FIRE PREVENTION AND BUILDING SAFETY COMMISSION
Department of Homeland Security

Written Interpretation of the State Building Commissioner

Interpretation #: CEB-2023-21 [2014 IBC-202]

Building or Fire Safety Law Interpreted
675 IAC 13-2.6 2014 Indiana Building Code, Section 202 DEFINITIONS. HIGH-RISE BUILDING. A building with an occupied floor located more than 75 feet (22,860 mm) above the lowest level of fire department vehicle access.

Issue
Whether the definition of "high-rise building" in the *2014 Indiana Building Code* (IBC) requires the 75-foot height measurement to be always taken from the lowest level of fire department vehicle access, even when the building design steps back upper stories to follow a sloping site contour.

Interpretation of the State Building Commissioner
Yes, the definition of "high-rise building" in the *2014 IBC* does require the 75-foot height measurement to be always taken from the lowest level of fire department vehicle access, regardless of the building's configuration relative to the site contours.

Rationale
The applicant suggests that if a multi-story building design steps back in a fashion that follows a sloping site contour, the code's 75-foot height measurement should not be made at the lowest level of fire department vehicle access, but from an access point on another, higher-elevation side of the building. The argument is that the additional horizontal distance from that lowest-elevation vehicle location to the exterior wall of the stepped-back highest floor creates a condition in which the required height measurement is meaningless at the lower-elevation side, due to the horizontal distance between the stepped-back upper story and a fire department vehicle, and that because of this, fire department vehicle access on the higher-elevation side of the site will be more effective, as it will be much closer to that uppermost stepped-back floor.

While positioning fire department vehicles as close as possible to the targeted portion of a building is no doubt more effective firefighting strategy, it is irrelevant to the code. To allow the required vertical measurement to be taken at this location is contrary to the code's definition of "high-rise building," as well as contrary to the information contained in the code's accompanying commentary, and perhaps most importantly, it is contrary to the purpose of the regulation.

The text of the definition is clear – the height limit for the upper floor is set at 75 feet above the lowest level of fire department vehicle access. No reference is made to the design of the building, and while no direct reference is made to the problems of sloping sites, the possibility of a sloping site has been considered in the text of the definition, as the term "lowest level" implies the possible existence of at least two different site elevations at which fire department vehicles may be deployed.

Additionally, the illustration provided in ICC commentary shows a sloping-site condition, with the uppermost floor shown as a mezzanine set back significantly from the side with the lowest fire department vehicle access. Yet the commentary makes no mention of that horizontally recessed mezzanine location affecting the place at which the 75-foot measurement should be taken, nor does it discuss the possibility of achieving code compliance when the vertical measurement is taken from a different location, at a higher elevation of vehicle access that is closer to the mezzanine.

The text of the definition shows that the possibility of higher-elevation fire department vehicle access has not simply been ignored – the existence and benefits of higher-elevation access are understood, and in a fire event, responding vehicles will be deployed wherever the fire department believes they will be effective, regardless of building regulations. Consideration for life safety, however, requires that the designer account for temporarily blocked or inaccessible vehicle access during a fire event, not unlike the requirement to provide multiple exits from rooms and buildings. The language of the definition does just that – it ensures life safety by requiring the height measurement be taken from the lowest side of the structure.

The authors of the code could not predict all possible site and building design configurations, and as a result, definition language was crafted to cover a worst-case configuration without regard to other possible design

permutations that might or might not make some portions of the building safer when accessed by the fire department vehicle from a different location. But it would be a practical impossibility to write a definition that accounts for all possible design conditions, and to interpret this definition in a manner that makes acceptable a design whose height is measured from a higher elevation of vehicle access would be contrary to the definition's text and its life safety intent.

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