

County of Monterey HOUSING AND COMMUNITY DEVELOPMENT Planning · Building · Housing Craig Spencer, Director

<u>Memorandum</u>

Subject: Modification Requests for Foundation and Soils Investigations

Code: 2022 California Building Code, Foundation and Soils Investigations

PURPOSE

The latest edition of the California Building Code establishes requirements for foundation and soils investigations. These investigations are generally required for all structures located in high seismic regions such as Monterey County. This policy gives a general overview of these requirements and how to submit requests for modification 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: Reports shall include the following minimum information:

1. Complete record of the soil samples, soil profile and plot of the location of test borings and/or excavations.

2. Soil classification based on observation and tests of the materials disclosed.

3. Evaluation of slope stability, soil strength, position, and adequacy of load-bearing soils, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction and expansiveness and elevation of the water table, if encountered.

- 4. Design spectral response acceleration coefficients, SDS and SD1.
- 5. Expected total and differential settlement.
- 6. Compacted fill material properties and testing in accordance with Section 1803.5.3
- 7. Recommendations for foundation type and design criteria and provisions to mitigate the effects of related potential seismic hazards.
- 8. Effects of adjacent loads on the proposed structure.



CountyofMonterey.Gov

Modifications To Investigation and Report Requirements

Exception to Site Specific Report: Normally, an investigation and report must be prepared on and for the site of the proposed construction. When the Building Official determines that soils conditions are known based on reports of prior investigations of nearby sites for similar or less complex construction, the Building Official may waive a full investigation and report based on specified conditions for construction.

Code Modification Request: Upon written request from the designer of record, the Building Official may consider requests for modification of requirements when special individual reasons exist that make 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.

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

1. Residential Additions/Remodels: One-story additions 500 s.f. or less on level, undisturbed grade to an existing single-family dwelling or a second-story additions 500 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 500 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.