



## **Heritage Elementary Re-Roof Project**

**Ogden School District  
1950 Monroe Blvd  
Ogden UT, 84401**

**RFP 22-009**

**Project Date: May 30<sup>th</sup>- August 12th 2022  
Bid Due: March 15<sup>th</sup>, 2022 2:00PM**

### **Project:**

**Heritage Elementary School  
373 South 150 West  
Ogden UT, 84404**

HERITAGE ELEMENTARY  
RE-ROOF PROJECT

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## NOTICE TO BIDDERS

Electronic bids will be received by the Board of Education of the Ogden School District, for the Heritage Elementary Re-Roof Project. Bids will be in accordance with these specifications.

A Pre-bid walk through will be held Friday March 11<sup>th</sup> at 373 South 150 West, Ogden Utah at 1:00pm. Attendance at the bid walk is **mandatory** to qualify contractors to bid this project.

The Office of the Director of Support Services will receive electronic bids until the hour of 2:00pm March 15<sup>th</sup> 2022. **Bids must be submitted on Sciqwest.com.**

A bid bond of the amount of (5%) of the bid, made payable to the Board of Education of the Ogden School District, shall accompany bid. If a certified check is used in lieu of the bid bond, a certificate from an approved surety company guaranteeing execution of 100% Performance Bond and 100% Payment Bond must accompany bid.

The Ogden School District Board of Education reserves the right to accept or reject any or all bids or to waive any informality or technicality in any bid in the interest of the District.

**If bidders have questions or need to seek clarification during this bidding process, then questions must be received in writing through Sciqwest.com by no later than March 14<sup>th</sup> at 12:00pm.**

BOARD OF EDUCATION OF THE OGDEN SCHOOL DISTRICT  
KEN CRAWFORD, DIRECTOR OF SUPPORT SERVICES

## **STANDARD CONTRACT TERMS AND CONDITIONS**

1. **AUTHORITY:** Provisions of this contract are pursuant to the authority set forth in Utah Code §§ 63G - 6a Utah Procurement Code; as amended, Utah Administrative Code R33.

Administrative Services, Purchasing and General Services; and/or Ogden School District's Purchasing and Procurement Policy; and related statutes which govern DISTRICT'S purchase of goods and services.

2. **CONTRACT JURISDICTION, CHOICE OF LAW, & VENUE:** Provisions of this contract shall be governed by the laws of the State of Utah. The parties will submit to the jurisdiction of the courts of the State of Utah for any dispute arising out of this contract or breach thereof. Venue shall be in Ogden City, in the Judicial Court for Weber County.

3. **LAWS AND REGULATIONS:** CONTRACTOR and any and all supplies, services and equipment furnished under this contract will comply fully with all applicable Federal and State laws and regulations, including licensure and certification requirements.

4. **RECORDS ADMINISTRATION:** CONTRACTOR shall maintain, or supervise the maintenance of all records necessary to properly account for payments made to CONTRACTOR for costs authorized by this contract. These records shall be retained by CONTRACTOR for at least four years after the contract terminates, or until all audits initiated within the four years, have been completed, whichever is later. CONTRACTOR agrees to allow DISTRICT, State, and Federal auditors and DISTRICT staff, access to all records to this contract for audit, inspection, and monitoring of services. Such access will be during normal business hours, or by appointment.

5. **CERTIFY REGISTRATION AND USE OF EMPLOYMENT "STATUS VERIFICATION SYSTEM":** The Status Verification System, also referred to as "E- Verify", only applies to contracts issued through a Request for Proposal process, and to sole sources that are included within a Request for Proposal. It does not apply to Invitation for Bids or to the Multiple Stage Bid.

### **5.1 Status Verification System**

1. Each offeror and each person signing on behalf of any offeror certifies as to its own entity, under penalty of perjury, that the named CONTRACTOR has registered and is participating in the Status Verification System to verify the work eligibility status of the CONTRACTOR 'S new employees that are employed in the State of Utah in accordance with applicable immigration laws including UCA § 63G-12-302.

2. CONTRACTOR shall require that the following provision be placed in each subcontract at every tier: "The subcontractor shall certify to the main (prime or general) contractor by affidavit that the subcontractor has verified through the Status Verification System the employment status of each new employee of the respective subcontractor, all in accordance with applicable immigration laws including UCA § 63G -12- 302 and to comply with all applicable employee status verification laws. Such affidavit must be provided prior to the notice to proceed for the subcontractor to perform the work."

3. DISTRICT will not consider a proposal for award, nor make any award where there has not been compliance with this section.

4. Manually or electronically signing the Proposal is deemed CONTRACTOR' S certification of compliance with all provisions of this employment status verification certification required by all applicable status verification laws including UCA § 63G-12-302.

## **5.2 Indemnity Clause for Status Verification System**

1. CONTRACTOR (includes, but is not limited to any Contractor, Design Professional, Designer or Consultant) shall protect, indemnify and hold harmless, DISTRICT and its officers, employees, agents, representatives and anyone the DISTRICT may be liable to, against any claim, damages or liability arising out of or resulting from violations of Section 5 of this Contract whether violated by employees, agents, or contractors of the following: (a) CONTRACTOR; (b) Subcontractor at any tier; and/or (c) any entity or person for whom the CONTRACTOR or Subcontractor may be liable.

2. Notwithstanding Section 5.2.1. above, Design Professionals or Designers under direct contract with DISTRICT shall only be required to indemnify DISTRICT for a liability claim that arises out of the Design Professional's services, unless the liability claim arises from the Design Professional's negligent act, wrongful act, error or omission, or other liability imposed by law except that the Design Professional shall be required to indemnify the DISTRICT in regard to subcontractors or sub consultants at any tier that are under the direct or indirect control or responsibility of the Design Professional, and includes all independent contractors, agents, employees or anyone else for whom the Design Professional may be liable at any tier.

**6. CONFLICT OF INTEREST:** CONTRACTOR represents that none of its officers or employees are officers or employees of the DISTRICT, unless disclosure has been made in accordance with U.C.A. § 67 -16 -8.

**7. CONTRACTOR, AN INDEPENDENT CONTRACTOR:** CONTRACTOR shall be an independent contractor, and as such, shall have no authorization, express or implied, to bind DISTRICT to any agreements, settlements, liability or understanding whatsoever, and agrees not to perform any acts as agent for DISTRICT, except as herein expressly set forth. Compensation stated herein shall be the total amount payable to CONTRACTOR by DISTRICT. CONTRACTOR shall be responsible for the payment of all income tax and social security amounts due as a result of payments received from DISTRICT for these contract services. Persons employed by DISTRICT and acting under the direction of DISTRICT shall not be deemed to be employees or agents of CONTRACTOR.

**8. INDEMNITY CLAUSE:** CONTRACTOR agrees to indemnify, save harmless, and release DISTRICT, and all its officers, agents, volunteers, and employees from and against any and all loss, damages, injury, liability, suits, and proceedings arising out of the performance of this contract which are caused in whole or in part by the acts or negligence of CONTRACTOR 'S officers, agents, volunteers, or employees, but not for claims arising from DISTRICT 'S sole

negligence. The parties agree that if there are any Limitations of CONTRACTOR'S Liability, including a limitation of liability for anyone for whom CONTRACTOR is responsible, such Limitations of Liability will not apply to injuries to persons, including death, or to damages to property.

**9. EMPLOYMENT PRACTICES CLAUSE:** CONTRACTOR agrees to abide by the provisions of Title VI and VII of the Civil Rights Act of 1964 (42USC 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; and further agrees to abide by Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; 45 CFR 90 which prohibits discrimination on the basis of age; and Section 504 of the Rehabilitation Act of 1973, or the Americans with Disabilities Act of 1990 which prohibits discrimination on the basis of disabilities. Also, CONTRACTOR agrees to abide by Utah's Executive Order, dated December 13, 2006, which prohibits sexual harassment in the work place.

**10. SEPARABILITY CLAUSE:** A declaration by any court, or any other binding legal source, that any provision of this contract is illegal and void shall not affect the legality and enforceability of any other provision of this contract, unless the provisions are mutually dependent.

**11. RENEGOTIATION OR MODIFICATIONS:** This contract may be amended, modified, or supplemented only by written amendment to the contract, executed by authorized parties hereto, and attached to the original signed copy of the contract. Automatic renewals will not apply to this contract.

**12. DEBARMENT:** CONTRACTOR certifies that neither it nor its principals are presently nor have ever been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction (contract), by any governmental department or agency. If CONTRACTOR cannot certify this statement, attach a written explanation for review by the DISTRICT. CONTRACTOR must notify the District Director of Purchasing within 30 days if debarred by any governmental entity during the contract period.

**13. TERMINATION:** Unless otherwise stated in the Special Terms and Conditions, this contract may be terminated, for cause by either party, in advance of the specified termination date, upon written notice being given the other party. The party in violation will be given ten (10) working days after notification to correct and cease the violations, after which the contract may be terminated for cause. This contract may be terminated without cause, in advance of the specified expiration date, by either party, upon sixty (60) days prior written notice being given the other party. On termination of this contract, all accounts and payments will be processed according to the financial arrangements set forth herein for approved services rendered to date of termination.

**14. NON -APPROPRIATION OF FUNDS:** CONTRACTOR acknowledges that DISTRICT cannot contract for the payment of funds not yet appropriated by the Utah State Legislature, Utah State Board of Education or District Board of Education (BOARD). If the DISTRICT becomes subjected to a legislative change, revocation of statutory authority, lack of appropriated funds or

availability of funds which would render CONTRACTOR'S delivery or performance under the contract impossible, or unnecessary, this contract will be terminated, either in whole or in part. If funding to DISTRICT is reduced due to an order by the Legislature or Governor, or is required by State law, or if federal funding (when applicable) is not provided, or requires any return or "give-back" of funds required for DISTRICT to continue payments, or if the BOARD mandates any cuts or holdbacks in spending, DISTRICT may terminate this contract or proportionately reduce the services and purchases of obligations and the amount due from DISTRICT upon 30 days written notice. Where funding is controlled entirely by DISTRICT, before discontinuing funding, DISTRICT, at its discretion, will make efforts to; a) identify other goods/services that perform substantially the same functions; b) identify if any funding is available through a reallocation or reprogramming of other appropriated or non -appropriated funds, and c) make its best efforts to request and secure such funds from the appropriate entities (collectively, a "Non-Appropriation"). If a Non -Appropriation occurs, DISTRICT shall remit all amounts due to CONTRACTOR through the date of termination. DISTRICT shall not be in default under this contract for nonpayment and will not be liable for any future commitments, penalties, or liquidated damages.

**15. SALES TAX EXEMPTION:** DISTRICT's sales and use tax exemption number is 12057251 -002 -STC. The tangible personal property or services being purchased are being paid from DISTRICT funds and used in the exercise of that entity's essential functions. If the items being purchased are construction materials, they will be converted into real property by employees of DISTRICT, unless otherwise stated in the contract.

**16. WARRANTY (This paragraph is NOT applicable to architect, engineering, and construction service providers):** CONTRACTOR agrees to warrant and assume responsibility for all products (including hardware, firmware, and/or software products) that it licenses, contracts, or sells to DISTRICT under this contract for a period of one (1) year, unless otherwise specified and mutually agreed upon elsewhere in this contract. CONTRACTOR acknowledges that all warranties granted to the buyer by the Uniform Commercial Code of the State of Utah apply to this contract. Product liability disclaimers and/or warranty disclaimers from the seller are not applicable to this contract unless otherwise specified and mutually agreed upon elsewhere in this contract. In general, CONTRACTOR warrants that: 1) the product will do what the salesperson said it would do, 2) the product will live up to all specific claims that the manufacturer makes in their advertisements, 3) the product will be suitable for the ordinary purposes for which such product is used, 4) the product will be suitable for any special purposes that DISTRICT has relied on CONTRACTOR'S skill or judgment to consider when it advised DISTRICT about the product, 5) the product has been properly designed and manufactured, and 6) the product is free of significant defects or unusual problems about which DISTRICT has not been warned. Remedies available to DISTRICT include the following: CONTRACTOR will repair or replace (at no charge to DISTRICT) the product whose nonconformance is discovered and made known to CONTRACTOR in writing. If the repair and/or replaced product prove to be inadequate, or fails of its essential purpose, CONTRACTOR will refund the full amount of any payments that have been made. Nothing in this warranty will be construed to limit any rights or remedies DISTRICT may otherwise have under this contract.

17. **INSURANCE:** CONTRACTOR must carry insurance with policy limits no less than \$1,000,000 per incident and \$3,000,000 in aggregate. CONTRACTOR must provide proof of insurance to DISTRICT and must add DISTRICT as an additional insured with notice of cancellation.

18. **PUBLIC INFORMATION:** CONTRACTOR agrees that the contract and related Sales Orders and Invoices will be public documents, and may be available for distribution. CONTRACTOR gives DISTRICT express permission to make copies of the contract, related Sales Orders and Invoices in accordance with the State of Utah Government Records Access and Management Act (GRAMA). Except as for sections identified in writing and expressly approved by DISTRICT'S Purchasing department, CONTRACTOR also agrees that CONTRACTOR'S response to the solicitation will be a public document, and copies may be given to the public under GRAMA laws. Permission to make copies as noted will take precedence over any statements of confidentiality, proprietary information, copyright information, or similar notation.

19. **DELIVERY:** Unless otherwise specified in this contract, all deliveries will be F.O.B. destination with all transportation and handling charges paid by CONTRACTOR. Responsibility and liability for loss or damage will remain with CONTRACTOR until final inspection and acceptance when responsibility will pass to DISTRICT except as to latent defects, fraud and CONTRACTOR'S warranty obligations.

20. **ORDERING AND INVOICING:** All orders will be shipped promptly in accordance with the delivery schedule. CONTRACTOR will promptly submit invoices (within 30 days of shipment or delivery of services) to DISTRICT. DISTRICT contract number and/or release number shall be listed on all invoices, freight tickets, and correspondence relating to the contract order. Prices paid by DISTRICT will be those prices listed in the contract. DISTRICT has the right to adjust or return any invoice reflecting incorrect pricing or upon which DISTRICT contract number and/or release number is not listed.

21. **PROMPT PAYMENT DISCOUNT:** Offeror may quote a prompt payment discount based upon early payment; however, discounts offered for less than 30 days will not be considered in making the award. CONTRACTOR shall list payment discount terms on invoices. The prompt payment discount will apply to payments made with DISTRICT Purchasing or Travel Card (major credit card); and checks. The date from which discount time is calculated will be the date a correct invoice is received or receipt of shipment, whichever is later; except that if testing is performed, the date will be the date of acceptance of the merchandise.

22. **PAYMENT:** Payments are normally made within 30 days following the date the order is delivered or the date a correct invoice is received, whichever is later. After 60 days from the date a corrected invoice is received by the appropriate DISTRICT official, CONTRACTOR may assess interest on overdue, undisputed account charges up to a maximum of the interest rate paid by the IRS on taxpayer refund claims, plus 2%, computed similarly as the requirements of U.C.A. § 15-6-3. The IRS rate is adjusted quarterly, and is applied on a per annual basis, on the invoice amount that is overdue. All payments to CONTRACTOR will be remitted by mail, electronic funds transfer, or DISTRICT Purchasing Card (major credit card).



**23. PATENTS, COPYRIGHTS, ETC.:** CONTRACTOR will release, indemnify and hold DISTRICT, its officers, agents and employees harmless from liability of any kind or nature, including CONTRACTOR 's use of any copyrighted or un -copyrighted composition, secret process, patented or un -patented invention or appliance furnished or used in the performance of this contract.

**24. ASSIGNMENT/SUBCONTRACT:** Contractor will not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this contract, in whole or in part, without the prior written approval of DISTRICT.

**25. DEFAULT AND REMEDIES:** Any of the following events will constitute cause for DISTRICT to declare CONTRACTOR in default of this contract: 1) nonperformance of contractual requirements; 2) material breach of any term or condition of this contract. DISTRICT will issue a written notice of default providing a ten (10) day period in which CONTRACTOR will have an opportunity to cure. Time allowed for cure will not diminish or eliminate CONTRACTOR's liability for damages. If the default remains, after CONTRACTOR has been provided the opportunity to cure, DISTRICT may do one or more of the following: 1) exercise any remedy provided by law; 2) terminate this contract and any related contracts or portions thereof; 3) impose liquidated damages, if liquidated damages are listed in the contract; 4) suspend CONTRACTOR from receiving future solicitations.

**26. FORCE MAJEURE:** Neither party to this contract will be held responsible for delay or default caused by fire, riot, acts of God and/or war which is beyond that party's reasonable control. DISTRICT may terminate this contract after determining such delay or default will reasonably prevent successful performance of the contract.

**27. PROCUREMENT ETHICS:** CONTRACTOR understands that a person who is interested in any way in the sale of any supplies, services, construction, or insurance to the DISTRICT is violating the law if the person gives or offers to give any compensation, gratuity, contribution, loan or reward, or any promise thereof to any person acting as a procurement officer on behalf of the DISTRICT, or who in any official capacity participates in the procurement of such supplies, services, construction, or insurance, whether it is given for their own use or for the use or benefit of any other person or organization. (U.C.A. § 63G-6a-2304.5).

**28. CONFLICT OF TERMS:** CONTRACTOR Terms and Conditions that apply must be in writing and attached to the contract. No other Terms and Conditions will apply to this contract including terms listed or referenced on CONTRACTOR 'S website, terms listed in a CONTRACTOR quotation/sales order, etc. In the event of any conflict in the contract Terms and Conditions, the order of precedence shall be: 1) Attachment A: District Standard Contract Terms and Conditions; 2) District Contract Signature page(s), 3) District Special Terms and Conditions; 4) Contractor Terms and Conditions.

**29. ENTIRE AGREEMENT:** This agreement, including all Attachments and documents incorporated hereunder, and the related DISTRICT solicitation constitutes the entire agreement between the parties with respect to the subject matter, and supersedes any and all other prior and contemporaneous agreements and understandings between the parties, whether oral or written.

The terms of this Agreement shall supersede any additional or conflicting terms or provisions that may be set forth or printed on CONTRACTOR 'S work plans, cost estimate forms, receiving tickets, or any other related standard forms or documents that may subsequently be used to implement, record, or invoice services hereunder from time to time, even if such standard forms or documents have been signed or initialed by a representative of DISTRICT. The parties agree that the terms of this Agreement shall prevail in any dispute between the terms of this Agreement and the terms printed on any such standard forms or documents, and such standard forms or documents shall not be considered written amendments of this Agreement.

Revision date: November 6, 2017

**00 0000 - PROCUREMENT AND CONTRACTING REQUIREMENTS**

- 00 2113 Instructions to Bidders
- 00 4113 Bid Form
- 00 5213 Agreement Between Owner & Contractor
- 00 6113 Performance and Labor and Materials Payment Bonds
- 00 6133 Bid Bond
- 00 7213 General Conditions
- 00 7313 Supplementary Conditions
- 00 7319 Miscellaneous Forms by Reference

## GENERAL REQUIREMENTS

### SECTION 00 2113 – INSTRUCTIONS TO BIDDERS

#### 1. DEFINITIONS

- A. The definitions set forth in Section 1 of the General Conditions are applicable to the documents included under Bidding Requirements.
- B. Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The proposed Contract Documents consist of the documents identified as Contract Documents in the Form of Agreement, except for Modifications. The Bidding Requirements are those documents identified as such in the proposed project Manual.
- C. Addenda are written or graphic documents issued by the Architect prior to execution of the Contract which modify or interpret the bidding documents. They become part of the Contract Documents as noted in the Form of Agreement upon execution of the Contract.

#### 2. BIDDER'S REPRESENTATIONS:

- A. By submitting a bid, the bidder represents that
  - 1. Bidder has carefully studied and compared the Bidding Documents with each other. Bidder understands the Bidding Documents and the bid is fully in accordance with the requirements of those documents,
  - 2. Bidder has thoroughly examined the site and any building located thereon, has become familiar with local conditions which might directly or indirectly affect the contract work, and has correlated its personal observations with the requirements of the proposed Contract Documents, and
  - 3. Bid is based on the materials, equipment, and systems required by the bidding Documents without exception.

#### 3. BIDDING DOCUMENTS:

- A. Copies –
  - 1. Bidding Documents in digital format shall be obtained from Scquest.
  - 2. Bidding Documents will not be issued by Architect.
  - 3. Bidders shall use complete sets of bidding documents in preparing bids and make certain that those submitting sub-bids to them have access to all portions of the documents that pertain to the work covered by sub-bid, including General conditions, Supplementary Conditions, and Division 01. Bidder assumes full responsibility for errors or misinterpretations resulting from use of partial sets of Bidding Documents by itself or any sub-bidder.
- B. Interpretation or Correction of Bidding Documents –
  - 1. If any bidder, in his study of the bidding documents as described in Article 2 above, is in doubt as to the true meaning of any part of the proposed Contract Documents or finds errors, discrepancies, or omissions in them, he shall at once request interpretation or correction of those errors, discrepancies, and omissions by the Architect.

2. Request for such clarification shall be in writing and be received by Architect three working days minimum before scheduled bid opening. Architect will promptly correct or interpret the portion of the proposed Contract Documents in question by issuing an Addendum or Clarification Notice to all bidders. Corrections or interpretations made in any way other than by an Addendum or Clarification Notice have no validity and shall not be relied upon.
3. If errors, discrepancies, or omissions are discovered in the proposed Contract Documents less than three working days before bid opening, bidders shall prepare bids based on order of precedence given in General Conditions Article 3.1, Paragraph B, Sub-Paragraphs 1 through 6.

C. Substitutions & Equal Products –

1. Generally speaking, substitutions for specified products and systems, as defined in the Uniform Commercial Code, are not acceptable. However, equal products may be approved upon compliance with Contract Document requirements.
2. The terms “Acceptable Manufacturers”, “approved Manufacturers/Suppliers/Installers”, are used throughout the Project Manual to differentiate among the options available to Contractor regarding specified products, manufacturers, and suppliers.
3. Base bid only on materials, equipment, systems, and suppliers specified in Project Manual unless
  - a. Specified Material, equipment, or system is listed under the heading “acceptable Manufacturers”, and
  - b. Request for use of equal product is submitted on a properly completed Equal Product Approval Request Form for Architect’s approval seven days minimum prior to bid opening, and
  - c. Approval for use of such equal product is secured by Addendum issued prior to the scheduled bid opening time.
4. Architect is only authorized to consider requests for approval of equal products to replace specified products in Sections where the heading “Acceptable Manufacturers” is used and statement, “but not limited to the following” appears. In Sections where the aforementioned statements do not appear and a different heading is used, Architect is authorized as Owner’s representative to decline consideration of requests for approval of equal products. Approvals of equal products in such Sections must be made by Owner and will generally be for subsequent Projects.
5. No approvals of equal products to replace specified material, equipment, systems, or manufacturers will be considered after 7 days prior to opening of bids.

- D. Addenda – Addenda will be sent to bidders and to locations where bidding Documents are on file by U.S. Mail no later than 7 days prior to bid opening or by fax no later than 48 hours prior to bid opening. No Addenda will be issued less than 48 hours prior to bid opening.

4. BIDDING PROCEDURES

A Style of Bids –

1. Bids shall be prepared on Owner’s Bid Forms which may be obtained from Sciquest.

2. Fill in all blanks on bid Form by typewriter or by printing manually in ink. Signatures shall be in longhand and executed by representative of bidder duly authorized to make contracts.
3. Bids shall bear no information other than that requested on bid form. Bid form shall bear no other marks, erasures, writing, changes, or interlineations.

B. Bid Security

1. Each bid shall be accompanied by a 5% bid bond naming Owner, as listed in the Agreement, as obligee. If Bidder refused to enter into a Contract or fails to provide bonds and insurance required by the General Conditions, amount of bid security shall be forfeited to Owner as liquidated damages, not as a penalty.
2. Bid bond shall be issued by a surety company meeting requirements of Section 11 of General Conditions for surety companies providing bonds and shall be submitted on AIA Document A310, bid Bond or AIA authorized equivalent provided by Surety Company. The attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.
3. Owner may retain bid security of bidders to whom an award is being considered until –
  - a. Contract has been executed and bonds have been furnished,
  - b. Specified time has elapsed so bids may be withdrawn, or
  - c. All bids have been rejected.

C. Submission of Bids –

1. **Submit bids in Sciquest only as required with RFP number on Document no later than 2:00 pm. MST. March 15<sup>th</sup>, 2022**
2. It is bidder's sole responsibility to see that its bid is received at specified time. Bids received after specified bid opening time will be returned to bidders unopened.
3. No oral, facsimile transmitted, telegraphic, or telephonic bids, modifications, or cancellations will be considered.

D. Modification Or Withdrawal of Bid

1. Bidder guarantees there shall be no revisions or withdrawal of bid amount for 45 days after bid opening.
2. Prior to bid opening, bidders may withdraw bid by written request or by reclaiming bid envelope.

5. CONSIDERATION OF BIDS

A. Opening of bids – See Invitation to Bid.

B. Rejection of Bids – Owner reserves right to reject any or all bids and to waive any irregularity therein.

C. Acceptance of Bid –

1. No bidder shall consider itself under contract after opening and reading of bids until Agreement is signed, and compliance therewith has been made.
2. Bidder's past performance, organization, subcontractor selection, equipment, and ability to perform and complete its contract in manner and within time specified, together with amount of bid, will be elements considered in award of contract.

6. POST-BID INFORMATION

- A. Submittals – Conditionally accepted bidder, submitting bid involving subcontractors and suppliers, shall submit a list of such subcontractors and suppliers at the request of the Owner.

7. PERFORMANCE BOND & PAYMENT BOND:

- A. Bond Requirements – Performance Bond and Bid and Payment Bond will be required for this Project as specified in Section 11 of General Conditions.

8. FORM OF AGREEMENT BETWEEN OWNER & CONTRACTOR:

- A. Form To be used – Agreement form will be similar to Owner's sample Form of Agreement included in bidding requirements.

9. MISCELLANEOUS:

- A. Liquidated Damages – Conditions governing liquidated damages are specified in Section 8 of General Conditions and in the Supplementary Conditions.

END OF SECTION 00 2113

GENERAL REQUIREMENTS

SECTION 00 4113 – BID FORM – **RPF #22-009**

Bid Proposal For: **Ogden School District  
Heritage Elementary Re-Roof Project**

The Bidder, in compliance with your invitation for bids for this project, having examined the bidding and contract documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to provide the service and insurance in accordance with the Contract Documents, within the time set forth, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents.

TIME SCHEDULE:

Bidder agrees to complete the work within the time schedule as established by the Owner.

Basic Principles of the project schedule are as follows:

- A. Construction starts on or before May 30, 2022.
- B. Project completion shall be August 12, 2022.
- C. Each bidder agrees to accomplish their work within the overall schedule and in concert with other trades as directed by the Owner.
- D. If project is not fully completed within the time schedule established, the contractor will forfeit (\$0.00) per day for every calendar day beyond the day of substantial completion.

Bidder hereby agrees to commence work under this contract on or before May 30, 2022 and to substantially complete, along with punch list, on or before August 12, 2022. Bidder further agrees to pay as liquidated damages, the sum of \$0.00 for each consecutive calendar day after the established substantial completion dates or adjusted dates as established by change order as hereinafter provided in Subparagraph 9.11.1 of the Supplementary Conditions.

Bidder acknowledges receipt of **addenda No.** \_\_\_\_\_.

**PROJECT NAME:** \_\_\_\_\_.

**BASE BID - ROOF SYSTEM:** Bidder agrees to perform all of the base proposal work described in the specifications and shown on the plans for the sum of

\_\_\_\_\_ Dollars

(\$\_\_\_\_\_). (Amount shall be shown in both words and figures. In case of discrepancy, the amount show in words will govern.)

Product \_\_\_\_\_

**ALTERNATE BID FOR 80 MIL- ROOF MEMBRANE:** Bidder agrees to provide the 80 Mil single ply membrane if accepted by the district in place of the specified mil thickness for the sum of

\_\_\_\_\_ Dollars

(\$\_\_\_\_\_). (Amount shall be shown in both words and figures. In case of discrepancy, the amount show in words will govern.)



Product \_\_\_\_\_

The bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The bidder agrees that this bid shall remain valid for this bid selection and shall provide the District with quantity take off sheet with associated sq feet Material costs from the manufactures. The District is aware of the conditions of the roofing material costs and acquisition issues. Bidder will work with the School District to security final material costs and may not withdraw bid for a period of forty-five (45) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the Owner's Intent to Award the contract, the bidder shall execute, within fourteen (14) days, the attached formal contract and deliver to the Owner a Performance bond and Labor and Materials Payment bond in the amount of 100% of the bid amount by a surety company authorized to do business in the State of Utah, a Certificate of Insurance issued by a surety company authorized to do business in the State of Utah and accompanied by power of Attorney, a Contractor's Affidavit Concerning Taxes, and the Public Works Contract Report.

In the event the Contractual Documents stated above are not returned within ten (10) days, the attached Bid guarantee for five percent (5%) of the bid amount becomes the property of the Owner for use as liquidated damages for the delay and additional expense to the Owner caused thereby.

Enclosed is bid guarantee consisting of \_\_\_\_\_ in the amount of five percent (5%) of the bid amount.

Bidder understands that if he does not answer all the questions, and fill out all blank spaces provided for answering, the bid may be rejected as an incomplete bid.

The undersigned notifies that he/she is of this date duly licensed as a Contractor and licensed in the State of Utah.

Contractor's License No. \_\_\_\_\_  
And is domiciled in the State of \_\_\_\_\_

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2022.  
(date) (month)

Respectfully submitted,

\_\_\_\_\_  
Name of bidder (Company)

(Seal, if bid is a corporation)

\_\_\_\_\_  
Business Address

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Telephone Number

END OF SECTION 00 4113

## GENERAL REQUIREMENTS

### SECTION 00 5213 – AGREEMENT BETWEEN OWNER AND CONTRACTOR

AIA Document A101, 2017 Edition, Standard Form of Agreement Between Owner and Contractor, as edited by the district, will be used as the agreement for this project. Copies of AIA Document A101 are available for review at the offices of the Owner and Architect. Copies of the document may be purchased from the American Institute of Architects or its local distributors.

END OF SECTION 00 5213

## GENERAL REQUIREMENTS

### SECTION 00 6113 – PERFORMANCE AND LABOR AND MATERIALS PAYMENT BONDS

By reference, the printed document “Performance Bond and Labor and Material Payment Bond, AIA Document A311, Current Edition” shall be used in the amount of 100% of the Contract Amount.

## GENERAL REQUIREMENTS

### SECTION 00 6133 – BID BOND

By Reference.

By reference, the printed document “Bid Bond, AIA Document A310, Current Edition” shall be used to accompany the bid as specified hereinbefore. Copies may also be purchased from the American Institute of Architects or its local distributor.

Printed company forms, may be used in lieu of AIA Document.

Refer to Instructions to Bidders for description of Bid Bond requirements.

Attorneys-in-fact who sign Bid bonds shall be licensed in the State of Utah

END OF SECTION 00 6133

## GENERAL REQUIREMENTS

### SECTION 00 7213 – GENERAL CONDITIONS

By Reference.

By reference, the printed document “General Conditions of the Contract for Construction, AIA Document A201, 2017” is hereby included and shall be a part of the Contract Documents. Copies may be purchased from the American Institute of Architects or its local distributor.

END OF SECTION 00 7213

## GENERAL REQUIREMENTS

### Section 00 7313 – SUPPLEMENTARY CONDITIONS

The following supplements modify the “General Conditions of the Contract for Construction”, AIA Document A201, 2017. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General conditions shall remain in effect.

#### ARTICLE 2 OWNER

##### 2.1 GENERAL

###### 2.1.2 Delete paragraph

##### 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

###### 2.2.1 Delete paragraph

##### 3.6 TAXES – Delete paragraph

3.6.1 Purchases of construction materials by the Contractor is not subject to the Utah State Sales Tax. Tax exempt form TC-721 must be used by the vendors when purchasing construction materials. The Owner will provide a Form TC-721, signed by the Davis School District Director of Purchasing, or designee, authorizing the exemption of sales tax on material purchases for the Contractor's use in purchasing materials. Refer to State Tax Commission Publication 35, Rev. 6/96 or Tax Bulletin 16-96.

3.9.1.1 Prior to award of Contract, Contractor shall submit name and credentials of proposed superintendent for review and approval by Owner and Architect. The Contractor agrees that during the course of construction not to change or substitute job superintendent without written permission first by the Owner and Architect. This requirement may be waived by the Owner upon the Contractor furnishing written proof that change of job superintendent is necessitated by reason of any physical or mental incapacitation of any job superintendent to carry on his normal duties.

3.9.2 Delete as soon as possible.  
Add within 24 hours.

##### 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK.

5.2.1 Delete as soon as possible  
Add within 24 hours.

5.2.4 Delete – If the Owner or Architect makes reasonable objection to such substitution.  
Add – Without written notification and approval of the Owner or Architect.

##### 7.2 CHANGE ORDERS

7.2.2 The Contractor and Subcontractor agree that a fixed fee (up to 15% of the proposed changes up to \$5,000.00), (up to 10% of all proposed changes between \$5,000.00 and \$10,000.00), and (up to 5% of all proposed changes above \$10,000.00) as added shall be full compensation to cover all costs of supervision, overhead, bond, profit, and any other general overhead expenses. It is further agreed that all time extensions to the completion of the Contract, and any costs or

changes in the Contract price, from any cause whatsoever that may be incurred as a result of the Change Orders are included in the Change Order as authorized.

#### 8.4 LIQUIDATED DAMAGES

- 8.4.1 The Contractor and the Contractor's surety shall be liable for and shall pay the Owner the sums hereinafter stipulated as liquidated damages of One Hundred Dollars (\$100.00) per day for each calendar day of delay beyond the scheduled completion date until the Work is substantially complete, and /or for each calendar day of delay until the Work is 100% complete, including all punch-list items; and Two Hundred Dollars per day (\$200.00) for each calendar day of delay for shop drawings/submittals received beyond 90 days after Notice of Award. Each trade shall complete their respective work within the General Contractor's construction schedule.
- 8.4.2 Should the Contractor fail to complete the Work within the time agreed upon in the Contract Documents, or within such additional time as may have been allowed by extension, there shall be deducted from any moneys due or that may become due the Contractor the sum as stated in paragraph 9.11.1. Such sum is fixed and agreed upon by the Owner and Contractor as liquidated damages due the Owner by reason of the inconvenience and added costs of administration, engineering, and supervision resulting from the Contractor's default, and not as a penalty.
- 8.4.3 Permitting the Contractor to continue and finish the Work or any part of the Work after the time fixed for its completion, or after the date to which the time for completion may have been extended, shall in no way operate as a waiver on the part of the Owner for any of his rights under the Agreement.

#### 9.3 APPLICATIONS FOR PAYMENT

- 9.3.1 Payments made shall be 95 percent of the scheduled values requested by each application for payment. Retainage shall be 5 percent and shall be retained until application for final payment is made at the completion of the Work.

#### 9.8 SUBSTANTIAL COMPLETION

- 9.8.5 (The payment shall be sufficient to increase the total payments to 100 percent of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work and unsettled claims.)

#### 11 INSURANCE AND BONDS

- 11.1.4 In addition to the insurance required under Article 11, the Contractor shall effect and maintain the following insurance:

<u>COVERAGE</u>	<u>HAZARDS</u>	<u>LIMITS OF LIABILITY</u>
Liability	Other than Auto	\$1,000,000 ea. Occurrence
Property Damage	Other than Auto	\$1,000,000 aggregate

The above policy shall name the Owner and Architect as additional insured.

Bodily Injury	Automobile	\$1,000,000 ea. Person \$1,000,000 annual aggregate
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Reference is made to Paragraph 3.18, Indemnification.

Contractor shall furnish the Owner with certificates of insurance complying with all requirements. The certificates shall be signed by a person authorized to find coverage on the insurer's behalf. Coverage on a claims made basis will not be acceptable.

#### 11.4 PERFORMANCE BOND & PAYMENT BOND

- 11.4.1 Replace – The Contractor shall furnish bonds covering faithful performance of the Contract and payment of all obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract. Costs of bonds shall be included in Contractor's bid. The amount of each bond shall be equal to 100 percent of the Contract Sum.

#### 12 UNCOVERING AND CORRECTION OF WORK

- 12.2.6 Special Project Warranty: Contractor shall warrant the Work of this Contract, in which contractor agrees to repair or replace all assemblies and components that fail to remain weather-tight, including leaks, including but not limited to, all components of the roofing system, flashing, rooftop mounted accessories or equipment, windows and glazing, doors and frames, storefronts and curtain walls, sealants, exterior wall coverings or claddings, for the following warranty period:

Weather-tight Warranty Period: Three years from date of Substantial Completion.

END OF SECTION



## GENERAL REQUIREMENTS

### SECTION 00 7319 – MISCELLANEOUS FORMS BY REFERENCE

#### CERTIFICATE OF INSURANCE:

##### By Reference

The printed form, Certificate of Insurance, standard form of The American Institute of Architects, AIA. Doc. G705, Current Edition, included herein by reference, or insurance company's standard approved form, together with one (1) duplicate copy of all applicable insurance policies covered by certificate shall be provided to the Architect by the Contractor to whom a contract is awarded within ten (10) calendar days after execution of Contract Agreement, and prior to any work being done on the project by the Contractor

Forms shall be executed by an insurance company duly authorized to conduct business in the State of Utah, and satisfactory to the Owner. Upon compliance with insurance requirements, and when properly executed, same shall become a part of the contract documents.

#### CERTIFICATE OF SUBSTANTIAL COMPLETION:

##### By Reference

The printed form, Certificate of Substantial Completion, standard form of the American institute of Architects, AIA Doc. G704, Current Edition, shall, upon completion of the work, be furnished by the Architect to the Contractor, and, when properly executed by all parties thereto, shall identify the contract warranty period and the Owner's obligations upon acceptance of the work.

#### CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS:

##### By Reference

The printed form, Contractor's Affidavit of Payment of Debts and Claims, standard form of The American Institute of Architects, AIA Doc. G706, Current Edition, is included herein by reference and shall apply to the contract.

Same shall be furnished by the Architect to the Contractor, and when properly executed shall become a part of the contract documents.

#### CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS:

##### By Reference

The printed form, Contractor's Affidavit of Release of Liens, standard form of The American Institute of Architects, AIA Doc. G7064, Current Edition, is included herein by reference and shall apply to the contract.

Same shall be furnished by the Architect to the Contractor, and when properly executed shall become a part of the contract documents.

#### CONSENT OF SURETY COMPANY TO FINAL PAYMENT:

##### By Reference

The printed form, Consent of Surety Company to Final Payment, standard form of The American Institute of Architects, AIA Doc. G707, Current Edition, is included herein by reference and shall apply to the contract. Same shall be furnished by the Architect to the Contractor, and when properly executed shall become a part of the contract documents.

END OF SECTION 00 7319

**01 0000 - GENERAL REQUIREMENTS**

01 1100	Summary of the Work
01 1700	Project Closeout
01 2513	Substitution Request Form
01 2976	Measurement and Payment
01 3119	Project Meetings
01 3219	Submittals
01 4213	Reference Standards and Definitions
01 4313	Material and Equipment
01 7600	Cutting and Patching
01 7836	Warranties and Bonds

## GENERAL REQUIREMENTS

### DOCUMENT 01 1100 - SUMMARY OF THE WORK

#### PART 1 - GENERAL

##### RELATED REQUIREMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

##### PROJECT/WORK IDENTIFICATION:

General: This package consists of re-roofing to the following project:

***Heritage Elementary School***  
*373 South 150 West*  
*Ogden, Utah*

Contract Documents: These documents indicate the work of the Contract and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to the following:

Existing site conditions & restrictions on use of the site.

Summary by References: Work of the Contract can be summarized by references to the Contract, General Conditions, Supplementary Conditions, Specification Sections, Drawings, addenda and modifications to the contract documents issued subsequent to the initial printing of this project manual and including but not necessarily limited to printed material referenced by any of these. It is recognized that work of the Contract is also unavoidably affected or influenced by governing regulations, natural phenomenon including weather conditions and other forces outside contract documents.

##### CONTRACTOR USE OF PREMISES:

General: The Contractor shall limit his use of the premises to the work indicated.

Use of the Site: Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction. Repair damage caused by construction operations.

Keep driveways and entrances serving the premises clear.

Keep all public areas free from accumulation of waste material, rubbish or construction debris.

Smoking or open fires will not be permitted on the premises.

Maintain Fire Department access to the site at all times.

Protect existing roofs that are not to receive work from any damage under NO conditions are they to be used for storage of materials etc.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION 01 1100

## **SECTION 01 1700 - PROJECT CLOSEOUT**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS:**

- A. Drawings and general provisions of Contract, including General Conditions and other Division-1 Specification sections, apply to work of this section.

#### **1.2 DESCRIPTION OF REQUIREMENTS:**

- A. Definitions: Closeout is hereby defined to include general requirements near end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 16.
- B. Submit Project Closeout Documents to Architect at time of Substantial Completion inspection unless otherwise noted.

### **PART 2 - PRODUCTS – Not used**

### **PART 3 - EXECUTION**

#### **3.1 RECORD DOCUMENT SUBMITTALS:**

- A. General: Specific requirements for record documents are indicated in individual sections of these specifications. Other requirements are indicated in General Conditions. General submittal requirements are indicated in "Submittals" sections. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire resistive location; provide access to record documents for Architect's/Engineer's reference during normal working hours.

#### **3.2 RECORD DRAWINGS:**

- A. Maintain a separate print set of contract drawings and shop drawings in clean, undamaged condition, marked to record all changes made during construction. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings. Mark with red erasable pencil and, where feasible, use other categories of work. Mark-up new information, which is recognized to be of importance to Owner, but was for some reason not shown on either contract drawings or shop drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date. Note related change-order numbers where applicable. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set.
- B. To facilitate the above, the Architect will furnish the Contractor with one set of prints of all drawings which are part of this contract. Contractor shall maintain this set of prints in good condition in his field office. Installation of any work in locations or in a manner other than shown on the drawings shall be recorded daily by the Contractor on the drawings. The Contractor shall see that all subcontractors shall do likewise. Dimensions shall be given to permanent objects such as building columns, buildings, sidewalls, curbs and driveways and/or grids.
- C. Whenever necessary to complete the record drawings in a neat, legible manner, Contractor shall employ a competent draftsman, satisfactory to Architect, to make new drawings or to indicate changes on the prints.
- D. On or before the date of final inspection, the Contractor shall deliver the corrected and completed prints to the Architect as a record of construction. Delivery of the prints to the Architect will not relieve Contractor of the responsibility of furnishing required information that may be omitted from the prints. Delivery of the prints must be made before payment of the final retained percentage.

- E. Provide As-Built Survey Drawings.

### 3.3 FINAL CLEANING:

- A. General: Special cleaning for specific units of work is specified in sections of Divisions 2 through 16. General cleaning during progress of work is specified in General Conditions. Provide final cleaning of the work, at time indicated, consisting of cleaning each surface or unit of work to normal "clean" condition expected for a first-class building cleaning and maintenance program. Comply with manufacturer's instructions for cleaning operations. The following are examples, but not by way of limitation, for cleaning levels required.
- B. Remove labels which are not required as permanent labels.
- C. Clean exposed exterior hard-surfaced finishes, to a dirt-free condition, free of dust, stains, films and similar noticeable distracting substances. Except as otherwise indicated, avoid disturbance of natural weathering of exterior surfaces. Restore reflective surfaces to original reflective condition.
- D. Clean light fixtures and lamps so as to function with full efficiency.
- E. Clean project site (yard and grounds), including landscape development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petro-chemical spills and other foreign deposits. Rake grounds which are neither planted nor paved, to a smooth, even-textured surface.
- F. Removal of Protection: Except as otherwise indicated or requested by Architect/Engineer, remove temporary protection devices and facilities which were installed during course of the work to protect previously completed work during remainder of construction period.
- G. Compliances: Comply with safety standards and governing regulations for cleaning operations. Do not burn waste materials at site, or bury debris or excess materials on Owner's property, or discharge volatile or other harmful or dangerous material into drainage systems; remove waste materials from site and dispose of in a legal manner.

### 3.4 PREFINAL AND FINAL INSPECTIONS:

- A. The CM/GC will prepare a written punch list of items to be completed or repaired and affixed to each room to be signed off by the affected subcontractor and CM/GC prior to requesting a pre-final inspection by the Architect.
- B. Upon Contractor's request, Architect (and his consultants as appropriate) will make a prefinal inspection and furnish to Contractor a list of items to be corrected by Contractor. Upon correction of these items, and receipt of written request that work is ready for final inspection, Architect will arrange a substantial completion inspection to include Owner's Representatives at which time Architect will furnish final list of items to be corrected. Architect will execute Certificate of Substantial Completion according to Article 9.8 of the General Conditions and for voiding the liquidated damages requirement contained in Document 00820 - Supplementary Conditions.

### 3.5 MAINTENANCE MANUALS:

- A. Organize maintenance-and-operating manual information into suitable sets of manageable size, and bind into individual binders properly identified and indexed (thumb-tabbed). Include emergency instructions, spare parts listing, extra stock receipts, copies of warranties, wiring diagrams, recommended "turn-around" cycles, inspection procedures, shop drawings, product data, and similar applicable information. Bind each manual of each set in a heavy-duty 2", 3-ring vinyl covered binder, and include pocket folders for folded sheet information. Mark identification on both front and spine of each binder. Provide (2) manuals for each trade.

### 3.6 PROJECT CLOSEOUT DOCUMENTS

A. Submit the following closeout forms:

- Certificate of Substantial Completion
- Maintenance Manuals
- Contractor's One-year Guarantee
- Record Drawings

3.9 WARRANTIES, GUARANTEES, and CERTIFICATIONS: (If Applicable)

Minimum 1 year warranty from Date of Substantial completion and specified warranties as follows:

Section	Title	Documents
07 5419	POLYVINYL CHLORIDE MEMBRANE ROOFING	20-year manufacturer written warranty

END OF SECTION 01 1700.

## GENERAL REQUIREMENTS

### DOCUMENT 01 2513 - SUBSTITUTION REQUEST FORM

TO:

PROJECT:

We hereby submit for your consideration the following product instead of the specified item for the above project:

<u>Section</u>	<u>Paragraph</u>	<u>Specified Item</u>
_____	_____	_____

Proposed Substitution: \_\_\_\_\_

Attach complete technical data, including laboratory tests, if applicable. Include complete information on changes to Drawings and/or specifications which proposed substitutions will require for its proper installation.

Fill in Blanks Below:

- A. Does the substitution affect dimensions shown on Drawings? \_\_\_\_\_
- B. Will the undersigned pay for changes to the building design, including engineering and detailing costs caused by the requested substitutions? \_\_\_\_\_
- C. What affect does substitution have on other trades? \_\_\_\_\_
- D. Differences between proposed substitution and specified item? \_\_\_\_\_
- E. Manufacturer's guarantees of the proposed and specified item are: \_\_\_\_\_

_____	
Same	Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted By:

Signature: \_\_\_\_\_  
Firm: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_ Date: \_\_\_\_\_

For Use By Design Consultant:

Accepted      Accepted As Noted      Not Accepted      Received Too Late

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

Remarks: \_\_\_\_\_

END OF DOCUMENT 00440.



## GENERAL REQUIREMENTS

### SECTION 01 2976 - MEASUREMENT AND PAYMENT

#### PART 1 - GENERAL

##### RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

##### PAYMENT REQUESTS:

General: Except as otherwise indicated, sequence of progress payments is to be regular, and each must be consistent with previous applications and payments. It is recognized that certain applications involve extra requirements, including initial application, application at times of substantial completion, and final payment application.

Payment Application Times: The "date" for each progress payment is indicated in the Owner-Contractor Agreement or, if none is indicated therein, it is the 15th day of each month. The period of construction work covered by each payment request is period indicated in Owner-Contractor Agreement or, if none is indicated therein, it is period ending 15 days prior to date for each progress payment, and starting day following end of preceding period.

##### APPLICATION AND CERTIFICATE FOR PAYMENT FORM:

The "Application and Certificate for Payment", A.I.A. Document G702 Pay Request Spreadsheet Form will be the form used as an Application and Certificate for Payment for this Project.

A copy of the Standard A.I.A. Documents may be examined at the office of the Architect.

Application Preparation: Except as otherwise indicated, complete every entry provided for on the form, including notarization and execution by authorized persons. Incomplete applications will be returned by Architect/Engineer without action. Entries must match current data of schedule of values and progress schedule and report. Listing must include amounts of change orders issued prior to last day of the "period of construction" covered by application.

Initial Payment Application: The principal administrative actions and submittals which must precede or coincide with submittal of first payment application can be summarized as follows, but not necessarily by way of limitation:

Listing of subcontractors and principal suppliers and  
fabricators. (Final list).

Schedule of values.  
Progress schedule (preliminary if not final).

Schedule of unit prices.  
Schedule of submittals (preliminary if not final).

Listing of Contractor's staff assignments and principal consultants.

Copies of acquired building permits and similar authorizations and licenses from governing authorities for current performance of the work.

Performance and/or payment bonds (unless required sooner).  
Evidence satisfactory to Owner that Contractor's insurance coverages have been secured.

Data needed to acquire Owner's insurance coverages.

Initial progress report, including report of pre-construction meeting.

Application at Time of Substantial Completion: Following issuance of Architect's or Engineer's final "Certificate of Substantial Completion", and also in part as applicable to prior certificates on portions of completed work as designated, a "special" payment application may be prepared and submitted by Contractor. The principal administrative actions and submittals must proceed or coincide with such special applications.

Final Payment Application: The administrative actions and submittals which must precede or coincide with submittal of final payment application can be summarized as follows, but not necessarily by way of limitation:

- Completion of project closeout requirements.

- Completion of items specified for completion beyond time of substantial completion (regardless of whether special payment application was previously made).

- Assurance, satisfactory to Owner, that unsettled claims will be settled and that work not actually completed and accepted will be completed without undue delay.

Application Transmittal: Submit 5 executed copies of each payment application, one copy of which is completed with waivers of lien and similar attachments. Transmit each copy with a transmittal form listing those attachments, and recording appropriate information related to application in a manner acceptable to Architect/Engineer. Transmit to Architect/Engineer by means ensuring receipt within 24 hours.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 2976.

## GENERAL REQUIREMENTS

### SECTION 01 3119 - PROJECT MEETINGS

#### PART 1 - GENERAL

##### RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

##### PRE-CONSTRUCTION CONFERENCE:

Preconstruction conferences between the Contractor, Subcontractors, Architect and Owner shall be held at the site prior to commencement of the work. This meeting is to be for the purpose of resolving current problems, further orienting Contractor to requirements of the Contract Documents, informing Contractor of Architect's responsibility to Owner for construction observation, and working out with the Contractor a general schedule of construction observation.

##### PROGRESS MEETINGS

Periodic job site progress meetings will be held by the Contractor & the Architect to insure all activities are being coordinated properly on the project and to assist in staying on schedule. Status of submittals, changes, progress payments, material delivery, and other matters will be reviewed. The Contractor will conduct such meetings and will require subcontractors currently involved in the construction progress and those anticipated to begin work in the following period to attend, without exception.

The Architect shall attend these job site progress meetings not less than twice per month while construction work is in progress to observe and familiarize himself with the progress and compliance of the work; and to determine for the Owner's benefit if the work is proceeding in accordance with the intent of the Contract Documents. The Contractor and Architect shall determine if, in their opinion, the construction is proceeding according to schedule. The Architect's opinion shall be based on bi-weekly updated critical path construction schedules provided by the Contractor. The Contractor & Architect shall keep the Owner informed of the progress and compliance of the work and inform the Owner of any failure by the Contractor to carry out work in accordance with the intent of the Contract Documents.

PART 2 - PRODUCTS: Not Used.

PART 3 - EXECUTION: Not Used.

END OF SECTION 01 3119

## GENERAL REQUIREMENTS

### SECTION 01 3219 - SUBMITTALS

#### PART 1 - GENERAL

##### RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

##### DESCRIPTION OF REQUIREMENTS:

The types of submittal requirements specified in this section include shop drawings, product data, samples and miscellaneous work-related submittals. Individual submittal requirements are specified in applicable sections for each unit of work. Refer to other Division-1 sections and other contract documents for requirements of administrative submittals.

Definitions: Shop drawings, product data, and samples are defined in A.I.A. Document A201, General Conditions of the Contract for Construction.

Miscellaneous submittals related directly to the work (non-administrative) include warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the work and not processed as shop drawings, product data or samples.

Coordination and Sequencing: Coordinate preparation and processing of submittals with performance of the work so that work will not be delayed by submittals. Coordinate and sequence different categories of submittals for same work, and for interfacing units of work, so that one will not be delayed for coordination of A/E's review with another.

The GC shall review and transmit all submittals to the Architect within 15 days of the notice to proceed date. Failure to provide the Architect with submittals per the above time period does not relieve the GC of the responsibility for reviewing and transmitting the submittals to the Architect. Submittals provided to the Architect after the 15-day time period shall be reviewed on an overtime basis by the Architect.

Preparation of Submittals: Provide permanent marking on each submittal to identify project, date, Contractor, subcontractor, submittal name and similar information to distinguish it from other submittals. Show Contractor's executed review and approval marking and provide space for Architect's/Engineer's review marking. Package each submittal appropriately for transmittal and handling. Submittals which are received from sources other than through Contractor's office will be returned by A/E "without review".

##### PROGRESS SCHEDULE:

The GC shall prepare a critical path schedule for the project of sufficient detail and sophistication to allow him to understand the implications of the time restrictions on this project prior to bidding, and to allow him to monitor and control the progress of the work during construction. It shall be the sole responsibility of the GC to determine the type and format of the schedule, and it shall be the sole responsibility of the GC to utilize the schedule as a construction means to monitor and control the progress. The GC shall submit to the Owner and the Architect a copy of this schedule within 7 days of Notice to Proceed, so that the Owner and the Architect can follow the progress of the work, and compare progress payments with scheduled progress. To facilitate this, the schedule shall be broken into units which can be compared to the units on the GC's payment request form. Schedule shall also identify critical path.

During construction, the GC shall submit a monthly report of the work progress with the Application for Payment, AIA Document A.I.A. G702 and G702A. (Modified to separately break-out and track material, labor and sales tax amounts on a monthly basis; a copy of this modified form is attached to the end of this

specification section.)

During progress of the work, any changes in the original schedule desired by the Contractor which affect contract completion dates must be approved by the Owner and Architect before being put into effect. When changes in the work are required and directed by the Owner and Architect under applicable paragraphs of this Contract, the original schedule shall be revised without delay to incorporate such changed or new work and indicate the effect thereof on the Project as a whole. The cost of such schedule change shall be considered as part of the cost of revised work.

Costs incurred by the Contractor to prepare and maintain the required progress schedule will not be paid separately and will be included in the Contract Price and Prices. If the Contractor falls behind the progress schedule, the Contractor shall take such steps as may be necessary to improve his progress and the Owner and Architect may require him to increase the number of shifts, and/or overtime operation, days of work, and/or the amount of construction plant, and to submit for approval revised schedules in order to demonstrate the manner in which the agreed rate of progress will be regained, all without additional cost to the Owner.

#### SPECIFIC-CATEGORY SUBMITTAL REQUIREMENTS:

General: Except as otherwise indicated in individual work section, comply with requirements specified herein for each indicated category of submittal. Provide and process intermediate submittals, where required between initial and final, similar to initial submittals.

Note: At least one copy of each final reviewed shop drawing and submittal shall be maintained at the job site by the GC.

Shop drawings: Provide newly prepared information, on reproducible sheets, with graphic information at accurate scale (except as otherwise indicated), with name of preparer indicated (firm name). Show dimensions and note which are based on field measurement. Identify materials and products in the work shown. Indicate compliance with standards, and special coordination requirements. Do not allow shop drawing copies without appropriate final review markings by Architect/Engineer to be used in connection with the work.

Submit one reproducible print and two additional prints, plus number of prints needed for distribution to others (other than Architect/Engineer). Reproducible will be returned.

Setting Drawings: Classify as "Shop Drawings" and process immediately.

Product Data: Collect required data into one submittal for each unit of work or system; and mark each copy to show which choices and options are applicable to project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements. Maintain one set of product data (for each submittal) at project site, available for reference by Architect/Engineer and others.

Submittals: Do not submit product data, or allow its use on the project, until compliance with requirements of contract documents has been confirmed by Contractor. Submittal is for information and record, unless otherwise indicated. Submit 3 copies, plus 2 additional copies (which will be returned) where required for maintenance manuals.

Samples: Provide units identical with final condition of proposed materials or products for the work. Include "range" samples (not less than 3 units) where unavoidable variations must be expected and describe or identify variations between units of each set. Provide full set of optional samples where Architect's/Engineer's selection is required. Prepare samples to match Architect's/Engineer's sample where so indicated. Include information with each sample to show generic description, source or product name and manufacturer, limitations, and compliance with standards. Samples are submitted for review and confirmation of color, pattern, texture and "kind" by Architect/Engineer. Architect/Engineer will not

"test" samples (except as otherwise indicated) for compliance with other requirements, which are therefore the exclusive responsibility of Contractor.

Submittal: Submit 3 sets of samples; one set will be returned.

Quality Control Set: Maintain returned final set of samples at project site, in suitable condition and available for quality control comparisons by Architect/Engineer, and by others.

Reusable Samples: Returned samples which are intended or permitted to be incorporated in the work are so indicated in the individual work sections and must be in undamaged condition at time of use.

Mock-Ups: Mock-ups and similar samples specified in individual work sections are recognized as a special type of sample. Comply with requirements for "samples" to greatest extent possible, and process transmittal forms to provide a record of activity.

Inspection and Test Reports: Secure required certificates of inspection and test reports and deliver to Architect.

Submittal: Submit one (1) copy to Architect, one (1) additional copy to Engineer, where applicable; plus, two (2) additional copies where required for inclusion in maintenance manuals.

Warranties: Refer to "General" section for specific general requirements on warranties, product/workmanship bonds, and maintenance agreements. In addition to copies desired for Contractor's use, furnish 2 executed copies, except furnish 2 additional (conformed) copies where required for maintenance manuals.

Certifications: Refer to "General" section for specific general requirements on certifications. In addition to copies desired for contractor's use, furnish 2 executed copies, except furnish 2 additional copies where required for maintenance manuals.

Maintenance Data: Refer to "General" section for specific general requirements. Furnish 2 copies, except furnish 2 additional copies for inclusion in maintenance manuals.

Closeout Submittals: Refer to individual work sections and to "closeout" sections for specific requirements on submittal or close-out information, materials, tools, and similar items.

## PART 2 - PRODUCTS

Not Used.

## PART 3 - EXECUTION

Not Used.

END OF DOCUMENT 13 219

## GENERAL REQUIREMENTS

### SECTION 01 4213 - REFERENCE STANDARDS AND DEFINITIONS

#### PART 1 - GENERAL

##### RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

##### SCHEDULE OF STANDARDS:

American Materials Association - AMA  
American Concrete Institute - ACI  
American Institute of Architects - AIA  
American Institute of Electrical Engineers - AIEE  
American Institute of Steel Construction - AISC  
American National Standards Institute -ANSI  
    nee: American Standards Association - ASA  
American Society of Mechanical Engineers - ASME  
American Society of Testing and Materials - ASTM  
American Welding Society - AWS  
Concrete Reinforcing Steel Institute - CRSI  
Federal Specifications: Fed. Spec.  
Manual of Accident Prevention in Construction  
Associated General Contractors of America - AGC  
National Board of Fire Underwriters - NBFO  
    nee: American Insurance Association - AIA  
National Concrete Masonry Association - NCMA  
National Electric Code  
National Fire Protection Association - NFPA  
Occupational Safety and Health Act - OSHA  
Sheet Metal and Air Conditioning Contractors National Association, Inc. - SMACNA  
Steel Joist Institute - SJI  
Tile Council of North American - TCNA  
Underwriter's Laboratory - UL

##### STANDARDS AND DEFINITIONS:

References to standards, codes, Specifications, recommendations and regulations refer to the latest edition or printing prior to the date of issue of the Contract Documents.

Applicable portions of standards listed that are not in conflict with Contract Documents are hereby made a part of the Specifications.

Modifications or exceptions to Standards shall be considered as amendments and unmodified portions shall remain in full effect. In cases of discrepancies between standards, the more stringent requirements shall govern.

Definitions: Basic Contract definitions are included in the General Conditions.

Indicated refers to graphic representations, notes, or schedules on Drawings; Paragraphs or Schedules in Specifications; and similar requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used, it is to help locate the reference.

Directed: Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean "directed by the Architect," "requested by the Architect," and similar phrases.

Approve, used in conjunction with action on submittals, applications, and requests, is limited to the Architect's duties and responsibilities stated in General and Supplementary Conditions.

Regulation includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.

Furnish means "supply and deliver, ready for unloading, unpacking, assembly, installation, and similar operations."

Install describes operations at the site including "unloading, unpacking, assembly, erection, anchoring, applying, working to dimension, protecting, cleaning, and similar operations."

Provide means "furnish and install, complete and ready for use."

Installer: "Installer" is the Contractor or an entity engaged by the Contractor as employee, subcontractor, or sub-subcontractor for performance of a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

The term "experienced" when used with "Installer" means having a minimum of 5 previous Projects similar in size to this Project and being familiar with the precautions required and with requirements of the authority having jurisdiction.

Project Site is the space available for construction activities, either exclusively or with others performing other construction on the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land upon which the Project is to be built.

Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

Specification Format: These Specifications are organized into Divisions and Sections based on the Construction Specifications Institute's 50-Division format and MASTERFORMAT numbering system.

Language used in the Specifications is the abbreviated type. Implied words and meanings will be appropriately interpreted. Singular words will be interpreted as plural and plural words interpreted as singular where applicable and where the context so indicates.

Imperative language is used generally. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the text subjective language is used to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.

The words "shall be" shall be included by inference wherever a colon (:) is used within a sentence or phrase.

Abbreviations and Names: Where acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authority having jurisdiction, or other entity applicable. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents; correspondence and records established in conjunction with compliance with standards; and regulations bearing upon performance of the Work.

END OF SECTION 01 4213



## GENERAL REQUIREMENTS

### SECTION 01 4313 - MATERIAL AND EQUIPMENT

#### PART 1 - GENERAL

##### RELATED DOCUMENTS:

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

##### PRODUCT DELIVERY-STORAGE-HANDLING:

General: Deliver, handle and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Control delivery schedules to minimize long-term storage of products at site and overcrowding of construction spaces. In particular, provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other sources of loss.

Inspect all materials upon their arrival at the job and see that they conform to the requirements of these Specifications and prevent the unloading of unsatisfactory material or promptly remove same from the premises without waiting for instruction from the Owner or Architect to do so.

Time deliveries and unloading to prevent traffic congestion and blocking of access, and to avoid interferences and delays in work. Provide for continuity of any phase of work. Sufficient quantities for completion of a phase shall be on the Project Site before that phase is started.

Pack and handle materials to prevent damage during delivery. Store materials at designated locations to avoid interference with work and arrange in order of intended use. Prevent damage to stored materials with suitable sheds or coverings and maintain in a dry condition until ready for use.

Owner is responsible to receive, unload, inspect and store all Owner-furnished, contractor installed items or equipment.

#### PARTS 2 & 3 - PRODUCTS & EXECUTION

Not Used.

END OF SECTION 01 4313

## GENERAL REQUIREMENTS

### SECTION 01 7600 - CUTTING AND PATCHING

Cutting and Patching Proposal: Where approval of procedures is required before proceeding, submit a proposal describing procedures in advance of the time cutting and patching will be performed. Include the following information, as applicable:

Describe the extent of cutting and patching required and how it is to be performed; indicate why it cannot be avoided.

Describe anticipated results; include changes to structural elements and operating components and changes in the building's appearance and other visual elements.

List products to be used and entities that will perform Work.

Indicate dates when cutting and patching is to be performed.

List utilities that will be disturbed, including those that will be relocated and those that will be temporarily out-of service. Indicate how long service will be disrupted.

Approval by the Architect to proceed does not waive the Architect's right to later require complete removal and replacement of Work found to be unsatisfactory.

Structural Work: Do not cut and patch structural elements in a manner that would reduce the load-carrying capacity or load deflection ratio. Obtain approval of the cutting and patching proposal before cutting and patching structural elements.

Operational and Safety Limitations: Do not cut and patch operating elements or safety components in a manner that would reduce their capacity to perform as intended, or would increase maintenance, or decrease operational life or safety. Obtain approval of the cutting and patching proposal before cutting and patching operating elements or safety related systems:

Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

Retain the original installer or fabricator to cut and patch the following categories of exposed Work, or if it is not possible engage a recognized experienced and specialized firm:

- Roof Membranes
- Concrete Masonry
- Other material as deemed necessary.

Materials: Use materials identical to existing materials. If identical materials are not available or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible. Use materials whose performance will equal or surpass of existing materials.

Inspection: Before cutting, examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed. Take corrective action before proceeding, if unsafe or unsatisfactory conditions are encountered.

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

Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions that might be exposed during cutting and patching operations.

Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas. Take all precautions to avoid cutting existing pipe, conduit or ductwork serving the building, but scheduled to be removed or relocated until provisions have been made to bypass them.

Performance: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay.

Cut existing construction to provide for the installation of other components or the performance of other construction activities and the subsequent fitting and patching required to restore surfaces to their original condition.

Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible review procedures with the original installer; comply with the original installer's recommendations.

Where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.

Cut through concrete and masonry using a cutting machine such as a carborundum saw or diamond core drill.

By-pass utility services such as pipe or conduit, before cutting, where services are shown or required to be removed, relocated or abandoned. Cut-off pipe or conduit in walls or partitions to be removed. Cap, valve or plug and seal the remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after by-passing and cutting.

Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.

Where feasible, inspect and test patched areas to demonstrate integrity of the installation.

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.

Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken containing the patch, after the patched area has received primer and second coat.

Patch, repair or re-hang existing ceilings as necessary to provide an even plane surface of uniform appearance.

Cleaning: Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove paint, mortar, oils, putty and similar items. Thoroughly clean piping, conduit and similar features before painting or finishing is applied. Restore damaged pipe covering to its original condition.

END OF SECTION 01 7600

## GENERAL REQUIREMENTS

### SECTION 01 7836 - WARRANTIES AND BONDS

Standard Product Warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

Special Warranties are written warranties required by or incorporated in Contract Documents, to extend time limits provided by standard warranties or to provide greater rights for the Owner.

Refer to the General Conditions for terms of the Contractor's special warranty of workmanship and materials.

Requirements for warranties for products and installations that are specified to be warranted, are included in the individual Sections of Divisions-2 through -22.

Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and Subcontractors required to countersign special warranties with the Contractor.

Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.

Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

Replacement Cost: On determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through part of its useful service life.

Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall not limit duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights, or remedies.

Rejection of Warranties: The Owner reserves the right to reject warranties and limit selections to products with warranties not in conflict with requirements of the Contract Documents.

The Owner reserves the right to refuse to accept Work where a special warranty, or similar commitment is required, until evidence is presented that entities required to countersign commitments are willing to do so.

Submit written warranties to the Architect prior to the date certified for Substantial Completion. If the Architect's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion, submit written warranties on the Architect's request. When a designated portion of the Work is completed and occupied or used, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Architect within fifteen days of completion of that designated portion of the Work.

When a special warranty is to be executed by the Contractor, or the Contractor and a subcontractor, supplier or manufacturer, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner through the Architect for approval prior to final execution.

Special warranty forms are included at the end of this Section. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor, or the Contractor and subcontractor, supplier or manufacturer. Submit a draft to the Owner through the Architect for approval prior to final execution.

Refer to individual Sections of Divisions-2 through -16 for specific content, and particular requirements for submittal of special warranties.

Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.

Provide heavy paper dividers with celluloid covered tabs for each warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.

Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS, the Project title or name, and the name of the Contractor.

When operating and maintenance manuals are required for warranted construction, provide additional copies of each warranty, as necessary, for inclusion in each required manual.

END OF SECTION 01 7836

**06 0000 – WOOD, PLASTICS & COMPOSITES**  
06 1053            Miscellaneous Carpentry

## SECTION 06 6105 - MISCELLANEOUS CARPENTRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Wood blocking, cants, and nailers.
  - 2. Plywood backing panels.

#### 1.3 DEFINITIONS

- A. Lumber grading agencies, and the abbreviations used to reference them, include the following:
  - 1. WCLIB - West Coast Lumber Inspection Bureau.
  - 2. WWPA - Western Wood Products Association.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
  - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
  - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664.
  - 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
- B. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
  - 1. Preservative-treated wood.
  - 2. Fire-retardant-treated wood.
  - 3. Expansion anchors.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

## PART 2 - PRODUCTS

### 2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.
  - 1. Factory mark each piece of lumber with grade stamp of grading agency.
  - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
  - 3. Provide dressed lumber, S4S, unless otherwise indicated.
  - 4. Provide dry lumber with 19 percent maximum moisture content at time of dressing for 2-inch nominal (38-mm actual) thickness or less, unless otherwise indicated.
- B. Wood Structural Panels:
  - 1. Plywood: Either DOC PS 1 or DOC PS 2, unless otherwise indicated.
  - 2. Oriented Strand Board: DOC PS 2.
  - 3. Thickness: As needed to comply with requirements specified but not less than thickness indicated.
  - 4. Comply with "Code Plus" provisions in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial."
  - 5. Factory mark panels according to indicated standard.

### 2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWP C2 (lumber) and AWP C9 (plywood), except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWP C31 with inorganic boron (SBX).
  - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and one of the following:
    - a. Chromated copper arsenate (CCA) - HIM Fir
    - b. Ammoniacal copper zinc arsenate (ACZA) - Douglas Fir
    - c. Ammoniacal, or amine, copper quat (ACQ) - Douglas Fir
  - 2. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- B. Kiln-dry material after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
  - 1. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.



## 2.3 MISCELLANEOUS LUMBER

- A. General: Remove all damaged nailers/blocking and replace with new treated lumber at edge locations as detailed. Do not reuse existing nailers or blocking that will not provide specified anchoring loads. Provide new and/or additional blocking for support or attachment of new membrane and flashing, including the following:
  - 1. Blocking.
  - 2. Cants.
  - 3. Nailers.
  - 4. Grounds.
- B. For items of dimension lumber size, provide Construction, Stud, or No. 2 Standard, Stud, or No. 3 grade lumber with 19 percent maximum moisture content and any of the following species:
  - 1. Hem-fir or Hem-fir (north); NLGA, WCLIB, or WWP.
  - 2. Northern species; NLGA.
  - 3. Western woods; WCLIB or WWP.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
  - 1. Hem-fir or Hem-fir (north), Exterior grade.
  - 2. Northern species, Exterior grade.
  - 3. Western woods, Exterior grade.

## 2.4 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
  - 1. Where carpentry is exposed to weather, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Nails, Wire, Brads, and Staples: FS FF-N-105.
- C. Wood Screws: ASME B18.6.1.
- D. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.
- E. Lag Bolts: ASME B18.2.1. (ASME B18.2.3.8M).
- F. Bolts: Steel bolts complying; with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.
- G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
  - 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Discard units of material with defects that impair quality of carpentry and that are too small to use with minimum number of joints or optimum joint arrangement.
- B. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Apply field treatment complying with AWPA M4 to cut surfaces of preservative-treated lumber and plywood.
- D. Securely attach carpentry work as indicated and according to applicable codes and recognized standards.
- E. Use fasteners of appropriate type and length.

### 3.2 WOOD BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.

### 3.3 PANEL PRODUCT INSTALLATION

- A. Wood Structural Panels: Comply with applicable recommendations contained in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial," for types of structural-use panels and applications indicated.

**END OF SECTION 06 6105**

**07 0000 - THERMAL & MOISTURE PROTECTION**

- 07 5400 Preparation for Re-Roofing
- 07 5419 Thermoplastic Membrane Roofing
- 07 6200 Sheet Metal Flashing & Trim
- 07 7200 Roof Accessories
- 07 9200 Joint Sealants

## SECTION 07 5400 - PREPARATION FOR RE-ROOFING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Roof tear-off.
  - 2. Roof re-cover preparation.
  - 3. Removal of base flashings.
  - 4. Life Safety requirements

#### 1.3 MATERIALS OWNERSHIP

- A. Except for items or materials indicated to be reused, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site and disposed of in a legal disposal site.

#### 1.4 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.
- B. Existing Membrane Roofing System: Single-ply roofing membrane, roof insulation, surfacing, and components and accessories between deck and roofing membrane.
- C. Roof Re-Cover Preparation: Existing roofing membrane that is removed.
- D. Roof Tear-Off: Removal of existing membrane roofing from insulation, walls, curbs and penetrations.
  - 1. Sweep, Blow or Vacuum all debris off the roofing insulation to remain.
- E. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and reinstalled.
- F. Existing to Remain: Existing items of construction that are not indicated to be removed.

#### 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Fastener pull-out test report.
- C. Photographs or Videotape: Show existing conditions of adjoining construction and site improvements, including exterior and interior finish surfaces that might be misconstrued as having been damaged by reroofing operations. Submit to the Architect before work begins.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Installer of new membrane roofing system.
- B. Regulatory Requirements: Comply with governing EPA notification regulations before beginning membrane roofing removal. Comply with hauling and disposal regulations of authorities having jurisdiction. Spray tear-off with water to prevent blowing dust as needed.

1.8 PROJECT CONDITIONS

- A. Protect building to be reroofed, adjacent buildings, walkways, site improvements, exterior plantings, and landscaping from damage or soiling from reroofing operations.
- B. Life safety - provide covered walkways for doorways and chain-link fence for areas of work with appropriate OSHA signage.
- C. Provide protective measures for overhead crane use with the appropriate OSHA signage.
- D. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities.
- E. Conditions existing at time of inspection for bidding will be maintained by Owner as far as practical.
- F. Clean up shall occur daily to prevent debris from scattering through the facility or adjacent properties
- G. Weather Limitations: Proceed with reroofing preparation only when existing and forecasted weather conditions permit Work to proceed without water entering existing roofing system or building.
- H. Hazardous Materials: It is not expected that hazardous materials such as asbestos-containing materials will be encountered in the Work.
  - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner in writing. Hazardous materials will be removed by Owner under a separate contract.
- I. Protect above roof gas line and coordinate any damage, testing and replacement of existing lines to working condition shall be the contractor's responsibility.

## PART 2 - PRODUCTS

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Coordinate with Owner to shut down air-intake equipment in the vicinity of the Work. Cover air-intake louvers before proceeding with reroofing work that could affect indoor air quality or activate smoke detectors in the ductwork.
- B. During removal operations, have sufficient and suitable materials on-site to facilitate rapid installation of temporary protection in the event of unexpected rain.
- C. Maintain roof drains in functioning condition to ensure roof drainage at end of each workday. Prevent debris from entering or blocking roof drains and conductors. Use roof-drain plugs specifically designed for this purpose. Remove roof-drain plugs at end of each workday, when no work is taking place, or when rain is forecast. Rags are not acceptable.
  - 1. If roof drains are temporarily blocked or unserviceable due to roofing system removal or partial installation of new membrane roofing system, provide alternative drainage method to remove water and eliminate ponding. Do not permit water to enter into or under existing membrane roofing system components that are to remain. Any damaged or wetted materials will be replaced by the contractor at no additional cost to the Owner or Architect.
- D. Verify that rooftop utilities and service piping have been shut off before beginning the Work.

### 3.2 ROOF MEMBRANE TEAR-OFF

- A. General: Notify Owner each day of extent of roof tear-off proposed for that day.
- B. Roof Tear-Off: Remove existing roofing membrane and protect existing insulation.
  - 1. Remove cover boards.
  - 2. Remove fasteners from deck.
  - 3. Verify condition of (E) substrate and notify Owner's rep of any deterioration or moisture locations.
  - 4. Clean brick and concrete wall surfaces where roofing and/or sealant has been extended vertical.
  - 5. Protect existing mechanical, electrical and plumbing systems at roof locations. If removal is required for new work reinstall to original condition or better.
  - 6. Provide notice to Owners rep for inspection of (E) roof after tear off and prior to new work.

### 3.3 Existing insulation to remain

- A. Inspect insulation after tear-off of membrane roofing system.
- B. Verify that the insulation is visibly dry and free of moisture.
- C. If broken or loose fasteners that secure insulation panels to structure are observed or if insulation appears or feels inadequately attached, immediately notify Architect. Do not proceed with installation until directed by Architect in writing.
- D. If insulation surface is not suitable for receiving new roofing immediately notify Architect in writing. Do not proceed with installation until directed by Architect.

#### 3.4 EXISTING BASE FLASHINGS

- A. Remove existing base flashings and penetration flashings around parapets, curbs, walls, and penetrations where shown on construction documents.
  - 1. Clean substrates of contaminants such as asphalt, sheet materials, dirt, and debris.
- B. Do not damage metal counterflashings that are to remain. Replace metal counterflashings damaged during removal with counterflashings of same metal, weight or thickness, and finish.

#### 3.5 DISPOSAL

- A. Collect demolished materials and place in containers. Promptly dispose of demolished materials daily. Do not allow demolished materials to accumulate on-site.
  - 1. Storage or sale of demolished items or materials on-site is not permitted.
- B. Transport and legally dispose of demolished materials off Owner's property.

**END OF SECTION 07 7540**

## HERITAGE ELEMENTARY RE-ROOF PROJECTS

### SECTION 07 5419 - THERMOPLASTIC MEMBRANE ROOFING

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Mechanically fastened PVC membrane roofing system over 4" of existing insulation to remain.
  - 2. Installation of 1/2" High Density Polyisocyanurate Cover / Insulation Board
  - 3. Install a .60 mil white and or gray reinforced PVC membrane. 43% material above scrim. Thickness shall comply with a Guaranteed thickness; nominal membrane thickness will not be allowed.
  - 4. Bid Alternate is .80 mil white and or gray reinforced PVC membrane. 43% material above scrim. Thickness shall comply with a Guaranteed thickness; nominal membrane thickness will not be allowed.
  - 4. Provide a 20 yr. 99 mph system, no dollar limit (NDL) performance warranty.
  - 5. Membrane must be Energy Star & LEED Rated.

##### 1.2 DEFINITIONS

- A. Roofing Terminology: Refer to ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definition of terms related to roofing work in this Section.
- B. Design Uplift Pressure: The uplift pressure, calculated according to procedures in SPRI's "Wind Load Design Guide for Mechanically Fastened Roofing Systems," before multiplication by a safety factor.

##### 1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Material:
  - 1. Roofing Manufacturer must own and operate facility and equipment producing roof membrane for a period of Five years. Private labeled arrangements are not acceptable.
  - 2. Membrane shall be guaranteed in total specified thickness. ASTM manufacturing 10% tolerances for membrane thickness are not acceptable.
  - 3. Membrane reinforcement shall be balanced in the center of the total membrane thickness. Polymer over reinforcement shall be a minimum of .040 mils.
- C. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.



- D. Warranty Exclusions: Manufacturer's warranty shall have "No Dollar Limit" for the replacement of defective materials and/or labor and shall not contain any exclusion for ponding water during the 20 year warranty period.
- E. FMG Listing: Provide roofing membrane, base flashings, and component materials that comply with requirements in FMG 4450 and FMG 4470 as part of a membrane roofing system and that are listed in FMG's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.
  - 1. Fire/Windstorm Classification: Class 1A-90
  - 2. Hail Resistance: MH

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
  - 1. Base flashings and membrane terminations.
  - 2. Hardboard and membrane fastening patterns.
- C. Samples for Verification: For the following products:
  - Sample of sheet roofing, color specified.
  - 2. Sample of walkway pads or rolls.
  - 3. Sample length of metal termination bars.
  - 4. Six insulation plates and fasteners of each type and finish.
  - 5. Six roof cover fasteners of each type, and finish.
- D. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is accepted, authorized, or licensed by manufacturer to install roofing system.
- E. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
  - 1. Submit evidence of meeting performance requirements.
- F. Qualification Data: For Installer and manufacturer.
- G. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for components of roofing system.
- H. Research/Evaluation Reports: For components of membrane roofing system.
- I. Maintenance Data: For roofing system to include in maintenance manuals.
- J. Warranties: Special warranties specified in this Section.
- K. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

## 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified firm that is accepted, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's warranty.
- B. Manufacturer Qualifications: A qualified manufacturer that has UL Class A and FM 1-90 approvals for membrane roofing system identical to that used for this Project.
- C. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.
- D. Source Limitations: Obtain components for membrane roofing system from roofing membrane manufacturer.
- E. Fire-Test-Response Characteristics: Provide membrane roofing materials with the fire-test-response characteristics indicated as determined by testing identical products per test method below by UL, FMG, or another testing and inspecting agency acceptable to authorities having jurisdiction. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
  - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108, for application and roof slopes indicated.
  - 2. Fire-Resistance Ratings: ASTM E 119, for fire-resistance-rated roof assemblies of which roofing system is a part.
- F. Preliminary Roofing Conference: Before starting construction, conduct conference at Project site. Comply with requirements for preinstallation conferences in Division 1 Section "Quality Control." Review methods and procedures related to roof preparation and roofing system including, but not limited to, the following:
  - 1. Meet with Owners Representative, insurer (if applicable), testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
  - 2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
  - 3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
  - 4. Examine deck conditions and finishes for compliance with requirements, including flatness and fastening.
  - 5. Review structural loading limitations of roof deck during and after roofing.
  - 6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
  - 7. Review governing regulations and requirements for insurance and certificates if applicable.
  - 8. Review temporary protection requirements for roofing system during and after installation.
  - 9. Review roof observation and repair procedures after roofing installation.
  - 10. Review protection of roof drains and piping at built up roof installation with gravel ballast. Review how to keep rocks and debris from enter the piping system.
- G. Preinstallation Conference: Conduct conference at Project site. Review methods and procedures related to roofing system including, but not limited to, the following:

1. Meet with Owner, insurer (if applicable), testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, and installers whose work interfaces with or affects roofing including installers of roof accessories and roof-mounted equipment.
2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
3. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
4. Examine deck conditions and finishes for compliance with requirements, including flatness and fastening.
5. Review structural loading limitations of roof deck during and after roofing.
6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
7. Review governing regulations and requirements for insurance and certificates if applicable.
8. Review temporary protection requirements for roofing system during and after installation.
9. Review roof observation and repair procedures after roofing installation.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
  1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials and place equipment in a manner to avoid permanent deflection of deck.

#### 1.7 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

#### 1.8 WARRANTY:

- A. Roofing Manufacturer's Warranty:
  1. Sika Sarnafil's 20-year System warranty without monetary limitation, in which the manufacturer agrees to repair or replace roofing components and total roof system.
  2. Warranty shall provide coverage for wind speeds up to and including 99 miles per hour.

- B. Installer's Warranty: Submit roofing Installer's warranty, including verbage outlined at end of this Section, provided and signed by Installer, covering Work of this Section, including all components of membrane roofing system such as roofing membrane, base flashing, fasteners, cover boards, and walkway products, for the following warranty period:

1. Warranty Period: 1 year.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:

1. Products: Subject to compliance with requirements, provide one of the products specified.
2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified

- B. **Base Bid:** The following roofing membrane shall be bid as Base Bid. A separate line item shall be provided on the bid form for the ALTERNATE BID roofing. ***Sarnafil Inc is basis of design***

1. PVC Sheet: ASTM D 4434, Type III, fabric reinforced.
  - a. Available Manufactures:
  - b. Sarnafil Inc
  - c. Carlisle SynTec Inc. SureFlex Kee
  - d. Johns Manville International. Inc. JMKEE SP8RM
  - e. Thickness: 60 mls (2.0 mm), Minimum
  - f. Exposed Face Color: White or Light Grey

- C. **Bid Alternate:** The following roofing membrane shall be bid as an alternate. ***Sarnafil Inc is basis of design***

1. PVC Sheet: ASTM D 4434, Type III, fabric reinforced.
  - a. Available Manufactures:
  - b. Sarnafil Inc
  - c. Carlisle SynTec Inc. SureFlex Kee
  - d. Johns Manville International. Inc. JMKEE SP8RM
  - e. Thickness: 80 mls (2.0 mm), Minimum
  - f. Exposed Face Color: White or Light Grey

### 2.2 PVC ROOFING MEMBRANE

- A. PVC Sheet: ASTM D 4434, Type III, fabric reinforced.

- a. Sika Sarnafil Inc.
1. Thickness:
  - a. Base bid: 60 mil membrane
2. Exposed Face Color: Energy Smart White

3. Membranes
  - a. Field membrane: Sarnafil S327

## 2.3 PVC FLASHING MEMBRANE

- A. PVC Sheet: ASTM D 4434, Type III, Fabric reinforced.
  1. Manufacturers:
    - a. Sika Sarnafil Inc.
  2. Flashing Membranes: Precoated fused flashing membrane at all parapets, scuppers, and gravel stops.
    - a. Sarnafil G410 – 60 mils
    - b. Sarnafil G459 – 60 mils if asphalt contamination exist.
    - c. Sarnafil Sarnaclad metal
  3. Thickness: 60 mils (ASTM tolerances are not acceptable).
  4. Exposed Face Color: Energy Smart White
- B. Cover Board – 1/2 inch High Density Rigid Poly-Isocyanurate Roof Cover Board Insulation.
  1. Insulation shall have minimum 'R' value of 2.5.
  2. Poly-Isocyanurate foam Insulation Board shall be integrally bonded to inorganic coated glass facers.
- C. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with membrane roofing.
  1. Liquid-type auxiliary materials shall meet VOC limits of authorities having jurisdiction.
- D. Bonding Adhesive: Manufacturer's standard solvent-based bonding adhesive for membrane, and solvent-based bonding adhesive for base flashings.
- E. Metal Termination Bars: Manufacturer's standard predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- F. Fasteners:
  1. Factory-coated steel fasteners and metal plates and/or batten bars meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane to substrate, and acceptable to membrane roofing system manufacturer. XP and XPN by membrane manufacturer and Rhinobond PVC adhesive coated plates.
- G. Coated sheet metal flashing: Applicator fabricated membrane coated galvanized steel edge flashing and scuppers. Color of membrane coated sheet metal flashing and membrane coverstrip accessories shall be as selected by Architect /School District.
- H. Sheet metal accessories: hold down cleats, flashing extensions etc. shall be fabricated of 24 gauge galvanized sheet metal unless exposed. Exposed accessories shall be 24 gauge galvanized sheet metal with a Kynar or Hylar finished surface.

- I. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, termination reglets, cover strips as required by Membrane Manufacture.
- J. Damaged or replacement pipe supports shall be MIRO model 3-R-4 by MIRO Industries Inc. 800.768.6978
- K. Pipe / Conduit Support: Provide support for pipes and conduits that occur above the roof membrane and is acceptable to the single ply roofing manufacture.
  - 1. Manufactures
    - a. Miro Industries.
    - b. Advanced support products by ASP, Inc.
    - c. Versablock by Freedom Inc.

## 2.4 WALKWAYS

- A. Flexible Hot Air welded Walkways: A polyester reinforced, 0.096 inch (96 mil), weldable walkway roll with surface embossment. Used as an adhered and hot air welded protection layer from rooftop traffic.
  - 1. Sarnatred: Supplied in rolls of 39.3 inches wide and 32.8 feet long or:

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Remove and dispose of existing single-ply roofing assembly including flashing, termination and underlayment.
- B. Dispose or recycle debris in approved location.
- C. Examine substrates, areas, and conditions for compliance with the following requirements and other conditions affecting performance of roofing system:
  - 1. Verify that roof openings and penetrations are in place and set and braced and that roof drains are securely clamped in place.
  - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and nailers that match thicknesses of insulation.
  - 3. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and discard temporary seals before beginning work on adjoining roofing.

### 3.3 INSULATION INSTALLATION

- A. Lay out base insulation layer with snug joints and ends. Cut to fit around curbs and pipes. Repeat installation for additional layers of flat stock insulation ensuring that joints and ends of additional insulation are offset a minimum of twelve (12) inches from underlying application. Tapered layers shall be installed in pattern and direction as required by membrane manufacturer to satisfy roof drainage requirements.
- B. Install Rhinobond plates in patterns necessary to achieve 120 mile per hour wind speed warranty conditions (Pattern shall be as directed by Membrane Manufacturers Technical Department and as required by the specified wind speed warranty). Secure as required to compliment installation requirements.

### 3.5 RHINO BOND FASTENED ROOFING MEMBRANE INSTALLATION

- A. Install roofing membrane according to roofing system manufacturer's written instructions. Unroll roofing membrane and allow to relax before installing.
- B. Start installation of roofing membrane in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing membranes and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Induction weld perimeter ends of field membrane to ensure membrane remains stationary during seam welding and to reduce the chance for wrinkles in the finished roof membrane.
- E. Seams: Clean seam areas, overlap roofing membrane, and hot-air weld side and end laps of roofing membrane according to manufacturer's written instructions to ensure a watertight seam installation.
  - 1. Test lap edges with probe to verify seam weld continuity.
  - 2. Verify field strength of seams a minimum of twice daily and repair seam sample areas. Mark date on samples and retain for Manufacturers technicians review.
  - 3. Repair tears, voids, and lapped seams in roofing membrane that does not meet requirements.
- F. Hot air weld all membrane overlaps (seams) as required by membrane manufacturer.
- G. Spread sealant over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.
- H. Activate the weld between membrane and Rhinobond plate using approved portable induction device. The induction coil must be positioned over the center of the Rhinobond welder, +/- 1 inch (25 mm). Portable induction device must elevate the temperature of the Rhinobond fastener from ambient to 400 – 500 degree F (204 – 260 C). Cycle time will be effected by available power. Use a heavy gauge power cord, at minimum 12 gauge by 100 feet.

- I. When induction welding cycle is complete, immediately place a 'cool and clamp' magnet weight on the welded Rhinobond fastener. This cooling magnet device must be left in place for at least 60 seconds
- J. Provide and install a PVC buffer membrane under all pipe supports.

### 3.6 MEMBRANE FLASHINGS

- A. All flashings shall be installed concurrently with the roof membrane as the job progresses. No temporary flashings shall be allowed without the prior approval of the Owner or Owners representative.
- B. If any water is allowed to enter under the newly completed roof section, the affected area shall be removed and replaced at the Applicators expense. Flashing shall be adhered to compatible, dry, smooth and solvent resistant surfaces. Use caution to ensure adhesive fumes are not drawn into the building.
- C. Apply adhesive according to membrane manufacturer's directions. Only an area which can be completely covered in the same day's operations shall be flashed. The bonded sheet shall be pressed firmly in place with a hand roller.
- D. No adhesive shall be applied in overlap areas to be welded into seams.
- E. All flashing terminations shall be in accordance with manufacturers requirements.

### 3.7 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Adhere Sarnatred with adhesive followed by hot air welding perimeter edge to surface of roof membrane according to roofing system manufacturer's written instructions.
- B. Crossgrip Walkways: Crossgrip should be loosely installed unless high winds or roof slope will cause displacement. At all walkway junctions weld to the underside of the walkway a twelve (12) inch wide strip of roof membrane centered between ends. To hold walkway in place on sloped roofs weld a three inch wide membrane tab to the underside edge spaced every four lineal feet. This tab should be welded to a membrane patch that has been welded to the roof surface

### 3.8 FIELD QUALITY CONTROL

- A. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report to Owner's Representative.
  - 1. Notify Sika Sarnafil, 48 hours in advance of date and time of inspection.
- B. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with specified requirements.
- C. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.



### 3.9 PROTECTING AND CLEANING

- A. Protect membrane roofing system from damage and wear during remainder of construction period.
- B. Correct deficiencies in or remove membrane roofing system that does not comply with requirements, repair substrates, and repair or reinstall membrane roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.
- C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

### 3.10 ROOFING WARRANTIES

- A. MANUFACTURER'S WARRANTY:
  - 1. Manufacturer's Twenty (20) year System No Dollar Limit (NDL).
  - 2. Warranty shall include coverage for wind speeds up to 120 mph.
- B. INSTALLERS WARRANTY (Shall include the following):
  - 1. WHEREAS **<Insert name>** of **<Insert address>**, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:
  - 2. Property:
  - 3. Address:
  - 4. Building Name/Type:
  - 5. Address:
  - 6. Area of Work:
  - 7. Acceptance Date: **<Insert date.>**
  - 8. Warranty Period: **<Insert time.>**
  - 9. Expiration Date: **<Insert date.>**
- C. AND WHEREAS Roofing Installer has contracted (either directly or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,
- D. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.
- E. This Warranty is made subject to the following terms and conditions:
  - 1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
    - a. lightning;
    - b. peak gust wind speed exceeding 99 mph;
    - c. fire;
    - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
    - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;

- f. vapor condensation on bottom of roofing; and
  - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

F. IN WITNESS THEREOF, this instrument has been duly executed this **<Insert day>** day of **<Insert month>**, **<Insert year>**.

1. Authorized Signature: **<Insert signature.>**
2. Name: **<Insert name.>**
3. Title: **<Insert title.>**

**END OF SECTION 07 5419**

## SECTION 07 7620 - SHEET METAL FLASHING AND TRIM

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following sheet metal flashing and trim:
  - 1. Manufactured reglets.
  - 2. Formed low-slope roof flashing and trim.
  - 3. Formed wall flashing and trim.
  - 4. Formed equipment support flashing.
- B. Related Sections include the following:
  - 1. Division 6 Section "Miscellaneous Carpentry" for wood nailers, curbs, and blocking.
  - 2. Division 7 Section "PVC" for installing sheet metal flashing and trim integral with roofing membrane.
  - 3. Division 7 Section "Roof Accessories" for set-on-type curbs, equipment supports, roof hatches, vents, and other manufactured roof accessory units.
  - 4. Division 7 Section "Joint Sealants" for field-applied sheet metal flashing and trim sealants.

#### 1.3 PERFORMANCE REQUIREMENTS

- A. General: Install sheet metal flashing and trim to withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failing, rattling, leaking, and fastener disengagement.
- B. Water Infiltration: Provide sheet metal flashing and trim that do not allow water infiltration to building interior.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: Show layouts of sheet metal flashing and trim, including plans and elevations. Distinguish between shop- and field-assembled work. Include the following:
  - 1. Identify material, thickness, weight, and finish for each item and location in Project.
  - 2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
  - 3. Details for fastening, joining, supporting, and anchoring sheet metal flashing and trim, including fasteners, clips, cleats, and attachments to adjoining work.
  - 4. Details of expansion-joint covers, including showing direction of expansion and contraction.
- C. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:

1. Sheet Metal Flashing: 12 inches (300 mm) long. Include fasteners, [cleats,] [clips,] closures, and other attachments.
2. Trim: 12 inches (300 mm) long. Include fasteners and other exposed accessories.
3. Accessories: Full-size Sample.

#### 1.5 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual", Fourth Edition. Conform to dimensions and profiles shown unless more stringent requirements are indicated.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver sheet metal flashing materials and fabrications undamaged. Protect sheet metal flashing and trim materials and fabrications during transportation and handling.
- B. Unload, store, and install sheet metal flashing materials and fabrications in a manner to prevent bending, warping, twisting, and surface damage.
- C. Stack materials on platforms or pallets, covered with suitable weathertight and ventilated covering. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage.

#### 1.7 COORDINATION

- A. Coordinate installation of sheet metal flashing and trim with interfacing and adjoining construction to provide a leakproof, secure, and noncorrosive installation.

### PART 2 - PRODUCTS

#### 2.1 SHEET METALS

- A. Exposed to view flashings & trim.
  1. High-Performance Organic Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions
  2. Kynar Fluoropolymer 3-coat system: Manufacturer's standard 3-coat, thermocured system consisting of specially formulated inhibitive primer, fluoropolymer color coat, and clear fluoropolymer topcoat, with both color coat and clear topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight, with a minimum total dry film thickness of 1.5 mil (0.038 mm); complying with AAMA 2605.:
    - a. Color: As selected by Architect to match existing. (Firestone Silver Metallic or equal)

#### 2.2 UNDERLAYMENT MATERIALS

- A. Felts: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, nonperforated.

#### 2.3 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.
  - 1. Exposed Fasteners: Heads matching color of sheet metal by means of plastic caps or factory-applied coating.
  - 2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed, with hex washer head.
  - 3. Blind Fasteners: High-strength aluminum or stainless-steel rivets.
  - 4. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
- C. Solder: ASTM B 32, Grade Sn50, use with rosin flux.

## 2.4 MANUFACTURED SHEET METAL FLASHING AND TRIM

- A. Reglets: Units of type, material, and profile indicated, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory- mitered and -welded corners and junctions.
  - 1. Material: Galvanized steel, 0.025 inch (24 Ga) thick.
  - 2. Masonry Type: Provide with offset top flange for embedment in masonry mortar joint.
  - 3. Flexible Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where Drawings show reglet without metal counterflashing.
  - 4. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing lower edge.

## 2.5 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Shop fabricate items where practicable. Obtain field measurements for accurate fit before shop fabrication.
- B. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal. Minimum thickness- .025 inches (24 Ga.) Kynar metal.
- C. Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
  - 1. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- D. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- E. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with elastomeric sealant concealed within joints.
- F. Conceal fasteners and expansion provisions where possible on exposed-to-view sheet metal flashing and trim, unless otherwise indicated.
- G. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

1. Thickness: As recommended by SMACNA's "Architectural Sheet Metal Manual" and FMG Loss Prevention Data Sheet 1-49 for application but not less than thickness of metal being secured.
  2. Minimum Thickness: .0375 inch (20 Ga) thick.
  3. Lengths: Full continuous length, (partial clips at seams not allowed).
  4. Fastening: 6" on center staggered.
- H. Downspouts: Fabricate square open faced SMACNA figure 132H downspouts complete with mitered elbows. Furnish with metal hangers, from same material as downspouts, and anchors.
1. Manufactured Hanger Style: Conceal Hanger - SMACNA Plate 134A.
  2. Fabricate downspouts from the following material:
    - a. Aluminum: 0.024 inch (0.6 mm) thick. Factory finished (3) coat Kynar 500 finish.
- I. Gutters: Fabricate gutters as recommended by SMACNA GIGI-2 Style H - hanging gutter installation. Aluminum 0.024-inch-thick factory finished 3 coat Kynar 500.
- J. Copings: Fabricate in minimum 96-inch- (2400-mm-) long, but not exceeding 10-foot- (3-m-) long, sections. Fabricate joint plates of same thickness as copings. Furnish with continuous cleats to support edge of external leg and [drill elongated holes for fasteners on] interior leg. Miter corners, seal, and solder or weld watertight.
1. Fabricate copings from the following material:
    - a. Kynar finished, Metallic-Coated: 0.025 inch (24 Ga) thick.
    - b. Fastening: Cap must be secured a minimum of 18" on center.
- K. Roof to Wall Transition and Roof to Sheet Metal Roof Edging Transition Expansion-Joint Cover: Fabricate from the following material:
1. Galvanized Steel: [0.0336 inch (0.85 mm)] thick.
- L. Base Flashing: Fabricate from the following material:
1. Galvanized Steel: [0.0276 inch (0.7 mm)] thick.
- M. Counterflashing: Fabricate from the following material:
1. Galvanized Steel: [0.0217 inch (0.55 mm)] thick.
- N. Flashing Receivers: Fabricate from the following material:
1. Galvanized Steel: [0.0217 inch (0.55 mm)] thick.
- O. Roof-Penetration Flashing: Fabricate from the following material:
1. Galvanized Steel: [0.0276 inch (0.7 mm)] thick.

## 2.6 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

- C. 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 the same piece are not acceptable. 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.
- D. Exposed to view items to be factory finished (3) coat Kynar 500 finish. Color as selected by Architect from full range of available standard colors.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of work.
  - 1. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
  - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
  - 1. Torch cutting of sheet metal flashing and trim is not permitted.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.
  - 1. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or install a course of polyethylene underlayment.
- C. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
- D. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and elastomeric sealant.
- E. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
  - 1. Cleats shall be continuous and anchored at 6" on center staggered. Bend tabs over fasteners.
- F. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with elastomeric sealant concealed within joints.
- G. Fasteners: Use fasteners of sizes that will penetrate substrate not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for wood screws.
  - 1. Galvanized or Prepainted, Metallic-Coated Steel: Use stainless-steel fasteners.

- H. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-terminated edges of sheets to be soldered to a width of 1-1/2 inches (38 mm) except where pre-terminated surface would show in finished Work.
  - 1. Do not use open-flame torches for soldering. Heat surfaces to receive solder and flow solder into joints. Fill joints completely. Completely remove flux and spatter from exposed surfaces.

### 3.3 ROOF DRAINAGE SYSTEM INSTALLATION

- A. General: Install sheet metal roof drainage items to produce complete roof drainage system according to SMACNA recommendations and as indicated. Coordinate installation of roof perimeter flashing with installation of roof drainage system.

### 3.4 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal roof flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight.
- B. Roof Edge Flashing: Anchor to resist uplift and outward forces according to recommendations in FMG Loss Prevention Data Sheet 1-49 for specified wind zone and as indicated.
  - 1. Interlock bottom edge of roof edge flashing with continuous cleats anchored to substrate at 16-inch (400-mm) centers.
- C. Copings: Anchor to resist uplift and outward forces according to recommendations in FMG Loss Prevention Data Sheet 1-49 for specified wind zone and as indicated.
  - 1. Interlock exterior bottom edge of coping with continuous cleats anchored to substrate at 16-inch centers.
  - 2. Anchor interior leg of coping with screw fasteners and washers at 16-inch centers.
- D. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending a minimum of 4 inches (100 mm) over base flashing. Install stainless-steel draw band and tighten.
- E. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches (100 mm) over base flashing. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with elastomeric sealant.
- F. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Install flashing as follows:
  - 1. Turn lead flashing down inside vent piping, being careful not to block vent piping with flashing.
  - 2. Seal with elastomeric sealant and clamp flashing to pipes penetrating roof except for lead flashing on vent piping.

### 3.5 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder and sealants.



- C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed. On completion of installation, clean finished surfaces, including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain in a clean condition during construction.
- D. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

**END OF SECTION 07 7620**

## SECTION 07 7200 - ROOF ACCESSORIES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Pipe / Conduit Support
- B. Related Sections include the following:
  - 1. Division 6 Section "Miscellaneous Carpentry" for roof sheathing, wood cants, and wood nailers.
  - 2. Division 7 Section "Sheet Metal Flashing and Trim" for shop- and field-fabricated metal flashing and counterflashing, scuppers, gutters and downspouts, roof expansion-joint covers, and miscellaneous sheet metal trim and accessories.
  - 3. Division 7 Section "Polyvinyl Chloride" Roofing (PVC) for flashings associated with the roofing membrane and fascia.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, materials, dimensions of individual components and profiles, and finishes.

#### 1.4 QUALITY ASSURANCE

- A. Standards: Comply with the following:
  - 1. SMACNA's "Architectural Sheet Metal Manual" details for fabrication of units, including flanges and cap flashing to coordinate with type of roofing indicated.
  - 2. NRCA's "Roofing and Waterproofing Manual" details for installing units.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Pipe / Conduit Supports:
    - a. Miro Industries
    - b. Advanced support products by ASP, Inc.
    - c. Versablock by Freedom Inc.
    - d. nVent Caddy

#### 2.2 MATERIALS, GENERAL

- A. Galvanized Steel Sheet: ASTM A 653/A 653M with G90 (Z275) coating designation; commercial quality, unless otherwise indicated.
  - 1. Structural Quality: Grade 40 (Grade 275), where indicated or as required for strength.

- B. Insulation: Manufacturer's standard rigid or semirigid glass-fiber board of thickness indicated.
- C. Fasteners: Same metal as metals being fastened, or nonmagnetic stainless steel or other noncorrosive metal as recommended by manufacturer. Match finish of exposed fasteners with finish of material being fastened.
  - 1. Where removing exterior exposed fasteners affords access to building, provide nonremovable fastener heads.
- D. Gaskets: Manufacturer's standard tubular or fingered design of neoprene, EPDM, or PVC; or flat design of foam rubber, sponge neoprene, or cork.
- E. Elastomeric Sealant: Generic type recommended by unit manufacturer that is compatible with joint surfaces; ASTM C 920, Type S, Grade NS, Class 25, and Uses NT, G, A, and, as applicable to joint substrates indicated, O.

## 2.3 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. 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 the same piece are not acceptable. 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.

## 2.4 GALVANIZED STEEL SHEET FINISHES

- A. Surface Preparation: Clean surfaces with nonpetroleum solvent so surfaces are free of oil and other contaminants. After cleaning, apply a conversion coating suited to the organic coating to be applied over it. Clean welds, mechanical connections, and abraded areas, and apply galvanizing repair paint specified below to comply with ASTM A 780.
  - 1. Galvanizing Repair Paint: High-zinc-dust-content paint for re-galvanizing welds in steel, complying with SSPC-Paint 20.
- B. Factory Priming for Field-Painted Finish: Where field painting after installation is indicated, apply the air-dried primer specified below immediately after cleaning and pretreating.
  - 1. Shop Primer: Exterior galvanized metal primer per Division 9 Section "Painting."

## 2.5 PIPE / CONDUIT SUPPORT

- A. Pipe / Conduit Support: Provide support for pipes and conduits that occur above the roof membrane and is acceptable to the single ply roofing manufacture.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Comply with manufacturer's written instructions. Coordinate installation of roof accessories with installation of roof deck, roof insulation, flashing, roofing membranes, penetrations, equipment, and other construction involving roof accessories to ensure that each element of the Work performs properly and that combined elements are waterproof and weathertight. Anchor roof accessories securely to supporting

structural substrates so they are capable of withstanding lateral and thermal stresses, and inward and outward loading pressures.

- B. Install roof accessory items according to construction details of NRCA's "Roofing and Waterproofing Manual," unless otherwise indicated.
- C. Roof curbs for roof hatches: Roof curbs are to be raised up as required for proper flashing of equipment per the manufacture's recommendations. Interior finishes are to be extend up to new equipment as required to match existing conditions.
- D. Cover and protect all roof openings each night with plywood or similar material and waterproof membrane as required to protect the school during construction.

### 3.2 CLEANING AND PROTECTION

- A. Clean exposed surfaces according to manufacturer's written instructions. Touch up damaged metal coatings.

END OF SECTION 07720

## SECTION 07 9200 – JOINT SEALANTS

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Nonsag gunnable joint sealants.
- B. Joint backings and accessories.

#### 1.2 REFERENCE STANDARDS

- A. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2014
- B. ASTM C1193 - Standard Guide for Use of Joint Sealants; 2016

#### 1.3 SUBMITTALS

- A. Product Data for Sealants: Submit manufacturer's technical data sheets for each product to be used, that includes the following.
  - 1. Physical characteristics, including movement capability, VOC content, hardness, cure time, and color availability.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Correct defective work within a five-year period after Date of Substantial Completion.
- B. Warranty: Include coverage for installed sealants and accessories that fail to achieve watertight seal, exhibit loss of adhesion or cohesion, or do not cure.

### PART 2 - PRODUCTS

#### 2.1 JOINT SEALANT APPLICATIONS:

- A. Scope:
  - 1. Exterior Joints: Seal open joints, whether or not the joint is indicated on the drawings, unless specifically indicated not to be sealed. Exterior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
    - b. Joints between different exposed materials.
  - 2. Interior Joints: Do not seal interior joints unless specifically indicated to be sealed. Interior joints to be sealed include, but are not limited to, the following items.
    - a. Joints between door, window, and other frames and adjacent construction.
  - 3. Do not seal the following types of joints.
    - a. Joints where sealant is specified to be provided by manufacturer of product to be sealed.
    - b. Joints where installation of sealant is specified in another section.
    - c. Joints between suspended panel ceilings/grid and walls.
- B. Exterior Joints: Use non-sag non-staining silicone sealant, unless otherwise indicated.
- C. Interior Joints: Use non-sag polyurethane sealant, unless otherwise indicated.
  - 1. Wall and Ceiling Joints in Non-Wet Areas: Acrylic emulsion latex sealant.
  - 2. Joints between Fixtures in Wet Areas and Floors, Walls, and Ceilings: Mildew-resistant silicone sealant; white.
- D. Interior Wet Areas: restrooms, kitchens, and food service areas; fixtures in wet areas include plumbing fixtures, food service equipment, countertops, cabinets, and other similar items.

#### 2.2 JOINT SEALANT GENERAL:

- A. Sealants and Primers: Provide products having lower volatile organic compound (VOC) content than indicated in SCAQMD 1168.
- B. Colors: By architect to match adjacent material.

### 2.3 JOINT SEALANT GENERAL:

- A. Non-Staining Silicone Sealant: ASTM C920, Grade NS, Uses M and A; not expected to withstand continuous water immersion or traffic.
  - 1. Movement Capability: \_\_\_\_\_, minimum.
  - 2. Non-Staining to Porous Stone: Non-staining to light-colored natural stone when tested in accordance with ASTM C1248.
  - 3. Dirt Pick-Up: Reduced dirt pick-up compared to other silicone sealants.
- B. ----- Conventional Silicone Sealant, Parking Structure and Highway -----
- C. Mildew-Resistant Silicone Sealant: ASTM C920, Grade NS, Uses M and A; single component, mildew resistant; not expected to withstand continuous water immersion or traffic.
  - 1. Color: White and or Gray
- D. Polyurethane Sealant: ASTM C920, Grade NS, Uses M and A; single or multi-component; not expected to withstand continuous water immersion or traffic.
  - 1. Movement Capability: Plus and minus 25 percent, minimum.
- E. Acrylic Emulsion Latex: Water-based; ASTM C834, single component, non-staining, non-bleeding, non-sagging; not intended for exterior use.

### 2.4 ACCESSORIES

- A. Backer Rod: Cylindrical cellular foam rod with surface that sealant will not adhere to, compatible with specific sealant used, and recommended by backing and sealant manufacturers for specific application.
- B. Backing Tape: Self-adhesive polyethylene tape with surface that sealant will not adhere to and recommended by tape and sealant manufacturers for specific application.

## PART 3 - EXECUTION

### 3.1 PREPARATION:

- A. Remove loose materials and foreign matter that could impair adhesion of sealant.
- B. Clean joints, and prime as necessary, in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.
- D. Mask elements and surfaces adjacent to joints from damage and disfigurement due to sealant work; be aware that sealant drips and smears may not be completely removable.

### 3.2 INSTALLATION:

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.
- B. Perform installation in accordance with ASTM C1193.
- C. Install bond breaker backing tape where backer rod cannot be used.
- D. Install sealant free of air pockets, foreign embedded matter, ridges, and sags, and without getting sealant on adjacent surfaces.
- E. Do not install sealant when ambient temperature is outside manufacturer's recommended temperature range or will be outside that range during the entire curing period, unless manufacturer's approval is obtained, and instructions are followed.
- F. Nonsag Sealants: Tool surface concave, unless otherwise indicated; remove masking tape immediately after tooling sealant surface.

## END OF SECTION 07 9200