

FLOOD INSURANCE STUDY



STONE COUNTY, MISSISSIPPI AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
STONE COUNTY (UNINCORPORATED AREAS)	280300
WIGGINS, CITY OF	280401



Stone County

PRELIMINARY

DEC 30 2009



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
28131CV000A

**NOTICE TO
FLOOD INSURANCE STUDY USERS**

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

Selected Flood Insurance Rate Map panels for the community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

<u>Old Zone</u>	<u>New Zone</u>
A1 through A30	AE
V1 through V30	VE
B	X
C	X

This preliminary revised Flood Insurance Study contains profiles presented at a reduced scale to minimize reproduction costs. All profiles will be included and printed at full scale in the final published report.

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

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Flint Creek Tributary 2	Panels	05P – 06P
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Red Creek Tributary	Panels	11P – 12P

Exhibit 2 – Flood Insurance Rate Map Index	
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**FLOOD INSURANCE STUDY
STONE COUNTY AND INCORPORATED AREAS**

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study revises and updates information on the existence and severity of flood hazards in the geographic area of Stone County, including the City of Wiggins; and the unincorporated areas of Stone County (referred to collectively herein as Stone County), and 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 and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (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 Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

This FIS was prepared to include the unincorporated areas of, and incorporated communities within Stone County in a countywide format.

The hydrologic and hydraulic analyses for this study were performed by AECOM, for the Federal Emergency Management Agency (FEMA), under Contract No. EMA-2007-CA-5774. This study was completed in ---- 2009.

Base map information shown on the FIRM was provided in digital format by the State of Mississippi and the U.S. Census Bureau. The digital orthoimagery was photogrammetrically compiled at a scale of 1:400 from aerial photography dated March 2006.

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, GRS80 spheroid. Distance units were measured in U.S. feet.

1.3 Coordination

An initial CCO meeting was held with the representatives from FEMA, the impacted communities, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied by detailed methods on March 20, 2008. A final meeting, the Preliminary DFIRM Community Coordination (PDCC) was held on January 25, 2010 to review the results of this study.

For this countywide FIS, the Project Scoping Meeting was held on March 20, 2008 in Stone County, MS. Attendees for these included representatives from the Mississippi Department of Environmental Quality, Mississippi Emergency Management Agency, FEM National Service Provider, Stone County, and Study Contractors. 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.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the geographic area of Stone County, Mississippi, including the incorporated communities listed in Section 1.1.

No detail studies were performed for this countywide study.

Limited detailed studies were performed along Church House Branch, Flint Creek, Flint Creek Tributary 2, Four Mile Creek, Four Mile Creek Tributary 1 and Red Creek Tributary.

For this countywide study, limited detailed analyses were used to study those areas having established development and development potential. Table 1, Scope of Study, lists the streams which were newly studied by limited detailed methods:

Table 1. Scope of Study

<u>Stream</u>	<u>Limits of New Limited Detailed Study</u>
Church House Branch	From approximately 0.5 mile downstream of 5 th Avenue to approximately 340 feet upstream Border Avenue.
Flint Creek	Approximately 590 feet downstream of Clubhouse Drive to approximately 590 feet upstream of Water Park Road.
Flint Creek Tributary 2	From the confluence with Flint Creek to approximately 290 feet upstream of Annis Lane;
Four Mile Creek	From approximately 1.5 miles downstream of Mississippi State Highway 26 to approximately 300 feet upstream of Miles Avenue.
Four Mile Creek Tributary 1	From the confluence with Four Mile Creek to approximately 1,765 feet upstream of Bond Avenue.
Red Creek Tributary	From approximately 0.49 mile downstream of Mill Avenue to approximately 1,160 feet upstream of Mississippi State Highway 29.

Approximate analyses were used to study those areas having a low development potential or minimal flood hazards. For all study types, the scope of study and methods of study were proposed to, and agreed upon, by FEMA and the State of Mississippi.

2.2 Community Description

Stone County and its county seat, the City of Wiggins, are located in Southeast Mississippi. The county is bounded on the north by Forrest and Perry Counties; to the east by George and Jackson Counties, to the south by Harrison County; and to the west by Pearl River County. Mississippi State Highways 15, 26, 29, and 38 along with U.S. Highway 49 are the primary transportation routes serving the county. The 2008 estimated population of Stone County was approximately 16,025 (U.S. Census Bureau, 2009). Stone County, Mississippi has a total area of 448 square miles.

The climate of the area is mild and humid, with temperatures ranging from a mean of approximately 54 to 60 degrees Fahrenheit (°F) in winter and average summer temperatures range from 75°F to 80°F. Mean annual rainfall is approximately 58 inches, with the least during October and the most during July. Winds in the area are generally southeasterly or southwesterly. Wind speeds usually remain under 10 miles per hour, but increase during storms. Thunderstorms occur between 70 and 80 days per year, many of which are accompanied by sever winds (National Oceanic and Atmospheric Administration, 1977)

2.3 Principal Flood Problems

Intense seasonal rains and occasional tropical storms or hurricanes are the major cause of flooding on larger streams in Mississippi. Floods on smaller streams are usually the result of convectional thunderstorms, which most often occur in summer. The principal flood problems in Stone County result from the overflow of Red Creek. The principal flooding problems in the town of Wiggins are Church House Branch, Flint Creek and Tributaries; and Four Mile Creek and Tributary.

2.4 Flood Protection Measures

There are no known flood protection measures for Stone County, Mississippi.

3.0 **ENGINEERING METHODS**

For the flooding sources studied by detailed methods in the community, 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 100-year flood (1-percent-chance of annual 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 limited detailed and approximate methods affecting the community.

Peak discharges for the 1-percent-annual-chance recurrence interval for all new limited detailed and approximate study streams in Stone County were determined using the Rural-East Region USGS regression equations for Mississippi as described in the USGS Water-Resources Investigations report 94-4002 (USGS, 1993). For the discharges calculations based on regional regression equations the rural regression values were modified to reflect stream gage weighting, flood control, and urbanization as necessary.

Peak discharge-drainage area relationships for the 1-percent-annual-chance floods of streams studied by limited detailed methods are shown in Table 2, Summary of Discharges.

Table 2. Summary of Discharges

<u>Flooding Source and Location</u>	<u>Drainage Area (sq. miles)</u>	<u>Peak Discharge (CFS) 100-year</u>
CHURCH HOUSE BRANCH		
Approximately 1.8 miles downstream of 5 th Avenue	1.6	1,373
Approximately 0.5 mile downstream of 5 th Avenue	0.8	1,082
Approximately 30 feet upstream of Martin Luther King Avenue	0.3	618
Approximately 290 feet upstream of Border Avenue	0.2	404
FLINT CREEK		
Approximately 2.0 miles downstream of Clubhouse Drive	14.4	5,791
Approximately 2.0 miles downstream of Clubhouse Drive	12.6	4,844
Approximately 1,100 feet upstream of Clubhouse Drive	11.3	4,289
Approximately 35 feet upstream of McGregor Drive	10.9	4,236
FLINT CREEK TRIBUTARY 2		
At the confluence with Flint Creek	0.5	788
Approximately 530 feet downstream of South McGregor Drive	0.2	363

Table 2. Summary of Discharges

<u>Flooding Source and Location</u>	<u>Drainage Area (sq. miles)</u>	<u>Peak Discharge (CFS) 100-year</u>
FOUR MILE CREEK		
At the confluence with Red Creek	3.7	2,202
Approximately 1.3 miles upstream of the confluence with Red Creek	3.2	2,202
Approximately 2.0 miles upstream of the confluence with Red Creek	2.6	2,202
Approximately 1.0 mile downstream of Mississippi State Highway 26	2.3	2,202
Approximately 0.6 mile downstream of Mississippi State Highway 26	1.6	1,726
Approximately 225 feet downstream of Mississippi State Highway 26	1.3	1,726
Approximately 240 feet downstream of West Border Avenue	0.5	732
Approximately 515 feet upstream of College Avenue	0.3	666
Approximately 1,150 feet downstream of Miles Avenue	0.1	273
FOUR MILE CREEK TRIBUTARY 1		
Approximately 100 feet downstream of Mississippi State Highway 26	0.5	850
Approximately 50 feet upstream of College Avenue	0.2	324
Approximately 690 feet upstream of Bond Avenue	0.1	323
RED CREEK TRIBUTARY		
At the confluence with the Red Creek	1.9	1,397
Approximately 0.6 mile downstream of Mill Avenue	1.4	1,309
Approximately 240 feet upstream of Mill Avenue	0.9	983
Approximately 1,920 feet downstream of Coastal Paper Avenue	0.6	768
Approximately 965 feet downstream of Mississippi State Highway 29	0.3	551

Drainage areas along streams were determined using a 50' x 50' grid size digital elevation model (DEM) generated from the Light Detection and Ranging (LIDAR) data collected, which were acquired from the Mississippi Geographic Information, LLC (MGI), and corrected National Hydrologic Data (NHD) stream coverage. Flow points along stream centerlines were calculated using the regression equations in conjunction with accumulated area for every 10 percent increase in flow along a particular stream.

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied by limited detailed and approximate methods 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 tables 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 in conjunction with the data shown on the FIRM.

All bridges and culverts in the limited detailed studies were field measured to obtain elevation data and structural geometries. The hydraulic cross section geometries were obtained from LIDAR data. The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

Water-surface profiles were computed for limited detailed and approximate study streams through the use of the U.S. Army Corps of Engineers HEC-RAS version 3.1.2 computer program (USACE, 2003). Water surface profiles were produced for the 1-percent-annual-chance storms for limited detailed and approximate studies.

The limited detailed and approximate study methodology used Watershed Information SystEm (WISE) (Watershed Concepts, 2008) as a preprocessor to HEC-RAS. Tools within WISE allowed the engineer to verify that the cross-section data was acceptable. The WISE program was used to generate the input data file for HEC-RAS. Then HEC-RAS was used to determine the flood elevation at each cross section of the modeled stream. No floodway was calculated for streams studied by approximate methods.

Floodplains were mapped to include backwater effects that govern each flooding source near its downstream extent. Floodplains were reviewed for accuracy and adjusted as necessary.

All qualifying bench marks within a given jurisdiction that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (SRS) 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.

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

In addition to NSRS bench marks, the FIRM may also show vertical control monuments established by a local jurisdiction; these monuments will be shown on the FIRM with the appropriate designations. Local monuments will only be placed on the FIRM if the community has requested that they be included, and if the monuments meet the aforementioned NSRS inclusion criteria.

To obtain current elevation, description, and/or location information for bench marks shown on the FIRM for this jurisdiction, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their Web site at www.ngs.noaa.gov.

It is important to note that 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 this FIS and FIRM. Interested individuals may contact FEMA to access this data.

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 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum. Flood elevations shown in this FIS report and on the FIRM are referenced to NAVD 88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. It is important to note that adjacent counties may be referenced to NGVD 29. This may result in differences in base flood elevations across county lines.

The elevations shown in the FIS report and on the FIRM for Stone County are referenced to NAVD88. 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 0.1 foot.

For more information on NAVD 88, see *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988*, FEMA Publication FI-20/June 1992, 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>).

4.0 **FLOODPLAIN MANAGEMENT APPLICATIONS**

The NFIP encourages State and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study provides 100-year flood elevations and delineations of the 100- and 500-year floodplain boundaries and 100-year floodway to assist communities in developing floodplain management measures.

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.

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, AE and X), 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 each stream studied by limited detailed and approximate method, the 1-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using digital elevation model (DEM) developed from LIDAR data. Only the 1-percent-annual-chance floodplain boundary is shown on the FIRM.

Approximate 1-percent-annual-chance floodplain boundaries in some portions of the study area were taken directly from the Flood Hazard Boundary Map for the County of Stone, Mississippi.

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 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 1, "Floodway Schematic."

No floodways were computed for streams studied by limited detailed and approximate methods because of limitations in the approximate study methodology.

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than a 1.0-foot increase in the BFEs at any point within the community.

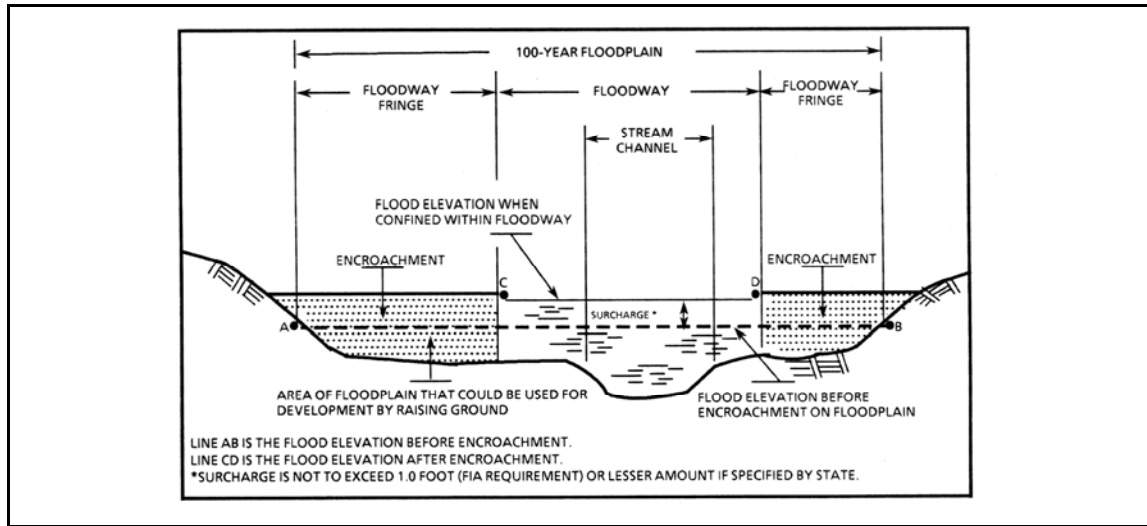


Figure 1. Floodway Schematic

5.0 INSURANCE APPLICATION

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

Zone AE

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

Zone X

Zone X is the flood insurance rate 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 (sq. mi.), and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

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 rate zones as described in Section 5.0. 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 computation. The countywide Flood Insurance Rate Map presents flooding information for the entire geographic area of Stone County. Previously, Flood Insurance Rate Maps were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide Flood Insurance Rate Map also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps, where applicable. Historical data relating to the maps prepared for each community are presented in Table 3, "Community Map History."

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Stone County (Unincorporated Areas)	September 9, 1977	None	September 1, 1987	Month Day, 2010
Wiggins, City of	Month Day, 2010	None	Month Day, 2010	None

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

**STONE COUNTY, MS
AND INCORPORATED AREAS**

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

The Flood Insurance Rate Maps for Forrest, George, Harrison, Jackson, Pearl River and Perry Counties are in agreement with this study.

No previous studies have been prepared for Stone County.

This FIS report supersedes or is compatible with all previously printed FIS reports, FIRMs, and Flood Hazard Boundary Maps (FBFMs) for all jurisdictions within Stone County, and should be considered authoritative for the purposed of the NFIP.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this FIS can be obtained by contacting FEMA, Federal Insurance and Mitigation Administration, Koger Center - Rutgers Building, 3003 Chamblee Tucker Road, Atlanta, Georgia 30341.

Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To ensure that any user is aware of all revisions, it is advisable to contact the map repository of flood hazard data located in the community.

9.0 BIBLIOGRAPHY AND REFERENCES

Federal Emergency Management Agency, Flood Insurance Rate Map, Stone County, Unincorporated Areas, Mississippi, September 1987.

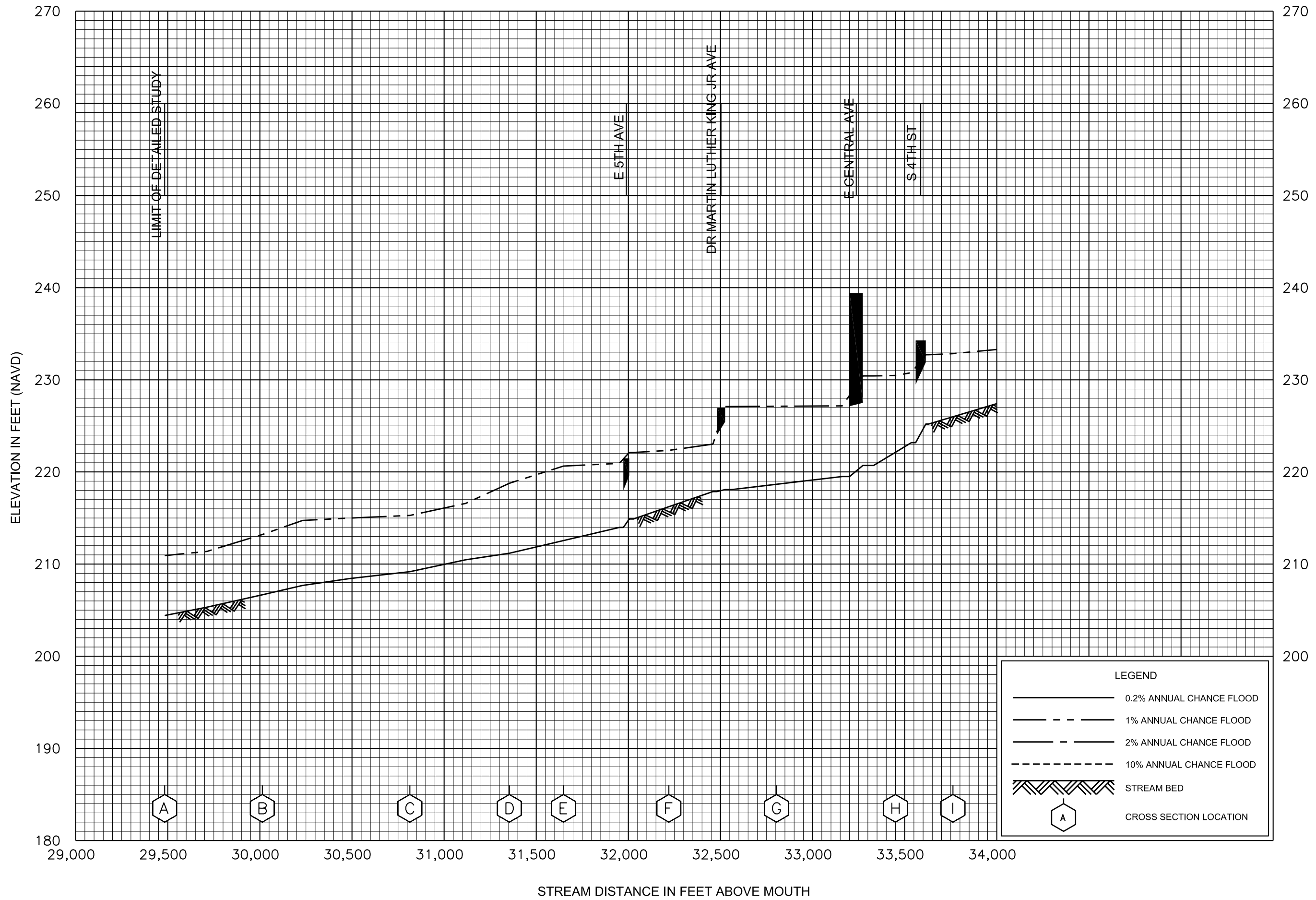
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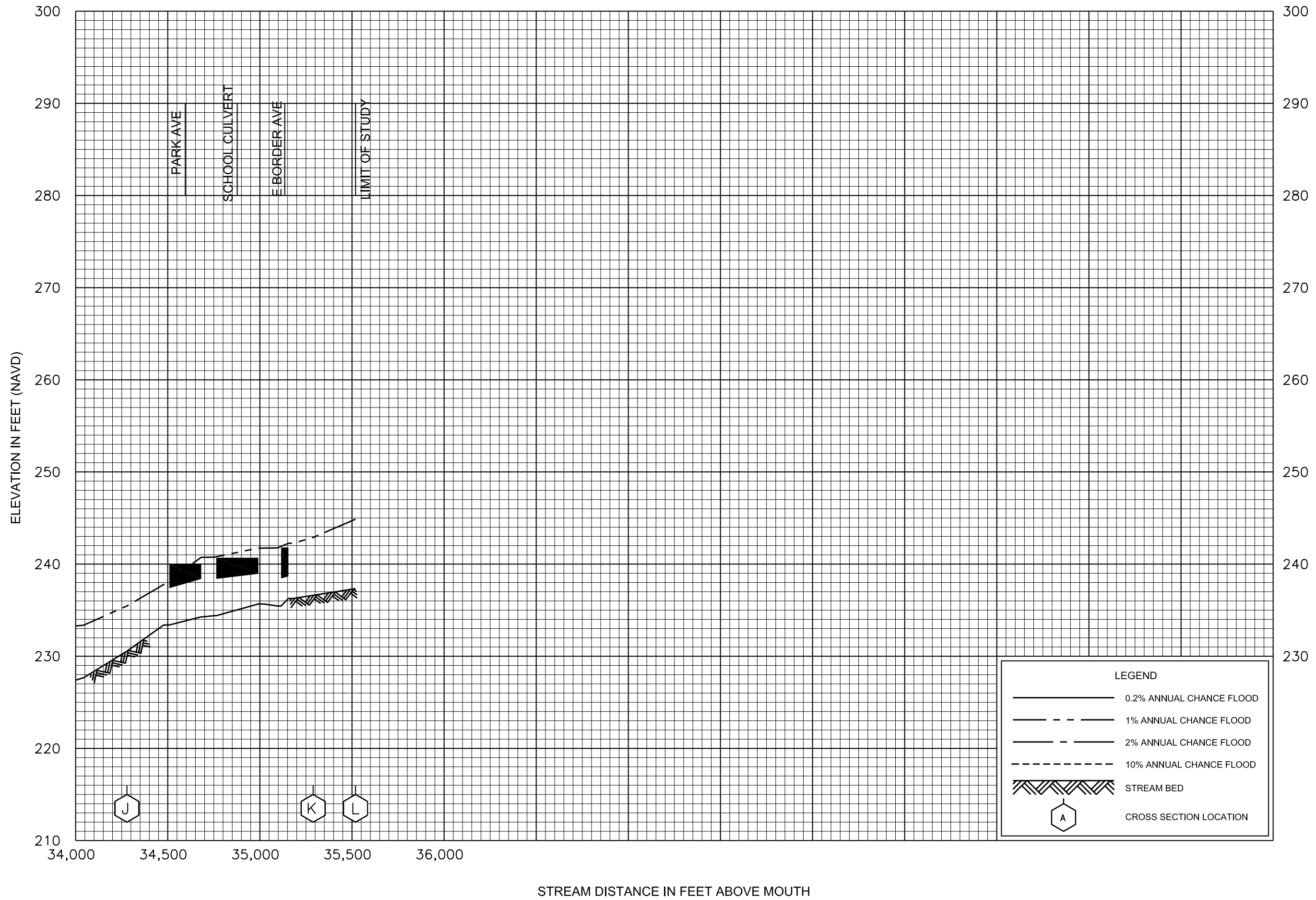
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FLOOD PROFILES
 CHURCH HOUSE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY
 STONE COUNTY, MS
 AND INCORPORATED AREAS

01P



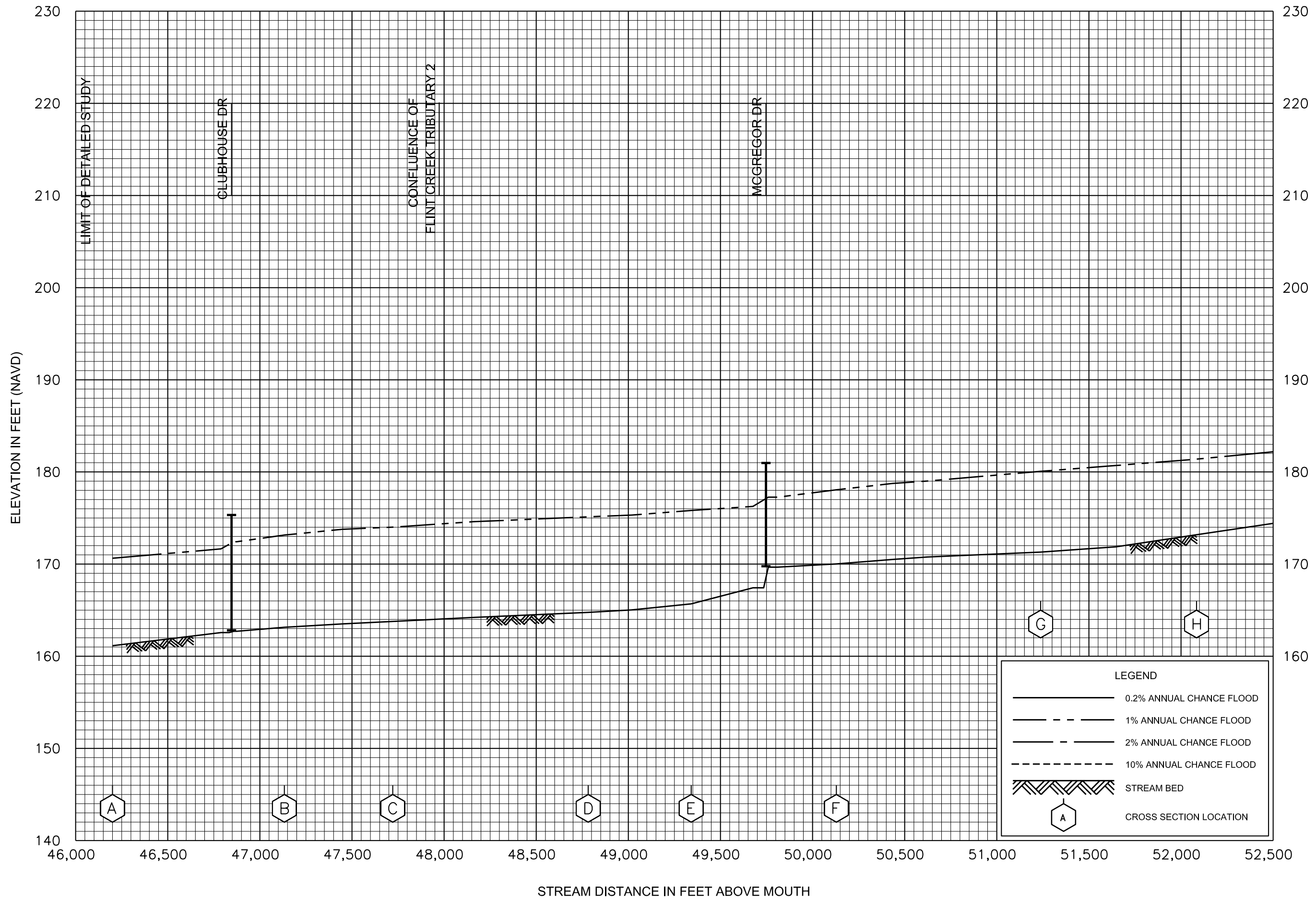
FLOOD PROFILES

CHURCH HOUSE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

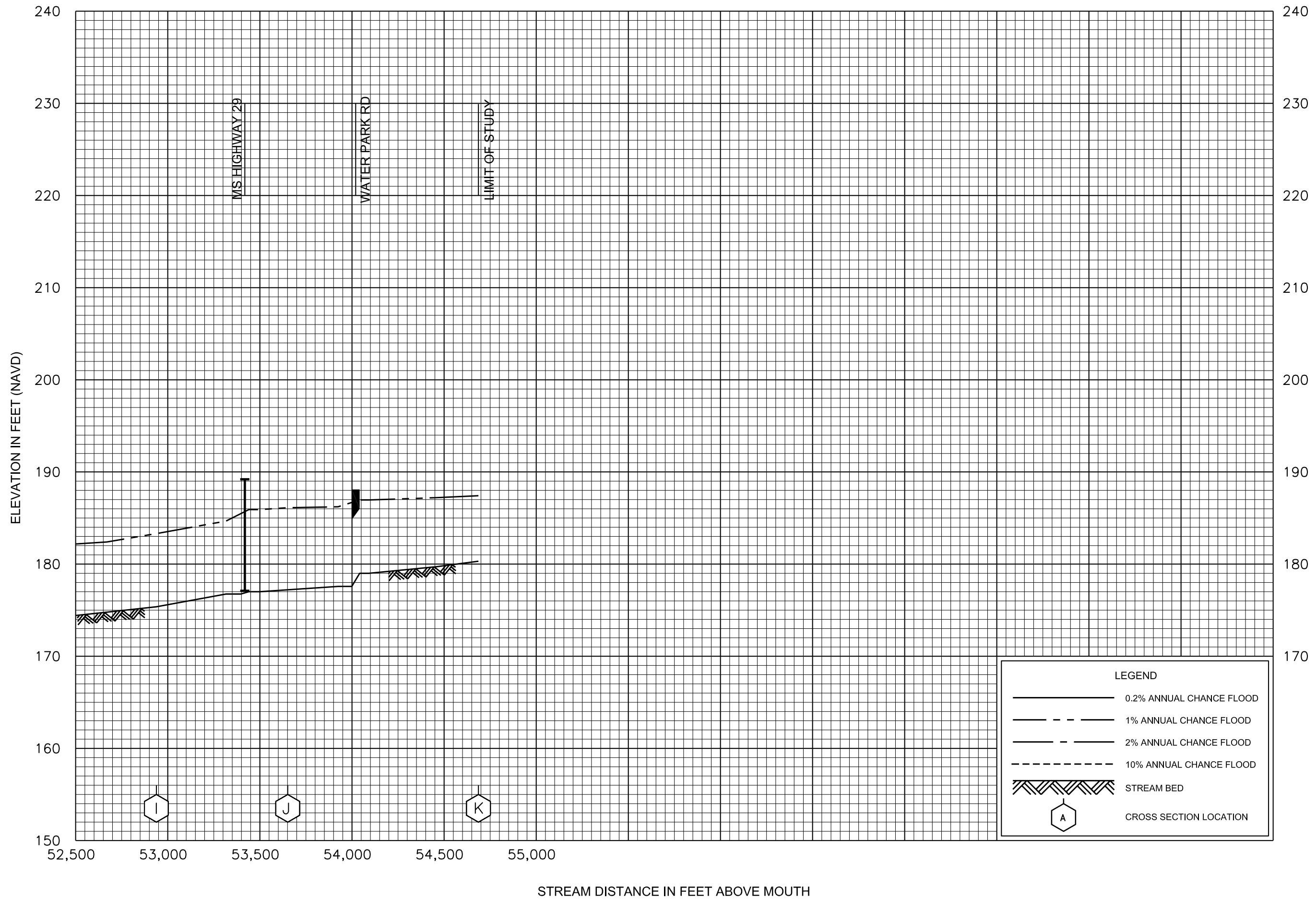
STONE COUNTY, MS
AND INCORPORATED AREAS

02P



FLOOD PROFILES
FLINT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
STONE COUNTY, MS
AND INCORPORATED AREAS

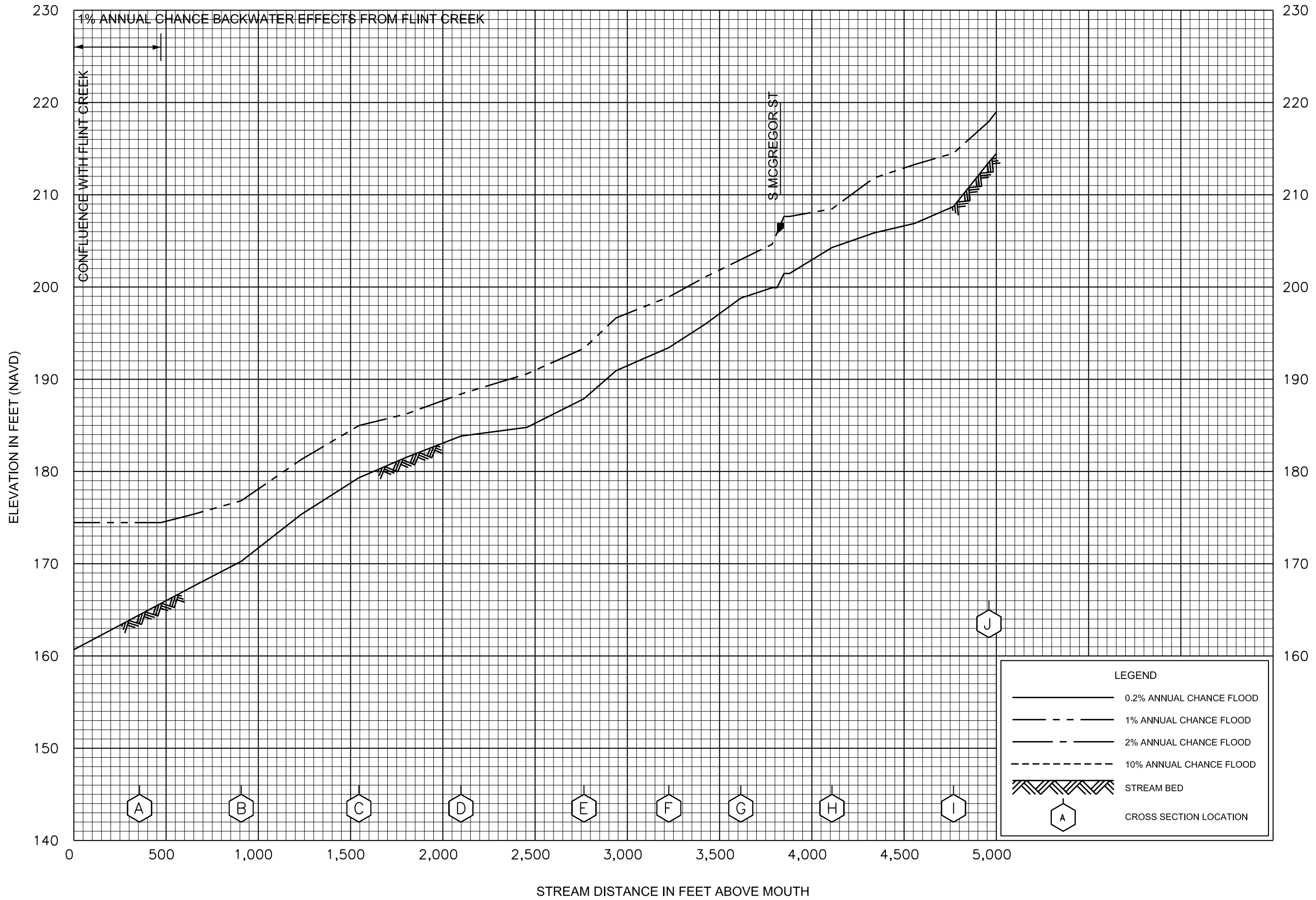


LEGEND

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

FLOOD PROFILES
FLINT CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
STONE COUNTY, MS
AND INCORPORATED AREAS



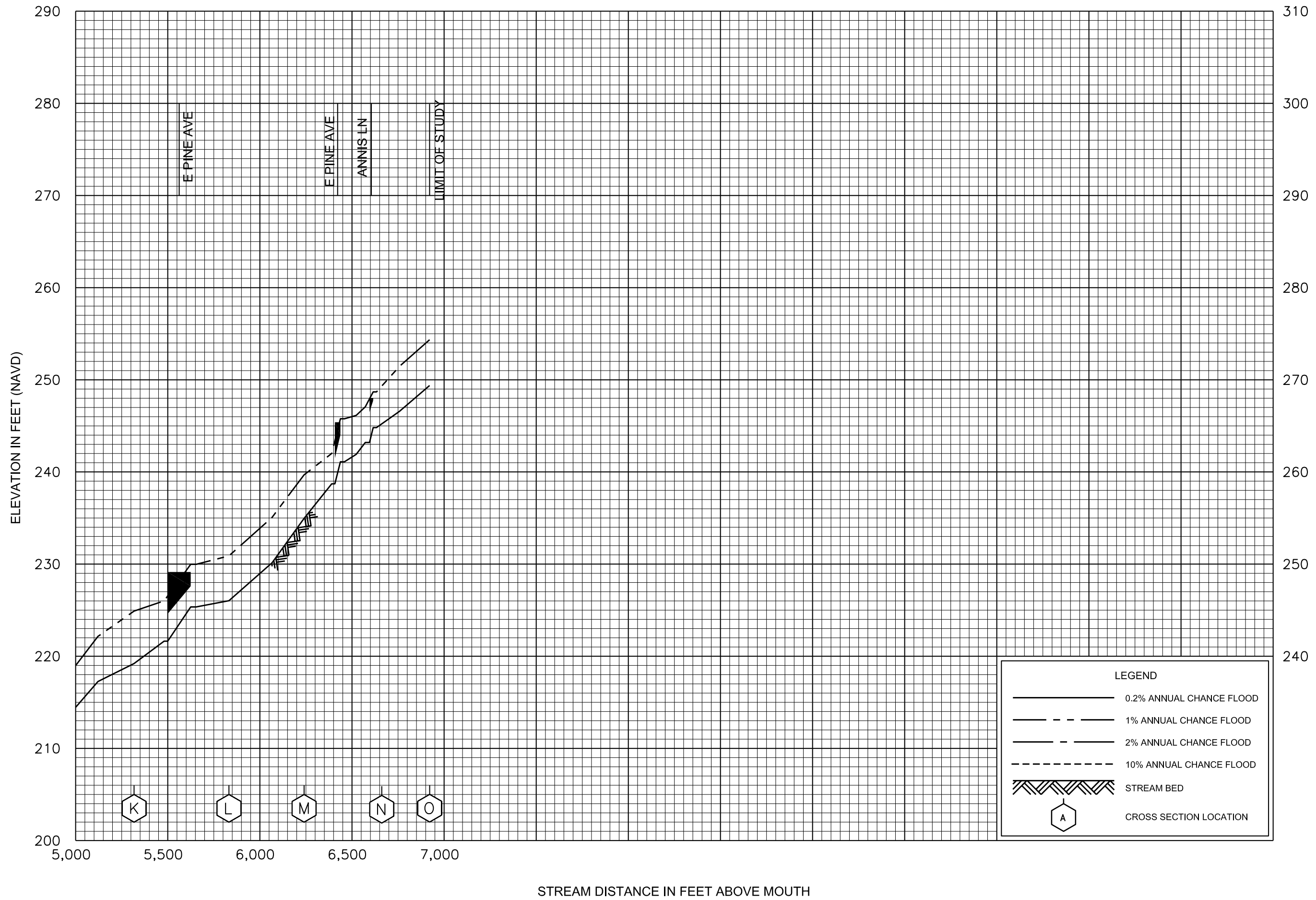
FLOOD PROFILES

FLINT CREEK TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

STONE COUNTY, MS
AND INCORPORATED AREAS

05P

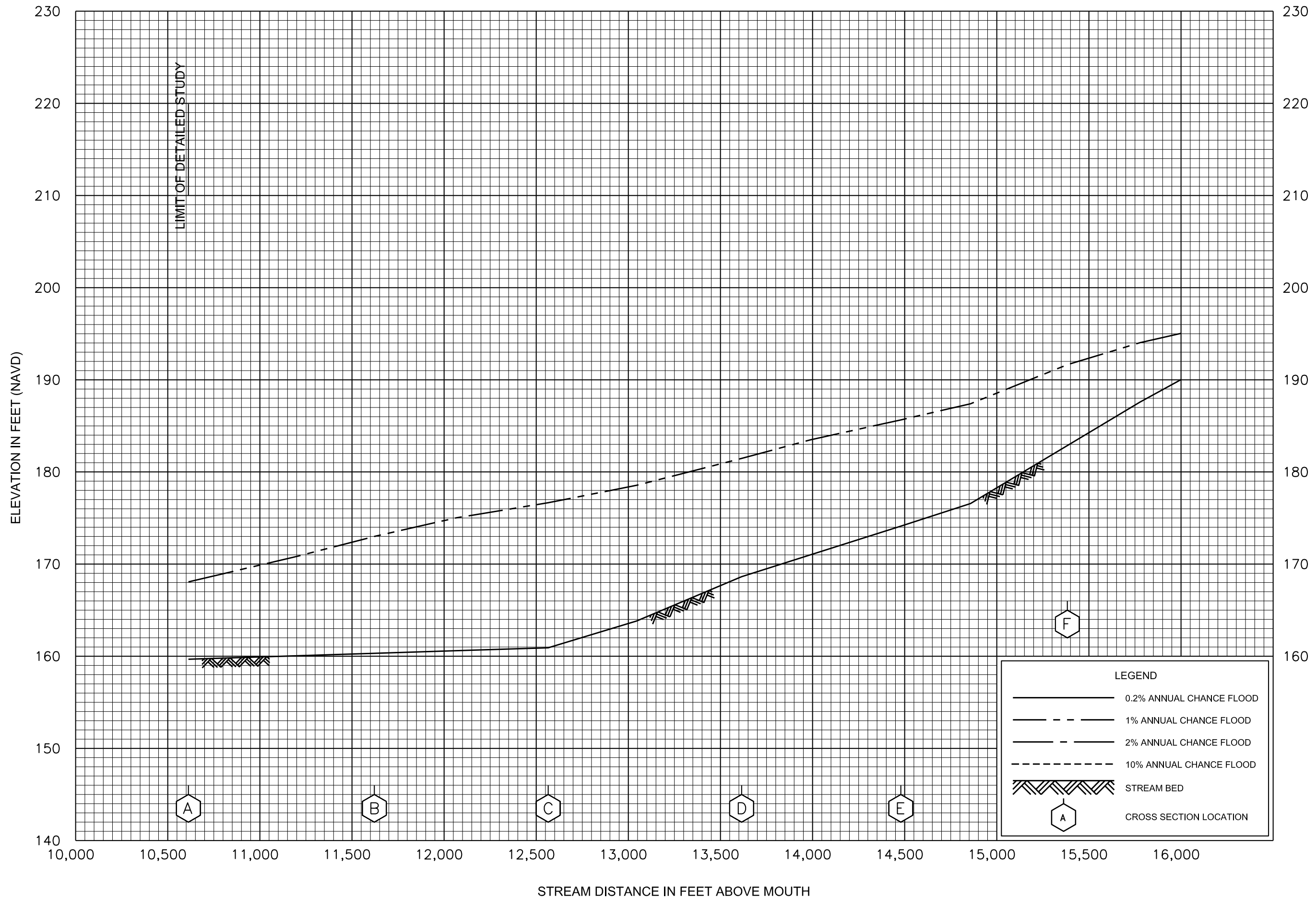


FLOOD PROFILES

FLINT CREEK TRIBUTARY 2

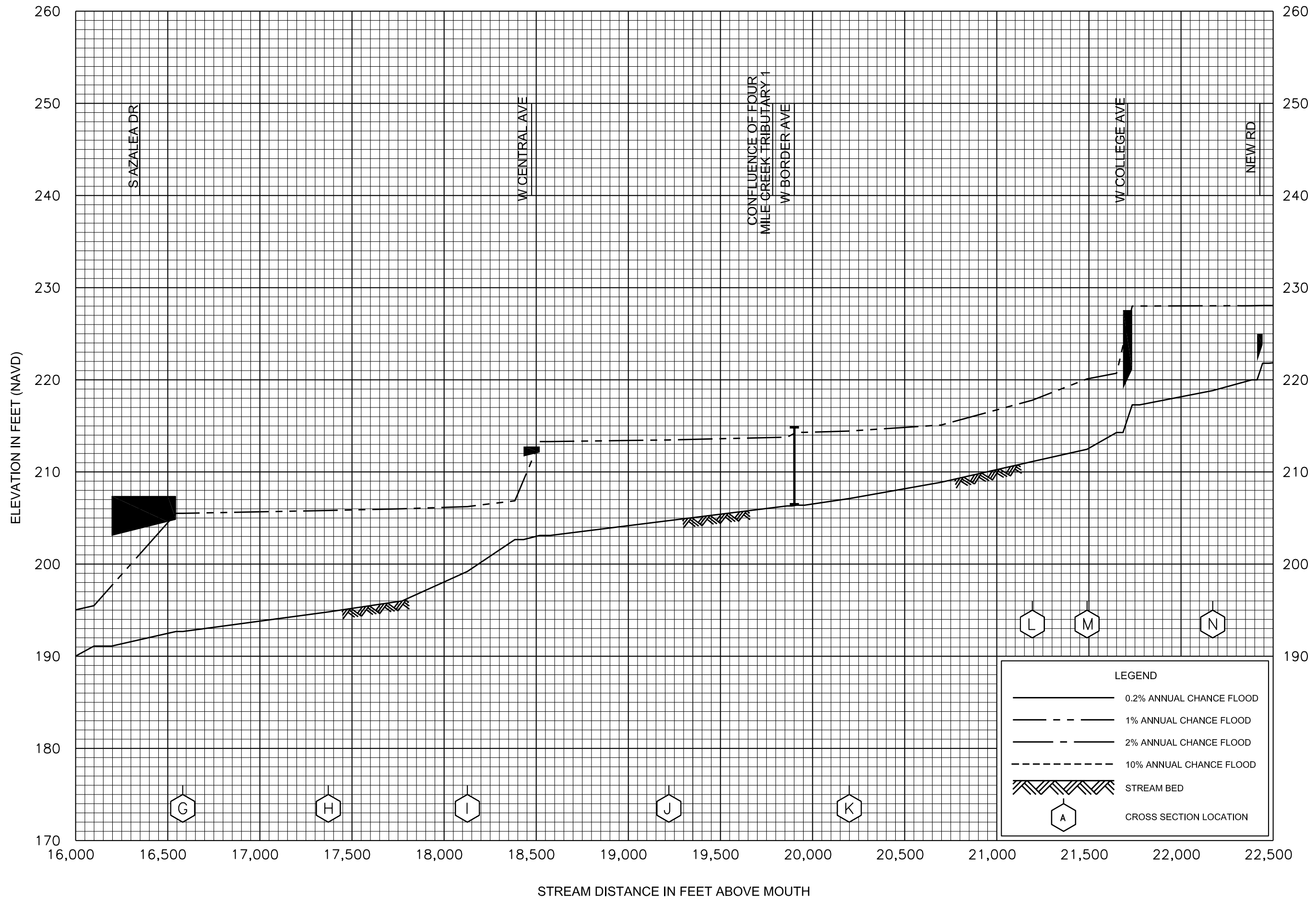
FEDERAL EMERGENCY MANAGEMENT AGENCY

STONE COUNTY, MS
AND INCORPORATED AREAS



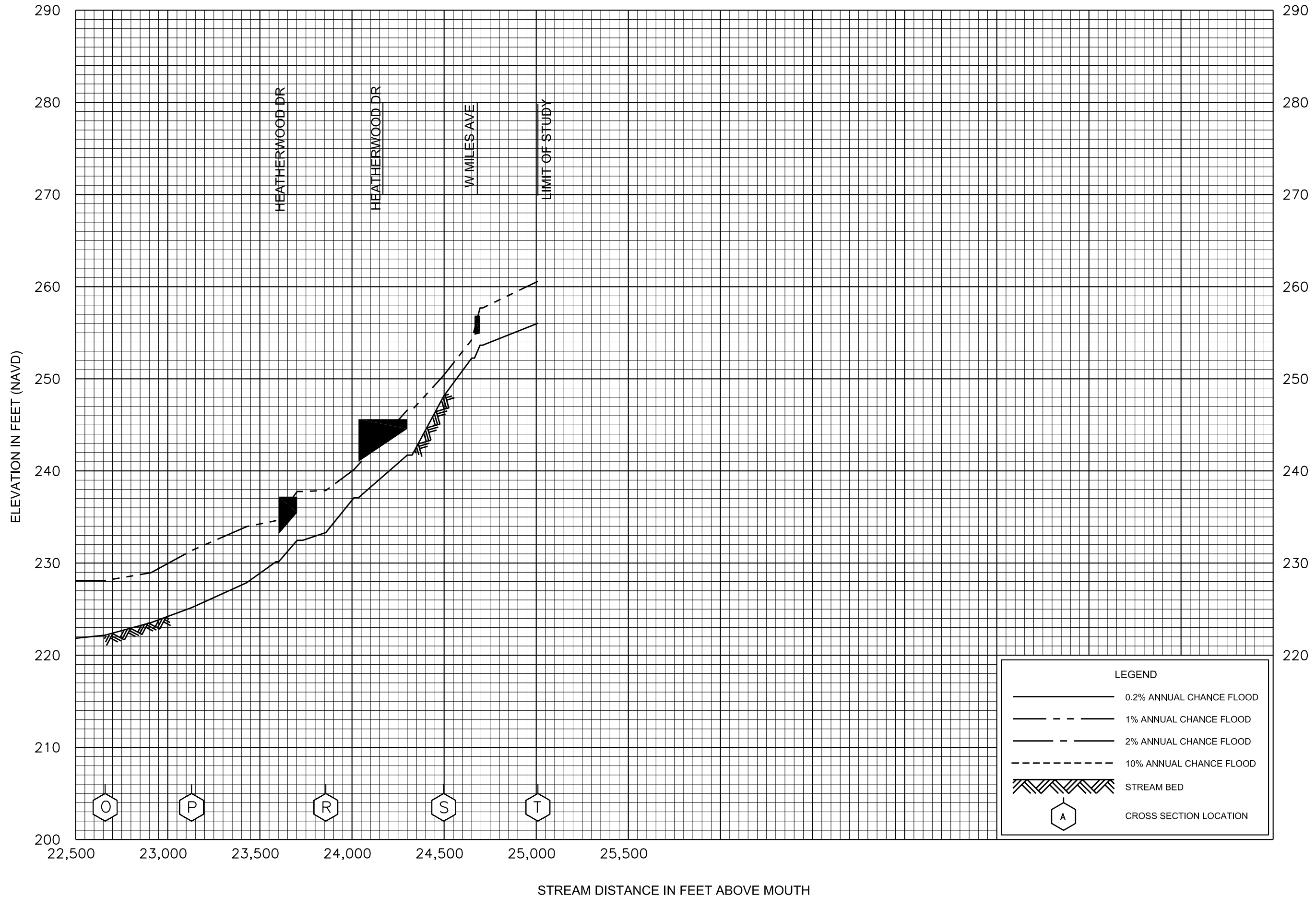
FLOOD PROFILES
FOUR MILE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY
STONE COUNTY, MS
AND INCORPORATED AREAS



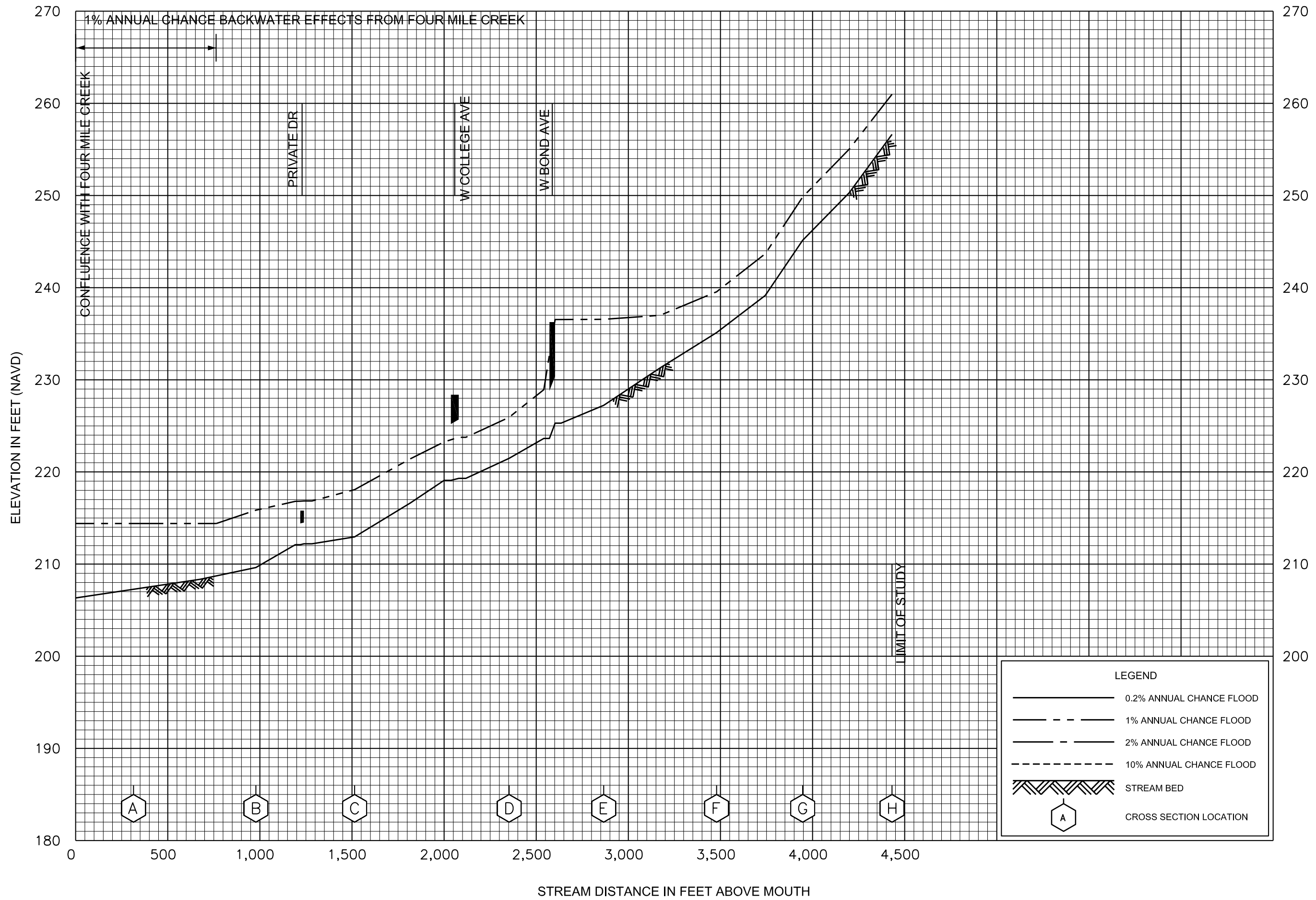
FLOOD PROFILES
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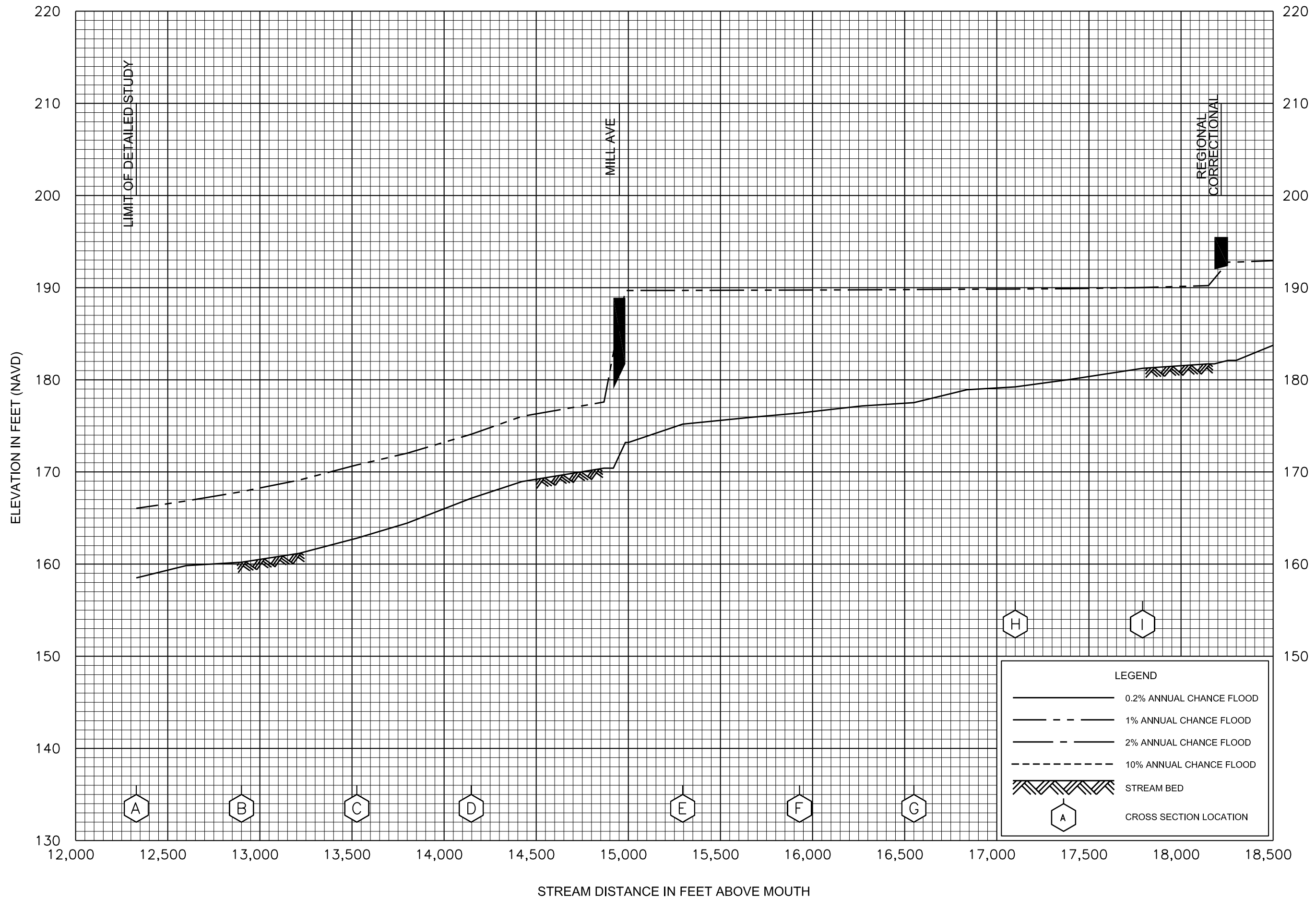


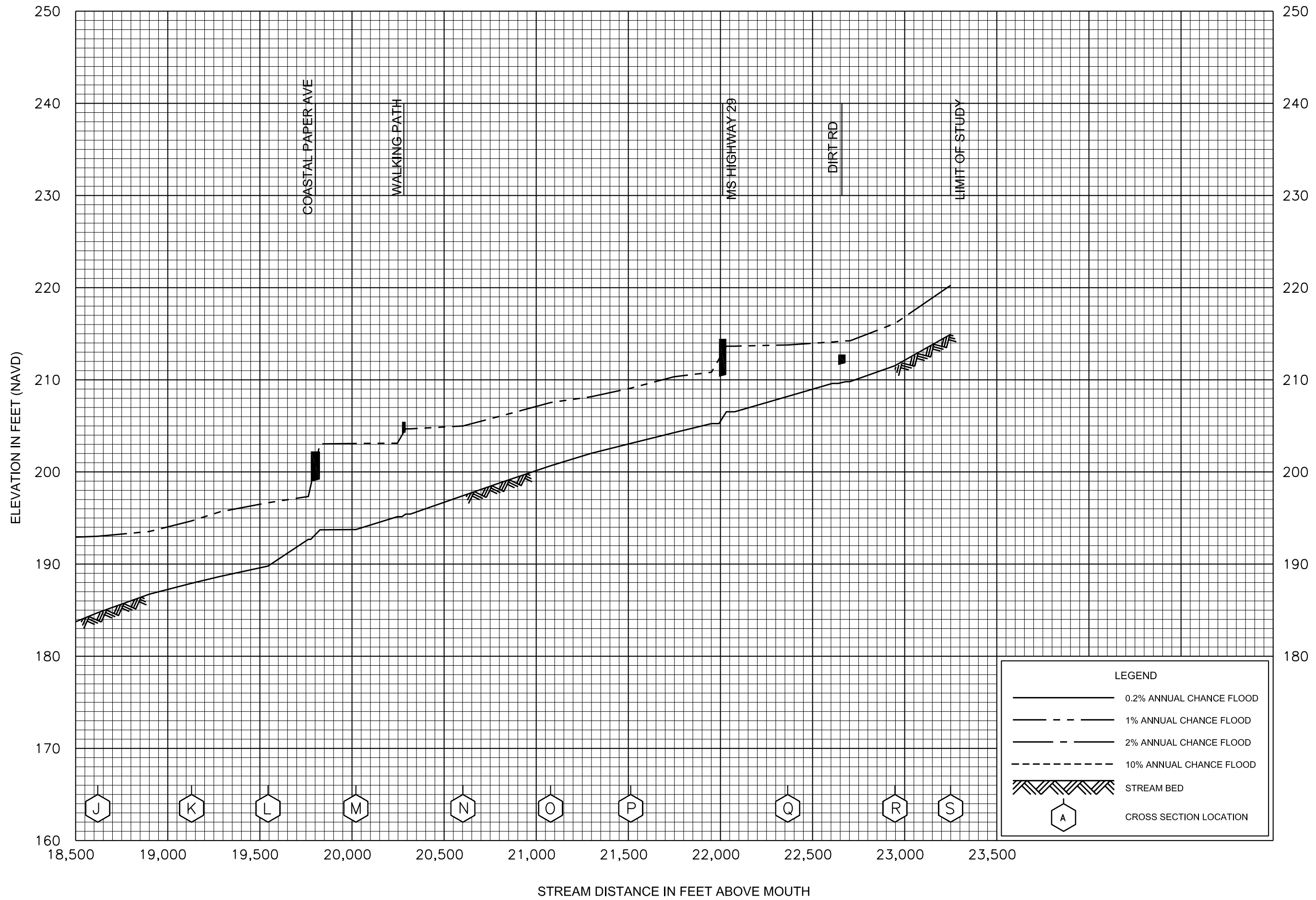
FLOOD PROFILES

FOUR MILE CREEK TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

STONE COUNTY, MS
AND INCORPORATED AREAS





FLOOD PROFILES

RED CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

STONE COUNTY, MS
AND INCORPORATED AREAS