

## 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  $10^{th}$  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.

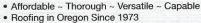
I have done work for but not limited to: Homeowners; Businesses and corporations of all sizes; Insurance companies; Banks; Churches; Relocation companies; Roofing contractors; Investment groups; HOA's; Apartment complexes of all sizes; The State of Oregon; Multiple school districts including West Linn; 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 <a href="https://www.oregonroofconsulting.com">www.oregonroofconsulting.com</a>

Thank you,

Owner of Oregon Roof Consulting & Inspection

### Oregon Roof Consulting and Inspection

No-Nonsense Roofing Advice for Property Owners



Project Management & Monitoring

• Inspections ~ Certifications ~ Owner Advocacy

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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 October 12<sup>th</sup> 2022. I met the owner and got on the roof. The roof is a new torch applied membrane and a small connected area with new Certainteed 'Landmark' asphalt 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:

- I asked the owners to see the contract so I could look over the scope of work but there is no contract. Oregon law requires a detailed written and signed contract for jobs over \$2,000. Contractors are also required to give owners three CCB notices. They are: 1) Consumer Protection Notice 2) Notice Of Procedure 3) Information Notice to Owner about Construction Liens. This wasn't done.
- 2. There are multiple issues where the shingles meet the sidewall: 1) roof underlayment must come up the wall enough to be overlapped by the wall underlayment 2) Each row of shingles must have its' own step flashing. This is how it's done. Here, there are 1-1/2, 1-3/4, 2 rows of shingles per step flashing.

3. Membrane roofing must go a minimum of 18" under the shingles. This was not done. There is no starter course under the first row of shingles. A starter course is required with this type of application.

- 4. There are many issues with the torch applied roofing. Torch installers must be qualified / certified by taking passing a test approved by their insurance company. Roofers who do torch roofing must have appropriate insurance coverage. At the end of the work day there must be a minimum 2 hour 'firewatch' meaning someone must stay for at least 2 hours with a fire extinguisher in case something 'flares up'.
- 5. All vent flanges and perimeter flashings must be cleaned, primed, and 'sandwiched' between layers of roofing. After priming the metal it must be allowed to cure. This torch roofing was done in one day so therefore any primer would not have had adequate time to cure. Vent flanges and edge flashings are not 'sandwiched' between plies of roofing.

- 6. The detail work of where the torch roofing meets the wall meet is wrong. There must be a 'cant strip' here and underlayment must go up the wall and be covered / lapped by wall underlayment. See attached drawing.
- 7. Underlayment must be wrapped 2" over rake and drip edges. This was not done. See attached drawings. These drawings also show how flashings must be 'sandwiched' between layers.
- I do not know what brand of torch roofing was used doesn't matter all torch roofing manufacturers have identical requirements regarding the installation of BUR and Modified membrane applications.

Conclusion: Whoever installed this roofing had no business installing this roofing. There are multiple fundamental rudimentary errors that a qualified, legitimate, experienced, professional roofer simply wouldn't do.

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.

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\*\*





#### Anchor Sheet or Base Ply, Field

Mechanically attach or fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment of the base layer is defined by specified system, product selection and deck type.

#### Cap Sheet Field

Fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment is defined by product selection. Extend base ply and cap sheet 2" above cant strip; adhere to cant strip only.

#### **Base Flashing**

WALL ATTACHMENT: Mechanically attach Anchor 12" o.c. or self-adhere Base Ply, turn down 2" over outside edge of wall (to be gang fastened when cleat is attached, minimum 4" o.c.); Fully adhere Cap (self-adhered, torch-weld, cold process or hot asphalt; Gang fasten Base and Cap at top edge 9" o.c. with tin discs; Ensure 1.4" bleed out on top edge or apply FlintBond® Caulk. FIELD ATTACHMENT: Treat the granulated surface of Cap Sheet, Field, where the Base Flashing overlap occurs: If self-adhered or using cold process apply FlintBond Trowel to entire lapped surface with 1/4" bleed out or (in cold weather¹) hot air weld² with bead of FlintBond Caulk at edge; If torch-welded (cap only³) heat sink/scrape the

granules with heated trowel or granular embedment tool and ensure 1/4" bleed out; **if using hot asphalt** apply to entire lapped surface with 1/4" bleed out.

#### **Cap Sheet Counterflashing**

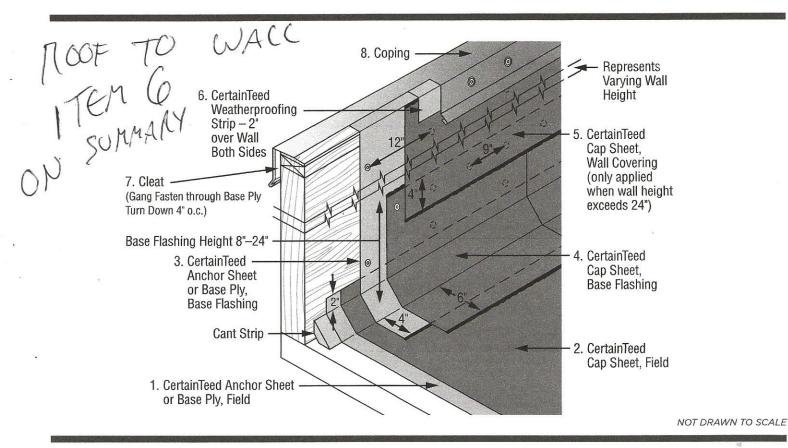
NOTE: This layer is only applied when wall height exceeds 24". If self-adhered apply FlintBond Caulk to top edge; If torch-welded ensure 1/4" bleed out at top edge; If using cold process set in FlintBond Trowel with 1/4" bleed out at top edge; if using hot asphalt apply hot asphalt or set in FlintBond Trowel with 1/4" bleed out at top edge. BASE FLASHING OVERLAP: Follow application method as noted for Base Flashing, FIELD OVERLAP.

#### Weatherproofing Strip

Self-adhere Metalayment\*, WinterGuard\* HT or Flintlastic\* PlyBase/MidPly. Turn down over wall 2" both sides, or 1" beyond the wood nailer (to be gang fastened when cleat is attached).

NOTE: For walls 24" or less in height, vertical termination of Base Flashing will match/replace vertical termination of Wall Covering as shown below.

CertainTeed recommends strapping all Base Flashing and Counterflashing rolls, running the width of the roll up or perpendicular to the vertical surface.



<sup>1</sup>20°F-49°F (-6.6°C-4.4°C)

<sup>3</sup>When potential fire hazards can be mitigated CertainTeed considers it acceptable to direct torch provided low output (50,000 BTU or less) equipment is used; when potential fire hazards cannot be mitigated indirect torching methods should be utilized.

<sup>&</sup>lt;sup>2</sup>Apply heat from a hot-air welder with a 2" tip to the overlapped granular surface while applying rolling pressure from a silicone roller to the overlapping Cap. With the hot air welder set between 900°F-1,100°F (setting 8-10), apply heat to the overlap interface while bonding Cap with rolling pressure on the granulated surface. Roll the overlapping Cap in place, moving the hot air welder to allow for forward progress. Avoid applying so much heat or moving at a pace that results in smoke. Apply a bead of FlintBond Caulk along the edge. Continue overlap application, 2" per pass.



#### **Anchor Sheet**

Attach with appropriate fasteners spaced a minimum 9" o.c. in the laps with two additional rows spaced 18" o.c. in the field, staggered OR as required by code.

Fasten starting fasteners 6" in from the edge of the roof to avoid edge metal fastener overlap.

#### Flashing Collar

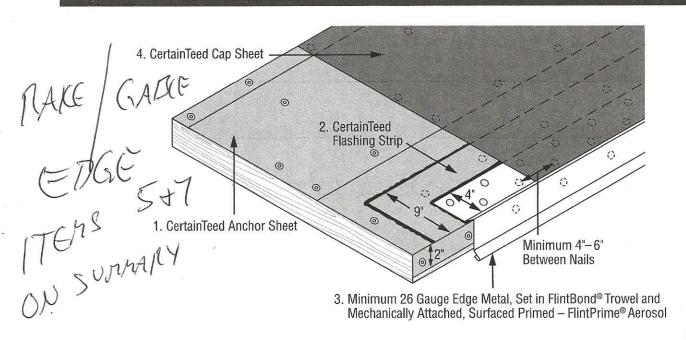
Fully adhere (self-adhered, torch, cold process or hot asphalt). If self-adhered apply FlintBond® Caulk to edge; If torch-welded ensure 1/4" bleed out at edge; If using cold process set in FlintBond Trowel with 1/4" bleed out at edge; if using hot asphalt ensure 1/4" bleed out at edge.

#### **Edge Metal**

Mechanically attach a minimum two staggered rows, 6" o.c. or as required by building code; endlaps should receive two nails. Edge Metal shall have a minimum 3/4" rise for gravel surfaced membranes and a 3/8" rise for smooth or mineral surfaced membranes.

#### **Cap Sheet**

Fully adhere (self-adhered, torch, cold process or hot asphalt). **If self-adhered,** in cold weather where Flintlastic® SA Cap (FR) Sheet overlaps Edge Metal surface, hot air weld² with bead of FlintBond Caulk at edge.



NOT DRAWN TO SCALE

'20°F-49°F (-6.6°C-4.4°C)

<sup>&</sup>lt;sup>2</sup>Apply heat from a hot-air welder with a 2" tip to the overlapped granular surface while applying rolling pressure from a silicone roller to the overlapping Cap. With the hot air welder set between 900°F-1,100°F (setting 8-10), apply heat to the overlap interface while bonding Cap with rolling pressure on the granulated surface. Roll the overlapping Cap in place, moving the hot air welder to allow for forward progress. Avoid applying so much heat or moving at a pace that results in smoke. Apply a bead of FlintBond Caulk along the edge. Continue overlap application, 2" per pass.



#### Anchor Sheet or Base Ply, Field

Mechanically attach or Fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment of the base layer is defined by specified system, product selection and deck type. Ensure base sheet is extended below wood nailer blocking.

#### Flashing Collar

Fully adhere (self-adhered, torch, cold process or hot asphalt). If self-adhered apply FlintBond® Caulk to edge; If torch-welded ensure 1/4" bleed out at edge; If using cold process set in FlintBond Trowel with 1/4" bleed out at edge; if using hot asphalt ensure 1/4" bleed out at edge.

#### **Gutter System**

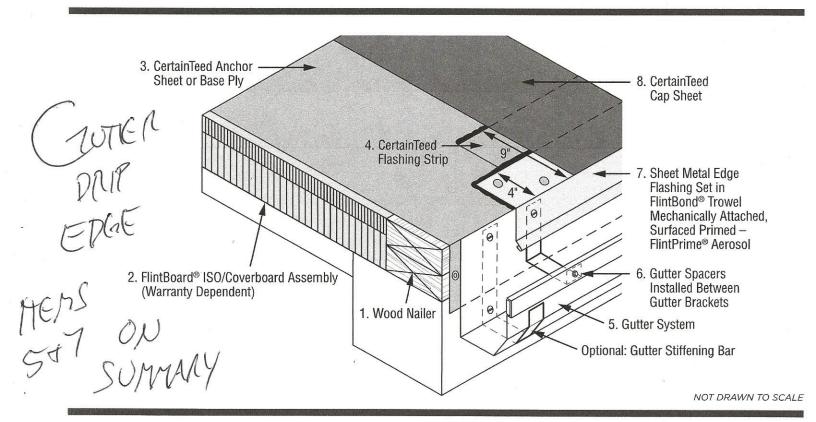
Refer to the Architectural Metal Flashing section of the NRCA Roofing Manual for securement options.

#### **Edge Metal**

Set in FlintBond Trowel. Mechanically attach a minimum two staggered rows, 6" o.c. or as required by building code; endlaps should receive two nails. <a href="Prime surface with FlintPrime">Prime surface with FlintPrime</a> Aerosol.

#### Cap Sheet

Fully adhere (self-adhered, torch, cold process or hot asphalt). Proper attachment is defined by product selection. **If self-adhered,** in cold weather<sup>1</sup> hot air weld<sup>2</sup> with bead of FlintBond Caulk at edge.



20°F-49°F (-6.6°C-4,4°C)

<sup>2</sup>Apply heat from a hot-air welder with a 2" tip to the metal surface while applying rolling pressure from a silicone roller to the overlapping Cap. With the hot air welder set between 300°F-500°F (setting 2-3), apply heat to the overlap interface while bonding Cap with rolling pressure onto the Metal. Roll the overlapping Cap in place, moving the hot air welder to allow for forward progress. Avoid applying so much heat or moving at a pace that results in smoke.