

CHANGE TYPE: Modification

CHANGE SUMMARY: Retaining walls, freestanding walls not supported at the top, with more than 48 inches of unbalanced backfill must be designed by an engineer. Retaining walls resisting additional lateral loads and with more than 24 inches of unbalanced backfill must also be designed in accordance with accepted engineering practice.

2015 CODE: R404.4 Retaining Walls. Retaining walls that are not laterally supported at the top and that retain in excess of ~~24~~ 48 inches (610 ~~1219~~ mm) of unbalanced fill, or retaining walls exceeding 24 inches (610 mm) in height that resist lateral loads in addition to soil, shall be designed in accordance with accepted engineering practice to ensure stability against overturning, sliding, excessive foundation pressure, and water uplift. Retaining walls shall be designed for a safety factor of 1.5 against lateral sliding and overturning. This section shall not apply to foundation walls supporting buildings.

CHANGE SIGNIFICANCE: The type of wall addressed in Section R404.4 is a detached retaining wall of concrete or hollow, grouted or solid masonry, not supported at the top and laterally supported at the bottom against sliding and overturning by a footing covered by soil. The wall would typically be a site retaining wall primarily resisting lateral soil loads. When the wall must resist additional loads, such as vehicles parked above or fences built on top of the wall that are subject to wind loads, a wall with more than 24 inches of unbalanced backfill must be designed in accordance with accepted engineering practice.

Section R404.4 also has a new trigger height of 48 inches (previously 24 inches) for unbalanced backfill to be consistent with Section R404.1.3. This section specifically requires that concrete or masonry foundation walls supporting more than 48 inches of unbalanced fill and not laterally supported must have an engineered design.

The definition of a retaining wall within the provision is modified to clarify that this type of wall is not intended to support structural loads. A similar wall that does support structural loads is addressed by other sections.



Retaining wall

R404.4

Retaining Walls

This excerpt is taken from ***Significant Changes to the International Residential Code®, 2015 Edition.***



Significant Changes publications take you directly to the most important changes that impact projects. Key changes are identified then followed by in-depth discussion of how the change affects real-world application. Photos, tables and illustrations are included to further clarify application. Available for the IBC, IRC, IFC and IPC/IMC/IFGC, the Significant Changes publications are very useful training and review tools for transitioning to a new code edition.

Photo Courtesy of Peter Kulczyk