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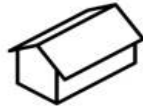
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Component Handbook

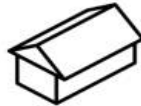
Roofing Section



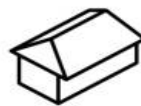
Roof Types



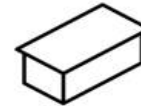
OPEN GABLE



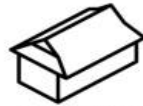
BOX GABLE



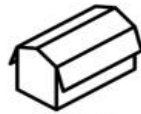
HIP



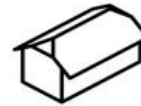
FLAT



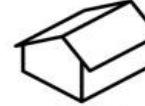
DUTCH GABLE



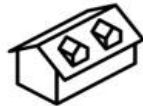
GAMBREL



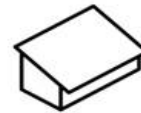
JERKINHEAD



SALTBOX



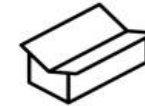
DORMER



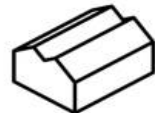
SHED



MANSARD



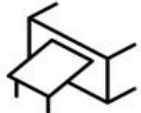
BUTTERFLY



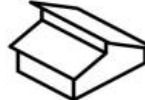
M SHAPED



PYRAMID HIP



LEAN-TO



CLERESTORY



Different Types of Roofing Systems

- Asphalt
 - 3 Tab
 - Architectural
 - Designer
- Cedar Shake/Shingle
- Synthetic Slate/Cedar
- Slate
- Standing Seam
- Exposed Fastener
- Rubber Roofing
 - EPDM, TPO, PVC

Asphalt Shingle Types



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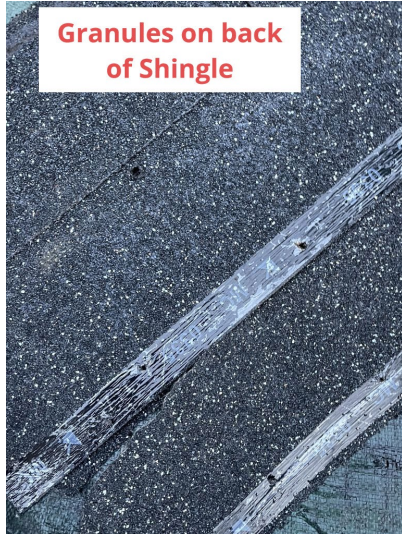
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- 3 Tab Shingles pay out less than Architectural or Designer.
 - Most 3 Tab shingles ARE NOT discontinued
- Architectural shingles have different warranty types (30, 40, 50 year)
- Designer Shingles are the heaviest shingles and most expensive to install.
- Class 4 Impact Resistant Shingles offer the best protection of the Asphalt Shingle Types.



How to Identify Upgraded Asphalt Shingles



- Look at the back of the shingle. If there are granules, it is most likely a 40 or 50 year shingle (Upgraded Shingle)
- Use Shingle Gauge!
 - Slide the shingle gauge onto the butt of the shingle. Stop at the slightest resistance. The depth of the shingle and the slot of the shingle gauge correspond to the shingles warranty level. (30, 40, or 50 year).

TIP: Use the 3 Tab Side of the Gauge for 3 Tab Shingles and the Laminated Side of Gauge for Architectural Shingles.

Pitch Gauge



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This device is used to measure the pitch of the roof slope it is placed on.

There are also Mobile Apps that you can download to have your phone act as the pitch gauge.



Space Decking



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MN Code states that we need to follow manufacturer specifications when installing a new roof system. Manufacturer's require us to install OSB over the existing roof deck (Re-Deck) if:

- Gaps between plank boards are 1/4" or greater.
- The width of the plank boards are greater than 6" Nominal Width.



Pre-Supplement - Decking Photos



There are two ways to go about getting photos the estimators need to obtain pre-approval on decking jobs.

1. Go into the Attic to get overview photos and photos with a tape measure showing board width and spacing.



1. After a contract has been signed, tear off material on the roof down to the deck. Take overview photos as well as photos of the board width and spacing. We need to be able to see 2-3 boards.

Re-Decks and Sidewalls



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If there are portions where the roof meets a wall and we are re-decking, we need to figure out how we will get new step or dormer flashing installed, sometimes we may have enough play under the siding to fish new flashing in, other times we don't. Also, sometimes we can gain O&P depending on how we approach this issue.

- Wood - Do we have to cut back siding and install a trim board or does homeowner want those pieces of siding or shake replaced?
- Vinyl - Can siding be detached and reset (vinyl)
- Aluminum or Steel - we will have to remove and replace but what if the siding is discontinued? Does insurance cover matching?
- Brick or Stucco – we can grind in a new line and install step flashing and Reglet.

Wavy Decking



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- Likely a sign of a damaged roof deck. This is something to bring up to HO before the re-roof starts and prep them for replacement.
- Most insurance carriers to not provide funds to replace wavy/rotten deck boards.

Ice and Water Barrier



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MN Code: Ice and Water shall extend from the lowest edges of all roof surfaces to be installed to a point not less than 24" inside the warm wall. If the slope of the roof is 8/12 or greater, no less than 36" of IWS should be applied.

- Ice and water shield adheres to the roof deck and is used to protect the roof deck and other vulnerable areas on a roof against wind driven rain/snow and ice dams.
- When nailed into, ice and water is self healing
- Typically we will need two rows of ice and water to be installed on the roof edge
- Grace IWS is an upgraded Ice and Water and is used around problem areas that either leak frequently or there are multiple transitions on the roof.
- Places on the roof with large overhangs (Over Front Door) will require more than two rows of Ice and Water.
- Ice and Water can be applied over the existing layer; the existing layer is very hard to remove.
- A roll of IWS is 3' wide and 66' long. 2 SQ of coverage. Rows are overlapped 6"

High Temperature Ice and Water



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- High Temp IWS is used under metal roofing systems.
- Used to withstand temperatures up to 260 degrees so it does not break down and melt.

Synthetic Underlayment



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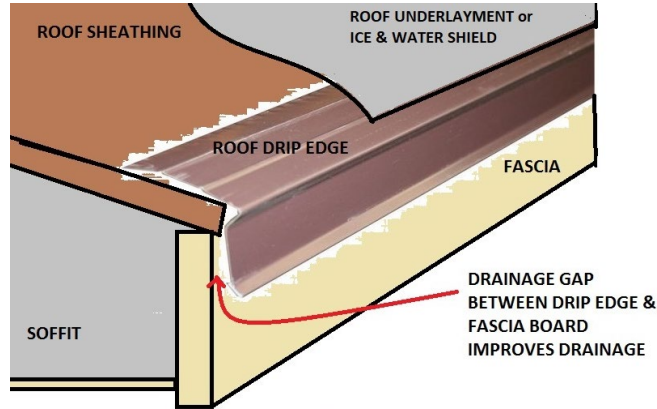


- Synthetic Underlayment is now typically used instead of roofing felt.
- Water resistant, water cannot absorb through the material
- Adds another layer of protection to your roof deck from wind driven rain and snow.
- It is installed on the roof deck in areas that do not have IWS.
- Installed such that the side laps overlap by 3" and the end laps by 6"
- Fastened with plastic cap nails, or sometimes staples

Drip Edge



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Also called edge flashing or edge metal, this comp provides a finished edge on the roof system.

- Drip Edge is not required per Code for Re-Roofs
- Drip Edge needs to be installed when we are Re-Decking a roof system.

Pro Tip: If we plan on doing fascia replacement, match the drip edge color to the color of the new fascia we will be installing.



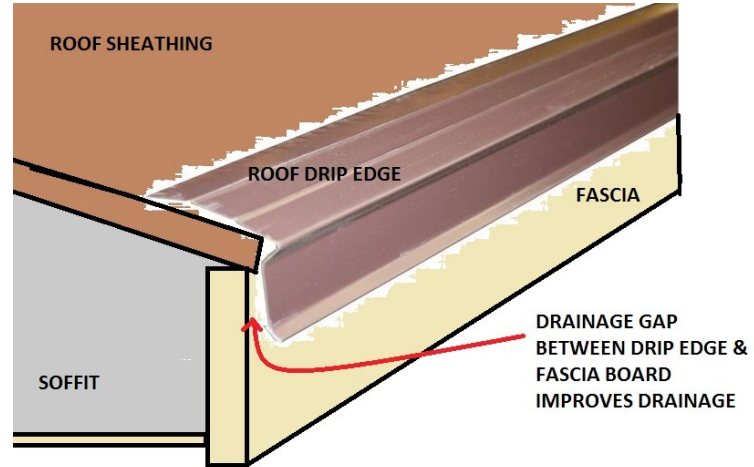


Siders Edge vs. Drip Edge

Siders Edge



Drip Edge – shown below



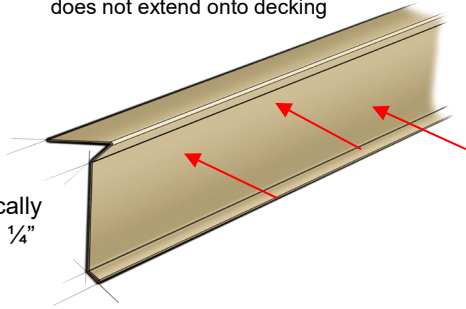
(Further explanation given on next page)

Sider's Edge vs Drip Edge vs Gutter Apron



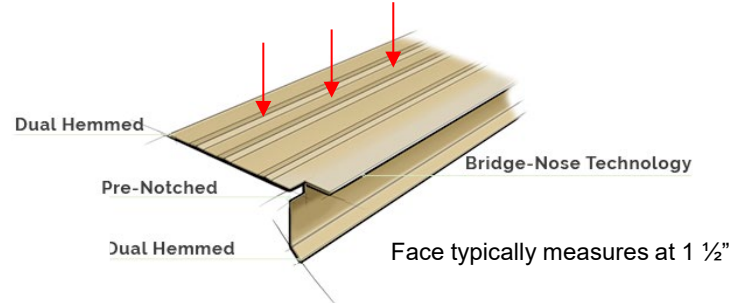
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Siders Edge – Nailed in through the face, lip does not extend onto decking



The Face typically measures at 2 1/4"

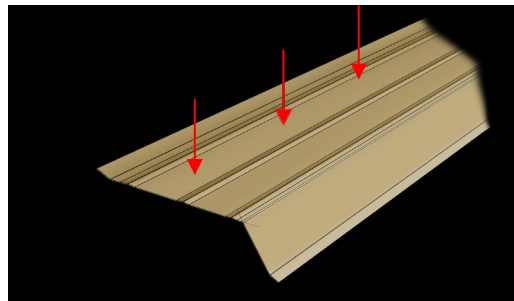
Drip Edge / Gutter Apron – nailed in through the lip into the decking – replaced when we re-deck a home



Face typically measures at 1 1/2"

Drip Edge / Gutter Apron are almost identical -

Gutter Apron



Gutter Apron - Face typically measures at 2 3/8"

Multiple Layers of Shingles



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- Terms means exactly what it says. We will always tear off both layers of shingles down to the roof deck.
- This is something that can be checked by lifting up a shingle on the rake edge.
- Need photos during the tear off of the roof for estimating to get this approved.

Starter Strip



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- Applied to the rakes and eaves of the roof system, pre-cut Starter Strip has a well placed adhesive that helps seal and protect against shingle blow-offs on the roof edges.
- Pre-existing photos of starter strip will help add \$ to our supplements and to your bank account.



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Hip and Ridge Cap



Single Ply
(standard
ridge cap)

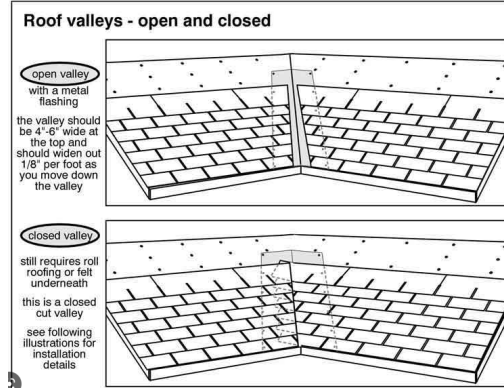


One of the last components to be installed on the roofing system. These provide protection at high stress areas of the roofing system.

- Standard Profile - single ply
- High Profile - dual ply (two layers)
- *Do not confuse High Profile Ridge Cap with Ridge Vent.
- Bullnose- Used mainly on higher end asphalt roofing systems



Valleys - Open/Closed/W-Profile

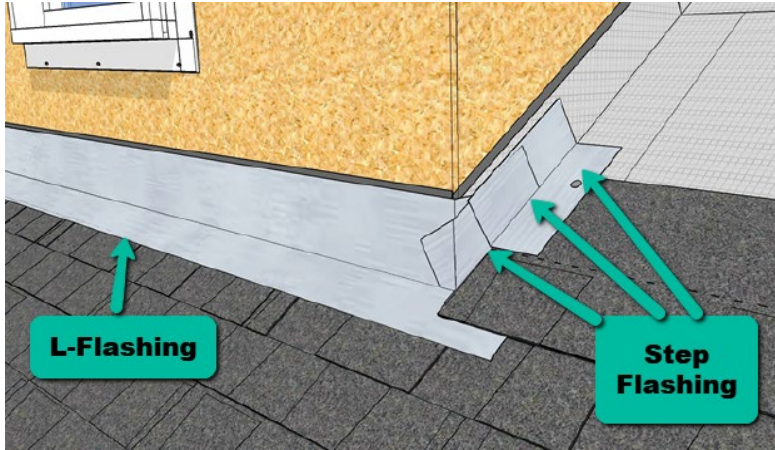


- We Prefer to install “open valleys” using W profile Valley Metal.
- Minimum Code Requires that there is atleast ice and water in the valley.

Dormer Flashing (L-Flashing)



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- Also called L-Flashing
- Dormer flashing is used when the roofline meets a dormer or endwall
- Installed under the siding and on top of the shingles.
- Dormer flashing is typically reused during re-roof, and replaced when doing the siding because it is nailed in behind the siding.

PRO TIP: When ordering your roof, be sure to check out the color of the existing dormer flashing in comparison to the shingle color you are going to put on.

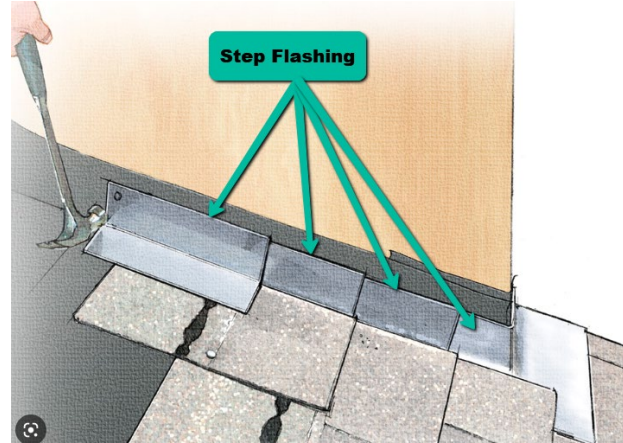
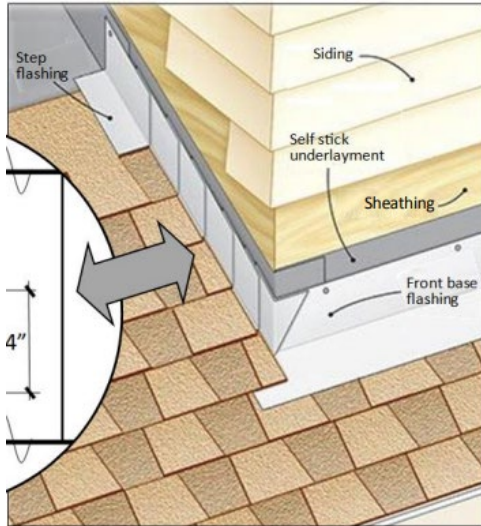


- If the colors don't match, there needs to be a game plan for production. Paint? Replace? Caulk Shingles On Top?

Step Flashing



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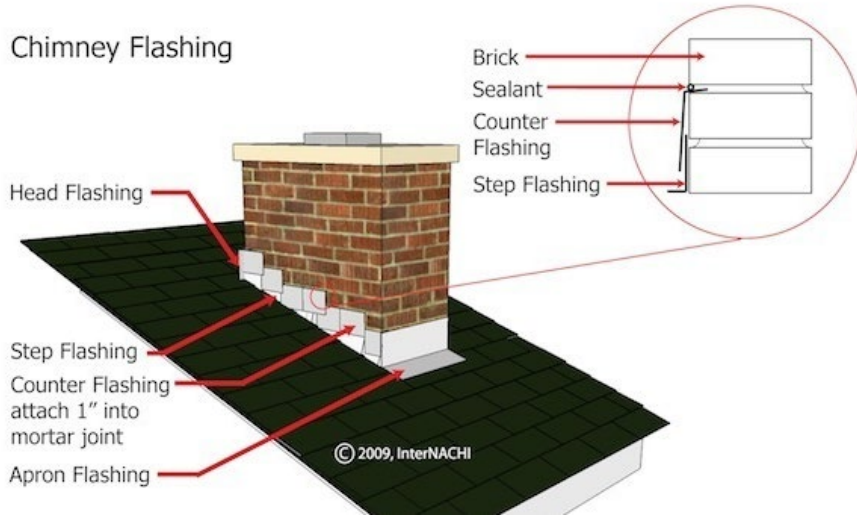
Used where the roof meets a sidewall. Multiple pieces of step flashing are used in overlapping fashion to ensure water flows away from the wall.

- Step Flashing is also used around Chimneys and Skylights.
- We typically reuse step flashing unless the roofing job requires a decking overlay

Chimney Flashing



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Chimney Flashing is made up of multiple components.

- Step Flashing
- Counter Flashing
- Apron Flashing
- Head Flashing/ Cricket

How To Measure Chimney Flashing



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Measure the height of the Counter Flashing at the corners where it meets the Apron and Head flashings.

Measure the height of the Apron Flashing

Measure the height of the Head Flashing

Draw a diagram and upload to Acculynx.

Reglet (Counter Flashing)



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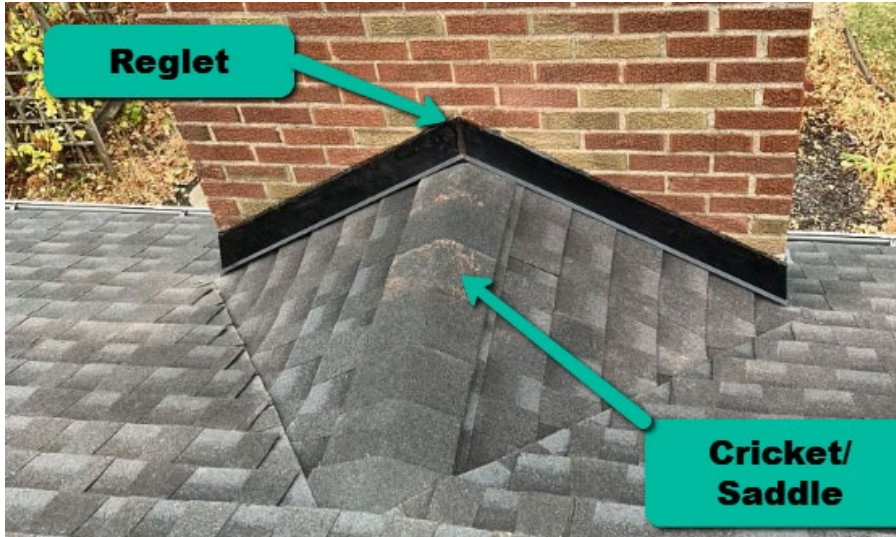


- Metal step flashing sits behind the Reglet and tucked below each descending row of shingles
- Reglet is the smooth metal cover used to hide and counter flash the step flashing. Provides a finished look
- A chalk line is snapped onto the stucco or brick, and a groove roughly $\frac{1}{4}$ " thick and $\frac{1}{4}$ " deep is ground into the stucco or brick
- The reglet has an upper lip roughly $\frac{3}{8}$ " wide, the reglet's lip is tucked into the groove, tapped in with a rubber mallet, and then caulked.
- Anchor screws can be used if the bottom of the reglet wants to stick out
- Reglet is common around chimneys and in roofing sections where the roof meets a brick or stucco (this is because the step flashing cannot be tucked behind the brick or stucco)

Reglet and Chimney Crickets/ Roof Saddle



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MN Code requires us to install a cricket on the ridge side of a chimney if the Chimney more than 30" wide.

Sales Reps will be responsible for getting a photo with a tape measure showing the width of the chimney. This is something that should be called out in the build email.

Pan Flashing



Used in flat areas underneath windows on dormers and also at the ends of dead valleys.

This flashing helps seal roof penetrations and joints to prevent water intrusion into the house.

Heat Cables



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Installed on eaves, valleys, and sometimes in the gutters.

They help melt ice in these locations which help prevent ice dams.

TIP: When ordering a roof, production and estimating departments need to know if we are going to Detach and Reset or Replace these so we can schedule and supplement accordingly.

Rain Diverters



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Rain Diverters are used to move water sideways, typically toward a gutter or away from a deck/sitting area/door way below.



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Turtle Vents (Slant-Back Vents)



Most common type of roof exhaust vent.

These are passive roof vents, meaning they are static and do not create airflow on their own.

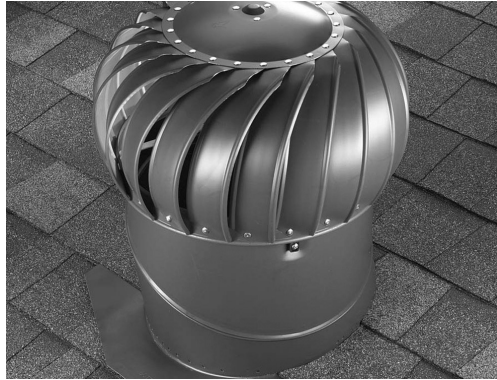
They are made out of with Steel, Aluminum or Plastic.



Turbine Vents



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An example of an active roof vent.

The slightest breeze will cause the fan in the turbine to spin which creates a vacuum effect that draws air out of the attic and disperses it.

Each unit provides more ventilation per square foot than a turtle vent.

Ridge Venting



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Ridge Venting helps to provide continuous, uniform exhaust ventilation at the highest portion of the attic and are designed to help resist wind-driven rain and snow, as well as insect and debris infiltration.



Ridge venting and turtle venting should not be used on the same slopes.

Powered Vent Covers



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Power Attic Fans are another example of an active roof ventilation system.

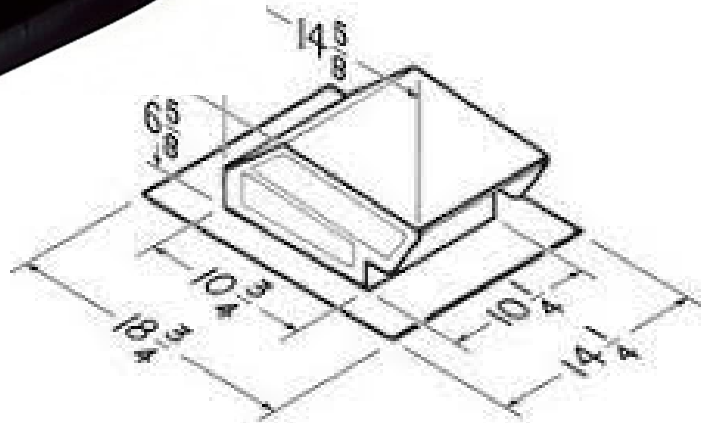
These vent covers are damaged easily by hail and insurance typically will pay to replace them.

Get measurements of these covers if you see them on an approved roof.

6" Exhaust Vent / Kitchen Vent (634 Broan Vent)



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Kitchen Vents (6-8" Exhaust Vents)

- Used to vent Range Hoods and LOSONE Fans.

4" Exhaust Vent / Bath Vent (636 Broan Vent)



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Bath Vents (Exhaust Cap 4")

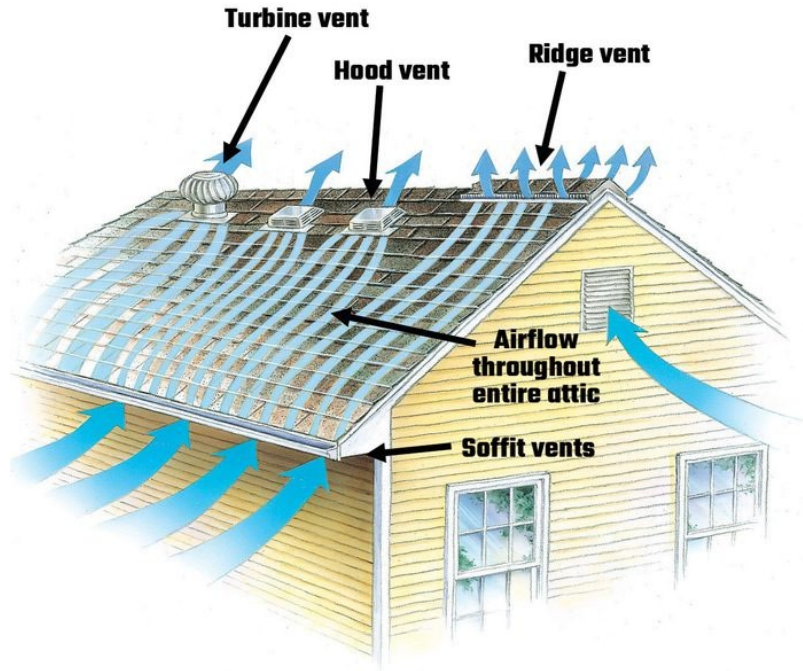
- Used for bathroom ventilation fans that exhaust through the roof; sometimes used for dryers.
 - During an inspection check these smaller exhaust vents for lint on the screen or on the shingles in the surrounding area. If there is lint, let production know that the vent is used for a dryer.



Roof Ventilation



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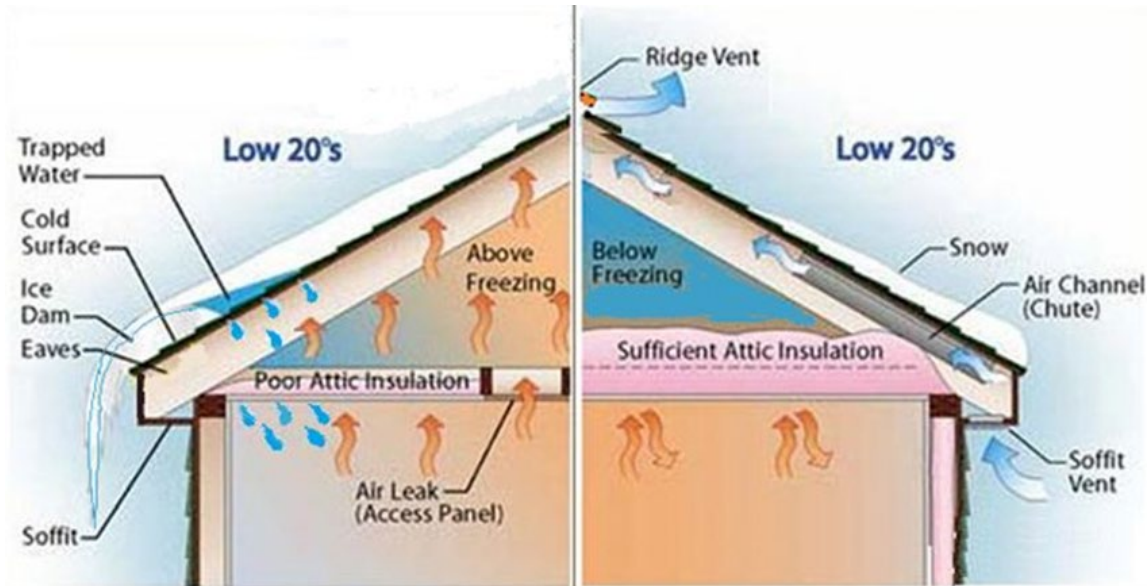
- The goal of ventilation is for the temperature and humidity levels in the attic space match the conditions outdoors.
- Air moves in through the intake (Soffits, Gable Vents) and out the exhaust (Turtle Vents, Ridge Venting, Turbine Vents)
- Properly ventilating your attic helps reduce excess heat and moisture in the summer and also helps keep your roof system cold during the winter to reduce the freeze thaw cycle that creates ice dams. Also prevents nail popping and shingle blistering, and can prolong the lifetime of the shingle.

Roof Ventilation



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Proper Roof Ventilation prevents against ice dams, nail pops, shingle cracking, degranulation, and promotes longer roof lifespan



Pipe Jacks - PVC



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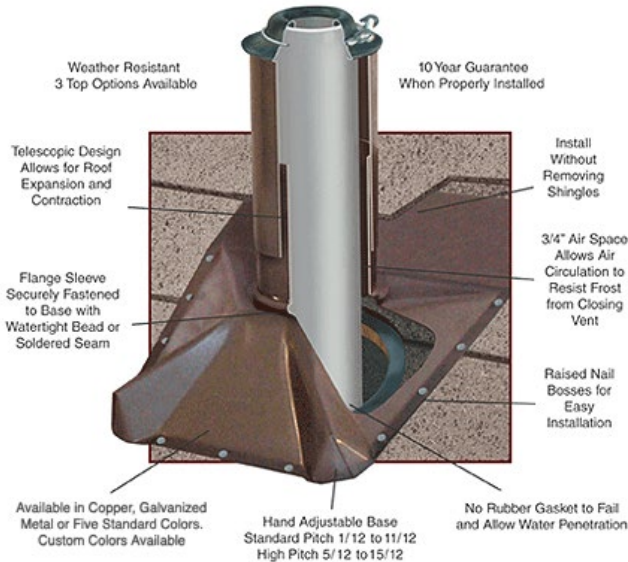


- PVC Pipes allows air to escape upwards so that water flows down the drain of the sink or when toilet is flushed. The pipe runs from the top of the roof and connects down into the main drain of the plumbing system. New homes have PVC pipes, when the roof is replaced a new "Pipe Jack" is installed with a rubber gasket that stretches around the pipe. These are one size fits all.

Pipe Jack (Lead)



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- Also known as FJ Moore or Frost Free Vent.
- This flashing is used around older metal exhaust pipes, but can also be used around PVC pipes as well.
- Typical Sizes are 2", 3", 4"
- There are standard pitch vents and steep pitch vents.

Electrical Mast / Split Boot Pipe Jack



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- Split boots are similar to PVC Pipe Jack Flashing, but have a cut on the front of them.
- They are used when there is a protrusion through the roof that cannot be Detached and Reset.
- This Type of Flashing is mainly used on Electrical meter masts that run through the roof deck.

Satellites



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- Production needs to be informed with what to do with the satellite dishes.
- We can either Detach and Reset them or Remove them.
- We do our best to reset the dish to the exact spot it was before re-roofing, but if the TV signal is no longer working after we reset, they need to call their TV provider and have a technician come out to re-align the dish.

Gutter Apron



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- Gutter Apron is longer than drip edge and ensures that water from the roof goes into the gutter and not behind it.
- This is installed on all eaves where gutters are present.
- The face measurement of gutter apron is typically 2 3/8"

Gutter Straps



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- Gutter Straps or J-Straps are a standard way to hang gutters
- When inspecting gutter systems, be sure to note if the straps are fastened to the roof deck. These will need to be removed while we are installing a new roof.
- Typically these are installed inside the gutter and screwed through the gutter apron and fascia board.

Lindus LeafGuard



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Xactimate Line Item: Gutter Guard/Screen - One Piece Seamless System

- The covers and gutter are rolled together in one piece. You cannot remove the cover without removing the gutter.
- These are only installed by Lindus. If anyone else detaches and resets the warranty will be void.
- If we get "One Piece Seamless" Approved we can replace this system with our own system of like, kind, and quality.

Gutter Helmet



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Xactimate Line Item: Gutter Guard/Screen - One Piece Seamless System

- This Gutter Cover is only installed and warranted by Gutter Helmet.
- Unlike Leaf Guard - This is only a cover.
- This cover is \$45/LF and one of if not the most expensive cover on the market.
- If we Detach and reset it will void the warranty.
- Hail Damage also voids the warranty.
- If approved with the proper line item, we can install our own system or have Gutter Helmet Replace.

Splash Guards - Need one more photo



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Splash Guards are screwed into the top lip of a gutter to block excess water from the roof overshooting the gutter.

- The amount of water coming from the valley on a roof is far more than any other location on the roof. For this reason Splash Guards are typical installed on the inside miters of the gutter system.

ABC Seamless Gutters



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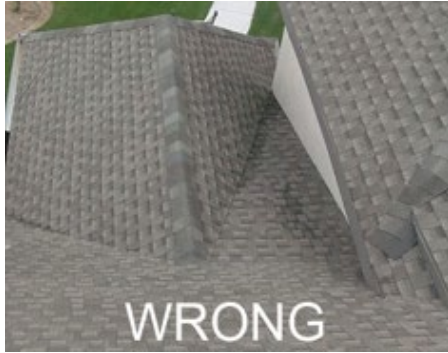


- These gutters are specifically produced by ABC Seamless.
- They are usually steel gutters
- Any repair needed to these will need to be scheduled with ABC Seamless.

Dead Valleys



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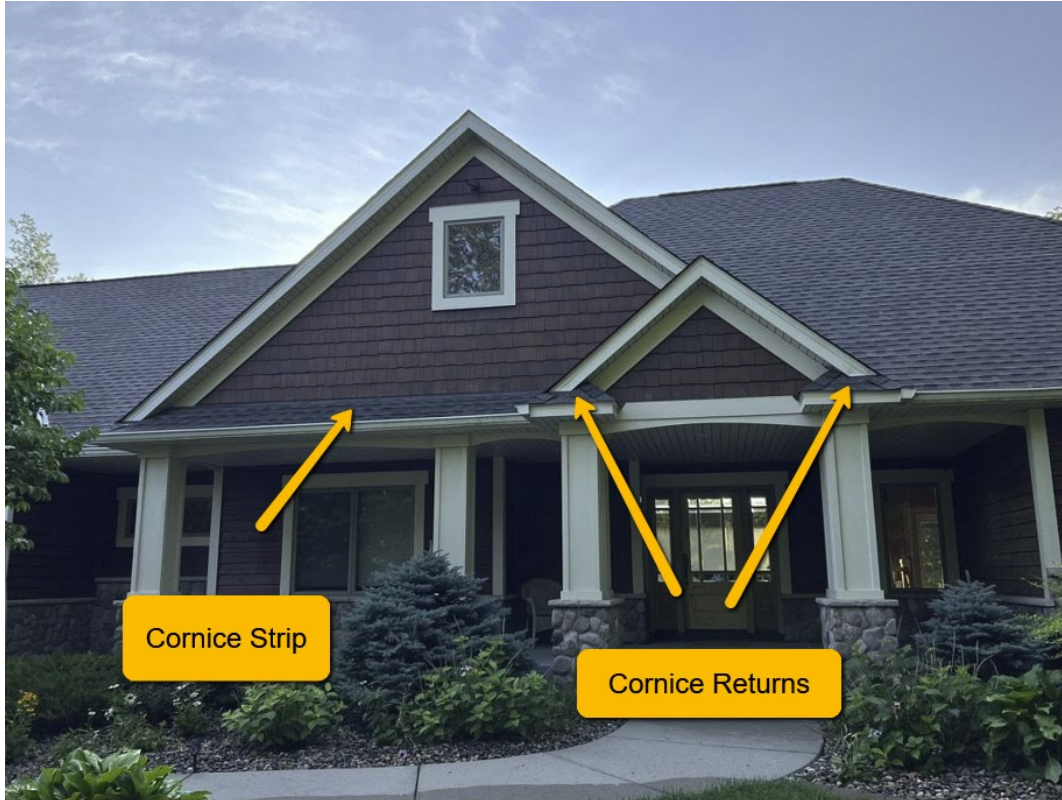
- A dead valley is an area on a roofing system created by the junction of two slopes, or a slope with a wall, where water cannot run off the roof easily. These areas are very low sloped and sometimes completely flat. It becomes a pinch point for water run off especially in fall when these areas get clogged with leaves or debris, or in winter these areas are extremely prone to ice build and then ice damming. The problem with using shingles in these areas is that when water backs up it it sits on this section of roofing and then works its way under the shingles creating a leak inside.
- The best solution for these areas depends on the size. For small areas a custom metal pan flashing can be installed, for larger areas rubber should be installed.

These areas need to be called out and photographed during a roof scope, and Sales rep needs to communicate with the Production department to ensure a plan is in place for install.

Gable Cornice Returns / Strips



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- Cornice Strips and Cornice Returns require additional labor and hand fitting the underlayment. Most of the time, shingles in these areas are installed from a ladder. These areas also have their own Xactimate line items which account for the additional labor.

Damaged Cornice Returns and Strips



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- After a re-roof, damage to soffit and fascia on cornice returns is very common and typically needs to be supplemented and replaced. This should be seen as a 2nd phase of the project and not negligence or a Quality Control Issue.

Wildlife Mitigation Systems



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- These “systems” are essentially small repairs that were done by a wildlife mitigation company to catch and keep rodents out from soffits and attic spaces.
- Usually, the repairs are done around soffits that terminate by roof slopes, fascia boards behind gutters, and cornice returns, and roof venting.
- Be on the lookout in these areas for these systems. We need to have a plan of attack when re-roofing or re-siding.

Rain Gauge



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- On higher end homes, you will run into these every once in a while. These are rain gauges that are used for sprinkler systems.
- These need to be called out on a roof build email, and a plan needs to be in place so we do not damage them.

Info on Skylights



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Fixed Skylight



Venting Skylight

Velux is currently the primary skylight manufacturer. Other companies that used to manufacture skylights are Wadena, Pella, and Anderson. There are also cheap plastic "Bubble Skylights," and "Sun Tunnels," but we will focus on Velux style skylights with aluminum cladding, as these are most common.

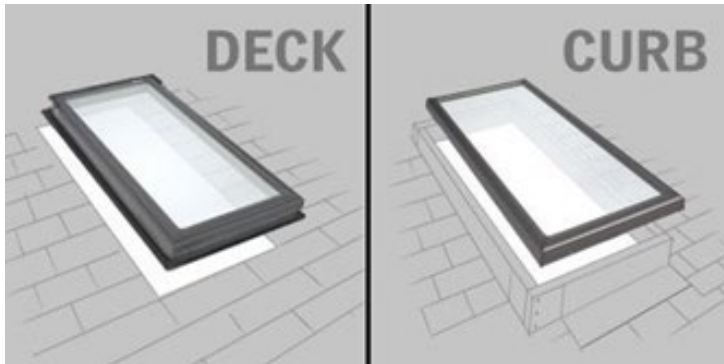
- Skylights can be "fixed" or venting. The venting skylights can crank open manually, be hardwired to open with a switch on the wall or remote, or be solar powered with a remote. The newer models are typically solar powered with remote.
- Come with White interior standard, if client wants "natural" color they will take 4 weeks to get in stock.
- Interior measurements are most accurate for ordering.
- Often times due to current skylight models coming in different size increments, the interior of the skylight will need to be trimmed out after installation. This also may be needed due to drywall crumbling or cracking during removal and install. The interior trim work is done by a carpenter at a later date after roof install. If this is the case provide pics of the interior so we can supplement insurance and send out our painter. They will tack on some trim and paint it to match. Usually this only costs a few hundred bucks.
- Custom sized skylights can be produced down to the inch, however most of those will be fixed only and not venting or operable.
- Special flashing kits and IWS - Skylights come with special flashing kits, that contain a head and footer piece, as well as special side pieces. Step flashing is used on the sides of larger or custom size skylights. A special extra sticky/adhesive IWS (ice and water shield) is used that comes with the skylight

*Venting skylights must have solar powered shades installed in them. Manual Operating shades get in the way of the crank that opens operating skylights. 54



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Deck Mounted vs Curb Mounted Skylights



Deck Mounted - Skylights that are mounted directly to the roof decking. On deck mounted skylights, the saddle flashing goes over the cladding of the skylight.

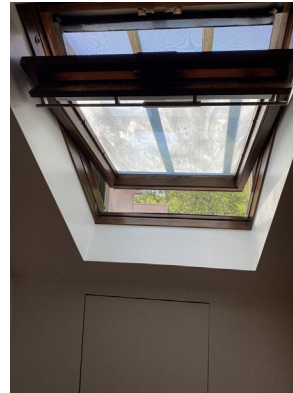
Curb Mounted - Skylights that require a “curb” to be built. The curb is typically fashioned out of 2x4 or 2x6, stood on their skinny side and nailed or screwed together to form a box around the opening. The curb is then nailed to the deck, flashing kit installed around the curb, and then the skylight installed on top of the curb and flashing.



Info Needed for Skylights



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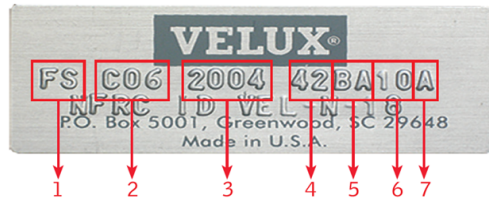
- Photograph the size, measurements for width and height. Interior dimension are most accurate, but get the exterior frame size as well.
- Is the skylight fixed, or operable (can it crank open)?
- Are there blinds in the skylight? Are they solar powered?
- Photograph serial number if possible and or model number if possible. This is typically found on metal plate fastened to wood on inside of skylight
- Will the interior be white or natural wood color? White interior is now standard, natural interior is special order and will take 4 weeks for arrival.
- Photograph the brand and the serial number
- Submit with roof scope and provide exact details on roof scope work order.



Velux Skylight Identification

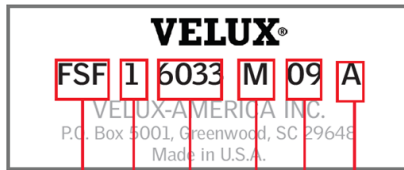
To identify the proper replacement size for an older VELUX skylight, use the product tag. If the tag is missing or inaccessible, use the Velterm number located in the top right corner of the spacer bar.

ID Tags



New Tag

1. Unit type (FS)
2. Unit size (C06)
3. Variant code (2004)
4. Block number (42)
5. Manufacturing year (BA) (see year codes at right)
6. Manufacturing month (10)
7. Manufacturing plant (A)



Year Codes	
B	1980
C	1981
D	1982
E	1983
F	1984
G	1985
H	1986
I	1987
L	1988
M	1989
N	1990
O	1991
AA	1992
AB	1993
AC	1994
AD	1995
AE	1996
AF	1997
AG	1998
AH	1999
AI	2000
AK	2001

Velterm Number



Glass Identification

Use the examples below to understand information found on spacer bar between glass panes. Year of manufacture is the most important information to identify.

1969 to 1978 Velterm 210 60
 Day 001 - 365 _____
 Year = # + 9 (1969) _____

1978 to 1984 Velterm 38 71
 Week 01 - 52 _____
 Year _____

1984 to 1992 Velterm G 89 37 92
 Week _____
 Year _____

1992 to Present Velterm G 48 G 27 31 98 IPF 304
 Glass Code _____

Andersen Skylights - Discontinued



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You will run into these skylights from time to time on older roofs. Andersen no longer sells these and does not produce replacement parts for them.

Discontinued Velux Skylights



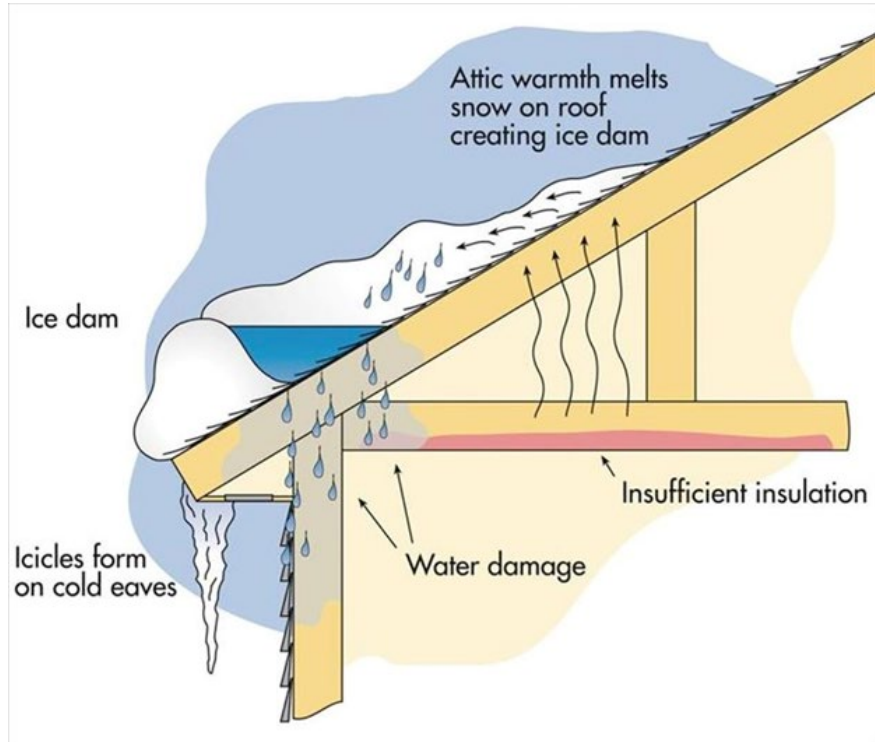
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As a general rule: Velux skylights that have screws in the cladding or sash are going to be discontinued.

Leaks From Ice Dams



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Caused by warm air leaking into attic, attic warmth melts snow or ice on roof, water melts and runs down to the eaves where the snow and ice sitting stays frozen since the attic is not below to warm up the eave.

- This ice buildup on the eaves creates a “damming” effect, and standing water pools up behind the dam, works its way underneath shingles and underlayment and into the interior of the home

Not covered by Summit or GAF Warranty

Leaks due to Frost in Attic



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Construction Group Inc.



- Common during winter months when large temperature swings occur
- Warm humid air leaks from the home into the attic, it then cools, condensing and forming frost
- Specifically caused by the attic not being properly insulated, or a furnace duct, kitchen or bath vent are leaking warm humid air directly into the attic
- Prevented by maintaining proper attic insulation, ensuring exhaust pipes are routed directly to the exterior, and maintaining lower humidity levels inside the home

Not covered by Summit or GAF Warranty

Chimney Chaise Covers and Flu Caps



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Chimney Chaise Cover, typically not replaced by Summit. Would be done by custom metal fabricator or a chimney company.



Chimney Flu Cap - Typically replaced by chimney companies. These are the least expensive way for a homeowner to protect their chimney crown and flue system



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Specialty Roofing Systems

Overview of Specialty Roofing Systems

Standing Seam Steel Roof



Exposed Fastener Metal Roof



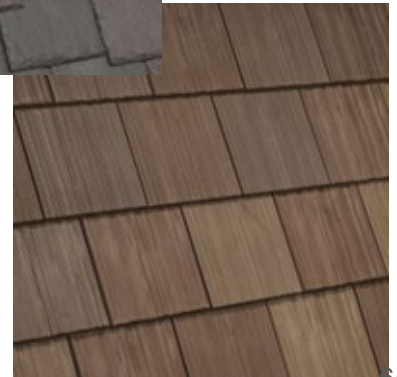
Cedar Shake/Shingle



Rubber Roof



Synthetic Slate/Shake



Cedar Shake Installation Basics



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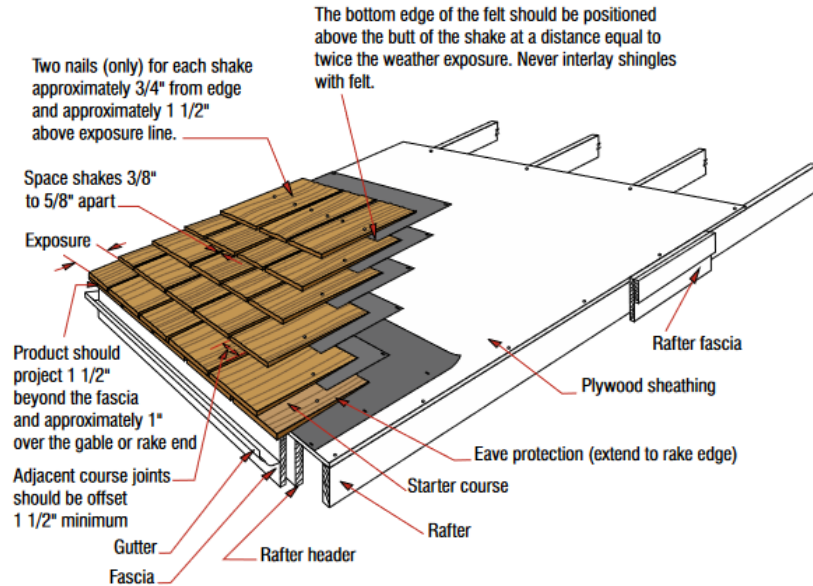


Figure 4: Certi-label® Shake Application

- Underlayment goes everywhere under the whole roof, Ice and Water Shield is applied as usual.
- Most shake profiles will require an additional layer of felt on top of each row of shakes – this is known as “shake liner”
- 24” Shake, 10” exposure - require 18 wide roll of felt shake liner underlayment
- 18” Shake, 7” Exposure Taper Sawn – requires 16” wide roll of felt shake liner
- 16” long shake, 5” exposure – these do not have “shake liner” (felt applied on top of each row of shakes) the shakes will expand and swell to seal.
- Stainless steel fasteners required – staples (cheaper); Or special nails (can be \$150 per box might need 20 boxes)
- Must Order Correct pitched Hip And Ridge shakes: 4 – 6 pitch, 7-9 pitch, 10-12 pitch

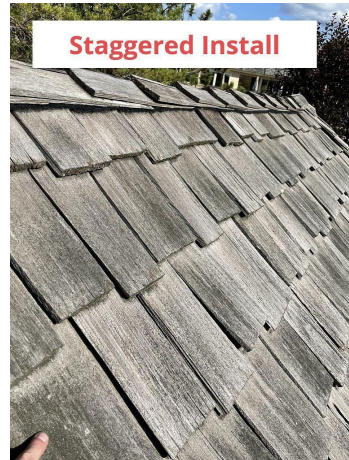
Brands: Certisplit Blue Label

Thicknesses: Medium ½”- ¾” Heavy ¾” – 1” Jumbo 1” – 1.5”

Straight Edge Vs Staggered Installation



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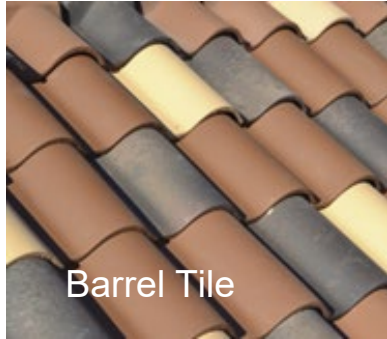
Straight Edge vs Staggered Install

- Straight Edge installation means the butts of the shakes/shingles align in a straight line
- Staggered install means the butts of each shake/shingle is offset by 1" or more. This installation method is more labor intensive and requires more material therefore more expensive to install.
- Estimators need to know how long the shake is and the measurements of the different reveals to properly account for the extra material used in this installation

Tile / Slate Roofs



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Barrel Tile



Shingle Tile



French Interlocking



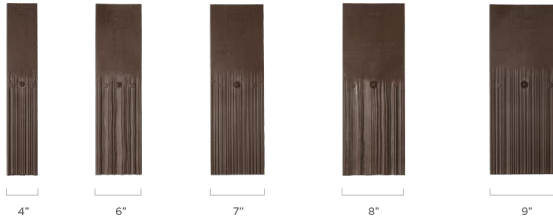
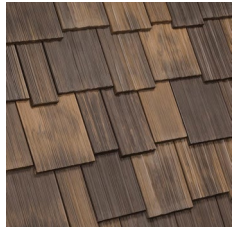
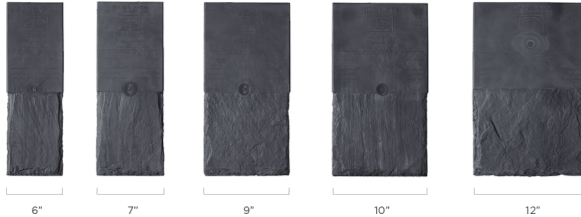
Terra Cotta (Slate Alternative)

- We do and have installed slate and tile roofing systems.
- The Main Supplier we use is Ludowici for these types of roofs.
- These clay roof tile products are highly customizable and have a 75 year warranty.
- Pricing on these ranges from \$1800-3500 per square.
- This a per bid item.

Synthetic Slate/Shake Roofs



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- These faux slate/shake are engineered polymeric-based roof shingles designed to provide the look of natural slate or shake.
- These products are manufactured with a proprietary formulation using both high-density and low-density polyethylene polymers and other additives.
- These manufacturer's claim that this product outperforms natural slate and cedar shake with a class A Fire Rate, Class 4 Impact Resistance, and a 110 MPH Wind Resistance.
- They come in a variety of widths and can be installed straight edge or staggered.
- This is a luxury roofing system. Many color and profile options, typically runs \$1800-3K per square.

Standing Seam (Hidden Fastener) - Premium



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- Cleaner look, premium lifetime roof, shouldn't need to be replaced, seams are elevated and hidden which prevents leaks, clean modern look. Starts at \$1700-\$2500 per square
- Recommended Gauge of 26 if client wants a lighter color and has a newer home with smooth even roof deck
- Older roof deck and darker colors like black we recommend 24 or 22 gauge (thicker metal will not show waviness as much, which can occur with expansion and contraction of roof decking, house frame) the darker the color the more you can notice "oil canning" on hot days
- No underlayment required on pole barns, high temp ice water with no aggregate required to installed per code, we recommend high temp ice and water on entire house. Standard underlayment everywhere high temp IWS not installed
- Client has to sign "oil canning waiver"
- Can save 20-40% on cooling bills
- Additional components – starter component, rake edge, ridge, dormer, valley strip, skylights have special flashing kits for metal, metal pipe boots, roof vented through ridge. Satellites will not be mounted to metal roofing.
- Panels get "hemmed together on site
- Panels are typically 16" wide on center,
- Panels are ordered pre-cut
- 30-50 year warranty on the paint

Basic Accessories for Metal Roof System



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Recommended trims & accessories for Horizon-Loc		
		<p>Panel Fib Height: 1" Panel Coverage: 16" wide Length: 3' - 40' in 1' increments, max recommended length = 35' Tensile Strength: 50,000 psi minimum Substrate: Varies by option, Galvalume Gauge: 26 Recommended Min Roof Slope: 3:12 pitch</p>
<p>LOW PROFILE PANCAKE HEAD SCREWS SSR1WOOD</p>	<p>SEALANT MRSCLR</p>	<p>POP RIVET POP(color)</p>
<p>BUTYL TAPE BTL</p>	<p>ZEE CLOSURE HLZC102(color)</p>	<p>CLEAT HLCL102(color)</p>
<p>OPEN HEM RIDGECAP CFRC102(color)</p>	<p>OPEN HEM RAKE CFRA102(color)</p>	<p>DRIP EDGE HLRDC102(color)</p>
<p>OPEN HEM SIDEWALL/ENDWALL CFSE102(color)</p>	<p>VALLEY HLVT102(color)</p>	<p>VALLEY CLEAT HLVC102(color)</p>

CONCEALED FASTENER TRIMS

Unless otherwise noted, all trims are 26 gauge, and all angles are 90° or 45°. See page 14 for gauge and color codes.

ZEE CLOSURE

HLZC - Girth 3.25"



Butyl tape (BTL) recommended.

VENTED ZEE CLOSURE

HLVZC - Girth 3.25"



Butyl tape (BTL) recommended. Vent direction may vary.

CLEAT

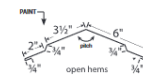
HLCL - Girth 4.5625"



RIDGE CAP

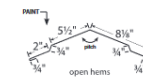
- Specify pitch. All ridge caps require a zee closure.

OPEN HEM RIDGE CAP
CFRC - Girth 14"



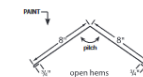
Recommended for 6:12 or less.

OPEN HEM WIDE RIDGE CAP
CFWRC - Girth 18"



Recommended for 7:12 or greater.

OPEN HEM FLAT RIDGE CAP
CFFRC - Girth 17.5"



RAKE/EAVE

- Specify pitch.

OPEN HEM RAKE
CFRA - Girth 9.25"



Zero closure and flat required.

DRIP EDGE

RDC - Girth 9.5"



Specify pitch.

TRANSITION TRIMS

- Specify pitch.

OPEN HEM SIDEWALL/ENDWALL
CFSE1 - Girth 7.75"



Zero closure required.

OPEN HEM GAMBREL
CFGA - Girth 12.25"

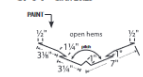


Zero closure required.

VALLEY

- Specify pitch.

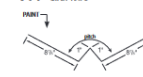
OPEN HEM VALLEY
CFVT - Girth 20.25"



Optional valley cleat.

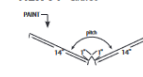
VALLEY

VT1 - Girth 19.75"



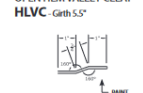
WIDE VALLEY

HLWVT - Girth 30"



Use on valleys longer than 30'. Optional valley cleat.

OPEN HEM VALLEY CLEAT
HLVC - Girth 5.5"

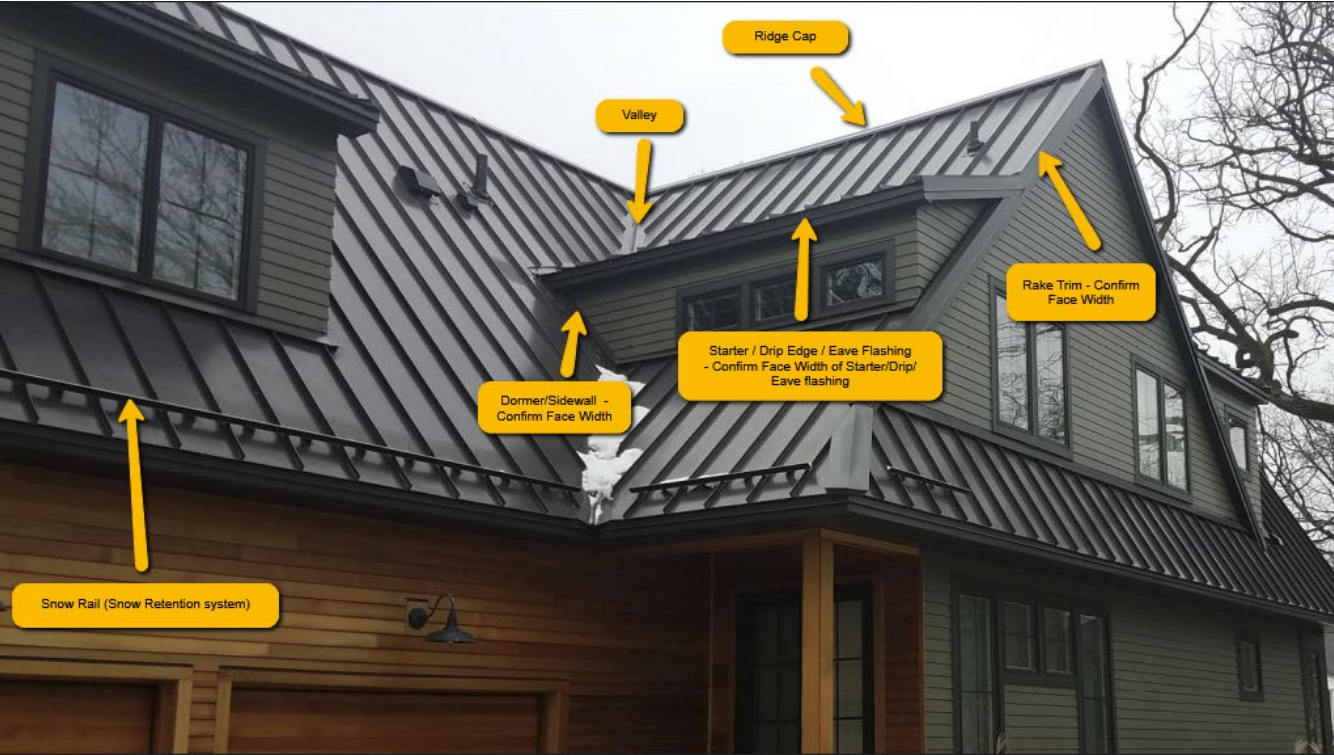


Color may vary by location.

Standing Seam Roofs



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Oil Canning



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Oil Canning - When the weather heats up the house framing and decking will shift, expanding and contracting. This can telegraph onto the metal roof and you get waves or ripples known as “oil canning”. Avoiding oil canning altogether is not totally possible.

- Thinner 26 gauge steel is more prone to oil canning. Thicker gauge such as 24 or 22 is much less susceptible

ALL clients must sign an “Oil Canning Waiver”

Corrugated Steel (Exposed Fastener)



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- 28 Gauge is considered “standard thickness,” on insurance jobs we have to check and confirm gauge, can be checked with Metal Thickness Gauge
- The lower the gauge, the thicker the metal is - also come in 26 gauge, and 24 gauge
- No underlayment required on pole barns, high temp ice water required with no aggregate installed per code, standard underlayment everywhere else
- Additional components - rake edge, ridge cap trim, valley components, roof ventilated through ridge
- Typically screwed directly into the Purlins if installing on a pole barn
- Panels can be ordered pre-cut to correct fit and size
- Pricing starts around \$750-\$800.



Corrugated Steel (Exposed Fastener)



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EXPOSED FASTENER TRIMS

Unless otherwise noted, all trims are 26 gauge, closed hems, and all angles are 90° or 45°. See page 14 for gauge and color codes.

ZEE CLOSURE

HLZC - Girth 3.25"



Butyl tape recommended.

VENTED ZEE CLOSURE

HLVZC - Girth 3.25"



Butyl tape recommended. Vent direction may vary.

FLAT SHEET

FS6 - 26 gauge. Girth 41.5625"



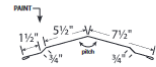
10 sheets or fewer will be packaged in a roll. Additional pallet charge on orders of 10 or more.

RIDGE CAP

- Specify pitch. All ridge caps require a zee closure.

RIDGE CAP

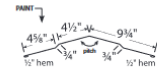
HLRC - Girth 16.5"



Recommended for 6:12 or less.

WIDE RIDGE CAP

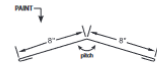
RRC2 - Girth 20.75"



Recommended for 7:12 or greater.

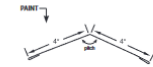
RESIDENTIAL RIDGE CAP

RRCP - Girth 17"



HIP CAP

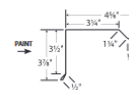
HIP - Girth 9"



RAKE/EAVE

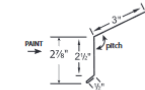
RAKE

HLRRT - Girth 10"



EAVE

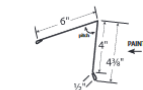
RET - Girth 6.5"



Specify pitch.

HIGH-SIDE EAVE

HLHS - Girth 11.5"



See page 12 to convert pitch to degrees.

DRIP EDGE

RDC - Girth 9.5"



VALLEY

- Specify pitch.

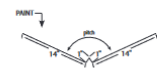
VALLEY

VT1 - Girth 19.75"



WIDE VALLEY

HLWVT - Girth 30"



Use on valleys longer than 30'.

EXPOSED FASTENER TRIMS

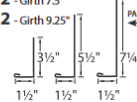
Unless otherwise noted, all trims are 26 gauge, closed hems, and all angles are 90° or 45°. See page 14 for gauge and color codes.

RESIDENTIAL FASCIA TRIM

RFT312 - Girth 5.5"

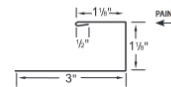
RFT512 - Girth 7.5"

RFT712 - Girth 9.25"



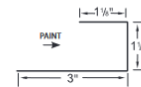
J-TRIM

HLJT - Girth 5.75"



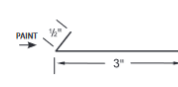
PANEL CAP

HLPC - Girth 5.25"



START/FINISH TRIM

HLSF - Girth 3.5"

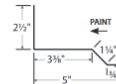


TRANSITION TRIMS

- Specify pitch.

SIDEWALL TIE-IN

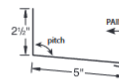
HLSW - Girth 8.375"



Zee closure required.

ENDWALL TIE-IN

HLEW - Girth 8"



Zee closure required.

Snow Retention Systems



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These systems are mainly used on Slate, and Synthetic Roofing, Metal Roofing Systems. Sometimes are used on cedar shake.

A common issue on these types of roofing systems is snow will slide off in large sheets creating a hazard for someone below. The goal of these systems is to help keep the snow on the roof and break up the large sheets as they slide off the roof.

** These are an out of pocket cost that must be accounted for when compiling a bid. **

Siding Components

Also Includes: Soffit, Fascia, Window Wraps, Garage Wraps



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Types Of Siding

The Major Types of siding we install are:

- Vinyl
- Steel
- LP Smartside
- Hardie Siding

Vinyl Siding



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Double 4.5" Dutch Lap



Double 4" Clap Board (Traditional)



Nailing Fin

Bottom lock

Main Profiles:

- Clap Board
- Dutch Lap

Main Reveals: 4", 4.5", 5"

Thicknesses: .042, .044, .046, .050

How To Order:

D4CB - Clap Board with a 4" reveal

D4.5DL – Dutch Lap with 4.5" Reveal

D5CB – Clapboard with 5" Reveal

D5DL – Dutchlap with 5" Reveal

EDCO Steel Siding



- EDCO manufactures Entex Coated Steel Sidings
- Coated Steel will not rust
- Higher resistance to hail damage, and accidental damage
- Maintenance Free
- Cedarwood HD Colors and Prism colors more expensive*
- Profiles available: Double 4" Traditional, Double 5" Dutch Lap, Single 6", Single 8", Vertical 12"
- Manufactured in Hopkins, MN



Vinyl Shakes

- Authentic Look!
- Many styles and profiles to choose from
- Double 7" profile is most common, staggered edge and half round profiles also offered.
- See Cash Pricing Section on Sales Website for pricing details
- Go to supplier for samples



Board & Batten / Vertical Siding

- Vertical Vinyl Siding
- Nice accent in gables or on small sections of the home for added contrast
- See Cash bids section for pricing
- Visit supplier for samples



Hardie Board



- Hardie Board is a composite material made out of Cement & Wood Fibers
- Colorplus factory finish is warrantied for 15 years!
- Exposed nail heads on trim get covered with touch up paint
- Can expand and contract, can eventually take on water, has cleanest look of all siding.
- Hardie Board also offers many different accessories for the client to customize the look of their home including corner posts, trim around windows, belly board, shakes and many other options.
- For approximate pricing see the “retail pricing / cash bid & upgrades section of the sales website.
- For specific details on Hardie Board Siding pick up samples & brochures and speak to management for details.
- Hardie Shakes and Vertical Siding cannot be installed on Builtrite.

LP Siding (Louisiana Pacific)



- LP is an “engineered wood” – engineered and manufactured in a way to withstand elements and typical maintenance associated with standard cedar siding. Fantastic product, with long lifespan.
- LP is installed and then expands once (does not expand & contract with temp changes)
- LP also offers many different accessories for the client to customize the look of their home including corner posts, trim around windows, belly board, shakes and many other options.
- LP trim is commonly used as a “belly board” to separate sections of lap siding and shakes
- LP also offers many different accessories for the client to customize the look of their home including corner posts, trim around windows, belly board, shakes and many other options.
- LP “Expertfinish” factory finish is warrantied for 15 years! 50 year substrate warranty!
- LP Shakes and Vertical siding cannot be installed on Builtrite.

Moisture Wrap



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- Moisture Wrap/ Vapor barrier is applied directly to your home's wood sheathing. Its primary goal is to protect your home from moisture, potentially saving its structure from water damages.
- Installed with cap nails or staples.
- Tape must be used on the seams per code.

Fanfold Insulation



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- Fanfold insulation is the foam-type of insulation that is applied between your home's exterior and the siding, and it offers some protection from moisture, in addition to creating a layer of thermal insulation.
- We do not need to install vapor barrier on top of fan fold. One or the other.

Buildrite / Fiberboard



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- Bildrite is a fiberboard sheathing that is commonly found on 80's and 90's homes.
- Fiberboard is more breathable than plywood or osb but does not have very good holding power.
- Due to the lack of holding power, we cannot install Shakes or Vertical siding directly into this.



Multiple Layers of Siding



- Homes built before 1970 that currently have metal siding usually have another layer of wood lap or shake siding underneath. We need to remove the first layer to check what is behind.
- If the second layer of siding is painted, we need to test the paint for any lead that may be present.
- A positive lead test will result in a lead abatement that will be needed before we can re-side

Lead Test



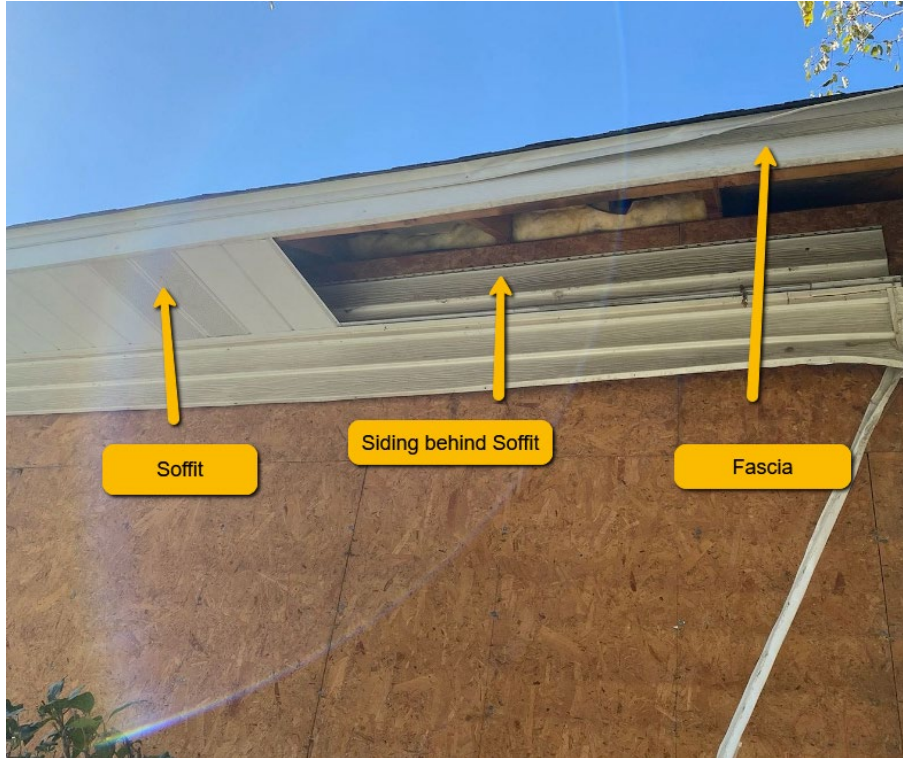
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- Lead kits can be purchased at Menards or Home Depot.
- If the siding turns red, there is lead in the paint and we need an abatement.
- Be sure to notify an estimator so we can get the process going on the supplement.

Siding Behind the Soffit



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- Another issue that we run into with older homes with metal siding is the siding runs behind the soffit and is nailed in.
- In order to replace the siding, we will need to remove the soffit and fascia, install new siding, replace the soffit and fascia.
- These items are a direct result of the covered scope of loss and can be supplemented to the insurance provider.



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Fascia Metal

Custom Bent Fascia



Pre-Bent Fascia – Woodgrain Texture



Pre-Bent Fascia - Ribbed



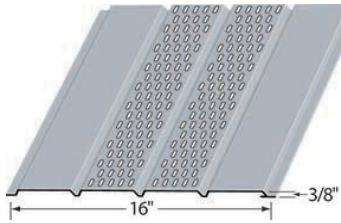
- Fascia Metals are used to cover wood fascia boards providing water resistance and a better visual aesthetic
- Pre Bent Fascia Comes in 6 or 8" Profiles. Typically ribbed or wood grain texture
- Custom Bent Fascia is pretty easy to spot as there will be a bend in the aluminum that covers the fascia. This is custom bent on site by a sider using a metal brake. Costs over twice as much as pre-bent.
- When ordering – We need photos show the profile and color. We also need a diagram of locations that we are replacing.

Soffits



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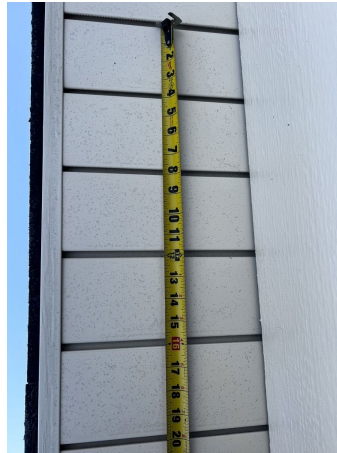
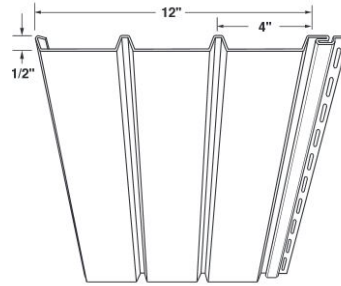
16" Quad Center Vent Aluminum Soffit (Quad 4)



Hardie / LP Soffit



12" No Vent Vinyl Soffit (Triple 4")



- Soffits play a pivotal role for roof ventilation as they provide the intake to the ventilation system on the eaves. No ventilation on rakes.
- There are different materials that can be used: Metal, Vinyl, Cedar, Hardie, LP
- Soffit Panels come in different widths and have different venting options.
 - Widths – 12" Panel, 16" Panel.
 - Venting Options: Full Vent, Center Vent,
- To order Soffit we need:
- photos with a tape measure showing the width of the panel
- Photo with a color swatch
- Diagram with locations that we are replacing.



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Window Wraps

Window wraps are an aluminum border that runs along the outside of the window frame. These are very common on homes built in the 1970's and prior. Damage to these should not be mistaken for damage to the window. This is just a wrap that can be taken off and replaced.



Siding Trades Ordering Continued – Fascia, Soffit, Window & Door Wraps



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1) Color Selection – have client confirm color using “Summit Trim Coil” (this is the same as ABC trim coil swatch)



The Summit Fan deck is used for selecting colors for aluminum trim – Fascia, Windows Wraps, Garage Wraps, Soffit, and Gutter and Downspouts

2) Profile Pic – needed for fascia and soffit – shows width and embossment or grain pattern



3) Add Photo(s) showing locations to be replaced – can be done on cell phone, in Photos/Gallery -> edit, you can draw with your finger, works on any iPhone or Android



4) All information should be written onto siding trades order form, supply any specified photos as requested on form, and upload to acculynx / email to the office, have blank agreement signed.



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Light Blocks & Split Blocks & Outlet Blocks

Light Block



Split Block



Electrical Block



- Light Blocks (J-Blocks) – These are used to cover the electrical box behind to provide a finished look on the exterior.
- Lights are mounted on top of the light block.
- If homeowner decides to change the exterior lights, we need to know the size of the base of the light so we can order the correct size.
- Split Blocks are used around hose bibs and other pipes that protrude from the house
- Electrical/Outlet Blocks are used for outlets and required by code.

Exterior Light Replacement



- Exterior light fixtures may be covered in the insurance claim, to have these replaced, the client will need to purchase their own lights (per RCV pricing allowed in insurance estimate)
- When Siding is replaced, we detach light fixtures surrounded by siding, an electrician is sent to the property within 1-3 days after the siding replacement
- The client should place their new lights outside, dispose of their old lights and the electrician will re-install the new light fixtures
- Please call this out in your siding order or via email to the Siding Production Manager
- All electrical work has to be done by a licensed electrician. This will happen 1-3 days after the build is finished

Deck Flashing & Brick Flashing (Z-Flashing)



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- Deck Flashing is used to flash the sidewall and header board on the deck.
- Brick Flashing is used to flash a sidewall and brick transition. Used in transition between lap siding and brick.
- These are both a required code item in MN.



Drip Cap & Moldable Tape



- Drip Cap is used at the tops of windows to prevent water intrusion into an opening from a sidewall.
- This is a code item in Minnesota.
- Window Flashing/Moldable Tape is used around an opening to prevent water intrusion.



Kickout Flashing



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Kickout Flashing is used to “kick out” water running down the roof and sidewall.

This is a code item in most cities in Minnesota.

Meter Mast



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- Homes in older neighborhoods have meter masts that are connected to above ground power lines.
- These masts are often times secured through the siding.
- These must be document for production to have a plan for securing the mast while replacing the siding.