

ROOFING INSTALLATION STANDARDS

The purpose of this document is to describe Timothy Parks Construction, Inc.'s general installation standards.

These standards are not designed to explain how to install a roof but instead, explain what is required over and above the manufactures installation standards.

BEFORE THE INSTALLATION

- Installer should not park in the customer's driveway but if no other option is available, place a tarp beneath the vehicle to prevent stains.
- ALWAYS re-measure the house and check the measurements against the specs listed on the Work Order.
 - If there are any discrepancies, installer must contact Project Manager immediately.
- Check the materials against the Purchase Order to ensure that the QUANTITIES are correct (and notify the PC if there are any problems).

TEAR OFF

When tearing off roofing material use the following as a guide:

- Use tarps to catch debris and protect shrubbery, porches, swimming pools, etc.
- Place plywood over tarps for landing pads when debris is thrown to ground.
- DO NOT remove more roof than can be covered or protected in a day.
- Tear off roofing materials, felt, drip edge, hip ridge, starter, and flashings to be replaced (e.g. valley, plumbing, heat vent stack, etc.)
- Hammer nails flush with decking, or pull out.
- Inspect decking for rot and deterioration.
 - If wood needs to be replaced, Project Manager must approve before replacing.
- Sweep decking and clean gutters of all debris.
- Use a rolling magnet to sweep the ground around the house for nails.
- Clean up and dispose of all debris

REMOVING AND REINSTALLING DECKING

CDX AND OSB SHEATHING

Typically Plywood and OSB is used to replace existing sheathing or in total redecks.

When using Plywood or OSB use the following as a guide:

- Remove existing CDX (plywood) or OSB;
 - In the case of "Skip Sheathing" the new CDX or OSB will be applied over the existing material.
- Cut new material to fit the area to be covered; and
 - Match the thickness as closely as possible when installing new material next to old material.
- Install new CDX or OSB
 - Use plywood clips for proper spacing between sheets
 - Minimum of 8d nails 8" on center around the perimeter and 12" on center in the field.

NOTE: In high wind zones consult the building code as to size and spacing of nails

PLANK DECKING

New Plank Decking should only be used to replace sections of existing Plank Decking.

When replacing existing Plank Decking use the following as a guide:

- Remove the existing plank decking;
- Cut new 1 by material to fit section removed;
- Install new plank decking with nails that penetrate the new decking and at least 3/4" into the rafters.

R & R RECOVERY BOARD

Recovery Board should only be used for Modified Bitumen applications only and to replace existing recovery board.

VENTILATION

A combination of ventilation products need to be used on all roofs. The ventilation products we offer include:

- Ridge Vents;
- Rolled and Rigid
- Turbine Vents;
- Low Profile Vents;
- Soffit Vents; and
- Power Roof Vents.

Every square foot of exhaust needs one square foot of intake, with a minimum of one square foot

total (intake and exhaust) per 300 square feet of attic space.

Example: 3000 Sq Ft attic (50' X 60') would need a minimum of 10 Sq Ft of ventilation with 5 Sq

Ft of Exhaust and 5 Sq Ft of Intake.

Rolled and Rigid Ridge Vents

Should be used in combination with Soffit Vents and NOT with Gable Vents.

For every 1000 Sq Ft of attic a minimum of 22 Lf of Rigid Ridge Vent and 25 Lf of Rolled Ridge Vent is required.

When installing Rolled or Rigid Ridge Vent use the following as a guide:

- Remove existing ridge vent;
- Cut decking 1 1/2" on either side of ridge, if necessary (3 inch total width); and
- Install new ridge vent.

Turbine & Low Profile Vents

Should be used in combination with Soffit Vents and NOT with Gable Vents.

For every 1000 Sq Ft of attic a minimum of two 14" Turbine vents or five Low Profile vents are required. When installing Turbine & Low Profile Vents use the following as a guide:

- Remove existing vent ;
- Cut the decking to receive the new vent, if necessary;
- Install new vents; and
- Paint and seal as required.

Soffit Vent

Soffit vents are Intake vents and should be used with all the Exhaust vents we offer including the

customer's existing gable vents.

Every 1000 Sq Ft of attic a minimum of five 16" X 8" Soffit vents is required.

When installing Turbine & Low Profile Vents use the following as a guide:

- Removal of soffit vent.
- Cutting appropriate hole in fascia.
- Installing soffit vent.

12-8-06 IHB-IR-IS-R 3

Power Roof Vent

Should be used in combination with Soffit Vents and NOT with Gable Vents.

- Remove existing power vent, if necessary;
- Cut appropriate hole in decking, if required;
- Install power vent

1. NOTE: We do connect the power roof vents to the existing electrical system.

FLASHING

Use the following as a guide when installing flashings:

- Remove old step, base and counter flashing;
- Replace galvanized steel or aluminum step and counter flashing;
- Masonry flashing is to be cut ½” into mortar, sealed and painted;
- Install lead plumbing and heat vent flashings, including sealing nail heads; and
- Install drip edge.
 2. Under the underlayment on the eaves
On top of the underlayment on the rakes.

CRICKETS

Chimney crickets are required in the following situations:

- All roofs steeper than a 6/12 pitch to handle water volume
- On all chimneys wider than 24” to reduce ponding water
- All chimneys in the north due to ice dams, snow loads and the freeze-thaw cycle

SHINGLE APPLICATION

This guide is over and above what is required by the Manufacturer and Building Codes.

Composition Shingle Application

Ice and Water Shield

- In all markets, ice and water shield to be applied in roll widths in valleys and 3 sq. ft. around all protrusions (e.g. chimneys, skylights, vents, plumbing, etc.)
- In the Northern markets, ice and water shield is to be installed on the eave edge of the roof to a point at least two feet inside the interior wall.
- Installation of ice and water shield should be installed over entire non-heated area when applying shingles on 2/12 to 3/12 pitch.

Felt / Shinglemate

- Install felt or Shinglemate flat to the deck, avoiding wrinkles as much as possible
- Fasten to the roof deck with plastic caps with a 2” minimum overlap at seams.
- End laps should overlap a minimum of 4”.
- Valley felt to overlap 6”.
- Installation of double felt (using 19” overlap) should be installed over heated area when applying shingles on 2/12 to 3/12 pitch.
- Applying leak barrier on non heated areas (e.g. porches)

Nailing Shingles

- In most locations:
 1. Four corrosion resistant nails per Shingle; and
 2. Minimum penetration of ½” through the decking.
- In high wind areas and mansard applications:
 1. Six nails per Shingle;
 2. Nails should not be driven in the factory applied sealant strip; and
 3. Minimum penetration of ½” through the decking.

12-8-06 IHB-IR-IS-R 4

Exposure

- Five inch exposure on pitches of 5/12 and greater
- Four inch exposure on pitches of 2/12 to 4/12

Valleys

- 3-Tab and Architectural shingles should have closed valleys
- Some Specialty Shingles should have open valleys
- In all cases:
 1. Clip the corners (dog-eared)
 2. Do Not nail within 6” of the center of the valley
 3. Use adhesive to attach the shingles together at the center of the valley.

Low Slope Application

The guide above for Composition shingles holds true with the following exceptions:

- Install fiberglass base sheet to the decking using a 6" overlap.
- Install and prime drip edge (minimum 4") on all eaves.
- Installation of self adhesive or mechanically fastened low slope product with a 3" overlap.

Gutters and Downspouts

- Gutters should be installed with screw applied hidden hangers spaced on maximum of 24" centers.
- On 5" gutters, there should be a downspout every 30 linear feet.
- On 6" gutters, there should be a downspout every 40 linear feet.
- Corners, downspout throats, and elbow connectors should be sealed with lifetime, acrylic sealant as well as fastened with color coordinated screw.
- Care should be taken to ensure drainage is away from structure.
- Special consideration should be given when installing downspout near basements to ensure flow is away from structure.
- Leafguard should be attached with color coordinated screws every 18" to the front top of the gutters
- Valley shields should be installed on corners where heavy rain flow would cause water to run over gutters.