

RE-SIDING AND THE 2020 MINNESOTA RESIDENTIAL CODE

Minnesota Department of Labor and Industry

BUILDING PERMITS

Building permits are required for the re-siding of existing dwellings and structures. The 2020 Minnesota Residential Code includes requirements for a variety of exterior finish siding materials, water resistive barriers (WRB) and flashing at exterior doors and windows. Exterior siding materials such as fiber cement, hardboard, vinyl, steel and wood must be installed in accordance with the 2020 Minnesota Residential Code and the manufacturer's installation instructions.

OTHER PERMITS

Electrical permits are required for the replacement or reinstallation of electric meter sockets, air-conditioning disconnects, light fixtures and receptacles removed during the re-siding process.

MUNICIPAL PERMIT FEES AND PLAN REVIEW

The municipality establishes building permit fees for plan review and inspections. If required, the building official plan review may identify potential problem areas or specific instructions for the proposed exterior siding, WRB and flashing requirements. Some municipalities provide information sheets that further explain code compliance.



INSPECTIONS

- Understand all inspection and code compliance requirements prior to starting the re-siding project.
- When the siding has been removed, any rotted or damaged sheathing, framing and insulation must be replaced. Contact the municipality for possible inspection of these repairs before proceeding.
- Inspection is required for WRB and flashing installation. Install the WRB in accordance with the code and the WRB manufacturer's installation instructions. Install flashing materials in accordance with the manufacturer's installation instructions or the WRB manufacturer's installation instructions. Tape products used for WRB product seams are not considered flashing unless approved for that use by the WRB manufacturer and building official.
- A final electrical inspection is required prior to the final siding inspection. The homeowner or Minnesota-licensed electrical contractor who obtained the electrical permit must reinstall existing and new electrical components.
- A final re-siding inspection is required when the project is complete. Existing mechanical intake and exhaust vents may not be altered or replaced. Any new vents must comply with code requirements. The final inspection should include the re-installation of house numbers in compliance with the code and local ordinance.

GENERAL CODE REQUIREMENTS

The Minnesota State Building Code is the standard of construction for the entire state (Minnesota Statutes, section 326B.121). The 2020 Minnesota Residential Code adopts the 2018 International Residential Code (2018 IRC). The 2020 Minnesota Residential Code can be viewed at <https://codes.iccsafe.org/content/MNRC2020P1>.

- **General [R703.1 and R703.1.1].** Exterior walls shall provide the structure with a weather-resistive exterior wall envelope and shall include flashing in accordance with Section R703.4. The exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistive barrier behind the exterior cladding and a means of draining to the exterior.
- **Water-resistive barrier (WRB) [R703.2].** The water-resistive barrier shall consist of one layer of No. 15 asphalt felt, free from holes and breaks, complying with ASTM D226 for Type 1 felt or other approved water-resistive barrier shall be applied over sheathing of all exterior walls. No.15 asphalt felt shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches. Where joints occur, felt shall be lapped not less than 6-inches. Other approved materials shall be installed in accordance with the WRB manufacturer's installation instructions. The felt or other approved water-resistive barrier material shall overlap the flashings required in Section R703.4 not less than 2 inches. The felt or other approved water-resistive barrier material shall be continuous up to the underside of the rafter or truss top chord (when possible) and terminated at penetrations and building appendages in a manner to meet the requirements of the exterior wall envelope as described in Section R703.1.

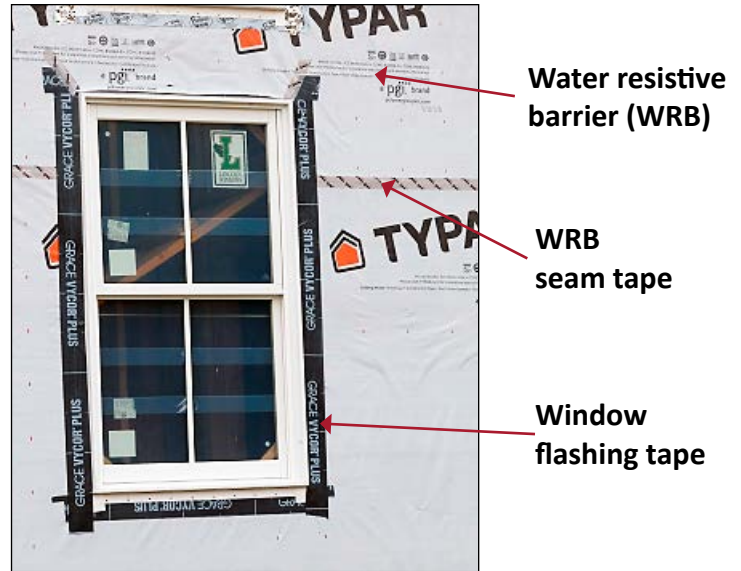


Image: www.tedsenergytips.com

Fan-fold foam insulation products are not a substitute for the WRB unless the product and installation procedure has been approved by the building official.

- **Flashing [R703.4].** Flashing is an approved corrosion-resistant material provided in such a manner as to deflect and resist entry of water into the wall cavity. Approved corrosion-resistant flashing shall be applied shingle-fashion in such a manner as to prevent entry of water into the wall cavity or penetration of water to the building structural framing. Self-adhered membranes used as flashing shall comply with AAMA 711. Fluid-applied membranes used as flashing in exterior walls shall comply with AAMA 714. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at the following locations:
 1. Exterior window and door openings. Flashing shall be installed at the head and sides of exterior window and door openings and shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage. Flashing at exterior window and door openings shall be installed in accordance with at least one of the following:
 - The window/door manufacturer's installation and flashing instructions when available. Existing windows/doors without manufacturer's instructions shall be installed in accordance with the flashing manufacturer's instructions.
 - In accordance with the flashing design or method of a registered design professional.
 - In accordance with other approved methods. The WRB manufacturer often provides specific installation instructions for flashing windows/doors.
 2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
 3. Under and at the ends of masonry, wood, or metal copings and sills.
 4. Continuously above all projecting wood trim, including the drip edge over windows and doors.
 5. Where exterior porches, decks, or stairs attach to a wall or floor assembly of wood-frame construction.

6. At wall and roof intersections.
7. At built-in gutters.
8. Where exterior material meets in other than a vertical line.
9. Where the lower portion of a sloped roof stops within the plane of an intersecting wall cladding in such a manner as to divert water away from the assembly in compliance with Section R903.2.1.
10. At the intersection of the foundation and rim joist framing when the exterior wall covering does not lap the foundation insulation.

- **Pan flashing of windows and doors [R703.4.1].** Pan flashing shall be installed in accordance with the window or door manufacturer's installation and flashing instructions and the code for new structures. Pan flashing is not required for repair or replacement of existing windows and doors.

- **Kickout flashing [R903.2.1].** Kickout flashing is flashing used to divert water where the lower portion of a sloped roof stops within the plane of an intersecting wall cladding. Kickout flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction and around roof openings. Kickout flashing shall be installed to divert the water away from where the eave of a sloped roof intersects a vertical sidewall. The kickout flashing on the roof shall be a minimum of 2-1/2 inches long. Where flashing is of metal, the metal shall be corrosion resistant corrosion-resistant with a thickness of not less than 0.019 inch (No. 26 galvanized sheet). (See illustration)



**Kickout
flashing**

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- **Kick-out flashing - Existing buildings and structures [R903.2.1.1].** Kick-out flashings shall be installed when re-siding or simultaneously re-siding and re-roofing existing buildings and structures. Kick-out flashings are not required when only re-roofing existing structures.
- **Siding attachment [R703.3, R703.3.3, R703.3.4, R703.4].** Unless specified otherwise, all wall cladding materials shall be securely fastened in accordance with Table R703.3(1) or with other approved aluminum, stainless steel, zinc coated or other approved corrosion-resistive fasteners. Cladding attachment shall penetrate framing members as specified in Section R703.3.4 or Table R703.3(1). Cladding attachment shall comply with the provisions of this code and the manufactures installation instructions.
- **Smoke alarms and carbon monoxide alarms [R314.2.2, R315.2.2].** Smoke alarms and carbon monoxide alarms are not required to comply with current code requirements when only re-siding an existing dwelling. Smoke alarms and carbon monoxide alarms are required to comply with current code requirements when alterations, repairs (including the replacement of doors and windows) or additions requiring a building permit occur.
- **Construction debris.** Check with the municipality for construction debris containment requirements and locations where dumpsters are permitted on the property.