepared specifically for Eldorado Stone Corporation by ASC Specification Consultants. Comments or suggestions for improvement should be addressed to Eldorado Stone via the contact information on page one.

Revised: APRIL 30, 2018

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Steel pipe and tube railings.

B. Related Requirements:

1.2 ACTION SUBMITTALS

A. Product Data: For the following:

1. Manufacturer's product lines of mechanically connected railings.
2. Railing brackets.
3. Grout, anchoring cement, and paint products.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

C. Samples: For each type of exposed finish required.

D. Delegated-Design Submittal: For railings, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.3 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For pipe and tube railings, for tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design railings, including attachment to building construction.

B. Structural Performance: Railings, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrails and Top Rails of Guards:

a. Uniform load of 50 lbf/ ft. (0.73 kN/m) applied in any direction.
b. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
c. Uniform and concentrated loads need not be assumed to act concurrently.

2. Infill of Guards:

a. Concentrated load of 50 lbf (0.22 kN) applied horizontally on an area of 1 sq. ft. (0.093 sq. m).
b. Infill load and other loads need not be assumed to act concurrently.

2.2 METALS, GENERAL

A. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.3 STEEL AND IRON

A. Tubing: ASTM A 500 (cold formed) or ASTM A 513.

B. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

1. Provide galvanized finish for exterior installations and where indicated.

C. Plates, Shapes, and Bars: ASTM A 36/A 36M.

D. Cast Iron: Either gray iron, ASTM A 48/A 48M, or malleable iron, ASTM A 47/A 47M, unless otherwise indicated.

2.4 FASTENERS

A. General: Provide the following:

1. Ungalvanized-Steel Railings: Plated steel fasteners complying with ASTM B 633 or ASTM F 1941 (ASTM F 1941M), Class Fe/Zn 5 for zinc coating.
2. Hot-Dip Galvanized Railings: Type 304 stainless-steel or hot-dip zinc-coated steel fasteners complying with ASTM A 153/A 153M or ASTM F 2329 for zinc coating.

B. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors capable of sustaining, without failure, a load equal to 6 times the load imposed when installed in unit masonry and 4 times the load imposed when installed in concrete, as determined by testing according to ASTM E 488/E 488M, conducted by a qualified independent testing agency.

1. Material for Interior Locations: Carbon-steel components zinc-plated to comply with ASTM B 633 or ASTM F 1941 (ASTM F 1941M), Class Fe/Zn 5, unless otherwise indicated.

2. Material for Exterior Locations and Where Stainless Steel Is Indicated: Alloy Group 1 (A1) stainless-steel bolts, ASTM F 593 (ASTM F 738M), and nuts, ASTM F 594 (ASTM F 836M).

2.5 MISCELLANEOUS MATERIALS

A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.

B. Etching Cleaner for Galvanized Metal: Complying with MPI#25.

C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.

D. Shop Primers: Provide primers that comply with Section 099000 Interior, Exterior, & Industrial Paints and Coatings.

E. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79 and compatible with topcoat.

F. Epoxy Zinc-Rich Primer: Complying with MPI#20 and compatible with topcoat.

G. Shop Primer for Galvanized Steel: Primer formulated for exterior use over zinc-coated metal and compatible with finish paint systems indicated.

H. Epoxy Intermediate Coat: Complying with MPI #77 and compatible with primer and topcoat.

I. Polyurethane Topcoat: Complying with MPI #72 and compatible with undercoat.

J. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.

K. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.

2.6 FABRICATION

A. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

B. Form work true to line and level with accurate angles and surfaces.

C. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove flux immediately.

4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.

D. Welded Connections for Aluminum Pipe: Fabricate railings to interconnect members with concealed internal welds that eliminate surface grinding, using manufacturer's standard system of sleeve and socket fittings.

E. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.

F. Form changes in direction by bending or by inserting prefabricated elbow fittings.

G. For changes in direction made by bending, use jigs to produce uniform curvature for each repetitive configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

H. Close exposed ends of railing members with prefabricated end fittings.

I. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated.

J. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.

2.7 PAINT

A. Refer to sections 099113 & 099123 for painting requirements

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

1. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
2. Set posts plumb within a tolerance of 1/16 inch in 3 feet (2 mm in 1 m).
3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet (6 mm in 3.5 m).

B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1. Coat, with a heavy coat of bituminous paint, concealed surfaces of aluminum that are in contact with grout, concrete, masonry, wood, or dissimilar metals.

3.2 ANCHORING POSTS

A. Use metal sleeves preset and anchored into concrete for installing posts. After posts are inserted into sleeves, fill annular space between post and sleeve with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.

B. Anchor posts to metal surfaces with oval flanges, angle type, or floor type as required by conditions, connected to posts and to metal supporting members.

3.3 ATTACHING RAILINGS

A. Attach railings to wall with wall brackets, except where end flanges are used. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.

B. Secure wall brackets and railing end flanges to building construction as follows:

1. For concrete and solid masonry anchorage, use drilled-in expansion shields and hanger or lag bolts.
2. For hollow masonry anchorage, use toggle bolts.
3. For wood stud partitions, use hanger or lag bolts set into studs or wood backing between studs. Coordinate with carpentry work to locate backing members.
4. For steel-framed partitions, use hanger or lag bolts set into wood backing between studs. Coordinate with stud installation to locate backing members.

3.4 ADJUSTING AND CLEANING

A. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 requirements for touching up shop-painted surfaces.

B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas, and repair galvanizing to comply with ASTM A 780/A 780M.

END OF SECTION 055213

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes the following:

1. Framing with dimension lumber.
2. Wood blocking and nailers.
3. Wood furring.
4. Wood Sheathing
5. Plywood backing panels.

1.3 DEFINITIONS

A. Rough Carpentry: Carpentry work not specified in other Sections and not exposed, unless otherwise indicated.

B. Lumber grading agencies, and the abbreviations used to reference them, include the following:

1. NELMA - Northeastern Lumber Manufacturers Association.
2. NLGA - National Lumber Grades Authority.
3. SPIB - Southern Pine Inspection Bureau.
4. WCLIB - West Coast Lumber Inspection Bureau.
5. WWPA - Western Wood Products Association.

1.4 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664.

3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the American Lumber Standards Committee Board of Review.

C. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:

1. Preservative-treated wood.
2. Fire-retardant-treated wood.
3. Metal framing anchors.

1.5 QUALITY ASSURANCE

A. Source Limitations for Fire-Retardant-Treated Wood: Obtain each type of fire-retardant-treated wood product through one source from a single producer.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Boise Cascade Corporation.
2. Metal Framing Anchors:
   a. Simpson Strong-Tie Company, Inc.

2.2 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
3. Provide dressed lumber, S4S, unless otherwise indicated.
4. Provide dry lumber with 15 percent maximum moisture content at time of dressing for 2-inch nominal thickness or less, unless otherwise indicated.

B. Wood Structural Panels:

1. Plywood: Either DOC PS 1, unless otherwise indicated.
2. Oriented Strand Board: DOC PS 2.
3. Thickness: As needed to comply with requirements specified but not less than thickness indicated.
4. Factory mark panels according to indicated standard.

2.3 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA C2 (lumber) and AWPA C9 (plywood), except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPA C31 with inorganic boron (SBX).

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and one of the following:

a. Chromated copper arsenate (CCA).
b. Ammoniacal copper zinc arsenate (ACZA).
c. Ammoniacal, or amine, copper quat (ACQ).

B. Kiln-dry material after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood. Do not use material that is warped or does not comply with requirements for untreated material.

C. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Nailers, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
3. Wood framing members less than 8 inches above grade.

E. General: Provide dimension lumber of grades indicated according to the American Lumber Standards Committee National Grading Rule provisions of the grading agency indicated.

2.4 MISCELLANEOUS LUMBER

A. General: Provide lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Furring.

B. For items of dimension lumber size, provide Construction, or No. 2 grade lumber with 15 percent maximum moisture content and any of the following species:

1. Mixed southern pine (for preservative treated lumber); SPIB.
2. Douglas fir-larch
3. Spruce Pine Fir (SPF)

C. For concealed boards, provide lumber with 15 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine (for preservative treated lumber); SPIB.
2. Douglas fir-larch
3. Spruce Pine Fir (SPF)

D. For furring strips for installing plywood or hardboard paneling, select boards with no knots capable of producing bent-over nails and damage to paneling.

2.5 WOOD SHEATHING

A. Plywood Roof Sheathing: Exterior, 5/8” tongue and groove Structural I sheathing conforming to DOC PS2.

1. Span Rating: Not less than 48/24
2. Thickness: Not less than 5/8 inch tongue and groove

B. Fire Treated Plywood Roof Sheathing: Exterior, 5/8” tongue and groove Structural 1 sheathing conforming to DOC PS2.

2.6 PLYWOOD BACKING PANELS (*Not applicable*)

A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2 inch thick.

2.7 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacturer.

B. Provide fasteners required by specific manufacturers for their specific applications.

1. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

C. Nails, Brads, and Staples: ASTM F 1667.

D. Power-Driven Fasteners: CABO NER-272.

E. Wood Screws: ASME B18.6.1.

F. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.

G. Lag Bolts: ASME B18.2.1..

H. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.

I. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.

1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

2.8 METAL FRAMING ANCHORS

A. General: Provide framing anchors made from metal indicated, of structural capacity, type, and size indicated, and as follows:

1. Research/Evaluation Reports: Provide products acceptable to authorities having jurisdiction and for which model code research/evaluation reports exist that show compliance of metal framing anchors, for application indicated, with building code in effect for Project.
2. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.

2.9 MISCELLANEOUS MATERIALS

A. Building Paper: Asphalt-saturated organic felt complying with ASTM D 226, Type I (No. 15 asphalt felt), unperforated.

B. Building Wrap: Air-retarder sheeting made from polyolefins; cross-laminated films, woven strands, or spun-bonded fibers; coated or uncoated; with or without perforations; and complying with ASTM E 1677, Type I.

1. Thickness: Not less than 3 mils.
2. Permeance: Not less than 10 perms.
3. Flame-Spread Index: 25 or less per ASTM E 84.
4. Allowable Exposure Time: No more than three months.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit.

Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.

B. Do not use materials with defects that impair quality of rough carpentry or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

C. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. IBC 2012 and IRC 2012
2. Published requirements of metal framing anchor manufacturer.

3.2 PLYWOOD UNDERLAYMENT (*Not applicable*)

A. Use 1” screws or ring-shank nails every 8” to 12” along edges, 12” along interior portion of plywood sheets. Sink the heads of the screws slightly below the surface of the plywood. Maintain 1/4” between each sheet of plywood and long walls for expansion.

3.3 WOOD BLOCKING, AND NAILER INSTALLATION

A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated. Build anchor bolts into masonry during installation of masonry work. Where possible, secure anchor bolts to formwork before concrete placement.

END OF SECTION 061000

SECTION 066500 - EXTERIOR SYNTHETIC TRIM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Exterior synthetic (poly-ash) trim.

1.2 RELATED REQUIREMENTS

A. Section 09 91 00 – Painting: Painting exterior synthetic trim.

1.3 REFERENCE STANDARDS

A. ASTM C 1185 – Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards.

B. ASTM D 570 – Standard Test Method for Water Absorption of Plastics.

C. ASTM D 1761 – Standard Test Methods for Mechanical Fasteners in Wood.

D. ASTM D 6341 – Standard Test Method for Determination of the Linear Coefficient of Thermal Expansion of Plastic Lumber and Plastic Lumber Shapes Between -30 and 140°F (-34.4 and 60°C).

E. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

F. AWPA E1 – Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termites.

G. AWPA E10 – Standard Method of Testing Wood Preservatives by Laboratory Soil-Block Cultures.

1.4 SUBMITTALS

A. Comply with Section 01 33 00 – Submittal Procedures.

B. Product Data: Submit manufacturer's product data, including installation instructions.

C. Samples: Submit manufacturer's sample of exterior synthetic trim, minimum 1 inch by 4 inches by 8 inches long.

D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.

E. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Storage and Handling Requirements:
   1. Store and handle materials in accordance with manufacturer's instructions.
   2. Keep materials in protective covering until installation.
   3. Store materials in clean, dry area.
   4. Store exterior synthetic trim on flat, level surface.
   5. Keep exterior synthetic trim covered and free of dirt and debris.
   6. Protect materials and finish during storage, handling, and installation to prevent damage.

1.6 WARRANTY

A. Warranty Period for Exterior Synthetic Trim: 20-year limited warranty.
   1. No decay due to rot.
   2. No excess swelling from moisture.
   3. Resist termite damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Boral Composites Inc., 200 Mansell Court East, Suite 305, Roswell, Georgia 30076. Toll Free 888-926-7259. www.BoralTruExterior.com. info@TruExterior.com.

2.2 EXTERIOR SYNTHETIC TRIM

A. Exterior Synthetic (Poly-ash) Trim: Boral TruExterior® Trim.

B. Composition:
   1. Post-Industrial Recycled Content: Minimum 70 percent, by weight.
   2. Post-Consumer Recycled Content: Minimum 2 percent, by weight
   3. Pigments and dyes.

C. Physical Properties:
   1. Density, ASTM C 1185: 40 to 50 pcf.
   2. Water Absorption, ASTM D 570: Less than 1.5 percent.
   3. Fungi Rot, AWPA E10:
      a. White Rot: Negligible loss.
      b. Brown Rot: Negligible loss.
   4. Termite Resistance, AWPA E1: Greater than 9.0, with 10 being impervious.

D. Mechanical Properties:
   1. Flexural Strength, ASTM C 1185: Greater than 1,600 psi.
   2. Nail Withdrawal, ASTM D 1761: Greater than 40 lbf/in.

E. Thermal Properties:
   1. Coefficient of Linear Expansion, ASTM D 6341, Typical: 1.40E-05 in/in/degree F, tested at minus 30 to 140 degrees F.
   2. Flame Spread, ASTM E 84: Between 25 and 29
   3. Smoke Developed, ASTM E 84: Less than 450.

F. Trim Sizes:

1.

Nominal Size	Actual Size
1 by 4	3/4” by 3-1/2”
1 by 6	3/4” by 5-1/2”
1 by 8	3/4” by 7-1/4”
1 by 10	3/4” by 9-1/4”
1 by 12	3/4” by 11-1/4”
5/4 by 4	1” by 3-1/2”
5/4 by 6	1” by 5-1/2”
5/4 by 8	1” by 7-1/4”
5/4 by 10	1” by 9-1/4”
5/4 by 12	1” by 11-1/4”
5/8 by 6 Beadboard	5/8” by 5 ¼”

2. Manufacturing Tolerances:
   a. Width: Plus or minus 1/16 inch.
   b. Thickness: Plus or minus 1/16 inch.
   c. Length: Plus 2 inches, minus 0 inch.
   d. Edge Cut: Plus or minus 2 degrees.

3. Exposed Texture: Smooth.

2.3 FINISHES

A. Primer:
   1. Acrylic based.
   2. Low VOC.
   3. Factory applied on all sides.

2.4 FASTENERS

A. Type: Nails, ring shanked
   1. Size: 8d
   2. Finish: Stainless steel or galvanized

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine surfaces to receive exterior synthetic trim.

B. Notify Architect of conditions that would adversely affect installation or subsequent use.

C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

A. Install exterior synthetic trim in accordance with manufacturer’s instructions at locations

indicated on the Drawings.

B. Do not install exterior synthetic trim in structural or load-bearing applications.

C. Install exterior synthetic trim plumb, level, and square.

D. Install exterior synthetic trim with flush, tight joints.

E. Install Fasteners:
   1. Maximum of 24 inches on center.
   2. Within 2 inches of end of boards.

F. Fill nail and screw holes with acrylic caulk, wood filler, or auto body filler.

G. Repair minor damages to exterior synthetic trim in accordance with manufacturer's instructions and as approved by Architect.

H. Remove and replace damaged exterior synthetic trim that cannot be successfully repaired as determined by Architect.

I. Painting:
   1. Apply top coat to exterior synthetic trim over factory-applied primer.
      a. Within 150 days of installing trim.
      b. As specified in Section 09 91 00.

3.3 PROTECTION

A. Protect installed exterior synthetic trim to ensure that, except for normal weathering, trim will be without damage or deterioration at time of Substantial Completion.

END OF SECTION

SECTION 074113 – METAL ROOF PANELS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes

1. Factory formed metal roof panels: Standing-seam, hidden fastener, non-insulated

2. Finish must conform to the "Metal Construction Association Certified Premium Painted™" Standard.

1.3 RELATED SECTIONS

A. Division 6 Section “Rough Carpentry”

B. Division 7 Section “Sheet Metal Flashing and Trim”

1.4 PERFORMANCE REQUIREMENTS

A. General: Provide metal roof panel assemblies that comply with performance requirements specified as determined by testing manufacturers' standard assemblies similar to those indicated for this Project, by a qualified testing and inspecting agency.

B. Wind-Uplift Resistance: Capable of resisting design negative uplift pressures based upon maximum wind speeds of 120 mph. Provide clips, fasteners, and clip spacing of type indicated and with capability to sustain, without failure, a load equal to 2 times the design negative uplift pressure.

C. Wind-Uplift Resistance: Capable of producing sheet metal roofing assemblies that comply with UL 580 for Class 90 wind-uplift resistance.

D. Solar Reflectance for Roofs with Slopes Steeper Than 2:12 - Color must be determined in order to provide Solar Reflectance data.

1.5 SUBMITTALS

A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of metal roof panel and accessory, including each type of underlayment product indicated:

1. Concealed fastener, standing seam metal roof panels and accessories.

2. Underlayment.

B. Shop Drawings: Show layouts of sheet metal roofing, including plans, elevations, and keyed references to termination points. All fastening patterns shall be clearly designated to meet the specified wind speed requirements.

1. Include details for forming, joining, and securing sheet metal roofing, including pattern of seams, termination points, expansion joints, roof penetrations, edge conditions, special conditions, connections to adjoining work, and accessory items.

C. Coordination Drawings: Roof plans drawn to scale and coordinating penetrations and roof-mounted items. Show the following:

1. Roof panels and attachments.

2. Purlins and rafters.

3. Roof-mounted items including roof hatches, equipment supports, pipe supports and penetrations, lighting fixtures, snow guards, and items mounted on roof curbs.

D. Samples: For each exposed finish.

E. Field quality control inspection reports, to be submitted for warranty program level, if applicable.

F. Product test reports. Based on evaluation of comprehensive tests performed by a qualified testing agency, for the following:

1. Metal Roof Panels: Include reports for UL 790/ASTM E 108, UL 580, Field Tested, UL 2218, ASTM E 84 Flame Spread Rating, Paint Performance Tests.

2. Insulation and Vapor Retarders: Include reports for thermal resistance, fire-test-response characteristics, water-vapor transmission, and water absorption.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Installer of sheet metal roofing for a minimum of 10 years.

B. Roll-Formed Sheet Metal Roofing Fabricator Qualifications: Minimum of 10 years factory

forming experience.

C. Testing Agency Qualifications: Qualified according to ASTM E 329 for testing indicated, as documented according to ASTM E 548.

D. Source Limitations: Obtain each type of metal roof panels through one source from a single manufacturer.

E. Sheet Metal Roofing Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" and NRCA Waterproofing Manual and manufacturer's installation guidelines.

F. Fire-Resistance Ratings: Where indicated, provide metal roof panels identical to those of assemblies tested for fire resistance that comply with ASTME 108 in accordance with UL790.

G. Pre-installation Conference: Conduct conference at project location with building owner, architect, installing contractor, general contractor and sheet metal roofing manufacturer a minimum of 10 days prior to start of work. All details shall be reviewed including; underlayments, substrates, fastening patterns, scheduling, trim and flashing components, accessories such as fasteners and sealants.

1.7 DELIVERY, STORAGE & HANDLING

A. Do not deliver materials of this section to project site until suitable facilities for storage and protection are available.

B. Protect materials from damage during transit and at project site. Store under cover, but sloped to provide positive drainage. Do not expose materials with strippable protective film to direct sunlight or extreme heat.

C. Do not allow storage of other materials or allow staging of other work on installed metal panel system.

D. Upon receipt of delivery of metal panel system, and prior to signing the delivery ticket, the installer is to examine each shipment for damage and for completion of the consignment.

1.8 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal roof panels to be performed according to manufacturers' written instructions and warranty requirements.

B. Field Measurements: Verify locations of roof framing and roof opening dimensions by field measurements before metal roof panel fabrication and indicate measurements on Shop Drawings.

1.9 SCHEDULING

A. Coordinate installation of roof curbs, equipment supports, and roof penetrations, which are specified in Division 7 Section "Roof Accessories."

B. Coordinate metal panel roof assemblies with rain drainage work, flashing, trim, and construction of decks, purlins and rafters, parapets, walls, and other adjoining work to provide a leakproof, secure, and non-corrosive installation.

1.10 WARRANTY

A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal roofing that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Fluoropolymer Finish Warranty Period: 30 years from date of Substantial Completion.

B. Special Installer's Warranty: Specified form in which Roofing Installer agrees to repair or replace components of custom-fabricated sheet metal roofing that fail in materials or workmanship within 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer's Qualifications:
All panels are to be factory formed and packaged per job requirements.

B. Manufacturer shall have a minimum of ten (10) years experience in the factory fabrication of metal wall panels.

C. Specification is based upon the products of ATAS International, Inc. No other manufacturer shall be accepted as an alternate product without prior written approval. These substitution requests must meet specifications and must be submitted a minimum of ten (10) days prior to date of bid.

D. Manufacturer must be certified to ISO 9001:2008 with design.

2.2 CONCEALED-FASTENER, STANDING SEAM METAL ROOF PANELS

A. General: Provide factory-formed metal roof panels designed to be field assembled by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation. Unless more

stringent requirements are indicated, comply with ASTM E 1514.

B. Vertical-Rib, Seamed-Joint, Standing-Seam Metal Roof Panels: Formed with vertical ribs at panel edges and flat pan between ribs; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels and engaging opposite edge of adjacent panels, and mechanically seaming panels together with approved seaming equipment.

1. Basis-of-Design Product: ATAS International, Inc.; Field-Lok™; FLL135 or a comparable product.

2. Manufacturer:
   a. ATAS International, Inc.

3. Material: Aluminum .032
   a. Texture: Smooth
   b. Pan Coverage: 13-1/2"
   c. Seam Height: 1"
   d. KYNAR 5000® PDVF or HYLAR 5000® Finish
   e. Standard color to be chosen later

2.3 UNDERLAYMENT

A. Felt: minimum 30 pound or high strength synthetic material conforming to ASTM D 226

B. A slip sheet is required when utilizing a clip fastened system that rest directly on the deck.

2.4 MISCELLANEOUS MATERIAL

A. Fasteners: Self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads. Manufacturer shall provide or authorize all fasteners utilized with the sheet metal roofing system.

1. Exposed Fasteners: Heads matching color of sheet metal roofing by means of plastic caps or factory-applied coating.

2. Fasteners for Flashing and Trim: Blind fasteners or screws spaced to resist wind uplift loads.

B. Sealing Tape: Pressure-sensitive, 100 percent solid polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, non-sag, non-toxic, non-staining tape.

C. Elastomeric Joint Sealant: ASTM C 920, of base polymer, type, grade, class, and use classifications required to produce joints in sheet metal roofing that will remain weathertight.

D. Expansion-Joint Sealant: For hooked-type expansion joints, which must be free to move, provide non-setting, non-hardening, non-migrating, heavy-bodied polyisobutylene sealant.

E. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15 mil dry film thickness per coat.

2.5 ACCESSORIES

A. Sheet Metal Roofing Accessories: Provide components required for a complete sheet metal roofing assembly including trim, copings, fasciae, corner units, ridge closures, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of sheet metal roofing, unless otherwise indicated. All trim and flashing components shall be supplied in a minimum of 12'-0" lengths and shall conform to manufacturer's standard part dimensions and details.

1. 26 ga. SS clip base w/26 ga. SS stem designed to withstand negative-load requirements.

2. Closures: Closed-cell, expanded, cellular, rubber or cross linked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch thick, flexible closure strips; cut or premolded to match sheet metal roofing profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

3. Sealants as recommended by manufacturer.

4. Fasteners as recommended by manufacturer.

B. Flashing and Trim: Formed from matching materials as sheet metal roof panel in gauges noted. Provide flashing and trim in heavier gauge materials as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent sheet metal roofing.

C. Snow Guards: Prefabricated, non-corrosive units designed for compatibility with metal roof panels. (*Not applicable*)

2.6 EQUIPMENT

A. Manufacturer must maintain quality control and maintenance procedures of all equipment. Verification of quality control procedures must be validated by a 3rd party entity.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

a. ATAS International, Inc.

2.7 FABRICATION

A. General: Fabricate sheet metal roofing and components to comply with details shown, manufacturers installation details and recommendations in SMACNA's "Architectural Sheet Metal Manual" and NRCA Waterproofing Manual that apply to the design, dimensions (pan width and seam height), geometry, metal thickness, and other characteristics of installation indicated. Fabricate sheet metal roofing and accessories at the manufacturer’s location to the greatest extent possible.

B. General: Fabricate sheet metal roofing panels to comply with details shown and sheet metal roofing manufacturer's written instructions.

C. Fabricate sheet metal roofing to allow for expansion in running work sufficient to prevent leakage, damage, and deterioration of the Work. Form exposed sheet metal work to fit substrates without excessive oil canning, buckling, and tool marks, true to line and levels indicated, and with exposed edges folded back to form hems.

1. Fold and cleat eaves as required by manufacturer to insure weathertightness and wind uplift resistance.

2. Form and fabricate sheets, seams, strips, cleats, valleys, ridges, edge treatments, integral flashings, and other components of metal roofing to profiles, patterns, and drainage arrangements shown and as required for leak proof construction and wind uplift resistance.

D. Metal Protection: Where dissimilar metals will contact each other, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by manufacturers of dissimilar metals or by fabricator.

E. Sheet Metal Accessories: Custom fabricate flashings and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Obtain field measurements for accurate fit before manufacturer fabrication.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal roof panel supports, and other conditions affecting performance of work.

1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by metal roof panel manufacturer.

2. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal roof panel manufacturer.

3. For the record, prepare written report for the General Contractor, endorsed by Installer, listing conditions detrimental to performance of work.

B. Examine roughing-in for components and systems penetrating metal roof panels to verify actual locations of penetrations relative to seam locations of metal roof panels before metal roof panel installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Lay out and examine substrate before installation of sheet metal roofing. Space fasteners as required to resist design uplift, but not more than 24 inches o.c.

B. Install flashings and other sheet metal to comply with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim."

3.3 UNDERLAYMENT INSTALLATION

A. Felt Underlayment; Install felt underlayment and building-paper slip sheet, or high strength synthetic material conforming to ASTM D 226 on roof sheathing under metal roof panels, unless otherwise recommended by metal roof panel manufacturer. Use adhesive for temporary anchorage, where possible, to minimize use of mechanical fasteners under metal roof panels. Apply at locations indicated on Drawings, in shingle fashion to shed water, with lapped joints of not less than 2 inches.

3.4 INSTALLATION, GENERAL

A. General: Anchor sheet metal roofing and other components of the Work securely in place, with provisions for thermal and structural movement. Install fasteners, protective coatings, separators, sealants, and other miscellaneous items as required for a complete roofing system and as recommended by fabricator for sheet metal roofing.

1. Field cutting of sheet metal roofing by torch is not permitted.

2. Rigidly fasten ridge end of sheet metal roofing and allow for positive panel attachment as per manufacturer’s recommendations. All flashing details shall accommodate thermal movement.

3. Provide metal closures at peaks, ridge, gable and hip caps.

4. Flash and seal sheet metal roofing with weather closures at eaves, rakes, and at perimeter of all openings. Fasten with self-tapping screws.

5. Locate roofing splices over, but not attached to, structural supports. Stagger roofing splices and end laps to avoid a four-panel lap splice condition.

6. Lap metal flashing over sheet metal roofing to allow moisture to run over and off the material.

B. Fasteners: Use fasteners of size and length as required for compatibility with substrate.

C. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by fabricator of sheet metal roofing or manufacturers of dissimilar metals.

1. Separate sheet metal roofing from bituminous coating where roofing will contact wood, ferrous metal, or cementitious construction. Interlock and overlap shingles and stagger end joints from shingles above and below according to shingle manufacturer's written instructions.

D. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

3.5 ACCESSORY INSTALLATION

A. General: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete sheet metal roofing assembly including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.

2. Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual" and NRCA Waterproofing Manual. Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

B. Coordinate with installation of:

1. Cold Formed Metal Framing, as noted in Section 5

2. Rough Carpentry, as noted in Section 6

3. Sheet Metal Flashing and Trim, as noted in Section 7

C. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by manufacturer.

3.6 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as sheet metal roofing is installed. On completion of sheet metal roofing installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.

END OF SECTION 074113

SECTION 074646 - FIBER-CEMENT SIDING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Fiber cement lap siding, panels, shingle, trim, fascia, moulding and accessories, James Hardie HZ5 Engineered for Climate Siding.

1.2 RELATED SECTIONS

A. Section 06100 - Rough Carpentry: Wood framing and bracing.

B. ASTM C1186 - Standard Specification for Flat Fiber-Cement Sheets

C. ASTM D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool and Tape.

D. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.

1.3 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Shop Drawings: Provide detailed drawings of atypical non-standard applications of cementitious siding materials which are outside the scope of the standard details and specifications provided by the manufacturer.

D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish product specified, two samples, minimum size 4 by 6 inches (100 by 150 mm), representing actual product, color, and patterns.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Minimum of 2 years experience with installation of similar products.

B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.
2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

1.5 PREINSTALLATION MEETINGS

A. Meeting at project site 7 days before starting installation

B. Mandatory Attendees: Contractor, installer, LP Technical Representative, LP Manufacturer Representative, and affected trades.

C. Inform Architect of meeting and document all discussions in the form of minutes and include pictures of installation steps.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store siding on edge or lay flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.

C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.8 WARRANTY

A. Product Warranty: Limited, non-pro-rated product warranty.
1. HardiePlank HZ5 lap siding for 30 years.
2. HardiPanel HZ5 vertical siding for 30 years.
3. HardieSoffit HZ5 panels for 30 years.

B. Product Warranty: Limited, product warranty.
1. HardieTrim HZ and HZ5 boards for 15 years.

C. Workmanship Warranty: Application limited warranty for 2 years.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 26300 La Alameda Suite 400 ; Mission Viejo, CA 92691; Toll Free Tel: 866-274-3464; Tel: 949-367-4980; Email: request info (info@jameshardie.com); Web: www.jameshardiecommercial.com

B. Substitutions: Submit for review and approval.

C. Requests for approval of equal substitutions will be considered in accordance with provisions of Section 01600.

2.2 SIDING

A. HardiePlank HZ5 lap siding, HardiPanel HZ5 vertical siding, HardieSoffit HZ5 panels and HardieShingle HZ5 siding requirement for Materials:
1. Fiber-cement Siding - complies with ASTM C 1186 Type A Grade II.
2. Fiber-cement Siding - complies with ASTM E 136 as a noncombustible material.

3. Fiber-cement Siding - complies with ASTM E 84 Flame Spread Index = 0, Smoke Developed Index = 5.
4. National Evaluation Report No. NER 405 (BOCA, ICBO, SBCCI, IBC, IRC).

B. Lap Siding: HardiePlank HZ5 Lap siding with a sloped top, beveled drip edge and nailing line as manufactured by James Hardie Building Products, Inc.
1. Type: Smooth 5-1/4 inches (133 mm) with 4 inches (102 mm) exposure.

2.3 FASTENERS

A. Wood Framing Fasteners:
1. Wood Framing: 4d common corrosion resistant nails.
2. Wood Framing: 6d common corrosion resistant nails.
3. Wood Framing: 8d box ring common corrosion resistant nails.
4. Wood Framing: No. 11 gauge 1-1/4 inches (32 mm) corrosion resistant roofing nails.
5. Wood Framing: No. 11 gauge 1-1/2 inches (38 mm) corrosion resistant roofing nails.
6. Wood Framing: No. 11 gauge 1-3/4 inches (44 mm) corrosion resistant roofing nails.

2.4 FINISHES

1. Primer: Factory primed by James Hardie.
2. (2) Field Finish Topcoats: Refer to Section 09900 and Exterior Finish Schedule.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

B. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Nominal 2 inch by 4 inch (51 m by 102 mm) wood framing selected for minimal shrinkage and complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and straight, true, of uniform dimensions and properly aligned.
1. Install water-resistive barriers and claddings to dry surfaces.
2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
3. Protect siding from other trades.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Install a water-resistive barrier is required in accordance with local building code requirements.

D. The water-resistive barrier must be appropriately installed with penetration and junction flashing in accordance with local building code requirements.

3.3 INSTALLATION - HARDIEPLANK HZ5 LAP SIDING

A. Install materials in strict accordance with manufacturer's installation instructions.

B. Starting: Install a minimum 1/4 inch (6 mm) thick lath starter strip at the bottom course of the wall. Apply planks horizontally with minimum 1-1/4 inches (32 mm) wide laps at the top. The bottom edge of the first plank overlaps the starter strip.

C. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.

D. Align vertical joints of the planks over framing members.

E. Maintain clearance between siding and adjacent finished grade.

F. Locate splices at least one stud cavity away from window and door openings.

G. Wind Resistance: Where a specified level of wind resistance is required Hardieplank lap siding is installed to framing members and secured with fasteners described in Table No. 2 in National Evaluation Service Report No. NER-405.

H. Locate splices at least 12 inches (305 mm) away from window and door openings.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 075300 – FULLY ADHERED EPDM ROOFING SYSTEM

PART 1 GENERAL

GENERAL NOTES

A. Preceding job start up, contractor shall decide to his satisfaction that all specifications contained herein are workable.
B. Contractor will perform all work by competent, trained, and properly equipped personnel in strict accordance with good roofing practices and applicable industry standards.
C. Contractor will observe all published safety prevention policies and practices relating to application of roofing system and related work. All federal, state, and local codes shall be followed.

1.01 SECTION INCLUDES

A. Substrate preparation.
B. Wood nailer installation.
C. Membrane installation.
D. Membrane flashing installation.
E. Roof Drains (*not applicable*)

1.02 SCOPE OF WORK

A. Work under this section covers the installation of a new Fully Adhered EPDM roofing system. In addition, contractor shall include all related items of work as noted herein required to complete the specified elements of work and provide the necessary warranties for this work.
B. Contractor shall tear off existing roof system(s) down to the existing wood deck. Note: Existing roofing materials have tested positive for Asbestos. All material removal shall comply with Rhode Island abatement guidelines and shall be disposed of in a legal manner.
C. Contractor shall remove and replace rotted wood decking. Refer to unit prices and allowances
D. Contractor shall replace all existing roof drains

1.03 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D1079 for definition of terms related to roofing work not otherwise defined in the section
B. Firestone: Firestone Building Products Co., Headquarters, 525 Congressional Blvd., Carmel, IN 46032-5607
C. American Society for Testing and Materials (ASTM): 1916 Race Street, Philadelphia, PA 19103

1.04 SYSTEM DESCRIPTION

A. EPDM membrane that is fully adhered over high density insulation coverboard and tapered polyisocyanurate insulation that is mechanically fastened into the existing wood deck.

1.05 SUBMITTALS

A. Product Data:
1. Submit copies of Technical Information Data Sheets for primary products used including roof membrane, splice tape, insulation, and edge metal.

1.06 QUALITY ASSURANCE

A. Applicator:
1. Shall be a licensed contractor of the manufacturer.
2. Shall have at least five years experience in installing specified system.

1.07 REGULATORY REQUIREMENTS

A. Conform to applicable local building code requirements.
B. Factory Mutual Research Corporation (FM): Roof Assembly Classification, FM Construction Bulletin 1-28 and 1-29.

1.08 QUALITY INSPECTION/OBSERVATION

A. Inspection by Manufacturer: Provide a final inspection of the roofing system by a Technical Representative employed by roofing system manufacturer.
1. Technical Representative shall not perform any sales functions.
2. Contractor shall complete any necessary repairs required for issuance of warranty.

1.09 PRE-INSTALLATION CONFERENCE

A. Before start of roofing work, attend a conference to discuss the proper installation of materials. Attendees shall include all parties directly affecting work of this Section.

1.10 DELIVERY, STORAGE AND HANDLING

A. Deliver products in manufacturer's original containers dry, undamaged, seals and labels intact and legible.
B. Store all materials clear of ground and moisture with weather protective covering.
C. Keep all combustible materials away from **ALL** ignition sources.

1.11 ENVIRONMENTAL REQUIREMENTS

A. Install roofing membrane only when surfaces are clean, dry, smooth and free of snow or ice.
B. Do not apply roofing membrane during inclement weather or when ambient conditions will not allow proper application.

1.12 WARRANTY

A. Type/Term:

1. Provide 20-year Firestone Red Shield Roofing System Warranty. Warranty shall include membrane, high density coverboard, roof insulation, edge metal, and all other products supplied by roof system manufacturer.

B. Coverage:
1. Limit of liability: No Dollar Limitation
2. Scope of coverage:
Repair any leak in the EPDM Roofing System caused by the ordinary wear and tear of the elements, manufacturing defect in materials, and the workmanship used to install these materials.

PART 2 PRODUCTS

2.01 NAILERS FOR FLANGES AND ROOF ACCESSORIES

A. Description: Structural Grade No. 2 or better Southern Pine, Douglas Fir, or Exterior Grade plywood. All wood shall be pressure treated for rot resistance.
1. Nailer width: Minimum 3 1/2 in. (nominal) wide or as wide as the nailing flange of each roof accessory.
2. Nailer thickness: Thickness of roof insulation.

B. Reference Standards:
1. Southern Pines: PS 20; SPIB Grading Rules.
2. Western Woods: PS 20; WWPA Grading Rules.
3. Plywood: PS 1; APA Grade Stamps.
4. Pressure preservative treatment: AWPB LP2.

2.02 MANUFACTURERS - MEMBRANE MATERIALS

1. Basis-of-Design Product: Subject to compliance with requirements, provide Firestone Building Products, Fully Adhered EPDM roof system or comparable product.

2.03 ELASTOMERIC SHEET ROOFING AND FLASHING MEMBRANE

A. Description: Non-reinforced, cured, synthetic single-ply membrane composed of Ethylene Propylene Diene Terpolymer (EPDM) conforming to the following physical properties:
1. Membrane Type: .060 LSFR EPDM

Property:	**Specification:**
Specific Gravity	1.15 +/- 0.05
Tensile Strength, Minimum, psi (MPa)	1305 (9)
Elongation, Minimum, %	300
Tear Resistance, lbf / in (kN / M)	150 (26.3)

Ozone Resistance, 166 hours @ 100 pphm @ 104°F with 50% extension	No Cracks
Heat Aging, 28 days @ 240°F	
Tensile Strength, Minimum psi (MPa)	1205 (8.3)
Elongation, Minimum %	200
Brittleness Point, max., °F, °C	-49 (-45)
Water Absorption, change in weight after immersion in water for 166 hours @ 158°F, %	+8, -2
Tolerance On Nominal Thickness, %	+/- 10
Water Vapor Permeability, Perm-Mils	2.0

B. Reference Standards:
1. ASTM D4637-96: Standard Specification for EPDM Sheet used in single-ply roof membrane
2. ASTM D297: Methods for Rubber Products, Chemical Analysis.
3. ASTM D412, Die C: Test Methods for Rubber Properties in Tension.

2.05 HIGH DENSITY INSULATION COVERBOARD

A. Description: High density, closed cell, polyisocyanurate foam core manufactured with coated glass facers.
1. Nominal Thickness: ½" R = 2.5
2. Nominal Size: 48" x 48" (wood & gypsum deck areas)
48" x 96" (Steel deck areas)

B. Product: Densdeck Prime Coverboard

2.06 INSULATION FASTENER

A. Insulation fastener
1. Description: All Purpose fastener with 4-coat fluorocarbon polymer coating and drill point tip capable of penetrating 20 gauge steel. Length shall be sufficient to penetrate deck a minimum of 3/4" for steel and 1" for wood and concrete.

2.06 METAL FLASHING

A. Edge Metal:
1. Description: Provide .040 UnaClad aluminum edge metal. Color to be selected by architect.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine roof deck to determine that it is sufficiently rigid to support roofers and their mechanical equipment and that deflection will not strain or rupture roof components or deform deck.
B. Verify that surfaces and site conditions are ready to receive work. Correct defects in the substrate before commencing with roofing work.
C. Examine roof substrate to verify that it is properly sloped to drains.
D. Start work with sealants and adhesives at 60° - 80° F.
E. The surface must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease and other materials which may damage the membrane. All roughened surfaces which could cause damage shall be properly repaired before proceeding.
F. All surface voids of the immediate substrate greater than 1/4" wide must be properly filled with an acceptable insulation or suitable fill material.

3.02 PROTECTION OF OTHER WORK

A. Protect metal, glass, plastic, and painted surfaces from adhesives and sealants.
B. Protect neighboring work, property, cars, and persons from spills and overspray from adhesives, sealants and coatings.
C. Protect finished areas of the roofing system from roofing related work traffic and traffic by other trades.

3.03 MATERIAL STORAGE AND HANDLING

A. Keep all adhesives, sealants, primers and cleaning materials away from all sources of ignition.
B. Consult container labels and Material Safety Data Sheets (MSDS) for specific safety instructions.

3.04 WOOD NAILER LOCATION AND INSTALLATION

A. Total wood nailer height shall match the total thickness of insulation being used and shall be installed with a 1/8" gap between each length and at each change of direction.
B. Wood nailers shall be firmly fastened to the deck. Mechanically fasten wood nailers to resist a force of 200 lbs. per lineal foot.

3.05 MEMBRANE PLACEMENT AND ATTACHMENT

A. Beginning at the low point of the roof, place the Firestone RubberGard membrane without stretching over the acceptable substrate and allow to relax a minimum of 30 minutes before attachment or splicing.
B. After making sure the sheet is placed in its final position, fold it back evenly onto itself so as to expose the underside.
C. Sweep the mating surface of the membrane with a stiff broom to remove excess dusting agent (if any) or other contaminants from the mating surface.
D. Apply bonding adhesive at about the same time to both the exposed underside of the sheet and the substrate to which it will be adhered so as to allow approximately the same drying time. Apply bonding adhesive so to provide an even and uniform film thickness. Do not apply bonding adhesive to areas that will be subsequently spliced.
E. Allow bonding adhesive to flash off until tacky. Touch the adhesive surface with a clean, dry finger to be certain that the adhesive does not stick or string. As you are touching the adhesive, pushing straight down to check for stringing, also push forward on the adhesive at an angle to ensure that the adhesive is ready throughout its thickness.

If either motion exposes wet or stringy adhesive when the finger is lifted, then it is not ready for mating.

F. Starting at the fold, roll the previously coated portion of the sheet into the coated substrate slowly and evenly so as to minimize wrinkles.
G. Compress the bonded half of the sheet to the substrate with a stiff push broom.
H. Fold the unadhered half of the membrane sheet back onto itself, and repeat the bonding procedure to complete the bonding of the sheet.

3.06 FLASHING - PENETRATIONS

A. General:
   1. If project is a tear-off or re-roof, remove all existing flashings (i.e. lead, asphalt, mastic, etc.).
   2. Flash all penetrations passing through the membrane.
   3. The flashing seal must be made directly to the penetration.
B. Pipes, Round Supports, etc.
   1. Flash with Pre-Molded EPDM Pipe Flashings where practical.
   2. Flash using FormFlash when Pre-Molded EPDM Pipe Flashing is not practical.
C. Pipe Clusters and Unusual Shaped Penetrations:
   1. Fabricate penetration pockets to allow a minimum clearance of 1" between the penetration and all sides.
   2. Secure penetration pockets per manufacturer's details.
   1. Fill penetration pockets with Pourable Sealer, so as to shed water. Pourable Sealer shall be a minimum of 2" deep.

3.07 FLASHING - WALLS, PARAPETS, MECHANICAL EQUIPMENT CURBS, SKYLIGHTS, ETC.

A. General:
   Using the longest pieces practical, flash all walls, parapets, curbs, etc., a minimum of 8" high per manufacturer's details.
   Note: Saw cut reglet may be required at brick wall base flashings to
B. Evaluate Substrate**:**
   Evaluate the substrate and overlay per Firestone specifications as necessary.
C. For tear-off or re-roof projects:
   1. Remove loose or unsecured flashings.
   2. Remove mineral surfaced or coated flashings.
D. Complete the splice between flashing and the main roof sheet with splice adhesive before adhering flashing to the vertical surface. Provide lap splices in accordance with manufacture's details.
E. Apply bonding adhesive at about the same time to both the flashing and the surface to which it is being bonded so as to allow approximately the same flash off time.
F. Allow bonding adhesive to flash off until tacky. Touch the adhesive surface with a clean, dry finger to be certain that the adhesive does not stick or string. While touching the adhesive, pushing straight down to check for stringing, also push forward on the adhesive at an angle to ensure that the adhesive is ready throughout its thickness. If either motion exposes wet or stringy adhesive when the finger is lifted, then it is not ready for mating. Flash off time will vary depending on ambient air conditions.
G. Roll the flashing into the adhesive evenly and carefully so as to minimize wrinkles.
H. Ensure proper contact of flashing by brooming in place.

3.08 TEMPORARY CLOSURE

A. Temporary closures which ensure that moisture does not damage any completed section of the new roofing system are the responsibility of the roofing contractor. Completion of flashings, terminations, and temporary closures shall be completed as required to provide a watertight condition.

3.09 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed as required by the manufacturer.
B. Correct identified defects or irregularities.

3.10 CLEAN-UP

A. Clean all contaminants from building and surrounding areas.
B. Remove trash, debris, equipment from project site and surrounding areas.
C. Repair or replace damaged building components or surrounding areas to the satisfaction of the building owner.

END OF SECTION

SECTION 077100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Roof-edge specialties.
   2. Reglets and counterflashings.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For roof specialties.

   1. Include plans, elevations, expansion-joint locations, keyed details, and attachments to other work. Distinguish between plant- and field-assembled work.

C. Samples: For each type of roof specialty and for each color and texture specified.

1.3 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing specialties to include in maintenance manuals.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: A qualified manufacturer offering products meeting requirements that are FM Approvals listed for specified class.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. SPRI Wind Design Standard: Manufacture and install copings roof-edge specialties tested according to SPRI ES-1 and capable of resisting the following design pressures:

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 ROOF-EDGE DRAINAGE SYSTEMS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

B. Basis-of-Design Product: Subject to compliance with requirements, provide Classic Gutter System LLC or comparable product by one of the following:
   1. Castle Metal Products.
   2. CopperCraft by FABRAL; a Euramax company.

C. Gutters: 5” profile K-Style gutter, alloy 3155-H24 .
   1. Formed Aluminum: .032 inch min. thick.
   2. Color: as selected by architect from manufacturer’s full range

D. Downspouts: Plain round complete with smooth-curve elbows, manufactured from the following exposed metal. Furnish with round two-piece metal brackets w/ concealed anchor behind gutter, from same material as downspouts, and anchors.
   1. Formed Aluminum: 0.029 inch min. thick.
   2. Color: As selected by Architect from manufacturer's full range.

2.3 REGLETS AND COUNTERFLASHINGS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

B. Basis-of-Design Product: Subject to compliance with requirements, provide the Garland Company, Inc. or comparable product by one of the following:

   1. Castle Metal Products.
   2. Cheney Flashing Company.
   3. Fry Reglet Corporation.
   4. Heckmann Building Products Inc.
   5. Hickman Company, W. P.
   6. Keystone Flashing Company, Inc.
   7. Metal-Era, Inc.
   8. Metal-Fab Manufacturing, LLC.

C. Reglets: Manufactured units formed to provide secure interlocking of separate reglet and counterflashing pieces, from the following exposed metal:

   1. Zinc-Coated Steel: Nominal 0.022-inch (0.56-mm) thickness.
   2. Formed Aluminum: thick.
   3. Stainless Steel: 0.019 inch (0.48 mm) thick.
   4. Copper: 16 oz./sq. ft. (0.55 mm thick).

5. Corners: Factory mitered and mechanically clinched and sealed watertight.
6. Surface-Mounted Type: Provide reglets with slotted holes for fastening to substrate, with neoprene or other suitable weatherproofing washers, and with channel for sealant at top edge.
7. Stucco Type, Embedded: Provide reglets with upturned fastening flange and extension leg of length to match thickness of applied finish materials.
8. Concrete Type, Embedded: Provide temporary closure tape to keep reglet free of concrete materials, special fasteners for attaching reglet to concrete forms, and guides to ensure alignment of reglet section ends.
9. Masonry Type, Embedded: Provide reglets with offset top flange for embedment in masonry mortar joint.
10. Multiuse Type, Embedded: For multiuse embedment in cast-in-place concrete or masonry mortar joints.

D. Counterflashings: Manufactured units of heights to overlap top edges of base flashings by 4 inches (100 mm) and in lengths not exceeding 12 feet (3.6 m) designed to snap into reglets or through-wall-flashing receiver and compress against base flashings with joints lapped, from the following exposed metal:

1. Zinc-Coated Steel: Nominal 0.022-inch (0.56-mm) thickness.
2. Formed Aluminum: 0.024 inch (0.61 mm) thick.
3. Stainless Steel: 0.019 inch (0.48 mm) thick.
4. Copper: 16 oz./sq. ft. (0.55 mm thick).

E. Accessories:

1. Flexible-Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where reglet is provided separate from metal counterflashing.
2. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing lower edge.

F. Zinc-Coated Steel Finish: Two-coat fluoropolymer .

1. Color: As selected by Architect from manufacturer's full range <**Insert color**>.

G. Aluminum Finish: Two-coat fluoropolymer.

1. Color: As selected by Architect from manufacturer's full range <**Insert color**>.

H. Stainless-Steel Finish: No. 2B (bright, cold rolled, unpolished).

I. Copper Finish: Non-patinated, mill.

2.4 MATERIALS

A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 (Z275) coating designation.

B. Aluminum Sheet: ASTM B 209 (ASTM B 209M), alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

C. Stainless-Steel Sheet: ASTM A 240/A 240M or ASTM A 666, Type 304.

D. Copper Sheet: ASTM B 370, cold-rolled copper sheet, H00 or H01 temper.

2.5 UNDERLAYMENT MATERIALS

A. Self-Adhering, High-Temperature Sheet: Minimum 30 to 40 mils (0.76 to 1.0 mm) thick, consisting of slip-resisting polyethylene-film top surface laminated to layer of butyl or SBS-modified asphalt adhesive, with release-paper backing; cold applied. Provide primer when recommended by underlayment manufacturer.

If used in lieu of felt paper, reinforced synthetic roof underlayment must have a ICC approval as an alternate to ASTM D226 Type II felt paper and must have a minimum strength of 20 lbs per ASTM D1970 or ASTM D4533.

1. Thermal Stability: ASTM D 1970/D 1970M; stable after testing at 240 deg F (116 deg C).
2. Low-Temperature Flexibility: ASTM D 1970/D 1970M; passes after testing at minus 20 deg F (29 deg C).
3. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
   a. The Garland Company, Inc.
   b. Carlisle Coatings & Waterproofing; CCW WIP 300HT.
   c. Grace Construction Products, a unit of W. R. Grace & Co.;.
   d. Henry Company; Blueskin PE200 HT.
   e. Metal-Fab Manufacturing, LLC; MetShield.
   f. Owens Corning; WeatherLock Metal High Temperature Underlayment.

B. Felt: ASTM D 226/D 226M, Type II (No. 30), asphalt-saturated organic felt, nonperforated.

C. Slip Sheet: Rosin-sized building paper, 3-lb/100 sq. ft. (0.16-kg/sq. m) minimum.

2.6 MISCELLANEOUS MATERIALS

A. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:

1. Exposed Penetrating Fasteners: Gasketed screws with hex washer heads matching color of sheet metal.
2. Fasteners for Copper Sheet: Copper, hardware bronze, or passivated Series 300 stainless steel.
3. Fasteners for Aluminum: Aluminum or Series 300 stainless steel.
4. Fasteners for Stainless-Steel Sheet: Series 300 stainless steel.
5. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip zinc-coated steel according to ASTM A 153/A 153M or ASTM F 2329.
6. Fasterners for Underlayment: annular ring or deformed shank roofing fasteners. Nails with plastic or metal caps are allowed where the design wind speed is less than 140 mph.

Metal caps are required for areas where the design wind speed is greater than or equal to 140 mph.

B. Elastomeric Sealant: ASTM C 920, elastomeric silicone polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.

C. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type joints with limited movement.

D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187/D 1187M.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

F. Solder for Copper: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead.

G. Self-adhering flashing tape: 4 in. min. width, self-adhering polymer modified bitumen flashing tape.

2.7 FINISHES

A. Coil-Coated Galvanized-Steel Sheet Finishes:

1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with ASTM A 755/A 755M and coating and resin manufacturers' written instructions.

a. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat.

B. Coil-Coated Aluminum Sheet Finishes:

1. High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

a. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat.

C. Copper Sheet Finishes:

1. Non-Patinated Finish: Mill finish.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use

fasteners, solder, protective coatings, separators, underlayments, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
2. Provide uniform, neat seams with minimum exposure of solder and sealant.
3. Install roof specialties to fit substrates and to result in weathertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
4. Torch cutting of roof specialties is not permitted.
5. Do not use graphite pencils to mark metal surfaces.

B. Underlayment: Install horizontal laps of 2 in min. and end laps of 6 in. minimum, or per Rhode Island State Building Code, whichever is more stringent.

C. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
2. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

D. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet (3.6 m) with no joints within 18 inches (450 mm) of corners or intersections unless otherwise indicated on Drawings.
2. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

E. Fasteners & Sizes: Use fasteners of sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for wood screws.

1. Install at 6” o.c. spacing along all laps and at 12” o.c. in the field, or a more stringent fastener schedule, if required by the manufacturer for high-wind installations or Rhode Island State Building Code.

F. Seal concealed joints with butyl sealant as required by roofing-specialty manufacturer.

G. Seal joints as required for weathertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F (4 deg C).

H. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets to be soldered to a width of 1-1/2 inches (38 mm); however, reduce pre-tinning where pre-tinned surface would show in completed Work. Tin edges of uncoated copper sheets using solder for copper. Do not use torches for soldering. Heat surfaces to receive solder and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.

I. Self-adhering flashing tape: Install directly to the roof deck to seal the horizontal and vertical joints.

J. Roof-mounted vents, including but not limited ridge vents, off-ridge vents and turbines, must meet Florida Building Code TAS 100(A) or approved equal.

3.2 ROOF-EDGE DRAINAGE-SYSTEM INSTALLATION

A. General: Install components to produce a complete roof-edge drainage system according to manufacturer's written instructions. Coordinate installation of roof perimeter flashing with installation of roof-edge drainage system.

B. Gutters: Join and seal gutter lengths. Allow for thermal expansion. Attach gutters to firmly anchored gutter supports spaced not more than 12 inches (305 mm) apart. Attach ends with rivets and seal with solder to make watertight. Slope to downspouts.

1. Install gutter with expansion joints at locations indicated but not exceeding 50 feet (15.2 m) apart. Install expansion-joint caps.

C. Downspouts: Join sections with manufacturer's standard telescoping joints. Provide hangers with fasteners designed to hold downspouts securely to walls and 1 inch (25 mm) away from walls; locate fasteners at top and bottom and at approximately 60 inches (1500 mm) o.c.

1. Provide elbows at base of downspouts at grade to direct water away from building.
2. Connect downspouts to splash-blocks at ground level.

D. Splashblocks: Provide precast concrete splashblock at each downspout location

3.3 REGLET AND COUNTERFLASHING INSTALLATION

A. Surface-Mounted Reglets: Install reglets to receive flashings where flashing without embedded reglets is indicated on Drawings. Install at height so that inserted counterflashings overlap 4 inches (100 mm) over top edge of base flashings. See Drawings and details for specific areas where existing reglet and counterflashing are to remain and be covered with new reglet and counterflashing.

B. Counterflashings: Insert counterflashings into reglets or other indicated receivers; ensure that counterflashings overlap 4 inches (100 mm) over top edge of base flashings. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with butyl sealant. Fit counterflashings tightly to base flashings. See Drawings and details for specific areas where existing reglet and counterflashing are to remain and be covered with new reglet and counterflashing.

3.4 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder and sealants.

C. Remove temporary protective coverings and strippable films as roof specialties are installed.

END OF SECTION 077100

SECTION 07723 - SOFFIT AND SIDING VENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Soffit vents.

B. Siding vents.

1.2 RELATED SECTIONS

A. Section 061000 - Rough Carpentry.

B. Section 074646 – Fiber Cement Siding

1.3 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's catalog data, standard details, and installation instructions.

C. Samples: 2 inch (50 mm) long samples of each profile required.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store products indoors and protect from construction traffic and damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Manufacturer: Provide vents fabricated by Cor-A-Vent, Inc.; P.O. Box 428; Mishawaka, IN 46546-0428. ASD. Tel: (800) 837-8368. Fax: (800) 645-6162.

B. Substitutions will not be acceptable.

2.2 MATERIALS

A. Soffit Vents - General: Manufactured of corrosion-free, extruded, high-density polypropylene.

B. Siding Vents: SV-3.
1. Net free area: 5 sq in per lin ft (10585 sq mm/m).
2. Dimensions: 7/16 inches (10.5mm) wide by 48 inches (1220 mm) long by 3 inch (75 mm) high.
3. Color: Black.

C. Siding Vents: SS-112 Sturdi Strips.
1. Dimensions: 3/8 inches (9.65mm) depth by 1-1/2 inches (38 mm) wide by 48 inches (1220) long.

2. Color: Black.

D. Siding Starter Strip: ST-30 Sturdi Starter.
1. Dimensions: 5/16 inches (7.87mm) wide by 1 1/4 inches (31.75 mm) tall by 48 inches (1220) long.
2. Color: Black.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that framing, sheathing, and shingles are secured and ready to receive vents.

B. Verify that there is a 1 inch (25 mm) wide clear air space between sheathing and each side of ridge board or, if trusses are used, a 1-1/2 inches (40 mm) wide continuous clear air space centered on ridge.

3.2 INSTALLATION

A. General:
1. Install soffit vents along entire length of soffits.

B. Flashings: Install specified flashings where indicated on the drawings.

3.3 SOFFIT VENTS (Not applicable)

A. Install continuous vents full length of soffits, unless otherwise indicated.

B. Ensure that adequate blocking or barriers are installed to prevent insulation from impeding air flow.

3.4 SIDING VENTS

A. Nail SV-3 or SV-5 in a continuous band along the wall at the level where the siding will start. A continuous band of SV-3 or SV-5 may also be nailed at the top of the wall where the siding ends if full ventilation behind the siding is desired. SV-3 and SV-5 may also be used above and below windows and above doors to provide drainage/ventilation in these areas as well.

B. If SS-112 Sturdi Strips are being used with the SV-3 they should be nailed to the wall either at 16 inches (406 mm) OC or 24 inches (610 mm) OC, depending on the stud layout of the wall and alongside all windows and doors. Note the SS-112 are a spacer and are not designed to hold the weight of the siding, the siding must be fastened through the SS-112 Sturdi Strips into structural material behind them. Typically when the SV-5 is being used a 3/4 inch (19 mm) thick furring strip is used instead of the SS-112 Sturdi Strips, but they can be doubled up and used if desired. The fastener for the siding must be long enough to go through both layers and attach to structural material behind them.

C. The ST-30 Sturdi Starter is used instead of ripping a piece of siding to place behind the bottom of the first row. The ST-30 will provide the same angle as the ripped siding to the first row of siding.

3.5 ADJUST AND CLEAN

A. Remove any scrap from the site, and leave in a neat and clean condition.

END OF SECTION

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Urethane joint sealants.
3. Mildew-resistant joint sealants.
4. Latex joint sealants.

1.2 INFORMATIONAL SUBMITTALS

A. Sample warranties.

1.3 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.

1.4 WARRANTY

A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL

A. VOC Content of Interior Sealants: Sealants and sealant primers used inside the weatherproofing system shall comply with the following:

1. Architectural sealants shall have a VOC content of 250 g/L or less.

2. Sealants and sealant primers for nonporous substrates shall have a VOC content of 250 g/L or less.
3. Sealants and sealant primers for nonporous substrates shall have a VOC content of 775 g/L or less.

B. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 EXTERIOR HARDI COLOR MATCHED SEALANT

A. Basis of Design:

1. Products: Provide the following or approved equal:

a. Quad Max Window, Door, & Siding Sealant, by OSI

2. Color: Match as closely to the final color selection as possible.

2.3 EXTERIOR SEALANT (*Other than Hardi material applications*)

A. Basis of Design:

1. Products: Provide the following or approved equal:

a. Dynaflex 230 Premium Indoor/Outdoor Sealant

2. Color: Match as closely to the final color selection as possible.

2.4 LATEX JOINT SEALANTS (Interiors)

A. Acrylic Latex: Acrylic latex or siliconized acrylic latex, ASTM C 834, Type OP, Grade NF.

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:

a. BASF Construction Chemicals, LLC, Building Systems; Sonolac.
b. May National Associates, Inc., a subsidiary of Sika Corporation U.S.; Bondaflex 600.
c. Pecora Corporation; AC-20.
d. Sherwin-Williams Company (The); 850A.
e. Tremco Incorporated; Tremflex 834.

2.5 JOINT-SEALANT BACKING

A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
2. Basis-of-Design Product: Subject to compliance with requirements, provide comparable product by one of the following:

    a. BASF Construction Chemicals, LLC, Building Systems.
    b. Construction Foam Products, a division of Nomaco, Inc.

B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.6 MISCELLANEOUS MATERIALS

A. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.

B. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove laitance and form-release agents from concrete.
2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.

3.2 INSTALLATION OF JOINT SEALANTS

A. General: Comply with ASTM C 1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.

1. Provide concave joint profile per Figure 8A in ASTM C 1193 unless otherwise indicated.

3.3 FIELD QUALITY CONTROL

A. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

END OF SECTION 079200

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes hollow-metal work.

1.2 DEFINITIONS

A. Minimum Thickness: Minimum thickness of base metal without coatings according to NAAMM-HMMA 803 or SDI A250.8.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Sustainable Design Submittals:

C. Shop Drawings: Include elevations, door edge details, frame profiles, metal thicknesses, preparations for hardware, and other details.

D. Samples for Initial Selection: For units with factory-applied color finishes.

E. Samples for Verification: For each type of exposed finish required.

F. Schedule: Prepared by or under the supervision of supplier, using same reference numbers for details and openings as those on Drawings.

1.4 INFORMATIONAL SUBMITTALS

A. Product test reports.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Steelcraft; an Allegion brand.

2.2 REGULATORY REQUIREMENTS

A. Fire-Rated Assemblies: Complying with NFPA 80 and listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C.

1. Smoke- and Draft-Control Assemblies: Provide an assembly with gaskets listed and labeled for smoke and draft control by a qualified testing agency acceptable to authorities having jurisdiction, based on testing according to UL 1784 and installed in compliance with NFPA 105.

B. Fire-Rated, Borrowed-Lite Assemblies: Complying with NFPA 80 and listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction for fire-protection ratings indicated, based on testing according to NFPA 257 or UL 9.

2.3 INTERIOR DOORS AND FRAMES

A. Basis-of-Design Product: Subject to compliance with requirements, provide Steelcraft CE Series Full Flush Doors.

B. Equivalents: Subject to compliance with Section 012500 Substitution Procedures and Section 016000 Product Requirements, “or equal” products by other manufacturers will be considered for use subject to review and approval by the Architect. The Architect’s decision regarding equivalency is final.

C. Heavy-Duty Doors and Frames: SDI A250.8, Level 2. At locations indicated in the Door and Frame Schedule.

1. Physical Performance: Level B according to SDI A250.4.
2. Doors:

   a. Type: As indicated in the Door Types Schedule. Refer to drawing sheet A601.
   b. Thickness: 1-3/4 inches (44.5 mm).
   c. Face: Metallic-coated, cold-rolled steel sheet, minimum thickness of 0.042 inch (1.0 mm).
   d. Edge Construction: Model 2, Seamless.
   e. Core: Polystyrene.
   f. Fire Rating: Supply door units bearing Labels for fire ratings indicated in Door Schedule for the locations indicated.

3. Frames:

   a. General: Existing Apartment entry door frames shall remain in place and shall be reused in the new design, unless damaged or deteriorated. If such conditions exist, new door frame specifications shall prevail.
   b. Materials: Uncoated, steel sheet, minimum thickness of 0.053 inch (1.3 mm).
   c. Construction: Knocked down.

4. Exposed Finish: Prime.

2.4 EXTERIOR HOLLOW-METAL DOORS AND FRAMES

A. Heavy-Duty Doors and Frames: SDI A250.8, Level 2. At locations indicated in the Door and Frame Schedule.

1. Physical Performance: Level B according to SDI A250.4.
2. Doors:

   a. Type: As indicated in the Door and Frame Schedule. Refer to drawing sheet A601.
   b. Thickness: 1-3/4 inches (44.5 mm).
   c. Face: Metallic-coated steel sheet, minimum thickness of 0.042 inch (1.0 mm), with minimum A40 (ZF120) coating.
   d. Edge Construction: Model 1, Full Flush.
   e. Core: Manufacturer's standard insulation material.

3. Thermal-Rated Doors: Provide doors fabricated with thermal-resistance value (R-value) of not less than 2.1 deg F x h x sq. ft./Btu (0.370 K x sq. m/W) when tested according to ASTM C 1363.
4. Frames:

   a. General: Existing Exterior door frames shall remain in place and shall be reused in the new design, unless damaged or deteriorated. If such conditions exist, new door frame specifications shall prevail.
   b. Materials: Metallic-coated steel sheet, minimum thickness of 0.053 inch (1.3 mm), with minimum A40 (ZF120) coating.
   c. Construction: Face welded.

5. Exposed Finish: Prime.

2.5 FRAME ANCHORS

A. Jamb Anchors:

1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, not less than 0.042 inch (1.0 mm) thick, with corrugated or perforated straps not less than 2 inches (51 mm) wide by 10 inches (254 mm) long; or wire anchors not less than 0.177 inch (4.5 mm) thick.
2. Stud-Wall Type: Designed to engage stud, welded to back of frames; not less than 0.042 inch (1.0 mm) thick.
3. Compression Type for Drywall Slip-on Frames: Adjustable compression anchors.
4. Postinstalled Expansion Type for In-Place Concrete or Masonry: Minimum 3/8-inch-(9.5-mm-) diameter bolts with expansion shields or inserts. Provide pipe spacer from frame to wall, with throat reinforcement plate, welded to frame at each anchor location.

B. Floor Anchors: Formed from same material as frames, minimum thickness of 0.042 inch (1.0 mm), and as follows:

1. Monolithic Concrete Slabs: Clip-type anchors, with two holes to receive fasteners.

2. Separate Topping Concrete Slabs: Adjustable-type anchors with extension clips, allowing not less than 2-inch (51-mm) height adjustment. Terminate bottom of frames at finish floor surface.

2.6 MATERIALS

A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.

B. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

C. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B.

D. Frame Anchors: ASTM A 879/A 879M, Commercial Steel (CS), 04Z (12G) coating designation; mill phosphatized.

1. For anchors built into exterior walls, steel sheet complying with ASTM A 1008/A 1008M or ASTM A 1011/A 1011M, hot-dip galvanized according to ASTM A 153/A 153M, Class B.

E. Inserts, Bolts, and Fasteners: Hot-dip galvanized according to ASTM A 153/A 153M.

F. Power-Actuated Fasteners in Concrete: From corrosion-resistant materials.

G. Grout: ASTM C 476, except with a maximum slump of 4 inches (102 mm), as measured according to ASTM C 143/C 143M.

H. Mineral-Fiber Insulation: ASTM C 665, Type I (blankets without membrane facing).

I. Glazing: Section 088000 "Glazing."

J. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15-mil (0.4-mm) dry film thickness per coat.

2.7 FABRICATION

A. Fabricate hollow-metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for metal thickness. Where practical, fit and assemble units in manufacturer's plant. To ensure proper assembly at Project site, clearly identify work that cannot be permanently factory assembled before shipment.

B. Hollow-Metal Doors:

1. Exterior Doors: Provide weep-hole openings in bottoms of exterior doors to permit moisture to escape. Seal joints in top edges of doors against water penetration.
2. Astragals: Provide overlapping astragal on one leaf of pairs of doors where required by NFPA 80 for fire-performance rating or where indicated.

C. Hollow-Metal Frames: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

1. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated.
2. Grout Guards: Weld guards to frame at back of hardware mortises in frames to be grouted.
3. Floor Anchors: Weld anchors to bottoms of jambs with at least four spot welds per anchor; however, for slip-on drywall frames, provide anchor clips or countersunk holes at bottoms of jambs.
4. Jamb Anchors: Provide number and spacing of anchors as follows:

    a. Masonry Type: Locate anchors not more than 16 inches (406 mm) from top and bottom of frame. Space anchors not more than 32 inches (813 mm) o.c., to match coursing, and as follows:

        1) Two anchors per jamb up to 60 inches (1524 mm) high.
        2) Three anchors per jamb from 60 to 90 inches (1524 to 2286 mm) high.
        3) Four anchors per jamb from 90 to 120 inches (2286 to 3048 mm) high.
        4) Four anchors per jamb plus one additional anchor per jamb for each 24 inches (610 mm) or fraction thereof above 120 inches (3048 mm) high.

    b. Stud-Wall Type: Locate anchors not more than 18 inches (457 mm) from top and bottom of frame. Space anchors not more than 32 inches (813 mm) o.c. and as follows:

        1) Three anchors per jamb up to 60 inches (1524 mm) high.
        2) Four anchors per jamb from 60 to 90 inches (1524 to 2286 mm) high.
        3) Five anchors per jamb from 90 to 96 inches (2286 to 2438 mm) high.
        4) Five anchors per jamb plus one additional anchor per jamb for each 24 inches (610 mm) or fraction thereof above 96 inches (2438 mm) high.

    c. Compression Type: Not less than two anchors in each frame.
    d. Postinstalled Expansion Type: Locate anchors not more than 6 inches (152 mm) from top and bottom of frame. Space anchors not more than 26 inches (660 mm) o.c.

5. Door Silencers: Except on weather-stripped frames, drill stops to receive door silencers.

    a. Single-Door Frames: Drill stop in strike jamb to receive three door silencers.
    b. Double-Door Frames: Drill stop in head jamb to receive two door silencers.

D. Hardware Preparation: Factory prepare hollow-metal work to receive templated mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to SDI A250.6, the Door Hardware Schedule, and templates.

1. Reinforce doors and frames to receive nontemplated, mortised, and surface-mounted door hardware.
2. Comply with applicable requirements in SDI A250.6 and BHMA A156.115 for preparation of hollow-metal work for hardware.

E. Stops and Moldings: Provide stops and moldings around glazed lites and louvers where indicated. Form corners of stops and moldings with butted or mitered hairline joints.

1. Single Glazed Lites: Provide fixed stops and moldings welded on secure side of hollow-metal work.
2. Multiple Glazed Lites: Provide fixed and removable stops and moldings so that each glazed lite is capable of being removed independently.
3. Provide fixed frame moldings on outside of exterior and on secure side of interior doors and frames.
4. Provide loose stops and moldings on inside of hollow-metal work.
5. Coordinate rabbet width between fixed and removable stops with glazing and installation types indicated.

2.8 STEEL FINISHES

A. Prime Finish: Clean, pretreat, and apply manufacturer's standard primer.

1. Shop Primer: SDI A250.10.

B. Factory Finish: SDI A250.3.

1. Color and Gloss: As selected by Architect from manufacturer's full range.

2.9 ACCESSORIES

A. Louvers: Provide sightproof louvers for interior doors, where indicated, which comply with SDI 111C, with blades or baffles formed of 0.020-inch- (0.5-mm-) thick, cold-rolled steel sheet set into 0.032-inch- (0.8-mm-) thick steel frame.

1. Fire-Rated Automatic Louvers: Movable blades closed by actuating fusible link, and listed and labeled for use in fire-rated door assemblies of type and fire-resistance rating indicated.

B. Mullions and Transom Bars: Join to adjacent members by welding or rigid mechanical anchors.

C. Grout Guards: Formed from same material as frames, not less than 0.016 inch (0.4 mm) thick.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Hollow-Metal Frames: Install hollow-metal frames for doors, transoms, sidelites, borrowed lites, and other openings, of size and profile indicated. Comply with SDI A250.11 or NAAMM-HMMA 840 as required by standards specified.

1. Set frames accurately in position; plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is complete, remove temporary braces, leaving surfaces smooth and undamaged.

a. At fire-rated openings, install frames according to NFPA 80.
b. Where frames are fabricated in sections because of shipping or handling limitations, field splice at approved locations by welding face joint continuously; grind, fill, dress, and make splice smooth, flush, and invisible on exposed faces.
c. Install frames with removable stops located on secure side of opening.
d. Install door silencers in frames before grouting.
e. Remove temporary braces necessary for installation only after frames have been properly set and secured.
f. Check plumb, square, and twist of frames as walls are constructed. Shim as necessary to comply with installation tolerances.
g. Field apply bituminous coating to backs of frames that will be filled with grout containing antifreezing agents.

2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with postinstalled expansion anchors.

a. Floor anchors may be set with power-actuated fasteners instead of postinstalled expansion anchors if so indicated and approved on Shop Drawings.

3. Metal-Stud Partitions: Solidly pack mineral-fiber insulation inside frames.
4. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with grout.
5. Concrete Walls: Solidly fill space between frames and concrete with mineral-fiber insulation.
6. In-Place Concrete or Masonry Construction: Secure frames in place with postinstalled expansion anchors. Countersink anchors, and fill and make smooth, flush, and invisible on exposed faces.
7. In-Place Metal or Wood-Stud Partitions: Secure slip-on drywall frames in place according to manufacturer's written instructions.
8. Installation Tolerances: Adjust hollow-metal door frames for squareness, alignment, twist, and plumb to the following tolerances:

a. Squareness: Plus or minus 1/16 inch (1.6 mm), measured at door rabbet on a line 90 degrees from jamb perpendicular to frame head.
b. Alignment: Plus or minus 1/16 inch (1.6 mm), measured at jambs on a horizontal line parallel to plane of wall.
c. Twist: Plus or minus 1/16 inch (1.6 mm), measured at opposite face corners of jambs on parallel lines, and perpendicular to plane of wall.
d. Plumbness: Plus or minus 1/16 inch (1.6 mm), measured at jambs at floor.

B. Hollow-Metal Doors: Fit hollow-metal doors accurately in frames, within clearances specified below. Shim as necessary.

1. Non-Fire-Rated Steel Doors:

a. Between Door and Frame Jambs and Head: 1/8 inch (3.2 mm) plus or minus 1/32 inch (0.8 mm).
b. Between Edges of Pairs of Doors: 1/8 inch (3.2 mm) to 1/4 inch (6.3 mm) plus or minus 1/32 inch (0.8 mm).
c. At Bottom of Door: 5/8 inch (15.8 mm) plus or minus 1/32 inch (0.8 mm).

d. Between Door Face and Stop: 1/16 inch (1.6 mm) to 1/8 inch (3.2 mm) plus or minus 1/32 inch (0.8 mm).

2. Fire-Rated Doors: Install doors with clearances according to NFPA 80.
3. Smoke-Control Doors: Install doors and gaskets according to NFPA 105.

C. Glazing: Comply with installation requirements in Section 088000 "Glazing" and with hollow-metal manufacturer's written instructions.

1. Secure stops with countersunk flat- or oval-head machine screws spaced uniformly not more than 9 inches (230 mm) o.c. and not more than 2 inches (51 mm) o.c. from each corner.

3.2 ADJUSTING AND CLEANING

A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow-metal work that is warped, bowed, or otherwise unacceptable.

B. Remove grout and other bonding material from hollow-metal work immediately after installation.

C. Prime-Coat Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat and apply touchup of compatible air-drying, rust-inhibitive primer.

D. Metallic-Coated Surface Touchup: Clean abraded areas and repair with galvanizing repair paint according to manufacturer's written instructions.

E. Touchup Painting: Cleaning and touchup painting of abraded areas of paint are specified in painting Sections.

END OF SECTION 081113

SECTION 081743 - COMPOSITE FIBERGLASS DOOR

PART 1 GENERAL

1.01 SECTION INCLUDES

A. AF-219-1 Contemporary Wood Grain Composite Fiberglass Door with PP Polypropylene Honeycomb Core.

1.02 RELATED SECTIONS

A. Section 08 01 17 – Operation and Maintenance of Integrated Door Opening Assemblies.
B. Section 08 06 71 – Door Hardware Schedule.
C. Section 08 06 80 – Glazing Schedule.
D. Section 08 10 00 – Doors and Frames.
E. Section 08 12 16 – Aluminum Frames.
F. Section 08 42 13 – Aluminum-Framed Entrances.
G. Section 08 71 00 – Door Hardware.
H. Section 08 91 26 – Door Louvers.

1.03 REFRENCES

A. AAMA 1304 – Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems.
B. ASTM-D256 – Standard Test Methods for Determining the Pendulum Impact Resistance of Plastics.
C. ASTM-D570 – Standard Test Method for Water Absorption of Plastics.
D. ASTM-D638 – Standard Test Method for Tensile Properties of Plastics.
E. ASTM-D695 – Standard Test Method for Compression Properties of Rigid Plastics.
F. ASTM-D696 – Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 °C and 30 °C with a Vitreous Silica Dilatometer.
G. ASTM-D790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
H. ASTM-D792 – Standard Test Method for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
I. ASTM-D1761 – Standard Test Methods for Mechanical Fasteners in Wood.
J. ASTM-D2344 – Standard Test Method for Short-Beam Strength of Polymer Matrix Composite Materials and Their Laminates.
K. ASTM-D2583 – Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impresser.
L. ASTM-D2794 – Standard Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact).
M. ASTM-D3029 – Test Methods for Impact Resistance of Flat Rigid Plastic Specimens by Means of a Tup (Falling Weight) (Withdrawn 1995) (Replaced by ASTM-D5420).
N. ASTM-D5116 – Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Materials/ Products.
O. ASTM-D5420 – Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact).
P. ASTM-D6670 – Standard Practice for Full-Scale Chamber Determination of Volatile Organic Emissions from Indoor Materials/ Products.
Q. ASTM-E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
R. ASTM-E90 – Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
S. NFRC 100 – Procedure for Determining Fenestration Products U-Factors.
T. NFRC 400 – Procedure for Determining Fenestration Products Air Leakage.

1.04 SUBMITTALS

A. Must comply with Section 01 33 00 – Submittal Procedures.
B. Action Submittals/ Informational Submittals.
   1. Product Data.
      a. Submit manufacturer's product data sheets, catalog pages illustrating the products, description of materials, components, fabrication, finishes, installation instructions, and applicable test reports.
   2. Shop Drawings.
      a. Submit manufacturer's shop drawings, including elevations, sections, and details indicating dimensions, tolerances, materials, fabrication, doors, panels, framing, hardware schedule, and finish.
   3. Samples.
      a. Submit manufacturer's door sample composed of door face sheet, core, framing and finish.
      b. Submit manufacturer's sample of standard colors for door face and frame.
   4. Testing and Evaluation Reports.
      a. Submit testing reports and evaluations provided by manufacturer conducted by and accredited independent testing agency certifying doors and frames comply with specified performance requirements listed in Section 2.04.
   5. Manufacturer Reports.
      a. Manufacturer's Project References.
         1. Submit list of successfully completed projects including project name, location, name of architect, type, and quantity of doors manufactured.
C. Closeout Submittals.
   1. Operation and Maintenance Manual.
      a. Submit manufacturer's maintenance and cleaning instructions for doors and frames, including maintenance and operating instructions for hardware.
   2. Warranty Documentation.
      a. Submit manufacturer's standard warranty.

1.05 QUALITY ASSURANCE

A. Manufacturer's Qualifications.
   1. Continuously engaged in manufacturing of doors of similar type to that specified, with a minimum of 25 years concurrent successful experience.
   2. Door and frame components must be fabricated by same manufacturer.
   3. Evidence of a documented complaint resolution quality management system.

B. ***Preorder conference. Contractor shall coordinate a review meeting with the Owner and Architect to review the overall work scope including doors and hardware to confirm conformance with expectations prior to ordering material.***

1.06 DELIVERY, STORAGE, AND HANDLING

A. Delivery.
   1. Deliver materials to site in manufacturer's original, unopened, containers and packaging.
   2. Labels clearly identifying opening, door mark, and manufacturer.
B. Storage.
   1. Store materials in a clean, dry area, indoors in accordance with manufacturer's instructions.
C. Handling.
   1. Protect materials and finish from damage during handling and installation.

1.07 WARRANTY

A. Warrant doors, frames, and factory installed hardware against failure in materials and workmanship, including excessive deflection, faulty operation, defects in hardware installation, and deterioration of finish or construction in excess of normal weathering.

B. Standard Period.
   1. Ten years starting on date of shipment.
C. Limited lifetime
   1. Covers failure of corner joinery, core deterioration, and delamination or bubbling of door skin and corrosion of all-fiberglass products while the door is in its specified application in its original installation.
D. Finish
   1. SpecLite3® face sheets 10 years from the date of shipment.
   2. Painted AF-219-1, AF-150 frames, AF-250 frames: 3 years.
   3. Thresholds do not have a finish warranty.

PART 2 PRODUCTS

2.01 COMPOSITE FIBERGLASS DOOR

A. Manufacturer.
   1. Special-Lite, Inc.
      a. PO Box 6, Decatur, Michigan 49045.
      b. Toll Free (800) 821-6531, Phone (269) 423-7068, Fax (800) 423-7610.
      c. Web Site www.special-lite.com.
      d. E-Mail info@special-lite.com.

2.02 DESCRIPTION

A. Model.
   1. AF-219-1 Contemporary Wood Grain Composite Fiberglass Door.
B. Door Opening Size.
   1. **As shown in drawings. Contractor to confirm in the field prior to ordering.**
C. Construction.
   1. Door Thickness.
      a. 1-3/4".
   2. Stiles & Rails.
      a. Pultruded fiberglass with integral channels for securing corner reinforcing clip.
   3. Corners.
      a. Mitered.
      b. Secured with pultruded fiberglass corner clip chemically welded to stiles and rails.
      c. Mechanical fasteners to secure corner joints not acceptable.
   4. Core.
      a. PP Polypropylene Honeycomb.
      b. PP Polypropylene Honeycomb.
         1. 5.0 pcf density.
         2. High strength to weight ratio.
         3. Corrosion, fungi, rot, chemical and moisture resistant.
         4. Sound and vibration dampening.
         5. Energy absorbing and recyclable.
   5. Face Sheet.
      a. Interior and Exterior
         1. 0.120" thick, contemporary wood grain, stained FRP sheet.
         2. Optional painted finish consult manufacturer.
      b. Attachment of face sheet.
         1. Face sheets to be flame treated to promote durable, long lasting bond.
         2. Face sheets adhered to stiles, rails, and core using hot melt adhesive evenly coated across all surfaces to produce strong bond and prevent moisture absorption.
   6. Cutouts.
      a. Manufacture doors with cutouts for required vision lites, louvers, and panels.

7. Hardware.
   a. Pre-machine doors in accordance with templates from specified hardware manufacturers.
   b. Surface mounted closures will be reinforced for but not prepped or installed at factory.
8. Reinforcements.
   a. Solid high-density polyurethane shapes chemically welded to stiles, rails and/ or core.
   b. No metallic reinforcements will be allowed.

2.03 FRAMING

A. Framing
   1. AF-150.
      a. Jamb Depth.
         1. 5-3/4".
         2. Contractor to field verify before ordering
      b. Materials.
         1. See 2.05.A.
      c. Perimeter Frame Members.
         1. ¼" thick pultruded fiberglass open throat with return.
         2. Factory fabricated.
         3. 2" or 4" face available for frame headers.
      d. Transoms and Sidelites.
         1. Same as perimeter frame members.
         2. Removable stop for ¼", 5/8" or 1" glass or panels.
      e. Integral Door Stops.
         1. 5/8" x 2-1/4".
      f. Frame Assembly.
         1. Standard knock down.
      g. Frame Member to Member Connections.
         1. Corners mitered with 4" x 4" x 3/8" pultruded FRP angle reinforcement with interlocking pultruded FRP brackets.
         2. All member to member connections knocked down at factory unless chemically welded at factory requested.
         3. Provide hairline butt joint appearance.
      h. Reinforcements.
         1. Standard.
            a. ¼" thick pultruded FRP chemically welded to frame at all hinge, strike, and closer locations.
      i. Hardware
         1. Pre-machine and reinforce frame members for hardware in accordance with manufacturer's standards and door hardware schedule.
         2. Surface mounted closures will be reinforced for but not prepped or installed at factory.
      j. Anchors:
         1. Masonry.
            a. Existing concrete or block punch and dimple.
            b. Sill anchor.
            c. Concealed existing masonry anchor.
            d. Fiberglass masonry t anchor.
         2. Drywall.
            a. Standard jamb anchor tuck.
            b. KD wrap.
            c. Optional punch and dimple tuck with either metal or wood studs.

2.04 PERFORMANCE

A. Face Sheet.
   1. Standard Interior and Exterior Class A 0.120" thick, contemporary wood grain, painted FRP sheet.
      a. Surface Burning, ASTM-E84: Flame Spread ≤ 25, Smoke Developed ≤ 350.

B. Stiles & Rails.
   1. Fastener Withdrawal, ASTM-D1761: 894 lbs.

C. AF-150 Framing.
   1. Tensile Strength, ASTM-D638: 15,900 psi.
   2. Tensile Modulus of Elasticity, ASTM-D638: 1.58 x 10^6 psi.
   3. Maximum Compressive Strength, ASTM-D695: 15,500 psi.
   4. Compressive Modulus of Elasticity, ASTM-D695: 6.7 x 10^5 psi.
   5. Flexural Strength, ASTM-D790: 39.3 x 10^3 psi.
   6. Flexural Modulus, ASTM-D790: 1.23 x 10^6 psi.
   7. Izod Impact, ASTM-D256: 8.1 ft-lb/in.
   8. Barcol Hardness, ASTM-D2583: 57.
   9. Specific Gravity, ASTM-D792: 1.45 @ 23 °C.
   10. Density, ASTM-D792: 1445.6 kg.m^3 @ 23 °C.
   11. Coefficient of Linear Expansion, ASTM-D696: 1.26 x 10^{-5} in/in/°F.
   12. Short Beam Strength, ASTM-D2344: 3,980 psi.
   13. Fastener Withdrawal, ASTM-D1761: 924 lbs.
   14. Percent Fiberglass: 60%.

D. Door and AF-150 Frame Assembly.
   1. PP Polypropylene Honeycomb Core.
      a. Thermal Transmittance, NFRC 100.
         1. Opaque Swinging Door (< than 50% glass)
            a. U-Factor = 0.28 Btu/hr·ft^2·°F.
         2. Commercially Glazed Swinging Entrance Door (> than 50% glass)
            a. U-Factor = 0.47 Btu/hr·ft^2·°F.
      b. Air Leakage, NFRC 400, ASTM-E283.
         1. Opaque Swinging Door (< than 50% glass)
            a. 0.03 cfm/sqft @ 1.57 psf.
            b. 0.07 cfm/sqft @ 6.24 psf.
         2. Commercially Glazed Swinging Entrance Door (> than 50% glass)
            a. 0.07 cfm/sqft @ 1.57 psf.
            b. 0.28 cfm/sqft @ 6.24 psf.
      c. STC and OITC, ASTM-E90: STC = 33, OITC = 28.
      d. Impact Test, TAS 201.
         1. Single Door, 3’4” x 6’11” overall size, 1-point latching.
            a. 9 lbs. missile @ 50 fps, minimum 3 impacts, no rips, tears, or penetrations.
      e. Static Air Pressure, TAS 202.
         1. Single Door, 3’4” x 6’11” overall size, 1-point latching.
            a. ± 75 psf design pressure, pass.
      f. Cyclic Wind Pressure Loading, TAS 203.
         1. Single Door, 3’4” x 6’11” overall size, 1-point latching.
            a. ± 75 psf design pressure, pass.
   2. Expanded Polystyrene Core.
      a. Thermal Transmittance, NFRC 100.
         1. Opaque Swinging Door (< than 50% glass)
            a. U-Factor = 0.27 Btu/hr·ft^2·°F.
         2. Commercially Glazed Swinging Entrance Door (> than 50% glass)
            a. U-Factor = 0.46 Btu/hr·ft^2·°F.
      b. Air Leakage, NFRC 400, ASTM-E283.
         1. Opaque Swinging Door (< than 50% glass)
            a. 0.00 cfm/sqft @ 1.57 psf.
            b. 0.01 cfm/sqft @ 6.24 psf.
         2. Commercially Glazed Swinging Entrance Door (> than 50% glass)

a. 0.02 cfm/sqft @ 1.57 psf.
b. 0.18 cfm/sqft @ 6.24 psf.
c. STC and OITC, ASTM-E90: STC = 31, OITC = 30.

2.05 MATERIALS

A. Fiberglass.
1. Face Sheet.
a. See 2.04.A.
2. Stiles & Rails.
a. See 2.04.B.
3. Framing
a. See 2.04.C.

B. Fasteners.
1. All exposed fasteners will have a finish to match material being fastened.
2. 410 stainless steel or other non-corrosive metal.
3. Must be compatible with items being fastened.

2.06 FABRICATION

A. Factory Assembly.
1. Door and frame components from the same manufacturer.
2. Required size for door and frame units, shall be as indicated on the drawings.
3. Complete cutting, fitting, forming, drilling, and grinding of metal before assembly.
4. All cut edges to be free of burs.
5. Electrical arc welding of doors or frames is not acceptable.
6. Maintain continuity of line and accurate relation of planes and angles.
7. Secure attachments and support at mechanical joints with hairline fit at contact surfaces.

B. Shop Fabrication
1. All shop fabrication to be completed in accordance with manufactures process work instructions.
2. Quality control to be performed before leaving each department.

2.07 FINISHES

A. Door.
1. FRP Face Sheets
a. Stained.
1. Color.
a. American Cherry.

B. Frame
1. Fiberglass.
a. Two-part aliphatic polyurethane paint.
1. Color.
a. Primed Only.
2. Unique, high-solids, high-build, multifunctional coating.
3. Low VOC, high-gloss, self-priming coating.
4. Impact Resistance, ASTM-D2794: 140 in·lbs (direct), 50 in·lbs (reverse) @ 5 mils thickness.
5. Taber Abrasion, 1 kg load, 1000 cycles, CS-17 wheel: 60.2 mg.
6. Graffiti cleaning with Amerase with gloss retention: 100 cycles.
7. Chemical Resistance.
a. Excellent.
1. Acidic.
2. Alkaline.
3. Salt Solutions.
4. Seawater.

5. Fresh Water.
6. Petroleum Products.

2.08 ACCESSORIES

A. Fiberglass Vision Lites.
   1. Model.
      a. All Fiberglass.
   2. Size.
      a. Half Lite, 24" x 36".
   3. Glazing Thickness.
      a. 5/8"
B. Fiberglass Louvers. (Not applicable)
   1. Size.
      a. 24" x 18".
   2. Factory installed.
   3. Exterior side of louver shall be free of fasteners.
   4. Pultruded fiberglass.
   5. Finish to match door.
C. Hardware.
   1. Pre-machine doors in accordance with templates from specified hardware manufactures and hardware schedule.
   2. Hardware Schedule.
      a. See hardware specification section 087100

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine areas to receive doors.
B. Notify architect of conditions that would adversely affect installation or subsequent use.
C. Do no proceed with installation until unsatisfactory conditions are corrected.

3.02 PREPARATION

A. Ensure openings to receive frames are plumb, level, square, and in tolerance.

3.03 ERECTION

A. Install doors in accordance with manufacturer's instructions.
B. Install doors plumb, level, square, true to line, and without warp or rack.
C. Anchor frames securely in place.
D. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by architect.
E. Set thresholds in bed of mastic and back seal.
F. Install exterior doors to be weathertight in closed position.
G. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by architect.
H. Remove and replace damaged components that cannot be successfully repaired as determined by architect.

3.04 FIELD QUALITY CONTROL

A. Manufacture's Field Services.
   1. Manufacturer's representative shall provide technical assistance and guidance for installation of doors.

3.05 ADJUSTING

A. Adjust doors, hinges, and locksets for smooth operation without binding.

3.06 CLEANING

A. Clean doors promptly after installation in accordance with manufacturer's instructions.
B. Do not use harsh cleaning materials or methods that would damage finish.

3.07 PROTECTION

A. Protect installed doors to ensure that, except for normal weathering, doors will be without damage or deterioration at time of substantial completion.

END OF SECTION

SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes commercial door hardware for the following:

1. Manual swinging doors.
2. Other doors to the extent indicated.

B. Door hardware includes, but is not necessarily limited to, the following:

1. Mechanical door hardware.
2. Cylinders specified for doors in other sections.

C. Related Sections:

1. Division 08 Section “Hollow Metal Doors and Frames”.

D. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.

1. ANSI A117.1 - Accessible and Usable Buildings and Facilities.
2. ICC/IBC - International Building Code.
3. NFPA 80 - Fire Doors and Windows.
4. NFPA 101 - Life Safety Code.
5. NFPA 105 - Installation of Smoke Door Assemblies.
6. State Building Codes, Local Amendments.

E. Standards: All hardware specified herein shall comply with the following industry standards:

1. ANSI/BHMA Certified Product Standards - A156 Series
2. UL10C – Positive Pressure Fire Tests of Door Assemblies

1.3 SUBMITTALS

A. Product Data: Manufacturer's product data sheets including installation details, material descriptions, dimensions of individual components and profiles, operational descriptions and finishes.

B. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.

1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."

2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening. Organize door hardware sets in same order as in the Door Hardware Sets at the end of Part 3. Submittals that do not follow the same format and order as the Door Hardware Sets will be rejected and subject to resubmission.

3. Content: Include the following information:

   a. Type, style, function, size, label, hand, and finish of each door hardware item.
   b. Manufacturer of each item.
   c. Fastenings and other pertinent information.
   d. Location of door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
   e. Explanation of abbreviations, symbols, and codes contained in schedule.
   f. Mounting locations for door hardware.
   g. Door and frame sizes and materials.

4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.

C. Keying Schedule: Prepared under the supervision of the Owner, separate schedule detailing final keying instructions for locksets and cylinders in writing. Include keying system explanation, door numbers, key set symbols, hardware set numbers and special instructions. Owner to approve submitted keying schedule prior to the ordering of permanent cylinders.

D. Operating and Maintenance Manuals: Provide manufacturers operating and maintenance manuals for each item comprising the complete door hardware installation in quantity as required in Division 01, Closeout Submittals. The manual to include the name, address, and contact information of the manufacturers providing the hardware and their nearest service representatives. The final copies delivered after completion of the installation test to include "as built" modifications made during installation, checkout, and acceptance.

E. Warranties and Maintenance: Special warranties and maintenance agreements specified in this Section.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications: Engage qualified manufacturers with a minimum 5 years of documented experience in producing hardware and equipment similar to that indicated for this Project and that have a proven record of successful in-service performance.

B. Installer Qualifications: Installers, trained by the primary product manufacturers, with a minimum 3 years documented experience installing both standard and electrified builders hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.

C. Door Hardware Supplier Qualifications: Experienced commercial door hardware distributors with a minimum 5 years documented experience supplying both mechanical and electromechanical hardware installations comparable in material, design, and extent to that indicated for this Project. Supplier recognized as a factory direct distributor in good standing by the manufacturers of the primary materials with a warehousing facility in Project's vicinity. Supplier to have on staff a certified Architectural Hardware Consultant (AHC) available during the course of the Work to consult with Contractor, Architect, and Owner concerning both standard and electromechanical door hardware and keying.

1. Scheduling Responsibility: Preparation of door hardware and keying schedules.

D. Source Limitations: Obtain each type and variety of Door Hardware specified in this Section from a single source, qualified supplier unless otherwise indicated.

1. Electrified modifications or enhancements made to a source manufacturer's product line by a secondary or third-party source will not be accepted.
2. Provide electromechanical door hardware from the same manufacturer as mechanical door hardware, unless otherwise indicated.

E. Regulatory Requirements: Comply with NFPA 70, NFPA 80, NFPA 101 and ANSI A117.1 requirements and guidelines as directed in the model building code including, but not limited to, the following:

1. NFPA 70 "National Electrical Code", including electrical components, devices, and accessories listed and labeled as defined in Article 100 by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

2. Where indicated to comply with accessibility requirements, comply with Americans with Disabilities Act (ADA), "Accessibility Guidelines for Buildings and Facilities (ADAAG)," ANSI A117.1 as follows:

a. Handles, Pulls, Latches, Locks, and other Operating Devices: Shape that is easy to grasp with one hand and does not require tight grasping, tight pinching, or twisting of the wrist.
b. Door Closers: Comply with the following maximum opening-force requirements indicated:

1) Interior Hinged Doors: 5 lbf applied perpendicular to door.

2) Fire Doors: Minimum opening force allowable by authorities having jurisdiction.

c. Thresholds: Not more than 1/2 inch high. Bevel raised thresholds with a slope of not more than 1:2.

3. NFPA 101: Comply with the following for means of egress doors:

a. Latches, Locks, and Exit Devices: Not more than 15 lbf to release the latch. Locks shall not require the use of a key, tool, or special knowledge for operation.
b. Thresholds: Not more than 1/2 inch high.

4. Fire-Rated Door Assemblies: Provide door hardware for assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252 (neutral pressure at 40" above sill) or UL-10C.

a. Test Pressure: Positive pressure labeling.

F. Each unit to bear third party permanent label demonstrating compliance with the referenced standards.

G. Keying Conference: Conduct conference to comply with requirements in Division 01 Section "Project Meetings." Keying conference to incorporate the following criteria into the final keying schedule document:

1. Function of building, purpose of each area and degree of security required.
2. Plans for existing and future key system expansion.
3. Requirements for key control storage and software.
4. Installation of permanent keys, cylinder cores and software.
5. Address and requirements for delivery of keys.

H. Pre-Submittal Conference: Conduct coordination conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier(s), Installer(s), and Contractor(s) to review proper methods and the procedures for receiving, handling, and installing door hardware.

1. Prior to installation of door hardware, conduct a project specific training meeting to instruct the installing contractors' personnel on the proper installation and adjustment of their respective products. Product training to be attended by installers of door hardware (including electromechanical hardware) for aluminum, hollow metal and wood doors. Training will include the use of installation manuals, hardware schedules, templates and physical product samples as required.
2. Inspect and discuss electrical roughing-in, power supply connections, and other preparatory work performed by other trades.
3. Review sequence of operation narratives for each unique access controlled opening.
4. Review and finalize construction schedule and verify availability of materials.
5. Review the required inspecting, testing, commissioning, and demonstration procedures

I. At completion of installation, provide written documentation that components were applied to manufacturer's instructions and recommendations and according to approved schedule.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up and shelving for door hardware delivered to Project site. Do not store electronic access control hardware, software or accessories at Project site without prior authorization.

B. Tag each item or package separately with identification related to the final Door Hardware Schedule, and include basic installation instructions with each item or package.

C. Deliver, as applicable, permanent keys, cylinders, cores, access control credentials, software and related accessories directly to Owner via registered mail or overnight package service. Instructions for delivery to the Owner shall be established at the "Keying Conference".

1.6 COORDINATION

A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing standard and electrified hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing hardware to comply with indicated requirements.

B. Door Hardware and Electrical Connections: Coordinate the layout and installation of scheduled electrified door hardware and related access control equipment with required connections to source power junction boxes, low voltage power supplies, detection and monitoring hardware, and fire and detection alarm systems.

C. Door and Frame Preparation: Related Division 08 Sections (Steel, Aluminum and Wood) doors and corresponding frames are to be prepared, reinforced and pre-wired (if applicable) to receive the installation of the specified electrified, monitoring, signaling and access control system hardware without additional in-field modifications.

1.7 WARRANTY

A. General Warranty: Reference Division 01, General Requirements. Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

B. Warranty Period: Written warranty, executed by manufacturer(s), agreeing to repair or replace components of standard and electrified door hardware that fails in materials or workmanship within specified warranty period after final acceptance by the Owner. Failures include, but are not limited to, the following:

1. Structural failures including excessive deflection, cracking, or breakage.
2. Faulty operation of the hardware.

3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
4. Electrical component defects and failures within the systems operation.

C. Standard Warranty Period: One year from date of Substantial Completion, unless otherwise indicated.

D. Special Warranty Periods:

1. Ten years for mortise locks and latches.
2. Five years for exit hardware.
3. Twenty-five years for manual surface door closers.

1.8 MAINTENANCE SERVICE

A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.

B. Continuing Service: Beginning at Substantial Completion, and running concurrent with the specified warranty period, provide continuous (6) months full maintenance including repair and replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door opening operation. Provide parts and supplies as used in the manufacture and installation of original products.

PART 2 - PRODUCTS

2.1 SCHEDULED DOOR HARDWARE

A. General: Provide door hardware for each door to comply with requirements in Door Hardware Sets and each referenced section that products are to be supplied under.

1. Designations: Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3. Products are identified by using door hardware designations, as follows:

a. Named Manufacturer's Products: Product designation and manufacturer are listed for each door hardware type required for the purpose of establishing requirements. Manufacturers' names are abbreviated in the Door Hardware Schedule.

B. Substitutions: Requests for substitution and product approval for inclusive mechanical and electromechanical door hardware in compliance with the specifications must be submitted in writing and in accordance with the procedures and time frames outlined in Division 01, Substitution Procedures. Approval of requests is at the discretion of the architect, owner, and their designated consultants.

2.2 HANGING DEVICES

A. Hinges: ANSI/BHMA A156.1 certified butt-hinges with number of hinge knuckles as specified in the Door Hardware Sets.

1. Quantity: Provide the following hinge quantity, unless otherwise indicated:

a. Two Hinges: For doors with heights up to 60 inches.
b. Three Hinges: For doors with heights 61 to 90 inches.
c. Four Hinges: For doors with heights 91 to 120 inches.
d. For doors with heights more than 120 inches, provide 4 hinges, plus 1 hinge for every 30 inches of door height greater than 120 inches.

2. Hinge Size: Provide the following, unless otherwise indicated, with hinge widths sized for door thickness and clearances required:

a. Widths up to 3’0”: 4-1/2” standard or heavy weight as specified.
b. Sizes from 3’1” to 4’0”: 5” standard or heavy weight as specified.

3. Hinge Weight and Base Material: Unless otherwise indicated, provide the following:

a. Exterior Doors: Heavy weight, non-ferrous, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate standard weight.
b. Interior Doors: Standard weight, steel, ball bearing or oil impregnated bearing hinges unless Hardware Sets indicate heavy weight.

4. Hinge Options: Comply with the following where indicated in the Hardware Sets or on Drawings:

a. Non-removable Pins: Provide set screw in hinge barrel that, when tightened into a groove in hinge pin, prevents removal of pin while door is closed; for the following applications:

1) Out-swinging exterior doors.
2) Out-swinging access-controlled doors.
3) Out-swinging lockable doors.

5. Acceptable Manufacturers:

a. Hager Companies (HA).
b. McKinney Products (MK).
c. Stanley Hardware (ST).

B. Continuous Geared Hinges: ANSI/BHMA A156.26 certified continuous geared hinge with minimum 0.120-inch thick extruded 6060 T6 aluminum alloy hinge leaves and a minimum overall width of 4 inches. Hinges are non-handed, reversible, and fabricated to template screw locations. Provide concealed flush mount (with or without inset), full surface, or half surface, in standard and heavy-duty models, as specified in the Hardware Sets. Concealed continuous hinges to be U.L. listed for use on up to and including 90-minute rated door installations and

U.L. listed for windstorm components where applicable. Factory cut hinges for door size and provide with removable service power transfer panel where indicated at electrified openings.

1. Acceptable Manufacturers:

    a. Bommer Industries (BO).
    b. McKinney Products (MK).
    c. Pemko Manufacturing (PE).

2.3 DOOR OPERATING TRIM

A. Door Push Plates and Pulls: ANS/BHMA A156.6 certified door pushes and pulls of type and design specified below or in the Hardware Sets. Coordinate and provide proper width and height as required where conflicting hardware dictates.

1. Push/Pull Plates: Minimum .050-inch-thick, size as indicated in hardware sets, with beveled edges, secured with exposed screws unless otherwise indicated.
2. Door Pull and Push Bar Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door unless otherwise indicated.
3. Offset Pull Design: Size, shape, and material as indicated in the hardware sets. Minimum clearance of 2 1/2-inches from face of door and offset of 90 degrees unless otherwise indicated.
4. Fasteners: Provide manufacturer's designated fastener type as indicated in Hardware Sets.

    a. Acceptable Manufacturers:

        1) Hiawatha, Inc. (HI).
        2) Rockwood Manufacturing (RO).
        3) Trimco (TC).

2.4 CYLINDERS AND KEYING

A. General: Cylinder manufacturer to have minimum (10) years experience designing secured master key systems and have on record a published security keying system policy.

B. Source Limitations: Obtain each type of keyed cylinder and keys from the same source manufacturer as locksets and exit devices, unless otherwise indicated.

C. Cylinders: Original manufacturer cylinders complying with the following:

1. Mortise Type: Threaded cylinders with rings and straight- or clover-type cam.
2. Rim Type: Cylinders with back plate, flat-type vertical or horizontal tailpiece, and raised trim ring.
3. Bored-Lock Type: Cylinders with tailpieces to suit locks.
4. Mortise and rim cylinder collars to be solid and recessed to allow the cylinder face to be flush and be free spinning with matching finishes.
5. Keyway: Manufacturer’s Standard.

D. Patented Cylinders: ANSI/BHMA A156.5, Grade 1, certified cylinders employing a utility patented and restricted keyway requiring the use of patented controlled keys. Provide bump resistant, fixed core cylinders as standard with solid recessed cylinder collars. Cylinders are to be factory keyed where permanent keying records will be established and maintained.

1. Provide a 6 pin multi-level master key system comprised of patented controlled keys and security and high security cylinders operated by one (1) key of the highest level. Geographical exclusivity to be provided for all security and high security cylinders and UL437 certification where specified.

    a. Level 1 Cylinders: Provide utility patented controlled keyway cylinders that are furnished with patented keys available only from authorized distribution.
    b. Level 2 Cylinders: Provide utility patented controlled keyway and side bar locking incorporating unique angled bottom pins for geographical exclusivity. Cylinders constructed to provide protection against bumping and picking.
    c. Level 3 Cylinders: Provide utility patented controlled keyway and side bar locking incorporating unique angled bottom pins for geographical exclusivity. Cylinders to be UL437 certified and constructed to provide protection against bumping, picking, and drilling.
    d. Refer to hardware sets for specified levels.

2. Acceptable Manufacturer:

    a. Sargent Manufacturing (SA) - Degree Series.
    b. Corbin Russwin (RU) – Access 3 Series.

E. Keying System: Each type of lock and cylinders to be factory keyed. Conduct specified "Keying Conference" to define and document keying system instructions and requirements. Furnish factory cut, nickel-silver large bow permanently inscribed with a visual key control number as directed by Owner. Incorporate decisions made in keying conference, and as follows:

1. Master Key System: Cylinders are operated by a change key and a master key.
2. Grand Master Key System: Cylinders are operated by a change key, a master key, and a grand master key.
3. Great-Grand Master Key System: Cylinders are operated by a change key, a master key, a grand master key, and a great-grand master key.
4. Existing System: Master key or grand master key locks to Owner's existing system.
5. Keyed Alike: Key all cylinders to same change key.

F. Key Quantity: Provide the following minimum number of keys:

1. Top Master Key: One (1)
2. Change Keys per Cylinder: Two (2)
3. Master Keys (per Master Key Group): Two (2)
4. Grand Master Keys (per Grand Master Key Group): Two (2)
5. Construction Keys (where required): Ten (10)
6. Construction Control Keys (where required): Two (2)
7. Permanent Control Keys (where required): Two (2)

G. Construction Keying: Provide construction master keyed cylinders or temporary keyed construction cores where specified. Provide construction master keys in quantity as required by project Contractor. Replace construction cores with permanent cores. Furnish permanent cores for installation as directed under specified "Keying Conference".

H. Key Registration List: Provide keying transcript list to Owner's representative in the proper format for importing into key control software.

I. Key Control Cabinet: Provide a key control system including envelopes, labels, and tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet. Key control cabinet shall have expansion capacity of 150% of the number of locks required for the project.

1. Acceptable Manufacturers:

a. Lund Equipment (LU).
b. MMF Industries (MM).
c. Telkee (TK).

J. Key Control Software: Provide one network version of "Key Wizard" branded key management software package that includes one year of technical support and upgrades to software at no charge. Provide factory key system formatted for importing into “Key Wizard” software.

2.5 MECHANICAL LOCKS AND LATCHING DEVICES

A. Mortise Locksets, Grade 1 (Heavy Duty): ANSI/BHMA A156.13, Series 1000, Operational Grade 1 certified mortise locksets furnished in the functions as specified in the Hardware Sets. Locksets to be manufactured with a corrosion resistant, stamped 12 gauge minimum formed steel case and be field-reversible for handing without disassembly of the lock body. Lockset trim (including knobs, levers, escutcheons, roses) to be the product of a single manufacturer. Furnish with standard 2 3/4" backset, 3/4" throw anti-friction stainless steel latchbolt, and a full 1" throw stainless steel bolt for deadbolt functions.

1. Acceptable Manufacturers:

a. Corbin Russwin Hardware (RU) – ML2000 Series.
b. Sargent Manufacturing (SA) – 8200 Series.
c. Stanley Best (BE) – 40H Series.

B. Lock Trim Design: As specified in Hardware Sets.

2.6 LOCK AND LATCH STRIKES

A. Strikes: Provide manufacturer's standard strike with strike box for each latch or lock bolt, with curved lip extended to protect frame, finished to match door hardware set, unless otherwise indicated, and as follows:

1. Flat-Lip Strikes: For locks with three-piece antifriction latchbolts, as recommended by manufacturer.
2. Extra-Long-Lip Strikes: For locks used on frames with applied wood casing trim.
3. Aluminum-Frame Strike Box: Provide manufacturer's special strike box fabricated for aluminum framing.

B. Standards: Comply with the following:

1. Strikes for Mortise Locks and Latches: BHMA A156.13.
2. Strikes for Bored Locks and Latches: BHMA A156.2.
3. Strikes for Auxiliary Deadlocks: BHMA A156.5.
4. Dustproof Strikes: BHMA A156.16.

2.7 CONVENTIONAL EXIT DEVICES

A. General Requirements: All exit devices specified herein shall meet or exceed the following criteria:

1. At doors not requiring a fire rating, provide devices complying with NFPA 101 and listed and labeled for "Panic Hardware" according to UL305. Provide proper fasteners as required by manufacturer including sex nuts and bolts at openings specified in the Hardware Sets.

2. Where exit devices are required on fire rated doors, provide devices complying with NFPA 80 and with UL labeling indicating "Fire Exit Hardware". Provide devices with the proper fasteners for installation as tested and listed by UL. Consult manufacturer’s catalog and template book for specific requirements.

   a. Fire Exit Removable Mullions: Provide keyed removable mullions for use with fire exit devices complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire and panic protection, based on testing according to UL 305 and NFPA 252. Mullions to be used only with exit devices for which they have been tested.

3. Except on fire rated doors, provide exit devices with hex key dogging device to hold the pushbar and latch in a retracted position. Provide optional keyed cylinder dogging on devices where specified in Hardware Sets.

4. Devices must fit flat against the door face with no gap that permits unauthorized dogging of the push bar. The addition of filler strips is not acceptable except in any case where the door light extends behind the device as in a full glass configuration.

5. Flush End Caps: Provide heavy weight impact resistant flush end caps made of architectural metal in the same finish as the devices as in the Hardware Sets. Plastic end caps will not be acceptable.

6. Lever Operating Trim: Where exit devices require lever trim, furnish manufacturer's heavy-duty trim with cold forged escutcheons, beveled edges, and four threaded studs for thru-bolts.

a. Lock Trim Design: As indicated in Hardware Sets, provide finishes and designs to match that of the specified locksets. Provided free-wheeling type trim where indicated.
b. Where function of exit device requires a cylinder, provide an interchangeable core type keyed cylinder (Rim or Mortise) as specified in Hardware Sets.

7. Vertical Rod Exit Devices: Provide and install interior surface and concealed vertical rod exit devices as Less Bottom Rod (LBR) unless otherwise indicated.

8. Narrow Stile Applications: At doors constructed with narrow stiles, or as specified in Hardware Sets, provide devices designed for maximum 2” wide stiles.

9. Dummy Push Bar: Nonfunctioning push bar matching functional push bar.

10. Rail Sizing: Provide exit device rails factory sized for proper door width application.

11. Through Bolt Installation: For exit devices and trim as indicated in Door Hardware Sets.

B. Conventional Push Rail Exit Devices (Heavy Duty): ANSI/BHMA A156.3, Grade 1 certified panic and fire exit hardware devices furnished in the functions specified in the Hardware Sets. Mounting rails to be formed from smooth stainless steel, brass or bronze architectural materials no less than 0.072" thick, with push rails a minimum of 0.062" thickness. Painted or aluminum metal rails are not acceptable. Exit device latch to be investment cast stainless steel, pullman type, with deadlock feature.

1. Acceptable Manufacturers:

a. Corbin Russwin Hardware (RU) - ED4000 / ED5000 Series.
b. Sargent Manufacturing (SA) - 80 Series.
c. Von Duprin (VD) - 35A/98 XP Series.

2.8 DOOR CLOSERS

A. All door closers specified herein shall meet or exceed the following criteria:

1. General: Door closers to be from one manufacturer, matching in design and style, with the same type door preparations and templates regardless of application or spring size. Closers to be non-handed with full sized covers including installation and adjusting information on inside of cover.

2. Standards: Closers to comply with UL-10C and UBC 7-2 for Positive Pressure Fire Test and be U.L. listed for use of fire rated doors.

3. Cycle Testing: Provide closers which have surpassed 15 million cycles in a test witnessed and verified by UL.

4. Size of Units: Comply with manufacturer's written recommendations for sizing of door closers depending on size of door, exposure to weather, and anticipated frequency of use.

Where closers are indicated for doors required to be accessible to the physically handicapped, provide units complying with ANSI ICC/A117.1.

5. Closer Arms: Provide heavy duty, forged steel closer arms unless otherwise indicated in Hardware Sets.

   a. Where closers are indicated to have mechanical dead-stop, provide heavy duty arms and brackets with an integral positive stop.
   b. Where closers are indicated to have mechanical hold open, provide heavy duty units with an additional built-in mechanical holder assembly designed to hold open against normal wind and traffic conditions. Holder to be manually selectable to on-off position.
   c. Where closers are indicated to have a cushion-type stop, provide heavy duty arms and brackets with spring stop mechanism to cushion door when opened to maximum degree.
   d. Closers shall not be installed on exterior or corridor side of doors; where possible install closers on door for optimum aesthetics. Provide drop plates or other accessories as required for proper mounting.

6. Closer Accessories: Provide door closer accessories including custom templates, special mounting brackets, spacers and drop plates, and through-bolt or security type fasteners as specified in the door Hardware Sets.

B. Door Closers, Surface Mounted (Heavy Duty): ANSI/BHMA A156.4, Grade 1 surface mounted, heavy duty door closers with complete spring power adjustment, sizes 1 thru 6; and fully operational adjustable according to door size, frequency of use, and opening force. Closers to be rack and pinion type, one-piece cast iron or aluminum alloy body construction, with adjustable backcheck and separate non-critical valves for closing sweep and latch speed control. Provide non-handed units standard.

1. Acceptable Manufacturers:

   a. Corbin Russwin Hardware (RU) - DC8000 Series.
   b. LCN Closers (LC) - 4040XP Series.
   c. Sargent Manufacturing (SA) - 281 Series.
   d. Norton Door Controls (NO) - 7500 Series.

2.9 ARCHITECTURAL TRIM

A. Door Protective Trim

1. General: Door protective trim units to be of type and design as specified below or in the Hardware Sets.

2. Size: Fabricate protection plates (kick, armor, or mop) not more than 2" less than door width (LDW) on stop side of single doors and 1” LDW on stop side of pairs of doors, and not more than 1" less than door width on pull side. Coordinate and provide proper width and height as required where conflicting hardware dictates. Height to be as specified in the Hardware Sets.

3. Metal Protection Plates: ANSI/BHMA A156.6 certified metal protection plates (kick, armor, or mop), beveled on four edges (B4E), fabricated from the following:

    a. Stainless Steel: 300 series, 050-inch thick, with countersunk screw holes (CSK).

4. Fasteners: Provide manufacturer's designated fastener type as specified in the Hardware Sets.

5. Metal Door Edging: Door protection edging fabricated from a minimum .050-inch thick metal sheet, formed into an angle or "U" cap shapes, surface or mortised mounted onto edge of door. Provide appropriate leg overlap to account for protection plates as required. Height to be as specified in the Hardware Sets.

6. Acceptable Manufacturers:

    a. Hiawatha, Inc. (HI).
    b. Rockwood Manufacturing (RO).
    c. Trimco (TC).

2.10 DOOR STOPS AND HOLDERS

A. General: Door stops and holders to be of type and design as specified below or in the Hardware Sets.

B. Door Stops and Bumpers: ANSI/BHMA A156.16, Grade 1 certified door stops and wall bumpers. Provide wall bumpers, either convex or concave types with anchorage as indicated, unless floor or other types of door stops are specified in Hardware Sets. Do not mount floor stops where they will impede traffic. Where floor or wall bumpers are not appropriate, provide overhead type stops and holders.

1. Acceptable Manufacturers:

    a. Hiawatha, Inc. (HI).
    b. Rockwood Manufacturing (RO).
    c. Trimco (TC).

2.11 ARCHITECTURAL SEALS

A. General: Thresholds, weatherstripping, and gasket seals to be of type and design as specified below or in the Hardware Sets. Provide continuous weatherstrip gasketing on exterior doors and provide smoke, light, or sound gasketing on interior doors where indicated. At exterior applications provide non-corrosive fasteners and elsewhere where indicated.

B. Smoke Labeled Gasketing: Assemblies complying with NFPA 105 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for smoke control ratings indicated, based on testing according to UL 1784.

1. Provide smoke labeled perimeter gasketing at all smoke labeled openings.

C. Fire Labeled Gasketing: Assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to UL-10C.

1. Provide intumescent seals as indicated to meet UL10C Standard for Positive Pressure Fire Tests of Door Assemblies, and UBC 7-2, Fire Tests of Door Assemblies.

D. Sound-Rated Gasketing: Assemblies that are listed and labeled by a testing and inspecting agency, for sound ratings indicated, based on testing according to ASTM E 1408.

E. Replaceable Seal Strips: Provide only those units where resilient or flexible seal strips are easily replaceable and readily available from stocks maintained by manufacturer.

F. Acceptable Manufacturers:

1. Pemko Manufacturing (PE).
2. Reese Enterprises, Inc. (RS).
3. Zero International (ZE).

2.12 FABRICATION

A. Fasteners: Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. Provide screws according to manufacturers recognized installation standards for application intended.

2.13 FINISHES

A. Standard: Designations used in the Hardware Sets and elsewhere indicate hardware finishes complying with ANSI/BHMA A156.18, including coordination with traditional U.S. finishes indicated by certain manufacturers for their products.

B. Provide quality of finish, including thickness of plating or coating (if any), composition, hardness, and other qualities complying with manufacturer's standards, but in no case less than specified by referenced standards for the applicable units of hardware.

C. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine scheduled openings, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.

B. Notify architect of any discrepancies or conflicts between the door schedule, door types, drawings, and scheduled hardware. Proceed only after such discrepancies or conflicts have been resolved in writing.

3.2 PREPARATION

A. Hollow Metal Doors and Frames: Comply with ANSI/DHI A115 series.

B. Wood Doors: Comply with ANSI/DHI A115-W series.

3.3 INSTALLATION

A. Install each item of mechanical and electromechanical hardware and access control equipment to comply with manufacturer's written instructions and according to specifications.

1. Installers are to be trained and certified by the manufacturer on the proper installation and adjustment of fire, life safety, and security products including: hanging devices; locking devices; closing devices; and seals.

B. Mounting Heights: Mount door hardware units at heights indicated in following applicable publications, unless specifically indicated or required to comply with governing regulations:

1. Standard Steel Doors and Frames: DHI's "Recommended Locations for Architectural Hardware for Standard Steel Doors and Frames."
2. Wood Doors: DHI WDHS.3, "Recommended Locations for Architectural Hardware for Wood Flush Doors."
3. Where indicated to comply with accessibility requirements, comply with ANSI A117.1 "Accessibility Guidelines for Buildings and Facilities."
4. Provide blocking in drywall partitions where wall stops, or other wall mounted hardware is located.

C. Retrofitting: Install door hardware to comply with manufacturer's published templates and written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 9 Sections. Do not install surface-mounted items until finishes have been completed on substrates involved.

D. Thresholds: Set thresholds for exterior and acoustical doors in full bed of sealant complying with requirements specified in Division 7 Section "Joint Sealants."

E. Storage: Provide a secure lock up for hardware delivered to the project but not yet installed. Control the handling and installation of hardware items so that the completion of the work will not be delayed by hardware losses before and after installation.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Supplier will perform a final inspection of installed door hardware and state in report whether work complies with or deviates from requirements, including whether door hardware is properly installed, operating, and adjusted.

3.5 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

3.6 CLEANING AND PROTECTION

A. Protect all hardware stored on construction site in a covered and dry place. Protect exposed hardware installed on doors during the construction phase. Install any and all hardware at the latest possible time frame.

B. Clean adjacent surfaces soiled by door hardware installation.

C. Clean operating items as necessary to restore proper finish. and provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of owner occupancy.

3.7 DEMONSTRATION

A. Instruct Owner's maintenance personnel to adjust, operate, and maintain mechanical and electromechanical door hardware.

3.8 DOOR HARDWARE SCHEDULE

A. The hardware sets represent the design intent and direction of the owner and architect. They are a guideline only and should not be considered a detailed hardware schedule. Discrepancies, conflicting hardware, and missing items should be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application and functionality.

B. Contractor shall coordinate all exterior door hardware with new IP-based communication monitoring and access control system, and shall be responsible for ensuring the complete compatibility of the installed door hardware with the communication monitoring and access control system and for providing all required electrical and low voltage wiring and cabling.

C. Refer to Section 281100 “Access Control System” for door hardware associated with the new Access Control System.

D. Contractor shall verify and coordinate all door lock functionality and keying with the Owner prior to ordering any material.

E. Hardware Finish: All door hardware to have 626 (US26D) Satin Chrome Finish or US32D Satin Stainless Steel where applicable.

SET: EXT-1 – FRONT ENTRY DOOR

Door: EXT-1 (Exterior Hollow Metal Door)

1	Continuous Hinge	Pemko _FM_HD Heavy-Duty Full Mortise Anodized Aluminum Continuous Geared Hinge
1	Exit Device	Yale 2100 Series Rim Exit Device
1	Electric Strike	Von Duprin 6111 electric strike
1	Cylinder	Schlage 20-022 Commercial Rim Cylinder
1	Closer	Yale 5821-689 Heavy-Duty Non-Hold Open Parallel Arm Surface Door Closer with Removable Stop
1	Kick Plate	Rockwood K1050 8" x 34"
1	Weatherstripping	NGP 160SA – Door Width x Door Height Perimeter Seal
1	Sweep (Seal)	NGP 600A – Door Width Door Bottom Sweep
1	Threshold	NGP 425E – Door Width Aluminum Threshold

ADA Auto Operator Actuators

1	Flush Mount Kit	LCN 8310-3856TWF
1	Surface Mount Kit	LCN 8310-3856TWS
1	Receiver	LCN 8310-865

SET: EXT-2 – SIDE DOORS

Door: EXT-2 (Exterior Hollow Metal Door)

1	Continuous Hinge	Pemko _FM_HD Heavy-Duty Full Mortise Anodized Aluminum Continuous Geared Hinge
1	Exit Device	Yale 2100 Series Rim Exit Device
1	Electric Strike	Von Duprin 6111 electric strike
1	Cylinder	Schlage 20-022 Commercial Rim Cylinder
1	Closer	Yale 5821-689 Heavy-Duty Non-Hold Open Parallel Arm Surface Door Closer with Removable Stop
1	Kick Plate	Rockwood K1050 8" x 34"
1	Weatherstripping	NGP 160SA – Door Width x Door Height Perimeter Seal
1	Sweep (Seal)	NGP 600A – Door Width Door Bottom Sweep

1	Threshold	NGP 425E – Door Width Aluminum Threshold

ADA Auto Operator Actuators

1	Surface Mount Kit	LCN 8310-3860TW
1	Bollard Post	LCN 8310-866

SET: INT-1 – INTERIOR OFFICE DOORS

Door: INT-1 (Interior fiberglass doors w/ half-lite)

3	Hinges	Measure existing and submit for approval *Note: Will require surface mounting to existing frame*
1	Latchset	Yale AU5404LN Office Lock
1	Closer	Yale 5821-689 Heavy-Duty Hold Open Parallel Arm Surface Door Closer with Removable Stop
1	Door Stop	Rockwood

SET: INT-2 – INTERIOR VESTIBULE DOOR

Door: INT-2 (Interior fiberglass door w/ half-lite)

4	Hinges	McKinney TA2714 4 1/2" x 4 1/2"
1	Latchset	Yale AU5401LN Passage Set
1	Closer	Yale 5821-689 Heavy-Duty Hold Open Parallel Arm Surface Door Closer with Removable Stop
1	Door Stop	Rockwood
1	Weather stripping	Weather stripping and sweep

SET: INT-3 – HALLWAY DOORS

Door: INT-2 (Interior fiberglass door w/ half-lite)

3	Hinges	McKinney TA2714 4 1/2" x 4 1/2" *Note: Will require surface mounting to existing frame*
1	Latchset	Yale AU5401LN Passage Set
1	Closer	Yale 5821-689 Heavy-Duty Hold Open Parallel Arm Surface Door Closer with Removable Stop
1	Door Stop	Rockwood

SET: INT-4 – RESTROOMS

Door: INT-2 (Interior fiberglass door)

3	Hinges	McKinney TA2714 4 1/2" x 4 1/2"

		Note: Will require surface mounting to existing frame
1	Latchset	Yale AU5401LN Passage Set
1	Closer	Yale 5801-689 Heavy-Duty Non-Hold Open Parallel Arm Surface Door Closer with Removable Stop
1	Door Stop	Rockwood

END OF SECTION 087100

SECTION 099123 - PAINT

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. Surface preparations and field application of paints and coatings.

1.2 SYSTEM DESCRIPTION

A. Conform to applicable code for flame and smoke rating requirements for products and finishes.

1.3 SUBMITTALS

A. Product Data: Provide data on all finishing products.

1.4 ENVIRONMENTAL REQUIREMENTS

A. Store and apply materials in environmental conditions required by manufacturer's instructions.

1.5 QUALITY ASSURANCE

A. Single-Source Responsibility: Provide primer and undercoat paint produced by same manufacturer as the finish coats.

B. Field Samples: Provide full-coat mock ups of specified color selections for approval of Architect.

1. Interior: Paint entirely one complete room, including all walls, ceiling and trim.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Acceptable Manufacturers:

1. Benjamin Moore Paints
2. Pratt & Lambert Paints
3. Sherwin Williams
4. Or as approved by Owner.

B. Quality: Provide manufacturer's best-quality paint material of the various coating types specified that are factory formulated and recommended by manufacturer for application indicated. Paint-material containers not displaying manufacturer's product identification will not be acceptable.

C. Compatibility: Provide materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

1. All paint materials and equipment shall be compatible in use, with finish coats compatible with prime coats; prime coats compatible with surface to be coated; and all tools and equipment compatible with the coating to be applied.
2. Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
3. Thinners, when used, shall be only those thinners recommended for that purpose by the manufacturer of the material to be thinned. Do thinning according to manufacturer's printed instructions.

D. Color: Color of all paints and products shall be per samples selected and approved by the Architect and Owner.

E. Mixing and Tinting:
1. Except where specifically noted in this section, all paint shall be ready-mixed and pre-tinted. Agitate all paint prior to and during application to ensure uniform color, gloss, and consistency.
2. Thinner addition shall not exceed manufacturer's printed recommendations. Do not use kerosene or other organic solvents to thin water-based paints.
3. Where paint is to be sprayed, thin according to manufacturer's guidelines.

F. Volatile Organic Compound (VOC) Content: Comply with OTC (Ozone Transport Commission) regulations.

G. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials required to achieve the finishes specified.

2.2 FINISHES

A. Refer to drawings for paint schedule.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that substrate conditions are ready to receive Work.

B. Measure moisture content of porous surfaces using an electronic moisture meter. Apply finishes per manufacturer's specifications for maximum moisture content.

C. Correct minor defects and clean surfaces which affect work of this section.

D. Remove electrical plates, hardware, light fixture, trim, escutcheons, and fittings prior to preparing surfaces or finishing.

E. Veneer Plaster Surfaces: Fill minor defects with latex compound. Spot prime defects after repair.

F. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

G. Uncoated Ferrous Surfaces: Remove scale by wire brushing, sandblasting, clean by washing with solvent. Apply treatment of phosphoric acid solution. Prime paint immediately after repairs.

H. Interior Wood Items Scheduled to Receive Transparent Finish: Wipe off dust and grit prior to finishing. Fill nail holes and cracks after primer ahs dried; sand lightly between coats.

I. Exterior Trim Scheduled to Receive Paint Finish: Remove dust, grit, and foreign matter. Fill nail and/or screw holes with manufacturer recommended filler/compound. Apply sealant at all joints between siding and trim around doors and windows. All cut ends

J. Siding: Siding to be factory primed. Contractor to install (2) finish coats in the field.

K. All exterior wood and any painted materials shall be back primed and end primed. Prime all surfaces, <u>including all cut surfaces</u> prior to installation.

3.2 APPLICATION

A. Apply products in accordance with manufacturer's instruction.

B. Primer to primer application, lightly sand any areas of PVC trim that are shiny, using a very fine sandpaper (#220) grit. Wipe off sanding dust with a damp cloth.

C. Sand transparent finishes lightly between coats to achieve required finish.

D. Where clear finishes are required, tint filler to match wood.

E. Back prime all exterior wood work scheduled to receive paint finish with primer paint. Back prime interior wood work in damp locations such as baths, kitchen sinks.

F. Back prime interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.

G. Paint top and bottom edges of all doors.

H. Clean fiberglass and steel doors with TSP (tri-sodium phosphate) solution prior to painting.

I. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to the finishing.

J. Galvanized Surfaces: Use products listed below or equivalent:
1. Clean surfaces thoroughly with product #M83 Benjamin Moore Oil & Grease Emulsifier. Once rinsed, allow to completely dry.
2. Prime all substrates with one coat of product #M06 Alkyd Metal Primer.
3. Finish with two coats of product #M24 DTM Alkyd Metal Enamel.

3.4 CLEANING

A. As work proceeds, promptly remove finishes where spilled, splashed, or spattered.

3.5 SCHEDULE - SHOP PRIMED ITEMS FOR SITE FINISHED

A. Metals Fabrications: Including, but not limited to exposed surfaces of railings, galvanized pipe, and steel bollards.

3.6 SCHEDULE - EXTERIOR SURFACES

A. Provide all exterior painting in accordance with the following schedule with the number of coats not less than the number shown on the schedule.

B. Cellular PVC:
1. One coat Sherwin Williams KEM AQUA or equal acrylic latex bonding primer for Plastics
2. Two coats of 100% acrylic latex , semi-gloss with a Light Reflective Value (LRV) of 55 or higher

C. Fiber Cement:
1. Factory pre-primed.
2. Two coats of 100% acrylic latex, Satin Finish.

D. Composite Fly-Ash Trim:
1. Factory pre-primed.
2. Two coats of 100% acrylic latex, Semi-Gloss Finish.

E. Wood – Including, but not limited to, all wood trim, porches, window trim, etc:
1. Apply one coat of EPA approved borate wood preservative prior to applying primer.
2. One coat alkyd primer sealer. Exterior formula paint system.
3. Two coats alkyd Semi-gloss Exterior paint formula system, color by architect.

F. Fiberglass Exterior Doors:
1. If doors skins are factory pre-primed, they do not require an additional prime coat. However, if not pre-primed then provide one coat of acrylic-based primer on doors and/or frames.
2. Two coats of 100% acrylic latex, semi-gloss.

D. Steel - Shop Primed:
1. Touch-up with original primer.
2. Two coats of latex, gloss.

E. Steel - Galvanized: (*see section 3.2 above also*)
1. One coat of galvanize metal primer.
2. Two coats of alkyd enamel, gloss.

F. Steel - Ferrous Metal:
1. One coat rust-inhibiting primer (primer coat is not required on shop primed metals).
2. Two coats of alkyd enamel, gloss.

3.7 SCHEDULE - INTERIOR SURFACES

A. Provide all interior painting in accordance with the following schedule with the number of coats not less than the number shown on the schedule.

B. Wood - Transparent:
1. Filler coat (for open grained wood only).
2. One coat of stain.
3. Two coats of varnish, gloss.

C. Steel - Primed:
1. Touch-up with original primer.
2. Two coats of alkyd enamel, gloss.

D. Veneer Plaster:
a. Interior: *Kitchens, Bathrooms & Community common spaces*
b. All surfaces: One coat of latex/acrylic primer scaler.
c. Walls: Two coats of latex/acrylic enamel, semi-gloss.
d. Ceilings: Two coats of latex/acrylic enamel; semi-gloss.

E. Veneer Plaster:
1. Interior: *(all interior spaces except those noted in the above paragraph)*
a. All surfaces: One coat of latex/acrylic primer scaler.
b. Walls: Two coats of latex/acrylic enamel, satin.
c. Ceilings: Two coats of latex/acrylic enamel; flat.

F. Wood:
1. All trim & doors
a. One coat of latex/acrylic primer.
b. Two coats of latex/acrylic enamel, semi-gloss.

END OF SECTION - 099123

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating and filling for rough grading the Site.
2. Preparing subgrades for pavements
3. Drainage course for concrete slabs-on-grade.
4. Subbase course and base course for asphalt paving.

1.2 DEFINITIONS

A. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

B. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

C. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

D. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

E. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.

F. Fill: Soil materials used to raise existing grades.

G. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

H. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct preexcavation conference at Project Site.

1.4 INFORMATIONAL SUBMITTALS

A. Material test reports.

1.5 FIELD CONDITIONS

A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth-moving operations.

B. Do not commence earth-moving operations until plant-protection measures specified in Section 015639 "Temporary Tree and Plant Protection" are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

B. Fill Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

1. Liquid Limit: 40
2. Plasticity Index: 15

C. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

D. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

E. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

F. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.

G. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch (37.5-mm) sieve and zero to 5 percent passing a No. 8 sieve.

2.2 ACCESSORIES

A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored to comply with local practice or requirements of authorities having jurisdiction.

B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored to comply with local practice or requirements of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.

B. Protect and maintain erosion and sedimentation controls during earth-moving operations.

C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.

1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.3 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.4 SUBGRADE INSPECTION

A. Proof-roll subgrade below the pavement areas with a pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.5 STORAGE OF SOIL MATERIALS

A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.6 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:

1. Under grass and planted areas, use satisfactory soil material.
2. Under walks and pavements, use satisfactory soil material.
3. Under steps and ramps, use engineered fill.
4. Under building slabs, use engineered fill.
5. Under footings and foundations, use engineered fill.

3.7 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.8 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698:

1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 92 percent.
3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.

3.9 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:

1. Turf or Unpaved Areas: Plus or minus 1 inch
2. Pavements: Plus or minus 1/2 inch

3.10 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course under pavements and walks as follows:

1. Shape subbase course to required crown elevations and cross-slope grades.
2. Place subbase course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches.
3. Compact subbase course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D698.

3.11 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a qualified special inspector to perform inspections:

B. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.

C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.

D. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing

subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.

E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.12 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.13 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Contractor is responsible for and payment of all work described in this section and on the Drawings:

1. Gravel borrow base course, also identified as gravel base course and gravel base.
2. Asphalt (bituminous) concrete base and surface courses.
3. Testing and inspection services.

B. Related Requirements:

1. Section 312000 "Earth Moving" for subgrade preparation, fill material, separation geotextiles, unbound-aggregate subbase and base courses, and aggregate pavement shoulders.

1.2 REFERENCES

A. Asphalt Institute (AI):

1. MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot Mix Types.
2. MS-3 - Asphalt Plant Manual.
3. MS-8 - Asphalt Paving Manual.
4. MS-19 - Basic Asphalt Emulsion Manual.
5. RIDOT Standard Specifications – Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction, as amended.

B. ASTM International (ASTM):

1. C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregate.
2. D946 - Standard Test Method for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
3. D1188 - Standard Test Method for Bulk Specific Gravity of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens.
4. D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3))
5. D2172 - Standard Test Method for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures.
6. D2922 - Standard Test Methods for Determining the Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth).
   D 2950 "Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods."

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 SUBMITTALS

A. Submittals for Review:

1. Sieve Analysis of gravel borrow base course.
2. Mix Designs: Provide composition of each type asphalt (bituminous) concrete (base and surface courses).
3. Tack coat.
4. Testing and inspection results.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with materials, workmanship, and other applicable requirements of the RIDOT Standard Specifications – Rhode Island Department of Transportation Standard Specifications for Road and Bridge Construction (Bluebook) and Rhode Island (RIDOT) Standard Details, as amended.

B. for asphalt paving work.

1. Measurement and payment provisions and safety program submittals included in standard specifications do not apply to this Section.

1.6 PROJECT CONDITIONS

A. Do not place asphalt when base surface temperature is less than 40 degrees F, or surface is wet or frozen.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Gravel Borrow Base Course: Crushed stone or pit run gravel, free of shale, clay, friable material, and debris, graded in accordance with ASTM C136 and meet the following gradation requirements (RIDOT Standard Specification M.01.09, Gravel Borrow, 1a ‘Bank Run’ as amended:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
3"	60 - 100
1/2”	50 - 85
3/8”	45 - 80
No. 4	40 - 75
No. 40	0 - 45
No. 200	0 - 10

B. Asphalt Cement: ASTM D946 and RIDOT Standard Specifications, M.03.

C. Aggregate: Crushed stone, washed gravel, and sand, graded in accordance with AI MS-2 and RIDOT Standard Specifications, M.03.

D. Tack Coat: AI MS-19 and RIDOT Standard Specifications M.03, homogenous, rapid curing, cut back liquid asphalt.

2.2 ASPHALT (BITUMINOUS) CONCRETE MIXES

A. Asphalt (Bituminous) Concrete:

1. Uniform mixture of coarse and fine aggregate, mineral filler, and asphalt cement, accurately proportioned by weight in accordance with RIDOT Standard Specifications, M.03.01 ‘Bituminous Concrete Pavement’.
2. Base course: RIDOT Standard Specifications, M03.01 ‘Bituminous Concrete Pavement’, Base Course.
3. Surface course: RIDOT Standard Specifications, M03.01 ‘Bituminous Concrete Pavement’, Surface Course, Class I-1.

PART 3 - EXECUTION

3.1 CONSTRUCTION

A. Gravel Borrow Base Course:

1. Place to a depth after compaction as shown on the drawings.
2. Roller compact to minimum 95 percent. Add small quantities of fine aggregate if necessary, to aid compaction.
3. Uniformly grade areas to smooth surface at required grades and elevations. Make grade changes gradually. Blend slopes into level grades.
4. Tolerances: Within plus or minus 1 inch of required elevation; however, all areas must drain properly so puddles or ‘bird baths’ greater than ¼” in depth will not be created when a ten-foot-long straightedge is used.

B. Asphaltic (Bituminous) Concrete:

1. Place asphalt (bituminous) concrete within 24 hours after completing gravel borrow base course and in accordance with RIDOT Standard Specification, Section 401 'Dense Graded Bituminous Concrete Pavements'.
2. Minimum compacted thicknesses:

    a. Base course: depth as shown on Drawings.
    b. Surface course: depth as shown on Drawings.

3. Apply tack coat to asphaltic (bituminous) concrete base course when greater than thirty days old or has been opened to traffic. The application rate shall be 0.06 gallons per square yard, plus-or-minus 0.02 gallons per square yard.
4. Compact with rollers in accordance with RIDOT Standard Specification, Section 401, 'Dense Graded Bituminous Concrete Pavements'. Do not displace or extrude asphaltic concrete from position. Hand compact in areas inaccessible to rolling equipment. The minimum acceptable density shall be 95 percent.
5. Roll with consecutive passes to achieve uniform, smooth surface, free from roller marks.
6. Construction joints:

    a. Place mixture as nearly continuous as possible. Roll unprotected edge of freshly laid mixture only when laying is discontinued for such length of time as will allow cooling of mixture.
    b. When resuming work, cut back previously laid material to produce slightly beveled edge for full depth of course; place fresh mixture against fresh cut.
    c. Hot smoothing irons may be used for sealing joints; use care to avoid burning surface.
    d. Construct joints either parallel to or at right angles to longitudinal axis of work

C. Installation Tolerances:

1. 1. Maximum surface deviation: Plus or minus 1/4 inch in 10 feet, measured parallel to line of drainage.
2. Maximum deviation from specified thickness: At least 80 percent of the total asphalt (bituminous) concrete pavement will have a thickness that meets the minimum pavement thickness. The minimum pavement thickness is that contained on the drawings, (e.g., a total pavement thickness of 4 inches will have a minimum pavement thickness requirement of 4 inches). If this requirement is not met, no payment will be made until a resolution is agreed to by the Owner. If the pavement thickness is deficient, the Contractor with permission of the Owner has the right to place a correction course not less than one inch in depth after compaction, provided an acceptable grade and cross section can be achieved. Where an acceptable grade and cross section cannot be achieved through the above means, the Contractor shall reconstruct by cutting back and into the pavement a sufficient distance to permit the placement of an acceptable depth and place new material to achieve the proper depth, cross section and profile. These areas where a corrective course is placed or reconstruction of the pavement is performed, will be measured again for depth as though originally constructed; no compensation will be made to the Contractor for the material removed or removal of materials and disposal thereof or for restoration of affected supporting base or adjacent construction, or for traffic control, adjusting all utility appurtenances in the roadway or for correcting pavement striping.

3.2 PATCHING

A. Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches (300 mm) into perimeter of adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.

B. Tack Coat: Before placing patch material, apply tack coat uniformly to vertical asphalt surfaces abutting the patch. Apply at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

C. Placing Patch Material: Fill excavated pavement areas with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

3.3 SURFACE PREPARATION

A. Ensure that prepared subgrade is ready to receive paving. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces.

B. Herbicide Treatment: Apply herbicide in accordance with manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.

1. Mix herbicide with prime coat if formulated by manufacturer for that purpose.

C. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd. (0.2 to 0.7 L/sq. m).

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.4 ASPHALT CURBS

A. Construct hot-mix asphalt curbs over compacted pavement surfaces. Apply a light tack coat unless pavement surface is still tacky and free from dust. Spread hot-mix asphalt at a minimum temperature of 250 deg F (121 deg C).

1. Hot-Mix Asphalt: Same as pavement surface-course mix.

B. Place hot-mix asphalt to curb cross section indicated or, if not indicated, to local standard shapes, by machine or by hand in wood or metal forms. Tamp hand-placed materials and screed to smooth finish. Remove forms after hot-mix asphalt has cooled.

3.5 PAVEMENT MARKING

A. Refer to Section 321723 - PAVEMENT MARKINGS for additional information.

B. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.

C. Allow paving to age for 30 days or per marking paint manufacturer’s specifications, before starting pavement marking.

D. Sweep and clean surface to eliminate loose material and dust.

E. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.

F. Paint applications shall be protected for at least 30 minutes or until paint is dry.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Owner may engage a qualified independent testing and inspecting agency to perform field tests and inspections and to prepare test reports.

B. Testing and Inspection Services:

1. Gravel borrow base course:

   a. Perform sieve analysis, C136, three tests shall be performed equally spaced throughout the project area as located by Owner.
   b. Perform field in place density tests by the nuclear proctor method, D1557 & D2922, a minimum of five tests shall be performed equally spaced throughout the project area as located by the Owner.

2. Asphalt (bituminous) concrete:

   a. Perform two field in place density tests by the nuclear proctor method, ASTM D2950, on each type of asphalt (bituminous) concrete for each day's operation equally spaced throughout the project area as located by the Owner.

   b. Examine pavement to determine whether specified total thickness of asphalt (bituminous) concrete has been placed, minimum of five cores test for the project area equally spaced throughout this project area as located by the Owner.

C. Replace and compact hot-mix asphalt where core tests were taken.

D. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.7 CLEANING

A. After completion of paving operations, clean surfaces of excess or spilled asphalt materials to the satisfaction of the Owner.

3.8 PROTECTION

A. After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened so as not to be marked and in no case sooner than 6 hours.

B. Provide barricades and warning devices as required to protect pavement.

C. Cover openings of structures in the area of paving until permanent coverings are placed.

3.9 WASTE HANDLING

A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.

END OF SECTION 321216

Cumberland Senior Center

1464 Diamond Hill Rd.
Cumberland, RI 02864

FOR BIDDING

09/24/2020

PERSPECTIVE

ARCHITECTURAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION
EL 0' - 0"	DATUM POINT
FLOOR LEVEL 0' - 0"	ELEVATION MARKER
A3.0 A3.0	BUILDING SECTION
1 A4.0	AREA OF DETAIL
L 1 A3.0	DETAIL SECTION
L 1 A3.0	WALL SECTION
A A	MATCH LINE
A1 A4 A204 A2 A3	INTERIOR ELEVATION
1 A4.0	EXTERIOR ELEVATION
A1	WINDOW TYPE
108	DOOR NUMBER
KITCHEN 108	ROOM NAME AND NUMBER
1	KEYNOTE NUMBER
1	WALL TYPE
	NEW CONSTRUCTION
1	REVISION NUMBER AND CLOUD REFERENCE
12 4	ROOF PITCH
℄	CENTERLINE

SITE MAP

VICINITY MAP

FIRST FLOOR - GROSS AREA PLAN

DRAWING LIST

NUMBER	NAME
0 - COVER	
G000	TITLE SHEET
1 - EXISTING CONDITIONS	
EC101	EXISTING CONDITIONS / DEMOLITION PLAN
2 - ARCHITECTURAL	
A001	ARCHITECTURAL SITE PLAN
A101	FIRST FLOOR PLAN
A102	ROOF PLAN & DETAILS
A201	EXTERIOR ELEVATIONS
A301	BUILDING & WALL SECTIONS
A302	TYPICAL WALL SECTIONS
A501	TYPICAL EXTERIOR DETAILS
A502	DOOR AND WINDOW DETAILS & SCHEDULES

PROJECT DATA

PROJECT NAME	CUMBERLAND SENIOR CENTER
PROJECT ADDRESS	1464 DIAMOND HILL ROAD CUMBERLAND, RI 02864
CLIENT NAME	TOWN OF CUMBERLAND
CLIENT ADDRESS	45 BROAD STREET CUMBERLAND, RI 02864
BUILDING CODE	RHODE ISLAND STATE BUILDING CODE - SBC-1 AUGUST 1, 2019
USE GROUP	A3 - SENIOR CENTER
TYPE OF CONSTRUCTION	3B CONSTRUCTION
NUMBER OF STORIES	1 STORIES
AREA	7418 SF (GROSS)
SPRINKLER	NONE
FIRE ALARM	LOCAL ADDRESSIBLE
FROST LINE DEPTH	54 INCHES
WIND SPEED	131 MPH
GROUND SNOW LOAD	40 PSF

INTERPRETATION OF CONTRACT DOCUMENTS

IN THE EVENT OF CONFLICTING PROVISIONS IN THE CONTRACT DOCUMENTS, THE DRAWINGS WILL TAKE PRECEDENCE OVER THE SPECIFICATIONS.

IN THE EVENT OF CONFLICTING PROVISIONS WITHIN THE DRAWINGS, THE FOLLOWING ORDER OF PRECEDENCE FOR RESOLUTION OF THE CONFLICT SHALL APPLY: THE MORE SPECIFIC PROVISION WILL TAKE PRECEDENCE OVER THE LESS SPECIFIC; IF NOT RESOLVED, THE LESS STRINGENT WILL TAKE PRECEDENCE OVER THE MORE STRINGENT; IF NOT RESOLVED, THE LESS EXPENSIVE ITEM WILL TAKE PRECEDENCE OVER THE MORE EXPENSIVE. ON ALL DRAWINGS, FIGURES TAKE PRECEDENCE OVER SCALED DIMENSIONS.

IN THE EVENT OF CONFLICTING PROVISIONS WITHIN THE SPECIFICATIONS, THE FOLLOWING ORDER OF PRECEDENCE FOR RESOLUTION OF THE CONFLICT SHALL APPLY: THE MORE SPECIFIC PROVISION WILL TAKE PRECEDENCE OVER THE LESS SPECIFIC; IF NOT RESOLVED, THE LESS STRINGENT WILL TAKE PRECEDENCE OVER THE MORE STRINGENT; IF NOT RESOLVED, THE LESS EXPENSIVE ITEM WILL TAKE PRECEDENCE OVER THE MORE EXPENSIVE.

GENERAL PROJECT NOTES

1 GENERAL NOTES APPLY TO ALL DRAWINGS AND ALL TRADES. IT THE RESPONSIBILITY OF ALL CONTRACTORS AND TRADES TO COORDINATE THE INSTALLATION OF THEIR WORK WITH THE INSTALLATION OF WORK BY ALL OTHER CONTRACTORS AND TRADES.

2 UNLESS NOTED OTHERWISE, THE GENERAL CONTRACTOR SHALL PROVIDE AND PAY FOR ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, PERMITS, TRANSPORTATION AND OTHER SERVICES AND FACILITIES NECESSARY FOR PROPER AND TIMELY EXECUTION OF THE REQUIRED WORK UNDER THIS CONTRACT.

3 THE GENERAL CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF WRITTEN SUBSTANTIAL COMPLETION.

4 THE GENERAL CONTRACTOR WARRANTS TO THE OWNER AND TO THE ARCHITECT, THAT ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED UNDER THE CONTRACT ARE NEW UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK WILL BE AS SPECIFIED AND FREE OF DEFECTS.THE GENERAL CONTRACTOR WARRANTS TO THE OWNER AND TO THE ARCHITECT, THAT ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED UNDER THE CONTRACT ARE NEW UNLESS OTHERWISE SPECIFIED, AND THAT ALL WORK WILL BE AS SPECIFIED AND FREE OF DEFECTS.

5 ALL FLOOR LEVELS ON ALL DRAWINGS ARE ASSUMED TO BE AT ESTABLISHED DATUM UNLESS NOTED OTHERWISE. COORDINATE BUILDING SLAB ELEVATIONS WITH CIVIL DRAWINGS.

6 ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES WELL AS ANY REQUIREMENTS SET FORTH BY ALL AUTHORITIES HAVING JURISDICTION.

7 DISCREPANCIES: THE CONTRACTOR SHALL INFORM THE ARCHITECT IN WRIITING OF ANY DISCREPANCIES OR OMISSIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS OR OF ANY VARIATIONS REQUIRED IN ORDER TO CONFORM TO CODE REQUIREMENTS, RULES AND REGULATIONS. UPON RECEIPT OF SUCH INFORMATION, THE ARCHITECT WILL FORWARD WRITTEN INSTRUCTION TO ALL CONCERNED PARTIES. ANY SUCH DISCREPANCY, OMISSION OR VARIATION NOT REPORTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WORK SHALL BE PERFORMED IN A MANNER DIRECTED BY THE ARCHITECT.

8 DRAWING SCALES: THESE DRAWINGS ARE PREPARED TO THE SCALES NOTED. HOWEVER, DIMENSIONS ARE NOT TO BE DERIVED BY SCALING THE PLANS, SECTIONS OR DETAILS. THE CONTRACTOR SHALL CONTACT THE ARCHITECT WITH ANY QUESTIONS PERTAINING TO DIMENSIONS OR DETAILS PRIOR TO COMMENCING ANY WORK.

9 THE REQUIREMENTS OF THE DRAWINGS, GENERAL REQUIREMENTS AND ALL ITEMS OF THE CONTRACT DOCUMENTS ARE EQUALLY BINDING ON ALL CONTRACTORS AND TRADES. EACH CONTRACTOR IS REQUIRED TO MAINTAIN FULL SETS OF THE CONTRACT DOCUMENTS FOR THEIR EMPLOYEES USE ON THE PROJECT TO ENSURE THAT ALL WORK IS PROPERLY COORDINATED AND INSTALLED WITH THE WORK OF OTHER CONTRACTORS AND TRADES.

10 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING CONSTRUCTION THAT IS SCHEDULED TO REMAIN IN PLACE OR INTACT. ANY DAMAGE INCURRED TO SUCH ITEMS SHALL BE REPAIRED TO THE OWNER'S SATISFACTION.

11 ALL FRAMING LUMBER INSTALLED IN CONTACT WITH CONCRETE, MASONRY OR STEEL SHALL BE PRESSURE TREATED.

12 THE GENERAL CONTRACTOR SHALL FURNISH, LOCATE AND INSTALL APPROVED, CODE COMPLIANT FIRE EXTINGUISHERS. SUCH EXTINGUISHERS SHALL BE FULLY COORDINATED WITH AND APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

13 ALL DIMENSIONS ARE ACTUAL AND ARE TAKEN TO THE FACE OF STUD, FACE OF CONCRETE WALL, FACE OF CMU WALL OR FACE OF FRAME. UNLESS NOTED OTHERWISE.

14 ALL INTERIOR WALLS AND PARTITIONS SHALL EXTEND TO THE UNDERSIDE OF STRUCTURE OR DECK ABOVE, UNLESS NOTED OTHERWISE.

15 ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE CONDITIONED, USED, APPLIED, INSTALLED, CONNECTED, ERECTED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN SPECIFICATIONS, GUIDELINES AND INSTALLATION INSTRUCTIONS.

16 ALL NEW WINDOWS, SIDELITES AND BORROWED LITES AS WELL AS ASSOCIATED GLASS AND GLAZING SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES IN PLACE WITHIN THE JURISDICTION OF THE WORK. PROVIDE SAFETY GLAZING AS REQUIRED BY CODE.

17 ALL PENETRATIONS OF FIRE-RESISTIVE-RATED FLOORS, WALLS, PARTITIONS AND SHAFTS SHALL BE PROTECTED BY MATERIALS AND INSTALLATION DETAILS THAT CONFORM TO U.L. DESIGN STANDARDS FOR THROUGH PENETRATION FIRESTOP SYSTEMS. THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, SPECIFICATIONS AND DETAILS THAT SHOW COMPLETE CONFORMANCE TO THE U.L. LISTING TO THE ARCHITECT FOR REVIEW AND APPROVAL. SUCH DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE MADE AVAILABLE TO THE LOCAL AUTHORITY HAVING JURISDICTION AND SHALL BE SPECIFIC FOR EACH PENETRATION WITH ANY AND ALL VARIABLES DEFINED.

18 SEAL AROUND ALL PENETRATIONS (DUCTS, PIPES, CONDUIT, ETC.) AT NEW AND EXISTING FIRE-RATED WALL, PARTITION AND CEILING CONSTRUCTION. SEAL SHALL NOT DIMINISH RATING OF THE WALL, PARTITION OR CEILING. AT CONCRETE OR MASONRY, SEAL OFF OPENINGS WITH CONCRETE GROUT. AT PLASTER OR DRYWALL, DAM UP GAPS AND WALL VOIDS WITH U.L. APPROVED FIRE-RESISTIVE-RATED SEALANT OR PUTTY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

19 LEVEL ALL FLOORS AS REQUIRED TO CONCEAL ANY DROPS OR RISERS IN FLOORS THAT WOULD OTHERWISE BE SEEN WITH THE SCHEDULED FLOOR FINISHES.

20 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND PROPERLY INSTALLING ALL FIRESAFING, FIRE/SMOKE STOPPING AT ALL PENETRATIONS OR OPENINGS AT INTERSECTIONS OF RATED WALLS AND STRUCTURAL ELEMENTS, AT ALL PENETRATIONS OR OPENINGS THROUGH FIRE-RESISTIVE RATED WALLS AND AT ANY OTHER AREAS WHERE FIRE AND SMOKE MAY PENETRATE.

21 IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE SHORING AND BRACING TO SAFELY SUPPORT THE STRUCTURE DURING CONSTRUCTION.

22 THE CONTRACTOR IS RESPONSIBLE FOR DUST AND WEATHER PROTECTION DURING CONSTRUCTION.

23 THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONS USING THE SURROUNDING FACILITIES WHO COME INTO CONTACT WITH THE AREA OF CONSTRUCTION. THE CONSTRUCTION AREA SHALL BE PROPERLY BARRICADED TO PREVENT INTRUSION BY PERSONS NOT ASSOCIATED WITH THE CONSTRUCTION OF THIS FACILITY.

24 THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SAFETY SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

25 REFER TO THE PROJECT MANUAL, WRITTEN SPECIFICATIONS AND INTERPRETATION OF CONTRACT DOCUMENTS SECTION BELOW FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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FAX: 401.272.4825
CONTACT:

CONTRACTOR:

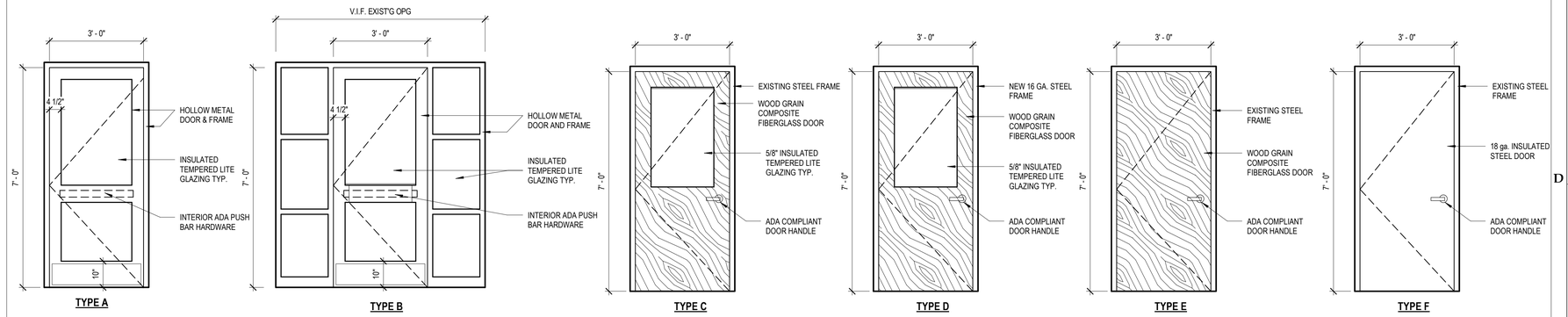
STRUCTURAL:

MECHANICAL, ELECTRICAL & PLUMBING:

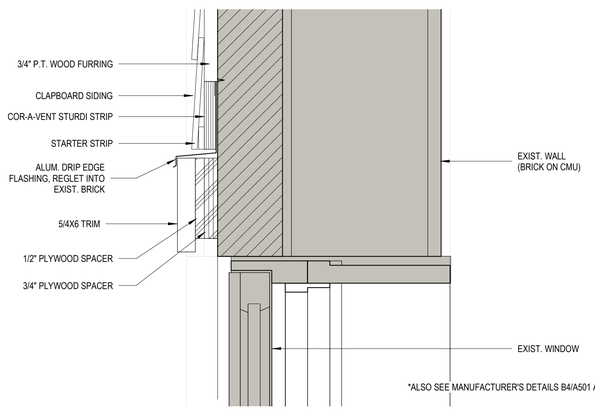
FIRE PROTECTION:

CIVIL:

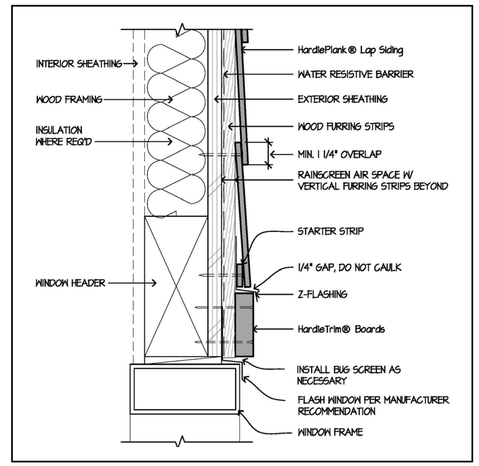
LANDSCAPE:



D3/A502 DOOR TYPES DETAIL
SCALE: 1/2" = 1'-0"



B1/A502 TYPICAL WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"

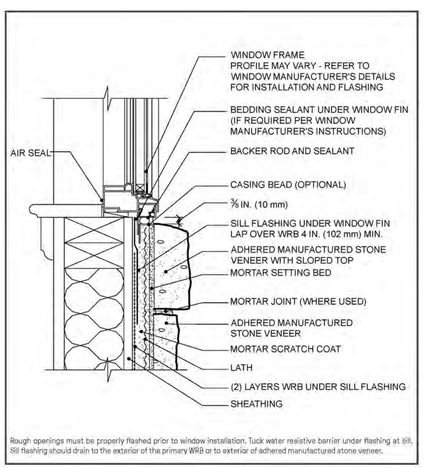


B3 REFERENCE ONLY

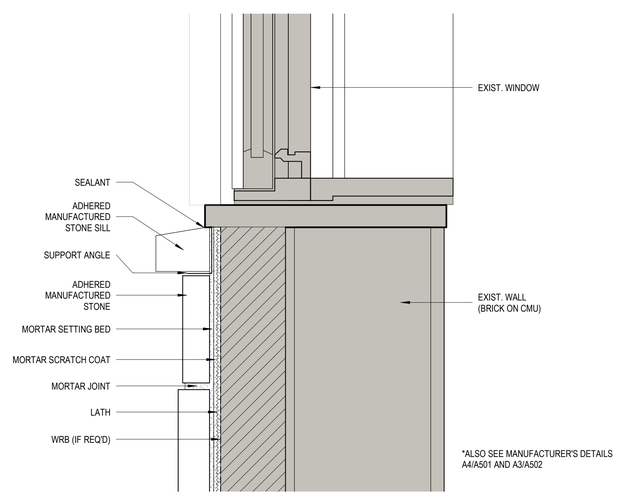
DOOR SCHEDULE

DOOR NO.	DOOR OPENING SIZE WIDTH	DOOR OPENING SIZE HEIGHT	TYPE	FIRE RATING	HARDWARE SET	COMMENTS
D101	3' - 0"	7' - 0"	B	None	EXT-1	
D102	3' - 0"	7' - 0"	D	None	INT-2	
D103	3' - 0"	7' - 0"	C	None	INT-1	Door swing switched from exist.
D104	3' - 0"	7' - 0"	A	None	EXT-2	
D105	3' - 0"	7' - 0"	C	None	INT-1	
D106	3' - 0"	7' - 0"	A	None	EXT-2	
D107	3' - 0"	7' - 0"	C	None	INT-1	Door swing switched from exist.
D108	3' - 0"	7' - 0"	EXIST.	None	EXIST.	Door swing switched from exist.
D109	3' - 0"	7' - 0"	EXIST.	None	EXIST.	
D110	3' - 0"	7' - 0"	EXIST.	None	EXIST.	
D111	3' - 0"	7' - 0"	C	None	INT-3	
D112	3' - 0"	7' - 0"	C	None	INT-1	Door swing switched from exist.
D113	5' - 0"	7' - 0"	EXIST.	None	EXIST.	
D114	3' - 0"	7' - 0"	EXIST.	None	EXIST.	
D115	3' - 0"	7' - 0"	F	None	EXT-3	
D116	3' - 0"	7' - 0"	E	None	INT-4	
D117	3' - 0"	7' - 0"	E	None	INT-4	
D118	3' - 0"	7' - 0"	C	None	INT-1	Door swing switched from exist.
D119	3' - 0"	7' - 0"	C	None	INT-1	Door swing switched from exist.
D120	3' - 0"	7' - 0"	C	None	INT-3	

- REFER TO SPECIFICATION SECTION 087100 - DOOR HARDWARE FOR HARDWARE SETS AND INFORMATION
- REFER TO B4/A502 FOR EXISTING CONDITIONS IMAGES FOR REFERENCE

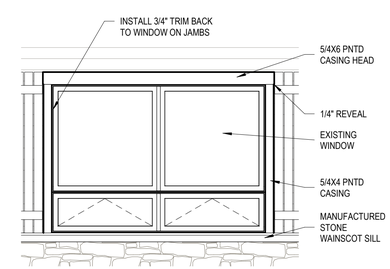


A3 REFERENCE ONLY

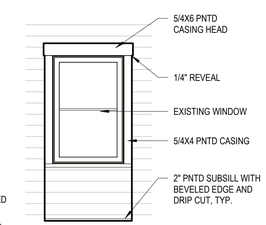


A1/A502 TYPICAL WINDOW SILL DETAIL
SCALE: 3" = 1'-0"

B4/A502 INTERIOR DOORS IMAGES (EXISTING CONDITIONS FOR REFERENCE)
SCALE: 12" = 1'-0"



A4/A502 ELEVATION DETAIL @ WINDOW
SCALE: 3/8" = 1'-0"



A5/A502 ELEVATION DETAIL @ REAR WINDOW
SCALE: 3/8" = 1'-0"

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DOOR AND WINDOW DETAILS & SCHEDULES

A502

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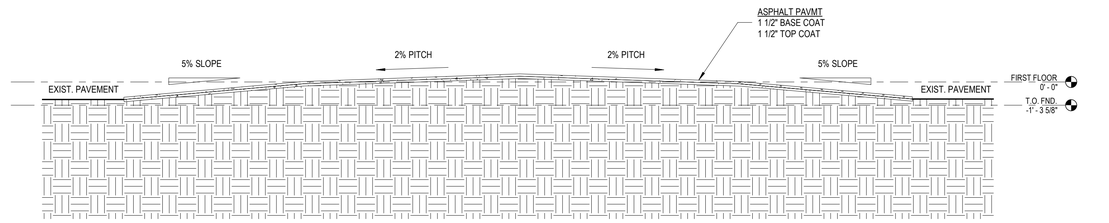
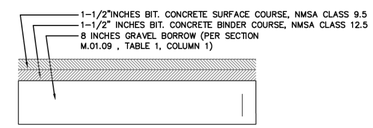


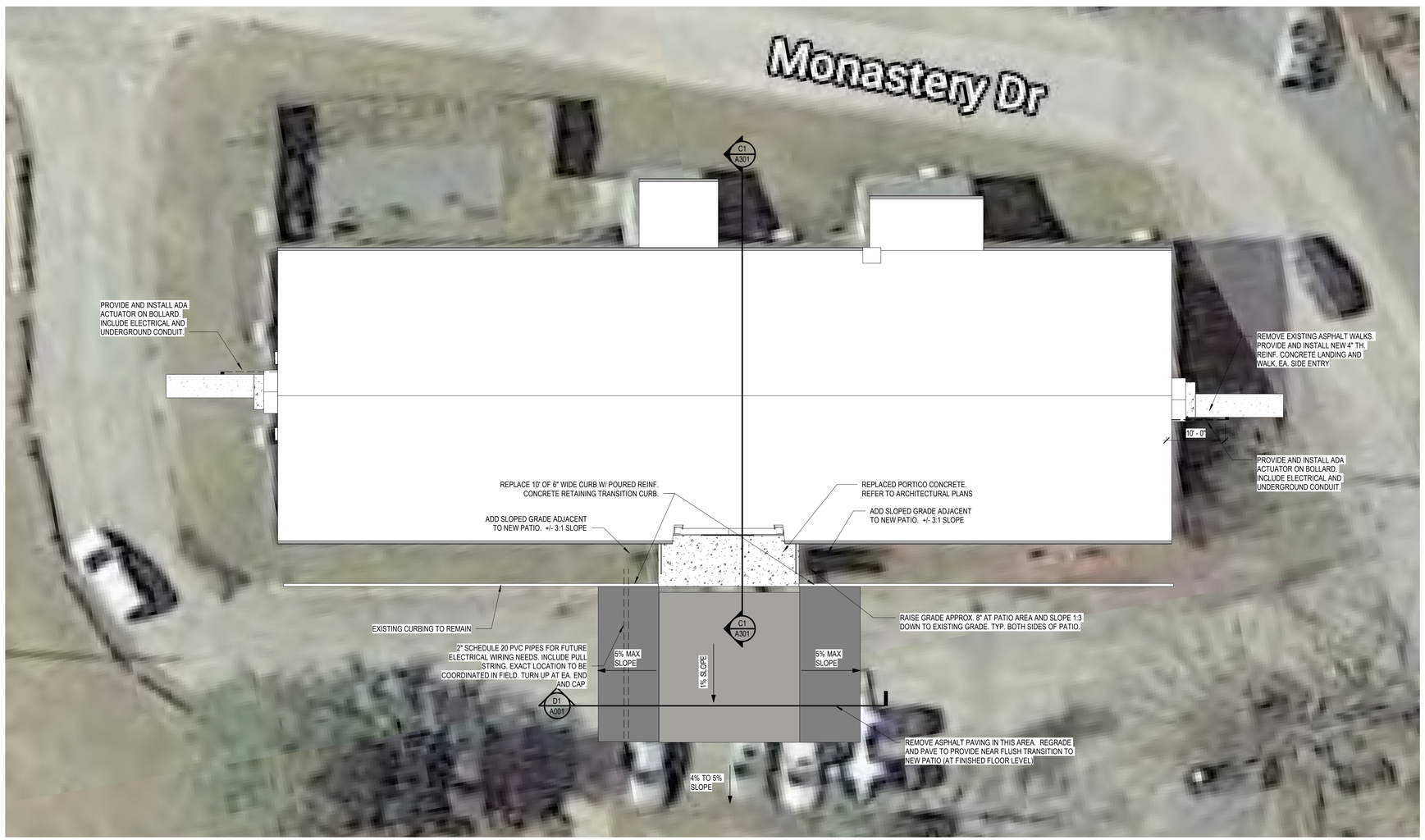
D1 A001 ENTRANCE GRADE SECTION
SCALE: 1/4" = 1'-0"



D4 A001 BITUMINOUS PAVING DETAIL
SCALE: 3" = 1'-0"

GENERAL SHEET NOTES - SITE PLANS

1. BASE PLAN INFORMATION AND PROPERTY LINES WERE DETERMINED BY CERTIFIED SURVEY.
2. LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER. THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CONTACT 'DIG SAFE' 48 HOURS PRIOR TO ANY EXCAVATION BEING PERFORMED ON SITE.
3. PROPER EROSION AND SEDIMENT CONTROL PRACTICES MUST BE IMPLEMENTED DURING ALL PHASES OF CONSTRUCTION UNTIL THE SITE IS SATISFACTORILY STABILIZED. ALL CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE EROSION AND SEDIMENT CONTROL REQUIREMENTS.
4. ANY REGRADING TO BE PERFORMED ON SITE SHALL BE PERFORMED TO PREVENT RUN-OFF ONTO ADJACENT AREAS.



A1 A001 SITE PLAN
SCALE: 1" = 10'-0"

A5 A001 SITE IMAGES
SCALE: 12" = 1'-0"

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ARCHITECTURAL SITE PLAN

A001

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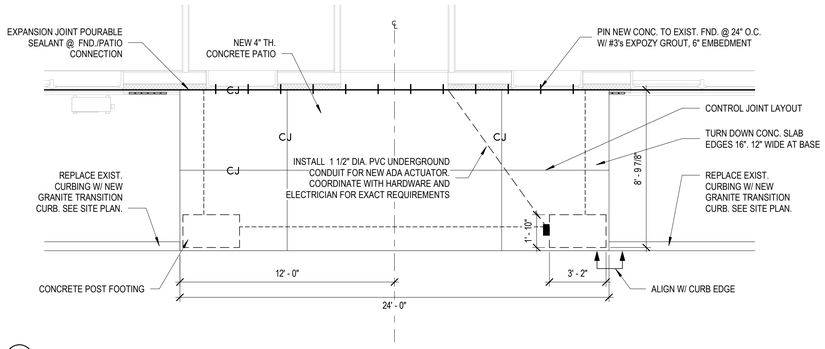
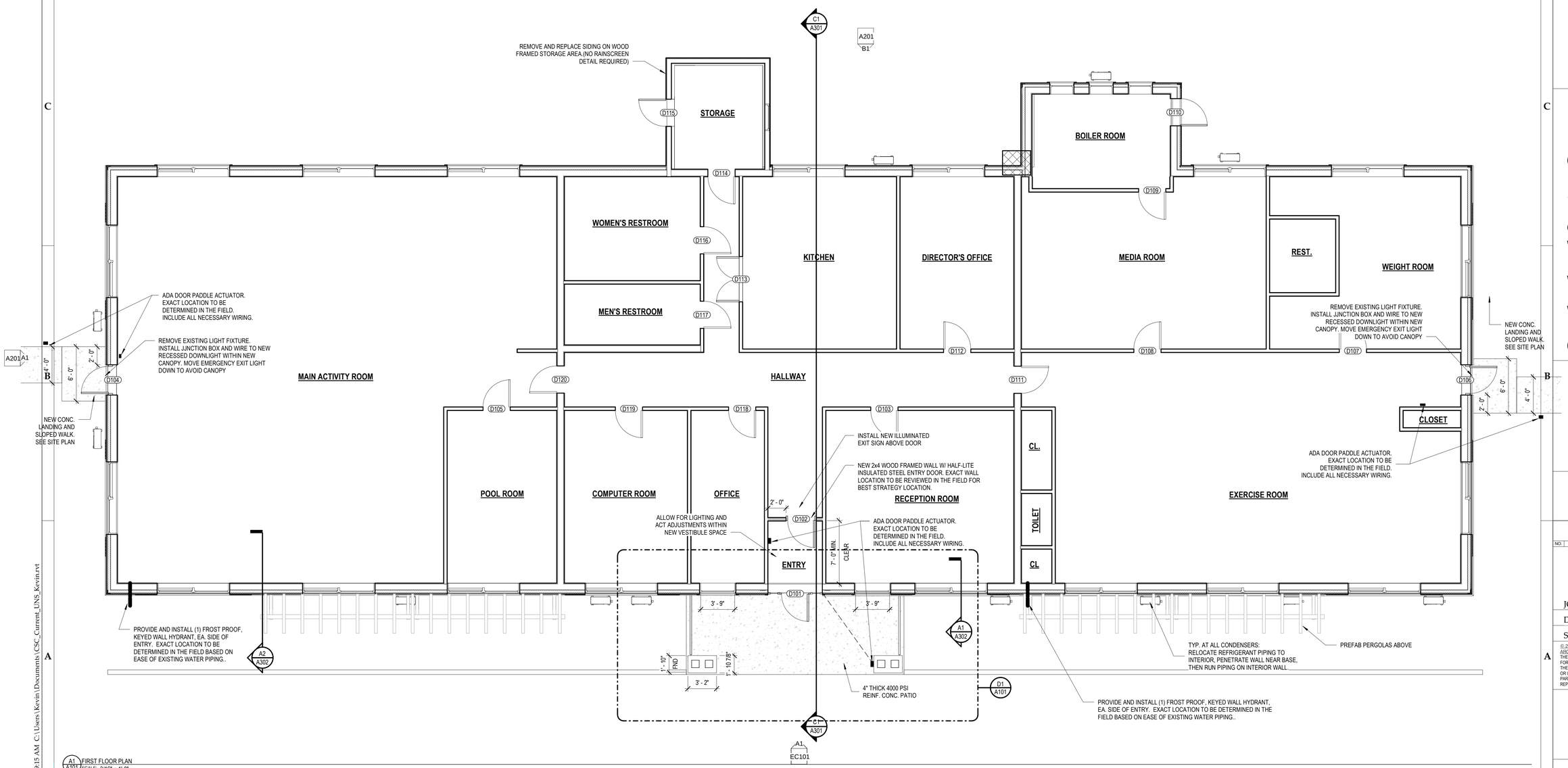


D1 A101 REINF. CONCRETE PATIO DETAIL
SCALE: 1/4" = 1'-0"

GENERAL INTERIOR WORK SCOPE (REFER TO DEDUCT ALTERNATE):

1. REMOVE AND REPLACE EXISTING WOOD ATTIC PULL DOWN STAIRS W/ NEW METAL HEAVY DUTY PULL DOWN STAIRS. STAIRS SHALL BE NON-SLIP AND A MIN. OF 350 LBS. CAPACITY.
2. AT RECEPTION ROOM, REMOVE EXISTING DOOR FRAME AND TRIM WITH 1x FLAT CASINGS.
3. EXTEND BATH EXHAUST FAN TO EXTERIOR, THROUGH ROOF. INCLUDE RIGID DUCT FROM FAN TO TERMINATION LOCATION.
4. BOX IN ALL PIPES AND ADD WIRE MOLDS OVER EXPOSED WIRING IN THE FOLLOWING SPACES:
   - RECEPTION ROOM - 2 CORNERS HAVE DROPPED WIRES, 2 CORNERS HAVE PIPES
   - DIRECTORS OFFICE - WIRES AND PIPES
   - EXERCISE ROOM - HEATING PIPES
   - OFFICE - HEATING PIPE AND WIRES
   - COMPUTER ROOM - HEATING PIPE AND WIRES
   - POOL ROOM - HEATING PIPE. REMOVE OUTLET
   - MAIN GATHERING ROOM - HEATING PIPES



A1 A101 FIRST FLOOR PLAN
SCALE: 3/16" = 1'-0"

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FIRST FLOOR PLAN

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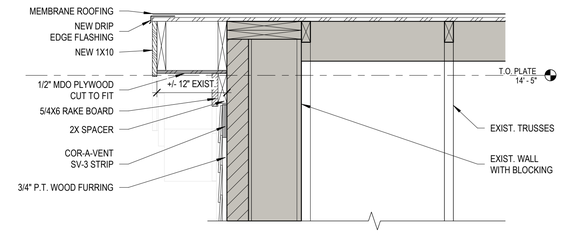
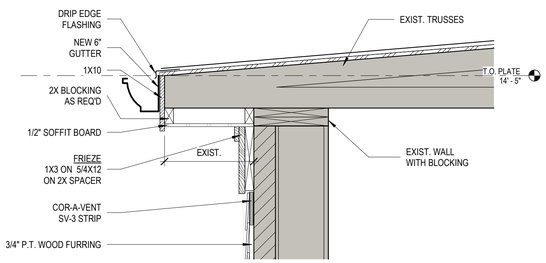
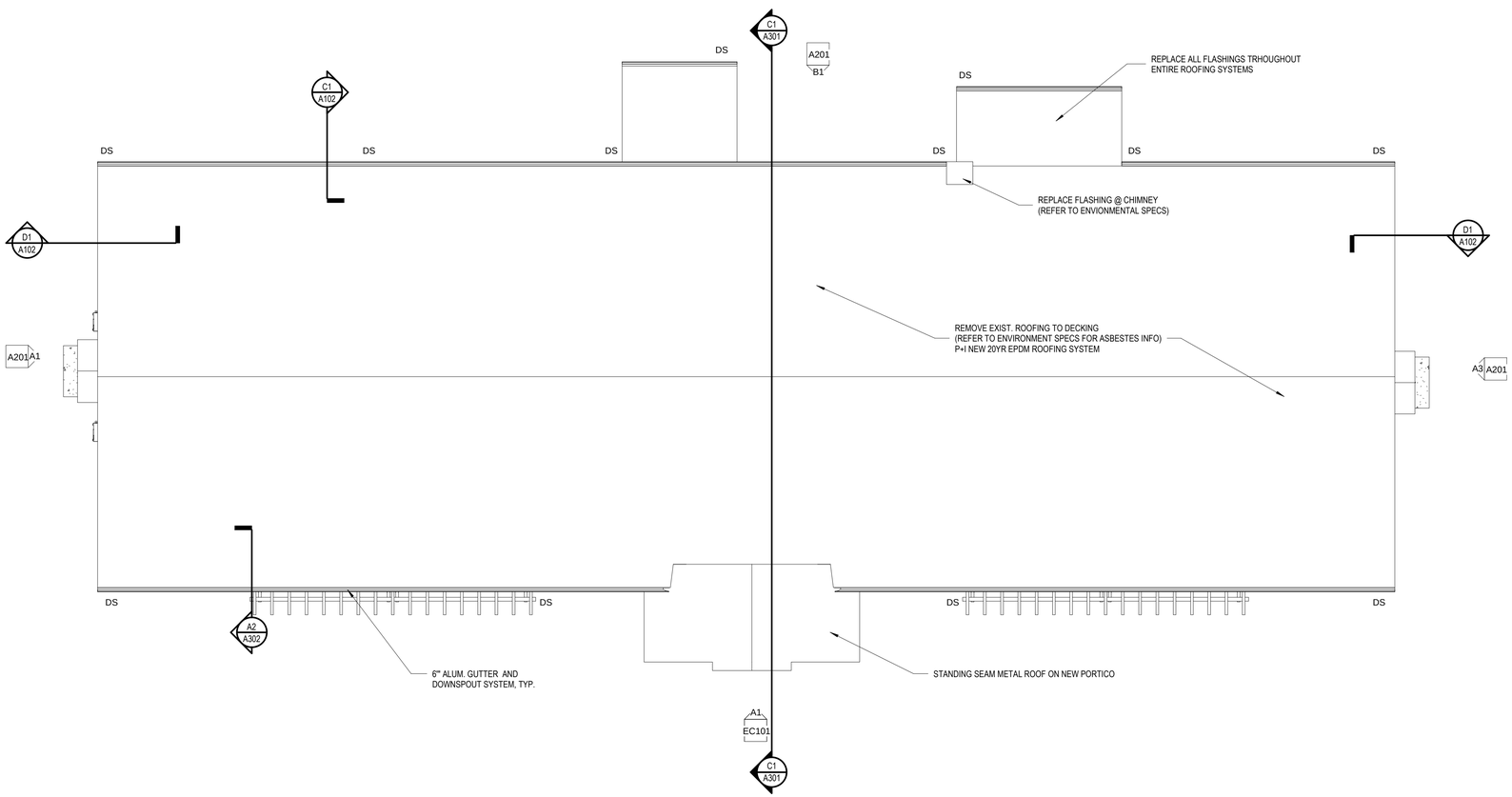


D1 A102 TYPICAL RAKE DETAIL
SCALE: 1" = 1'-0"



C1 A102 TYPICAL SOFFIT DETAIL
SCALE: 1" = 1'-0"



A1 A102 ROOF PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES - ROOFING

SHINGLES SHALL BE TESTED IN ACCORDANCE WITH ASTM D 7158 AND SHALL MEET THE CLASSIFICATION REQUIREMENTS FOR A BASIC WIND SPEED OF 110 MPH AND SHALL BE FASTENED TO THE ROOF TO ACCOMODATE SUCH WIND SPEED.

PROVIDE CONTINUOUS METAL DRIP EDGE ON ALL EAVES AND RAKES.

PROVIDE SIDEWALL FLASHING AT ALL VERTICAL SIDEWALLS BY THE STEP-FLASHING METHOD. FLASHING SHALL RUN UP VERTICAL SIDEWALLS 6" MINIMUM. AT THE END OF THE VERTICAL SIDEWALL THE STEP FLASHING SHALL BE TURNED OUT IN A MANNER THAT DIRECTS WATER AWAY FROM THE WALL AND ONTO THE ROOF AND/OR GUTTER.

PROVIDE (1) ONE LAYER NO. 30 (TYPE II) ASPHALT-SATURATED ORGANIC ROOFING FELT ON ALL ROOF SURFACES THAT ARE NOT COMPLETELY COVERED WITH ICE & WATER SHIELD MEMBRANE. ROOFING FELT MAY BE ELIMINATED AT THE CONTRACTOR'S OPTION IF ZIP SYSTEM ROOF SHEATHING WITH MOISTURE-RESISTIVE BARRIER IS UTILIZED AND ALL PANEL SEAMS ARE TAPED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.

PROVIDE ICE & WATER SHIELD MEMBRANE AT ALL EAVES, RAKES, VALLEYS, EAVE RETURNS, PORCH ROOFS AND ROOF TO SIDEWALL INTERSECTIONS. EXTEND MEMBRANE FROM LOWEST EDGES OF ALL ROOF SURFACES UP THE SLOPE TO A POINT AT LEAST 24" INSIDE THE EXTERIOR WALL LINE OF THE BUILDING.

PROVIDE 5" ALUMINUM OGEE STYLE GUTTERS AS INDICATED ON THE DRAWINGS. PROVIDE 3"X4" COORDINATING ALUMINUM DOWNSPOUTS AND BRACKETS WITH BOOT SLEEVES AT GRADE AT BASE OF DOWNSPOUT.

LOCATE ALL VENT STACKS, RADON PIPES, ROOF VENTS IN FIELD W/ ARCHITECT. LOCATE ON REAR SIDE OF BUILDING RIDGE LINE.

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ROOF PLAN & DETAILS

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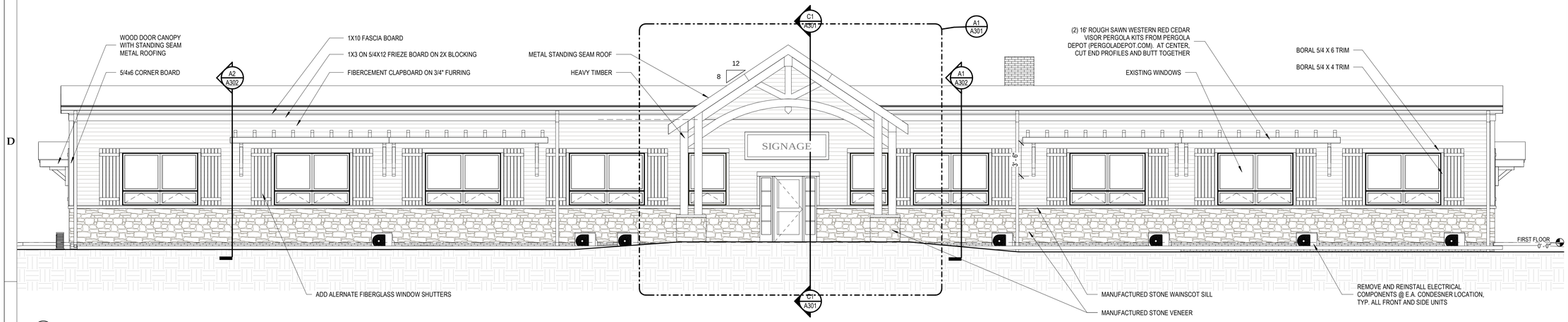
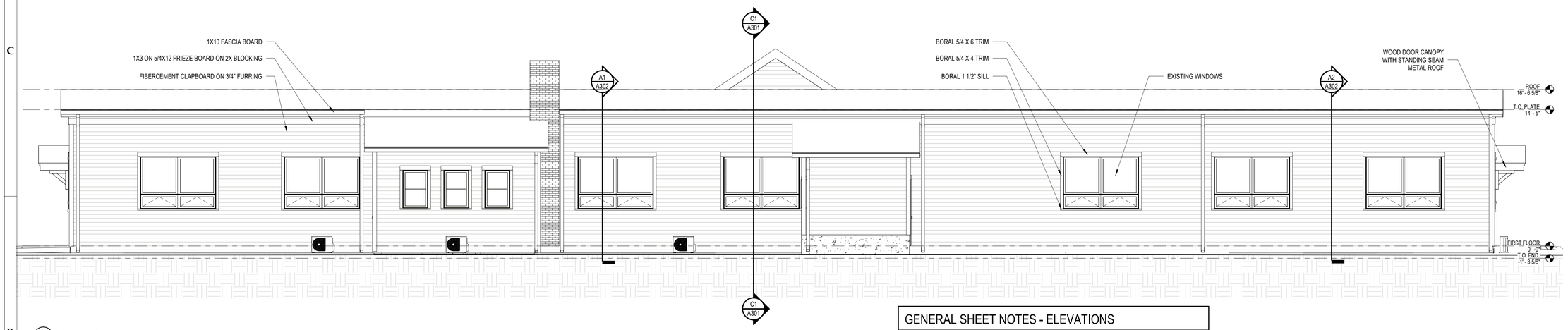


D1 A201 FRONT ELEVATION
SCALE: 3/16" = 1'-0"

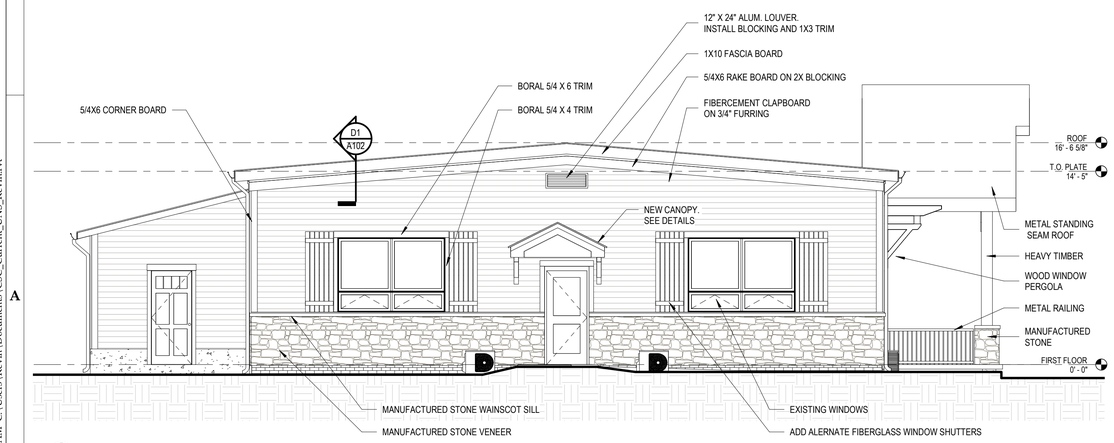


B1 A201 REAR ELEVATION
SCALE: 3/16" = 1'-0"

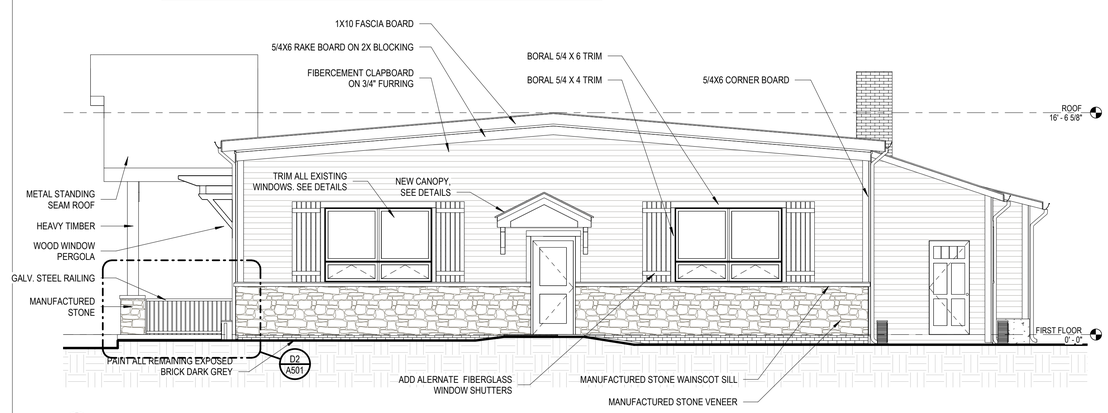
GENERAL SHEET NOTES - ELEVATIONS

A. ALL FLOOR LEVELS ON THIS SHEET ARE ASSUMED TO BE AT ESTABLISHED DATUM UNLESS NOTED OTHERWISE. THE TOP OF CONCRETE SLAB AT EACH BUILDING IS CONSIDERED THE REFERENCE ELEVATION FOR ALL VERTICAL MEASUREMENTS AND DIMENSIONS. REFER TO THE SITE GRADING PLAN FOR ACTUAL SLAB ELEVATIONS.
B. ALIGN ALL ROOF AND WALL ACCESSORIES AS INDICATED ON THE ELEVATIONS. ANY ACCESSORIES NOT INDICATED ON THE PLANS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO INSTALLATION.
C. ALL EXTERIOR WALL MOUNTED ELECTRICAL BOXES, HOSE BIBS, LIGHT FIXTURES, EXHAUST VENT TERMINATIONS, DEVICES AND ACCESSORIES SHALL BE INSTALLED ON MOUNTING BLOCKS. MOUNTING BLOCKS SHALL BE PAINTED TO MATCH BUILDING SIDING FIELD COLOR.
D. ALL HORIZONTAL TRIM SHALL HAVE 15 DEG. TOP BEVEL AND REGLETTED ALUM. DRIP EDGE FLASHING INSTALLED.

SIDING = FIBERCEMENT (HARDI), 4" EXPOSURE
CORNERBOARDS = BORAL (TRUEXTERIOR) COMPOSITE, SIZES AS INDICATED
PANELS = FIBERCEMENT (HARDI) OR AS INDICATED
TRIM = BORAL (TRUEXTERIOR) COMPOSITE, SIZES INDICATED
STONE = MANUFACTURED STONE VENEER (ELDORADO)



A1 A201 LEFT SIDE ELEVATION
SCALE: 3/16" = 1'-0"



A3 A201 RIGHT SIDE ELEVATION
SCALE: 3/16" = 1'-0"

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EXTERIOR ELEVATIONS

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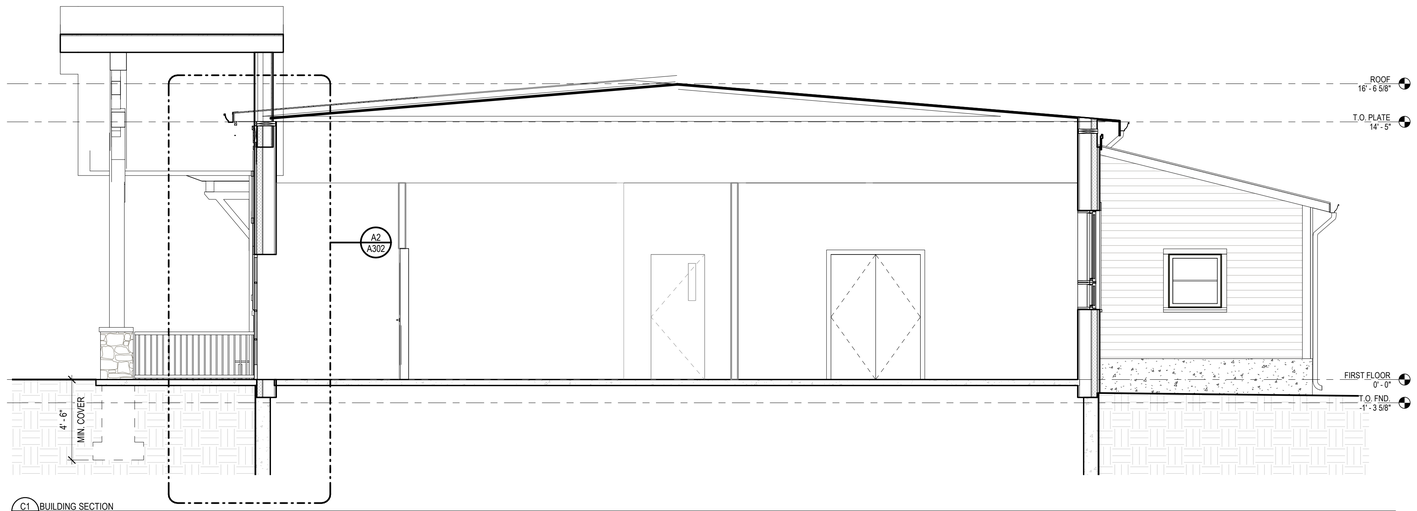
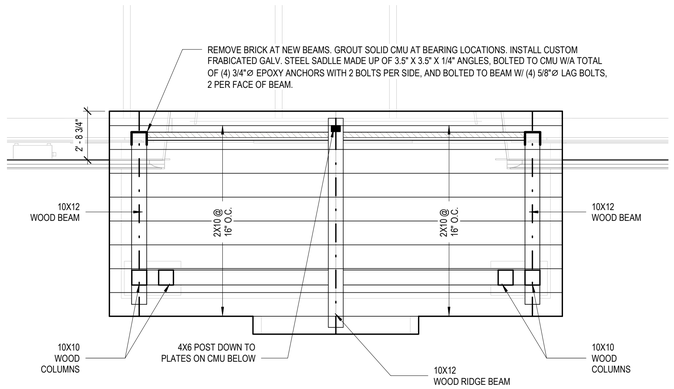
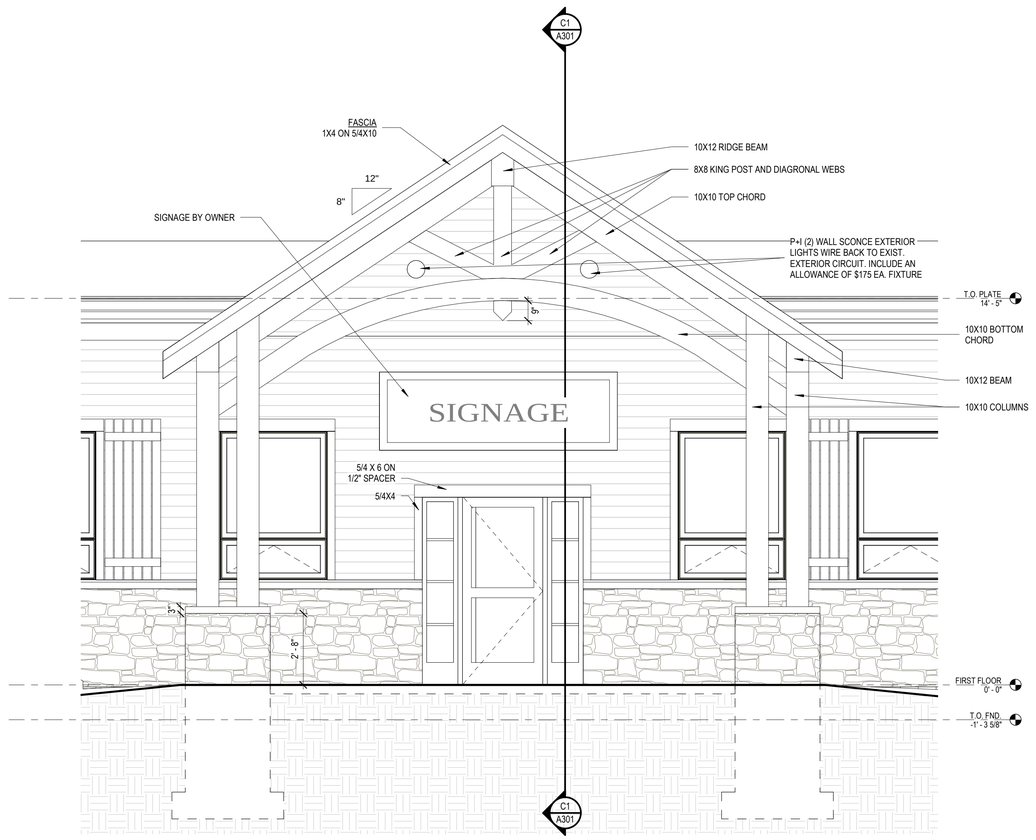


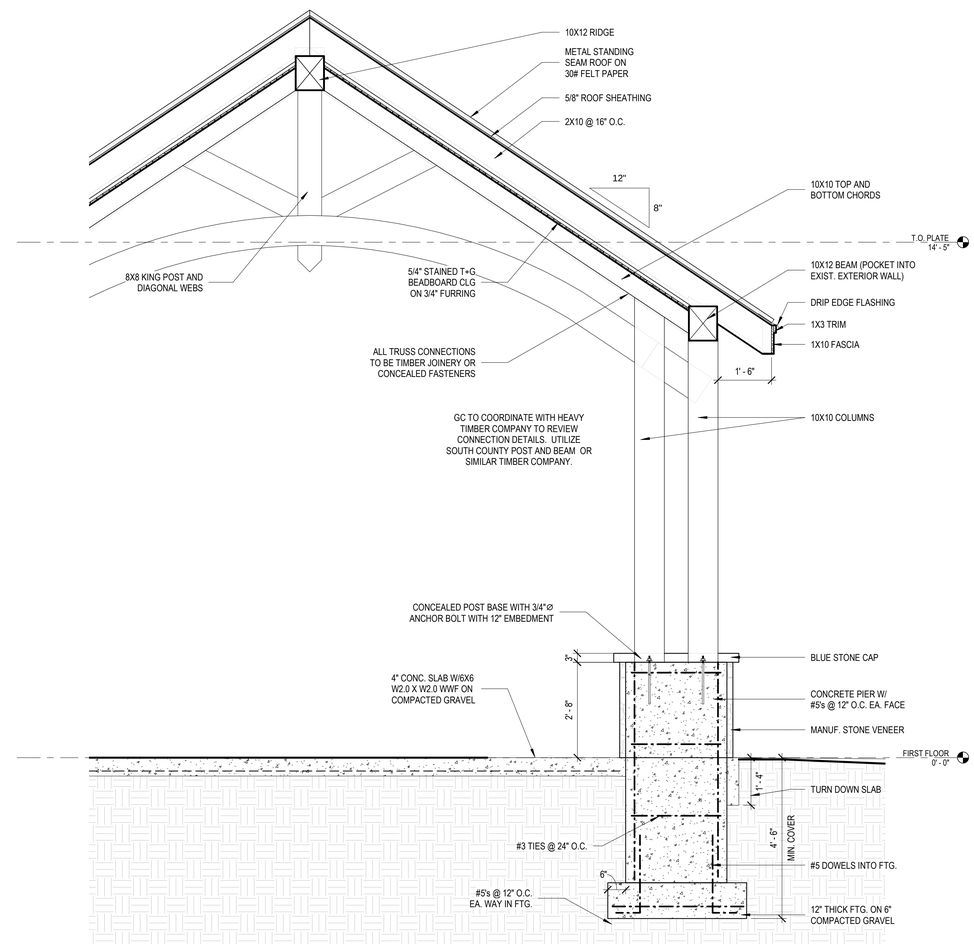
C1 / A301 BUILDING SECTION
SCALE: 1/4" = 1'-0"



C4 / A301 PORTICO ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"



A1 / A301 PORTICO FRONT ELEVATION
SCALE: 3/8" = 1'-0"



A3 / A301 PORTICO SECTION
SCALE: 1/2" = 1'-0"

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BUILDING & WALL SECTIONS

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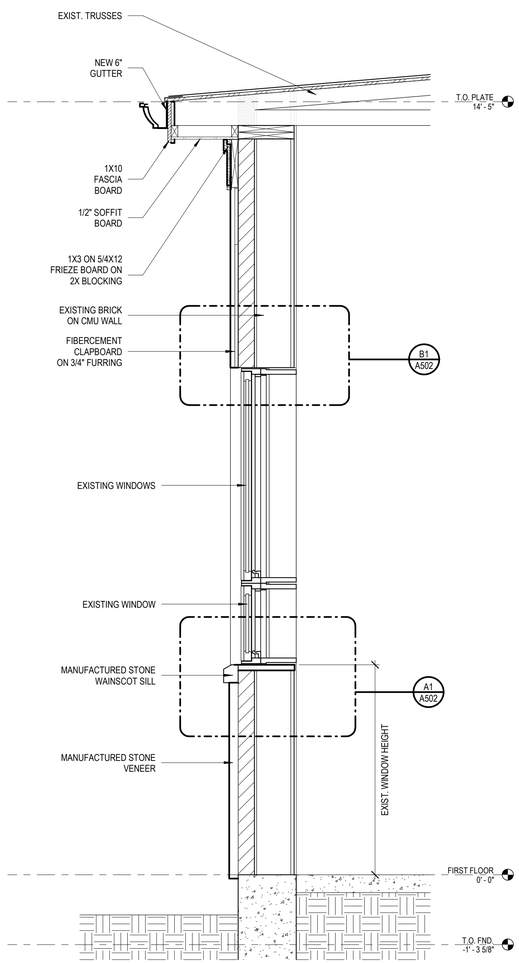
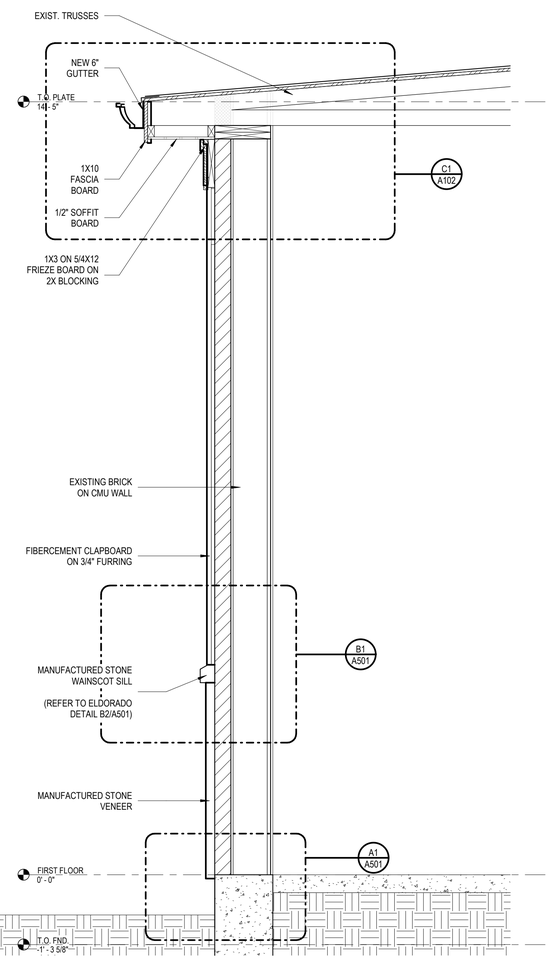


A1 A302 FRONT WALL SECTION @ WINDOW
SCALE: 3/4" = 1'-0"



A2 A302 FRONT WALL SECTION
SCALE: 3/4" = 1'-0"

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TYPICAL WALL SECTIONS

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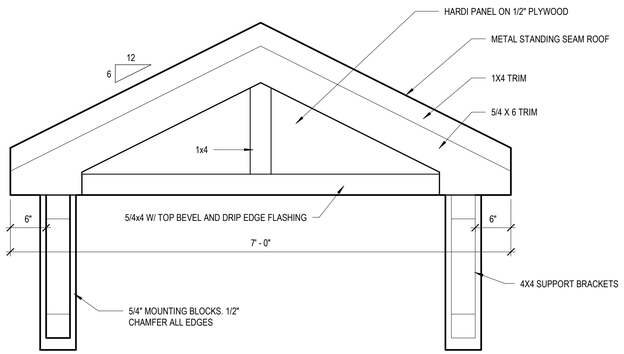
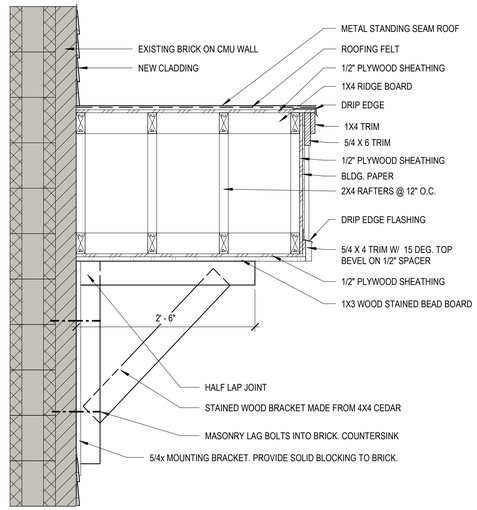
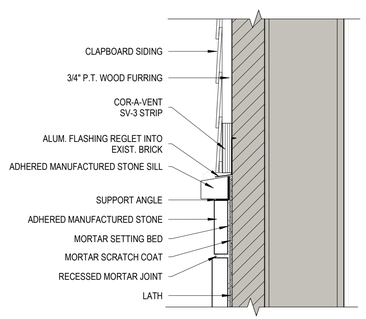


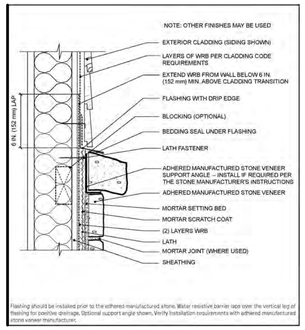
C1 A501 ELEVATION @ GABLE ROOF CANOPY
SCALE: 1" = 1'-0"



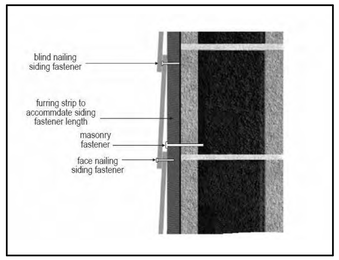
C3 A501 SECTION @ GABLE ROOF CANOPY
SCALE: 1" = 1'-0"



B1 A501 TYPICAL WAINSCOT SILL DETAIL
SCALE: 1 1/2" = 1'-0"

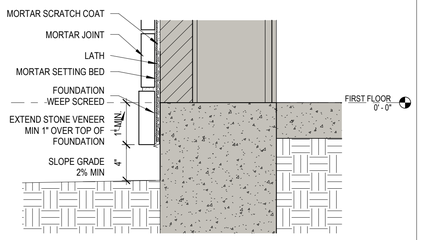


B2 REFERENCE ONLY

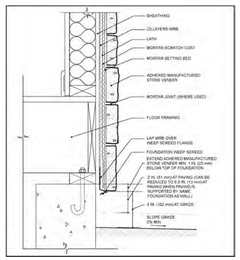


B4 REFERENCE ONLY

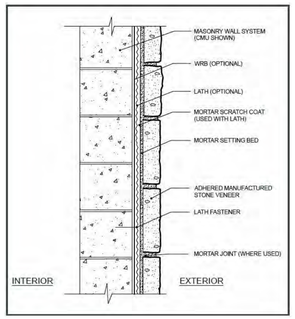
D1 A501 PERGOLA KIT IMAGE
SCALE: 12" = 1'-0"



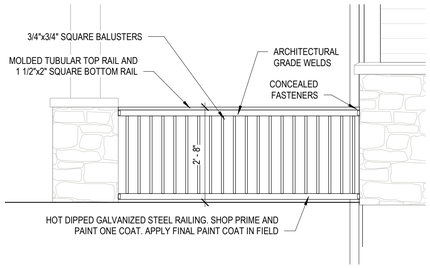
A1 A501 TYPICAL FOUNDATION DETAIL
SCALE: 1 1/2" = 1'-0"



A2 REFERENCE ONLY



A4 REFERENCE ONLY



D2 A501 RAILING ELEVATION
SCALE: 1/2" = 1'-0"

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FOR BIDDING

NO.	ISSUE	DATE

JOB #: 20-5200
DATE: 09/24/2020
SCALE: As indicated

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TYPICAL EXTERIOR DETAILS

A501

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FRONT ELEVATION

LEFT SIDE ELEVATION

REAR ELEVATION

REAR ELEVATION

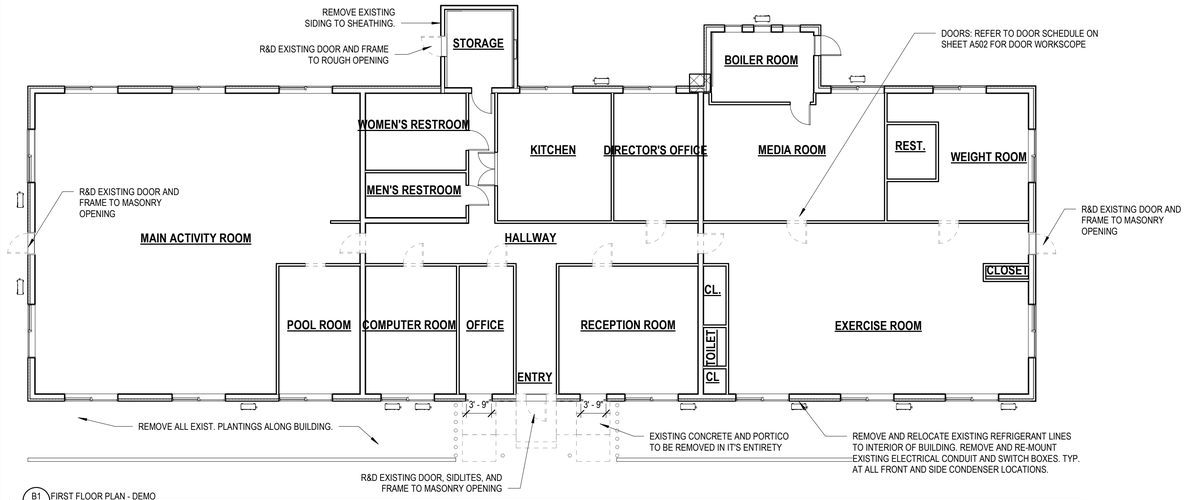
RIGHT SIDE ELEVATION

LEFT SIDE ELEVATION

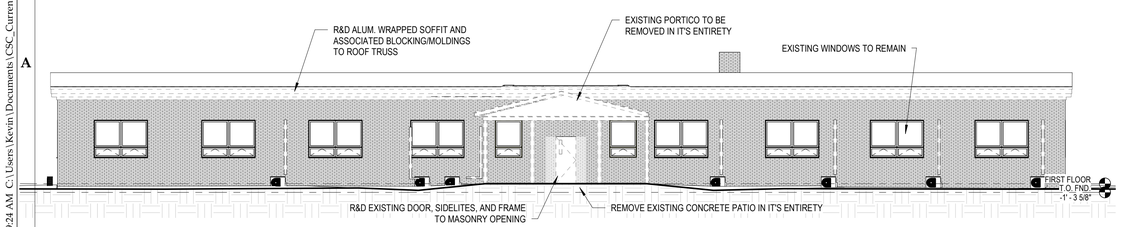
RIGHT SIDE ELEVATION

FRONT PORTICO

C1 / EC101 EXISTING PICTURES
SCALE: 12" = 1'-0"



B1 / EC101 FIRST FLOOR PLAN - DEMO
SCALE: 3/32" = 1'-0"



A1 / EC101 FRONT ELEVATION - DEMO
SCALE: 3/32" = 1'-0"

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EXISTING CONDITIONS / DEMOLITION PLAN

EC101

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