



December 21, 2020

Construction Industry, Designers, Contractors and Suppliers providing services in Sooke

**Advisory #14 – 10-Minute Fire Department Response Time**

The British Columbia Building Code 2018, (BCBC) which is adopted in Sooke, by the District of Sooke Building Bylaw, contains provisions that apply to the 10-Minute Fire Department Response Time. We are alerting you to the need for building owners, as well as their designers, builders, and material suppliers on their behalf, to comply with the requirements of the 2018 BCBC.

This enclosed Advisory #14 includes a summary of the significant 2018 BCBC provisions that apply regarding the 10-Minute Fire Department Response Time.

We hope that this advisory will help eliminate confusion regarding the Intent of what is required when applying the requirements for the 10-Minute Fire Department Response Time and will encourage conformance with the 2018 BCBC requirements. Please feel free to make copies of this advisory available to your customers as you see fit. Your assistance in achieving these goals will be greatly appreciated.

**The BC Building, Plumbing and Fire Codes are available to read online at:**

<https://www.bcpublications.ca/BCPublications/>

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## **Building Safety – Advisory #14**

December 21, 2020

### **10-Minute Fire Department Response Time**

Compliance with the Building Bylaw are addressed in this advisory.  
The British Columbia Building Code 2018, (BCBC) which is adopted in Sooke, by the District of Sooke Building Bylaw.

Words in *italics* are defined in the 2018 BCBC.

### **10-Minute Fire Department Response Time 2018 BC Building Code Requirements**

The **Fire Department Response Time to any address in Sooke exceeds the 10-minute response time** in 10% or more of all calls to **any building within the District of Sooke**. see Sentence 3.2.3.1.(8), 9.10.14.3.(1) or 9.10.15.3.(1), which are all inserted below:

3.2.3. Spatial Separation and Exposure Protection (See Note A-3.2.3.)

3.2.3.1. Limiting Distance and Area of Unprotected Openings

**Sentence 8)** A limiting distance equal to half the actual limiting distance shall be used as input to Tables 3.2.3.1.-B and 3.2.3.1.-C, where

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

(See Notes A-3.2.3.1.(8) and A-3.2.3.)

**A-3.2.3.1.(8) Intervention Time and Limiting Distance.** The total time from the start of a fire until fire suppression by the fire department depends on the time taken for a series of actions. Sentence 3.2.3.1.(8) is only concerned with the time from receipt of notification of a fire by the fire department until the arrival of the first fire department vehicle at the building. It specifies a 10-min time limit which must be met in more than 90% of the calls to the building served by the fire department. This reliability level and provision for flexibility is essentially consistent with NFPA1710, "Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments."

Clause 4.1.2.1 of NFPA1710 establishes "time objectives" for fire incidents as follows:

- 1min (60s) for turn-out of responders after receipt of notification of a fire, and
- 4min (240s) or less for arrival of the first arriving engine company at a fire suppression incident and/or 8min (480s) or less for the deployment of a full first alarm assignment at a fire suppression incident.

The standard requires that the fire department establish a "performance objective" of not less than 90% for each response time objective. This reliability level is referred to in NFPA1710 as a "performance objective."

Where the 10-min limit cannot be met by the fire department at least 90% of the time, Sentence 3.2.3.1.(8) specifies that a value corresponding to half the actual limiting distance be used in requirements that depend on limiting distance to define other criteria.

9.10.14.3. Limiting Distance and Fire Department Response

1) Except for the purpose of applying Sentences 9.10.14.4.(2), (3), (8) and (9), and Sentences 9.10.14.5.(3), (8) and (13), 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**.

(See Notes A-3.2.3. and A-3.2.3.1.(8)-inserted above)





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### **10-Minute Fire Department Response Time**

#### **9.10.15.3. Limiting Distance and Fire Department Response**

1) Except for the purpose of applying Sentences 9.10.15.2.(2), 9.10.15.4.(3) and 9.10.15.5.(13), 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**.

(See Notes A-3.2.3. and A-3.2.3.1.(8)-inserted on Page 1 of 2)

For Limiting Distance, please ensure that the following definition in the 2018 BCBC is followed:

**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.

Therefore, the exposing building face requires a fire-resistance rating of not less than 45 minutes where the limiting distance is less than 2.4 m (8 ft) and must be clad with non-combustible material.

Window openings in the exposing building face referred to above shall not be permitted if the limiting distance is less than 2.4 m (8 ft) and shall be limited in conformance with the requirements for unprotected openings in Article 9.10.15.4. where the limiting distance is 2.4 m or greater, 7% openings are permitted at 2.4 m (8 ft).

*Window openings in a wall having a limiting distance of less than 2.4 m shall be **protected by closures**, whose fire-protection rating is in conformance with the fire-resistance rating required for the wall. (See Table 9.10.13.1.) Except for buildings that are **sprinklered throughout and for openable windows having an unobstructed opening equal to 0.35 m<sup>2</sup> installed in bedrooms** in accordance with Sentences 9.9.10.1.(1) and (2).*

**A-3.2.3. Fire Protection Related to Limiting Distance versus Separation Between Buildings.** Code provisions that address protection against fire spread from building to building use the limiting distance (see the definition in Article 1.4.1.2. of Division A) for a building rather than using the distance between adjacent buildings on separate properties, since this would result in situations where the design and construction of a building on one property affects the design and construction of a building on an adjacent property. The Code requirements that deal with reducing the probability of building-to-building fire spread were originally developed based on the assumption that the exposing building faces of adjacent buildings are of similar size and configuration, and are equidistant from the shared property line. Where buildings are of different sizes, the smaller building may be subject to a higher heat flux in the event of a fire compared to the larger building. Where buildings are closely spaced and not equidistant from the property line, the construction of the building with the greater limiting distance does not recognize the proximity of the building with the lesser limiting distance. The Code has more stringent requirements for buildings with lesser limiting distance as regards the maximum area and spacing of unprotected openings, and the construction, cladding and fire resistance of walls. This increased stringency recognizes that the fire hazard is greater where buildings are closer together and that adjacent buildings may have exposing building faces of different sizes, configurations or limiting distances, which could further increase the hazard.

Therefore, a limiting distance equal to half the actual limiting distance shall be used for any building within the District of Sooke, as input to these requirements, **unless the building is sprinklered throughout**