



Engineered Footings and Foundations

November 03, 2016

Larimer County is divided into two areas ("B" & "C") by wildfire hazard area and roofing requirements. Area "B" is the foothill and mountain areas; area "C" is along the Front Range. Due to the prevalence of shrink/swell soils in Larimer County, especially along the Front Range, an engineered footing and foundation plan or a site-specific soils report indicating non-expansive soil will be required on all home sites in area "C".

New subdivisions already have soil reports done at the development stage, and are flagged as to whether engineered footings and foundations are required. These prescriptive requirements apply to older subdivisions, metes and bounds parcels, and 35-acre subdivisions or tracts in area "C". If their soils report indicated that foundations can be poured on conventional spread footings, then the county's minimum footings standards may be used and engineered foundation designs are not required. Otherwise, engineered footings and foundations will be required.

Exceptions: Unenclosed patio covers and porches, decks, one-story agriculture pole buildings under 3000 square feet, and accessory unheated detached one-story utility buildings less than 24 feet in depth (truss length) and 48 feet wide are exempt from engineered footings and foundations when they meet Larimer County's Prescriptive Design Standards.

In area "B" (foothills and mountains) where the subdivision approval requires an engineered footing and foundation, an engineered design will be required. (See below for other engineered foundation requirements.) If building on or near a steep slope or where the presence of shrink/swell soils is indicated, an engineered foundation system may be required. Slope profiles are required on non-engineered plans in area "B" to show the steepness of terrain 50 feet around the structure.

Other Colorado Registered Engineered foundation requirements include:

1. All steel buildings, throughout the county.
2. All foundation walls over 9'-0" and all retaining walls 4'-0" and more in height, throughout the county.
3. All commercial projects, throughout the county.
4. All unconventional building designs and foundation systems, throughout the county.
5. Utility buildings, depending on the size and type of construction (steel buildings with steel girders imposing point loads, for instance) throughout the county.
6. All habitable structures within 15 feet of the toe a slope or within 40 feet of the top of a slope when the slope exceeds 1 unit vertical in 3 units horizontal.

Note: Soils report and engineered footings and foundations requirements first took effect September 1, 1999