

ADDENDUM TWO

Fort Wayne Airport
Public Safety Department Roof Replacement
3808 Winters Road
Fort Wayne, IN 46809

MARTINRILEY architects ▪ engineers
221 West Baker Street
Fort Wayne, Indiana 46802
260-422-7994

Commission No.: F26023
Addendum Date: July 9, 2026

Conditions: The following clarifications, amendments, additions, deletions, revisions and modifications are a part of the contract documents and change the original documents only in the manner and to the extent stated.

Copies of the Addendum shall be bound with all contract sets of drawings and specifications.

Receipt: Addendum Number Two shall be acknowledged by Bidders on their Bid Form.

CLARIFICATIONS:

N/A

CHANGES TO THE SPECIFICATIONS:

- **REMOVE TABLE OF CONTENTS PG. 1 AND REPLACE WITH TABLE OF CONTENTS PG.1 ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SECTION 01 1000 - SUMMARY PG. 01 1000 - 1 AND REPLACE WITH SECTION 01 1000 - SUMMARY PG. 01 1000 - 1 ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SECTION 04 0100 - MASONRY RESTORATION AND CLEANING AND REPLACE WITH SECTION 04 0100 - MASONRY RESTORATION AND CLEANING ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SECTION 07 2100 - THERMAL INSULATION PG. 07 2100 - 2 AND REPLACE WITH SECTION 07 2100 - THERMAL INSULATION PG. 07 2100 - 2 ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SECTION 07 4113 - METAL ROOF PANELS PG. 07 4113 - 5 AND REPLACE WITH SECTION 07 4113 - METAL ROOF PANELS PG. 07 4113 - 5 ATTACHED TO THE END OF THIS ADDENDUM.**
- **ADD SECTION 07 5300 - ELASTOMERIC MEMBRANE ROOFING TO THE SPECIFICATION MANUAL - SHEETS ARE ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SECTION 07 6200 - SHEET METAL FLASHING AND TRIM PG. 07 6200 - 3 AND REPLACE WITH SECTION 07 6200 - SHEET METAL FLASHING AND TRIM PG. 07 6200 - 3 ATTACHED TO THE END OF THIS ADDENDUM.**

CHANGES TO THE DRAWINGS:

- **REMOVE SHEET R101 - ROOF PLAN AND REPLACE WITH SHEET R101 - ROOF PLAN ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SHEET R102 - ROOF DETAILS AND REPLACE WITH SHEET R102 - ROOF DETAILS ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SHEET R103 - ROOF DETAILS AND REPLACE WITH SHEET R103 - ROOF DETAILS ATTACHED TO THE END OF THIS ADDENDUM.**
- **REMOVE SHEET R104 - ROOF DETAILS AND REPLACE WITH SHEET R104 - ROOF DETAILS ATTACHED TO THE END OF THIS ADDENDUM.**

- **REMOVE SHEET R106 - ROOF DETAILS AND REPLACE WITH SHEET R106 - ROOF DETAILS ATTACHED TO THE END OF THIS ADDENDUM.**

END OF ADDENDUM NUMBER TWO

Attachments:

Pre-Bid Meeting Minutes

Pre-Bid Conference Attendee List

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Sheet R103

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Sheet R106

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Section 07 2100 - Thermal Insulation Pg. 07 2100 - 2

Section 07 4113 - Metal Roof Panels Pg. 07 4113 - 5

Section 07 5300 - Elastomeric Membrane Roofing

Section 07 6200 - Sheet Metal Flashing and Trim Pg. 07 6200 - 3

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PREBID MEETING MINUTES

Project: Roofing and Related Work for Fort Wayne Airport – Public Safety Department
Roof Replacement - Phase 2 (No. TB26-05)

Meeting Date: June 25th, 2026
Commission No: F26023

I. Design Team Introduction:

Stan Klepper, Chief – Fort Wayne Public Safety Department
Office: 260.446.3415; email: klepper@fwairport.com

Jeff Hermansen, Purchasing Manager – Fort Wayne-Allen County Airport Authority
Office: 260.446.3447; email: hakes@fwairport.com

Mike Hamilton, Principal-in-Charge, **MARTINRILEY architects•engineers**
Office: 260.422.7994; Cell: 260.223.9014; email: mhamilton@martin-riley.com

Clarence White, Project Manager, **MARTINRILEY architects•engineers**
Office: 260.422.7994; Cell: 260.445.7332; email: cwhite@martin-riley.com

Vanessa Marshall, Roof Observer/Designer, **MARTINRILEY architects•engineers**
Office: 260.422.7994; Cell: 314.637.7644; email: vmarshall@martin-riley.com

II. Scope of Work:

The Scope of roofing work includes one roof project identified as R-1, includes the removal of the existing roof system down to the roof deck and providing a new standing seam metal roof system.

1. **PROJECT R-1:**

- a. **Base Work R-1:** The removal and replacement of the existing roof system with new standing seam metal roof system at roof areas <2>, <3A>, <4>, <5>, <6>, and <7> at the **Public Safety Department**.
- b. **Base Work R-1:** The removal and replacement of the existing roof system with new 60 Mil EPDM at roof area <3B>.

III. Timeline

1. Address all questions to **MARTINRILEY** by the end of the day Friday, July 10th, 2026 to fairly disseminate all information to all bidders in the Addendum date of issuance of Monday, July 13th, 2026. **Be certain all questions have been asked, as the submission of bids by the contractor suggests there are no questions regarding ambiguity and you are submitting bids that will result in complete project. Failure to do so will result in contractor's compliance with the Owner or Architects interpretation, at no contract increase.**

2. Bids are due at Fort Wayne Allen County Airport Authority, they will receive sealed bids until 11:00 am eastern time on the 14th day of July, 2026 at the offices of the Airport Authority, Suite 209, 3801 W. Ferguson Road, Fort Wayne Indiana, 46809
3. It is the intent of the owner to have work start after notice to proceed and have work substantially complete in 90 calendar days.

IV. Safety/Security

1. Security
2. Access to the site; inspection required etc... No access inside terminal.
3. No smoking.
4. Employee background check and all workers on this project need to have an AOA Badge
5. Staging area, haul roads, dumping area, personal vehicles, foreign object debris – will be discussed during pre-construction meeting.
6. Airport ambulance/fire emergency phone number (260) 747-5964
7. Safety vest required for all workers on the ramp.
8. Suggested-PPE ear and eye.

V. Additional items

1. Bidders may obtain bidding documents from Eastern Engineering.
2. Pay Attention to prequalification requirements. See spec page 4 – Documents to Accompany Bid Proposal.
3. The owner reserves the right to accept or reject any and all bids and to waive any informalities in bidding
4. Questions relating to the project should be directed to Clarence White, at the office of **MARTINRILEY architects-engineers**
5. Bid Bond 5% will be required for this project
6. Performance Bond and Labor and Material Payment bond will be required for these projects in an amount equal to the contract sum
7. Bids are valid for a period of (60) sixty days
8. Liquidated damages may be assessed for each calendar day beyond the specified Substantial or Final completion dates. **\$250** per day.
9. Abide by rules and regulations on each project site identified in the project manual
10. A Pre-construction Conference will be held prior to any commencement of work.
11. Progress meetings will be conducted every two weeks, and if necessary increased to every week.
12. Insurance guidelines are outlined in the project manual – see General Provisions
13. See Summary of Work for project information and use of premises, etc.
14. The owner intends to continue to occupy the site and existing building the entire construction period.
15. The Contractor will have limited use of premises, including the site
16. Any damage to building or site incurred due to the roofing operations are the responsibility of the Contractor to repair back to the original condition. All damages shall be repaired according to FWIA specifications.
17. When unforeseen conditions require modifications, the Contractor is to submit a request for change to the Architect. This should be done through a formal RFI. If the Owner and Architect deems necessary a Change Order will then be issued. No additional work to occur without approved change order.
18. Shop drawing submittal procedures are clearly identified in the Project Manual. Electronic pdf. of each submittal is required with the Contractor's stamp or notation to certify that they reviewed the submittal.
19. See Payment Procedures in the project manual for all application for payment requirements.
20. Refer to section Closeout Procedures for submission for final application for payment with releases and supporting documentation. As part of these closeout procedures the contractor is responsible to generate a punch list and submit it to the architect prior to **MARTINRILEY** generating a punch list.

21. Record Drawings that show actual daily installation of areas reroofed with dimensions, start times, areas of deck replacement (if any), concealed elements (i.e. buried conduit) (if any).
22. It will be the Contractor's responsibility to photograph or videotape any existing conditions of adjoining construction and site improvements that might be misconstrued as damage caused by selective demolition operations. The contractor will be required to sign off on the existing site conditions following the preconstruction meeting at each project site location.
23. It will be the Contractor's responsibility to provide temporary barricades and/or forms of protection to protect Owner's personnel and general public from injury to due to selective demolition work.
24. The contractor is to provide interior protection with suitable coverings when necessary.
25. Contractor is also responsible for daily interior inspections to verify the presence of water infiltration (if any), need for interior clean-up, presence of electrical conduit direct to underside of existing roof deck, etc.
26. Water and electricity are available for the contractor to use at the Owners discretion. Toilet and wash facilities are the responsibility of the contractor.
27. The contractor is responsible to verify, in writing, that all mechanical equipment, power ventilators, HVAC units and all roof drains, prior to beginning work are operational and free from defects. Once work has commenced all, said items, are the responsibility of the contractor to be in working condition.
28. All submittals, close-out documents and record drawings are to be submitted to **MARTINRILEY** electronic pdf. format
29. Bidders may core roofs for existing conditions, but need to notify FWA in advance and record all core locations and ID each core on roof with the contractor name and date marked with grease pen.
30. Contractor will maintain suitable housekeeping at each site, including daily trash pickup and no stockpiled trash on roof
31. Contractors have each bid takeoff broken down per area available upon request following each bid date

VI. Review Drawings

1. Review drawings.
2. Bid project per drawings, specifications, and addendum(s). Contractors will be held accountable to the bidding documents.

Any additions or corrections to these minutes must be submitted, in writing, to **MARTINRILEY** within three (3) days of issue date; otherwise these minutes shall stand as correct.

PREBID CONFERENCE ATTENDEE LIST

F26023 - FWA Public Safety Department Roof Replacement - Phase 2

The following individuals have registered their attendance at the Prebid Conference held at 2:30 p.m. local time, Thursday, June 25, 2026, at the Airport Authority Conference Room (Suite 209), 3801 W Ferguson Road, Fort Wayne, Indiana 46809.

STAO KLEPPER
(printed name)

FWA
(firm/company)

Brayden Farmer
(printed name)

Titan Roofing Inc
(firm/company)

Cesar Mendez
(printed name)

SPG Roofing & Exteriors
(firm/company)

Vanessa Marshall
(printed name)

Martin Riley
(firm/company)

CLARENCE WHITE
(printed name)

MARTIN RILEY A/E
(firm/company)

(printed name)

(firm/company)


(signature)

klepper@fwgairport.com
(phone, fax & e-mail)


(signature)

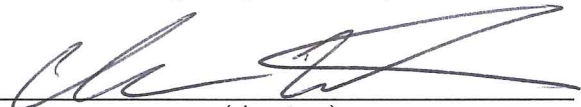
413-574-0658 bfarmer@titanroofing.com
(phone, fax & e-mail)

Cesar Mendez
(signature)

317-832-0812 CesarM@SPGRoof.com
(phone, fax & e-mail)


(signature)

314-637-7644
(phone, fax & e-mail)

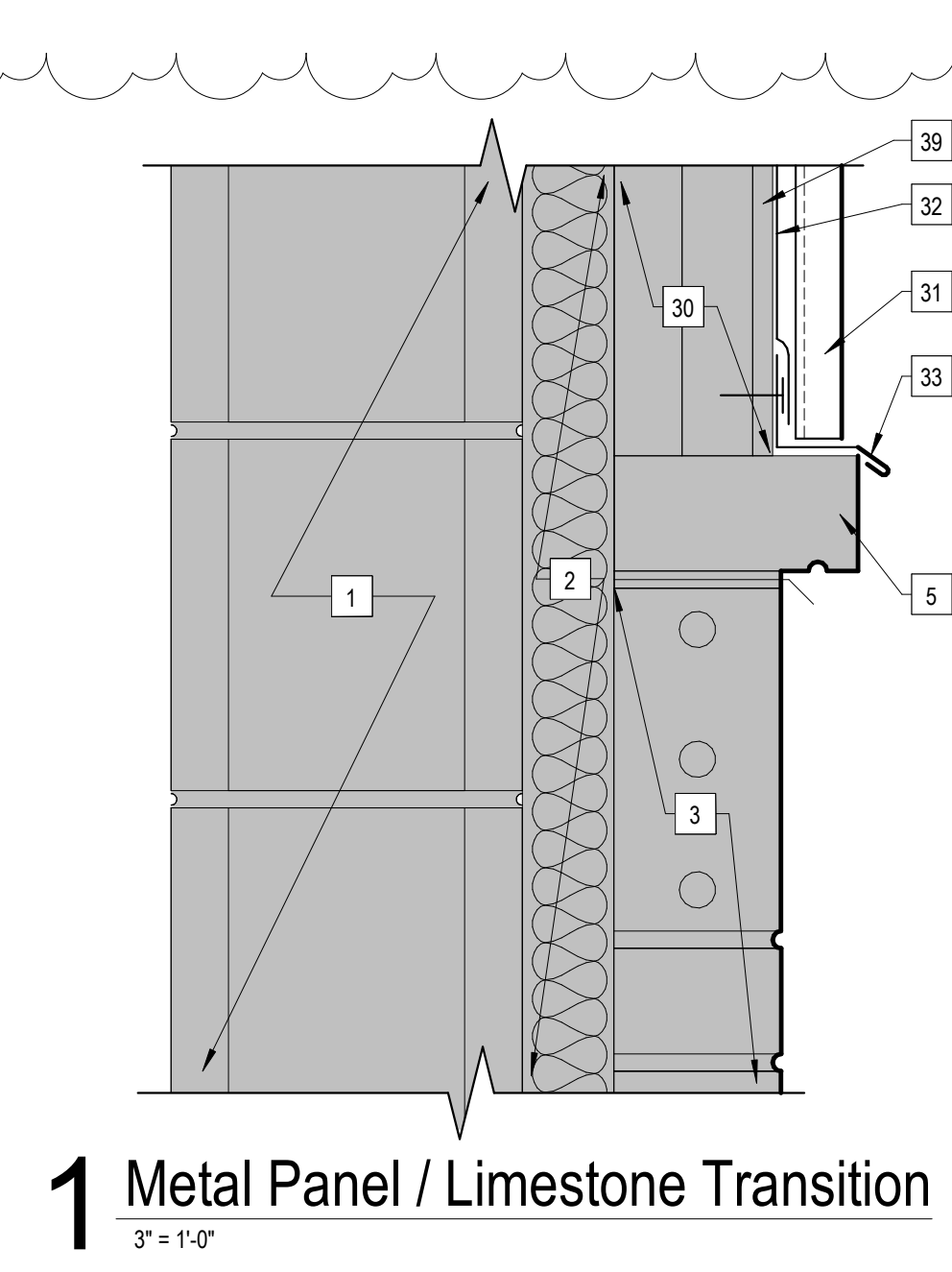
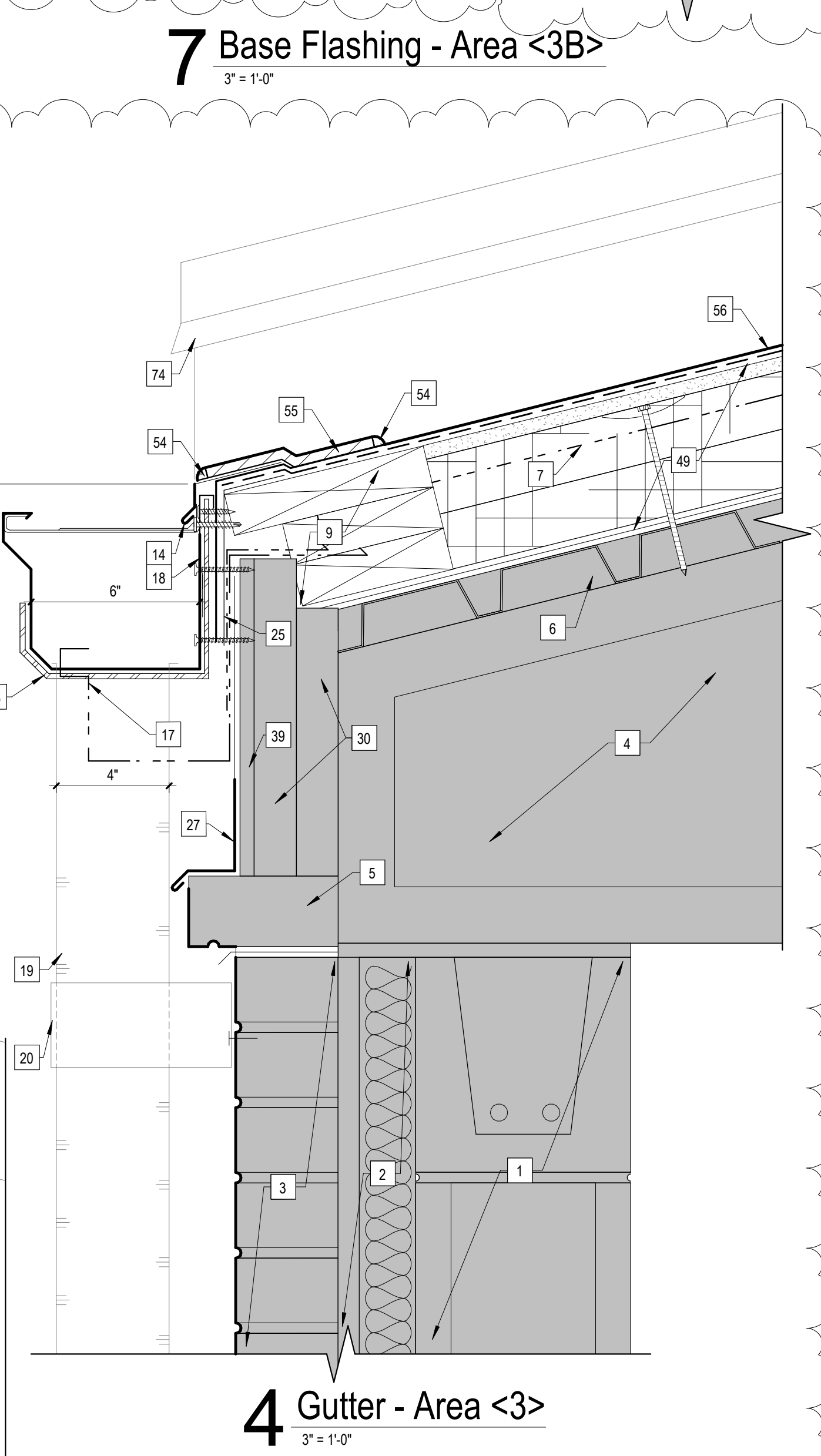
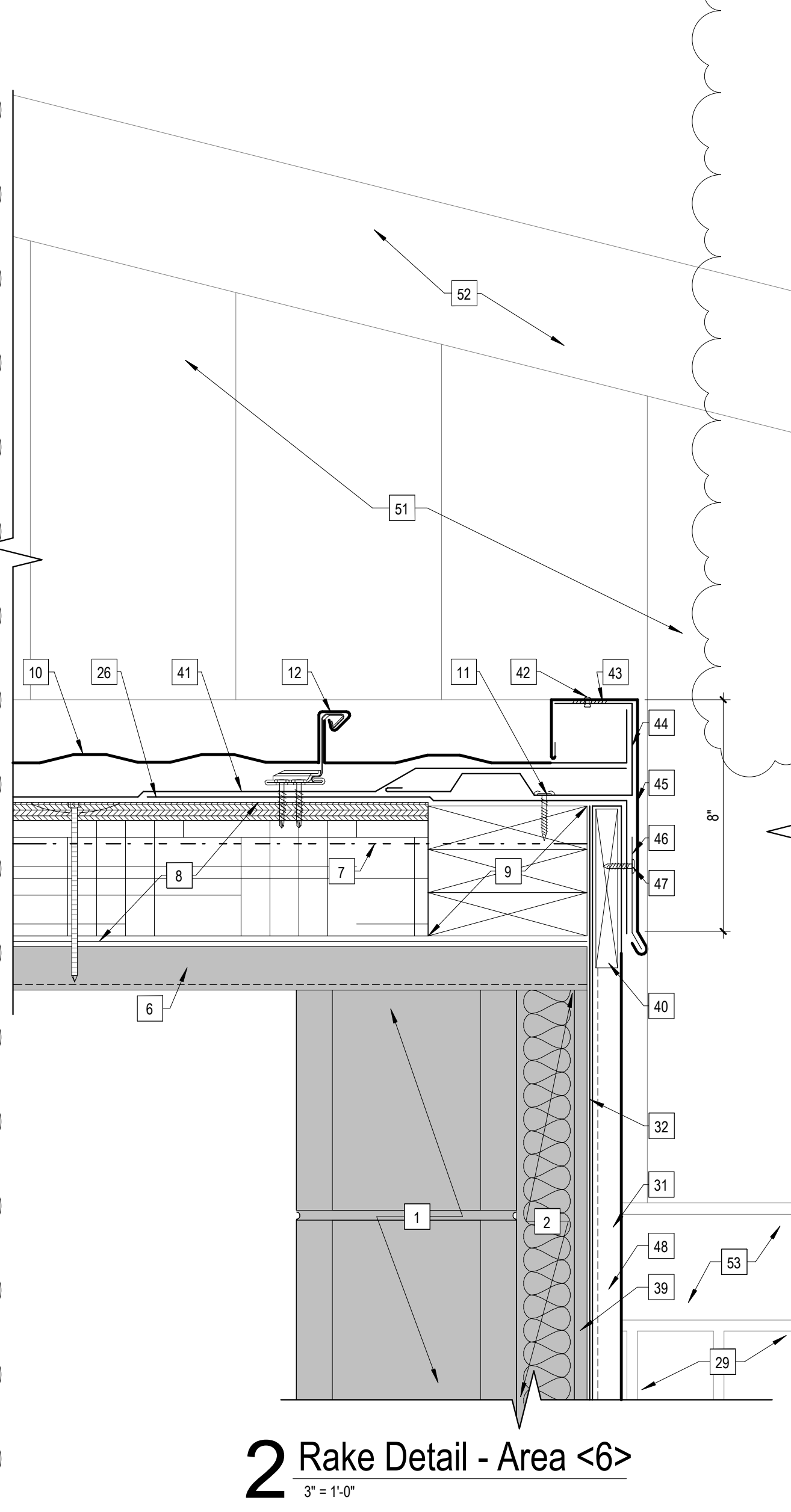
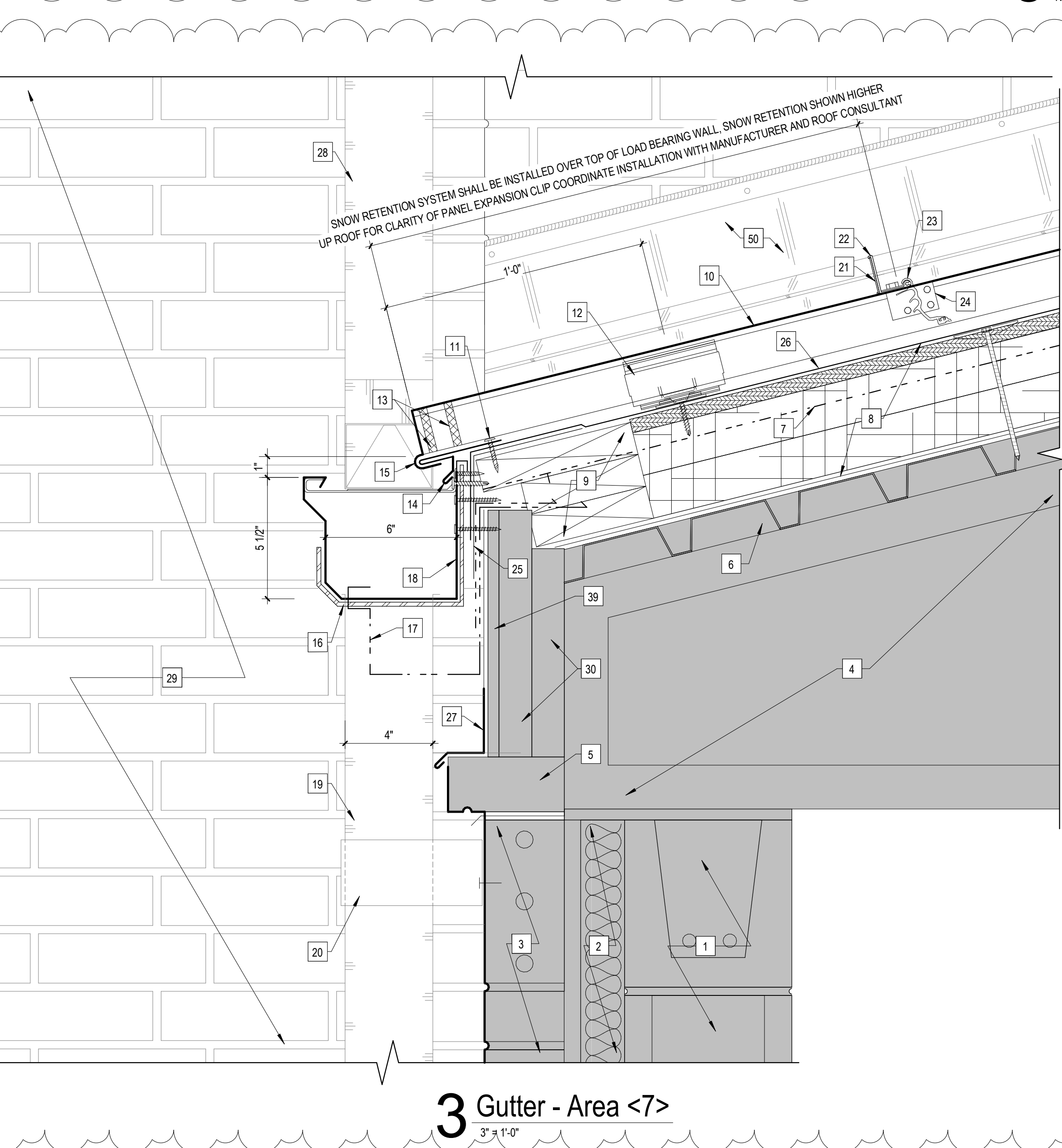
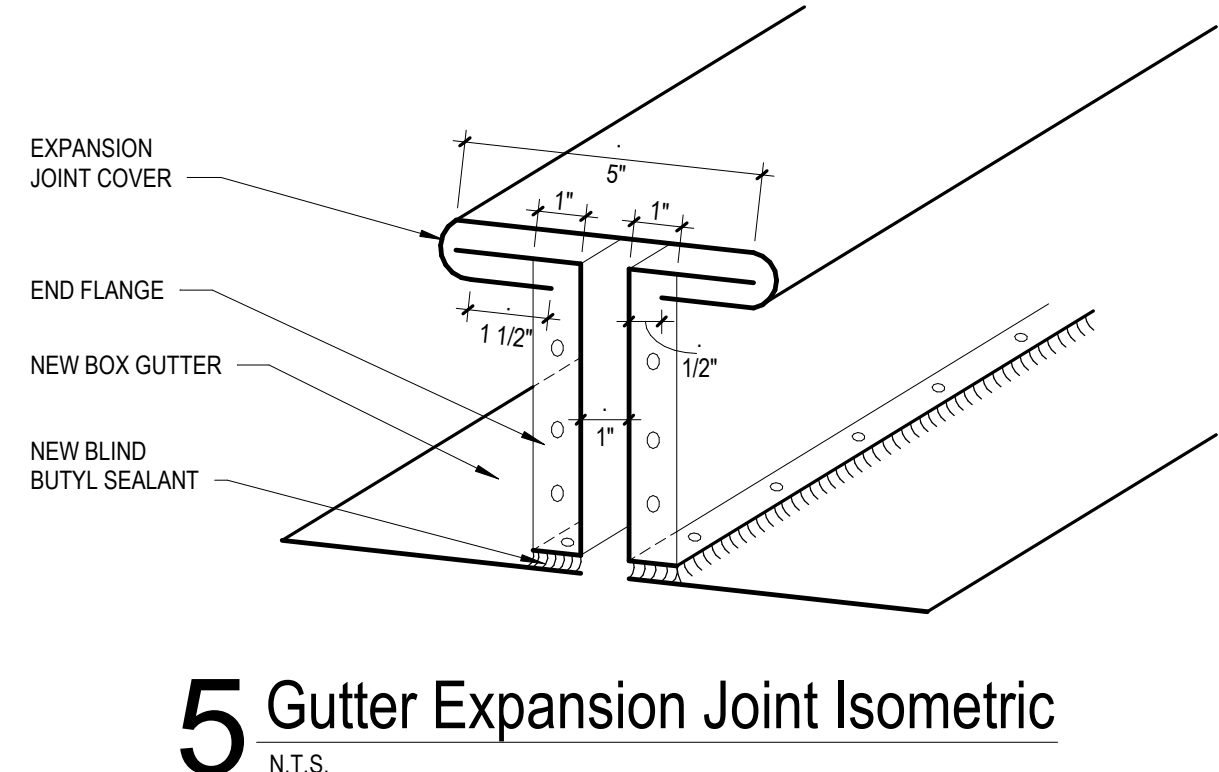
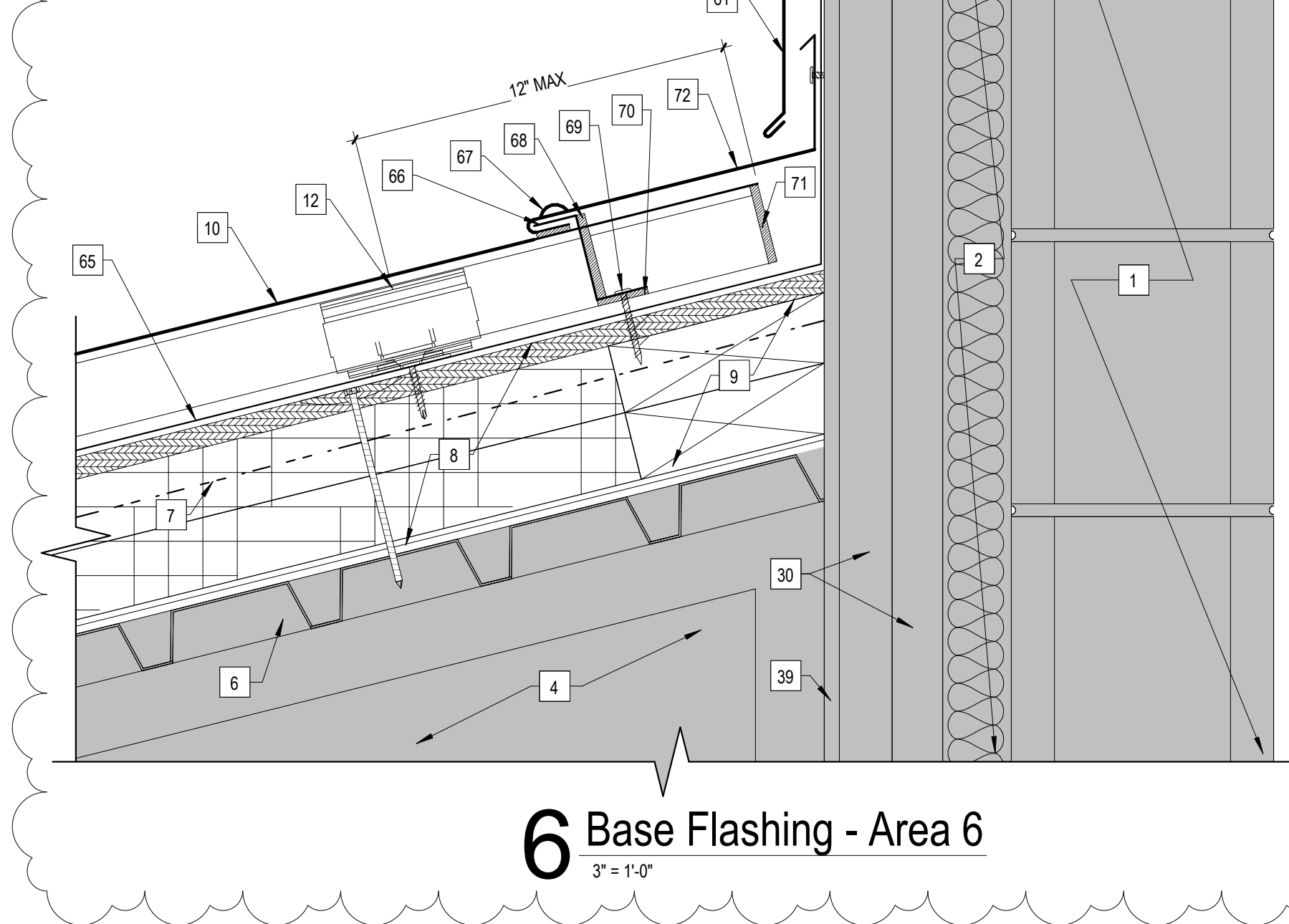
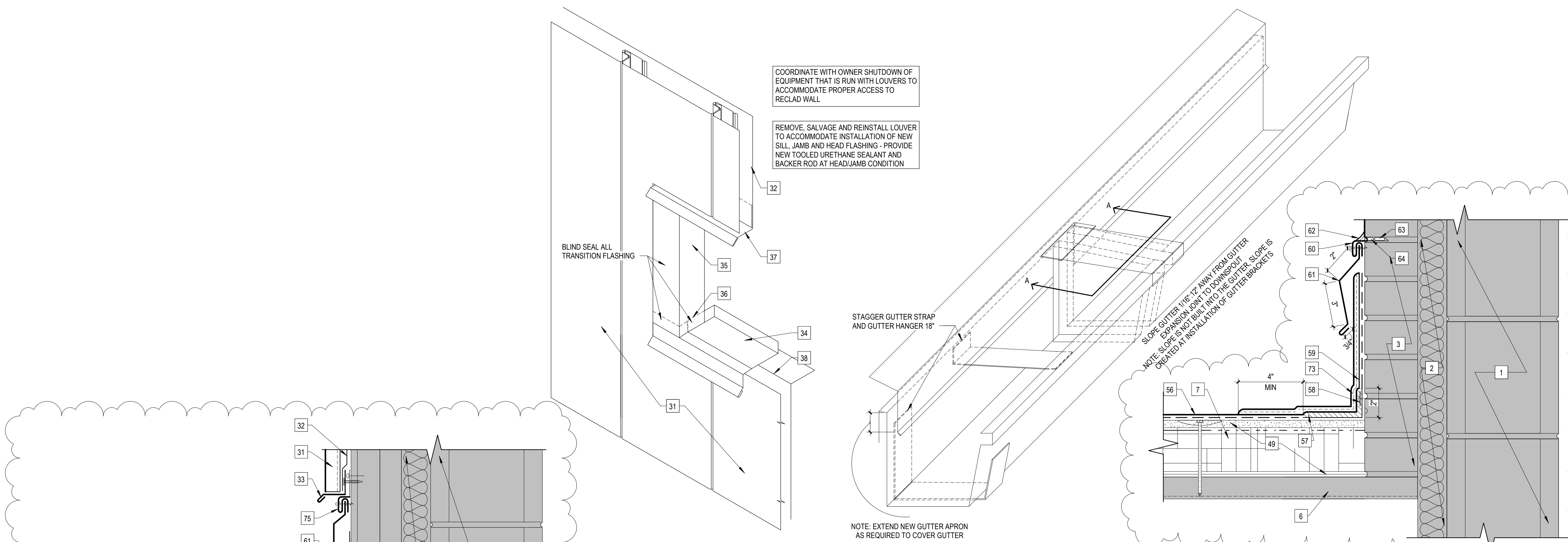

(signature)

260-445-7332 cwhite@martin-riley.com
(phone, fax & e-mail)

(signature)

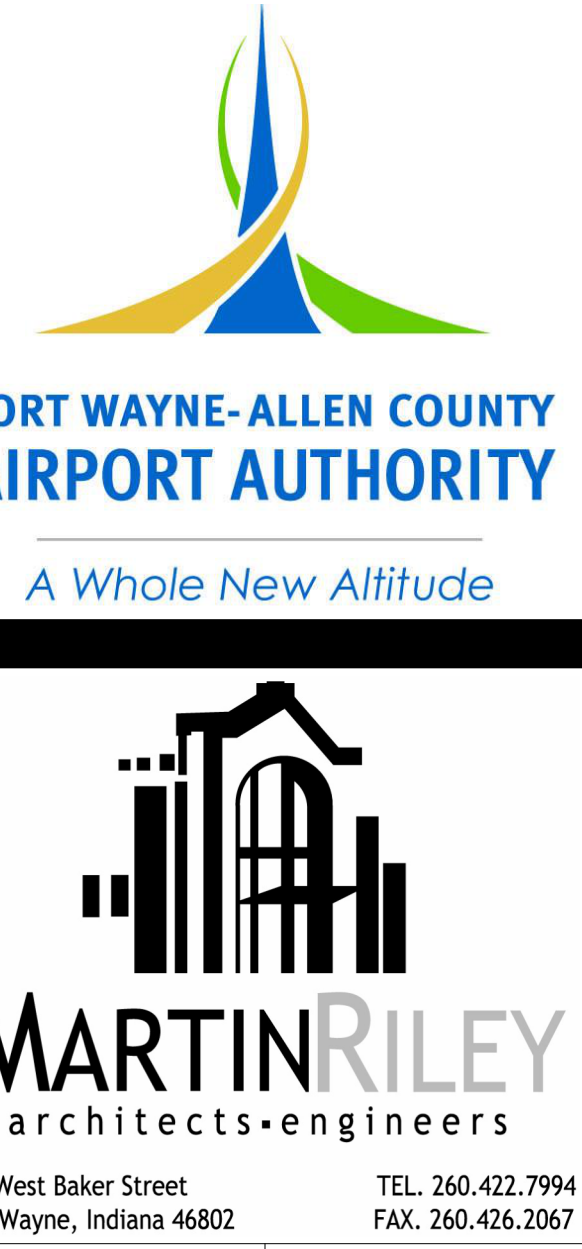
(phone, fax & e-mail)

F26023 FWA - PUBLIC SAFETY DEPARTMENT
ROOF REPLACEMENT - PHASE 2
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SD/DD/CD



- Detail Work Description Notes
- EXG MASONRY WALL TO REMAIN
 - EXISTING INSULATION TO REMAIN
 - EXG BRICK TO REMAIN
 - EXISTING STEEL TRUSS TO REMAIN
 - EXISTING LIMESTONE BAND TO REMAIN
 - EXG METAL DECK TO REMAIN. INSPECT DECK FOR DAMAGE OR DETERIORATION AND REPORT CONDITIONS TO ROOF CONSULTANT
 - REMOVE EXISTING STANDING SEAM METAL PANEL, PLYWOOD, INSULATION AND NAIL BASED OSB
 - NEW SELF ADHERING VAPOR RETARDER, NEW (1) LAYER OF MECHANICALLY ATTACHED 2" RIGID INSULATION BOARD AND NEW (1) LAYER MECHANICALLY ATTACHED COMPOSITE 2" RIGID INSULATION BOARD/ 5/8" ORIENTED STRAND BOARD (OSB))
 - NEW WOOD BLOCKING MECHANICALLY ATTACHED TO SUBSTRATE
 - NEW STANDING SEAM METAL ROOF
 - NEW #10-13 GP PANCAKE HEAD FASTENER 6" O.C. (STAGGERED)
 - NEW EXPANSION PANEL CLIP 30" O.C. MAX (FASTENED WITH 2# 14-13 X 1 1/2" MIN. DP1 FASTENERS PENETRATING WOOD DECK 3/4" MIN)
 - INJECT TWO ROWS OF BUTYL SEALANT IN VERTICAL LEG
 - NEW 24 GA PREFINISHED GI GUTTER APRON
 - FIELD FOLD END OF PANEL
 - NEW 2" X 3/16" STEEL GUTTER HANGER SPACED 36" C/C. POWDER COAT TO MATCH GUTTER
 - REMOVE EXG GUTTER AND DOWNSPOUT
 - NEW 24 GA PREFINISHED GI CONTINUOUS GUTTER
 - NEW 4" X 4" PREFINISHED GI DOWNSPOUT
 - NEW PREFINISHED GI DOWNSPOUT STRAP MECHANICALLY ATTACHED AT TOP, MIDDLE, AND BOTTOM
 - NEW 24 GA PREFINISHED GI COLOR STRIP TO MATCH NEW METAL ROOFING PANEL IN COLOR
 - NEW COLOR GUARD CROSS MEMBER WITH COLOR STRIP
 - (1) NEW SNOW CLIP AT EACH PANEL
 - NEW "S-S" CLAMP TO FIT NEW METAL ROOFING PANEL SEAM PROFILE. SPACE AT EVERY PANEL SEAM
 - NEW CONTINUOUS 16 GA BENT STEEL
 - NEW SELF ADHERING HIGH TEMP WATERPROOFING UNDERLAYMENT TO EXTEND DOWN RAKE EDGE 4" MIN. AND OVER TOP OF THE FASCIA WRAP
 - NEW 24 GA PREFINISHED TRIM FLG
 - EXG GUTTER BEYOND
 - EXG BRICK BEYOND
 - EXG WOOD BLOCKING TO REMAIN. REPLACE ANY DAMAGED OR DETERIORATED WOOD BLOCKING WITH NEW WOOD BLOCKING
 - NEW PRE-FINISHED GI FLUSH WALL PANEL
 - NEW SELF ADHERING VAPOR PERMEABLE WEATHER RESISTIVE AIR BARRIER
 - NEW 24 GA PREFINISHED CLOSURE PIECE
 - NEW PREFINISHED GI SILL FLASHING - EXTEND THROUGH LOUVER AND TURN UP. PROVIDE END DAMS AT SIDES AND PROPERLY LAP
 - NEW PREFINISHED GI JAMB FLASHING - INSTALL OVER TOP OF END DAMS OF SILL FLASHING
 - PROVIDE END DAMS AT ALL SILL CLOSURE TRANSITIONS
 - NEW PREFINISHED GI HEAD FLASHING
 - EXTEND NEW AIR BARRIER UP UNDER SILL FLASHING
 - EXG PLYWOOD TO REMAIN. INSPECT FOR DAMAGE OR DETERIORATION AND REPORT CONDITIONS TO ROOF CONSULTANT
 - NEW 1X WOOD BLOCKING CUT TO FIT BETWEEN PANEL RIBS AS PROPER BACKER FOR CONTINUOUS CLIPS TO FASTEN INTO WALL STRUCTURE
 - NEW SELF-ADHERING HIGH TEMP WATERPROOFING UNDERLAYMENT STRIPPING - EXTEND DOWN OVER NEW METAL WALL PANEL
 - POP RIVET 12" O.C. DO NOT PENETRATE PANEL LEG
 - NEW CONTINUOUS ROW OF BUTYL TAPE
 - NEW PREFINISHED GI J CLOSURE PIECE
 - NEW PREFINISHED GI RAKE EDGE
 - NEW CONTINUOUS GI RAKE EDGE CLIP MECHANICALLY ATTACHED TO SUBSTRATE
 - NEW #10-13 GP PANCAKE HEAD FASTENER 12" O.C.
 - FASTEN WALL PANEL INTO PLYWOOD SHEATHING USING RECOMMENDED FASTENERS
 - NEW SELF ADHERING VAPOR RETARDER, MECHANICALLY ATTACHED RIGID INSULATION BOARD AND ADHESIVELY ADHERED COVER BOARD INSULATION
 - NEW COUNTERFLASHING BEYOND
 - NEW METAL WALL PANEL BEYOND
 - NEW RAKE EDGE BEYOND
 - EXG LIMESTONE BAND BEYOND
 - NEW CONTINUOUS TOOLED LAP SEALANT
 - NEW FSR 6" PRESSURE SENSITIVE STRIPPING
 - NEW IEA-FLEXIBLE SHEET ROOFING (FSR)
 - NEW REINFORCED FLEXIBLE SHEET ROOFING MEMBRANE SECUREMENT STRIP
 - NEW FLEXIBLE SHEET ROOFING SEAM PLATE WITH FASTENERS 12" C/C MAX
 - CLEAN AND PREP SUBSTRATE. PROVIDE NEW FULLY ADHERED FLEXIBLE SHEET ROOFING (FSR) FLASHING
 - NEW 24 GA PREFINISHED GI REGLET RECEIVER
 - NEW 24 GA PREFINISHED GI COUNTERFLASHING MECHANICALLY ATTACHED TO RECEIVER AT 12" C/C MAX
 - NEW CONTINUOUS TOOLED URETHANE SEALANT
 - NEW LEAD WEDGES SPACED 5'-0" C/C MAX
 - PROVIDE NEW FOAM BACKER ROD SIZED 50% LARGER THAN JOINT
 - NEW MANUFACTURER'S RECOMMENDED HIGH TEMP SELF ADHERING WATERPROOFING UNDERLAYMENT
 - NEW ZEE CLOSURE PIECE
 - POP RIVET 8" O.C
 - INJECT APPROVED SEALANT BETWEEN PANEL AND Z CLOSURE
 - FOUR #10-13 GP PANCAKE HEAD FASTENERS PER PANEL MIN
 - TWO CONTINUOUS ROWS OF BUTYL TAPE
 - BOX END OF PANEL AND INJECT APPROVED SEALANT IN CORNERS
 - NEW APRON
 - IN CONDITIONS WHERE FLASHING HEIGHT IS LOWER THAN 8" MINIMUM - CLEAN, AND PREP SUBSTRATE PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE NEW MANUFACTURER'S APPROVED LIQUID APPLIED FLASHING (RESINFLEECE/RESIN) AND INSTALL PER MANUFACTURER'S APPROVED RECOMMENDATION
 - NEW AREA SEPARATION BEYOND
 - NEW 24 GA PREFINISHED GI SURFACE MOUNT RECEIVER

Roofing and Related Work for:
ROOFING AND RELATED WORK FOR:
FWA - PUBLIC SAFETY DEPARTMENT ROOF
REPLACEMENT - PHASE 2
3808 Winters Road
Fort Wayne, IN 46809

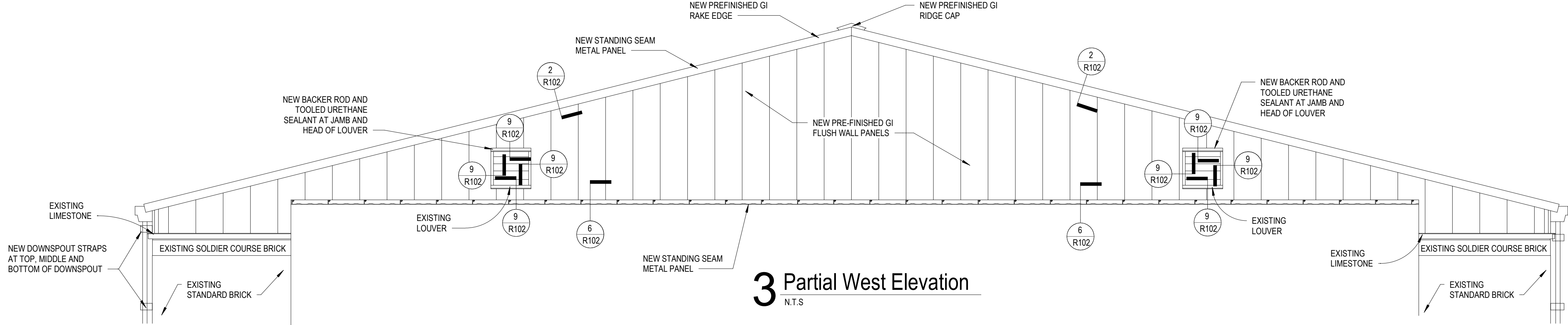


ALL DESIGN, CONSTRUCTION, AND/OR CONSTRUCTION OF THIS PROJECT IS THE PROPERTY OF THE ARCHITECT AND THE ARCHITECT ASSUMES ALL LIABILITY FOR THE DESIGN, CONSTRUCTION, AND/OR CONSTRUCTION OF THIS PROJECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE DESIGN, CONSTRUCTION, AND/OR CONSTRUCTION OF THIS PROJECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE DESIGN, CONSTRUCTION, AND/OR CONSTRUCTION OF THIS PROJECT. THE ARCHITECT'S LIABILITY IS LIMITED TO THE DESIGN, CONSTRUCTION, AND/OR CONSTRUCTION OF THIS PROJECT.

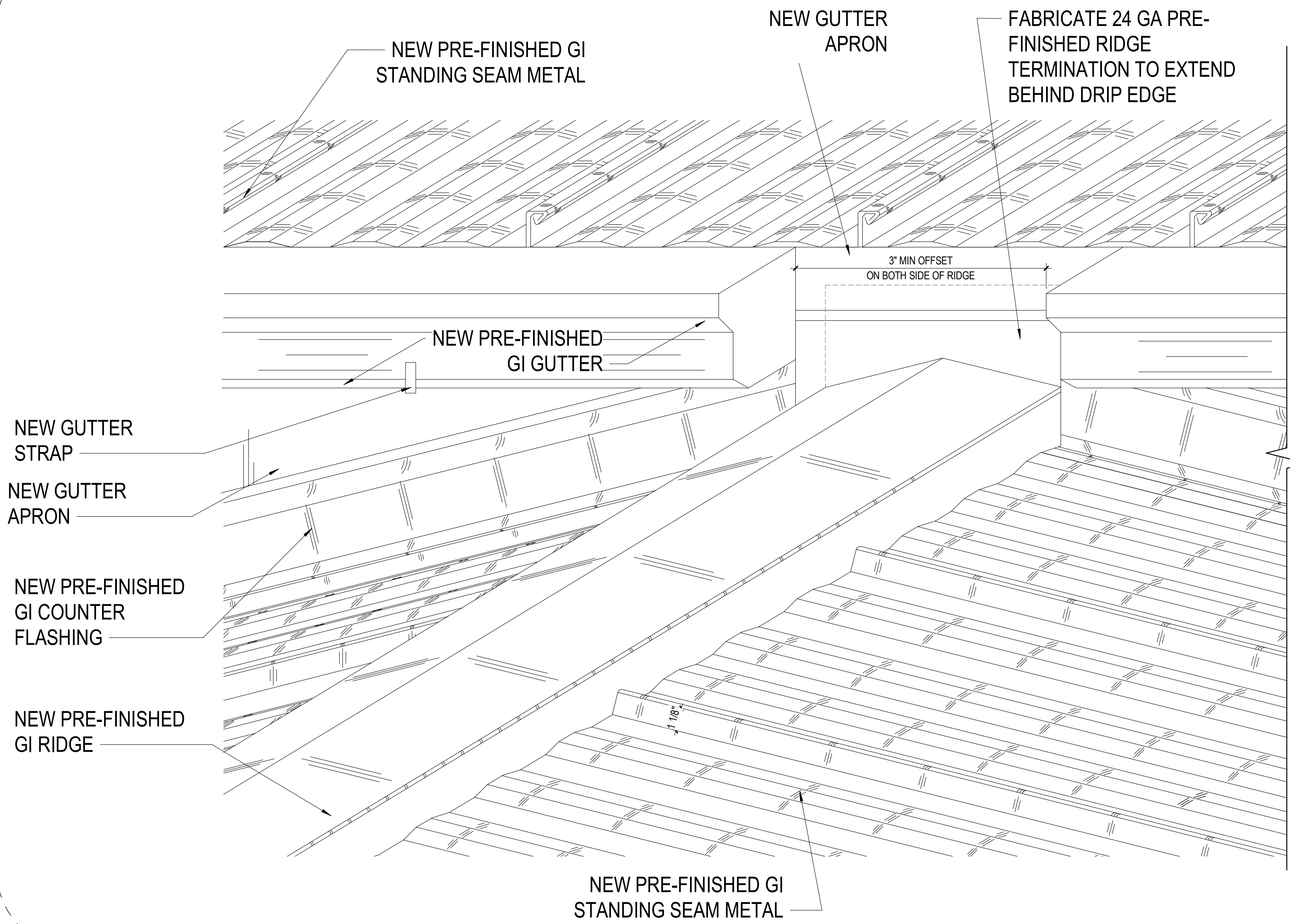
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1 Revision 1	Date 1
DRAWN BY: VNM	REVIEWED BY: CLW
COMMISSION NUMBER: F26023	DATE: 2026-06-17

R102
ROOF DETAILS

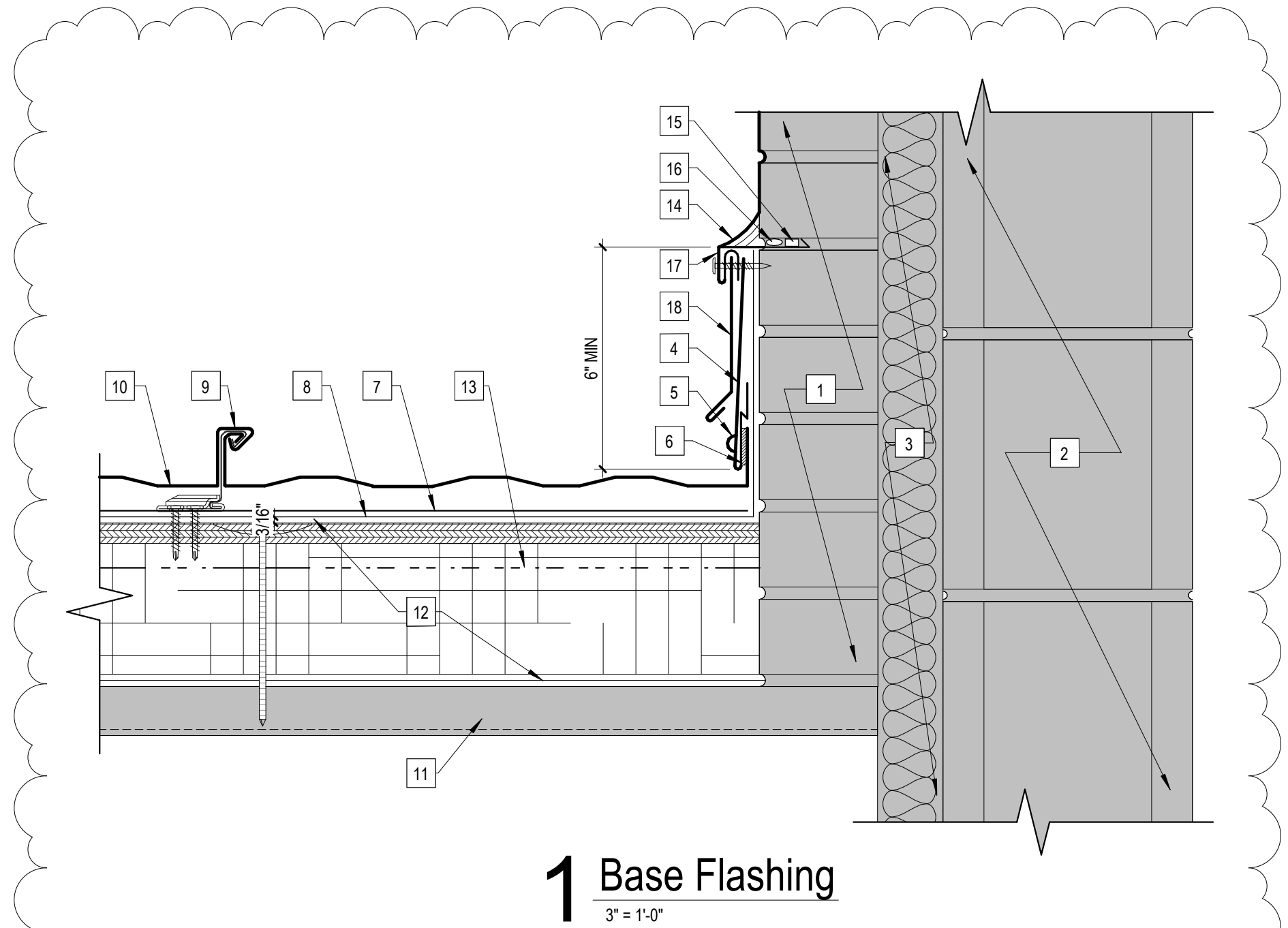
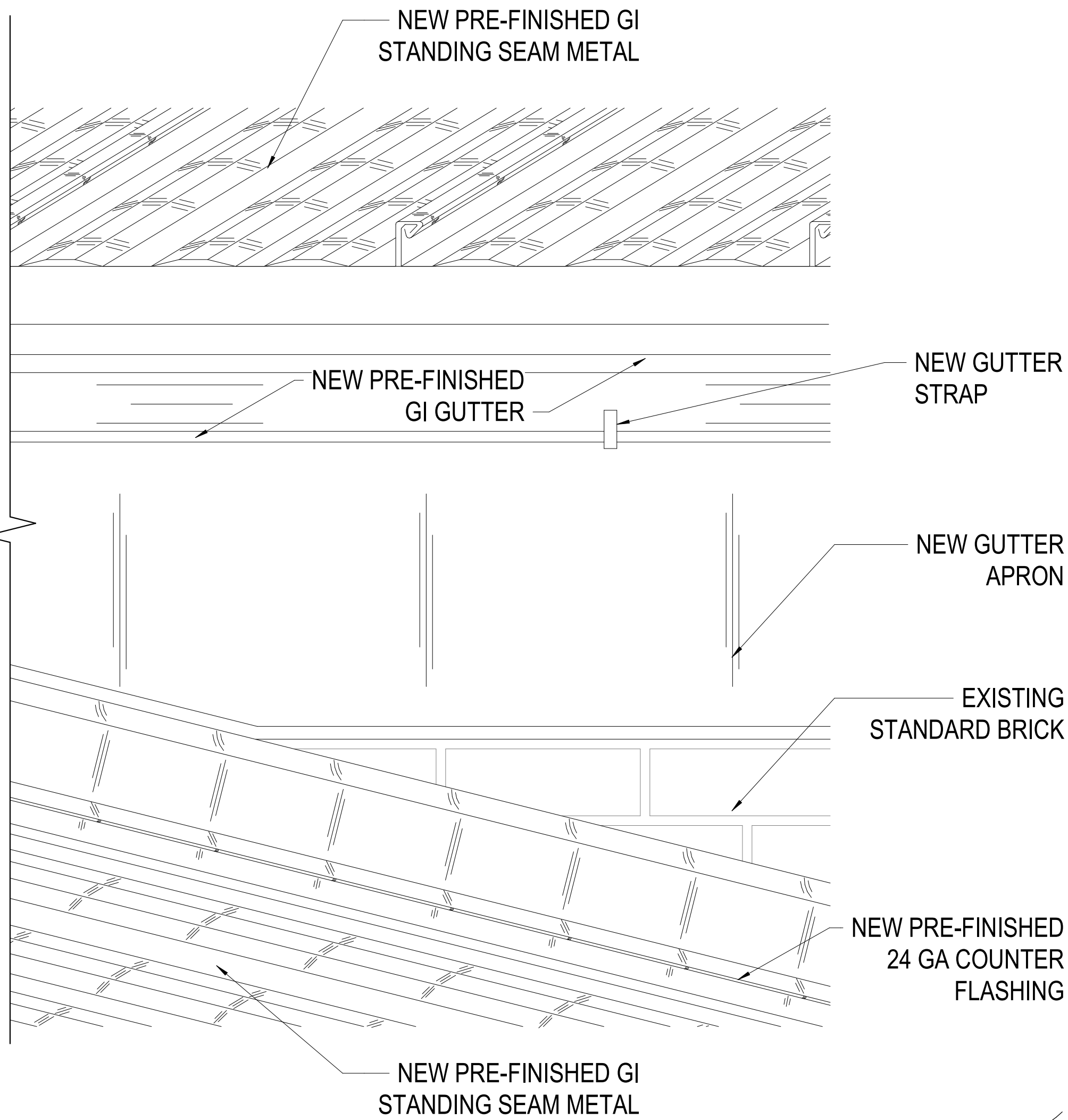
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ROOF REPLACEMENT - PHASE 2
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SD/DD/DD



3 Partial West Elevation
N.T.S.



2 Ridge & Base Flashing At Gutter - Area <2>
N.T.S.



1 Base Flashing
3\"/>

Detail Work Description Notes

- EXG BRICK TO REMAIN
- EXG MASONRY WALL TO REMAIN
- EXISTING INSULATION TO REMAIN
- (RW) - RAKE WALL
- POP RIVET 12" O.C.
- ONE CONTINUOUS ROW OF BUTYL TAPE
- DYNACLAD AP SYNTHETIC UNDERLAYMENT
- DYNACLAD ULTRA HT WIND & WATER SEAL UNDERLAYMENT (EXTEND UP WALL 8" MIN.)
- NEW EXPANSION PANEL CLIP 30" O.C. MAX. (FASTENED WITH 2# 14-13 X 1 1/2" MIN. DP1 FASTENERS PENETRATING WOOD DECK 3/4" MIN.)
- NEW STANDING SEAM METAL PANEL
- EXG METAL DECK TO REMAIN. INSPECT DECK FOR DAMAGE OR DETERIORATION AND REPORT CONDITIONS TO ROOF CONSULTANT
- NEW SELF ADHERING VAPOR RETARDER, NEW (1) LAYER OF MECHANICALLY ATTACHED 2" RIGID INSULATION BOARD AND NEW (1) LAYER MECHANICALLY ATTACHED COMPOSITE 2" RIGID INSULATION BOARD 5/8" ORIENTED STRAND BOARD (OSB)
- REMOVE EXISTING STANDING SEAM METAL PANEL, PLYWOOD, INSULATION AND NAIL BASED OSB
- CONTINUOUS NOVA FLEX SEALANT
- NEW LEAD WEDGES SPACED 5'-0" O.C. MAX
- NEW 24 GA PREFINISHED GI REGLET RECEIVER
- NEW 24 GA PREFINISHED GI COUNTERFLASHING MECHANICALLY ATTACHED TO RECEIVER AT 12" O.C. MAX

Roofing and Related Work for:

ROOFING AND RELATED WORK FOR:
FWA - PUBLIC SAFETY DEPARTMENT ROOF REPLACEMENT - PHASE 2

3808 Winters Road
Fort Wayne, IN 46809



FORT WAYNE-ALLEN COUNTY
AIRPORT AUTHORITY

A Whole New Altitude



MARTIN RILEY
architects+engineers

221 West Baker Street
Fort Wayne, Indiana 46802

TEL. 260.422.7994
FAX. 260.426.2067

ALL DESIGN, CONSTRUCTION AND/OR MATERIALS SPECIFICATIONS OF THE DRAWINGS OWNED BY AND THE PROJECTS TO BE COMPLETED BY THE ARCHITECT OR ENGINEER AND NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT OR ENGINEER. THE ARCHITECT OR ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT AND NOT FOR THE PERFORMANCE OF THE CONTRACTOR. THE ARCHITECT OR ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT AND NOT FOR THE PERFORMANCE OF THE CONTRACTOR. THE ARCHITECT OR ENGINEER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT AND NOT FOR THE PERFORMANCE OF THE CONTRACTOR.

REVISION: DATE:
1 Revision 1 Date 1

DRAWN BY: VNM REVIEWED BY: CLW
COMMISSION NUMBER: F26023 DATE: 2025-06-17

R103

ROOF DETAILS

3808 Winters Road
Fort Wayne, IN 46809

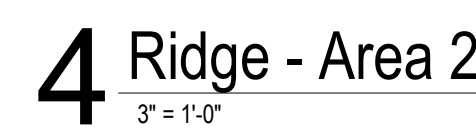


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REVISION:	DATE:
1 Revision 1	Date 1

DRAWN BY: VNM
COMMISSION NUMBER: F26023
REVIEWED BY: CLW
DATE: 2026-06-17

ROOF DETAILS



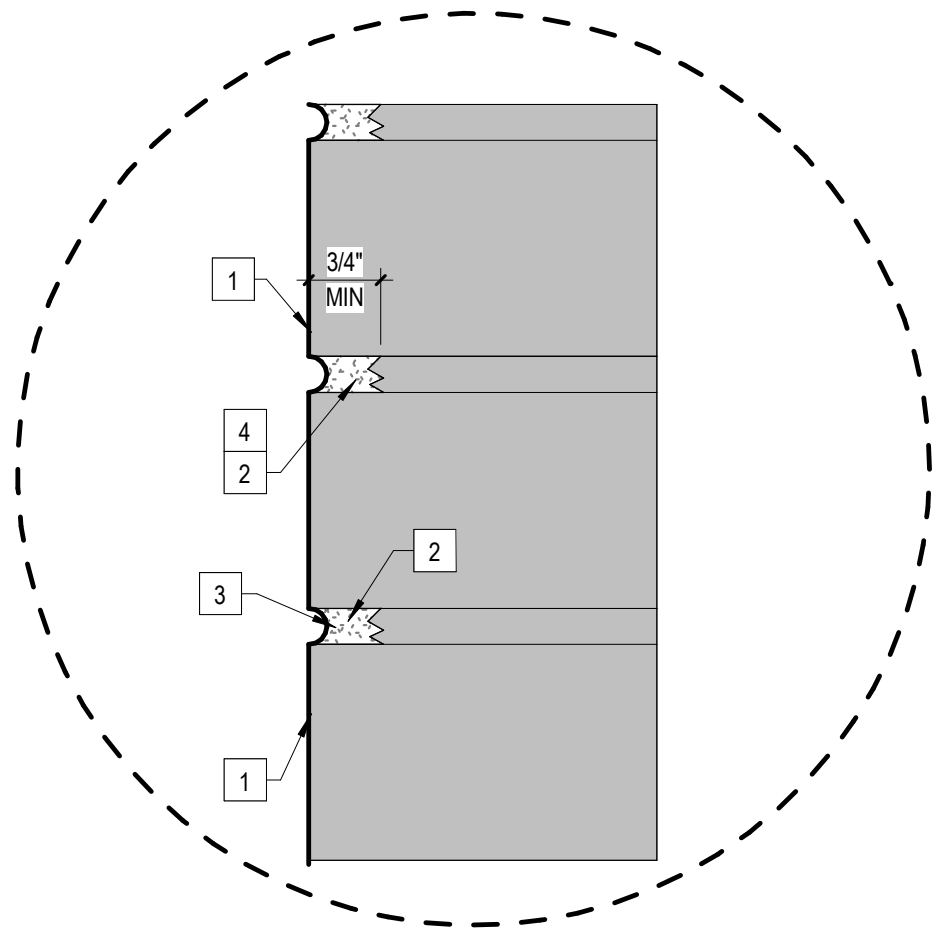
F26023 FWA - PUBLIC SAFETY DEPARTMENT
ROOF REPLACEMENT - PHASE 2
C:\Users\cmh\Documents\F26023 FWA Security Building RI Replace_cmh1677X1.rvt
SD/DD/CD



Area 2

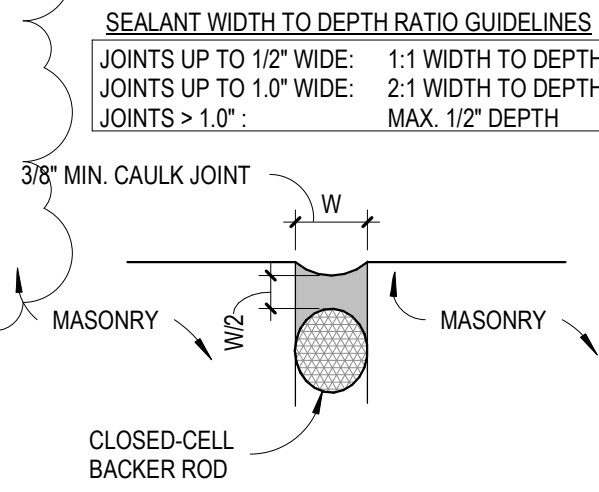
2 Masonry Replacement - Photos

N.T.S.



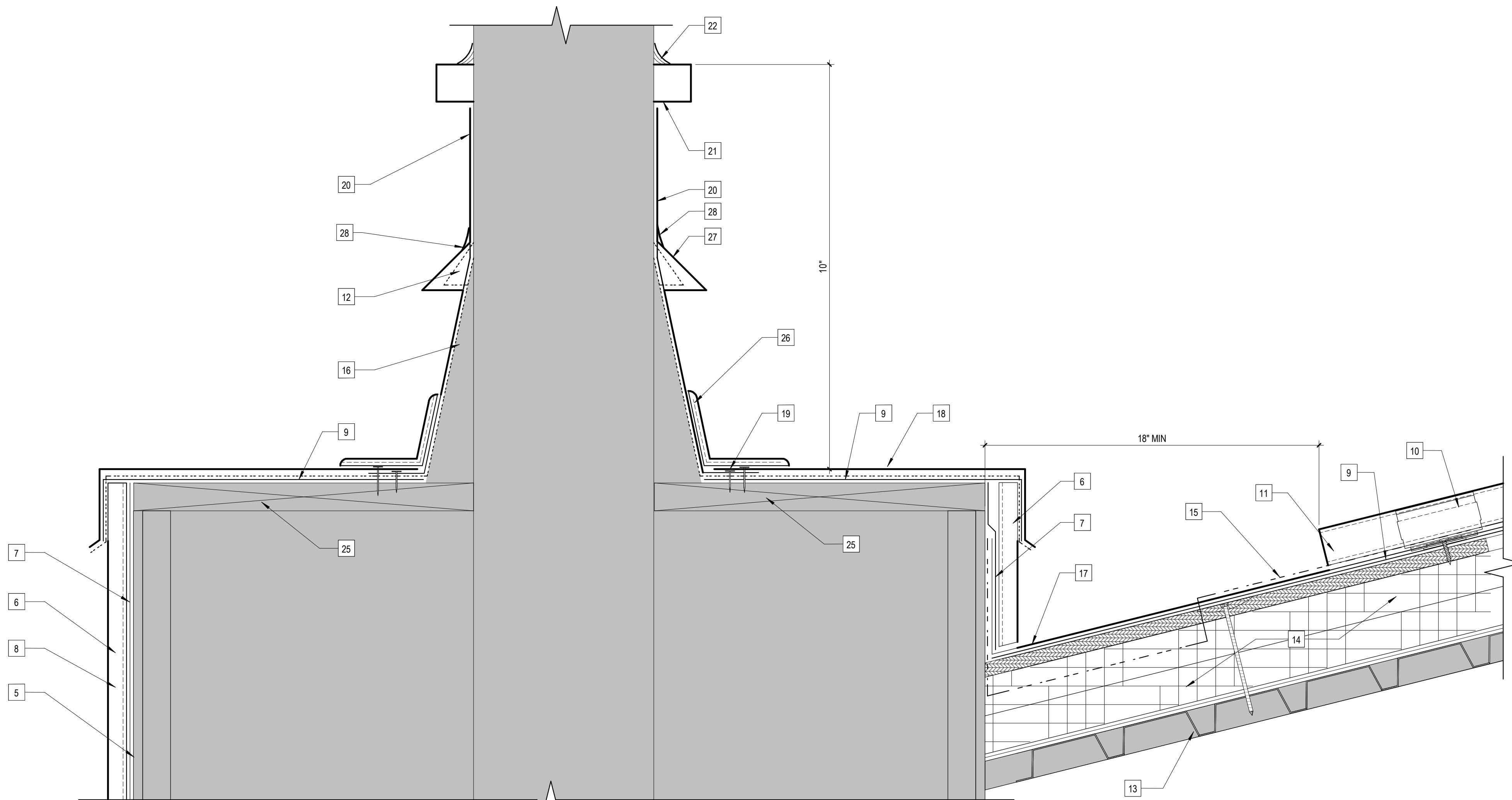
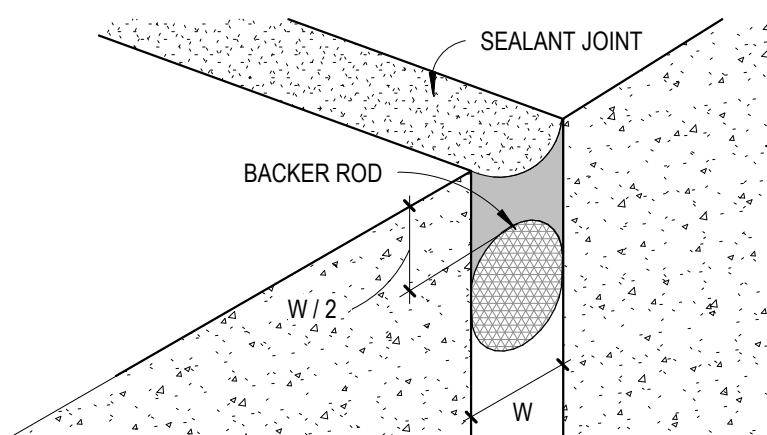
1 Tuckpointing

6" = 1'-0"



3 Sealant Joint - Masonry

N.T.S.



4 Chimney

3\"/>

Detail Work Description Notes

- 1 PROTECT FACES, EDGES AND CORNERS OF EXG BRICK DURING REMOVAL OF EXG MORTAR.
- 2 PRE WET CLEAN CUT OUT JOINTS THOROUGHLY ALLOWING WATER TO SOAK INTO WALL JUST BEFORE APPLYING FRESH MORTAR.
- 3 HAND RAKE, CHISEL, OR GRIND OUT ALL (100%) OF BRICK JOINTS AND OUTER BED JOINT OF COPING MINIMUM 3/4\"/>
- 4 PACK MORTAR IN TIGHT THIN LAYERS (1/4\"/>
- 5 EXG PLYWOOD TO REMAIN. INSPECT FOR DAMAGE OR DETERIORATION AND REPORT CONDITIONS TO ROOF CONSULTANT.
- 6 NEW PRE-FINISHED GI FLUSH WALL PANEL.
- 7 NEW SELF ADHERING VAPOR PERMEABLE WEATHER RESISTIVE AIR BARRIER.
- 8 FASTEN WALL PANEL INTO PLYWOOD SHEATHING USING RECOMMENDED FASTENERS.
- 9 NEW MANUFACTURER'S RECOMMENDED HIGH TEMP SELF ADHERING WATERPROOFING UNDERLAYMENT.
- 10 NEW EXPANSION PANEL CLIP 30\"/>
- 11 NEW STANDING SEAM METAL ROOF.
- 12 REMOVE EXISTING RAIN COLLAR.
- 13 EXG METAL DECK TO REMAIN. INSPECT DECK FOR DAMAGE OR DETERIORATION AND REPORT CONDITIONS TO ROOF CONSULTANT.
- 14 NEW SELF ADHERING VAPOR RETARDER, NEW (1) LAYER OF MECHANICALLY ATTACHED 2\"/>
- 15 REMOVE EXISTING STANDING SEAM METAL PANEL, PLYWOOD, INSULATION AND NAIL BASED OSB.
- 16 EXG ROOF PENETRATION TO REMAIN.
- 17 NEW 24 GA PREFINISHED FLASHING.
- 18 NEW 24 GA PREFINISHED METAL CAP.
- 19 GASKETED FASTENER.
- 20 NEW FLUE FLASHING.
- 21 NEW RAIN COLLAR.
- 22 NEW HEAT SENSITIVE COLLAR JOINT.
- 23 SAW CUT EXISTING BRICK TO PROVIDE NEW UNIFORM MASONRY EXPANSION JOINT (MEJ) MINIMUM 3/8\"/>
- 24 REMOVE IDENTIFIED (CRACKED, SPALLED) BRICK AND REPLACE WITH NEW TO MATCH EXISTING SIZE, TEXTURE AND COLOR. PACK NEW MORTAR IN TIGHT THIN LAYERS UNTIL JOINT IS FULL AND FLUSH WITH BRICK FACE - TOOL JOINTS TO MATCH ORIGINAL PROFILE.
- 25 EXG WOOD BLOCKING TO REMAIN. REPLACE ANY DAMAGED OR DETERIORATED WOOD BLOCKING WITH NEW WOOD BLOCKING.
- 26 ALKAN LIQUID FLASHING.
- 27 NEW 24 GA GI RAIN COLLAR FLG.
- 28 NEW MANUFACTURER'S APPROVED CONTINUOUS TOOLED SEALANT.

Roofing and Related Work for:

FWA - PUBLIC SAFETY DEPARTMENT ROOF REPLACEMENT - PHASE 2

3808 Winters Road
Fort Wayne, IN 46809



FORT WAYNE-ALLEN COUNTY
AIRPORT AUTHORITY

A Whole New Altitude



221 West Baker Street
Fort Wayne, Indiana 46802

TEL. 260.422.7994
FAX. 260.426.2067

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REVISION: DATE:
1 Revision 1 Date 1

DRAWN BY: VNM REVIEWED BY: CLW
COMMISSION NUMBER: F26023 DATE: 2026-06-17

R106

ROOF DETAILS

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**SECTION 01 1000
SUMMARY****PART 1 GENERAL****1.01 PROJECT**

- A. Project Name: FWA - Public Safety Department Roof Replacement - Phase 2.
- B. Owner's Name: Fort Wayne Allen County Airport Authority.
- C. Architect's Name: MartinRiley architects|engineers, 221 West Baker Street, Fort Wayne, Indiana 46802.
- D. The Project consists of the construction of Roofing and Related Work at the FWA Public Safety Department.

1.02 CONTRACT DESCRIPTION

- A. The Work: Without force and effect on requirements of contract documents, the (incomplete) description of the work of the contract can be summarized as follows.

1. Base Work: The removal and replacement of existing standing seam metal roof system down to the roof deck and replacement with new concealed fastener standing seam metal panel roof system on roof areas <2>, <3A>, <4>, <5>, <6>, and <7> as identified herein and identified on the drawings at FWA Public Safety Department.
2. Base Work: The removal and replacement of existing standing seam metal roof system down to the roof deck and replacement with new 60 Mil EPDM roof system on roof area <3B> as identified herein and identified on the drawings at FWA Public Safety Department.

1.03 OWNER OCCUPANCY

- A. Owner intends to continue to occupy adjacent portions of the existing building during the entire construction period.
- B. Owner intends to occupy the Project upon Substantial Completion.
- C. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- D. Schedule the Work to accommodate Owner occupancy.

1.04 CONTRACTOR USE OF SITE AND PREMISES

- A. Construction Operations: Limited to areas noted on Drawings.
- B. Provide access to and from site as required by law and by Owner:
 1. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.
 2. Do not obstruct roadways, sidewalks, or other public ways without permit.
- C. Existing building spaces may not be used for storage.
- D. Utility Outages and Shutdown:
 1. Do not disrupt or shut down life safety systems, including but not limited to fire sprinklers and fire alarm system, without 2 working days notice to Owner and authorities having jurisdiction.
 2. Prevent accidental disruption of utility services to other facilities.
- E. Notify PSD of any heat welding during construction near vents on the roof
- F. Contractor must wear safety vests when on ramp/tarmac
- G. All Full Time Workers (assigned to this job specifically) need to have a AOA Badge.

PART 2 PRODUCTS - NOT USED**PART 3 EXECUTION - NOT USED****END OF SECTION**

**SECTION 04 0100
MASONRY RESTORATION AND CLEANING**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Replacement of brick units.
- B. New Masonry Expansion Joints
- C. Repointing mortar joints.
- D. Repair of damaged masonry

1.02 RELATED REQUIREMENTS

- A. Section 07 9200 - Joint Sealants

1.03 SUBMITTALS

- A. Product Data: Provide data on cleaning compounds, and masonry materials.
- B. Samples: Submit four samples of face brick units to illustrate matching color, texture and extremes of color range.
- C. Manufacturer's Instructions: For cleaning materials, indicate special procedures, conditions requiring special attention.

1.04 QUALITY ASSURANCE

- A. Comply with provisions of TMS 402/602, except where exceeded by requirements of Contract Documents.
- B. Restorer: Company specializing in masonry restoration with minimum 5 years of documented experience in comparable masonry restoration projects and employing personnel skilled in the restoration in processes and operations indicated.
- C. Existing Mortar: Samples shall be taken from existing masonry areas to be rebuilt or tuckpointed. Samples shall be crushed, washed, and reduced to their base elements to determine composition and type of aggregate used. Samples shall be washed to determine color, size, and percentages of sand, oyster shell or silica aggregate. When necessary for the successful match or new mortar with old mortar or when requested by the Architect, quantitative analysis of the existing mortar components by weight and proportion shall be necessary. The strength of the new mortar shall not exceed that of the existing materials.

1.05 MOCK-UPS

- A. Field Constructed Mock-ups: Prior to start of general masonry repointing or resetting, prepare sample panels (4'wx2'h) on building where directed by Architect. Obtain Owners written acceptance of visual qualities before proceeding with the Work. Retain acceptable panels in undistributed condition, suitably marked, throughout construction as a standard for judging completed work.
- B. Repointing Mock-up: Prepare 2 separate sample areas of approximately 3' high by 6' wide for each type of repointing required, one sample for demonstrating methods and quality of workmanship expected in removal of mortar from joints and the other for demonstrating quality of materials and workmanship expected in pointing mortar joints.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver masonry neatly stacked and tied on pallets. Store clear of ground with adequate waterproof covering.

1.07 FIELD CONDITIONS - MASONRY WORK

- A. Cold and Hot Weather Requirements: Comply with requirements of TMS 402/602 or applicable building code, whichever is more stringent.

PART 2 PRODUCTS

2.01 MORTAR MATERIALS

- A. Veneer Brick: ASTM 216, Grade SW
- B. Portland Cement: ASTM C 150, Type I, non-staining, no air entrainment, white if needed for color match.
 - 1. Lime: Hydrated lime, ASTM C 207, Type N.
 - 2. Sand: ASTM C 144, or finer if needed for joint sizes less than 1/4".
 - 3. Use prehydrated type S Portland-sand-lime mortar for repointing and rebuilding. Comply with ASTM C 270, proportion specifications, except limit materials to those specified herein and limit cement/lime ratio by volume.
 - 4. Type N: Not more than 1/2 part lime per part of Portland Cement.
- C. New Vertical Masonry Expansion Joints: Saw Cut entire depth of veneer brick. Make sure joint width is uniform, clean and minimum 1/2" wide. Provide new foam backer rod or bond breaker teap and sealant conforming to requirements of Section 07 9200 - Sealant Joints. Protect edge of veneer brick.
- D. Water: Should be clean, free of oils, acids alkalis and organic matter.
- E. Brushes: Provide brushes for cleaning that have fiber bristles only.

2.02 MASONRY MATERIALS

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that surfaces to be cleaned are ready for work of this section.

3.02 PREPARATION

- A. Protect surrounding elements from damage due to restoration procedures.
- B. Carefully remove and store removable items located in areas to be restored, including fixtures, fittings, finish hardware, and accessories; reinstall upon completion.
- C. Separate areas to be protected from restoration areas using means adequate to prevent damage.
- D. Cover existing landscaping with tarpaulins or similar covers.
- E. Mask immediately adjacent surfaces with material that will withstand cleaning and restoration procedures, including but not limited to prefinished fenestration, grilles, louvers, doors, paving, architectural sheet metal, and prefinished siding.
- F. Close off adjacent occupied areas with dust proof and weatherproof partitions.
- G. Protect roof membrane and flashings from damage with 1/2 inch plywood laid on roof surfaces over full extent of work area and traffic route.
- H. Vertical Control Joints: New saw cut control joints in veneer brick to be located so not to disturb existing lateral masonry ties. Cut control joint with masonry saw using a fix guide/rail to assure a straight cut.
 - 1. Saw cut through entire thickness of existing veneer brick, but not into back up substrate.
 - a. Take care not to saw through existing thru-wall flashings and shelf angles.
 - 2. Use motor driven saw designed to cut masonry with clean, sharp unchipped edges.
 - a. Do not spall edges of masonry units.
 - b. Replace any masonry units which become damaged.

3.03 REBUILDING

- A. Brick Removal: Carefully remove by hand at locations indicated any brick which is damaged, spalled or deteriorated as indicated on drawings. Cut out units from joint to joint and in a manner to permit replacement with full size units.

1. Clean edges of existing brick remaining by removing mortar, dust, and loose debris in preparation for rebuilding. Cleaning may be accomplished by either air blast or low pressure water.
- B. Cut out damaged and deteriorated masonry with care in a manner to prevent damage to any adjacent remaining materials.
- C. Support structure as necessary in advance of cutting out units.
- D. Cut away loose or unsound adjoining masonry as directed.
- E. Ensure that anchors are correctly located and built in.
- F. Install built in masonry work to match and align with existing, with joints and coursing true and level, faces plumb and in line. Build in all openings, accessories and fittings.
- G. Install new or salvaged brick to replace removed brick. Fit replacement units into bonding and coursing pattern of existing brick. If cutting is required use motor driven saw designed to cut masonry with clean, sharp unchipped edges.
 1. Lay replacement brick with completely filled bed, head and collar joints. Butter edges with sufficient mortar to fill head joints and shove into place. Wet clay brick which have ASTM C 67 initial rates of absorption of more than 30 grams per 30 sq. in. per minute. Use wetting methods which ensure that units are nearly saturated but surface dry when laid. Maintain joint width for replacement units to match existing.
 2. Tool exposed mortar joints in repair areas to match joints of surrounding existing brickwork.
 3. Repoint new mortar joints in repair area to comply with requirements for repointing existing masonry, except rake out joints before mortar sets.
 4. Hold tooled joint back from unit masonry face where unit edges have eroded or weathered to "round" edges or corners. Match existing or modify new joint as required to produce a textural match with existing masonry.

3.04 REPOINTING

- A. Perform repointing prior to cleaning masonry surfaces.
- B. Repointing Existing Masonry: Existing joints to be repointed must be at least 3/4" deep and must also be prepared so as to provide bond with new mortar. Remove sufficient existing mortar to expose sound, solid materials with clean, sharp surface. Remove friable, eroded, loose or unsound existing mortar by cutting out with proper hand tools.
 1. Do not spall edges of masonry units or widen joints. Replace any masonry units which become damaged.
 2. Cut out mortar by hand with chisel and mallet, unless otherwise approved.
 3. Power operated rotary hand saws and grinders will be permitted but only on specific written approval of Architect based on submission by Contractor of satisfactory quality control program and demonstrated ability of operators to use tools without damage to masonry.
- C. Protection masonry restoration materials during storage and construction from wetting by rain, snow, or ground water and from staining or intermixture with earth or other type of materials.
- D. Protect grout, mortar and other materials from deterioration by moisture and temperature. Store in a dry location or on waterproof containers. Keep containers tightly closed and away from open flames. Comply with manufacturer's recommendation for minimum and maximum temperature requirements for storage.
- E. Repoint mortar joints or repair masonry unless air temperatures are between 40 deg F and 80 deg F and will remain so for at least 48 hours after completion work.
- F. Prevent grout or mortar used in repointing and repair work from staining face of surrounding masonry and other surfaces. Remove immediately grout or mortar in contact with exposed masonry and other surfaces.

- G. Mortar Measuring and Mixing: Measure cementitious and aggregate material in a dry condition by volume or equivalent weight. Do not measure by shovel, use known measurement. Mix materials in a clean mechanical batch mixer. Commence mortar measurement and mixing only after preconstruction mortar analysis is completed and accepted by the architect.
 - 1. Thoroughly mix cementitious and aggregate materials together before adding any water. Then mix again adding water only enough water to produce a damp unworkable mix which will retain its form when pressed into a ball. Maintain mortar in this state for 1 to 2 hours. Add remaining water in small portions until mortar of desired consistency is reached. Use mortar with 30 minutes of final mixing, do not retemper or use partially hardened material.
- H. Cut out loose or disintegrated mortar in joints to minimum 3/4 inch depth or until sound mortar is reached.
- I. Use power tools only after test cuts determine no damage to masonry units will result.
- J. Do not damage masonry units.
- K. When cutting is complete, remove dust and loose material by brushing.
- L. Premoisten joint and apply mortar. Pack tightly in maximum 1/4 inch layers. Form a smooth, compact concave joint to match existing.
- M. Repoint mortar to areas where existing mortar was removed. Apply in layers not greater than 3/8 inches until a uniform depth is formed. Compact each layer thoroughly and allow to become thumbprint hard before applying next layer.
 - 1. After joints have been filled to a uniform depth, place remaining pointing mortar in 3 layers with each of the first and second layers filling approximately 2/5 of joint depth and the third layer the remaining 1/5. Fully compact each layer and allow to become thumbprint hard before applying next layer. Take care not to spread mortar over edges onto exposed masonry surfaces, or to feather edges of mortar.
 - 2. When mortar is thumbprint hard, tool joints to match original appearance of joints, unless otherwise indicated. Remove excess mortar from edge of joint by brushing.
- N. Moist cure for 72 hours.

3.05 MASONRY EXPANSION JOINTS:

- A. Prior to cutting masonry expansion joints snap vertical chalk line at joint location to assure joint is vertically plumb with adjacent mortar head joints.
- B. Saw cut through entire thickness of existing veneer brick, but not into back-up substrates.
 - 1. Take care not to saw through existing thru-wall flashings and/or masonry shelf angles.
- C. Use motor driven saw designed to cut masonry with clean, sharp unchipped edges.
 - 1. Do not spall edges of masonry units.
 - 2. Replace any masonry units which become damaged from sawing operation.

3.06 THROUGH-WALL FLASHING APPLICATION:

- A. All masonry surfaces receiving through-wall flashings shall be free from loose materials, and reasonably smooth. There are to be no slopes present that will form pockets or prevent free drainage of water to the exterior surfaces of the wall. All work is to be executed in conformance with manufactures recommendations.
 - 1. Turn flashing perpendicular to wall to create end dams at all thru-wall terminations
 - 2. Flashing materials seams are to be made by lapping flashing material a minimum of 4" and coating the contact surfaces with manufactures recommended approved mastic.
 - 3. All through-wall flashing seams are to be inspected by owners representative prior to brick rebuilding.

3.07 CLEANING EXISTING MASONRY

- A. Clean all mortar smears, droppings, etc. from wall with dry brush as work proceeds.
- B. Dry clean wall with wood paddles. Use chisel or wire brush, if required.

- C. Clean finished work with solution of 1/2 cup trisodium phosphate/gallon, or commercial alkaline masonry cleaner, scrubbing down with fiber brushes. Following BIA recommendations.
- D. Exterior Masonry Cleaning: Controlled solution of hydrofluoric acid, wetting agents and catalytic inhibitors. Contractor shall pre wet wall, dilute cleanser and properly rinse wall (400-600 psi) under manufacturer's written directions for the specific application. Architect to approved 25 sq ft test area prior to application.
- E. Flush with clean pressurized water.
- F. Muriatic Cleaning will not be permitted.
- G. Remove all droppings, smears, etc. from brick, weep holes, and adjacent materials. Remove all bags, tools, containers from site.

END OF SECTION

1. Top Layer Material: 5/8 inch (16mm) Oriented Strand Board (OSB)
2. Compressive Strength: 20 PSI
3. Board Size: 48x96 inch nominal
4. Insulation Board Thickness: 2.0 inch
5. Thermal Resistance: R-Value 9.6
6. Total Thickness: 2-5/8"
7. Board Edges: Square

2.03 ACCESSORIES

- A. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.

1. Length as required for thickness of insulation material and penetration of deck substrate.

- B. Vapor Retarder: Self adhering - direct to metal deck, designed to withstand foot traffic on profiled metal decking, without puncturing. Application meant for installation over metal decks when insulation is to be mechanically fastened - Basis of design: Carlisle - VapAir Seal MD Air and Vapor Barrier or Elevate - V - Force FR Vapor Barrier.

1. Water Vapor Permeability - ASTM E96, 0.06 perms
2. Elongation - ASTM D1970
3. Low Temperature Flexibility - ASTM D1970
4. Tear Strength - ASTM D1970
5. Puncture Resistance - ASTM D5602; 54.6lb
6. Thickness - ASTM D5147
7. Tensile Strength - ASTM D412

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate, adjacent materials, and insulation materials are dry and that substrates are ready to receive insulation.
- B. Verify substrate surfaces are flat, free of honeycomb, fins, irregularities, or materials or substances that may impede adhesive bond.

3.02 BOARD INSTALLATION OVER STEEP SLOPE ROOF SHEATHING OR ROOF STRUCTURE

- A. Installation of board insulation over steep slope roof structure or roof sheathing, see Section 06 1000.

3.03 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements for additional requirements.
- B. Coordination of Air Barrier Association of America (ABAA) Tests and Inspections:
1. Provide testing and inspection required by ABAA Quality Assurance Program (QAP).
 2. Notify ABAA in writing of schedule for air barrier work, and allow adequate time for testing and inspection.
 3. Cooperate with ABAA testing agency.
 4. Allow access to air barrier work areas and staging.
 5. Do not cover air barrier work until tested, inspected, and accepted.

3.04 PROTECTION

- A. Do not permit installed insulation to be damaged prior to its concealment.

END OF SECTION

2.03 ATTACHMENT SYSTEM

- A. Concealed System: Provide manufacturer's standard stainless steel or nylon-coated aluminum concealed anchor clips designed for specific roofing system and engineered to meet performance requirements, including anticipated thermal movement.

2.04 SECONDARY FRAMING

- A. Shop Painting: Clean surfaces to be primed of loose mill scale, rust oil, grease, and other matter precluding paint bond. Follow procedures of SSPC-SP3 for power tool cleaning, and SSPC-SP1 for solvent cleaning.
- B. Structural Steel Prime: Prime structural steel secondary framing members with manufacturer's standard rust-inhibitive primer having rust-inhibitive pigment, such as zinc chromate iron-oxide alkyd (TT-P-636) or (TT-P-664).

2.05 FINISHES

- A. Finish: (Fluoropolymer Coating): Manufacturer's standard two-coat, thermocured, full-strength 70 percent "Kynar 500" coating consisting of a primer and a minimum dry film thickness of 0.9 mil and 30 percent reflective gloss when tested in accordance with ASTM D523.
 - 1. Color: as selected by owner from manufacturer's standard colors.

2.06 ACCESSORIES

- A. Miscellaneous Sheet Metal Items: Provide flashings, gutters, downspouts, trim, moldings, closure strips, preformed crickets, caps, and equipment curbs of the same material, thickness, and finish as used for the roofing panels. Items completely concealed after installation may optionally be made of stainless steel.
- B. General Roofing: Provide roofing sheets roll formed to profile indicated and specified. Provide flashings, closures, fillers, metal expansion joints, ridge covers, roof panel mounting clips, gable and eave trim, gutters and other sheet metal accessories factory formed and finished.
 - 1. Allowances for thermal expansion: Standing seam metal roof system shall be designed, fabricated, and installed with moveable panel clips to allow relative movement between roof panels and purlins, gables and ridges due to thermal expansion and permanent deformation to any of the system components. Roof panel end laps shall allow panels to expand and contract without damage to end lap seams. Roof panels are pre-punched to allow minimal field fastener locations. Roof panel end laps must be staggered to insure a continued unbroken panel through each seam.
- C. Rib and Ridge Closures: Provide prefabricated, close-fitting components of steel with corrosion resistant finish or combination steel and closed-cell foam.
- D. Sealants:
 - 1. Exposed Sealant: Elastomeric; silicone, polyurethane, or silyl-terminated polyether/polyurethane.
 - 2. Concealed Sealant: Non-curing butyl sealant or tape sealant.
 - 3. As recommended by manufacturer.
 - 4. ~~Seam Sealant: Factory applied, non-skimming, non-drying type.~~
- E. Waterproofing Underlayment: Provide membrane over entire roof surface. Material shall be laminated sheet of polymer rubberized asphalt and elastomeric 5-mil polymer film with release paper to self adhere to substrate.
 - 1. ~~Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to the following:~~
 - a. Dimensional Metals, Inc.: DynaClad Ultra HT Wind and Water Seal
- F. Snow Retention: Provide new snow retention system consisting of S-5! Clips at each panel rib and ColorGard Snow retention bar. Provide new snow clips centered at every panel along entirety of snow retention system
 - 1. ColorGard Snow Retention System
 - a. S-5! Clamps at every panel rib

**SECTION 07 5300
ELASTOMERIC MEMBRANE ROOFING**

PART 1 GENERAL**1.01 SECTION INCLUDES**

- A. Elastomeric roofing membrane application.
- B. Insulation, flat.
- C. Cover boards.
- D. Flashings
- E. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.

1.02 RELATED REQUIREMENTS

- A. Section 06 1000 - Rough Carpentry: Wood cant strips.
- B. Section 07 6200 - Sheet Metal Flashing and Trim: Counterflashing, Gutters, and Reglets.

1.03 REFERENCE STANDARDS

- A. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2023a.
- B. ASTM D412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers--Tension; 2016 (Reapproved 2021).
- C. ASTM D624 - Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers; 2000 (Reapproved 2020).
- D. ASTM D2240 - Standard Test Method for Rubber Property--Durometer Hardness; 2015 (Reapproved 2021).
- E. ASTM D4637/D4637M - Standard Specification for EPDM Sheet Used in Single-Ply Roof Membrane; 2015, with Editorial Revision (2022).
- F. FM DS 1-28 - Wind Design; 2015, with Editorial Revision (2022).
- G. NRCA (RM) - The NRCA Roofing Manual; 2024.
- H. UL (FRD) - Fire Resistance Directory; Current Edition.

1.04 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- C. Shop Drawings: Indicate joint or termination detail conditions and conditions of interface with other materials.
- D. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- F. Manufacturer's Field Reports: Indicate procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given.
- G. Manufacturer's qualification statement.
- H. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.

- B. Installer Qualifications: Company specializing in performing the work of this section with minimum three years documented experience.

1.06 PRE-INSTALLATION MEETING

- A. Convene before starting work of this section
- B. See Section 07 1010 - General Roofing Considerations

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 PROJECT CONDITIONS

- A. Coordinate the work with installation of associated counterflashings installed by other sections as the work of this section proceeds.

1.09 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 and relative humidity is less than 80 percent.
- 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.

1.10 WARRANTY

- A. See Section 01 7800 - Closeout Submittals for additional warranty requirements.
- B. Roofing Contractor's Warranty: Provide roofing contractor's "Roofing Warranty" typical in form and content indicated by Midwest Roofing Contractors Association, Inc. approved guarantee form no. 2007B, 2-years as indicated on form.
- C. Manufacturer's Warranty: Provide flexible sheet roofing manufacturer's standard unlimited product and contractor workmanship liability "Roofing Manufacturer's Basic Roofing Guarantee" from date of substantial completion against leaks caused by defective materials or workmanship and against normal wear and tear for the following period of time with respect to following system designations.
 - 1. IEA20 Year No Dollar Limit (NDL).

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. EPDM Membrane Materials:
 - 1. Carlisle SynTec Systems: www.carlisle-syntec.com/#sle.
 - 2. Elevate: www.holcimelevate.com/#sle.
 - 3. Johns Manville: www.jm.com/#sle.

2.02 ROOFING - UNBALLASTED APPLICATIONS

- A. Systems: System designation explained in Section 07 1010. Subject to compliance with requirements, provide one of the following systems:
 - 1. IEA-FSR (insulated substrate, EPDM sheet, adhered attachment FSR)

- a. Carlisle "Sure-Seal Kleen Non-Reinforced Membrane - Fire Retardant 60 Mil Membrane"
- b. Elevate "Fire Retardant (FR) RubberGard EPDM Membrane - 60 Mil"
- c. Johns Manville "JM EPDM NR 60 Mil Membrane - FR"

2.03 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane: Ethylene-propylene-diene-terpolymer (EPDM); non-reinforced; complying with minimum properties of ASTM D 4637. Non-reinforced and complying with the following minimum requirements respective of test and property limits of the Rubber Manufacturers Association (RMA).
 1. Thickness: 60 mil, 0.060 inch measured in accordance with ASTM D 412.
 2. Color: Black.
 3. Fire Resistant: Yes
 4. Thickness Over Scrim: .015 inch
 5. Tensile Strength: 1305 psi, measured in accordance with ASTM D412.
 6. Ultimate Elongation: 300 percent, minimum, measured in accordance with ASTM D412.
 7. Tear Strength: 150 lbf per inch, measured in accordance with ASTM D624.
 8. Water Absorption: percent increase in weight, maximum, measured in accordance with ASTM D 570, 24 hour immersion.
 9. Brittleness Temperature: , measured in accordance with ASTM D 746.
 10. Heat Aging, measured in accordance with ASTM D 573.
 - a. Breaking Strength, Min. psi (MPa): ASTM D 751 80
 - b. Elongation, Ultimate, min. ASTM D 412
 11. Factory Seam Strength: Sheet Failure or 50 lbf/in. minimum, in accordance with ASTM D 816
 12. Weather Resistance: ASTM G 26 or G 53:
 - a. Visual Inspection: No cracks/crazing.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Flexible Flashing Material: Same material as membrane.

2.04 AUXILIARY MATERIALS

- A. Sheet Seaming System: Manufacturer's standard materials for sealing lapped joints, including edge sealer to cover exposed spliced edges as recommended by manufacturer of flexible sheet roofing system.
 1. For EPDM flexible sheet roofing systems, additional seaming materials for all manufacturer's systems shall be as follows:
 - a. Exterior Field Lap Sealant: One-part, heavy-bodied (trowel or gun consistency) elastomeric Sealant used to seal the exposed edges of a membrane splice.
 - b. Splice Tape: 30 mil, 6 inch wide cured butyl based contact tape used in splicing field laps, only on cured EPDM flexible sheet roofing membrane.
- B. Flashing Material: Manufacturer's standard system compatible with flexible sheet roofing membrane. PRESSURE SENSITIVE FLASHING WILL NOT BE PERMITTED.
- C. Slip Sheet: Type recommended by manufacturer of flexible sheet roofing membrane material for protection of membrane from incompatible substrates.
- D. Cold Adhesive (for insulation application): One or two components, non-flammable, spray dispensed, moisture curing low rise polyurethane foam adhesive.
 1. "Insta-Stik"; Dow
 2. "OlyBond 500 SpotShot"; OMG
 3. Manufacturers Approved Insulation Adhesive

2.05 INSULATION

- A. Rigid insulation boards and air/vapor retarder filler foams shall not be produced with or contain any of the United States Environmental Protection Agency (USEPA) regulated

chlorofluorocarbon (CFC) compounds listed in the Montreal Protocol of the United Nations Environmental Program.

- B. Polyisocyanurate Board Insulation: Rigid cellular foam, complying with Federal Specification HH-I-1972/2, ASTM D 1621, ASTM C 1289, C 350, D 1622, and E84. Type II, Class 1, cellulose felt or glass fiber mat both faces; Grade 1 and with the following characteristics:
 - 1. Compressive Strength: 16 psi
 - 2. Board Size: 48 by 96 inch. (Flatstock)
 - 3. Board Thickness: 1.5 inch.
 - 4. Thermal Resistance: R-Value of 5.41/inch
 - 5. Board Edges: Square

2.06 COVER BOARD

- A. Cover board insulation (Overlay for Polyisocyanurate foam board roof insulation): Provide manufacturer standard high-density polyisocyanurate insulation panel specifically designed for use as a cover board with the following characteristics:
 - 1. Board Size: 48x48 inch
 - 2. Board Thickness: 1/2" or 1/4" Manufacturer Dependant
 - 3. Thermal Resistance: 2.5 per 1/2" or 1.25 per 1/4"
 - 4. Board Edges: Square
 - 5. Manufacturers:
 - a. Carlisle
 - b. Elevate
 - c. JohnsManville

2.07 ACCESSORIES

- A. Air/Vapor Retarder Filler Foam: Single-component, non-flammable, spray dispensed, adhesive polyurethane foam used as a filler around obstructions and penetrations to mitigate both air and vapor infiltration from both interior and exterior origin.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work includes, but are not limited to the following:
 - a. Hilti Construction Chemicals, Inc: "Hilt CF 124"
- B. Fasteners for steel deck (for insulation application): Galvanized steel, fluoropolymer-coated steel, or nonferrous metal screws recommended by manufacturer for material to be fastened and substrate and complying with requirements of governing authorities and listing agencies.
 - 1. Metal Deck: 3/4" minimum penetration of top flute in deck.
- C. Membrane Adhesive: As recommended by flexible sheet roofing membrane manufacturer for particular substrate and project conditions, formulated to withstand minimum 60-psf uplift force.
- D. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- E. Insulation Adhesive: As recommended by insulation manufacturer.
- F. Roofing Nails: Galvanized, hot-dipped type, size and configuration as required to suit application.
- G. Sealants: As recommended by membrane 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.
- F. Clean substrate of dust, debris and other substances detrimental to flexible sheet roofing system work.
- G. Prime substrates where recommended by manufacturer of materials being installed.
- H. Prevent compounds from entering and clogging drains and conductors, and from spilling or migrating onto surfaces of other work.

3.02 PREPARATION - METAL DECK

- A. Clean flutes of deck free of all debris during tear-off
- B. Observe Deck for damage or deterioration (rust) and report conditions to roof consultant

3.03 INSTALLATION - INSULATION, UNDER MEMBRANE

- A. Attachment of Insulation: Comply with insulation manufacturer's instructions and recommendations for the handling, installation and bonding or anchorage of insulation to substrate.
 - 1. Secure insulation to metal deck using mechanical fasteners specifically designed and sized for attachment of specified insulation type to deck type shown. fasten insulation over entire area of roofing at spacing as required by FM or Windstorm Resistance Classification 1-90. Run long joints of insulation in continuous straight lines, perpendicular to roof slope with end joints staggered between rows and joints off set existing insulation joints minimum of 12-inches.
 - a. Size mechanical fasteners with insulation so they do not extend beyond the bottom flute in metal deck and 1-inch minimum embedment into wood deck.
 - 2. Two-layer installation: Where indicated, install required thickness in two layers with joints of second layer staggered from joints of first layer a minimum of 12 inches each direction.
 - 3. Nailers: Where insulation substrates slope 3/4 inch per foot or more, install wood nailers minimum 2 inches wide and as same thickness as base layer of insulation, set nailers between insulation boards. Anchor nailers to substrate and run nailers perpendicular to slope of roof. Install nailers at the following spacing:
 - a. 3 inches or more; 48 inches face to face of nailer.
- B. Lay subsequent layers of insulation with joints staggered minimum 12 inches from joints of preceding layer.
- C. On metal deck, place boards parallel to flutes with insulation board edges bearing on deck flutes.
- D. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- E. Do not apply more insulation than can be covered with membrane in same day.

3.04 INSTALLATION - MEMBRANE

- A. Membrane Installation: Start installation only in presence of manufacturer's technical representative.
 - 1. Fully Adhered Flexible Sheet Roofing Membrane: Install membrane by unrolling over prepared substrate lapping adjoining sheets as recommended by manufacturer. Apply adhesive to surfaces to be bonded and roll single-ply membrane into place when adhesive has properly cured. Treat seams with special cement and apply sealant to exposed sheet edges, tapering application as recommended by manufacturer. Install mechanical fasteners, flashings and counter flashings, and accessories at locations and as recommended by manufacturer.
- 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 at rate recommended by roof system manufacturer. Fully embed membrane in adhesive. Fully adhere one roll before proceeding to adjacent rolls.
- E. EPDM Flexible Sheet Roofing Field Seams: All field seams shall be installed as follows and as recommended by the manufacturer.
 - 1. For Tape Seams:
 - a. Overlap field sheets at laps a minimum of 7" along the entire length of the splice. Fold top sheet back for cleaning of both surfaces to be spliced.
 - b. Clean both surfaces of membrane that are to be spliced using manufacturer's recommended cleaner. Clean membrane of all dust, dirt and any other contaminants. Allow to dry. Membrane is properly cleaned when membrane surface is a dull black color and no streaking is evident, provide additional cleaning until membrane is properly cleaned.
 - c. Apply 6" minimum wide splice tape to the bottom sheet. The edge of the paper backing of the splice tape should be touching the line marked on the bottom sheet.
 - d. before removing the paper backing from splice tape, roll tape. Roll tape carefully, so as not to stretch or wrinkle the tape.
 - e. Roll the top membrane over splice tape and check alignment of the entire splice. A minimum of 1/8" and a maximum of 1/2" of splice tape should protrude beyond edge of the top membrane.
 - f. After checking alignment of splice, roll back the top sheet and remove the paper backing from the tape and allow the top membrane to fall freely onto the splice tape.
 - g. Press seam together with hand pressure across splice. Immediately after the seam is pressed together, roll seam with a steel roller using positive pressure. Roll splice first across the seam, then along the entire length.
 - h. After seam has been spliced, check the membrane on both sides from the edge of seam. Clean membrane of all dust, dirt and any other contaminants.
- F. EPDM flashings: Install flashing as indicated at all vertical surfaces and penetrations through roof. Extend field membrane up onto vertical surfaces as base flashing. **PRESSURE SENSITIVE FLASHING WILL NOT BE PERMITTED.** Provide specified and detailed mechanical anchorage at top of all vertical flashings.
 - 1. Prior to installing base flashing, loose lay 6" wide reinforced strip along vertical transition and mechanically fasten vertically into transition maximum 12 inches on center. For vertical transitions a minimum of 3" must extend onto adjacent horizontal substrate. Clean reinforcing strip as outlined in the splicing of field seams. Splice field membrane to reinforcing strip, following splicing procedures of field seams, though excluding the use of in-seam sealant and lap sealant.

3.05 FIELD QUALITY CONTROL

- A. Provide monthly on-site attendance of roofing and insulation manufacturer's representative during installation of this work.

3.06 CLEANING

- A. Remove bituminous markings from finished surfaces.
- B. 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.
- C. Repair or replace defaced or damaged finishes caused by work of this section.

3.07 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

- E. Hem exposed edges on underside 1/2 inch; miter and seam corners.
- F. Form material with batten seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.
- G. Fabricate corners from one piece with minimum 18-inch long legs; seam for rigidity, seal with sealant.
- H. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
- I. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.
- J. Fabricate flashings to allow toe to extend 2 inches over roofing gravel. Return and brake edges.
- K. Fabricate fascia and coping to profiles and coping to profiles and details shown herein and/or as indicated on the drawings. Fabrication to be free of face distortion and oil canning. Fabrication shall not mar the prefinished surfaces of exposed components. Shop form materials in their entirety with only length adjustments and attachments in the field.
 - 1. Contractor's Option: In lieu of shop fabricated fascia, copings and gutter and downspouts as herein identified, provide manufacturer's prefabricated fascia, coping and gutter and downspouts systems produced by:
 - a. Dimensional Metals, Inc
- L. Coat back-side of fabricated sheet metal with 15-mil sulfur-free bituminous coating, ASTM D 4479 Type 1, where required for water-tight construction provide hooked flanges filled with polyisobutylene mastic for 1-inch embedment or flanges. Space joints at intervals of not more than 50 feet for steel, 30 feet for zinc alloy or aluminum. Conceal expansion provisions where possible.

2.04 GUTTERS AND DOWNSPOUTS

- A. Gutters: SMACNA (ASMM) Rectangular profile.
- B. Downspouts: Rectangular profile.
- C. Gutters and Downspouts: Size indicated.
- D. Manufacturer Fabricated: Basis of Design - DMI Metal Continuous Gutter sized to match 100 year storm.
- E. Accessories: Profiled to suit gutters and downspouts.
 - 1. Gutter Supports: Brackets.
 - 2. Downspout Supports: Brackets.
- F. Splash Pads: Precast concrete type, of size and profiles indicated; minimum 3,000 psi at 28 days, with minimum 5 percent air entrainment.
- G. Downspout Boots: Steel.
- H. Downspout Extenders: Same material and finish as downspouts.
- I. Seal metal joints.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.02 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted receivers where indicated true to lines and levels. Seal top of reglets with sealant.