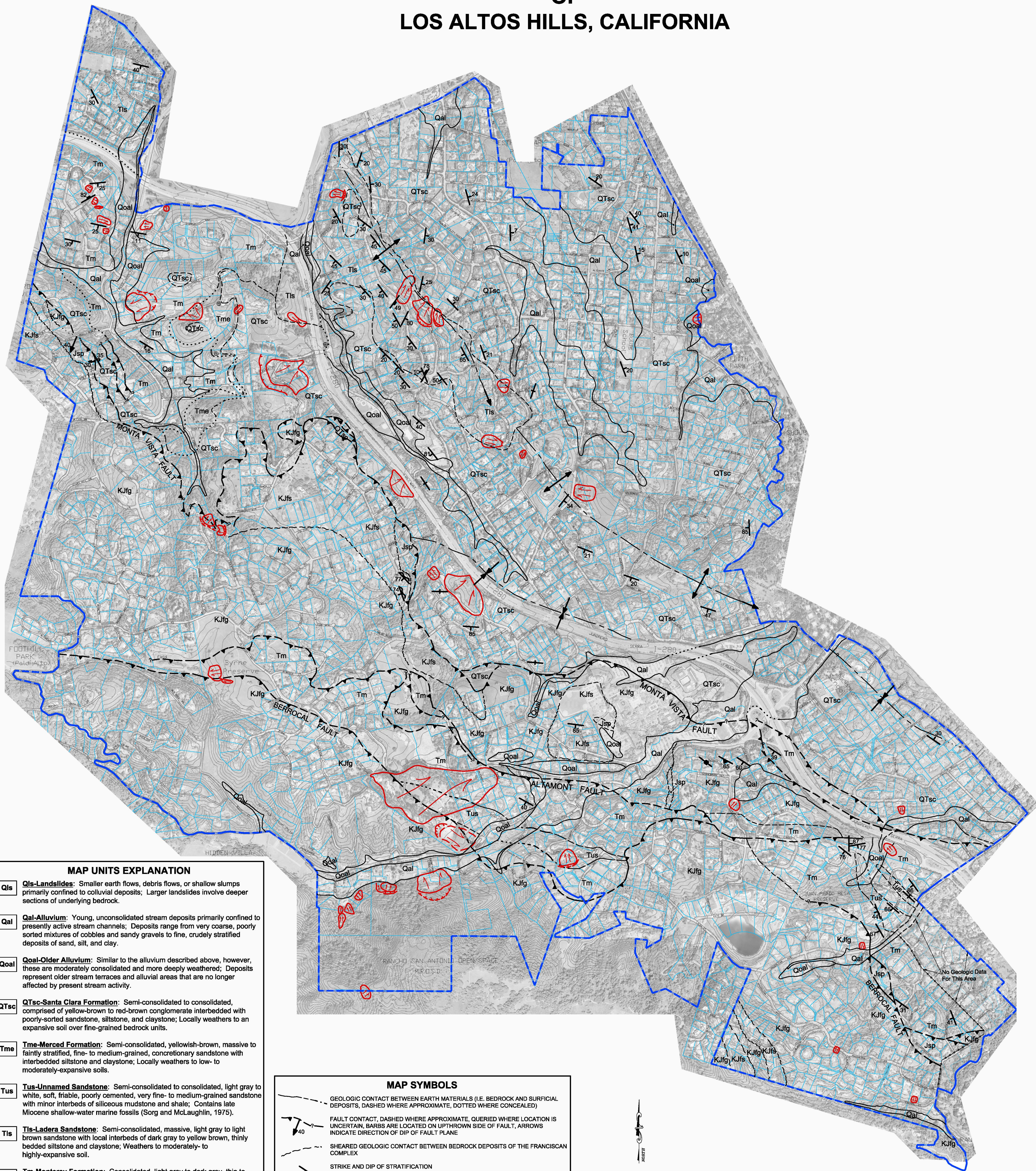


# GEOLOGIC MAP OF LOS ALTOS HILLS, CALIFORNIA



## MAP UNITS EXPLANATION

- Qls** **Qls-Landslides:** Smaller earth flows, debris flows, or shallow slumps primarily confined to colluvial deposits; Larger landslides involve deeper sections of underlying bedrock.
- Qal** **Qal-Alluvium:** Young, unconsolidated stream deposits primarily confined to presently active stream channels; Deposits range from very coarse, poorly sorted mixtures of cobbles and sandy gravels to fine, crudely stratified deposits of sand, silt, and clay.
- Qoal** **Qoal-Older Alluvium:** Similar to the alluvium described above, however, these are moderately consolidated and more deeply weathered; Deposits represent older stream terraces and alluvial areas that are no longer affected by present stream activity.
- QTsc** **QTsc-Santa Clara Formation:** Semi-consolidated to consolidated, comprised of yellow-brown to red-brown conglomerate interbedded with poorly-sorted sandstone, siltstone, and claystone; Locally weathers to an expansive soil over fine-grained bedrock units.
- Tme** **Tme-Merced Formation:** Semi-consolidated, yellowish-brown, massive to faintly stratified, fine- to medium-grained, concretionary sandstone with interbedded siltstone and claystone; Locally weathers to low- to moderately-expansive soils.
- Tus** **Tus-Unnamed Sandstone:** Semi-consolidated to consolidated, light gray to white, soft, friable, poorly cemented, very fine- to medium-grained sandstone with minor interbeds of siliceous mudstone and shale; Contains late Miocene shallow-water marine fossils (Sorg and McLaughlin, 1975).
- Tls** **Tls-Ladera Sandstone:** Semi-consolidated, massive, light gray to light brown sandstone with local interbeds of dark gray to yellow brown, thinly bedded siltstone and claystone; Weathers to moderately- to highly-expansive soil.
- Tm** **Tm-Monterey Formation:** Consolidated, light gray to dark gray, thin to thickly bedded, highly fractured siliceous siltstone and shale with minor interbeds and lenses of chert and tan, medium-grained, semi-consolidated, massive sandstone; Weathers to highly-expansive soil.
- KJfg** **KJfg-Franciscan Complex Greenstone:** Highly-consolidated, red-brown to green, massive, fractured, altered basaltic volcanic rock associated with local lenses of dark chert and light tan to white limestone; Locally highly sheared with closely spaced fractures, weathering to an expansive soil.
- KJfs** **KJfs-Franciscan Complex Sandstone:** Consolidated, tan to dark gray, massive to thickly bedded, fine- to medium-grained, fractured sandstone; Commonly interbedded with shale, siltstone, chert, and greenstone; Commonly pervasively sheared and closely fractured; Weathers to a moderately-expansive soil.
- Jsp** **Jsp-Serpentinite:** Dark green to light green, hard, serpentinite blocks within a softer, intensely sheared serpentinite matrix; Locally associated with fault/shear zones; Serpentinite may locally be associated with the Franciscan Complex.

## MAP SYMBOLS

- GEOLOGIC CONTACT BETWEEN EARTH MATERIALS (I.E. BEDROCK AND SURFICIAL DEPOSITS, DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED)
- FAULT CONTACT, DASHED WHERE APPROXIMATE, QUERIED WHERE LOCATION IS UNCERTAIN, BARBS ARE LOCATED ON UPTHROWN SIDE OF FAULT, ARROWS INDICATE DIRECTION OF DIP OF FAULT PLANE
- SHEARED GEOLOGIC CONTACT BETWEEN BEDROCK DEPOSITS OF THE FRANCISCAN COMPLEX
- STRIKE AND DIP OF STRATIFICATION
- STRIKE OF VERTICAL STRATIFICATION
- HORIZONTAL STRATIFICATION
- STRIKE AND DIP OF OVERTURNED STRATIFICATION
- STRIKE AND DIP OF FRACTURE SURFACE
- STRIKE OF VERTICAL FRACTURE
- STRIKE AND DIP OF FOLIATION
- STRIKE AND DIP OF SHEAR SURFACE
- BOUNDARY OF LANDSLIDE DEPOSIT, DASHED WHERE APPROXIMATE, ARROWS SHOW DIRECTION OF DOWN SLOPE MOVEMENT, HATCHURED LINES INDICATE HEAD-WALL SCARP AREA
- TRACE OF AXIAL PLANE OF SYNCLINE
- TRACE OF AXIAL PLANE OF ANTICLINE

## NOTE TO USERS:

All boundaries between zones are located approximately. Topographic base map prepared by Cartwright Aerial Survey, dated April 2001. Depicted topographic contour lines are at five feet vertical intervals. Information on this map is NOT sufficient to serve as a substitute for detailed, site-specific geologic and geotechnical investigations necessary for construction purposes. The map includes modifications to reflect the results of unpublished, site-specific fault investigations submitted to Cotton, Shires and Associates prior to July 2004.

Los Altos Hills and Cotton, Shires and Associates, Inc. make no representation of warranties regarding the accuracy of the data from which this map was derived. Depicted Town boundaries are approximate and based on preliminary information. Absence of appropriate symbols (i.e., landslides, faults, etc.) from any part of this map may not be used to prove the absence of these features.

**COTTON, SHIRES & ASSOCIATES, INC.**  
CONSULTING ENGINEERS AND GEOLOGISTS

## GEOLOGIC MAP OF LOS ALTOS HILLS

LOS ALTOS HILLS, CALIFORNIA

GEO/ENG BY TS/RR	SCALE 1" = 600'	PROJECT NO. G0104A
APPROVED BY BC	DATE DECEMBER 2005	PLATE NO. 1 OF 1