



Planning

Architecture

Interior design

Graphic Design

Project Management

ADDENDUM to CONTRACT DOCUMENTS

Date: January 28, 2026
From: Tim Skibicki
To: All Bidders
CC: John Read, Brandywine School District

Project Name: Lombardy Elementary School Roof Replacement

BSA+A Project Number: 25.004

Brandywine SD Project Number: BSD260001-LOMB_ROOF

Subject: **ADDENDUM 4**

NOTICE:

Attention is called to the following item(s), effective as of the date above, which shall be added to, deleted from, or changed in the Contract Documents dated **January 7, 2026** and any previously issued addenda, thereby incorporating these items into the Contract Documents.

Attach this Addendum to the Project Manual for this project. Work not modified herein shall be as described in the Contract Documents dated **January 7, 2026** as modified by any previously issued addenda.

The Bidder shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

The following clarifications, changes, and/or additions shall by inclusion in this Addendum be incorporated into the Contract Documents as though fully set forth therein.

**Buck Simpers Architect
+ Associates, Inc.**

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A. GENERAL – NOT USED

Item No.		Item

B. MODIFICATIONS TO SPECIFICATIONS

Item No.	Spec Number	Description:
B-1	00 41 13	BID FORMS Deleted ALTERNATES section. Added a unit price.
B-2	01 22 00	UNIT PRICES Added a unit price.
B-3	07 53 00	ELASTOMERIC MEMBRANE ROOFING Modified Section 3.02

C. MODIFICATIONS TO DRAWINGS - NONE

Item No.	Sheet Number	Description:

D. BIDDER QUESTIONS & CLARIFICATIONS: REFER TO ATTACHED RFI LOG**E. ATTACHMENTS**

Items	Date
RFI Log	01/28/2026
Specification 00 41 13 BID FORM	01/28/2026
Specification 01 22 00 UNIT PRICES	01/28/2026
Specification 07 53 00 ELASTOMERIC MEMBRANE ROOFING	01/28/2026



BIDDER RFI LOG

Project Name: Brandywine School District
Lombardy Elementary School Roof Replacement

Project #: 25.004
Contract #: BSD260001-LOMB_ROOF

RFI					ANSWER		
Submission Format	Date	Bidder	Question	Assignee	Addendum #	Item #	Answer
Email	1/16/26	Vertex Roofing Contractors, Inc.	It was mentioned by John Reed during the pre bid meeting that the lightning protection re-certification will be performed by Brandywine school district and not the contractor. Please confirm.	BSA+A	2	A	Confirmed. Lightning protection re-certification to be performed by Branywine School District and not the contractor.
Email	1/17/26	Alpha Omega Construction Group, Inc.	The spec calls for a 1.7" base layer of ISO plus 1/8" tapered, drawings show MIN R30 ISO with 1/8" tapered please advise.	BSA+AA	2	B	Refer to High Points (HP) and Low Points (LP) on A100. See addendum.
Email	1/17/26	Alpha Omega Construction Group, Inc.	Are we to use the bid form found in the specbook?	BSA+A	2	C	Yes
Email	1/12/26	Capital Coating, Inc.	Spec Section 075300 EPDM Roofing. Page 3, 2.03, A5 calls for color to be Black This would not meet the solar requirements listed in 3 and 4 above. Also on page 6, 3.04 item D1 has to protect White surface, Confirm Color – Black or White ?	BSA+A	2	D	Black
Email	1/12/26	Capital Coating, Inc.	I would like to submit standard expansion joint details acceptance (Details Attached) The Versico Roof to Wall would replace Detail 7/A302, and the Versico Roof to Roof Curbed would replace Detail 10/A302. This way the entire roof system will be covered by a single source warranty. Will this be acceptable. Thank you for your consideration of this request.	BSA+A	2	E	Approved
Email	1/20/26	Detwiler Roofing	Could you please give more clarification on the lightning protection scope of work in this project? Are we to install a new system or certified only the existing at chimney?	BSA+A	2	F	Certification of existing lightning protection at the existing chimney will be provided by the district.

Email	1/22/26	Alpha Omega Construction Group, Inc.	I know I'm past the deadline, but this is an important one. Maybe someone else asked also. The spec book doesn't clarify what wind speed warranty you're looking for. It does say 25-year NDL and 1-60. I spoke with Firestone and they said 1-60 is equal to 90mph wind speed. Is that what you ?	BSA+A	4	G	Windstorm resistance is defined by the specified FM 1-60 classification in accordance with FM Data Sheet 1-28. Wind speed equivalencies are manufacturer-specific and are not separately specified.
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BID FORM

LOMBARDY ELEMENTARY SCHOOL ROOF REPLACEMENT
412 FOULK ROAD, WILMINGTON, DE 19803
BSD260001-LOMB_ROOF

BID FORM

I/We acknowledge Addendums numbered _____ and the price(s) submitted include any cost/schedule impact they may have.

This bid shall remain valid and cannot be withdrawn for thirty (30) days from the date of opening of bids (60 days for School Districts and Department of Education), and the undersigned shall abide by the Bid Security forfeiture provisions. Bid Security is attached to this Bid.

The Owner shall have the right to reject any or all bids, and to waive any informality or irregularity in any bid received.

This bid is based upon work being accomplished by the Sub-Contractors named on the list attached to this bid.

Should I/We be awarded this contract, I/We pledge to achieve substantial completion of all the work within _____ calendar days of the Notice to Proceed.

The undersigned represents and warrants that he has complied and shall comply with all requirements of local, state, and national laws; that no legal requirement has been or shall be violated in making or accepting this bid, in awarding the contract to him or in the prosecution of the work required; that the bid is legal and firm; that he has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken action in restraint of free competitive bidding.

Upon receipt of written notice of the acceptance of this Bid, the Bidder shall, within twenty (20) calendar days, execute the agreement in the required form and deliver the Contract Bonds, and Insurance Certificates, required by the Contract Documents.

I am / We are an Individual / a Partnership / a Corporation

By _____ Trading as _____
(Individual's / General Partner's / Corporate Name)

(State of Corporation)

Business Address: _____

Witness: _____ By: _____
(SEAL) (Authorized Signature)

(Title)
Date: _____

ATTACHMENTS

Sub-Contractor List
Non-Collusion Statement
Affidavit of Employee Drug Testing Program
Affidavit of Contractor Qualifications
Bid Security
(Others as Required by Project Manuals)

LOMBARDY ELEMENTARY SCHOOL ROOF REPLACEMENT
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BSD260001-LOMB_ROOF

BID FORM

SUBCONTRACTOR LIST

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b of the Delaware Code, the following subcontractor listing must accompany any bid submittal. The bidder must list **in each category** the full name and address (City & State) of the sub-contractor that the bidder will be using to perform the work and provide material for that subcontractor category. Should the bidder's listed subcontractor intend to provide any of their subcontractor category of work through a third-tier contractor, the bidder shall list that third-tier contractor's full name and address (City & State). **If the bidder intends to perform any category of work itself, it must list its full name and address.** For clarification, if the bidder intends to perform the work themselves, the bidder **may not** insert "not applicable", "N/A", "self" or anything other than its own full name and address (City & State). To do so shall cause the bid to be rejected. In addition, the failure to produce a completed subcontractor list with the bid submittal shall cause the bid to be rejected. If you have more than three (3) third-tier contractors to report in any subcontractor category, print out additional page(s) containing the appropriate category, complete the rest of your list of third-tier contractors for that category, notate the addition in parentheses as (CONTINUATION) next to the subcontractor category and an asterisk (*) next to any additional third-tier contractors, and submit it with your bid.

<u>Subcontractor Category</u>	<u>Subcontractor</u>	<u>Address (City & State)</u>	<u>Subcontractors tax-payer ID # or Delaware Business license #</u>
1.	_____	_____	_____
A.	_____	_____	_____
B.	_____	_____	_____
C.	_____	_____	_____
2.	_____	_____	_____
A.	_____	_____	_____
B.	_____	_____	_____
C.	_____	_____	_____

BID FORM (Continued)

3.			
A.			
B.			
C.			
4.			
A.			
B.			
C.			
5.			
A.			
B.			
C.			

LOMBARDY ELEMENTARY SCHOOL ROOF REPLACEMENT
412 FOULK ROAD, WILMINGTON, DE 19803
BSD260001-LOMB_ROOF

BID FORM
NON-COLLUSION STATEMENT

This is to certify that the undersigned bidder has neither directly nor indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this proposal submitted this date to Brandywine School District.

All the terms and conditions of the Lombardy Elementary Roof Replacement, Contract #BSD260001-LOMB_ROOF have been thoroughly examined and are understood.

NAME OF BIDDER: _____

AUTHORIZED REPRESENTATIVE
(TYPED): _____

AUTHORIZED REPRESENTATIVE
(SIGNATURE): _____

TITLE: _____

ADDRESS OF BIDDER: _____

E-MAIL: _____

PHONE NUMBER: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

**AFFIDAVIT
OF
EMPLOYEE DRUG TESTING PROGRAM**

4104 Regulations for the Drug Testing of Contractor and Subcontractor Employees Working on Large Public Works Projects requires that Contractors and Subcontractors implement a program of mandatory drug testing for Employees who work on Large Public Works Contracts funded all or in part with public funds.

We hereby certify that we have in place or will implement during the entire term of the contract a Mandatory Drug Testing Program for our employees on the jobsite, including subcontractors, that complies with this regulation:

Contractor/Subcontractor Name: _____

Contractor/Subcontractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

LOMBARDY ELEMENTARY SCHOOL ROOF REPLACEMENT
412 FOULK ROAD, WILMINGTON, DE 19803
BSD260001-LOMB_ROOF

**AFFIDAVIT
OF
CONTRACTOR QUALIFICATIONS**

We hereby certify that we will abide by the contractor's qualifications outlined in the construction bid specifications for the duration of the contract term.

In accordance with Title 29, Chapter 69, Section 6962(d)(10)b.3 of the Delaware Code, after a contract has been awarded the successful bidder shall not substitute another subcontractor whose name was submitted on the Subcontractor Form except for the reasons in the statute and not without written consent from the awarding agency. Failure to utilize the subcontractors on the list will subject the successful bidder to penalties as outlined in the General Requirements Section 5.2 of the contract.

Contractor Name: _____

Contractor Address: _____

Authorized Representative (typed or printed): _____

Authorized Representative (signature): _____

Title: _____

Sworn to and Subscribed before me this _____ day of _____ 20____.

My Commission expires _____. NOTARY PUBLIC _____.

THIS PAGE MUST BE SIGNED AND NOTARIZED FOR YOUR BID TO BE CONSIDERED.

SECTION 01 22 00 - UNIT PRICES

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 unit prices.
- B. Related Requirements:
 - 1. Section 012600 "Contract Modification Procedures" for procedures for submitting and handling Change Orders.
 - 2. Section 014000 "Quality Requirements" for general testing and inspecting requirements.

1.3 DEFINITIONS

- A. Unit price is a price per unit of measurement for materials, equipment, or services, or a portion of the Work, added to the Contract Sum by appropriate modification, if the scope of Work or estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, **applicable taxes**, overhead, and profit.
- B. Measurement and Payment: Methods of measurement and payment for unit prices are specified in those Sections.
- C. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- D. List of Unit Prices: A schedule of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF UNIT PRICES

A. Unit Price 1: Replacement of unsuitable wood substrate/sheathing.

1. Description: During roof removal, wood roof sheathing is to be inspected. Any material showing signs of damage that will affect the roof installation or warranty is to be reported to the owner and architect for replacement
2. Unit of Measurement: Square foot of replacement with $\frac{3}{4}$ " preservative-treated plywood, min. 24"X24" repair

B. Unit Price 2: Replacement of unsuitable perimeter wood blocking.

1. Description: During roof removal, perimeter wood blocking and nailers at roof edges are to be inspected. Any material showing signs of damage or deterioration that will affect the roof installation or warranty is to be reported to the owner and architect for replacement.
2. Unit of Measurement: Board foot of replacement with preservative-treated wood blocking.

C. Unit Price 3: Surface Priming of Exposed or Residual Asphalt

1. Application of manufacturer-approved adhesive primer to exposed or residual asphalt substrate conditions encountered after roof tear-off, where required for proper adhesion of the specified roofing system, including surface preparation, masking, protection, labor, materials, and incidental work.
Primer may be either a solvent-based, high-tack adhesive primer or a low-VOC, spray-applied contact adhesive, as recommended by the roofing membrane manufacturer and required by the selected roofing system.
2. Unit of Measurement: Square feet of substrate primed, as directed by the Architect.

END OF SECTION 01 22 00

**SECTION 07 53 00
ELASTOMERIC MEMBRANE ROOFING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Elastomeric roofing membrane, fully adhered.
- B. Insulation, flat and tapered.
- C. Flexible flashings.
- D. Accessories including but not limited to roof drains, stack boots, and walkway pads.

1.02 RELATED REQUIREMENTS

- A. Section 07 62 00 - Sheet Metal Flashing and Trim: Counterflashings, reglets.
- B. Section 07 71 00 - Roof Specialties: Roof edges to be included in roofing system warranty.
- C. Section 07 71 29 – Manufactured Roof Expansion Joints.
- D. Section 26 41 13 - Lightning Protection System: Sealing and flashing of roofing system at lightning protection system penetrations.

1.03 REFERENCE STANDARDS

- A. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board 2020.
- B. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane 2015.
- C. FM DS 1-28 - Wind Design 2016.
- D. NRCA (RM) - The NRCA Roofing Manual 2019.
- E. UL (DIR) - Online Certifications Directory Current Edition.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene a preinstallation meeting one week before starting work of this section; require attendance by all affected installers; review preparation and installation procedures and coordination and scheduling necessary for related work.

1.05 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data
 - 1. Provide data indicating membrane materials, flashing materials, insulation, and fasteners.
- C. Shop Drawings
 - 1. Plans: Indicate joint or termination detail conditions, conditions of interface with other materials, setting plan for tapered insulation, and paver layout.
 - 2. Manufacturer's details: Where not otherwise provided in the Contract Documents, provide drawings of flashing and penetration details approved by Manufacturer for coverage under terms of Warranty.
- D. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- E. Manufacturer's Field Reports: Indicate weather conditions including ambient temperatures and humidity; procedures followed; and supplementary instructions given.
- F. Installer's qualification statement.

- G. Warranty: Submit Manufacturer's warranty and ensure forms have been completed in Owner's name and registered with Manufacturer.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Companies specializing in manufacturing the products specified in this section with minimum five years of documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum five years documented experience, and approved by Manufacturer.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in Manufacturer's original containers, dry and undamaged, with seals and labels intact.
- B. Store materials in weather-protected environment, clear of ground and moisture.
- C. Ensure storage and staging of materials does not exceed static and dynamic load-bearing capacities of roof decking.
- D. Protect foam insulation from direct exposure to sunlight.

1.08 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather.
- B. Do not apply roofing membrane when ambient temperature is below 40 degrees F or above 90 degrees F.
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- E. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.

1.09 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form signed by Installer, covering Work of this Section, including all components of membrane roofing system such as roofing membrane, base flashing, roof insulation, and walkway products, for the following warranty period:
 - 1. Warranty Period: Two years from date of Substantial Completion.
- C. Manufacturer's Warranty: Manufacturer's Warranty standard form, without monetary limitation, in which Manufacturer agrees to repair or replace components of membrane roofing system that fail in materials or workmanship within specified warranty period. Failure includes roof leaks.
 - 1. Warranty Period: Twenty-five (25) years from date of Substantial Completion.
 - 2. Coverage: Material and labor.
 - 3. Include edge metal in Roofing System Warranty. See Section 07 71 00.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. EPDM Membrane Materials:
 - 1. Carlisle Roofing Systems, Inc: www.carlisle-syntec.com.
 - 2. Firestone Building Products, LLC: www.firestonebpco.com.
 - 3. Versico, a division of Carlisle Construction Materials Inc: www.versico.com/sle.
 - 4. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 ROOFING

- A. Elastomeric Membrane Roofing: One ply membrane, fully adhered, over insulation and coverboard.
- B. Roofing Assembly Requirements:
 - 1. Roof Covering External Fire Resistance Classification: UL (DIR) certified Class A.
 - 2. Factory Mutual Classification: Class 1 and windstorm resistance of 1-60, in accordance with FM DS 1-28.
- C. Acceptable Insulation Types - Constant Thickness Application
 - 1. Uniform thicknesses of polyisocyanurate board.
- D. Acceptable Insulation Types - Tapered Application:
 - 1. Uniform thicknesses of polyisocyanurate board covered with top layer of tapered polyisocyanurate board.

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane: Ethylene-propylene-diene-terpolymer (EPDM); non-reinforced; complying with minimum properties of ASTM D4637/D4637M.
 - 1. Thickness: 0.060 inch (60 mil).
 - 2. Sheet Width: 120 inch, minimum; factory-fabricate into largest sheets possible.
 - 3. Color: Black.
- B. Seaming Materials: Standard synthetic-rubber polymer primer and 6-inch wide minimum, butyl splice tape with release film.
- C. Flexible Flashing Material: Same material as membrane.
 - 1. Thickness: 60 mil.
 - 2. Tensile Strength: 1,200 psi.
 - 3. Elasticity: 50 percent with full recovery without set.
 - 4. Color: Black.

2.04 COVER BOARD

- A. Fiberglass Mat Faced Gypsum Roof Board:
 - 1. Thickness: 5/8 inch.
 - 2. Width: 4 feet.
 - 3. Length: 8 feet.
 - 4. Weight: 2.5 lb/sq. ft.
 - 5. Surfacing: Fiberglass mat with non-asphaltic coating.
 - 6. Flexural Strength, Parallel (ASTM C473): 100 lbf, minimum.
 - 7. Flute Span (ASTM E661): 8 inches.
 - 8. Permeance (ASTM E96): greater than 17 perms.
 - 9. R-Value (ASTM C518): 0.67.
 - 10. Water Absorption (ASTM C1177): Less than 10 percent of weight.
 - 11. Compressive Strength (Applicable Sections of ASTM C472): 900 pounds per square inch.
 - 12. Surface Water Absorption (ASTM C473): Not more than 2 grams.

13. Acceptable Products:
 - a. DensDeck Prime, Georgia-Pacific Gypsum.

2.05 INSULATION

- A. Polyisocyanurate Board Insulation: Rigid cellular foam, complying with ASTM C1289, Type II, Class 1, cellulose felt or glass fiber mat both faces; Grade 2 and with the following characteristics:
 1. Compressive Strength: 20 psi.
 2. Board Size: 48 by 96 inch.
 3. Base layer thickness: 4 inch minimum.
 4. Flat roof insulation, total thickness: As indicated on Drawings, built up in multiple layers as required.
 5. Tapered Board insulation: Slopes as indicated on Drawings, fabricated in fewest layers possible.
 - a. Minimum base slope: See Drawings.
 - b. Cricket slope: As indicated in Drawings. If not so indicated, then as required for 1/2 inch per foot minimum cricket valley slope.
 - c. Drain sumps: 4'-0" square; 1/2 inch per foot slope.
 6. Board Edges: Square.

2.06 ACCESSORIES

- A. Roof Drains
 1. Basis of Design: Model No. RD2150 Replacement Roof Drain by Zurn Industries LLC, Falconer, NY.
 - a. Other products are acceptable to conformance with the requirements of this Section.
 2. Properties
 - a. Designed for retrofit roof drain applications.
 - b. Furnished with the following items.
 - 1) 16-gauge Type 304 stainless steel body.
 - 2) Coated cast iron strainer dome and clamp collar.
 - 3) Tailpipe with ribbed neoprene gasket designed to hold drain within and seal against existing storm leader to remain.
 - 4) Stainless steel hardware.
- B. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
- C. Walkway Pads: Suitable for maintenance traffic, contrasting color or otherwise visually distinctive from roof membrane.
 1. Composition: Manufacturer's standard.
 2. Size: Minimum 24 inches wide perpendicular to direction of foot traffic.
- D. Insulation Joint Tape: Glass fiber reinforced type as recommended by Manufacturer, compatible with roofing materials; 6 inches wide; self-adhering.
- E. Thinners and Cleaners: As recommended by Manufacturer, compatible with membrane.
- F. Membrane Adhesive: As recommended by Manufacturer, and:
 1. Provide low-VOC, solvent-based EPDM bonding adhesive that complies with Ozone Transport Commission (OTC) Model Rule, Single Ply Roofing Adhesives; www.otcair.org.
- G. Membrane Adhesive Primer: As recommended by Manufacturer, and:

1. Provide low-VOC, solvent-based EPDM adhesive primer that complies with Ozone Transport Commission (OTC) Model Rule, Single Ply Roofing Adhesive Primers; www.otcair.org.
- H. Insulation Adhesive: As recommended by Manufacturer.

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 INSULATION - UNDER MEMBRANE

- A. Attachment
 1. Over Metal Decking: Mechanically fasten first layer of insulation to deck in accordance with Manufacturer's instructions and Factory Mutual requirements.
 - a. Embed second and subsequent layers of insulation into full beds of adhesive in accordance with Manufacturers' instructions.
 2. Over Wood and Concrete Decking:
 - a. Adhere insulation as follows:
 - 1) Set each layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
- B.
- C. Place tapered insulation to the required slope pattern in accordance with Manufacturer's instructions.
- D. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- E. Tape joints of insulation in accordance with Manufacturers' instructions.
- F. At roof drains, use factory-tapered boards to slope down to roof drains over a distance of 24 inches.
 1. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- G. Do not apply more insulation than can be covered with membrane in same day.

- H. Install cover board over insulation with long joints in continuous straight lines with end joints staggered between rows. Adhesive attach cover board, following Manufacturer recommendations.

- 1. For multilayer locations, lay subsequent coverboard layers with joints staggered minimum 6 inch from joints of preceding layer.

3.03 INSTALLATION – ROOF DRAINS

- A. Do not remove more existing roof drains than can be replaced by retrofit roof drains in same day.

3.04 INSTALLATION - MEMBRANE

- A. Apply elastomeric membrane roofing system in accordance with Manufacturer's recommendations.
- B. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- C. Shingle joints on sloped substrate in direction of drainage.
- D. Fully Adhered Application: Apply adhesive to substrate and membrane at rate required by Manufacturer. Fully embed membrane in adhesive except in areas directly over expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
 - 1. Protect black surface from discoloration from bonding adhesive.
 - 2. Do not place bonding adhesive containers or lids on black membrane surface.
- E. Overlap edges and ends and seal seams by contact tape, minimum 6 inches. Seal permanently waterproof. Apply uniform bead of sealant to joint edge.
- F. At intersections with vertical surfaces:
 - 1. Extend membrane over cant strips and up a minimum of 8 inches onto vertical surfaces.
 - 2. Fully adhere flexible flashing over membrane and up to termination bar.
- G. Around roof penetrations, seal flanges and flashings with flexible flashing.
- H. Install roofing expansion joints where indicated. Make joints watertight.
 - 1. Install prefabricated joint components in accordance with Manufacturer's instructions.
- I. Coordinate installation of roof drains and related flashings.
- J. Coordinate installation of associated counterflashings installed under other sections.

3.05 ROOF WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Adhere walkway products to substrate with compatible adhesive according to Manufacturer's written instructions.

3.06 FIELD QUALITY CONTROL

- A. Owner will provide testing services in accordance with Section 01 40 00 - Quality Requirements. Contractor to provide temporary construction and materials for testing.
- B. Require weekly site attendance of Manufacturer's representative(s) during installation of the Work.

3.07 CLEANING

- A. See Section 01 74 19 - Construction Waste Management and Disposal for additional requirements.
- B. Remove markings from finished surfaces.
- C. In areas where finished surfaces are soiled by work of this section, consult Manufacturer of surfaces for cleaning advice and comply with their documented instructions.
- D. Repair or replace defaced or damaged finishes caused by work of this section.

3.08 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION