Roof Styles, Components & Elements

There are hundreds of terms that are typically used in the roofing industry. In order to become familiar with basic terms and understand your roofer's explanations, we have compiled a list the most common roofing styles, components & elements used throughout this industry.

Α

Attic: The open area above the ceiling and under the roof deck of a steep-sloped roof.

В

Barrel Roof: A roof configuration with a partial cylindrical shape to it.

Blocking: Pieces of wood built into a roof assembly used to stiffen the deck around an opening, support a curb, or for use as a nailer for attachment of membranes or flashing.

Boot: A piece of material preformed to protect roof penetrations from dirt, moisture and other foreign and/or damaging substances.

Bulb-Tee: A steel reinforcing member used when constructing pre-stressed, poured gypsum decks. When the gypsum is poured, it surrounds the Bulb-Tee.

Butt Joint: Where two separate, adjacent pieces of material abut.

C

Camber: A slight convex curve of a surface.

Canopy: An overhang, usually over entrances or driveways.

Clerestory (Clearstory): A room that extends above an abutting roof section of a building.

Clipped Gable: A gable cut back at the ridge in a small hip configuration.

Column: A vertical structural member placed on a footing or foundation used to support horizontal above-ground building components.

Cornice: A horizontal projecting part that crowns the wall of a building.

Cricket: A roof component used to divert water away from curbs, platforms, chimneys, walls, or other roof penetrations and projections. See also Saddle.

Crow's Nest: See Cupola.

Cupola: A relatively small roofed structure set on the ridge of a main roof area. Also known as a Crow's Nest.

Curb: (1) A raised member used to support skylights, HVAC units, exhaust fans, hatches or other pieces of mechanical equipment above the level of the roof surface, should be a minimum of eight inches (8") in height; (2) A raised roof perimeter that is relatively low in height.

D

Deck: The structural component of the roof of a building which provides the substrate to which the roofing system is applied.

Decking: See Deck.

Diaphragm: A type of structural roof deck capable of resisting shear that is produced by lateral forces such as wind or seismic loads.

Dome: A roof with a partial-spherical shape.

Dormer: A framed projection through the sloping plane of a roof.

Downspout: A conduit for carrying water from a gutter, scupper, drop outlet or other drainage unit from roof to ground level. Also known as a Leader Pipe.

Drain: a device used to carry water off of a roof.

Drip Edge: A steel flashing bent at a 90° angle that is placed along the outer perimeter of steep sloped buildings; used to help direct runoff water away from the building. Drip Edge resembles nosing except that it has an outwardly-angled bottom edge (preferably hemmed). To see the difference between Drip Edge and Nosing, click here.

Dual Level Drain: An item that will permit drainage at two different levels.



Е

Eave: A roof edge that extends out past the exterior wall line.

Eaves-Trough: Another name for Gutter.

Edge Stripping: Roofing material used to seal perimeter edge metal and the roof itself.

Edge Venting: The installation of vent material along a roof edge (e.g., Starter Vent) as part of a ventilation system. Edge vent material should be used in conjunction with other venting material (e.g., ridge vent) as it not intended for use by itself.

Exhaust Vent: A device used to vent air from the roof cavity with vents that are installed on or near the higher portions of the roof such as the ridge.

Eyebrow: A small, shed roof protruding from the main roof or located on the side of a building below the level of the main roof.

F

Fascia: Vertical roof trim located along the perimeter of a building, usually below the roof level. Its use can be either decorative or for waterproofing.

Field of the Roof: Refers to the central part of a roof away from the perimeter.

Fin: A sharp protrusion in a roof deck that can damage roof components.

Flange: A projection edge of a roof component such as flashings, skylight frames, pre-manufactured curbs, etc. Usually refers to the part that sits on the roof surface.

Flashing: Components used to seal the roof system at areas where the roof covering is interrupted or terminated. For example, pipes, curbs, walls, etc. all have special components that, when correctly installed, will help prevent moisture entry into the roof system or building.

Flashing Collar: A flashing component used to seal soil pipe vents, hot stacks or other roof penetrations.

Framed Opening: an structurally-framed opening in a roof of a building for use in installing large items such as HVAC units, skylights, or ventilators.

G

Gable: A triangular-shaped portion of the endwall of a building directly under the sloping roof and above the Eave line. Click here, #4.

Gable Roof: A roof configuration that has gable ends. Click here, #4.

Gable-On-Hip Roof: A roof configuration with hips coming up from the eave corners that terminate into a gable roof.

Gambrel: A roof that has two different pitches.

Geodesic Dome: A geodesic dome uses a pattern of self-bracing triangles in a pattern that gives maximum structural advantage, thus theoretically using the least material possible. (A "geodesic" line on a sphere is the shortest distance between any two points.) The first contemporary geodesic dome on record was designed by Walter Bauersfeld.

Girt: A horizontal beam place between support columns that is used for attaching wall cladding.

Gravel Stop: A flanged, sheet metal edge flashing with an upward projection installed along the perimeter of a roof to stop the flow of bitumen over the edge.

Gutter: A channel (usually sheet metal) installed along the downslope perimeter of a roof to convey runoff water from the roof to the drain leaders or downspouts.

Η

Half Gable Roof: See Shed Roof.

Hatch: A unit used to provide access to a roof from the interior of a building.

Hem: The edge created by folding metal back on itself. Metal is hemmed for safety and strength reasons.

Hip: The angle formed by the intersection of two sloping roof planes.

Hip Roof: A roof that rises by inclined planes on all sides of a building. The line where two adjacent sloping sides of a roof meet is called the Hip.

I

Intake Ventilation: The part of a ventilation system used to draw fresh air in. Usually vents installed in the soffit or along the eaves of a building.

J

Joist: Any of the parallel horizontal beams set from wall to wall to support the boards of a floor, ceiling or roof of a building.

K

Knee Cap: Sheet metal trim that fits over a panel rib after it has been cut and bent.

L

Leader Head: A component used to direct water from a through-wall scupper to a downspout. Also known as a Collector Head.

Leader Pipe: A conduit for carrying water from a gutter, scupper, drop outlet or other drainage unit from roof to ground level. Also known as Downspout.

M

Mansard: (1) A steep-sloped roof located at the perimeter of a building and usually used for decorative purposes. (2) The upper story formed by the lower slope of a mansard roof.

Mansard Roof: A steeper roof that terminates into a lower sloped roof at its high point.

Membrane: The portion of the roofing system that serves as the waterproofing material. Can be composed of one material or several materials laminated together.

Metal Flashing: Roof components made from sheet metal that are used to terminate the roofing membrane or material along roof edges. Metal flashings are also used in the field of the roof around penetrations.

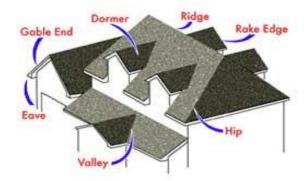
N

Nailer: A piece of lumber, preferably treated, that is secured to the deck, walls, or to premanufactured curbs. Nailers are used to receive fasteners for roof membranes. Generally, nailers are installed wherever it is necessary to secure base flashings and edge metal. Also see Blocking.

Net Free Vent Area: The area permitting unrestricted air flow.

Non-Breathing Membrane: A membrane that does not permit water vapor or air to permeate it.

Nosing: Metal flashing bent at a 90° angle and is installed around roof perimeters, curbs, platforms, etc. in order to protect the edge of the roofing system. Nosing should not be used in place of drip edge. To see the difference in the two, click here.



0

Open Valley: A valley where both sides of the roof are trimmed back from the centerline to expose the valley flashing material beneath.

P

Pan: The flat part of a roofing panel located between the ribs.

Pan Flashing: A sheet metal flashing that covers an equipment platform and is designed to counter flash the base flashings surrounding the platform.

Parapet Wall: That part of a perimeter wall that extends above the surface of the roof.

Pipe Boot: A prefabricated flashing piece used to flash around circular pipe penetrations. Also known as a Roof Jack.

Purlin: Horizontal secondary structural member used to transfer loads from the primary structural members.

R

Rafter: The structural member extending from the downslope perimeter of a roof to the ridge or hip and is designed to support the roof deck and roof system components.

Rake: The sloped perimeter edge of a roof that runs from the eaves to the ridge. The rake is usually perpendicular to the eaves and ridge.

Reglet: A receiver, usually sheet metal, that counterflashings are attached to. Reglets can be surface-mounted, set in a raggle, or be part of the wall assembly.

Reinforced Membrane: A roofing membrane that has been strengthened by adding polyester scrims or mats, glass fibers or other material.

Ridge: The line where two planes of roof intersect, forming the highest point on the roof that runs the entire length of the roof.

Ridge Cap: Material applied over the ridge or hip of a roof.

Ridge Course: The final course of roofing applied that covers the area where two or more roof planes intersect.

Ridge Vent: An exhaust venting device located at the ridge of a roof that works in conjunction with a starter or under eave soffit vent and is used to ventilate attics. Ridge vents and their cooperative starter or soffit vents should be installed at a 1:1 ratio in order to function properly.

Roof Assembly: A term used to describe all of the roof components including structural roof deck.

Roof Curb: A frame used to structurally mount rooftop equipment such as HVAC units, exhaust fans, skylight, etc.; may be pre-constructed or constructed on site.

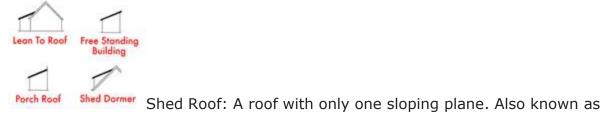
Roof Jack: (1) A steel bracket fastened to the roof that is used to support toe boards. (2) A term used to describe a Pipe Boot or Flashing Collar. Click here for an example.

Roof Overhang: That portion of the roof that extends beyond the exterior wall line of the building.

Roof System: Multiple roof components assembled to provide waterproofing (and sometimes insulating) capabilities for a structure.

Saddle: (1) A type of flashing usually used in conjunction with step, counter, and apron flashings on steep slope roof systems. (2) A small, somewhat pyramid-shaped figure constructed in between sump drains that is used to direct run-off water toward the sump drains.

Scuttle: A unit that provides access to the roof from the interior of the building. See also Hatch.



Half Gable.

Sill: The bottom framing member of a door or window opening.

Sill Flashing: Flashing material(s) used to waterproof the bottom framing member of a door or window opening.

Skylight: A transparent or translucent item that is designed to admit light and set over a curbed opening in the roof.

Slope: The angle of incline of a roof expressed as a percent or as a ratio of rise to run. See Roof Slope.

Snow Guard: Devices secured to the roof to prevent snow and ice from sliding off of a roof.

Soffit: The underside of a roof overhang.

Soffit Vent: An intake ventilation device located in the soffit. An exhaust vent should be installed on or near the ridge of the roof to work in conjunction with the soffit vent in order to properly ventilate the attic space. The ratio of intake vent area to exhaust vent area should be 1:1.

Soil Pipe: A pipe that penetrates a roof and is used to vent a building's plumbing.

Splash Guard: A fabricated metal pan or masonry block that is placed below a leader pipe or downspout and is used to help protect the roof membrane on a lower roof level or to prevent soil erosion when placed on the ground.

Steeple: A tall tower forming the superstructure of a building, such as a church or temple, and usually surmounted by a spire.

Step Flashing: Pieces of metal or other material that are used to flash roof projections such as chimneys, walls, curbs, etc. The pieces are installed between each course of roofing and generally have a vertical flange equal in length to that of the horizontal flange.

Strip Flashing: Pieces of membrane material that are used to flash metal flashing flanges such as gravel stop. Also referred to as Stripping.

Substrate: The surface that the roof is installed upon.

Sump: A depression around roof drains and scuppers to help promote roof drainage.

Surfacing: The top-most layer of the roof system designed to protect the system from damage.

Т

Throat: The narrowing passage located between a fireplace and smoke chamber or flue.

Through-Wall Flashing: A material that extends through a wall and is used to direct water entering a wall cavity to the exterior of the structure.

V

Valley: The internal intersection of two sloping roof planes that runs from the eaves to the ridge. This intersection collects the most water run-off. See Open Valley, Closed-Cut Valley, and Woven Valley.

Vent: An opening or device used to permit air or vapors to exit an enclosed structure.

Ventilation Short Circuit: The disruption of air flow in an intake-exhaust ventilation system. For instance, if vents such as turbine vents or gable vents are placed in between the intake vents and exhaust vents (such as soffit and ridge vents) then the draw created by the Stack Effect will be disrupted and the ventilation system will be much less effective.

Ventilator: A device that circulates fresh air and expels stale air.

Void: An open space or a break in continuity; a gap.

W

Water Guard: A turned up edge on valley metal or continuous wall flashing; used to prevent water migration under the roof system.

Water Stop: Material placed over a joint and used to prevent water entry.

Water Trough: The area in a valley where water runs. Usually referred to with open valley configurations.