BAY CITY HOUSING COMMISSION
315 14th Street ~ Bay City, Michigan 48708
(989) 892-9581 fax (989) 892-5818 tdd (800) 545-1833 ext 561

RFP Masonry and Parapet Wall Repairs at Smith Manor

This project will include removal of original limestone parapet wall caps and replace with new metal caps; removal of deteriorated masonry chimney and construction of a new EPDM roof on the reduced masonry height; truck point repairs and replacing deteriorated bricks located in the parapets at Smith Manor, a senior/ disabled apartment development owned and operated by the Bay City Housing Commission (BCHC).

Pre-Bid site inspection is set for Friday, October 23 at 11:00 a.m. at Smith Manor, 600 N. VanBuren St, Bay City, MI 48708. Contact Karl Opheim, Assistant Director at (989) 892-9581 x107 or email Karl@baycityhousing.com with any questions.

Bid Submission, Due Date and Time. All bids shall be submitted on **proposal forms**, included in this solicitation**,** are **due Thursday, November 19, 2026 at 12:00 Noon** either by email to **Karl@baycityhousing.com,** mailed or drop off at Administration Office**,** Bay City Housing Commission, 315 14th Street, Bay City, Michigan 48708.

Non-Debarred / Non-Collusive form. Bidders will need to certify that neither they nor the firm, partnership or association in which he/she has substantial interest is designated as an ineligible. contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, 29 CFR Part 5, or that any part of this contract has been or will be subcontracted to any subcontractor if such subcontractor, firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible contractor as noted by regulatory provisions.

If additional deteriorated bricks are found, BCHC is requesting a Unit Price for a lot of Fifty (50) additional brick installed, materials and labor.

Davis Bacon Prevailing Wage Rates will not apply to this project.

HUD General Conditions Instructions FORM 5370 EZ will apply to all contracts under $100,000 will be followed with this project. A copy is available upon request. The web address for a copy is: http://portal.hud.gov/hudportal/HUD?src=/program_offices/administration/hudclips/forms/hud5a or you can contact Karl Opheim, Assistant Director at 989-892-9581 ext. 107.

Bid Evaluations and Contract. Bay City Housing Commission reserves the right to reject any or all proposals, to waive any informality in the quote request process, or to terminate this quote process at any time, if deemed by BCHC's to be in its best interests. Under the competitive proposal process negotiations of price and revision of scope may be necessary if available funding is less than the lowest qualified bid received.

All work on this project shall be in accordance with all applicable federal, state and local codes and regulations having jurisdiction over this project. Bidders must include all state and local permits, fees and taxes.

If discrepancies are found between the information, this bid solicitation, drawings and the actual field conditions, the Contractor shall notify the Owner within one (1) business day of the discrepancy discovery. Failure to do so indicates acceptance by the Contractor.

Site hours. All work shall be performed during regular business hours Monday through Friday between 7:30 a.m. to 4:00 p.m., excluding official Housing Commission holidays. Contractors shall protect all occupied areas from damage. Be certain the building and property shall be clean and free of debris at the end of the workday. Contractor shall replace, at their expense, any property damaged during the course of work.

Liability and Worker's Compensation Insurance. No work under any contract or agreement may begin without proof of liability and workman's compensation insurance in force and Certificate(s) of Insurance have been received by BCHC as required by policy including the *Certificate of Insurance* on file. All policies shall name the Bay City Housing Commission as an *additional named insured on a primary and non-contributory basis*. A completed IRS W9 is required for the successful bidder. We use a bill payment service for processing payments, so BCHC will encourage new vendors to enroll for electronic payment deposit.

Workers' Compensation and Occupational Disease Insurance. In accordance with federal and Michigan Workers' Compensation laws. Such coverage must specifically identify coverage as required by state law. The employer's liability limit must be a *minimum* of $100,000 per accident and $100,000 per disease, per employee with policy limit of $500,000.

Commercial General Liability. A combined single limit for bodily injury and property damage of not less than $1,500,000 per occurrence to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on site(s) not covered by Automobile Liability. If the Contractor has a "claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

Automobile Liability is required on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than $500,000 per occurrence.

Warranty. All materials, equipment and workmanship as described in this specification or amended by any change order shall be guaranteed for a period of **Two (2) years** from the date of completion. Notification during warranty period to repair or replace any defective materials or workmanship shall be from the Owner, in writing to the vendor.

PASTE or TYPE BIDDER'S LETTERHEAD HERE and SUBMIT WITH PROPOSAL)

NON-COLLUSIVE AFFIDAVIT

State of (_____) ss.

County of (_____)

_____, being first duly sworn, deposes and says:

That he/she is _____ (a partner or officer of the firm of, etc.) the party making the foregoing proposal or bid, that such-proposal or bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly sought by agreement or collusion, or communication or conference, with any person, to fix the bid price or of any other bidder, or to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the Bay City Housing Commission or any person interested in the proposed contract; and that all statements in said proposal or bid are true.

NON-DEBARRED CERTIFICATION

This is to certify that the below signed bidder is not nor have been debarred, suspended or otherwise prohibited from contacting or entering into construction or modernization agreement with any federal, state or local agency including the U.S. Department of Housing and Urban Development.

Date: _____ Signature: _____
Bidder, if the bidder is an individual
Partner, if the bidder is a partnership
Officer, if the bidder is a corporation

Subscribed and sworn to _____ before me

This _____day of _____ 20 _____.

My commission expires _____ 20 _____

PROPOSAL FORM

⇨ PLEASE PASTE YOUR COMPANY'S LETTERHEAD AT THE TOP OF THIS PAGE

Bid For: **Smith Manor Masonry and Parapet Wall Repairs**

To: Bay City Housing Commission (owner)
315 14th Street
Bay City, MI 48708

Gentlemen:

The Undersigned, having familiarized myself with the local conditions affecting the cost of this work, and the Contract Documents (Advertisement and Instructions to Bidders, Non-Collusive Affidavit, HUD 5370 EZ General Conditions, Description of Work) and any Addenda issued, hereby proposes to perform everything required to be performed and to provide and furnish all the labor, materials, tools, expendable equipment, utility and transportation services, etc., necessary to perform and complete in a workmanlike manner all of the Building Trades Work required under the Base Bid for the aforementioned project, all in accordance with the Contract Documents prepared by Bay City Housing Commission in connection with, and any addenda issued thereto, for the sum of: _____ Dollars ($ _____)

Unit Price A for fifty (50) additional brick installed, materials and labor $ _____

1. In submitting this bid, it is understood that the right is reserved by the Bay City Housing Commission to reject any or all bids. If written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned within thirty (30) days after the opening thereof, or at any time thereafter before this bid is withdrawn, the undersigned agrees to execute and deliver a contract on the prescribed form.

2. Attached hereto is an affidavit in proof that the Undersigned has not entered into any collusion with any person in respect to this proposal or any other proposal or the submitted proposal for the contract for which this proposal is submitted.

3. The bidder represents that he ( ) has, ( ) has not, participated in a previous contract subject to the Equal Opportunity clauses prescribed by Executive Orders 10925, 11114, or 11246, or the Secretary of Labor, and that he ( ) has, ( ) has not, filed all required compliance reports; and that representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards. (The above representation need not be submitted in connection with contracts or subcontracts which are exempt from the Clause).

4. Completing Date: The undersigned agrees if awarded the contract, to complete the work in full on or before the time proposed below.

SCOPE	Estimated completion time (calendar days)
Base Bid	_____

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

The information contained in this proposal is to be relied upon by the Bay City Housing Commission, and such information is warranted by the bidder to be true. The bidder agrees to provide such additional information, prior to acceptance of any proposal relating to the qualifications of the bidder, as may be required. Attach additional sheets if necessary.

Signed: _____ Date: _____, 2026

Print/Type Name: _____ Title: _____

Company Name: _____

Address: _____ City/Zip: _____

Telephone: _____ Email: _____

Bids are due Thursday, November 19, 2026 at 12:00 Noon at Bay City Housing Commission, 315 Fourteenth Street, Bay City, Michigan 48708 via dropoff, mail, or email to (Karl@baycityhousing.com). All email submissions must be followed by a signed hardcopy within four business days.

SECTION 040110 – BRICK RESTORATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes restoration and cleaning of brick as follows:

1. Replacing damaged units with new face brick units.

2. Repointing mortar joints.

3. Cleaning exposed brick surfaces.

4. Miscellaneous anchors and accessories.

1.2 REFERENCE

A. Technical Notes on Brick Construction by the Brick Institute of America
11490 Commerce Park Drive Reston,
Virginia 22091

1.3 DEFINITIONS

A. Low-Pressure Spray: 100 to 400 psi (690 to 2750 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

B. Medium-Pressure Spray: 400 to 800 psi (2750 to 5500 kPa); 4 to 6 gpm (0.25 to 0.4 L/s).

1.4 SUBMITTALS

A. Product Data: For each type of product indicated. Include recommendations for application and use.

B. Samples: For each exposed material required for replacing or repairing existing materials.

C. Qualification Data: For restoration specialists.

1.5 QUALITY ASSURANCE

A. Restoration Specialist Qualifications: Engage an experienced masonry restoration and cleaning firm to perform work of this Section. Firm shall have minimum ten years of experience performing work similar in material, design and extent, including custom soldered flashings, to that indicated for this Project with a record of successful in-service performance.

1. At Contractor's option, work may be divided between two specialist firms: one for cleaning work and one for repair work.

2. Field Supervision: Restoration specialist firms shall maintain experienced full-time supervisors on Project site during times that clay masonry restoration and cleaning are in

progress. Supervisors shall not be changed during Project except for causes beyond the control of restoration specialist firm.

3. Restoration Worker Qualifications: Persons who are experienced and specialize in restoration work of types they will be performing.

B. Chemical Manufacturer Qualifications: A firm regularly engaged in producing masonry cleaners that have been used for similar applications with successful results, and with factorytrained representatives who are available for consultation and Project-site inspection and assistance at no additional cost.

C. Source Limitations: Obtain each type of material for masonry restoration (cement, sand, etc.) from one source with resources to provide materials of consistent quality in appearance and physical properties.

D. Mockups: Prepare mockups of restoration and cleaning as follows to demonstrate aesthetic effects and qualities of materials and execution.

1. Patch three small areas at least 1 inch (25 mm) in diameter or as directed for each type of masonry material indicated to be patched.

2. Clean an area approximately 25 sq. ft. (2.3 sq. m) in area or where indicated for each type of clay masonry and surface condition.

3. Rake out joints in two separate areas approximately 36 inches (900 mm) high by 72 inches (1800 mm) wide or as indicated for each type of repointing required and repoint one of the two areas.

4. New brick wall panel for Hubbard Hall brick type. Panels shall be a minimum size of 4 feet wide by 4 feet high.

1.6 PROJECT CONDITIONS

A. Repoint mortar joints and repair masonry only when air temperature is between and 40 and 90 deg F (4 and 32 deg C) and is predicted to remain so for at least 7 days after completion of work.

B. Cold-Weather Requirements: Comply with the following procedures for masonry repair and mortar-joint pointing:

1. When air temperature is below 40 deg F (4 deg C), heat mortar ingredients, masonry repair materials, and existing masonry walls to produce temperatures between 40 and 120 deg F (4 and 49 deg C).

2. When mean daily air temperature is below 40 deg F (4 deg C), provide enclosure and heat to maintain temperatures above 32 deg F (0 deg C) within the enclosure for 7 days after repair and pointing.

C. Hot-Weather Requirements: Protect masonry repair and mortar-joint pointing when temperature and humidity conditions produce excessive evaporation of water from mortar and repair materials.

Provide artificial shade and wind breaks and use cooled materials as required. Do not apply mortar to substrates with temperatures of 90 deg F (32 deg C) and above.

D. Patch masonry only when air and surface temperatures are between and 55 and 100 deg F (13 and 38 deg C) and are predicted to remain above 55 deg F (13 deg C) for at least 7 days after completion of work. On days when air temperature is predicted to go above 90 deg F (32 deg C), schedule patching work to coincide with time that surface being patched will be in shade or during cooler morning hours.

1. Clean masonry surfaces only when air temperature is 40 deg F (4 deg C) and above and is predicted to remain so for at least 7 days after completion of cleaning.

1.7 DELIVERY, STORAGE AND HANDLING

A. Masonry Cements, Portland cements and lime will be stored on wooden pallets or other material that will not collect condensation and off the ground in a dry condition. Sand will be kept clean.

PART 2 - PRODUCTS

2.1 MASONRY MATERIALS

A. Brick, General:

1. Replace brick masonry units as required and as indicated on drawings with new brick masonry units furnished by Owner or salvaged from chimney.

B. Face Brick: ASTM C 216, Grade SW, Type FBS

1. Unit Compressive Strength: 3000-psi- (20.7-MPa-) minimum, average net-area compressive strength.

2. Initial Rate of Absorption: Less than 20 g/30 sq. in. (20 g/194 sq. cm) per minute when tested per ASTM C 67.

a. Maximum saturation coefficient 0.78.

b. Maximum 5 hour boil 17%.

3. Efflorescence: When tested per ASTM C 67 and brick is rated “not effloresced.”

4. Surface Coloring: Brick with surface coloring, other than flashed or sand-finished brick, will withstand 50 cycles of freezing and thawing per ASTM C 67 with no observable difference in the applied finish when viewed from 10 feet (3 m).

5. New brick:
a. New brick units shall be furnished by Owner.

C. Portland Cement: ASTM C 150, Type I or Federal Specification SS-C-1292, Type I.

1. Use non-staining cement for stone setting, ASTM C 91.

D. Hydrated Lime: ASTM C 207 (hydrated) Type S or ASTM C5 (quicklime).

E. Mortar Sand: ASTM C 144, unless otherwise indicated.

1. For pointing mortar, provide sand with rounded edges.

2. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands, if necessary, to achieve suitable match.

F. Water: Potable, clean and free of alkalis, acids and organic material.

2.2 CLEANING MATERIALS

A. Water for Cleaning: Potable.

B. Job-Mixed Detergent Solution: Solution prepared by mixing 2 cups (0.5 L) of tetrasodium polyphosphate (TSPP), 1/2 cup (125 mL) of laundry detergent, and 20 quarts (20 L) of hot water for every 5 gal. (20 L) of solution required.

C. Nonacidic Gel Cleaner: Manufacturer's standard gel formulation, with pH between 6 and 9, that contains detergents and chelating agents and is specifically formulated for cleaning masonry surfaces.

1. Products:
   a. Price Research, Ltd.; Price Marble Cleaner-Gel.
   b. ProSoCo; Sure Klean 942 Masonry Cleaner.

D. Nonacidic Liquid Cleaner: Manufacturer's standard mildly alkaline liquid cleaner formulated for removing organic soiling from polished stone, brick, aluminum, plastics, and wood.

1. Products:
   a. Dominion Restoration, Inc.; Bio-Cleanse.
   b. Dumond Chemicals, Inc.; Safe n' Easy Architectural Cleaner/Restorer.
   c. Price Research, Ltd.; Price Non-Acid Masonry Cleaner.
   d. ProSoCo; Enviro Klean Restoration Cleaner.

2.3 TIES AND ANCHORS

A. Testing, General: Contractor shall provide a random pull test on 10 percent minimum of the installed Helical wall ties.

B. Materials, General: As follows, unless otherwise indicated:

1. Stainless-Steel Wire: ASTM A 580/A 580M, Type 304.

2. Stainless-Steel Sheet: ASTM A 666, Type 304.

3. Stainless Steel bars: ASTM A 276 or ASTM a 666, Type 304.

C. Wall Ties: For re-anchoring existing brick in place, provide Spira-Lok Helical Wall Tie System by Blok-Lok Limited.

1. "Spira-Lok" Wall ties shall be engineered from austenitic stainless steel which combines axial strength to withstand all loading with sufficient flexibility to accommodate normal wall movement.

2. Re-anchor existing brick panels to existing masonry back-up wall with 10-mm “Spira-Lock” Helical Wall Tie at 24-inches o.c. horizontally, 16-inches o.c. vertically; 2.67 square feet maximum per anchor, HWT-295. Minimum 1-inch embedment in hollow CMU or concrete beam/column Back-up.

D. Wall Ties: For anchoring new brick to existing masonry back-up wall.

1 Individual Wire Ties: Rectangular units with closed ends and not less than 4 inches (100 mm) wide.

a. Z-shaped ties with ends bent 90 degrees to provide hooks not less than 2 inches (50 mm) long may be used for masonry constructed from solid units or hollow units laid with cells horizontal.

b. Where wythes are of different materials, use adjustable ties with pintle-and-eye connections having a maximum adjustment of 1-1/4 inches (32 mm).

c. Wire: Fabricate from 3/16 inch- (4.8-mm-) diameter, stainless-steel wire.

2. Anchors for Connecting to Concrete: Provide assemblies that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to wall.

a. Tie Section: Triangular-shaped wire tie with wrap around metal strap, stainless steel. Equal to Hohmann & Barnard, Inc., #345-BT flexible tie.

2.4 MISCELLANEOUS MASONRY ACCESSORIES

A. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).

B. Control and Expansion Joint Material:

1. Provide closed cell neoprene sponge for expansion filler pad by Hohmann & Barnard to comply with ASTM D 1056 Grade 2A1.

2. Provide manufacturers standard adhesive backing as required for installation.

3. Thickness: 1/4-inch or 3/8-inch or match existing.

2.5 MIXES

A. General: Contractor is responsible for testing existing mortar to match new mortar to the existing mortar's compressive strength and consistency.

B. Mortar Mixes: Measure cementitious materials and sand in a dry condition by volume or equivalent weight. Mix materials in a clean, mechanical batch mixer.

1. Mixing Pointing Mortar: Thoroughly mix cementitious materials and sand together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that will retain its form when pressed into a ball. Maintain mortar in this dampened condition for 15 to 30 minutes. Add remaining water in small portions until mortar reaches desired consistency. Use mortar within one hour of final mixing; do not retemper or use partially hardened material.

C. Do not use admixtures of any kind in mortar, unless otherwise indicated.

D. Pointing Mortar for Brick (Type N): 1 part portland cement, 1 parts lime, and 6 parts sand (Not less than 2-1/4 and not more than 3 times the sum of the volumes of cement and lime used.).

1. Use only as required for tuck pointing any existing Type N or S mortar used in laying brick having absorption rates greater than 25 gm./min./ 30 sq. in.

E. Rebuilding (Setting) Mortar (Type N): 1 part portland cement, 1 parts lime, and 6 parts sand Same as pointing mortar.

F. Chemical Cleaning Solutions: Dilute chemical cleaners with water to produce solutions not exceeding concentration recommended by chemical cleaner manufacturer.

PART 3 - EXECUTION

3.1 PROTECTION

A. Protect persons, motor vehicles, surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm resulting from masonry restoration work.

B. Prevent chemical cleaning solutions from coming into contact with pedestrians, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.

1. Cover adjacent surfaces with materials that resist chemical cleaners used unless chemical cleaners will not damage surfaces. Use materials that contain only waterproof, UVresistant adhesives.

2. Keep wall wet below area being cleaned to prevent streaking from runoff.

3.2 CLAY MASONRY REMOVAL, REPLACEMENT, AND PATCHING

A. At locations indicated, remove brick units that are damaged, spalled, or deteriorated. Carefully demolish or remove entire units from joint to joint, without damaging surrounding masonry, in a manner that permits replacement with full-size units.

B. Support and protect remaining masonry that surrounds removal area. Maintain flashing, reinforcement, lintels, and adjoining construction in an undamaged condition. C. Remove in an undamaged condition as many whole bricks as possible.

1. Remove mortar, loose particles, and soil from brick by cleaning with hand chisels, brushes, and water.

D. Clean bricks surrounding removal areas by removing mortar, dust, and loose particles.

E. Brick Replacement:

1. Install replacement brick into bonding and coursing pattern of existing brick. If cutting is required, use a motor-driven saw to cut masonry with clean, sharp, unchipped edges.

2. Lay brick with completely filled bed, head, and collar joints. Butter ends with sufficient mortar to fill head joints and shove into place. Wet both replacement and surrounding bricks that have ASTM C 67 initial rates of absorption (suction) of more than 30 g/30 sq. in. per min. (30 g/194 sq. cm per min.). Maintain joint width to match existing joints.

a. Tool exposed mortar joints to match joints of surrounding existing brickwork.

3.3 ANCHORING MASONRY

A. Install wall tie system as recommended per manufacturer for masonry stabilization.

B. Anchor masonry to structural members where masonry abuts or faces structural members to comply with the following:

1. Anchor masonry to structural members with flexible anchors embedded in masonry joints and attached to structure.

3.4 CLEANING

A. Proceed with cleaning in an orderly manner; work from top to bottom of each scaffold width and from one end of each elevation to the other.

B. Use only those cleaning methods indicated for each masonry material and location.

1. Do not use wire brushes.

2. Use spray equipment that provides controlled application at volume and pressure indicated, measured at spray tip.

3. For chemical cleaner spray application, use low-pressure tank or chemical pump suitable for chemical cleaner indicated, equipped with cone-shaped spray tip.

4. For water spray application, use fan-shaped spray tip that disperses water at an angle of 25 to 50 degrees.

C. Chemical Cleaner Application Methods: Apply chemical cleaners to masonry surfaces to comply with chemical cleaner manufacturer's written instructions; use brush or spray application methods, at Contractor's option. Do not spray apply at pressures exceeding 50 psi (345 kPa). Do not allow chemicals to remain on surface for periods longer than those indicated or recommended by manufacturer.

3.5 FINAL CLEANING

A. After mortar has fully hardened, thoroughly clean exposed masonry surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water, spray applied at low pressure.

1. Do not use metal scrapers or brushes.

2. Do not use acidic or alkaline cleaners.

3.6 FIELD QUALITY CONTROL

A. Inspectors: Contractor will engage qualified independent inspectors to perform inspections and prepare test reports. Allow inspectors use of lift devices and scaffolding, as needed, to perform inspections.

B. Architect's Project Representatives: Owner will assign Project representatives to help carry out Owner's responsibilities at the site, including observing progress and quality of portion of the Work completed. Allow Owner's Project representatives use of scaffolding, as needed, to observe progress and quality of portion of the Work completed.

C. Notify Owner's Project representatives in advance of times when lift devices and scaffolding will be relocated. Do not relocate lift devices and scaffolding until Owner's Project representatives have had reasonable opportunity to make observations of work areas at lift device or scaffold location.

END OF SECTION 049110

SECTION 075400- EPDM ROOFING

PART 1 - GENERAL

1.1 DESCRIPTION

A. The Smith Manor is located at 600 N. Van Buren St in Bay City Michigan. Karl Opheim, Project Manager/Coordinator, is the Owner's Representative and may be contacted regarding any questions or for a pre-bid job site inspection, phone 989-892-9581.

B. The project consists of installing Carlisle's Sure-Seal black Adhered Roofing System as outlined below and indicated on the drawings:

Apply the Adhered EPDM Roofing System in conjunction with insulation over the new roof deck.

1.2 EXTENT OF WORK

A. Provide all labor, material, tools, equipment, and supervision necessary to complete the installation of a Sure-Seal 60-mil EPDM membrane Fully Adhered Roofing System including flashings and insulation as specified herein and as indicated on the drawings in accordance with the manufacturer's most current specifications and details.

B. The roofing contractor shall be fully knowledgeable of all requirements of the contract documents and shall make themselves aware of all job site conditions that will affect their work.

C. The roofing contractor shall confirm all given information and advise the building owner, prior to bid, of any conflicts that will affect their cost proposal.

D. Any contractor who intends to submit a bid using a roofing system other than the approved manufacturer must submit for pre-qualification in writing fourteen (14) days prior to the bid date. Any contractor who fails to submit all information as requested will be subject to rejection. Bids stating "as per plans and specs" will be unacceptable.

1.3 SUBMITTALS

A. Prior to starting work, the roofing contractor must submit the following:

1. Shop drawings showing layout, details of construction and identification of materials.

2. Sample of the manufacturer's Total Systems Warranty covering all components of the roofing system.

3. Submit a letter of certification from the manufacturer which certifies the roofing contractor is authorized to install the manufacturer's roofing system and lists foremen who have received training from the manufacturer along with the dates training was received.

4. Certification of the manufacturer's warranty reserve.

B. Upon completion of the installed work, submit copies of the manufacturer's final inspection report to the specifier prior to the issuance of the manufacturer's warranty.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver materials to the job site in the manufacturer's original, unopened containers or wrappings with the manufacturer's name, brand name and installation instructions intact and legible. Deliver in sufficient quantity to permit work to continue without interruption.

B. Comply with the manufacturer's written instructions for proper material storage.

1. Store materials between 60°F and 80°F in dry areas protected from water and direct sunlight. If exposed to lower temperature, restore to 60°F minimum temperature before using.

2. Store materials containing solvents in dry, well ventilated spaces with proper fire and safety precautions. Keep lids on tight. Use before expiration of their shelf life.

3. Insulation/underlayment must be stored so that it is kept dry and is protected from the elements. Store bundles flat and upright with the bottom of the bundles elevated (2" or more) above the finished surface.

4. Slit the insulation bundle packaging vertically down the center of the two short sides to prevent moisture accumulation within the package. Completely cover the bundle with a waterproof tarp and secure to prevent wind damage and / or displacement.

C. Any materials which are found to be damaged shall be removed and replaced at the applicator's expense.

1.5 WORK SEQUENCE

A. Schedule and execute work to prevent leaks and excessive traffic on completed roof sections. Care should be exercised to provide protection for the interior of the building and to ensure water does not flow beneath any completed sections of the membrane system.

B. Do not disrupt activities in occupied spaces.

1.6 USE OF THE PREMISES

A. Before beginning work, the roofing contractor must secure approval from the building owner's representative for the following:

1. Areas permitted for personnel parking.

2. Access to the site.

3. Areas permitted for storage of materials and debris.

4. Areas permitted for the location of cranes, hoists and chutes for loading and unloading materials to and from the roof.

B. Interior stairs or elevators may not be used for removing debris or delivering materials, except as authorized by the building superintendent.

1.7 EXISTING CONDITIONS

If discrepancies are discovered between the existing conditions and those noted on the drawings, immediately notify the owner's representative by phone and solicit the manufacturer's approval prior to commencing with the work. Necessary steps shall be taken to make the building watertight until the discrepancies are resolved.

1.8 JOB SITE PROTECTION

A. The roofing contractor shall adequately protect building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. Provide canvas, boards and sheet metal (properly secured) as necessary for protection and remove protection material at completion. The contractor shall repair or be responsible for costs to repair all property damaged during the roofing application.

B. During the roofing contractor's performance of the work, the building owner will continue to occupy the existing building. The contractor shall take precautions to prevent the spread of dust and debris, particularly where such material may sift into the building. The roofing contractor shall provide labor and materials to construct, maintain and remove necessary temporary enclosures to prevent dust or debris in the construction area(s) from entering the remainder of the building.

C. Do not overload any portion of the building, either by use of or placement of equipment, storage of debris, or storage of materials.

D. Protect against fire and flame spread. Maintain proper and adequate fire extinguishers.

E. Take precautions to prevent drains from clogging during the roofing application. Remove debris at the completion of each day's work and clean drains, if required. At completion, test drains to ensure the system is free running and drains are watertight. Remove strainers and plug drains in areas **where work is in progress**. Install flags or other telltales on plugs. Remove plugs each night and screen drain.

F. Store moisture susceptible materials above ground and protect with waterproof coverings.

G. Remove all traces of piled bulk materials and return the job site to its original condition upon completion of the work.

1.9 SAFETY

The roofing contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. **Safety shall be the responsibility of the roofing contractor.** All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe environment for the facility's occupants including staff, visitors,

customers and the occurrence of the general public on or near the site.

1.10 WORKMANSHIP

A. Applicators installing new roof, flashing and related work shall be factory trained and approved by the manufacturer they are representing.

B. All work shall be of highest quality and in strict accordance with the manufacturer's published specifications and to the building owner's satisfaction.

C. There shall be a supervisor on the job site at all times while work is in progress.

D. All field seams and flashing details are to be completed according to manufacturer's specifications and details by the end of each work day.

1.11 JOB CONDITIONS, CAUTIONS AND WARNINGS

Refer to Carlisle's EPDM Roofing System specification for General Job Site Considerations.

A. Safety Data Sheets (SDS) must be on location at all times during the transportation, storage and application of materials.

B. When positioning membrane sheets, exercise care to locate all field splices away from low spots and out of drain sumps. All field splices should be shingled to prevent bucking of water.

C. When loading materials onto the roof, the Carlisle Authorized Roofing Applicator must comply with the requirements of the building owner to prevent overloading and possible disturbance to the building structure.

D. Proceed with roofing work only when weather conditions are in compliance with the manufacturer's recommended limitations, and when conditions will permit the work to proceed in accordance with the manufacturer's requirements and recommendations.

E. Proceed with work so new roofing materials are not subject to construction traffic. When necessary, new roof sections shall be protected and inspected upon completion for possible damage.

F. Provide protection, such as 3/4 inch thick plywood, for all roof areas exposed to traffic during construction. Plywood must be smooth and free of fasteners and splinters.

G. The surface on which the insulation or roofing membrane is to be applied shall be clean, smooth, dry, and free of projections or contaminants that would prevent proper application of or be incompatible with the new installation, such as fins, sharp edges, foreign materials, oil and grease.

H. New roofing shall be complete and weathertight at the end of the work day.

I. Contaminants such as grease, fats and oils shall not be permitted to come in direct contact with the roofing membrane. An overlay of Epichlrohydrin membrane must be adhered around units which have the potential to emit solvents, grease or oil.

PART 2 PRODUCTS

2.1 GENERAL

A. All components of the specified roofing system shall be products of Carlisle SynTec or accepted by Carlisle SynTec as compatible.

B. Unless otherwise approved by the specifier and accepted by the membrane manufacturer, all products (including insulation, fasteners, fastening plates and edgings) must be manufactured and supplied by the roofing system manufacturer and covered by the warranty.

2.2 MEMBRANE

Furnish Sure-Seal 60-mil EPDM (Ethylene, Propylene, Diene Terpolymer) in the largest sheet possible with 3” or 6” Factory-Applied Tape (FAT). Splice tape shall be a butyl/EPDM based polymer with a minimum thickness of 25-mil. The membrane shall conform to the minimum physical properties of ASTM D4637.

2.5 ADHESIVES, CLEANERS AND SEALANTS

All products shall be furnished by Carlisle and specifically formulated for the intended purpose.

A. **Carlisle Weathered Membrane Cleaner:** A clear, solvent-based cleaner used to loosen and remove dirt and other contaminants from the surface of exposed EPDM membrane (for repairs, etc.) prior to applying EPDM Primer. Weathered Membrane Cleaner can also be used when applying Splicing Cement. Available in 1 and 5-gallon pails.

B. **Sure-Seal/Sure-White Pressure-Sensitive SecurTAPE™ (Factory Applied):** A 3" or 6" wide by 100' long splice tape used for splicing adjoining sections of EPDM membrane. Complies with the South Coast Air Quality Management District Rule 1168.

C. **HP-250 EPDM Primer:** A solvent-based primer used to prepare the surface of EPDM membrane for application of Splice Tape or Pressure-Sensitive products. Available in 1 or 3 gallon pails and as CAV-PRIME Pressurized Cylinders.

D. **Lap Sealant:** A heavy-bodied material used to seal the exposed edges of a membrane splice. Available in tubes.

1. Sure-Seal Lap Sealant is a black sealant for use with Sure-Seal (black) Roofing Systems.

2. Sure-White Lap Sealant is a white sealant for use with Sure-White (white-on-black) Roofing Systems.

E. **Water Cut-Off Mastic:** A one-component, low viscosity, self wetting, Butyl blend mastic used to achieve a compression seal between the EPDM membrane or Elastoform Flashing and applicable substrates. Available in tubes.

F. **Pourable Sealer**: A black, two-component, solvent-free, polyurethane based product used for tie-ins and as a sealant around hard-to-flash membrane penetrating objects such as clusters of pipes and for a daily seal when the completion of flashings and terminations cannot be completed by the end of each work day.

G. **One-Part Pourable Sealer:** Available in black or white, a one-component, moisture curing, elastomeric polyether sealant used for attaching lightning rod bases and ground cable clips to the membrane surface and as a sealant around hard-to-flash penetrations such as clusters of pipes.

2.6 METAL EDGING AND MEMBRANE TERMINATIONS

A. **General:** All metal edgings shall be tested and meet ANSI/SPRI ES-1 standards and comply with International Building Code. All metal work is to be supplied and warranted by the manufacturer.

B. **Metal Era Supplied**

1. **SecurEdge One Fascia:** A snap-on edge system consisting of a 20 gauge retainer bar, corrosion resistant fasteners and a 24 gauge or 0.040 aluminum Kynar finished fascia cover. A spring clip holds the fascia cover in place. Available in sizes up to 8” fascia height 12’ long. Metal fascia color shall be designated by the Owner’s Representative. ANSI/SPRI ES-1 Certified.

2. **SecurEdge One Coping:** A snap-on coping edge system consisting of a 24 gauge retainer bar (face side only), corrosion resistant fasteners and a 24 gauge or 0.040 aluminum Kynar finished coping cover. The coping cover is secured by clipping on the retainer bar and fastened on the backside with corrosion resistant fasteners (with rubber washer). Available for wall thicknesses up to 30”. Metal coping cap color shall be as designated by the Owner's Representative. ANSI/SPRI ES-1 Certified.

C. **Drip Edge**: a metal fascia/edge system with a 22 or 24 gauge continuous anchor cleat and .032 inch thick aluminum or 24 gauge steel fascia. Metal fascia color shall be as designated by the Owner's Representative.

D. **SecurEdge Coping**: incorporates a 20 gauge anchor cleat with 4 pre-slotted holes, a concealed joint cover and 10 foot continuous sections of coping cap; can accommodate minimum 5 “ wide parapet walls. Metal coping cap color shall be as designated by the Owner's Representative.

E. **Termination Bar**: a 1” wide and .098” thick extruded aluminum bar pre-punched 6” on center; incorporates a sealant ledge to support Lap Sealant and provide increased stability for membrane terminations.

F. **SecurEdge Term Bar Fascia:** A 1.75” wide formed aluminum termination bar with pre-slotted fastening holes for ease of locating and installing. The decorative cover is available in 0.040” aluminum or 24-gauge galvanized steel. SecurEdge Term Bar Fascia is manufactured in 12’ lengths for fewer joints/seams, fewer sections to handle and faster installation.

PART 3 EXECUTION

3.1 GENERAL

A. Comply with the manufacturer's published instructions for the installation of the membrane roofing system including proper substrate preparation, jobsite considerations and weather restrictions.

B. Position sheets to accommodate contours of the roof deck and shingle splices to avoid bucking water.

3.2 INSULATION PLACEMENT

A. Install insulation or membrane underlayment over the substrate with boards butted tightly together with no joints or gaps greater than 1/4 inch. Stagger joints both horizontally and vertically if multiple layers are provided.

B. Secure insulation to the substrate with the required mechanical fasteners or insulation adhesive Carlisle Flexible FAST Adhesive in accordance with the manufacturer's specifications.

3.3 MEMBRANE PLACEMENT AND BONDING

A. Unroll and position membrane without stretching. Allow the membrane to relax for approximately 1/2 hour before bonding. Fold the sheet back onto itself so half the underside of the membrane is exposed.

B. Apply the Bonding Adhesive in accordance with the manufacturer's published instructions and coverage rates, to both the underside of the membrane and the substrate. Allow the adhesive to dry until it is tacky but will not string or stick to a dry finger touch.

1. Roll the coated membrane into the coated substrate while avoiding wrinkles. Brush down the bonded half of the membrane sheet with a soft bristle push broom to achieve maximum contact.

2. Fold back the unbonded half of the membrane sheet and repeat the bonding procedure.

C. Install adjoining membrane sheets in the same manner, overlapping edges approximately 4 inches. Do not apply bonding adhesive to the splice area.

3.4 MEMBRANE SPLICING

A. Position membrane sheet to allow for required splice overlap. Mark the bottom sheets with an indelible marker approximately 1/4" to 1/2" from the top sheet edge. The pre-marked line on the membrane edge can also be used as a guide for positioning splice tape.

B. When the membrane is contaminated with dirt, fold the top sheet back and clean the dry splice area (minimum 3" wide) of both membrane sheets by scrubbing with clean natural fiber rags saturated with Sure-Seal Weathered Membrane Cleaner. When using Sure-Seal (black) PRE-KLEENED membrane, cleaning the splice area is not required unless contaminated with field dirt or other residue.

C. Apply EPDM Primer or Low VOC EPDM Primer to splice area and permit to flash off. Primer must be applied to both the top membrane layer and the bottom membrane layer.

D. When adhering Factory Applied Tape (FAT), pull the poly backing from FAT beneath the top sheet and allow the top sheet to fall freely onto the exposed primed surface. Press top sheet on to the bottom sheet using firm even hand pressure across the splice towards the splice edge

E. For end laps, apply 3" or 6" SecurTAPE to the primed membrane surface in accordance with the manufacturer's specifications. Remove the poly backing and roll the top sheet onto the mating surface.

F. Tape splices must be a minimum of 2-1/2" wide using 3" wide (Butyl/EPDM) SecurTAPE that is a minimum 25-mil thick. SecurTAPE must extend 1/8" minimum to 1/2" maximum beyond the splice edge. Field splices at roof drains must be located outside the drain sump.

Note: For projects where a 90-mil membrane OR 20-year or longer System Warranty is specified, splice enhancements are required. Refer to Carlisle Sure-Seal/Sure-White Roofing System Specificaiton.

G. Immediately roll the splice using positive pressure when using a 2" wide steel roller. Roll across the splice edge, not parallel to it. When FAT is used, Carlisle's Stand-Up Seam Roller can be used to roll parallel to the splice edge.

H. **At all field splice intersections**, apply Lap Sealant along the edge of the membrane splice to cover the exposed SecurTAPE 2" in each direction from the splice intersection. Install Carlisle's Pressure-Sensitive "T" Joint Covers or a 6" wide section (with rounded corners) of Sure-Seal Pressure-Sensitive Elastoform Flashing over the field splice intersection.

3.5 DAILY SEAL

A. On phased roofing, when the completion of flashings and terminations is not achieved by the end of the work day, a daily seal must be performed.

3.6 CLEAN UP

A. Perform daily clean-up to collect all wrappings, empty containers, paper, and other debris from the project site. Upon completion, all debris must be disposed of in a legally acceptable manner.

B. Prior to the manufacturer's inspection for warranty, the applicator must perform a pre-inspection to review all work and to verify all flashing has been completed as well as the application of all caulking.

END OF SECTION 075400

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes joint sealants for the following applications, including those specified by reference to this Section and following applications:
   1. Exterior joints in the following vertical surfaces and horizontal nontraffic surfaces:
      a. Joints between different materials.
      b. Other joints as indicated.

1.2 PERFORMANCE REQUIREMENTS

A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

1.3 SUBMITTALS

A. Product Data: For each joint-sealant product indicated.
B. Samples: For each type and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- (13-mm-) wide joints formed between two 6-inch- (150mm-) long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

1.4 QUALITY ASSURANCE

A. Preconstruction Field-Adhesion Testing: Before installing elastomeric sealants, field test their adhesion to Project joint substrates according to the method in ASTM C 1193 that is appropriate for the types of Project joints.

1.5 WARRANTY

A. Special Installer's Warranty: Installer's standard form in which Installer agrees to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Two years from date of Substantial Completion.
B. Special Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide one of the products listed in other Part 2 articles.

2.2 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by sealant manufacturer, based on testing and field experience.

B. Colors of Exposed Joint Sealants: As selected by Owner from manufacturer's full range.

2.3 ELASTOMERIC JOINT SEALANTS

A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

B. Stain-Test-Response Characteristics: Where elastomeric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.

C. Low-Modulus Neutral –Curing Polyurethane Sealant: Where joint sealants of this type are indicated, provide products complying with the following:

1. Available Products:
    a. Dow Corning Corporation; DOWSIL
    b. Pecora Corporation; Dynatrol I-XL.
    c. Tremco; DyMonic.
    d. Tremco; Vulkem 921.
    e. Substitutions: See Section 012500 - Product Requirements.
2. Type and Grade: S (single component) and NS (nonsag).
3. Class: 25.
4. Use Related to Exposure: NT (nontraffic).
5. Uses Related to Joint Substrates: M, G, A, and, as applicable to joint substrates indicated, O.
    a. Coated glass, aluminum coated with a high-performance coating, color anodic aluminum, galvanized steel, brick, limestone, marble, granite, plastic, tile, wood.

D. Butyl Sealant: A one part non-skinning, permanently tacky butyl metal flashing sealant that allows metal lap joints to expand and contract. Where joint sealants of this type are indicated, provide products complying with the following:

1. Products: Provide one of the following:
    a. Lap Rite; Masonpro
    b. Sikalastomer 511; Sika Corporation
2. Color: Manufacturer’s standard gray or beige.
5. Application: Lap joints within stainless steel thru-wall flashing.

2.5 JOINT-SEALANT BACKING

A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), O (open-cell material), B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
C. Elastomeric Tubing Sealant Backings: Neoprene, butyl, EPDM, or silicone tubing complying with ASTM D 1056, nonabsorbent to water and gas, and capable of remaining resilient at temperatures down to minus 26 deg F (minus 32 deg C). Provide products with low compression set and of size and shape to provide a secondary seal, to control sealant depth, and to otherwise contribute to optimum sealant performance.
D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible jointfiller materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.6 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.
1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant.
a. Clean porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
2. Remove laitance and form-release agents from concrete.
a. Clean nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates, where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION

A. General: All dissimilar materials are to be caulked.

B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
   1. Do not leave gaps between ends of sealant backings.
   2. Do not stretch, twist, puncture, or tear sealant backings.
   3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
   1. Place sealants so they directly contact and fully wet joint substrates.
   2. Completely fill recesses in each joint configuration.
   3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint. 1. Remove excess sealant from surfaces adjacent to joints.
   2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
   3. Provide concave joint configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.

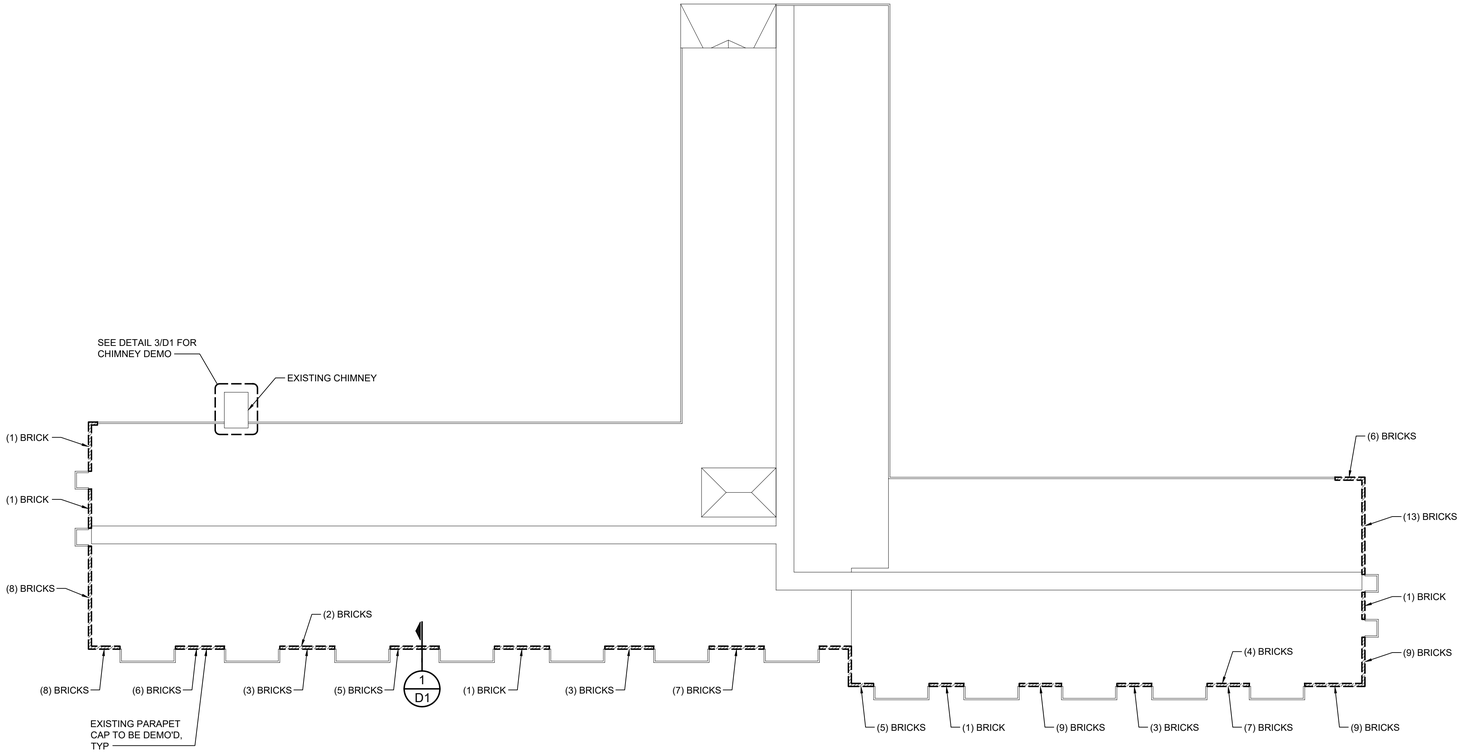
G. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

H. Arrange with manufacturer’s rep to conduct a pull test in field to determine adhesion of the sealant to substrate conditions found.

3.3 JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application: Exterior vertical and horizontal joints between different materials.
   1. Joint Sealant: Low- Modulus Neutral-Curing Polyurethane Sealant.
   2. Joint-Sealant Color: As selected by Owner from Manufacturers full color range.

END OF SECTION 079200



NOTE:
PROVIDE A BASE BID FEE FOR 150 TOTAL BRICKS TO BE REMOVED AND REPLACED AND A UNIT PRICE FOR ADDITIONAL BRICKS

ROOF PARAPET PLAN - DEMOLITION
1/16"=1'-0"

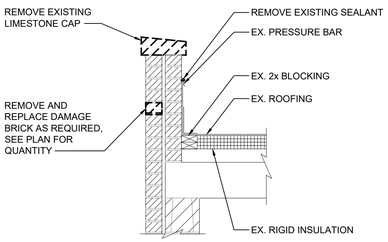
LEGEND

▭▭ - SHOW THE EXISTING LIMESTONE CAPS TO BE REMOVED.

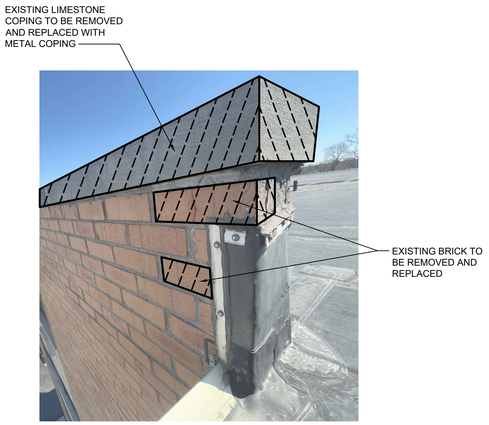
NOTES:

NUMBER OF BRICKS SHOWN ON PLAN ARE THE NUMBER OF BRICKS TO BE REMOVED AND REPLACED

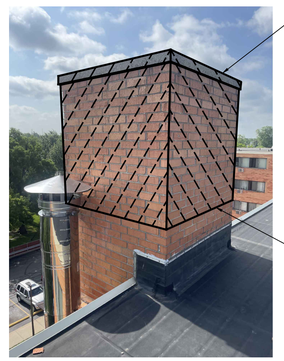
VERIFY THE CONDITION OF BRICKS BELOW REMOVED LIMESTONE CAPS. REPORT TO ENGINEER IF DETERIORATED OF CRACK BRICKS ARE FOUND.L;



1/D1 PARAPET DETAIL - DEMO
3/4"=1'-0"



2/D1 EXISTING PARAPET WALL - DEMO
NTS



NOTE:
SALVAGE EXISTING BRICK FOR PARAPET WALL REPAIRS

3/D1 EXISTING CHIMNEY - DEMO
NTS

GENERAL

1. VERIFY DIMENSIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ENGINEER.
2. ALL WORK SHALL CONFORM TO MICHIGAN BUILDING CODE 20210
3. DESIGN LOADS
   a. DESIGNED IN ACCORDANCE WITH MICHIGAN BUILDING CODE 2021.
   b. ROOF SNOW LOAD:
      GROUND SNOW LOAD PG = 35 PSF
      FLAT ROOF SNOW LOAD, PF = 25 PSF
      SNOW EXPOSURE FACTOR, CE = 1.0
      SNOW LOAD IMPORTANCE FACTOR, I = 1.0
      THERMAL FACTOR, CT = 1.0
   c. WIND LOADS:
      BASIC WIND SPEED V/ULT = 107 MPH
      V/ASD = 83 MPH
      WIND EXPOSURE C

MASONRY NOTES

1. WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 530 SPECIFICATIONS.
2. MORTAR: ASTM C270, TYPE N FOR REBUILDING (SETTING) AND TUCK POINTING.
3. GROUT: ASTM C476, F'C=2000 PSI, TESTED PER ASTM C1019.
4. BRICK: NEW REPLACEMENT BRICK PROVIDED BY OWNER, SALVAGED FROM CHIMNEY OR PER ASTM C216, GRADE SW.

ROOFING NOTES

1. EPDM ROOFING
   a. MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY CARLISLE SYNTEC SYSTEMS
2. CONTRACTOR SHALL SUBMIT SHOP DRAWING AND PRODUCT INFORMOTION FOR REVIEW BY ENGINEER.
3. ROOFING SUPPLIERS, MANUFACTURERS AND INSTALLERS SHALL REVIEW ALL ROOFING DETAILS AND ADVISE THE ENGINEER ON ANY RECOMMENDED CHANGES.
4. WARRANTY PRESERVATION
   a. EXISTING ROOF SYSTEM: THE BUILDING IS CURRENTLY COVERED UNDER A MANUFACTURER'S WARRANTY. THE CONTRACTOR IS STRICTLY RESPONSIBLE FOR MAINTAINING THIS WARRANTY THROUGHOUT AND AFTER CONSTRUCTION.
   b. SUBMITTALS: PRIOR TO CUTTING, ANCHORING, OR MODIFYING THE EXISTING ROOF ASSEMBLY, THE CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS TO THE EXISTING ROOFING MANUFACTURER OF RECORD.
   c. APPROVED APPLICATOR: ALL ROOF-RELATED MODIFICATIONS AND TIE-INS MUST BE EXECUTED BY A LICENSED CONTRACTOR CERTIFIED BY THE SPECIFIC ROOF MANUFACTURER. PROOF OF APPROVAL AND CERTIFICATION MUST BE PROVIDED TO THE OWNER PRIOR TO MOBILIZATION.

REV.	DESCRIPTION	BY	DATE
	ISSUE FOR BIDS	MAI	10-13-26

MACMILLAN ASSOCIATES
CONSULTING ENGINEERS
714 EAST MIDLAND STREET
BAY CITY, MICHIGAN 48706
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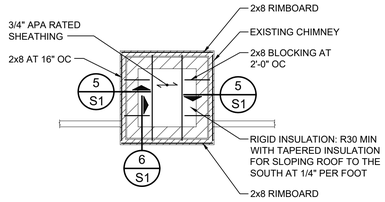
PROJECT DESCRIPTION
SMITH MANOR
PARAPET REPAIRS

SHEET DESCRIPTION
ROOF PARAPET DEMOLITION PLAN, DETAILS, AND NOTES

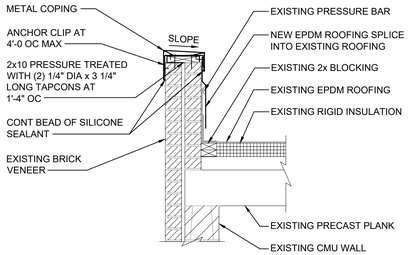
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DESIGNED BY: BEM	SHEET No.: D1
APPROVED BY: JAG	

0.0" 0.5" 1.0" 1.5" 2.0"

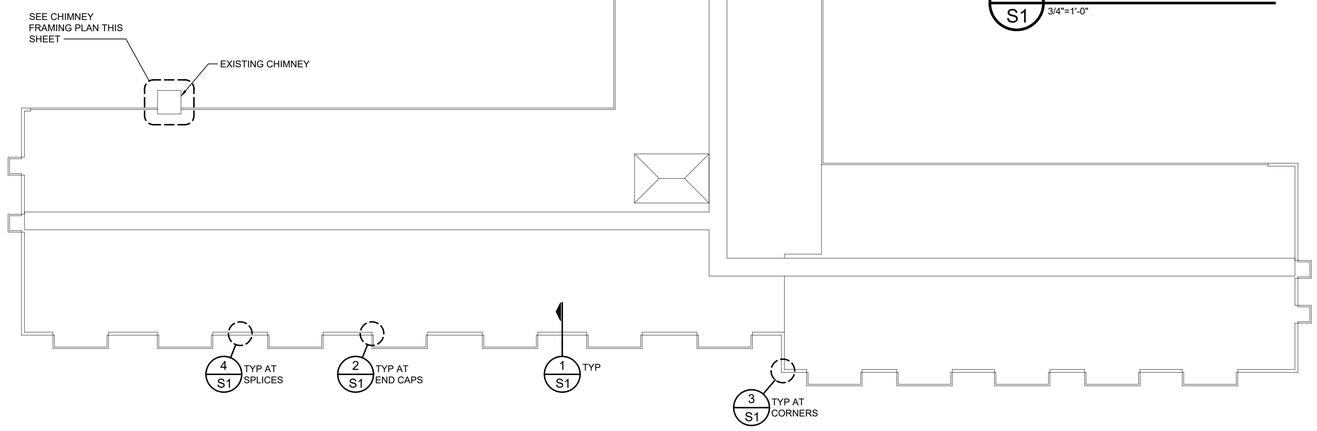
10/13/2026 11:27 AM STEVE HOOKMAN (SHOOKMAN@MACMILLANASSOCIATES.COM)
ALL RIGHTS RESERVED. COPYRIGHT MacMILLAN ASSOCIATES, INC.
F:\01-MBC\2026-01032 SMITH MANOR PARAPET REPAIRS\2026-01032D1 - ROOF FRAMING PLAN



N
CHIMNEY FRAMING PLAN
1/4"=1'-0"



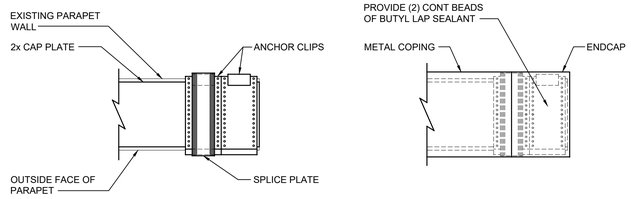
1 S1 PARAPET DETAIL - NEW
3/4"=1'-0"



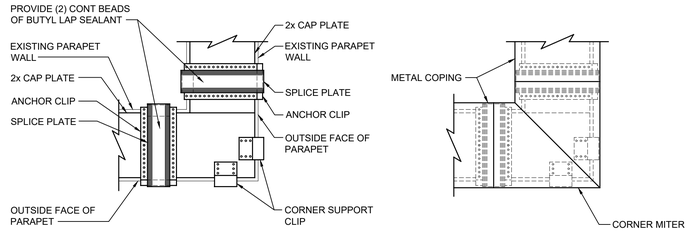
N
ROOF PARAPET PLAN - NEW
1/16"=1'-0"

NOTES:

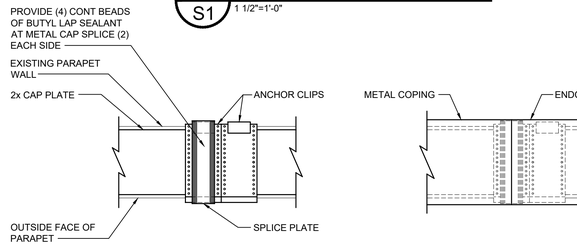
1. METAL COPING CAPS ARE BY CARLISLE SYNTEC SYSTEMS - SECUREDGE COPING. INSTALL PER MANUFACTURER INSTRUCTION.
2. COLOR OF METAL COPING CAPS TO MATCH EXISTING TRIM COLOR. SUBMIT COLOR TO OWNER FOR FINAL APPROVAL.



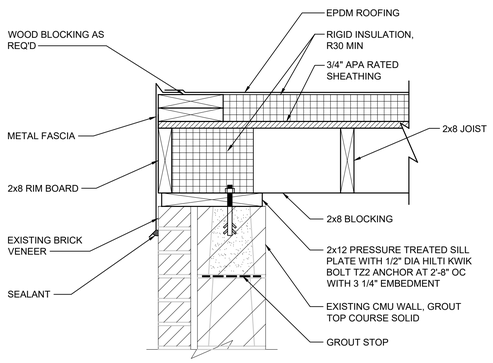
2 S1 PARAPET TYPICAL ENDCAP
1 1/2"=1'-0"



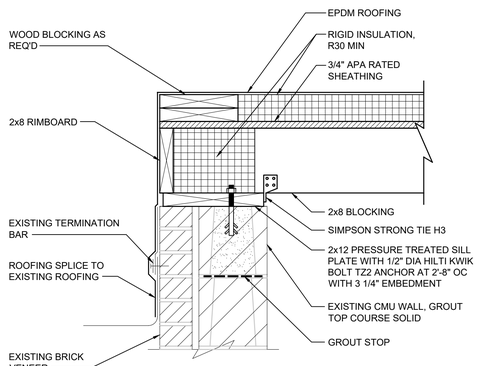
3 S1 PARAPET TYPICAL CORNER
1 1/2"=1'-0"



4 S1 PARAPET TYPICAL SPLICE
1 1/2"=1'-0"



5 S1 EDGE OF WALL
1 1/2"=1'-0"



6 S1 EDGE OF WALL
1 1/2"=1'-0"

REV.	DESCRIPTION	BY	DATE
	ISSUE FOR BIDS	MAI	10-13-26

MACMILLAN ASSOCIATES
CONSULTING ENGINEERS
714 EAST MIDLAND STREET
BAY CITY, MICHIGAN 48706
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(989) 894-4300
SINCE 1963

PROJECT DESCRIPTION
SMITH MANOR
PARAPET REPAIRS

SHEET DESCRIPTION
ROOF PARAPET PLAN
DETAILS AND NOTES

DRAWN BY: SAH	JOB No.: 2026-01032
DESIGNED BY: BEM	SHEET No.: S1
APPROVED BY: JAG	

0.0" 0.5" 1.0" 1.5" 2.0"

10/13/2026 11:27 AM STEVE HOCKMAN (SHOCKMAN@MACMILLANASSOCIATES.COM)
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F:\01-MISC\2026-01032 SMITH MANOR PARAPET REPAIRS\2026-01032S1 - ROOF FRAMING PLAN