



Building Services
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BUILD-08
Earth-Retaining
Structures

Earth-retaining structures are structures designed to retain or impound earth from bulk lateral movement or erosion. Examples include reinforced concrete and concrete masonry retaining walls, segmental retaining walls, check dams, cribbing, riprap, and the like.

A Building Permit and Plan Review are required for the construction of earth retaining structures. Plans must bear the seal of a Washington-State-licensed professional, and a geotechnical analysis may be required.

Exceptions:

1. Reinforced concrete retaining walls which do not exceed three feet in height above grade, provided that foundations shall be located at a depth below grade equal to the height above grade. Walls have level backfill and support no surcharge (parking areas, walkways, structural) loads.
2. Earth-retaining structures which do not exceed four feet in maximum height from bottom of footing to top of wall and which are located a minimum distance of 15 feet from property lines.
3. Modular Block earth-retaining structures which do not exceed four feet in maximum height from bottom of footing to top of wall provided that the following conditions are met:
 - Modular Block earth-retaining structures are designed and built in accordance with manufacturer's published guidelines.
 - Backfill materials are non-cohesive soils such as clean gravel, or crushed rock.
 - No surcharge loads are supported (parking areas, walkways, structural, sloping backfill, etc.) or IMPOUNDING Class I, II, III-A liquids.
 - A maximum of two terraces are allowed, with a required distance between terraces of 2.0 times the wall height with each terrace not to exceed four feet in height.