

SECTION 07506

EPDM ROOF SYSTEM RESTORATION

This demonstration of restoration techniques is not meant to substitute for specific design services by a registered or otherwise qualified roof consultant or architect. Be certain to consult those individuals prior to implementing restoration techniques demonstrated herein.

PART 1 GENERAL

1.1 WORK INCLUDES

- A. General Contractors:
 - 1. To provide restoration repairs on existing EPDM roofs, as shown on drawings and as specified herein.
 - 2. To provide all accessories and appurtenances for a complete repair as shown and specified.
 - 3. Edit as necessary

1.2 RELATED SECTIONS

- A. Specified elsewhere:
 - 1. Section 01300 - Administrative Requirements.
 - 2. Section 01780 - Closeout Submittals.
 - 3. Edit as necessary

1.3 DEFINITIONS

- A. Roofing System Manufacturer: The manufacturer whose system is indicated and whose products are specified under this section and who hereinafter is called "manufacturer."

1.4 QUALITY ASSURANCE

- A. Qualifications and Requirements of the Roofing Contractor:
 - 1. Contractor shall be a firm approved by the Roofing System Manufacturer.
- B. Requirements of Regulatory Agencies: Tests of standards by independent agencies whose classifications and requirements have general acceptance as regulatory.
 - 1. ASTM: American Society for Testing and Materials.
 - 2. FM: Factory Mutual Laboratories.
 - 3. NFPA: National Fire Protection Association.
 - 4. UL: Underwriters Laboratories, Inc.
 - 5. Edit as required.
- C. Referenced Catalogs: Current as of the date of the bidding documents, and of the manufacturers specified who are incorporated herein by reference.
- D. Application Qualifications:
 - 1. Method shall be approved by the manufacturer of the selected roofing materials.
 - 2. All products used in this renovation shall be from the same membrane manufacturer on the roof to be renovated.

1.5 SUBMITTALS

- A. Make all submittals in accordance with Section 01300. (Edit as required.)
- B. Roofing Firm Endorsement: At least three business days prior to first project coordination meeting, submit roofing firm's name, address, telephone number and manufacturer's endorsement of roofing firm to Architect.
- C. Submit written certification that the Roofing Contractor is an approved applicator of the manufacturer's products.
- D. Shop Drawings: Shall represent standards and details as specified herein or as indicated in the drawings. Manufacturer's standard shop drawings are NOT ACCEPTABLE.
 - 1. Minimum scale: 3" = 1'-0" unless otherwise specified.
 - 2. Required details: Sections and plan of each.
 - a. Roof drains
 - b. Roof curb
 - c. Plumbing vent
 - d. Lap seams
 - e. Base flashings
 - f. Add and edit as necessary.
- E. Product Data: Material safety and technical information sheets for products being utilized.
 - 1. Mechanical Fasteners.
 - 2. EPDM Products:
 - a. 60 mils membrane.
 - b. Semi-cured self adhering cover strips [5"], [6"], [9"], [12"].
 - c. 3", 6", and 9" seam tape.
 - d. Aged membrane cleaner.
 - e. Bonding adhesive.
 - f. Splice adhesive.
 - g. Water cut off mastic.
 - h. SPM lap sealant.
 - i. Splice tape.
 - j. Add and edit as necessary.
- F. Roof Membrane: EPDM – 45 mil, 60 mil. (Edit as necessary)
- G. Samples: Roof Membrane and flashing – three pieces of manufacturer's sample.
 - 1. EPDM membrane.
 - 2. Semi-cured self-adhering cover strips.

1.6 PRE-INSTALLATION MEETING

- A. Convene one week before starting Work of this Section.
- B. The Foreman in charge of the crew performing restoration work must be in attendance.

1.7 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver all materials in manufacturer's original, unopened containers and rolls with all labels intact and legible. All products shall bear Underwriters' Laboratories (UL) label.
- B. Deliver materials requiring fire resistance classification packaged with labels attached as required by label service.
- C. Deliver materials in sufficient time and quantity to all continuity of work and compliance with approved construction schedule.
- D. Handle rolled goods so as to prevent damage to edges and ends.
- E. Store all materials (outdoors) on clean raised platforms with weather-protective covering.
- F. Store rolled goods on end or as required by manufacturer.
- G. Provide continuous protection of the materials against any damage or deterioration with breathable coverings. Coverings such as canvas, visqueen or other non-breathable coverings will not be acceptable.
- H. Remove damaged or defective materials from site.
- I. Comply with all fire and safety regulations.
- J. Follow manufacturer's recommendations.
- K. All materials shall be new.
- L. All unprotected, moist, or otherwise damaged materials or products with evidence of moisture damage such as staining shall be removed permanently from the job.

1.8 PROJECT CONDITIONS

- A. Environmental Requirements: Except as otherwise authorized by the Architect, following the manufacturer's written request for variance:
 - 1. It shall be the Contractor's responsibility to verify existing and forecasted weather conditions. If inclement weather is anticipated during the work period, Contractor shall take adequate precautions to ensure products applied to roofing and building interiors are protected from possible moisture damage or contamination.
 - 2. Wind velocity limitations shall be based on ability to remove existing roofing and apply the products in a specific manner. Special precautions may be necessary at times due to excessive winds experienced by this region.
 - 3. Special precautions will be required during application of new roofing products when ambient and/or wind chill temperatures are below 40 degrees F.
- B. Protection
 - 1. Avoid heavy traffic on completed work.
 - 2. Restore to original condition or replace work/materials damaged by any roofing operations.
 - 3. Protect paving, grass, and building walls adjacent to hoists and kettles, prior to starting.
 - a. Lap suitable protective materials at least 6 inches.

- b. Secure protective coverings against the wind.
 - c. Leave protective covering in place for duration of the roofing work.
 - d. Repair any damage to existing conditions caused by work of this Section.
 - 4. Provide protection of all neighboring and adjacent existing roof areas during construction. Repair and render watertight any damage to existing roof systems and flashing during demolition and new construction.
 - 5. Protect existing roof systems flashing and roofing projections to remain during renovation construction.
 - a. Flashing that was damaged during removal shall not be reinstalled.
 - b. Replace flashing of same material for damaged flashing at no additional cost to the Owner.
 - 6. Remove protection upon completion of the roofing work.
 - 7. Do not walk across repairs immediately after installation.
 - 8. Remove debris daily from roof and minimize dust, dirt, and noise with proper equipment.
 - 9. Contractor must take every precaution to prevent interior leakage, products from falling into interior, or other such occurrences.
 - 10. Contractor shall prevent access by the public to any materials, tools, or equipment during the course of the work. The Owner assumes no liability or responsibility whatsoever for any damage, theft, or other acts which occur to Contractor's material, products or equipment.
 - 11. Contractor shall return all improvements on or about the property which are shown to have been altered, removed, or otherwise changed to conditions which have existed previous to starting work or better.
 - 12. Existing conditions may not be shown on drawings. Some modification of details may be required to accomplish intent of documents. Modifications or adjustments shall be approved in advance by the Architect. Prior to work, the Contractor shall:
 - a. Ascertain to his satisfaction that all aspects of the specifications are workable as specified.
 - b. Become completely familiar with requirements and stipulations contained throughout all Contract Documents and specifications.
 - c. Verify existing site conditions with respect to, but not necessarily limited to, building accessibility, traffic/pedestrian flow, special safety considerations, all parked vehicles, attachment of the existing roofing/accessories, the building dimensions and roofing replacement impediment.
- C. Sequencing/Scheduling: At First Preconstruction Meeting
- 1. Roofing Contractor:
 - a. Shall provide detailed schedule of all roofing operations
 - b. Ensure that the Project Foreman attends meeting.
 - 2. Subcontractors shall integrate their schedules for the "on-roof" operations.

1.9 WARRANTY

- A. Contractor Guarantee: **(Edit as required).**
1. Contractor shall guarantee the installation of the new roofing and flashing to be watertight for a period of 2 years from the Date of Substantial Completion.
 2. Contractor shall make all repairs during this 2 year period to maintain a watertight roof in conformance with the specifications, at no additional cost to the Owner.
 3. Contractor shall repair, at his own expense, all defects which are manifested as part of the Contractor's work within 2 years.
 4. Contractor shall respond within 48 hours after notification of leakage to the roof site. If he does not, the Owner shall have the right, without invalidating this guarantee, to make any temporary repairs required, in order to protect the building and its contents from any damage due to the roof leakage. The cost of same will be billed to the Contractor.
 5. Conversely, upon diligent response by the Contractor to repair a reported roof leak, if leaks are discovered that are due to faulty maintenance and/or operation of the building's equipment or accessories unrelated to the roof performance, then the Owner shall reimburse the Contractor the fair value of the Contractor's time and expenses incurred to respond to a false leak report, not to exceed \$100.00 for each occurrence.
- B. Guarantee Period:
1. This period shall be established as commencing from the date that the Architect inspects the repairs and finds them to be in compliance with the contract documents and written approval of same is obtained from holder of the warranty.
 2. Roofing Contractor shall notify the Architect in writing when the roof is complete for a final inspection.
- C. See Section 01780 - Closeout Submittals, for additional warranty requirements. **(Edit as necessary.)**
- D. Manufacturer's "Extended" Warranty: **(Optional: Review with roof system manufacturer required.)**
1. Provide roof manufacturer's Ten year Roof Warranty guaranteeing that the roof system will remain watertight for ten years. The manufacturer shall pay for the repair of any roof leaks due to material deterioration or errors in material application.

PART 2 PRODUCTS

2.1 EPDM MEMBRANE

- A. EPDM: **(45 mil; 60 mil)** Carlisle Syntec or Firestone Building Products. **(Edit as required)**

2.2 ADHESIVE MATERIALS

- A. Surface Conditioner: Aged membrane cleaner manufactured by the roof membrane

manufacturer.

- B. Primer: As supplied by the roof membrane manufacturer.
- C. Membrane Adhesives: As supplied by the roof membrane manufacturer.
 - 1. 3", 6", 9" seam tape.
 - 2. Splice adhesive.
 - 3. Bonding adhesive.
- D. Insulation Adhesive: As supplied by the roof membrane manufacturer.

2.3 ACCESSORIES (Edit as required.)

- A. All accessories to be provided by roof membrane manufacturer.
- B. Perimeter Anchor Strips: Reinforced 60 mils EPDM 6 inches.
- C. Cover Strips: Semi-cured, self-adhering EPDM.
- D. SPM Lap Sealant.
- E. Water Cut-Off Mastic.
- F. Semi-Cured EPDM Flashing: 9", 12", and 18" widths.
- G. Nails: Ring shank stainless steel, 1-1/2" length.
- H. Walkway Pads: (2'-0" x 2'-0" x 2'-1/4" thick; or manufacturer's standard walkways).
- I. Preformed Boots: Flexible penetration boot with self-adhering flange.
- J. Termination Bars: 1/8" x 1" minimum.
- K. Roof Drain Inserts: Roof system manufacturer's standard roof drain insert. (Field verify existing drain pipe diameter.)
- L. Cast Iron Roof Drain Domes and Clamping Ring Bolts:
 - 1. Cast iron roof drain domes: J.R. Smith.
 - 2. Clamping ring bolts: J.R. Smith.

2.4 SHEET METAL ACCESSORIES

- A. **Add as required.**

PART 3 EXECUTION

3.1 EXISTING ROOFING

- A. Remove all existing roofing system materials as indicated in the drawings.
- B. Properly dispose of all roof debris to an off-site location.
- C. Protect surrounding areas from damage during new roof and general construction.
- D. At tie-in, do not remove more roofing than can be covered with new roofing by the end of

each day's work, or prior to rain. Properly waterproof all areas prior to leaving the job site each day.

- E. Do not leave any roof deck open overnight or during rain. Water damage caused by this work shall be the responsibility of, and borne by, the Contractor.

3.2 INSPECTION

- A. Verify that all work of subcontractors which penetrates the roof deck or requires men and equipment to transverse roof deck has been completed.
- B. Examine surfaces for inadequate anchorage, foreign material, moisture, unevenness or other conditions, which would prevent execution and quality of installation of a specified roofing and flashing system and accessory items.
 - 1. All surfaces shall be dry, smooth, and free of projections and holes that might rupture the membrane.
 - 2. Immediately before roof application, thoroughly clean surface of dust and loose material.
- C. Do not issue a proceed order to the subcontractor or proceed with any work until all defects are corrected to the satisfaction of, and with written approval by, the roofing system manufacturer.
- D. Inspect roof deck and roof edge conditions for defects or conditions that will affect the progress of roofing renovation.

3.3 EXISTING ROOF PREPARATION

- A. Prior to installing the new roofing tie-in, the Contractor shall inspect all existing rooftop conditions including, but not limited to, the roof deck, accessories, units, drainage, penetrations, etc. Contractor shall verify that the roof repairs may be installed in strict accordance with the original design, manufacturer's current recommendations, and other pertinent codes and regulations.
- B. Contractor shall protect surrounding areas from damage during the roof removal.
- C. Roofing materials shall not be applied when moisture in any form, such as dew, can be seen or felt on the surface to which the materials are to be applied.
- D. Contractor shall not leave any roof deck open overnight or during rain. Water damage caused by this work shall be borne by this Contractor.
- E. EPDM Roofing:
 - 1. Spray the existing EPDM membrane 18" out from the vertical plane and 9" to either side of lap seams with manufacturer's recommended cleaning solution. Rinse to remove all accumulated debris. Scrub with a brush or power wash membrane with a mixture of water and soap. Thoroughly rinse.
 - 2. Apply primer.

3.4 INSTALLATION (Edit as required.)

- A. Manufacturer's Instructions:
 - 1. Install roofing repairs with flashing systems and all accessory items in strict

accordance with the roof membrane system manufacturer's printed instructions current at date of bidding documents and as specified.

2. When items of conflict arise between the manufacturer's recommendations and the contract documents, the more stringent will govern, unless it violates the manufacturer's warranty requirements.

B. Field Lap Seam:

1. Inspect seam for open and debonded laps. Clean with aged membrane cleaner and install seam tape between EPDM sheets. Bond and roll with steel roller.
2. Following application of aged membrane cleaner and splice adhesive, install self-adhering, semi-cured EPDM cover strip centered on existing seam edge.
3. Roll entire seam with steel roller:
 - a. The salvaged adhesive edge of the cover strip shall be thoroughly rolled into place.
 - b. At cover strip laps and laps with other membranes, carefully roll along covered edge.
4. At the cover strip laps and laps with other membrane locations, install an uncured EPDM patch over the lap extending a minimum of 3 inches beyond the lap in all directions. All patch corners to be rounded.
5. Install a continuous bead of lap sealant over the edge of the cover strip and patches using an SPM lap sealant screed, tool lap sealant into and over the edge of the cover strip and patching membrane.

C. Base Flashing Condition – *Restoration*:

1. Following cleaning of the aged membrane, cut the existing membrane so that the cut edge is approximately 1" out from the existing roof curb when laid flat. Trim membrane at curb along debonded edge.
2. Install 9" reinforced EPDM self-adhering perimeter anchor strip using FM approved screws and stress plates. Insert the horizontal flange below existing membrane.
3. Remove release paper and bond existing and new membranes, rolls with steel roller to achieve positive bonding.
4. Wrap vertical conditions with 60 mils EPDM, fully adhered in splice adhesive. For curb conditions, remove HVAC unit and extend membrane up over top of curb. Nail off at 4" on center.
5. Install premolded, self-adhering EPDM corners in splice adhesive.
6. Install 6" semi-cured EPDM cover strip around base of conditions over lap of existing and new membrane on curb condition. Extend 9 inches beyond curb and 3 inches beyond underlying coverstrips.
7. Install a continuous bead of lap sealant over the edge of the cover strip and patches using an SPM lap sealant screed, tool lap sealant into and over the edge of the cover strip and patching membrane.
8. Refer to renovation details in drawings.

D. Base Flashing Conditions – *Renovation*:

1. Inspect base flashing conditions for debonded laps. Cut out membrane that can not be cleaned. Remove all foreign contaminates. Apply aged membrane cleaner and seam tape. Bond and roll to achieve full contact.
2. Wrap vertical conditions with 60 mils EPDM, fully adhered in splice adhesive. For curb conditions remove HVAC unit and extend membrane up over top of curb. Nail off at 4" on center.
3. Install premolded, self-adhering EPDM corners in splice adhesive.
4. Install 12" semi-cured EPDM cover strip around base of conditions over lap of existing and new membrane. On curb condition extend 9 inches beyond curb and 3 inches beyond underlying coverstrips.
5. Install a continuous bead of lap sealant over the edge of the cover strip and patches using an SPM lap sealant screed, tool lap sealant into and over the edge of the cover strip and patching membrane.
6. Refer to renovation detail in drawings.

E. Premolded Boot Conditions:

1. Examine the premolded boot. If free of deterioration, defects, damage, or deformations, proceed with renovations. If any of the above exists, refer to Section F. below.
2. Scrap and remove all loose sealant from atop premolded boot.
3. Remove old stainless steel pipe claims.
4. Wash top of boot and penetration with aged membrane cleaner.
5. Following washing of base of boot, apply aged membrane cleaner.
6. Install new water block between pipe and existing premolded boot.
7. Install new stainless steel clamp.
8. Apply a full bead of SPM lap sealant atop premolded boot.
9. At base condition, install 4" to 6" semi-cured, self-adhering EPDM cover strips in picture frame manner over horizontal flange of premolded boot. Extend a minimum of 3" beyond the underlying cover strip. Roll to assure positive bonding.
10. Install a continuous bead of lap sealant over the edge of the cover strip and patches using an SPM lap sealant screed, tool lap sealant into and over the edge of the cover strip and patching membrane.
11. Refer to renovation detail in drawings.
12. For folded or cracked premolded boots, refer to details in drawings.

F. Premolded Boot – *Deteriorated* Conditions:

1. Remove stainless steel clamping ring, premolded boot, loose flashing on the vent pipe, sealant, and water cut-off mastic from vent pipe.
2. Install 3'-0" x 3'-0" target patch of 60 mils EPDM centered over vent pipe. Use 6" splice tape at edge and splice adhesive on interior.
3. Wrap pipe with semi-cured self-adhering EPDM.
4. Prime top of target patch. Install self-adhering premolded boot.
5. Install water block between inner side of premolded boot and vent pipe.
6. Install stainless steel pipe clamping ring and SPM sealant at top of premolded boot.

G. EPDM Field Sheet and Flashing Edges at Metal Conditions:

1. Scrape and remove all loose sealant.
2. Wash metal and adjacent EPDM membrane with manufacturer's recommended cleaning solution. Scrub and then thoroughly rinse.
3. Inspect condition and re-bond all loose and non-bonded conditions using seam tape. Clean thoroughly and wash with aged membrane prior to seam tape application.
4. Install splice adhesive to metal and adjacent EPDM.
5. Install a continuous bead of lap sealant over the edge of the membrane. Using an SPM lap sealant screed, tool lap sealant into and over the membrane edge and onto the metal.

H. Roof Drains

1. Remove all debris from roof drain sump area.
2. Wash the existing membrane 6'-0" around the roof drain with manufacturer's recommended cleaning solution. Rinse thoroughly.
3. Remove existing roof drain dome and clamping ring.
4. Apply aged membrane cleaner followed by splice adhesive 3'-0" out from center of drain.
5. Install 6" seam tape around cut edge of target patch.
6. Install 5'-0" x 5'-0" target patch of 60 mils EPDM centered on roof drain. Use 6" seam tape at edge. Splice adhesive in field of patch.
7. Install water cut off mastic between roof drain flange and EPDM.
8. Install clamping ring, new clamping rib bolts, and drain dome.
9. Install a continuous bead of lap sealant over the edge of the cover strip and patches. Using an SPM lap sealant screed, tool lap sealant into and over the edge of the cover strip and patching membrane.

10. Apply cover strip around all edges, priming first. Apply lap sealant to all edges.
- I. Continue as necessary to describe restoration of all building components with project.

3.5 ADJUST AND CLEAN

- A. Carefully inspect all completed work. Correct all defects.
- B. Clean up mastic spills and splatterings. Remove all surplus materials.
- C. Provide adequate protection of all completed work until Substantial Completion. Prevent traffic, storage or movement of any materials and/or equipment on the completed roofing systems.
- D. Remove all rubbish, debris, surplus materials, tools, and equipment from the job site.
- E. Provide 1/2" plywood walk boards on 1" insulation in areas of heavy traffic. Take any other measures to prevent damage to roofing system by any trade crew members.

END OF SECTION

EPDM ROOF RESTORATION DETAILS

PREPARED BY:



SHEET INDEX

DRAWING NO.	DESCRIPTION
T 1	TITLE SHEET, SHEET INDEX
R 1	EXISTING EPDM FIELD SEAM RESTORATION DETAIL
R 2	COVER STRIP LAP DETAIL
R 3	EPDM FIELD SEAM TEE JOINT RESTORATION DETAIL
R 4	EXISTING FIELD SEAM RESTORATION DETAIL AT VERTICAL TRANSITION
R 5	EXISTING EPDM SEAM RESTORATION DETAIL AT ANGLE CHANGE ALTERNATE REPAIR METHOD
R 6	BASE FLASHING RESTORATION - EXISTING BRIDGING CONDITIONS - STEPS 1,2
R 7	BASE FLASHING RESTORATION - EXISTING BRIDGING CONDITIONS - STEP 3
R 8	VENT PIPE FLASHING RENOVATION DETAIL
R 9	ROOF CURB FLASHING RENOVATION DETAIL
R 10	RENOVATED ROOF DRAIN DETAIL
R 11	GRAVEL STOP ROOF EDGE RENOVATION DETAIL

10-07-2004

EPDM ROOFING ASSOCIATION

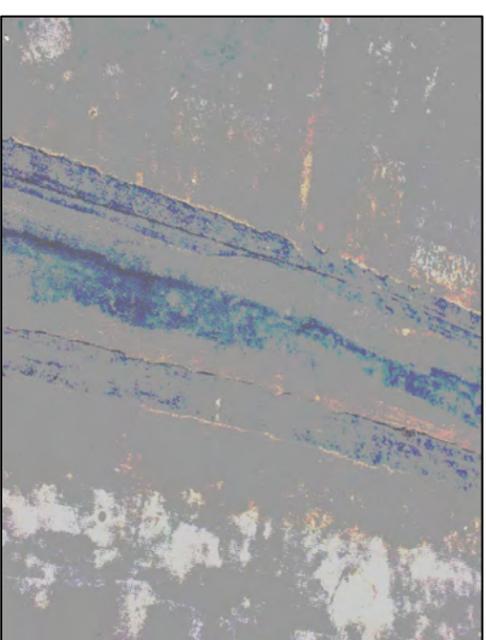
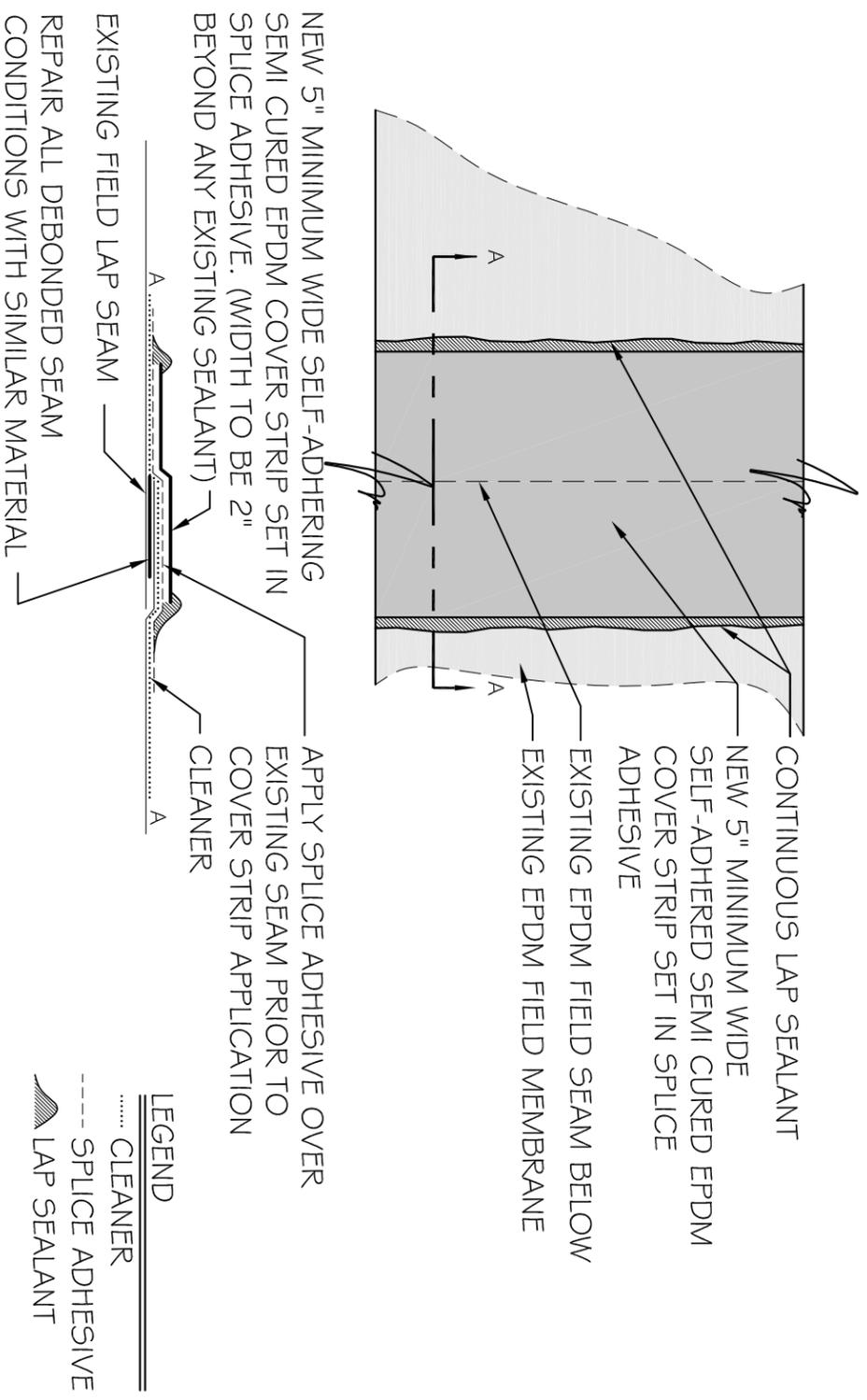
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FULLY ADHERED & BALLASTED EPDM ROOF SYSTEMS
TITLE SHEET, SHEET INDEX

T I
2004-001

- NOTES: 1. PRIOR TO APPLICATION OF SPLICE ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS.
2. INSPECT THE EXISTING FIELD LAP SEAM FOR BONDING DEFICIENCIES. CLEAN AND REPAIR PRIOR TO COVER STRIP APPLICATION.
3. FOR LONGITUDINAL COVER STRIP LAPS SEE DETAIL I/R2
4. FOR TEE JOINTS AND CROSS SEAMS SEE DETAIL I/R3
5. FOR SIMILAR CONDITIONS THE EPDM MEMBRANES MAY BE EXISTING AND OR NEW



FIELD SEAM AFTER RESTORATION

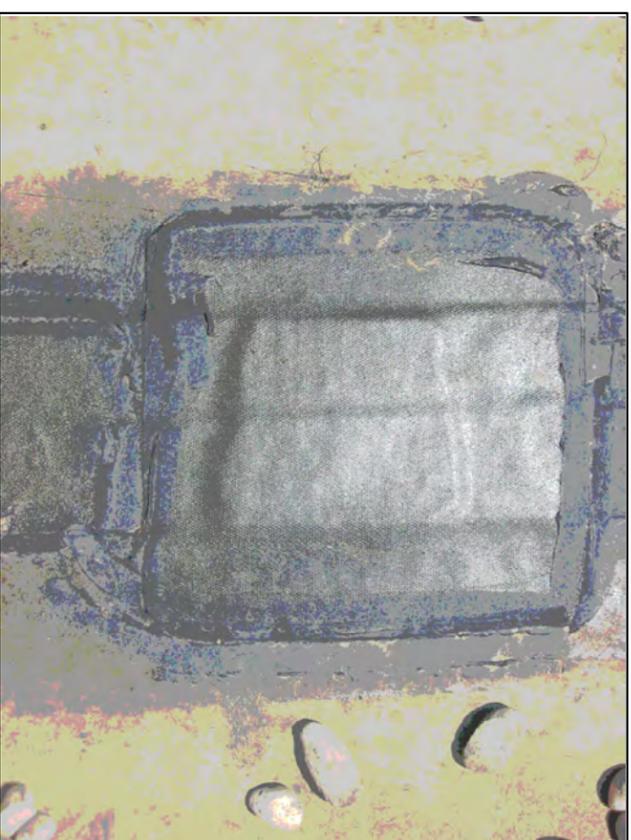
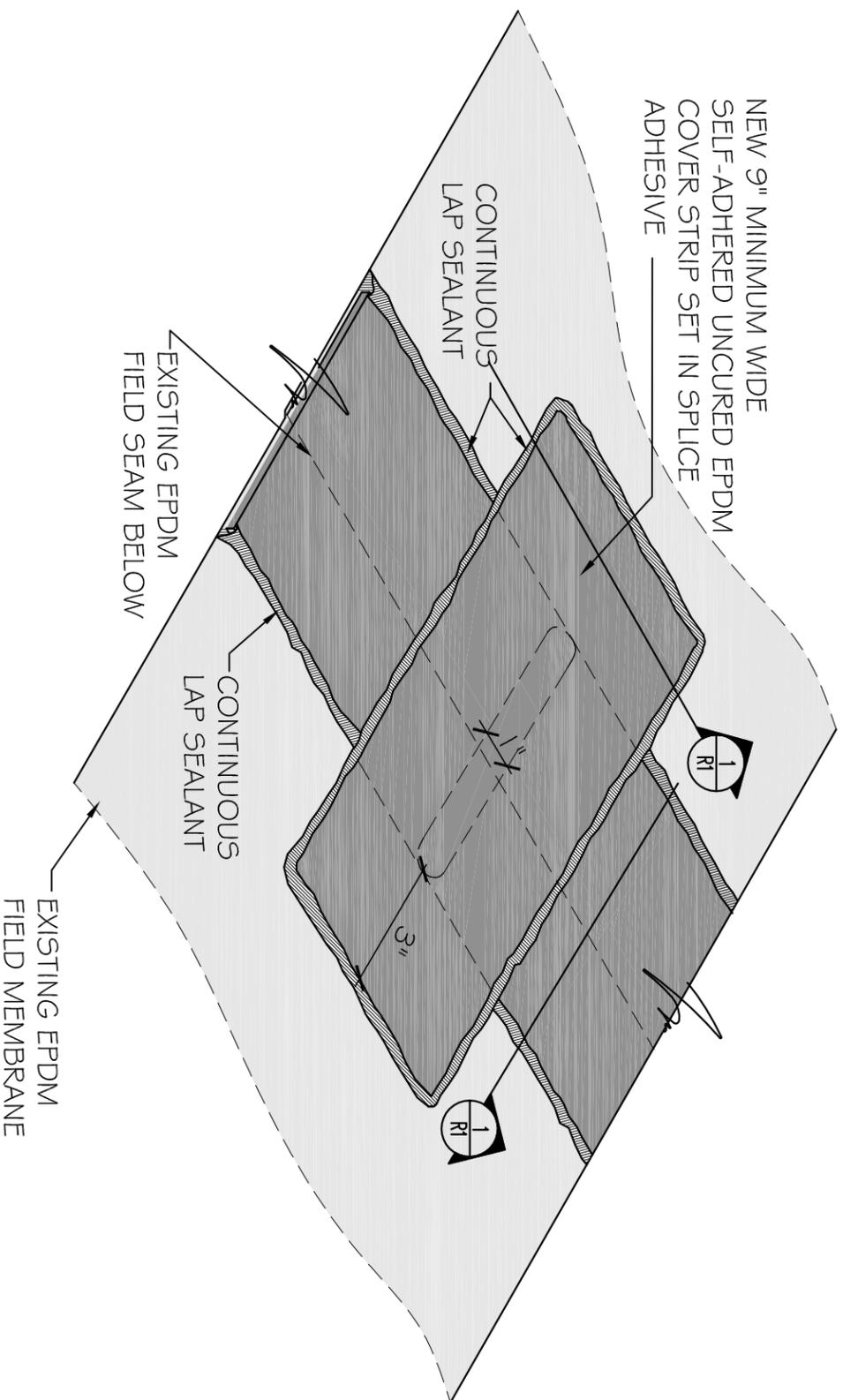
1 EXISTING EPDM FIELD SEAM RESTORATION DETAIL

R1

EPDM ROOFING ASSOCIATION

3" = 1'-0"

- NOTES: 1. PRIOR TO APPLICATION OF SPLICE ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS. 2. INSPECT THE EXISTING FIELD LAP SEAM FOR BONDING DEFICIENCIES. CLEAN AND REPAIR PRIOR TO COVER STRIP APPLICATION. 3. FOR TYPICAL LAP SEAM RESTORATION SEE DETAIL I/R1



COVER STRIP LAP AFTER RENOVATION

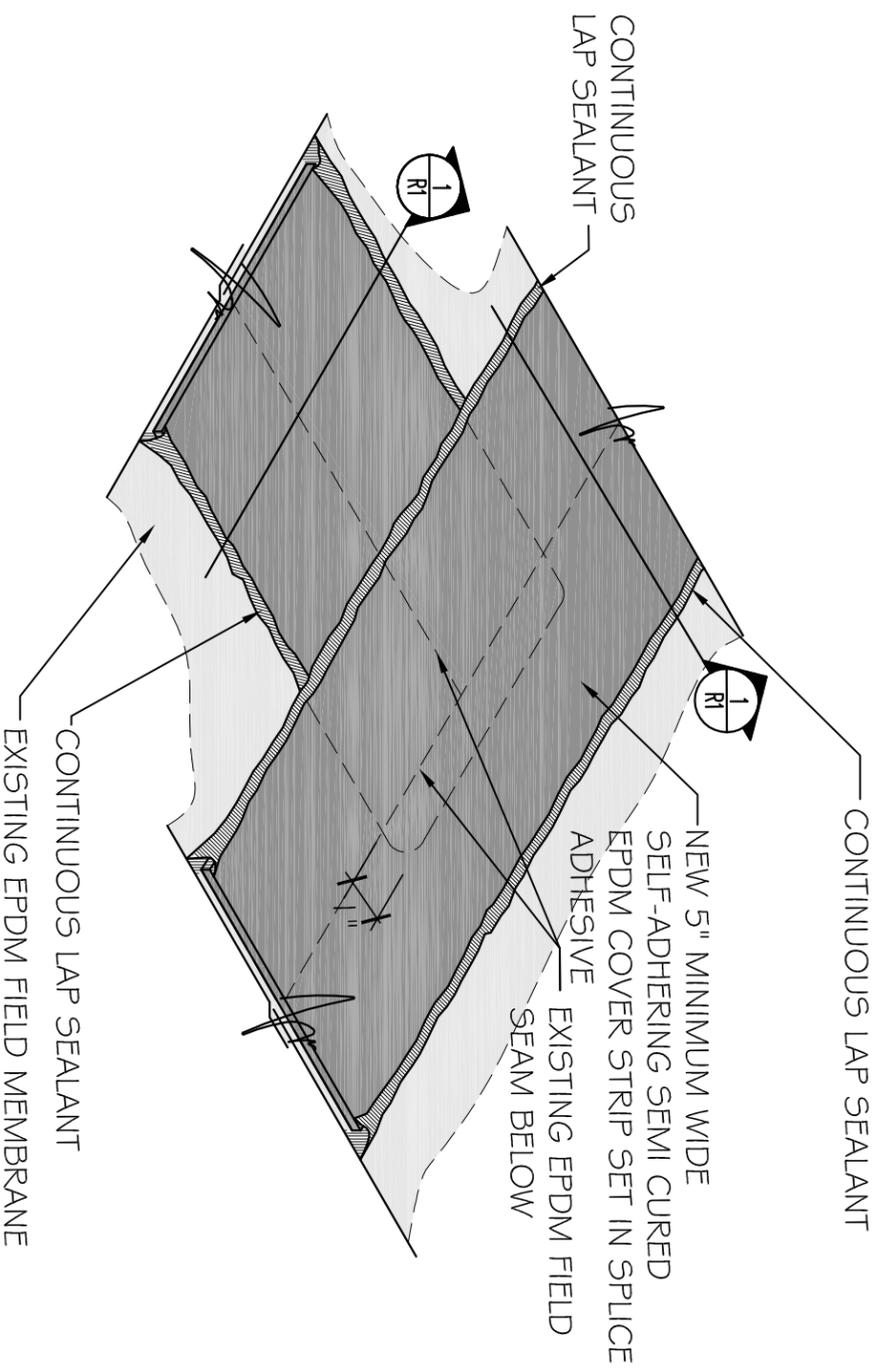
1 COVER STRIP LAP DETAIL

R2

EPDM ROOFING ASSOCIATION

3" = 1'-0"

- NOTES:
1. PRIOR TO APPLICATION OF SPLICE ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS.
 2. INSPECT THE EXISTING FIELD LAP SEAM FOR BONDING DEFICIENCIES. CLEAN AND REPAIR PRIOR TO COVER STRIP APPLICATION.
 3. FOR TYPICAL LAP SEAM RESTORATION SEE DETAIL I/R 1

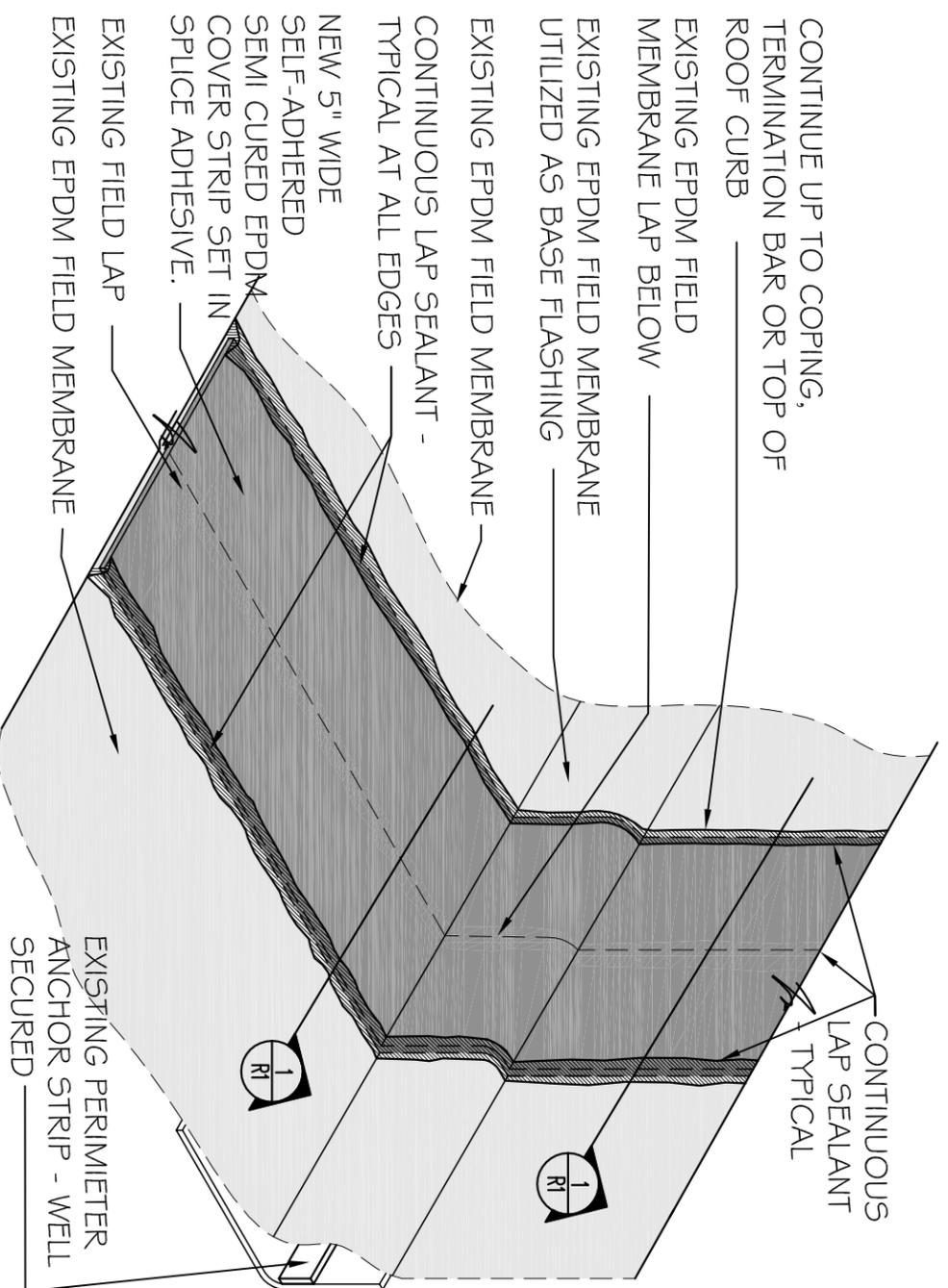


1 EPDM FIELD SEAM TEE JOINT RESTORATION DETAIL

R3 EPDM ROOFING ASSOCIATION

3" = 1'-0"

- NOTES: 1. PRIOR TO APPLICATION OF SPlice ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS.
2. INSPECT THE EXISTING FIELD LAP SEAM FOR BONDING DEFICIENCIES. CLEAN AND REPAIR PRIOR TO COVER STRIP APPLICATION.
3. FOR TYPICAL LAP SEAM RESTORATION SEE DETAIL 1/R 1



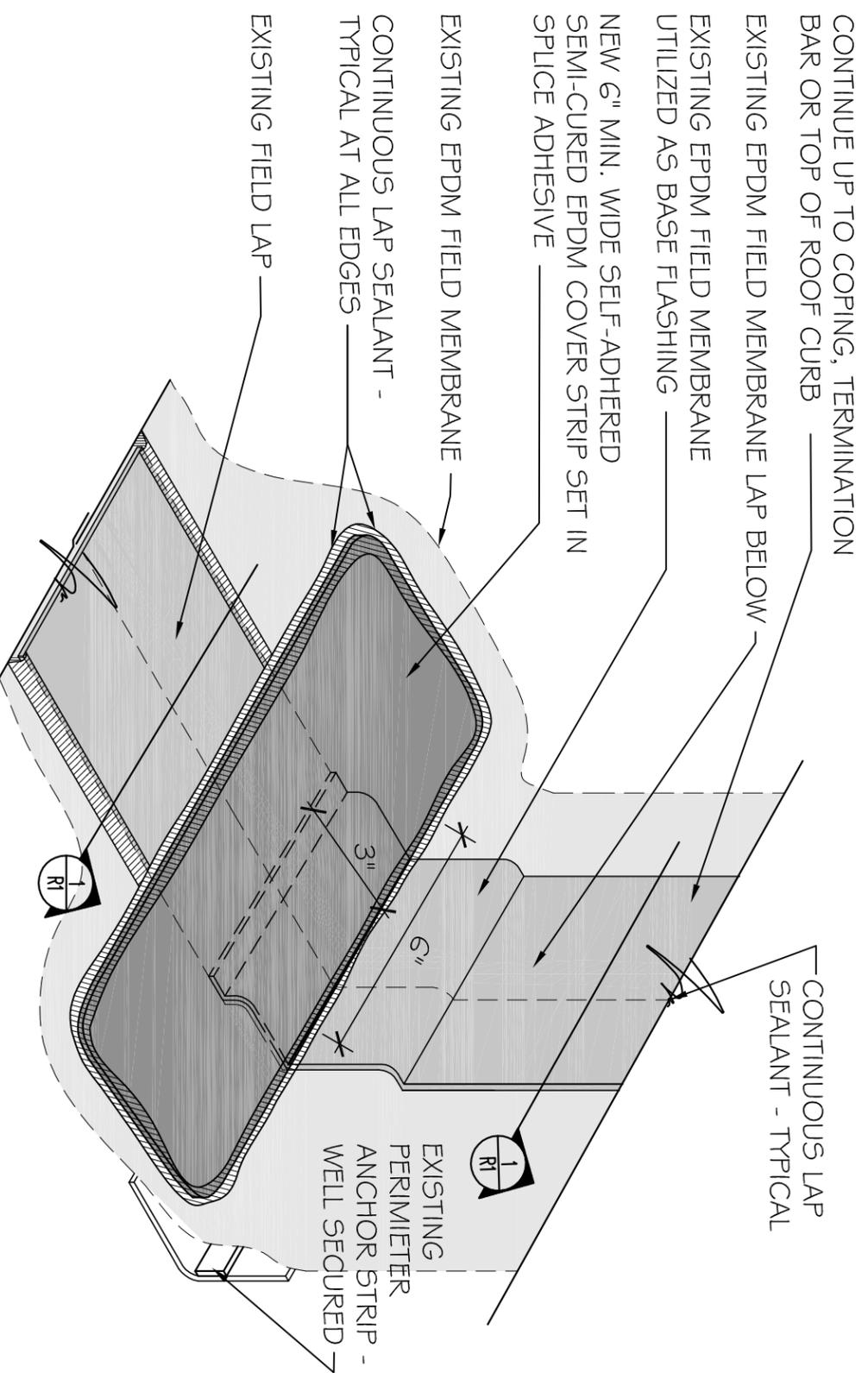
EXISTING FIELD SEAM RESTORATION AT VERTICAL TRANSITION

1
R4

EPDM ROOFING ASSOCIATION

3" = 1'-0"

- NOTES: 1. PRIOR TO APPLICATION OF SPlice ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS.
2. INSPECT THE EXISTING FIELD LAP SEAM FOR BONDING DEFICIENCIES. CLEAN AND REPAIR PRIOR TO COVER STRIP APPLICATION.
3. FOR TYPICAL LAP SEAM RESTORATION SEE DETAIL I/R 1



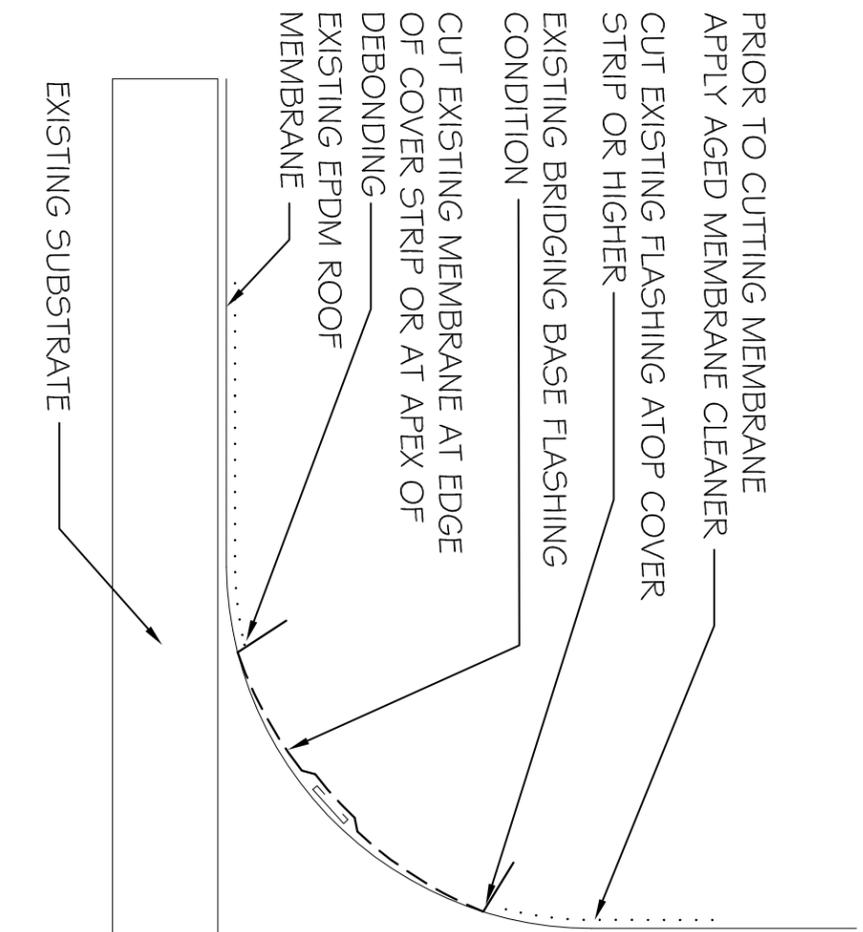
EXISTING EPDM SEAM RESTORATION DETAIL
AT ANGLE CHANGE ALTERNATE REPAIR METHOD

1

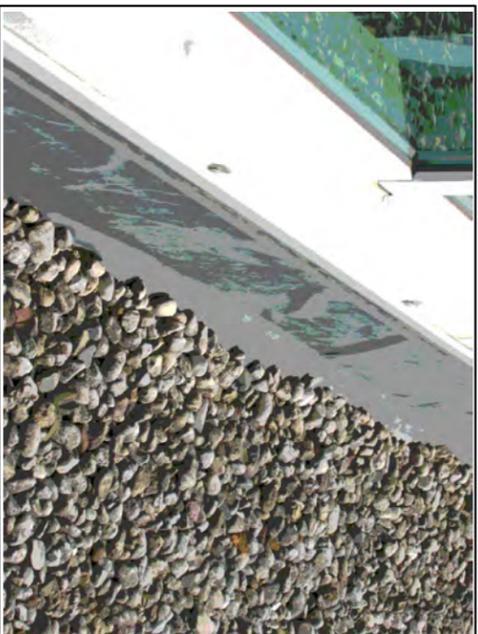
EPDM ROOFING ASSOCIATION

3" = 1'-0"

NOTE: 1. PRIOR TO CUTTING THE EXISTING BRIDGING MEMBRANE CLEAN WITH MANUFACTURERS RECOMMENDED CLEANING SOLUTION AND RINSE THOROUGHLY

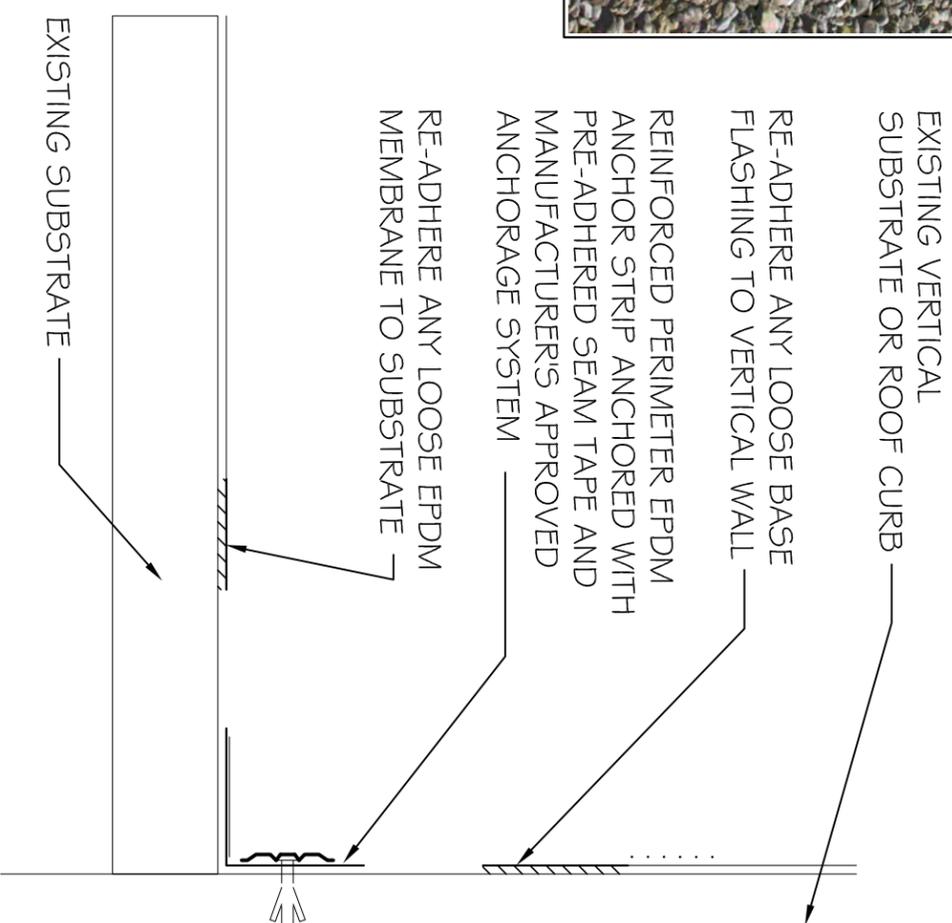


STEP 1. PREPARATION



EXISTING BRIDGING CONDITION

EXISTING VERTICAL SUBSTRATE OR ROOF CURB

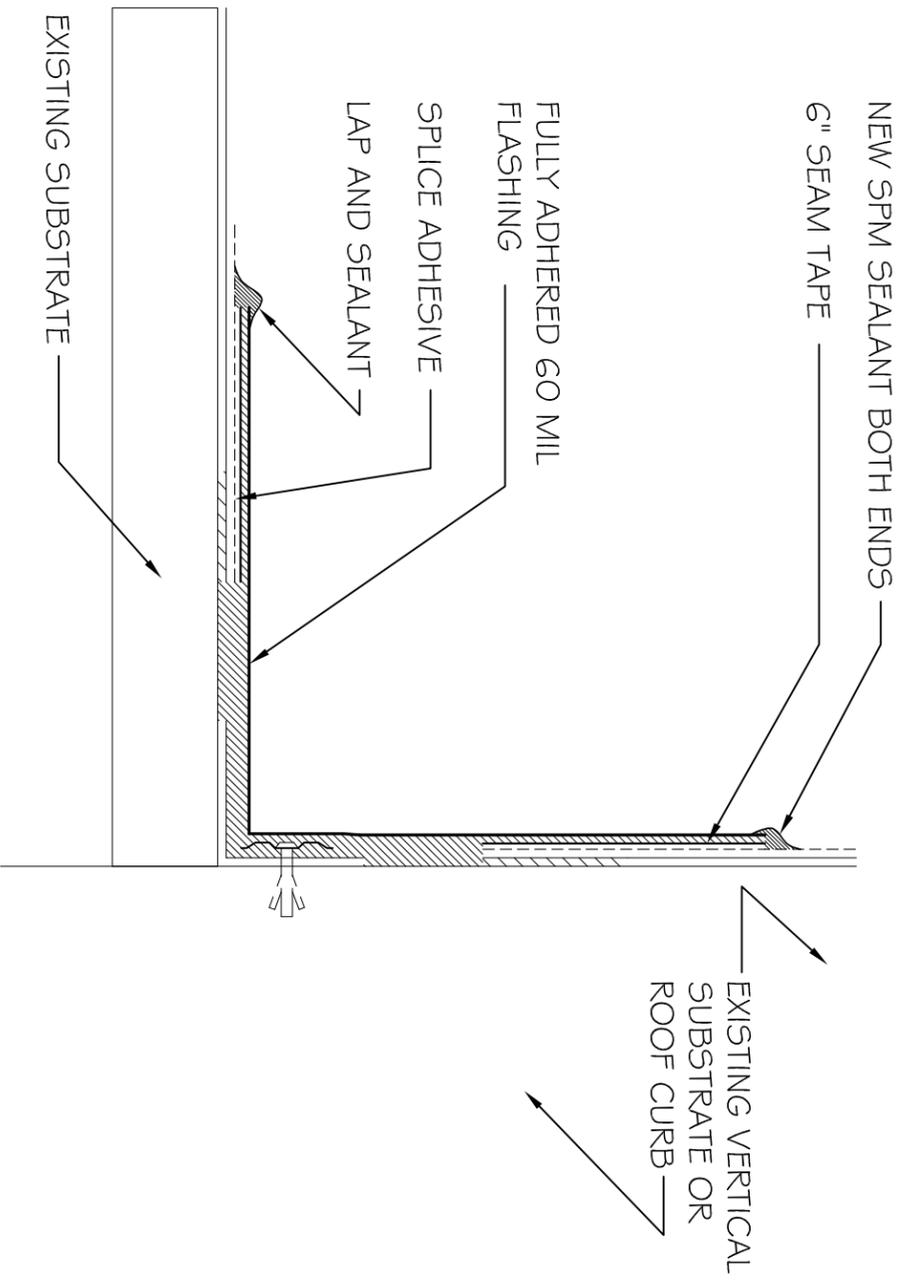


STEP 2. NEW PERIMETER SECUREMENT

1 BASE FLASHING RESTORATION - EXISTING BRIDGING CONDITIONS

R6

EPDM ROOFING ASSOCIATION

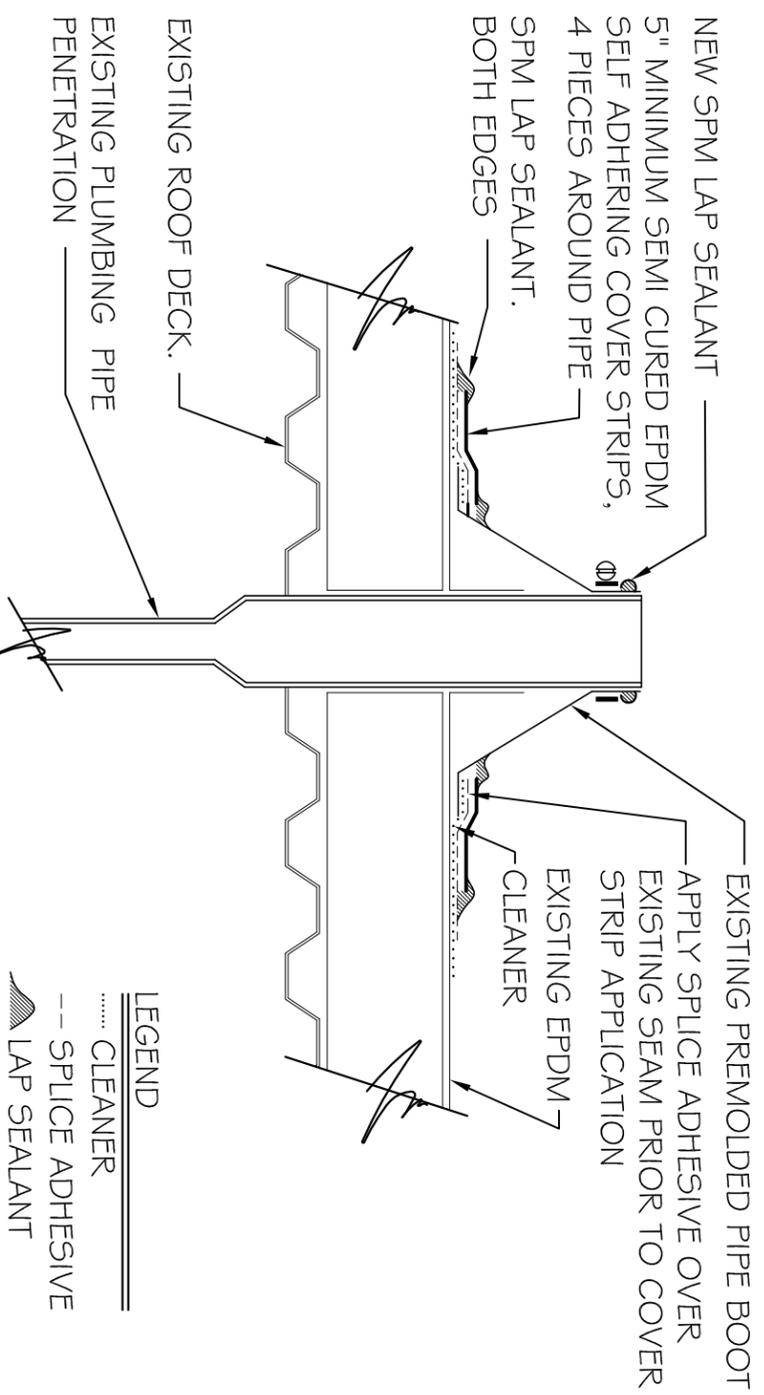


STEP 3. NEW FLASHING

- LEGEND
- CLEANER
 - SPlice ADHESIVE
 - ▲ LAP SEALANT

3" = 1'-0"

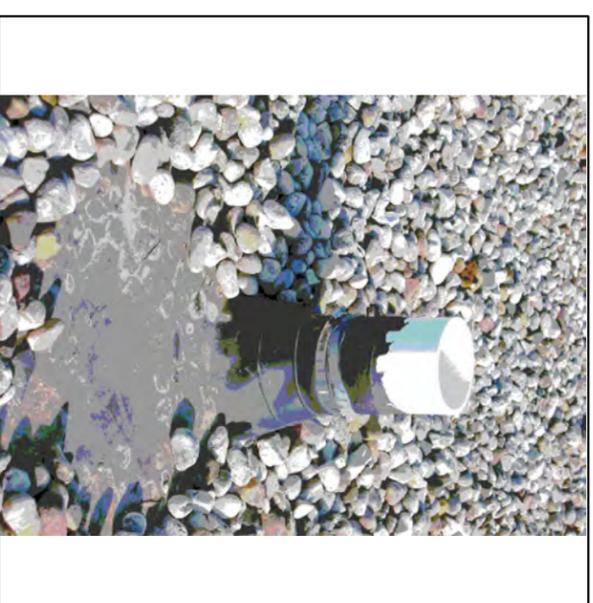
- NOTE:
1. REMOVE ALL LOOSE SEALANT ON REMOLDED BOOT FLANGE AND AT PIPE
 2. WIPE FLANGES, EXISTING MEMBRANE, TOP OF BOOT, EXISTING SEALANT AND VENT PIPE WITH MANUFACTURERS RECOMMENDED CLEANING SOLUTION AND RINSE THOROUGHLY
 3. INSPECT BASE FLANGE OF BOOT. CLEAN AND RE-ADHERE ANY LOOSE AND NON BONDED LAPS
 4. APPLY SPLICE ADHESIVE PRIMER TO EPDM TO RECEIVE COVER STRIPS AND SPM LAP SEALANT
 5. REPLACE ANY MISSING OR DETERIORATED STAINLESS STEEL CLAMPING RINGS
 6. FOR SIM. CONDITION PENETRATION IS A 'B' VENT AND SHOULD BE REFLASHED AS SHOWN BELOW



1 VENT PIPE FLASHING RENOVATION DETAIL

R8 EPDM ROOFING ASSOCIATION

1 - 1/2" = 1'-0"

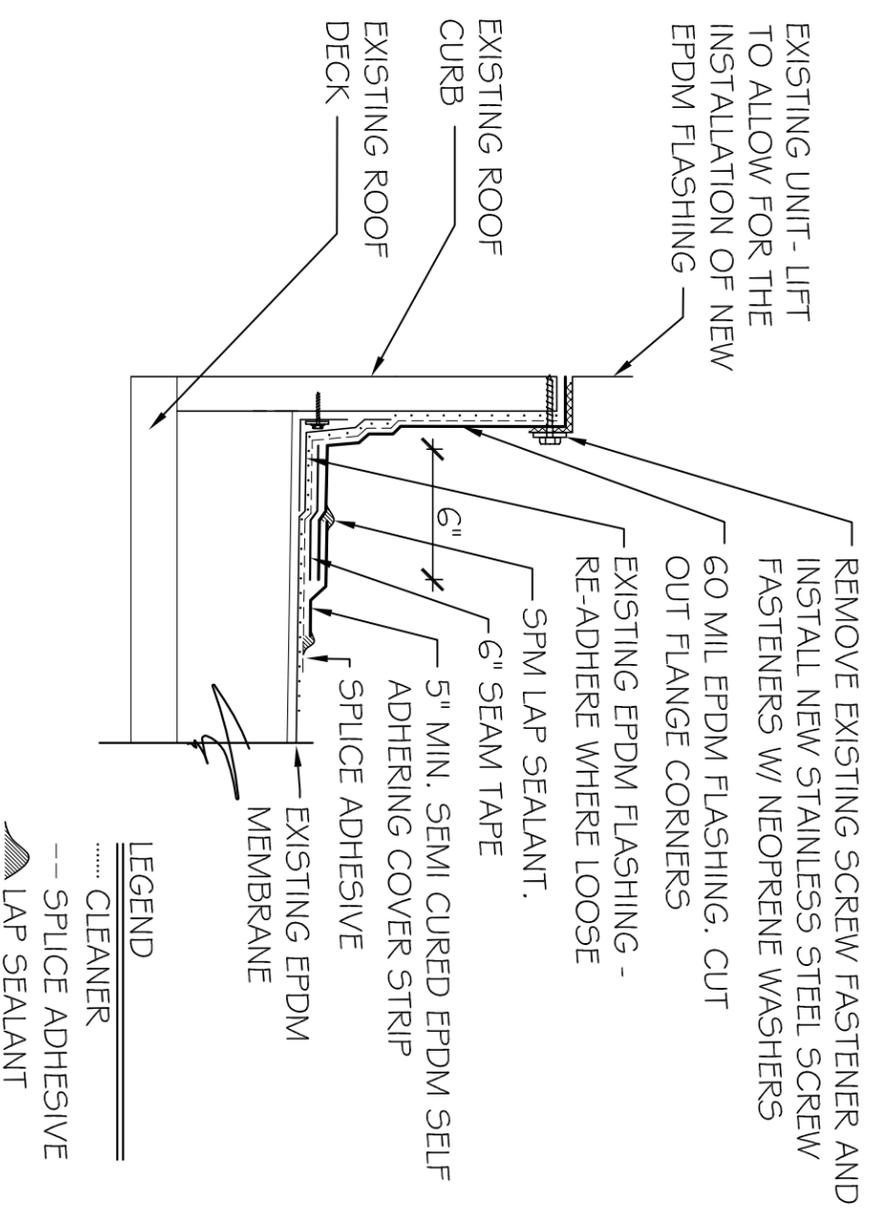


VENT PIPE EXISTING CONDITION



VENT PIPE AFTER RENOVATION

- NOTE:
1. WASH SIDE OF CURB TO 1 6" OUT FROM CURB WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND RINSE THOROUGHLY
 2. APPLY SPlice ADHESIVE TO CLEANED EPDM
 3. PROVIDE PREMOLDED SELF-ADHERING CORNERS



1 ROOF CURB FLASHING RENOVATION DETAIL

R9 EPDM ROOFING ASSOCIATION



ROOF CURB EXISTING CONDITION

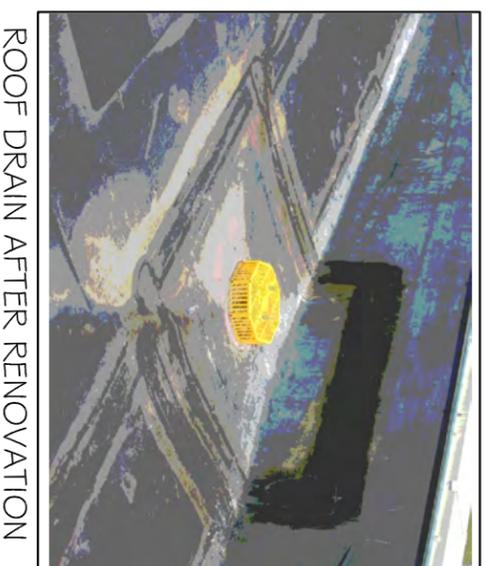
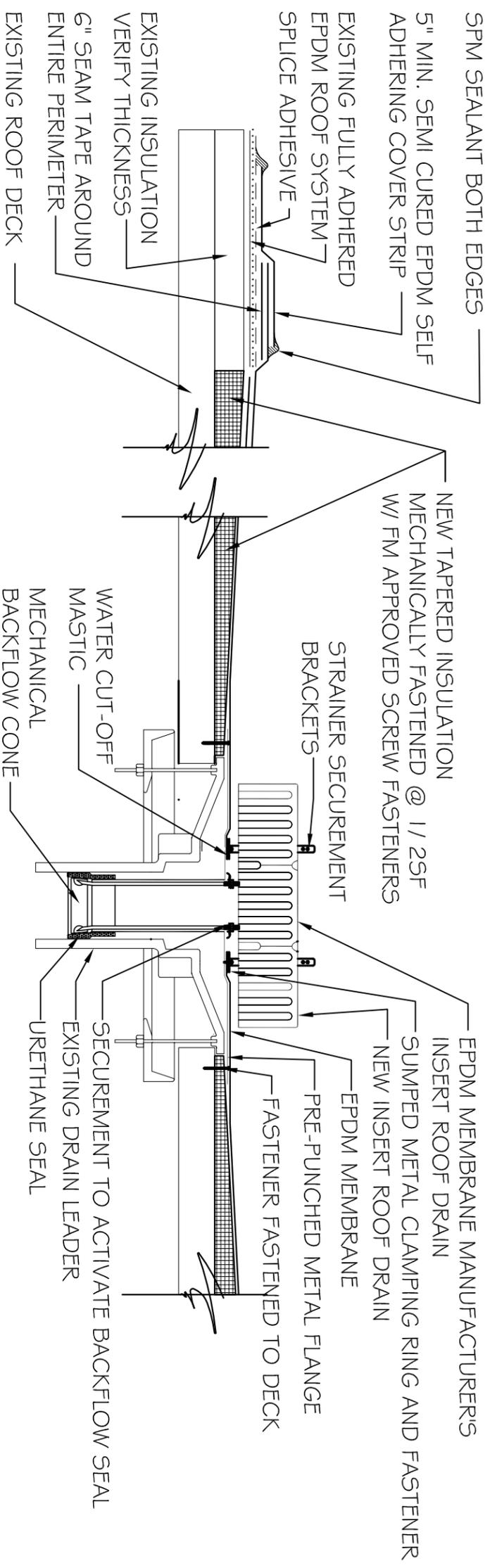


ROOF CURB AFTER RENOVATION

EPDM ROOFING ASSOCIATION

10-07-2004

- NOTE:
1. REMOVE EXISTING ROOF DRAIN DOME AND CLAMPING RING
 2. REMOVE ANY EXISTING TARGET PATCHES AND EPDM $\pm 4'-0"$ AROUND ROOF DRAIN
 3. REMOVE EXISTING INSULATION @ $4'-0"$ AROUND ROOF DRAIN TO ALLOW FOR NEW TAPERED INSULATION
 4. PRIOR TO APPLICATION OF SPLICE ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURER'S RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS.
 5. APPLY SPLICE ADHESIVE TO EPDM PRIOR TO THE INSTALLATION OF NEW ROOFING



- LEGEND
- CLEANER
 - SPlice ADHESIVE
 - ▲ LAP SEALANT

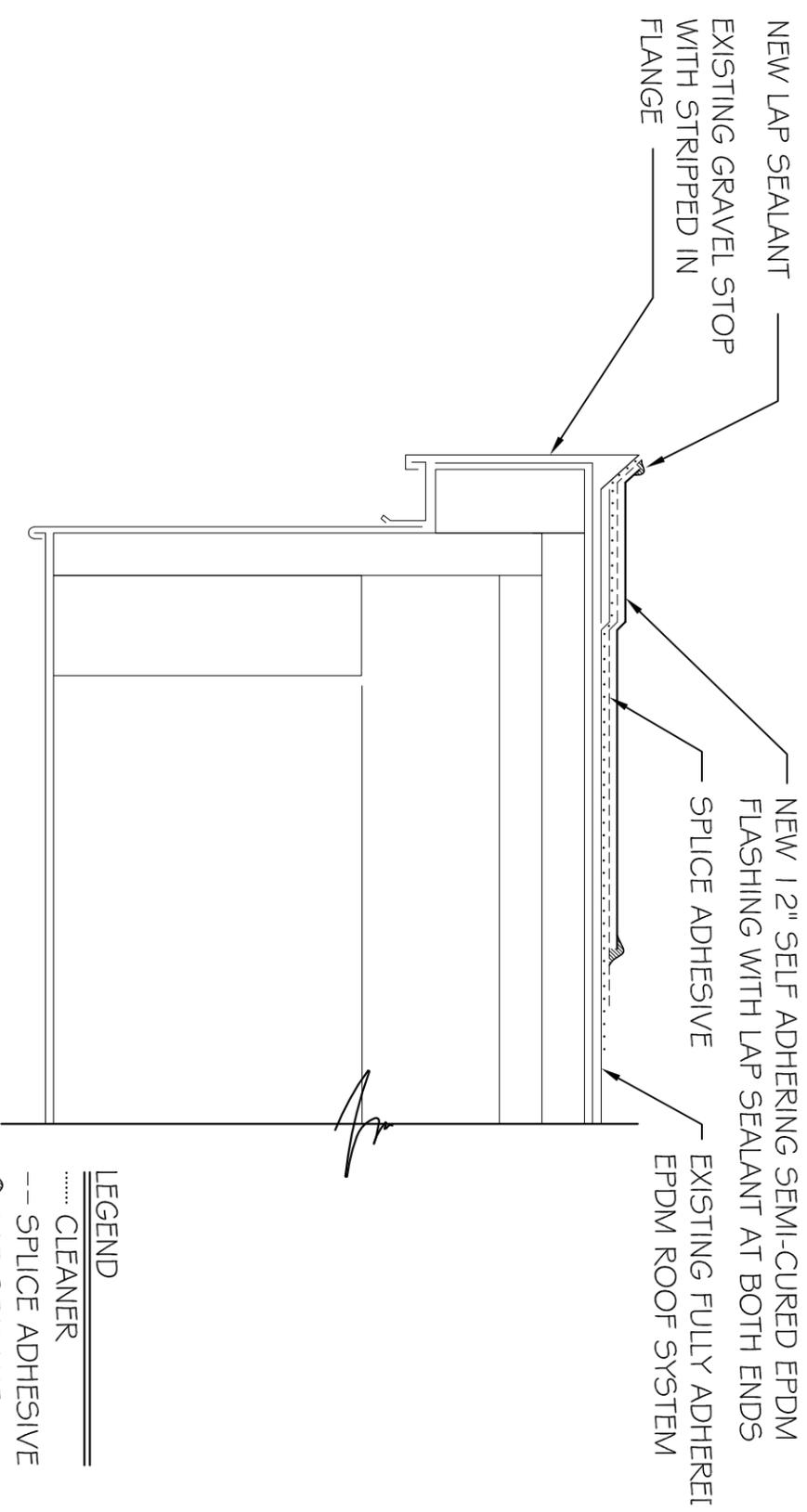
1 RENOVATED ROOF DRAIN DETAIL

R10

EPDM ROOFING ASSOCIATION

3" = 1'-0"

- NOTE:
1. SCRAP AND REMOVE ALL LOOSE SPM LAP SEALANT FROM ROOF EDGE
 2. PRIOR TO APPLICATION OF SPlice ADHESIVE, THE EXISTING LAP SEAM IS TO BE PREPARED WITH MANUFACTURERS RECOMMENDED CLEANING SOLUTION AND PROCEDURES. CONSULT MANUFACTURER FOR RECOMMENDED MEANS AND METHODS.
 3. READHERE ALL METAL TO EPDM DEBONDED CONDITIONS WITH SEAM TAPE
 4. CLEAN SURFACES TO RECEIVE NEW SPM LAP SEALANT WITH AGED MEMBRANE CLEANER
 5. APPLY SPlice ADHESIVE TO EPDM TO RECEIVE SPM LAP SEALANT
 6. APPLY SINGLE PLY LAP SEALANT TO ALL EDGES



- LEGEND
- CLEANER
 - SPlice ADHESIVE
 - ▲ LAP SEALANT

GRAVEL STOP ROOF EDGE RENOVATION DETAIL

EPDM ROOFING ASSOCIATION

3" = 1'-0"



GRAVEL STOP ROOF AFTER RENOVATION

EPDM ROOFING ASSOCIATION

10-07-2004