

# PROJECT MANUAL

FOR CONSTRUCTION OF

BEDFORD COUNTY PUBLIC SCHOOLS

## Huddleston Elementary Roof Replacement

BEDFORD, VIRGINIA

ISSUED FOR BIDDING

3/15/24

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**DOCUMENT 001116 - INVITATION TO BID**

1.1 PROJECT INFORMATION

A. Notice to Bidders: Qualified bidders are invited to submit bids for Project as described in this Document according to the Instructions to Bidders.

B. Project Name: Bedford County Public Schools – Huddleston Elementary Roof Replacement

C. Project Location: Huddleston, VA 24104.

D. Owner: Bedford County Public Schools.

E. Project Description: Project consists of reroofing over existing fully adhered EPDM roofing with new fleece backed EPDM membrane and removal of existing metal roofing with a new standing seamed metal roof in the areas identified in the Contract Documents.

1.2 BID SUBMITTAL AND OPENING

A. Owner will receive sealed bids until the bid time and date at the location indicated below.

Owner will consider bids prepared in compliance with the Instructions to Bidders issued by Owner, and delivered as follows:

1. Bid Date: April 4, 2024

2. Bid Time: 2:00 p.m., local time.

3. Location: Meeting Room, 311 S Bridge St, Bedford, VA 24523.

B. Bids will be thereafter publicly opened and read aloud.

1.3 PREBID CONFERENCE

A. A prebid conference for all bidders will be held at the Project Site - 1027 Huddleston Dr, Huddleston, VA 24104 on March 26 at 1PM, local time. Prospective bidders are required to attend.

1.4 DOCUMENTS

A. Online Procurement and Contracting Documents: Obtain access after the issued for bid submittal date by contacting the Clerk of the Works, Charles Santore.

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1.5 TIME OF COMPLETION AND LIQUIDATED DAMAGES

A. Bidders shall begin the Work on receipt of the Notice to Proceed and shall complete the Work within the Contract Time. Work is subject to liquidated damages.

1.6 PROJECT SCHEDULE

The schedule for the work is as follows:

1. Pre-Bid Meeting: March 26, 2024
2. Bid Date: April 4, 2024
3. Notice of Award: April 12, 2024
4. Construction Commencement: May 30, 2024
5. Final Completion: July 31, 2024

1.7 BIDDER'S QUALIFICATIONS

A. Bidders must be properly licensed under the laws governing their respective trades and be able to obtain insurance and bonds required for the Work. A Performance Bond, a separate Labor and Material Payment Bond, and Insurance in a form acceptable to Owner will be required of the successful Bidder.

**END OF DOCUMENT 001116**

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**DOCUMENT 002513 - PREBID MEETINGS**

1.1 PREBID MEETING

A. Owner will conduct a Prebid meeting as indicated below:

1. Meeting Date: March 26
2. Meeting Time: 1:00 pm
3. Location: Project Site - 1027 Huddleston Dr, Huddleston, VA 24104

B. Attendance:

1. Prime Bidders: Attendance at Prebid meeting is mandatory.
2. Notice: Bids will only be accepted from prime bidders represented on Prebid Meeting sign-in sheet.

C. Agenda: Prebid meeting agenda will include review of topics that may affect proper preparation and submittal of bids, including the following:

1. Procurement and Contracting Requirements:

- a. Advertisement for Bids.
- b. Instructions to Bidders.
- c. Bidder Qualifications.
- d. Bonding.
- e. Insurance.
- f. Bid Form and Attachments.
- g. Notice of Award.

2. Communication during Bidding Period:

- a. Obtaining documents.
- b. Bidder's Requests for Information.
- c. Addenda.

3. Contracting Requirements:

- a. Agreement.

4. Construction Documents:

- a. Scope of Work.
- b. Temporary Facilities.
- c. Use of Site.
- d. Work Restrictions.

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- e. Alternates, Allowances, and Unit Prices.
- f. Substitutions following award.

5. Schedule:

- a. Project Schedule.
- b. Contract Time.
- c. Liquidated Damages.
- d. Other Bidder Questions.

6. Site/facility visit or walkthrough.

7. Post-Meeting Addendum.

E. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes to attendees. Modifications to the Procurement and Contracting Documents are issued by written Addendum only.

- 1. Sign-in Sheet: Minutes will include list of meeting attendees.

**END OF DOCUMENT 002513**

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

1.1 BID INFORMATION

A. Bidder: \_\_\_\_\_.

B. Project Name: Huddleston Elementary Roof Replacement

C. Project Location: 1027 Huddleston Dr, Huddleston, VA 24104

D. Owner: Bedford County Public Schools.

1.2 CERTIFICATIONS AND BASE BID

A. Base Bid, Single-Prime (All Trades) Contract: The undersigned Bidder, having carefully examined the Procurement and Contracting Requirements, Conditions of the Contract, Drawings, Specifications, and all subsequent Addenda, having visited the site, and being familiar with all conditions and requirements of the Work, hereby agrees to furnish all material, labor, equipment and services, including all scheduled allowances, necessary to complete the construction of the above-named project, according to the requirements of the Procurement and Contracting Documents, for the stipulated sum of:

1. \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

1.3 ALLOWANCE/UNIT PRICE SUMMARY TABULATION

	Description	Unit Price	Allowance Amount	Total
Allowance #1	Replace Insulation	per sqft	1,400 sqft.	
Unit Price #2	Wood Nailer Replacement	per linear foot	Unit Price Only	#####
Unit Price #3	Steel Deck Surface Rust Repair	per sqft	Unit Price Only	#####
Unit Price #4	Steel Deck infill	per sqft	Unit Price Only	#####

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1.4 BID GUARANTEE

A. The undersigned Bidder agrees to execute a contract for this Work in the above amount after a written Notice of Award, if offered within 60 days after receipt of bids

1.5 TIME OF COMPLETION

A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by the Owner, and shall fully complete the Work as specified in Section 001116.

~~1.6 SUBCONTRACTORS AND SUPPLIERS~~

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

1.7 ACKNOWLEDGEMENT OF ADDENDA

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

1. Addendum No. 1, dated \_\_\_\_\_.
2. Addendum No. 2, dated \_\_\_\_\_.
3. Addendum No. 3, dated \_\_\_\_\_.
4. Addendum No. 4, dated \_\_\_\_\_.



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1.8 SUBMISSION OF BID

A. Respectfully submitted this \_\_\_\_ day of \_\_\_\_\_, 2024.

B. Submitted By: \_\_\_\_\_ (Name of bidding firm or corporation).

C. Authorized Signature: \_\_\_\_\_ (Handwritten signature).

D. Signed By: \_\_\_\_\_ (Type or print name).

E. Title: \_\_\_\_\_ (Owner/Partner/President/Vice President).

F. Witnessed By: \_\_\_\_\_ (Handwritten signature).

G. Attest: \_\_\_\_\_ (Handwritten signature).

H. By: \_\_\_\_\_ (Type or print name).

I. Title: \_\_\_\_\_ (Corporate Secretary or Assistant Secretary).

J. Street Address: \_\_\_\_\_.

K. City, State, Zip: \_\_\_\_\_.

L. Phone: \_\_\_\_\_.

M. License No.: \_\_\_\_\_.

N. Federal ID No.: \_\_\_\_\_ (Affix Corporate Seal Here).

**END OF DOCUMENT 004113**

**DOCUMENT 006000 - CONTRACT AGREEMENT**

THIS AGREEMENT dated \_\_\_\_\_, by and between BEDFORD COUNTY PUBLIC SCHOOLS, a political subdivision of the Commonwealth of Virginia, with an address of 310 South Bridge Street Bedford, Virginia 24523, referred to as "Owner," and \_\_\_\_\_, with an address of \_\_\_\_\_, referred to as "Contractor."

WITNESSETH:

For and in consideration of the mutual covenants contained herein, the parties agree as follows:

1. Furnishing of Materials and Work: The Contractor shall provide all labor, material, equipment, and supervision to reroof over existing fully adhered EPDM roofing with new fleecebacked EPDM membrane and removal of existing metal roofing and replace with a new standing seamed metal roof in the areas identified in the Contract Documents.

Any changes in the Agreement, plans and specifications shall be in writing signed by both parties, with a notation of the price of such changes.

2. Payment to Contractor: The Owner agrees to pay the Contractor for said work and materials the total sum of \$ \_\_\_\_\_ (the "Total Price"), which shall constitute the construction price and be payable as follows:

a. The Contractor will submit a monthly Pay Application made up of a "Schedule of Values" approved before construction begins by the Owner. The Owner will have to review and approve amounts billed for each line item in the Schedule of Values. 5% retainage will be held until the project is complete. This retainage amount will need to be reflected in each pay application.

b. All Pay Applications shall be paid by the Owner within thirty (30) days after Owner approval of the pay application and delivery of the pay application to the Owner.

3. Time of Completion: Final completion of this project will need to be no later than July 31, 2024. The contractor will be responsible for ensuring that their scope of work allows for the entire project to be complete by that date, *time being of the essence as to the provisions of this paragraph*. Owner shall have the right to cancel the contract in the event Contractor fails to perform work on the project for 10 or more consecutive days. If the Contractor fails to complete the work within the time specified by this Agreement, the Contractor shall, in place of actual damages for delay, pay to the Owner each day as liquidated damages, and not as a penalty, \$500 for each calendar day of delay. The Owner will determine if the Contractor's delay impacted other Contractor's ability to complete the project on time. Contractor's obligation to pay such liquidated damages shall not relieve Contractor of any obligation to Owner for any other claims for damages available at law or under this Agreement.

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4. Change Orders: Any departure or change from the Plans, the Total Price, materials, the Work or completion date, including, but not limited to, any Allowance overage, shall be made only upon a written agreement signed by the parties, herein referred to as a "Change Order." The Owner shall have the right to add to the work to be performed under this Agreement, and Contractor agrees to perform such work, subject to issuance of a Change Order for such work. Contractor agrees to promptly meet and confer with the Owner regarding added scope of work proposed by Owner.

5. Substitute Materials: The Contractor shall provide to Owner for Owner's approval samples of all materials to be used in the construction prior to installation of such materials. The work shall be in accordance with the approved samples.

6. Building Approvals: Contractor shall comply with all local building, inspection and zoning requirements.

7. Conditions Affecting the Work: The Contractor is responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions that can affect the work or its costs, including, but not limited to subsurface conditions, available parking and staging areas and existing building materials and components. Any failure by the Contractor to reasonably ascertain the conditions affecting the work does not relieve the Contractor from responsibility for successfully performing the work without additional expense to the Owner. The Owner assumes no responsibility for any representations concerning conditions made by any of its officers, employees or agents before execution of this Agreement unless such representations are expressly stated in the Agreement.

8. Mechanic's Lien Waivers: Upon receipt of payment, the Contractor shall execute promptly any and all certifications, mechanic's lien waivers, or other documents reasonably required by the Owner.

9. Insurance. a. During the term of this Agreement, the Contractor must maintain at Contractor's expense the insurance required by this section. Insurance companies providing such insurance shall be licensed in Virginia and shall be rated at least A (financial strength) and IX (size) by A.M. Best. Policies shall include all terms and provisions normally included in a policy of the type specified. The Owner shall be included as an additional insured on the liability policies.

b. The Contractor must maintain and furnish evidence of workers' compensation, employers' liability insurance, and the following general public liability and automobile liability insurance per notes in the Required Conditions listed in Exhibit A.

c. Each policy must include substantially the following provision: "It is a condition of this policy that the company furnishes written notice to the Owner thirty (30) days in advance of the effective date of any reduction in or cancellation of this policy."

d. The Contractor must furnish a certificate of insurance or, if required by the Owner, true copies of liability policies and manually countersigned endorsements of any changes.

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Insurance must be effective, and evidence of acceptable insurance furnished by Contractor to Owner, before beginning performance under this Agreement. Evidence of renewal must be furnished not later than five days before a policy expires.

e. The Owner does not carry builder's risk insurance coverage. Contractor shall provide builder's risk insurance for 100% of the construction value and shall have Owner named as an additional insured. The Builder's Risk coverage shall include property in transit, on or off-premises, that will be used in the work. Contractor shall procure and maintain a builder's risk insurance policy on an "all risk", 100% replacement cost basis, until completion of the work. The Contractor agrees to endorse the policy with a manuscript endorsement eliminating the automatic termination of coverage in the event the building is occupied in whole or in part, or put to its intended use, or partially accepted by the Owner. The manuscript endorsement shall amend the automatic termination clause to only terminate coverage if the policy expires, is cancelled, the Owner's interest in the building ceases, or the building is accepted and insured by the Owner. Cessation of the Builder's Risk coverage shall be affirmatively coordinated by Contractor with the Owner, in writing.

10. Indemnification: The Contractor shall hold harmless, defend and indemnify the Owner and its officers, members, shareholders, agents, representatives, and employees from all claims, losses, damage, actions, causes of action, expenses, and/or liability regardless of the merit of same, including any related attorney fees, accountant fees, expert witness fees, consultant fees, court costs, per diem expenses, traveling and transportation expenses, or other such related costs resulting from, brought for, or on account of (i) any personal injury or property damage received or sustained by any person, persons or property growing out of, occurring, or attributable to any work performed under or related to this Agreement, to the extent resulting in whole or in part from negligent acts or omissions of the Contractor, any Subcontractor, or any employee, agent, or representative of the Contractor or any Subcontractor or anyone performing Work for the Project through them, (ii) any mechanics' or construction liens arising as a result of the Work, or (iii) any failure of the Project to comply with any applicable governmental laws, ordinances, rules and regulations.

11. Bankruptcy: In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor shall notify Owner. The notification shall be sent to ensure its receipt within five (5) days of the initiation of the bankruptcy proceedings. The notification shall include the date on which the bankruptcy petition was filed, the court in which the petition was filed, and a list of Agreement contracts for which final payment has not yet been made. This obligation remains in effect until final payment under this Agreement. If a surety upon any bond furnished in connection with this Agreement or any insurance carrier providing coverage in connection with this Agreement becomes insolvent, the Contractor shall promptly replace the bond or insurance policy with one which is equivalent and acceptable to Owner.

12. Guarantees of Contractor: The members of Contractor, if a limited liability company, or the officers of Contractor, if a Corporation, by executing this Agreement, hereby jointly and severally guarantee 100% of all the performance of Contractor under this Agreement.

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13. Warranties: The Contractor warrants that all the work furnished as part of the Agreement is in accordance with the requirements of the Agreement, free from defect or inferior materials or equipment, and of such quality workmanship as to meet the highest standard of care in Virginia for the type of work performed, for a period of five years after the date of final inspection, and, unless otherwise agreed by the Owner in writing, in Owner's sole discretion, all materials and equipment are new. The Contractor further warrants to the Owner, for a period of one year from the time of final inspection, that the building together with all of its fixtures is sufficiently: (a) free from structural defects, so as to pass without objection in the trade, (b) constructed in a workmanlike manner, so as to pass without objection in the trade, and (c) fit for its intended use. The Contractor shall obtain each transferable guarantee or warranty of equipment, materials, or installation that is furnished by any manufacturer or installer in the ordinary course of the business or trade. The Contractor shall obtain and furnish to the Owner all information required to make any such guarantee or warranty legally binding and effective, and shall submit both the information and the guarantee or warranty to the Owner in sufficient time to permit the Owner to meet any time limit requirements specified in the guarantee or warranty or, if no time limit is specified, before completion and acceptance of all work under this Agreement.

14. Debris and Cleanup: On a daily basis during the progress of the work, the Contractor must remove and dispose of the resultant debris and keep the site neat and clean. The Contractor shall, upon completion of the work, remove all construction equipment and surplus materials (except materials or equipment that are to remain Owner property as provided by this Agreement), and leave the site in a clean, neat, and orderly condition satisfactory to the Owner, in Owner's sole discretion.

15. Default by Owner: In the event that the Contractor shall default in meeting its obligations as provided by this Agreement, if any such default is not corrected within ten (10) days, the Contractor shall be liable to Owner for all costs of collection including attorney fees and court costs.

~~16. Utilities: Contractor shall arrange for all utilities necessary for construction to be brought to the construction site. Contractor shall be responsible for payment of the utility accounts during construction.~~

17. Entire Agreement, Governing Law: This Agreement embodies the entire agreement between the parties and may be changed only by written amendment hereto, signed by both parties. This agreement shall be binding on the parties, their heirs, personal representatives, successors, and assigns, provided however that nothing in this Agreement shall create a contractual relationship between Owner and any subcontractor. This Agreement shall be governed by the laws of the Commonwealth of Virginia. Venue for any action arising under this Agreement shall be proper in the Bedford County (Virginia) General District Court and/or the Bedford County (Virginia) Circuit Court.

18. Construction, Ambiguity, Severability: For purposes of this Agreement, whenever the context requires, the singular number shall include the plural, and vice versa,

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masculine, feminine and gender neuters shall be treated interchangeably. Any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not be applied in the construction or interpretation of this Agreement. The paragraph headings are for the convenience of the reader and are not intended to vary the content of the terms of this Agreement. This Agreement may not be assigned by Contractor without the express prior written consent of the Owner, which consent may be withheld in Owner's sole discretion. Should a Court hold that a portion of this Agreement is invalid, the remainder of the Agreement shall not be affected, and shall continue in full force and effect.

19. Required Conditions. The Required Conditions for Contracts with Bedford County Public Schools are attached as Exhibits A and B and incorporated by reference. To the extent the provisions of this Agreement conflict with the required conditions, the required conditions shall control and prevail.

Witness the following signatures and seals:

\_\_\_\_\_ Contractor

By: \_\_\_\_\_ (Seal)

Print name:

\_\_\_\_\_

Print title:

\_\_\_\_\_

Bedford County Public Schools, Owner

By: \_\_\_\_\_ (Seal)

Print name:

\_\_\_\_\_

Print title:

\_\_\_\_\_

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EXHIBIT A

BEDFORD COUNTY SCHOOL BOARD'S STANDARD TERMS AND CONDITIONS

I. GENERAL PROVISIONS

Unless otherwise agreed to in a writing signed by the Chief Financial Officer of Bedford County Public Schools and approved as to form by the attorney for the Bedford County School Board, these Standard Terms and Conditions apply to and govern all purchases, regardless of the type of goods or services purchased, between the Bedford County School Board (the "Board") and the "Contractor" or "Vendor".

I. PROVISIONS REQUIRED BY VIRGINIA LAW

1. During the Contract Period, Contractor or Vendor will comply and conform with the provisions of the Civil Rights Act of 1964, as amended, the Virginia Fair Employment Contracting Act of 1975, as amended, and the Virginia Values Act, as amended, where Applicable.

2. NONDISCRIMINATION. Contractor or Vendor agrees that during the performance of the Agreement:

A. It will not discriminate against any subcontractor, employee, or applicant for employment because of race, religion, color, sex, or national origin, except where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of Contractor or Vendor. Contractor or Vendor agrees to post in conspicuous places, available to employees and applicants, notices setting forth the provisions of this nondiscrimination clause.

B. It will state that it is an equal opportunity employer in all solicitations or advertisements for employees placed by it or on its behalf.

C. Notices, solicitations, and advertisements placed in accordance with federal law, rule, or regulations shall be deemed sufficient for the purposes of meeting the requirements of this section.

D. It will, if the Contractor or Vendor employs more than five employees

(i) provide annual training on the Contractor's or Vendor's sexual harassment policy to all supervisors and employees providing services in the Commonwealth, except such supervisors or employees that are required to complete sexual harassment training provided by the Commonwealth of Virginia's Department of Human Resource Management, and

(ii) post the Contractor's or Vendor's sexual harassment policy in  
(a) a conspicuous public place in each building located in the Commonwealth that the contractor owns or leases for business purposes and  
(b) the contractor's employee handbook.

E. It will include the provisions of the foregoing paragraphs A, B, and C in every

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subcontract or purchase order of over \$10,000.00, so that the provisions will be binding upon each such subcontractor or contractor or vendor.

3. DRUG FREE WORKPLACE. During the performance of the Agreement, Contractor or Vendor agrees to:

- A. provide a drug-free workplace for Contractor's or Vendor's employees;
- B. post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in Contractor or Vendor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
- C. state in all solicitations or advertisements for employees placed by or on behalf of Contractor or Vendor that Contractor or Vendor maintains a drug-free workplace; and
- D. include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor. For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with the Agreement, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract..

4. RELIGIOUS ORGANIZATIONS. The Bedford County School Board does not discriminate against faith-based organizations. Pursuant to Section 2.2-4343.1 of the Code of Virginia and applicable Board policy, in all solicitations, contracts, and purchase orders, the Board does not discriminate against faith-based organizations.

5. AUTHORITY TO TRANSACT BUSINESS IN VIRGINIA. To the extent the Contractor is organized as a stock or non-stock corporation, limited liability company, business trust, or limited partnership or registered as a registered limited liability partnership, the Contractor shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Title 13.1 or Title 50 of the Code of Virginia, or as otherwise required by law, and in which case the Contractor shall provide to Bedford County Public Schools the Contractor's identification number issued to it by the Virginia State Corporation Commission. The Contractor shall not allow its existence to lapse or its certificate of authority or registration to transact business in the Commonwealth, if so required under Title 13.1 or Title 50 of the Code of Virginia, to be revoked or canceled at any time during the term of the contract. Bedford County Public Schools may void this contract and any other contract with the Contractor if the Contractor is a business entity and the Contractor fails to remain in compliance with the provisions of this section.

6. IMMIGRATION LAW. Contractor or Vendor represents and warrants that it does not, and shall not during the performance of the Agreement, knowingly employ an



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unauthorized alien as defined in the federal Immigration Reform and Control Act of 1986.

**7. CERTIFICATION REGARDING VIOLENT FELONS AND SEX**

**OFFENDERS.** By entering into the Agreement, Contractor or Vendor certifies, as required by Section 22.1-296.1 of the Code of Virginia, that none of the persons who will provide services requiring direct contact with students on school property during school hours or during school-sponsored activities has been convicted of a felony or any offense involving the sexual molestation, physical, or sexual abuse or rape of a child. Contractor or Vendor shall complete the "Certification of Contractor or Vendor/Employee" set forth in Attachment 1. Contractor or Vendor shall promptly report to the Bedford County School Board any change that would make this certification no longer accurate. Contractor or Vendor further understands and acknowledges

- (1) that if Contractor or Vendor makes a materially false statement regarding any of the above offenses, Contractor or Vendor will be guilty of a Class 1 misdemeanor and
- (2) that before any person is permitted to provide such services subsequent to this certification, Contractor or Vendor must complete a new certification regarding such person.

**8. NONAPPROPRIATIONS.** This Agreement shall be null, void, and unenforceable if the Bedford County School Board fails to receive, or to continue to receive, funds which, in its sole opinion, are sufficient to meet its obligations hereunder. Any obligation of Bedford County Public Schools to pay compensation due to the Contractor pursuant to the Contract is subject to appropriations by the Bedford County School Board to satisfy payment of such obligations. The Bedford County School Board's obligations to make payments during subsequent fiscal years are dependent upon the same action. If such appropriation is not made for any fiscal year, the Contract shall terminate effective at the end of the fiscal year for which funds were appropriated, and the Bedford County School Board shall not be obligated to make any payments under the Contract beyond the amount appropriated for payment obligations under the Contract. In the event of non-appropriation of funds for the items under this contract, Bedford County Public Schools may terminate this Contract as to the services for which funds have not been appropriated. Written notice will be provided to the Contractor as soon as practicable after such action is taken, but failure to give such notice shall be of no effect, and the Bedford County School Board shall not be obligated under the Contract beyond the date of termination specified in the Bedford County School Board's written notice.

**9. PROMPT PAYMENT REQUIREMENTS FOR SUBCONTRACTORS.** If

subcontractors are used in the performance of the Agreement:

Contractor or Vendor shall take one of the two following actions within seven days

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after receipt of amounts paid to it for work performed by a subcontractor:

- A. Pay the subcontractor for the proportionate share of the total payment received from the Bedford County School Board attributable to the work performed by the subcontractor; or
- B. Notify the Bedford County School Board and subcontractor, in writing, of Contractor or Vendor's intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment. Contractor or Vendor shall provide the Bedford County School Board with its federal employer identification number prior to receiving any payments hereunder. Contractor or Vendor shall pay interest to the subcontractor on all amounts owed by it that remain unpaid after seven days following receipt by it of payment from the Bedford County School Board for work performed by the subcontractor under the contract, except for amounts withheld as allowed in subparagraph B above. Unless otherwise provided under the terms of the contract, interest shall accrue at the rate of one percent per month for amounts owed to a subcontractor. Contractor or Vendor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor. Contractor or Vendor's obligation to pay an interest charge to a subcontractor pursuant to the payment clause in this paragraph shall not be construed to be an obligation of the Bedford County School Board. The contract shall not be modified for the purpose of providing reimbursement for the interest charge. A cost reimbursement claim shall not include any amount for reimbursement for the interest charge. On a construction contract, in the event that the Contractor has not received payment from the Bedford County Public Schools for work performed by a subcontractor under such contract, Contractor shall be liable for the entire amount owed to such subcontractor and to pay such subcontractor within 60 days of the receipt of an invoice following satisfactory completion of the work for which the subcontractor has invoiced. Contractor shall not be liable for amounts otherwise reducible due to the subcontractor's noncompliance with the terms of the contract. However, in the event that the Contractor withholds all or a part of the amount invoiced by the subcontractor under the terms of the contract, the Contractor shall notify the subcontractor within 50 days of the receipt of such invoice, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment, specifically identifying the contractual noncompliance, the dollar amount being withheld, and the lower-tier subcontractor responsible for the contractual noncompliance. Payment by the party contracting with the contractor shall not be a condition precedent to payment to any lower-tier subcontractor, regardless of that contractor's receiving payment for amounts owed to that contractor. Any provision in a construction contract contrary to this section shall be unenforceable. Nothing in this subdivision shall be construed to
  - (i) apply to or prohibit the inclusion of any retainage provisions in a construction contract or

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(ii) apply to contracts awarded solely for professional services as that term is defined in § 2.2-4301 where the public body is contracting directly with an architectural and engineering firm.

II. OTHER REQUIRED PROVISIONS

1. HOLD HARMLESS. Recognizing that the Bedford County School Board cannot validly enter into a hold harmless provision under Virginia law, any provision in the Agreement requiring the Bedford County School Board to indemnify or hold harmless Contractor or Vendor for any act or omission shall not have any effect or be enforceable against the Bedford County School Board.

2. INDEMNITY. Contractor or Vendor shall indemnify and hold harmless the Bedford County School Board, its officers, boards, commissions, agents and employees against any and all claims, demands, causes of action, suits, proceedings, damages, costs or liabilities (including costs or liabilities of the Bedford County School Board with respect to its employees), of every kind and nature whatsoever, including, but not limited to, damages for injury or death or damages to person or property, regardless of the merit of any of the same, including any attorney fees, accountant fees, expert witness or consultant fees, court costs, per diem, expense traveling and transportation expense, or other costs or expense arising out of or pertaining to the performance of the Agreement by Contractor or Vendor unless resulting from the gross negligence or willful misconduct of the Bedford County School Board or its officers, boards, commissions, agents or employees.

3. PROCUREMENT. Solicitations are subject to applicable School Board policy, which is hereby incorporated into this Contract in its entirety. ANY SOLICITATION OR CONTRACT DOCUMENTS THAT ARE ISSUED, REQUESTED OR EXECUTED IN VIOLATION OF BEDFORD COUNTY SCHOOL BOARD POLICY, OR VIRGINIA LAW ARE VOID AB INTIO, AND OF NO EFFECT, REGARDLESS OF WHETHER ANY PURCHASE HAS BEEN MADE PURSUANT TO A PURCHASE ORDER OR OTHER CONTRACT AND IRRESPECTIVE OF THE AMOUNT OR LENGTH OF THE CONTRACTOR'S OR VENDOR'S PERFORMANCE UNDER THE CONTRACT DOCUMENTS.

4. CHOICE OF LAW AND VENUE. The Agreement shall be governed and construed in accordance with the laws of the Commonwealth of Virginia without giving effect to the principles of conflicts of laws. Any legal action arising under this Agreement shall be brought in the general district court or the circuit court located in Bedford County, Virginia.

5. WARRANTIES. All goods and services must be warranted to be merchantable, fit for usual and ordinary purposes, and to meet usual, ordinary and expected standards.

6. ASSIGNMENT. Contractor or Vendor shall not assign this Agreement without the prior written consent of the Bedford County School Board. In no case shall such assignment

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of contract relieve the Contractor from its obligations or change the terms of the Contract.

7. TAXES. The Bedford County School Board is a political subdivision of the Commonwealth of Virginia and is exempt from federal excise tax and all state and local taxes. Contractor or Vendor shall not include such taxes in any invoices under this Agreement. Upon request, the Bedford County School Board will furnish Contractor or Vendor with tax exemption certificates or the Bedford County School Board's tax-exempt number.

8. PAYMENT. The Bedford County School Board will pay any valid invoices within thirty (30) days after the receipt of the invoice or thirty (30) days after the receipt of all goods or services, whichever is later. The Bedford County School Board shall not be subjected to any interest, late charges, or attorney's fees or other legal costs.

9. SEVERABILITY. If any provision of this Agreement is void or deemed unenforceable for any reason, the unenforceable provision shall be deemed severed from the remaining provisions of this Agreement, which shall otherwise remain in full force.

10. MODIFICATION OF THE CONTRACT. The Agreement shall not be amended, modified, or otherwise changed except by the written consent of Contractor or Vendor and the Bedford County School Board.

11. COMPLIANCE WITH LAWS. Contractor or Vendor shall comply with all federal, state, and local statutes, ordinances, and regulations now in effect or hereafter adopted, including all applicable School Board policies, in the performance of this Agreement. Contractor or Vendor represents that it possesses all necessary licenses and permits required to conduct its business and/or will acquire any additional licenses and permits necessary for performance of this Agreement prior to the initiation of work.

12. ACCESSIBILITY. The Bedford County School Board is fully committed to the requirements of the Americans with Disabilities Act ("ADA") and Section 504 of the Rehabilitation Act ("Section 504") which guarantees non-discrimination and equal access for persons with disabilities in employment, public accommodations, transportation, and all Bedford County School Board programs, activities, and services ("Services"). Contractor or Vendor is subject to this requirement and agrees that it will operate any Services in a manner that will enable the Bedford County School Board to meet its obligations under the ADA and Section 504. Contractor or Vendor further agrees to use all reasonable efforts to meet the needs of an individual requiring accommodations when accessing or using Contractor or Vendor's Services.

13. STUDENT PRIVACY. By entering into this Agreement, Contractor or Vendor acknowledges that the Bedford County School Board is subject to and must comply with

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the Family Educational Rights and Privacy Act ("FERPA"). Contractor or Vendor agrees and understands that it may be given access to "educational records" as the term is defined by FERPA. To the extent Contractor or Vendor is given access to "educational records," Contractor or Vendor will ensure that those records remain strictly confidential and not be disclosed to third parties, unless specifically authorized by the School Board or the individual student's parent or legal guardian in writing. Moreover, if Contractor or Vendor is a School Service Provider as defined in School Board Policy JRCA, Contractor or Vendor acknowledges and agrees that it shall be bound by all requirements set forth in School Board Policy JRCA.

14. INSURANCE. If requested by the Bedford County School Board, Contractor or Vendor shall purchase and maintain in force, at its own expense, such insurance as will protect Contractor or Vendor and Bedford County School Board from claims which may arise out of or result from the Contractor or Vendor's execution of the Agreement, whether such execution be Contractor or Vendor, its employees, agents, subcontractors, or by anyone for whose acts any of them may be liable. The insurance coverages shall be such as to fully protect the Bedford County School Board and the general public from any and all claims for injury and damage resulting by any actions on the part of Contractor or Vendor. Contractor or Vendor shall furnish insurance in satisfactory limits, and on forms and of companies that are acceptable to the Bedford County School Board and shall require and show evidence of insurance coverages on behalf of any subcontractors (if applicable). The Contractor or Vendor shall maintain during the initial term and any additional terms of this Agreement the following equivalent coverage and minimum limits:

- A. Commercial General Liability \$1,000,000 Combined Single Limit per occurrence.
- B. Automobile Liability \$1,000,000 Combined Single Limit per occurrence
- C. Workers' Compensation Virginia Statutory limits
- D. Employers' Liability \$100,000 each accident
- E. Umbrella/Excess Liability \$5,000,000
- F. Professional Liability (if appropriate) \$1,000,000 occurrence limit, \$2,000,000 aggregate. If an insurance certificate is used as evidence of the required insurance, the insurance certificate:
  - i. Must reflect that the Commercial General Liability policy names "the Bedford County School Board, its officers, employees, and agents" as an additional insured by endorsement to the policy;
  - ii. Must reflect that the policies are endorsed to require no less than 30 days' notice of cancellation or other change in coverage to the Bedford School Board;
- C. Must have an authorized signature;
- D. The Certificate Holder should be listed as "Bedford County School Board."

15. TERMINATION. It shall be the sole right of the Bedford County School Board to terminate the Agreement upon written notification to the Contractor or Vendor. Moreover,

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the Bedford County School Board reserves the right to cancel and terminate the Agreement at any time, without penalty, for unsatisfactory product quality and/or service on the part of Contractor or Vendor, in the sole judgment of the Bedford County School Board, or when the Bedford County School Board determines the cancellation to be in its best interests. Repeated delayed or partial deliveries and returns for inadequate, damaged, or spoiled products shall be interpreted as failure to meet contractual obligations and may cause cancellation of the Agreement. Upon receipt of notice of termination, Contractor or Vendor shall cease all deliveries or services unless advised by the Bedford County School Board to do otherwise. In the event of termination, Contractor or Vendor shall be compensated for those deliveries or services provided to the satisfaction of the Bedford County School Board as of the date of termination.

16. CLAIM OF BREACH. In the event Contractor or Vendor alleges or claims that the Bedford County School Board is in breach of any provision of the Agreement, Contractor or Vendor shall submit a written notice setting forth all relevant details. Copy of the notice shall be sent to Nicole S. Cheuk, Sands Anderson PC, 1111 East Main Street, Suite 2400, Richmond, VA 23218-1998. The Bedford County School Board shall have 30 days to correct any alleged breach without penalty. If no agreement is reached after 30 days from receipt of the written notice, Contractor or Vendor shall follow the Claims Procedure set forth below. Failure to comply with this notice requirement and Claims Procedure shall result in waiver and release of any claims by Contractor or Vendor.

17. CLAIMS PROCEDURE. Notice of Claim must be submitted to the Bedford County School Board in writing no later than sixty (60) days from the time of occurrence of events upon which the claim is based. The Notice of Claim must provide all facts or justifications with supporting documentation. The Bedford County School Board will consider all facts set forth in the Notice of Claim and render a decision within sixty (60) days of receipt of the Notice of Claim.

18. NOTICES. All requests, notices and other communications required or permitted to be given under the Contract Documents shall be in writing. Delivery of a notice shall be either:

- A. duly mailed by first-class mail, postage prepaid, return receipt requested, or any comparable or superior postal or air courier service then in effect; or
- B. transmitted by hand delivery or facsimile transmission to the party entitled to receive the same at the address indicated below or at such other address as such party shall have specified by written notice to the other party. Notices to the Board shall be sent to:

Superintendent of Schools  
Bedford County Public Schools  
311 South Bridge Street  
Bedford, VA 24523

With a copy to:  
Nicole S. Cheuk

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Sands Anderson PC,  
1111 East Main Street, Suite 2400  
Richmond, VA 23218-1998

Any party may, upon prior notice to the others, specify a different address for the giving of notice. Notices shall be effective one day after sending if sent by overnight courier or three (3) days after sending if sent by certified mail, return receipt requested.

ATTACHMENT 1

CERTIFICATION OF NO CRIMES AGAINST CHILDREN

Contractor acknowledges that the implementation of this Agreement requires Contractor, Contractor's employees, Vendor, or Vendor's employees or other persons that will provide services under this Agreement to have direct contact with Bedford County Public Schools students. Therefore, Contractor or Vendor hereby certifies that neither Contractor, Contractor's employees, Vendor, or Vendor's employees, nor any person that will provide services under this Agreement who will have direct contact with students on school property during regular school hours or during school-sponsored activities have been convicted of a felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child.

Contractor or Vendor understands that, pursuant to Code of Virginia § 22.1-296.1. making a materially false statement regarding offenses which are required to be included in the certification referenced above is a Class I misdemeanor and, upon conviction, the fact of such conviction shall be grounds for the revocation of the contract to provide such services and, when relevant, the revocation of any license required to provide such services. The Bedford County School Board shall not be liable for materially false statements regarding the certifications required under this Contract.

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Have you, your employees, or any person who will have direct contact with students under this contract been convicted of a violent felony or any offense involving the sexual molestation or physical or sexual abuse or rape of a child?

NO

YES (please explain) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contractor/Vendor Date \_\_\_\_\_

By: \_\_\_\_\_

Print: \_\_\_\_\_

Title: \_\_\_\_\_



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Exhibit B  
BCPS Standard Notes

1. All On-site activity to be coordinated with Clerk of The Works Charles Santore, charles.santore@bedford.k12.va.us cell: (540) 875-8706.
2. All submittals and RFIs must be sent electronically to the Clerk of The Works.
3. The Clerk of the Works must be given a minimum of 48 hour notice for any and all deliveries to the jobsite. Deliveries without proper notice or approval from the Clerk of The Works will be rejected.
4. Jobsite storage area is limited and onsite storage of material and equipment must be approved by the Clerk of The Works prior to delivery.
5. Contractor agrees to make the entire project complete in every respect insofar as the contract agreement in a first-class, workmanlike manner, in strict accordance with the contract documents.
6. As built drawings must be maintained throughout the project and all proper close-out documentation must be provided, in a single package, in accordance with the Contract Documents, to Bedford County Public Schools prior to final payment.
7. Submit a Schedule of Values for review and approval prior to submission of payment application.
8. Application for payment must be submitted electronically and approved by the Clerk of The Works prior to the 25th of each month. Upon approval, one hard copy of the application for payment must be submitted to the Bedford County Public School Board office located at 310 South Bridge Street, Bedford, VA 24523. Draft pay applications for payment received after the 25th of the month may not be accepted.
9. Payment Requests for stored materials will not be allowed unless all of the following requirements are met: Copies of paid invoices, photos of material stored offsite, and insurance certificates for offsite storage location. Payment will only be made in the amount of the paid invoices provided.
10. All VOSHA Safety Rules must be followed. Employees who fail to adhere to this requirement will be permanently removed from the site.
11. Schedule information must be provided for approval within 10 days of contract execution for incorporation into the Project Schedule. Failure to do so relinquishes any claims against the schedule.
12. All materials and equipment to comply with contract documents.
13. Contractor must have at least one employee certified in first aid and CPR on the jobsite at all times.
14. All Contractors' must be licensed in the State of Virginia and must comply with all local, state, or federal laws, codes and ordinances.
15. Working hours and schedule will need to be closely coordinated with the Clerk of The Works. Any and all overtime needed to meet the construction schedule is included as part of this subcontract.
16. Contractor is responsible for providing adequate manpower to maintain the project schedule at all stages of construction. If the Contractor does not provide adequate manpower after 48 hours written notification, Bedford County Public Schools reserves the right to

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supplement Contractors workforce. Any and all expenses incurred from this action will be deducted from this contract accordingly.

17. Contractor is responsible for hoisting, unloading, lifting, and distribution of materials required for completion of scope of work.

18. Each Contractor will be responsible for clean-up on a daily basis. If determined necessary by the Clerk of the Works, each contractor will provide a clean up man to be directed by Bedford County Public Schools. If this fails, Bedford County Public Schools will clean up and back charge each responsible Contractor.

19. There must be an English speaking foreman for each Contractor on the site at all times.

20. Contractors will be responsible for providing flagman and manpower, as needed, for their respective deliveries. Deliveries for Contractors not on site will be rejected.

21. Any and all sales tax, including federal, state, city, county, or any other applicable tax is included as a part of this subcontract.

22. Project is subject to liquidated damages if contract schedule is not met.

Contractor/Supplier shall be financially responsible for liquidated damages as applicable if agreed upon schedule is not met as a result of workmanship, extended lead times, deficient material/products, or other cause that is the responsibility of the Contractor/supplier.

23. Owner reserves to the right to Direct Purchase material to take advantage of the Owner's tax exempt savings. If the Owner elects to use this right, a deductive change order will be issued for the value of said material and the invoice for the material will be forwarded to the Owner so a Purchase Order can be issued. Even though the Owner would be paying for the material directly, the Contractor is still responsible for coordinating delivery with the supplier to maintain schedule. Owner direct purchasing does not release the Contractor from the responsibility of maintaining schedule.

**END OF DOCUMENT 006000**

**DOCUMENT 011000 - SUMMARY**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Work performed by Owner.
4. Owner-furnished/Contractor-installed (OFICI) products.
5. Contractor's use of site and premises.
6. Coordination with occupants.
7. Work restrictions.
8. Specification and Drawing conventions.
9. Miscellaneous provisions.

1.3 DEFINITIONS

A. Work Package: A group of specifications, drawings, and schedules prepared by the design team to describe a portion of the Project Work for pricing, permitting, and construction.

1.4 PROJECT INFORMATION

A. Project Name: Bedford County Public Schools – Huddleston Elementary Roof Replacement

B. Project Location: 1027 Huddleston Dr, Huddleston, VA 24104

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C. Owner: Bedford County Public Schools.

### 1.5 WORK COVERED BY CONTRACT DOCUMENTS

A. The Work of Project is defined by the Contract Documents and includes, but is not limited to the following:

1. Reroofing over existing fully adhered EPDM roofing with new fleecebacked EPDM membrane and removal of existing metal roofing and replacing with a new standing seamed metal roof in the areas identified in the Contract Documents.

B. Type of Contract:

1. Project will be constructed under a single prime contract.

### 1.6 PROJECT SCHEDULE

The schedule for the work is as follows:

1. Pre-Bid Meeting: March 26, 2024
2. Bid Date: April 4, 2024
3. Notice of Award: April 12, 2024
4. Construction Commencement Monday, May 30, 2024
5. Final Completion July 31, 2024

### 1.7 CONTRACTOR'S USE OF SITE AND PREMISES

A. Limits on 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. Driveways, Walkways and Entrances: Keep driveways, parking lots, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

- a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
- b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

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C. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, and hardscaping affected by construction operations throughout construction period. Repair damage caused by construction operations.

## 1.8 COORDINATION WITH OCCUPANTS

A. Partial Owner Occupancy: Owner will have some Admin staff and custodians onsite during entire construction period. The Contractor will need to cooperate with Owner during construction operations to minimize conflicts and facilitate Owner's ability to do normal Summer cleaning when reasonable. Perform the Work to minimize Summer cleaning operations. Maintain existing exits unless otherwise indicated.

1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and authorities having jurisdiction.
2. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

## 1.9 WORK RESTRICTIONS

A. Comply with restrictions on construction operations.

1. Comply with limitations on use of public streets, work on public streets, rights of way, and other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Normal work hours to between 7 a.m. to 5 p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to meet Project requirements after notice and approval by Owner,

C. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.

D. Smoking and Controlled Substance Restrictions: **Use of tobacco products and other controlled substances on Owner's property is not permitted.**

E. Employee Identification: Provide some sort of identification for Contractor personnel working on Project site (i.e. tags, company shirts, company hard hats, etc.)

G. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.

1. Maintain list of approved screened personnel with Owner's representative.

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**END OF DOCUMENT 011000**

## **DOCUMENT 012100 - ALLOWANCES**

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

A. Section includes administrative and procedural requirements governing allowances.

B. Types of allowances include the following:

1. Lump-sum allowances.
2. Quantity allowances.
3. Contingency allowances.
4. Testing and inspecting allowances.

#### 1.3 DEFINITIONS

A. Allowance: A quantity of work or dollar amount included in the Contract, established in lieu of additional requirements, used to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor. If necessary, additional requirements will be issued by Change Order.

#### 1.4 SELECTION AND PURCHASE

A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection, or purchase and delivery, of each product or system described by an allowance must be completed by the Owner 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.

#### 1.5 ACTION SUBMITTALS

A. Submit proposals for purchase of products or systems included in allowances in the form specified for Change Orders.

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### 1.6 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.

### 1.7 LUMP-SUM 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 taxes, 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 or 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.

### 1.8 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 taxes, 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 or 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.



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1. If requested by Architect, retain and prepare unused material for storage by Owner. Deliver unused material to Owner's storage space as directed.

#### 1.9 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 overhead, profit, and 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, taxes, 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.
- D. At Project closeout, credit unused amounts remaining in the contingency allowance to Owner by Change Order.

#### 1.10 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 testing and inspection services not specifically required by the Contract Documents are Contractor responsibilities and 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.

#### 1.11 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, required maintenance materials, and similar margins.
  1. Include installation costs in purchase amount only where indicated as part of the allowance.

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2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other markups.
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 due to a change in the 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

A. Allowance No. 1: Quantity Allowance: Base Bid shall include for 1400 sf of removal and installation of wet or damaged insulation in the areas indicated on the drawings. New insulation thickness and slope should match the existing roof system insulation. Fasten the new insulation at manufacturer's required rate for warranty. In the areas where the EPDM has been cut out and the insulation has been replaced, screw and plate the edge of the existing EPDM at a minimum of 6" on center.

1. Coordinate quantity allowance adjustment with unit-price requirements in

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Section 012200 "Unit Prices."

**END OF DOCUMENT 012100**

## **DOCUMENT 12200 - UNIT PRICES**

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract.

#### 1.2 SUMMARY

A. Section includes administrative and procedural requirements for unit prices.

B. Related Requirements:

1. Section 012100 "Allowances" for procedures for using unit prices to adjust quantity allowances.
2. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
3. ~~Section 014000 "Quality Requirements" for field testing by an independent testing agency.~~

#### 1.3 DEFINITIONS

A. Unit price is an amount incorporated into 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.

#### 1.4 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 Part 3 "Schedule of Unit Prices" Article contain requirements for materials described under each unit price.

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PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Allowance/Unit Price No. 1: Existing Insulation - Partial Removal

1. Description: Includes removal of existing insulation, replace with new insulation of same thickness and type.
2. Unit of Measurement: square feet of insulation replaced.

B. Unit Price No. 2: Damaged wood nailer replacement

1. Description: Includes removal and replacement of damaged or rotten wood nailer with new treated lumber securely anchored.
2. Unit of Measurement: Linear footage of nailer replaced.

C. Unit Price No. 3: Steel Deck Surface Repair

1. Description:
2. Unit of Measurement: square feet of repair

D. Unit Price No. 4: Steel Deck Infill/Replacement

1. Description:
2. Unit of Measurement: square feet of replacement

**END OF DOCUMENT 012200**

## **DOCUMENT 012600 - CONTRACT MODIFICATION PROCEDURES**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

B. Related Requirements:

1. Section 013100 "Project Management and Coordination" for requirements for forms for contract modifications provided as part of web-based Project management software.

#### **1.3 MINOR CHANGES IN THE WORK**

A. Owner will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time in writing through email.

#### **1.4 PROPOSAL REQUESTS**

A. Owner-Initiated Proposal Requests: Owner will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Work Change Proposal Requests issued by the Owner are not instructions either to stop work in progress or to execute the proposed change.

2. Within time specified in Proposal Request, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

- a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.

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b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

c. Include costs of labor and supervision directly attributable to the change.

d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Owner.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.

3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

4. Include costs of labor and supervision directly attributable to the change.

5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

6. Proposal Request Form: Use form acceptable to Owner.

## 1.5 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Work Change Proposal Request, Owner will issue a Change Order for signatures of Owner and Contractor..

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1.6 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Owner may issue a Construction Change Directive that instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**END OF DOCUMENT 012600**



## **DOCUMENT 013100 - PROJECT MANAGEMENT AND COORDINATION**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

A. Drawings and general provisions of the Contract and other Division 01 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:

1. General coordination procedures.
2. Coordination drawings.
3. RFIs.
4. Project meetings.

B. Related Requirements:

1. Section 017300 "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
2. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

#### **1.3 DEFINITIONS**

A. RFI: Request for Information. Request from Owner or Contractor seeking information required by or clarifications of the Contract Documents.

#### **1.4 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, telephone number, and email address of entity performing subcontract or supplying products.
2. Number and title of related Specification Section(s) covered by subcontract.

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3. Drawing number and detail references, as appropriate, covered by subcontract.

B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses, cellular telephone numbers, and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

#### 1.5 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.

#### 1.7 REQUEST FOR INFORMATION (RFI)

A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Owner will return without response those RFIs submitted to Owner by other entities controlled by Contractor.
2. Coordinate and submit RFIs in a prompt manner 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. Owner name.

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3. Date.
4. Name of Contractor.
5. RFI number, numbered sequentially.
6. RFI subject.
7. Specification Section number and title and related paragraphs, as appropriate.
8. Drawing number and detail references, as appropriate.
9. Field dimensions and conditions, as appropriate.
10. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
11. 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: AIA Document G716 **or** Software-generated form with substantially the same content as indicated above, acceptable to Owner.

1. Attachments shall be electronic files in PDF format.

D. Owner's Action: Owner will review each RFI, determine action required, and respond. Allow seven days for response for each RFI. RFIs received by Owner after 1:00 p.m. will be considered as received the following working day.

1. The following Contractor-generated RFIs will be returned without action:
  - a. Requests for approval of submittals.
  - b. Requests for approval of substitutions.
  - c. Requests for approval of Contractor's means and methods.
  - d. Requests for coordination information already indicated in the Contract Documents.
  - e. Requests for adjustments in the Contract Time or the Contract Sum.
  - f. Incomplete RFIs or inaccurately prepared RFIs.
2. Owner'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 Owner in writing within 3 days of receipt of the RFI response.

E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number.

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F. On receipt of Owner's response, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Owner within 3 days if Contractor disagrees with response.

## 1.9 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.

B. Preconstruction Conference: Contractor will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner

1. Attendees: Authorized representatives of Owner; 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. Responsibilities and personnel assignments.
- b. Tentative construction schedule.
- c. Phasing.
- d. Critical work sequencing and long lead items.
- e. Designation of key personnel and their duties.
- f. Lines of communications.
- g. Procedures for processing field decisions and Change Orders.
- h. Procedures for RFIs.
- i. Procedures for processing Applications for Payment.
- j. Submittal procedures.
- k. Use of the premises and existing building.
- l. Working hours.
- m. Owner's occupancy requirements.
- n. Responsibility for temporary facilities and controls.
- o. Construction waste management and recycling.
- p. Parking availability.
- q. Office, work, and storage areas.
- r. Equipment deliveries and priorities.
- s. Cleaning.

3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

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C. Progress Meetings: Owner reserves the right to schedule formal bi-weekly progress meeting depending on progress of work through Summer of 2024.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**END OF DOCUMENT 013100**

## **DOCUMENT 013300 - SUBMITTAL PROCEDURES**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

B. Related Requirements:

1. Section 013100 "Project Management and Coordination" for submitting coordination drawings and subcontract list and for requirements for web-based Project software.
2. Section 017700 "Closeout Procedures" for submitting closeout submittals and maintenance material submittals.
3. Section 017823 "Operation and Maintenance Data" for submitting operation and maintenance manuals.

#### **1.3 DEFINITIONS**

A. Action Submittals: Written and graphic information and physical samples that require Owner's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

B. Informational Submittals: Written and graphic information and physical samples that do not require Owner's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

#### **1.4 SUBMITTAL FORMATS**

A. Submittal Information: Include the following information in each submittal:

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1. Project name.
2. Date.
3. Name of Contractor.
4. Name of firm or entity that prepared submittal.
5. Names of subcontractor, manufacturer, and supplier.
6. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier and alphanumeric suffix for resubmittals.
7. Category and type of submittal.
8. Submittal purpose and description.
9. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
10. Drawing number and detail references, as appropriate.
11. Indication of full or partial submittal.
12. Location(s) where product is to be installed, as appropriate.
13. Other necessary identification.
14. Remarks.
15. Identify and call out any deviations from specifications within the submittal with a green cloud and also list deviations on the submittal cover sheet.
16. Signature of transmitter.

B. Options: Identify options requiring selection by Owner.

C. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

## 1.6 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Email: Prepare submittals as PDF package and transmit to Owner by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Owner.
2. Paper: Prepare submittals in paper form and deliver to Owner.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

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2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, so processing will not be delayed because of need to review submittals concurrently for coordination.
  - a. Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Owner's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Owner will advise Contractor when a submittal being processed must be delayed for coordination.
2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow 15 days for review of each resubmittal.
4. Sequential Review: Where sequential review of submittals by Owner's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.

D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block, and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Owner's action stamp.



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E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Owner's action stamp.

## 1.7 SUBMITTAL REQUIREMENTS

A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.

2. Mark each copy of each submittal to show which products and options are applicable.

3. Include the following information, as applicable:

- a. Manufacturer's catalog cuts.
- b. Manufacturer's product specifications.
- c. Standard color charts.
- d. Statement of compliance with specified referenced standards.
- e. Testing by recognized testing agency.
- f. Application of testing agency labels and seals.
- g. Notation of coordination requirements.
- h. Availability and delivery time information.

4. Submit Product Data before Shop Drawings, and before or concurrently with Samples.

B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

- a. Identification of products.
- b. Schedules.
- c. Compliance with specified standards.
- d. Notation of coordination requirements.
- e. Notation of dimensions established by field measurement.
- f. Relationship and attachment to adjoining construction clearly indicated.

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g. Seal and signature of professional engineer if specified.

C. Samples: Submit Samples for review of type, color, pattern, and texture for a check of these characteristics with other materials.

1. Transmit Samples that contain multiple, related components, such as accessories together in one submittal package.
2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
  - a. Project name and submittal number.
  - b. Generic description of Sample.
  - c. Product name and name of manufacturer.
  - d. Sample source.
  - e. Number and title of applicable Specification Section.
  - f. Specification paragraph number and generic name of each item.
3. Email Transmittal: Provide PDF transmittal. Include digital image file illustrating Sample characteristics and identification information for record.
4. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
5. Paper Transmittal: Include paper transmittal, including complete submittal information indicated.
6. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
  - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
  - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
7. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units, showing the full range of colors, textures, and patterns available.

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a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Owner will return submittal with options selected.

8. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

a. Number of Samples: Submit three sets of Samples. Owner will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record Sample.

1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.

2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.

E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Owner's Rep, and other information specified.

F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if

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applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.

G. Certificates:

1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
2. Installer Certificates: Submit written statements on manufacturer's letterhead, certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.

H. Test and Research Reports:

1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

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4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

- a. Name of evaluation organization.
- b. Date of evaluation.
- c. Time period when report is in effect.
- d. Product and manufacturers' names.
- e. Description of product.
- f. Test procedures and results.
- g. Limitations of use.

#### 1.8 CONTRACTOR'S REVIEW

A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Owner.

B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

1. Owner will not review submittals received from Contractor that do not have Contractor's review and approval.

#### 1.9 OWNER'S REVIEW

A. Informational Submittals: Owner will review each submittal and will not return it, or will return it if it does not comply with requirements. Owner will forward each submittal to appropriate party.

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B. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Owner.

C. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.

D. Owner will return without review submittals received from sources other than Contractor.

E. Submittals not required by the Contract Documents will be returned by Owner without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**END OF DOCUMENT 013300**

**DOCUMENT 017300 - EXECUTION**

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
- ~~5. Coordination of Owner's portion of the Work.~~
- ~~6. Coordination of Owner-installed products.~~
7. Progress cleaning.
8. Starting and adjusting.
9. Protection of installed construction.
10. Correction of the Work.

B. Related Requirements:

1. Section 011000 "Summary" for coordination of Owner-furnished products, and limits on use of Project site.
2. Section 013300 "Submittal Procedures" for submitting surveys.
3. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.

1.2 DEFINITIONS

A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.

B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 PREINSTALLATION MEETINGS

1.4 INFORMATIONAL SUBMITTALS

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A. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

## 1.5 QUALITY ASSURANCE

A. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Owner for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.

C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator



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present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

- ~~1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.~~
2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.

C. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

1. Description of the Work, including Specification Section number and paragraph, and Drawing sheet number and detail, where applicable.
2. List of detrimental conditions, including substrates.
3. List of unacceptable installation tolerances.
4. Recommended corrections.

D. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

### 3.2 PREPARATION

~~A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.~~

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to

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Owner in accordance with requirements in Section 013100 "Project Management and Coordination."

### 3.3 INSTALLATION

A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb, and make horizontal work level.

2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure satisfactory results as judged by Owner. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.

E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.

F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.

G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

H. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Owner. Fit exposed connections together to form hairline joints.

### 3.4 CUTTING AND PATCHING

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

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1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

C. Temporary Support: Provide temporary support of Work to be cut.

D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

E. Adjacent Occupied Areas: Where interference with use of adjoining areas or interruption of free passage to adjoining areas is unavoidable, coordinate cutting and patching in accordance with requirements in Section 011000 "Summary."

F. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

G. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.

2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.

3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.

~~4. Excavating and Backfilling: Comply with requirements in applicable Sections where required by cutting and patching operations.~~

5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.

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6. Proceed with patching after construction operations requiring cutting are complete.

H. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Owner. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.

2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

- a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
- b. Restore damaged pipe covering to its original condition.

3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

- a. Where patching occurs in a painted surface, prepare substrate and apply primer and intermediate paint coats appropriate for substrate over the patch, and apply final paint coat over entire unbroken surface containing the patch, corner to corner of wall and edge to edge of ceiling. Provide additional coats until patch blends with adjacent surfaces.

4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.

5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.

I. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

### ~~3.5 COORDINATION OF OWNER'S PORTION OF THE WORK~~

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3.6 PROGRESS CLEANING

A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F (27 deg C).
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
  - a. Use containers intended for holding waste materials of type to be stored.
4. Coordinate progress cleaning for joint-use areas where Contractor and other contractors are working concurrently.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

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G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 017419 "Construction Waste Management and Disposal."

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

### 3.7 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.

C. Comply with manufacturer's written instructions for temperature and relative humidity.

### 3.8 CORRECTION OF THE WORK

A. Repair or remove and replace damaged, defective, or nonconforming Work. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.

C. Restore permanent facilities used during construction to their specified condition.

D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

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E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

**END OF DOCUMENT 017300**

**DOCUMENT 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Salvaging nonhazardous demolition and construction waste.
2. Recycling nonhazardous demolition and construction waste.
3. Disposing of nonhazardous demolition and construction waste.

1.3 DEFINITIONS

A. Construction Waste: Building, structure, and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.

C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.

D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition and construction waste becomes property of Contractor.



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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.

PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.

B. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged and recycled.

3.2 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged or recycled, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. General: Except for items or materials to be salvaged or recycled, remove waste materials and legally dispose of at designated spoil areas on Owner's property.

C. Burning: Do not burn waste materials.

**END OF DOCUMENT 017419**

**DOCUMENT 017700 - CLOSEOUT PROCEDURES**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.
4. Final cleaning.

1.3 DEFINITIONS

A. List of Incomplete Items: Contractor-prepared list of items to be completed or corrected, prepared for the Owner's use prior to Owner's inspection, to determine if the Work is substantially complete.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.5 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.6 MAINTENANCE MATERIAL SUBMITTALS

A. Schedule of Maintenance Material Items: For maintenance material submittal items required by other Sections.

## 1.7 SUBSTANTIAL COMPLETION PROCEDURES

A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.

B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.

3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.

4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Owner. Label with manufacturer's name and model number.

- a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Owner's signature for receipt of submittals.

5. Submit testing, adjusting, and balancing records.

6. Submit sustainable design submittals not previously submitted.

7. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.

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- ~~2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.~~
- ~~3. Complete startup and testing of systems and equipment.~~
- ~~4. Perform preventive maintenance on equipment used prior to Substantial Completion.~~
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- ~~6. Advise Owner of changeover in utility services.~~
- ~~7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.~~
- ~~8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.~~
9. Complete final cleaning requirements.
10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.

D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Owner will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Owner, that must be completed or corrected before certificate will be issued.

1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

## 1.8 FINAL COMPLETION PROCEDURES

A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:

1. Submit a final Application for Payment
2. Certified List of Incomplete Items: Submit certified copy of Owner's Substantial Completion inspection list of items to be completed or corrected (punch list).
3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.

B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Owner will either proceed with inspection or notify Contractor of unfulfilled requirements. Owner will prepare a final Certificate for

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Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

## 1.9 SUBMITTAL OF PROJECT WARRANTIES

A. Time of Submittal: Submit written warranties on request of Owner for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.

B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.

D. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.

E. Provide additional copies of each warranty to include in operation and maintenance manuals

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

## PART 3 - EXECUTION

### 3.1 FINAL CLEANING

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

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B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:

- a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
- b. Remove tools, construction equipment, machinery, and surplus material from Project site.
- c. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
- d. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
- e. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
- f. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- g. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- h. Clean ducts, blowers, and coils if units were operated without filters during construction or that display contamination with particulate matter on inspection.
- i. Leave Project clean and ready for occupancy.

### 3.2 REPAIR OF THE WORK

A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

**END OF DOCUMENT 017700**

**DOCUMENT 017823 - OPERATION AND MAINTENANCE DATA**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory manuals.
- ~~2. Emergency manuals.~~
- ~~3. Systems and equipment operation manuals.~~
- ~~4. Systems and equipment maintenance manuals.~~
5. Product maintenance manuals.

1.3 CLOSEOUT SUBMITTALS

A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

1. Owner will comment on whether content of operation and maintenance submittals is acceptable.

B. Format: Submit operation and maintenance manuals in the following format:

1. Submit by email to Owner. Enable reviewer comments on draft submittals.
2. Submit two paper copies.

C. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Owner will return copy with comments.

1. Correct or revise each manual to comply with Owner's comments. Submit copies of each corrected manual within 15 days of receipt of Owner's comments and prior to commencing demonstration and training.

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D. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

## 1.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.

1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.

2. File Names and Bookmarks: Bookmark individual documents based on file names. Table of contents shall contain hyperlinks to link to appropriate section. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

B. Manuals, Paper Copy: Submit manuals in the form of hard-copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.

a. If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.

b. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.



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2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment. Enclose title pages and directories in clear plastic sleeves.
4. Supplementary Text: Prepared on 8-1/2-by-11-inch (215-by-280-mm) white bond paper.
5. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
  - a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
  - b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

#### 1.6 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A. Organization of Manuals: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:

1. Title page.
2. Table of contents.
3. Manual contents.

B. Title Page: Include the following information:

1. Subject matter included in manual.
2. Name and address of Project.
3. Name and address of Owner.
4. Date of submittal.
5. Name and contact information for Contractor.

C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

1. If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.

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D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

E. Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

## 1.18 PRODUCT MAINTENANCE MANUALS

A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

B. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

C. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

D. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products.

E. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

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F. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

G. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

**END OF DOCUMENT 017823**

**DOCUMENT 070150.19 - PREPARATION FOR REROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Partial replacement of existing roofing system in preparation for replacement roofing system in designated areas as indicated on drawings. Preparation for reroofing of standing seam metal roofing is described Section 074113.16 Standing Seam Metal Roof Panels
- B. Re-cover of existing fully adhered roof system in preparation for a new fleecebacked EPDM roofing system.
- C. Removal of existing flashing.
- D. Temporary roofing protection.

1.02 RELATED REQUIREMENTS

- A. Section 075300 - Elastomeric Membrane Roofing.

1.03 PRICE AND PAYMENT PROCEDURES

- A. See Section 012200 - Unit Prices, for additional unit price requirements.
  - 1. Existing Insulation - Partial Removal:
    - a. Basis of Measurement: By square foot.
    - b. Basis of Payment: Includes removal of existing insulation, replace with new insulation of same thickness and slope.
- B. See Section 012200 - Unit Prices, for additional unit price requirements.
  - 1. Damaged wood nailer replacement:
    - a. Basis of Measurement: By linear foot.
    - b. Basis of Payment: Includes removal and replacement of damaged or rotten wood nailers with new treated lumber securely anchored.
- C. See Section 012200 - Unit Prices, for additional unit price requirements.
  - 1. Steel deck surface rust
    - a. Basis of Measurement: By square foot.
    - b. Basis of payment: Wire brush, properly clean and paint areas of corroded metal roof decking with Sherwin Williams B66W1 DTM
- D. See Section 012200 - Unit Prices, for additional unit price requirements.
  - 1. Steel deck infill:
    - a. Basis of Measurement: By square foot.
    - b. Includes removal and replacement of steel deck to match existing.

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1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordinate with affected mechanical and electrical work associated with roof penetrations.
- B. Preinstallation Meeting: Convene one week before starting work in this section.
  - 1. Attendees:
    - a. Contractor.
    - b. Owner.
    - c. Roofing system manufacturer's field representative.
  - 2. Meeting Agenda: Provide agenda to participants prior to meeting in preparation for discussions on the following:
    - a. Removal and installation schedule.
    - b. Necessary preparatory work.
    - c. Protection before, during, and after roofing system installation.
    - d. Removal of existing ballasted EPDM membrane and all associated flashings.
    - e. Installation of new ballasted EPDM roofing system.
    - f. Temporary roofing and daily terminations.
    - g. Transitions and connection to and with other work.
    - h. Inspections and testing of installed systems.
- C. Schedule work to coincide with commencement of installation of new roofing system.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Company specializing in performing work of the type specified and licensed by the roof system manufacturer to install manufacturer's product and has been eligible to receive manufacturer's special warranty for a minimum of three years.
  - 1. All contractors performing any portion of the re-roofing work shall have an active Class A Contractor's License issued by the State of Virginia.

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B. Engage in an experienced installer that has specialized in installing EPDM systems similar to those required for this Project. Installer shall have installed a minimum of 100,000 square feet of warranted EPDM projects within the last three years of bid date with the company issuing the warranty for this project. Projects must have been completed in the state of Virginia.

C. At all times a foreman, certified by the company warranting the EPDM system, shall be present on site.

D. Preconstruction Testing:

1. Owner will provide report of moisture survey.

E. All work should be performed in accordance with 2018 Virginia Construction Code and 2018 Virginia Existing Building Code.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.

1.07 FIELD CONDITIONS

A. Existing Roofing System: Fully adhered EPDM single-ply roofing.

B. Do not remove existing roofing membrane when weather conditions threaten the integrity of building contents or intended continued occupancy.

C. Maintain continuous temporary protection prior to and during installation of new roofing system.

D. Provide notice at least three days before starting activities that will affect normal building operations.

E. Verify that occupants have been evacuated from building areas when work on structurally impaired roof decking is scheduled to begin.

1.08 WARRANTY

A. See Section 075323- EPDM Thermoset Single Ply Roofing for additional warranty requirements.

PART 2 PRODUCTS

2.01 COMPONENTS

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A. See the following sections for additional information on components relating to this work:

1. Replacement and removal of existing roofing system in preparation for entire new roofing system, see Section 075323.

2.02 PREPARATION

A. Test existing roof drains to verify that they are not blocked or restricted. Immediately notify Owner of any blockages or restrictions.

B. Wash existing EPDM field membrane using as power washer at a maximum of 2200 psi with a fan-spray tip/nozzle.

PART 3 EXECUTION

2.03 MATERIAL REMOVAL

A. Remove and properly dispose of the existing EPDM flashings, metal perimeter edging, wall flashings, curb flashing, expansion joint details, flashing at penetrations, and scupper sleeves, ensuring all undamaged EPDM field membrane and through wall or counter flashings are left in place. Properly dispose of all remaining debris, etc. as necessary to provide a clean surface.

B. Identify and document areas of any *additional* wet or damaged insulation and/or loose EPDM membrane. Remove and replace and replace the wet or damaged insulation on a per unit basis, ensuring the new polyisocyanurate insulation matches the existing insulation thickness and slope. Fasten the new insulation at manufacturer's required rate for warranty. In areas where the insulation has been replaced, screw and plate the edge of the existing EPDM at a minimum of 6" on center. Reference Section 012200 - Unit Price for square foot additive bid allowances for removal and replacement wet or damaged insulation. The remainder of the existing insulation and EPDM membrane shall remain in place.

C. Remove and replace any protruding fasteners, ensure existing insulation is fastened at manufacturer's established insulation densities.

D. Furnish and install new treated wood blocking to replace loose, damaged, or deteriorated blocking at all roof perimeters, roof curbs, expansion joints and all other locations as required. All nailers shall be of sufficient thickness to be flush with insulation/membrane interface and securely anchored to resist a force to 175 lbs./linear foot in any direction. Nailers shall not be lower than the insulation's membrane interface. Reference Section 012200 - Unit Price.

E. At areas where wet or damaged insulation was removed, identify and document rusted or corroded areas of the metal roof decking. Remove areas of structurally

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unsound metal roof decking and replace with new metal decking to match the existing type, gauge and configuration of the existing decking. Where only surface rust is present on metal decking, wire brush, properly clean and paint areas of corroded metal roof decking with Sherwin Williams B66W1 DTM. Reference Section 012200 - Unit Price.

F. Existing Nailers: All existing nailers are to be left in-place unless deteriorated or if portions of the existing nailers require removal to accommodate the new roof insulation heights. If deteriorated nailers are found, proper removal and replacement shall be required to accommodate the new roof system installation. Reference Section 012200 - Unit Price

G. Unit Price Based Additives:

1. The Contractor shall keep a daily log, photographs and marked up drawings showing locations of work completed and running totals of all Unit Price Based Additives work completed and provide a copy to the Owner on a daily basis with all payment requests.

2.04 INSTALLATION

A. Coordinate scope of this work with requirements for installation of new roofing system, see Section **075323** for additional requirements.

2.05 PROTECTION

A. Provide protection of existing roofing system that is not having work performed on it.

**END OF DOCUMENT 070150.19**



**DOCUMENT 074113.16 - STANDING-SEAM METAL ROOF PANELS**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Vertical-rib, seamed-joint, standing-seam metal roof panels.
  2. Substrate board.
  3. Vapor retarder.
  4. Roof insulation.
  5. Cover board.
  6. Underlayment.

1.2 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
1. Meet with Owner, Architect, Owner's insurer if applicable, metal panel Installer, metal panel manufacturer's representative, structural-support Installer, and installers whose work interfaces with or affects metal panels, including installers of roof accessories and roof-mounted equipment.
  2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  3. Review methods and procedures related to metal panel installation, including manufacturer's written installation instructions.
  4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
  5. Review loading limitations of supporting structure during and after roofing.
  6. Review flashings, special details, drainage, penetrations, equipment curbs, and condition of other construction that affect metal panels.
  7. Review governing regulations and requirements for insurance, certificates, and tests and inspections if applicable.
  8. Review temporary protection requirements for metal panel systems during and after installation.

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9. Review procedures for repair of metal panels damaged after installation.
10. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.3 ACTION SUBMITTALS

A. Product Data:

1. For standing-seam metal roof panels. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. Shop Drawings:

1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

C. Samples for Initial Selection: Manufacturer's standard color charts, showing full range of available colors for each type of exposed finish.

1. Include similar Samples of trim and accessories involving color selection.

D. Samples for Verification: Actual sample of finished products for each type of exposed finish for metal panels and metal panel accessories.

1. Size: Manufacturers' standard size.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For standing-seam metal roof panels, for tests performed by a qualified testing agency.

B. Field quality-control reports.

C. Qualification Statements: For roof installers.

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D. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal panels.

1.6 QUALITY ASSURANCE

A. Roof Installer Qualifications: Entity that employs a supervisor who is an NRCA ProCertified Roofing Foreman or installers who are NRCA ProCertified Metal Panel Roof Systems Installers.

B. Portable Roll-Forming Equipment Certification: Manufacturer approved portable roll-forming equipment capable of producing metal panels warranted by manufacturer to be the same as factory-formed products.

1.7 MOCKUPS

A. Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.

1. Build mockup of typical roof area and eave, including fascia, and soffit as shown on Drawings; approximately 48 inches square by full thickness, including attachments, underlayment, and accessories.

2. Build mockups for typical roof area only, including accessories.

a. Size: 12 ft. long by 6 ft..

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations by Change Order.

4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

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B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

1.9 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed in accordance with manufacturers' written installation instructions and warranty requirements.

1.10 COORDINATION

A. Coordinate sizes and locations of roof curbs, equipment supports, and roof penetrations with actual equipment provided.

B. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
  - a. Structural failures including rupturing, cracking, or puncturing.
  - b. Deterioration of metal and other materials beyond normal weathering.

2. Warranty Period: Two years from date of Substantial Completion.

B. Special Warranty on Panel Finishes: Manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
  - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.

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- b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  2. Finish Warranty Period: 20 years from date of Substantial Completion.
- C. Special Weathertightness Warranty: Manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty period.
1. Warranty Period: 20 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing in accordance with TAS 125-03:
1. Wind Loads: use manufacturer's suggested clip spacing according to local building code and wind loads.
  2. Deflection Limits: For wind loads, no greater than 1/180 of the span.
- B. Air Infiltration: Air leakage of not more than 0.06 cfm/sq. ft. when tested in accordance with ASTM E1680 at the following test-pressure difference:
1. Test-Pressure Difference: 1.57 lbf/sq. ft..
- C. Water Penetration under Static Pressure: No water penetration when tested in accordance with ASTM E1646[ or ASTM E331] at the following test-pressure difference:
1. Test-Pressure Difference: 2.86 lbf/sq. ft..
- D. Watertightness: No water penetration when tested in accordance with ASTM E2140 for hydrostatic-head resistance.
- E. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL 580 for wind-uplift- resistance class indicated.
1. Uplift Rating: UL 90.

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F. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 STANDING-SEAM METAL ROOF PANELS, GENERAL

A. Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed fasteners in side laps. Include all accessories required for weathertight installation.

1. Steel Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E1514.

~~2. Aluminum Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E1637.~~

2.3 VERTICAL-RIB, SEAMED-JOINT, STANDING-SEAM METAL ROOF PANELS

A. Provide from one of the following pending conformance with requirements.

1. Sentrigard Metal Roofing Systems
2. Petersen
3. Fabral
4. Or Equal approved by Owner before Bid date

B. Panels: Formed with vertical ribs at panel edges; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and mechanically seaming panels together.

1. Structural Support: Over wood deck.
2. Material: Metallic-coated steel.
3. Seam Type: Manufacturer's standard.
4. Panel Profile: Intermediate stiffening ribs symmetrically spaced between ribs.
5. Panel Coverage: 18 inches.
6. Panel Height: 1.5 inches.
7. Clips: Two piece, floating, designed to accommodate thermal movement.
  - a. Steel Clips: 0.028-inch- 24 ga. nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
  - b. Clip Spacing: As indicated on approved Shop Drawings.

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8. Color: Match existing.

## 2.8 UNDERLAYMENT

A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.

1. Thermal Stability: Stable after testing at 240 deg F; ASTM D1970/D1970M.
2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F; ASTM D1970/D1

## 2.9 PANEL MATERIALS

A. Metallic-Coated Steel Sheet: Zinc-coated (galvanized) steel sheet complying with minimum ASTM A653/A653M, G90 coating designation, or aluminum-zinc alloy-coated steel sheet complying with minimum ASTM A792/A792M, Class AZ50 coating designation; structural quality. Prepainted by the coil-coating process to comply with ASTM A755/A755M.

1. Nominal Thickness: 0.028 inch. 24 ga.
2. Surface: Smooth, flat finish.

## 2.10 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Subframing and Furring: ASTM C645; cold-formed, metallic-coated steel sheet, minimum ASTM A653/A653M, G90 hot-dip galvanized coating designation or ASTM A792/A792M, Class AZ50 coating designation. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, fasteners, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and ridges, fabricated of same metal as metal panels.

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2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch-thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels 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 metal panels.

D. Gutters: Formed from same material as roof panels, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch-long sections, of size and metal thickness in accordance with manufacturer's recommendations. Furnish gutter supports spaced a maximum of 36 inches o.c., fabricated from same metal as gutters. Provide wire ball strainers of compatible metal at outlets. Finish gutters to match roof fascia and rake trim.

E. Downspouts: Formed from same material as roof panels. Fabricate in 10 ft. long sections, complete with formed elbows and offsets, of size and metal thickness in accordance with manufacturer's recommendations. Finish downspouts to match gutters.

F. Roof Curbs: Fabricated from same material as roof panels, 0.048-inch nominal thickness; with bottom of skirt profiled to match roof panel profiles and with welded top box and integral full-length cricket. Fabricate curb subframing of 0.060-inch-nominal thickness, angle-, C-, or Z-shaped steel sheet. Fabricate curb and subframing to withstand indicated loads of size and height indicated. Finish roof curbs to match metal roof panels.

1. Insulate roof curb with 1-inch-thick, rigid insulation.

G. Panel Fasteners: Self-tapping screws designed to withstand design loads.

H. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.



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2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

## 2.11 FABRICATION

- A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.
- B. On-site Fabrication: Subject to compliance with requirements of this Section, metal panels may be fabricated on-site using Mfr approved roll forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate in accordance with equipment manufacturer's written instructions and to comply with details shown.
- C. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.
- D. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.
- E. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations that apply to design, dimensions, metal, and other characteristics of item indicated.
  1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
  2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
  3. Seams for other than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
  4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with manufacturer's recommendations.
  5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not permitted on faces of accessories exposed to view.

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6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.
  - a. Size: As recommended by metal panel manufacturer for application, but not less than thickness of metal being secured.

## 2.12 FINISHES

- A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- C. Steel Panels and Accessories:
  1. Two-Coat Fluoropolymer: Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  2. Concealed Finish: Apply pretreatment and manufacturer's standard white or light-colored acrylic or polyester backer finish consisting of prime coat and wash coat with a minimum total dry film thickness of 0.2 mil thickness applied to both sides of the previously prepared bare metal prior to the finish coat application. This is standard Sherwin williams (paint company) verbiage for kynar.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the 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.

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a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages in accordance with ASTM C754 and metal panel manufacturer's written installation instructions.

### 3.8 INSTALLATION OF STANDING-SEAM METAL ROOF PANELS

A. Install metal panels in accordance with manufacturer's written installation instructions and approved Shop Drawings in orientation, sizes, and locations indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Panels: Use stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.

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~~2. Aluminum Panels: Use aluminum or stainless steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized steel fasteners for surfaces exposed to the interior.~~

~~3. Copper Panels: Use copper, stainless steel, or hardware-bronze fasteners.~~

~~4. Stainless Steel Panels: Use stainless steel fasteners.~~

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

D. Concealed Clip, Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.

1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates at locations indicated in manufacturer's written installation instructions.

~~E. Clipless, Standing-Seam Metal Roof Panel Installation: Fasten metal panels to supports with screw fasteners at each lapped joint at location and spacing recommended by manufacturer.~~

F. Panel Joints: Fasten panel joints to substrate in accordance with manufacturer's instructions.

1. Seamed Joint: Crimp standing seams with manufacturer-approved, motorized seamer tool so clip, metal roof panel, and factory-applied sealant are completely engaged.
2. Watertight Installation:
  - a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as recommended in writing by manufacturer as needed to make panels watertight.
  - b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
  - c. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

G. Accessory Installation: 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 metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.

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H. Flashing and Trim: Comply with performance requirements and manufacturer's written installation instructions. 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.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 ft. with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

I. Gutters: Join sections with riveted and soldered or lapped and sealed joints. Attach gutters to eave with gutter hangers spaced not more than 36 inches o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

J. Downspouts: Join sections with telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch away from walls; locate fasteners at top and bottom and at approximately 60 inches o.c. in between.

1. Provide elbows at base of downspouts to direct water away from building.
2. Connect downspouts to underground drainage system indicated.

K. Roof Curbs: Install flashing around bases where they meet metal roof panels.

L. Pipe and Conduit Penetrations: Fasten and seal to metal roof panels as recommended by manufacturer.

### 3.9 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4 inch in 20 ft. on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

### 3.10 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect metal roof panel installation, including accessories. Report results in writing.

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- B. Remove and replace applications of metal roof panels where tests and inspections indicate that they do not comply with specified requirements.
- C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.
- D. Prepare test and inspection reports.

3.11 CLEANING AND PROTECTION

- A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.
- B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

**END OF DOCUMENT 074113.16**

**DOCUMENT 075323 EPDM THERMOSET SINGLE PLY ROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Adhered roof system with ethylene propylene diene monomer (EPDM) roofing membrane.
- B. Insulation, flat and tapered.

1.02 RELATED REQUIREMENTS

- A. Section 070150.19 - Preparation for Re-Roofing

1.03 REFERENCE STANDARDS

- A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.
- B. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.
- C. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015, with Editorial Revision (2022).
- D. FM DS 1-28 - Wind Design; 2015, with Editorial Revision (2022).

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.
  - 1. Review preparation and installation procedures and coordinating and scheduling required with related work.

1.05 SUBMITTALS

- A. See Section 013000 - Administrative Requirements for submittal procedures.
- B. Manufacturer's Letter: Certify that products meet or exceed specified requirements.
- C. Warranty:
  - 1. Submit sample manufacturer warranty complying with special warranty requirements of Paragraph 1.08.

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2. Submit installer's certification that installation complies with all warranty conditions for the waterproof membrane.

1.06 QUALITY ASSURANCE

- A. Installer Qualifications: Installer Qualifications: Company specializing in performing work of the type specified and licensed by the roof system manufacturer to install manufacturer's product and has been eligible to receive manufacturer's special warranty for a minimum of three years.
  1. All contractors performing any portion of the re-roofing work shall have an active Class A Contractor's License issued by the State of Virginia.
  2. Approved by membrane manufacturer.
- B. Engage in an experienced installer that has specialized in installing EPDM systems similar to those required for this Project. Installer shall have installed a minimum of 100,000 square feet of warranted EPDM projects within the last three years of bid date with the company issuing the warranty for this project. Projects must have been completed in the state of Virginia.
- C. At all times a foreman, certified by the company warranting the EPDM system, shall be present on site.
- D. Preconstruction Testing:
  1. Owner will provide report of moisture survey.
- E. All work should be performed in accordance with 2018 Virginia Construction Code and 2018 Virginia Existing Building Code.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.
- B. Protect products in weather protected environment, clear of ground and moisture.
- C. Protect foam insulation from direct exposure to sunlight.
- D. Keep Safety Data Sheets (SDS) at the project site at all times during transportation, storage, and installation of materials.
- E. Comply with requirements from Owner to prevent overloading or disturbance of the structure when loading materials onto the roof.



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1.08 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather. Refer to manufacturer's written instructions.
- B. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- C. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- D. Proceed with work so new roofing materials are not subject to construction traffic as work progresses.
- E. Do not allow grease, oil, fats, or other contaminants to come into direct contact with membrane.

1.09 WARRANTY

- A. At project closeout, provide to Owner or Owners Representative an executed copy of the manufacturer's Total-System warranty, outlining its terms, conditions, and exclusions from coverage.
  - 1. Special Warranty: Manufacturer's total system, non-prorated, without monetary limitation, in which manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within the specified warranty period.
  - 2. Provide manufacturer's 20 Year Total System Warranty including membrane roofing, new insulation, edge metal, flashings, new retrofit drains, and other components of the roof assembly.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering Work of this Section, including all components of roofing system such as membrane roofing, base flashing, roof insulation, fasteners, and walkway products, for the following warranty period:
  - 1. Warranty Period: Two years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Approved manufacturers
  - 1. Carlisle SynTec
  - 2. Versico
  - 3. Firestone

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4. Or Owner approved equal before Bid Date

## 2.02 ROOFING APPLICATIONS

- A. EPDM Membrane Roofing: One ply membrane, fully adhered, over insulation.
- B. Roofing Assembly Performance Requirements and Design Criteria:
  1. Wind Uplift:
    - a. Designed to withstand wind uplift forces calculated with ASCE 7.
    - b. Design Wind Speed: In accordance with local building code and authorities having jurisdiction (AHJ).

## 2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Single Source Responsibility: Provide and install products from single source.
- B. Membrane:
  1. Thickness: 115 mil, (60 mil EPDM membrane + 115 mils fleece)
  2. Sheet Width: Factory fabricated into largest sheets possible.
  3. Color: Black.
- C. Seaming Materials: Factory Applied Tape
- D. Membrane Fasteners: As recommended and approved by membrane manufacturer.
  1. HP Polymer Seam Plate: 2-inch (51-mm) diameter, barbed plastic fastening plate.
  2. Seam Fastening Plate: 2-inch (51-mm) diameter metal plate.
- E. Flexible Flashing Material: Same material as membrane.
- F. Base Flashing: Provide waterproof, fully adhered base flashing system at all penetrations, plane transitions, and terminations.

## 2.04 INSULATION

- A. Polyisocyanurate (ISO) Board Insulation: ASTM C1289, Type II, Class 1 - Faced with glass fiber reinforced cellulosic felt facers on both major surfaces of the core foam; Grade 1.
  1. Compressive Strength: 20 psi (138 kPa).
  2. New replacement insulation should match existing thickness and slope.

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2.05 DRAINS

- A. Install new Retrofit Roof Drains at all existing drain locations.
  - 1. Product:
    - a. Hercules RetroDrain
    - b. Drains to be included in roof system manufacturer's warranty.
    - c. Match existing drain size.

2.06 ACCESSORIES

- A. Prefabricated Flashing Accessories:
  - 1. Corners and Seams: Same material as membrane, in manufacturer's standard thicknesses.
  - 2. Penetrations: Same material as membrane, with manufacturer's standard cut-outs, rigid inserts, clamping rings, and flanges.
  - 3. Sealant Pockets: Same material as membrane, with manufacturer's standard accessories, in manufacturer's standard configuration.
  - 4. Sure-Seal Pressure-Sensitive Reinforced Universal Securement Strip (RUSS):
- B. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
  - 1. Length as required for thickness of insulation material and penetration of deck substrate, minimum 3/4" penetration.
  - 2. Insulation Fastening Plate: 3-inch (76-mm) nominal diameter metal plate, for use with the appropriate fastener to attach insulation.
- C. Membrane Adhesive: Manufacturer's two component, extrusion or spray applied, low-rise adhesive.
- D. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- E. Sealants: As recommended by membrane manufacturer.
- F. Cleaner: Manufacturer's standard, clear, solvent-based cleaner.
- G. Primer: Manufacturer's recommended product.

2.07 GRAVEL STOP FASCIA

- A. Products:
  - 1. Carlisle SynTec Systems; SecurEdge 2000 Extended Fascia
  - 2. Versico; VersiTrim 2000 Extended Fascia

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3. Firestone; Elevate AnchorGard Extended Fascia

B. Description:

1. Fascia with extruded aluminum anchor bar for single-ply roofing
2. Face Size: Match existing.
3. Color: To be selected by owner from manufacturer's full range of standard non-metallic colors.
4. Approvals:
  - a. ANSI/SPRI/FM 4435/ES-1 up to 139 psf Horizontal.
  - b. FM Approved up to 1-135 Perimeter and 1-105 Corner.
5. Extruded Anchor Bar:
  - a. Material: Aluminum.
  - b. Thickness: Varies based on face height.
  - c. Extruded Lengths: 12'-0".
  - d. Fastener Holes: Pre-Punched.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.
- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.02 PREPARATION, GENERAL

- A. Clean substrate thoroughly prior to roof application.
- B. Do not begin work until other work that requires foot or equipment traffic on roof is complete.
- C. Refer to Section 070150.19, "Preparation for Re-Roofing"

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3.03 INSTALLATION - GENERAL

- A. Perform work in accordance with manufacturer's instructions.
- B. Do not apply roofing membrane during unsuitable weather.
- C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
- D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

3.04 RETROFIT DRAIN INSTALLATION

- A. Remove all existing flashings and roofing materials from the existing roof drains in preparation for membrane and water block seal.
- B. Remove clamping ring, strainer dome, and bolts from existing roof drain assembly and discard.
- C. Clean existing drain leader pipe of bitumen, dirt, and debris.
- D. Install retrofit roof drains in accordance with manufacturer's instructions at locations indicated on the Drawings.
- E. Install retrofit roof drains into existing drain leaders in accordance with manufacturer's instructions.
- F. Install flashing in accordance with membrane roofing manufacturer's instructions.
- G. Install retrofit roof drains to provide watertight connection to existing plumbing and membrane roofing systems.

3.05 INSULATION APPLICATION

- A. Attachment of new polyiso insulation:
  - 1. Mechanically fasten through top layer of insulation into the deck in accordance with roofing manufacturer's instructions.
- B. Do not install wet, damaged, or warped insulation boards.

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- C. Lay boards with edges in moderate contact without forcing, and gap between boards no greater than 1/4 inch (6.4 mm). Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- D. Do not apply more insulation than can be completely waterproofed in the same day.

3.06 MEMBRANE APPLICATION

- A. Secure the existing EPDM with HP or HP-X Fasteners and 2" diameter Seam Plates at 12" O.C. at all deck to wall junctions, angle changes greater than 2:12 and around curbs/skylights. Fasten directly through EPDM Fleeceback membrane and existing single-ply roof to the.
- B. Unroll and position membrane without stretching. Allow the membrane to relax for approximately 1/2 hour before bonding.
- C. Fleeceback EPDM Membrane shall be adhered to an aged existing single-ply roof membrane or approved insulation with a two component, extrusion or spray applied, low-rise adhesive.
- D. Position and unroll successive sheets and align to provide the minimum 3" or 6" wide splice. At end laps (along the width of the sheet), membrane shall be butted together.
- E. Fold adjacent sheets in half lengthwise (end to end) to expose approximately 10' wide (width of the sheet) by half the length of the sheet substrate area.
- F. Fold selvage sheet edges (along the length of the sheets), if pre-applied tape is not present, under the membrane to prevent overspray onto the splice area.
- G. Membrane which has the adjacent sheet spliced over it should be adhered to the substrate first. This will prevent the selvage edge splice area from being contaminated by setting splice edge into urethane adhesive.
- H. Apply two component, extrusion or spray applied, low-rise adhesive onto the substrate and allow to rise approximately 1/8" to 3/4" and develop strings when touched with an HP Splice Wipe. Roll the membrane with a 30" wide, 150 lb weighted segmented steel roller, to set the membrane into the adhesive. For non-Dual Tank extruded applications with a minimum 1/2" wide, wet bead. For Dual Tank extruded applications apply adhesive with a minimum of 1.5" wide, wet bead.
- I. Apply beads at 6" O.C. for field and perimeter or in "splatter" application as allowed by the manufacturer.

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J. Apply two component, extrusion or spray applied, low-rise adhesive to the substrate and continue the process described above until all sheets are fully adhered, allowing for the necessary splice overlaps at selvage edges. At end laps (along the width of the sheet), membrane shall be butted together and overlay with 6" wide Pressure-Sensitive Cured Cover Strip or Pressure-Sensitive Overlayment Strip.

K. Tape splices must be a minimum of 2-1/2" wide using 3" wide seam tape extending 1/8" minimum to 1/2" maximum beyond the splice edge. (Factory-Applied Tape is also available.) Field splices at roof drains must be located outside the drain sump.

L. Position membrane sheet to allow for required splice overlap. Mark the bottom sheets with an indelible marker approximately 1/4" to 1/2" from the top sheet edge. The pre-marked line on the membrane edge can also be used as a guide for positioning splice tape.

M. Fold the top sheet back and clean the dry splice area (minimum 3" wide) of both membrane sheets by scrubbing with clean natural fiber rags saturated with Sure-Seal Primer. When using Sure-Seal (black) PRE-KLEENED membrane, cleaning the splice area is not required unless contaminated with field dirt or other residue.

### 3.07 FIELD QUALITY CONTROL

A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.

1. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.

B. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements. Require site attendance of roofing and insulation material manufacturers daily during installation of this work.

### 3.08 CLEANING

A. See Section 017000 - Execution and Closeout Requirements for additional requirements.

B. See Section 070150.19 for existing membrane cleaning requirements.

C. Remove wrappings, empty containers, paper, and other debris from the roof daily. Dispose of debris in compliance with local, State, and Federal regulations.

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D. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.

E. Repair or replace defaced or damaged finishes caused by work of this section.

3.09 PROTECTION

A. Protect installed roofing and flashings from construction operations.

B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

**END OF DOCUMENT 075323**