



MODIFICATION REQUESTS FOR FOUNDATION AND SOILS INVESTIGATIONS

COMMUNITY DEVELOPMENT DEPARTMENT • BUILDING DIVISION

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PURPOSE

The 2016 California Building Code Section 1803.2 establishes requirements for foundation and soils investigations. These investigations are generally required for all structures located in Cupertino. This policy gives a general overview of these requirements and how to submit requests for waiver of these requirements for simple structures.

GENERAL REQUIREMENTS

Scope of Investigations: Geotechnical investigations must include an evaluation of the following potential hazards from earthquake motions: slope instability, liquefaction and soil strength loss, differential settlement, reduction in soil-bearing capacity and surface rupture due to faulting or lateral spreading.

Qualifications for Persons Preparing Reports: A State of California registered Geotechnical Engineer or registered Civil Engineer with the appropriate experience and training is required to create, seal and sign the report on the results of the investigation and soil classification. When the report contains geological interpretations or subsurface explorations of faulting, or when the site has a slope surface of 3 horizontal to 1 vertical or steeper, the report shall be signed by either a registered Geotechnical Engineer or a California Certified Engineering Geologist.

Contents of the Report: Per Section 16.12.030 of the Municipal Code, Geotechnical investigation reports shall be comprehensive and shall include the analysis of the following:

- A. Stability of all slopes, within the lot or subdivision or slopes above, below or adjacent to the area under investigation.
- B. The classification of all soils for expansion potential;
- C. The classification of the soils according to the Unified Soils Classification System;
- D. The establishment of design bearing values and anticipated maximum settlements;
- E. Soil profiles including relevant data to depths which reflect the nature and magnitude of the future loading;
- F. The presence of rocks or liquids containing deleterious chemicals, which, if not corrected, could cause construction materials such as concrete, steel, and ductile or cast iron to corrode or deteriorate.

MODIFICATIONS TO INVESTIGATION AND REPORT REQUIREMENTS

Exception to Site Specific Report: Per 2016 CBC Section 1803.2, the Building Official shall be permitted to waive the requirement for a geotechnical investigation where soils conditions are known based on reports of prior investigations of nearby sites for similar types of construction that demonstrates an investigation is not necessary for any of the conditions set forth in Sections 1803.5.1 through 1803.5.6 and Section 1803.5.10 and 1803.5.11.

Code Modification Request: If no known reports of nearby sites are available, upon written request from the designer of record (or Soils Engineer), the Building Official may consider requests for modification of requirements when special individual reasons exist that make the application of these requirements impractical. These requests may be granted when supporting facts demonstrate that granting of such request will not lessen any degree of structural integrity, durability, strength and seismic safety. The extent of the change in requirements will be based on the strength of the supporting facts.

The person responsible for the foundation design must submit the request for modification in a letter format with the following minimum information:

1. Plot plan showing location of proposed and existing structures and existing natural grade contours.
2. Use, floor area, number of stories and height of existing and proposed structures.
3. Determination of maximum design loads for proposed footing and retaining walls.
4. Visual observation report of performance and condition of any existing structures on site with description of the structure size, foundation structure and loading.
5. Soil classification.
6. Observations from site visit on potential for differential settlement, slope instability, expansive soils, lateral spreading, liquefaction and presence of fill materials.
7. Estimated costs of construction and related foundation and soils investigation report.
8. A statement that a foundation inspection will be performed by the designer of record (or Soils Engineer) to verify the site conditions are consistent with soils conditions as noted in the letter.

Examples of Work That May Not Require a Soils Investigation Report:

1. Residential Additions/Remodels: One-story additions 750 s.f. or less on level, undisturbed grade to an existing single family dwelling or a second-story additions 750 s.f. or less to an existing single family dwelling with engineering design, and non-structural remodels.
2. Detached Residential Accessory Structures: Detached residential accessory structures, such as garages, carports, recreation rooms, storerooms, workshops, stables, barns, playhouses, patio structures, gazebos, trellis, equipment sheds, animal enclosures and similar structures not exceeding 750 square feet in area.
3. Non-Habitable Accessory Structures: Miscellaneous structures such as free standing fences not exceeding 8 feet in height, decks no greater than 4 feet above grade at any point, retaining walls which retain no more than 5 feet level surcharge, photovoltaic systems, barbeques and other similar structures.