

Purpose

To inform staff, building contractors, home owners and the general public of the requirements in the British Columbia Building Code (BCBC) regarding Fire Protection as it relates to spatial separation between houses.

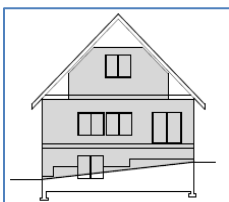
Background

The BC Building Code uses different criteria to establish spatial separation requirements for unsprinklered buildings, depending on the response time of a fire department. Where the response time exceeds 10 minutes in 10% or more of the calls to, requirements related to limiting distance may be affected. As the District of Lake Country has a volunteer Fire Department, the response time exceed 10 minutes in all instances.

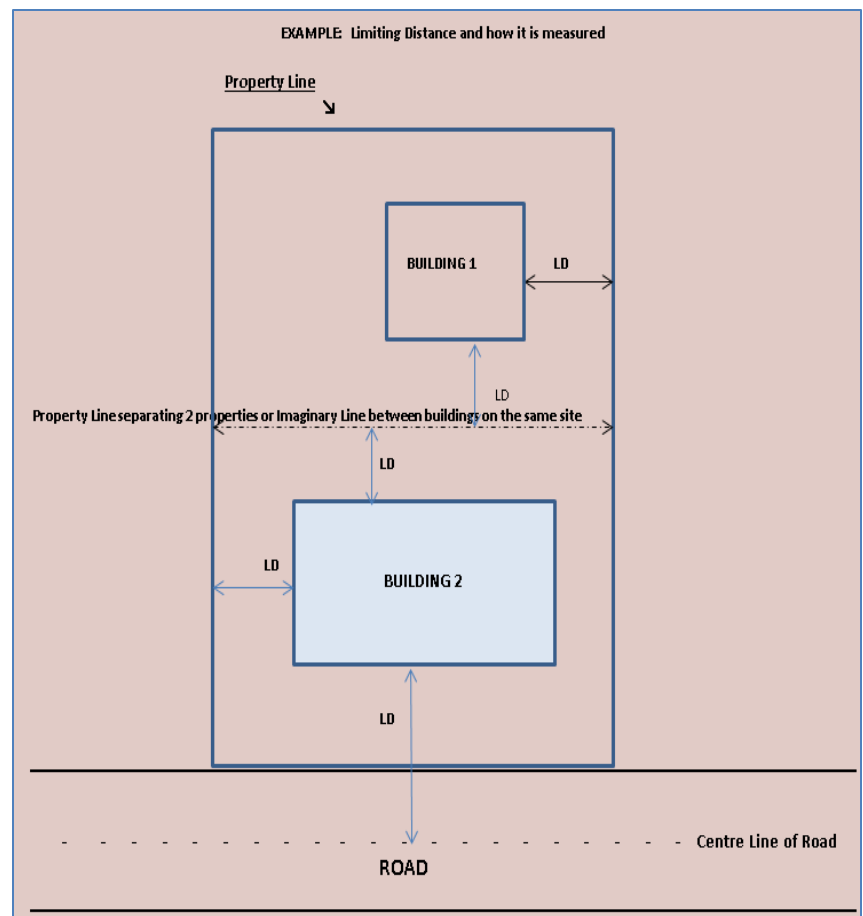
Important Terms (from the BC Building Code)

Limiting distance: means the distance from an exposing building face to a property line, the centre line of a street, lane or public thoroughfare, or to an imaginary line between 2 buildings or fire compartments on the same property, measured at right angles to the exposing building face.

Exposing building face: means that part of the exterior wall of a building that faces one direction and is located between ground level and the ceiling of its top storey or, where a building is divided into fire



compartments, the exterior wall of a fire compartment that faces one direction. * in some circumstances, a roof is considered a wall (9.10.1.1(1))





Unprotected opening (as applying to *exposing building face*) means a doorway, window or opening other than one equipped with a *closure* having the required *fire-protection rating*, or any part of a wall forming part of the *exposing building face* that has a *fire-resistance rating* less than that required for the *exposing building face*.

9.10.15.3 Limiting Distance and Response Time

1) Except as provided in Sentence 9.10.15.3.(2) and except for the purpose of applying Sentences 9.10.15.2.(2), 9.10.15.4.(3) and 9.10.15.5.(12), a limiting distance equal to half the actual limiting distance shall be used as input to the requirements of this Subsection, where

- a) the time from receipt of notification of a fire by the fire department until the first fire department vehicle arrives at the building exceeds 10 min in 10% or more of all calls to the building, and
- b) any storey in the building is not sprinklered.

In the District of Lake Country, if the building is not sprinklered, the actual limiting distance must be halved and the application of subsequent requirements applied as if the building was closer to the property line than it actually is.

9.10.15.4 Glazed Openings in Exposing Building Face

1) Except as provided in Sentence (6), the maximum aggregate area of glazed openings in an exposing building face shall

- a) conform to Table 9.10.15.4.,
- b) conform to Subsection 3.2.3., or
- c) where the limiting distance is not less than 1.2 m, be equal to or less than the limiting distance squared.

There are 3 options available to calculate the maximum allowable aggregate area of glazed openings. In most cases, Table 9.10.15.4 is utilized, however all options can be considered and the least restrictive applied.

Table 9.10.15.4. Maximum Area of Glazed Openings in Exterior Walls of Houses Forming part of Sentences 9.10.15.4.(1) and (2)												
Maximum Total Area of <i>Exposing Building Face</i>, m²	Maximum Aggregate Area of Glazed Openings, % of <i>Exposing Building Face Area</i>											
	Limiting Distance, m											
	Less than 1.2	1.2	1.5	2.0	4.0	6.0	8.0	10.0	12.0	16.0	20.0	25.0
30	0	7	9	12	39	88	100	—	—	—	—	—
40	0	7	8	11	32	69	100	—	—	—	—	—
50	0	7	8	10	28	57	100	—	—	—	—	—
100	0	7	8	9	18	34	56	84	100	—	—	—
Over 100	0	7	7	8	12	19	28	40	55	92	100	—

EXAMPLES: CALCULATION OF GLAZED OPENINGS in EXPOSED BUILDING FACE (using Table 9.10.15.4)

(1) Exp. Building Face: 40m²

Limiting Distance: 2.0m (RU1 Single Family Residential minimum side yard setback per Bylaw 561, 2007)

½ Limiting Distance : 1.0m

% of glazed openings permitted: 0%

(2) Exp. Building Face: 40m²

Limiting Distance: 2.4m

½ Limiting Distance: 1.2m (used for calculation)

% of glazed opening in exposed building face: 7% or 2.8m² (40 x 0.07 = 2.8m²)

- (3) Exp. Building Face: 40m²
 Limiting Distance: 3.0m
 ½ Limiting Distance 1.5m
 % of glazed openings in exposed building face: 8% or 3.2m² (40 x 0.08 = 3.2m²)

9.10.15.4 2) Where the limits on the area of glazed openings are determined for individual portions of the exterior wall, as described in Subclause 9.10.15.2. (1)(b)(iii), the maximum aggregate area of glazed openings for any portion shall conform to the values in the row of Table 9.10.15.4. corresponding to the maximum total area of exposing building face (see column 1 of the Table) that is equal to the sum of all portions of the exposing building face. (See Appendix A.)

3) Except for buildings that are sprinklered and for openable windows having an unobstructed opening equal to 0.35 m² installed in accordance with Sentences 9.9.10.1.(1) and (2), where the limiting distance is 2 m or less, individual glazed openings or a group of glazed openings in an exposing building face shall not exceed 50% of the maximum allowable aggregate area of glazed openings determined in Sentence (1).

4) The spacing between individual glazed openings described in Sentence (3) serving a single room or space described in Sentence (5) shall be not less than

- a) 2m horizontally of another glazed opening that is on the same exposing building face and serves the single room or space, or
- b) 2m vertically of another glazed opening that serves the single room or space, or another room or space on the same storey.

5) For the purpose of Sentence (4), "single room or space" shall mean

- a) two or more adjacent spaces having a full-height separating wall extending less than 1.5 m from the interior face of the exterior wall, or
- b) two or more stacked spaces that are on the same storey.

6) The limits on the area of glazed openings shall not apply to the exposing building face of a dwelling unit facing a detached garage or accessory building, where

- a) the detached garage or accessory building serves only one dwelling unit,
- b) the detached garage or accessory building is located on the same property as that dwelling unit, and
- c) the dwelling unit served by the detached garage or accessory building is the only major occupancy on the property.

9.10.15.4 (2) – (5) provide options for additional glazed openings if the exposed building face is staggered or skewed or the lot configuration is slanted/skewed/irregular; but also puts limits on the spacing of groups of windows depending on the limiting distance. If permitted, the wall can be portioned into sections and a varied percentage of glazed openings based on the limiting distance of that portion.

9.10.15.4.(6) a garage or shop or other accessory building placed on the same property as a dwelling is not subject to spatial separation requirements – however – important to note: should an accessory building contain a suite/living space, spatial separation calculations must be considered.

9.10.15.5 Construction of Exposing Building Face of Houses

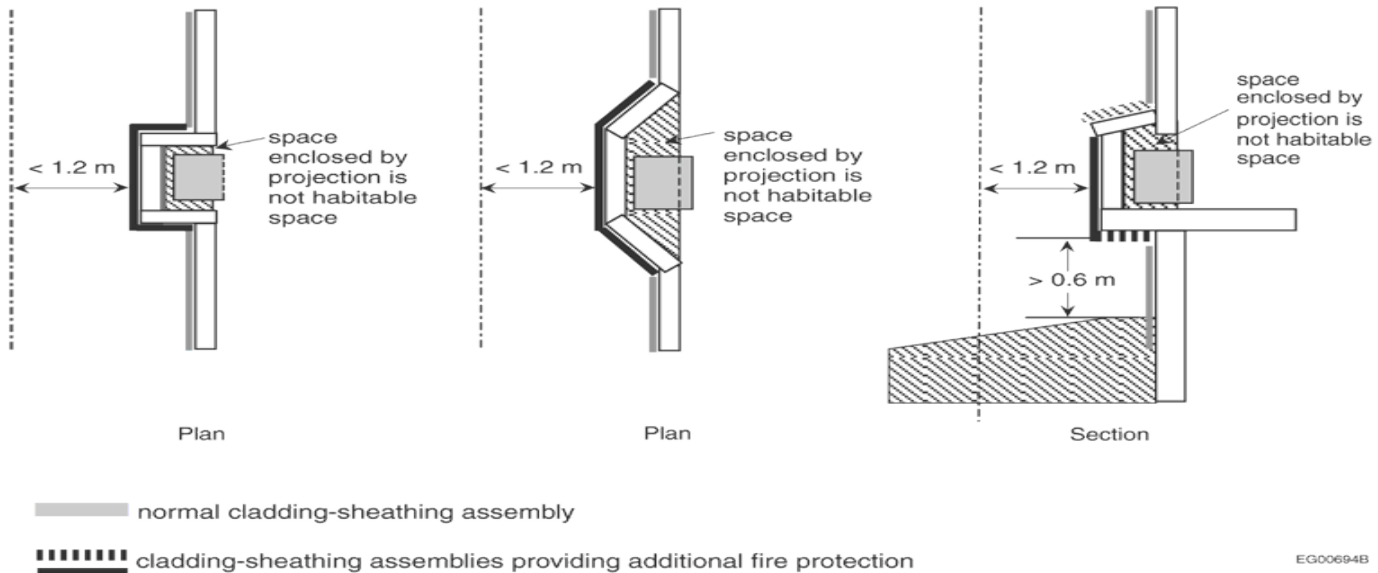
Depending on limiting distance, the exposing building face will have certain construction requirements:

Limiting Distance	Exposed Building Face Construction *	Other Considerations
< 0.6m	Fire Resistance Rating not less than 45 minutes	Cladding to be metal or non-combustible; see the code for installation requirements
≥ 0.6m and < 1.2m	Fire Resistance Rating not less than 45 minutes	Cladding to be metal or non-combustible; can include some wood siding products – see BC Building Code for installation requirements
≥ 1.2m	No limits	No limits

*includes exterior walls located above the exposing building face that enclose an attic or roof space

9.10.15.5(7) Combustible projections on an exposing building face

The construction of projections from walls such as fireplaces or chimney chases that have a limiting distance of 1.2m or less are to be constructed in the same way as the exposing wall within 1.2m (as above) If the underside of the projection is more than 0.6m above finished ground level, it must comply with the protective requirements of 9.10.15.5.(7) b) i) - vi)

**9.10.15.5. (8) - (9) Projection of Soffits above Exposing Building Faces**

Soffits are not permitted to project to within 0.45m (except as provided in Sentence 10) of a property line and would be required to be trimmed back or have no soffit. (this typically would not occur in Lake Country with minimum zoning setback requirements)

9.10.15.5. (10) The face of a roof soffit is permitted to project to the property line, where it faces a street, lane or public thoroughfare.

9.10.15.5.(11) Where roof soffits project to less than 1.2 m from the property line, the centre line of a lane or public thoroughfare or an imaginary line between two *buildings* or *fire compartments* on the same property, they shall

- a) have no openings, and
- b) be protected by
 - i) not less than 0.38 mm thick sheet steel,
 - ii) unvented aluminum conforming to CAN/CGSB-93.2-M, "Prefinished Aluminum Siding, Soffits, and Fascia, for Residential Use,"
 - iii) not less than 12.7 mm thick gypsum soffit board or gypsum ceiling board installed according to CSA A82.31-M, "Gypsum Board Application,"
 - iv) not less than 11 mm thick plywood,
 - v) not less than 12.5 mm thick OSB or waferboard.



Have questions? We're here to help. Please contact the Building Department at 250-766-6675 for more information.

Please note: Building Bulletins are prepared to provide convenient information for customers, and should not be considered a replacement for reviewing the bylaw or associated legal documents. If there is any contradiction between this guide and relevant municipal bylaws and/or applicable codes, please refer to the bylaws and/or codes for legal authority.