

# ENGINEERING ANNEX ROOF REPLACEMENT UNIVERSITY OF NEW ORLEANS Addendum 01

H/S Project: 24054 Addendum: 01 Date: 4.22.2025

This Addendum forms a part of the Contract Documents and modifies the original specifications and drawings issued for bidding to the extent noted hereinafter. All other provisions of the Bid Documents shall remain unchanged.

Careful note of this Addendum will be taken by all parties of interest so that proper allowances are made in all computations, estimates and contracts and so that all trades affected are fully advised in the performance of the work that will be required of them. Acknowledge receipt of this Addendum on the Bid Form.

#### General

**1.01 PRE-BID MEETING ATTENDEE LIST:** The Pre-Bid Meeting Attendee List is included as part of the Addendum for information only.

**Modifications to the Procurement and Contracting Requirements** 

#### 1.02 COVER PAGE:

Refer to Specifications, COVER PAGE. Delete this document in its entirety and insert revised COVER PAGE, included herein as part of this addendum.

#### 1.03 BID FORM:

Refer to Specifications, LOUISIANA UNIFORM PUBLIC WORK BID FORM. Delete this document in its entirety and insert revised LOUISIANA UNIFORM PUBLIC WORK BID FORM, included herein as part of this addendum.

#### 1.04 INSTRUCTIONS TO BIDDERS:

Refer to Specifications, INSTRUCTIONS TO BIDDERS. Delete this document in its entirety and insert revised INSTRUCTIONS TO BIDDERS, included herein as part of this Addendum.

### **Modifications to the Specifications**

#### Section 01 32 33 – PHOTOGRAPHIC DOCUMENTATION

**1.05** Delete Specification Section 01 32 33 – PHOTOGRAPHIC DOCUMENTATION in its entirety and insert revised Specification Section 01 32 33 – PHOTOGRAPHIC DOCUMENTATION, included herein as part of this Addendum.

HOLLY & SMITH ARCHITECTS, APAC

#### Section 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

**1.06** Delete Specification Section 01 50 00 – TEMPORARY FACILITIES AND CONTROLS in its entirety and insert revised Specification Section 01 50 00 – TEMPORARY FACILITIES AND CONTROLS, included herein as part of this Addendum.

#### Section 07 55 00 – SBS-MODIFIED BITUMEN MEMBRANE ROOFING

**1.07** Delete Specification Section 07 55 00 – SBS-MODIFIED BITUMEN MEMBRANE ROOFING in its entirety and insert revised Specification Section 07 55 00 – SBS-MODIFIED BITUMEN MEMBRANE ROOFING, included herein as part of this Addendum.

#### **Modifications to the Drawings**

#### Sheet A011

**1.08** Delete Sheet A011 – EXISTING PICTURES in its entirety. In lieu thereof, substitute revised Sheet A011 – EXISTING PICTURES, included herein as part of this Addendum.

#### <u>Sheet A901</u>

**1.09** Delete Sheet A901 – ROOF PLAN in its entirety. In lieu thereof, substitute revised Sheet A901 – ROOF PLAN, included herein as part of this Addendum.

#### END OF ADDENDUM.

HOLLY & SMITH ARCHITECTS

# H/S

# SIGN-IN SHEET PRE-BID CONFERENCE

Engineering Annex Roof Replacement University of New Orleans H/S Project No.: 24054

April 17, 2025 @ 10:00 AM

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|---------------------------------------|-------------------------------|----------------|----------------------------|--|
| MAZLU BAKer                           | fischer's DW.                 | pe.            | 504-450-2741               | matty @fischersreefing, con.                         |
| folland Lec                           | Industrial hoosing and con    |                | 225-355-0003               | Rolland @ IND-Roofing. com                           |
| Terry Hitibidal                       | SupremeRAC                    | r              | 504-799-9844               | Jerry@supremerac.com                                 |
| Wallace Robinson Sr.<br>Orly Buryca   | Supreme Roofing               |                | (504) 708-9880             | Nallace@ supremerac.com                              |
| Bay Kleykamp                          | Holly + Smith Arch            | N              | 202 215 7332               | ray & hollyands mith.com                             |
| TROY A BACINO                         | Ellis-Johnson<br>UNO PURCHOSH | ni v           | 504-914-9370<br>5047806172 | Ellis. johnson. nola@gmail.com<br>TABACINO O UNU.EDU |
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# ENGINEERING ANNEX ROOF REPLACEMENT UNIVERSITY OF NEW ORLEANS

State of Louisiana Facility Planning & Control State Project No.: 01-107-24-05, F.01004598 UNO BTB 2858, SP5286

# **BID DOCUMENTS**



H/S PROJECT NO.: 24054 February 7, 2025

ADDENDUM 01 04/22/25

TO: University of New Orleans - Purchasing Suite 1004, Room G Administration Annex Building 2000 Lakeshore Drive New Orleans, Louisiana 70148 (Owner to provide name and address of owner)

#### BID FOR: <u>UNO Engineering Annex Roof Replacement</u> <u>University of New Orleans Main Campus</u> <u>2000 Lakeshore Dr.</u> <u>New Orleans, Louisiana 70148</u>

(Owner to provide name of project and other identifying information)

\_Dollars (\$\_\_\_\_\_)

The undersigned bidder hereby declares and represents that she/he: a) has carefully examined and understands the Bidding Documents, b) has not received, relied on, or based his bid on any verbal instructions contrary to the Bidding Documents or any addenda, c) has personally inspected and is familiar with the project site, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the construction and completion of the referenced project, all in strict accordance with the Bidding Documents prepared by: <u>Holly and Smith Architects</u> and dated: <u>February 7, 2025</u>.

(Owner to provide name of entity preparing bidding documents.)

Bidders must acknowledge all addenda. The Bidder acknowledges receipt of the following **ADDENDA:** (Enter the number the Designer has assigned to each of the addenda that the Bidder is acknowledging) \_\_\_\_\_\_.

**TOTAL BASE BID**: For all work required by the Bidding Documents (including any and all unit prices designated "Base Bid" \* but not alternates) the sum of:

ALTERNATES: For any and all work required by the Bidding Documents for Alternates including any and all unit prices designated as alternates in the unit price description.

Alternate No. 1 (Add: High roof – removal and replacement) for the lump sum of:

|   | Dollars (\$)                        |
|---|-------------------------------------|
| Alternate No. 2 (Add: building connector roof – removal and replacement) for the    | lump sum of:                        |
|   | Dollars (\$)                        |
| Alternate No. 3 (Owner to provide description of alternate and state whether add or | deduct) for the lump sum of:        |
| Not Applicable  | Dollars (\$ <u>Not Applicable</u> ) |
| NAME OF BIDDER:   |                                     |
| ADDRESS OF BIDDER:  |                                     |
| LOUISIANA CONTRACTOR'S LICENSE NUMBER:  |                                     |
| NAME OF AUTHORIZED SIGNATORY OF BIDDER:   |                                     |
| TITLE OF AUTHORIZED SIGNATORY OF BIDDER:  |                                     |
| SIGNATURE OF AUTHORIZED SIGNATORY OF BIDDER **                                      | :                                   |
| DATE:   |                                     |

### THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

\* The <u>Unit Price Form</u> shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.

**\*\*** A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA R.S. 38:2218(A) attached to and made a part of this bid.

# LOUISIANA UNIFORM PUBLIC WORK BID FORM UNIT PRICE FORM

#### TO: <u>University of New Orleans – Main Campus</u> <u>Purchasing Office</u> <u>Administration Annex, Room 1004G</u> New Orleans, Louisiana 70148

#### BID FOR: <u>University of New Orleans</u> Engineering Annex Roof Replacement 2000 Lakeshore Dr. New Orleans, LA 70148

(Owner to provide name and address of owner)

(Owner to provide name of project and other identifying information)

#### **UNIT PRICES:** This form shall be used for any and all work required by the Bidding Documents and described as unit prices. Amounts shall be stated in figures and only in figures.

| DESCRIPTION:                        | $\square$ Base Bid or $\square$ Alt.#  |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|--|
| REF. NO.                            | QUANTITY:  | UNIT OF MEASURE:   | UNIT PRICE   | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| Additional Roof<br>Plies            | 1  | SF   |  |  |  |  |  |
| DESCRIPTION:                        | □ Base Bid or ☑ Alt.# <u>1</u> High Roof – removal and replacement                         |  |  |  |  |  |  |
| REF. NO.                            | QUANTITY:  | UNIT OF MEASURE:   | UNIT PRICE   | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| Additional Roof<br>Plies            | 1  | SF   |  |  |  |  |  |
| DESCRIPTION:                        | IPTION: □ Base Bid or ☑ Alt.# <u>2</u> . Building connector roof – removal and replacement |  |  |  |  |  |  |
| REF. NO.                            | QUANTITY:  | UNIT OF MEASURE:   | UNIT PRICE   | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| Additional Roof<br>Plies            | 1  | SF   |  |  |  |  |  |
| DESCRIPTION:                        | ESCRIPTION: Base Bid or Alt.#  |  |  |  |  |  |  |
| REF. NO.                            | QUANTITY:  | UNIT OF MEASURE:   | UNIT PRICE   | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| N/A                                 | N/A  | N/A  | N/A  | N/A  |  |  |  |
| DESCRIPTION:                        | DESCRIPTION: Description: Alt#   |  |  |  |  |  |  |
| REF. NO.                            | QUANTITY:  | UNIT OF MEASURE:   | UNIT PRICE   | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| N/A                                 | N/A  | N/A  | N/A  | N/A  |  |  |  |
| DESCRIPTION:                        | TION: Base Bid or Alt.#  |  |  |  |  |  |  |
| REF. NO. QUANTITY: UNIT OF MEASURE: |  | UNIT OF MEASURE:   | UNIT PRICE   | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| N/A                                 | N/A  | N/A  | N/A  | N/A  |  |  |  |
| DESCRIPTION:                        | □ Base Bid or □ Alt.#  |  |  |  |  |  |  |
| REF. NO.                            | QUANTITY:  | UNIT OF MEASURE:   | JRE: UNIT PRICE UNIT PRICE EXTENSION (Quantity tim |  |  |  |  |
| N/A                                 | N/A  | N/A  | N/A  | N/A  |  |  |  |
| DESCRIPTION:                        | RIPTION: Dase Bid or Alt.#   |  |  |  |  |  |  |
| REF. NO.                            | QUANTITY:  | JANTITY: UNIT OF MEASURE: UNIT PRICE UNIT PRICE UNIT PRICE EXTENSION (Quantity times Unit Price) |  | UNIT PRICE EXTENSION (Quantity times Unit Price) |  |  |  |
| N/A                                 | N/A  | N/A  | N/A  | N/A  |  |  |  |

Wording for "DESCRIPTION" is to be provided by the Owner.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

# **INSTRUCTIONS TO BIDDERS**

#### **COMPLETION TIME:**

The Bidder shall agree to fully complete the contract within (<u>120</u>) consecutive calendar days, subject to such extensions as may be granted under Paragraph 8.3, in the General Conditions and the Supplementary Conditions, and acknowledges that this construction time will start on or before the date specified in the written "Notice to Proceed" from the Owner.

### LIQUIDATED DAMAGES:

The Bidder shall agree to pay as Liquidated Damages the amount of <u>Three hundred Dollars (\$300.00)</u> for each consecutive calendar day for which the work is not complete, beginning with the first day beyond the contract completion date stated on the "Notice to Proceed" or as amended by change order.

# **ARTICLE 1**

#### DEFINITIONS

1.1 The Bid Documents include the following:

Advertisement for Bids Instructions to Bidders Bid Form **Bid Bond** General Conditions of the Contract for Construction. AIA Document A201, 2017 Edition Supplementary Conditions Contract Between Owner and Contractor and Performance and Payment Bond Affidavit User Agency Documents (if applicable) Change Order Form Partial Occupancy Form Recommendation of Acceptance Asbestos Abatement (if applicable) Other Documents (if applicable) Specifications & Drawings Addenda issued during the bid period and acknowledged in the Bid Form

1.2 All definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201 and the Supplementary Conditions are applicable to the Bid Documents.

1.3 Addenda are written and/or graphic instruments issued by the Architect prior to the opening of bids, which modify or interpret the Bid Documents by additions, deletions, clarifications, corrections and prior approvals.

1.4 A bid is a complete and properly signed proposal to do the work or designated portion thereof for the sums stipulated therein supported by data called for by the Bid Documents.

1.5 Base bid is the sum stated in the bid for which the Bidder offers to perform the work described as the base, to which work may be added, or deleted for sums stated in alternate bids.

1.6 An alternate bid (or alternate) is an amount stated in the bid to be added to the amount of the base bid if the corresponding change in project scope or materials or methods of construction described in the Bid Documents is accepted.

1.7 A Bidder is one who submits a bid for a prime Contract with the Owner for the work described in the Bid Documents.

1.8 A Sub-bidder is one who submits a bid to a Bidder for materials and/or labor for a portion of the work.

1.9 Where the word "Architect" is used in any of the documents, it shall refer to the Prime Designer of the project, regardless of discipline.

#### **ARTICLE 2**

#### PRE-BID CONFERENCE

2.1 A Pre-Bid Conference shall be held at least 10 days before the date for receipt for bids. The Architect shall coordinate the setting of the date, time and place for the Pre-Bid Conference with the User Agency and shall notify in writing the Owner and all who have received sets of the Bid Documents to attend. The purpose of the Pre-Bid Conference is to familiarize Bidders with the requirements of the Project and the intent of the Bid Documents, and to receive comments and information from interested Bidders. If the Pre-Bid Conference is stated in the Advertisement for Bids to be a Mandatory Pre-Bid Conference, bids shall be accepted only from those bidders who attend the Pre-Bid Conference. Contractors who are not in attendance for the **entire** Pre-Bid Conference will be considered to have not attended.

2.2 Any revision of the Bid Documents made as a result of the Pre-Bid Conference shall not be valid unless included in an addendum.

### ARTICLE 3

#### BIDDER'S REPRESENTATION

3.1 Each Bidder by making his bid represents that:

3.1.1 He has read and understands the Bid Documents and his bid is made in accordance therewith.

3.1.2 He has visited the site and has familiarized himself with the local conditions under which the work is to be performed.

3.1.3 His bid is based solely upon the materials, systems and equipment described in the Bid Documents as advertised and as modified by addenda.

3.1.4 His bid is not based on any verbal instructions contrary to the Bid Documents and addenda.

3.1.5 He is familiar with Code of Governmental Ethics requirement that prohibits public servants and/or their immediate family members from bidding on or entering into contracts; he is aware that the Designer and its principal owners are considered Public Servants under the Code of Governmental Ethics for the limited purposes and scope of the Design Contract with the State on this Project (see Ethics Board Advisory Opinion, No. 2009-378 and 2010-128); and neither he nor any principal of the Bidder with a controlling interest therein has an immediate family relationship with the Designer or any principal within the Designer's firm (see La. R.S.

42:1113). Any Bidder submitting a bid in violation of this clause shall be disqualified and any contract entered into in violation of this clause shall be null and void.

3.2 The Bidder must be fully qualified under any State or local licensing law for Contractors in effect at the time and at the location of the work before submitting his bid. In the State of Louisiana, Revised Statutes 37:2150, et seq. will be considered, if applicable.

The Contractor shall be responsible for determining that all of his Sub-bidders or prospective Subcontractors are duly licensed in accordance with law.

#### **ARTICLE 4**

#### **BID DOCUMENTS**

4.1 Copies

4.1.1 Bid Documents may be obtained from the Architect for a deposit as stated in the Advertisement for Bids. The deposit will be refunded as stated in the Advertisement for Bids. <u>No deposits will be refunded on Bid Documents returned later than ten days after receipt of bids.</u>

4.1.1.2 As an alternative method of distribution, the Designer may provide the Bid Documents in electronic format. They may be obtained without charge and without deposit as stated in the Advertisement for Bids.

4.1.1.2.1 If electronic distribution is available, printed copies will not be available from the Designer, but arrangements can be made to obtain them through most reprographic firms and/or plan rooms.

4.1.1.2.2 If electronic distribution is available, the reproduction cost on the first paper plan set acquired by bona fide prime bidders will be fully refunded by the Designer upon delivery of the documents to the Designer in good condition no later than ten days after receipt of bids.

4.1.1.2.3 If electronic distribution is available, all other plan holders are responsible for their own reproduction costs.

4.1.2 Complete sets of Bid Documents shall be used in preparing bids; neither the Owner nor the Architect assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bid Documents.

4.1.3 The Owner or Architect in making copies of the Bid Documents available on the above terms, do so only for the purpose of obtaining bids on the work and do not confer a license or grant for any other use.

4.2 Interpretation or Correction of Bid Documents

4.2.1 Bidders shall promptly notify the Architect of any ambiguity, inconsistency or error which they may discover upon examination of the Bid Documents or of the site and local conditions.

4.2.2 Bidders requiring clarification or interpretation of the Bid Documents shall make a written request to the Architect, to reach him at least seven days prior to the date for receipt of bids.

4.2.3 Any interpretation, correction or change of the Bid Documents will be made by addendum. Interpretations, corrections or changes of the Bid Documents made in any other manner will not be binding and Bidders shall not rely upon such interpretations, corrections and changes.

# 4.3 Substitutions

4.3.1 The materials, products and equipment described in the Bid Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution. No substitutions shall be allowed after bids are received.

4.3.2 No substitution will be considered unless written request for approval has been submitted by the Proposer and has been received by the Architect at least fourteen (14) working days prior to the opening of bids. (La. R.S. 38:2295(C)) Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitute including model numbers, drawings, cuts. performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or work that incorporation of the substitute would require shall be included. It shall be the responsibility of the proposer to include in his proposal all changes required of the Bid Documents if the proposed product is used. Prior approval, if given, is contingent upon supplier being responsible for any costs which may be necessary to modify the space or facilities needed to accommodate the materials and equipment approved.

4.3.3 If the Architect approves any proposed substitution, such approval shall be set forth in an addendum. Bidders shall not rely upon approvals made in any other manner.

4.4 Addenda

4.4.1 Addenda will be transmitted to all who are known by the Architect to have received a complete set of Bid Documents.

4.4.2 Copies of addenda will be made available for inspection wherever Bid Documents are on file for that purpose.

4.4.3 Except as described herein, addenda shall not be issued within a period of seventy-two (72) hours prior to the advertised time for the opening of bids, excluding Saturdays, Sundays, and any other legal holidays. If the necessity arises of issuing an addendum modifying plans and specifications within the seventy-two (72) hour period prior to the advertised time for the opening of bids, then the opening of bids shall be extended at least seven but no more than twenty-one (21) working days, without the requirement of re-advertising. University of New Orleans shall be consulted prior to issuance of such an addendum and shall approve such issuance. The revised time and date for the opening of bids shall be stated in the addendum.

4.4.4 Each Bidder shall ascertain from the Architect prior to submitting his bid that he has received all addenda issued, and he shall acknowledge their receipt on the Bid Form.

4.4.5 The Owner shall have the right to extend the bid date by up to (30) thirty days without the requirement of re-advertising. Any such extension shall be made by addendum issued by the Architect.

#### ARTICLE 5

#### BID PROCEDURE

5.1 Form and Style of Bids

5.1.1 Bids shall be submitted on the Louisiana Uniform Public Work Bid Form provided by the Architect for this project.

5.1.2 The Bidder shall ensure that all applicable blanks on the bid form are completely and accurately filled in.

5.1.3 Bid sums shall be expressed in both words and figures, and in case of discrepancy between the two, the written words shall govern.

5.1.4 Any interlineation, alteration or erasure must be initialed by the signer of the bid or his authorized representative.

5.1.5 Bidders are cautioned to complete all alternates should such be required in the Bid Form. Failure to submit alternate prices will render the bid non responsive and shall cause its rejection.

5.1.6 Bidders are cautioned to complete all unit prices should such be required in the Bid Form. Unit prices represent a price proposal to do a specified quantity and quality of work. Unit prices are incorporated into the base bid or alternates, as indicated on the Unit Price Form, but are not the sole components thereof.

5.1.7 Bidder shall make no additional stipulations on the Bid Form nor qualify his bid in any other manner.

5.1.8 Written evidence of the authority of the person signing the bid for the public work shall be submitted in accordance with La. R.S. 38:2212 (B)(5).

5.1.9 On any bid in excess of fifty thousand dollars (\$50,000.00), the Contractor shall certify that he is licensed under La. R.S. 37: 2150-2173 and show his license number on the bid above his signature or his duly authorized representative.

5.2 Bid Security

5.2.1 No bid shall be considered or accepted unless the bid is accompanied by bid security in an

amount of five percent (5.0%) of the base bid and all alternates.

The bid security shall be in the form of a certified check or cashier's check drawn on a bank insured by the Federal Deposit Insurance Corporation, or a Bid Bond written by a surety company licensed to do business in Louisiana and signed by the surety's agent or attorney-in-fact. The Bid Bond shall be written on the Bid Bond Form, and the surety for the bond must meet the qualifications stated thereon. The Bid Bond shall include the legal name of the bidder be in favor of the State of Louisiana, University of New Orleans and shall be accompanied by appropriate power of attorney. The Bid Bond must be signed by both the bidder/principal and the surety in the space provided on the Bid Bond Form. Failure by the bidder/principal or the surety to sign the bid bond shall result in the rejection of the bid.

Bid security furnished by the Contractor shall guarantee that the Contractor will, if awarded the work according to the terms of his proposal, enter into the Contract and furnish Performance and Payment Bonds as required by these Bid Documents, within fifteen (15) days after written notice that the instrument is ready for his signature.

Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as penalty.

5.2.2 The Owner will have the right to retain the bid security of Bidders until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that bids may be withdrawn, or (c) all bids have been rejected.

5.3 Submission of Bids

5.3.1 The Bid shall be sealed in an opaque envelope. The bid envelope shall be identified on the outside with the name of the project, and the name, address, and license number of the Bidder.

The envelope shall not contain multiple bid forms, and will be received until the time specified and at the place specified in the Advertisement for Bids. It shall be the specific responsibility of the Bidder to deliver his sealed bid to the University of New Orleans at the appointed place and prior to the announced time for the opening of bids. Late delivery of a bid for any reason, including late delivery by United States Mail, or express delivery, shall disqualify the bid. If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "Bid Enclosed" on the face thereof. Such bids shall be sent by Registered or Certified Mail, Return Receipt Requested, addressed to:

University of New Orleans - Purchasing

Suite 1004, Room G Administration Annex Building 2000 Lakeshore Drive New Orleans, Louisiana 70148

Bids sent by express delivery shall be delivered to: University of New Orleans - Purchasing Suite 1004, Room G Administration Annex Building 6652 Milneburg Road New Orleans, Louisiana 70148

5.3.2 Bids shall be deposited at the designated location prior to the time on the date for receipt of bids indicated in the Advertisement for Bids, or any extension thereof made by addendum. Bids received after the time and date for receipt of bids will be returned unopened.

5.3.3 Bidder shall assume full responsibility for timely delivery at location designated for receipt of bids.

5.3.4 Oral, telephonic or telegraphic bids are invalid and shall not receive consideration. Owner shall not consider notations written on outside of bid envelope which have the effect of amending the bid. Written modifications enclosed in the bid envelope, and signed or initialed by the Contractor or his representative, shall be accepted.

5.4 Modification or Withdrawal of Bid

5.4.1 A bid may not be modified, withdrawn or canceled by the Bidder during the time stipulated in the Advertisement for Bids, for the period following the time and bid date designated for the receipt of bids, and Bidder so agrees in submitting his bid, except in accordance with R.S. 38:2214 which states, in part, "Bids containing patently obvious, unintentional, and substantial mechanical, clerical, or mathematical errors, or errors of unintentional omission of a substantial quantity of work, labor, material, or services made directly in the compilation of the bid, may be withdrawn by the contractor if clear and convincing sworn, written evidence of such

errors is furnished to the public entity within fortyeight hours of the bid opening excluding Saturdays, Sundays, and legal holidays".

5.4.2 Prior to the time and date designated for receipt of bids, bids submitted early may be modified or withdrawn only by notice to the party receiving bids at the place and prior to the time designated for receipt of bids.

5.4.3 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these Instructions to Bidders.

5.4.4 Bid Security shall be in an amount sufficient for the bid as modified or resubmitted.

5.5 Prohibition of Discriminatory Boycotts of Israel

By submitting a bid, the bidder certifies and agrees that the following information is correct:

In preparing its bid, the bidder has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israel-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The bidder has also not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. The state reserves the right to reject any bid if this certification is subsequently determined to be false and to terminate any contract awarded based on such a false response.

# **ARTICLE 6**

#### CONSIDERATION OF BIDS

#### 6.1 Opening of Bids

6.1.1 The properly identified Bids received on time will be opened publicly and will be read aloud, and a tabulation abstract of the amounts of the base bids and alternates, if any, will be made available to Bidders.

6.2 Rejection of Bids

6.2.1 The Owner shall have the right to reject any or all bids and in particular to reject a bid not accompanied by any required bid security or data required by the Bid Documents or a bid in any way incomplete or irregular.

6.3 Acceptance of Bid

6.3.1 It is the intent of the Owner, if he accepts any alternates, to accept them in the order in which they are listed in the Bid Form. Determination of the Low Bidder shall be on the basis of the sum of the base bid and the alternates accepted. However, the Owner shall reserve the right to accept alternates in any order which does not affect determination of the Low Bidder.

# **ARTICLE 7**

# POST-BID INFORMATION

7.1 Submissions

7.1.1 At the Pre-Construction Conference, the Contractor shall submit the following information to the Architect.

7.1.1.1 A designation of the work to be performed by the Contractor with his own forces.

7.1.1.2 A breakdown of the Contract cost attributable to each item listed in the Schedule of Values Form (attached). No payments will be made to the Contractor until this is received.

7.1.1.3 The proprietary names and the suppliers of principal items or systems of material and equipment proposed for the work.

7.1.1.4 A list of names and business domiciles of all Subcontractors, manufacturers, suppliers or other persons or organizations (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the work. It is the preference of the Owner that, to the greatest extent possible or practical, the Contractor utilize Louisiana Subcontractors, manufacturers, suppliers and labor. 7.1.2 The General Contractor shall be responsible for actions or inactions of Subcontractors and/or material suppliers.

The General Contractor is totally responsible for any lost time or extra expense incurred due to a Subcontractor's or Material Supplier's failure to perform. Failure to perform includes, but is not limited to, a Subcontractor's financial failure, abandonment of the project, failure to make prompt delivery, or failure to do work up to standard. Under no circumstances shall the Owner mitigate the General Contractor's losses or reimburse the General Contractor for losses caused by these events.

7.1.3 The lowest responsive and responsible bidder shall submit to the Architect and the Owner within ten days after the bid opening a letter/letters from the manufacturer stating that the manufacturer will issue the roof system guarantee complying with the requirements of Facility Planning and Control based on the specified roof system and include the name of the applicator acceptable to the manufacturer at the highest level of certification for installing the specified roof system. This manufacturer shall be one that has received prior approval or is named in the specifications.

In accordance with La. R.S. 38:2227 [references La R.S. 38:2212(A)(3)(c)(ii), which has since been renumbered as La R.S. 38:2212(B)(3)], La. R.S. 38:2212.10 and La. R.S. 23:1726(B) the apparent low bidder on this project shall submit the completed Attestations Affidavit (Past Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package to the University of New Orleans within 10 days <u>after</u> the opening of bids.

# ARTICLE 8

# PERFORMANCE AND PAYMENT BOND

# 8.1 Bond Required

8.1.1 The Contractor shall furnish and pay for a Performance and Payment Bond written by a company licensed to do business in Louisiana, which shall be signed by the surety's agent or attorney-in-fact, in an amount equal to 100% of the Contract amount. Surety must be listed currently on the U. S. Department of Treasury Financial Management Service List (Treasury List) as approved for an amount equal to or greater than the contract amount, or must be an insurance company domiciled in Louisiana or owned by Louisiana residents. If surety is qualified other than by listing on the Treasury list, the contract amount may not exceed fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance and may not exceed the amount of \$500,000. However, a Louisiana domiciled insurance company with at least an A- rating in the latest printing of the A. M. Best's Key Rating Guide shall not be subject to the \$500,000 limitation, provided that the contract amount does not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide nor fifteen percent of policyholders' surplus as shown by surety's most recent financial statements filed with the Louisiana Department of Insurance. The Bond shall be signed by the surety's agent or attorney-in-fact. The Bond shall be in favor of the State of Louisiana.

8.2 Time of Delivery and Form of Bond

8.2.1 The Bidder shall deliver the required bond to the Owner simultaneous with the execution of the Contract.

8.2.2 Bond shall be in the form furnished by the University of New Orleans, entitled CONTRACT BETWEEN OWNER AND CONTRACTOR AND PERFORMANCE AND PAYMENT BOND, a copy of which is included in the Bid Documents.

8.2.3 The Bidder shall require the Attorney-in-Fact who executes the required bond on behalf of the surety to affix thereto a certified and current copy of his power of Attorney.

#### **ARTICLE 9**

# FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

9.1 Form to be Used

9.1.1 Form of the Contract to be used shall be furnished by the University of New Orleans, an example of which is bound in the Bid Documents.

9.2 Award

9.2.1 After award of the Contract, the successful Bidder, if a corporation, shall furnish to the Owner the most current copy of a Disclosure of Ownership Affidavit on file with the Secretary of State.

9.2.2 In accordance with Louisiana Law, when the Contract is awarded, the successful Bidder shall, at the time of the signing of the Contract, execute the Non-Collusion Affidavit included in the Contract Documents

9.2.3 When this project is financed either partially or entirely with State Bonds, the award of this Contract is contingent upon the sale of bonds by the State Bond Commission. The State shall incur no obligation to the Contractor until the Contract Between Owner and Contractor is duly executed.

# SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
  - 1. Preconstruction photographs.
  - 2. Periodic construction photographs.
  - 3. Final Completion construction photographs.
- B. Related Requirements:
  - 1. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.
  - 2. Section 024119 "Selective Demolition" for photographic documentation before selective demolition operations commence.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph and video recording. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within seven (7) days of taking photographs.
  - 1. Submit photos by uploading to web-based project software site. Include copy of key plan indicating each photograph's location and direction.
  - 2. Identification: Provide the following information with each image description in file metadata tag:
    - a. Name of Project.
    - b. Name of Contractor.
    - c. Date photograph was taken.
    - d. Description of location, vantage point, and direction.
    - e. Unique sequential identifier keyed to accompanying key plan.

#### 1.4 FORMATS AND MEDIA

A. Digital Photographs: Provide color images in JPG format, produced by a digital camera with minimum sensor size of 12 megapixels, and at an image resolution of not less than 3200 by 2400 pixels. Use flash in low light levels or backlit conditions.

- B. Digital Images: Submit digital media as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
- C. Metadata: Record accurate date and time from camera.
- D. File Names: Name media files with date, Project area and sequential numbering suffix.

#### 1.5 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs with maximum depth of field and in focus.
  - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Preconstruction Photographs: Before commencement of demolition, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
  - 1. Flag construction limits before taking construction photographs.
  - 2. Take minimum of 20 photographs to show existing conditions adjacent to property before starting the Work.
  - 3. Take minimum of 20 photographs of existing buildings either on or adjoining property to accurately record physical conditions at start of construction.
  - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- C. Periodic Construction Photographs: Take minimum 20 photographs monthly coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.
- D. Time-Lapse Sequence Construction Photographs: Take 8 photographs as indicated, to show status of construction and progress since last photographs were taken.
  - 1. Frequency: Take photographs weekly, on the same day each week.
  - 2. Vantage Points: Following suggestions by Architect and Contractor, photographer to select vantage points. During each of the following construction phases, take not less than six of the required shots from same vantage point each time to create a time-lapse sequence as follows:
    - a. Commencement of the Work, through completion of demolition.
    - b. Insulation & cover board installation.
    - c. Base roofing layer.
    - d. Flashing.
    - e. Roof top sheet.
- E. Final Completion Construction Photographs: Take 20 photographs after date of Substantial Completion for submission as Project Record Documents. Architect will inform photographer of desired vantage points.
- F. Additional Photographs: Architect may request photographs in addition to periodic photographs specified. Additional photographs will be paid for by Change Order and are not included in the Contract Sum.
  - 1. Three days notice will be given, where feasible.

- 2. In emergency situations, take additional photographs within 24 hours of request.
- 3. Circumstances that could require additional photographs include, but are not limited to, the following:
  - a. Special events planned at Project site.
  - b. Immediate follow-up when on-site events result in construction damage or losses.
  - c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
  - d. Substantial Completion of a major phase or component of the Work.
  - e. Extra record photographs at time of final acceptance.
  - f. Owner's request for special publicity photographs.

#### 1.6 CONSTRUCTION WEBCAM

A. Not Required.

#### PART 2 - PRODUCTS (Not Used)

#### PART 3 - EXECUTION (Not Used)

END OF SECTION

# SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
  - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

#### 1.2 USE CHARGES

- A. Installation, removal, and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities engaged in the Project to use temporary services and facilities without cost, including, but not limited to Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Reasonable amount of water use from Owner's existing water system is available for use without charge.
- C. Electric Power Service from Existing System: Reasonable amount of electric power use from Owner's existing system is available for use without charge.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- C. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.
- D. Moisture- and Mold-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage and mold. Describe delivery, handling, storage, installation, and protection provisions for materials subject to water absorption or water damage.
  - 1. Indicate procedures for discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and requirements for replacing water-damaged Work.

- 2. Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.
- 3. Indicate methods to be used to avoid trapping water in finished work.

#### 1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.
- C. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

#### 1.5 **PROJECT CONDITIONS**

A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

#### PART 2 - PRODUCTS

#### 2.1 TEMPORARY FACILITIES

- A. Materials: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by Architect. Provide materials suitable for use intended:
  - 1. Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1- 5/8-inch- OD top rails.
  - 2. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch- thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch- OD line posts and 2-7/8-inch- OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Provide concrete or galvanized steel bases for supporting posts.
  - 3. Tarpaulins: Fire-resistive labeled with flame-spread rating of 15 or less.
  - 4. Polyethylene Sheet: Reinforced, fire-resistive sheet, 10-mil minimum thickness, with flame-spread rating of 15 or less per ASTM E 84 and passing NFPA 701 Test Method 2.
  - 5. Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.

#### 2.2 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

#### PART 3 - EXECUTION

#### 3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste. Locate temporary facilities so as not to interfere with the University's use of the Project site and/or surrounding areas. Relocate non-complying facilities at no expense to the University.
  - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

#### 3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

#### 3.3 TEMPORARY UTILITY INSTALLATION

- A. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
- B. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
- C. Existing Water and Electric Power Service: The Contractor may use reasonable amounts of the utility services available to the site at no charge from the University. The University will not provide utility service beyond that existing. Coordinate tie-in and disconnect to the existing utilities with the University Representative. Any costs associated with tie-in should be borne by the Contractor.
- D. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
  - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.
- E. Telephone Service: Provide cellular telephones for use by GC's Project Manager.

#### 3.4 SUPPORT FACILITIES INSTALLATION

A. Comply with the following:

- 1. Provide construction for temporary field offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E136. Comply with NFPA 241.
- 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Traffic Controls: Comply with requirements of authorities having jurisdiction.
  - 1. Protect existing site improvements to remain including curbs, pavement, and utilities.
  - 2. Maintain access for fire-fighting equipment and access to fire hydrants.
- C. Parking: Use designated areas of Owner's existing parking areas for construction personnel.
- D. Storage and Staging: Use designated areas of Project site for storage and staging needs.
- E. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.
  - 1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties or endanger permanent Work or temporary facilities.
  - 2. Remove snow and ice as required to minimize accumulations.
- F. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
  - 1. Temporary Signs: Provide signs as required to inform public and individuals seeking entrance to Project.
    - a. Provide temporary, directional signs for construction personnel and visitors.
  - 2. Maintain and touch up signs so they are legible at all times.
- G. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- H. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."
- I. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.
  - 1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.
- J. Temporary Elevator Use: Use of building elevators is **NOT** permitted.

#### 3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

- 1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
- C. Site Enclosure Fence: Before construction operations begin, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.
  - 1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.
  - 2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.
- D. Security Enclosure and Lockup: Coordinate with Owner to maintain existing levels of security for the roof area.
- E. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- F. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.
- G. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241; manage fire-prevention program.
  - 1. Prohibit smoking in construction areas. Comply with additional limits on smoking specified in other Sections.
  - 2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
  - 3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.
  - 4. Provide temporary hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

#### 3.6 MOISTURE AND MOLD CONTROL

- A. Moisture and Mold Protection: Protect stored materials and installed Work in accordance with Moisture and Mold Protection Plan.
- B. Exposed Construction Period: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect as follows:
  - 1. Protect porous materials from water damage.
  - 2. Protect stored and installed material from flowing or standing water.
  - 3. Keep porous and organic materials from coming into prolonged contact with concrete.
  - 4. Remove standing water from decks.
  - 5. Keep deck openings covered or dammed.

- C. Partially Enclosed Construction Period: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:
  - 1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
  - 2. Keep interior spaces reasonably clean and protected from water damage.
  - 3. Periodically collect and remove waste containing cellulose or other organic matter.
  - 4. Discard or replace water-damaged material.
  - 5. Do not install material that is wet.
  - 6. Discard and replace stored or installed material that begins to grow mold.
  - 7. Perform work in a sequence that allows wet materials adequate time to dry before enclosing the material in gypsum board or other interior finishes.

#### 3.7 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
  - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
  - At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

#### END OF SECTION **015000**

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# SECTION 075500 SBS-MODIFIED BITUMEN MEMBRANE ROOFING

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Work shall include, but is not limited to, the following:
  - 1. Styrene-butadiene-styrene (SBS)-modified bituminous membrane roof system
  - 2. Preparation of Substrate to Receive Roofing Materials
  - 3. Roof Insulation Application to Prepared Substrate
  - 4. Roof Membrane Application
  - 5. Roof Flashing Application
  - 6. Incorporation of Sheet Metal Flashing Components and Roofing Accessories into the Roof System
- B. Products installed but not furnished under this Section:
  - 1. Sheet Metal Flashing and Trim
  - 2. Sheet Metal Roofing Specialties
- C. Roof Assembly, unless noted otherwise:
  - 1. Structural Concrete Deck (existing)
  - 2. Two (2) layers minimum of 1.5" polyisocyanurate insulation board with staggered joints. Provide additional layers of polyisocyanurate insulation board as needed and tapered insulation with 3/16" slope at top layer to provide roof field thickness shown on drawings. Provide ½" slope at Tapered Crickets.
  - 3. <sup>1</sup>/<sub>2</sub>" Gypsum Cover Board Adhered in Insulation Adhesive
  - 4. Two (2) Ply SBS Field membranes in Cold Adhesive
  - 5. Two (2) Ply SBS Flashing membranes
- D. Related Work
  - 1. Internal Roof Drain: Contractor shall verify that all existing internal roof drains are open and are functional for drainage. Contractor shall engage a plumber to clean roof drain piping up to first elbow fitting.
  - 2. Existing Perimeter Blocking: Review existing perimeter blocking and confirm that their condition is reuseable. Replace all deteriorated blocking with new blocking, match existing dimension and sizing. Review the condition of blocking anchors and the anchor spacing. Where applicable install new anchors to replace deteriorated anchors or add additional anchors to enhance the existing attachment in strict accordance with the guidelines set forth in per ANSI-SPRI ES-1 and/or FM 1-49 Loss Prevention requirements per IBC 2015.
  - 3. New Perimeter Blocking: Provide and install multiple layers of new blocking, as required to meet the height of new insulation system. All blocking must have a minimum dimension of 1.5"-inch by 5.5"-inch. Install and anchor all blocking layer(s) in strict accordance with the guidelines set forth in FM 1-49 Loss Prevention and/or ANSI-SPRI ES-1 requirements.
  - 4. Waste Stack Vents: Flash all vents using roofing manufacturers liquid resin flashing system. Provide lead cap at each waste stack. Cap length shall overlap termination of resin flashing by a minimum of 1-inch

#### E. RELATED SECTIONS

- 1. Division 6 Section "Rough Carpentry"
- 2. Division 7 Section "Sheet Metal Flashing and Trim"
- 3. Division 7 Section "Roof Specialties"
- 4. Division 7 Section "Roof Accessories"

#### 1.2 **REFERENCE STANDARDS**

- A. References in these specifications to standards, test methods and codes, are implied to mean the latest edition of each such standard adopted. The following is an abbreviated list of associations, institutions, and societies which may be used as references throughout these specifications.
  - 1. ASTM American Society for Testing and Materials Philadelphia, PA
  - 2. FM Factory Mutual Engineering and Research Norwood, MA
  - 3. NRCA National Roofing Contractors Association Rosemont, IL
  - 4. OSHA Occupational Safety and Health Administration Washington, DC
  - 5. SMACNA Sheet Metal and Air Conditioning Contractors National Association Chantilly, VA
  - 6. UL Underwriters Laboratories Northbrook, IL

#### 1.3 ACTION SUBMITTALS

- A. Product Data Sheets: Submit manufacturer <sup>™</sup> <sup>™</sup>s product data sheets, installation instructions and/or general requirements for each component.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
- C. Evidence of Independent Accredited Testing for the proposed membrane system.
  - 1. Refer to the drawings for wind load requirements for the system.. Contractor shall submit evidence of the manufacturer¢¢s accredited testing by an Independent Agency recognized as a testing agency.
  - 2. The roof membrane configuration shall be approved by FM for Class 1-SH (severe hail) exposure.
- D. Warranties: Sample State of Louisiana Warranty from the manufacturer and contractor.

#### 1.4 SUBMITTALS PRIOR TO CONTRACT AWARD

- A. Installer Certificates: Letter from the proposed primary roofing manufacturer certifying that the bidder is an acceptable Contractor authorized to install the proposed system.
- B. Manufacturer Certificates: Letter from the primary roofing manufacturer certifying that the proposed application will comply with the manufacturer's requirements in order to qualify the project for the specified guarantee.

#### 1.5 CLOSE-OUT SUBMITTALS

- A. Manufacturer's printed recommendations for proper maintenance of the specified roof system including inspection frequencies, penetration addition policies, temporary repairs, and leak call procedures.
- B. State of Louisiana Warranty/Contractor Warranty: Provide manufacturer<sup>™™</sup>s signed State of La warranty and contractor<sup>™™</sup>s warranties upon project completion.

#### 1.6 QUALITY ASSURANCE

- A. Acceptable Products: Primary roofing products, including each type of sheet, all manufactured in the United States, shall be supplied by a single manufacturer which has been successfully producing the specified types of primary products for not less than 10 years. The primary roofing products shall have maintained a consistent composition for a minimum of five years.
- B. Contractor Qualifications: Contractor shall have a minimum of 2 years experience in successfully installing the same or similar roofing materials.
  - 1. Contractor shall be certified in writing by the manufacturer to install specified materials prior to the bidding period through satisfactory project completion.
  - 2. Applicators shall have completed projects of similar scope using same or similar materials specified.
  - 3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roofing from beginning through satisfactory project completion.
  - 4. Applicators shall be skilled in the application methods for all materials.
  - 5. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
- C. Local Regulations: Conform to regulations of public agencies, including any specific requirements of the city and/or state of jurisdiction.
- D. Manufacturer Requirements: The roofing materials manufacturer must provide a field technical inspector directly trained by the company to attend necessary job meetings, perform at minimum an inspection at the start of the project, prior to the cap sheet application and conduct a final roof inspection upon successful completion of the project. The inspector is required to provide a field inspection report for any and all job visit during the application of the roofing project. The roofing manufacture shall provide a copy of this report to the contractor and project designer within a week of the date of the inspection.
- E. Roof Flooding Inspection: After installation of the base ply but before installation of the cap sheet, the Contractor shall schedule a roof flooding inspection for the Owner, the Architect and the manufacturer's field technical inspector to inspect the roof for ponding locations. Prior to this inspection, the Contractor shall flood the entire roof so that ponding will be visible during the inspection.
- F. The University may, at their option, select and employ at the University's expense:
  - 1. A roofing systems Consultant to review the Construction Documents and/or perform surveillance during any installation of substrate, roofing, flashing and any other part of the total roofing system.
  - 2. An independent roofing inspection service specializing in performing Non-Destructive Evaluation (NDE), for moisture detection purposes, before the final acceptance of the roofing or before the end of the roofing Guarantee Period.

- 3. Have a full time representative on site during the roofing installation. Additionally, the University may conduct a moisture survey using the University's personnel and equipment prior to approval and acceptance of the roofing contract.
- G. Representatives of the Designer, the University, User Agency, the General Contractor, the Roofing Contractor and Roofing Manufacturer's technical representative shall make inspections of the roofing system toward the end of the one (1) year warranty period and toward the end of the Roofing Contractor's two (2) year guarantee period. Further, the Roofing System Manufacturer's authorized technical representative shall inspect the roofing system near the close of the Manufacturer's Guarantee. A written report shall be submitted to the University, with a copy to the User, by the Roof System Manufacturer's representative within seven days of each site visit.
- H. The Roofing Contractor or Roofing Systems Manufacturer, as applicable, shall make approved repairs and/or replacements covered by the Guarantee. State that the project will not be accepted until the Roofing Contractor's Guarantee and the Roofing Manufacturer's Guarantee are both executed in strict accordance with the Contract Documents and data from "Paragraph G" below in these Instructions and have been submitted to and accepted by the Owner.
- I. "The roofing system product supplier shall furnish the Roofing Contractor with Material Safety Data Sheet/Sheets (MSDS), incorporating OHSA approved form, current edition." State that "Said sheets shall be available at the site at all times until project completion." A copy shall be filed in the project file with the University.

#### 1.7 PRODUCT DELIVERY STORAGE AND HANDLING

- A. Delivery: Deliver materials in the manufacturer's original sealed and labeled containers and in quantities required to allow continuity of application.
- B. Storage: Store materials out of direct exposure to the elements.
  - 1. Protect and store materials in a dry, well-vented, and weatherproof location. Only materials to be used the same day shall be removed from this location. During cold weather, store materials in a heated location, removed only as needed for immediate use.
  - 2. When materials are to be stored outdoors, store away from standing water, stacked on raised pallets or dunnage, at least 4 in or more above ground level. Carefully cover storage with "breathable" tarpaulins to protect materials from precipitation and to prevent exposure to condensation. Polyethylene or other non-breathable plastic coverings are not acceptable.
  - 3. Carefully store roof membrane materials delivered in rolls on-end with selvage edges up. Store and protect roll storage to prevent damage.
  - 4. Materials stored on the roof shall be stored in a manner so as to preclude overloading of deck and building structure.
- C. Handling: Handle all materials in such a manner as to preclude damage and contamination with moisture or foreign matter. Handle rolled goods to prevent damage to edges or ends.
- D. Damaged Material: All damaged materials shall be removed from job site and replaced with new, suitable materials. Any materials that are found to be damaged or stored in any manner other than stated above will be automatically rejected, removed and replaced at the Contractor's expense.

#### 1.8 **PROJECT/SITE CONDITIONS**

- A. Requirements Prior to Job Start
  - 1. Notification: Give a minimum of 5 days notice to the Owner and manufacturer prior to commencing any work and notify both parties on a daily basis of any change in work schedule.
  - 2. Safety: Familiarize every member of the application crew with all fire and safety regulations recommended by OSHA, NRCA and other industry or local governmental groups.
- B. Environmental Requirements
  - 1. Monitor substrate temperature and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
  - 2. Cold Adhesive Application: Primer, where used, shall be fully dry before proceeding. During cold weather, store the specified membrane adhesives, flashing cements and mastics in heated storage areas. Take all necessary measures and monitor application conditions, to ensure the adhesive and cement materials are no less than 70°F (21°C) at the point of contact with the membrane.
  - 3. Precipitation and Dew Point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the application of roofing materials. Ensure all roofing materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions.
  - 4. Heat-Welding Application: Take all necessary precautions and measures to monitor conditions to ensure all environmental conditions are safe to proceed with the use of torches and hot-air welding equipment. Combustibles, flammable liquids and solvent vapors that represent a hazard shall be eliminated. Flammable primers and cleaners shall be fully dry before proceeding with heat-welding operations. Prevent or protect wood, paper, plastics and other such combustible materials from direct exposure to open flames from roof torches. Refer to NRCA CERTA recommendations.
- C. Protection Requirements
  - 1. Membrane Protection: Provide protection against staining and mechanical damage for newly applied roofing and adjacent surfaces throughout this project.
  - 2. Limited Access: Prevent access by the public to materials, tools and equipment during the course of the project.
  - 3. Debris Removal: Remove all debris daily from the project site and take to a legal dumping area authorized to receive such materials.
  - 4. Site Condition: Complete, to the owner's satisfaction, all job site clean-up including building interior, exterior and landscaping where affected by the construction.

#### 1.9 **PREINSTALLATION MEETINGS**

- A. Preliminary Roofing Conference: Conduct conference at Project site.
  - 1. Purpose: Establish a direct line of communication, answer initial questions regarding the project and to review project submittal requirements.

- 2. Timing: The meeting shall be held shortly after award of the Contract and at least six weeks prior to the anticipated start of roofing.
- B. Pre-Application Roofing Conference: Conduct conference at Project site.
  - 1. Purpose: To verify readiness of the project structure, review assignments of Preliminary Conference, review details, changes or corrections, and to review anticipated schedule of progress.
  - 2. Timing: Within one week prior to roofing application.

#### 1.10 WARRANTY

- A. Roof Membrane/System Guarantee: State of Louisiana's 20 Year No Dollar Limit (NDL) Warranty signed by roofing manufacturer. The manufacturer shall provide the owner with the signed warranty providing labor and materials for 20 years from the date the warranty is issued.
  - 1. 20 year State of Louisiana Guarantee, see guarantee at the end of this Section.
- B. The contractor shall guarantee the workmanship and shall provide the owner with the contractor <sup>™</sup> s warranty covering workmanship for a period of 2 years from completion date.

#### PART 2 - PRODUCTS

#### 2.1 ROOFING SYSTEM ASSEMBLY/PRODUCTS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. SOPREMA, Inc. (Basis-of-Design)
  - 2. Certainteed Commercial Roofing
  - 3. Johns Manville Corporation
  - 4. Polyglass U.S.A., Inc.
  - 5. Siplast, Inc.
  - 6. U.S. Ply, Inc.
- B. SINGLE SOURCE MANUFACTURER: All SBS modified bitumen membrane and flashing sheets shall be manufactured by a single supplier. Comply with the Manufacturer <sup>™</sup> s requirements as necessary to provide the specified warranty.
- C. SBS-Modified Bitumen Membrane Materials:
  - 1. SOPREMA, Inc. (Basis-of-Design)
    - a. Field Plies:
      - 1) Cap Sheet: Sopralene 180 Granules FR; (160 mils/4.0 mm thick, weight 108 lbs per square; polyester reinforced).
      - 2) Interply: Sopralene 180 sanded 2.2, polyester reinforced (90 mils/2.2 mm thick, 58 lbs. per square).
    - b. Mopped Granular Flashing Plies:

- 1) Cap Ply: Sopralene 180 Granules FR; (160 mils/4.0 mm thick, weight 108 lbs. per square; polyester reinforced).
- 2) Stripping Ply: Sopralene 180 sanded 2.2, polyester reinforced (90 mils/2.2 mm thick, 58 lbs. per square).
- c. Heat Fused Granular Flashing Plies:
  - 1) Cap Ply: Sopralene Flam 180 FR GR; (157 mils/4.0mm thick, weight 118 lbs. per one square roll; with a non-woven polyester mat)
  - 2) Stripping Ply: Sopralene Flam 180; (118 mils/3.0mm thick, weight 81 lbs. per one square roll; with a non-woven polyester mat)
- d. Cold Adhesive: Colply
- 2. Certainteed Commercial Roofing
  - a. Field Plies:
    - 1) Cap Sheet: Flintlastic FR-P Cap Sheet (168 mils; weight 100 lbs. per one square roll; with a polyester mat)
    - 2) Interply: Flintlastic Ultra Poly SMS Base Sheet (148 mils; weight 89 lbs. per one square roll; with a polyester mat)
  - b. Mopped Granular Flashing Plies:
    - 1) Cap Ply: Flintlastic FR-P Cap Sheet (168 mils; weight 100 lbs. per one square roll; with a polyester mat)
    - 2) Stripping Ply: Flintlastic Ultra Poly SMS Base Sheet (148 mils; weight 89 lbs. per one square roll; with a polyester mat)
  - c. Heat Fused Granular Flashing Plies:
    - 1) Cap Ply: Flintlastic GTS-FR (160 mils; weight 103 lbs. per one square roll; with a polyester mat)
    - 2) Stripping Ply: Flintlastic Ultra Poly SMS Base Sheet (148 mils; weight 89 lbs. per one square roll; with a polyester mat)
  - d. Cold Adhesive: Flintbond SBS Modified Bitumen Adhesive, Brush Grade
- 3. Johns Manville Corporation:
  - a. Field Plies:
    - 1) Cap Sheet: DynaGlas FR (3.8 mm thick, weight 95 lbs per square; with Fiberglas Mat).
    - 2) Interply: DynaLastic 180 S (3.0 mm thick; weight 90 lbs per square; with Polyester reinforcement).
  - b. Mopped Granular Flashing Plies:
    - 1) Cap Ply: DynaGlas FR (3.8 mm thick, weight 95 lbs. per square; with Fiberglas Mat).
    - 2) Stripping Ply: DynaLastic 180 S (3.0 mm thick; weight 90 lbs. per square; with Polyester reinforcement).

- c. Heat Fused Granular Flashing Plies:
  - 1) Cap Ply: Dynaweld Cap FR (165 mils/4.2 mm thick; weight 106 lbs. per one square roll; with fiberglass reinforcement mat).
  - Stripping Ply: Dynaweld 180S (118 mils/3.0 mm thick; weight 86 lbs. per one square roll; with polyester mat with bidirectional glass-scrim reinforcement)
- d. Cold adhesive: MBR
- 4. Polyglass U.S.A. Inc.:
  - a. Field Plies:
    - 1) Cap Sheet: Elastoflex S6G FR (157 mils/4.0 mm thick; weight 102 lbs. per roll; with reinforced polyester reinforcement).
    - Interply: Elastoflex V (120 mils/3.0 mm thick; weight 84 lbs. per roll; with glass fiber reinforcement).
  - b. Heat Fused Granular Flashing Plies:
    - 1) Cap Ply: Elastoflex S6 FR (157 mils/4.0 mm thick; weight 102 lbs. per roll; with a reinforced polyester reinforcement).
    - 2) Stripping Ply (Non-combustible substrates): Elastoflex V (120 mils/3.0 mm; weight 84 lbs. per roll; with glass fiber reinforcement).
    - 3) Stripping Ply (Combustible substrates): Elastoflex SA V (80 mils/2.0mm; weight 95 lbs. per roll; with a glass fiber reinforcement).
  - c. Cold adhesive: PG 350 or PolyPlus 35 Modified Bitumen Adhesive
- 5. Siplast, Inc.:
  - a. Field Plies:
    - 1) Cap Sheet: Paradiene 30 FR (98 mils/2.5mm thick; weight 90 lbs. per square; with fiberglass mat).
    - 2) Interply: Paradiene 20 EG (3.0 mm thick; weight 84 lbs. per square; with fiberglass scrim/fiberglass mat).
  - b. Heat Fused Granular Flashing Plies:
    - 1) Cap Ply: Parafor 30 TG (161 mils/ 4.1 mm thick; weight 114 lbs. per square; with a fiberglass scrim/polyester mat composite).
    - 2) Stripping Ply (Non-combustible substrates): Paradiene 20 TG (114 mils/2.9mm; weight 76 lbs. per square; with fiberglass mat).
    - Stripping Ply (Combustible substrates): Paradiene 20 SA (102 mils/2.6mm; weight 72 lbs. per square; with a fiberglass mat).
  - c. Cold adhesive: PA-311
- 6. U. S. Ply, Inc.
  - a. Field Plies:

- 1) Cap Sheet: Duraflex 190FR SBS (170 mils/4.3 mm thick; weight 105 lbs per square; with a non-woven polyester mat).
- 2) Interply: Duraflex 190S SBS (120 mils/3.0 mm thick; weight 88 lbs per square; with a non-woven polyester mat).
- b. Mopped Granular Flashing Plies:
  - 1) Cap Ply: Duraflex 190FR SBS (170 mils/4.3 mm thick; weight 105 lbs. per square; with a non-woven polyester mat).
  - 2) Stripping Ply: Duraflex 190S SBS (120 mils/3.0 mm thick; weight 88 lbs. per square; with a non-woven polyester mat).
- c. Cold Adhesive: 901 Premium Modified Adhesive
- D. Liquid-Applied Flashing System: A specialty flashing system consisting of a liquid-applied, fully reinforced, multi-component acrylic membrane installed over a prepared or primed substrate. The flashing system consists of a primer, basecoat and topcoat, combined with a non-woven polyester fleece. The use of the specialty flashing system shall be specifically approved in advance by the roofing membrane system manufacturer for each application and shall be applied in accordance with the manufacturer's written requirements.
  - 1. Soprema, Inc.; Alsan RS 230 Field
  - 2. Certainteed Commercial Roofing; SmartFlash One Resin
  - 3. Polyglass U.S.A., Inc.; PolyFlash 1C
  - 4. Siplast, Inc.; Parapro Roof Membrane Resin
  - 5. Johns Manville Corporation; JM PMMA Flashing Resin

#### 2.2 THERMAL INSULATION SYSTEM

- A. Composite Polyisocyanurate Board Insulation: Closed cell polyisocyanurate foam core bonded on each side to a glass fiber-reinforced felt facer.
  - 1. Flat: Two (2) layers minimum of 1.5" polyisocyanurate insulation board with staggered joints. Provide additional layers of polyisocyanurate insulation board as needed and tapered insulation with 3/16" slope at top layer, to provide roof field thickness shown on drawings.
  - 2. Roof Field Taper Slope: 3/16" in per foot.
  - 3. Cricket and Saddle Taper Slope: 1/2" in per foot.
  - 4. Dimensions: 48-inch by 48-inch boards
  - 5. Meets or exceeds ASTM C1289, Type II, Class 1, Grade 2 (20 psi)
- B. Cover Board
  - 1. Gypsum Glass Mat Roof Board: A panel composed of a gypsum based, non-structural water resistant core material integrally bonded with fiberglass mats on both sides and approved for use by roofing system manufacturer.
    - a. Thickness: 1/2 inch (nominal)
    - b. Size: 48-inch by 48-inch
    - c. Meets or exceeds ASTM C1177
  - 2. Acceptable Manufacturers:
    - a. Georgia Pacific Corp; DensDeck Prime Gypsum Roof Board

- b. US Gypsum Corp; Securock Gypsum Roof Panel
- c. National Gypsums Corp; DEXcell Gypsum Roof Panel
- C. Insulation Cant and Tapered Strip
  - 1. Cant Strip: Expanded perlite of size required for flashing conditions. Meets or exceeds ASTM C728.
  - 2. Perlite Tapered Edge Panels: A tapered panel composed of expanded volcanic minerals combined with waterproofing binders. Meets or exceeds ADTM C728. The top surface shall be pre-treated with an asphalt based coating. The panels shall have a dimension sufficient to provide for a smooth transition and provide proper support for the membrane layer or subsequent layer of insulation when there are transitions of 1/4 inch or greater.

#### 2.3 ROOFING COMPONENTS AND ACCESSORIES

- A. All Roofing components and accessories are to be approved by the selected manufacturer.
- B. Insulation Adhesive
  - 1. Polyurethane Foam insulation Adhesive: Two-component, polyurethane foam insulation adhesive provided by roofing system manufacturer and applied in ribbons from cartridges or two-component bulk packaging with pump-driven delivery system.
    - a. Ribbon Size: As required by manufacturer to properly install system.
    - b. Ribbon Spacing: As required to meet specified wind uplift resistance performance.
    - c. Acceptable Manufacturers:
      - 1) Soprema, Inc.; Duotack Insulation Adhesive
      - 2) Siplast, Inc.; Parafast Insulation Adhesive
      - 3) Johns Manville Corporation; Urethane Adhesive RSUA
- C. Sealant: A moisture-curing, non-slump elastomeric sealant designed for roofing applications where horizontial slopes are less than 1/4-inch per foot. The sealant shall be approved by the roof membrane manufacturer for use in conjunction with the roof membrane materials.
  - 1. Supplied by the roofing manufacturer.
- D. Sealant: A moisture-curing, non-slump elastomeric sealant designed for roofing applications where horizontial slopes exceed 1/4-inch per foot. The sealant shall be approved by the roof membrane manufacturer for use in conjunction with the roof membrane materials and/or for setting extruded anchor bar flanges. Acceptable types are as follows:
  - 1. Supplied by the roofing manufacturer.
- E. Ceramic Granules: No. 11 grade specification ceramic granules of color scheme matching the granule surfacing of the finish ply.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examination includes visual observations, qualitative analysis, and quantitative testing measures as necessary to ensure conditions remain satisfactory throughout the project.
- B. The contractor shall examine all roofing substrates including, but not limited to: insulation materials, roof decks, walls, curbs, rooftop equipment, fixtures, and wood blocking.
- C. The applicator shall not begin installation until conditions have been properly examined and determined to be clean, dry and, otherwise satisfactory to receive specified roofing materials.
- D. During the application of specified materials, the applicator shall continue to examine all project conditions to ensure conditions remain satisfactory to complete the specified roofing system.

#### 3.2 PREPARATION

- Before commencing work each day, the contractor shall prepare all roofing substrates to ensure conditions are satisfactory to proceed with the installation of specified roofing materials.
  Preparation of substrates includes, but is not limited to, substrate repairs, securement of substrates, eliminating all incompatible materials, and cleaning.
- B. Where conditions are found to be unsatisfactory, work shall not begin until conditions are made satisfactory to begin work. Commencing of work shall indicate contractor<sup>™</sup> s acceptance of conditions.

#### 3.3 INSULATION SYSTEM APPLICATION

- A. Follow roof manufacturers requirements, insulation system component product data sheets, published general requirements and submittals.
- B. Install all insulation system components on clean, dry, uniform and, properly prepared substrates.
- C. All insulation system boards shall be carefully installed and fitted against adjoining sheets to form tight joints.
- D. Insulation system boards that must be cut to fit shall be saw-cut or knife-cut in a straight line, not broken. Chalk lines shall be used to cut insulation components. Uneven or broken edges shall not be accepted. Remove dust and debris that develops during cutting operations.
- E. Stagger successive layers of insulation 12 in vertically and laterally to ensure board joints do not coincide with joints from the layers above and below.
- F. Crickets, saddles, and tapered edge strips shall be installed before installing Cover-boards.
- G. Install tapered insulation, saddles and crickets as required to ensure positive slope for complete roof drainage.

- H. Cover-boards shall be installed to fit tight against adjacent boards. When required by the Cover-board manufacturer, a uniform gap shall be provided between Cover-boards using a uniform guide placed between board joints to form a gap between all boards during installation.
- I. The finished insulation system surface shall be tight to, and flush with, adjacent substrates to form a satisfactory substrate to install specified roof membrane and flashings.
- J. Install specified cants where required for membrane flashing transitions

#### 3.4 INSULATION ADHESIVE APPLICATION

- A. Apply the specified two-component insulation adhesive to adhere to the deck and insulation substrate(s).
- B. Follow insulation adhesive product data sheets and published general requirements for installation requirements.
- C. Apply insulation adhesive in uniform ribbons, 1/2 in to 3/4 in wide.
- D. Immediately install insulation components into insulation adhesive, and apply weight to ensure the materials maintain full contact with all ribbons for complete adhesion. Do not allow insulation adhesive to skin-over before placing the insulation materials into the adhesive.
- E. Adhere the insulation system to meet the specified wind uplift resistance performance and specified warranty requirements. Minimum adhesive ribbon spacing shall be as follows:
  - 1. Field of Roof (Zone 1): 12 in on-centers.
  - 2. Perimeter of Roof (Zone 2): 6 in on-centers.
  - 3. Corners of Roof (Zone 3): 4 in on-centers.
- F. For insulation and Cover-boards located partially within the defined perimeter and/or corners, install fastening for the entire board as specified herein.
- G. The Insulation Base Layer and Cover Board must be staggered a minimum of 6"

#### 3.5 PRIMER APPLICATION

- A. Examine all substrates, and conduct adhesion peel tests as necessary, to ensure satisfactory adhesion is achieved.
- B. Apply the appropriate specified primer to dry, compatible substrates as required to enhance adhesion of new specified roofing materials.
- C. Apply primer using brush, roller, or sprayer at the rate published on the product data sheet. Lightly prime for uniform coverage, do not apply heavy or thick coats of primer.
- D. Asphalt Primer: Apply primer to dry compatible masonry, metal, wood and other required substrates before applying asphalt and heat-welded membrane plies. Primer is optional for solvent based solvent-based SBS adhesives and cements. Refer to product data sheets.
- E. Project conditions vary throughout the day. Monitor changing conditions, monitor the drying time of primers, and monitor the adhesion of the membrane plies. Adjust primer and membrane application methods as necessary to achieve the desired results.

#### 3.6 MEMBRANE ADHESIVE APPLICATION

- A. The ambient temperature shall be above 50°F (10°C), and the adhesive temperature shall be a minimum of 70°F (21°C) at the point of membrane application.
- B. To ensure the adhesive is applied at 70°F (21°C), during cold weather, drums and 5 gallon pails shall be stored in heated areas. Drums and 5 gallon pails exposed to cold temperature on the roof shall be provided with heaters when necessary to ensure the minimum application temperature is maintained.
- C. Priming substrates is optional when solvent-based membrane adhesives are used. Primer may be applied to reduce adhesive consumption rates for some absorptive substrates.
- D. Adhesive may be applied using a 3/16 3/8 inch notched squeegee, brush or spray equipment.
- E. Follow the adhesive product data sheet requirements for application rates.
- F. Apply a uniform application of membrane adhesive at the application rate published on the product data sheet.
- G. Apply 1-1/2 to 2 gallons per square between membrane plies. The application rate is 2 to 3 gallons per square or more over absorptive substrates and over granule surfaces. Refer to manufacturer's product data sheet, and adjust application rate based upon surface conditions.
- H. Install the SBS membrane ply before the adhesive begins to skin over. Once adhesive skins over, the membrane ply will not adhere.
- I. CONTRACTOR TO HEAT WELD ALL LAPS OF MEMBRANE.

#### 3.7 HEAT WELDING

- A. The Contractor is responsible for project safety. Where conditions are deemed unsafe to use open flames, manufacturer's alternate membrane application methods shall be used to install SBS modified bitumen membrane and flashings. Acceptable alternate installation methods include cold adhesive-applied membranes. Hot-air welding equipment may be used in lieu of roof torches to seal membrane side and end laps where heat welding the laps is necessary. Refer to NRCA CERTA, local codes and building owner's requirements for hot work operations.
- B. Single or multi-nozzle, hand-held propane roof torches shall be used to install heat-welded membrane and flashing plies.

#### 3.8 FLASHING APPLICATION, HEAT WELDED

- A. Refer to SBS manufacturer's membrane application instructions, flashing detail drawings, and follow product data sheets and other published requirements for installation instructions. Refer to manufacturer's membrane flashing detail drawings.
- B. The contractor is responsible for project safety. Refer to NRCA CERTA recommendations and building owner requirements for hot work operations.
- C. Where required to seal substrates for fire safety, install specified adhered, self-adhered or fastened backer ply to the substrate. Ensure backer-ply covers and seals all substrates requiring protection from exposure to torch operations.

- D. Ensure all flashing substrates that require primer are primed, and the primer is fully dry.
- E. Unroll the flashing base ply and flashing cap sheet onto the roof surface to their complete length. Once relaxed, cut the membrane to the required working lengths to accommodate the flashing height, cants and the required over-lap onto the horizontal roof surface.
- F. Cut the flashing membrane from the end of the roll in order to always install flashings to the side-lap line or selvage edge line.
- G. Lay out the flashing base ply and flashing Cap Sheet to offset all side-laps a minimum of 12 inches so that side-laps are never aligned on top of the ply beneath. Shingle the flashing ply laps to prevent back-water laps.
- H. Install non-combustible cant strips at transitions where required.
- I. Ensure correct membrane and flashing sequencing to achieve redundant, multi-ply, watertight flashings.
- J. ROOF MEMBRANE BASE PLY: Before installing flashings, install the roof membrane base ply in the horizontal field of the roof, and extend the base ply up to the top of the cant, where present, at roof terminations, transitions and penetrations.
- K. FLASHING BASE PLY: Install the flashing base ply starting at the top leading edge of the vertical flashing substrate, down over the cant and onto the horizontal surface of the roof a minimum of 3 inches beyond the of base of the cant onto the roof. Cut the base ply at corners to form 3 inch side-laps. Install gussets to seal corner transitions.
- L. Install one or more flashing base ply(s) at all roof terminations, transitions and penetrations.
- M. ROOF MEMBRANE CAP SHEET:
  - 1. Install the roof membrane Cap Sheet in the horizontal field of the roof over the flashing base ply up to the roof termination, transition or penetration, and up to the top of cants where present.
  - 2. Using a chalk line, mark a line on the membrane cap sheet a minimum of 4 inches from the base of the cant onto the roof. Where granules are present, embed the cap sheet granules using a torch and trowel or granule embedder to prepare the surface to receive the flashing cap sheet.
- N. FLASHING CAP SHEET:
  - 1. Install the flashing Cap Sheet starting at the top leading edge on the vertical substrate, over the cant and onto the roof surface 4 inches from the base of the cant onto the roof.
  - 2. Install the flashing Cap Sheet to ensure a minimum two (2) ply flashing system is present at all roof terminations, transitions and penetrations.
  - 3. During the membrane and flashing installation, ensure all plies are completely adhered into place, with no bridging, voids or openings. Ensure bitumen or flashing cement bleed-out is present at all flashing side and end-laps.
  - 4. Use a damp sponge float or damp rag to press-in the heat-welded flashing plies during installation.
  - 5. Where sufficient bitumen bleed-out is not present, and for all self-adhered plies, apply specified gun-grade sealant or mastic to seal the membrane termination along all roof terminations, transitions and penetrations. These include gravel stop edge metal, pipe penetrations, along the top edge of curb and wall flashing, and all other flashing terminations where necessary to seal flashings watertight.

6. Fasten the top leading edge of the flashing 8 in o.c. with manufacturer required fasteners. Seal fastener penetrations watertight using specified sealant or mastic.

#### 3.9 LIQUID-APPLIED FLASHING SYSTEM APPLICATION

- A. Install the liquid-applied primer and flashing system in accordance with the membrane system manufacturer<sup>™™</sup>s printed installer<sup>™™</sup>s guidelines and other applicable written recommendations as provided by the manufacturer.
- B. Refer to manufacturer<sup>™</sup> <sup>™</sup>s details drawings, product data sheets and published general requirements for application rates and specific installation instructions.
- C. Pre-cut polyester reinforcing fleece to conform to roof terminations, transitions and penetrations being flashed. Ensure a minimum 2 in overlap of fleece at side and end-laps. Ensure the completed liquid-applied flashing membrane is fully reinforced.
- D. Apply the base coat of catalyzed resin onto the substrate using a brush or roller, working the material into the surface for complete coverage and full adhesion.
- E. Immediately apply the reinforcing into the wet base coat of resin. Using a brush or roller, work the reinforcing fabric into the wet resin while applying the second coat of catalyzed resin to completely encapsulate the fleece.

#### 3.10 WALKWAYS

- A. At areas outlined on the drawings, and around the perimeter of all rooftop equipment and at all door and stair landings, install walkway protection.
- B. Cut walkway from end of rolls. No piece shall be less than 24 in.
- C. Spot adhere walkway protection with general purpose sealant or heat welding.
- D. Provide a 2 in space between sheets for drainage

#### 3.11 CLEAN-UP

A. Clean-up and properly dispose of waste and debris resulting from these operations each day as required to prevent damages and disruptions to operations.

#### 3.12 FIELD QUALITY CONTROL AND INSPECTIONS

- A. Site Condition: Leave all areas around job site free of debris, roofing materials, equipment and related items after completion of job.
- B. Notification Of Completion: Notify the manufacturer by means of manufacturer's printed Notification of Completion form of job completion in order to schedule a final inspection date.
- C. Final Inspection

- 1. Post-Installation Meeting: Hold a meeting at the completion of the project, attended by all parties that were present at the pre-application conference. A punch list of items required for completion shall be compiled by the Contractor and the manufacturer's representative. Complete, sign, and mail the punch list form to the manufacturer's headquarters.
- D. Issuance Of The Guarantee: Complete all post installation procedures and meet the manufacturer's final endorsement for issuance of the specified guarantee.



C:\R

|          | KEYNOTE LEGEND  | HO           | LLY &<br>RCHIT                                       | SMITH  |
|----------|---|--------------|--|--|
| 0130     | DEMOLITION ROOF HATCH ASSEMBLY AND WOOD BLOCKING DOWN TO TOP OF CONCRETE ROOF DECK. SEE DETAIL - 8 / A013   | Т            | HAMMC<br>985.34                                      | DND<br>5.5210  |
| 0131     | DEMOLISH ALL OF ROOF SYSTEM DOWN TO TOP OF CONCRETE ROOF DECK WITHIN<br>THE HATCHED AREA ENCLOSED BY BOLD DASHED LINE. THIS INCLUDES ALL<br>STAINLESS STEEL COUNTER FLASHING AT CAST STONE PANEL REGLETS,<br>FLASHING, SEALANT, AGGREGATE, MEMBRANES, INSULATION, CANTS AND PITCH<br>POCKETS. | T<br>T<br>ww | NEW ORL<br>504.58<br>LAFAYE<br>337.27<br>w.hollyands | EANS<br>3 5 . 1 3 1 5<br>TTE<br>7 9 . 2 0 1 0<br>smith.com |
| 0132     | DEMOLISH ALL STAINLESS STEEL COPING, FASTENERS, CLEATS AND WOOD BLOCKING AT TOP OF PARAPET TYPICAL. SEE DETAIL - 1 / A013   |              |  |  |
| 0133     | DEMOLISH MEMBRANE FLASHING AND CANT STRIP AT BASE OF EXHAUST FAN CURB.<br>EXISTING CURB AND COUNTERFLASHING TO REMAIN. SEE DETAIL - 5 / A013  | ΗZ           |  | LA   |
| 0134     | DEMOLISH ROOF DRAIN DOME, COLLAR, BOLTS AND ANY ROOF MEMBRANE OR<br>MASTIC ATTACHED TO THE DRAIN BASIN. EXISTING DRAIN BASIN TO REMAIN. SEE<br>DETAIL - 9 / A013  | ME           | NS   | $\overset{\scriptscriptstyle 38}{NS}$                      |
| 0135     | REMOVE BASE FLASHING ON GALVANIZED STEEL SUPPORT POSTS AT CONDUITS<br>RUNS. CONDUIT AND SUPPORT POSTS ARE EXISTING TO REMAIN AND SHALL<br>REMAIN IN OPERATION THROUGHOUT RENOVATION.  | ACF          | EA   | LEA  |
| 0136     | EXISTING GALVANIZED STEEL LADDER TO REMAIN.   | Ţ            | 2  | <b>R</b> CO  |
| 0138     | DEMOLISH ALL SEALANT AND BACKER ROD FROM VERTICAL JOINTS IN EXTERIOR<br>FACE OF CAST STONE PANELS ALONG THIS WALL, FROM TOP OF CONCRETE DECK<br>TO TOP OF PARAPET ABOVE. PREPARE JOINT FOR NEW SEALANT INSTALLATION.  | REP          | OI   | V O  |
| <br>0139 | DEMOLISH ALL SEALANT AND BACKER ROD FROM VERTICAL JOINTS IN EXTERIOR<br>FACE OF CAST STONE PANELS ALONG THIS WALL, FROM TOP OF CONCRETE DECK<br>TO HORIZONTAL JOINT APPROXIMATELY 12'-0" ABOVE TOP OF ROOF DECK.<br>PREPARE JOINT FOR NEW SEALANT INSTALLATION.                               | )OF          | EW   | NEV<br>TEID: S11   |
| 0147     | DEMOLISH METAL JACK VENT ASSEMBLY AND WOOD BLOCKING DOWN TO TOP OF CONCRETE ROOF DECK.  | RC           | Z  | VE,<br>s sta   |
| 0149     | DEMOLISH ALL LEAD FLASHING, MEMBRANE, MASTIC AND SEALANT ON VENT PIPE<br>DOWN TO TOP OF CONCRETE ROOF DECK. SEE DETAIL - 10 / A013  | EX           | Ц  | <b>RI</b><br>01004598                                      |
| 0150     | DISCONNECT EXHAUST FAN ASSEMBLY, REMOVE FROM SUPPORT CURB AND SET<br>ASIDE FOR RE-INSTALLATION ON NEW CURB. DEMOLISH EXISTING SUPPORT CURB<br>ASSEMBLY AND BLOCKING DOWN TO TOP OF CONCRETE ROOF DECK. SEE DETAIL -   | NN           | )<br>Y   | Н D<br>7-24-05, F.(  |
| 0152     | DEMOLISH ALL METAL FLASHING, FASTENERS, MEMBRANE, MASTIC AND SEALANT AT PERIMETER OF AIR HANDLER SUPPORT BASE.  | A<br>A       | II   | OR<br>0.01-10  |
| 0153     | TEMPORARILY DISCONNECT AND REMOVE AIR HANDLER ASSEMBLY, SHOCK<br>ABSORBER BASE, AND STEEL BEAM DUNNAGE FROM TOP OF CONCRETE SUPPORT<br>BASE.  | INC          | LI R   | <b>I</b> SH OJECT N  |
| 0154     | DEMOLISH ALL MASTIC, METAL FLASHING, FASTENERS, MEMBRANE FLASHING AND SEALANT FROM TOP AND PERIMETER OF AHU CONCRETE SUPPORT BASE.  | (ER          |  | AI<br>ATE PR   |
| 0155     | DEMOLISH ALL METAL SADDLE FLASHING, SEALANT, MASTIC AND FASTENERS WHERE PARAPET TERMINATES INTO WALL.   | ΗZ           | Z  |  |
| 0156     | DEMOLISH ALL MEMBRANE FLASHING, CANT STRIPS, METAL COUNTERFLASHING AND SEALANT AT PERIMETER BASE CONDITIONS.  | IGI          |  | 000  |
| 0157     | DEMOLISH ALL PITCH POCKETS THROUGHOUT. WHERE UTILITY PENETRATIONS ARE<br>NO LONGER IN USE OR CAPPED, REMOVE LINE TO DOWN BELOW ROOF DECK AND<br>CAP. WHERE UTILITY PENETRATIONS ARE STILL IN USE, REWORK PENETRATION AS<br>NEEDED TO INSTALL LIQUID FLASHING AT BASE.                         | EN           |  | 0  |
| 0158     | PREP CONCRETE SURFACE FOR NEW ROOFING AS RECOMMENDED BY ROOF PRODUCT MANUFACTURER.  |              | ununununununununununununununununununun               | MOD  |
| 0162     | DISCONNECT POWER TO PARAPET MOUNTED LIGHT FIXTURE, PULL BACK WIRING<br>TO AN INTERIOR LOCATION AND DEMOLISH (2) 1" DIAMETER GALV. METAL<br>CONDUITS, FITTINGS, JUCTION BOXES AND SUPPORT CURBS WITHIN THE<br>DEMOLISHED ROOF AREA. LIGHT FIXTURE IS EXISTING TO REMAIN.                       | G            | 10 55  |  |
| 0165     | PVC REGLET CAST IN STONE PANEL EXISTING TO REMAIN   | annun in     | S OF   | RCHLIN   |
| 0167     | DEMOLISH MEMBRANE FLASHING AND CANT STRIPS. PREP FACE OF CURB AND   |              | "In ED   | mmm  |

0360 PATCH SPALLED CAST STONE PANELS WITH FAST SET MORTAR RECOMMENDED BY MANUFACTURER FOR VERTICAL APPLICATIONS.

DUCT TRANSITION FOR NEW LIQUID FLASHING SYSTEM AT BASE.

0742 RECONNECT AND MOUNT EXISTING AIR HANDLING UNIT WITH SHOCK ABSORBERS AND STEEL DUNNAGE TO CONCRETE BASE IN SAME CONFIGURATION AS ORIGINAL INSTALLATION. PREP, PRIME AND PAINT STEEL DUNNAGE WITH GALVANIZING PAINT. REPLACE EXISTING NUTS AT ANCHOR BOLTS AS NEEDED.



In J. MORP

NO. DESCRIPTION DATE 1 ADDENDUM 01 04/22/25

24054 PROJECT NO. CD PHASE 02/07/25 DATE PROJECT MANAGER RK QUALITY CONTROL AV

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A011 EXISTING PICTURES



TYPICAL ROOF SYSTEM: COLD APPLIED SBS MODIFIED BITUMEN ROOF SYSTEM ON 1/2" COVER. BOARD AND AN R-25 AVERAGE TAPERED POLYISO INSULATION VALUE ON EXISTING CAST CONCRETE ROOF DECK. ENTIRE SYSTEM IS SET IN ADHESIVE ON EXISTING ROOF DECK IN PATTERN ENGINEERED BY ROOF MEMBRANE MANUFACTURER TO RESIST UPLIFT. PROVIDE 3/16" FOR MORE INFORMATION.

- AREAS WHERE ROOF IS REPLACED UNLESS NOTED OTHERWISE. RE-USE EXISTING ALUMINUM THREADED GROUND RODS ATTACHED TO ROOF DECK WHERE POSSIBLE. SEE DETAIL - 7 / A911
- DETAILS AS RECOMMENDED BY THE ROOFING MANUFACTURER AND NRCA. REPORT ANY DISCREPANCIES BETWEEN DETAILS, MANUFACTURER'S RECOMMENDATIONS, AND FIELD CONDITIONS TO THE ARCHITECT.
- THE WORK SHALL INCLUDE THE INSTALLATION OF 18 SQUARES OF MODIFIED BITUMEN CAP SHEET PLIES ONLY AS DETERMINED BY ARCHITECT TO ELIMINATE PONDING OBSERVED DURING PONDING WATER INSPECTION. FOR ANY QUANTITY REQUIRED BEYOND THIS AMOUNT, REFER TO UNIT PRICE SPECIFICATION.
- WHERE DETAILS ARE NOT SHOWN, PROVIDE STANDARD DETAILS AS RECOMMENDED BY THE ROOFING MANUFACTURER AND NRCA. REPORT ANY DISCREPANCIES BETWEEN DETAILS, MANUFACTURER'S RECOMMENDATIONS, AND FIELD CONDITIONS TO THE ARCHITECT. COMPLY WITH MANUFACTURER'S RECOMMENDATIONS FOR ROOF PENETRATIONS, FLASHINGS, ETC.
- AND ROOF MOUNTED ITEMS ARE ALL APPROXIMATE. FIELD VERIFY ALL CONDITIONS THROUGHOUT.
- ALL ELECTRICAL, MECHANICAL AND/OR PLUMBING WORK REQUIRED TO BE DISCONNECTED, MEET ALL APPLICABLE CODE REQUIREMENTS AND REGULATIONS.
- PROVIDE REINFORCED LIQUID FLASHING AT ALL PIPE AND CONDUIT PENETRATIONS THROUGH SERVICE. IF NO LONGER IN SERVICE CAP LINE BELOW ROOF DECK.
- AND/OR FLASHING CONDITIONS WITH CEMENTITIOUS MORTAR.
- CORNER. FOLLOW ACI GUIDELINES TYPICAL.

- LADDER WITH GALVANIZING PAINT. THIS WORK FAN SUPPORT CURB. SEE DETAIL - 1 / A911 TOWARDS DRAINS. INSTALLATION WITH TAPERED INSULATION SUMP. SEE DETAIL - 6 / A911 BLOCKING. SEE DETAIL -10 / A912 SEE DETAIL - 5 / A911 DEMOLISHED ASSEMBLY. COORDINATE INSTALLATION WITH CONNECTION TO EXISTING DUCT. SEE DETAIL - 2 / A911 FUNCTION AND CONFIGURATION OF DEMOLISHED ASSEMBLY. SEE DETAIL - 4 / A911
- UNIT WITH SHOCK ABSORBERS AND STEEL DUNNAGE TO CONCRETE BASE IN SAME PRIME AND PAINT STEEL DUNNAGE WITH ANCHOR BOLTS AS NEEDED.
- DETAIL 8 / A911
- SEE DETAIL 10 / A911



<sup>1</sup>/<sub>2</sub>" The graphic scale at the bottom left corner of this drawing must measure 1"x1" otherwise all listed scales are null and void.