FLOOD CONTROL DISTRICT
OF
MARICOPA COUNTY
3325 W. DURANGO
PHOENIX, ARIZONA 85009

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PREPARED FOR THE
FEDERAL INSURANCE ADMINISTRATION

BY THE
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

MARCH 1973

PLATES

	FREQ. CURVE	RATE MAP	PRO-FILE	FLOOD-WAY
SALT RIV.	EX. 1	11	25-28	
AGUA FRIA	EX. 2-7	12-13	29-34	47-48
NEW RIV.	EX. 8	14-15	35-39	49-50
MASSAYAMPA	EX 9-13	16-24	40-46	51-59
COUNTY, GENL.		2-10		

Dear Mr. Ohsiek,

Thank you for the loan of this study. Mr. Hutton was quite interested in it. Would it be possible for this department to obtain a copy of it? Thanks again for your help.

Sincerely

Ralph Kingery
Planner
Maricopa Co. P+Z

CONTENTS

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

1. AUTHORITY FOR STUDY. This Type 15 Flood Insurance Study was prepared by the Corps of Engineers for the Federal Insurance Administration, U.S. Department of Housing and Urban Development, in accordance with the 1968 National Flood Insurance Act, as amended. Authority for its preparation was provided by letters from the Office of the Chief of Engineers, ENGCW-PF, dated 10 August 1971 and 27 September 1971, subject: "Type 15 Flood Insurance Studies."

2. FINANCING OF STUDY. Pursuant to Project Order No. 1, Inter-Agency Agreement (IAA)-H-8-71, funds have been fully obligated by the Department of Housing and Urban Development to cover Corps of Engineers' expenditures in preparing this study.

3. DESCRIPTION OF AREA AND STUDY LIMITS. Maricopa County encompassing a total area of 9,238 square miles is located in the South Central section of the State of Arizona, and is shown on plate 1.

The incorporated cities within Maricopa County comprising an area of approximately 108 square miles are not authorized as a part of this study.

The unincorporated County area of approximately 9,130 square miles is the area authorized for this flood insurance study; however, much of unincorporated Maricopa County includes government lands (approximately 3,330 square miles) such as military facilities, national parks, Indian Reservations, and national forests that were not studied in this phase of the flood insurance report.

The remaining 5,800 square miles of unincorporated Maricopa County was zoned in accordance with the latest guidelines established for type 15 flood insurance studies.

The terrain varies in character from the numerous rugged mountain ranges scattered throughout Maricopa County to the lower plains and deserts. Mount Ord Peak with an elevation of 7,155 feet is the highest point and is located in the uppermost northeast section of the County. The lowest elevation in the County (425 feet) is in the southwest section on the Sentinel Plain.

The County is further characterized by the many dams and reservoirs, irrigation canals, and the never ending maze of intermittent streams. The major rivers include the Gila, Salt, Agua Fria, Verde, New, and Hassayampa, all of which flow intermittently.

Much of the unincorporated area in the vicinity of the cities is urbanized with continuously expanding developments.

The past flooding history in Maricopa County indicates that many sections are subject to destructive flash floods, and that the larger flood flows along the major rivers, streams, and washes have and will continue to cause extensive damage to adjacent property as well as create a dangerous threat to loss of life and menace to health. Even the lesser flood flows can cause damage and disruption to everday activities in the plains or desert areas where the depth of stream channels diminish and overflow areas are shallow. The more recent floods in Maricopa County as evidenced by newspaper accounts and television coverage bears out the fact that loss of life, health menace, and extensive property damage are still with us.

As indicated in the Corps of Engineers Survey Report "Phoenix, Arizona and Vicinity (Including New River)" dated 15 January 1964, many recommendations and proposals for channel improvements, clearance of existing streambeds, and dam construction could alleviate or diminish the flood threat.

4. DESCRIPTION OF WORK.

a. General. The work performed in developing this study and its informational contents was governed by the criteria set forth in the "Flood Insurance Studies, Guidelines", published by the Federal Insurance Administration, U. S. Department of Housing and Urban Development in April 1972, and subsequent directives.

b. Hydrologic Studies. Flood frequency data for this study area were developed from discharge-frequency relationships of historic floods and hydrologic study analyses accomplished by the Corps of Engineers.

The discharge-frequency relationship for Salt River as developed in the Corps of Engineers Survey Report on the Gila and Salt Rivers, dated 4 December 1957, was used since this information was the best hydrological data available at the time of this study. However, the Corps of Engineers has scheduled for the near future a reevaluation of hydrology for the Salt River flood plain due to the changing topography and new developments in the area. This updated information should be compared and reevaluated in subsequent flood insurance studies for Maricopa County.

c. Reaches. Areas subject to flooding for which profiles have been delineated are divided into specific reaches. Reach numbers are used to designate areas with similar elevation-frequency characteristics.

A portion of four major rivers as described below were studied in detail:

(1) Salt River - approximately five miles of Salt River was studied between the limits of Scottsdale Road in Tempe to about one-half mile west of North Country Club Drive in Mesa. Salt River has a wide irregular sandy streambed with several meandering low flow channels. It is also noted that several gravel pit operations are currently located at various sections in the streambed with resultant deep depressions which would create voluminous storage until such time that these areas are filled to original condition. The larger flows will overtop the river banks flooding a vast plain area containing residential and commercial dwellings.

(2) Agua Fria River - Approximately eight and one-half miles of Agua Fria River were studied from west Southern Avenue near the confluence with the Gila River to Camelback Road near the confluence with New River. The Agua Fria riverine area has a broad sandy flood plain with a low flow meandering channel which has a past history of changing course from one side of the flood plain to the other.

(3) New River - Approximately seven miles of New River, north of its confluence with Agua Fria River, from southerly of Glendale Avenue to northerly of Thunderbird Road are in the limits of this study reach. The river section is fairly constant in width and has a slight meandering alignment. The larger flood flows will overtop the banks encroaching on the wide flood plain.

(4) Hassayampa River - Approximately ten miles of the Hassayampa River was studied from the Yavapai County line from which it flows southeasterly, to the confluence with Domingo Wash. The riverine area of the Hassayampa has a meandering low flow channel and a flood plain of varying width.

Approximately 13 miles of Cave Creek from Cave Creek Reservoir upstream to the confluence of Rowler and Mexican Washes, and approximately 5.1 miles of Skunk Creek from Hedgpeth Hills upstream to Black Canyon Highway were also studied, but due to the lack of updated topography at the writing of this report, water surface profiles could not be determined with any acceptable degree of accuracy, and therefore these areas were zoned "D" for future possible study.

d. Elevation-Frequency Data. Utilizing the hydrologic data previously mentioned in paragraph 4b, and available topographic maps, the elevation-frequency relationships for Salt River, Agua Fria River, New River, and Hassayampa River were determined, and are shown in the following table of elevation-frequency data and graphically depicted as exhibits 1 through 13.

e. Flood Hazard Factor. The Flood Hazard Factor (FHF) is a number that identifies an individual elevation-frequency curve in a series of generalized curves prepared by the Federal Insurance Administration. The flood hazard factors most closely resembling the computed elevation-frequency curves (Exhibits 1 through 13) are shown in the following tabulation.

ELEVATION-FREQUENCY DATA AND FLOOD HAZARD FACTORS (FHF)

FLOODING SOURCE	ZONE & REACH	ELEVATIONS IN FEET (MEAN SEA LEVEL) FREQUENCY IN YEARS					FHF*
		10 Yr	25 Yr	50 Yr	100 Yr	500 Yr	
Salt River	A 1	1172.1	1174.1	1175.3	1176.4	1177.3	045 B
Agua Fria River	A 2	927.0	927.8	928.5	929.0	930.8	020 E
	A 3	944.0	945.0	945.8	946.5	948.5	025 E
	A 4	961.5	962.5	963.8	965.0	969.8	035 D
	A 5	977.3	978.0	978.7	979.3	980.6	020 E
	A 6	1009.8	1010.6	1011.7	1012.8	1016.9	030 D
	A 7	1020.7	1021.2	1021.7	1022.2	1023.5	015 D
New River	A 8	1090.7	1092.7	1094.2	1095.3	1096.9	045 I
Hassayampa River	A 9	1847.8	1851.3	1855.6	1861.3	1872.0	135 C
	A10	1880.5	1882.2	1884.0	1886.2	1890.0	060 F
	A11	1923.0	1925.0	1926.4	1929.0	1934.5	060 D
	A12	1996.3	1997.5	1998.8	2000.3	2003.4	040 C
	A13	2073.8	2074.8	2075.9	2076.9	2079.9	030 D

* Refer to Federal Insurance Administration, "Flood Hazard Factors, Depth-Damage Curves, Elevation-Frequency Curves, Standard Rate Tables," dated September 1970.

f. Zones. The study area is divided into zones which reflect varying degrees of flood risk deriving from probable flooding of specified magnitude. Zone boundary lines were generally established along the center line of streets or other identifiable limits when possible. However, section lines were used in the undeveloped areas where no other practical boundary features were available.

As shown on the Flood Insurance Study Zone Maps, Plates 2 through 24, the zone designations include:

(1) Zone A. This zone is utilized where the land is subject to flooding from floods up to and including the base flood (100-year-frequency flood), and when sufficient data are available to calculate a reasonably accurate flood profile.

(2) Zone B. This zone is utilized where an area is subject to flooding from floods greater than the base flood (100-year-frequency flood), up to and including the Standard Project Flood. Often zone B cannot be shown due to the steep character of the land; the erosive character of the soil, which allows a Standard Project Flood to flow at an elevation very close to the 100-year-frequency flood; or the small scale of the map. When one or more of these conditions is present, zone B is omitted and only zone A is shown. It is also utilized for areas that are subject to sheet flooding from the base flood and lesser floodflows.

These zone maps also show base flood elevation lines extending through zone A, representing water surface elevations.

Since up-dated topography was made available near the completion of this report for some study areas within Maricopa County, the areas zoned A and B in this study should probably be reevaluated at a later date to determine the manner in which the extent of flooding has been affected by most recent developments.

(3) Zone C. This zone contains the areas outside of the blocked-out Standard Project Flood limits, where the flood risk is relatively low.

However, the storm flows from the many intermittent streams located in the undeveloped zone C areas could cause minor flood damage to any future construction bordering the streams.

It is therefore recommended that areas bordering these intermittent streams be studied for potential flood hazards prior to construction and proper measures be taken to protect the site from flood damage. Protection from local flooding can usually be accomplished by proper grading and other adequate flood damage prevention considerations.

(4) Zone D. This zone is utilized where flooding is a distinct possibility; however, either detailed information such as suitable topography is lacking, or time and monies available were insufficient for the detailed studies required for development of adequate flood profiles.

The zone D areas where existing residential, commercial, and industrial developments are located should receive further study at a later date as time and monies become available.

g. Profiles. Water surface profiles representing the 10-year 25-year, 50-year, 100-year, and standard project floods for the Salt

Agua Fria, New, and Hassayampa Rivers are shown on plates 25 through 46. The indicated water surfaces do not reflect the effects of possible mudflows, landslides, or erosion. If the profiles are to be utilized for construction purposes, the above effects must be considered.

h. Depth-Percent Damage Data.- Depth-percent damage relationships for purposes of analysis are not available for Maricopa County and were not developed.

5. FLOODWAY DATA. By definition, a "floodway" is the channel of a watercourse and that portion of the adjoining flood plain required to provide for the passage of the 100-year frequency discharge (discharge having a 1-percent chance of occurrence in any given year) with an insignificant increase in the water surface above that of the pre-floodway condition. Unless State or local requirements indicate a specific allowable increase, an insignificant increase is considered not more than 1 foot at any location. As a further definition, the "floodway fringe" is the portion of the 100-year flood plain located between the floodway boundary and the outline of the 100-year flood.

a. Areas Considered. The study areas considered for purposes of floodway delineation are as follows:

(1) The 8.5 mile section of Agua Fria River from the confluence with the Gila River to the confluence with New River, which includes approximately 3 miles within the Avondale City limits.

(2) The 7 mile section of New River from the confluence with Agua Fria River northerly to Thunderbird Road which includes approximately 1.5 miles within the Peoria City limits.

(3) The 10 mile section of the Hassayampa River from the Yavapai County line to the confluence with Domingo Wash which includes approximately 2 miles within the Wickenburg City limits.

The "floodway" for Salt River was not computed in this study due to the inadequate topography available. Also, for the most part, only the main flow channel passes through the non corporate limits.

b. Local Coordination. Selection of preliminary floodway limits was coordinated with officials of the Maricopa County Flood Control District. Local officials have been advised of the study, and additional flood plain information is available to assist them in final determinations of floodways. Such final determinations are the responsibility of local Government.

c. Assumptions and Considerations. The floodway data developed for this study should be considered preliminary and further refinements should be expected. For purposes of hydraulic computations it was assumed that the floodway fringe area was filled solid and had neither overbank storage nor floodflow capacity. Both hydrology and hydraulics for the floodway were based on existing conditions.

d. Design Criteria. The preliminary floodway for the Agua Fria, New, and Hassayampa Rivers to be reserved by zoning or encroachment lines, are designed to pass the 100-year frequency discharges of 72,000, 68,000, and 70,000 cubic feet per second respectively. Floodway limits were determined by using encroachments on each bank so that the cross-section, as modified, would have the discharge carrying capacity of the natural cross section, with an increase in the water surface elevation of not more than 1 foot. The encroachment limits were developed by removing

an equal amount of conveyance capacity from each side of the channel, where possible. The flood plain of the 100-year frequency flood under existing conditions, Preliminary Floodway, Floodway Fringe areas, and location of cross sections used in the floodway determination are shown on plates 47 through 59. Floodflow velocities in the Floodway Fringe areas were limited to 5 feet per second and this requirement limited the amount of encroachment at some sections. The actual limits of the 100-year flood plain on the ground may vary slightly from those shown on the plates because of map scale limitations which do not permit precise plotting of the flooded area boundaries.

e. Water Surface Elevations. The 100-year frequency base flood's water surface elevations under existing and allowable encroachment conditions (with floodway), are shown for each cross section in the following tabulation.

BASE FLOOD WATER SURFACE ELEVATIONS

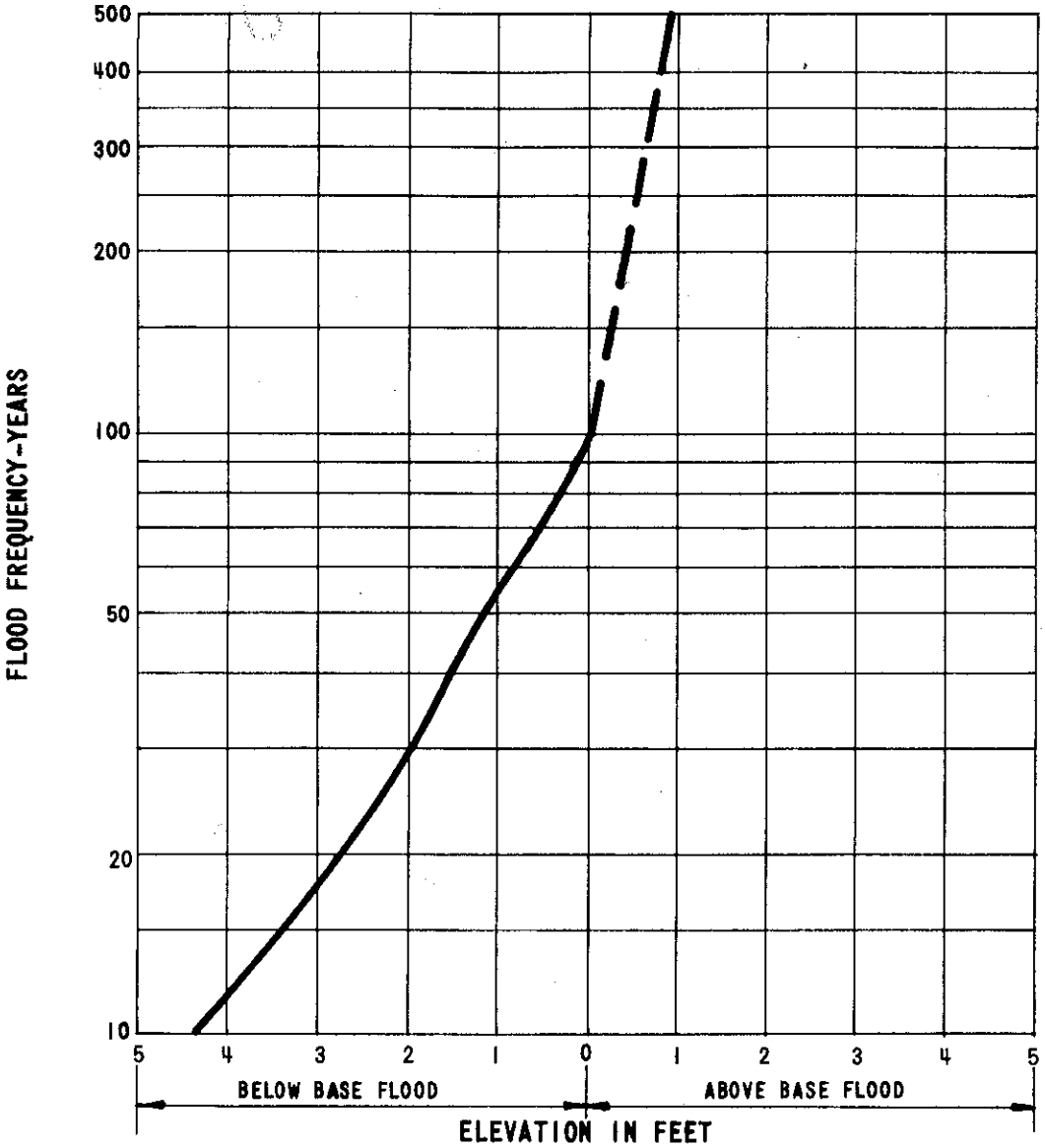
River	Cross Section Number	Floodway Width (Feet)	Elevation in Feet (Mean Sea Level) Existing Condition	With Allowable Encroachment
Agua Fria River	24	4,950	919.0	920.0
	25	4,650	921.0	921.5
	26	4,000	927.0	927.5
	27	3,650	931.0	932.0
	28	3,500	935.5	936.0
	29	3,700	937.5	938.0
	30	3,900	939.0	939.5
	31	3,800	941.5	942.0
	32	3,400	945.0	945.5
	33	3,300	947.5	948.0
	34	3,900	951.0	951.5
	35	4,000	956.5	957.0
	36	3,400	962.5	962.5
	37	Bridge	963.0	963.0
	38	Bridge	963.0	963.0
	39	4,800	964.5	965.0
	40	4,000	965.0	965.5
	41	4,000	966.5	967.0
	42	4,400	968.5	968.5
	43	4,850	971.0	971.5
	44	4,900	974.0	974.5
	45	4,800	977.5	978.0
	46	4,500	979.5	980.0
	47	4,350	985.5	986.0
	48	4,400	987.0	987.5
	49	4,200	993.0	993.5
	50	4,200	996.5	997.0
	51	4,150	1,004.0	1,004.5
	52	4,100	1,007.0	1,008.0
	53	Bridge	1,010.5	1,011.0
	54	Bridge	1,011.0	1,011.5
	55	Bridge	1,012.5	1,013.0
	56	4,900	1,013.0	1,013.5
	57	6,600	1,018.0	1,018.5
New River	58	2,020	1,053.0	1,054.0
	59	2,600	1,057.5	1,057.5
	60	2,600	1,061.0	1,061.0
	61	2,400	1,061.5	1,061.5
	62	2,400	1,062.0	1,062.0
	63	2,100	1,068.0	1,068.0
	64	2,400	1,072.0	1,072.0
	65	1,700	1,085.5	1,086.0

BASE FLOOD WATER SURFACE ELEVATIONS (Continued)

	Cross Section Number	Floodway Width (Feet)	Elevation in Feet (Mean Sea Level) Existing Condition	With Allowable Encroachment
New River (Continued)	66	2,450	1,095.5	1,095.5
	67	2,300	1,102.5	1,103.0
	68	2,560	1,111.5	1,111.5
	69	2,900	1,117.5	1,118.0
	70	Bridge	~~1,115.5~~ 1118.5	~~1,115.5~~ 1118.5
	71	2,900	1,119.0	1,119.0
	72	3,360	1,121.5	1,122.0
	73	3,100	1,135.5	1,135.5
	74	Bridge	1,137.5	1,137.5
	75	Bridge	1,142.0	1,142.0
	76	3,400	1,143.5	1,143.5
	77	3,200	1,147.0	1,147.0
	78	1,830	1,158.5	1,158.5
	79	2,300	1,168.5	1,169.0
Hassayampa River	80	380	1,843.0	1,843.0
	81	250	1,859.0	1,859.0
	82	500	1,865.0	1,865.0
	83	1,070	1,877.0	1,877.0
	84	510	1,884.0	1,884.0
	85	550	1,896.0	1,896.0
	86	490	1,922.5	1,922.5
	87	700	1,927.0	1,927.0
	88	700	1,940.0	1,940.0
	89	1,400	1,953.0	1,953.0
	90	900	1,963.5	1,963.5
	91	1,421	1,974.5	1,974.5
	92	1,150	1,988.0	1,988.0
	93	980	2,009.5	2,009.5
	94	1,050	2,018.5	2,018.5
	95	1,270	2,032.0	2,032.0
	96	1,370	2,034.5	2,035.5
	97	1,020	2,038.5	2,038.5
	98	550	2,044.0	2,044.0
	99	Bridge	2,048.0	2,049.0
	100	520	2,048.0	2,049.0
	101	1,450	2,050.5	2,051.5
	102	1,000	2,052.0	2,053.0
	103	1,200	2,058.0	2,059.0
	104	960	2,062.5	2,063.0
	105	1,190	2,067.0	2,068.0
	106	1,350	2,070.0	2,071.0
	107	2,000	2,074.0	2,075.0
	108	1,580	2,085.5	2,086.5
	109	2,200	2,091.5	2,091.5
	110	1,130	2,109.0	2,109.5

6. DATA RETAINED ON FILE. Although not presented herein, field inspection notes, topographic, hydrologic, hydraulic, and other backup data and computations compiled in preparing this study are retained on file in the Office of the Los Angeles District, Corps of Engineers.

7. ACKNOWLEDGEMENTS. The assistance and cooperation of the Maricopa County Flood Control District and the Arizona Highway Department in providing the topographic and base maps used in the study are gratefully acknowledged.



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 045 B.
2. CURVE DEVELOPED FOR SALT RIVER INDEX STATION 4.48 MILES.
3. SEE PLATE II FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1177.3
250	1176.9
100	1176.4
50	1175.3
25	1174.1
10	1172.1

SALT RIVER
REACH NO. 1

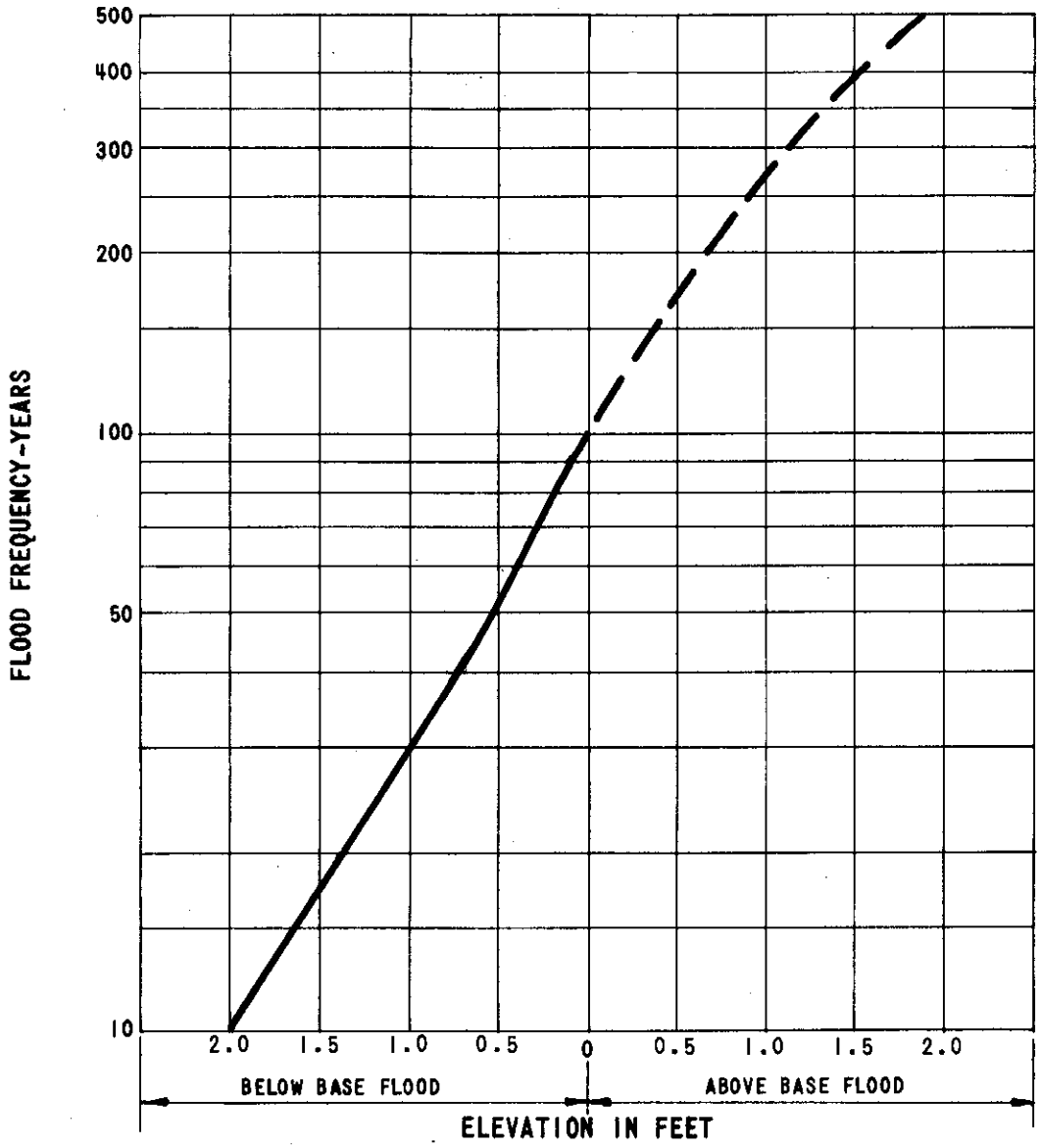
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 1



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 020E.
2. CURVE DEVELOPED FOR INDEX STATION AT STREAM MILE 0.8.
3. SEE PLATE 12 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	930.8
250	929.8
100	929.0
50	928.5
25	927.8
10	927.0
INVERT	923.7

AGUA FRIA RIVER
REACH NO. 2

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

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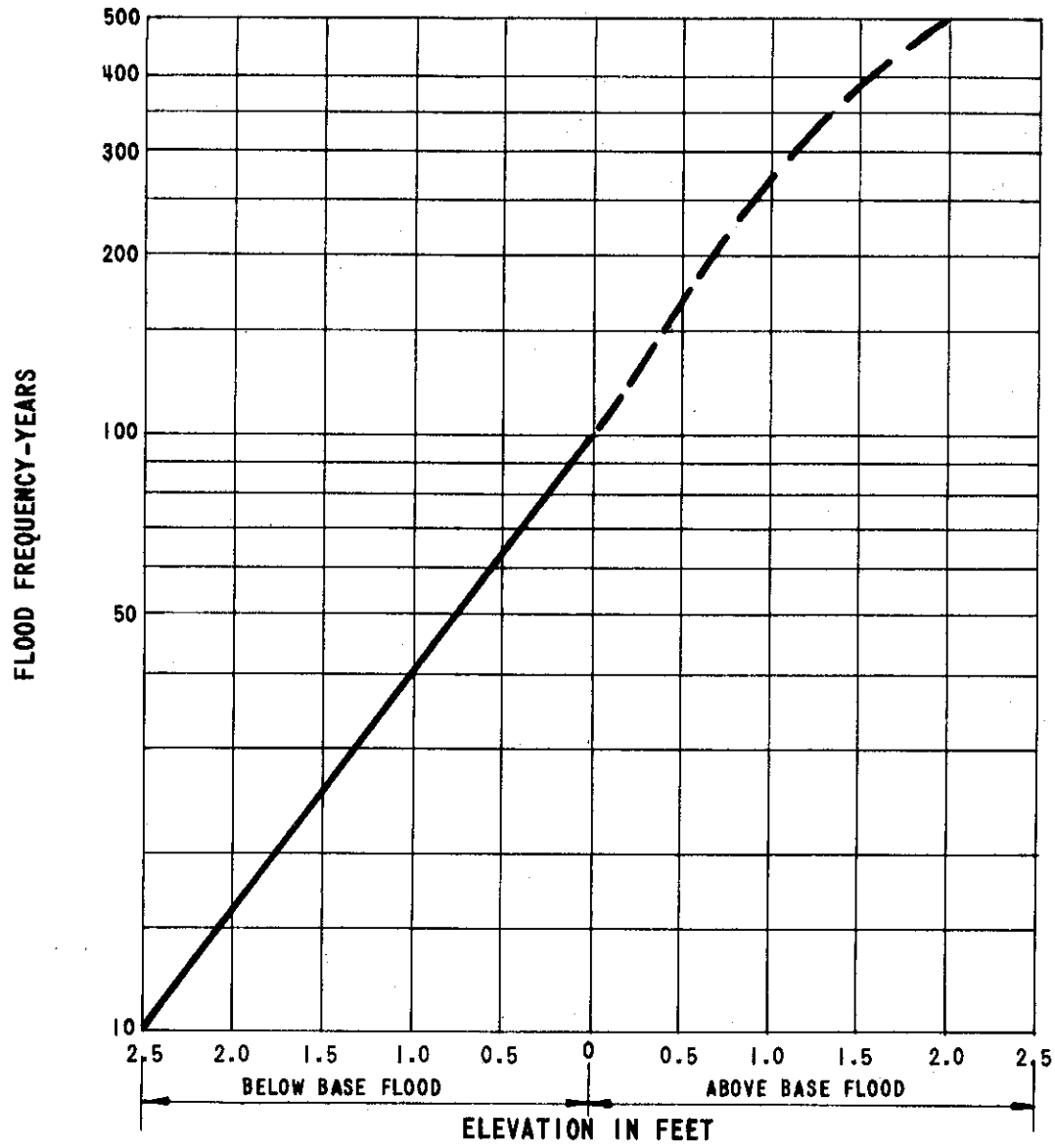
EXHIBIT 2



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 025E.
2. CURVE DEVELOPED FOR INDEX STATION AT STREAM MILE 2.0.
3. SEE PLATE 12 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	948.5
250	947.3
100	946.5
50	945.8
25	945.0
10	944.0
INVERT	941.4

AGUA FRIA RIVER
REACH NO. 3

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

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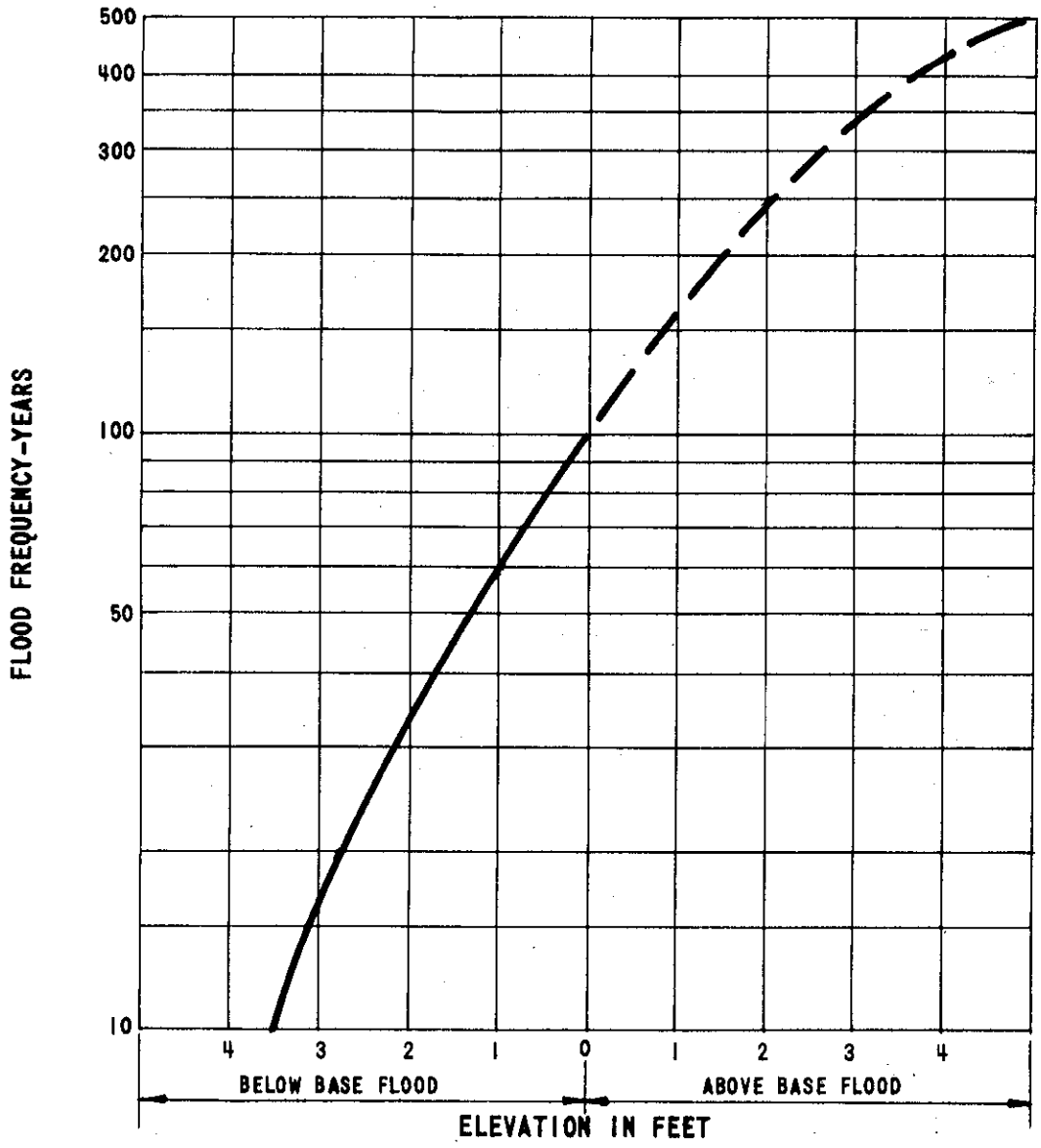
EXHIBIT 8



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 035D.
2. CURVE DEVELOPED FOR INDEX STATION AT STREAM MILE 3.4.
3. SEE PLATE 12 FOR REACH LOCATION

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	969.8
250	967.0
100	965.0
50	963.8
25	962.5
10	961.5
INVERT	958.9

AGUA FRIA RIVER
REACH NO. 4

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

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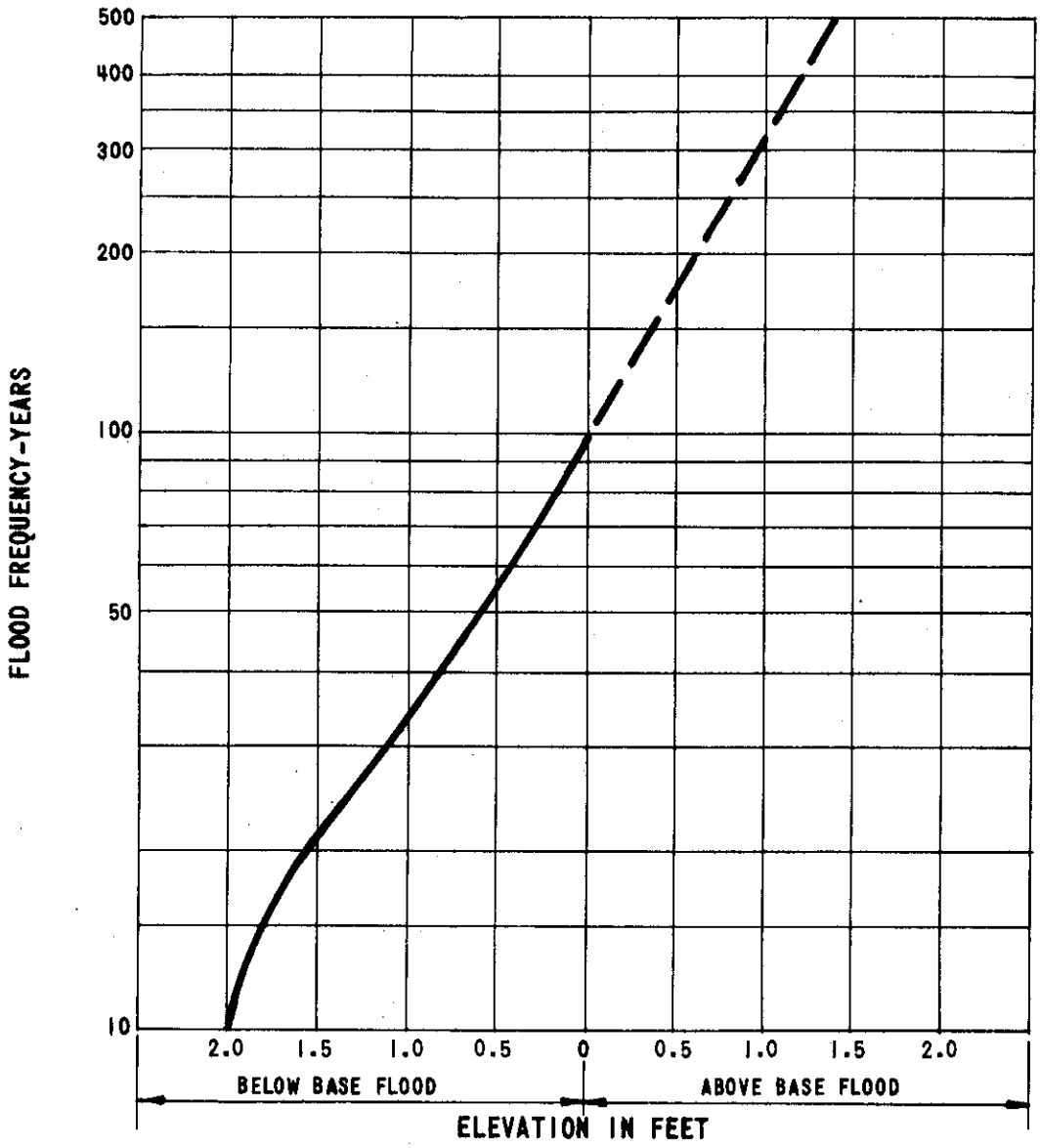
EXHIBIT 4



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 020E.
2. CURVE DEVELOPED FOR INDEX STATION AT STREAM MILE 4.7.
3. SEE PLATES 12 AND 13 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	980.6
250	980.0
100	979.3
50	978.7
25	978.0
10	977.3
INVERT	974.7

AGUA FRIA RIVER
REACH NO. 5

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

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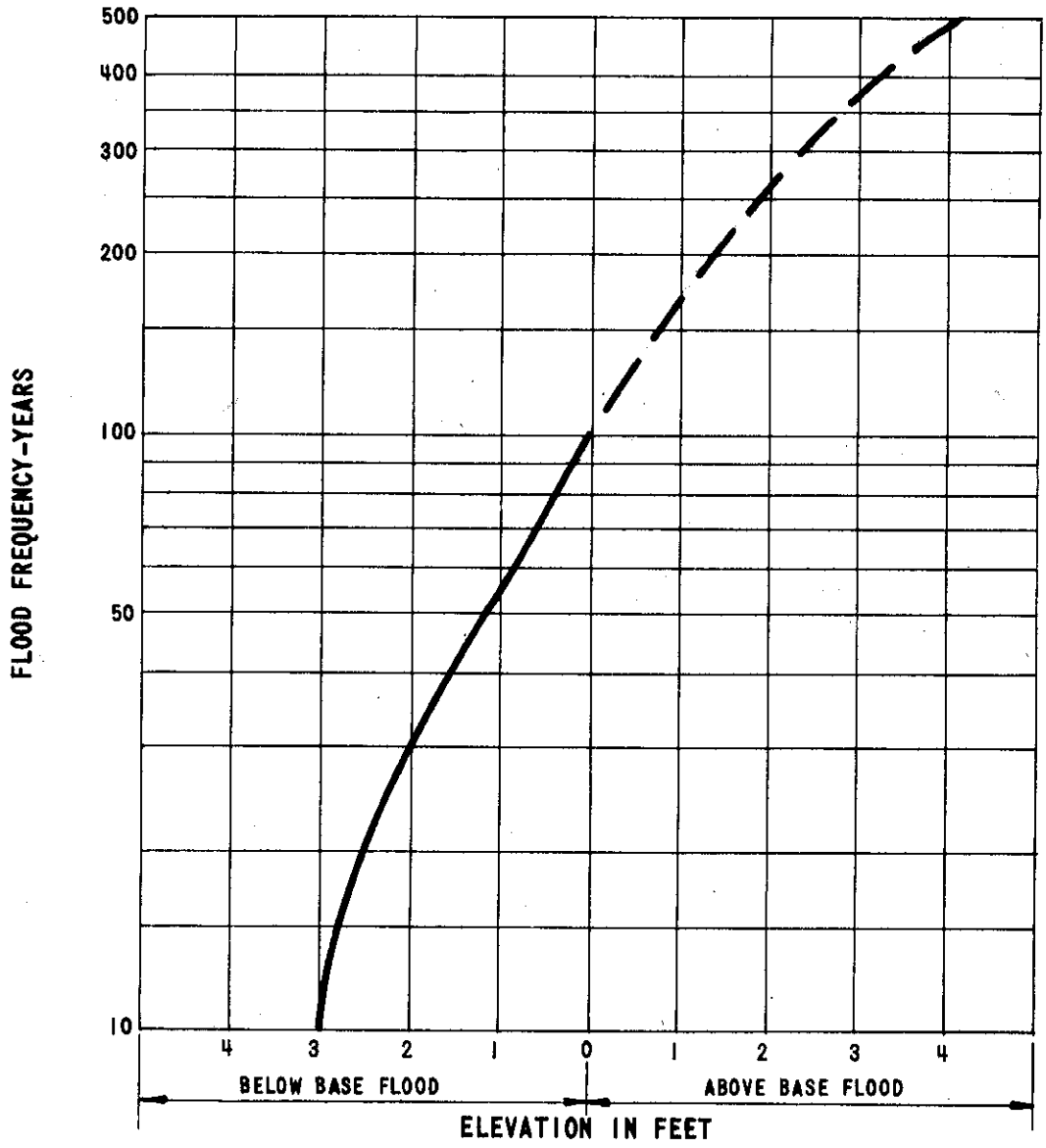
EXHIBIT 5



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 030D.
2. CURVE DEVELOPED FOR INDEX STATION AT STREAM MILE 7.47.
3. SEE PLATE 13 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1016.9
250	1014.6
100	1012.8
50	1011.7
25	1010.6
10	1009.8
INVERT	1008.5

AGUA FRIA RIVER
REACH NO. 6

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

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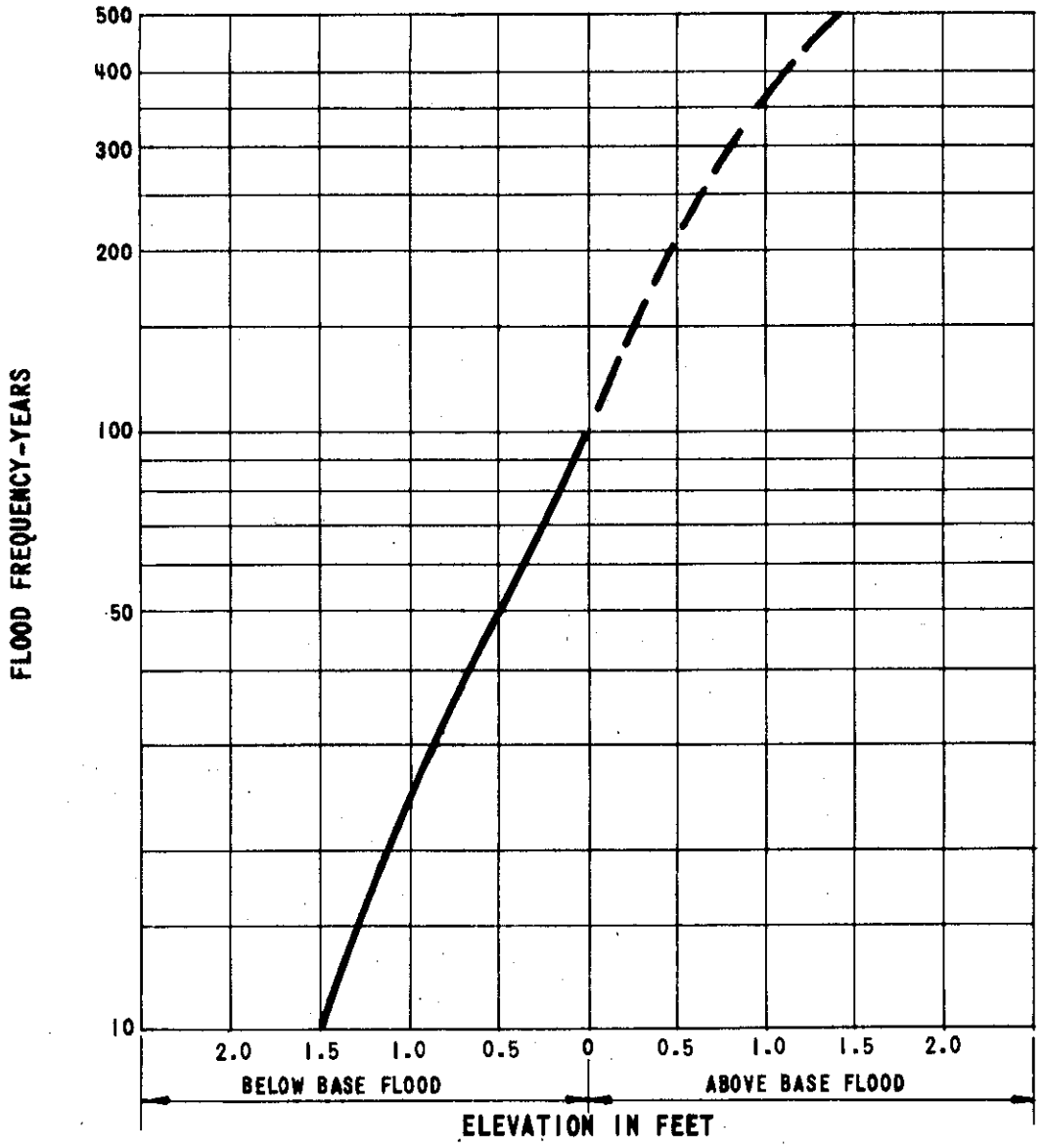
MARCH 1973

EXHIBIT 6



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 015D.
2. CURVE DEVELOPED FOR INDEX STATION AT STREAM MILE 8.2.
3. SEE PLATE 13 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1023.5
250	1022.9
100	1022.2
50	1021.7
25	1021.2
10	1020.7
INVERT	1018.7

AGUA FRIA RIVER
REACH NO. 7

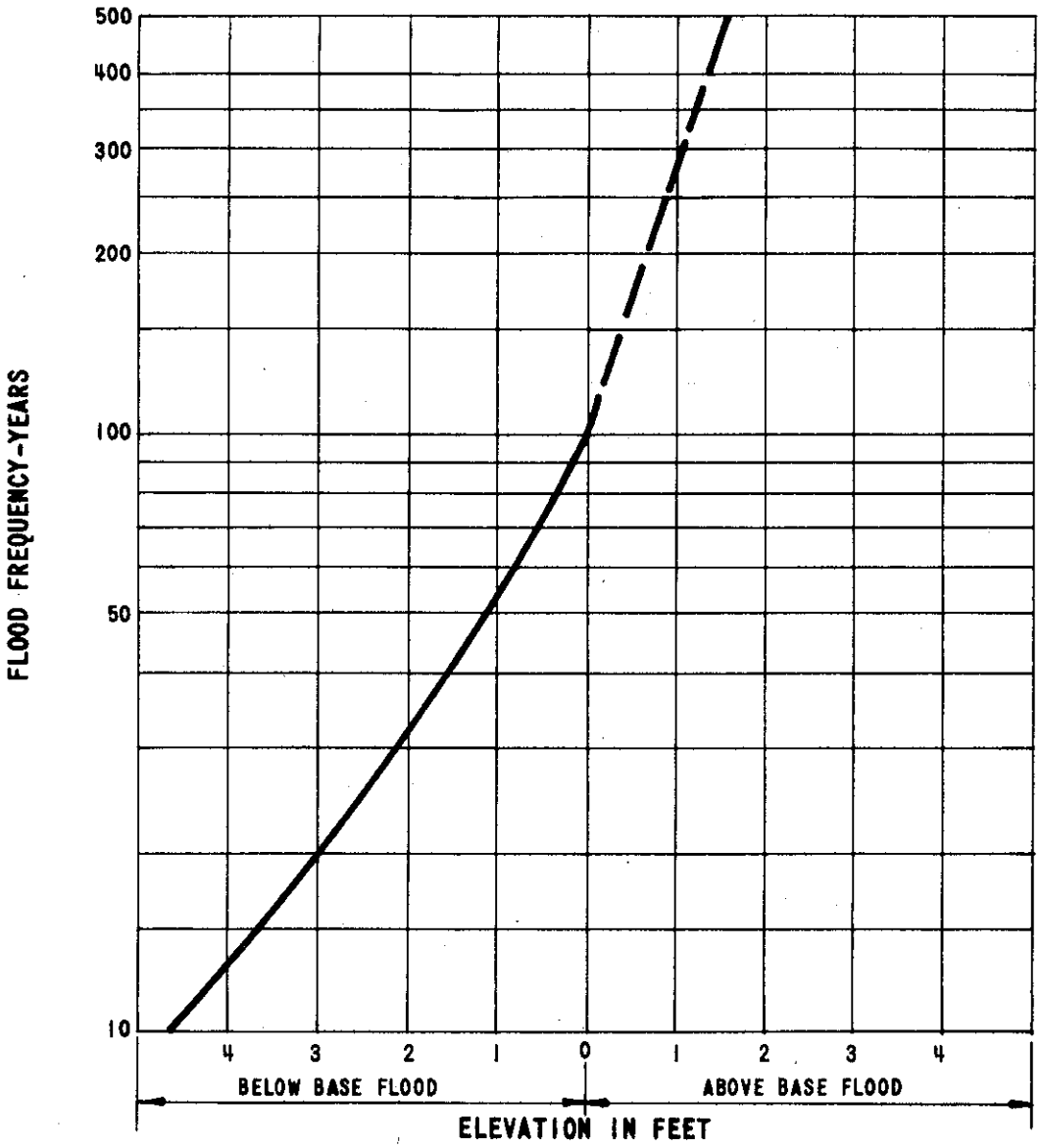
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 7



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 045I.
2. CURVE DEVELOPED FOR MILE 4.17 INDEX STATION.
3. SEE PLATES 14 AND 15 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1096.9
250	1096.2
100	1095.3
50	1094.2
25	1092.7
10	1090.7

NEW RIVER
REACH NO. 8

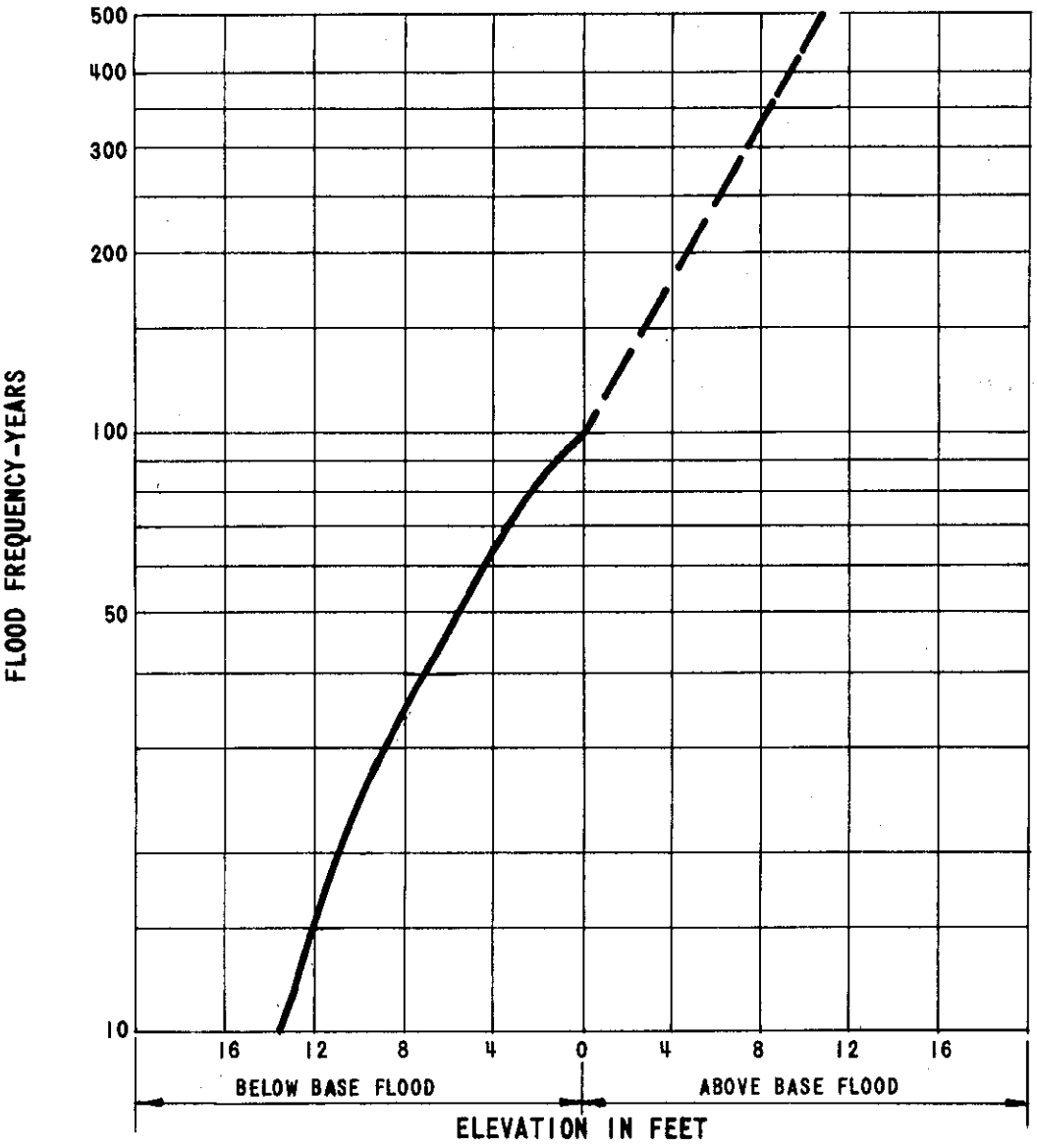
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 8



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 135C.
2. CURVE DEVELOPED FOR MILE 40.5 INDEX STATION.
3. SEE PLATE 16 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1872.0
250	1867.3
100	1861.3
50	1855.6
25	1851.3
10	1847.8

REACH NO. 9
HASSAYAMPA RIVER

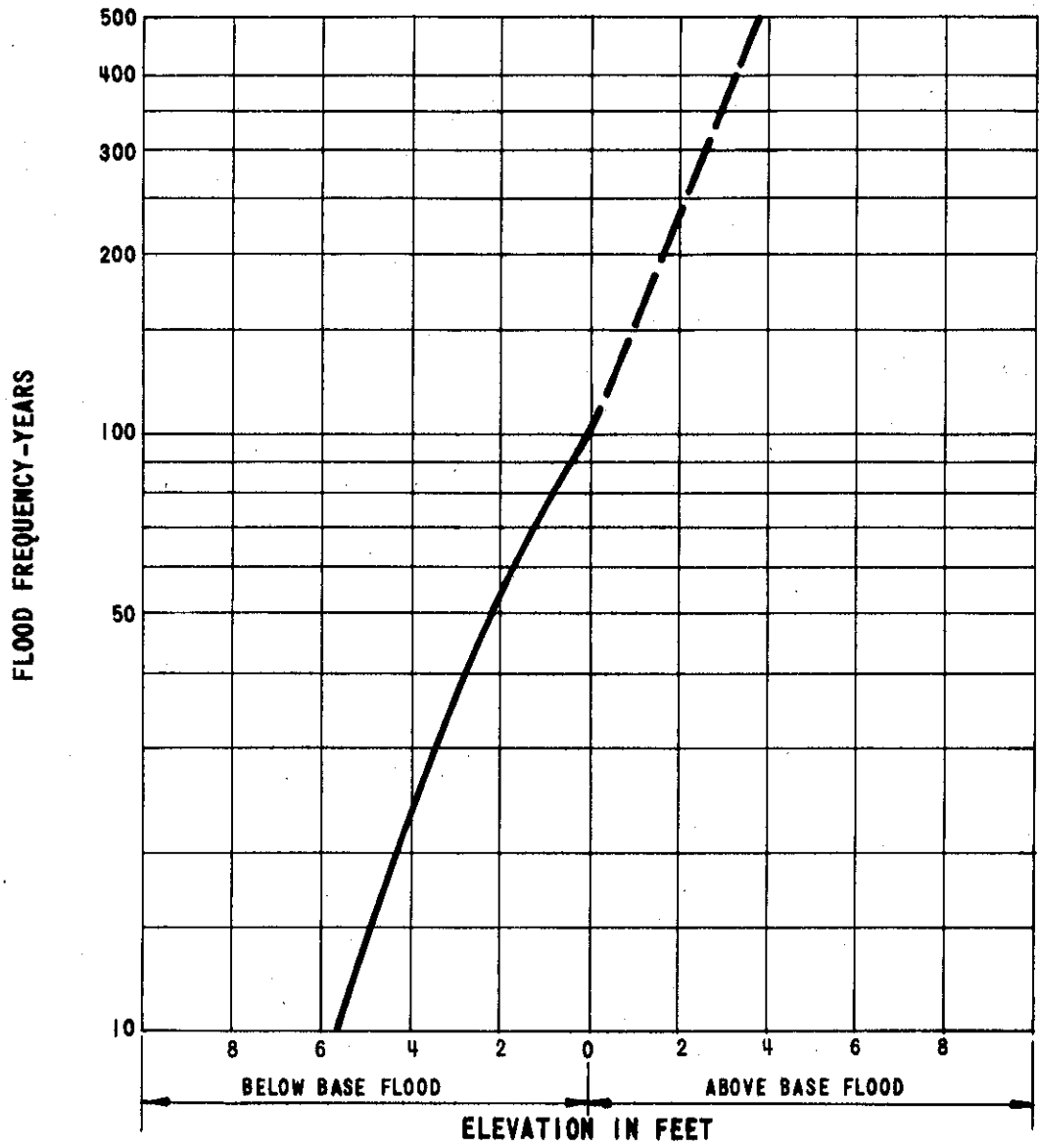
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 9



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 060F.
2. CURVE DEVELOPED FOR MILE 41.825 INDEX STATION.
3. SEE PLATES 16, 17 AND 18 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1890.0
250	1888.4
100	1886.2
50	1884.0
25	1882.2
10	1880.5

REACH NO. 10
HASSAYAMPA RIVER

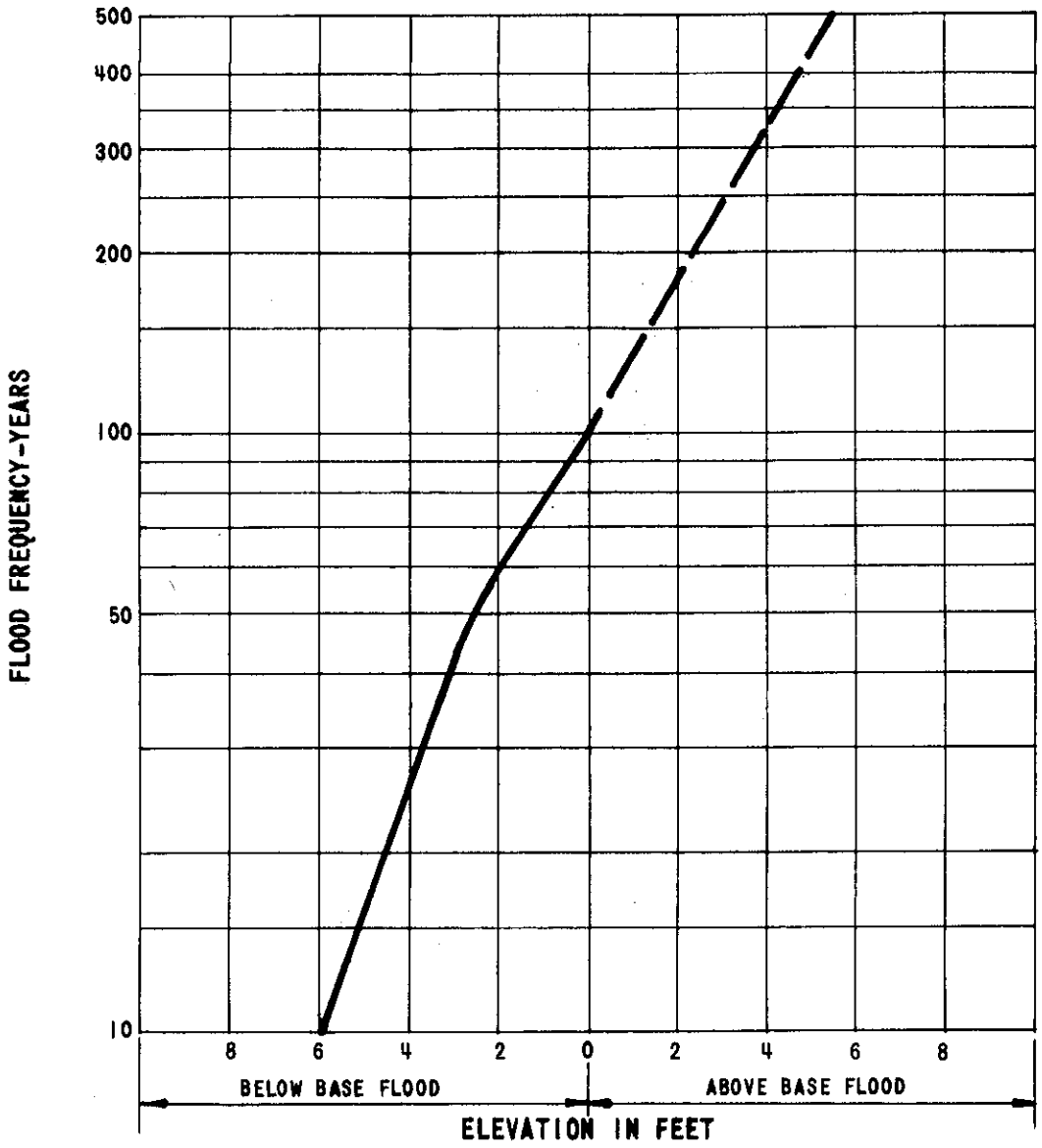
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 10



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 060D.
2. CURVE DEVELOPED FOR MILE 43.45 INDEX STATION.
3. SEE PLATES 18 AND 19 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	1934.5
250	1932.1
100	1929.0
50	1926.4
25	1925.0
10	1923.0

REACH NO. 11
HASSAYAMPA RIVER

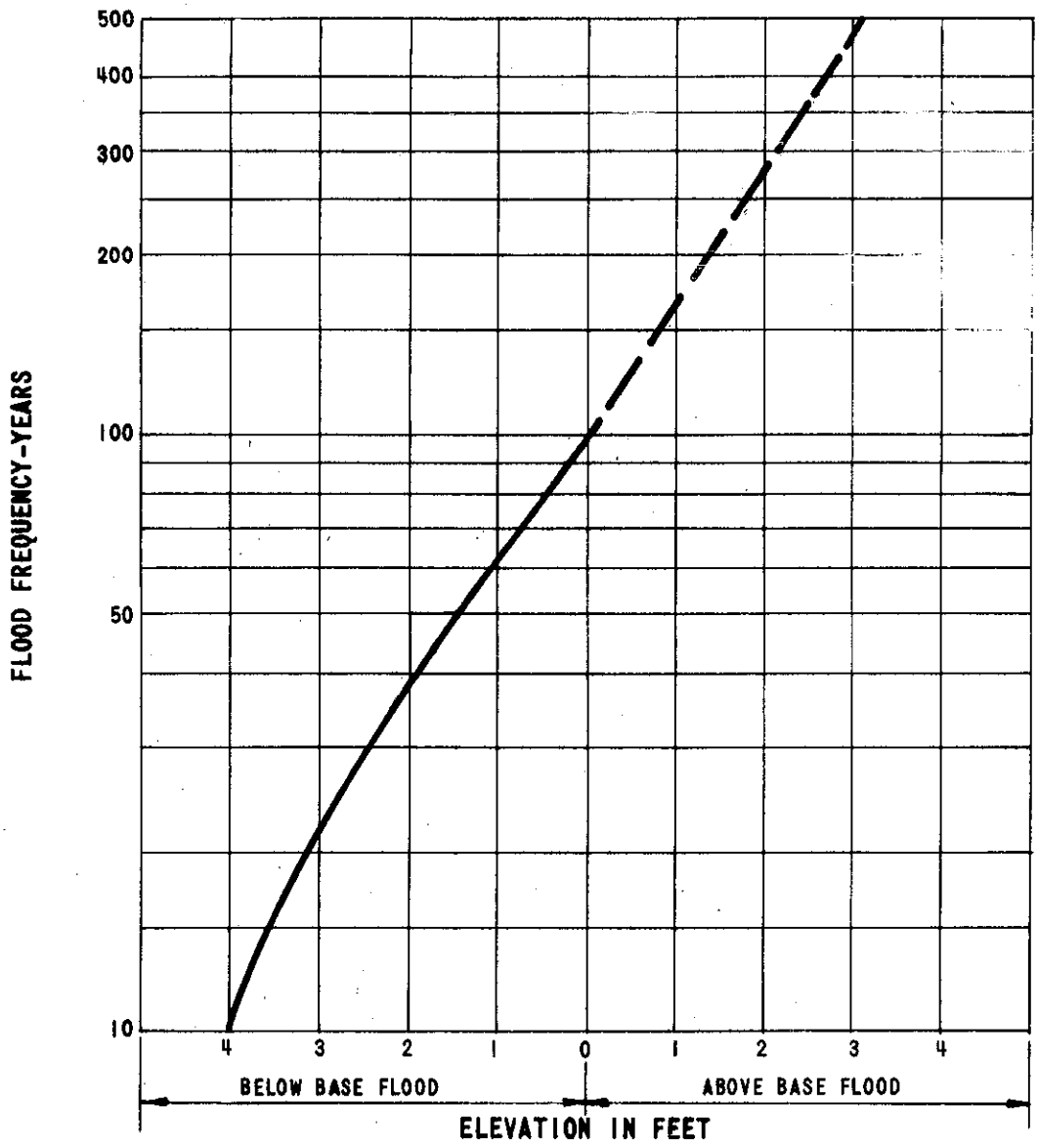
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 11



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 040C.
2. CURVE DEVELOPED FOR MILE 46.075 INDEX STATION.
3. SEE PLATES 19, 20 AND 21 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	2003.4
250	2002.1
100	2000.3
50	1998.8
25	1997.5
10	1996.3

REACH NO. 12
HASSAYAMPA RIVER

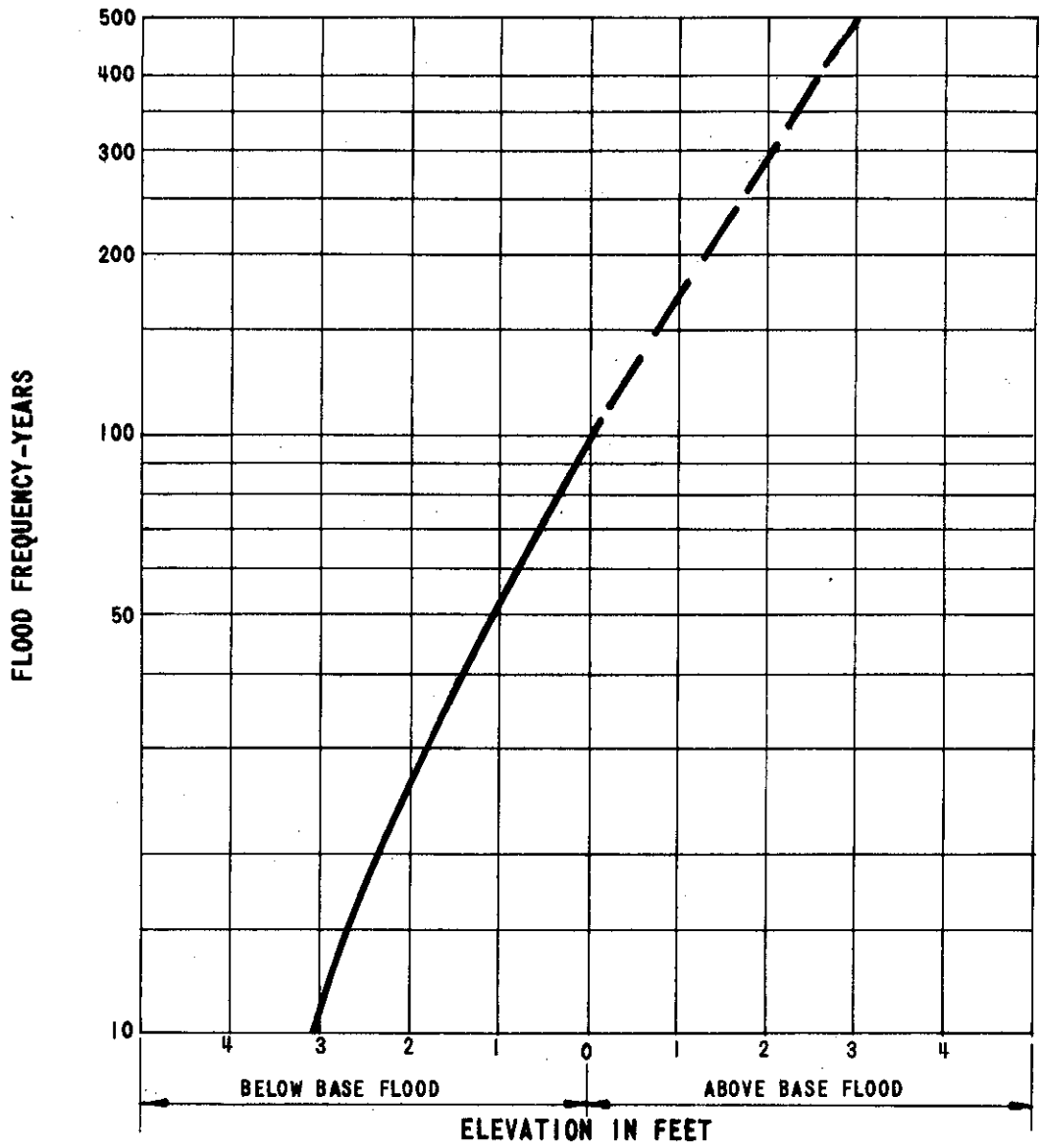
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

EXHIBIT 12



NOTES:

1. CURVE CORRESPONDS TO FLOOD HAZARD FACTOR NO. 030D.
2. CURVE DEVELOPED FOR MILE 49.0 INDEX STATION.
3. SEE PLATES 22, 23 AND 24 FOR REACH LOCATION.

PLOTTING DATA	
FREQUENCY IN YEARS	FLOOD ELEVATION
500	2079.9
250	2078.2
100	2076.9
50	2075.9
25	2074.8
10	2073.8

REACH NO. 13
HASSAYAMPA RIVER

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

ELEVATION FREQUENCY RELATIONSHIP

CORPS OF ENGINEERS, U. S. ARMY
LOS ANGELES DISTRICT, CALIFORNIA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

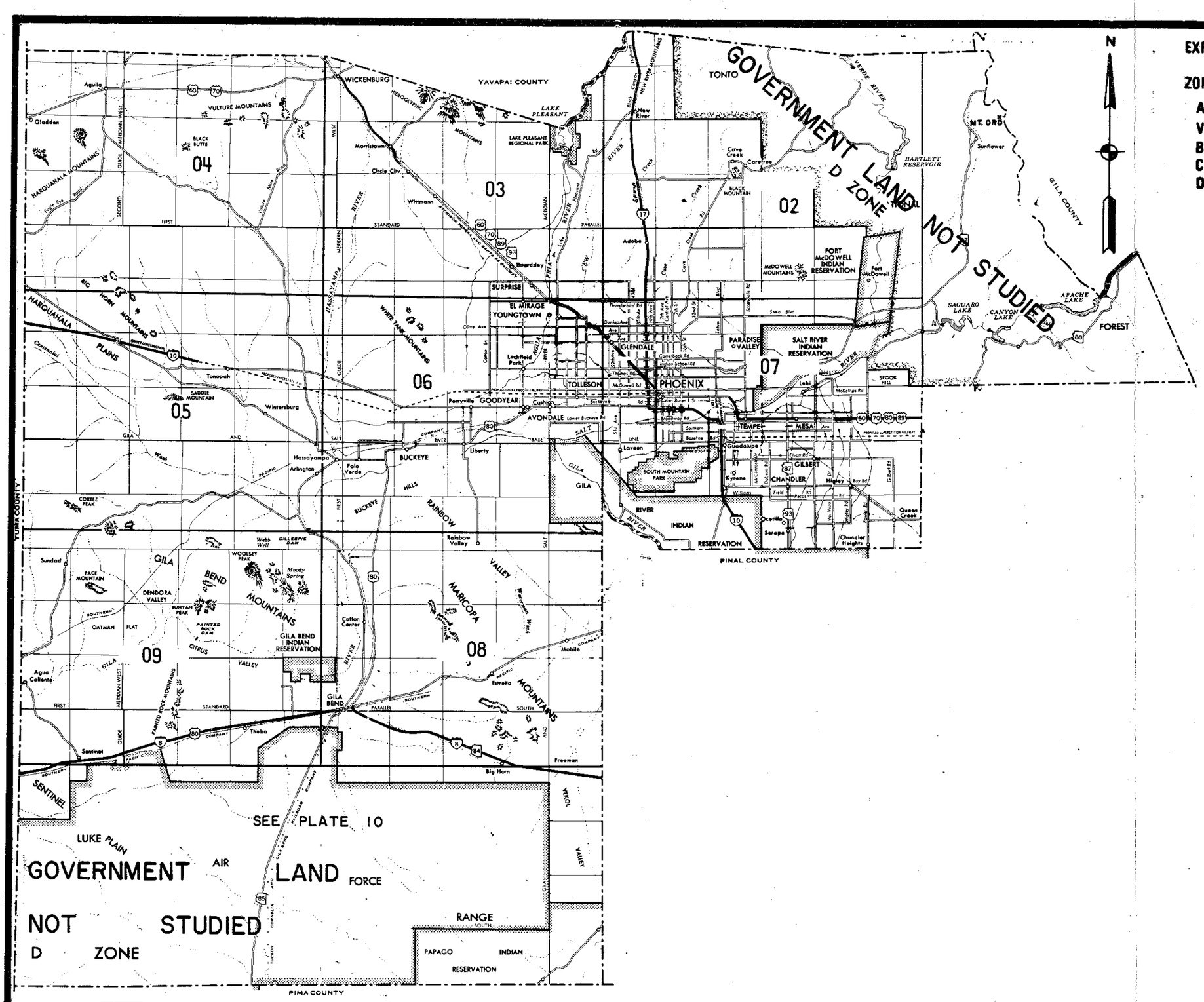
EXHIBIT 13

Status Nov. 1973

PROJECT	FOR WHOM	SCHED COMPLETE	
PHOENIX FLOOD INS. STUDY	FIA		1 PREL COPY TO US.
SALT RIV.		ROUGH DRAFT MADE	Y & G CONTRACTOR
CAVE CR. N OF BELL RD.			
IND. BEND WASH			
GR. CANAL		DRAFT BY NOV 30 FINAL TO FIA DEC 31	PROFILES 10, 100, 500
ARIZ CANAL			FLOODWAYS
10TH ST. WASH, ETAL			
DREAMY DRAW, ET AL			SEE NEW CITY ORD. X
ECHO CANYON			
MOON VALLEY			
SCATTER WASH (AIRPORT)			
REGULATORY			
FLOODWAYS			
CAVE — TOP TO SALT			
SALT			
IND BEND			
AGUA FRIA (HWY 80)	FCD MC	NOV. 12 ±	
PHX. SCHOOL SITES (66 ±)		NOV. 30	
CIV. DEF. (MC ~~STATE~~)	CIV. DEF. (MC)	DEC 31	
SALT RIV.			
FOOTBALL STADIUM	PHX	NOV 30	

2/13/74

del in



EXPLANATION OF ZONE DESIGNATIONS

ZONE	CATEGORY
A	Area of special flood hazards.
V	Area of special flood hazards with velocity.
B	Area of moderate flood hazards.
C	Area of minimal flood hazards.
D	Area of undetermined, but possible, flood hazards.

Date of Eligibility for Flood Insurance:

NOTES

Base Flood Elevation Line
1200'
(See map for specific elevations)

- Flood Insurance Zone.
- Maricopa County Limits.
- Non Corporate Limits.
- Incorporated cities not a part of this study.
- Intermittent Stream.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

MAP INDEX

APPROXIMATE SCALE
0 2 4 MILES

Effective Date:
MARCH 1973

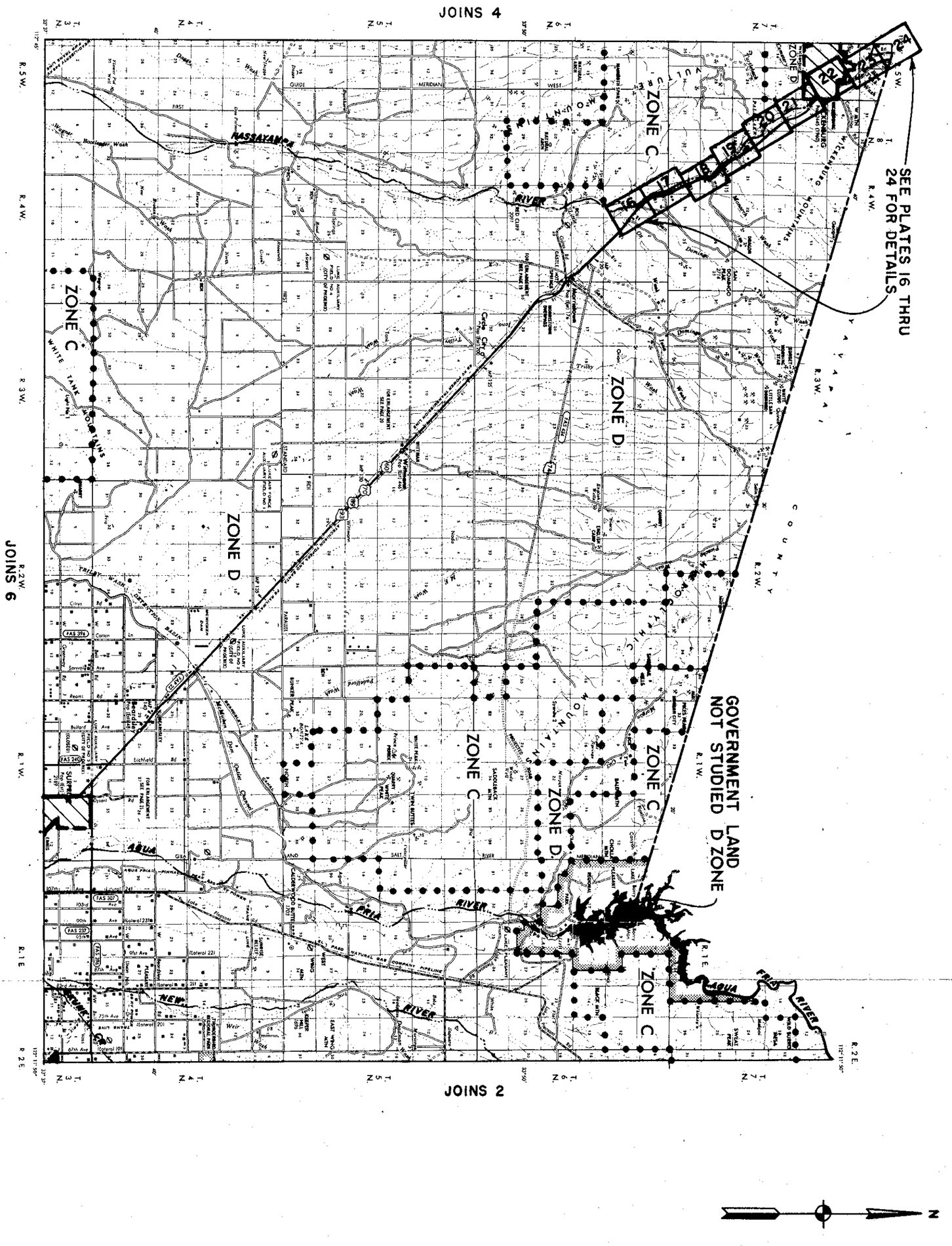
FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

2



3	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration MARICOPA COUNTY, ARIZONA	APPROXIMATE SCALE 4 2 0 4 MILES		
		FIA FLOOD HAZARD BOUNDARY MAP	FIA FLOOD INSURANCE RATE MAP	Effective Date : MARCH 1973

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P. O. BOX 2711
LOS ANGELES, CALIFORNIA 90053

SPLED-HP

27 September 1974

SUBJECT: Flood Insurance Study, Maricopa County, Arizona, March 1973

Division Engineer, South Pacific
ATTN: SPDPD-F

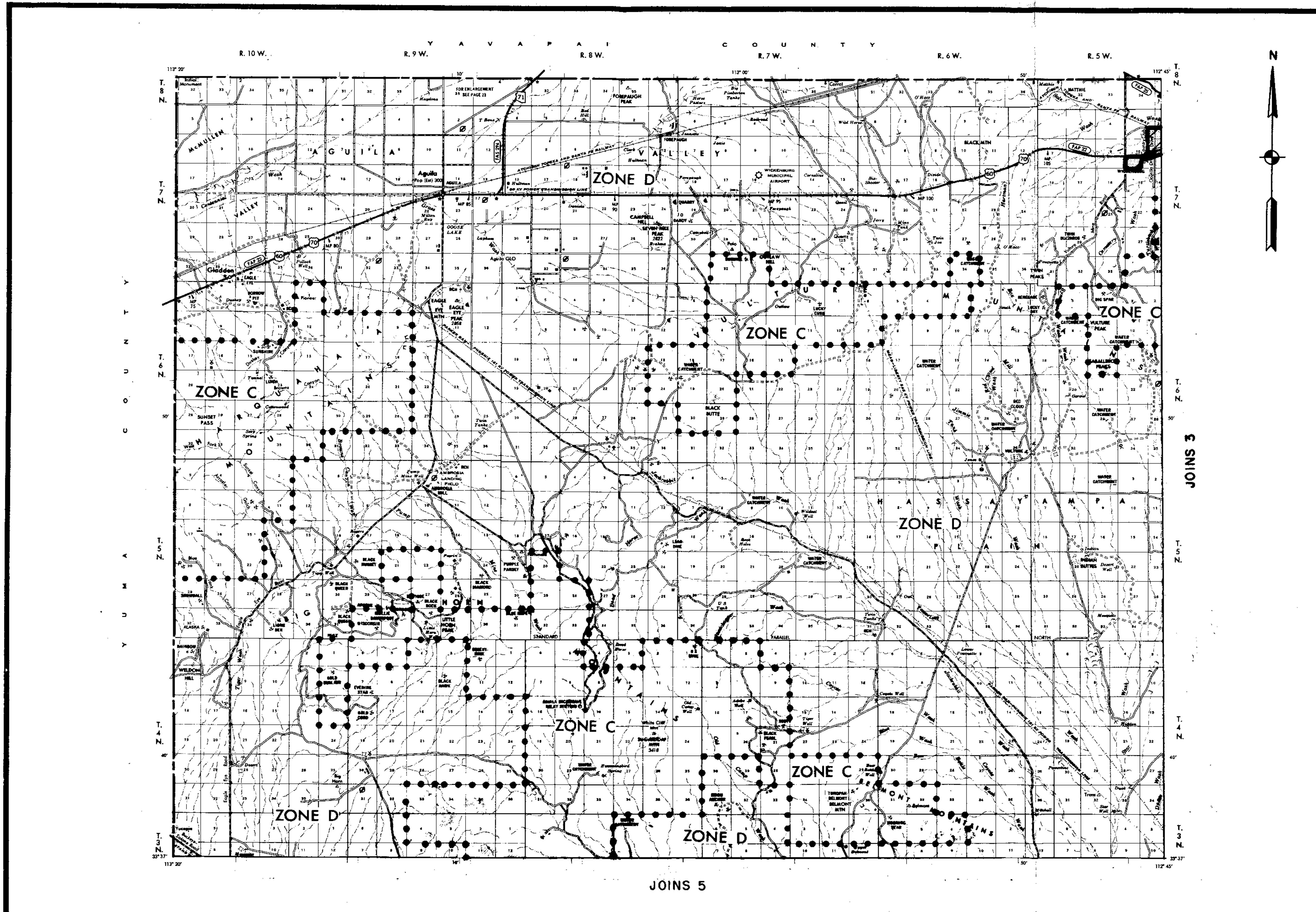
A typographical error in the subject report has been noticed. On page 13, BASE FLOOD WATER SURFACE ELEVATIONS, Cross Section No. 70, Elevation in Feet for Existing Conditions and with Allowable Encroachment should be 1118.5 and 1118.5, respectively, instead of 1115.5 and 1115.5. This information is forwarded to you for transmittal through OCE to the Federal Insurance Administration.

FOR THE DISTRICT ENGINEER:

GARTH A. FUQUAY
Chief, Engineering Division

Cy Furn:
Mr. James Attebery
City Engineer
700 Municipal Building
251 W. Washington Street
Phoenix, Arizona 85003

Mr. Herbert P. Donald
Chief Engineer & General Manager
Flood Control District of Maricopa County
3325 West Durango Street
Phoenix, Arizona 85009



APPROXIMATE SCALE

4 2 0 4 MILES

Effective Date : MARCH 1973

FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

JOINS 4

JOINS 6

JOINS 9

ZONE C

ZONE D

ZONE C

ZONE C

ZONE D

ZONE C

ZONE C

ZONE C

GOV'T. LAND NOT STUDIED D ZONE

N

APPROXIMATE SCALE
0 2 4 MILES

Effective Date:
MARCH 1973

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

5

JOINS 3

R. 5 W. | R. 4 W. | R. 3 W. | R. 2 W. | R. 1 W. | R. 1 E. | R. 2 E.

112° 45' | 40' | 30' | 112° 11' 50"

33° 37'

T. 3 N.

T. 2 N.

T. 1 N.

T. 1 S.

T. 2 S.

33° 14'

JOINS 5

JOINS 7

JOINS 8

ZONE D

ZONE C

ZONE D

GOV'T LANDS NOT STUDIED

D ZONE

ZONE D

ZONE C

ZONE C

ESTRELLA MOUNTAIN REGIONAL PARK

GOVERNMENT LAND NOT STUDIED

INDIAN D ZONE RESERVATION

GILA RIVER

PLATE 13

PLATE 14

PLATE 12

PLATE 15

Waddell

Sun City Pop (Est) 14505

Sun City West

Litchfield Park

Tolleson

Avondale

Goodyear

Buckeye

Youngtown

Sun City Pop (Est) 14505

Casa Grande Pop (Est) 14642

Santa Maria Pop (Est) 424

Litchfield Park Pop (Est) 1284

Phoenix-Litchfield Airport

Luke Air Force Base

Luke Auxiliary No. 1

Buckeye Municipal Airport

Buckeye Military Reservation

Luke Air Force Bombing Range No. 2

Petroglyphs

Powers Butte

Eagle Arm

Rainbow Valley

Estrella Mountain Regional Park

Gila River Indian Reservation

Microwave Radio Tower

Microwave Radio Towers

Water Tank

Detention Basin

Pipelines

Transmission Lines

Proposed Loop

Proposed Parkway

Proposed Levee

Proposed Channel

Proposed Dam

Proposed Reservoir

Proposed Pumping Station

Proposed Recreation Area

Proposed Wildlife Area

Proposed Bridge

Proposed Interchange

Proposed Grade Separation

Proposed Railroad

Proposed Trail

Proposed Aqueduct

Proposed Canal

Proposed Pipeline

Proposed Transmission Line

Proposed Power Transmission Line

Proposed Gas Transmission Line

Proposed Gas Pipeline

Proposed Oil Pipeline

Proposed Water Line

Proposed Sewer Line

Proposed Fence

Proposed Gate

Proposed Levee

Proposed Channel

Proposed Dam

Proposed Reservoir

Proposed Pumping Station

Proposed Recreation Area

Proposed Wildlife Area

Proposed Bridge

Proposed Interchange

Proposed Grade Separation

Proposed Railroad

Proposed Trail

Proposed Aqueduct

Proposed Canal

Proposed Pipeline

Proposed Transmission Line

Proposed Power Transmission Line

Proposed Gas Transmission Line

Proposed Gas Pipeline

Proposed Oil Pipeline

Proposed Water Line

Proposed Sewer Line

Proposed Fence

Proposed Gate

N

APPROXIMATE SCALE

0 2 4 MILES

Effective Date: MARCH 1973

FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

6

JOINS 2

JOINS 6

ZONE D

ZONE C

PHOENIX

PLATE H

GOVERNMENT LAND NOT STUDIED D ZONE

SALT RIVER INDIAN RESERVATION

FORT McDOWELL INDIAN RESERVATION

TONTO NATIONAL FOREST

SALT RIVER

VERDE RIVER

GILA RIVER INDIAN RESERVATION

SOUTH MOUNTAINS PARK

PHOENIX MOUNTAINS

AIR BASE

FINAL COUNTY

T. 3 N.
T. 2 N.
T. 1 N.
T. 1 S.
T. 2 S.

R. 2 E.
R. 3 E.
R. 4 E.
R. 5 E.
R. 6 E.
R. 7 E.

N

APPROXIMATE SCALE
4 0 2 4 MILES

600 000 FEET

Effective Date:
MARCH 1973

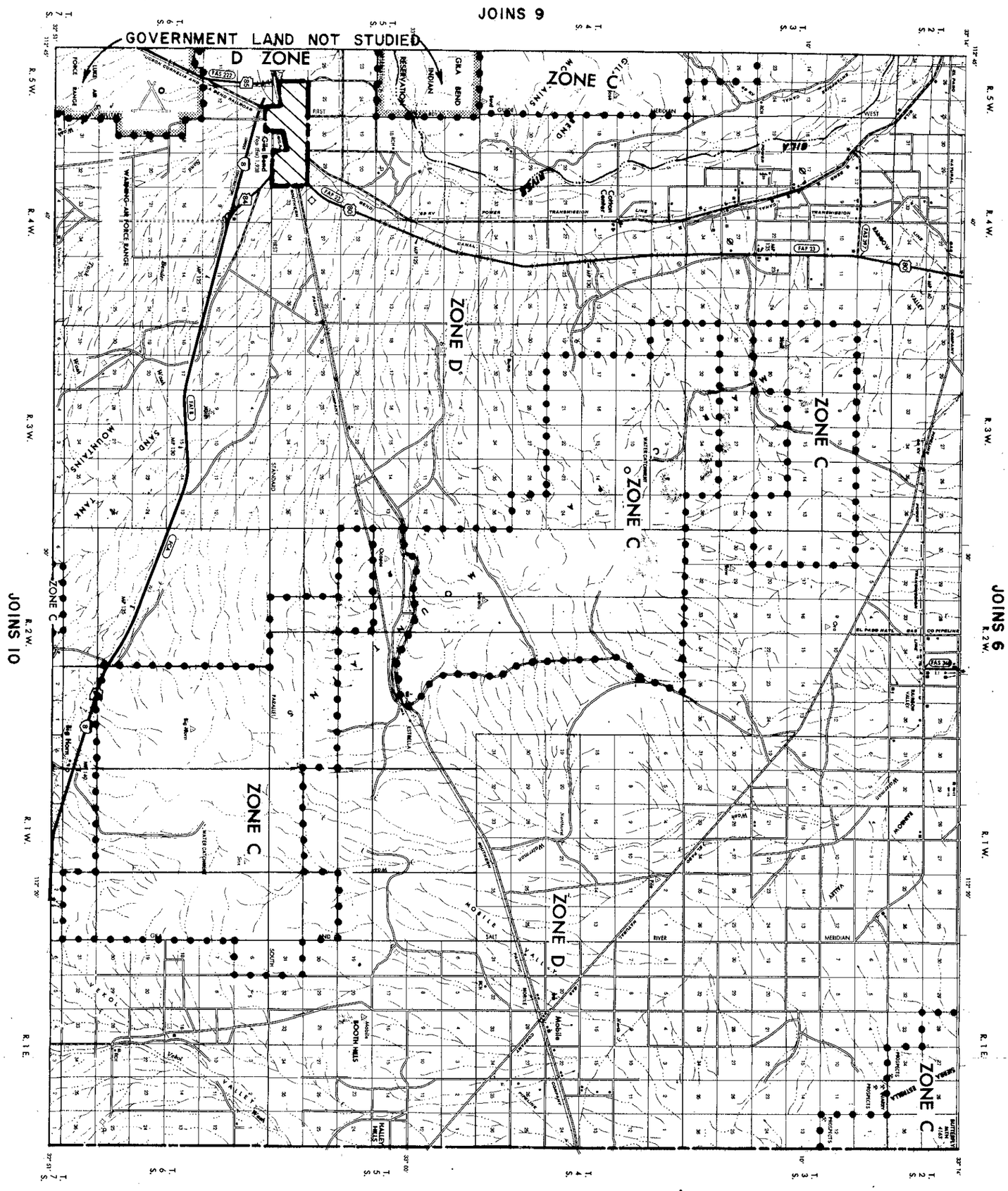
FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

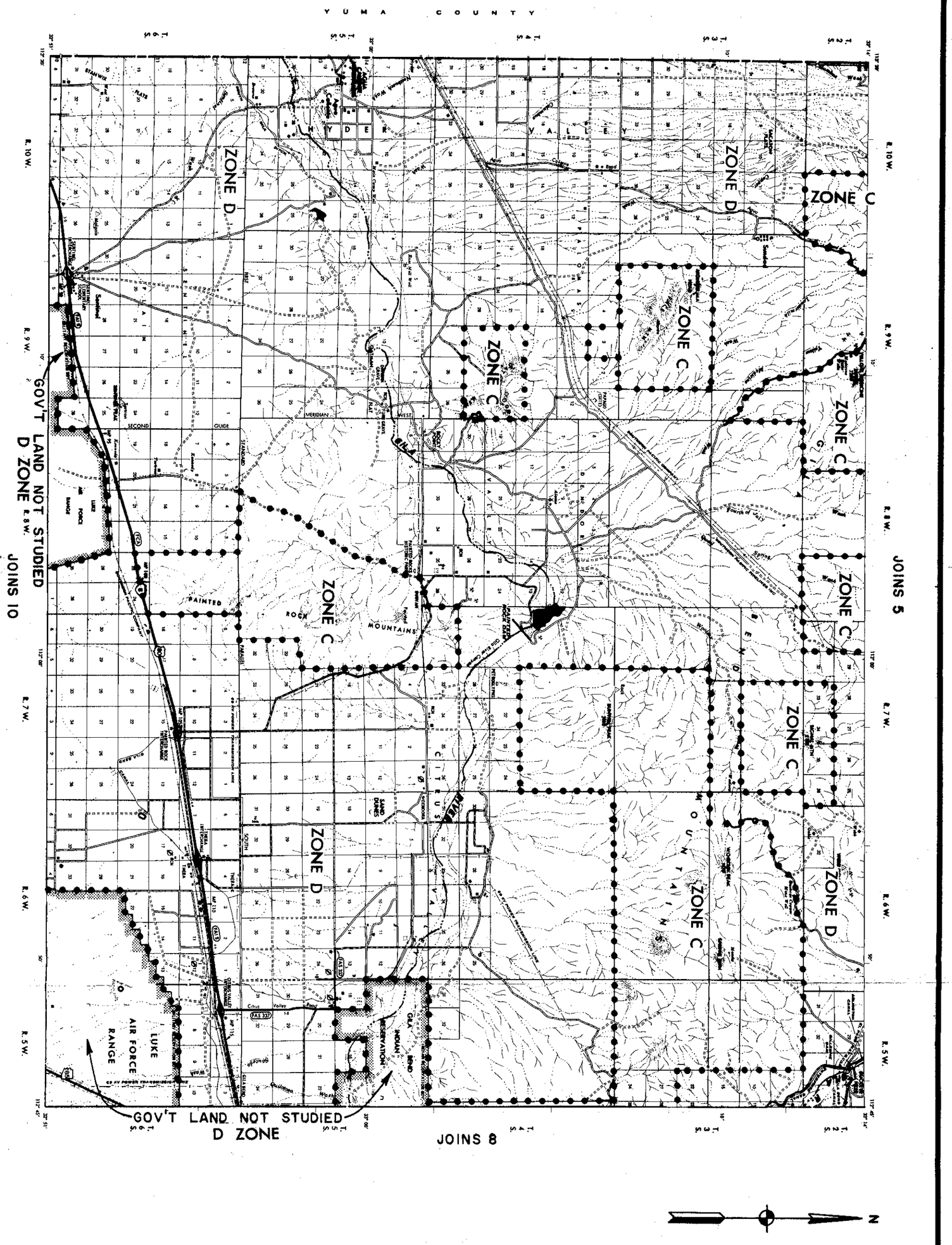
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

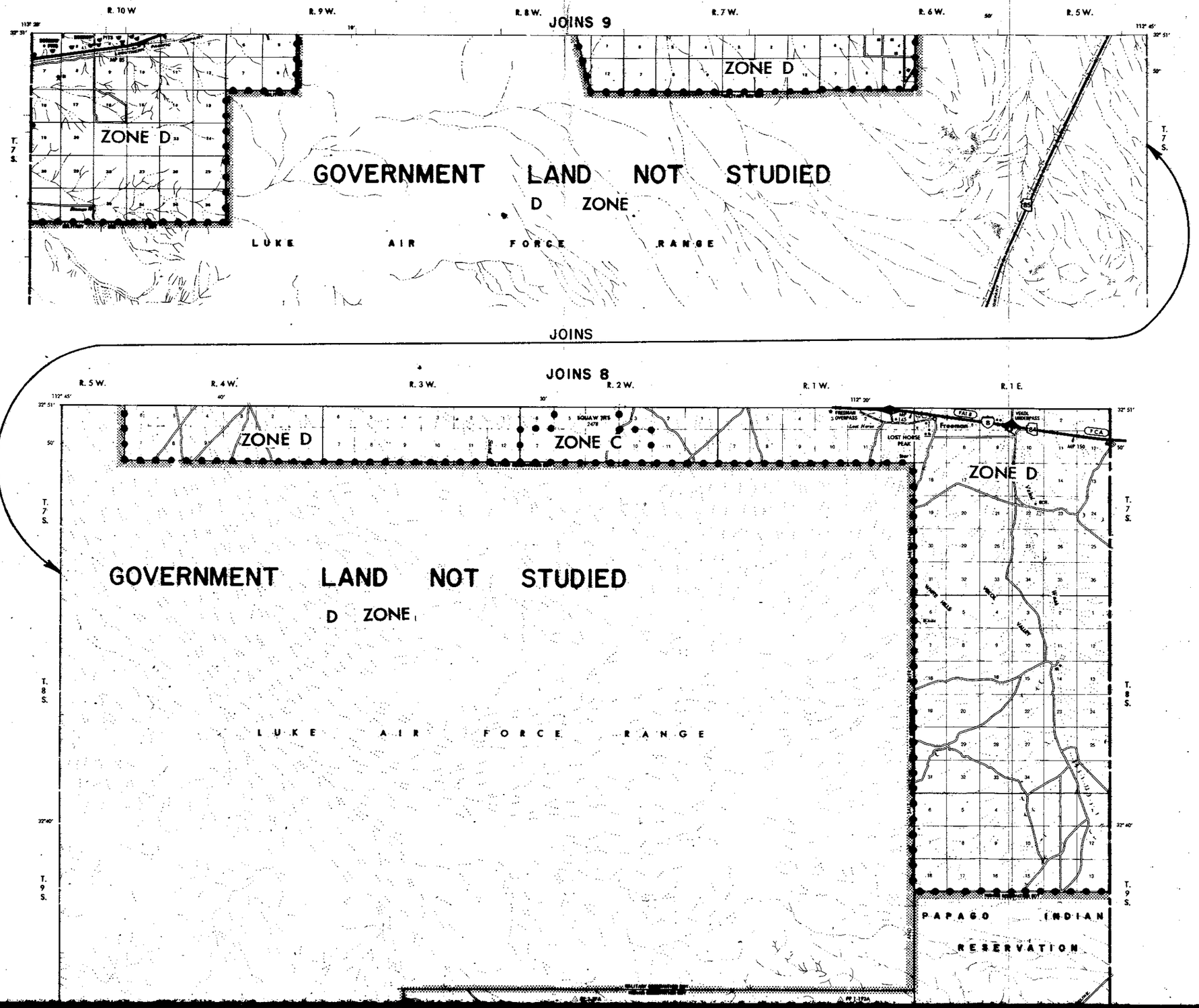
7

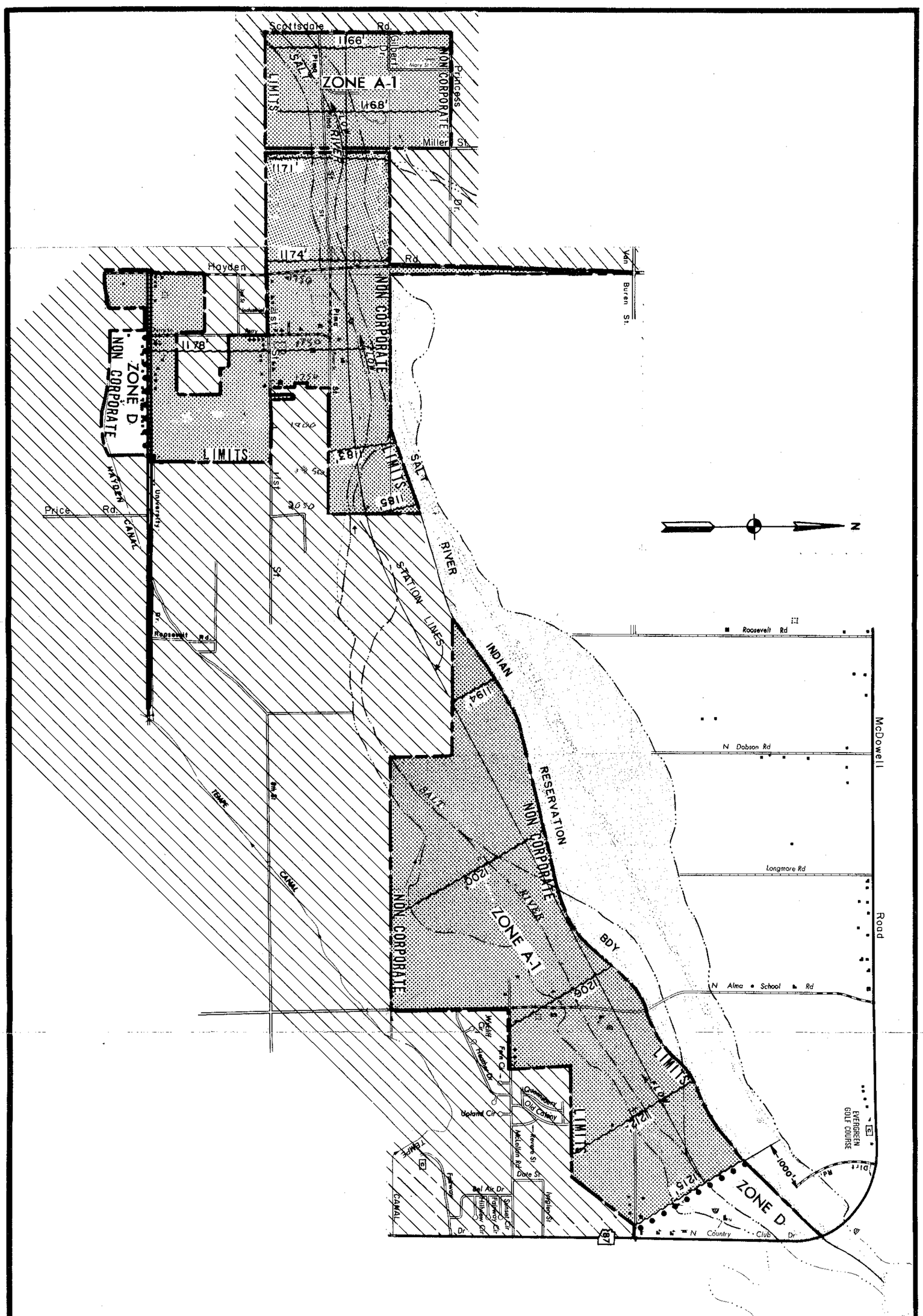


8	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration MARICOPA COUNTY, ARIZONA	APPROXIMATE SCALE 4 2 0 4 MILES		
		FIA FLOOD HAZARD BOUNDARY MAP	FIA FLOOD INSURANCE RATE MAP	Effective Date : MARCH 1973



6	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration MARICOPA COUNTY, ARIZONA	APPROXIMATE SCALE 4 2 0 4 MILES		
		FIA FLOOD HAZARD BOUNDARY MAP	FIA FLOOD INSURANCE RATE MAP	Effective Date : MARCH 1973


R. 10 W
R. 9 W.
R. 8 W.
R. 7 W.
R. 6 W.
R. 5 W.
JOINS 9
ZONE D
ZONE D
GOVERNMENT LAND NOT STUDIED
D ZONE
LUKE AIR FORCE RANGE
T. 7 S.
JOINS
JOINS 8
R. 5 W.
R. 4 W.
R. 3 W.
R. 2 W.
R. 1 W.
R. 1 E.
ZONE D
ZONE C
ZONE D
GOVERNMENT LAND NOT STUDIED
D ZONE
LUKE AIR FORCE RANGE
PAPAGO INDIAN RESERVATION
T. 7 S.
T. 8 S.
T. 9 S.
N
APPROXIMATE SCALE
4 MILES
0
2
4
Effective Date : MARCH 1973
FIA FLOOD INSURANCE RATE MAP
FIA FLOOD HAZARD BOUNDARY MAP
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration
MARICOPA COUNTY, ARIZONA
10



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

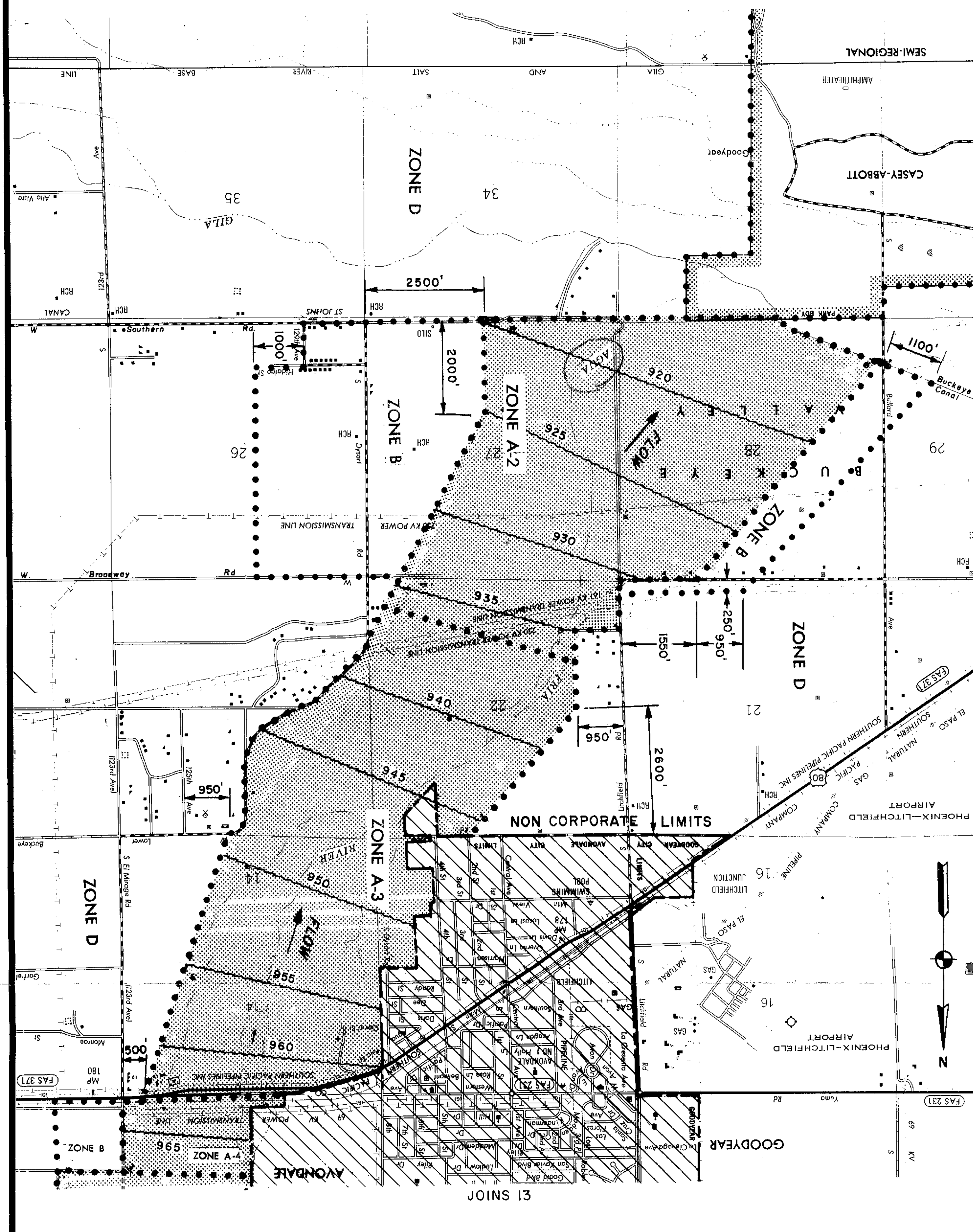
MARICOPA COUNTY, ARIZONA

APPROXIMATE SCALE
1000 0 2000 4000 FEET

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

Effective Date :
MARCH 1973



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

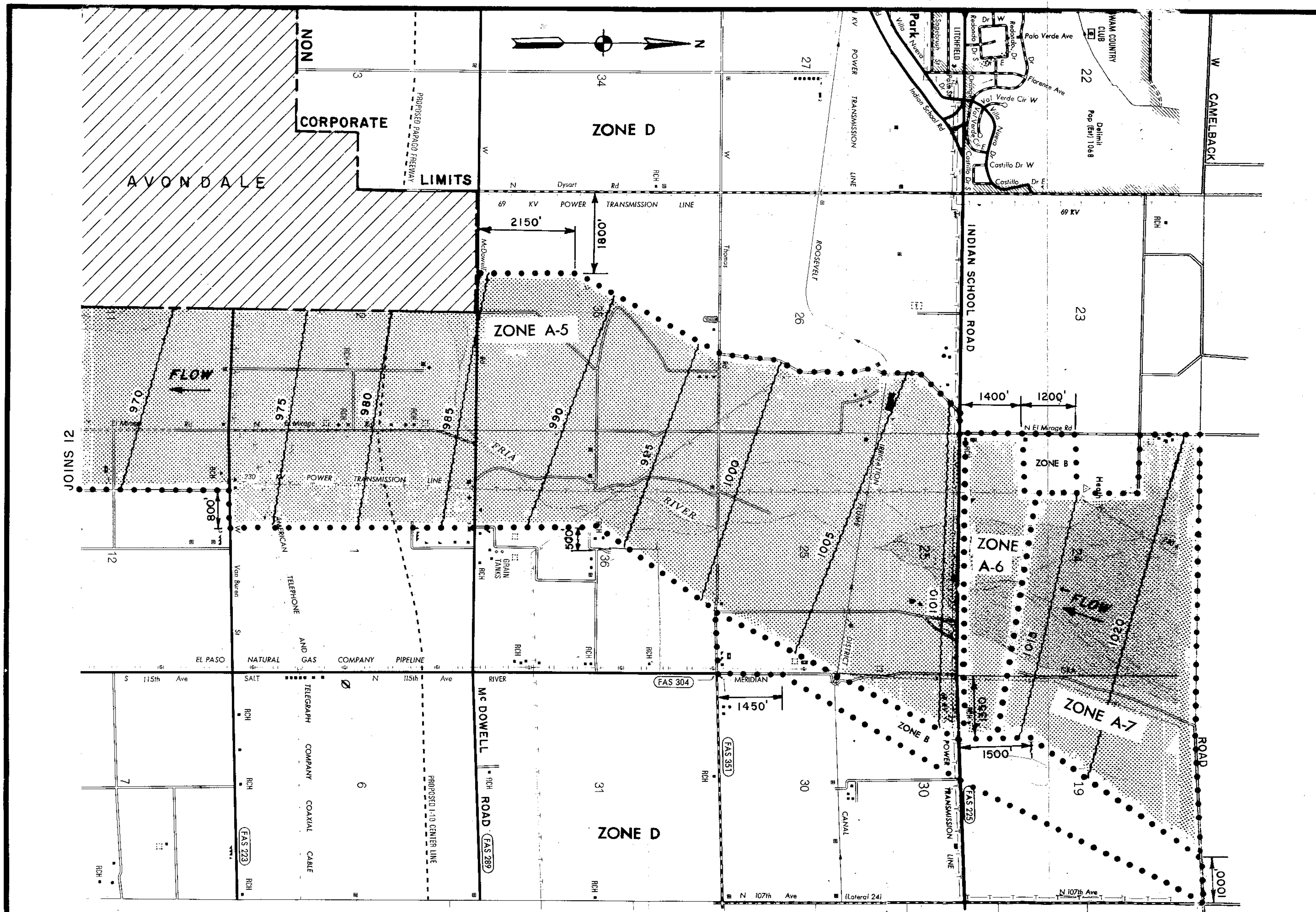
MARICOPA COUNTY, ARIZONA

APPROXIMATE SCALE
1000 0 2000 4000 FEET

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

Effective Date :
MARCH 1973



NON
CORPORATE
LIMITS
AVONDALE
ZONE D
ZONE A-5
ZONE A-6
ZONE A-7
ZONE B
FLOW
JOINS 12
INDIAN SCHOOL ROAD
McDOWELL ROAD
CAMELBACK
69 KV POWER TRANSMISSION LINE
230 KV POWER TRANSMISSION LINE
EL PASO NATURAL GAS COMPANY PIPELINE
AMERICAN TELEPHONE AND TELEGRAPH COMPANY COAXIAL CABLE
PROPOSED PAPAGO FREEWAY
PROPOSED I-10 CENTER LINE
FRIA RIVER
ROOSEVELT
IRRIGATION DISTRICT
SALT RIVER MERIDIAN
FAS 304
FAS 351
FAS 225
FAS 223
FAS 289
WAM COUNTRY CLUB
LITCHFIELD
Palo Verde Ave
Florence Ave
Castillo Dr W
Delimit Pop (Est) 1068
2150'
1800'
800'
500'
1400'
1200'
1450'
1500
1000'
970
975
980
985
990
995
1000
1005
1010
1015
1020

APPROXIMATE SCALE

1000 0 2000 4000 FEET

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

Effective Date : MARCH 1973

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

JOINS 15

ZONE A-8

ZONE B

ZONE D

ZONE D

ZONE D

1090'

1085'

1080'

1075'

1070'

1065'

1060'

1055'

1500'

2000'

1800'

1400'

800'

1000'

2000'

2000

1500'

FLOW

FLOW

W. Northern Ave

W. Glendale Ave.

W Bethany Home Rd

W Camelback Rd

FAS 227

FAS 381

FAS 241

FAS 399

107th Ave

91st Ave

99th Ave

83rd Ave

69 KV POWER TRANSMISSION LINE

GRAND CANAL

RIVER

AGUA FRIA RIVER

NEW RIVER

EL PASO NATURAL GAS COMPANY PIPELINE

APPROXIMATE SCALE
1000 0 2000 4000 FEET

N

Effective Date :
MARCH 1973

FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

14

ZONE D

W. Thunderbird Rd.

MP 146

AND SANTA FE RAILWAY

FAP 22

CITY OF YOUNGSTOWN LIMITS

Sun City
Pop (Est) 14505

MP 148

69 KV POWER TRANSMISSION LINE

Delimit Pop (Est)
4790

230 KV POWER TRANSMISSION LINE

EL SOL 69 KV W.

EL PASO NATURAL GAS

JOINS 14

2000'

1500'

1165'

1160'

1155'

1150'

1145'

1140'

2500'

1135'

1130'

1000'

1125'

1120'

1115'

1110'

1105'

1100'

1095'

500'

500'

1000'

1500'

FLOW

ZONE A-8

ZONE D

CITY OF PEORIA LIMITS

NON CORPORATE

CORPORATE

CITY OF PEORIA

RAILWAY

N

APPROXIMATE SCALE
0 2000 4000 FEET

Effective Date:
MARCH 1973

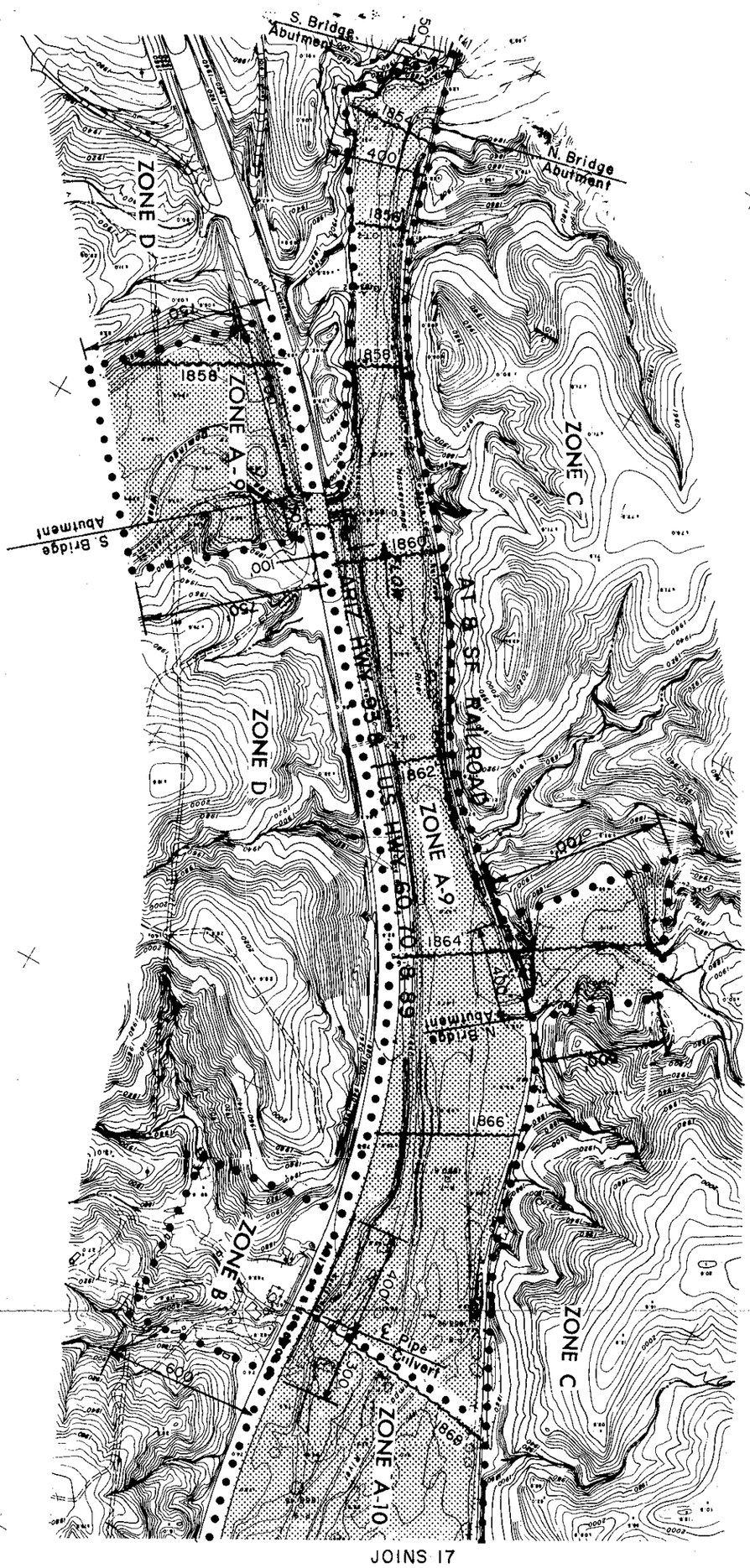
FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

15



JOINS 17

19	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration MARICOPA COUNTY, ARIZONA	APPROXIMATE SCALE 500 0 500 1000 FEET		
		FIA FLOOD HAZARD BOUNDARY MAP	FIA FLOOD INSURANCE RATE MAP	Effective Date : MARCH 1973

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

Effective Date :
MARCH 1973

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

17

APPROXIMATE SCALE
500 0 500 1000 FEET

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

Effective Date:
MARCH 1973

APPROXIMATE SCALE
500 0 500 1000 FEET

Effective Date:
MARCH 1973

FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

19

APPROXIMATE SCALE
500 0 1000 FEET

FIA FLOOD INSURANCE RATE MAP

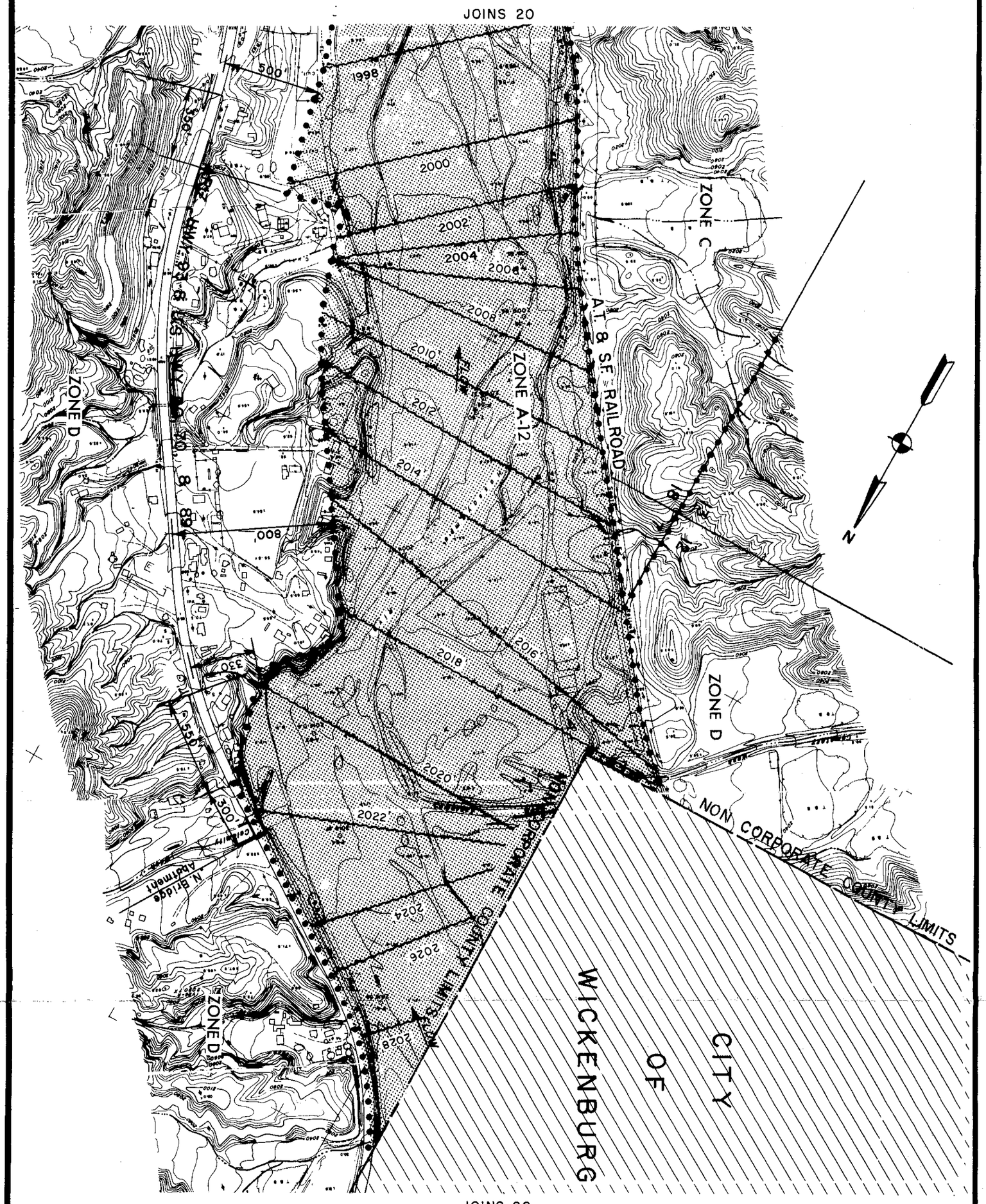
Effective Date:
MARCH 1973

FIA FLOOD HAZARD BOUNDARY MAP

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

20



21	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration MARICOPA COUNTY, ARIZONA	APPROXIMATE SCALE 500 0 500 1000 FEET		
		FIA FLOOD HAZARD BOUNDARY MAP	FIA FLOOD INSURANCE RATE MAP	Effective Date : MARCH 1973

CITY OF WICKENBURG

U.S. HWY. 60 & 70

TEGNER ST.

U.S. HWY 89 & 93

CENTER ST.

JOINS 21

JOINS 23

HASSAYAMPA RIVER

FLOW

BURTON RD

CONSTITUTION RD.

ARIZ. HWY 93 & U.S. 60, 70, & 89

NON CORPORATE COUNTY LIMITS

ZONE D

ZONE A-13

2052

2054

2056

2058

2060

FLOW

405

N

APPROXIMATE SCALE
0 500 1000 FEET

Effective Date:
MARCH 1973

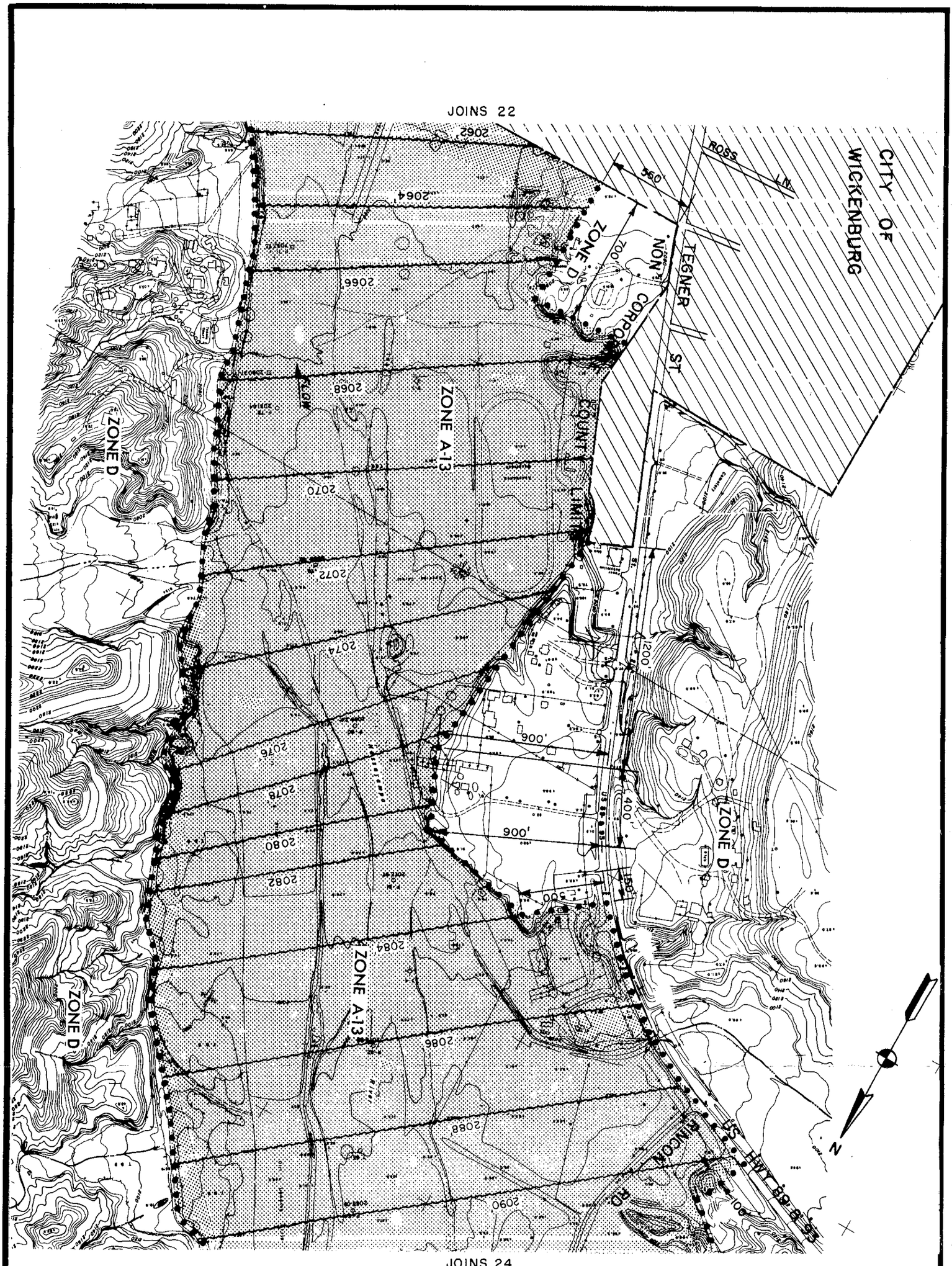
FIA FLOOD INSURANCE RATE MAP

FIA FLOOD HAZARD BOUNDARY MAP

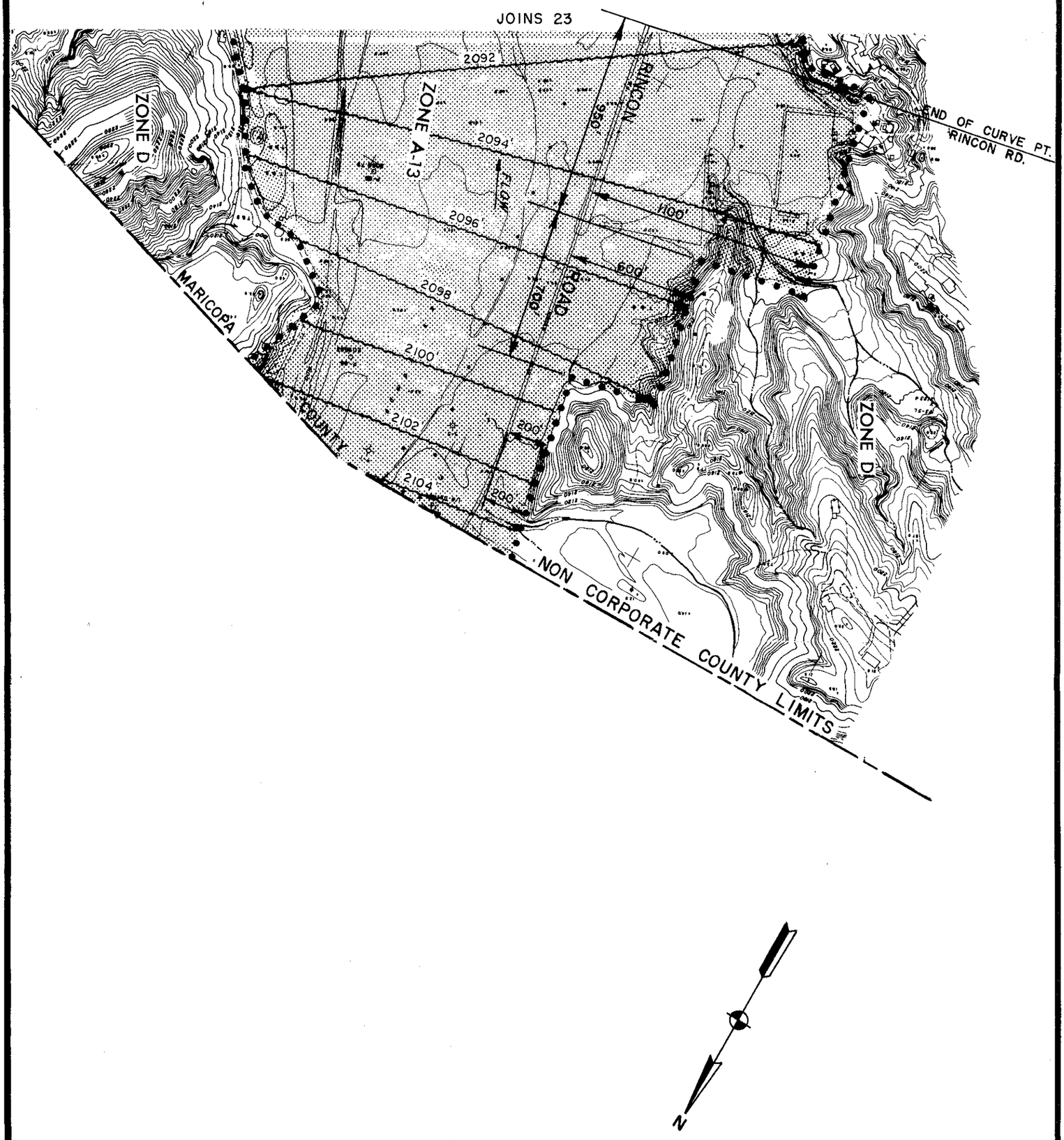
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

MARICOPA COUNTY, ARIZONA

22



23	DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT Federal Insurance Administration MARICOPA COUNTY, ARIZONA	APPROXIMATE SCALE 500 0 500 1000 FEET		
		FIA FLOOD HAZARD BOUNDARY MAP	FIA FLOOD INSURANCE RATE MAP	Effective Date : MARCH 1973



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

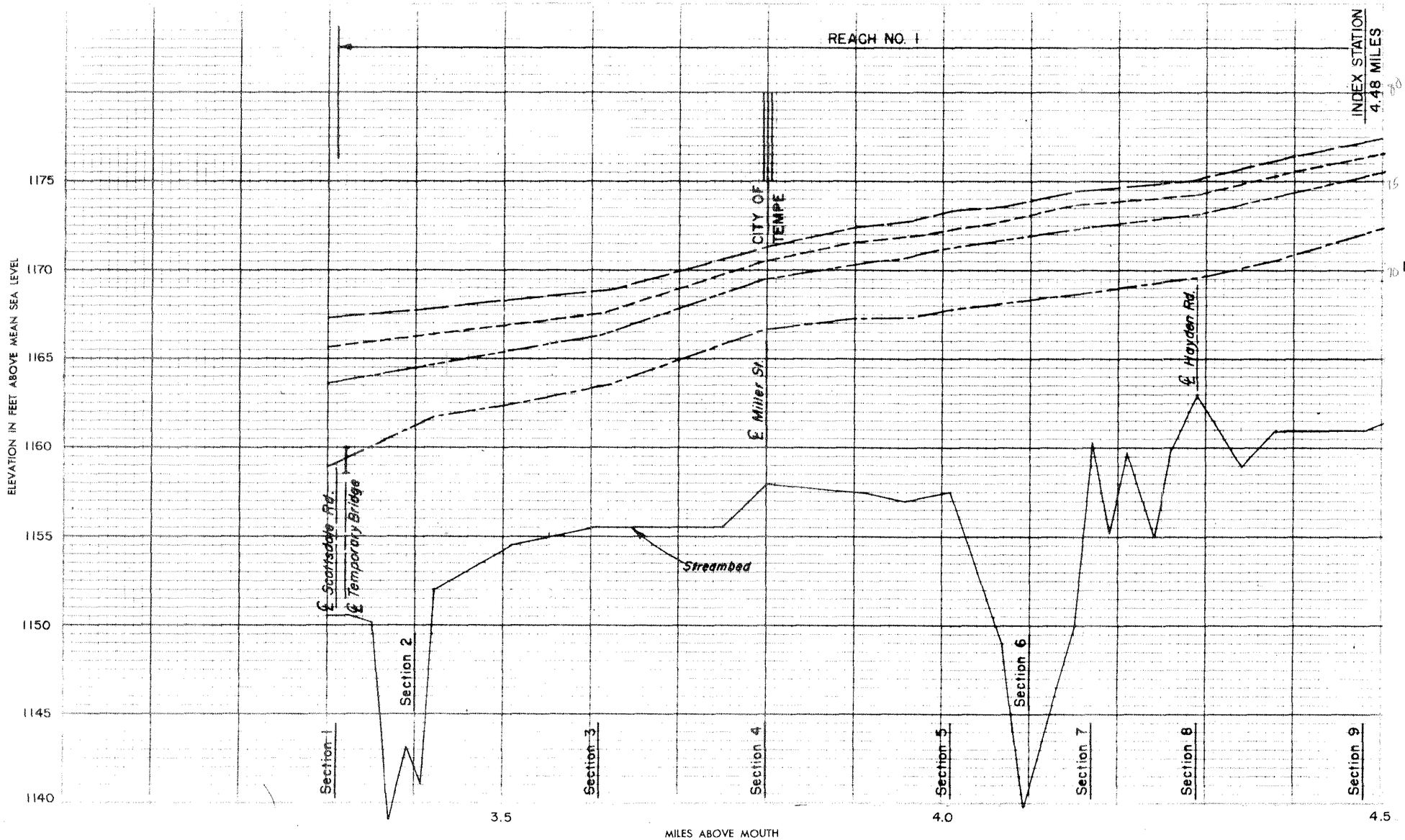
MARICOPA COUNTY, ARIZONA

APPROXIMATE SCALE
500 0 500 1000 FEET

FIA FLOOD HAZARD BOUNDARY MAP

FIA FLOOD INSURANCE RATE MAP

Effective Date :
MARCH 1973



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate 11 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

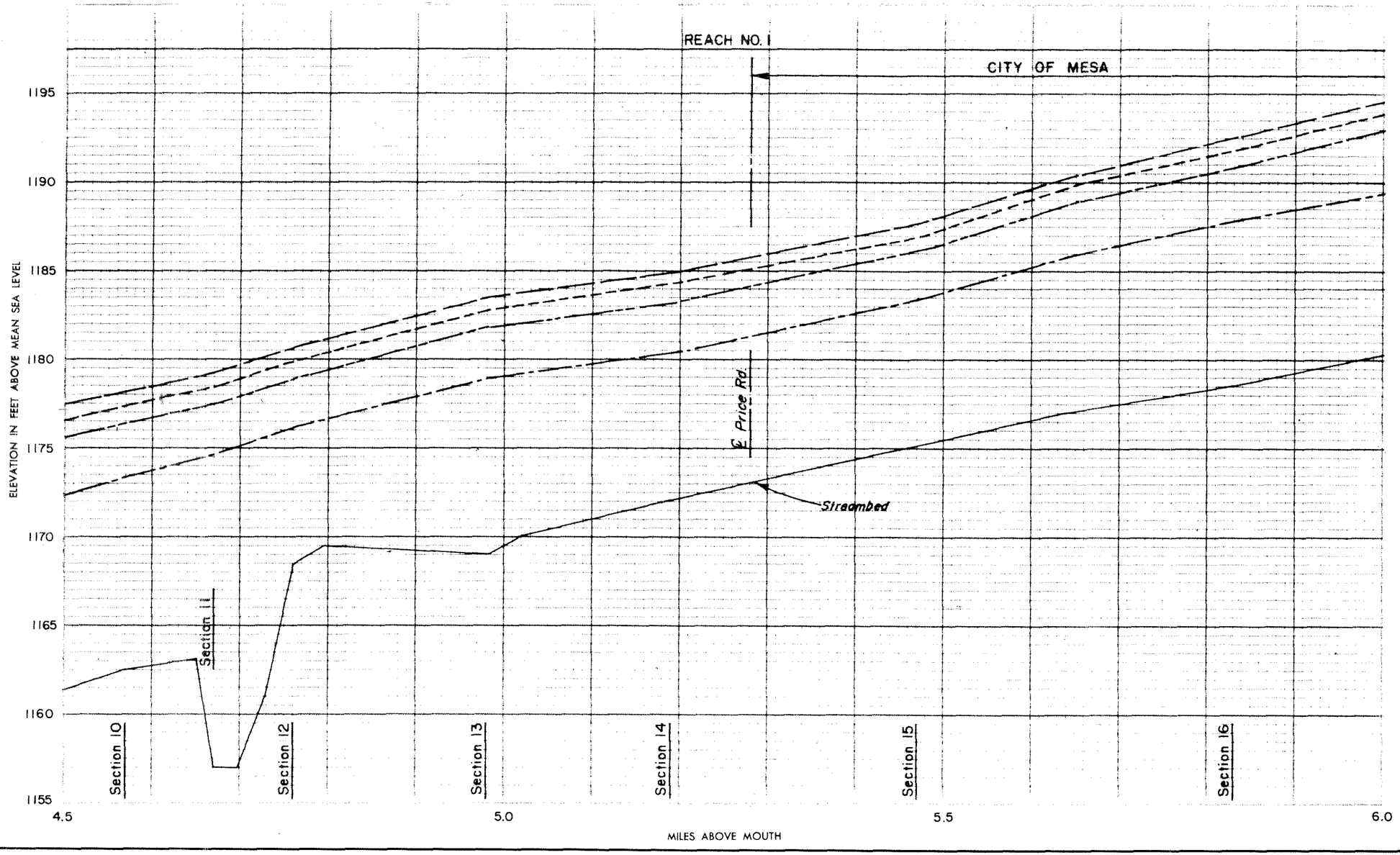
FLOOD PROFILES

SALT RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 25



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate 11 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

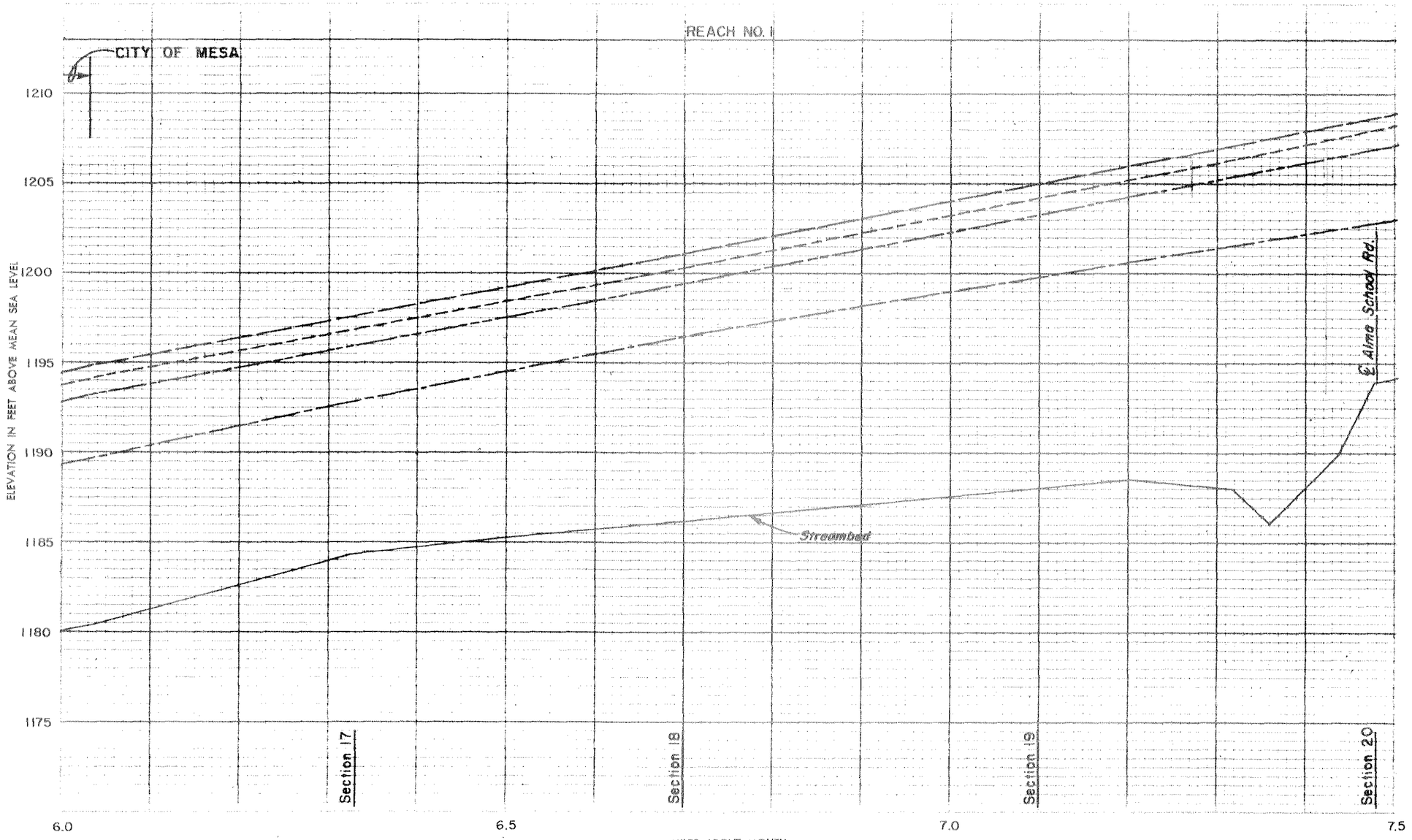
FLOOD PROFILES

SALT RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 26



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate II for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

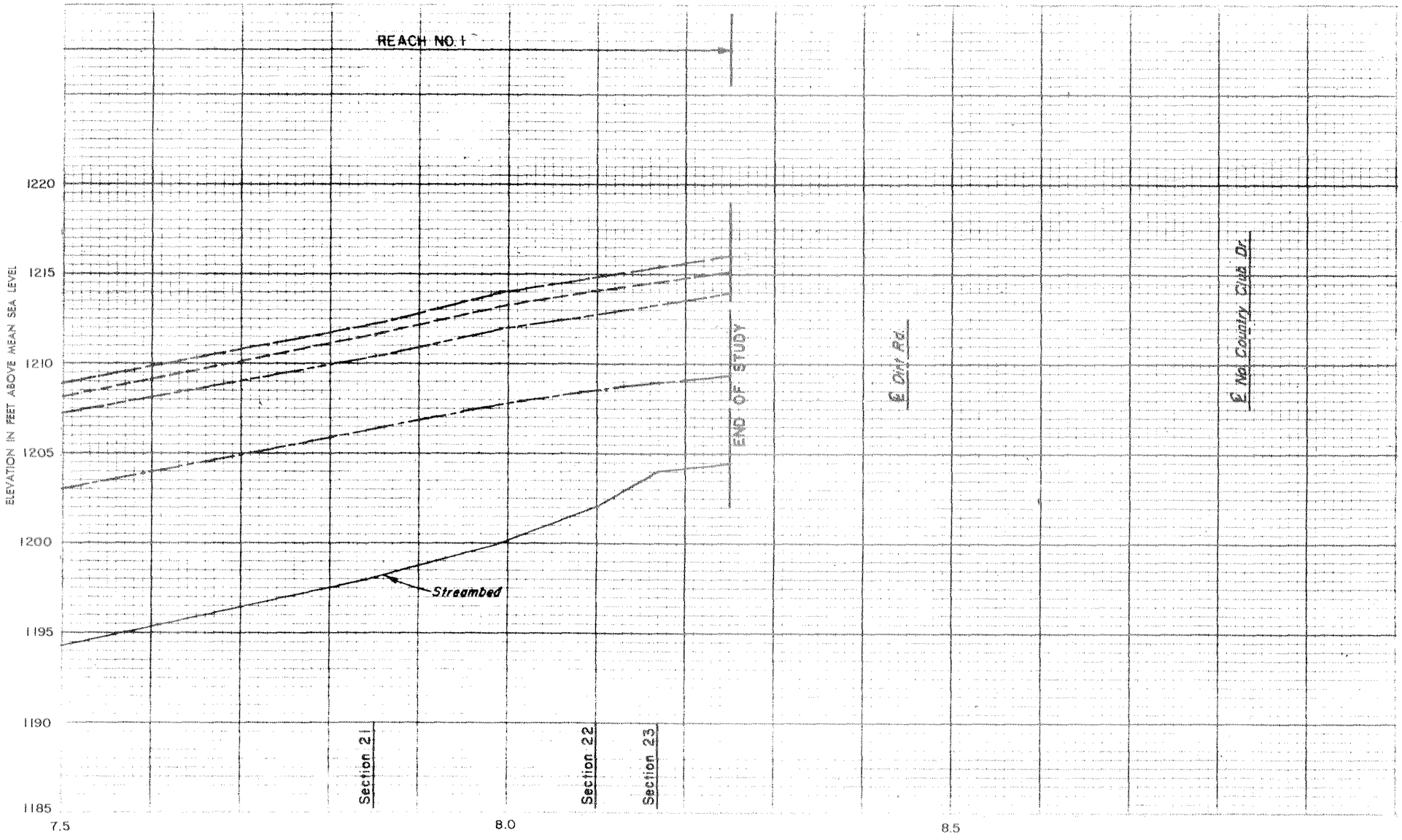
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

SALT RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate II for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

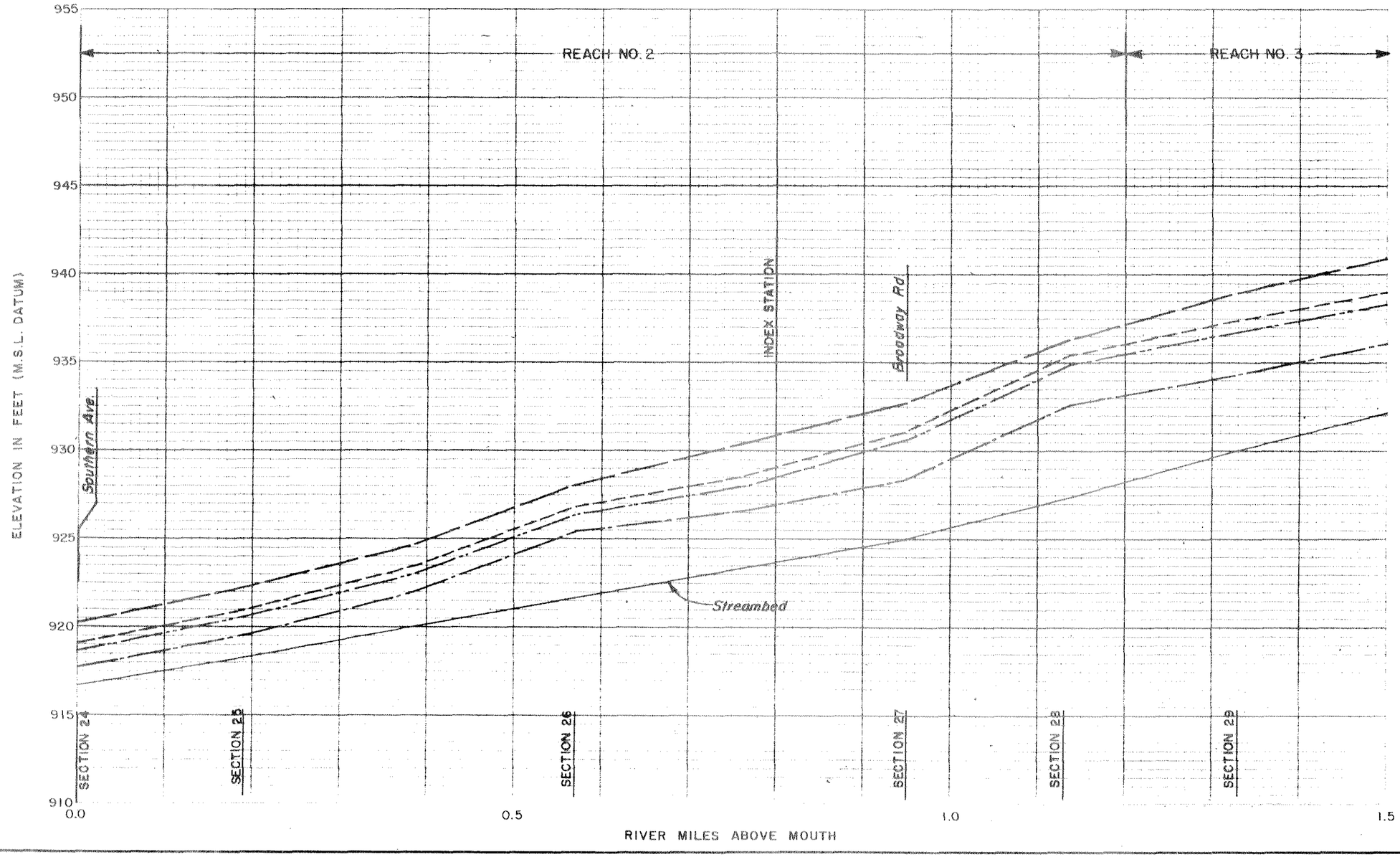
FLOOD PROFILES

SALT RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 28



LEGEND

- Standard Project Flood
- 100-Year Flood
- 50-Year Flood
- 10-Year Flood
- Bridge Floor
- Low Steel

NOTE:
See Plate 12 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

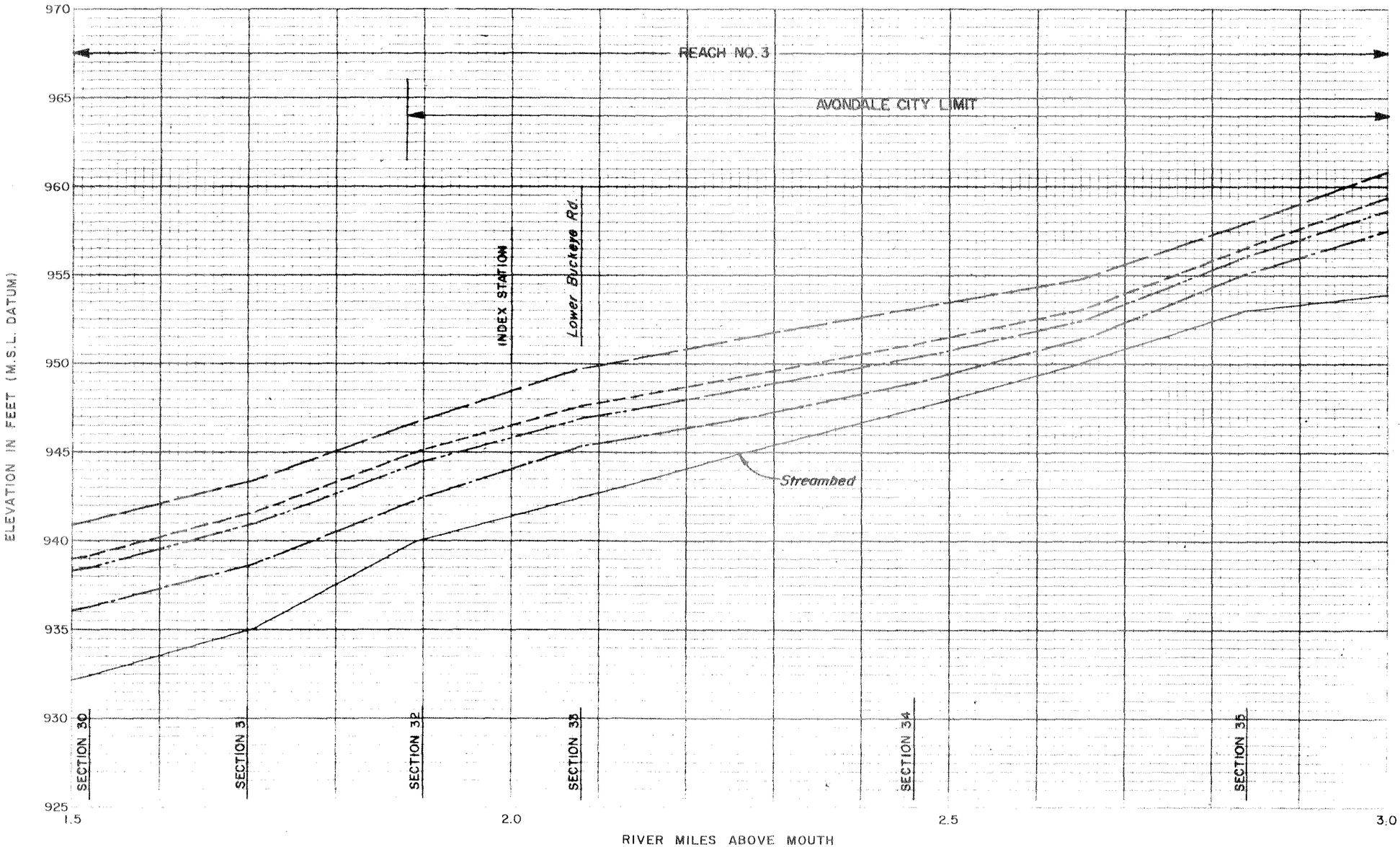
FLOOD PROFILES

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 29



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate 12 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

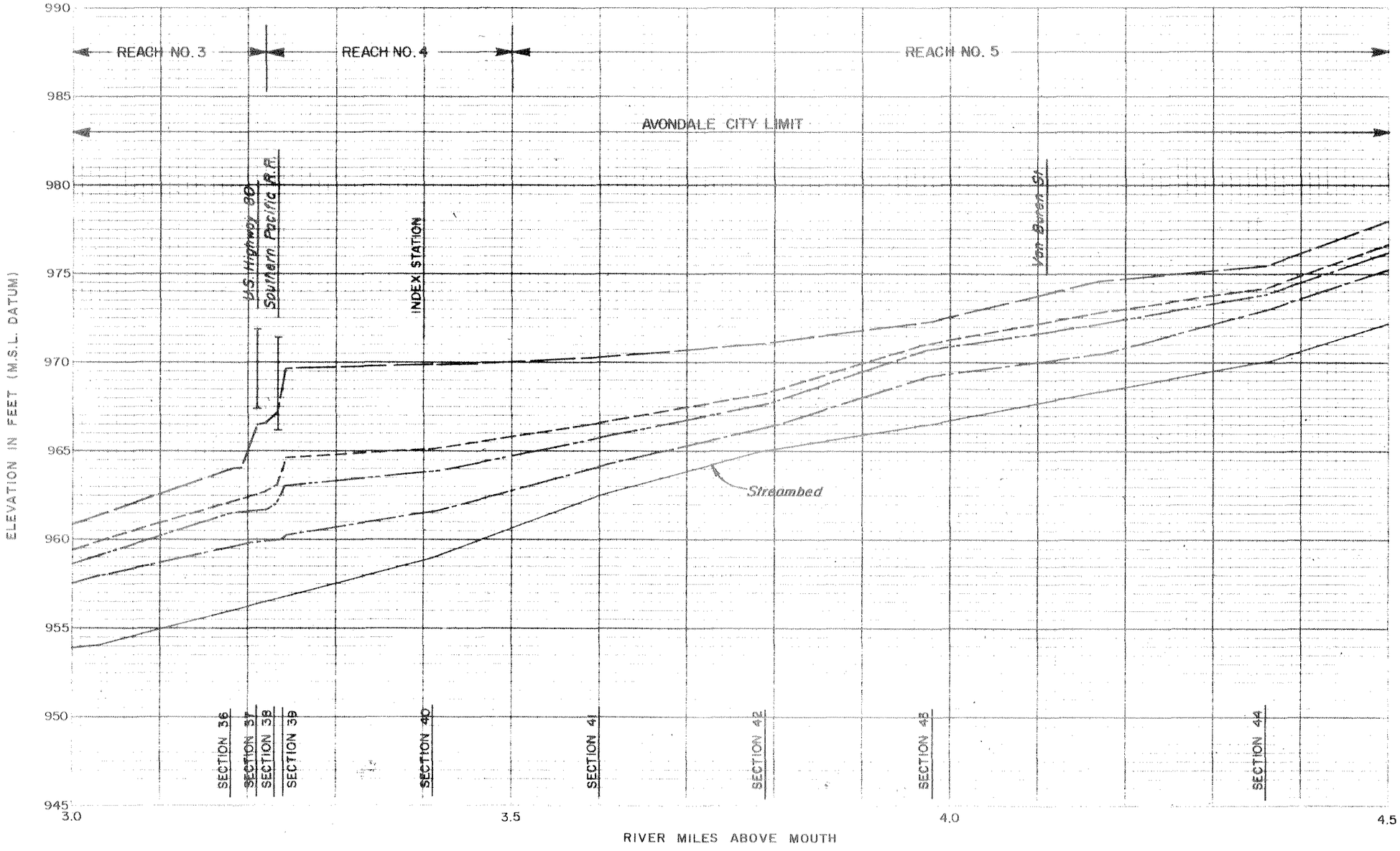
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plates 12 & 13 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

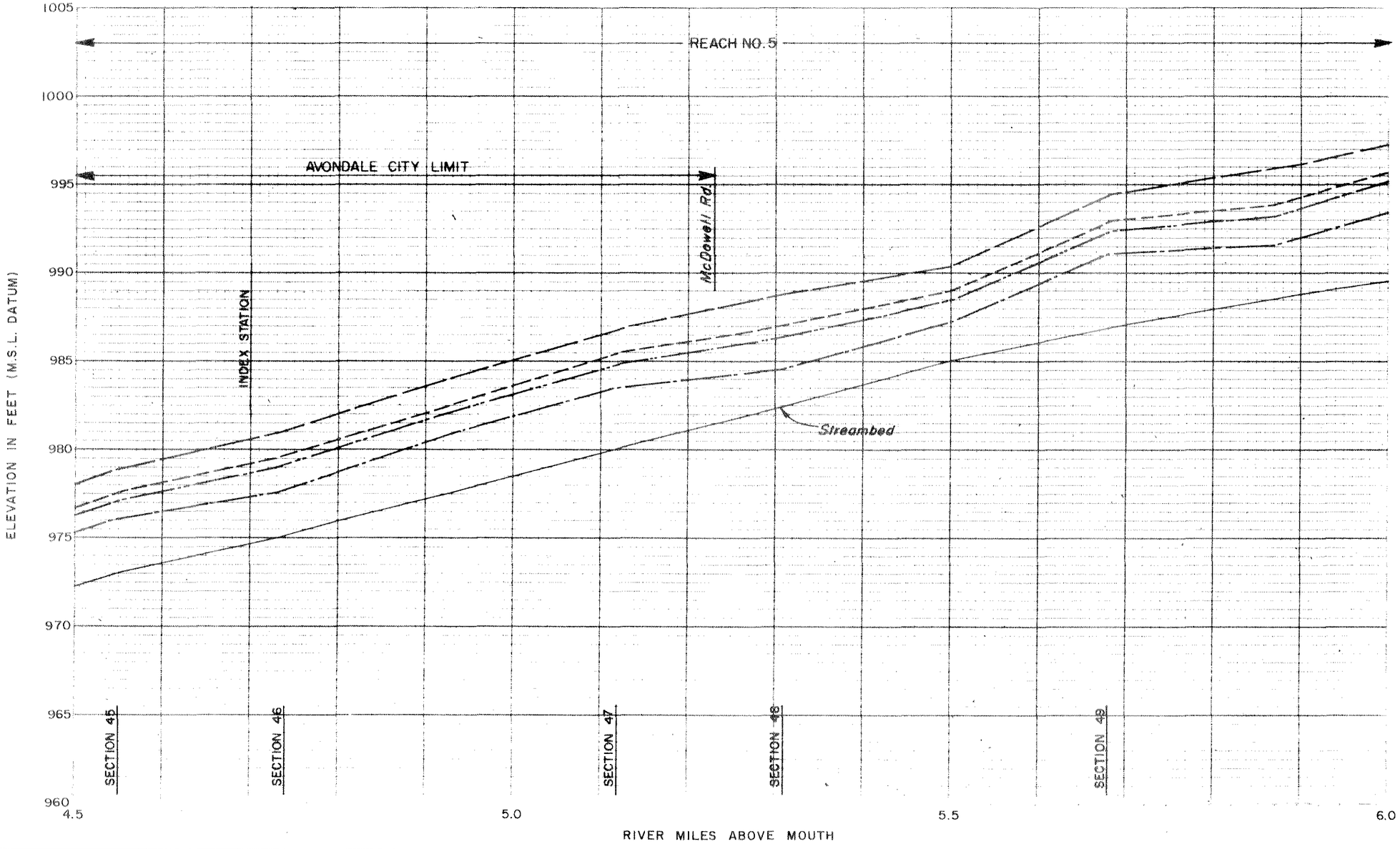
FLOOD PROFILES

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 31



LEGEND

- Standard Project Flood
- 100-Year Flood
- 50-Year Flood
- 10-Year Flood
- Bridge Floor
- Low Steel

NOTE:
See Plate 13 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

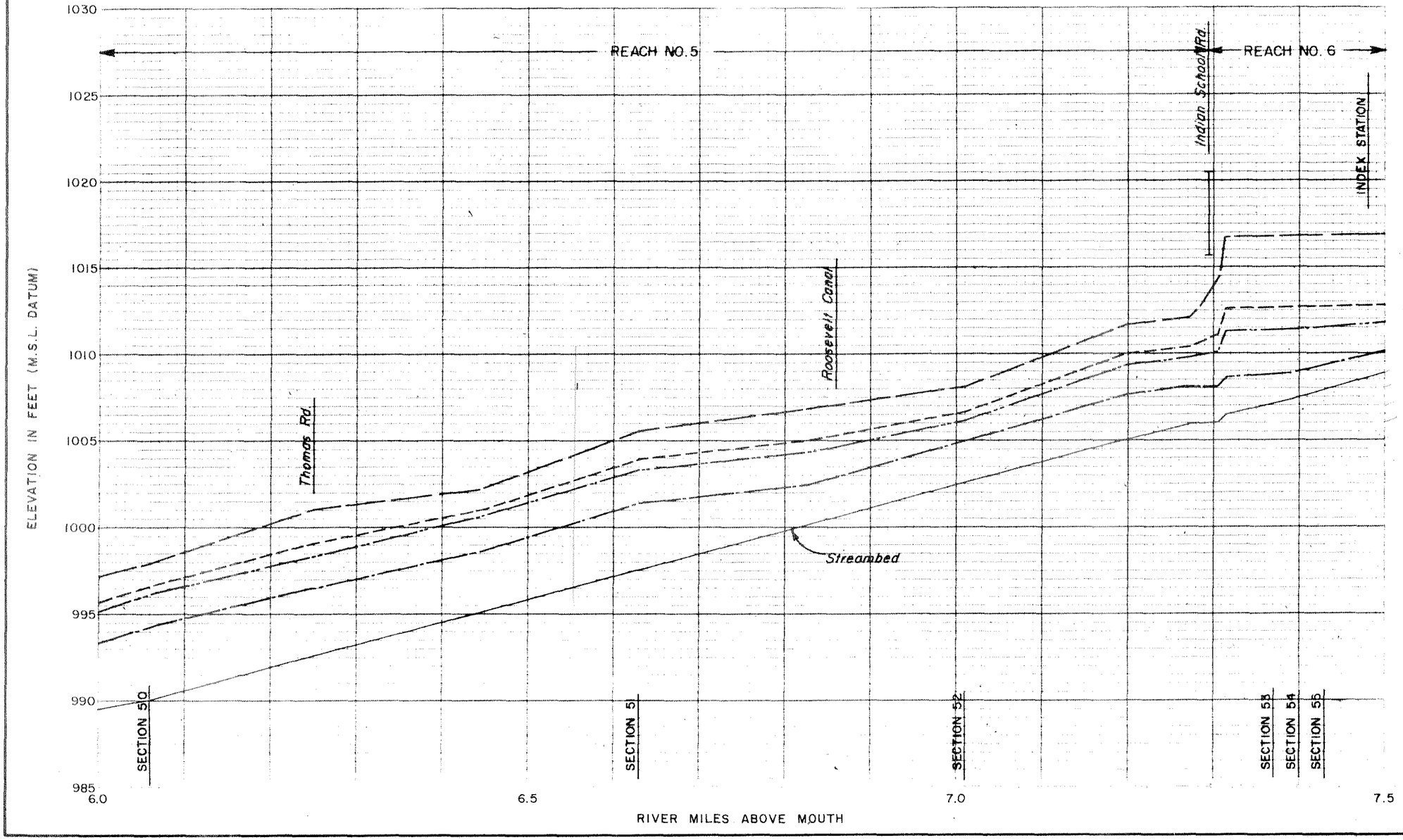
FLOOD PROFILES

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 32



LEGEND

- Standard Project Flood
- 100-Year Flood
- 50-Year Flood
- 10-Year Flood
- Bridge Floor
- Low Steel

NOTE:
See Plate 13 for Location

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

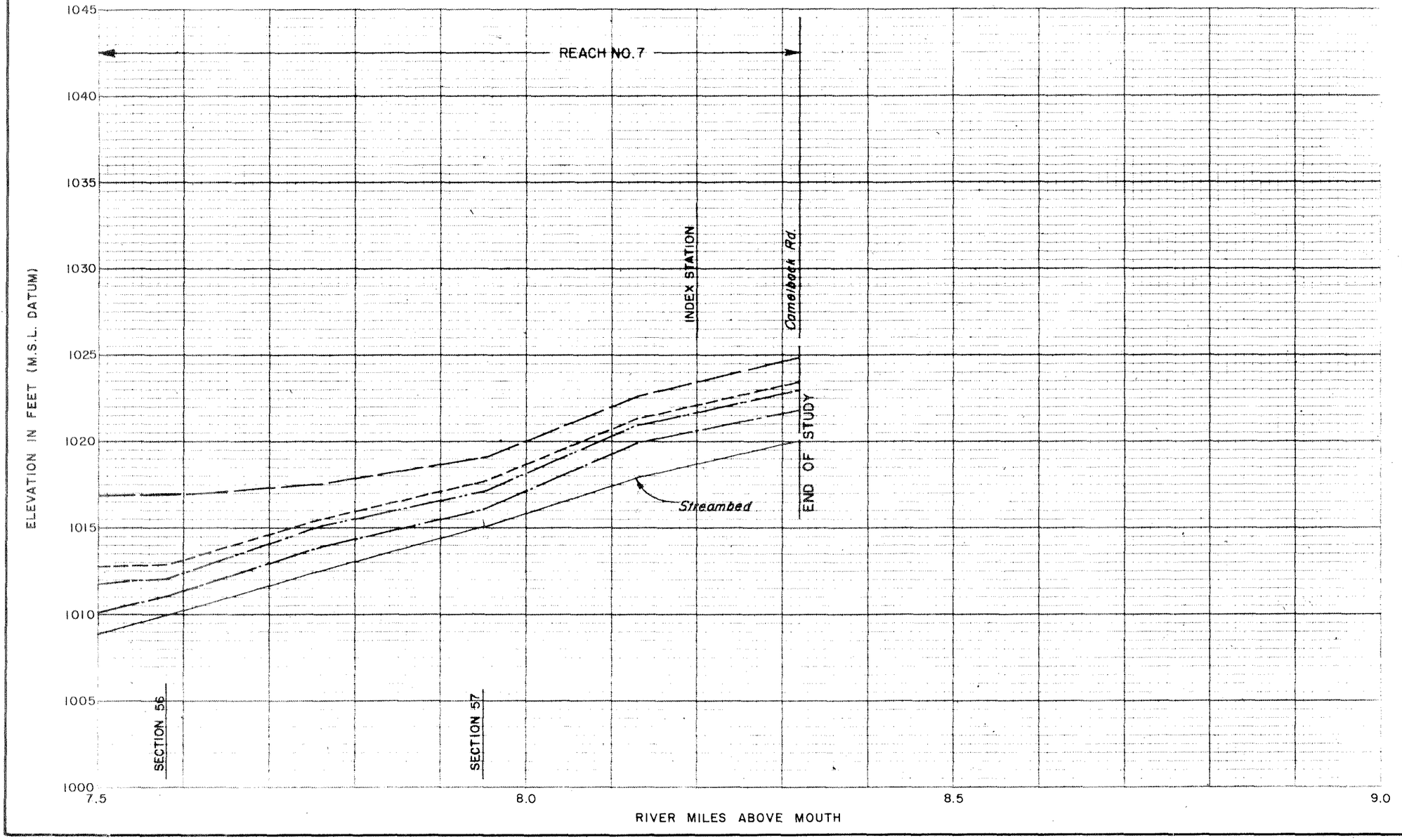
FLOOD PROFILES

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 33



LEGEND

- Standard Project Flood
- 100-Year Flood
- 50-Year Flood
- 10-Year Flood
- Bridge Floor
- Low Steel

NOTE:
See Plate 13 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

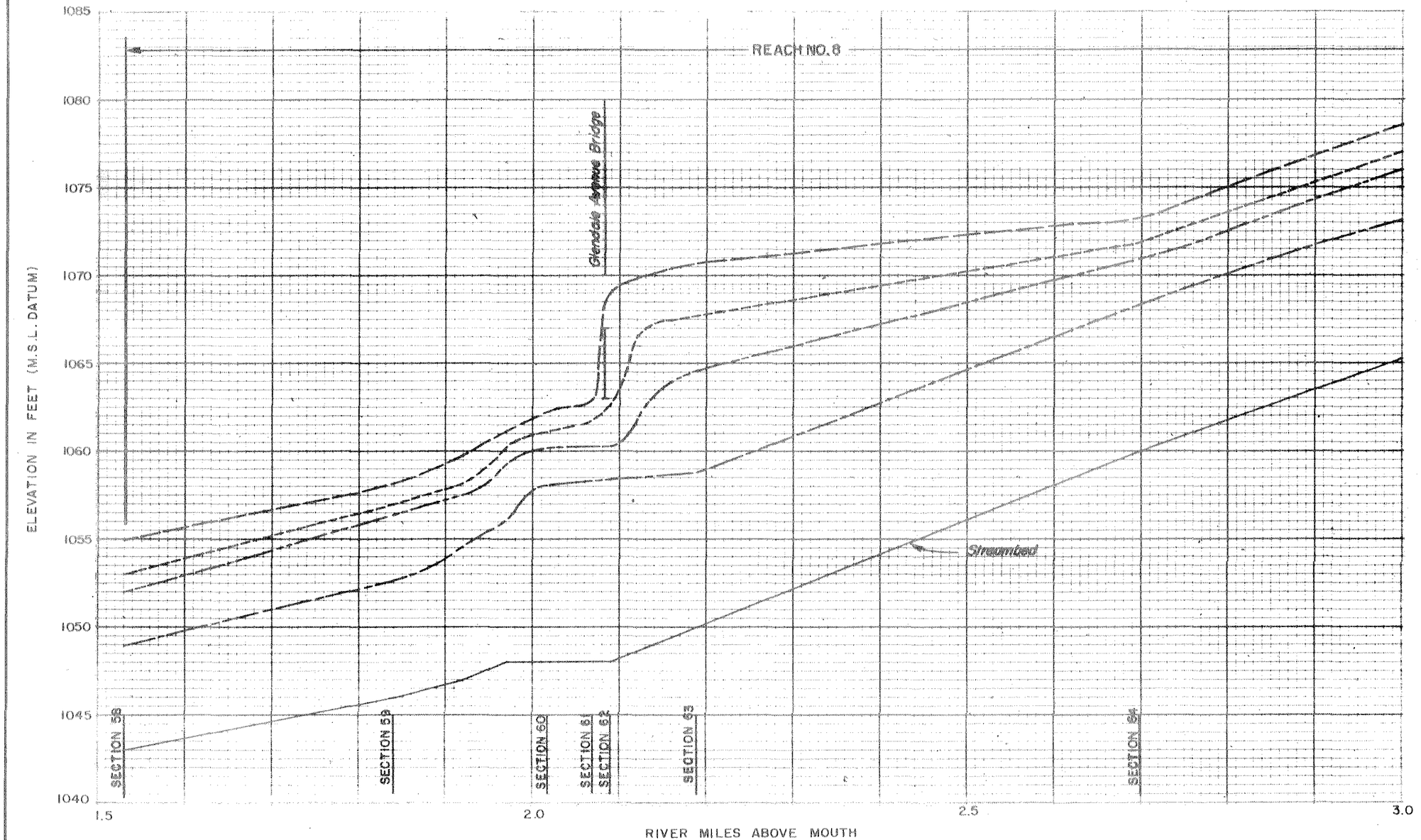
FLOOD PROFILES

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 34



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate 14 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

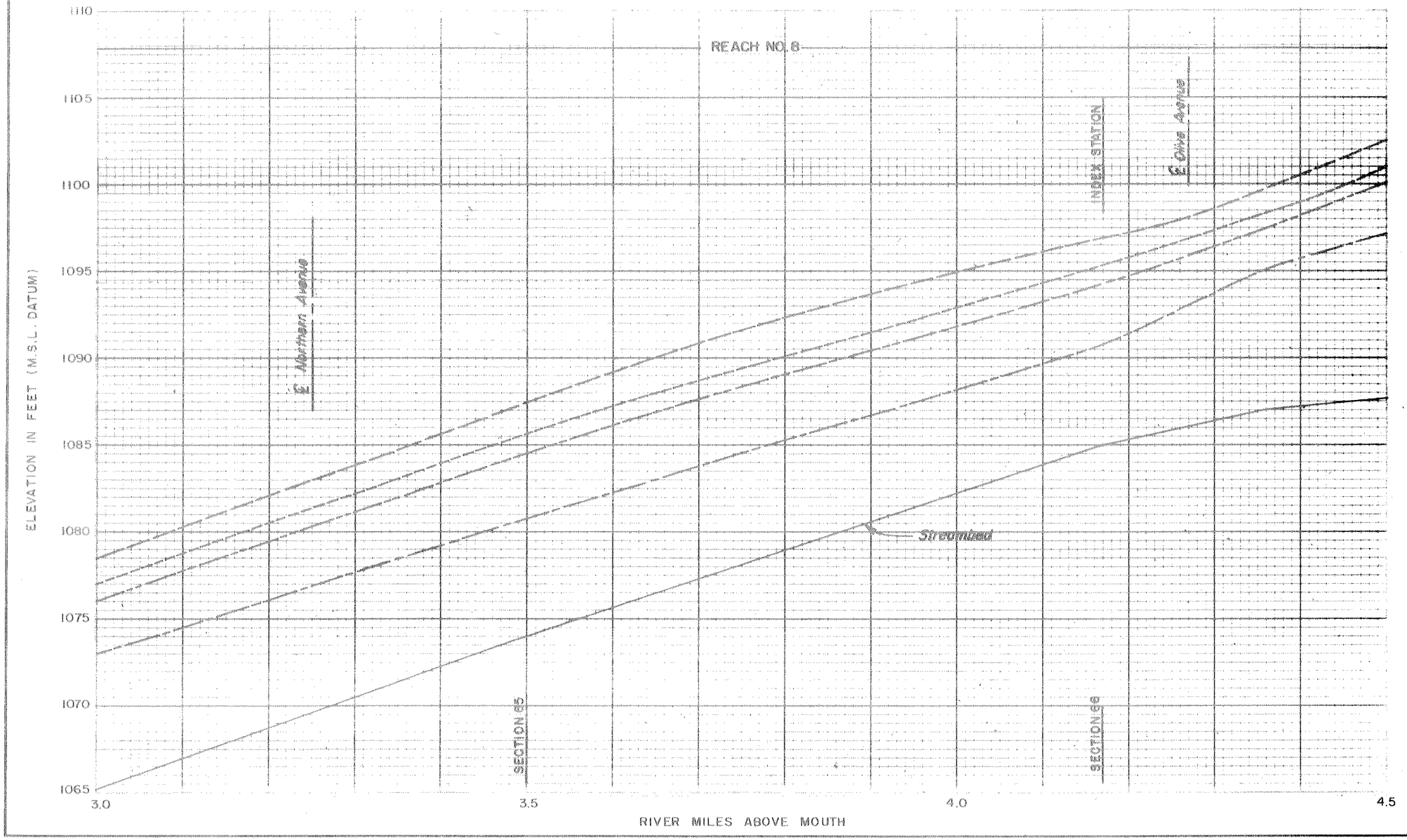
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

NEW RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plates 14 & 15 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

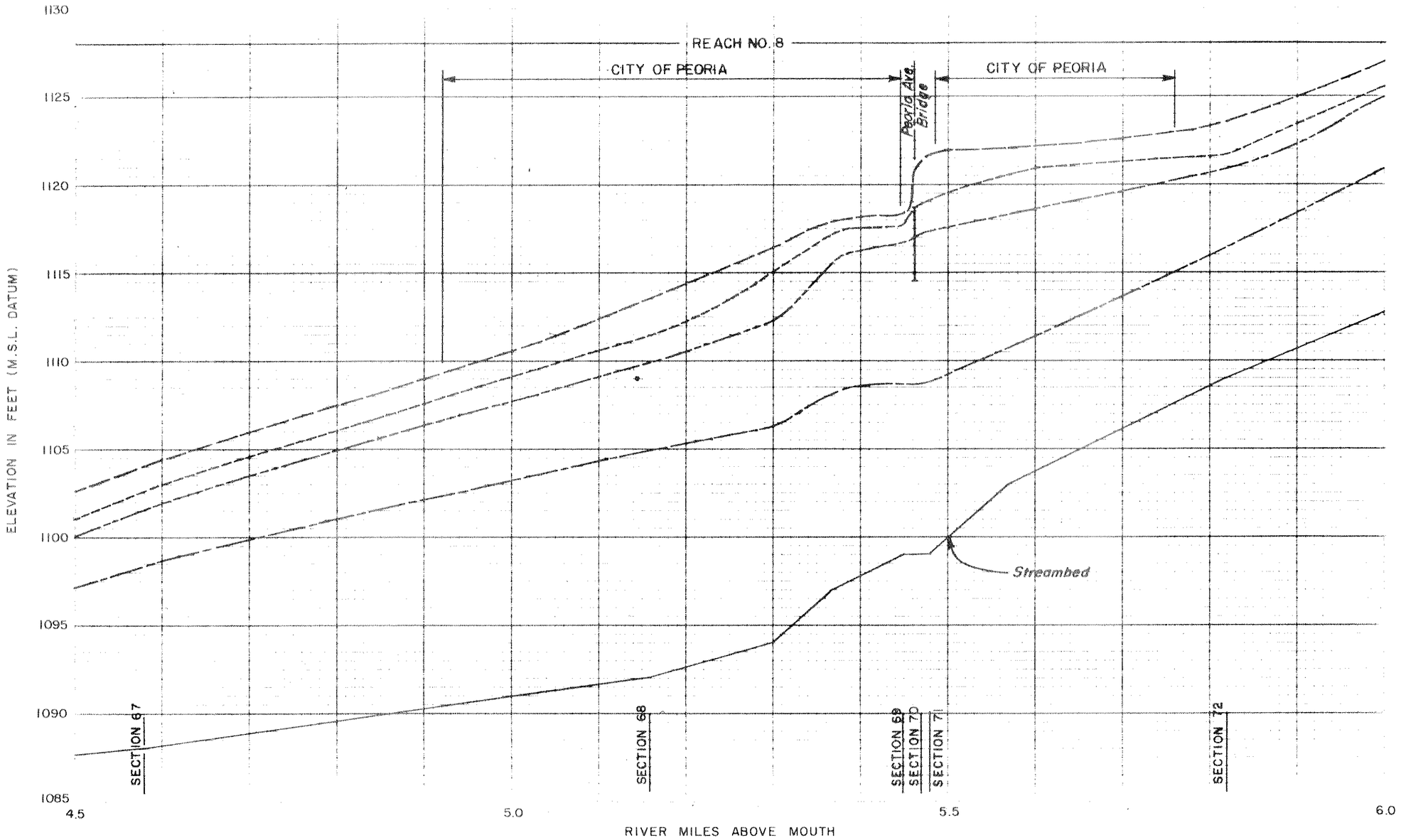
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

NEW RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

- Standard Project Flood
- 100-Year Flood
- 50-Year Flood
- 10-Year Flood
- Bridge Floor
- Low Steel

NOTE:
See Plate 15 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

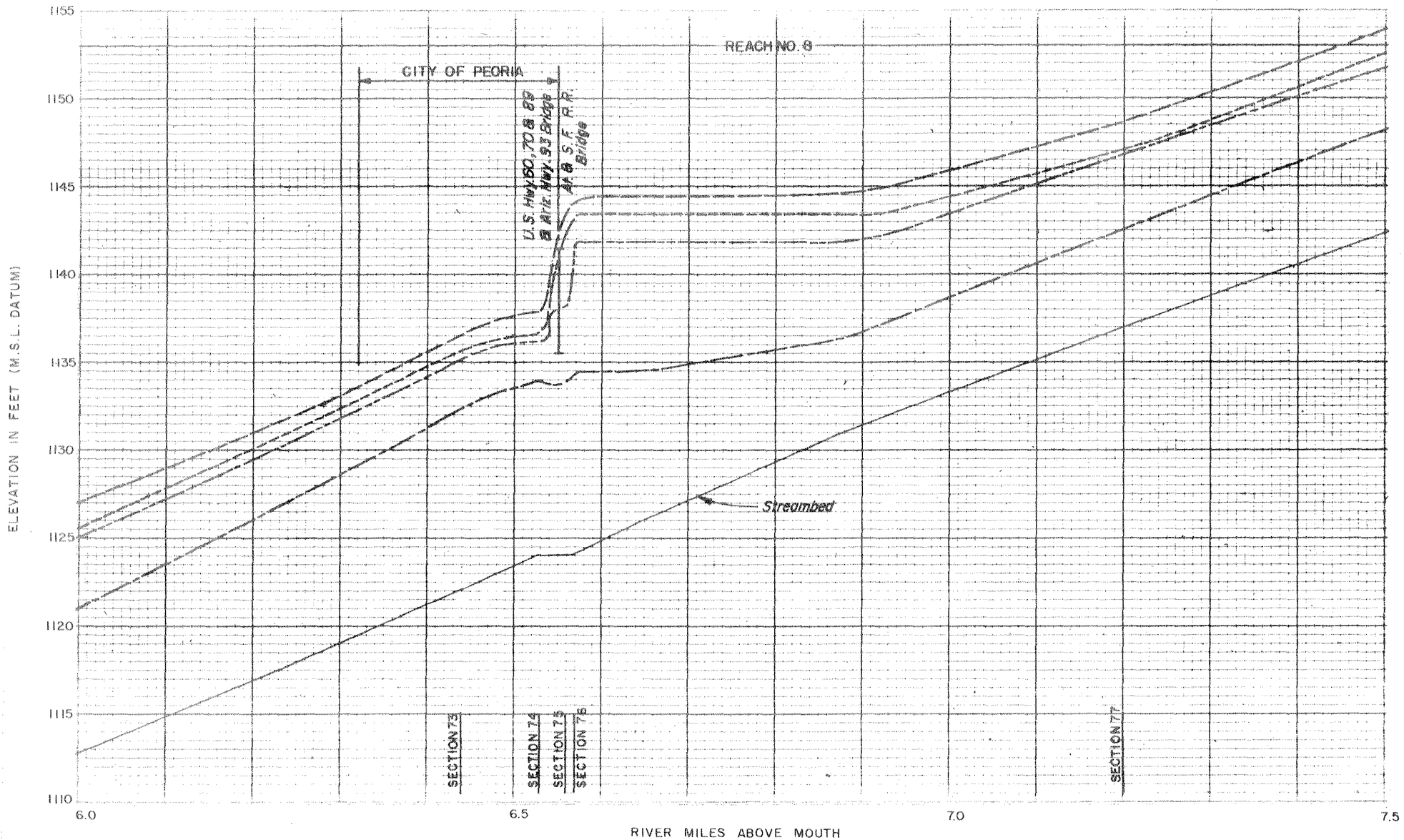
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

NEW RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

- Standard Project Flood
- 100-Year Flood
- 50-Year Flood
- 10-Year Flood
- Bridge Floor
- Low Steel

NOTE:
See Plate 15 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

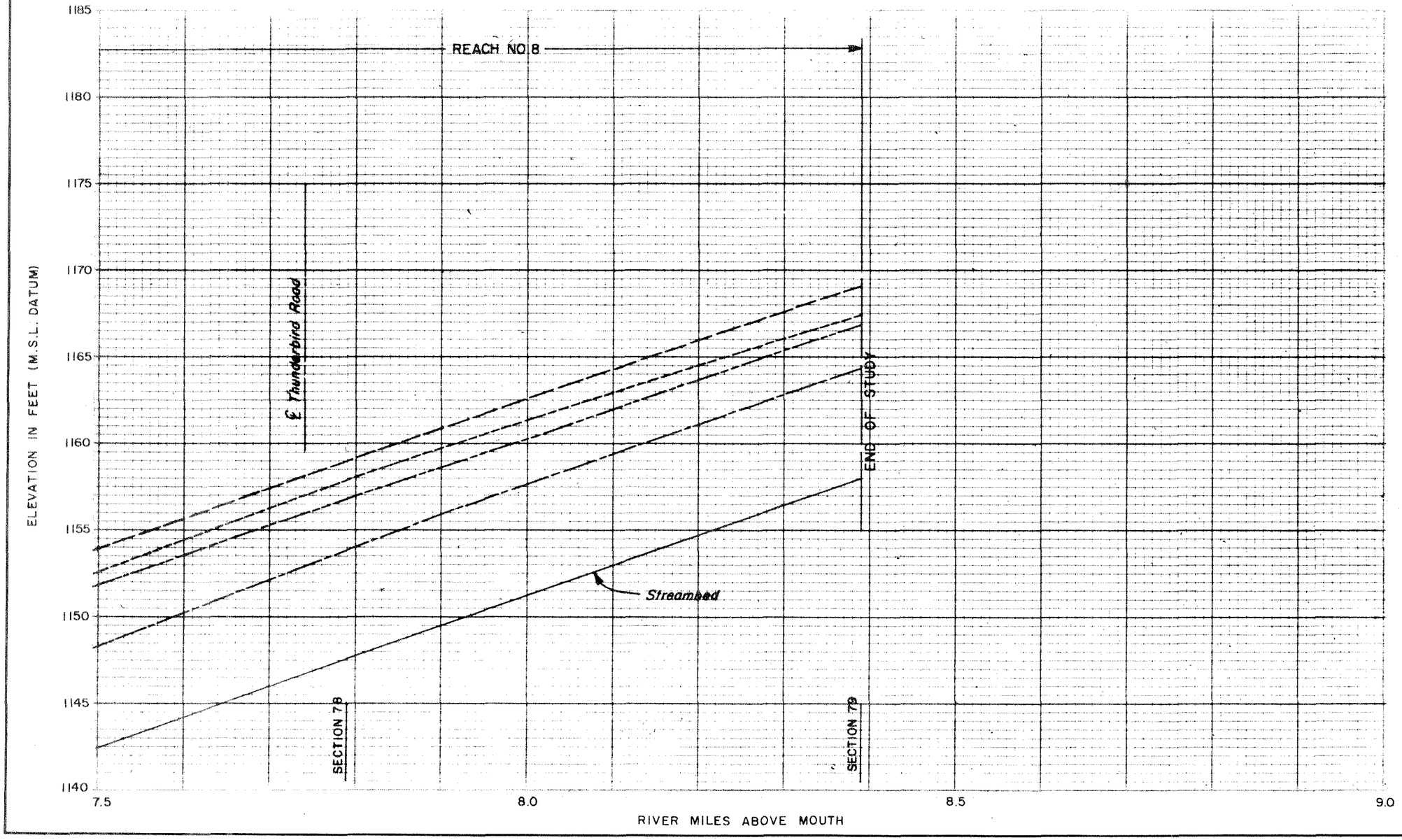
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

NEW RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

Standard Project Flood

100-Year Flood

50-Year Flood

10-Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate 15 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

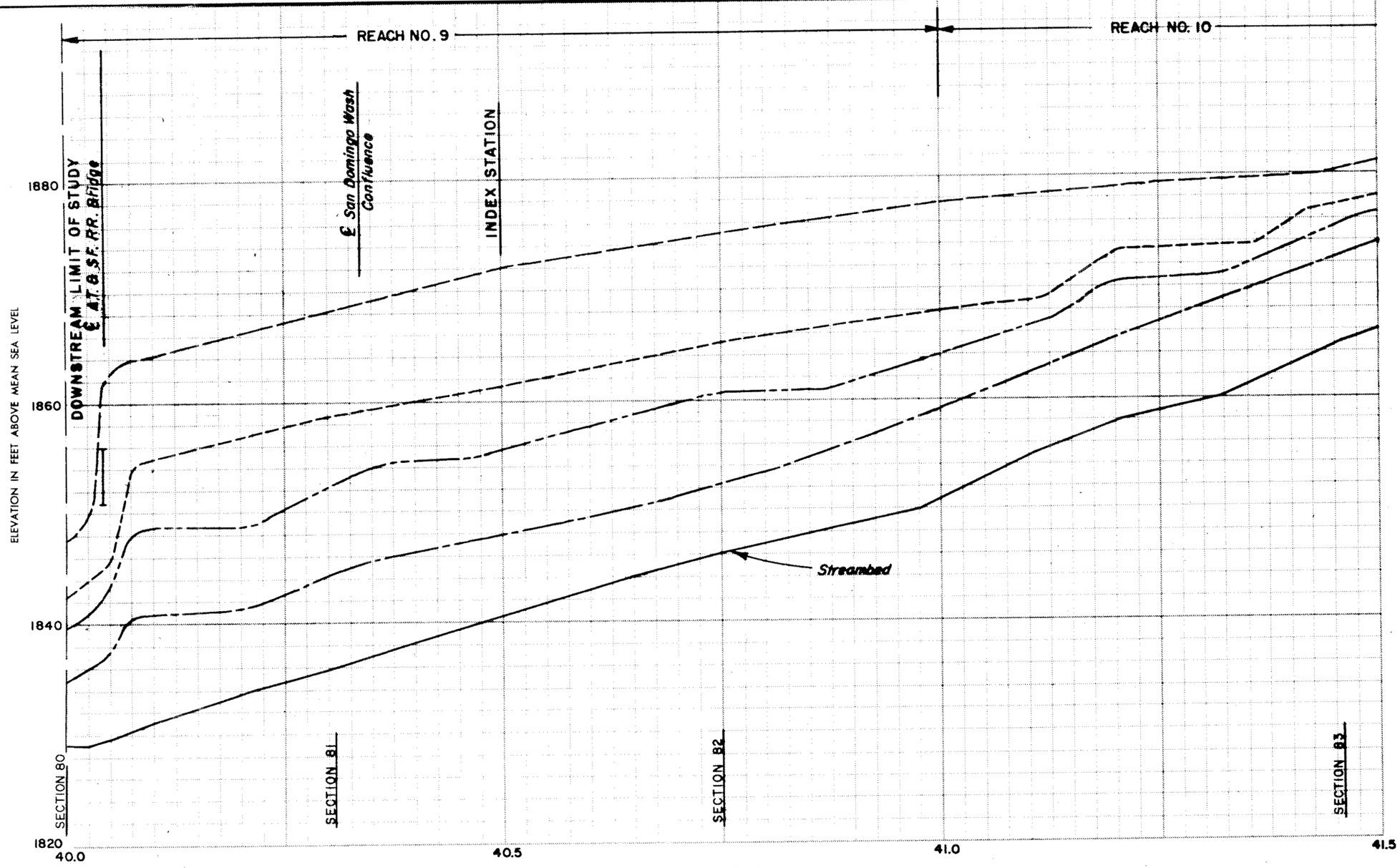
FLOOD PROFILES

NEW RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 39



LEGEND

Standard Project Flood

100 — Year Flood

50 — Year Flood

10 — Year Flood

Bridge Floor

Low Steel

NOTE:
See Plate 16 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

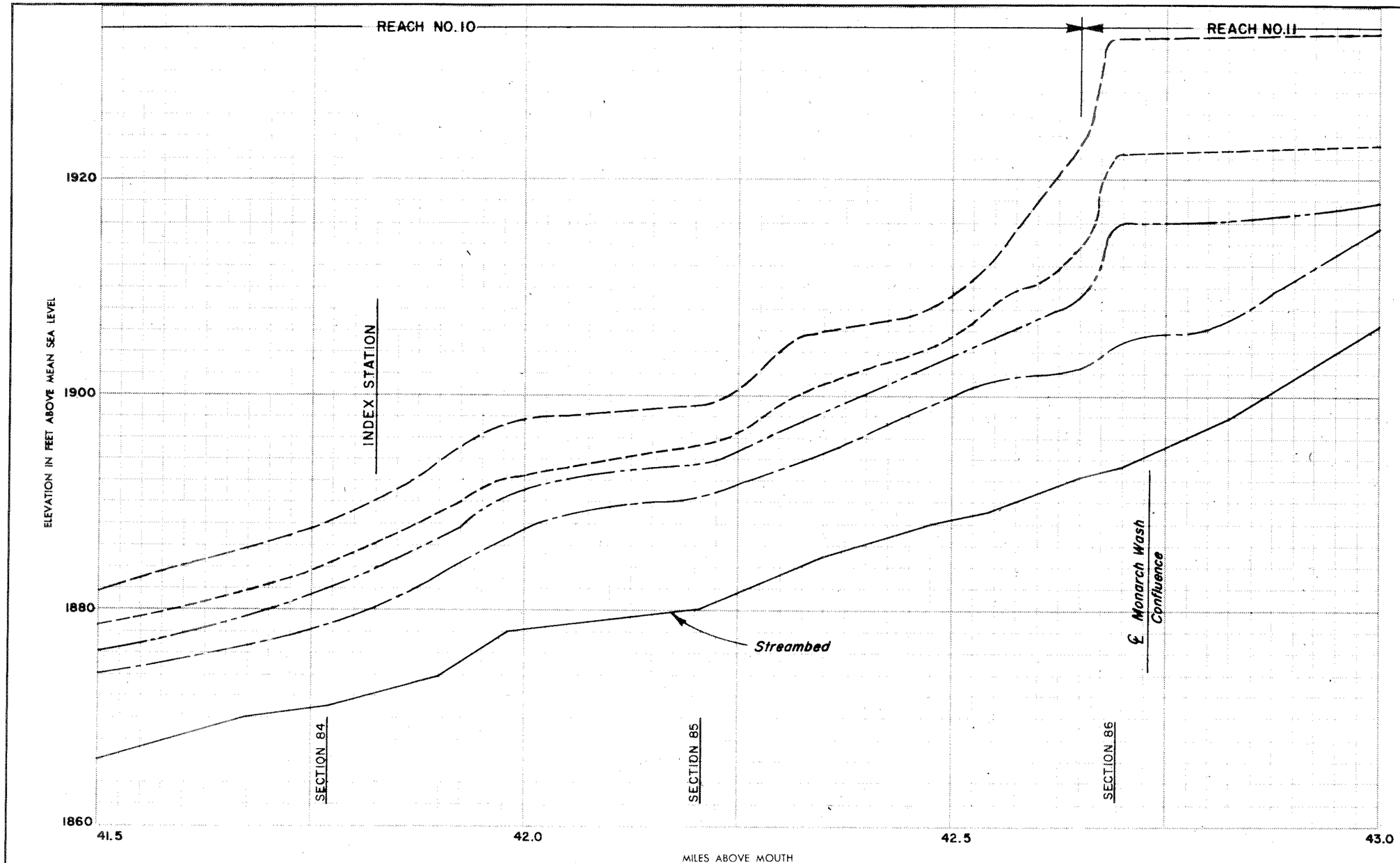
FLOOD PROFILES

HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 40



LEGEND

Standard Project Flood

100 — Year Flood

50 — Year Flood

10 — Year Flood

Bridge Floor

Low Steet

NOTE:
See Plates 16, 17& 18 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

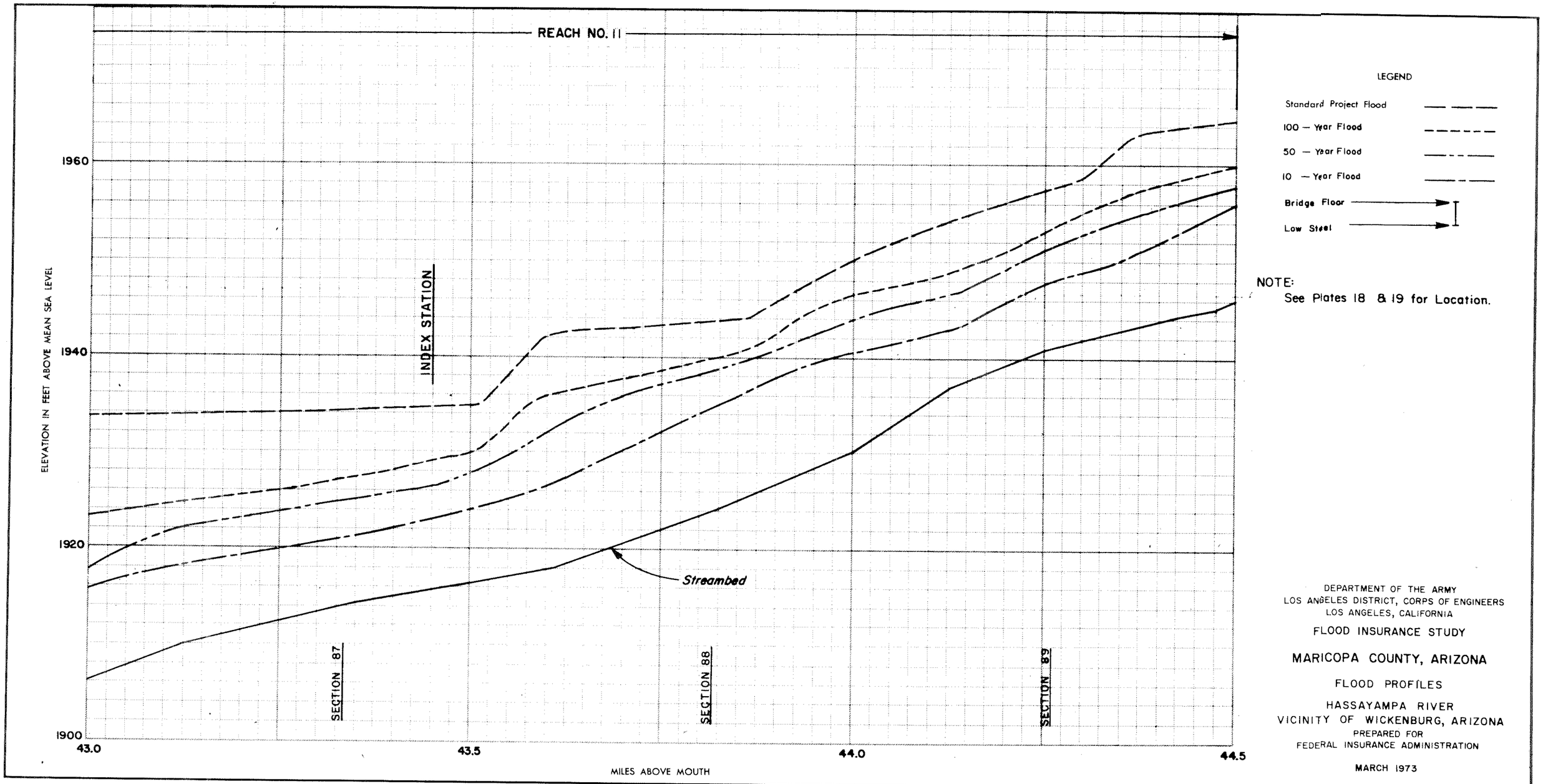
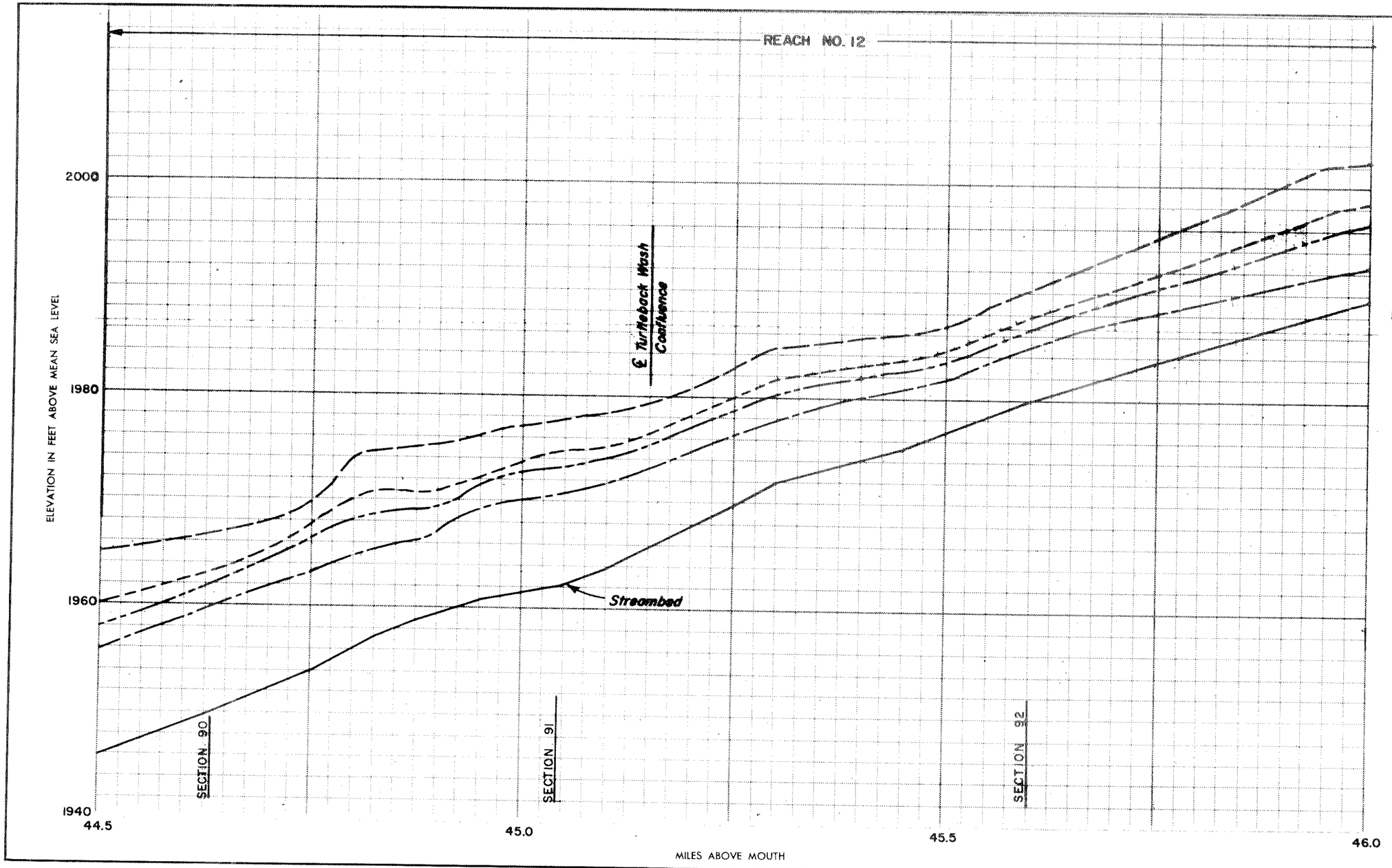

REACH NO. 11
1960
1940
1920
1900
ELEVATION IN FEET ABOVE MEAN SEA LEVEL
INDEX STATION
Streambed
SECTION 87
SECTION 88
SECTION 89
43.0
43.5
44.0
44.5
MILES ABOVE MOUTH
LEGEND
Standard Project Flood
100 — Year Flood
50 — Year Flood
10 — Year Flood
Bridge Floor
Low Steel
NOTE:
See Plates 18 & 19 for Location.
DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA
FLOOD INSURANCE STUDY
MARICOPA COUNTY, ARIZONA
FLOOD PROFILES
HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973

PLATE 42



LEGEND

Standard Project Flood

100 — Year Flood

50 — Year Flood

10 — Year Flood

Bridge Floor

Low Steel

NOTE:
See Plates 19, 20 & 21 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

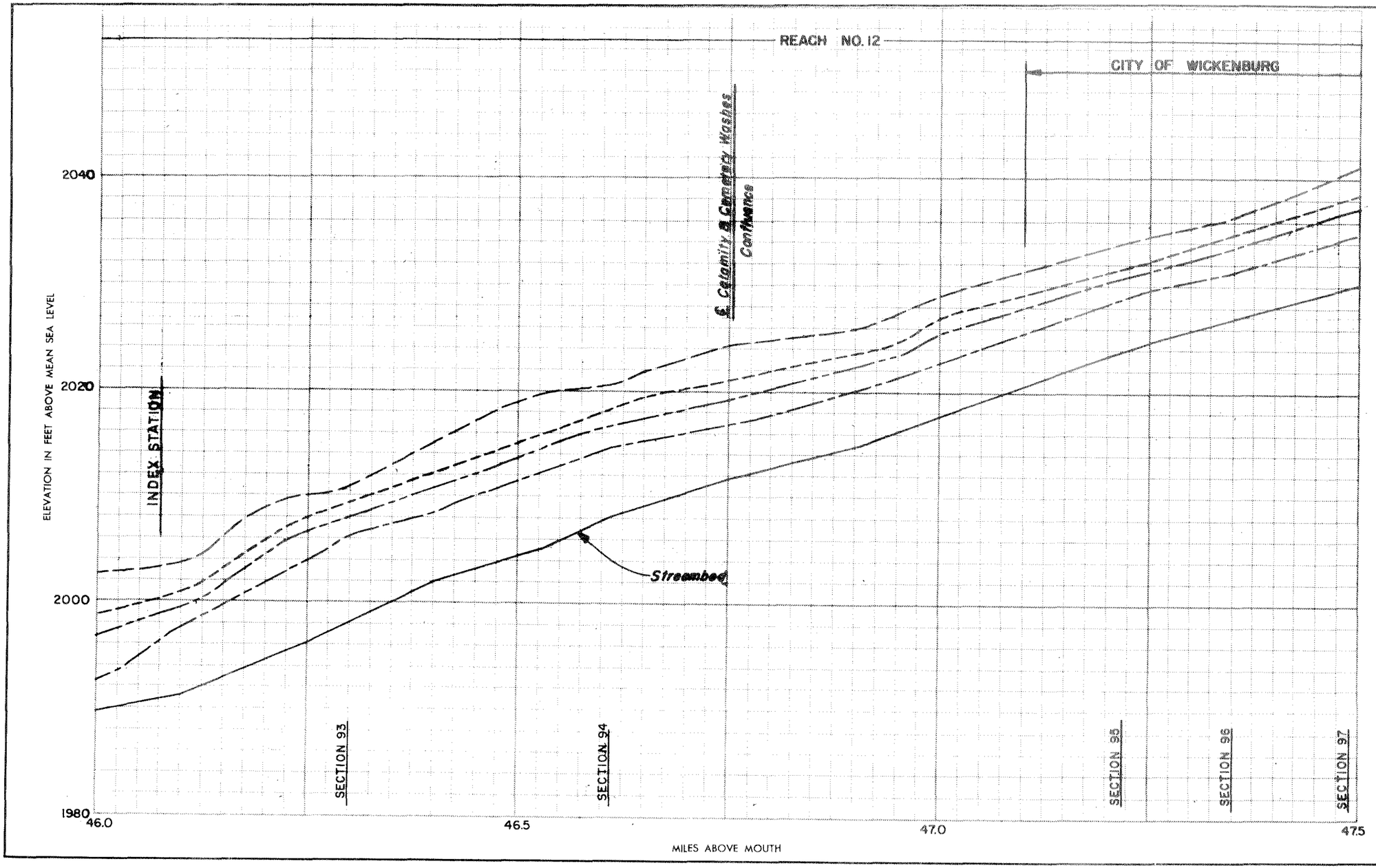
FLOOD PROFILES

HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 43



LEGEND

Standard Project Flood

100 — Year Flood

50 — Year Flood

10 — Year Flood

Bridge Floor

Low Steel

NOTE:
See Plates 21 & 22 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

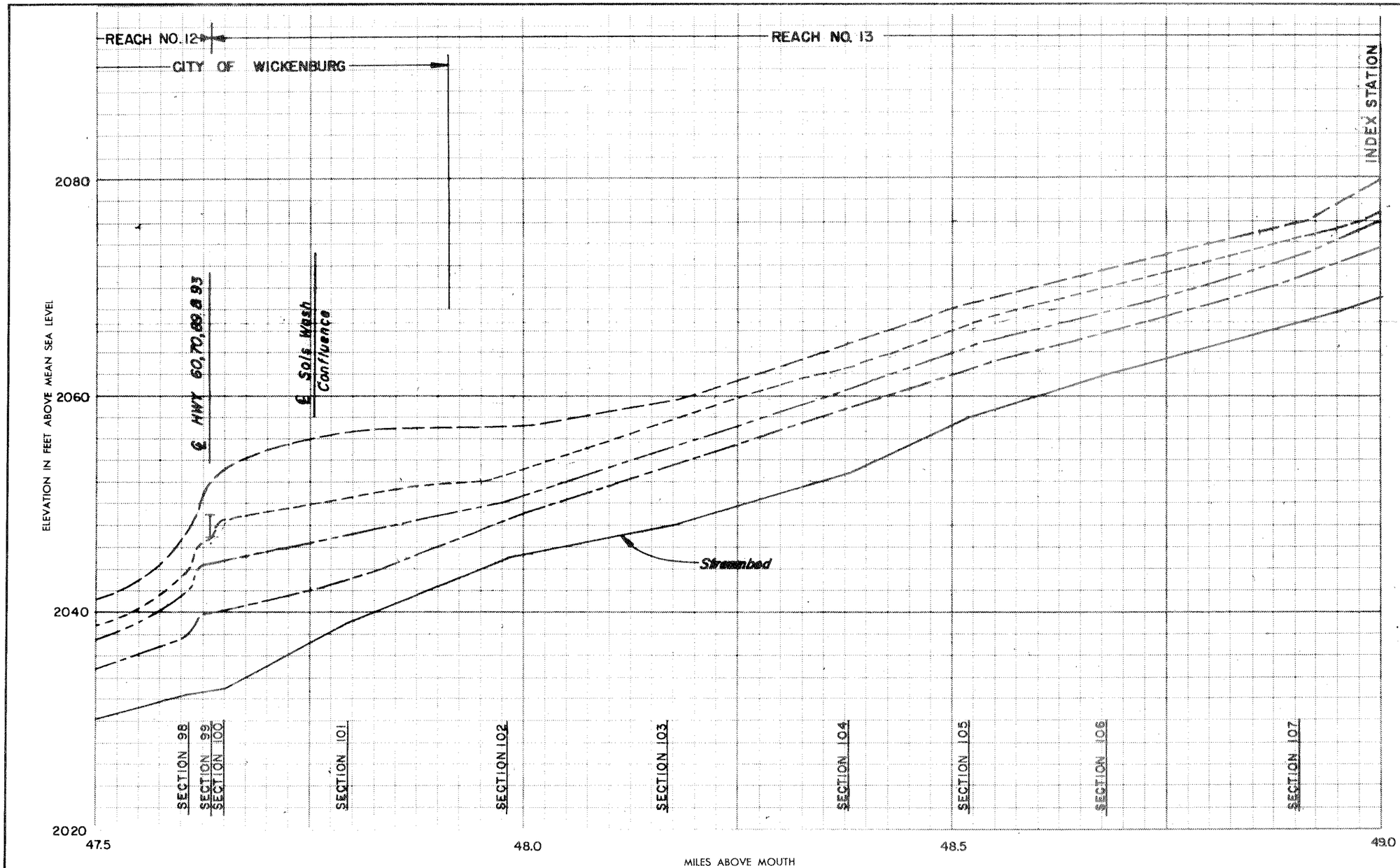
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

Standard Project Flood

100 — Year Flood

50 — Year Flood

10 — Year Flood

Bridge Floor

Low Steel

NOTE:
See Plates 22 & 23 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

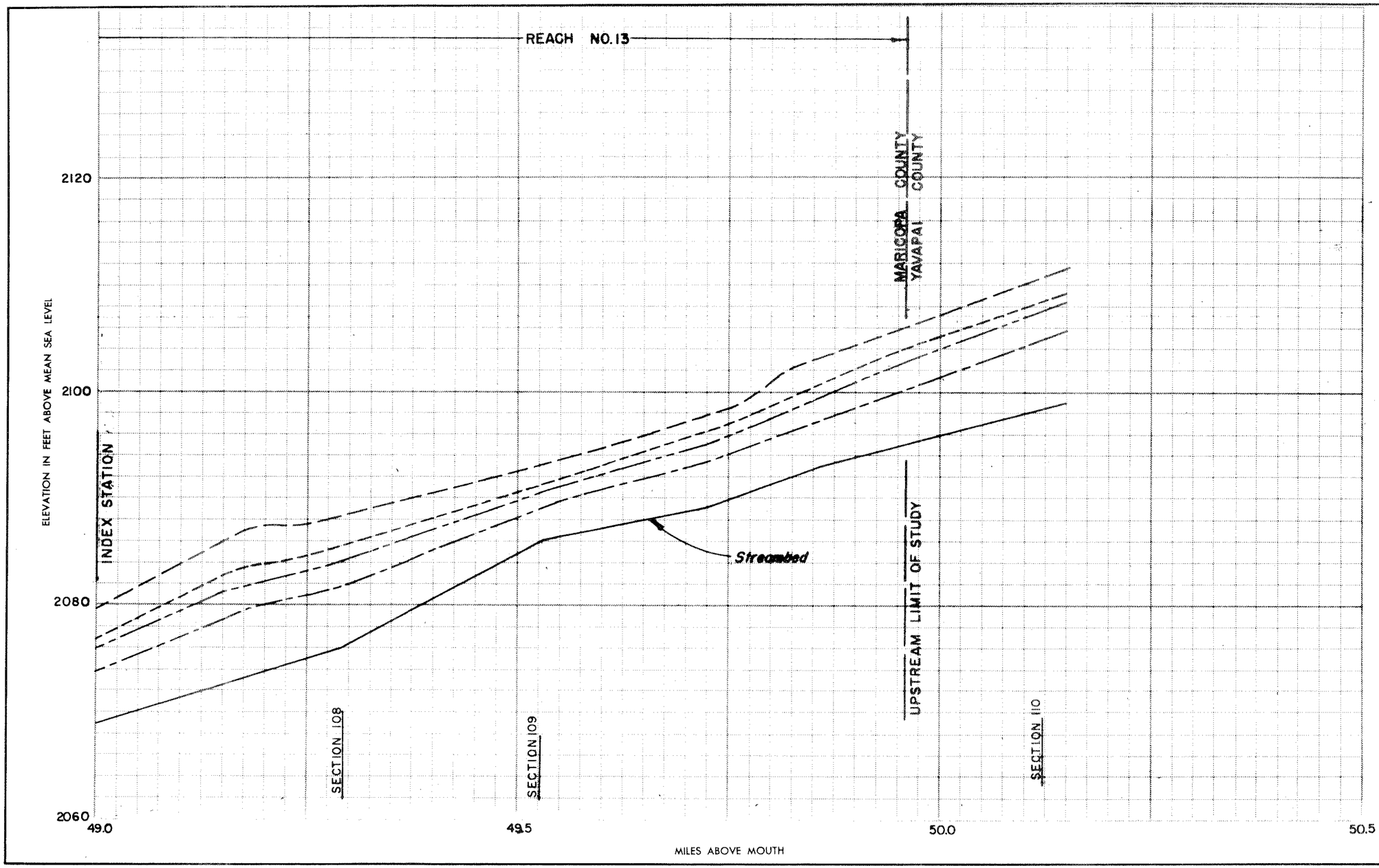
FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



LEGEND

Standard Project Flood

100 — Year Flood

50 — Year Flood

10 — Year Flood

Bridge Floor

Low Steel

NOTE:
See Plates 23 & 24 for Location.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

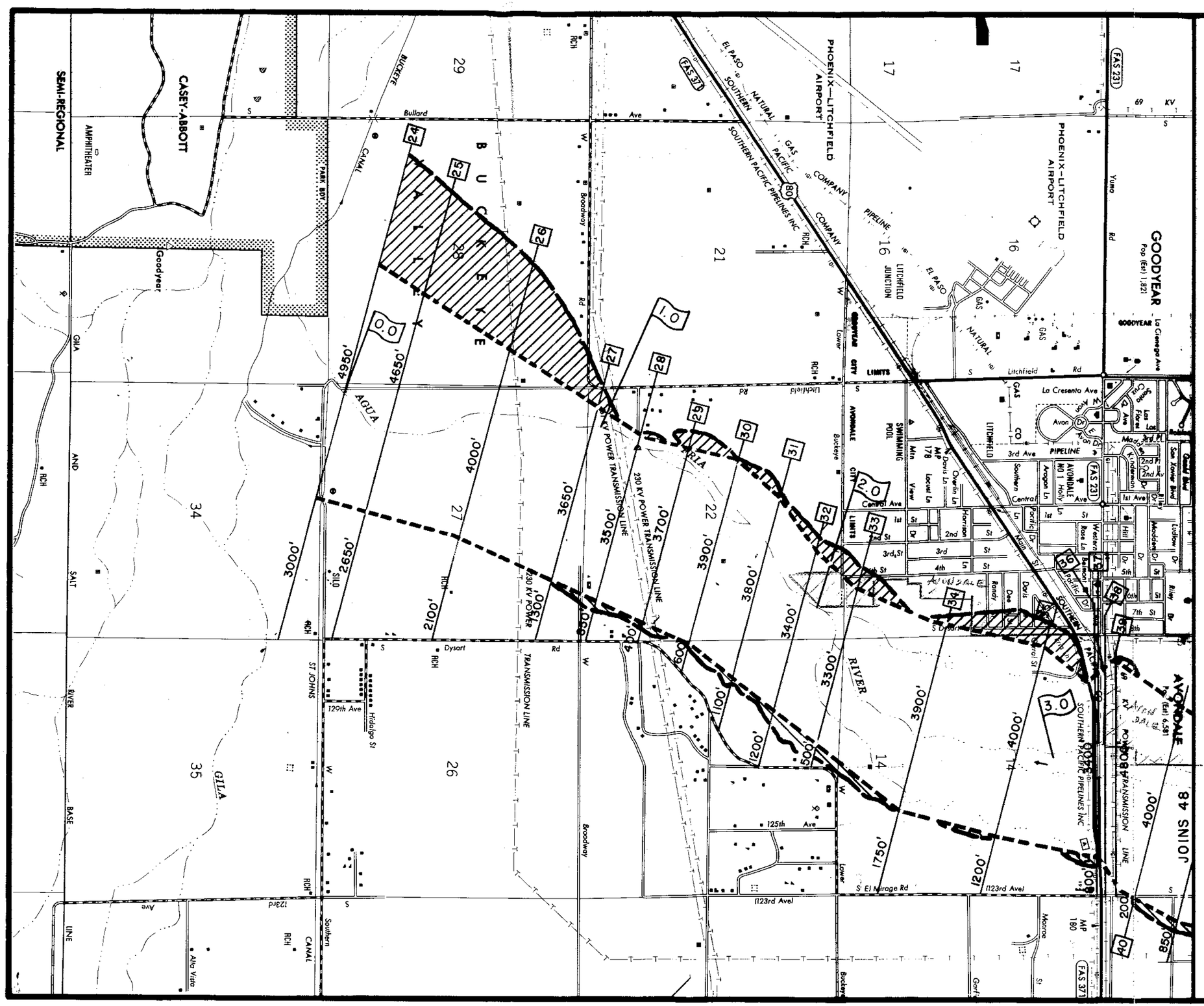
MARICOPA COUNTY, ARIZONA

FLOOD PROFILES

HASSAYAMPA RIVER
VICINITY OF WICKENBURG, ARIZONA

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

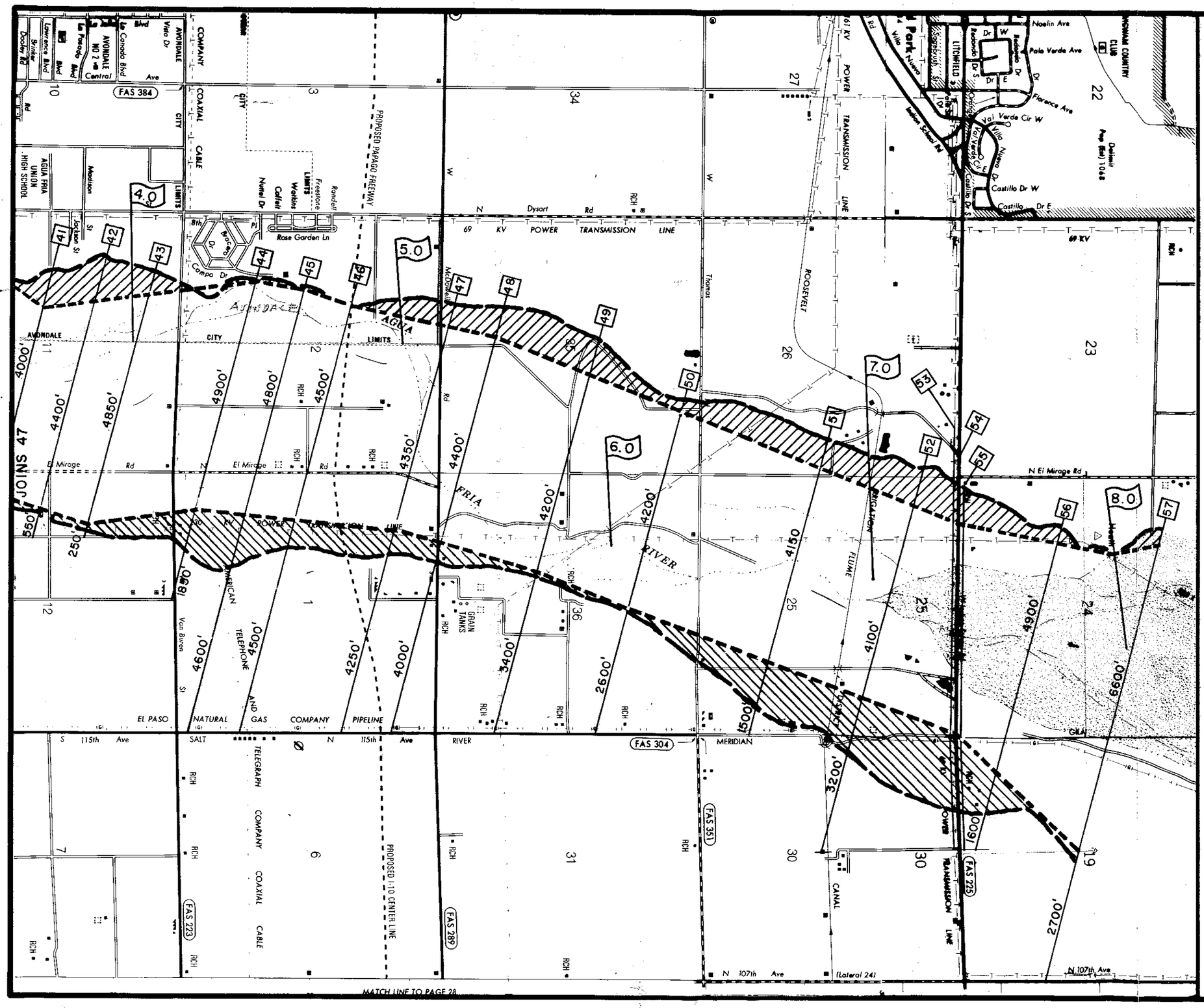
PRELIMINARY FLOODWAY

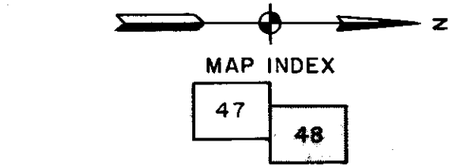
AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 47





LEGEND

OVERFLOW LIMITS

- FLOODWAY FRINGE
- PRELIMINARY FLOODWAY
- FLOODWAY FRINGE

} 100-YEAR FLOOD

10 — CROSS SECTION NUMBER AND POSITION

4.0 — RIVER MILE

U. S. HIGHWAY

INTERSTATE HIGHWAY

APPROXIMATE SCALE

1000 0 2000 4000

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

AGUA FRIA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

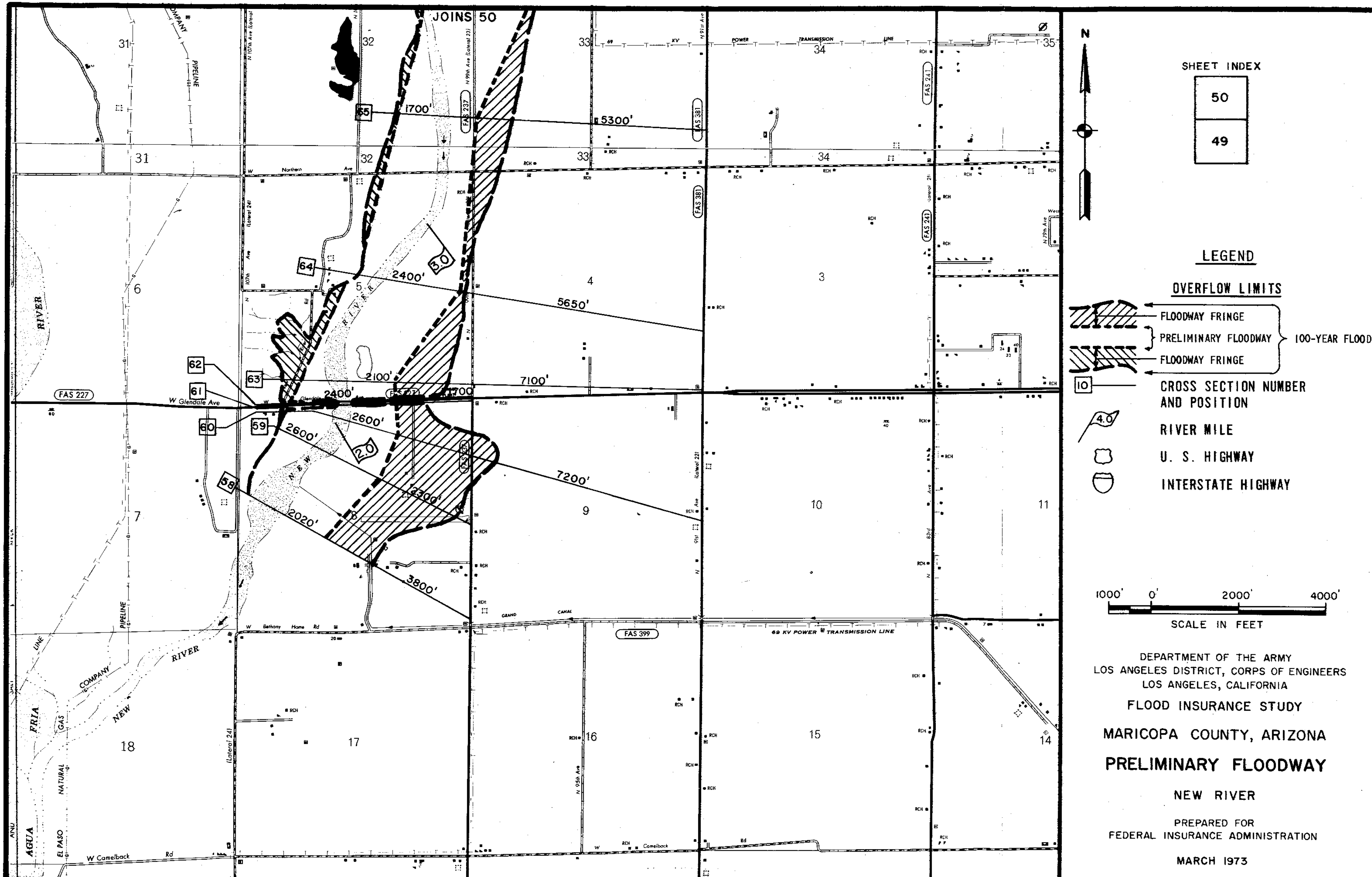

JOINS 50
SHEET INDEX
50
49
N
LEGEND
OVERFLOW LIMITS
FLOODWAY FRINGE
PRELIMINARY FLOODWAY
FLOODWAY FRINGE
100-YEAR FLOOD
10
CROSS SECTION NUMBER AND POSITION
4.0
RIVER MILE
U. S. HIGHWAY
INTERSTATE HIGHWAY
1000' 0' 2000' 4000'
SCALE IN FEET
DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA
FLOOD INSURANCE STUDY
MARICOPA COUNTY, ARIZONA
PRELIMINARY FLOODWAY
NEW RIVER
PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1973
65
1700'
5300'
64
2400'
5650'
63
2100'
7100'
62
61
2400'
1700
60
59
2600'
2600'
7200'
58
2020'
2300'
3800'
3.0
2.0
W Northern Ave
W Glendale Ave
W Bethany Home Rd
W Camelback Rd
FAS 227
FAS 237
FAS 381
FAS 241
FAS 399
NEW RIVER
AGUA FRIA RIVER
GRAND CANAL
69 KV POWER TRANSMISSION LINE
EL PASO NATURAL GAS COMPANY PIPELINE
31
32
33
34
35
6
5
4
3
7
8
9
10
11
18
17
16
15
14

PLATE 49

N

SHEET INDEX

50
49

LEGEND

OVERFLOW LIMITS

- FLOODWAY FRINGE
- PRELIMINARY FLOODWAY } 100-YEAR FLOOD
- FLOODWAY FRINGE

10 — CROSS SECTION NUMBER AND POSITION

4.0 — RIVER MILE

U. S. HIGHWAY

INTERSTATE HIGHWAY

1000 0 2000 4000

SCALE IN FEET

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

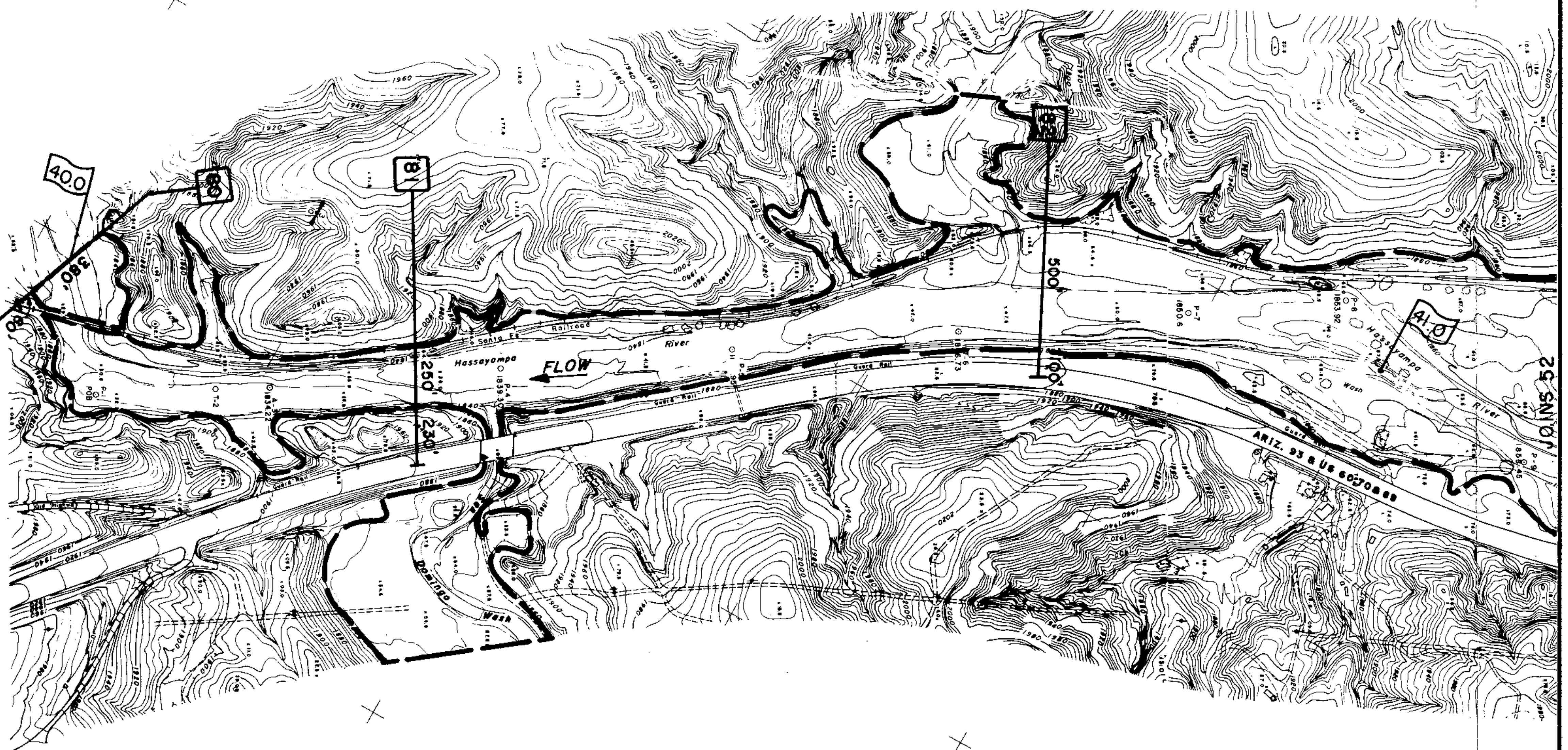
PRELIMINARY FLOODWAY

NEW RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 50



SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

FLOODWAY FRINGE
PRELIMINARY FLOODWAY — 100-YEAR FLOOD
FLOODWAY FRINGE

10 CROSS SECTION NUMBER AND POSITION

4.0 RIVER MILE

U. S. HIGHWAY

INTERSTATE HIGHWAY

APPROXIMATE SCALE

SCALE 500 0 500 FEET

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

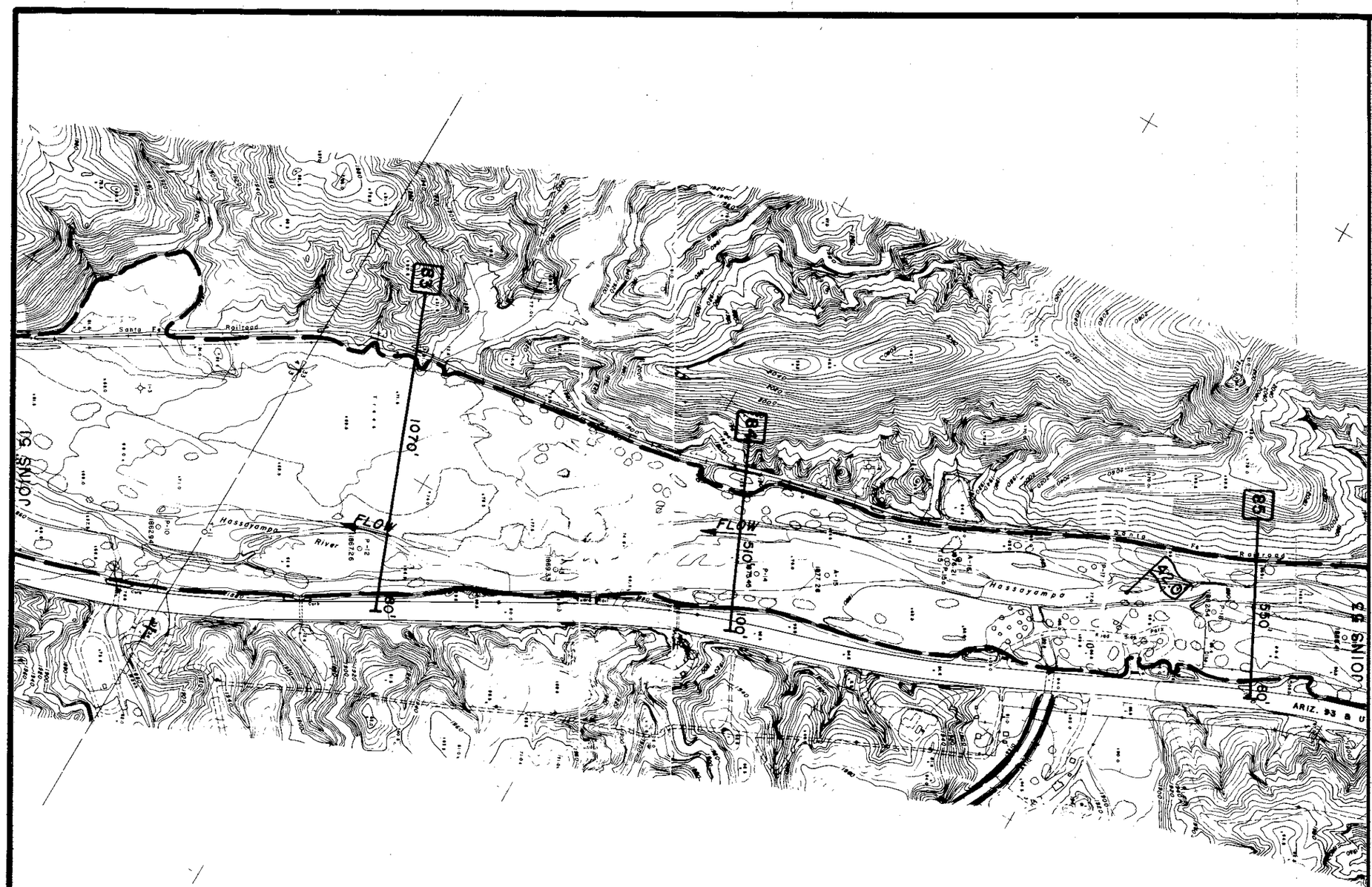
MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

HASSAYAMPA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

FLOODWAY FRINGE
PRELIMINARY FLOODWAY } 100-YEAR FLOOD
FLOODWAY FRINGE

10 — CROSS SECTION NUMBER AND POSITION

4.0 — RIVER MILE

U. S. HIGHWAY

INTERSTATE HIGHWAY

N

APPROXIMATE SCALE

SCALE 500 0 500 FEET

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

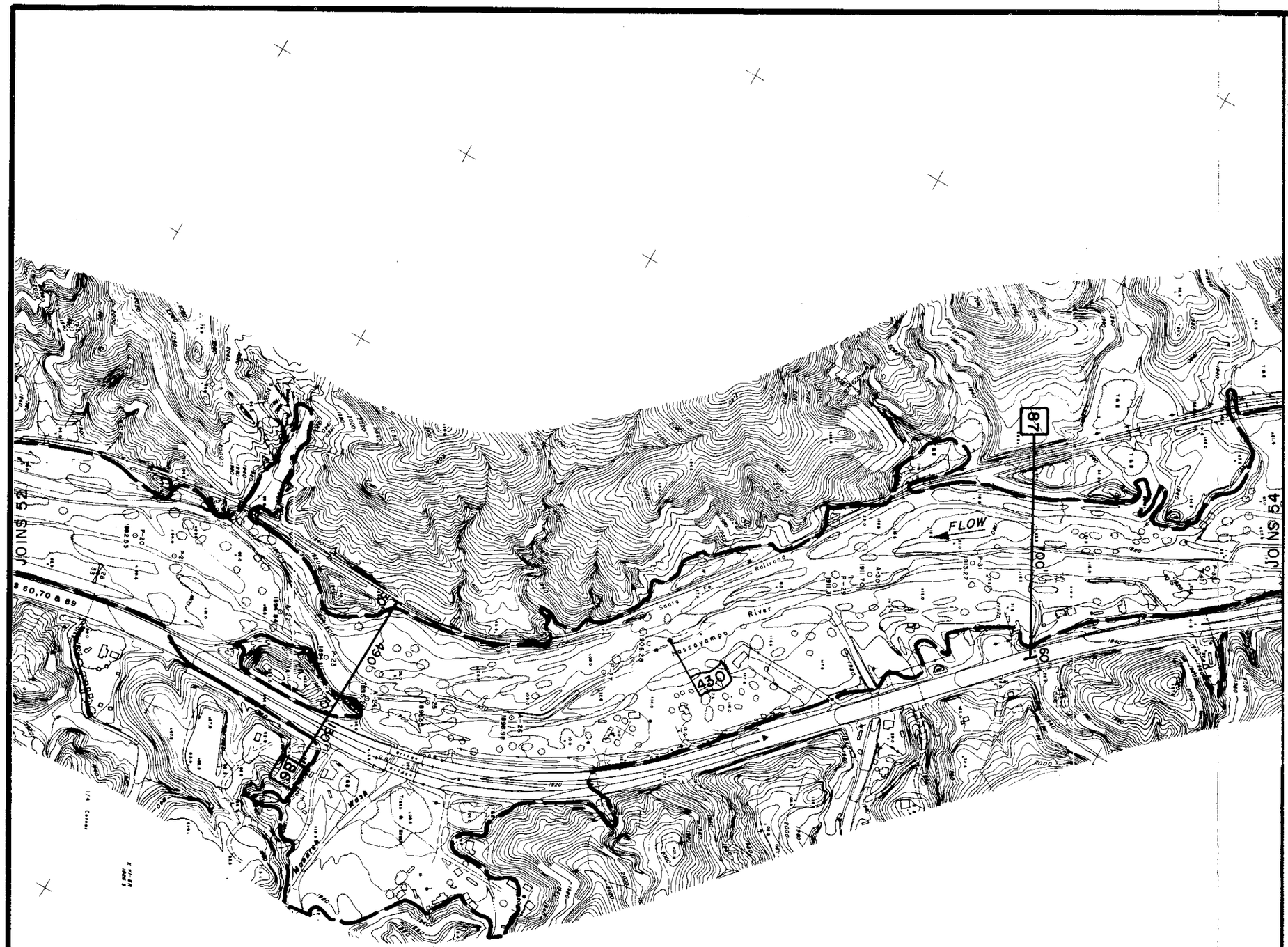
MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

HASSAYAMPA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

- FLOODWAY FRINGE
- PRELIMINARY FLOODWAY
- FLOODWAY FRINGE

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10 — CROSS SECTION NUMBER AND POSITION

4.0 — RIVER MILE

U. S. HIGHWAY

INTERSTATE HIGHWAY

N

APPROXIMATE SCALE

SCALE 500 0 500 FEET

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

HASSAYAMPA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

PLATE 53

SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

FLOODWAY FRINGE
PRELIMINARY FLOODWAY } 100-YEAR FLOOD
FLOODWAY FRINGE

10 — CROSS SECTION NUMBER AND POSITION

4.0 — RIVER MILE

U. S. HIGHWAY

INTERSTATE HIGHWAY

APPROXIMATE SCALE

SCALE 500 0 500 FEET

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

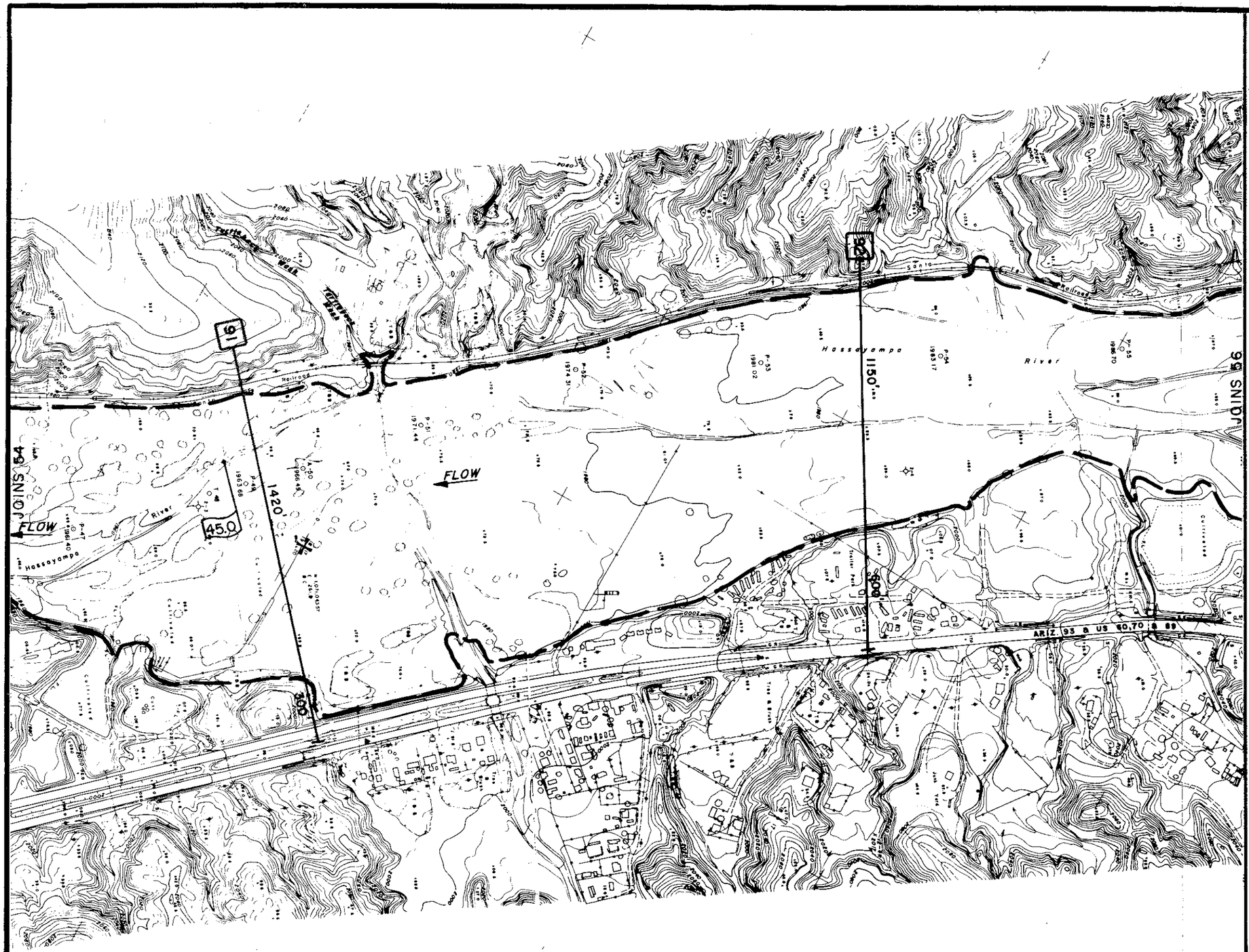
MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

HASSAYAMPA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973



SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

- FLOODWAY FRINGE
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} 100-YEAR FLOOD

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U. S. HIGHWAY

INTERSTATE HIGHWAY

N

APPROXIMATE SCALE

SCALE 500 0 500 FEET

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

HASSAYAMPA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

FLOODWAY FRINGE
PRELIMINARY FLOODWAY } 100-YEAR FLOOD
FLOODWAY FRINGE

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U. S. HIGHWAY

INTERSTATE HIGHWAY

APPROXIMATE SCALE

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DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

HASSAYAMPA RIVER

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

SHEET INDEX

51	52	53	54	55	56	57	58	59

LEGEND

OVERFLOW LIMITS

- FLOODWAY FRINGE
- PRELIMINARY FLOODWAY
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- 10 — CROSS SECTION NUMBER AND POSITION
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- U. S. HIGHWAY
- INTERSTATE HIGHWAY

N

APPROXIMATE SCALE

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DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

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FEDERAL INSURANCE ADMINISTRATION

MARCH 1973

SHEET INDEX

51	52	53	54	55	56	57	58	59

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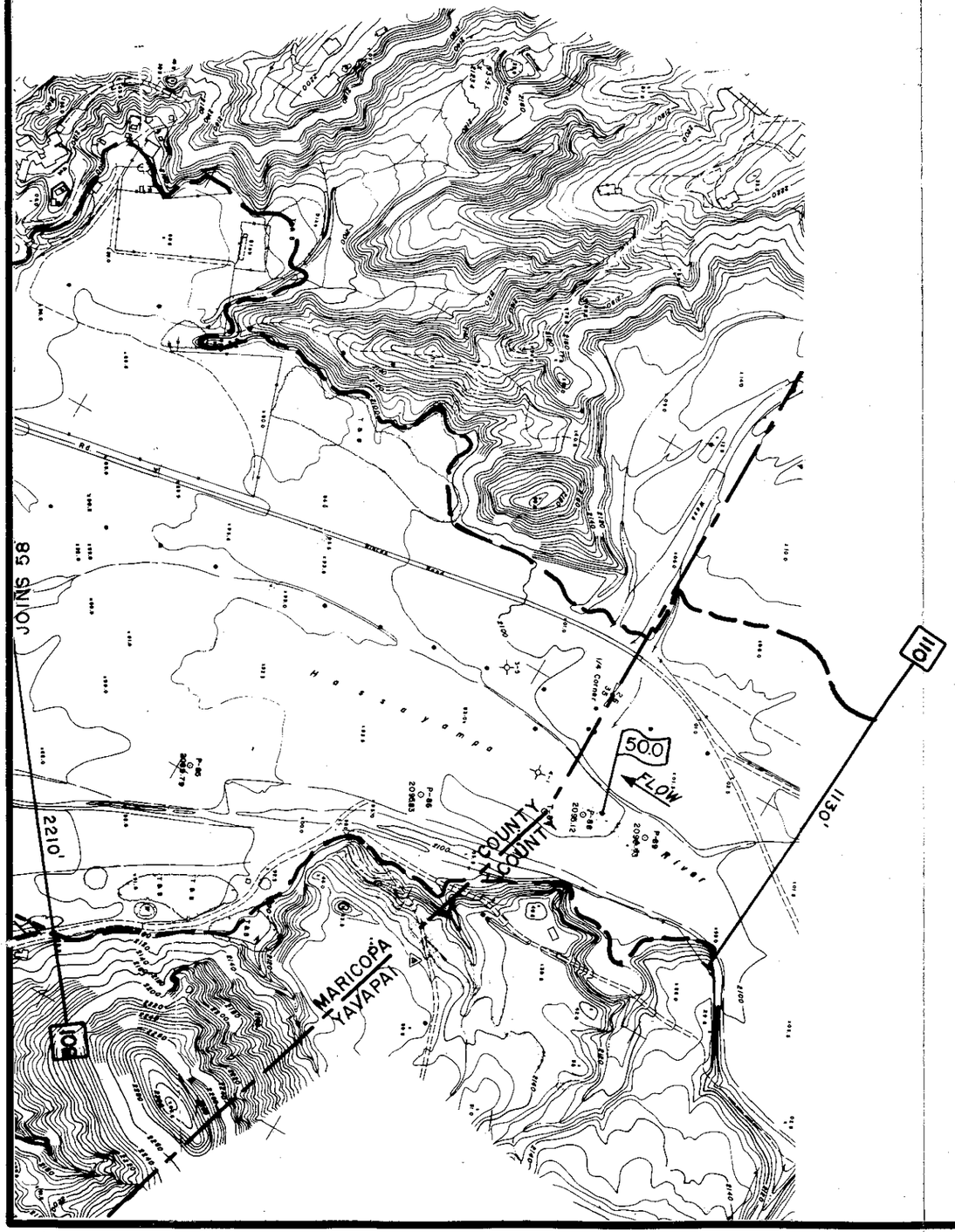

SHEET INDEX

51	52	53	54	55	56	57	58	59

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OVERFLOW LIMITS

- FLOODWAY FRINGE
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DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
LOS ANGELES, CALIFORNIA

FLOOD INSURANCE STUDY

MARICOPA COUNTY, ARIZONA

PRELIMINARY FLOODWAY

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PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION

MARCH 1973