

# GEOLOGIC MAPS of the LOWER SARATOGA HILLSIDE AREA SARATOGA, CALIFORNIA

GEOLOGIC MAPS  
OF THE  
LOWER SARATOGA HILLSIDE AREA  
SARATOGA, CALIFORNIA

SHEET  
A

PROJECT  
3595



DATE DEC 1985		DWN BY <i>Amw</i>		CHKD <i>EdM</i>		APPR	
REVISIONS							
NO.	DATE	DWN	CHKD	APPR			

## EXPLANATION

### GEOLOGIC UNITS

#### Surficial Deposits

- Af** ARTIFICIAL FILL: EXCAVATED SOIL OR BROKEN ROCK PLACED BY MAN AT VARIOUS DEGREES OF COMPACTION, GENERALLY FOR CONSTRUCTION PURPOSES. ONLY LARGE DEPOSITS (BARTH DAMS, LARGE CANYON FILLS, AND SOME ROADWAY AND BRIDGE ABUTMENT FILLS) ARE SHOWN.
- Qyal** YOUNGER ALLUVIUM: UNCONSOLIDATED STREAM DEPOSITS ALONG MAJOR ACTIVE STREAM CHANNELS. CONSISTS OF GRAY, POORLY SORTED GRAVEL, SAND, SILT, AND CLAY.
- Qoal** OLDER ALLUVIUM: UNCONSOLIDATED TO MODERATELY CONSOLIDATED STREAM DEPOSITS BETWEEN MAJOR ACTIVE STREAM CHANNELS AND ON TERRACES ABOVE PRESENT VALLEY FLOOR. CONSISTS OF ORANGE-BROWN, POORLY SORTED GRAVEL, SAND, SILT, AND CLAY.
- Als** ACTIVE LANDSLIDE: ACTIVELY OR RECENTLY-MOVING LANDSLIDE WITH FRESH, UNVEGETATED SCARPS AND BROKEN GROUND, UNDRAINED DEPRESSIONS, AND RECENTLY DISTURBED MAN-MADE FEATURES AND VEGETATION.
- Dls** DORMANT LANDSLIDE: CURRENTLY INACTIVE LANDSLIDE WITH WEATHERED AND OVERRUNNEN SCARPS, ROUNDED HUMMOCKY SURFACE TOPOGRAPHY, AND UNDISTURBED MAN-MADE FEATURES AND VEGETATION.
- Ols** OLD LANDSLIDE: LONG-INACTIVE LANDSLIDE WITH SUBDUED, IRREGULAR TOPOGRAPHY, LOW SLOPE POSITION, WELL-ESTABLISHED DRAINAGE, AND UNDISTURBED VEGETATION.
- Rls** REPAIRED LANDSLIDE: LANDSLIDE WHOSE STABILITY HAS BEEN ARTIFICIALLY MODIFIED BY 1) REGRADING, 2) REMOVAL OF THE LANDSLIDE DEBRIS AND REPLACEMENT WITH ENGINEERED FILL, AND/OR 3) RETENTION OF THE IN-PLACE LANDSLIDE MASS BY THE INSTALLATION OF DEEP PIERS, RETAINING WALLS AND/OR A BUTTRESS FILL.
- Colluvium**: UNCONSOLIDATED TO MODERATELY CONSOLIDATED, ORGANIC-RICH, ROCKY SOIL FORMED BY THE DEEP WEATHERING OF BEDROCK AND ACCUMULATED ON MOST HILLSIDES AND IN SMALL VALLEYS. CREEPS SLOWLY DOWNHILL. SHOWN ONLY WHERE INFERRED TO BE THICKER THAN ABOUT 5 FEET. THE CONTACT BETWEEN COLLUVIUM AND BEDROCK IS HIGHLY GENERALIZED; THE EXTENT OF COLLUVIAL MATERIAL CAN VARY FROM THAT SHOWN ON THE MAPS. UNIT INCLUDES THICK RESIDUAL SOIL.
- QTsc** SANTA CLARA FORMATION: RELATIVELY SOFT, CRUDELY STRATIFIED, GENERALLY RED-BROWN TO ORANGE-BROWN CONGLOMERATE, SANDSTONE, SILTSTONE, AND CLAYSTONE. NEARLY DEFINED FRACTURE SYSTEMS EXIST IN SOME EXPOSURES. WEATHERS TO TAN TO RED-BROWN, SANDY SOIL IN AREAS UNDERLAIN BY CONGLOMERATE AND SANDSTONE AND TO DARK BROWN TO DARK GRAY CLAYEY SOIL IN AREAS UNDERLAIN BY SILTSTONE AND CLAYSTONE. THE CLAYEY SOIL TYPICALLY IS MODERATELY TO HIGHLY EXPANSIVE.
- KJf** FRANCISCAN COMPLEX: GENERALLY HARD, PERVASIVELY FRACTURED, DARK GRAY SANDSTONE AND SHALES, DARK GREEN GREENSTONE, AND MINOR RED CHERT AND GRAY LIMESTONE. THE DISTRIBUTION OF INDIVIDUAL ROCK TYPES COULD NOT BE DETERMINED WITHIN THE SCOPE OF THIS PROJECT OR SHOWN AT THE SCALE OF THESE MAPS. WEATHERS TO SANDY TO CLAYEY SOIL THAT TYPICALLY IS MODERATELY TO HIGHLY EXPANSIVE.

#### Bedrock Deposits

### MAP SYMBOLS

- GEOLOGIC CONTACT BETWEEN DEPOSITS; DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED BY YOUNGER DEPOSIT, QUERIED WHERE LOCATION UNCERTAIN.
- 30 STRIKE AND DIP OF STRATIFICATION.
- 35 STRIKE AND DIP OF STRATIFICATION FROM OTHER GEOLOGIC STUDIES.
- ⊕ HORIZONTAL STRATIFICATION.
- +— AXIS OF PLUNGING ANTICLINE, LOCATED APPROXIMATELY; DOTTED WHERE CONCEALED BY YOUNGER DEPOSIT.
- +?— AXIS OF PLUNGING SYNCLINE, LOCATED APPROXIMATELY; DOTTED WHERE CONCEALED BY YOUNGER DEPOSIT, QUERIED WHERE LOCATION UNCERTAIN.
- ?— FAULT; DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED BY YOUNGER DEPOSIT, QUERIED WHERE LOCATION UNCERTAIN; BARBS ON UPTHROWN SIDE.
- ?° FAULT FROM PUBLISHED GEOLOGIC MAPS (REFERENCED); DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED BY YOUNGER DEPOSIT, QUERIED WHERE LOCATION UNCERTAIN; BARBS ON UPTHROWN SIDE.
- ∞ ∞ FAULT MAPPED BY CALIFORNIA DEPARTMENT OF WATER RESOURCES (1975) ON THE BASIS OF DISPLACEMENTS IN BURIED STREAM CHANNELS. NO EVIDENCE OF FAULT FOUND AT SURFACE DURING THIS STUDY.
- PHOTOLINEAMENT; ALIGNED TOPOGRAPHIC AND COLOR ANOMALIES POSSIBLY RELATED TO FAULTING.
- LANDSLIDE DEPOSIT; BOUNDARY DASHED WHERE APPROXIMATE, DOTTED WHERE CONCEALED BY YOUNGER DEPOSIT, QUERIED WHERE LOCATION UNCERTAIN. ARROWS SHOW DIRECTION OF DOWNSLOPE MOVEMENT. HATCHED LINES INDICATE TOP OF HEAD SCARP. QUESTION MARK INDICATES EXISTENCE OF DEPOSIT IS UNCERTAIN.
- Df DEBRIS FLOW SCARP AND FLOW PATH; ESTIMATED TO BE YOUNGER THAN 5 YEARS.
- SPRING.
- ====> EROSION GULLY DEEPER THAN ABOUT 10 FEET.

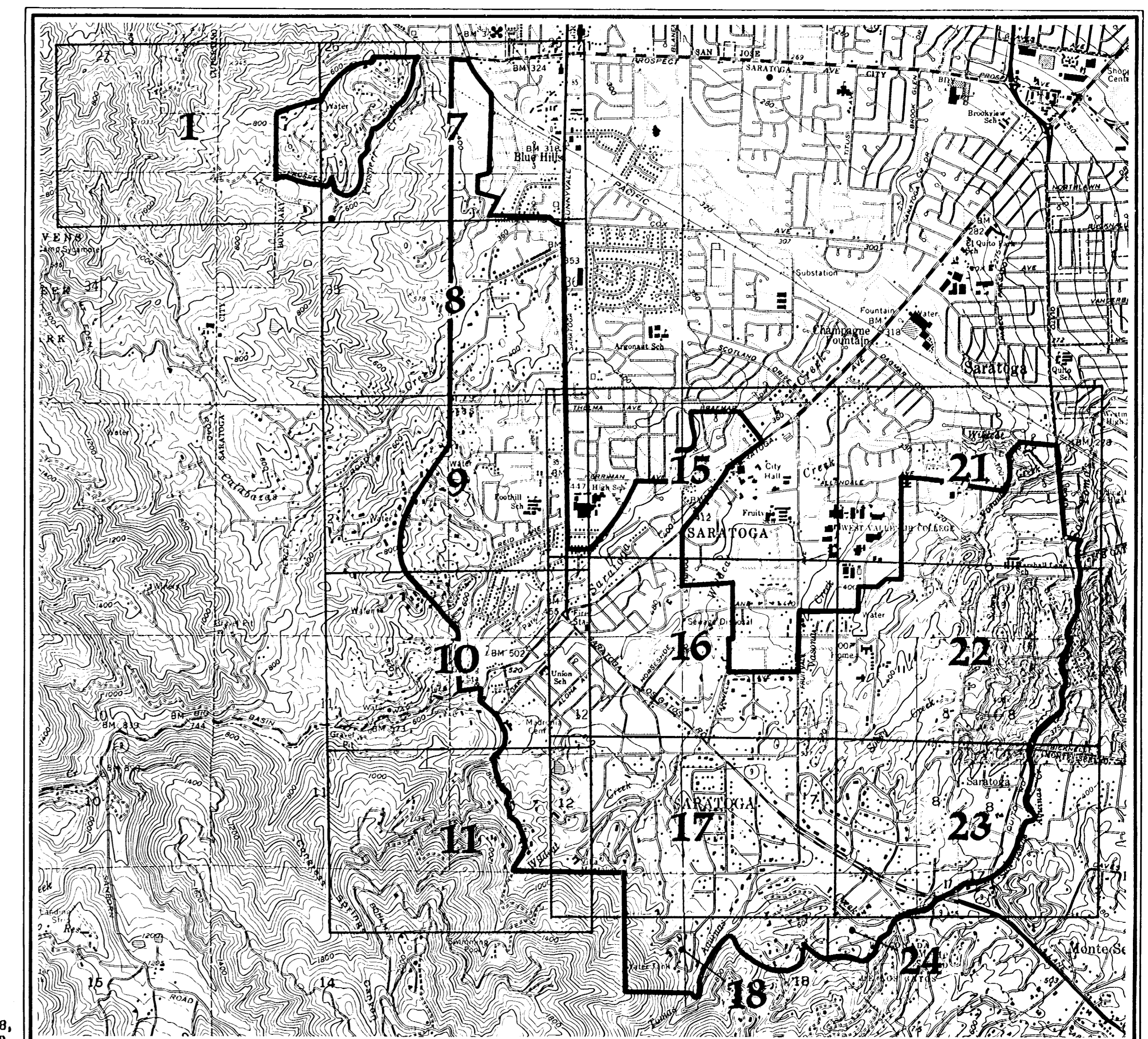
### NOTE TO USERS

THESE MAPS SHOW GEOLOGIC DATA OBTAINED BY DETAILED GROUND RECONNAISSANCE CONDUCTED DURING THE MONTHS OF APRIL, MAY, AND JUNE OF 1985; INTERPRETATION OF AERIAL PHOTOGRAPHS; AND A REVIEW OF PUBLISHED AND UNPUBLISHED GEOLOGIC REPORTS AND MAPS. THEY ARE DESIGNED PRIMARILY FOR USE BY GEOLOGISTS, GEOTECHNICAL ENGINEERS, AND OTHER PROFESSIONAL EARTH SCIENTISTS. THEY ARE NOT INTENDED AS A SUBSTITUTE FOR THE DETAILED SITE INVESTIGATIONS THAT ARE NECESSARY FOR CONSTRUCTION PURPOSES.

WHERE SPECIFIC GEOLOGIC FEATURES ARE SHOWN ON THESE MAPS, FIELD EVIDENCE WAS FOUND TO SUPPORT THEIR EXISTENCE. ABSENCE OF APPROPRIATE SYMBOLS (E.G. LANDSLIDES, FAULTS, ETC.) FROM ANY PART OF THESE MAPS, HOWEVER, MAY NOT BE USED TO PROVE THE ABSENCE OF THOSE FEATURES IN THE FIELD.

ADDITIONAL EXPLANATION AND DESCRIPTION OF THE GEOLOGIC MATERIALS SHOWN ON THESE MAPS MAY BE FOUND IN THE REPORT ENTITLED GEOLOGIC HAZARDOUS ANALYSIS OF THE LOWER SARATOGA HILLSIDE AREA, SARATOGA, CALIFORNIA (OCTOBER 1985), BY TERRATECH, INC. A SECOND SET OF MAPS ENTITLED GROUND MOVEMENT POTENTIAL MAPS OF THE LOWER SARATOGA HILLSIDE AREA, SARATOGA, CALIFORNIA, WAS PREPARED BY INTERPRETATION OF THE GEOLOGIC MAPS AND OTHER INFORMATION. THE GROUND MOVEMENT POTENTIAL MAPS MAY BE OF GREATER INTEREST TO THE NON-TECHNICAL USER.

### MAP SHEET INDEX



BASE MAP: U.S. GEOLOGICAL SURVEY TOPOGRAPHIC QUADRANGLES: LOS GATOS (1953, PHOTOREVISED 1980), CASTLE ROCK RIDGE (1955, PHOTOREVISED 1968, PHOTOINSPECTED 1973), CUPERTINO AND SAN JOSE WEST (1961, PHOTOREVISED 1980).