
BULLETIN 2007-004-BU

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RAIN SCREEN DESIGN FOR ONE- AND TWO-FAMILY DWELLINGS

The intent of this bulletin is to inform home builders and designers that rain screen design for Part 9 buildings is mandatory in the new 2007 Vancouver Building By-law.

Effective May 1, 2007, two planes of moisture protection are required for all Part 9 buildings including one and two family dwellings. In addition, rain screen design with capillary break between the cladding and the sheathing is required in areas where the number of degree-days is 3400 or more and the moisture index is more than one (i.e. Vancouver). Under the provisions of Clause 9.27.2.2.(1)(c) and Sentence 9.27.2.2.(6) of Division B a capillary break between the first and second planes of protection is exempted for detached accessory buildings, such as detached garages, storage sheds, mass wall construction (i.e. cast-in-place concrete) and for vinyl siding.

Sufficient information and details for the rain screen system shall be included in the building permit application drawings and the source of the details shall be provided. The information and details provided by sources such as the HPO or CMHC are considered acceptable.

The following details shall be included, as a minimum, in the building permit application:

- cross-section of exterior wall for each type of cladding system, such as stucco, brick, wood siding
- interior and exterior corners
- exterior columns
- Roof/wall/balcony/deck/foundation interfaces
- window and door details for head, jamb and sill
- interface between different types of cladding systems
- service penetrations, such as ventilation ducts, piping, electrical outlets and fixtures
- any attachment to the exterior wall, such as guard rails

As an option, the building envelope may be designed to Part 5 for one- and two-family dwelling buildings, but the system shall be reviewed by a Building Envelope Professional (BEP) and the BEP shall provide enhanced field review. Schedule D1 shall be submitted with the building permit application and Schedule D2 shall be submitted after the completion of the project but prior to occupancy. Also, Schedules B1 and B2 for the design and field review of a rain screen system are required for the building permit application. Schedules B1, B2, C-B, D1 and D2 may be signed by the same design professional. The following items shall be included in Schedule B2:

- 1.19 Wall Cladding systems
- 1.20 Thermal insulation systems, including condensation control and cavity ventilation
- 1.22 Integration of building envelope components
- 1.23 Environmental separation requirements (Part 5).

With these new rain screen design requirements, the City's compliance monitoring process has been revised. A separate rain screen system inspection is now required after the sheathing inspection but prior to the application of the cladding system. At that stage all flashings, the second plane of moisture protection (sheathing paper), the rain screen/capillary break, and window detailing must be installed. Please note that rain screen system and framing inspections may be carried out at the same time.

For further information, please contact the Chief Building Official Office at 604-873-7904.

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