DF-30 GEOLOGY HOLLYWOOD AND SOUTH 1/2 BURBANK QUADRANGLES

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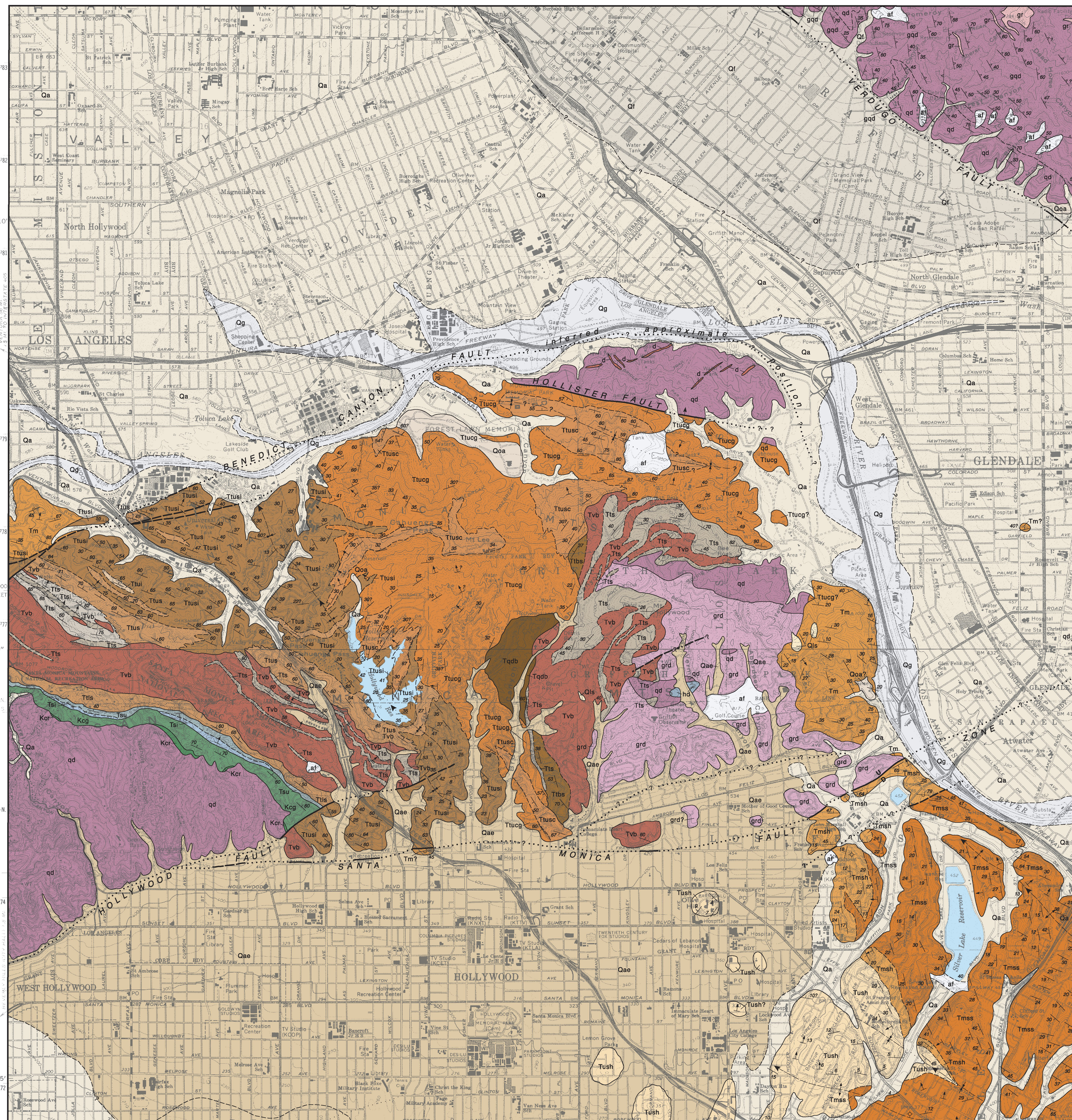

HOLLYWOOD AND SOUTH 1/2 BURBANK MAP (DF-30)

LEGEND

CENOZOIC — QUATERNARY — Holocene

SURFICIAL SEDIMENTS
Unconsolidated detrital sediments; generally undissected

af *Artificial fill*
Qg *Gravel and sand of major stream channels*
Qc *Clay and sand of pre-development marshlands*
Qa *Alluvium: clay, sand and gravel; includes gravel and sand of minor stream channels*
Qf *Alluvium: clay, sand and gravel derived from Verdugo Mountains*

LANDSLIDE DEBRIS

Qls *Landslide debris*

Pleistocene

OLDER SURFICIAL SEDIMENTS
Unconsolidated to weakly consolidated; dissected and eroded where elevated; late Pleistocene age

Qae *Similar to* **Qa**, *but slightly elevated and dissected; includes alluvial fan sediments*
Qop *Paleosoil in Baldwin Hills (Fox Hills residual paleosoil of Weber et al. 1982); moderately indurated, erosion-resistant, gray to rusty brown pebbly and sandy paleosoil or "hardpan" on* **Qoa**
Qoa *Older alluvium, gray to light brown pebble-gravel, sand, silt and clay of detritus derived from Santa Monica Mountains; similar to* **Qae**, *but slightly consolidated; in Baldwin Hills designated as Baldwin Hills sandy gravel (Weber et al, 1982), where it is much dissected and eroded*

— *UNCONFORMITY* —
in mountain areas

SHALLOW MARINE SEDIMENTS
Shallow marine clastic sediments exposed in Baldwin Hills; weakly consolidated, eroded; Pleistocene age

Qsp *San Pedro Sand (of Wright 1987; Culver Sand of Weber et al. 1982): light gray to light brown sand, fine to coarse grained, pebbly; locally contains shell fragments*
Qi *Inglewood Formation (of Wright 1987; Weber et al. 1982): light gray, friable; fine grained sandstone and interbedded soft gray siltstone*
Qfu *Upper Fernando (?) Formation (part of Inglewood Formation of Weber et al. 1982; Wright 1987): soft gray massive silty claystone, base not exposed*

TERTIARY — Pliocene

FERNANDO FORMATION
(Of Lamar 1970)
Marine clastic; early Pliocene age (Repettian Stage)

Tfr *Repetto Member (Lamar 1970): In downtown Los Angeles, consolidated but crumbly gray to greenish-gray claystone-siltstone, in part sandy; vaguely bedded, locally fossiliferous*

Miocene

UNAMED SHALE
(Included in Puente Formation by Lamar 1970, and Weber 1980; equivalent to upper Modelo Formation of Hoots 1931; upper Modelo Formation of Durrell 1954, in Santa Monica Mountains; and to Sisquoc Shale of Dibblee 1989, in Ventura Basin)
Marine clastic; late Miocene age ("Delmontian" and upper Mohnian Stages)

Tush *Gray to light brown, thin-bedded silty clay shale, soft and crumbly; locally contains scattered hard calcareous nodules; in places contains laminae of fine grained soft sandstone*

MONTEREY FORMATION
(Included in Puente Formation by Lamar 1970, and Weber 1980; lower member of Modelo Formation of Hoots 1931, and lower Modelo Formation of Durrell 1954, in Santa Monica Mountains; equivalent to Monterey Formation of Dibblee 1989, in Ventura Basin)
marine biogenic and clastic; mostly late Miocene age (Mohnian Stage)

Tm *White-weathering, thin bedded, platy siliceous shale, hard to semi-chalky; at Griffith Park directly overlies granodiorite basement rocks if not in fault (?) contact*
Tmsh *White-weathering, thin bedded, platy, siliceous shale, locally porcelaneous and silty*
Tmss *Tan to light gray semi-friable sandstone; includes thin interbeds of micaceous silty clay shale; forms Elysian deep sea fan of Dibblee 1989*

UPPER TOPANGA FORMATION
[of Durrell 1954; Topanga Formation of Hoots 1931, and Weber 1980; includes Hollycrest Formation (middle Miocene) and "Cahuenga" and "Griffith" Beds, ("upper Cretaceous") of Neuerburg 1953; may be equivalent to Calabasas Formation of Yerkes and Campbell 1979]
Marine clastic; middle Miocene age

Ttusi *Mostly gray micaceous clay shale or claystone, crumbly where weathered, and thin interbeds of gray to tan semi-friable sandstone*
Ttui *Tan-weathering, thin-bedded, platy, semi-siliceous shale*
Ttus *Light gray to tan moderately hard, bedded sandstone; locally pebbly*
Ttusc *Light gray massive sandstone, with pebble-cobble conglomerate of detritus as in*
Ttucg *Cahuenga Conglomerate Member (of Dibblee 1989; includes "Cahuenga" and "Griffith" Beds of Neuerburg 1953); light to medium gray, crudely bedded; ranges from coarse pebbly sandstone to cobble-boulder conglomerate composed mostly of granitic detritus (granite to quartz diorite) and some of metavolcanic rocks, quartzite, gneiss, and basalt, in coarse weakly coherent sandstone matrix; grades and intertongues westward and southward into* **Ttusc** *and* **Ttus**; *deposited as a submarine (?) fan delta designated as Cahuenga fan (Dibblee 1989)*

QUARTZ DIORITE BRECCIA
[Quartz diorite of Hoots 1931; microbreccia of Lar Quartz (?) of Neuerburg 1953]
Middle Miocene landslide breccia at base of Upper Topanga Formation

Tqdb *Shattered, brecciated to slightly brecciated mass of quartz diorite, similar to* **qd** *of basement rocks; grades upward into* **Ttucg**; *overlies or in fault(?) contact with* **Tvb** *and* **Ttmsl**; *probably deposited as landslide mass of qd detached from basement, before deposition of* **Ttucg**

MIDDLE TOPANGA FORMATION AND VOLCANIC ROCKS
(Middle Topanga Formation of Durrell 1954; part of Topanga Formation of Hoots 1931)
Marine clastic; middle Miocene age

Ttsi *Tan semi-friable sandstone and some intercalated gray micaceous clay shale and siltstone; locally includes lenses of pebbly sandstone and pebble-cobble conglomerate*
Ttbs *Light gray to tan moderately hard sandstone; locally pebbly*
Tts *Dark gray sandstone of basaltic grains (basaltic graywacke of Neuerburg 1953)*
Tvb *Basaltic volcanic rocks: dark gray to black, fine grained, massive to locally vesicular and/or pillowed; composed of mafic minerals (augite and olivine) and plagioclase feldspar; somewhat incoherent where weathered; may be in part intrusive; probably correlative with Conejo Volcanics of Yerkes and Campbell 1979;* **Ttsi** *and* **Tvb** *overlie granitic basement in Griffith Park area*

LOWER TOPANGA FORMATION
(Of Durrell, 1954; Topanga Formation of Hoots 1931)
Marine clastic; middle or early Miocene age

Ttls *Tan, moderately hard, thick-bedded arkosic sandstone*

— *UNCONFORMITY* —

Paleocene

SANTA SUSANA FORMATION
(Of Colburn and Novak 1989; "Martinez" Formation of Durrell 1954; A.E.G. maps 1982; equivalent to Coal Canyon Formation of Yerkes and Campbell 1979)
Marine and nonmarine(?) clastic; Paleocene age

Tsu *Light gray to tan fine grained sandstone and gray, vaguely bedded micaceous silty claystone; locally with fossiliferous nodules*
Tsl *Simi Conglomerate Member: gray, vaguely bedded, cobble conglomerate of smooth cobbles of pinkish-gray quartzite, metavolcanic rocks and hard granitic rocks in sandstone matrix: locally includes a few thin layers of nonmarine(?) red sandstone and claystone; marine and nonmarine(?)*

— *DISCONFORMITY?* —

MESOZOIC — CRETACEOUS — Upper

UNAMED STRATA
["Chico" Formation of Durrell 1954; Fritsche 1973; A.E.G. maps 1982; equivalent (?) to Tuna Canyon Formation of Yerkes and Campbell 1979]
Mostly marine clastic; late Cretaceous age

Kcg *Gray to brown, crudely bedded conglomerate of cobbles and pebbles of metavolcanic and granitic rocks and quartzite in brown sandy matrix*
Kcr *"Trabuco" Formation (of Durrell 1954; Colburn, in Fritsche 1973): rusty-brown conglomerate similar to Kcg but locally includes reddish sandstone and claystone; probably nonmarine; base sheared locally; possibly in fault contact with basement rocks (Durrell 1954; Denison and Aguilar 1991)*

DIKE ROCKS
("Malchite" of Neuerburg 1953)
Intrusive; pre-Tertiary (?) age

d *Dark gray, fine-grained andesitic(?) rocks composed of mafic minerals; intrusive into* **qd**

GRANITIC ROCKS
Late Mesozoic (Cretaceous) age
Medium-grained granitic rocks composed mostly of plagioclase feldspar (oligoclase-andesine) and lesser amounts of potash feldspar (microcline), quartz, biotite, and hornblende

gr *Nearly white, massive, medium to fine grained granitic rocks mostly of quartz monzonite-granodiorite composition; essentially of quartz, potassic feldspar and sodic plagioclase feldspar, sparse biotite; complexly intruded into* **qd** *and* **gqd** *in Verdugo Mountains; moderately coherent*
grd *Granodiorite (Feliz biotite granodiorite of Neuerburg 1953), light gray, massive moderately hard, composed mostly of plagioclase feldspar, lesser amounts of quartz, potassic feldspar and biotite; intrusive(?) into* **qd** *(Neuerburg 1953); moderately coherent*
qd *Quartz diorite (Lar and Vermont biotite quartz diorite of Neuerburg 1953, in Griffith Park area), medium to light gray, massive to vaguely gneissoid; composed mostly of plagioclase feldspar, and moderate amounts of quartz, biotite, and hornblende; moderately hard to somewhat incoherent where weathered*
gqd *Gneissoid quartz diorite, similar to* **qd**, *but gneissoid; in north Glendale area somewhat porphyritic with small phenocrysts of white feldspar and of black hornblende in dark, very fine grained groundmass; in many places contains remnants of gneiss, but too small to map; locally contains dark gray-brown dikes also too small to map*

HORNBLENDE DIORITE-GABBRO
Late Mesozoic age

hd *Dark gray, fine to medium grained diorite-gabbro, composed of plagioclase feldspar (labradorite), hornblende, tremolite, anthophyllite, epidote, and chlorite (Neuerburg 1953)*

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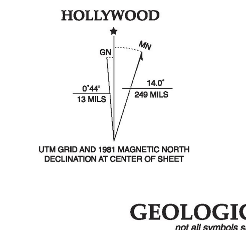
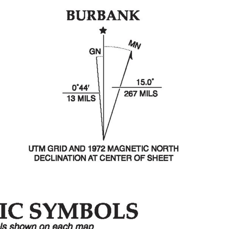


UTM GRID AND 1981 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

GEOLOGIC SYMBOLS

not all symbols shown on each map

FORMATION CONTACT *dashed where inferred or indefinite dotted where concealed*

MEMBER CONTACT *between units of a formation* .... **Prominent bed**

CONTACT BETWEEN SURFICIAL SEDIMENTS *located only approximately in places*

FAULT: *Dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful. Parallel arrows indicate inferred relative lateral movement. Relative vertical movement is shown by U/D (U=upthrown side, D=downthrown side). Short arrow indicates dip of fault plane. Sawteeth are on upper plate of low angle thrust fault.* U D 25 ?

FOLDS: *overturned* **ANTICLINE** **SYNCLINE**
arrow on axial trace of fold indicates direction of plunge; dotted where concealed by surficial sediments

Strike and dip of sedimentary rocks: 18 *inclined*; 20 *inclined (approximate)*; 80 *overturned*; *horizontal*; *vertical*

Strike and dip of metamorphic or igneous rock foliation or flow banding or compositional layers: 75 *inclined*; *inclined (approximate)*; *vertical*; 80 *overturned*

OTHER SYMBOLS: *Direction of landslide movement*; *outline of water bodies shown on map*; *water well*; *oil well*; *springs*

LUCY E. BIRDSALL MEMORIAL MAP

Map Dedication: This map is published in memory of USGS public service geologist Lucy E. Birdsall.

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Graphics: *Final drafting by Wendy L. Bartlett, U.C. Santa Barbara; map design, geologic color scheme and color process by H.E. Ehrenspeck; typography by Sharon Kuromiya; printing by Blake Printery, San Luis Obispo*

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Editing and Production Management: *John A. Minch*
Graphics: *Map computer drafting, preparation, and map design by Jason I. Minch, San Juan Capistrano; technical review assistance by Susan Bartz; printing by Santa Barbara Museum of Natural History*

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SCALE 1:24000

1 — 1/2 — 0 — 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 .5 0 1 KILOMETER

HOLLYWOOD QUADRANGLE
CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

BURBANK QUADRANGLE
CONTOUR INTERVAL 40 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

GEOLOGIC MAP OF THE HOLLYWOOD AND SOUTH 1/2 BURBANK QUADRANGLES

LOS ANGELES COUNTY, CALIFORNIA

BY THOMAS W. DIBBLEE, JR., 1991
EDITED BY HELMUT E. EHRENSPECK, 1991
EDITED BY JOHN A. MINCH, 2010

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LUCY E. BIRDSALL MEMORIAL MAP

Topographic base maps from available USGS 7.5-minute quadrangle

HOLLYWOOD, CA 1966
PHOTOREVISED 1981
DMA 2352 III SE – Series V895

BURBANK, CA 1966
PHOTOREVISED 1972
DMA 2352 III NE – Series V895

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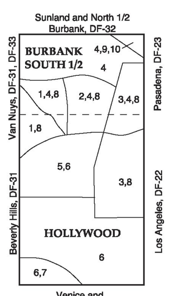

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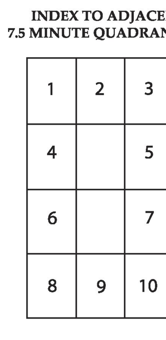

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