PROJECT MANUAL

Chicago – Milwaukee
Indianapolis – Madison

VARIOUS BUILDINGS
ROOF REPLACEMENTS 2026

For

CITY OF PLATTEVILLE

LOC 5 – STORAGE BUILDING
275 E. Main Street

LOC 6 – MUSEUM ROCK
405 E. Main Street

LEGION PARK:
1155 N. Second St.
- **LOC 9 – WOODWARD FIELD**
- **LOC 10 – CHAMBERLAIN FIELD**
- **LOC 11 – HILL FIELD**
- **LOC 13 – CONCESSIONS**
- **LOC 15 – STORAGE BUILDING**

WESTVIEW PARK
1201 Camp St.
- **LOC 14 – BUILDING SHED**
- **LOC 14 – SHELTER/BOARD**

SYLVIA STREET
890 Valley Rd.
- **LOC 17 – GARAGE**
- **LOC 18 – STORAGE SHED**

SMITH PARK
1-99 Camp St.
- **LOC 24 – SHELTER HOUSE**

VALLEY VIEW PARK
S. Hickory St.
- **LOC 27 – RESTROOMS**
- **LOC 28 – SHELTER HOUSE**

MOUND VIEW PARK
Broadway St.
- **LOC 30 – RESTROOMS/SHOWER**

VALLEY ROAD
S. Hickory St.
- **LOC 31 – SALT SHED**
- **LOC 33 – PUMP HOUSE**
- **LOC 35 – STORAGE BUILDING**

WASTEWATER PLANT
750 Valley Rd.
- **LOC 42 – PLANT**

LOC 48 – MUSEUM HAMMER
385 Main St.

LOC 60 –AIRPORT PICNIC SHELTER
5157 State Rd. 80

LOC 63 – MAUSOLEUM GREENWOOD CEMETARY
Greenwood Ave.

LOC 65 – BUILDING 6 – MUSEUM
50 Cara St.

LOC 71 – PUMP HOUSE
Stevens and N. Water

SWISS VALLEY DOG PARK
Valley Rd
- **LOC 76 – BUILDING 3**
- **LOC 76 – OPEN SHELTER**

WATER PLANT
38 Insight Dr.
- **LOC 77 – BUILDING 3**

HIGHLAND PARK
465 Stevens Ave.
- **LOC 89 – SPECIAL CLASS 9**

JENOR TOWER PARK
130 E. Mineral St.
- **LOC 90 – SPECIAL CLASS 10**
- **LOC 90 – SPECIAL CLASS 12**

BROSKE CENTER
1155 E. Second St.
- **LOC 91 – BUILDING 5 - MAIN BUILDING**
- **LOC 91 – BUILDING 6**
- **LOC 91 – WHITE STORAGE SHED**

Prepared for:

Mr. Howard B. Crofoot
Engineer

City of Platteville
75 N. Bonson St.
Platteville, WI 53818

Issued for bid:

June 15, 2026

Prepared by:

Specialty Engineering Group, LLC
N89w16785 Appleton Avenue, Suite 201
Menomonee Falls, Wisconsin
C: (715) 340-5793
www.str-seg.com

STR-SEG Project # 15934

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STR-SEG

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END OF DOCUMENT

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DOCUMENT 00 11 13
REQUEST FOR BIDS

Advertisement for Bids
Various Buildings Roof Replacements 2026
Contract #23-26
City of Platteville
Grant County, Wisconsin

Bid Opening: Tuesday, July 14, at 10:30 a.m., C.S.T.
The City of Platteville, for this project, will receive bids by sealed paper bids. Sealed paper bids shall be delivered to the Office of the City of Platteville located at 75 N. Bonson Street, Platteville, WI 53818. All bids will be downloaded and publicly read aloud during the public bid opening that will be held at the office of the City of Platteville at the above address.

Description of Work:
The Project consists of roof replacement and associated exterior building envelope repairs at multiple City-owned facilities throughout the City of Platteville:

- Removal and replacement of existing roof and wall coverings including asphalt shingle, metal panel, and low slope single ply systems.
- Installation of architectural asphalt shingles, underlayment systems, flashings, and accessories.
- Installation of exposed fastener metal roof panels, trims, and flashings.
- Installation of adhered insulation and single ply EPDM roof membrane systems.
- Replacement of roof edge metals, fascia trim, gutters, downspouts, ridge vents, ridge caps, hip caps, valley flashings, pipe flashings, wall flashings, and related roofing components.
- Installation of exposed fastener metal wall panels and related trims.
- Replacement of roof flashings, drip edge, fascia trim, ridge components, gutters, and downspouts.
- Alternate bids for prefinished steel roof panel systems at selected locations.
- Related demolition, disposal, and incidental work necessary for a complete installation.

The project includes work at numerous municipal buildings, park facilities, shelters, garages, utility buildings, storage structures, and support facilities located throughout the City of Platteville.

Bidding Documents:
The Issuing Office for the Bidding Documents is **Specialty Engineering Group LLC, N89W16785 Appleton Avenue, Suite 201, Menomonee Falls, WI 53051, (715) 340-5793, Support@str-seg.com**. Contract Documents, including Drawings, Specifications, Bid Forms, and Addenda, may be examined and obtained beginning June 18, 2026 through the City of Platteville Bids and RFPs webpage:

https://www.platteville.org/rfps

Contract Documents may also be examined at the offices of:

City of Platteville
75 North Bonson Street

STR-SEG

Platteville, Wisconsin 53818

Consideration of Bids:

No proposal will be accepted unless accompanied by a certified check or bid bond equal to at least five percent (5%) of the amount bid, payable to the OWNER as a guarantee that, if the bid is accepted, the Bidder will execute and file the proper contract and bond within 15 days after the award of the contract. The certified check or bid bond will be returned to the Bidder as soon as the contract is signed. If after 15 days the Bidder shall fail to do so, the certified check or bid bond shall be forfeited to the OWNER as liquidated damages.

Each Bid shall be accompanied by a Bid Bond or Certified Check payable to the City of Platteville in an amount not less than five percent (5%) of the total bid.

Bids may not be withdrawn within Thirty (30) days after the date of the bid opening. The OWNER reserves the right to increase or decrease the quantity of any item or portion of the work, or to omit portions of the work, as may be deemed necessary by the OWNER, and the same shall in no way affect or make void the contract, except those additions to, or deductions from, the contract price will be appropriately made. The OWNER reserves the right to waive any informalities, or to reject any or all bids, or any part of a bid, and to award the Contract to the Bidder, who in the judgment of the OWNER, will best serve the interest of the OWNER.
A non-mandatory pre-bid conference will be conducted on July 1, 2026 at 10am. Pre-bid conference to begin at the Main Entrance of City Hall located at 75 N Bonson St, Platteville, WI 53818.

Additional Conditions:

The letting of the work described herein is subject to the provisions of Sections 62.15 and 66.0901.
Published by the authority of the City of Platteville.

By: City of Platteville
Howard B. Crofoot, P.E., Director of Public Works
75 N. Bonson Street
Platteville, Wisconsin 53818

Date: June 17, 2026

END OF DOCUMENT

DOCUMENT 00 21 13
INSTRUCTIONS TO BIDDERS

1SUMMARY

1.01 DOCUMENT INCLUDES

A. Invitation.
   1. Bid Submission.
   2. Intent.
   3. Work Identified in the Contract Documents.
   4. Work by Owner.
   5. Contract Time.

B. Bid Documents and Contract Documents.
   1. Definitions.
   2. Contract Documents Identification.
   3. Availability.
   4. Examination.
   5. Inquiries/Addenda.
   6. Contract Form.
   7. Product/Assembly/System Substitutions.

C. Site Assessment.
   1. Site Examination.
   2. Pre-bid Conference.

D. Qualifications.
   1. Evidence of Qualifications.
   2. Subcontractors/Suppliers/Others.

E. Bid Submission.
   1. Submission Procedure.
   2. Bid Ineligibility.
   3. Withdrawal of Bids.

F. Bid Enclosures/Requirements.
   1. Security Deposit.
   2. Performance Assurance.
   3. Insurance.
   4. Bid Form Requirements.
   5. Allowances.
   6. Sales and Use Taxes.
   7. Bid Form Signature.
   8. Additional Bid Information.

G. Offer Acceptance/Rejection.
   1. Duration of Offer.
   2. Acceptance of Offer.

1.02 RELATED DOCUMENTS

A. Document 00 11 13 - Request for Bids.

B. Document 00 31 00 - Available Project Information.
C. Document 00 41 00 - Bid Form.
D. Document 00 43 23 - Alternates Form.
E. Document 00 43 36 - Proposed Subcontractors Form.
F. Document 00 73 00 - Supplementary Conditions.

2INVITATION

2.01 BID SUBMISSION

A. Bids signed and under seal, executed and dated will be received at the office of the Owner before 10:30 a.m., local standard time on July 14, 2026.
B. Offers will be opened publicly after the time for receipt of bids.
C. Amendments to the submitted offer will be permitted if received in writing prior to bid closing and if endorsed by the same party or parties who signed and sealed the offer.

2.02 INTENT

A. The intent of this bid request is to obtain an offer to perform Work to complete a Roof Replacements 2026 and related Work Project located at Various, Platteville, Wisconsin for a Stipulated Sum contract, in accordance with the Contract Documents.

2.03 WORK IDENTIFIED IN THE CONTRACT DOCUMENTS

A. Work of this proposed Contract comprises roof replacements and related Work, including general construction.

2.04 WORK BY OWNER

A. The following Work will be accomplished by Owner or will be let under separate contracts and will not be included under this Contract:
    1. Owner will, under separate contract: perform required sheet metal installations as indicated.

2.05 CONTRACT TIME

A. The bids shall be based on a tentative start date of August 2026, and a Contract substantial completion date of November 2026.

3BID DOCUMENTS AND CONTRACT DOCUMENTS

3.01 DEFINITIONS

A. Bid Documents: Contract Documents supplemented with Request for Bids, Instructions to Bidders, Information Available to Bidders, Bid Form, Supplements to Bid Forms and Appendices identified.
B. Contract Documents: Defined in Divisions: 1, 3, 6, 7, and 8 including issued Addenda.
C. Bid, Offer, or Bidding: Act of submitting an offer under seal.
D. Bid Amount: Monetary sum identified by the Bidder in the Bid Form.

3.02 CONTRACT DOCUMENTS IDENTIFICATION

A. The Contract Documents are identified as Project Number 15934, as prepared by STR-SEG (Specialty Engineering Group, LLC), Consultant, who is located at N89w16785 Appleton Avenue, Suite 201, Menomonee Falls, Wisconsin, and contents as listed in the Table of Contents and List of Drawings.

3.03 AVAILABILITY

A. Bid documents will be provided electronically from Consultant by email request at jenerson@str-seg.com.
B. Bid documents will be distributed electronically by Consultant.
C. Bidders shall be responsible for providing copies of the Bid Documents to any subcontractors.
D. Bid Documents are made available only for the purpose of obtaining offers for this Project. Their use does not grant a license for other purposes or projects.

3.04 EXAMINATION

A. Upon receipt of Bid Documents verify that documents are complete. Notify Consultant should documents be incomplete.

B. Immediately notify Consultant upon finding discrepancies or omissions in Bid Documents.

3.05 INQUIRIES/ADDENDA

A. Questions or requests for clarification by bidders must be submitted in writing not less than 5-days before date set for receipt of bids.

1. Direct questions to Jarred Enerson, by email: jenerson@str-seg.com.
2. Verbal answers are not binding on any party.

B. If a change to the specifications or Contract Drawings is deemed necessary, Consultant will issue an Addendum, a copy of which will be forwarded to Bidders of Record.

C. Addenda become part of Contract Documents. Include resultant costs in bid Amount.

3.06 CONTRACT FORM

A. A copy of the contract into which successful bidder will be required to enter is AIA A101. If Contractors are unaware of the conditions of the Contract they are requested to direct any questions to Consultant, by e-mail: support@str-seg.com.

3.07 PRODUCT/ASSEMBLY/SYSTEM SUBSTITUTIONS

A. Where Bid Documents stipulate a particular product, substitutions, if allowed by the technical sections, will be considered up to 5-days before receipt of bids.

1. The submission shall provide sufficient information to determine acceptability of such products.
2. Provide complete information on required revisions to other work to accommodate each proposed substitution.

B. When a request to substitute a product is made, Consultant may approve the substitution; if acceptable, Consultant will issue an Addendum to known bidders.

C. In submission of substitutions to products specified, bidders shall include in their bid all changes required in Work and changes to Contract Time and Contract Sum to accommodate such substitutions.

D. A later claim by the bidder for an addition to the Contract Time or Contract Sum because of changes in Work necessitated by use of substitutions shall not be considered.

E. The submission shall provide sufficient information to determine acceptability of such products.

F. Provide products as specified unless substitutions are submitted in this manner and accepted.

G. Provide complete information on required revisions to other Work to accommodate each proposed substitution.

H. See *Section 01 60 00 - "Product Requirements"* for additional requirements.

4SITE ASSESSMENT

4.01 SITE EXAMINATION

A. Examine Project site before submitting a bid.

B. Bidders shall be responsible for examining Project site to obtain essential knowledge of existing conditions for comparison with Contract Documents provided.

C. Bidder shall be solely responsible for verification of existing field measurements and conditions; no additional cost will be approved for conditions that could reasonably be determined at the time of bidding.

4.02 PREBID CONFERENCE

A. A non-mandatory bidder's conference has been scheduled for 10:00 a.m. on July 1, 2026 at City of Platteville City Hall, located at 75 N. Bonson Street, Platteville, WI 53818, meet at the west side main entrance, followed by a tour of the various Project sites.

B. General contract bidders and suppliers are invited.

C. Representatives of Owner and Consultant will be in attendance.

D. Information relevant to Bid Documents will be recorded in an Addendum, issued to Bidders of Record.

5QUALIFICATIONS

5.01 EVIDENCE OF QUALIFICATIONS

A. To demonstrate qualification for performing Work of this Contract, bidders may be requested to submit written evidence of financial position and license to perform work in the State of Wisconsin.

5.02 SUBCONTRACTORS/SUPPLIERS/OTHERS

A. Owner reserves the right to reject a proposed subcontractor or supplier for reasonable cause.

1. If a reasonable and substantial objection exists, and Owner refuses in writing to accept such person or organization, Bidder may, at their option, withdraw their Bid without forfeiture of Bid Security, or may submit an acceptable substitute (along with any corresponding adjustment to their Bid price).

B. Bidder shall provide a list of all subcontractors intended to be utilized in the execution of the contract.

6BID SUBMISSION

6.01 SUBMISSION PROCEDURE

A. Bidders shall be solely responsible for the delivery of their bids in the manner and time prescribed.

A. Submit bids to party listed in 2.01 A of this document.

6.02 BID INELIGIBILITY

A. Bids that are unsigned, improperly signed or sealed, conditional, illegible, obscure, contain arithmetical errors, erasures, alterations, or irregularities of any kind, may at the discretion of Owner, be declared unacceptable.

B. Bid Forms, Appendices and enclosures that are improperly prepared may, at the discretion of Owner, be declared unacceptable.

6.03 WITHDRAWAL OF BIDS

A. Bids may be withdrawn, by written request received from Bidder or an authorized representative of Bidder, prior to the time fixed for opening of bids, without prejudice to the right of Bidder to file a new bid. Withdrawn bids will be returned unopened.

B. Negligence on the part of bidder in preparing bids confers no right for withdrawal of bid after it has been opened.

7BID ENCLOSURES/REQUIREMENTS

7.01 SECURITY DEPOSIT

A. A Bid Bond of a sum of no less than 5 percent of Bid Amount.

7.02 PERFORMANCE ASSURANCE

A. Accepted Bidder: Provide a 100 percent Performance and Payment bond. Include the cost of performance assurance bonds in Bid Amount and identify the cost when requested.

7.03 INSURANCE

A. Provide an executed "Undertaking of Insurance" on a standard form provided by the insurance company stating their intention to provide insurance to the bidder in accordance with the insurance requirements of the Contract Documents.

7.04 BID FORM REQUIREMENTS

A. Fully complete requested information in Bid Form and Appendices.

7.05 ALLOWANCES

A. No Allowances are included with this Project.

7.06 BID FORM SIGNATURE

A. Bid Form shall be signed by bidder, as follows:

1. Sole Proprietorship: Signature of sole proprietor in the presence of a witness who will also sign. Insert the words “Sole Proprietor” under the signature. Affix seal.
2. Partnership: Signature of all partners in the presence of a witness who will also sign. Insert the word “Partner” under each signature. Affix seal to each signature.
3. Corporation: Signature of a duly authorized signing officer(s) in their normal signatures. Insert the officer’s capacity in which the signing officer acts, under each signature. Affix the corporate seal. If bid is signed by officials other than the president and secretary of the company, the president/secretary/treasurer of the company, a copy of the by-law resolution of their board of directors authorizing them to do so, also must be submitted with Bid Form in bid envelope.
4. Joint Venture: Each party of the joint venture shall execute Bid Form under their respective seals in a manner appropriate to such party as described above, similar to the requirements of a partnership.

7.07 ADDITIONAL BID INFORMATION

A. Submit, concurrent with bid submission the supplements as listed on bid form.

8OFFER ACCEPTANCE/REJECTION

8.01 DURATION OF OFFER

A. Bids shall remain open to acceptance and shall be irrevocable for a period of 30-days after bid closing date.

8.02 ACCEPTANCE OF OFFER

A. Owner reserves the right to accept or reject any or all offers.

END OF DOCUMENT

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DOCUMENT 00 31 00
AVAILABLE PROJECT INFORMATION

1PART 1 - GENERAL

1.01 EXISTING CONDITIONS

A. Certain information relating to existing surface and subsurface conditions and structures is hereby available to Bidders, but will not be part of Contract Documents, as follows:

B. Verify existing roof conditions on-site at time of pre-bid conference.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF DOCUMENT

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STR-SEG

DOCUMENT 00 41 00
BID FORM

1THE PROJECT AND THE PARTIES

1.01 TO:

A. City of Platteville
B. Mr. Howard B. Crofoot
C. 75 N. Bonson St.
D. Platteville, WI 53818

1.02 FOR:

A. Various Buildings - Roof Replacements 2026
B. STR-SEG (Specialty Engineering Group, LLC)

1.03 DATE: _____ (BIDDER TO ENTER DATE)

1.04 SUBMITTED BY: (BIDDER TO ENTER NAME AND ADDRESS)

A. Bidder's Full Name: _____

1. Address: _____
2. City, State, Zip: _____
3. Phone: _____
4. E-mail Address: _____

1.05 OFFERS

A. **BASE BID:** Having examined the Place of Work and matters referred to in the Instructions to Bidders and the Contract Documents prepared by STR-SEG for the above-mentioned Project, we, the undersigned, hereby offer to enter into a Contract to perform Work for the Sum of:

B. _____

_____ dollars

($_____), in lawful money of the United States of America.

C. We have included the required security deposit as required in Document 00 21 00 - “Instructions to Bidders”.

D. All applicable federal taxes are included, and State of Wisconsin taxes are excluded in the Bid Sum.

1.06 ACCEPTANCE

A. This offer shall be open to acceptance and are irrevocable for 30-days from Bid closing date.

B. If this Bid is accepted by Owner within the time period stated above, we will:

1. Execute the Agreement within 7-days of receipt acceptance of this Bid.

1.07 CONTRACT TIME

A. Completion Date: Contractor to provide schedule with Bid. Assuming a start on or before August 2026 we propose the following schedule, exclusive of weather.

B. If this Bid is accepted, we will substantially complete Work no later than November 2026.

1.08 CHANGES TO THE WORK

A. When Owner and Consultant establish that the method of valuation for Changes in Work will be net cost plus a percentage fee in accordance with General Conditions, our percentage fee will be:

1. _____ percent overhead and profit on the net cost of our own Work;

2. _____ percent on the cost of work done by any Subcontractor.

B. When Consultant establishes that the method of valuation of changes in Work will be an hourly fee in accordance with General Conditions, our hourly fee will be:

1. _____ $ per man-hour.

2. _____ percent mark-up on materials.

1.09 ADDENDA

A. The following Addenda have been received. The modifications to the Bid Documents noted below have been considered and all costs are included in the Bid Sum.

1. Addendum # _____ Dated _____.

2. Addendum # _____ Dated _____.

1.10 BID FORM SUPPLEMENTS

A. The following Supplements are attached to this Bid Form and are considered an integral part of this Bid Form:

1. The necessary Bid Bond, as specified in *Document 00 21 13 - "Instructions to Bidders".*

2. *Document 00 43 23 - "Alternates":* Indicate cost adjustments to the Base Bid.

3. *Document 00 43 36 - "Proposed Subcontractors Form":* Include the names of subcontractors and the portions of Work they will perform.

4. A copy of the Bidder's current certificate of insurance.

5. Current rate sheet covering all applicable personnel and equipment, including material purchase price mark-up.

6. Proposed Project Schedule identifying anticipated sequence of work and estimated construction duration for each building/location..

1.11 BID FORM SIGNATURE(S)

A. The Corporate Seal of:

B. _____

C. (Bidder - print the full name of your firm)

D. was hereunto affixed in the presence of:

E. _____

F. (Signature) (Corporate Seal)

G. _____

H. (Printed Name and Title)

I. _____

J. (Signature) (Printed Name and Title)

1.12 IF BID IS A JOINT VENTURE OR PARTNERSHIP, ADD ADDITIONAL FORMS OF EXECUTION FOR EACH MEMBER OF THE JOINT VENTURE IN THE APPROPRIATE FORM OR FORMS AS ABOVE.

END OF DOCUMENT

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STR-SEG

DOCUMENT 00 43 23
ALTERNATES FORM

1PARTICULARS

1.01 The following is the list of Alternatives referenced in the bid submitted by:

1.02 _____

(BIDDER)

1.03 TO: City of Platteville

(OWNER)

1.04 DATED _____ **and which is an integral part of Bid Form.**

2ALTERNATIVES

2.01 The following amounts shall be added to, or deducted from, Bid Amount. Refer to *Section 01 23 00 - "Alternates"*: Schedule of Alternates.

2.02 ALTERNATIVE No. 1: In lieu of asphalt shingles, provide 'R'-panel roof panels, where indicated, as specified herein.

A. LOC 9 Special Class 3: Legion Park - Woodward Field

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

B. LOC 10 Special Class 3: Legion Park - Chamberlain Field

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

C. LOC 11 Special Class 3: Legion Park - Hill Field

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

D. LOC 13 Bldg: Legion Field-Concession Stand/Restroom

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

E. LOC 14 Special Class 12: Westview Park

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

F. LOC 15 Building 3 : Legion Park – Storage Building

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

G. LOC 17 Building 3: Sylvia St.

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

H. LOC 18 Building 5: Sylvia St.

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

I. LOC 24 Building 8: Smith Park - Stone Shelter

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

J. LOC 27 Building 3 – Valley View Park

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

K. LOC 28 Building 3: Valley View Park-Shelter House

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

L. LOC 30 Building 5 - Mound View Park

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

M. LOC 33 Building 3 - Valley Rd - Water Plant

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

N. LOC 71 Building 3 - Pump House

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

O. LOC 76 Building 3 – Swiss Valley Dog Park

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

P. LOC 76 Swiss Valley Dog Park – Open shelter

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

Q. LOC 89 Special Class 9 – Highland Park

[ADD] [DEDUCT] **$** _____
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

R. LOC 90 Special Class 10 - Jenor Tower Park

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

S. LOC 90 Special Class 12 - Jenor Tower Park

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

T. LOC 91– Broske Center - White Storage Shed

[ADD] [DEDUCT] **$ _____**
(BIDDER TO CIRCLE ONE)

_____ dollars
(written)

3ACCEPTANCE OF OWNER

3.01 The numerical order of listing these Alternates may, but does not necessarily, imply their priority. Owner may decide to accept any one, or more, or none of the items listed.

END OF FORM

STR-SEG

DOCUMENT 00 43 27

SEPARATE PRICES BREAK-OUT FORM

1PARTICULARS

1.01 THE FOLLOWING IS THE LIST OF SEPARATE PRICES REFERENCED IN BID SUBMITTED BY:

1.02 _____ (BIDDER)

A. **TO**: City of Platteville **(OWNER)**

1.03 DATED _____ AND WHICH IS AN INTEGRAL PART OF BID FORM.

2ITEM DESCRIPTIONS.

2.01 ITEM NO. 1:

A. Description: LOC 5 Building 6: Storage Garage

B. Value: $ _____

2.02 ITEM NO. 2:

A. Description: LOC 6 Buildng 3: Rock School

B. Value: $ _____

2.03 ITEM NO. 3:

A. Description: LOC 9 Special Class 3: Legion Park - Woodward Field

B. Value: $ _____

2.04 ITEM NO. 4:

A. Description: LOC 10 Special Class 3: Legion Park - Chamberlain Field

B. Value: $ _____

2.05 ITEM NO. 5:

A. Description: LOC 11 Special Class 3: Legion Park - Hill Field

B. Value: $ _____

2.06 ITEM NO. 6:

A. Description: LOC 13 Bldg: Legion Field-Concession Stand/Restroom

B. Value: $ _____

2.07 ITEM NO. 7:

A. Description: LOC 14 Special Class 11: Westview Park

B. Value: $ _____

2.08 ITEM NO. 8:

A. Description: LOC 14 Special Class 12: Westview Park

B. Value: $ _____

2.09 ITEM NO. 9:

A. Description: LOC 15 Building 3 : Legion Park – Storage Building

B. Value: $ _____

2.10 ITEM NO. 10:

A. Description: LOC 17 Building 3: Sylvia St.

B. Value: $ _____

2.11 ITEM NO. 11:

A. Description: LOC 18 Building 5: Sylvia St.

B. Value: $ _____

2.12 ITEM NO. 12:

A. Description: LOC 24 Building 8: Smith Park - Stone Shelter

B. Value: $ _____

2.13 ITEM NO. 13:

A. Description: LOC 27 Building 3 – Valley View Park – Restrooms

B. Value: $ _____

2.14 ITEM NO. 14:

A. Description: LOC 28 Building 3: Valley View Park-Shelter House

B. Value: $ _____

2.15 ITEM NO. 15:

A. Description: LOC 30 Building 5 - Mound View Park

B. Value: $ _____

2.16 ITEM NO. 16:

A. Description: LOC 31 Building 3 - Valley Rd - Water Plant

B. Value: $ _____

2.17 ITEM NO. 17:

A. Description: LOC 33 Building 3 - Valley Rd - Water Plant

B. Value: $ _____

2.18 ITEM NO. 18:

A. Description: LOC 35 Building 3 - Valley Rd - Water Plant

B. Value: $ _____

2.19 ITEM NO. 19:

A. Description: LOC 42 Building 5 - Valley Rd - Water Plant

B. Value: $ _____

2.20 ITEM NO. 20:

A. Description: LOC 48 Building 7 – Museum Hammer

B. Value: $ _____

2.21 ITEM NO. 21:

A. Description: LOC 60 Building 3 – Airport Picnic Shelter

B. Value: $ _____

2.22 ITEM NO. 22:

A. Description: LOC 63 Platteville – Greenwood Cemetary

B. Value: $ _____

2.23 ITEM NO. 23:

A. Description: LOC 65 Building 6 – Museum

B. Value: $ _____

2.24 ITEM NO. 24:

A. Description: LOC 71 Building 3 - Pump House

B. Value: $ _____

2.25 ITEM NO. 25:

A. Description: LOC 76 Building 3 – Swiss Valley Dog Park

B. Value: $ _____

2.26 ITEM NO. 26:

A. Description: LOC 76 Building 3 – Swiss Valley Dog Park – Open Shelter

B. Value: $ _____

2.27 ITEM NO. 27:

A. Description: LOC 77 Building 3 – Water Plant

B. Value: $ _____

2.28 ITEM NO. 28:

A. Description: LOC 89 Special Class 9 – Highland Park

B. Value: $ _____

2.29 ITEM NO. 29:

A. Description: LOC 90 Special Class 10 - Jenor Tower Park

B. Value: $ _____

2.30 ITEM NO. 30:

A. Description: LOC 90 Special Class 12 - Jenor Tower Park

B. Value: $ _____

2.31 ITEM NO. 31:

A. Description: LOC 91– Broske Center – Main Building

B. Value: $ _____

2.32 ITEM NO. 32:

A. Description: LOC 91– Broske Center – Building 6

B. Value: $ _____

2.33 ITEM NO. 33:

A. Description: LOC 91– Broske Center - White Storage Shed and Gambrel

B. Value: $ _____

END OF DOCUMENT

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STR-SEG

DOCUMENT 00 43 36

PROPOSED SUBCONTRACTORS FORM

1PARTICULARS

1.01 Herewith is the List of Subcontractors referenced in bid submitted by:

1.02 (BIDDER) _____

1.03 TO: (OWNER) CITY OF PLATTEVILLE

A. The following Work will be performed (or provided) by Subcontractors and coordinated by us:

2LIST OF SUBCONTRACTORS

2.01 WORK SUBJECT _____

A. SUBCONTRACTOR NAME _____

B. ADDRESS _____

C. PHONE-FAX-EMAIL _____

2.02 WORK SUBJECT _____

A. SUBCONTRACTOR NAME _____

B. ADDRESS _____

C. PHONE-FAX-EMAIL _____

2.03 WORK SUBJECT _____

A. SUBCONTRACTOR NAME _____

B. ADDRESS _____

C. PHONE-FAX-EMAIL _____

2.04 WORK SUBJECT _____

A. SUBCONTRACTOR NAME _____

B. ADDRESS _____

C. PHONE-FAX-EMAIL _____

3ACCEPTANCE OF SUBCONTRACTORS

3.01 If Owner has a reasonable and substantial objection to any Subcontractor on this list, and refuses, in writing, to accept such person or organization, bidder may, at their option, withdraw their bid, or submit an acceptable substitute, with any adjustment to their bid price occasioned by such substitution, for Owner's consideration.

END OF DOCUMENT

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STR-SEG

DOCUMENT 00 50 00
CONTRACTING FORMS AND SUPPLEMENTS

1PART 1 - GENERAL

1.01 REFERENCES

A. AIA, The American Institute of Architects.

1. In an effort to reduce the number of printable pages in the bid package, these documents are included by reference only, in their entirety.
2. If your firm or insurance company requires a copy of these documents for review, please contact Consultant via email at support@str-seg.com.

B. MRCA, Midwest Roofing Contractors Association, Inc.

1.02 AGREEMENT AND CONDITIONS OF THE CONTRACT

A. Agreement form is AIA A101.

B. General Conditions are AIA A201.

C. Refer to *Document 00 73 00 - "Supplementary Conditions"* for amendments to General Conditions.

1.03 FORMS

A. Use the following forms for the specified purposes unless otherwise indicated elsewhere in the Contract Documents.

1. Change Order Form: AIA G701.
2. Application for Payment Form: AIA G702 and G703.

1.04 REFERENCE STANDARDS

A. AIA A101 - Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum; 2017.

B. AIA A201 - General Conditions of the Contract for Construction; 2017.

C. AIA G701 - Change Order; 2017.

D. AIA G702 - Application and Certificate for Payment; 1992.

E. AIA G703 - Continuation Sheet; 1992.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF SECTION

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STR-SEG

DOCUMENT 00 60 00
PROJECT FORMS

1PART 1 - GENERAL

1.01 PROJECT DESCRIPTION

A. 15934 VARIOUS BUILDINGS - ROOF REPLACEMENTS 2026

1.02 ATTACHED AFTER THIS SECTION

A. ANSI/SPRI IA-1 - Standard Field Test Procedure for Determining the Uplift Resistance of Insulation and Insulation Adhesives over Various Substrates; 2021.

B. ANSI/SPRI GT-1 - Test Standard For External Gutter Systems.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF DOCUMENT

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ANSI/SPRI IA-1 2021

Standard Field Test Procedure for Verifying the Suitability of Roof Substrates and Adhesives

Approved May 12, 2021

465 Waverley Oaks Road
Suite 421
Waltham, MA 02452

www.spri.org.

Disclaimer

This standard is for use by architects, engineers, roofing contractors and owners of low slope roofing systems. SPRI, its members and employees do not warrant that this standard is proper and applicable under all conditions.

Table of Contents

Approved May 12, 2021

1.0 Introduction

This standard specifies a field test procedure to verify the suitability of an existing roof substrate or roof assembly, and adhesive combination. The results generated from these tests provide the roof system manufacturer, design professional, and other interested parties with information necessary to determine if a substrate is compatible with the proposed adhesive. This testing procedure encompasses various types of insulation adhesives and substrates. (See Commentary 1.0)

2.0 Definitions

All words defined within this section are italicized throughout the standard.

2.1 Tare weight

The sum of the weights of all items used to connect the test sample to the load cell. Common items include, but are not limited to, plywood, *attachment plate*, fasteners, chain or rod, etc.

2.2 Substrate

The surface upon which the insulation is adhered.

2.3 Attachment Plate

A component of the testing equipment designed to facilitate the attachment of the test sample to the load applying device.

3.0 Equipment

3.1 Use a portable pull testing instrument capable of measuring pound force (lbf) or kilonewtons (kN) to an accuracy of ± 5 lbf (.0222 kN) (See Commentary 3.0). The instrument shall display the instantaneous load value achieved during a test pull. If the instrument reads in units other than pound force (lbf), the reading shall be converted to pound force (lbf).

3.2 The instrument shall have a dated calibration certificate showing the calibrated values for the full range of the load instrument. It shall be calibrated every 12 months or sooner if there is reason to suspect that it might be out of tolerance. Calibration shall be performed to a standard that is traceable to a nationally recognized source (ex: ANSI/NCSL Z540-1-1994).

4.0 Test Procedure

4.1 The test sample shall include the following components of the proposed new roof assembly: (See Figure A for an example of a test cross-section. See Commentary 4.1)

4.1.1 *Substrate*: Bare deck or existing roofing system (recover).

4.1.2 Vapor or air retarder if part of the design.

4.1.3 First insulation layer or cover board.

4.1.4 Attachment assembly.

4.2 The sample size shall be either 24 in. × 24 in. (610 mm × 610 mm) or 12 in. × 12 in. (305 mm × 305 mm). The insulation adhesive shall be applied according to the adhesive manufacturer's specifications. Application of ribbon applied adhesive shall be applied equidistantly from the centerline of the test specimen (See Figures B and C). Any excess adhesive (overspray) that falls outside the sample area shall be cut away and removed from the test sample to ensure the results are not skewed. Any adhesive ribbons applied along the outside edge of the test sample shall be omitted from the test sample. (See Commentary 4.2)

4.3 The area chosen for the test shall be prepared in the same manner as proposed for the new roofing system's assembly.

4.4 When the roofing project requires a tear-off of the existing roof assembly, the existing roofing materials shall be removed, exposing the *substrate* to be adhered to for the test.

4.5 This test shall not be performed when the *substrate* temperature is below freezing. (See Commentary 4.5)

Approved May 12, 2021

4.6 A test sample sized piece of CDX grade plywood (24 in. × 24 in. or 12 in. × 12 in.), minimum $\frac{23}{32}$ in. (18.2 mm) thick, shall be adhered to the top of the insulation or cover-board with an appropriate bonding agent (could be insulation adhesive) following the bonding agents' manufacturer's specifications. The weight shall be measured and recorded for inclusion in the *tare weight* calculation.

4.6.1 If alternate means or material is selected for *attachment plate* it shall be sufficient to exceed the expected maximum performance of the assembly. The *attachment plate* selected shall be noted in the test report.

4.7 Means shall be provided to attach the plywood, (or other as appropriate), to the pull-test instrument sufficient to exceed the maximum limit of the pull tester load cell.

4.8 The assembly shall be allowed to cure at least the minimum time specified by the insulation adhesive manufacturer and a maximum of 28 days before the pull test is conducted.

4.9 When testing adhesive bond to an existing roof for a recover application cut a 2 in. (51 mm) to 3 in. (76 mm) wide strip through the roof assembly down to the roof deck around the outside edge of the test sample. Do not stand on the sample while cutting it and avoid walking on it. Remove the cut strip material. (See Commentary 4.9)

4.10 The pull-test instrument shall then be connected to the *attachment plate*.

4.11 The load shall be applied perpendicularly to the roof deck as follows:

4.11.1 For test samples 24 in. × 24 in. in size the test shall begin at a load of 120 lbf. (.5338 kN) plus the *tare weight*. For test samples 12 in. × 12 in. in size the test shall begin at a load of 30 lbf. (.1334 kN) plus the *tare weight*.

4.11.2 Hold each incremental load for 60 seconds (including the first). For test samples 24 in. × 24 in. in size increase the load in 60 lbf. (.2669 kN) increments. For test samples 12 in. × 12 in. in size increase the load in 15 lbf. (.0667 kN) increments. Continue until failure occurs.

4.11.3 Failure occurs when any component of the assembly loses connection to itself or subsequent components. Failure modes are described in 4.14. (See Commentary 4.11.3)

4.11.4 The maximum load value maintained for 60 seconds shall be recorded and converted to pounds per square foot (psf.) using a form similar to the form shown in Appendix A.

4.11.5 Perform a minimum of 4 pull tests for the first 50,000 square feet (4,650 square meters), and 2 additional pull tests for each additional 50,000 square feet (4,650 square meters) or portion thereof on each project. Test locations shall be selected in the corner and perimeter areas if conditions can not be replicated in the field of the roof. The tests shall not be performed in close proximity to one another to provide a representation of the entire roof area. Special caution and fall protection shall be implemented when testing in corner and perimeter areas. (See Commentary 4.11.5)

4.11.5.1 Deviation from the prescribed minimum number of uplift resistance tests shall be allowed when agreed upon by all involved parties. Deviations shall be recorded using Form C or comparable document. (See Commentary 4.11.5.1)

4.12 Each roof section with a different elevation, a different *substrate*, or a different surface condition shall be considered as an independent roof, and shall be tested independent of other roof sections in a manner consistent with 4.11.

4.13 The report shall include a roof plan identifying the location of each pull test. The roof plan shall be marked with the corresponding test number of each test sample. The plan need not be to scale.

4.14 Pull test readings and modes of failure (See Commentary C4.14) shall be recorded for each roof section. Some examples of failure modes are:

4.14.1 Adhesive from *substrate*: Loss of adhesive bond from *substrate*.

4.14.2 Cohesive: Fracture of adhesive structure.

4.14.3 Insulation delamination: Facer separation from insulation core.

4.14.4 Insulation core fracture: Structural break-up of insulation core.

4.14.5 Insulation facer delamination: Facer separation from itself.

4.14.6 Deck failure: Structural breakup or delamination of roof deck.

4.14.7 Vapor barrier failure: Vapor barrier releases from *substrate*.

4.14.8 Existing roof delamination: Existing roof assembly separates from *substrate* or from itself.

4.14.9 Fixture failure: Fixturing (*attachment plate*) used to test sample separates from sample.

4.15 The actual instrument readings reflect the *tare weight* plus the pounds of force (lbf) resisted by the tested assembly. Actual pressure calculations shall be made by subtracting the *tare weight* from the instrument reading and dividing that number by the total area of the sample size tested. (a 24 in. × 24 in. test sample = 4 ft^2 [0.37 m^2]); (See Commentary 4.15)

4.16 Precision and Bias

There is not enough data available to establish precision and bias.

Commentary to Standard Field Test Procedure for Determining the Uplift Resistance of Insulation and Insulation Adhesives over Various Substrates

This Commentary is not a part of the Standard Field Test Procedure for Determining the Uplift Resistance of Insulation and Insulation Adhesives over Various Substrates.

This Commentary consists of explanatory and supplementary material designed to assist the users in complying with the requirements. It is intended to create an understanding of the requirements through brief explanations of the reasoning employed in arriving at these requirements or to provide clarifications. The information contained in this Commentary is not part of this American National Standard (ANS) and has not been processed in accordance with ANSI's requirements for an ANS. As such, Commentary may contain material that has not been subjected to public review or a consensus process. In addition, it does not contain requirements necessary for conformance with this standard.

The sections of the Commentary are numbered to correspond to the sections of the standard to which they refer. Since it is not necessary to have supplementary material for every section in the standard itself, there may be gaps in the numbering in the Commentary.

C1.0 Introduction

This testing procedure is not applicable to ballasted roofs or existing roof assemblies containing mechanically fastened insulation, base sheets, or roof covers. This test method does not evaluate the securement of an existing roof deck.

C3.0 Equipment

The load cell, test frame, and any other applicable test equipment should have load capacities that exceed the anticipated uplift loads or requirements.

C4.1 Test Area

Perform the test in areas where damaged is suspected or where water or other chemicals have infiltrated the roof system causing the roof deck or other components to deteriorate and cause lower pull values.

C4.2 Adhesive Application

When applying adhesive for test sample construction, care should be taken to follow the adhesive manufacturers specifications regarding ribbon width, ribbon spacing, board lay in time, and cure time. Adhesive ribbon spacing should not exceed test sample width.

C4.5 Temperature of Test

Consult the insulation adhesive manufacturer concerning the application temperature limitations of the adhesive. Certain deck types (gypsum, cementitious wood fiber, or lightweight insulating concrete) may be affected by free water. Pull values obtained over decks in a frozen state may be elevated and therefore unreliable.

C4.9 Care should be taken not to disturb the test specimen.

C4.11.3 Determination of Failure

Failure occurs at the substrate/first layer intersection or any other subsequent adhered intersections. It also occurs within the insulation itself, such as the facer lifting off or the core separating, or failure of the substrate. Separation of the test specimen from the plywood is not considered a failure of the adhesive. Record the value, as it may exceed the design value for the specific project.

C4.11.5 Use the lowest test value as the ultimate load resistance value unless it is shown to be an anomaly. Perform additional pull tests beyond the minimum number required under certain circumstances. These include, but are not limited to, occasions when:

- pull values vary significantly.
- tests are performed in decks that are inherently less consistent such as existing roof cover, lightweight insulating concrete, cementitious wood fiber, and gypsum;.
- there exist multiple damaged or questionable areas.
- local building codes require additional tests.
- failure occurs at connection of test apparatus to plywood, but below required values.

If there are anomalies in pull values, the substrate should be inspected by a qualified professional to determine the cause.

C4.11.5.1 Pull Test Deviation

Circumstances may arise where the minimum prescribed pulls may not be possible or necessary. These may include but aren't limited to: inclement weather, equipment malfunction, or interested parties not requiring the minimum number of tests. For these circumstances, a deviation can be signed-off by said parties (Form B or comparable document).

C4.14 Failure Mode Images

Images of the failed test samples should be captured for record keeping and reporting purposes. When reporting electronically, a copy of those sample failure mode images should be attached to the report.

C4.15 The actual instrument readings reflect the tare weight plus the pounds (lbf) of force resisted by the tested assembly. Actual pressure calculations are made by subtracting the tare weight from the instrument reading and dividing that number by the total area of the sample size tested.

For example: On a 24 in. × 24 in. (610 mm × 610 mm) (4 ft^2) sample, if the tare weight is 10 lbs (0.0445 kN) and the instrument reading is 1030 lbs. (4.581 kN), the calculated uplift resistance of the assembly is (1030 lbs–10 lbs) / 4 ft^2 = 255 psf (4.581 kN–0.0445 kN) / 0.3716 m^2 = 12.21 KPA)

Personnel

A person who has been trained in the pull test procedure should perform the tests. A representative of the building owner should be present to witness the tests and verify the values. A roofing professional should also be present to repair the test areas and return the roof area to a watertight condition.

Cautions

See Commentary C4.5

Deck Loading

This test does not indicate the ability of the roof deck or the proposed roofing assembly to withstand the uplift loads calculated by this procedure. A structural engineer or roofing design professional should obtain this information.

Figure A
Cross Section of Assembly

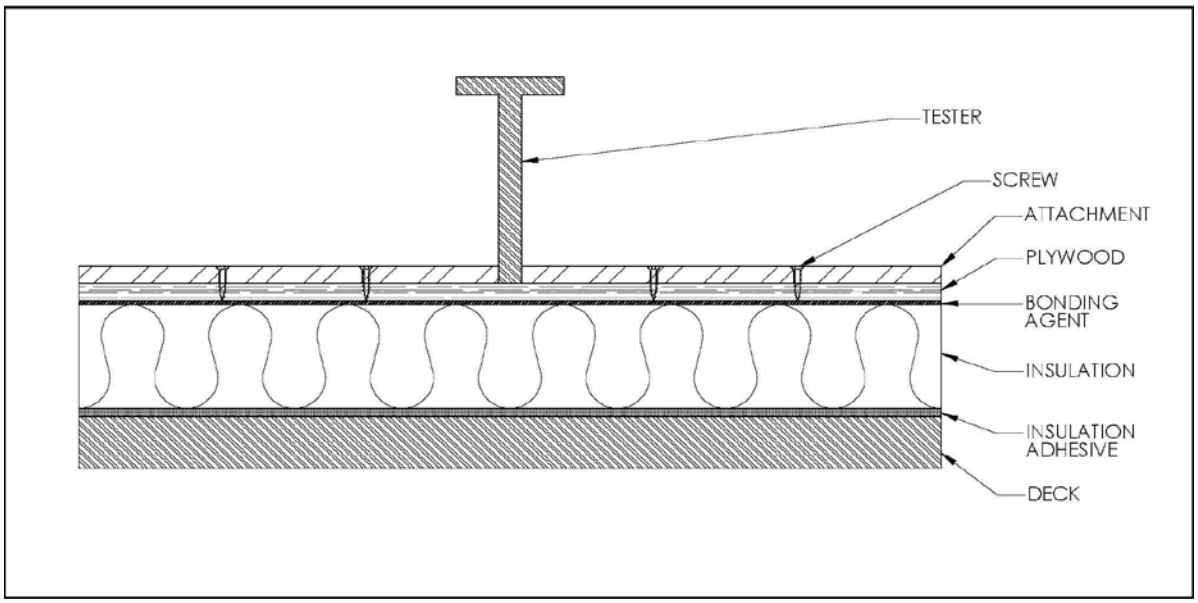


Figure B
Bead Placement Examples for 24" × 24" sample size

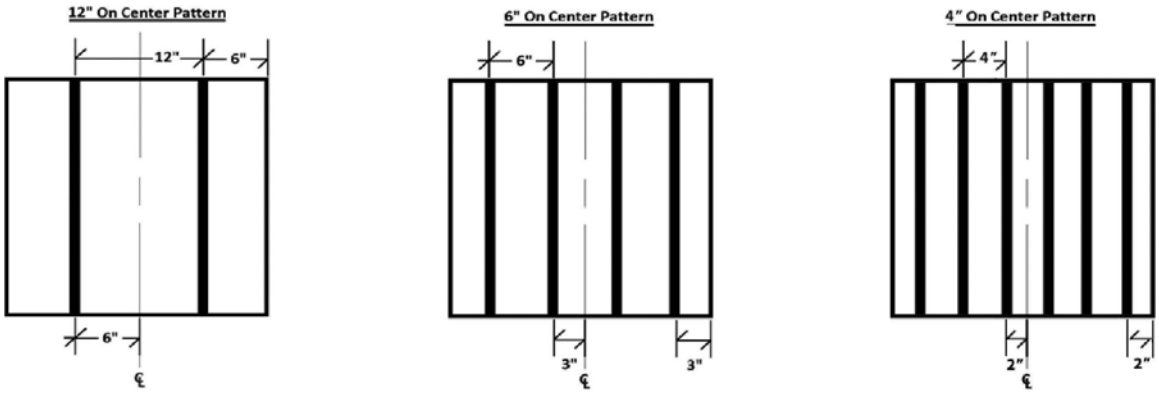
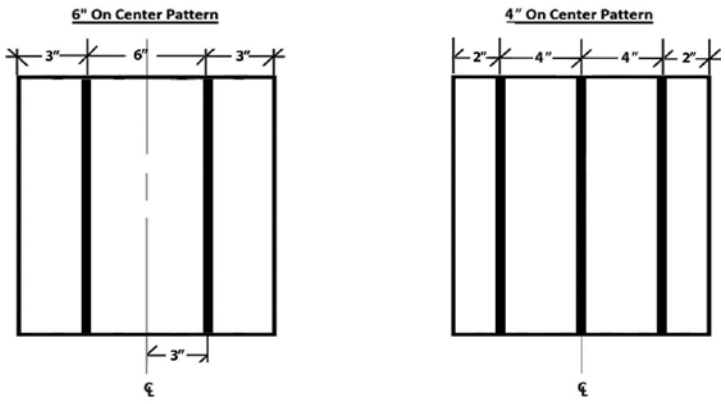


Figure C
Bead Placement Examples for 12" × 12" sample size



Appendix A
Insulation Test Report

The following three pages contain Forms A, B and C. These forms or similar ones shall be used to report Mechanical Uplift Resistance of Insulation Adhesives test results.

Insulation Adhesive Test Report

Form A

Job Name		
Test Date	Location	
Ambient Temp	Roof Area ft² (m²)	
Tester Mfgr/Model	Max. Cap. Of Tester Check One: ☐ lbf ☐ kN	
Date of Last Calibration	Number of Tests Recorded on Form C	
Insulation Manufacturer	Insulation Type	Insulation Thickness
Adhesive Manufacturer	Adhesive Type	
Test Performed by	Witnessed by	
Test Cut Areas Repaired by	Project Type: ☐ New Construction ☐ Tear-Off ☐ Retrofit	

Deck type

☐ Steel
Gauge: _____

☐ Structural Concrete
Thickness: _____
Check One: ☐ Poured in place ☐ Precast

☐ Lightweight Concrete
Thickness: _____

☐ Insulating Concrete
Thickness: _____

☐ Cementitious Wood Fiber
Thickness: _____

☐ Gypsum
Thickness: _____
Check One: ☐ Poured In Place ☐ Precast

☐ Wood
Thickness: _____
Check One: ☐ OSB ☐ Plywood ☐ Plank

☐ Fiberglass
Thickness: _____

☐ Other: _____
Thickness: _____

Optional Information

Test Time: _____

Building Height: _____

Thickness of Existing Roof Assembly: _____

New Roofing System Manufacturer: _____

Roof Cover Type (Check One):

☐ Mechanically Attached Single-ply

☐ Modified Bitumen

☐ Ballasted Single-ply

☐ Built-up Roofing

☐ Fully Adhered Single-ply

☐ Other: _____

Disclaimer: Manufacturer's installation requirements shall be followed when using any of the tested adhesives. Neither the technician performing the pullout test nor his/her company is responsible for the waterproofing integrity of the repairs. This test report does not certify the structural integrity of the roof deck.

Insulation Adhesive Test Report

Form B

Job Name
Test Date

Roof Plan (Not to Scale)

Identify where tests were performed, showing corresponding test number from Form C

Insulation Adhesive Test Report

Form C

(Refer To the “Standard Field Test Procedure for Determining the Mechanical Uplift Resistance of Insulation Adhesives over Various Substrates” for full documentation)

Job Name
Test Date

❶ Tare Weight _____

A	B	C	D	E	F
Test no.	**Location on roof** (Roof plan on form B)	**Measurement pounds force (lbf) (kN) ❷**	**Less Tare ❸ = ❷–❶ lbf (kN)**	**Resistance ❹ = ❸ ÷ 4.0 test sample area (24"×24"** (610 mm × 610 mm) **Sample size area = 4ft²)**	**Failure mode**
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Comments
Deviation from standard procedure authorized by:
Reason for deviation:

ANSI/SPRI GT-1

Test Standard for Gutter Systems

Approved May 26, 2016

Table of Contents

465 Waverley Oaks Road
Suite 421
Waltham, MA 02452

www.spri.org.

Disclaimer

This standard is for use by architects, engineers, roofing contractors and building owners when designing, installing or evaluating a building's gutter system. SPRI, its members and employees do not warrant that this standard is proper and/or applicable under all conditions.

1.0 Purpose (See Commentary C1.0)

This standard provides methodology for the testing of *Gutters*. This standard is applicable to all material types and installation methods of low slope roofs.

2.0 Scope (See Commentary C2.0)

2.1 This standard specifies a laboratory method for static testing external *Gutters*. Testing of gutters with a circular cross-section is not addressed in this standard.

2.2 This standard does not address water removal or the water-carrying capability of the *Gutter*. Downspouts and leaders are not included in the scope of this standard.

3.0 Definitions (See Commentary C3.0)

3.1 *Fastener:* A device appropriate to attach the *Gutter*, *Gutter Strap* or *Gutter Bracket* to the building substrate. See Commentary C3.1.

3.2 *Gutter*: Generally U-shaped channel for collecting roof water and leading it to an *Outlet*.

3.3 *Gutter Bracket*: A device that supports a *Gutter* from underneath.

3.4 *Gutter Strap*: A device that helps support a *Gutter* from the top.

3.5 *Gutter System*: A system consisting of *Gutter*, *Gutter Straps*, *Gutter Brackets*, Joints, *Fasteners* and Roof Flange.

3.6 *Leading Edge*: The point on the *Gutter* furthest from the building at which the bottom of the *Gutter* (typically horizontal) transitions to the face (typically more vertical).

3.7 *Nailer:* A longitudinal wooden member attached to building structure that provides a substrate for fastening gutters. See Commentary C3.7.

3.8 *Outlet:* An opening in a *Gutter* that allows water discharge.

3.9 *Upper Leading Edge*: The point on the *Gutter* furthest from the building at the top of the *Gutter* frequently called the lip, and where a *Gutter Strap* is secured.

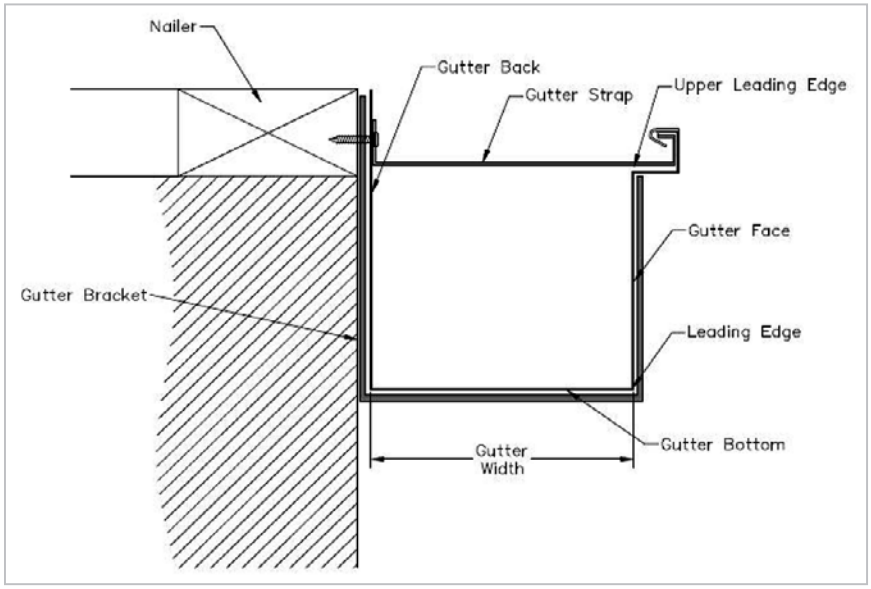


Figure 1. Gutter Components

4.0 Test Requirements

The *Gutter* shall be tested to withstand wind and environmental loads due to the weight of water, ice and snow.

4.1 Wind Load

Test shall demonstrate *Gutter* will resist wind loads calculated per code for the project.

4.2 Water, Ice, and Snow Load

Test shall demonstrate *Gutter System* will resist loads of water, ice, and snow calculated per code for the project.

4.3 Wind Resistance of Gutter Systems

The *Gutter System* shall be tested using SPRI Test G-1 for resistance to outward (horizontal) loads and using SPRI Test G-2 for upward (vertical) loads. Test results shall meet or exceed design wind pressures required by the Authority Having Jurisdiction (AHJ).

4.4 Securement

The *Gutter System* shall be secured to a substrate, (e.g. *Nailer*) that provides resistance equal to or greater than that of the *Gutter* as determined by SPRI Tests G-1, G-2 and G-3.

4.5 Labeling and Packaging

Each section of a GT-1 tested *Gutter System*, which is 8 ft-0 in (2.4 m) or longer, shall be permanently labeled, e.g. “GT-1 tested”, and packaging shall contain written documentation that identifies the components which have been tested according to the ANSI/SPRI Test Standard for Gutter Systems. Documentation, in the form of printed product literature, shall be available to the building owner or owner’s representative.

5.0 SPRI Test Method G-1 & G-2

Gutter Systems shall be tested in accordance with SPRI G-1, G-2 and G-3. Test G-1 measures the resistance of the *Gutter System* to test forces acting outwardly (away from the building.) Test G-2 measures the resistance of the *Gutter System* to test forces acting upwardly tending to lift the *Gutter* off the building. Test G-3 measures the resistance of the *Gutter System* to test forces acting downwardly.

ANSI approved
May 26, 2016

5.1 Wind Load Testing

5.1.1 Apparatus

The description of the apparatus is general in nature. Any equipment capable of performing the test procedure within ±5% of measured load shall be acceptable. Calibration of test apparatus shall be verified annually by an independent third party. A schematic drawing of this apparatus is shown in Figures 2 and 3. The test apparatus shall be constructed so that the performance of individual components are unaffected by edge or end constraints on the test sample, which are not components of the installed *Gutter System*.

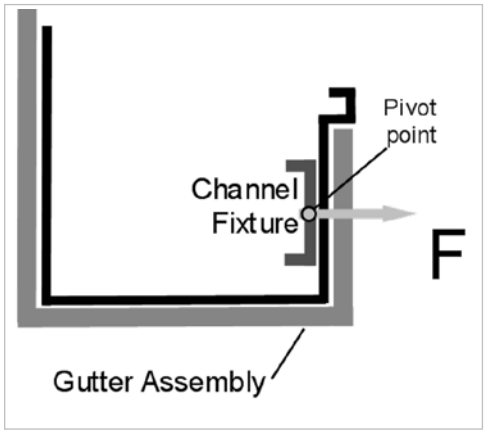


Figure 2. Test Set-up for SPRI Test G-1

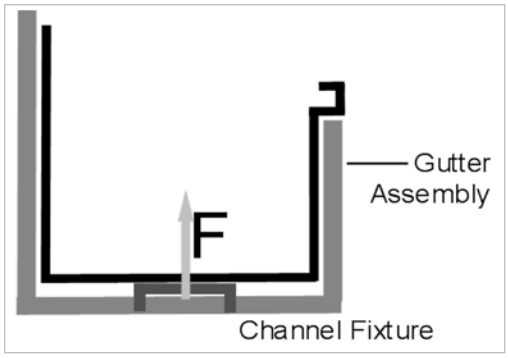


Figure 3. Test Set-up for SPRI Test G-2

5.1.2 Safety Precautions

Proper precautions shall be taken to protect the operating personnel and observers in case of any failure.

5.1.3 Test Specimens

All *Gutter Straps*, *Gutter Brackets* and *Fasteners* of the test specimen shall be identical to the standard fabricated product except that *Gutter* length shall be minimum 8 ft (2.4 m) and maximum 12 ft (3.7 m).

5.1.4 Procedure

Separate tests shall be performed independently, pulling outward (horizontally) and upward (vertically).

SPRI Test G-1: Horizontal Test
A continuous 0.5 in x 1 in x 0.5 in x 0.125 in (12 mm x 25 mm x 12 mm x 3 mm) steel channel shall be fitted behind the face of the *Gutter*. Rods, chains or cables shall be attached to the continuous steel channel on maximum 12-inch (300 mm) centers, each penetrating the *Gutter* face on vertical centerline of the *Gutter* face, and attached to load cells. Fixture shall be free to pivot to conform to the slope of the face where the load is applied. Care shall be taken to avoid penetration at a *Gutter Bracket* location. See Figure 2 and refer to Figure 1.

SPRI Test G-2: Vertical Test
If the *Gutter System* does not have *Gutter Brackets* a continuous 0.5 in x 1 in x 0.5 in x 0.125 in (12 mm x 25 mm x 12 mm x 3 mm) steel channel shall be fitted under the base of the *Gutter* assembly. If the *Gutter System* does have *Gutter Brackets* intermittent channel sections shall be placed between the *Gutter Brackets* or alternate method shall be used to apply test load to *Gutter* and not to *Gutter Brackets*. The length of the intermittent channels shall be such that the ends of the channel are 1 in (25 mm) or less from the edges of the *Gutter Brackets*. Rods or cables shall be attached on maximum 12-inch (300 mm) centers to the steel channel or channels, each penetrating the *Gutter* bottom, half-way between the back and the *Leading Edge* of the *Gutter*, and attached to load cells. See Figure 3 and refer to Figure 1.

5.1.5 Gravity
Any influence from gravity that does not occur in the field shall be omitted from the test. If the test specimen is inverted, a gravity correction shall be made in the determination of the allowable superimposed loading.

5.1.6 Stabilization (See Commentary C5.1.6)
Stabilization of the test shall be when the loaded surface ceases to show movement.

5.1.7 Loading (See Commentary C5.1.7)
Loading shall be applied uniformly on the horizontal centerline of the face (G-1) or bottom (G-2) of the *Gutter* on centers no greater than 12 in (300 mm). Loads shall be applied at a rate which achieves full load as described below. Loads shall be applied incrementally and held for not less than 60 seconds after stabilization has been achieved at each incremental load. Between incremental loads, the loading shall be reduced to zero until the specimen stabilizes, or for five minutes, whichever happens first. After the recovery period, initiate the next higher incremental load. Loading to the face or bottom of the *Gutter System* shall be applied in increments not to exceed 15 lbs/lf (22.3 kg/m) until approximately 60 lbs/lf (89.2 kg/m) are obtained. Thereafter, increments of load shall not exceed 5 lbs/lf (7.4 kg/m). Loading speed shall be such that each incremental load up to and including 60 lb/ft (89.2 kg/m) shall be achieved in 5–60 seconds. Above 60 lbs/lf (89.2 kg/m) incremental loading shall be achieved in 5–120 seconds.

Loading shall proceed as indicated above until the test specimen either fails or exceeds the required design pressure. The last sustained 60-second load without failure is the maximum test load recorded as the test value.

5.1.8 Failure (See Commentary C5.1.8)
Failure shall be either loss of securement of any component of the *Gutter System* or permanent deformation of the *Gutter* measured as a permanent stretching, in any direction, of the *Upper Leading Edge* of the *Gutter* by more than 25% of the distance between that edge and the back of the *Gutter*.

5.1.9 Test Results

The highest load held without failure shall be recorded and summed for a total force measurement.

For SPRI Test G-1, this total load shall be used to calculate the pressure by dividing the total force by the area of the *Gutter* face:

$$\text{Pressure} = \frac{\text{Load}}{\text{Face Height} \times \text{Length}}$$

Load is in Pounds (N) and is the sum of the readings on the load cells. Height is the *Gutter* face height in feet (m), and pressure is in lbf/ft^2. (kPa). If test results exceed the design outward wind pressure, the *Gutter System* has acceptable outward wind resistance.

For SPRI Test G-2, this total load shall be used to calculate the pressure by dividing the total load by the total width of the *Gutter*:

$$\text{Pressure} = \frac{\text{Load}}{\text{Gutter Width} \times \text{Length}}$$

Gutter Width is the full *Gutter* width from back to *Leading Edge* in feet (meter) [ft (m)]. See Figure 4.

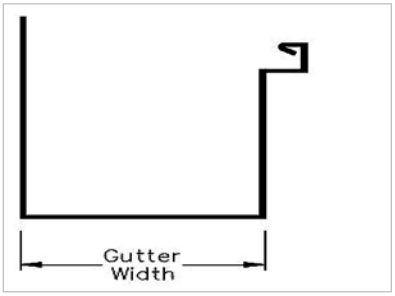


Figure 4. Gutter Width

5.1.10 Precision and Bias (See Commentary C5.1.10)

The precision and bias of this test measure has not been determined.

6.0 SPRI Test Method G-3

Water, Ice, and Snow Load Test for *Gutter*

6.1 Water, Ice, and Snow Loads

6.1.1 Apparatus

This description of the apparatus is general in nature. Any equipment capable of performing the test procedure within ±5% of measured load shall be acceptable. A schematic drawing of this apparatus is shown in Figure 5. The test apparatus shall be constructed so that the performance of individual components are unaffected by edge or end constraints on the test sample.

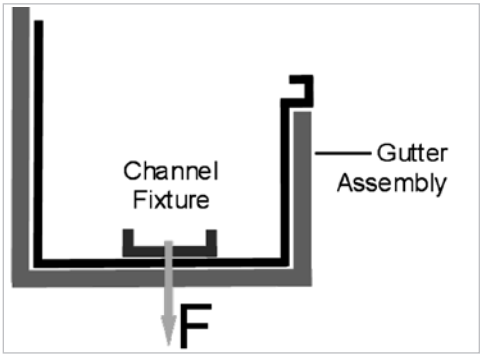


Figure 5. Test Set-up for SPRI Test G-3

6.1.2 Safety Precautions
Proper precautions shall be taken to protect the operating personnel and observers in case of any failure.

6.1.3 Test Specimens
All *Gutter Straps*, *Gutter Brackets* and *Fasteners* of the test specimen shall be identical to the standard fabricated product except that *Gutter* length shall be minimum 8 ft (2.4 m) and maximum 12 ft (3.7 m).

6.1.4 Procedure
A continuous 0.5 in x 1 in x 0.5 in x 0.125 in (12 mm x 25 mm x 12 mm x 3 mm) steel channel shall be fitted above the bottom of the *Gutter*. Rods or cables shall be attached to the continuous steel channel on maximum 12 in (300 mm) centers, each penetrating the *Gutter* bottom, half-way between the back and the *Leading Edge* of the *Gutter*, and attached to force gauges. Care shall be taken to avoid penetration at a *Gutter Bracket* location.

6.1.5 Gravity
Any influence from gravity that does not occur in the field shall be omitted from the test. If the test specimen is inverted, a gravity correction shall be made in the determination of the allowable superimposed loading.

6.1.6 Loading (See Commentary C6.1.6)
Loading shall be applied uniformly on the centerline of the bottom (G-2) of the *Gutter* on centers no greater than 12 in (300 mm). Loads shall be applied at a rate which achieves full incremental load as described below. Loads shall be applied incrementally and held for not less than 60 seconds after stabilization has been achieved at each incremental load. Between incremental loads, the loading shall be reduced to zero until the specimen stabilizes, or for five minutes, whichever happens first. After the recovery period, initiate the next higher incremental load. Loading to the bottom of the *Gutter System* shall be applied in increments not to exceed 15 lbs/lf until approximately 60 lbs/lf are obtained. Thereafter, increments of load shall not exceed 5 lbs/lf. Loading speed shall be such that each incremental load up to and including 60 lb/ft shall be achieved in 5–60 seconds. Above 60 lbs/lf incremental loading shall be achieved in 5–120 seconds.

Loading shall proceed as indicated until the test specimen either fails or exceeds the required design load. The increments of load application, as detailed above, shall be applied so that a sufficient number of observations are made to determine the exact load at failure. The last sustained 60-second load without failure is the maximum test load recorded as the test value.

6.1.7 Failure (See Commentary C6.1.7)
Failure shall be either loss of securement of any component of the *Gutter System* or permanent deformation of the *Gutter* measured as a permanent stretching, in any direction, of the *Upper Leading Edge* of the *Gutter* by more than 10% of the distance between that edge and the back of the *Gutter*.

6.1.8 Test Results

The highest load tested shall be recorded and summed for a total force measurement. This total force shall be used to calculate unit load by dividing the force by the length of the *Gutter* sample:

$$F_W = \frac{\text{Load}}{\text{Length}}$$

Force is in Pounds Force (Newtons) and is the sum of the readings on the load cells. Length is the test sample length in feet (m) and F_W is in Pounds per Foot (Newtons per Meter). If the maximum test load exceeds the design load, the *Gutter System* has acceptable resistance to water, ice, and snow load.

6.1.9 Precision and Bias (See Commentary C6.1.9)

The precision and bias of this test measure has not been determined.

7.0 Test Reporting

A report shall be prepared for all GT-1 tested *Gutter Systems* describing the product tested and the maximum test load applied for each test method.

7.1 Product Description

Test report shall accurately describe the *Gutter System* tested including: *Gutter* sectional dimensions; *Gutter* length; *Gutter* material and gauge; *Gutter Strap* and *Gutter Bracket* material, gauge, size, and spacing; fastener type, material, size, and spacing.

7.2 G-1 Test Results

Record the maximum horizontal load in pounds per square foot that the *Gutter System* resisted before failure or completion of test.

7.3 G-2 Test Results

Record the maximum vertical load in pounds per square foot that the *Gutter System* resisted before failure or completion of test.

7.4 G-3 Test Results

Record the maximum vertical downward load in pounds per lineal foot that the *Gutter System* resisted before failure or completion of test.

Commentary

This Commentary consists of explanatory and supplementary material designed to help in applying the requirements of the preceding Standard.

This Commentary is intended to create an understanding of the requirements through brief explanations of the reasoning employed in arriving at these requirements.

The sections of this Commentary are numbered to correspond to sections of the Standard to which they refer. Since having comments for every section of the Standard is not necessary, not all section numbers appear in this Commentary.

C1.0 Purpose

Studies of the aftermaths of Hurricanes Frances and Ivan in the fall of 2003 revealed a need for better *Gutter Systems*. SPRI developed this Standard in response to those studies.

C2.0 Scope

While the Standard is intended as a reference for designers, manufacturers, and roofing contractors, the design responsibility rests with the “designer of record.”

Installation requirements include installing a system that is tested in accordance with G-1, G-2 and G-3 to resist the loads determined in accordance with the adopted codes. Testing requirements apply to the specific design of the system being installed

This standard is to determine load resistances of tested *Gutter Systems*. Design load calculation and application of a safety factor is not included in this standard. Load resistance determined by tests G-1, G-2, and G-3 should be greater than design load, including safety factor, required by applicable code for the building on which the *Gutter System* is to be installed.

C3.0 Definitions

Terms defined in this section appear capitalized and in *italic print* throughout this document.

C3.1 Fastener

The building substrate to which the fastener is attached may be any material that is structurally secure and capable of providing required pull-out and shear resistance for fastener used.

C3.7 Nailer

Wooden Nailers are a common substrate to which *Gutter Systems* are attached; however, other substrates, e.g. metal and masonry, that are structurally secured are also acceptable attachment points for *Gutters*.

C5.1.6 Stabilization

Stabilization is necessary during loading to ensure that the specimen has reached equilibrium before recording a sustained load for a period of 60 seconds. As the specimen approaches its ultimate capacity, stabilization of the specimen will generally take longer to achieve.

C5.1.7 & C6.1.6 Loading

These test methods consist of applying loads on surfaces of a test specimen and observing deformations and the nature of any failures of principal or critical elements of the *Gutter System*. Static loads are applied to simulate the dynamic loading of the members.

A recovery period between increases in incremental loading is to allow the test specimen to attempt to assume its original shape prior to applying the next load level.

The rate of sustained loading can be a critical issue when subjecting specimens to continuously increasing load until failure is achieved. Loading rate has little meaning in these tests because these methods employ incrementally increased loads sustained for relatively long times followed by brief recovery periods. This incremental method is more stringent than continuous loading because of the requirement of holding a load for 60 seconds.

The Standard requires full-length specimens because end conditions of discreet sections of *Gutter Systems* can play a profound role in the failure mode of the materials. However, due to test apparatus limitations, when full length specimens exceed 12 ft-0 (2.4 m) in a maximum test specimen length of 12 ft-0 in (2.4 m) is permitted. Regardless of the test specimen length additional end restraints, which are not part of the installed *Gutter System*, shall not be included in the test.

C5.1.8 & C6.1.7

Failure

Some examples of component failure that will not enable the *Gutter System* to perform as designed would be:

- Full Fastener pullout;
- Collapse of a *Gutter Bracket* or *Gutter Strap*; and
- Disengagement of any component.

C5.1.10 & C6.1.9

Precision and Bias

These tests are new and to date, no studies of their precision and bias exist. In the absence of third party witness testing/verification, the GT-1 committee recommends round robin testing standard, pre-manufactured gutter systems to establish lab to lab variability of individual results.

STR-SEG

DOCUMENT 00 73 00
SUPPLEMENTARY CONDITIONS

1PART 1 - GENERAL

1.01 SUMMARY

A. These Supplementary Conditions amend and supplement the General Conditions and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.

B. The terms used in these Supplementary Conditions that are defined in the General Conditions have the meanings assigned to them in the General Conditions.

1.02 RELATED SECTIONS

A. Document 00 50 00 - Contracting Forms and Supplements.

B. Section 01 42 16 - Definitions.

1.03 MODIFICATIONS TO GENERAL CONDITIONS

A. The Supplementary General Conditions applicable to this contract (2 pages) are attached and follow this page.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF DOCUMENT

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STR-SEG

SUPPLEMENTARY GENERAL CONDITIONS TO AIA A201-2017

The following supplements modify, change, delete from or add to "General Conditions of the Contract for Construction", AIA Document A201-2017. Where an Article, Paragraph, Subparagraph or Clause of General Conditions is modified or deleted by Supplementary Conditions, unaltered provisions of that Article, Paragraph, Subparagraph or Clause shall remain in effect.

4Article 1 – General Provisions

1.7 Delete the second sentence in its entirety.

1.8 Delete entire paragraph.

5Article 4 – Architect

4 Change the name of article to "CONSULTANT". "Architect" or "Engineer" when used in Contract Documents shall be substituted with "Consultant", regardless of modifiers or possessive use, unless specifically indicated to be employed by the Contractor.

4.1.1 Delete subparagraph and substitute as follows: "Consultant" is the Roof Consulting firm identified in the Bidding Documents and Agreement form for project, or the authorized representative thereof.

6Article 9 – Payments and Completion

9.7 Delete entire paragraph.

9.8.1 Delete entire subparagraph and substitute as follows: "Substantial Completion is the stage in the progress of the Work when the Project is complete and ready for Final Review, including sheet metal work."

9.8.2 Delete entire subparagraph and substitute as follows: "Contractor shall notify the Consultant, in writing, that the Project is Substantially Complete and ready for Final Review."

9.8.3 Delete entire subparagraph.

9.8.4 Delete entire subparagraph.

9.8.5 Delete entire subparagraph.

9.9 Delete entire paragraph and subparagraphs.

Article 11 – Insurance and Bonds

11.1.1 Add, to the end of this paragraph, the following sentence and underlying subparagraphs:

"Specific lines of coverage and minimum limits of liability to be provided by Contractor shall include the following:

.1 Comprehensive General Liability

.a including:
Premises / Operations;
Underground, Explosion, Collapse
Products / Completed Operations
Contractual
Independent Contractors
Owner/Contractor Protective
Broad Form Property Damage
Personal Injury (Employment Exclusion deleted)

.b Combined single limits for bodily injury and property damage:
Each Occurrence: **$ 1,000,000**
General Aggregate: **$ 2,000,000**

.c Products and Completed Operations to be maintained for one year after final payment.

.2 Comprehensive Automobile Liability:

.a Including owned, hired, and non-owned vehicles; or, if there are no owned vehicles, Contractor may provide written certification of such and provide coverage limited to hired and non-owned vehicles.

.b Bodily injury and property damage combined single limits:
Each Occurrence: **$ 1,000,000**

.3 Workers Compensation and Employer's Liability, (without restriction as to whether covered by Workmen's Compensation law):

.a Workers Compensation: according to statute
.b Employer's Liability: **$ 500,000**

.4 Umbrella Excess Liability:

.a Each Occurrence: **$ 5,000,000**
.b General Aggregate: **$ 5,000,000"**

11.2.1 Delete entire paragraph and substitute as follows:" The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance."

11.2.2 Delete entire paragraph.

11.2.3 Delete entire paragraph.

11.3 Delete entire section and underlying paragraphs.

11.4 Delete entire section and underlying paragraph.

11.5 Delete entire section and underlying paragraphs.

Article 15 – Claims and Disputes

15.1.2 Delete the last phrase of the first sentence, end sentence with the words "applicable law".

- END -

STR-SEG

SECTION 01 10 00

SUMMARY OF WORK

1PART 1 - GENERAL

1.01 PROJECT DESCRIPTION

A. Project Name: Various Buildings - Roof Replacements 2026.

B. Owner's Name: City of Platteville.

C. Consultant's Name: STR-SEG (Specialty Engineering Group, LLC).

D. In general, the Project **Base Bid** consists of:

1. LOC 5; LOC 9; LOC 10; LOC 11; LOC 13; LOC 14; LOC 15; LOC 17; LOC 18; LOC 24; LOC 27; LOC 28; LOC 30; LOC 31; LOC 33; LOC 48; LOC 71; LOC 76 (Open Shelter and Building 3); LOC 89; LOC 90 (Class 10 and Class 12);
    a. Removal and legal disposal of existing asphalt shingles, underlayment and related sheet metal flashings, down to existing wood deck;
    b. Careful removal of satellite dish from LOC 30, for re-installation;
    c. Carefully working around existing ligh tfixture at LOC 31;
    d. Careful removal of antenna support at LOC 71, for re-installation;
    e. Providing synthetic underlayment;
    f. Providing asphalt shingles;
    g. Providing non-vented ridge cap;
    h. Providing sheet metal flashings and related Work.
2. LOC 35 – Building 3:
    a. Remove and legally disposal of metal roof and polycarbonate ridge cap, down to existing wood purlins and related sheet metal flashings;
    b. Removal of and safely storing existing lightning components, for re-installation;
    c. Providing ‘R’ roof -panels;
    d. Providing translucent ridge cap;
    e. Providing steel gable, eave and sidewall head flashings;
    f. Providing gutters and downspouts;
    g. Providing ‘R’-wall panels;
    h. Providing sheet metal flashings and related Work.
3. LOC 42 – Building 5:
    a. Roof Areas 1, 2, 3, 4, 6, 8, 9, 10, and 11:
        1) Removal and legal disposal of existing asphalt shingles, underlayment and related sheet metal flashings, down to existing wood deck;
        2) Providing synthetic underlayment;
        3) Providing asphalt shingles;
        4) Providing non-vented ridge cap;
        5) Providing sheet metal flashings and related Work.
    b. Roof Area 12:
        1) Removal and legal disposal of existing ballasted EPDM roof membrane, underlayment and related sheet metal flashings, down to existing wood deck;
        2) Providing tapered polyisocyanurate insulation;
        3) Providing 60-mil fully-adhered EPDM single-ply roof membrane;

4) Providing reinforced perimeter strips;
5) Providing concrete pavers as indicated on Contract Drawings;
6) Providing sheet metal flashings and related Work.

4. LOC 60 - Building 3:
   a. Removal and legal disposal of existing fascia trim; shingles and drip edge to remain;
   b. Providing fascia trim and related Work.
   c. Excerise caution around nested birds inside open shelter;
5. LOC 63:
   a. Removal and legal disposal of existing thermoplastic roof membrane, insulation, and related sheet metal flashing, down to existing concrete deck;
   b. Providing 1.5-inch polyisocyanurate insulation, adhered;
   c. Providing fully-adhere Ethylene-Propylene-Diene Terpolymer;
   d. Providing reinforced perimeter strips at base tie-ins;
   e. Extending flashings over existing stone copings;
   f. Providing pre-finished coping over existing stone coping at rake ends;
   g. Providing wood nailer at concrete deck, extending membrane over nailer and down face;
   h. Providing sheet metal flashings and related Work.
6. LOC 65 – Building 6:
   a. Removal and legal disposal of existing asphalt shingles, underlayment and related sheet metal flashings, down to existing wood deck;
   b. Providing asphalt shingles;
   c. Providing sheet metal edge trim and related Work.
7. LOC 77:
   a. Removal and legal disposal of existing skylight dome, asphalt shingles, underlayment, gutters, downspouts and other related sheet metal flashings, down to existing wood deck;
   b. Providing synthetic underlayment;
   c. Providing asphalt shingles;
   d. Providing non-vented ridge cap;
   e. Providing acrylic skylight over existing curb;
   f. Providing gutters, downspouts and other sheet metal flashings and related Work;
      1) Gutters at north elevation to be connected to existing underground storm water system.
8. LOC 91:
   a. Building 5:
      1) Removal and legal disposal of existing ‘R’-panel siding segments at north and west elevations;
      2) Removal of adjacent trims as needed, and storing for re-installation;
      3) Providing ‘R’-panel wall panels to match existing;
      4) Re-installing adjacent trims and closure strips.
   b. Building 6:
      1) Removal and disposal of existing standing seam panels and underlayment, down to existing wood deck;
      2) Removal of gable ridge and eave trims;
      3) Removal, and safely storing of gutters and downspouts, for re-installation;

4) Existing fascia trim to remain;
5) Providing synthetic underlayment;
6) Providing 'R' roof -panels;
7) Providing non-vented ridge cap;
8) Providing sheet metal flashings and related Work.
9) Re-installaing gutters and downspouts.

c. White Storage Building:
1) Removal and legal disposal of existing asphalt shingles, underlayment and related sheet metal flashings, down to existing wood deck;
2) Removal and legal disposal of existing gable ridge and eave trims;
3) Providing synthetic underlayment;
4) Providing asphalt shingles;
5) Providing non-vented ridge cap;
6) Providing sheet metal flashings and related Work.

d. Tan Gambrel Shed:
1) Removal and legal disposal of existing 'R'-panels and underlayment, down to existing wood deck;
2) Removal and legal disposal of existing gable ridge and eave trims;
3) Providing synthetic underlayment;
4) Providing 'R' roof -panels;
5) Providing non-vented ridge cap;
6) Providing sheet metal flashings and related Work.
7) Providing closure strip at panel edges;
8) Providing gable ridge, edging and other related flashings

E. If accepted by Owner, **Alternate No. 1**, consists of:
1. LOC 5; LOC 9; LOC 10; LOC 11; LOC 13; LOC 14 (Special Class 12); LOC 15; LOC 17; LOC 18; LOC 24; LOC 27; LOC 28; LOC 30; LOC 33; LOC 71; LOC 76; LOC 89; LOC 90 (special Class 10 and Special Class 12); LOC 91;
a. In lieu of asphalt shingles provide 'R'-Panel, as indicated on Contract Drawings;
b. Providing sheet metal flashings and related Work;
c. Providing gable end and eave flashings;
d. Providing fascia trim at eave and rake at LOC 91.

1.02 CONTRACT DESCRIPTION

A. Contract Type: One single prime contract based on a Stipulated Price, as described in the Contract Documents, at the discretion of Owner.

1.03 OWNER OCCUPANCY

A. Owner intends to continue to occupy the existing building during entire construction period.
B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
C. Schedule Work to accommodate Owner's access and occupancy.

1.04 CONTRACTOR USE OF SITE AND PREMISES

A. Arrange use of site and premises to allow:
1. Owner occupancy.
2. Work by Others.

3. Work by Owner.
4. Use of site and premises by the public, where applicable.

B. Provide access to and from site as required by law and by Owner:
1. Emergency Building Exits During Construction: Keep exits required by code open and unobstructed 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. No smoking allowed on premises.

D. Provide access to project area by exterior means.

E. Staging of materials will be permitted only in area(s) where Work is being constructed.
1. Any equipment or dumpsters present must be clearly protected by cones or barrels.

F. Time Restrictions and Schedule:
1. Work is intended to commence on or after TBD, and is intended to be Substantially Complete no later than TBD, or as otherwise accepted by Owner per Contractor's submitted schedule.
2. Work may be performed Monday through Friday from 7:00 a.m. to 5:00 p.m., which shall be considered regular work hours.
a. Exception: Ballast roofing materials may be performed Monday through Friday from 7:00 a.m. to 5:00 p.m..

G. Site drives and parking areas shall remain open at all times, providing the necessary traffic control; refer to *Section 01 50 00 - "Temporary Facilities and Controls".*

1.05 WORK BY OWNER

A. Installation of gutters and downspouts, where indicated.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Schedule of Values.

B. Applications for Progress Payments.

C. Modification Procedures.

D. Application for Final Payment.

1.02 RELATED REQUIREMENTS

A. Section 01 23 00 - Alternates.

1.03 SCHEDULE OF VALUES

A. Submit AIA form G703 - Continuation Sheet.

1. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Consultant for approval.
2. Forms filled out by hand will not be accepted.

B. Revise schedule to list approved Change Orders, with each Application for Payment.

C. Schedule of Values shall include:

1. Building / Location Name.
2. Building Name.
3. Contract Value Allocated to Each Building..
4. Value of Alternates Accepted by Owner.

1.04 APPLICATIONS FOR PROGRESS PAYMENTS

A. Payment Period: Submit at intervals stipulated in the Agreement.

B. Submit AIA form G702 - Application and Certificate for Payment.

1. Electronic media printout including equivalent information will be considered in lieu of standard form specified; submit sample to Consultant for approval.
2. A retainage equaling a contractually stipulated percentage of the requested amount shall be withheld on each progress payment.
3. Forms filled out by hand will not be accepted.

C. For each item, provide a column for listing each of the following:

1. Item Number.
2. Description of Work.
3. Scheduled Values.
4. Previous Applications.
5. Work in Place and Stored Materials under this Application.
6. Authorized Change Orders.
7. Total Completed and Stored to Date of Application.
8. Percentage of Completion.
9. Balance to Finish.
10. Retainage.

D. Submit updated progress schedule.

E. Submit Contractor's invoice.

F. Execute certification by signature of authorized officer.

G. Submit electronic copies of each Application for Payment.

1. Provide partial waivers of lien, including those from subcontractors, material suppliers or other parties who may have lien rights.

H. Consultant will certify Applications for Payments as a representation that Work has progressed to the point indicated and, that to the best of their knowledge, information and belief, the quality of Work is in accordance with the requirements of Contract Documents.

1.05 MODIFICATION PROCEDURES

A. For minor changes not involving an adjustment to the Contract Price or Contract Time, Consultant will issue instructions directly to Contractor.

B. For other required changes, Consultant will issue a document signed by Owner instructing Contractor to proceed with the change, for subsequent inclusion in a Change Order.

1. The document will describe the required changes and will designate method of determining any change in Contract Price or Contract Time.

2. Promptly execute the change.

C. For changes for which advance pricing is desired, Consultant will issue a document that includes a detailed description of a proposed change with supplementary or revised Contract Drawings and specifications.

1. Prepare and submit a fixed price quotation within 5-days.

2. Proposed cost shall include furnishing labor, materials and equipment necessary to perform Work as described, as well as applicable costs, expenses, profit, overhead, applicable taxes and fees.

3. Indicate any change in Contract Time for executing the change, with a stipulation of any overtime work required and the period of time during which the requested price will be considered valid.

D. Computation of Change in Contract Amount: As specified in the Agreement and Conditions of the Contract.

E. Substantiation of Costs: Provide full information required for evaluation.

1. For time and material (T&M) work, submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Support each claim for additional costs with additional information:

a. Origin and date of claim.

b. Dates and times work was performed, and by whom.

c. Time records and wage rates paid.

d. Invoices and receipts for products, equipment, and subcontracts, similarly documented.

F. Execution of Change Orders: Submit Changes on AIA G701 Change Order form for signatures of parties as provided in the Conditions of the Contract.

G. After execution of Change Order, promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust Contract Price.

1.06 APPLICATION FOR FINAL PAYMENT

A. Prepare Application for Final Payment as specified for progress payments, except identifying total adjusted Contract Price, previous payments, inclusion of any/all Change Orders, and with zero sum remaining due.

B. Application for Final Payment will not be considered until the following have been accomplished:

1. Closeout procedures specified in *Section 01 70 00 - "Execution and Closeout Requirements"*.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF SECTION

STR-SEG

SECTION 01 23 00
ALTERNATES

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Acceptance of alternates

B. Schedule of alternates

1.02 RELATED REQUIREMENTS

A. Document 00 21 13 - Instructions to Bidders: Instructions for preparation of pricing for alternatives.

B. Document 00 43 23 - Alternates Form: List of alternatives as supplement to Bid Form.

1.03 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in Owner-Contractor Agreement.

B. Coordinate related Work and modify surrounding work to integrate Work of each alternate.

1.04 SCHEDULE OF ALTERNATES

A. **Alternative No.1:** Provide a lump sum cost to include, with the Base Bid project scope, provide 'R'-panel roof system in lieu of asphalt shingles, where indicated and as specified herein.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Project Coordination.
B. Preconstruction Meeting.
C. Progress Meetings.
D. Construction Progress Schedule.
E. Submittals for Review.
F. Submittals for Information.
G. Submittals for Project Close-out.
H. Submittal Procedures.

1.02 RELATED REQUIREMENTS

A. Document 00 50 00 - Contracting Forms and Supplements.
B. Document 00 73 00 - Supplementary Conditions.
C. Section 01 20 00 - Price and Payment Procedures: Submission of schedule of values.
D. Section 01 70 00 - Execution and Closeout Requirements: Project record documents.

1.03 PROJECT COORDINATION

A. Cooperate with Owner’s Representative(s) in allocation of mobilization areas of site; for access, traffic, and parking facilities.
B. During construction, coordinate use, security and access of site and facilities through Project Coordinator.
C. Comply with Owner's procedures for intra-project communications; submittals, reports and records, schedules, coordination drawings, and recommendations; and resolution of ambiguities and conflicts.
D. Comply with instructions of Project Coordinator for use of temporary utilities and construction facilities.
E. Coordinate field engineering and layout work under instructions of Project Coordinator.
F. Make the following types of submittals to Consultant:
    1. Requests for interpretation.
    2. Requests for substitution.
    3. Shop drawings, product data, and samples.
    4. Test and inspection reports.
    5. Manufacturer's instructions and field reports.
    6. Applications for payment and change order requests.
    7. Progress schedules.
    8. Coordination drawings.
    9. Closeout submittals.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION

3.01 PRECONSTRUCTION MEETING

A. Consultant will schedule a meeting after execution of contract.

B. Attendance Required:
   1. Owner or Designated Representative.
   2. Consultant.
   3. Contractor.

C. Agenda:
   1. Verification of submission of Schedule of Values and progress schedule.
      a. Verification that (SDS) Safety Data Sheets for applicable products/materials are available on-site during construction.
   2. Designation of personnel representing the parties to Contract, including emergency contact information.
   3. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
   4. Expectations of Owner and Consultant.
      a. Review of Project site conditions and requirements.
      b. Response to any questions relative to scope of Work.
   5. Use of premises by Owner and Contractor.
   6. Construction facilities and controls provided by Owner.
   7. Temporary utilities provided by Owner.

D. Contractor is encouraged to photograph or otherwise document existing conditions of adjacent construction and site improvements to remain, that might be construed as damage caused by Work performed under this contract.
   1. Deliver documentation of pre-existing conditions to Consultant and/or Owner prior to start of Work.

E. Consultant will record minutes and distribute copies within 10-days after meeting to participants, and other parties affected by decisions made.

3.02 PROGRESS MEETINGS

A. Consultant may conduct Progress meetings at regularly scheduled times convenient for all parties involved and will:
   1. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

B. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Consultant, as appropriate to agenda topics for each meeting.

C. Agenda:
   1. Review minutes of previous meetings.
   2. Review of Work progress.
   3. Field observations, problems, and decisions.
   4. Identification of problems that impede, or will impede, planned progress.
   5. Review of progress schedule, including corrective measures, if required to regain projected schedules.
   6. Effect of proposed changes, if any, on progress schedule and coordination.
   7. Planned progress during succeeding Work period.
   8. Maintenance of quality and Work standards.
   9. Other business relating to Work.

D. Consultant will record minutes and distribute copies within 10-days after meeting to participants, and other parties affected by decisions made.

3.03 CONSTRUCTION PROGRESS SCHEDULE

A. Within 10-days after date of the Agreement, submit a proposed schedule defining planned operations for the performance of Work for review.

B. If preliminary schedule requires revision after review, submit revised schedule within 5-days.

C. Submit updated schedule with each Application for Payment.

3.04 SUBMITTALS FOR REVIEW

A. Submit the following information, and/or as specified in individual sections, for review.

1. Project contact list.
2. Product/material data.
3. Materials List and Descriptions on provided form, as appended in this section.
4. Tapered insulation layout drawings.
5. Shop drawings, as applicable.
6. Sheet metal color chart for selection.
7. Sealant color samples for selection.
8. Samples: Provide as required in individual sections or requested.
    a. Install samples on Project site; do not submit samples to Consultant.
    b. Samples will be reviewed only for aesthetic, color, and/or finish selection. Sample selections to be by Owner.

B. Submit to Consultant for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.

C. Contractor is responsible for verifying existing field measurements and conditions prior to completing submittals. Contractor's responsibility for errors and omissions is not relieved by Consultant’s review or acceptance of submittals.

3.05 SUBMITTALS FOR INFORMATION

A. Submit the following items for information:

1. Sample warranties and notifications.
2. Certificate of Insurance: Provide copy of certificate(s), with Owner as certificate holder. Consultant shall be named as an Additional Insured.
    a. Owner: ***City of Platteville***
    b. Additional Insureds: ***Specialty Engineering Group, LLC.***
3. (SDS) Safety Data Sheets for products to be incorporated in Project.

B. Submit for Consultant's knowledge as Contract Administrator, or for Owner. No action will be taken.

3.06 SUBMITTALS FOR PROJECT CLOSEOUT

A. Refer to *Section 01 70 00 - “Execution and Closeout Requirements”.*

3.07 SUBMITTAL PROCEDURES

A. Transmit submittals electronically, to the following address:

jenerson@str-seg.com.

B. Provide a sequentially-numbered transmittal form.

1. Identify Project Name and Number(s), Submittal Date, and Contractor’s information.
2. Identify pertinent drawing and detail number, and specification section number, as appropriate on each copy.
3. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of Work and Contract Documents.

C. Schedule submittals to expedite the Project, and coordinate submission of related items.

D. Submit required items to Consultant prior to pre-construction meeting.

E. Clearly identify any variations from Contract Document requirements and reasons for same (acceptance of substitutions, negotiated changes with Owner, etc.). Identify any Product/Material or system limitations that may be detrimental to successful performance of completed Work.

F. Where applicable, if revised for resubmission, clearly and explicitly identify changes made since previous submission.

G. Consultant will distribute reviewed submittals as appropriate. Affected parties are instructed to promptly report any inability to comply with requirements.

H. Submittals not requested will not be recognized or processed.

END OF SECTION

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SECTION 01 40 00
QUALITY REQUIREMENTS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Regulatory Requirements.

B. Submittals.

C. References and Standards.

D. Installers Quality Assurance.

E. Control of Installation.

F. Examination.

G. Tolerances.

H. Testing.

I. Manufacturer’s Field Services.

J. Defect Assessment.

1.02 RELATED REQUIREMENTS

A. Document 00 31 00 - Available Project Information.

B. Section 01 30 00 - Administrative Requirements: Submittal procedures.

C. Section 01 42 16 - Definitions.

D. Section 01 60 00 - Product Requirements: Requirements for material and product quality.

1.03 REGULATORY REQUIREMENTS

A. Comply with applicable Federal, State and local codes and ordinances in force at Project site.

B. Apply, obtain and pay for required local and regional building permits and fees to legally execute Work of this Contract.

1.04 SUBMITTALS

A. Certificates: When specified in individual specification sections, submit certification by manufacturer and Contractor or installation/application subcontractor to Consultant, in quantities specified for Product Data.

1. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

B. Manufacturer's Instructions: When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, for the Owner's information. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

C. Manufacturer's Field Reports: Submit reports for Consultant's benefit as Contract Administrator or for Owner.

1.05 REFERENCES AND STANDARDS

A. Keep a complete Project Manual, Contract Drawings (if not included in Project Manual), and any Addenda at Project site throughout the course of Project. In addition, copies of reviewed submittals and shop drawings, Change Orders and field modifications shall be kept available.

B. For products and workmanship specified by reference to a document or documents not included in Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

C. Conform to reference standard of date of issue current on date of Contract Documents, except where a specific date is established by applicable code.

D. Obtain copies of standards where required by product specification sections.

E. Maintain copy at Project site during submittals, planning, and progress of specific Work, until Substantial Completion.

F. Should specified reference standards conflict with Contract Documents, request clarification from Consultant before proceeding.

G. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Consultant shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.06 INSTALLERS QUALITY ASSURANCE

A. Obtain complete data at the site and inspect surfaces that are to receive Work before proceeding in performing Work. Contractor shall be solely responsible for the accuracy of measurements and laying out of Work and shall make good any errors, defects due to faulty measurements taken, information obtained, layout, or failure to report discrepancies.

B. Notify Consultant in writing in case of discrepancies between existing work and Contract Drawings, and defects in such surfaces that are to receive Work. Consultant will evaluate the notice and direct what remedial action will be taken.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION

3.01 CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step, in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Consultant before proceeding.

D. Comply with specified standards as minimum quality for Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Have Work performed by persons qualified to produce required and specified quality.

F. Verify that field measurements are as indicated on shop drawings or as instructed by manufacturer.

G. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, and disfigurement.

3.02 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work.

B. Verify that utility services are available, of the correct characteristics, and in the correct locations. If services are of incorrect characteristics or incorrect locations, Contractor shall provide.

C. Examine and verify specific conditions described in individual specification Section.

3.03 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Consultant before proceeding.

C. Adjust products to appropriate dimensions; position before securing products in place.

3.04 TESTING

A. See individual specification sections for testing required.

B. Any specified, or requested, testing services (field or laboratory) shall be performed by an independent firm acceptable to Owner and Consultant.

C. Owner reserves the right to secure samples of materials being used and samples of Work in place at Project site.
   1. Samples will be submitted to an Independent Testing Laboratory for comparison with specification requirements
   2. Testing shall be performed in accordance with the requirements of public authorities and regulatory agencies to certify compliance with specified standards.
   3. Copy of any test results will be provided to the Contractor, including a determination of compliance or non-compliance with the specifications.

3.05 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, as applicable, and to initiate instructions when necessary.

B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

3.06 DEFECT ASSESSMENT

A. Owner may request testing of materials and installation to determine compliance with the specification.

B. Testing shall be accomplished by a testing firm designated by Owner. Tests shall be conducted using recognized standards. Consultant shall evaluate and issue a report to Owner and Contractor regarding the results and provide recommendation for resolution.

C. If test results indicate non-compliance with the specification, pay for testing and associated reporting costs.

D. Replace Work or portions of Work not conforming to specified requirements.

E. If, in the opinion of Consultant, it is not practical to remove and replace Work, Consultant will direct an appropriate remedy or adjust payment.

END OF SECTION

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SECTION 01 42 16
DEFINITIONS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Definitions: Supplements to the definitions contained in the General Conditions.

1.02 RELATED REQUIREMENTS

A. Other definitions are included in individual specification sections.

1.03 DEFINITIONS

A. Demolition (or Demolish): Intentional wrecking, razing, dismantling, or removal of a building or structure—or any significant part thereof—using tools, equipment, or explosives. It encompasses the entire process of clearing a site, including legal disposal of debris.

B. Furnish: To supply, deliver, unload, and inspect for damage.

C. Install: To unpack, assemble, erect, apply, place, finish, cure, protect, clean, start up, and make ready for use.

D. Product: Material, machinery, components, equipment, fixtures, and systems forming Work result. Not materials or equipment used for preparation, fabrication, conveying, or erection and not incorporated into Work result. Products may be new, never before used, or re-used materials or equipment.

E. Remove: Same as Replace, unless noted as “and salvage for Owner” or “and save for re-installation”.

F. Replace: To remove and dispose of existing products or materials, and to furnish and install new products or materials, in kind, or as otherwise specified.

G. Provide: To furnish and install.

H. Supply: Same as Furnish.

I. Substantial Completion of Work: The completion of weathertight envelope and adequate protection of building occupants from hazards posed by operation of equipment and construction activities, or other potential harmful conditions that may exist or become evident during the final Work effort by Contractor, prior to completing the punchlist items and demobilizing per Contract Documents.

1. The roof system (insulation, membrane and flashings) shall be complete;
2. Lifting activities requiring the use of a crane or other equipment shall be complete;
3. Sheet metal finishes/detailing Work shall be complete or well underway.

J. Final Completion of Work: Reached when Work is found to be in full compliance with Contract Documents.

1. Final Completion shall include the successful completion of any outstanding Work items, or Work requiring corrective action, as determined at the Final Review and published in punchlist reports.
2. Upon final completion, follow Closeout procedures, as indicated in *Section 01 70 00 - “Execution and Closeout Requirements”.*

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01 50 00
TEMPORARY FACILITIES AND CONTROLS

1PART 1 – GENERAL

1.01 SECTION INCLUDES

A. Temporary Utilities.

B. Temporary Sanitary Facilities.

C. Temporary Construction and Controls.

D. Security.

E. Vehicular Access and Parking.

F. Safety Plan.

G. Cleaning and Waste Removal.

1.02 TEMPORARY UTILITIES

A. Temporary Electricity:

1. Electric power is available on-site, free of charge for project purposes only. Conveyance shall include individual circuit breakers, so as not to interrupt Owner's service in any way.
2. Provide generators for electrical power required during the performance of Work.
3. Provide all means of conveyance required for carrying out Work.

B. Temporary Lighting:

1. Supply any required supplemental lighting.

C. Mechanical Service:

1. By Contractor.

D. Water Service:

1. Water for construction purposes is available through the existing facility, free of charge. Provide conveyance from existing service to Project work area as required.
    a. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.03 TEMPORARY SANITARY FACILITIES

A. Provide portable toilet facilities for use by Contractor’s employees during the course of Work. Toilets shall be placed on-site in an area designated by Owner.

B. Upon completion of Work, remove these facilities from Project site.

C. Maintain daily in clean and sanitary condition.

1.04 TEMPORARY CONSTRUCTION AND CONTROLS

A. Erect and subsequently remove temporary construction as needed to accomplish Work.

B. Stairs and Scaffolds:

1. Furnish and maintain equipment such as temporary stairs, fixed ladders, ramps, chutes, runways, sidewalk overhead scaffold protection, and the like as required for proper execution of Work by all trades. Underlay scaffolds with planking to prevent uprights from resting directly on the underlying surface.
2. Patch attachment to remaining structure in a manner acceptable to Owner.

C. Fencing:

1. At Contractor’s option, surround set-up area with a fence and provide additional fence as necessary to meet applicable safety regulations.

D. Protection:

1. Structures and equipment shall be constructed, installed and operated with guards, controls and other protective devices in place.

2. Provide, erect and maintain all required planking, barricades, guard rails, temporary walkways, etc., of sufficient size and strength necessary for protection of stored material and equipment; paved surfaces, walks, curbs, gutters and drives; streets adjacent to or within project area; adjoining property and Project Work to prevent accidents to the public and the workmen at Project site.
3. Protect Owner's furniture equipment, materials, and interior finishes from weather, wind, and precipitation, etc.
4. Provide protection against rain, snow, wind, ice, storms, or heat so as to maintain Work, materials, apparatus, and fixtures, incorporated in Work or stored on Project site, free from injury or damage. At the end of the day's Work, cover new work likely to be damaged. Remove snow and ice as necessary for safety and proper execution of Work.
5. Take necessary precautions to protect Owners property as well as adjacent property, including trees, shrubs, buildings, sanitary and storm sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to work on this Project.
6. Repair any Work, damaged by failure to provide proper and adequate protection, to its original state to the satisfaction of Owner or remove and replace with new Work at Contractor's expense.
7. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

E. Fire Protection:
1. Provide and maintain in working order during the entire construction period, such fire protective equipment and devices as required by applicable safety standards and as deemed necessary and suitable for any possible class or type of fire. Extinguishers shall be nonfreezing type such as A-B-C rated dry chemical, of not less than 10-pound capacity each.

F. Noise Control:
1. Provide methods, means and facilities to minimize noise produced by construction operations.
2. Perform portions of Work which will generate excessive noise during hours when the building is unoccupied.

G. Dust Control:
1. Execute Work by methods to minimize raising dust from construction operations.
2. Provide positive means to prevent construction dust from entering the occupied building.
3. Protect owner's furniture equipment, materials, and interior finishes from dust.

H. Fume and Odor Control:
1. Provide methods and means to minimize fume and odor produced by construction operations.
2. Cover building intakes, in conjunction with Owner, to minimize fumes and odor produced by construction operations.

1.05 BARRIERS

A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for Owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

B. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.

C. Provide protection for plants designated to remain. Replace damaged plants.

D. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.06 SECURITY

A. Provide security and facilities to protect Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

B. Coordinate with Owner's security program.

1.07 VEHICULAR ACCESS AND PARKING

A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.

B. Provide and maintain access to fire hydrants and fire lanes free of obstructions.

C. Provide temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking.

D. Existing parking areas designated by Owner may be used for construction parking.

E. Do not allow vehicle parking on existing pavement or planted areas without permission from Owner.

1.08 SAFETY PLAN

A. Consider the safe implementation of daily work activity paramount. Dynamics of the construction industry lend itself to daily attention to detail, quality and safety: therefore, it is imperative that Work is performed within the scope of known safety performance standards and directives with little to no deviance. At no time shall the safety of the worker be compromised to accommodate other construction constraints.

B. No Assumption of Duty: Notwithstanding any other provision of these Conditions, each Subcontractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs.

1.09 CLEANING AND WASTE REMOVAL

A. Provide waste removal facilities and services as required to maintain site in clean, orderly condition.

1. Waste materials removed from the site shall be managed by Contractor and disposed of in accordance with all applicable laws, regulations, codes, rules, and standards.
2. If materials to be recycled or re-used on the project must be stored on-site, coordinate with Owner’s Representative.
3. Combustible waste shall be removed immediately or stored in fire resistive containers until disposed of in an approved manner.

B. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.

C. Remove rubbish, debris and scrap promptly upon its accumulation. Remove and place in dumpster at end of each Work day at a minimum, verify with any Owner requirements, if applicable, on frequency of dumpster being emptied and/or replaced.

D. Contractor shall be responsible for cleaning required within the technical sections of the specifications governing Work under Contractor's jurisdiction as well as for keeping Work areas, passageways, ramps, stairs and other areas of the premises free of accumulation of surplus materials, rubbish, debris and scrap which may be caused by Contractor's operations or that of Subcontractors operation.

1. In addition to the above, Contractor shall be responsible for the general "broom" cleaning of the premises governing Work under this Contract. Perform "final" cleaning of exposed surfaces to remove all foreign matter, spots, soil, construction dust, etc., so as to put Project in a complete and finished condition ready for acceptance and use intended.
2. If rubbish and debris is not removed, or if surfaces are not cleaned as specified above, Owner reserves the right to have said Work done by others and the related cost(s) will be deducted from monies due Contractor.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION (NOT USED)

END OF SECTION

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SECTION 01 60 00
PRODUCT REQUIREMENTS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Product Delivery Requirements.

B. Product Storage and Handling Requirements.

C. Existing Products.

D. New Products.

E. Product Options.

F. Substitution Procedures.

G. Transportation and Handling.

H. Storage and Protection.

1.02 RELATED REQUIREMENTS

A. Document 00 21 13 - Instructions to Bidders: Product options and substitution procedures.

B. Section 01 30 00 - Administrative Requirements: Submittal Procedures.

1.03 PRODUCT DELIVERY REQUIREMENTS

A. Contractor or Contractor's authorized representative must be present to accept delivery of equipment and material shipments.

1. Owner will not knowingly accept, unload or store anything delivered to the site for Contractor's use.
2. Inadvertent acceptance of delivered items by any representative or employee of Owner shall not constitute acceptance or responsibility for any of the materials or equipment.
3. It shall be Contractor's responsibility to assume liability for equipment or material delivered to Project site.

1.04 PRODUCT STORAGE AND HANDLING REQUIREMENTS

A. Confine equipment, apparatus, storage of materials and operations to limits indicated on Contract Drawings or agreed to by Owner at the pre-construction meeting. Contractor shall not bring materials onto Project site until they are needed for progress of Work.

B. Storage of materials on the grounds shall be in strict accordance with the instructions stated within the technical sections.

C. Hazardous materials, including motor fuels, shall be properly handled and contained to prevent spills or other releases. Develop and maintain a contingency plan to provide emergency response, containment, and cleanup of spills of hazardous materials resulting from contract activities. All spills and releases shall be reported to Owner.

2PART 2 - PRODUCTS

2.01 EXISTING PRODUCTS

A. Do not reuse materials removed from existing premises unless specifically required or permitted by the Contract Documents.

1. Existing materials indicated to be removed, but not to be re-used, relocated, reinstalled, delivered to Owner, or otherwise indicated as to remain the property of Owner, shall become the property of Contractor; remove from Project site.

B. Specific Products to be Reused: The reuse of certain materials or products already existing on Project site is required.

1. See *Section 01 10 00 - "Summary of Work"* for list of items required to be salvaged for reuse and relocation.
2. If reuse of other existing materials or equipment is desired, submit substitution request.

2.02 NEW PRODUCTS

A. Provide new products unless specifically required or permitted by the Contract Documents.

2.03 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Use any product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Use a product of one of the manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

3PART 3 - EXECUTION

3.01 SUBSTITUTION PROCEDURES

A. Product substitution requests may be made only by a bidder who is an official Bidder of Record.

B. Consultant will consider a substitute product only if it is in the same general classification of specified product.

C. A “Request for Substitution” will be considered only if written request is received by Consultant within 5-days prior to Bid Due date.

1. Comply with requirements specified in this section.
2. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.

D. A request for substitution constitutes a representation that the submitter:

1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
2. Will provide the same warranty for the substitution as for the specified product.
3. Will coordinate installation and make changes to other Work that may be required for Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
5. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

E. Substitution Submittal Procedure:

1. Submit one copy of request for substitution for consideration. Limit each request to one proposed substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence. Burden of proof is on proposer.
3. Consultant will notify Contractor in writing of decision to reject request. Consultant’s decision of approval or disapproval shall be final.

3.02 TRANSPORTATION AND HANDLING

A. Coordinate schedule of product delivery to designated prepared areas in order to minimize Project site storage time and potential damage to stored materials.

B. Transport and handle products in accordance with manufacturer's instructions.

C. Transport materials in covered trucks to prevent contamination of product and littering of surrounding areas.

D. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.

E. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

F. Arrange for the return of packing materials, such as wood pallets, where economically feasible.

3.03 STORAGE AND PROTECTION

A. Designate receiving/storage areas for incoming products so that they are delivered according to installation schedule and placed convenient to Work area in order to minimize waste due to excessive materials handling and misapplication.

B. Store and protect products in accordance with manufacturers' instructions.

C. Store materials on raised platforms; a minimum of 3-inches off of impervious surfaces (i.e. concrete); a minimum of 6-inches off of pervious surfaces (i.e. grass). Protect with coverings while providing for adequate air circulation. Coverings to extend down sides completely. Manufacturers shrink wrap is not an acceptable covering.

D. Store with seals and labels intact and legible.

E. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.

F. For exterior storage of fabricated products, place on sloped supports above ground.

G. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

H. Prevent contact with material that may cause corrosion, discoloration, or staining.

I. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

J. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

END OF SECTION

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SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Coordination.
B. Closeout Submittals.
C. Patching Materials.
D. Examination.
E. Preparation.
F. General Installation Requirements.
G. Cutting and Patching.
H. Progress Cleaning.
I. Protection of Installed Work.
J. Adjusting.
K. Final Cleaning.
L. Closeout Procedures.

1.02 RELATED REQUIREMENTS

A. Section 01 30 00 - Administrative Requirements: Submittal procedures.
B. Section 01 60 00 - Product Requirements: Substitution procedures.

1.03 COORDINATION

A. Coordinate scheduling, submittals, and Work of the various sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
B. Coordinate completion and clean-up of Work of separate sections.
C. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.04 CLOSEOUT SUBMITTALS

A. Upon "Substantial Completion" of Project, Contractor shall submit electronically the below listed items to Consultant for presentation to Owner.
    1. 20-year Roof Manufacturer’s system warranty at low-sloped roof areas’
    2. 40-year Roof Manufacturer’s system warranty at shingled roof systems;
    3. 20-year Roof Manufacturer’s system warranty at ‘R’-panel roof systems;
    4. 20-year sheet metal Manufacturer's finish warranty.
    5. 10-year skylight manufacturer’s Warranty.
    6. Contractor’s as-built drawings showing changes to Contract Documents, if applicable.
    7. Signed punch list, indicating completion of any outstanding items.
    8. Final Waivers of Lien.
    9. Contractor’s Warranty: After project completion and acceptance, provide the installing Contractor’s 2-year limited labor and material guarantee covering Work completed.

2PART 2 - PRODUCTS

2.01 PATCHING MATERIALS

A. New Materials: As specified in product sections; match existing products and Work for patching and extending Work.

B. Type and Quality of Existing Products: Determine by inspecting and testing products where necessary, referring to existing work as a standard.

C. Product Substitution: For any proposed change in materials, submit request for substitution described in *Section 01 60 00 - "Product Requirements*".

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Start of Work means acceptance of existing conditions.

1. Contractor is encouraged to photograph or otherwise document existing conditions of adjacent construction and site improvements that might be construed as damage caused by Work performed under this contract.
2. Deliver documentation of pre-existing conditions to Consultant and/or Owner prior to start of Work.

B. Examine and verify specific conditions described in individual specification sections.

C. Take field measurements before confirming product orders or beginning fabrication, to minimize waste due to over-ordering or misfabrication.

D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

E. Prior to Cutting: Examine existing conditions prior to commencing Work, including elements subject to damage or movement during cutting and patching. After uncovering existing work, assess conditions affecting performance of Work. Beginning of cutting or patching means acceptance of existing conditions.

3.02 PREPARATION

A. Take care to install protection to prevent marring or damage to building components adjacent to Work.

B. Clean substrate surfaces prior to applying next material or substance.

C. Seal cracks or openings of substrate prior to applying next material or substance.

D. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

3.03 GENERAL INSTALLATION REQUIREMENTS

A. Install products as specified in individual sections, in accordance with manufacturer's instructions and recommendations, and so as to avoid waste due to necessity for replacement.

B. Make vertical elements plumb and horizontal elements level, unless otherwise indicated.

C. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless otherwise indicated.

D. Make consistent texture on surfaces, with seamless transitions, unless otherwise indicated.

E. Make neat transitions between different surfaces, maintaining texture and appearance.

3.04 CUTTING AND PATCHING

A. Whenever possible, execute Work by methods that avoid cutting or patching.

B. Perform whatever cutting and patching is necessary to:

1. Complete Work.
2. Fit products together to integrate with other Work.
3. Provide openings for penetration of mechanical, electrical, and other services.
4. Match Work that has been cut to adjacent Work.
5. Repair areas adjacent to cuts to required condition.
6. Repair new Work damaged by subsequent work.
7. Remove samples of installed Work for testing when requested.
8. Remove and replace defective and non-conforming Work.

C. Execute Work by methods that avoid damage to other Work and that will provide appropriate surfaces to receive patching and finishing. In existing work, minimize damage and restore to original condition.

D. Cut rigid materials using masonry saw or core drill. Pneumatic tools not allowed without prior approval.

E. Restore Work with new products in accordance with requirements of Contract Documents.

F. Patching:

1. Finish patched surfaces to match finish that existed prior to patching. On continuous surfaces, refinish to nearest intersection or natural break. For an assembly, refinish entire unit.
2. Match color, texture, and appearance.
3. Repair patched surfaces that are damaged, lifted, discolored, or showing other imperfections due to patching Work. If defects are due to condition of substrate, repair substrate prior to repairing finish.

3.05 PROGRESS CLEANING

A. Maintain areas free of waste materials, debris, and rubbish. Maintain Project site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces, prior to enclosing the space.

C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.

D. Collect and remove waste materials, debris, and trash/rubbish from Project site periodically and dispose off-site; do not burn or bury.

3.06 PROTECTION OF INSTALLED WORK

A. Protect installed Work from damage by construction operations.

B. Provide special protection where specified in individual specification sections.

C. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.

D. Do not store materials on completed roof membrane.

E. Provide protective coverings at walls.

F. Remove protective coverings when no longer needed; reuse or recycle plastic coverings if possible.

3.07 ADJUSTING

A. Restore or replace any damaged surfaces, items, and materials to Owner’s satisfaction. Replacements shall match existing in-kind.

B. When disturbed, adjust existing operating products and equipment to ensure smooth and unhindered operation.

3.08 FINAL CLEANING

A. Clean new and adjacent surfaces, including drainage systems, of debris, which could puncture roof membrane.

B. Remove adhesive, grease and other foreign material from finish surfaces of the building.

C. Repair, patch or touch-up marred surfaces, to match adjacent surfaces.

D. Use cleaning materials that are nonhazardous.

E. Remove labels that are not permanent. Do not paint or otherwise cover fire test labels or nameplates on mechanical and electrical equipment.

F. Clean site; sweep paved areas, rake clean landscaped surfaces.

G. Remove waste, surplus materials, trash/rubbish, and construction facilities from Project site; dispose of in legal manner; do not burn or bury.

3.09 CLOSEOUT PROCEDURES

A. Make submittals that are required by governing or other authorities.
   1. Provide copies to Consultant/Owner.
B. Notify Consultant when Work is considered ready for Substantial Completion.
C. Consultant, upon receipt of Contractor's "Notice of Completion", shall conduct a Final Review of Project.
   1. If Work is incomplete or if items are identified in need of correction, Consultant will produce a written punch list for Contractor.
   2. Take immediate action to address the punch list items, to correct items of deficient Work, and shall document and certify that the items have been completed in accordance with Contract Documents.
D. When Work has been deemed complete, to the satisfaction of Owner and Consultant, Contractor will be instructed to complete Close-out Submittals.

END OF SECTION

STR-SEG

SECTION 03 01 30
MAINTENANCE OF CONCRETE ROOF DECK

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Requirements for the inspection and repair of structural concrete roof decking.

1.02 RELATED REQUIREMENTS

A. Section 07 90 05 - Joint Sealers: Sealant crack repair.

1.03 SUBMITTALS

A. See *Section 01 30 00 - "Administrative Requirements"*, for submittal procedures.

B. Product Data.

C. Manufacturer's Installation instructions.

1.04 QUALITY ASSURANCE

A. Manufacturer qualifications: Company specializing in manufacturing products specified in this section, with not less than 3-years of documented experience.

B. Contractor qualifications:

1. Be an "Experienced Contractor" of the specified product and have completed the supplier's program of instruction in the use of the specified repair material.
2. Have a minimum of 5-years' experience in installing the product under condition similar to those on this Project.

C. Qualification for installation personnel:

1. Supplier's Site Representative shall:
   a. Be capable of instructing successful methods for injection filling of cracks in concrete.
   b. Understand, and be capable of explaining, technical aspects of correct material selection, mixing, use and application.
2. Installation crew and crew foreman shall:
   a. Be certified by the supplier of hydrophobic polyurethane chemical grout (HPCG) or epoxy resin adhesive materials.
   b. Be experienced in operation, maintenance and troubleshooting for application equipment.
   c. Have verifiable evidence of a minimum 5-years' experience in successful grout/epoxy injection, including total installation of a minimum of 5,000 lineal feet.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver the specified products in original, unopened containers, with supplier's name, product label, product identification and batch numbers.

B. Comply with manufacturers' instructions for storage, shelf-life limitations, and handling of products.

1.06 SITE CONDITIONS

A. Precautions shall be taken to avoid damage to all surfaces at or near work zone, resulting from mixing, handling and/or placement procedures of the specified materials.

B. Environmental Requirements:

1. Ensure that substrate surface and ambient air temperature are minimum of 50 degrees F. (10 degrees C) and rising at application time and remain above 50 degrees F. (10 degrees C) for at least 24-hours after application.
2. Allow surfaces to attain temperature and conditions specified before proceeding with underlayment application.
3. Do not install over concrete containing calcium chloride or concrete containing aggregate that has been saturated with salt water.

4. Quickly install underlayment material over warm substrates and follow precautionary hot weather practices when ambient conditions are at maximum allowable temperatures.

C. Crack repair Work is not permitted when ice is present in void.
1. Acceptance of presence of water in void is dependent on the materials being installed.

2PART 2 - PRODUCTS

2.01 ACCEPTABLE PRODUCTS

A. Roof deck repair material:
1. Two-component, trowel-grade, polymer-modified, Portland cement patching mortar (for use in fills of up to 1-inch in depth):
a. Magna 100 by ProSpec; prospec.com.
b. MasterEmaco T 545 or T 545 HT (above 80 degrees F.) by BASF Corporation; basf.com.
c. SikaTop 122, by Sika Corporation; usa.sika.com.
d. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
2. Primer and curing compound: In accordance with patching mortar manufacturer's recommendations.
3. Water: Potable, free from deleterious amounts of acids, alkalis, and organic materials.
4. Aggregate: To be used in fill depths greater than 1/2-inch.

B. Reinforcement protection (rust-inhibitive paint):
1. Minor rust: Rust-o-leum Red Oxide Primer by Rust-o-leum Products; rustoleum.com.
2. Heavy rust: Rustbuster, Rust Conversion Coating by Pratt and Lambert, Architectural Finishes Division; prattandlambert.com.
3. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine surface of concrete roof deck for spalling or deterioration. Notify Consultant of deterioration in excess of 1-inch in depth, or exposed steel reinforcing.

3.02 SURFACE PREPARATION

A. Cast-in-place concrete deck repair:
1. Remove spalled and deteriorated concrete areas until a sound base is reached.
2. Wire-brush flaking rust from any exposed steel reinforcing.

3.03 DECK REPAIR

A. Apply rust-inhibitive paint to any exposed steel reinforcing. Allow to dry.

B. Saturate concrete surfaces with clean water, dry excess to leave damp surface. Apply bonding agent to surface of repair area.

C. Mechanically mix patching mortar with low-speed drill and paddle in accordance with the manufacturer's recommendations.

D. Scrub mortar into substrate, filling all joints and voids. Force against edge of joint, working towards middle. Trowel level with adjacent deck surface.

E. Allow mortar to set to desired stiffness, then float-finish for smooth surface.

F. Apply curing compound in accordance with manufacturer's recommendations.

3.04 CLEANING

A. Prior to proceeding with roofing installation, sweep surface of concrete deck of loose dirt and debris.

END OF SECTION

STR-SEG

SECTION 06 01 16
MAINTENANCE OF PLYWOOD ROOF DECKING

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Inspection requirements, products and installation requirements for repair or replacement of plywood roof decking.

1.02 REFERENCE STANDARDS

A. American Plywood Association (APA).

B. ASTM International Standards, latest editions unless otherwise stated:

1. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

C. National Institute of Standards and Technology, Department of Commerce, latest editions:

1. Voluntary Product Standard PS 1 - Structural Plywood.
2. Voluntary Product Standard PS 20 - American Softwood Lumber Standard.

D. Southern Pine Inspection Bureau (SPIB).

E. Western Wood Products Association (WWPA).

1.03 DELIVERY, STORAGE, AND HANDLING

A. Cover wood products to protect against moisture.

B. Support stacked products to prevent deformation and to allow air circulation.

1.04 SEQUENCING

A. Demolish only as much roofing and decking as can be replaced with completed deck assembly, insulation and roofing system before the end of Work on that day.

2PART 2 - PRODUCTS

2.01 ACCEPTABLE PRODUCTS

A. Plywood decking replacement panels:

1. Thickness to match existing decking, minimum, 1/2-inch (5-ply).
2. Span rating: 32/16.
3. Grade C-D or better, with exterior glue (CDX), conforming to the rating of the American Plywood Association (APA), Exposure 1, and PS 1.

B. Metal reinforcing plates and cover plates, 22-gauge thick sheet steel; galvanized; of size required.

C. Deck fasteners:

1. Decking to wood structural framing fasteners:
   a. Common wire nails with galvanized coating.
   b. Length as necessary to penetrate the substrate by a minimum of 1-1/2-inches.
2. Nail size for slant-nailing through tongue:
   a. 1-inch nominal thickness decking - 10d.
   b. 2-inch nominal thickness decking - 12d.
   c. 3-inch nominal thickness decking - 16d.
3. Nail size for face-nailing:
   a. 1-inch nominal thickness decking - 12d.
   b. 2-inch nominal thickness decking - 16d.
   c. 3-inch nominal thickness decking - 20d.

4. Reinforcing plate to plywood decking:
    a. Ring shank nails, hot-dipped galvanized steel: ASTM A153.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify, prior to start of decking removal, the existence and location of deck-supported utilities and accessories including, but not limited to: water and gas lines, fire-sprinkler systems, above and below deck conduit and tubing, and ceiling suspension systems. Coordinate Work that may affect these utilities with Owner.

B. Notify Consultant and provide documentation of any decking sections that require replacement.

3.02 SELECTIVE DEMOLITION

A. Prior to removal and replacement of planks/plywood decking, provide a barricade under Work area, within the building, staffed with a watchman.

B. Remove selected wood planks or plywood panels.

C. Remove deteriorated, underlying wood structural members.

3.03 DECKING REPAIR

A. Deck reattachment:

1. Fasten loose decking planks/panels to support members 6-inches on center at ends and 12-inches on center at intermediate supports.

3.04 PLYWOOD DECKING REPLACEMENT

A. General requirements:

1. Do not use plywood, which is unsound, warped, bowed, twisted, inadequately seasoned, or too small to fabricate Work with a minimum of joints.
2. Fit carpentry Work to other Work.
3. Set carpentry accurately to required levels and lines with members plumb and true.
4. Attach carpentry to substrates in accordance with recognized standards.
5. Replace only complete sheets in their entirety.

B. Install replacement wood structural members, if applicable.

C. Install new plywood panels, cut to fit against adjacent panels.

1. Allow 1/8-inch gap, on sides, between new panels and existing.
2. Minimum bearing on structural members: 1/2-inch.

D. Fasten decking panels to underlying structural members 6-inches on center at ends and 12-inches on center at intermediate supports.

3.05 CLEANING

A. Wood chips, shavings, sawdust, and other debris shall be swept up and removed from work area daily.

B. During progress of Work, use means necessary to prevent spread of dirt and debris in building interior.

C. Clean building interior on a daily basis, and when deck replacement is completed.

END OF SECTION

STR-SEG

SECTION 06 10 53
MISCELLANEOUS ROUGH CARPENTRY

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Roofing nailers and blocking..

1.02 RELATED REQUIREMENTS

A. Section 07 01 50.19 - Preparation for Re-Roofing.

B. Section 07 31 13 - Asphalt Shingles – **Base Bid.**

C. Section 07 41 16 - Metal Roof Panels – **Alternate No. 1.**

D. Section 07 53 23 - EPDM Single-Ply Roofing.

E. Section 07 62 00 - Sheet Metal Flashing and Trim; Finish architectural flashings.

1.03 REFERENCE STANDARDS

A. Board of Review, American Lumber Standard Committee (ALSC); alsc.org.

B. ASTM International Standards, latest editions unless otherwise stated:

1. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware;

2. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

C. National Institute of Standards and Technology, Department of Commerce, latest editions:

1. Voluntary Product Standard PS 20 - American Softwood Lumber Standard.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Cover wood products to protect against moisture.

B. Support stacked products to prevent deformation and to allow air circulation.

2PART 2 - PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Dimension Lumber: PS 20 and requirements of specified grading agencies.

1. Provide any species graded by the agency specified; if no grading agency is specified, provide lumber graded by any grading agency meeting the specified requirements.

2. Grading Agency: Any grading agency whose rules are approved by the ALSC, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

A. Sizes: Nominal sizes as indicated on Contract Drawings.

B. Moisture Content: S-dry or MC19; Keep wood products dry before enclosing in construction.

C. Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:

1. Lumber: S4S, No. 2 or Standard Grade.

2. Boards: Standard or No. 3.

2.03 FASTENERS AND ANCHORS

A. Carpentry to wood substrate:

1. Common wire nails with hot-dipped galvanized coating.

2. #8, coarse galvanized, sharp point, dual-torque deck screw with bugle head.

3. Length as necessary to penetrate substrate by a minimum of 1-1/2-inches.

B. Carpentry to wood roof decking:
   1. #14 steel roofing screw with corrosion-protective coating.
      a. Roofgrip screw with Climaseal coating, by Buildex Division of ITW, Inc.; itwbuildex.com.
      b. Heavy Duty Roofing Fastener with CR-10 coating, by OMG, Inc.; olyfast.com.
      c. #14 Dekfast with gray e-coat coating, by SFS intec, Inc.; sfsintecusa.com.
      d. Trufast #14 HD Roofing Fastener with black e-coat coating, by Altenloh, Brinck & Co. U.S., Inc.; trufast.com.
      e. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   2. Length shall be sufficient to penetrate wood decking by 1-inch.

C. Carpentry to concrete or solid masonry substrate:
   1. 1/4-inch diameter, Phillips-head masonry screw.
      a. Tapcon, 3/16-inch diameter, Star-drive head screw, by Buildex Division of ITW, Inc.; itwbuildex.com.
      b. Tapper, 1/4-inch diameter, Phillips-head screw, by Powers Fastening, Inc.; powers.com.
      c. Titen, 3/16-inch diameter, Phillips-head screw, by Simpson Strong-Tie; strongtie.com.
      d. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   2. Zinc Alloy nail-drive expansion anchor, 1/4-inch diameter, with stainless-steel pin.
   3. Length as necessary to provide a minimum of 1-inch embedment.

D. Carpentry to hollow masonry substrate:
   1. 1/4-inch diameter sleeve anchor; length as necessary to penetrate a minimum of 1-inch into interior of the hollow masonry units.
      a. Sleeve Anchor, by Hilti Fastening Systems; hilti.com.
      b. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   2. 1/4-inch diameter, Phillips-head masonry screw; length as necessary to provide a minimum of 1-inch embedment.
      a. Tapcon, 1/4-inch diameter, Star-drive head screw, by Buildex Division of ITW; itwbuildex.com.
      b. Tapper, 1/4-inch diameter, Phillips-head screw, by Powers Fastening, Inc.; powers.com.
      c. Titen, 1/4-inch diameter, Phillips-head screw, by Simpson Strong-Tie; strongtie.com.
      d. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

E. Carpentry to sheet metal substrate:
   1. Self-drilling sheet metal screws, cadmium plated.
      a. 10-24 wafer-head Plymetal TEKS/3 with wings, by Buildex Division of ITW, Inc.; itwbuildex.com.
      b. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   2. Length shall penetrate the substrate by a minimum of 1-inch.

F. Carpentry to structural steel:
   1. Self-drilling sheet metal screws, cadmium plated.
      a. 12-24 flathead TEKS/4, by Buildex Division of ITW, Inc.; itwbuildex.com.
      b. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   2. Length shall penetrate the substrate by a minimum of 1-inch.

3PART 3 - EXECUTION

3.01 PREPARATION

A. Coordinate installation of rough carpentry members with Work specified in other sections.

B. Examine existing nailers and blocking which conforms to Contract Drawings at walls, edges, expansion joints, hatches, pipes or curbs:

1. Replace deteriorated sections with new dimensional lumber of same size.
2. Verify existing fastening to comply with specified requirements for new Work; enhance to secure as required.

3.02 INSTALLATION – GENERAL

A. Do not use lumber or materials which are unsound, warped, bowed, twisted, inadequately seasoned, or too small to fabricate Work with a minimum of joints.

B. Fit carpentry Work to other Work. Produce joints which are tight, true and well fastened.

C. Set carpentry accurately to required levels and lines with members plumb and true.

D. Attach carpentry to substrates in accordance with recognized standards.

E. Countersink new fastener heads flush with top of wood members. Hollow out bottom of new wood members, if necessary, to fit over existing exposed bolt heads that are not countersunk.

3.03 ROOF-RELATED CARPENTRY

A. Provide wood blocking and nailers as indicated on Contract Drawings.

B. Coordinate installation of roofing carpentry with other construction, framing of roof openings, and roofing assembly installation.

C. Provide wood curbs at all roof openings except where specifically indicated otherwise. Form corners by alternating lapping side members.

D. Provide wood curb extensions at all existing curbs, except where specifically indicated otherwise, to achieve a minimum of 8-inch flashing height above finished roof surface. Form corners with alternating, lapping side members.

E. When using multiple nailer courses, weave corners and stagger end joints a minimum of 3-feet from underlying course.

3.04 PLYWOOD PANELS

A. Refer to *Section 06 01 16 - "Maintenance of Plywood Roof Decking".*

3.05 ATTACHMENT

A. Wood nailers and blocking are required to resist, at a minimum, applicable wind uplift loads, as shown in the Wind Uplift Plan in the Contract Drawings.

B. Fasten initial 2-by wood nailer to concrete or masonry in two staggered rows at a maximum of 24-inches on center, along the linear length of the nailer.

C. Fasten initial 2-by wood nailer to roof decking in two staggered rows at a maximum of 16-inches on center, along the linear length of the nailer.

D. Fasten subsequent wood components, to anchored wood nailer; fasten each layer separately and stagger end joints 24-inches minimum.

1. Fasten 2-by material, with 3-inch-long screws in two staggered rows, at a maximum of 16-inches on center along its length; stagger end joints.
2. Fasten 1-by material, with 1 1/2-inch-long screws, in two staggered rows, at a maximum of 12-inches on center along its length.
3. Plywood panel attachment:
    a. Fasten panels at edges; spacing shall be no greater than 12-inches on center and staggered from adjacent rows; add middle rows where panels are greater than 16-inches in width.
    b. Fasteners shall be placed no closer than 1-inch from panel edges.
    c. Where applicable (at large panels), fasten center in horizontal rows on 24-inch maximum centers. Fastener spacing shall be no greater than 12-inches on center and staggered from adjacent rows or edges.

4. Within dimensions shown (on Wind Uplift Plan in Contract Drawings) of building corners, increase fastening rate to at a maximum of 6-inches on center, staggered.

E. Provide two fasteners at butt ends of each member.

F. Provide additional fasteners to above, as required, to counteract minor warpage or variances in substrate, and to hold tight and true to lines.

3.06 TOLERANCES

A. Framing Members:1/4-inch from true position, maximum.

B. Variation from Plane:1/4-inch in 10-feet, maximum, and 1/4-inch in 30 feet, maximum.

END OF SECTION

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SECTION 07 01 50.19
PREPARATION FOR RE-ROOFING

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Preparation of existing building components in preparation for a new roof system.

B. Repairs/adjustments to existing building components to remain, in preparation for a new roof system.

1.02 RELATED REQUIREMENTS

A. Section 03 01 30 - Maintenance of Concrete Roof Decking

B. Section 06 01 16 - Maintenance of Plywood Roof Decking

C. Section 06 10 53 - Miscellaneous Rough Carpentry; Replacement or addition of perimeter blocking.

D. Section 07 31 13 – Asphalt Shingles – **Base Bid.**

E. Section 07 41 16 - Metal Roof Panels – **Alternate No. 1.**

F. Section 07 53 23 - EPDM Single-Ply Roofing.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordinate affected mechanical and electrical Work required, associated with roof penetrations.

B. Coordinate affected plumbing Work required, associated with storm drainage system.

C. Schedule work to coincide with commencement of installation of new roofing system.

1.04 SUBMITTALS

A. See *Section 01 30 00 - "Administrative Requirements"*, for submittal procedures.

B. Copy of pull test results: Provide ANSI/SPRI IA-1 form, indicating completed field testing.

C. Submit manufacturer's letter stating that pull tests achieved are sufficient for system requirements and warranty requirements.

1.05 FIELD CONDITIONS

A. Reroofing Work, once begun, will leave building subject to leakage and therefore must be considered in state of emergency when weather threatens.

B. Do not remove existing roofing membrane when weather conditions threaten integrity of building contents or intended continued occupancy.

C. Existing building shall be protected from water infiltration through any roof, parapet, or wall area under repair for the life of Project.

2PART 2 - PRODUCTS (NOT USED)

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that existing roof surface is clear and ready for Work of this section.

B. Verify that existing wood nailers and blocking to remain is properly anchored.

C. Contractor is responsible for confirming presence of hazardous materials with Owner per OSHA requirements prior to removal.

1. Asbestos-containing materials may be present in existing roofing system.
2. Lead paint may be present on existing building components.

3.02 PREPARATION

A. Provide exterior access to roof areas.

B. Prior to removal of existing roofing:

1. Coordinate drain replacement, and required access to building interior, with Owner.

2. Perform mechanical, electrical and plumbing Work as required.

C. Perform adhesive pull tests, per ANSI/SPRI IA-1.

3.03 MATERIAL REMOVAL

A. Remove and properly dispose of existing ballast,

B. Verify, prior to start of decking removal, existence and location of deck-supported utilities and accessories including, but not limited to:

1. Water or gas lines;
2. Fire-sprinkler systems;
3. Above- and below-deck conduit and tubing, and;
4. Ceiling suspension systems.

C. Where applicable, back out existing fasteners during removal of roof system components.

D. Remove only as much roofing, flashings and insulation as can be made watertight each day.

1. Make an effective watertight seal between the existing roof system and new roof system at the end of each day's Work.

E. Remove sheet metal flashings from areas involved in Work, unless specifically indicated to remain on Contract Drawings.

F. Remove, and legally dispose of, existing roof membrane(s), flashings, insulation and fasteners down to:

1. Concrete deck at LOC 42 – Building 5: Waste Water Tretment Plant Roof Area 12:and LOC 48 – Building 7: Museum Hammer Roof Area 1.

a. Evaluate condition of existing concrete deck in accordance with *Section 03 01 30 - "Maintenance of Concrete Roof Deck".*

G. Remove, and legally dispose of, existing metal 'R'-Panels, flashings, and fasteners down to:

1. Roof Purlins at LOC 35: Valley Rd. Waste Water Treatment Plant Roof Areas 1 and 2.

H. Remove, and legally dispose of, existing underlayemnts, shingles, flashings, and fasteners down to:

1. Wood Decking at Remaining LOC Buildings:

a. Evaluate condition of existing wood deck in accordance with *Section 06 01 16 - "Maintenance of Plywood Roof Decking".*

I. Refer to Contract Drawings for removals of existing perimeter blocking.

1. Where scheduled to remain, remove damaged or deteriorated sections, as required.

J. Load roofing debris directly into trucks by means of approved chutes or other controlled means.

1. Throwing or dropping will not be permitted.
2. Pick up debris continuously to prevent straying.
3. All such aggregate, rubbish, and debris shall be removed from the site and legally disposed of.

K. Properly dispose of materials removed, including ACRMs. Retain receipts, manifests and dump certificates for project close-out submission.

3.04 ADJUSTMENTS

A. Refer to Contract Drawings for additions and/or changes to perimeter blocking configuration.

1. Provide wood nailers at perimeters and other locations, to height matching total thickness of insulation being used., as indicated on Contract Drawings.

B. Repair or replace existing deck, as indicated on Contract Drawings, as required to provide smooth working surface for new roof system.

C. Projections and penetrations within roof area that are less than 8-inches in height shall be modified and raised to provide a flashing height of 8-inches, minimum, above finished surface of new roof system.

3.05 FIELD QUALITY CONTROL

A. Verify that:

1. Substrate is smooth, dry, and properly installed and ready to accept new roof system.
2. Items not specified to be removed and replaced, but necessary for proper installation of Work, have been properly coordinated for removal and replacement.

B. Do not proceed until unsatisfactory conditions have been corrected.

END OF SECTION

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SECTION 07 31 13
ASPHALT SHINGLES

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Products and installation requirements for asphalt shingle roofing.

B. Flexible sheet membranes for underlayment, eave protection, valley protection, and penetration protection and transition protection.

C. Installation of associated metal flashings and accessories.

D. Disposal of construction waste is the responsibility of Contractor. Perform disposal in manner complying with applicable federal, state, and local regulations.

E. Commencement of Work by Contractor shall constitute acknowledgement by Contractor that this specification can be satisfactorily executed, under Project conditions and with necessary prerequisites for warranty acceptance by roofing shingle manufacturer.

1. No modification of the Contract Sum will be made for failure to adequately examine Contract Documents or the project conditions.

1.02 RELATED REQUIREMENTS

A. Section 06 01 16 – Maintenance of Plywood Decking.

B. Section 06 10 53 - Miscellaneous Rough Carpentry: Nailers and blocking.

C. Section 07 01 50.19 - Preparation for Re-roofing: Demolition.

D. Section 07 62 00 - Sheet Metal Flashing and Trim: Architectural sheet metal, flashings, trim and gutter systems.

E. Section 07 90 05 - Joint Sealers: Sealant systems.

1.03 REFERENCE STANDARDS

A. ASTM International Standards, latest editions unless otherwise stated:

1. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing;

2. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection;

3. ASTM D3161 - Standard Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method);

4. ASTM D3462 - Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules;

5. ASTM D4586/D4586M - Standard Specification for Asphalt Roof Cement, Asbestos-Free;

6. ASTM E96/E96M - Standard Test Methods for Water Vapor Transmission of Materials;

7. ASTM E108 - Standard Test Methods for Fire Tests of Roof Coverings.

B. ICC-ES AC188 - Acceptance Criteria for Roof Underlayments; 2012.

C. ICC-ES AC207 - Acceptance Criteria for Polypropylene Roof Underlayments; 2012.

D. NRCA MS104 - The NRCA Steep Roofing Manual; National Roofing Contractors Association; 2001, Fifth Edition, with interim updates.

E. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association 2012.

F. UL (RMSD) - Roofing Materials and Systems Directory; Underwriters Laboratories Inc.; current edition.

1.04 SUBMITTALS

A. See *Section 01 30 00 - "Administrative Requirements"*, for submittal procedures.

B. Product Data: Provide data indicating performance criteria.

C. Samples: Submit 2 samples of each shingle color indicating color range and finish texture/pattern; for color selection.
D. Manufacturer's Current Published Instructions: Indicate installation criteria and procedures.
E. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
F. Maintenance Materials: Furnish the following for Owner's use in maintenance of Project.
   1. Extra Shingles: 100-sq. ft. of each type and color

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with the recommendations of NRCA Steep Roofing Manual.
   1. Maintain 1 copy of document on Project site
B. Products Required to Comply with Fire Resistance Criteria: UL listed and labeled.

1.06 FIELD CONDITIONS

A. Do not install shingles or eave protection membrane when surface temperatures are below 45-degrees F.

1.07 WARRANTY

A. See *Section 01 70 00 - "Execution and Closeout Requirements",* for additional warranty requirements.
B. Provide shingle manufacturer's standard 30-year or 40-year, minimum, pro-rated replacement and wind damage warranty.
   1. Coverage shall include a minimum 10-year non-prorated material and labor warranty.
   2. For enhanced coverage options, provide listing and costs at time of bidding for Owner's consideration.
C. Correct defective Work within a 2-year period after Date of Substantial Completion; remove and replace materials at no extra cost to Owner.

2PART 2 - PRODUCTS

2.01 SHINGLES

A. Asphalt-coated glass felt, mineral granule surfaced: ASTM D3462; Class A fire resistance.
   1. Wind Resistance: Class F: ASTM D3161.
   2. Warranted Wind Speed: Not less than tested wind resistance.
   3. Algae Resistant.
   4. Self-sealing type.
   5. Style: Laminated overlay.
   6. Color: As selected by Owner from manufacturer's standards.
   7. Acceptable Products (Standard Asphalt Shingles):
      a. Landmark Pro, by CertainTeed Corporation; certainteed.com.
      b. Timberline AS II, by GAF Materials Corporation; gaf.com.
      c. Stormfighter Flex, by Tamko Building Products; tamko.com.
      d. Substitutions: See *Section 01 60 00 - "Product Requirements*".
   8. Acceptable Products (High Impact Reistant):
      a. Landmark LimateFlex class 4, by CertainTeed Corporation; certainteed.com.
      b. Substitutions: See *Section 01 60 00 - "Product Requirements*".
B. Starter strip/shingles: As supplied by, or recommended by, shingle manufacturer for use with specified shingles.
C. Hip/ridge shingles: As supplied by shingle manufacturer to match specified shingles.

2.02 SHEET MATERIALS

A. Ice Dam Flashing Membrane: Self-adhering polymer-modified asphalt sheet: ASTM D1970; 40-mil total thickness; with strippable treated release paper and polyethylene sheet top surface.
   1. Manufacturers:
      a. WinterGuard, by CertainTeed: certainteed.com.
      b. StormGuard, by GAF Materials Corporation: gaf.com.
      c. GCP Applied Technologies Inc.; Product Grace Ice & Water Shield; gcpat.com.
      d. WeatherLock Self-Sealing Ice & Water Barrier, by Owens-Corning Corporation; owenscorning.com.
      e. Moisture Guard Ice & Rain Underlayment, by Tamko Building Products; tamko.com.
      f. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

B. Shingle Underlayment: Synthetic polymer- based scrim-reinforced underlayment membrane, intended by manufacturer for mechanically fastened roofing underlayment without sealed seams.
   1. Flammability: Classified for use beneath UL 790 ASTM E108 Class A fire rated asphalt shingles.
   2. Ultraviolet Resistance: 180-day Ultraviolet resistance.
   3. Water Vapor Permeance: Vapor retarder; less than .2 perms: ASTM E96/E96M Procedure A (desiccant method).
   4. Performance: ASTM D226/D226M, and D4869 (Physical properties only).
   5. Liquid Water Transmission: ASTM D4869.
   6. Fasteners: As specified by manufacturer and building code qualification report; plastic cap nails if approved by manufacturer and building code.
   7. Manufacturer's products, same as shingle manufacturer:
      a. Diamond Deck, by CertainTeed Corporation: certainteed.com.
      b. Tiger Paw or Deck Armor, by GAF Materials Corporation; gaf.com.
      c. DeckDefense or ProArmor, by Owens-Corning Corporation; owenscorning.com.
      d. Synthetic Guard Plus, by Tamko Building Products; tamko.com.
      e. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

2.03 ACCESSORIES

A. Nails: Standard round wire shingle type, of zinc coated steel, 12-gauge, 0.105-inch shank diameter, 3/8-inch head diameter, of sufficient length to penetrate through roof sheathing or 3/4-inch into roof sheathing or decking.

B. Plastic Cement: ASTM D4586, asphalt roof cement.

C. Hip/ridge shingles: As supplied by shingle manufacturer.

D. Ridge Vent: Shingle-over, rigid plastic style vent spacers.
   1. Shinglevent II, Series SHFV-203, by Air-Vent, Inc., a Certainteed Company.
   2. Cobra Snow Country, by GAF Materials Corporation.
   3. RidgeMaster, by Mid-America Building Products Corporation.
   4. VentSure Rigid Strip Ridge Vent, by Owens-Corning.
   5. Shingle-Over Ridge Vent, by The Solar Group.

2.04 METAL FLASHINGS

A. Metal Flashings: Provide architectural sheet metal flashings, penetration and transition flashings, gutter system, wall panel system, trim and stationary louver flashings and other flashings as indicated in Contract Drawings and as required.
   1. Form flashings to profiles indicated in Contract Drawings.

2. Form sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.
3. Hem exposed edges of flashings minimum 1/4-inch on underside.
4. Tabbed portion of fabrications shall be concealed from view.
5. Separate flashings from masonry surfaces and dissimilar metals with bituminous paint.

B. Sheet Metal: As specified in *Section 07 62 00 - "Sheet Metal Flashing and Trim"*.

C. Bituminous Paint: Acid and alkali resistant type; Zinc Molybdate alkyd.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify existing conditions prior to beginning Work.

B. Verify deteriorated plywood roof deck substrate replacement has been completed prior to beginning Work.

C. Verify that deck is of sufficient thickness to accept fasteners.

D. Verify that roof penetrations and plumbing stacks are in place and flashed to deck surface.

E. Verify roof openings are correctly framed.

F. Verify deck surfaces are dry, free of ridges, warps, or voids.

3.02 PREPARATION

A. At areas where self-adhered ice dam flashing membrane is to be installed, fill knot holes and surface cracks with latex filler.

B. Broom clean deck surfaces before installing ice dam flashing membrane and/or underlayment felt.

3.03 INSTALLATION – SELF ADHERED ICE DAM FLASHING MEMBRANE

A. Install self-adhered ice dam flashing membrane from eave edge to minimum 2-feet up-slope beyond interior face of exterior wall.

B. Install 1/2 width sheet self-adhered ice dam flashing membrane at all roof deck substrate intersections with walls and parapets. Extend up wall or penetration 6-inches and out onto roof deck substrate 12-inches.

C. Install self-adhered ice dam flashing membrane in accordance with manufacturer's current published installation instructions and as specified and detailed in Contract Drawings.

3.04 INSTALLATION – SYNTHETIC UNDERLAYMENT

A. Install 1-ply of underlayment felt, perpendicular to slope of roof, over entire roof deck in shingle fashion, including over the installed ice dam flashing membrane.

B. Stagger end laps and install with edges weather-lapped in accordance with underlayment and shingle manufacturer's current published installation instructions, and as specified and detailed in Contract Drawings.

C. Fasten underlayment felt with cap nails sufficiently to hold it in place until shingles are installed.

3.05 INSTALLATION – VALLEY FLASHING

A. Install valley flashing in accordance with current published NRCA and SMACNA recommendations, and as specified and detailed in Contract Drawings.

B. Coordinate installation of valley flashing detailing with installation of asphalt shingle roof system components.

C. Install a 6-foot width, minimum, of ice dam flashing membrane centered in valley locations. Center 1 full sheet in width along the length of the valley. Provide an additional 1/2 sheet width along each upslope edge, for a total width of 2 sheets in valley locations.

3.06 INSTALLATION – ARCHITECTURAL SHEET METAL FLASHINGS

A. Install flashings in accordance with current published NRCA and SMACNA recommendations, and as specified and detailed in Contract Drawings.

B. Coordinate installation of flashing detailing, gutter system, wall panel system, trim, stationary louvers and flashings, and other flashings and accessories with installation of asphalt shingle roof system components.

C. At eaves and eaves with gutter, install sheet metal roof edge flashing under shingles and ice dam flashing membrane.

D. At rake edges install underlayment felt under sheet metal roof edge flashing.

3.07 INSTALLATION – SHINGLES

A. Install shingles in accordance with manufacturer's current published instructions.

B. Prior to installing the first course of shingles, install a row of starter shingles along the eaves. Starter course of shingles shall extend over edge of the eave(s) a minimum of 3/8-inch and a maximum of 1/2-inch. Butt end joints of the shingle starter course shall be offset from butt end joints of first shingle course. Nails shall be placed in such manner that nail heads will not be exposed either at cutouts or at butt end joints of first shingle course.

C. Align shingle courses straight and true by providing horizontal chalk lines as follows:

D. First chalk line shall be the width of the shingle less drip overhang (3/8-inch to 1/2-inch), measured from edge of the eave sheet metal roof edge flashing or high back gutter edge flange. This will represent top edge of first shingle course along eave.

E. Second and successive chalk lines, representing top of next full shingle course, spaced at every other course, depending on manufacturer and shingle being installed, measured from first chalk line.

F. Install shingles in stepped pattern using manufacturer’s current published installation instructions

G. Maintain 5-5/8-inch exposure to the weather.

H. Fasten architectural laminated asphalt shingles using 4 fasteners per unit, or as required by code, whichever is greater.

I. Extend shingles 1/2-inch beyond face of rake edge sheet metal roof edge flashing; cement to roof edge and to one another.

J. Field-of-roof shingle intersections with walls and penetrations shall receive sheet metal step flashing (tin shingles) properly interwoven with each course.

K. Valley locations shall incorporate sheet metal valley flashing with an open valley configuration in accordance with Contract Drawings.

1. Trim ends of shingles to match angle of valley plus taper.
2. Trim top corner of each shingle to prevent surface water from migrating under shingle.
3. Set shingles in roof cement on sheet metal valley.
4. Allow 3-inches from center of valley to shingles on each side, at top of valley.
5. Taper cut shingles away from valley center to 4-inches maximum each side, at base of valley.

L. Plumbing vent flashing installation:

1. Extend shingles upslope beyond the mid-point of plumbing vent pipe.
2. Install sheet metal pipe flashing.
3. Set shingles in roof cement on prefabricated flashing flange.

M. Cap hip and ridge with individual shingles manufactured specifically for hip and ridge installation, maintaining same weather exposure as field of roof shingle courses. Place to avoid exposed nails by fastening to deck on each side above the exposure and 1-inch from the edge.

1. After installation, place one daub of plastic cement, 1-inch diameter under each individual shingle tab exposed to weather, to prevent lifting.

N. Coordinate installation of roof mounted components and Work projecting through roof with installation of asphalt shingle roof system components.

O. Complete installation to provide weather and water tight system.

3.08 INSTALLATION OF RIDGE VENT

A. Remove or plug existing vents.

B. Install adequate intake ventilation for balanced system.

C. Fasten through slotted holes into roof substrate, ensuring vent is located above opening at roof ridge.

1. In warm weather, tightly butt end joints.
2. In colder weather, leave a 1/8-inch gap between joints.

D. Install cap shingles using nails long enough to penetrate roof sheathing.

3.09 PROTECTION

A. Do not permit traffic over finished roof surface.

END OF SECTION

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SECTION 07 41 16
METAL ROOF PANELS

1PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. Exposed-fastener metal panel roofing, including all related components as specified or required.

B. Disposal of construction waste is the responsibility of Contractor.

1. Perform disposal in manner complying with all applicable federal, state, and local regulations.

C. Commencement of Work by Contractor shall constitute acknowledgement by Contractor that this specification can be satisfactorily executed, under the project conditions and with all necessary prerequisites for warranty acceptance by roofing membrane manufacturer.

1. No modification of the Contract Sum will be made for failure to adequately examine the Contract Documents or the project conditions.

1.02 RELATED SECTIONS:

A. Section 06 10 53 - Miscellaneous Rough Carpentry:

B. Section 07 01 50.19 - Preparation for Reroofing.

C. .Section 07 62 00 - Sheet Metal Flashing and trim:

D. Section 07 72 00 - Roof Accessories: Snow and ice guards.

1.03 REFERENCES

A. ASTM International Standards, latest editions unless otherwise stated:

1. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process;

2. ASTM A755/A755M - Standard Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products;

3. ASTM A792/A792M - Standard Specification for Steel Sheet, 55 % Aluminum-Zinc Alloy-Coated by the Hot-Dip Process;

4. ASTM C920 - Standard Specification for Elastomeric Joint Sealants;

5. ASTM C1311 - Standard Specification for Solvent Release Sealants;

6. ASTM D226/D226M - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing;

B. American Architectural Manufacturers Association (AAMA):

C. Metal Building Manufacturers Association (MBMA) - Metal Roofing Systems Design Manual; 2012.

D. UL 2218 - Standard for Impact Resistance of Prepared Roof Covering Materials; Underwriters Laboratories Inc.; Current Edition, Including All Revisions.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Pre-Installation Conference: Before start of roofing Work, hold a meeting to discuss proper installation of materials and requirements to achieve the warranty.

1. Require attendance with parties directly influencing the quality of roofing Work or affected by performance of roofing Work.

1.05 SUBMITTALS

A. See *Section 01 30 00 - "Administrative Requirements",* for submittal procedures.

B. Product Data: Submit manufacturer's data sheets on each product to be installed and manufacturer's standard detail drawings applicable to this Project.

1. Installation Instructions: Provide manufacturer's instructions to installer, marked up to show exactly how all components will be installed; where instructions allow installation options, clearly indicate which option will be used.

C. Samples: Submit color chips for selection of finish color and sheen.

D. Shop Drawings: Provide drawings prepared especially for this Project for relevant conditions, including plans and elevations, sections and details, specified loads, flashings, roof edges, terminations, expansion joints, curbs, penetrations, and drainage. Specifically include interfaces with materials not supplied by metal roof panel manufacturer and identify each component and its finish.

E. Specimen Warranty: Submit prior to starting Work.

F. Pre-Installation Notice: Copy to show that manufacturer's required Pre-Installation Notice (PIN) has been accepted and approved by manufacturer.

G. Maintenance Data: Submit information describing methods of maintaining installed products and precautions regarding cleaning materials and methods relating to maintenance of appearance and performance of finishes.

1. Submit in accordance with *Section 01 70 00 – "Execution and Closeout Requirements*".

1.06 QUALITY ASSURANCE

A. Installer Qualifications: Roofing installer shall have received training from metal panel manufacturer for installation of specified roof panel system, and:

1. Current manufacturer's installer status.
2. Having and using only equipment authorized and inspected by metal panel manufacturer.

1.07 DELIVERY, STORAGE AND HANDLING

A. Deliver products in manufacturer's original containers, dry and undamaged, with seals and labels intact and legible.

B. Exercise extreme care in unloading, storing, and installing metal panels to prevent bending, warping, twisting, and surface damage.

C. Store products above ground on well-supported platforms that provide minimum of 1:48 slope. Store under waterproof covering or indoors and provide proper ventilation of metal components to prevent condensation build-up between metal components.

1.08 WARRANTY

A. Painted Finish Warranty: Provide Manufacturer's standard warranty covering durability of painted finish, to include film integrity, color change, fading, and chalking.

1. Warranty Period: 20-years commencing on date of substantial completion.

B. Correct defective Work within a 2-year period after Date of Substantial Completion; remove and replace materials at no extra cost to Owner.

2PART 2 - PRODUCTS

2.01 ROOF PANEL MANUFACTURERS

A. Basis-of-design: Metal Roof Panels and Associated Sheet Metal Components: MBCI.; mbci.com; provide MBCI; 'R' Panel, or a product accepted by Consultant.

B. Provide components of system supplied or specified by same manufacturer.

1. Roofing systems manufactured by others are acceptable provided the roofing system is completely equivalent in materials and finishes.

C. Substitutions: See *Section 01 60 00 - "Product Requirements*".

1. Submit evidence that the proposed substitution complies with the specified requirements.

2.02 EXPOSED-FASTENER, LAP-SEAM, METAL ROOF PANELS

A. General: Provide factory-formed metal roof panels designed to be installed by lapping side edges of adjacent panels and mechanically attaching panels to supports using exposed fasteners in side laps. Include accessories required for weathertight installation.

B. Source Limitations: Obtain metal roof panel assembly and accessories from a single source with resources to provide fixed base roll forming, and accredited under IAS AC 472 Part B.

C. Tapered-Rib-Profile, Exposed-Fastener Metal Roof Panels: Formed with raised, trapezoidal major ribs and intermediate stiffening ribs symmetrically spaced between major ribs.
   1. Zinc alloy-coated steel sheet complying with ASTM A653/A653M, A792/A792M, Class AZ50 (Class AZM150) coating designation; structural quality or aluminum-zinc alloy-coated steel sheet complying with ASTM A792/A792M, Class AZ55 (Class AZM165) coating designation. Pre-painted by the coil-coating process to comply with ASTM A755/A755M.
      a. Nominal Thickness: 24-gauge.
      b. Surface: Smooth finish.
         1) Exterior Finish: Fluoropolymer Coating: 70-percent full strength Kynar 500/Hylar 5000.
         2) Exposed Surface: 1.0-mil plus/minus 0.1 mil total dry film thickness.
         3) Concealed Surface: 0.2 to 0.3-mil total dry film thickness.
         4) Finish Process: Coil primed and coated.
         5) Color: Up to 4 colors may be selected from manufacturer's standard colors.
   2. Major-Rib Spacing: 12-inches.
   3. Panel Coverage: 36-inches
   4. Panel Height: 1-1/4-inches.

2.03 TRANSLUCENT RIDGE CAP MANUFACTURERS

A. Direct Metals, Inc.; directmetalsinc.com.

B. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   1. Submit evidence that the proposed substitution complies with the specified requirements.

2.04 PREFABRICATED PIPE FLASHING MANUFACTURERS

A. Triangle Fastener Corporation; trianglefastener.com.

B. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
   1. Submit evidence that the proposed substitution complies with the specified requirements.

2.05 MISCELLANEOUS MATERIALS

A. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.
   1. Molded Closure Strips: Non-absorptive closed-cell or solid-cell synthetic rubber or neoprene or polyvinylchloride, or metal pre-molded to match configuration of the covering; configuration to prevent retention of water.
   2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
   3. Closure Strips: Closed-cell laminated polyethylene; 1-inch wide, UV resistant, flexible closure strips; cut or pre-molded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

B. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, eaves, rakes, corners, bases, framed openings, ridges, fascia, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

C. Fasteners:
   1. At flat area of panel:
      a. Metal to Wood Fastener: Refer to Contract Drawings.
         1) Length as required to obtain minimum 1-1/4-inch embedment into wood.
   2. Through ribs:
      a. Refer to Contract Drawings.

D. Panel Sealants: Concealed Joint Sealants: Non-curing butyl, AAMA 809.2.

2.06 FABRICATION

A. General: Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Fabricate metal panel joints to provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Sealed Joints: Form non-expansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.

2.07 FINISHES

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Steel Panels and Accessories:

1. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by metal roof panel manufacturer.
2. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal roof panel manufacturer.
    a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Refer to *Section 07 01 50.19 - “Preparation for Re-Roofing”*.

3.03 METAL PANEL INSTALLATION

A. General: Install metal panels in accordance with manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air or water-resistive barriers and flashings that are concealed by metal panels are installed.
2. Locate and space fastenings in uniform vertical and horizontal alignment.
3. Install flashing and trim as metal panel work proceeds.
4. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
5. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
6. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

C. Lap-Seam Metal Panels: Fasten metal panels to supports with fasteners at each lapped joint at location and spacing recommended by manufacturer.

1. Lap ribbed or fluted sheets one full rib. Apply panels and associated items true to line for neat and weathertight enclosure.
2. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
3. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
4. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels. Install screws in predrilled holes.
5. Flash and seal panels with weather closures at perimeter of all openings.
6. Watertight Installation:
    a. Apply a continuous ribbon of sealant or tape to seal lapped joints of metal panels, using sealant or tape as recommend by manufacturer on side laps of nesting-type panels and elsewhere as needed to make panels watertight.
    b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
    c. At panel splices, nest panels with minimum 4-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

D. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible and set units true to line and level. Install work with laps, joints, and seams that are permanently watertight.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof performance.

E. Roof Curbs: Install flashing around bases where they meet metal roof panels.

F. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by manufacturer.

3.04 FLASHING AND ACCESSORIES INSTALLATION

A. Install flashings, including laps, splices, joints, bonding, adhesion, and attachment, as required by roof panel manufacturer's recommendations and details.

B. Install metal trim, accessories, and edgings in locations indicated on Contract Drawings.
   1. Follow roofing manufacturer's instructions.
   2. Remove protective plastic surface film immediately before installation.

C. Flashing at Penetrations: Flash all penetrations passing through the membrane; make flashing seals directly to the penetration.
   1. Pipes, Round Supports, and Similar Items: Flash with specified pre-molded pipe flashings wherever practical.
   2. Where pre-molded pipe flashings are not practical, provide flashing detail as recommended by metal panel manufacturer.

3.05 RIDGE CAP INSTALLATION

A. Fastener sites in ridge cap shall be pre-drilled to a diameter of at least 1/16-inch larger than fastener diameter.

B. Fasteners should be installed at least 1-inch from edge of ridge cap.

C. Overlap ridge cap sections a minimum of 4-inches.

3.06 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4-inch in 20 feet on slope and location lines and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.07 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect completed metal panel installation, including accessories. Report results in writing.

B. Remove and replace applications where tests and inspections indicate that they do not comply with specified requirements.

C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.

D. Prepare test and inspection reports.

3.08 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

B. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION

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SECTION 07 53 23
EPDM SINGLE-PLY ROOFING

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. EPDM single-ply membrane fully adhered roofing system, including components specified.
   1. Insulation: flat-stock and tapered;
   2. Field-fabricated flexible flashings;
   3. Preformed components; Roofing stack boots and walkway pads.

B. Disposal of construction waste is the responsibility of Contractor. Perform disposal in manner complying with applicable Federal, state, and local regulations.

C. Commencement of Work by Contractor shall constitute acknowledgement by Contractor that this specification can be satisfactorily executed, under Project conditions and with necessary prerequisites for warranty acceptance by roofing membrane manufacturer.
   1. No modification of the Contract Sum will be made for failure to adequately examine Contract Documents or Project conditions.

1.02 RELATED REQUIREMENTS

A. Section 06 10 53 - Miscellaneous Rough Carpentry: Wood nailers associated with roofing and roof insulation.

B. Section 07 01 50.19 - Preparation for Reroofing.

C. Section 07 62 00 - Sheet Metal Flashing and Trim: Formed metal flashing and trim items associated with roofing.

1.03 DEFINITIONS

A. Roofing Terminology: Refer to ASTM D1079 for definition of terms related to roofing Work not otherwise defined in the section.

B. LTTR: Long Term Thermal Resistance, as defined by CAN-ULC S770.

1.04 REFERENCE STANDARDS

A. ASTM International Standards, latest editions unless otherwise stated:
   1. ASTM C208 - Standard Specification for Cellulosic Fiber Insulating Board;
   2. 1177
   3. ASTM C1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board;
   4. ASTM D41 - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing;
   5. ASTM D1079 - Standard Terminology Relating to Roofing and Waterproofing;
   6. ASTM D4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free;
   7. ASTM D4637 - Standard Specification for EPDM Sheet Used In Single-Ply Roof Membrane.
   8. ASTM D4811 - Standard Specification for Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing;
   9. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
   10. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Degrees C.

B. CAN-ULC-S770 - Standard Test Method Determination of L-Term Thermal Resistance of Closed-Cell Thermal Insulating Foams;

C. NRCA ML104 - The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.

D. Underwriters Laboratories Inc. (UL):
   1. UL (RMSD) - Roofing Materials and Systems Directory; current edition.
   2. UL (FRD) - Fire Resistance Directory; current edition.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Pre-Installation Conference: Before start of roofing Work, Consultant shall hold a meeting to discuss the proper installation of materials and requirements to achieve the warranty.
   1. Require attendance with all parties directly influencing the quality of roofing Work or affected by the performance of roofing Work.

1.06 SUBMITTALS

A. See *Section 01 30 00 - "Administrative Requirements"*, for submittal procedures.

B. Submit copy of ANSI/SPRI IA-1 form fastener pull test.

C. Product Data:
   1. Provide membrane manufacturer's printed data sufficient to show that components of roofing system, including insulation and fasteners, comply with the specified requirements and with the membrane manufacturer's requirements and recommendations for the system type specified.
   2. Where UL requirements are specified, provide documentation that shows that the roofing system to be installed is UL-Classified, as applicable; include data itemizing the components of the classified or approved system.
   3. Installation Instructions: Provide manufacturer's instructions to installer, marked up to show exactly how components will be installed; where instructions allow installation options, clearly indicate which option will be used.

D. Shop Drawings:
   1. Provide manufacturer's insulation adhesive pattern/spacing for requirements specified or required.

E. Specimen Warranty: Submit prior to starting Work.

F. Installer Qualifications: Letter from manufacturer attesting that the roofing installer meets the specified qualifications.

G. Pre-Installation Notice: Copy to show that manufacturer's required Pre-Installation Notice (PIN) has been accepted and approved by the manufacturer.

H. Executed Warranty at Project Closeout.

1.07 QUALITY ASSURANCE

A. Installer Qualifications: Roofing installer shall have the following:
   1. Current approval, license, or authorization as applicator by the manufacturer.
   2. At least 5-years' experience in installing specified system.
   3. Capability to provide payment and performance bond to building Owner.

B. Comply with the published recommendations and instructions of the roofing membrane manufacturer.

C. Perform Work in a sequential manner to avoid construction traffic over completed areas as installation progresses.

1.08 SEQUENCING

A. Perform work in a sequential manner to avoid construction traffic over completed areas as installation progresses.

B. Preparation work shall be limited to area sizes that can be completed (insulation, roof membrane and flashings), by end of day or before the arrival of inclement weather. Take care to maintain proper drainage on areas throughout the progress of Work.

1.09 DELIVERY, STORAGE AND HANDLING

A. Deliver products in manufacturer's original containers, dry and undamaged, with seals and labels intact and legible.

B. Store materials clear of ground and moisture with weather protective covering.
   1. Protect foam insulation from direct exposure to sunlight.
   2. Provide ventilation to prevent condensation and degradation of insulation products.
C. Keep combustible materials away from ignition sources.

1.10 WARRANTY

A. See *Section 01 70 00 - "Execution and Closeout Requirements"*, for additional warranty requirements.
B. Comply with warranty procedures required by manufacturer, including notifications, scheduling, and inspections.
C. Warranty: Manufacturer's Limited Warranty covering membrane, roof insulation, and other indicated components of the system, for the term indicated.
D. Limit of Liability: No dollar limitation.
E. Scope of Coverage: Repair leaks in the roofing system caused by:
   1. Ordinary wear and tear of the elements.
   2. Unintentional damage due to normal rooftop inspections, maintenance, or service.
   3. Manufacturing defects in materials supplied by Warrantor.
   4. Defective workmanship used to install these materials.
   5. Damage due to winds up to 72 mph (116 km/h).

2PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Roof System:
   1. Carlisle Syntec Systems: carlislesyntec.com.
   2. Elevate-Amrize: elevatecommercialbp.com.
   3. Johns-Manville Corporation: jm.com.
   4. Substitutions: See *Section 01 60 00 - "Product Requirements"*.
B. Manufacturer of Insulation and Cover Boards: Same manufacturer as roof membrane.

2.02 ROOFING SYSTEM DESCRIPTION

A. Roofing System: EPDM single-ply membrane.
   1. Membrane Attachment: Fully Adhered.
   2. Comply with applicable local building code requirements.
   3. Provide assembly having Underwriters Laboratories, Inc. (UL) Class A Fire Hazard Classification.

2.03 EPDM MEMBRANE MATERIALS

A. Roofing and Flashing Membrane: Black, cured synthetic single-ply membrane composed of EPDM with the following properties:
   1. Reinforcement: None; membrane complying with ASTM D4637 Type I.
   2. Thickness: 0.060-inch.
   3. Nominal Thickness Tolerance: Plus/minus 10-percent.
   4. Sheet Width: Provide the widest available sheets to minimize field seaming.
   5. Acceptable Products:
      a. 0.060-inch Sure-Seal non-reinforced EPDM Membrane, by Carlisle.
      b. 60-mil RubberGard non-reinforced Fire Retardant FR EPDM Membrane, by Elevate.
      c. JM EPDM NR 60-mil, By Johns Manville.

B. Membrane Fasteners: Type and size as required by roof membrane manufacturer for roofing system and warranty to be provided; use only fasteners furnished by roof membrane manufacturer.
   1. Perimeter Fastening Strip: 6-inch wide, 45-mil reinforced EPDM membrane with pre-applied 35-mil EPDM tape adhesive along one edge; for membrane attachment below the roof membrane.
   2. Metal Plates Used for Fastening Membrane: Steel with Galvalume coating; corrosion-resistance meeting FM 4470 criteria.

C. Flashing Membrane: Self-curing, non-reinforced membrane composed of nonvulcanized and vulcanized EPDM rubber, complying with ASTM D4811, Type II or ASTM D4637, Type I as appropriate, by manufacturer, for use and with the following properties:
   1. Thickness: 0.060-inch.

D. Self-Adhering Flashing Membrane: Semi-cured 45-mil EPDM membrane laminated to 35-mil EPDM tape adhesive.

E. Pre-Molded Pipe Flashings: EPDM, molded for quick adaptation to different sized pipes.
   1. Secure to penetration with stainless steel gear drive clamp.

F. Lap Splice Tape: 35-mil EPDM-based, formulated for compatibility with EPDM membrane and high-solids primer.

G. Splice Adhesive: Synthetic polymer-based, formulated for compatibility with EPDM membrane and metal surfaces.

H. Bonding Adhesive: Neoprene-based, formulated for compatibility with EPDM membrane and wide variety of substrate materials, including masonry, wood, and insulation facings.

I. Adhesive Primer: Synthetic rubber-based primer formulated for compatibility with EPDM membrane and tape adhesive.

J. Seam Edge Treatment: EPDM rubber-based sealant, formulated for sealing exposed edges of membrane at seams.

K. Pourable Sealer: 2-part polyurethane, 2-color for reliable mixing.

L. Water Block Seal: Butyl rubber sealant for use between two surfaces, not exposed.

2.04 ROOF INSULATION

A. Polyisocyanurate Board Insulation: ASTM C1289, Type II, Class 1; Grade 2; Closed cell Polyisocyanurate insulation with organic or inorganic, fiberglass facing on both sides. With the following characteristics:
   1. Compressive Strength: 20 psi when tested in accordance with ASTM C1289.
   2. UL-Classified and FM-approved for direct to steel deck applications.
   3. Ozone Depletion Potential: Zero; made without CFC or HCFC blowing agents.
   4. Board Size: 48-inches by 48-inches, nominal.
   5. Flat-Stock Thicknesses: As indicated on Contract Drawings.
   6. Tapered Insulation Configuration:
      a. Starting Thickness: As indicated on Contract Drawings.
      b. Rate of Taper: As indicated on Contract Drawings.
   7. Acceptable Product: As recommended by roof membrane manufacturer.

B. Adhesive for Insulation Attachment, at Contractor's option:

C. Spray Filler Foam:Two-component, expanding closed-cell polyurethane foam, 1.7 lb. nominal density,
   1. OlyFill by OMG Building Products; frothpak.dupont.com, or equal,
   2. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

2.05 ACCESSORY MATERIALS

A. Tapered Edge Strips:
   1. High-density wood fiberboard, thickness and width as needed to comply with Contract Drawings, conforming to ASTM C208.
   2. Polyisocyanurate Edge Strips: SureSlope TES, by Atlas: roof.atlasrwi.com.

B. Roof Walkway Pads: EPDM, 0.30-inch-thick by 30 by 30 inches, or 30 by 36 inches, with butyl tape adhesive strips laminated to the bottom, as furnished by roof membrane manufacturer .

C. Hard rubber walkpads:
   1. Roof-Gard Pads, 3/4-inch thickness, by Humane Equipment Company, humanerubberflooring.com.
   2. Approved Equals.

D. Concrete ballast pavers, 24-inch by 24-inch by 2-inches thick, 80 pounds minimum, manufacturers standard:
   1. Prest Pavers, by Hanover Architectural Products, Inc.; hanoverpavers.com.
   2. Roof-Blok, by RoofBlok Ltd.; roofblok.com.
   3. Terra- Pavers, by Terra Paving Products, Division of Wausau Tile, Inc.; wausautile.com.
   4. Westile Ballast Paver, by Westile Division of Carder Concrete Products; constructionequipment.com.

E. Place concrete ballast pavers over a single-ply walkwaypad cut a minimum of 3-inches per side wider than paver, and an air barrier/drainage membrane.

F. Termination Bars:
   1. Aluminum bars with integral caulk ledge; 1.3 inches wide by 0.10 inch thick.

3PART 3 - INSTALLATION

3.01 GENERAL

A. Install roofing, insulation, flashings, and accessories in accordance with roofing manufacturer's published instructions and recommendations for the specified roofing system, unless specified herein, whichever is most stringent. Where manufacturer provides no instructions or recommendations, follow good roofing practices and industry standards. Comply with federal, state, and local regulations.

B. Obtain relevant instructions and maintain copies at Project site for duration of installation period.

C. Do not start Work until Pre-Installation Notice has been submitted to manufacturer as notification that this project requires a manufacturer's warranty.

D. Perform Work using competent and properly equipped personnel.

E. Temporary closures, which ensure that moisture does not damage any completed section of the new roofing system, are the responsibility of the applicator. Completion of flashings, terminations, and temporary closures shall be completed as required to provide a watertight condition.

F. Install roofing membrane only when surfaces are clean, dry, smooth and free of snow or ice; do not apply roofing membrane during inclement weather or when ambient conditions will not allow proper application; consult manufacturer for recommended procedures during cold weather. Do not work with sealants and adhesives when material temperature is outside the range of 60 to 80-degrees F.

G. Protect adjacent construction, property, vehicles, and persons from damage related to roofing Work; repair or restore damage caused by roofing Work.
   1. Protect from spills and overspray from, adhesives, sealants and coatings.
   2. Particularly protect metal, glass, plastic, and painted surfaces from bitumen, adhesives, and sealants within the range of wind-borne overspray.
   3. Protect finished areas of the roofing system from roofing related work traffic and traffic by other trades.

H. Until ready for use, keep materials in their original containers as labeled by the manufacturer.

I. Consult membrane manufacturer's instructions, container labels, and Safety Data Sheets (SDS) for specific safety instructions. Keep adhesives, sealants, primers and cleaning materials away from all sources of ignition.

3.02 EXAMINATION

A. Examine roof deck to determine that it is sufficiently rigid to support installers and their mechanical equipment, and that deflection will not strain or rupture roof components or deform deck.

B. Verify that surfaces and site conditions are ready to receive Work. Correct defects in substrate before commencing with roofing Work.

C. Examine roof substrate to verify that it is properly sloped to drains.

D. Verify that specifications and Contract Drawings are workable and not in conflict with roofing manufacturer's recommendations and instructions; start of Work constitutes acceptable of Project conditions and requirements.

E. Verify that wood nailers have been properly installed.

3.03 PREPARATION

A. Refer to *Section 07 01 50.19 - "Preparation for Re-Roofing"*.

3.04 INSULATION INSTALLATION

A. Install insulation in accordance with Contract Drawings.

B. Install only as much insulation as can be covered with the completed roofing system before the end of the day's Work or before the onset of inclement weather.

C. Lay roof insulation in courses parallel to roof edge; stagger joints 12-inches minimum between layers.

D. Tapered insulation layout: Refer to Contract Drawings.

1. Provide tapered saddles in valley lines:
   a. Lay saddle boards starting at the edge of the tapered insulation sumps, or drainage point.
   b. Lay out saddles using a 1:2 ratio, or 22.5-degree plan angle (e.g., 10'-0" dimension along valley corresponds to 5'-0" dimension parallel with slope – connecting line represents the leading edge of the saddle).
   c. Whenever possible, increase angle to incorporate full-width boards at ridge of saddle.
2. At projections greater than 24-inches in width, provide tapered insulation crickets on upslope side.
   a. Lay out boards with leading edges of cricket a minimum of 6-inches out from curb corners to extend beyond edges of roof flashings.

E. Neatly and tightly fit insulation to all penetrations, projections, and nailers, with gaps not greater than 1/4-inch. Fill gaps greater than 1/4-inch with acceptable insulation. Do not leave the roofing membrane unsupported over a space greater than 1/4-inch.

F. Cold Adhesive Attachment for insulation: Apply in accordance with membrane manufacturer's instructions and recommendations; "walk-in" individual roof insulation boards to obtain maximum adhesive contact.

3.05 SINGLE-PLY MEMBRANE INSTALLATION

A. Beginning at low point of roof, place membrane without stretching over substrate and allow to relax at least 30-minutes before attachment or splicing; in colder weather allow for longer relax time.

B. Lay out the membrane pieces so that field and flashing splices are installed to shed water.

C. Install membrane without wrinkles and without gaps or fishmouths in seams;

D. Install membrane adhered to the substrate, with edge securement as specified.

E. Adhered Membrane: Bond membrane sheet to substrate using membrane manufacturer's bonding adhesive specified herein at manufacturer's recommended application rate and procedures.

1. Do not apply bonding material to seaming area of membrane.

F. Edge Securement: Secure membrane at all locations where membrane terminates or goes through an angle change greater than 2 in 12-inches (1:6) using mechanically fastened reinforced perimeter fastening strips, plates, or metal edging as indicated or as recommended by roofing manufacturer.

1. Exceptions: Round pipe penetrations less than 18-inches in diameter and square penetrations less than 4-inches square.

G. Bond and test seams and laps in accordance with membrane manufacturer's recommended application rate and procedures.

3.06 ROOF DRAIN FLASHING

A. At existing drains, wire brush clean drain clamping surface and clamping ring of existing roofing materials and cement. Provide all new clamps or bolts. Reuse undamaged existing clamping rings and strainers.

B. Taper insulation around roof drains to provide a smooth transition from roof surface to drain opening. Do not slope insulation greater than 3/12.

C. Install a watertight seal using water cut-off mastic between roof membrane and drain bowl flange.

3.07 FLASHING AND ACCESSORIES INSTALLATION

A. Install flashings, including laps, splices, joints, bonding, adhesion, and attachment, as indicated on Contract Drawings.

3.08 FINISHING AND WALKWAY INSTALLATION

A. Install walkways at access points to the roof, around rooftop equipment that may require maintenance, and where indicated on Contract Drawings.

1. Use specified walkway pads unless otherwise indicated.

B. Walkway Pads: Adhere to roofing membrane, spacing each pad at minimum of 1-inch and maximum of 3-inches from each other to allow for drainage.

1. If installation of walkway pads over field fabricated splices or within 6-inches of a splice edge cannot be avoided, adhere another layer of flashing over the splice and extending beyond walkway pad a minimum of 6-inches on either side.

3.09 FIELD QUALITY CONTROL

A. See See *Section 01 40 00 - "Quality Requirements"*, for additional requirements.

B. Inspection by Manufacturer:

1. Manufacturer shall provide periodic inspections during the course of Work. Inspection intervals shall include project start-up support and initial inspection, interim (50-percent) inspection and final inspection.

2. Provide final inspection of the roofing system by a Technical Representative employed by roofing system manufacturer specifically to inspect installation for warranty purposes (i.e. not a sales person).

C. Perform corrections necessary for issuance of warranty.

3.10 CLEANING

A. Clean contaminants generated by roofing work from building and surrounding areas, including adhesives, and sealants.

B. Repair or replace building components and finished surfaces damaged or defaced due to Work of this section; comply with recommendations of manufacturers of components and surfaces.

C. Remove leftover materials, trash, debris, equipment from Project site and surrounding areas.

3.11 PROTECTION

A. Protect installed roofing and flashings from subsequent construction operations and inclement weather.

B. Where construction traffic must continue over finished roof membrane, provide durable protection and replace or repair damaged roofing to original condition.

END OF SECTION

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SECTION 07 62 00
SHEET METAL FLASHING AND TRIM

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Fabricated sheet metal items: Cleat, Drip Edge, Fascia, Coping, Receiver, Counter Flashing, Transition/Closure Panel, Gutter, Downspout, Sleeve, Storm Collar, and Miscellaneous Flashing.

1.02 REFERENCE STANDARDS

A. AISI - American Iron and Steel Institute.

B. ANSI/SPRI/FM 4435 ES-1 - Wind Design Standard for Edge Systems Used with Low-Slope Roofing Systems.

C. ANSI/SPRI GT-1 R2022 - Test Standard For External Gutter Systems.

D. ASTM International Standards, latest editions unless otherwise stated:

1. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware;
2. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process;
3. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate;

E. National Roofing Contractors Association (NRCA) – The NRCA Roofing and Waterproofing Manual, ML104; Fifth Edition, with interim updates.

F. SMACNA (ASMM) - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors' National Association; 2012.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Pre-installation Meeting: Convene one week before starting Work of this section.

1.04 SUBMITTALS

A. See *Section 01 30 00 - "Administrative Requirements"*, for submittal procedures.

B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations and installation details.

C. Mock-Ups: Construct 4-foot minimum sections of finished detail assembly, including continuous cleats.

D. Submit manufacturer's standard color chart for Owner's selection.

E. If shop-fabricated, flashings must demonstrate compliance with ES-1 and GT-1 test requirements and with design wind pressures, as shown in the Contract Drawings.

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise indicated.

B. Coordinate and be responsible for removal and reinstallation of items not specified to be removed and replaced as may be necessary for proper installation of its Work.

C. Utilize good weather to utmost.

1. Plan and schedule Work to occur during least threatening weather.
2. Have standing agreement with subcontractors, parties agreeing to proceed as arranged, but also agreeing to adjust to sudden changes of weather.

D. Work, once begun, will leave building subject to leakage and therefore must be considered in state of emergency when weather threatens.

1. Existing building shall be protected from water entering through any roof, parapet or wall area under repair for the life of Project.

E. Remove only as much flashing as can be made watertight each day.
   1. Make an effective watertight seal between existing and new at the end of each day's Work.
   2. Remove seal prior to continuing.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, and abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

2PART 2 - PRODUCTS

2.01 SHEET MATERIALS

A. Aluminum: ASTM B209 0.040-inch; mill finish.

B. Galvanized Steel: ASTM A653/A653M, with G90/Z275 zinc coating.

C. Pre-Finished Steel: ASTM A653/A653M, with G90/Z275 zinc coating; factory pre-coated with PVDF coating.
   1. PVDF (Polyvinylidene Fluoride) Coating: Superior Performance Organic Finish, AAMA 2605; multiple coat, thermally cured fluoropolymer finish system.
   2. Color: As selected by Owner from manufacturer's standard colors.

2.02 ACCESSORIES

A. Fasteners: Same material and finish as flashing metal, with soft neoprene washers.

B. Butyl tape caulk: 1/8-inch thick by 1-1/2 inch wide, minimum, butyl tape sealant.

C. Sealant: Type polyurethane or silicone water tight sealants specified in *Section 07 90 05 - "Joint Sealers".*

D. Fasteners and Anchors: Where not specified, size fasteners to suit conditions and materials.
   1. Metal Jointing with Pop Rivets:
      a. Rivets shall be a minimum 1/8-inch diameter, of length required to properly engage both pieces of sheet metal.
      b. Rivets shall match the type and finish of sheet metal being joined.
   2. Metal to Wood Concealed Fasteners:
      a. Ring shank nails: Hot-dipped galvanized steel per ASTM A153/A153M.
   3. Metal to Wood Exposed Fasteners:
      a. Number 10 nonmagnetic stainless-steel screws with EPDM bonded washer.
   4. Metal to Substrate Fasteners: (Cleats)
      a. Roofing Nails: 10-gauge by 1-1/4-inch.
   5. Metal to Metal Concealed Fasteners:
      a. Cadmium-plated, bugle-head sheet metal screws, number 10 minimum.
   6. Metal to Metal Exposed Fasteners:
      a. Nonmagnetic stainless-steel; pop rivets; same finish as sheet metal.
      b. Number 8 nonmagnetic stainless-steel pan head screws (counter flashing to reglet/receiver only).
      c. Number 10 nonmagnetic stainless-steel screws with EPDM bonded washer.
   7. Metal to Concrete and Masonry Concealed Fasteners:
      a. Nail-drive expansion anchor: Zinc alloy (nylon not allowed) with stainless-steel pin.
      b. Screw anchors: Zinc-plated carbon steel.

8. Metal to Concrete and Masonry Exposed Fasteners:
    a. 1/4-inch nonmagnetic stainless-steel screw anchors with bonded EPDM washer.

2.03 FABRICATION

A. Sheet metal flashings and trim shall be fabricated in accordance with dimensions indicated on Contract Drawings, and/or as field-measured and verified by Contractor prior to fabrication.

B. Deliver shop fabricated and manufactured products to site ready for designed installation. Field fabricate to fit applications indicated and perform optimally with respect to weather resistance, water-tightness, durability, strength and uniform appearance.

C. Fabricate to allow controlled expansion in running lengths not only for movement of metal components in relationship to one another, but also to adjoining dissimilar materials in a manner sufficient to prevent water infiltration, deformation, or damage.

D. Fabricate items in maximum lengths and hold joints to a minimum. At no time shall any piece be shorter than 3-feet in length unless piece makes up an entire run.

E. Unless otherwise noted, drip edges, where shown, shall be 3/4-inches with exposed edges hemmed 1/2-inch. Hem exposed edges on underside 1/2-inch; miter and seam corners.

F. Do not "punch" brake points. Finish all joints neatly with lines trimmed true and sharp.

G. Form sections true to shape, accurate in size, square, and free from distortion or defects.

H. Form pieces in longest possible lengths.

I. Fabricate splice plates (batten or under) to fit main section configuration snugly, leaving no open gaps or bridging.

J. Face dimensions greater than 8-inches shall be fabricated with 1/2-inch stiffening ‘V’-groove in center.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions under which Work of this section will be installed.
    1. Bring to Consultant's attention any conditions detrimental to the proper and timely completion of Work.
    2. Do not proceed until satisfactory conditions have been corrected.

B. Verify roofing termination and base flashings are in place, sealed, and secure.

C. Counterflash, with architectural sheet metal, vertical-surfaces base flashed with roof system membrane.

3.02 PREPARATION

A. See *Section 07 01 50.19 - “Preparation for Re-Roofing”*.

B. Remove and dispose of existing architectural sheet metal flashing from areas to receive new.

C. Verify that wood blocking and nailers are securely anchored and that roof projections and penetrations are in place and set and braced.

D. Install starter and edge strips, and cleats before starting installation.

3.03 SHEET METAL JOINTING

A. Solid joints for prefinished steel and aluminum sheet metal:
    1. Lap sheet metal sections 2-inches, minimum.
    2. Install butyl tape caulk between sections.
    3. Fasten with pop-rivets on 2-inch maximum centers.

B. Loose-locked joints (splice or batten plates):
    1. Install running sections in maximum of 10-foot lengths.
    2. Install sheet metal sections with a 1/2-inch, minimum, gap between sections.
    3. Notch the bottom hems 2-inches back from the end, on the face of each section, to accommodate the batten plate.

4. Install butyl tape caulk between sections and batten plate.
5. Hook a minimum 4-inch-wide batten plate over the adjacent sheet metal flashing sections; crimp hem tightly onto the exterior continuous cleat.
6. Fasten on the roof side, to the underlying wood blocking, with a minimum of 2 fasteners.

C. Loose-locked joints (under plates):
1. Centered on joint locations, hook a minimum 6-inch wide under plate onto the exterior continuous cleat.
2. Install running sections in maximum of 10-foot lengths.
3. Notch the bottom return hems 3-inches back from the end, on the face of each section, to accommodate the under plate.
4. Install sheet metal sections with a 1/2-inch, maximum, gap between sections.
5. Instal butyl tape caulk between sections and under plate.

D. Lapped joints:
1. Install running sections in maximum of 10-foot lengths.
2. Lap sheet metal sections 2-inches, minimum.
3. At lap, notch the bottom hem of one section 2-inches back from the end, to accommodate the adjacent section.
4. Hook the overlying sheet metal flashing onto the adjacent sheet metal flashing section; creating a 2-inch minimum lap.

3.04 INSTALLATION

A. Coordinate with installation of roof system and substrates to receive Work of this section which are required to assure each element of the Work performs properly and combines elements in waterproof and watertight system.

B. General installation procedures:
1. Install and attach as shown on Contract Drawings.
2. Finish flashings, where applicable, must be fully engaged and continuously crimped onto the underlying cleat.
3. Anchor substrates to withstand lateral and thermal stresses and loading pressures.
   a. Conceal fasteners wherever possible and as indicated on Contract Drawings.
   b. Use exposed fasteners only where permitted.
4. Fit flashings tight in place.
   a. Field bends on pieces greater than 6-inches in length shall utilize a portable break to produce sharp, straight lines.
   b. Make corners square, surfaces true and straight in planes, and lines accurate to profiles. Hand-bent or “wrapped” pieces shall be cause for rejection of the component.
5. All points where the sheet metal flashing end or transitions into a different flashing detail shall be flashed with a field-formed sheet metal closure. The use of mastic or excessive caulking shall not be acceptable.

C. Concealed Continuous Cleats:
1. Provide new architectural sheet metal concealed cleats as shown on Contract Drawings.
2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
3. Provide a 3/4-inch long, 45-degree bend along bottom edge.
4. Provide 1/4-inch space between sections.
5. Secure to substrate at 6-inches on center with 1-1/4-inch long galvanized roofing nails, fasteners shall be 1-3/4-inches from hem on exterior, and 1/2-inch from hem on interior, where applicable.

D. Drip Edge:
   1. Provide new architectural sheet metal, as shown on Contract Drawings.
   2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
   3. Secure exterior leg to continuous cleat; hand tool (crimp) to fully engage; where indicated.
   4. Install over nailers and completed membrane; secure to blocking at 4-inches on center, maximum, in staggered rows.
   5. Lap sections a minimum of 2-inches, by removing hem and taper cutting drip from underlying section, and seal.
   6. Apply strip-in flashing over secured flange.

E. Fascia Flashing:
   1. Provide new architectural sheet metal fascia cover as shown on Contract Drawings.
   2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
   3. Provide loose-locked under plate]joints, minimum of 6-inches long.
   4. Where shown on Contract Drawings, secure to continuous cleats; hand tool (crimp) to fully engage.
   5. Stagger joints between fascia cover and adjacent flashing.

F. Coping:
   1. Provide new architectural sheet metal coping where shown on Contract Drawings. Installed sample required for review by Owner and Consultant.
   2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
   3. Install with loose-locked batten plate joints..
   4. Stagger all joints between fascia, flashing and edges.
   5. Corners shall be mitered, seamed and sealed.
   6. Secure outside edges to hem of installed continuous cleat; where applicable, field crimp roof side hem onto continuous cleat along entire length.
   7. Secure roof side face with 1-1/2-inch galvanized metal screws with weather tight washers at maximum 18-inches, on center, through ob-round holes.
   8. Where coping abuts a wall, install under closure flashing, as indicated on Contract Drawings.

G. Receiver:
   1. Provide new architectural sheet metal counter flashing receiver where shown on Contract Drawings and as required.
   2. Fabricate using 8'-0" or 10’-0" flat stock sheets, with brake-formed “S”-lock receiver at face.
   3. Unless otherwise noted, receiver flashing shall be run in a straight line.
   4. Provide 2-inch laps at joints by removing “S”-lock from adjacent section.
      a. Inside corners: notched and mitered; receiver lapped 1-1/2-inches through corner.
      b. Outside corners: notched, mitered and seamed.
   5. At existing wall panel, set receiver horizontal leg against the bottom of the metal closure trim at existing wall panels in tape caulk; secure vertical flange at 18-inches on center, as indicated on Contract Drawings.
   6. At vertical flange, secure receiver flashing to existing substrate, through tape caulk, with nail drive expansion anchors 12-inches on center, maximum.
      a. Do not fasten through joints, stagger joints between counter flashing and receiver.

H. Surface-Mounted Counter Flashing:
   1. Provide new architectural sheet metal counter flashing as shown on Contract Drawings.
   2. Fabricate using 8'-0" or 10’-0" flat stock sheets.

3. Unless otherwise noted, counter flashing shall run in a straight line and shall lap top of roof flashings a minimum of 3-inches.
4. Brake counter flashing longitudinally to provide spring action; holding bottom firmly against roof flashing.
5. Provide 2-inch laps at joints by removing hem and taper cutting drip from adjacent section.
    a. Inside corners: Notched and lapped 1-1/2-inches through corner.
    b. Outside corners: Notched, mitered, lapped and seamed.
6. Apply butyl tape caulk to back surface of counter flashing fastening leg prior to installing.
7. Provide termination bar over counter flashing fastening leg when installing.
8. Fasten through termination bar and counter flashing with concrete or masonry screw type fasteners, as required, a maximum of 12-inches on center.
    a. Provide additional fasteners a maximum of 2-inches from each end of termination bar.
    b. Do not fasten through counter flashing joints.
9. Fill and seal sealant lip; force sealant into all voids and tool joint to provide water-shed surface.

I. Receiver-Mounted Counter Flashings:
1. Provide new architectural sheet metal counter flashing as shown on Contract Drawings.
2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
3. Unless otherwise noted, counter flashing shall run in a straight line and shall lap top of roof flashings a minimum of 3-inches.
4. Brake counter flashing longitudinally to provide spring action; holding bottom firmly against roof flashing.
5. Provide 2-inch laps at joints by removing hem and taper cutting drip from underlying section.
    a. Inside corners: Notched and lapped 1-1/2-inches through corner.
    b. Outside corners: Notched, mitered, lapped and seamed.
6. Insert counter flashing behind receiver, fasten with stainless-steel sheet metal stitch screws, as indicated on Contract Drawings.

J. General Counter Flashings:
1. Provide new architectural sheet metal counter flashing as shown on Contract Drawings.
2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
3. Unless otherwise noted, counter flashing shall run in a straight line and shall lap top of roof flashings a minimum of 3-inches.
4. Brake counter flashing longitudinally to provide spring action; holding bottom firmly against roof flashing.
5. Provide 2-inch laps at joints by removing hem and taper cutting drip from underlying section.
    a. Inside corners: Notched and lapped 1-1/2-inches through corner.
    b. Outside corners: Notched, mitered, lapped and seamed.
6. Insert counter flashing behind existing unit flange, fasten as indicated on Contract Drawings.
7. Fasten counter flashing to curb with stainless-steel sheet metal screws through pre-punched holes; minimum 2 per side.

K. Closure Panels:
1. Provide new architectural sheet metal closure panels where shown on Contract Drawings and as required.
2. Fabricate closure and corner panels; lapping, riveting and sealing joints.
3. Secure exterior leg to continuous cleat; hand tool (crimp) to fully engage; where indicated.

4. Secure transition/closure panels to substrate 8-inches on center through tape caulk and seal; as indicated on Contract Drawings.

L. Shop-Fabricated Gutter System:
1. Provide new architectural sheet metal gutter system where shown on Contract Drawings and as required.
2. Fabricate using 8'-0" or 10’-0" flat stock sheets.
3. Install with brackets and straps, to resist wind loads in accordance with ANSI/SPRI GT-1.
   a. Hang gutter with minimum 1/16-inch slope-to-drain; secure back apron to substrate at 24-inches on center.
   b. Lap joints 2-inches in direction of flow, rivet 3-inches on center, staggered, and seal.
   c. Provide fabricated brackets 30-inches on center; secure to channel bracket with 3/8-inch diameter by 3-1/2-inch lag screw and to gutter with a 1/4-inch diameter by 3/4-inch stainless-steel nuts, bolts and washers.
4. Provide field-fabricated expansion joints, where shown on Contract Drawings; position in accordance with SMACNA recommendations.
5. Provide fabricated end caps and outlet tubes (with removable strainers), where shown on Roof Plan.
6. Provide downspouts of type and location as shown on Contract Drawings.
   a. Fabricate using 8'-0" or 10’-0" flat stock sheets as shown on Contract Drawings.
   b. Longitudinal seam: Mechanically seamed and sealed.
   c. Lap joints 2-inches, in direction of flow, and rivet.
   d. Provide fabricated brackets and install 10-feet on center; with additional bracket(s) located within 12-inches of the top, bottom and elbows.
   e. Provide elbow, downspout extension and splash block at bottom.

M. Downspouts:
1. Provide new architectural sheet metal downspouts where shown on Contract Drawings.
   a. Fabricate using 8'-0" or 10’-0" flat stock sheets as shown on Contract Drawings.
   b. Longitudinal seam: Mechanically seamed and sealed.
   c. Lap joints 2-inches, in direction of flow, and rivet.
   d. Provide fabricated brackets and install 10-feet on center; with additional bracket(s) located within 12-inches of the top, bottom and elbows.
   e. Provide downspout adapter/connection to underground drainage system.

N. Roof Edges (shingle eaves and rakes):
1. Provide new “D”-style architectural sheet metal roof edges as shown on Contract Drawings.
2. Fabricate roof edge from 8'-0” or 10'-0” long sheets with a 4-inch minimum wide roof flange.
3. Install roof edge between ice dam flashing and underlayment at eaves and over underlayment at rakes (extending past top of ice dam flashing).
4. Provide 3-inch laps at joints by removing hem and taper cutting drip from underlying section.
5. Start at eave and work up rake; notch and seam corners.
6. Fasten flange to decking at 4-inches, on center, maximum.

O. Head Flashings:
1. Provide new architectural sheet metal head flashings where shown on Contract Drawings and as required.
2. Fabricate using 8'-0" or 10’-0" flat stock sheets, as indicated on Contract Drawings.
3. Lap joints, as indicated on Contract Drawings.

4. Set in roof cement.

P. Step flashings:
1. Fabricate from blank 10-inches wide by 8-inches long.
2. Bend blank 90-degrees to form an “L” shape having:
a. A leg 4-inches high, to extend up wall surface;
b. A flange 6-inches wide, to extend onto roof surface, and;
c. A length to match shingle exposure, plus a minimum of 2-inches.
3. Set flashings between each course of shingles and fasten to wall in the top corner.

Q. Valley Flashing:
1. Provide new architectural sheet metal valley flashing as shown in Contract Drawings and as required.
2. Fabricate using 24-inch wide by 8’-0” or 10’-0” flat stock sheets.
3. Fabricate with 1/2-inch hems along edges and a 1-inch-high water diverter centered along the length of the flashing.
4. Install concealed fastening along top of valley only, apply 2 equidistant continuous beads of concealed sealant within lap, and loose lock lap 8-inches in the direction of flow.
5. Secure valley to substrate with 2-inch by 4-inch galvanized steel cleats at 20-inches on center. Fasten each cleat to substrate with 2 nails, fold tail of cleat over to top of nails to prevent back-out.

R. Tall Cone Base Flashing Flanges and Sleeves:
1. Provide new architectural sheet metal sleeves where shown on Contract Drawings and as required.
2. Fabricate sleeves lapping, riveting and fully soldering.
3. Fabricate sleeves to provide minimum 8-inches height above finished roof system.
4. Fasten sleeves to substrate 8-inches on center.

S. Storm Collars/Umbrellas:
1. Provide new architectural sheet metal sleeves where shown on Contract Drawings and as required.
2. Fabricate storm collars lapping, riveting and soldering solid.
3. Secure to vent pipe with stainless-steel gear drive clamp.
4. Seal with sealant and tool complete.

T. Seal metal joints watertight.

3.05 FIELD QUALITY CONTROL

A. Inspection will involve observation of Work during installation to ascertain compliance with specified requirements.

END OF SECTION

STR-SEG

SECTION 07 90 05
JOINT SEALERS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Sealants and joint backing.

1.02 REFERENCE STANDARDS

A. ASTM International Standards, latest editions unless otherwise stated:
   1. ASTM C920 - Standard Specification for Elastomeric Joint Sealants;
   2. ASTM C1193 - Standard Guide for Use of Joint Sealants;
   3. ASTM D1056 - Standard Specification for Flexible Cellular Materials--Sponge or Expanded Rubber.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordinate Work with other sections referencing this section.

1.04 SUBMITTALS

A. See Section 01 30 00 - “Administrative Requirements”, for submittal procedures.

B. Product Data: Provide data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.

C. Samples: Submit one sample, 6-inches in length, or manufacturer’s standard color chart, illustrating sealant color(s) for selection by Owner.

1.05 FIELD CONDITIONS

A. Maintain temperature and humidity recommended by sealant manufacturer during and after installation.

1.06 WARRANTY

A. Warranty: Include coverage for installed sealants and accessories which fail to achieve airtight seal and watertight seal, exhibit loss of adhesion or cohesion, or do not cure.
   1. Correct defective Work within a 2-year period after Date of Substantial Completion.

B. See *Section 01 70 00 - “Execution and Closeout Requirements”*, for additional warranty requirements.

2PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Polyurethane Sealants:
   1. Bostik; bostik-us.com.
   2. Pecora Corporation; pecora.com.
   3. Sika Corporation; usa.sika.com.
   4. Tremco Commercial Sealants & Waterproofing; tremcosealants.com.

B. Silicone Sealants:
   1. Bostik; bostik-us.com.
   2. Dow Corning Corporation; dowcorning.com.
   3. GE Silicones, General Electric Company; siliconeforbuilding.com.
   4. Pecora Corporation; pecora.com.
   5. Sika Corporation; usa.sika.com.
   6. Red Devil, Inc.; reddevil.com.
   7. Tremco Commercial Sealants & Waterproofing; tremcosealants.com.

C. Butyl Sealant:
   1. Pecora Corporation; pecora.com.
   2. Sika Corporation; usa.sika.com.
   3. Tremco Commercial Sealants & Waterproofing; tremcosealants.com.

2.02 SEALANTS

A. Non-sag Polyurethane Sealant: Polyurethane; ASTM C920, Grade NS, Class 25, Uses NT, I, M, G, O and A; single-component, chemical curing, non-staining, non-bleeding, capable of continuous water immersion.
   1. Movement Capability: Plus, or minus twenty-five percent.
   2. Service Temperature Range: -40 to 180 degrees F.
   3. Color: To be selected by Consultant from manufacturer's standard range.
   4. Applications: Use for:
      a. Control, expansion, and soft joints in masonry.
      b. Joints between concrete and other materials.
      c. Joints between metal and other materials.
      d. Other exterior joints for which no other sealant is indicated.
   5. Polyurethane Products:
      a. Chem-Calk 915, by Bostik.
      b. Dynatrol I-XL, by Pecora.
      c. Sikaflex 1a or NP 1, by Sika.
      d. Dymonic, by Tremco.
   6. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

B. Non-sag Hybrid Sealant: ASTM C920, Grade NS, Class 25 minimum, Uses NT, A, G, M, O; single component, non-sagging, non-staining, non-bleeding.
   1. Cure Type: Neutral.
   2. Fungus resistant.
   3. Color: To be selected by Consultant from manufacturer's standard range.
   4. Movement Capability: Plus, or minus twenty-five percent.
   5. Service Temperature Range: minus 65 to 180 degrees F (minus 54 to 82 degrees C).
   6. Shore A Hardness Range: 15 to 35, Shore A.
   7. Applications: Use for:
      a. Joints between EIFS panels.
      b. Joints between metal and EIFS
   8. Products:
      a. MasterSeal NP 150, by BASF.
      b. SoudaSeal 50LM, by Soudal.
      c. SuperSeal PE, by TK Products.
   9. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

C. Silicone Sealant: ASTM C920, Grade NS, Class 25, Uses NT, A, G, M, O, single component, solvent curing, non-sagging, non-staining, fungus resistant, non-bleeding.
   1. Movement Capability: Plus, or minus twenty-five percent.
   2. Service Temperature Range:
      a. Architectural applications: -65 to 180 degrees F (-54 to 82 degrees C).

b. High-temperature applications: Up to 500 degrees F (260 degrees C) continuous, and 600 degrees F (315 degrees C) intermittent.

3. Color: To be selected by Consultant from manufacturer's standard range.
4. Shore A Hardness Range: 15 to 35.
5. Applications: Use for:
   a. Joints between aluminum components.
   b. High-service temperature joints adjacent to sheet metal.
6. Products (Architectural Applications):
   a. Chem-Calk 1200, by Bostik.
   b. Dowsil 795, by Dow Corning.
   c. Silglaze N, by GE Silicones.
   d. 864NST Low Modulus Architectural Silicone Sealant - Class 50, by Pecora.
   e. Proglaze, by Tremco.
7. Products (High-Temperature Applications):
   a. Red RTV, 736H Heat Resistant Silicone Sealant, by Dow Corning.
   b. Red Devil; 100% Silicone Heat Resistant RTV Sealant, by Red Devil.
   c. Sikasil-GP Hi-Temp Red, by Sika.
   d. TremPro 644 High Temperature Silicone Sealant, by Tremco.
8. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

D. Butyl Sealant: ASTM C920, Grade NS, Class 12-1/2, Uses NT, M, A, G, O, single component, solvent release, non-skinning, non-sagging.
1. Color: To be selected by Consultant from manufacturer's standard range.
2. Movement Capability: Plus, or minus 12-1/2 percent.
3. Service Temperature Range: minus13 to 180 degrees F (minus 25 to 82 degrees C).
4. Shore A Hardness Range: 10 to 30.
5. Applications: Use for:
   a. Concealed sealant bead in sheet metal work.
6. Products:
   a. Pecora BA-98, by Pecora.
   b. Sikalastomer-511, by Sika.
   c. Trempro JS 773, by Tremco.
7. Substitutions: See *Section 01 60 00 - "Product Requirements"*.

2.03 ACCESSORIES

A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.

B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.

C. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that substrate surfaces and joint openings are ready to receive Work.

B. Verify that joint backing and release tapes are compatible with sealant.

3.02 PREPARATION

A. Plan Work and take whatever action is necessary to prevent dirt and debris from contaminating or preventing proper applications. It is the responsibility of this applicator to verify conditions exist in accordance with manufacturer's requirements for proper installation and performance.

B. Remove loose materials and foreign matter that could impair adhesion of sealant.

C. Clean and prime joints in accordance with manufacturer's instructions.

D. Perform preparation in accordance with manufacturer's instructions and ASTM C1193.

E. Protect elements surrounding Work of this section from damage or disfigurement.

3.03 INSTALLATION

A. Perform Work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

B. Perform installation in accordance with ASTM C1193.

C. Measure joint dimensions and size joint backers to achieve width-to-depth ratio, neck dimension, and surface bond area as recommended by manufacturer, except where specific dimensions are indicated.

D. Install bond breaker where joint backing is not used.

E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.

F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.

G. Dry-tool joints concave.

3.04 CLEANING

A. Clean adjacent soiled surfaces.

B. Remove debris from Project site.

3.05 PROTECTION

A. Protect elements surrounding Work of this section from damage or disfigurement.

B. Repair or replace defaced and/or disfigured finishes caused by Work of this section.

C. Protect sealants until cured.

END OF SECTION

STR-SEG

SECTION 08 62 00
UNIT SKYLIGHTS

1PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Preformed plastic skylights with integral metal frame.

1.02 RELATED REQUIREMENTS

A. Section 06 10 53 - Miscellaneous Rough Carpentry: Wood framing for rough opening.

B. Section 07 31 13 - Asphalt Shingles.

C. Section 07 62 00 - Sheet Metal Flashing and Trim: Skylight counterflashing.

1.03 REFERENCE STANDARDS

A. American Architectural Manufacturers Association (AAMA):

1. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for windows, doors, and skylights; American Architectural Manufacturers Association/Window and Door Manufacturers Association/Canadian Standards Association; 2011.

B. ASTM International Standards, latest editions unless otherwise stated:

1. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate;

2. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

1.04 SUBMITTALS

A. See *Section 01 30 00 – "Administrative Requirements",* for submittal procedures.

B. Product Data: Provide structural, thermal, and daylighting performance values.

C. Shop Drawings: Indicate configurations, dimensions, locations, fastening methods, and installation details.

D. Manufacturer's Installation Instructions: Indicate special procedures.

1.05 WARRANTY

A. See *Section 01 70 00 – "Execution and Closeout Requirements",* for additional warranty requirements.

B. Provide 10-year manufacturer warranty, including coverage for leakage due to defective skylight materials or construction.

2PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Unit Skylights:

1. Sun-Tek; Model CMA-D; sun-Tek.com.

2.02 UNIT SKYLIGHTS

A. Unit Skylights: Factory-assembled glazing in aluminum frame, free of visual distortion, and weathertight.

1. Shape: Rectangular dome.

2. Glazing: Double.

B. Performance Requirements: Provide products that comply with the following:

1. Design to withstand live loads as calculated in accordance with local codes

2. FM rated dome

3. Allow for expansion and contraction within system components caused by cycling surface temperature range of 170 degrees F. without causing detrimental effects to system components.

2.03 COMPONENTS

A. Double Glazing: Acrylic plastic with aerogel insulation between layers; factory sealed.
   1. Outer Glazing: Clear transparent.
   2. Inner Glazing: White translucent.

B. Frames: ASTM B221 Extruded aluminum thermally broken, reinforced and welded corner joints, integral curb frame mounting flange and counterflashing to receive roofing flashing system, with integral condensation collection gutter, glazing retainer; clear anodized finish.

C. Support Curbs: Use existing curb.

2.04 ACCESSORIES

A. Anchorage Devices: Type recommended by manufacturer, exposed to view.

B. Sealant: Elastomeric, silicone or polyurethane, compatible with material being sealed.

3PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting Work.

B. Verify that openings and substrate conditions are ready to receive Work of this section.

3.02 INSTALLATION

A. Install curb assembly, fastening securely to roof decking. Flash curb assembly into roof system.

B. Place skylight units and mount secure to curb assembly. Install counterflashing as required.

C. Apply sealant to achieve watertight assembly.

3.03 CLEANING

A. Remove protective material from prefinished aluminum surfaces.

B. Wash down exposed surfaces; wipe surfaces clean.

C. Remove excess sealant.

END OF SECTION

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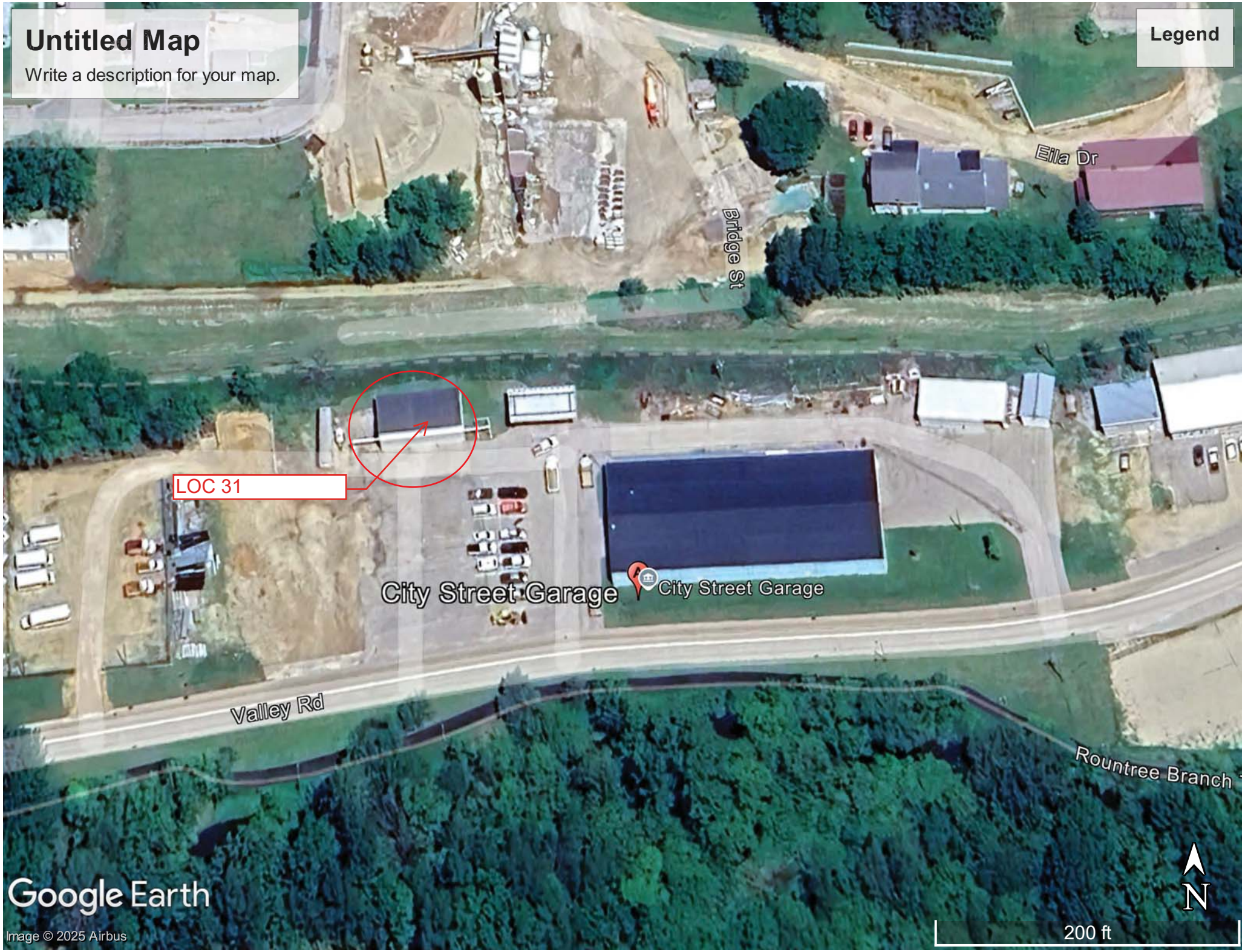
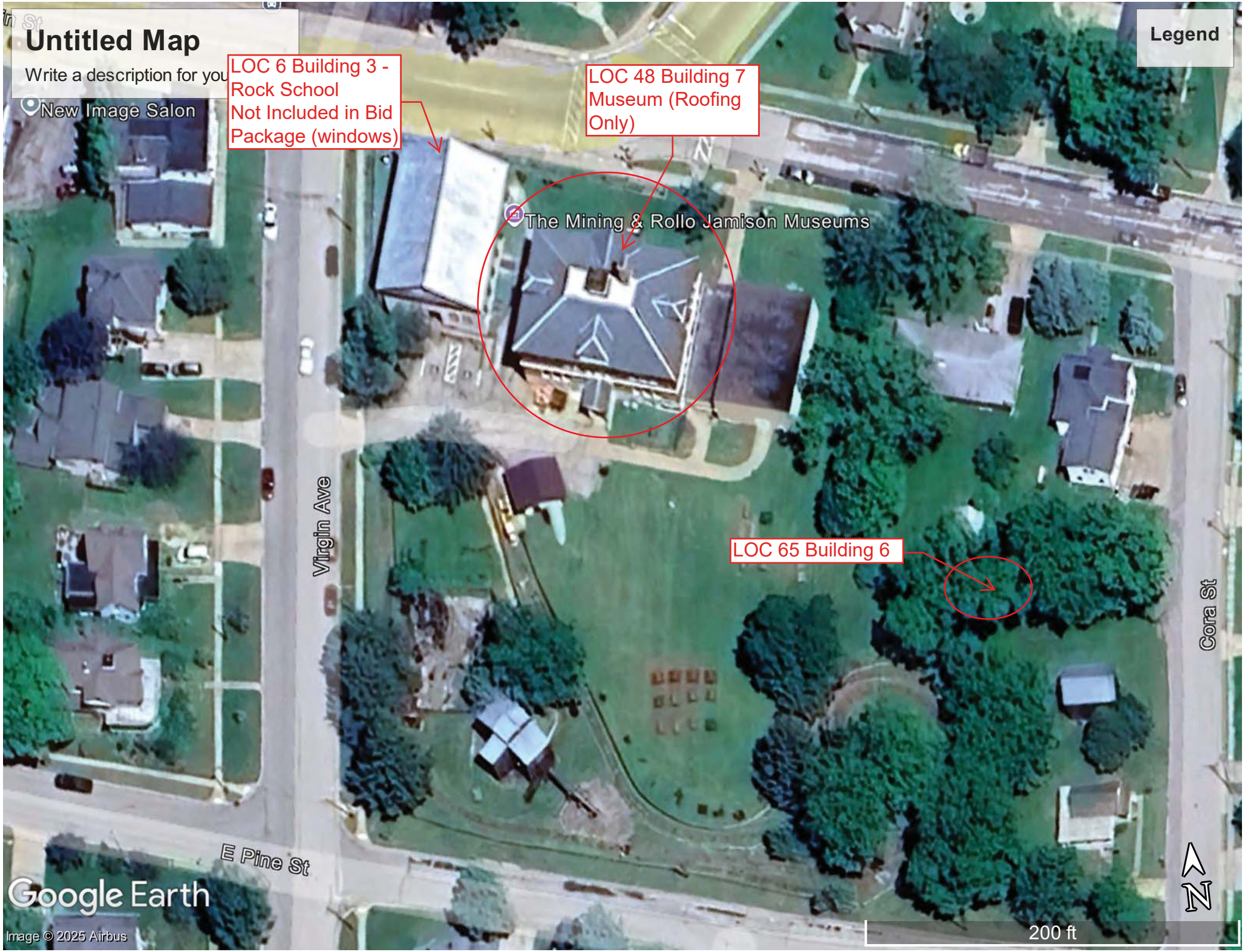
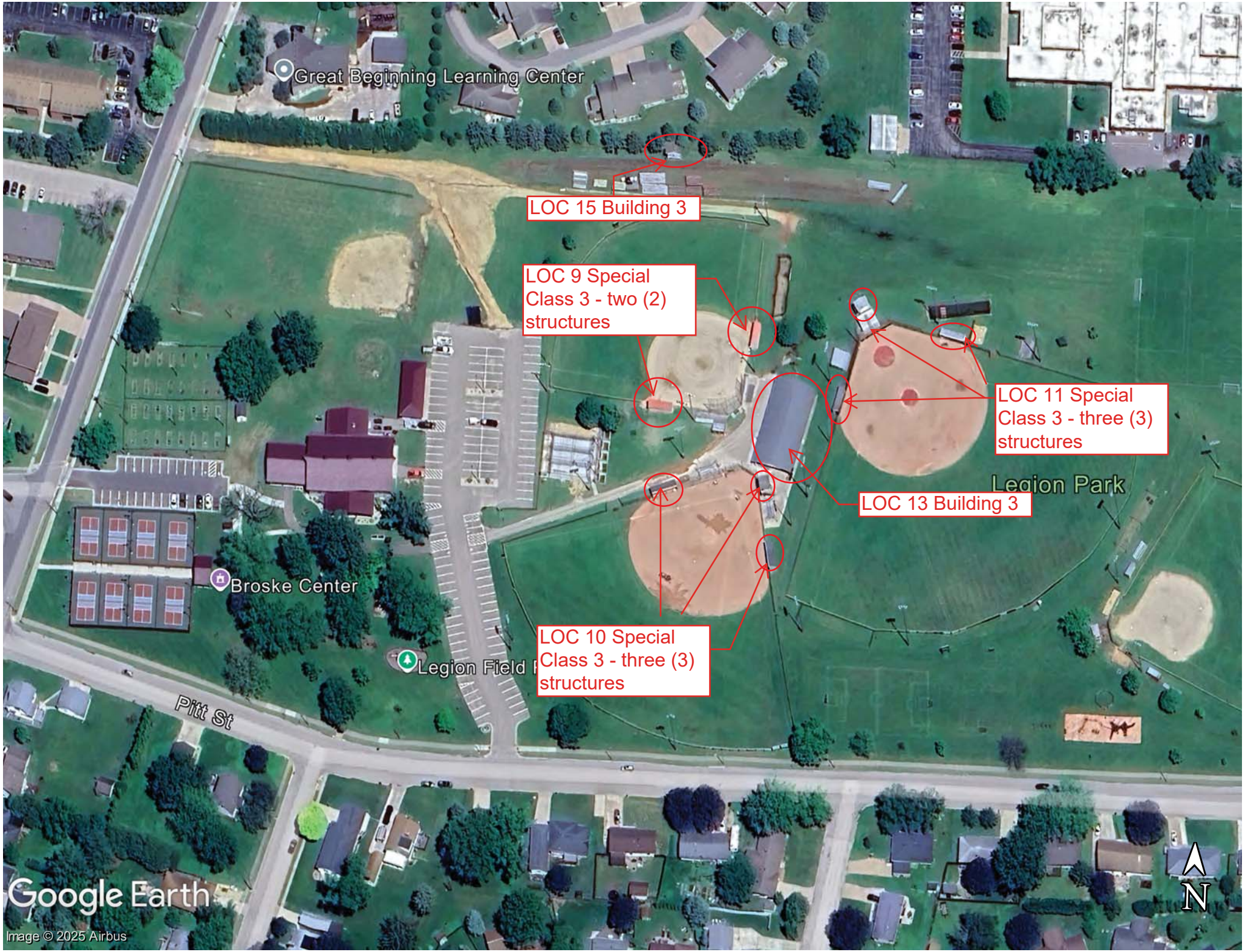
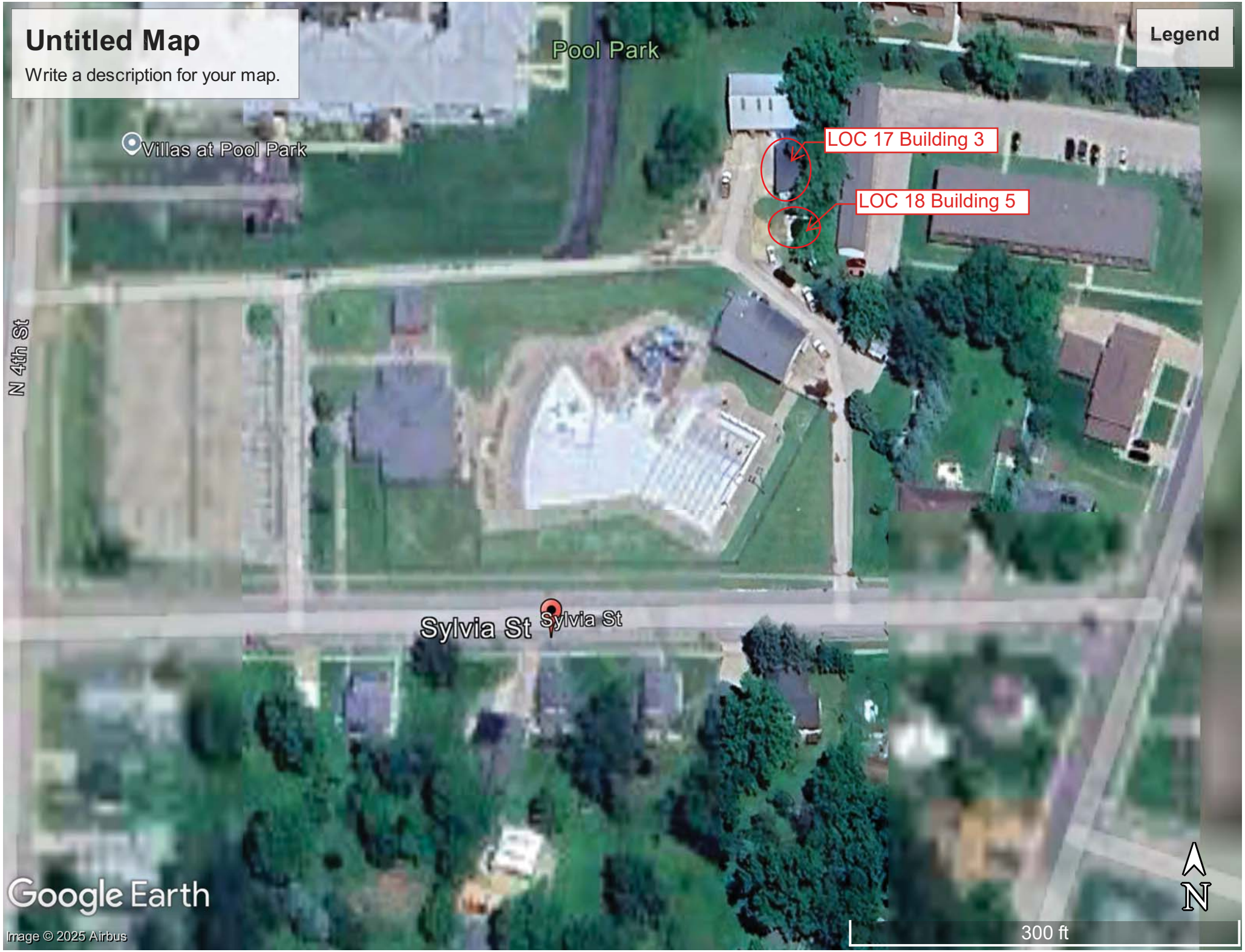

Untitled Map
Write a description for your map.
Legend
Eila Dr
Bridge St
LOC 31
City Street Garage
City Street Garage
Valley Rd
Rountree Branch
Google Earth
Image © 2025 Airbus
N
200 ft


Untitled Map
Write a description for your map.
Legend
Averkamp Auto Body
E Main St
New Ima
LOC 5 Building 6 - Storage Garage
275 E Main St
S Water St
Ellen St
Subway
Google Earth
Image © 2025 Airbus
N
100 ft


Untitled Map
Write a description for you
Legend
LOC 6 Building 3 - Rock School Not Included in Bid Package (windows)
LOC 48 Building 7 Museum (Roofing Only)
LOC 65 Building 6
New Image Salon
The Mining & Rollo Jamison Museums
Virgin Ave
E Pine St
Cora St
Google Earth
Image © 2025 Airbus
N
200 ft

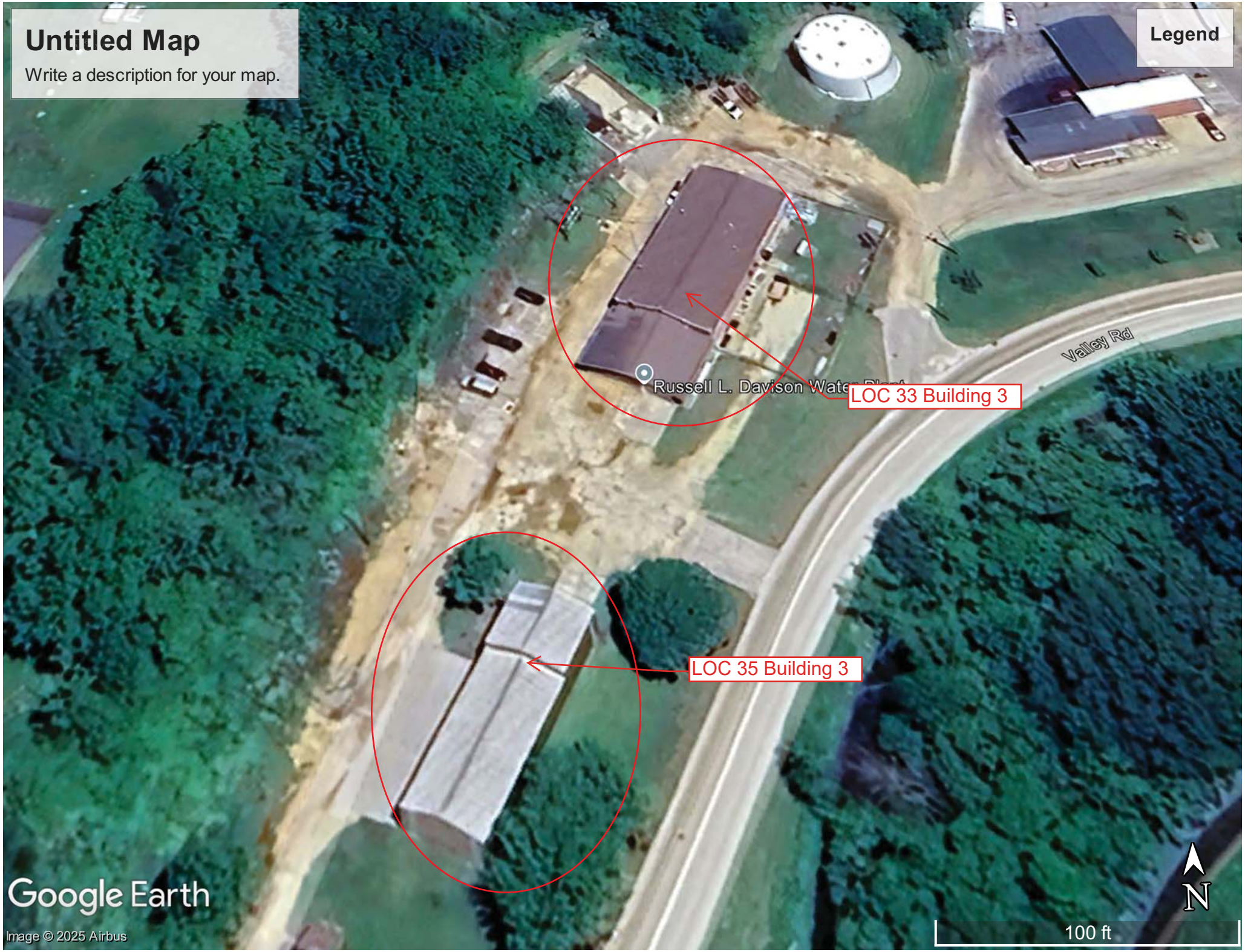

Great Beginning Learning Center
LOC 15 Building 3
LOC 9 Special Class 3 - two (2) structures
LOC 11 Special Class 3 - three (3) structures
Legion Park
LOC 13 Building 3
Broske Center
LOC 10 Special Class 3 - three (3) structures
Legion Field
Pitt St
Google Earth
Image © 2025 Airbus
N

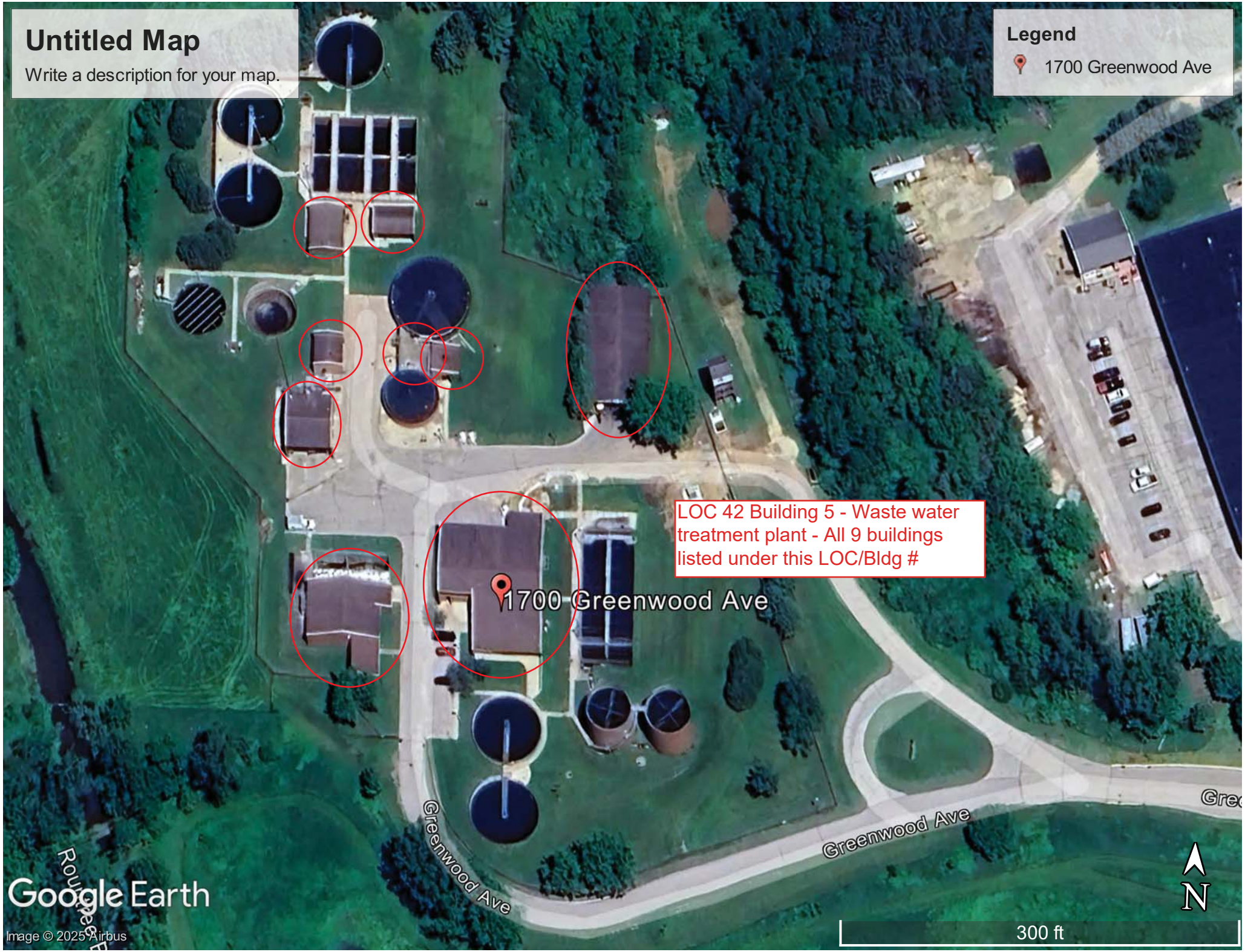

Untitled Map
Write a description for your map.
Legend
LOC 14 Special Class 12
LOC 14 Special Class 11
Westview Park
Westview Park
Google Earth
Image © 2025 Airbus
N
200 ft


Untitled Map
Write a description for your map.
Legend
Pool Park
Villas at Pool Park
LOC 17 Building 3
LOC 18 Building 5
N 4th St
Sylvia St
Sylvia St
Google Earth
Image © 2025 Airbus
N
300 ft


Untitled Map
Write a description for your map.
Ridge Ave
Legend
LOC 24 Building 8
A
Smith Park
Smith Park
Google Earth
Image © 2025 Airbus
N
200 ft


Untitled Map
Write a description for your map.
Legend
Mound View Park & Campground
B
Mound View Park Trail
LOC 30 Building 5
A
Mound View Park & Campground
E Madison St
E Madison St
E Madison St
Google Earth
Image © 2025 Airbus
N
300 ft


Untitled Map
Write a description for your map.
Legend
Valley Rd
LOC 33 Building 3
LOC 35 Building 3
Google Earth
Image © 2025 Airbus
N
100 ft

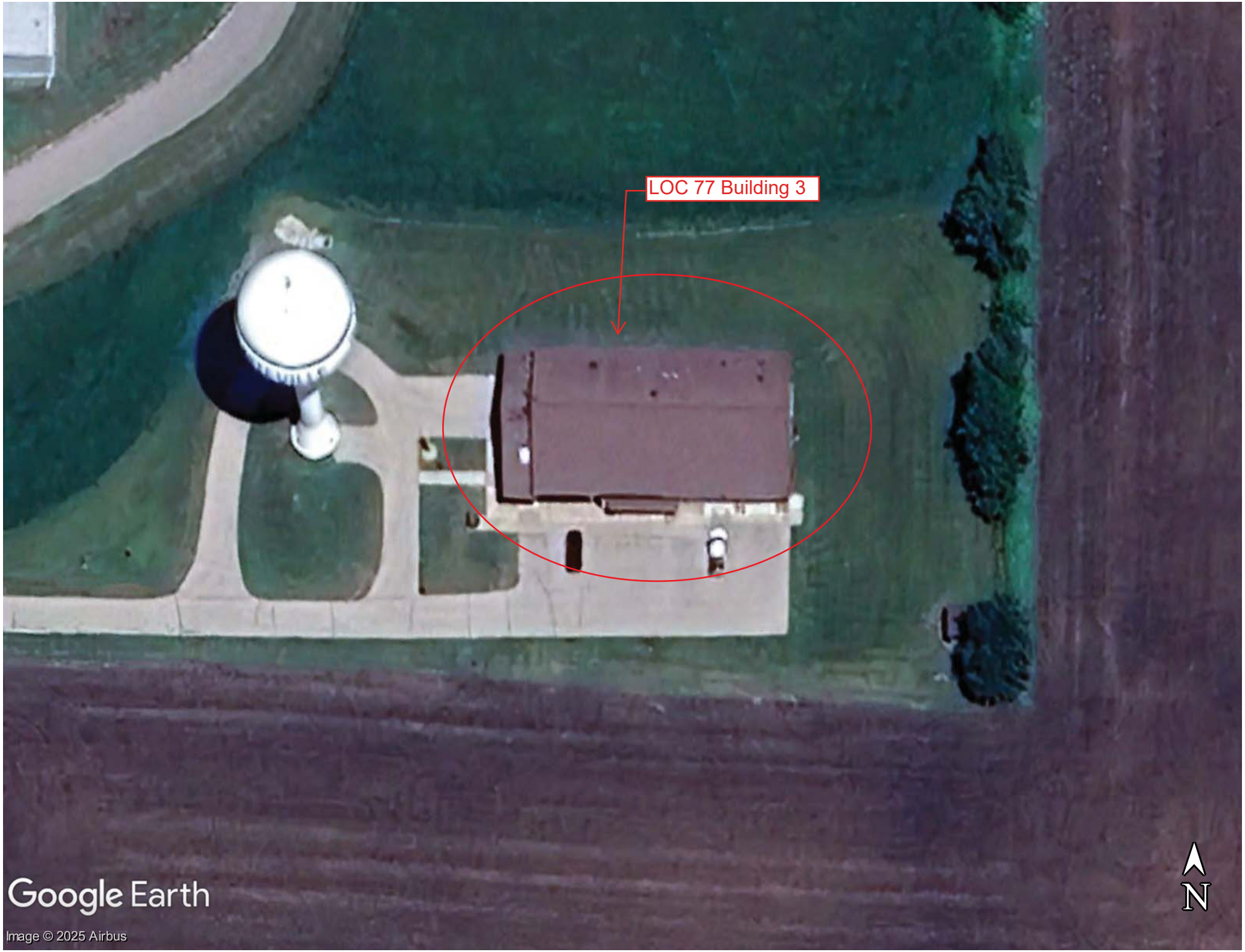

Untitled Map
Write a description for your map.
Legend
1700 Greenwood Ave
LOC 42 Building 5 - Waste water treatment plant - All 9 buildings listed under this LOC/Bldg #
1700 Greenwood Ave
Greenwood Ave
Greenwood Ave
Google Earth
Image © 2025 Airbus
N
300 ft


Untitled Map
Write a description for your map.
Legend
Platteville Municipal Airport
LOC 60 Building 3
Google Earth
Image © 2025 Airbus
N
400 ft


Untitled Map
Write a description for your map.
Legend
Dobson Hall
Greenwood Ave
Greenwood Cemetery
LOC 63
Mausoleum
Longhorn Dr
Outdoor Track
N
600 ft
Google Earth
Image © 2025 Airbus


Untitled Map
Write a description for your map.
80
Wisconsin Army National Guard
LOC 71 Building 3
Stevens Ave & N Water St
N Water St
Google Earth
Image © 2025 Airbus
N
800 ft


Untitled Map
Write a description for your map.
Legend
Valley Rd
LOC 76 - Open Shelter
LOC 76 Building 3
Platteville Dog Park
Google Earth
Image © 2025 Airbus
N
100 ft


LOC 77 Building 3
Google Earth
Image © 2025 Airbus
N


Untitled Map
Write a description for your map.
N Wall St
Stevens Ave
Highland Park
LOC 89 Special
Class 9
Lutheran St
Google Earth
Image © 2025 Airbus
N
200 ft


Untitled Map
Write a description for your map.
LOC 90 Special Class 12
Jenor Tower Park
Jenor Tower Park
LOC 90 Special Class 10
Google Earth
Image © 2025 Airbus
N
100 ft


Untitled Map
Write a description for your map.
Legend
1155 N 2nd St
Broske Center
Feature 1
Legion Park Batting Cages
LOC 91 Building 5
Main Building
LOC 91 White
Shed
LOC 91 Tan Shed
LOC 91 Building 6
Open Shelter
Broske Center
1155 N 2nd
Google Earth
Image © 2025 Airbus
N
100 ft

Roof Replacement Project

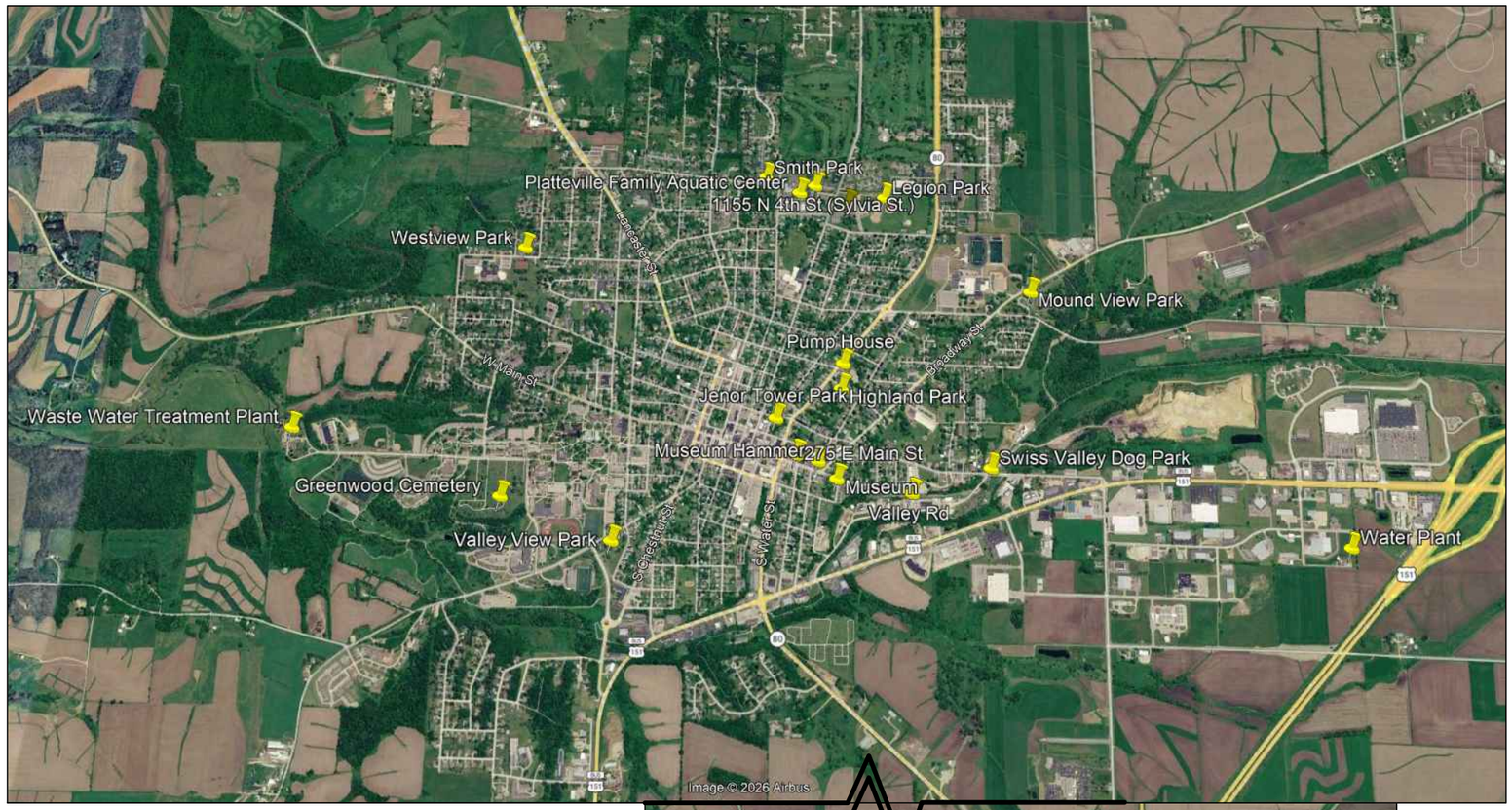
Project No. 15934 Date: 6/15/26

STR SEG | SPECIALTY ENGINEERING GROUP LLC
N89w16785 APPLETON AVENUE, SUITE 201
MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

City Wide Buildings

Platteville - WI

Platteville, City of



LOCATION MAP

DRAWING INDEX

NOTES:

1. INSTALLATION OF GUTTERS AND DOWNSPOUTS BY OWNER
2. NON–VENTED RIDGE CAP LOCATION
3. VENTED RIDGE CAP LOCATION

SCOPE OF WORK

BASE BID 1

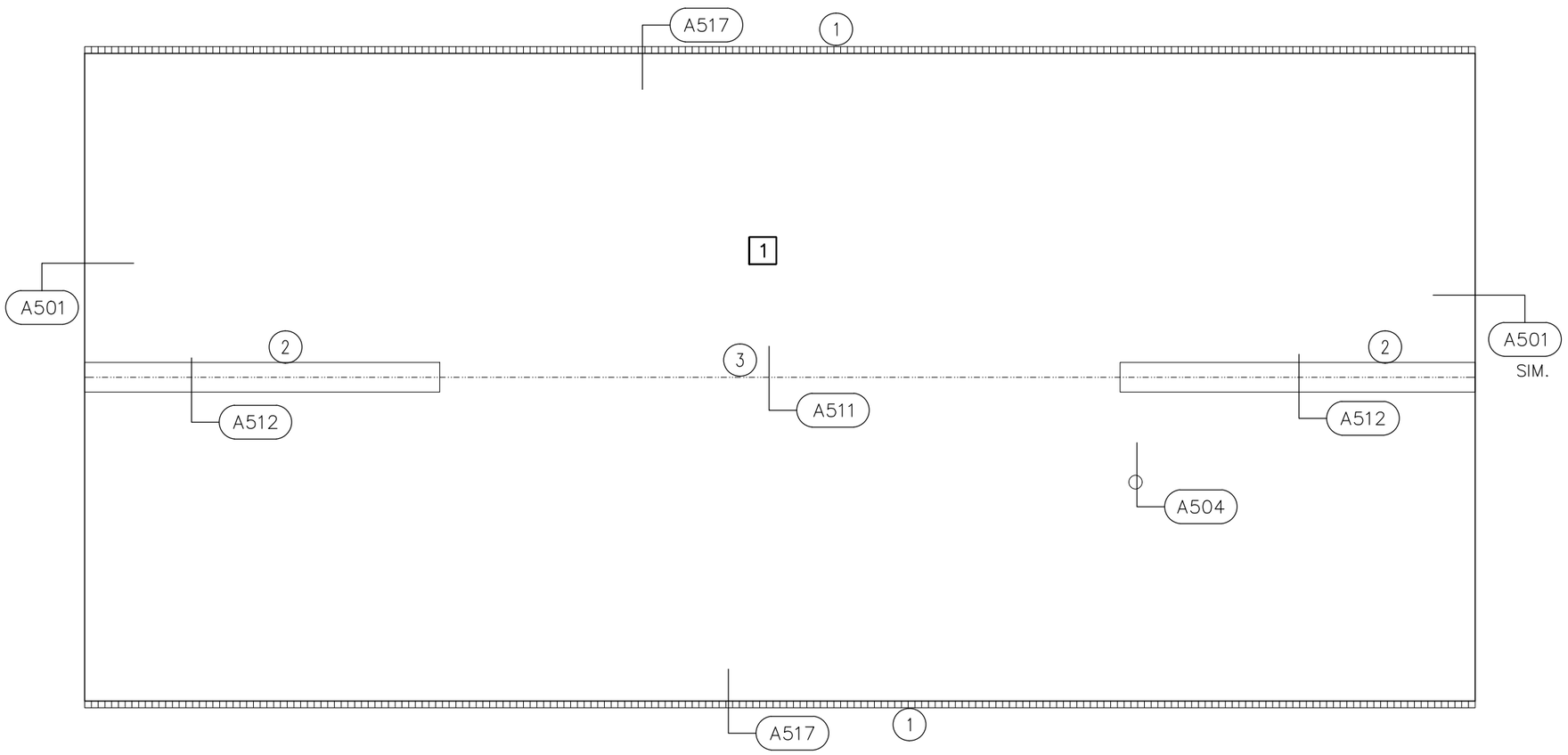
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING, GUTTERS, DOWNSPOUTS, FASCIA TRIM, GABLE, EAVE TRIMS.

– PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS.
– PROVIDE VENTED AND NON–VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 1" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

– PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.
– PROVIDE 0.032 PREFINISHED ALUMINUM FASICA TRIM AT EAVE AND RAKE



KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- RR ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	5,525
TOTAL	5,525

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SPECIALTY ENGINEERING GROUP LLC
N89w16785 APPLETON AVENUE, SUITE 201
MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

Platteville, City of LOC 13 Bldg: Legion Field-Concession Stand/Restroom
Roof Replacement Project
1155 N 2nd St - Platteville, WI

6/15/26 | Project No. 15934 | **ROOF PLAN**

Drawn by EM | Checked by DS

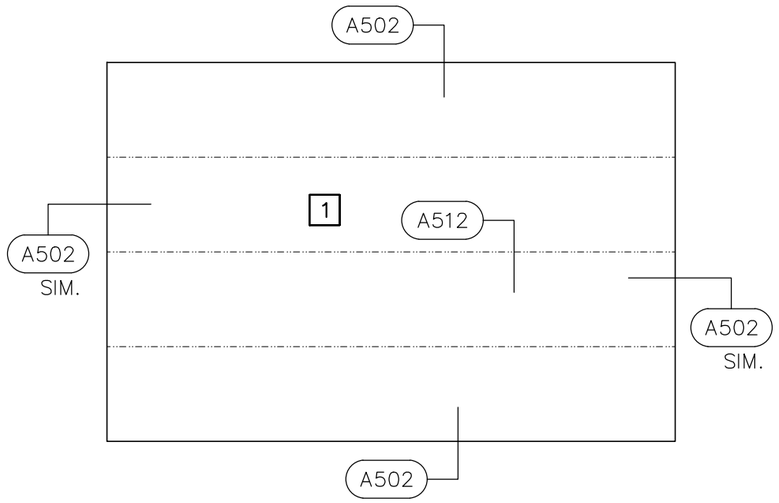
Sheet No. A105

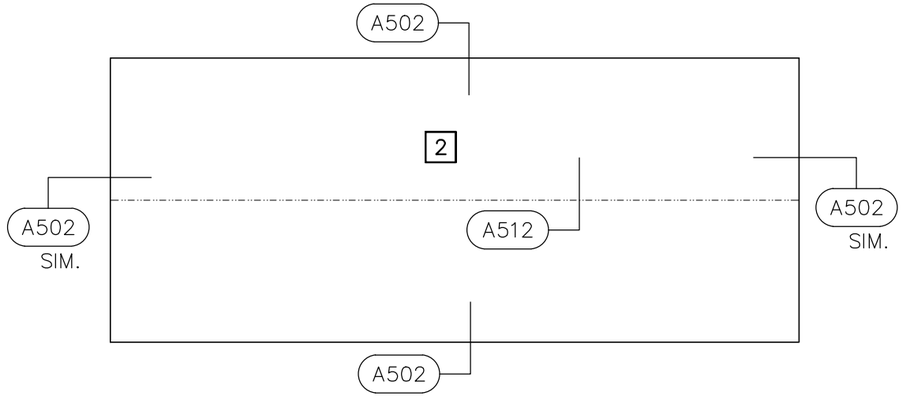
SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND FASCIA TRIMS

- SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLE
- 0.032" PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS
- NON-VENTED RIDGE CAP





N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- RR ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	175
2	150
TOTAL	325

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MENOMONEE FALLS, WI 53051
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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 14 Special Class 11: Westview Park
1101 Camp Street - Platteville, WI
ROOF PLAN

Drawn by WI
Checked by DS

Sheet No.
A106

SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE.

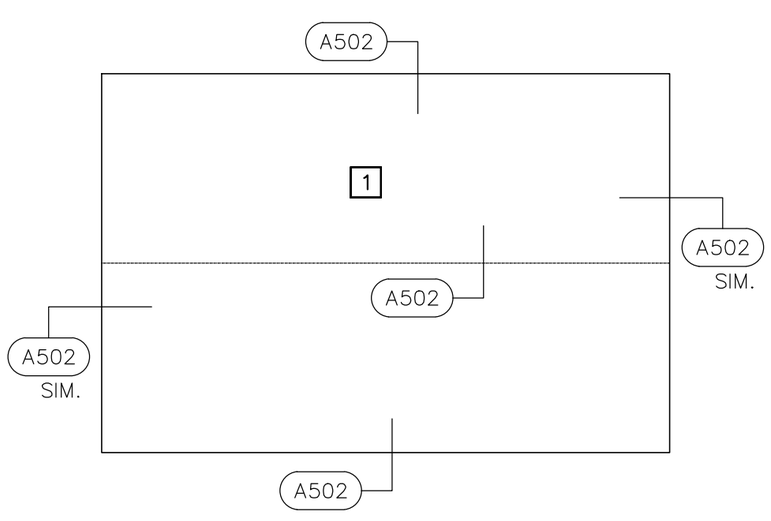
- PROVIDE SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE
- PROVIDE NON-VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.

N



KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	175
2	75
TOTAL	250

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 14 Special Class 12: Westview Park
1101 Camp Street - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A107

SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING FASCIA TRIM, GABLE, EAVE TRIMS.

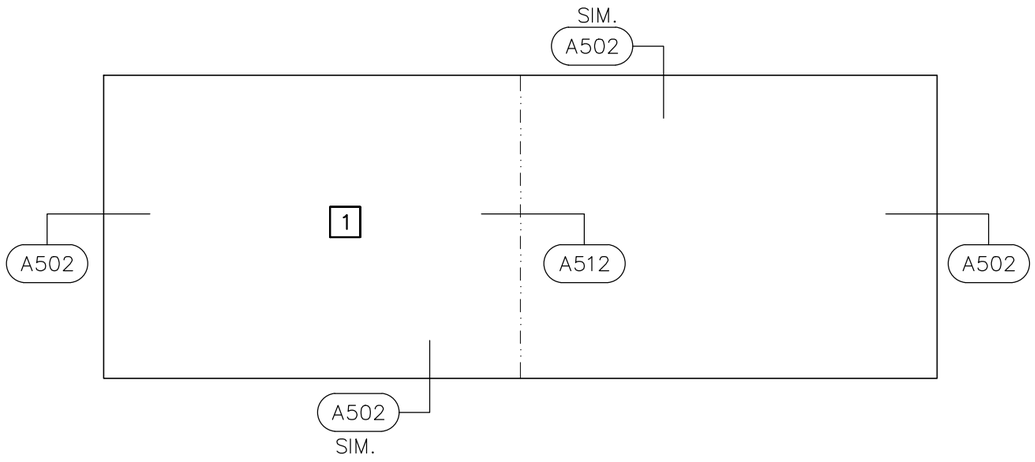
- PROVIDE SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS.
- PROVIDE NON-VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 1" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.
- PROVIDE 0.032 PREFINISHED ALUMINUM FASICA TRIM AT EAVE AND RAKE

N



KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	2,175
TOTAL	2,175

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MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

Platteville, City of — LOC 15 Building 3 : Legion Park – Storage Building
Roof Replacement Project — 1155 N 2nd St - Platteville, WI

6/15/26 | Project No. 15934 | **ROOF PLAN**

Drawn by EM | Checked by DS

Sheet No. A108

SCOPE OF WORK

BASE BID 1

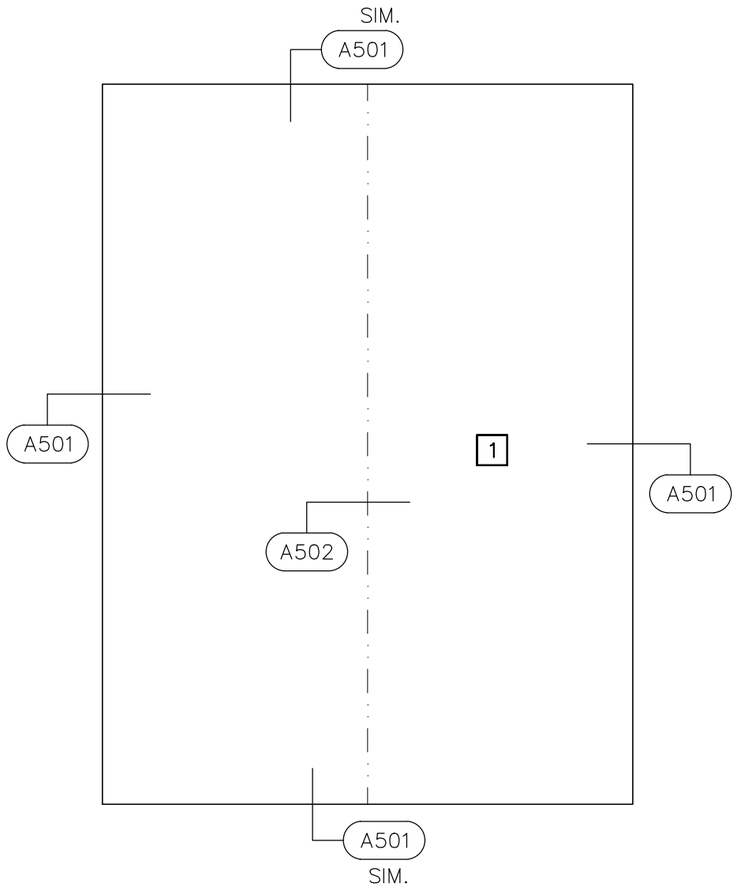
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE, FASCIA TRIMS.

- PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS.
- PROVIDE VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.
- PROVIDE 0.032 PREFINISHED ALUMINUM FASICA TRIM AT EAVE AND RAKE



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- [X] ROOF AREA DESIGNATION
- (R) ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	3,100
TOTAL	3,100

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N89w16785 APPLETON AVENUE, SUITE 201
MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

Platteville, CIty of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 17 Building 3: Sylvia St.
1155 N 4th St - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A109

SCOPE OF WORK

BASE BID 1

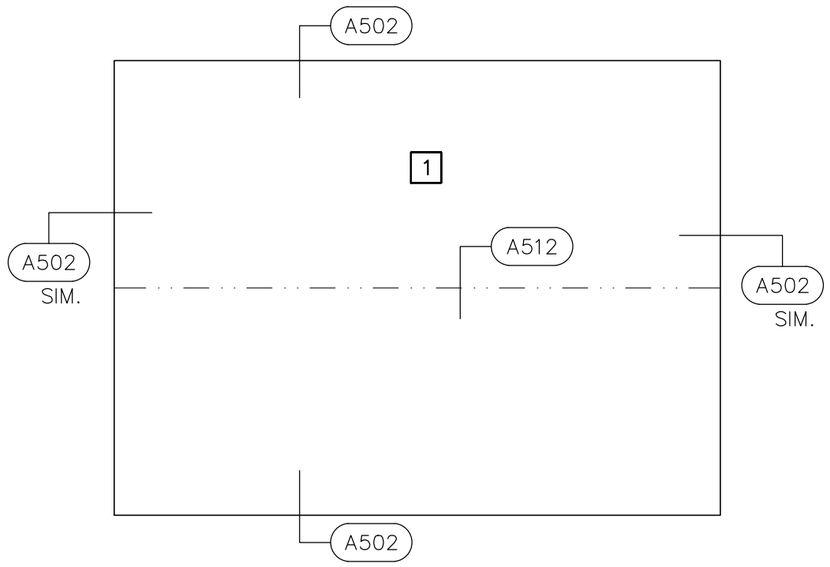
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND FASCIA TRIMS

- SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLE
- 0.032" PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS
- NON-VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.



KEY

	STRUCTURAL SLOPE
	1/8" PER FOOT TAPER
	1/4" PER FOOT TAPER
	1/2" PER FOOT TAPER
X	ROOF AREA DESIGNATION
RR	ROOF REPAIR DESIGNATION
	ROOF DRAIN
O.S.	OVERFLOW SCUPPER TUBE
O.D.	OVERFLOW DRAIN INLET
	ROOF EDGE SCUPPER
	GUTTER EDGE
	ROOFTOP HVAC UNIT
	TYPICAL ROOF CURB
	TYPICAL ROOF HATCH
	TYPICAL SKYLIGHT
	TYPICAL CURBED STACK
	CHIMNEY
	TYPICAL PORTAL CURB
	ROOF LADDER
	TYPICAL SMALL PIPE
	TYPICAL PLUMBING VENT
	TYPICAL HOT STACK
	PITCH PAN
	EXPANSION JOINT
	SLOPE TRANSITION
AB	ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	1,000
TOTAL	1,000

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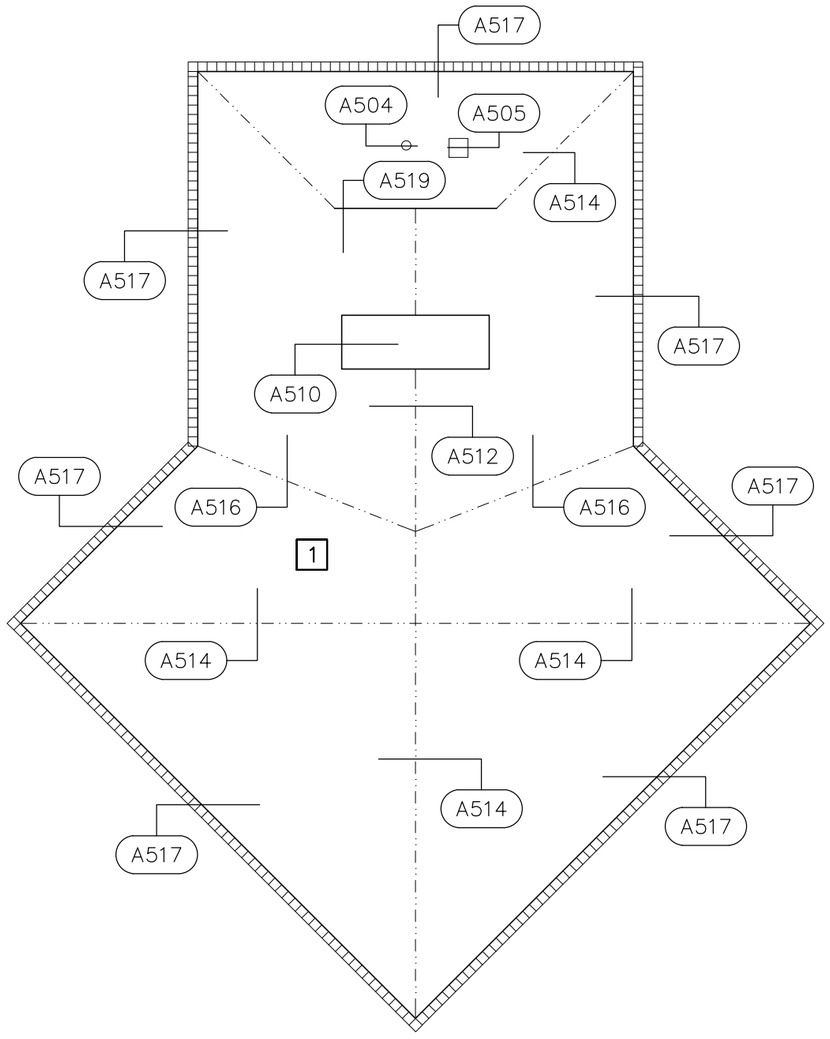
N89w16785 APPLETON AVENUE, SUITE 201
MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 18 Building 5: Sylvia St.
1155 N 4th St - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A110



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE, AND STEP FLASHINGS. EXISTING COPPER COUNTERFLASHINGS AT CHIMNEY AND GUTTERS / DOWNSPOUTS TO REMAIN.

– PROVIDE ICE & WATER SHIELD AT EAVES AND VALLEYS, COVER WITH (2) LAYERS OF SYNTHETIC UNDERLAYMENT COVERED WITH ARCHITECTURAL ASPHALT SHINGLES.
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE, VALLEY FLASHING, AND STEP FLASHINGS,
– PROVIDE NON–VENTED RIDGE CAP, AND NON–VENTED HIP CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 1" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

– PROVIDE 26GA PREFINISHED STEEL GABLE, VALLEY, RAKE, RIDGE AND EAVE FLASHINGS.

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	1,300
TOTAL	1300

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Platteville, City of
Roof Replacement Project

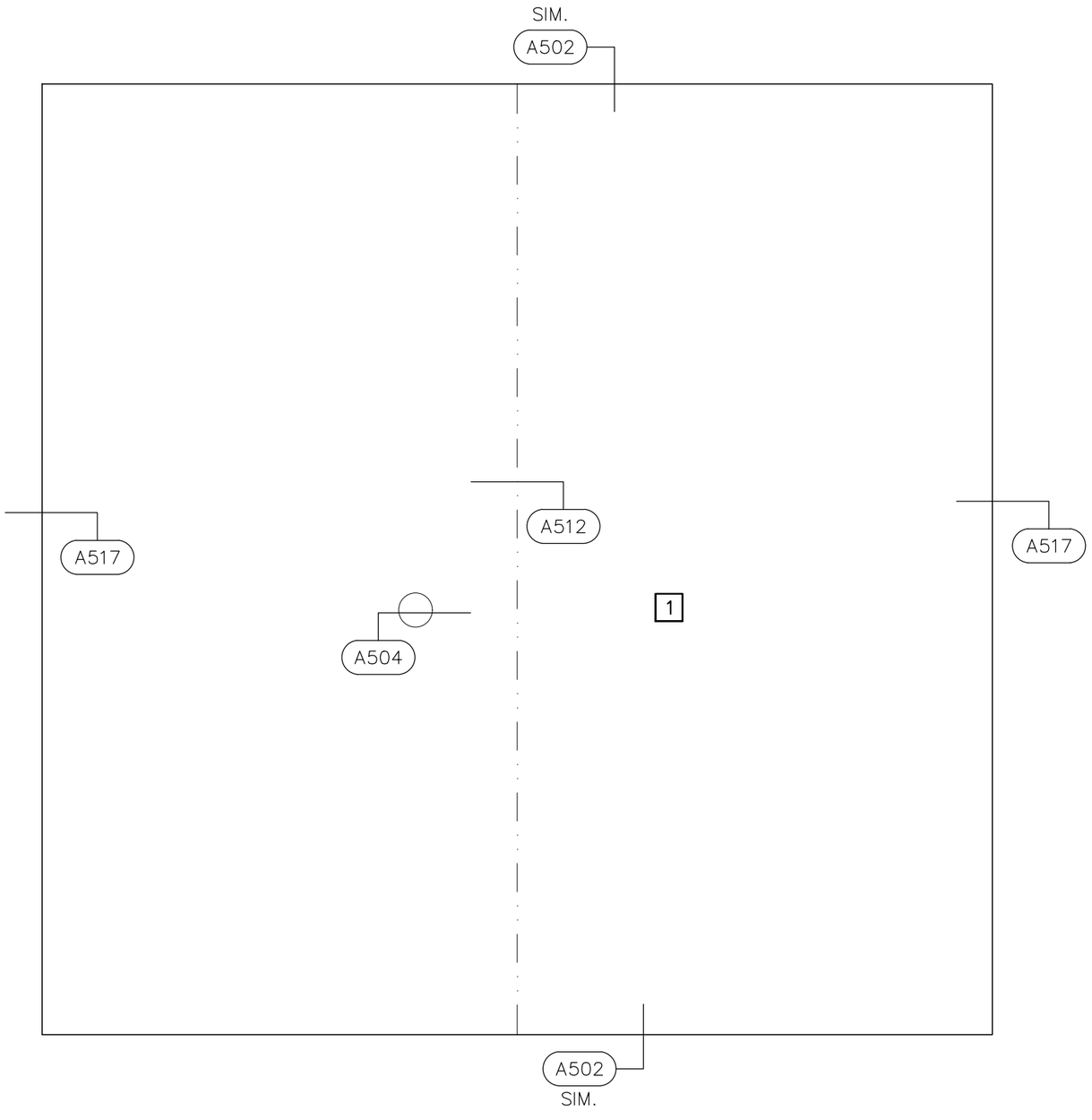
LOC 24 Building 8: Smith Park - Stone Shelter
N 1 Camp Street - Platteville, WI

6/15/26 | Project No. 15934

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No. A111



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND FASCIA TRIM AT RAKE EDGES. EXISTING EAVE FASCIA, GUTTERS AND DOWNSPOUTS TO REMAIN.

– PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND FASCIA RAKE TRIM.
– PROVIDE VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 1" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

– PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.
– PROVIDE 0.032 PREFINISHED ALUMINUM FASCIA RAKE TRIM.

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	825
TOTAL	825

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 27 Building 3 – Valley View Park
665 S Hickory St - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A112

SCOPE OF WORK

BASE BID 1

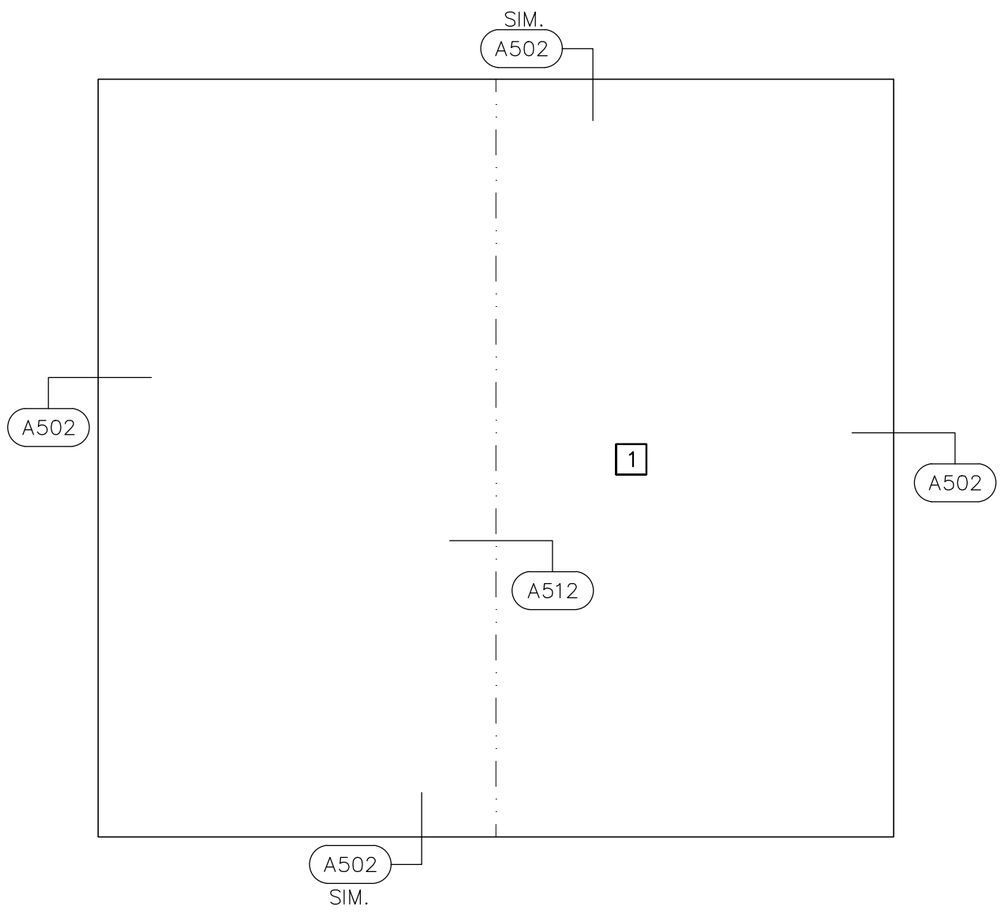
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE.

- PROVIDE SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE.
- PROVIDE NON-VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	500
TOTAL	500

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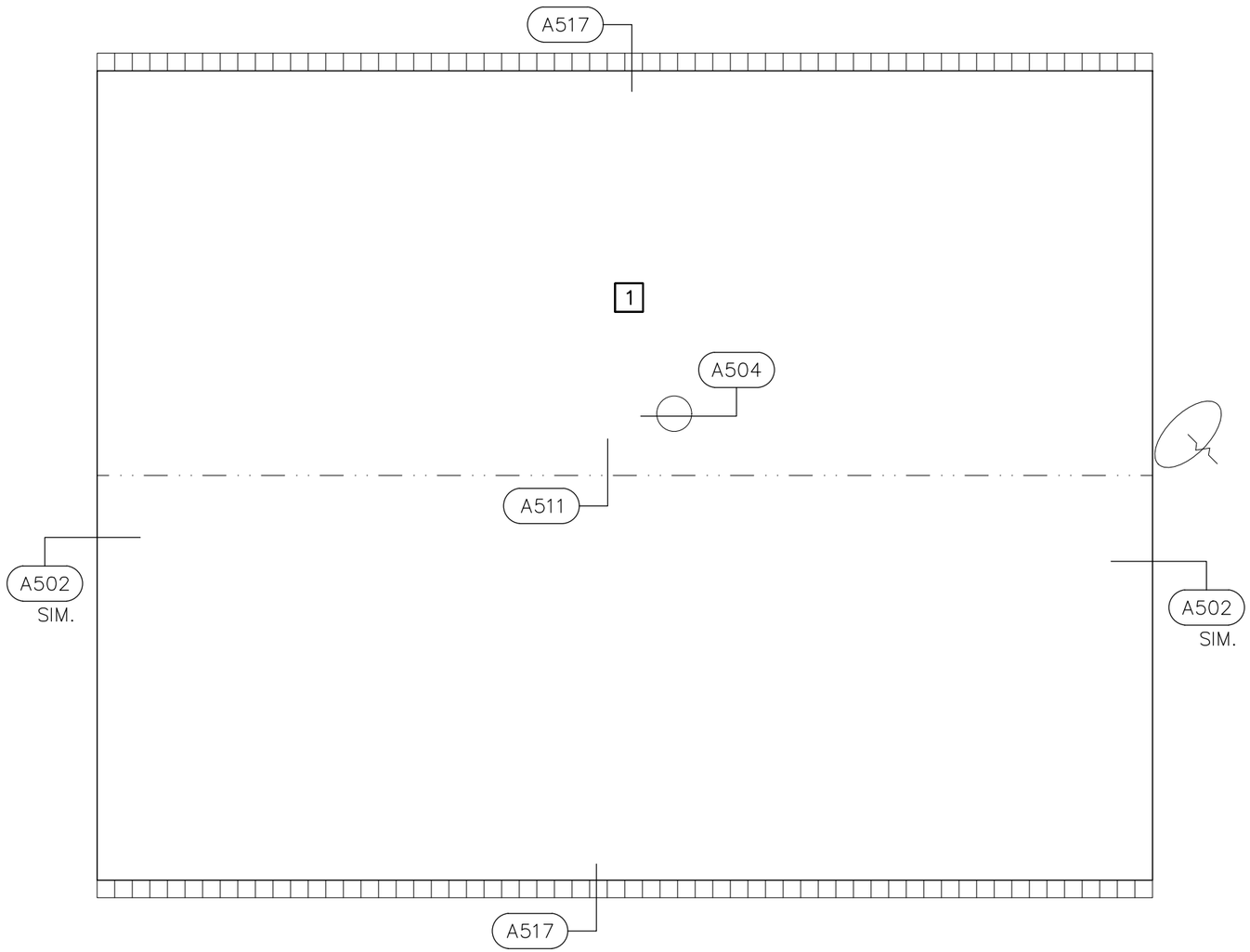
Platteville, City of — LOC 28 Building 3: Valley View Park-Shelter House
Roof Replacement Project — 665 S Hickory St - Platteville, WI

6/15/26 | Project No. 15934 | **ROOF PLAN**

Drawn by EM | Checked by DS

Sheet No. A113



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE. GUTTERS AND DOWNSPOUTS TO REMAIN

– PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES..
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE,
– PROVIDE VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

– PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.

NOTE:
CAREFULLY REMOVE AND SALVAGE EXISTING SATELLITE DISH AS NEEDED. REINSTALL OVER COMPLETED WORK

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- (R) — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	775
TOTAL	775

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 30 Building 5 - Mound View Park
950 E Madison Street - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A114

SCOPE OF WORK

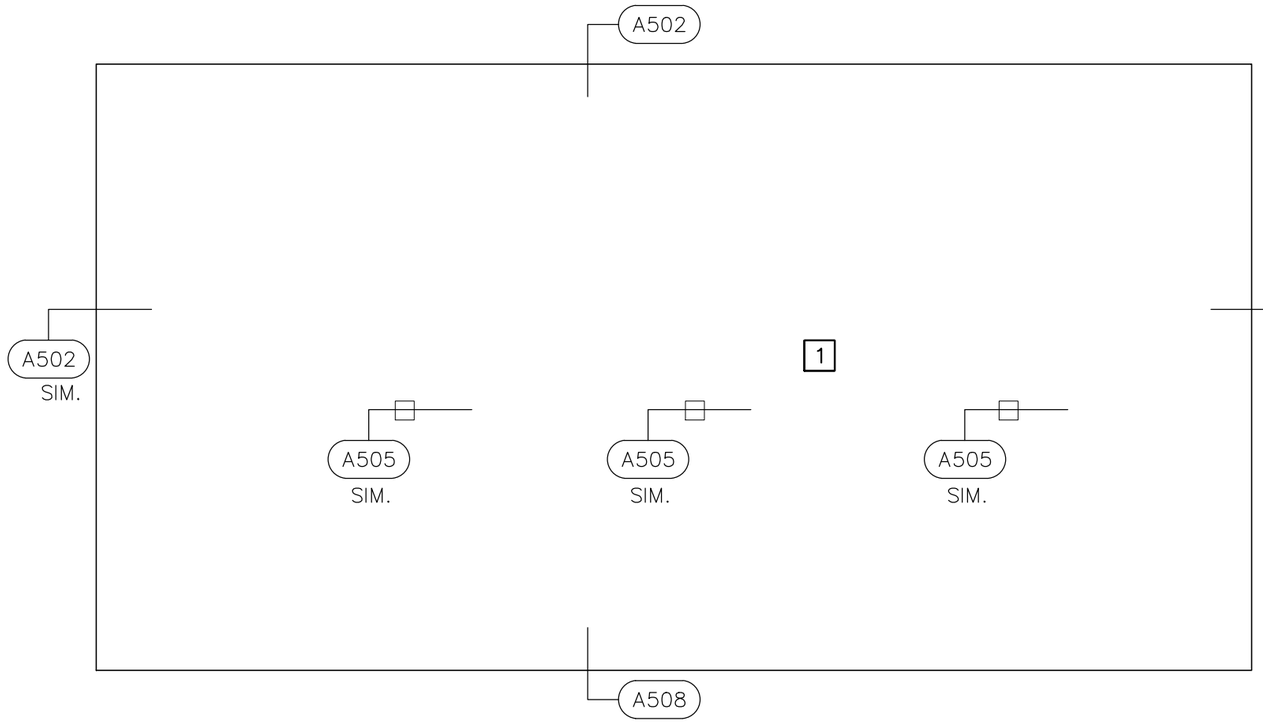
BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE, EAVE FASCIA AND STATIC VENTS.

- PROVIDE SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- ALL FASTENERS TO BE 304 STAINLESS STEEL
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND EAVE FASICA.
- PROVIDE STATIC VENTS AT EXISTING LOCATIONS

NOTES:

CAREFULLY WORK AROUND EXISTING LIGHT AT SOUTH SIDE OF BUILDING



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	14,475
TOTAL	14,475

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 31 Building 3 - Valley Rd
890 Valley Rd - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A115

SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING, GUTTERS, DOWNSPOUTS, FASCIA TRIM, COUNTERFLASHING, STEP FLASHINGS DRIP EDGE.

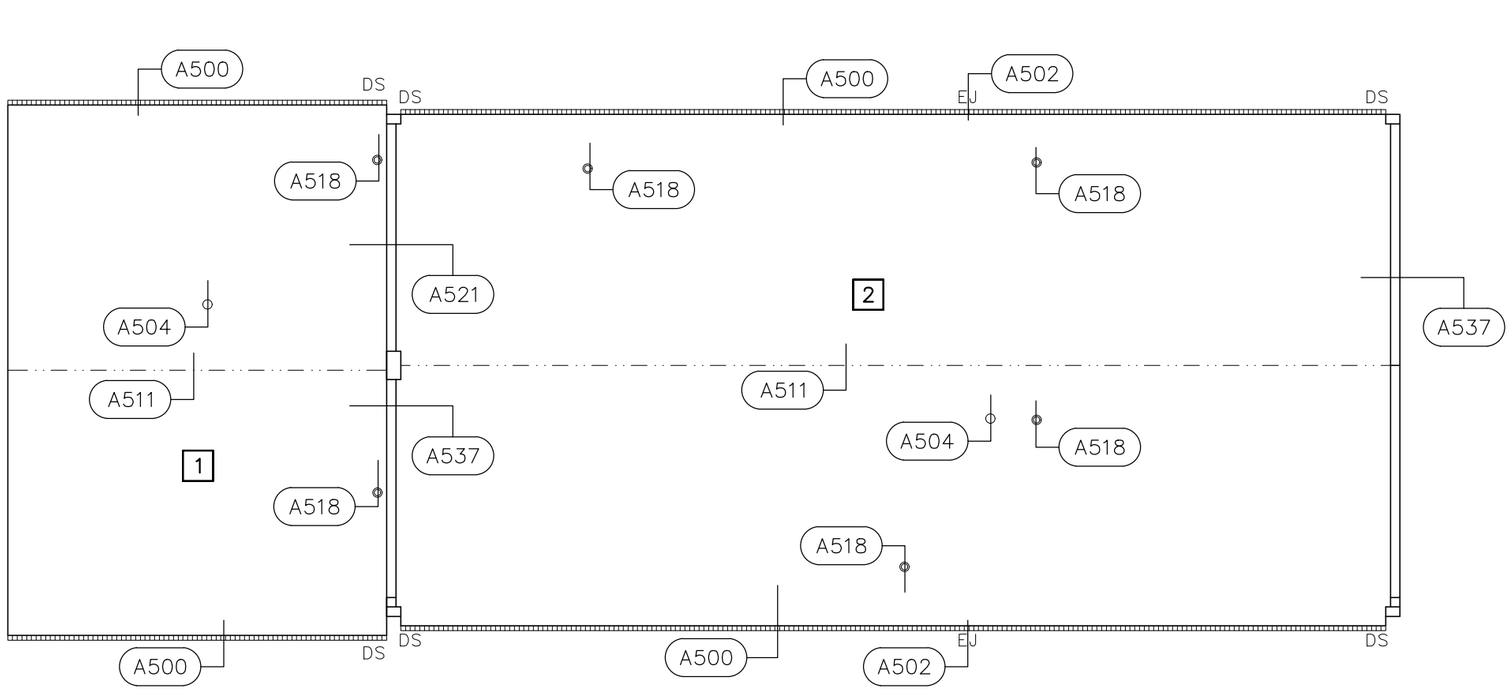
– PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES..
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE, FASCIA, STEP FLASHINGS, COUNTERFLASHING, GUTTERS AND DOWNSPOUTS.
– PROVIDE VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 1" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

– PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.
– PROVIDE 0.032 PREFINISHED ALUMINUM COUNTERFLASHING, GUTTERS / DOWNSPOUTS, AND FASICA TRIM AT EAVE AND RAKE

N



KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- RR ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	1,250
3	6,325
TOTAL	7,575

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MENOMONEE FALLS, WI 53051
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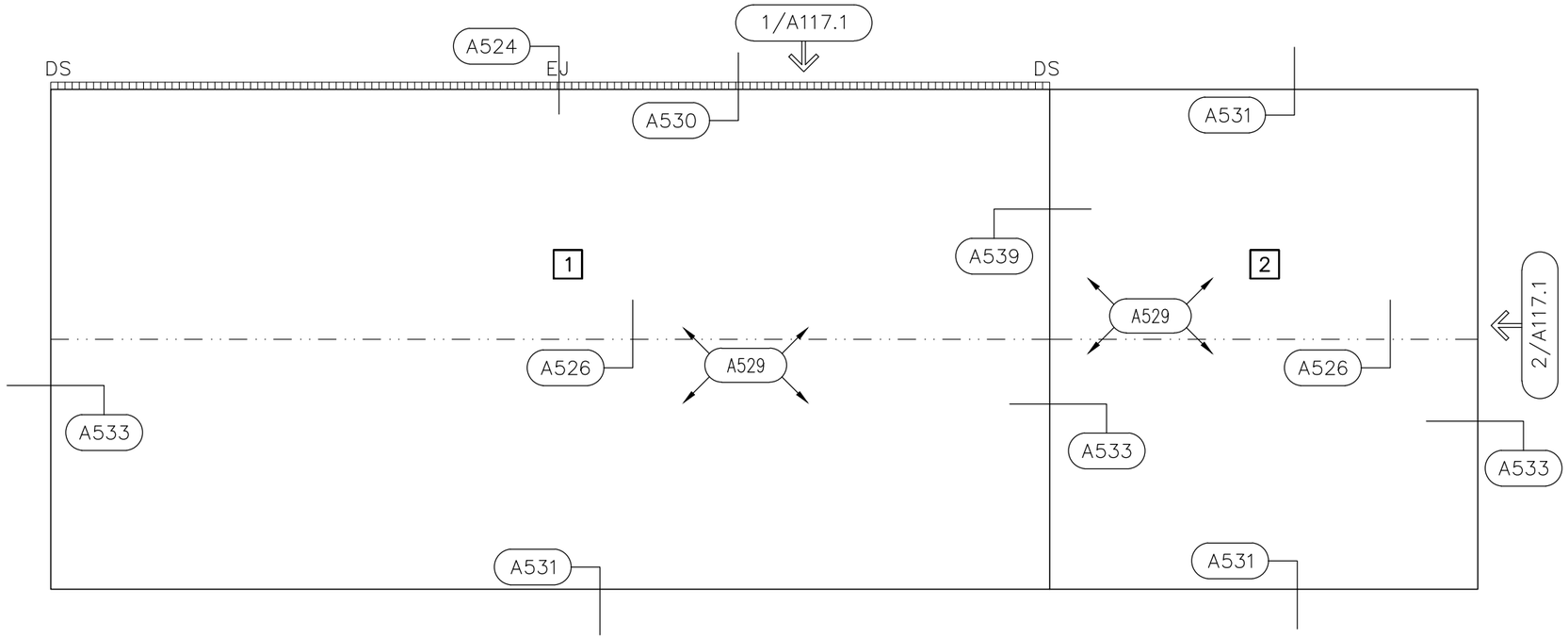
Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 33 Building 3 - Valley Rd - Water Plant
750 Valley Rd - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A116



KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING FASTENER METAL ROOF PANEL AND POLYCARBONATE RIDGE CAP DOWN TO THE EXISTING WOOD PURLINS. REMOVE AND DISPOSE OF EXISTING, GUTTERS, DOWNSPOUTS, GABLE AND EVE TRIMS. REMOVE AND DISPOSE OF EXISTING METAL WALL PANELS AND ASSOCIATED TRIMS ON THE NORTH AND WEST ELEVATIONS

- PROVIDE 26 GA. PREFINISHED R-PANEL ON ROOF WITH 1" EAVE OVERHANG AT GUTTER EDGE EAVES 4" OVERHANG AT NON-GUTTER EDGE EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12" O.C. SPACING AT EACH EXISTING PURLIN (APPROX. 12"O.C.) PROVIDE 7" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 9'-0" OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES
- PROVIDE TRANSULSANT RIDGE CAP ALONG ENTIRE RIDGE
- PROVIDE 26 GA. PREFINISHED STEEL GABLE, EAVE AND SIDEWALL HEAD FLASHINGS
- PROVIDE 0.032" PREFINISHED ALUMINUM COUNTERFLASHING, GUTTERS AND DOWNSPOUTS
- PROVIDE 26 GA. PREFINISHED R-PANELS ON WALLS WITH ACCENT PANEL AT CORNERS TO MATCH EXISTING. SECURE TO 24" O.C. GIRTS WITH EXPOSED FASTENERS AT 12" O.C SPACING. PROVIDE OUTSIDE CLOSURE STRIPS AT EAVE AND GABLE ENDS. PROVIDE 26 GA. PREFINISHED TRIMS AT ALL OPENINGS AND CORNERS

NOTES:

CONTRACTOR TO CAREFULLY REMOVE AND SALVAGE EXISTING LIGHTNING COMPONENTS. REINSTALL FOLLOWING INSTALLATION OF WALL PANELS

AREA SIZES

AREA NO.	SQ. FT.
1	2,425
2	1,025
TOTAL	3,450

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MENOMONEE FALLS, WI 53051
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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 35 Building 3 - Valley Rd Water Plant
750 Valley Rd - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A117

1—WEST ELEVATION

2—NORTH ELEVATION

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Platteville, City of
Roof Replacement Project

6/15/26 | Project No. 15934

LOC 35 Building 3 - Valley Rd Water Plant
750 Valley Rd - Platteville, WI

BUILDING ELEVATIONS

Drawn by EM
Checked by DS

Sheet No.
A117.1

SCOPE OF WORK

BASE BID 1

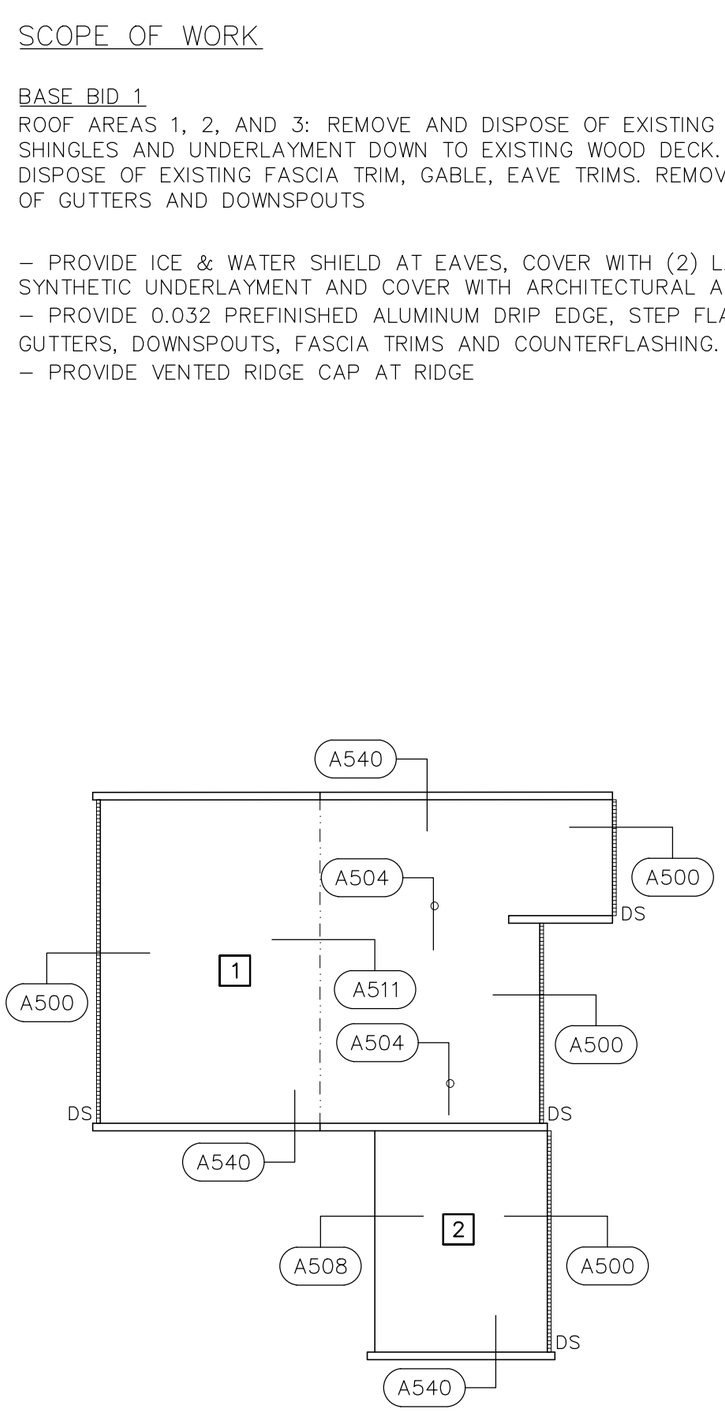
ROOF AREAS 1, 2, AND 3: REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING FASCIA TRIM, GABLE, EAVE TRIMS. REMOVE AND DISPOSE OF GUTTERS AND DOWNSPOUTS

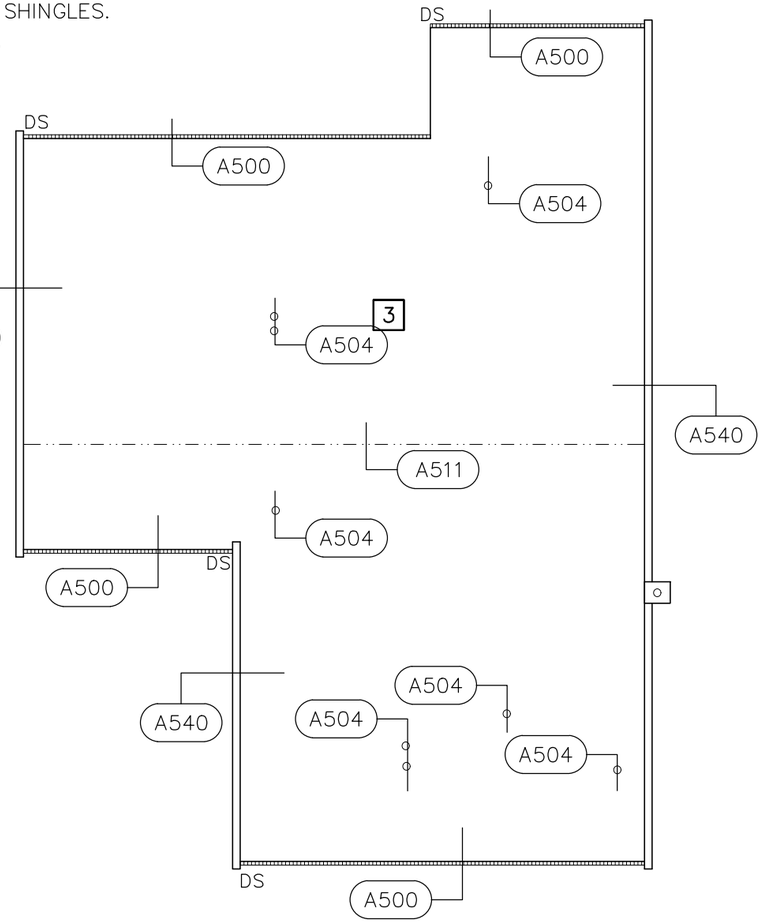
– PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH (2) LAYERS OF SYNTHETIC UNDERLAYMENT AND COVER WITH ARCHITECTURAL ASPHALT SHINGLES.
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE, STEP FLASHINGS, GUTTERS, DOWNSPOUTS, FASCIA TRIMS AND COUNTERFLASHING.
– PROVIDE VENTED RIDGE CAP AT RIDGE

GENERAL NOTES

SPECIAL SITE CONDITIONS EXISTING WITHIN THIS FACILITY. SECURE GATE CONTROLS ACCESS. COORDINATE WORK HOURS AND DAYS WITH FACILITY MANAGER.

ACTIVE WATER TREATMENT OPERATIONS WILL BE ONGOING THROUGHOUT CONSTRUCTION TAKE CARE TO PREVENT DEBRIS FROM TRAVELING INTO ADJACENT WATER TREATMENT OPERATIONS AND TIGHTLY SEAL ALL PRODUCT CONTAINERS TO PREVENT SPILLS / CONTAMINATION.





KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	2,950
2	650
3	7,875
TOTAL	11,475

STR SEG
SPECIALTY ENGINEERING GROUP LLC
N89w16785 APPLETON AVENUE, SUITE 201
MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

Platteville, City of
Roof Replacement Project

LOC 42 Building 5 – Waste Water Treatment Plant
1700 Greenwood Ave - Platteville, WI

6/15/26 | Project No. 15934

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A118

GENERAL NOTES

SPECIAL SITE CONDITIONS EXISTING WITHIN THIS FACILITY. SECURE GATE CONTROLS ACCESS. COORDINATE WORK HOURS AND DAYS WITH FACILITY MANAGER.

ACTIVE WATER TREATMENT OPERATIONS WILL BE ONGOING THROUGHOUT CONSTRUCTION TAKE CARE TO PREVENT DEBRIS FROM TRAVELING INTO ADJACENT WATER TREATMENT OPERATIONS AND TIGHTLY SEAL ALL PRODUCT CONTAINERS TO PREVENT SPILLS / CONTAMINATION.

SCOPE OF WORK

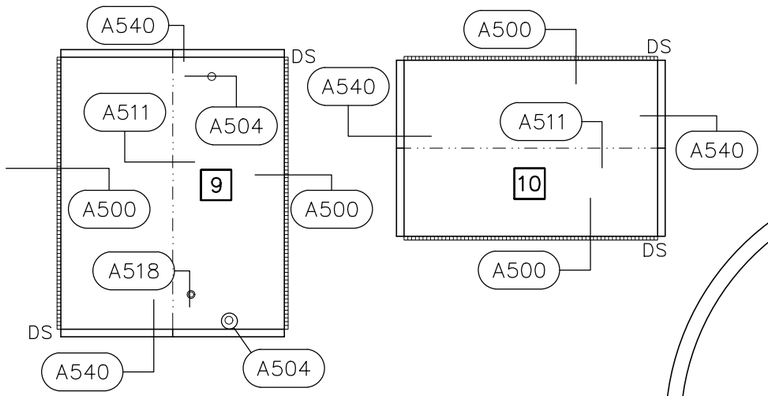
BASE BID 1

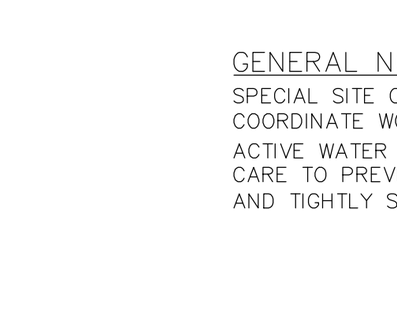
ROOF AREAS 4, 6, 8, 9,10, AND 11: REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING FASCIA TRIM, GABLE, EAVE TRIMS. REMOVE AND DISPOSE OF GUTTERS AND DOWNSPOUTS

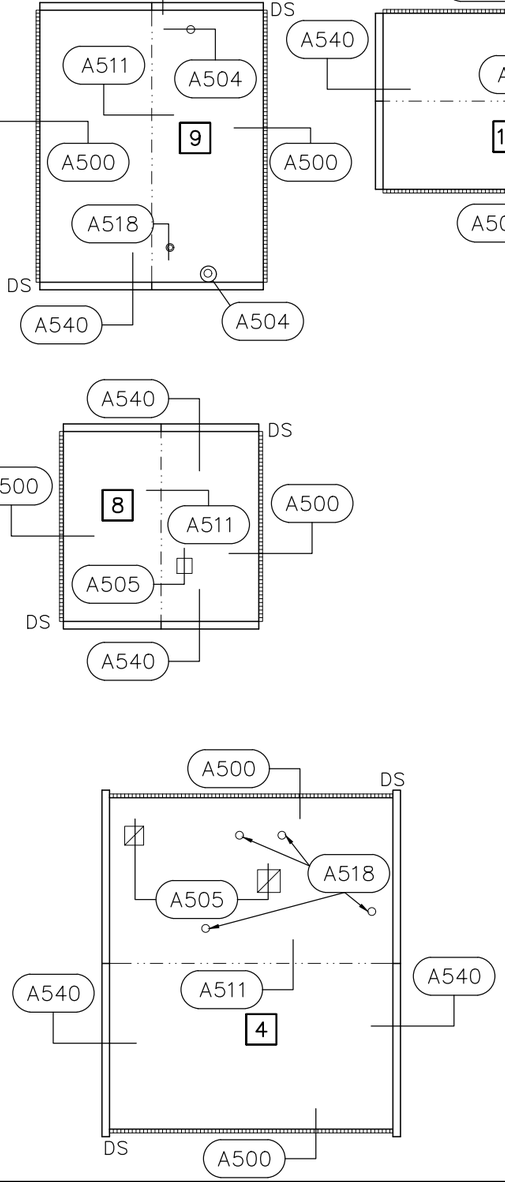
- PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH (2) LAYERS OF SYNTHETIC UNDERLAYMENT AND COVER WITH ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE, STEP FLASHINGS, GUTTERS, DOWNSPOUTS, FASCIA TRIMS AND COUNTERFLASHINGS.
- PROVIDE VENTED RIDGE CAP AT RIDGE

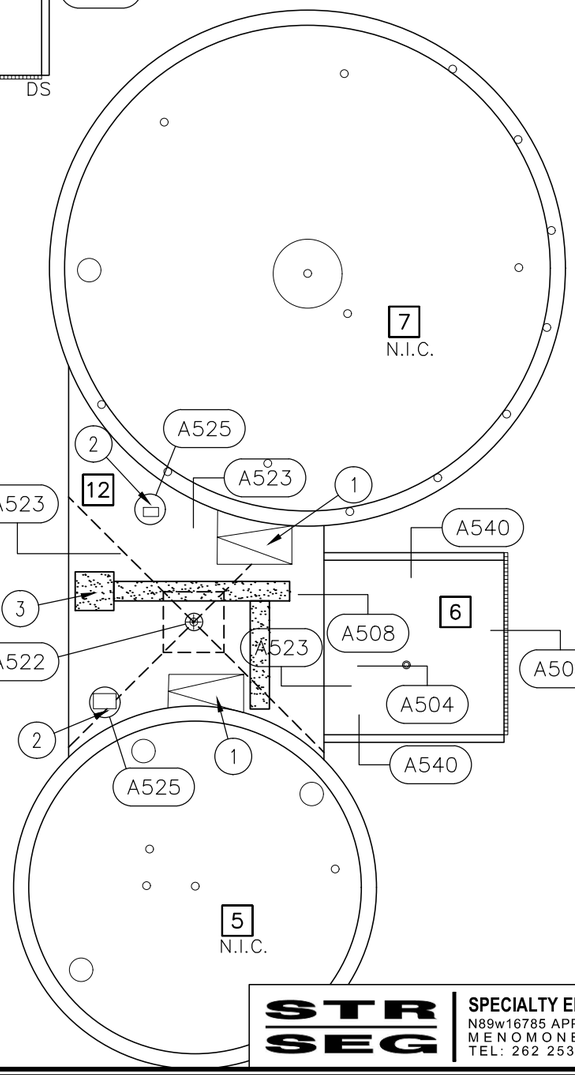
ROOF AREA 12: REMOVE AND DISPOSE OF EXISTING EPDM ROOF MEMBRANE INCLUDING STONE BALLAST AND UNDERLYING INSULATION DOWN TO EXISTING CONCRETE DECK. REMOVE AND DISPOSE OF SHEET METAL FLASHINGS.

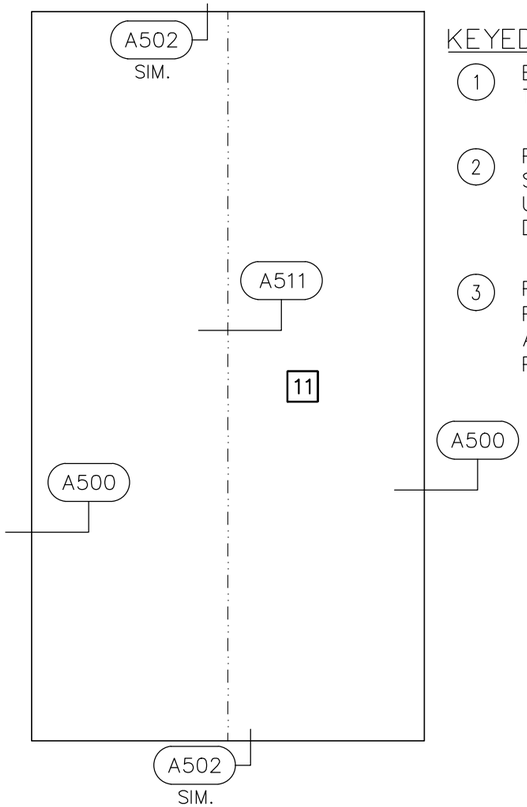
- PROVIDE 1/8" PER FOOT TAPERED POLYISOCYANURATE INSULATION WITH 2.5" START THICKNESS (ADHERED TO EXISTING CONCRETE DECK)
- PROVIDE 60–MIL FULLY ADHERED EPDM MEMBRANE
- PROVIDE REINFORCED PERIMETER STRIPS AT BASE TIE–INS WITH TERMINATION BAR AT 8" MIN FLASHING HEIGHTS
- PROVIDE 24GA PREFINISHED AT ROOF EDGES WITH 22GA CONTINUOUS CLEATS
- PROVIDE MASONRY RAGGLE CUT IN EXISTING MORTAR JOINT AND 24GA PREFINISHED REGLET MOUNTED RECEIVER WITH 24GA PREFINISHED COUNTERFLASHING











KEYED NOTES

1. EXISTING WOODEN ACCESS HATCH TO REMAIN
2. PROVIDE 1/4" PER FOOT TAPERED SADDLES AT HIGH SIDE OF CURBED UNITS TO CREATE POSITIVE DRAINAGE.
3. PROVIDE (4) 2'X2' CONCRETE PAVERS AT ROOF ACCESS POINTS AND SINGLE ROW OF PAVERS IN PATH AS INDICATED ON PLAN

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- (X) ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	2,950
2	650
3	7,875
TOTAL	11,475

STR SEG
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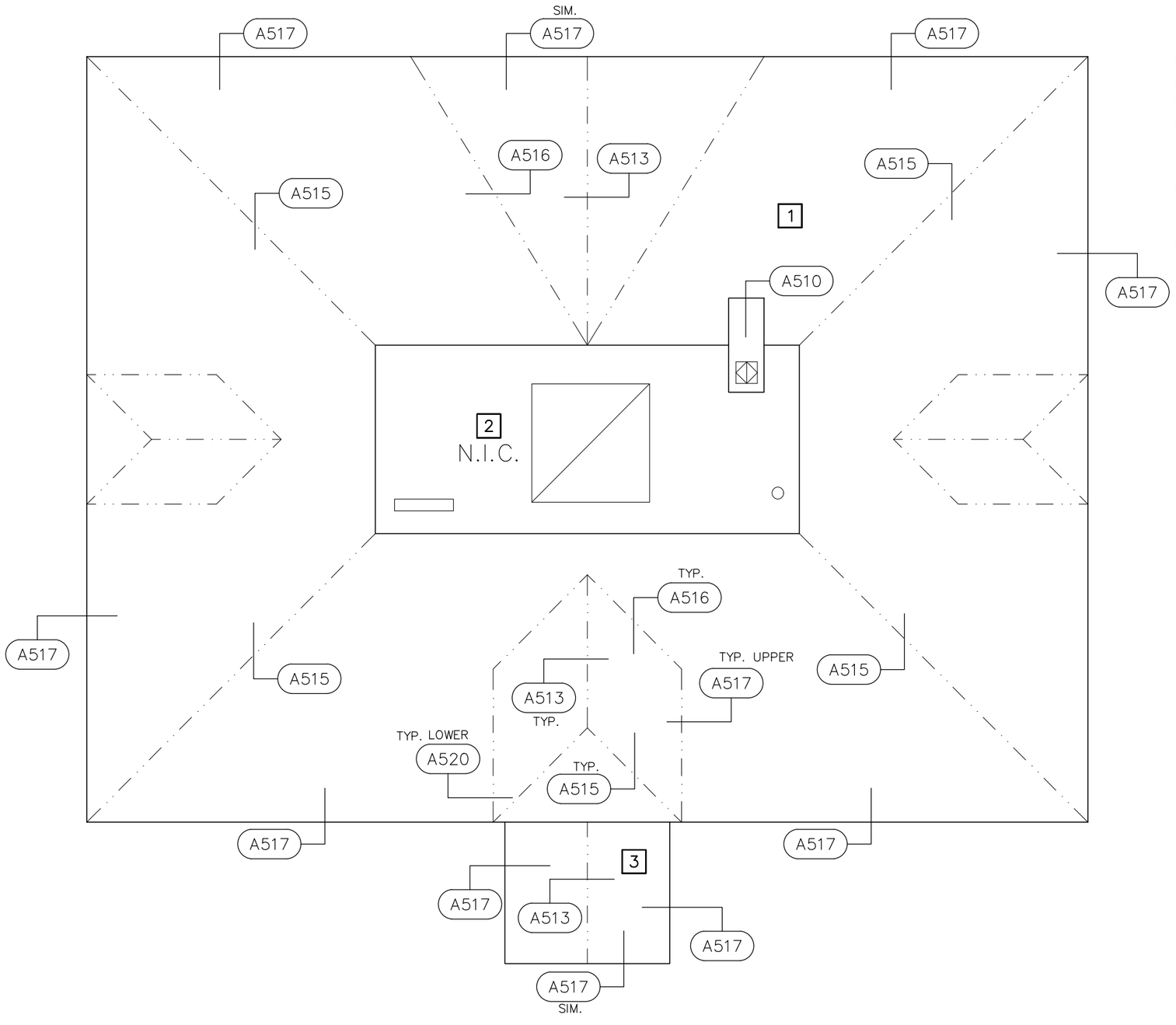
Platteville, City of
Roof Replacement Project
6/15/26
Project No. 15934

LOC 42 Building 5 – Waste Water Treatment Plant
1700 Greenwood Ave - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A118.1



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING, VALLEY FLASHINGS, DRIP EDGE TRIM.

– PROVIDE ICE & WATER SHIELD AT EAVES AND VALLEYS, SYNTHETIC UNDERLAYMENT, AND CERTAINTEED GRAND MANOR CLASS 4 ARCHITECTURAL SHINGLES.

– PROVIDE 0.032 PREFINISHED ALUMINUM STEP FLASHING, VALLEY, DRIP EDGE, RIDGE, HIP, AND COUNTERFLASHING.

NOTES

INSTALLATION OF GUTTERS AND DOWNSPOUTS BY OWNER

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	5,525
2	550
3	175
TOTAL	6,250

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Platteville, City of
Roof Replacement Project

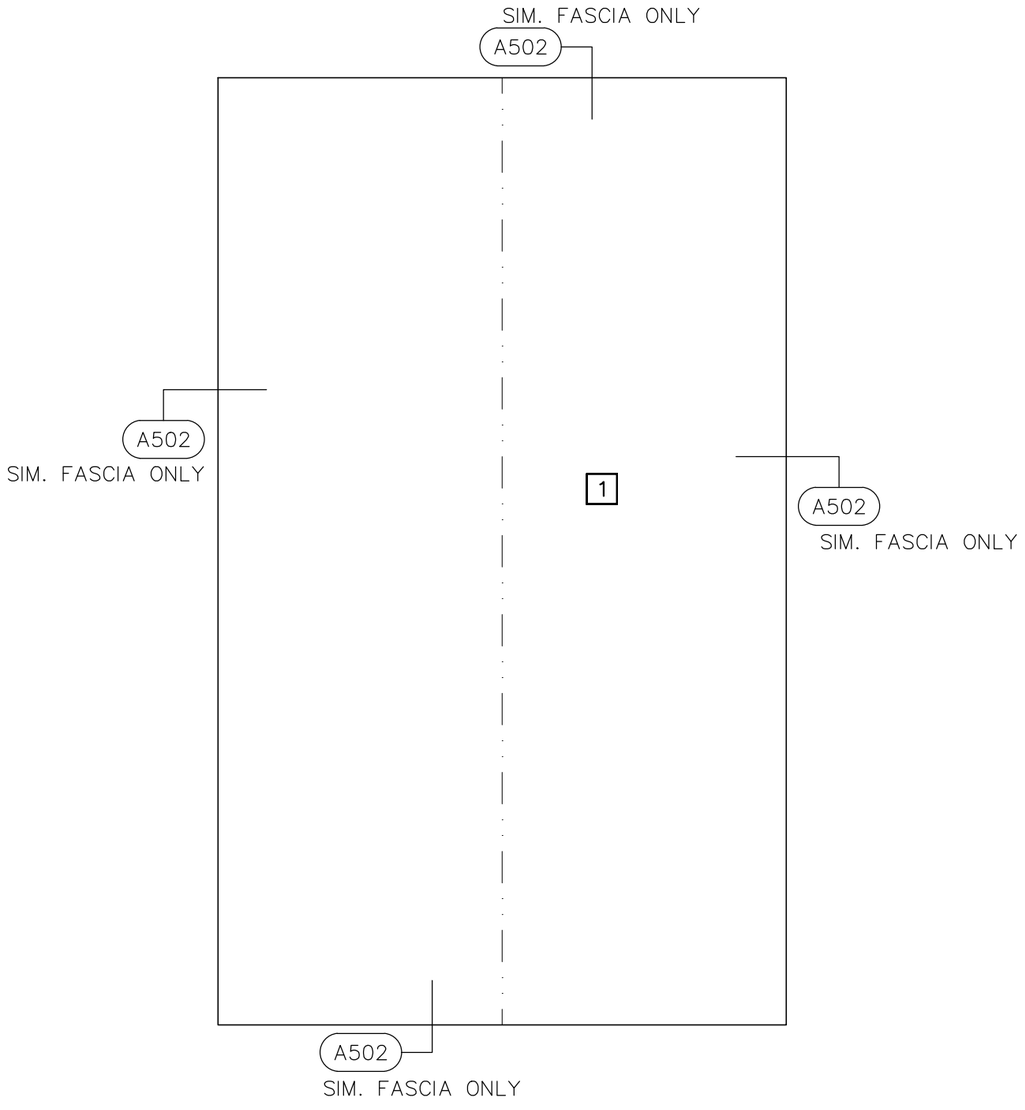
6/15/26 | Project No. 15934

LOC 48 Building 7: Museum Hanmer
385 E. Main St - Platteville, WI

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A119



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING FASCIA TRIM AT BUILDING PERIMETER. SHINGLES AND DRIP EDGE TO REMAIN.

– PROVIDE 0.032 PREFINISHED ALUMINUM FASCIA TRIM.

NOTE: BEWARE OF NESTED BIRDS INSIDE OPEN SHELTER.

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	1,650
TOTAL	1,650

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Platteville, City of
Roof Replacement Project

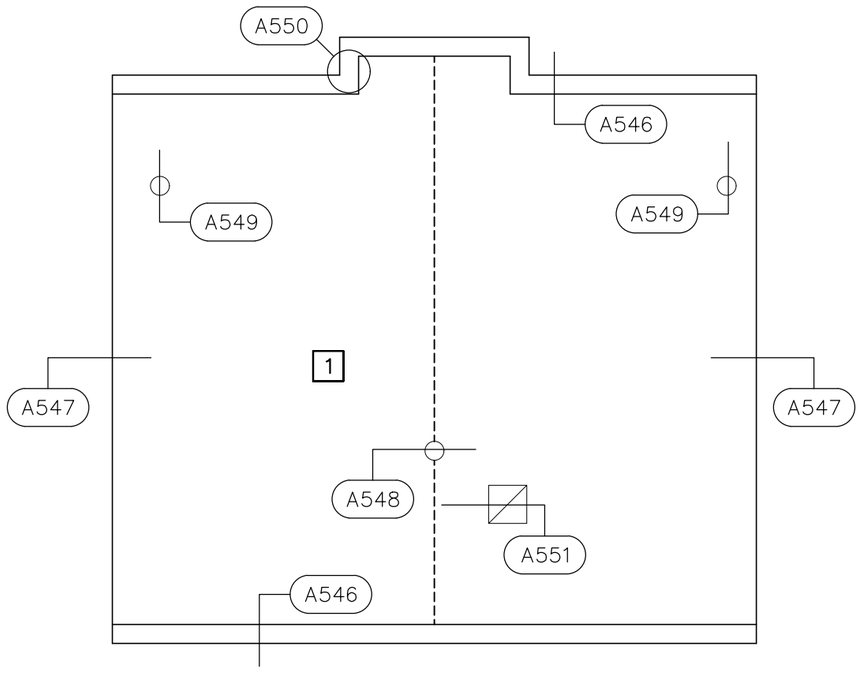
6/15/26 | Project No. 15934

LOC 60 Building 3 - Airport Picnic Shelter
5157 State Rd 80 - Platteville, WI

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A120



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING THERMOPLASTIC ROOF MEMBRANE AND UNDERLYING INSULATION DOWN TO THE EXISTING CONCRETE DECK. REMOVE AND DISPOSE OF SHEET METAL FLASHINGS / TERMINATION BARS.

- PROVIDE 1.5" POLYISOCYANURATE INSULATION (ADHERED TO EXISTING CONCRETE DECK)
- PROVIDE 60-MIL FULLY ADHERED EPDM MEMBRANE
- PROVIDE REINFORCED PERIMETER STRIPS AT BASE TIE-INS
- EXTEND FLASHINGS OVER EXISTING STONE COPING
- PROVIDE .032 PREFINISHED ALUMINUM COPING OVER EXISTING STONE COPING AT RAKE ENDS WITH .040 CONTINUOUS CLEATS
- PROVIDE 2X6 NAILER SECURED TO CONCRETE DECK WITH (2) ROWS OF MASONRY SCREWS SPACED 12" O.C. STAGGERED. EXTEND MEMBRANE OVER NAILER DOWN FACE AND COVER WITH .032 PREFINISHED SHEET METAL FLASHINGS AND CONTINUOUS CLOSURE.
- PROVIDE PREFABRICATE PIPE FLASHINGS AND DETAIL CURBED OPENINGS WITH TERMINATION BAR AND SURFACE MOUNTED COUNTERFLASHING

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- R — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	1,050
TOTAL	1,050

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MENOMONEE FALLS, WI 53051
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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 63 Platteville – Greenwood Cemetery
Greenwood Ave - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

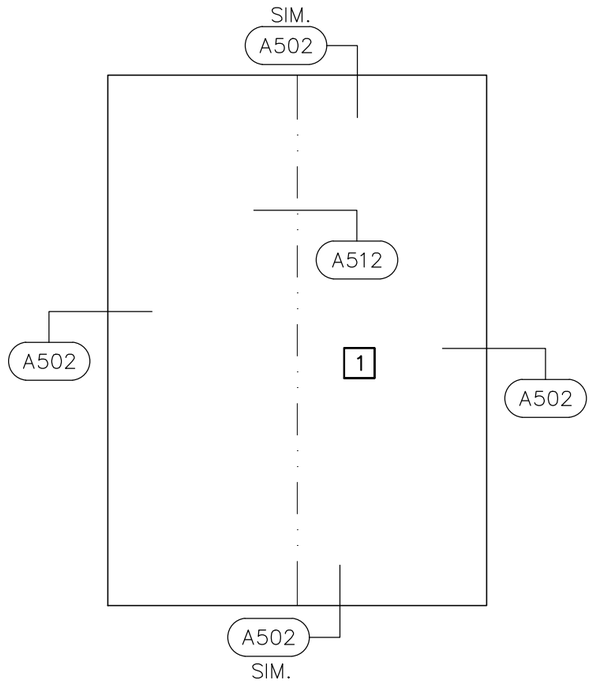
Sheet No.
A121

SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE METAL FLASHING

- PROVIDE SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE TRIMS.



KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	140
TOTAL	140

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Platteville, City of
Roof Replacement Project

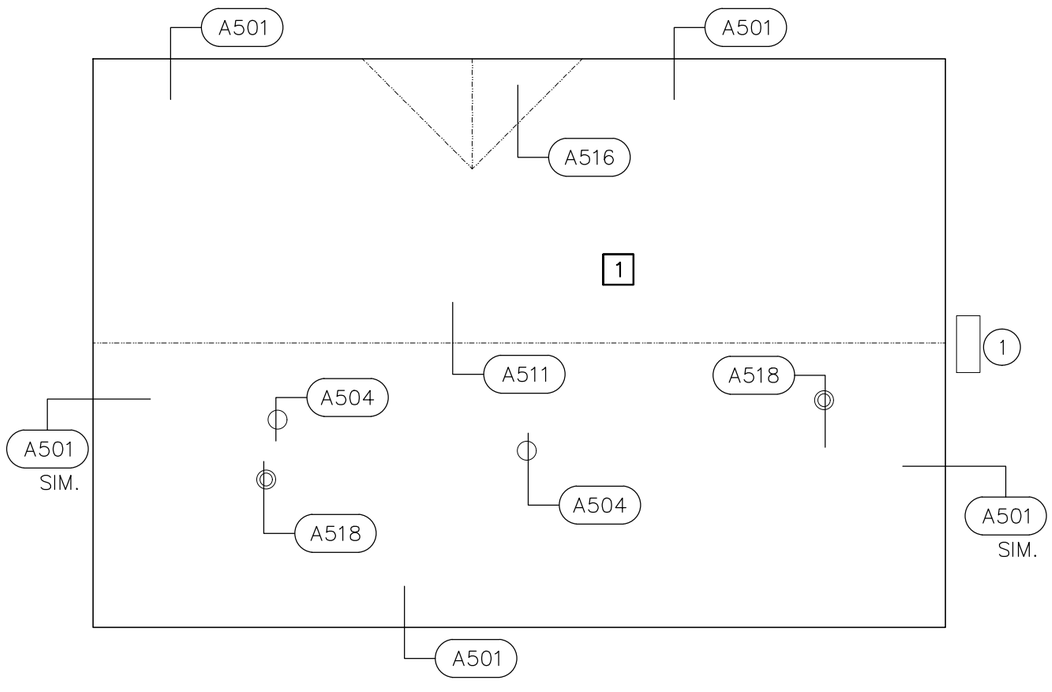
6/15/26 | Project No. 15934

LOC 65 Building 6 – Museum
50 Cora St - Platteville, WI

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A122



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND FASCIA TRIMS

- SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLE
- 0.032" PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS
- VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26 GA. PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12" O.C. SPACING IN ROWS SPACED 24" O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6' FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES

- 26 GA. PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS
- 0.032" PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS

N

KEY NOTES:

(1) EXISTING ANTENNA MAST CONNECTED TO RAKE END FASCIA. CAREFULLY REMOVE SUPPORTS TO INSTALL WORK AND REINSTALL

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	675
2	2,550
3	9,250
TOTAL	12,475

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MENOMONEE FALLS, WI 53051
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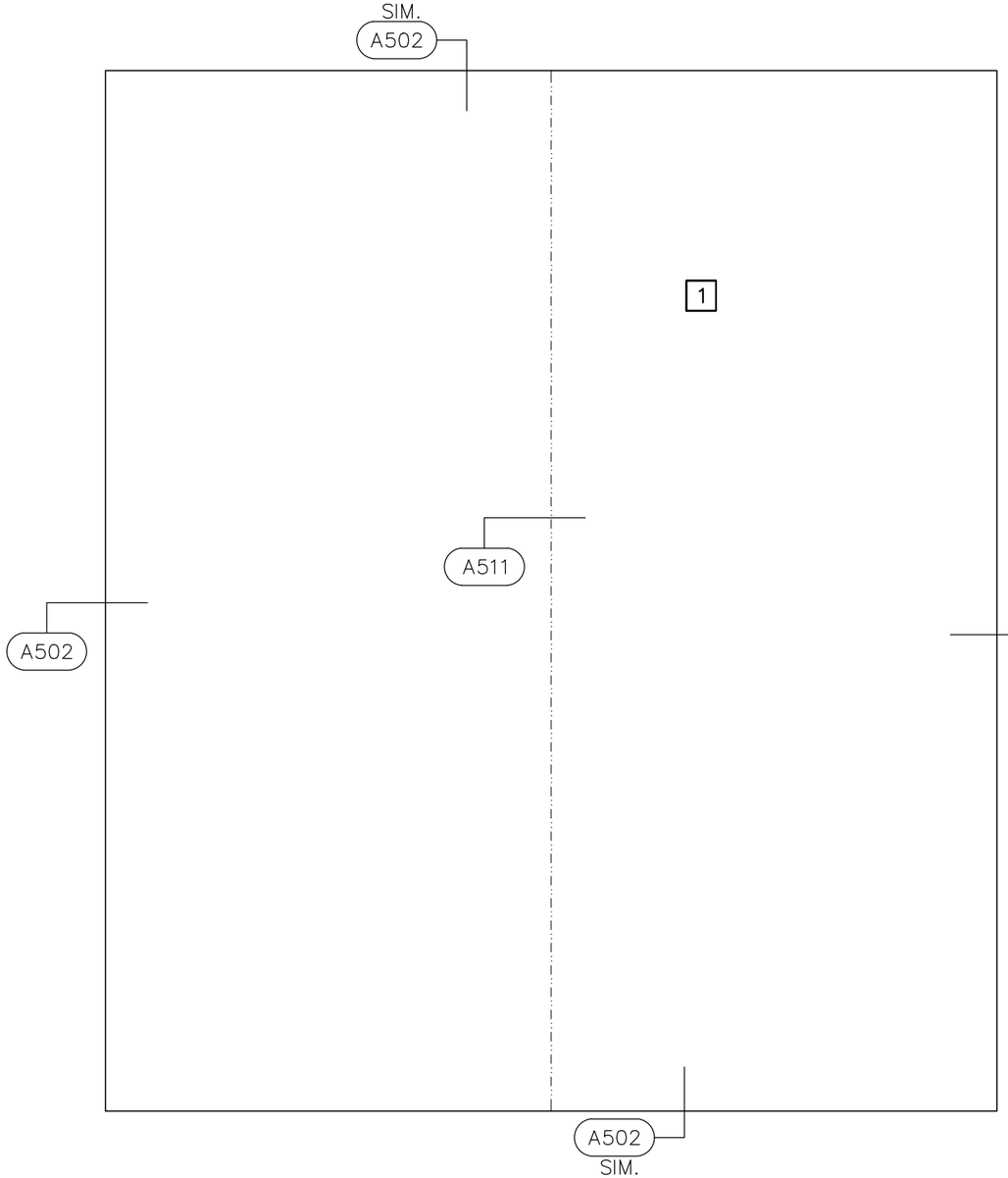
Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 71 Building 3 - Pump House
Stevens Ave and N Water - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A123



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND FASCIA TRIM.

- PROVIDE (2) LAYERS OF SYNTHETIC UNDERLAYMENT AND COVER WITH ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIM.
- PROVIDE VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26 GA. PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12" O.C. SPACING IN ROWS SPACED 24" O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6' FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES

- 26 GA. PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS
- 0.032" PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- (M) ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	120
TOTAL	120

STR SEG
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MENOMONEE FALLS, WI 53051
TEL: 262 253 4700 | www.str-seg.com

Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 76 Building 3 – Swiss Valley Dog Park
Valley RD Platteville - Platteville, WI

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A124

SCOPE OF WORK

BASE BID 1

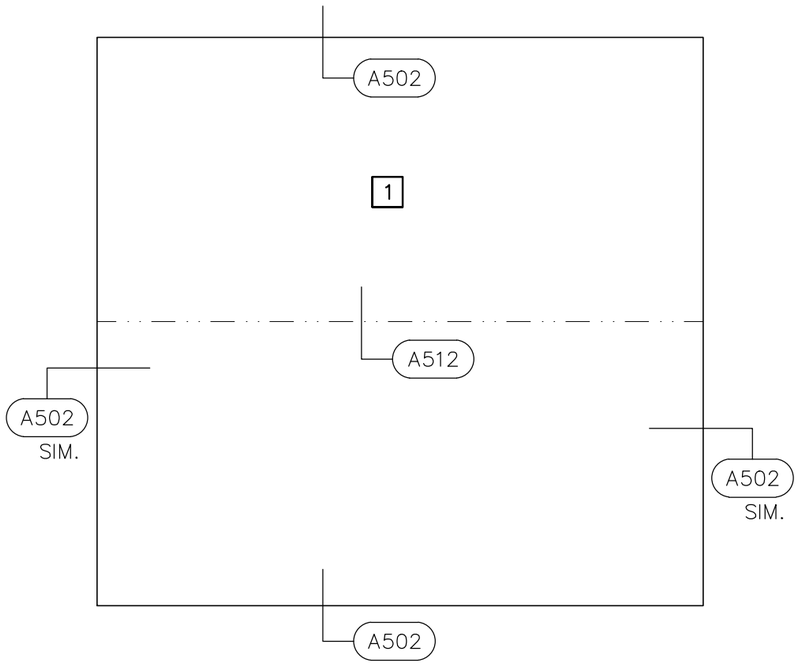
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND FASCIA TRIMS

- SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLE
- 0.032" PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS
- NON-VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26 GA. PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12" O.C. SPACING IN ROWS SPACED 24" O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6' FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES

- 26 GA. PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- RR ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
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- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	275
TOTAL	275

STR SEG
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N89w16785 APPLETON AVENUE, SUITE 201
MENOMONEE FALLS, WI 53051
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Platteville, City of
Roof Replacement Project

LOC 76 Swiss Valley Dog Park – Open shelter
Valley RD - Platteville, WI

6/15/26 | Project No. 15934

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A125

SCOPE OF WORK

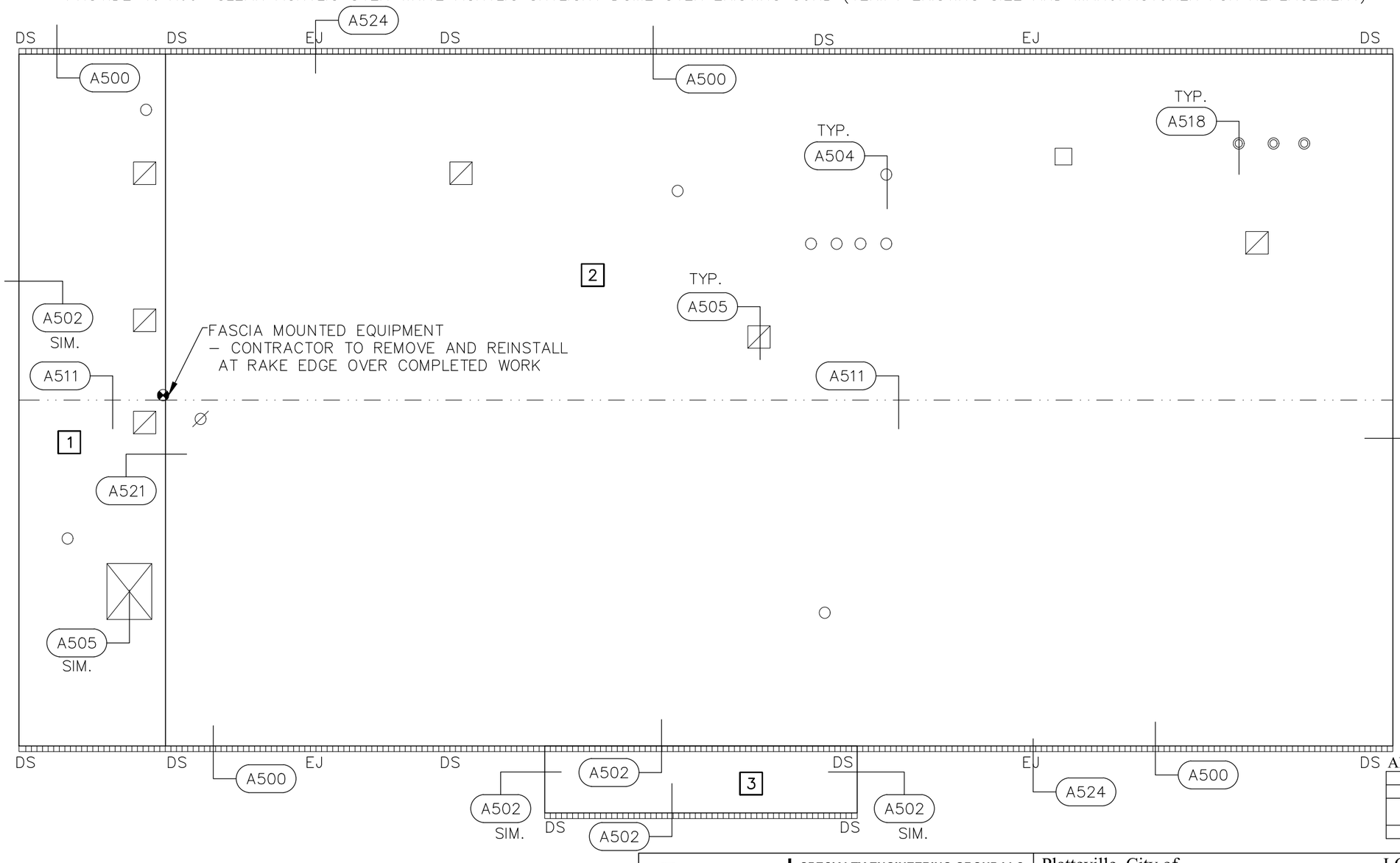
BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING, GUTTERS, DOWNSPOUTS, FASCIA TRIM, COUNTERFLASHING, STEP FLASHINGS DRIP EDGE. REMOVE AND DISPOSE OF EXISTING SKYLIGHT DOME.

- PROVIDE ICE & WATER SHIELD AT EAVES, COVER WITH SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE, FASCIA, STEP FLASHINGS, COUNTERFLASHING, GUTTERS AND DOWNSPOUTS.
- PROVIDE VENTED RIDGE CAP
- PROVIDE 46"X69" CLEAR ACRYLIC OVER WHITE ACRYLIC SKYLIGHT DOME OVER EXISTING CURB (VERIFY EXISTING SIZE AND MANUFACTURER FOR REPLACEMENT)

NOTE:

DOWNSPOUTS ON NORTH ELEVATION TO BE CONNECTED TO EXISTING UNDERGROUND STORM WATER SYSTEM



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	900
2	7,625
3	175
TOTAL	8,700

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MENOMONEE FALLS, WI 53051
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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 77 Building 3 – Water Plant
38 Insight Dr - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A126

SCOPE OF WORK

BASE BID 1

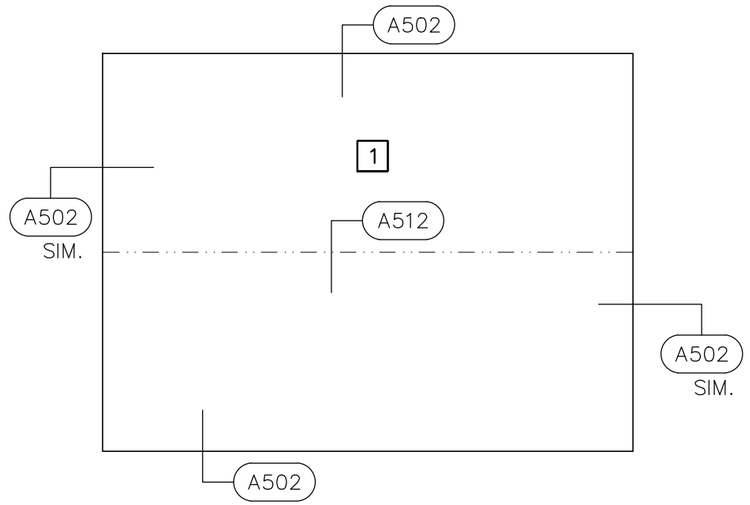
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE.

– PROVIDE (2) LAYERS OF SYNTHETIC UNDERLAYMENT AND COVER WITH ARCHITECTURAL ASPHALT SHINGLES.
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE,
– PROVIDE NON–VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

– PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	650
TOTAL	650

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Platteville. City of
Roof Replacement Project

LOC 89 Special Class 9 – Highland Park
465 Stevens Ave - Platteville, WI

6/15/26 | Project No. 15934

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A127

SCOPE OF WORK

BASE BID 1

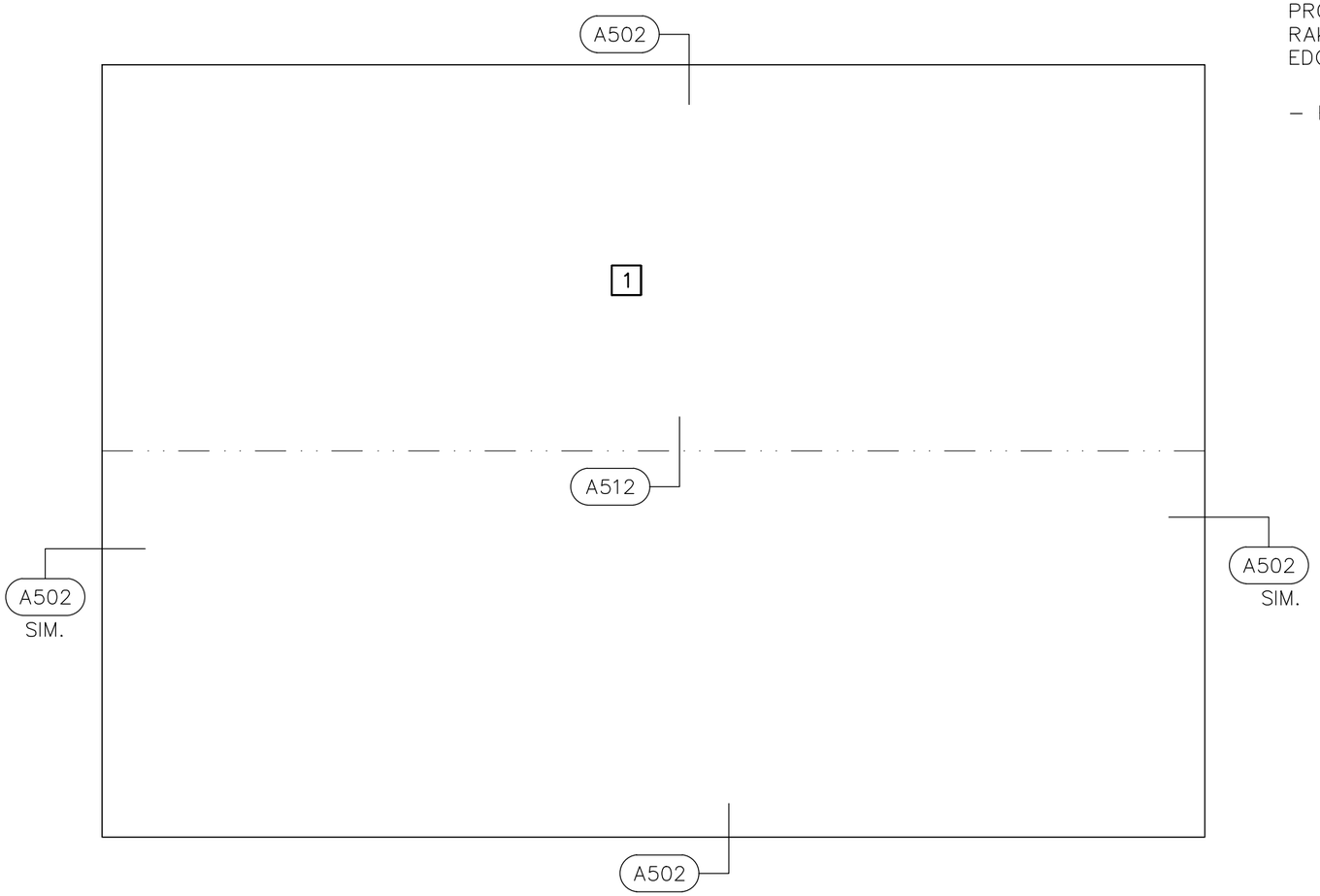
REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE.

- PROVIDE (2) LAYERS OF SYNTHETIC UNDERLAYMENT AND COVER WITH ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE
- PROVIDE NON-VENTED RIDGE CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- RR ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	700
TOTAL	700

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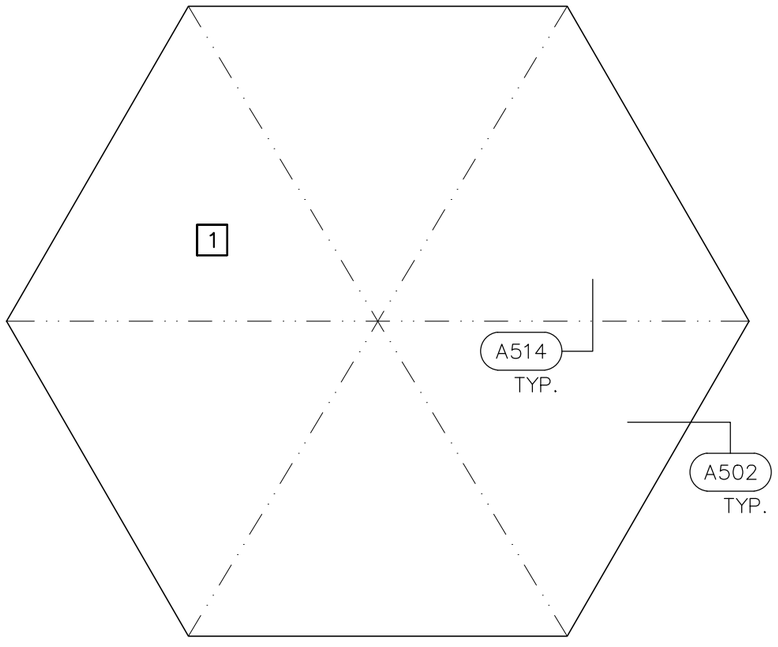
Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 90 Special Class 10 - Jenor Tower Park
130 E Mineral St - Platteville, WI
ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A128



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING DRIP EDGE AND DECORATIVE TURRET CAP .

– PROVIDE (2) LAYERS OF SYNTHETIC UNDERLAYMENT AND COVER WITH ARCHITECTURAL ASPHALT SHINGLES.
– PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND DECORATIVE TURRET CAP

ALTERNATE BID 1

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R–PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS IN ALL LOCATIONS. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.
– PROVIDE 26GA PREFINISHED STEEL RIDGE AND EAVE FLASHINGS.

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X — ROOF AREA DESIGNATION
- RR — ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. — OVERFLOW SCUPPER TUBE
- O.D. — OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB — ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	275
TOTAL	275

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 90 Special Class 12 - Jenor Tower Park
130 E Mineral St - Platteville, WI
ROOF PLAN

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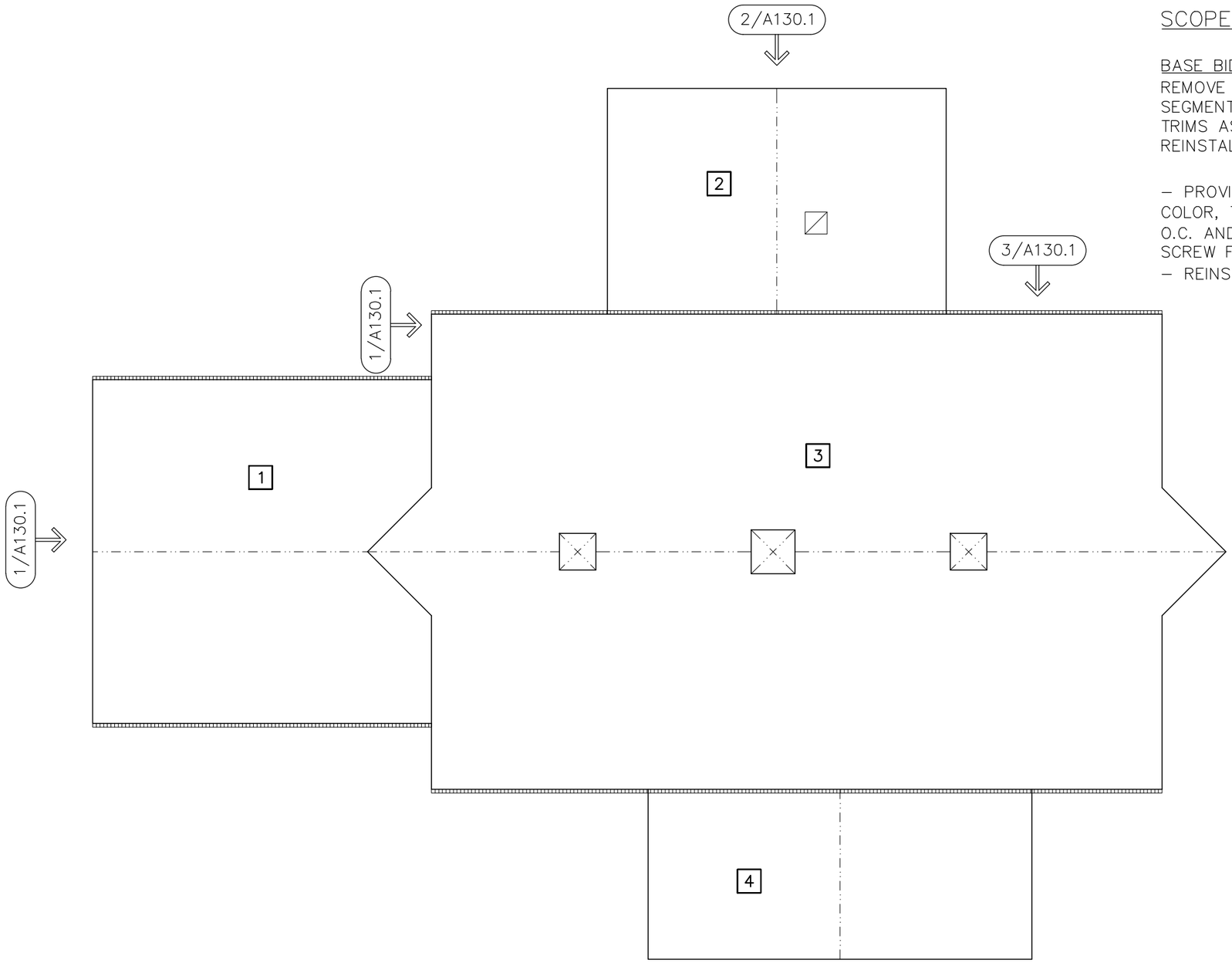
Sheet No.
A129



SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF SELECT EXISTING METAL R-PANEL SIDING SEGMENTS AT NORTH AND WEST ELEVATIONS. REMOVE ADJACENT TRIMS AS NEEDED TO COMPLETE WORK AND STORE FOR REINSTALLATION.

- PROVIDE 26GA PREFINISHED R-PANEL WALL PANELS TO MATCH COLOR, TEXTURE, AND PROFILE. SECURE TO EXISTING GIRTS AT 12" O.C. AND 9" O.C. AT TOPS AND BOTTOMS OF PANELS WITH GASKETED SCREW FASTENERS.
- REINSTALL SALVAGED TRIMS AND CLOSURE STRIPS

N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- X ROOF AREA DESIGNATION
- (R) ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	2,350
2	1,575
3	7,450
4	1,325
TOTAL	12,700

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 91 Building 5 – Broske Center Main Bldg.
1155 N. 2nd St - Platteville, WI
ROOF PLAN

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Sheet No.
A130

1—WEST ELEVATION

2—NORTH ELEVATION

3—NORTH ELEVATION

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Platteville, City of
Roof Replacement Project

6/15/26 | Project No. 15934

LOC 91 Building 5 – Broske Center Main Bldg.
1155 N. 2nd St - Platteville, WI

ELEVATIONS

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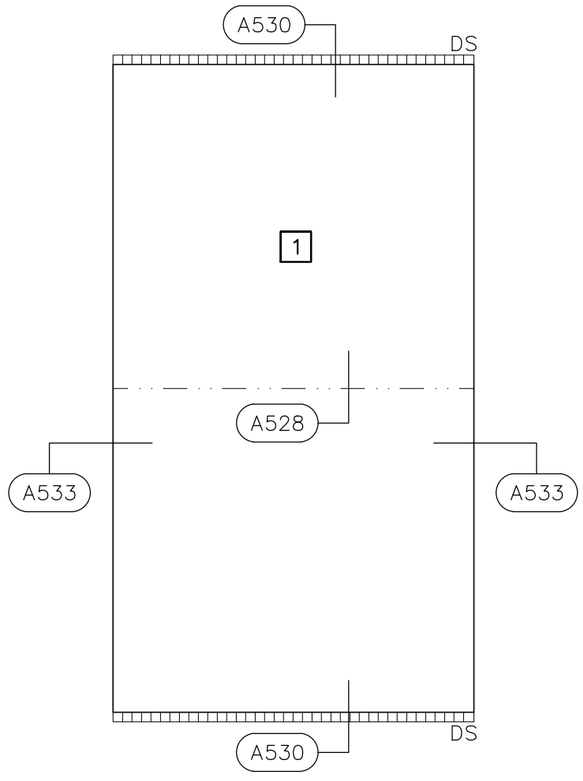
Sheet No.
A130.1

SCOPE OF WORK

BASE BID 1

REMOVE AND DISPOSE OF EXISTING STANDING SEAM METAL PANELS AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING GABLE, RIDGE AND EAVE TRIMS. REMOVE AND SALVAGE GUTTERS AND DOWNSPOUTS FOR REINSTALLATION. FASCIA TRIM TO REMAIN.

– PROVIDE SYNTHETIC UNDERLAYMENT, 26GA PREFINISHED R–PANEL WITH 1" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12–INCH OC SPACING IN ROWS SPACED 24–INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6–FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.
– PROVIDE 26GA PREFINISHED STEEL GABLE, AND EAVE FLASHINGS.
– PROVIDE VENTED RIDGE CAP WITH 26GA FLASHING
– REINSTALL GUTTERS AND DOWNSPOUTS



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	725
TOTAL	725

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Platteville, City of
Roof Replacement Project
6/15/26 | Project No. 15934

LOC 91 Building 6 – Broske Center
1155 N. 2nd St - Platteville, WI
ROOF PLAN

Drawn by EM
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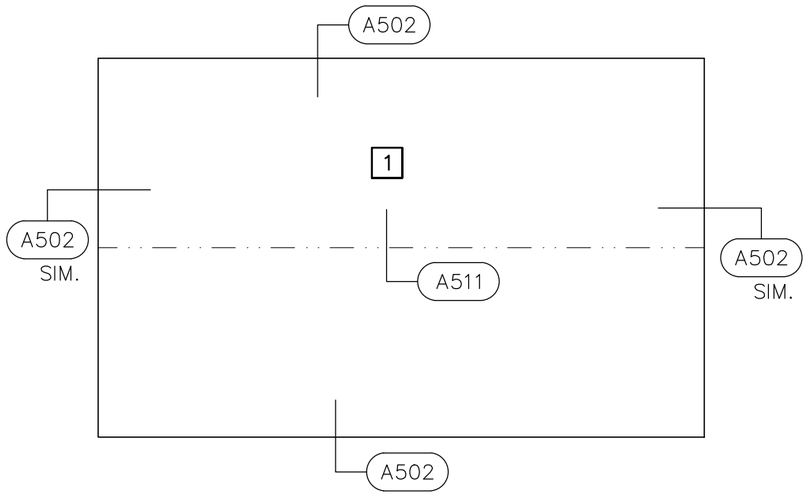
Sheet No.
A131

SCOPE OF WORK

BASE BID 1 (WHITE STORAGE SHED)

REMOVE AND DISPOSE OF EXISTING ASPHALT SHINGLES AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING FASCIA TRIM, GABLE, RIDGE AND EAVE TRIMS.

- PROVIDE SYNTHETIC UNDERLAYMENT AND ARCHITECTURAL ASPHALT SHINGLES.
- PROVIDE 0.032 PREFINISHED ALUMINUM DRIP EDGE AND FASCIA TRIMS.
- PROVIDE VENTED RIDGE CAP



SCOPE OF WORK

BASE BID 1 (TAN GAMBREL SHED)

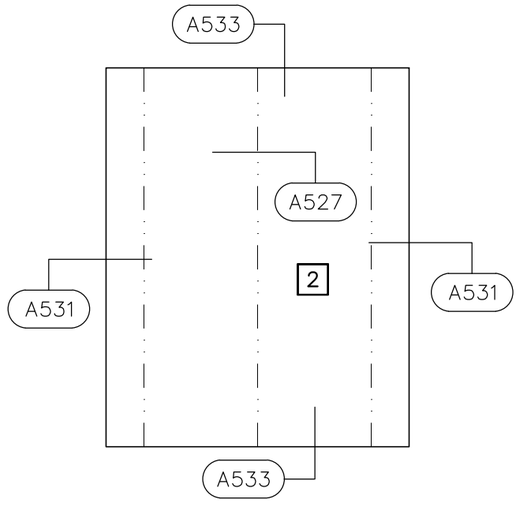
REMOVE AND DISPOSE OF EXISTING METAL R-PANELS AND UNDERLAYMENT DOWN TO EXISTING WOOD DECK. REMOVE AND DISPOSE OF EXISTING FASCIA TRIM, GABLE, RIDGE AND EAVE TRIMS.

- PROVIDE SYNTHETIC UNDERLAYMENT, 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.
- PROVIDE 26GA PREFINISHED STEEL GABLE, RIDGE AND EAVE FLASHINGS.

ALTERNATE BID 1 (WHITE STORAGE SHED

IN LIEU OF ASPHALT SHINGLES PROVIDE 26GA PREFINISHED R-PANEL WITH 2" EAVE OVERHANG AT EAVES. EXPOSED FASTENERS TO BE PROVIDED AT 12-INCH OC SPACING IN ROWS SPACED 24-INCHES O.C. BETWEEN EAVE AND RIDGE. PROVIDE 9" O.C. STITCH SCREWS AT HIGH RIB AT PANEL LAPS WITH 6-FEET OF RAKES. PROVIDE PREFABRICATED INSIDE CLOSURE STRIP AT EXPOSED PANEL EDGES.

- PROVIDE 26GA PREFINISHED STEEL GABLE AND EAVE FLASHINGS.
- PROVIDE 26GA VENTED RIDGE CAP
- PROVIDE 0.032 PREFINISHED ALUMINUM FASCIA TRIM AT EAVE AND RAKE



N

KEY

- STRUCTURAL SLOPE
- 1/8" PER FOOT TAPER
- 1/4" PER FOOT TAPER
- 1/2" PER FOOT TAPER
- ROOF AREA DESIGNATION
- ROOF REPAIR DESIGNATION
- ROOF DRAIN
- O.S. OVERFLOW SCUPPER TUBE
- O.D. OVERFLOW DRAIN INLET
- ROOF EDGE SCUPPER
- GUTTER EDGE
- ROOFTOP HVAC UNIT
- TYPICAL ROOF CURB
- TYPICAL ROOF HATCH
- TYPICAL SKYLIGHT
- TYPICAL CURBED STACK
- CHIMNEY
- TYPICAL PORTAL CURB
- ROOF LADDER
- TYPICAL SMALL PIPE
- TYPICAL PLUMBING VENT
- TYPICAL HOT STACK
- PITCH PAN
- EXPANSION JOINT
- SLOPE TRANSITION
- AB ABANDONED EQUIPMENT

AREA SIZES

AREA NO.	SQ. FT.
1	175
2	100
TOTAL	275

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Platteville, City of
Roof Replacement Project

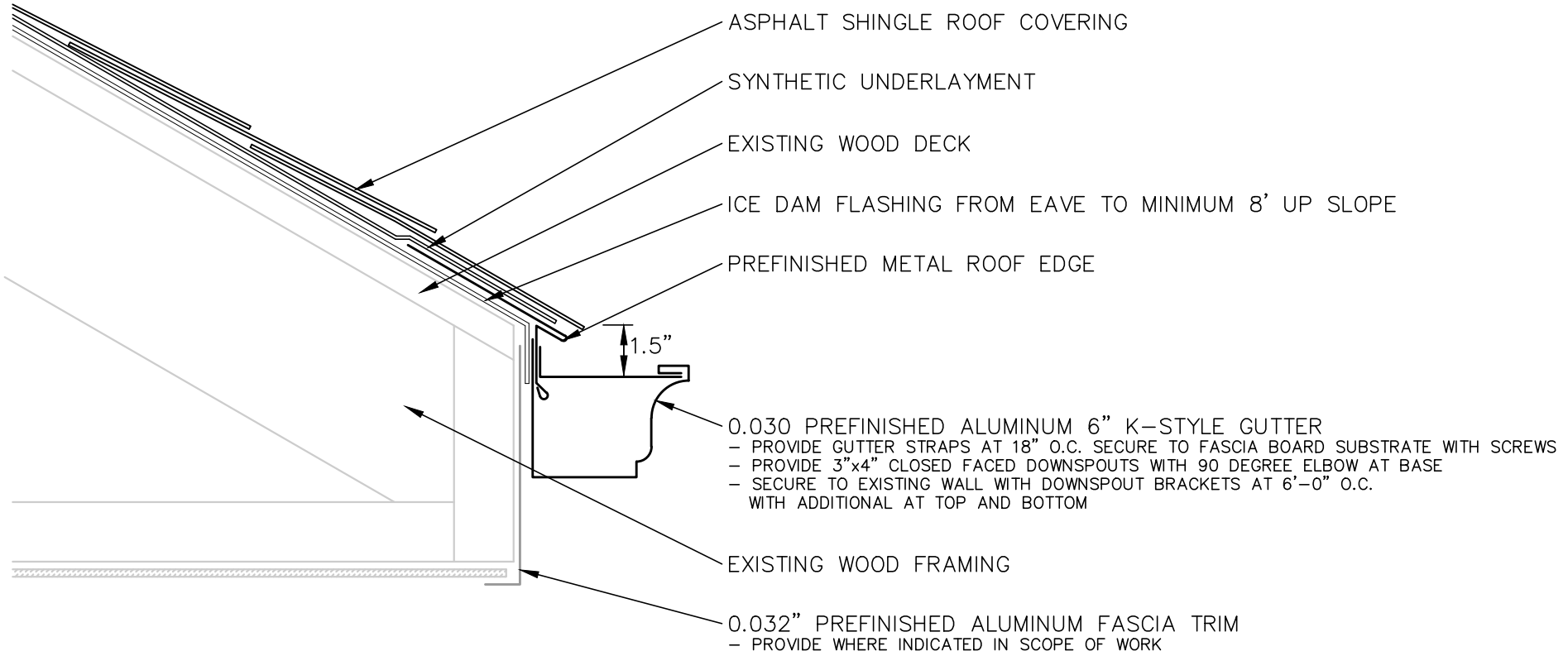
LOC 91– Broske Center - White Storage Shed
1155 N. 2nd St - Platteville, WI

6/15/26 | Project No. 15934

ROOF PLAN

Drawn by EM
Checked by DS

Sheet No.
A132



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Platteville, City of
Roof Replacement Project

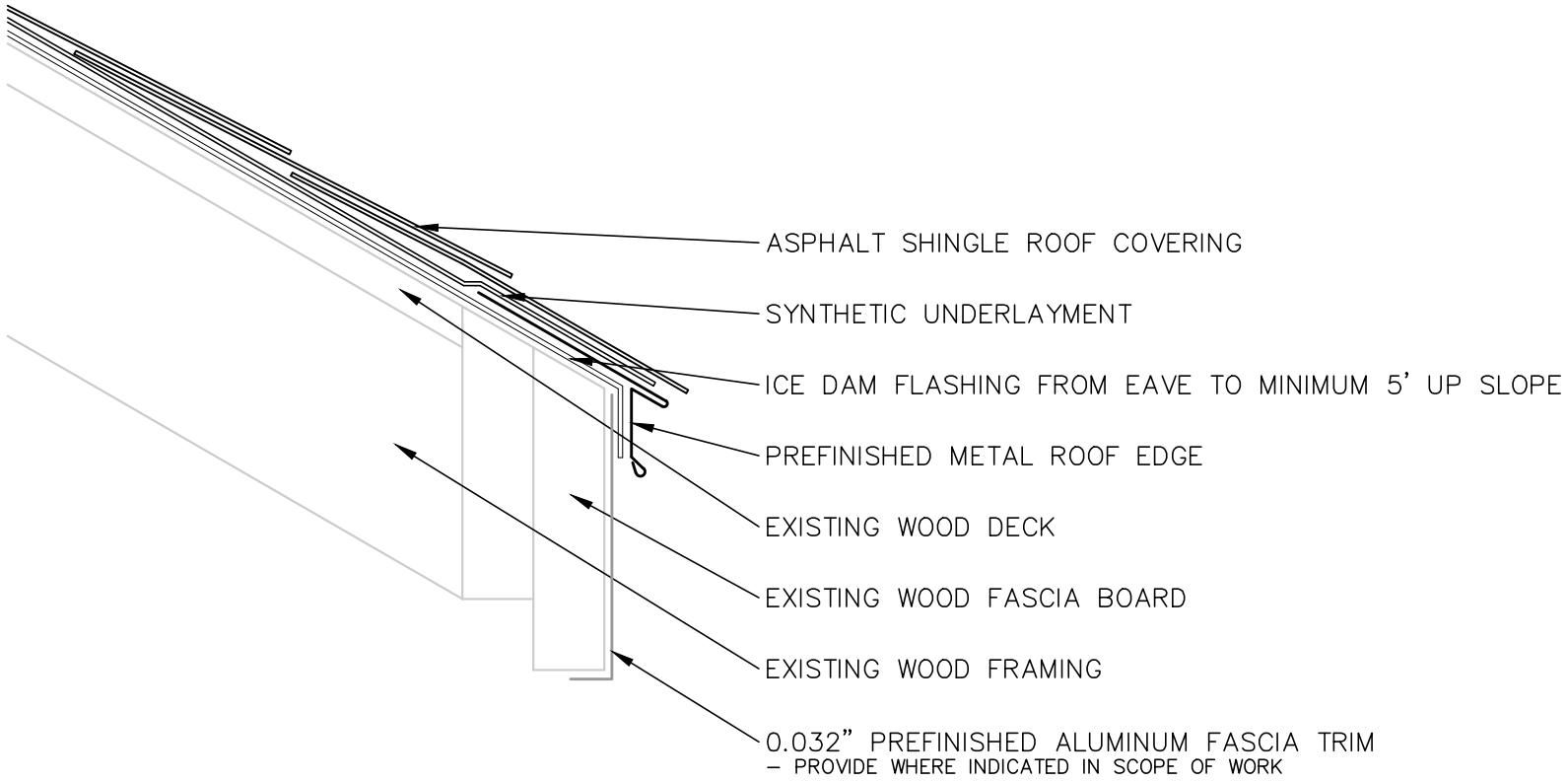
Multiple Buildings
Platteville, WI

6/15/26 | Project No. 15934

GUTTER EDGE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A500



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Platteville, City of
Roof Replacement Project

Multiple Buildings
Platteville, WI

6/15/26 | Project No. 15934

ROOF EDGE FLASHING

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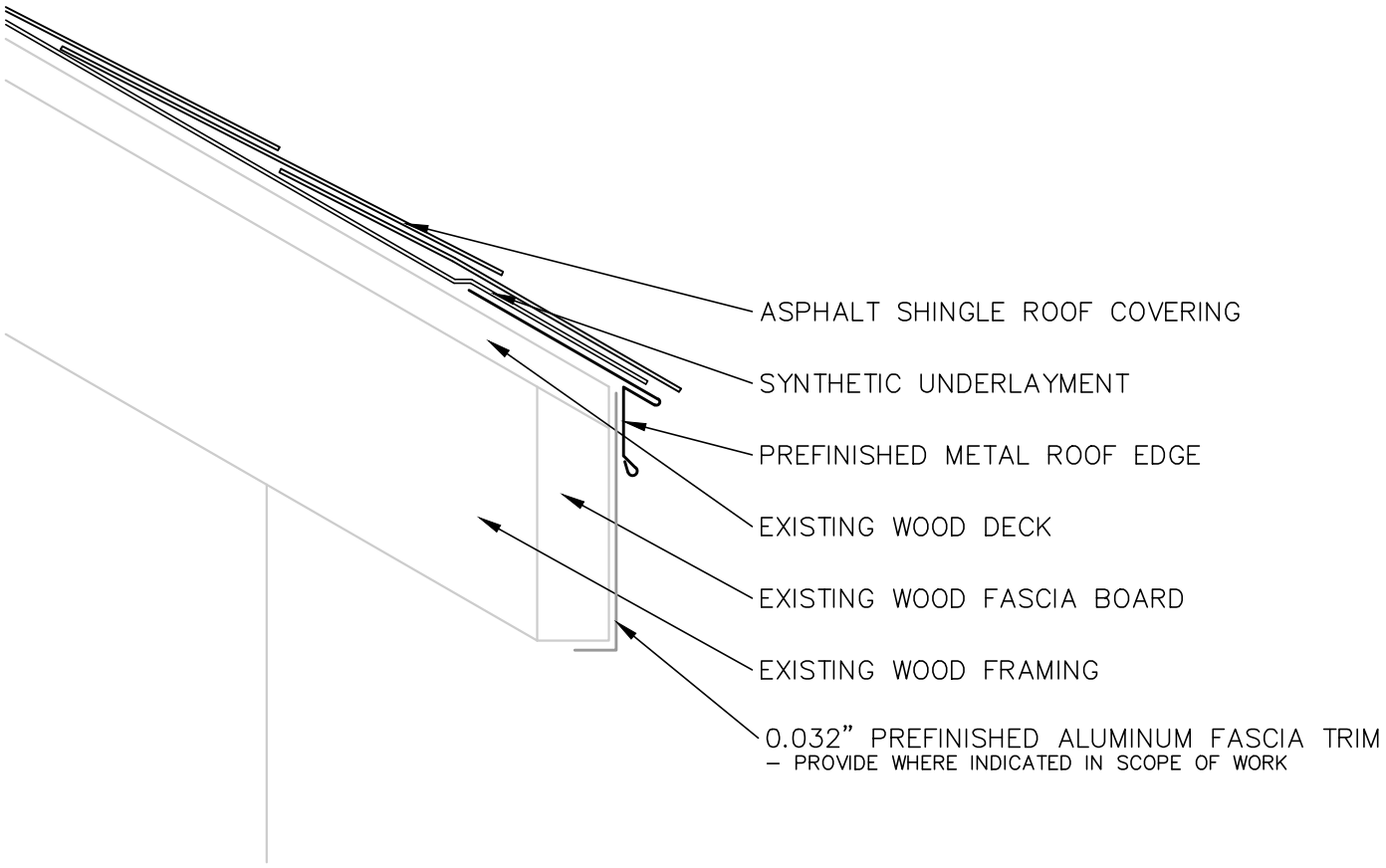
Sheet No.
A501



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Platteville, City of
Roof Replacement Project

Multiple Buildings
Platteville, WI

6/15/26 | Project No. 15934

ROOF EDGE FLASHING

Drawn by DS
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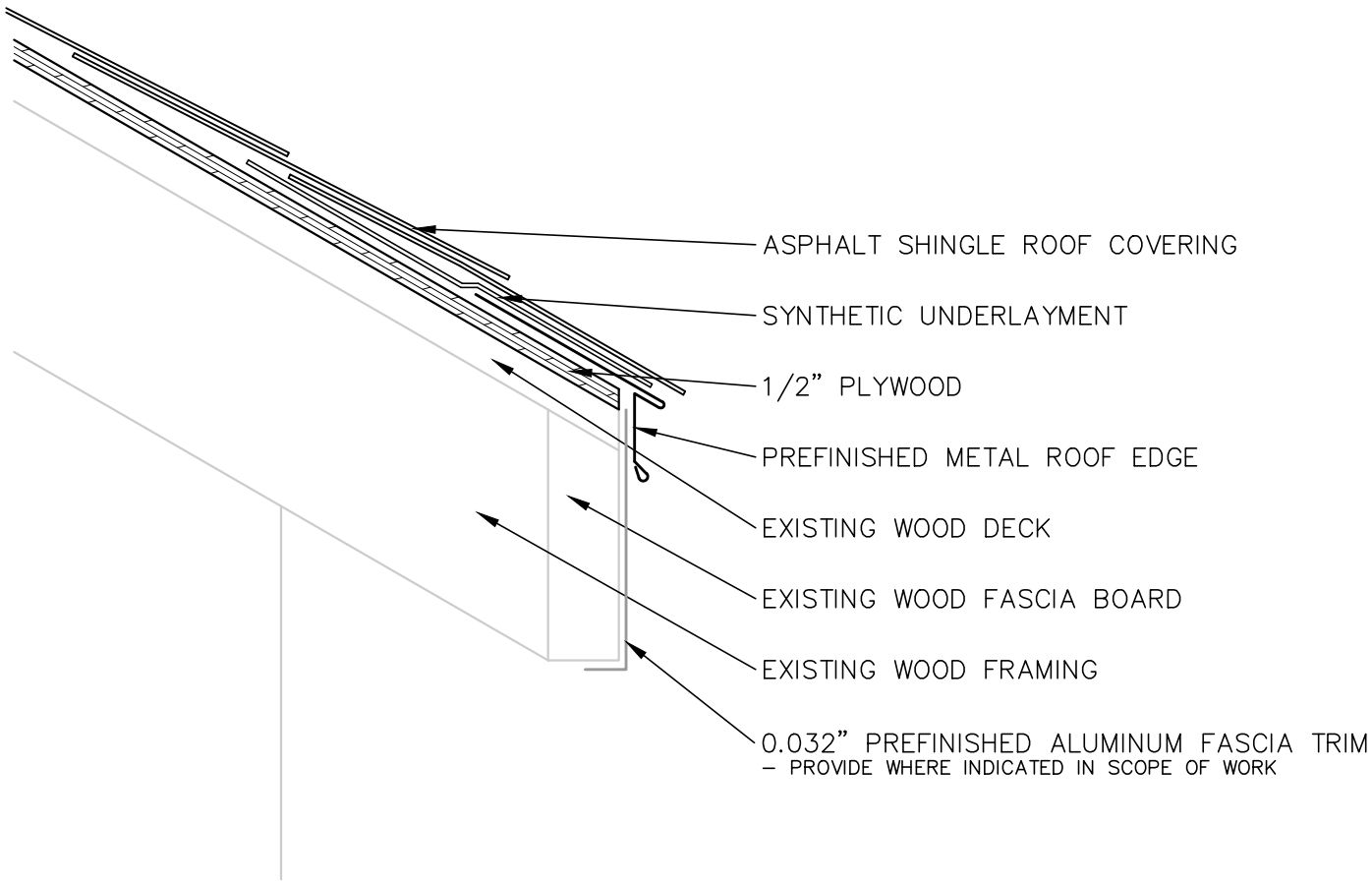
Sheet No.
A502



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Platteville, City of
Roof Replacement Project

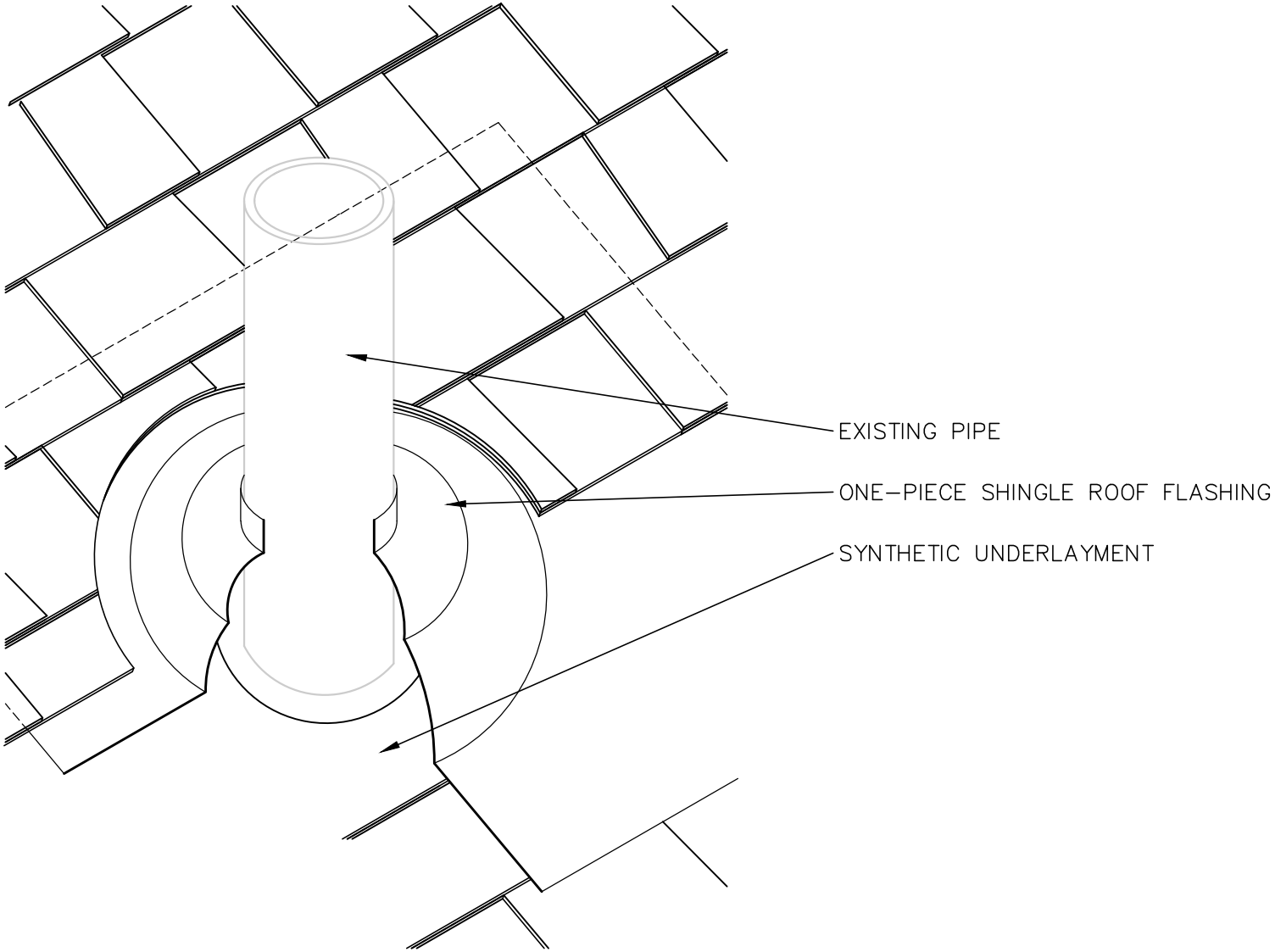
Multiple Buildings
Platteville, WI

6/15/26 | Project No. 15934

ROOF EDGE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A503



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Platteville, City of
Roof Replacement Project

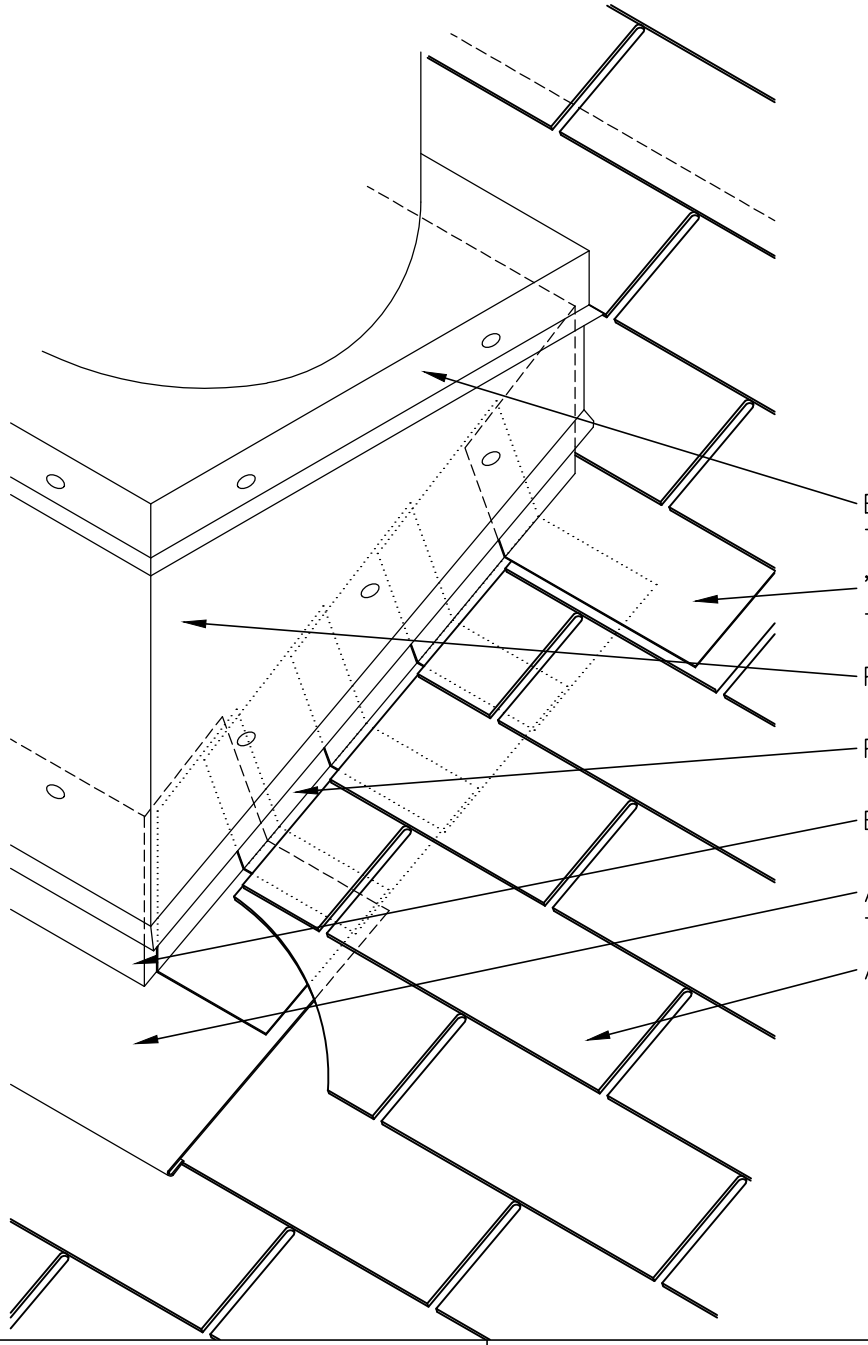
Multiple Buildings
Platteville, WI

6/15/26 | Project No. 15934

TYPICAL PIPE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A504



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6/15/26 | Project No. 15934

Multiple Buildings
Platteville, WI

TYPICAL CURB FLASHING

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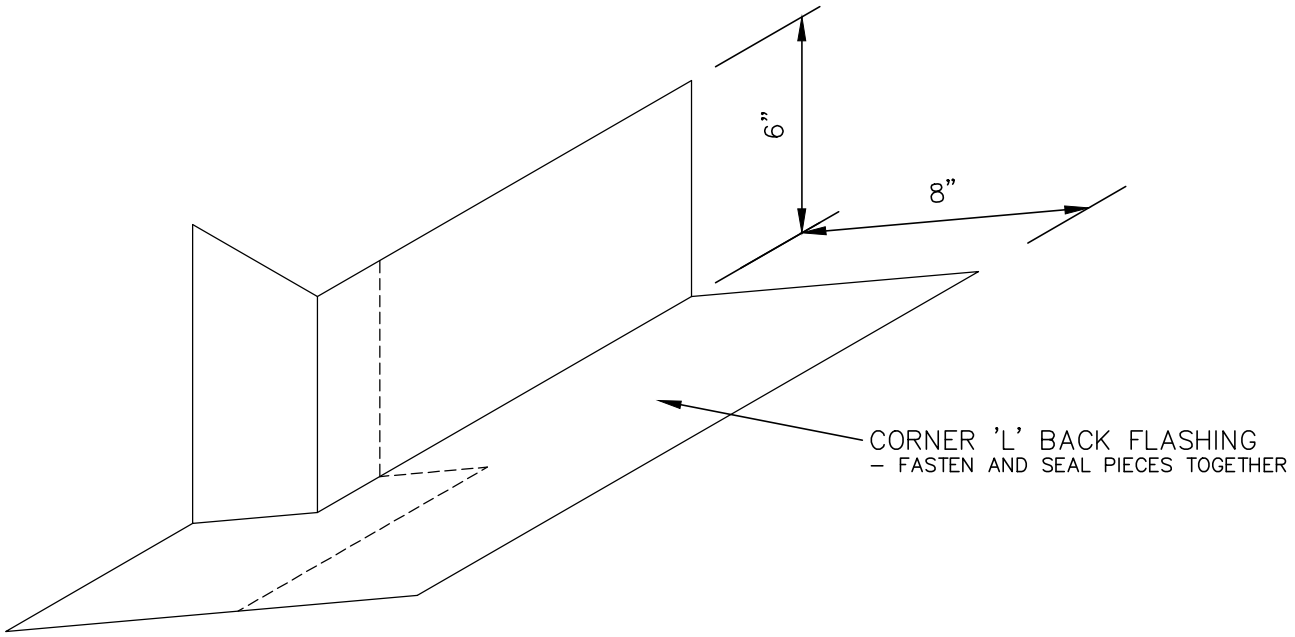
Sheet No.
A505



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Platteville, WI

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CORNER STOP

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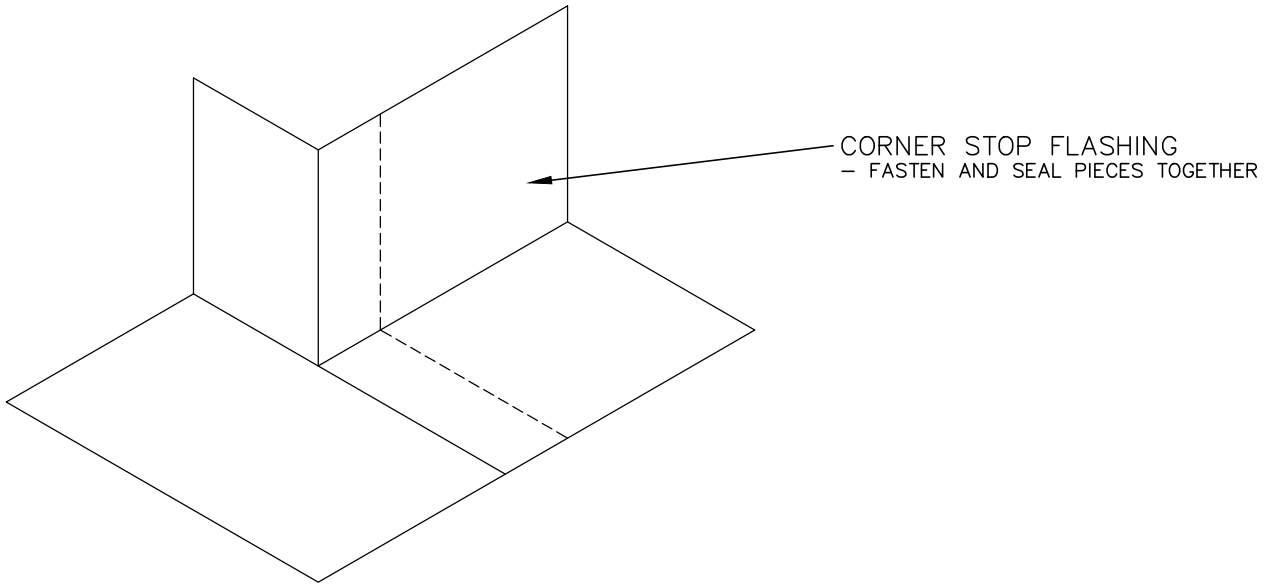
Sheet No.
A506



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CORNER STOP

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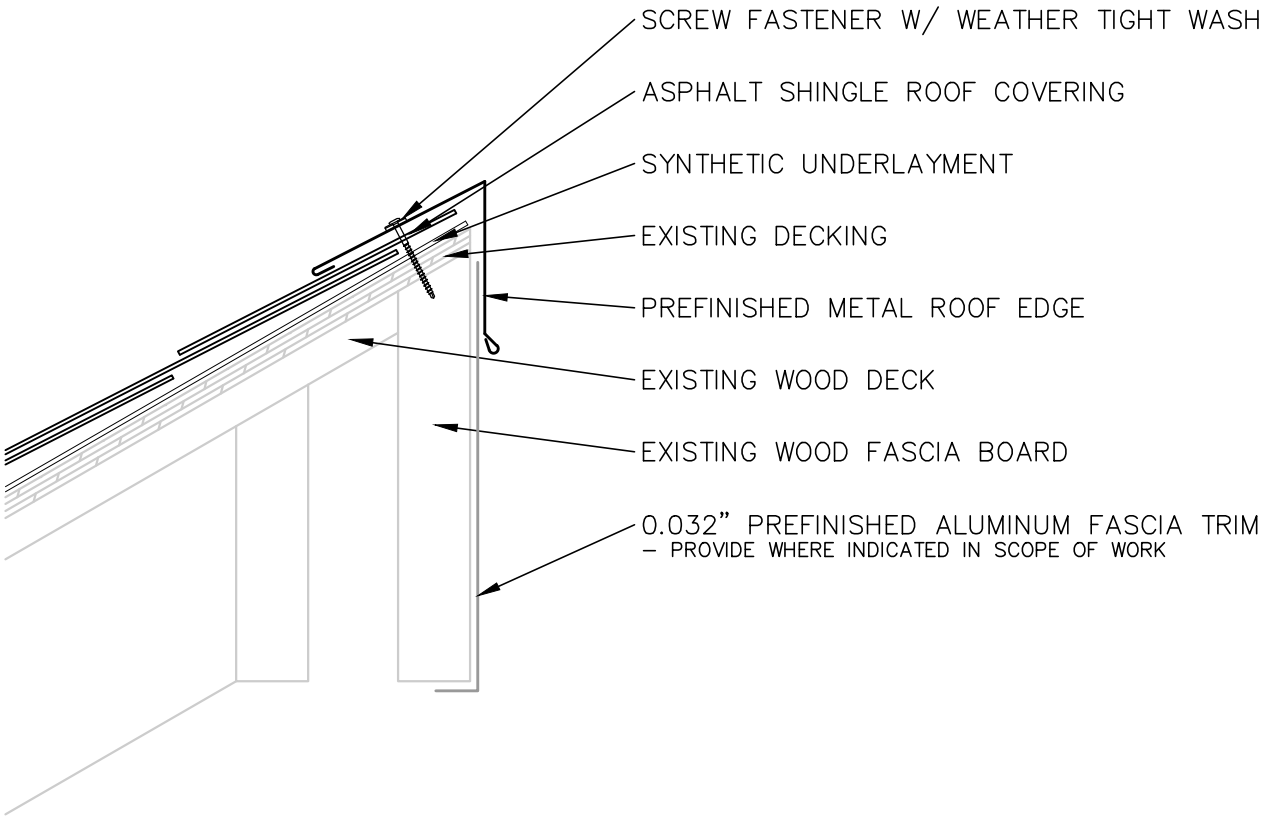
Sheet No.
A507



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HEAD FLASHING

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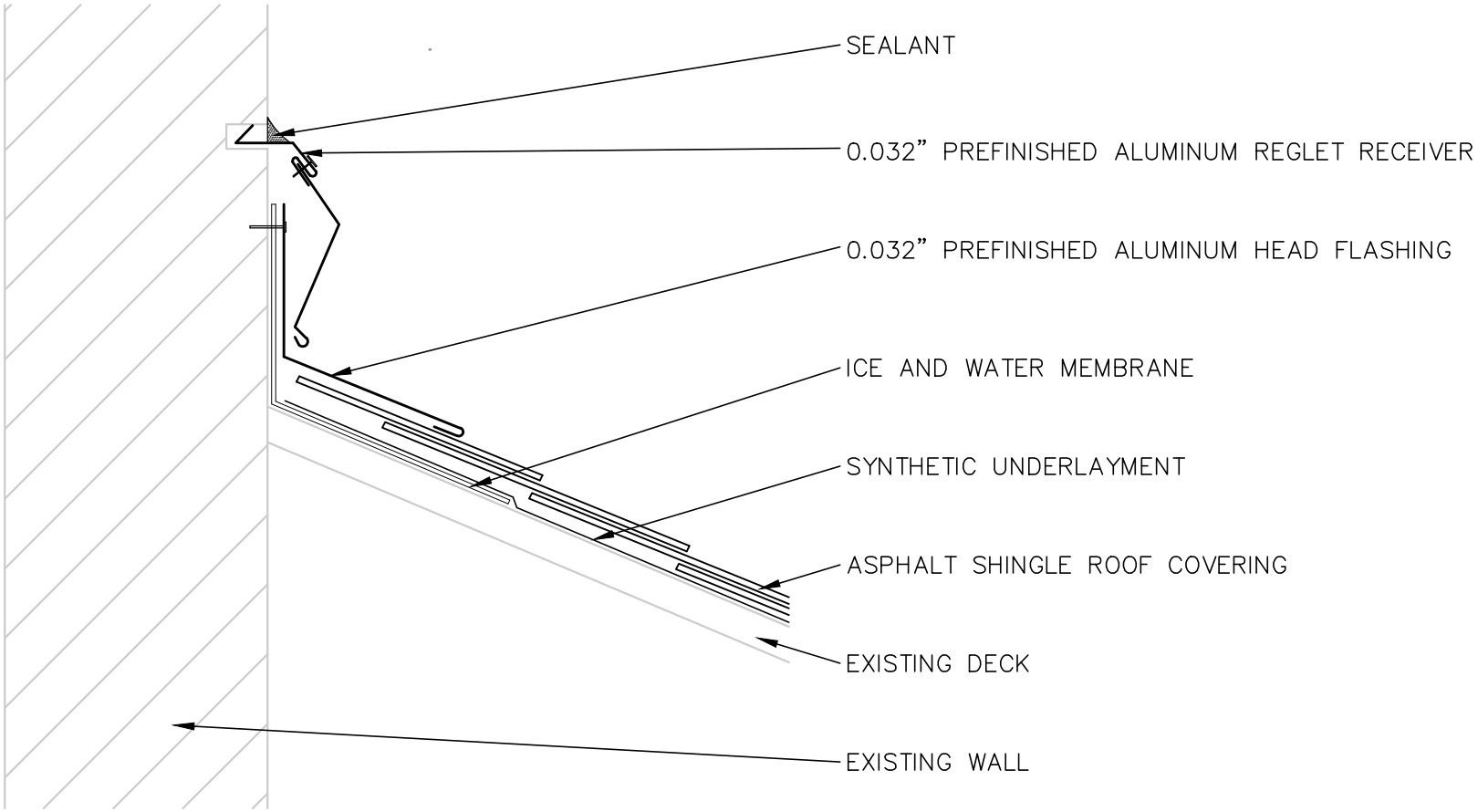
Sheet No.
A508



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HEAD FLASHING

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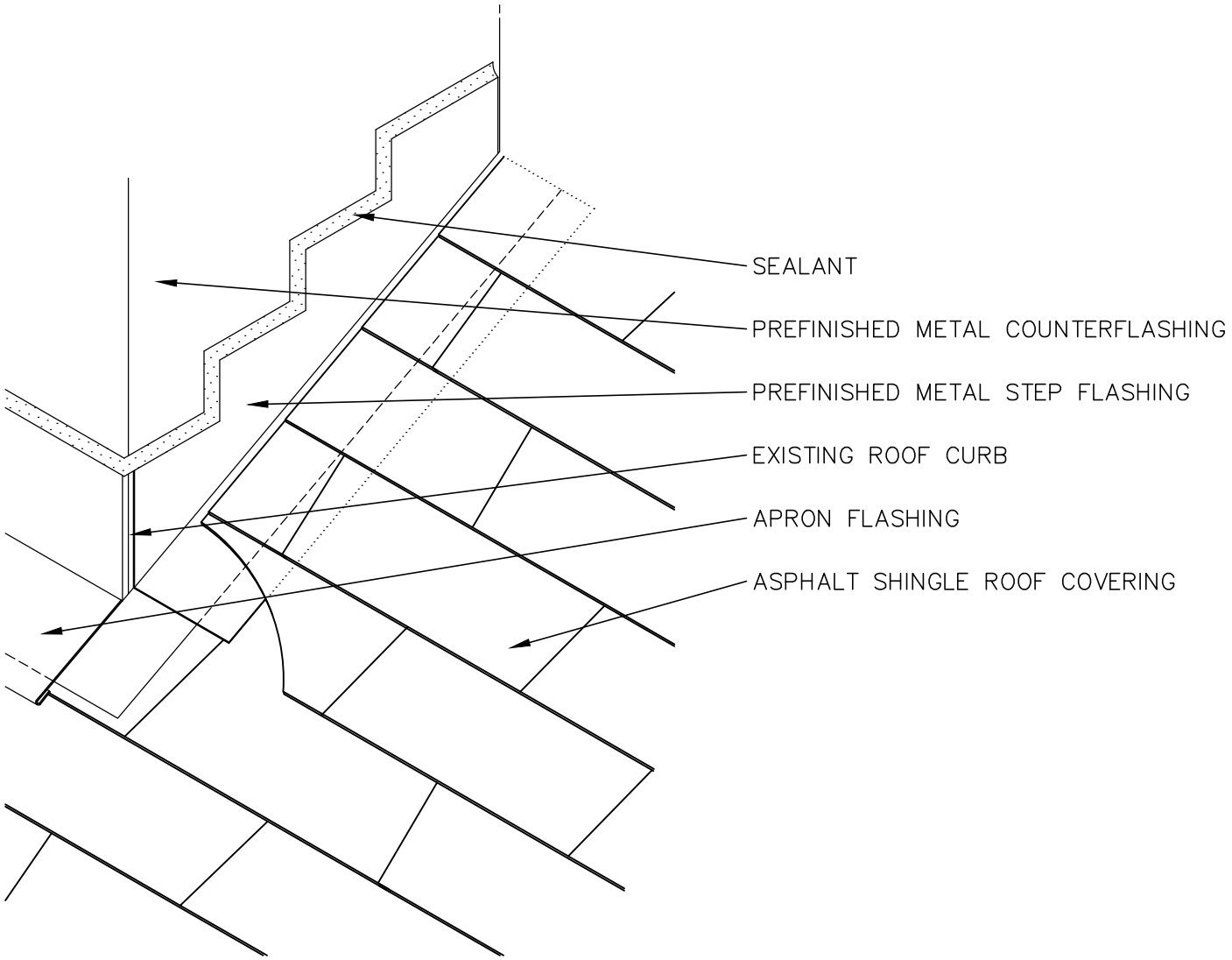
Sheet No.
A509



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WALL FLASHING

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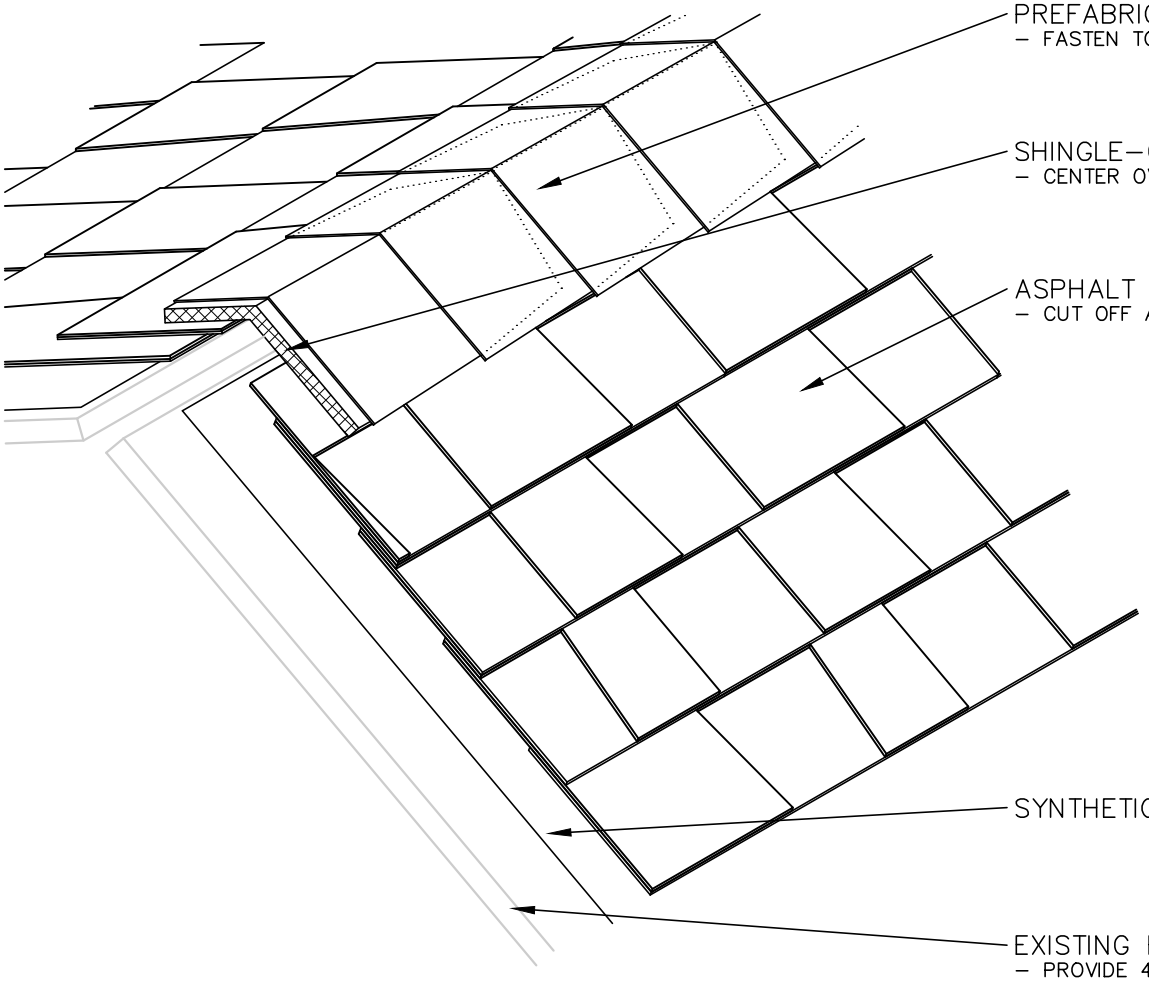
Sheet No.
A510



PREFABRICATED RIDGE SHINGLES
– FASTEN TO DECKING ON EACH SIDE ABOVE EXPOSURE AND 1" FROM EDGE

SHINGLE–OVER RIDGE VENT
– CENTER OVER TOP OF SLOPE AND FASTEN EACH SIDE AT 12" O.C.

ASPHALT SHINGLE ROOF COVERING
– CUT OFF AT TOP OF SHEATHING

SYNTHETIC UNDERLAYMENT

EXISTING ROOF DECK
– PROVIDE 4" MIN. WIDE FREE AIR OPENING CENTERED OVER RIDGE

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RIDGE CAP FLASHING

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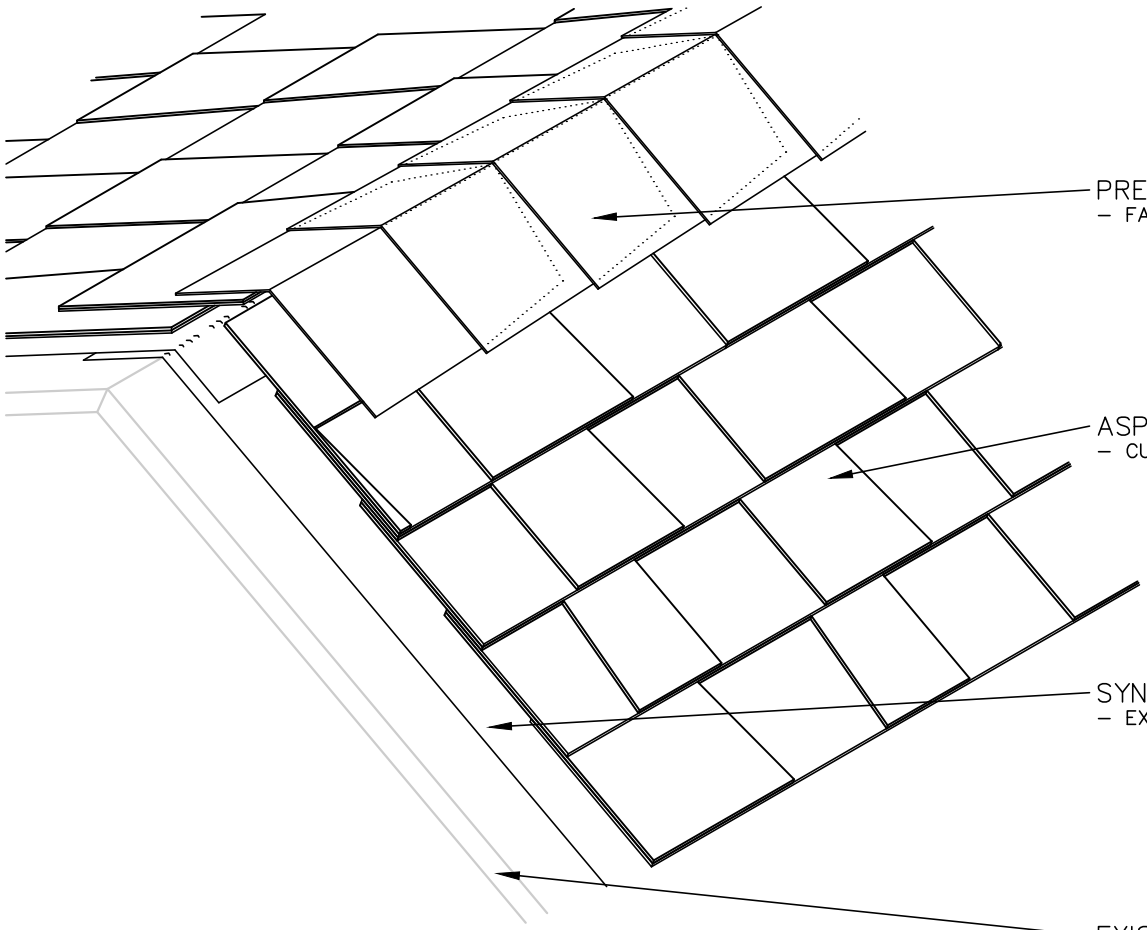
A511



PREFABRICATED RIDGE SHINGLES
– FASTEN TO DECKING ON EACH SIDE ABOVE EXPOSURE AND 1" FROM EDGE

ASPHALT SHINGLE ROOF COVERING
– CUT TOP COURSE TO BUTT TIGHTLY ALONG RIDGE

SYNTHETIC UNDERLAYMENT
– EXTEND OVER RIDGE A MINIMUM OF 4" FROM EACH SIDE

EXISTING ROOF DECK

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RIDGE CAP FLASHING

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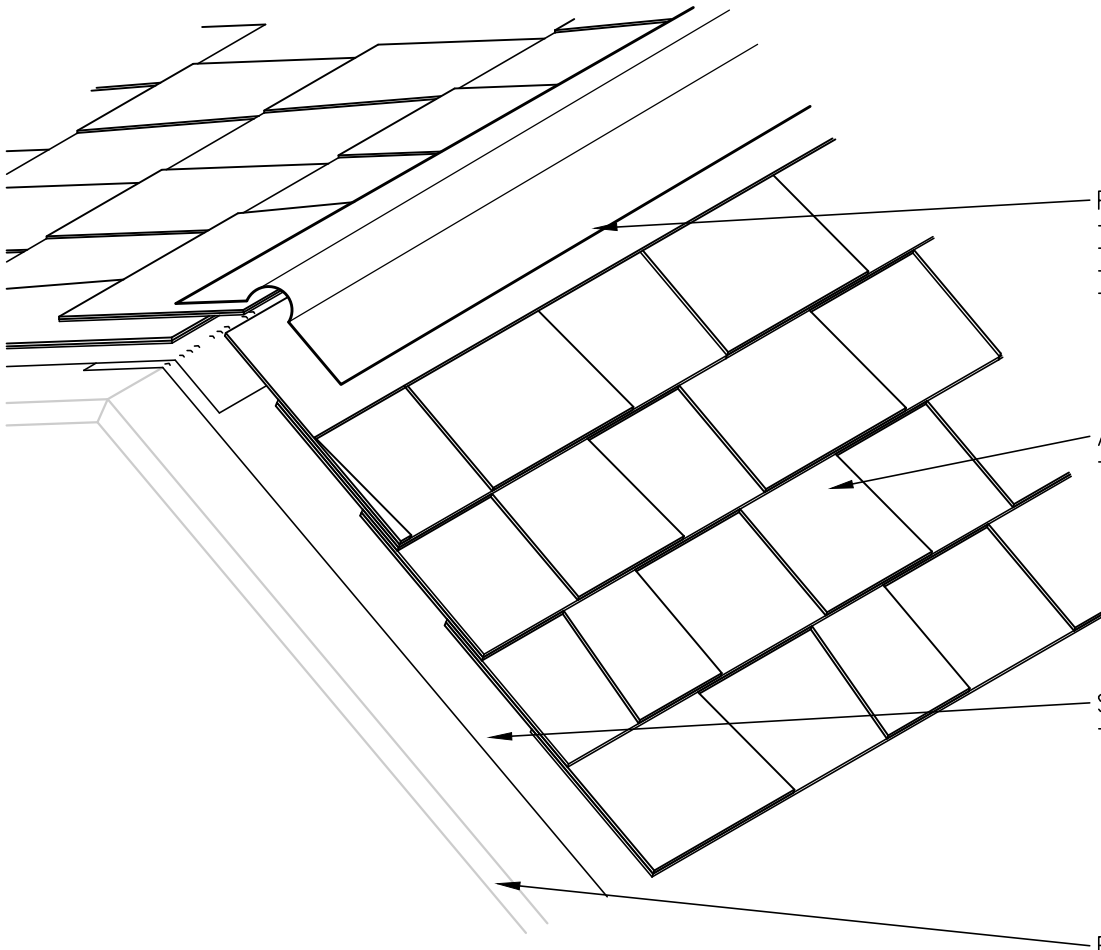
Sheet No.
A512



PREFINISHED ALUMINUM RIDGE FLASHING
- FABRICATE TO MATCH EXISTING PROFILE AND COVERAGE
- LAP JOINTS 4" SET IN BED OF SEALANT
- PROVIDE SOLID CLOSURE AT RIDGE ENDS
- FASTEN TO DECK WITH GASKETED SCREW AT 8" O.C. AT BOTH SIDES OF HIP

ASPHALT SHINGLE ROOF COVERING
- CUT TOP COURSE TO BUTT TIGHTLY ALONG RIDGE

SYNTHETIC UNDERLAYMENT
- EXTEND OVER RIDGE A MINIMUM OF 4" FROM EACH SIDE

EXISTING ROOF DECK
- REPLACE DETERIORATED SECTIONS AND RE-FASTEN AS NECESSARY

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RIDGE CAP FLASHING

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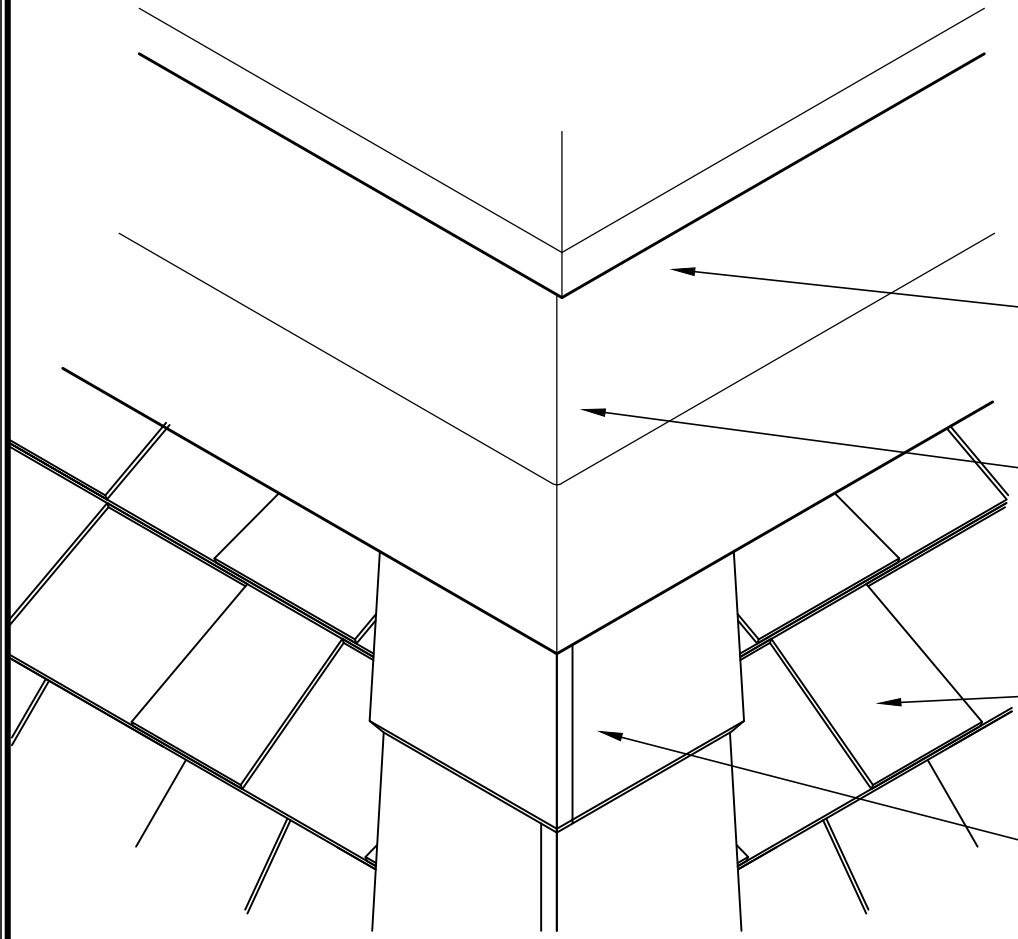
Sheet No.
A513



EXISTING EAVE TRIM – TO REMAIN

PREFINISHED ALUMINUM CLOSURE TRIM
- FABRICATE TO MATCH EXISTING PROFILE AND COVERAGE
- SECURE TO DECK WITH GASKETED SCREWS AT 6" O.C.

ASPHALT SHINGLE ROOF COVERING

PREFABRICATED HIP SHINGLES
- INSTALL WITH EXPOSURE MATCHING FIELD SHINGLES
- FASTEN TO DECK ON EACH SIDE ABOVE EXPOSURE AND 1" FROM EDGE

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TYPICAL HIP FLASHING

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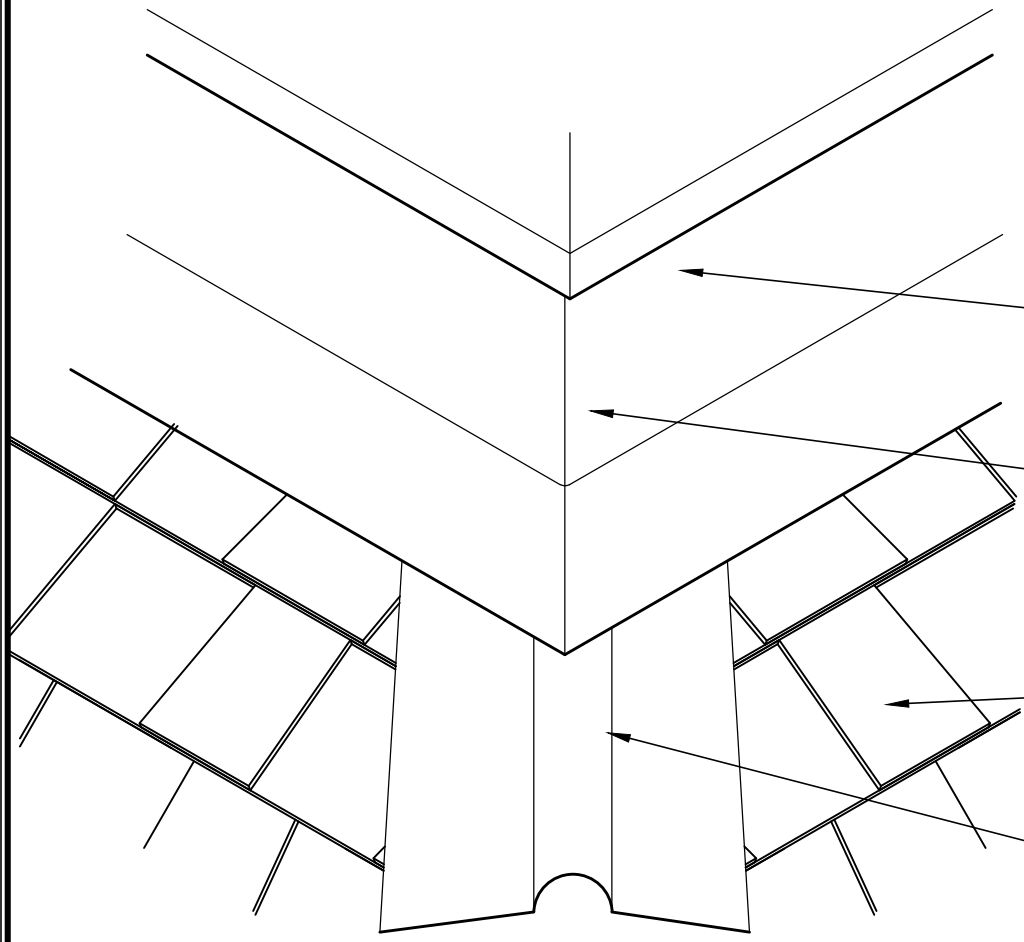
A514



EXISTING EAVE TRIM – TO REMAIN

PREFINISHED ALUMINUM CLOSURE TRIM
- FABRICATE TO MATCH EXISTING PROFILE AND COVERAGE
- SECURE TO DECK WITH GASKETED SCREWS AT 6" O.C.

ASPHALT SHINGLE ROOF COVERING

PREFINISHED ALUMINUM HIP FLASHING
- FABRICATE TO MATCH EXISTING PROFILE AND COVERAGE
- LAP JOINTS 4" SET IN BED OF SEALANT
- PROVIDE SOLID CLOSURE AT EAVE
- FASTEN TO DECK WITH GASKETED SCREW AT 8" O.C. AT BOTH SIDES OF HIP

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TYPICAL HIP FLASHING

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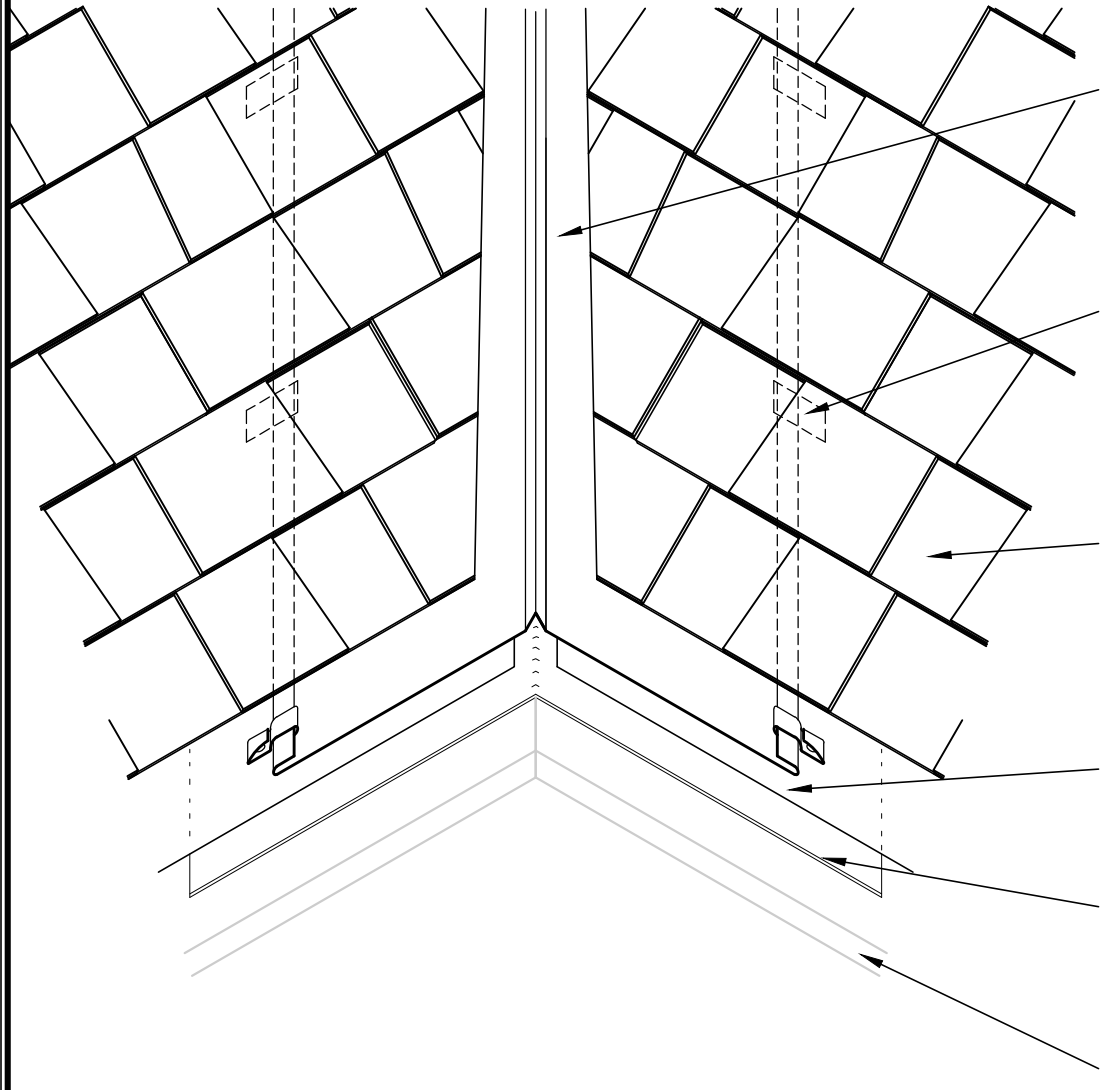
A515



24 GA. PREFINISHED GALVANIZED STEEL VALLEY FLASHING
- FABRICATE FROM 36" WIDE SHEETS WITH 1" HIGH SPLASH DIVIDER AT CENTER
- INSTALL CLEATS ON 18" CENTERS ALONG SIDES
- FASTEN TOP EDGE TO DECK AT 3" O.C.

24 GA. GALVANIZED STEEL CLEATS
- 2x4" CLEATS – HOOK ONTO EDGE OF VALLEY AND FASTEN TO DECK WITH TWO NAILS
- FOLD OVER TAIL OF CLEAT TO COVER FASTENERS

ASPHALT SHINGLE ROOF COVERING
- MITER ENDS TO MATCH ANGLE OF VALLEY
- TRIM TOP CORNER TO PREVENT WATER FROM DIVERTING UNDER SHINGLES
- TAPER SHINGLES 3" FROM CENTER OF VALLEY ON EACH SIDE (AT TOP) TO 5" FROM CENTER OF VALLEY ON EACH SIDE (AT BOTTOM)

SYNTHETIC UNDERLAYMENT

ICE DAM FLASHING MEMBRANE
- APPLY TWO FULL SHEET EITHER SIDE OF VALLEY LAPPED IN VALLEY

EXISTING ROOF DECK

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TYPICAL VALLEY FLASHING

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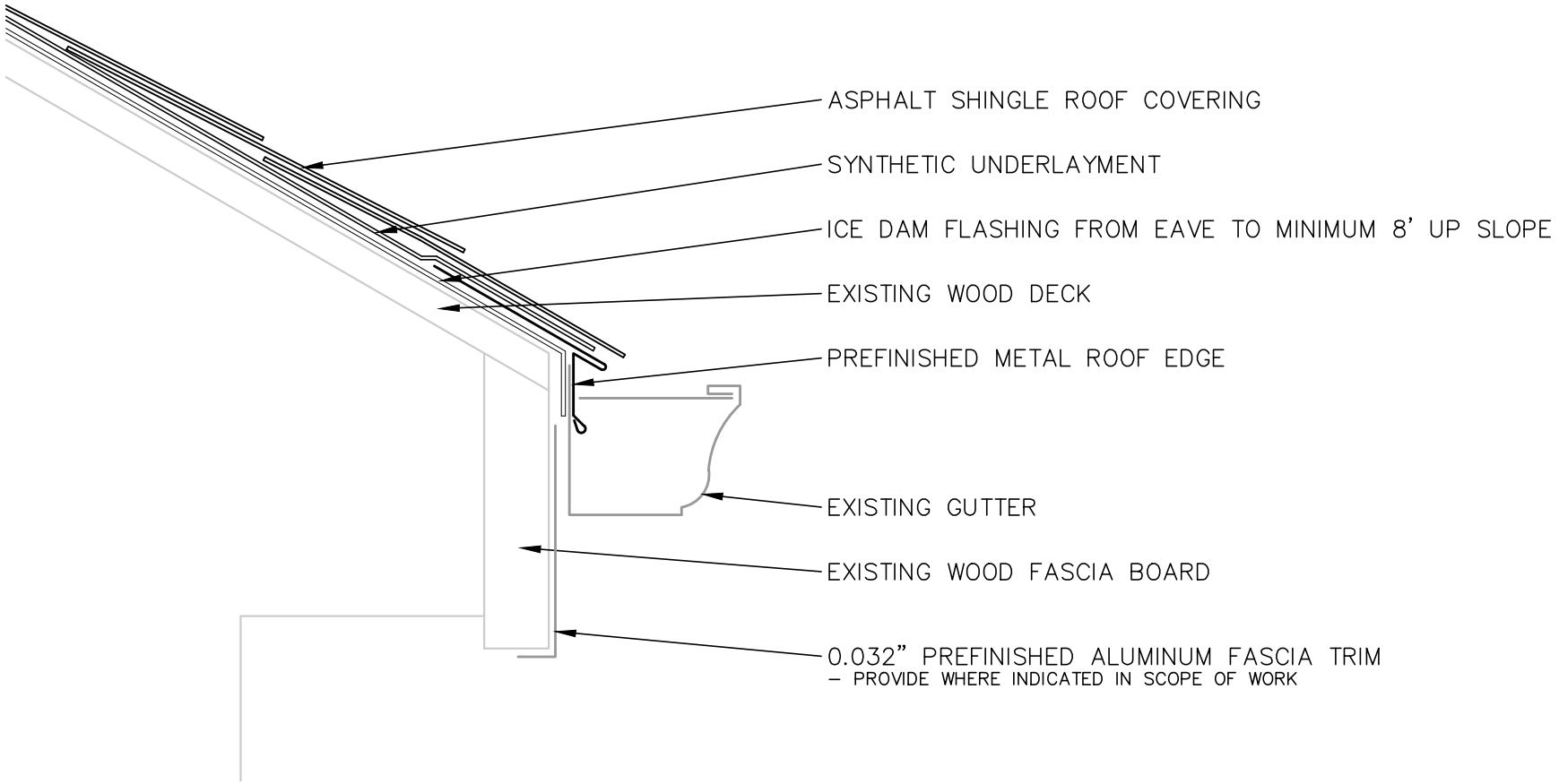
A516



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GUTTER EDGE FLASHING

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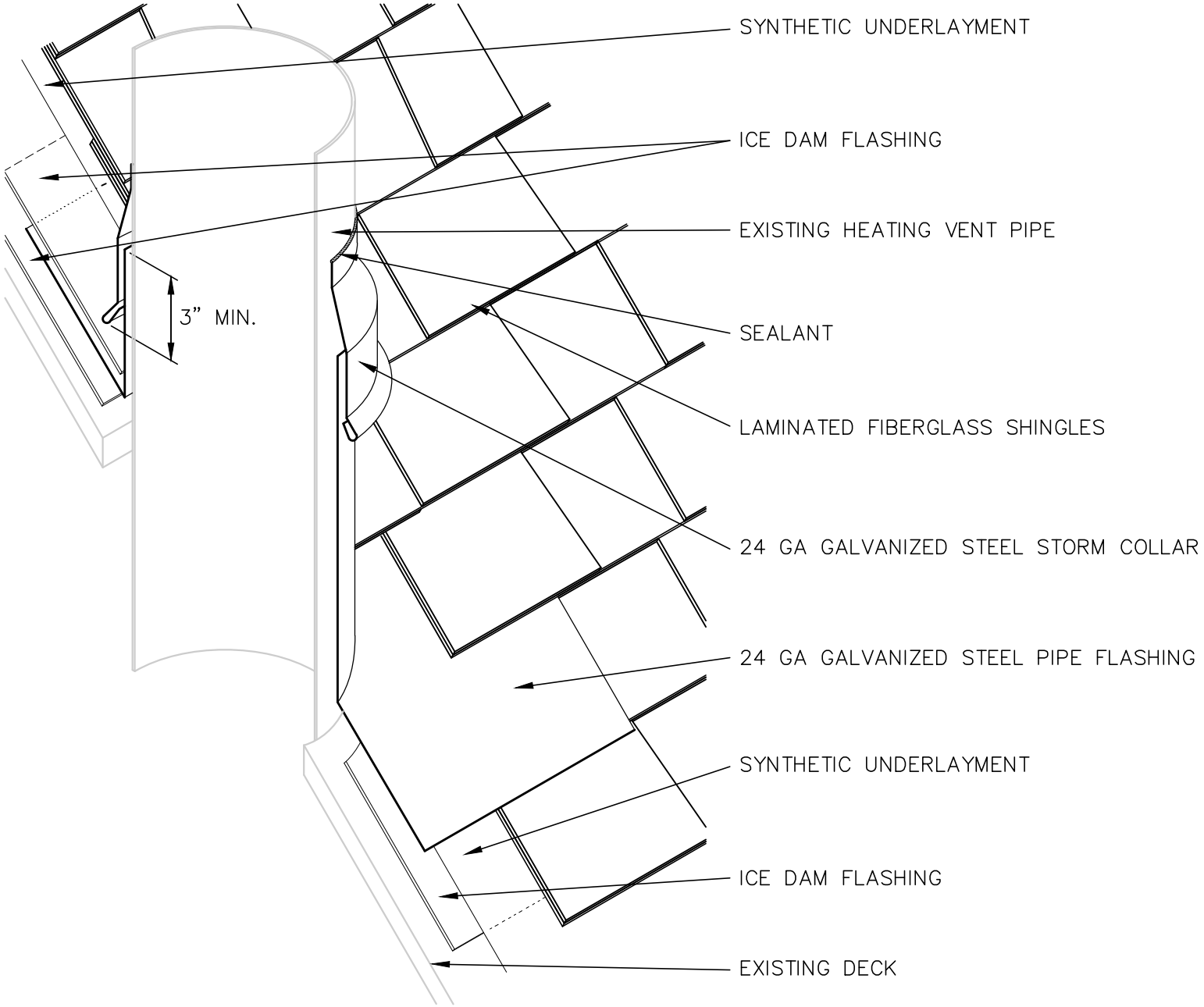
A517



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TYPICAL STACK FLASHING

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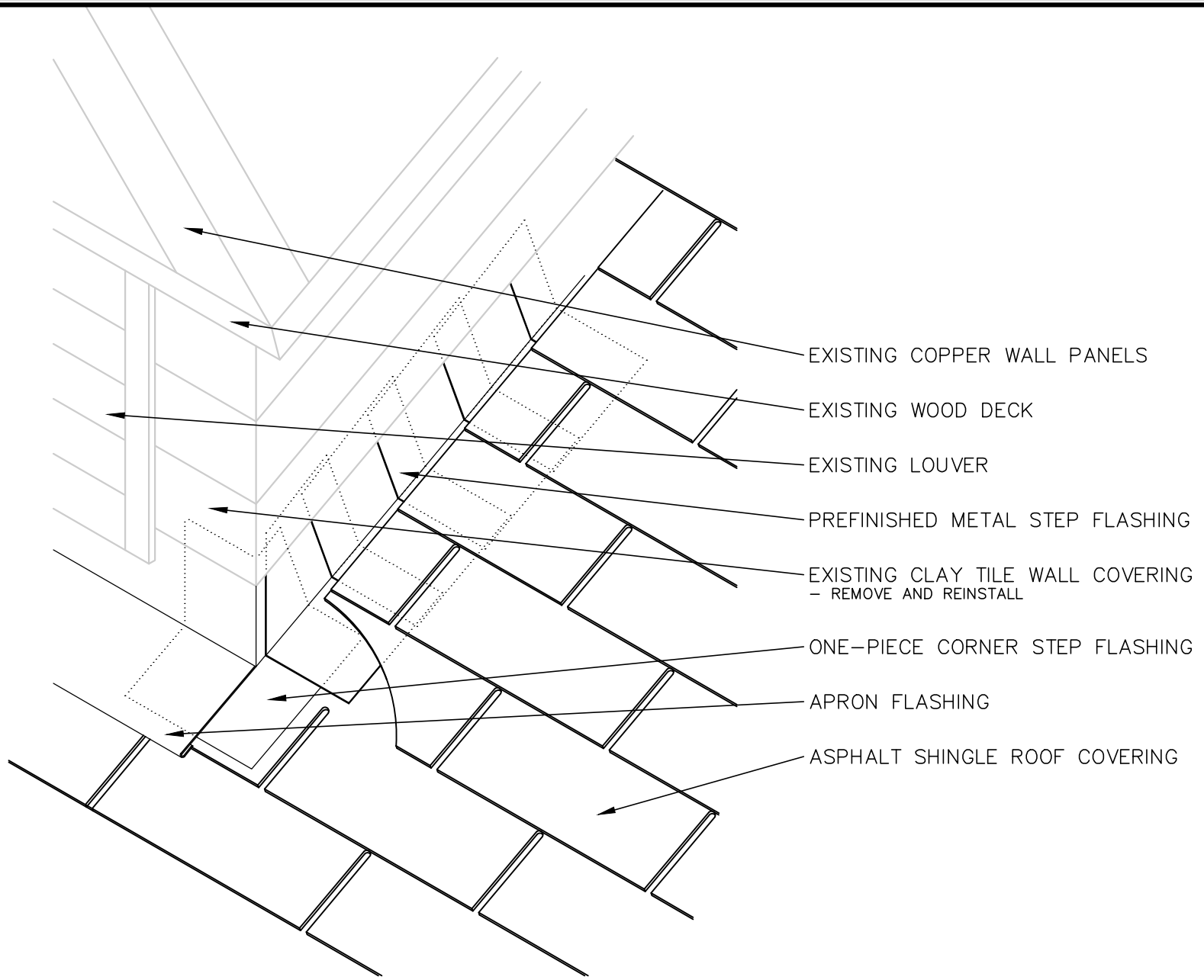

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WALL FLASHING

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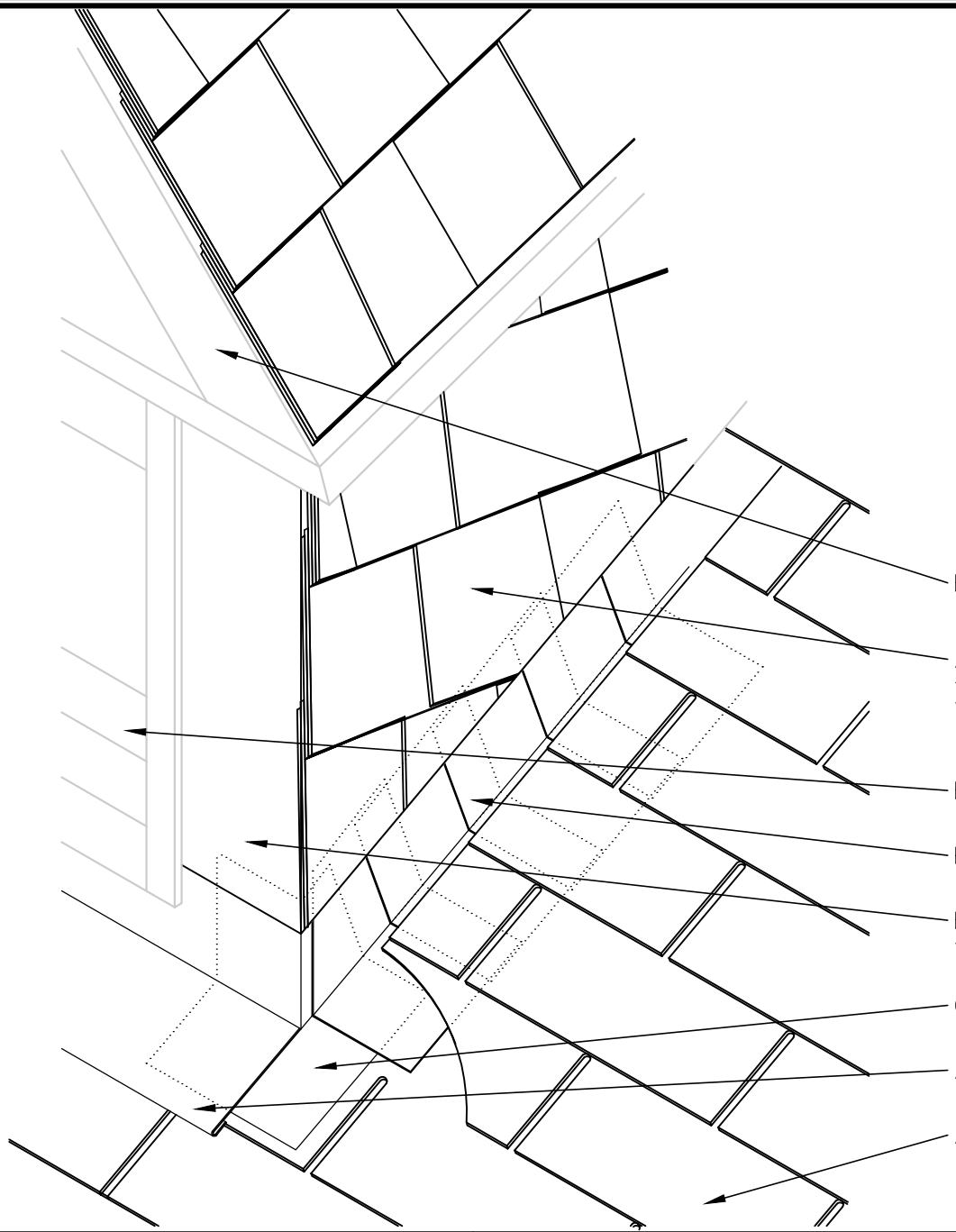
Sheet No.
A519



EAVE/HIP FLASHING

ASPHALT SHINGLES
- INSTALL AT VERTICAL WALL WITH MIN 6 FASTENERS PER SHINGLE
- PROVIDE HAND SEALED TOWELED ASPHALT ROOF CEMENT 1-INCH FROM BOTTOM OF EACH SHINGLE

EXISTING WINDOW - TO REMAIN

PREFINISHED METAL STEP FLASHING

EXISTING CLAY TILE WALL COVERING
- REMOVE AND REINSTALL

ONE-PIECE CORNER STEP FLASHING

APRON FLASHING

ASPHALT SHINGLE ROOF COVERING

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WALL FLASHING

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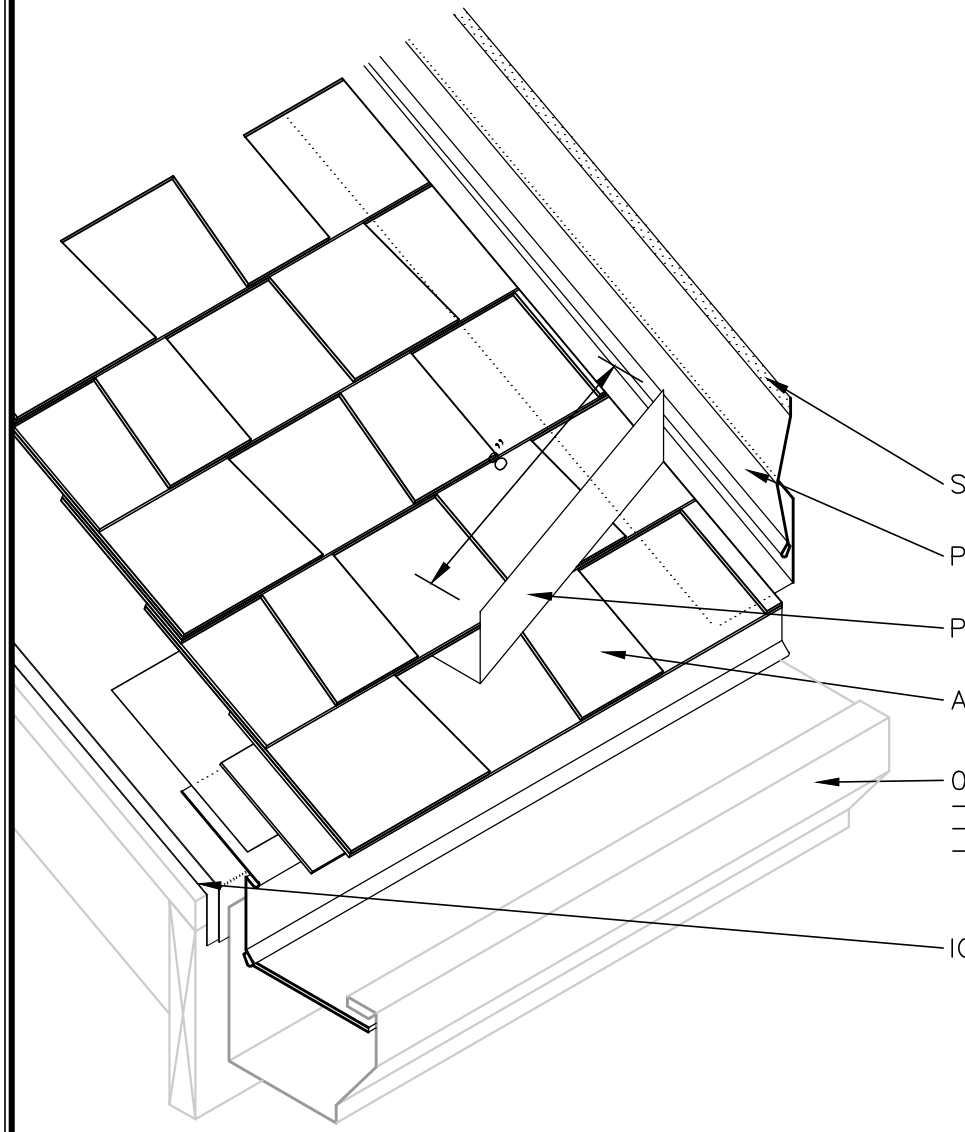
A520



SEALANT

PREFINISHED METAL SURFACE MOUNTED COUNTERFLASHING

PREFINISHED METAL WATER DIVERTER

ASPHALT SHINGLE ROOF COVERING

0.030" PREFINISHED ALUMINUM 6" K-STYLE GUTTER
- PROVIDE GUTTER STRAPS AT 18" O.C. SECURE TO FASCIA BOARD SUBSTRATE WITH SCREWS
- PROVIDE 3"x4" CLOSED FACED DOWNSPOUTS WITH 90 DEGREE ELBOW AT BASE
- SECURE TO EXISTING WALL WITH DOWNSPOUT BRACKETS AT 6'-0" O.C. WITH ADDITIONAL AT TOP AND BOTTOM

ICE DAM FLASHING FROM EAVE TO MINIMUM 8' UP SLOPE

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CLOSURE FLASHING

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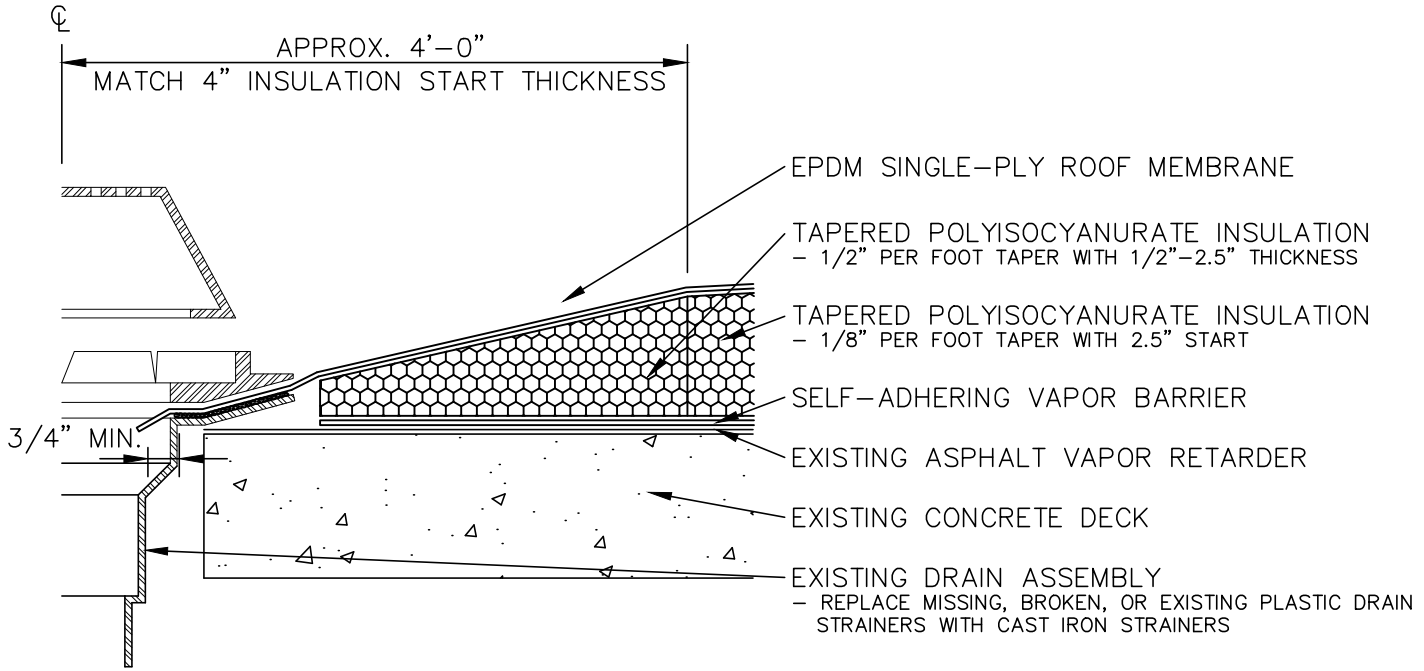
A521



AT ROOF AREAS WITH EXISTING CONCRETE DECK

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DRAIN FLASHING

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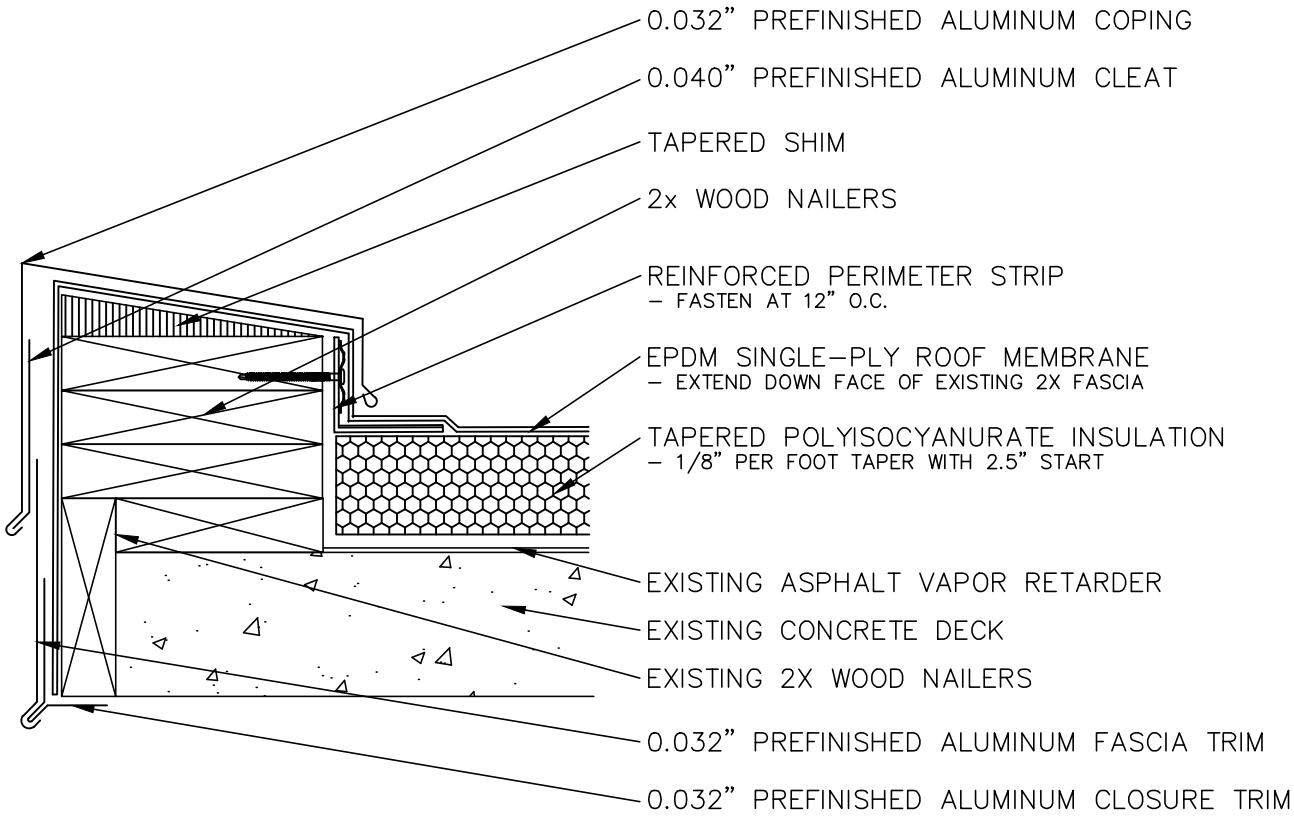
A522



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RAISED EDGE FLASHING

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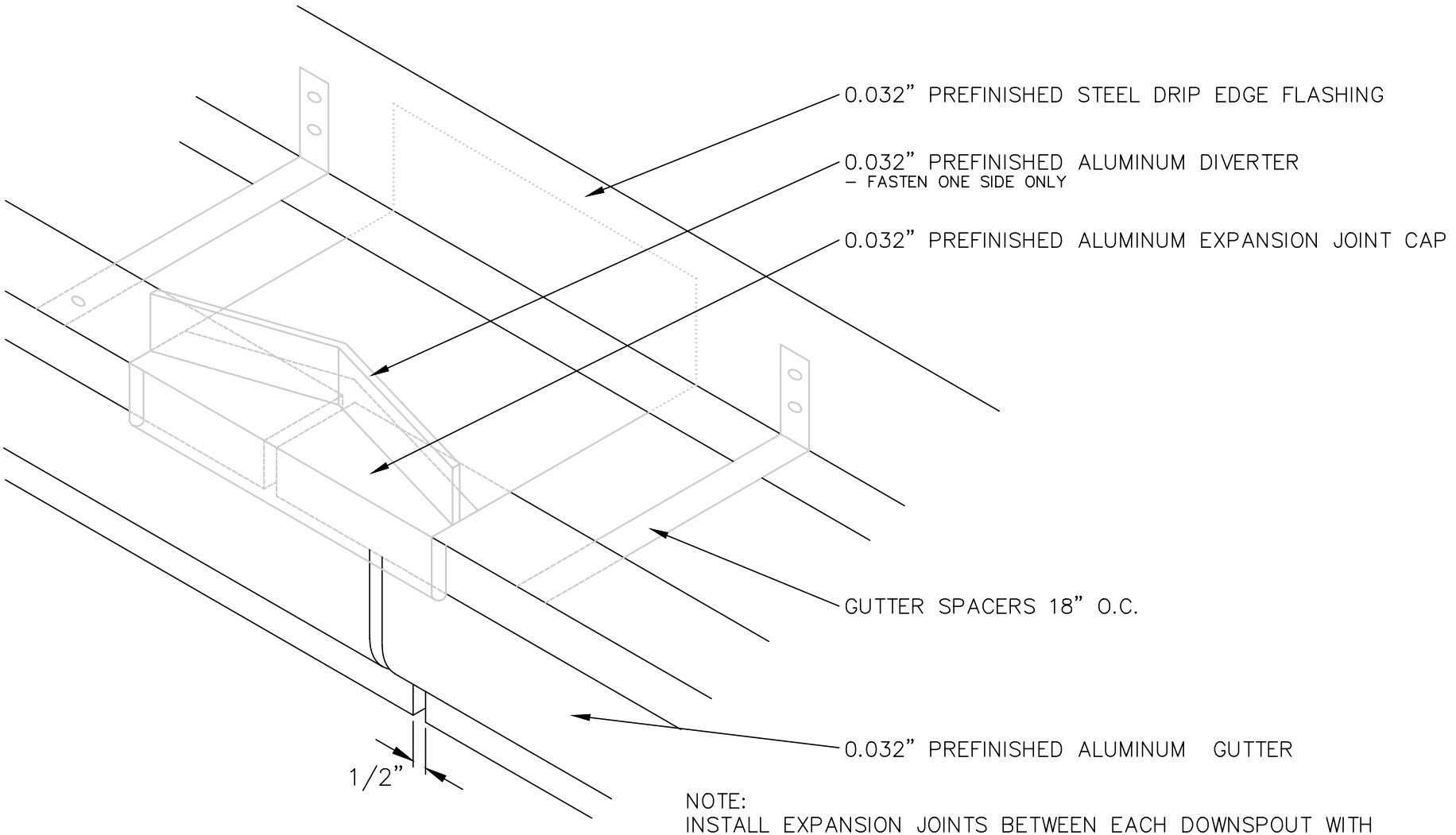
A523



NOTE:
INSTALL EXPANSION JOINTS BETWEEN EACH DOWNSPOUT WITH 1/2" JOINT BETWEEN SECTIONS PER LOCATIONS ON ROOF PLAN

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GUTTER EXPANSION JOINT

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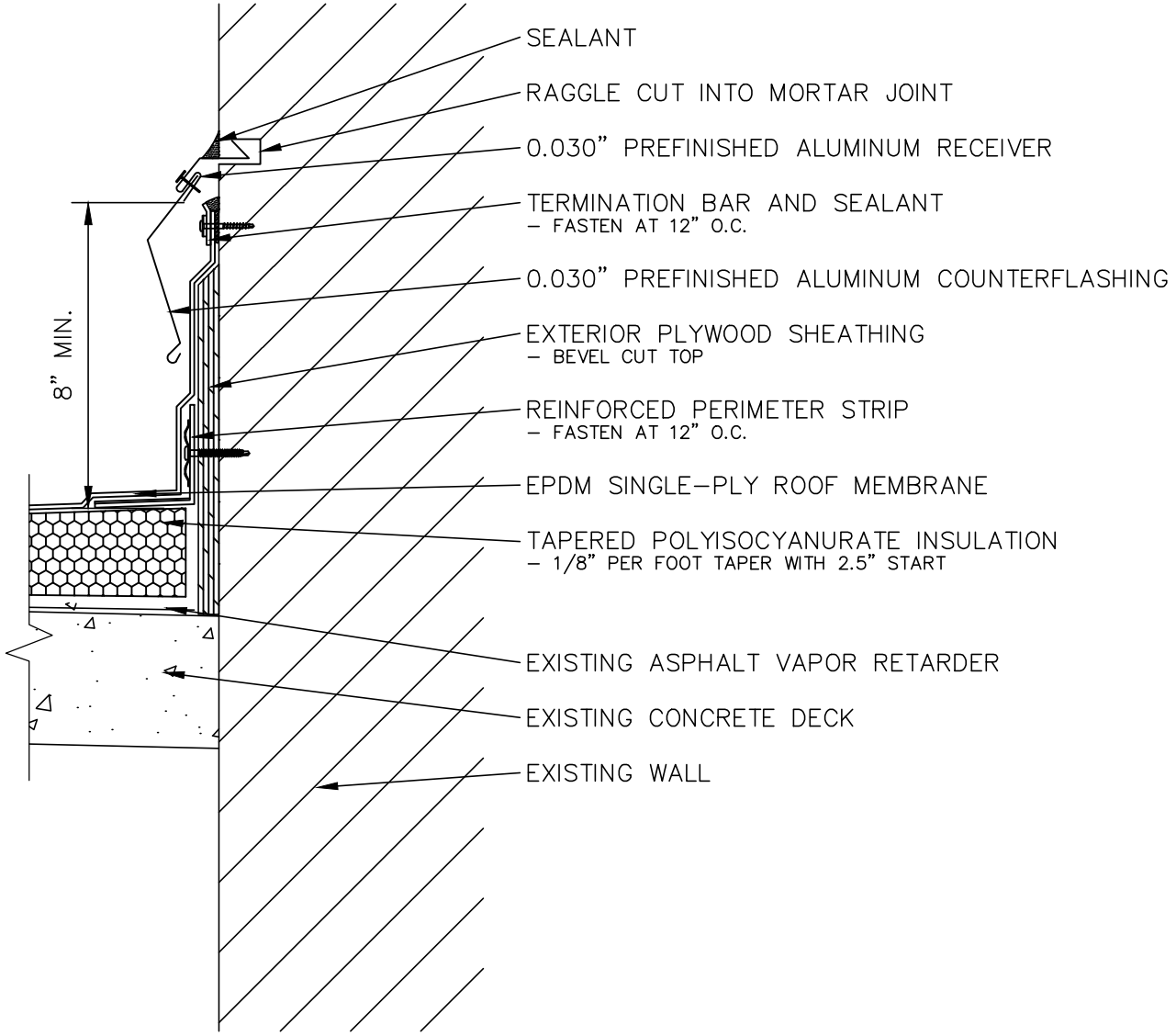
A524



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WALL FLASHING

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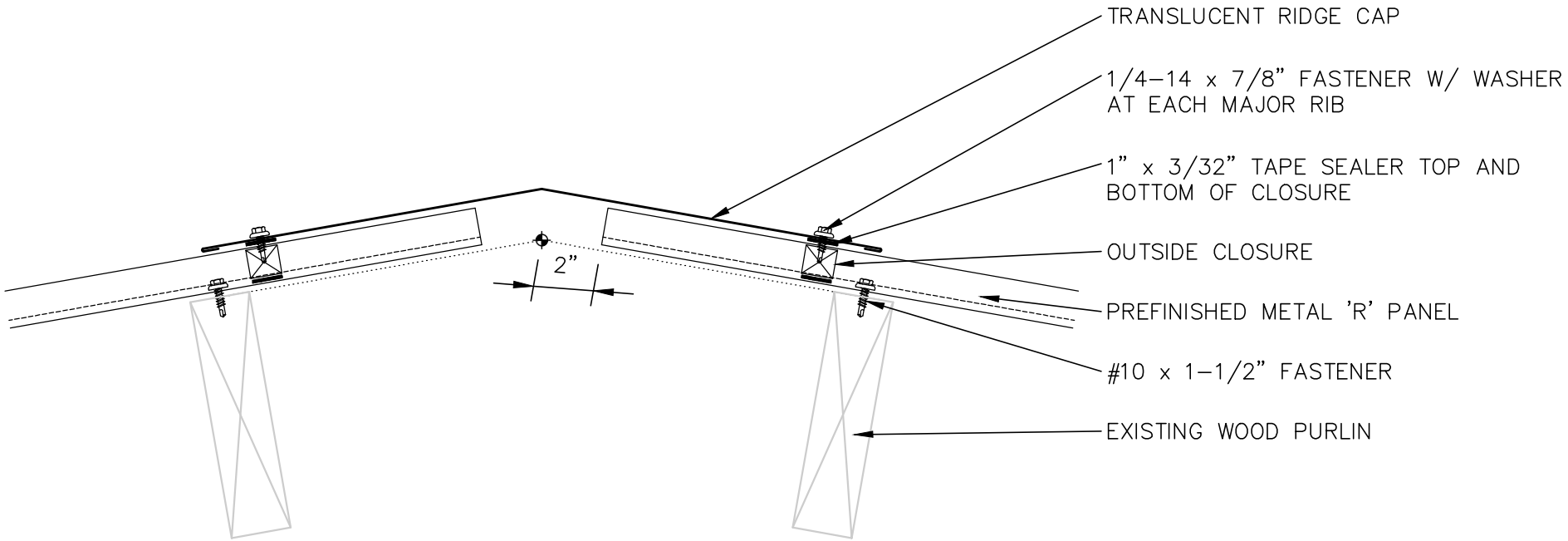
A525



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RIDGE CAP FLASHING

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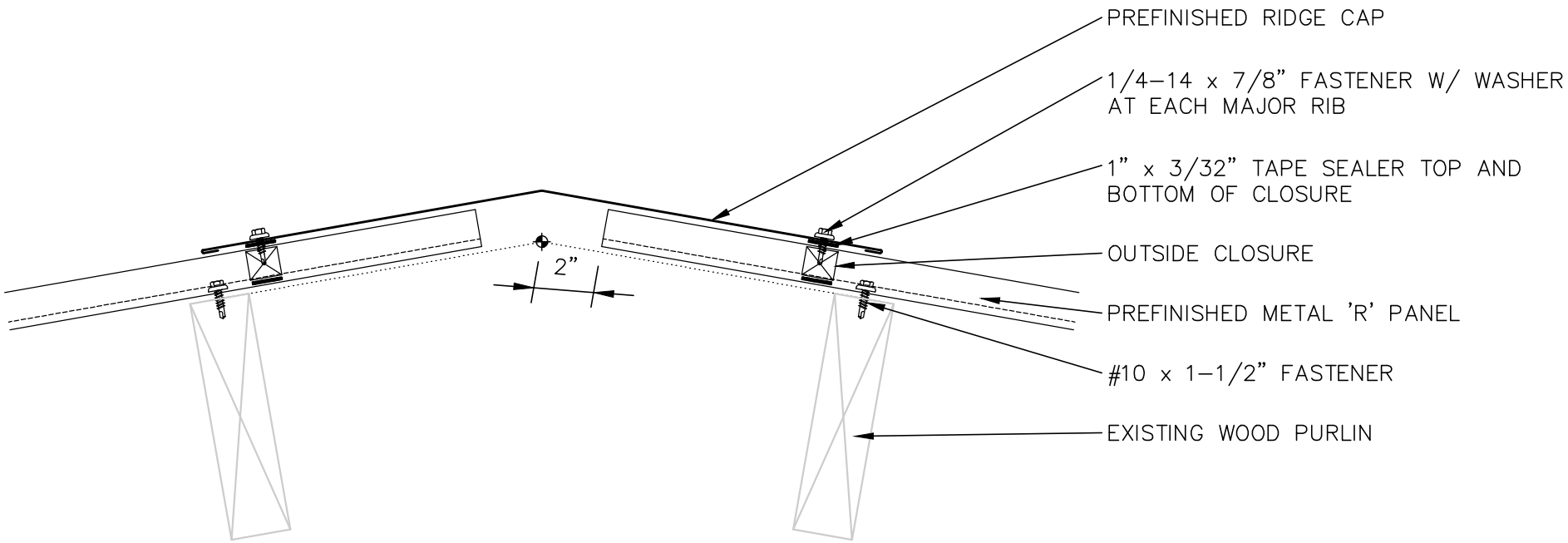
Sheet No.
A526



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RIDGE CAP FLASHING

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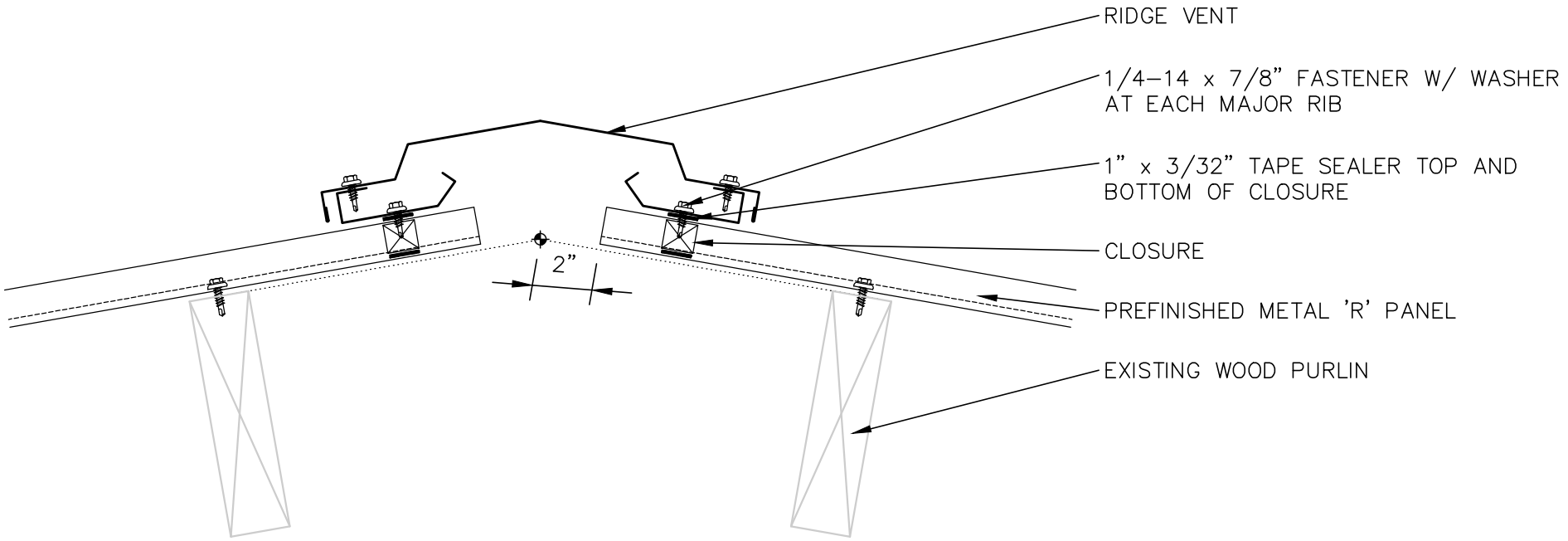
A527



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RIDGE CAP FLASHING

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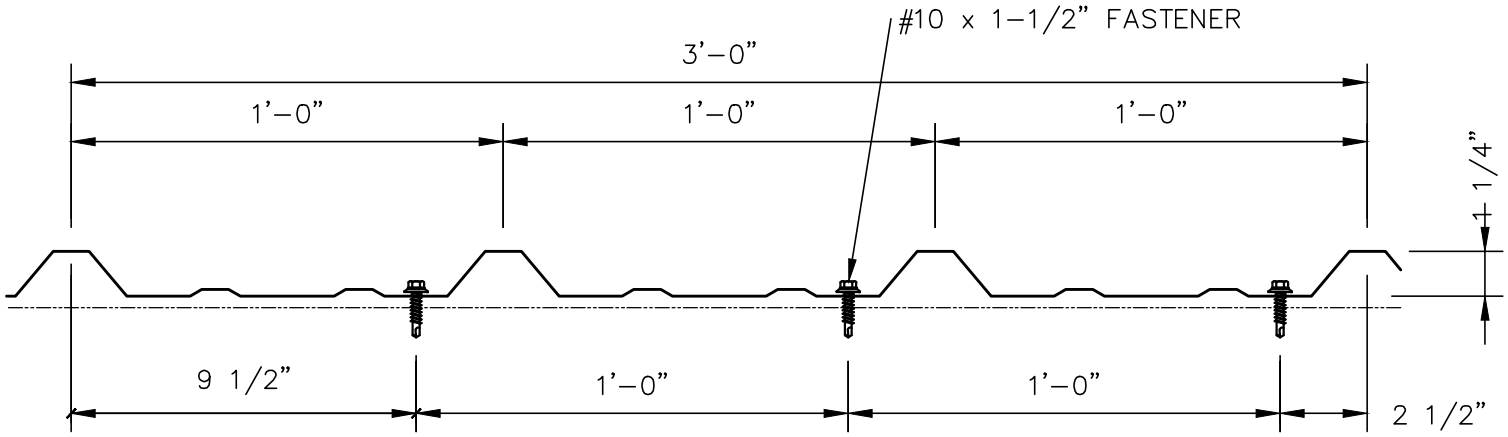
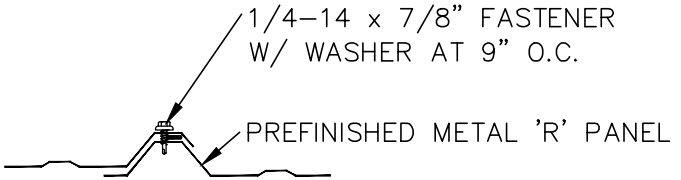
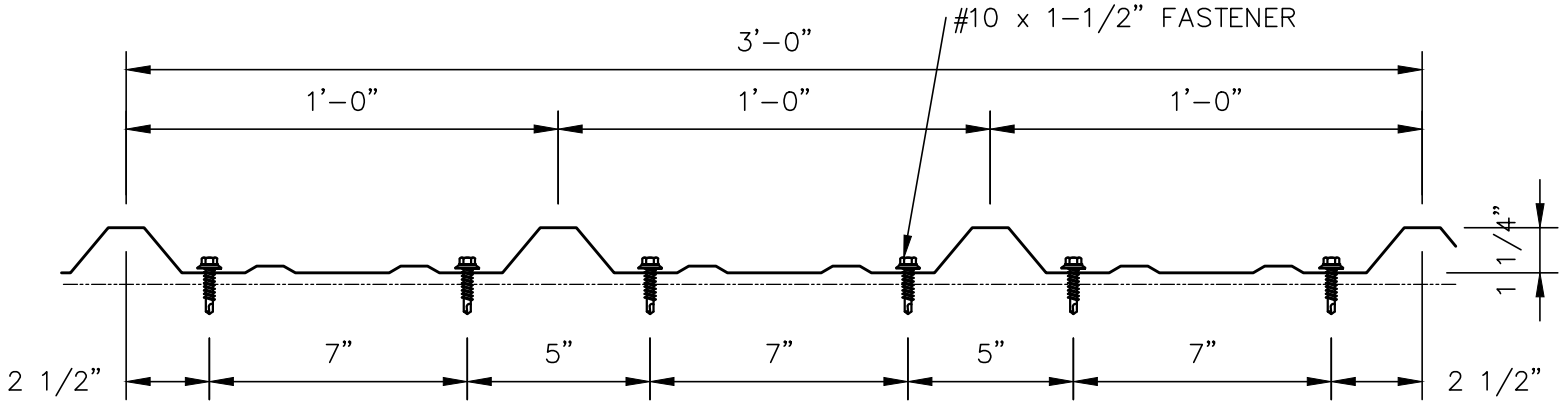
Sheet No.
A528



'R' PANEL FASTENER SPACING @ INTERMEDIATE SUPPORTS



END LAP 'R' PANEL STITCH FASTENING



'R' PANEL FASTENER SPACING @ PANEL ENDS

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FASTENING LAYOUT

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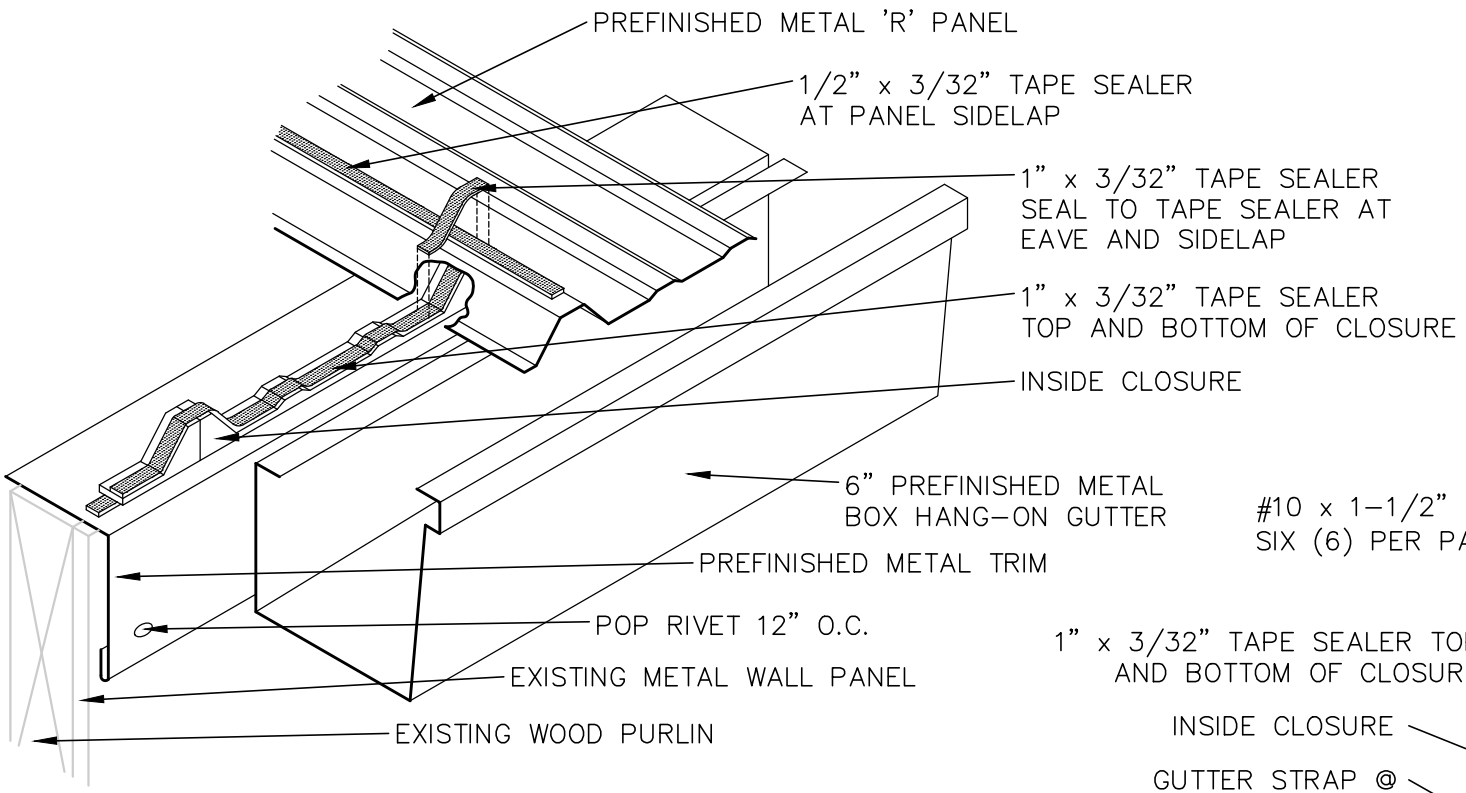
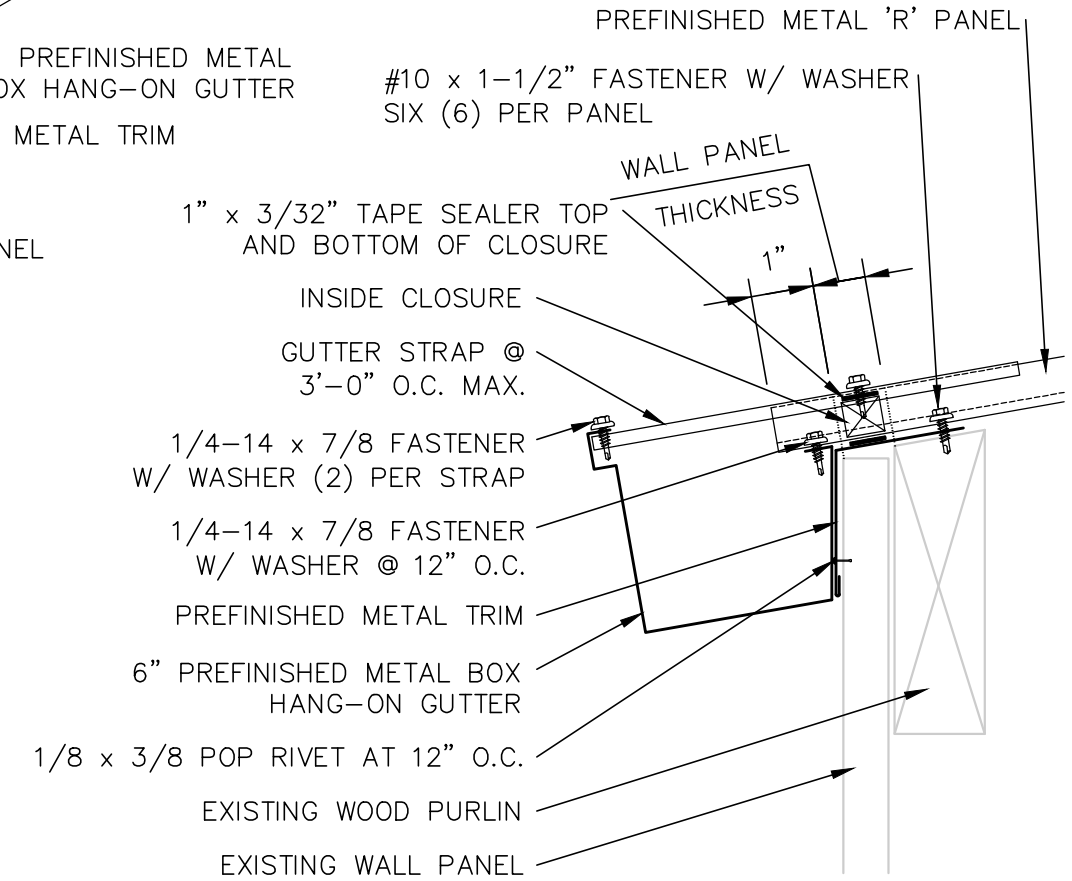
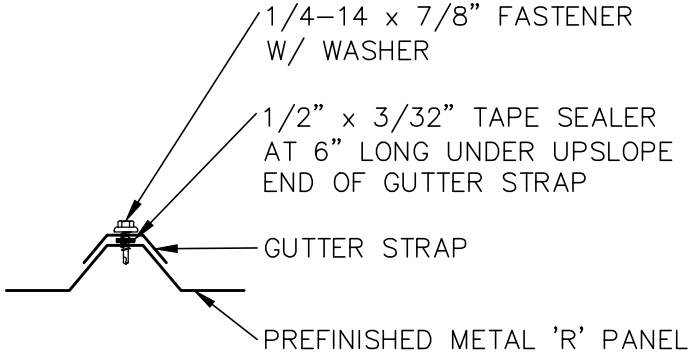
A529





EAVE SEALANT DETAIL



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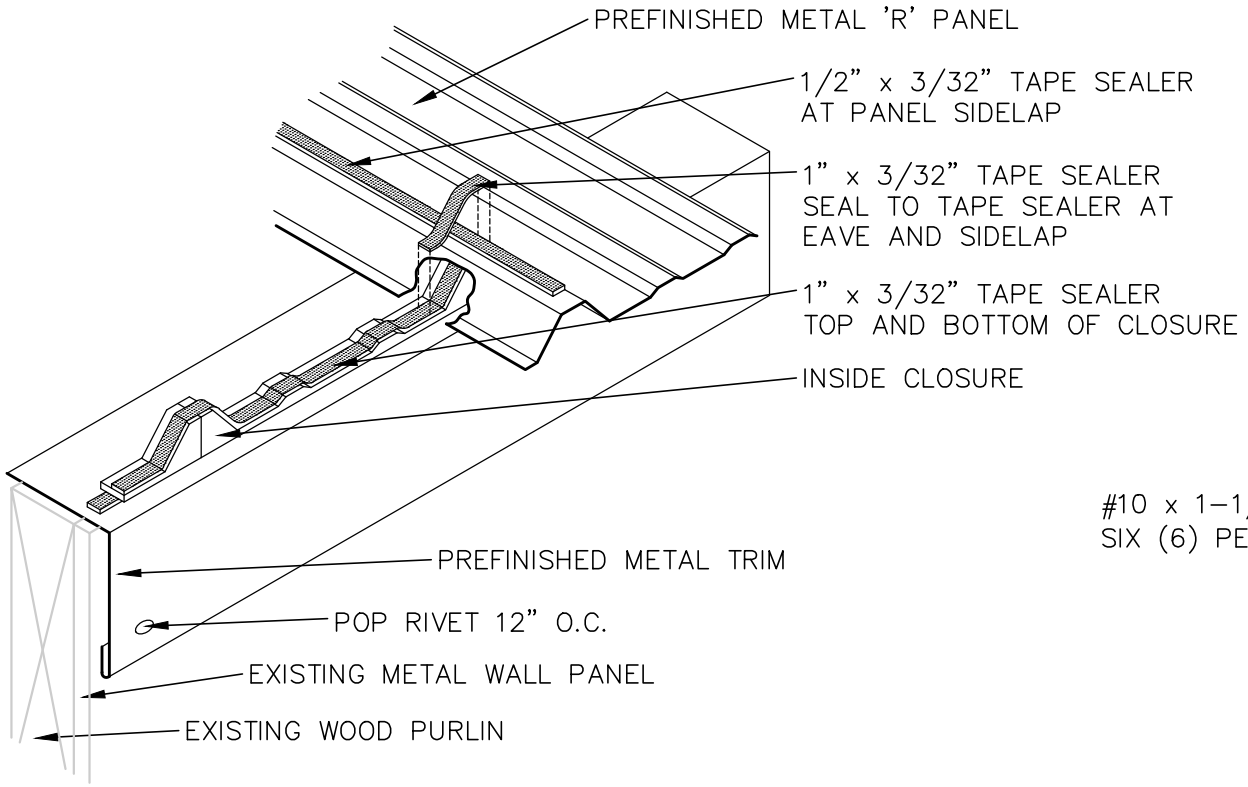
Multiple Buildings
Platteville, WI

6/15/26 | Project No. 15934

GUTTER EDGE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A530



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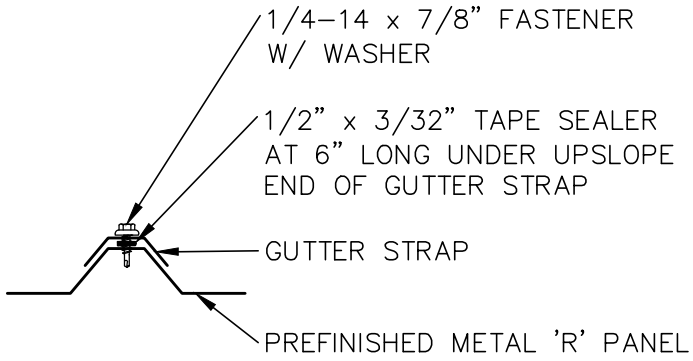

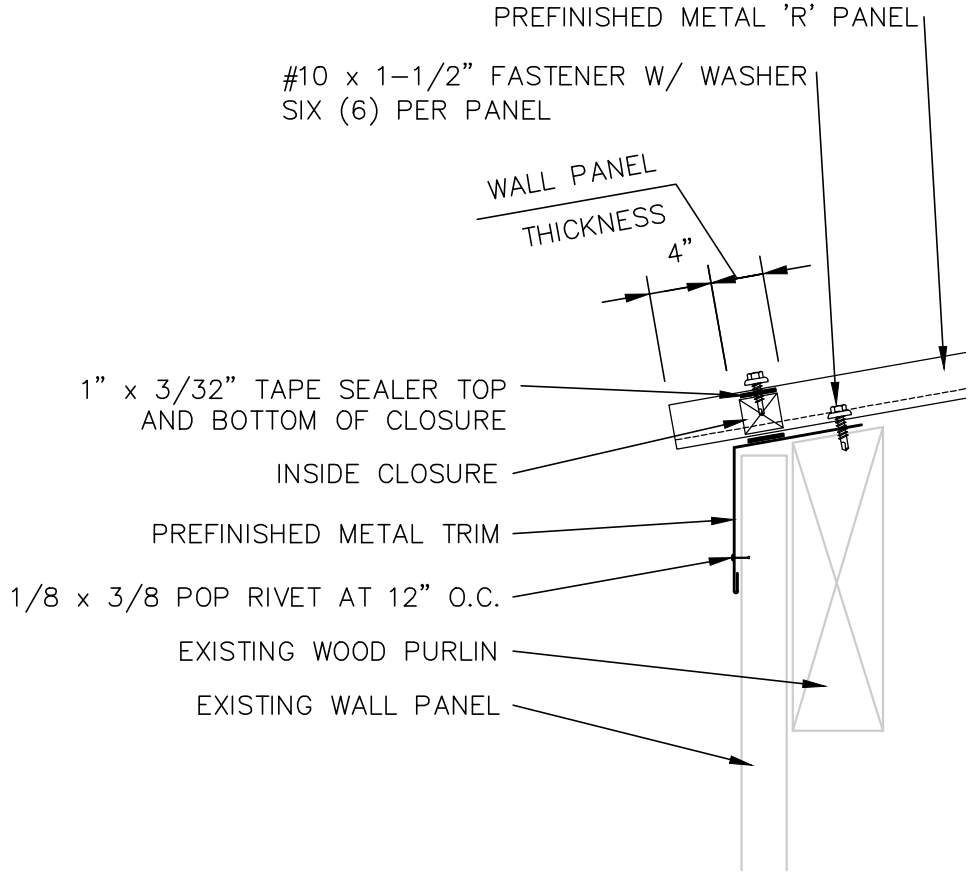

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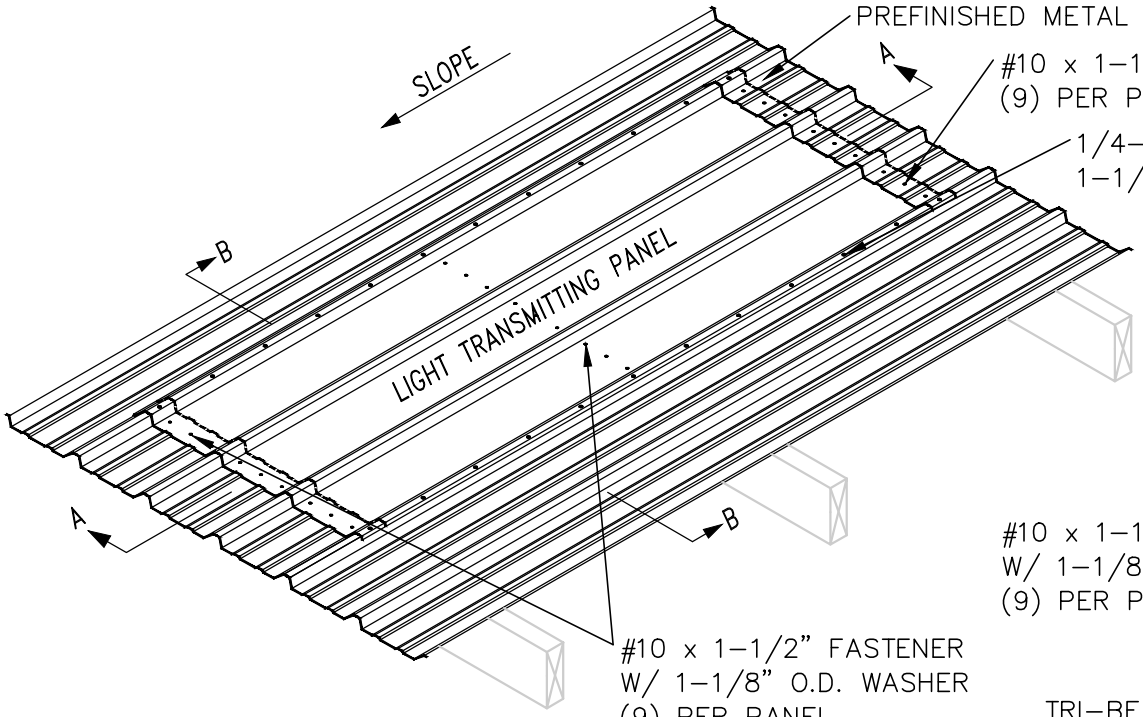
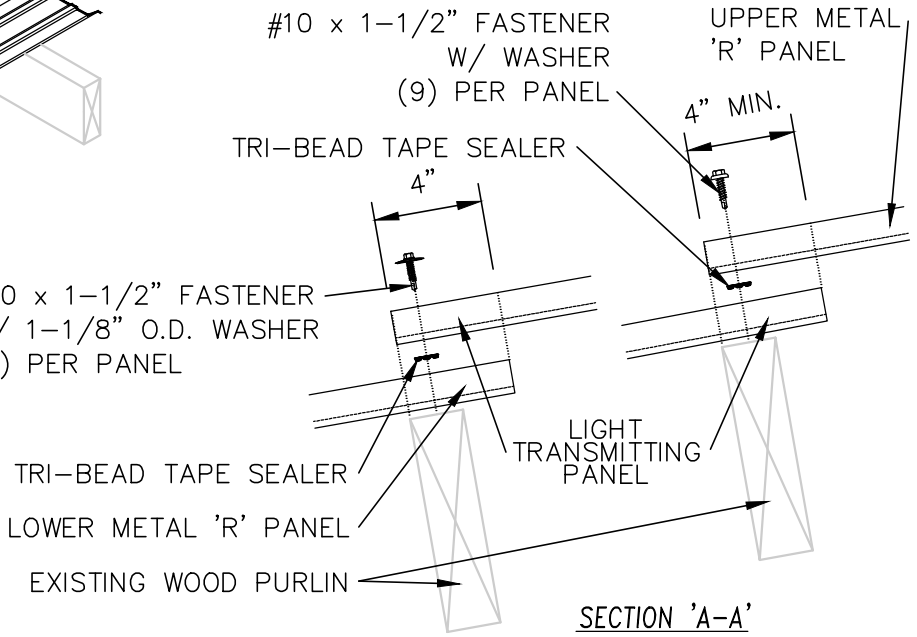
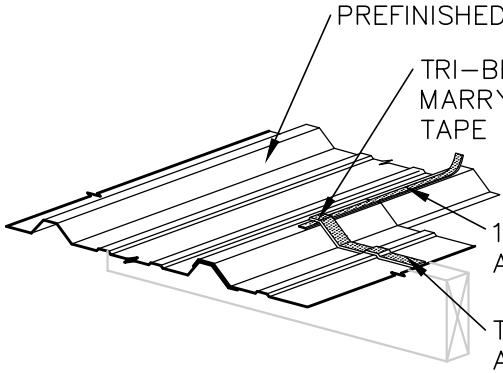
6/15/26	Project No. 15934	ROOF EDGE FLASHING	Checked by JE	A531

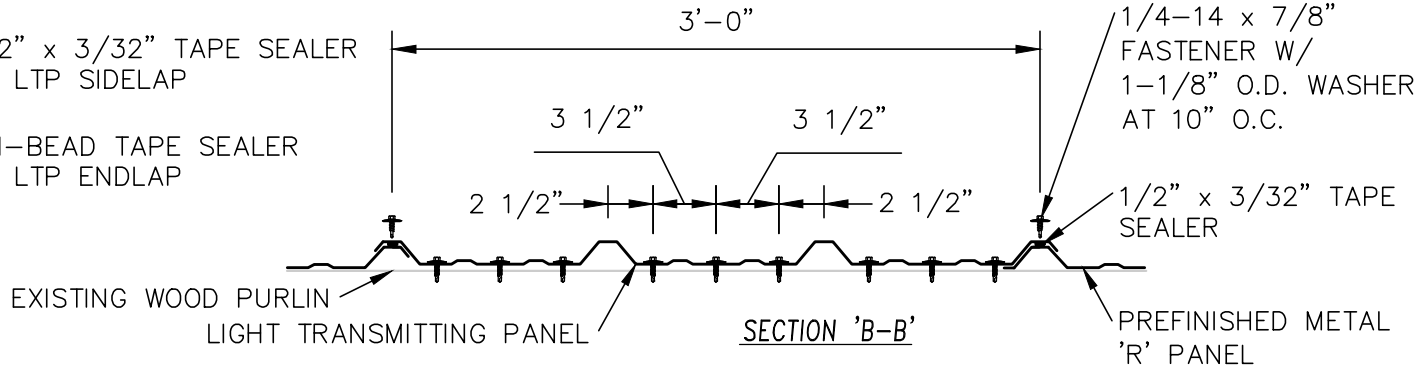




SECTION 'A–A'

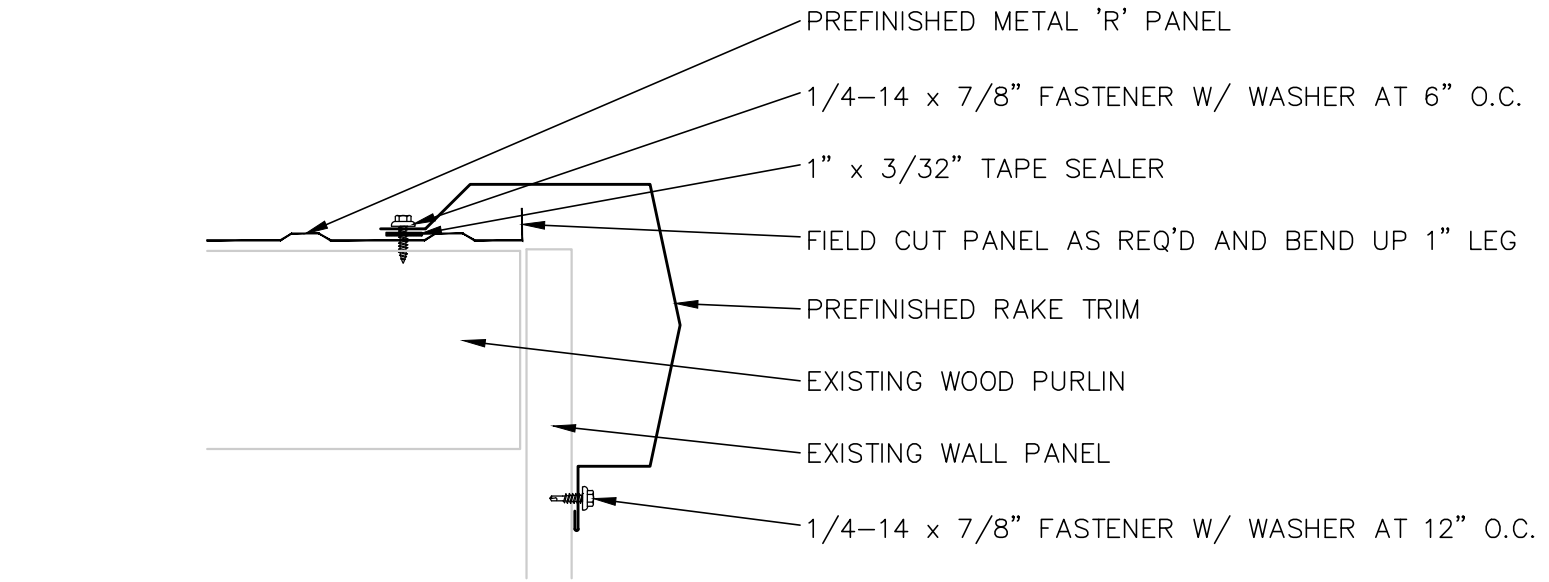


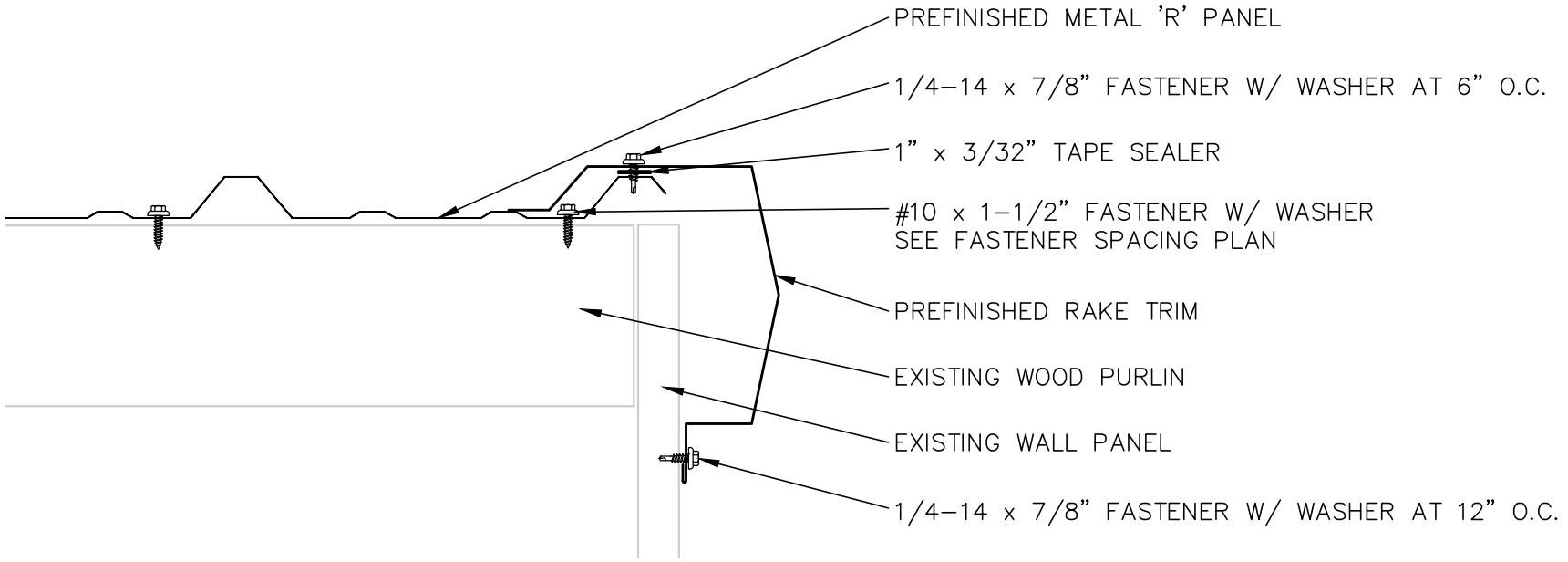
ENDLAP SEALANT DETAIL



SECTION 'B–B'

STR SEG SPECIALTY ENGINEERING GROUP LLC N89w16785 APPLETON AVENUE, SUITE 201 MENOMONEE FALLS, WI 53051 TEL: 262 253 4700 | www.str-seg.com	Platteville, City of Roof Replacement Project		Multiple Buildings Platteville, WI	Drawn by DS Checked by JE	Sheet No. A532
	6/15/26	Project No. 15934	LIGHT TRANSMITTING PANEL INSTALL		





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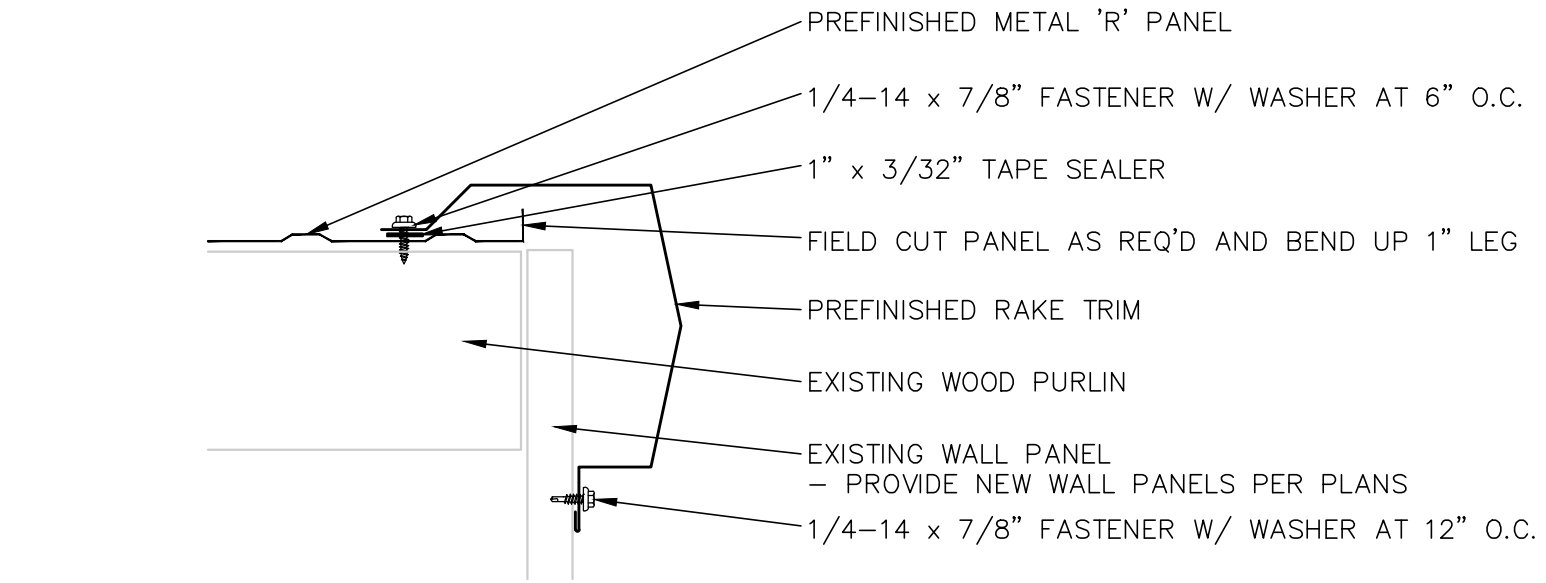
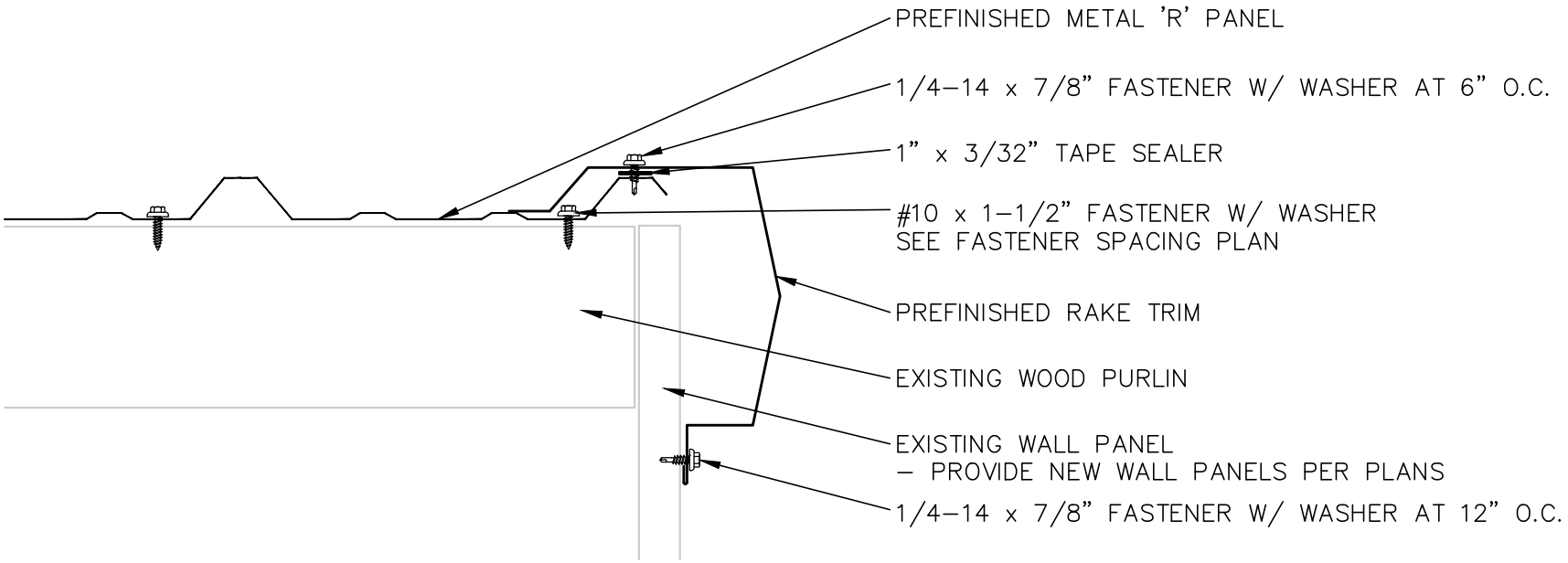
RAKE EDGE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A533





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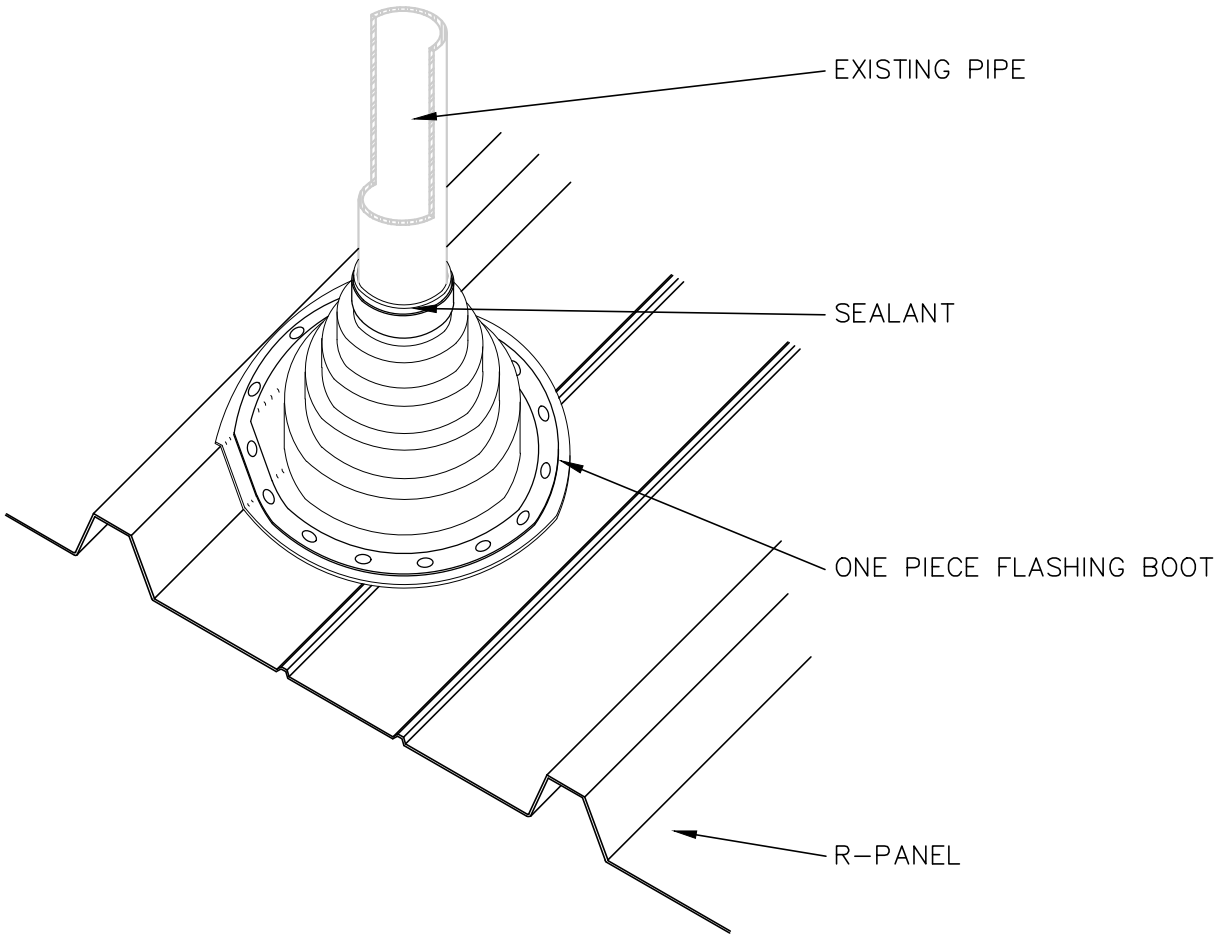
RAKE EDGE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A534



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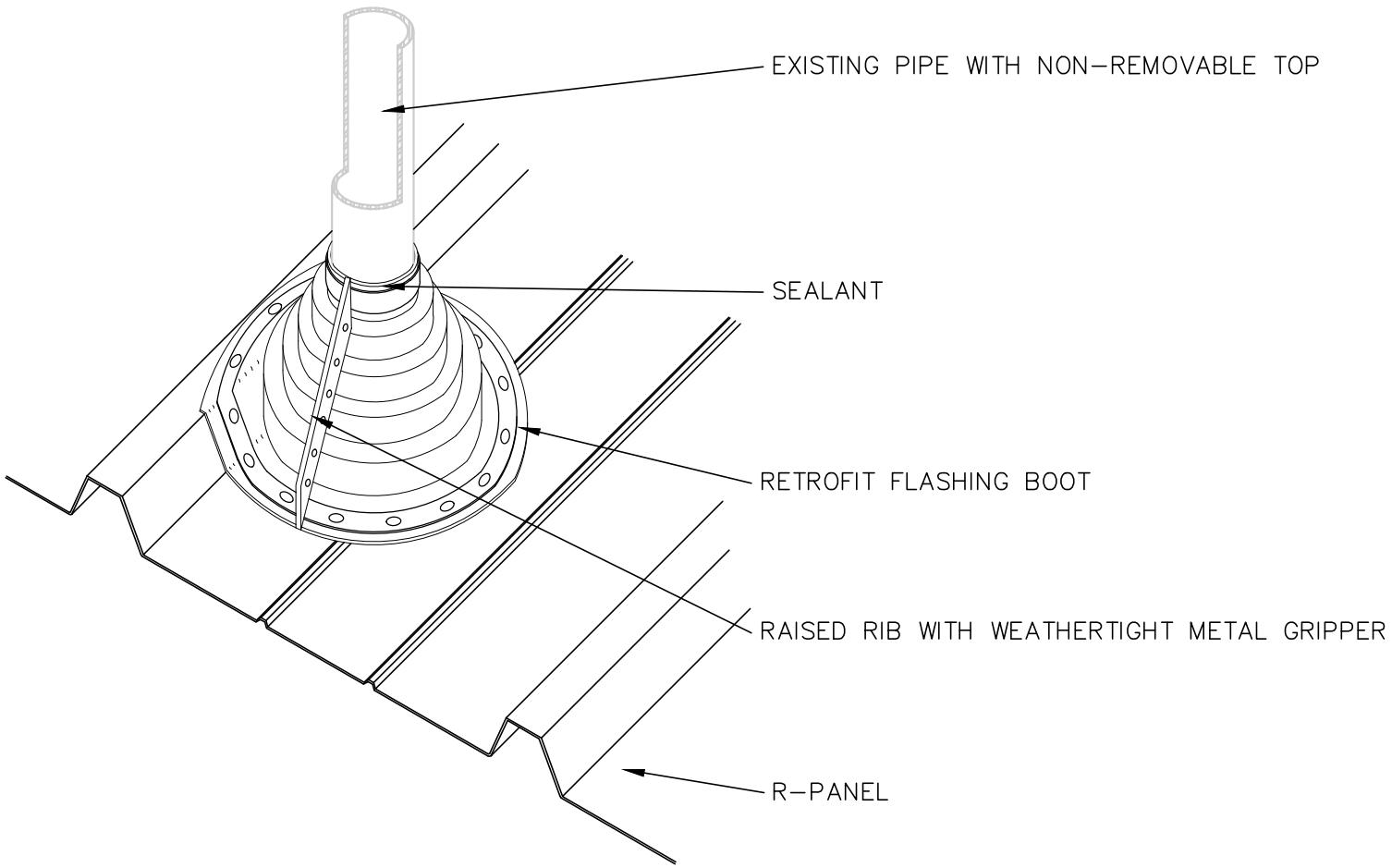
TYPICAL PIPE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A535



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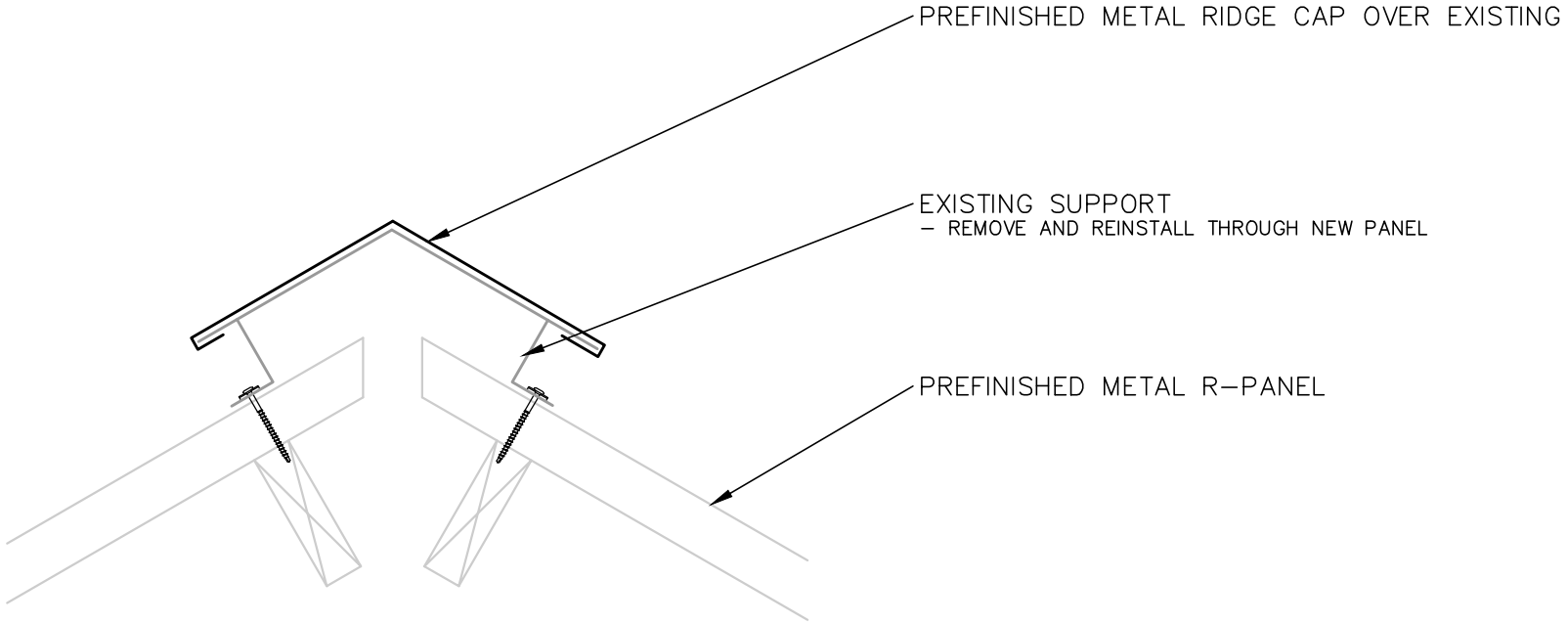
TYPICAL PIPE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A536



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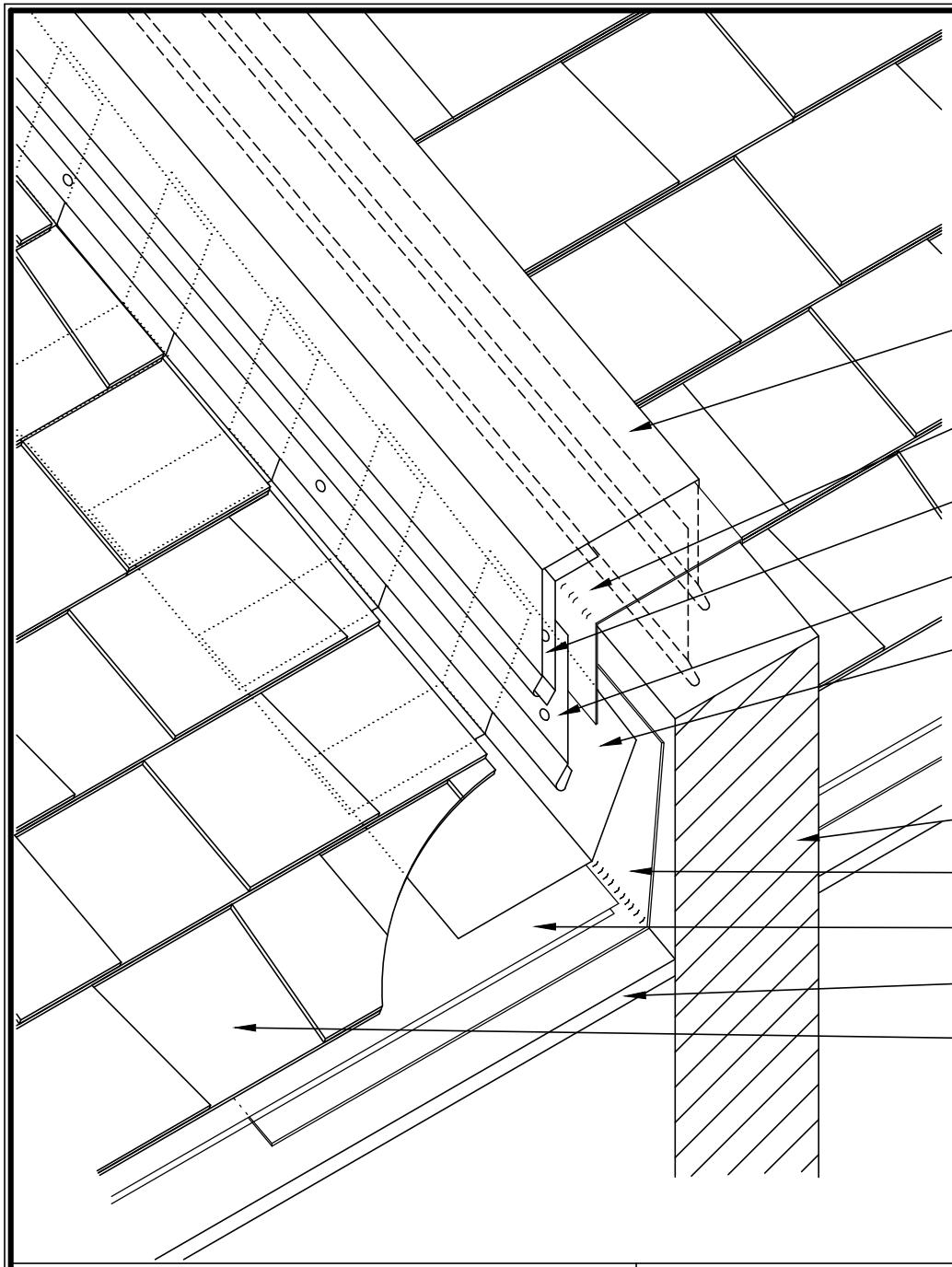
RIDGE CAP FLASHING

Drawn by DS
Checked by JE

Sheet No.
A537



0.032" PREFINISHED ALUMINUM EXPANSION JOINT COVER
– HOOK ONTO CONTINUOUS CLEAT
– FASTEN TO BLOCKING THROUGH FLASHINGS IN EXISTING HOLES – 24" O.C. MAX.

CONCEALED FLASHING
– EXTEND 2" MIN. ONTO STEP FLASHINGS ON NORTH SIDE OF WALL

0.032" PREFINISHED ALUMINUM CONTINUOUS CLEAT
– FASTEN TO MASONRY WALL AT 8" O.C.

0.032" PREFINISHED ALUMINUM SKIRT FLASHING
– FASTEN TO MASONRY WALL – 24" O.C. MAX.

0.032" PREFINISHED ALUMINUM STEP FLASHINGS

EXISTING MASONRY WALL

SELF–ADHERING ICE & WATER BACKUP PROTECTION MEMBRANE

SYNTHETIC UNDERLAYMENT

EXISTING PLYWOOD ROOF SHEATHING

LAMINATED ARCHITECTURAL ASPHALT SHINGLES
– FASTEN EACH SHINGLE WITH FOUR (4) NAILS

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Multiple Buildings
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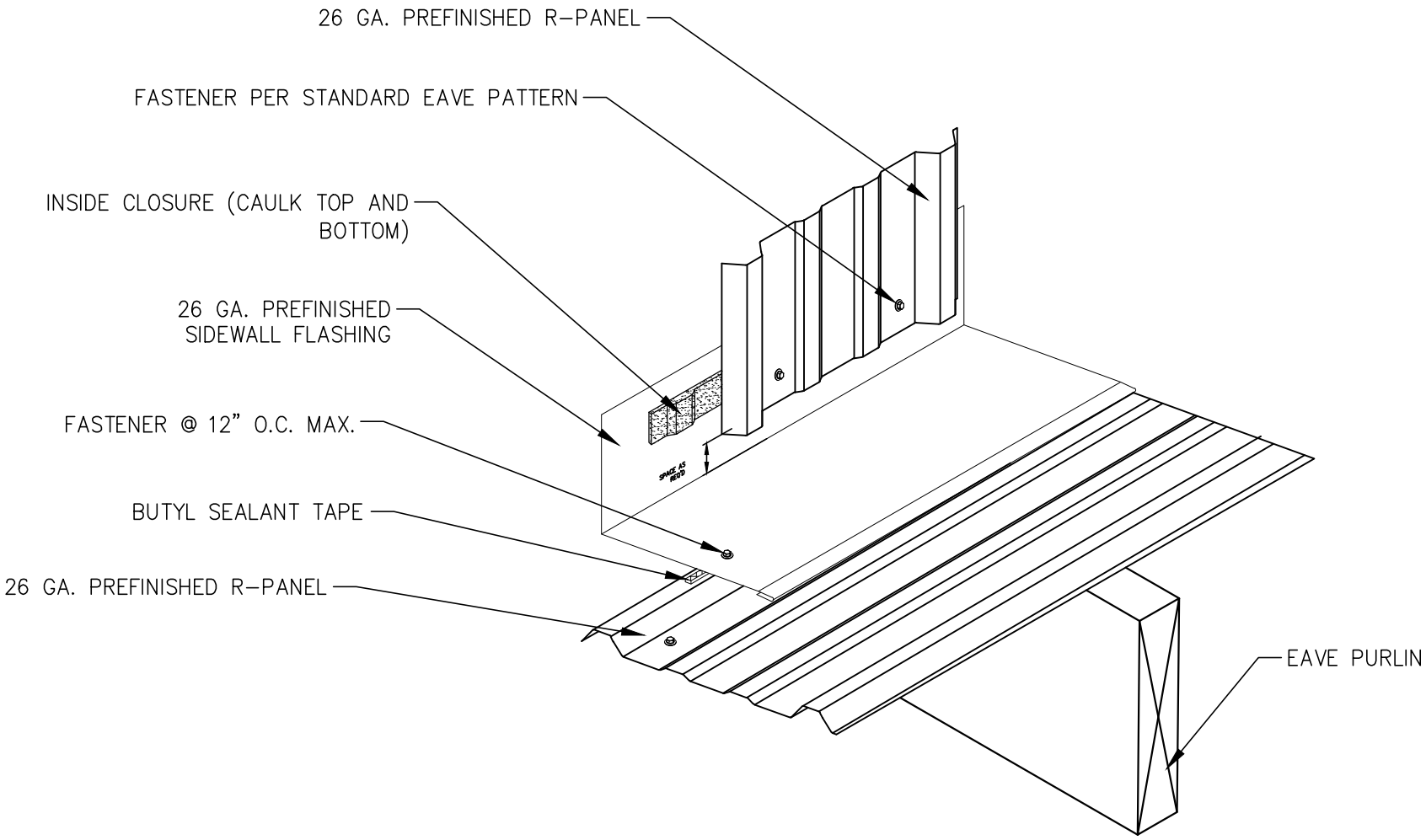
AREA DIVIDER FLASHING

Drawn by DS
Checked by JE

Sheet No.
A538



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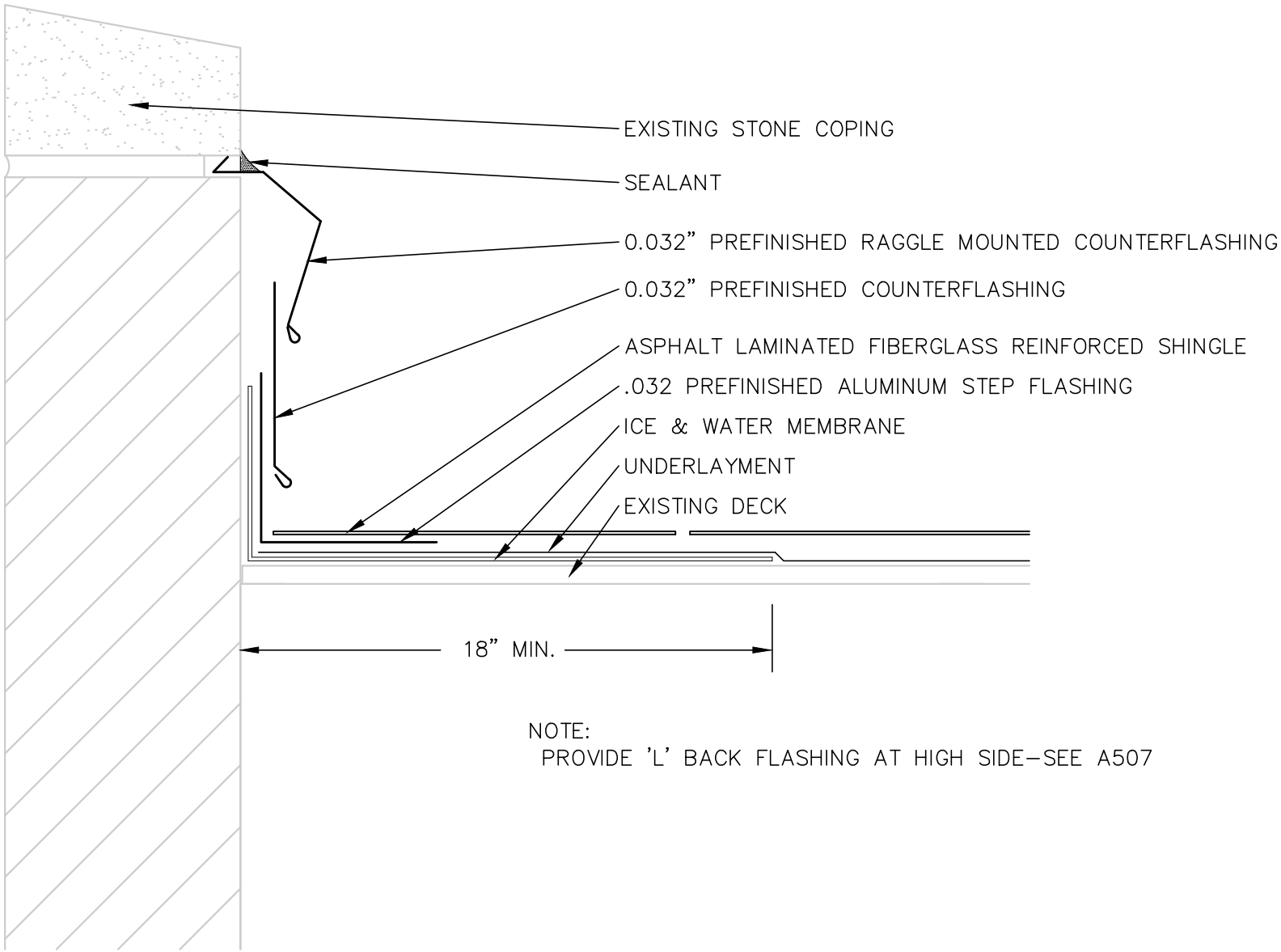
HEAD FLASHING

Drawn by DS
Checked by JE

Sheet No.
A539



NOTE:
PROVIDE 'L' BACK FLASHING AT HIGH SIDE–SEE A507

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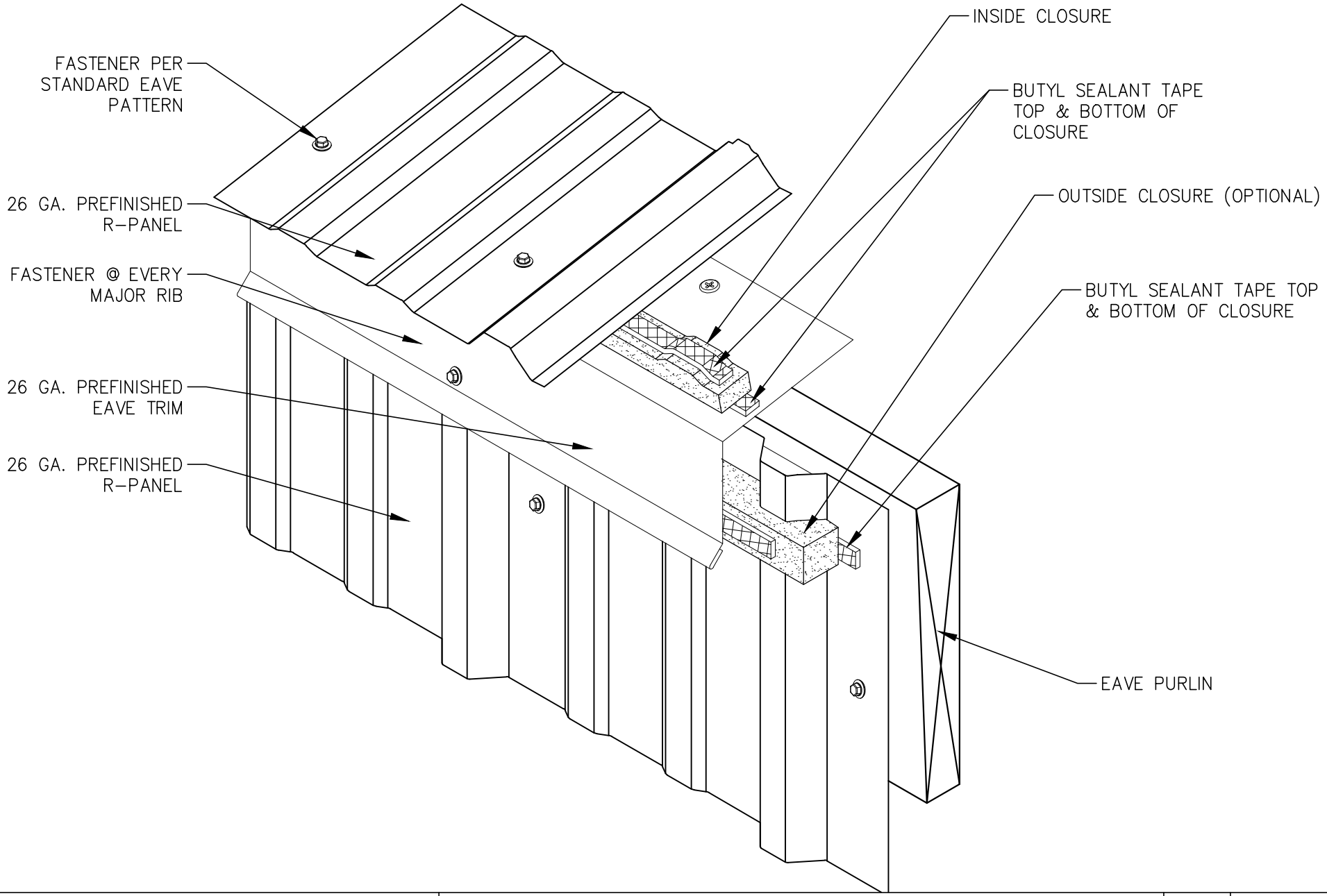
WALL FLASHING

Drawn by DS
Checked by JE

Sheet No.
A540



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EAVE EDGE FLASHING

Drawn by DS
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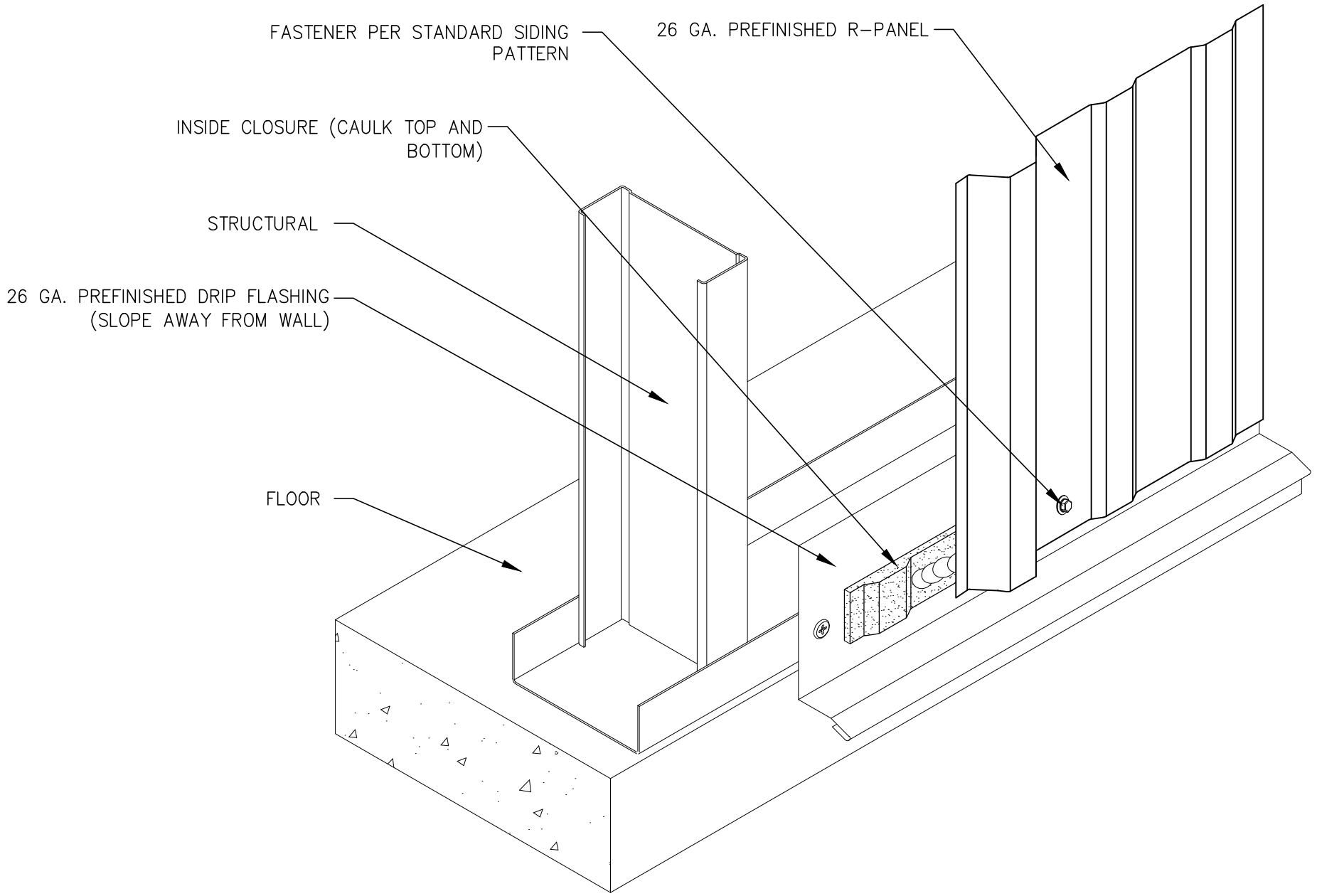
Sheet No.
A541



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WALL BASE FLASHING

Drawn by DS
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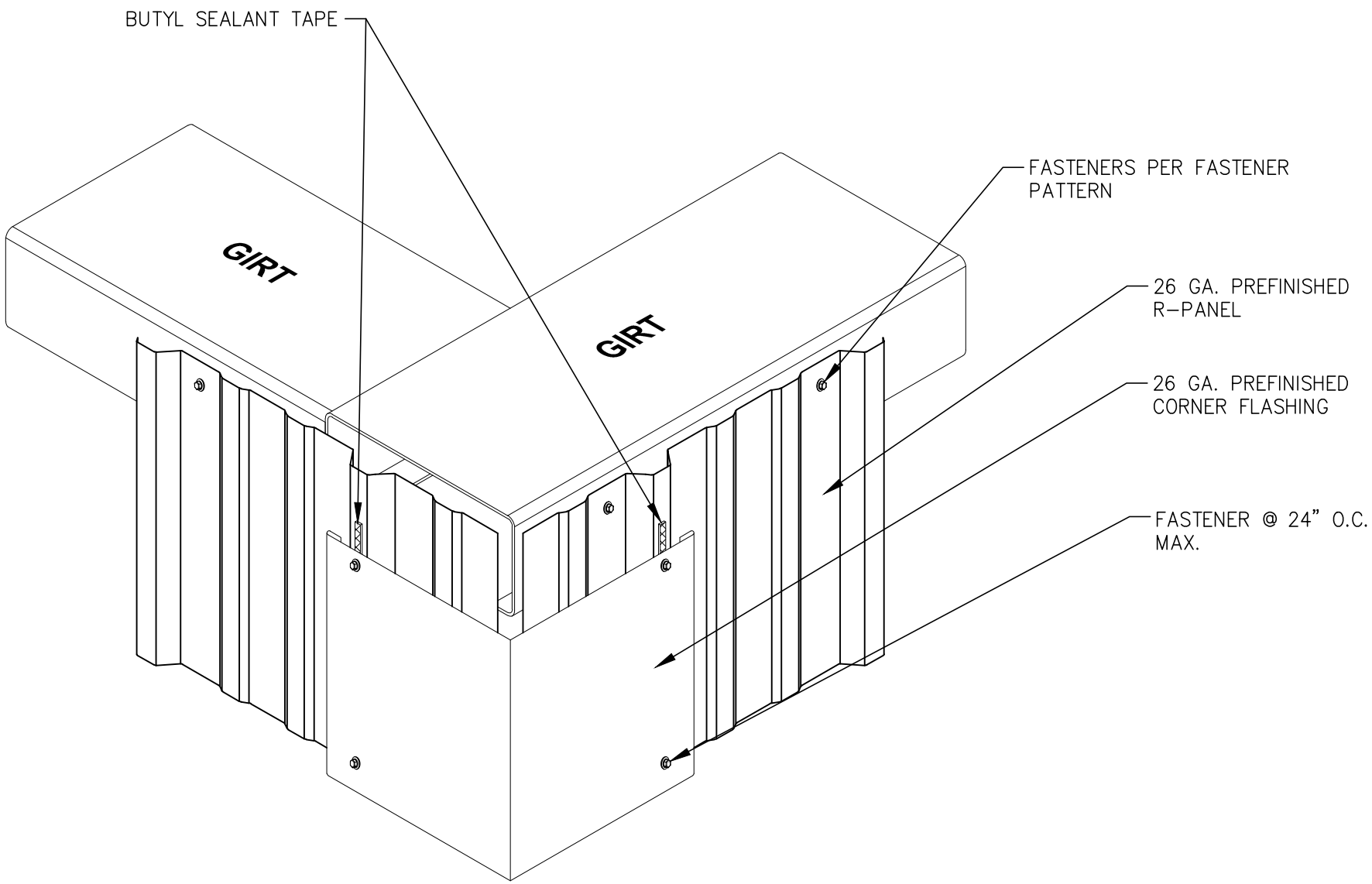
Sheet No.
A542



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OUTSIDE PANEL CORNER FLASHING

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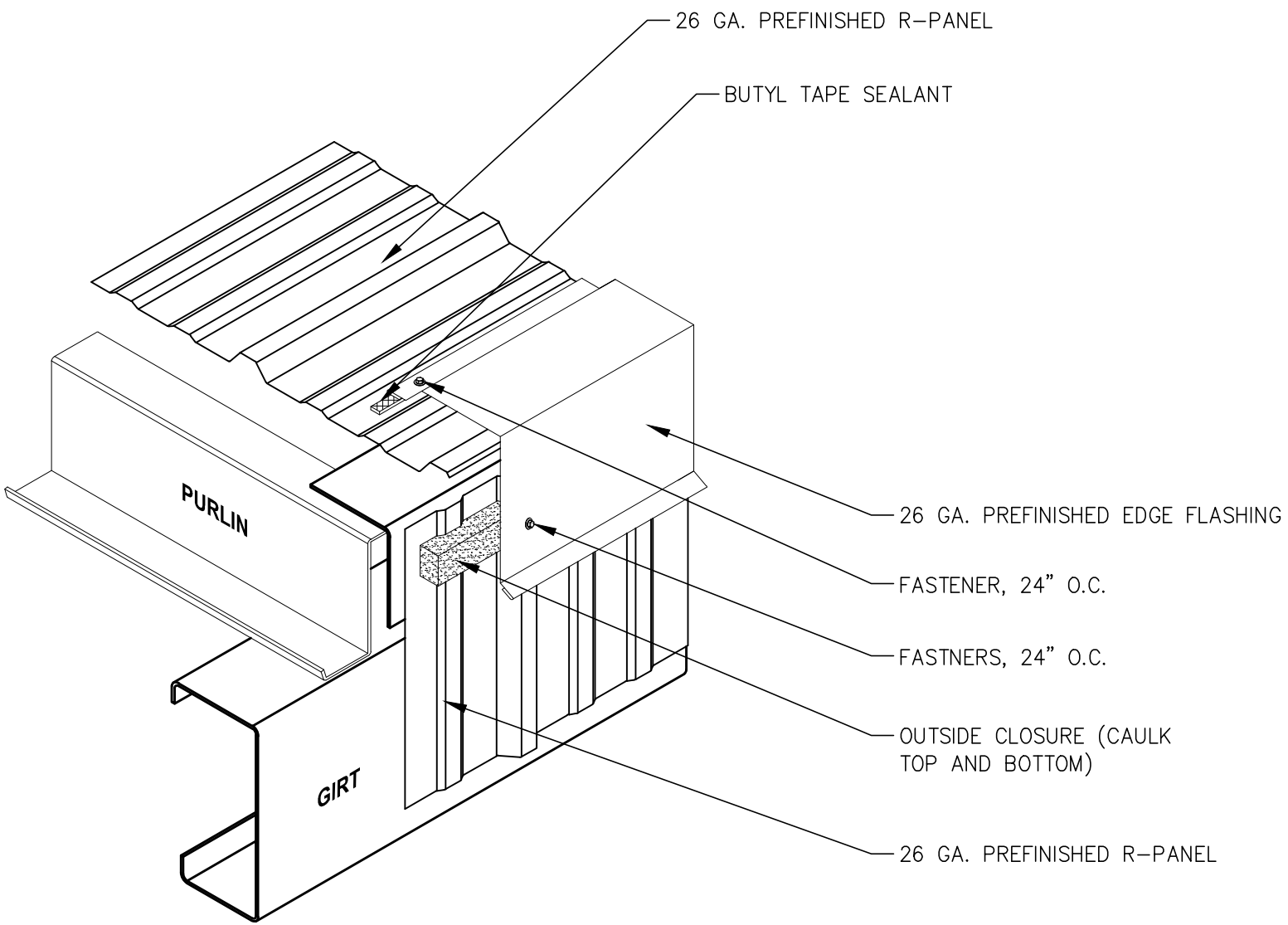
Sheet No.
A543



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GABLE END FLASHING

Drawn by DS
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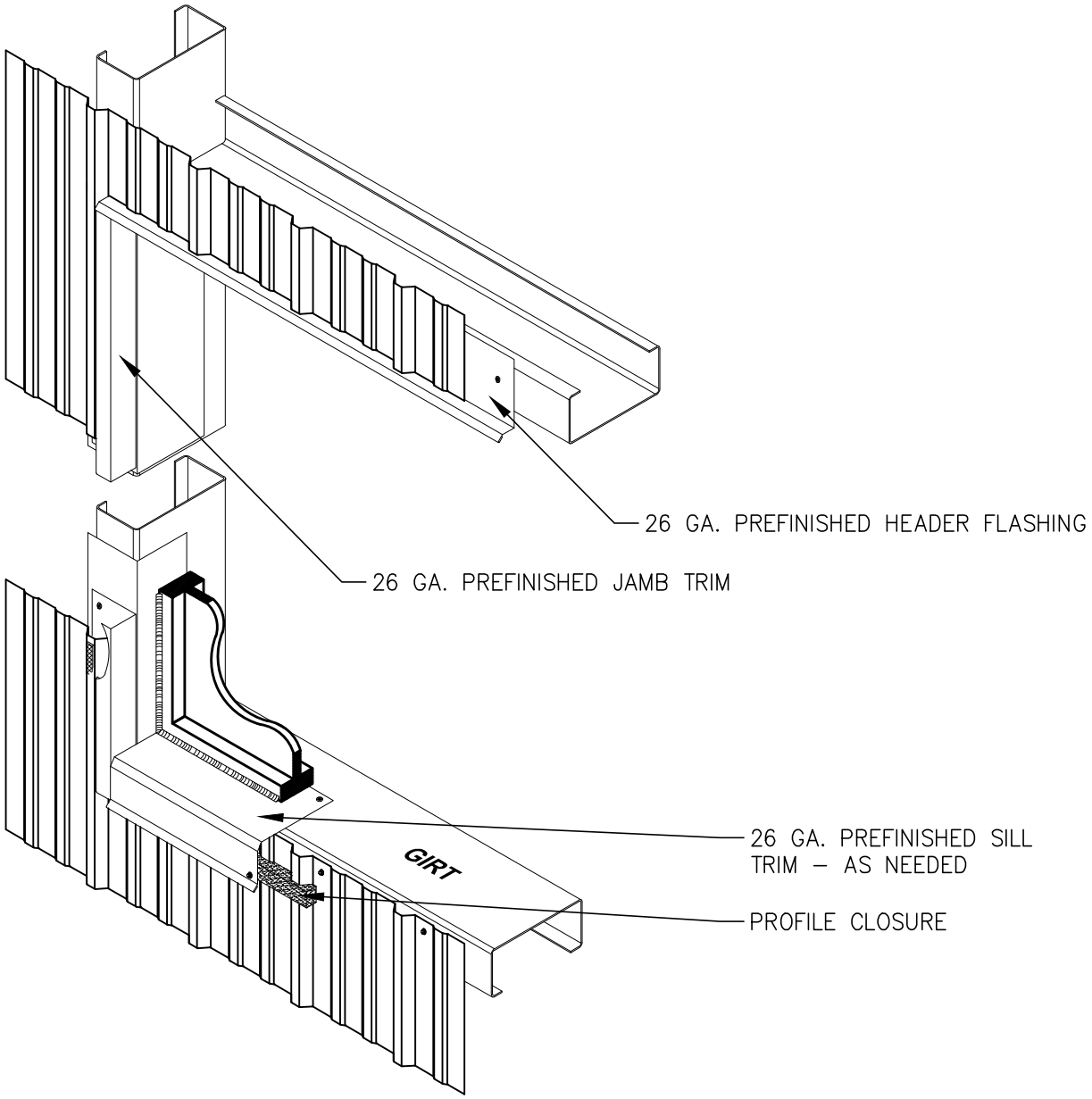
Sheet No.
A544



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UN-INSULATED VERTICAL WALL SECTION

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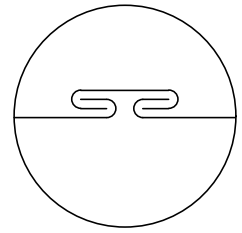
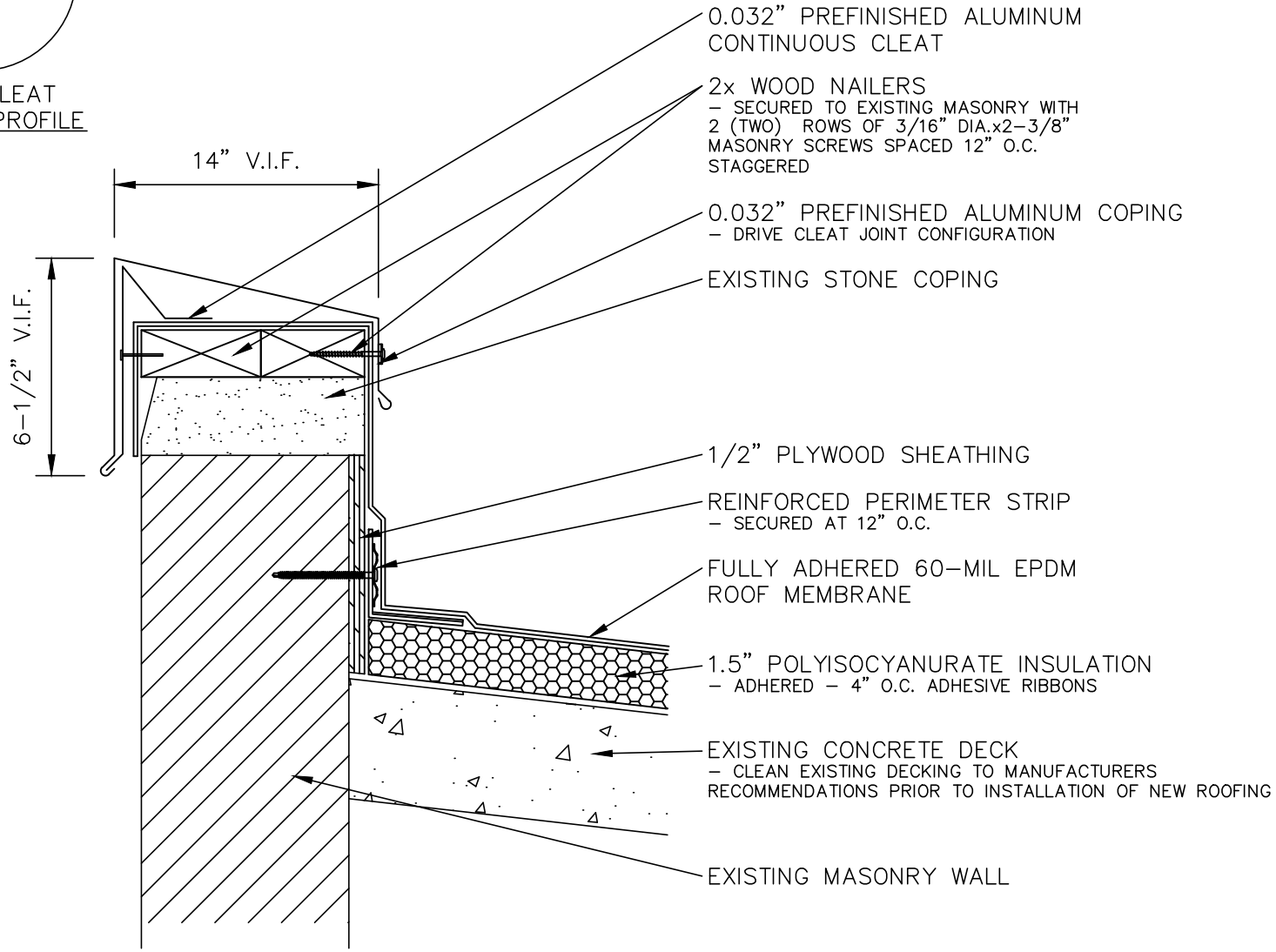
Checked by JE

Sheet No.
A545



DRIVE CLEAT
JOINTING PROFILE



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PARAPET FLASHING

Drawn by DS
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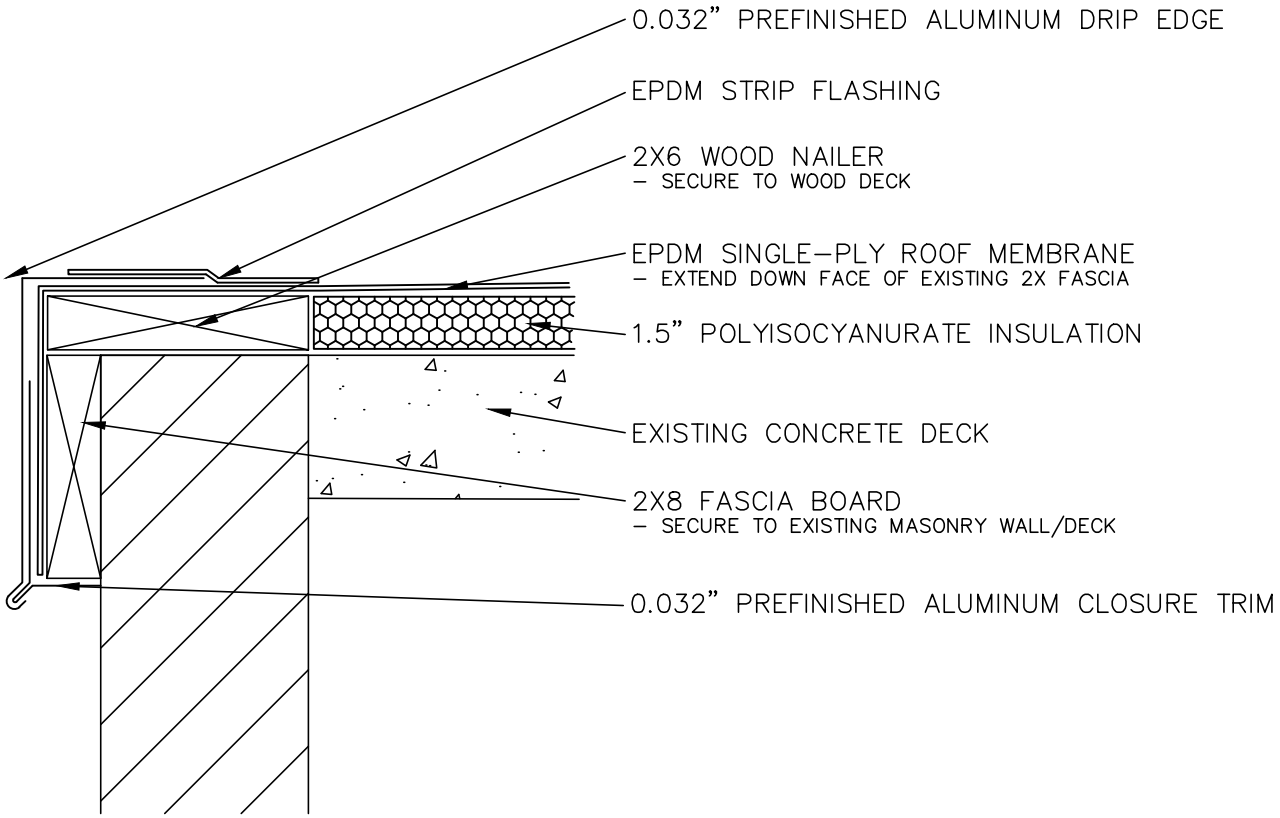
Sheet No.
A546



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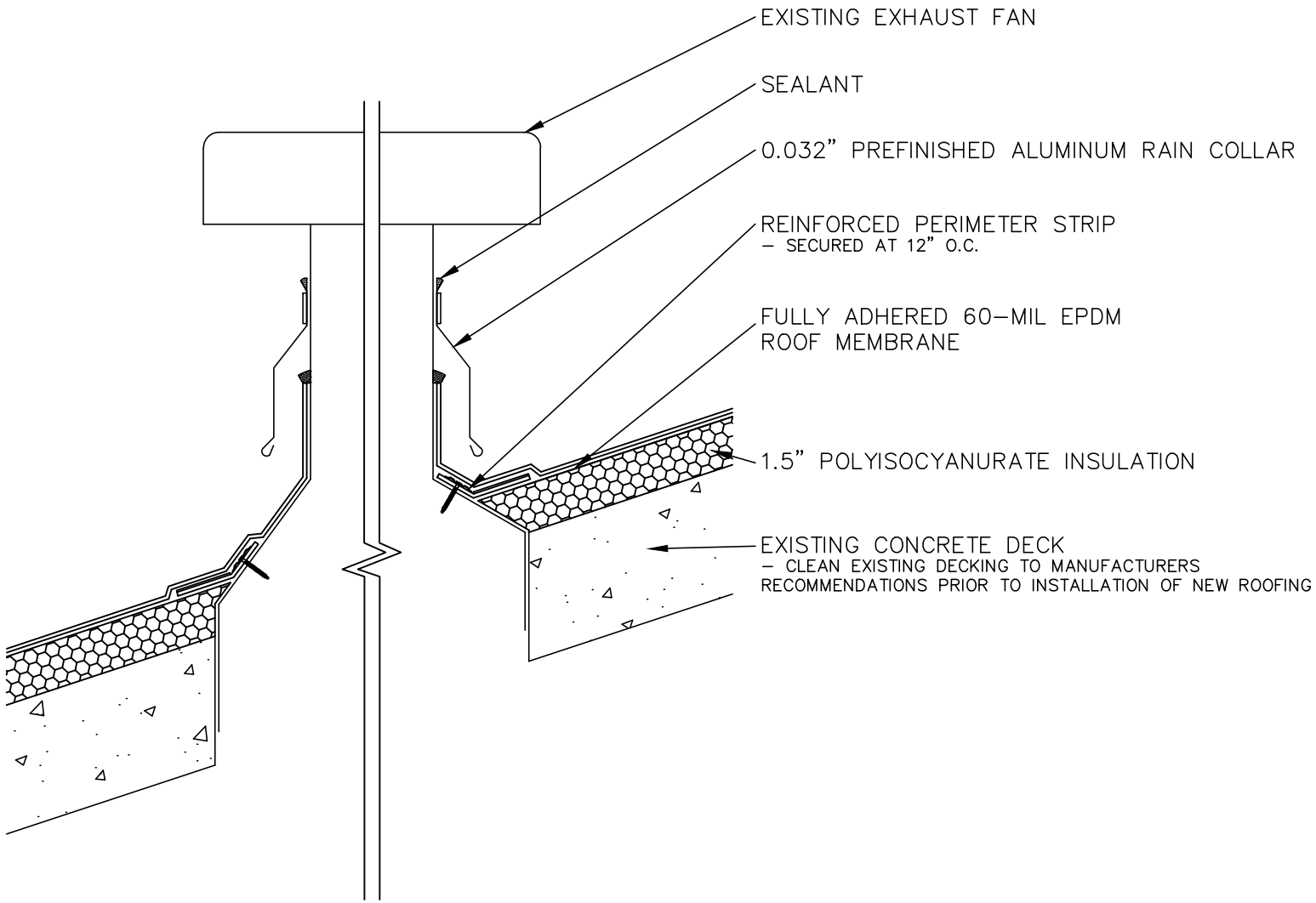
ROOF EDGE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A547



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TYPICAL VENT FLASHING

Drawn by DS
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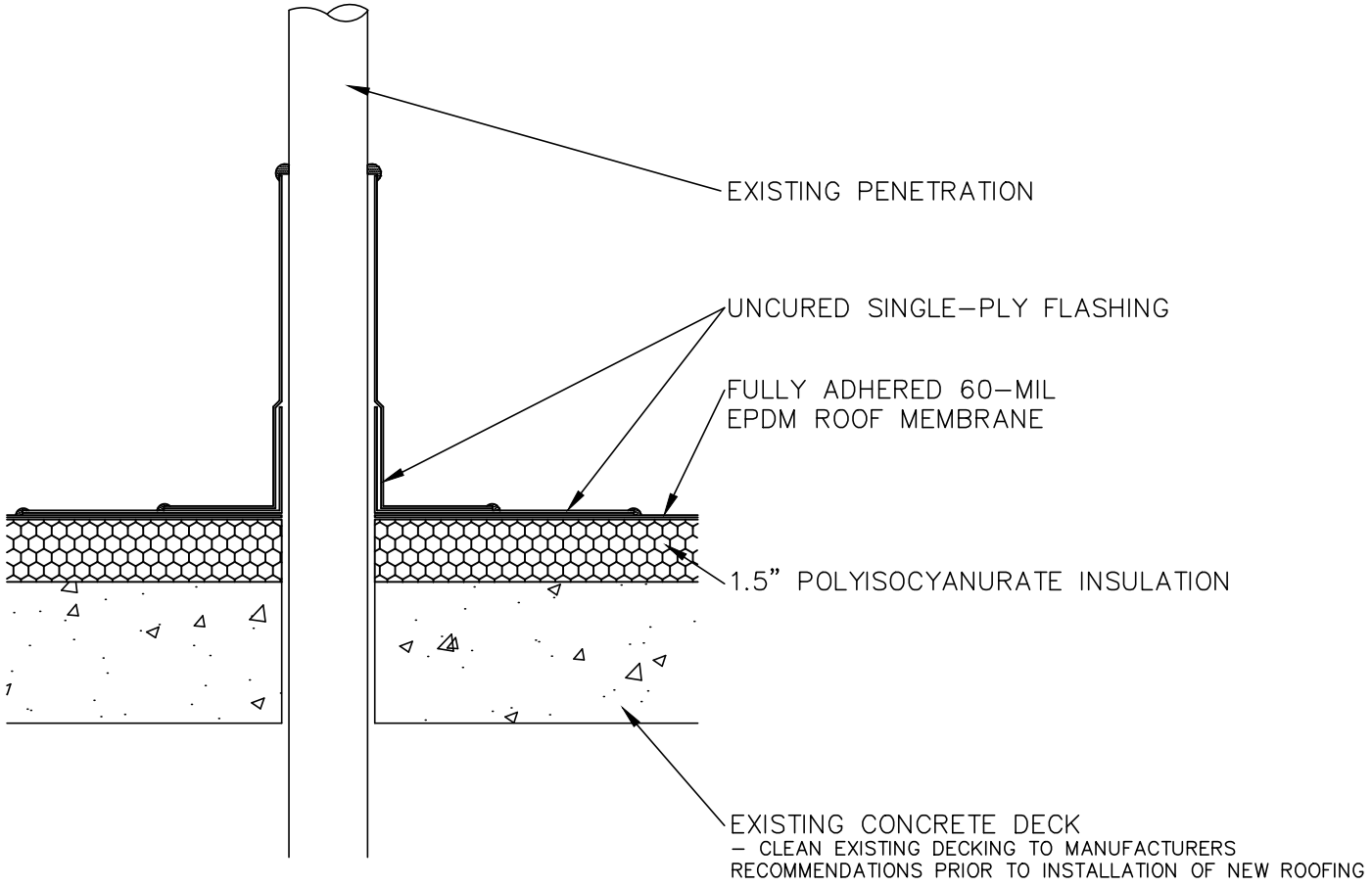
Sheet No.
A548



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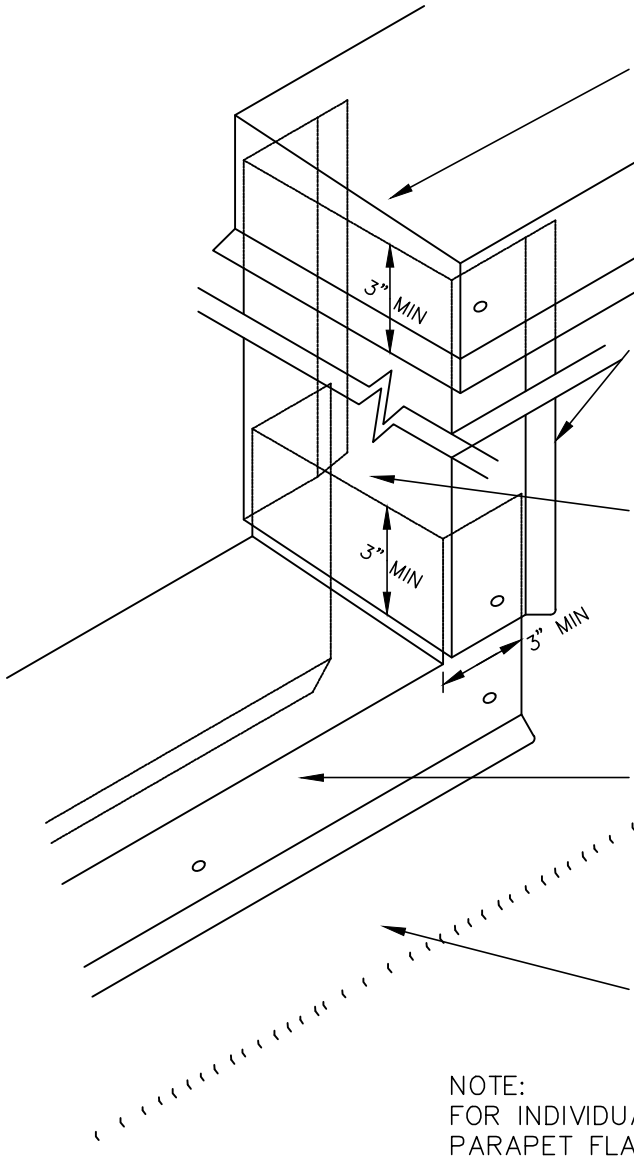
TYPICAL PIPE FLASHING

Drawn by DS
Checked by JE

Sheet No.
A549



0.032" PREFINISHED ALUMINUM COPING
– PROVIDE SOLID–JOINTED END CAP OVER CLOSURE PANEL

SEALANT
– PROVIDE AT VERTICAL LEGS OF COPING

0.032" PREFINISHED ALUMINUM CLOSURE PANEL
– FABRICATE TO MATCH PROFILE OF INTERSECTION AT WALL STEP
– FASTEN BOTTOM EDGES TO WALL THROUGH LOWER CLOSURE PANEL AT 12" O.C.
– FASTEN OUTSIDE EDGE TO WALL THROUGH TAPE CAULK AT 3" MIN. AND SEAL EDGE

0.032" PREFINISHED ALUMINUM STEEL COPING
– TURN UP AT VERTICAL STEP OVER COMPLETED FLASHINGS/WALL SURFACE ON EACH SIDE

ROOF FLASHINGS

NOTE:
FOR INDIVIDUAL DETAIL CONSTRUCTION REFER TO PARAPET FLASHING DETAILS

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CLOSURE FLASHING

Drawn by DS
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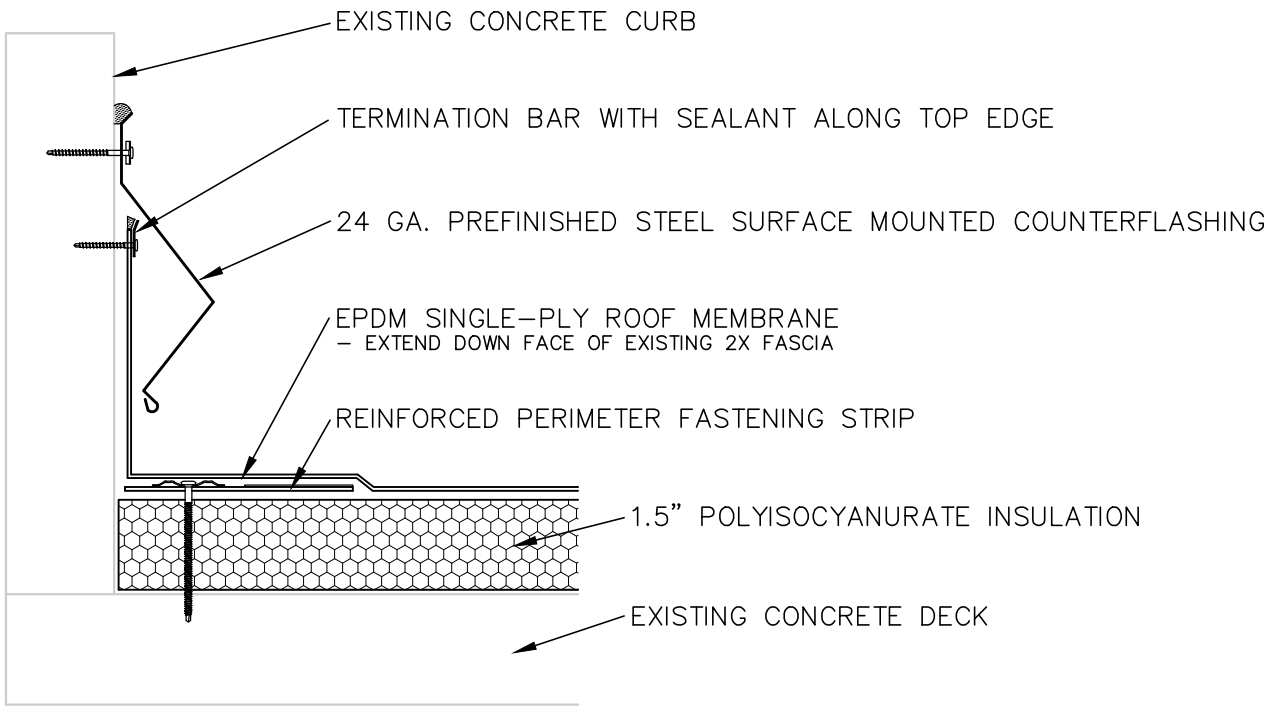
Sheet No.
A550



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TYPICAL CURB FLASHING

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Sheet No.
A551