



City of Seattle
Department of Construction & Inspections

2012 SBC Code Interpretation

**ASCE 7-10
Structural Height**
Release Date: April 7, 2016
Page 1 of 1

The following interpretation, policy or code alternate is intended to provide guidance to staff for consistency of review and is subject to change without notice. Application of this interpretation, policy or code alternate to specific projects may vary.

Code Issue:

ASCE 7-10 Table 12.2-1 limits the structural heights of buildings. How is the structural height measured?

Interpretation:

For the purposes of seismic design, structural height shall be measured in accordance with all of the following:

1. Per ASCE 7-10, the structural height shall be measured from the seismic base to the highest level of the seismic force-resisting system.
2. The highest level of the seismic force-resisting system shall be defined as the roof of the highest occupied story in the building.
3. The seismic base shall be determined in accordance with the definition of "Base" in ASCE 7-10 Section C11.2.
4. Uncovered, occupied roof decks are permitted at the structural height limit.
5. Stair, elevator, mechanical and electrical penthouses, as allowed by SBC Section 1509.2, are permitted to extend above the structural height limit. This includes minimally sized stair and elevator lobbies.
6. The seismic force-resisting system for building elements allowed in item 5 are permitted to be of any code defined lateral system. This does not preclude an extension of the main seismic force-resisting system above the roof of the highest occupied story.
7. The mass of all structure(s) and equipment above the structural height limit, including all penthouses and mechanical equipment, shall be small in comparison to the average mass of the typical floors below.

Notes:

- Penthouses are permitted to comply with ASCE 7-10 Chapter 13 and 15.
- Building height is measured differently in the Land Use Code (see SMC 23.86.006).
- Performance Based Design is required for structural heights exceeding the height limits. See Directors Rule 5-2015 for an alternate procedure for the design of buildings with Special Reinforced Concrete Shear Walls and with a structural height between 240 feet and 265 feet.
- If there are questions regarding the structural height measurement, SDCI strongly encourages applicants to schedule a building code pre-submittal conference early in the design process.

For questions about whether this code solution applies to your project:

- *If you have submitted a permit application, contact the Building Code plan reviewer assigned to your application*
- *If you have not submitted an application, contact SDCI Building Code Technical Support at 206-684-4630 or in person at the Applicant Services Center. Visit the Applicant Services Center website for more information about hours and location <http://www.seattle.gov/dpd/aboutus/whoweare/applicantservicescenter/default.htm>*



Construction Review & Inspection Quality
Jonathan Siu, Principal Engineer