

## **INFORMATION BULLETIN / PUBLIC - BUILDING CODE**

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## EXEMPTIONS FROM LIQUEFACTION, EARTHQUAKE INDUCED LANDSLIDE, AND FAULT-RUPTURE HAZARD ZONE INVESTIGATIONS

The City of Los Angeles is located in a geologically active area of Southern California that includes several major active faults. Due to the proximity of these faults and the resulting mapped spectral response accelerations, buildings regulated by the Los Angeles Building Code (LABC) within the City of Los Angeles are classified as either Seismic Design Category D, E or F, per Section 1613.3.5. Sections 1803.5.11 and 1803.5.12 of the LABC require that a soil investigation be conducted for these Seismic Design Categories to evaluate the following potential hazards from earthquake motions: slope instability, liquefaction, differential settlement, and surface rupture due to faulting or lateral spreading. However, the entire City of Los Angeles has already been evaluated and seismic hazard study zones established to identify areas where the potential for these hazards may exist. These seismic hazard zones were developed by the California Geologic Survey under the requirements of the Seismic Hazards Mapping Act and/or the Alquist-Priolo Earthquake Fault Zoning Act of the State of California and City of Los Angeles Preliminary Fault Rupture Study Areas. Therefore, for the purpose of satisfying Sections 1803.5.11 and 1803.5.12 of the LABC, a geologic and/or soils investigation concerning these seismic hazards will normally only be required when a site falls within the boundaries of these designated study zones, except as discussed below.

The Seismic Hazards Mapping Act and the Alquist-Priolo Earthquake Fault Zoning Act define projects that are exempt from any investigation requirements. Also certain building construction is exempted for projects under OSHPD and DSA jurisdiction. However, Sections 1803.5.11 and 1803.5.12 of the LABC have no provisions for any exemptions from these investigations. Therefore, exemptions from the California Building Code requirement for a seismic hazard investigation are defined herein.

With the adoption of the Residential Code in 2014, liquefaction and seismic-induced landslide investigations are no longer required for one- and two-family dwellings, subject to the provisions defined in this bulletin. Note however, that investigation for ground surface fault rupture is still required by the Department of Building and Safety.

## I. EXEMPTIONS FROM INVESTIGATIONS IN EARTHQUAKE-INDUCED LIQUEFACTION AND EARTHQUAKE-INDUCED LANDSLIDE AREAS.

The following projects are <u>exempt</u> from the investigation requirement for earthquake-induced slope instability, liquefaction and surface rupture due to lateral spreading:

- 1. Projects located outside of, an earthquake-induced liquefaction hazard zone and/or an earthquake-induced landslide hazard zone. This exemption, however, does not preclude the Grading Division of LADBS from requiring an investigation outside of the established zones, when geologic factors indicate that the potential for ground failure during an earthquake may exist.
- One- and two-family dwellings, and their accessory structures, as covered under the 2017 City of Los Angeles Residential Code with the following provisions defined under the State of California Seismic Hazards Mapping Act:



- a) Buildings with three stories or higher are not exempt. In compliance with the Seismic Hazards Mapping Act, the number of stories in a building is equal to the number of distinct floor levels, including basement levels, provided that any levels that differ from each other by less than two feet shall be considered as one distinct level.
- b) The building shall not be part of a development of four or more dwellings.
- 3. Additions and/or alterations to existing buildings where the total value of the work is less than 50 percent of the replacement value of the existing building and the added floor area is less than 50 percent of the floor area of the existing building. However, if the existing building foundation has been specifically designed for any type of earthquake-induced ground failure, then the addition shall comply with the same requirements. Additions to exempted buildings shall also be exempt, regardless of the height or size of the addition.
- 4. Structures of Group U occupancy, including private garages, carports, retaining walls, fences, cell phone towers, etc.
- 5. Pools, spas and decks.
- 6. Conversion of an existing apartment building into a condominium.

## II. EXEMPTIONS FROM INVESTIGATIONS IN ALQUIST-PRIOLO FAULT STUDY ZONES OR CITY OF LOS ANGELES PRELIMINARY FAULT RUPTURE STUDY AREAS.

The following projects are <u>exempt</u> from the investigation requirement for ground surface rupture due to earthquake faulting:

- 1. Projects located outside of an Earthquake Fault Zone (Alquist-Priolo) or City of Los Angeles Preliminary Fault Rupture Study Area. This exemption, however, does not preclude the Grading Division of LADBS from requiring an investigation outside of the established zones, when the site is located in the proximity of a known fault. In particular, geologic and geotechnical consultants are expected to be knowledgeable about investigations and current professional opinion regarding activity levels of known faults within L.A. City boundaries and to perform their site investigations accordingly. Reference should always be made to the most recent version of the Fault Activity Map for the State of California.
- 2. Additions or alterations to existing buildings where the value of the work is less than 50 percent of the replacement value of the existing building and the added floor area is less than 50 percent of the existing floor area. Second story residential additions within the building footprint of the existing structure shall not be included in the 50 percent assessment of the replacement value nor the floor area limitation. This exemption shall only apply to residential buildings up to 2 stories.
- 3. Buildings that are accessory to a residential occupancy, including accessory dwelling units (ADU).
- 4. Structures of Group U occupancy, including private garages, carports, retaining walls, fences, cell phone towers, etc.
- 5. Pools, spas and decks.
- 6. Conversion of an existing apartment building into a condominium.