City Of Hammond
Purchasing Department

RFP # 19-12
For

Roof Replacement for Evidence Department

Sealed Proposals Shall Be Received by the Purchasing Department,
City of Hammond
310 East Charles Street
P. O. Box 2788
Hammond, Louisiana 70404-2788

Until

10:00 a. m. on June 8, 2018

At Which Time All Proposals Will Be Opened and Read Aloud

Advertisement in the Official Journal, Daily Star, to be published Two (2) Times
May 10 and 16, 2018

Jana Thurman - Purchasing Manager- (985)-277-5633

Mandatory Pre-Proposal Conference has been scheduled for **May 21, 2018 at 9:00 am** at the location of the Evidence Building:

This is the Proposal of:

Date: _____

Company: _____

Section 3 Business/WBE/SBE/MBE/DBE: _____

Address: _____

City: _____ **State: ZIP Code:** _____

Person to Contact: _____

Phone: _____ **Fax:** _____

Email: _____

Your Proposal is important to us.
However, should you choose NOT to submit a Proposal for this project, the City would still ask you to complete this sheet and indicate "No Proposal". This shall NOT affect your participation in future RFPs, but only serve as a means of verifying you received notification of this RFP.

Section 3 Business/WBE/SBE/MBE/DBE
The City encourages Proposals from Section 3 businesses, Woman Business Enterprises, Minority Business Enterprises, Small Business Enterprises, and other potentially Disadvantaged Business Enterprises. If your company is one of these types of businesses, please indicate "Section 3," "WBE," "SBE," "MBE," or "DBE" in the space provided above.

Nondiscrimination Requirements
By submitting and signing this Proposal, the Proposer agrees to comply with Title VI and VII of the Civil Rights Act of 1964 as amended; the Vietnam Era Veterans Readjustment Assistance Act of 1974; Section 503 of the Rehabilitation Act of 1973; Section 202 of Executive Order 11246 as amended; and the Americans with Disabilities Act of 1990.

The Proposer also agrees to keep informed of and comply with all federal, State, and local laws, ordinances, and regulations which affect the Proposer's employees or prospective employees.

STATE OF LOUISIANA
PARISH OF _____

PROJECT NO. _____ NAME _____
LOCATION _____

A F F I D A V I T

Before me, the undersigned authority, duly commissioned and qualified within and for the State and Parish aforesaid, personally came and appeared _____ representing _____who, being by me first duly sworn deposed and said that he has read this affidavit and does hereby agree under oath to comply with all provisions herein as follows:

PART I.

Section 2224 of Part II of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

(1) That affiant employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for affiant; and

(2) That no part of the Contract price received by affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the Contract, other than the payment of their normal compensation to persons regularly employed by the affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for affiant.

PART II.

Section 2190 of Part I of Chapter 10 of Title 38 of the Louisiana Revised Statutes, as amended.

That affiant, if an architect or engineer, or representative thereof, does not own a substantial financial interest, either directly or indirectly, in any corporation, firm, partnership, or other organization which supplies materials for the construction of a public work when the architect or engineer has performed architectural or engineering services, either directly or indirectly, in connection with the public work for which the materials are being supplied.

For the purposes of this Section, a "substantial financial interest" shall exclude any interest in stock being traded on the American Stock Exchange or the New York Stock Exchange.

That affiant, if subject to the provisions of this section, does hereby agree to be subject to the penalties involved for the violation of this section.

_____
AFFIANT

SWORN TO AND SUBSCRIBED BEFORE ME THIS _____ DAY OF _____, 20____.

_____
NOTARY

_____ _____

Name of Project **Project No.**

STATE OF _____

PARISH OF _____

ATTESTATIONS AFFIDAVIT

Before me, the undersigned notary public, duly commissioned and qualified in and for the parish and state aforesaid, personally came and appeared Affiant, who after being duly sworn, attested as follows:

LA. R.S. 38:2227 PAST CRIMINAL CONVICTIONS OF BIDDERS

A. No sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes:

(a) Public bribery (R.S. 14:118)
(b) Corrupt influencing (R.S. 14:120)
(c) Extortion (R.S. 14:66)
(d) Money laundering (R.S. 14:23)

B. Within the past five years from the project bid date, no sole proprietor or individual partner, incorporator, director, manager, officer, organizer, or member who has a minimum of a ten percent (10%) ownership in the bidding entity named below has been convicted of, or has entered a plea of guilty or nolo contendere to any of the following state crimes or equivalent federal crimes, during the solicitation or execution of a contract or bid awarded pursuant to the provisions of Chapter 10 of Title 38 of the Louisiana Revised Statutes:

(a) Theft (R.S. 14:67)
(b) Identity Theft (R.S. 14:67.16)
(c) Theft of a business record (R.S.14:67.20)
(d) False accounting (R.S. 14:70)
(e) Issuing worthless checks (R.S. 14:71)
(f) Bank fraud (R.S. 14:71.1)
(g) Forgery (R.S. 14:72)
(h) Contractors; misapplication of payments (R.S. 14:202)
(i) Malfeasance in office (R.S. 14:134)

LA. R.S. 38:2212.10 Verification of Employees

A. At the time of bidding, Appearer is registered and participates in a status verification system to verify that all new hires in the state of Louisiana are legal citizens of the United States or are legal aliens.

B. If awarded the contract, Appearer shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the state of Louisiana.

C. If awarded the contract, Appearer shall require all subcontractors to submit to it a sworn affidavit verifying compliance with Paragraphs (A) and (B) of this Subsection.

_____ _____

Name of Project **Project No.**

LA. R.S. 23:1726(B) Certification Regarding Unpaid Workers Compensation Insurance

A. R.S. 23:1726 prohibits any entity against whom an assessment under Part X of Chapter 11 of Title 23 of the Louisiana Revised Statutes of 1950 (Alternative Collection Procedures & Assessments) is in effect, and whose right to appeal that assessment is exhausted, from submitting a bid or proposal for or obtaining any contract pursuant to Chapter 10 of Title 38 of the Louisiana Revised Statutes of 1950 and Chapters 16 and 17 of Title 39 of the Louisiana Revised Statutes of 1950.

B. By signing this bid /proposal, Affiant certifies that no such assessment is in effect against the bidding / proposing entity.

_____	_____
NAME OF BIDDER	**NAME OF AUTHORIZED SIGNATORY OF BIDDER**
_____	_____
DATE	**TITLE OF AUTHORIZED SIGNATORY OF BIDDER**

_____

SIGNATURE OF AUTHORIZED
SIGNATORY OF BIDDER/AFFIANT

Sworn to and subscribed before me by Affiant on the _____ day of _____ , 20___ .

_____
Notary Public

BID BOND

FOR

_____

Date: _____

KNOW ALL MEN BY THESE PRESENTS:

That_____of_____, as Principal, and_____, as Surety, are held and firmly bound unto the _____ (Obligee), in the full and just sum of five (5%) percent of the total amount of this bid, including all alternates, lawful money of the United States, for payment of which sum, well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

Surety represents that it is listed on the current U. S. Department of the Treasury Financial Management Service list of approved bonding companies as approved for an amount equal to or greater that the amount for which it obligates itself in this instrument or that it is a Louisiana domiciled insurance company with at least an A - rating in the latest printing of the A. M. Best's Key Rating Guide. If surety qualifies by virtue of its Best's listing, the Bond amount may not exceed ten percent of policyholders' surplus as shown in the latest A. M. Best's Key Rating Guide.

Surety further represents that it is licensed to do business in the State of Louisiana and that this Bond is signed by surety's agent or attorney-in-fact. This Bid Bond is accompanied by appropriate power of attorney.

THE CONDITION OF THIS OBLIGATION IS SUCH that, whereas said Principal is herewith submitting its proposal to the Obligee on a Contract for:

_____

NOW, THEREFORE, if the said Contract be awarded to the Principal and the Principal shall, within such time as may be specified, enter into the Contract in writing and give a good and sufficient bond to secure the performance of the terms and conditions of the Contract with surety acceptable to the Obligee, then this obligation shall be void; otherwise this obligation shall become due and payable.

_____	_____
PRINCIPAL (BIDDER)	SURETY
BY: _____	BY:_____
AUTHORIZED OFFICER-OWNER-PARTNER	AGENT OR ATTORNEY-IN-FACT (SEAL)

Specifications

THIS PROJECT SCOPE CONSISTS OF REPLACING THE EXISTING ROOF AT THE EVIDENCE BUILDING LOCATED AT 106 NORTH CHERRY ST., HAMMOND LA. 70401

PRE-PROPOSAL CONFERENCE

A Mandatory Proposer's conference has been scheduled for **May 21, 2018 at 9:00 am** at the location of the Evidence Building:

106 North Cherry St., Hammond, Louisiana 70401

Attendance is mandatory, interested proposers are highly encouraged to attend. In order to make the meeting more effective for all participants, attendees should read this document thoroughly prior to the meeting.

Substantial clarifications or changes required as a result of the meeting will be issued in the form of a written addendum to the RFP.

Specifications/Drawings electronic version can be emailed; for a hard copy, please call Jana Thurman 985-277-5633.

Instructions to proposers

PROPOSERS ARE URGED TO PROMPTLY REVIEW THE REQUIREMENTS OF ALL SPECIFICATIONS AND SUBMIT QUESTIONS FOR RESOLUTION AS EARLY AS POSSIBLE DURING THE SUBMITTAL PERIOD. QUESTIONS OR CONCERNS MUST BE SUBMITTED TO THE PURCHASING MANAGER DURING THE PROPOSAL PERIOD AND SHALL BECOME PART OF YOUR PROPOSAL PACKAGE. OTHERWISE, THIS WILL BE CONSTRUED AS ACCEPTANCE BY THE PROPOSERS THAT THE INTENT OF THE SPECIFICATIONS IS CLEAR AND THAT COMPETITIVE PROPOSALS MAY BE OBTAINED AS SPECIFIED HEREIN. PROTESTS WITH REGARD TO THE SPECIFICATION DOCUMENTS SHALL NOT BE CONSIDERED AFTER PROPOSALS ARE OPENED.

RFP Packages are mailed only as a courtesy. The City of Hammond does not assume responsibility for proposers to receive RFP packages. Proposers should rely on advertisements in the local newspaper, City Website, and personally pick up RFP packages with specifications. Full information may be obtained, or questions answered, by contacting the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street or by calling Robert Morgan (985) 969-1636.

These specifications are written in a manner to invite open competition. Any manufacturer's names, trade names, brand names, or catalog numbers used in the specifications are for the purpose of describing and establishing general quality levels. Such references are not intended to be restrictive unless the RFP states that only the brand name will be considered for reasons of compatibility, etc.

The RFP number, Proposers name, address, Louisiana Contractor License number and RFP opening date shall be clearly printed or typed on the outside of the Proposal envelope, if mailed. Only one (1)

proposal shall be accepted from each proposer. Alternates shall not be accepted unless specifically requested in the RFP specifications. Proposals can be delivered or mailed.

The method of delivery of proposals is the responsibility of the proposer. All proposals shall be received by the Purchasing Department, Hammond City Hall Complex, 310 East Charles Street Hammond, Louisiana on or before the specified RFP opening date and time.
Normally, bid bonds will not be required on bids for materials, supplies, annual contracts or small labor contracts. If a bid bond is required, it will be specifically requested on the RFP form and included in the specifications.

Proposals shall be accepted only on the RFP forms furnished by the City of Hammond Purchasing Department. The City of Hammond shall only accept proposals from those proposers in whose name the RFP forms and or specifications were issued. Altered or incomplete proposals forms, or use of substitute forms or documents, shall render the proposal non-responsive and subject to rejection. The entire RFP package, including the specifications and copies of any addenda issued shall be submitted to the Purchasing Department as THE RFP.

All proposals must be typed or written in **BLUE/BLACK INK**. Any erasures, strikeover and/or changes to prices shall be initialed by the proposer. Failure to initial shall be cause for rejection of the proposal as non-responsive.

All proposals shall be signed. Failure to do so shall cause the proposal to be rejected as non-responsive.

Where one (1) or more vendor's exact products or typical workmanship is designated as the level of quality desired or equivalent, the Purchasing Agent/Building Director, after study and review, reserves the right to determine the acceptability of any equivalent offered. The decision, after study and review, shall be final and binding.

If proposing "equivalent" products, specifications, illustrative literature and any deviations shall be submitted with proposal. Representative samples shall be submitted upon request, if appropriate.

Liability:

The Contractor at all times during the term of the contract shall maintain and pay for property damage and public liability insurance with limits of at least ($1,000,000.00) one million dollars inclusive of bodily injury and property damage for any one occurrence.

Prior to commencing work under this contract the Contractor must file with the City a "certificate of insurance" meeting aforementioned requirements with the City of Hammond named insured by added endorsement. All premiums and expense incurred with this insurance shall be paid for by the Contractor.

The Contractor shall assume the defense of and indemnify and save harmless the City and its Officers and Agents from all claims relating to work.

The Contractor shall be responsible for any and all damages or claims for damages or injuries or accidents done or caused by him or his employees, or resulting from the execution of the work, or any operations, or caused by reason of existence or location or condition of facilities or of any materials, supplies, or machinery used thereon or therein, or neglect or omission on his part, or all of the several acts or things

required to be done by them, under and by these conditions, and covenants, and agrees to hold the City harmless and indemnified for all such damages and claims for damages.

The Contractor shall indemnify and save harmless the City from and against all losses and all claims, demands, payments, suits, actions, recoveries, all attorney fees, and judgments of every nature and description made, brought or recovered against the City by reason of any act or omission of the Contractor, his agents or employees, in the execution of his work.

Worker's Compensation:

The Contractor shall, at all times, pay or cause to be paid, any assessment or compensation required to be paid pursuant to the Worker's Compensation Act.
The Contractor shall, at the time of entering into a Contract with the City, provide satisfactory proof that all assessments or compensation payable to the Worker's Compensation Board have been paid and the City may, at any time during the performance or upon the completion of such Contract require a further declaration such Contract require a further declaration that such assessments or compensations have been paid.

Performance Bond:

The Contractor shall furnish and pay for a Performance Bond written by a company licensed to do business in Louisiana, and shall be countersigned by a person who is contracted with the surety company or bond issuer as an agent of the company or issuer, and who is licensed as an insurance agent in this state, and who is residing in this state, in an amount equal to the 100% contract amount.

Sealed RFP Form for Public RFP 19-12

As a qualified proposer for the project, I have carefully examined all of the RFP Documents and have examined the conditions and specifications of the work to be done, and I hereby propose to furnish all labor, materials, equipment, tools, etc., as called for by the RFP specifications.

I hereby acknowledge that I have received the following Addenda and they are reflected as part of this proposal,

List by date and Addendum number_____

I certify that I am duly licensed in Louisiana to perform the work. Louisiana License #_____

Work to be complete within _____ days after receipt of order.

Proposal Amount

Proposer agrees to Furnish All Material, Supplies and Services in complete accordance with all RFP 19-12 Specifications for the sum indicated:

(Amounts shall be shown in words and digits. In case of discrepancy, words shall govern.)

Total Price_____ **DOLLARS**

($_____)

_____

Signature of Proposer **Company Name**

The above signature on this Sealed Proposal certifies that proposer has carefully examined the instructions to proposers, terms and specifications applicable to and made a part of this Seal Proposal Package. Proposer further certifies that the prices shown are in full compliance with the conditions, terms and specifications of this Sealed RFP.

SECTION 01 10 00

SUMMARY OF WORK

PART 1 GENERAL

1.01 RELATED SECTIONS

A. Division 010000 – General Requirements
B. Division 061000 – Rough Carpentry
C. Division 075216 – Styrene-Butadiene-Styrene (SBS) Modified Bitumen Membrane Roofing
D. Division 076200 – Sheet Metal Flashing and Trim

1.02 PROJECT INFORMATION

A. Project Identification: Roof Replacement City of Hammond, Evidence Building

1. Project Location: 106 North Cherry Street, Hammond, La. 70401

B. Owner Representative: Robert Morgan , City of Hammond , 985-969-1636

1.03 DESCRIPTION

A. The Work includes the provision of all labor, material, equipment, management, coordination, supervision and administration to complete the Work as outlined.
B. The Contractor shall complete the following Work in a safe manner. The following outline of Work is noted by System. The Work includes, but is not limited to the following:
   1. Removal of existing roofing system down to the plywood deck. (Dispose of all roofing materials in a legal manner in an acceptable location by law.)
   2. Install new perimeter 2x6 wood nailers and add wood blocking at Parapet wall. New wood blocking to meet the requirements of Factory Mutual FM 1-49 requirements.
   3. Install one emergency scupper.
   4. Widen the existing scupper to allow more water to get off the roof.

NEW ROOFING SYSTEM DESCRIPTION

a. Preparation of existing plywood roof deck, and all flashing substrates.
b. Installation of new 2x6 nailers along the parapet wall.
c. No Insulation.
d. SBS-modified bitumen base ply (mechanically fastened).
e. SBS-modified bitumen cap sheet (heat-welded).
f. SBS-modified bitumen membrane 2 ply flashings.
g. Liquid-applied, reinforced flashings.
h. New premanufactured Coping metal, install emergency scupper and install new scupper and downspout.

1.04 PROJECT COORDINATION RESTRICTIONS:

1. Owner will be occupying the building during reroofing activities. Coordination with the owner will be required to not disturb activities. Safety must be considered and required during construction.
2. Maintain access to the building entrance/exit. Do not close off or prevent exit from the building doors or walkways without owners approval or authorities having jurisdiction.
3. Owner must be notified a minimum of 72 hours in advance of construction activities.

1.05 PERMITS

1. Contractor is responsible for applying and obtaining permits required to successfully complete this projects specific work. Submital to owner required.

1.06 BUILDING CODES

1. Compliance with Current International Building Code is required. Submit all compliance for the roofing system called out in specifications.

END OF SECTION

SECTION 06 10 00

ROUGH CARPENTRY

PART 1 GENERAL

1.01 SUMMARY

1. Section Includes:
   a. Rooftop equipment Bases and Supporting Curbs.
   b. Wood Nailers 2x6 around Perimeter
   c. Wood Sleepers and Furring

1.02 RELATED SECTIONS

A. Division 011000 – Summary of Work
B. Division 075216 – Styrene-Butadiene-Styrene (SBS) Modified Bitumen Membrane Roofing
C. Division 076200 – Sheet Metal Flashing and Trim

1.03 QUALITY ASSURANCE

A. Factory mark each piece of lumber to identify type, grade, agency providing inspection service. Producing mill, and other qualities as specified.
B. Only competent carpenters shall be employed and used to install materials.
C. Provide dressed lumber, S4S, unless otherwise indicated.
D. Maximum moisture content of Lumber, 19 % percent unless otherwise noted.
E. Remove and do not use any boards that are warped or show signs of defects.

1.04 DELIVERY AND STORAGE

A. Materials must be kept dry during delivery and storage
   1. Protect against weather and contact with wet or damp surfaces.
   2. Stack lumber and provide air circulation within stacks.

PART 2 PRODUCTS

2.01 MATERIALS

A. GENERAL WOOD PRODUCTS

1. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. Provide Lumber that complies with applicable rules of any ruling agency certified by ALSC board of review.

B. WOOD PRESERVATIVE TREATED LUMBER

1. Preservative Treatment by pressure process: AWPA U1; Sue Category UC3b for exterior construction not in contact with the ground
   a. Preservative Chemicals: acceptable to authorities having jurisdiction.

2.02 FASTENERS

1. Use only the type, size, material and finish recommended by applicable Federal specifications for screws, bolts, nuts, washers and anchoring devices. New wood nailers must meet requirements of Factory Mutual 1-49. Fastener type and finish/material must be acceptable for use with treated wood.

2.03 INSTALLATION

A. Provide new treated wood blocking as show in shop drawings.
B. Wood Blocking must match the height of the new roofing system’s cover board.
C. Set rough carpentry to required levels and lines with boards plumb, true to line, cut and fitted.
D. Where wood preservative-treated lumber is installed adjacent or in contact with metal decking, install continuous flexible flashing separator between wood and metal decking.
E. Securely attach rough carpentry work to substrate by fastening and anchoring as indicated. Comply with NES NER-272 for power driven fasteners.

END OF SECTION

SECTION 07 52 16

STYRENE-BUTADIENE-STYRENE (SBS) MODIFIED BITUMINOUS MEMBRANE ROOFING

PART 1 GENERAL

1.01 SUMMARY

A. Work shall include, but is not limited to, the following:
   1. Preparation of existing wood roof deck, and all flashing substrates.
   2. SBS-modified bitumen base ply (mechanically fastened).
   3. SBS-modified bitumen cap sheet (heat-welded).
   4. SBS-modified bitumen membrane flashings.
   5. Liquid-applied, reinforced flashings.
   6. Refer to related Sections for Roof Edge Systems
   7. All related materials and labor required to complete specified roofing necessary to receive specified manufacturer's warranty.

1.02 RELATED SECTIONS

A. Division 011000 – Summary of Work
B. Division 076200 – Sheet Metal Flashing and Trim

1.03 DEFINITIONS

A. ASTM D 1079-Definitions of Term Relating to Roofing and Waterproofing.
B. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary.

1.04 REFERENCES

A. AMERICAN SOCIETY OF CIVIL ENGINEERS - Reference Document ASCE 7, Minimum Design Loads for Buildings and Other Structures.
B. AMERICAN STANDARD OF TESTING METHODS (ASTM):
   1. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants
   2. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Damp proofing, and Waterproofing.
   3. ASTM D 1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
   4. ASTM D 3019 - Standard Specification for Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, Asbestos-Fibered, and Non-Asbestos-Fibered.

5. ASTM D 3746 - Standard Test Method for Impact Resistance of Bituminous Roofing System.
6. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
7. ASTM D 5147 - Standard Test Methods for Sampling and Testing Modified Bituminous Sheet Material.
8. ASTM D 5849 - Standard Test Method for Evaluating Resistance of Modified Bituminous Roofing Membrane to Cyclic Fatigue (Joint Displacement)
9. ASTM D 6164 - Standard Specification for Styrene Butadiene Styrene (SBS) Modified Bituminous Sheet Materials Using Polyester Reinforcements.
10. ASTM E 108 - Standard Test Methods for Fire Tests of Roof Coverings.

C. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)::
1. ANSI/SPRI/FM 4435/ES-1 Wind Design Standard for Edge System Used with Low Slope Roofing System.
2. ANSI/SPRI FX-1, Standard Field Test Procedure for Determining the Withdrawal Resistance of Roofing Fasteners.
3. ANSI/FM 4474- American National Standard for Evaluating the Simulated Wind Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures.

D. FACTORY MUTUAL (FM):
1. FM 4450 - Approval Standard - Class I Insulated Steel Roof Decks.
2. FM 4470 - Approval Standard - Class I Roof Covers.

E. INTERNATIONAL CODES COUNCIL (ICC):
1. 2015 International Building Code (IBC).

F. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA).
1. UL 790 Standard Test Methods for Fire Tests of Roof Coverings.
2. UL 1256 – Fire Test of Roof Deck Constructions.

1.05 ACTION SUBMITTALS

A. Provide stamped engineering from an Engineer liscensed in the State of Louisiana.
B. Product Data Sheets: Submit manufacturer’s product data sheets, installation instructions and/or general requirements for each component.
C. Safety Data Sheets: Submit manufacturer’s Safety Data Sheets (SDS) for each component.
D. Sample 30 Year No Dollar Limit Material and Labor Warranty from the manufacturer and contractor warranty.
E. Provide Shop Drawings for the project with roofing details.

1.06 INFORMATIONAL SUBMITTALS

A. Submit a letter from the roofing manufacturer indicating the contractor is an authorized applicator.

1.07 CLOSEOUT SUBMITTALS

A. Warranty: Provide the specified manufacturer's and contractor's warranties upon project completion. Warranty to begin at the substantial completion date for the project.

1.08 QUALITY ASSURANCE

A. MANUFACTURER QUALIFICATIONS:
   1. Manufacturer shall have 20 years of manufacturing experience.
   2. Manufacturer shall have trained technical service representatives employed by the manufacturer, independent of sales.
   3. Manufacturer shall provide site visit reports in a timely manner to the owner.

B. CONTRACTOR QUALIFICATIONS:
   1. Contractor shall be authorized by the manufacturer to install specified materials prior to the bidding period through satisfactory project completion.
   2. Applicators shall have been in business a minimum of 5 Years.
   3. Applicators shall have completed projects of similar scope using same or similar materials specified.
   4. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roofing from beginning through satisfactory project completion.
   5. Applicators shall be skilled in the application methods for all materials required for this project.
   6. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
   7. Contractor shall maintain a copy of all submittal documents, on-site, available at all times for reference.

C. MANUFACTURER'S REQUIRED INSPECTIONS
   1. Manufacturer to provide 3 inspections per week. Must include photo documentation of the inspection.

D. CONTRACTORS REQUIRED PHOTO DOCUMENTATION
      a. Photos of the installation required to be provided to owner when project is completed. (Showing insulation and cover staggering, Fastening patterns installed, base ply/flashing ply installed, and cap sheet installation)

E. CONTRACTORS RESPONSIBILTY

1. Contractor is responsible for keeping the interior of the building dry throughtout the roof replacement process. Contractor will pay for any damages to the interior caused from leaks during the installation of the new roof system.

1.09 DELIVERY, STORAGE AND HANDLING

A. Refer to each product data sheet or other published literature for specific requirements.

B. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any other specification or reference accepted as standard.

C. Protect and store materials in a dry, well-vented, and weatherproof location. Only materials to be used the same day shall be removed from this location. During cold weather, store materials in a heated location, removed only as needed for immediate use.

D. When materials are to be stored outdoors, store away from standing water, stacked on raised pallets or dunnage, at least 4 in or more above ground level. Carefully cover storage with “breathable” tarpaulins to protect materials from precipitation and to prevent exposure to condensation.

E. Carefully store roof membrane materials delivered in rolls on-end with selvage edges up. Store and protect roll storage to prevent damage.

F. Properly dispose of all product wrappers, pallets, cardboard tubes, scrap, waste, and debris. All damaged materials shall be removed from job site and replaced with new, suitable materials.

1.10 SITE CONDITIONS

A. SAFETY:

1. The contractor shall be responsible for complying with all project-related safety and environmental requirements.

2. Heat-welding shall include heating the specified membrane ply using propane roof torches or electric hot-air welding equipment. The contractor shall determine when and where conditions are appropriate to utilize heat-welding equipment. When conditions are determined by the contractor to be unsafe to proceed, equivalent SBS-modified bitumen materials and methods shall be utilized to accommodate requirements and conditions.

3. Refer to NRCA CERTA recommendations, local codes and building owner’s requirements for hot work operations.

4. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified liquid-applied, or semi-solid roofing materials. When conditions are determined by the

contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions.

5. The contractor shall review project conditions and determine when and where conditions are appropriate to utilize the specified hot asphalt-applied materials. When conditions are determined by the contractor to be unsafe or undesirable to proceed, measures shall be taken to prevent or eliminate the unsafe or undesirable exposures and conditions, or equivalent approved materials and methods shall be utilized to accommodate requirements and conditions. .
6. The contractor shall refer to product Safety Data Sheets (SDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.

B. ENVIRONMENTAL CONDITIONS:

1. Monitor substrate temperature and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
2. Precipitation and dew point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the application of roofing materials. Ensure all roofing materials and substrates remain above the dew point temperature as required to prevent condensation and maintain dry conditions.
3. Heat-Welding Application: Take all necessary precautions and measures to monitor conditions to ensure all environmental conditions are safe to use roof torches and hot-air welding equipment. Combustibles, flammable liquids and solvent vapors that represent a hazard shall be eliminated. Flammable primers and cleaners shall be fully dry before proceeding with heat-welding operations. Prevent or protect wood, paper, plastics and other such combustible materials from direct exposure to open flames from roof torches. Refer to NRCA CERTA recommendations.

1.11 PERFORMANCE REQUIREMENTS

A. WIND UPLIFT RESISTANCE:

1. Performance testing shall be in accordance with ANSI/FM 4474, FM 4450, FM 4470, UL 580 or UL 1897.

a. Roof System Design Pressures: Calculated in accordance with ASCE 7-10, for the specified roof system attachment requirements.
b. Design Pressures:
i. Field of Roof (Zone 1): - 37.1 psf.
ii. Perimeter of Roof (Zone 2): - 62.2 psf.
iii. Corners of Roof (Zone 3): - 93.5 psf.

2. Approval Rating 1-165

B. FIRE CLASSIFICATION:
1. Performance testing shall be in accordance with UL 790, ASTM E108, FM 4450 or FM 4470 to meet the 1/8:12 roof slope requirement.
a. Meets requirements of UL Class A or FM Class A.
2. Performance testing shall be in accordance with UL 1256, FM 4450 or FM 4470 to meet the specified requirements for interior flame spread and fuel contribution.
a. Meets requirements of UL 1256, or FM Class 1.

C. ROOF SLOPE:
1. Finished roof slope for SBS modified bitumen surfaces shall be 1/8 inch per foot minimum for roof drainage.

D. IMPACT RESISTANCE:
1. Performance testing for impact resistance shall be in accordance with FM 4450, FM 4470, ASTM D3746 or CGSB 37-GP 56M to meet the specified impact resistance requirements.
a. Meets requirements for FM-SH (Severe Hail), ASTM D3746, or CGSB 37-GP 56M.

1.12 WARRANTY

A. Manufacturer's 30 Year TOTAL SYSTEM “No Dollar Limit” (NDL) Warranty. The manufacturer shall provide the owner with the manufacturer’s warranty providing labor and materials for 30 years from the date the warranty is issued. Total System includes insulation, cover board, membrane, flashing membranes, Liquid Reinforced flashings, Pre-manufactured Edge metals.

B. Warranty Rider for wind speed shall be provided meeting 90 mph and the jurisdiction of the warranty shall be in Louisiana.

C. Manufacturer to include 1 inspection per year for the 30 years of the warranty at no additional cost to the owner.

D. The contractor shall guarantee the workmanship and shall provide the owner with the contractor’s warranty covering workmanship for a period of 2 years from completion date.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. SINGLE SOURCE MANUFACTURER: All SBS modified bitumen membrane and flashing sheets shall be manufactured by a single supplier with 20 years or more manufacturing history in the US.
   1. Comply with the Manufacturer's requirements as necessary to provide the specified warranty.

B. PRODUCT QUALITY ASSURANCE PROGRAM: Manufacturer shall be an ISO 9001 registered company. A 'Quality Compliance Certificate (QCC) for reporting/confirming the tested values of the SBS-Modified Bitumen Membrane Materials will be supplied upon request.

C. ACCEPTABLE MANUFACTURER'S:
   1. Soprema
   2. Tremco
   3. Garland
   4. Johns Manville

2.02 ROOFING SYSTEM

2.03 SBS-MODIFIED BITUMEN MEMBRANES

A. BASE PLY:
   1. BASE PLY, MECHANICALLY FASTENED HEAT WELDED LAPS:

      a. SOPRAFIX BASE 614: SBS-modified bitumen membrane ply with plastic burn-off film on the top and bottom surfaces. Non-woven polyester reinforcement. Mechanically fastened in 4 in (minimum) heat-welded side-laps. Base ply for heat-welded cap sheet applications. Meets or exceeds ASTM D6164, Type II, Grade S, per ASTM D5147 test methods:
         i. Thickness: 157 mils (4.0 mm)

      b. Johns Manville's Dynafast 250 HW

B. FLASHING BASE PLY
   1. FLASHING BASE PLY, HEAT-WELDED:
      a. SOPRALENE FLAM 180: SBS-modified bitumen membrane with plastic burn-off film on top and bottom surfaces. Non-woven

polyester reinforcement. Meets or exceeds ASTM D6164, Type I, Grade S, per ASTM D5147 test methods:

i. Thickness: 118 mils (3.0 mm)

b. Johns Manville's Dynaweld 180 S

C. CAP SHEET:

1. CAP SHEET, HEAT-WELDED:

a. SOPRALENE FLAM 250 FR GR: SBS-modified bitumen membrane Cap Sheet with a burn-off film bottom surface and mineral granule top surface. Non-woven polyester reinforced. UL Class A for specified roof slope requirements. Meets or exceeds ASTM D6164, Type II, Grade G, per ASTM D5147 test methods:

i. Thickness: 157 mils (4.0 mm)

D. FLASHING CAP SHEET

1. FLASHING CAP SHEET, HEAT-WELDED:

a. SOPRALENE FLAM 250 FR GR: SBS-modified bitumen membrane Cap Sheet with a burn-off film bottom surface and mineral granule top surface. Non-woven polyester reinforced. UL Class A for specified roof slope requirements. Meets or exceeds ASTM D6164, Type II, Grade G

i. Thickness: 157 mils (4.0 mm)

b. Johns Manville's Dynaweld Cap 250 FR

2.04 ACCESSORIES

A. ASPHALT PRIMER:

1. ELASTOCOL 500 Primer: Asphalt cut-back primer. Primer for the preparation of membrane substrates for asphalt, heat-welded, hot asphalt
   a. Meets or exceeds ASTM D41
   b. VOC content: 350 g/L or less.
2. Johns Manville's Asphalt Primer

B. GENERAL PURPOSE ROOFING CEMENT AND MASTIC

1. SOPRAMASTIC: SBS Mastic. Fiber-reinforced, roofing cement, packaged in 5 gallon pails. General purpose roofing cement for low-slope roofing used for sealing membrane T-joints and membrane edges along terminations, transitions and at roof penetrations.
   a. VOC Content: 190 g/L or less.
   b. Meets or exceeds ASTM D4586, Type I, Class II.

2. Johns Manville's Utility Cement

C. GENERAL PURPOSE SEALANT
1. SOPRAMASTIC SP1: General purpose, paintable, gun-grade, elastomeric, polyether moisture curing sealant for sealing SBS membrane terminations, Kynar 500 PVDF, horizontal and vertical construction joints.
   a. VOC Content: 20 g/L or less.
   b. Meets or exceeds ASTM C920, Type S, Grade NS, Class 50.
   c. Standard color.

D. MEMBRANE FASTENERS AND PLATES
1. Fastener #15 HD Fastener: Membrane base ply fastener.
2. 2.4" Soprafix SEAM PLATE: Membrane base ply seam plate.

E. LIQUID-APPLIED REINFORCED FLASHING SYSTEM:
1. ALSAN RS 230 Flash, Catalyzed polymethyl methacrylate (PMMA) resin with polyester reinforcing fleece fabric fully embedded into the resin to form fully-reinforced waterproofing membrane flashings.
   a. VOC Content: No VOC content.
   b. ALSAN RS 230 FLASH Polymethyl methacrylate (PMMA0 liquid resin.
   c. ALSAN RS CATALYST POWDER: Reactive agent added to the PMMA liquid resin to induce curing.
   d. ALSAN RS FLEECE: Polyester reinforcement fabric.
   e. Color: grey
2. Johns Manville's Seamfree PMMA Primer, Seamfree PMMA Flashing Resin Grey and Reinforcement.

F. MINERAL GRANULES:
1. Granules: No. 11, mineral coated colored granules, color to match cap sheet, supplied by membrane cap sheet manufacturer.

   a.

G. WALKWAY PROTECTION:
1. SOPRAWALK: Polyester reinforced SBS modified bitumen walkway protection with a granule surface and sanded underside.
   a. Thickness: 200 mils (5.0 mm)
   b. Width: 39.4 in (1 m)
   c. Roll Length: 26 ft (7.9 m)
   d. Granule Surfacing:
      i. Color: grey
2. Johns Manville's Dynatred

PART 3 EXECUTION

3.01 EXAMINATION

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

3.02 PREPARATION

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

3.03 PRIMER APPLICATION

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

Adjust primer and membrane application methods as necessary to achieve the desired results.

3.04 HEAT WELDING

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

B. Single or multi-nozzle, hand-held propane roof torches shall be used to install heat-welded membrane and flashing plies. Multi-nozzle carts (dragon wagons) may also be utilized to install membrane plies. Seven (7) nozzle carts are recommended for more uniform heat application in lieu of five (5) nozzle carts.

3.05 SBS MASTIC AND GENERAL PURPOSE ROOFING CEMENT APPLICATION

A. Apply general purpose SBS mastic and roofing cement to seal drain leads, metal flanges, seal along membrane edge at terminations, and where specified and required in detail drawings.

B. Do not use general purpose SBS mastics and roofing cement where flashing cement applications are required. Do not use SBS mastics and roofing cement beneath SBS-modified bitumen membrane and flashing plies.

C. Apply general purpose SBS mastic and elastic roofing cement using caulk gun, or notched trowel at 2.0 – 2.5 gallons per square on each surface. Application rates vary based on substrate porosity and roughness. Tool-in as necessary to seal laps

D. Embed matching granules into wet cement where exposed.

3.06 MECHANICALLY FASTENED MEMBRANE, BASE PLY APPLICATION

A. Refer to agency approvals for fastening and other system requirements.

B. Mechanically fastened membrane base ply installation:

1. Follow product data sheets and published detail requirements for additional installation instructions.
2. Ensure environmental conditions are satisfactory, and will remain satisfactory, during the application.
3. Unroll the sheet onto the roof surface and allow time to relax before fastening as necessary to prevent wrinkling once fastened.

4. Starting at the low point of the roof, lay out the membrane to ensure the plies are installed perpendicular to the roof slope, shingled to prevent back-water laps.
5. Remove all wrinkles from the sheet.
6. Ensure all roofing and flashing substrates are prepared and acceptable to receive the mechanically fastened membrane.
7. Ensure the specified side-lap and end-lap widths are maintained. End-laps should be staggered 3 ft. apart.
8. Unroll the first roll onto the roof substrate, re-roll the adjacent roll.
9. Starting at one end of the sheet, install the mechanical fasteners along the center of the side-lap. Ensure spacing between fasteners in the laps meets specified wind uplift resistance requirements.
10. Do not over-drive fasteners. Install fasteners as necessary to firmly set the fastener and seam plate tight against the sheet. Prevent wrinkles from forming in the sheet as the fasteners are installed.
11. At the end of the sheet where it terminates at roof edges, walls and curbs, fasten the end-laps to the deck 12 in on-centers or less.
12. When the side-lap is fastened, un-roll the adjacent roll over the fasteners. Maintain the required side-lap width.
13. Ensure the full side-lap width, and all 6 in end-laps, are sealed water-tight.
14. For heat-welded side-laps using a torch, ensure the substrate is satisfactory for torch application. Apply heat within the side-lap while unrolling the membrane. Apply heat until the bitumen melts to ensure full adhesion. Ensure a continuous weld is produced across the full side-lap width.
15. For hot-air welded side-laps, insert the hot-air welder shoe within the lap, and adjust the hot-air welder as required to produce a continuous weld across the full lap width.
16. While heat-welding the membrane side-laps, ensure approximately 1/8 to ¼ in bleed-out is achieved at laps.
17. Adjust the application of heat to the underside of the membrane and to substrate as required for varying substrates and environmental conditions.
18. At end-laps, cut a 45 degree dog-ear away from the selvage edge, or otherwise ensure the membrane is fully heat-welded watertight at all end-laps and T-joints.
19. Each day, physically inspect all side and end-laps, and ensure the membrane is sealed watertight. Where necessary, use a torch or hot-air welder and a clean trowel to ensure all laps are fully sealed.
20. Offset cap sheet side and end-laps away from the base ply laps so that cap sheet laps are not located within 18 in of adjacent ply laps.
21. Inspect the mechanically fastened base ply each day to ensure the plies are water tight. Repair all un-adhered voids, wrinkles, open laps and all

other deficiencies before installing the inter-ply and/or cap sheet over completed fastened base ply sheet.

3.07 FLASHING APPLICATION, HEAT WELDED

A. Refer to SBS manufacturer's membrane application instructions, flashing detail drawings, and follow product data sheets and other published requirements for installation instructions. Refer to manufacturer's membrane flashing detail drawings.

B. The contractor is responsible for project safety. Refer to NRCA CERTA recommendations and building owner requirements for hot work operations.

C. Where required to seal substrates for fire safety, install specified adhered, self-adhered or fastened backer ply to the substrate. Ensure backer-ply covers and seals all substrates requiring protection from exposure to torch operations.

D. Ensure all flashing substrates that require primer are primed, and the primer is fully dry.

E. Unroll the flashing base ply and flashing cap sheet onto the roof surface to their complete length. Once relaxed, cut the membrane to the required working lengths to accommodate the flashing height, cants and the required over-lap onto the horizontal roof surface.

F. Cut the flashing membrane from the end of the roll in order to always install flashings to the side-lap line or selvage edge line.

G. Lay out the flashing base ply and flashing Cap Sheet to offset all side-laps a minimum of 12 inches so that side-laps are never aligned on top of the ply beneath. Shingle the flashing ply laps to prevent back-water laps.

H. Install non-combustible cant strips at transitions where required.

I. Ensure correct membrane and flashing sequencing to achieve redundant, multi-ply, watertight flashings.

J. ROOF MEMBRANE BASE PLY:

1. Before installing flashings, install the roof membrane base ply in the horizontal field of the roof, and extend the base ply up to the top of the cant, where present, at roof terminations, transitions and penetrations.

K. FLASHING BASE PLY:

1. Install the flashing base ply starting at the top leading edge of the vertical flashing substrate, down over the cant and onto the horizontal surface of the roof a minimum of 3 inches beyond the of base of the cant onto the roof. Cut the base ply at corners to form 3 inch side-laps. Install gussets to seal corner transitions.
2. Install one or more flashing base ply(s) at all roof terminations, transitions and penetrations.

L. ROOF MEMBRANE CAP SHEET:

1. Install the roof membrane Cap Sheet in the horizontal field of the roof over the flashing base ply up to the roof termination, transition or penetration, and up to the top of cants where present.

2. Using a chalk line, mark a line on the membrane cap sheet a minimum of 4 inches from the base of the cant onto the roof. Where granules are present, embed the cap sheet granules using a torch and trowel or granule embedder to prepare the surface to receive the flashing cap sheet.

M. FLASHING CAP SHEET:
1. Install the flashing Cap Sheet starting at the top leading edge on the vertical substrate, over the cant and onto the roof surface 4 inches from the base of the cant onto the roof.
2. Install the flashing Cap Sheet to ensure a minimum two (2) ply flashing system is present at all roof terminations, transitions and penetrations.

N. During the membrane and flashing installation, ensure all plies are completely adhered into place, with no bridging, voids or openings. Ensure bitumen or flashing cement bleed-out is present at all flashing side and end-laps.

O. Use a damp sponge float or damp rag to press-in the heat-welded flashing plies during installation.

P. Where sufficient bitumen bleed-out is not present, and for all self-adhered plies, apply specified gun-grade sealant or mastic to seal the membrane termination along all roof terminations, transitions and penetrations. These include gravel stop edge metal, pipe penetrations, along the top edge of curb and wall flashing, and all other flashing terminations where necessary to seal flashings watertight.

Q. Fasten the top leading edge of the flashing 8 in on-centers with appropriate 1 in metal cap nails or other specified fasteners and plates. Seal fastener penetrations watertight using specified sealant or mastic.

R. Manufacturer’s liquid-applied, reinforced flashing systems shall be installed where conditions are not favorable to install SBS modified bitumen flashings. Such conditions include irregular shapes penetrating roof surfaces (I-beams), confined areas and low flashing heights. Manufacturer’s liquid-applied, reinforced flashing systems are recommended in lieu of pitch pans and lead pipe flashings.

3.08 LIQUID-APPLIED, PMMA MEMBRANE AND FLASHING SYSTEM APPLICATION ALSAN RS

A. Refer to manufacturer’s details drawings, product data sheets and published general requirements for application rates and specific installation instructions.

B. Pre-cut polyester reinforcing fleece to conform to roof terminations, transitions and penetrations being flashed. Ensure a minimum 2 in overlap of fleece at side and end-laps. Ensure the completed liquid-applied flashing membrane is fully reinforced.

C. Apply the base coat of catalyzed resin onto the substrate using a brush or roller, working the material into the surface for complete coverage and full adhesion.

D. Immediately apply the reinforcing into the wet base coat of resin. Using a brush or roller, work the reinforcing fabric into the wet resin while applying the second coat of catalyzed resin to completely encapsulate the fleece.

E. Refer to reinforced, polymethyl-methacrylate (PMMAspecification section and application instructions, details drawings, product data sheets and published general requirements for installation instructions.

3.09 WALKWAYS

A. At areas outlined on the drawings, and around the perimeter of all rooftop equipment and at all door and stair landings, install walkway protection.
B. Cut walkway from end of rolls. No piece shall be less than 24 in.
C. Spot adhere walkway protection with SOPREMA SOPRAMASTIC SP1.
D. Provide a 2 in space between sheets for drainage.

3.10 CLEAN-UP

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

END OF SECTION

SECTION 07 62 00

SHEET METAL FLASHING AND TRIM

PART 1 GENERAL

1.01 SUMMARY

A. Work shall include, but is not limited to, the following:
   1. Preparation of existing substrates and new wood nailers.
   2. Sheet metal flashings and sheet metal roof edge system.
   3. All related materials and labor required to complete specified roofing necessary to receive specified manufacturer's warranty.

1.02 RELATED SECTIONS

A. Division 011000 – Summary of Work
B. Division 061000 – Rough Carpentry
C. Division 075216 – Styrene-Butadiene-Styrene (SBS) Modified Bitumen Membrane Roofing

1.03 DEFINITIONS

A. ASTM D 1079-Definitions of Term Relating to Roofing, Waterproofing and Waterproofing.
B. The National Roofing Contractors Association (NRCA) Roofing and Waterproofing Manual, Fifth Edition Glossary.

1.04 REFERENCES

A. AMERICAN SOCIETY OF CIVIL ENGINEERS - Reference Document ASCE 7, Minimum Design Loads for Buildings and Other Structures.
B. AMERICAN STANDARD OF TESTING METHODS (ASTM):
   1. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants
   2. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing, Damp proofing, and Waterproofing.
   3. ASTM D 4586 - Standard Specification for Asphalt Roof Cement, Asbestos-Free.
C. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)::
   1. ANSI/SPRI/FM 4435/ES-1 Wind Design Standard for Edge System Used with Low Slope Roofing System.
   2. ANSI/SPRI FX-1, Standard Field Test Procedure for Determining the Withdrawal Resistance of Roofing Fasteners.
D. INTERNATIONAL CODES COUNCIL (ICC):

1. 2015 International Building Code (IBC).

E. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA) Roofing and Waterproofing Manual.

F. SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION INC. (SMACNA) Architectural Sheet Metal Manual.

1.05 ACTION SUBMITTALS

A. Product Data Sheets: Submit manufacturer's product data sheets, installation instructions and/or general requirements for each component.

B. Safety Data Sheets: Submit manufacturer's Safety Data Sheets (SDS) for each component.

C. Sample/Specimen Warranty from the manufacturer and contractor.

D. Shop Drawings: Provide roof plan and applicable roof system detail drawings.

1.06 INFORMATIONAL SUBMITTALS

A. Contractor Certification: Submit written certification from roofing system manufacturer certifying that the applicator is authorized by the manufacturer to install the specified materials and system.

1.07 CLOSEOUT SUBMITTALS

A. Warranty: Provide manufacturer's and contractor's warranties upon substantial completion of the roofing system.

1.08 QUALITY ASSURANCE

A. MANUFACTURER QUALIFICATIONS:

1. Manufacture shall have 20 years of experience manufacturing roofing materials.
2. Trained Technical Field Representatives, employed by the manufacturer, independent of sales.
3. Provide reports in a timely manner of all site visit reports.
4. Provide specified warranty upon satisfactory project completion.

B. CONTRACTOR QUALIFICATIONS:

1. Contractor shall be authorized by the manufacturer to install specified materials prior to the bidding period through satisfactory project completion.
2. Applicators shall have completed projects of similar scope using same materials as specified herein.
3. Contractor shall provide full time, on-site superintendent or foreman experienced with the specified roof system through satisfactory project completion.

4. Applicators shall be skilled in the application methods for all materials.
5. Contractor shall maintain a daily record, on-site, documenting material installation and related project conditions.
6. Contractor shall maintain a copy of all submittal documents, on-site, available at all times for reference.

1.09 DELIVERY, STORAGE AND HANDLING

A. Refer to each product data sheet or other published literature for specific requirements.
B. Deliver materials and store them in their unopened, original packaging, bearing the manufacturer's name, related standards, and any other specification or reference accepted as standard.
C. Protect and store materials in a dry, well-vented, and weatherproof location. Only materials to be used the same day shall be removed from this location.
D. When materials are to be stored outdoors, store away from standing water, stacked on raised pallets or dunnage, at least 4 in or more above ground level. Carefully cover storage with “breathable” tarpaulins to protect materials from precipitation and to prevent exposure to condensation.
E. Properly dispose of all product wrappers, pallets, cardboard tubes, scrap, waste, and debris. All damaged materials shall be removed from job site and replaced with new, suitable materials.

1.10 SITE CONDITIONS

A. SAFETY:
   1. The contractor shall be responsible for complying with all project-related safety and environmental requirements.
   2. The contractor shall refer to product Material Safety Data Sheets (MDS) for health, safety, and environment related hazards, and take all necessary measures and precautions to comply with exposure requirements.
B. ENVIRONMENTAL CONDITIONS:
   1. Monitor substrate temperature and material temperature, as well as all environmental conditions such as ambient temperature, moisture, sun, cloud cover, wind, humidity, and shade. Ensure conditions are satisfactory to begin work and ensure conditions remain satisfactory during the installation of specified materials. Materials and methods shall be adjusted as necessary to accommodate varying project conditions. Materials shall not be installed when conditions are unacceptable to achieve the specified results.
   2. Precipitation and dew point: Monitor weather to ensure the project environment is dry before, and will remain dry, during the application of roofing materials. Ensure all roofing materials and substrates remain

above the dew point temperature as required to prevent condensation and maintain dry conditions.

1.11 PERFORMANCE REQUIREMENTS

A. ROOF EDGE SYSTEM:
1. Performance testing shall be in accordance with ANSI/SPRI/FM 4435/ES-1 Wind Design Standard for Edges Systems Used with Low Slope Roofing Systems.
a. Wind Load Determination:
i. Perimeter Region:
a) Horizontal: -40.1 psf
b) Vertical: -62.2 psf
ii. Corners Region:
a) Horizontal: -49.6 psf
b) Vertical: -93.5 psf

PART 2 PRODUCTS

2.01 MANUFACTURER

A. PRODUCT QUALITY ASSURANCE PROGRAM: Manufacturer shall be an ISO 9001 registered company. A 'Quality Compliance Certificate (QCC) for reporting/confirming the tested values of the SBS-Modified Bitumen Membrane Materials will be supplied upon request.
B. ACCEPTABLE MANUFACTURER:
1. SOPREMA
2. Garland
3. Tremco
4. Or prior approved equal
C. Contractor shall furnish all sheet metal flashings, counter flashings, roof edge system, and all other related sheet metal flashings, fasteners and sealants necessary to flash and counter flash the specified roofing system at all roof terminations, transitions and penetrations.
D. Sheet metal flashing materials and fasteners shall be compatible with adjacent materials, to accommodate all project related exposures.
E. Pre-Finished Sheet Metal Flashing Material: Galvanized.

2.02 SHEET METAL FLASHING

A. SHEET METAL, ROOF EDGE SYSTEM:
1. Roof edge system shall include all components and associated fasteners necessary to comply with specified performance requirements.

Contractor shall provide all other related fasteners and sealants necessary for the roof edge system.

2. Basis of Design Soprema's Sopra Tite Coping Tapered Version: Engineered coping system with pre-punched fastening holes. This coping has concealed splice plates with dual non-curing isocrylbutyl sealant strips.
   a. Material: 22 gauge Galvanized Steel
   b. Gauge/Thickness: 22 gauge
   c. Finish: Kynar 500 Color selected from manufacturer's color chart.
   d. Tested per ANSI/SPRI ES-1 to meet or exceed design pressures at roof edge.
   e. FM Approved.

3. REGLET AND FLASHING: Engineered, formed metal counterflashing metal.
   a. Material: Stainless Steel
   b. Gauge/Thickness: 24 gauge

4. Metal Era's Seal Tite Thru Wall Scupper with Collector Box
   a. Material: 050 Aluminum with Kynar Finish
   b. Gauge: 050 Aluminum
   c. Finish: Kynar 500 Kynar 500 Color selected from manufacturer's color chart.
   d. Approved Manufacturer:
      1. MM Systems
      2. Hickman OMG

5. Downspouts (5"x5")
   a. Material/Gauge: 050 Aluminum
   b. Finish: Kynar 500 Kynar 500 Color selected from manufacturer's color chart.

B. FASTENERS:
   1. #9 Stainless Steel Screw w/ Neoprene Washer
      a. Length as required.
   2. #12 Galvanized Self-Drilling Screw:
      a. Length as required.
   3. Stainless Steel Ring Shank Nails:
      a. Length as required.
   4. 3/16" Tapcon Screws:
      a. Length as required.
   5. Flat Head Screw w/ Extruded Washer:
      a. Length as required.

C. PRIMERS:

1. Asphalt cut-back primer. Primer for the preparation of substrates for hot asphalt, heat-welded and solvent-based, cold adhesive-applied and cement applications.
   a. Meets or exceeds ASTM D41
   b. VOC content: 350 g/L or less.

D. GENERAL PURPOSE ROOFING CEMENT AND MASTIC

1. SBS Mastic. Fiber-reinforced, roofing cement, packaged in 5 gallon pails. General purpose roofing cement for low-slope roofing used for sealing sheet metal flashings to SBS membranes.
   a. VOC Content: 190 g/L or less.
   b. Meets or exceeds ASTM D4586, Type I, Class II.
2. SBS Mastic. Fiber-reinforced, roofing cement, packaged in 10.4 oz caulk tubes. General purpose roofing cement for low-slope roofing used for sealing sheet metal flashings to SBS membranes.
   a. VOC Content: 190 g/L or less.
   b. Meets or exceeds ASTM D4586, Type I, Class II.

E. GENERAL PURPOSE SEALANT

1. General purpose, paintable, gun-grade, elastomeric, polyether moisture curing sealant for sealing SBS and PVC membrane terminations, Kynar 500 PVDF, horizontal and vertical construction joints.
   a. VOC Content: 20 g/L or less.
   b. Meets or exceeds ASTM C920, Type S, Grade NS, Class 50.
   c. Standard color,
2. Butyl Sealant: Butyl rubber and polyisobutylene water resistant sealant for concealed sheet metal joints.
3. Butyl Sealant Tape: Butyl rubber and polyisobutylene water resistant sealant tape for concealed sheet metal joints.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examination includes visual observations, qualitative analysis, and quantitative testing measures as necessary to ensure conditions remain satisfactory throughout the project.

B. The contractor shall examine all roofing substrates including, but not limited to: insulation materials, roof decks, walls, curbs, rooftop equipment, fixtures, and wood blocking.

C. The applicator shall not begin installation until conditions have been properly examined and determined to be clean, dry and, otherwise satisfactory to receive specified roofing materials.

D. During the application of specified materials, the applicator shall continue to examine all project conditions to ensure conditions remain satisfactory to complete the specified roofing system.

3.02 PREPARATION

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

3.03 PRIMER APPLICATION (SBS Modified Bitumen)

A. Examine all substrates, and conduct adhesion peel tests as necessary, to ensure satisfactory adhesion is achieved when adhering membrane to sheet metal flanges.
B. Apply the appropriate specified primer to dry, compatible substrates as required to enhance adhesion of new specified roofing materials.
C. Apply primer using brush or roller at the rate published on the product data sheet.
D. Asphalt Primer: Apply primer to sheet metal flanges before applying asphalt, cold adhesive-applied and heat-welded SBS modified bitumen flashing plies.
E. Self-Adhesive Membrane Primer: Apply to sheet metal flanges to enhance adhesion of self-adhesive SBS modified bitumen flashing plies. Ensure self-adhered membrane primer is tacky to-the-touch, but not wet. Primer should not transfer to the finger tips when touched.
F. Project conditions vary throughout the day. Monitor changing conditions, monitor the drying time of primers, and monitor the adhesion of the membrane plies. Adjust primer and membrane application methods as necessary to achieve the desired results.

3.04 SBS MASTIC AND GENERAL PURPOSE ROOFING CEMENT APPLICATION

A. Apply general purpose SBS mastic and roofing cement to seal drain leads, metal flanges and where specified and required in detail drawings.
B. Apply general purpose SBS mastic and elastic roofing cement using caulk gun, or notched trowel at 2.0 – 2.5 gallons per square on each surface. Application rates vary based on substrate porosity and roughness. Tool-in as necessary to seal SBS membrane terminations.

3.05 SHEET METAL FLASHING APPLICATION

A. Refer to manufacturer's sheet metal flashing and roof edge system detail drawings, and follow product data sheets and published general requirements for installation instructions.

B. General Requirements:

1. Follow the most recent edition of the SMACNA Architectural Sheet Metal Manual for fabrication and installation requirements.
2. Follow the most recent edition of the NRCA Roofing and Waterproofing Manual for fabrication and installation requirements for specified roofing and flashing.

C. Isolate all metal components from ACQ treated wood or other incompatibles material using specified membrane flashing materials.

D. Appliances such as lightning rods, signs, or antennae shall be separate from the roof edge system.

3.06 GENERAL PURPOSE SEALANT

A. Refer to published installation instructions. Ensure sheet metal and adjacent substrates are clean and free of oils, dust and other incompatible materials.

B. Apply SOPREMA SOPRAMASTIC SP1 general purpose, paintable, gun-grade, elastomeric, polyether moisture curing sealant to seal SBS and PVC membrane terminations, exposed fasteners, Kynar 500 PVDF, and other compatible sheet metal horizontal and vertical joints, laps and transitions.

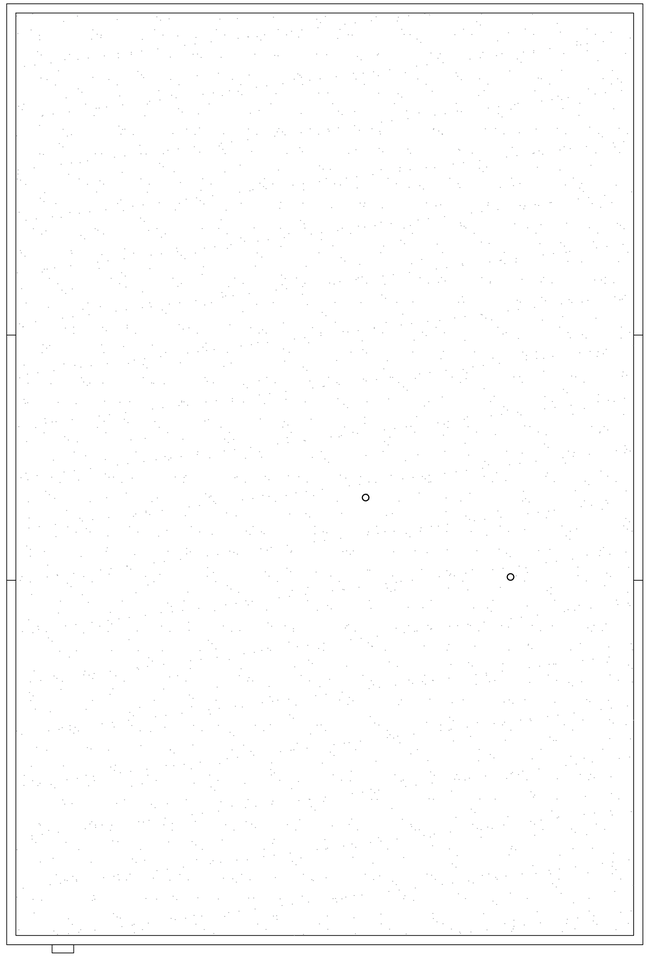
3.07 CLEAN-UP

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

END OF SECTION

CITY OF HAMMOND POLICE DEPT EVIDENCE BLDG

GENERAL NOTES
1. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS, QUANTITIES, AND EXISTING CONDITIONS.
2. ALL FASTENERS SHALL MEET OR EXCEED "PULLOUT" REQUIREMENTS.
3. APPROVED SEALANTS ARE TO BE USED IN APPROPRIATE LOCATIONS AS REQUIRED TO ENSURE WATERPROOFING PERFORMANCE.
4. ALL DIMENSIONS/ANGLES SHALL BE VERIFIED IN THE FIELD BY CONTRACTOR PRIOR TO FABRICATION OR INSTALLATION OF ANY MATERIAL.
5. ALL NEW WOOD BLOCKING TO BE PRESSURE TREATED.
6. ALL FASTENERS DRILLED THROUGH ALUMINUM TRIM MUST BE STAINLESS STEEL.



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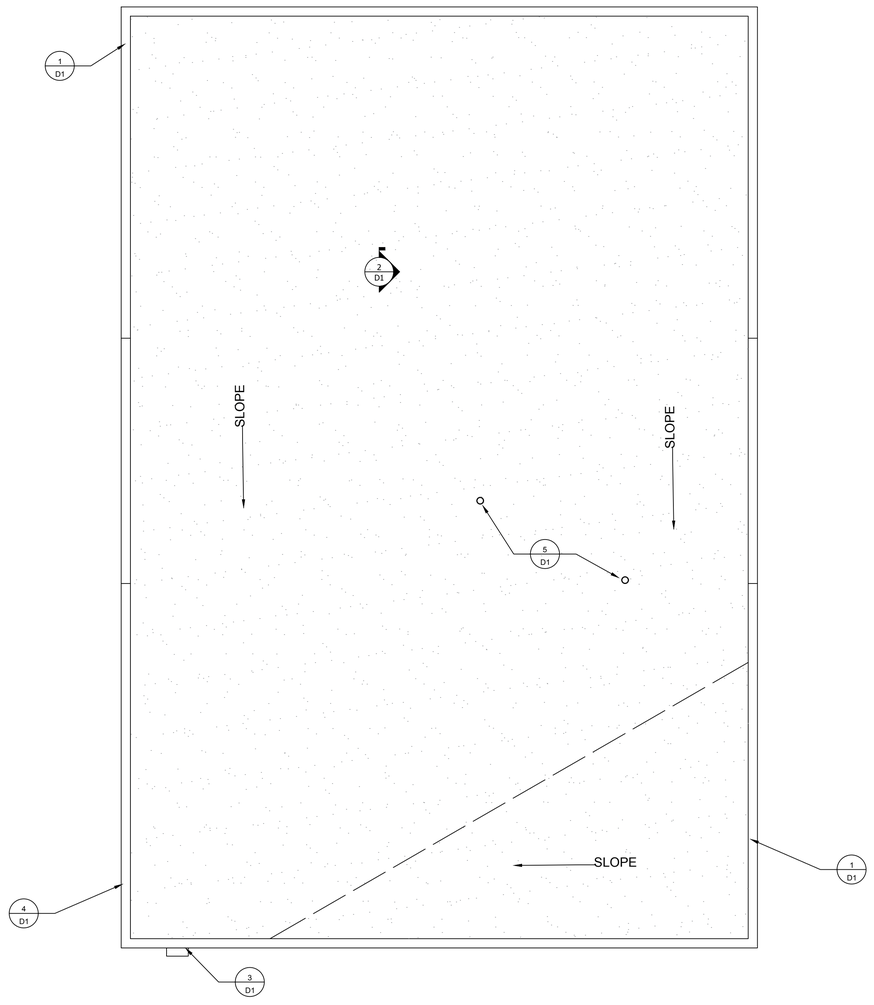
				DATE DRAWN: MARCH 16, 2018		PAGE No. 01 of 03



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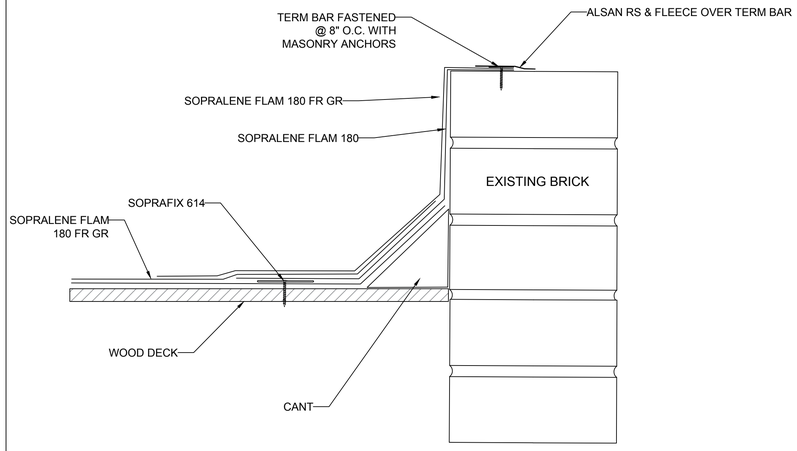
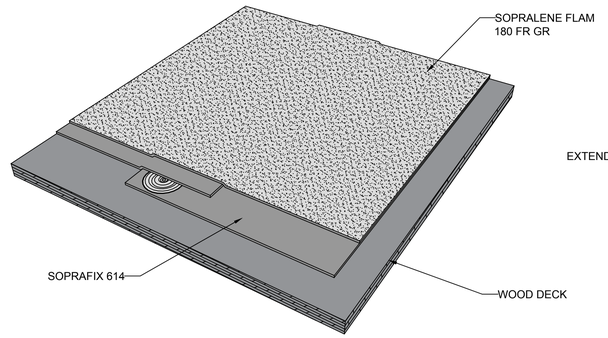
				DATE DRAWN: MARCH 16, 2018		PAGE No. 02 of 03

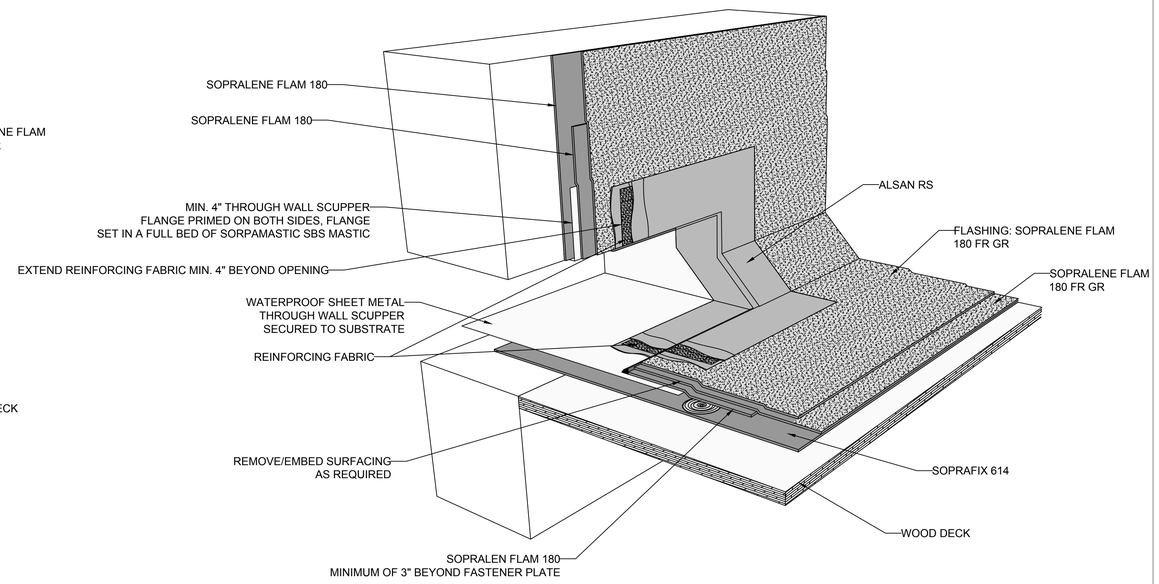
1 PARAPET WALL DETAIL



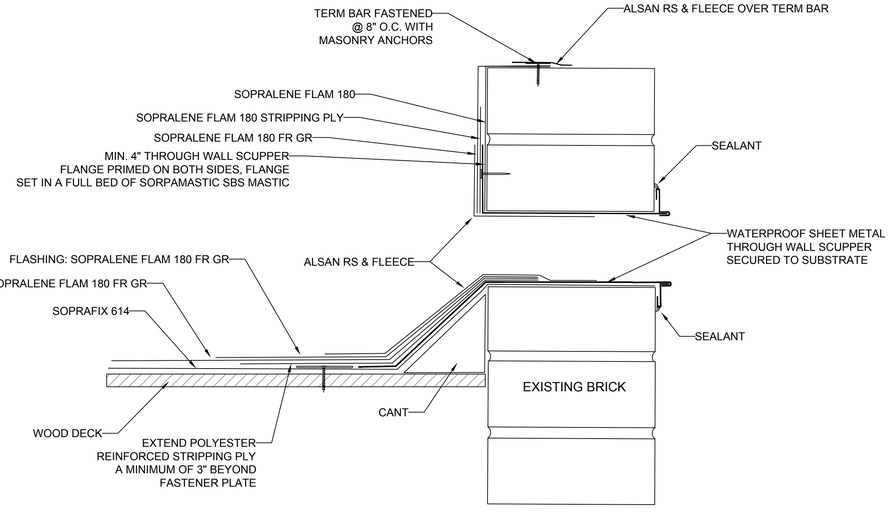
2 ROOF ASSEMBLY



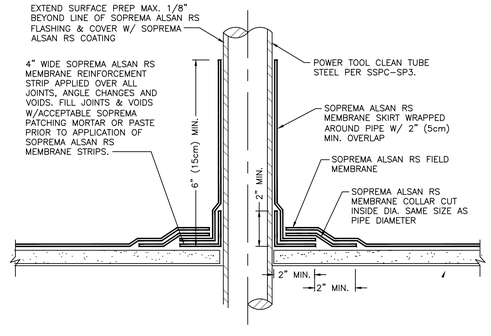
3 SCUPPER DETAIL



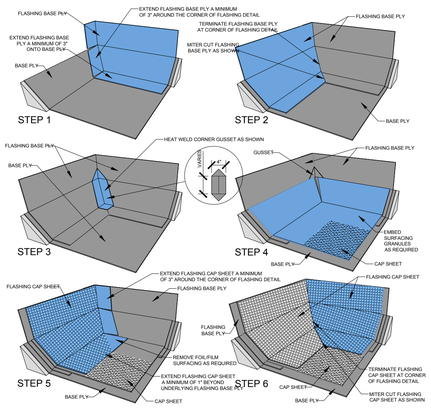
4 OVERFLOW SCUPPER DETAIL



5 VENT PIPE DETAIL



6 OUTSIDE CORNER DETAIL



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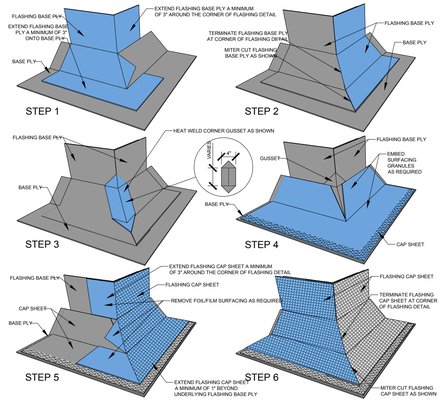

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				DATE DRAWN: MARCH 16, 2018		PAGE No. 02 of 03