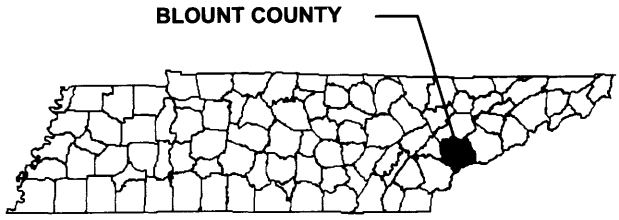
FLOOD INSURANCE STUDY

BLOUNT COUNTY, TENNESSEE,
AND INCORPORATED AREAS



Community Name	Community Number
ALCOA, CITY OF	475421
FRIENDSVILLE, CITY OF	470302
LOUISVILLE, TOWN OF	470405
MARYVILLE, CITY OF	475439
ROCKFORD, CITY OF	470320
TOWNSEND, CITY OF	470281
BLOUNT COUNTY (UNINCORPORATED AREAS)	470356

Effective Date: September 19, 2007

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
47009CV000A

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: September 19, 2007

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FLOOD INSURANCE STUDY

BLOUNT COUNTY, TENNESSEE, 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), Flood Boundary and Floodway Maps in the geographic area of Blount County, Tennessee, including the Cities of Alcoa, Friendsville, Maryville, Rockford and Townsend, the Town of Louisville and unincorporated areas of Blount County (hereinafter referred to collectively as Blount 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. This information will also be used by Blount 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 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, Blount County in a countywide format. Information on the authority and acknowledgments for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports and flood studies, is shown below.

Alcoa, City of (1989):	the hydrologic and hydraulic analyses for this June 1989 flood study were performed by the Tennessee Valley Authority (TVA) and covered the Pistol Creek and Russell Branch Watersheds in the City of Alcoa (Reference 1).
Blount County Unincorporated Areas (1991):	the hydrologic and hydraulic analyses for the June 1991 FIS report for Lackey Creek, Lackey Creek Tributary, Little River (RM 0-8), Pistol Creek (RM 0-3.5), Springfield Branch (RM 0-1.3), Taylor Branch, and Tennessee River were performed by the Tennessee Valley Authority

	(TVA), for the Federal Emergency Management Agency (FEMA), under Inter-Agency Agreement No. EMW-87-E-2513, Project Order No. 1. This study was completed in November 1988 (Reference 2).
Blount County Unincorporated Areas (2003):	the hydrologic and hydraulic analyses for this January 2003 flood study were performed by the Tennessee Valley Authority (TVA) and covered the Little River in Blount County from upstream of Singleton bend (mile 10.54) near Rockford to the Great Smoky Mountains National Park (Reference 3).
Maryville, City of (1989):	the hydrologic and hydraulic analyses for this June 1989 flood study were performed by the Tennessee Valley Authority (TVA) and covered the Pistol Creek and Russell Branch Watersheds in the City of Maryville (Reference 4).
Maryville, City of (2001):	the hydrologic and hydraulic analyses for this January 2001 flood study were performed by AMEC Earth & Environmental, Inc. and covered the Pistol Creek Watershed within the city of Maryville (Reference 5).
Maryville, City of (2004):	the hydrologic and hydraulic analyses for this January 2004 flood study were performed by AMEC Earth & Environmental, Inc. and covered the Cross Creek Watershed within the city of Maryville (Reference 6).

For this countywide FIS, floodplain boundaries were redelineated based on more detailed and up-to-date topography submitted by Blount County. The work for this study was performed by the Watershed IV Alliance, for the Federal Emergency Management Agency (FEMA), under Contract No. EMA-2002-CO0011A.

Basemap data was provided by the State of Tennessee Office for Information Resources, GIS Services, as part of the Tennessee Base Mapping Program.

312 8th Avenue N.
16th Floor Tennessee Tower
Nashville, TN 37243
http://gis.state.tn.us/mapping.html

The basemap data was provided in GCS_North_American_1983 coordinate system and Lambert_Conformal_Conic State Plane Tennessee FIPS 4100 Feet projection. The datum was North American Datum 1983.

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. All problems raised in the meeting have been addressed in this study.

For this countywide FIS, an initial CCO meeting was held with representatives of the impacted communities on July 8, 2004. On September 24, 2004, an intermediate CCO was held to discuss the proposed scope of the study. Attendees included representatives from the communities within Blount County. On March 30, 2005, an additional intermediate CCO was held to discuss the proposed scope of the study. Attendees included representatives from the cities of Maryville and Alcoa within Blount County.

On September 19, 2006 the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the USACE, FEMA, and the community.

2.0 AREA STUDIED

2.1 Scope of Study

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

Floodplain boundaries of streams that have been previously studied by detailed methods were redelineated based on more detailed and up-to-date topographic data. These streams are shown in Table 1, "Scope of Study."

Table 1. Scope of Study

Brown Creek	Pistol Creek
Cross Creek	Russell Branch
Culton Creek	Springfield Branch
Duncan Branch	Springfield Branch
Dunlap Branch	Taylor Branch
Lackey Creek	Tennessee River
Lackey Creek Tributary	Unnamed Tributary to Brown Creek
Laurel Bank Branch	Unnamed Tributary to Laurel Bank Branch
Little River	Unnamed Tributary to Springfield Branch

Approximate analyses were used to study those areas having a low development potential or minimal flood hazards. The scope and methods of study were proposed to, and agreed upon, by FEMA and Taylor Engineering, Inc.

2.2 Community Description

Blount County is in eastern Tennessee. It is bordered on the west by Loudon County, Tennessee; on the north by Knox County, Tennessee; on the east by Sevier County, Tennessee; and on the south by Monroe County, Tennessee, and Swain County, North Carolina. Blount County is served by U.S. Routes 129, 321, and 411; State Routes 33,

73, and 115; and CSX railroad. The 2000 population of the county, including all incorporated areas, was 105,823 (Reference 7).

The average temperatures range from 78 degrees Fahrenheit (°F) in the summer to 38°F in the winter. The average annual precipitation is 47 inches (Reference 8).

2.3 Principal Flood Problems

The principal sources of flooding in Blount County are the Tennessee River, the Little River, Pistol Creek, Lackey Creek, Lackey Creek Tributary, Taylor Branch, and Springfield Branch.

Tennessee River

Flow conditions on the Tennessee River were changed after closure of Fort Loudoun Dam in 1943 and closure of Cherokee and Douglas Dams in 1941 and 1943, respectively. Since regulation began, the largest floods to occur, in order of magnitude, were those of 1973 and 1963. Prior to closure of the dams, the largest floods on the Tennessee River, in order of magnitude, were those of 1867, 1875, 1902, and 1901 (Reference 9).

The flood of March 8, 1967, reached an approximate elevation of 827.6 feet National Geodetic Vertical Datum of 1929 (NGVD) at the confluence of the Little River. No damage estimates are available; losses were heavy, however, throughout the area.
The largest flood to occur on the Tennessee River in Blount County since regulation began was that of March 16, 1973. This flood reached an elevation of approximately 815.4 feet NGVD at the confluence of the Little River and had a recurrence interval of about 25 years. The discharge was 89,200 cubic feet per second (cfs).

The flood of March 12, 1963, is the second largest post-regulation flood. This flood reached elevation 815.0 feet NGVD at the confluence of the Little River. The recurrence interval for this flood is approximately 15 years.

Little River

Information about past flooding on the Little River is available from stream gage records recorded at the U.S. Geological Survey (USGS) gage No. 03498500 for the period 1951 to present. This gage is located at mile 17.3 upstream of the study limit. Four stream gages located in the vicinity of Rockford were maintained at various times within the study reach. However, the period of record for each is so short that the records are of limited value. Other available information includes accounts from local residents and area newspapers about the location and elevation of flood marks from past floods (References 10 and 11).

Backwater from the Tennessee River affects the lower portion of the Little River covered by this study. Prior to regulation, large floods on the Tennessee River caused major flooding along the lower reach of the stream. At today's level of regulation, the normal full pool of Fort Loudoun Lake, elevation 813 feet NGVD, extends about 8 miles up the Little River and is contained within banks or within the reservoir purchase boundary. With this level of regulation, the backwater effects of large floods are greatly reduced (References 10 and 11).

The largest headwater flood to occur on the Little River since at least the mid-1800s was the February 1875 flood. This flood did considerable damage to bridges, houses, mills,

and fanning interests along the stream. On the Tennessee River, this was the second largest known pre-regulation flood, and the resulting backwater caused additional flooding in the lower reach of the Little River. Damages for Blount County were estimated at more than $150,000 (1875 dollars) (References 10 and 11).

Flood history investigations indicate that other large floods occurred on the Little River in I860, 1861, 1867, 1886, 1896, and 1920. Very little flood information is available for these floods except for a series of high-water marks for the 1920 flood. This flood reached elevation 822.8 feet NSVD at a point about 0.5 mile downstream of Rockford Dam and had a recurrence interval of approximately 25 years. Damage to bridges, railroads, mills, and farmland was reported, but no dollar amount is known for the 1920 flood (References 10 and 11).

The largest flood since continuous stream gauging began in 1951 occurred in March 1963. This flood reached elevation 832.2 feet NSVD downstream of State Route 33 and had a recurrence interval of approximately 30 years. Damages along the river were not large and consisted mainly of overflowed farmland. Much damage to roads and bridges, however, did occur on tributary streams (Reference 10).

Pistol Creek

Pistol Creek flooding within the study reach is caused by both backwater flooding from the Little River and headwater flooding. The flood of March 12, 1963, reached elevation 834.2 feet NGVD at Alcoa Trail Road. Reports indicate much farmland was flooded in the general area; no damage estimates, however, for Pistol Creek are available (Reference 12).

Lackey Creek, Lackey Creek Tributary, and Taylor Branch

The only available information on past floods for Lackey Creek and Taylor Branch are a number of high-water marks for two minor within-banks floods of unknown date. Floodmarks of this type are also available for Lackey Creek Tributary for one flood (Reference 13).

The USGS maintains 2 daily stage and flow gages in the county (Table 2).

Table 2. USGS Gages in Blount County, TN

USGS Gage #	Location
03498500	LITTLE RIVER NEAR MARYVILLE, TN
03498850	LITTLE RIVER NEAR ALCOA, TN

2.4 Flood Protection Measures

There are dams within Blount County, such as the Laurel Lake Dam, Lake in the Sky Dam and Rockford Dam on the Little River, which provide some protection from flooding. However, they are not operated for flood control purposes and are not believed to provide protection from the 100-year flood.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail 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 which 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 which equals or exceeds the 100-year flood (1 percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, 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 the peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

Pre-countywide Analyses

The unincorporated areas within Blount County have a previously printed FIS report narrative. The hydrologic analyses described in that narrative are summarized below. Hydrologic methodologies for the other flood studies done within Blount County were not published.

Flood elevations in the Tennessee River study reach are influenced by both Fort Loudoun Dam headwater and discharge through the reach. Headwater elevation-frequency at Fort Loudoun Dam was determined by graphical analysis of stage records from 1944 to 1974 from the TVA gage at the dam. The Tennessee River discharge-frequency was determined through graphical analysis of unpublished TVA records at Fort Loudoun Dam discharge from 1946 to 1973, Computed reservoir frequency profiles were verified against an elevation-frequency curve at mile 651.4, which was determined by graphical analysis of elevation records from 1944 to 1977 from USGS gage No. 03497000. The standard log-Pearson Type III statistical analysis was not used for the Tennessee River frequency analyses because the method is not applicable to elevation data or areas regulated significantly from upstream dams.

The principal sources of data for determining the Little River discharge-frequency were records and historic flood information at the USGS stream gage No. 03498500 located near Maryville, Tennessee, and upstream of the study reach. Discharge-frequency estimates for the study reach were made by transfer using discharge-drainage area relationships. These relationships were based on the discharge-drainage area distributions of two known floods and were considered representative of frequency floods in the study reach (Reference 14).

Because stream gage records on Lackey Creek, Lackey Creek Tributary, and Taylor Branch do not exist, regional relationships were used to estimate peak discharge-frequency. These relationships were determined using stream gage records from watersheds with hydrometeorological characteristics similar to the study streams.

Flood-frequency curves were computed using the procedures outlined in Bulletin No. 17A, including the skew map of Plate I and adjustments for historic flood information where available (Reference 15). The results of these analyses were combined to develop the regional relationships applicable to Blount County.

Peak discharge-frequency for Pistol Creek was based on hydrologic watershed modeling of the upper Pistol Creek watershed. The results of this modeling were extended to cover the study reach based on historic floodmarks and watershed shape. No adjustment in discharge-frequency was needed for urbanization because the watershed modeling procedures account for currently existing development.

Flow estimates based on the adopted regional relationships were compared to estimates using relationships developed by the USGS for Hydrologic Area 1 (Reference 16). For the range of drainage areas studied, the discharges from the adopted regional relationships are from 2- to 25-percent lower than the estimates from the USGS-developed relationships for Tennessee.

The differences between the adopted regional relationships and those of the USGS result mainly from the different gaged watersheds used in each analysis and from additional gage records that were available to use in the adopted regional analysis. The adopted relationships were determined from gaged watersheds in a region hydrometeorologically similar to the Blount County region, while the USGS relationships are based on gaged watersheds over a much larger geographic area.

Peak discharge-drainage area relationships for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

This Countywide Revision

A summary of the drainage area-peak discharge relationships for the streams previously studied by detailed methods and have been redelineated for this study are shown in Table 3, "Summary of Discharges."

Table 3. Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
Brown Creek					
At mouth	*	*	*	2,680	3,790
Upstream of Southern Railway Bridge	*	*	*	2,520	3,520
At Sevierville Highway	*	*	*	2,320	3,180
Upstream of Walland Highway	*	*	*	1,730	2,400
About 0.53 mile upstream of Walland Highway	*	*	*	790	1,030
About 0.19 mile upstream of Grandview Drive	*	*	*	610	770
Cross Creek					
About 0.11 mile upstream of mouth	1.9	890	1,320	1,540	1,980
About 0.51 mile upstream of mouth	1.4	730	1,090	1,260	1,630
At Knight Bridge Road	1.3	660	990	1,150	1,490
About 0.17 mile upstream of Knight Bridge Road	0.7	370	560	650	840
Culton Creek					
About 0.17 mile upstream of mouth	*	*	*	3,070	4,250
At Louisville Road	*	*	*	2,870	3,970
About 0.64 mile upstream of Louisville Road	*	*	*	960	1,330
At Middle Settlement Road	*	*	*	610	850
Duncan Branch					
About 0.20 mile upstream of mouth	*	*	*	840	1,100
At Wilkinson Road	*	*	*	820	1,070
About 0.37 mile upstream of Court Street	*	*	*	560	700
Dunlap Branch					
At mouth	*	*	*	*	*
About 0.27 mile upstream of mouth	*	*	*	570	690
At Foch Street	*	*	*	490	600
At US Highway 129 Bypass	*	*	*	390	480

* Data not available

Table 3. Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
Lackey Creek					
Just upstream of mouth	10.5	1,430	2,240	2,610	3,610
Just upstream of Taylor Branch	5.7	880	1,370	1,610	2,220
At Meadowiew Road	3.3	570	890	1,040	1,440
Lackey Creek Tributary					
At mouth	1.2	250	400	460	640
About 1.0 mile upstream of mouth	0.7	160	260	300	420
Laurel Bank Branch					
At mouth	*	*	*	*	*
About 0.46 mile upstream of mouth	*	*	*	2,800	3,640
About 1.09 miles upstream of mouth	*	*	*	3,220	4,230
Upstream of Tennessee Highway 95	*	*	*	3,850	5,110
About 0.49 mile upstream of Big Springs Road	*	*	*	3,980	5,300
Little River					
At Mouth	379	27,000	39,000	44,500	58,000
About 1.56 miles upstream of State Rte 33	300	25,000	36,000	41,000	54,000
About 11.56 miles upstream of mouth	*	23,100	34,800	40,200	54,300
About 0.89 miles upstream of U.S. Highway 411	*	20,900	31,890	37,030	50,630
At Walland Bridge	*	18,000	28,050	32,850	45,800
About 27.11 miles upstream of mouth	*	15,630	24,920	29,430	41,840
About 0.58 miles downstream of Wear Valley Road	*	14,480	23,030	27,160	38,290
About 27.11 miles upstream of Mill Dam	*	14,100	22,400	26,400	37,100
Pistol Creek					
At mouth	39	3,550	5,100	5,950	8,100
About 2,750 feet upstream of Alcoa Trail	38.5	3,550	5,100	5,950	8,100
At Kelvin Road	*	*	*	3,770	5,150
At Home Street	*	*	*	3,070	4,220

*Data not available

Table 3. Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
Confluence of Brown's Creek	13.34	4,490	6,590	7,630	9,990
About 35 feet upstream of Harper Avenue	7.57	2,800	4,110	4,760	6,400
About 50 feet upstream of Best Street	6.11	2,130	3,160	3,660	4,900
Confluence of Cross Creek	4.78	1,620	2,420	2,800	3,800
US Limit of Study	2.36	830	1,250	1,450	1,920
Russell Branch					
About 0.16 mile upstream of mouth	*	*	*	1,510	1,780
At Singleton Road	*	*	*	1,120	1,300
Upstream of Southern Railway Bridge	*	*	*	1,420	1,740
About 0.66 mile upstream of Southern Railway Bridge	*	*	*	1,160	1,410
About 1.43 miles upstream of Southern Railway Bridge	*	*	*	540	640
At Wright Road	*	*	*	400	470
Springfield Branch					
At MacArthur Road	4.16	590	930	1,100	1,500
At Eagleton Road	*	*	*	1,000	1,300
At Broadway Avenue	*	*	*	850	1,050
At Old Knoxville Pike	*	*	*	800	970
Unnamed Tributary to Brown Creek					
At Mouth	*	*	*	670	910
At South Belmont Drive	*	*	*	470	630
At Windmere Circle	*	*	*	340	460
At Genesis Road	*	*	*	270	370
At Amerine Road	*	*	*	140	190
Unnamed Tributary to Laurel Bank Branch					
At mouth	*	*	*	1,150	1,500
At Morganton Road	*	*	*	720	950
At Highland Acres Subdivision Entrance Road	*	*	*	620	830

*Data not available

Table 3. Summary of Discharges

Flooding Source and Location	Drainage Area (square miles)	Peak Discharges (cubic feet per second) 10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
At Driveway about 0.39 mile above Highland Acres Subdivision Entrance Road	*	*	*	560	760
At Country Road about 0.67 mile above Highland Acres Subdivision Entrance Road	*	*	*	280	380
About 0.12 mile above US Highway 129	*	*	*	200	270
Unnamed Tributary to Springfield Branch					
About 0.7 mile upstream of mouth	*	*	*	160	220
At Harding Street	*	*	*	120	160
Taylor Branch					
At Mouth	4.1	670	1,060	1,240	1,710
At Meadowiew Road	1.9	360	570	670	930
Tennessee River					
At downstream county boundary	9,522	75,000	108,000	122,000	180,000
Just downstream of confluence with Little River	9,371	75,000	108,000	122,000	180,000

* Data not available

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 Flood Insurance Rate Map (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.

Pre-countywide Analyses

The unincorporated areas within Blount County have a previously printed FIS report narrative. The hydraulic analyses described in that narrative are summarized below. Hydraulic methodologies for the other flood studies done within Blount County were not published.

Cross sections were field surveyed at bridges and other strategic locations. All bridges and culverts were surveyed to observe elevation data and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross-section locations are also shown on the FIRM (Exhibit 2).

Water-surface elevations of floods of the selected recurrence intervals were computed using the HEC-2 step-backwater computer program (Reference 17). Starting water-surface elevations for Lackey Creek, Lackey Creek Tributary, Pistol Creek, and Taylor Branch were calculated using average elevations from Fort Loudoun Lake. The Tennessee River was started using Fort Loudoun Dam headwater elevations.

Roughness coefficients (Manning's "n") used in the hydraulic computations were determined on the basis of field inspections of the channels and floodplain areas. Roughness values for the channel and overbank areas are shown below:

Table 4. Manning's "n" Values

Stream	Channel "n"	Overbank "n"
Lackey Creek	0.030-0.045	0.060-0.15
Lackey Creek Tributary	0.04	0.080-0.14
Little River	0.030-0.045	0.060-0.15
Pistol Creek	0.035-0.050	0.065-0.10
Taylor Branch	0.035-0.045	0.070-0.15
Tennessee River	0.021-0.045	0.060-0.15

All elevations are referenced to NGVD. Elevation reference marks used in this study are shown on the maps and described in the exhibit labeled Elevation Reference Marks.

Cross section data for the streams in the study area were obtained by field surveys. All bridges and culverts were field surveyed to obtain elevation data and structural geometry. Cross sections were located at close intervals upstream and downstream of bridges and culverts in order to compute significant backwater effects of these strictures. The locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For streams for which a floodway is computed (Section 4.2), selected cross section locations are also shown on the Flood Insurance Rate Map (Exhibit 2).

Water-surface elevations of floods of the selected recurrence intervals on Pistol Creek (RM 3.5-8.8), Unnamed Tributary to Springfield Branch, Culton Creek, and Russell Branch were computed by the Tennessee Valley Authority in June 1989 (Reference 1).

Water-surface elevations of floods of the selected recurrence intervals on Springfield Branch (above RM 1.03), Laurel Bank Branch (within the limits of the City of Maryville), Unnamed Tributary to Laurel Bank Branch, Dunlap Branch (within the limits of the City of Maryville), Brown Creek, Unnamed Tributary to Brown Creek and Duncan Branch were computed by the Tennessee Valley Authority in June 1989 (Reference 4).

Water-surface elevations of floods of the selected recurrence intervals on Pistol Creek (RM 8.8-13.73) within the limits of the City of Maryville were computed by AMEC Earth & Environmental, Inc. in May 2001 (Reference 5).

Water-surface elevations of floods of the selected recurrence intervals on Little River (RM 10-35) were computed by the Tennessee Valley Authority in January 2003 (Reference 3).

Water-surface elevations of floods of the selected recurrence intervals on Cross Creek within the limits of the City of Maryville were computed by AMEC Earth & Environmental, Inc. in January 2004 (Reference 6).

The downstream segments of small tributaries, near their confluences with large rivers or reservoirs, are generally subject to two types of flooding: flooding from the headwaters of the tributary itself and backwater flooding from the river or reservoir. The flood profiles for those tributary segments should therefore be based on the combined probabilities of both types of flooding. For the flood profiles for tributaries in this study, the probability of flooding above a certain elevation on the tributary was calculated as the sum of that probability and the probability of the same elevation being exceeded on the river or reservoir, minus the product of those probabilities. This combined probability method is based on the assumption that the flood events on the tributary and the river or reservoir are independent but not mutually exclusive.

Independence is assumed because flooding on a large river or reservoir usually results from a storm that is centered outside the tributary drainage area and that generally does not produce significant flooding on the tributary. Similarly, flooding on the tributary usually results from a storm that is centered over the tributary drainage area and that does not generally produce significant flooding on the large river or reservoir. However, floods, not necessarily of the same frequency, can occur on both the tributary and the large river or reservoir as the result of the same storm; therefore, the flood events are not mutually exclusive.

The method described produces profiles that are higher than flat profiles representing backwater from the large river or reservoir and lower than those that would result from an analysis in which concurrent floods of equal frequency are assumed to occur on both sources of flooding.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 50- and 100-year flood elevations are close together, due to limitations of the profile scale, only the 100-year profile has been shown.

The hydraulic analyses for this study 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.

This Countywide Analysis

An approximate study was performed for Windsor Pond in the City of Maryville. This study included the application of a dynamic pond routing model (Reference 19) and the Soil Conservation Service (SCS) method to compute runoff from the drainage basin to the pond. NOAA ATLAS 14 provided the 24-hr storm rainfall depth. State of Tennessee digital terrain data provided stage-storage relationships for the model (Reference 20).

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.

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. The datum shift value in Blount County to convert from NGVD29 to NAVD88 is -0.34 feet.

For more information on NAVD88, see the FEMA publication entitled Converting the National Flood Insurance Program to the North American Vertical Datum of 1988 (FEMA, 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).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. However, no temporary vertical monuments were established during the preparation of this flood hazard analysis.

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-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 points and breaklines at a scale of 1:2400, 1:1200, and 1:600 with a contour interval of 2-10 feet (Reference 18).

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, V, and VE); 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 approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM (Exhibit 2).

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 floodway 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 (Table 5). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
BROWN CREEK								
A	106	80	805	3.3	880.4	880.4	880.4	0.0
B	370	90	573	4.6	880.5	880.5	880.5	0.0
C	686	80	628	4.2	880.8	880.8	881.0	0.2
D	1,109	125	765	3.4	882.2	882.2	882.7	0.5
E	1,426	60	414	6.2	886.3	886.3	887.3	1.0
F	2,112	30	518	4.9	899.8	899.8	899.8	0.0
G	2,851	70	551	4.5	900.2	900.2	900.3	0.1
H	3,802	120	734	3.3	901.8	901.8	902.7	0.9
I	4,699	85	662	3.5	908.6	908.6	909.5	0.9
J	4,805	60	537	4.3	908.9	908.9	909.8	0.9
K	5,174	65	498	4.6	915.3	915.3	916.3	1.0
L	6,389	65	519	4.2	918.0	918.0	918.8	0.8
M	6,917	75	412	4.2	921.0	921.0	921.2	0.2
N	7,286	80	313	5.4	922.4	922.4	922.9	0.5
O	8,184	80	437	3.7	926.6	926.6	927.6	1.0
P	9,715	65	197	4.0	935.9	935.9	936.9	1.0
Q	10,613	55	168	4.4	943.4	943.4	944.1	0.7
R	11,246	60	157	4.4	950.0	950.0	951.0	1.0
S	11,510	60	228	3.0	952.9	952.9	953.8	0.9
T	12,408	75	410	1.6	961.3	961.3	962.2	0.9
U	13,042	50	121	5.1	963.6	963.6	964.0	0.4
V	13,411	60	162	3.8	966.8	966.8	967.8	1.0

[1] Stream distance in feet above mouth

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

FLOODWAY DATA

BROWN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
CROSS CREEK								
A	16	111	470	3.3	955.0	955.0	956.0	1.0
B	195	195	524	2.9	957.3	957.3	958.2	0.8
C	972	250	498	2.5	957.6	957.6	958.6	1.0
D	1,019	135	336	3.8	957.8	957.8	958.7	0.9
E	1,552	97	347	3.6	961.3	961.3	962.2	0.9
F	2,350	57	256	4.9	965.1	965.1	965.8	0.7
G	3,353	65	250	4.6	969.7	969.7	969.8	0.2
H	4,345	156	756	1.5	975.9	975.9	976.6	0.7
I	4,599	41	133	4.9	975.9	975.9	976.9	1.0
J	5,269	21	66	9.9	988.2	988.2	988.3	0.1
CULTON CREEK								
A	898	105	1,434	2.1	850.7	850.7	851.7	1.0
B	3,802	300	2,045	1.5	851.0	851.0	852.0	1.0
C	6,811	150	1,894	1.5	851.8	851.8	852.7	0.9
D	7,656	280	2,828	1.0	852.1	852.1	853.1	1.0
E	9,082	760	7,296	0.4	852.2	852.2	853.2	1.0
F	11,035	250	1,966	0.5	852.2	852.2	853.2	1.0
G	12,091	130	595	1.1	852.4	852.4	853.3	0.9
H	13,622	40	307	2.0	858.0	858.0	858.8	0.8

[1] Stream distance in feet above mouth

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

FLOODWAY DATA

CROSS CREEK - CULTON CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
DUNCAN BRANCH								
A	1,056	45	170	5.0	932.1	932.1	933.0	0.9
B	1,426	40	171	4.9	936.2	936.2	937.2	1.0
C	1,795	40	142	5.8	940.2	940.2	941.0	0.8
D	2,218	45	218	3.8	943.0	943.0	943.8	0.8
E	2,904	40	237	3.5	951.8	951.8	952.4	0.6
F	3,432	50	211	3.9	952.6	952.6	953.6	1.0
G	4,118	60	317	2.6	957.7	957.7	958.4	0.7
H	4,805	50	223	3.6	961.5	961.5	962.5	1.0
I	5,016	40	160	5.1	963.5	963.5	964.3	0.8
J	6,072	50	195	1.9	968.2	968.2	969.2	1.0
DUNLAP BRANCH								
A	1,426	50	214	2.7	858.8	858.8	859.5	0.7
B	2,587	120	403	1.3	859.8	859.8	860.8	1.0
C	3,802	85	349	1.4	869.6	869.6	870.5	0.9
D	5,016	35	123	3.6	880.2	880.2	880.6	0.4
E	5,702	45	164	2.6	888.6	888.6	889.6	1.0
F	6,758	12	52	7.7	901.6	901.6	902.5	0.9
G	6,970	12	52	7.5	906.4	906.4	906.4	0.0

[1] Stream distance in feet above mouth

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

FLOODWAY DATA

DUNCAN BRANCH - DUNLAP BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LACKEY CREEK								
A	10,400	140	698	3.7	816.1	815.8[2]	816.7[2]	0.9
B	12,070	310	1,483	1.7	817.1	817.0[2]	817.9[2]	0.9
C	13,500	235	1,022	2.5	819.0	819.0	819.3	0.3
D	14,965	185	445	5.7	822.0	822.0	822.3	0.3
E	17,400	240	1,145	2.2	829.1	829.1	829.6	0.5
F	19,120	350	755	2.1	831.1	831.1	831.9	0.8
G	21,210	158	545	2.7	841.3	841.3	842.1	0.8
H	21,510	50	278	5.3	843.1	843.1	843.5	0.4
I	21,600	50	210	7.0	843.4	843.4	844.0	0.6
J	22,710	120	400	3.5	848.0	848.0	848.8	0.8
K	25,150	171	810	1.3	859.1	859.1	860.1	1.0
L	27,150	42	197	5.3	876.5	876.5	876.5	0.0
LACKEY CREEK TRIBUTARY								
A	850	17	69	6.3	855.3	855.3	855.8	0.5
B	1,430	17	69	6.0	859.8	859.8	859.8	0.0
C	3,250	29	74	4.9	879.3	879.3	879.5	0.2
D	5,080	28	78	3.9	891.9	891.9	891.9	0.0

[1] Stream distance in feet above mouth

[2] Elevations without considering effective joint probability determination

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

LACKEY CREEK - LACKEY CREEK TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LAUREL BANK BRANCH								
A	2,429	440	3,746	0.7	855.5	855.5	856.5	1.0
B	3,274	220	2,092	1.4	855.6	855.6	856.6	1.0
C	3,696	190	1,856	1.5	856.5	856.5	857.4	0.9
D	5,755	250	1,589	2.0	857.9	857.9	855.9	1.0
E	8,342	240	1,464	2.4	861.7	861.7	862.7	1.0
F	9,874	270	1,617	2.2	864.7	864.7	865.6	0.9
G	11,616	290	2,657	1.4	870.3	870.3	871.3	1.0
H	12,144	330	2,294	1.7	871.2	871.2	872.0	0.8
I	12,619	310	2,496	1.6	871.3	871.3	872.2	0.9
J	13,939	410	2,870	1.4	871.6	871.6	872.6	1.0
K	14,731	250	1,556	2.6	872.3	872.3	873.3	1.0

[1] Stream distance in feet above mouth

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

FLOODWAY DATA

LAUREL BANK BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
LITTLE RIVER								
A	2,480	967[2]	13,086	3.4	817.0	813.2[3]	814.2[3]	1.0
B	6,210	437[2]	6,914	6.4	817.0	813.9[3]	814.8[3]	0.9
C	11,125	456[2]	7,499	5.9	817.0	816.3[3]	816.8[3]	0.5
D	13,080	365[2]	7,951	5.6	817.3	817.3	817.7	0.4
E	13,240	413[2]	7,854	5.7	817.5	817.5	817.9	0.4
F	14,670	368[2]	7,222	6.2	817.9	817.9	818.2	0.3
G	22,500	591	9,527	4.6	820.2	820.2	820.5	0.3
H	26,860	448	7,738	5.6	821.4	821.4	821.7	0.3
I	29,040	285	5,896	7.3	822.5	822.5	822.8	0.3
J	32,290	188	5,002	8.6	824.7	824.7	825.2	0.5
K	33,520	220	5,204	8.3	825.6	825.6	826.3	0.7
L	40,265	330	5,591	7.7	832.0	832.0	832.8	0.8
M	42,530	685	13,365	3.2	834.2	834.2	834.8	0.6
N	44,820	580	9,275	4.4	835.0	835.0	835.5	0.5
O	46,240	225	4,618	8.9	835.5	835.5	836.2	0.7
P	47,910	510	8,539	4.8	837.8	837.8	838.5	0.7
Q	53,200	330	6,952	5.9	840.2	840.2	841.1	0.9

[1] Stream distance in feet above mouth

[2] This width extends beyond county boundary

[3] Elevations without considering backwater effect from Tennessee River

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
PISTOL CREEK								
A	686	80	861	6.9	834.3	825.7[2]	825.8[2]	0.1
B	1,954	180	1,931	3.1	834.3	829.2[2]	829.7[2]	0.5
C	3,854	220	1,971	3.0	834.3	831.2[2]	831.9[2]	0.7
D	6,600	220	1,899	3.1	834.3	833.6[2]	834.3[2]	0.7
E	8,606	230	2,410	2.5	835.1	835.1	835.8	0.7
F	9,874	240	2,642	2.3	835.7	835.7	836.6	0.9
G	12,355	240	2,549	2.3	837.0	837.0	837.9	0.9
H	16,157	260	2,823	2.1	839.4	839.4	840.2	0.8
I	18,902	400	3,757	1.6	841.9	841.9	842.8	0.9
J	23,549	280	3,348	1.8	843.5	843.5	844.4	0.9
K	25,555	350	2,442	2.4	844.0	844.0	844.9	0.9
L	27,245	120	1,539	3.9	846.1	846.1	846.7	0.6
M	28,934	180	2,416	2.5	847.1	847.1	848.0	0.9
N	31,258	200	2,600	2.3	847.8	847.8	848.7	0.9
O	31,363	200	2,352	2.5	848.0	848.0	849.0	1.0
P	37,541	140	1,615	2.3	850.8	850.8	851.7	0.9
Q	39,230	130	1,260	2.9	852.1	852.1	852.8	0.7
R	40,603	150	1,332	2.7	853.9	853.9	854.8	0.9
S	41,659	130	1,137	3.1	854.9	854.9	855.8	0.9
T	42,082	100	908	3.9	855.1	855.1	855.9	0.8
U	43,243	90	845	4.2	856.0	856.0	857.0	1.0
V	45,408	90	728	4.2	860.2	860.2	860.9	0.7
W	45,725	95	555	5.5	861.1	861.1	861.8	0.7
X	48,096	123	1,211	6.3	878.6	878.6	878.6	0.0
Y	49,173	218	2,282	3.3	880.0	880.0	880.0	0.0
Z	49,796	150	1,658	3.0	885.5	885.5	885.7	0.2

[1] Stream distance in feet above mouth

[2] Elevations without considering backwater effect from Tennessee River

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

PISTOL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
PISTOL CREEK								
AA	50,017	80	1,119	4.2	887.5	887.5	887.7	0.2
AB	50,361	90	825	5.6	888.2	888.2	888.3	0.1
AC	50,577	80	805	5.8	890.5	890.5	890.6	0.1
AD	50,910	80	525	8.8	892.8	892.8	892.9	0.1
AE	51,184	110	835	5.6	900.6	900.6	900.5	-0.1
AF	51,343	90	757	6.1	901.2	901.2	901.1	-0.1
AG	51,570	66	686	6.8	903.1	903.1	903.0	-0.1
AH	51,823	74	1,004	4.6	906.2	906.2	906.1	-0.1
AI	52,098	109	1,643	2.8	909.3	909.3	909.2	-0.1
AJ	53,280	80	1,176	3.5	912.2	912.2	912.4	0.2
AK	54,315	150	1,254	3.3	913.0	913.0	913.6	0.6
AL	54,680	150	1,398	3.0	917.9	917.9	918.7	0.8
AM	54,970	160	1,394	3.0	918.3	918.3	919.2	0.9
AN	55,678	160	1,386	3.0	918.9	918.9	919.6	0.7
AO	56,179	90	750	5.5	919.4	919.4	920.1	0.7
AP	56,781	169	1,024	3.9	921.9	921.9	922.2	0.3
AQ	57,763	190	1,368	2.9	926.7	926.7	926.7	0.0
AR	58,782	190	1,212	3.0	927.5	927.5	927.9	0.4
AS	60,039	240	1,467	2.5	931.8	931.8	932.3	0.5
AT	61,053	240	1,660	2.0	932.7	932.7	933.1	0.4
AU	61,718	260	1,687	2.0	933.1	933.1	933.6	0.5
AV	62,674	260	1,588	2.1	933.7	933.7	934.4	0.7
AW	63,207	260	1,242	2.3	934.4	934.4	935.2	0.6
AX	64,046	110	677	4.1	941.6	941.6	941.5	-0.1
AY	64,854	125	712	3.9	944.3	944.3	944.3	0.0
AZ	65,704	150	639	4.4	947.8	947.8	947.8	0.0

[1] Stream distance in feet above mouth

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
PISTOL CREEK								
BA	66,143	270	1,086	2.6	949.5	949.5	949.8	0.3
BB	67,035	270	1,044	2.7	951.2	951.2	951.7	0.5
BC	67,991	120	826	2.3	956.4	956.4	956.7	0.3
BD	68,350	120	544	3.5	957.2	957.2	957.6	0.4
BE	69,358	150	500	3.7	959.5	959.5	960.1	0.6
BF	69,891	120	444	3.6	961.6	961.6	962.1	0.5
BG	70,467	44	278	5.8	967.1	967.1	967.2	0.1
BH	71,359	75	364	4.4	973.7	973.7	973.7	0.0
BI	71,940	115	529	2.8	975.4	975.4	975.7	0.3
BJ	72,563	65	314	4.6	977.1	977.1	978.0	0.9
BK	73,128	100	261	5.6	984.4	984.4	984.7	0.3

[1] Stream distance in feet above mouth

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

FLOODWAY DATA

PISTOL CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
RUSSELL BRANCH								
A	845	100	322	4.7	826.3	812.6[2]	812.6[2]	0.0
B	1,901	90	382	3.6	826.3	814.8[2]	815.1[2]	0.3
C	2,429	70	251	5.3	826.3	815.9[2]	816.4[2]	0.5
D	3,485	70	291	4.2	826.3	819.4[2]	820.3[2]	0.9
E	3,854	40	208	5.6	826.3	820.5[2]	821.3[2]	0.8
F	4,277	30	331	3.4	829.9	829.9	830.1	0.2
G	4,699	140	1,145	1.2	832.3	832.3	833.3	1.0
H	6,230	170	843	1.5	832.9	832.9	833.9	1.0
I	7,498	85	339	3.6	836.5	836.5	837.5	1.0
J	8,184	60	413	2.8	850.4	850.4	851.4	1.0
K	9,293	140	556	1.9	854.2	854.2	855.2	1.0
L	10,613	95	385	2.6	856.7	856.7	857.7	1.0
M	12,250	40	105	5.1	876.1	876.1	877.0	0.9
N	13,834	40	58	6.9	911.3	900.7	901.0	0.3

[1] Stream distance in feet above mouth

[2] Elevations without considering backwater effect from Little River

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

RUSSELL BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
SPRINGFIELD BRANCH								
A	1,531	305	1,859	0.6	839.0	835.0[3]	835.6	0.6
B	3,432	220[2]	762	1.4	839.0	836.2[3]	837.1	0.9
C	5,016	200	662	2.1	840.7	840.7	841.7	0.0
D	6,283	130	327	3.1	845.7	845.7	846.6	0.9
E	6,600	60	214	4.2	848.1	848.1	849.0	0.9
F	7,075	30	114	7.6	851.5	851.5	851.5	0.0
G	7,339	45	269	3.2	857.3	857.3	858.1	0.8
H	7,498	45	297	2.9	857.4	857.4	858.2	0.8
I	7,762	50	295	2.9	860.3	860.3	861.3	1.0
J	8,765	80	293	2.7	869.3	869.3	870.3	1.0

[1] Stream distance in feet above mouth

[2] This extends into area not included

[3] Elevations without considering backwater effect from Pistol Creek

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

SPRINGFIELD BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
TAYLOR BRANCH								
A	580	115	386	3.1	829.1	827.3[2]	828.3	1.0
B	1,940	117	385	2.9	830.0	830.0	830.9	0.9
C	3,680	75	404	2.4	834.7	834.7	835.5	0.8
D	6,190	73	302	2.6	840.8	840.8	841.7	0.9
E	7,980	100	170	3.9	844.7	844.7	845.4	0.7
TENNESSEE RIVER								
A	32,947	1,710	102,060	1.2	814.8	814.8	814.8	0.0
B	44,141	1,180	62,225	2.0	814.8	814.8	814.8	0.0
C	54,542	1,670	86,914	1.4	814.9	814.9	814.9	0.0
D	65,472	1,280	56,798	2.1	815.0	815.0	815.0	0.0
E	76,824	3,770	137,423	0.9	815.1	815.1	815.1	0.0
F	87,648	1,320	46,936	2.6	815.1	815.1	815.1	0.0
G	98,208	1,850	67,109	1.8	815.4	815.4	815.4	0.0
H	109,243	2,610	103,865	1.2	815.5	815.5	815.5	0.0
I	121,018	3,180	110,144	1.1	815.6	815.6	815.6	0.0
J	131,314	1,510	50,508	2.4	815.8	815.8	815.8	0.0
K	142,718	1,200	47,161	2.6	816.1	816.1	816.1	0.0
L	153,912	3,440	68,172	1.8	816.4	816.4	816.4	0.0
M	164,947	1,180	40,980	3.0	816.7	816.7	816.7	0.0
N	176,088	2,990	62,770	1.8	817.0	817.0	817.0	0.0

[1] Stream distance in feet above mouth

[2] Elevations without considering backwater effect from Lackey Creek

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

TAYLOR BRANCH - TENNESSEE RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
UNNAMED TRIBUTARY TO BROWN CREEK								
A	106	25	111	6.0	919.4	918.2[2]	918.5[2]	0.3
B	475	30	130	5.0	921.2	921.2	921.4	0.2
C	2,059	30	180	3.1	934.0	934.0	934.9	0.9
D	3,485	35	156	3.0	949.2	949.2	950.1	0.9
E	4,594	20	156	2.6	958.0	958.0	958.6	0.6
F	5,597	25	117	2.9	963.9	963.9	964.8	0.9
G	5,966	55	270	1.1	970.7	970.7	971.6	0.9
H	6,653	25	85	3.2	974.8	974.8	974.8	0.0
I	7,709	20	57	3.0	980.6	980.6	981.5	0.9
J	8,659	15	87	1.6	1002.1	1002.1	1002.6	0.5

[1] Stream distance in feet above mouth

[2] Elevations without considering backwater effect from Brown Creek

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

UNNAMED TRIBUTARY TO BROWN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
UNNAMED TRIBUTARY TO LAUREL BANK BRANCH								
A	317	80	254	4.5	871.3	865.3[2]	866.3[2]	1.0
B	1,320	40	163	4.6	872.0	872.0	873.0	1.0
C	2,482	30	292	2.5	893.1	893.1	893.9	0.9
D	3,274	35	240	2.9	901.4	901.4	902.2	0.8
E	4,013	25	118	5.7	907.2	907.2	907.6	0.4
F	4,805	20	94	6.9	919.6	919.6	919.7	0.1
G	5,755	45	313	2.0	947.7	947.7	948.6	0.9
H	6,600	40	110	5.5	955.9	955.9	956.5	0.6
I	7,603	60	213	2.7	964.2	964.2	965.2	1.0
J	7,814	45	196	2.9	968.8	968.8	969.8	1.0
K	8,712	35	109	2.8	977.5	977.5	978.4	0.9
L	9,293	35	268	1.0	995.2	995.2	996.1	0.9
M	10,138	20	45	5.6	1,002.1	1,002.1	1,003.1	1.0
N	11,035	20	85	2.6	1,007.8	1,007.8	1,008.1	0.3
O	11,669	12	29	6.8	1,019.7	1,019.7	1,020.3	0.6

[1] Stream distance in feet above mouth

[2] Elevations without considering backwater effect from Laurel Bank Branch

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

(AND INCORPORATED AREAS)

FLOODWAY DATA

UNNAMED TRIBUTARY TO LAUREL BANK BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
UNNAMED TRIBUTARY TO SPRINGFIELD BRANCH								
A	370	20	82	2.0	844.8	844.8	845.3	0.5
B	1,056	15	39	3.6	848.4	848.4	849.0	0.6
C	1,795	15	51	2.4	859.0	859.0	859.9	0.9

[1] Stream distance in feet above mouth

TABLE 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

FLOODWAY DATA

UNNAMED TRIBUTARY TO SPRINGFIELD BRANCH

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.

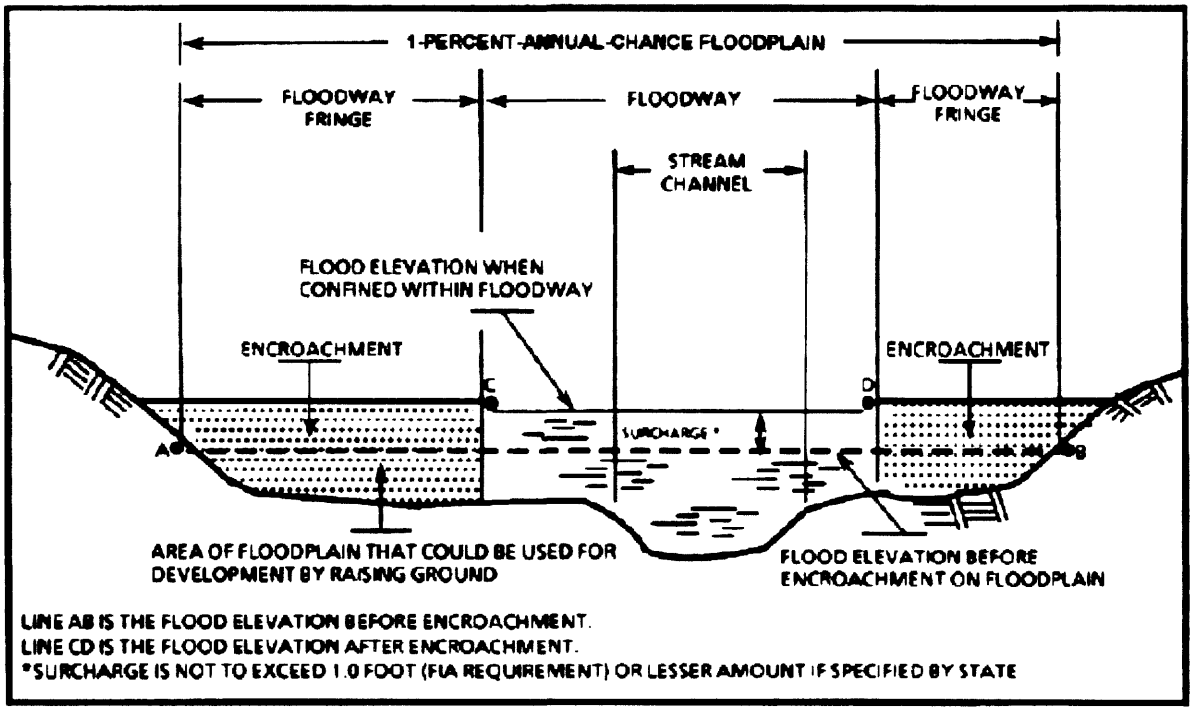

Figure 1. Floodway Schematic

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 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 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 1-percent-annual-chance flood by levees. No BFEs or base flood 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 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 current FIRM presents flooding information for the entire geographic area of Blount County. Previously, separate FIRMs were prepared for each identified floodprone incorporated community and for the unincorporated areas of the county. Historical data relating to the maps prepared for each community are presented in Table 6.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Alcoa, City of	January 8, 1972	July 1, 1974 July 30, 1976	April 15, 1977	
Friendsville, City of	June 11, 1976	None	August 1, 1986	
Louisville, Town of	January 26, 1996	None	N/A	
Maryville, City of	**November 17, 1970**		**November 17, 1970**	**July 1, 1974** **August 1, 1986**
Rockford, City of	September 24, 1976	None	N/A	**June 29, 1979**
Townsend, City of	June 18, 1976	None	N/A	
Blount County Unincorporated Areas	August 26, 1977	None	June 3, 1991	

TABLE 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
(AND INCORPORATED AREAS)

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

The FIS published for the unincorporated areas of Blount County, Tennessee (Reference 2), the flood studies published for the Cities of Alcoa and Maryville (References 1, 4, 5 and 6), and the unpublished flood study for the Little River (Reference 3) are in agreement with this study.

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Blount County has been compiled into this FIS. Therefore, this FIS report either supersedes or is compatible with all previous studies on streams studied in this report and should be considered authoritative for purposes of the NFIP.

8.0 LOCATION OF DATA

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

9.0 REFERENCES AND BIBLIOGRAPHY

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2. Federal Emergency Management Agency, Flood Insurance Study, Blount County, Tennessee, Unincorporated Areas. Washington, D.C., June 1991.

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14. Tennessee Valley Authority, Flood Protection Branch, Division of Air and Water Resources, open files.

15. U.S. Water Resources Council, Bulletin No. 17A, Guidelines for Determining Flood Flow Frequency, June 1977.

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19. Streamline Technologies, Inc. 2002. *ICPR v3.02 Service Pack 8*. Winter Park, FL.

20. G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley. 2004. National Oceanic and Atmospheric Administration, National Weather Service. Silver Spring, MD.

ELEVATION IN FEET (NAVD)

850 860 870 880 890 900 910 920 930 940

STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH PISTOL CREEK

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3

CONFLUENCE WITH PISTOL CREEK

PARHAM AVENUE

WASHINGTON STREET OVERPASS

EAST HARPER STREET

EAST BROADWAY AVENUE

SOUTHERN RAILWAY

SOUTHERN RAILWAY SPUR

SEVIERVILLE HIGHWAY

PRIVATE ROAD

1% ANNUAL CHANCE BACKWATER FROM PISTOL CREEK

A B C D E F G H I J K L

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

CROSS SECTION LOCATION

870 880 890 900 910 920 930 940

FEDERAL EMERGENCY MANAGEMENT AGENCY

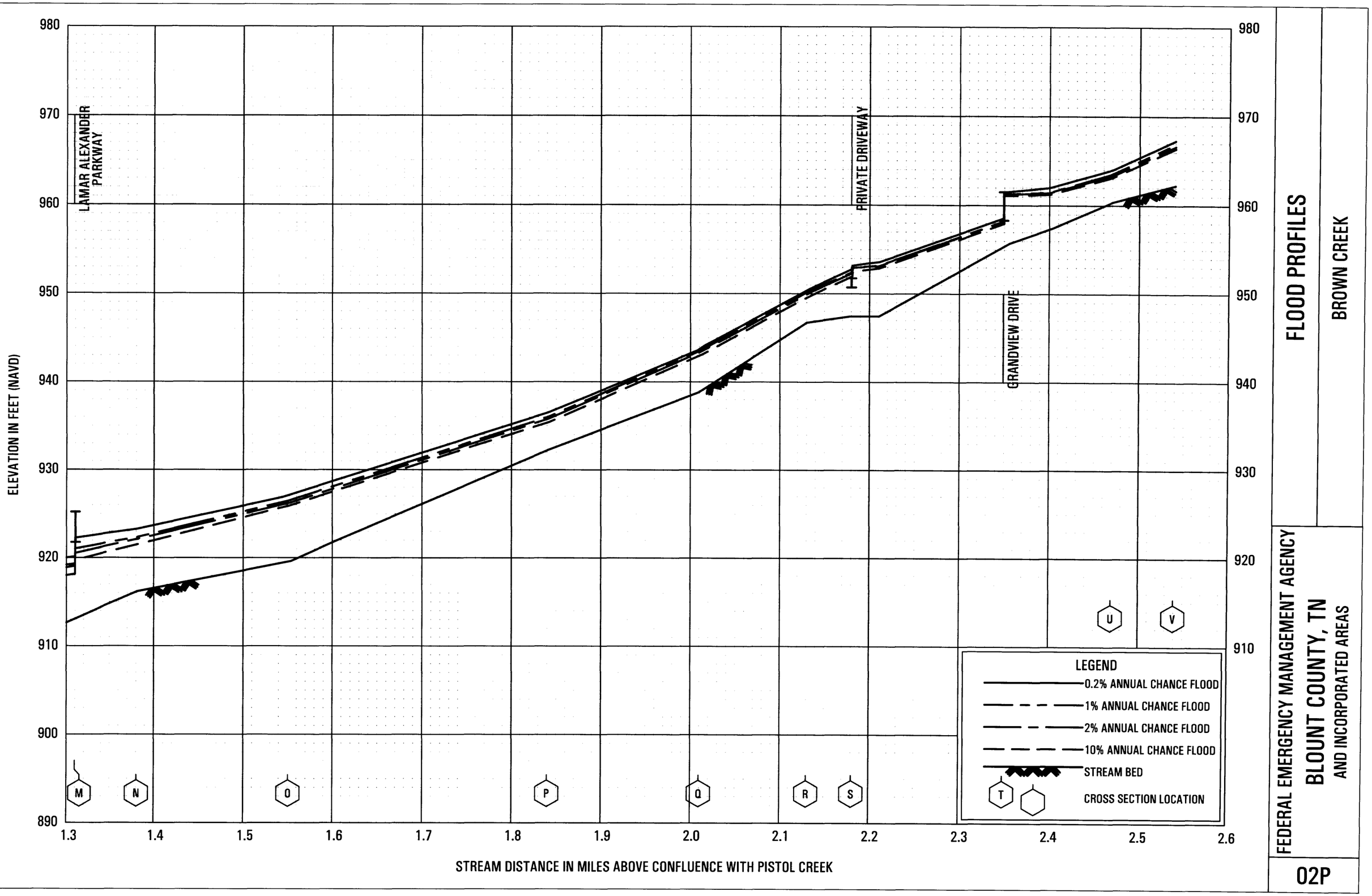
BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

BROWN CREEK

01P



FLOOD PROFILES

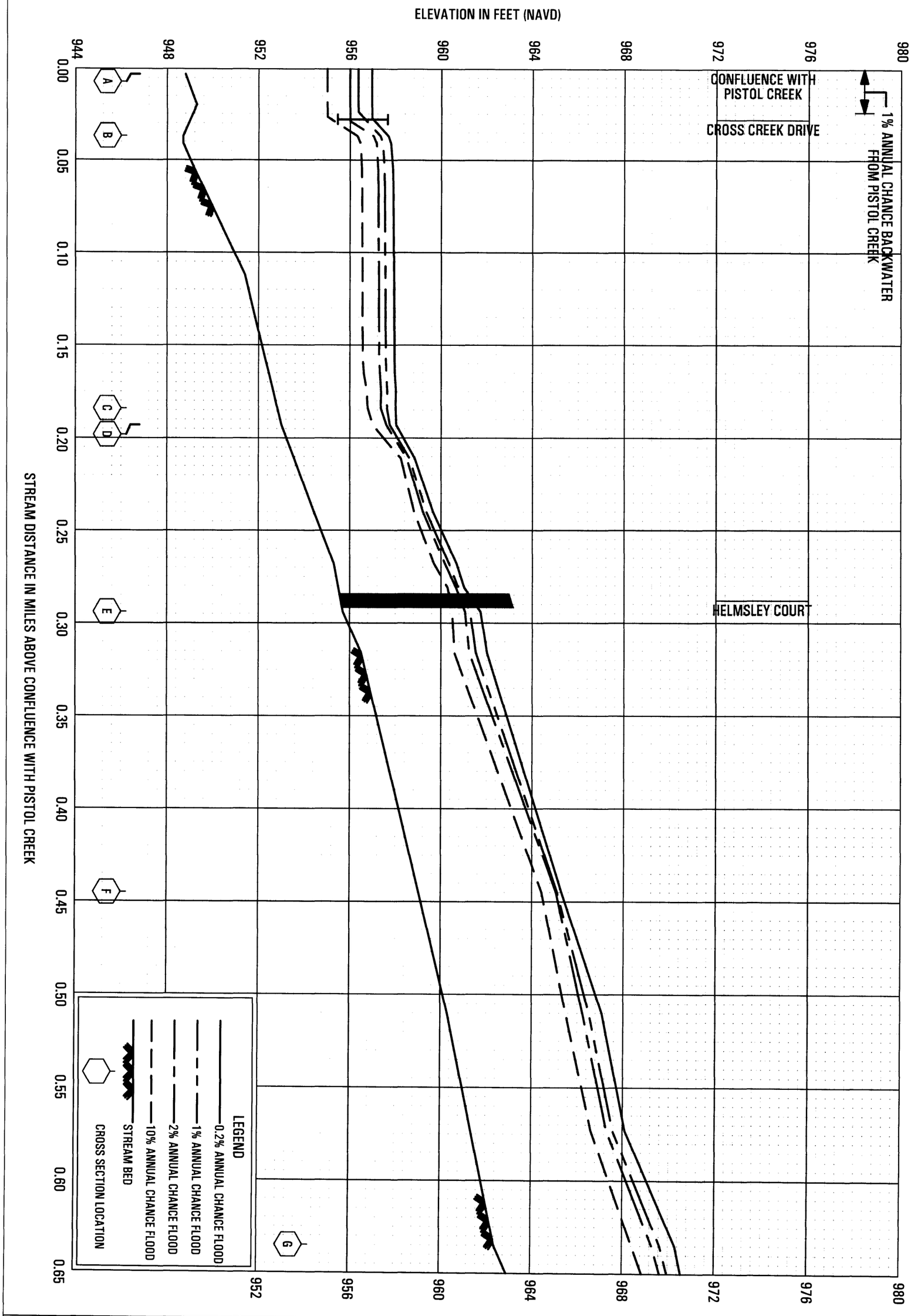
BROWN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

02P



FEDERAL EMERGENCY MANAGEMENT AGENCY

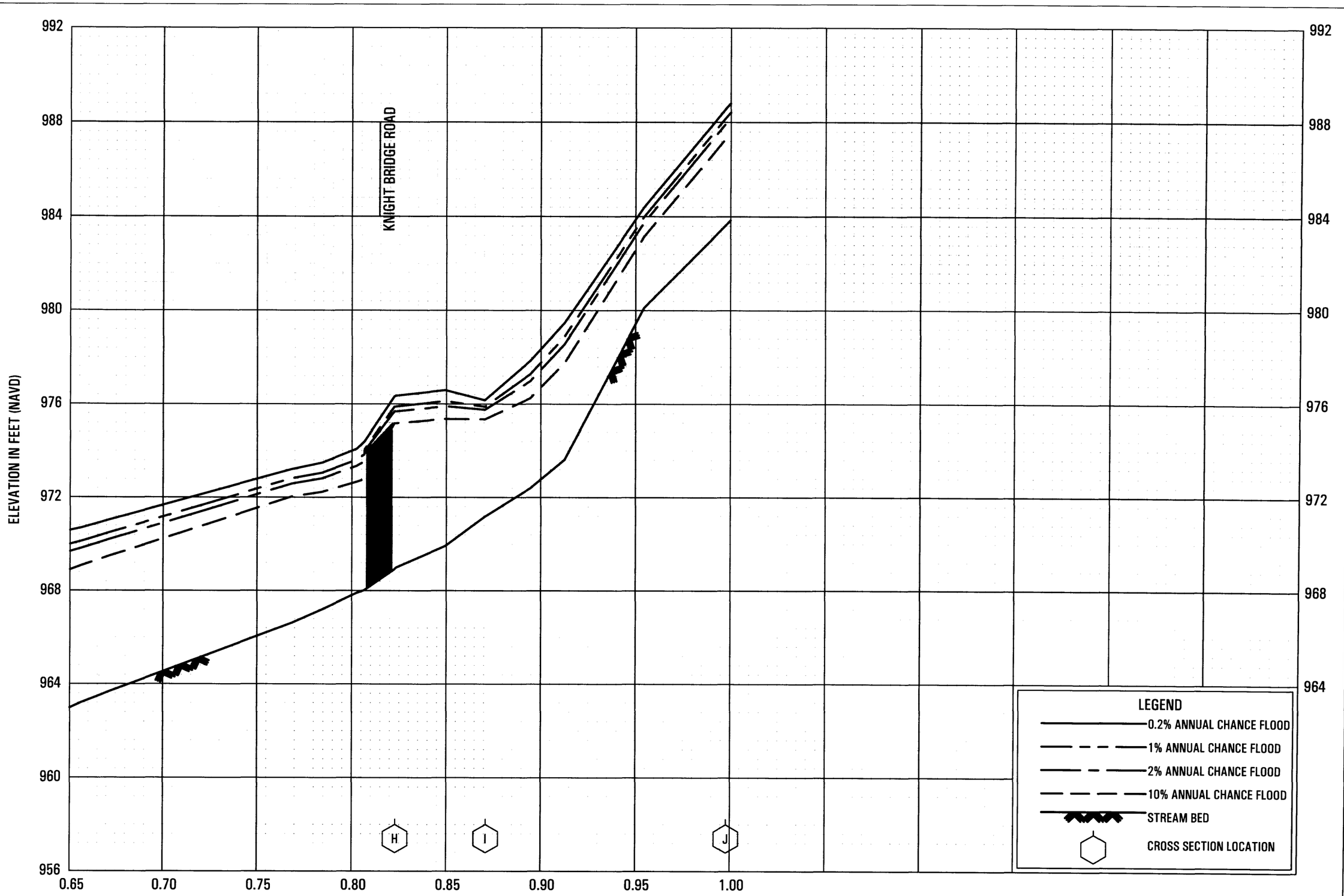
BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

CROSS CREEK

03P



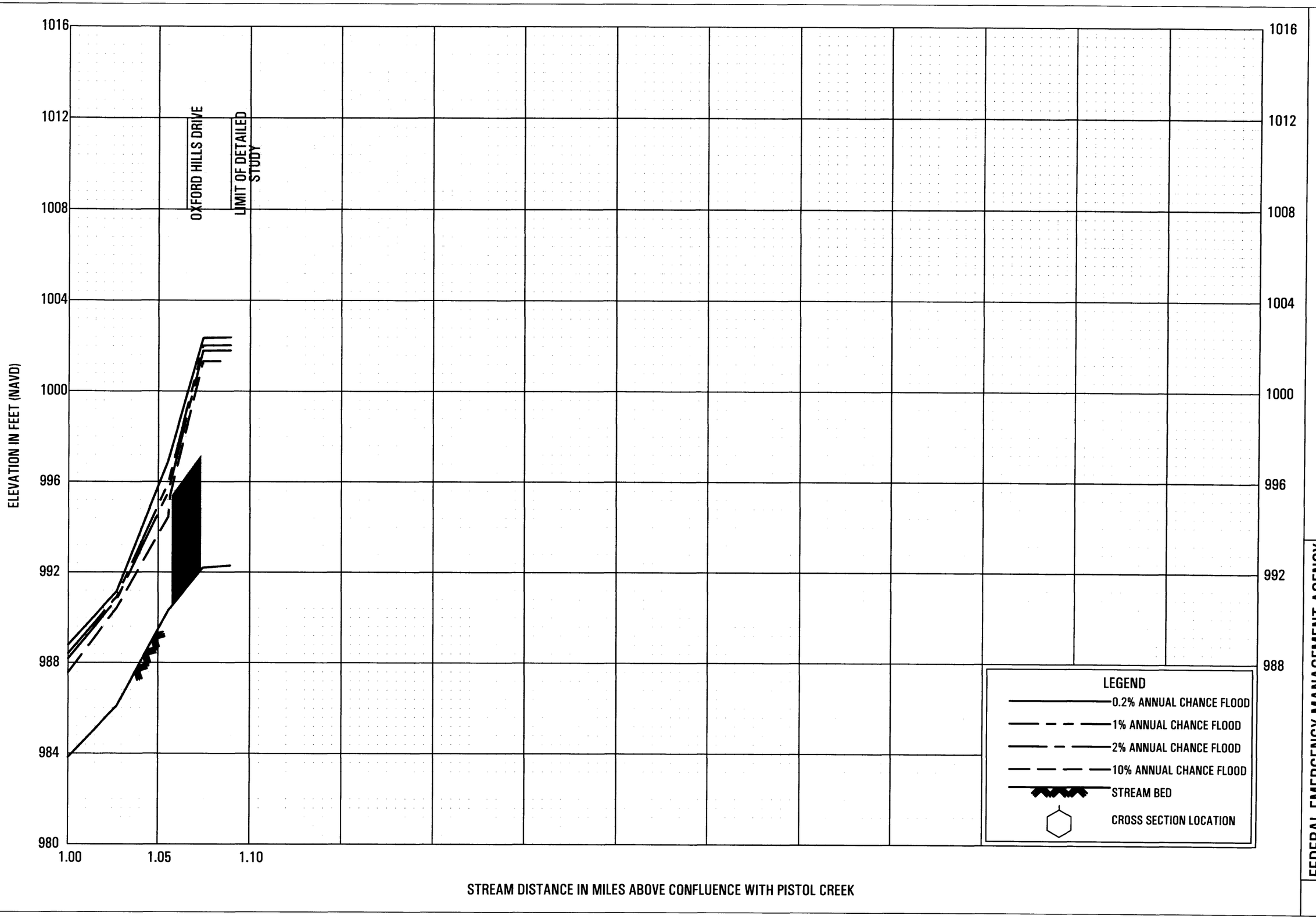
FLOOD PROFILES

CROSS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

04P



FLOOD PROFILES

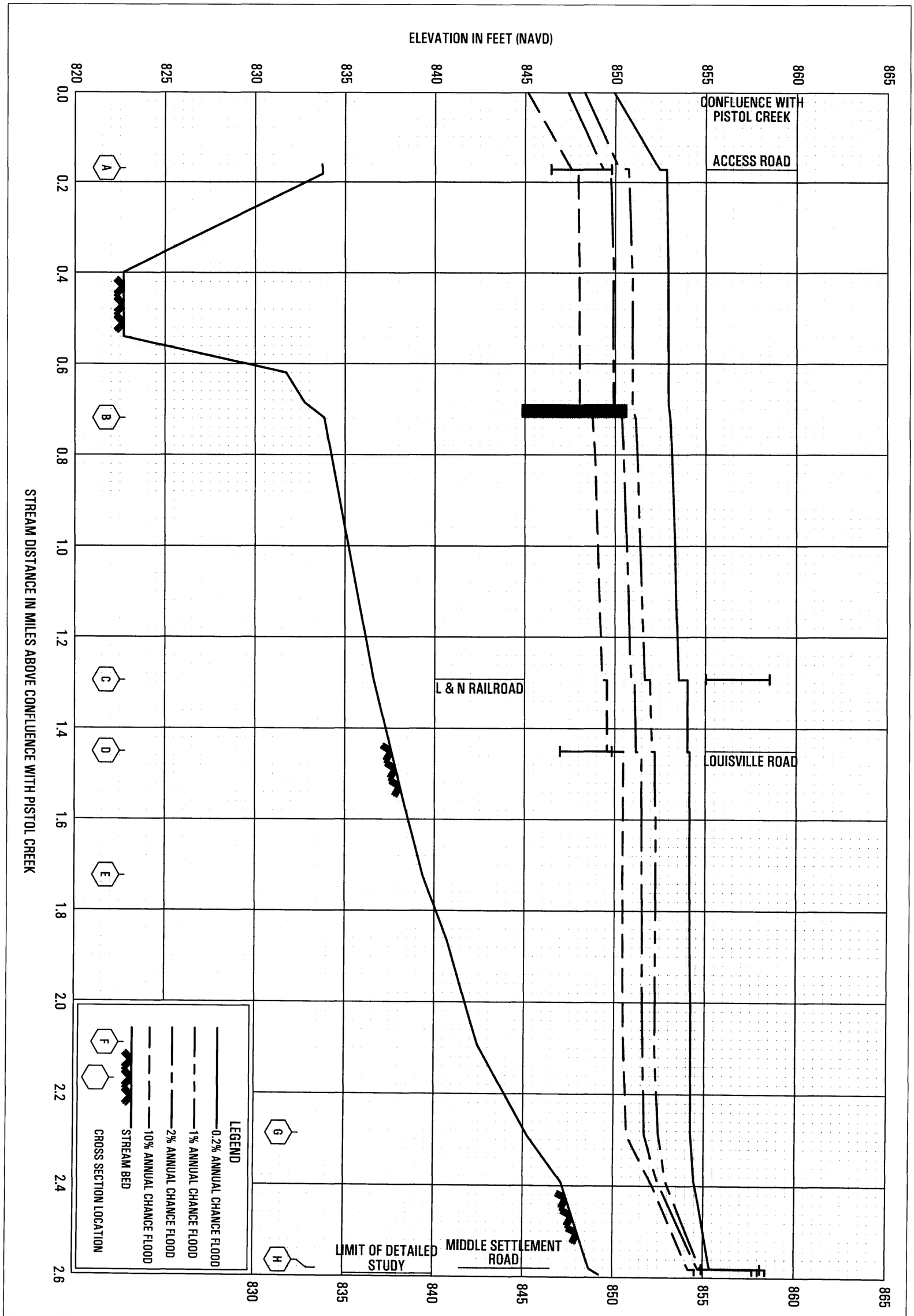
CROSS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

05P



06P

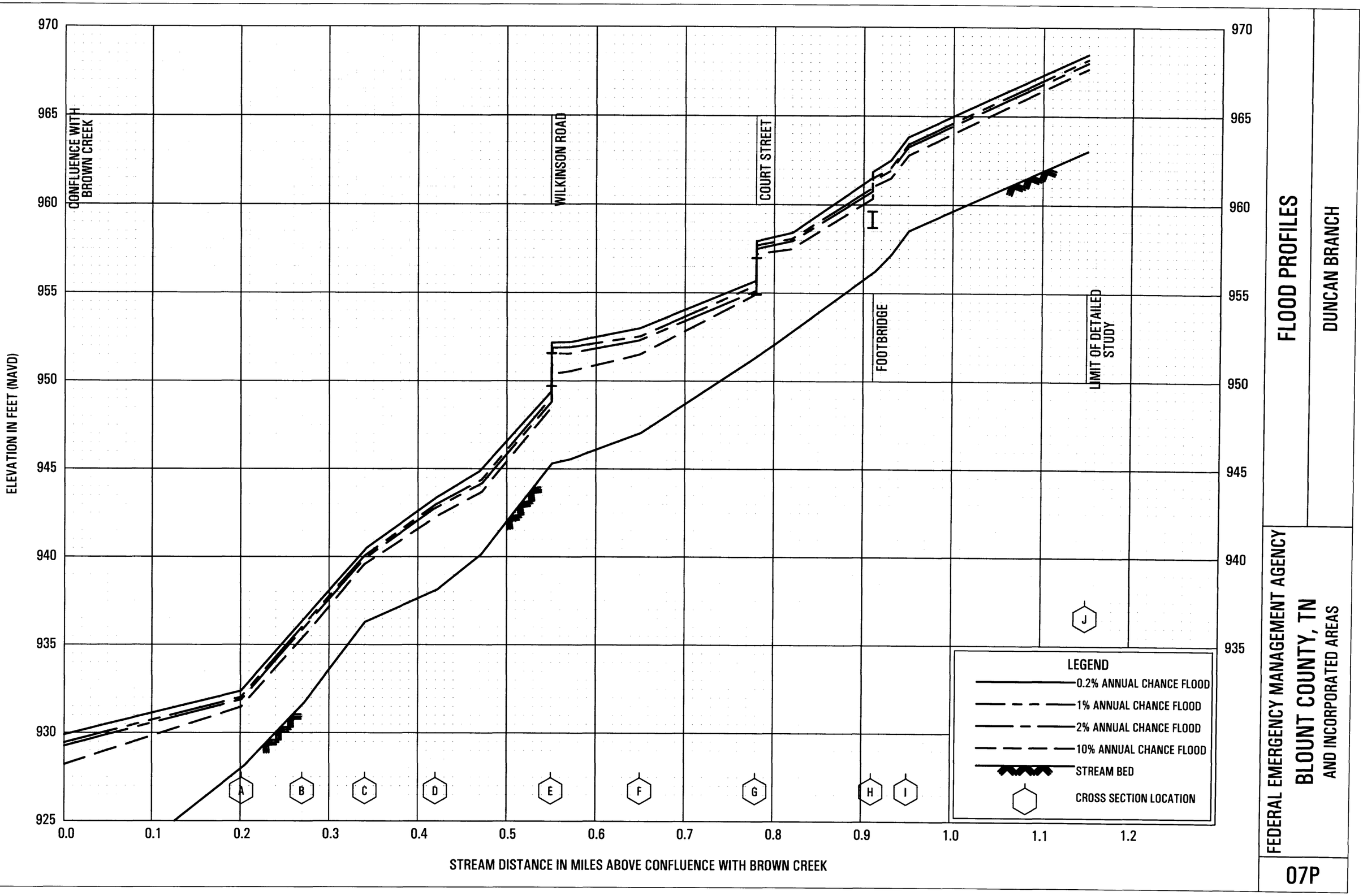
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

CULTON CREEK



FLOOD PROFILES

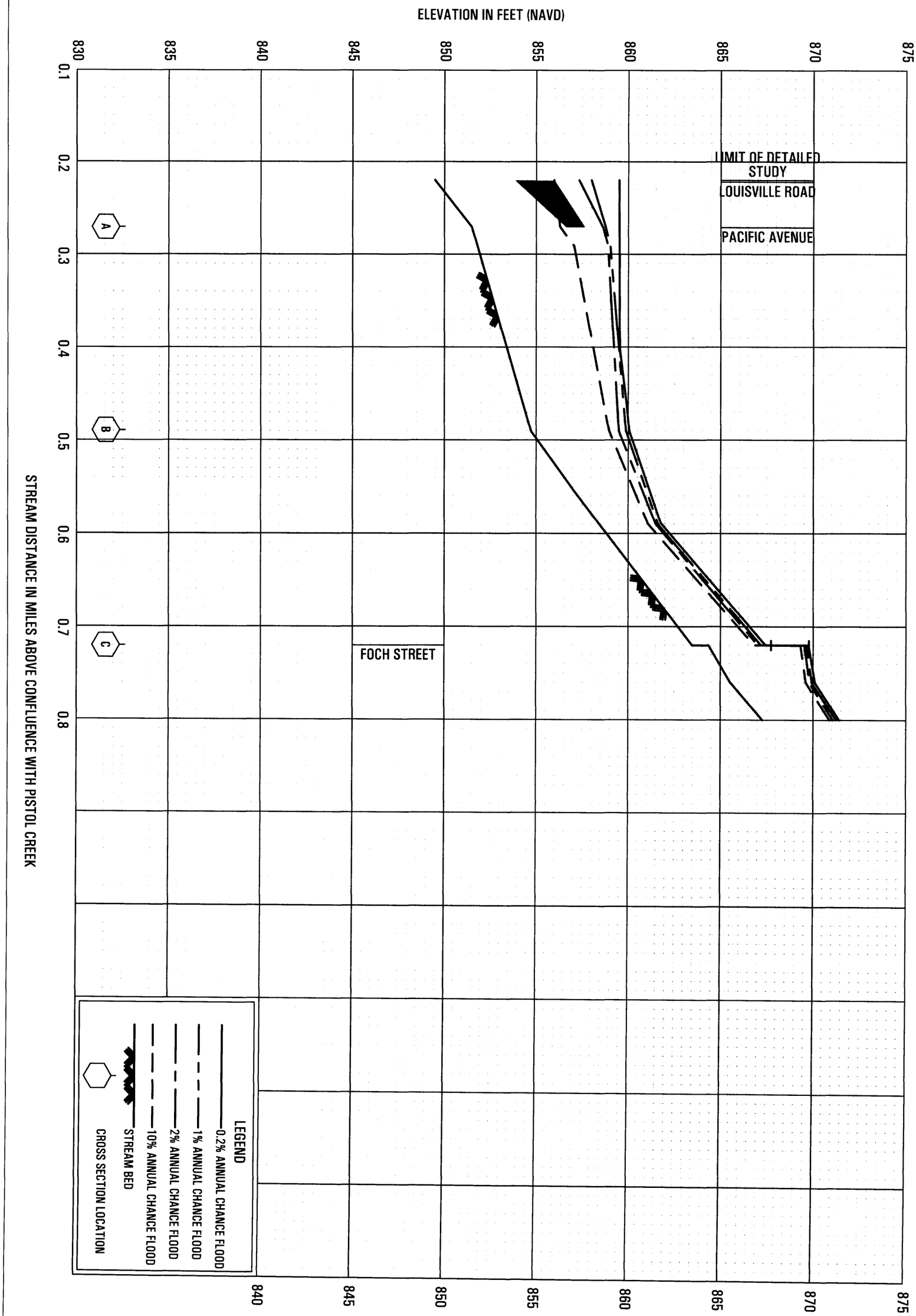
DUNCAN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

07P



FEDERAL EMERGENCY MANAGEMENT AGENCY

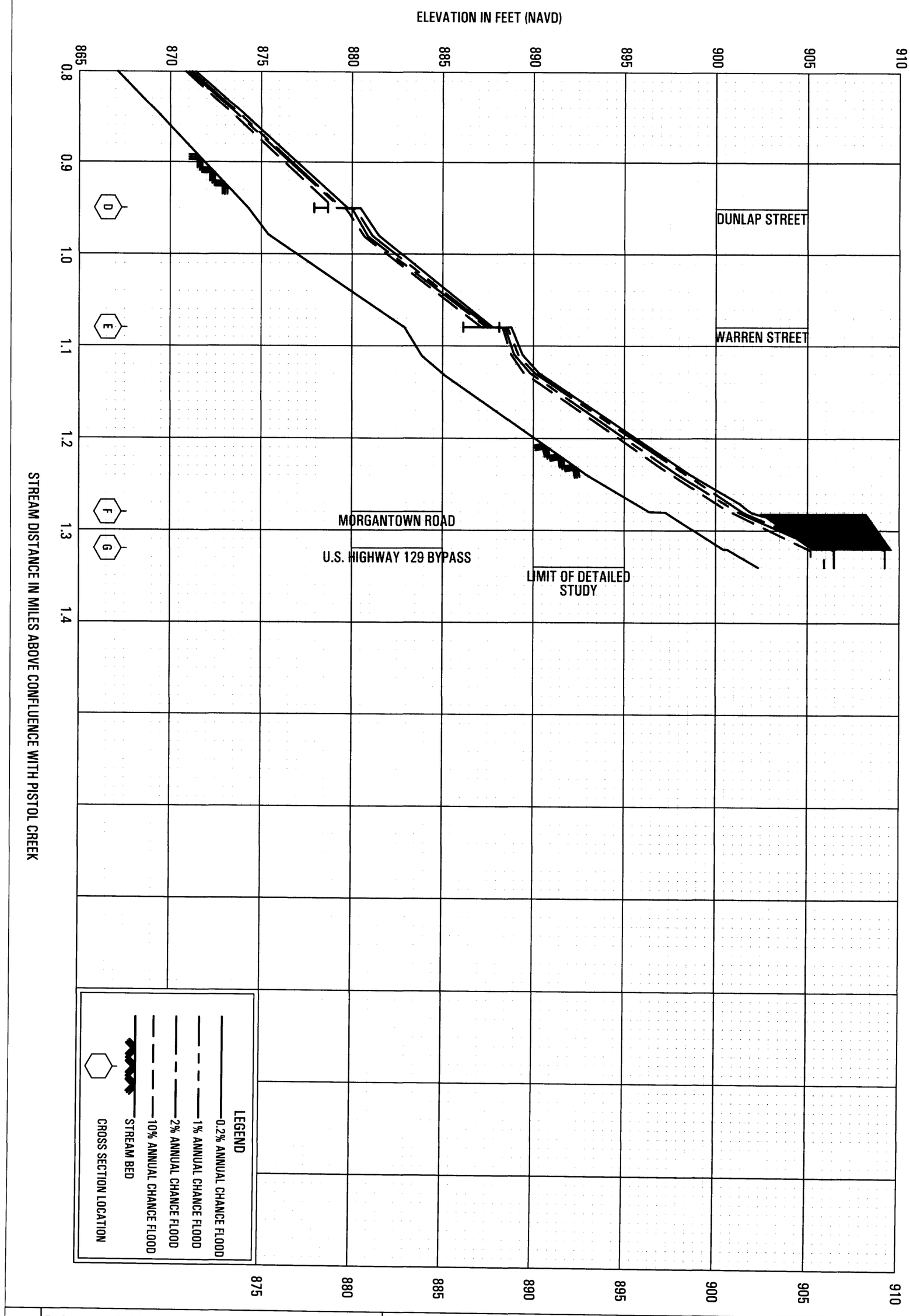
BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

DUNLAP BRANCH

08P



09P

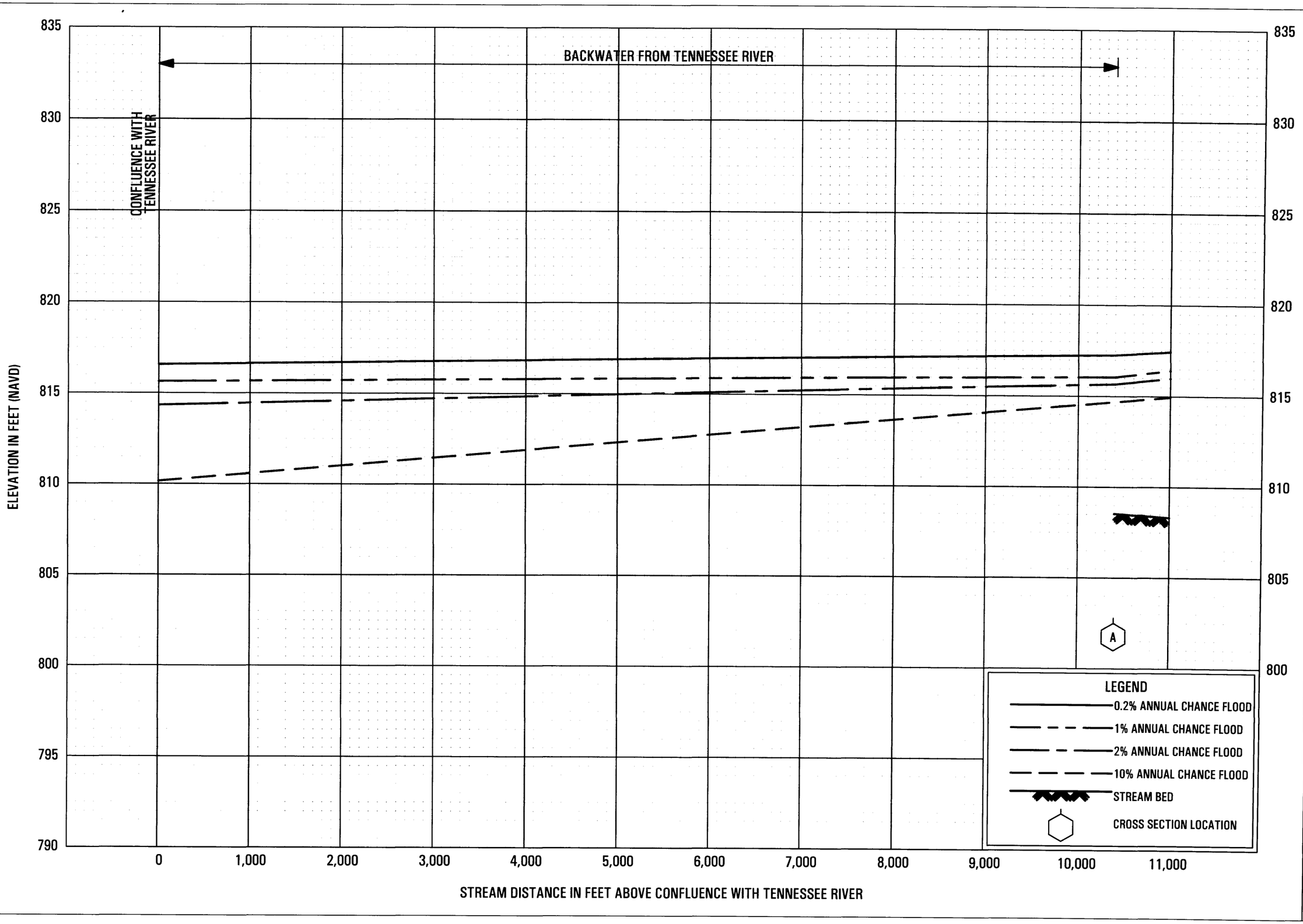
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

DUNLAP BRANCH



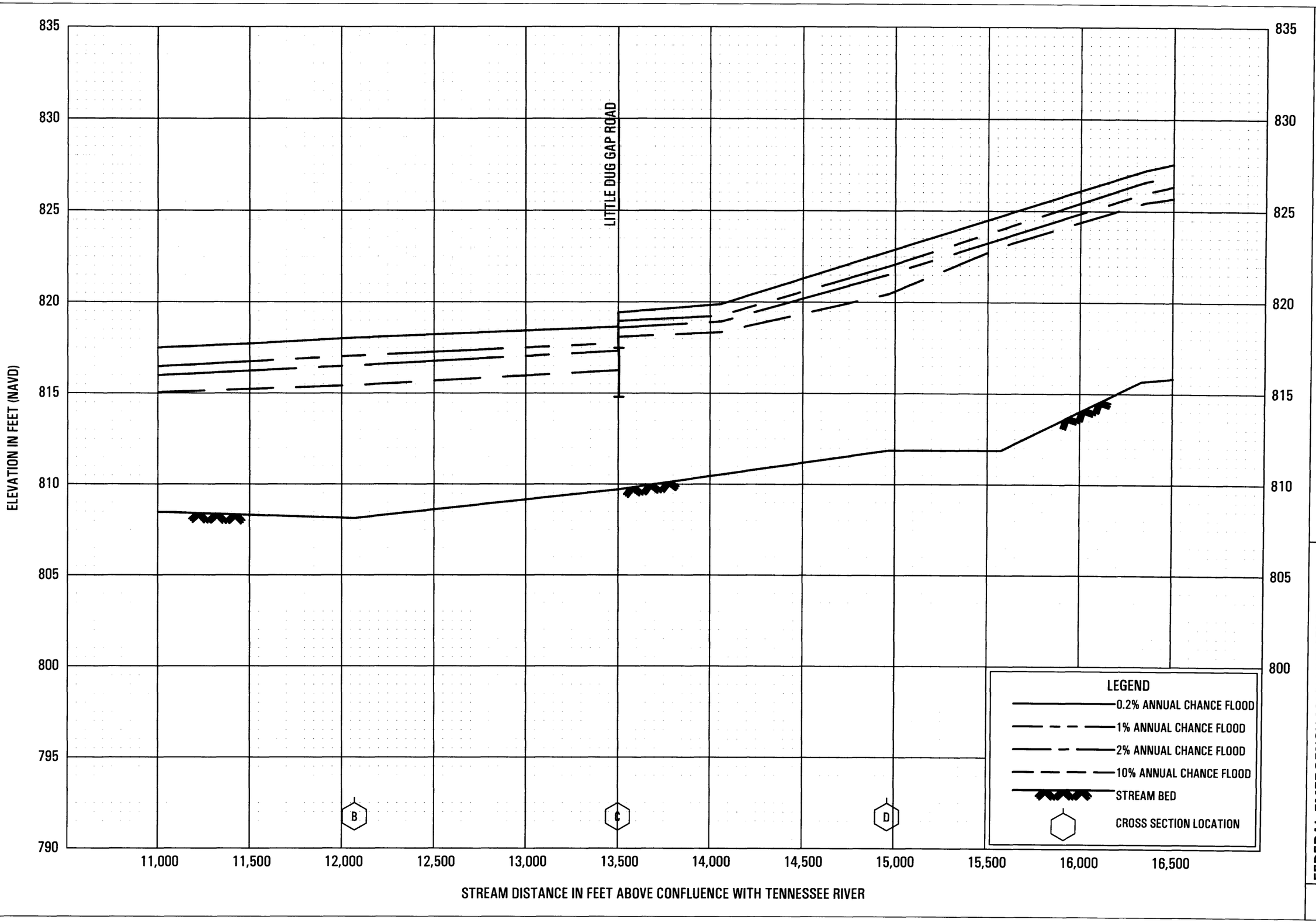
FLOOD PROFILES

LACKEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

10P



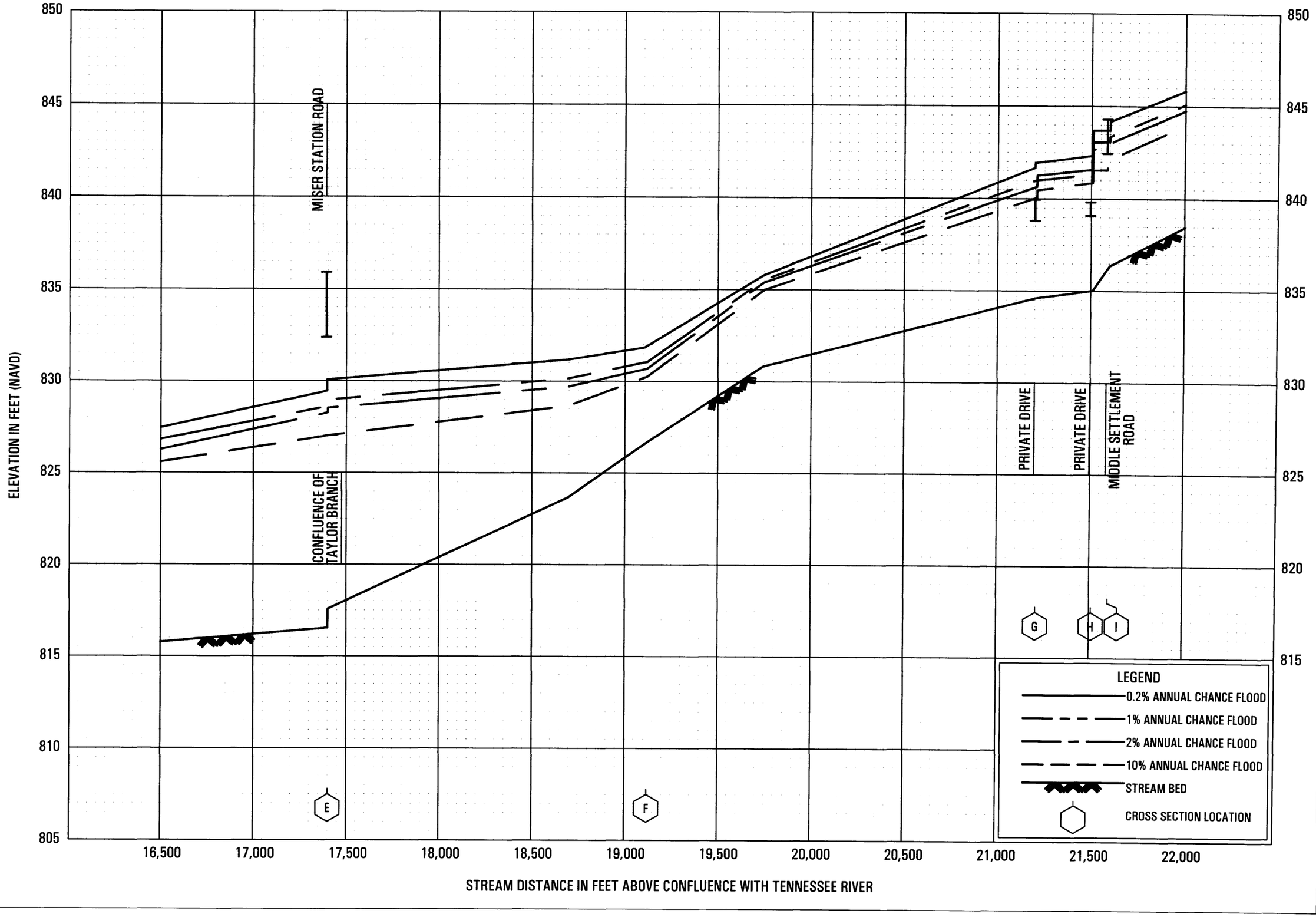
FLOOD PROFILES

LACKEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS



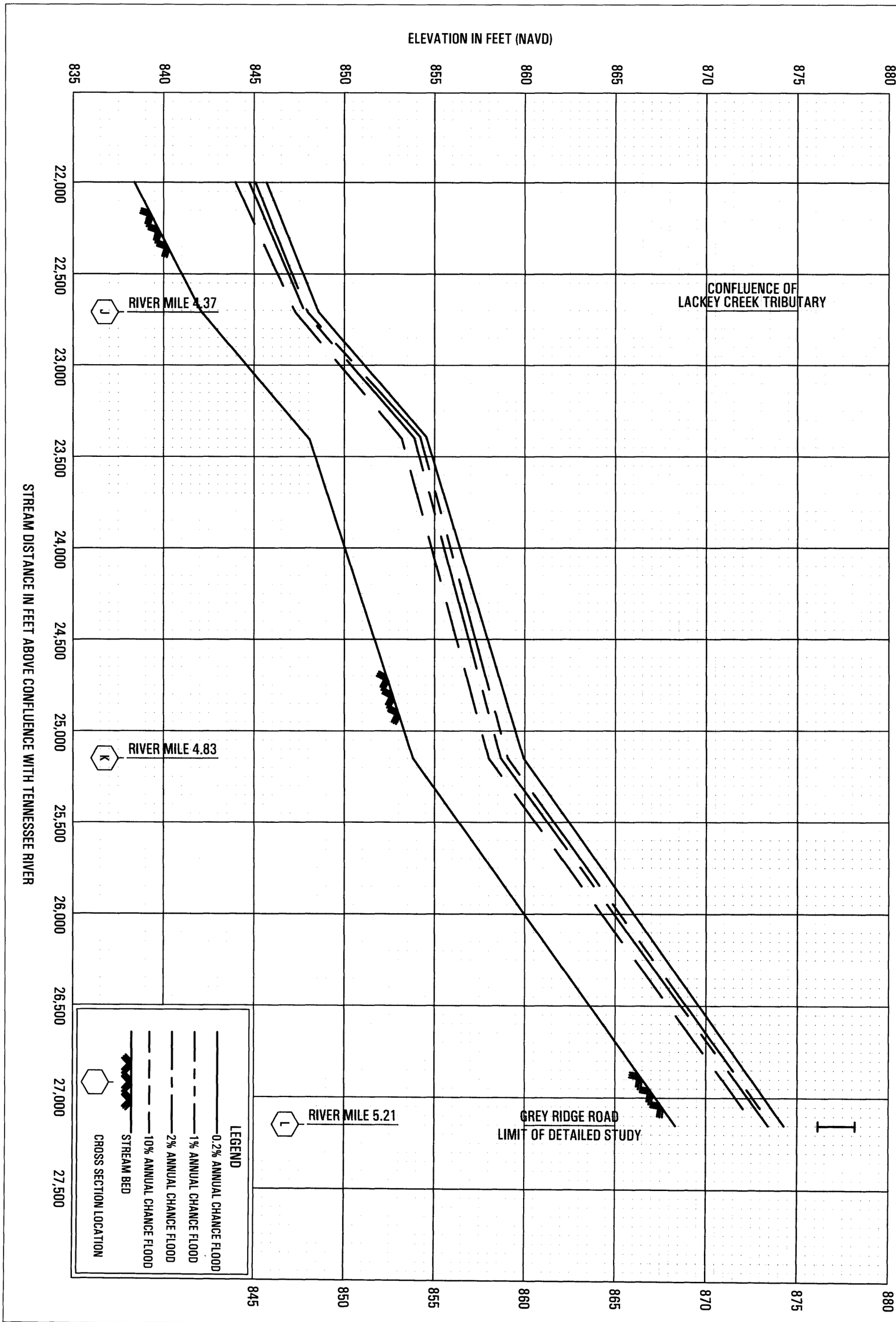
FLOOD PROFILES

LACKEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS



13P

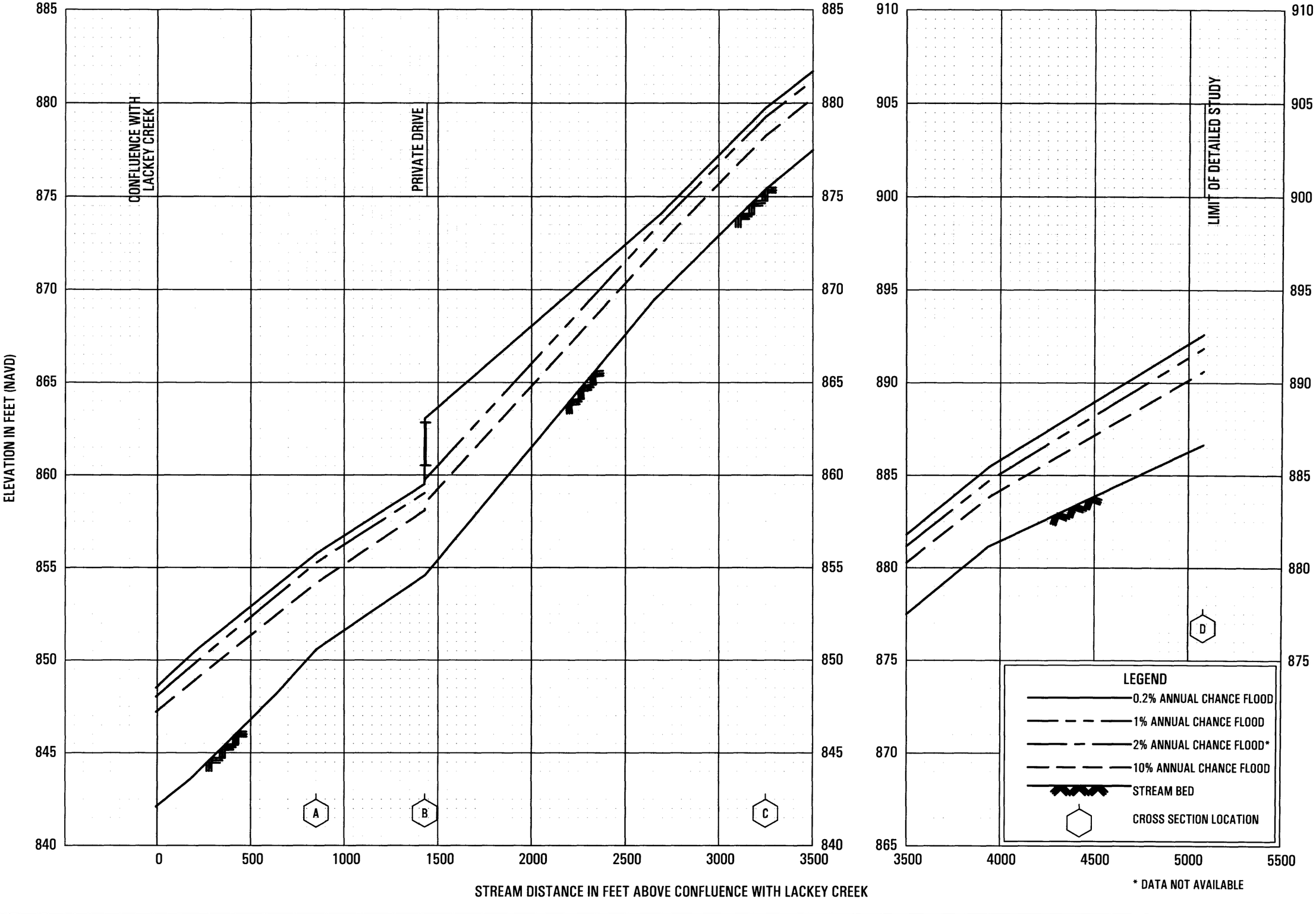
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

LACKEY CREEK



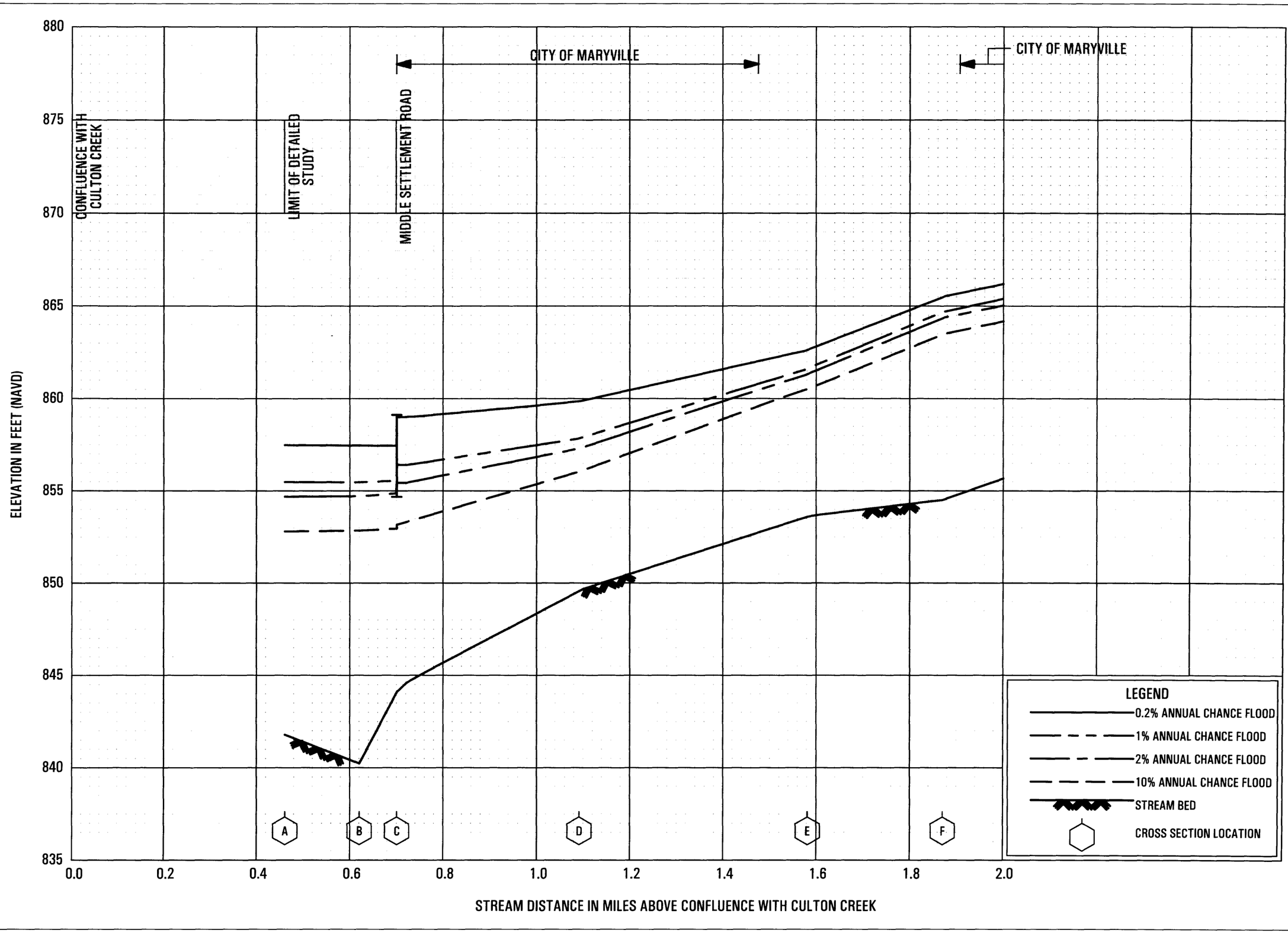
FLOOD PROFILES

LACKEY CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS



FLOOD PROFILES

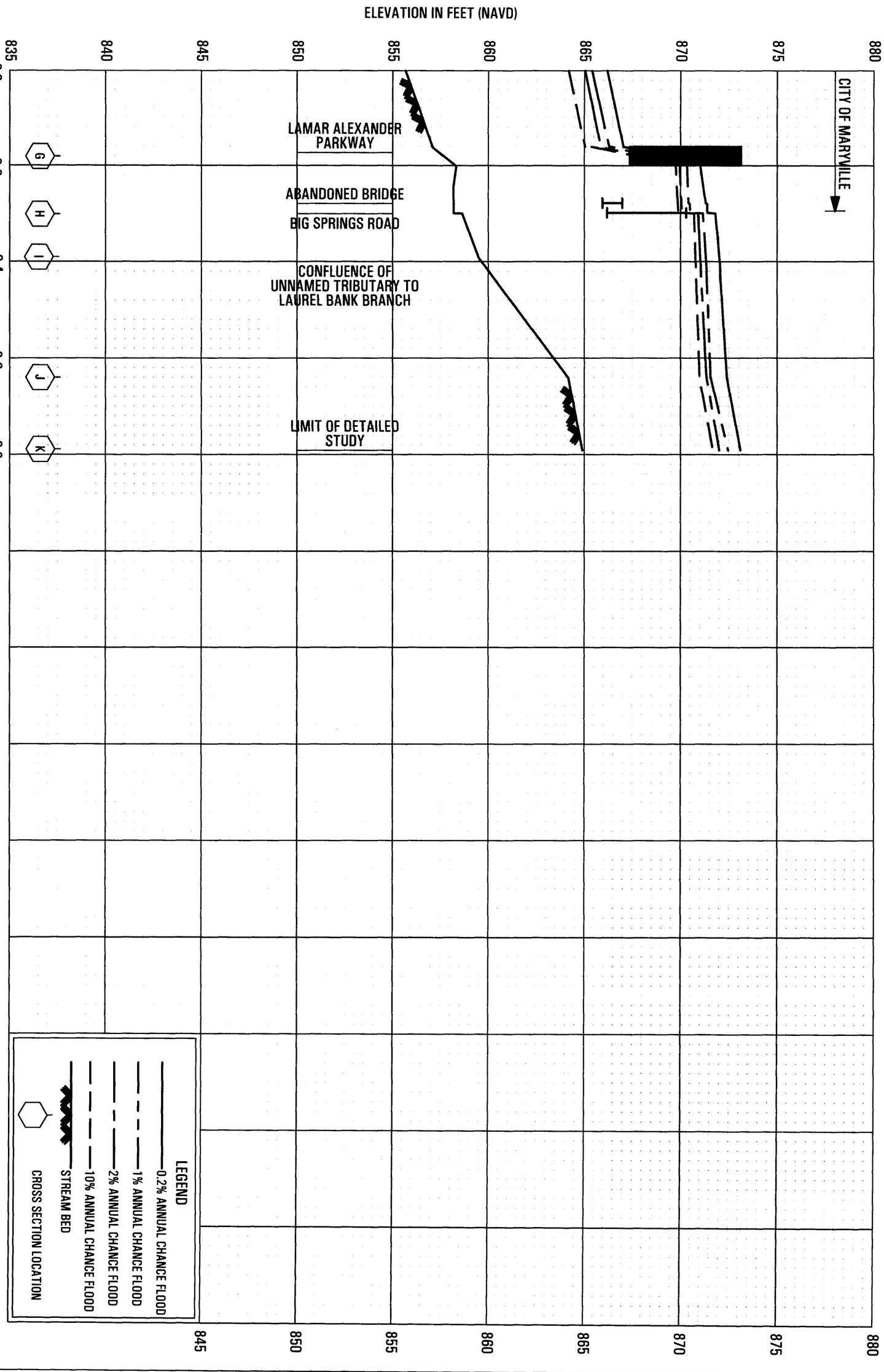
LAUREL BANK BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

15P



16P

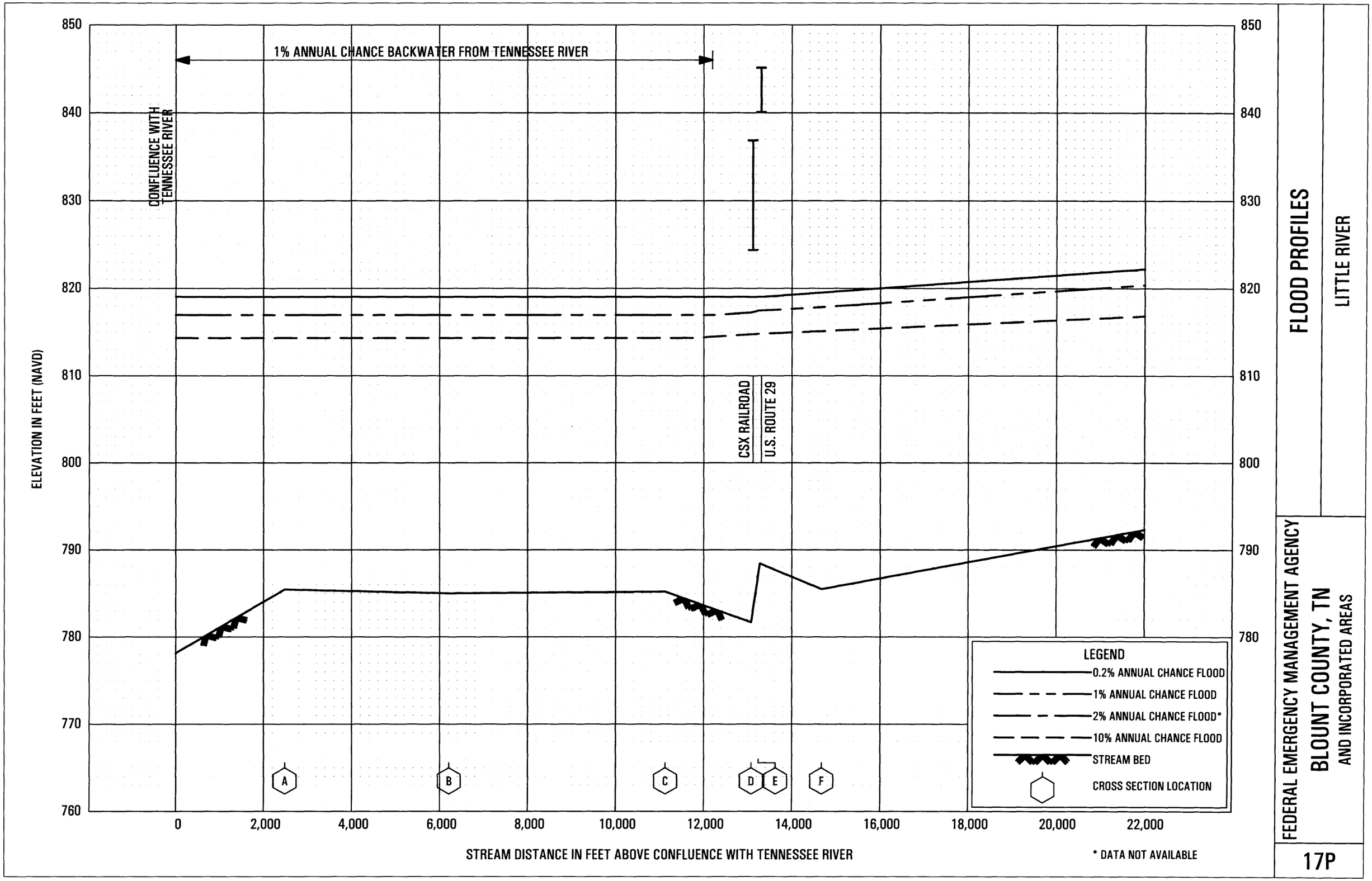
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

LAUREL BANK BRANCH



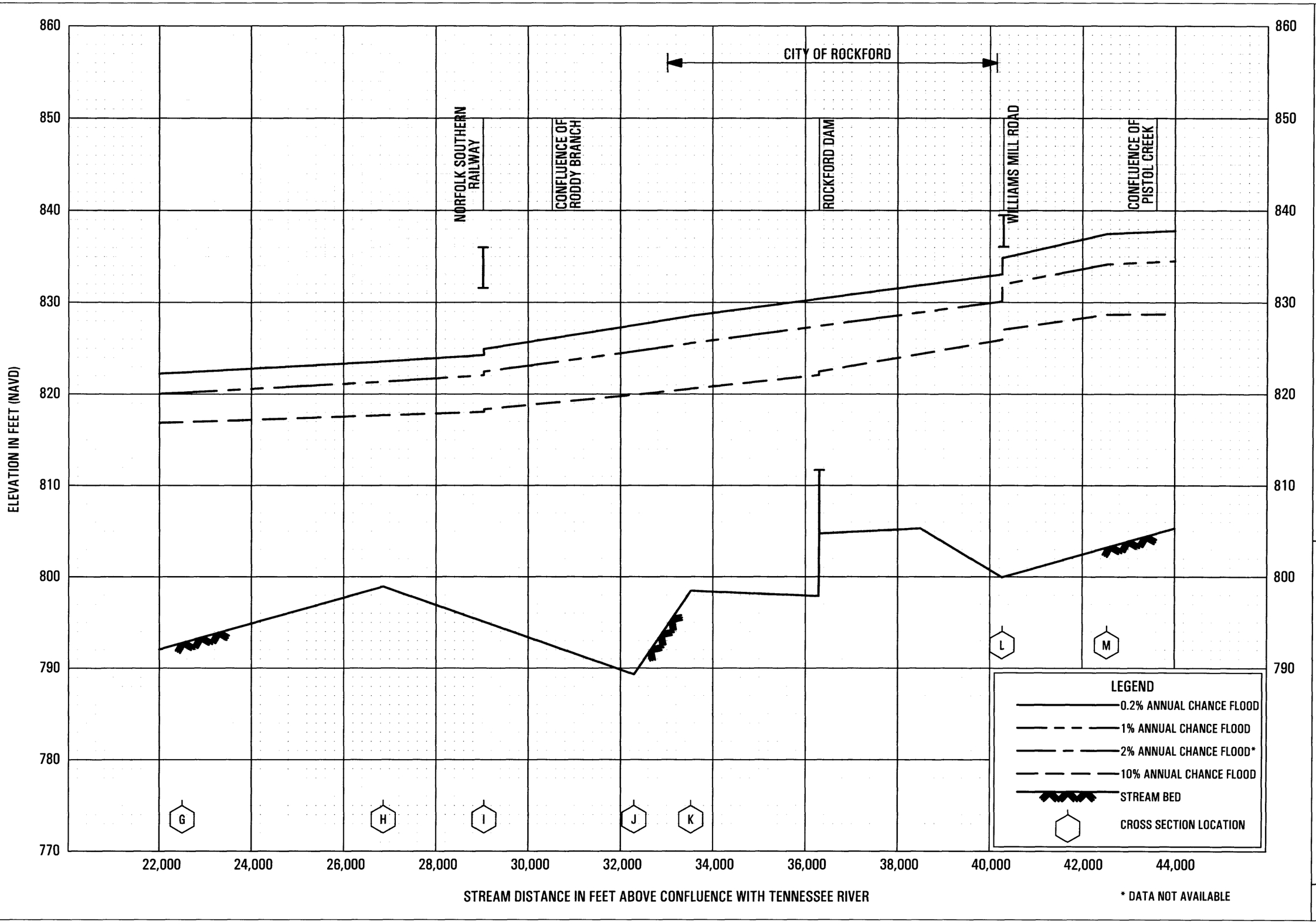
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

17P



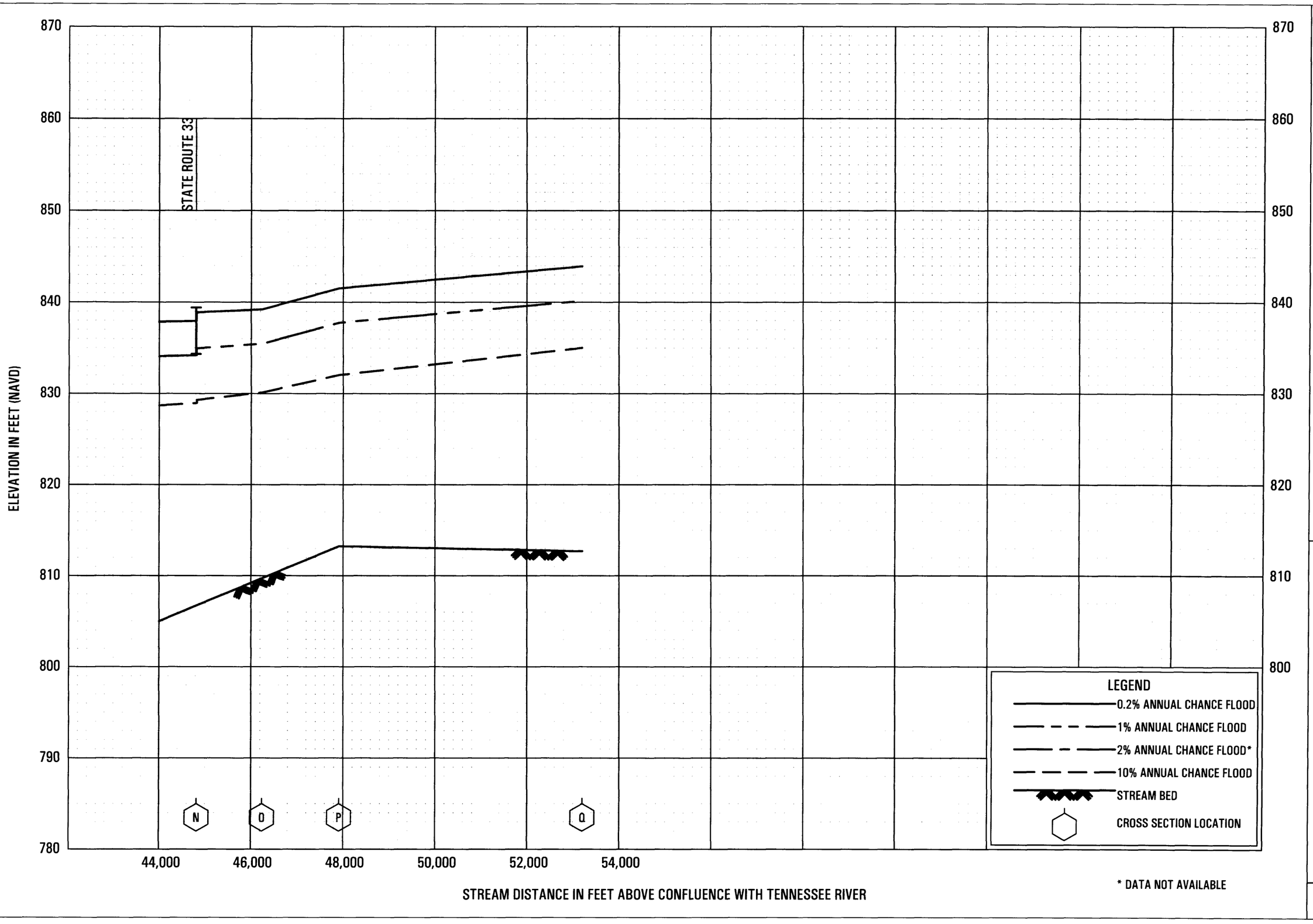
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

18P



* DATA NOT AVAILABLE

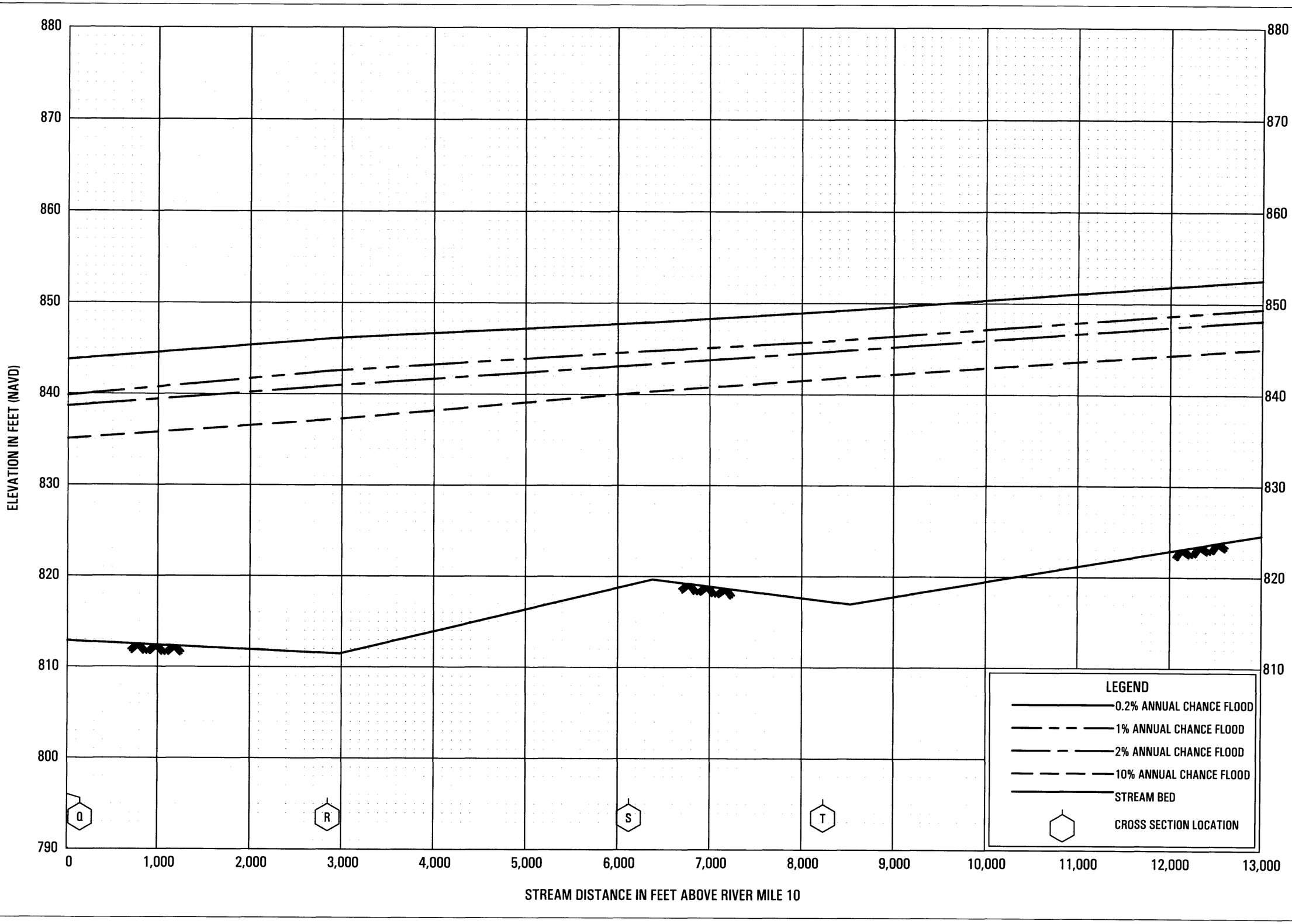
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

19P

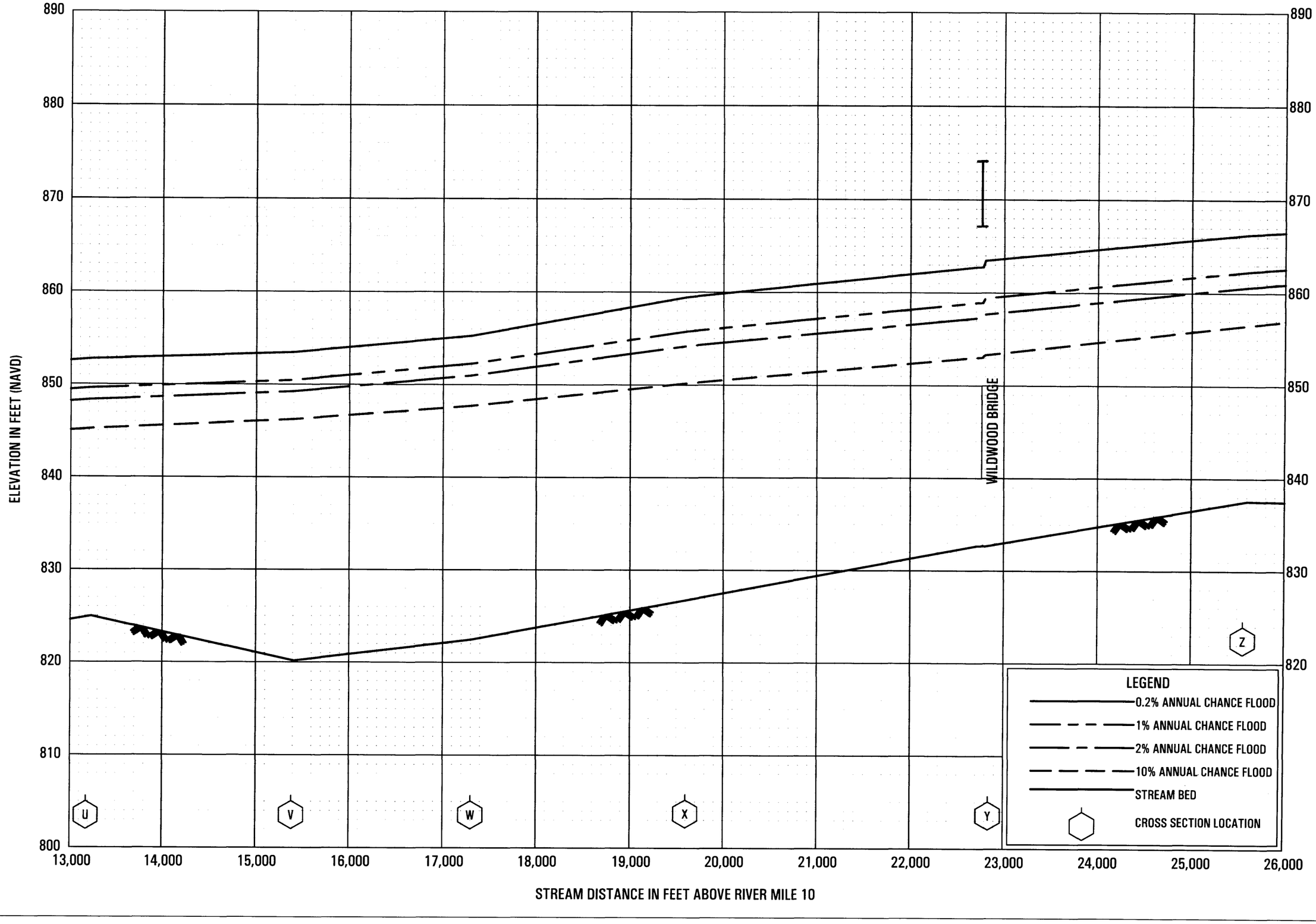


FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

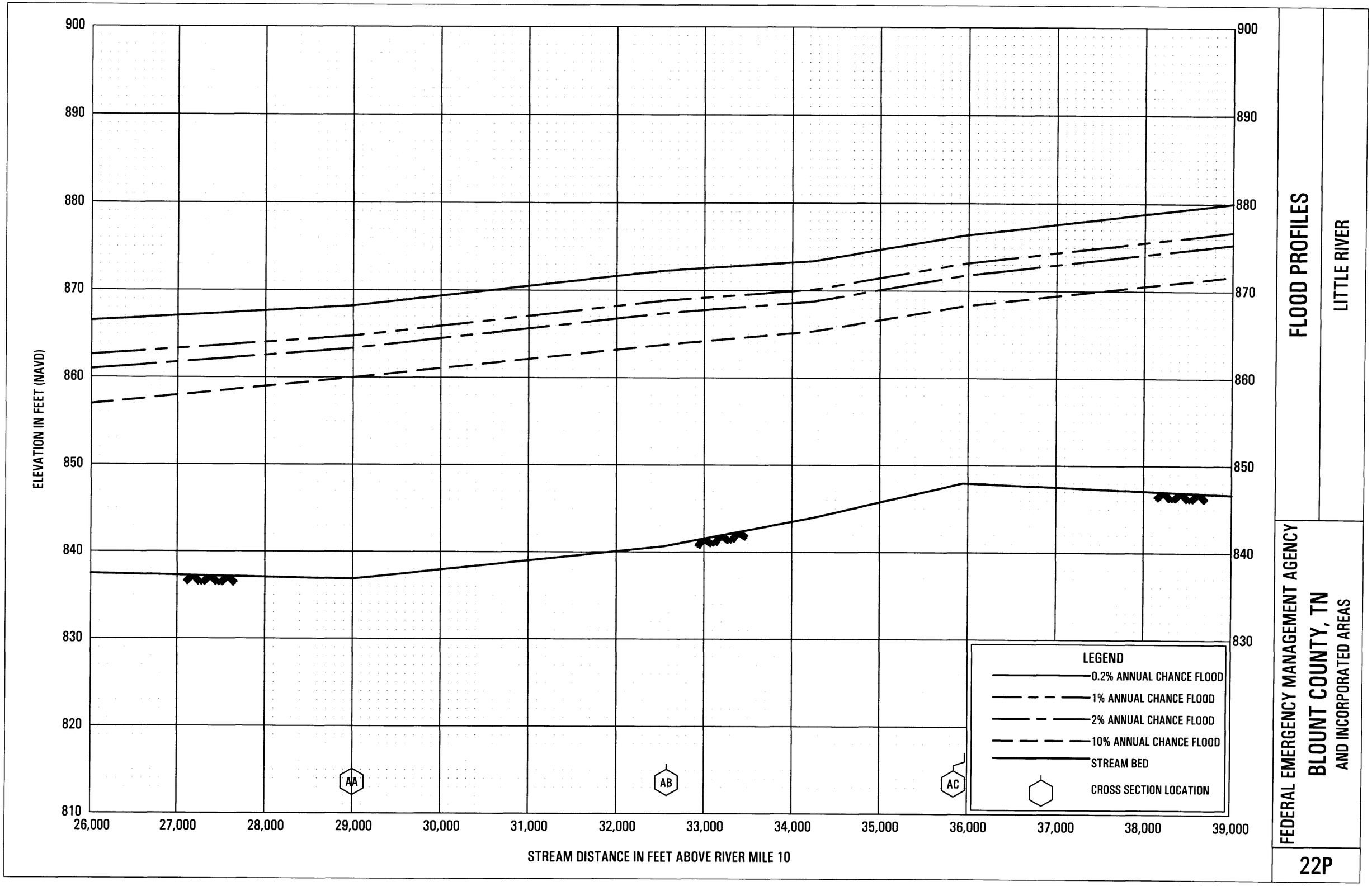


FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS



FLOOD PROFILES

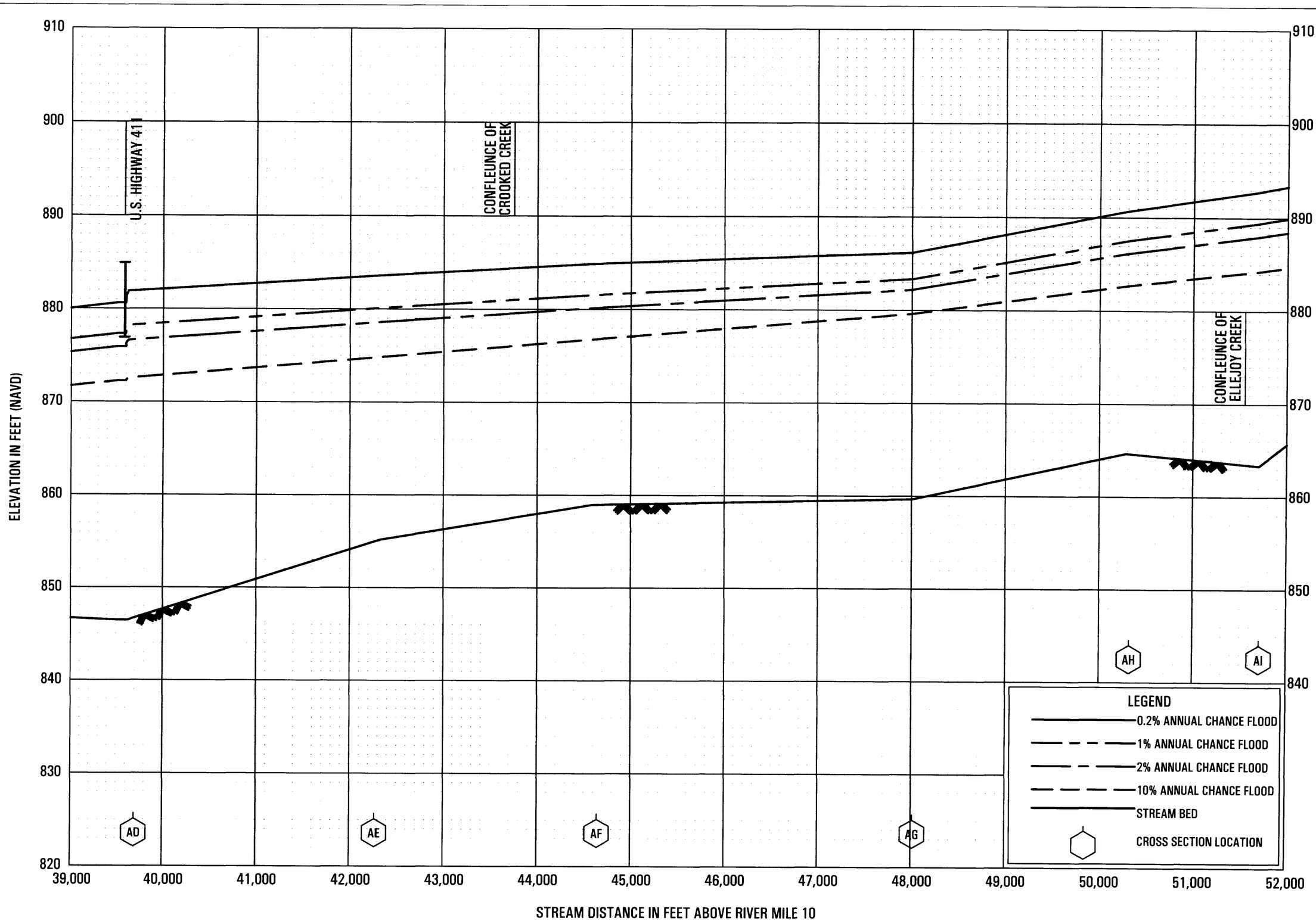
LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

22P



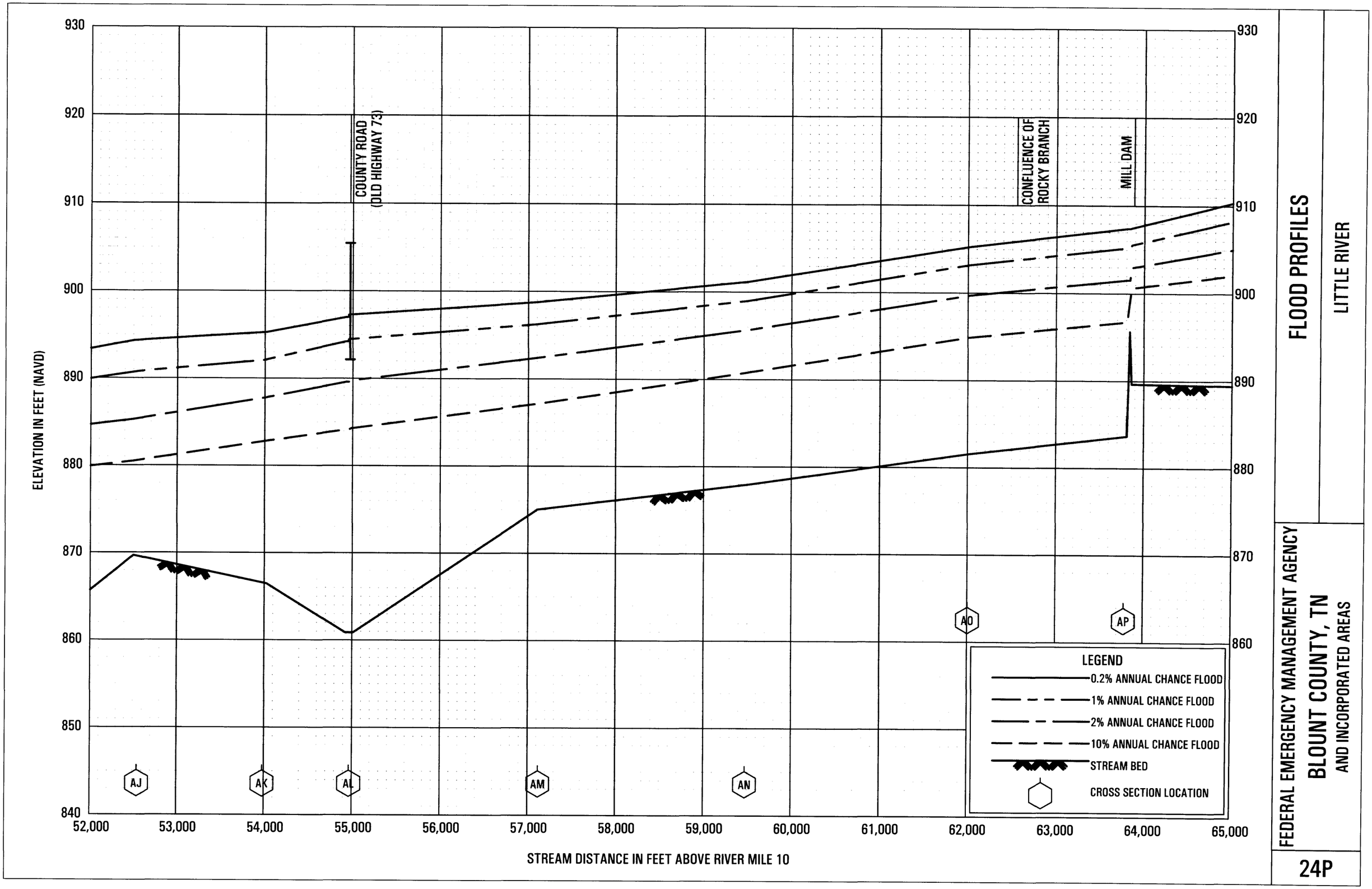
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

23P



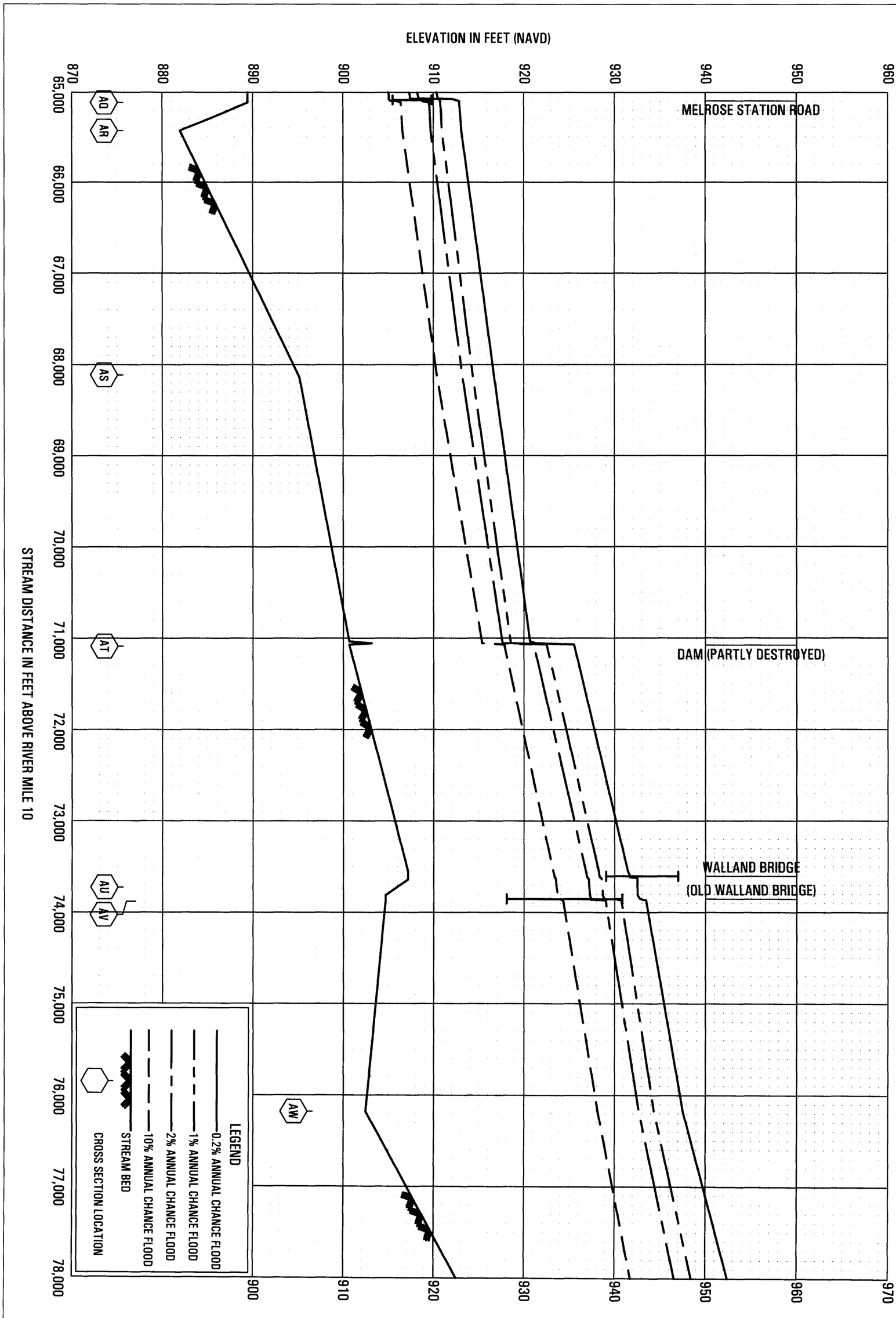
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

24P



25P

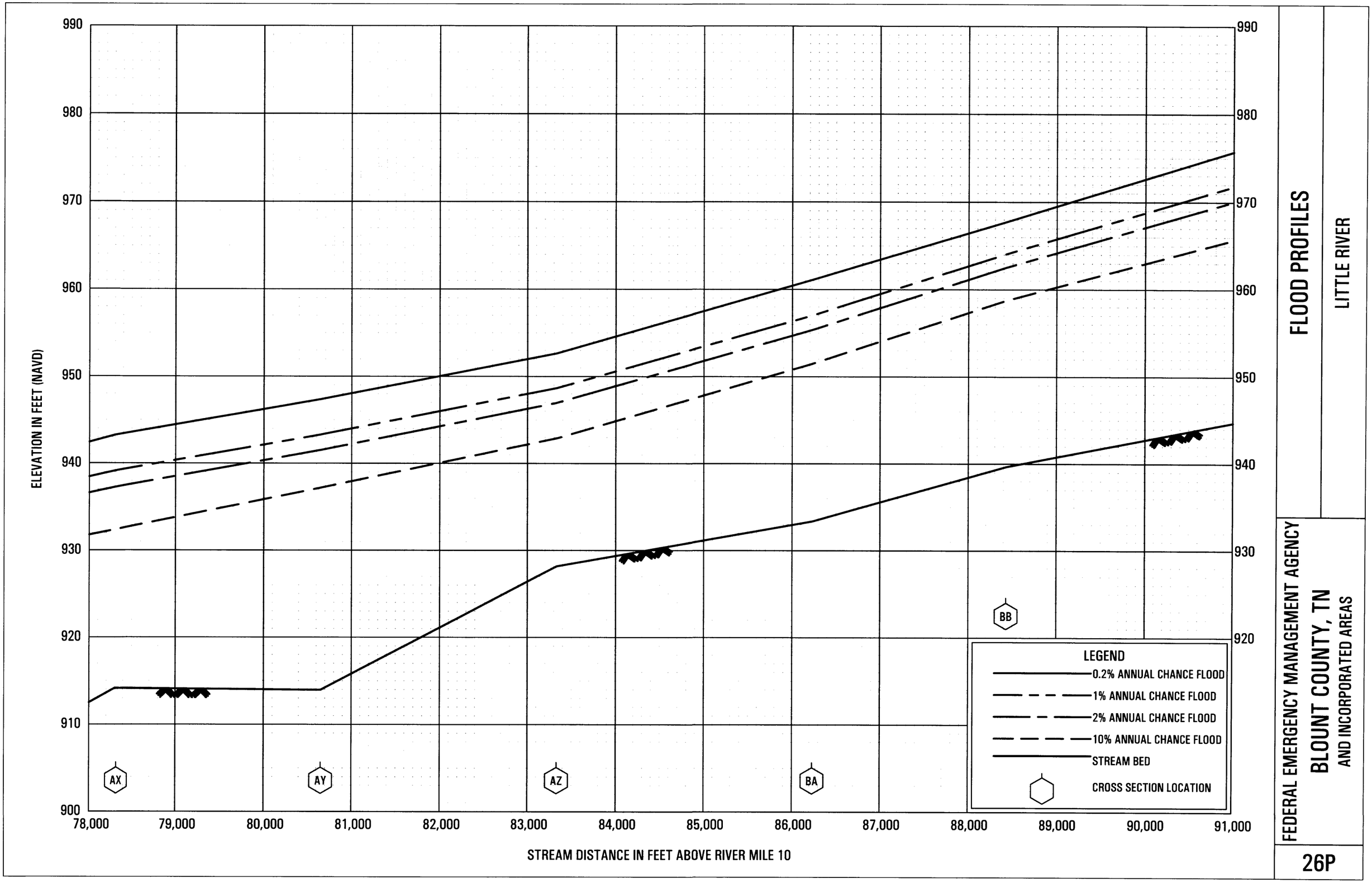
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

LITTLE RIVER



FLOOD PROFILES

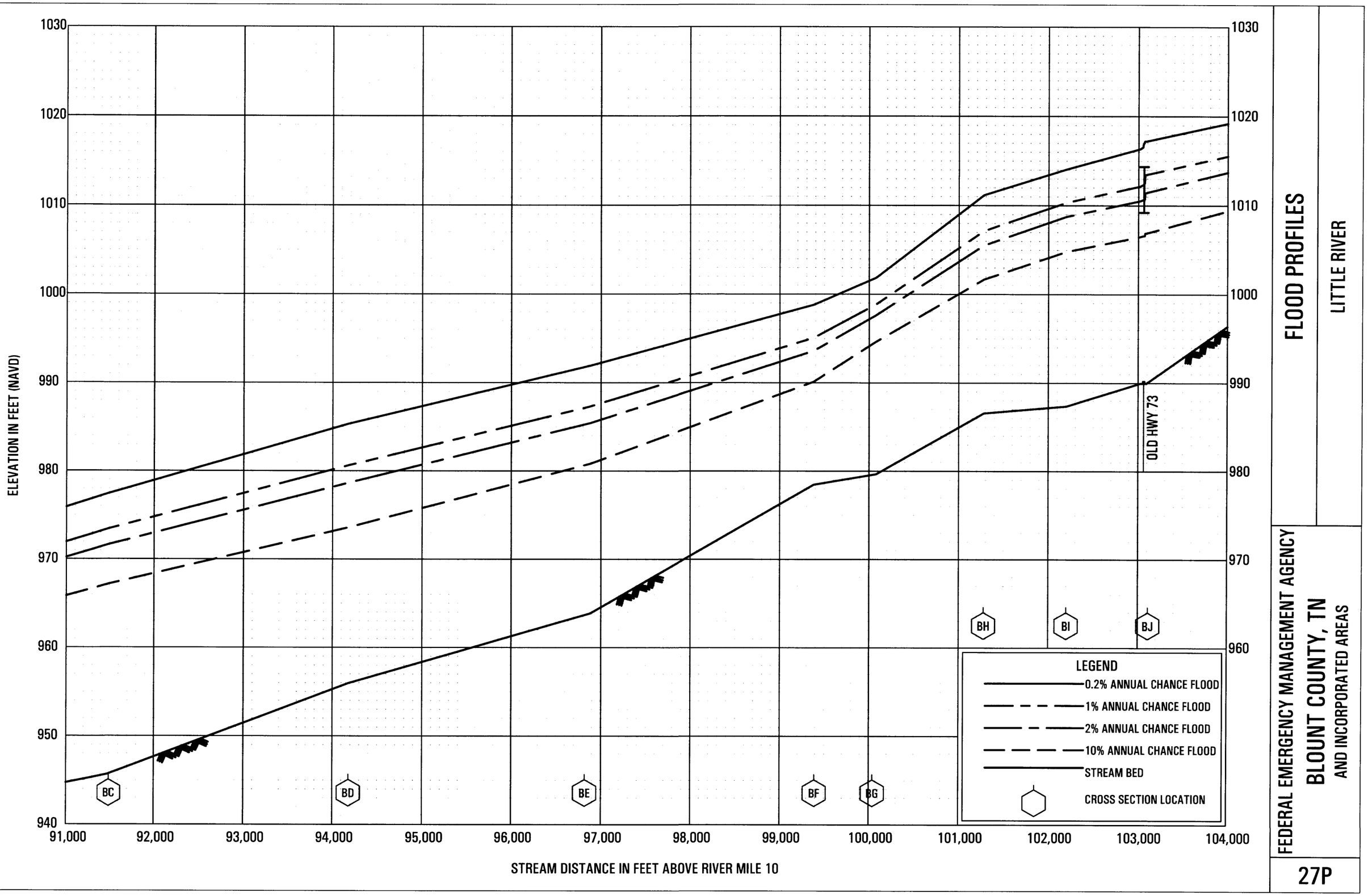
LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

26P



FLOOD PROFILES

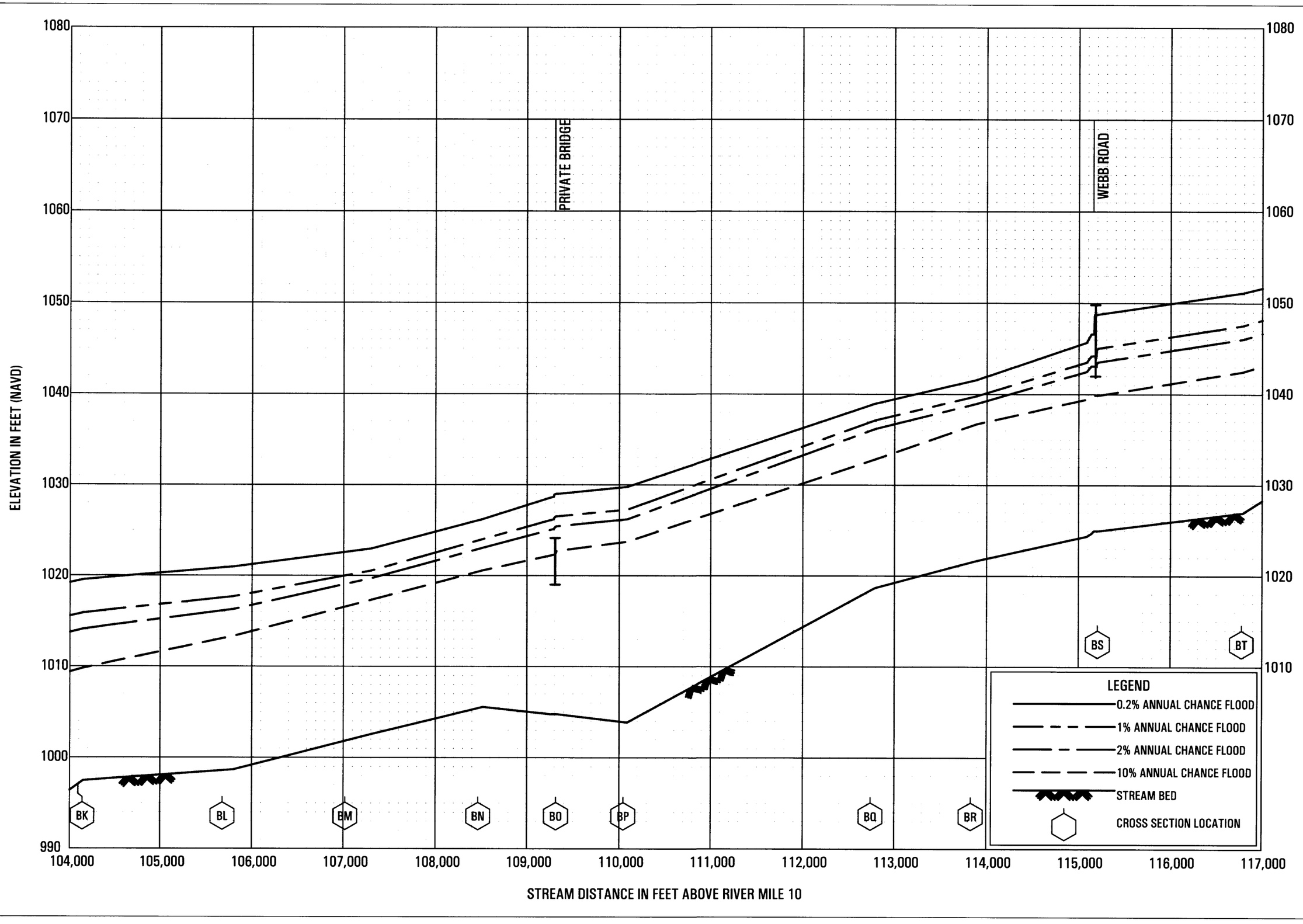
LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

27P



FLOOD PROFILES

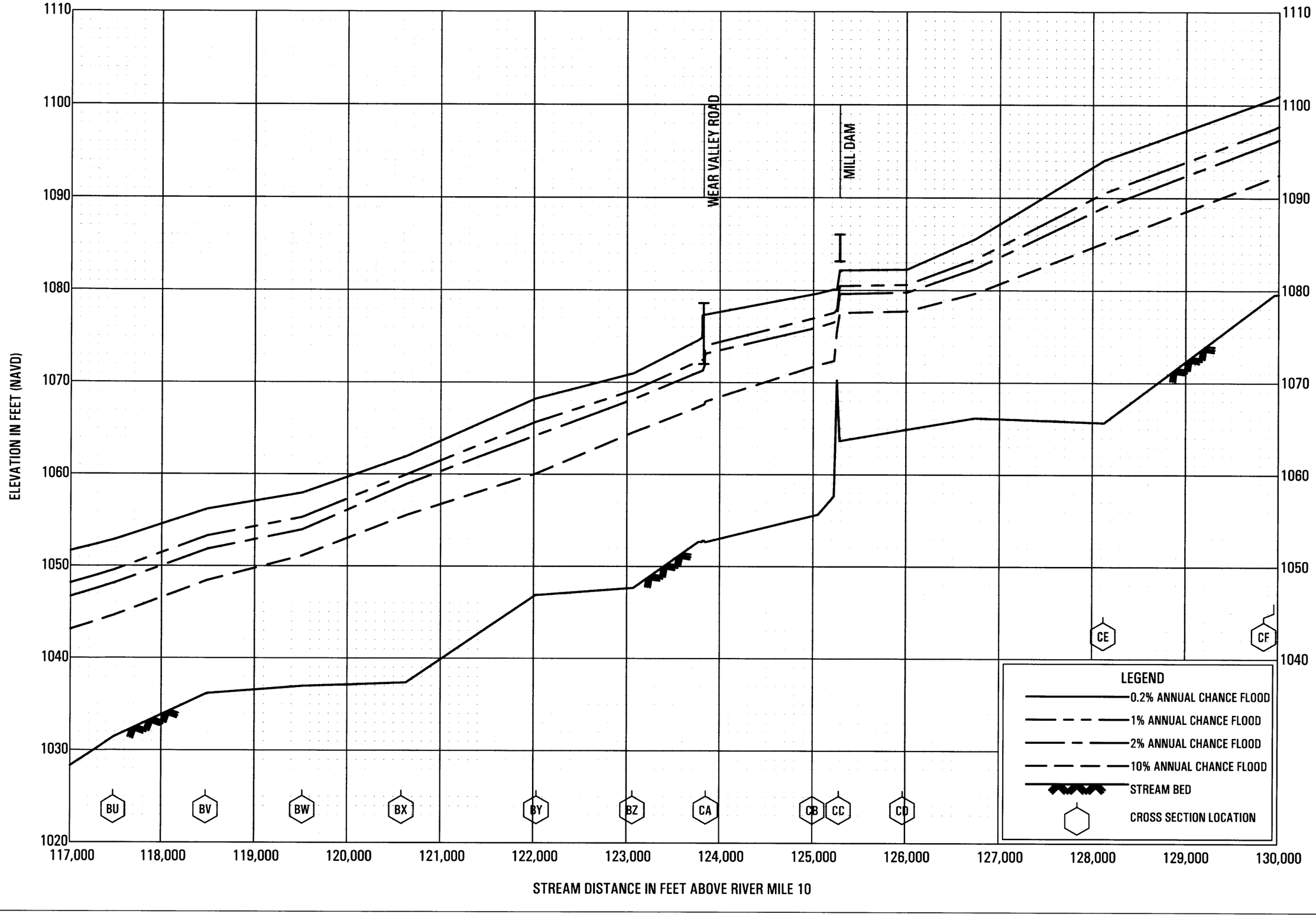
LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

28P



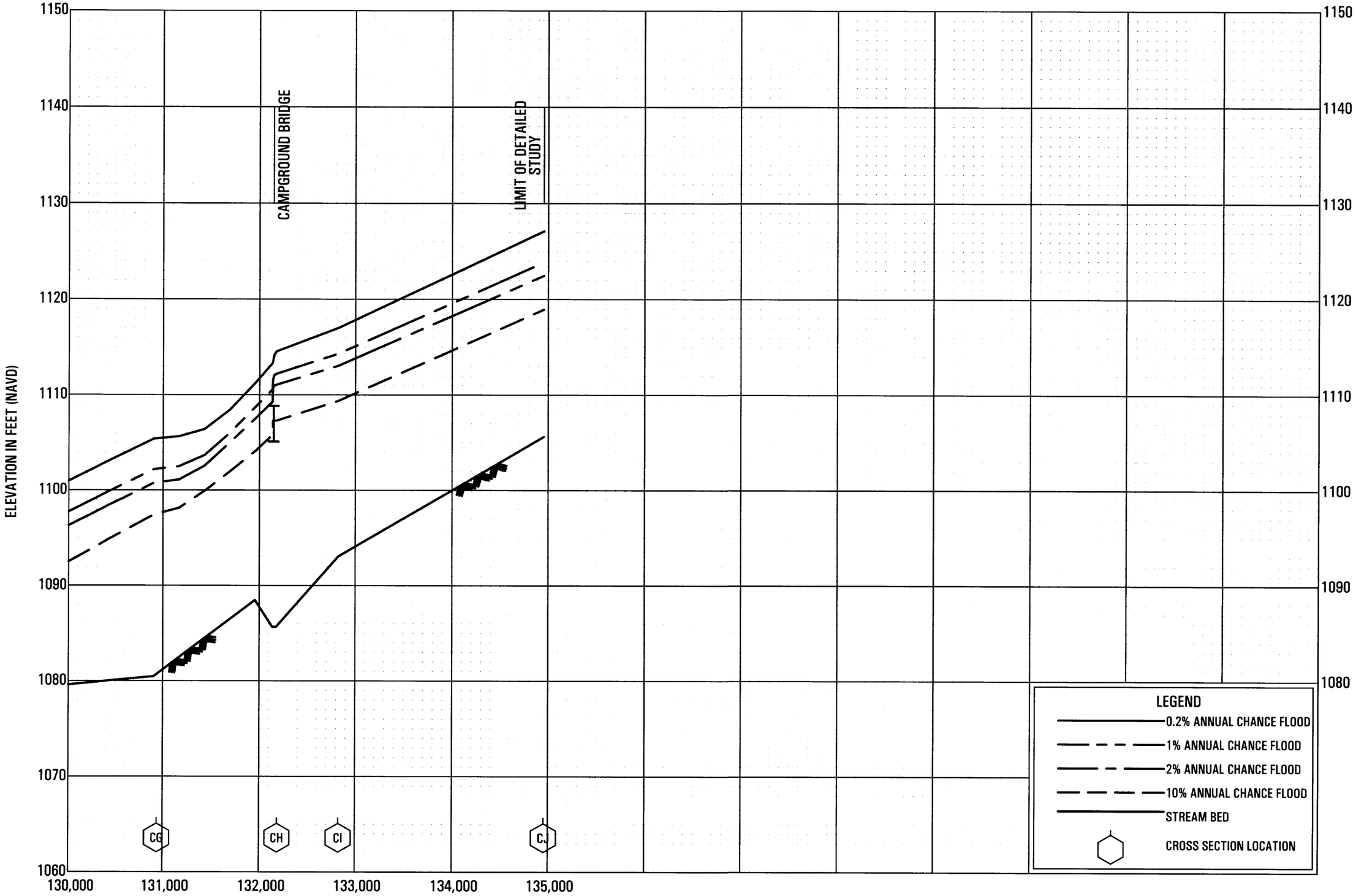
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

29P



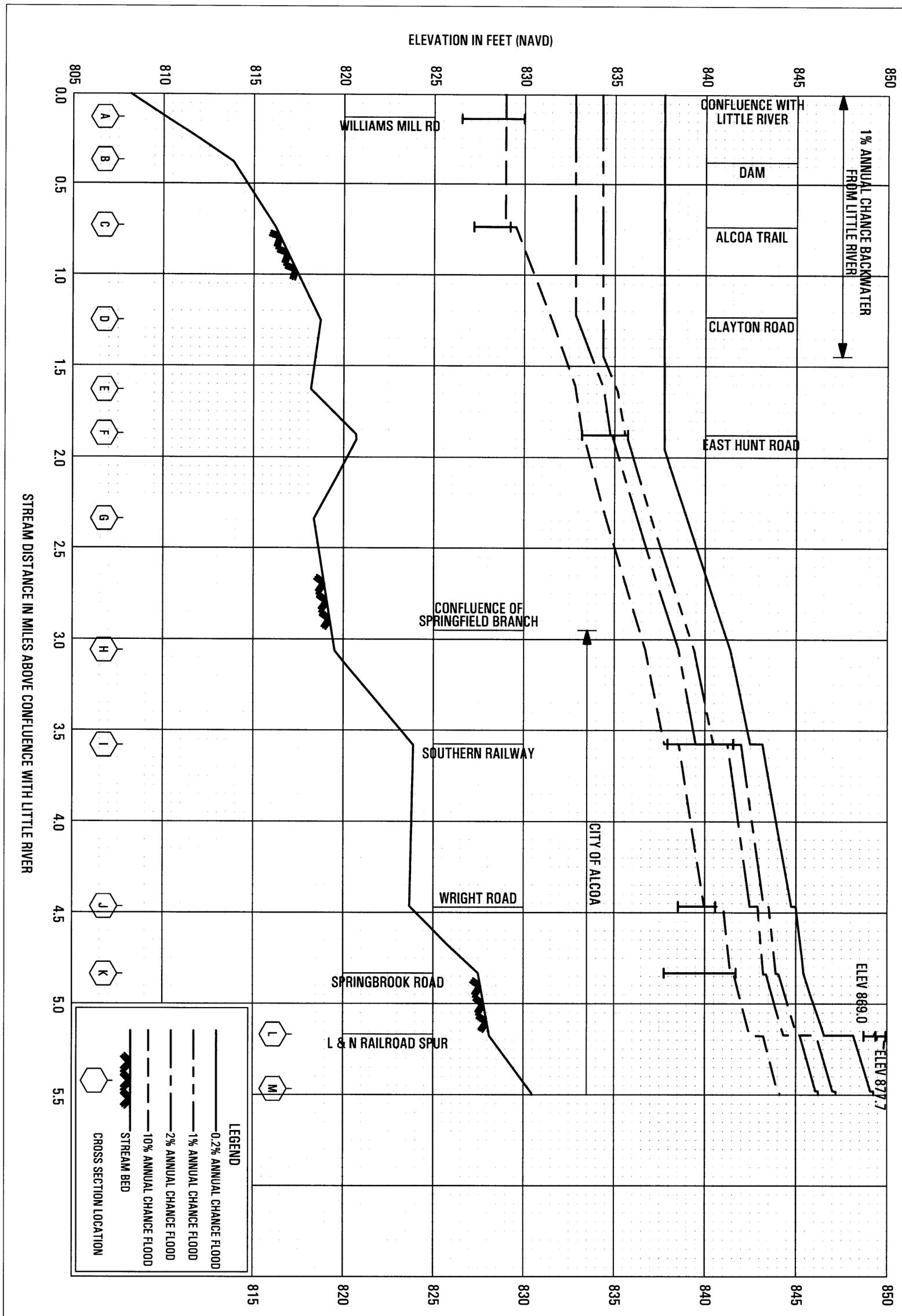
FLOOD PROFILES

LITTLE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

30P



31P	FEDERAL EMERGENCY MANAGEMENT AGENCY BLOUNT COUNTY, TN AND INCORPORATED AREAS	FLOOD PROFILES PISTOL CREEK

ELEVATION IN FEET (NAVD)

825 830 835 840 845 850 855 860 865 870

STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH LITTLE RIVER

5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5

N O P Q R S T U V W

HALL ROAD

CONFLUENCE OF CULTON CREEK

KELVIN ROAD

MILEAGE EQUATION
MILE 6.30 EQUALS MILE 7.00

L & N RAILROAD SPUR

CITY OF ALCOA

LOUISVILLE ROAD

BESSEMER STREET

CONFLUENCE OF DUNLAP BRANCH

HOME STREET

FOOTBRIDGE

CITY OF MARYVILLE

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

CROSS SECTION LOCATION

835 840 845 850 855 860 865 870

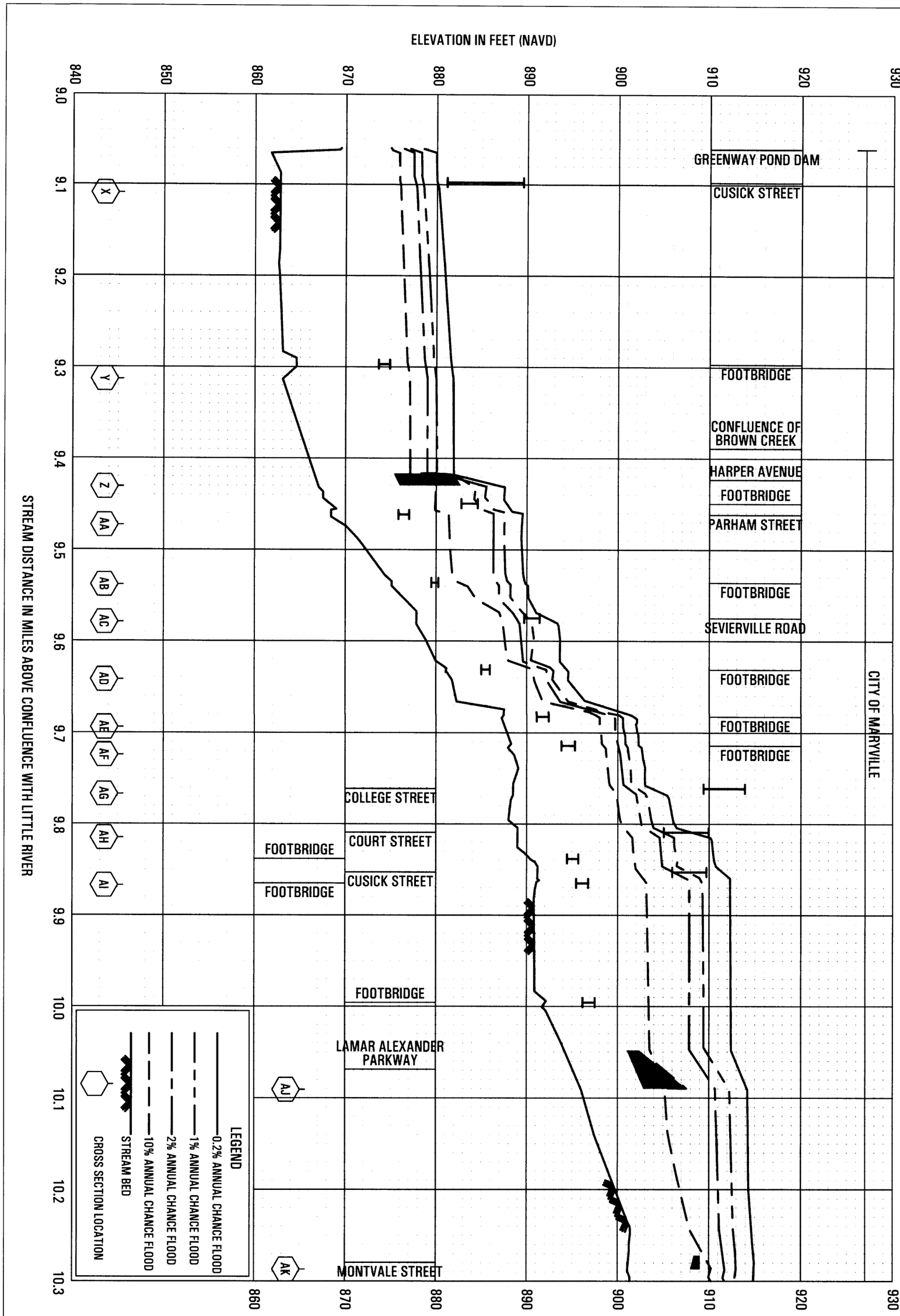
32P

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

FLOOD PROFILES

PISTOL CREEK



33P

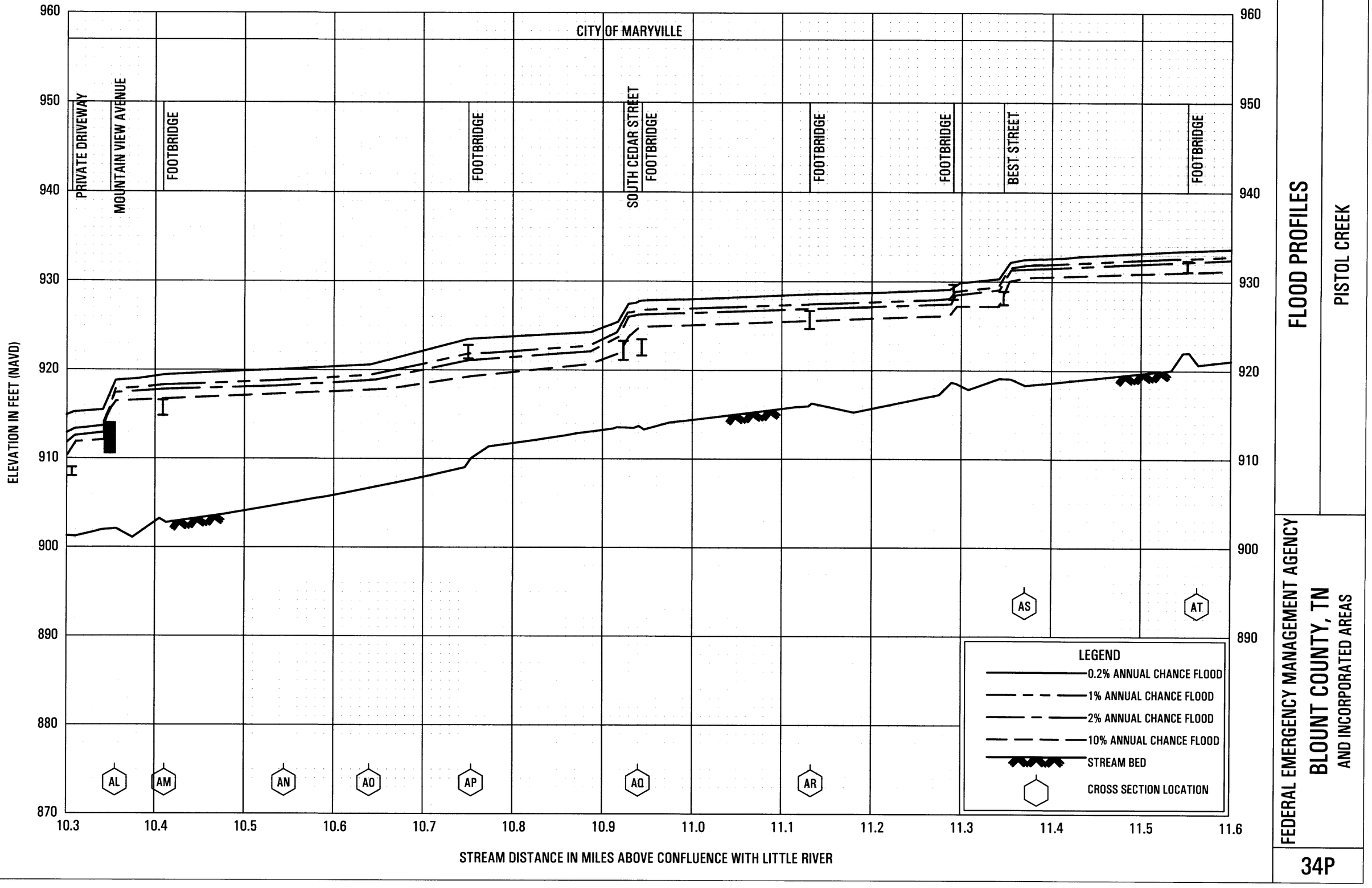
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

PISTOL CREEK



FLOOD PROFILES

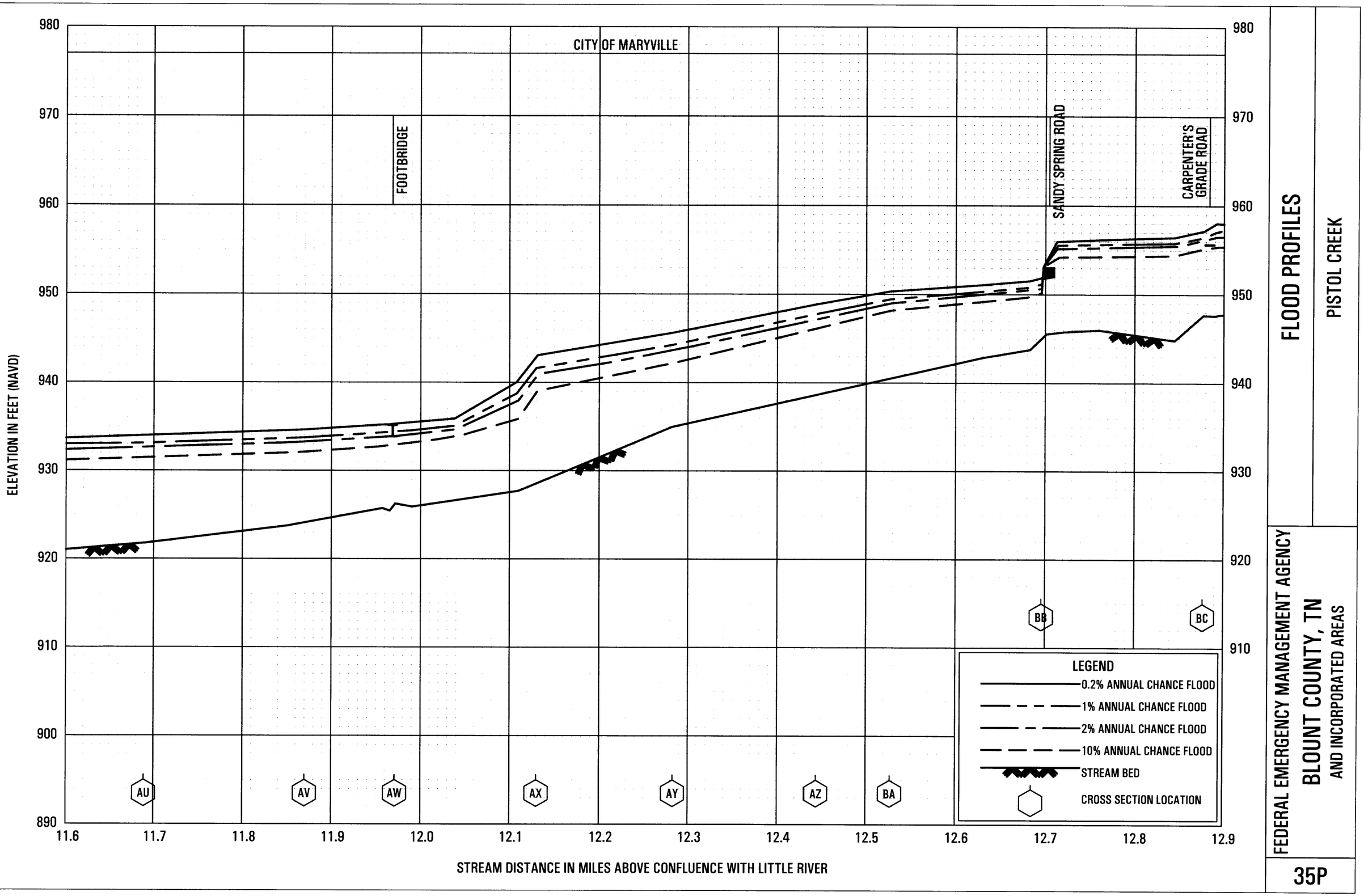
PISTOL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

34P



FLOOD PROFILES

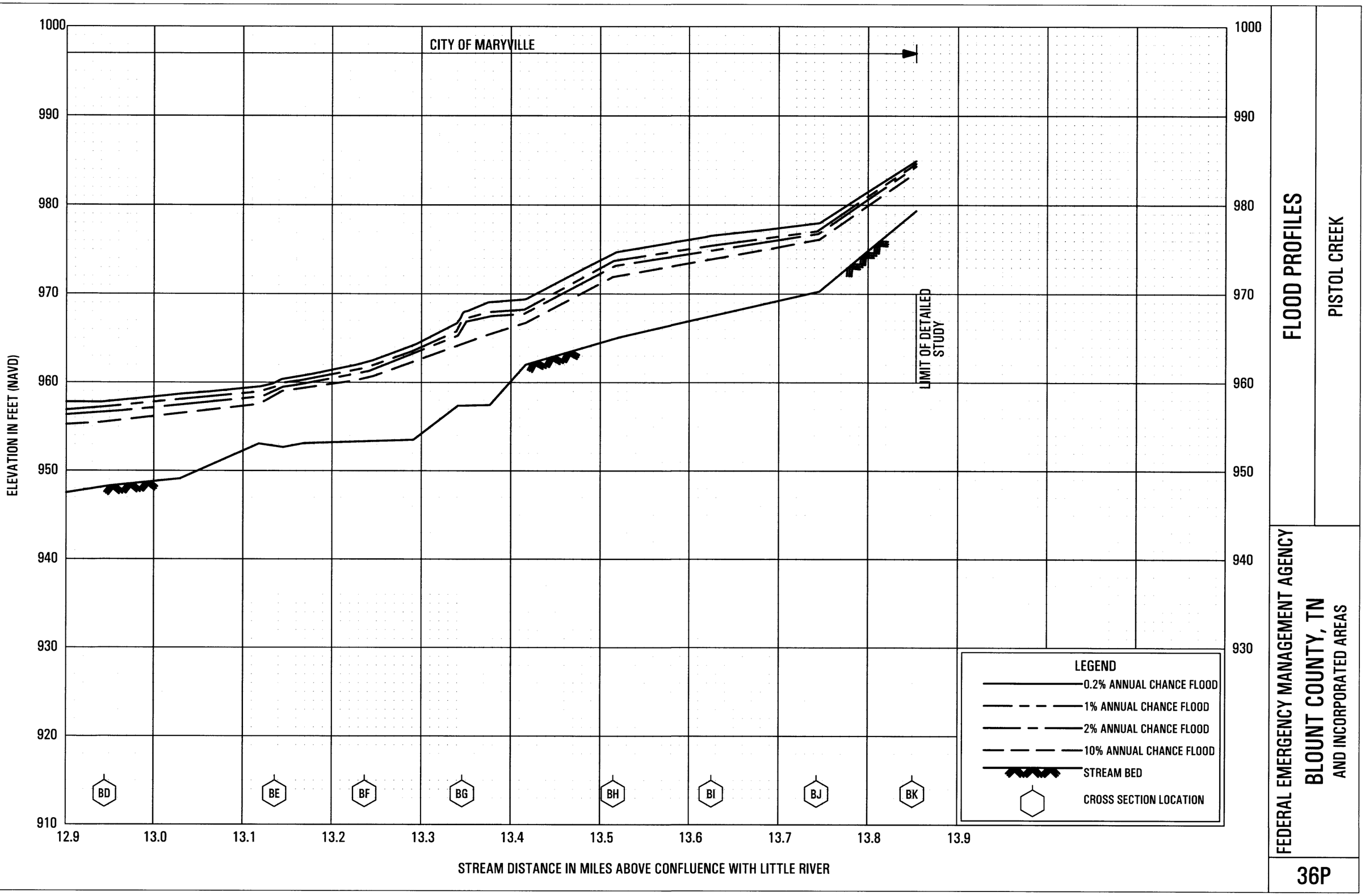
PISTOL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

35P



FLOOD PROFILES

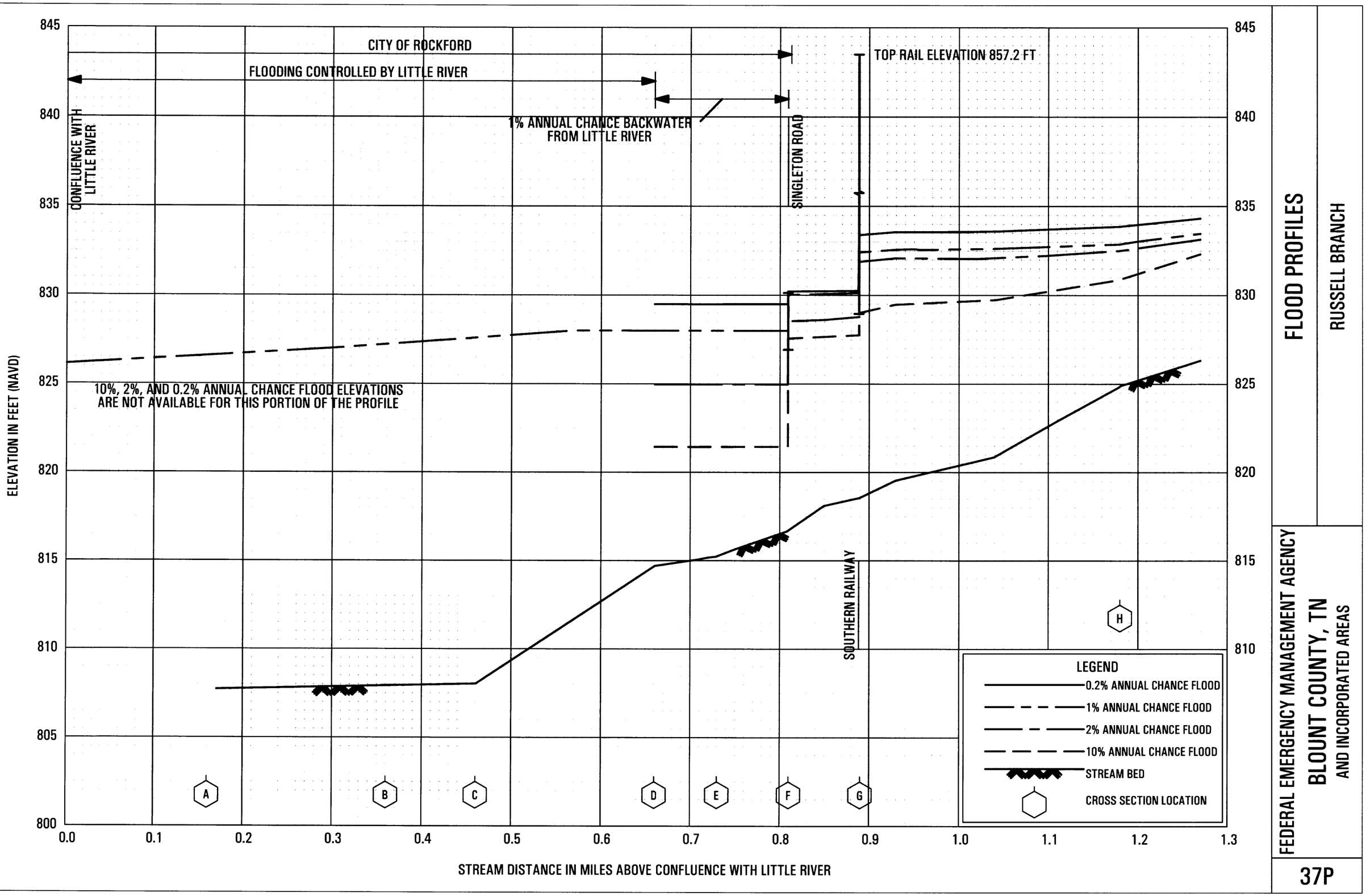
PISTOL CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

36P



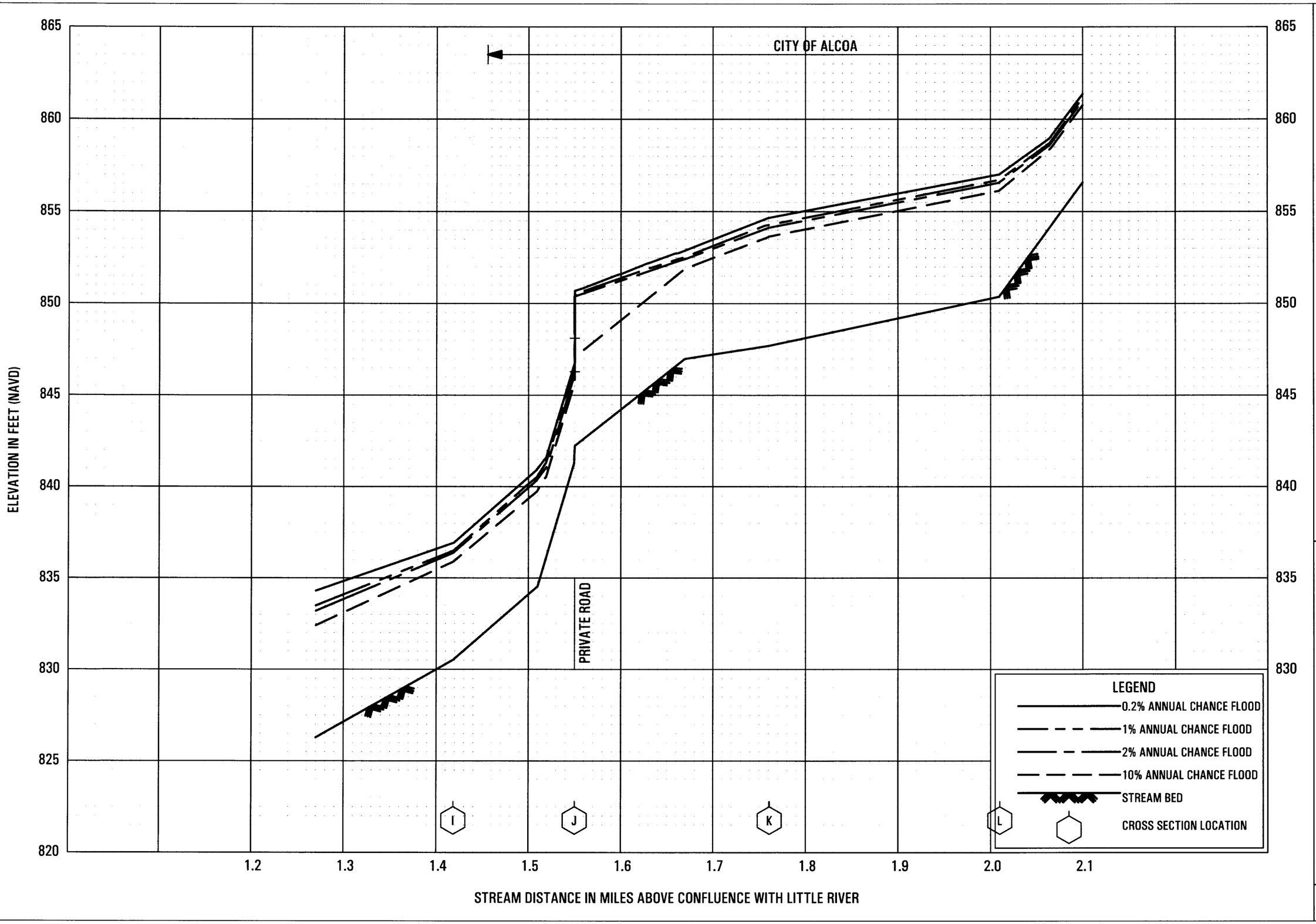
FLOOD PROFILES

RUSSELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

37P



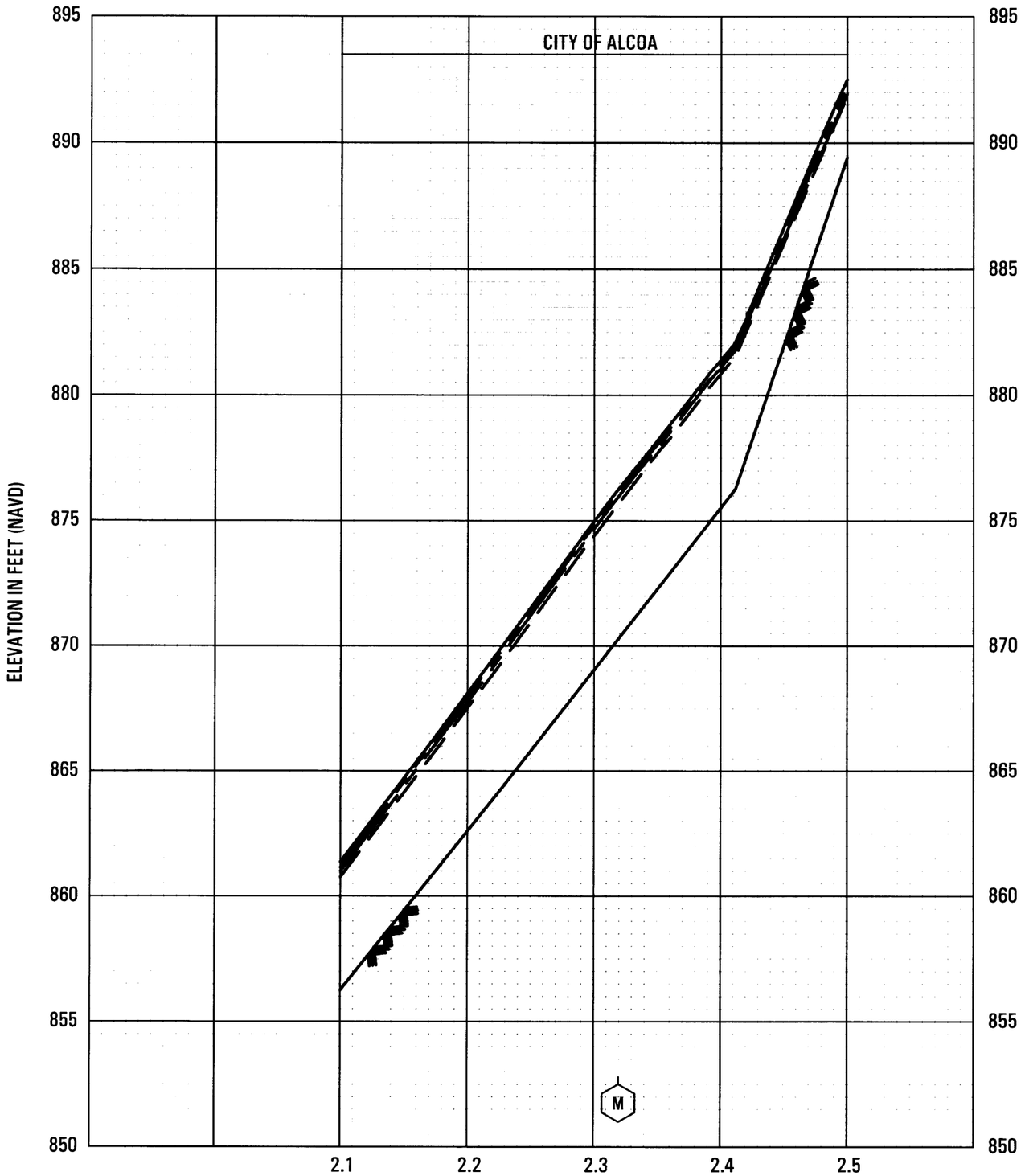
FLOOD PROFILES

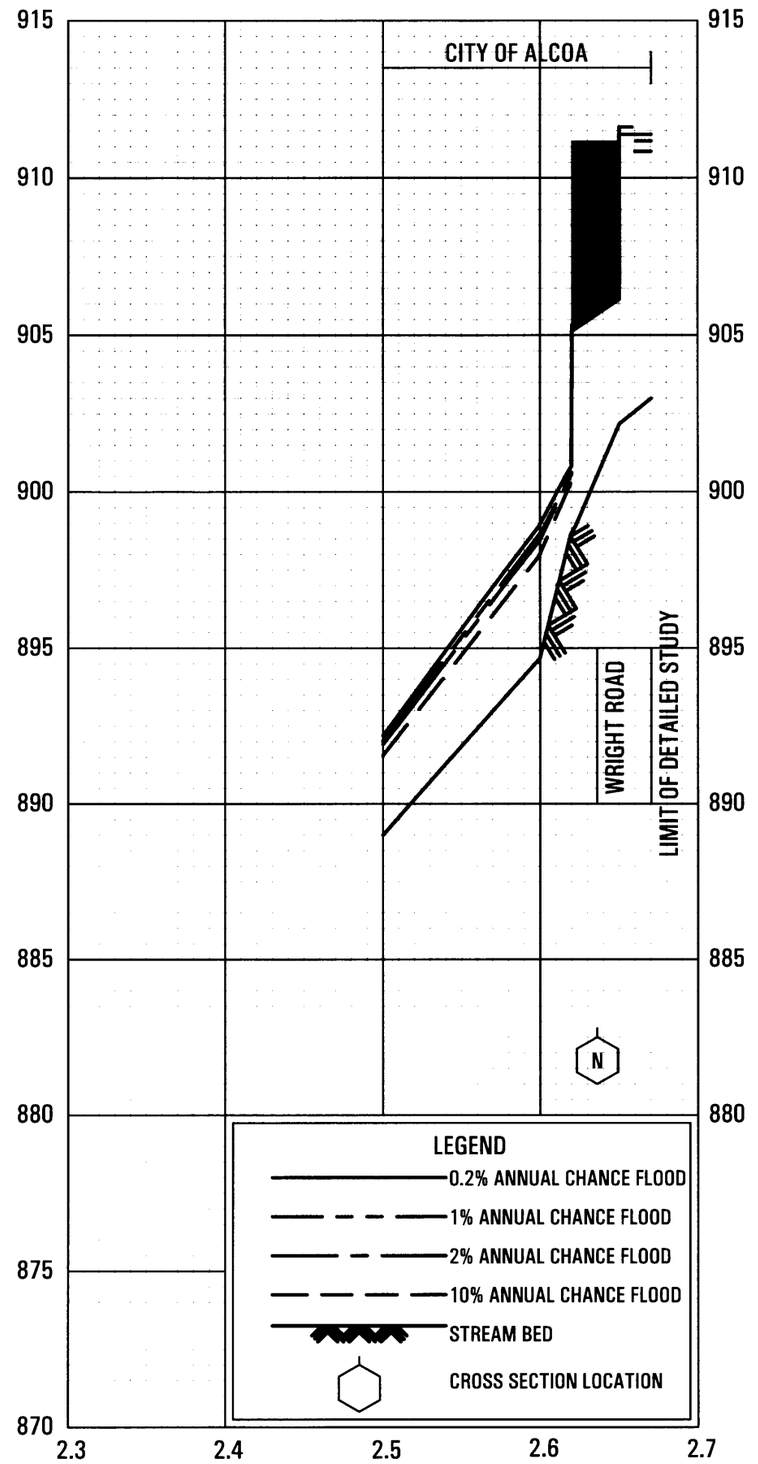
RUSSELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS





ELEVATION IN FEET (NAVD)

STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH LITTLE RIVER

FLOOD PROFILES

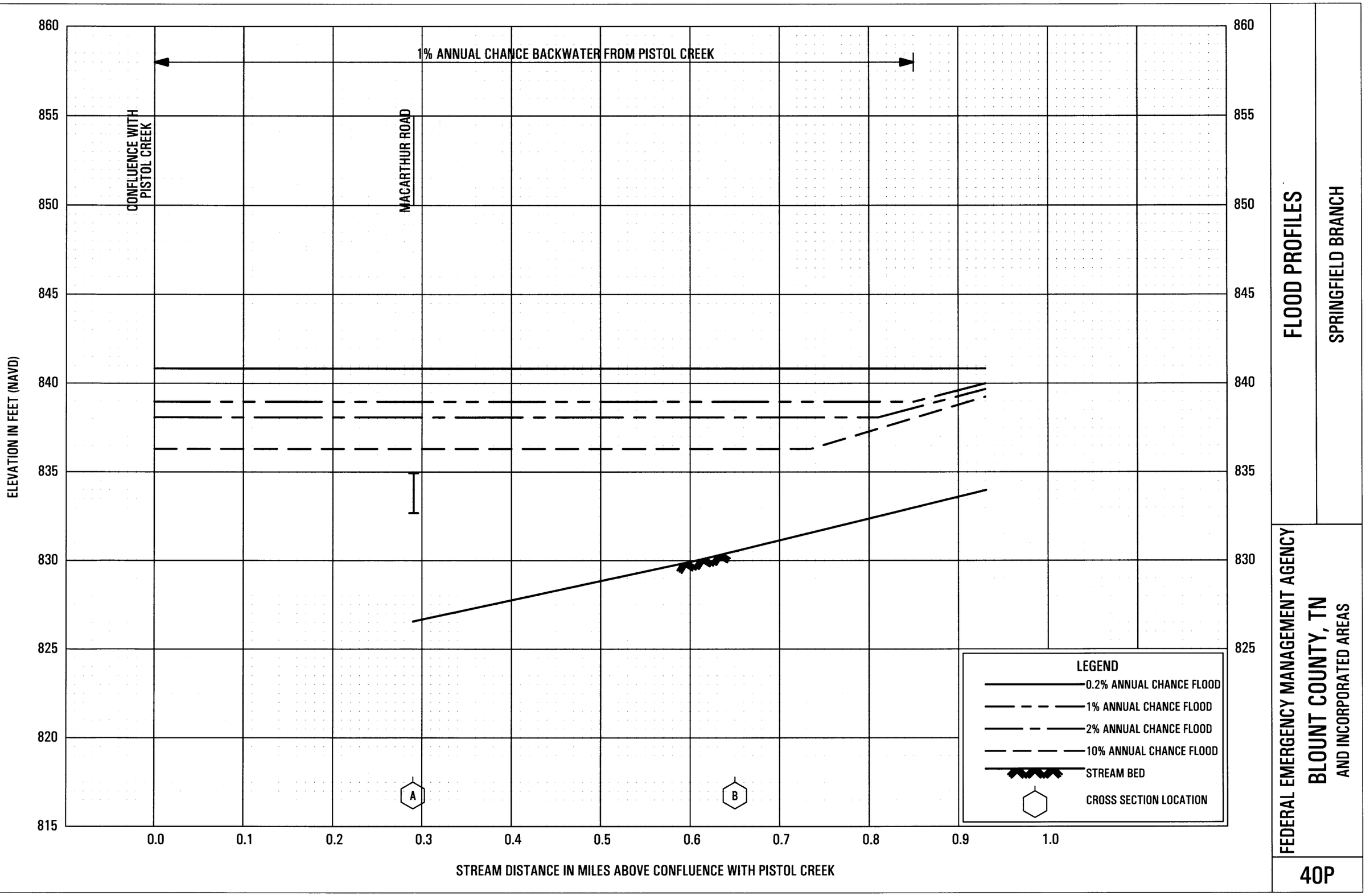
RUSSELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

39P



FLOOD PROFILES

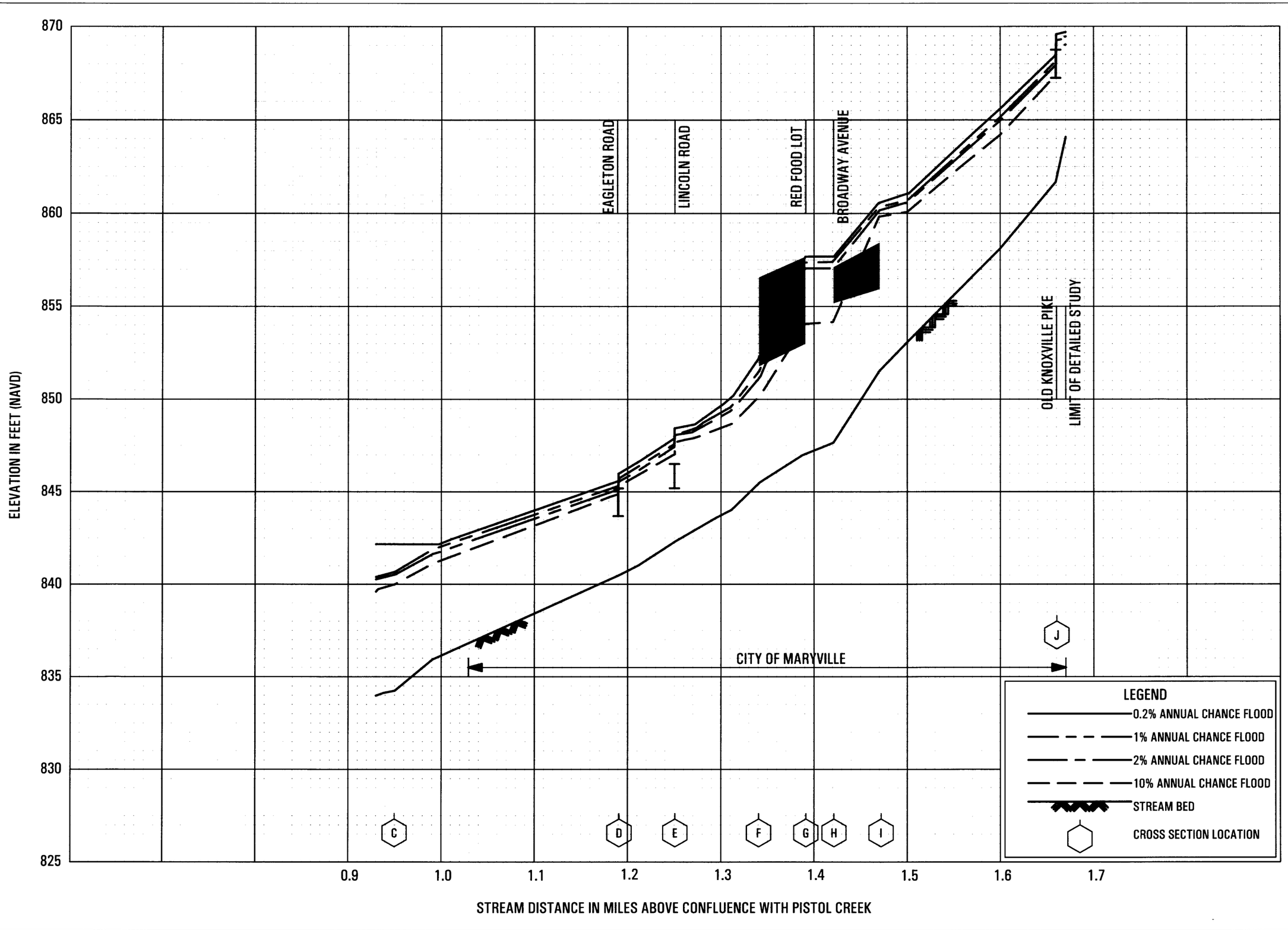
SPRINGFIELD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

40P



FLOOD PROFILES

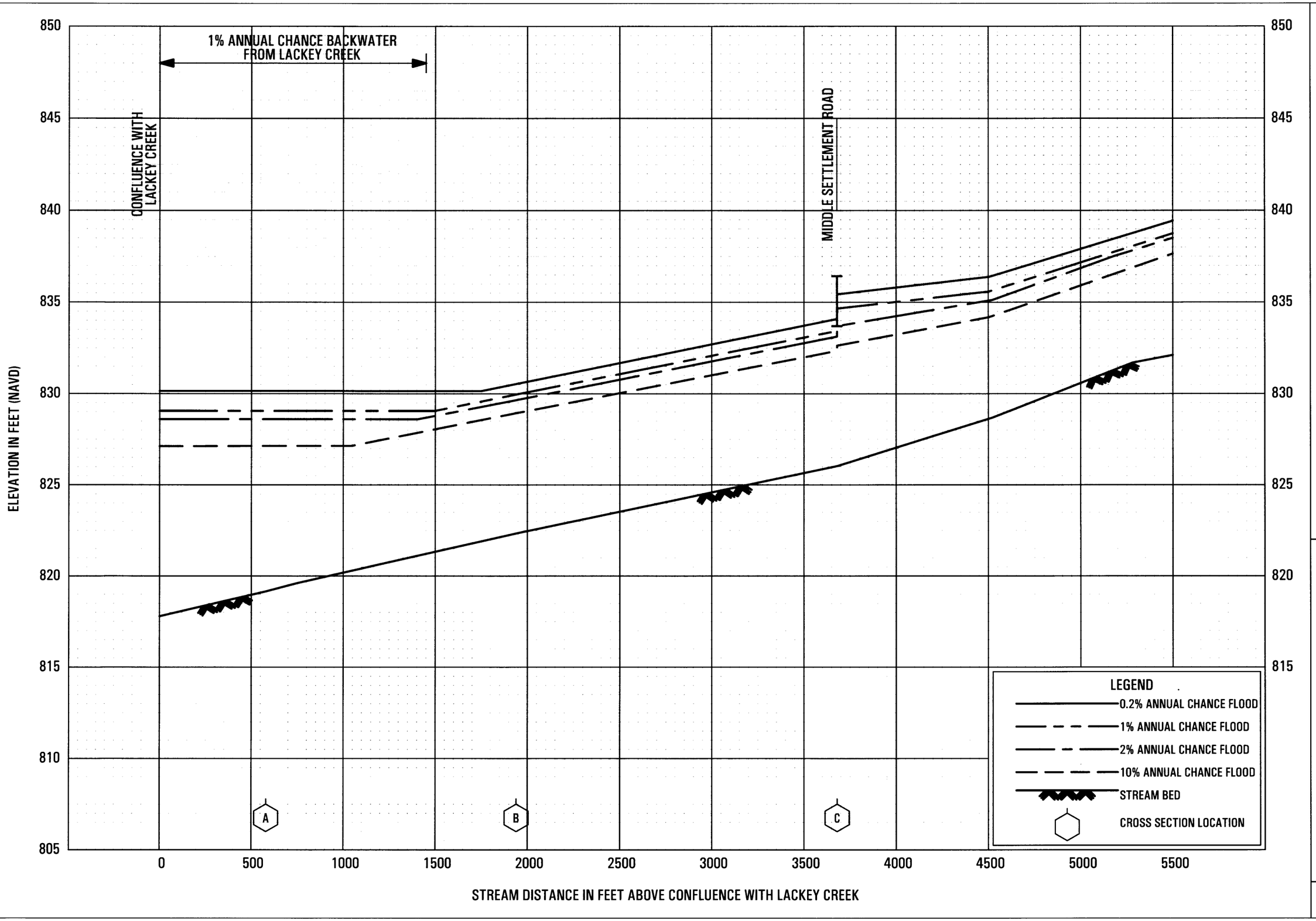
SPRINGFIELD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

41P

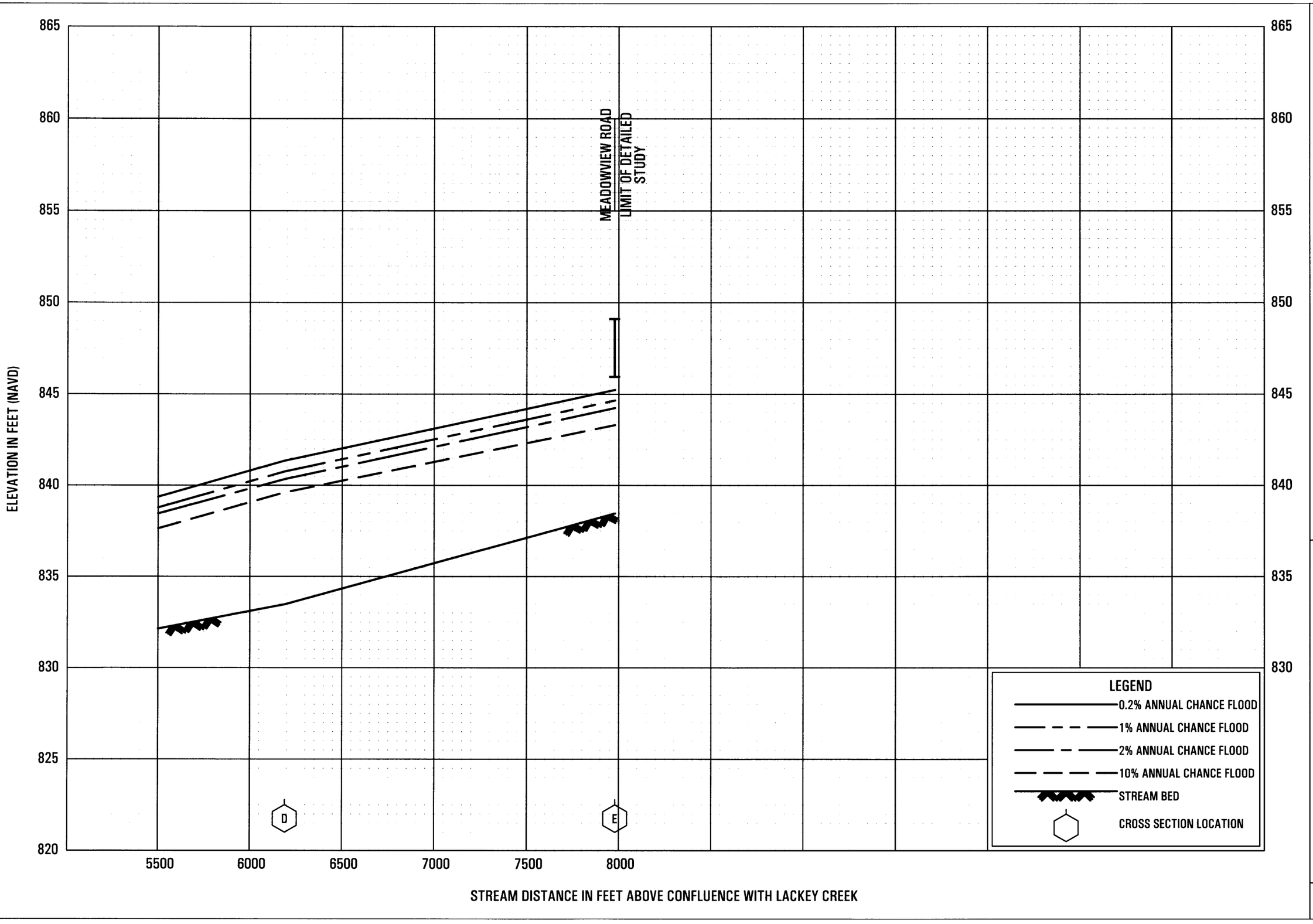


FLOOD PROFILES

TAYLOR BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

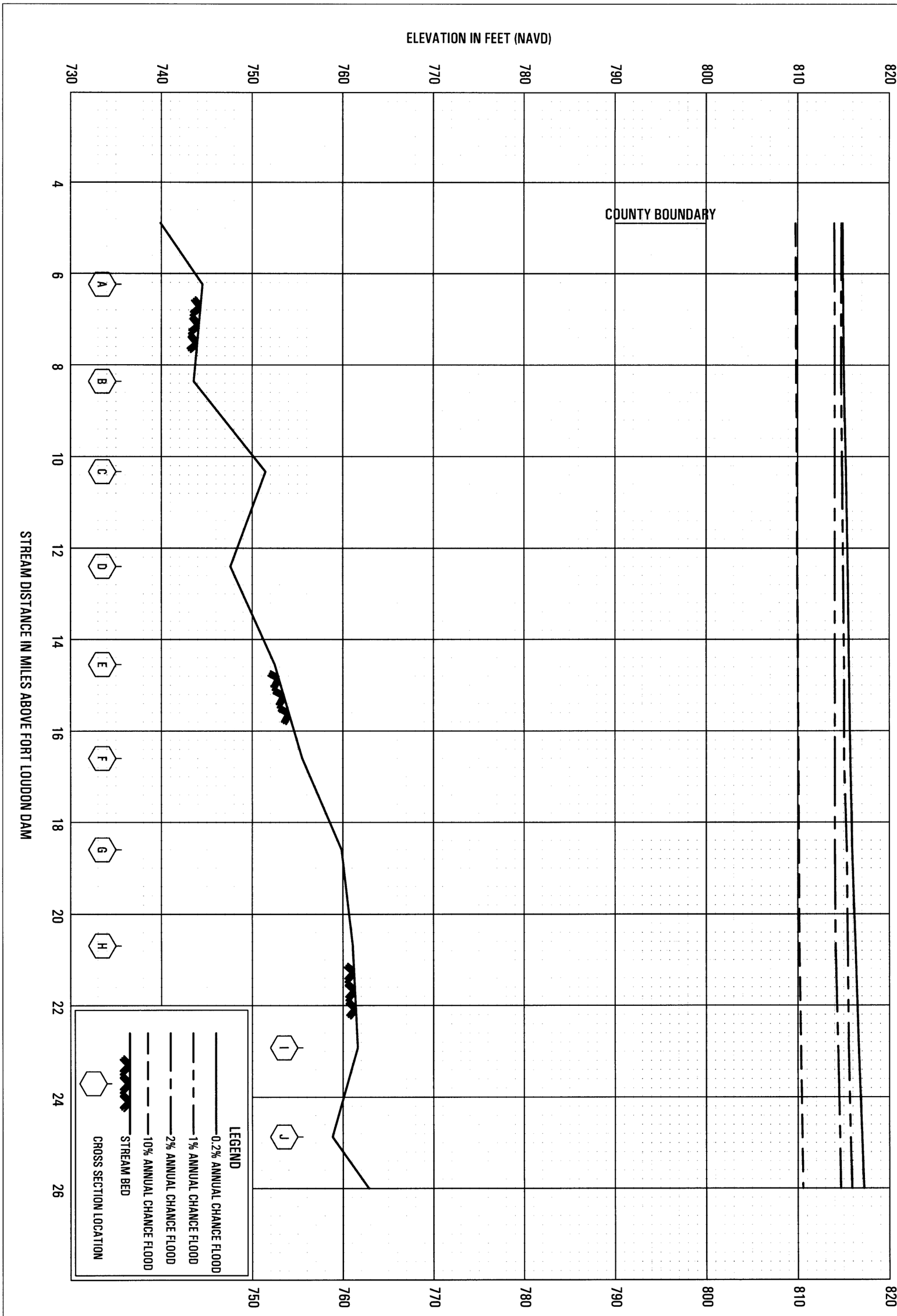


FLOOD PROFILES

TAYLOR BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS



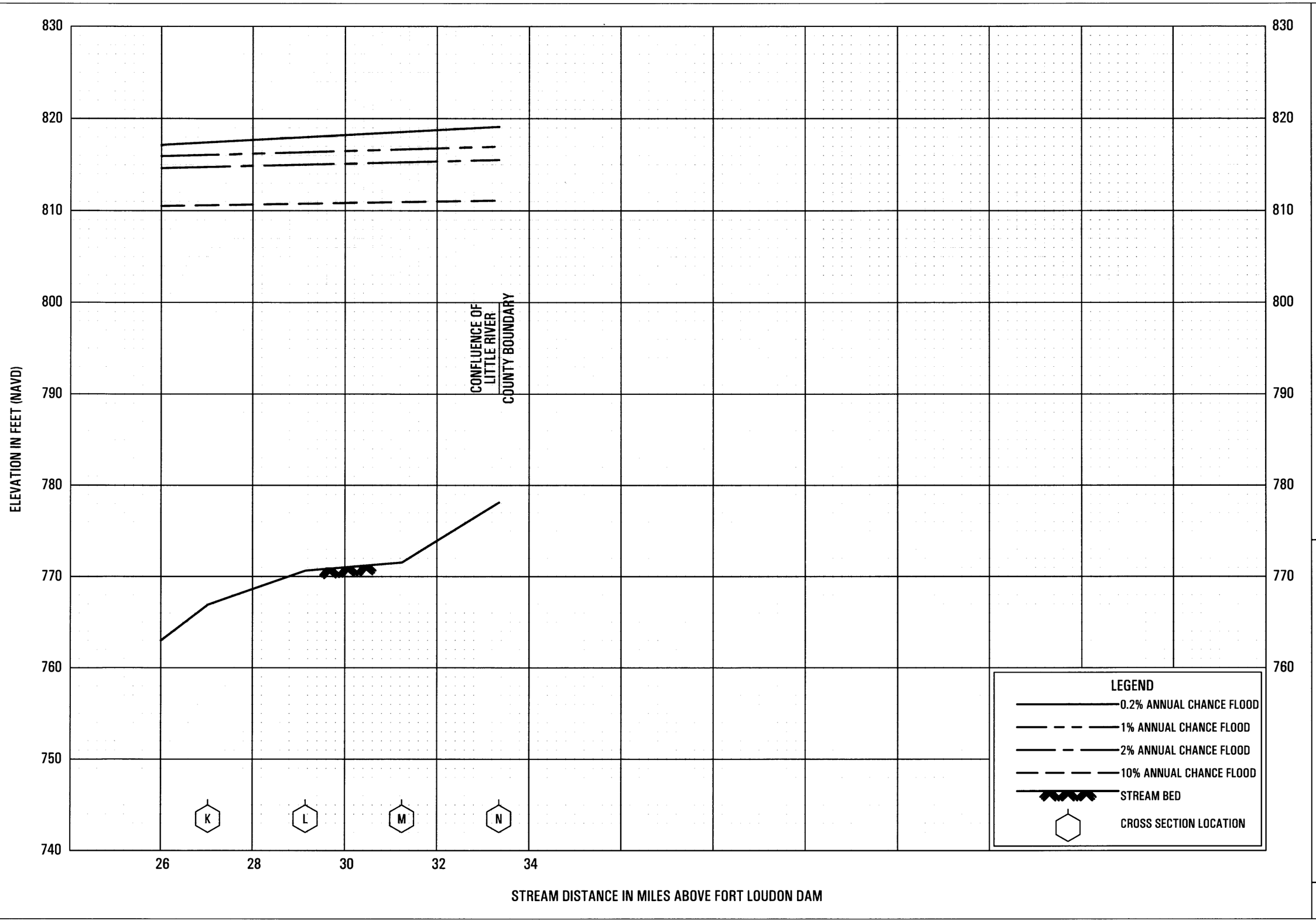
FLOOD PROFILES

TENNESSEE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

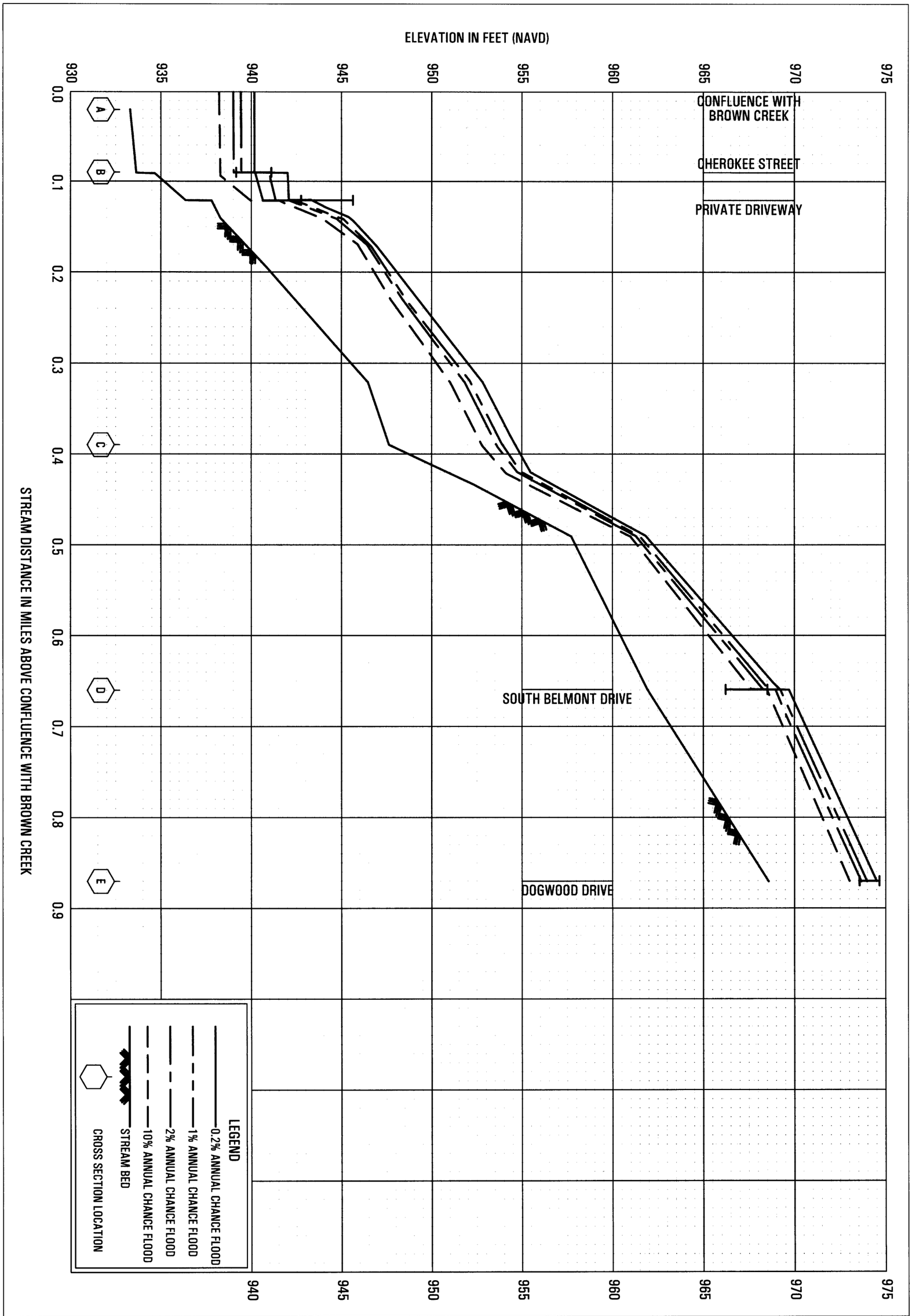


FLOOD PROFILES

TENNESSEE RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS



46P

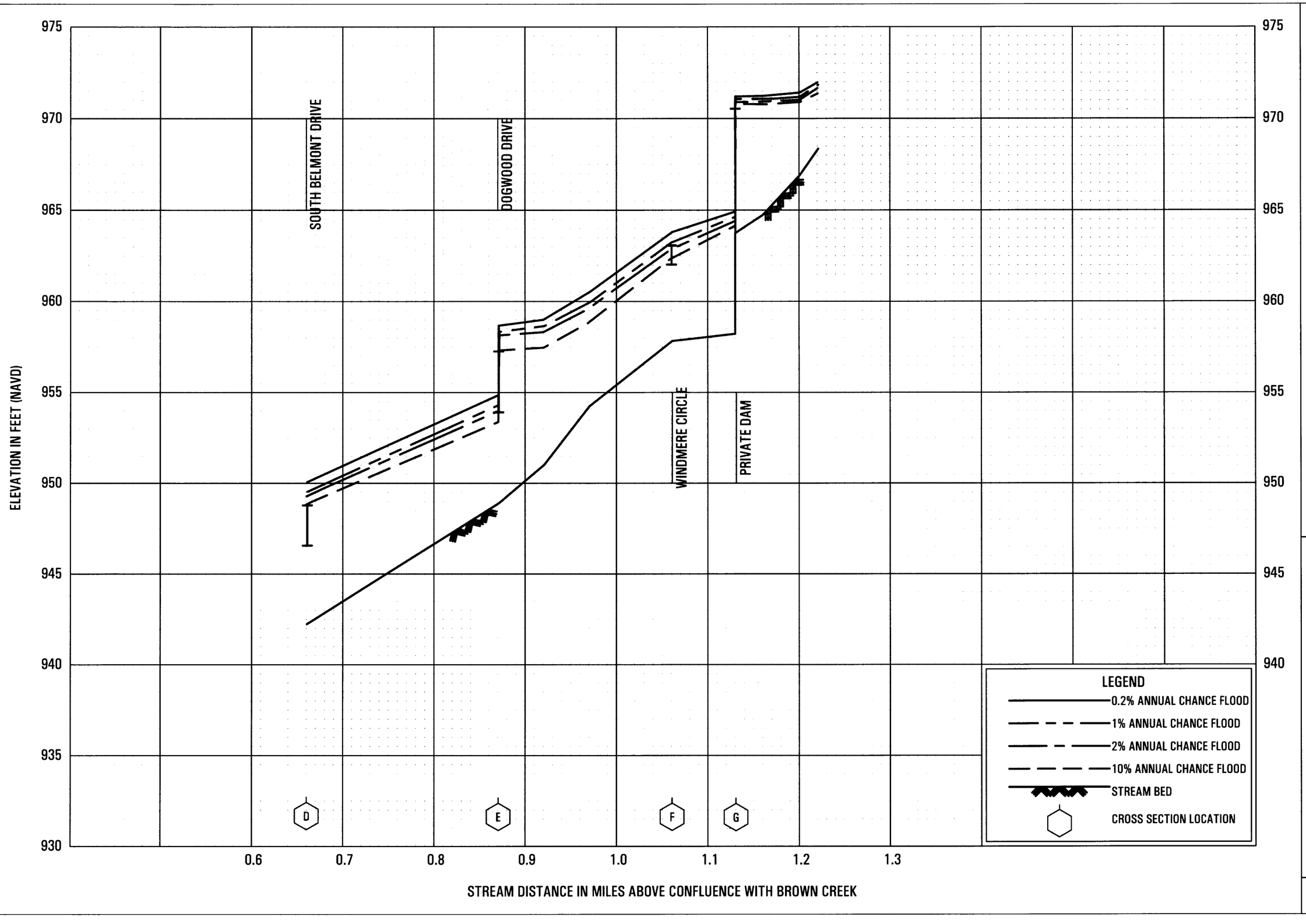
FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS

FLOOD PROFILES

UNNAMED TRIBUTARY TO BROWN CREEK



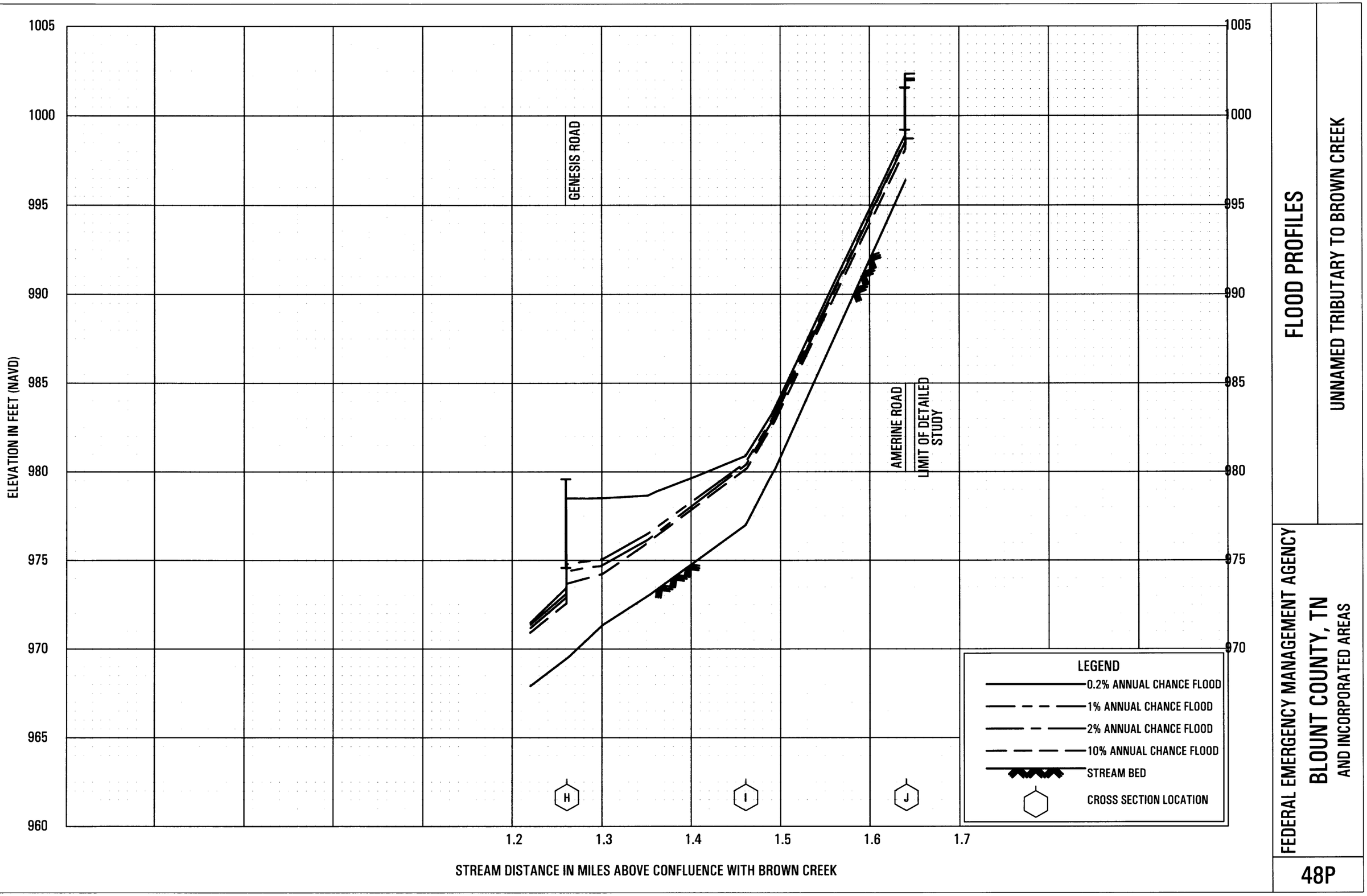
FLOOD PROFILES

UNNAMED TRIBUTARY TO BROWN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

47P



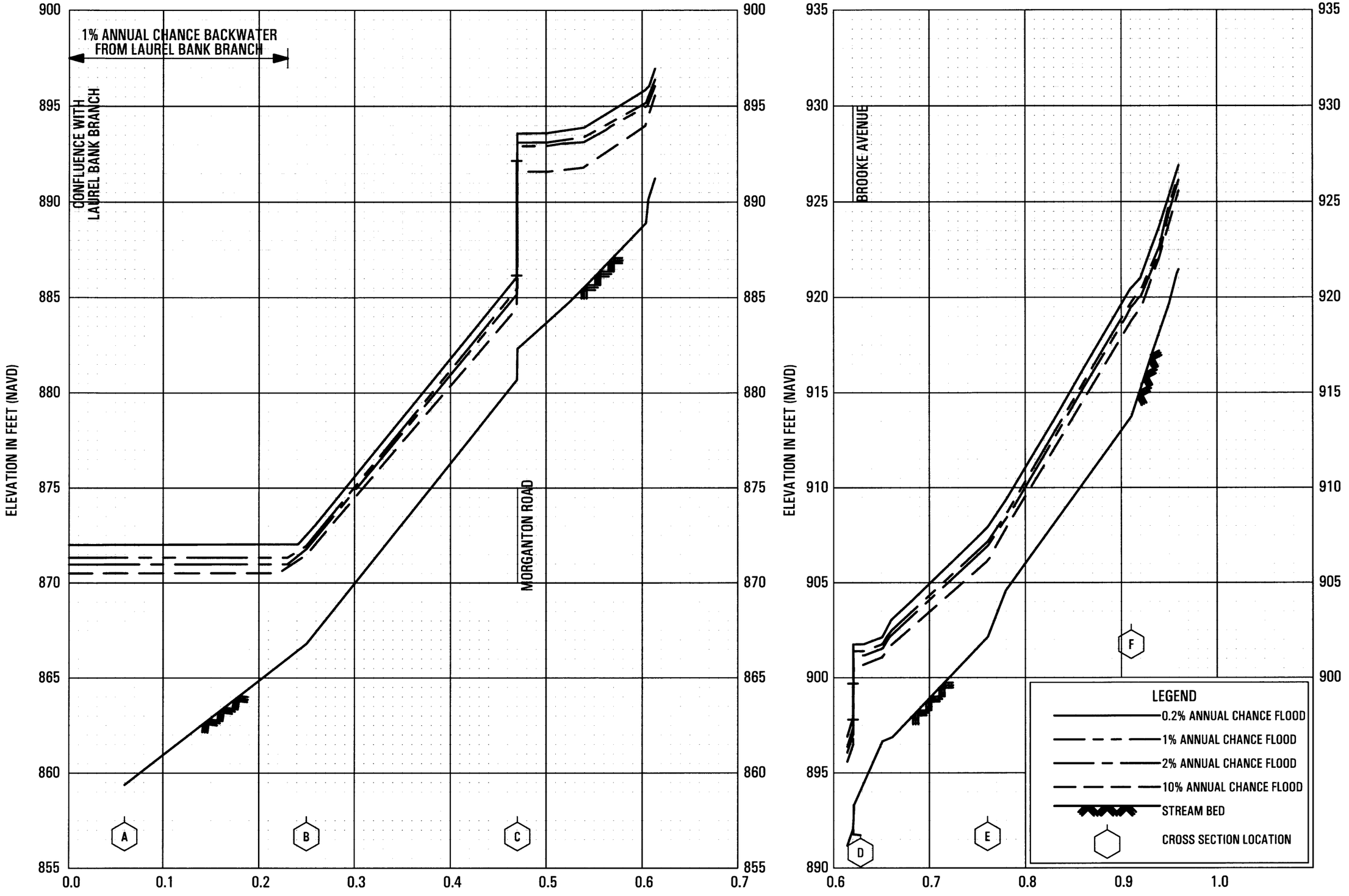
FLOOD PROFILES

UNNAMED TRIBUTARY TO BROWN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

48P



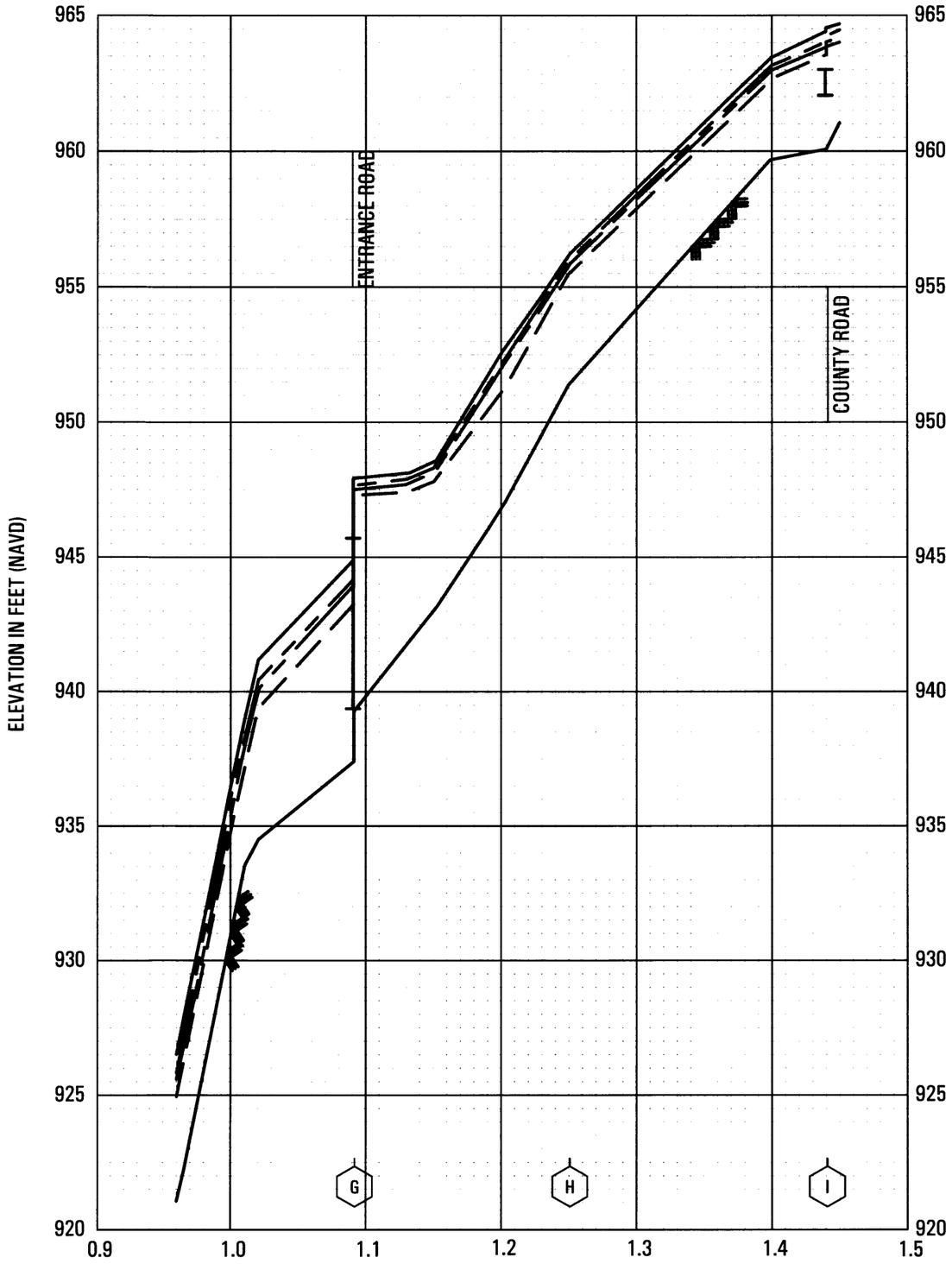
FLOOD PROFILES

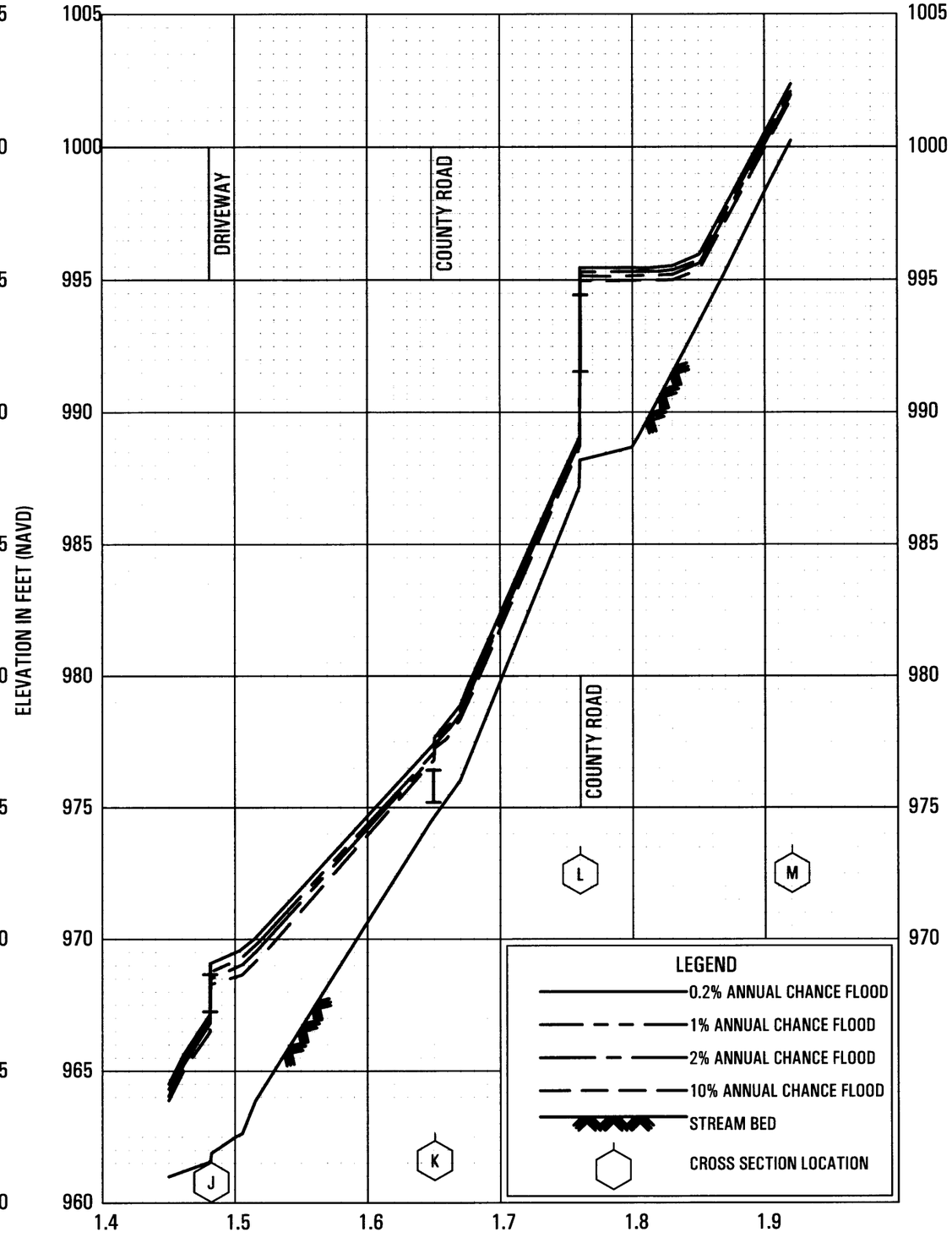
UNNAMED TRIBUTARY TO LAUREL BANK BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS





STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH LAUREL BANK BRANCH

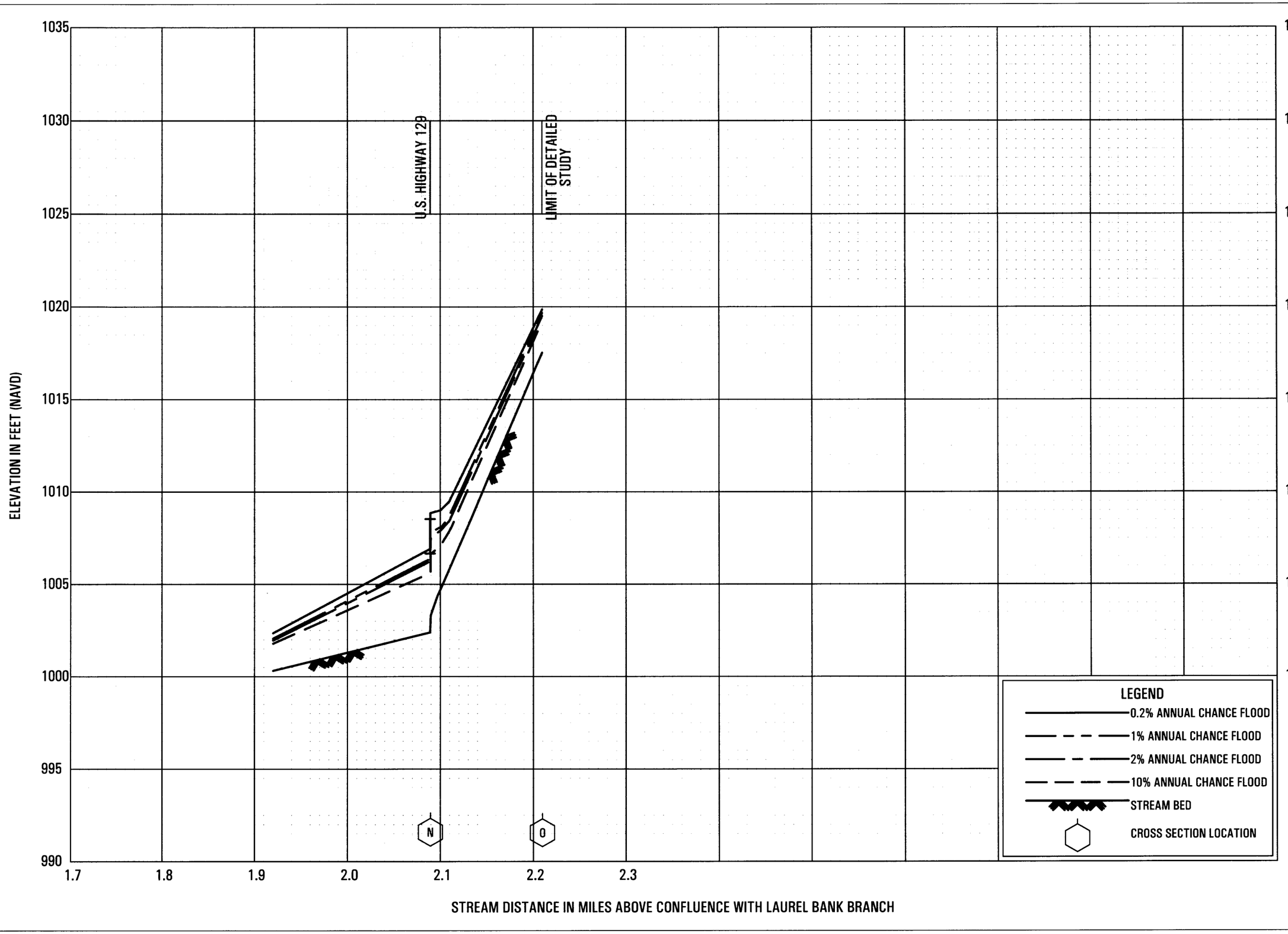
FLOOD PROFILES

UNNAMED TRIBUTARY TO LAUREL BANK BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN

AND INCORPORATED AREAS



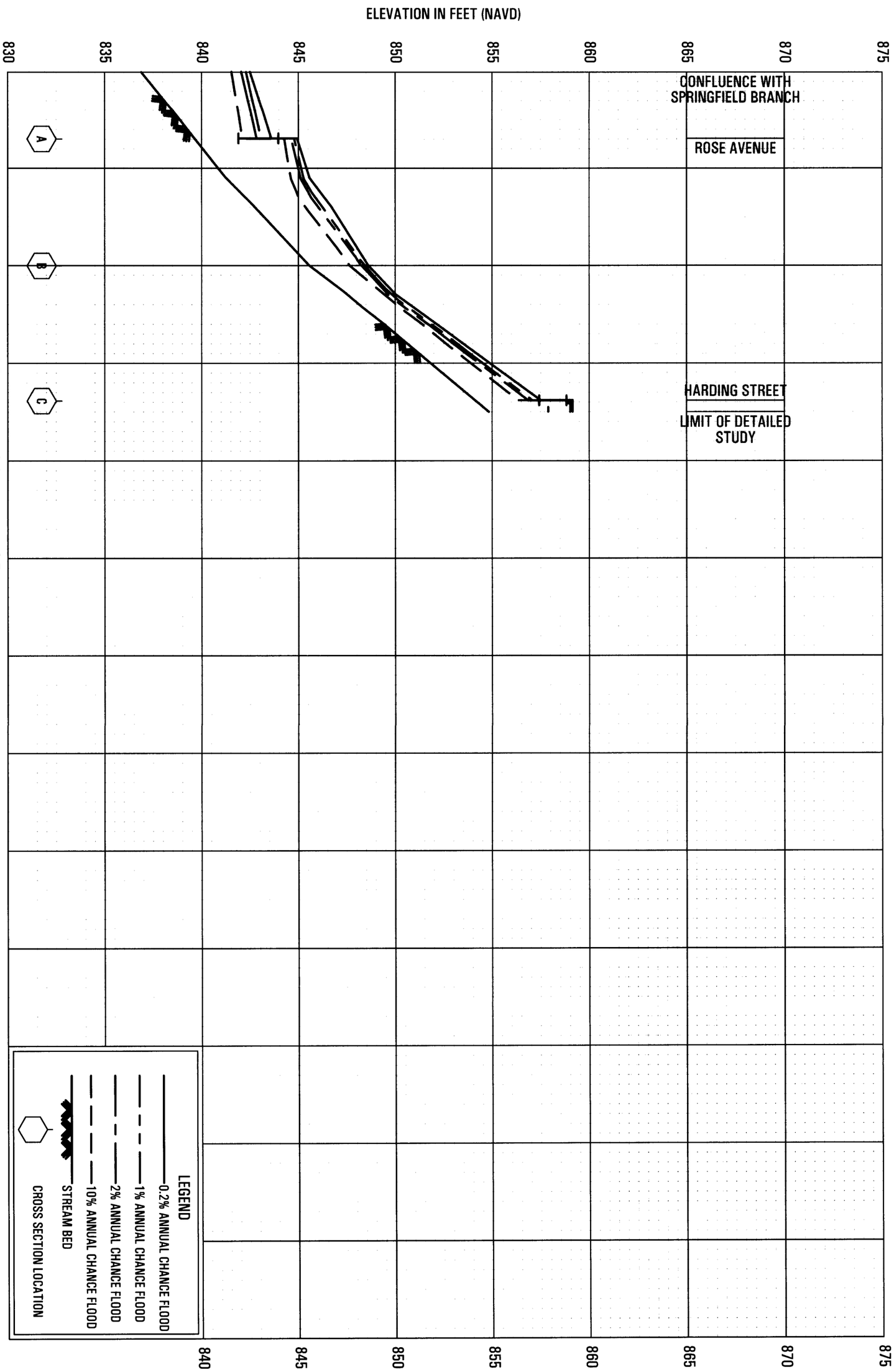
FLOOD PROFILES

UNNAMED TRIBUTARY TO LAUREL BANK BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

BLOUNT COUNTY, TN
AND INCORPORATED AREAS

51P



52P	FEDERAL EMERGENCY MANAGEMENT AGENCY BLOUNT COUNTY, TN AND INCORPORATED AREAS	FLOOD PROFILES UNNAMED TRIBUTARY TO SPRINGFIELD BRANCH