

SURFICIAL GEOLOGIC MAP OF QUATERNARY AGE
SEDIMENTS, PORTION OF ORANGE COUNTY, CALIFORNIA

Interpretation by:
David R. Fuller

The purpose of this map is to characterize, in a general manner, the textural nature and areal distribution of surface sediments of Quaternary age for purposes of estimating the response of these sediments to seismic impact.

This map was principally derived from the U.S. Department of Agriculture, Soil Conservation Service, 1976 Interim Report, "Soil Survey of Orange and Western Part of Riverside Counties." Soil descriptions and limited mechanical grain size analyses of the 226 different soil units were evaluated and compared both in description and areal distribution to other existing independent field tests and reports. The 226 soil units were reduced to the 8 general descriptive units on this map, based on predominant grain size and consolidation.

- Unit 2. Sand, unconsolidated Holocene alluvial deposits. This unit has a sand content of greater than 50% sand, grain size larger than a Number 200 sieve (0.07 mm diameter), and a subjective description of sand (i.e., sand, gravelly sand, silt sand, clayey sand, etc.).
- Unit 3. Silt, unconsolidated Holocene alluvial deposits. This unit has a silt content greater than the percentage of gravel, sand and clay portions. It is based on 50% or more of the sieved sample passing the Number 200 sieve and subjective description recorded as silt (i.e., clayey silt, sandy silt, gravelly silt, sandy clayey silt, etc.).
- Unit 4. Clay, unconsolidated Holocene alluvial deposits. This unit has a clay content greater than the gravel, sand and silt portions. It is based on 50% or more of the sieved sample passing the Number 200 sieve and a subjective description recorded as clay (i.e., gravelly clay, sandy clay, silty clay, etc.).
- Unit 5. Sand, consolidated Quaternary marine and alluvial deposits. This unit, like Unit 2, has a predominant sand content, but is consolidated. The unit is found in the Pleistocene mesas, the older stream terraces and Coyote Hills.
- Unit 6. Silt, consolidated Quaternary marine and alluvium deposits. This unit, like Unit 3, has a predominant silt content, but is consolidated. The unit is found in the Pleistocene mesas, the older stream terraces and Coyote Hills.
- Unit 7. Clay, consolidated Quaternary marine and alluvial deposits. This unit, like Unit 4, has a predominant clay content, but is consolidated. The unit is found in the Pleistocene mesas, the older stream terraces and Coyote Hills.
- Unit 8. Unconsolidated Holocene intertidal and lagoonal muds. This unit is described by the USDA as clayey to sandy tidal flat deposits.
- Unit 9. Unconsolidated Holocene beach deposits. This unit is described by the USDA as sandy, gravelly or cobbly coastal deposits washed by tidal and/or wave action.

BASE MAPS FROM U.S. GEOLOGICAL SURVEY MOSAICED ORTHOPHOTO 1:24,000 QUADRANGLES

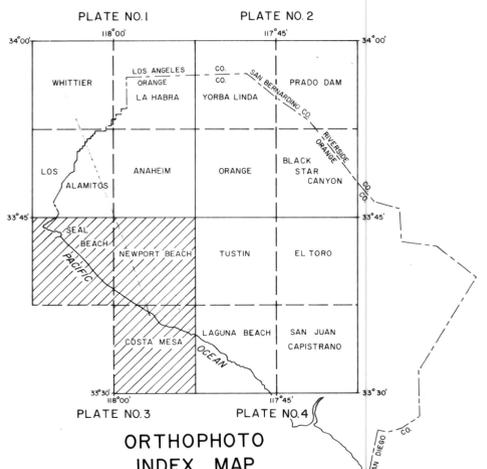
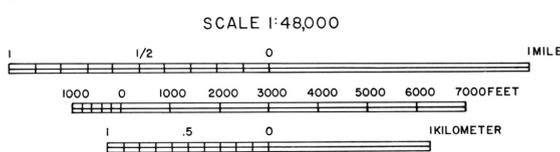
CLASSIFICATION AND MAPPING OF QUATERNARY SEDIMENTARY DEPOSITS FOR PURPOSES OF SEISMIC ZONATION, SOUTH COASTAL LOS ANGELES BASIN, ORANGE COUNTY, CALIFORNIA

SECOND YEAR INTERIM REPORT

SURFICIAL GEOLOGIC MAP OF QUATERNARY AGE SEDIMENTS
PORTION OF ORANGE COUNTY, CALIFORNIA

INVESTIGATORS: EDWARD C. SPOTTE, DAVID R. FULLER AND RICHARD B. GREENWOOD
PERIOD ENDING SEPTEMBER 18, 1980.

- LEGEND
- Definition of Mapped Units
- 2 Sand, unconsolidated Holocene alluvial deposits
 - 3 Silt, unconsolidated Holocene alluvial deposits
 - 4 Clay, unconsolidated Holocene alluvial deposits
 - 5 Sand, consolidated Quaternary marine and alluvial deposits
 - 6 Silt, consolidated Quaternary marine and alluvial deposits
 - 7 Clay, consolidated Quaternary marine and alluvial deposits
 - 8 Unconsolidated Holocene intertidal or lagoonal muds
 - 9 Unconsolidated Holocene beach deposits
- COUNTY LINE ————



ORTHOPHOTO
INDEX MAP