

FLOOD INSURANCE STUDY



JONES COUNTY, MISSISSIPPI AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
ELLISVILLE, CITY OF	280091
JONES COUNTY (UNINCORPORATED AREAS)	280222
LAUREL, CITY OF	280092
SANDERSVILLE, TOWN OF	280244
SOSO, TOWN OF	280245



JONES COUNTY

EFFECTIVE:

PRELIMINARY

JAN 30 2009



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER

28067CV000A

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program (NFIP) have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part or all of this FIS may be revised and republished at any time. In addition, part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

Initial Countywide FIS Effective Date:

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**FLOOD INSURANCE STUDY
JONES COUNTY, MISSISSIPPI AND INCORPORATED AREAS**

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and supersedes the FIS reports and/or Flood Insurance Rate Maps (FIRMs) in the geographic area of Jones County, Mississippi, including the Cities of Ellisville and Laurel and the towns of Sandersville and Soso and the unincorporated areas of Jones County (hereinafter referred to collectively as Jones County).

This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates. This information will also be used by Jones County to update existing floodplain regulations as part of the Regular Phase of the National Flood Insurance Program (NFIP), and by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the NFIP are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this FIS report are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

Jones County FIS, February 16, 1990

For the initial Jones County FIS, the hydrologic and hydraulic analyses were performed by the U.S. Geological Survey (USGS), Water Resources Division (the study contractor) for the Federal Emergency Management Agency (FEMA), under Inter-Agency Agreement No. EMW-85-E-1823, Project Order No. 1. This study was completed in April 1987.

The hydrologic and hydraulic analyses for Little Rocky Creek, Rocky Creek, Rocky Creek Tributary No. 2, and Basie Branch were performed by the U.S. Army Corps of Engineers (USACE), Mobile District. The analyses for Tallahalla and Tallahoma Creeks in the vicinity of Ellisville were taken from the FIS for the City of Ellisville (FEMA, 1988).

City of Ellisville FIS, December 16, 1988

The Hydrologic and hydraulic analyses for this study were performed by Michael Baker, Jr., Inc. for the Federal Insurance Administration, under contract No. H-3800 between the

contractor and the Federal Insurance Administration. This work, which was completed in May 1976, covered all flooding sources affecting the City of Ellisville.

City of Laurel FIS, May 18, 1998

For the original, September 1977 FIS, the hydrologic and hydraulic analyses were prepared by the USACE, Mobile District, for the Federal Insurance Administration (FIA), under Inter-Agency Agreement Nos. IAA-H-19-74, and IAA-H-16-75, Project Nos. 17 and 6 respectively. That work was completed in September 1975.

For the May 18, 1998 revision, the hydrologic and hydraulic analyses were prepared by Braswell Engineering, Inc., for FEMA, under Contract No. EMW-93-C-4147. That work was completed in April 1995.

This Countywide FIS

The hydrologic and hydraulic analyses for this countywide FIS were performed by the State of Mississippi for the FEMA, under Contract No. EMA-2005-CA-5215. This study was completed in November 2008. Flooding caused by the overflow of Tallahalla Creek 4,600 feet downstream of Country Club Tributary 1 to 2,400 feet upstream of U.S. Highway 84 was studied in detail.

The digital base map information files were provided by the USACE – Vicksburg District, 4155 East Clay Street, Vicksburg, MS 39183, phone number (601) 631-5053. The digital orthophotography was acquired in January 2007, with the imagery processed to a 2-foot pixel resolution.

The digital FIRM was produced using the Mississippi State Plane Coordinate System, East Zone, FIPZONE 2301. The horizontal datum was the North American Datum of 1983, GRS 80 spheroid. Distance units were measured in U.S. feet.

1.3 Coordination

An initial Consultation Coordination Officer's (CCO) meeting is held with representatives from FEMA, the community, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied by detailed methods. A final CCO meeting is held with representatives from FEMA, the community, and the study contractor to review the results of the study.

Jones County FIS, February 16, 1990

For the initial Jones County FIS, a meeting was held on January 23, 1985, with representatives of the community, the study contractor, and FEMA to discuss the streams to be studied in detail. On April 4, 1989, the results of the FIS were reviewed and accepted at the final coordination meeting attended by representatives of the study contractor, FEMA, and the community.

City of Ellisville FIS, December 16, 1988

A meeting was held at Ellisville City Hall on February 28, 1975, with representatives of the City of Ellisville, the State Coordinating Agency, and the engineering firm of

Michael Baker, Jr., Inc. to review flood problems and to determine areas to be studied within the community. On September 25, 1975, a meeting open to the general public was held to announce commencement of the study, to discuss the nature and purpose of the study, and to explain study methods and procedures. At this time, the Honorable D. R. Anderson, Mayor, was designated as the community contact for the study. A final coordination study was held September 21, 1976, to review report findings in detail.

During the initial study, telephone conversations and visits were made with the local and regional offices of the U. S. Weather Bureau, the U.S. Soil Conservation Service, the Water Resources Research Institute of the Mississippi State University, the Department of Mechanical and Civil Engineering of the Mississippi State University, the U.S. Army Corps of Engineers, Mobile District, and the USGS. The USGS was asked to provide topographic maps, stage-discharge records, and flood frequency analyses of gaged streams in the surrounding areas of Ellisville. The Mississippi Research and Development Center was asked to provide aerial photograph negatives covering the study area, and the Mississippi State Highway Department provided road profiles.

For the December 16, 1988 revision, the hydrologic and hydraulic analyses were performed by the USACE. The FEMA reviewed and accepted these data for purposes of this revision.

City of Laurel FIS, May 18, 1998

For the September 1977 FIS, an initial CCO meeting was held on October 15, 1974, and was attended by representatives of USACE, the Mississippi Research and Development Center, the City of Laurel, and the FIA. A final CCO meeting was held on March 2, 1976.

For the May 18, 1998 revision, FEMA notified the city on January 30, 1996, that it's FIS and FIRM would be revised using Braswell Engineering, Inc.'s analyses. A final CCO meeting was held on February 19, 1997, and was attended by representatives of FEMA and the City of Laurel.

This Countywide FIS

For this countywide FIS, an initial Pre-Scoping Meeting was held on July 28, 2005. A Project Scoping Meeting was held on November 14, 2005. Attendees for these meetings included representatives from the Mississippi Department of Environmental Quality, Mississippi Emergency Management Agency, FEMA National Service Provider, Jones County, the City of Laurel, City of Ellisville, Jones County Emergency Management Agency, the State, and the Study Contractor. Coordination with county officials and Federal, State, and regional agencies produced a variety of information pertaining to floodplain regulations, available community maps, flood history, and other hydrologic data. All problems raised in the meetings have been addressed.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Jones County, Mississippi, including the incorporated communities listed in Section 1.1.

Jones County FIS, February 16, 1990

Flooding caused by overflow of Tallahoma Creek, Tallahala Creek, Rocky Creek, Rocky Creek Tributary 2, Little Rocky Creek, and Basie Branch was studied in detail.

Base flood elevations for portions of Country Club Tributary 1 are based on overflow effects from Tallahala Creek. Therefore, no individual profile for Country Club Creek Tributary 1 is included in the FIS.

City of Ellisville FIS, December 16, 1988

For the December 16, 1988 FIS, three stream systems were selected for detailed study at the community meeting of February 28, 1975, and approved by the Federal Insurance Administration.

Tallahalla Creek, along with its tributaries, drains all of Ellisville and over 450 square miles in north-central Jones and western Jasper Counties. However, the reach of Tallahalla Creek, where it skirts the northeast corporate limits of Ellisville immediately south of the Tallahoma Creek confluence, is the only reach of the Tallahalla studied in detail.

Tallahoma Creek, along the northeast corporate limits, and a tributary system that drains the northeast area generally bounded on the west by Anderson and Deason Streets and on the south by Holly Street, comprise another detailed study area.

Rocky Creek and its tributaries drain the western half of the City of Ellisville, and encompass the largest study area.

Little Rocky Creek and Basie Branch were studied by approximate methods.

For the December 16, 1988 revision, the hydraulic analyses were revised for Rocky Creek and Rocky Creek Tributary 2 and new hydraulic analyses were performed for Little Rocky Creek and Basie Branch. The flood profiles, flood delineations, and floodways for Rocky Creek and Rocky Creek Tributary 2 were revised. Flood profiles, detailed flood delineations, and floodways were established for Little Rocky Creek and Basie Branch.

City of Laurel FIS, May 18, 1998

For the September 1977 FIS, the following streams were studied by detailed methods: Tallahala Creek, Tallahoma Creek, Country Club Tributary No. 1, Country Club Tributary No. 2, Country Club Tributary No. 3, Daphne Park Tributary, and Gardiner Park Tributary.

For the May 18, 1998 FIS Revision, Daphne Creek Tributary was restudied by detailed methods from its confluence with Tallahalla Creek to a point approximately 750 feet upstream of 8th Street. Limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2). The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction.

All or portions of two tributaries to Tallahoma Creek, and several other unnamed tributaries were studied by approximate methods. Approximate analyses were used to study those areas having low development potential or minimal flood hazards.

TABLE 1 - FLOODING SOURCES STUDIED PRE-COUNTYWIDE BY DETAILED METHODS

Basie Branch	Rocky Creek
Country Club Tributary 1	Rocky Creek Tributary 2
Country Club Tributary 2	Rocky Creek Tributary 3
Country Club Tributary 3	Tallahoma Creek
Daphne Park Tributary	Tallahoma Creek Tributary 1
Gardiner Park Tributary	Tallahoma Creek Tributary 2
Little Rocky Creek	

This Countywide FIS

For this countywide FIS, several flooding sources within the county were studied by approximate methods. Approximate analyses are used to study those areas having a low developmental potential or minimal flood hazards. The scope and methods of study were proposed to, and agreed upon, by FEMA and the State of Mississippi.

Detailed analyses were used to study those areas having a high development potential or maximum flood hazards. The scope and methods of study were proposed to, and agreed upon, by FEMA and the State of Mississippi. For this FIS, Table 2 lists the streams which were newly studied by Detailed methods:

TABLE 2. STREAMS STUDIED BY DETAILED METHODS

<u>Flooding Source</u>	<u>Limits of New Detailed Study</u>
Tallahalla Creek	From a point approximately 4600 feet upstream of the confluence of Country Club Creek Tributary 1 to a point approximately 2,400 feet upstream of U.S. Highway 84

Also, floodplain boundaries of stream that have been previously studied by detailed methods were redelineated based on best available topographic information.

2.2 Community Description

Jones County is located in southeastern Mississippi and is bordered by Smith and Jasper Counties on the north, Covington County on the west, Wayne County on the east, and Forrest and Perry Counties on the south. Jones County is served by U.S. Interstate 59,

U.S. Highways 11 and 84, the Canadian National Railroad, and the Norfolk Southern Railway.

The 2006 population of Jones County was estimated to be 66,715 (U.S. Census Bureau, 2007).

The economy of Jones County is diverse with manufacturing and retail trade being the largest industries (U.S. Census Bureau, 2007).

2.3 Principal Flood Problems

The principle flooding sources affecting Jones County are the Bogue Homo 1, the Leaf River, and Tallahala Creek. Jones County has suffered various degrees of damage caused by flooding, with the most damaging floods originating from Tallahala Creek. The City of Laurel experienced a record flood on April 15, 1974, when the Tallahala Creek crested at 224.65 feet (NGVD 1929). Other significant floods producing near record stages on the Tallahala Creek in Laurel occurred in April and December of 1973.

Ellisville has suffered from several major storms from 1985-1986 which caused flooding in bottom lands along streams. Although flood waters usually recede within a relatively short time, some damage has been incurred in low-lying residential areas. The most damaging recent flood in Ellisville occurred following a rainfall of 11.39 inches on December 25-26, 1973 (NOAA, 1976).

In the past, the City of Laurel has suffered various degrees of damage caused by flooding. On April 15, 1974, the city experienced a record flood on Tallahalla Creek that crested at 23.28 feet (224.65 feet mean sea level). Other significant floods producing near-record stages on Tallahalla Creek at Laurel were those of April and December 1973. Although damaging floods have occurred on all the streams in the City, the principal damage has been from overflow from Tallahalla Creek. This flooding is caused by frontal storms occurring in winter and spring, and lasting 2 to 4 days.

2.4 Flood Protection Measures

There are seven small flood control reservoirs in northwestern Jones County and Jasper County built as part of the NRCS Big Creek Watershed Project. The flood control structures' hydrologic effects were included in the calculations of the discharges of Big Creek.

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the communities, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of

experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

February 16, 1990, Jones County (Unincorporated Areas)

For the upstream section of Tallahoma Creek, the magnitude of the 1-percent flood was determined at selected points based on flood frequency at the discontinued gage at State Highway 15, adjusted on the basis of drainage area, and from regional regression estimates. The 1-percent flood magnitude at the discontinued gage was obtained by weighing results from a log-Pearson Type III statistical analysis (U.S. Department of the Interior, 1982) of the systematic (1941-48) and historic 1961 and 1964 annual peaks (USGS, 1961, MS Board of Water Commissioners, 1968), and a regional regression estimate, on the basis of equivalent years of record. The regional regression method used was taken from "Flood Frequency of Mississippi Streams" (USGS, 1976).

Flows in the lower sections of Tallahala and Tallahoma Creeks were determined using standard USGS procedures (USGS, 1976).

Basic data for the upstream section of the Tallahala Creek were obtained from published USGS records for the 26 gaging stations. These data were supplemented by estimates of flow for historical floods and other known floods that had been omitted from the published record. In cases where historical flood stages were known, estimates of flow were made using rating curves prepared from available records of peak discharge versus peak state. With the combined data, two gaging stations in the basin, Leaf River at Hattiesburg (1,760 square mile drainage area) and Pascagoula River at Merrill (6,600 square mile drainage area), had 61 years of record. The others varied from 10 to 55 years.

Discharges for the 0.2, 1, 2, and 10-percent chance floods for Rocky Creek, Rocky Creek Tributary 2, Little Rocky Creek, and Basie Branch were obtained from the USACE report titled "Special Flood Hazard Evaluation, Rocky Creek, Little Rocky Creek, and Basie Branch" (USACE, 1987).

December 16, 1988, City of Ellisville

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each stream studied in detail in the community.

Flows in Tallahala Creek, Tallahoma Creek, and Rocky Creek were determined using the U.S. Geological Survey's Flood Frequency of Mississippi Streams (USGS, 1976), intended for use in natural basins without urbanization and flood protection measures.

For the remaining basins, which were both small and urbanized, flows were determined by the methods used by the Mississippi State Highway Department. The procedure was developed for use on small drainage areas (under 5 square miles) and is described in an administrative release entitled Preliminary Flood-Frequency Analysis on Small Streams in Mississippi (USGS, 1970).

The area designated for detailed study on Rocky Creek Tributary 1 consists of two small channels with broad overbanks. An area of approximately ¼-square mile drains through the small channels to three culvert pipes under State Highway 590.

Based on discharges, headwaters required to pass floods of the 0.2, 1, 2, and 10 percent flood frequencies would result in the overtopping of Highway 590 with considerable storage resulting on the upstream side of the highway.

Since the methods selected for determination of discharges are based upon actual gage records, consideration for normal stream storage is included in the estimated discharges. The storage potential of the area under study may be large enough to effectively reduce the outlet discharge computed from the method described. A thorough engineering study of the storage-discharge relationship is beyond the scope of this study and of available mapping.

Frequency-discharge, drainage area curves were developed for the areas studied and are shown in Figures 1 and 2.

For the December 16, 1988 revision, Discharges for the 10-, 2-, 1-, and 0.2-percent-annual-chance frequency floods were computed by the USACE in the report titled "Special Flood hazard Evaluation, Rocky Creek, Little Rocky Creek, and Basie Branch" (USACE, 1987). The discharges at selected points are shown in Table 4, Summary of Discharges.

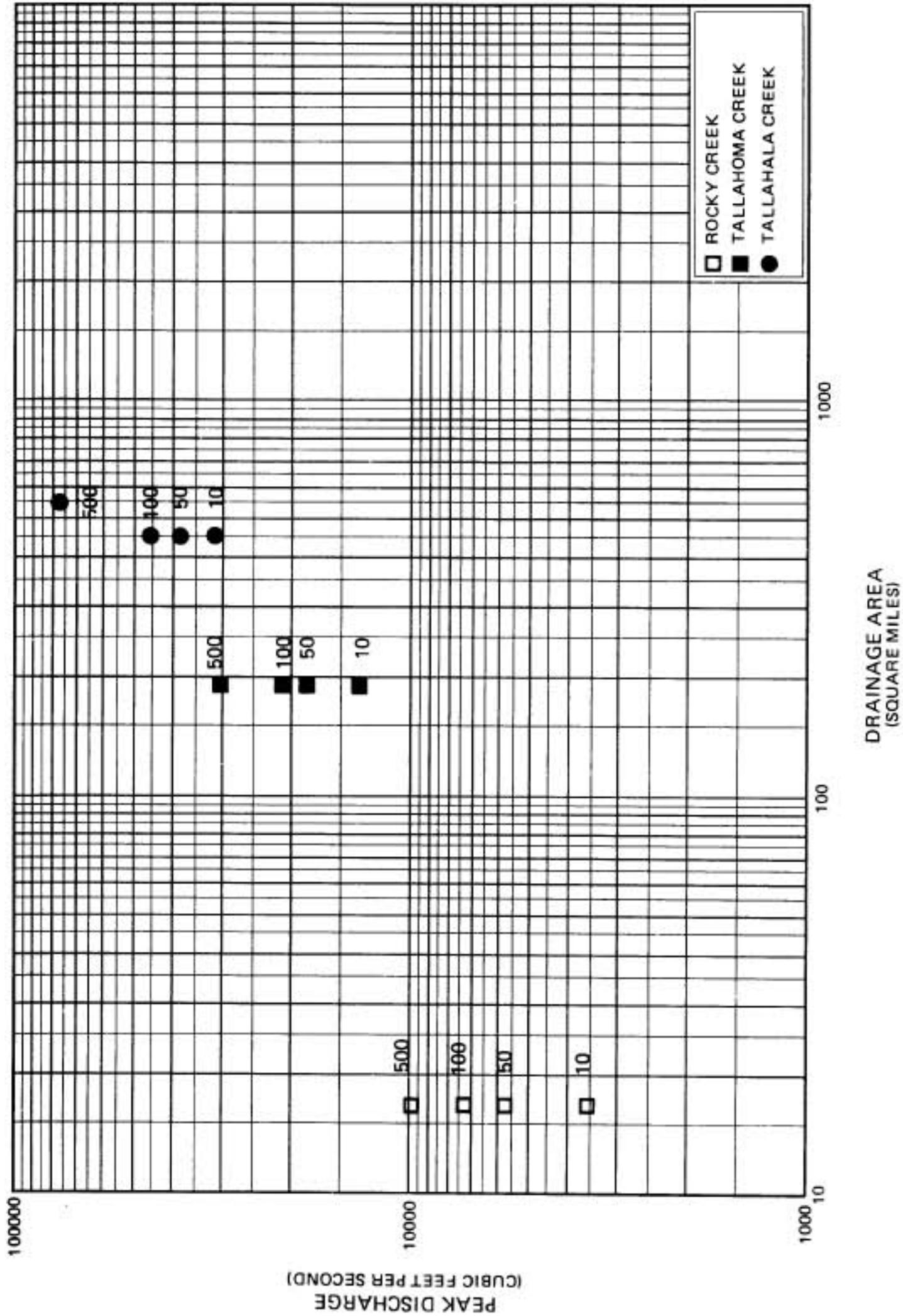
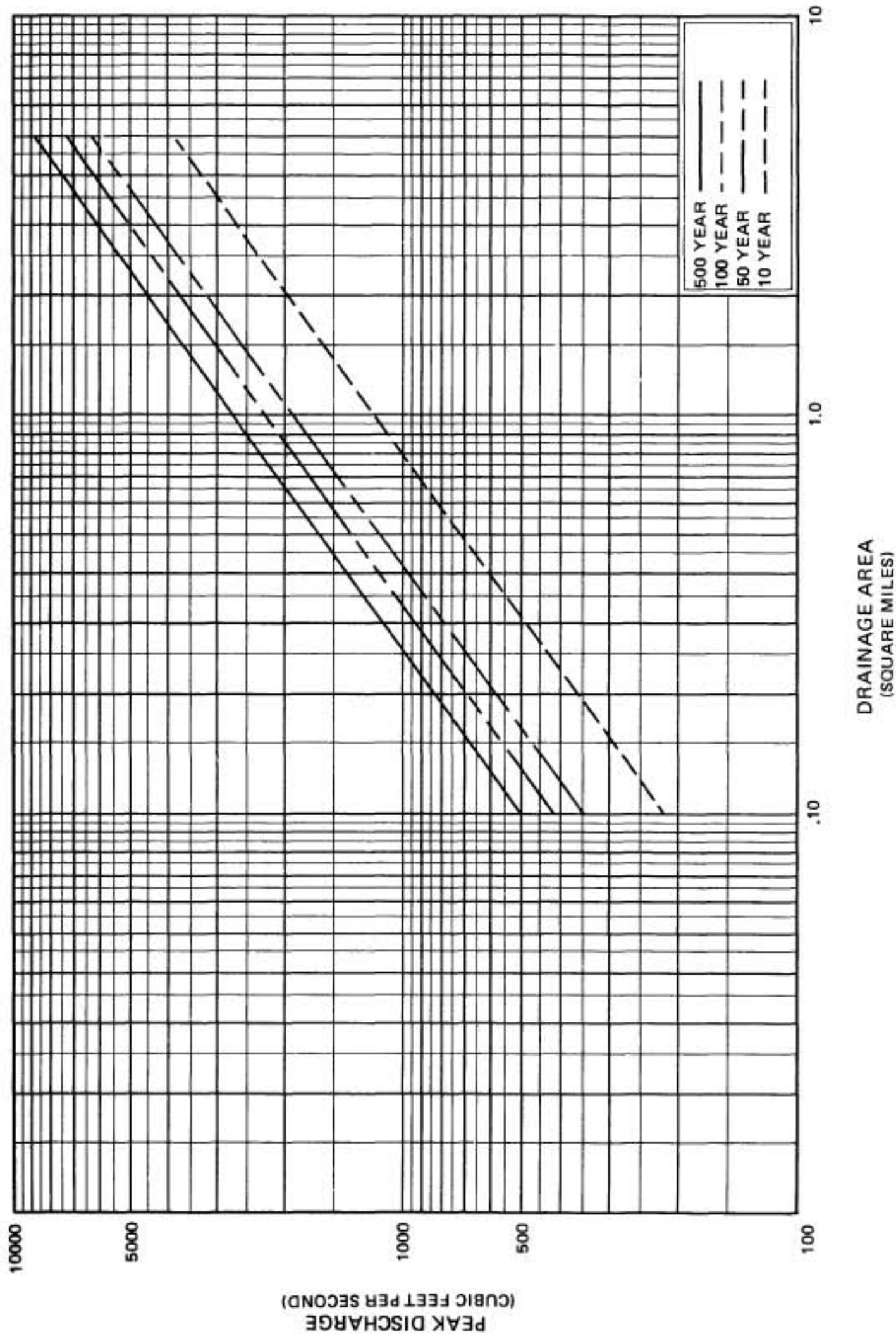


FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY
CITY OF ELLISVILLE, MS
 (JONES CO.)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES
ROCKY CREEK-TALLAHOMA CREEK-TALLAHALA CREEK



FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

TALLAHOMA CREEK TRIBUTARY 1-TALLAHOMA CREEK TRIBUTARY 2

ROCKY CREEK TRIBUTARY 2-ROCKY CREEK TRIBUTARY 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF ELLISVILLE, MS

(JONES CO.)

FIGURE 2

September 1977, City of Laurel, FIS Analysis

A regional flood frequency analysis was made by USACE, Mobile District, for the Pascagoula River basin, in general accordance with methods presented in Statistical Methods in Hydrology (USACE, 1968 and Beard, 1962). This method is basically the same as the method set forth in Water Resources Council Bulletin No. 15 (Water Resources Council, 1967). Basic data were obtained from published records of the USGS for the 26 gaging stations shown in Table 3, "USGS Stream Gage Data." These data were supplemented by estimates of flow for historical floods and other known floods that had been omitted from the published record. In cases where historical flood stages were known, estimates of flow were made using rating curves prepared from available records of peak discharge versus peak stage. With the combined data, two gaging stations in the basin, Leaf River at Hattiesburg (1,760 square mile drainage area) and Pascagoula River at Merrill (6,600 square-mile drainage area), had a 61 year record. The others varied from 10 to 55 years.

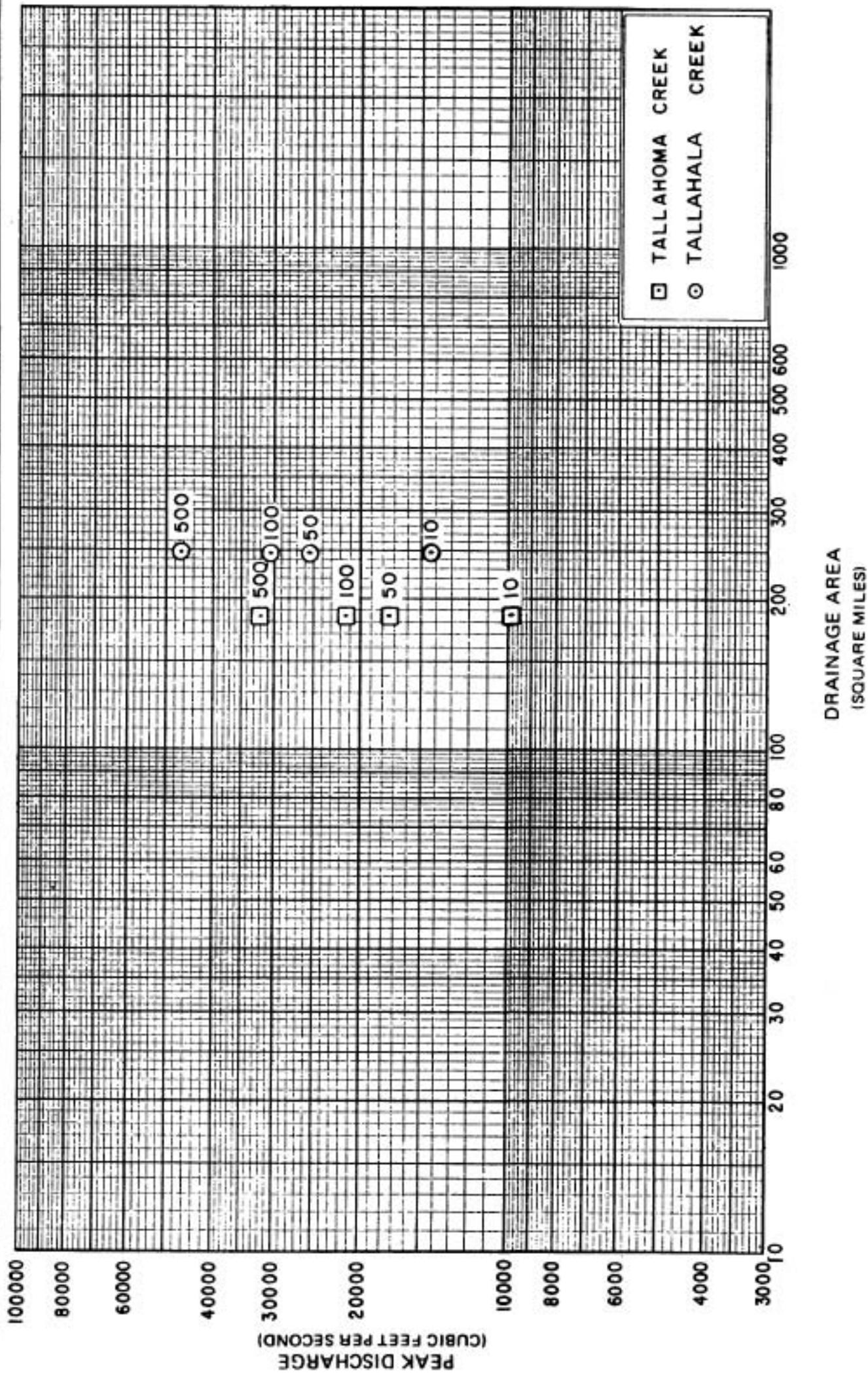
Regional flood frequency curves developed from data obtained from the listed gaging stations served as a basis for computing discharge-frequency curves for natural conditions at various in the study area. Slight variations were made to correlate the basin characteristics of drainage area and shape. These natural condition frequency curves were then adjusted for urbanization. The final adjusted curves were compared to previously published discharge estimates, gage data frequency curves, and estimates from other regional studies. Frequency-discharge, drainage area curves are shown in Figures 3-5, "Frequency-Discharge, Drainage Area Curves."

TABLE 3 – USGS STREAM GAGE DATA

<u>STREAM</u>	<u>NAME</u>	<u>NUMBER</u>	<u>DRAINAGE AREA (SQUARE MILES)</u>	<u>PERIOD OF RECORD (YEARS)</u>
Leaf River	Raleigh	4711	143	12
Oakohay Creek	Mize	4715	217	10
Leaf River	Collins	4720	752	27
Bowie Creek	Hattiesburg	4725	304	27
Leaf River	Hattiesburg	4730	1,760	61
Tallahala Creek	Laurel	4735	233	27
Tallahala Creek	Runnelstown	4745	612	26
Buck Creek	Runnelstown	4747	19	13
Leaf River	McLain	4750	3,510	26
Tarlow Creek	Newton	4754	16	13
Chunky Creek	Chunky	4755	239	27
Okatibbee Creek	Meridian	4760	52	24
Chickasawhay River	Enterprise	4770	913	28
Puchuta Creek	Pachuta	4772	23	13
Chickasawhay River	Shubuta	4774	1,460	55
Chickasawhay River	Waynesboro	4775	1,660	24
Buckatunna Creek	Denham	4780	468	13
Chickasawhay River	Leakesville	4785	2,688	28
Pascagoula River	Merrill	4790	6,600	61
Big Creek	Lubedale	4790	22	14
Wells Creek	Brooklyn	4791	22	14

TABLE 3 – USGS STREAM GAGE DATA - continued

<u>STREAM</u>	<u>NAME</u>	<u>NUMBER</u>	<u>DRAINAGE AREA (SQUARE MILES)</u>	<u>PERIOD OF RECORD (YEARS)</u>
Red Creek	Lumberton	4792	16	15
Red Creek	Wiggins	4792	168	14
Flint Creek	Wiggins	4792	25	11
Escatawpa River	Wilmer	4795	506	20



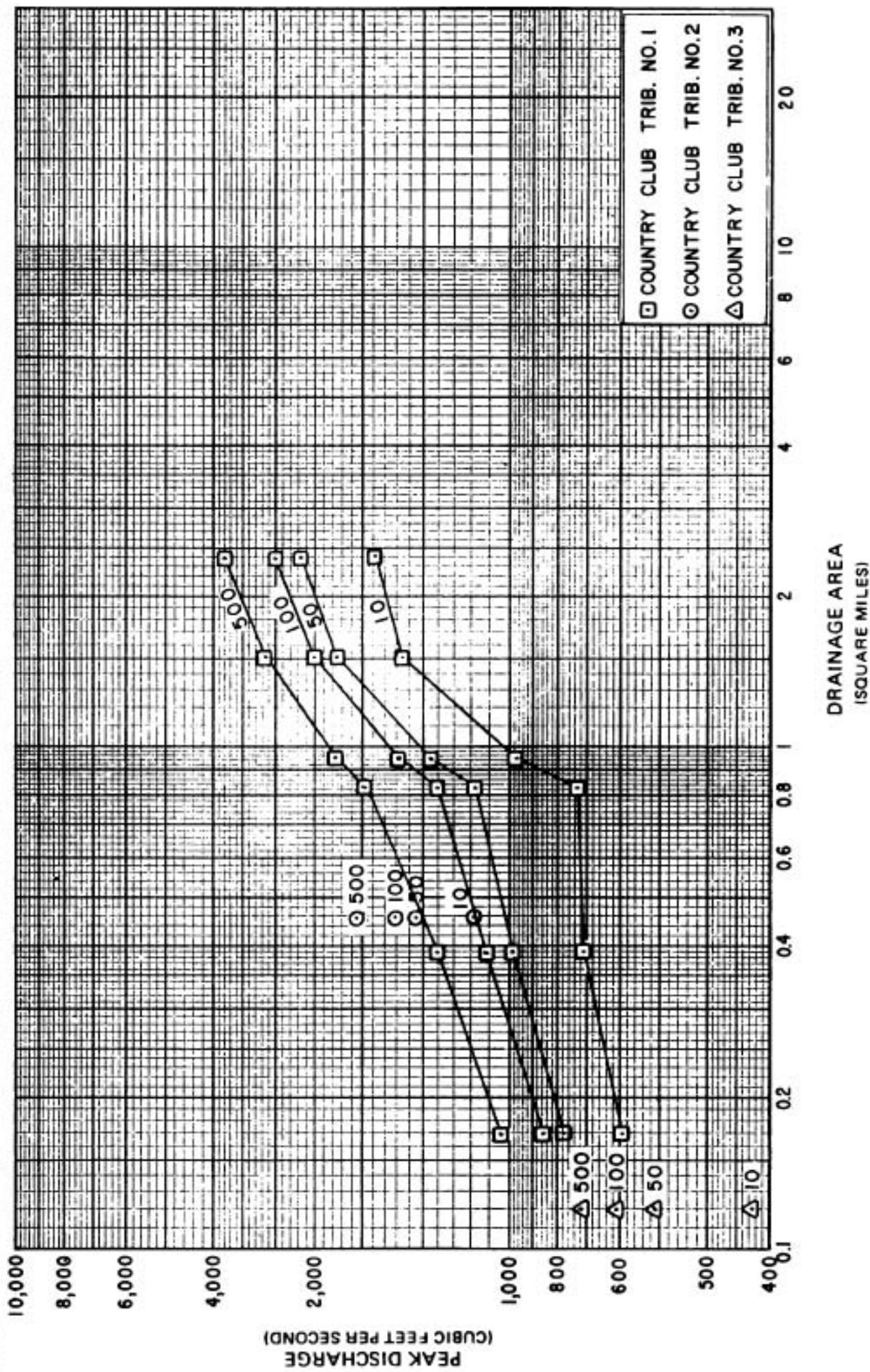
FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF LAUREL, MS
(JONES CO.)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

TALLAHOMA AND TALLAHALA CREEK

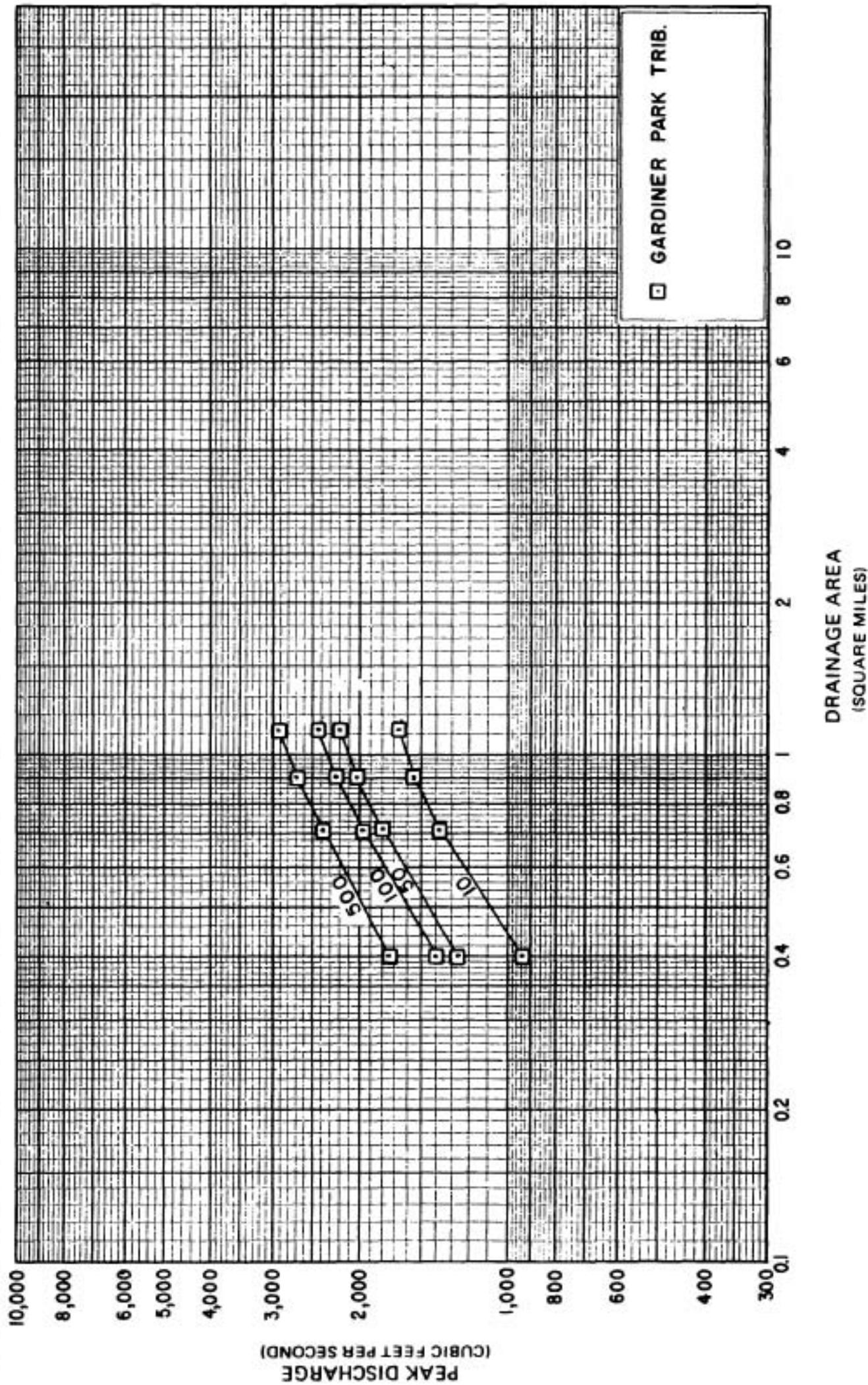
FIGURE 3



FREQUENCY DISCHARGE, DRAINAGE AREA CURVES
COUNTRY CLUB TRIBUTARIES NO. 1, 2, AND 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
CITY OF LAUREL, MS
 (JONES CO.)

FIGURE 4



FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF LAUREL, MS
 (JONES CO.)

FREQUENCY DISCHARGE, DRAINAGE AREA CURVES

GARDINER PARK TRIBUTARY

FIGURE 5

May 18, 1998, City of Laurel, FIS Revision

Peak discharges for Daphne Park Tributary were determined using updated regional regression equations published by the USGS, Flood Characteristics of Mississippi Streams (Landers & Wilson, 1991). Adjustments for urbanization were made using methods presented in USGS Water Supply Paper 2207, Flood Characteristics of Urban Streams in the United States (Sauer, Thomas, & Stricker). The 7-parameter urbanization equations were used. Drainage basin areas were delineated and planimetered from topographic maps (USGS, 1982). Main channel length and slope were also estimated from topographic maps (USGS, 1982). Basin development factors and percentage of impervious area were estimated from field observation. The 2-year, 2-hour rainfall intensity was taken from the U.S. Weather Bureau Rainfall Frequency Atlas of the United States (US Department of Commerce, 1963). significant basin storage exists within the Daphne Park Tributary watershed.

This Countywide FIS Analysis

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by limited detail methods affecting the communities. Peak discharges were calculated based on USGS regional regression equations (U.S. Department of the Interior, 1991). For the discharges calculated based on regional regression equations, the rural regression values were modified to reflect flood control reservoirs, stream gage weighting, and urbanization as applicable.

A summary of the drainage area-peak discharge relationships for all the streams is shown in Table 4, "Summary of Discharges."

TABLE 4. SUMMARY OF DISCHARGES

<u>FLOODING SOURCE AND LOCATION</u>	<u>DRAINAGE AREA (sq. mi.)</u>	<u>PEAK DISCHARGES (cfs)</u>			
		<u>10-percent</u>	<u>2-percent</u>	<u>1-percent</u>	<u>0.2-percent</u>
BASIE BRANCH					
At mouth	1.0	500	720	840	1,280
DAPHNE PARK TRIBUTARY					
At mouth	1.41	1,360	1,520	1,600	1,670
At Laurel Wood Sawmill Road	1.02	1,170	1,300	1,370	1,430
At Canadian National Railroad	0.79	1,080	1,210	1,280	1,340
At Beacon Street	0.56	790	890	930	980
At Sixth Street	0.37	500	580	610	650
At Eighth Street	0.15	240	280	290	310
LITTLE ROCKY CREEK					
At Interstate 59	5.1	1,890	2,900	3,500	5,300
At County Road 0.9 miles upstream of I-59	1.7	720	1,080	1,300	1,950

TABLE 4. SUMMARY OF DISCHARGES - continued

<u>FLOODING SOURCE AND LOCATION</u>	<u>DRAINAGE AREA (sq. mi.)</u>	<u>PEAK DISCHARGES (cfs)</u>			
		<u>10-percent</u>	<u>2-percent</u>	<u>1-percent</u>	<u>0.2-percent</u>
ROCKY CREEK					
At County Road (1.42 miles upstream of mouth)	33.0	5,600	9,200	11,000	16,000
Just upstream of confluence of Basie Branch	18.0	2,780	4,530	5,650	8,400
ROCKY CREEK TRIBUTARY 2					
At Dubose Street	1.0	900	1,200	1,400	1,800
At Pettis Street	0.5	270	390	450	590
TALLAHALA CREEK					
At Luther Hill Road	243.6	15,323	25,659	31,968	41,665
At Tom Windham Road	241.0	15,216	25,489	31,763	41,403
At State Highway 15	238.7	15,125	25,342	31,582	41,168
At U.S. Highway 84	235.1	14,991	25,115	31,298	40,795
TALLAHOMA CREEK					
At confluence of Horse Creek	190.8	N/A	N/A	20,300	N/A
At U.S. Highway 84	169.9	N/A	N/A	19,300	N/A
At county road (1.4 miles upstream of U.S. Highway 84 along hydraulic base line)	166.1	N/A	N/A	19,200	N/A
At county road (3.6 miles upstream of U.S. Highway 84 along hydraulic base line)	157.3	N/A	N/A	18,800	N/A
5.0 miles upstream of U.S Highway 84	154.7	N/A	N/A	18,600	N/A
At a point approximately 0.1 miles downstream of Trace Road	147.5	N/A	N/A	9,643	N/A
At State Highway 15	139.4	N/A	N/A	9,201	N/A
At a point approximately 0.4 miles upstream of State Highway 15	139.1	N/A	N/A	9,188	N/A
TALLAHOMA CREEK TRIBUTARY 1					
At a point approximately 0.25 miles downstream of Old Amy Road	1.26	N/A	N/A	1,615	N/A
At a point approximately 0.2 miles upstream of Old Amy Road	0.27	N/A	N/A	752	N/A
TALLAHOMA CREEK TRIBUTARY 2					
At the confluence with Tallahoma Creek	0.51	N/A	N/A	585	N/A
At Old Army Road	0.40	N/A	N/A	510	N/A

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data table in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

February 16, 1990, Jones County (Unincorporated Areas)

For the upstream segment of Tallahoma Creek, cross sections were obtained from field survey and supplemented with field survey data obtained from the files of the USACE. Additional cross sections were estimated from the surveyed cross sections adjusted for channel slope. Structural geometry and bridge-opening sections for road crossings were also obtained from the USACE files. Cross sections and bridge and culvert waterway openings for the remaining streams studied in detail were obtained from field surveys.

Channel and overbank roughness coefficients (Manning's "n") used in the hydraulic computations for the upstream segment of Tallahoma Creek were chosen by engineering judgment and based on field observation. Roughness values were 0.046 for the channel and ranged from 0.08 to 0.25 for the overbank areas. Water-surface elevations for the 1-percent chance headwater flood were computed using WSPRO, a step-backwater computer program (U.S. Department of Transportation, 1986). The starting water-surface elevation was computed using the estimated discharge-conveyance ratio of the 1961 flood at the downstream study limit. The computed 1-percent chance flood profile was compared with the historic floods of 1964 and 1974. Adjustments were then made to the expansion coefficient and selected roughness coefficients to better match those historic profiles.

For all other streams studied in the report, flood profiles were computed using the HEC-2 step-backwater program (USACE, 1984). Roughness coefficients for those computations were assigned on the basis of field inspection of floodplain areas. Roughness coefficients for Rocky Creek, Little Rocky Creek, and Basie Branch used in the flood profile calculations ranged from 0.030 to 0.150. Flood elevations were determined for floods of 0.2, 1, 2, and 10-percent chance intervals.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 2-percent and 1-percent chance flood elevations are close together, due to limitations of the profile scale, only the 1-percent chance profile has been shown.

December 1988, City of Ellisville, FIS Analyses

Cross sections of stream channels and bottom lands were surveyed, and bridge and culvert waterway openings were measured in the field. Several road profiles were obtained from the Mississippi State Highway Department and correlated with field information for use in the study.

With stream characteristics determined by field observation, flood profiles were computed using the standard HEC-2 step-backwater computer program (USACE, 1973). Channel roughness factors (Manning's "n") for these computations were assigned on the basis of field inspection of flood plain areas. Roughness coefficients used in the flood profile calculations ranged from 0.030 to 0.150. Flood elevations were determined for floods of 0.2, 1, 2, and 10 percent chance recurrence intervals.

For the purpose of establishing flood insurance rate zones on Rocky Creek Tributary 1 upstream of State Highway 590, headwater elevations required to pass each flood have been determined. Calculations of required headwater upstream Highway 590 were based on analyses of the combined flows through the three existing culvert pipes and the flow over Highway 590. Downstream of Highway 590, flood elevations are based on flood profiles of Rocky Creek. No flood profiles have been plotted for Rocky Creek Tributary 1; however, flood elevations for the frequencies applicable to this study are shown in Table 5.

Table 5 - Flood Elevations for Rocky Creek Tributary 1*

<u>Frequency</u>	<u>Elevation (feet)</u>
10-percent	208.4
2-percent	209.0
1-percent	209.1
0.2 percent	209.2

* Upstream of State Highway 590

Flood profiles were drawn showing computed water-surface elevations to an accuracy of 0.5 foot for floods of the selected recurrence intervals (Exhibit 1).

Flooding limits on Little Rocky Creek and Basie Branch were determined by approximate methods, utilizing normal depth calculations based on general stream channel configurations and the 10-foot interval contour map obtained from the U.S. Geological Survey (USGS, 1964).

The hydraulic analyses and flood elevations determined in this study consider that hydraulic structures on the stream systems are unobstructed.

For the December 16, 1988 revision, the hydraulic analyses for this revision were performed using the HEC-2 step-backwater computer program (USACE, 1984) and included new surveyed cross sections. Manning's "n" values range from 0.015 to 0.20 for the streams studied.

September 1977, City of Laurel, FIS Analyses

Cross sections for the flooding sources studied by detailed methods were obtained from field surveys.

Water-surface elevations of floods of the selected recurrence intervals were computed using the USACE HEC-2 step-backwater computer program (USACE, 1991). Starting

water-surface elevations were taken from stream gage data or were determined using the slope/area method.

Roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and were based on field observation of the channel and floodplain areas.

The 1-percent chance flood elevations for the flooding sources studied by approximate methods were determined by field inspection and from high water-marks of past floods.

May 18, 1998 City of Laurel FIS Revision

Cross sections for the flooding sources studied by detailed methods were obtained from field surveys.

Water-surface elevations of floods of the selected recurrence intervals were computed using the USACE HEC-2 step-backwater program (USACE 1991). Starting water-surface elevations were calculated using the slope/area method.

Roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and were based on field observation of the channel and floodplain areas. The channel "n" values ranged from 0.012-0.250.

This Countywide FIS Analysis

A new detailed study was performed on Tallahala Creek from a point approximately 4,600 feet upstream of the confluence of Country Club Creek Tributary 1 to a point approximately 2,400 feet upstream of U.S. Highway 84. The study takes into consideration the recent channel clearing and snagging work done by the USACE.

Cross section geometries were obtained from a combination of terrain data and field surveys. Bridges and culverts located within the limited detailed study limits were field surveyed to obtain elevation data and structural geometry.

Downstream boundary conditions for the hydraulic models were set to normal depth using a starting slope calculated from values taken from topographic data, or where applicable, derived from the water-surface elevations. Water-surface profiles were computed through the use of the USACE HEC-RAS version 3.1.2 computer program (USACE, 2003). The model was run for the 1-percent annual chance storm for the limited detail and approximate studies.

Channel roughness factors (Manning's "n") values used in the hydraulic computations for both channel and overbank areas were based on recent digital orthophotography and field investigations.

Table 6, "Summary of Roughness Coefficients," shows the ranges of the channel and overbank roughness factors used in the computations for all of the streams studied by detailed and limited detail methods.

TABLE 6. SUMMARY OF ROUGHNESS COEFFICIENTS

Limited Detailed Study Streams		
<u>FLOODING SOURCE</u>	<u>CHANNEL "N"</u>	<u>OVERBANK "N"</u>
TALLAHALA CREEK	0.05	0.02-0.18

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

The hydraulic analyses for this countywide FIS were based on unobstructed flow. The flood elevations shown on the Flood Profiles (Exhibit 1) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

3.3 Vertical Datum

All FIS reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the finalization of the North American Vertical Datum of 1988 (NAVD88), many FIS reports and FIRMs are being prepared using NAVD88 as the referenced vertical datum.

Qualifying bench marks within a given jurisdiction that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS) as First or Second Order Vertical and have a vertical stability classification of A, B, or C are shown and labeled on the FIRM with their 6-character NSRS Permanent Identifier.

Benchmarks cataloged by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)

Stability B: Monuments which generally hold their position/elevation well (e.g., concrete bridge abutment)

Stability C: Monuments which may be affected by surface ground movements (e.g., concrete monuments below frost line)

Stability D: Mark of questionable or unknown vertical stability (e.g., concrete monument above frost line, or steel witness post)

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD88. Structure and ground elevations in the community must, therefore, be referenced to NAVD88. It is important to note that adjacent communities may be referenced to NGVD29. This may result in differences in Base Flood Elevations (BFEs) across the corporate limits between the communities.

The elevations shown in the FIS report and on the FIRM for Jones County are referenced to NAVD88. Ground, structure, and flood elevations may be compared and/or referenced to NGVD29 by applying a conversion factor. To convert elevations from NAVD88 to NGVD29, add 0.03 feet to the NAVD88 elevation. The 0.03 feet value is an average for the entire county. The adjustment value was determined using the USACE Corpscon 6.0.1 computer program (USACE, 2004) and topographic maps (U.S. Department of the Interior, 1964 and 1982). The BFEs shown on the FIRM represent whole-foot rounded values. For example, a BFE of 12.4 feet will appear as 12 feet on the FIRM, and 12.6 feet as 13 feet. Users who wish to convert the elevations in this FIS report to NGVD29 should apply the Stated conversion factor to elevations shown on the Flood Profiles and supporting data tables in the FIS report, which are shown at a minimum to the nearest 0.1foot.

For more information regarding conversion between the NGVD and the NAVD, see the FEMA publication entitled *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988* or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (Internet address <http://www.ngs.noaa.gov>).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM. Interested individuals may contact FEMA to access this data.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each FIS provides 1-percent-annual-chance flood elevations and delineations of the 1- and 0.2-percent-annual-chance floodplain boundaries and 1-percent-annual-chance floodway to assist communities in developing floodplain management measures. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data Table and Summary of Stillwater Elevations Table. Users should reference the data presented in the FIS report as well as additional information that may be available at the local map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied by detailed methods, the 1- and 0.2-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section.

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM (Exhibit 2), On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of

moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by limited detailed and approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM (Exhibit 2). Floodplain boundaries for these streams, as well as those streams that have been previously studied by detailed methods, were generated using USGS 10-meter Digital Elevation Models, then refined using detailed hydrographic data.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent-annual-chance flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this FIS report and on the FIRM was computed for certain stream segments on the basis of equal-conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations have been tabulated for selected cross sections of detailed study streams (Table 7). For detailed study streams, in cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, "Without Floodway" elevations presented in Table 7, "Floodway Data," for certain downstream cross sections are lower than the regulatory flood elevations in that area, which must take into account the 1-percent-annual-chance flooding due to backwater from other sources.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. For detailed study streams, a listing of stream velocities at selected cross sections is provided in Table 7. In order to reduce the risk of property damage in areas where the stream velocities are high, the county may wish to restrict development in areas outside the floodway.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is

termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent-annual-chance flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 6.

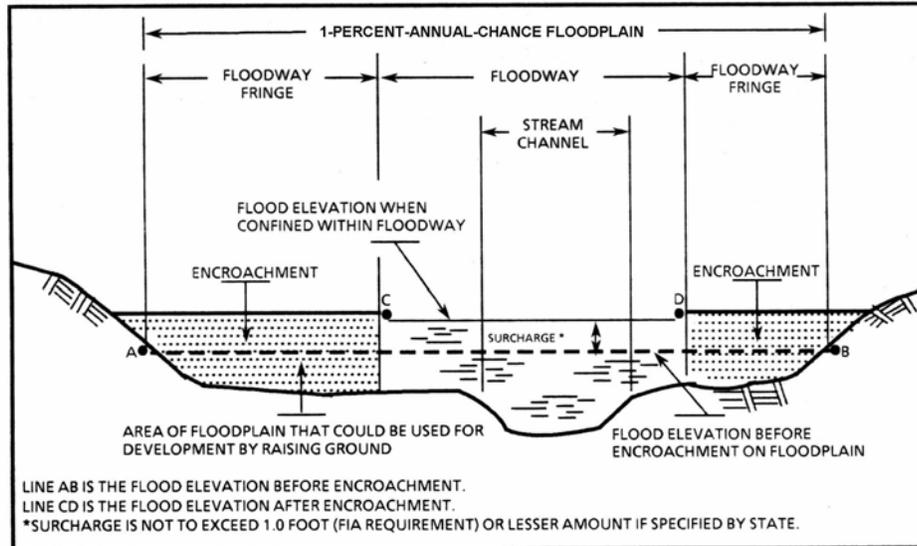


Figure 6. FLOODWAY SCHEMATIC

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BASIE BRANCH								
A	1,500	89	456	1.8	196.4	196.4	197.3	0.9
B	2,290	135	582	1.4	199.8	199.8	200.8	1.0
C	3,930	47	225	3.7	206.2	206.2	206.9	0.7
D	4,730	101	511	1.6	209.0	209.0	210.0	1.0
E	5,230	57	206	4.1	209.4	209.4	210.4	1.0
F	6,440	68	233	3.0	214.9	214.9	215.8	0.9
G	7,280	22	112	6.4	217.1	217.1	218.1	1.0
H	8,190	95	321	2.2	224.0	224.0	225.0	1.0

¹ FEET ABOVE MOUTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 7

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

BASIE BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
COUNTRY CLUB TRIBUTARY 1								
A	18,198	2,478	13,775	0.22	216.3	216.3	216.3	0.0
B	20,573	650	3,353	0.89	219.0	219.0	219.9	0.9
C	22,986	324	1,872	1.60	228.4	228.4	229.3	0.9
D	24,614	134	781	3.84	234.1	234.1	234.5	0.4
E	26,186	254	967	2.59	237.4	237.4	238.1	0.7
F	26,425	171	994	2.52	237.6	237.6	238.4	0.8
G	26,970	150	529	3.19	238.3	238.3	239.0	0.7
H	29,716	187	1,011	1.38	246.5	246.5	247.3	0.8
I	31,595	93	541	2.07	251.5	251.5	252.3	0.8
J	33,045	133	414	2.71	257.1	257.1	257.8	0.6
K	34,870	172	364	3.07	263.5	263.5	263.5	0.0
L	36,043	212	1,046	1.07	271.2	271.2	272.2	1.0
M	36,795	62	104	8.27	275.9	275.9	275.9	0.0

¹ FEET ABOVE MOUTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 5

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

COUNTRY CLUB TRIBUTARY 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
COUNTRY CLUB CREEK TRIBUTARY 2	900	125	326	5.26	240.6	240.6	240.6	0.0
	2,100	123	677	2.54	246.7	246.7	247.3	0.6
	3,150	123	253	5.10	251.4	251.4	252.2	0.8
	4,061	110	653	1.98	257.5	257.5	258.3	0.8
	4,450	60	140	9.21	258.9	258.9	258.9	0.0
COUNTRY CLUB CREEK TRIBUTARY 3	460	258	966	0.61	240.0	240.0	240.9	0.9
	1,110	85	139	4.46	245.3	245.3	245.3	0.0
	2,060	88	293	3.24	255.9	255.9	256.9	1.0

¹ FEET ABOVE MOUTH

FEDERAL EMERGENCY MANAGEMENT AGENCY JONES COUNTY, MS AND INCORPORATED AREAS	FLOODWAY DATA
TABLE 7	COUNTRY CLUB CREEK TRIBUTARY 2 – COUNTRY CLUB CREEK TRIBUTARY 3

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DAPHNE PARK TRIBUTARY								
A	3,524	250	587	2.3	226.0	221.4 ²	222.4	1.0
B	4,600	140	870	1.6	229.5	229.5	229.9	0.4
C	5,170	53	389	3.5	229.5	229.5	230.1	0.6
D	5,760	50	421	3.3	231.6	231.6	232.3	0.7
E	6,650	113	635	2.0	234.9	234.9	235.3	0.4
F	8,508	55	407	1.5	245.1	245.1	245.6	0.5
G	11,050	50	256	2.4	266.0	266.0	266.0	0.0
H	11,266	86	406	1.5	266.5	266.5	266.9	0.4
I	11,660	61	227	1.3	266.8	266.8	267.4	0.6
J	12,750	30	79	3.7	268.2	268.2	268.8	0.6
K	13,055	30	46	6.3	270.1	270.1	270.1	0.0

¹ FEET ABOVE MOUTH

² ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TALLAHALLA CREEK

FLOODWAY DATA
FEDERAL EMERGENCY MANAGEMENT AGENCY
JONES COUNTY, MS
AND INCORPORATED AREAS
TABLE 7
DAPHNE PARK TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
GARDINER PARK TRIBUTARY								
A	2,400	925	5,865	0.39	229.7	229.0 ²	230.0	1.0
B	3,145	390	1,553	1.45	229.7	229.0 ²	230.0	1.0
C	3,900	150	786	2.86	233.0	233.0	233.2	0.2
D	4,317	160	884	2.54	233.8	233.8	234.3	0.5
E	4,625	107	609	3.69	234.2	234.2	234.8	0.6
F	4,879	170	527	4.27	234.9	234.9	235.6	0.7
G	5,225	154	650	3.46	235.0	235.0	235.6	0.6
H	5,534	337	1,270	1.77	238.5	238.5	238.5	0.0
I	5,927	272	1,270	1.77	239.2	239.2	239.9	0.7
J	6,123	182	921	2.44	239.5	239.5	240.2	0.7
K	6,445	214	1,088	2.07	240.2	240.2	241.1	0.9
L	7,140	242	1,414	1.71	243.9	243.9	243.9	0.0
M	7,445	225	788	3.07	244.7	244.7	244.7	0.0
N	7,870	280	1,202	2.02	245.3	245.3	245.3	0.0
O	8,170	286	940	2.57	245.5	245.5	245.5	0.0
P	9,795	100	353	6.30	250.1	250.1	250.1	0.0
Q	10,500	100	530	4.20	252.5	252.5	252.5	0.0
R	10,928	100	591	3.35	255.0	255.0	255.0	0.0
S	12,325	100	366	3.28	259.9	259.9	259.9	0.0
T	13,025	100	188	7.45	263.4	263.4	263.4	0.0
U	13,750	100	280	5.00	268.1	268.1	268.1	0.0
V	14,590	100	269	5.20	272.7	272.7	273.1	0.4

¹ FEET ABOVE MOUTH

² ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TALLAHALA CREEK

FLOODWAY DATA
FEDERAL EMERGENCY MANAGEMENT AGENCY
JONES COUNTY, MS
AND INCORPORATED AREAS
GARDINER PARK TRIBUTARY
TABLE 7

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE ROCKY CREEK								
A	2,475	1,120	5,019	1.2	193.5	193.5	194.5	1.0
B	4,600	710	2,384	2.5	195.1	195.1	196.1	1.0
C	6,975	451	2,303	2.6	200.8	200.8	201.8	1.0
D	9,675	1,494	3,092	1.9	204.8	204.8	205.8	1.0
E	11,475	877	6,658	1.0	209.3	209.3	210.2	0.9
F	13,550	536	3,086	2.1	209.7	209.7	210.7	1.0
G	15,475	742	2,999	2.1	211.8	211.8	212.5	0.7
H	16,625	403	1,841	1.9	213.7	213.7	214.7	1.0
I	17,370	433	3,573	1.0	217.0	217.0	217.8	0.8
J	17,704	443	4,014	0.9	219.5	219.5	220.4	0.9
K	19,930	412	2,468	1.4	220.4	220.4	221.4	1.0
L	21,350	111	652	5.4	223.3	223.3	224.3	1.0
M	22,269	498	1,830	1.9	225.8	225.8	226.8	1.0

¹ FEET ABOVE MOUTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 7

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

LITTLE ROCKY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ROCKY CREEK								
A	7,590	135	1,612	6.8	186.8	186.8	187.4	0.6
B	10,000	665	5,498	1.2	192.4	192.4	193.3	0.9
C	14,900	723	2,824	2.0	196.5	196.5	197.5	1.0
D	17,500	843	4,252	1.3	201.1	201.1	202.1	1.0
E	20,250	682	4,331	1.5	203.8	203.8	204.8	1.0
F	21,300	553	2,302	2.7	205.7	205.7	206.6	0.9
G	22,700	723	4,135	1.5	206.6	206.6	207.6	1.0
ROCKY CREEK TRIBUTARY 2								
A	1,420	65	565	1.7	207.2	207.2	208.1	0.9
B	2,915	31	207	7.2	208.1	208.1	208.7	0.6
C	4,490	36	257	3.3	215.7	215.7	216.7	1.0
ROCKY CREEK TRIBUTARY 3								
A	520	95	398	2.8	218.5	218.5	219.4	0.9
B	810	89	240	4.6	219.1	219.1	219.8	0.7
C	1,414	98	326	3.4	223.1	223.1	224.0	0.9
D	1,804	80	302	3.3	223.6	223.6	224.6	1.0
E	2,115	71	220	4.5	226.3	226.3	227.1	0.8
F	2,505	53	161	6.2	228.0	228.0	229.0	1.0

¹ FEET ABOVE MOUTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 7

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

**ROCKY CREEK – ROCKY CREEK TRIBUTARY 2 –
ROCKY CREEK TRIBUTARY 3**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TALLAHALLA CREEK								
A	10,749	4,827	34,011	1.6	201.8	201.8	202.8	1.0
B	11,749	4,897	25,669	2.1	202.0	202.0	203.0	1.0
C	31,600	4,346	45,946	3.4	214.5	214.5	214.9	0.4
D	44,318	4,480	7,765	9.9	217.7	217.7	218.6	0.9
E	52,567	5,650	29,865	2.8	219.7	219.7	220.5	0.8
F	55,683	4,780	33,115	3.4	220.0	220.0	220.8	0.8
G	59,611	6,806	25,270	4.5	222.8	222.8	223.2	0.4
H	65,272	4,333	41,512	2.8	226.1	226.1	226.9	0.8
I	68,501	3,913	12,434	5.7	226.7	226.7	227.3	0.6
J	76,423	4,122	14,306	2.4	228.1	228.1	229.0	0.9
K	83,536	4,060	28,757	2.2	235.5	235.5	236.5	1.0
L	89,392	4,088	31,237	2.6	237.2	237.2	238.1	0.9

¹ FEET ABOVE STATE HIGHWAY 29

FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

TALLAHALLA CREEK

TABLE 7

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TALLAHOMA CREEK								
A	2,160	5,042	68,023	0.8	202.2	202.2	203.2	1.0
B	6,163	2,296	32,183	0.8	202.8	202.8	203.8	1.0
C	7,463	1,490	8,909	2.9	202.9	202.9	203.9	1.0
D	9,313	749	5,201	5.0	203.3	203.3	204.2	0.9
E	32,007	757	N/A	N/A	213.4	213.4	214.4	1.0
F	45,057	2,262	18,742	1.2	219.8	219.8	220.7	0.9
G	54,714	506	N/A	N/A	223.0	223.0	224.0	1.0

¹ FEET ABOVE MOUTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 7

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

TALLAHOMA CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TALLAHOMA CREEK TRIBUTARY 1								
A	1,300	85	460	4.3	202.2	189.2 ²	190.2	1.0
B	1,900	42	286	5.9	202.2	191.6 ²	192.6	1.0
C	2,900	67	311	5.5	202.2	197.9 ²	198.7	0.8
D	3,680	69	397	3.9	205.8	205.8	206.4	0.6
E	3,860	93	426	3.6	206.0	206.0	207.0	1.0
F	4,080	103	603	2.6	206.9	206.9	207.8	0.9
G	4,760	61	271	5.2	207.7	207.7	208.5	0.8
H	5,031	214	1,206	1.0	210.4	210.4	211.4	1.0
I	5,711	161	376	2.7	210.9	210.9	211.8	0.9
J	6,131	71	268	3.7	213.7	213.7	214.7	1.0
K	6,273	251	2,453	0.4	221.5	221.5	222.5	1.0
L	6,533	240	1,700	0.6	221.5	221.5	222.5	1.0
M	6,733	174	1,143	0.8	221.6	221.6	222.6	1.0
N	7,333	100	322	2.8	221.7	221.7	222.7	1.0

¹ FEET ABOVE CONFLUENCE WITH TALLAHOMA CREEK

² ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TALLAHOMA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

TABLE 7

FLOODWAY DATA

**JONES COUNTY, MS
AND INCORPORATED AREAS**

TALLAHOMA CREEK TRIBUTARY 1

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TALLAHOMA CREEK TRIBUTARY 2								
A	473	72	187	2.0	210.5	210.5	211.5	1.0
B	973	44	187	2.0	215.5	215.5	216.5	1.0
C	1,253	31	128	2.9	215.9	215.9	216.9	1.0

¹ FEET ABOVE CONFLUENCE WITH TALLAHOMA CREEK TRIBUTARY 1

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY JONES COUNTY, MS AND INCORPORATED AREAS	FLOODWAY DATA TALLAHOMA CREEK TRIBUTARY 2
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5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance risk zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent annual chance) flood elevations (BFEs), or base flood depths are shown within this zone.

Zone AE

Zone AE is the flood insurance risk zone that corresponds to the 1-percent annual chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within the zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to the areas of 1-percent annual chance shallow flooding (usually sheet flow on sloping terrain) where the average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within the zone.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas of the 1-percent floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or depths are shown within this zone.

Zone V

Zone V is the flood insurance rate zone that corresponds to the 1-percent coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no base flood elevations are shown within this zone.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent coastal floodplains that have additional hazards associated with storm waves. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance risk zone that corresponds to areas outside the 0.2-percent annual chance floodplain, areas within the 0.2-percent annual chance floodplain, areas of 1-percent annual chance flooding where average depths are less than 1 foot, areas of 1-percent annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

Zone D

Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance risk zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use the zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Jones County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of Jones County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community, up to and including this countywide FIS are presented in Table 8, "Community Map History."

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Ellisville, City of	January 16, 1974	January 16, 1976	September 30, 1977	December 16, 1988
Jones County (Unincorporated Areas)	November 29, 1974	November 11, 1977	February 16, 1990	
Laurel, City of	November 30, 1973	NONE	September 15, 1977	October 13, 1978 May 18, 1988
Sandersville, Town of		NONE		
Soso, Town of ¹	November 29, 1974	November 11, 1977	February 16, 1990	

¹This community did not have its own FIRM prior to this countywide FIS. The land area for this community was previously shown on the FIRM for the unincorporated areas of Jones County, but was not identified as a separate NFIP community. Therefore, the dates for this community were taken from the FIRM for Jones County.

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY
JONES COUNTY, MS
 AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Jones County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS reports, FIRMs, and/or FBFMs for all of the incorporated and unincorporated jurisdictions within Jones County.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting Federal Insurance and Mitigation Division, FEMA Region IV, Koger-Center — Rutgers Building, 3003 Chamblee Tucker Road, Atlanta, GA 30341.

9.0 BIBLIOGRAPHY AND REFERENCES

Federal Emergency Management Agency, Flood Insurance Study, City of Ellisville, Jones County, Mississippi, December 1988.

U.S. Census Bureau (February 2007). Website–2005 Population Estimate.

U.S. Census Bureau (February 2007). Website–2005 Economic Fact Sheet.

National Oceanic and Atmospheric Administration, Climatological Data – Mississippi, Vols. 73-81, Asheville, N.C., 1976.

U.S. Department of the Interior, Geological Survey, Interagency Advisory Committee on Water Data, Office of Water Data Coordination, Hydrology Subcommittee, Bulletin No. 17B, Guidelines for Determining Flood Flow Frequency, September 1981, revised March 1982.

U.S. Geological Survey, Water Resources Investigations, Open-File Report, Floods in Mississippi, Magnitude and Frequency, K.V. Wilson and I.L. Trotter Jr., 1961.

Mississippi Board of Water Commissioners, Bulletin 68-1, Floods of the 1964 Water Year in Mississippi, K.W. Wilson and B.E. Ellison, Jr., 1968.

U.S. Geological Survey, Flood Frequency of Mississippi Streams, B.E. Colson and J.W. Hudson, 1976.

U.S. Army Corps of Engineers, Mobile District, Special Flood Hazard Evaluation, Rocky Creek, Little Rocky Creek, and Basie Branch, Mobile, Alabama, January 1987.

U.S. Geological Survey, Administrative Release, Preliminary Flood-Frequency Analysis on Small Streams in Mississippi, J. W. Hudson, 1970.

U.S. Army Corps of Engineers, Mobile District, Special Flood Hazard Evaluation, Rocky Creek, Little Rocky Creek, and Basie Branch, Mobile, Alabama, January 1987.

U.S. Army Corps of Engineers, Mobile District, Pascagoula Comprehensive River Basin Study, 1968.

Leo R. Beard, Statistical Methods in Hydrology, Sacramento, California, U.S. Army Corps of Engineers, January 1962.

Water Resources Council, “A Uniform Technique for Determining Flood Flow Frequency, Bulletin 15, Washington, D.C., December 1967.

U.S. Department of the Interior, Geological Survey, Water Resources Investigation 91-403, Flood Characteristics of Mississippi Streams by M.N. Landers, K.V. Wilson, Jr., Washington D.C., 1991.

U.S. Department of the Interior (1983). Geological Survey, Water-Supply Paper No. 2207, Flood Characteristics of Urban Watersheds in the United States, V.B. Sauer, W.O. Thomas, V.A. Stricker, and K.V. Wilson.

U. S. Department of the Interior, Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 Feet: Ellisville, Mississippi, 1964; Laurel East, Mississippi, 1964; Laurel West, Mississippi, 1964, photorevised 1982; Moss, Mississippi, 1964, photorevised 1982

U.S. Department of Commerce, Weather Bureau, Technical Paper No. 40, Rainfall Frequency Atlas of the United States, Washington, D.C., 1961, Revised 1963.

U.S. Department of the Interior (1991). Geological Survey, Flood Characteristics of Mississippi Streams, Water-Resources Investigations Report 91-4037, Jackson, MS.

U.S. Department of Transportation, Federal Highway Administration, Report No. FHWA/RD-86/108, Bridge Waterways Analysis Model: Research Report, J.O. Shearman, W.H. Kirby, V.R. Schneider, and H.N. Flippo, 1986.

U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles, Generalized Computer Program, Davis, California, October 1973.

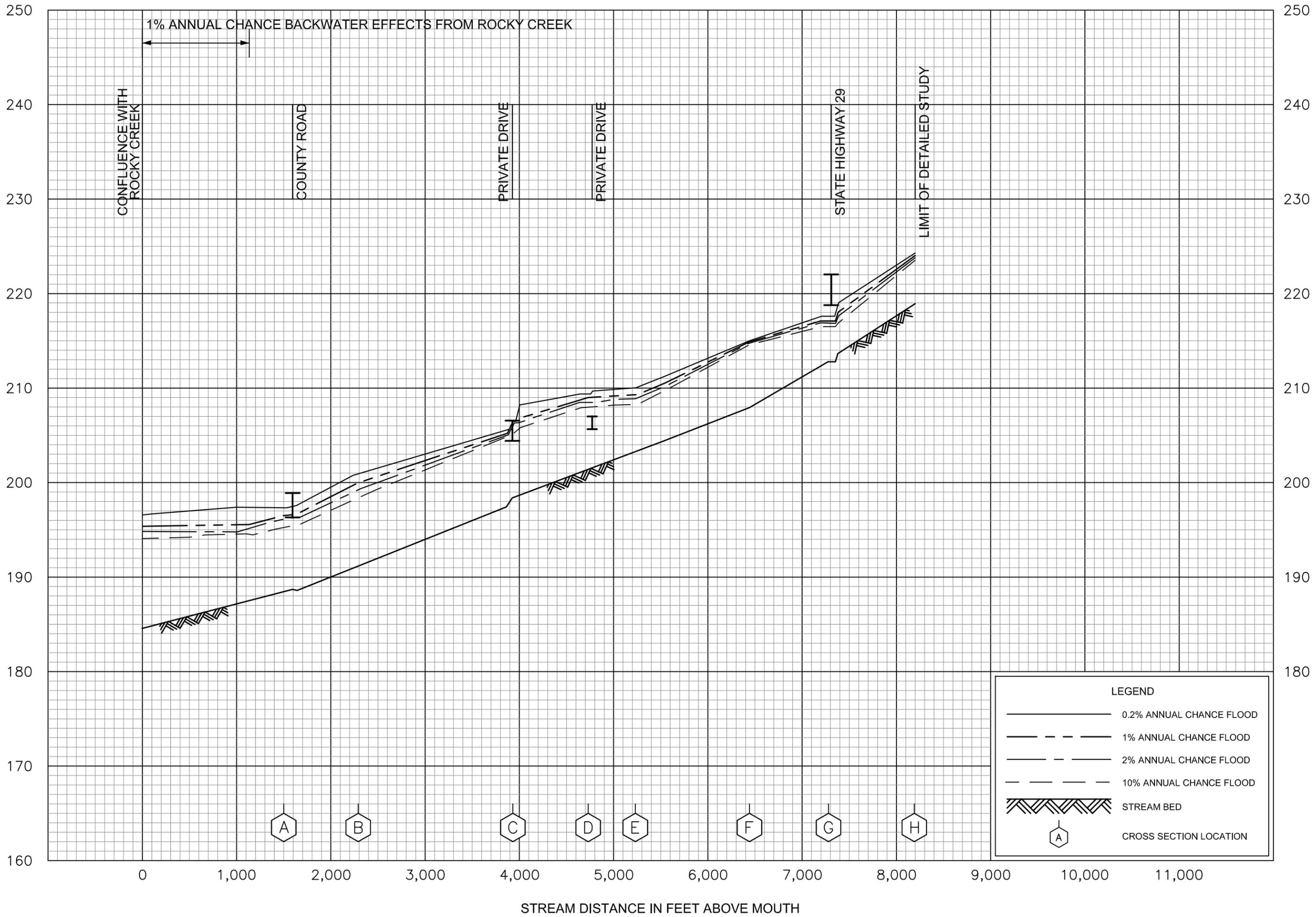
U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Computer Program 723-X6-L202A, Davis, California, April 1984.

U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles, Generalized Computer Program, Davis, California, May 1991.

U.S. Army Corps of Engineers (May 2003). Hydrologic Engineering Center, HEC-RAS River Analysis System, User's Manual, version 3.1.3, Davis, California.

U.S. Army Corps of Engineers, Topographic Engineering Center, Corpscon version 6.0.1, Alexandria, Virginia, August 2004.

ELEVATION IN FEET (NAVD)



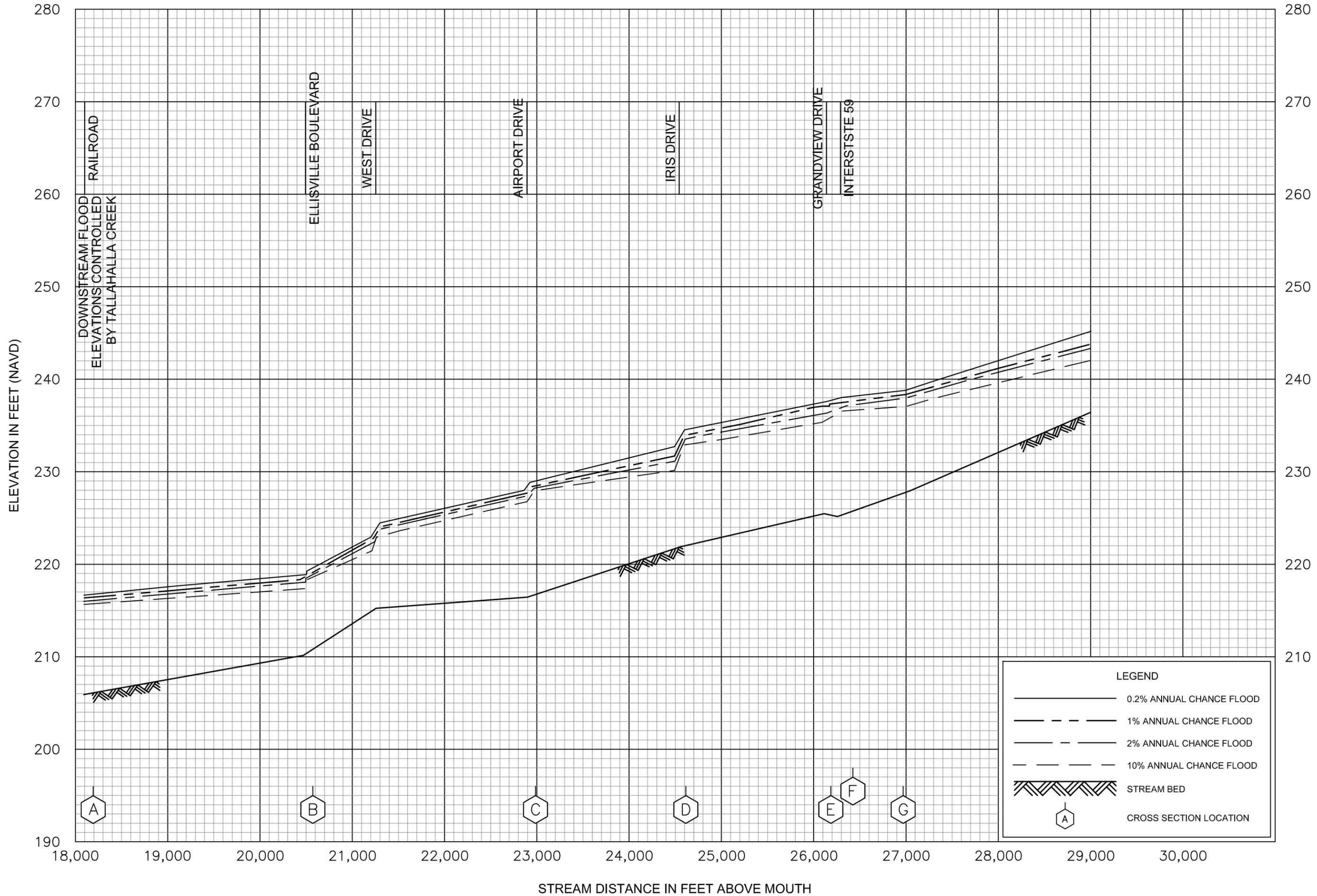
FLOOD PROFILES

BASIE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

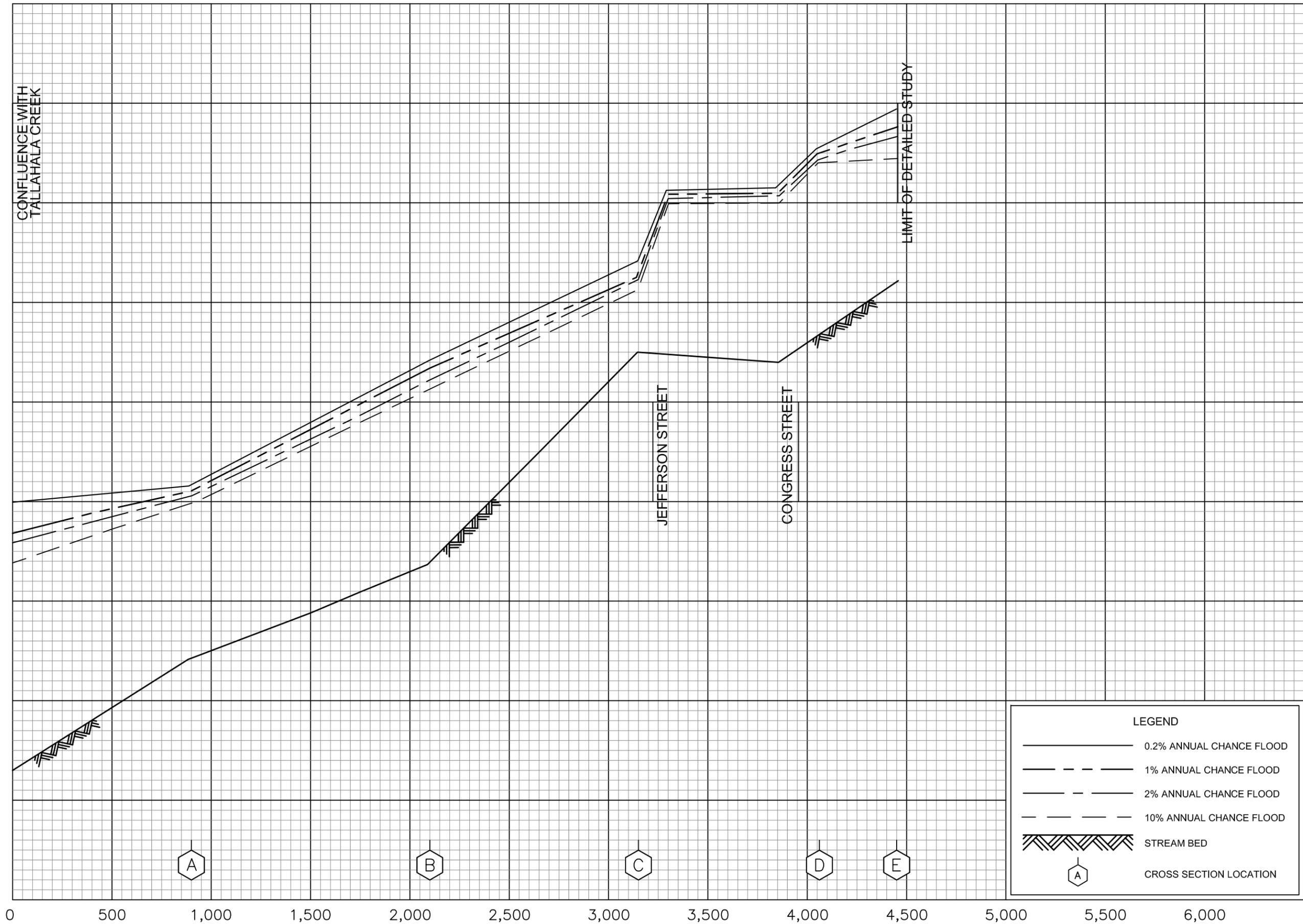
JONES COUNTY, MS
AND INCORPORATED AREAS

01P



ELEVATION IN FEET (NAVD)

265
260
255
250
245
240
235
230
225
220



LEGEND

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

FLOOD PROFILES

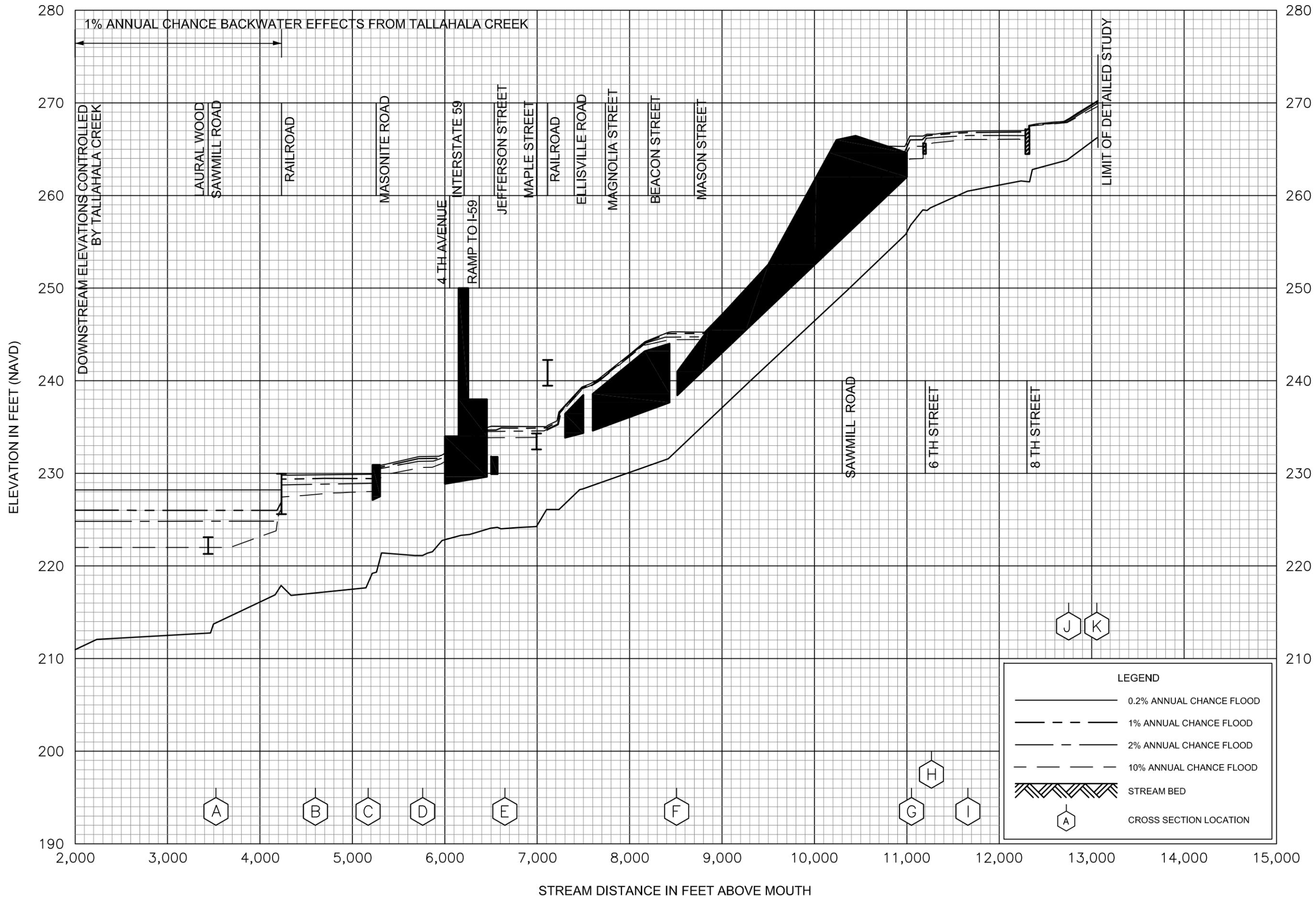
COUNTRY CLUB TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS

AND INCORPORATED AREAS

04P

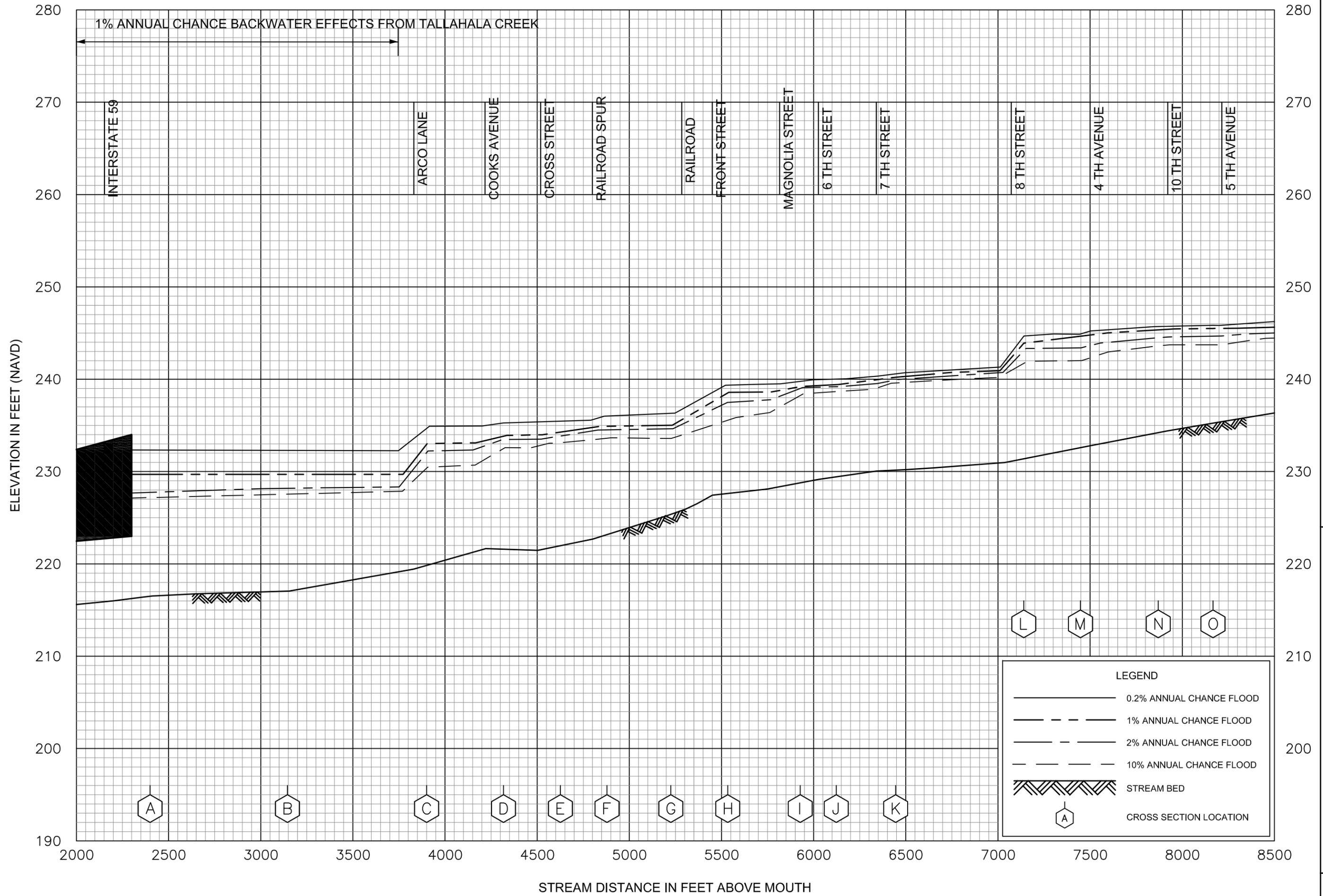


FLOOD PROFILES

DAPHNE PARK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS

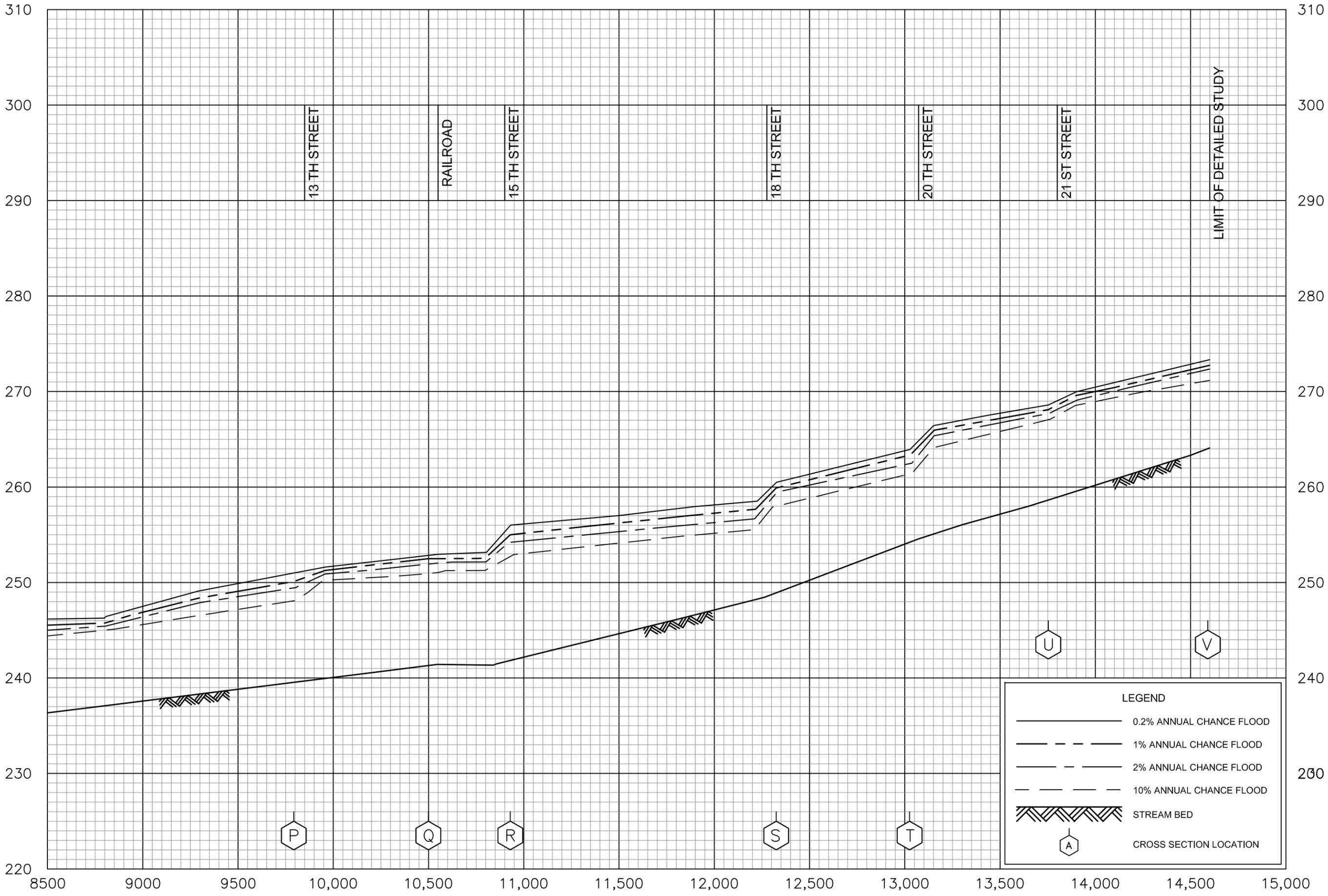


FLOOD PROFILES
GARDINER PARK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY
JONES COUNTY, MS
AND INCORPORATED AREAS

07P

ELEVATION IN FEET (NAVD)

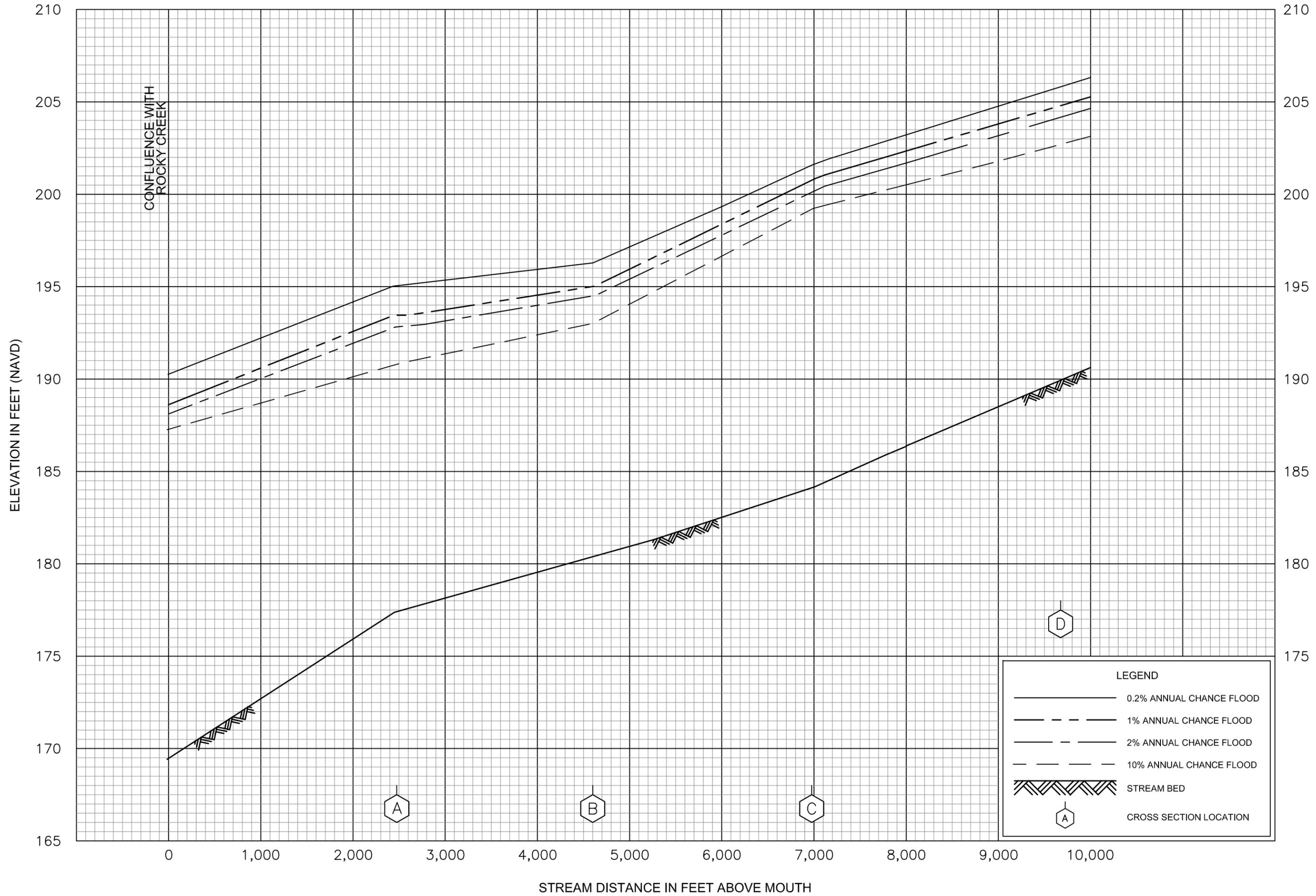


FLOOD PROFILES

GARDINER PARK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

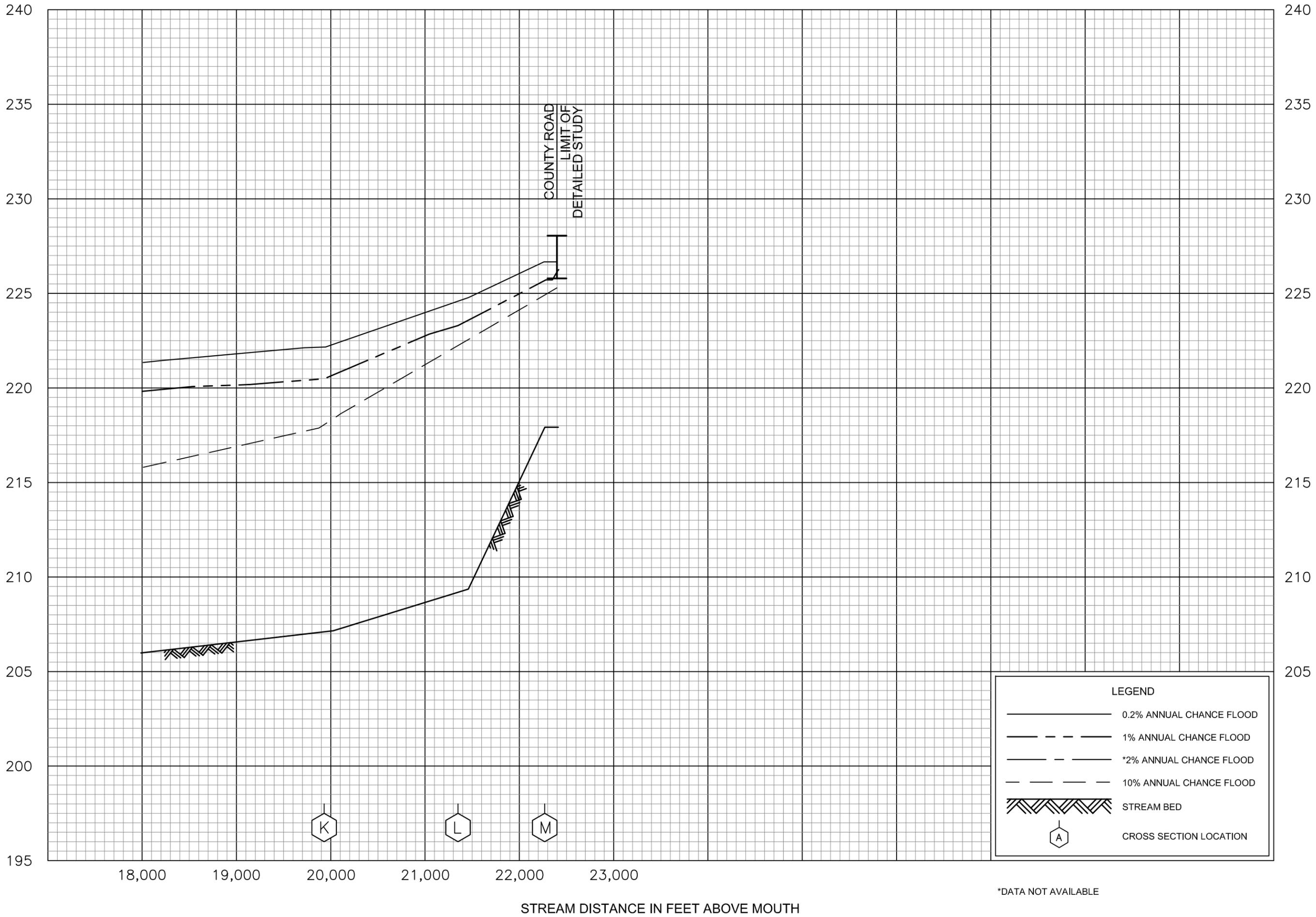
LITTLE ROCKY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS

09P

ELEVATION IN FEET (NAVD)



LEGEND

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

*DATA NOT AVAILABLE

FLOOD PROFILES

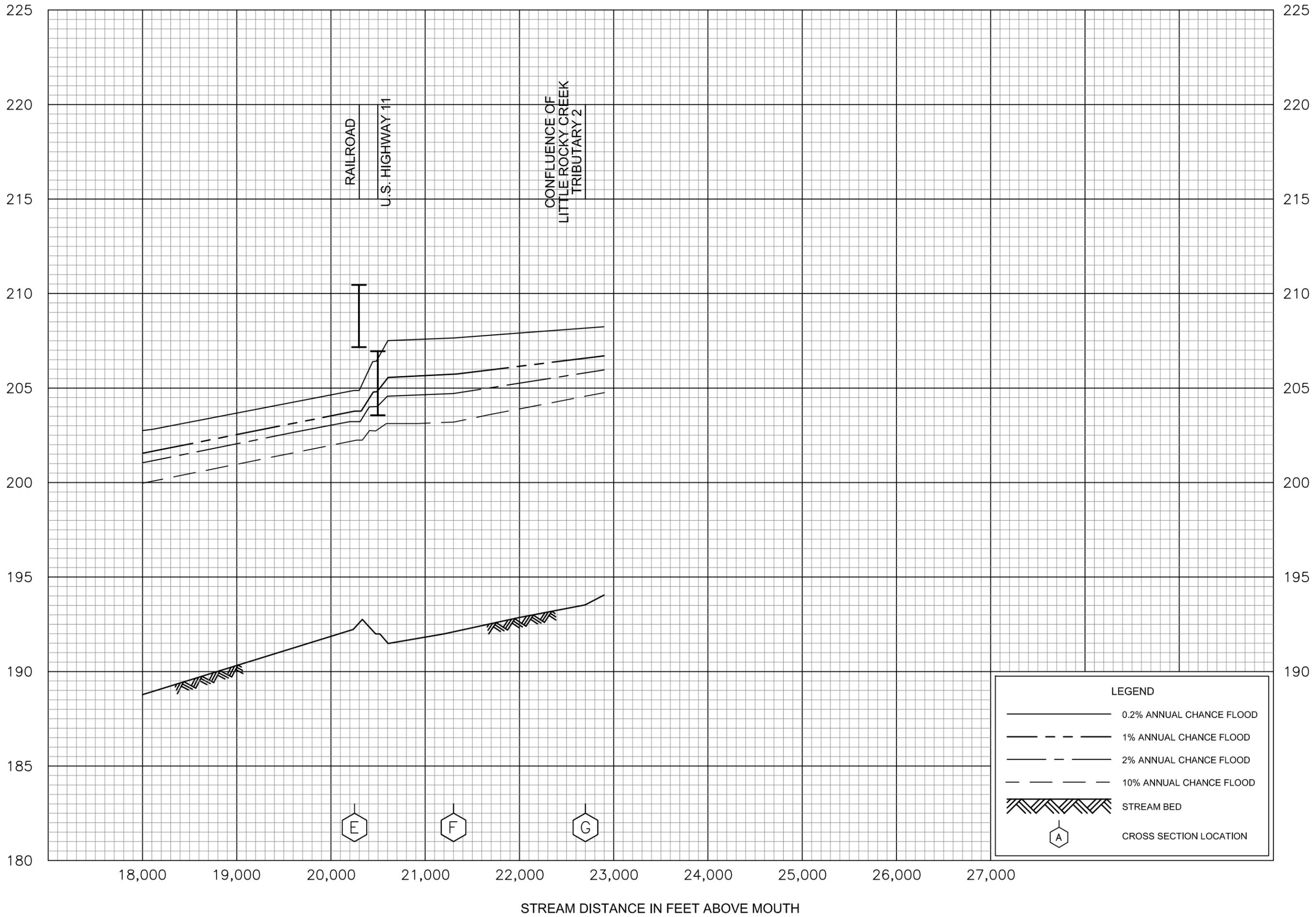
LITTLE ROCKY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS

11P

ELEVATION IN FEET (NAVD)

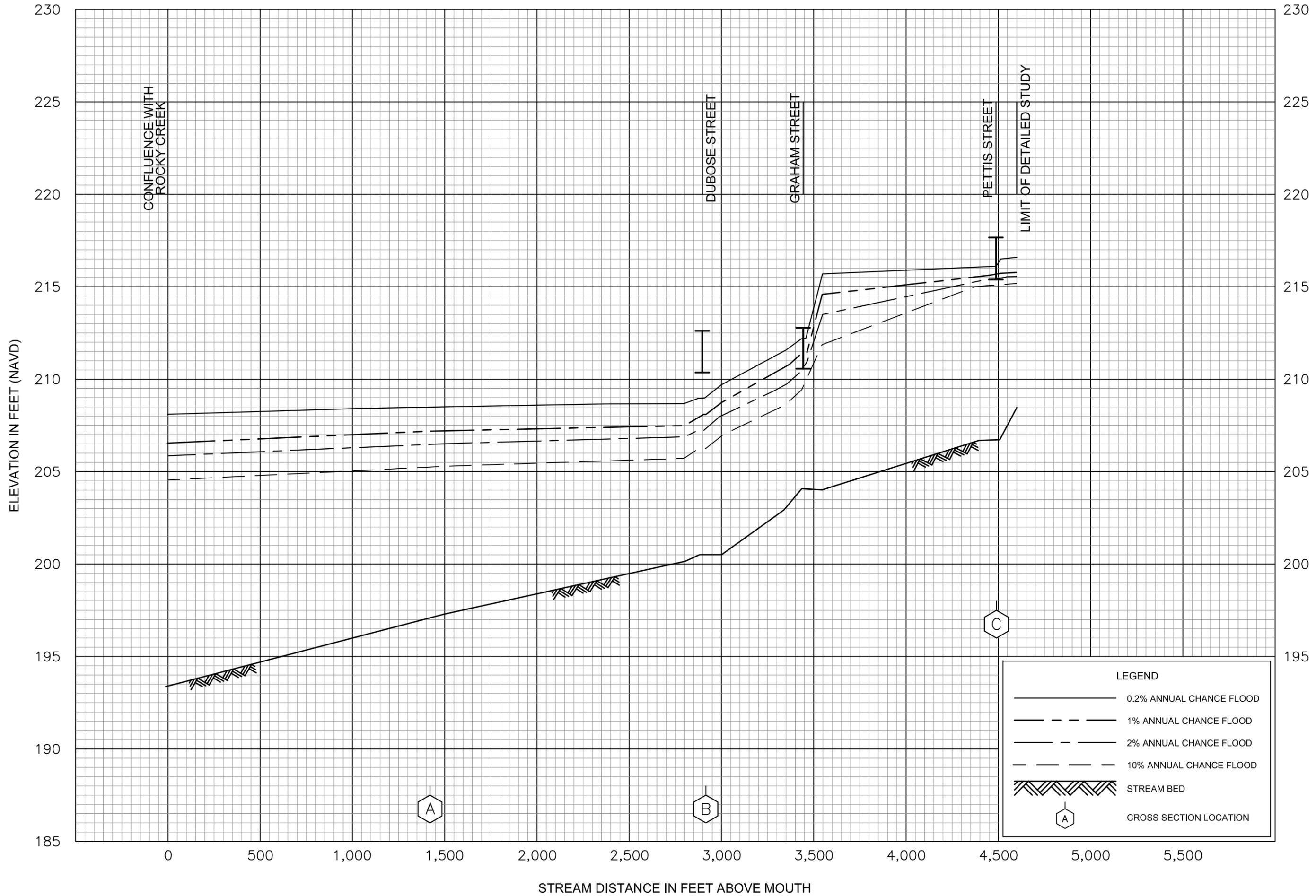


FLOOD PROFILES

ROCKY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

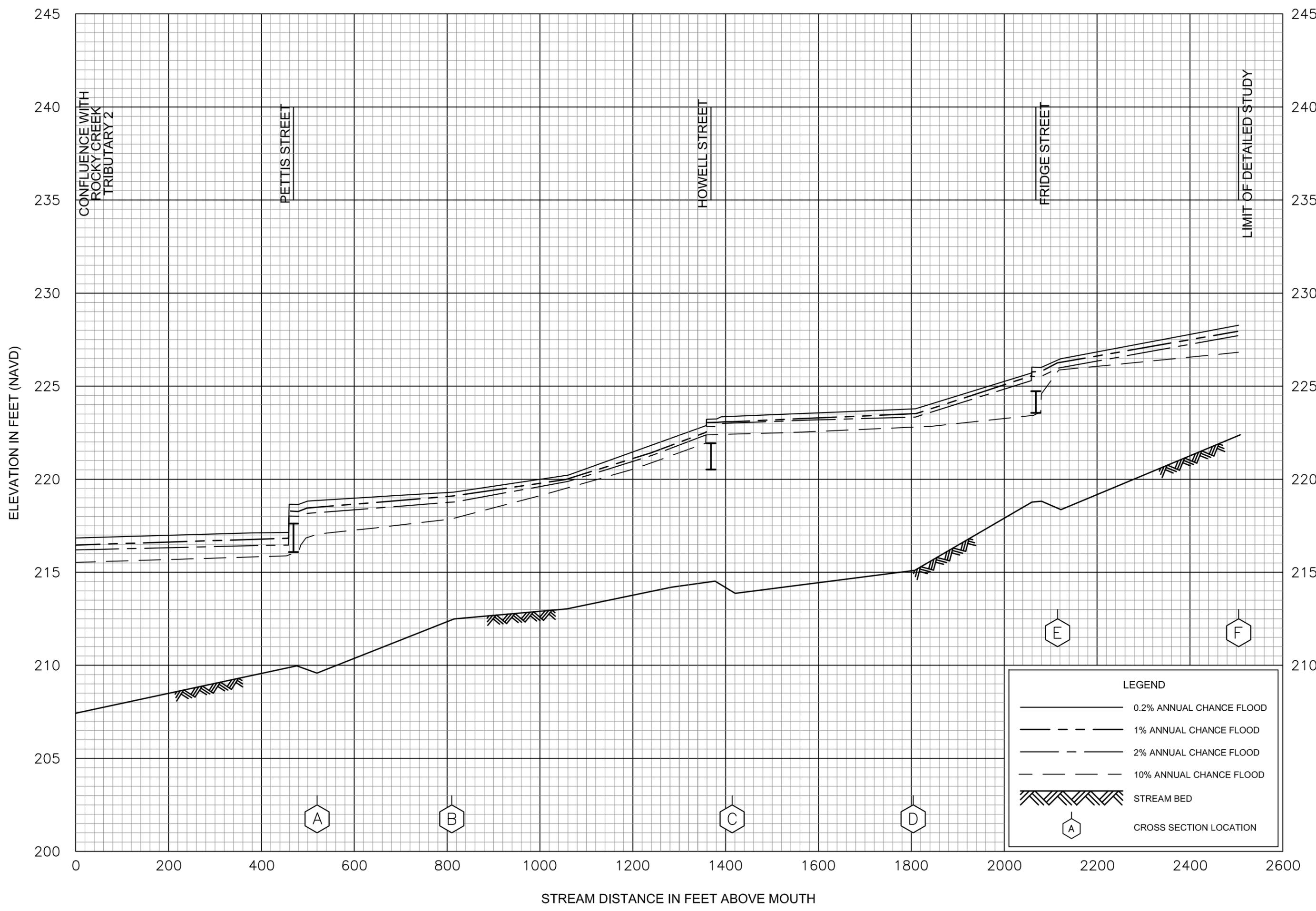
JONES COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES
ROCKY CREEK TRIBUTARY 2

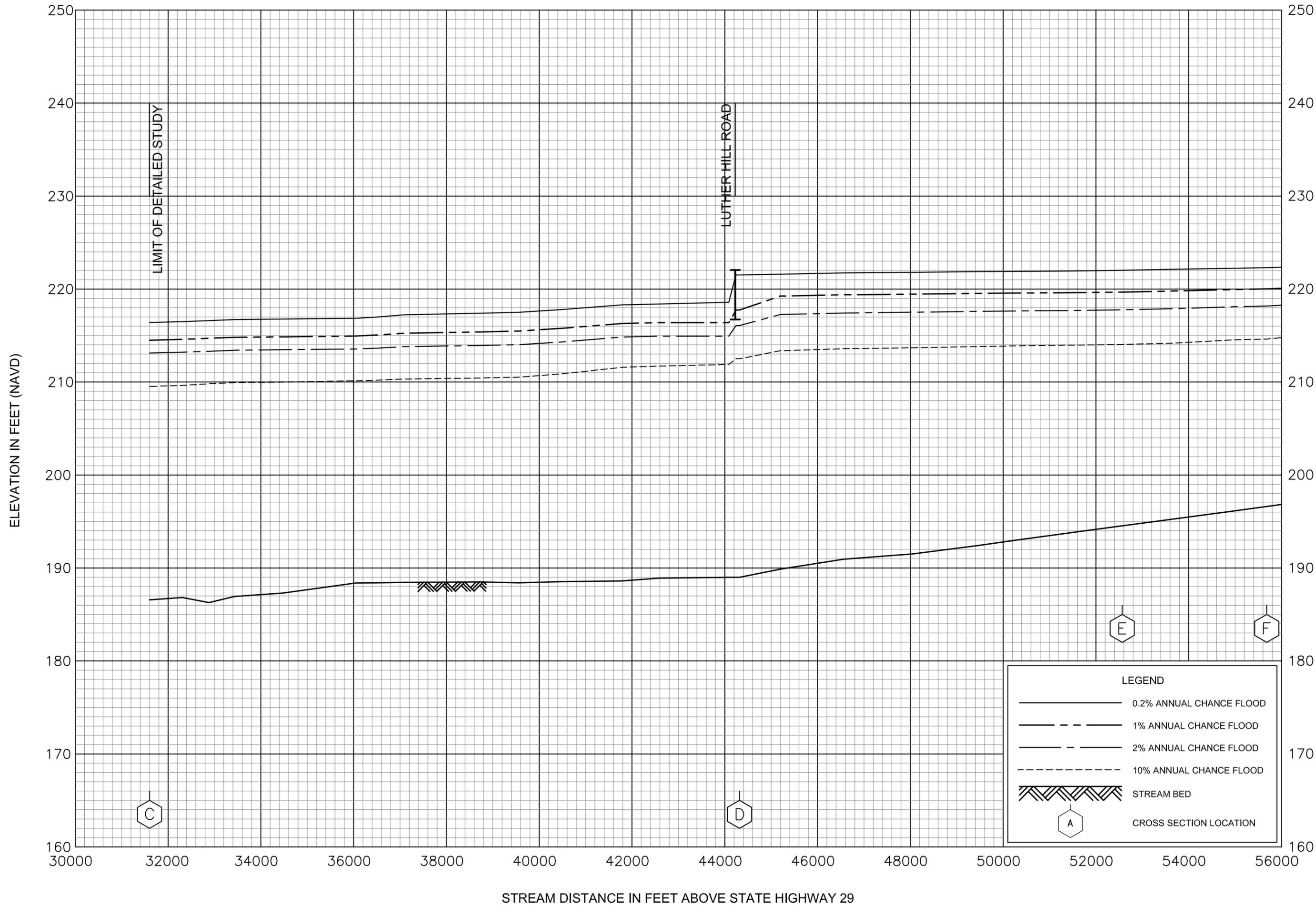
FEDERAL EMERGENCY MANAGEMENT AGENCY
JONES COUNTY, MS
AND INCORPORATED AREAS

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



FLOOD PROFILES
ROCKY CREEK TRIBUTARY 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
JONES COUNTY, MS
AND INCORPORATED AREAS

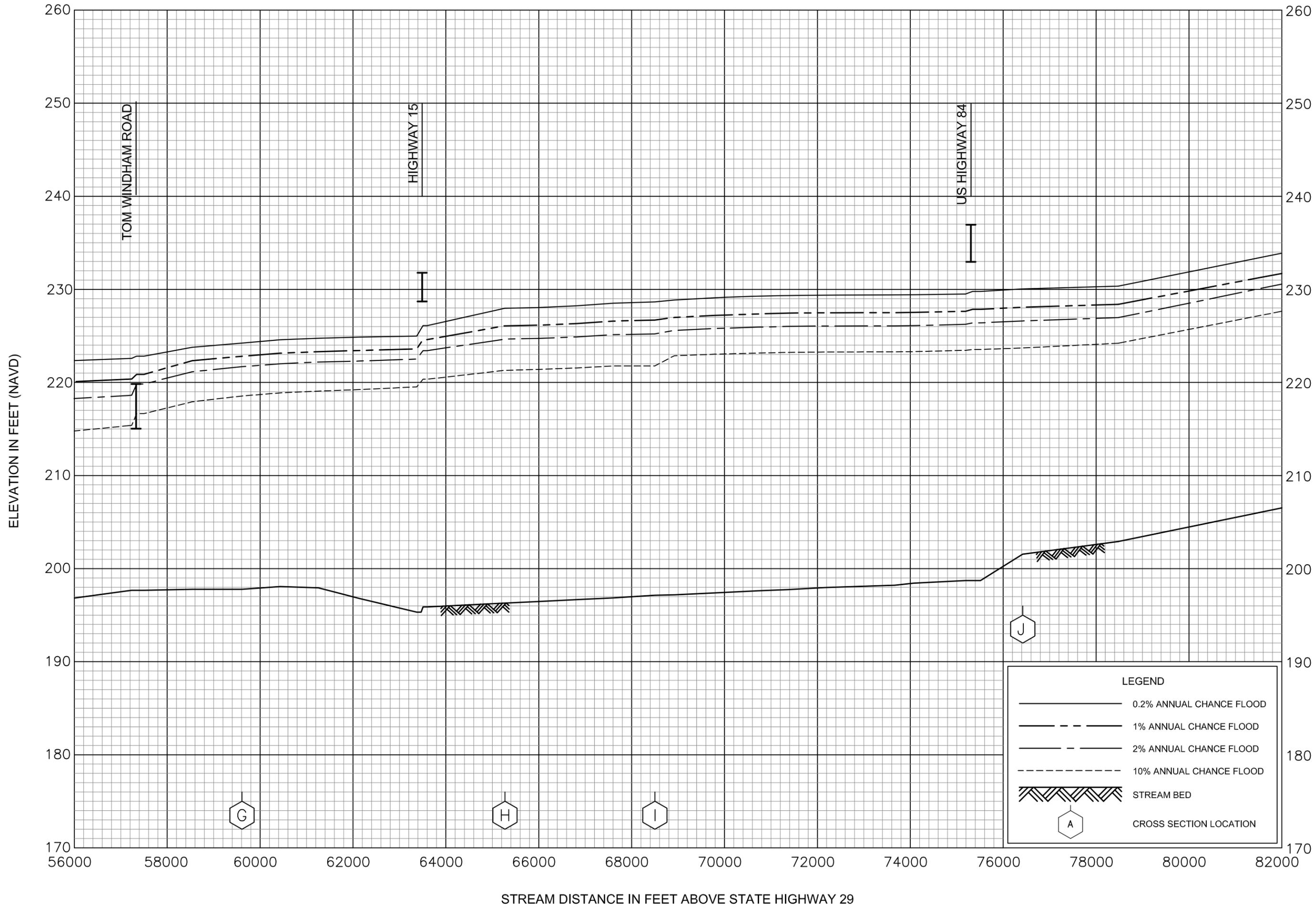


FLOOD PROFILES

TALLAHAHALA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS

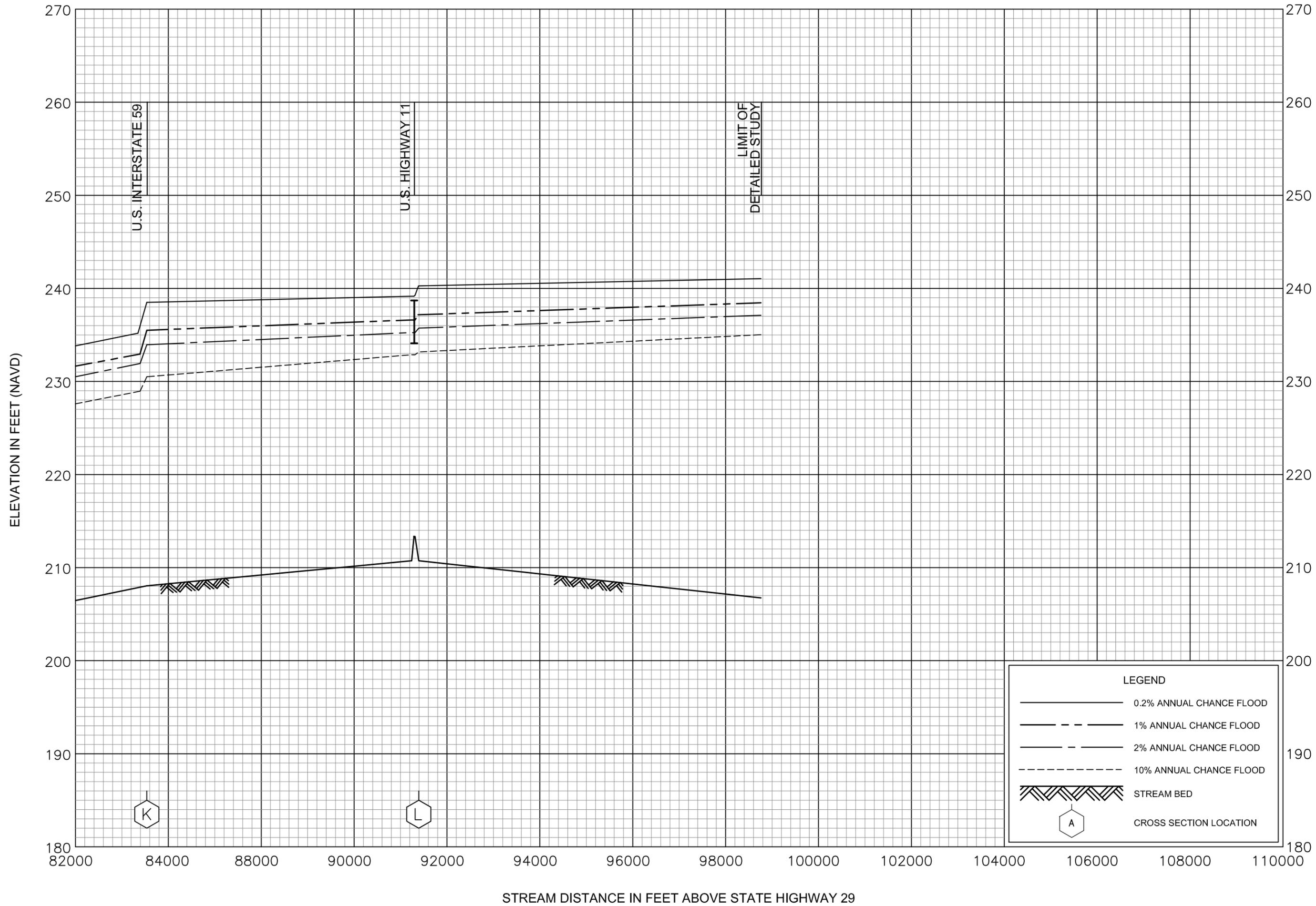


FLOOD PROFILES

TALLAHAHA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS

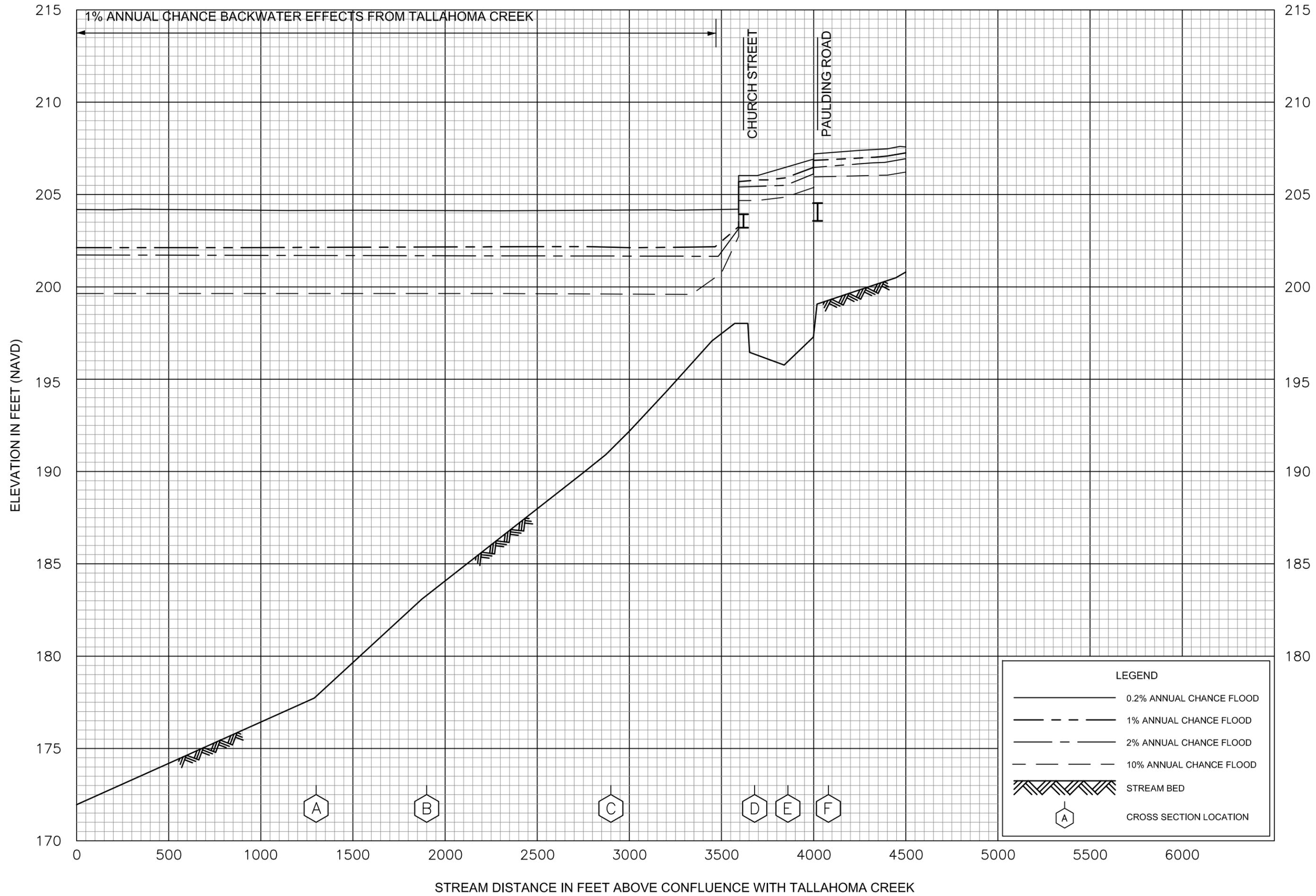


FLOOD PROFILES

TALLAHAHA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS



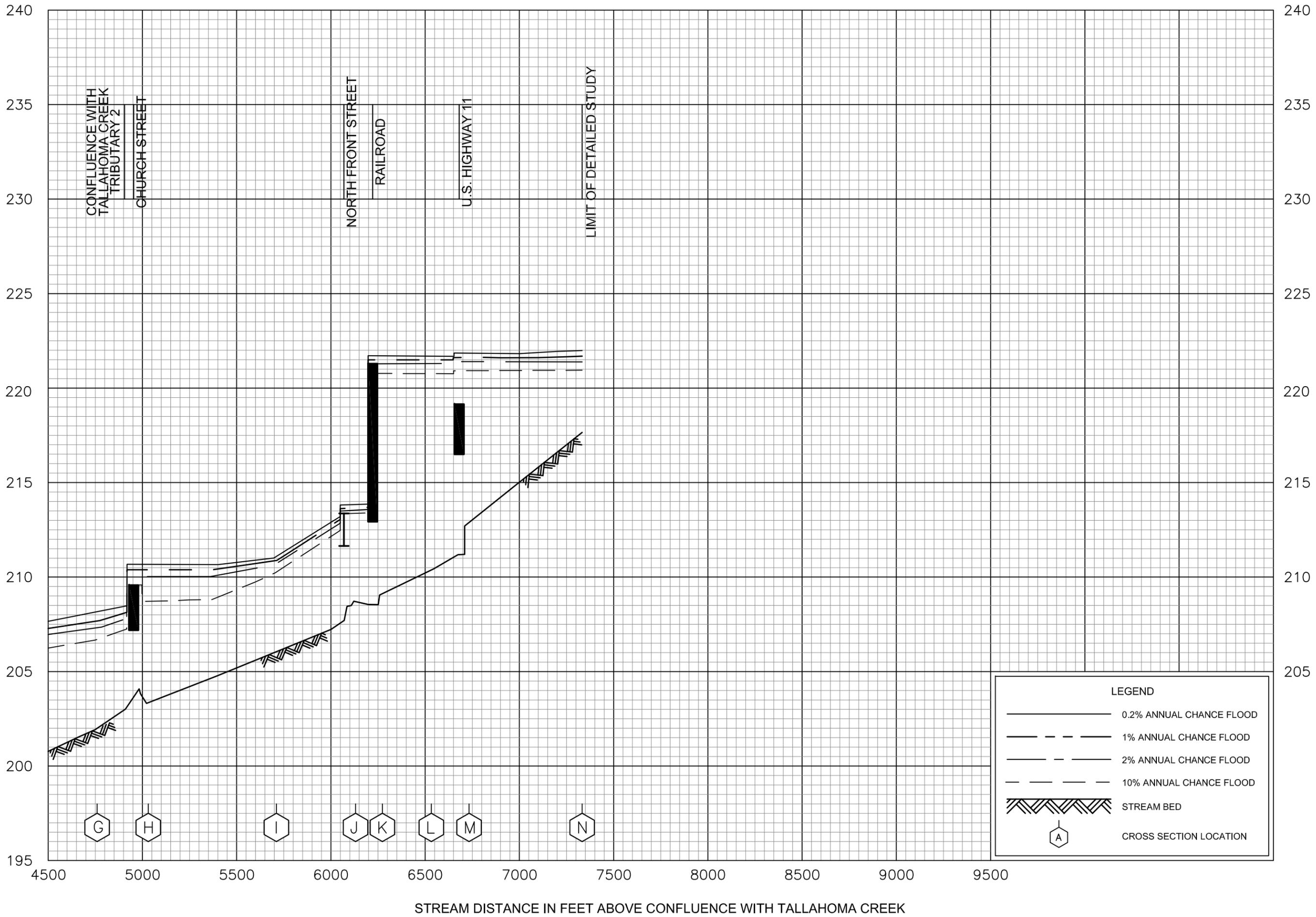
FLOOD PROFILES

TALLAHOMA CREEK TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)

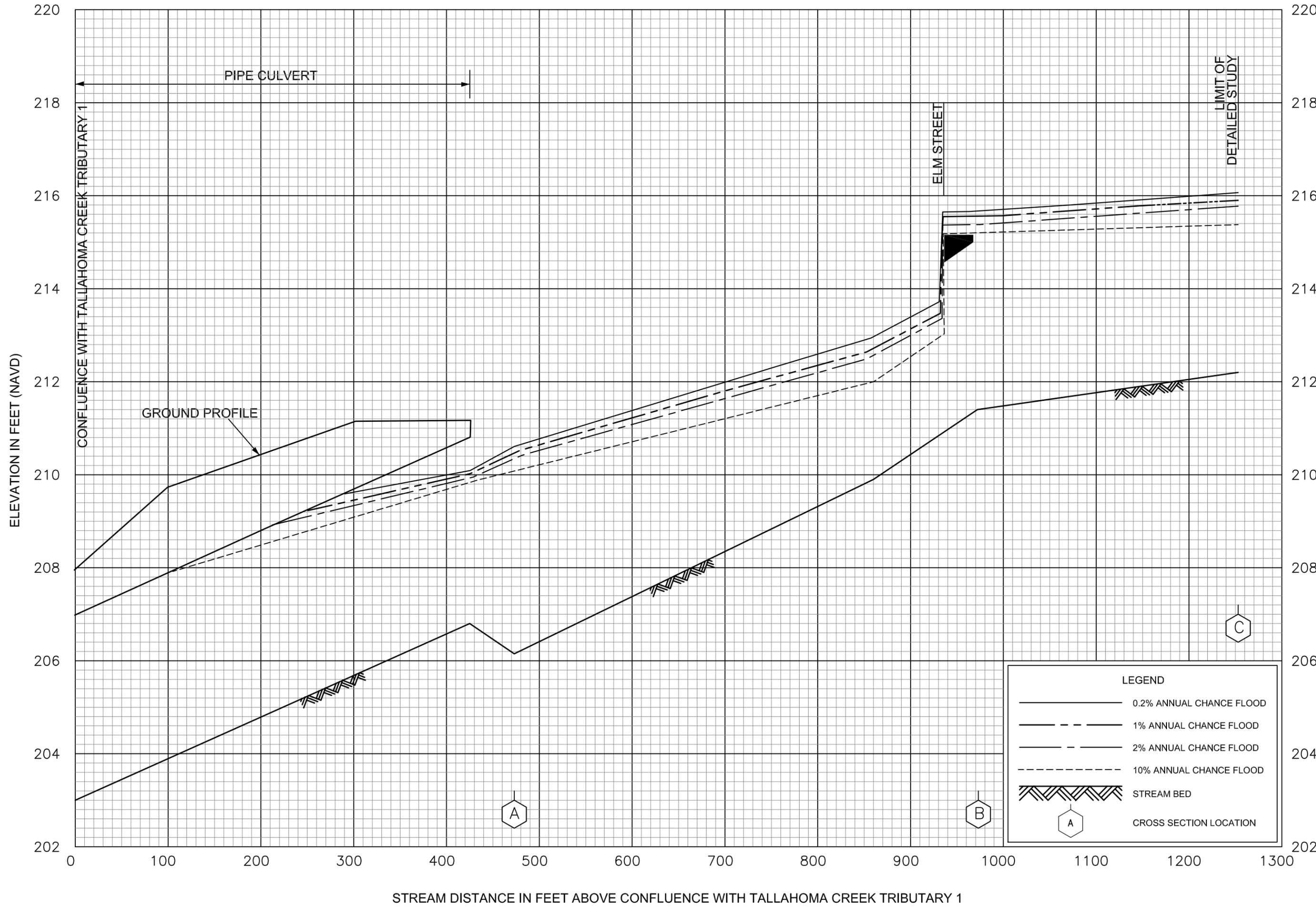


FLOOD PROFILES

TALLAHOMA CREEK TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

TALLAHOMA CREEK TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

JONES COUNTY, MS
AND INCORPORATED AREAS