



No. 16-01
Structural Permit Requirements for the
Replacement of Rooftop Mechanical Equipment

Code Edition: 2014 Oregon Structural Specialty Code (OSSC)
Statewide Alternate Method No. 08-05 2012 *International Existing Building Code*

Code Section: Chapter 34

Date: March 4, 2016

Subject:

Structural permit requirements for the replacement of rooftop mechanical equipment

Question:

Is a structural permit required when replacing existing rooftop mechanical equipment with comparable equipment?

Answer:

No. A building (structural) permit is not required to replace rooftop mechanical equipment if all of the following conditions are met and shown on the mechanical permit application:

1. Replacement unit weighs no more than 10 percent greater than the existing unit.
2. Replacement unit does not exceed any dimension of the existing unit by more than 10 percent.
3. Manufacturer's specifications for the existing and the replacement units are provided.
4. No additional modification to structural elements is performed, including re-framing of openings.
5. Unit is located in the same location as the previous unit.
6. Replacement unit is mounted to an existing curb.
7. Connection details from unit to curb are provided.

Analysis:

Regulation of structural requirements for rooftop mechanical equipment only applies when the installation of the equipment has a direct impact on the structural integrity of a regulated building. Replacement of rooftop mechanical equipment with equipment of similar size, weight, location and attachment does not constitute an alteration to the structure. This type of replacement does not make the existing building less compliant than it was prior to the alteration.

In accordance with OAR 918-008-0110, the information contained in this statewide code interpretation is legally binding on any party involved in activities regulated by applicable Oregon law, applicable Oregon regulations or the state building code. If the information contained in this statewide code interpretation is cited as a basis for a civil infraction, a representative of the jurisdiction must cite the interpretation number found in this document.



When the replacement unit is heavier than the existing unit, the additional weight of the new equipment may be evaluated as a “Level 2 Alteration” under Section 504 of the 2012 IEBC. “Section 807.4 - Existing structural elements carrying gravity loads” (Exception no. 1), allows alterations without permit that do not increase the stress in existing gravity load-carrying structural elements by more than 5 percent. An increase in gravity load of 10 percent (weight of new equipment) will generally not increase the stress in existing elements by more than 5 percent.

When the replacement equipment triggers structural improvements, a separate structural permit is required. When a replacement unit is more than 10 percent heavier than the unit it is replacing, is 10 percent larger than the unit it is replacing, or otherwise causes modification to structural elements, the building official may require plans and calculations in order to demonstrate that the existing or new construction will support the new equipment. Other permitting requirements are unchanged by this interpretation.

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