



SHAWNEE COUNTY

REQUEST FOR PROPOSAL (RFP)

Quotation Number: 047-23
Date Issued: 09-22-2023
Closing Date: 10-05-2023, 2:00pm

Vendor Name: _____
Address: _____
Phone Number: _____

THIS IS NOT AN ORDER

1. In communications, always refer to the above quotation number.
2. All prices and conditions must be shown. Additions or conditions not shown on this bid will not be allowed.
3. Shawnee County reserve the right to accept or reject any part of, or all of, any bid or proposal.
4. All prices quoted are to be less Federal Excise Tax and Kansas Sales Tax.
5. Price quoted shall remain firm for ninety (90) days after bid closing date.

SHAWNEE COUNTY HAS AN ELECTRONIC BID SYSTEM

All vendors are required to create an online portal account (www.snco.us/purchasing) in order to receive or submit bid requests.

ITEM AND DESCRIPTION

Shawnee County is soliciting bids for roofing for 707 SE Quincy & 1740 SW Western Ave per the minimum specifications outlined in the included project manual.

Insurance, Licenses, & Required Registration

All contractors need to be registered with the State of Kansas and licensed by the City of Topeka. One (1) million general liability policy naming the county as additional insured.

Bid Security Requirements: All bids must be accompanied by a bid bond for not less than five percent (5%) of the amount bid (including alternates), made payable to the County Clerk of Shawnee County, Kansas

Responses should include:

1. Firm Profile – Briefly describe your firm, indicating size and years in business
2. Staff Assignments – Provide vendor contact communication information
3. References – Provide names, address, and telephone numbers and/or email address of appropriate contact persons for at least three (3) recent clients.
4. A listing of all subcontractors and corresponding previous project experience.

PLEASE SUBMIT ATTACHMENT 1 AS THE FIRST PAGE OF YOUR BID

PROJECT MANUAL for



Shawnee County ROOF REPLACEMENTS 707 SE Quincy St. & 1740 SW Western Ave. Topeka, Kansas

Civium Project Nos. 23021 & 23022

Issued September 20, 2023



PROJECT MANUAL

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SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Salvage of existing items to be reused or recycled.
- B. The existing roof assembly was cored to determine materials present. Reference pictures at the end of this Section for current roof materials.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner.
- C. Remove and Recycle: Carefully detach from existing construction, in a manner to prevent damage, and place in a safe location for recycling.
- D. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- E. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 PREINSTALLATION MEETINGS

- A. Pre-Demolition Conference: Conduct conference at Project site.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.

3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
5. Review areas where existing construction is to remain and requires protection.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For refrigerant recovery technician.
- B. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control and for noise control. Indicate proposed locations and construction of barriers.
- C. Schedule of Selective Demolition Activities: Indicate the following:
 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's building manager's and other tenants' on-site operations are uninterrupted.
 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 3. Coordination for shutoff, capping, and continuation of utility services.
 4. Use of elevator and stairs.
 5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
- D. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
- E. Predemolition Photographs or Video: Submit before Work begins.
- F. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- G. Warranties: Documentation indicated that existing warranties are still in effect after completion of selective demolition.

1.7 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Survey of Existing Conditions: Record existing conditions by use of measured drawings and preconstruction photographs.
 1. Comply with requirements specified in Division 01 Section "Photographic Documentation."
 2. Inventory and record the condition of items to be removed and salvaged. Provide photographs of conditions that might be misconstrued as damage caused by salvage operations.
 3. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
 - 1. Comply with requirements for existing services/systems interruptions specified in Division 01 Section "Summary."
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Building manager will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If required, arrange to shut off indicated utilities with utility companies.
 - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - a. Equipment to Be Removed: Disconnect and cap services and remove equipment.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
 - 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 01 Section "Temporary Facilities and Controls."
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 5. Maintain adequate ventilation when using cutting torches.
 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 9. Dispose of demolished items and materials promptly. Comply with requirements in Division 01 Section "Construction Waste Management and Disposal."
- B. Removed and Salvaged Items:
1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's storage area designated by Owner.
 5. Protect items from damage during transport and storage.
- C. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse.
 2. Protect items from damage during transport and storage.
 3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
 - 4. Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119



1740 Western Ave - North edge of West roof



1740 Western Ave - East Roof Drains



1740 Western Ave- South/East Parapet



707 Quincy St.- 1/2" EPS cover bd. on 1/2" BUR/gravel

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Steel pipe and tube railings.

1.3 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Railings shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

- 1. Handrails and Top Rails of Guards:

- a. Uniform load of 50 lbf/ ft. applied in any direction.
- b. Concentrated load of 200 lbf applied in any direction.
- c. Uniform and concentrated loads need not be assumed to act concurrently.

- 2. Infill of Guards:

- a. Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft..
- b. Infill load and other loads need not be assumed to act concurrently.

- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes acting on exterior metal fabrications by preventing buckling, opening of joints, overstressing of components, failure of connections, and other detrimental effects.

- 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.4 ACTION SUBMITTALS

- A. Product Data: For the following:

- 1. Railing brackets.
- 2. Grout, anchoring cement, and paint products.

- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

1.6 COORDINATION AND SCHEDULING

- A. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Kee Safety, Inc., which is located at: 100 Stradtman St. ; Buffalo, NY 14206; Toll Free Tel: 800-851-5181; Tel: 716-896-4949; Fax: 716-896-5696; Email: request info; Web: www.keeklamp.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 012500.

2.2 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.3 SYSTEMS

- A. Guardrails: Provide pipe, fittings, and accessories as indicated or required to match design indicated on the Drawings.

2.4 MATERIALS

A. Pipe:

- 1. Galvanized Steel pipe. 1-1/4 inches I.D. industry standard - 1.66 inches O D.
Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.

B. Fittings, Including Elbows, Crossovers, Wall flanges, Tees, Couplings:

- 1. Kee Klamp structural pipe fittings,
- 2. Cast Fittings: Cast to comply with ASTM A47

C. Finish: Hot Dip Galvanized finish to comply with BS EN ISO 1461

D. Fasteners: Type 304 or 305 stainless steel.

2.5 FASTENERS

A. General: Provide the following:

1. Railings: Type 304 stainless-steel.

B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.

C. Fasteners for Interconnecting Railing Components:

1. Provide concealed set screw fasteners for interconnecting railing components, unless otherwise indicated.

D. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488, conducted by a qualified independent testing agency.

1. Material for Exterior Locations : Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.6 MISCELLANEOUS MATERIALS

A. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

B. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.

2.7 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.

B. Use connections that maintain structural value of joined pieces.

C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

D. Form work true to line and level with accurate angles and surfaces.

E. Fabricate connections that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- G. Connections: Fabricate railings with set screw connections unless otherwise indicated.
- H. Close exposed ends of railing members with prefabricated end fittings.
- I. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, end closures, flanges, miscellaneous fittings, and anchors for interconnecting components and for attaching to other work. Furnish inserts and other anchorage devices for connecting to concrete or masonry work.
 - 1. For nongalvanized railings, provide nongalvanized ferrous-metal fittings, brackets, fasteners, and sleeves, except galvanize anchors embedded in exterior masonry and concrete construction.
- J. Gaskets: Provide neoprene gaskets between base flange and precast concrete coping to prevent corrosion associated with lime in concrete.
- K. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.

2.8 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.
- D. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Fit exposed connections together to form tight, hairline joints.
- B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
 - 1. Do not weld, cut, or abrade surfaces of railing components that have been coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 - 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 - 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

- C. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- D. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.
- E. Install in accordance with manufacturer's instructions.
- F. Set posts plumb within a tolerance of 1/8 inch (3 mm).
- G. Fit exposed connections accurately together to form tight joints. For all connections with Kee Klamp fittings, each set screw is to be tightened to 29 foot pounds (39 N-m) of torque.
- H. Perform cutting, drilling, and fitting required for installation of guardrails. Set guardrails and accurately in location, alignment, and elevation, measured from established lines and levels.

3.2 RAILING CONNECTIONS

- A. Nonwelded Connections: Use mechanical or adhesive joints for permanently connecting railing components. Seal recessed holes of exposed locking screws using plastic cement filler colored to match finish of railings.
- B. Expansion Joints: Install expansion joints at locations indicated but not farther apart than required to accommodate thermal movement. Provide slip-joint internal sleeve extending 2 inches beyond joint on either side, fasten internal sleeve securely to one side, and locate joint within 6 inches of post.

3.3 ANCHORING POSTS

- A. Drill holes not less than 4 inches deep for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.

3.4 ADJUSTING AND CLEANING

- A. Clean by washing thoroughly with clean water and soap and rinsing with clean water.

3.5 PROTECTION

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

END OF SECTION 055213

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Miscellaneous dimension lumber.
 - 2. Wood blocking and nailers, etc.

1.3 DEFINITIONS

- A. Dimension Lumber: Lumber of 2 inches nominal or greater but less than 5 inches nominal in least dimension.
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. NHLA: National Hardwood Lumber Association.
 - 3. SPIB: The Southern Pine Inspection Bureau.
 - 4. WCLIB: West Coast Lumber Inspection Bureau.
 - 5. WWPAA: Western Wood Products Association.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
 - 2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 - 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers beneath and between each bundle to provide air circulation. Protect lumber from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 3. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Maximum Moisture Content of Lumber: 19 percent unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

- A. Preservative Treatment by Pressure Process: AWWA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
 - 2. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not require incising, contain colorants, bleed through, or otherwise adversely affect finishes.
- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
- D. Application: Treat items indicated on Drawings, and the following:
 - 1. Wood sills, sleepers, blocking, furring, and similar concealed members in contact with masonry or concrete.

2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - 1. Blocking.
 - 2. Nailers.
- B. For items of dimension lumber size, provide Construction or No. 2 grade lumber and any of the following species:
 - 1. Hem-fir (north); NLGA.
 - 2. Mixed southern pine; SPIB.
 - 3. Spruce-pine-fir; NLGA.
 - 4. Hem-fir; WCLIB or WWPA.
 - 5. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.
 - 6. Western woods; WCLIB or WWPA.

7. Northern species; NLGA.
 8. Eastern softwoods; NeLMA.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
1. Mixed southern pine, No. 2 grade; SPIB.
 2. Hem-fir or hem-fir (north), Construction or No. 2 Common grade; NLGA, WCLIB, or WWPA.
 3. Spruce-pine-fir (south) or spruce-pine-fir, Construction or No. 2 Common grade; NeLMA, NLGA, WCLIB, or WWPA.
 4. Eastern softwoods, No. 2 Common grade; NELMA.
 5. Northern species, No. 2 Common grade; NLGA.
 6. Western woods, Construction or No. 2 Common grade; WCLIB or WWPA.
- D. For blocking not used for attachment of other construction, Utility, Stud, or No. 3 grade lumber of any species may be used provided that it is cut and selected to eliminate defects that will interfere with its attachment and purpose.
- E. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.

2.4 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Metal Framing: ASTM C 954, length as recommended by screw manufacturer for material being fastened.
- F. Lag Bolts: ASME B18.2.1.
- G. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.
 2. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

2.5 MISCELLANEOUS MATERIALS

- A. Adhesives for Gluing Furring and Sleepers to Concrete or Masonry: Formulation complying with ASTM D 3498 that is approved for use indicated by adhesive manufacturer.

1. Adhesives shall have a VOC content of 70 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
2. Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Do not splice structural members between supports unless otherwise indicated.
- D. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
- E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 1. NES NER-272 for power-driven fasteners.
 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
- G. Use steel screws unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood.

3.2 WOOD SLEEPER, BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces unless otherwise indicated.

3.3 PROTECTION

- A. Protect miscellaneous rough carpentry from weather. If, despite protection, miscellaneous rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. END OF SECTION 061053

SECTION 075423 - THERMOPLASTIC POLYOLEFIN (TPO) ROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

1. Adhered thermoplastic polyolefin (TPO) roofing system.
2. Roof insulation.

- B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
2. Section 076200 "Sheet Metal Flashing and Trim" for metal roof flashings, counterflashings, conductor heads, scuppers etc.
3. Section 079200 "Joint Sealants" for joint sealants, joint fillers, and joint preparation.

1.3 DEFINITIONS

- A. Roofing Terminology: Definitions in ASTM D 1079 and glossary in NRCA's "The NRCA Roofing and Waterproofing Manual" apply to work of this Section.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Roofing Conference: Conduct conference at Project site.

1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing Installer, roofing system manufacturer's representative, deck Installer, and installers whose work interfaces with or affects roofing, including installers of roof accessories and roof-mounted equipment.
2. Review methods and procedures related to roofing installation, including manufacturer's written instructions.
3. Review and finalize construction schedule, and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
4. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
5. Review structural loading limitations of roof deck during and after roofing.
6. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that affects roofing system.
7. Review governing regulations and requirements for insurance and certificates if applicable.
8. Review temporary protection requirements for roofing system during and after installation.
9. Review roof observation and repair procedures after roofing installation.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other work, including:
 - 1. Base flashings and membrane terminations.
 - 2. Tapered insulation, including slopes.
 - 3. Roof plan showing orientation of roofing.
 - 4. Insulation fastening patterns for corner, perimeter, and field-of-roof locations.
- C. Samples for Verification: For the following products:
 - 1. Sheet roofing, of color required.
 - 2. Walkway pads or rolls, of color required.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer and manufacturer.
- B. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Performance Requirements" Article.
 - 1. Submit evidence of compliance with performance requirements.
- C. Product Test Reports: For components of roofing system, tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Research/Evaluation Reports: For components of roofing system, from ICC-ES.
- E. Field quality-control reports.
- F. Sample Warranties: For manufacturer's special warranties.

1.7 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For roofing system to be included in maintenance manuals.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer that is UL listed for roofing system identical to that used for this Project.
- B. Installer Qualifications: A qualified firm that is approved, authorized, or licensed by roofing system manufacturer to install manufacturer's product and that is eligible to receive manufacturer's special warranty.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, approval or listing agency markings, and directions for storing and mixing with other components.
- B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
 - 1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.
- C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.
- D. Handle and store roofing materials, and place equipment in a manner to avoid permanent deflection of deck.

1.10 FIELD CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of roofing system that fail in materials or workmanship within specified warranty period.
 - 1. Special warranty includes roofing, base flashings, roof insulation, fasteners, cover boards, substrate board, roofing accessories, roof walkways, and other components of roofing system.
 - 2. Warranty Period: 20 years from date of Substantial Completion.
- B. Special Project Warranty: Submit roofing Installer's warranty, on warranty form at end of this Section, signed by Installer, covering the Work of this Section, including all components of roofing system such as roofing, base flashing, roof insulation, fasteners, cover boards, substrate boards, vapor retarders, roof pavers, copings, roof drainage specialties and walkway products, for the following warranty period:
 - 1. Warranty Period: two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Fleece Backed TPO as manufactured by Mule-Hide Products Co., Inc. or comparable product by other manufacturers including the following:
 - 1. Firestone Building Products.
 - 2. Cooley Engineered Membranes.
 - 3. Custom Seal Roofing.

4. Flex Roofing Systems.
5. GAF Materials Corporation.
6. GenFlex Roofing Systems.
7. Johns Manville.
8. Carlisle SynTec Incorporated
9. Versico Incorporated.

- B. Source Limitations: Obtain components including roof insulation and fasteners for roofing system from same manufacturer as membrane roofing or manufacturer approved by membrane roofing manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. General Performance: Installed roofing and base flashings shall withstand specified uplift pressures, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Roofing and base flashings shall remain watertight.

1. Accelerated Weathering: Roofing system shall withstand 2000 hours of exposure when tested according to ASTM G 152, ASTM G 154, or ASTM G 155.
2. Impact Resistance: Roofing system shall resist impact damage when tested according to ASTM D 3746 or ASTM D 4272.

- B. Material Compatibility: Roofing materials shall be compatible with one another and adjacent materials under conditions of service and application required, as demonstrated by roofing manufacturer based on testing and field experience.

- C. Roofing System Design: Tested by a qualified testing agency to resist the following uplift pressures:

1. Corner Uplift Pressure: 90 lbf/sq. ft.
2. Perimeter Uplift Pressure: 90 lbf/sq. ft.
3. Field-of-Roof Uplift Pressure: 60 lbf/sq. ft.

- D. FM Global Listing: Roofing, base flashings, and component materials shall comply with requirements in FM Global 4450 or FM Global 4470 as part of a built-up roofing system, and shall be listed in FM Global's "RoofNav" for Class 1 or noncombustible construction, as applicable. Identify materials with FM Global markings.

1. Fire/Windstorm Classification: Class 1A-90.
2. Hail-Resistance Rating: SH.

- E. Solar Reflectance Index: Not less than 0.71 when calculated according to ASTM C1549, based on testing identical products by a qualified testing agency.

- F. Energy Performance: Roofing system shall have an initial solar reflectance of not less than 0.70 and an emissivity of not less than 0.86 when tested according ASTM E408.

2.3 TPO ROOFING

- A. Fabric-Reinforced TPO Sheet: ASTM D 6878, internally fabric- or scrim-reinforced, uniform, flexible fabric-backed TPO sheet.

1. Thickness: 60 mils, nominal.
2. Exposed Face Color: WHITE.

- B. Fleece Backed TPO sheet: ASTM D 6878, internally fabric- or scrim-reinforced, uniform, flexible fabric-backed TPO sheet with a factory laminate polyester fleece backing.
 - 1. Thickness 115 mils, 60 mil TPO + 55mil fleece back
 - 2. Exposed Face Color: WHITE

2.4 AUXILIARY ROOFING MATERIALS

- A. General: Auxiliary materials recommended by roofing system manufacturer for intended use and compatible with roofing.
 - 1. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
 - 2. Adhesives and sealants that are not on the exterior side of weather barrier shall comply with the following limits for VOC content:
 - a. Plastic Foam Adhesives: 50 g/L.
 - b. Gypsum Board and Panel Adhesives: 50 g/L.
 - c. Multipurpose Construction Adhesives: 70 g/L.
 - d. Fiberglass Adhesives: 80 g/L.
 - e. Single-Ply Roof Membrane Adhesives: 250 g/L.
 - f. Single-Ply Roof Membrane Sealants: 450 g/L.
 - g. Nonmembrane Roof Sealants: 300 g/L.
 - h. Sealant Primers for Nonporous Substrates: 250 g/L.
 - i. Sealant Primers for Porous Substrates: 775 g/L.
 - j. Other Adhesives and Sealants: 250 g/L.
 - 3. Adhesives and sealants that are not on the exterior side of weather barrier shall comply with the testing and product requirements of the California Department of Public Health's (formerly, the California Department of Health Services) "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."
- B. Sheet Flashing: Manufacturer's standard unreinforced TPO sheet flashing, 55 mils thick, minimum, of same color as TPO sheet.
- C. Bonding Adhesive: Manufacturer's standard.
- D. Slip Sheet: Manufacturer's standard, of thickness required for application.
- E. Metal Termination Bars: Manufacturer's standard, predrilled stainless-steel or aluminum bars, approximately 1 by 1/8 inch thick; with anchors.
- F. Metal Battens: Manufacturer's standard, aluminum-zinc-alloy-coated or zinc-coated steel sheet, approximately 1 inch wide by 0.05 inch thick, prepunched.
- G. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roofing to substrate, and acceptable to roofing system manufacturer.
- H. Miscellaneous Accessories: Provide pourable sealers, preformed cone and vent sheet flashings, preformed inside and outside corner sheet flashings, T-joint covers, lap sealants, termination reglets, and other accessories.

2.5 ROOF INSULATION

- A. General: Preformed roof insulation boards manufactured, or approved, by TPO roofing manufacturer, selected from manufacturer's standard sizes suitable for application, of thicknesses indicated and that produce FM Global-approved roof insulation.
- B. Polyisocyanurate Flat and Tapered Board Insulation: ASTM C 1289, Type II, Class 1, Grade 3 (25 psi), glass-fiber mat facer on one or both major surfaces, as required by roofing manufacturer. Moisture Vapor Transmission per ASTM E-96, less than One (1) perm.

Basis-of-design: Poly-ISO 1 as manufactured by Mule-Hide Products Inc. or Equal.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Atlas Roofing Corporation.
 - b. Carlisle SynTec Incorporated.
 - c. Dyplast Products.
 - d. Firestone Building Products.
 - e. GAF Materials Corporation.
 - f. Hunter Panels.
 - g. Insulfoam LLC; a Carlisle company.
 - h. Johns Manville.
 - i. Rmax, Inc.
- C. Tapered Insulation: Provide factory-tapered insulation boards fabricated to slope of 1/4 inch per 12 inches unless otherwise indicated.
- D. Provide preformed saddles, crickets, tapered edge strips, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
- E. Cover Board: Provide a polyisocyanurate closed cell high density (100 psi) core laminated to coated glass fiber-mat facer, 1/2" thickness. Basis-of Design: Poly ISO1-HD by Mule-Hide Products Inc., or Equal.

2.6 INSULATION ACCESSORIES

- A. General: Roof insulation accessories recommended by insulation manufacturer for intended use and compatibility with roofing.
- B. Fasteners: Factory-coated steel fasteners and metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening roof insulation and cover boards to substrate, and acceptable to roofing system manufacturer.

2.7 WALKWAYS

- A. Flexible Walkways: Factory-formed, nonporous, heavy-duty, slip-resisting, surface-textured walkway pads or rolls, approximately 3/16 inch thick and acceptable to roofing system manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work:
 - 1. Verify that roof openings and penetrations are in place, curbs are set and braced, and roof-drain bodies are securely clamped in place.
 - 2. Verify that wood blocking, curbs, and nailers are securely anchored to roof deck at penetrations and terminations and that nailers match thicknesses of insulation.
 - 3. Verify that surface plane flatness.
 - 4. Verify that substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove existing coal tar pitch gravel ballast. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.
- B. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.
- C. Install insulation strips according to acoustical roof deck manufacturer's written instructions.

3.3 ROOFING INSTALLATION, GENERAL

- A. Install roofing system according to roofing system manufacturer's written instructions.
- B. Complete terminations and base flashings and provide temporary seals to prevent water from entering completed sections of roofing system at the end of the workday or when rain is forecast. Remove and

3.4 INSULATION INSTALLATION

- A. Coordinate installing roofing system components so insulation is not exposed to precipitation or left exposed at the end of the workday.
- B. Comply with roofing system and insulation manufacturer's written instructions for installing roof insulation.
- C. Install tapered insulation under area of roofing to conform to slopes indicated.
- D. Install insulation under area of roofing to achieve required thickness. Where overall insulation thickness is 2.7 inches or greater, install two or more layers with joints of each succeeding layer staggered from joints of previous layer a minimum of 6 inches in each direction.
 - 1. Where installing composite and noncomposite insulation in two or more layers, install noncomposite board insulation for bottom layer and intermediate layers, if applicable, and install composite board insulation for top layer.

- E. Trim surface of insulation where necessary at roof drains so completed surface is flush and does not restrict flow of water.
- F. Install insulation with long joints of insulation in a continuous straight line with end joints staggered between rows, abutting edges and ends between boards. Fill gaps exceeding 1/4 inch with insulation.
 - 1. Cut and fit insulation within 1/4 inch of nailers, projections, and penetrations.
- G. Mechanically Fastened and Adhered Insulation: Install each layer of insulation to deck using mechanical fasteners specifically designed and sized for fastening specified board-type roof insulation to deck type.
 - 1. Fasten first layer of insulation according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 - 2. Fasten first layer of insulation to resist uplift pressure at corners, perimeter, and field of roof.
 - 3. Set each subsequent layer of insulation in ribbons of bead-applied insulation adhesive, firmly pressing and maintaining insulation in place.
 - 4. Set each subsequent layer of insulation in a uniform coverage of full-spread insulation adhesive, firmly pressing and maintaining insulation in place.
- H. Install cover boards over insulation with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction. Loosely butt cover boards together and fasten to roof deck.
 - 1. Fasten cover boards according to requirements in FM Global's "RoofNav" for specified Windstorm Resistance Classification.
 - 2. Fasten cover boards to resist uplift pressure at corners, perimeter, and field of roof.

3.5 ADHERED ROOFING INSTALLATION

- A. Adhere roofing over area to receive roofing according to roofing system manufacturer's written instructions. Unroll roofing and allow to relax before retaining.
- B. Start installation of roofing in presence of roofing system manufacturer's technical personnel.
- C. Accurately align roofing, and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply to substrate and underside of roofing at rate required by manufacturer, and allow to partially dry before installing roofing. Do not apply to splice area of roofing.
- E. In addition to adhering, mechanically fasten roofing securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap roofing, and hot-air weld side and end laps of roofing and sheet flashings according to manufacturer's written instructions, to ensure a watertight seam installation.
 - 1. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet.
 - 2. Verify field strength of seams a minimum of twice daily, and repair seam sample areas.
 - 3. Repair tears, voids, and lapped seams in roofing that do not comply with requirements.

- H. Spread sealant bed over deck-drain flange at roof drains, and securely seal roofing in place with clamping ring.

3.6 BASE FLASHING INSTALLATION

- A. Install sheet flashings and preformed flashing accessories, and adhere to substrates according to roofing system manufacturer's written instructions.
- B. Apply bonding adhesive to substrate and underside of sheet flashing at required rate, and allow to partially dry. Do not apply to seam area of flashing.
- C. Flash penetrations and field-formed inside and outside corners with cured or uncured sheet flashing.
- D. Clean seam areas, overlap, and firmly roll sheet flashings into the adhesive. Hot-air weld side and end laps to ensure a watertight seam installation.
- E. Terminate and seal top of sheet flashings as indicated.

3.7 WALKWAY INSTALLATION

- A. Flexible Walkways: Install walkway products in locations indicated. Heat weld to substrate or adhere walkway products to substrate with compatible adhesive according to roofing system manufacturer's written instructions.

3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Owner may, at their discretion, engage a qualified testing agency to inspect substrate conditions, surface preparation, membrane application, flashings, protection, and drainage components, and to furnish reports to Architect.
- B. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion.
- C. Repair or remove and replace components of roofing system where inspections indicate that they do not comply with specified requirements.
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine if replaced or additional work complies with specified requirements.

3.9 PROTECTING AND CLEANING

- A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction does not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.
- B. Protect existing roofing in order to maintain existing roofing warranty.
- C. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

- D. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.10 ROOFING INSTALLER'S WARRANTY

- A. WHEREAS _____ of _____, herein called the "Roofing Installer," has performed roofing and associated work ("work") on the following project:

1. Owner: Shawnee County, Kansas
2. Address:
3. Building Name:
4. Address:
5. Area of Work:
6. Acceptance Date: _____.
7. Warranty Period: Two years.
8. Expiration Date: _____.

- B. AND WHEREAS Roofing Installer has contracted (either directly with Owner or indirectly as a subcontractor) to warrant said work against leaks and faulty or defective materials and workmanship for designated Warranty Period,

- C. NOW THEREFORE Roofing Installer hereby warrants, subject to terms and conditions herein set forth, that during Warranty Period he will, at his own cost and expense, make or cause to be made such repairs

to or replacements of said work as are necessary to correct faulty and defective work and as are necessary to maintain said work in a watertight condition.

D. This Warranty is made subject to the following terms and conditions:

1. Specifically excluded from this Warranty are damages to work and other parts of the building, and to building contents, caused by:
 - a. lightning;
 - b. peak gust wind speed exceeding (Insert wind speed)_____mph.
 - c. fire;
 - d. failure of roofing system substrate, including cracking, settlement, excessive deflection, deterioration, and decomposition;
 - e. faulty construction of parapet walls, copings, chimneys, skylights, vents, equipment supports, and other edge conditions and penetrations of the work;
 - f. vapor condensation on bottom of roofing; and
 - g. activity on roofing by others, including construction contractors, maintenance personnel, other persons, and animals, whether authorized or unauthorized by Owner.
2. When work has been damaged by any of foregoing causes, Warranty shall be null and void until such damage has been repaired by Roofing Installer and until cost and expense thereof have been paid by Owner or by another responsible party so designated.
3. Roofing Installer is responsible for damage to work covered by this Warranty but is not liable for consequential damages to building or building contents resulting from leaks or faults or defects of work.
4. During Warranty Period, if Owner allows alteration of work by anyone other than Roofing Installer, including cutting, patching, and maintenance in connection with penetrations, attachment of other work, and positioning of anything on roof, this Warranty shall become null and void on date of said alterations, but only to the extent said alterations affect work covered by this Warranty. If Owner engages Roofing Installer to perform said alterations, Warranty shall not become null and void unless Roofing Installer, before starting said work, shall have notified Owner in writing, showing reasonable cause for claim, that said alterations would likely damage or deteriorate work, thereby reasonably justifying a limitation or termination of this Warranty.
5. During Warranty Period, if original use of roof is changed and it becomes used for, but was not originally specified for, a promenade, work deck, spray-cooled surface, flooded basin, or other use or service more severe than originally specified, this Warranty shall become null and void on date of said change, but only to the extent said change affects work covered by this Warranty.
6. Owner shall promptly notify Roofing Installer of observed, known, or suspected leaks, defects, or deterioration and shall afford reasonable opportunity for Roofing Installer to inspect work and to examine evidence of such leaks, defects, or deterioration.
7. This Warranty is recognized to be the only warranty of Roofing Installer on said work and shall not operate to restrict or cut off Owner from other remedies and resources lawfully available to Owner in cases of roofing failure. Specifically, this Warranty shall not operate to relieve Roofing Installer of responsibility for performance of original work according to requirements of the Contract Documents, regardless of whether Contract was a contract directly with Owner or a subcontract with Owner's General Contractor.

E. IN WITNESS THEREOF, this instrument has been duly executed this _____ day of _____, _____.

1. Authorized Signature: _____.
2. Name: _____.
3. Title: _____.

END OF SECTION 075423

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Manufactured Products:
 - a. Manufactured reglets and counterflashing.
 - 2. Formed Products:
 - a. Miscellaneous sheet metal flashing as indicated.
- B. Related Sections:
 - 1. Section 061053 "Miscellaneous Rough Carpentry" for wood nailers, curbs, and blocking.
 - 2. Section 077100 "Roof Specialties" for copings.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Thermal Movements: Provide sheet metal flashing and trim that allows for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:
 - 1. Identification of material, thickness, weight, and finish for each item and location in Project.
 - 2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
 - 3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.

4. Details of termination points and assemblies, including fixed points.
 5. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
 6. Details of special conditions.
 7. Details of connections to adjoining work.
 8. Detail formed flashing and trim at a scale of not less than 1-1/2 inches per 12 inches.
- C. Samples for Initial Selection: For each type of sheet metal flashing, trim, and accessory indicated with factory-applied color finishes involving color selection.
- D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:
1. Sheet Metal Flashing: 12 inches long by actual width of unit, including finished seam and in required profile. Include fasteners, cleats, clips, closures, and other attachments.
 2. Trim, Metal Closures, Expansion Joints, Joint Intersections, and Miscellaneous Fabrications: 12 inches long and in required profile. Include fasteners and other exposed accessories.
 3. Accessories and Miscellaneous Materials: Full-size Sample.
 4. Anodized Aluminum Samples: Samples to show full range to be expected for each color required.
- E. Qualification Data: For qualified fabricator.
- F. Maintenance Data: For sheet metal flashing, trim, and accessories to include in maintenance manuals.
- G. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.
- C. Preinstallation Conference: Conduct conference at Project site.
1. Meet with Contractor, Installer, and installers whose work interfaces with or affects sheet metal flashing and trim including installers of roofing materials, roof accessories.
 2. Review methods and procedures related to sheet metal flashing and trim.
 3. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
 4. Review special roof details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect sheet metal flashing.
 5. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.

- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

1.7 WARRANTY

- A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.
- B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.
- C. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet according to ASTM A 653/A 653M, G90 coating designation or aluminum-zinc alloy-coated steel sheet according to ASTM A 792/A 792M, Class AZ50 coating designation, Grade 40; prepainted by coil-coating process to comply with ASTM A 755/A 755M.
 - 1. Surface: Smooth, flat and mill phosphatized.
 - 2. Exposed Coil-Coated Finish:
 - a. Two-Coat Fluoropolymer: AAMA 621. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

3. Color: As selected by Architect from manufacturer's full range, to match existing.
4. Concealed Finish: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with minimum total dry film thickness of 0.5 mil.

2.3 UNDERLAYMENT MATERIALS

- A. Polyethylene Sheet: 6-mil- thick polyethylene sheet complying with ASTM D 4397.
- B. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, nonperforated.
- C. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal[or manufactured item] unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
 2. Fasteners for Aluminum-Zinc Alloy-Coated Steel Sheet: Hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329 or Series 300 stainless steel.
- C. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- F. Epoxy Seam Sealer: Two-part, noncorrosive, aluminum seam-cementing compound, recommended by aluminum manufacturer for exterior nonmoving joints, including riveted joints.
- G. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- H. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.5 MANUFACTURED SHEET METAL FLASHING AND TRIM

- A. Reglets: Units of type, material, and profile required, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with factory-mitered and -welded corners and junctions and with interlocking counterflashing on exterior face, of same metal as reglet.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Cheney Flashing Company.
 - b. Fry Reglet Corporation.
 - c. Heckmann Building Products, Inc.
 - d. Hickman, W. P. Company.
 - e. Hohmann & Barnard, Inc.
 - f. Keystone Flashing Company, Inc.
 - g. National Sheet Metal Systems, Inc.
 - h. Sandell Manufacturing.
 2. Material: Galvanized steel, 0.022 inch thick.
 3. Stucco Type: Provide with upturned fastening flange, of minimum length of 3.5 inches, and extension leg of length to match thickness of applied finish materials.
 4. Accessories:
 - a. Flexible-Flashing Retainer: Provide resilient plastic or rubber accessory to secure flexible flashing in reglet where clearance does not permit use of standard metal counterflashing or where Drawings show reglet without metal counterflashing.
 - b. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing's lower edge.
 5. Finish: With manufacturer's standard color coating as selected from manufacturer's full range of color.

2.6 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 2. Obtain field measurements for accurate fit before shop fabrication.
 3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- C. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."
- D. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.
- E. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with butyl sealant concealed within joints.

- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.
- G. Fabricate cleats and attachment devices of sizes as recommended by SMACNA's "Architectural Sheet Metal Manual" and by FMG Loss Prevention Data Sheet 1-49 for application, but not less than thickness of metal being secured.
- H. Do not use graphite pencils to mark metal surfaces.

2.7 MISCELLANEOUS SHEET METAL FABRICATIONS

- A. Transition Flashing (flashing over tops of masonry, column covers and other flashing as indicated): Fabricate from the following materials:
 - 1. Aluminum-Zinc Alloy-Coated Steel: 0.034 inch.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- B. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 UNDERLAYMENT INSTALLATION

- A. General: Install underlayment as indicated on Drawings.
- B. Polyethylene Sheet: Install polyethylene sheet with adhesive for anchorage to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped and taped joints of not less than 2 inches.
- C. Felt Underlayment: Install felt underlayment with adhesive for temporary anchorage to minimize use of mechanical fasteners under sheet metal flashing and trim. Apply in shingle fashion to shed water, with lapped joints of not less than 2 inches.

3.3 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.

2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 3. Space cleats not more than 12 inches apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
 4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
 5. Install sealant tape where indicated.
 6. Torch cutting of sheet metal flashing and trim is not permitted.
 7. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.
1. Coat back side of uncoated aluminum and stainless-steel sheet metal flashing and trim with bituminous coating where flashing and trim will contact wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or install a course of polyethylene sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with sealant concealed within joints.
- D. Seal joints as shown and as required for watertight construction.
1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F.
 2. Prepare joints and apply sealants to comply with requirements in Division 07 Section "Joint Sealants."
- E. Fasteners: Use fastener sizes that penetrate wood blocking or sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws; or substrate indicated not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

3.4 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
- B. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches over base flashing. Lap counterflashing joints a minimum of 4 inches and bed with sealant. Secure in a waterproof manner by means of snap-in installation and sealant or lead wedges and sealant interlocking folded seam or blind rivets and sealant, or anchor and washer at 36-inch centers.

3.5 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.
- B. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerances specified in MCA's "Guide Specification for Residential Metal Roofing."

3.6 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.
- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces. Maintain in a clean condition during construction.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

SECTION 077100 - ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Fascia.
 - 2. Miscellaneous associated flashing.
- B. Related Sections:
 - 1. Division 06 Section "Rough Carpentry" for wood nailers, curbs, and blocking.
 - 2. Division 07 Section "Sheet Metal Flashing and Trim" for custom- and site-fabricated sheet metal flashing and trim.
 - 3. Division 07 Section "Joint Sealants" for field-applied sealants between roof specialties and adjacent materials.

1.3 PERFORMANCE REQUIREMENTS

- A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.
- B. FM Approvals' Listing: Manufacture and install copings and roof-edge flashings that are listed in FM Approvals' "RoofNav" and approved for windstorm classification, Class 1-90. Identify materials with FM Approvals' markings.
- C. SPRI Wind Design Standard: Manufacture and install copings and roof-edge flashings tested according to SPRI ES-1 and capable of resisting the following design pressures:
 - 1. Design Pressure: 30 lbf/sq. ft., acting inward or outward.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 - 1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Shop Drawings: For roof specialties. Include plans, elevations, expansion-joint locations, keyed details, and attachments to other work. Distinguish between plant- and field-assembled work. Include the following:
 - 1. Details for expansion and contraction; locations of expansion joints, including direction of expansion and contraction.
 - 2. Pattern of seams and layout of fasteners, cleats, clips, and other attachments.
 - 3. Details of termination points and assemblies, including fixed points.
 - 4. Details of special conditions.
- C. Samples for Initial Selection: For each type of roof specialty indicated with factory-applied color finishes.
- D. Samples for Verification: For copings roof-edge flashings made from 12-inch lengths of full-size components including fasteners, cover joints, accessories, and attachments.
- E. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for copings and roof-edge flashings.
- F. Maintenance Data: For roofing specialties to include in maintenance manuals.
- G. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Meet with Contractor, Installer, and installers whose work interfaces with or affects roof specialties including installers of roofing materials and accessories.
 - 2. Examine substrate conditions for compliance with requirements, including flatness and attachment to structural members.
 - 3. Review special roof details, roof drainage, and condition of other construction that will affect roof specialties.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage. Store roof specialties away from uncured concrete and masonry.
- B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof specialties installation.

1.7 WARRANTY

- A. Special Warranty on Painted Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace roof specialties that show evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Fluoropolymer Finish: Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Finish Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 EXPOSED METALS

- A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 coating designation.
 - 1. Surface: Smooth, flat finish.
 - 2. Exposed Coil-Coated Finishes: Prepainted by the coil-coating process to comply with ASTM A 755/A 755M. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
 - a. Two-Coat Fluoropolymer: AAMA 621. System consisting of primer and fluoropolymer color topcoat containing not less than 70 percent PVDF resin by weight.

2.2 CONCEALED METALS

- A. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 coating designation.

2.3 UNDERLAYMENT MATERIALS

- A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, nonperforated.
- B. Polyethylene Sheet: 6-mil- thick polyethylene sheet complying with ASTM D 4397.
- C. Slip Sheet: Building paper, 3-lb/100 sq. ft. minimum, rosin sized.

2.4 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.
- B. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:
 - 1. Fasteners for Aluminum: Aluminum or Series 300 stainless steel.

2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Series 300 stainless steel or hot-dip zinc-coated steel according to ASTM A 153/A 153M or ASTM F 2329.
- C. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant of type, grade, class, and use classifications required by roofing-specialty manufacturer for each application.
- D. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.
- E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.5 COPING

- A. Salvage existing copings to be re-installed per SMACNA standards.

2.6 ROOF-EDGE SPECIALTIES

- A. Canted Roof-Edge Fascia: Manufactured, two-piece, roof-edge fascia consisting of snap-on metal fascia cover in section lengths not exceeding 12 feet and a continuous formed galvanized-steel sheet cant, 0.028 inch thick, minimum, with extended vertical leg terminating in a drip-edge cleat. Provide matching corner units.
 1. Basis-of-Design Product: Subject to compliance with requirements, provide 2-Piece Snap-On Compression metal fascia, size as indicated, as manufactured by Mule-Hide Products Inc. or comparable product by other manufacturers including, but not limited to, the following:
 - a. Architectural Products Company.
 - b. ATAS International, Inc.
 - c. Castle Metal Products.
 - d. Cheney Flashing Company.
 - e. Merchant & Evans, Inc.
 - f. Metal-Era, Inc.
 - g. Metal-Fab Manufacturing, LLC.
 - h. Petersen Aluminum Corporation.
 - i. W.P. Hickman
 2. Metallic-Coated Steel Sheet Fascia Covers: Zinc-coated (galvanized) steel, nominal 0.028-inch thickness, or thickness as required to meet performance requirements.
 - a. Surface: Smooth, flat finish.
 - b. Finish: Two-coat fluoropolymer.
 - c. Color: As selected by Architect from manufacturer's full range.
 3. Corners: Factory fabricated.
 4. Splice Plates: Concealed, of same material, finish, and shape as fascia cover.
 5. Fascia Accessories:
 - a. Fascia extenders with continuous hold-down cleats, designed and provided to interlock with gravel stop fascia described above. Provide in same material and finish as gravel stop fascia. Provide fascia extenders as detailed on the drawings.

2.7 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
- B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.
- B. Examine walls, roof edges, and parapets for suitable conditions for roof specialties.
- C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete roof-specialty systems.
 - 1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
 - 2. Provide uniform, neat seams with minimum exposure of solder and sealant.
 - 3. Install roof specialties to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
 - 4. Torch cutting of roof specialties is not permitted.
 - 5. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.
 - 1. Coat concealed side of uncoated aluminum roof specialties with bituminous coating where in contact with wood, ferrous metal, or cementitious construction.
 - 2. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or polyethylene sheet.
 - 3. Bed flanges in thick coat of asphalt roofing cement where required by manufacturers of roof specialties for waterproof performance.

- C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.
 - 1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise shown on Drawings.
 - 2. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.
- D. Fastener Sizes: Use fasteners of sizes that will penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.
- E. Seal joints with sealant as required by roofing-specialty manufacturer.
- F. Seal joints as required for watertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F.

3.3 COPING INSTALLATION

- A. Install cleats, anchor plates, and other anchoring and attachment accessories and devices with concealed fasteners.
- B. Anchor copings to meet performance requirements.
 - 1. Interlock face and back leg drip edges of snap-on coping cap into cleated anchor plates anchored to substrate at manufacturer's required spacing that meets performance requirements.
 - 2. Interlock face leg drip edge into continuous cleat anchored to substrate at manufacturer's required spacing that meets performance requirements. Anchor back leg of coping with screw fasteners and elastomeric washers at manufacturer's required spacing that meets performance requirements.

3.4 ROOF-EDGE FLASHING INSTALLATION

- A. Install cleats, cants, and other anchoring and attachment accessories and devices with concealed fasteners.
- B. Anchor roof edgings with manufacturer's required devices, fasteners, and fastener spacing to meet performance requirements.

3.5 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder and sealants.
- C. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.
- D. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION 077100

SECTION 077233

ROOF HATCH RAIL SYSTEM

(BILCO TYPE BIL-GUARD 2.0)

PART 1 - GENERAL

1.1 SUMMARY

- A. Work Included: Provide factory-fabricated fixed hatch railing system.

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data.
- B. Shop Drawings: Submit shop drawings including profiles, accessories, location, adjacent construction interface, and dimensions.
- C. Warranty: Submit executed copy of manufacturer's standard warranty.

1.3 QUALITY ASSURANCE

- A. Manufacturer: A minimum of 5 years experience manufacturing similar products.
- B. Installer: A minimum of 2 years experience installing similar products.
- C. Manufacturer's Quality System: Registered to ISO 9001 Quality Standards including in-house engineering for product design activities.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in manufacturer's original packaging. Store materials in a dry, protected, well-vented area. Inspect product upon receipt and report damaged material immediately to delivering carrier and note such damage on the carrier's freight bill of lading.

1.5 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard warranty. Materials shall be free of defects in material and workmanship for a period of five years from the date of purchase. Should a part fail to function in normal use within this period, manufacturer shall furnish a new part at no charge.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Basis-of-Design Manufacturer: Type Bil-Guard® 2.0 Roof Hatch Railing System by The BILCO Company, P.O. Box 1203, New Haven, CT 06505, 800-366-6530, Fax: 1-203-535-1582, Web: www.bilco.com, or approved equal.

2.2 HATCH RAIL SYSTEM

- A. Furnish and install where indicated on plans hatch rail system Model RL2-S (field verify size of existing hatch); The hatch rail system shall be field assembled and installed (by others) per the manufacturer's instructions.
- B. Performance characteristics:
 - 1. High visibility safety yellow powder coat paint finish (*other colors available as a special order*).
 - 2. Hatch rail system shall attach to the capflashing of the roof hatch and shall not penetrate any roofing material.
 - 3. Hatch rail system shall satisfy the requirements of OSHA 29 CFR 1910.29 and shall meet OSHA strength requirements with a factor of safety of two.
 - 4. Corrosion resistant construction with a five-year warranty.
 - 5. Hinged gate shall ensure continuous barrier around the roof hatch.
 - 6. Self-closing gate hinge and positive latching system provided with hatch rail system.
- C. Posts and Rails: 1-1/4" (32mm) 6061 T6 schedule 40 aluminum pipe
- D. Hardware: Mounting brackets shall be 3/8" (9mm) thick extruded aluminum. Pivoting post guides with compression fittings and latching mechanism shall be cast aluminum. Self-closing hinges and all fasteners shall be type 316 stainless steel.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and openings for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install products in strict accordance with manufacturer's instructions and approved submittals. Locate units level, plumb, and in proper alignment with adjacent work.
 - 1. Test units for proper function and adjust until proper operation is achieved.
 - 2. Repair finishes damaged during installation.
 - 3. Restore finishes so no evidence remains of corrective work.

3.3 ADJUSTING AND CLEANING

- A. Clean exposed surfaces using methods acceptable to the manufacturer which will not damage finish.

END OF SECTION

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Polyurethane joint sealants.

1.3 SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Samples for Initial Selection: Manufacturer's color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.
- C. Samples for Verification: For each kind and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- wide joints formed between two 6-inch- long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- D. Joint-Sealant Schedule: Include the following information:
 - 1. Joint-sealant application, joint location, and designation.
 - 2. Joint-sealant manufacturer and product name.
 - 3. Joint-sealant formulation.
 - 4. Joint-sealant color.
- E. Qualification Data: For qualified Installer.
- F. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.
- G. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.
- H. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.
- I. Preconstruction Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:
 - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.

2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.

J. Warranties: Sample of special warranties.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.
- C. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.
- D. Preinstallation Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
 2. When joint substrates are wet.
 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.6 WARRANTY

- A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace 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 joint-sealant manufacturer agrees to furnish 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: Five years from date of Substantial Completion.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
 1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
 2. Disintegration of joint substrates from natural causes exceeding design specifications.

3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 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 joint-sealant manufacturer, based on testing and field experience.
- B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
 1. Suitability for Immersion in Liquids. Where sealants are indicated for Use I for joints that will be continuously immersed in liquids, provide products that have undergone testing according to ASTM C 1247. Liquid used for testing sealants is deionized water, unless otherwise indicated.
- C. Stain-Test-Response Characteristics: Where 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.
- D. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.2 URETHANE JOINT SEALANTS

- A. Multicomponent, Nonsag, Urethane Joint Sealant: ASTM C 920, Type M, Grade NS, Class 50, for Use NT.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Pecora Corporation; Dynatrol II.
 - b. Polymeric Systems, Inc.; PSI-270.
 - c. Tremco Incorporated; Dymerc 240

2.3 JOINT SEALANT BACKING

- A. General: Provide sealant backings of material 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), Type O (open-cell material), Type 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. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint. Provide self-adhesive tape where applicable.

2.4 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 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Clean porous joint substrate surfaces by brushing, grinding, 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. Porous joint substrates include the following:
 - a. Concrete.
 - b. Masonry.
 - 3. Remove laitance and form-release agents from concrete.
 - 4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

- a. Metal.
 - b. Glass.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by 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 or primer 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.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- 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 kind 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 in subparagraphs 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 profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
 - 4. Provide flush joint profile where indicated per Figure 8B in ASTM C 1193.
 - 5. Provide recessed joint configuration of recess depth and at locations indicated per Figure 8C in ASTM C 1193.

- a. Use masking tape to protect surfaces adjacent to recessed tooled joints.

3.4 CLEANING

- A. 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.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

3.6 JOINT-SEALANT SCHEDULE

- A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces – JS-1.
 1. Joint Locations:
 - a. Control and expansion joints in unit masonry.
 - b. Perimeter joints between materials listed above and frames of doors, windows.
 - c. Other joints as indicated.
 2. Urethane Joint Sealant: Multicomponent, nonsag, Class 50.
 3. Structural Movement: 50% in extension and compression without adhesive or cohesive failure.
 4. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

END OF SECTION 079200



SHAWNEE COUNTY - ROOF REPLACEMENT PROJECT

K-STATE RESEARCH & EXTENSION CENTER

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ATTN: OWNER CONTACT



ARCHITECT

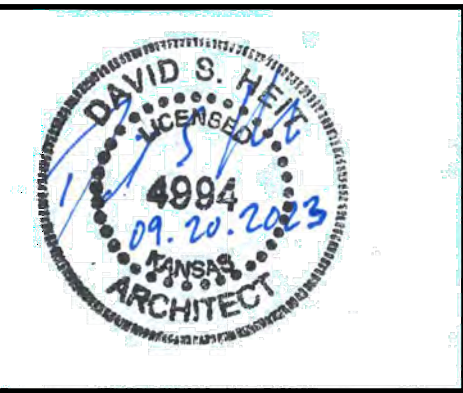
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SHAWNEE COUNTY
EXTENSION OFFICE
ROOF REPLACEMENT

1740 WESTERN AVE
TOPEKA, KS 66604

PROJECT
NUMBER:

23021

#	ISSUE/REVISION	DATE

COVER SHEET

G101

BID SET
9.18.2023

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1.

ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH FEDERAL AND STATE LAWS, CURRENT LOCAL ORDINANCES AND ADOPTED BUILDING CODES. AND THE AMERICANS WITH DISABILITIES ACT (ADA), REFER TO CODE SUMMARY FOR SPECIFIC APPLICABLE LAWS, ORDINANCES, AND CODES. REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
2.

THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS AND PAY ALL FEES AS NECESSARY FOR THE CONSTRUCTION COVERED IN THE PROJECT.
3.

ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER'S REPRESENTATIVE AND THE ARCHITECT.
4.

ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND SHALL PROVIDE ALL WORK AND MATERIALS AS SHOWN ON PLANS AND SPECIFIED IN THE SPECIFICATIONS.
5.

THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
6.

THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER ANY MATERIALS TO BE REUSED AND WILL BE RESPONSIBLE FOR VERIFYING AND MAINTAINING THE FUNCTION AND AESTHETIC INTEGRITY OF THE MATERIALS.
7.

THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH ALL SECTIONS OF THE SPECIFICATIONS BEFORE BEGINNING THE WORK.
8.

THE CONTRACTOR SHALL NOT CHANGE OR DEViate FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ARCHITECT.
9.

DRAWINGS CONTAINED IN THE SET SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS UNLESS APPROVAL FROM THE DESIGN PROFESSIONAL WHO DEVELOPED DRAWING FILES HAS BEEN RECEIVED.
10.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION AND THE SAFETY OF ALL CONSTRUCTION PERSONNEL AND VISITORS.
11.

DO NOT SCALE DRAWINGS; FOLLOW WRITTEN DIMENSIONS AND NOTES. CONTACT ARCHITECT FOR CLARIFICATIONS IF REQUIRED.
12.

"TYPICAL" AS USED IN THESE DOCUMENTS SHALL MEAN THAT THE CONDITIONS OR DIMENSIONS ARE REPRESENTATIVE OR THE SAME FOR SIMILAR CONDITIONS THROUGHOUT.
13.

THE RELATION OF SPECIFICATIONS AND DRAWINGS SHALL BE EQUAL AUTHORITY AND PRIORITY. SHOULD THEY DISAGREE IN THEMSELVES, OR WITH EACH OTHER, BIDS SHALL BE BASED ON THE MOST EXPENSIVE COMBINATION OF QUALITY AND QUANTITY OF WORK INDICATED. THE APPROPRIATE WORK, IN THE EVENT OF THE ABOVE MENTIONED DISAGREEMENTS, SHALL BE DETERMINED BY THE ARCHITECT.
14.

FAILURE TO REPORT A CONFLICT IN THE CONTRACT DOCUMENTS SHALL BE DEEMED EVIDENCE THAT THE CONTRACTOR HAS ELECTED TO PROCEED IN THE MORE EXPENSIVE MANNER.
15.

CONTRACTOR TO COORDINATE SCHEDULE OF PROPOSED WORK WITH OWNER PRIOR TO ANY WORK BEING STARTED ON THE PREMISES.
16.

ON COMPLETION OF THE PROJECT, CONTRACTOR SHALL CLEAN ALL SURFACES AND LEAVE THE WORK IN CLEAN CONDITION. THE CONTRACTOR AT ALL TIMES SHALL KEEP PREMISES FREE FROM WASTE MATERIALS AND RUBBISH CAUSED BY THE WORK.
17.

WHENEVER CONTRACT DOCUMENTS REASONABLY INFER MATERIALS OR INSTALLATION AS NECESSARY TO PRODUCE THE INTENDED RESULTS, BUT DO NOT FULLY DETAIL OR SPECIFY SUCH MATERIALS, THE CONTRACTOR SHALL PROVIDE THE MATERIALS AND LABOR REQUIRED FOR INSTALLATION.
18.

THE SPECIFICATIONS HAVE BEEN PARTIALLY "STREAMLINED" AND SOME WORDS AND PHRASES HAVE BEEN INTENTIONALLY OMITTED. MISSING PORTIONS SHALL BE SUPPLIED BY INFERENCE AS WITH NOTES ON DRAWINGS.
19.

WORDS LIKE "INSTALL," "PROVIDE," "LOCATE," "FURNISH," AND "SUPPLY" SHALL BE CONSTRUED TO INCLUDE COMPLETE FURNISHINGS AND INSTALLING OR CONSTRUCTION BY THE CONTRACTOR.
20.

ALL MANUFACTURER AND PRODUCT REFERENCES ARE BASIS-OF-DESIGN ONLY. ITEMS CAPABLE OF EQUAL PERFORMANCE, BUT PROVIDED BY AN ALTERNATE MANUFACTURER, WILL BE ACCEPTABLE.
21.

ALL MEANS OF EGRESS TO REMAIN IDENTIFIABLE AND OPEN DURING CONSTRUCTION.
22.

ALL EXISTING CONDITIONS, DIMENSIONS, AND MATERIALS OF CONSTRUCTION ARE TO BE VERIFIED IN THE FIELD PRIOR TO ANY DEMOLITION WORK OR ANY NEW CONSTRUCTION.
23.

ALL CONDITIONS, DIMENSIONS, ROOMS/ SPACES, AND MATERIALS OF CONSTRUCTION INDICATED ON THESE SHEETS/DRAWINGS ARE "EXISTING", UNLESS NOTED OTHERWISE.
24.

ALL EXISTING CONDITIONS AND EXISTING CONSTRUCTION TO REMAIN, UNLESS NOTED OTHERWISE.
25.

VERIFY ALL EXISTING STRUCTURAL/LOAD-BEARING CONDITIONS PRIOR TO ANY DEMOLITION WORK OR ANY NEW CONSTRUCTION. CONTACT CLIENT AND ARCHITECT IF ANY DISCREPANCIES EXIST.
26.

AREAS OF PROJECT NOT PART OF THIS REMODEL TO BE PROTECTED FROM DUST AND DAMAGE DURING REMODEL.
27.

FIRE SPRINKLER SYSTEM AND FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION. WRITTEN AUTHORIZATION FROM LOCAL FIRE DISTRICT WILL BE REQUIRED IF AND BEFORE EITHER SYSTEM IS TO BE SHUT DOWN.
28.

CONTRACTOR'S STAGING AREA WILL BE IDENTIFIED AND APPROVED BY OWNER PRIOR TO THE START OF CONSTRUCTION.

- ACQST.

ACT; ATC

A.F.F.

ALT.

ALUM.

ARCH.

BLDG.

BLKG.

BO.

BRG.

B.O.D.

C.

C.J.

CMU

CONC.

CONT.

DET.

DIA.

DR.

DWG.

D.S.

DTL.

EFS

E.J.

EL.

ELEC; ELECT.

ELEV.

ELV; ELVR.

ELEVATOR

EPS.

EQ.

EXG; EXTG.

EXT.

F.O.I.C.

F.B.O.

FDTN; FND.

F.E.

F.E.C.

F.V.

FL.; FLR.

FRP.

FR

FTG.

G.A.

G.B.

GALV.

GYP. BD.

H.M.

HORIZ.

HSS

HT.

I.B.C.

INSUL.

INT.

JST.

JT.

MANUF.

MAS.

M.O.

MAX.

MECH.

MEDS.

MEPS.

MISC.

MIN.

M.R.

MTL.

N.T.S.

O.C.

OCC.

OPCI

OPOI

PL

PLAM

PRE-FIN

RCP

RE-; REF.

REQ'D

R.O.

SF.

SQ FT

STL

STRUCT.

SUSP.

T.O.

T.P.

TYP.

U.N.O.

VCT

V.R.

WDO ; WDW

WF

WWF

XPS.
- ACOUSTICAL

ACOUSTICAL CEILING TILE

ABOVE FINISHED FLOOR

ALTERNATE

ALUMINUM

ARCHITECTURAL

BLOCKING

BOTTOM OF BEARING

BASIS OF DESIGN

CENTERLINE

CONTROL JOINT

CONCRETE MASONRY UNIT

CONCRETE

CONTINUOUS

DETAIL

DIAMETER

DOOR

DRAWING

DOWNSPOUT

DETAIL

EXTERIOR INSULATION FINISH SYSTEM

EXPANSION JOINT

ELEVATION

ELECTRICAL

ELEVATION/ELEVATOR

ELEVATOR

EXPANDED POLYSTYRENE

EQUAL

EXISTING

EXTERIOR

FURNISHED BY OWNER, INSTALLED BY CONTRACTOR

FURNISHED BY OTHERS

FOUNDATION

FIRE EXTINGUISHER

FIRE EXTINGUISHER CABINET

FIELD VERIFY

FLOOR

FIBER REINFORCED PLASTIC

FIRE-RESISTANT

FOOTING

GAUGE

GRAB BAR

GALVANIZED

GYPSUM BOARD

HOLLOW METAL

HORIZONTAL

HOLLOW STEEL SECTION

HEIGHT

INTERNATIONAL BUILDING CODE

INSULATION

INTERIOR

JOIST

JOINT

MANUFACTURER

MASONRY

MASONRY OPENING

MAXIMUM

MECHANICAL

MEDICINE

MOLDED EXPANDED POLYSTYRENE

MISCELLANEOUS

MINIMUM

MOISTURE RESISTANT

METAL

NOT TO SCALE

ON CENTER

OCCUPANCY

OWNER PROVIDED, CONTRACTOR INSTALLED.

OWNER PROVIDED, OWNER INSTALLED.

PROPERTY LINE; PLATE

PLASTIC LAMINATE

PRE-FINISHED

REFLECTED CEILING PLAN

REFER TO REFERENCE

REQUIRED

ROUGH OPENING

SQUARE FOOT

SQUARE FOOT

STEEL

STRUCTURAL

SUSPENDED

TOP OF

TOILET PAPER

TYPICAL

UNLESS NOTED OTHERWISE

VINYL COMPOSITION TILE

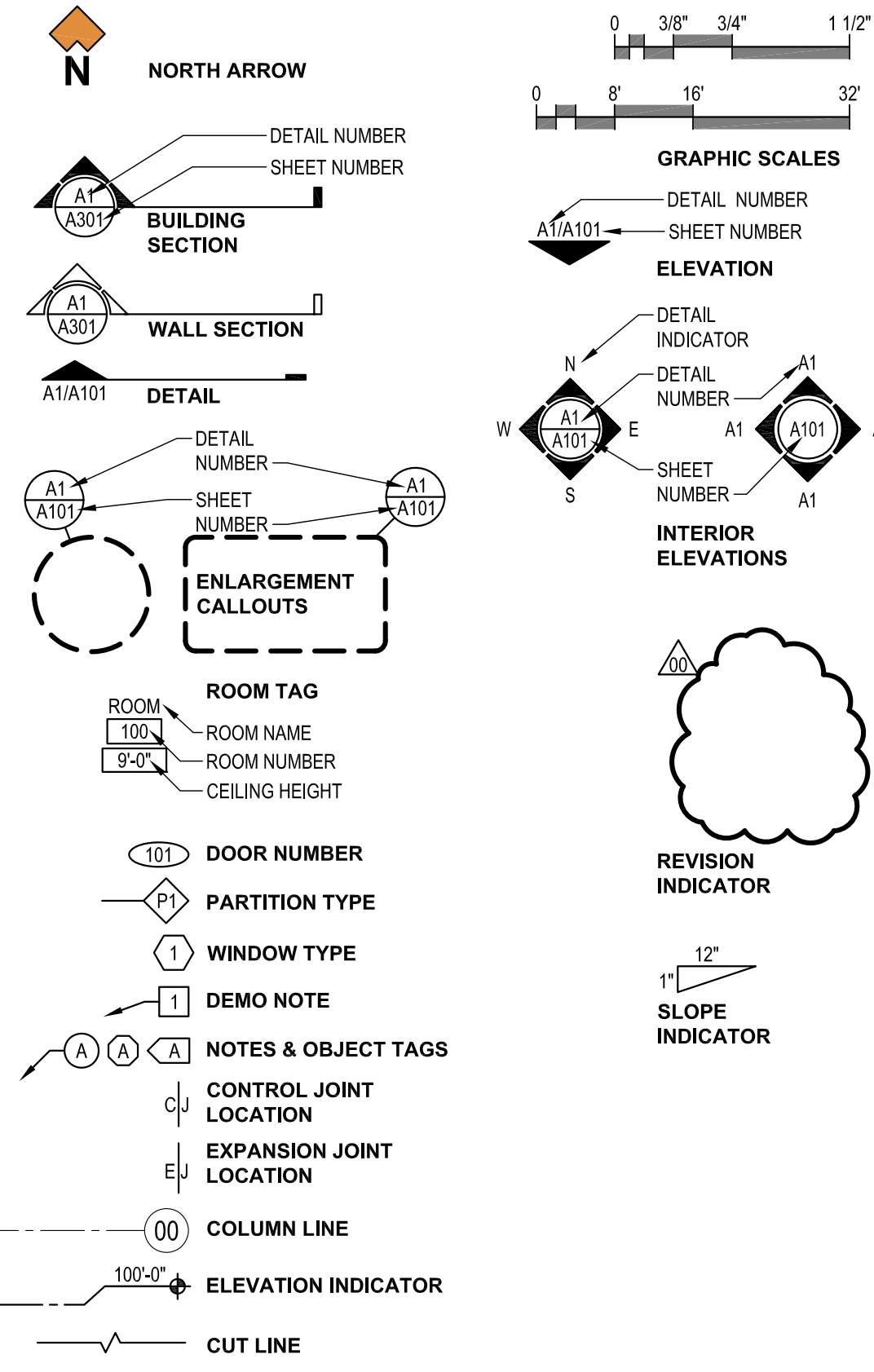
VAPOR RETARDER

WINDOW

WIDE FLANGE

WIRE WELDED FABRIC

EXTRUDED POLYSTYRENE



SHEET FILE LOCATION: P:\SHAWNEE COUNTY ON-CALL\1740 WESTERN EXTENSION OFFICE REROOF\DRAWINGS\AUTOCAD\1740 WESTERN_G102.DWG
LAST SAVED: 9/18/2023 8:14 AM BY: JS



NORTHEAST CORNER STEP DOWN 14



MAIN ROOF FACING NORTH 9



MAIN ROOF FACING NORTH 4



MAIN ROOF FACING WEST 2



NORTH ROOF LEDGE 18



SOUTHEAST PARAPET CONER 13



A/C UNITS FACING WEST 8



MAIN ROOF FACING SOUTH 3



MAIN ROOF FACING WEST 1



PVC VENT CLUSTER 17



GUTTER/DOWNSPOUT 12



A/C UNITS FACING NORTH 7



EXPANSION CURB 16



VENT AND DRAIN FACING SOUTH 11



NORTHWEST CORNER FLUE 6



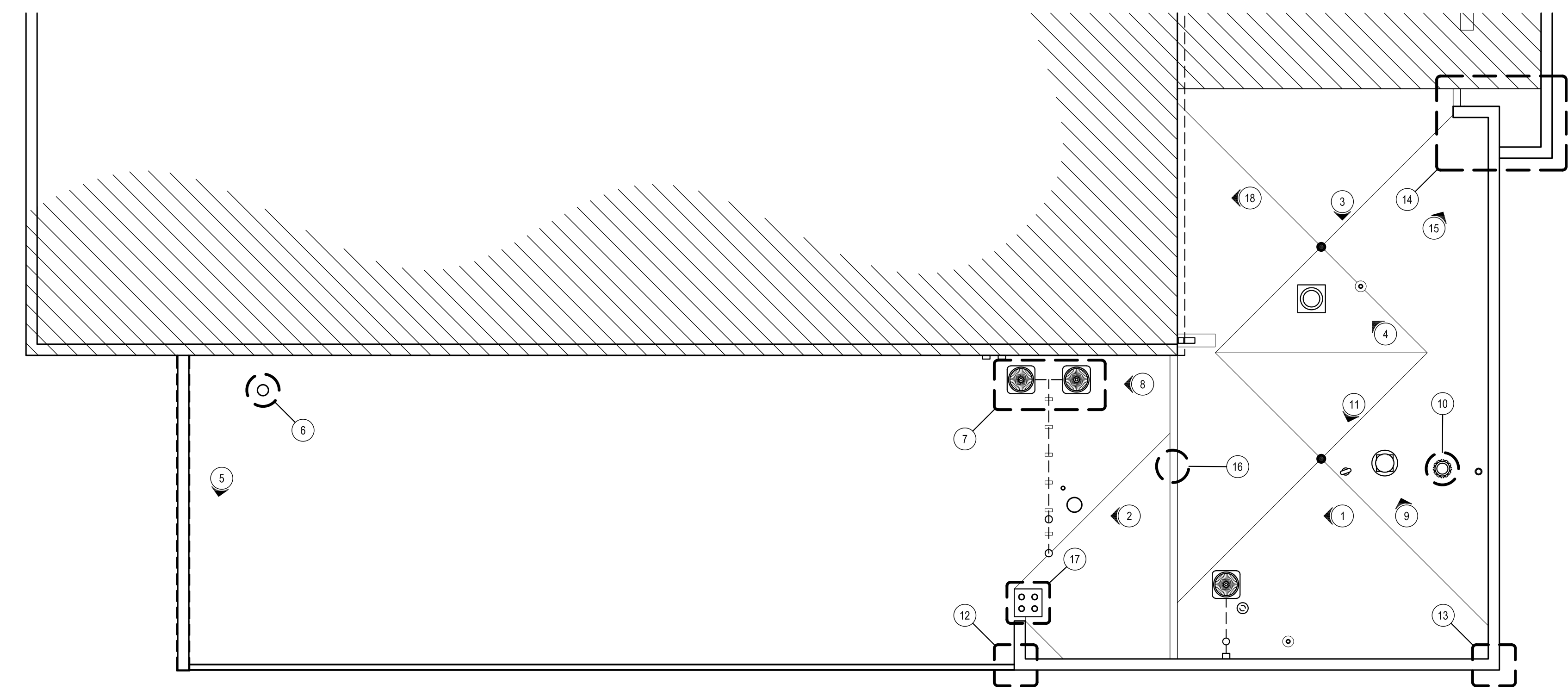
NE CORNER STEP DOWN 15



EAST SIDE FLUE VENT 10

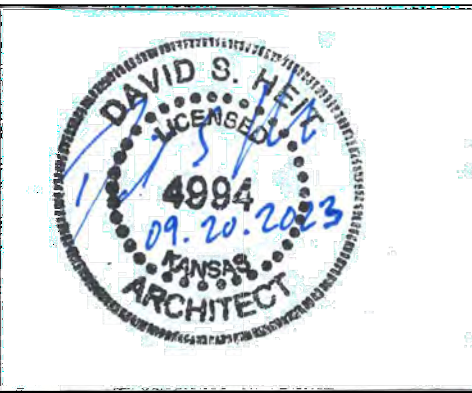


SOUTHWEST CORNER PARAPET 5



EXISTING CONDITIONS PHOTO REFERENCE PLAN


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**SHAWNEE COUNTY
EXTENSION OFFICE
ROOF REPLACEMENT**

1740 WESTERN AVE
TOPEKA, KS 66604

PROJECT NUMBER: 23021

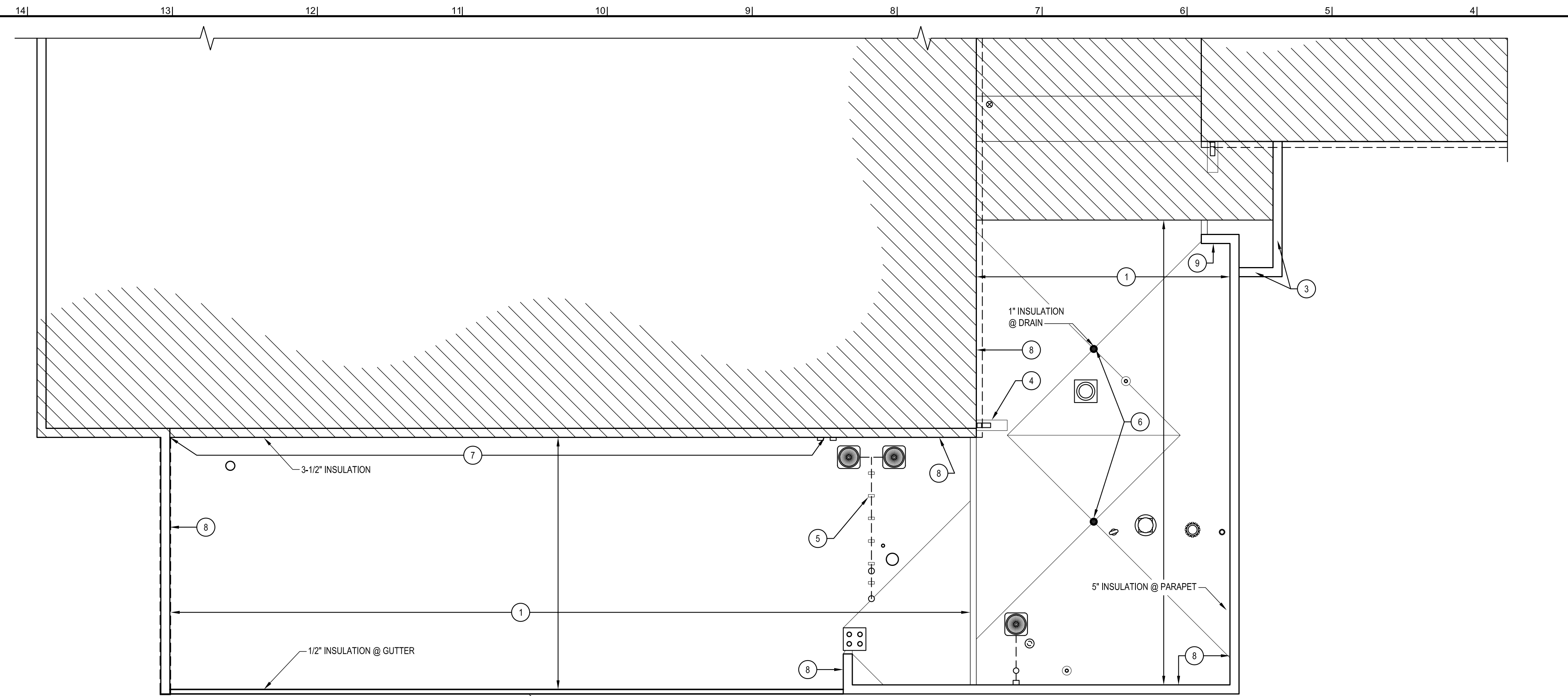
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PHOTOS OF EXISTING CONDITIONS

G102

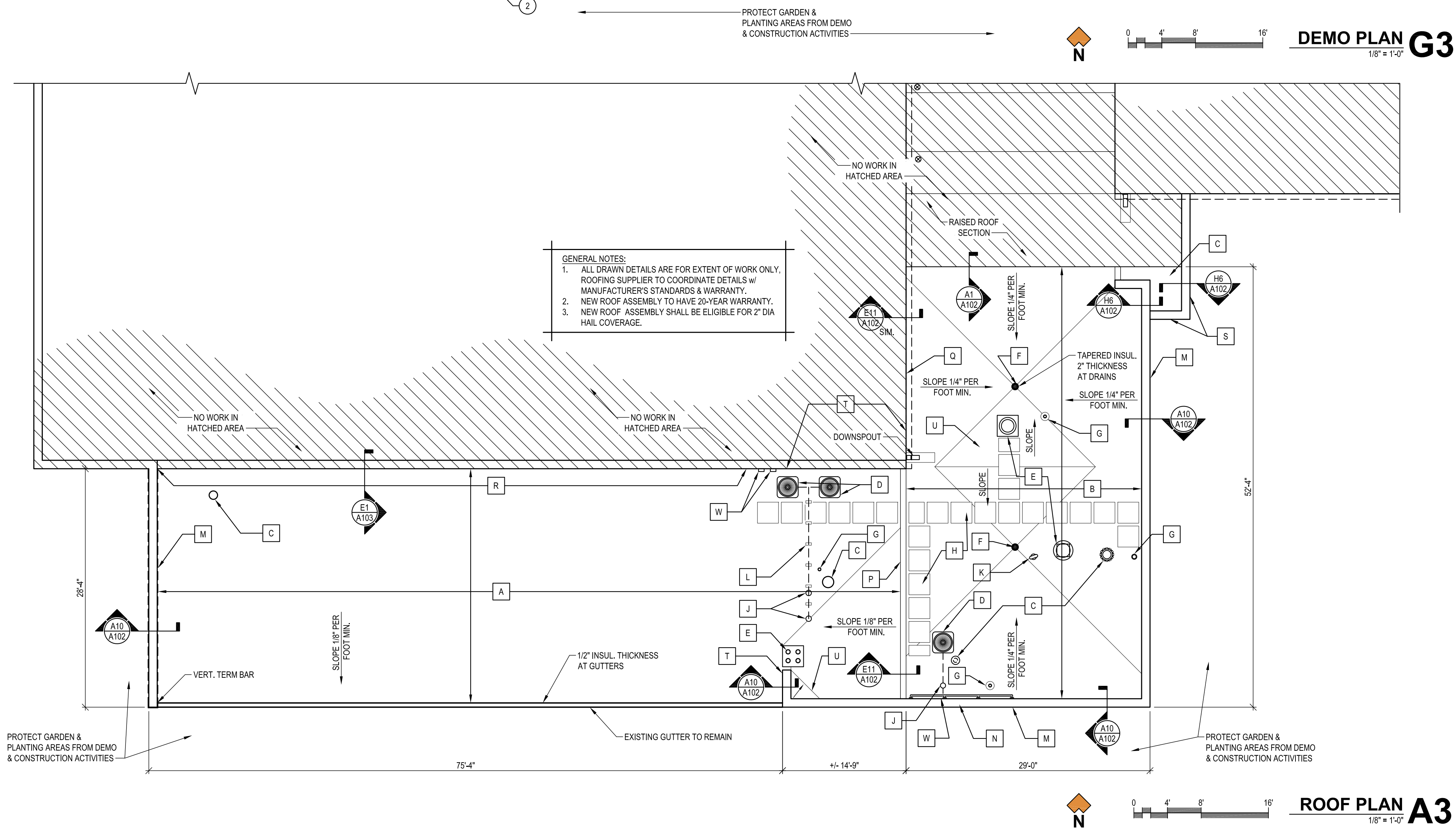
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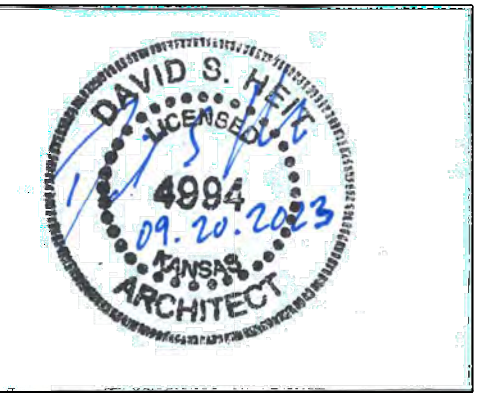
DEMO PLAN KEYNOTES:

- 1 REMOVE EXISTING EPDM MEMBRANE ROOF, 1/2" FIBER COVER BOARD AND TAPERED EPS INSULATION
- 2 EXIST'G. GUTTER TO REMAIN
- 3 SALVAGE & RE-USE METAL COPING
- 4 SALVAGE CONC. SPLASH BLOCK FOR RE-USE
- 5 REMOVE EXISTING TREATED WOOD SLEEPERS. REPLACE IF NECESSARY
- 6 EXISTING DRAINS TO REMAIN. SALVAGE DOMES
- 7 REMOVE & RE-USE METAL REGLET FLASHING. REMOVE MTL THRU FLASHING BELOW METAL SIDING PANELS. REF. DTL. E1/A103
- 8 REMOVE EPDM FLASHING & TERM BARS @ PARAPETS & MASONRY WALLS, TYP.
- 9 REMOVE ONE COURSE OF MASONRY ABOVE EXIST'G. SCUPPER OPEN'G. RE-INSTALL LINTEL ONE COARSE HIGHER



ROOF PLAN KEYNOTES:

- A FULLY ADHERED 60 MIL WHITE TPO MEMBRANE w/ 55MIL FLEECE BACKING, ON 1/2" POLYISO 100 PSI COVER BD. ADHESIVE ATTACHED OVER 1/8"FT. TAPERED POLYISO INSULATION <1 PERM, 1/2" MIN. THICKNESS AT GUTTER. ATTACH BASE INSULATION TO EXISTING TECTUM PLANK DECKING W/ LOW-RISE FOAM ADHESIVE.
- B TPO ROOF SAME AS NOTE "A" w/ COVER BD & 1/4" TAPERED POLYISO INSUL 2" MIN. INSUL @ DRAINS.
- C EXHAUST FLUE (REF DTL E1/A102)
- D A/C CONDENSER UNIT. REPLACE TREATED 4x4 SLEEPERS IF REQUIRED (DTL H11/A102)
- E EXIST'G EXHAUST FAN. MEMBRANE FLASHING @ CURB (REF DTL E6/A102)
- F EXISTING DRAIN TO BE RE-USED (REF DTL A11/A102)
- G EXIST'G. PVC VENT (REF DTL A6/A102)
- H PROTECTION WALKWAY-TYP.
- J SEALANT POCKET (REF DTL H1/A102)
- K METAL PIPE PENETRATION (REF DTL A1/A103)
- L SALVAGE & RE-USE EXIST'G. TREATED 4x4 SLEEPERS (REF DTL H11/A102)
- M EXIST'G. CONT. EXTRUDED ALUM. COPING. REMOVE & RE-INSTALL AS REQ. TO COVER TOP OF PARAPET w/ TPO FLASHING BELOW COPING.
- N GALVANIZED PIPE GUARD RAIL. 12'-0" LONG. ANCHOR TO SLEEVES ON PARAPET. REF. DTL. A6/A103
- P CONT. EXPANSION JOINT CURB TPO MEMBRANE COVER w/ FOAM ROD
- Q CONT. WALL EXPANSION JOINT w/ FOAM ROD & TPO COVER
- R CONT. MTL REGLET AT WALL PANEL. REF. DTL. A1/A103. REMOVE & RE-INSTALL METAL SIDING AS REQ'D. TO REPLACE BASE FLASHING
- S SHT. MTL. COPING. SALVAGE & RE-INSTALL FLASH TPO MEMBRANE BELOW
- T CONT. MTL. TERM BAR AT MASONRY WALL
- U MEMBRANE CRICKET- SLOPE 1/4" PER FOOT MIN.
- W REMOVE & RE-ATTACH ELECTRICAL PANEL AS REQ'D.



**SHAWNEE COUNTY
EXTENSION OFFICE
ROOF REPLACEMENT**

1740 WESTERN AVE
TOPEKA, KS 66604

PROJECT NUMBER: 23021

#	ISSUE/REVISION	DATE

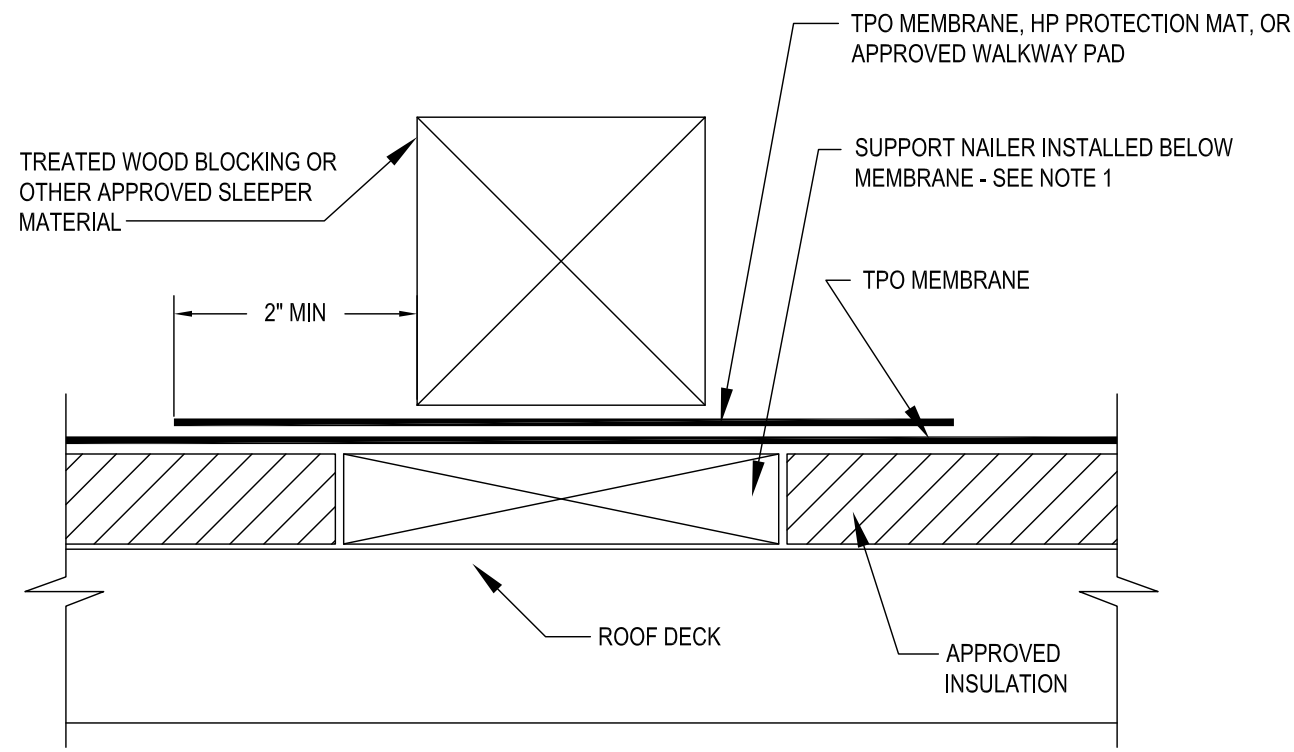
PLANS

A101

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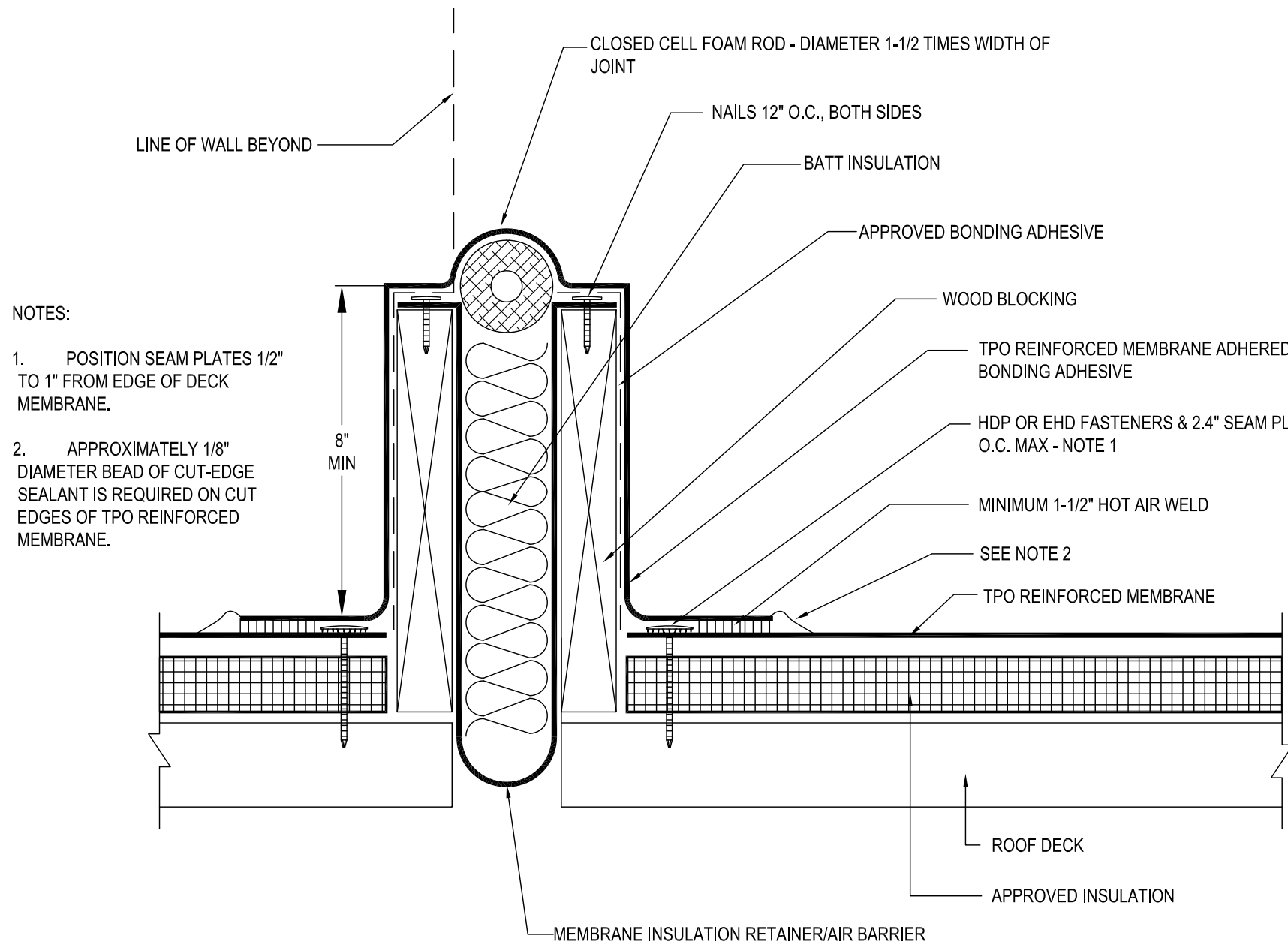
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NOTE:
1. WOOD NAILERS EXTENDING DOWN TO THE ROOF DECK ARE REQUIRED BELOW THE MEMBRANE WHEN THE ANTICIPATED WEIGHT PER SQUARE INCH (PSI) OF THE UNIT EXCEEDS 80% OF THE RATED COMPRESSIVE STRENGTH OF THE ROOF INSULATION.

SLEEPER DETAIL H11

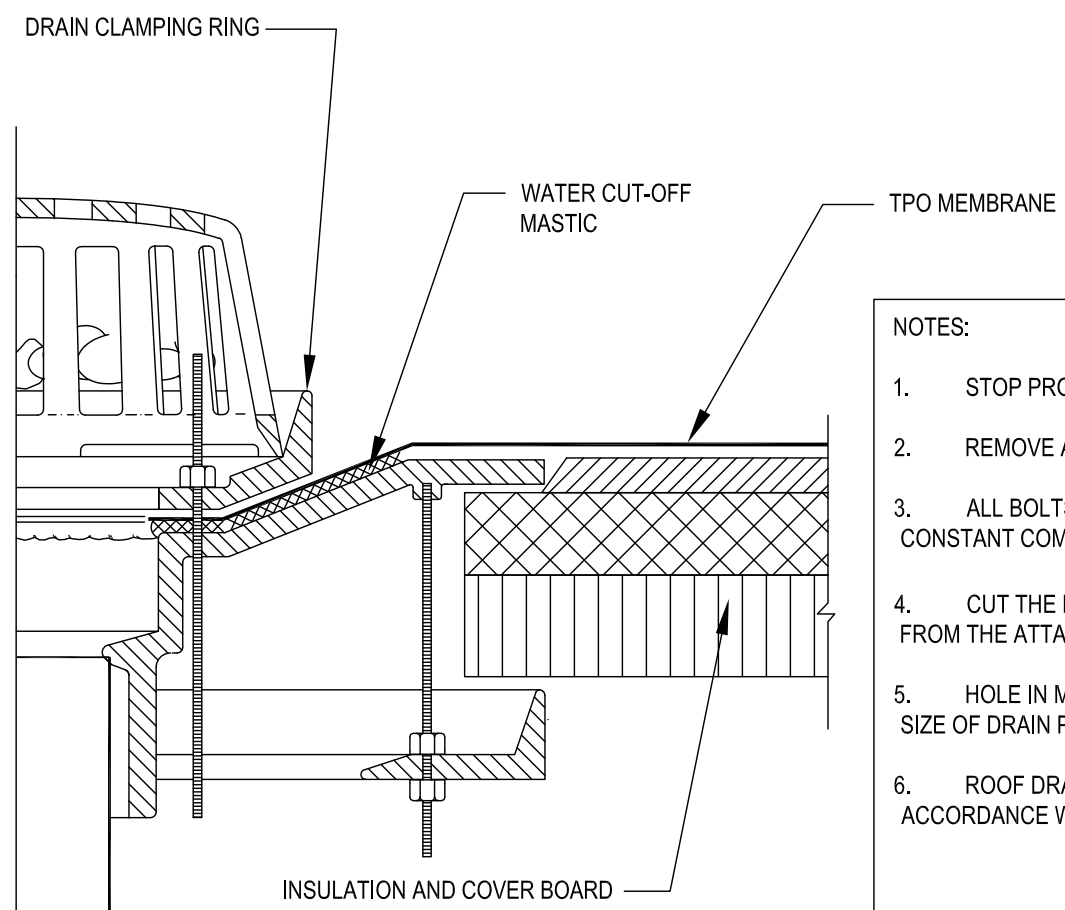
NTS



NOTES:
1. POSITION SEAM PLATES 1/2\"/>

EXPANSION JOINT CURB E11

NTS



NOTES:
1. STOP PROTECTION FABRIC MAT AT BASE OF DRAIN.
2. REMOVE ALL LEAD AND OTHER FLASHING.
3. ALL BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
4. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2\"/>

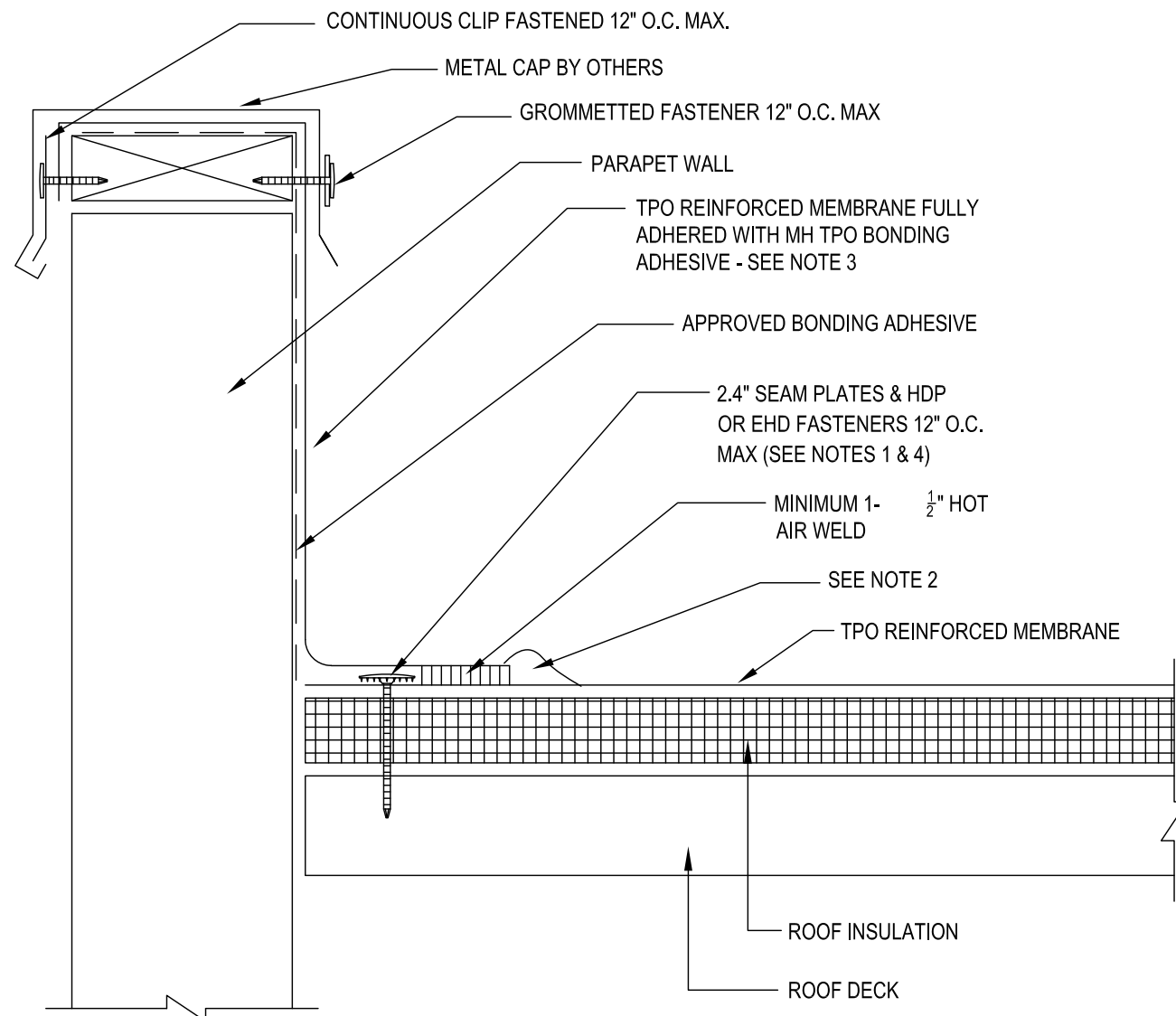
ROOF DRAIN A11

NTS = 1'-0"

NOTE:
IF SHEETMETAL IS TO BE INCLUDED IN THE WARRANTY, CONTRACTOR MUST USE MULE-HIDE METAL PRODUCTS. REFER TO DETAILS MHSM-6050, MHSM-6052, MHSM-6054A & B, OR MHSM-6056.

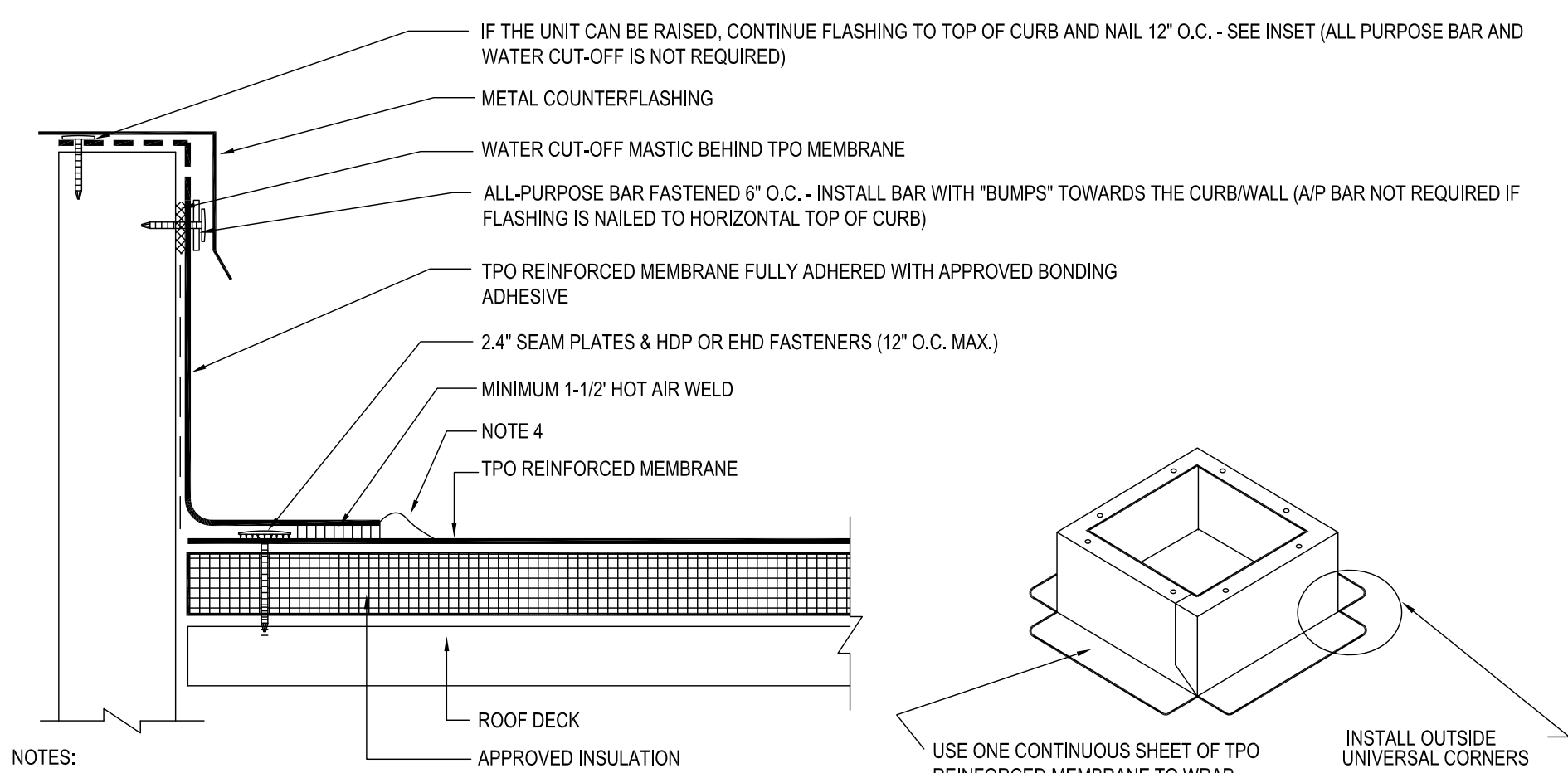
NOTES:

1. POSITION SEAM PLATES 1/2" TO 1" FROM EDGE OF DECK MEMBRANE.
2. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF TPO REINFORCED MEMBRANE.
3. WHEN COUNTERFLASHING IS USED FOR TERMINATION, BONDING ADHESIVE IS NOT REQUIRED WHEN FLASHING HEIGHT IS 12" OR LESS. WHEN COPING OR A TERMINATION BAR IS USED, ADHESIVE MAY BE ELIMINATED WHEN FLASHING HEIGHT IS 18" OR LESS.
4. ON MECHANICALLY FASTENED SYSTEMS, PROPER FASTENERS AND 2.4" SEAM PLATES ARE REQUIRED AS A MINIMUM. CONSULT MANUFACTURER.



PARAPET WALL METAL COPING H6

NTS



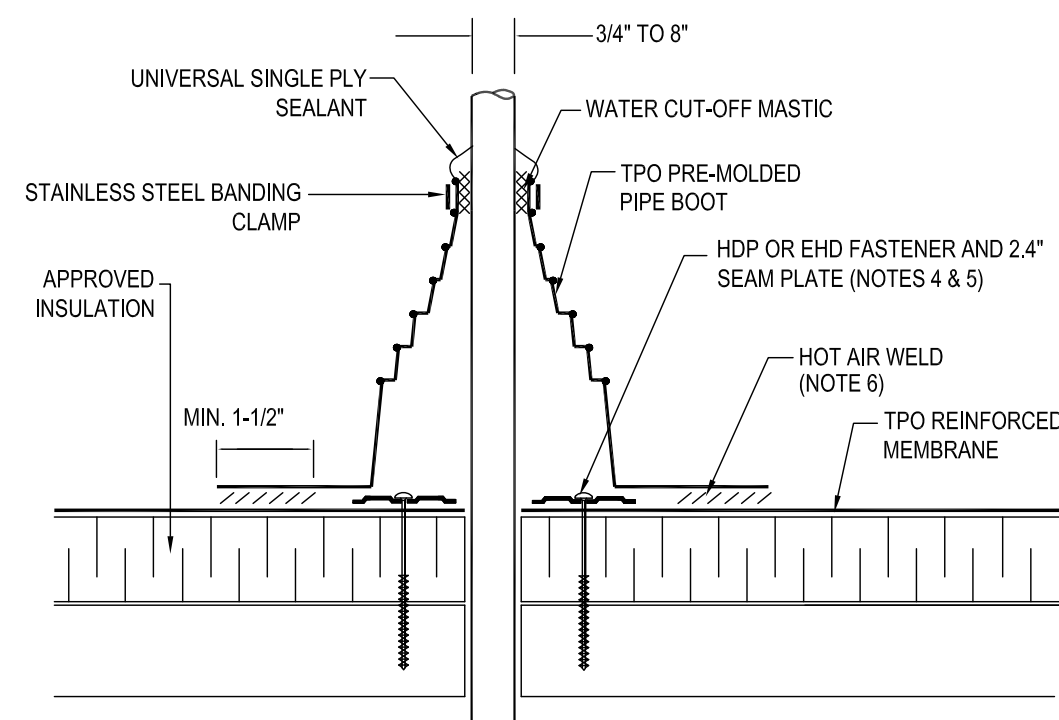
NOTES:

1. ALL FLASHING MUST BE A MINIMUM OF 8" HIGH WHERE POSSIBLE
2. DO NOT COVER WEEP HOLES OR THRU-WALL COUNTERFLASHINGS
3. WHEN THE ALL-PURPOSE BAR IS USED UNDER THE COUNTERFLASHING OR THE MEMBRANE IS NAILED TO THE HORIZONTAL TOP OF THE CURB, TPO BONDING ADHESIVE MAY BE ELIMINATED WHEN FLASHING HEIGHT IS 18" OR LESS.
4. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF TPO REINFORCED MEMBRANE.

NOTE:
THIS DETAIL MUST COORDINATE FOR USE IN A 20-YEAR WARRANTED SYSTEM

WALL FLASH. w/ COUNTER FLASH. E6

NTS

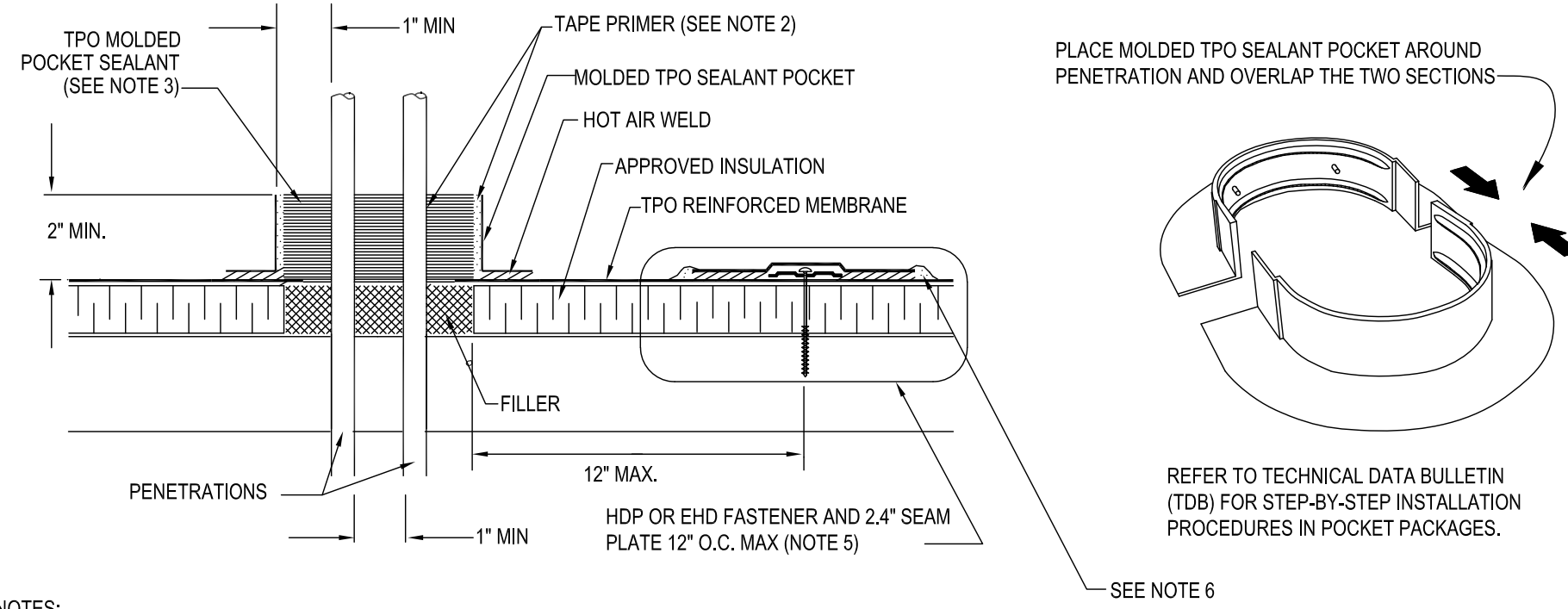


NOTES:

1. REMOVE ALL LEAD AND OTHER FLASHING BEFORE INSTALLING FIELD FABRICATED PIPE SEAL.
2. INSTALL 3 FASTENERS AND PLATES AROUND PIPE EQUALLY SPACED. FASTENERS MAY ALSO BE POSITIONED MAXIMUM 12" FROM PIPE, FASTENED 12" O.C. AND FLASHED WITH TPO FREINFORCED MEMBRANE.
3. FASTENERS AND SEAM PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PROJECTION DIAMETER EXCEEDS 18".
4. IF SEAM PLATES CANNOT BE INSTALLED AS SHOWN THEY CAN BE POSITIONED OUTSIDE THE PIPE FLSHING FLANGE AS SHOWN ON DETAIL MHT-JUN-521A
5. PIPE BOOT DECK FLANGE MUST BE HOT AIR WELDED A MINIMUM OF 1-1/2" BEYOND SEAM PLATES.
6. TEMPERATURE OF PIPE NOT TO EXCEED 180° F
7. INSTALL A SECTION OF TPO REINFORCED MEMBRANE OVER SEAM INTERSECTIONS PRIOR TO INSTALLING PRE-MOLDED PIPE BOOT - SEE INSET.

PRE-MOLDED PIPE BOOT A6

NTS

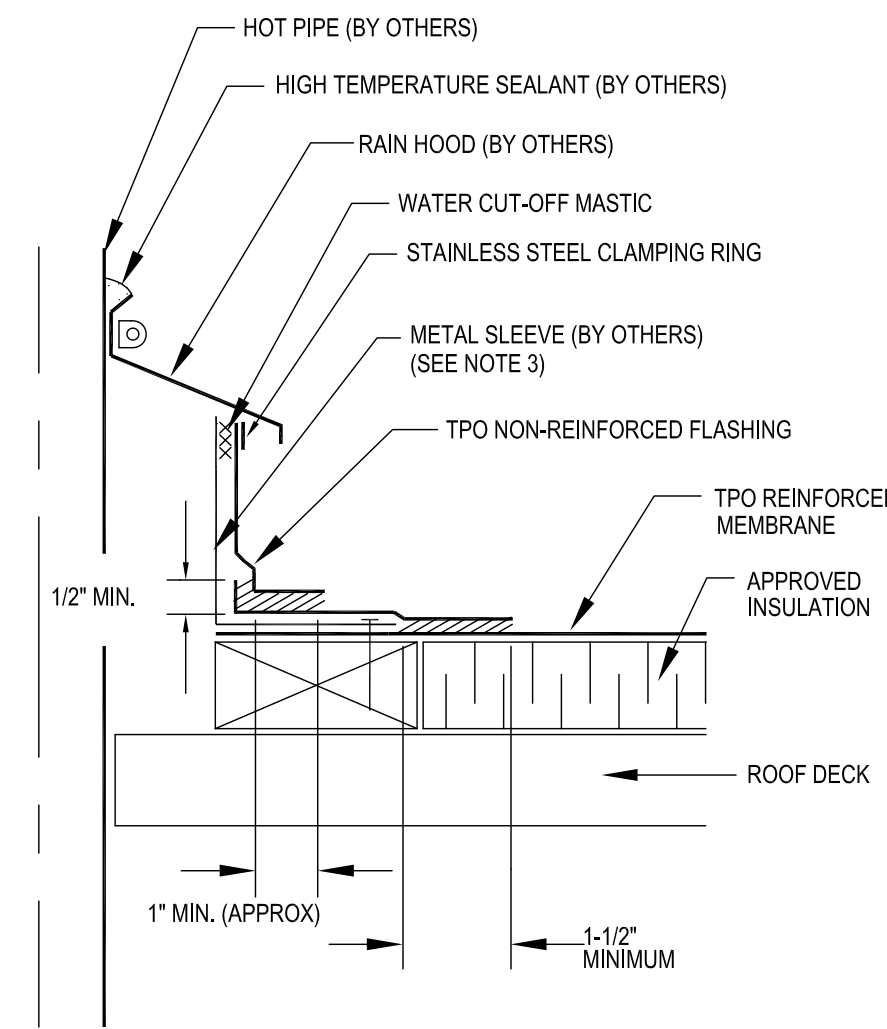


NOTES:

1. TAPE PRIMER MUST BE APPLIED TO ALL INSIDE SURFACES AND PENETRATIONS PRIOR TO FILLING WITH SEALANT.
2. FILL POCKET COMPLETELY WITH THERMOPLASTIC POURABLE SEALER UNTIL THE RIM IS COVERED WITH SEALANT, ENSURE ALL VOIDS ARE FILLED
3. SEALANT POCKET TO BE MINIMUM 1" FROM PENETRATION ON ANY SIDE.
4. INSTALL A MINIMUM OF FOUR (4) 2.4" SEAM PLATES AROUND PROJECTIONS WITH A DIMENSION UP TO 6". ADDITIONAL SEAM PLATES WILL BE REQUIRED FOR PROJECTIONS WITH DIAMETERS GREATER THAN 6" AND SHALL BE SPACED 12" ON CENTER MAX.
5. FASTENERS AND SEAM PLATES ARE NOT REQUIRED ON ADHERED SYSTEMS UNLESS PROJECTION DIAMETER EXCEEDS 18".
6. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF TPO REINFORCED MEMBRANE.
7. TEMPERATURE OF PENETRATION NOT TO EXCEED 160° F

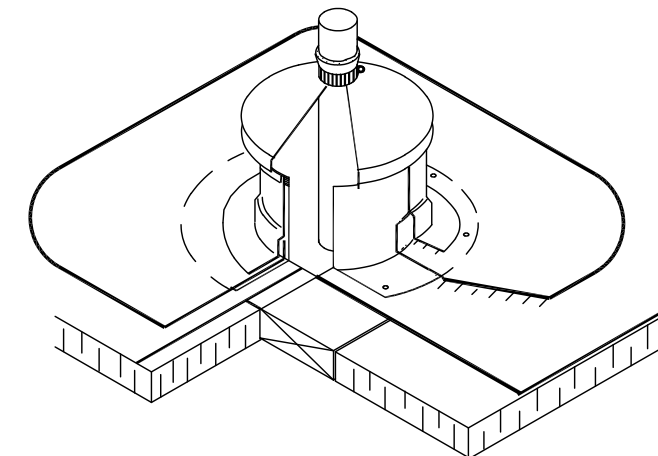
PREFAB SEALANT POCKET H1

NTS



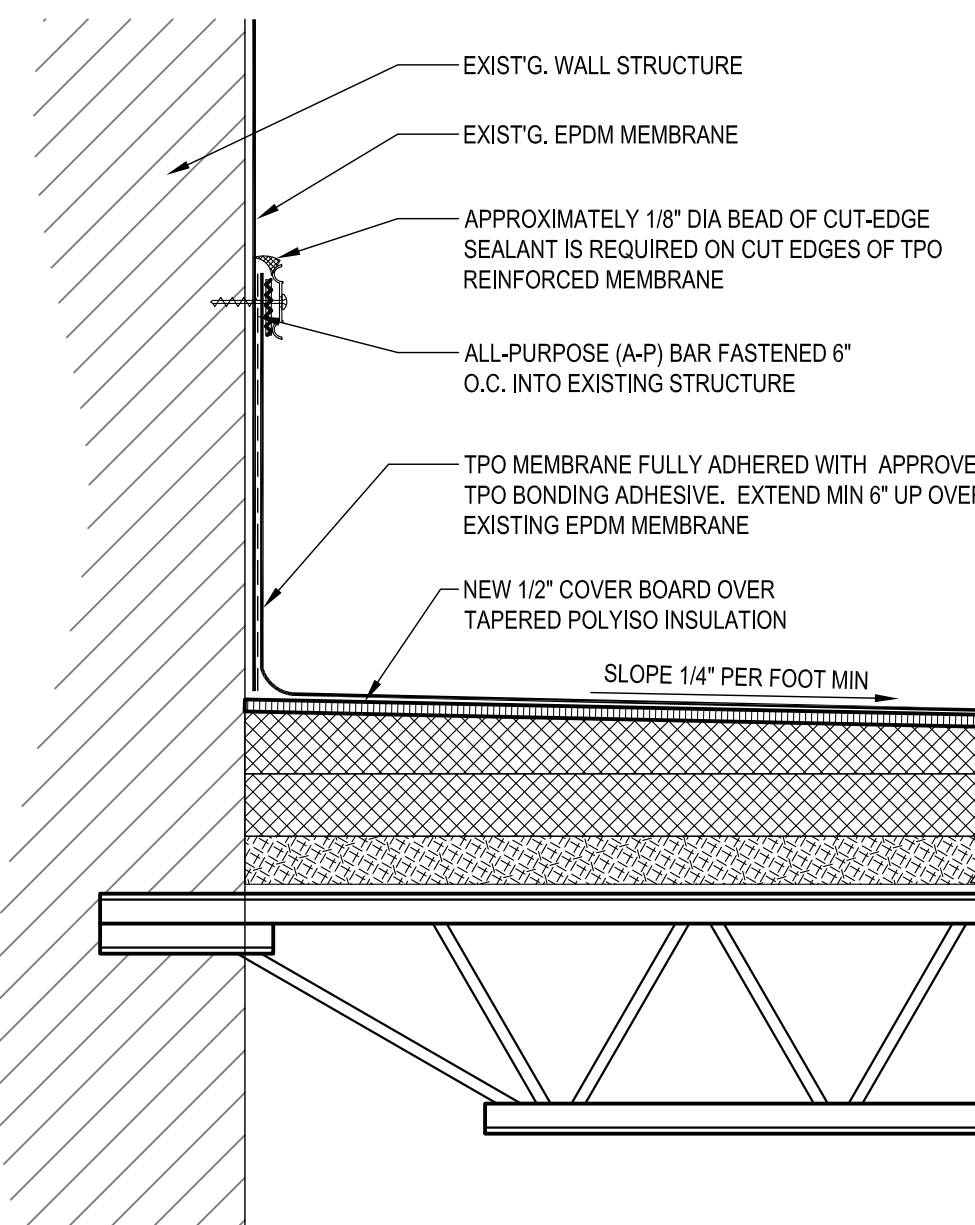
NOTES:

1. FIELD-FABRICATED PIPE SEAL FOR USE WITH HOT PIPE, 160° F OR HOTTER.
2. TPO NON-REINFORCED FLASHING WRAPPED AROUND PIPE SHALL HAVE MINIMUM 1-1/2" VERTICAL HOT AIR WELD.
3. TEMPERATURE OF METAL SLEEVE MUST NOT EXCEED 160° F.



HOT PIPE FLASHING FOR TPO E1

NTS

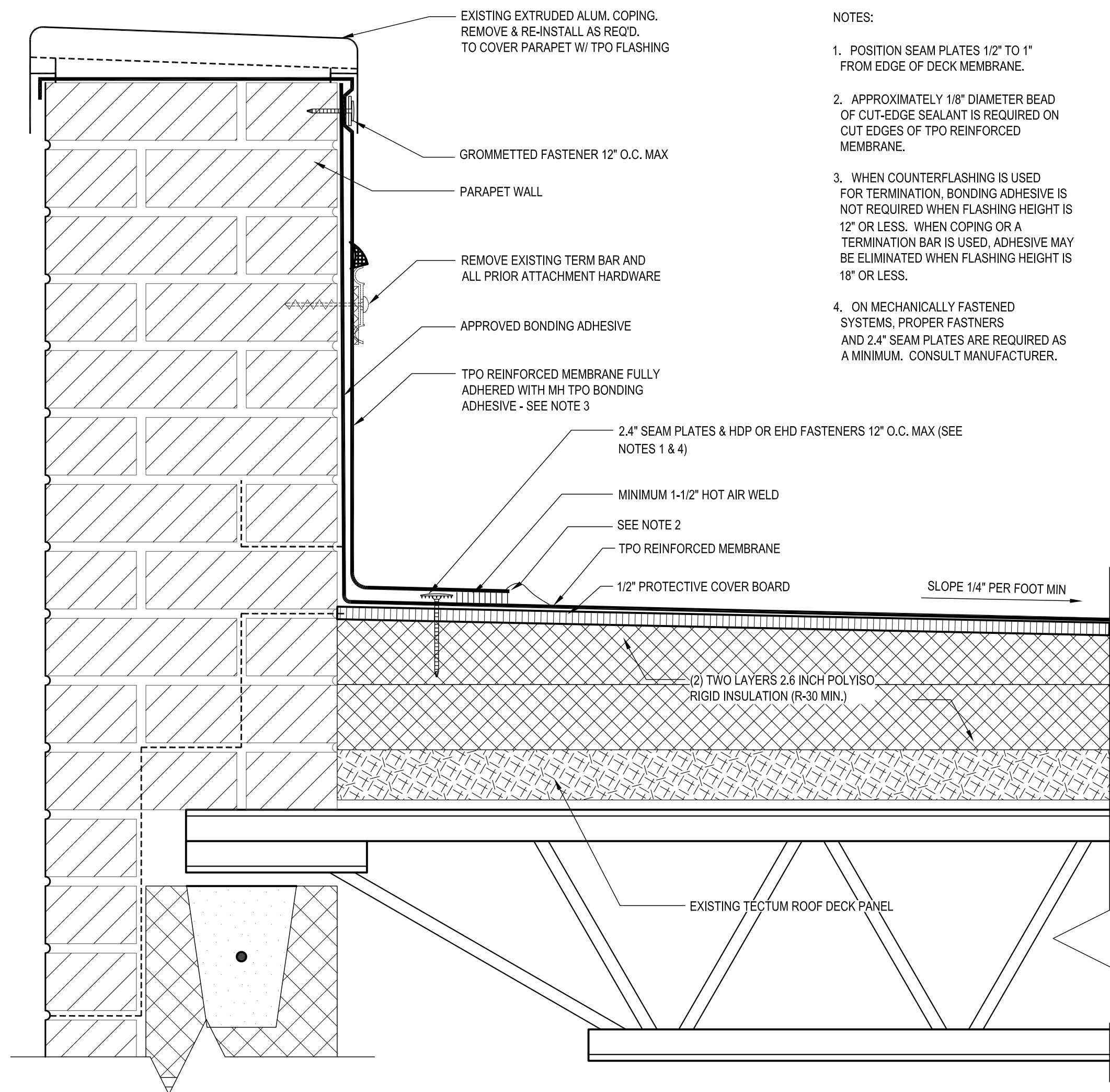


TPO TO EPDM TRANSITION A1

NTS

#	ISSUE/REVISION	DATE

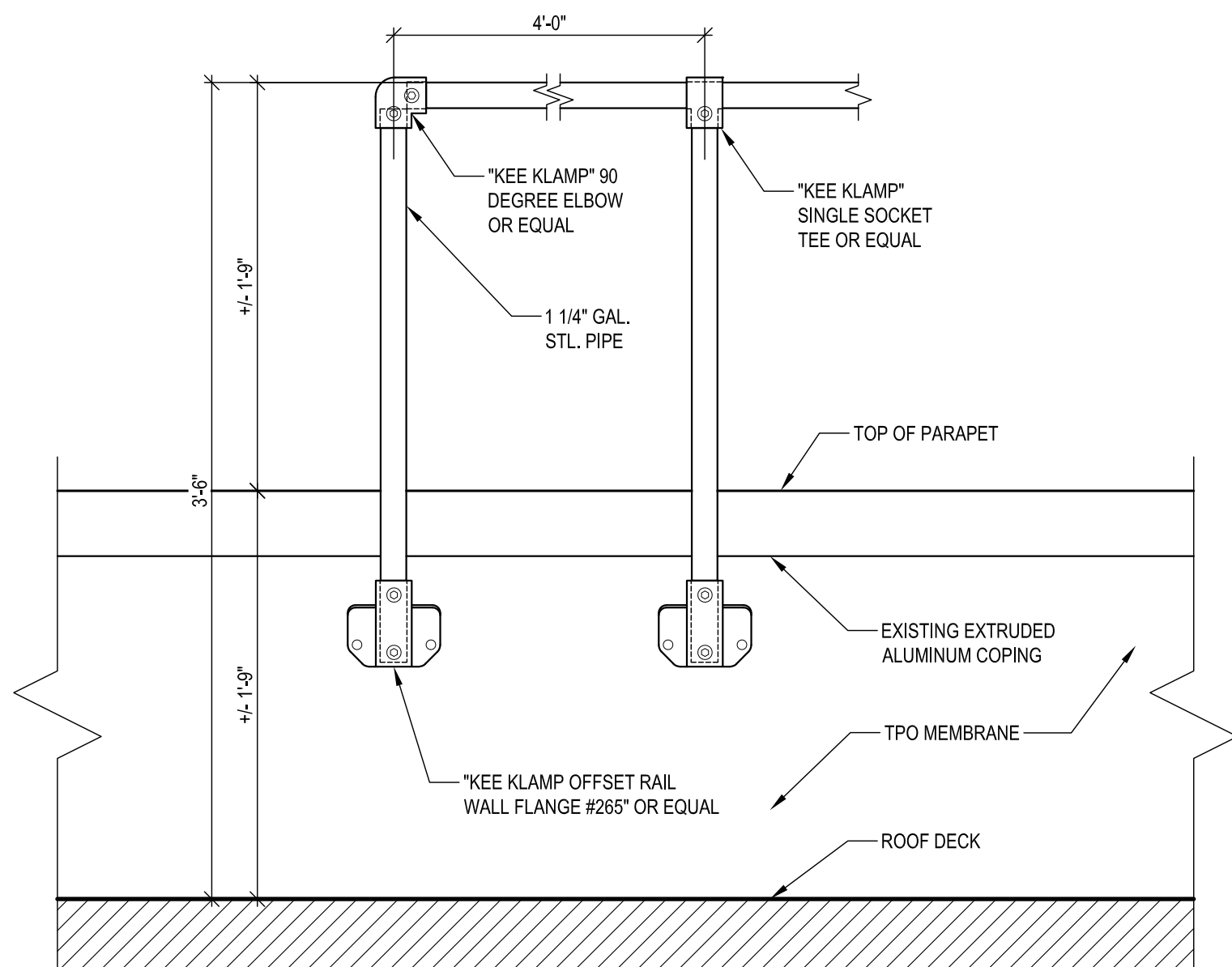
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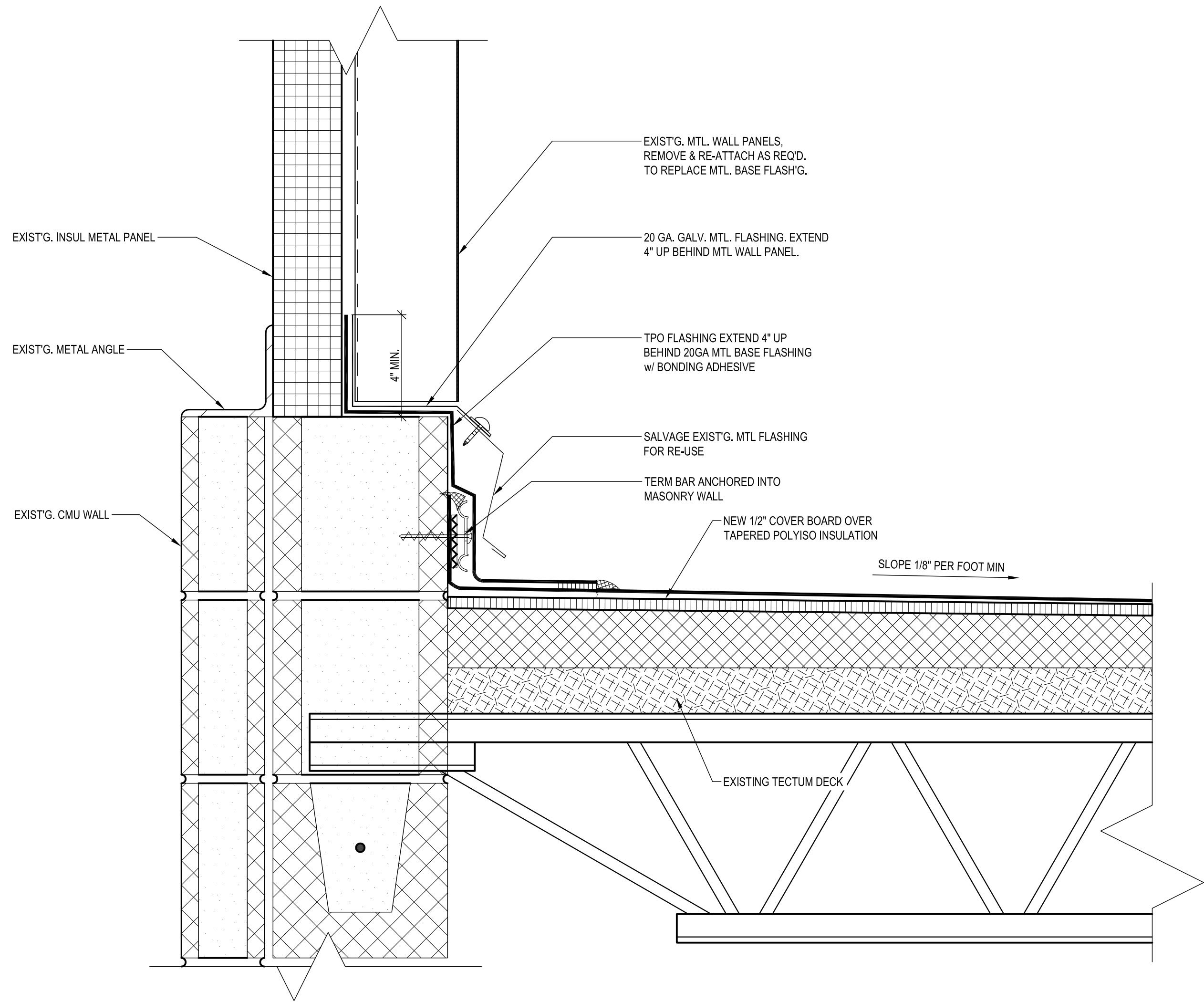
PARAPET TERMINATION DETAIL A10
3"=1'-0"

NOTES:

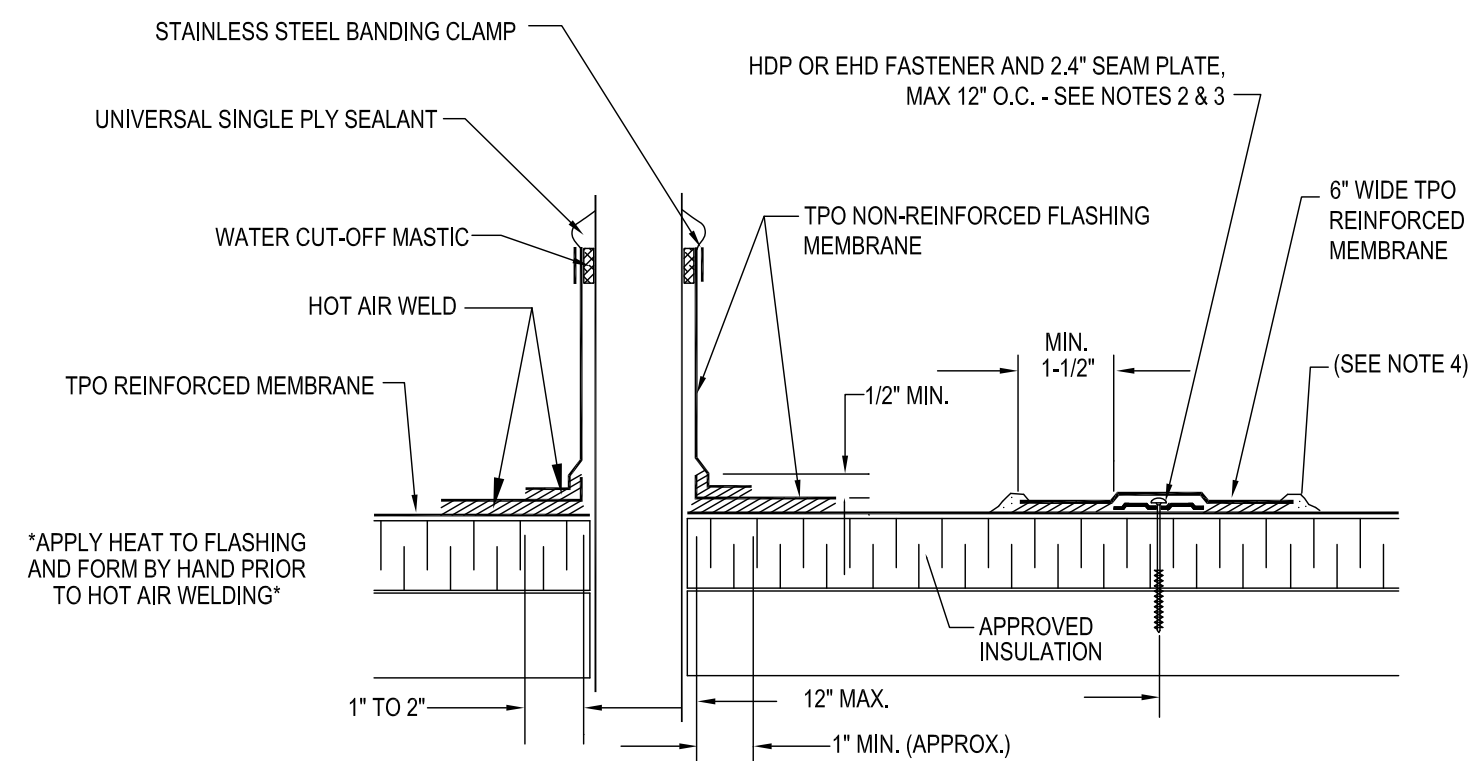
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4. ON MECHANICALLY FASTENED SYSTEMS, PROPER FASTENERS AND 2.4" SEAM PLATES ARE REQUIRED AS A MINIMUM. CONSULT MANUFACTURER.



DETAIL @ RAILING A6
NTS



DETAIL @ METAL WALL PANEL FLASHING E1
3"=1'-0"

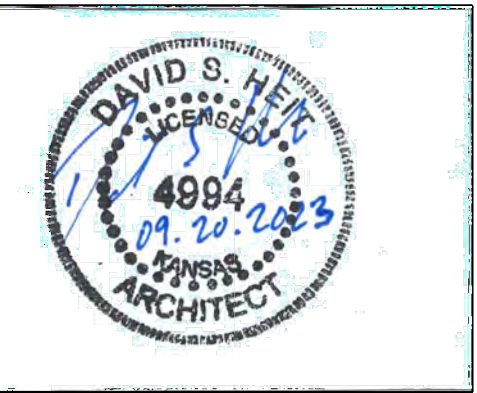


NOTES:

1. REMOVE ALL LEAD AND OTHER FLASHING BEFORE INSTALLING FIELD FABRICATED PIPE SEAL.
2. INSTALL A MINIMUM OF FOUR (4) 2.4" SEAM PLATES AROUND PROJECTIONS WITH A DIMENSION UP TO 6". ADDITIONAL SEAM PLATES WILL BE REQUIRED FOR PROJECTIONS WITH DIAMETERS GREATER THAN 6" AND SHALL BE SPACED 12" ON CENTER MAX.
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4. APPROXIMATELY 1/8" DIAMETER BEAD OF CUT-EDGE SEALANT IS REQUIRED ON CUT EDGES OF TPO REINFORCED MEMBRANE.
5. TEMPERATURE OF PIPE NOT TO EXCEED 160° F

FIELD FAB. PIPE FLASHING A1
NTS


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**SHAWNEE COUNTY
EXTENSION OFFICE
ROOF REPLACEMENT**

1740 WESTERN AVE
TOPEKA, KS 66604

PROJECT NUMBER: 23021

#	ISSUE/REVISION	DATE

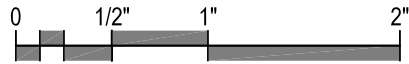
DETAILS

A103

BID SET
9.18.2023

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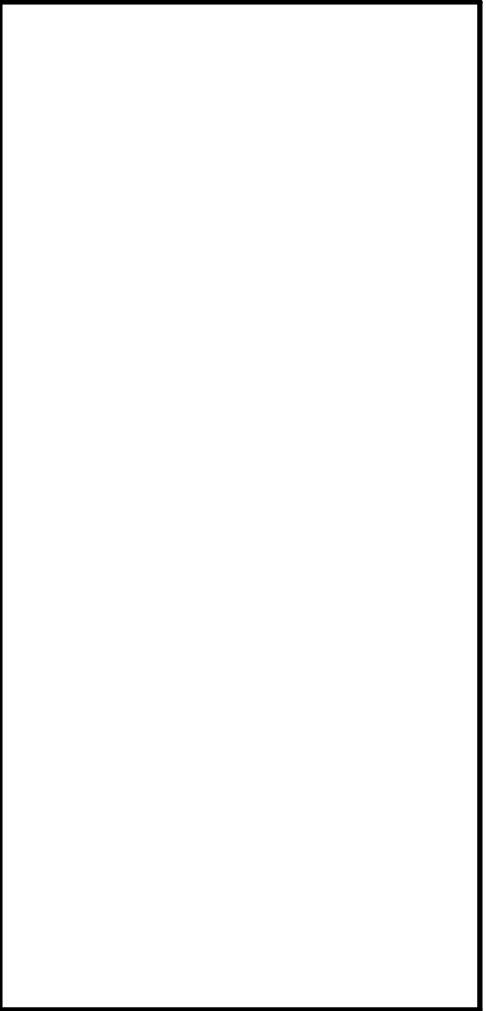
ROOF PLAN **A4**
1/16" = 1'-0"

PLAN NOTES **A1**
NTS



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**SHAWNEE COUNTY
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ROOF REPLACEMENT**

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SHAWNEE COUNTY
COMMISSION OFFICE BUILDING
ROOF REPLACEMENT

707 SE QUINCY STREET
TOPEKA, KS 66603

PROJECT NUMBER: 23022

[illegible]

OVER SHEET

G101

18.2023

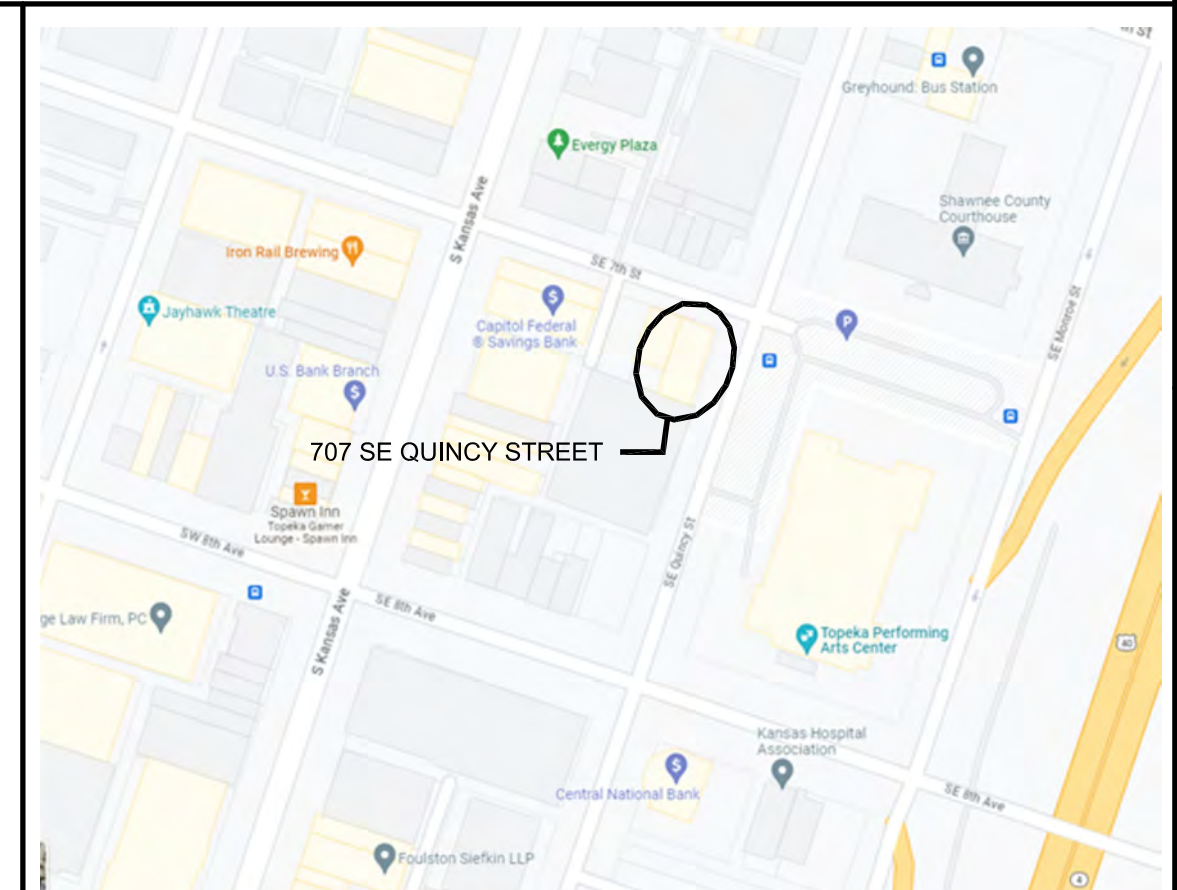
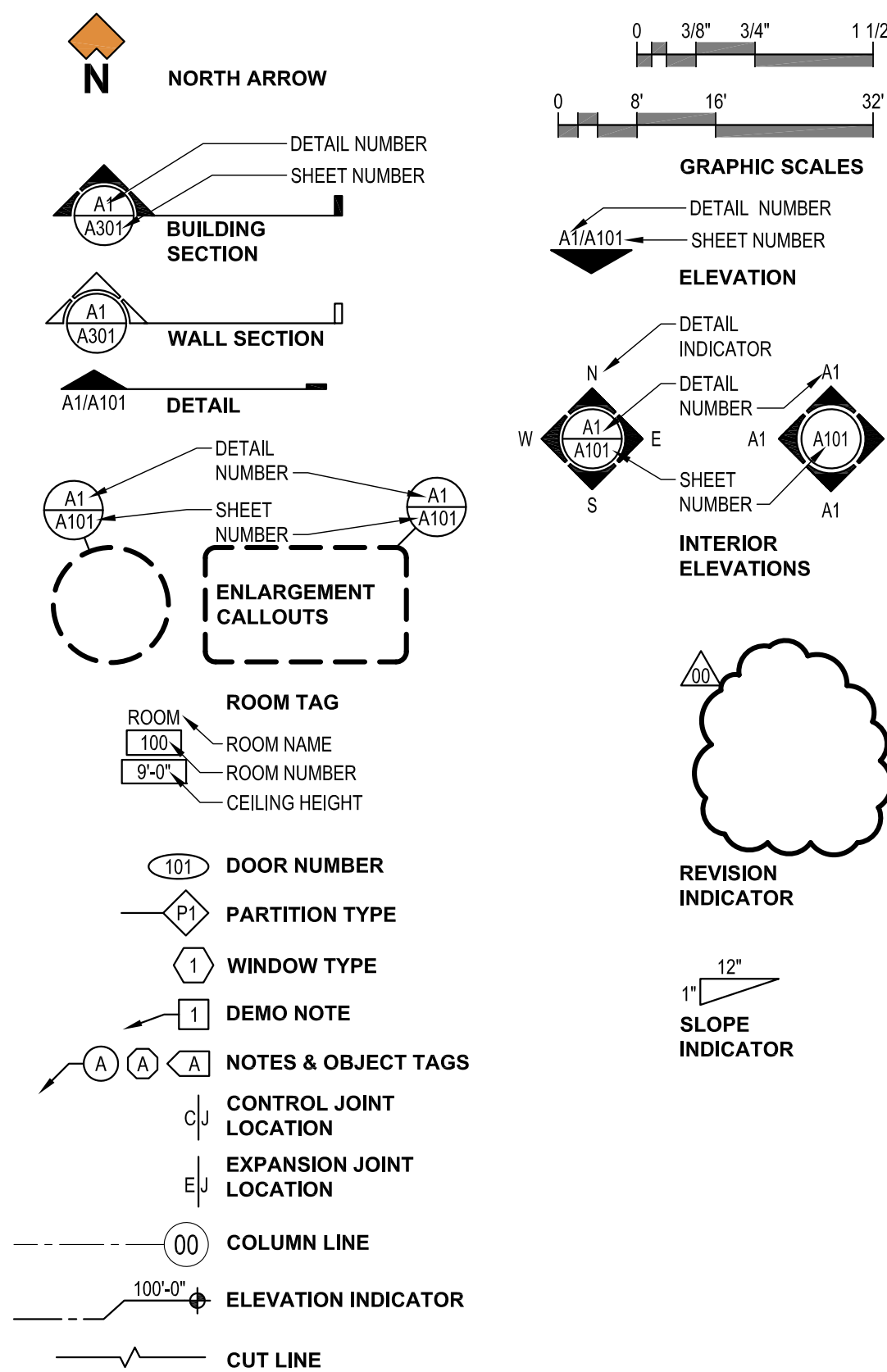
2023 CIVILUM ARCHITECTS

- | | | | |
|-----|--|-----|---|
| 1. | ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH FEDERAL AND STATE LAWS, CURRENT LOCAL ORDINANCES AND ADOPTED BUILDING CODES, AND THE AMERICANS WITH DISABILITIES ACT (ADA), REFER TO CODE SUMMARY FOR SPECIFIC APPLICABLE LAWS, ORDINANCES, AND CODES. REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK. | 18. | THE SPECIFICATIONS HAVE BEEN PARTIALLY "STREAMLINED" AND SOME WORDS AND PHRASES HAVE BEEN INTENTIONALLY OMITTED. MISSING PORTIONS SHALL BE SUPPLIED BY INFERENCE AS WITH NOTES ON DRAWINGS. |
| 2. | THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL PERMITS AND PAY ALL FEES AS NECESSARY FOR THE CONSTRUCTION COVERED IN THE PROJECT. | 19. | WORDS LIKE "INSTALL," "PROVIDE," "LOCATE," "FURNISH," AND "SUPPLY" SHALL BE CONSTRUED TO INCLUDE COMPLETE FURNISHINGS AND INSTALLING OR CONSTRUCTION BY THE CONTRACTOR. |
| 3. | ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER'S REPRESENTATIVE AND THE ARCHITECT. | 20. | ALL MANUFACTURER AND PRODUCT REFERENCES ARE BASIS-OF-DESIGN ONLY. ITEMS CAPABLE OF EQUAL PERFORMANCE, BUT PROVIDED BY AN ALTERNATE MANUFACTURER, WILL BE ACCEPTABLE. |
| 4. | ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND SHALL PROVIDE ALL WORK AND MATERIALS AS SHOWN ON PLANS AND SPECIFIED IN THE SPECIFICATIONS. | 21. | ALL MEANS OF EGRESS TO REMAIN IDENTIFIABLE AND OPEN DURING CONSTRUCTION. |
| 5. | THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES. | 22. | ALL EXISTING CONDITIONS, DIMENSIONS, AND MATERIALS OF CONSTRUCTION ARE TO BE VERIFIED IN THE FIELD PRIOR TO ANY DEMOLITION WORK OR ANY NEW CONSTRUCTION. |
| 6. | THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT/ENGINEER ANY MATERIALS TO BE REUSED AND WILL BE RESPONSIBLE FOR VERIFYING AND MAINTAINING THE FUNCTION AND AESTHETIC INTEGRITY OF THE MATERIALS. | 23. | ALL CONDITIONS, DIMENSIONS, ROOMS/ SPACES, AND MATERIALS OF CONSTRUCTION INDICATED ON THESE SHEETS/DRAWINGS ARE "EXISTING", UNLESS NOTED OTHERWISE. |
| 7. | THE CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH ALL SECTIONS OF THE SPECIFICATIONS BEFORE BEGINNING THE WORK. | 24. | ALL EXISTING CONDITIONS AND EXISTING CONSTRUCTION TO REMAIN, UNLESS NOTED OTHERWISE. |
| 8. | THE CONTRACTOR SHALL NOT CHANGE OR DEViate FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ARCHITECT. | 25. | VERIFY ALL EXISTING STRUCTURAL/LOAD-BEARING CONDITIONS PRIOR TO ANY DEMOLITION WORK OR ANY NEW CONSTRUCTION. CONTACT CLIENT AND ARCHITECT IF ANY DISCREPANCIES EXIST. |
| 9. | DRAWINGS CONTAINED IN THE SET SHALL NOT BE REPRODUCED FOR SHOP DRAWINGS UNLESS APPROVAL FROM THE DESIGN PROFESSIONAL WHO DEVELOPED DRAWING FILES HAS BEEN RECEIVED. | 26. | AREAS OF PROJECT NOT PART OF THIS REMODEL TO BE PROTECTED FROM DUST AND DAMAGE DURING REMODEL. |
| 10. | CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION AND THE SAFETY OF ALL CONSTRUCTION PERSONNEL AND VISITORS. | 27. | FIRE SPRINKLER SYSTEM AND FIRE ALARM SYSTEM SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION. WRITTEN AUTHORIZATION FROM LOCAL FIRE DISTRICT WILL BE REQUIRED IF AND BEFORE EITHER SYSTEM IS TO BE SHUT DOWN. |
| 11. | DO NOT SCALE DRAWINGS; FOLLOW WRITTEN DIMENSIONS AND NOTES. CONTACT ARCHITECT FOR CLARIFICATIONS IF REQUIRED. | 28. | CONTRACTOR'S STAGING AREA WILL BE IDENTIFIED AND APPROVED BY OWNER PRIOR TO THE START OF CONSTRUCTION. |
| 12. | "TYPICAL" AS USED IN THESE DOCUMENTS SHALL MEAN THAT THE CONDITIONS OR DIMENSIONS ARE REPRESENTATIVE OR THE SAME FOR SIMILAR CONDITIONS THROUGHOUT. | | |
| 13. | THE RELATION OF SPECIFICATIONS AND DRAWINGS SHALL BE EQUAL AUTHORITY AND PRIORITY. SHOULD THEY DISAGREE IN THEMSELVES, OR WITH EACH OTHER, BIDS SHALL BE BASED ON THE MOST EXPENSIVE COMBINATION OF QUALITY AND QUANTITY OF WORK INDICATED. THE APPROPRIATE WORK, IN THE EVENT OF THE ABOVE MENTIONED DISAGREEMENTS, SHALL BE DETERMINED BY THE ARCHITECT. | | |
| 14. | FAILURE TO REPORT A CONFLICT IN THE CONTRACT DOCUMENTS SHALL BE DEEMED EVIDENCE THAT THE CONTRACTOR HAS ELECTED TO PROCEED IN THE MORE EXPENSIVE MANNER. | | |
| 15. | CONTRACTOR TO COORDINATE SCHEDULE OF PROPOSED WORK WITH OWNER PRIOR TO ANY WORK BEING STARTED ON THE PREMISES. | | |
| 16. | ON COMPLETION OF THE PROJECT, CONTRACTOR SHALL CLEAN ALL SURFACES AND LEAVE THE WORK IN CLEAN CONDITION. THE CONTRACTOR AT ALL TIMES SHALL KEEP PREMISES FREE FROM WASTE MATERIALS AND RUBBISH CAUSED BY THE WORK. | | |
| 17. | WHENEVER CONTRACT DOCUMENTS REASONABLY INFER MATERIALS OR INSTALLATION AS NECESSARY TO PRODUCE THE INTENDED RESULTS, BUT DO NOT FULLY DETAIL OR SPECIFY SUCH MATERIALS, THE CONTRACTOR SHALL PROVIDE THE MATERIALS AND LABOR REQUIRED FOR INSTALLATION. | | |

GENERAL NOTES **A10**
NTS

ACoust.	ACOUSTICAL
ACT: ACST	ACOUSTICAL CEILING TILE
A.F.F.	ABOVE FINISHED FLOOR
ALT.	ALTERNATE
ALUM.	ALUMINUM
ARCH.	ARCHITECTURAL
B.D.G.	BUILDING
B.L.G.	BLINDWORK
BO	BOTTOM OF
B.R.G.	BEARING
B.O.D.	BASIS OF DESIGN
C.	CENTERLINE
C.J.	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
CONC.	CONCRETE
CONT.	CONTINUOUS
DET.	DETAIL
DIA.	DIAMETER
D.R.	DOOR
DWG.	DRAWING
D.S.	DOWNSPOUT
DTL.	DETAIL
E.F.	EXTERIOR INSULATION FINISH SYSTEM
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC; ELECT.	ELECTRICAL
ELEV.	ELEVATION/ELEVATOR
ELV./ELVR.	ELEVATOR
EPS.	EXPANDED POLYSTYRENE
E.Q.	EQUAL
EXG.;EXTG.	EXISTING
EXT.	EXTERIOR
F.O.L.C.	FURNISHED BY OWNER, INSTALLED BY CONTRACTOR
F.O.D.	FURNISHED BY OTHERS
F.T.D; FND.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.V.	FIRE VERIFICATION
FL.; FLR.	FLOOR
FRP.	FIBER REINFORCED PLASTIC
FR.	FIRE-RESISTANT
FTG.	FOOTING
G.A.	GAUGE
G.B.	GRAB BAR
GALV.	GALVANIZED
GYP. BD.	GYPSUM BOARD
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HSS	HOLLOW STEEL SECTION
HT.	HEIGHT
I.B.C.	INTERNATIONAL BUILDING CODE
INSUL.	INSULATION
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
MANUF.	MANUFACTURER
MAS.	MASONRY
M.O.	MASONRY OPENING
MAX.	MAXIMUM
MECH.	MECHANICAL
MEDS.	MEDICINE
MEPS.	MOLDED EXPANDED POLYSTYRENE
MISC.	MISCELLANEOUS
M.N.	MINIMUM
M.R.	MOISTURE RESISTANT
MTL.	METAL
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OCC.	OCCUPANCY
OPQ.	OWNER PROVIDED, CONTRACTOR INSTALLED.
OPOI	OWNER PROVIDED, OWNER INSTALLED.
P.	PROPERTY LINE; PLATE
PL	PLASTIC LAMINATE
PRE-FIN	PRE-FINISHED
RCP	REFLECTED CEILING PLANK
RE; REF:	REFER TO REFERENCE
REQD	REQUIRED
R.O.	ROUGH OPENING
SF.	SQUARE FOOT
SQ FT	SQUARE FOOT
STL.	STEEL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
T.O.	TOP OF
T.P.	TOILET PAPER
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
V.R.	VAPOR RETARDER
WFO; WDW	WINDOW
WF	WELD FLANGE
WWF	WIRE WELDED FABRIC
XPS	EXTRUDED POLYSTYRENE

ABBREVIATIONS NTS **A7**



VICINITY MAP **E1**

SHEET INDEX

GENERAL

G101	COVER SHEET
G102	EXISTING CONDITIONS PHOTOS

ARCHITECTURAL

A101	ROOF PLAN & DEMO PLAN
A102	DETAILS

SYMBOL LEGEND **A4**
NTS

SHEET INDEX **A1**
NTS

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CAPPED VENT. OPENING 19



ROOF DRAIN 18



CHIMNEY TERM BAR & FLASHING 17



SW PARAPET CORNER 16



SE CORNER VENT STACK 15



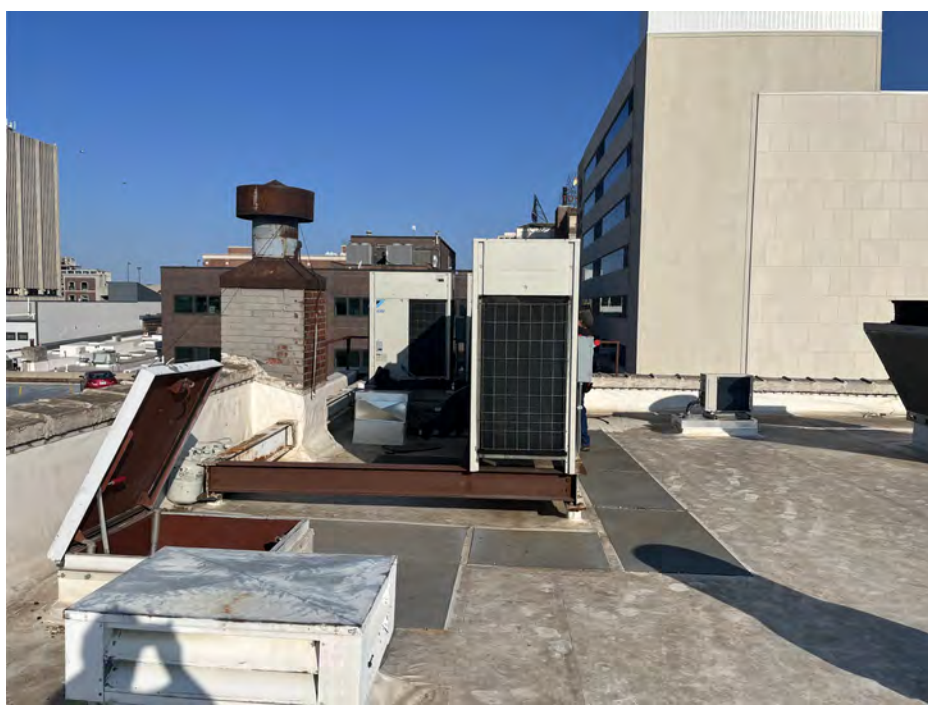
SMALL HVAC UNIT 14



ROOF DECK TO BEAM SUPPORT 13



ANTENNA BASE 12



MECH AREA LOOKING WEST 11



NE PARAPET CORNER 10



ANTENNA ANCHOR 9



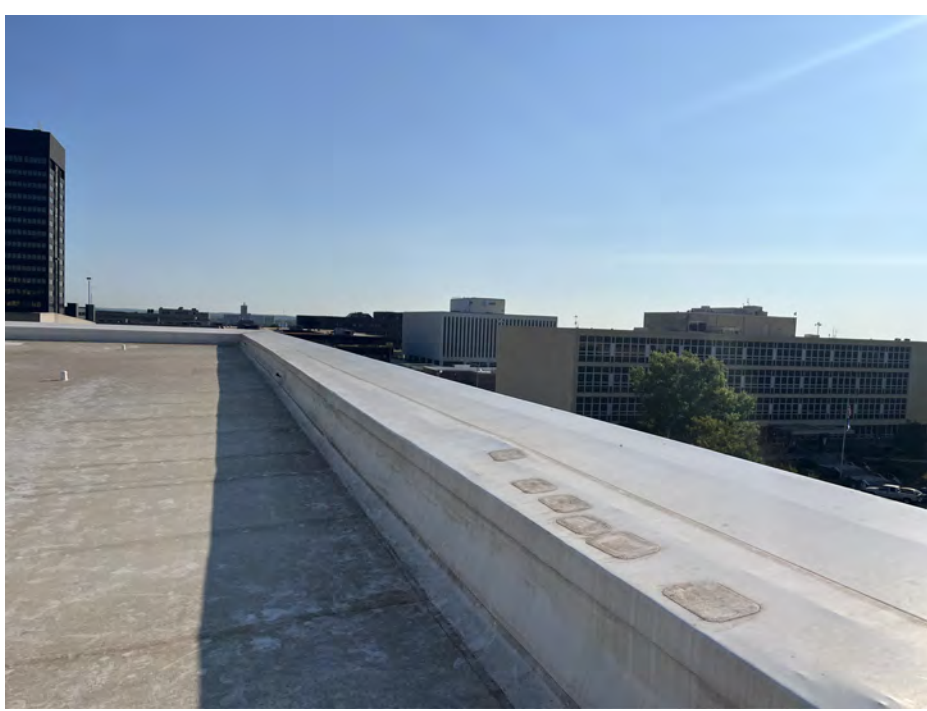
ROOF DECK MOUNTED HVAC 8



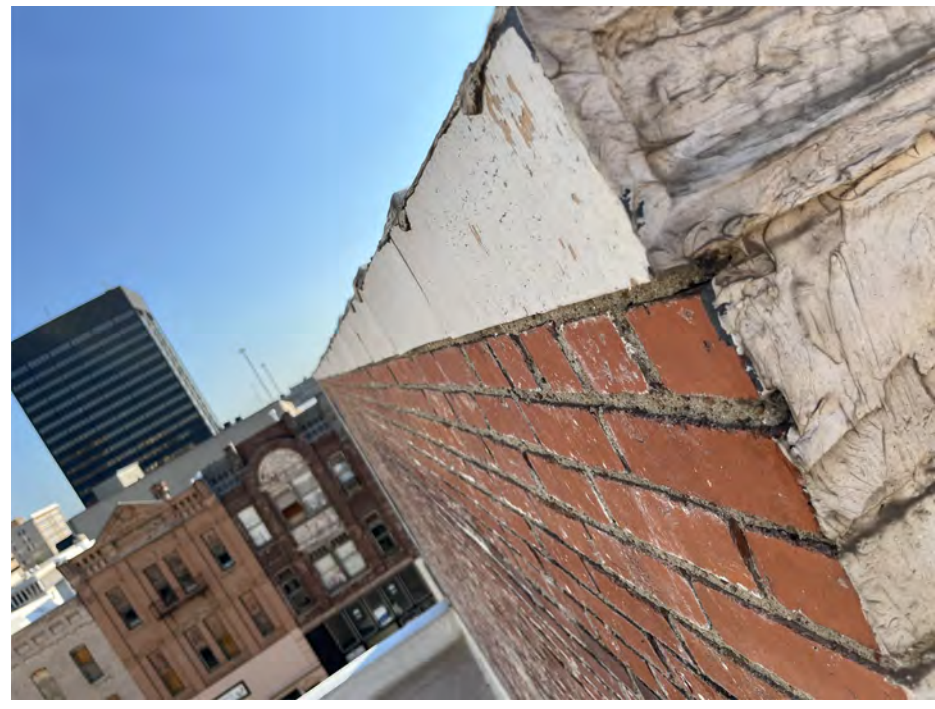
BREATHER VENT 7



EAST PARAPET FLASHING 6



EAST PARAPET LOOKING NORTH 5



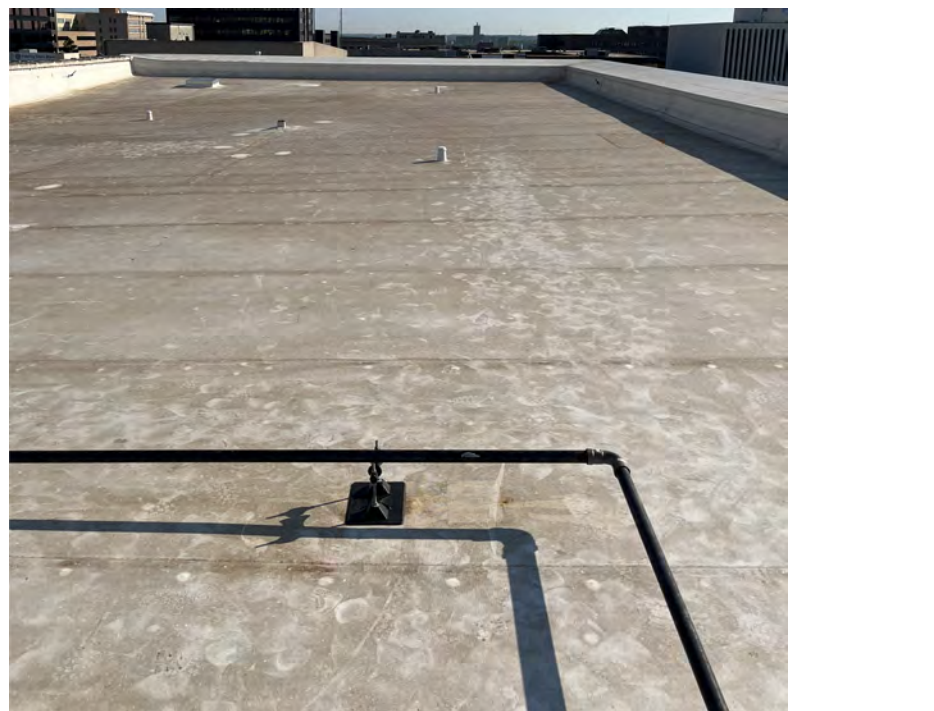
WEST PARAPET STEPDOWN 4



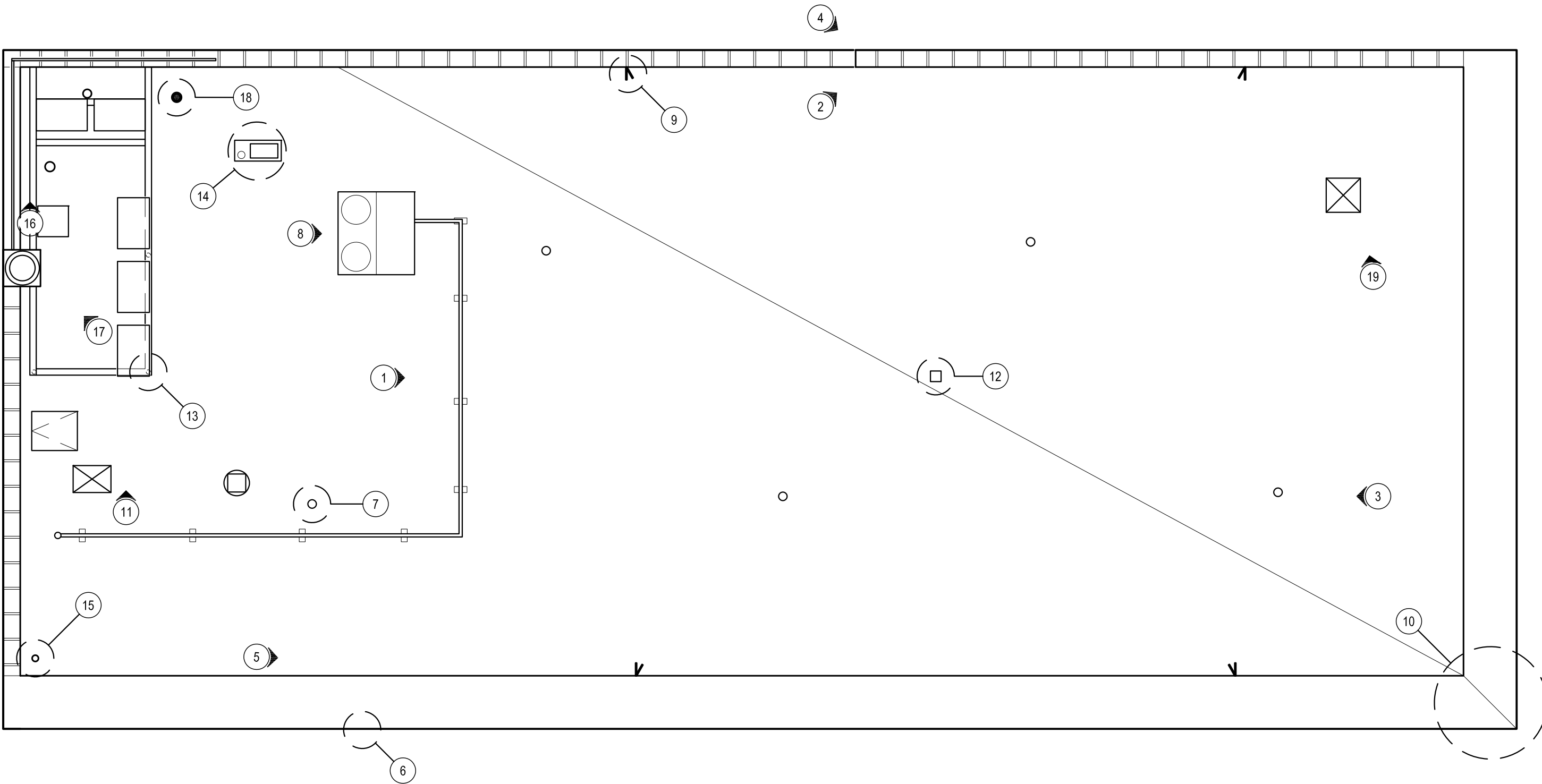
MAIN ROOF LOOKING SOUTH 3



WEST PARAPET STEPDOWN 2

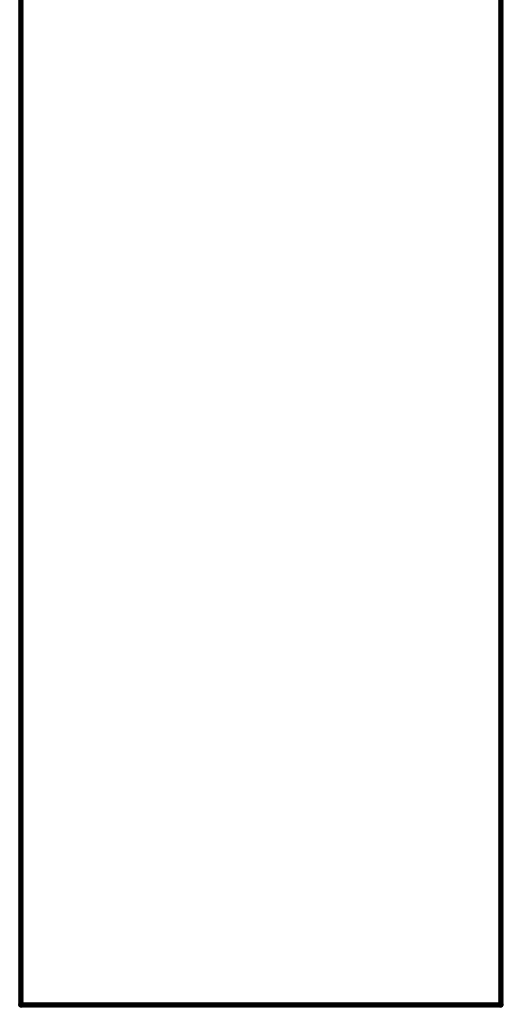


MAIN ROOF LOOKING NORTH 1



EXISTING CONDITIONS PHOTO REFERENCE PLAN


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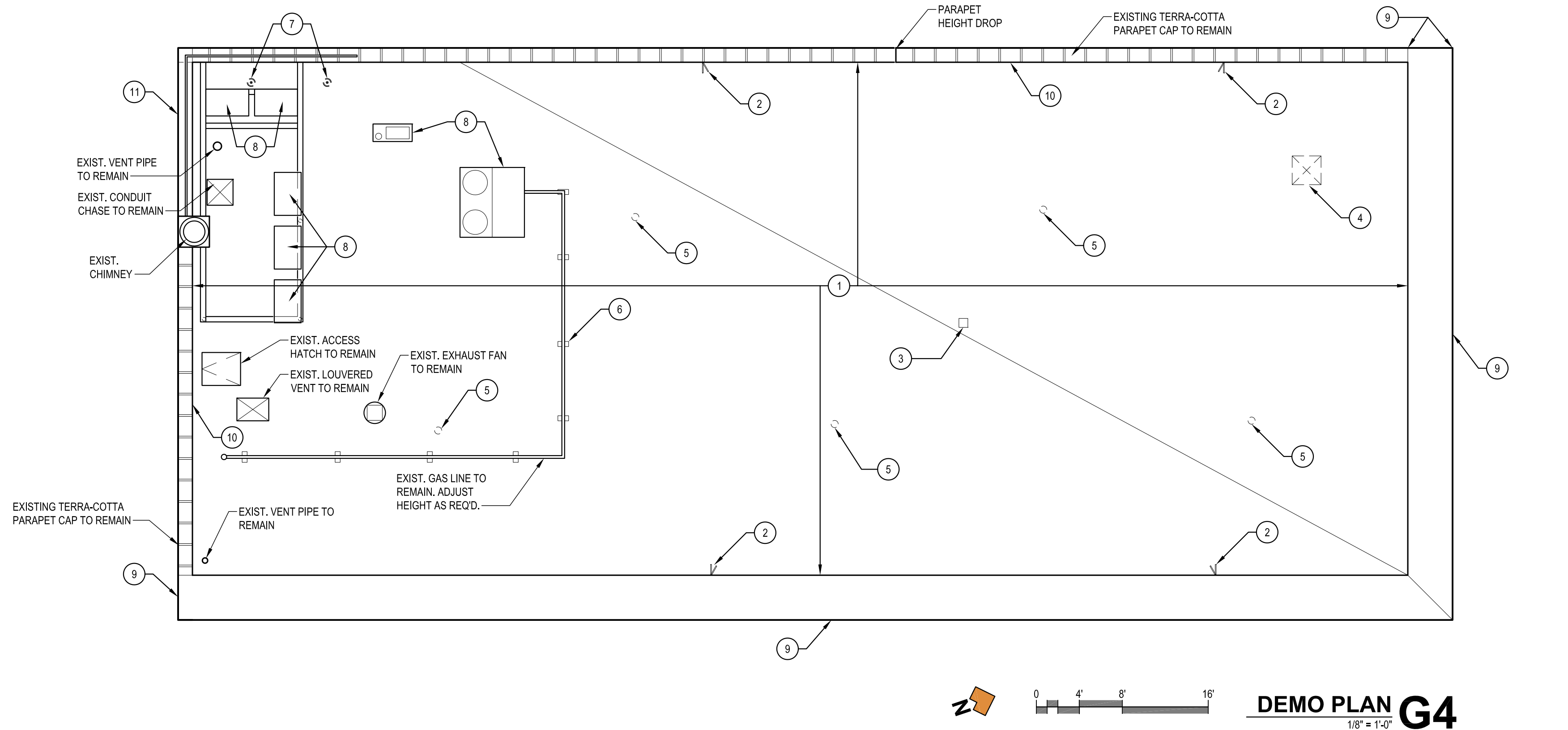


**SHAWNEE COUNTY
COMMISSION OFFICE BUILDING
ROOF REPLACEMENT**
707 SE QUINCY STREET
TOPEKA, KS 66603

PROJECT NUMBER: 23022

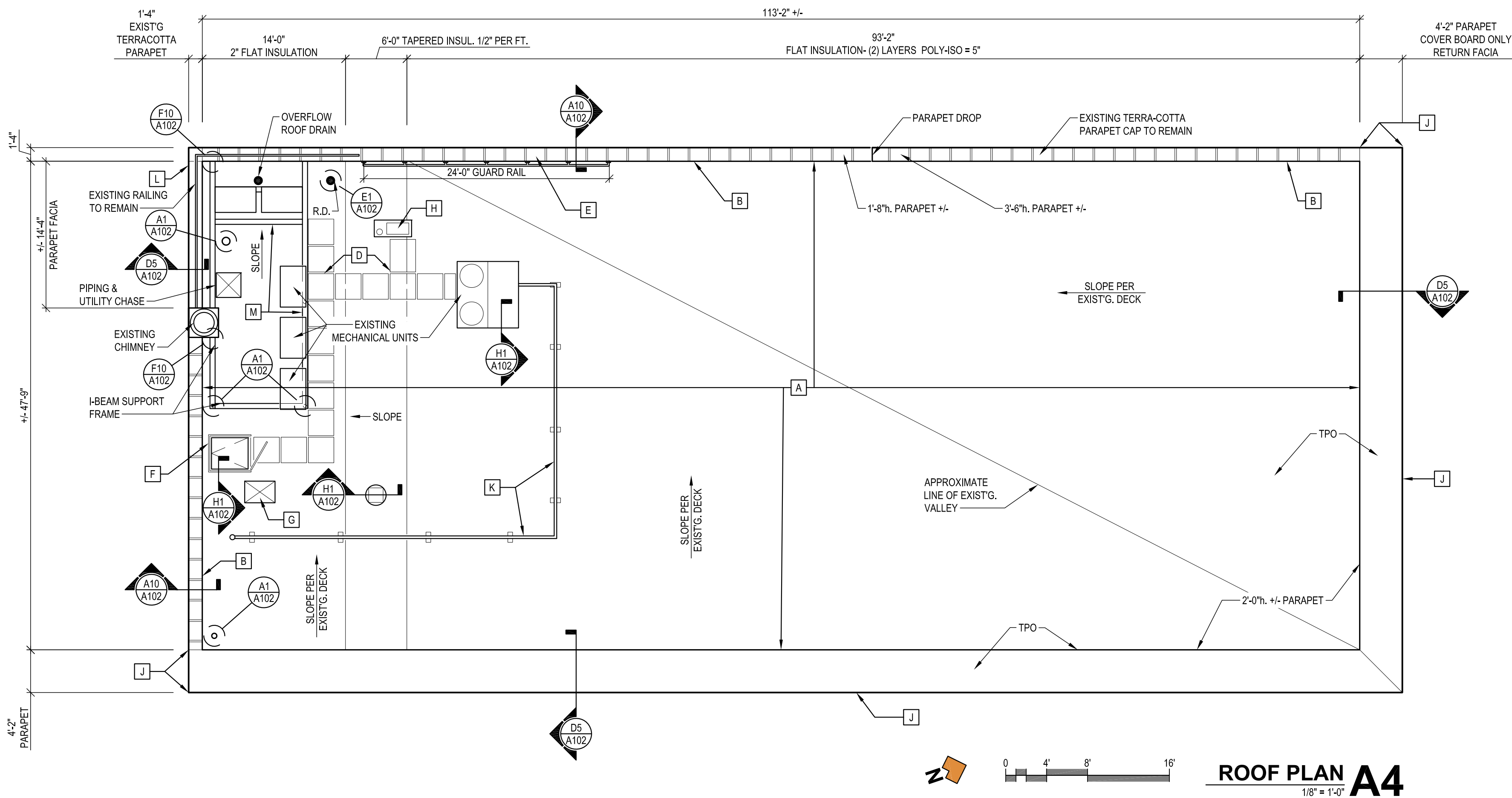
#	ISSUE/REVISION	DATE

PHOTOS OF EXISTING CONDITIONS
G102
BID SET
9.18.2023
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DEMO PLAN KEYNOTES:

- 1 REMOVE ALL EXISTING PVC ROOF MEMBRANE, 1/2" EPS INSULATION, COVER BOARD, 1/2" BUILT-UP ROOF & GRAVEL DOWN TO EXISTING REMAINING WOOD DECK
- 2 REMOVE EXISTING ANTENNA MOUNTING BRACKET, FLUSH WITH PARAPET
- 3 REMOVE EXISTING ANTENNA BASE MOUNT
- 4 REMOVE EXISTING METAL COVER AND CURB. PATCH DECK AS REQ'D.
- 5 REMOVE EXISTING ROOF BREATHER VENT
- 6 REMOVE/SALVAGE EXISTING GAS LINE SUPPORT ROLLERS FOR RE-USE
- 7 REMOVE EXISTING DRAIN DOMES, DRAIN TO REMAIN
- 8 EXISTING HVAC MECHANICAL UNIT TO REMOVE
- 9 REMOVE EXISTING PVC MEMBRANE AND FLASHING AT INSIDE FACE & TOP OF PARAPET, REMOVE EXISTG. FASCIA AT OUTSIDE EDGE
- 10 REMOVE ALL PVC FLASHING & TERM BARS @ INSIDE FACE OF SOUTH & EAST PARAPET
- 11 REMOVE PVC MEMBRANE ON SOUTH PARAPET/WEST OF CHIMNEY, INSIDE FACE/TOP & FACIA, APPROX 14'-0" +/- IN LENGTH

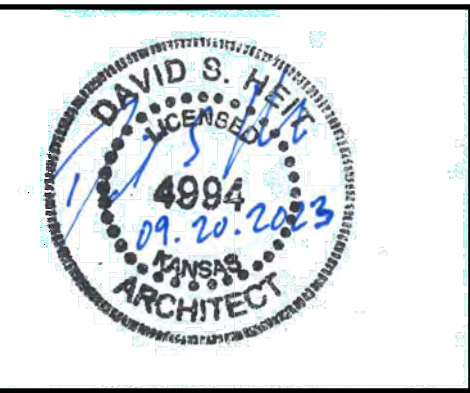


ROOF PLAN KEYNOTES:

- A NEW FULLY ADHERED 60 MIL TPO ROOF MEMBRANE W/ 55 MIL FLEECE BACKING ON 1/2" POLYISO COVER BOARD ADHESIVE MOUNT OVER MECHANICALLY FASTENED 5" POLY-ISO BASE INSULATION ATTACHED TO EXISTING SLOPED WOOD DECK. NOTE: BASE INSULATION TAPERS TO 2" FLAT AT SOUTH END OF ROOF
- B CONTINUOUS TERM BAR ALONG SOUTH & WEST PARAPETS
- C NEW SAFETY RAILING & GATE AT EXISTG. HATCH
- D NEW PROTECTIVE WALKWAY PAD
- E NEW GUARD RAIL ANCHORED TO BACK OF PARAPET
- F RAISE EXISTG HATCH 1-1/2" ON CONT. 2x4 WD BLOCKING. EXTEND SHT. MTL. DUCT AS REQ'D.
- G RAISE EXISTG ELEVATOR VENT 1-1/2" ON CONT. 2x4 WD BLOCKING. EXTEND SHT. MTL. DUCT AS REQ'D.
- H RAISE EXISTG. CONDENSER UNIT 4-1/2" ON CONT. 2x4 WD BLOCKING
- J WIDE PARAPET: INSTALL 1/2" POLYISO COVER BD. & TPO MEMBRANE & CONT. SHT MTL. FASCIA AT OUTSIDE EDGE.
- K ADJUST GAS LINE HEIGHT & SUPPORTS AS REQ'D. FOR NEW INSULATION THICKNESS. PROVIDE 4" MIN. CLEARANCE TO ROOF
- L WRAP PARAPET TOP w/ TPO FLASHING. PROVIDE 4" MTL FASCIA AT OUTSIDE FACE +/- 14'-0" LENGTH. REMOVE & RE-ATTACH EXISTG. GUARD RAIL, ADJUST TOP OF PARAPET AS REQ'D. TO SLOPED DRAIN TOWARDS ROOF.
- M EXISTING MECH. EQUIPMENT STEEL SUPPORT BEAMS, CLEAN & TOUCH-UP PAINT PRIMER & PROVIDE TWO COATS OF EXTERIOR PAINT

GENERAL NOTES:

1. ALL DRAWN DETAILS ARE FOR EXTENT OF WORK ONLY, ROOFING SUPPLIER TO COORDINATE DETAILS W/ MANUFACTURER'S STANDARDS & WARRANTY.
2. NEW ROOF ASSEMBLY TO HAVE 20-YEAR WARRANTY.
3. NEW ROOF ASSEMBLY SHALL BE ELIGIBLE FOR 2" DIA HAIL COVERAGE.



SHAWNEE COUNTY
COMMISSION OFFICE BUILDING
ROOF REPLACEMENT

707 SE QUINCY STREET
TOPEKA, KS 66603

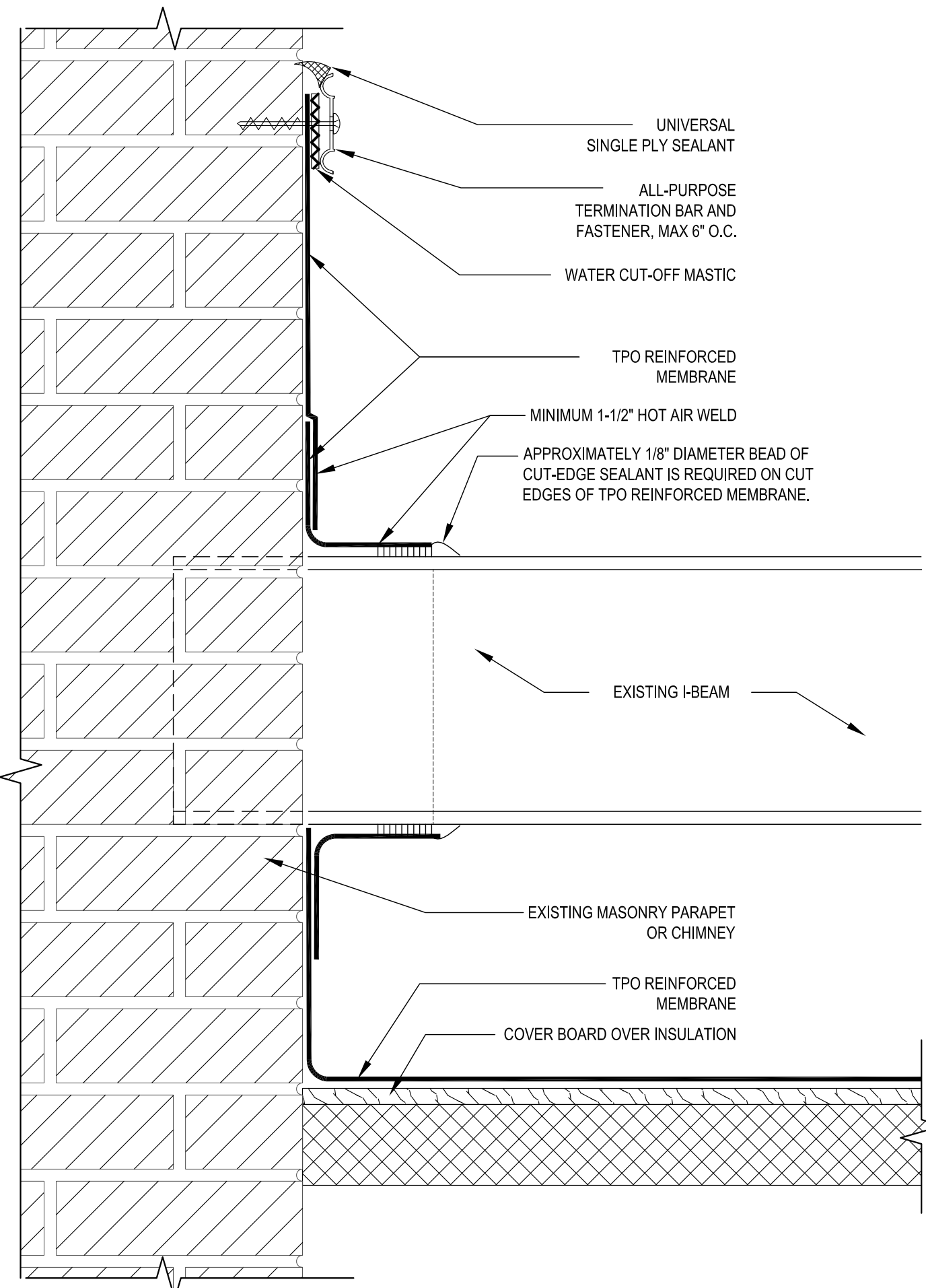
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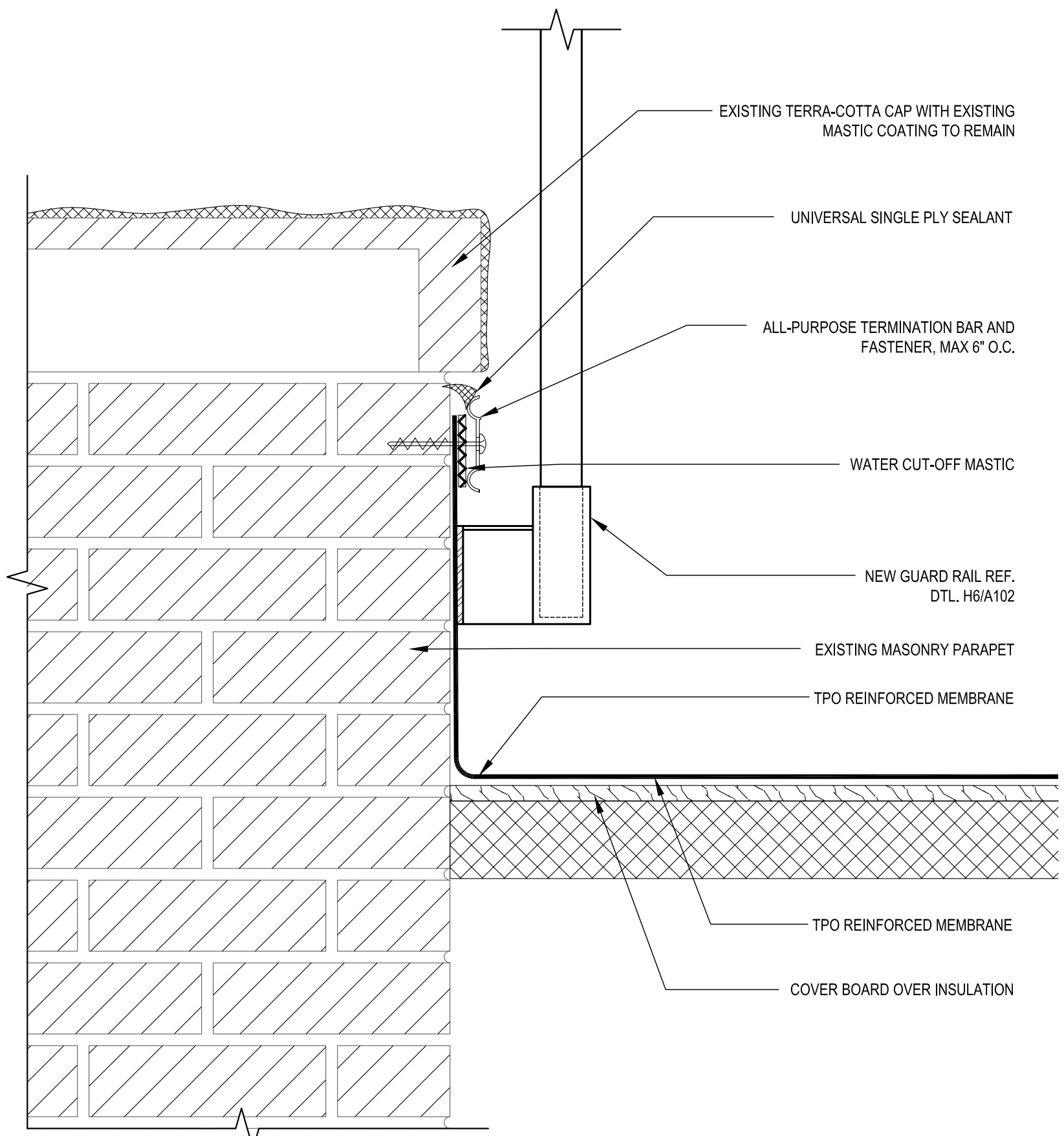
DEMO & ROOF PLAN

A101

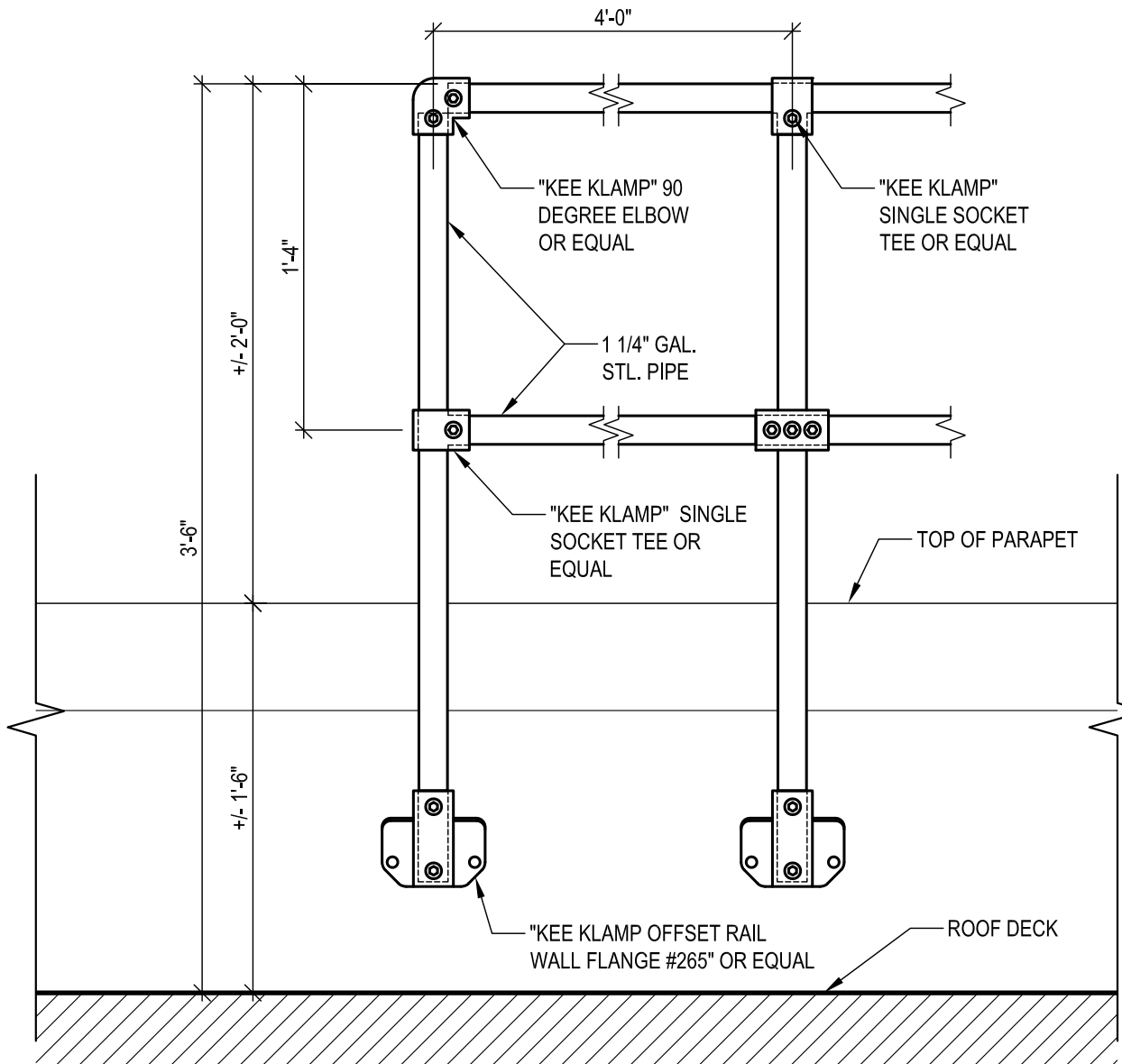
BID SET
9.18.2023



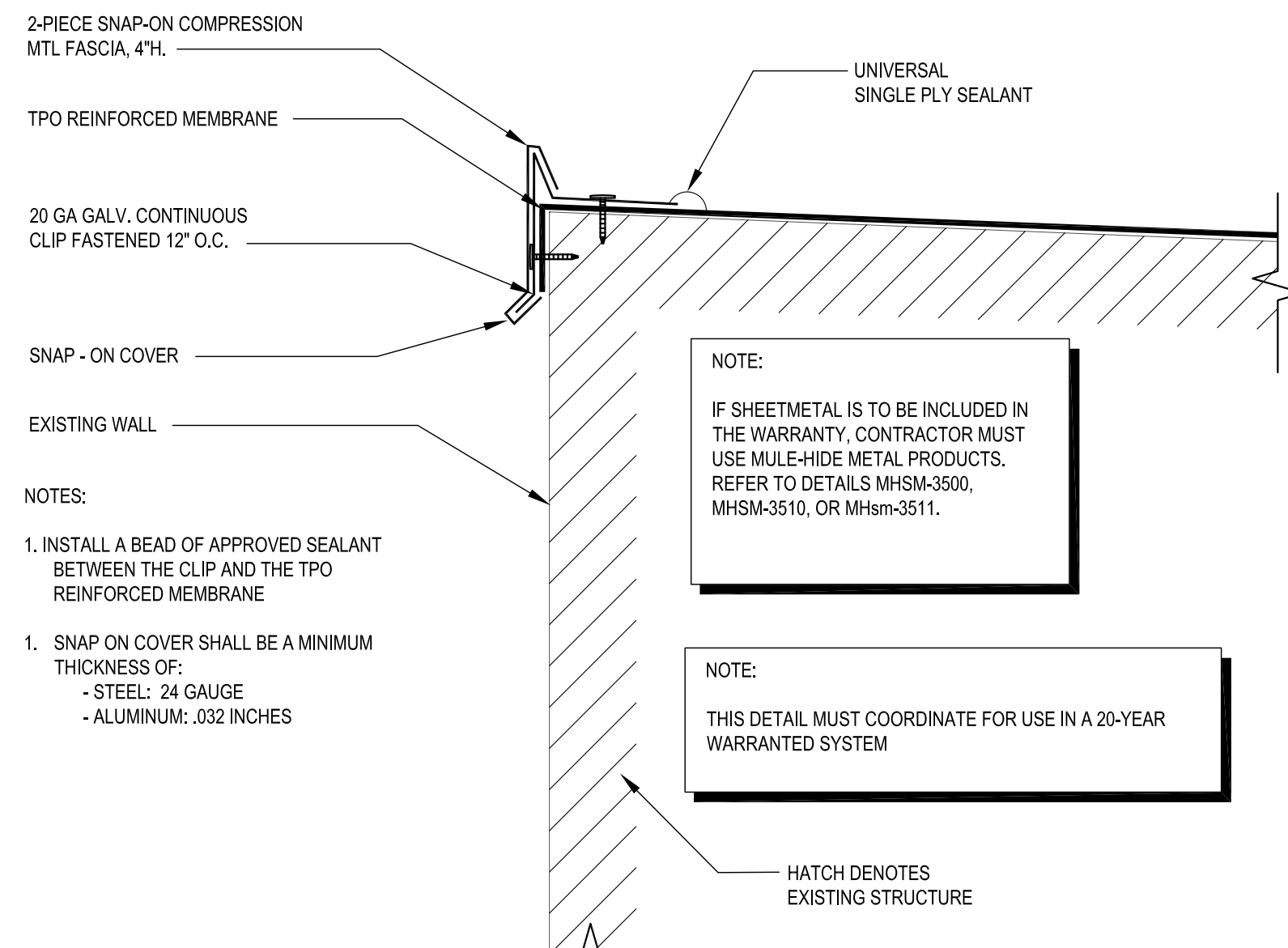
I-BEAM FLASHING H6
NTS



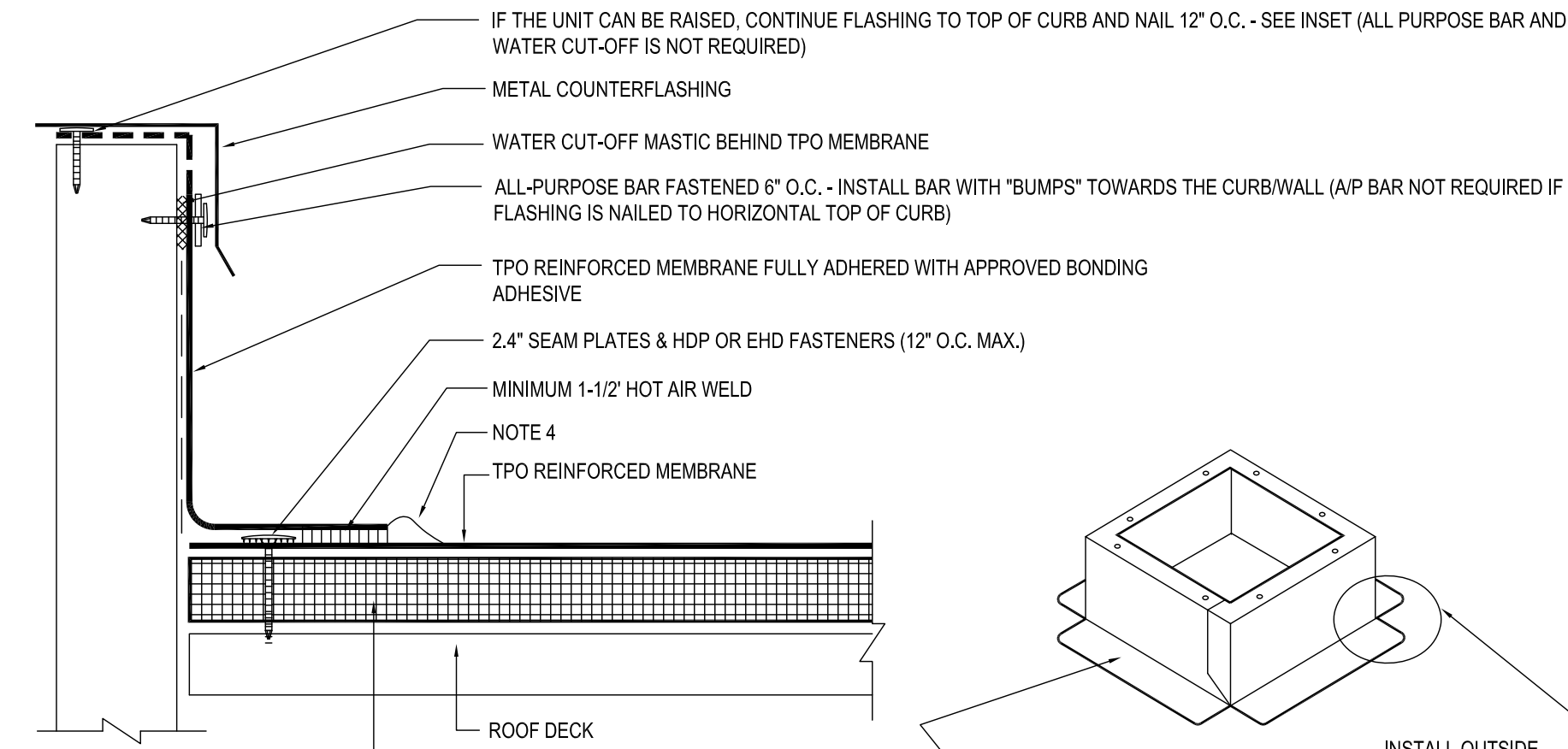
DETAIL @ BRICK PARAPET A10
NTS



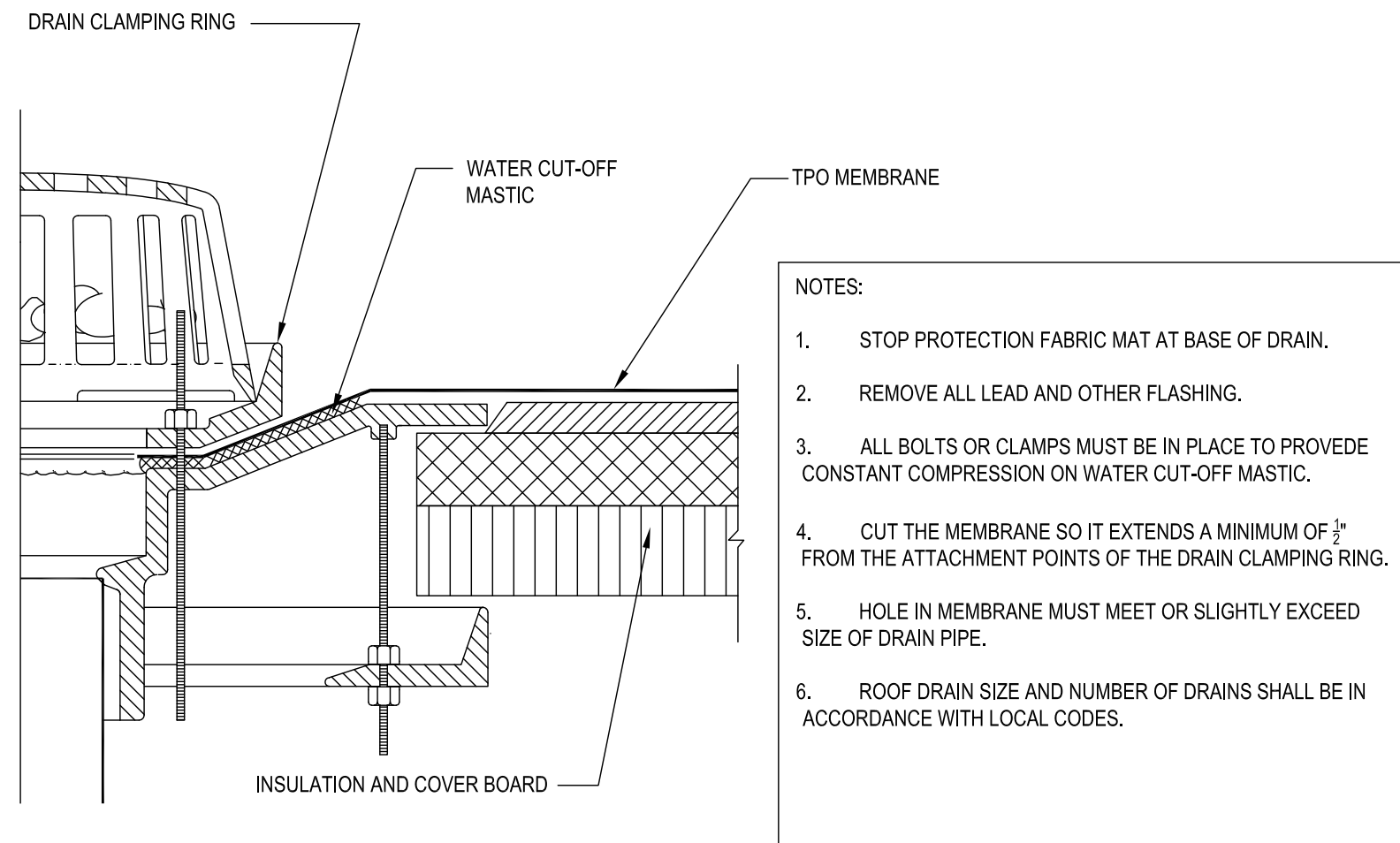
DETAIL @ NEW RAILING H6
NTS



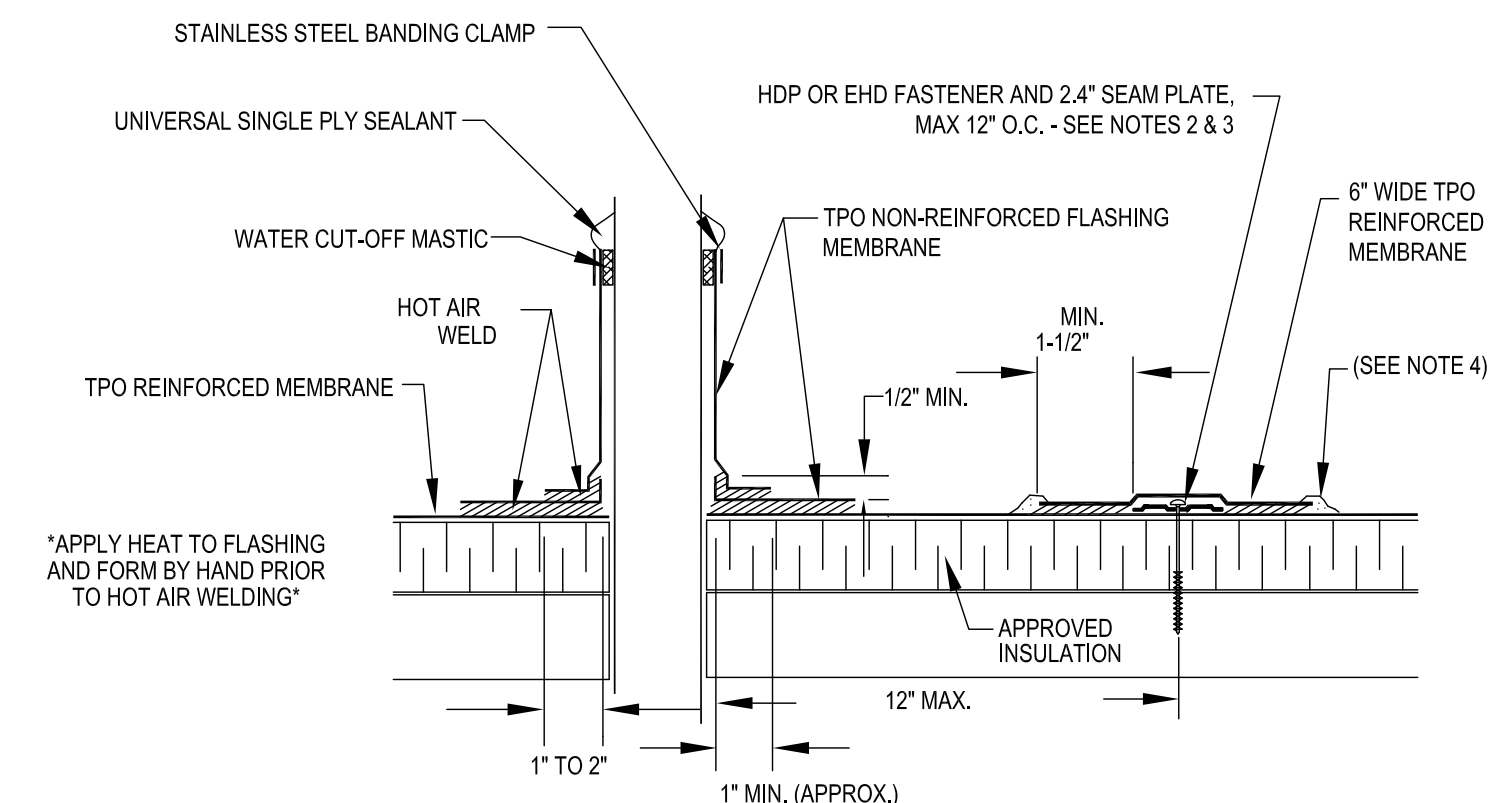
DETAIL @ WIDE PARAPET D5
NTS



CURB FLASHING H1
NTS



ROOF DRAIN E1
NTS



FIELD FABRICATED PIPE FLASHING A1
NTS

BID RESPONSE

Closing Date: Bids will be received until 2:00 p.m. CDT on the scheduled closing date. The online bid portal will not accept any new bids after this time.

Signature of Bids: Each bid must show in the space provided the complete business or mailing address of the bidder and must be signed by him/her with his/her usual signature.

Withdrawal of Bids: Bids already submitted may be withdrawn on the Electronic Bid System or upon proper identification of bidder and provided request is received prior to time of closing. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal after the time set for closing of bids.

Register Your Company: For a *mandatory* pre bid meeting, you *must* be registered in our bid portal for us to record you as an attendee. If you are not marked as attended, the system will not allow you to download a bid. It will also stop you from downloading your bid if you are not registered. Also, you will need to subscribe to the bid types you can provide. This will automatically send you bid requests in the future. *There is no pre bid meeting for this project.*

Please Submit Your Bids Early: In case you have problems getting your bid to upload and need assistance, we suggest you submit before 1:30 pm. Please contact us at once if you have issues uploading. Our system will not allow any bids to be uploaded after 2:00 pm. If your pricing changes, you can replace your bid in the system any time before the 2:00 closing.

Bid Openings: All bids submitted before the specified bid closing time shall be opened and properly recorded on the bid tabulation sheet. Subsequent to the bid opening, all bids shall be thoroughly evaluated and a determination made as to their compliance with applicable specifications. The appropriate County department head shall make this determination. Upon completion of the above determination, an analysis of all bids submitted shall be prepared and formally presented to the Board of County Commissioners for acceptance and approval of the lowest and/or best bid. The Board of County Commissioners reserves the right to accept or reject any and/or all bids and to waive any irregularities or informalities therein.

Notice to Successful Bidders: The successful bidder will be notified by email or telephone as soon as possible after bids have been opened, tabulated, and analyzed.

Notice to Unsuccessful Bidders: Unsuccessful bidders will not be notified.

DEMANDSTAR POSTINGS

Demandstar Website: Shawnee County open projects are posted on Demandstar as a secondary posting. Demandstar tracks broadcast and plan holder data. Bids must be submitted through the Shawnee County Bid Portal.

Shawnee County Bid Portal: When an open project is posted, Shawnee County is not able to track who downloads project information off the bid portal website. Bids must be submitted through the Shawnee County Bid Portal to be considered. All projects are posted on the County website, not all projects are posted on the Demandstar website. Registration is free.

TERMS AND CONDITIONS

In the event that goods or services delivered by the vendor are unsatisfactory and remain unsatisfactory after a notice and an opportunity to correct the deficiencies, the County reserves the right to purchase substitute goods or services from the other bidders.

Shawnee County reserves the right to negotiate separately with any vendor after the opening of this RFQ when such action is considered in its best interest. Subsequent negotiations may be conducted, but such negotiations will not constitute acceptance, rejection or a counteroffer on the part of the County.

Shawnee County interprets the term “lowest responsible and best bidder” as requiring Shawnee County to:

- A. Choose between the kinds of materials, goods, wares, or services subject to the proposal, and
- B. Determine which proposal is most suitable for its intended use or purpose. Shawnee County can consider among other factors such things as labor cost, service and parts availability and maintenance costs of items upon which proposals are received. Shawnee County can determine any differences or variations in the quality or character of the material, goods, wares or services performed or provided by the respective vendors.

Shawnee County will award the bid. If the successful vendor refuses or fails to make deliveries of the materials/services within the times specified in the RFQ, purchase order or contractual agreement, Shawnee County may by written notice, terminate the contract OR purchase order. The successful vendor will certify and warrant that goods, personal property, chattels, and equipment sold and delivered are free and clear of any and all liens, or claims of liens, for materials or services arising under, and by virtue of the provisions of K.S.A. 58-201, et seq., and any other lien, right, or claim of any nature or kind whatsoever.

The vendor hereby certifies that he or she has carefully examined all of the documents for the project, has carefully and thoroughly reviewed this RFQ, understands the nature and scope of the work to be done; and that this proposal is based upon the terms, specifications, requirements and conditions of the RFQ, and documents. The vendor further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope for the project as aforesaid.

Shawnee County will use discretion with regards to disclosure of proprietary information contained in any response, but cannot guarantee the information will not be made public. As a governmental entity, Shawnee County is subject to making records available for disclosure pursuant to the Kansas Open Records Act. Any confidential or proprietary information should be clearly marked.

Shawnee County reserves the right to enter into agreements subject to the provisions of the Cash Basis Law (K.S.A. 10-1112 and 10-1113), the Budget Law (K.S.A.79-2935). Agreements shall be construed and interpreted so as to ensure that the County shall at all times stay in conformity with such laws, and as a condition of agreements the County reserves the right to unilaterally sever, modify, or terminate agreement at any time if, in the opinion of its legal counsel, the Agreement may be deemed to violate the terms of such law.

The vendor certifies that this proposal is submitted without collusion fraud, or misrepresentation as to other vendors, so that all proposals for the project will result from free, open, and competitive proposing among all vendors.

This RFQ, responses thereto and any contract documents will be governed by the law of the State of Kansas. Any dispute arising out of the same will be litigated only within the courts of the State of Kansas.

Vendor agrees that all data, documents, and information, regardless of form that is generated as a result of this RFQ are the property of Shawnee County. The County shall not be liable to reimburse any vendor for the costs of creating, compiling or delivering the same to the County.

By submission of a response, the proposer agrees that at the time of submittal, it: 1) has no interest (including financial benefit, commission, finder's fee, or any other remuneration) and will not acquire any interest, either direct or indirect, that would conflict in any manner or degree with the performance of proposer's services, or 2) benefit from an award resulting in a "Conflict of Interest." A "Conflict of Interest" will include holding or retaining membership, or employment, on a board, elected office, department, division, or bureau, or committee sanctioned by and/or governed by the Board of Shawnee County Commissioners of the County of Shawnee, Kansas. Proposers will identify any interests, and the individuals involved, on separate paper with the response and will understand that the County may reject their proposal at its sole discretion.

No gifts or gratuities of any kind shall be offered to any County employee at any time.

The Proposer certifies that this proposal is submitted without collusion, fraud, or misrepresentation as to other Proposers, so that all proposals for the project will result from free, open, and competitive proposing.

The County is exempt from the payment of Federal and excise taxes and from Kansas sales tax.

Vendor credit agreements are prohibited. Unless otherwise stated in this document, payment will be made from vendor-submitted invoice(s) via ACH transfer, check, or credit card, net 30 days. Shawnee County will not complete any credit application or agree to credit terms supplied by vendor.

Nondiscrimination: Shawnee County is committed to the concept of equal employment opportunity. All bidders and contractors are expected to comply with the provisions of K.S.A. 44-1030 and 44-1031, copies of which are attached and shall be a part of this contract and other applicable Federal and Kansas laws governing equal employment opportunity.

In accordance with K.S.A 44-1030, vendor hereby agrees to the following:

- A. He or she will observe the provision of the Kansas Commission on Human Rights and will not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, national origin, ancestry, or physical disability.
- B. In all solicitations or advertisements for employees, he or she will include the phrase, "Equal Opportunity Employer", or a similar phrase to be approved by the Kansas Commission on Human Rights.
- C. If he or she fails to comply with the manner in which he or she will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Shawnee County, Kansas.
- D. If he or she is found guilty of a violation of the Kansas Act Against Human Rights under a decision, or order of the Kansas Commission on Human Rights which has become final, he or she will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Shawnee County, Kansas; and,

- E. He or she will include the provisions of subsections (a) through (d) inclusively of this paragraph in every subcontract or purchase order so that such provision will be binding upon such subcontractor or vendor.

Provisions of K.S.A. 44-1030 Statute:

Mandatory provisions applicable to contracts of the state and other political subdivisions; cancellation, when; application to subcontract; non-application to certain contract. (a) Except as provided by subsection (c) of this session, every contract for or on behalf of the state or any county or municipality or other political subdivision of the state or any agency of or authority created by any of the foregoing, for the construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services shall contain provisions by which the contractor agrees that:

1. The contractor shall observe the provisions of the Kansas act against discrimination and shall not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex physical handicap unrelated to such person's ability to engage in the particular work, national origin or ancestry.
2. In all solicitations or advertisements for employees, the contractor shall include the phrase, "equal opportunity employer," or a similar phrase to be approved by the commission.
3. If the contractor fails to comply with the manner in which the contractor reports to the commission in accordance with the provisions of K.S.A. 44-1032, the contractor shall be deemed to have breached the present contract and it may be cancelled, terminated or suspended, whole or in part, by the contracting agency.
4. If the contractor is found guilty of a violation of the Kansas act against discrimination under a decision or order of the commission which has become final, the contractor shall be deemed to have breached the present contract and it may be cancelled, terminated or suspended, in whole or in part, by the contracting agency.
5. The contractor shall include the provisions of paragraphs one (1) through four (4) inclusively of this subsection (a) in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor. (b) The Kansas commission on civil rights shall not be prevented hereby from requiring reports of contractors found to be not in compliance with the Kansas act against discrimination. (c) The provisions of this section shall not apply to a contract entered into by a contractor: (1) Who employs fewer than four (4) employees during the term of such contract; or (2) Whose contracts with the governmental entity letting such contract cumulatively total five thousand dollars (\$5,000) or less during the fiscal year of such governmental entity.

Provisions of K.S.A. 44-1031 Statute:

Same; personnel to be used in performing contracts; reports; non-application to certain contractors. Every person, as defined in subsection (a) of K.S.A. 44-1002, who wishes to enter into a contract which is covered by the provisions of K.S.A. 44-1030 shall upon request of the commission, inform the commission in writing of the manner in which such person shall recruit and screen personnel to be used in performing the contract. The report shall be made on forms to be supplied by the commission. The provisions of K.S.A. 44-1030 and of this section shall not apply to any contractor who has already complied with the provisions of such sections by reason of holding a contract with the federal government or a contract involving federal funds.

History: L.1972, ch.184, & 15; L. 1975, ch. 264, & 8; L. 1977, ch. 183, & 2; July 1.

All questions regarding this bid should be posted on the online Electronic Bid System.

For problems with the online Electronic Bid System, please contact:

Shawnee County Audit Finance Department

e-mail: Auditfinance@snco.us phone: (785) 251 – 4039

The undersigned agrees with all terms and conditions stated above:

Signature	_____
Printed Name	_____
Title	_____
Email Address	_____
Phone Number	_____

ATTACHEMENT 1

Quotation Number: 047-23

Vendor Name: _____

Date Issued: 09-22-2023

Closing Date: 10-05-2023, 2:00pm

SCHEDULE OF PRICES

Roofing for all parts and labor including freight for the following locations:

K-State Research & Extension Center

\$ _____

1740 Western, Topeka, KS

Pricing printed in words: _____

Shawnee County Commission Office Building

\$ _____

707 SE Quincy, Topeka, KS

Pricing printed in words: _____

Pricing for both locations

\$ _____

Pricing printed in words: _____

COMPANY or FIRM ADDRESS:

COMPANY or FIRM NAME

BY: _____

DATE: _____