TARRANT COUNTY DETAIL STANDARDS

- 1. Standard Coping
- 2. Coping at End Wall
- 3. Standard Sheet Metal Engagement Details
- 4. Gravel Guard
- 5. Gravel Guard Wall Termination
- 6. Gravel Guard, Gutter, and Downspout
- 7. Gutter Expansion Joint
- 8. Overflow Scupper
- 9. Drainage Scupper
- 10. Overflow Drain
- 11. New Roof Drain Detail
- 12. Existing Roof Drain Detail
- 13. Cricket Between Drains
- 14. Wall Cricket
- 15. Corner Wall Cricket
- 16. Typical Cricket at Equipment Curb
- 17. Sheet Metal Reglet and Counterflashing
- 18. Roof Expansion Joint
- 19. Expansion Joint at Wall
- 20. Pitch Pan with Hood
- 21. Multiple Penetration Flashing
- 22. Miscellaneous Penetration Flashing
- 23. Standard Vent
- 24. Plumbing Vent Flashing
- 25. Roof Hatch
- 26. Factory Mounted Curbs
- 27. Curb Mounted Vent
- 28. Portable Duct Support
- 29. Pipe Support (diameters 0'-4" and smaller)
- 30. Pipe Support (diameters larger than 0'-4")
- 31. Pipe Support
- 32. Condensate Line Support

Roof System Standard:

Gravel covered, 4 ply, asphalt, fiberglass built-up roof system with 2 layers of rigid board insulation and tapered insulation where necessary to promote drainage.

Approved Primary Roofing Material Manufacturers:

<u>JOHNS-MANVILLE</u>, Roofing Systems Division, Ken-Caryl Ranch, PO Box 5108, Denver, CO 80217.

GAF Building Materials Corporation, 1361 Alps Road, Wayne, NJ 07470.

<u>U.S. INTEC, INC. Roofing and Waterproofing Systems</u>, 6844 E. County Road 405, Alvarado, Texas 76009.

TAMKO Asphalt Products, P.O. Box 398898, Dallas, Texas 75339.

Roof System Alternate (For Energy Star Rated, Cool Roof Rating Council Approved, and Leeds Qualifying Roofing Systems):

2-Ply, SBS, Modified Bitumen roofing system with 2 layers of rigid board insulation and tapered insulation where necessary to promote drainage. NOTE: Roofing systems that require a coating application and/or reapplication of coating during warranty period (in order to achieve & maintain rating) are not preferred.

Approved Primary Roofing Material Manufacturers:

<u>SIPLAST</u>, Suite 1600 North, 222 West Las Colinas Blvd., Irving, Texas 75039, 972-869-0070.

Approved Siplast System: Paradiene 20/30CRFR with Paradiene 20 (Base Ply) with Siplast Paradiene 30 CRFR (Cap Ply). Torch down system is preferred.

<u>SOPREMA</u>, INC., 310 Quadral Drive, Wadworth, Ohio 44281, 1-800-356-3521.

Approved Soprema System: Elastophene (Base Ply) with Soprastar (Cap Ply). Torch down system is preferred.

GAF Building Materials Corporation, 1361 Alps Road, Wayne, NJ 07470.

Approved GAF System: Ruberoid Smooth (Base Ply) with Ruberoid Energy Cap FR (Cap Ply). Torch down system is preferred.

Revised 1/7/09

Warranty Requirements:

The Roofing Contractor shall submit a letter from the Primary Roofing Material Manufacturer that states the Roofing Contractor is approved to apply the designated roofing systems and qualifies for the Manufacturer's 20 Year Unlimited Penal Warranty (NDL) for defects in both materials and labor. This letter shall be submitted along with the Contractor's proposal. The Roofing Contractor shall have had at least 5 years experience as a Roofing Contractor approved for the installation of 20 Year NDL Warranties from a Primary Roofing Material Manufacturer listed in the specifications.

<u>Primary Roofing Material Manufacturer's Warranty</u>: Upon completion of the roof the contractor shall provide the Owner a 20 Year NDL Warranty for both Materials and Labor with no limit to the Penal Sum from the Primary Roofing Material Manufacturer as published in their latest literature.

<u>Contractor's Warranty</u>: A 2-year Roofing Contractor's Warranty is required. In addition, the contractor shall provide a notarized document from an authorized agent on company letterhead stating the following:

Two-year Contractor's Warranty

The building, i	roofing me	mbran	ie, sealant wor	k (if app	licable) ar	nd flashir	ıgs are ir
conformance	with all	the	requirements	of the	primary	roofing	materia
manufacturer	and qualif	y for	the		guara	ntee (r	naximum
guarantee ava	ilable) fron	n the $_$					
		(F	Primary roofing	material	manufact	urer sele	cted)

In addition, should deficiencies (blisters, splits, etc.) and/or leaks occur within the first two years, the roofing contractor should make repairs as required to maintain the building in watertight condition, in conformance with the requirements in these contract documents, and the requirements of the primary roofing material manufacturer.

Repairs shall be made in a permanent manner in conformance with the standards provided in this document. Any defect causing a leak shall be corrected.

Damage resulting from hurricane force winds, hail, fire, unusual structural movement, structural failure, and abuse are excluded from this agreement. This agreement in no way absolves the Contractor or Primary Roofing Material Manufacturer from any implied or expressed warranties or fitness for purpose.

<u>Prefinished Metal Warranty:</u> Provide a 20-year warranty from the Prefinished Sheet Metal Manufacturer covering the finish on the prefinished sheet metal.

General Roofing Issues:

- 1. Flashings shall not be closer than 18 inches from other flashings and be situated so no flashing interferes with another.
- 2. Any new HVAC curbs must of sufficient height to accommodate an 8" base flashing height after installation of the insulation and roofing membrane including any crickets. This is typically a 14" tall curb.

Accessories:

<u>Kettle Afterburner System and Safety Loader</u> shall be an Afterburner System with Safety Loader as Manufactured by Reeves Roofing Equipment Co. Inc., P.O. Box 720, Helotes, Texas 1-800-383-3063, (or equal).

Roof Signage: Contractor shall provide 10 inch x 12-inch minimum size painted signs made of aluminum with a dark color background and letters of contrasting color. Use paints compatible with the aluminum. Make the sign to read as shown. Permanently post signs at all access points leading to the roofs and prominent points on the roofs. Provide at least one sign on each roof with no more than four signs per building. The sign will appear like the following:

DO NOT MAKE
REPAIRS OR ALTERATIONS
TO THIS ROOF
WITHOUT APPROVAL
FROM THE DIRECTOR OF
OPERATIONS AND MAINTENANCE OFFICE

This roof is guaranteed until (1) by:

PRIMARY ROOFING MATERIAL MANUFACTURER (2)
Address
City, State, Zip Code
Phone: Area Code/Number
Guarantee # (3)

The Roofing Contractor was:

ROOFING CONTRACTOR (4)
Address
City, State, Zip Code
Phone: Area Code/Number

SIGNS TO BE POSTED AS DESIGNATED BY OWNER

- (1) Insert month and year (___ years after final acceptance date)
- (2) Insert the Primary Roofing Material Manufacturer's name, address and phone number.
- (3) Insert the Primary Roofing Material Manufacturer's Guaranty Number
- (4) Insert the Contractor's name, address and phone number.

Roof Drainage:

- 1. Properly design and slope the roofing system so as to provide positive slope to all drains to avoid ponding water.
- 2. Specify tapered polyisocyanurate for all crickets and roof edges as required meeting the manufacturer's requirements and meeting the performance requirements of the project. All crickets must provide a minimum NET slope of 1/4" per foot.
- 3. Provide adequate overflow drainage capacity according to code requirements.
- 4. Design either an internal roof drain system or a gravel guard and gutter system. DO NOT design a concealed gutter system.

Rigid Board Insulation shall typically be as follows. Verify with code requirements.

- 1. The first layer shall be 1 layer of 2.5" polyisocyanurate meeting FS HH-I-1972/2 and be classified for use in UL Class A and FM Class I approved systems and covered under the Primary Roofing Material Manufacturer's Warranty. The maximum board size of Polyisocyanurate shall be 4'-0" x 4'-0" for all deck types except for steel decks which can utilize a 4'-0" x 8'-0" board size.
- 2. The second layer shall be 1 layer of 1" perlite meeting ASTM C 728 approved and covered under the Primary Roofing Material Manufacturer's Warranty.
- 3. For Alternate Modified Bitumen Roofing Systems, the second layer of insulation shall be either ¼" Securock Roof Board as manufactured by US Gypsum Company (USG), or ¼" DensDeck Roof Board as manufactured by Georgia-Pacific (GP). Consult Roofing Manufacturer with regards to primer requirements (if needed) and or use of pre-primed Roof Boards depending upon roof application method.

Revised 1/7/09

Wind Uplift:

 Code requires uplift calculations based on ASCE-7. We recommend that the uplift calculations be provided in the specification as shown below. We also recommend providing the corresponding FMG rating since many roofing manufacturer's test to FMG recommendations.

"Roofing System Design Requirements (Wind Uplift): Provide a roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE 7."

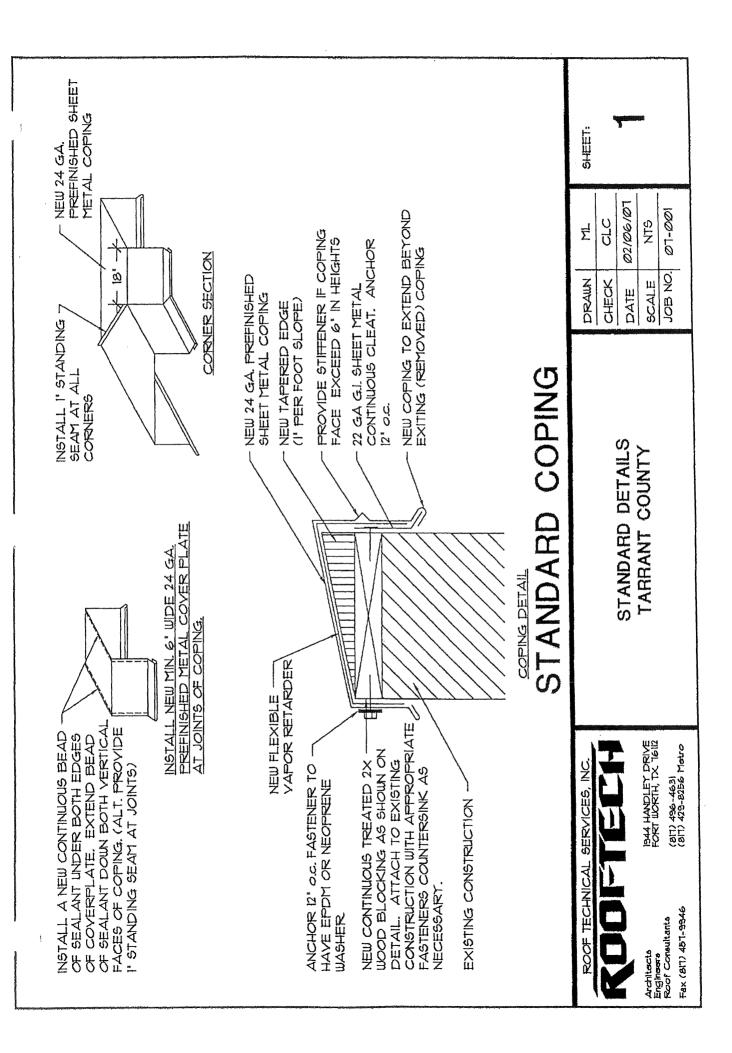
2. State that the insulation attachment must meet the Performance Requirements for wind uplift of the roofing system in the specifications.

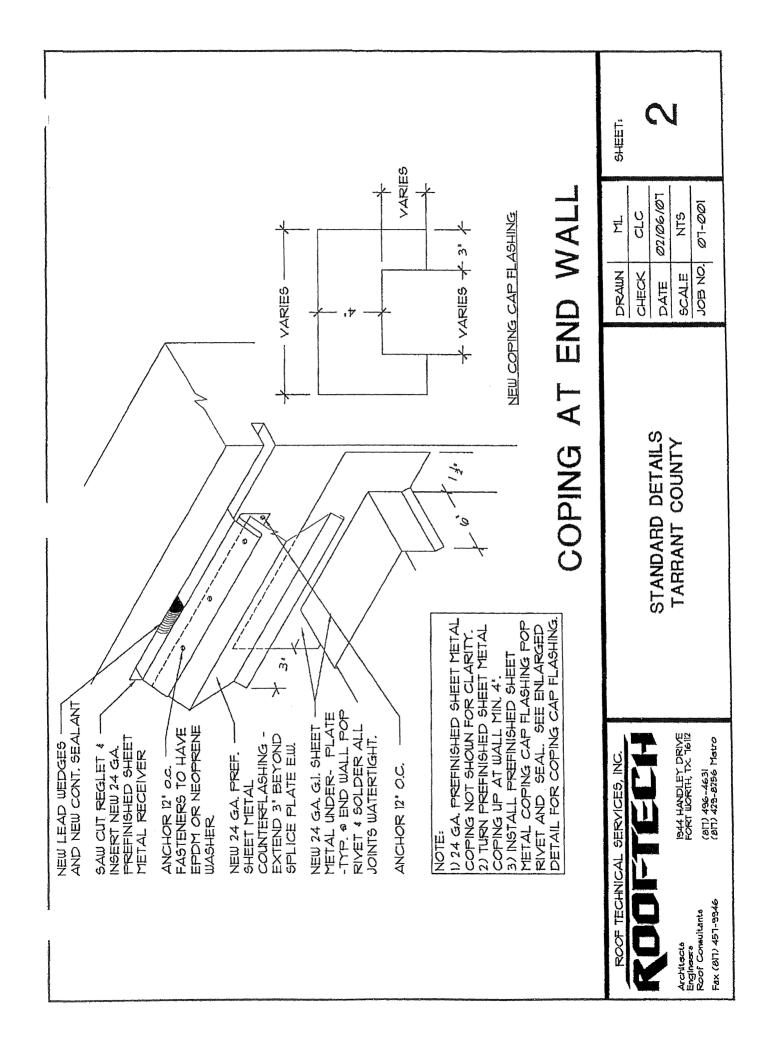
Sheet Metal:

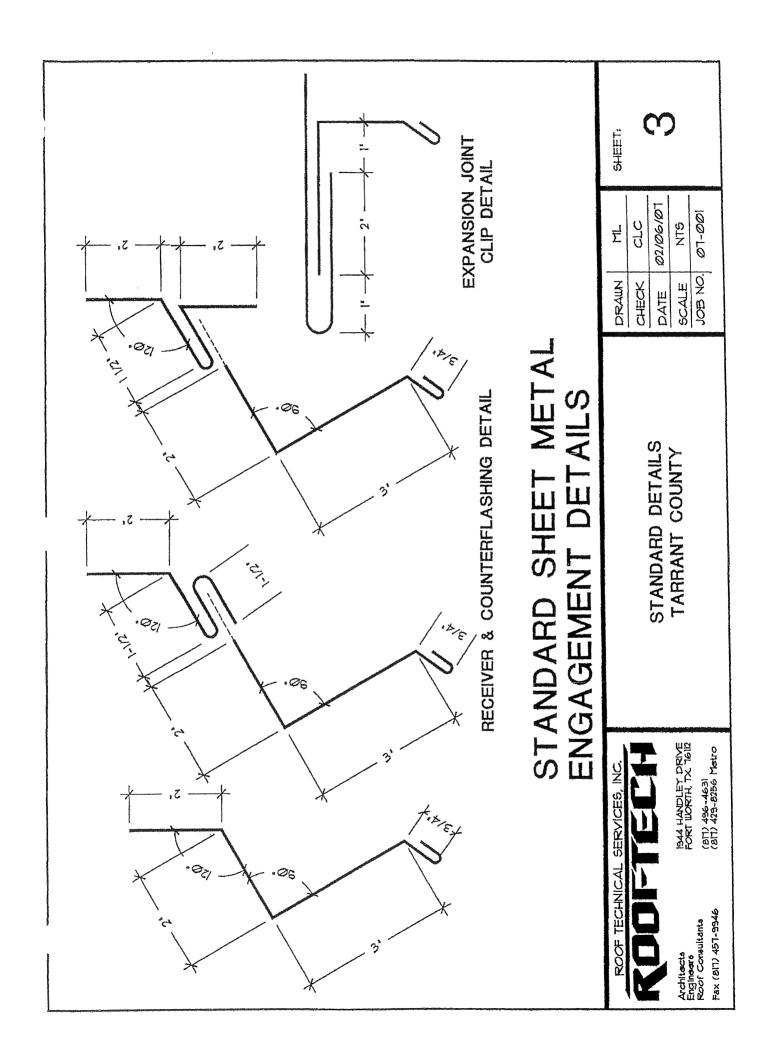
- 1. <u>Quality Assurance</u>: The design requirements for sheet metal should be described in the Specifications as they relate to wind uplift requirements.
 - a. The sheet metal flashings should be designed to resist the wind uplift forces imposed on the building per FMG Loss Prevention Data Sheet 1-49 (this is a prescriptive method of design). The Architect should consult FM 1-49 to insure proper design and attachment methods of sheet metal.
 - b. The sheet metal flashings should also be designed to meet ANSI/SPRI ES-1-98, which is based on tests of edge details. The Architect should consult ANSI/SPRI ES-1-98 to insure proper design and attachment methods of sheet metal.
- 2. <u>Metal Wall Panels</u>: Install prefinished metal wall panels when parapet walls exceed 2'-0" in height above the roof. Install #30 felt or Ice & Water Shield as an underlayment for the wall panels.

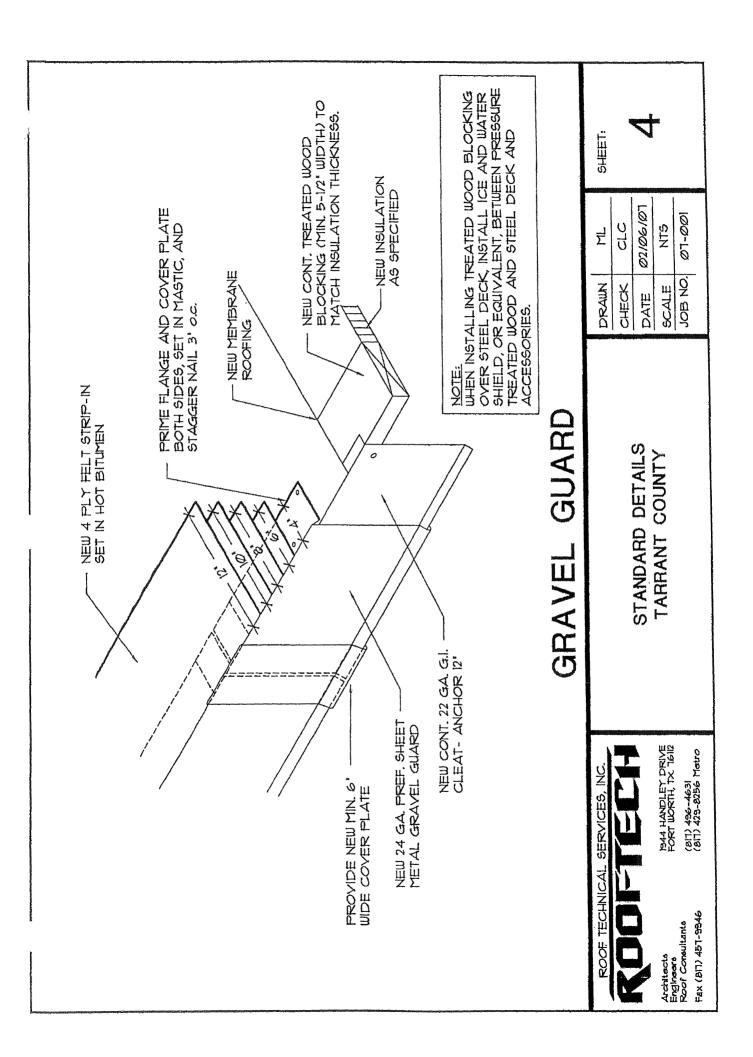
Waterproofing:

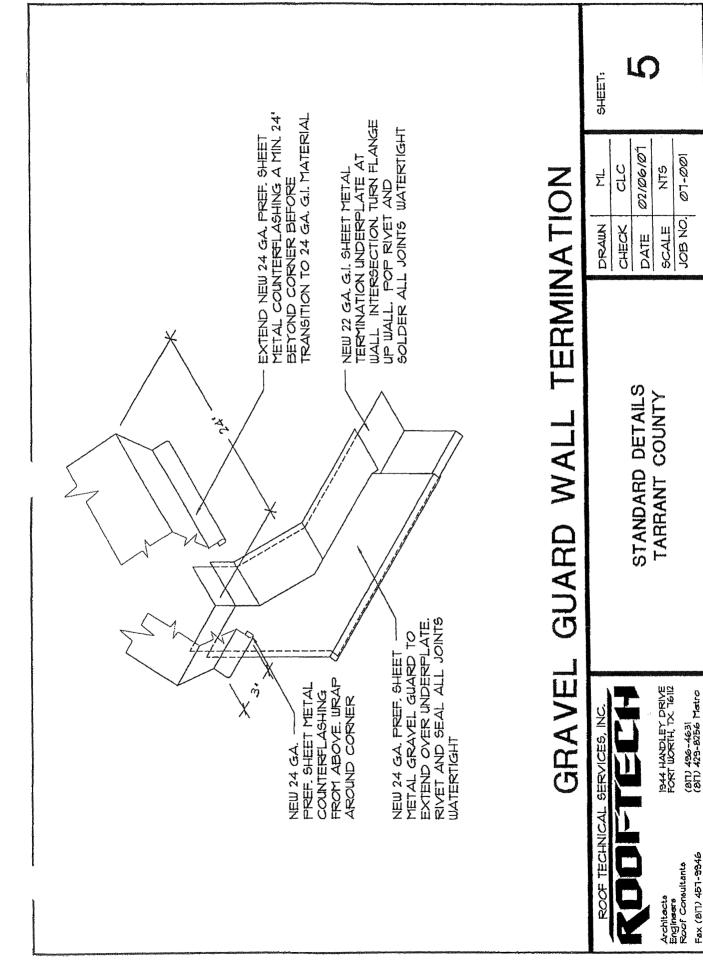
- 1. Include weep holes for proper draining of the thru-wall flashing system.
- 2. Anchor the thru-wall flashing to the wall sheathing/substrate and seal the top of the flashing to the wall sheathing in continuous mastic.
- 3. The waterproofing membrane should be turned up (vertically) at all end walls extending under the moisture barrier installed on the wall sheathing.
- 4. Install the membrane damproofing from face-to-face in order to provide full protection across the width of the wall.



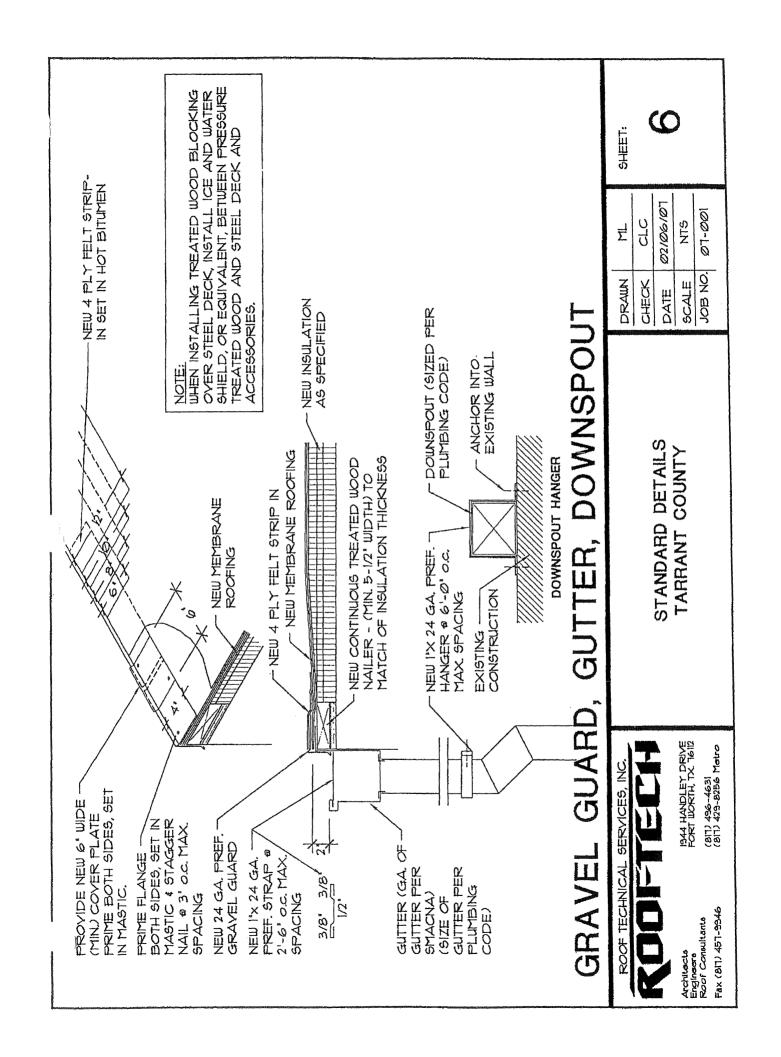


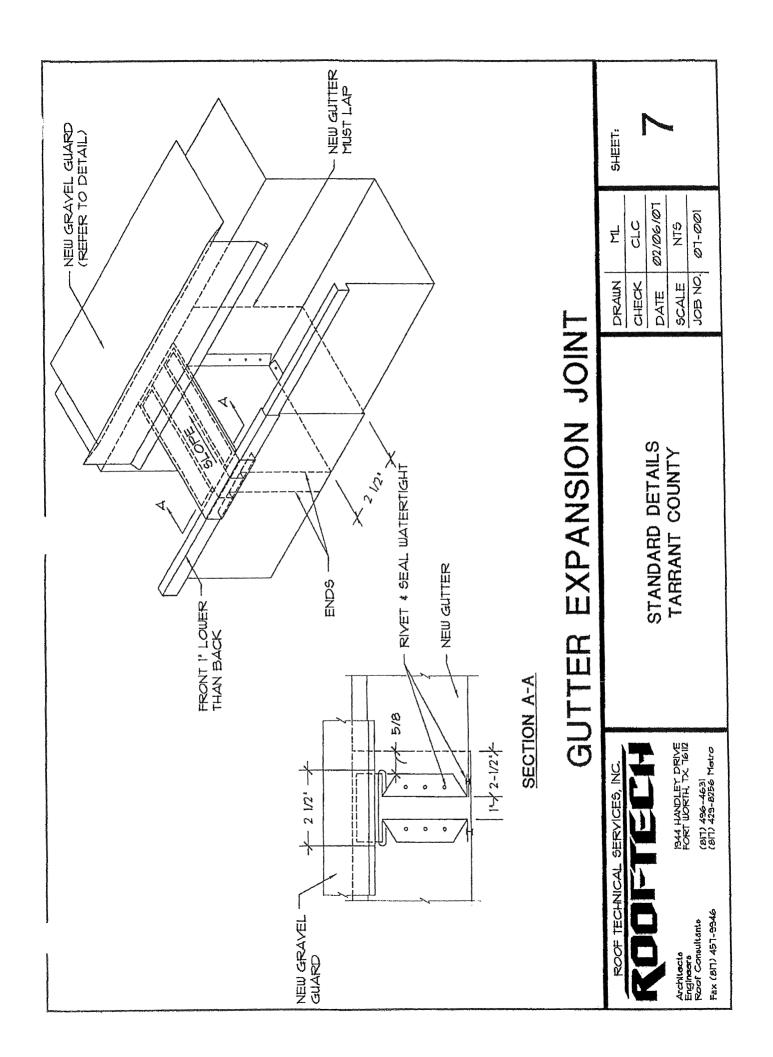


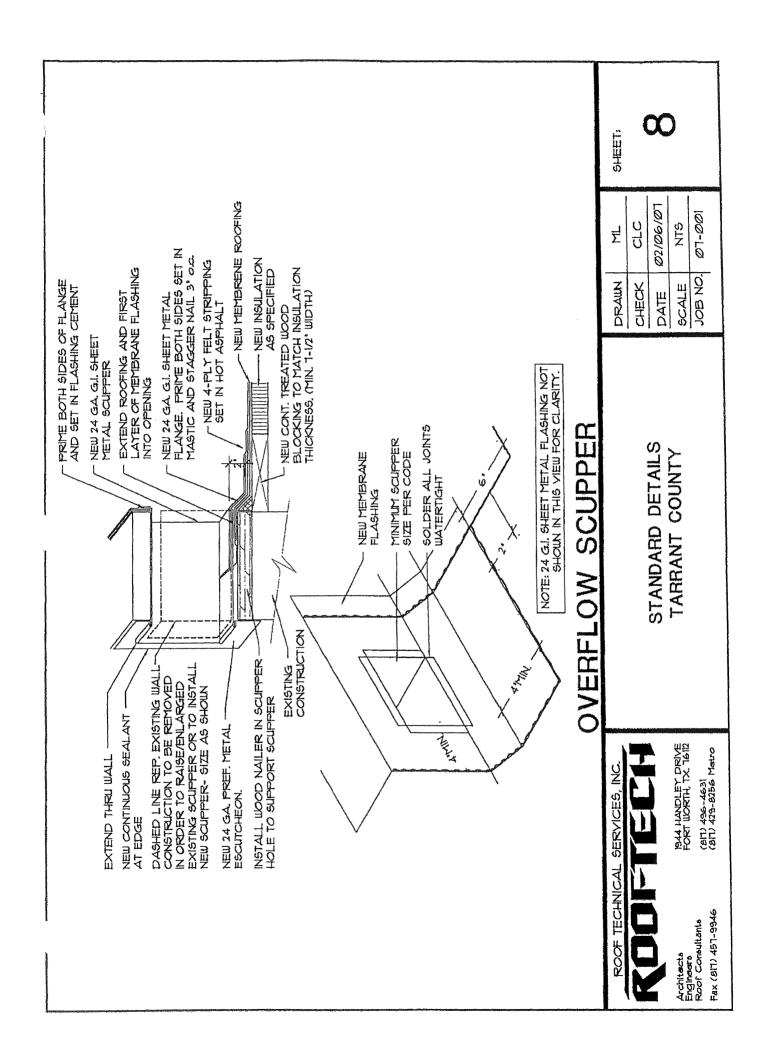


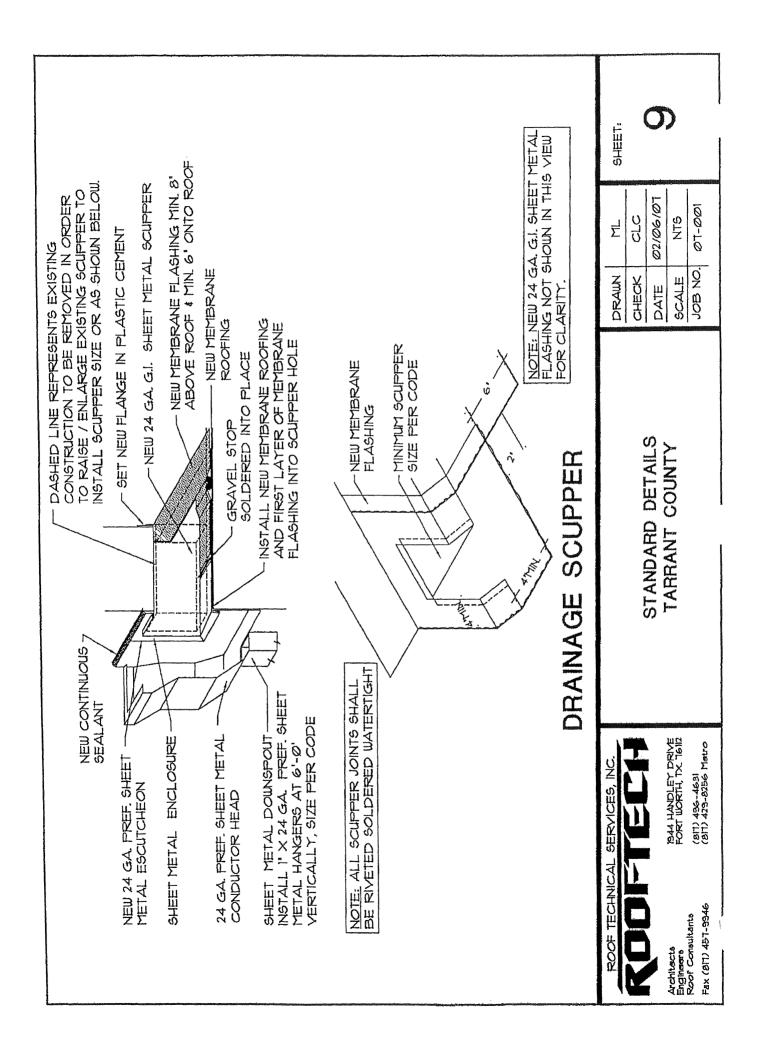


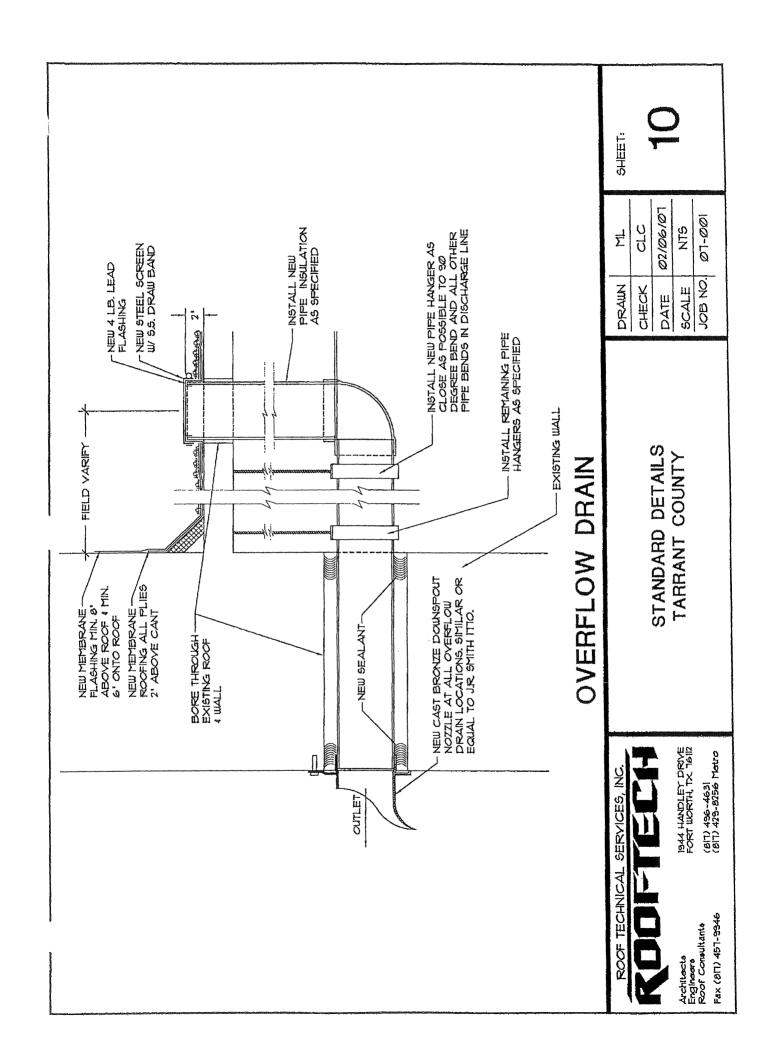
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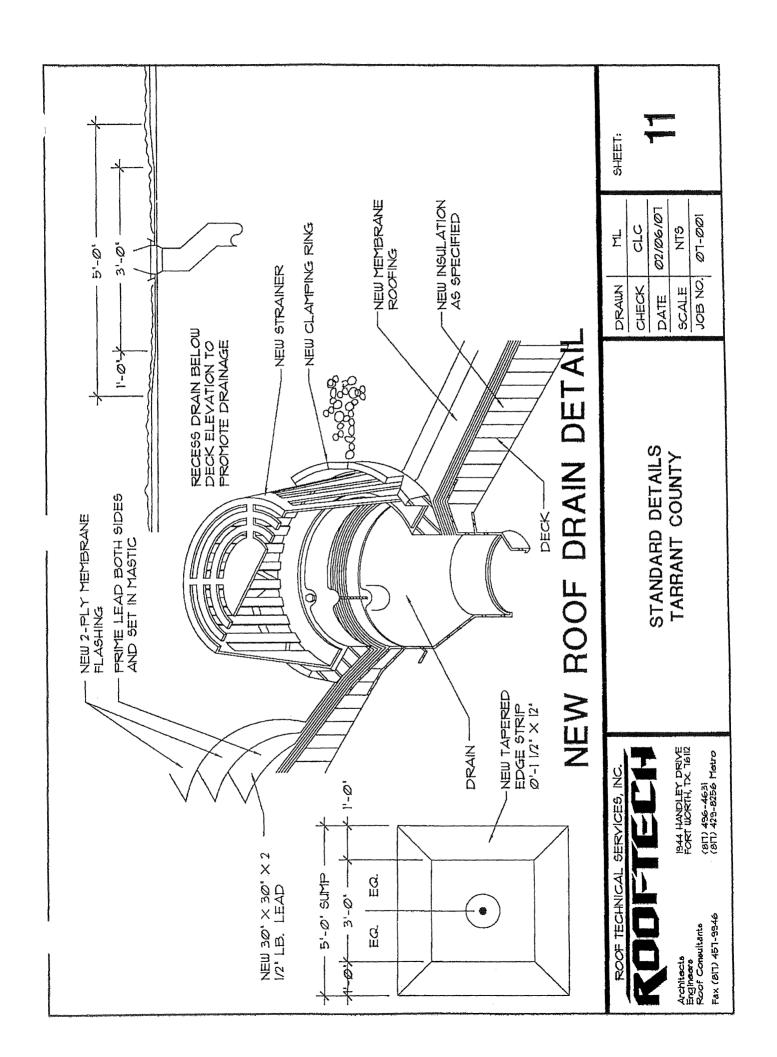


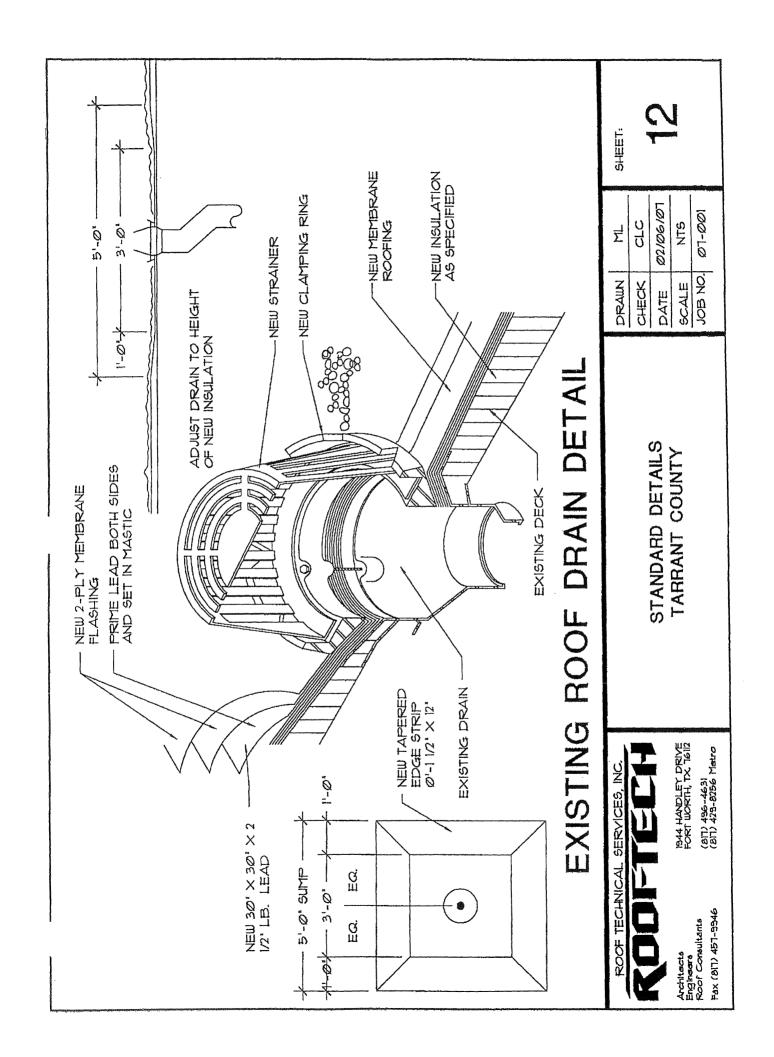










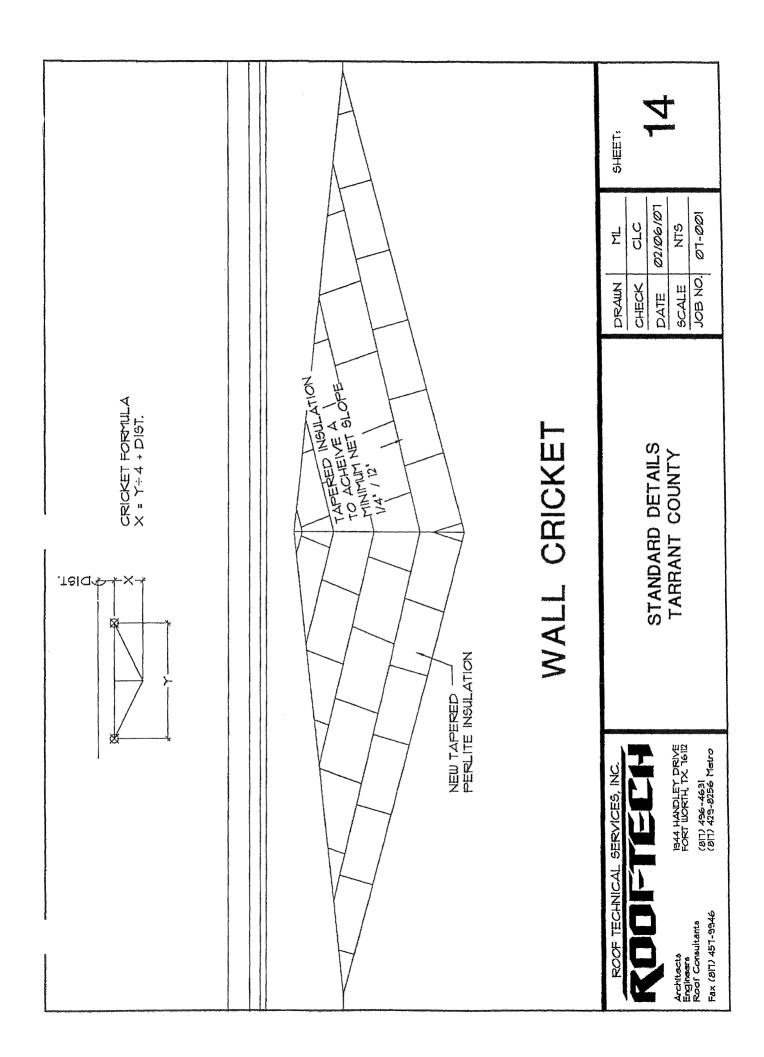


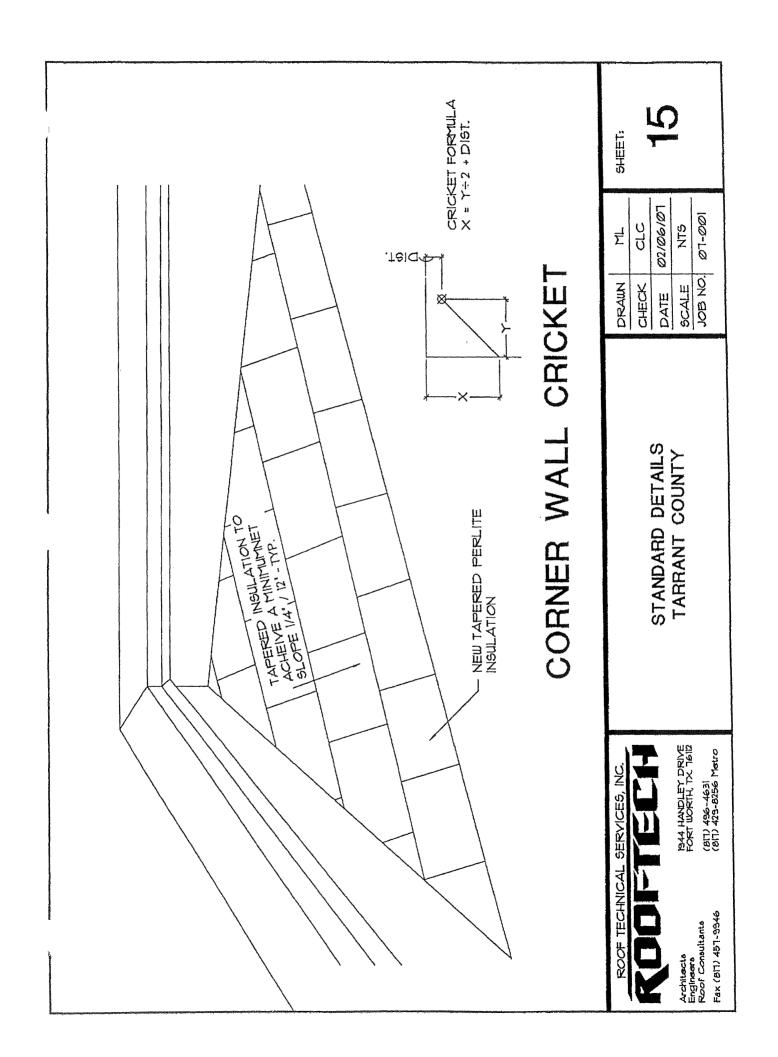
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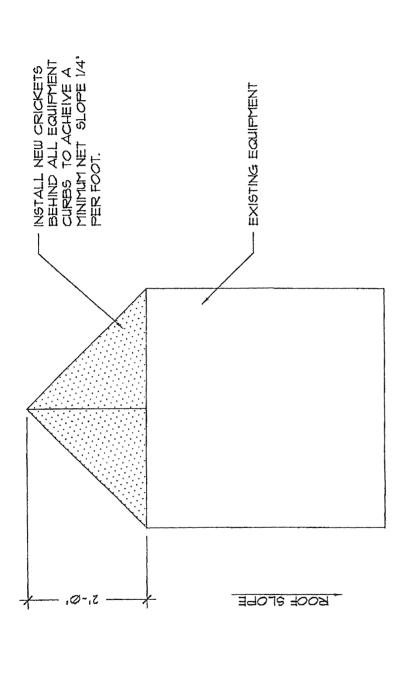
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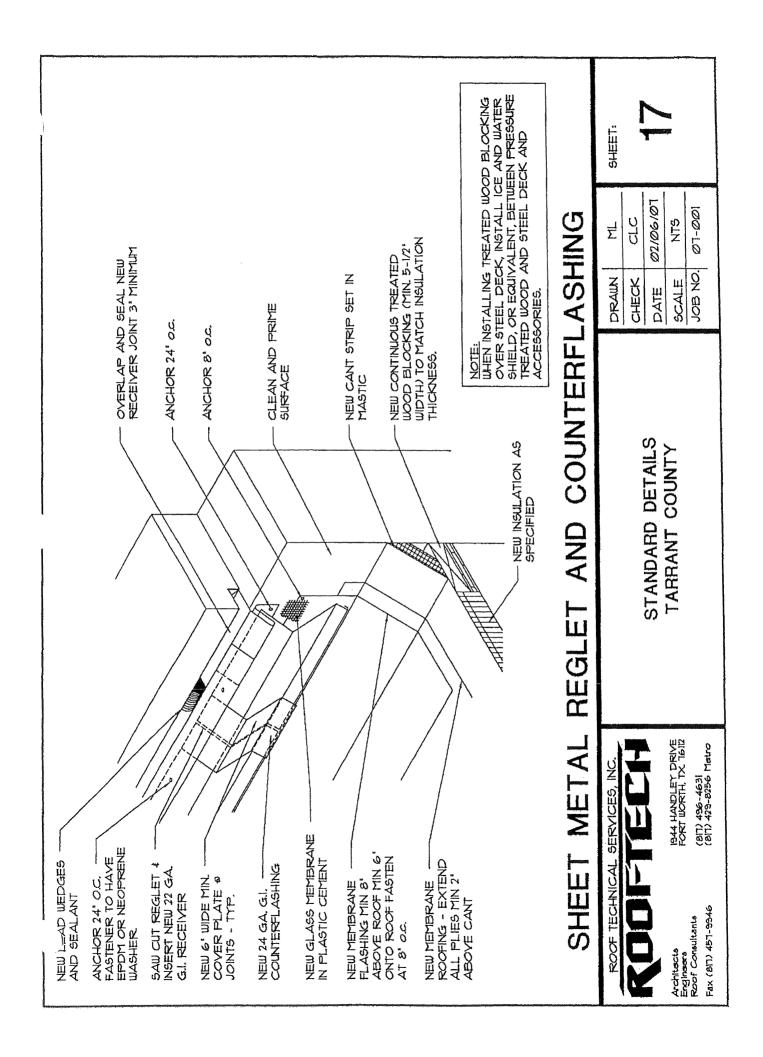
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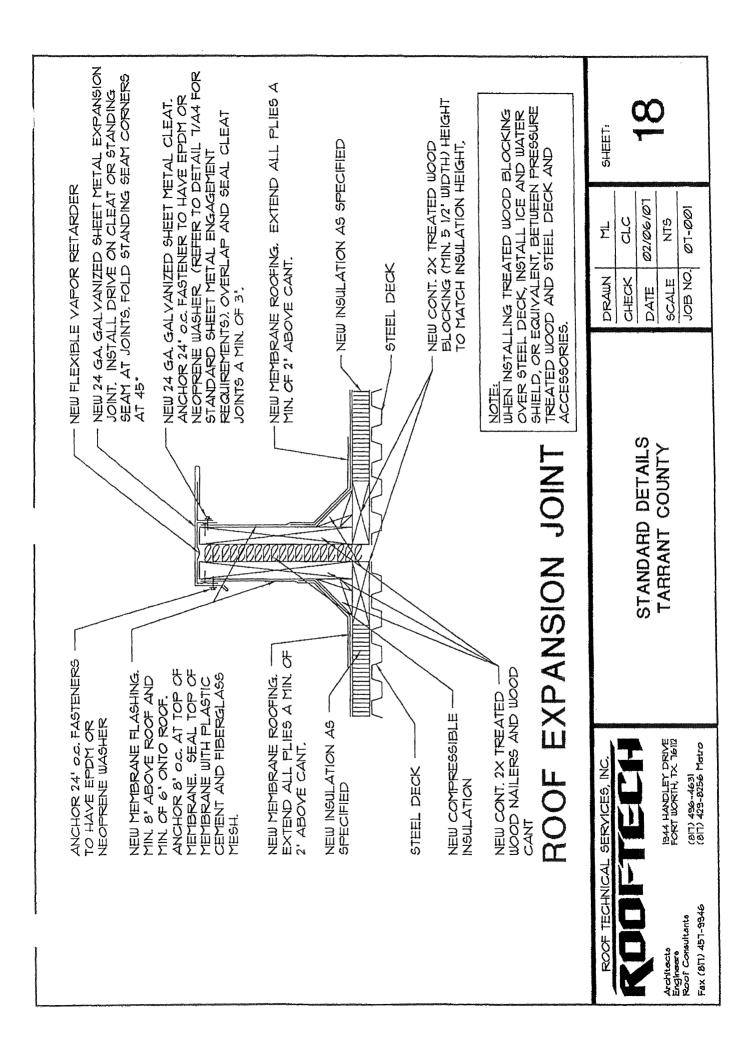
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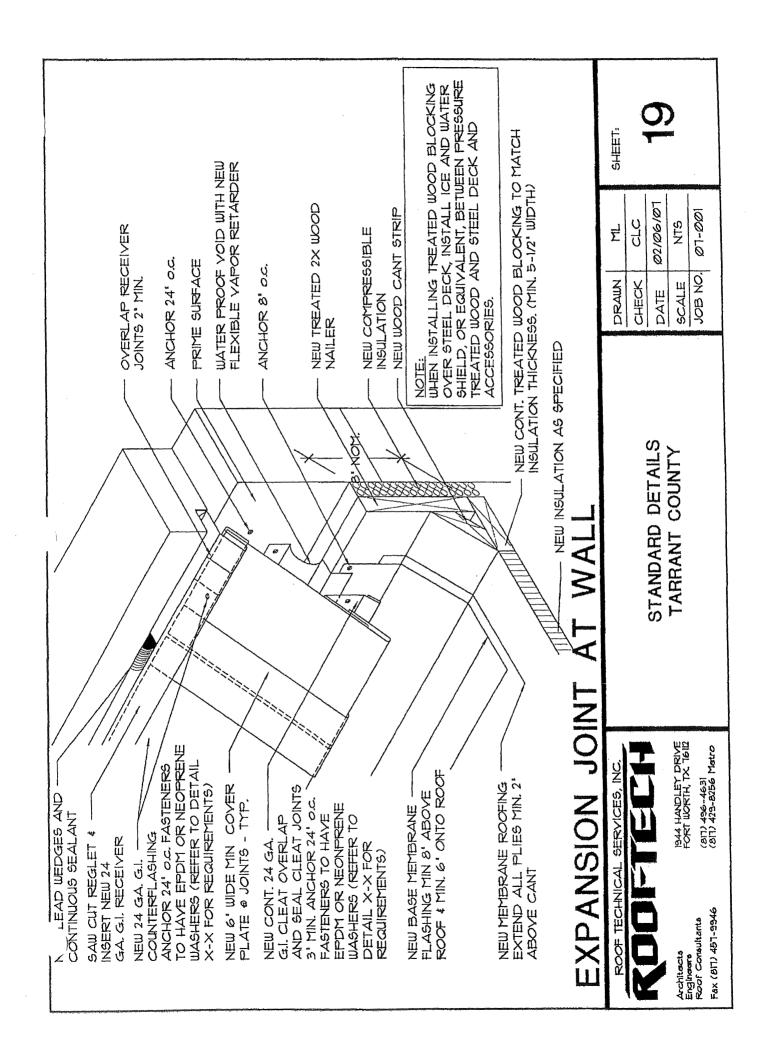
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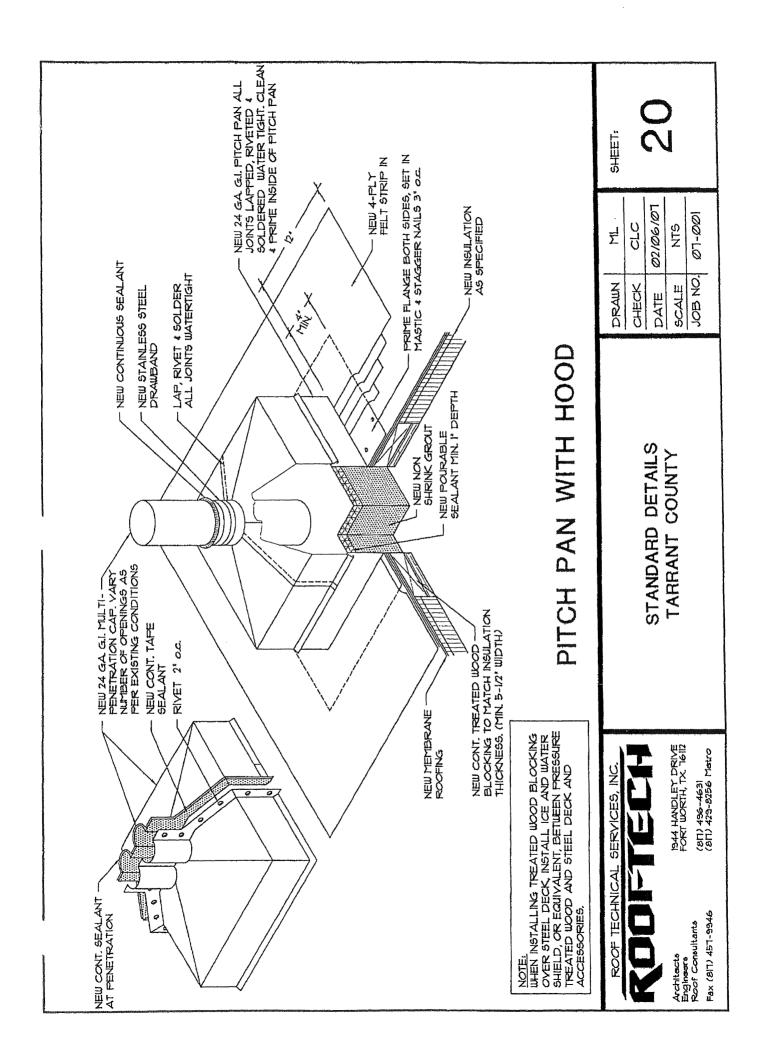
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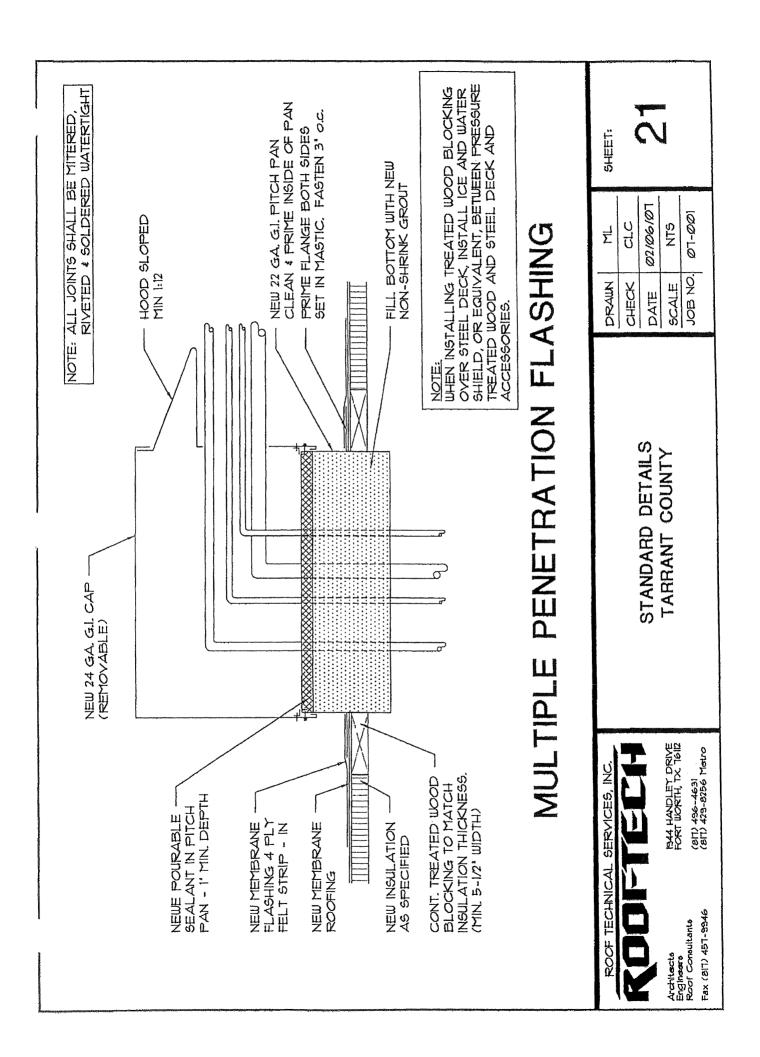
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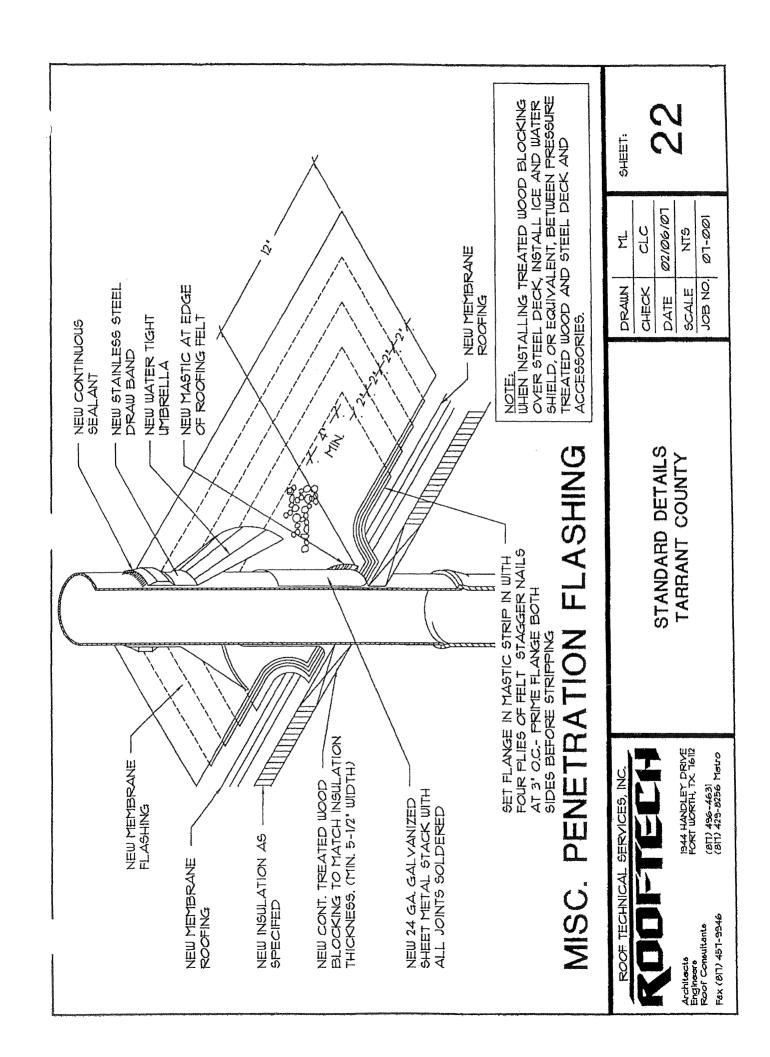


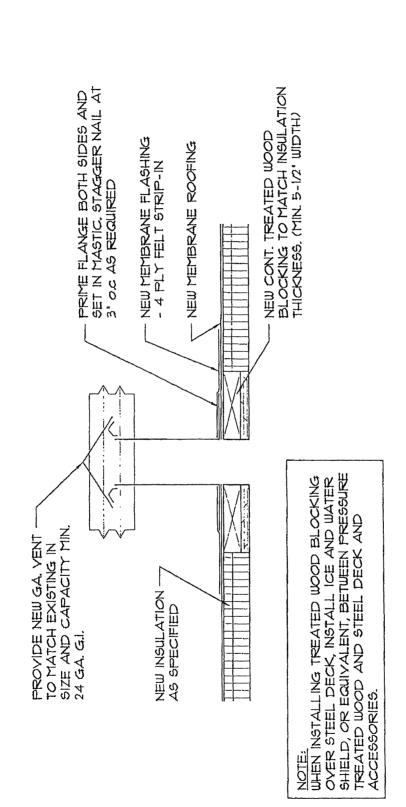












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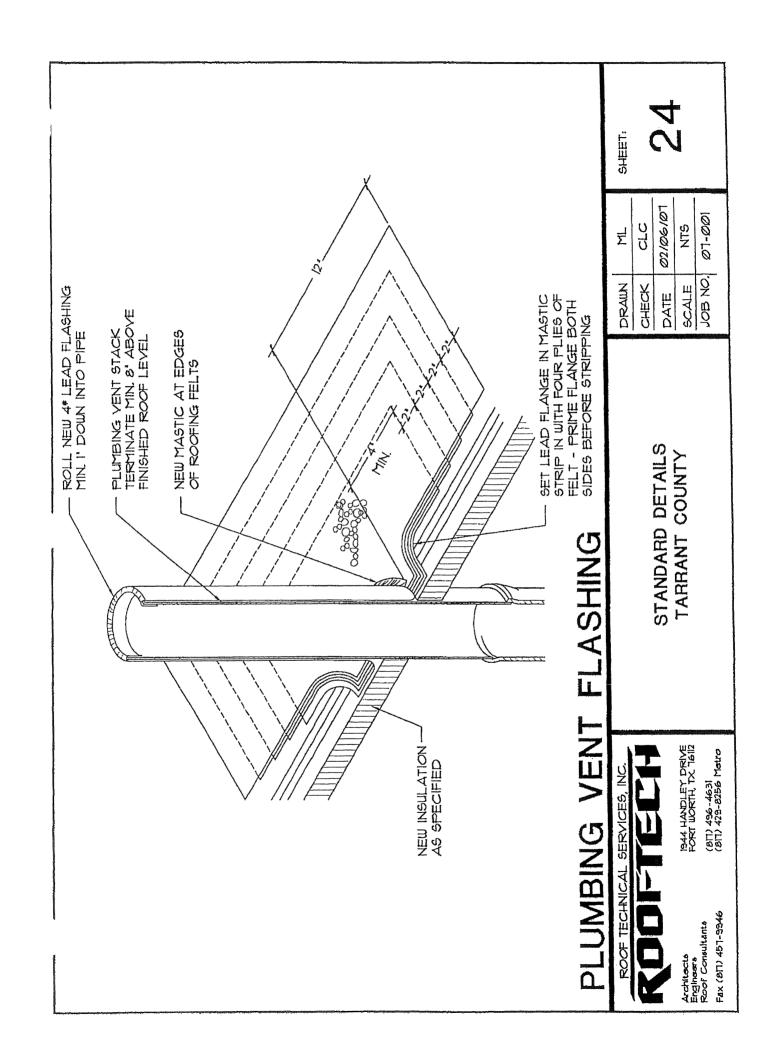
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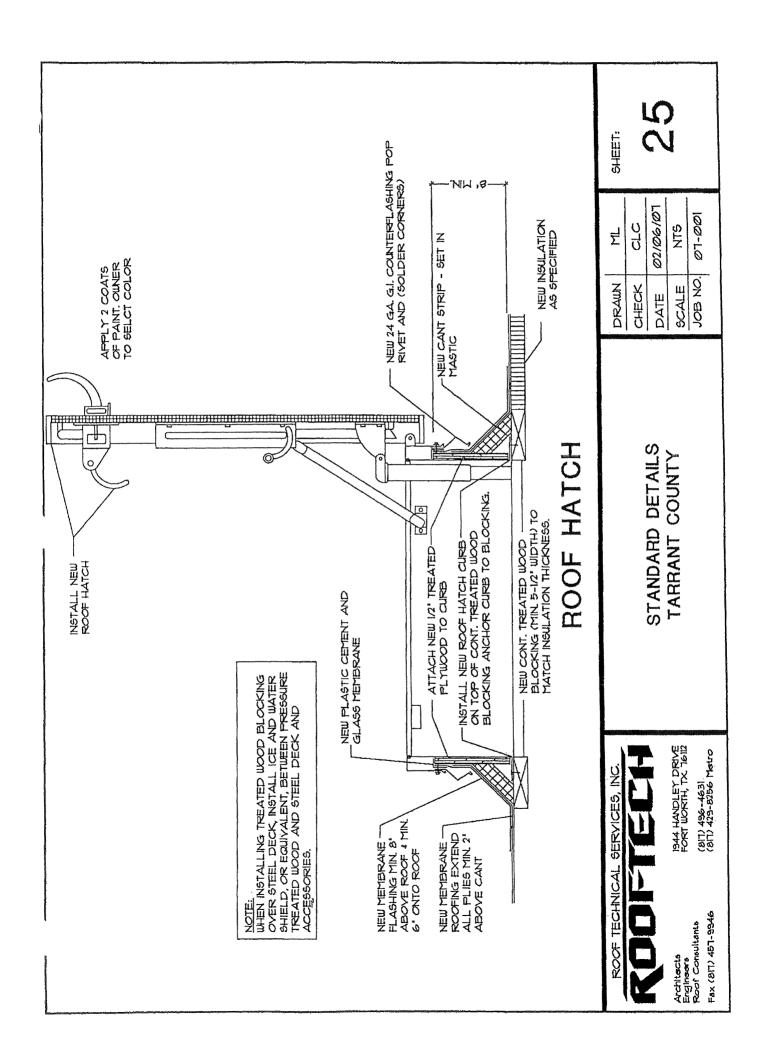
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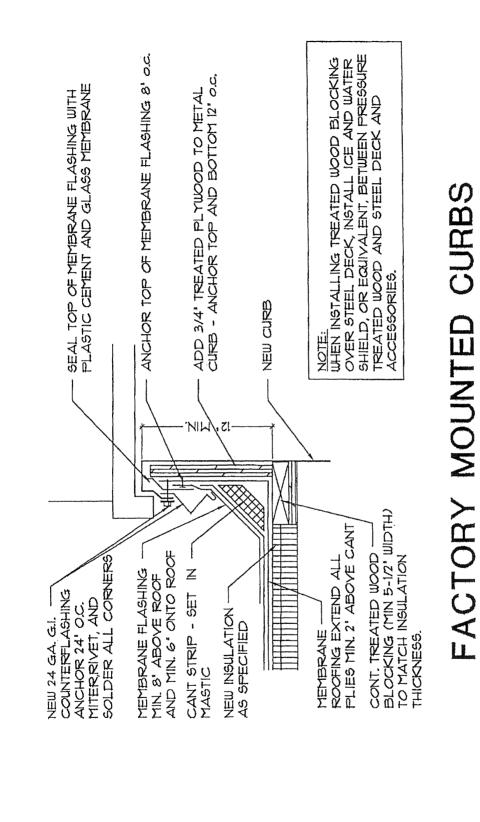
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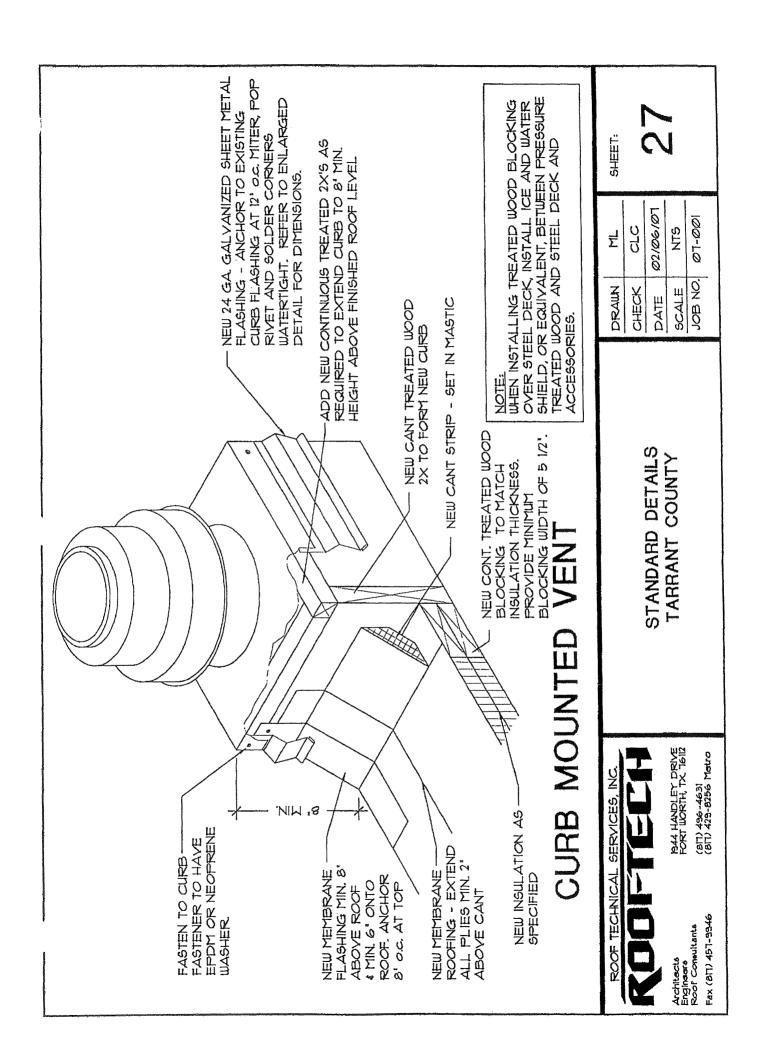
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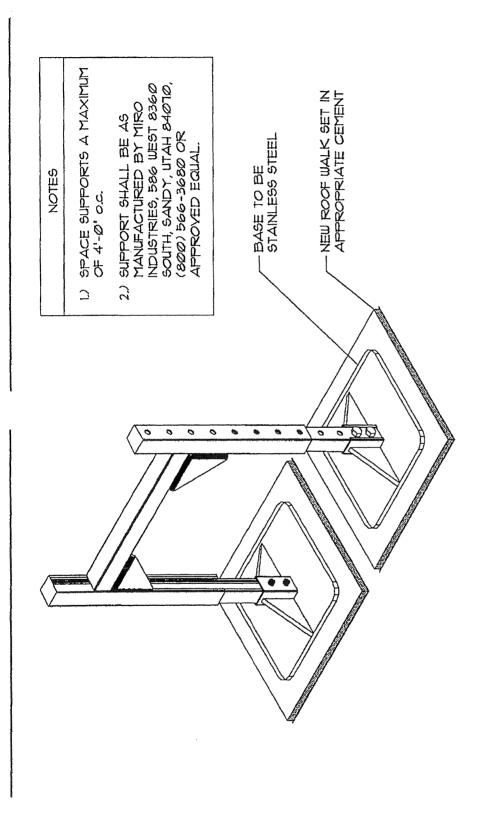
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PORTABLE DUCT SUPPORT

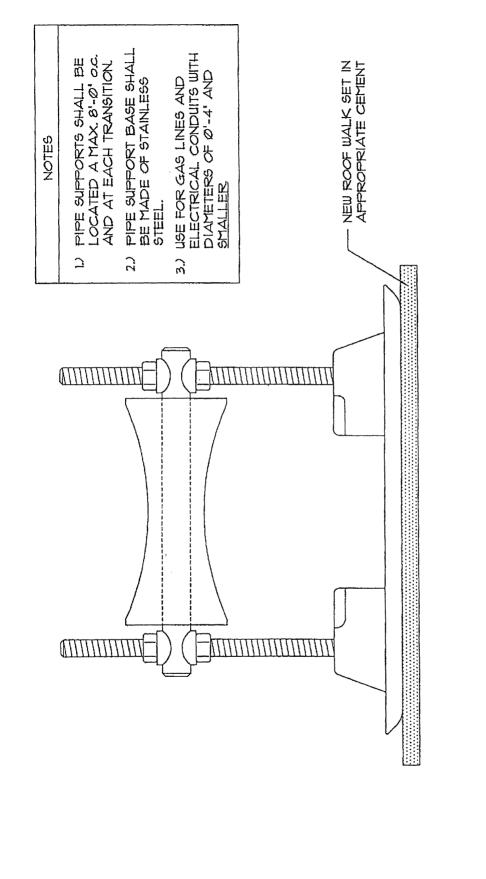
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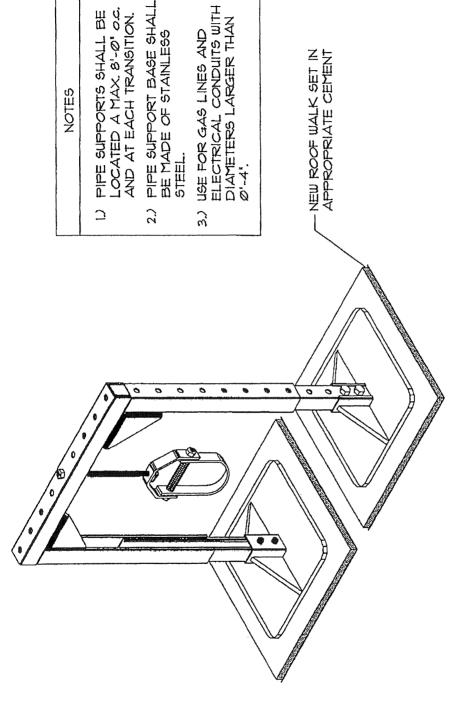
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