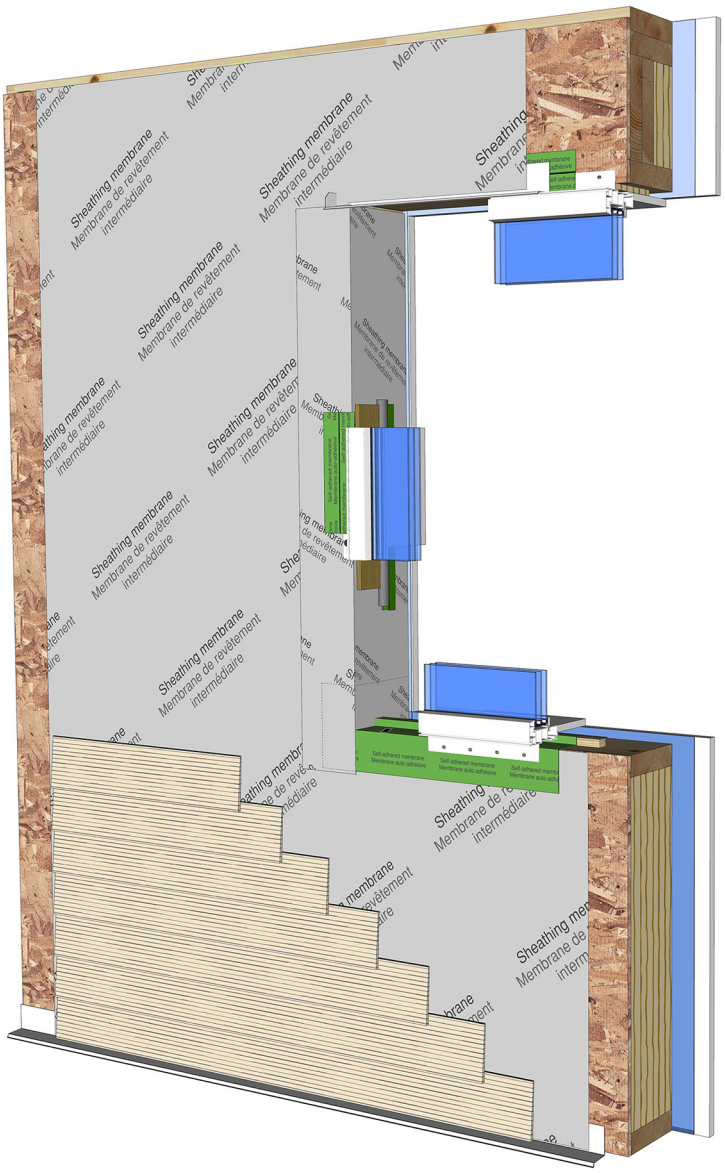
Components of a Flanged Window

CSA A440.4:19, *Window, door, and skylight installation*

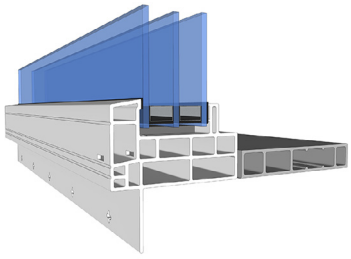
Knowing the components of a flanged window is crucial during installation. Installing a window affects how a wall performs, especially regarding moisture. Refer to this tool to learn more about flanged window components and their functions to help ensure water tightness during your window installation. For videos on installing flanged windows, visit the Standards Support Tools website **csagroup.org/supporttools**.

Click on the image to jump directly to that section. To return to this page, click the button.

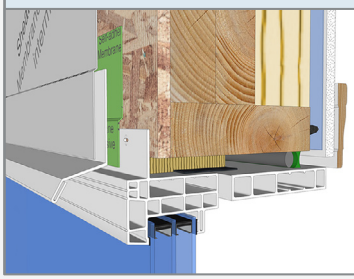
Full Window



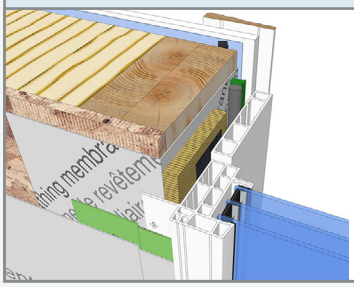
Window Unit



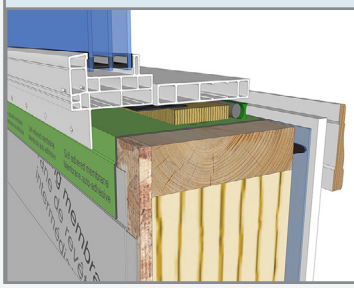
Window Head



Window Jamb



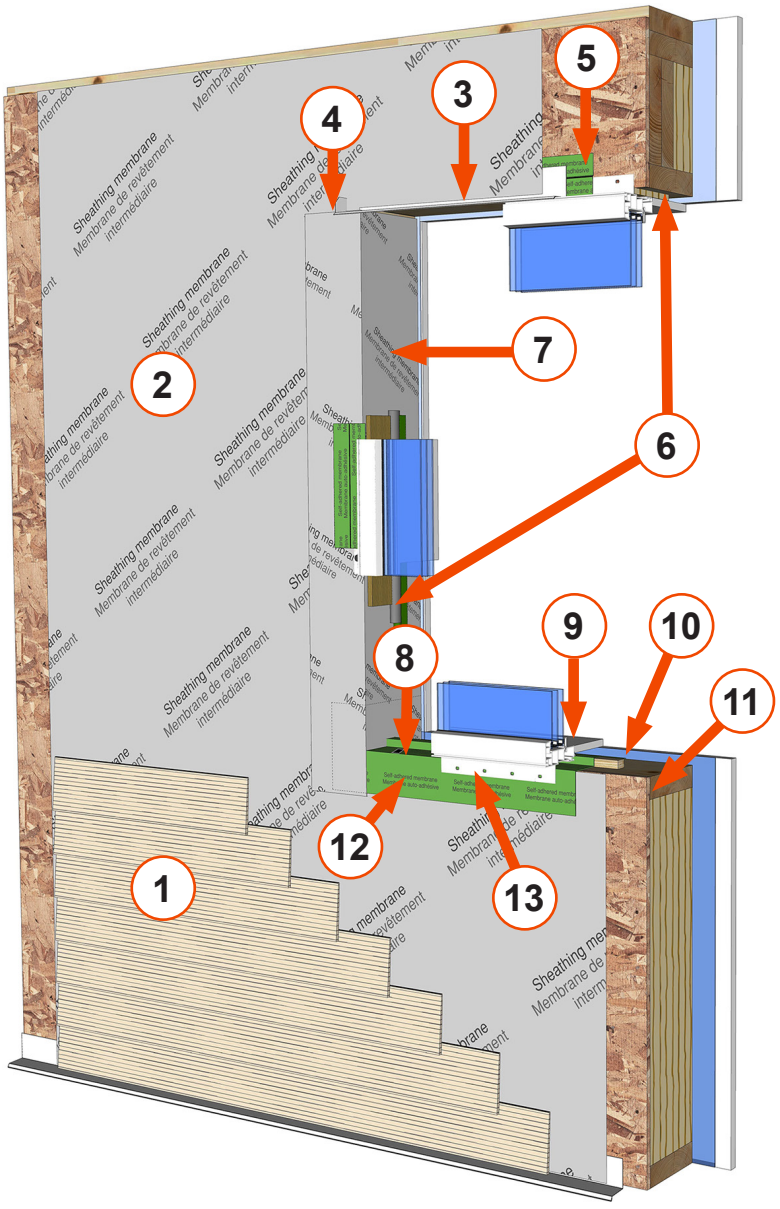
Window Sill



Components of a Full Window

The image below shows a cutout of a window installation in a wall.

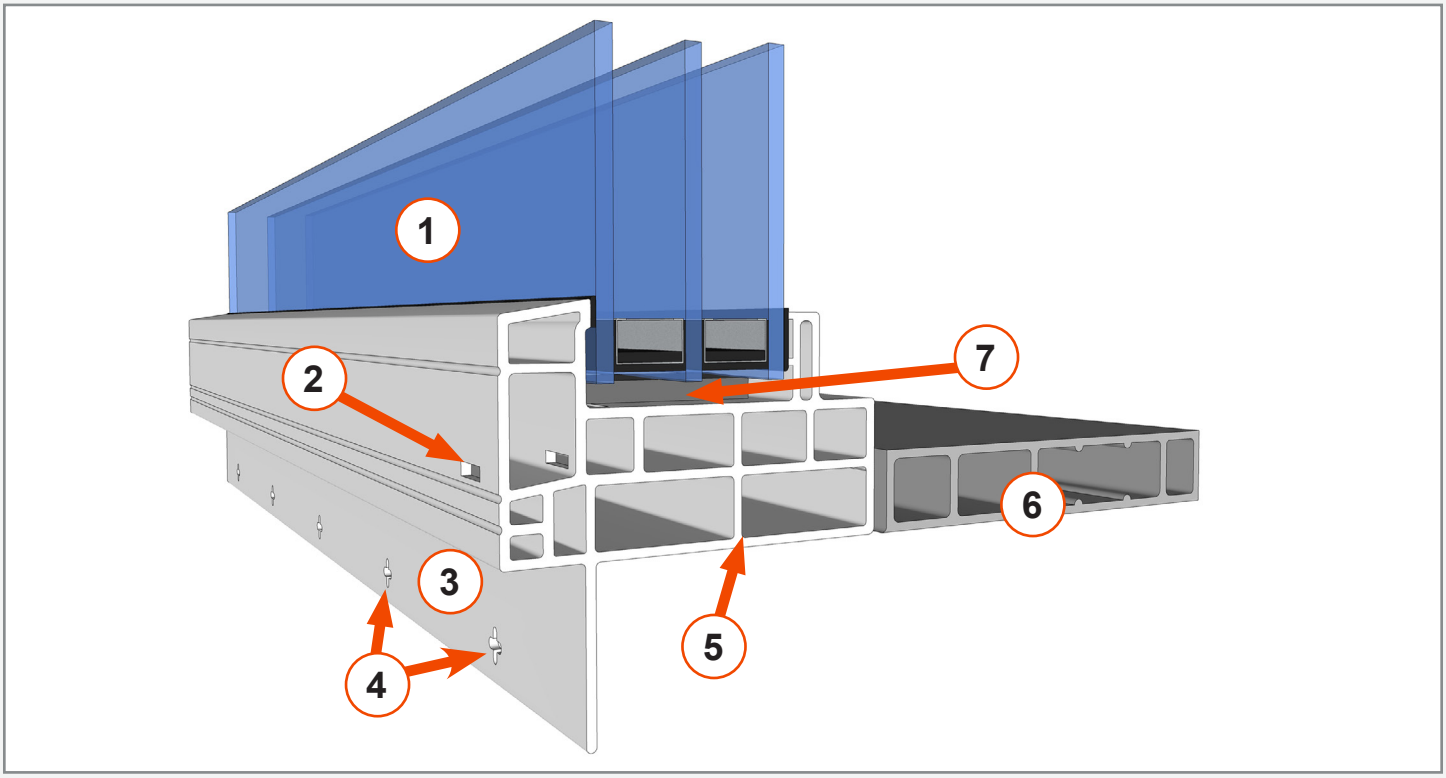
Click on each number for more information.



1. First plane of protection
2. Second plane of protection
3. Head flashing
4. End dam
5. Self-adhered membrane
6. Gap insulation and air seal
7. Jamb sides
8. Shims
9. Jamb extension
10. Back dam
11. Rough sill
12. Sub-sill membrane
13. Reverse sill flashing

Components of a Window Unit

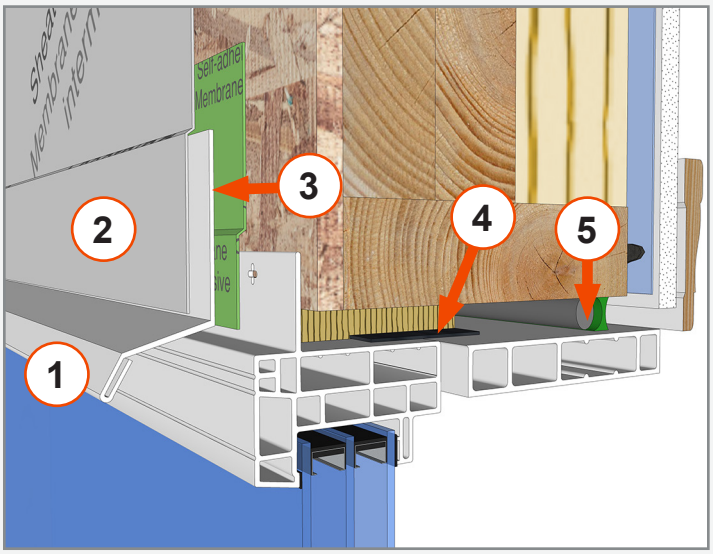
Exterior View



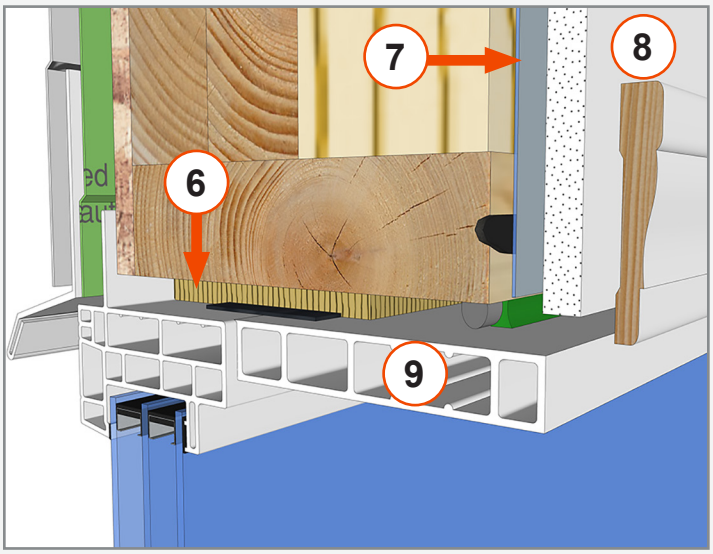
1. **Glazing** — an insulating glass unit (IGU) of either dual or triple layers of glass.
2. **Drainage weeps** — designed to collect and divert water back to the exterior.
3. **Flanges** — used to secure the window into the framing.
4. **Nailing slots** — accommodate large-headed fasteners to allow for expansion and contraction of the window frame.
5. **Unit** — a window unit without jamb extensions.
6. **Jamb extension** — an extension from the inside face of the window to the inside face of the finished interior surface of the wall. It can be wood, drywall, or vinyl. In some cases the window will already have a jamb extension installed by the manufacturing facility. If not, it can be installed later in the process.
7. **Setting blocks** — hard rubber spacers that transfer the weight of the glass to the frame.

Components of a Window Head

Exterior View



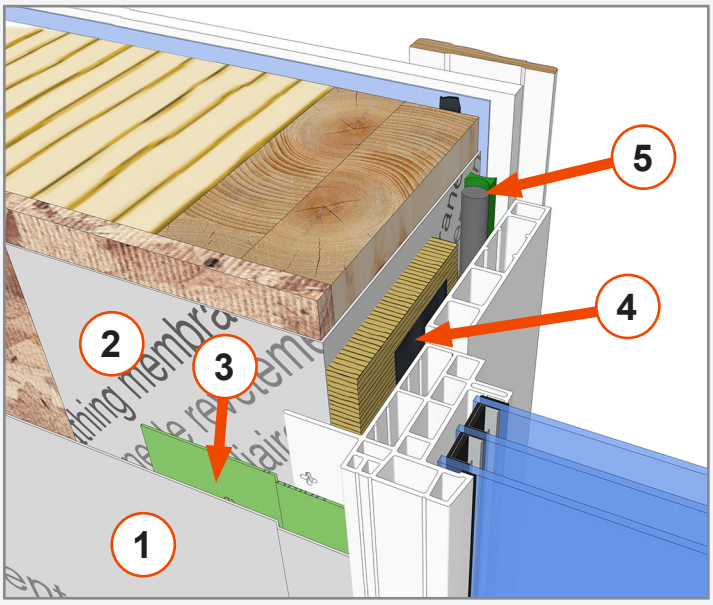
Interior View



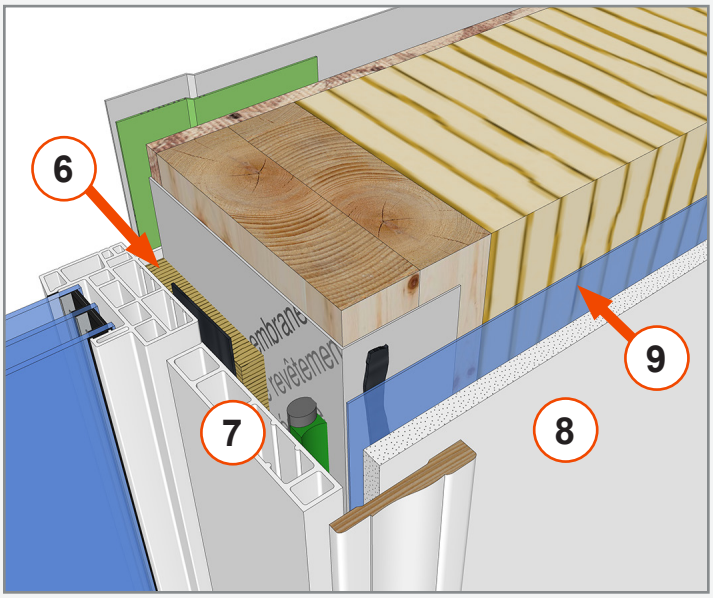
1. **Head flashing** — rigid flashing at the head of the window or door that is part of the second plane of protection. It is used to drain water from behind the cladding above and shed it away from the window or door below. It is sealed to the sheathing.
2. **Water-resistive barrier (WRB)** — sheathing membrane (i.e., house wrap or tar paper), that overlaps the head flashing.
3. **Self-adhered membrane (also called peel and stick)** — a membrane with a butyl, asphalt, or acrylic adhesive to adhere tightly to other compatible components such as the rough sill, weather barriers, or sheathing.
4. **Air seal (window unit to jamb extension)** — insulation is required on the window head and side jambs with a robust air seal on all four sides.
5. **Air seal (jamb to framing)** — made of a closed cell backer rod and sealant or sealant foam.
6. **Insulation** — should be drainable to allow water to flow back down to the sill.
7. **Air/vapour barrier** — made of 6-mil polyethylene. It acts as dual purpose, but sealing joints is for air, not vapour. Backing at all joints is required.
8. **Gypsum drywall** — wall finish which acts to compress the acoustical sealant to the framing.
9. **Jamb extension** — an extension from the inside face of the window to the inside face of the finished interior surface of the wall. It can be wood, drywall, or vinyl. In some cases the window will already have a jamb extension installed by the manufacturing facility. If not, it can be installed later in the process.

Components of a Window Jamb

Exterior View



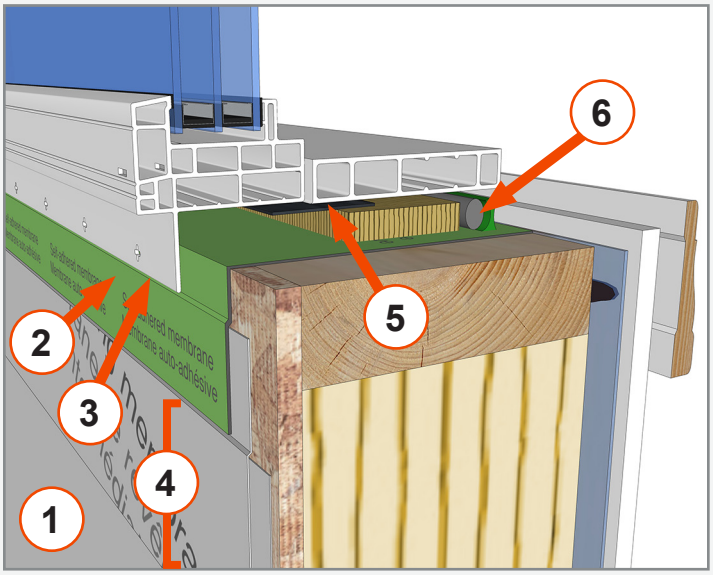
Interior View



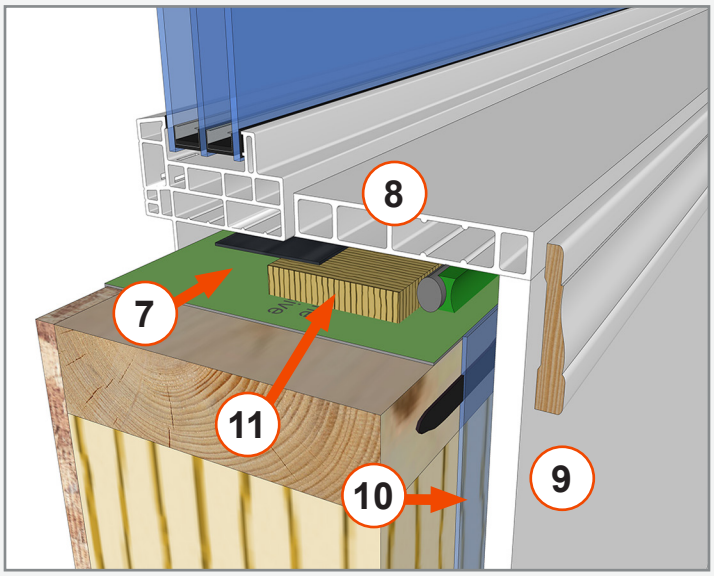
1. **Water-resistive barrier (WRB)** — sheathing membrane (i.e., house wrap or tar paper), that overlaps the head flashing.
2. **Jamb WRB** — WRB is pre-wrapped into the rough opening from the window face to the interior to tie into the 6 mil polyethylene air/vapour barrier.
3. **Self-adhered membrane (also called peel and stick)** — a membrane with a butyl, asphalt, or acrylic adhesive to adhere tightly to other compatible components such as the rough sill, weather barriers, or sheathing. It seals the jamb flange to the WRB.
4. **Air seal (window unit to jamb extension)** — insulation is required on the window head and side jambs with a robust air seal on all four sides.
5. **Air seal (jamb to framing)** — made of a closed cell backer rod and sealant or sealant foam.
6. **Insulation** — should be drainable to allow water to flow back down to the sill.
7. **Jamb extension** — an extension from the inside face of the window to the inside face of the finished interior surface of the wall. It can be wood, drywall, or vinyl. In some cases the window will already have a jamb extension installed by the manufacturing facility. If not, it can be installed later in the process.
8. **Gypsum drywall** — wall finish which acts to compress the acoustical sealant to the framing.
9. **Air/vapour barrier** — made of 6-mil polyethylene. It acts as dual purpose, but sealing joints is for air, not vapour. Backing at all joints is required.

Components of a Window Sill

Exterior View



Interior View



1. **Water-resistive barrier (WRB)** — sheathing membrane (i.e., house wrap or tar paper), that overlaps the head flashing.
2. **Self-adhered membrane (also called peel and stick)** — a membrane with a butyl, asphalt, or acrylic adhesive to adhere tightly to other compatible components such as the rough sill, weather barriers, or sheathing.
3. **Drainage** — allow the sill to drain between flange and sill pan. Do not seal.
4. **"bib" WRB** — a 16-in strip of WRB along the bottom of the rough opening connecting the waterproof sill pan to the lower WRB in a shingle lap.
5. **Air seal (window unit to jamb extension)** — insulation is required on the window head and side jambs with a robust air seal on all four sides.
6. **Air seal (jamb to framing)** — made of a closed cell backer rod and sealant or sealant foam.
7. **No insulation** — maintain a void space for drainage of the sill.
8. **Jamb extension** — an extension from the inside face of the window to the inside face of the finished interior surface of the wall. It can be wood, drywall, or vinyl. In some cases the window will already have a jamb extension installed by the manufacturing facility. If not, it can be installed later in the process.
9. **Gypsum drywall** — wall finish which acts to compress the acoustical sealant to the framing.
10. **Air/vapour barrier** — made of 6-mil polyethylene. It acts as dual purpose, but sealing joints is for air, not vapour. Backing at all joints is required.
11. **Back dam** — a wood block or metal "L" that provides a vertical rise at the inside face of the window or jamb to prevent water on the sill pan from moving into the building and reaching moisture-sensitive materials. Alternative to the sloped sill.