Windows and Exterior Doors

Windows, doors, and overhead garage doors require a building permit when replacing or altering.

Inspections of windows and exterior doors consist of: framing, insulation, flashing, and final inspection.

- Framing inspection is required if window opening is new or changing in size.
- Insulation inspection is required when a new opening is made, or when size changes.
- Flashing inspection is required on new windows and windows changing in size. This is not required on replacement windows when exterior trim is not changed.
- Final inspection is required for all window and door permits. At this inspection we are checking egress requirements, safety glazing requirements, caulking, fenestration U-value, and smoke and carbon monoxide detectors.
- Overhead garage doors shall be tested and labeled ANSI/DASMA 108 or ASTM E 330.

Requirements I should know

1. Any door leading from the home directly into a garage must be a minimum 1-3/8 inch solid wood door, 1-3/8 inch solid or honeycomb steel door or a 20-minute fire-rated door. Unless specialty fire glass, there should be no glass in the door.
2. Any glass within 24 inches of either side of door must be safety glazed.
3. All glass within doors must be safety glazed.
4. Glass within 18 inches of a walking surface and greater than 9 sq. feet for any single pane of glass must be safety glass.
5. Any glass installed within bathing rooms within 60” of a walking surface must be safety glazed.
6. Safety glass is required adjacent to stairways, landings and ramps within 36 inches of the walking surface when the glass is less than 60 inches above the walking surface.
7. Glass within 5 feet of floor and 5 feet horizontal to swimming pool or hot tub area shall be safety glazed.
8. Any glass, within 5 feet of the bottom of a stairway must be safety glazed. Stairway may be interior or exterior.
9. All windows and doors must have corrosion resistant drip cap flashing installed over the top of the unit.
10. All windows must conform to the *Minnesota Energy Code*. The maximum U-value allowed is .35.
11. When replacing 50 percent or more of the windows or doors in a home, the home must have a combustion air supply; or be equipped with carbon monoxide alarms; or contain all direct vent or all electric appliances for space and water heating.

Exceptions for replacement of existing egress windows.

- The replacement window must be the manufacturer’s largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for a greater window opening than the existing. This exception does not apply to rooms used for any Minnesota State licensed purpose requiring an egress window.

General fenestration information can be found on NFRC label. Use this as a tool when comparing windows.

U-Value (U-Factor) measures how well a product prevents heat from escaping. The rate of heat loss is indicated in terms of the U-value of a window assembly. The lower the U-value, the greater a window's resistance to heat flow and the better its insulating value.

Solar Heat Gain Coefficient (SHGC) measures how well a product blocks heat caused by sunlight. SHGC is expressed as a number between 0 and 1. The lower a window's solar heat gain coefficient, the less solar heat it transmits into the house.

Visible Transmittance (VT) measures how much light comes through a product. VT is expressed as a number between 0 and 1. The higher the VT, the more light is transmitted.

Air Leakage (AL) is indicated by an air leakage rating expressed as the equivalent cubic feet of air passing through a square foot of window area (cfm/sq ft). The lower the AL, the less air will pass through cracks in the window assembly.

Condensation Resistance (CR) measures the ability of a product to resist the formation of condensation on the interior surface of that product. The higher the CR rating, the better that product is at resisting condensation formation. CR is expressed as a number between 0 and 100.