



# **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 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 code 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 been evaluated by the California Geological Survey (CGS) and seismic hazard study zones have been established to identify areas where the potential for these hazards are most likely to exist. These seismic hazard zones were developed by the CGS under the requirements of the Seismic Hazards Mapping Act and/or the Alquist-Priolo Earthquake Fault Zoning Act of the State of California and by the City of Los Angeles, which designated Preliminary Fault Rupture Study Areas (PFRSA). Most of the PFRSAs have been superseded by State Alquist-Priolo Earthquake Fault Zones (APEFZ), except the PFRSA for the Palos Verdes fault, which still remains, although it is the Department's understanding that the CGS is currently working on zoning this fault. 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 be required when a site is located 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 also define developments that are exempt from investigation requirements. Developments are exempt where not considered "Projects" as defined in Section 2621.6 of Chapter 7.5 Division 2 of the California Public Resources Code (CPRC). Other exemptions are listed in Section 2621.7 of Chapter 7.5 Division 2 of the CPRC. However, sections 1803.5.11 and 1803.5.12 of the LABC have no provisions for exemptions from these investigations. Therefore, exemptions from the California Building Code and the LABC requirement for a seismic hazard investigation are defined herein.

With the adoption of the Residential Code in 2014, seismic hazard investigations, including those for liquefaction, seismic-induced landslide and fault rupture potential, are not required for one- and two-family dwellings that are of wood or metal framed construction, subject to the provisions defined in this bulletin. It should be noted, however, that some geologic environments that are not within a CGS defined hazard zone may nevertheless be subject to such hazards. Professional geologists and engineers are expected to provide such investigations where potential seismic hazards may exist, even though the site may not be located within a CGS seismic hazard zone.

## **EXEMPTIONS FROM INVESTIGATIONS**

1. One- and two-family dwellings, and their accessory structures, as covered under the City of Los Angeles Residential Code with the following provisions defined under Section 2621.6 of Chapter 7.5 of the CPRC:
  - a) Residential buildings three stories or higher are not exempt. 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) Buildings that are accessory to a residential occupancy, including accessory dwelling units (ADU).
  - c) The residential building shall not be part of a development of four or more dwellings.
2. Any new commercial structure with an occupancy rate of more than 2,000 person-hours per year is not exempt.
  3. Additions and/or alterations to existing residential and non-residential 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.
  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.

### ACKNOWLEDGEMENT OF RISK OF FUTURE FAULT RUPTURE

Both the Seismic Hazards Mapping Act and the Alquist-Priolo Earthquake Fault Zoning Act require disclosure of seismic hazard zones for prospective purchasers of property located within these zones (§§ 2621.9 & 2693 CPRC). To provide an additional record of the potential hazard of earthquake induced ground rupture, and to assist with property owners risk assessment, exempt developments that are located within 50 feet of a mapped fault, as shown in the Alquist-Priolo Earthquake Fault Zone maps (AP maps), shall record an affidavit with the County of Los Angeles Registrar-Recorder's office that acknowledges that the owners of the property know that their site is in close proximity to a zoned fault.

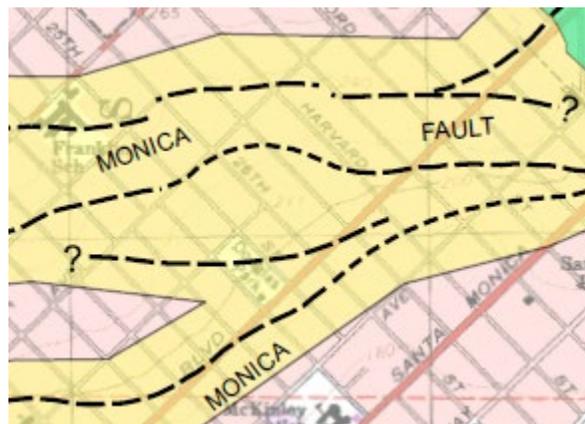


Figure 1.  
Example of AP Map showing fault traces.

Developers of exempt single-family residences in AP zones will be directed to the Grading Division to obtain a **PCIS** clearance by a Department geologist, who will make the determination on the site's location relative to fault

traces on the AP map. AP maps indicate the relative certainty of the fault location; typically as approximate, accurate, concealed and inferred. Only the faults mapped as accurate and approximate require the affidavit. An affidavit will not be required for sites that are investigated by a Professional Geologist, which demonstrate that no active fault traverses through the site. The affidavit form is available on the Department of Building and Safety web page ([LADBS.ORG](http://LADBS.ORG)) by searching for PC-GRAD.Aff07.