

Planning Ahead

Are plans required?

Plans are required for all retaining walls which require a building permit, and must include:

- Engineering design calculations, stamped and signed by a licensed design professional.
- Town approved site or plot plan showing property line locations, street locations, location of work, length of walls, setbacks to existing buildings, decks, fences, pools, etc.
- A construction section for the retaining wall(s) showing materials, footings, reinforcement, height of wall, height and slope of backfill, drainage system.
- Engineer letters required from third party inspection company that will be performing the site inspections.

Will my project need plan review?

Some projects require plan review before a permit can be issued, including all walls discussed here.

How do I submit my plans?

An application—with site plan and building plans—must be submitted to the Inspections Department

Residential plans can be submitted in person or via IDT through the Town of Apex website at:

<https://townofapex.geocivix.com/>.



For any questions about submitting your plans, please feel free to call **919-249-3418**.

Zoning Restrictions and Residential Walls

Here's a quick look at some important zoning restrictions to be aware of when planning a residential retaining wall:

- Retaining walls located on residential lots should not exceed **6 feet in height from grade** at any point.
- No more than **two tiers** are allowed for retaining walls located on residential plots.
- Residential retaining walls **cannot cross property lines**. If a retaining wall crosses property lines, it becomes a commercial project.

For more information on zoning restrictions, please call **919-249-3426**.

Town of Apex Building Inspections & Permitting

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322 N. Mason Street
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Retaining Walls



What you need to know before beginning a project



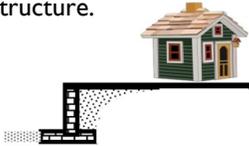
When do I need a permit?

When the retaining wall system on a residential lot crosses adjacent property lines.

Regardless of vertical height, a retaining wall system that crosses property lines will need a permit. This arrangement typically requires recording of maintenance easements on all properties containing the wall.

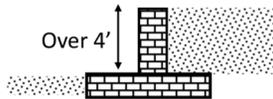
Retaining walls that support buildings and their accessory structures.

The extra load from the structure must be accounted for in the wall design, along with stability checks for the support structure.



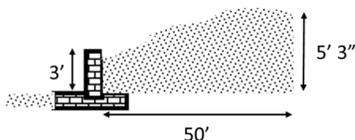
Retaining walls exceeding 4 feet of unbalanced backfill and height.

The height of the unbalanced backfill is measured as the distance from grade on high side to grade on low side.



Retaining wall systems providing cumulative vertical relief greater than 5 feet in height within a horizontal distance of 50 feet or less.

The extra load from the additional soil must be accounted for in the wall design.



What is a retaining wall?

Retaining walls are relatively rigid walls used for supporting soil laterally so that it can be retained at different levels on either side.

They are also structures that are designed to restrain soil to a slope that it would not naturally keep to (typically a steep, near-vertical or fully vertical slope).

Retaining walls are used to bound soils between two different elevations, often in areas of terrain possessing undesirable slopes, or in areas where the landscape needs be shaped severely and engineered for more specific purposes like hillside farming or roadway overpasses.

A retaining wall that retains soil on the backside and water on the frontside is called a seawall or bulkhead.



Ex. of a seawall / bulkhead.

More commonly asked questions...

“Do I need a permit for a 4 foot retaining wall?”

If the wall is 4 feet tall and does not involve any of the items listed in numbers 1 - 4 under **When do I need a permit?** in the left section, you will not need a permit.

“My neighbors and I want to build a wall that crosses the property lines, can we do that?”

Yes, however it becomes a commercial retaining wall which requires a design professional and easements to be recorded.

“How far does my wall have to be from the property line?”

Walls can be built next to the property, and do not require a setback.

“I need a 10 foot wall. Can I build one on my residential lot?”

Yes, but it must be built in two separate tiers per Town UDO (Unified Development Ordinance).

“Where do I measure from to find the height of the wall?”

Measure from the top of the grade to the top of the wall.

“What does grade mean?”

Grade is a term used to describe the level of the earth at a specific location, or at ground level.



Ex. of retaining wall supporting a structure