

BULLETIN: DEDICATED MEANS OF EGRESS WITHIN ADDITIONS TO EXISTING BUILDINGS

PURPOSE: The intent of the revision to Section 4-306, correlating gravity loads with use and lateral loads with occupancy or risk categories, is to require a dedicated means of egress within a new addition of higher gravity loads (use) and/or lateral loads (occupancy or risk categories) than the existing building. Where an existing building or portion of building is originally of equal criteria or is strengthened and/or stiffened to equal criteria, a dedicated means of egress is not required per this section.

BACKGROUND: In the 2016 and earlier editions of the California Administrative Code (CAC), Section 4-306 *Approval of new school buildings, rehabilitation of school buildings and additions of school buildings*, the regulations required retrofit of an existing building only when structural rehabilitation is required per Section 4-309(c). However, when the triggers of 4-309(c) have not been exceeded, occupants of the addition should be provided with a dedicated means of egress within the addition and not be directed through an existing building of lesser use and occupancy or risk category, unless the affected existing framing and lateral force resisting elements are retrofitted to the same use and occupancy or risk category as the addition. This revision aligns with Section 1604A.5.1 *Multiple occupancies*, California Building Code (CBC), as it applies to additions to existing buildings.

On December 4, 2018, the California Building Standards Commission adopted the 2019 California Administrative Code (CAC), Part 1, Title 24, California Code of Regulations, including the following revision to the second paragraph of Section 4-306. The provisions of the 2019 CAC became effective on January 8, 2019, approximately 30 days after they were filed with the Secretary of State.

4-306. Approval of new school buildings, rehabilitation of school buildings and additions to school buildings.

All new construction work which is part of an addition project shall comply with the currently effective regulations. Existing school buildings for which an addition project is proposed shall be retrofitted when required by Section 4-309(c). *Where the use of an addition requires higher gravity and/or lateral loads per current regulations than the existing building, the addition shall be required to have a stand-alone egress system for the occupants of the addition.*

IMPLEMENTATION: When the use and/or occupancy of an addition (as assessed per current code) results in the assignment of a higher occupant load and/or risk category than the original building or portion of building, the addition will be required to be designed to higher lateral design and/or gravity loads than the adjacent existing building or portion of building. For this assessment, the determination of “higher” lateral loads is not based on the respective “R” values of the existing construction and addition.

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In these instances, it would be inappropriate to require occupants of the addition to share the means of egress in an existing building space designed with a lower gravity load capacity of existing floor framing and/or lower strength capacity and drift limitations of the existing lateral force resisting elements. If this condition occurs, then entry to the addition shall not be by routes directing persons into or through the existing building, and the means of egress design for the addition shall be such that the occupants are not directed into the existing building. Alternatively, a shared egress within the existing building may be used provided the existing building or affected portion of the building is strengthened and stiffened to support the increased gravity loads and/or to resist design lateral forces in compliance with the current CBC and/or CEBC as applicable.

Considerations for implementation under the 2019 CAC include:

1. For projects where the design was completed under the 2016 CBC and submitted to DSA prior to the 2019 CAC effective date, the 2019 CAC is not applicable.
2. To provide adequate time for design professionals and school districts to prepare construction documents, DSA will not enforce this revised provision in Section 4-306 until January 1, 2020 when the other Parts of Title 24, CCR become effective. DSA will educate and provide clarifications of the pending provisions and effective date during this time period and in preliminary meetings with clients and design professionals.
3. The term “stand-alone” egress system within Section 4-306 may be interpreted as an egress system contained within or adjacent to the addition; a separate egress structure servicing the addition is not explicitly required. This terminology will be revised in the upcoming 2019 Intervening Code adoption cycle.
4. Occupants of an existing building shall be permitted to egress into and through an addition provided the gravity load and lateral force resisting systems of the addition are designed for any potential increase in occupancy or risk category and/or occupant load.
5. Occupants may transition between a new addition and the existing building by means of a connecting corridor to access classrooms provided the gravity load and lateral force resisting systems of the existing building or affected portion of existing building are designed for any resulting increase in occupancy or risk category and/or occupant load.
6. Seismic separations may not be used to reduce the occupant load, thereby reducing the occupancy or risk category of an addition or existing building, if the new addition and the existing building share code required means of egress. However, if both the new addition and the existing building have independent code complying means of egress within each seismically separated portion, this would be allowed. Additionally, the building(s) must comply with both the importance factor (I) and drift requirements for the given occupancy or risk category. Seismically separated buildings or portions of building which share the same code required means of egress shall be considered together for determination of occupant load and, therefore, category determination.

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1. When a new addition is designed with a 2nd floor assembly area with floor LL of 100 psf and an importance factor (I) of 1.25, and its occupants egress through an existing building in which the existing floor framing was designed for LL of 50 psf and an I of 1.0, the new addition shall include means of egress capable of exiting all occupants of the addition. Alternatively, a shared egress within the existing building may be used provided both the affected vertical framing and affected lateral force resisting elements of the existing building are evaluated for capacity and stiffness and brought into compliance with the current code considering occupancy category and occupancy load.
2. When a new addition with a 2nd floor assembly area with floor LL of 100 psf and its occupants egress through an existing building in which the existing floor framing was designed for LL of 50 psf, and both the addition and existing building are designed for $I = 1.0$, the new addition shall include means of egress capable of exiting all occupants of the addition. Alternatively, a shared egress within the existing building may be used provided the affected vertical framing of the existing building are evaluated for capacity and brought into compliance with the current code considering occupancy load.
3. When a new addition with a 2nd floor assembly area is designed for an importance factor (I) of 1.25, and its occupants egress through an existing building or portion of building in which the existing LFR elements were designed for I of 1.0, and the floor framing in both is designed for the same LL, the new addition shall include means of egress capable of exiting all occupants of the addition. Alternatively, a shared egress within the existing building may be used provided affected lateral force resisting elements of the existing building are evaluated for capacity and stiffness and brought into compliance with the current code considering occupancy category.