

When Soil Investigation Reports are Required Policy

Purpose: To establish a policy to clarify when soil investigation reports are required.

Background: Section 1803 of the California Building Code (CBC) states that, "Geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the building official or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a registered design professional."

Policy:

- A. Bearing Pressure:** A soil investigation report, prepared by a licensed civil or geotechnical engineer, is required to be submitted for all new buildings and additions, unless the allowable soil pressure used in the foundation design is 1,500 psf or less. Allowable soil pressure over 1,500 psf but not exceeding 3,000 psf may be accepted by the Building & Safety Division when the foundation design is accompanied by a letter prepared and signed by a registered civil or geotechnical engineer. The letter must indicate that the engineer has examined the soil and that the class of the soil, based on their observation, is 3, 4 or 5 as defined in the current CBC 'Presumptive Load Bearing Values Table.
- B. Expansive Soils within Subdivisions:** In subdivisions and individual lots within subdivisions, Section 66426 of the California Government Code requires that a preliminary soil investigation report be prepared when expansive soil conditions exist. A copy of the preliminary soil report shall be provided to the Building & Safety Division when a subdivision is created containing five or more lots. If the preliminary soils report indicates that the expansion index is greater than 20 or other soil irregularities exist, a soil investigation report for each individual lot within the subdivision shall also be performed. The Building & Safety Division shall flag each lot within the subdivision for special inspections.


Section 17954 of the California Health and Safety Code requires that a civil engineer, licensed by the State of California, prepare the soil investigation report. The report may be based upon either observation of trenching and/or testing of materials. It shall recommend corrective action which is likely to prevent structural damage to each dwelling proposed to be constructed on the expansive soil.

Prior to approval of the plans, a stamped and signed letter from the project engineer shall be provided to the Building & Safety Division stating that the approved recommended action of the soil report has been incorporated into the design of each dwelling. Prior to approval of the foundation, Special Inspection shall be performed by observation and/or any necessary tests of materials disclosed by borings or excavations made within the buildable area of each lot.

Verification of observation and testing shall be presented to the Building & Safety Division field inspection staff prior to placement of any concrete. Any corrective actions shall be made and approved by the engineer of record, and if needed, by the Building & Safety Division plan review staff, prior to placement of any concrete.

- C. Excavations:** Slope cuts exceeding 1 unit vertical in 2 units horizontal shall require a soil engineering or engineering geology report as per CBC.

Note: All soil investigation reports over three years old will require a letter from the geotechnical or civil engineer stating that the report is still valid.



Joseph Cuffe
Building Official, City of Rancho Cordova