

# Oregon Roof Consulting and Inspection

No-Nonsense Roofing Advice for Property Owners: Affordable ~ Thorough ~ Versatile ~ Capable

Serving the Portland Metro area and all of Oregon: (503) 654-4612

Oregon CCB: 199121 ~ WA Lic: OREGORC871MR

PO Box 220190, Milwaukie, OR 97222

## Resume' ~ Track Record ~ Experience ~ Qualifications ~ History

Please note : I have 44 years of legitimate verifiable experience as a laborer / grunt / gopher for my brother's roofing business in the 60's, the better part of 3 decades as a roofing contractor, 6 years as an estimator / project manager for 2 large roofing companies and am now nearing the end of my 10<sup>th</sup> year as the owner / operator of Oregon Roof Consulting and Inspection. I have personally installed over 1,000 roofs and have done at least 14,000 roofing estimates back in the roofing days. Oregon Roof Consulting has participated in 5 courtroom hearings and 16 arbitration hearings in Oregon and Washington and 19 on site CCB mediation meetings in Oregon - all as an expert witness, so, we are somewhat familiar with the roofing trade.

I have done work for but not limited to : Homeowners; Businesses and corporations of all sizes; Insurance companies; Banks; Churches; Relocation companies; Roofing contractors; Investment groups; HOA's; Apartment complexes of all sizes; The State of Oregon; Multiple school districts including West Linn; David Douglas; and every elementary, middle, and high school in both Hood River and Wasco ( The Dalles ) counties; United States Coast Guard in Astoria; etc. I have done jobs all over Oregon and Washington; All over the San Francisco Bay Area including San Francisco, Oakland, Napa, Richmond, Alameda, Fremont, Pleasanton, Berkeley, Fresno, Sacramento and Reno Nevada. We have also helped with two shingle roofing projects on the remote South Pacific island of Rarotonga ( Cook Islands ). This is all on my website. See [www.oregonroofconsulting.com](http://www.oregonroofconsulting.com)

Thank you,

Owner of Oregon Roof Consulting & Inspection

### Oregon Roof Consulting and Inspection No-Nonsense Roofing Advice for Property Owners



- Affordable ~ Thorough ~ Versatile ~ Capable
- Roofing in Oregon Since 1973
- Project Management & Monitoring
- Inspections ~ Certifications ~ Owner Advocacy

[www.oregonroofconsulting.com](http://www.oregonroofconsulting.com)

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Joe Sardotz, Owner Operator



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Roof Inspection for :  
Job Address : Tigard, Oregon 97223

I inspected this roof on July 21<sup>st</sup> 2023. I got on the roof. The roof is a new TPO membrane roof. The mansard shingles are Certainteed 'Landmark' shingles. One layer over plywood. Separate photo emails will be sent. Each photo email will be numbered to correspond to the numbered items on the summary report. The following items should be noted :

1. The shingles are not fastened properly. There must be 6 nails per shingle. I lifted 15 shingles. All had 5 nails. Some nails were overdriven. Nails must be flush with surface. There must be spots of mastic for extra holding power. Nails must be in a certain pattern. \*\*See attached Certainteed page.
2. The TPO detail on the breezeway roof is correct.
3. Perimeter flashing detail on the house and garage is not correct. The flashing was installed with the TPO on top. Can't do that. You must A) wrap membrane over the edge B) Install flashing on top. C) Strip in all perimeter with a detail strip that is parallel to the edges. With ANY membrane roof – PVC, TPO, Torch, Peel & Stick, all flashings MUST be 'sandwiched between plies / layers of membrane. \*\* See attached documents.

Conclusion : The TPO membrane roof may last though I can't guarantee that. Seams, pipes, chimney, vents are all good. The perimeter detail is the issue. There is a code. Things must be done a certain way.

It is any Contractor's responsibility, obligation, and requirement to 1) Know how a roof system should be installed. 2) Install that roof system correctly.

**\*\* The Oregon Residential Specialty Code R102.7.1 : 'Additions, alterations or repairs (excluding ordinary repairs) to any structure shall conform to the requirements for a new structure without requiring an existing structure to comply with all of the requirements of this code, unless otherwise stated. Additions, alterations or repairs **shall not cause an existing structure to become unsafe or adversely affect the performance of the building.....'** R905.1 : 'Roof coverings shall be applied in accordance with the applicable provisions of this section and manufacturers installation instructions'. R903.1 : 'Roof Assemblies shall be designed and installed in accordance with this code and the approved manufacturers instructions such that **the roof assembly shall serve to protect the building or structure**'. R105.2 : 'Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in a manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction'. **\*\* A permit may or may not be required in your area. To inquire call local building officials.****

Thank you,



Owner of Oregon Roof Consulting & Inspection

**\*\*This document carries no warranty or guarantee. It is an opinion based on industry standards, manufacturers specifications, local codes and my experience\*\***

## FASTENING

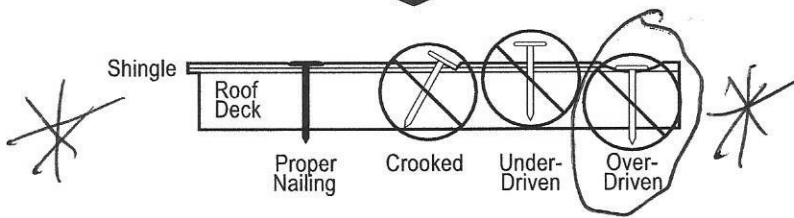


Figure 12-2: Proper and improper nailing.

**IMPORTANT:** For decks  $\frac{3}{4}$ " (19 mm) thick or thicker, nails must go at least  $\frac{3}{4}$ " (19 mm) into the deck. On thinner decks, nails must go at least  $\frac{1}{8}$ " (3.2 mm) through the deck.

Nails must be 11- or 12-gauge roofing nails, corrosion-resistant, with at least  $\frac{3}{8}$ " (9.5 mm) heads, and at least 1" (25 mm) long.

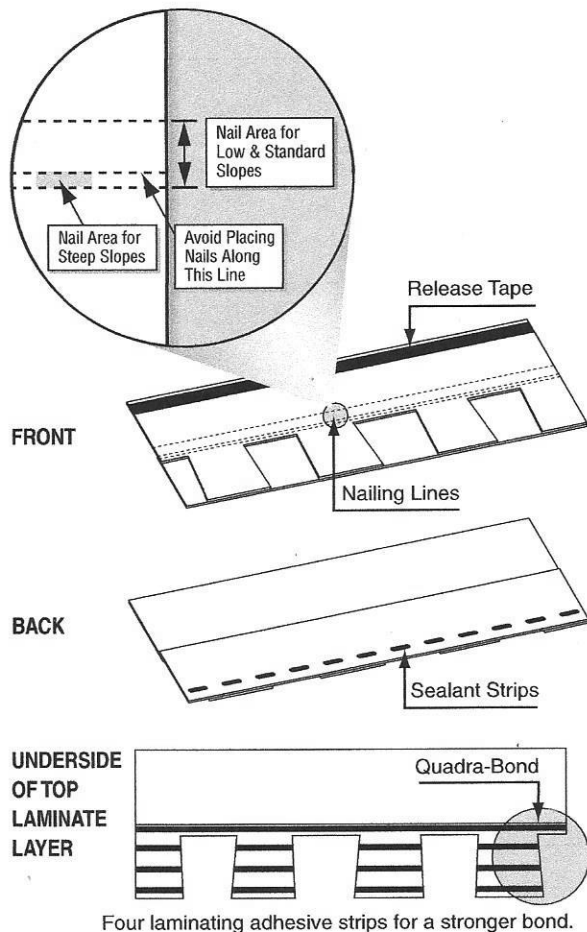


Figure 12-3: NailTrak® features a wider nail area and extra-strong Quadra-Bond construction.

## LOW AND STANDARD SLOPE

Use four nails for every full shingle as shown below.

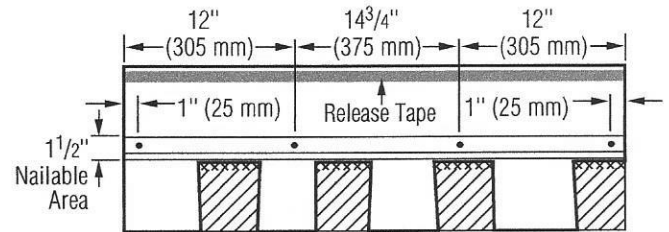


Figure 12-4: Use four nails for every full shingle.

★ **IMPORTANT:** When "six nailing" a full shingle, follow the nail pattern shown in figure 12-5, nails can be placed in the  $1\frac{1}{2}$ " nailable area.

## STEEP SLOPE

Use six nails and four spots of asphalt roofing cement for every full shingle as shown below. Asphalt roofing cement should meet ASTM D 4586 Type II. Apply 1" spots of asphalt roofing cement under each corner and at about 12" to 13" in from each edge.

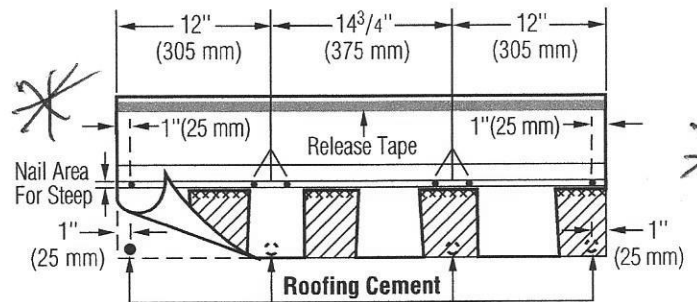


Figure 12-5: Use six nails and four spots of asphalt roofing cement on steep slopes.

**CAUTION:** Excessive use of roofing cement can cause shingles to blister.

## TWO CLEAN-DECK APPLICATION METHODS

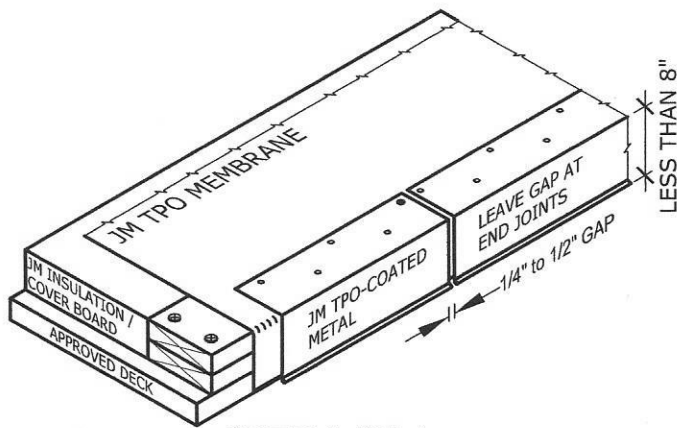
### FIVE-COURSE DIAGONAL METHOD (6" AND 11") FIVE-COURSE DIAGONAL METHOD (5 $\frac{5}{8}$ " AND 11 $\frac{1}{4}$ ")

**NOTE:** The 6" and 11" method is shown below. The 5 $\frac{5}{8}$ " and 11 $\frac{1}{4}$ " method follows the same application instructions as the 6" and 11" method except the dimensions of the shingle cut-offs in the second and third courses are 5 $\frac{5}{8}$ " and 11 $\frac{1}{4}$ " respectively.

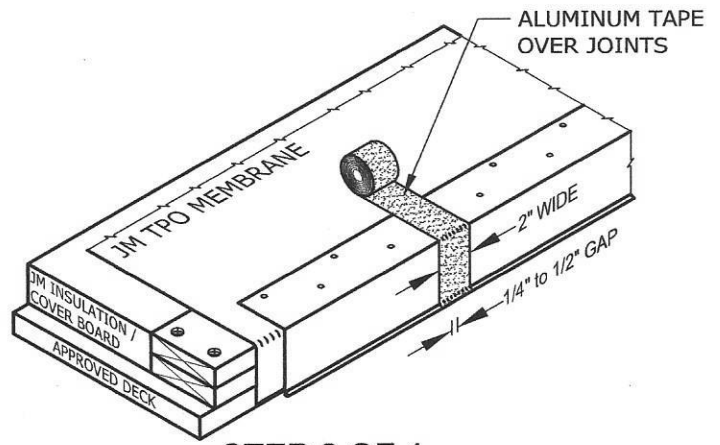
**CAUTION:** Use of other installation methods may result in an objectionable pattern.

### PREPARING THE DECK:

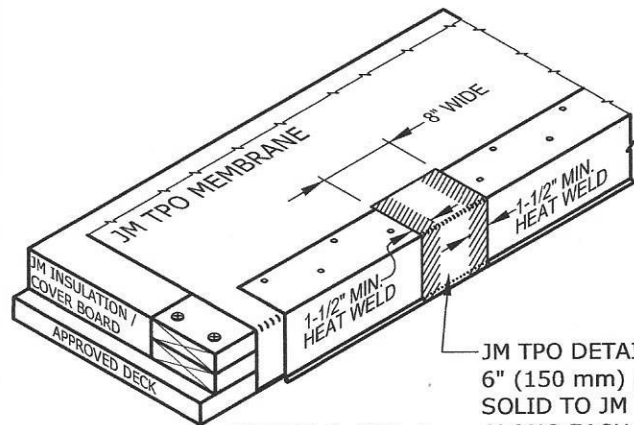
- ◆ Apply underlayment as required. CertainTeed suggests that a layer of shingle underlayment be applied. For UL fire rating, underlayment is generally required. Apply flat and unwrinkled.
- ◆ Snap chalklines to assure shingles will be correctly aligned. Expose all shingles 5 $\frac{5}{8}$ " (143 mm).



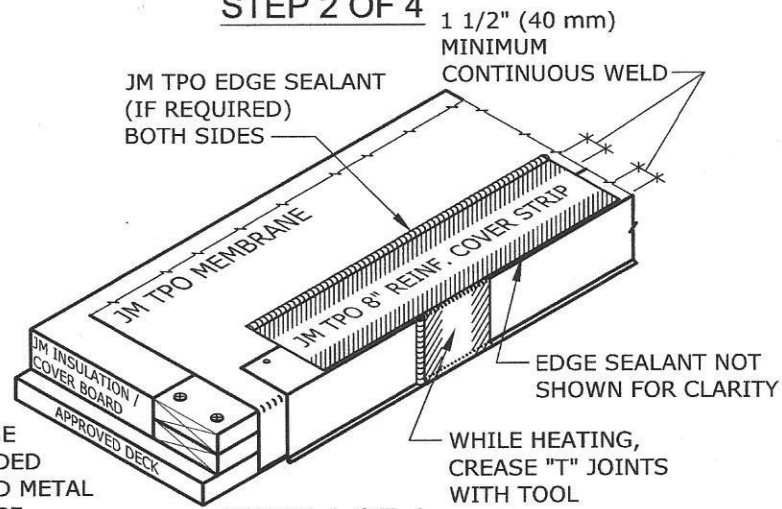
STEP 1 OF 4



STEP 2 OF 4



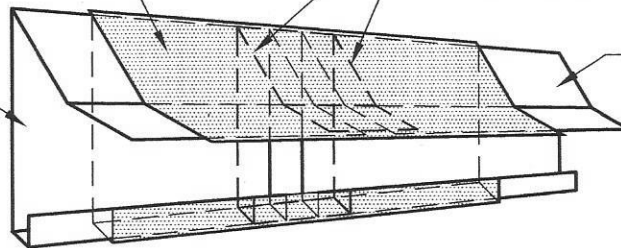
STEP 3 OF 4



STEP 4 OF 4

JM TPO DETAIL MEMBRANE  
6" (150 mm) STRIP, WELDED  
SOLID TO JM TPO-COATED METAL  
ALONG EACH SIDE OF TAPE

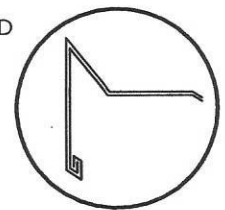
TPO COATED  
METAL



GRAVEL STOP

ALUMINUM TAPE COVERING ENTIRE  
LENGTH OF 1/4" (7 mm) MINIMUM TO  
1/2" (15 mm) MAXIMUM WIDTH JM  
TPO-COATED METAL JOINT

TPO COATED  
METAL



PROFILE VIEW

**NOTES:**

1. REFER TO JOHNS MANVILLE WEBSITE ([www.jm.com](http://www.jm.com)) FOR MOST UP-TO-DATE INFORMATION.
2. PLEASE SEE SINGLE PLY FLASHING SPECIFICATIONS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQUIREMENTS WHICH ARE CONSIDERED A PART OF THIS DETAIL.
3. ANY CARPENTRY OR METAL WORK SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS. THESE COMPONENTS SHOULD BE REVIEWED AND APPROVED BY A LICENSED DESIGN PROFESSIONAL.
4. JM TPO EDGE SEALANT IS REQUIRED ON ALL CUT OR NON-ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE (SEE DETAIL T-MS-01).

DRAWING NO.

**T-FE-CM6**

REPLACES TE-15

SCALE  
N.T.S

ISSUE DATE  
3-29-16

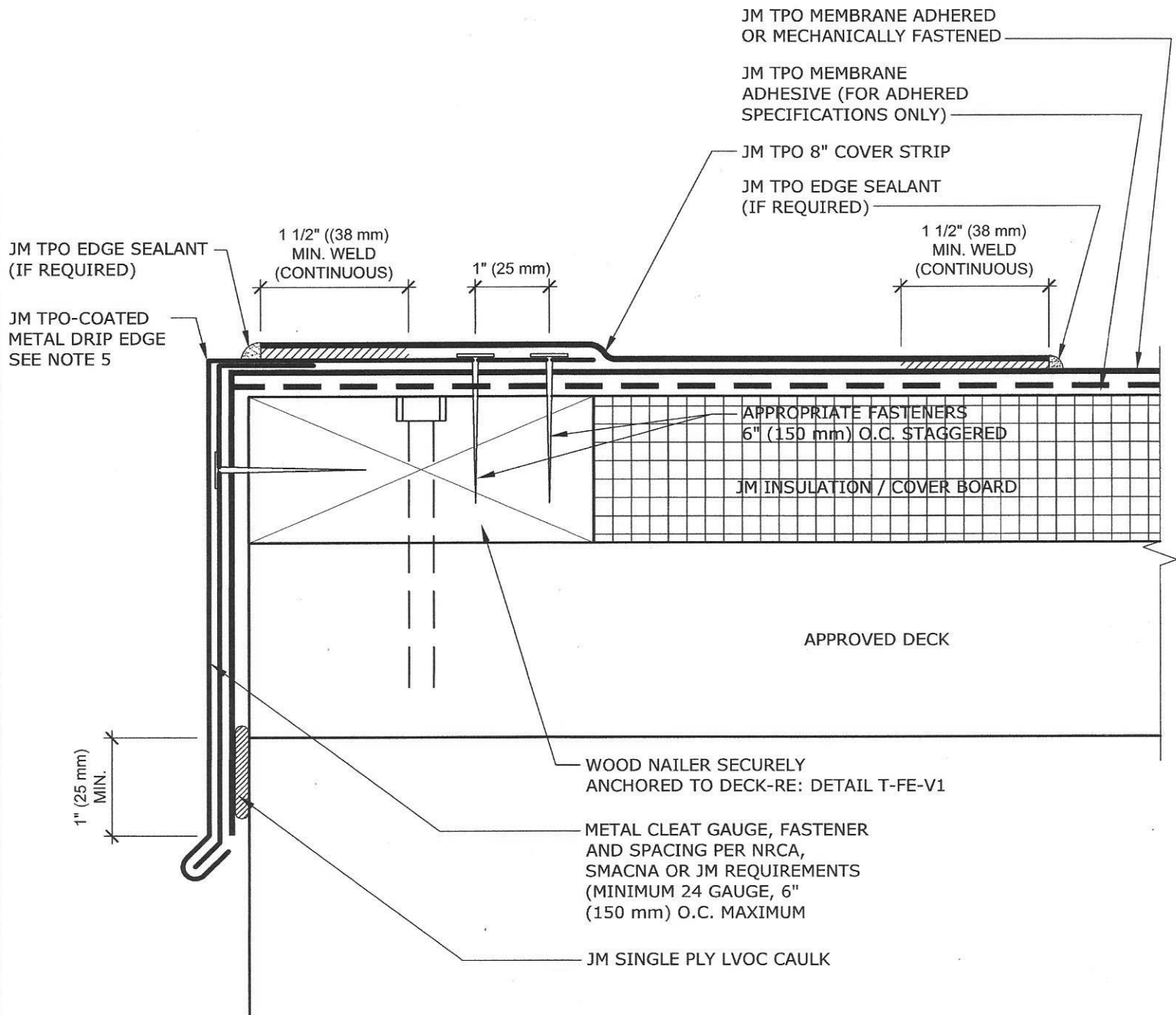
**BUTT JOINT AT EDGE (TPO COATED METAL)**

MEMBRANE TYPE:  
JM TPO

MAXIMUM GUARANTEE TERM:  
30 YEAR

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4. JM TPO EDGE SEALANT IS REQUIRED ON ALL CUT OR NON-ENCAPSULATED EDGES OF REINFORCED MEMBRANE. THIS INCLUDES FACTORY CUT MEMBRANE (SEE DETAIL T-MS-01).
5. METAL EDGE SHOWN IS MANUFACTURED BY THE CONTRACTOR USING JM TPO COATED METAL SHEET PRODUCT.

DRAWING NO.

**T-FE-CM1**

REPLACES TE-13

SCALE  
N.T.S

ISSUE DATE  
7-17-17

MEMBRANE TYPE:  
JM TPO

MAXIMUM GUARANTEE TERM:  
30 YEAR

**DRIP EDGE (TPO COATED METAL)**

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