



## DEPARTMENT OF ADMINISTRATIVE SERVICES

### PROPOSED CHANGE OF THE CONNECTICUT STATE BUILDING CODE AND FIRE SAFETY CODE

DATE SUBMITTED: 28 May 2021

#### CODE INFORMATION

Proposed change to: ☒ Building Code ☐ Fire Safety Code

Code section(s): CT 2020 Draft Amendment to IEBC Chapter 3, Section 303.2 (2021 Section 304.2)

#### PROPONENT INFORMATION

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#### PROPOSAL INFORMATION

Description of change and reason for change (attach additional information as needed):

The current proposal seeks to achieve the same results as the never-adopted draft 2020 CT Amendment, but the language is revised to bring it more in conformance with the ICC manual of style.

History:

This Section invokes Section 7.12 of ASCE 7:

*EXISTING ROOFS: Existing roofs shall be evaluated for increased snow loads caused by alterations or additions. Owners or agents for owners of an existing lower roof shall be advised of the potential for increased snow loads where a higher roof is constructed within 20 ft. See footnote to Table 7.3-1 and Section 7.7.2.*

This language creates challenges from an enforcement standpoint and could potentially allow for the creation of an unsafe condition. The fact that less than 5% of the Building Departments in Connecticut have copies of ASCE 7 creates further challenges. This proposal seeks to do the following:

1. Establish the criteria when snow drifting of an existing lower roof may occur:
  - a. Per Section 7.7.2 of ASCE 7, snow drifts induced from a taller structure are never applicable when the separation distance between the buildings exceeds 20 feet.
2. Establishes enforceable exceptions under which a taller structure may be constructed less than 20 feet from an adjacent lower structure:
  - a. Exception #1:
    - i. Depending upon the height differential between structures, the taller structure may not induce snow drift loads on the lower structure. Provided that the elevation of the lower roof elevation is known, this would be an easy assessment for the design engineer.
    - ii. Depending upon the fetch distances of the upper and lower roofs, the taller structure may not induce snow drift loads on the lower structure. This would be an easy assessment for the design engineer.
  - b. Exception #2:

- i. If the existing taller structure prior to addition was already significantly taller than the existing lower structure, the same snow drift conditions may have already existed. Provided that the elevation of the lower roof elevation is known, this would be an easy assessment for the design engineer.
- ii. If the existing lower structure has parapet walls, the snow drift magnitude resulting from the proposed taller addition may be of a lesser magnitude than that which would have already existed on the lower roof due to the presence of the parapet. Provided that the elevation of the lower roof elevation and low roof parapet height are known, this would be an easy assessment for the design engineer.
- c. Exception #3
  - i. This would address the condition where a structural analysis of the existing lower roof is undertaken, and it is found to be capable of supporting the applicable snow drift loads.
  - ii. This would also address the condition where an existing lower roof is reinforced to resist the applicable snow drift loads.
- 3. Reduces the potential for the creation of an unsafe condition that could occur should the “owner or agents for owners of an existing lower roof” fail to take action after they are “advised of the potential for increased snow loads” as required per Section 7.12 of ASCE 7. As written in the IEBC, this could create a dilemma for the Building Official; as proposed, this is an issue that would need to be resolved between the two building owners.
- 4. The requirement for a statement from a PE would allow the Building Official to include the basis for the exception not only in the file for building for which the Building Permit is being sought but also for the existing lower building.

Proposed text change, addition or deletion (attach additional information as needed):

**Snow loads on adjacent buildings.** ~~If an~~ An alteration or addition that exceeds the height of an adjacent existing building shall not be constructed ~~is located~~ within 20 feet (6.1 m) of ~~that an adjacent~~ existing building, ~~and the alteration or addition exceeds the height of the adjacent existing building, a statement from a professional engineer confirming compliance with one or more of the following shall be provided: -~~

**Exceptions:**

- 1. No additional snow drift loads ~~will be~~ are induced on the roof of the adjacent existing ~~lower~~ building.
- 2. Any additional snow drift loads induced on the roof of the adjacent existing ~~lower~~ building are less than the magnitude of the snow drift loads that would have already existed on the ~~lower~~ roof of the adjacent existing building, or in the same location.
- 3. The load-carrying capacity of the roof of the adjacent existing ~~lower~~ building is capable of supporting the additional snow drift loads.

Snow drift loads shall be derived in accordance with Section 7.7 of ASCE 7. ~~A statement from a professional engineer shall be provided as confirmation of the applicability of any of the exceptions.~~

Supporting data and documents (attach additional information as needed):

☒ **This Proposal is original material.** (Note: Original material is considered to be the submitter’s own idea based on or as a result of his/her own experience, thought or research and, to the best of his/her knowledge, is not copied from another source.)

☐ **This Comment is not original material, its source (if known) is as follows:** (such as material / code development proposal from a prior development cycle or proposal submitted to model code committee etc.)

☐ **I would like to make an in-person presentation of my proposal.**

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**Proponent's Signature**

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**Thomas A. DiBlasi**

**Printed Name**

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