

**ADDENDUM NO. 2**

April 19th, 2016

Modifications to the Contract Documents for:

**Evansville Vanderburgh School Corporation**

2016 Delaware Elementary School Roof Replacement

Morley and Associates, Inc.  
Architect's Project No. 9778**GENERAL:**

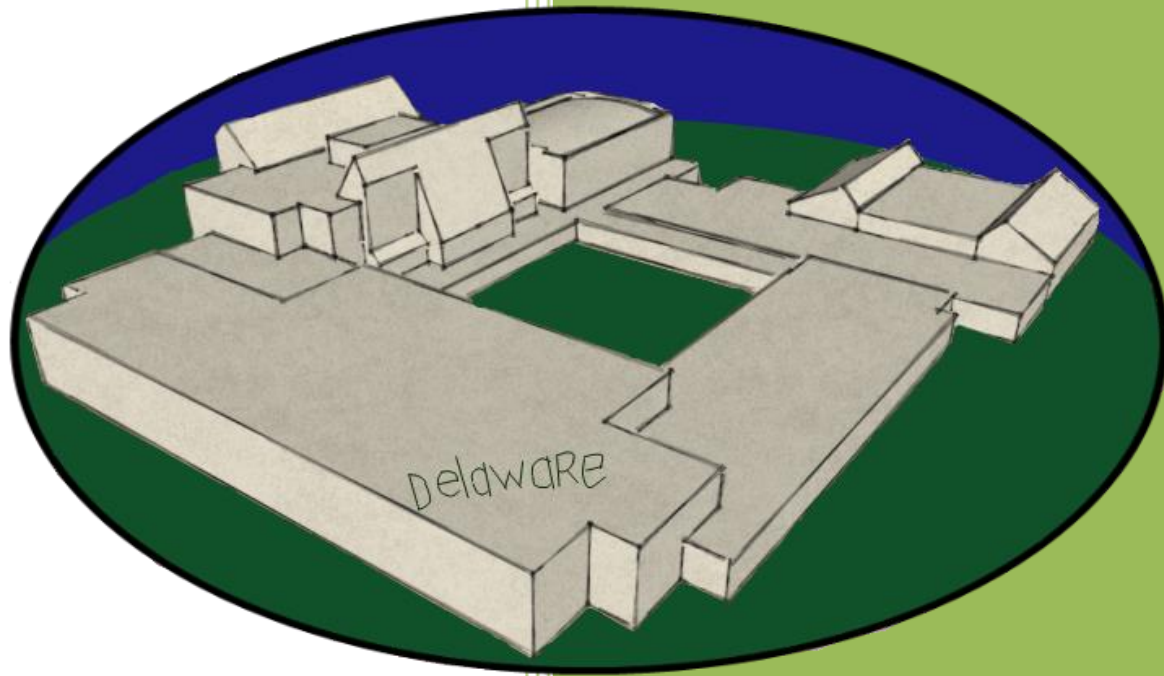
The information contained herein replaces, supplements, or otherwise modifies information as presented in the original Bid Documents (plans and specifications). All information contained in this Addendum shall be integrated with the original plans and specifications as if the Addendum information was originally therein. The original plans and specifications are to remain in their entirety, except as expressly modified by the seven (10) items in this Addendum.

<b>ITEM NO.</b>	<b>DESCRIPTION OF ITEM</b>
2-01	<b>General:</b> What are milestone dates for the project? A. Bid Opening Date: 04.21.2016 2pm B. Scheduled Board Approval Meeting: 05.16.2016 C. End of School Date: 05.20.2016 D. Beginning of School Date: 08.10.2016
2-02	<b>General:</b> Do contractors have freedom for temporary ground access to the various roofs for vacuum trucks, deliveries and etc.? A. Yes, awarded contractor has temporary usage of area at grade not indicated on the plan as "staging area", as long as the usage does not block traffic, damage existing conditions, or remain occupied continuously for more than one work day at a time.
2-03	<b>General:</b> Can the roof report be provided for contractor use? A. Yes, please see attached.
2-04	<b>General:</b> Can an accessory bid form be provided outlining alternates and unit pricing? A. Yes, please see attached.
2-05	<b>General:</b> Is there accessible power outlets on the roof? A. Yes, there are power outlets located at limited locations on the roof, contractor should include providing a generated power supply in their base bid.
2-06	<b>General:</b> Please clarify extent of cleaning of drains?

- A. Contractor to clean drain inlet of any debris and inform owner of any observed blockages to drain prior to start of construction for owner to clean. If drains are clogged during construction, contractor is responsible to clean clogged drains.
- 2-07 **Architectural:** Clarification of phasing schedule.  
A. See Roof Phasing Plan on Sheet AE101 for hatching clarification.  
B. Phasing has been adjusted. Phase 4 per bid and addendum 01 has been moved to Phase 01 with all phases subsequently shifting back except phases 5 and 6 which are to remain in order.
- 2-08 **Architectural:** Are all existing penetrations and portals to existing equipment (i.e. coolant line sets) to be cut and replaced.  
A. All existing roof penetrations and portals to be removed and replaced. Reworked and new penetrations to comply with EVSC Roof Penetration Requirements for Mounting Equipment.
- 2-09 **Architectural:** Clarification of roof insulation thickness and required details when adjacent to skylight flashing, masonry weep holes, and metal wall panel drainage points.  
A. Please see SK-1 Roof Insulation Thickness Plan.  
B. Contractor to provide insulation as indicated on SK-1 with low profile flashing details as required to maintain proper drainage of existing construction.  
C. Please see attached basis of design details for areas along masonry walls with weep holes, skylights, and metal panels not to be covered.
- 2-10 **Architectural:** Clarification of what composite metal panel walls are to be covered with membrane roofing.  
A. Please see SK-2 Membrane Wall Location Plan.  
B. Please see attached basis of design details for composite metal wall panels to be covered.  
C. Contractor to provide termination bars with counter flashing at all vertical edges.  
D. Contractor to provide continuous termination bars at 48" o.c. vertically per membrane manufacturers written recommendations.  
E. Contractor to provide finish samples of roof membrane to match existing metal panel color for architects final selection. Basis of Design is Sarnafil Copper Brown or Lead Grey.
- 2-11 **Specifications:** Should Alternate 01: XPS insulation include cover board under the proposed roof membrane.  
A. Yes, Alternate 01: XPS insulation is to include cover board to meet the roof membrane manufacturers written recommendations.
- 2-12 **Specifications:** Is Carlisle FleeceBACK PVC - FRS Membrane roof an acceptable alternate.  
B. Yes, the 60mil minimum Carlisle FleeceBACK PVC - FRS Membrane roof is an acceptable alternate to the Sarnafil base bid. If it is option is proposed, this must be listed on the accessory bid form as Alternate No. 03.

# 2015

## Delaware Roof Renovation

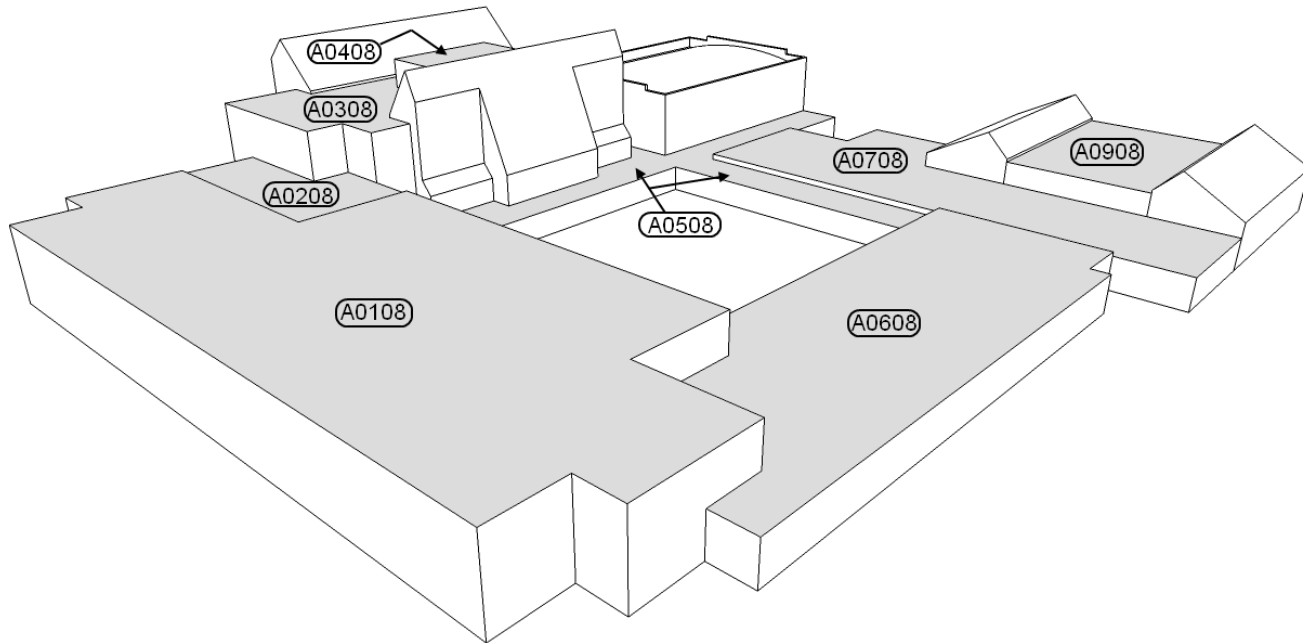


Rick Brown

Evansville Vanderburgh School Corporation

2/3/2015

The following diagram shows the area of proposed "Roof Renovation".



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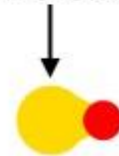
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## Contractor Responsibilities

### Expected Job Site Applications

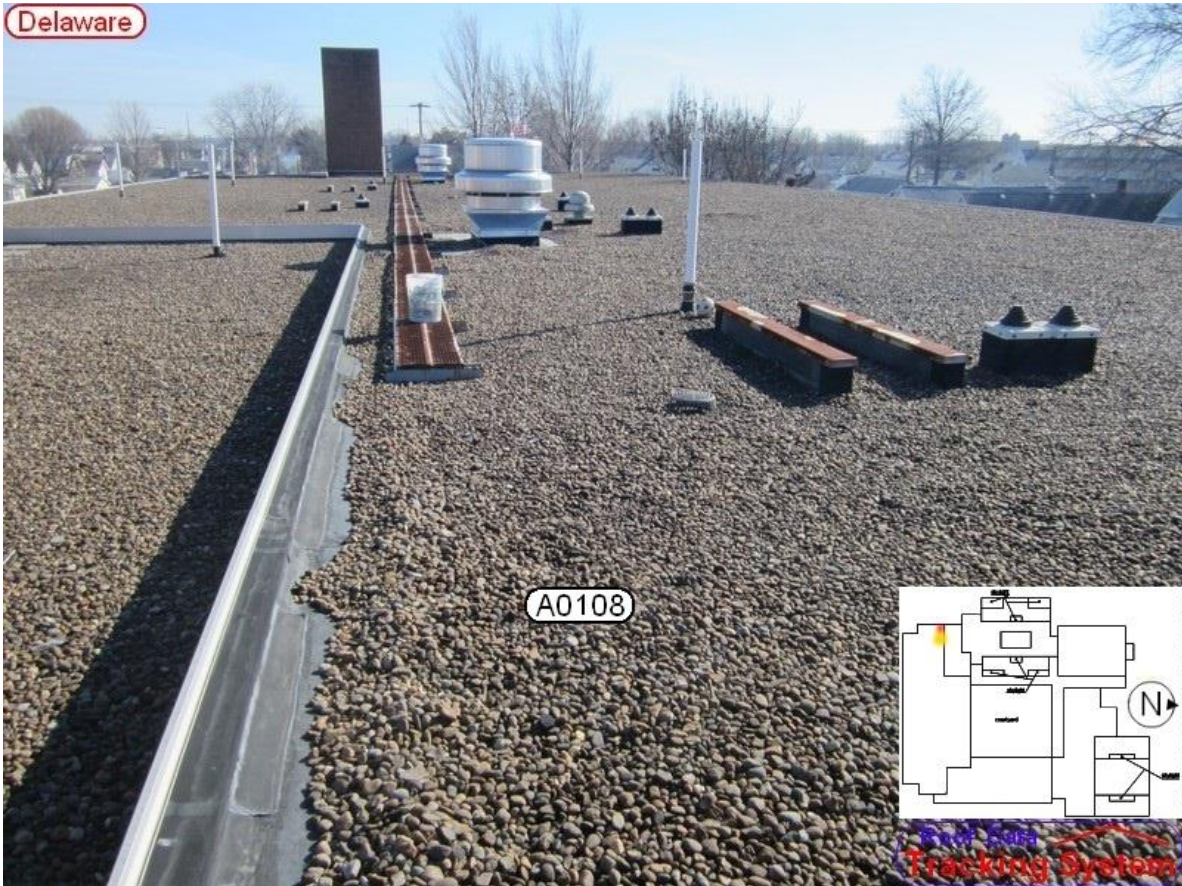
- Method of Ballast Removal-
- Removal of Existing Roofing Material-
- Removal of Pipe and Curb Penetrations-
- Installation of Insulation Board-
- Field Membrane-
- Membrane Wall Terminations-
- Roof Drains-
- Pipe Support Blocks-
- Gas Lines-
- Edge and Coping Metal-

### Possible Job Site Set-up Locations

### Roof Core Samples



# Area-A0108



Delaware



Delaware





Delaware



Delaware



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## Area-A0408

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## Area-A0508

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# Area-A608



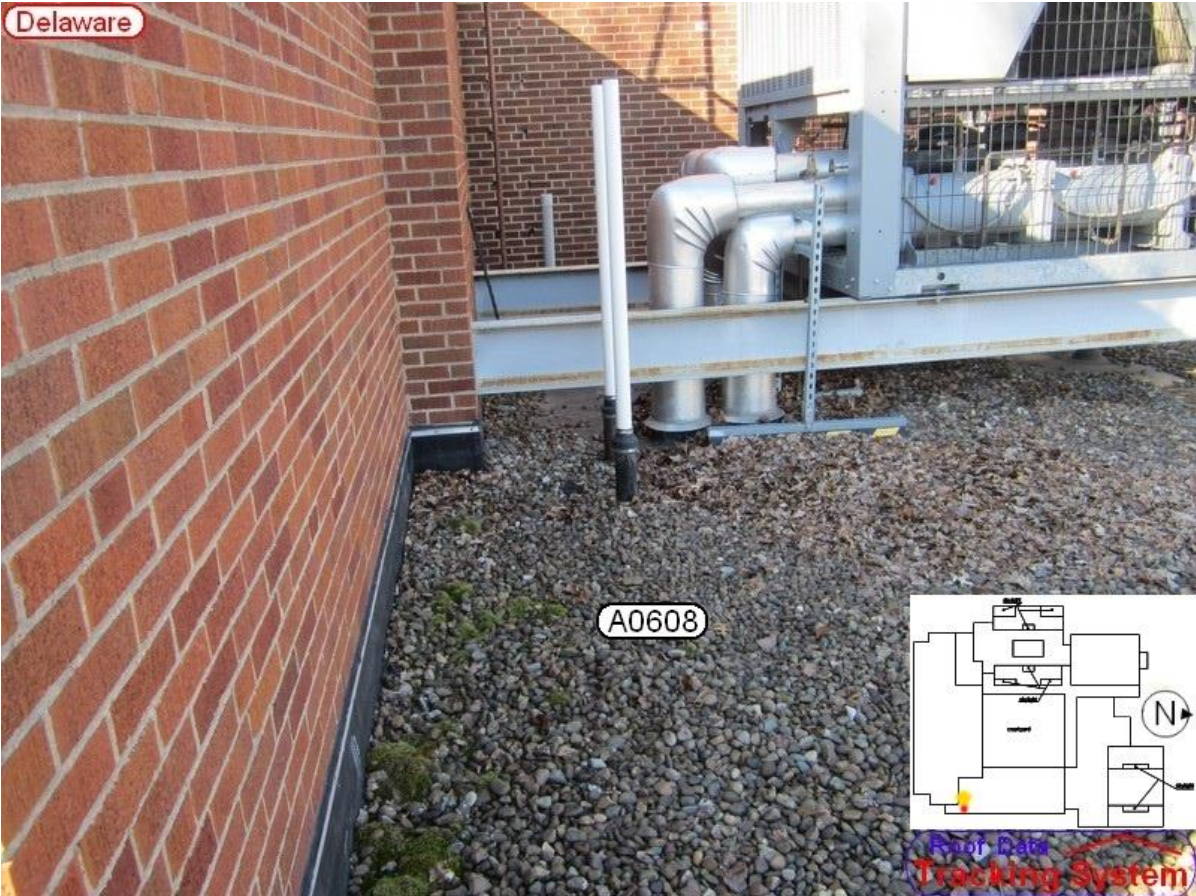
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## Area-A0808



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<p align="center"><b>Standards For Maintenance of Facilities</b></p>		<p align="center"><b>Supportive Services:</b> Rick Brown <i>Roofing/Sheet Metal</i> <a href="mailto:rick.brown@evsc.k12.in.us">rick.brown@evsc.k12.in.us</a></p>
<p><b>1 #:</b> SFAC1409121204</p>	<p><b>Revision Date:</b> First</p>	<p><b>Revised By:</b> Rick Brown</p>
<p align="center"><b>Contractor List of Responsibilities</b> as Written by Rick Brown</p>		

## Pre-Bid/Quote

- Any pre bid visits to the site should be made through EVSC’s Manager of Maintenance and scheduled at least 24 hours in advance.
- There is a no tobacco policy in EVSC buildings or on the grounds which includes vapor cigarettes. Drugs or alcohol are not allowed on EVSC property. This includes in vehicles on school properties. It is the Contractor’s responsibility to make sure this policy is enforced with his personnel.
- The Contractor is responsible for visiting the site to fully inform himself to all existing conditions and limitations. He shall be responsible for any assumptions he may make as to the existing conditions.
- The Contractor must have the approval of the EVSC to submit any work to a sub-contractor. The Contractor is responsible for any work the Contractor submits to a sub-contractor.
- The Contractor is responsible for verification of all field measurements and core information that has been supplied.

## Pre-Job Start-Up

- The Contractor is responsible for retaining any licenses, permits, or insurance required for any work to be performed.
- The Contractor is responsible for following all municipal and state codes along with proper safety procedures.
- It is the responsibility of the Contractor to hold current back ground checks for any person performing work on the job site and to be able to furnish them to the representative of the building owner if asked.
- The Contractor is responsible for getting the approval for all staging areas from the EVSC Manager of Maintenance.
- The Contractor is responsible for scheduling a pre-job start-up meeting one week before work begins with an assigned EVSC contact person.
- The Contractor is responsible for bringing any discrepancies in the job specs or verbal communications to the attention of the building owner representative.

- The Contractor must submit their hours of operation before work commences to the EVSC Manager of Maintenance for approval.
- The Contractor is to notify the EVSC contact person if the job foreman/manager is being moved from the job specified.
- The Contractor is responsible for the clean-up of all job debris.
- The Contractor is responsible for scheduling a post job meeting with a person representing the EVSC building owner. This meeting is to take place on site before the issuance of final payment.
- Due to tightened security while EVSC schools are in session and to Custodian cleaning schedules when not in session, it is the Contractors responsibility for arranging restroom facilities other than using the buildings.
- The Contractor is responsible for ensuring all ladders being used on the exterior of a facility are placed in a secure manner so that they may not be used to gain access to roofs or buildings during non-work hours.

*The Director of Maintenance of the EVSC or his representative has the authority to stop work if it is found that any of the above is not being adhered to. Work can start again once the corrective action has taken place. This will be at no extra cost to the EVSC.*

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# Expected Job Site Applications

## -Be Familiar with the List of “Contractor Responsibilities”-

Found in the “Table of Contents”

## -Method of Ballast Removal-

**Vacuum**-The dates for ballast removal will need to be agreed on by the “EVSC-Contact Person”. Note that enough ballast should remain to protect the perimeter edges from wind uplift. To also protect from wind uplift, the roof should then be loaded in a timely manner with the new material and dispersed throughout the removed areas,.

## -Removal of Existing Roofing Material-

**Tear-Off**-The existing roof(s) should be removed to the roof deck. The “Contractor” is responsible for the removal of all debris.

All “**Metal Walkways**” are to be removed and disposed of by the “Contractor”.

## -Removal of Pipe and Curb Penetrations-

**Roof Penetration Removal**-Any “Pipe or Curb Penetration” that is not in use shall be removed and disposed of during the roof the tear-off process.

## -Installation of Insulation Board-

**Polyisocyanurate**-Two layers of felt backed “Polyisocyanurate Insulation Board” shall be used to maintain an R-value of twenty. To prevent ponding water, thought should be given to building “Saddles” between roof drains, and “Crickets” at outside corners and curb penetrations as needed. Locations are to be decided by Architect/Engineer.

**Installation**- Installation of the “Polyisocyanurate Insulation Board” (ISO) shall be accomplished as follows:

- Metal Deck- Rhino Bond fasteners shall be used to mechanically fasten the ISO down.  
**Not Applicable for Delaware**
- All Other Deck Types-An approved foam adhesive should be applied to adhere the ISO down.

## -Field Membrane-

**Primary Bid**-Sarnafil... Polyvinyl Chloride (PVC)

\*All Sarnafil specifications are to be followed\*

- Thickness: 60mil. No Nominal
- Reinforcement: Fiberglass
- Color: Tan
- Field Membrane Application Method: Solvent Free ~~or Rhino Plate~~



- All corner and pipe penetration flashings shall be pre-formed by the manufacturer and be of matching color

**Alternate Bid**-Carlisle or Firestone... Ethylene Propylene Diene Monomer (EPDM)

- Thickness: 60mil.
- Reinforcement: none
- Color: Black
- Membrane Application Method: Solvent Based
- All corner and pipe penetration flashings shall be pre-formed by the manufacturer and be of matching color

Only the “QuickPrime” type tapes and flashings or equivalent are to be used. Using a “Splice Adhesive or equivalent” to seal seams, flash, or patch is not acceptable.

The same insulation as used with the Primary Bid above shall be used, depending on deck type, shall either be adhered to the deck using an approved foam adhesive or mechanically fastened down using plates and screws.

**-Membrane Wall Terminations-**

**Membrane Wall Terminations** - A wall termination should be made using a “water cut-off” type sealant, with a reglet cut metal flashing covering the sealed termination bar. A surface mounted metal counter flashing is not acceptable.

**-Roof Drains-**

**Roof Drains**-Roof drain baskets and clamping rings shall be cleaned and spray painted a black or grey color. Non serviceable drain baskets or clamping rings shall be replaced. All bolts and washers shall be replaced with stainless steel bolts and washers.

**-Pipe Support Blocks-**

**Pipe Support Blocks**-All pipe support blocks are to be replaced with one’s made from recycled rubber such as the type made by Dura Bloc.

**-Gas Lines-**

**Gas Lines**-To be wire brushed and painted Yellow.

**-Edge and Coping Metal-**

**Edge and Coping Metal**-Shall be of the “Hickman” snap lock type or equivalent.

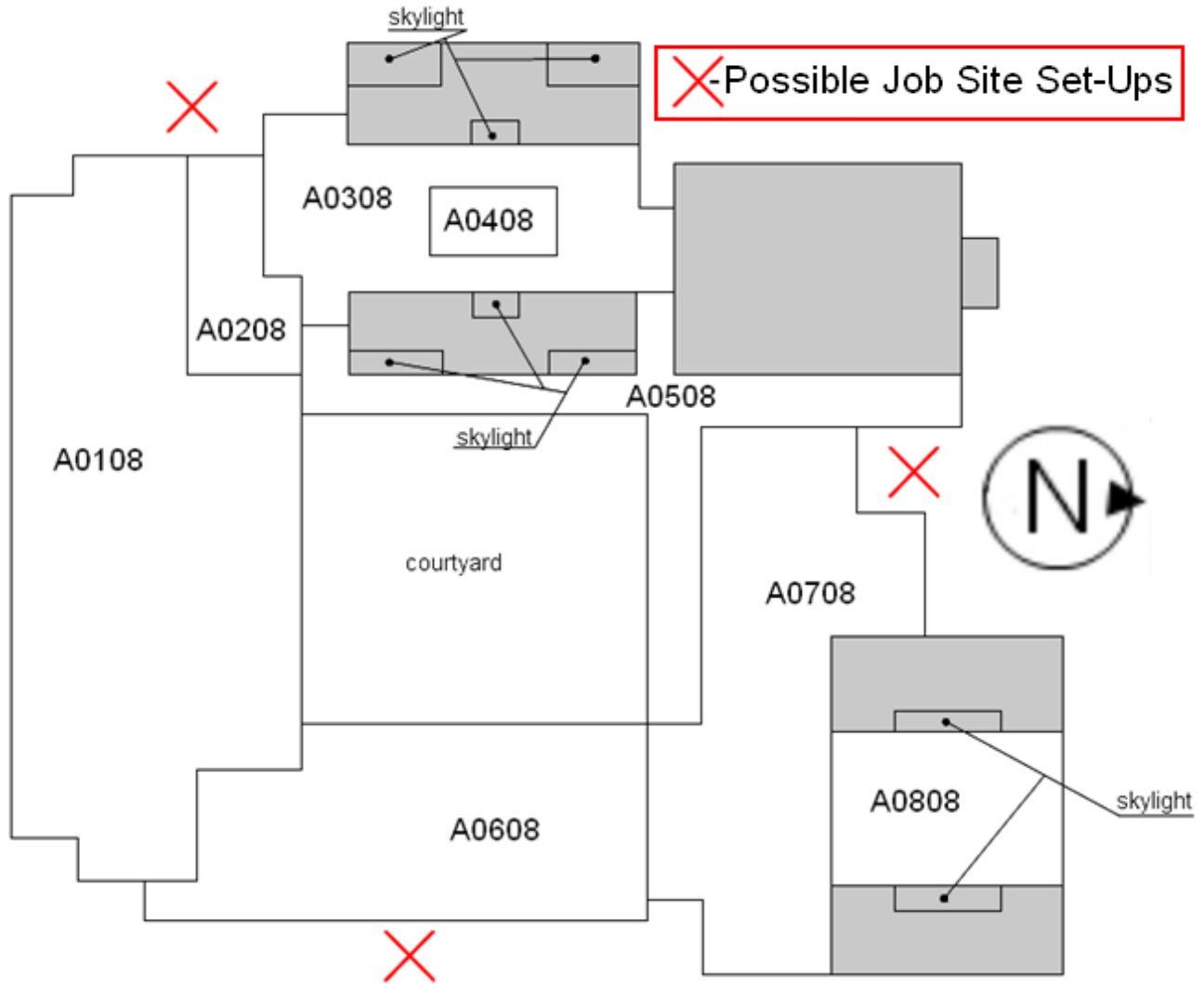
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# Possible Job Site Set-up Locations

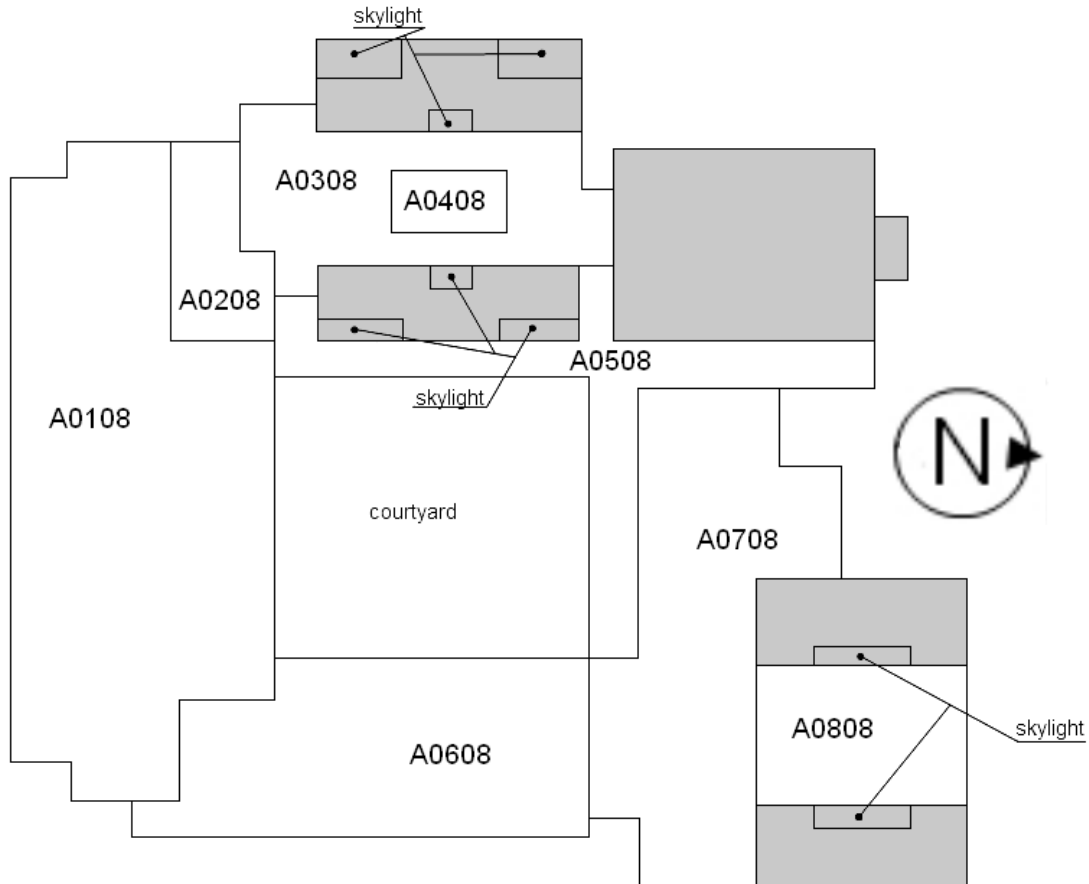
All set-up areas should be protected with "Caution/Warning Tapes" and "Fencing."



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## -Roof Core Samples-



### Notes:

- Area A108 – Ballasted EPDM over 3”-polystyrene board over concrete deck
- Area A608 – Ballasted EPDM over ½” polystyrene board over existing built up pitch
- All other Areas- Ballasted EPDM over 1/2” polystyrene board over gypsum deck

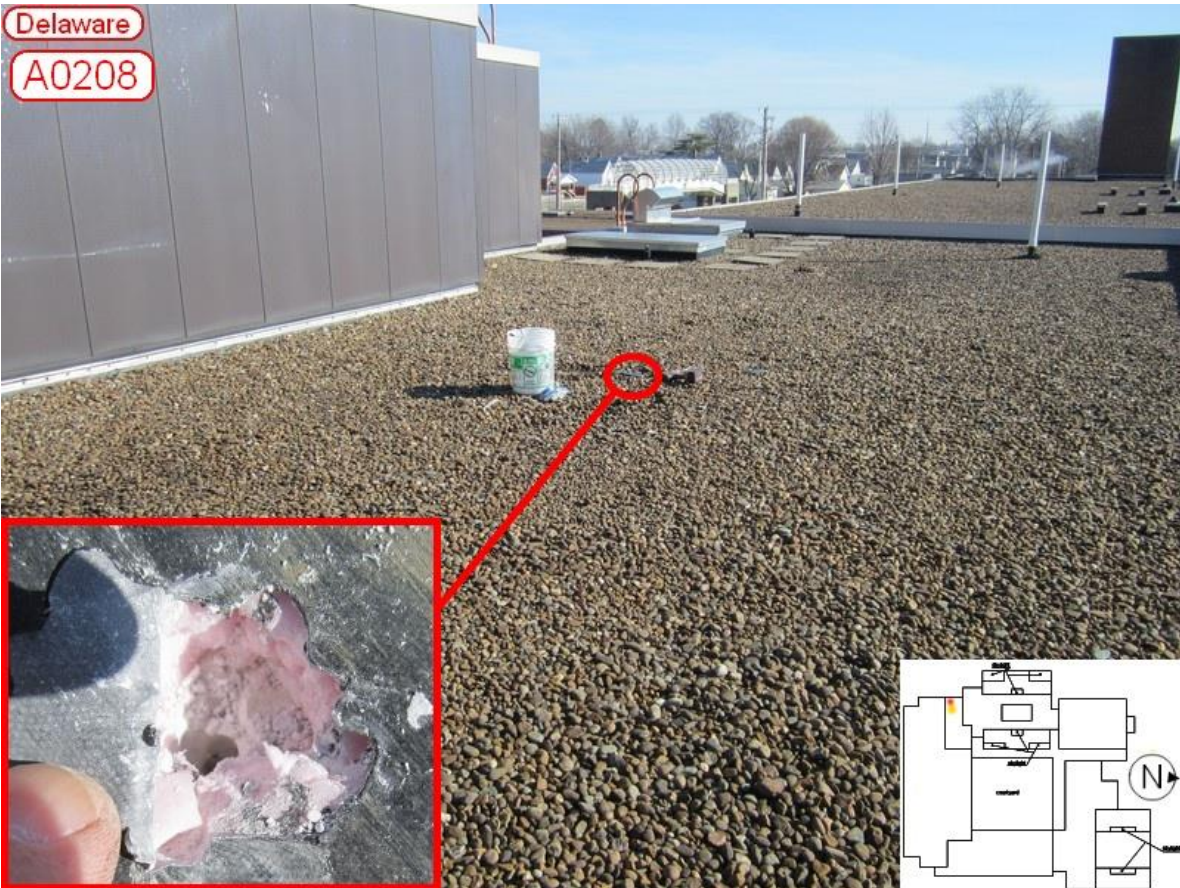
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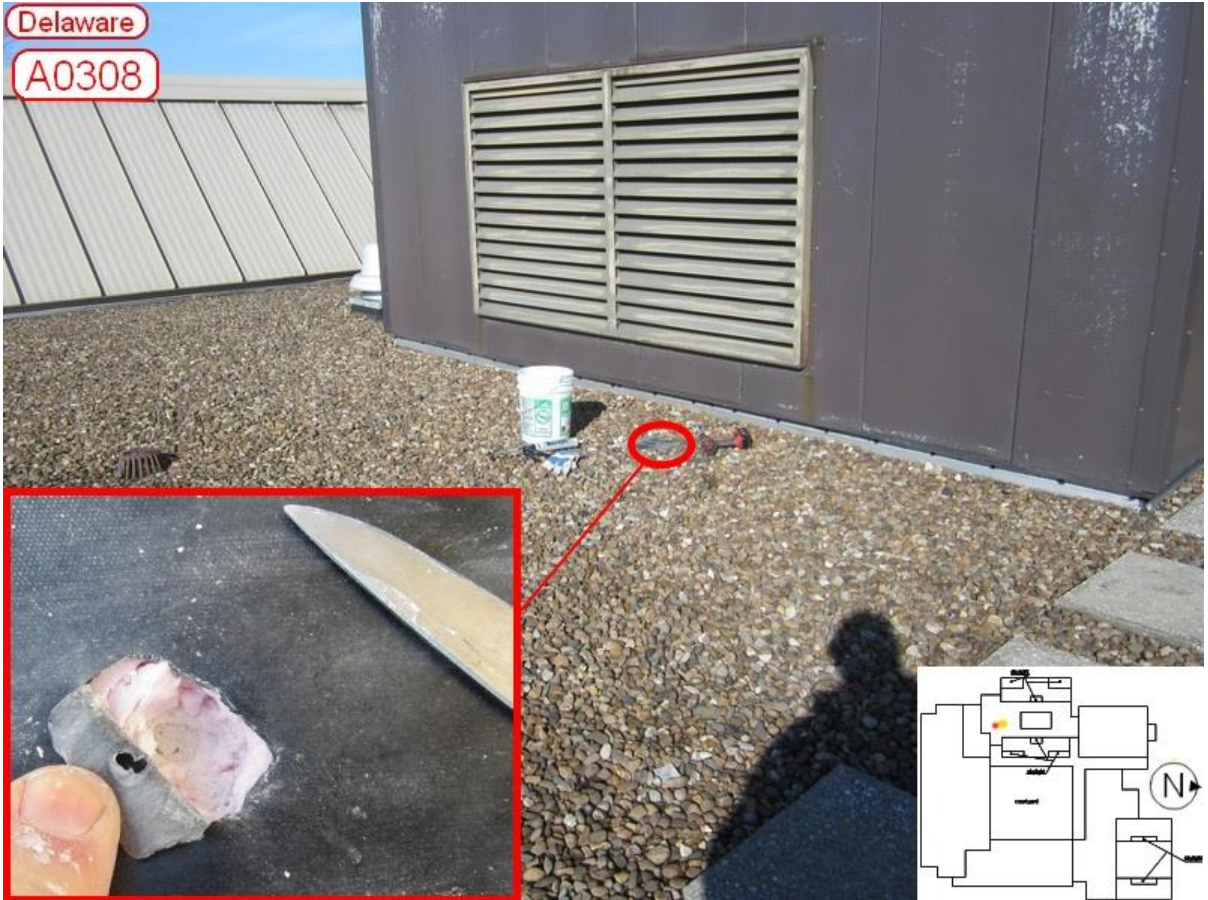


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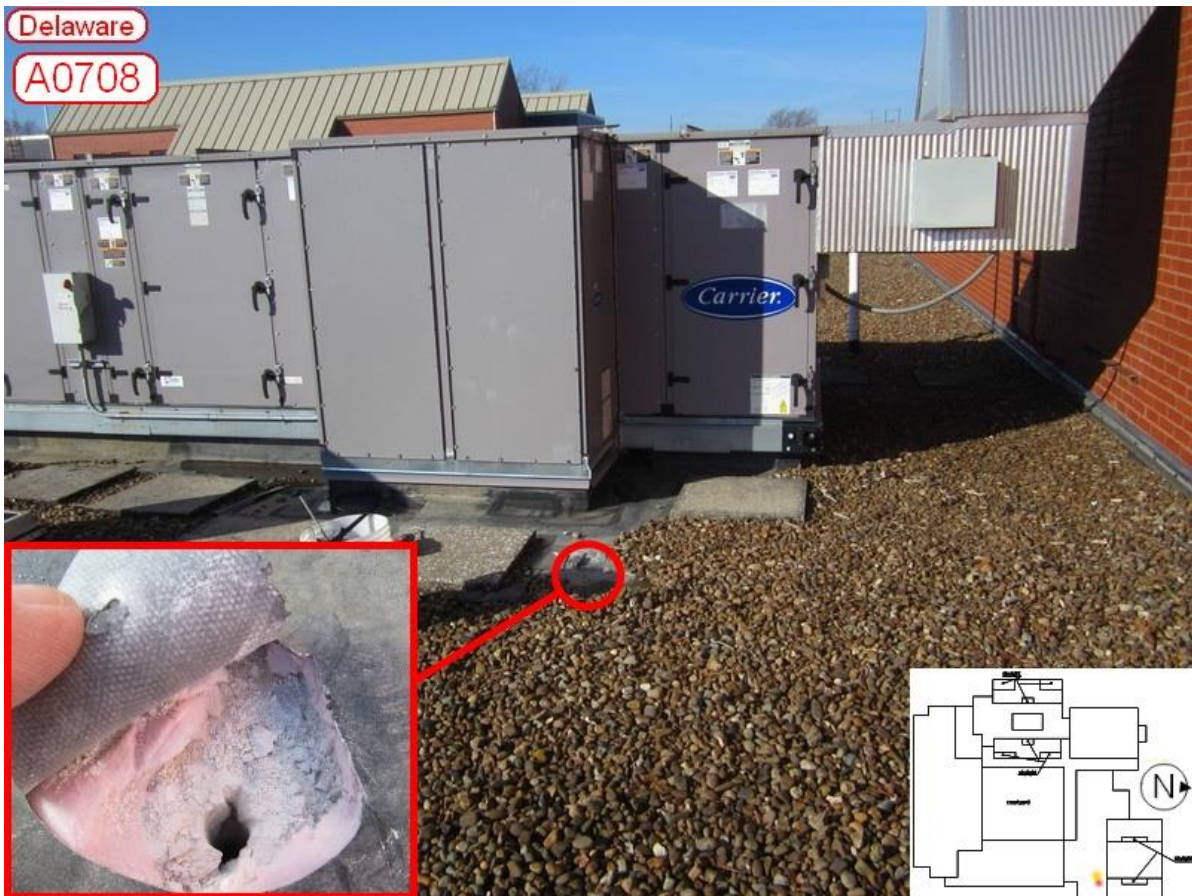
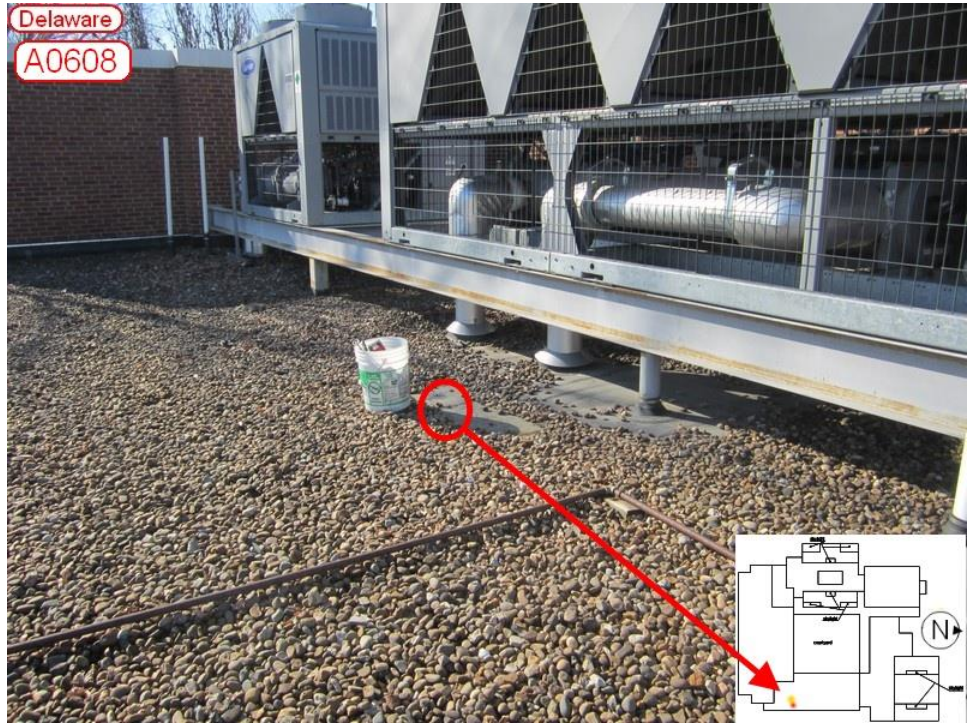


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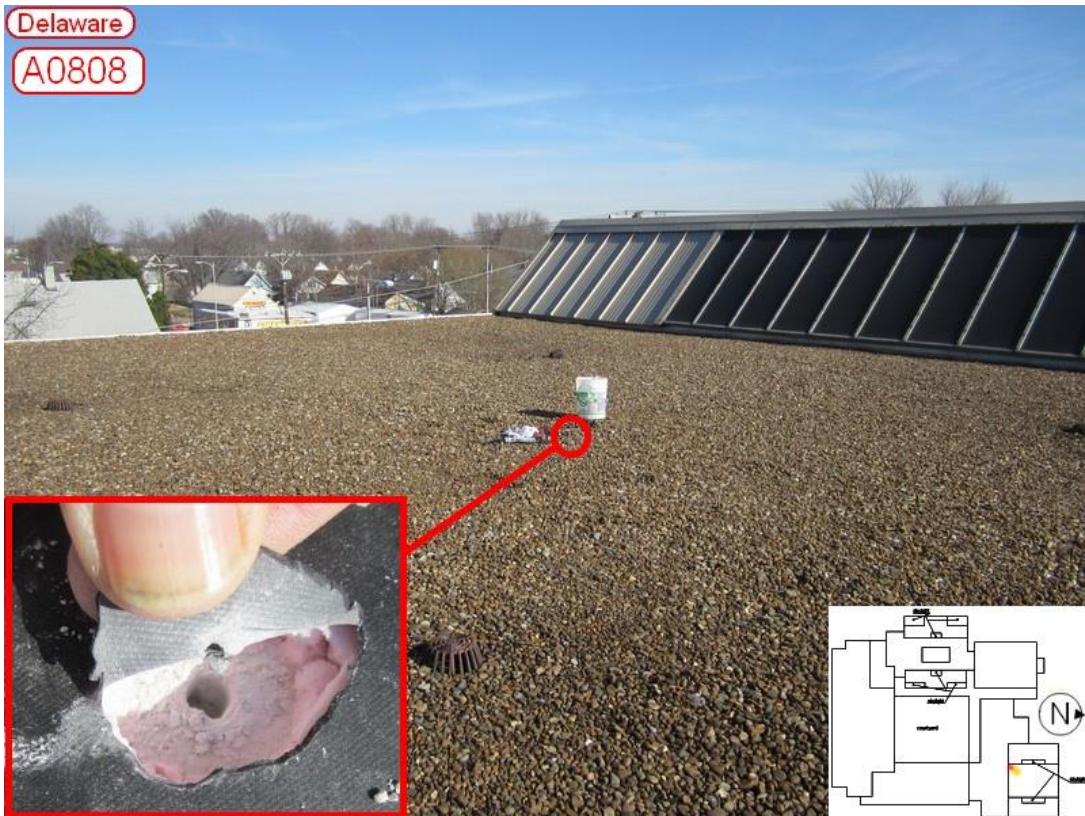
A0508



Be aware when sampling area A0608 water was found to be between roof layers. The gypsum deck seemed to be in good shape though with the old built up layer holding the water.







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Rick Brown

EVSC

Roofing/Sheet Metal

Mobile: (812)483-4519

Rick.Brown@evsc.k12.in.us

**SUPPLEMENTAL FORM OF PROPOSAL**

NOTE: The following Form of Proposal shall be used in submitting a proposal for this work. All proposals shall be submitted in duplicate. All Alternate Bids must be Bid on.

This proposal submitted by:

\_\_\_\_\_  
(Name and Address of Bidding Contractor)

Date \_\_\_\_\_, Telephone No. \_\_\_\_\_

TO: Evansville Vanderburgh School Corporation

1. Base Bid LUMP SUM:

The Undersigned Bidder, having examined the complete Contract Documents governing 2016 Delaware Elementary School Roof Replacement, located in Vanderburgh County, Indiana, proposes to furnish, in accordance with the terms and conditions of the aforementioned Contract Documents, all labor, materials, tools, machinery, appliances and all other necessary supplies and services called for by the documents, for the LUMP SUM BASE BID OF:

\_\_\_\_\_ DOLLARS  
Use Words

AND \_\_\_\_\_ CENTS.  
Use Words

(\$ \_\_\_\_\_)  
Use Numerals

2. Deduct Alternate #1 LUMP SUM      Provide XPS insulation with cover board

The Undersigned Bidder, having examined the complete Contract Documents governing 2016 Delaware Elementary School Roof Replacement, located in Vanderburgh County, Indiana, proposes to furnish, in accordance with the terms and conditions of the aforementioned Contract Documents, all labor, materials, tools, machinery, appliances and all other necessary supplies and services called for by the documents, for the LUMP SUM ALTERNATE BID OF:

\_\_\_\_\_ DOLLARS  
Use Words

AND \_\_\_\_\_ CENTS.  
Use Words

(\$ \_\_\_\_\_ )  
Use Numerals

3. Deduct Alternate #2 LUMP SUM      Provide 60mil EPDM membrane roof system

The Undersigned Bidder, having examined the complete Contract Documents governing 2016 Delaware Elementary School Roof Replacement, located in Vanderburgh County, Indiana, proposes to furnish, in accordance with the terms and conditions of the aforementioned Contract Documents, all labor, materials, tools, machinery, appliances and all other necessary supplies and services called for by the documents, for the LUMP SUM ALTERNATE BID OF:

\_\_\_\_\_ DOLLARS  
Use Words

AND \_\_\_\_\_ CENTS.  
Use Words

(\$ \_\_\_\_\_ )  
Use Numerals

4. Deduct Alternate #3 LUMP SUM      Provide 60 mil minimum Carlisle FleeceBACK PVC - FRS Membrane roof

The Undersigned Bidder, having examined the complete Contract Documents governing 2016 Delaware Elementary School Roof Replacement, located in Vanderburgh County, Indiana, proposes to furnish, in accordance with the terms and conditions of the aforementioned Contract Documents, all labor, materials, tools, machinery, appliances and all other necessary supplies and services called for by the documents, for the LUMP SUM ALTERNATE BID OF:

\_\_\_\_\_ DOLLARS  
Use Words

AND \_\_\_\_\_ CENTS.  
Use Words

(\$ \_\_\_\_\_ )  
Use Numerals

5. Addenda to the Drawings and Specifications and other Bidding (Contract) Documents issued heretofore are hereby acknowledged by the undersigned as being:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

(In this space provided above, insert the number and date of any Addenda issued and received. If none has been issued and received, insert XXXX in each space after Addenda #1; attach additional page if necessary).

6. The Bidder hereby declares that it has examined the Site of the work and has informed itself fully in regard to all conditions pertaining to the place where the work is to be performed and that it has read all of the Contract Documents and Listed Addenda relative thereto prior to the opening of Bids as acknowledged and that he/she has satisfied himself/herself as to the work to be performed.
7. The Bidder agrees, if it's Bid is accepted, it will execute the Construction Agreement contained in this Project Manual and any other required Contract Documents. The work associated with the 2016 Delaware Elementary School Roof Replacement shall be substantially completed on or before July 27th 2016, and final completion on or before August 10th 2016, subject to the contract documents. The undersigned Bidder agrees to accept as full compensation for completed work the LUMP SUM BASE BID included as a part of this Proposal.
8. The Bidder agrees, if it's Bid is accepted, it will execute the Construction Agreement contained in this Project Manual and any other required Contract Documents. The undersigned Bidder agrees to accept as full compensation the Bid Amount for the deduct to provide XPS insulation with cover board work for Deduct Alternate #1 LUMP SUM BID associated with 2016 Delaware Elementary School Roof Replacement included as a part of this Proposal.
9. The Bidder agrees, if it's Bid is accepted, it will execute the Construction Agreement contained in this Project Manual and any other required Contract Documents. The undersigned Bidder agrees to accept as full compensation the Bid Amount for the deduct to provide 60mil EPDM membrane roof system work for Deduct Alternate #2 LUMP SUM BID associated with 2016 Delaware Elementary School Roof Replacement included as a part of this Proposal.
10. The Bidder agrees, if it's Bid is accepted, it will execute the Construction Agreement contained in this Project Manual and any other required Contract Documents. The undersigned Bidder agrees to accept as full compensation the

Bid Amount for the deduct to provide 60 mil minimum Carlisle FleeceBACK PVC - FRS Membrane roof work for Deduct Alternate #3 LUMP SUM BID associated with 2016 Delaware Elementary School Roof Replacement included as a part of this Proposal.

11. If this Bid should be accepted, the undersigned Bidder agrees to furnish the Owner with the prescribed Performance and Payment Bond for not less than 100 % of the total accepted Bid Amount and to furnish evidence of the specified insurance, and further agrees that this Bid, the Drawings, the Notice of Award, the Notice to Bidders, the contract documents, Escrow Agreement or the Waiver of Escrow Agreement, and the Specifications will become a part of the Agreement.

Respectfully Submitted:

\_\_\_\_\_  
Name of Contracting Firm

By \_\_\_\_\_  
Signature

Title \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE:

If a corporation, give name of State and Date of Incorporation:

\_\_\_\_\_

If a Limited Liability Company, give name of State and Date of Organization:

\_\_\_\_\_

If partnership, give names of all parties:

\_\_\_\_\_

\_\_\_\_\_

COUNTY OF \_\_\_\_\_ STATE OF \_\_\_\_\_ ) ss:

Before me, the undersigned, a Notary Public, in and for said County and State, personally appeared \_\_\_\_\_ and acknowledged the execution of the foregoing instrument this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Typed or printed name

My Commission Expires:

Notary Resides in \_\_\_\_\_  
County, Indiana

**UNIT PRICES:**

Unit prices for Project Item(s) shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead, profit, permit/license fees, and applicable taxes for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions for preparation of change orders.

The Unit Prices submitted by Contractor shall be used only to establish cost per unit in the event changes in the work is requested by the Owner. The Contractor is responsible for performing his/her own takeoffs of the quantity of materials to be incorporated into the Project to install a complete and functional system(s) as indicated in the Project documents for a LUMP SUM BASE OR ALTERNATE Bids.

Gypcrete Underlayment Repair \_\_\_\_\_ PSF

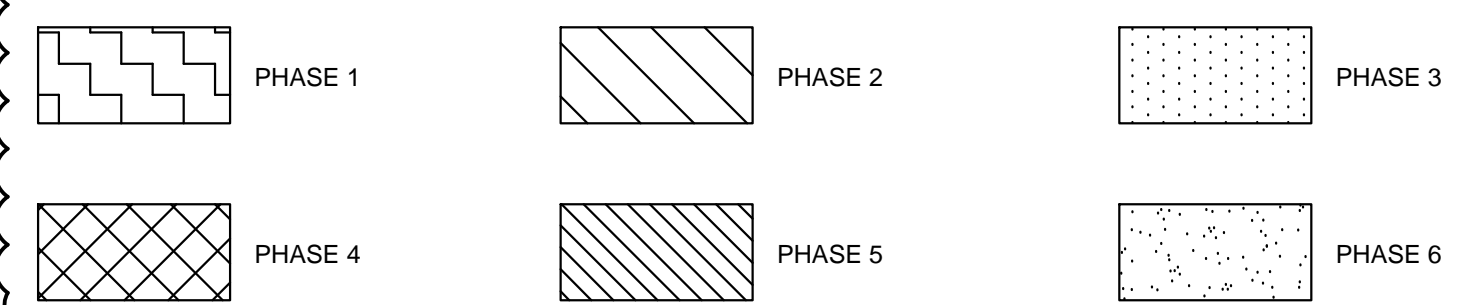
**SCOPE OF WORK:**

- REMOVE EXISTING FASCIA, GRAVEL BALLAST, SINGLE-PLY MEMBRANE, INSULATION, BUILT-UP ROOFING AND INSULATION DOWN TO ROOF DECK.
- PROVIDE NEW BUILT-UP ROOFING AND INSULATION.
- PROVIDE A NEW 60 MIL ADHERED ROOF MEMBRANE OVER RIGID TAPERED ROOF INSULATION.

**GENERAL NOTES:**

- REMOVE CLAMP RINGS AND DOMES FROM EXISTING ROOF DRAINS. INSTALL NEW FLASHING AS RECOMMENDED BY ROOFING MANUFACTURER. TAPER ROOF INSULATION 48" ON ALL SIDES TO DRAIN HEAD TO FORM SUMP. EXISTING CLAMP RINGS AND DOMES MAY BE REUSED. REPLACE ANY BROKEN OR MISSING DOMES AND CLAMP RINGS. NEW DOMES SHALL BE HIGH BASKET TYPE WHICH WILL PREVENT GRAVEL AND LEAVE FROM CLOGGING ROOF DRAIN. ALL ROOF DRAINS TO BE RETAPPED AND FITTED WITH NEW BOLTS AND WASHERS. ALL ROOF DRAIN LEADERS SHALL BE RODDED AND MADE FREE FLOWING. WATER TEST ALL-DRAINS FOR PROPER DRAINAGE.
- (2) 2" INSULATION BOARDS TO BE USED THROUGHOUT ROOF AREA INDICATED.
- FLASH ALL ROOF PENETRATIONS IN ACCORDANCE WITH ROOFING MANUFACTURER'S SPECIFICATIONS. FLASH ROOF EDGE, ROOF/WALL JUNCTURES AND EQUIPMENT CURB SUPPORTS AS INDICATED ON DETAILS AND AS ACCEPTABLE TO ROOFING MANUFACTURER.
- REMOVE AND REPLACE EXISTING COUNTER FLASHING WITH NEW ALUMINUM FLASHING SET IN MORTAR JOINT WITH LEAD WEDGES AND SEALANT.
- CONTRACTOR TO PROVIDE ROOFING MANUFACTURERS WRITTEN RECOMMENDED BUILDING EXPANSION JOINT DETAIL AT ALL BUILDING EXPANSION JOINTS.
- FLEXIBLE WALKWAYS OR PADS TO BE PROVIDED AROUND ALL ROOF TOP UNITS AND AT BEGINNING AND END OF ALL EGRESS POINTS INCLUDING BUT NOT LIMITED TO ROOF LADDERS, ROOF HATCHES, SPLASHBLOCK, AND DOORS PER MANUFACTURERS WRITTEN RECOMMENDATIONS TO FULFILL WARRANTY CONDITIONS.
- ALL CORNERS AND PIPE FITTINGS TO BE PREFORMED FLASHING.
- CLEAN AND SPRAY PAINTING ALL ROOF DRAIN BASKETS AND CLAMP RINGS A BLACK OR GREY COLOR, RUST-OLEUM: V2100 SYSTEM ENAMEL SPRAY PAINT OR EQUIVALENT.
- GAS LINES TO BE WIRE BRUSHED AND PAINTED YELLOW.
- ALL PIPE SUPPORTS BLOCKS ARE TO BE REPLACED WITH ONE'S MADE FROM RECYCLED RUBBER.
- NEW BASE TIE-INS SHALL BE MADE AT ALL EXISTING CURBS (EQUIPMENT, HATCHES, ETC.) AND WALLS ADJACENT TO MEMBRANE.

**ROOF PHASING PLAN KEY**



**ROOF PHASING PLAN NOTES:**

- ROOF AREAS CORED AND TESTED BY OWNER. NOTES AND AREA NUMBERS PROVIDED BY OWNER. SEE OWNER FOR CORE DOCUMENTATION.
- AREA A108 - BALLASTED EPDM OVER 3" - POLYSTYRENE BOARD OVER CONCRETE DECK.
- AREA A608 - BALLASTED EPDM OVER 1/2" POLYSTYRENE BOARD OVER EXISTING BUILT UP PITCH.
- ALL OTHER AREAS - BALLASTED EPDM OVER 1/2" POLYSTYRENE BOARD OVER GYPSUM DECK.

**FLOOR PLAN REFERENCE NOTES**

- EXISTING ALUMINUM FASCIA TO BE REMOVED AND REPLACED WITH NEW.
- EXISTING CONDUIT TO REMAIN.
- EXISTING WALKWAY TO BE REMOVED.
- EXISTING EXHAUST DUCT; CLEAN.
- EXISTING CONDENSING UNIT TO REMAIN.
- EXISTING AIR HANDLING UNIT TO REMAIN.
- EXISTING PIPE PORTAL TO BE REMOVED.
- EXISTING UNUSED ROOF PADS TO BE REMOVED.
- EXISTING CONCRETE WALKWAY PADS TO BE REMOVED.
- EXISTING EXHAUST FAN AND CURB TO REMAIN.
- EXISTING UNUSED CURB TO BE REMOVED.
- EXISTING VENT STACK TO REMAIN. PROVIDE AND ATTACH NEW VENT CAPS AS NEEDED.
- EXISTING HATCH TO REMAIN.
- EXISTING METAL EXPANSION JOINT COVER TO REMAIN.
- EXISTING ALUMINUM COPING TO BE REPLACED WITH NEW ALUMINUM COPING.
- LADDER
- ROOF SADDLE; ALL ROOF SADDLES TO HAVE A MIN. SLOPE OF 1/4" PER FOOT.

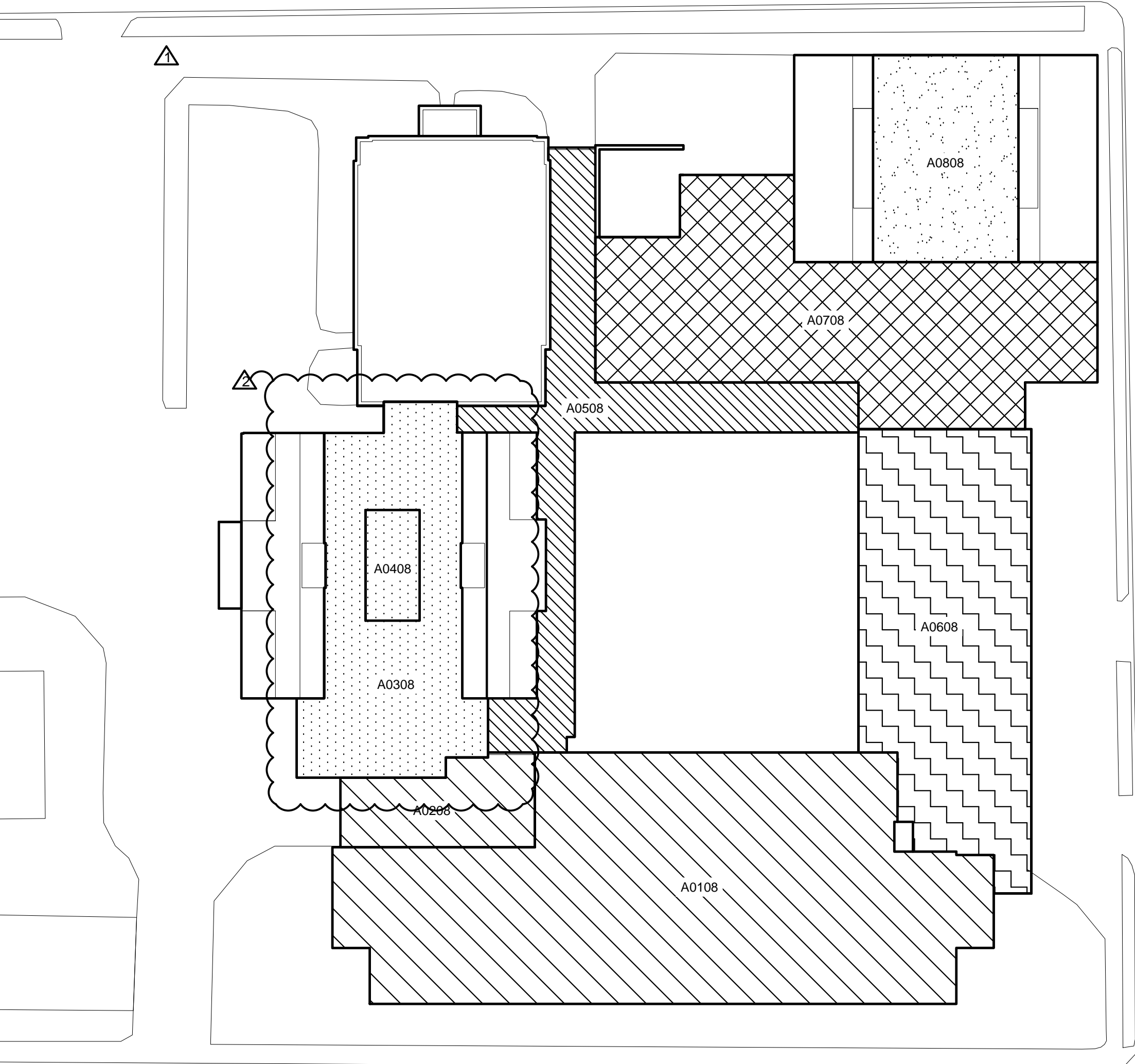
**LEGEND:**

H.P. HIGH POINT

R.D. ROOF DRAIN

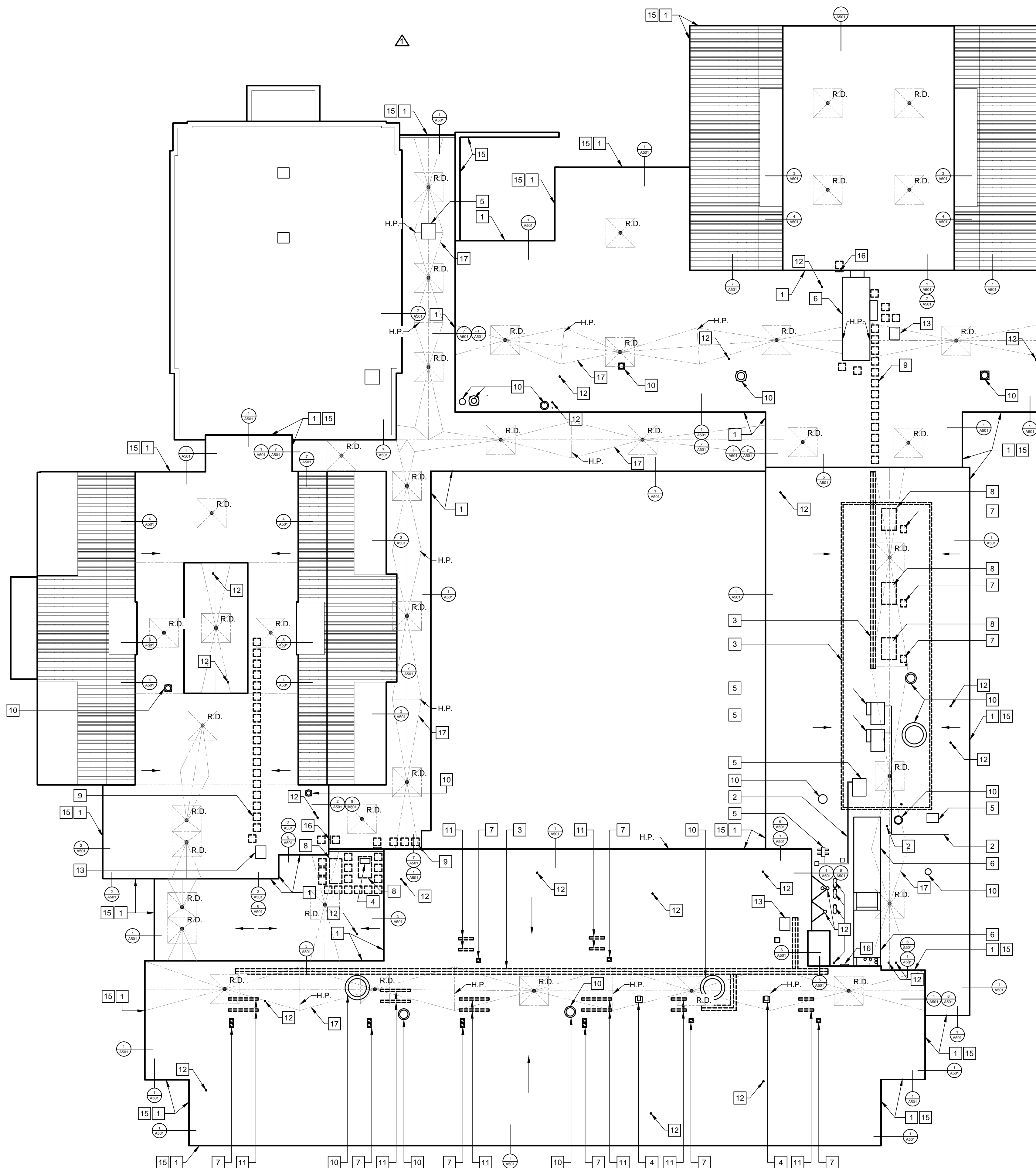
X### DETAIL NUMBER

# X### REFERENCE PHOTOGRAPH



**Roof Phasing Plan**

1/32 = 1'-0"



**Overall Roof Plan**

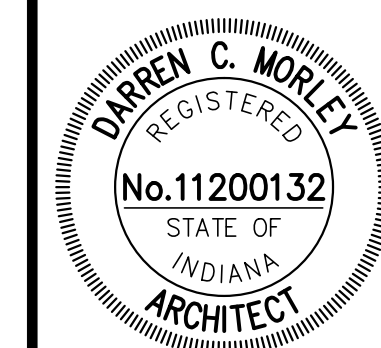
1/16 = 1'-0"



All design, design, calculations, and arrangements indicated or represented by this drawing are reviewed by and are the property of Morley and Associates, Inc. and other rights, including copyright. No drawings or electronic files shall be used by any other person or firm without the written prior consent of Morley and Associates, Inc. All dimensions on these drawings shall have precedence over scale dimensions. Contractors shall verify and be responsible for all dimensions and quantities shown on these drawings. Any differences between electronic files and the signed and sealed hard copy drawings, shall prevail and govern.

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 (812) 464-9885  
 www.morleyandassociates.com

No.	By	Date	Description
1	CME	03/31/16	Addendum 1 - Revisions
2	CME	04/19/16	Addendum 2 - Phasing Revisions



*Darren C. Morley*

Project: EVSC - Delaware Elementary School Re-Roof  
 Sheet Title: **Roof Plan**  
 Delaware Elementary School  
 EVSC - Evansville, IN  
 Sheet Subtitle

Scale: VARIES

Designed By: CME	Job Number: 9778.1.001
Drawn By: CME	Date: 04/19/2016
Filename: 9778.1.001	Sheet Number: AE101



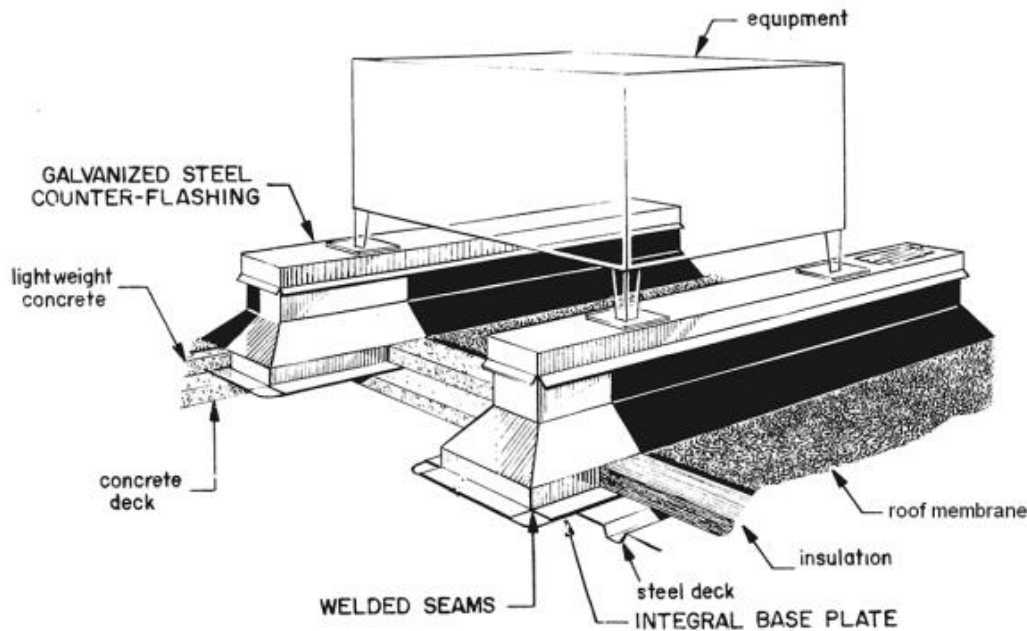
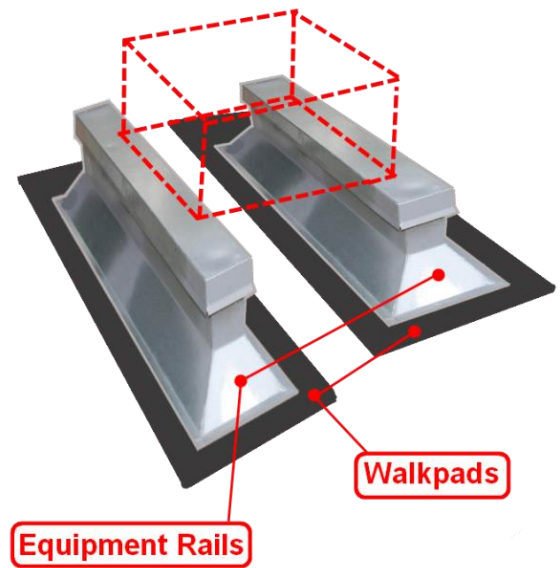
<p align="center"><b>EVSC Standards</b> For <b>Maintenance of Facilities</b></p>	<p align="center"><b>EVSC</b> Evansville Vanderburgh School Corporation <b>Bringing Learning to Life</b></p>	<p><b>Supportive Services Center</b> 951 Walnut St. Evansville, IN. 47712 Phone:(812)435-8337 Fax:(812)435-8342 www.evscschools.com</p>
<p><b>Form #:</b> Roof1409070754</p>	<p><b>Revision Date:</b> First</p>	<p><b>Revised By:</b></p>
<p><b>Required Standard:</b> Roof Penetration Requirements for Mounting Equipment</p>		

Read and familiarize oneself with “Contractor List of Responsibilities” following this “Standard”

**Rail/Curb**

Any unit under 400 lbs shall be mounted on manufactured equipment rails/ curbs....(wood 4X4 not acceptable). These equipment rails/ curbs must sit on walkpads directly on the roofing membrane.

Any unit over 400 lbs shall be mounted on manufactured equipment rails/ curb to the roof deck. It will be the installer’s responsibility to sample the roof deck, to find the appropriate load value’s for placement of the unit. Once the equipment rails have been mounted, the equipment rails/curb must be flashed in with like roofing material. If the roof is in its warranty period, this work must be performed by the contractor who installed the roof.



Examples of various roof decks.

### Pipe Penetrations/Portals

All roof penetrations shall come through the appropriate four or five port roof portal and shall be installed as to not void any roof warranty. Consult with EVSC Facilities to verify any roof warranty status.

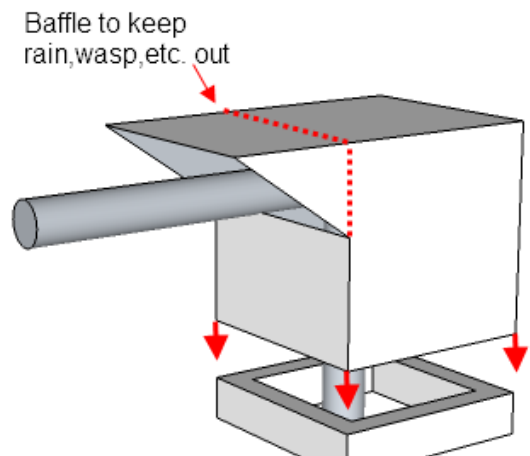
- Portals shall have only one pipe in each port, caulked and strapped with a stainless steel hose clamp.
- All conduits must have threaded rigid aluminum conduit extended through roof portal and then sealed and clamped with appropriate stainless steel hose clamp.
- For equipment needing more than five pipe penetrations, either adding another four or five pipe port penetration or the use of a “Pate Pipe Hood Assembly” or equivalent is acceptable.



Example of preferred roof deck mounted pipe portal curb



Example of pipe portal that is acceptable to flash to roof membrane



Baffle to keep rain, wasp, etc. out

A “Pate Pipe Hood Assembly” or equivalent can be used for equipment requiring more than five pipe penetrations.

### Roof Pipe Support Blocking

All refrigeration lines, conduits, condensate lines, and gas lines must be ran on manufactured composite roof blocks with attached unistrut, strapped with appropriate unistrut straps. (Wood blocking is not acceptable)



Examples of preferred pipe blocks

### Electrical Conduits

Any conduit ran on the exterior of the building should be ran in threaded aluminum conduit.

- Any conduit entering a disconnect box shall have a Myers hub.



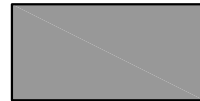
## ROOF INSULATION THICKNESS NOTES:

1. CONTRACTOR TO PROVIDE INSULATION OR INSULATION WITH COVER BOARD IN THE THICKNESS SPECIFIED ON THIS PLAN.
2. CONTRACTOR TO PROVIDE TAPERED INSULATION BOARD AND SADDLE AS REQUIRED AT ALL JUNCTIONS BETWEEN DEPTHS TO PROVIDE SMOOTH TRANSITIONS.
3. CONTRACTOR TO COORDINATE USE OF LOW PROFILE FLASHING WITH ALL AREAS WHERE 1 1/2" THICKNESS IS CALLED OUT.
4. CONTRACTOR TO COORDINATE AND FOLLOW ANY SPECIAL REQUIREMENTS AND/OR RECOMMENDATIONS FROM ROOF MEMBRANE AND INSULATION MANUFACTURERS REQUIRED FOR VARYING INSULATION DEPTHS.

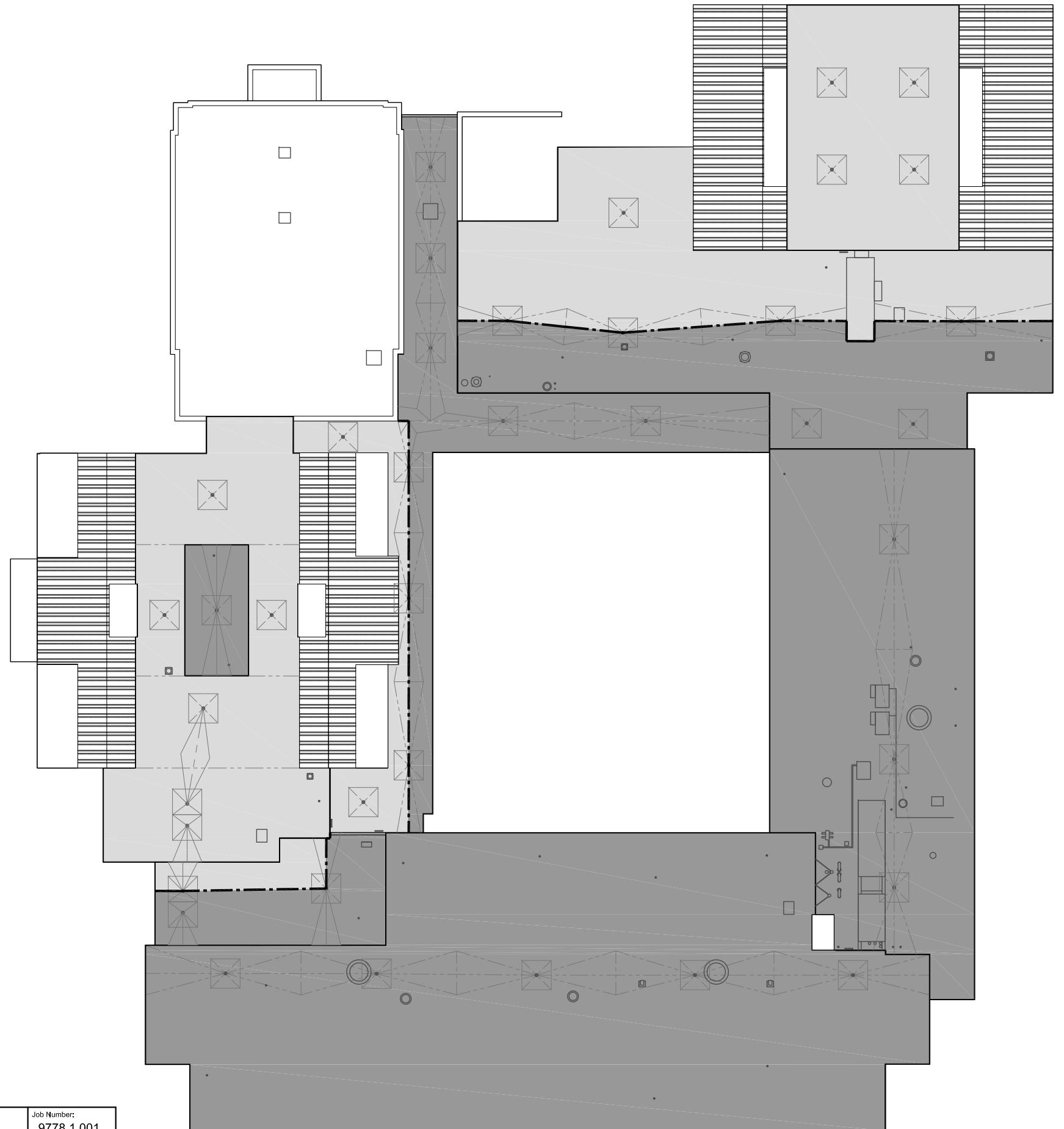
## ROOF INSULATION THICKNESS LEGEND:



1 1/2" OVERALL DEPTH



4" OVERALL DEPTH



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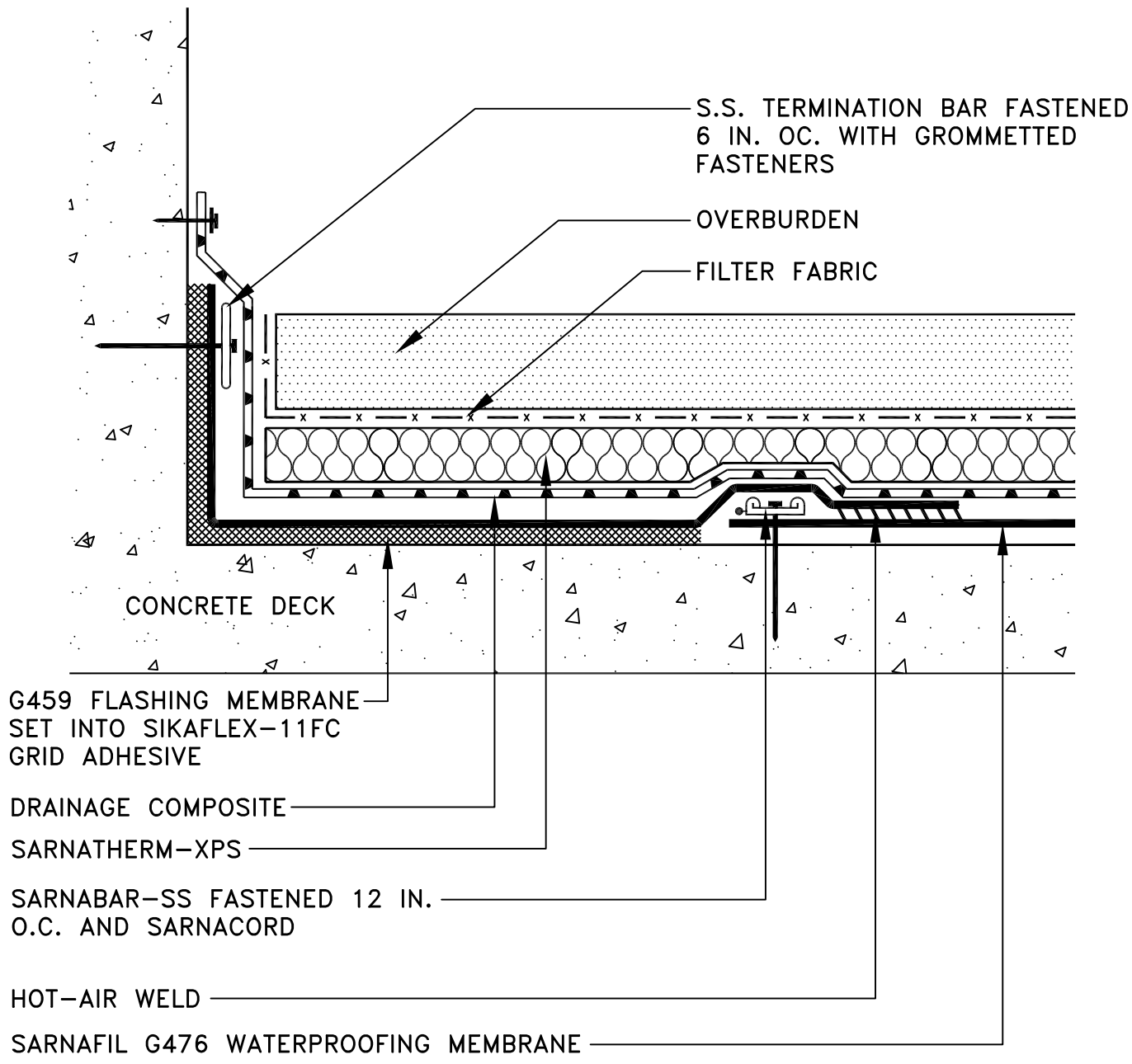
4800 Rosebud Lane  
Newburgh, IN 47630  
(812) 464-9585  
www.morleyandassociates.com

**EVSC  
Delaware Elementary  
2016 Roof Replacement**

Checked By: DCM	Job Number: 9778.1.001
Drawn By: DCM	Date: 04.19.2016
Filename: SK-1 Roof Insulation Plan.dwg	

**SK-1 - Roof Insulation Plan**

Scale 1/32" = 1'-0"



**NOTE:**

1) THE BACK OF THE G459 FLASHING MEMBRANE MUST BE PRIMED WITH SIKAFLEX PRIMER 449.

**BELOW GRADE/LOW FLASHING HEIGHT TERMINATION**

**BUILDING TRUST**

781-828-5400



usa.sarnafil.sika.com

JOB NAME:

XXX

XXX

SCALE: N.T.S.

DATE: 5/15

FILE NO.: PDG-3.8

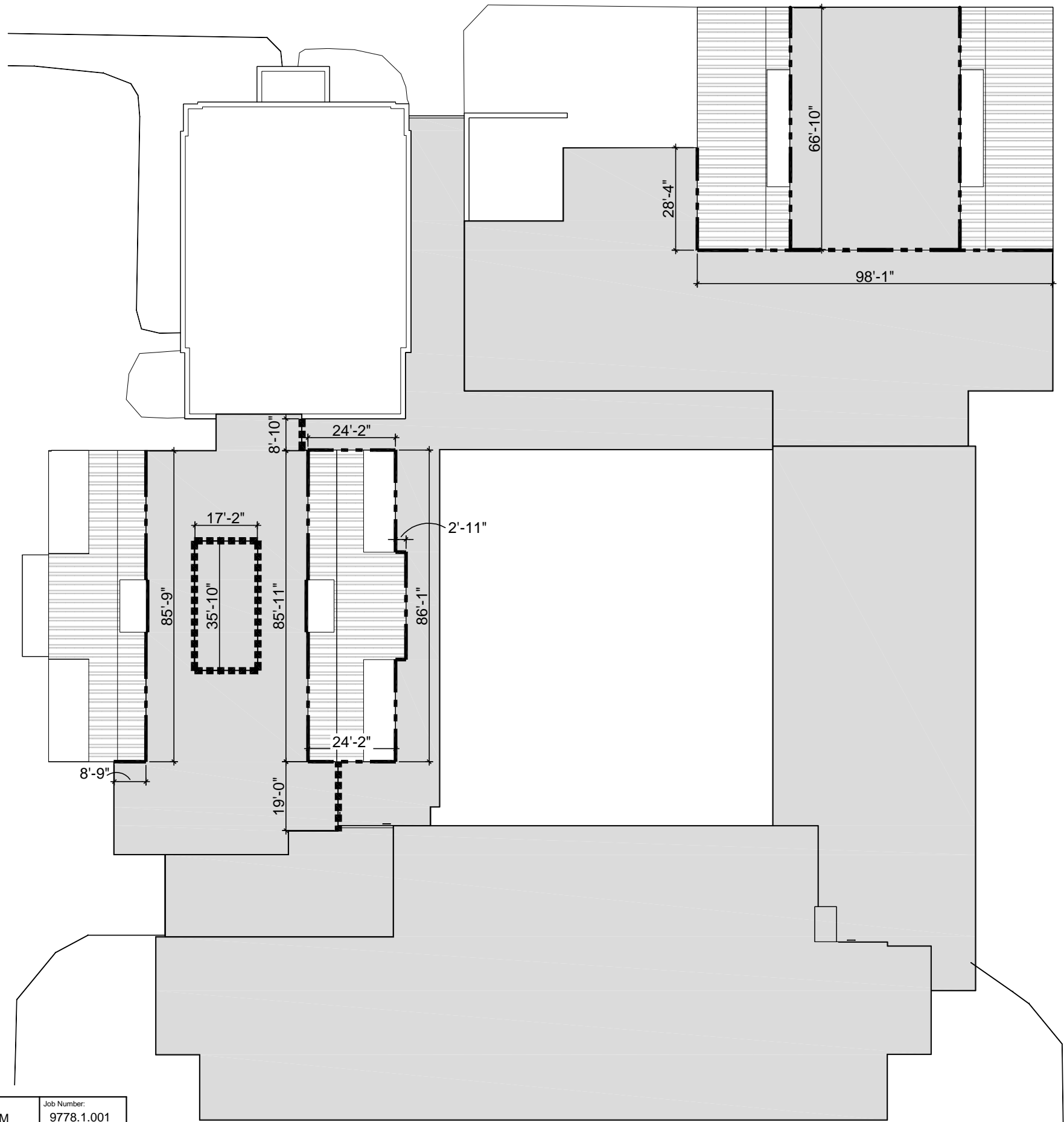
DRW. NO.: XXX

AS A MEMBRANE MANUFACTURER, SIKA CORPORATION ("SIKA") REVIEWS DETAILS PREPARED BY THE CONSULTANT, ARCHITECT AND/OR ENGINEER FOR A PROJECT SOLELY FOR THE PURPOSE OF DETERMINING IF A SIKA WARRANTY MAY ISSUE FOR THE PROJECT. THIS REVIEW IS NOT TO BE CONSTRUED AS APPROVAL OF DETAILS BY SIKA AND IS NOT BEING CONDUCTED IN LIEU OF SOUND ENGINEERING AND ARCHITECTURAL PRACTICES AND JUDGMENT AND SHOULD NOT BE RELIED UPON FOR THAT PURPOSE. SIKA CORPORATION ASSUMES NO LIABILITY WITH RESPECT TO THE DESIGN OF THE ROOFING OR WATERPROOFING SYSTEM. THE ARCHITECT, CONSULTANT AND/OR ENGINEER OR DESIGN PROFESSIONAL FOR A PARTICULAR PROJECT BEARS THE SOLE RESPONSIBILITY FOR THE DESIGN OF THE ROOFING OR WATERPROOFING SYSTEM, FOR THE PREPARATION AND APPROVAL OF THE DETAILS AND SHOP DRAWINGS, AND FOR DETERMINING THEIR SUITABILITY FOR A PARTICULAR PROJECT OR APPLICATION. WHILE SIKA PROVIDES GENERAL INSTRUCTIONS FOR THE INSTALLATION OF ITS MEMBRANE AS WELL AS TRAINING FOR SIKA AUTHORIZED APPLICATORS, THE MEANS AND METHODS USED BY THE CONTRACTOR FOR SURFACE PREPARATION AS WELL AS THE MEANS AND METHODS EMPLOYED BY THE CONTRACTOR IN THE INSTALLATION OF THE SIKA MEMBRANE ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SALE OF SIKA PRODUCTS AND SERVICES ARE SUBJECT TO SIKA' TERMS AND CONDITIONS OF SALE AVAILABLE AT USA,SARNAFIL,SIKA.COM.

# PLAN LEGEND

CONTRACTOR TO PROVIDE ROOF MEMBRANE WRAP OF ENTIRE HEIGHT OF COMPOSITE METAL PANEL WALL. SEE SARNAFIL "ADHERED WALL FLASHING," EXPANSION JOINT AT WALL WITH FOAM ROD," AND "PARAPET WALL WITH METAL COPING CAP" DETAILS AS BASIS OF DESIGN. FINAL DETAILING TO MATCH SELECTED ROOF MANUFACTURER'S WRITTEN RECOMMENDATIONS.

CONTRACTOR TO PROVIDE LOW WALL FLASHING. SEE SARNAFIL "BELOW GRADE/LOW FLASHING HEIGHT TERMINATION" DETAILS AS BASIS OF DESIGN. FINAL DETAILING TO MATCH SELECTED ROOF MANUFACTURER'S WRITTEN RECOMMENDATIONS.

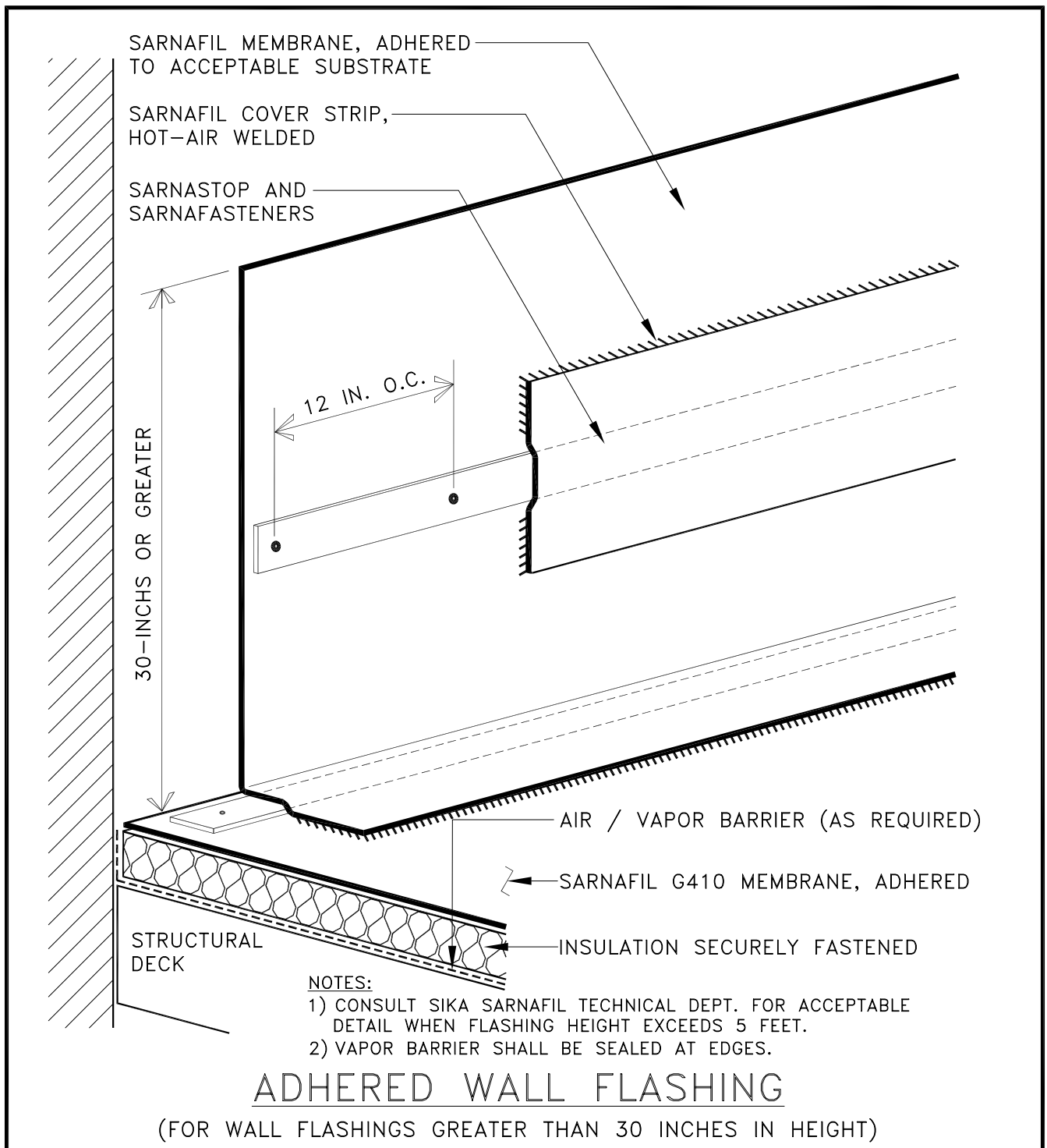



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<b>EVSC</b> Delaware Elementary 2016 Roof Replacement		Checked By: DCM	Job Number: 9778.1.001
		Drawn By: CME	Date: 04.18.2016
		Filename: SK-1 Roof Insulation Plan.dwg	

## SK-2 - SPECIALTY ITEMS PLAN

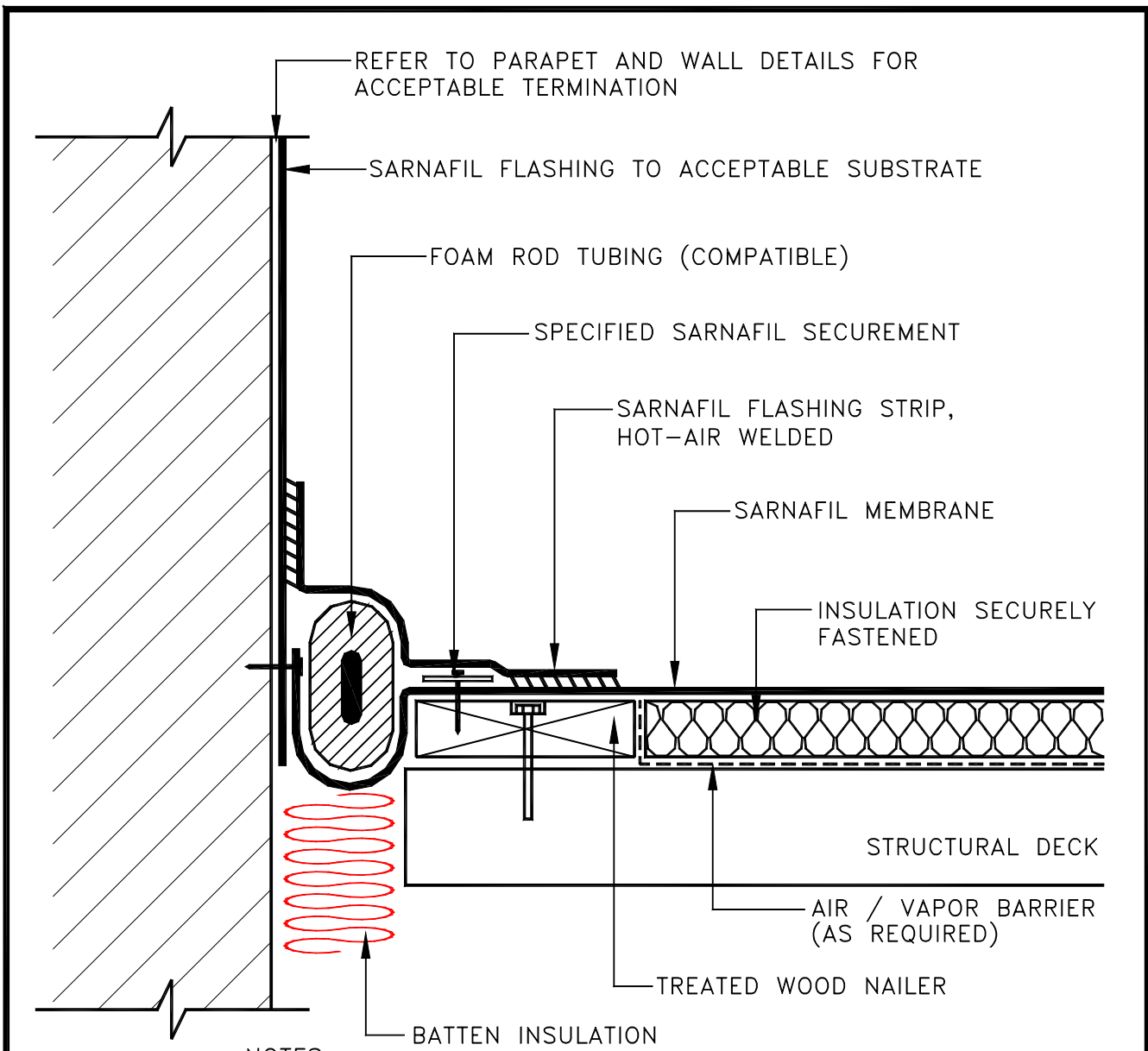
Scale 1/32" = 1'-0"



JOB NAME:

AS A SUPPLIER OF MATERIALS ONLY SIKA SARNAFIL DOES NOT ASSUME RESPONSIBILITY FOR ERRORS IN DESIGN, ENGINEERING, QUANTITIES, OR DIMENSIONS, THE ARCHITECT, CONTRACTORS, OR OWNERS REPRESENTATIVE MUST VERIFY ALL DIMENSIONS, SIZES, AND SUITABILITY OF DETAILS.

SCALE: N.T.S.	DATE: 1/07	FILE NO.: 3-6B	DRW. NO.:
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NOTES:

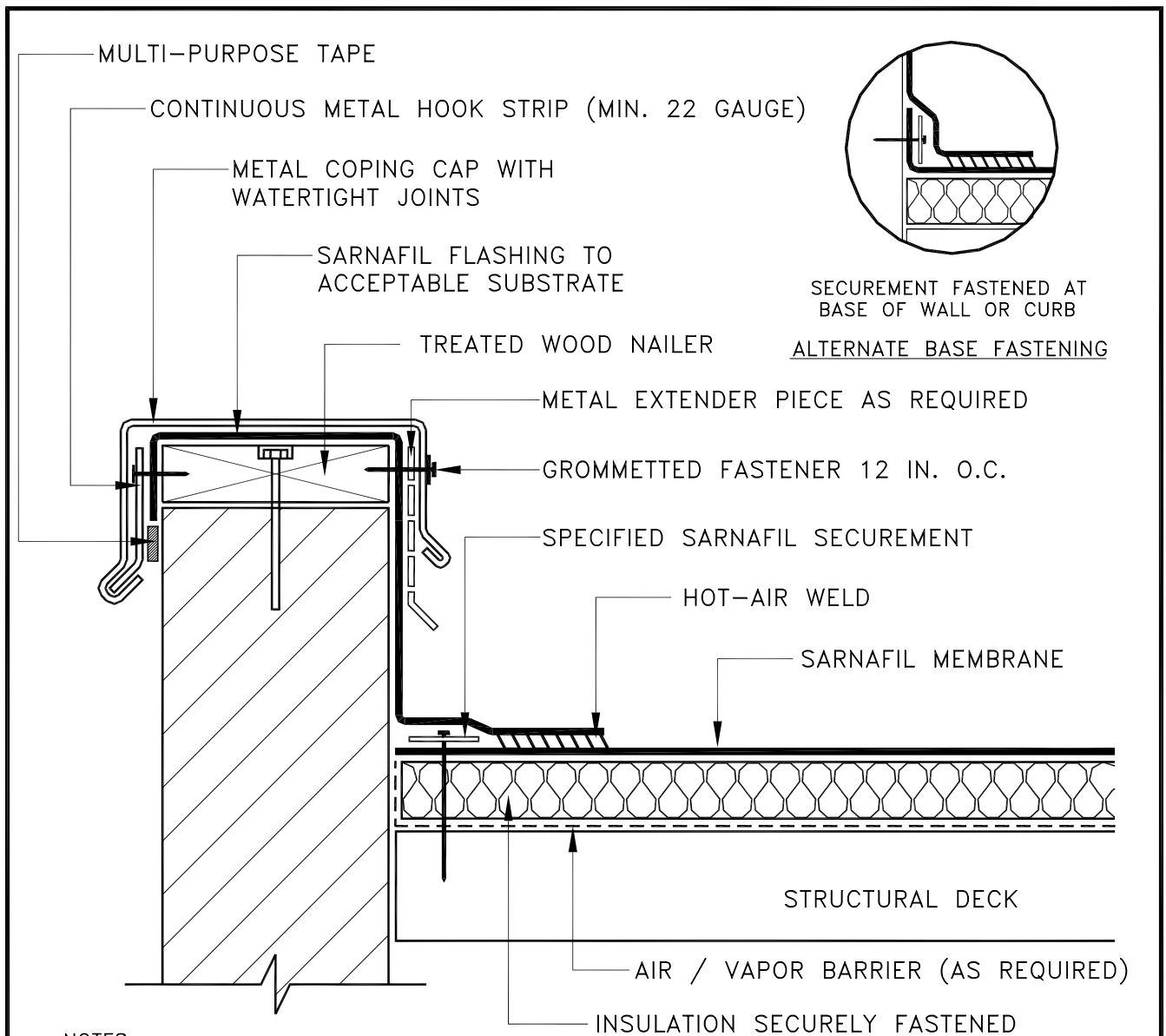
- 1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A FORCE OF 300 POUNDS PER LINEAL FOOT IN ANY DIRECTION.
- 2) VAPOR BARRIER SHALL BE SEALED AT EDGES

EXPANSION JOINT AT WALL WITH FOAM ROD

<h1 style="margin: 0;">Sarnafil</h1> <p style="margin: 0;">World Class Roofing &amp; Waterproofing 100 Dan Road; Canton, MA 02021-2898 Phone: (781)828-5400 Fax: (781)828-8203</p>	JOB NAME:			
	SCALE: N.T.S.	DATE: 4/05	FILE NO.: 4-6	DRW. NO.:

AS A SUPPLIER OF MATERIALS ONLY SARNAFIL INC. DOES NOT ASSUME RESPONSIBILITY FOR ERRORS IN DESIGN, ENGINEERING, QUANTITIES, OR DIMENSIONS, THE ARCHITECT, CONTRACTORS, OR OWNERS REPRESENTATIVE MUST VERIFY ALL DIMENSIONS, SIZES, AND SUITABILITY OF DETAILS.





**NOTES:**

- 1) NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A MINIMUM FORCE OF 300 POUNDS PER LINEAR FOOT. REFER TO FACTORY MUTUAL DATA SHEET 1-49.
- 2) METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4-INCHES WIDE.
- 3) VAPOR BARRIER SHALL BE SEALED AT EDGES.

## PARAPET WALL WITH METAL COPING CAP



**Sarnafil**  
781-828-5400 sikacorp.com

JOB NAME:

AS A SUPPLIER OF MATERIALS ONLY SIKA SARNAFIL DOES NOT ASSUME RESPONSIBILITY FOR ERRORS IN DESIGN, ENGINEERING, QUANTITIES, OR DIMENSIONS, THE ARCHITECT, CONTRACTORS, OR OWNERS REPRESENTATIVE MUST VERIFY ALL DIMENSIONS, SIZES, AND SUITABILITY OF DETAILS.

SCALE:

N.T.S.

DATE:

1/07

FILE NO.:

2-3

DRW. NO.: