

FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 4 OF 6



LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
LOS ANGELES COUNTY UNINCORPORATED AREAS	065043	CITY OF CLAREMONT*	060109
CITY OF AGOURA HILLS	065072	CITY OF COMMERCE	060110
CITY OF ALHAMBRA*	060095	CITY OF COMPTON	060111
CITY OF ARCADIA*	065014	CITY OF COVINA*	065024
CITY OF ARTESIA*	060097	CITY OF CUDAHY	060657
CITY OF AVALON	060098	CITY OF CULVER CITY	060114
CITY OF AZUSA	065015	CITY OF DIAMOND BAR	060741
CITY OF BALDWIN PARK*	060100	CITY OF DOWNEY	060645
CITY OF BELL*	060101	CITY OF DUARTE*	065026
CITY OF BELL GARDENS	060656	CITY OF EL MONTE*	060658
CITY OF BELLFLOWER	060102	CITY OF EL SEGUNDO	060118
CITY OF BEVERLY HILLS*	060655	CITY OF GARDENA	060119
CITY OF BRADBURY*	065017	CITY OF GLENDALE*	065030
CITY OF BURBANK	065018	CITY OF GLENDORA*	065031
CITY OF CALABASAS	060749	CITY OF HAWAIIAN GARDENS*	065032
CITY OF CARSON	060107	CITY OF HAWTHORNE*	060123
CITY OF CERRITOS	060108	CITY OF HERMOSA BEACH	060124

*No Special Flood Hazard Areas Identified

REVISED: DECEMBER 21, 2018

FLOOD INSURANCE STUDY NUMBER

06037CV004D

Version Number 2.3.3.2



FEMA

COMMUNITY NAME	NUMBER	COMMUNITY NAME	NUMBER
CITY OF HIDDEN HILLS	060125	CITY OF PICO RIVERA	060148
CITY OF HUNTINGTON PARK*	060126	CITY OF POMONA*	060149
CITY OF INDUSTRY*	065035	CITY OF RACHO PALOS VERDES	060464
CITY OF INGLEWOOD*	065036	CITY OF REDONDO BEACH	060150
CITY OF IRWINDALE*	060129	CITY OF ROLLING HILLS*	060151
CITY OF LA CAÑADA FLINTRIDGE*	060669	CITY OF ROLLING HILLS ESTATES*	065054
CITY OF LA HABRA HEIGHTS*	060701	CITY OF ROSEMEAD*	060153
CITY OF LA MIRADA	060131	CITY OF SAN DIMAS	060154
CITY OF LA PUENTE*	065039	CITY OF SAN FERNANDO*	060628
CITY OF LA VERNE	060133	CITY OF SAN GABRIEL*	065055
CITY OF LAKEWOOD	060130	CITY OF SAN MARINO*	065057
CITY OF LANCASTER	060672	CITY OF SANTA CLARITA	060729
CITY OF LAWDALE*	060134	CITY OF SANTA FE SPRINGS	060158
CITY OF LOMITA*	060135	CITY OF SANTA MONICA	060159
CITY OF LONG BEACH	060136	CITY OF SIERRA MADRE*	065059
CITY OF LOS ANGELES	060137	CITY OF SIGNAL HILL*	060161
CITY OF LYNWOOD	060635	CITY OF SOUTH EL MONTE*	060162
CITY OF MALIBU	060745	CITY OF SOUTH GATE	060163
CITY OF MANHATTAN BEACH	060138	CITY OF SOUTH PASADENA*	065061
CITY OF MAYWOOD*	060651	CITY OF TEMPLE CITY*	060653
CITY OF MONROVIA*	065046	CITY OF TORRANCE	060165
CITY OF MONTEBELLO	060141	CITY OF VERNON*	060166
CITY OF MONTEREY PARK*	065047	CITY OF WALNUT*	065069
CITY OF NORWALK	060652	CITY OF WEST COVINA	060666
CITY OF PALMDALE	060144	CITY OF WEST HOLLYWOOD*	060720
CITY OF PALOS VERDES ESTATES	060145	CITY OF WESTLAKE VILLAGE	060744
CITY OF PARAMOUNT	065049	CITY OF WHITTIER	060169
CITY OF PASADENA*	065050		

*No Special Flood Hazard Areas Identified

REVISED: DECEMBER 21, 2018

FLOOD INSURANCE STUDY

NUMBER **06037CV004D**

Version Number 2.3.3.2



FEMA

TABLE OF CONTENTS

Volume 1

	<u>Page</u>
SECTION 1.0 – INTRODUCTION	1
1.1 The National Flood Insurance Program	1
1.2 Purpose of this Flood Insurance Study Report	2
1.3 Jurisdictions Included in the Flood Insurance Study Project	2
1.4 Considerations for using this Flood Insurance Study Report	19
SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS	31
2.1 Floodplain Boundaries	31
2.2 Floodways	67
2.3 Base Flood Elevations	68
2.4 Non-Encroachment Zones	68
2.5 Coastal Flood Hazard Areas	68
2.5.1 Water Elevations and the Effects of Waves	68
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas	70
2.5.3 Coastal High Hazard Areas	71
2.5.4 Limit of Moderate Wave Action	72
SECTION 3.0 – INSURANCE APPLICATIONS	72
3.1 National Flood Insurance Program Insurance Zones	72
3.2 Coastal Barrier Resources System	75
SECTION 4.0 – AREA STUDIED	76
4.1 Basin Description	76
4.2 Principal Flood Problems	77
4.3 Non-Levee Flood Protection Measures	81
4.4 Levees	82

Figures

	<u>Page</u>
Figure 1: FIRM Panel Index	21
Figure 2: FIRM Notes to Users	24
Figure 3: Map Legend for FIRM	27
Figure 4: Floodway Schematic	67
Figure 5: Wave Runup Transect Schematic	70
Figure 6: Coastal Transect Schematic	72

Tables

	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions	2
Table 2: Flooding Sources Included in this FIS Report	32
Table 3: Flood Zone Designations by Community	73
Table 4: Coastal Barrier Resources System Information	75

Volume 1, Continued

Tables

	<u>Page</u>
Table 5: Basin Characteristics	76
Table 6: Principal Flood Problems	77
Table 7: Historic Flooding Elevations	81
Table 8: Non-Levee Flood Protection Measures	81
Table 9: Levees	84

Volume 2

	<u>Page</u>
SECTION 5.0 – ENGINEERING METHODS	88
5.1 Hydrologic Analyses	88
5.2 Hydraulic Analyses	125
5.3 Coastal Analyses	171
5.3.1 Total Stillwater Elevations	173
5.3.2 Waves	173
5.3.3 Coastal Erosion	178
5.3.4 Wave Hazard Analyses	178
5.4 Alluvial Fan Analyses	179

Figures

	<u>Page</u>
Figure 7: Frequency Discharge-Drainage Area Curves	120
Figure 8: 1% Annual Chance Total Water Levels for Coastal Areas (feet NAVD88)	173
Figure 9: Transect Location Map	179

Tables

	<u>Page</u>
Table 10: Summary of Discharges	89
Table 11: Summary of Non-Coastal Stillwater Elevations	121
Table 12: Stream Gage Information used to Determine Discharges	124
Table 13: Summary of Hydrologic and Hydraulic Analyses	126
Table 14: Roughness Coefficients	169
Table 15: Summary of Coastal Analyses	171
Table 16: Tide Gage Analysis Specifics	173
Table 17: Coastal Parameters	178
Table 18: Summary of Alluvial Fan Analyses	180
Table 19: Results of Alluvial Fan Analyses	182

Volume 3

	<u>Page</u>
SECTION 6.0 - MAPPING METHODS	
6.1 Vertical and Horizontal Control	184
6.2 Base Map	186
6.3 Floodplain and Floodway Delineation	187
6.4 Coastal Flood Hazard Mapping	203
6.5 FIRM Revisions	209
6.5.1 Letters of Map Amendment	210
6.5.2 Letters of Map Revision Based on Fill	210
6.5.3 Letters of Map Revision	210
6.5.4 Physical Map Revisions	211
6.5.5 Contracted Restudies	211
6.5.6 Community Map History	211
SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION	216
7.1 Contracted Studies	216
7.2 Community Meetings	244
SECTION 8.0 – ADDITIONAL INFORMATION	256
SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES	262

Tables

	<u>Page</u>
Table 20: Countywide Vertical Datum Conversion	184
Table 21: Stream-Based Vertical Datum Conversion	185
Table 22: Base Map Sources	187
Table 23: Summary of Topographic Elevation Data used in Mapping	188
Table 24: Floodway Data	192
Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams	203
Table 26: Summary of Coastal Transect Mapping Considerations	204
Table 27: Incorporated Letters of Map Change	211
Table 28: Community Map History	212
Table 29: Summary of Contracted Studies Included in this FIS Report	217
Table 30: Community Meetings	245
Table 31: Map Repositories	256
Table 32: Additional Information	262
Table 33: Bibliography and References	263

Volume 4
Exhibits

Flood Profiles	<u>Panel</u>
Amargosa Creek	01-03 P
Anaverde Creek	04-06 P
Avalon Canyon	07-10 P
Big Rock Wash	11-12 P
Cheseboro Creek	13-15 P
Cold Creek	16-21 P
Dark Canyon	22-23 P
Dry Canyon	24-33 P
Escondido Canyon	34-39 P
Flow Along Empire Avenue	40 P
Flowline No. 1	41 P
Garapito Creek	42-44 P
Hacienda Creek	45 P
Kagel Canyon	46-57 P
Lake Street Overflow	58 P
La Mirada Creek	59-62 P
Las Flores Canyon	63-66 P
Las Virgenes Creek	67-76 P
INTENTIONALLY LEFT OUT	77 P

Volume 5
Exhibits

Flood Profiles	<u>Panel</u>
Liberty Canyon	78-79 P
Lindero Canyon above Confluence with Medea Creek	80-81 P
Lindero Canyon above Lake Lindero	82-87 P
Lindero Canyon spillway at Lindero	88 P
Little Rock Wash—Profile A	89-92 P
Little Rock Wash—Profile B	93 P
Little Rock Wash—Profile C	94 P
Lobo Canyon	95-98 P
Lockheed Drain Channel	99-102 P
Lopez Canyon Channel	103-104 P
Los Angeles River Left Overbank Path 2	105-108 P
Los Angeles River Right Overbank Path 1	109-111 P
Los Angeles River Right Overbank Path 2	112 P
Malibu Creek	113-115 P
Medea Creek	116-127 P
Medea Creek (above Ventura Freeway)	128-129 P
Mill Creek	130-134 P
North Overflow (A)	135 P
North Overflow (B)	136 P
Old Topanga Canyon	137-142 P
Overflow Area of Lockheed Drain Channel	143 P

Volume 5, continued

Exhibits

Flood Profiles	<u>Panel</u>
Overflow Area of Lockheed Storm Drain	144 P
Palo Comando Creek	145-150 P
Ramirez Canyon	151-156 P

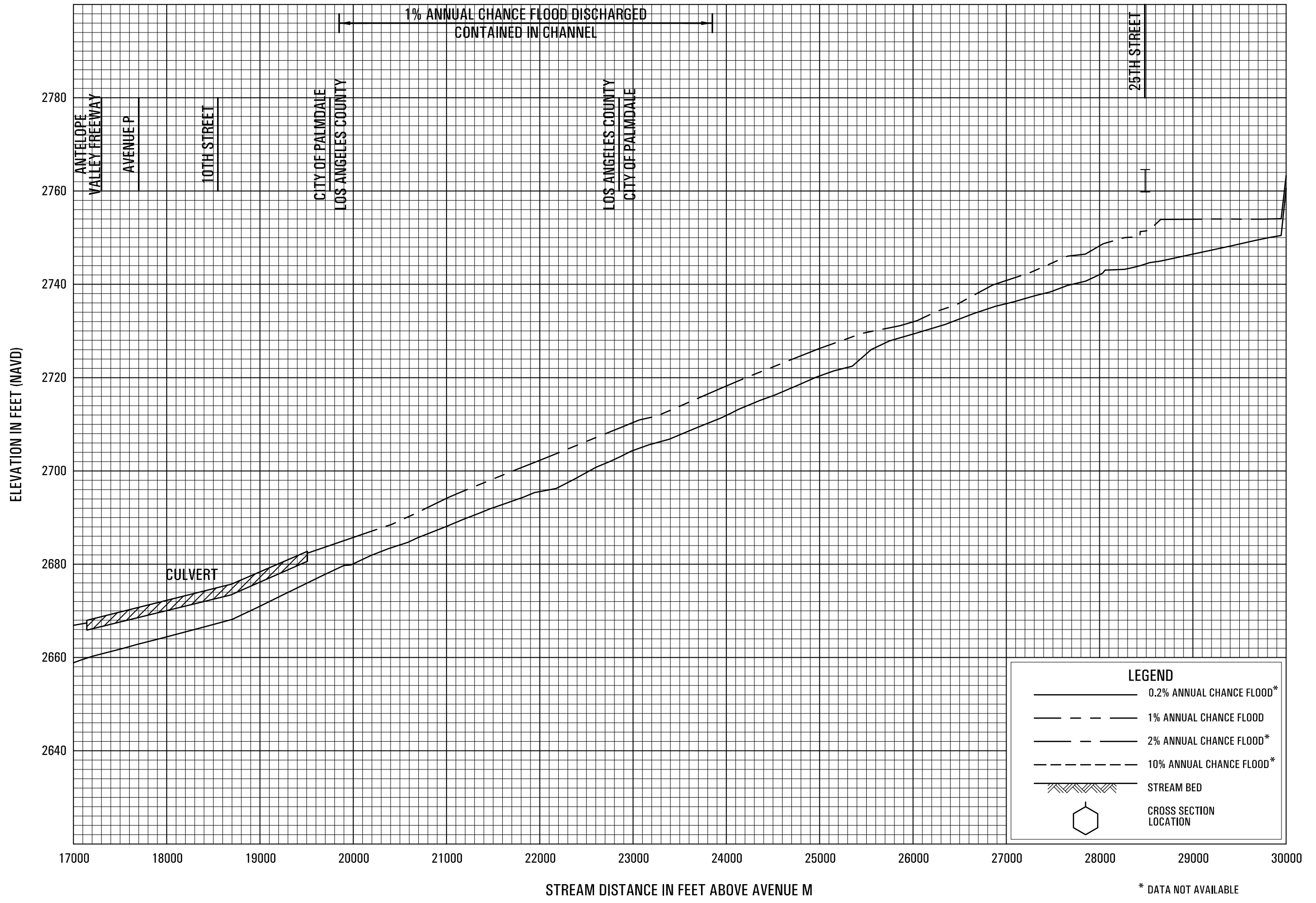
Volume 6

Exhibits

Flood Profiles	<u>Panel</u>
Rio Hondo Left Overbank Path 3	157 P
Rio Hondo Left Overbank Path 5	158-159 P
Rio Hondo Left Overbank Path 6	160 P
Rustic Canyon	161-164 P
Sand Canyon Creek	165 P
Santa Maria Canyon	166 P
Stokes Canyon	167-170 P
Topanga Canyon	171-195 P
Trancas Creek	196 P
Triunfo Creek	197-201 P
Unnamed Canyon (Serra Retreat Area)	202-203 P
Upper Los Angeles River Left Overbank	204 P
Weldon Canyon	205-206 P
Zuma Canyon	207-214 P
Unnamed Stream Main Reach	215-220 P
Unnamed Stream Tributary 1	221-222 P
Unnamed Stream Tributary 2	223-225 P

Published Separately

Flood Insurance Rate Map (FIRM)



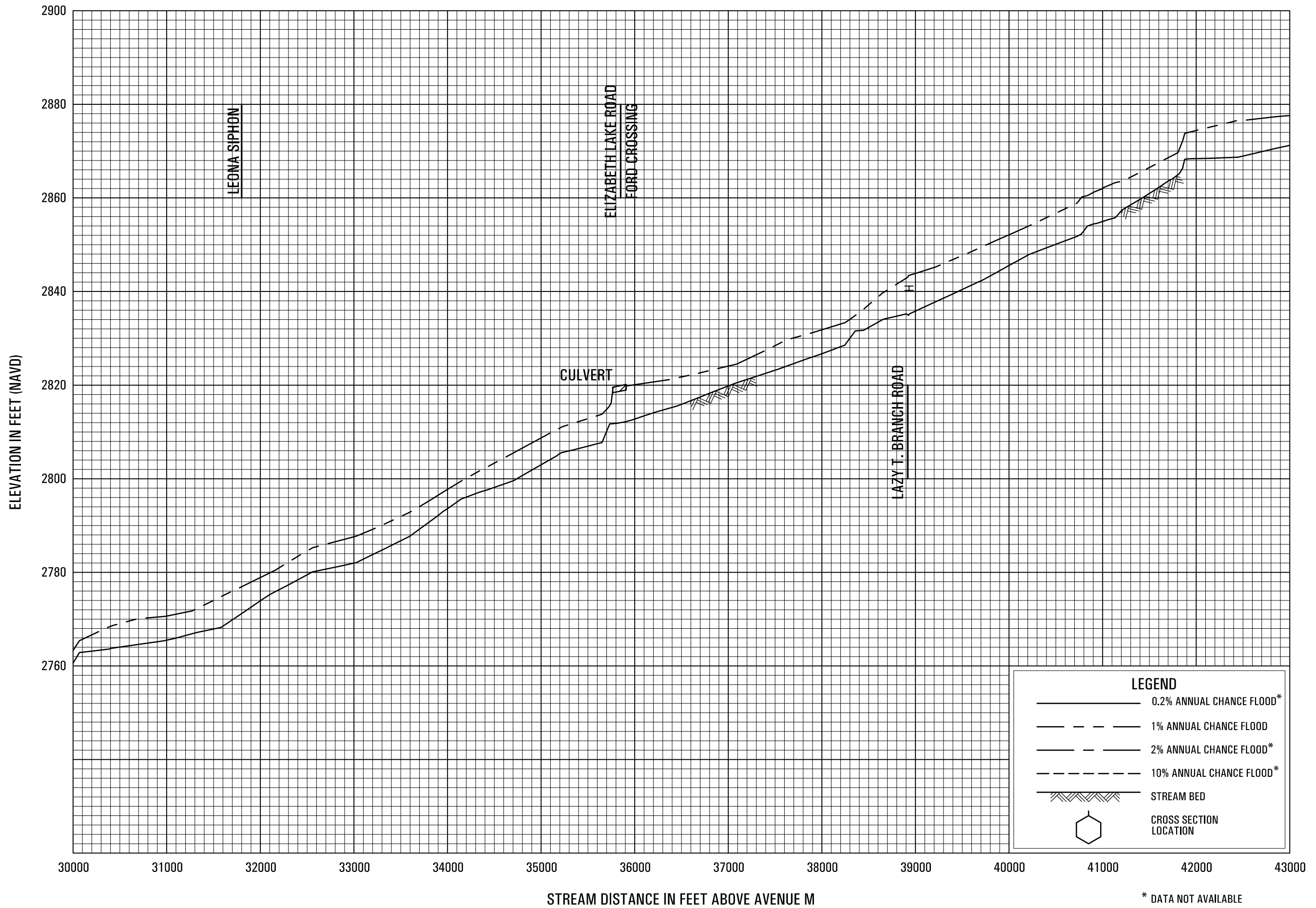
FLOOD PROFILES

AMARGOSA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

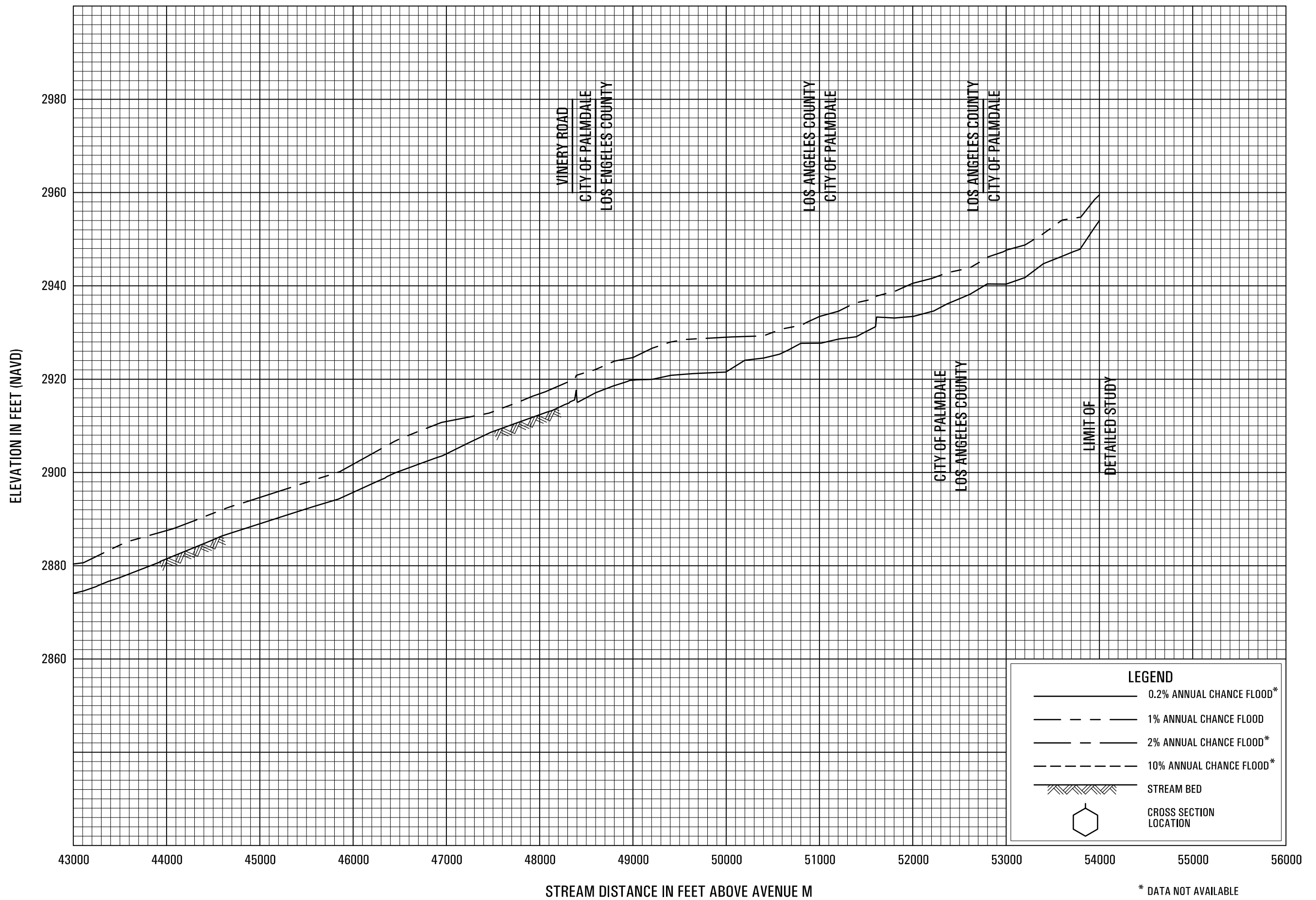
AND INCORPORATED AREAS



FLOOD PROFILES

AMARGOSA CREEK

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

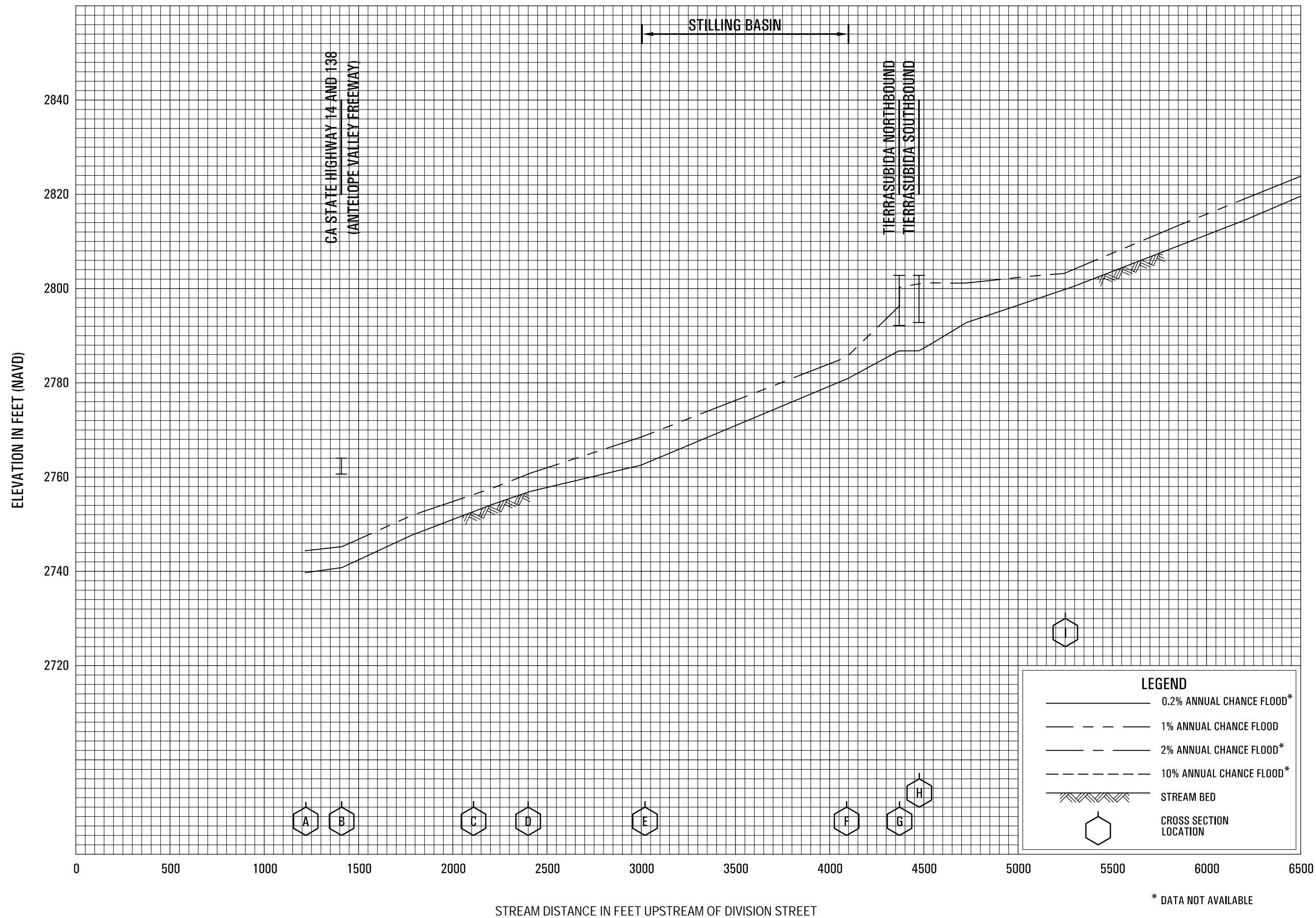


* DATA NOT AVAILABLE

FLOOD PROFILES

AMARGOSA CREEK

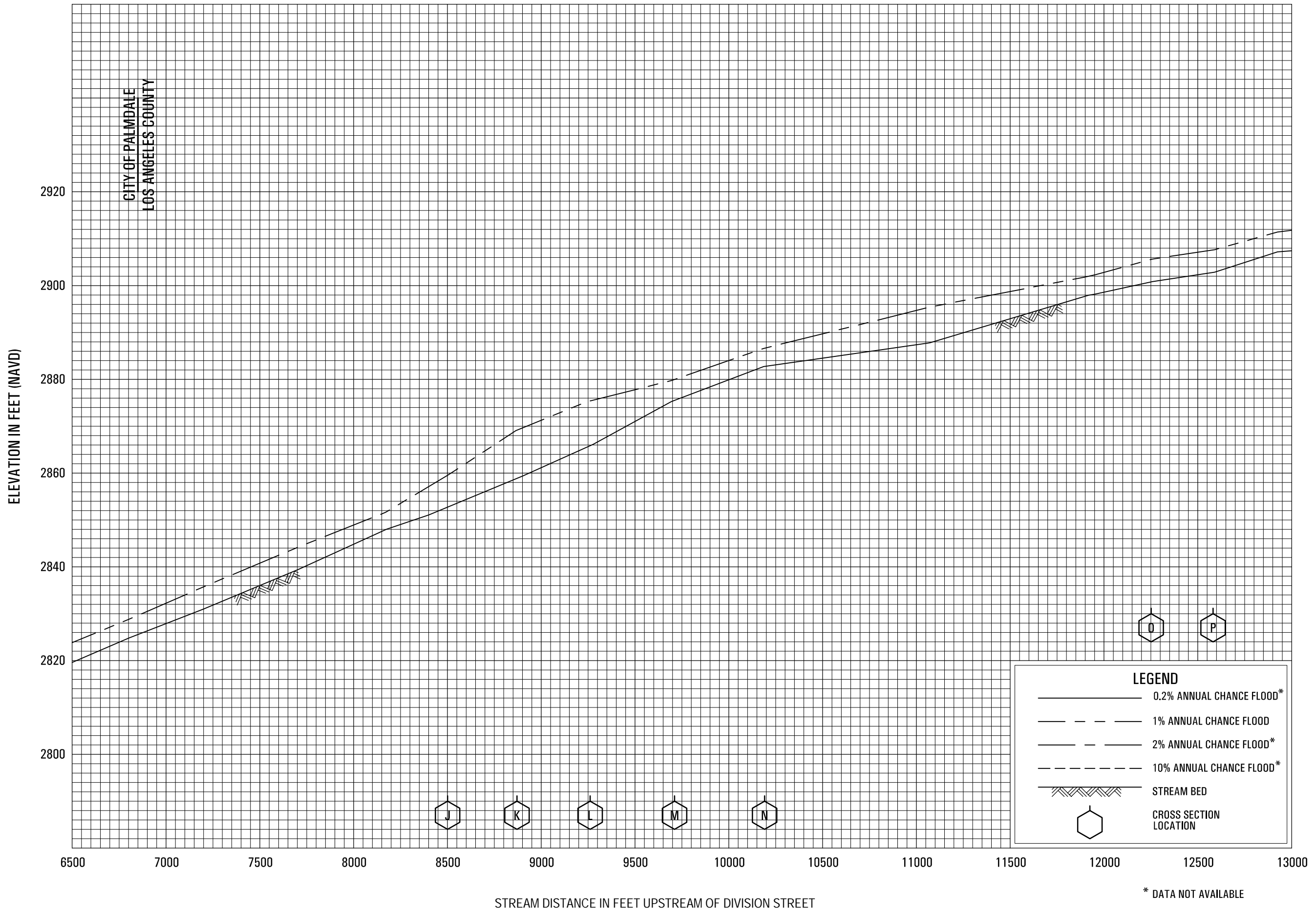
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

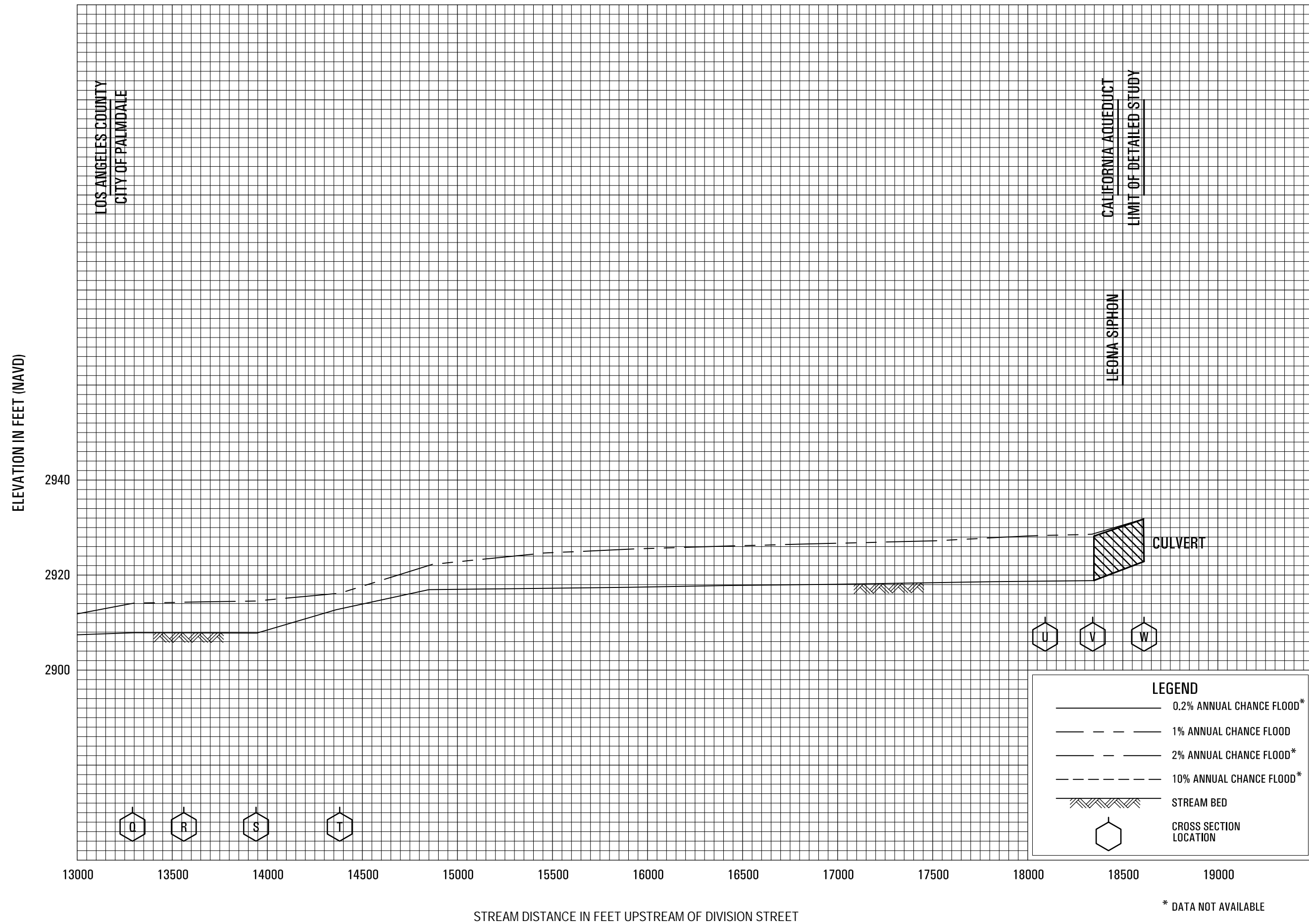
ANAVERDE CREEK

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS

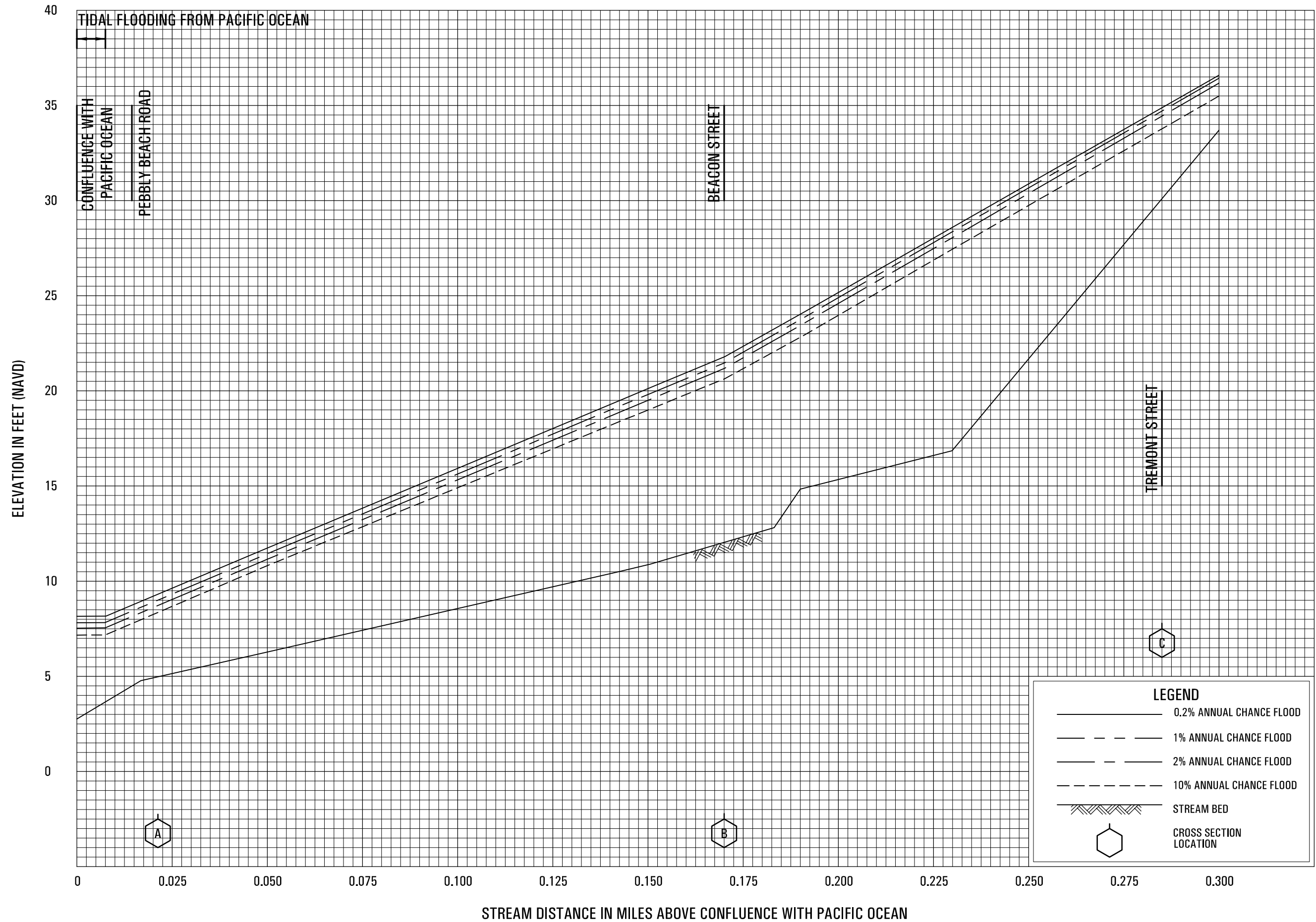
FLOOD PROFILES
ANADERDE CREEK



FLOOD PROFILES

ANAVERDE CREEK

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

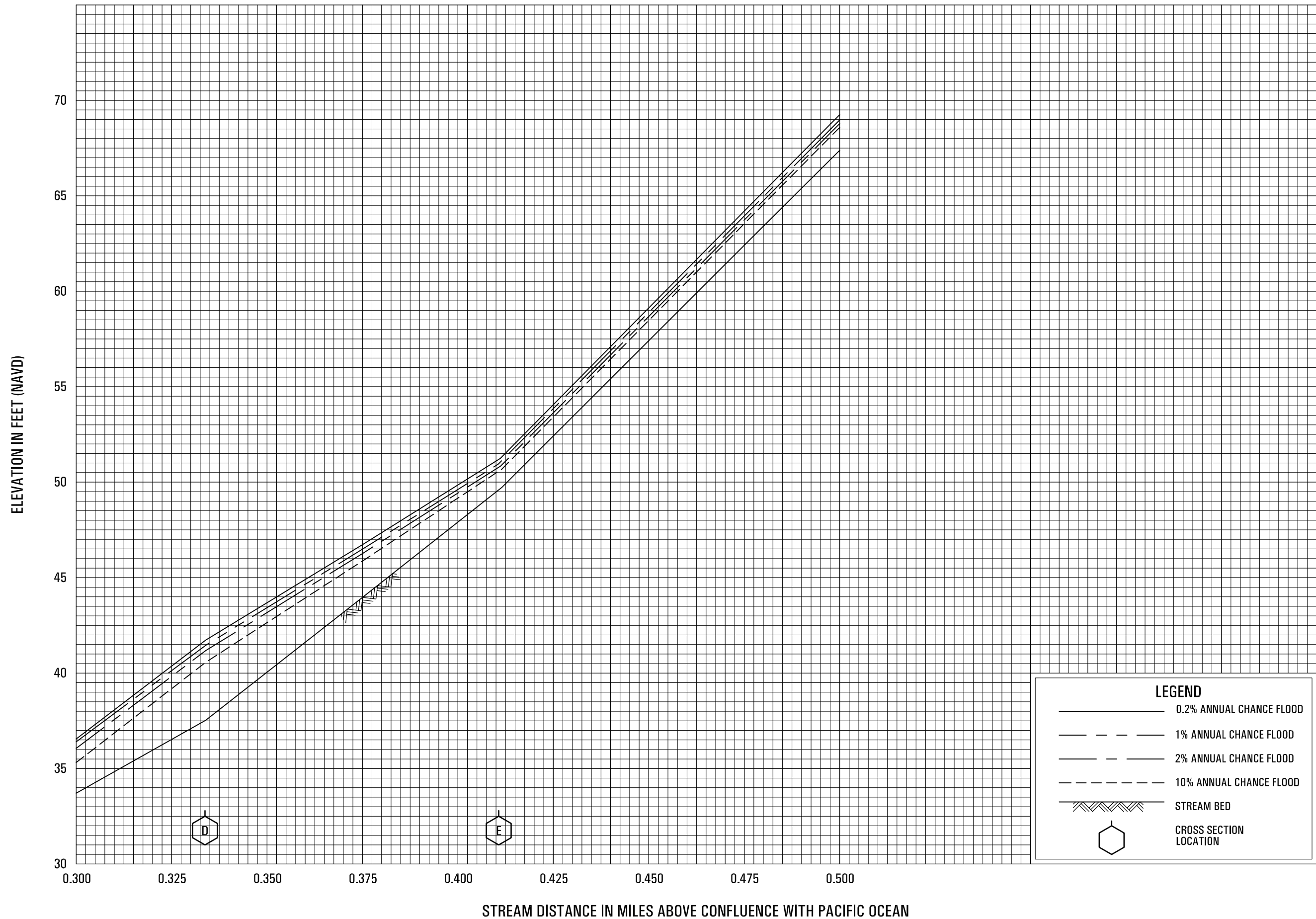


FLOOD PROFILES

AVALON CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

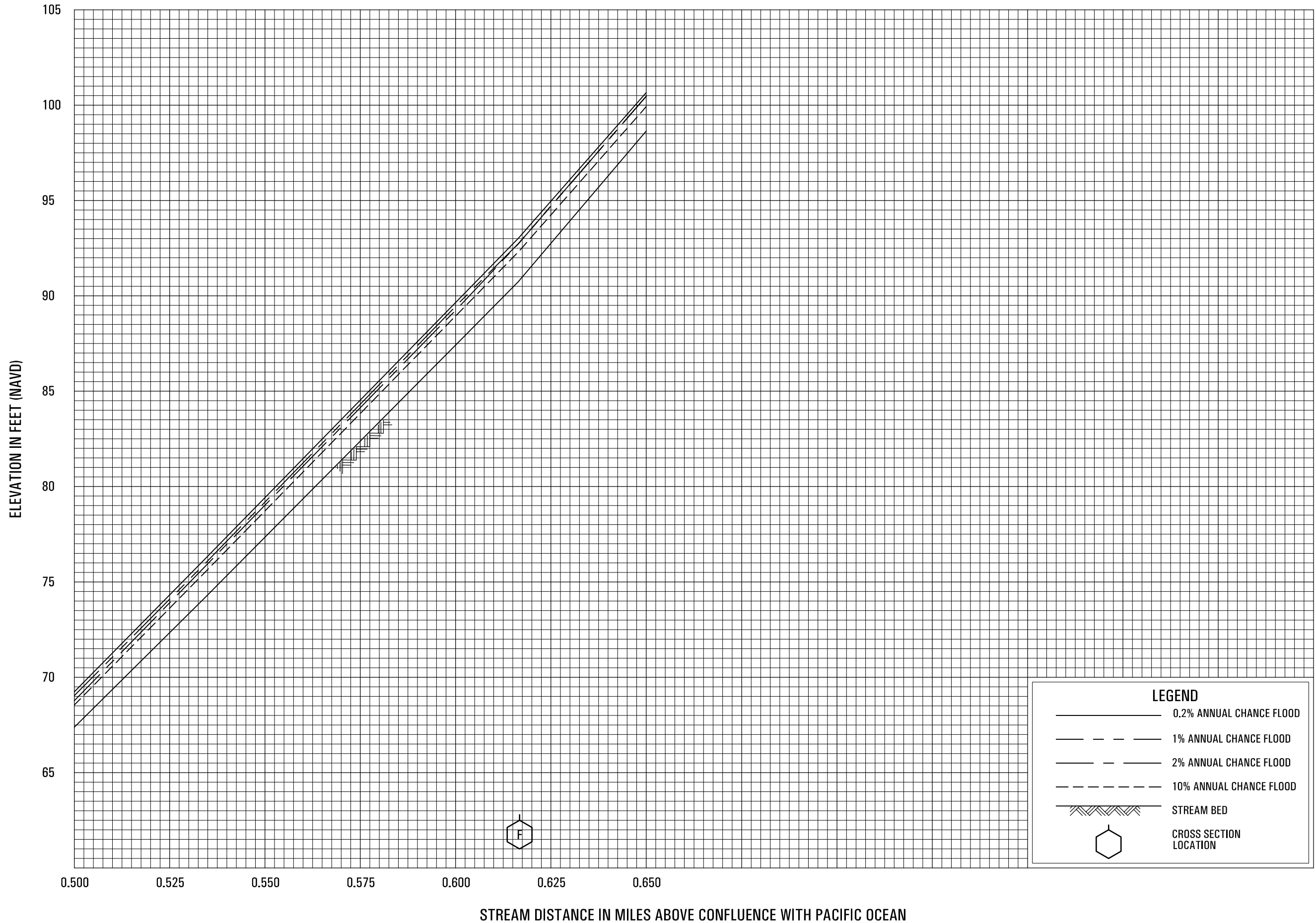
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



FLOOD PROFILES

AVALON CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

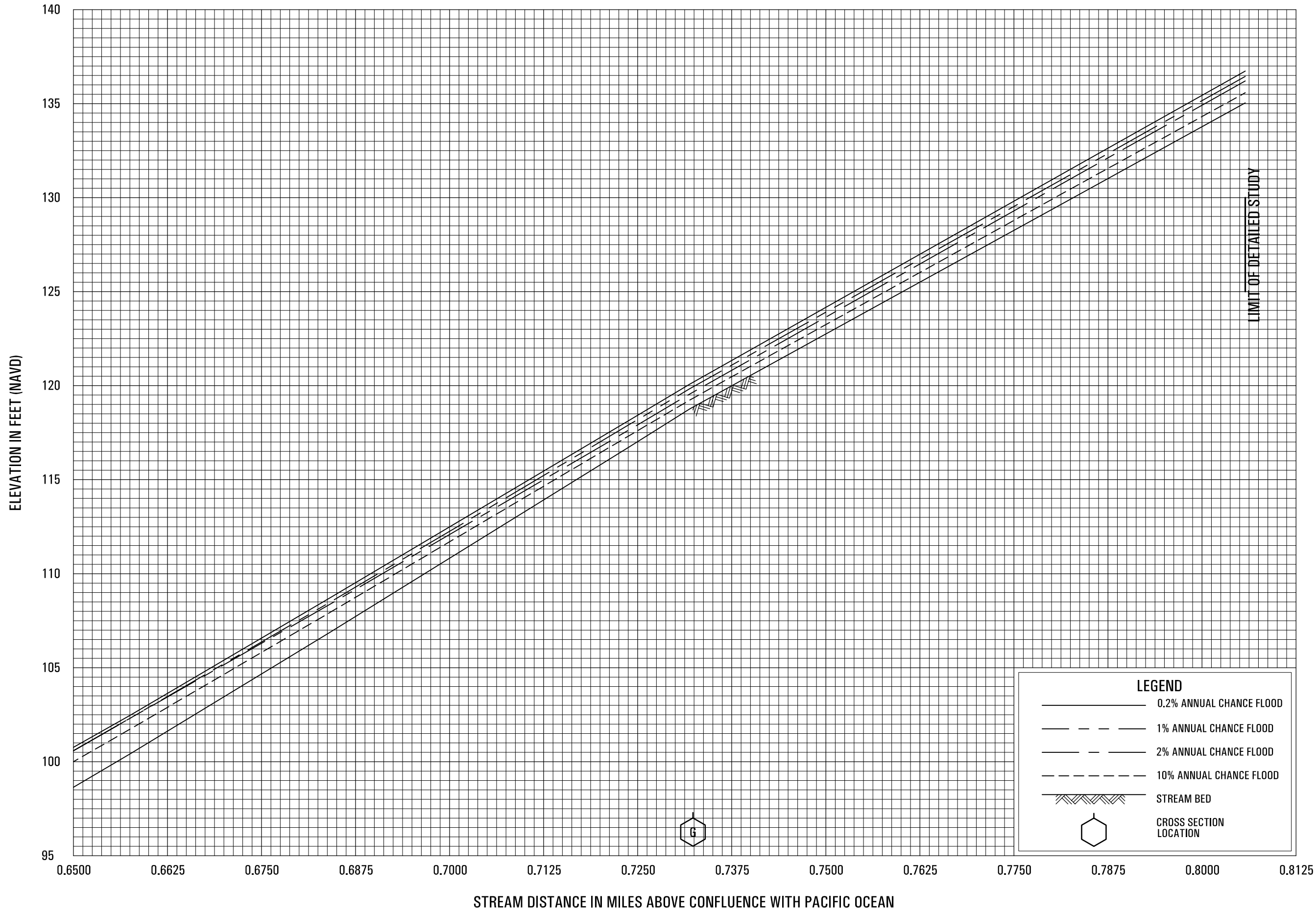
AVALON CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS

09P



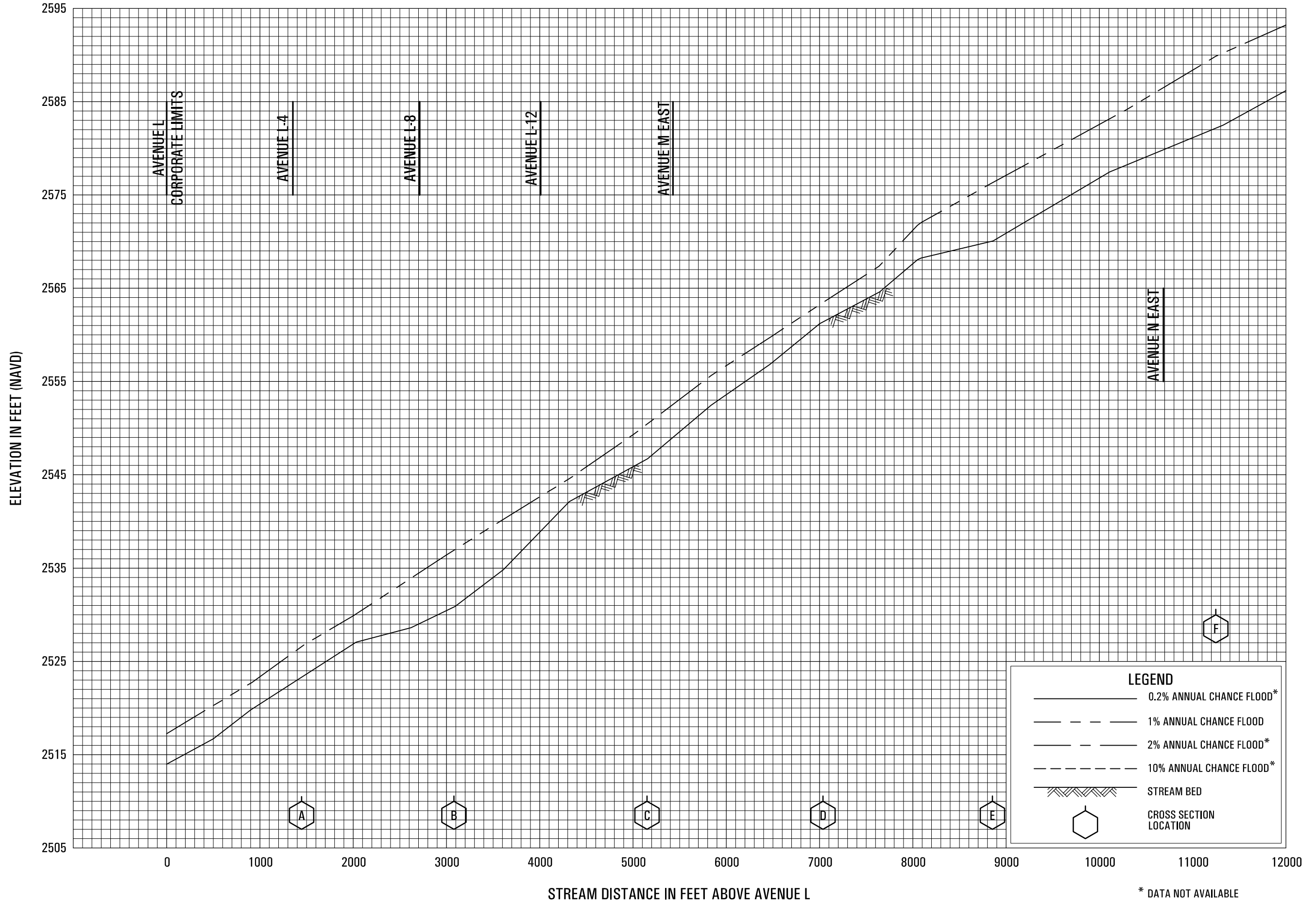
FLOOD PROFILES

AVALON CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



LEGEND

- 0.2% ANNUAL CHANCE FLOOD*
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD*
- 10% ANNUAL CHANCE FLOOD*
- STREAM BED
- CROSS SECTION LOCATION

* DATA NOT AVAILABLE

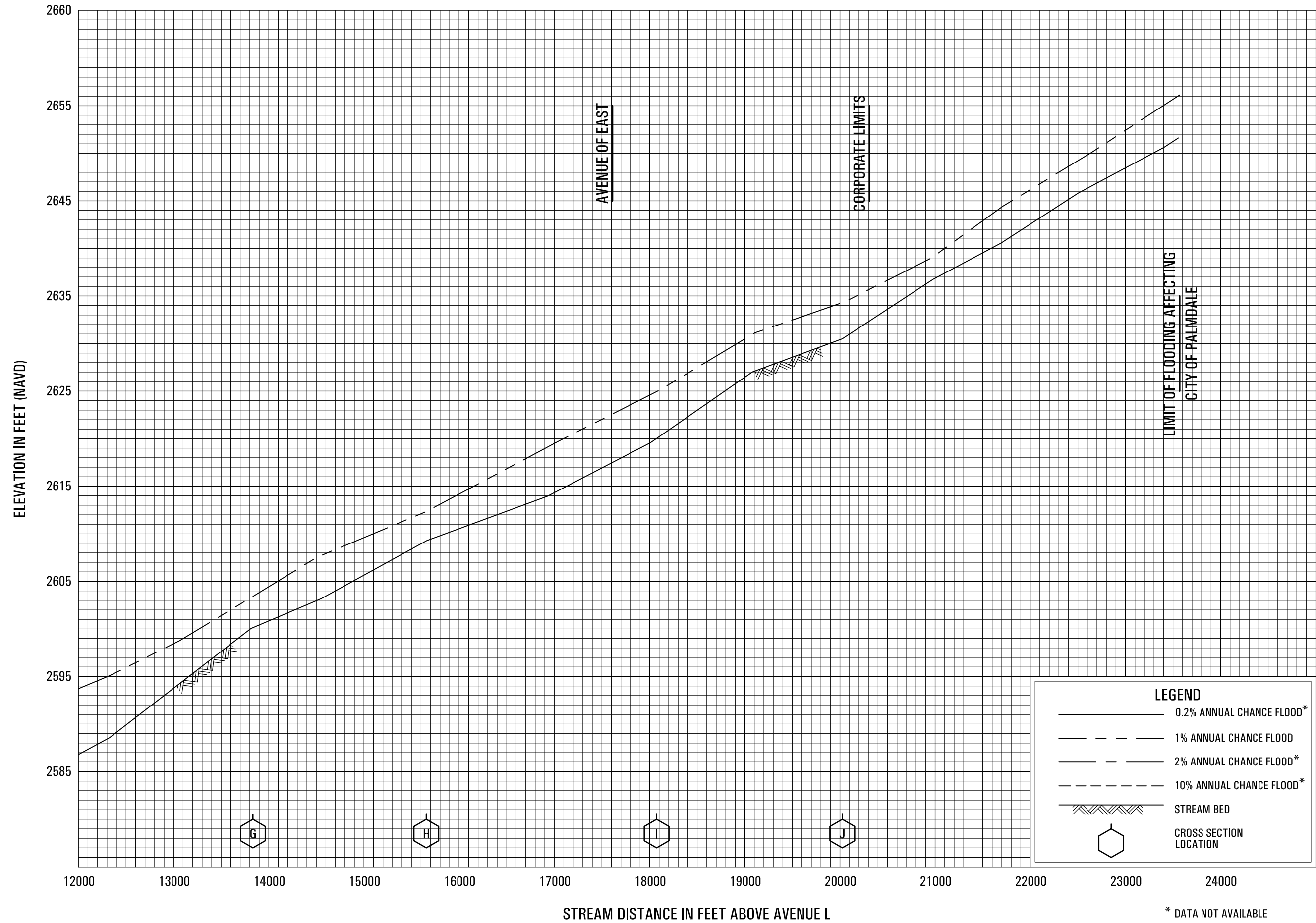
FLOOD PROFILES

BIG ROCK WASH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

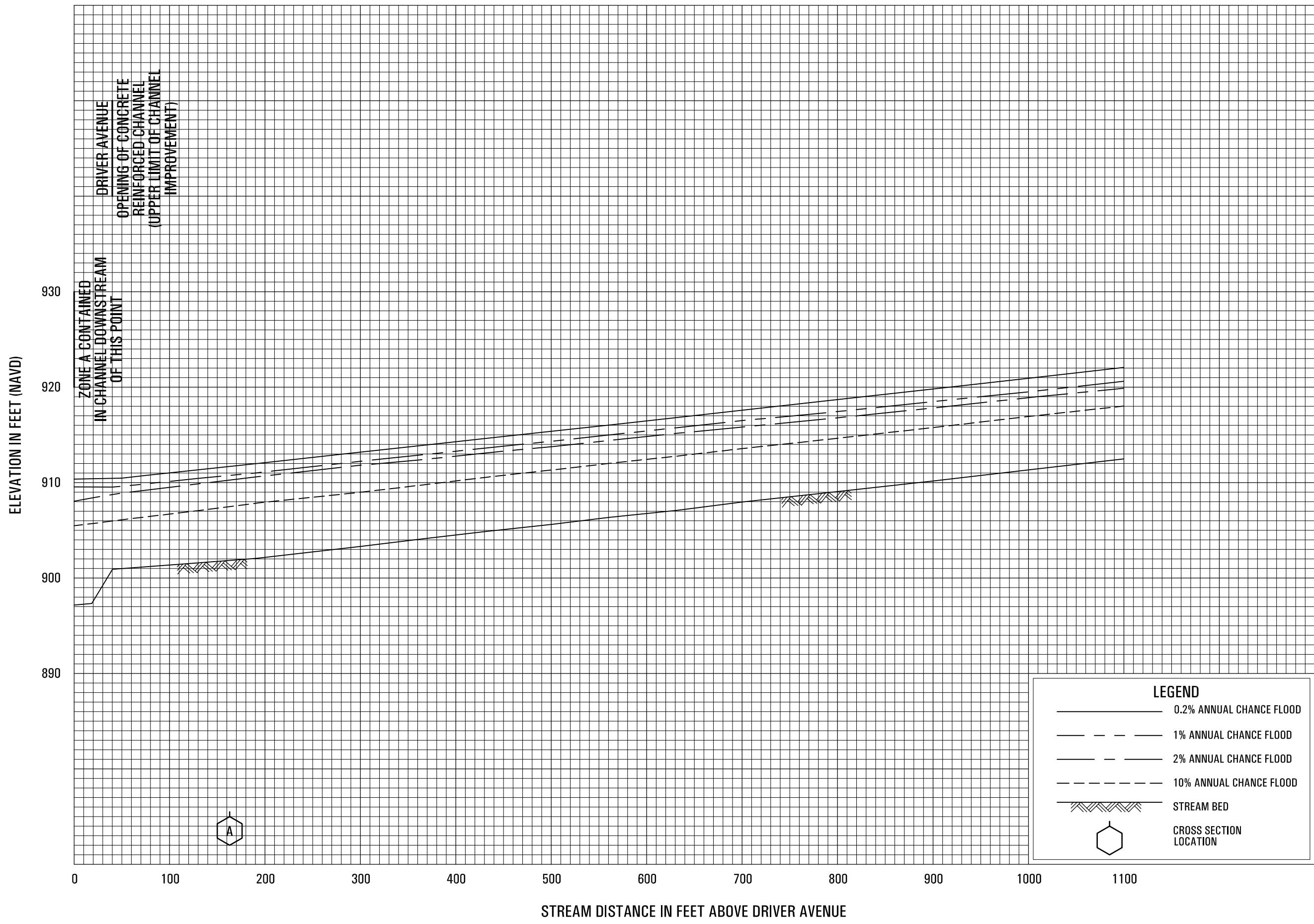
AND INCORPORATED AREAS



LEGEND

- 0.2% ANNUAL CHANCE FLOOD*
- - - 1% ANNUAL CHANCE FLOOD
- · - · 2% ANNUAL CHANCE FLOOD*
- · - · - 10% ANNUAL CHANCE FLOOD*
- ▨ STREAM BED
- ⬡ CROSS SECTION LOCATION

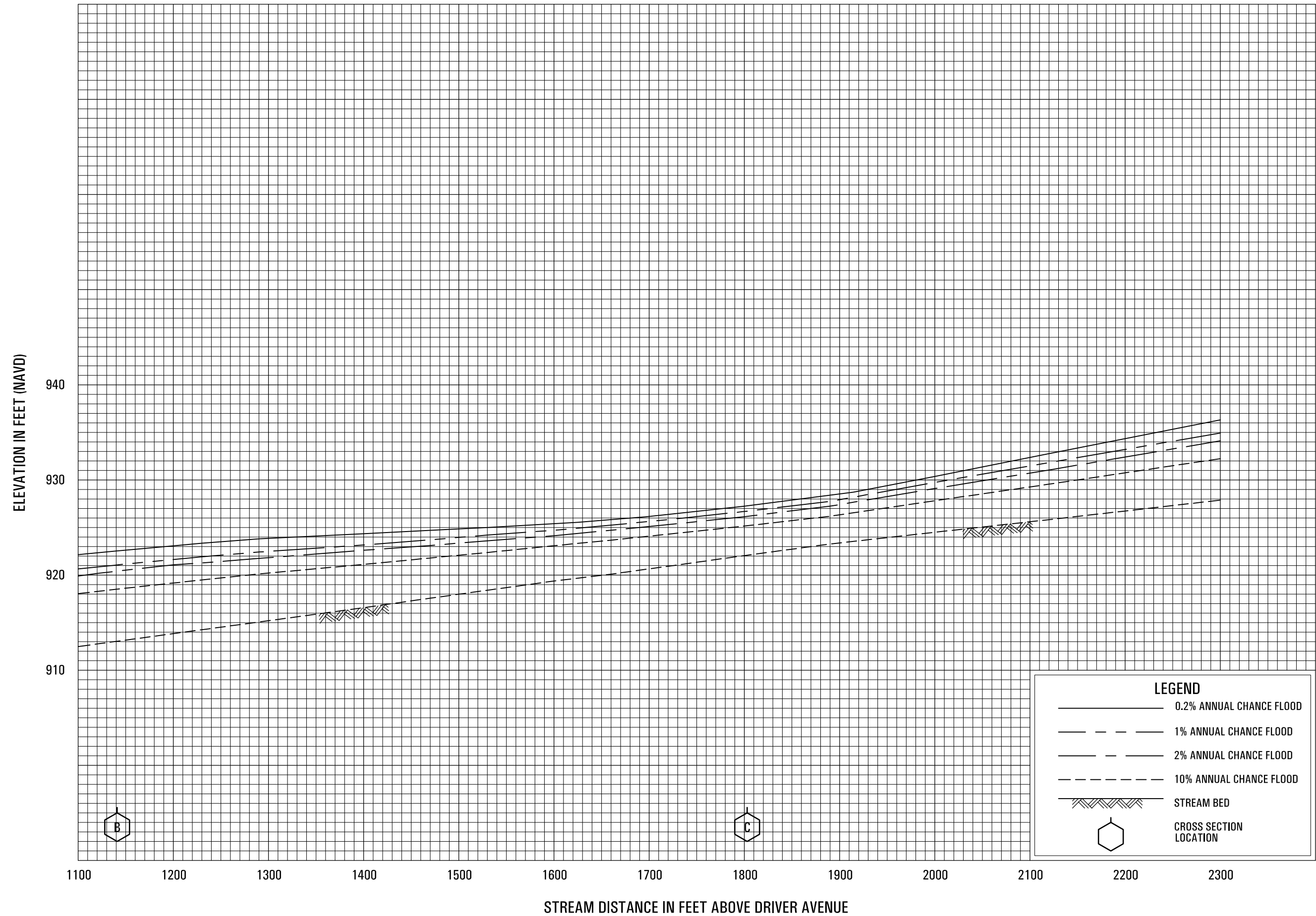
* DATA NOT AVAILABLE



FLOOD PROFILES

CHESEBORO CREEK

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



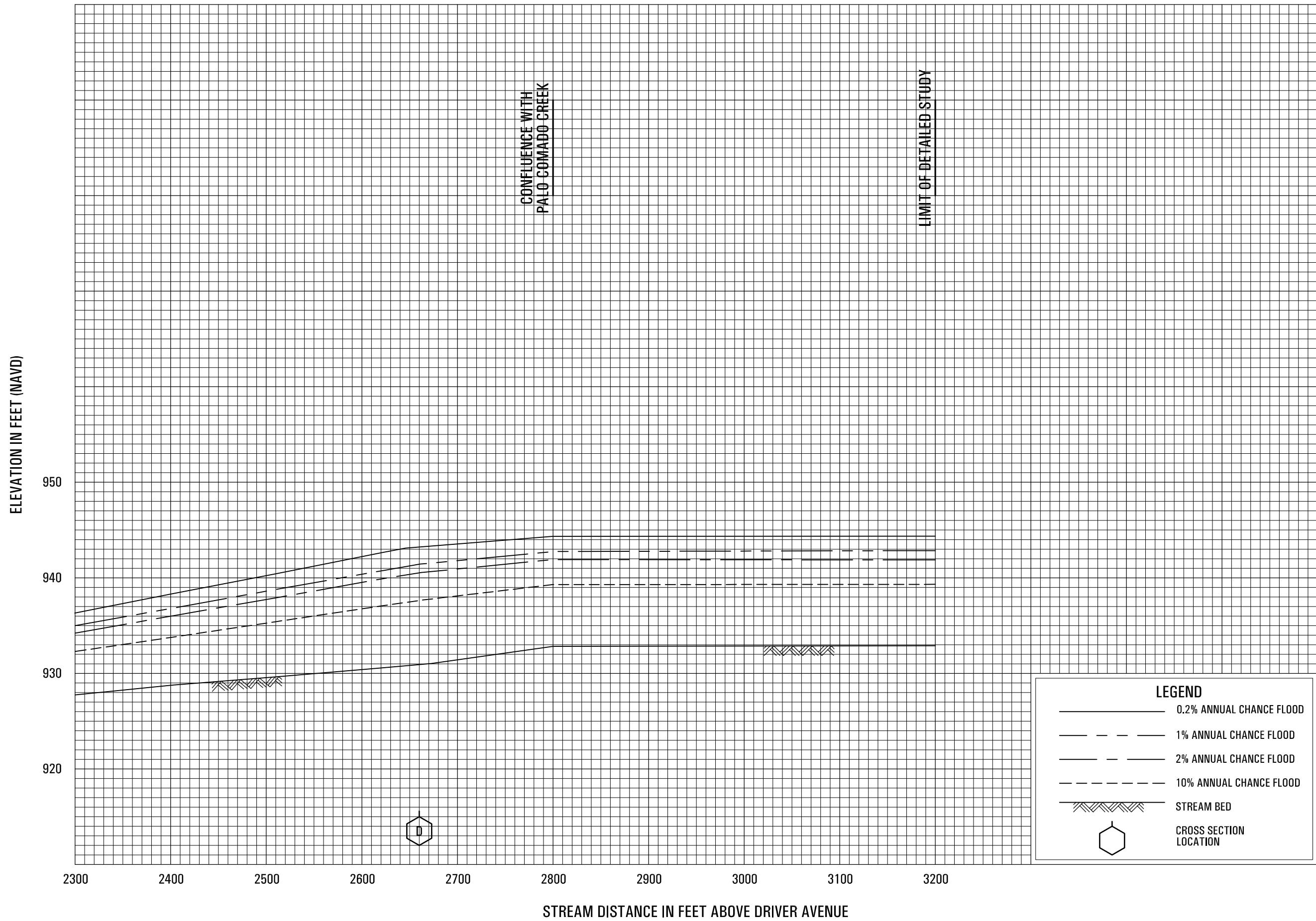
FLOOD PROFILES

CHESEBORO CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

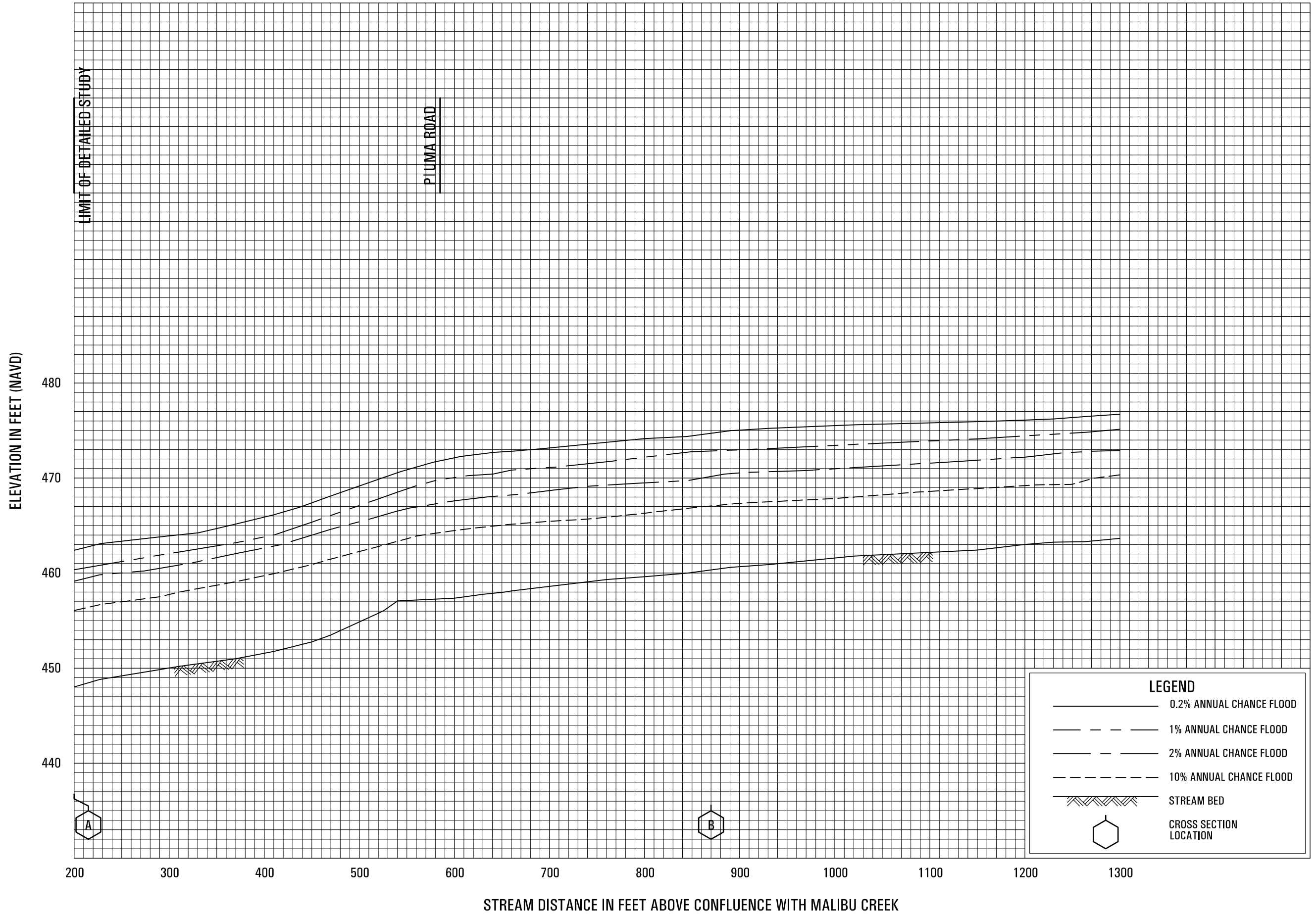
AND INCORPORATED AREAS



FLOOD PROFILES

CHESEBORO CREEK

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

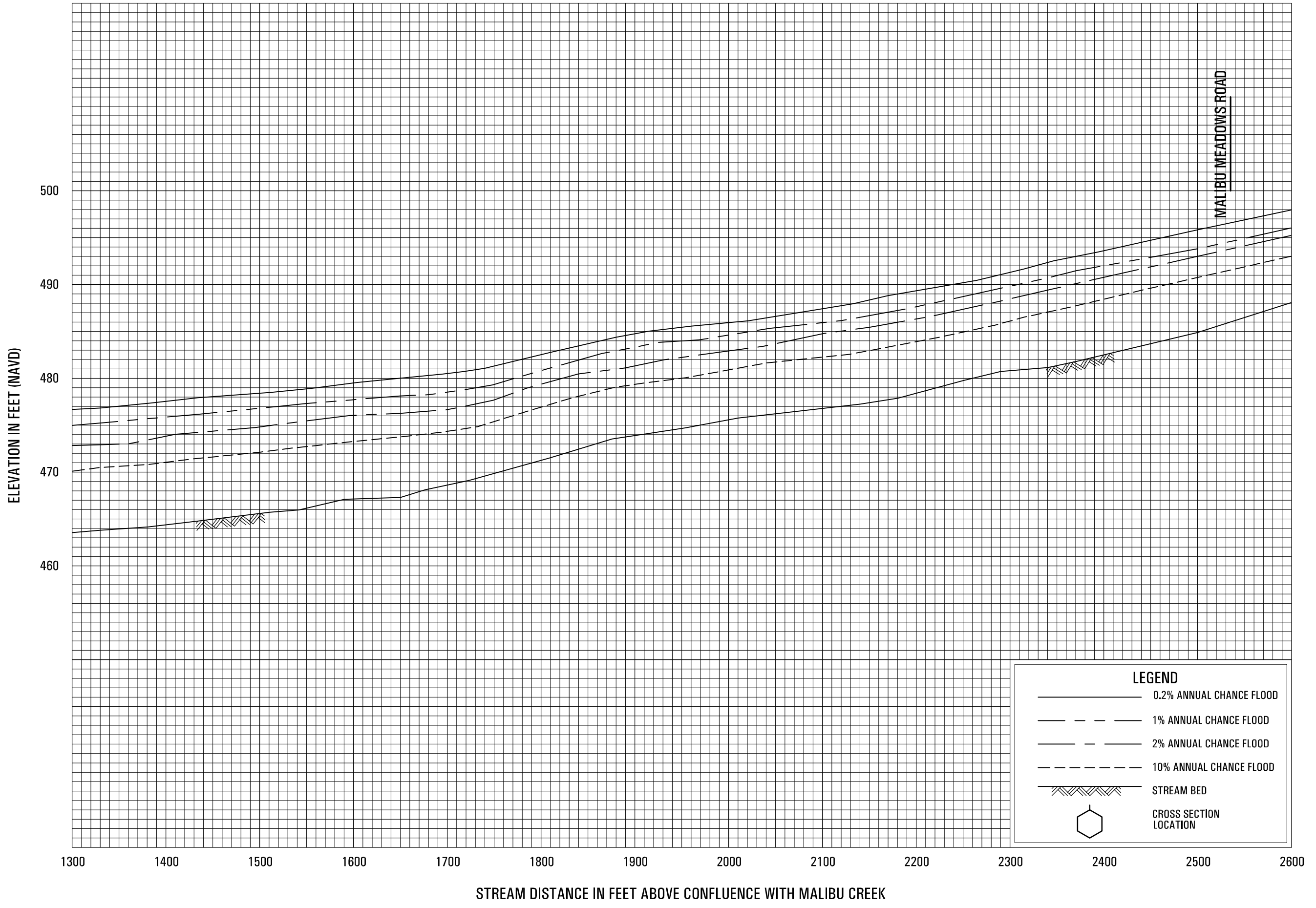


FLOOD PROFILES

COLD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



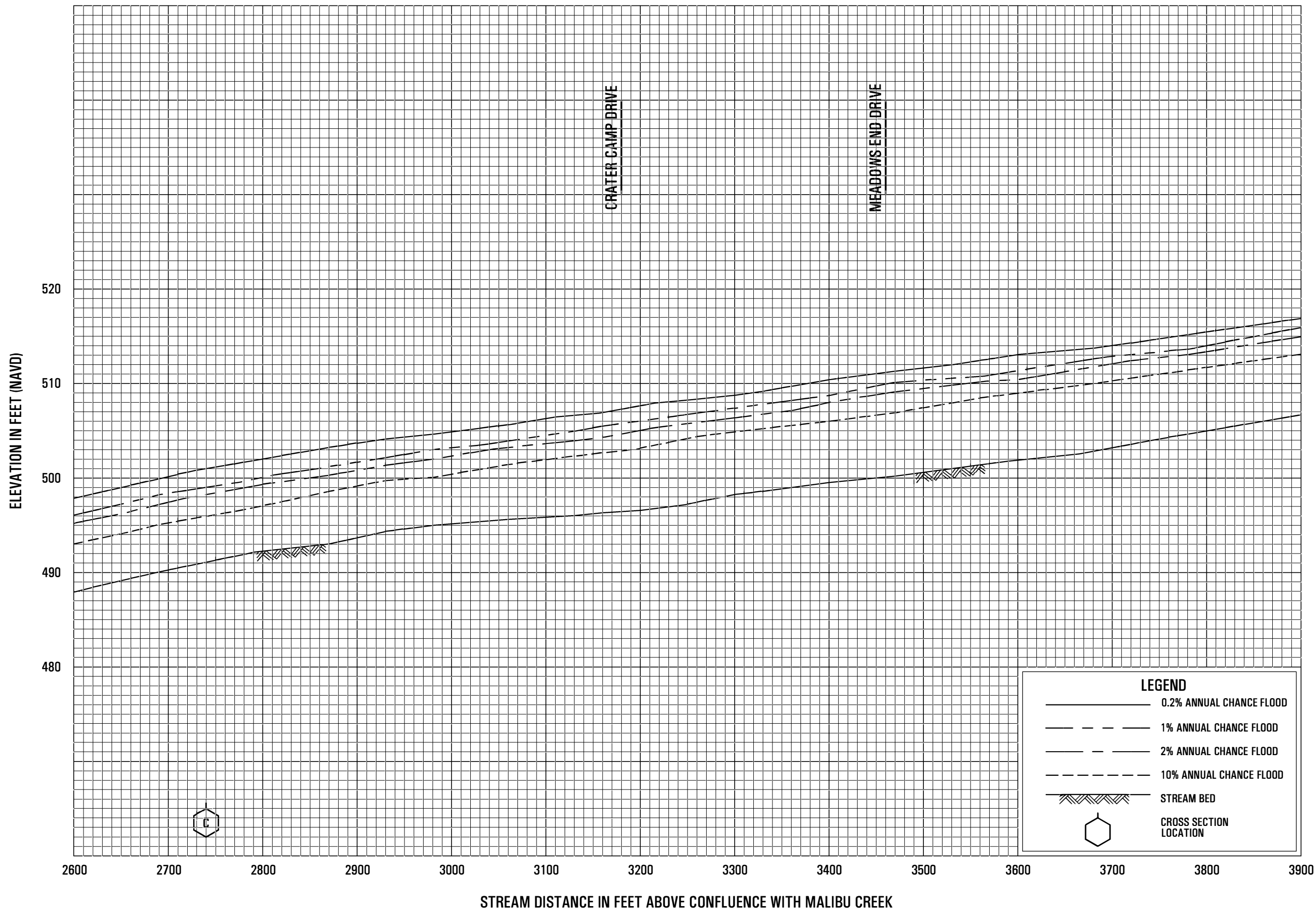
FLOOD PROFILES

COLD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

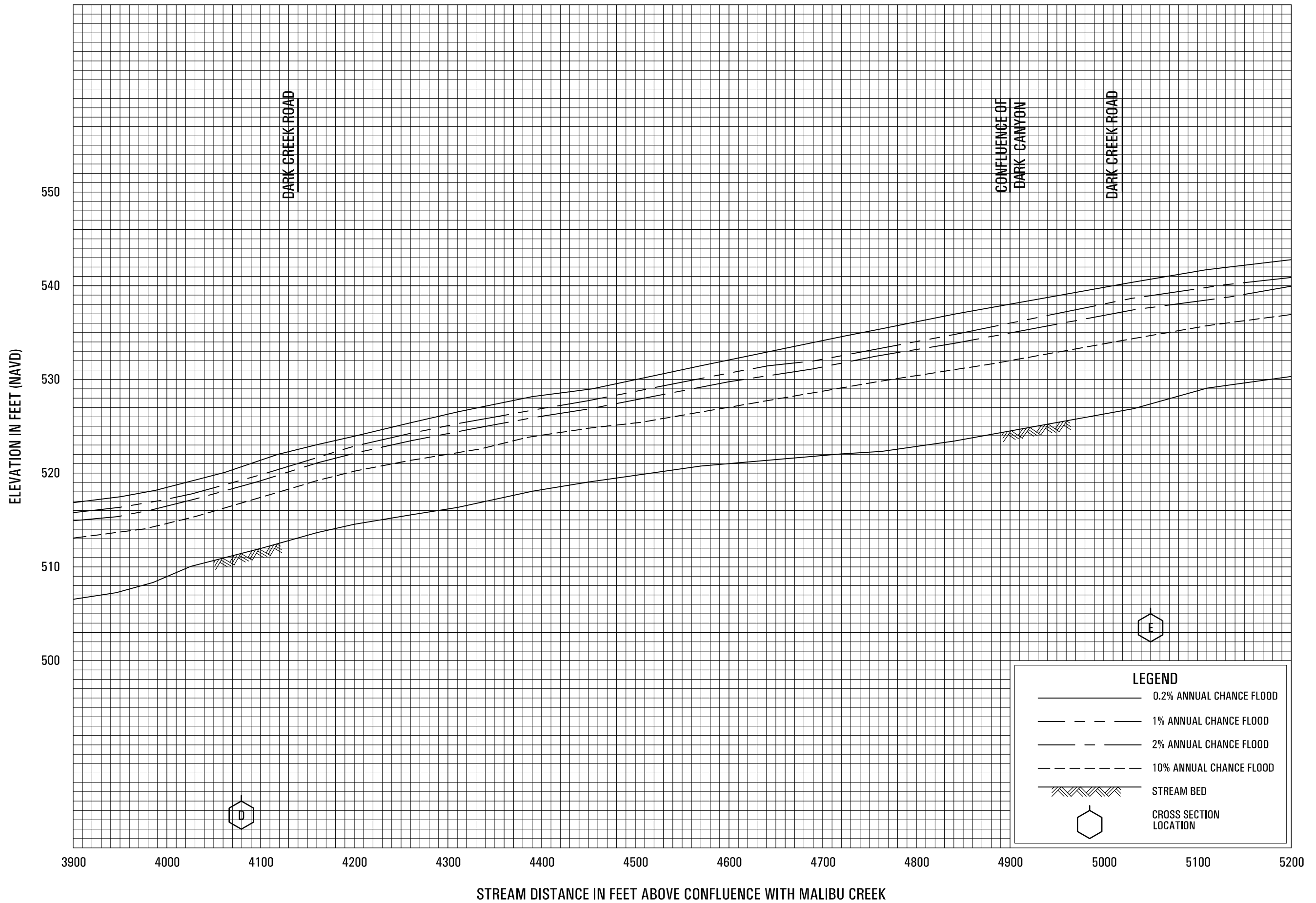
AND INCORPORATED AREAS



FLOOD PROFILES

COLD CREEK

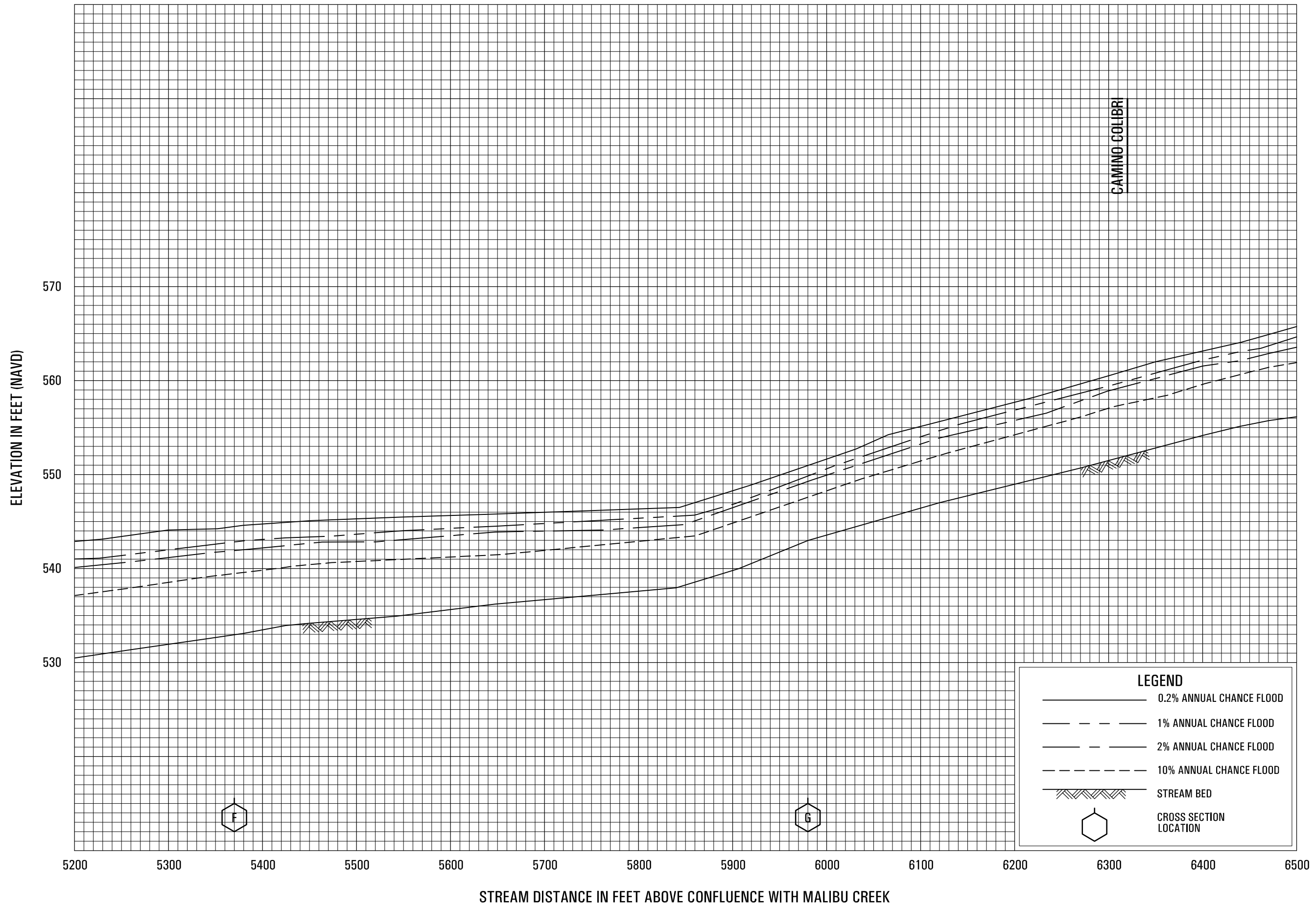
FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



FLOOD PROFILES

COLD CREEK

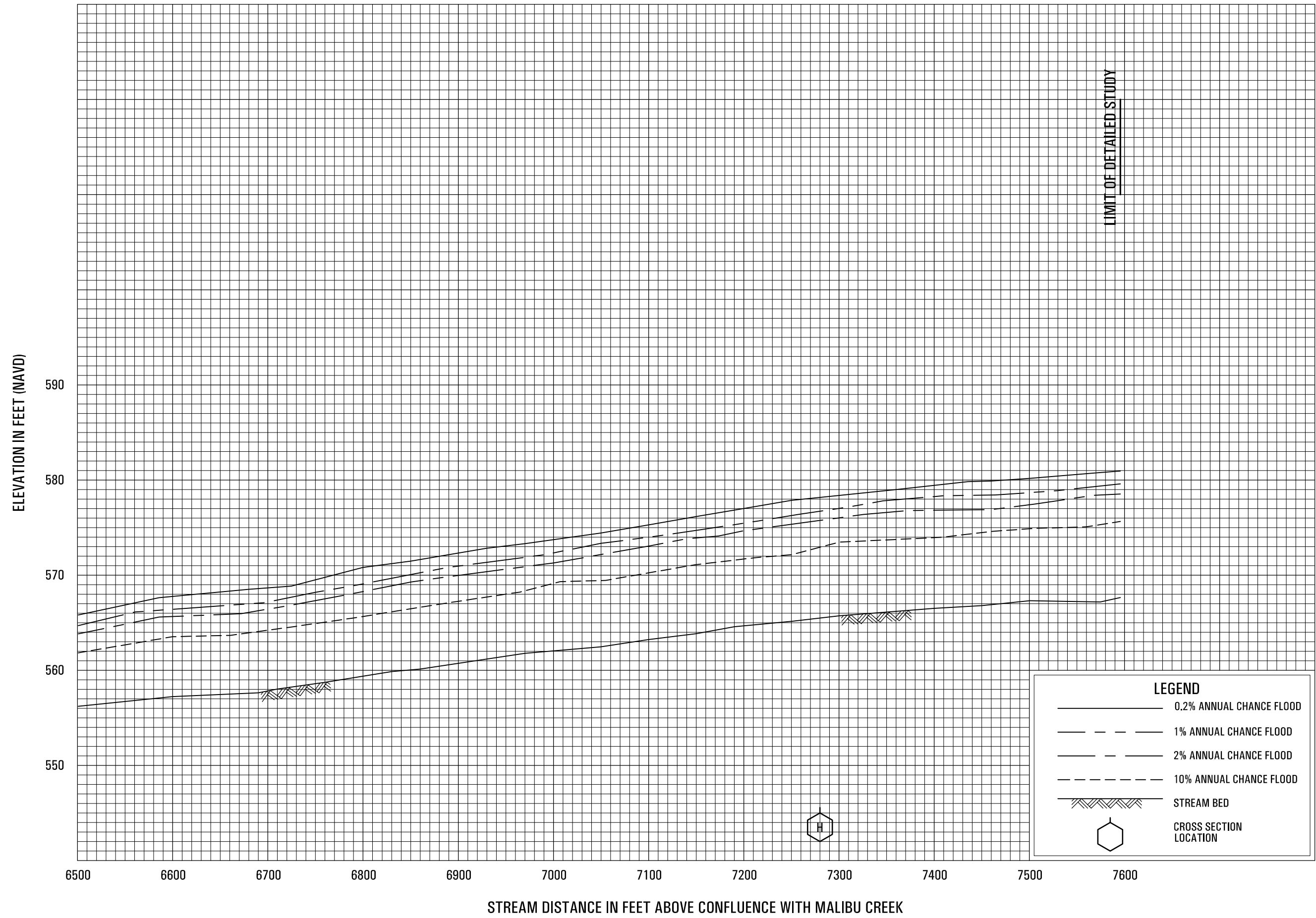
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

COLD CREEK

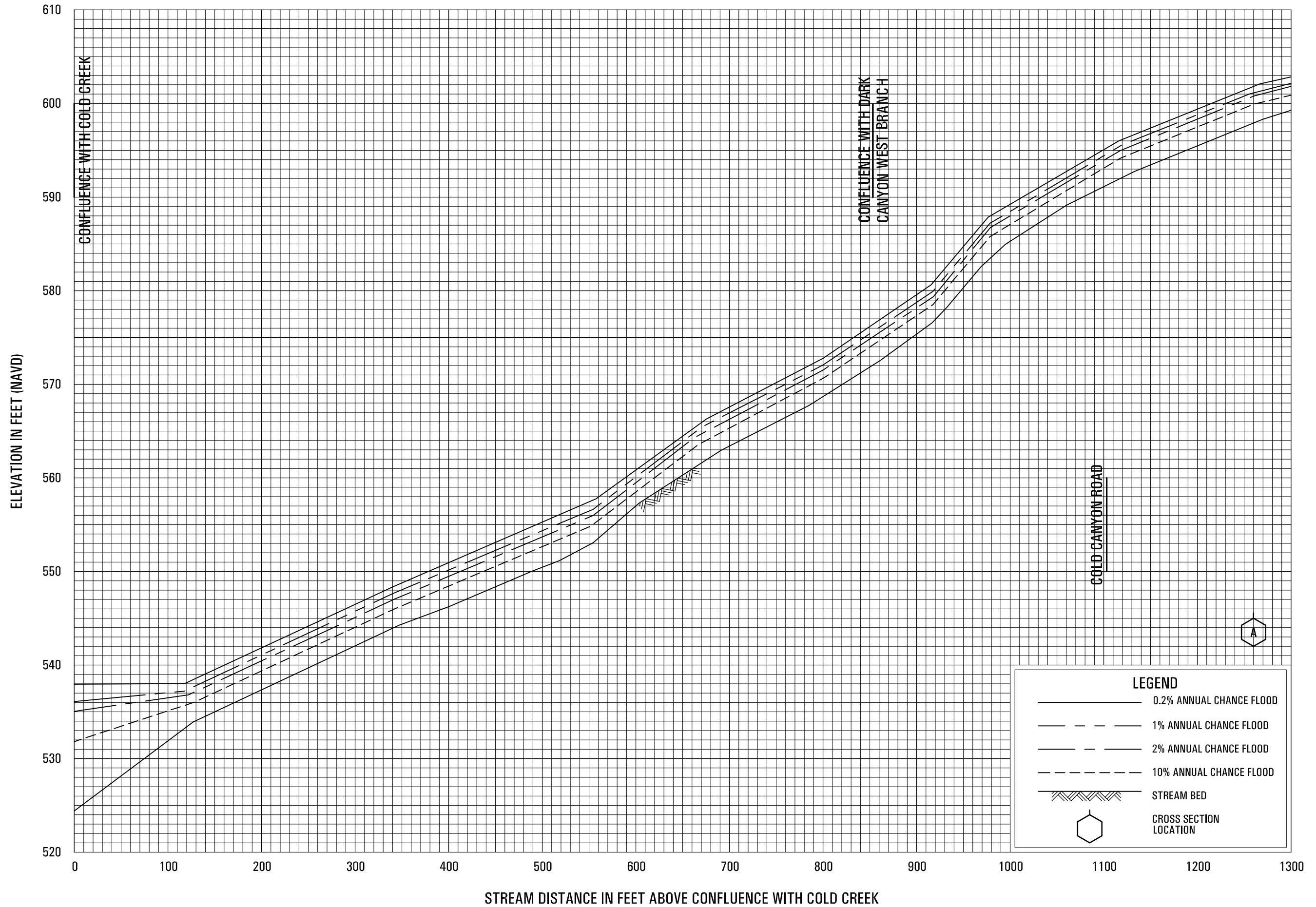
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

COLD CREEK

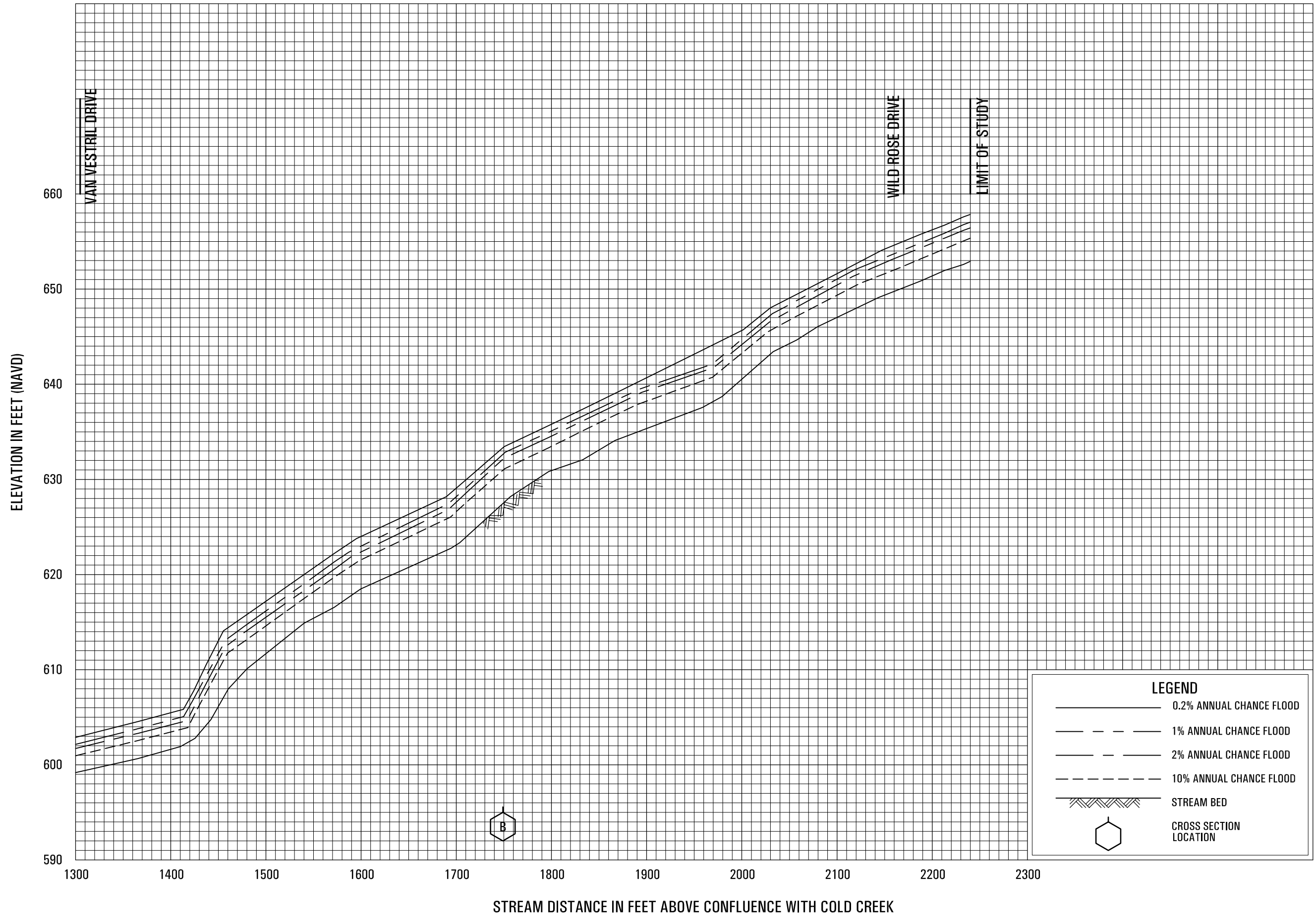
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

DARK CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



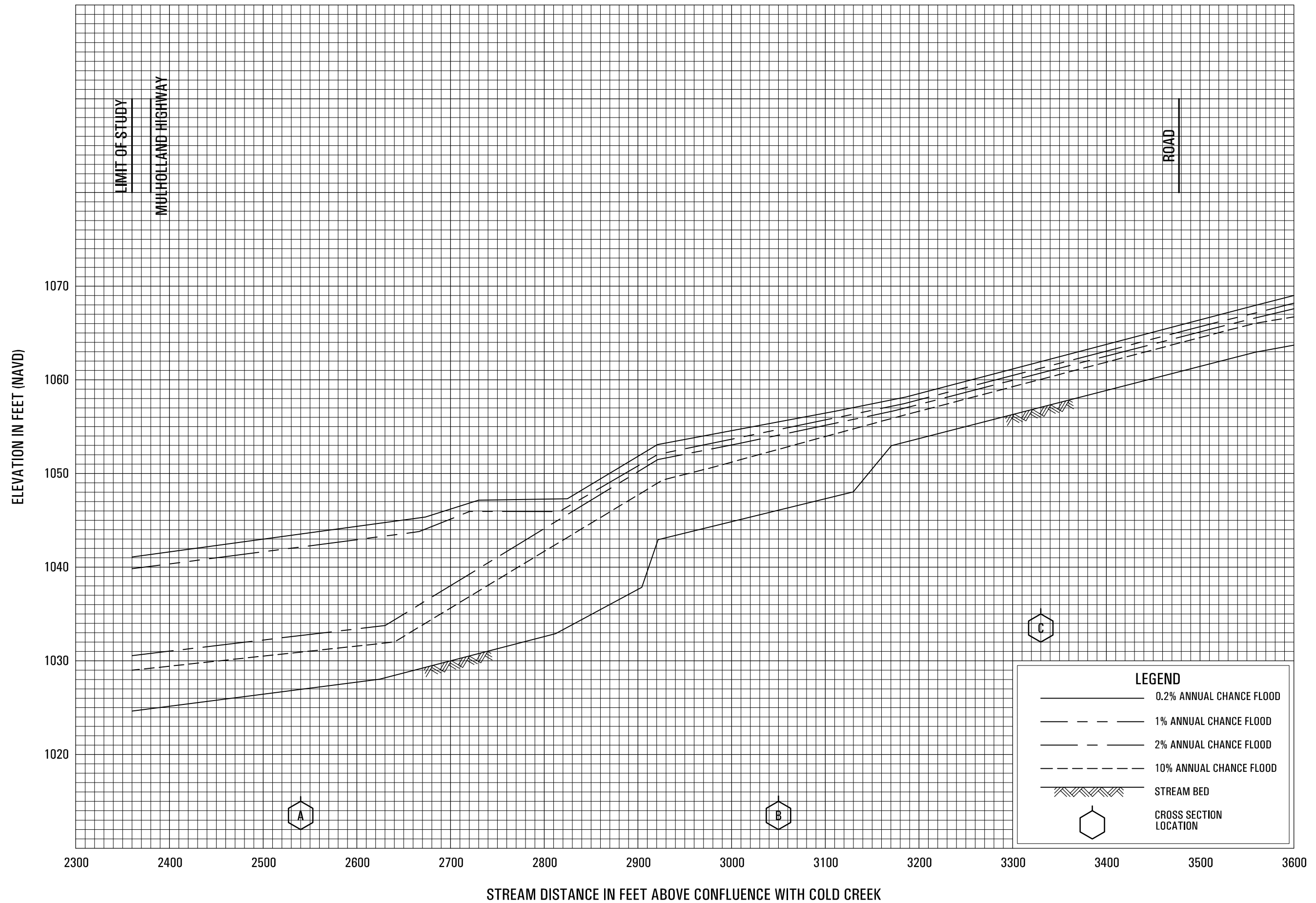
FLOOD PROFILES

DARK CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

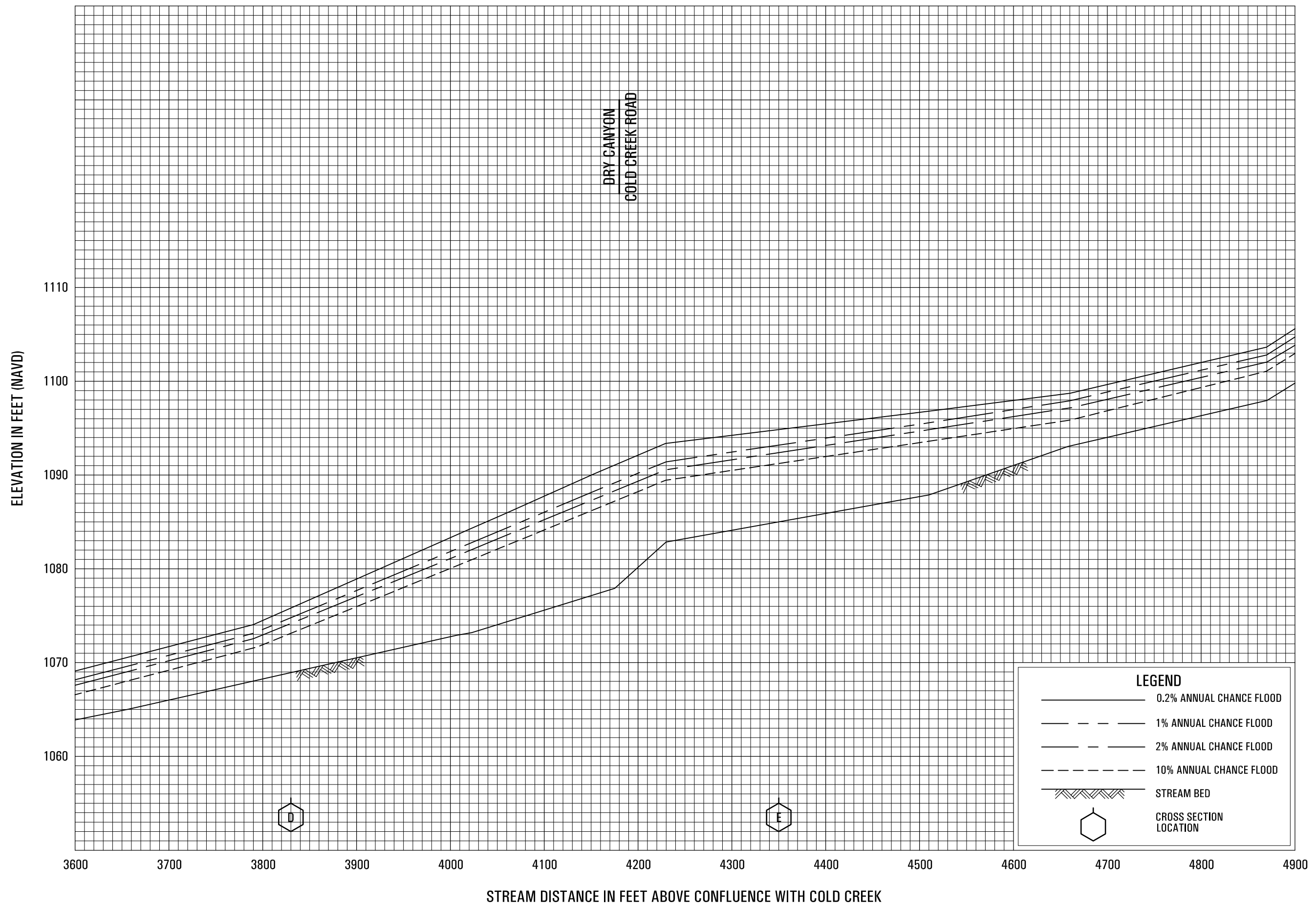
AND INCORPORATED AREAS



FLOOD PROFILES

DRY CANYON

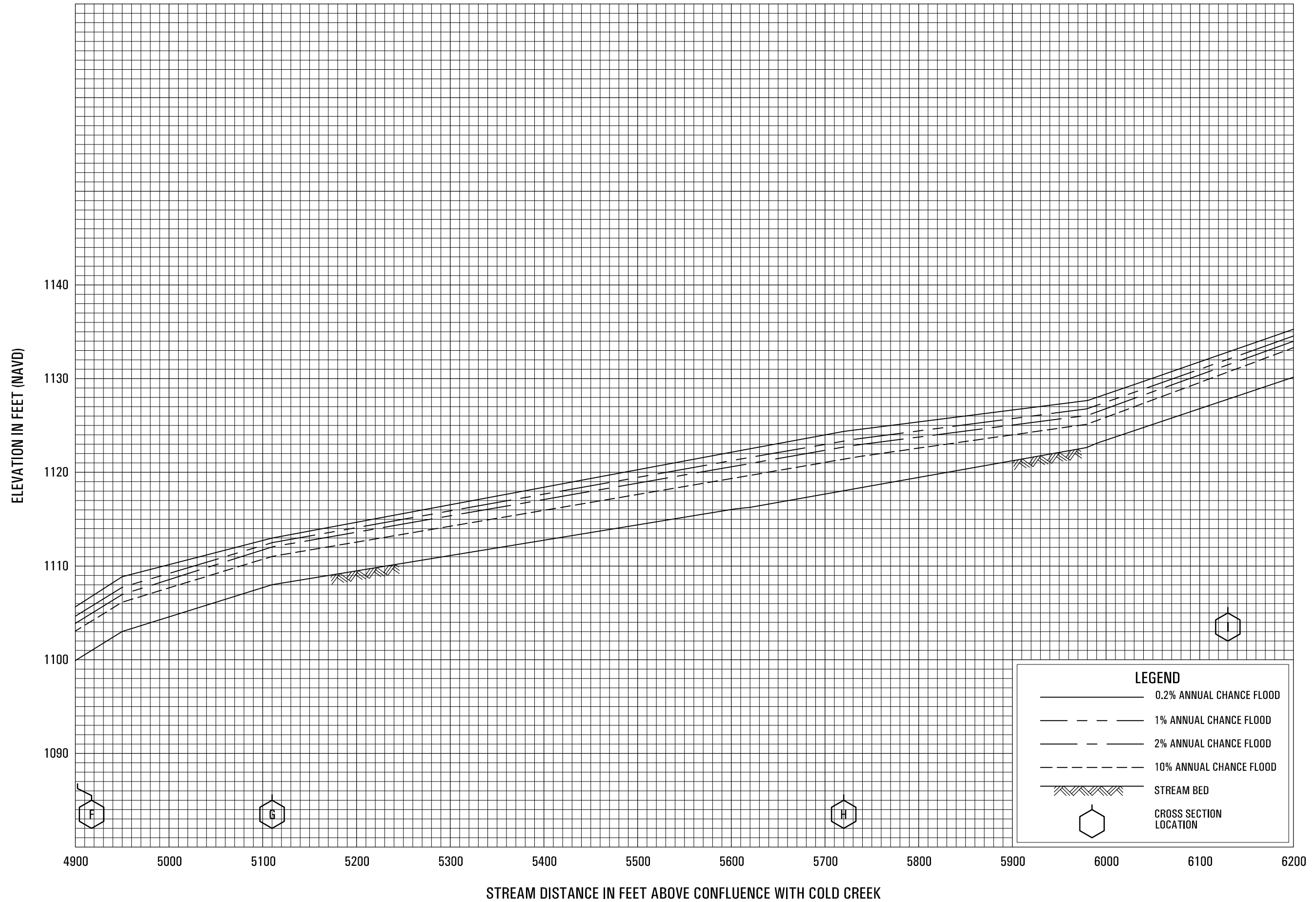
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

DRY CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



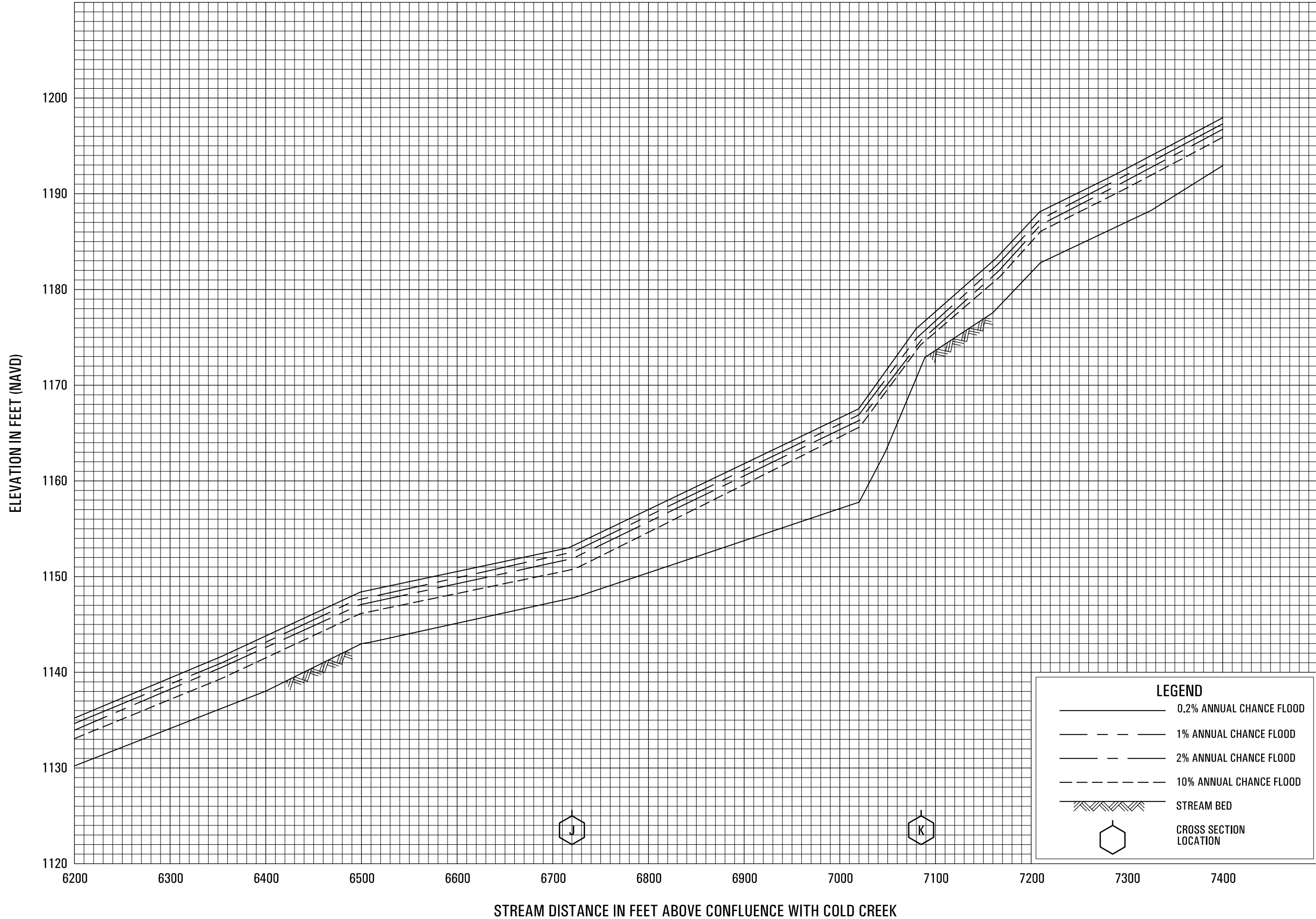
FLOOD PROFILES

DRY CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



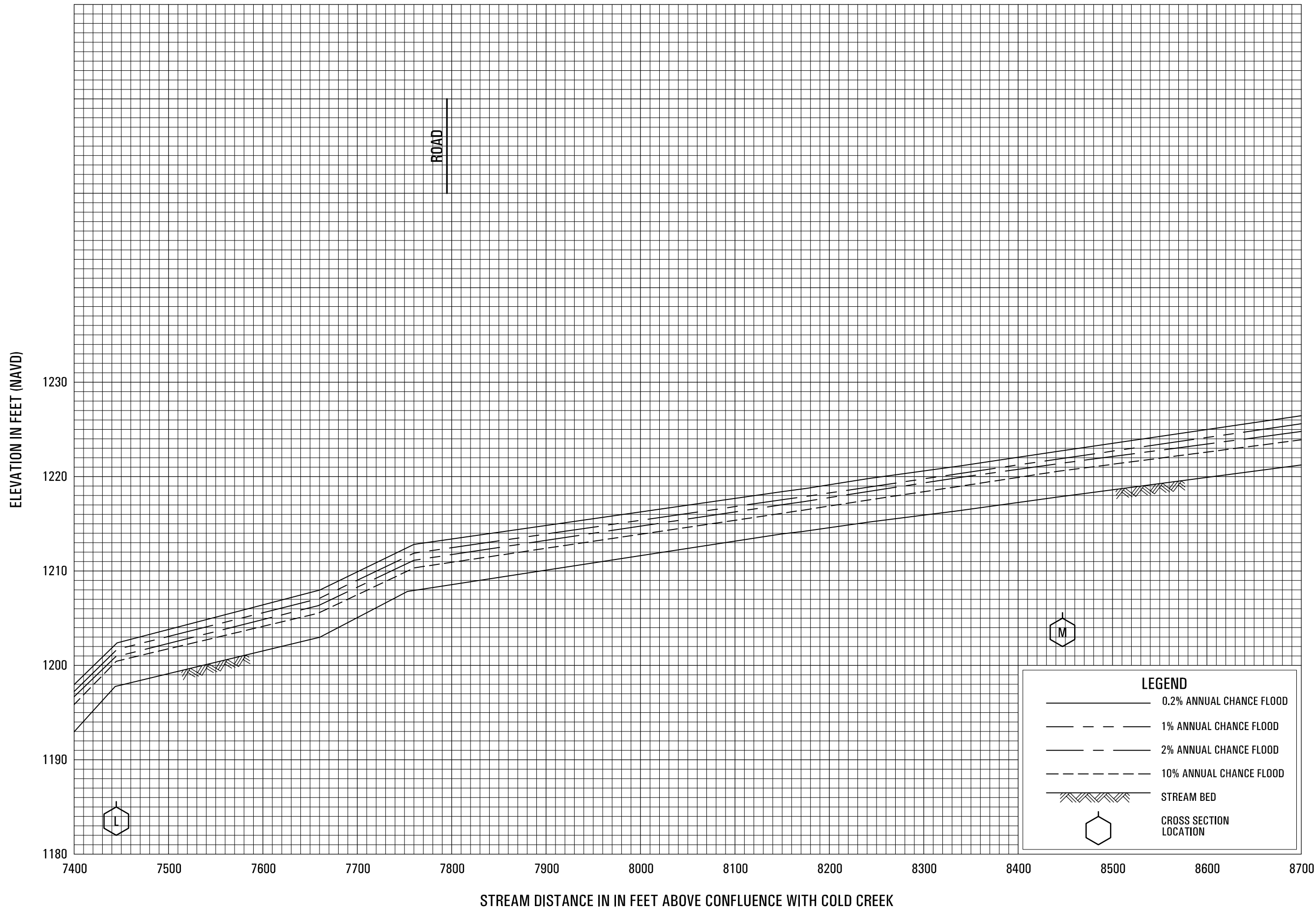
FLOOD PROFILES

DRY CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

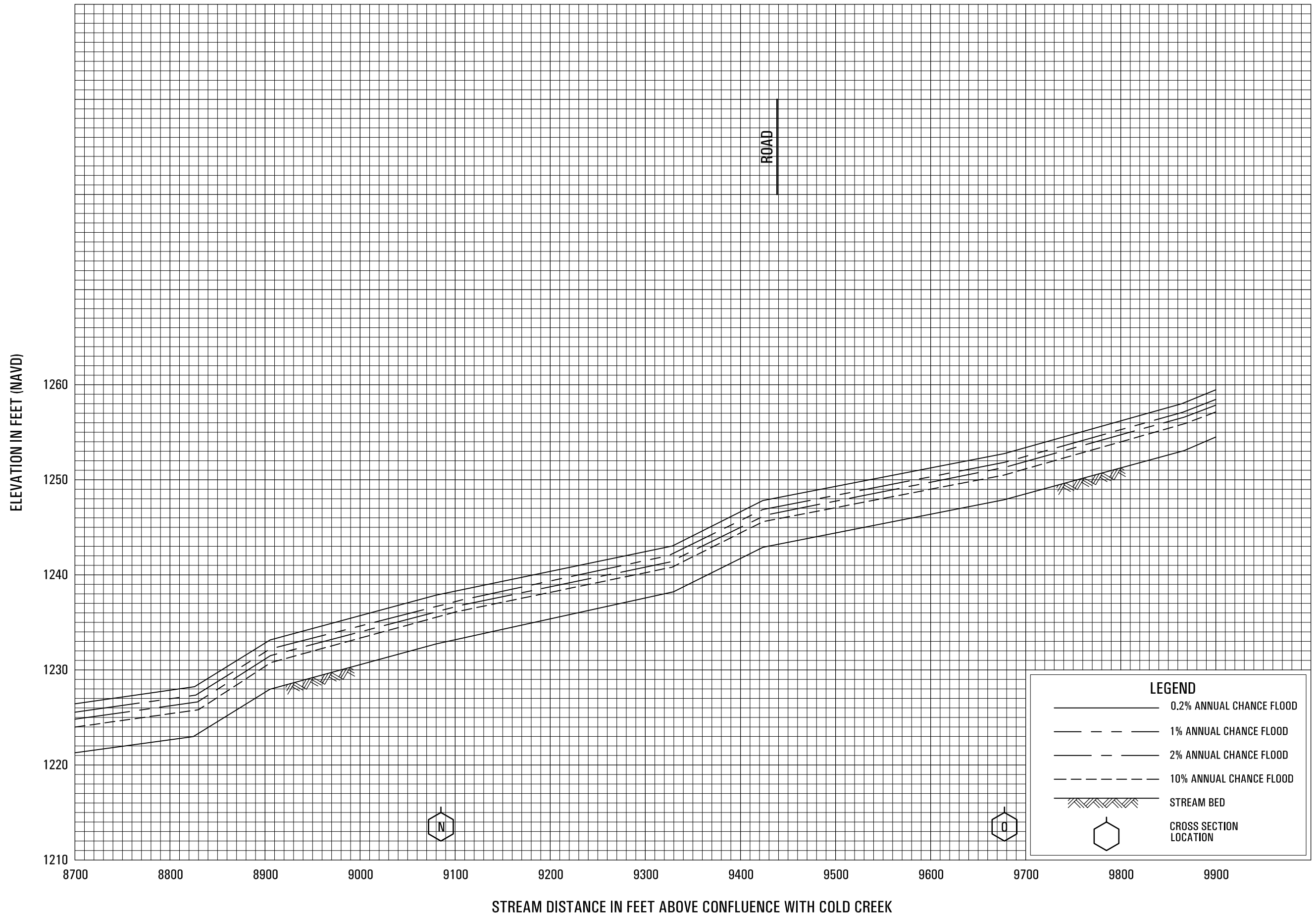
AND INCORPORATED AREAS



FLOOD PROFILES

DRY CANYON

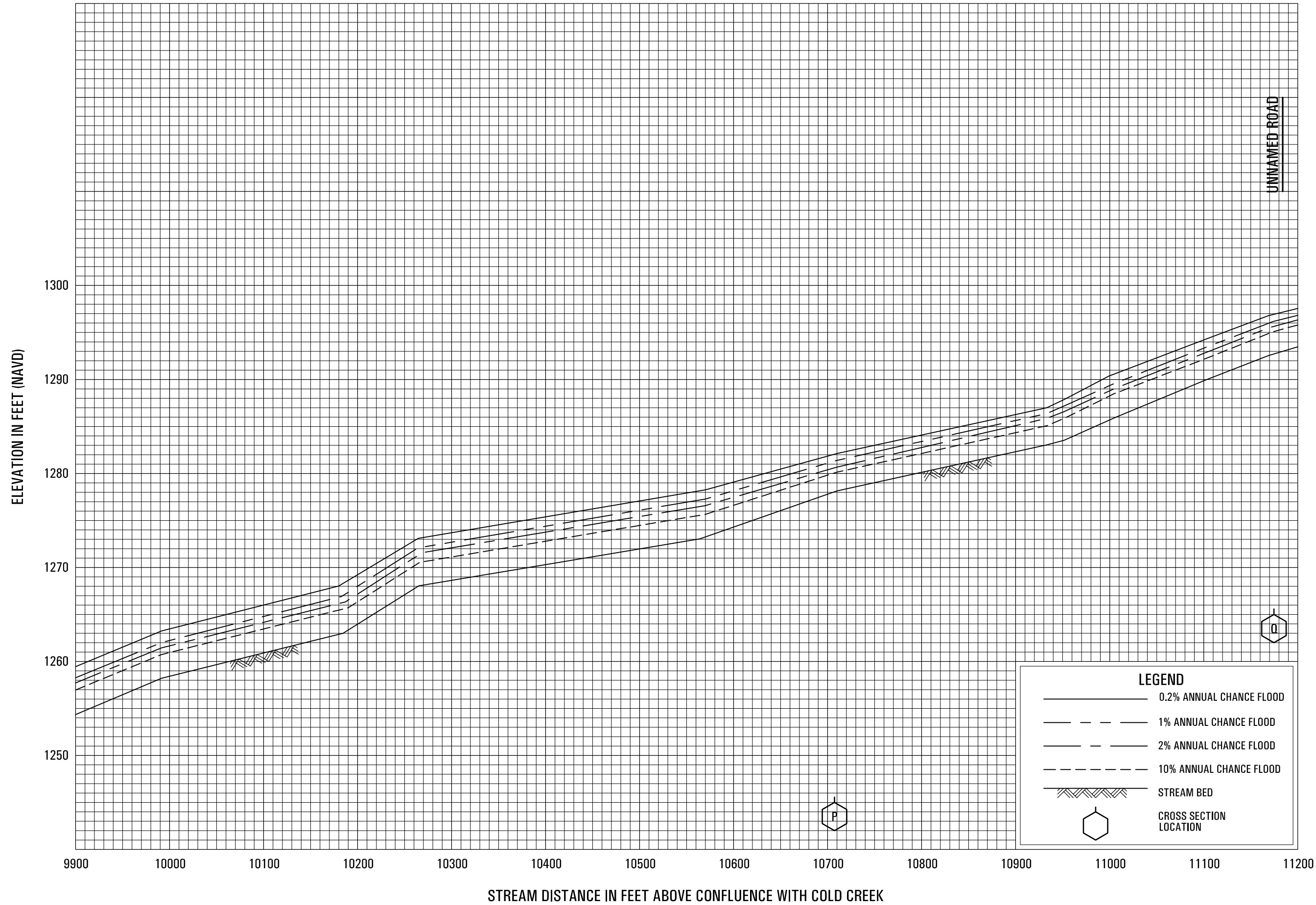
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

DRY CANYON

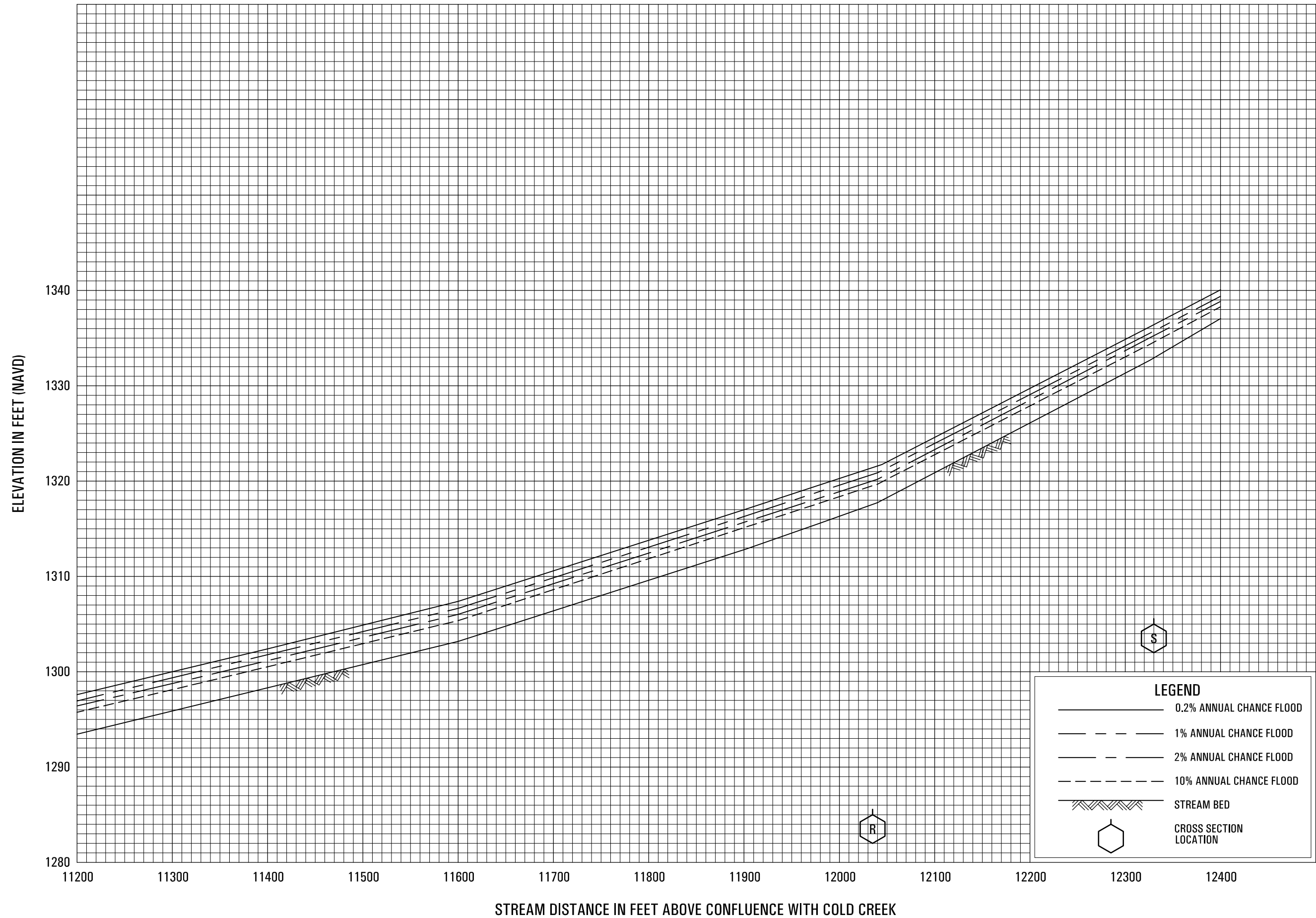
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

DRY CANYON

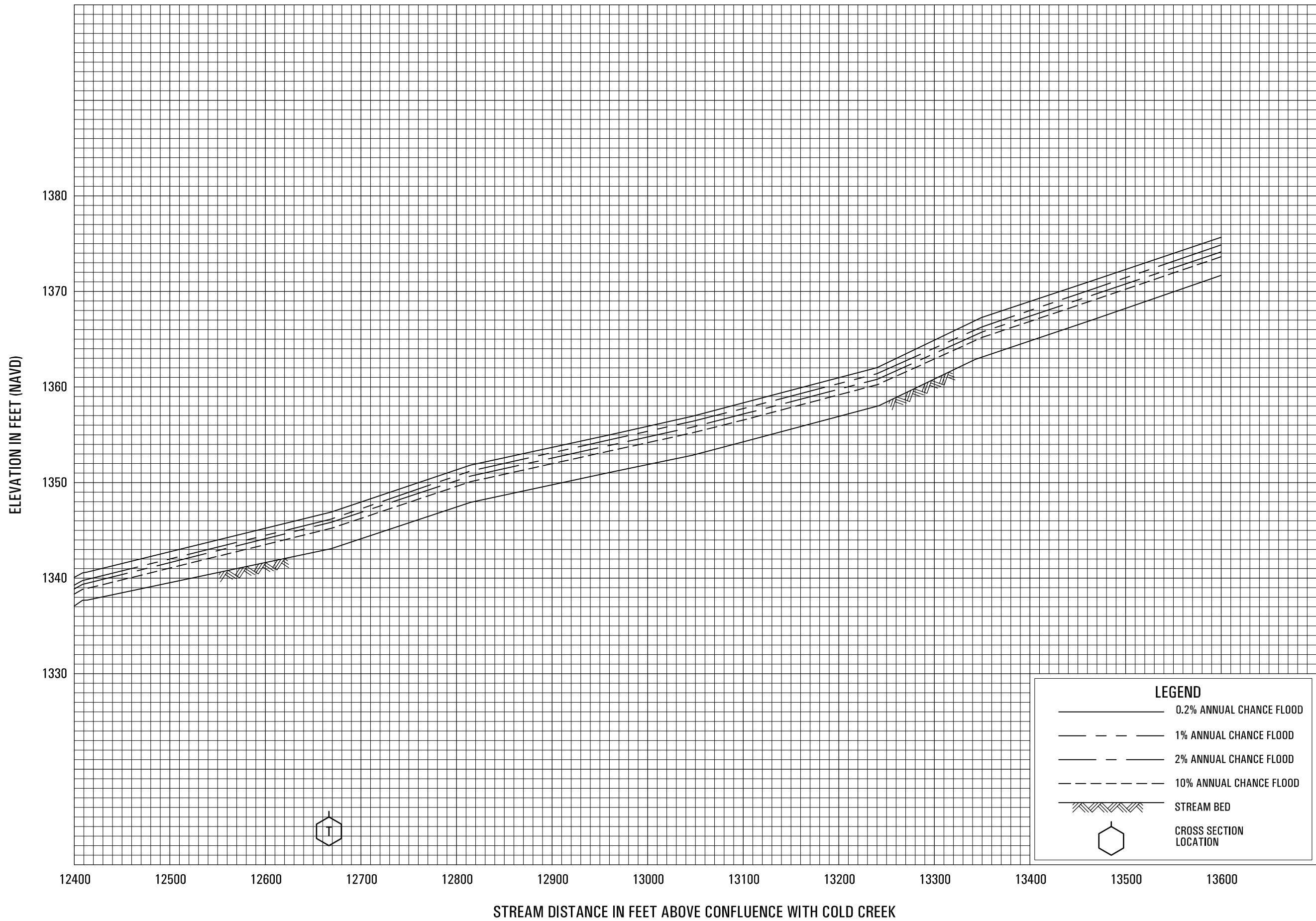
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

DRY CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

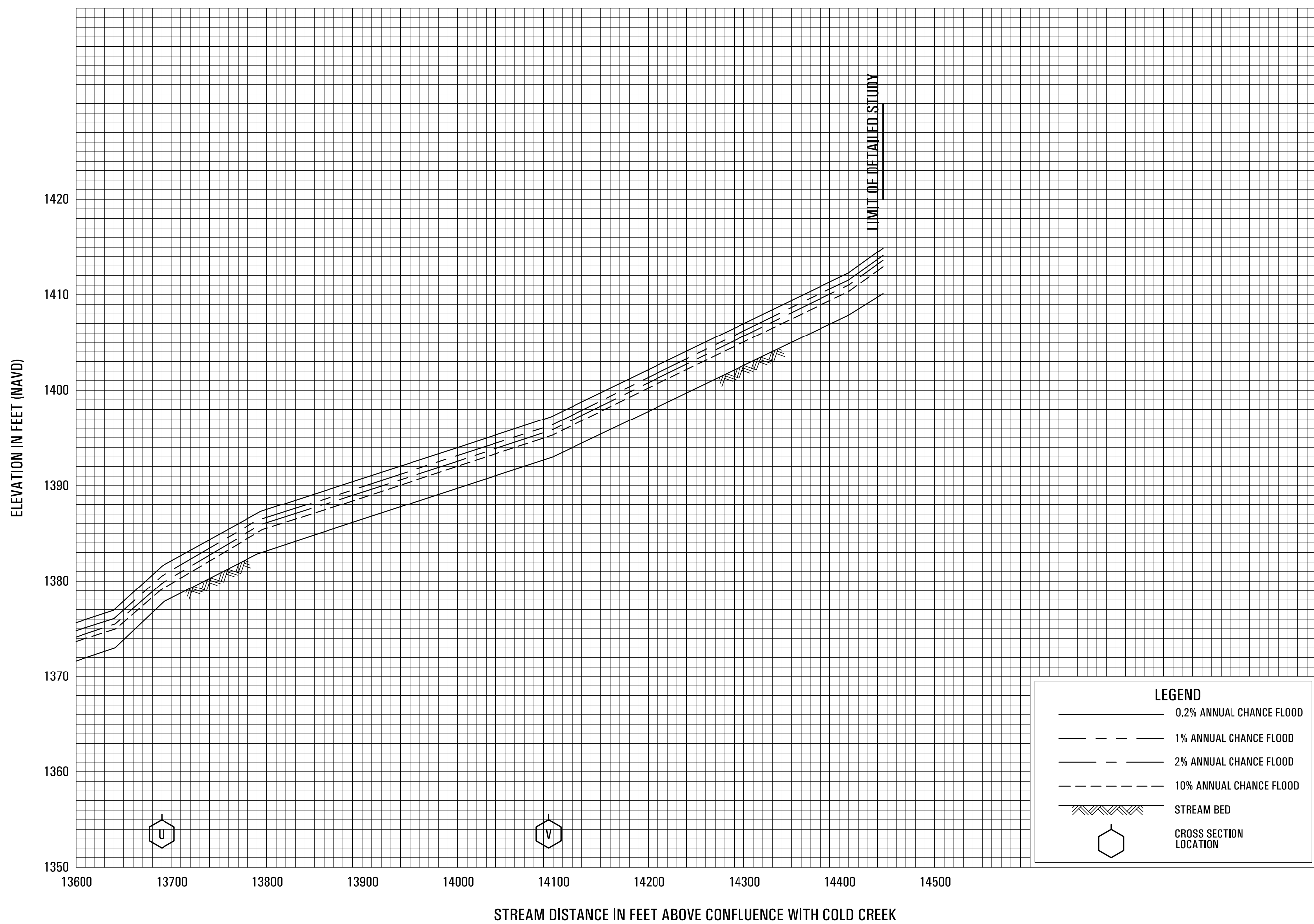


FLOOD PROFILES

DRY CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

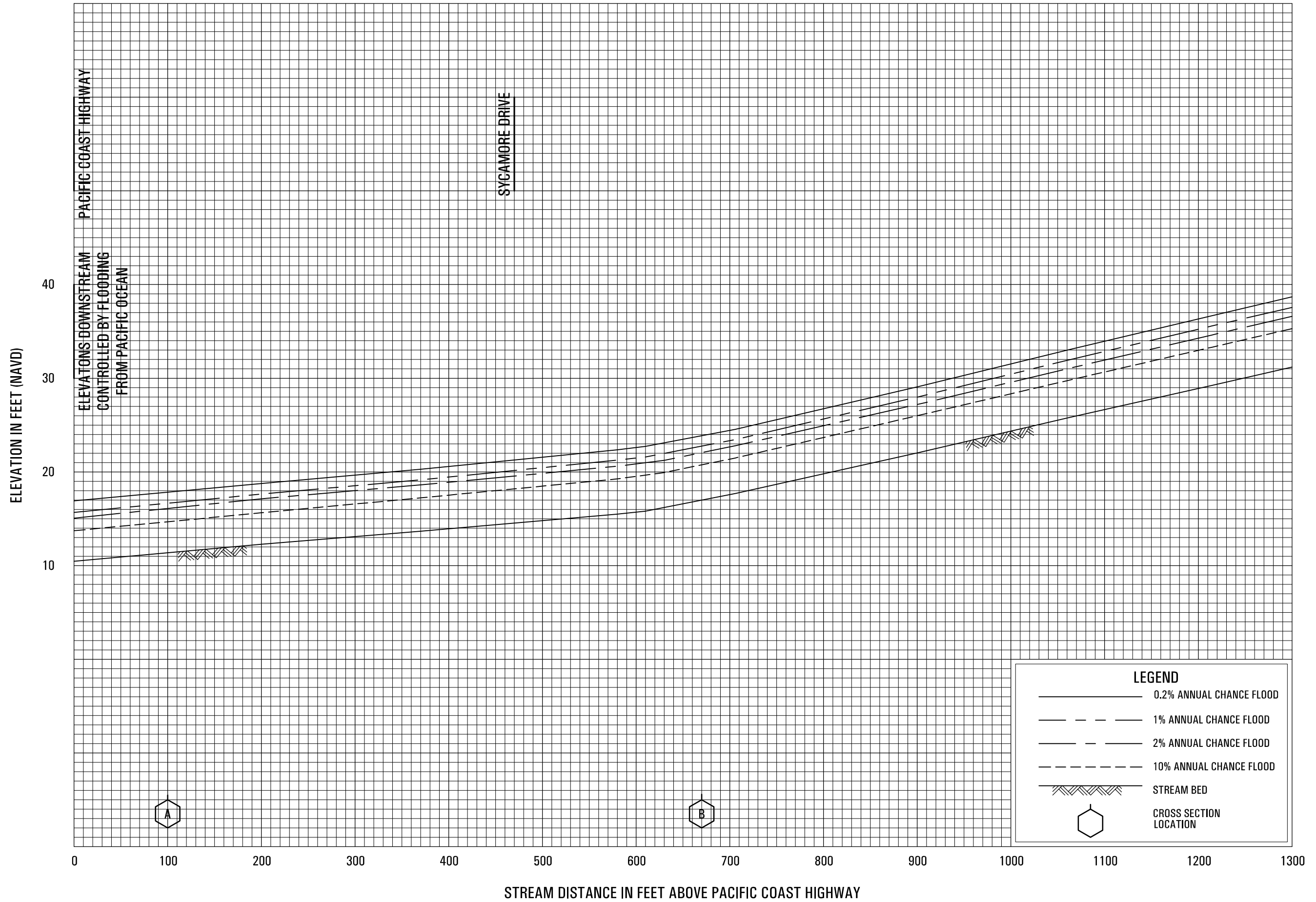
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



FLOOD PROFILES

DRY CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS

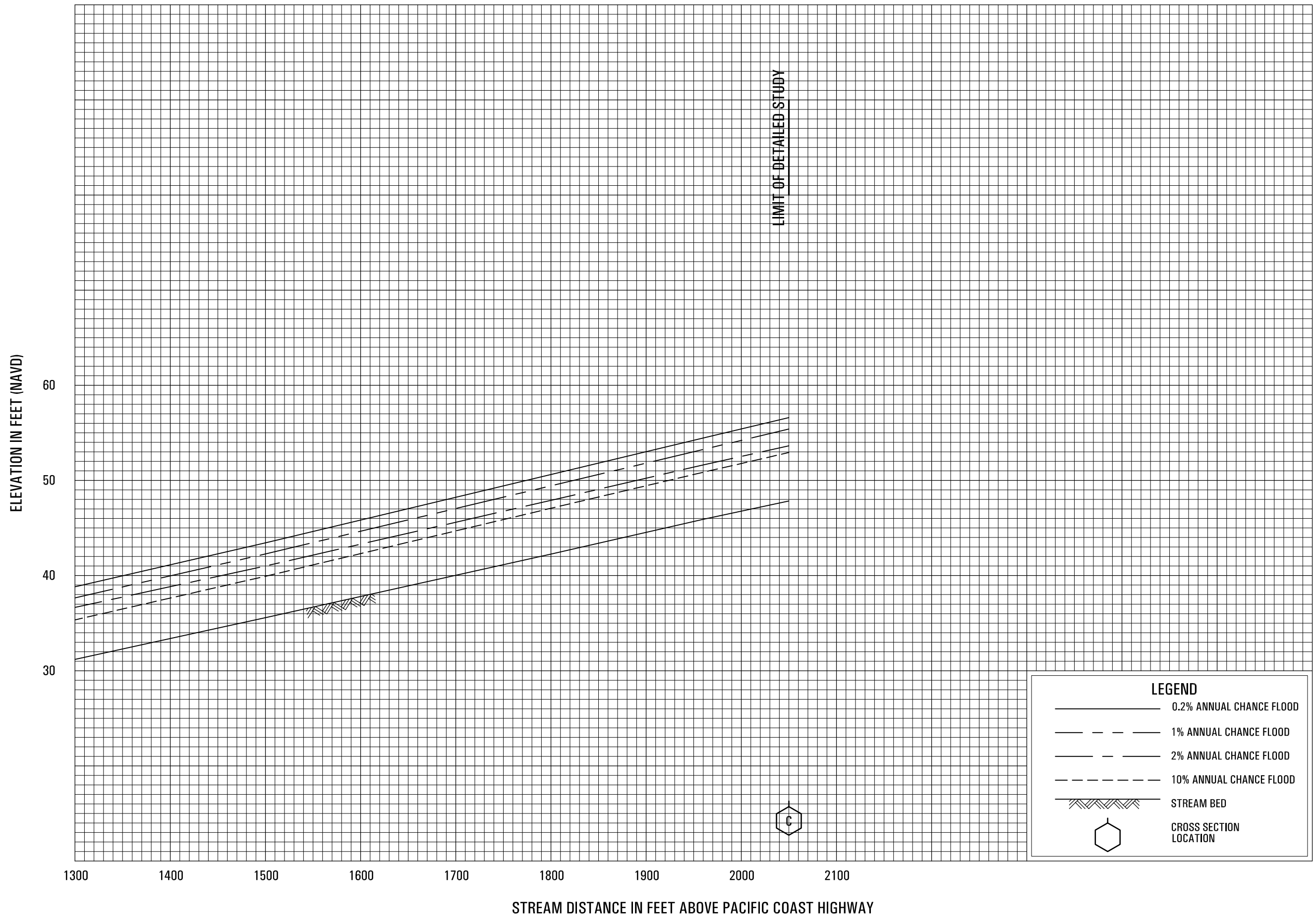


FLOOD PROFILES

ESCONDIDO CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS

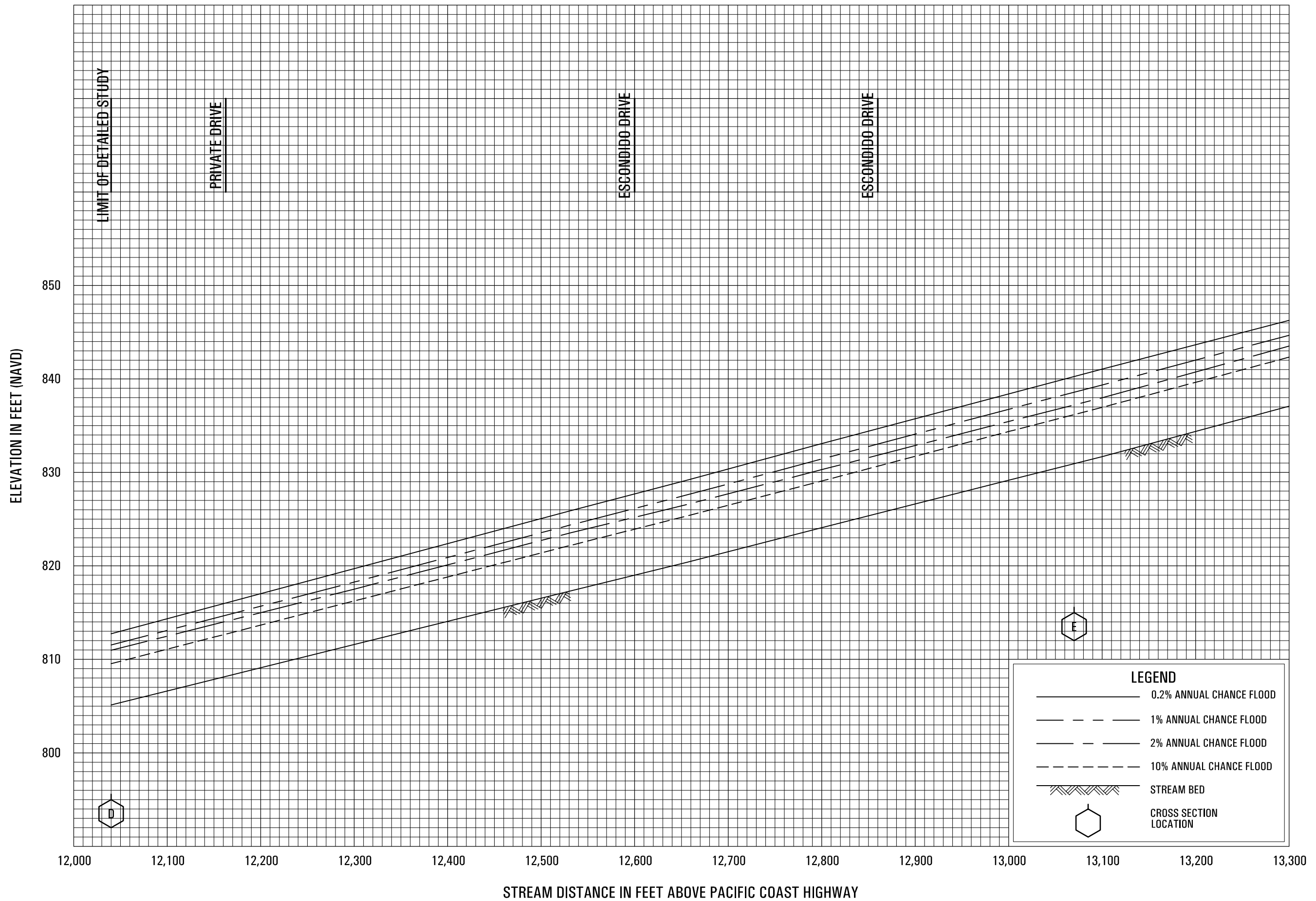


FLOOD PROFILES

ESCONDIDO CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

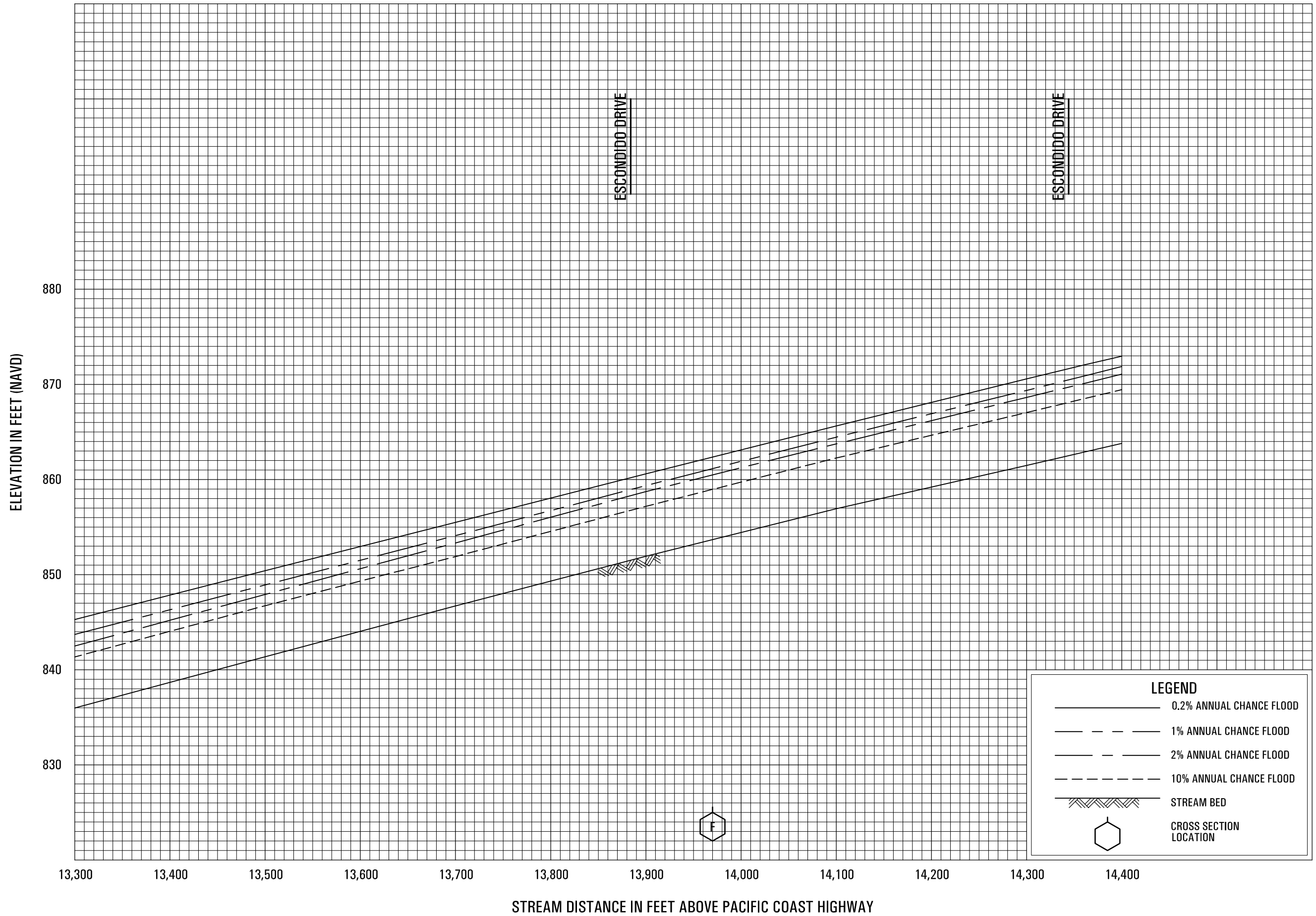
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



FLOOD PROFILES

ESCONDIDO CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

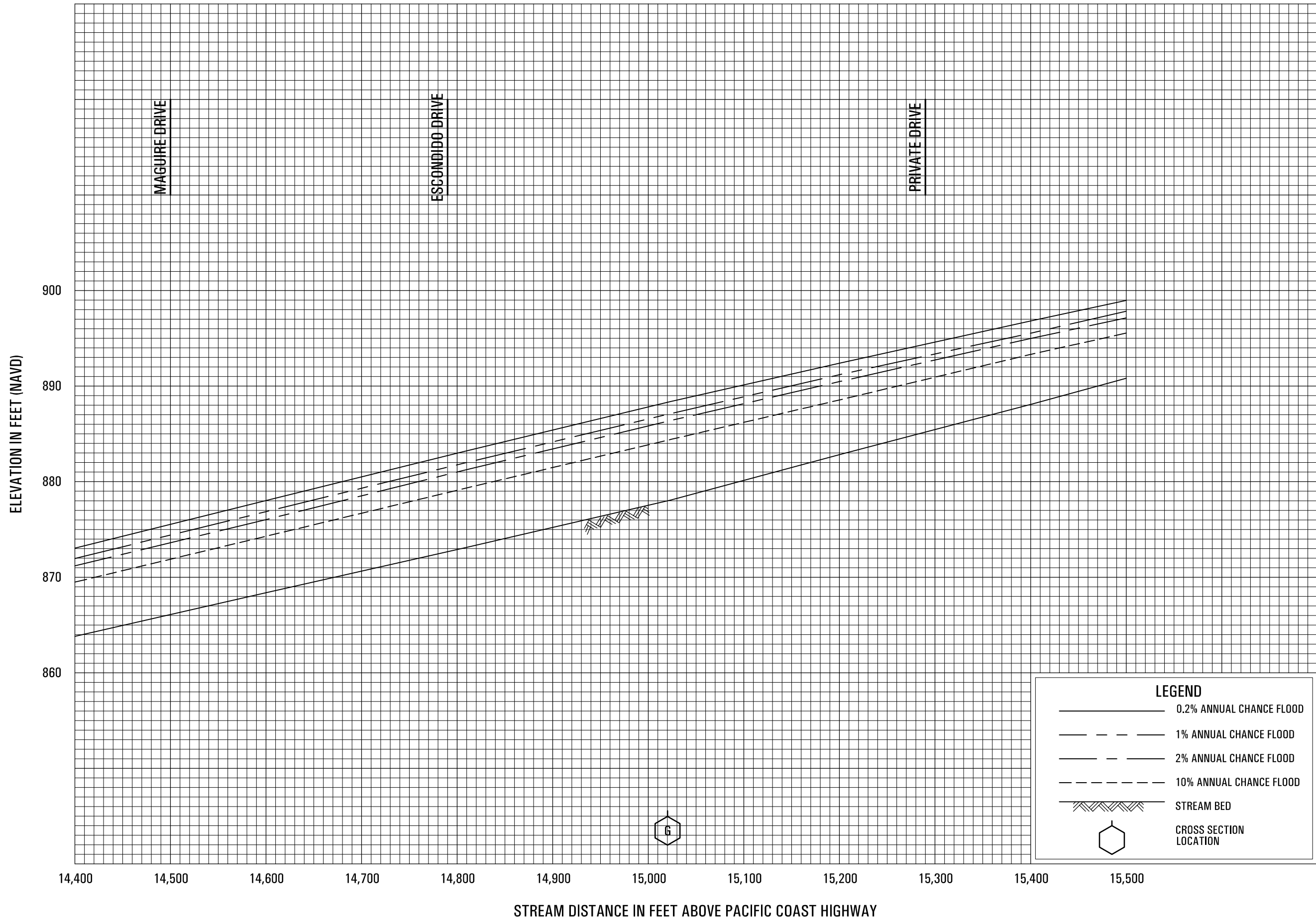


FLOOD PROFILES

ESCONDIDO CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

**LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

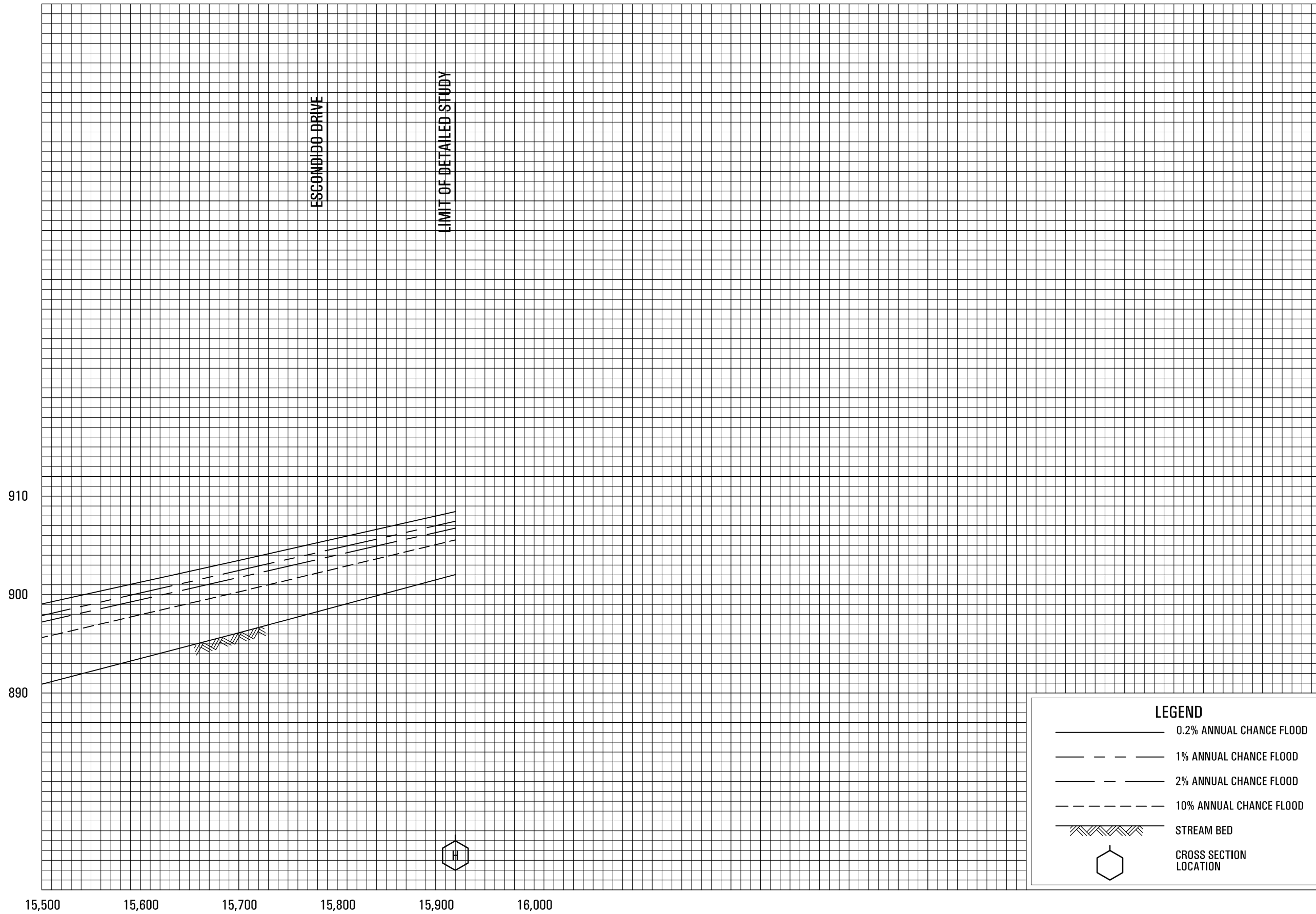


FLOOD PROFILES

ESCONDIDO CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)



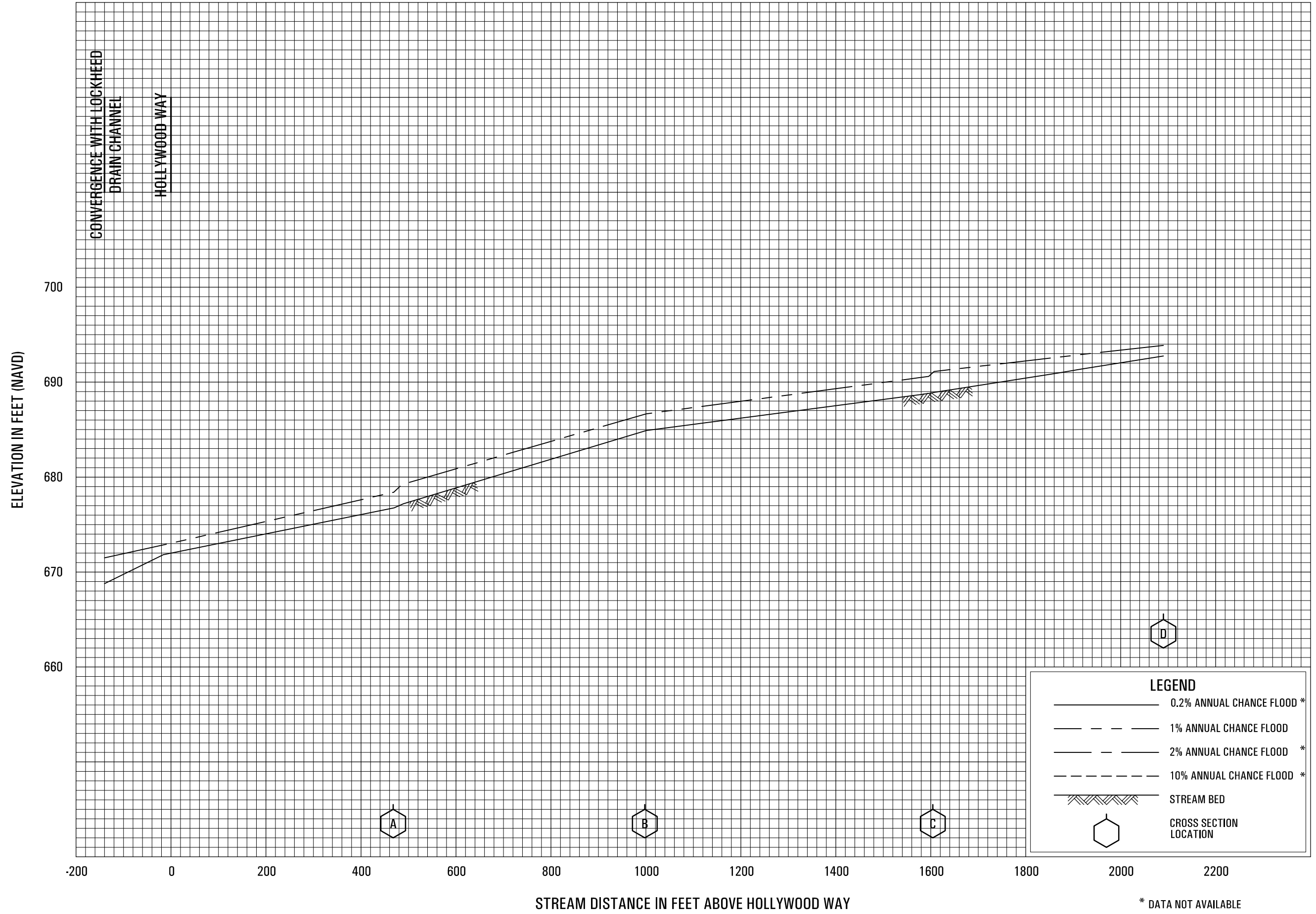
LEGEND

- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- CROSS SECTION LOCATION

STREAM DISTANCE IN FEET ABOVE PACIFIC COAST HIGHWAY

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS

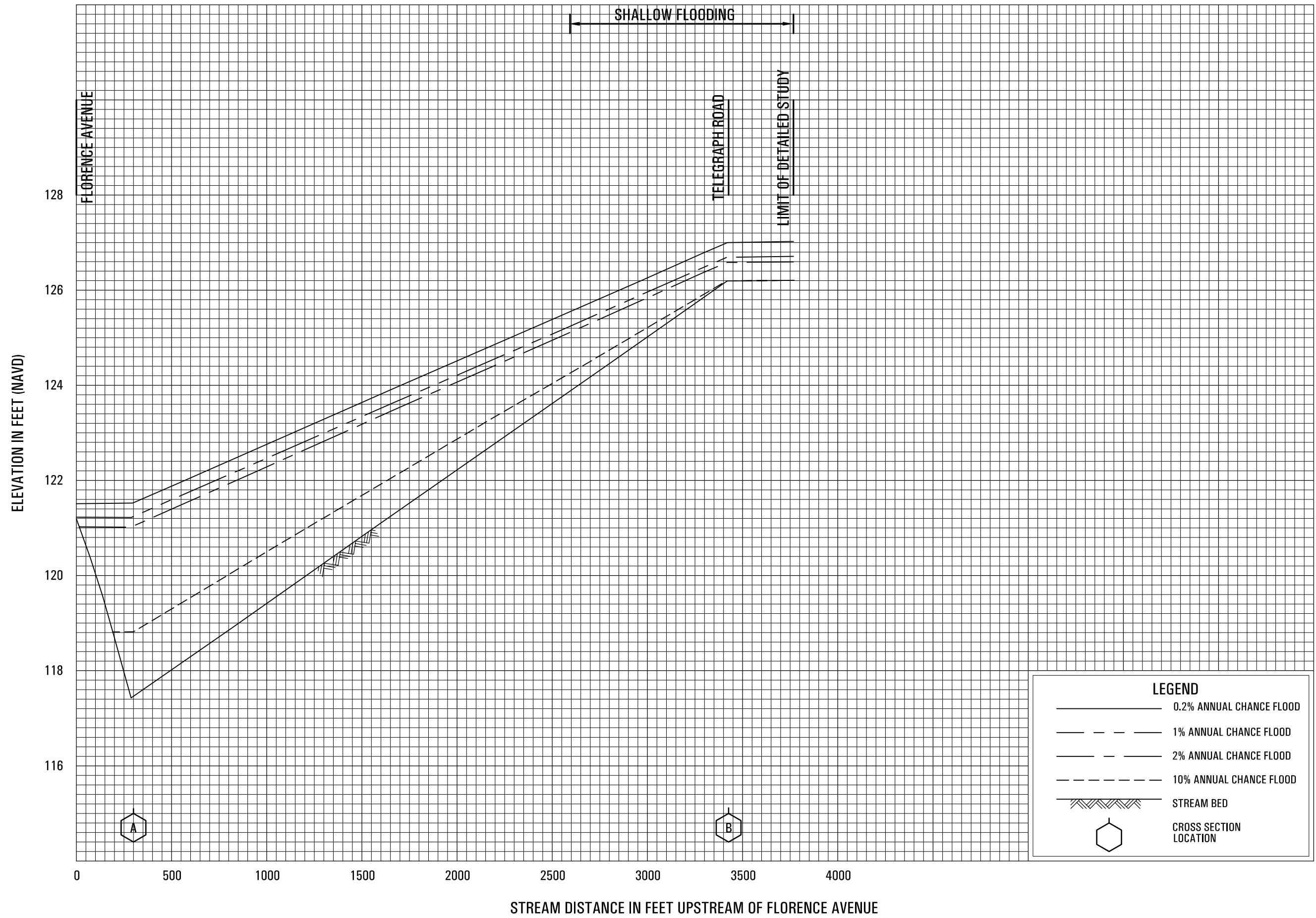
FLOOD PROFILES
ESCONDIDO CANYON



FLOOD PROFILES

FLOW ALONG EMPIRE AVENUE

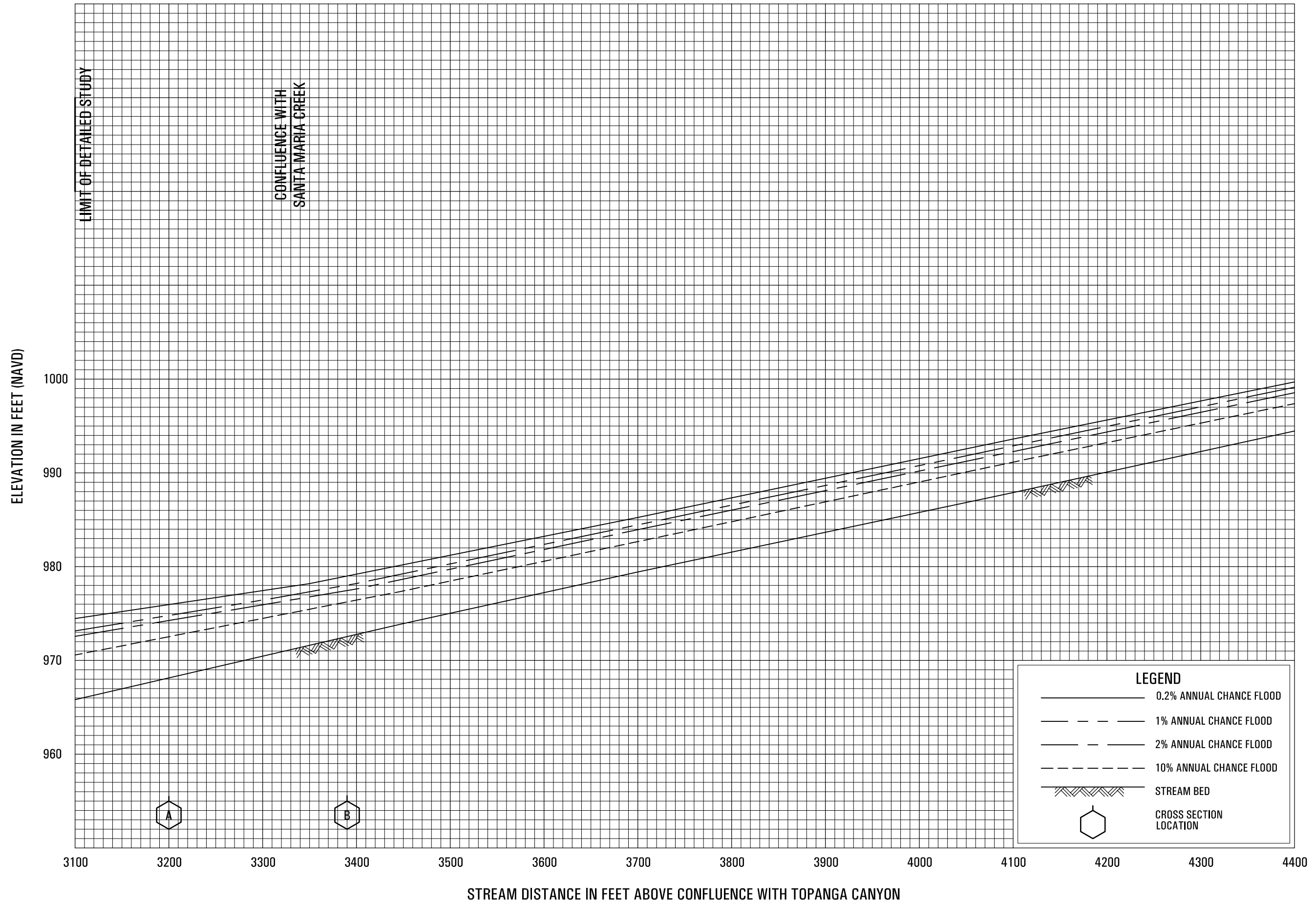
FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



FLOOD PROFILES

FLOWLINE NO.1

FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



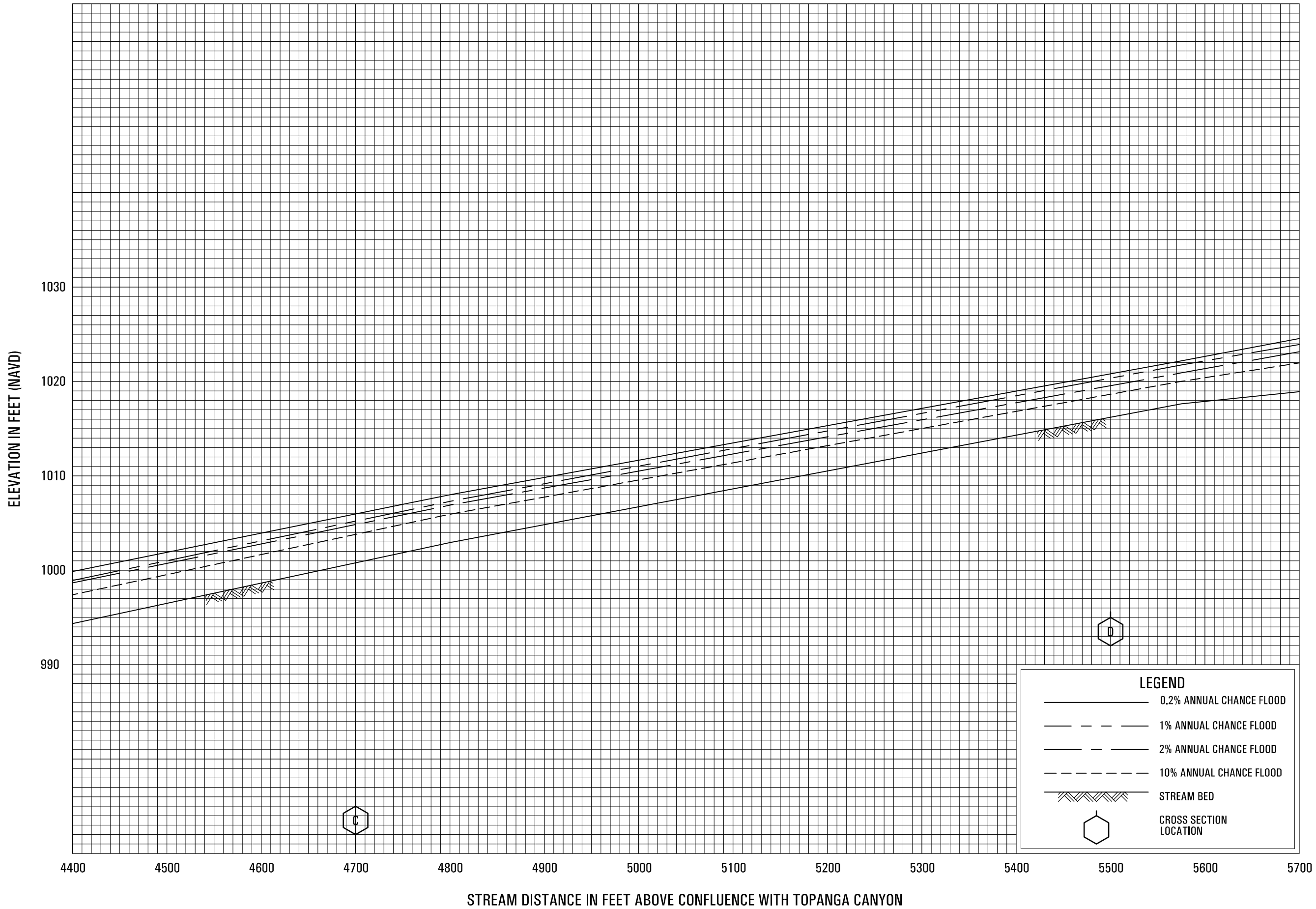
FLOOD PROFILES

GARAPITO CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS

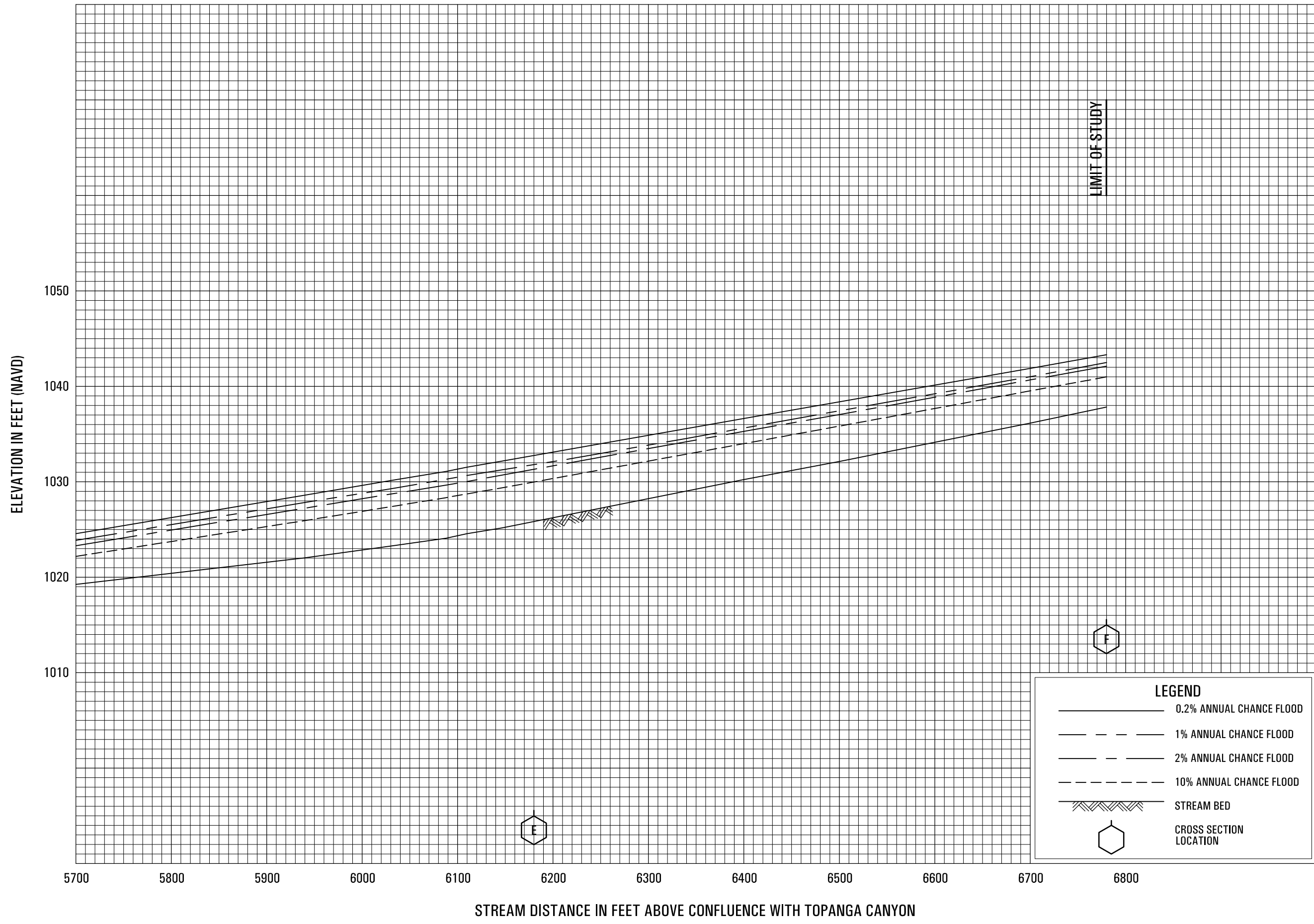


FLOOD PROFILES

GARAPITO CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

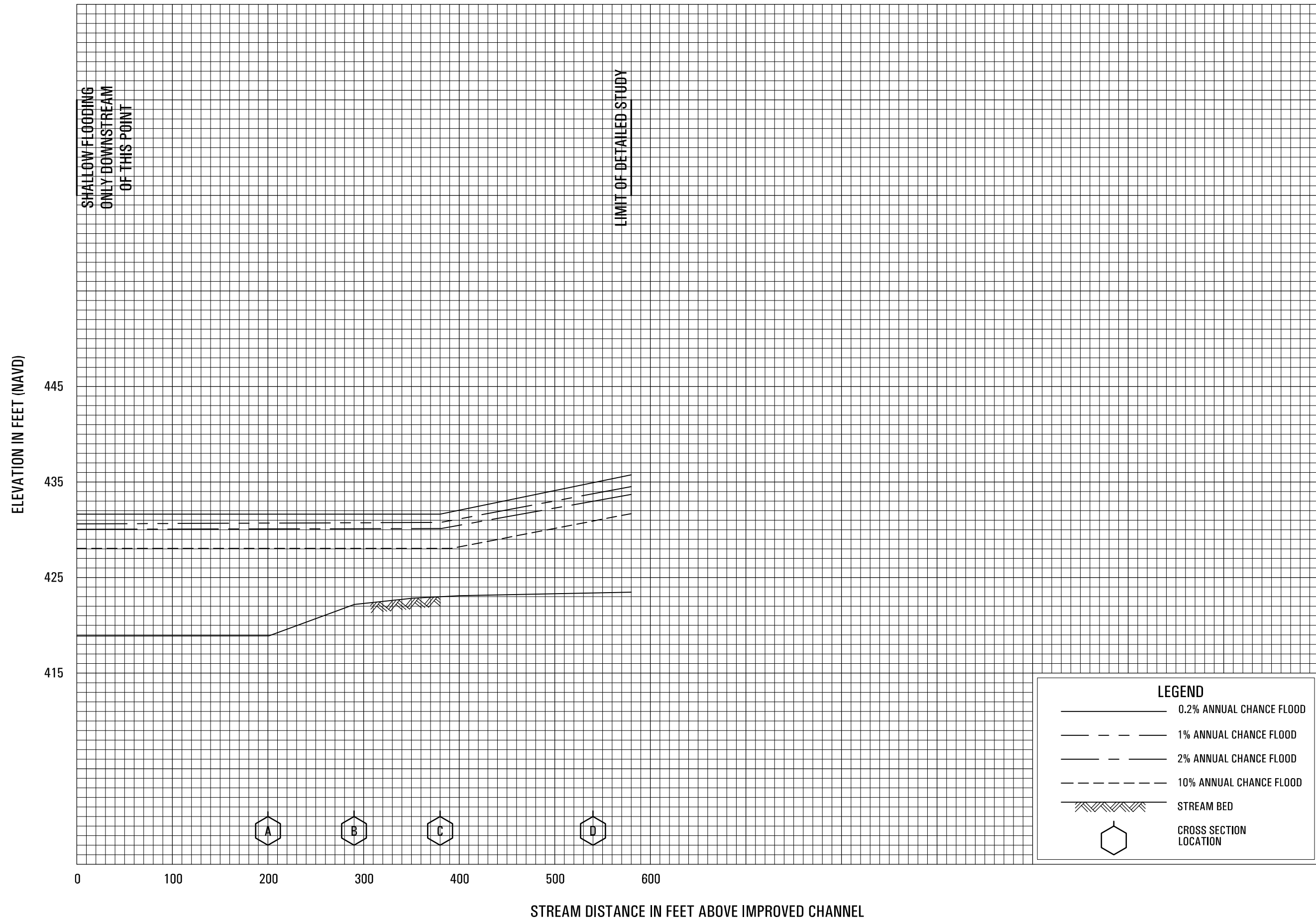
**LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

GARAPITO CREEK

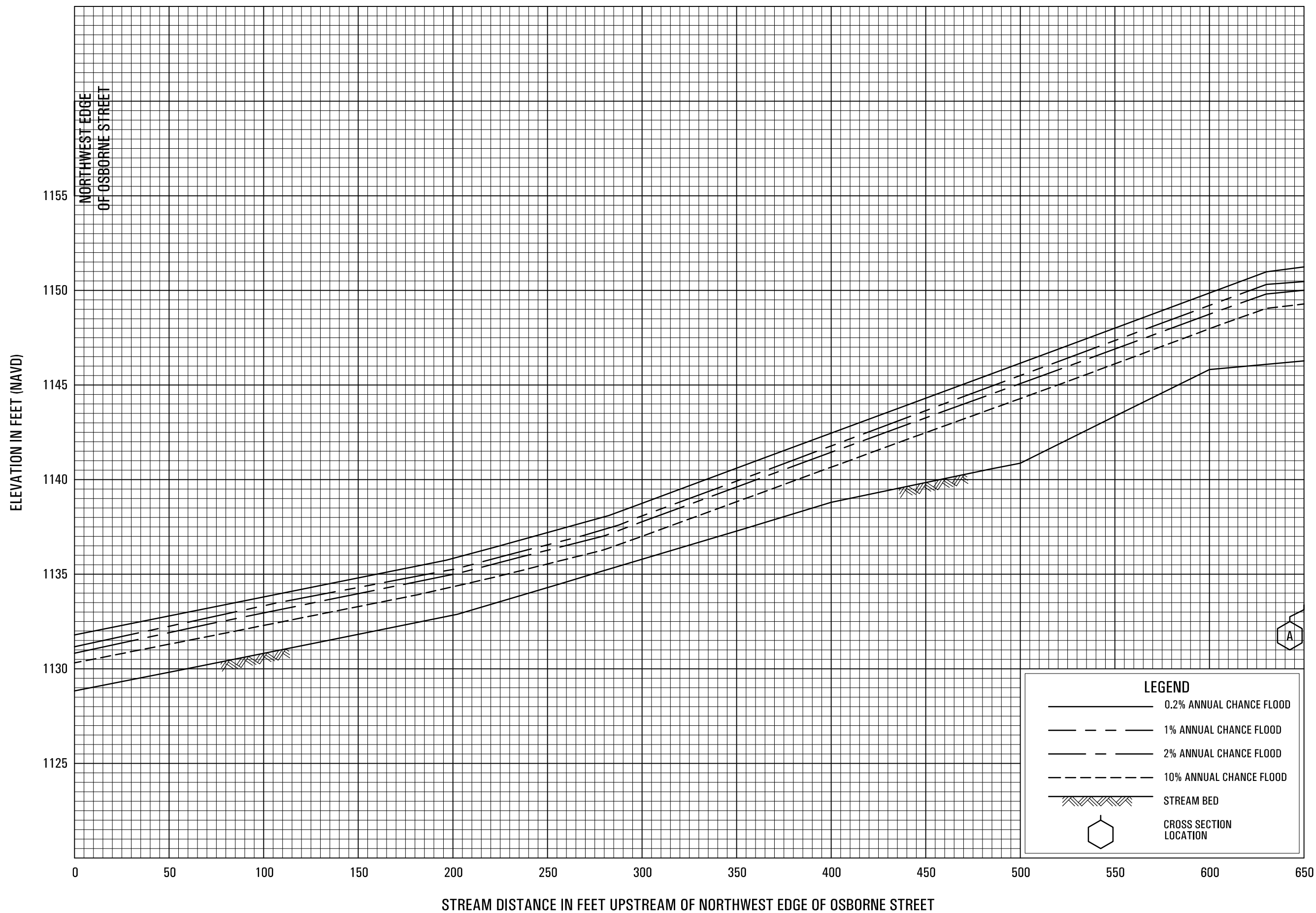
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**

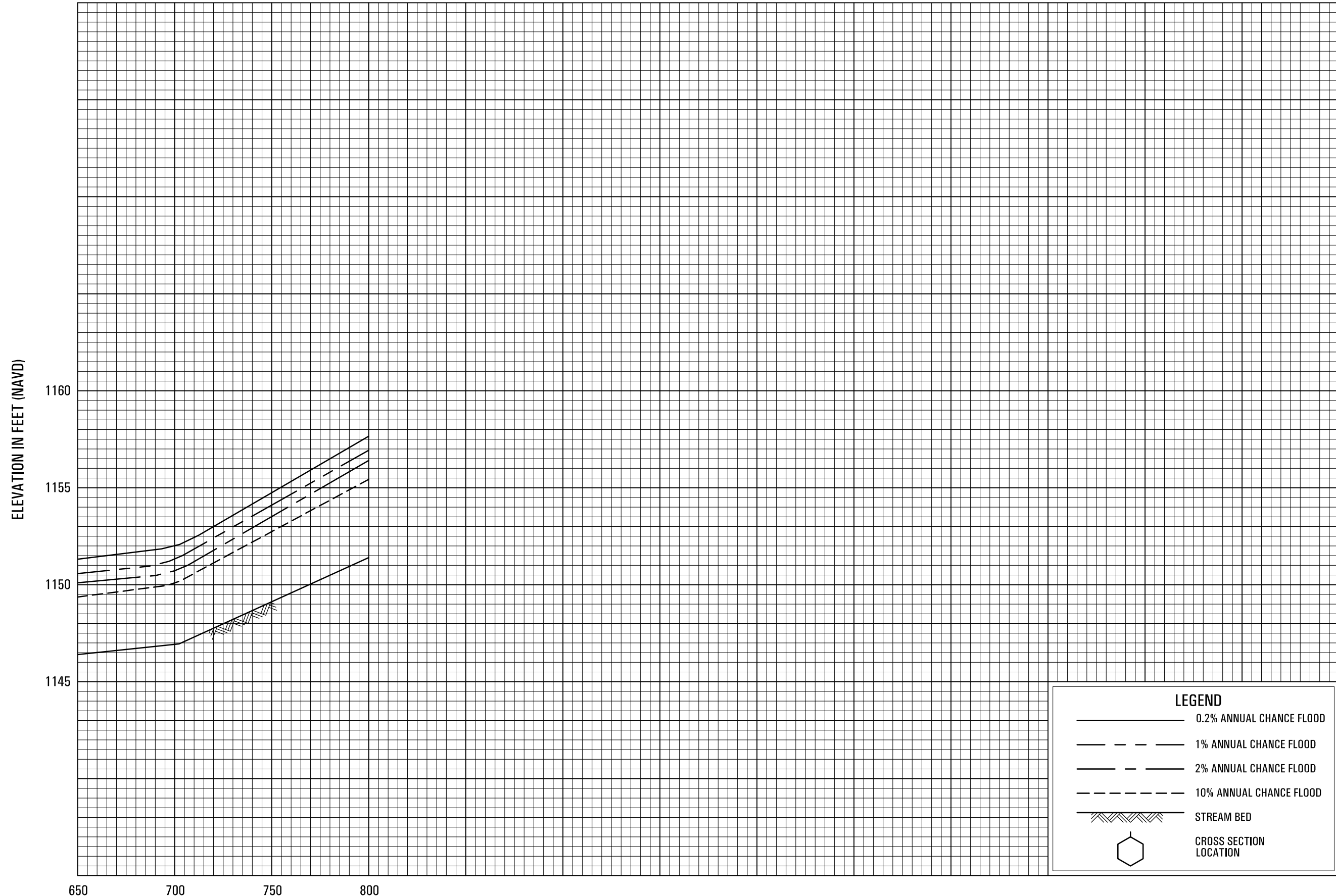


FLOOD PROFILES

HACIENDA CREEK

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



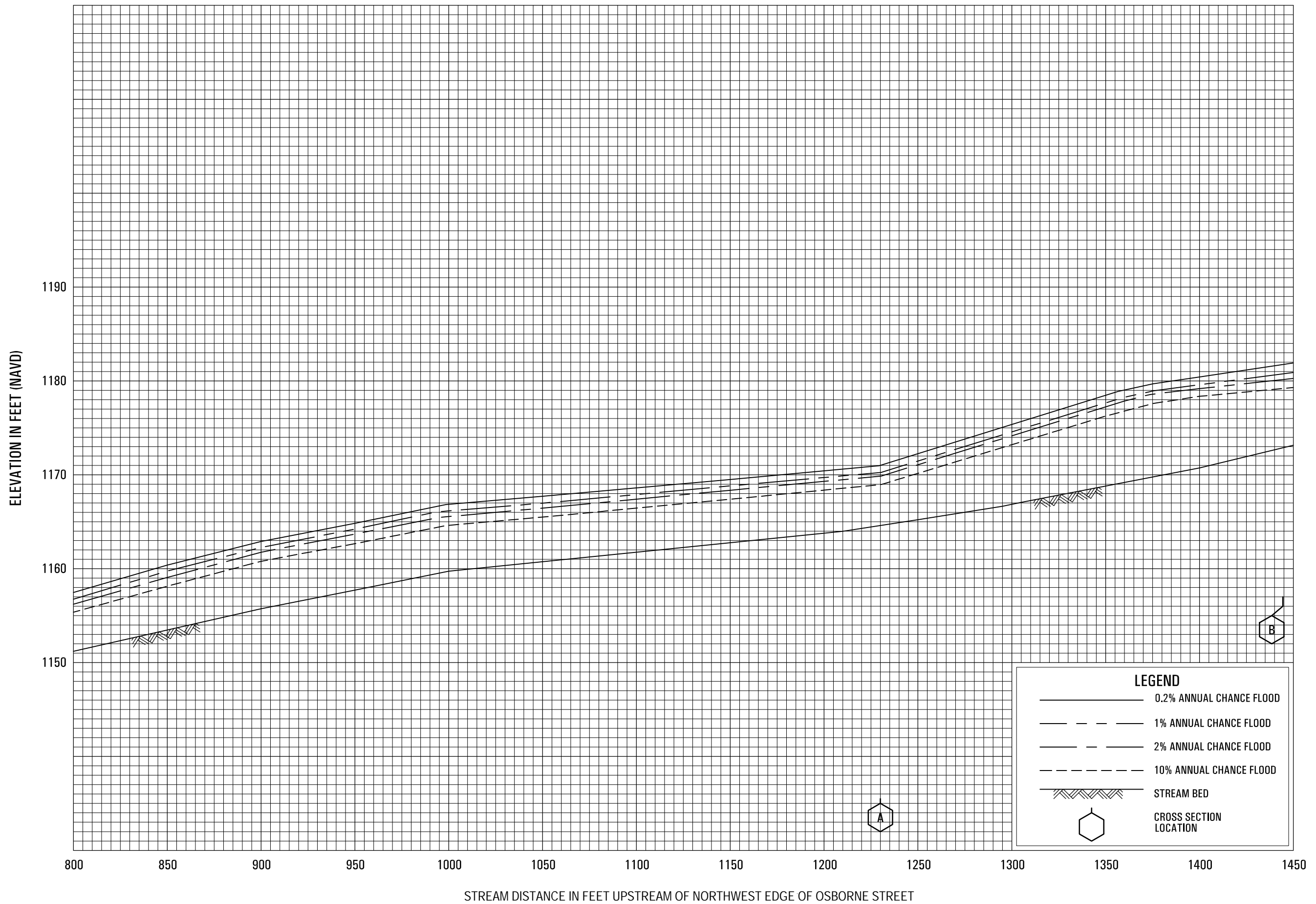


FLOOD PROFILES

KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



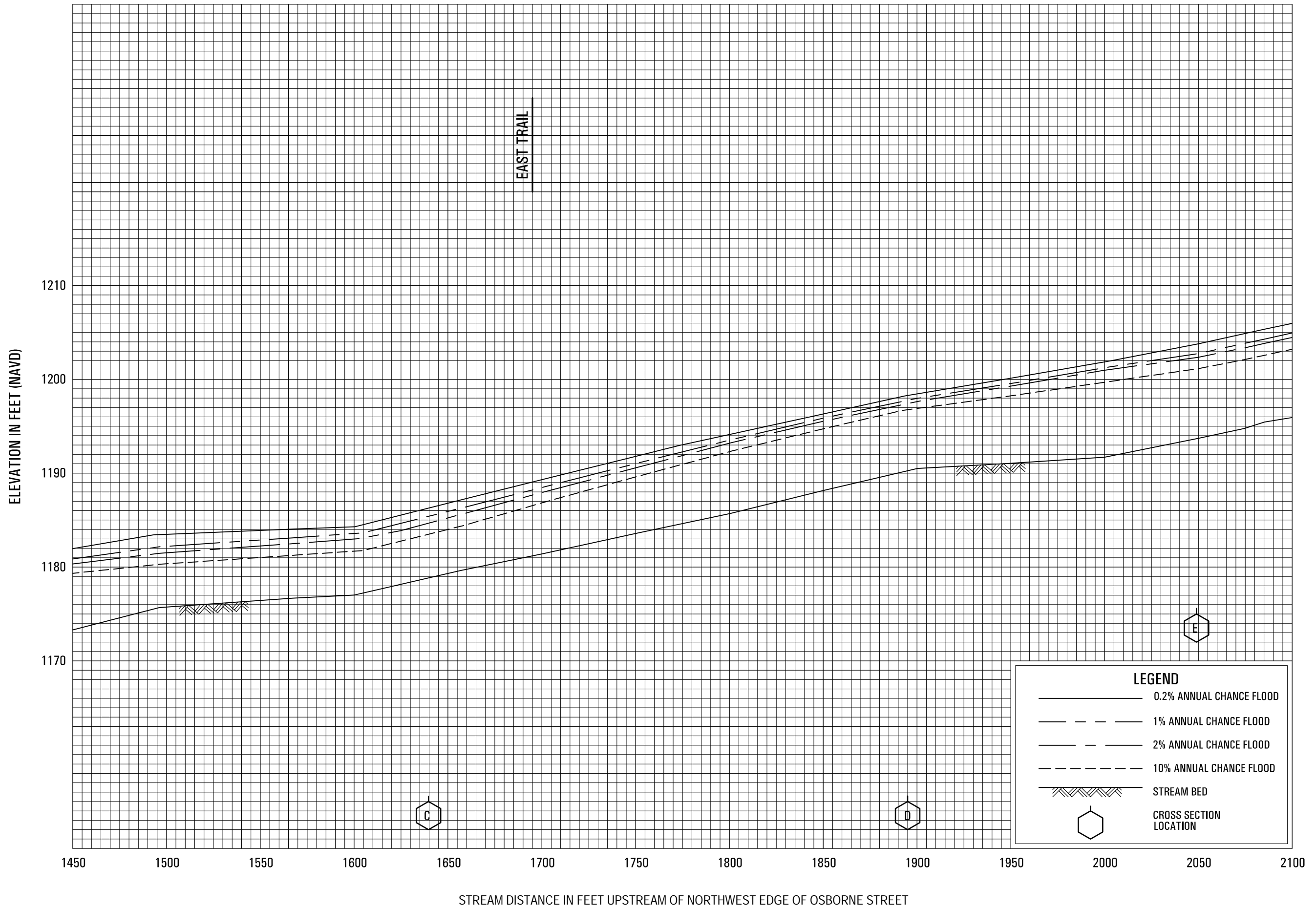
FLOOD PROFILES

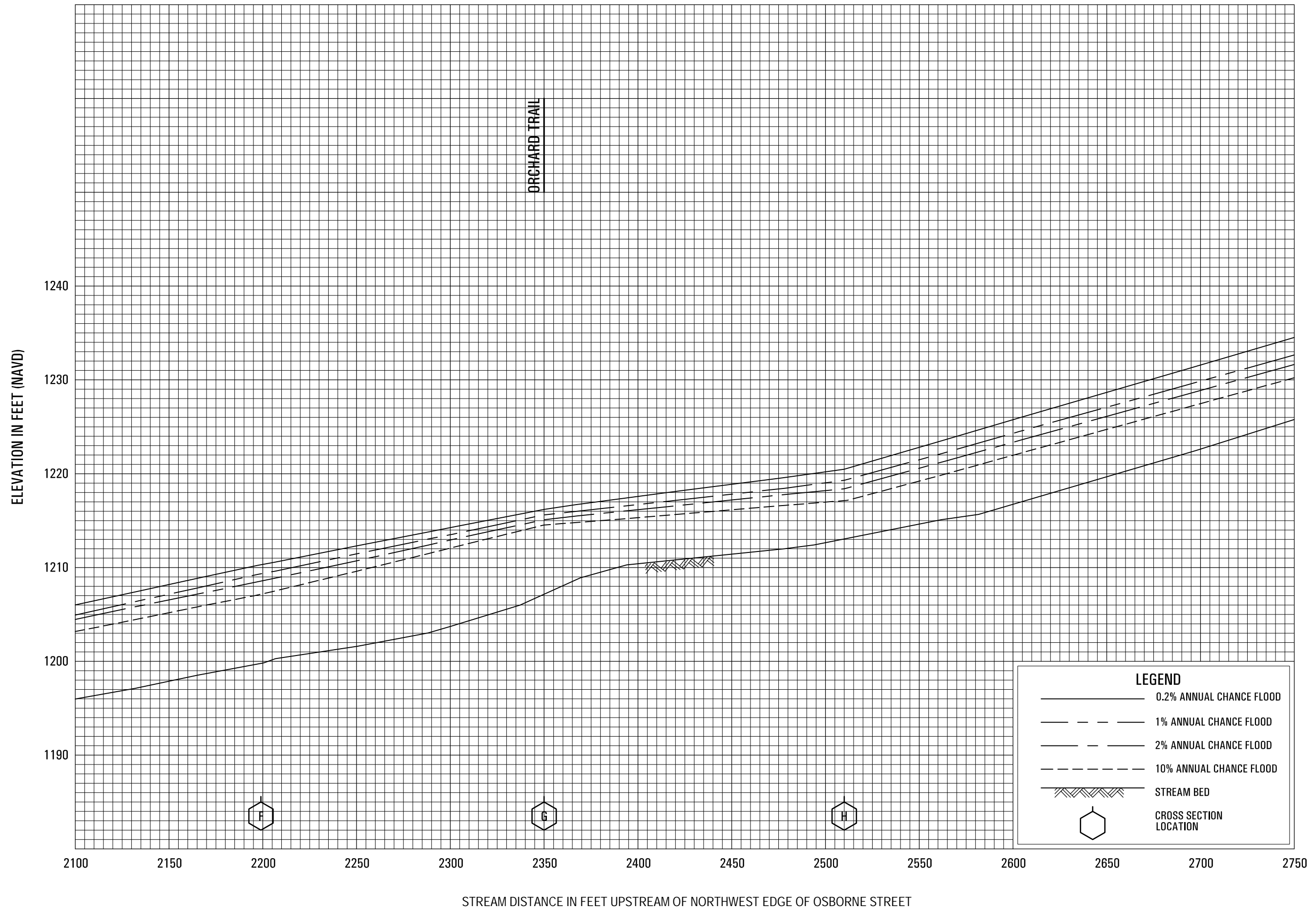
KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS

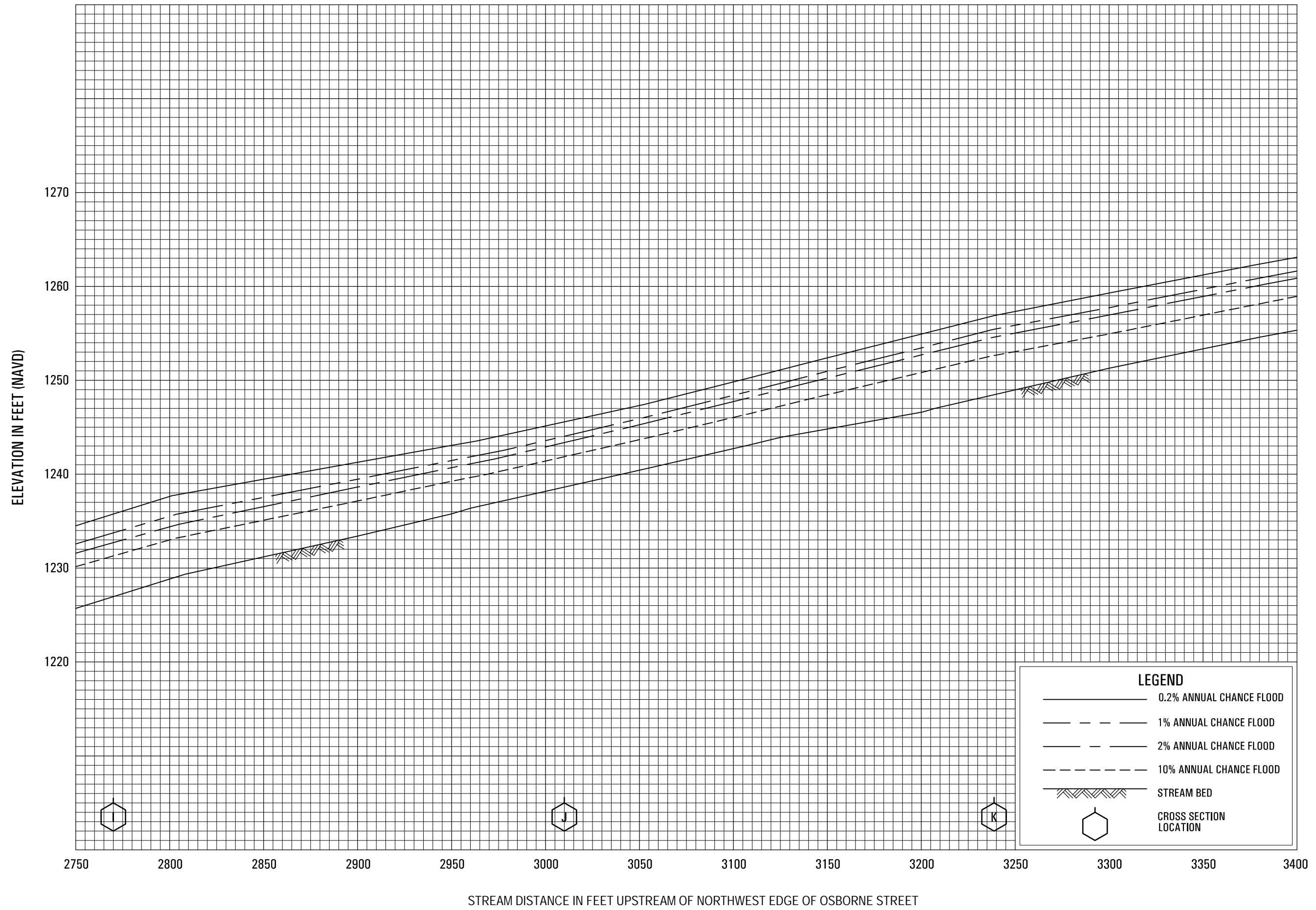




FLOOD PROFILES

KAGEL CANYON

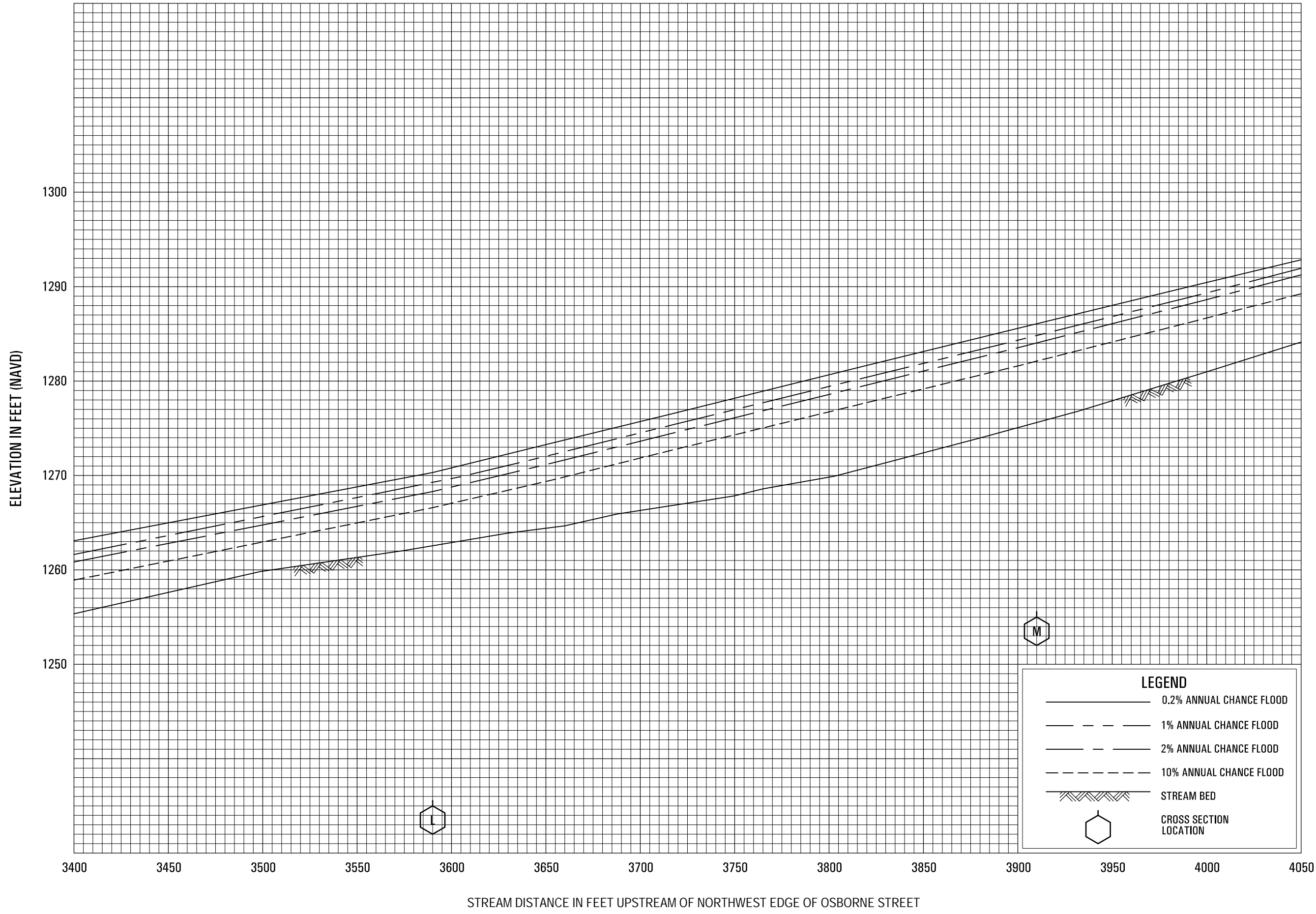
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

KAGEL CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



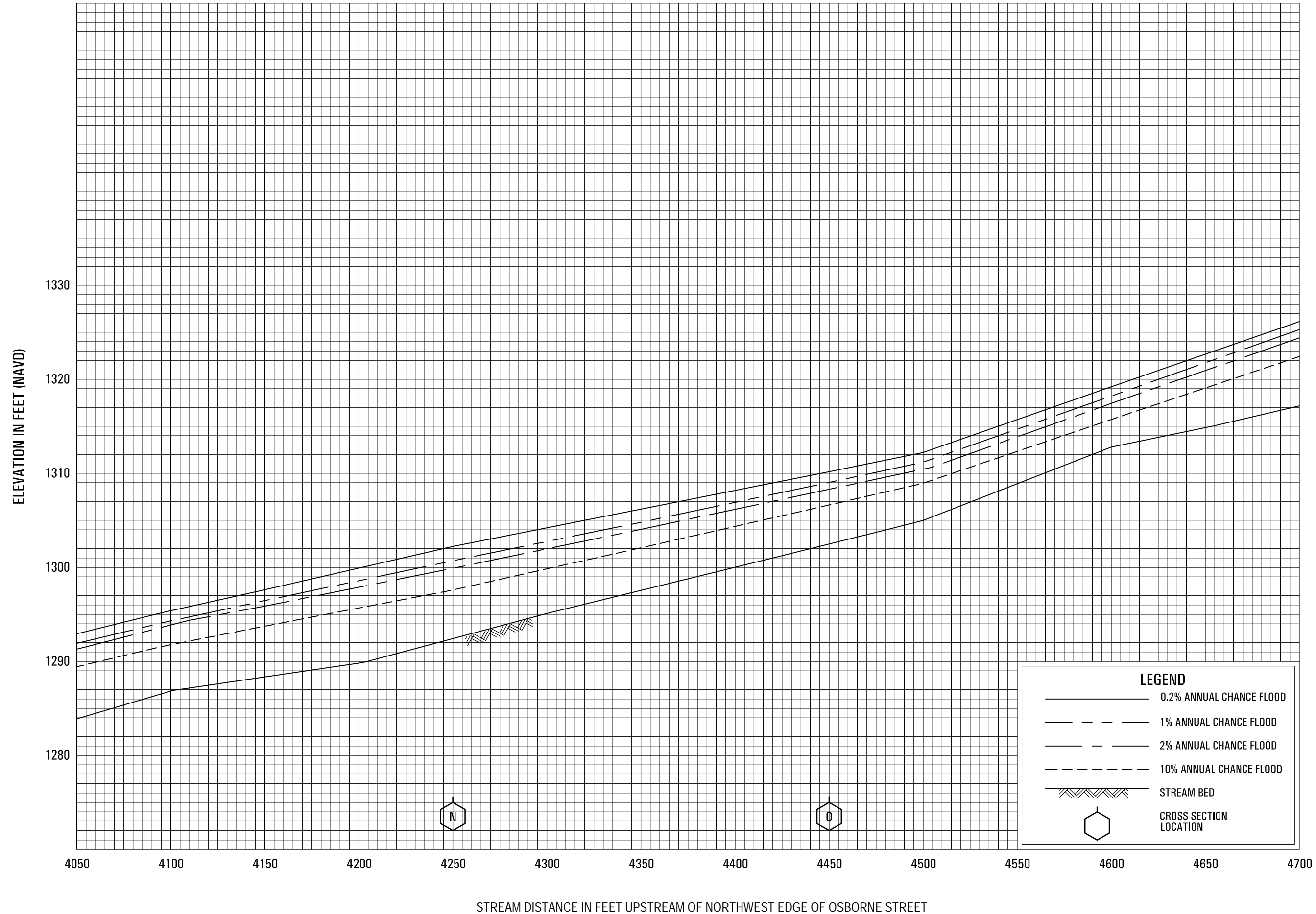
FLOOD PROFILES

KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



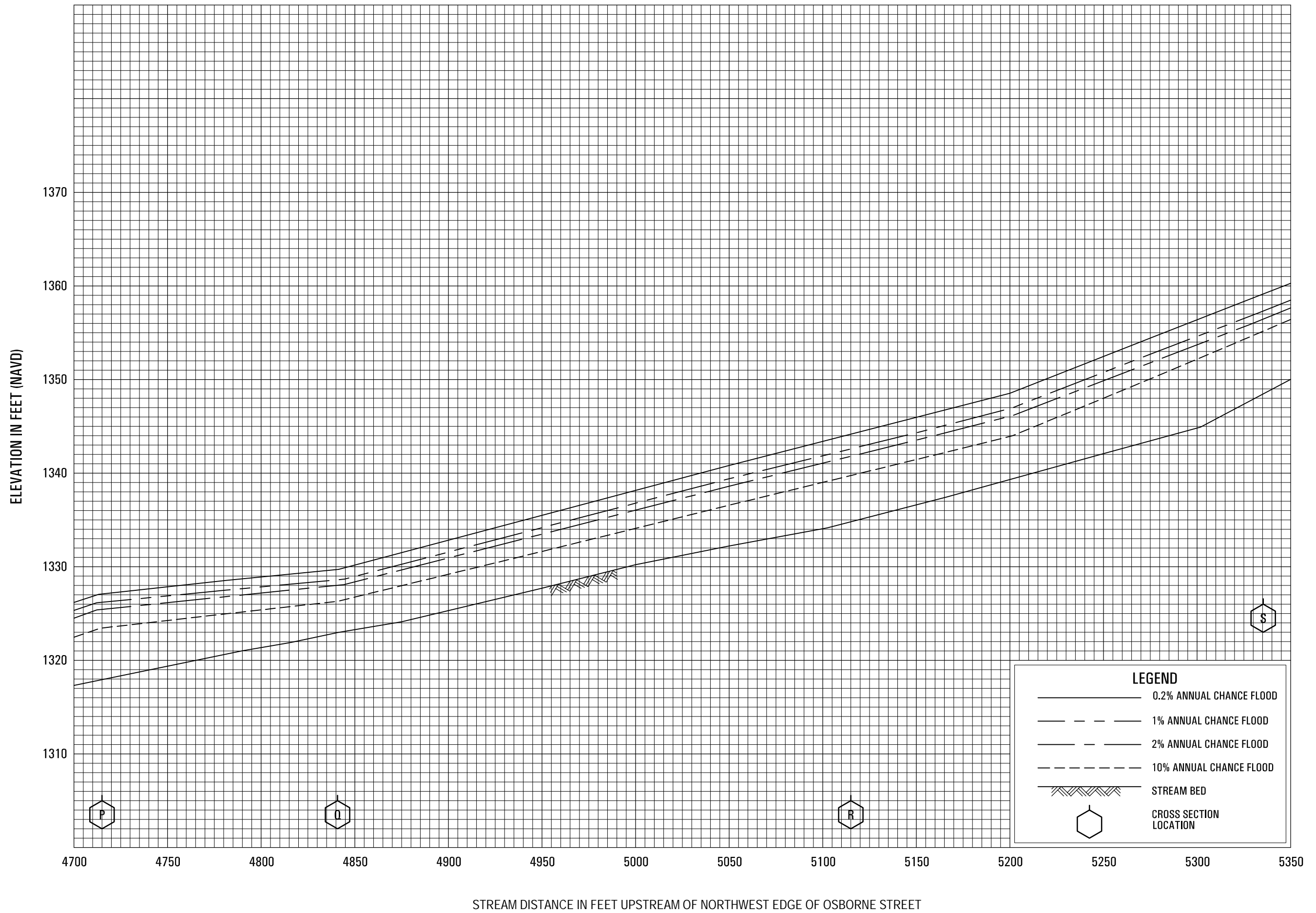
FLOOD PROFILES

KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS

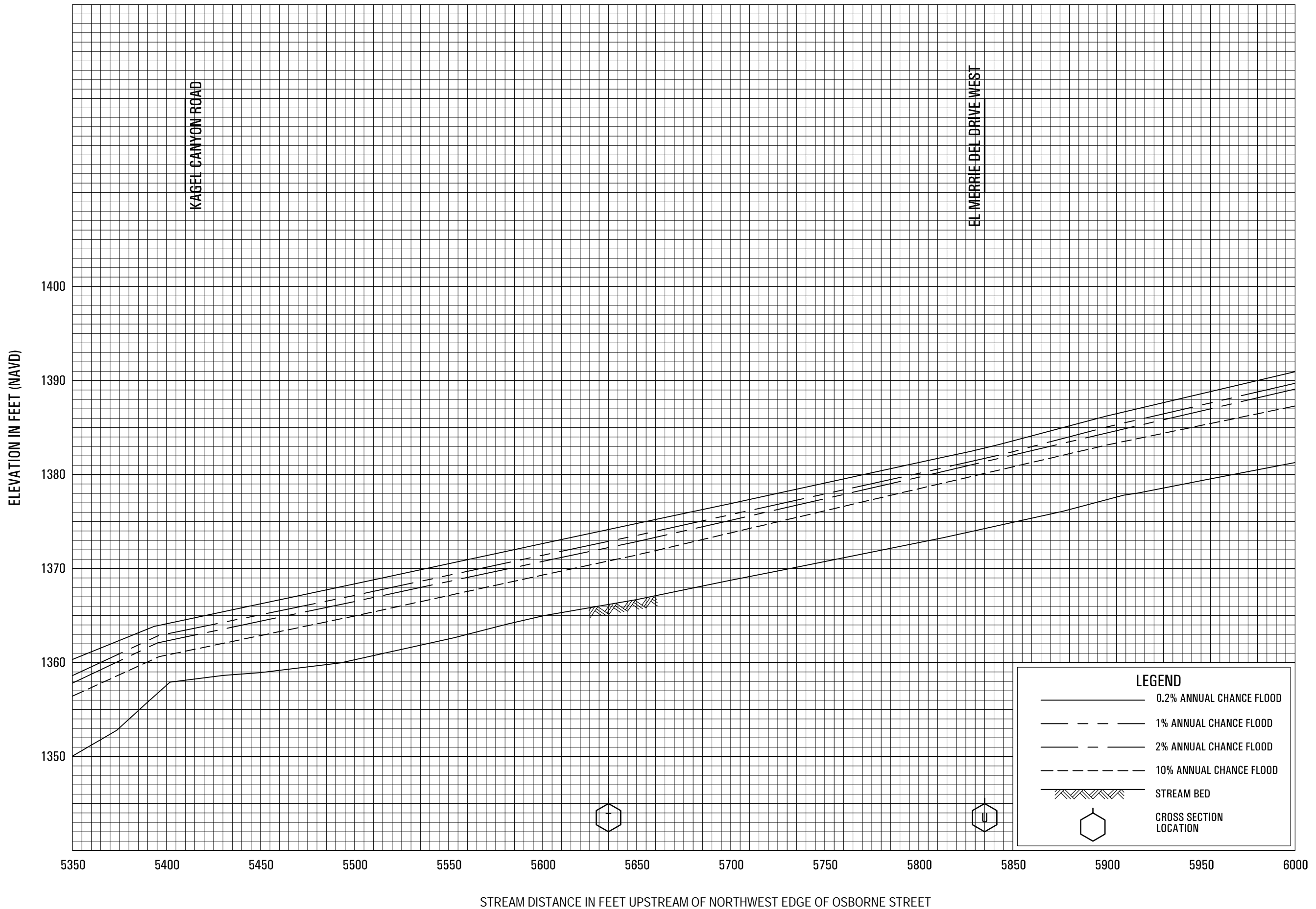


FLOOD PROFILES

KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

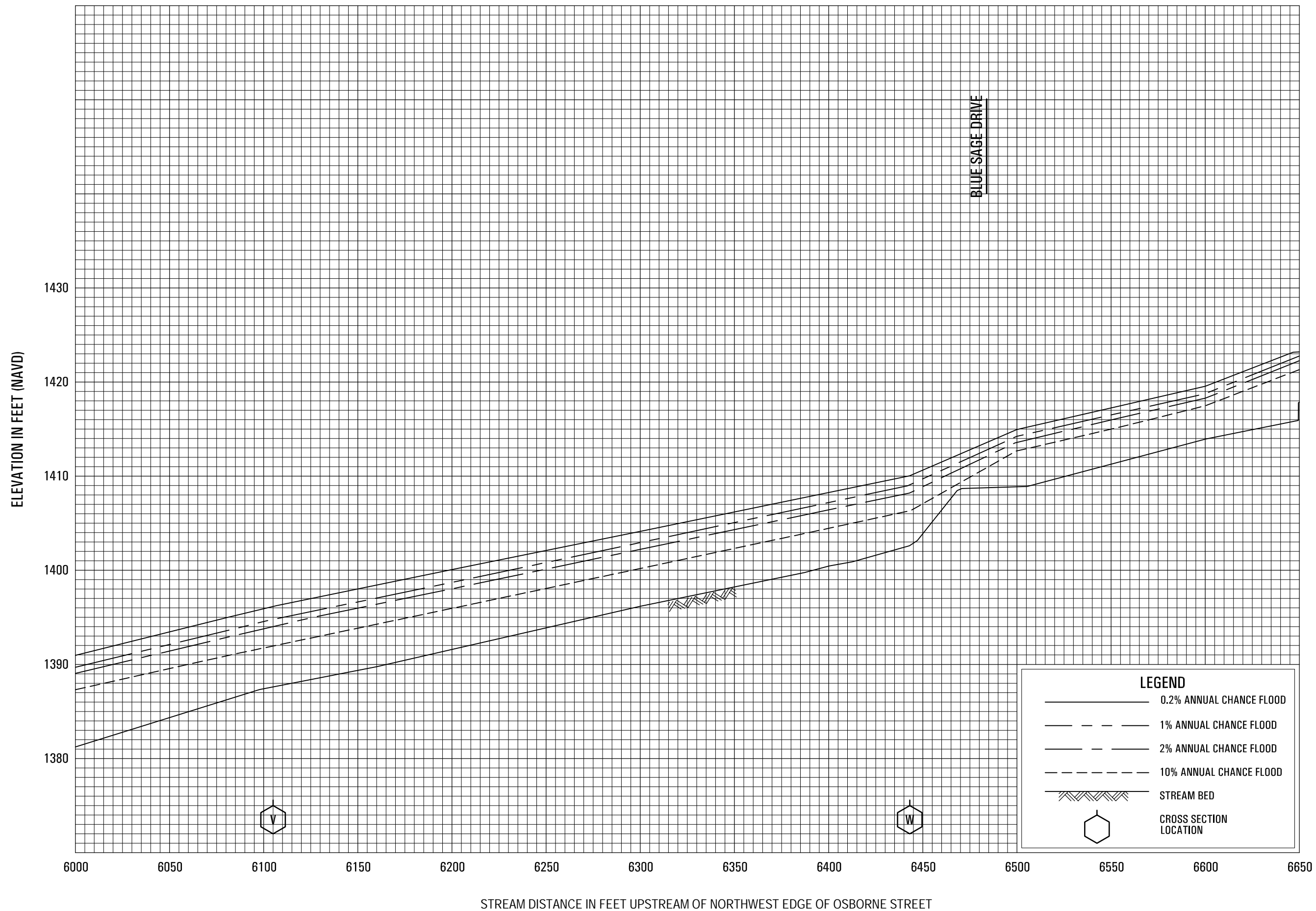
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



FLOOD PROFILES

KAGEL CANYON

**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



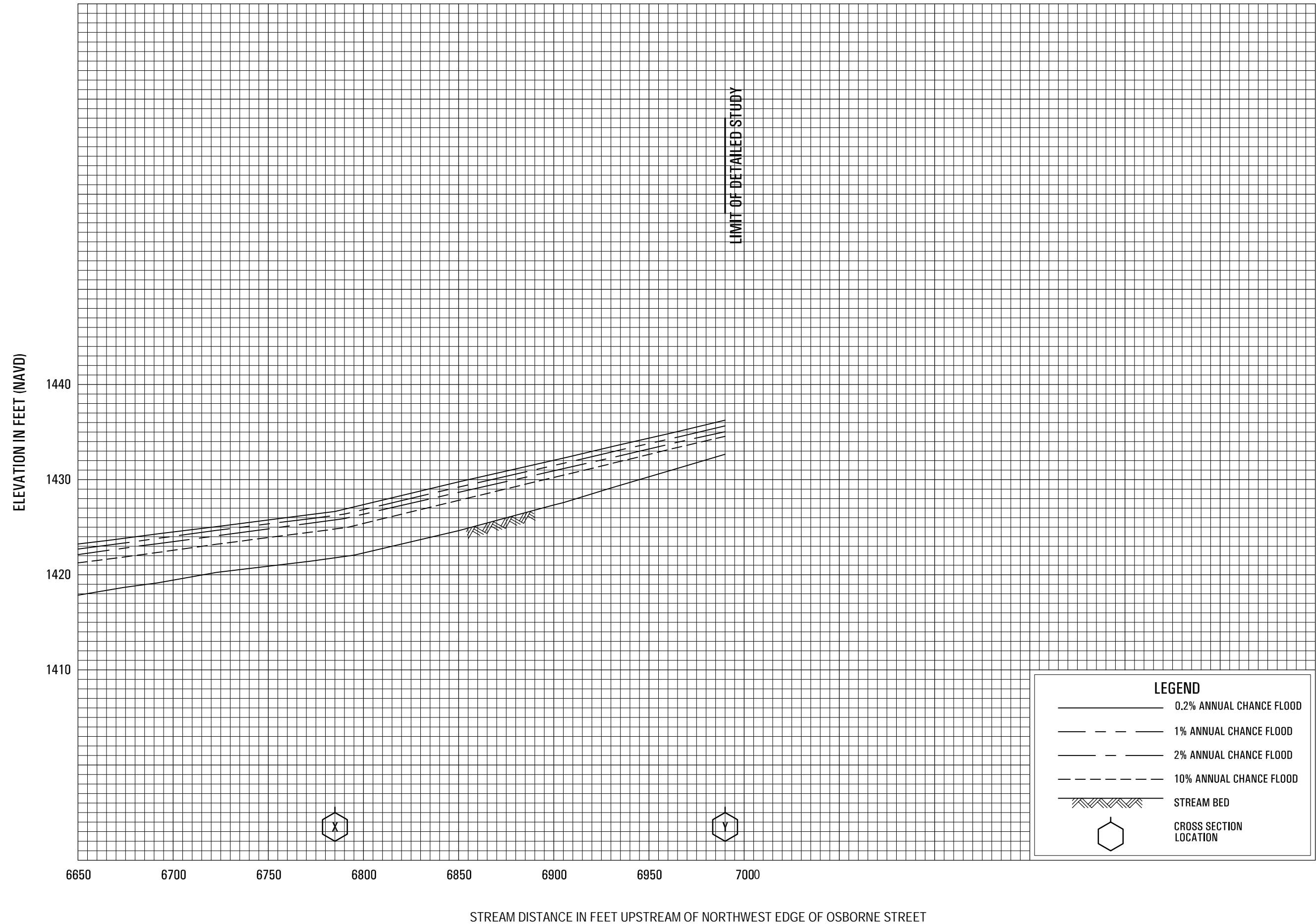
FLOOD PROFILES

KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



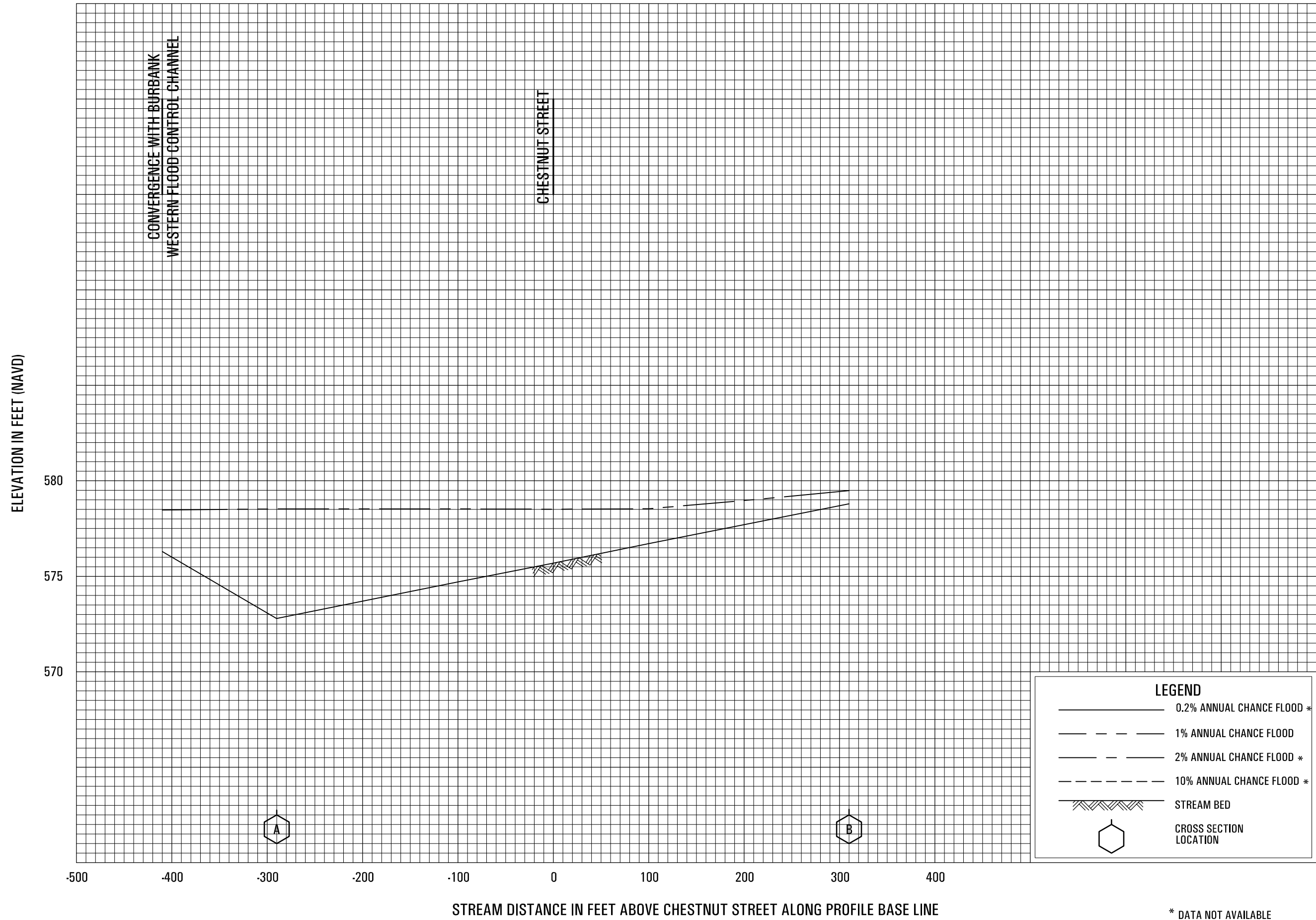
FLOOD PROFILES

KAGEL CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

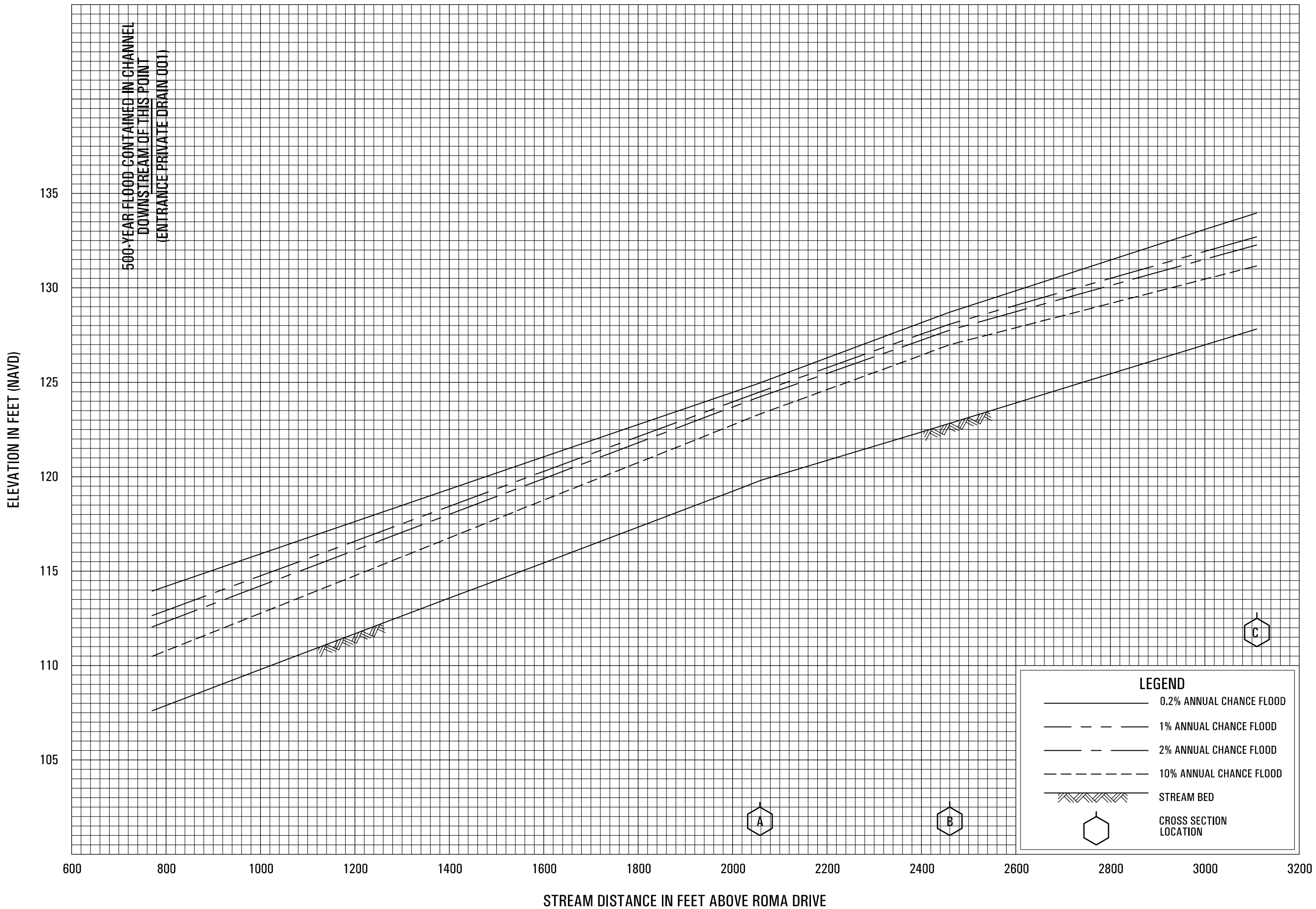
AND INCORPORATED AREAS



FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS

FLOOD PROFILES

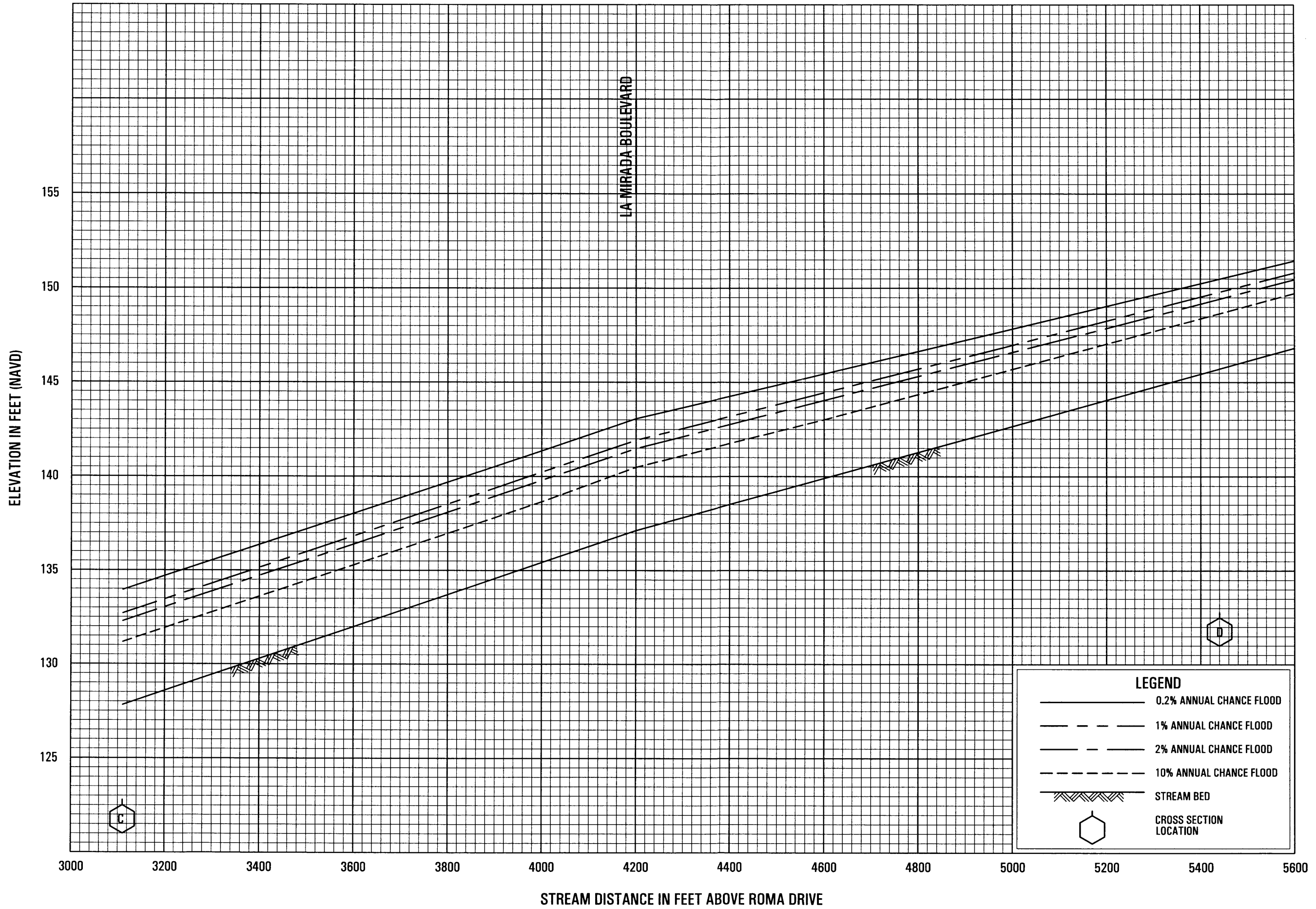
LAKE STREET OVERFLOW



FLOOD PROFILES

LA MIRADA CREEK

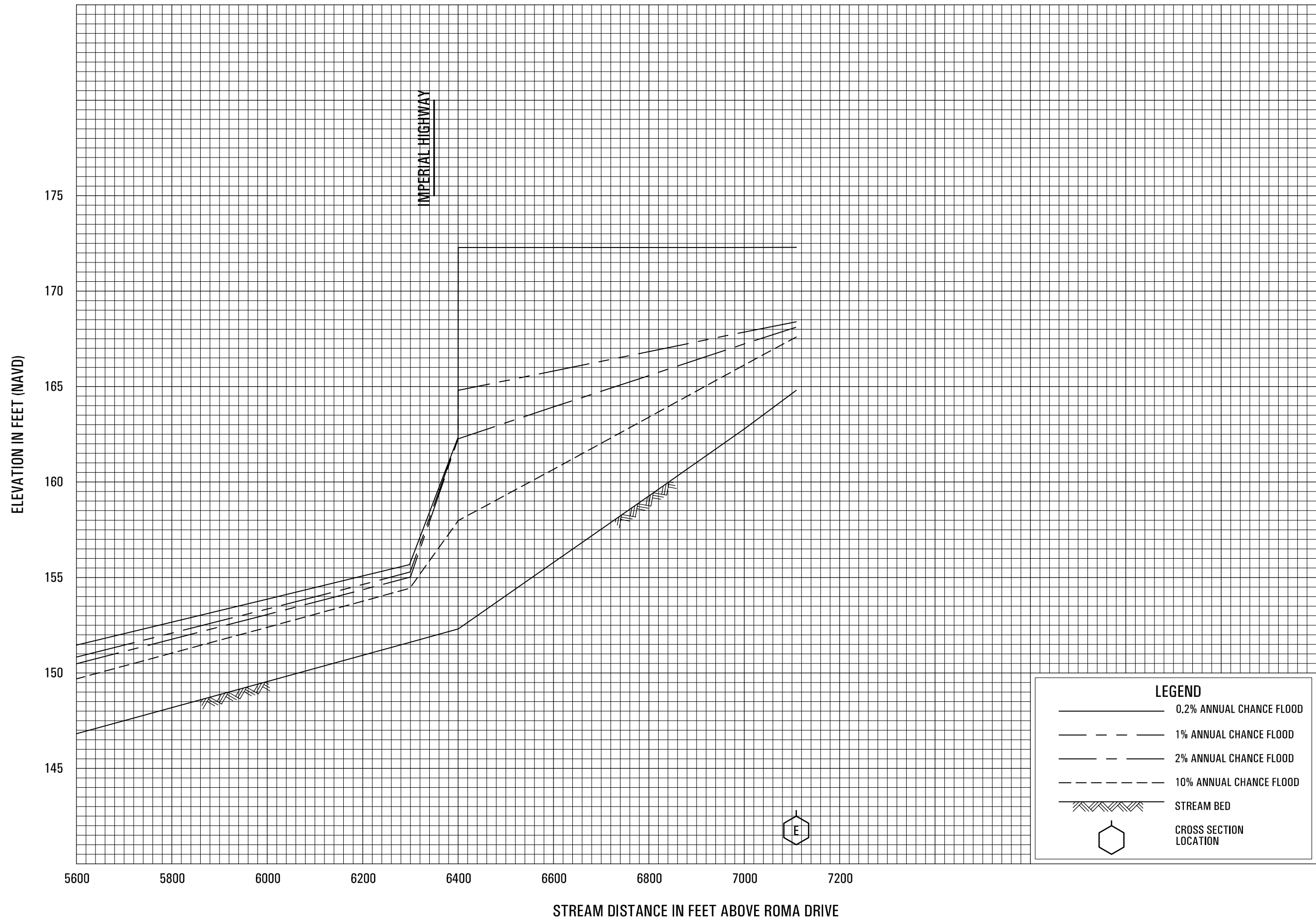
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

LA MIRADA CREEK

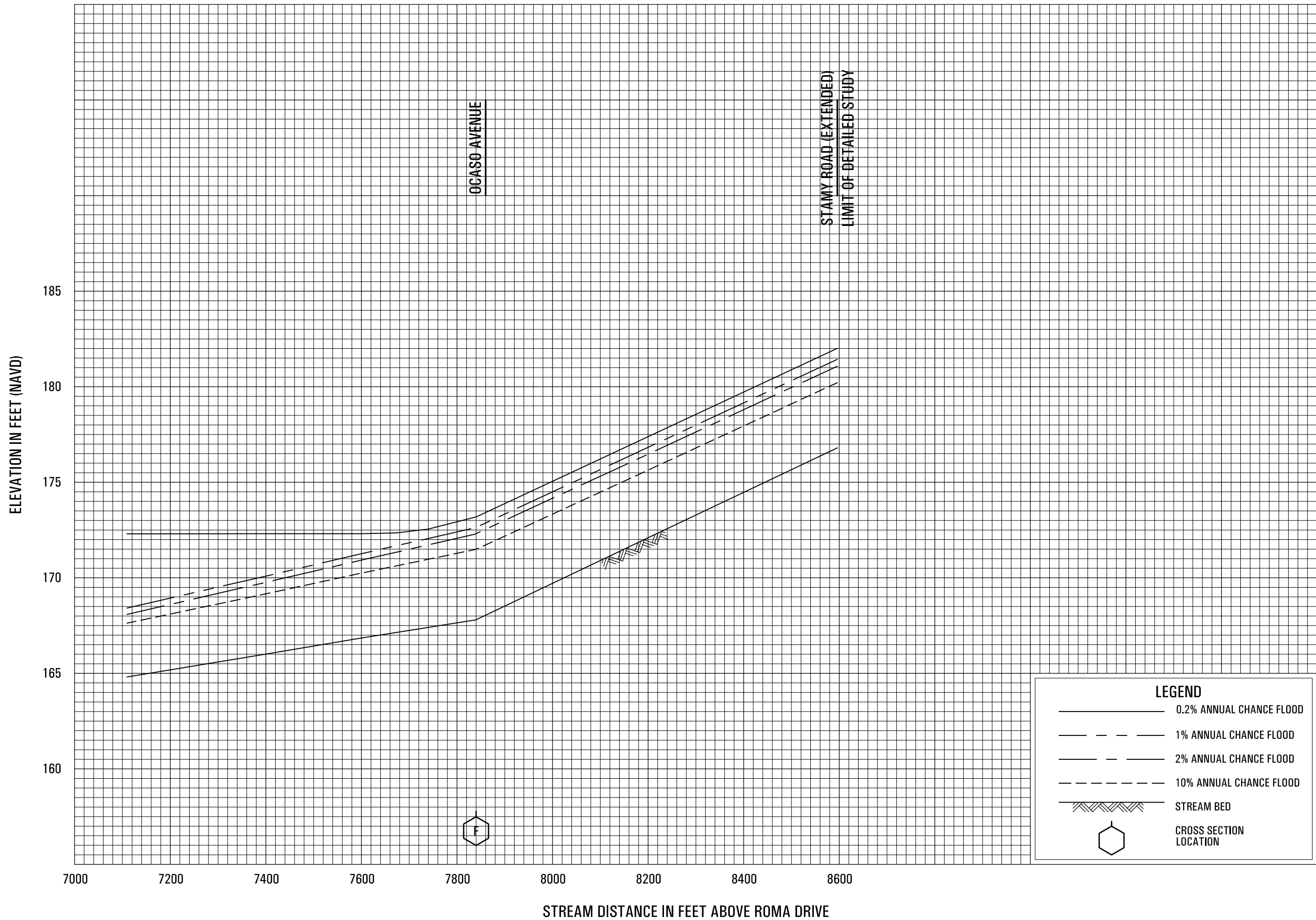
**FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS**



FLOOD PROFILES

LA MIRADA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
 LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



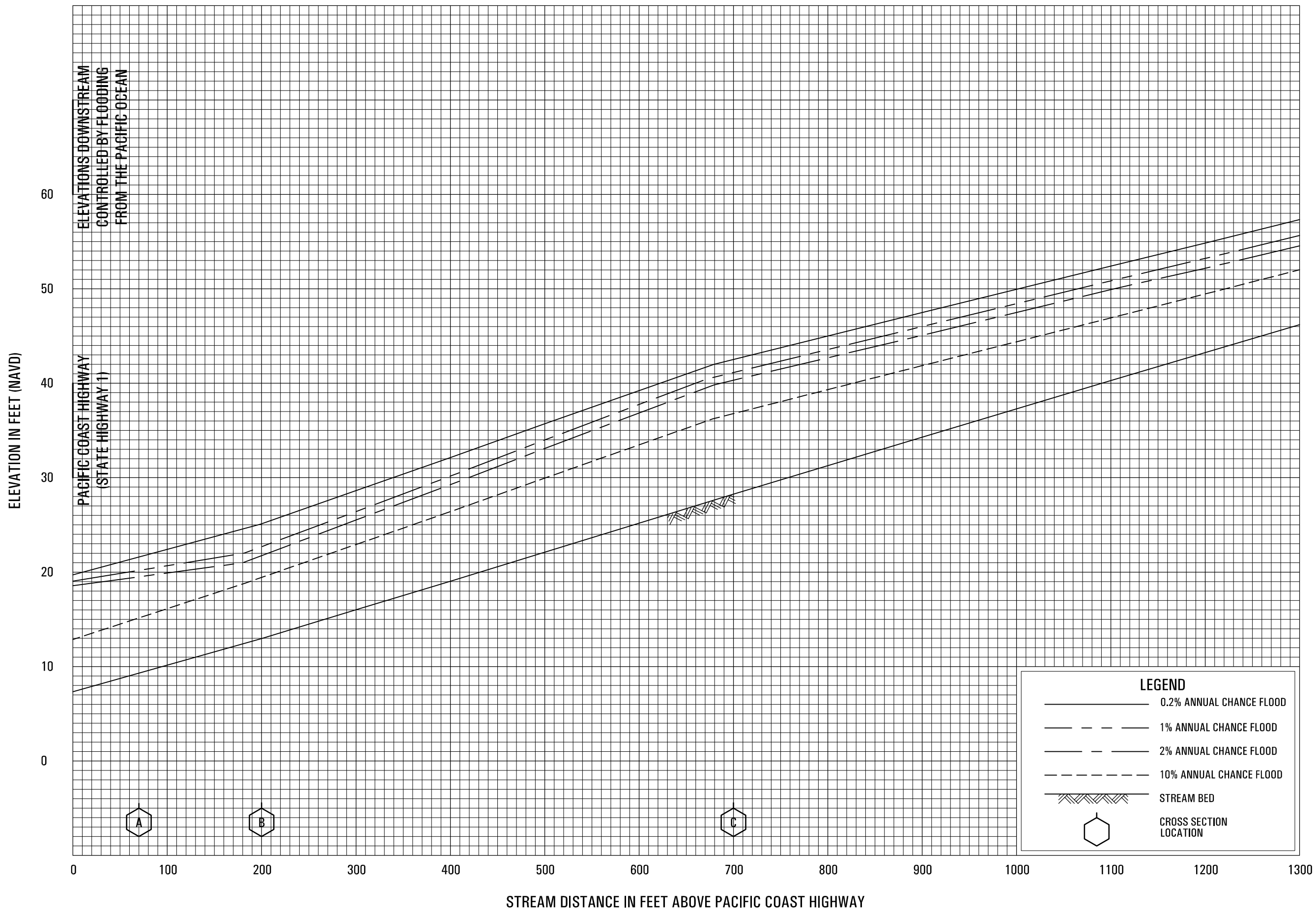
FLOOD PROFILES

LA MIRADA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

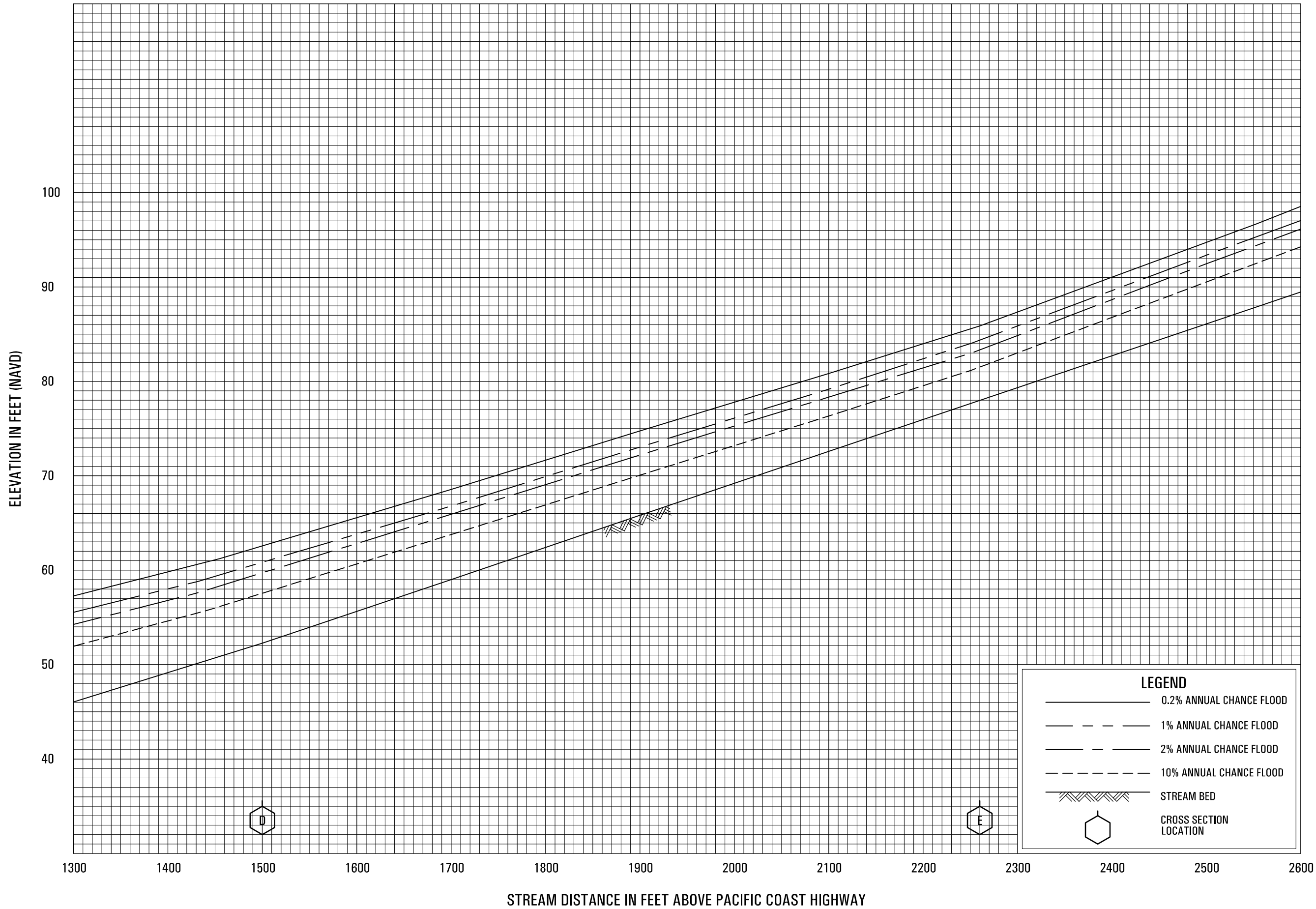
LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



FLOOD PROFILES
LAS FLORES CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



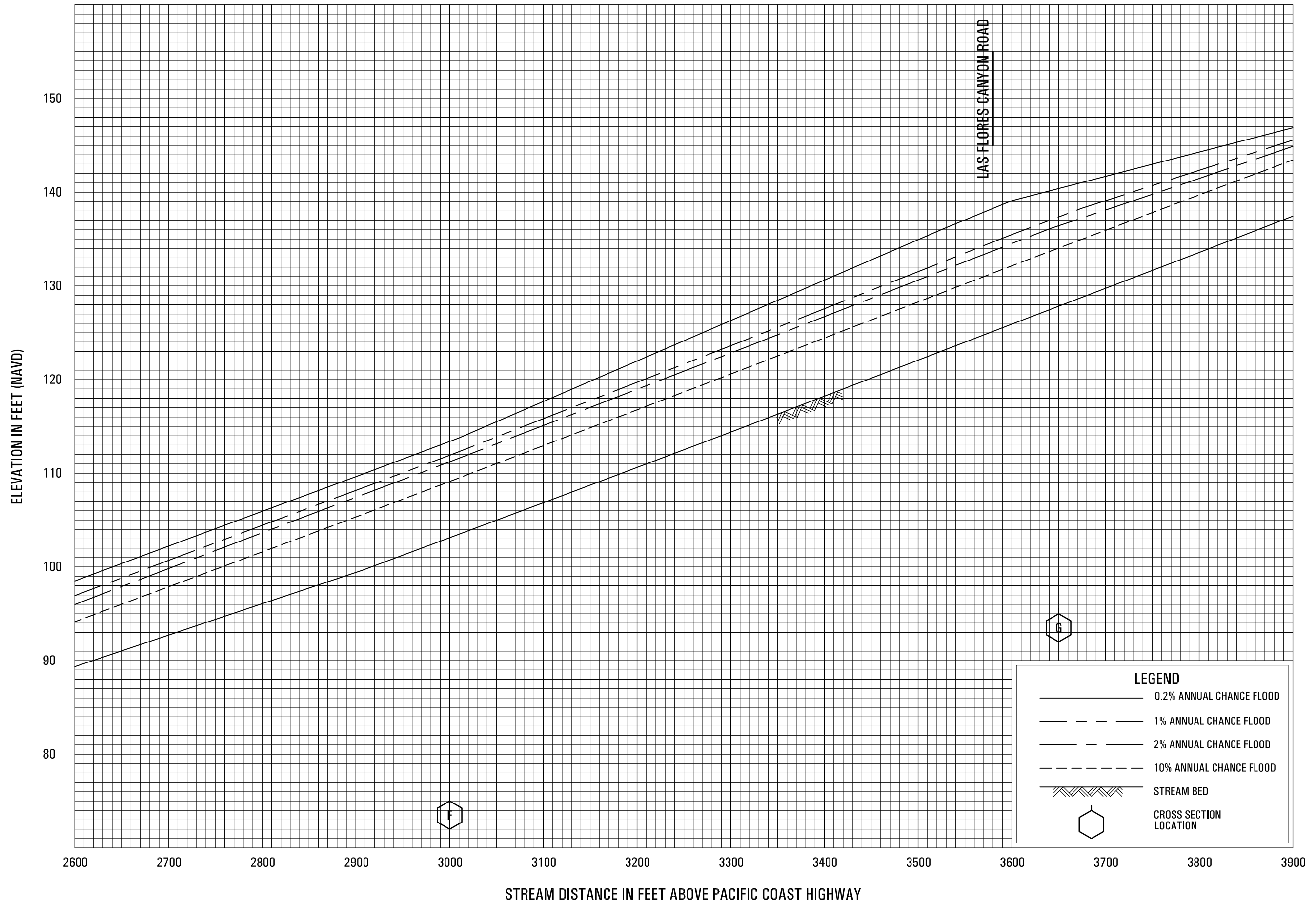
FLOOD PROFILES

LAS FLORES CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



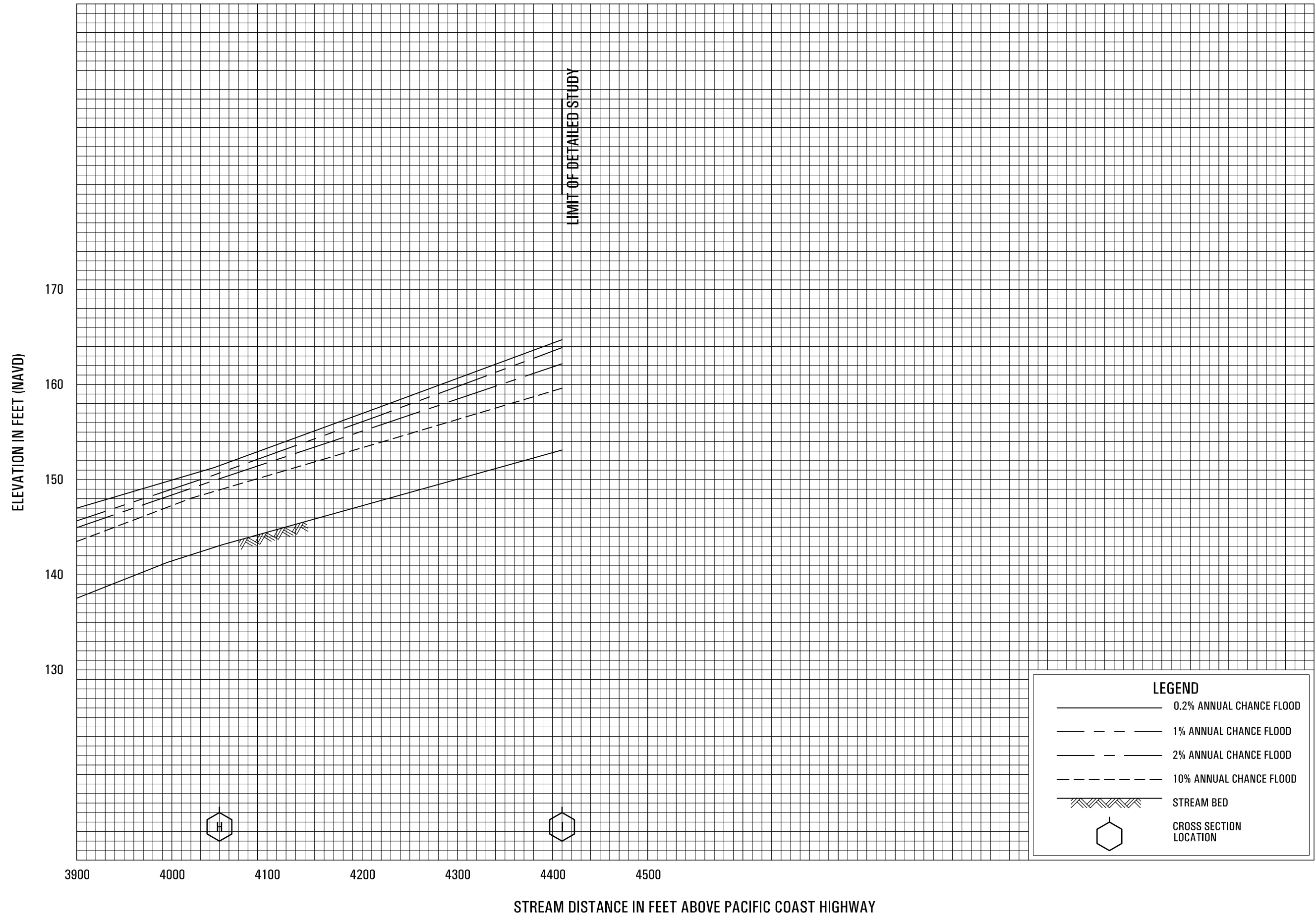
FLOOD PROFILES

LAS FLORES CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS



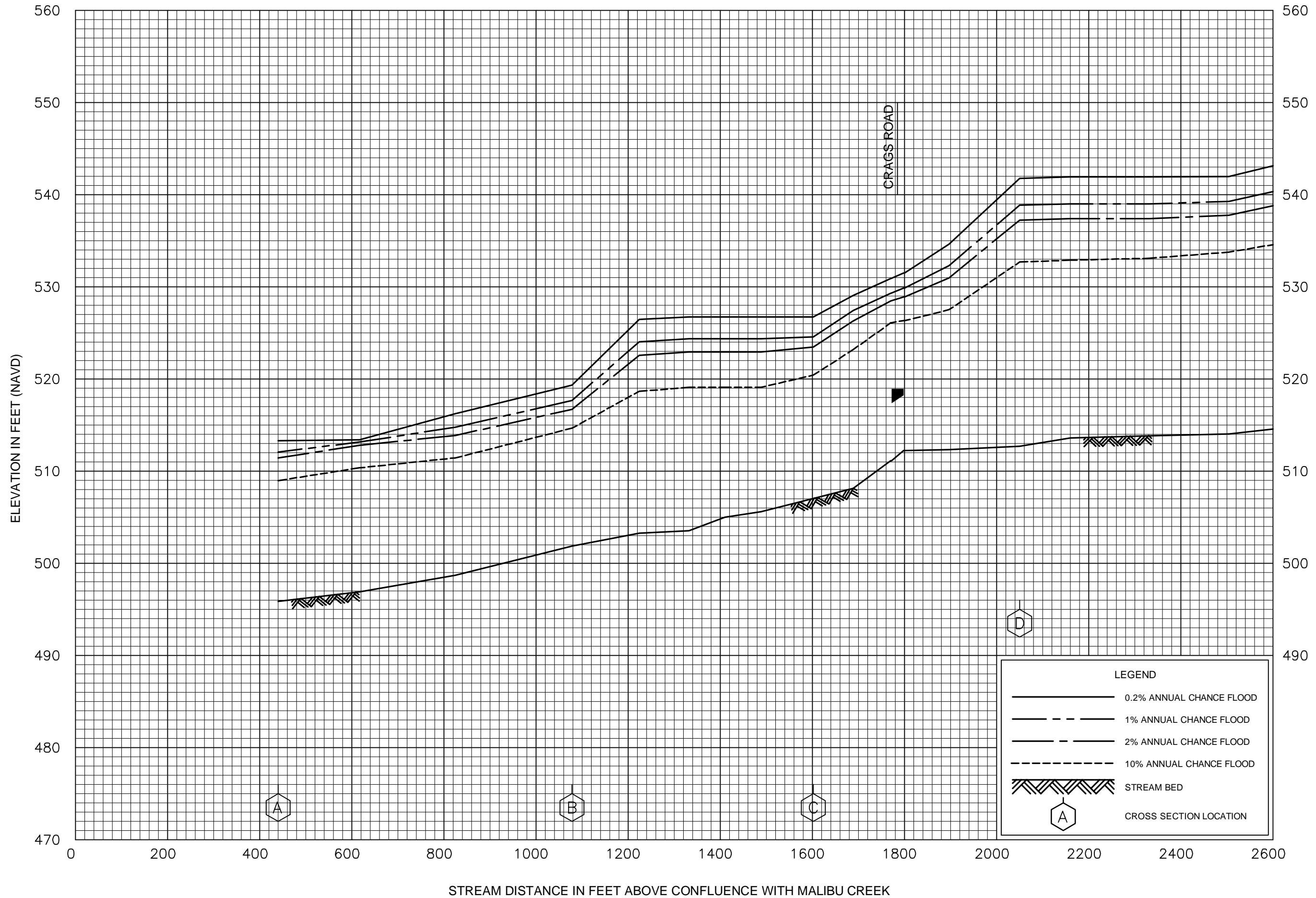
FLOOD PROFILES

LAS FLORES CANYON

FEDERAL EMERGENCY MANAGEMENT AGENCY

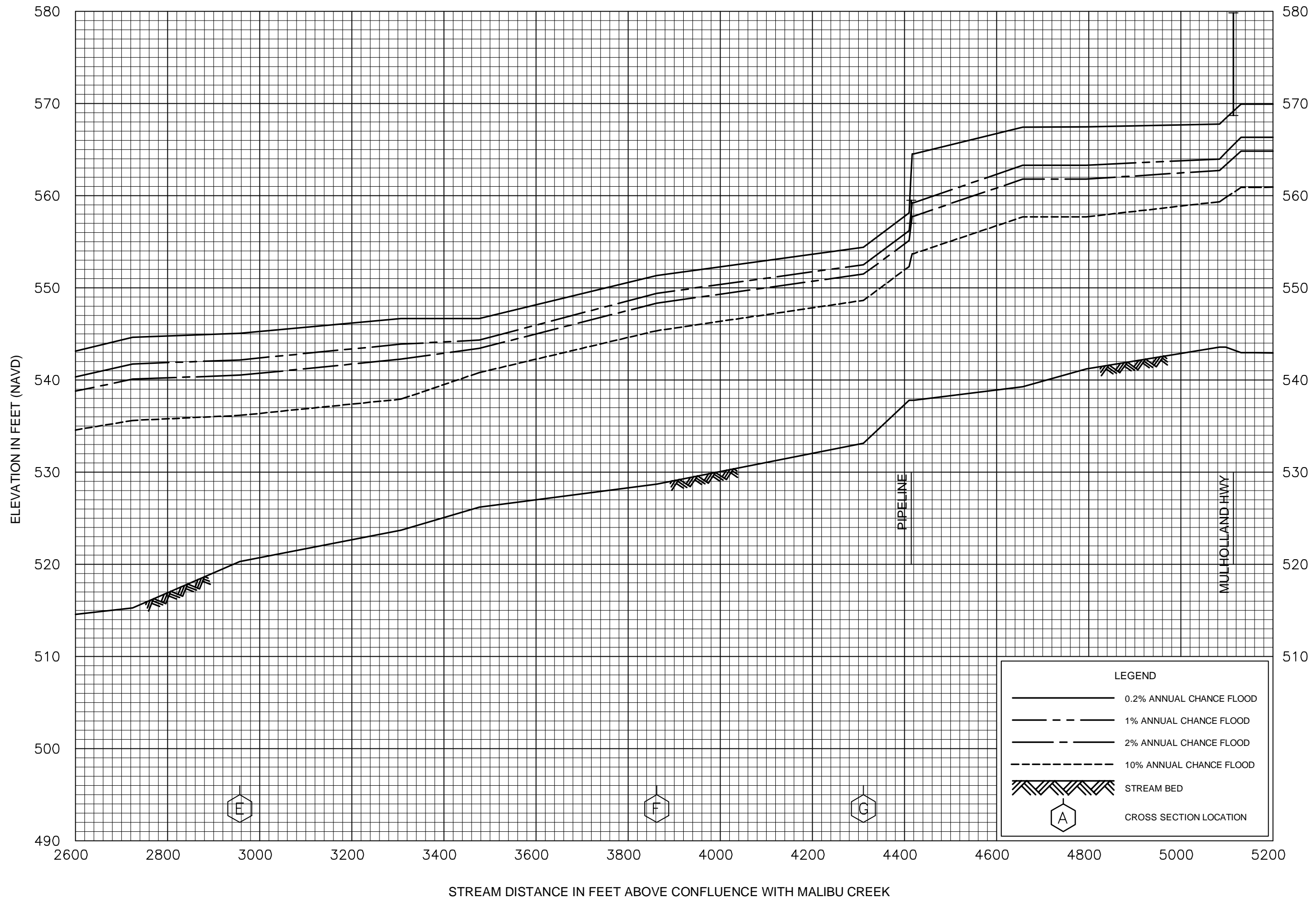
LOS ANGELES COUNTY, CA

AND INCORPORATED AREAS

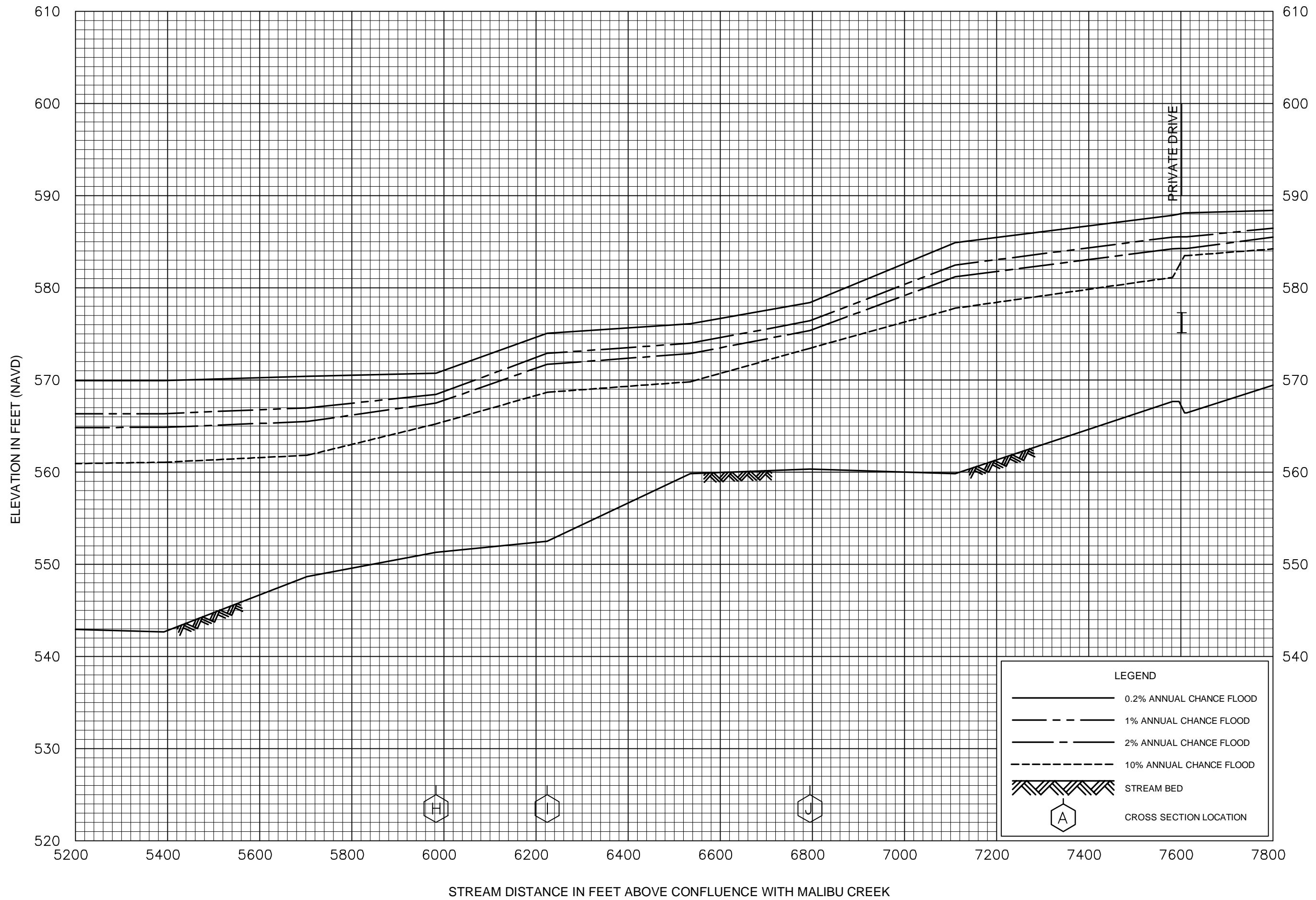


FLOOD PROFILES
LAS VIRGENES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS

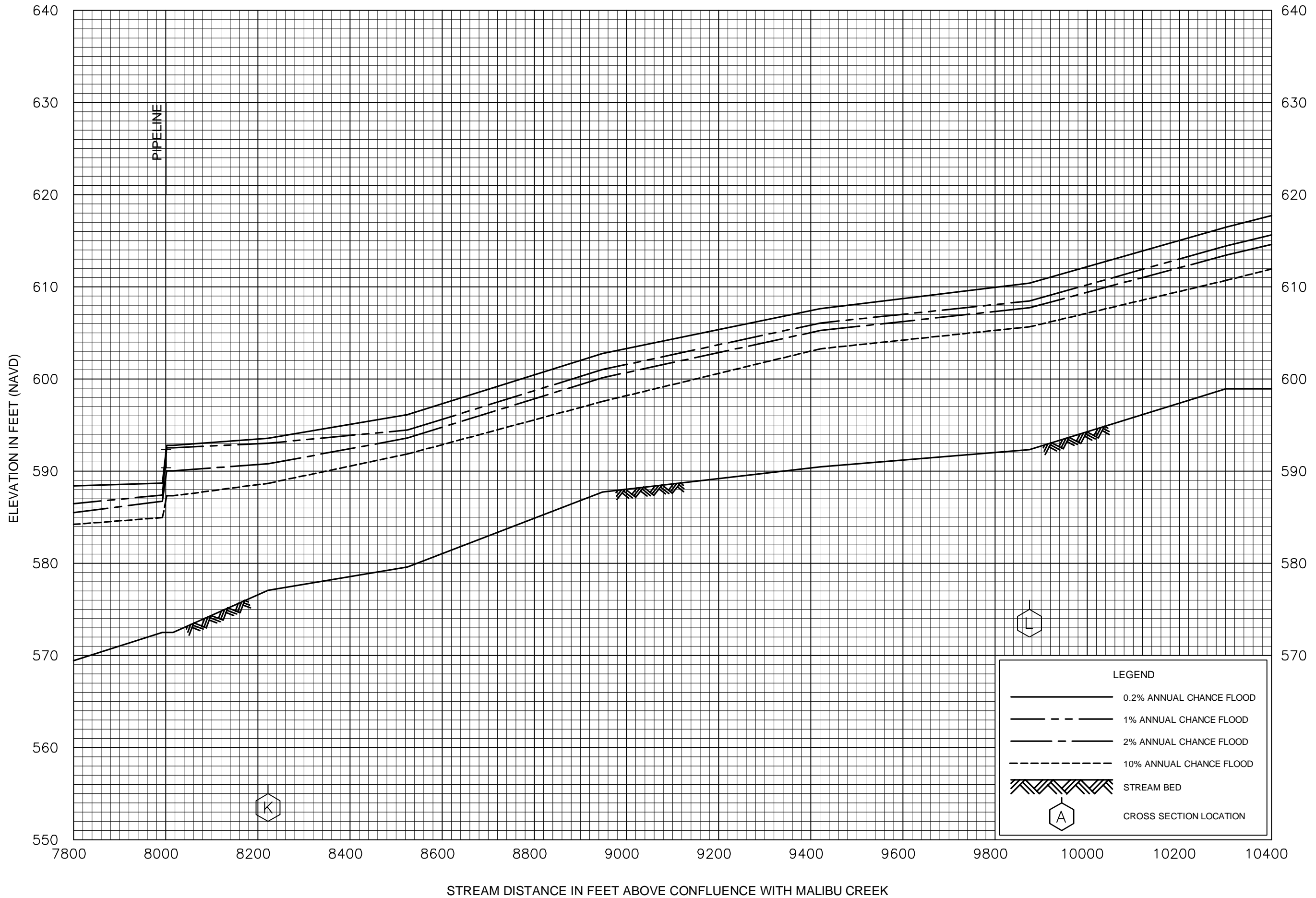


FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



FLOOD PROFILES
LAS VIRGENES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS

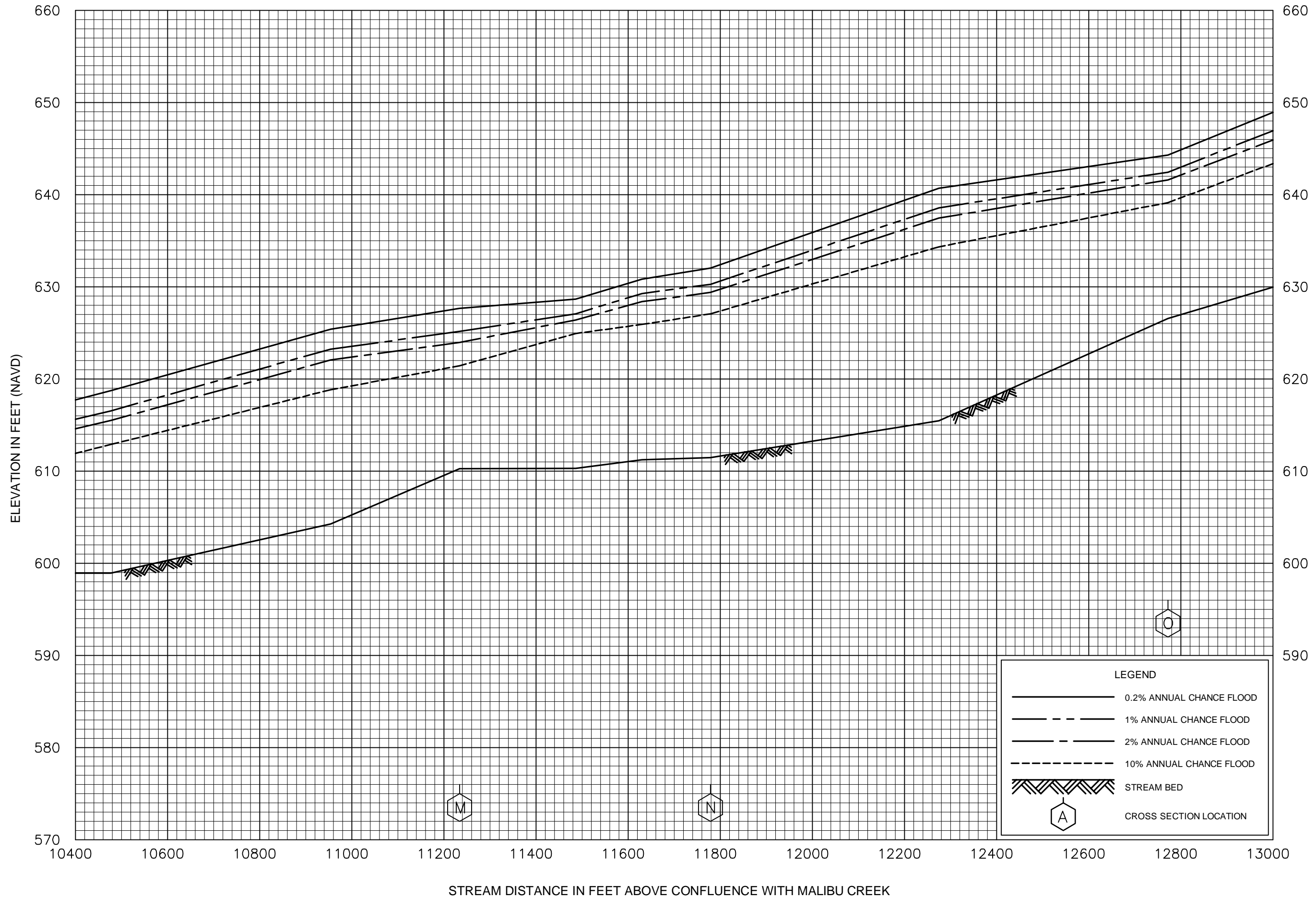


FLOOD PROFILES

LAS VIRGENES CREEK

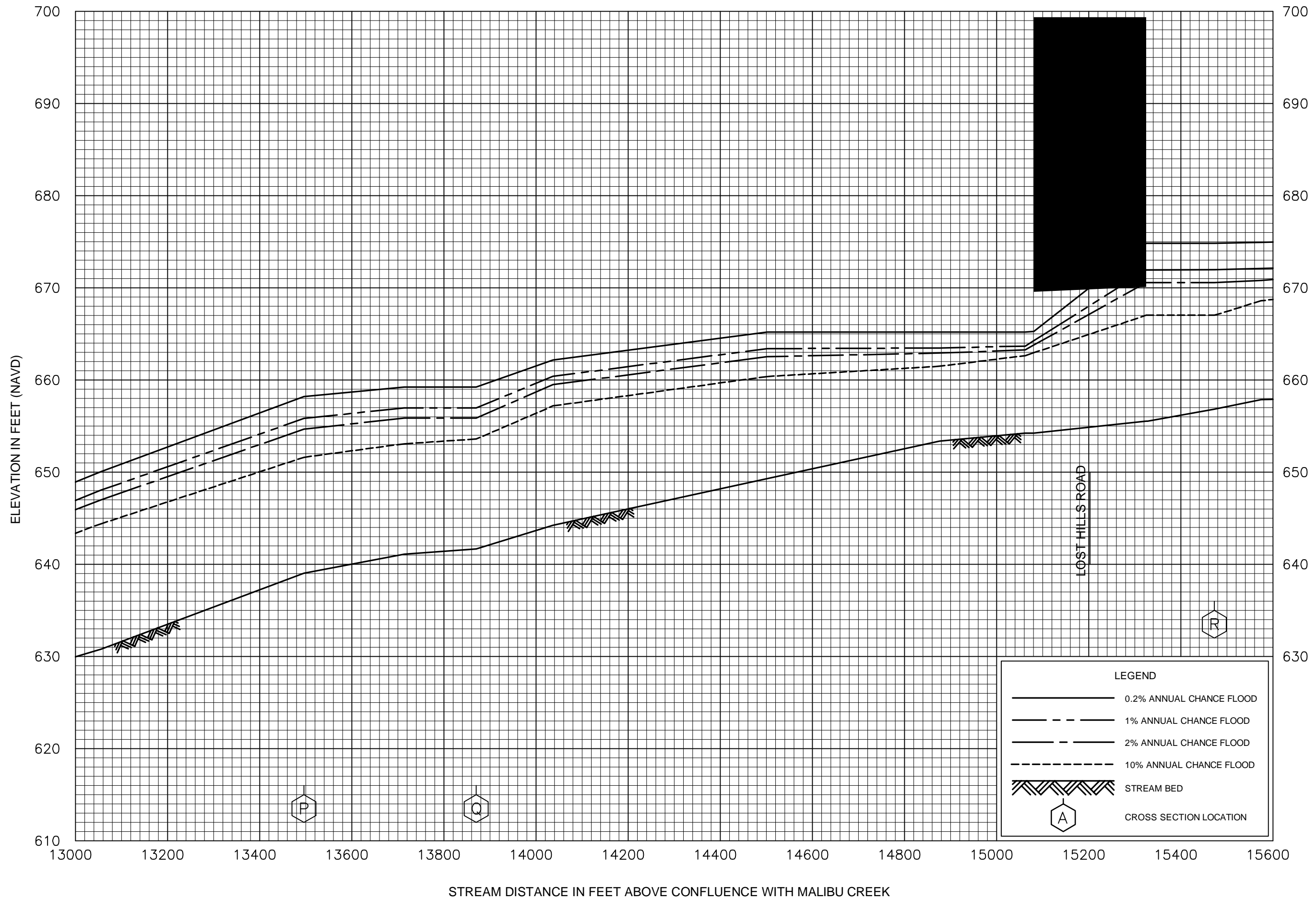
FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS

70P



FLOOD PROFILES
LAS VIRGENES CREEK

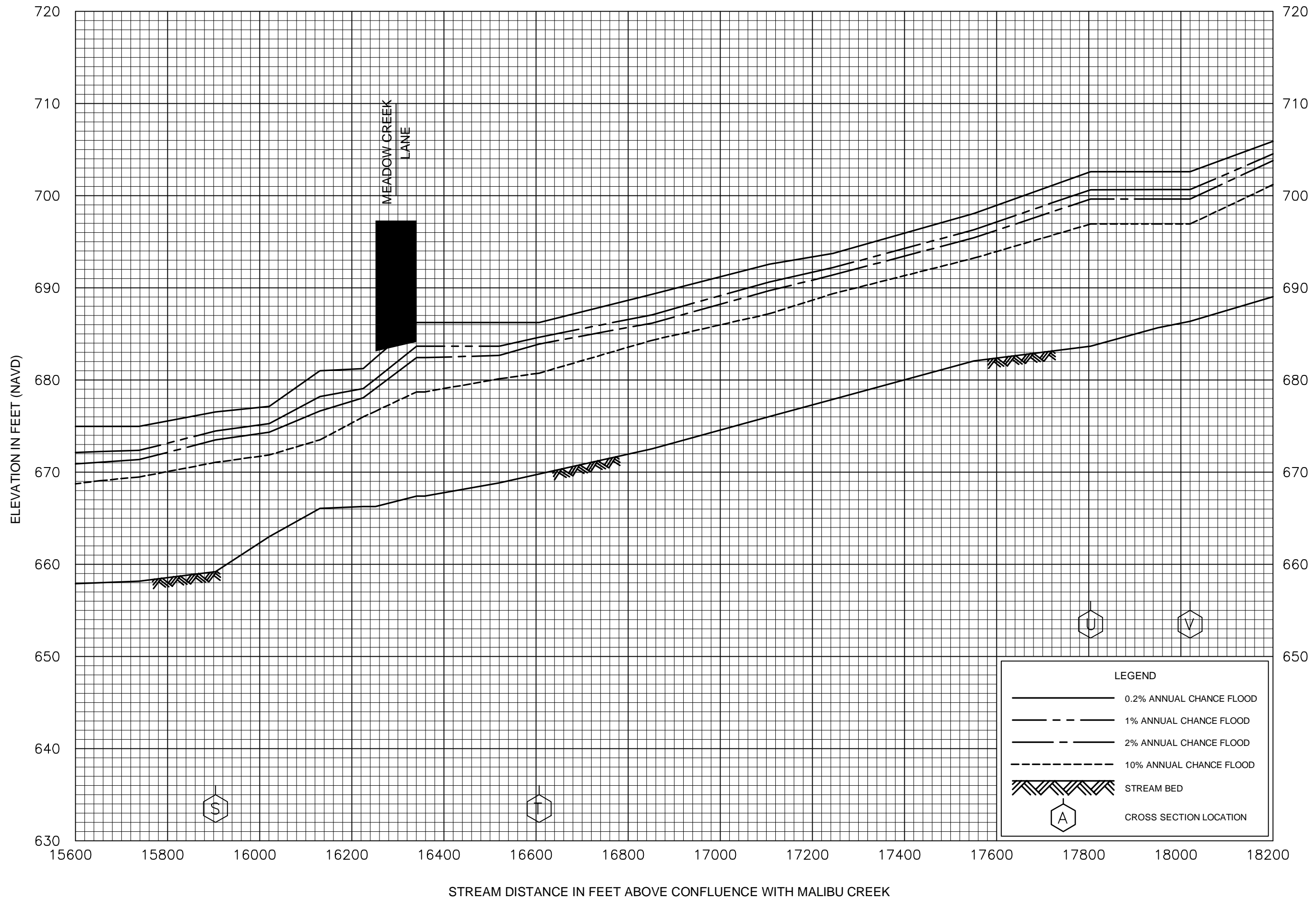
FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS



FLOOD PROFILES

LAS VIRGENES CREEK

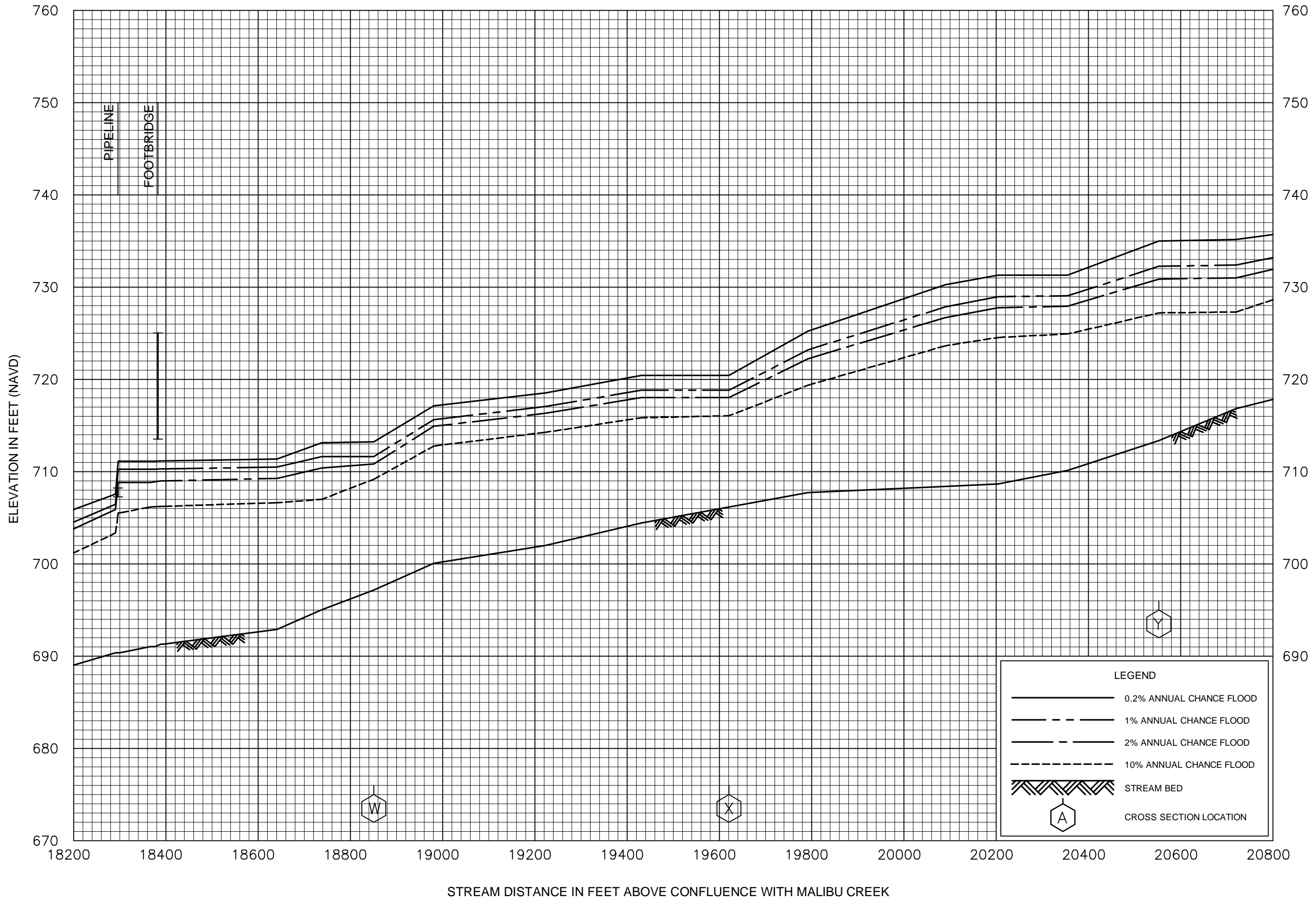
FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



FLOOD PROFILES

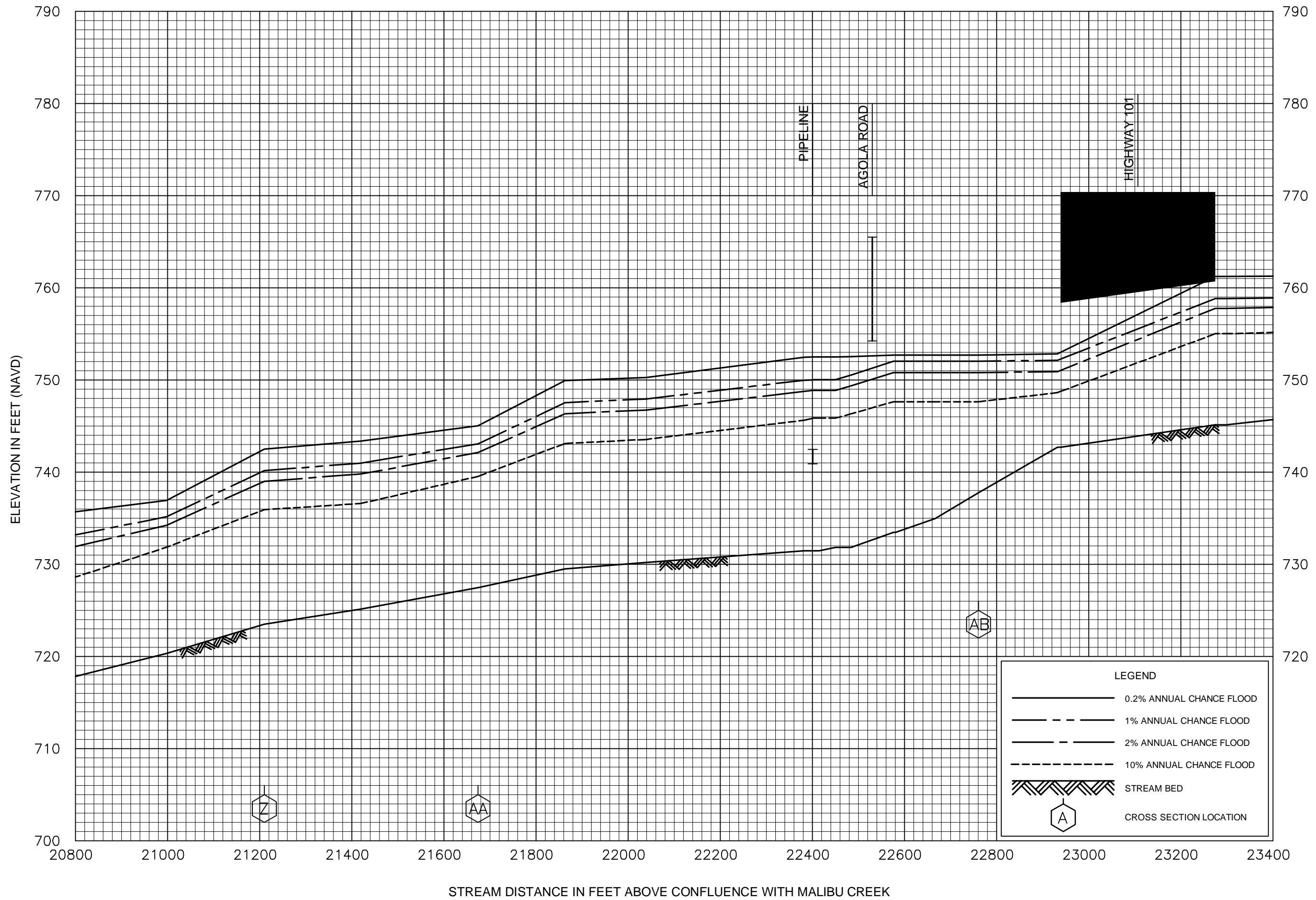
LAS VIRGENES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS



FLOOD PROFILES
LAS VIRGENES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
AND INCORPORATED AREAS

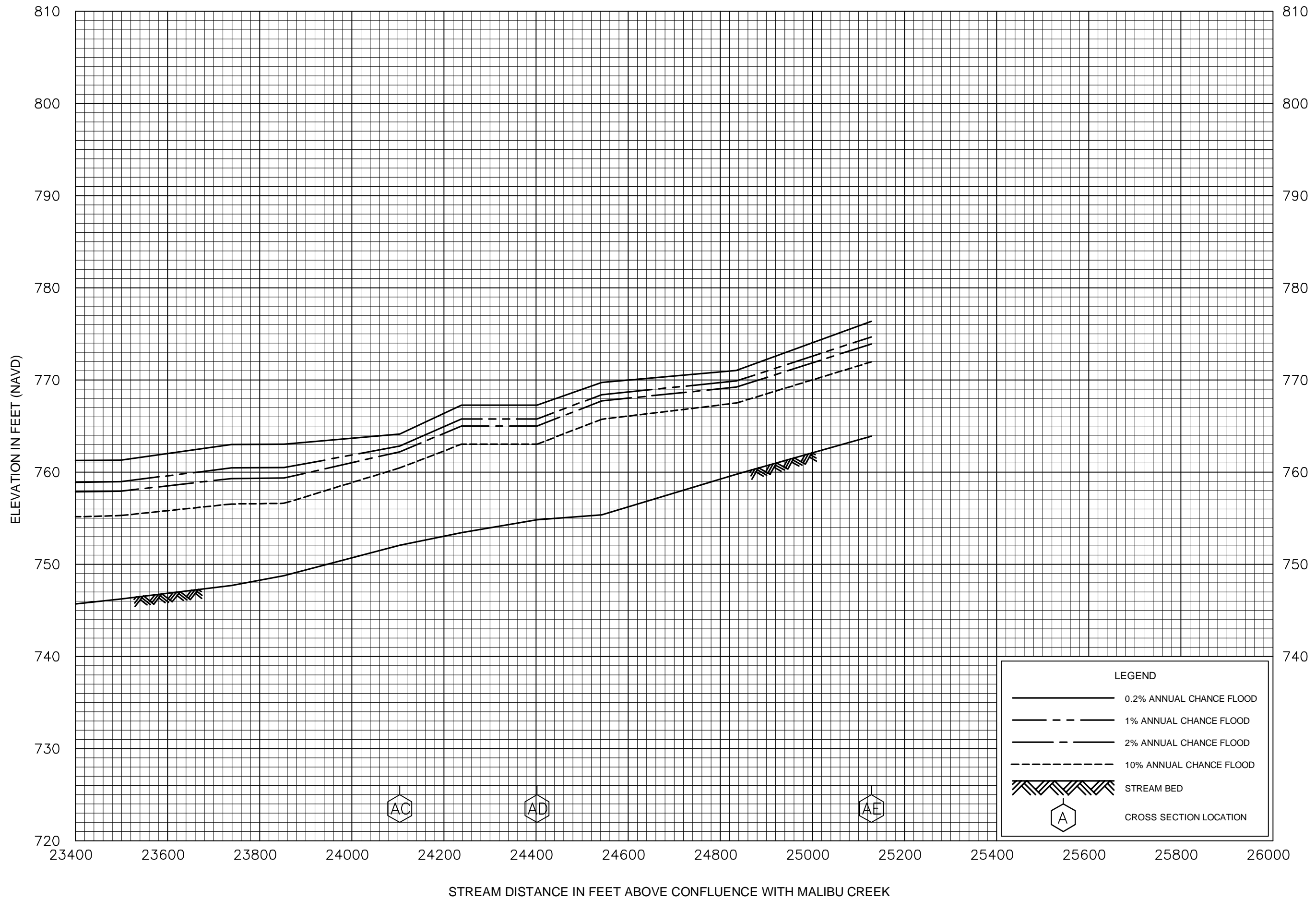


FLOOD PROFILES

LAS VIRGENES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS

75P



FLOOD PROFILES

LAS VIRGENES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
LOS ANGELES COUNTY, CA
 AND INCORPORATED AREAS