FLOOD INSURANCE STUDY

FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 5 OF 5

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

(ALL JURISDICTIONS)

COMMUNITY NAME	COMMUNITY NUMBER
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY	210067

FEMA

EFFECTIVE: PRELIMINARY 2/26/2016

FLOOD INSURANCE STUDY NUMBER
210067V005C

Version Number 2.3.3.2

TABLE OF CONTENTS
Volume 1

		Page
SECTION 1.0 – INTRODUCTION		**1**
1.1	The National Flood Insurance Program	1
1.2	Purpose of this Flood Insurance Study Report	2
1.3	Jurisdictions Included in the Flood Insurance Study Project	2
1.4	Considerations for using this Flood Insurance Study Report	4
SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS		**14**
2.1	Floodplain Boundaries	14
2.2	Floodways	14
2.3	Base Flood Elevations	38
2.4	Non-Encroachment Zones	38
2.5	Coastal Flood Hazard Areas	38
2.5.1	Water Elevations and the Effects of Waves	38
2.5.2	Floodplain Boundaries and BFEs for Coastal Areas	39
2.5.3	Coastal High Hazard Areas	39
2.5.4	Limit of Moderate Wave Action	39
SECTION 3.0 – INSURANCE APPLICATIONS		**39**
3.1	National Flood Insurance Program Insurance Zones	39
3.2	Coastal Barrier Resources System	39
SECTION 4.0 – AREA STUDIED		**40**
4.1	Basin Description	40
4.2	Principal Flood Problems	40
4.3	Non-Levee Flood Protection Measures	40
4.4	Levees	41
SECTION 5.0 – ENGINEERING METHODS		**42**
5.1	Hydrologic Analyses	42

Figures

	Page
Figure 1: FIRM Panel Index	6
Figure 2: FIRM Notes to Users	7
Figure 3: Map Legend for FIRM	10
Figure 4: Floodway Schematic	16
Figure 5: Wave Runup Transect Schematic	38
Figure 6: Coastal Transect Schematic	39

TABLE OF CONTENTS
Volume 1 (continued)

Tables

	Page
Table 1: Listing of NFIP Jurisdictions	3
Table 2: Flooding Sources Included in this FIS Report	17
Table 3: Flood Zone Designations by Community	39
Table 4: Coastal Barrier Resources System Information	40
Table 5: Basin Characteristics	40
Table 6: Principal Flood Problems	40
Table 7: Historic Flooding Elevations	40
Table 8: Non-Levee Flood Protection Measures	41
Table 9: Levees	41
Table 10: Summary of Discharges	43

TABLE OF CONTENTS
Volume 2

		Page
5.2	Hydraulic Analyses	118
5.3	Coastal Analyses	141
	5.3.1 Total Stillwater Elevations	141
	5.3.2 Waves	142
	5.3.3 Coastal Erosion	142
	5.3.4 Wave Hazard Analyses	142
5.4	Alluvial Fan Analyses	142
SECTION 6.0 – MAPPING METHODS		**142**
6.1	Vertical and Horizontal Control	142
6.2	Base Map	143
6.3	Floodplain and Floodway Delineation	144

Figures

	Page
Figure 7: Frequency Discharge-Drainage Area Curves	117
Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas	141
Figure 9: Transect Location Map	142

Tables

	Page
Table 10: Summary of Discharges	93
Table 11: Summary of Non-Coastal Stillwater Elevations	117
Table 12: Stream Gage Information used to Determine Discharges	118
Table 13: Summary of Hydrologic and Hydraulic Analyses	119
Table 14: Roughness Coefficients	141
Table 15: Summary of Coastal Analyses	141
Table 16: Tide Gage Analysis Specifics	141
Table 17: Coastal Transect Parameters	142

TABLE OF CONTENTS
Volume 2 (continued)

Tables

	Page
Table 18: Summary of Alluvial Fan Analyses	142
Table 19: Results of Alluvial Fan Analyses	142
Table 20: Countywide Vertical Datum Conversion	143
Table 21: Stream-by-Stream Vertical Datum Conversion	143
Table 22: Base Map Sources	143
Table 23: Summary of Topographic Elevation Data used in Mapping	144
Table 24: Floodway Data	145

TABLE OF CONTENTS
Volume 3

		Page
6.4	Coastal Flood Hazard Mapping	192
6.5	FIRM Revisions	192
6.5.1	Letters of Map Amendment	192
6.5.2	Letters of Map Revision Based on Fill	192
6.5.3	Letters of Map Revision	193
6.5.4	Physical Map Revisions	193
6.5.5	Contracted Restudies	194
6.5.6	Community Map History	194

SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION 195

7.1	Contracted Studies	195
7.2	Community Meetings	198

SECTION 8.0 – ADDITIONAL INFORMATION 200

SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES 201

Tables

	Page
Table 24: Floodway Data	186
Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams	192
Table 26: Summary of Coastal Transect Mapping Considerations	192
Table 27: Incorporated Letters of Map Change	193
Table 28: Community Map History	195
Table 29: Summary of Contracted Studies Included in this FIS Report	195
Table 30: Community Meetings	199
Table 31: Map Repositories	200
Table 32: Additional Information	200
Table 33: Bibliography and References	202

TABLE OF CONTENTS
Volume 3 (continued)
Exhibits

Flood Profiles	Panel
Antioch Church Tributary	01P
Armstrong Mill Road Tributary	02P
Avon Tributary	03P-05P
Avon Tributary 1	06P
Baughman Fork	07P-09P
Baughman Fork Tributary 1	10P-11P
Baughman Fork Tributary 3	12P
Baughman Fork Tributary 3.1	13P
Baughman Fork Tributary 3.1.1	14P
Beacon Hill Tributary	15P
Bethel Road Tributary	16P-18P
Big Elm Tributary	19P
Big Tributary	20P
BM 897 Tributary	21P
BM 907-39 Tributary	22P
Boggs Fork	23P-26P
Boggs Fork Tributary 2	27P
Boone Creek	28P-32P
Boone Creek Tributary 1	33P
Boone Creek Tributary 2	34P
Bowman Mill Tributary	35P-37P
Bracktown Branch	38P-39P
Brighton Tributary	40P
Bryan Station Spring Tributary	41P
Bryan Station Spring Tributary 1	42P
Bryant Tributary	43P
Cadentown Branch	44P-45P
Cadentown Branch East	46P
Cane Run	47P-48P
Cave Creek	49P-50P
Cave Hill Tributary	51P-53P
Cemetery Tributary	54P
Colonial Drive Tributary	55P
David Fork	56P-57P
David Fork Tributary 1	58P
Delong Road Tributary	59P-60P
Dixie Tributary	61P-65P
Dogwood Tributary	66P
Douglas Park Tributary	67P-70P
Drive-in Tributary	71P
East Hickman Creek	72P-73P
East I-75 Tributary	74P

TABLE OF CONTENTS
Volume 4
Exhibits

Flood Profiles	Panel
Eastland Park Tributary	75P
Five Pond Tributary	76P
Flintridge Drive Tributary	77P
Gardenside Tributary	78P-79P
Goose Creek	80P
Greendale Road Tributary	81P
Greenwich Road Tributary	82P
Harp Innis Road Tributary	83P-84P
Heliport Tributary	85P
Higbee Mill Road Tributary	86P-87P
Highway 68-27 Tributary	88P-89P
Highway 922 Tributary North Fork	90P
Highway 922 Tributary South Fork	91P
Howard Grove Tributary	92P
Huffman Mill Road Tributary	93P
Hughes Lane Tributary	94P
Hume Road Tributary	95P
I-64 Tributary	96P
I-75 Tributary	97P-99P
IBM Tributary	100P
Idle Hour Tributary	101P
Indian Hills Tributary	102P
Interchange Tributary	103P
Ironworks Tributary	104P
Jimtown Tributary	105P-106P
Johnson Road Tributary	107P
Jones Creek	108P-110P
Jones Creek Tributary 1	111P
Jones Creek Tributary 2	112P
Kearney Tributary	113P
Kentucky River	114P-116P
Lansdowne Drive Tributary	117P-118P
Lemons Mill Road Tributary	119P
Manchester Branch	120P-121P
Manchester Branch Tributary 1	122P
Mary Reynolds Creek	123P
Mattoxtown Tributary	124P
Melody Village Tributary	125P
Mt. Horeb Road Tributary	126P
Muir Station Road Tributary	127P-129P
North Branch A	130P
North Branch B	131P
North Elkhorn Creek	132P-136P

TABLE OF CONTENTS
Volume 4 (continued)
Exhibits

Flood Profiles	Panel
North Elkhorn Creek Tributary	137P
North Elkhorn Creek Tributary 17	138P
Old Pine Grove Tributary	139P
Parkers Mill Road Tributary	140P
Pine Grove Tributary	141P
Pipeline Tributary	142P
Pleasant Ridge Church Tributary	143P
Quarry Tributary	144P-145P
Radio Tower Tributary	146P
Reservoir Tributary	147P
Reservoir Tributary East	148P
Richmond Road Tributary	149P
Shadeland Tributary	150P
Shannon Run	151P-152P
Shannon Run Tributary 3	153P
Shelby Branch	154P
Shelby Branch Tributary 1	155P
Shelby Branch Tributary 2	156P
Shelby Branch Tributary 3	157P
Shelby Branch Tributary 3.1	158P
South Elkhorn Creek	159P-163P
Southpoint Tributary	164P-166P

TABLE OF CONTENTS
Volume 5
Exhibits

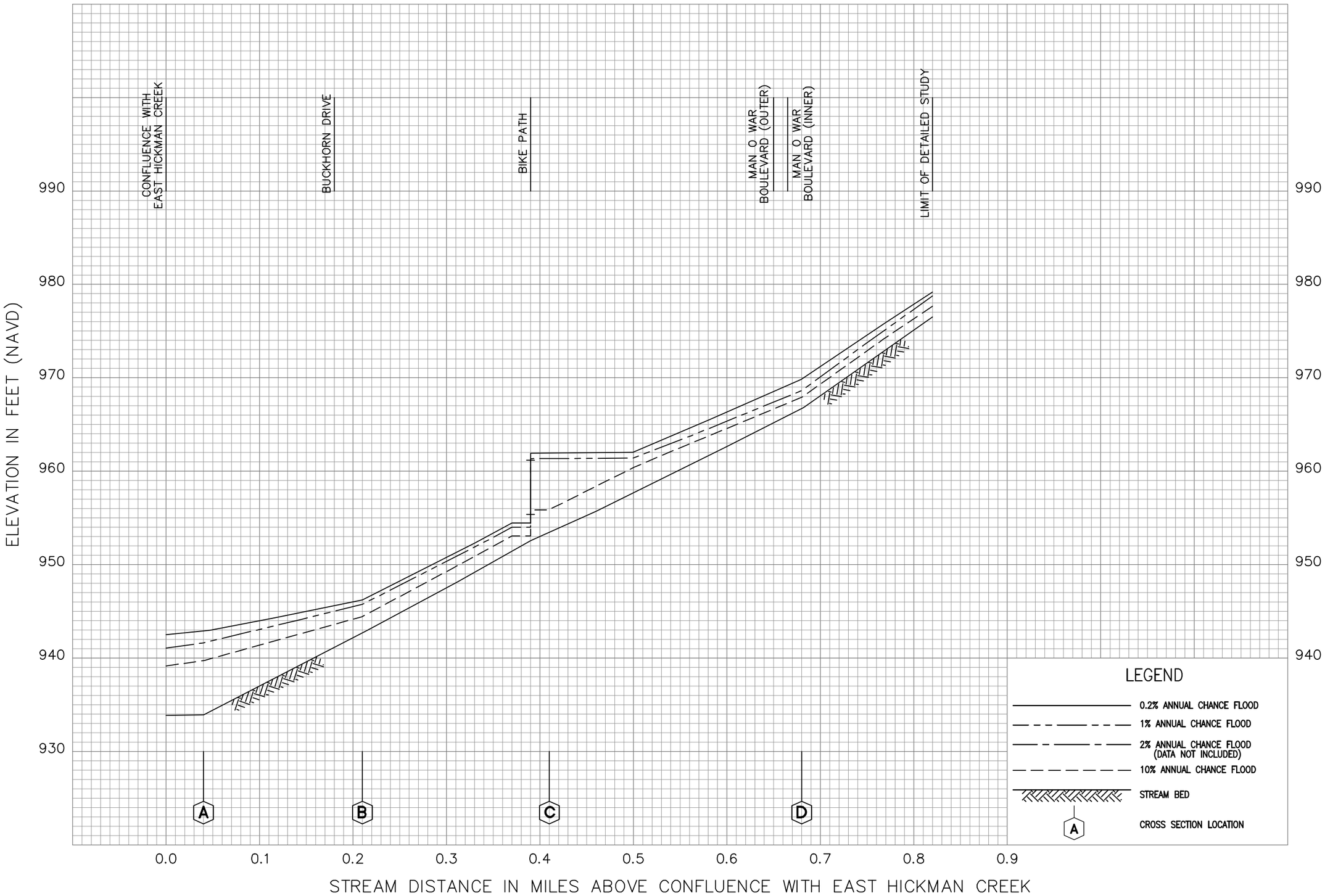
Flood Profiles	Panel
Squires Road Tributary	167P
Steeles Run	168P-170P
Stonewall Estates Tributary	171P
Stonewall Estates Tributary 2	173P
Tates Creek	174P-175P
Tiverton Way Tributary	176P-177P
Todds Road Tributary	178P-179P
Todds Road Tributary North	180P
Town Branch	181P-183P
Two Ponds Tributary	184P
U.K. Agriculture Station Branch	185P-187P
Unnamed Tributary to I-75 Tributary	188P
Unnamed Tributary to Lemons Mill Road Tributary	189P
Unnamed Tributary to North Elkhorn Creek Tributary	190P

TABLE OF CONTENTS
Volume 5 (continued)
Exhibits

Flood Profiles	Panel
Unnamed Tributary to Walnut Hill Church Tributary	191P
US Route 60 Tributary	192P
Vaughns Branch	193P-194P
Walnut Hill Church Tributary	195P
Waveland Museum Tributary	196P
West Hickman Creek	197P-199P
Wilson Downing Road Tributary	200P-201P
Wolf Run	202P-205P

Published Separately

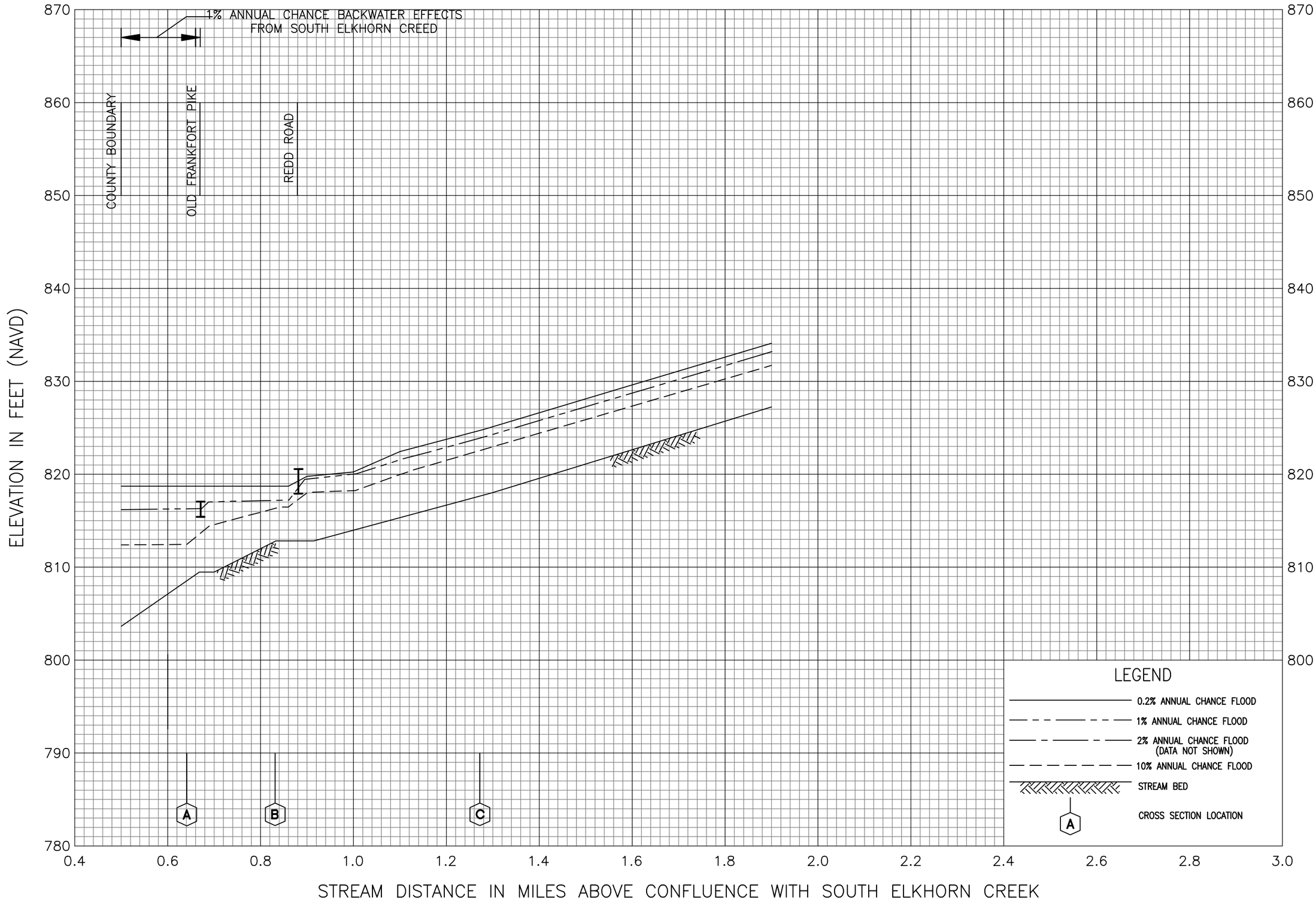
Flood Insurance Rate Map (FIRM)



FLOOD PROFILES

SQUIRES ROAD TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

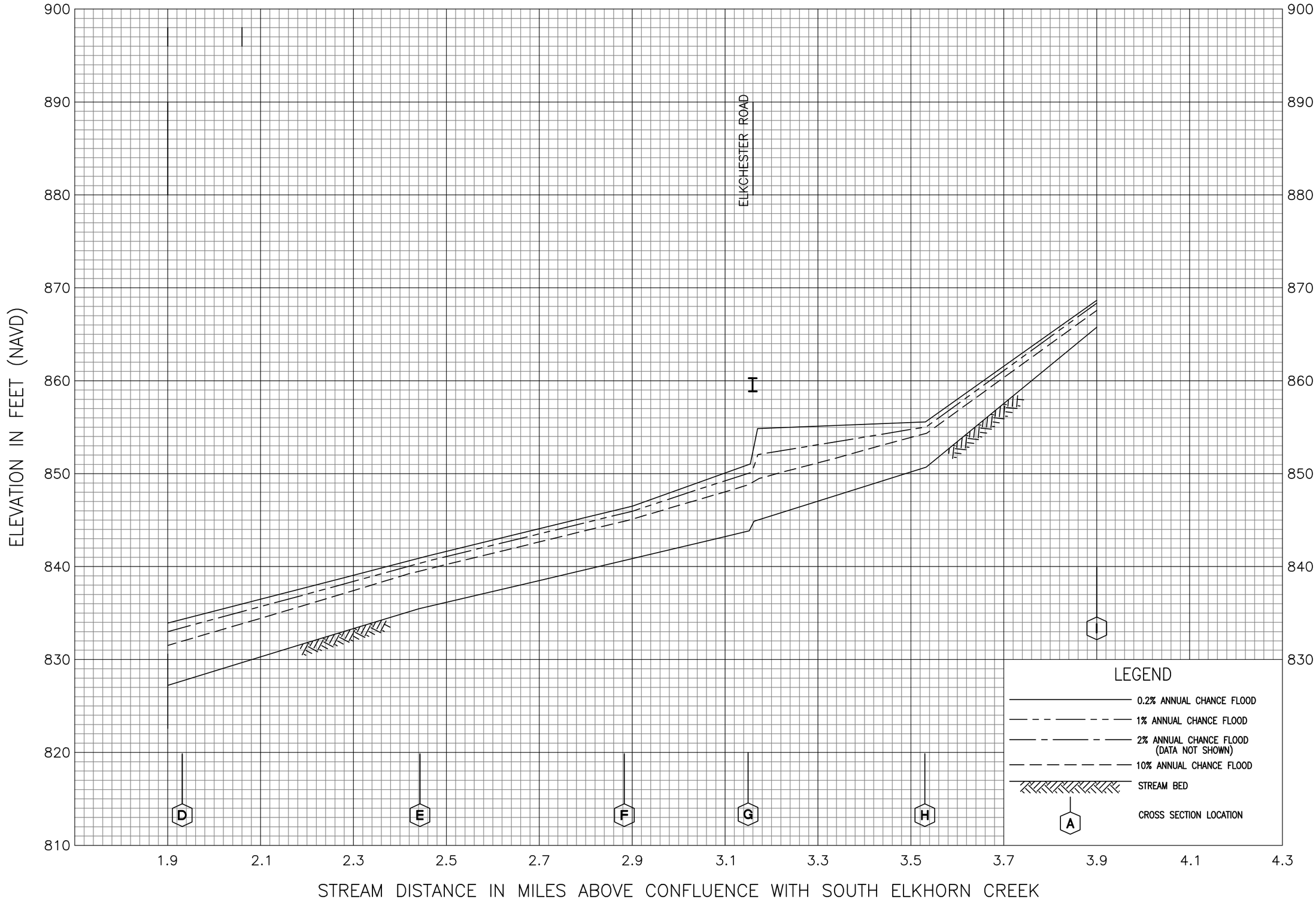


FLOOD PROFILES

STEELES RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

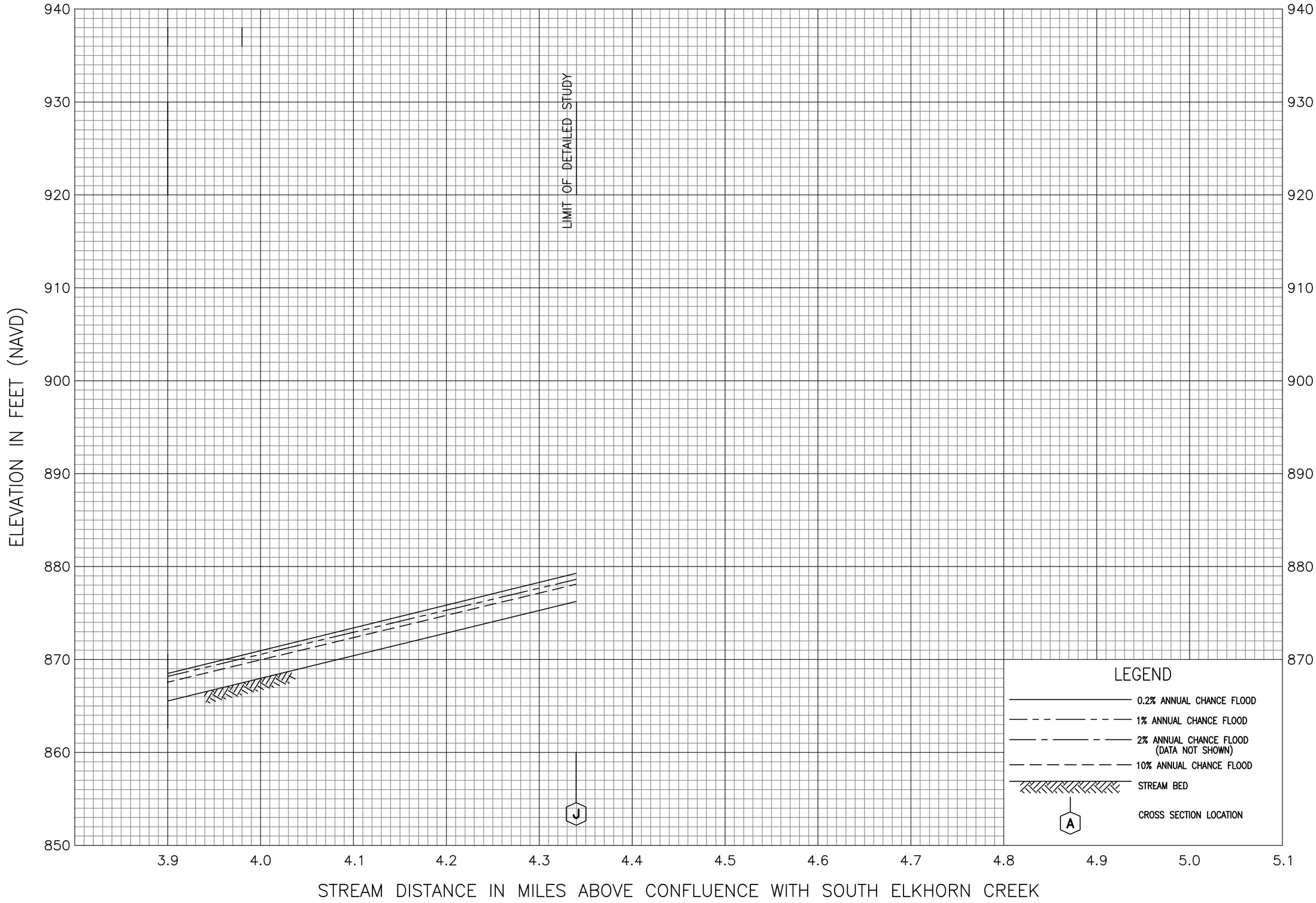


FLOOD PROFILES

STEELES RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

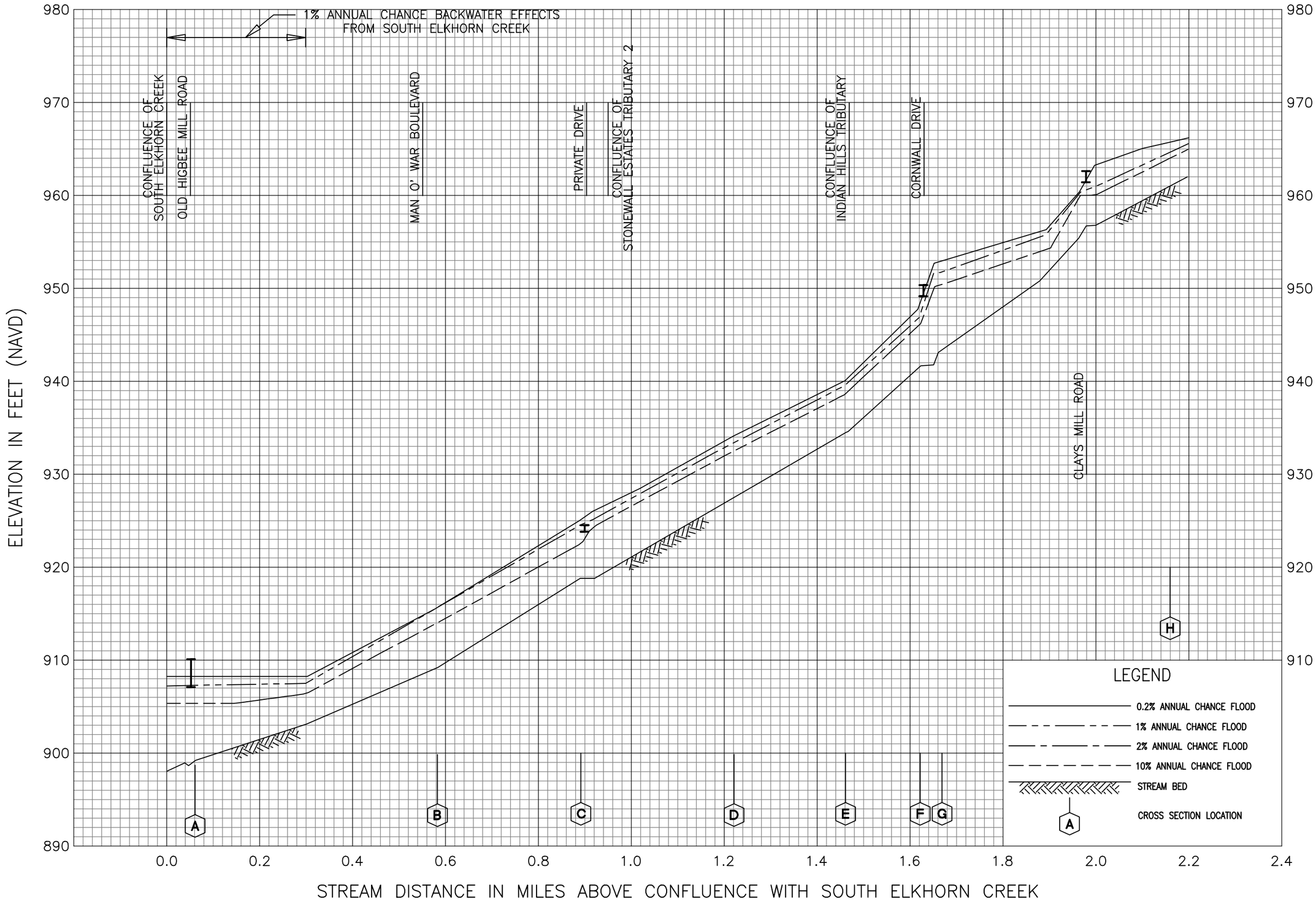


FLOOD PROFILES

STEELES RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

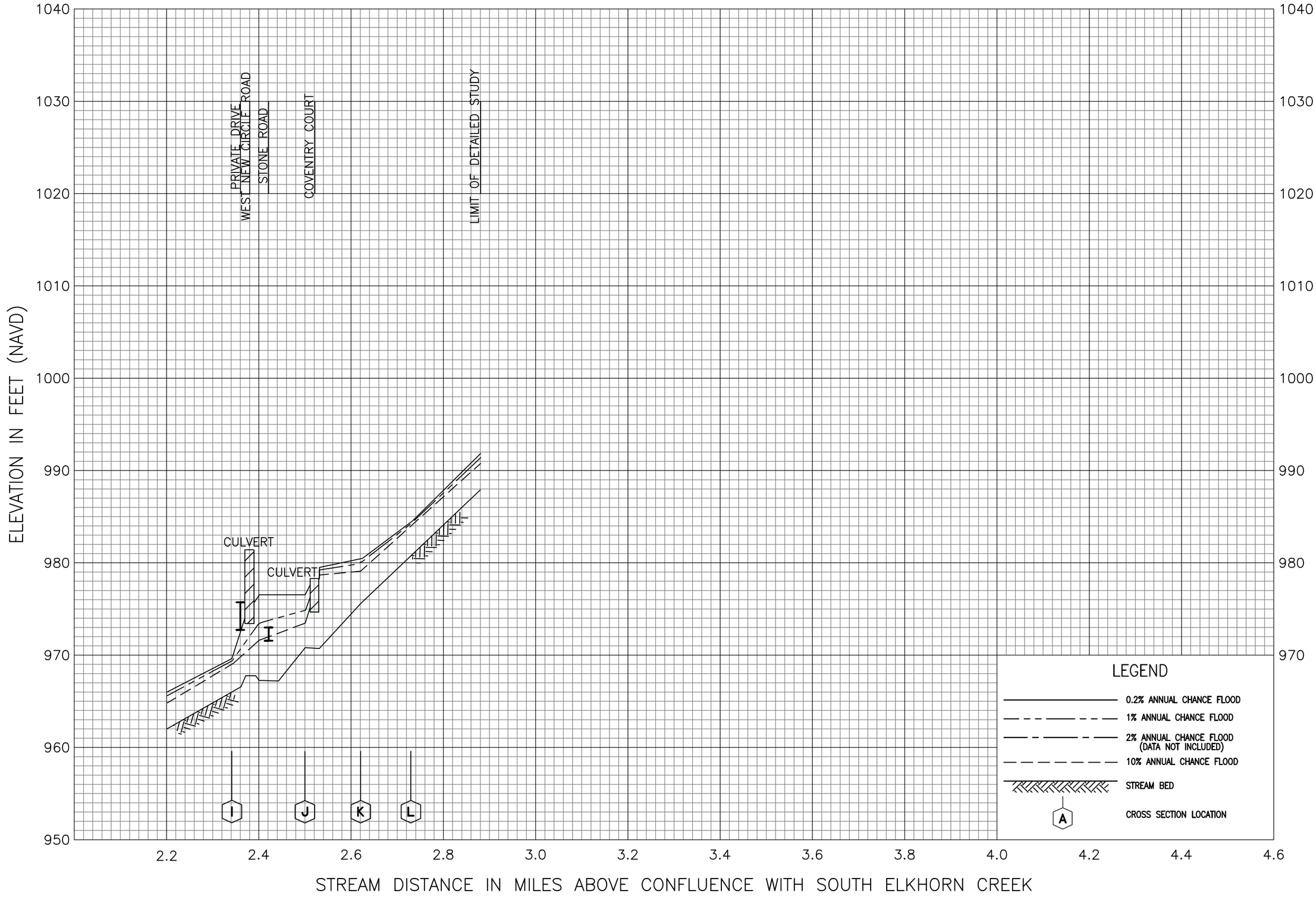


FLOOD PROFILES

STONEWALL ESTATES TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

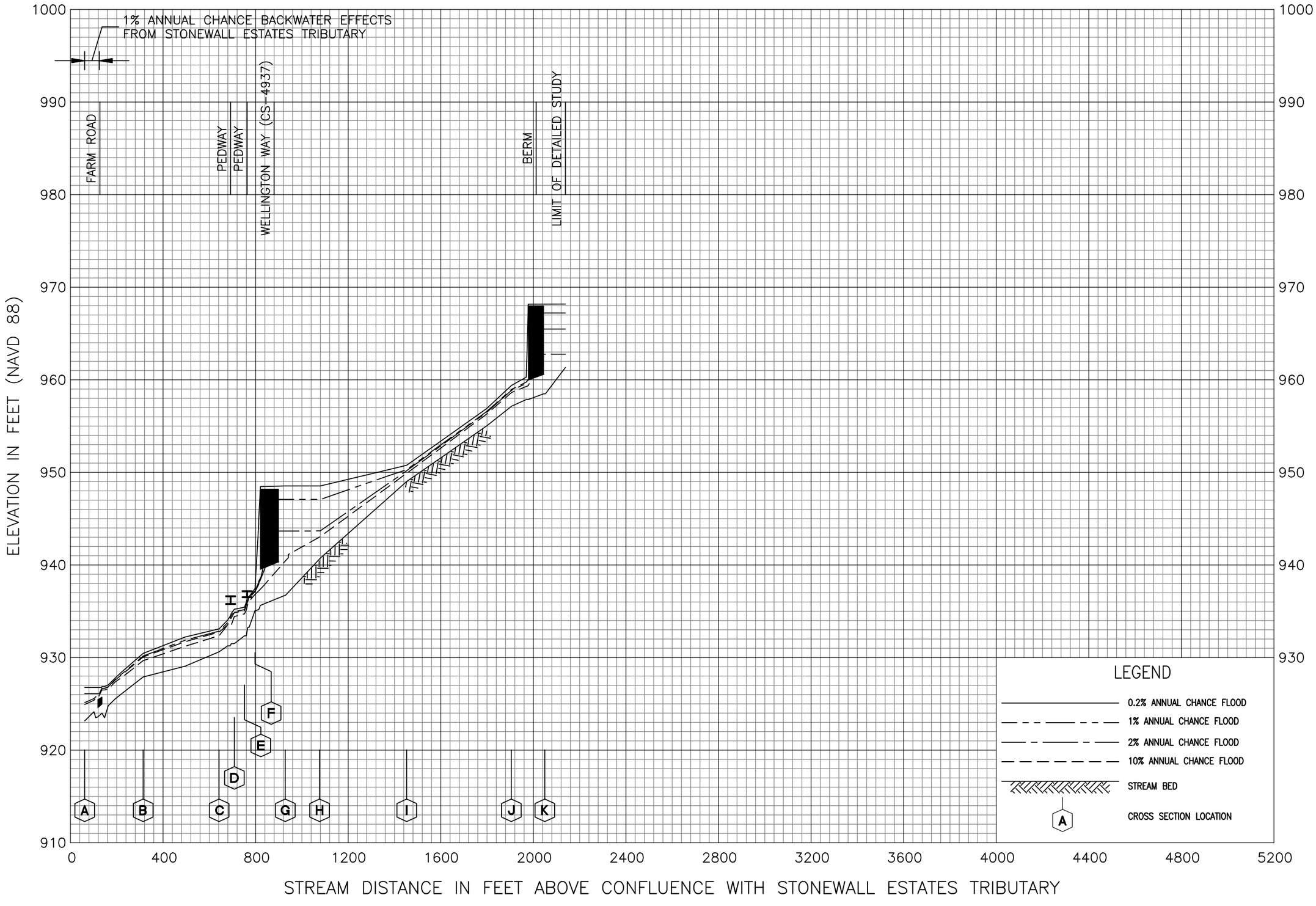


FLOOD PROFILES

STONEWALL ESTATES TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

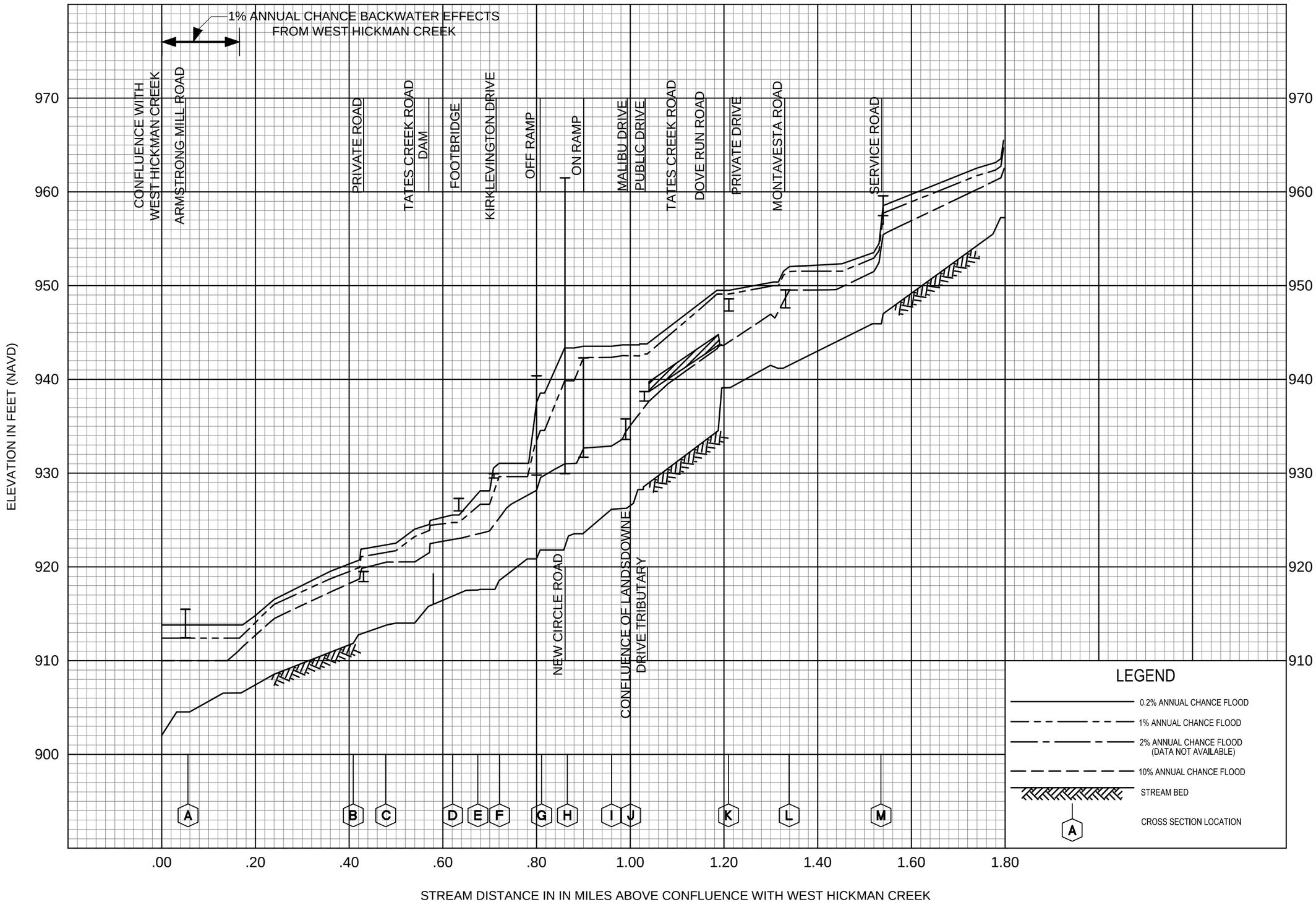


FLOOD PROFILES

STONEWALL ESTATES TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

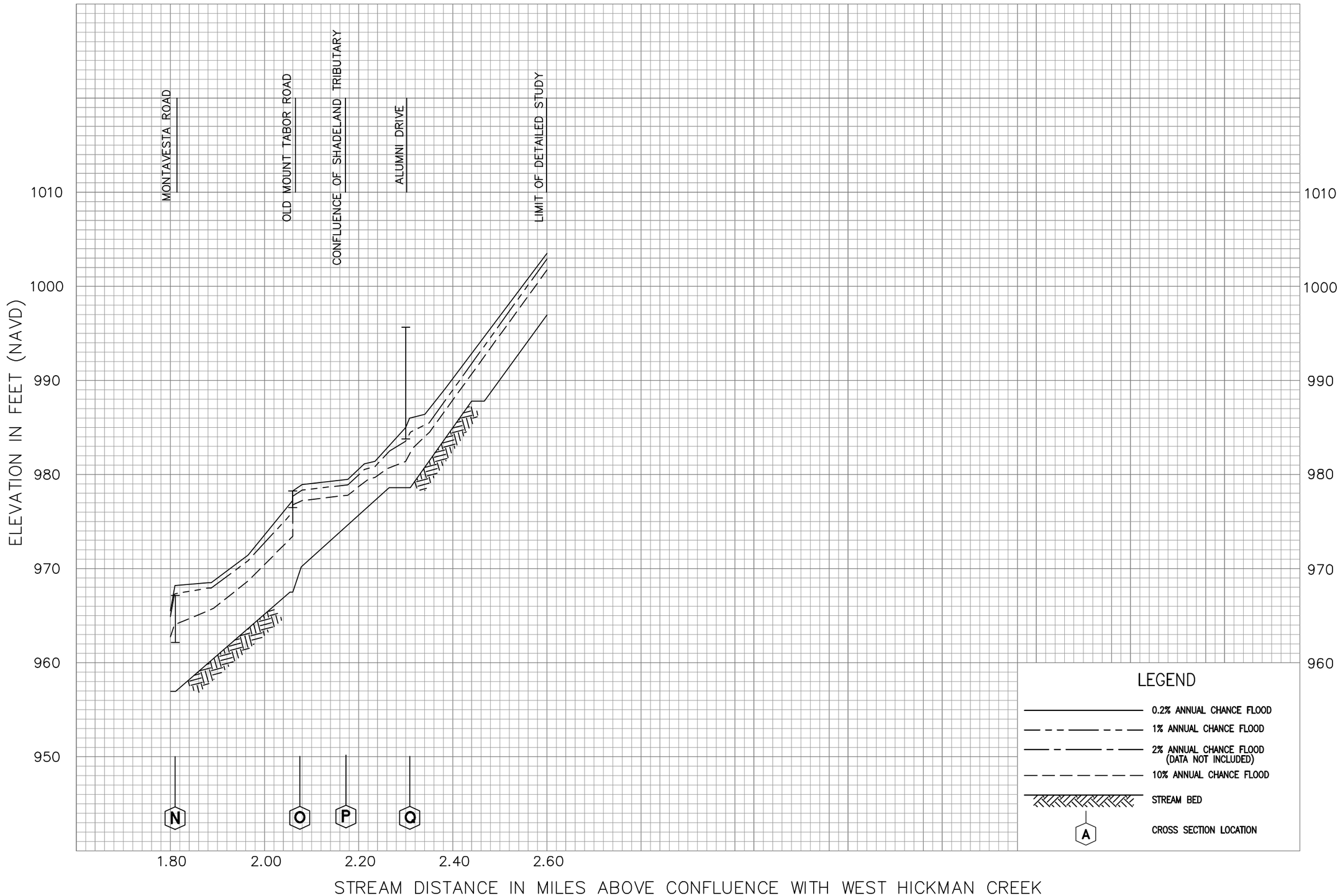


FLOOD PROFILES

TATES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

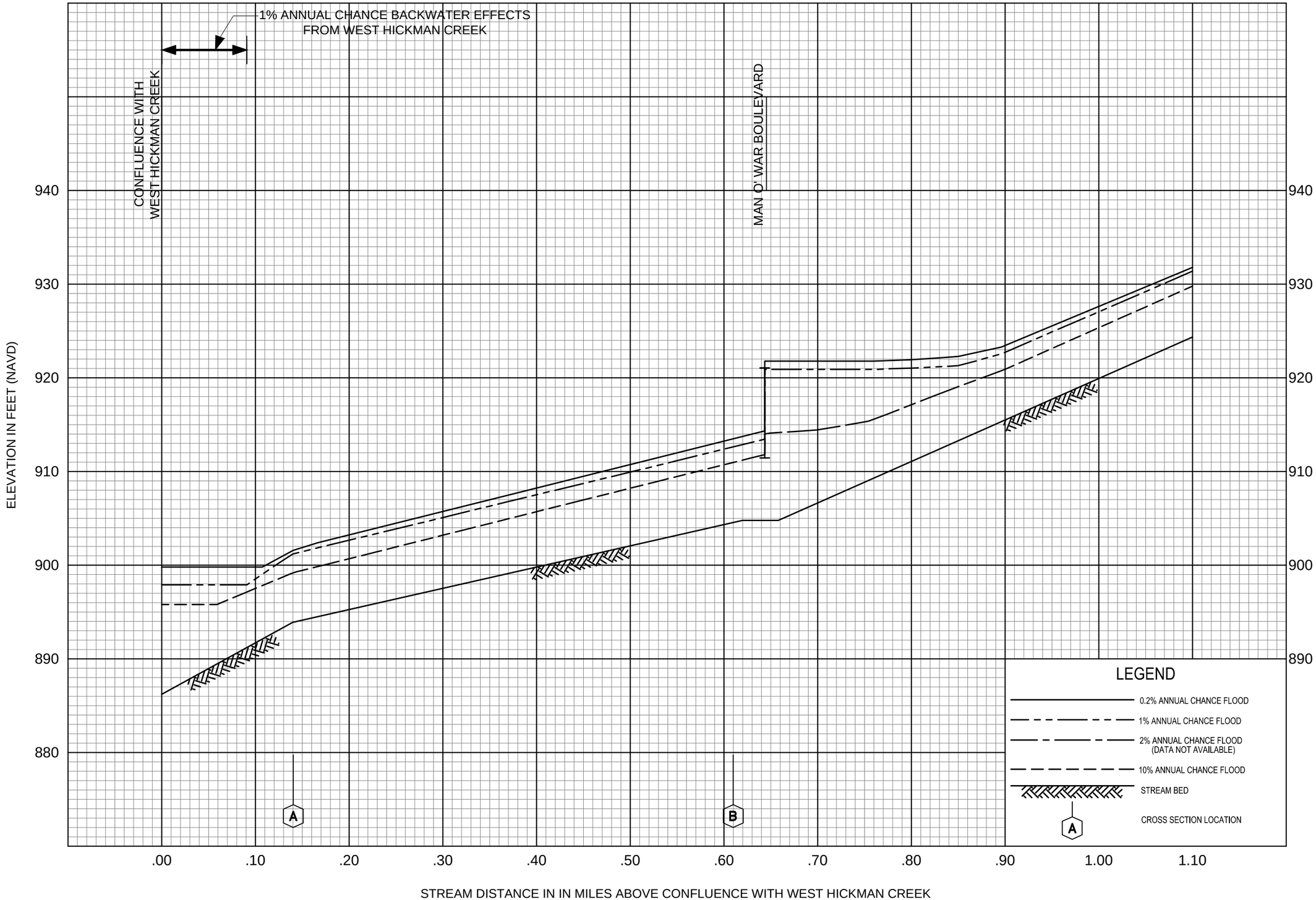


FLOOD PROFILES

TATES CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

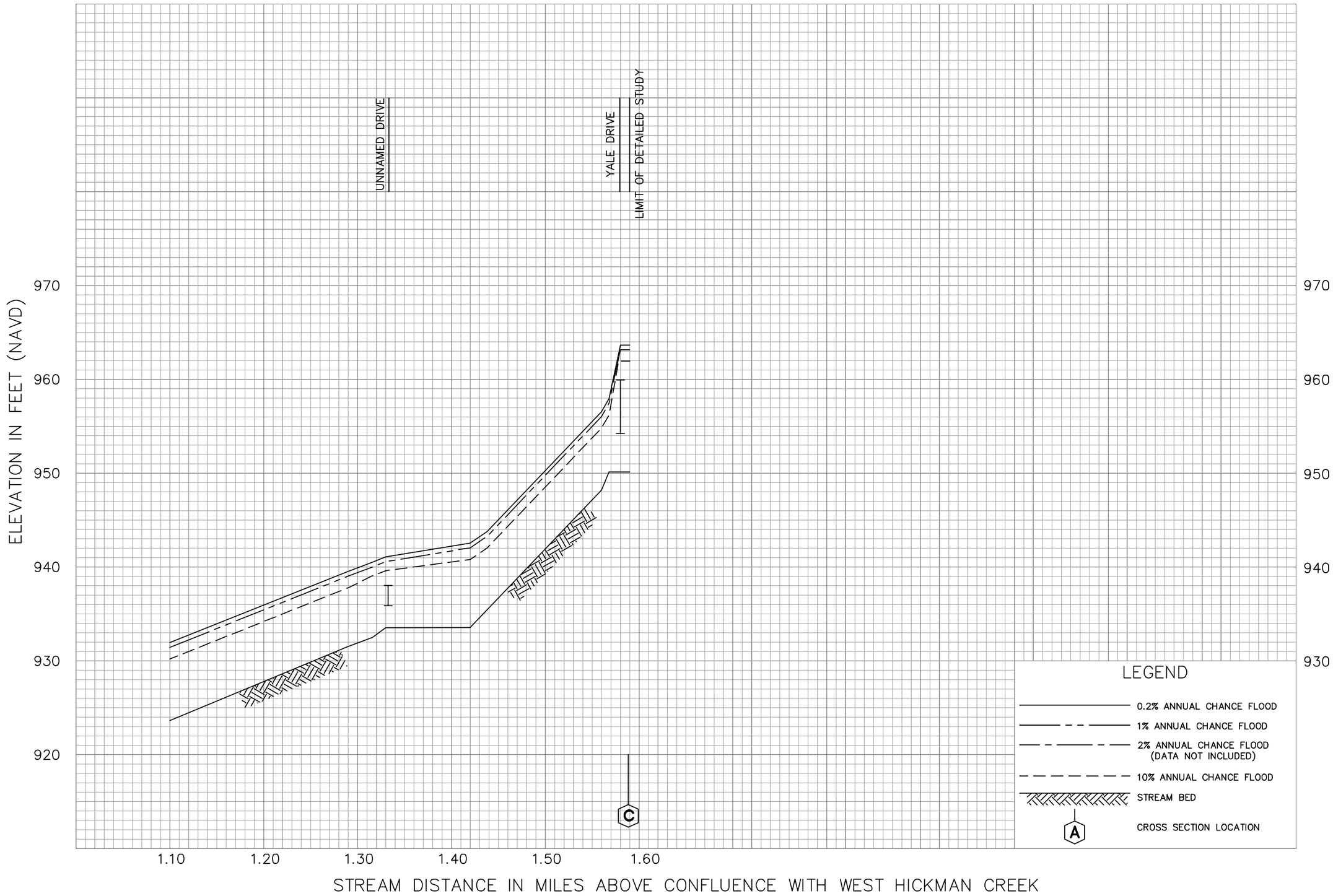


FLOOD PROFILES

TIVERTON WAY TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY
GOVERNMENT, KENTUCKY

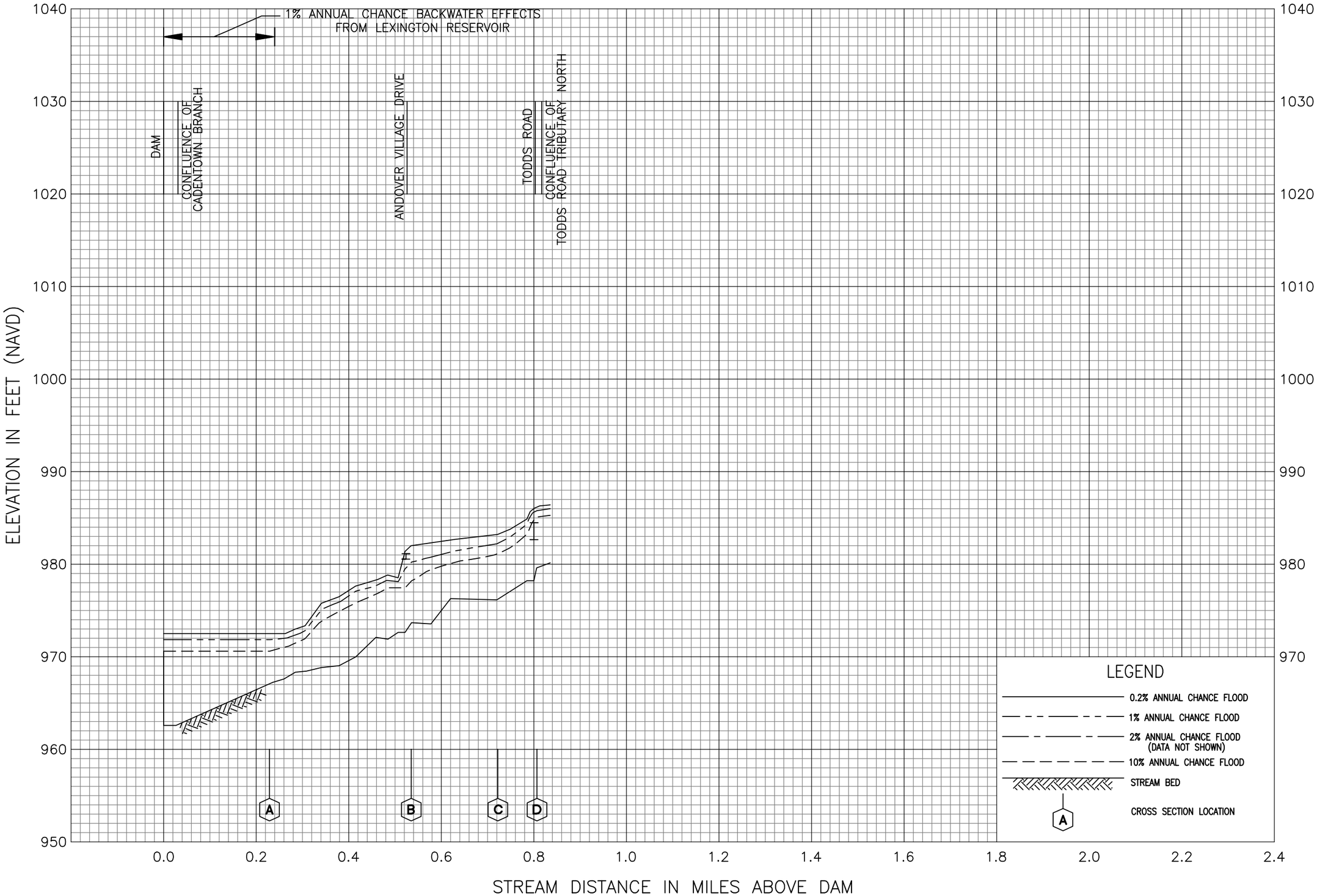


FLOOD PROFILES

TIVERTON WAY TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

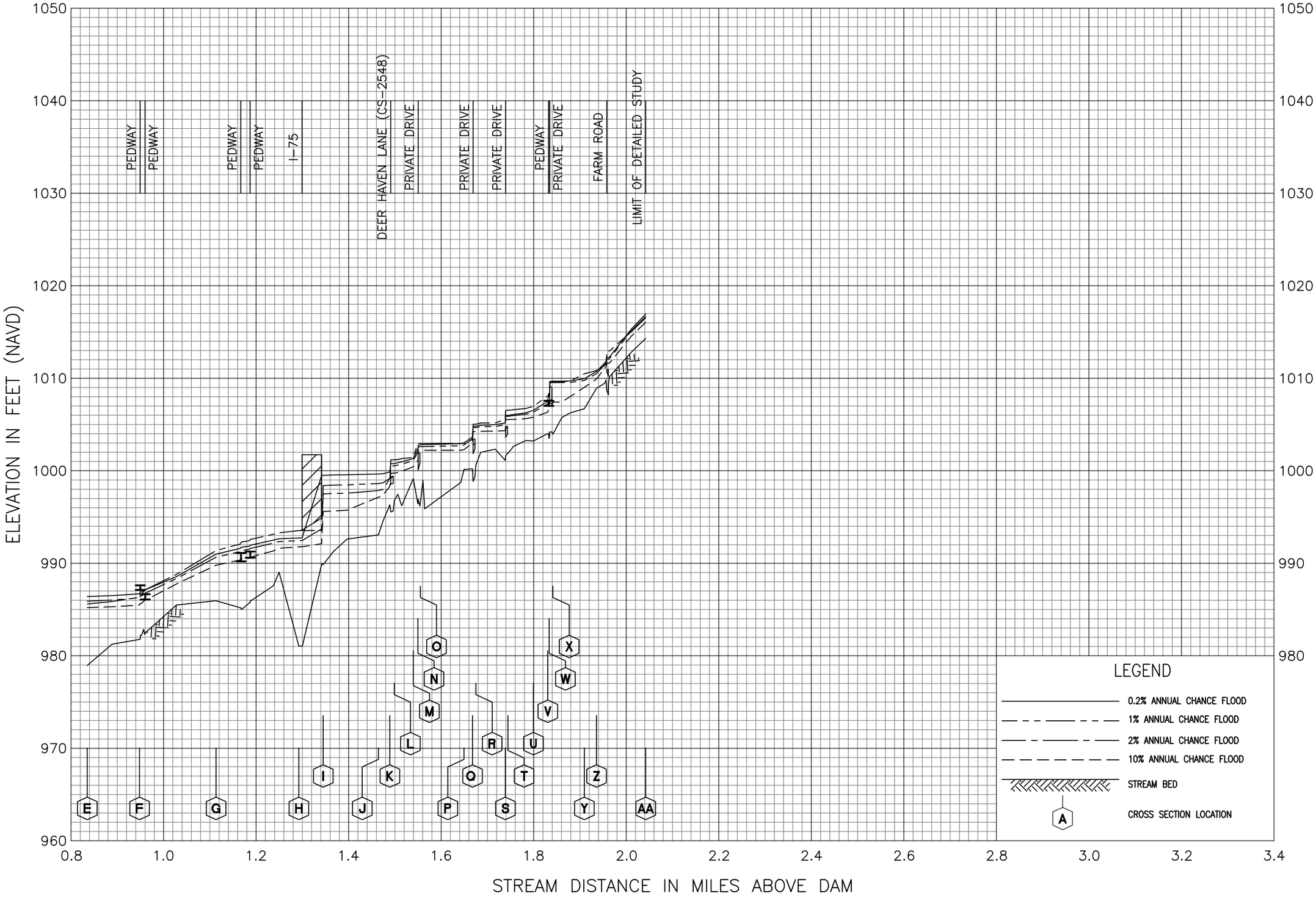


FLOOD PROFILES

TODDS ROAD TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

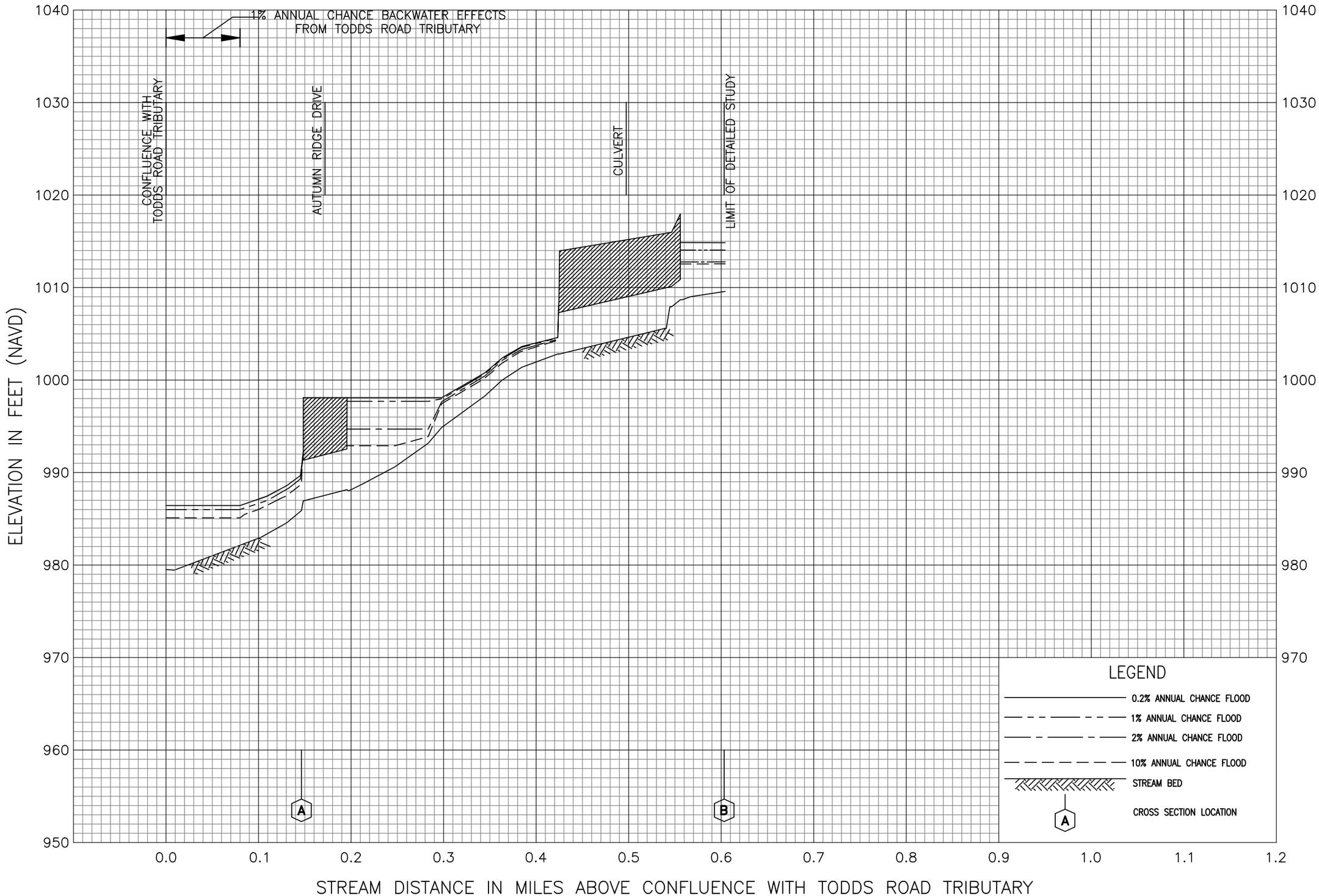


FLOOD PROFILES

TODDS ROAD TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

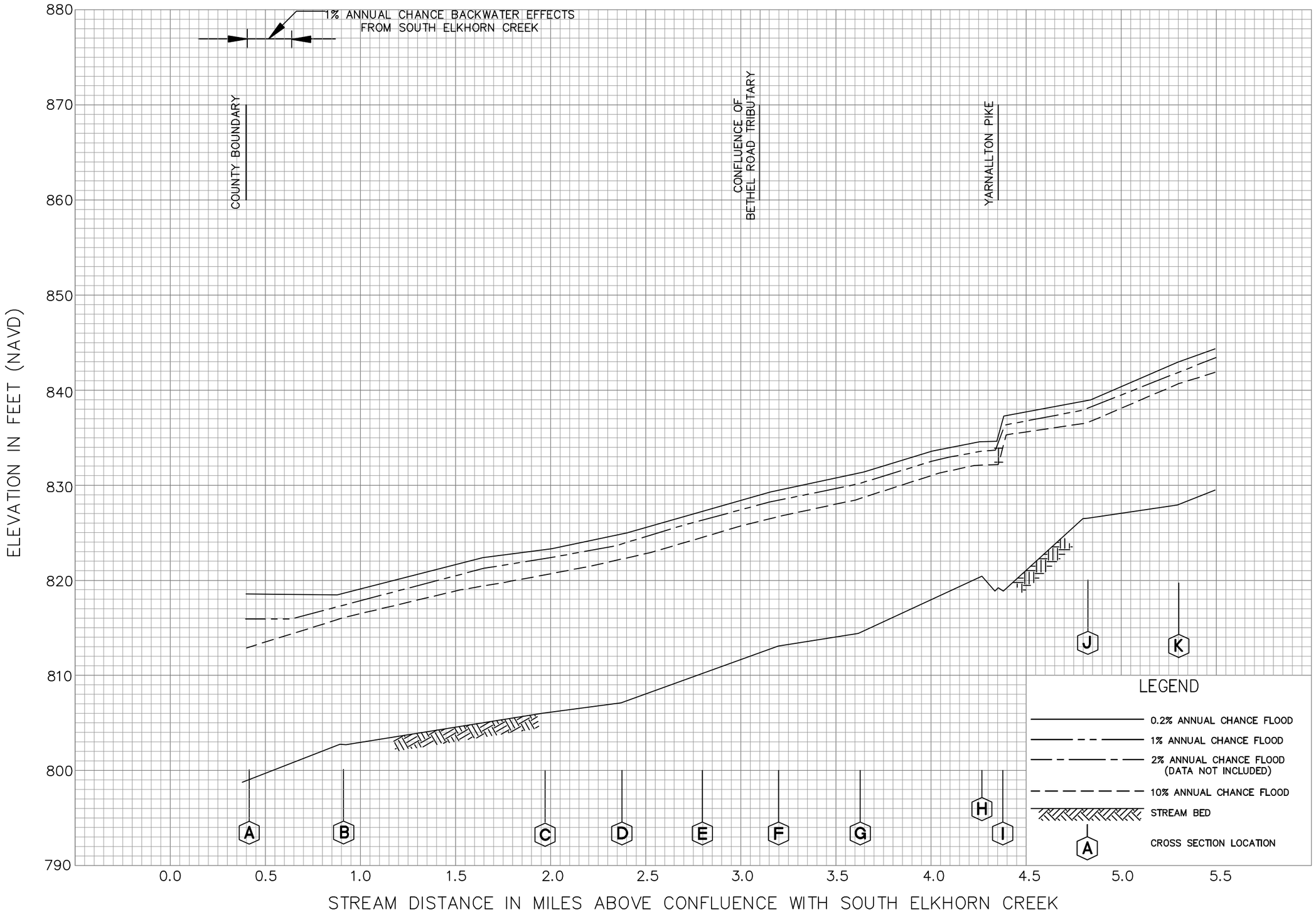


FLOOD PROFILES

TODDS ROAD TRIBUTARY NORTH

FEDERAL EMERGENCY MANAGEMENT AGENCY

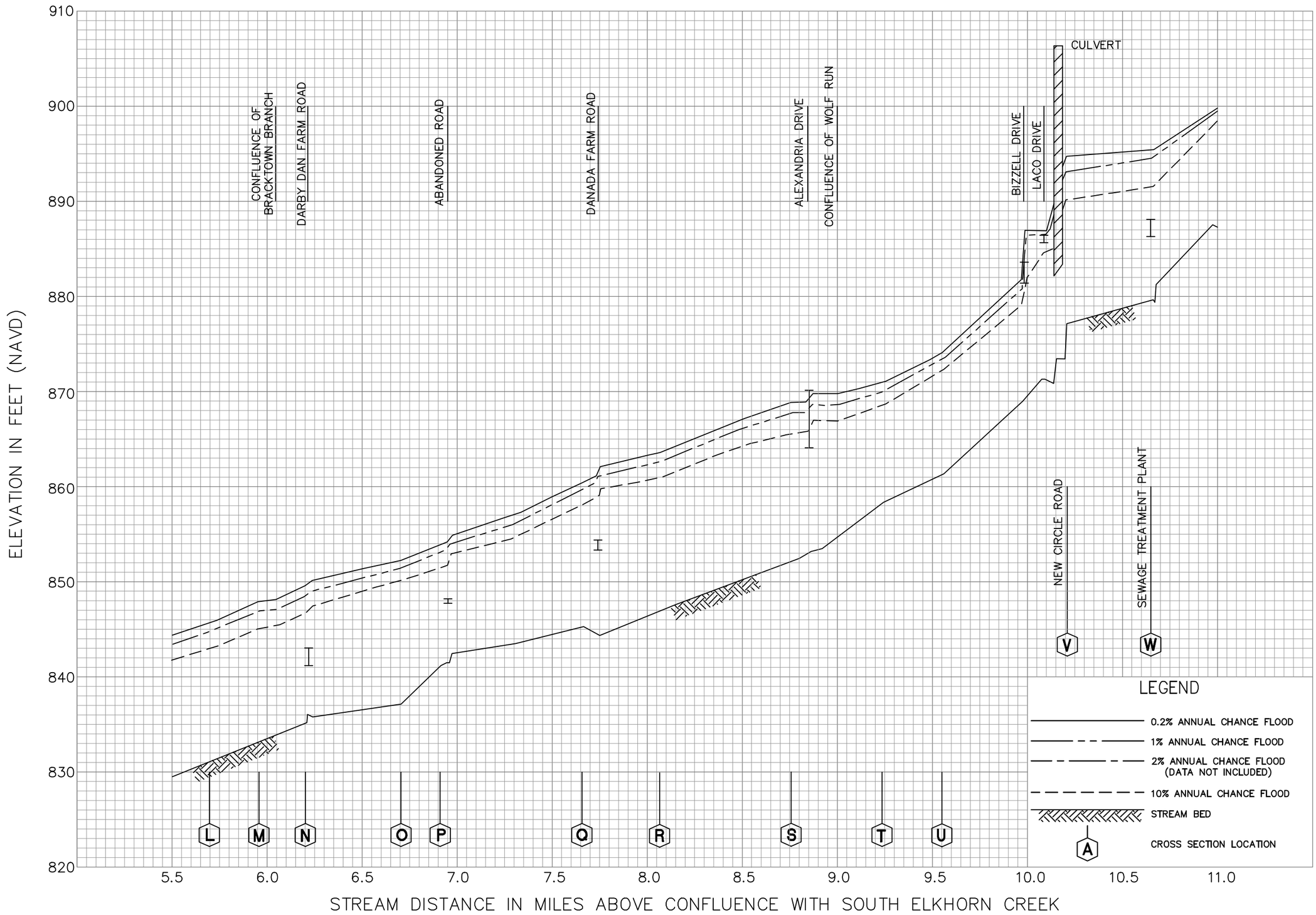
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY



FLOOD PROFILES

TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY
LEXINGTON-FAYETTE URBAN COUNTY
GOVERNMENT, KENTUCKY



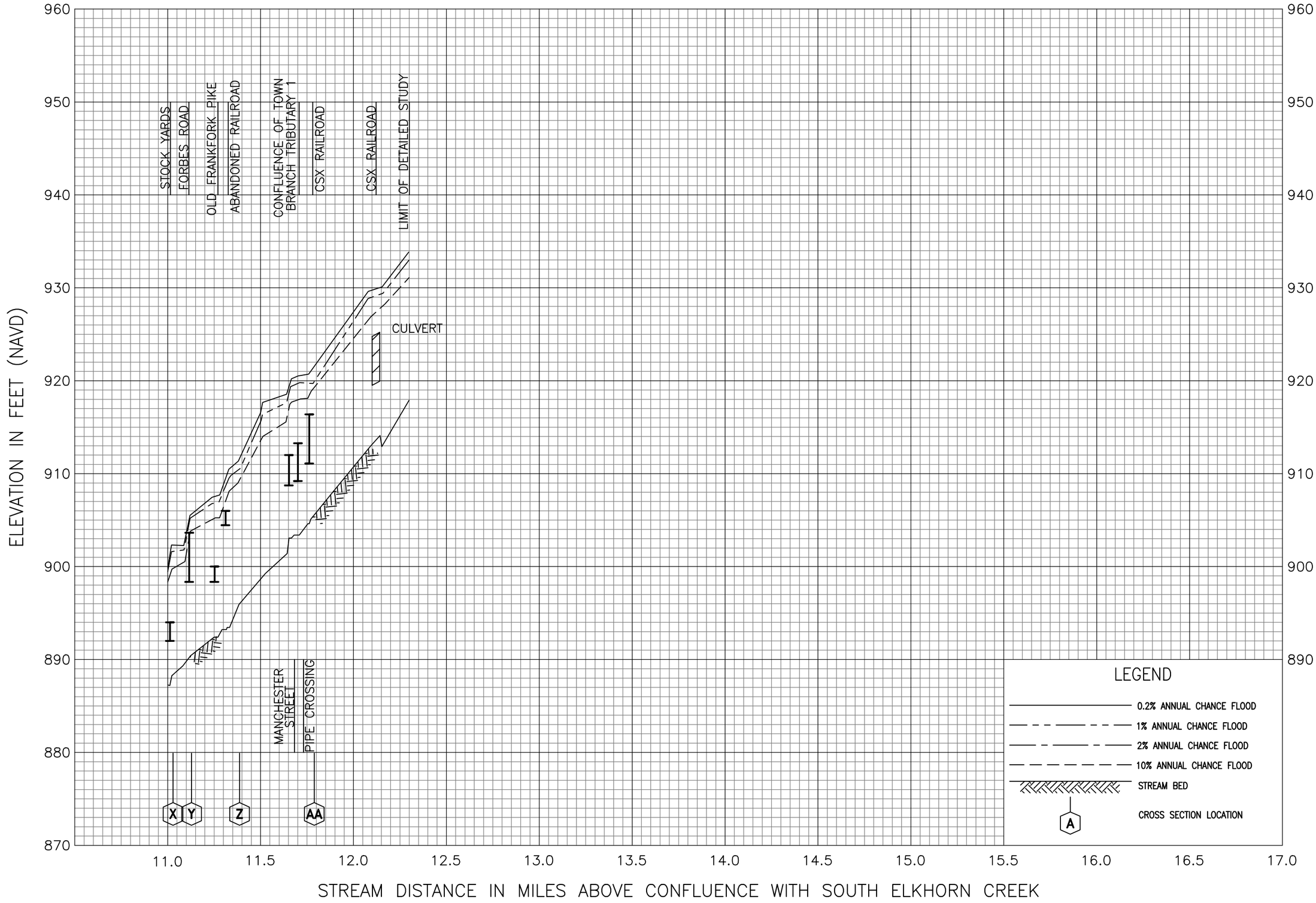
FLOOD PROFILES

TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

182P

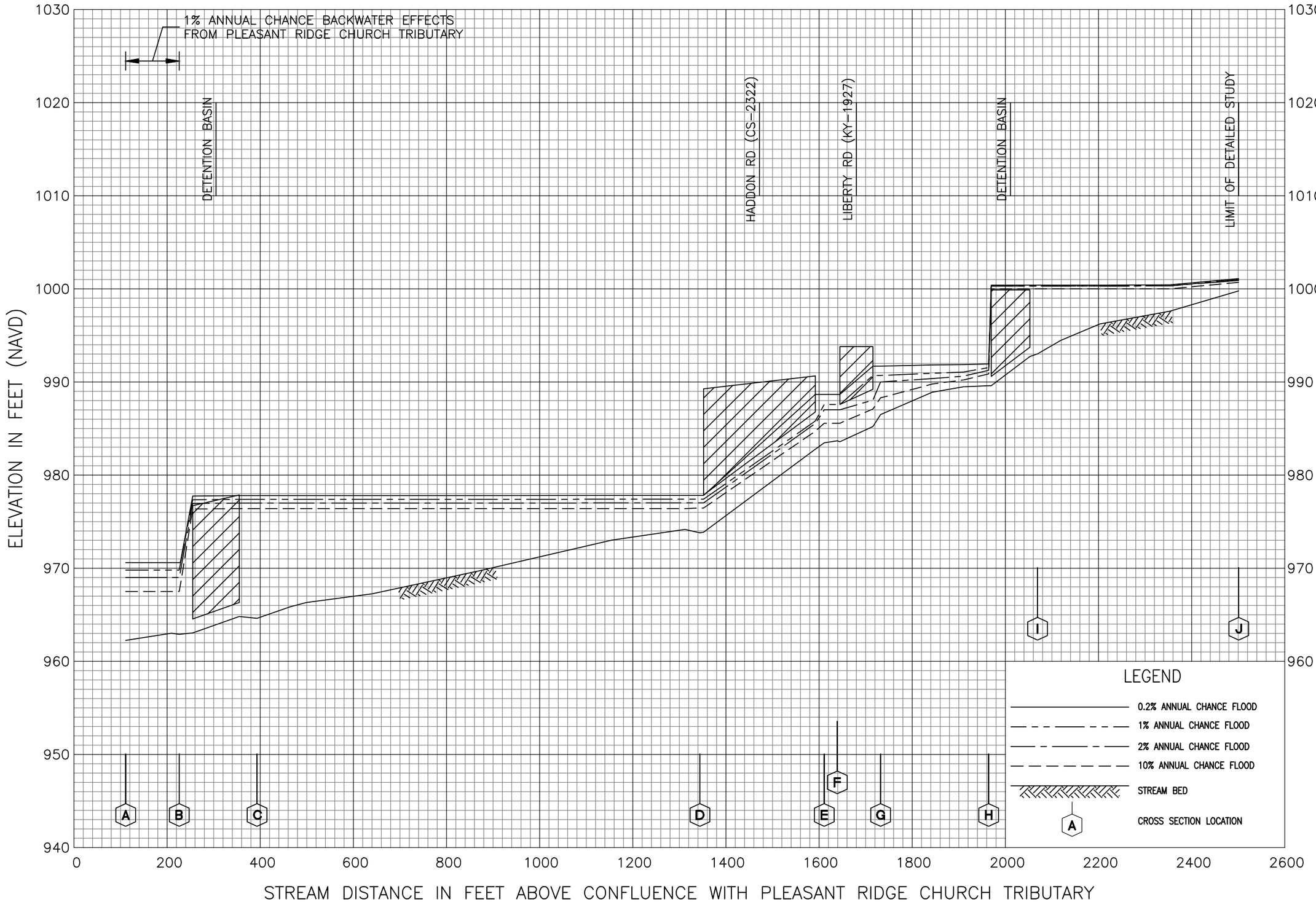


FLOOD PROFILES

TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

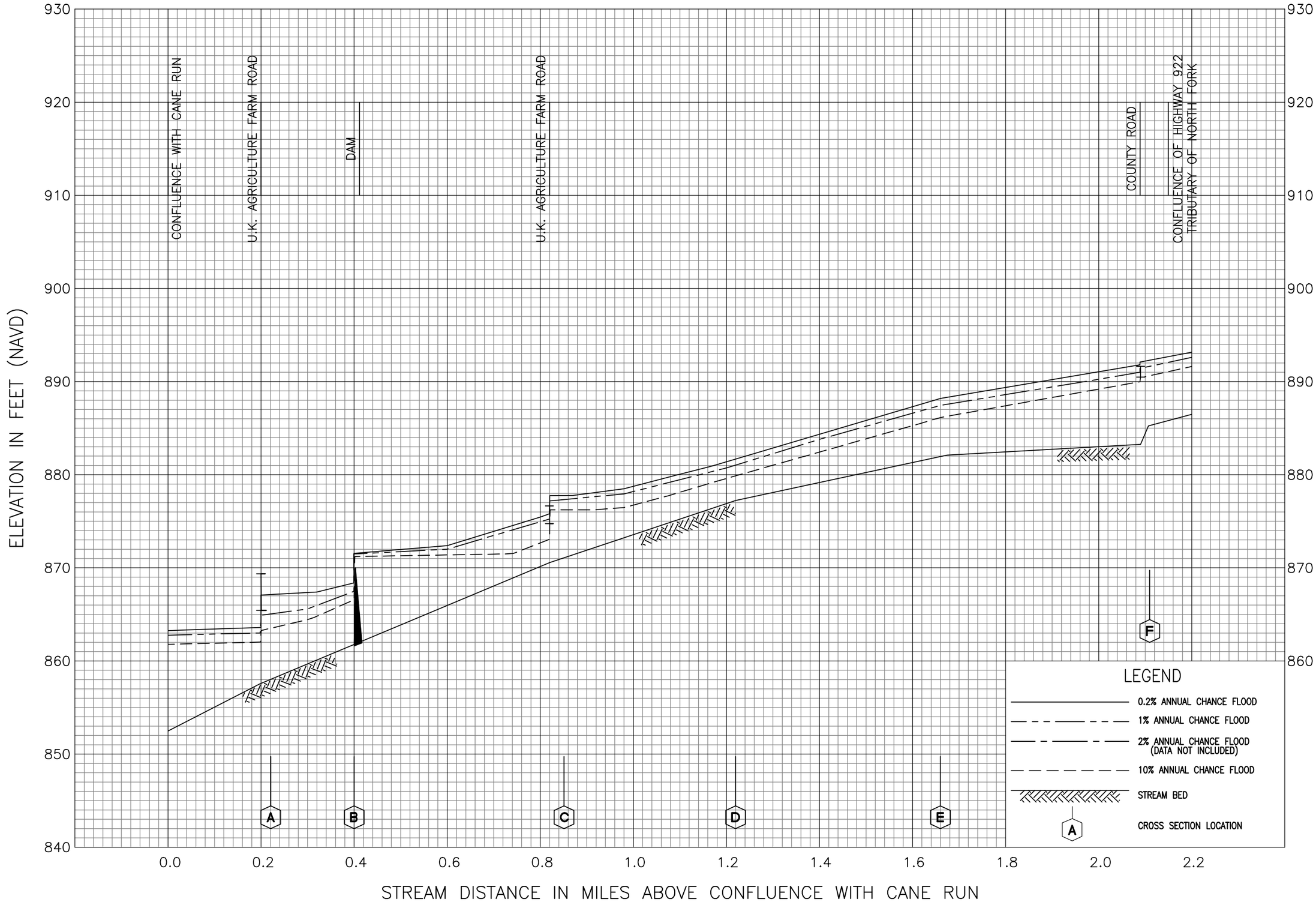


FLOOD PROFILES

TWO PONDS TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY



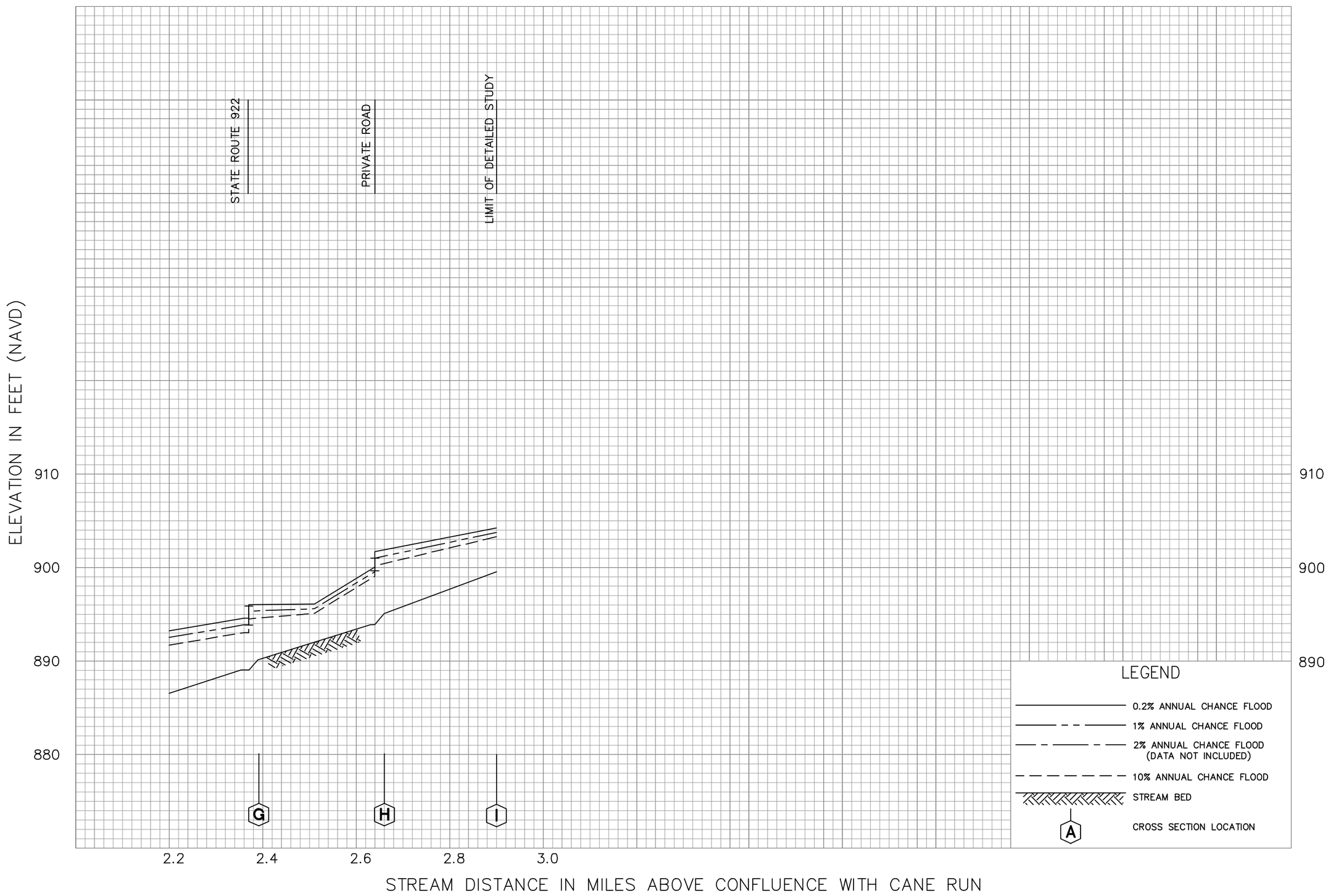
FLOOD PROFILES

U.K. AGRICULTURE STATION BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

185P



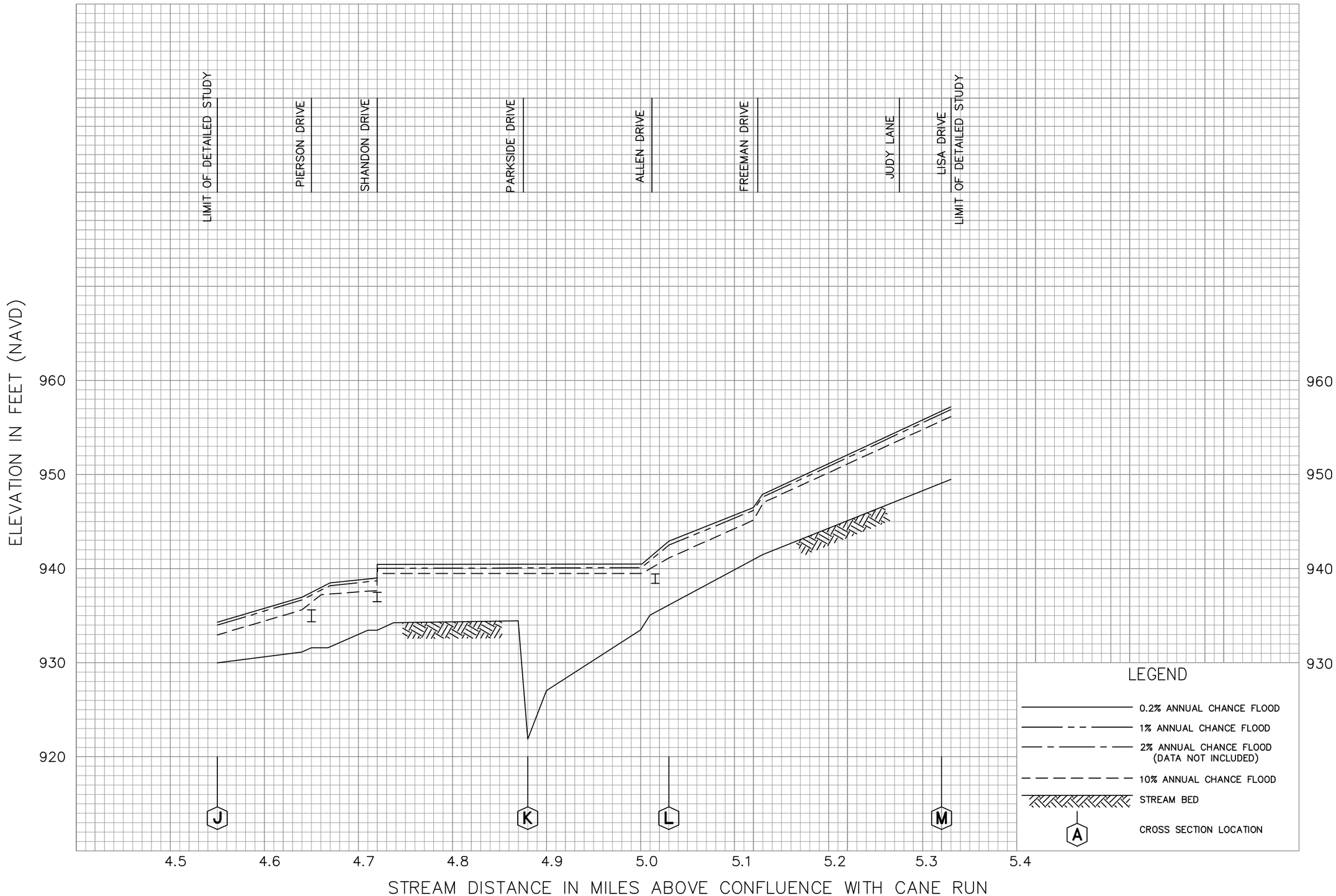
FLOOD PROFILES

U.K. AGRICULTURE STATION BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

186P

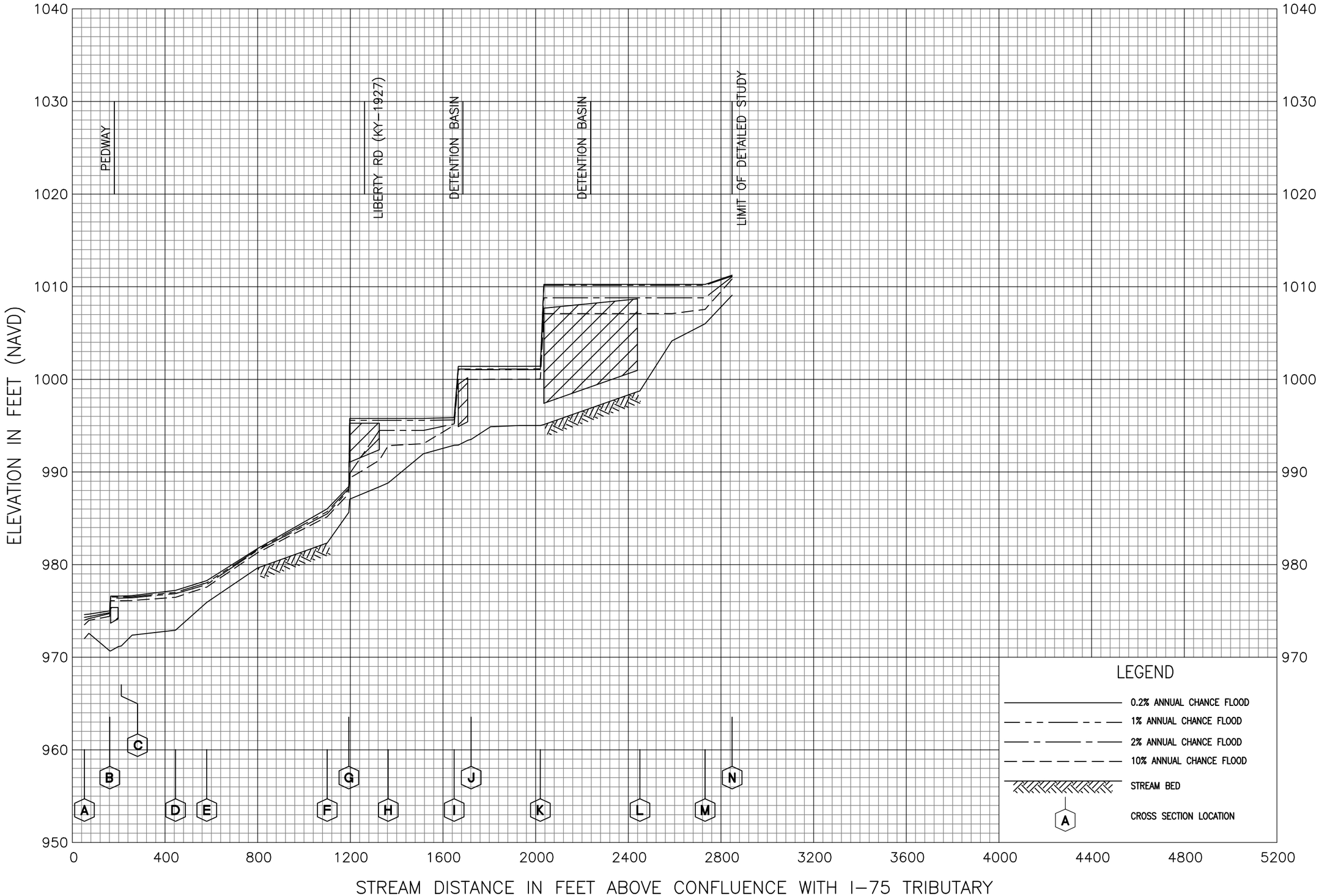


FLOOD PROFILES

U.K. AGRICULTURE STATION BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY



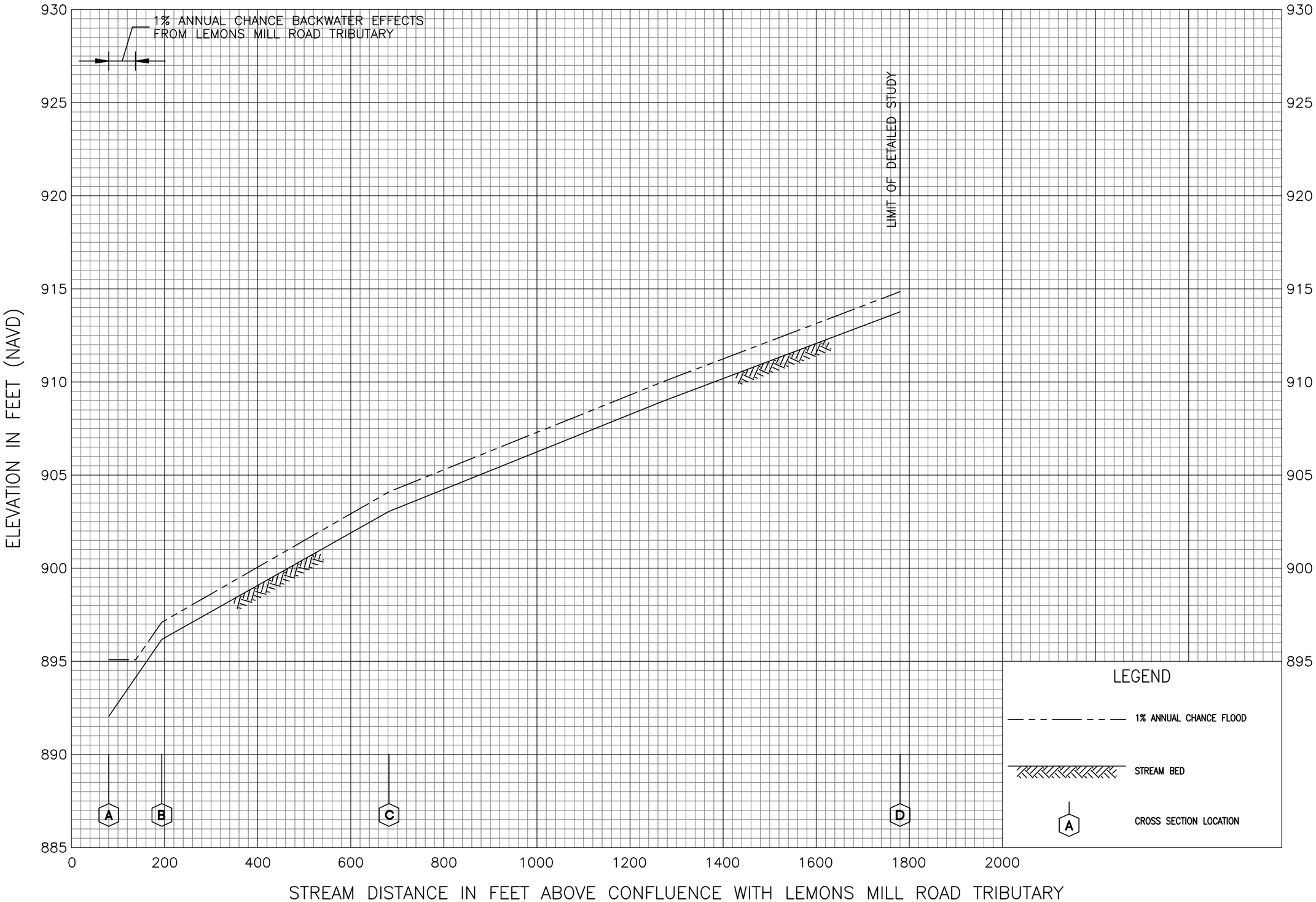
FLOOD PROFILES

UNNAMED TRIBUTARY TO I-75 TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

188P



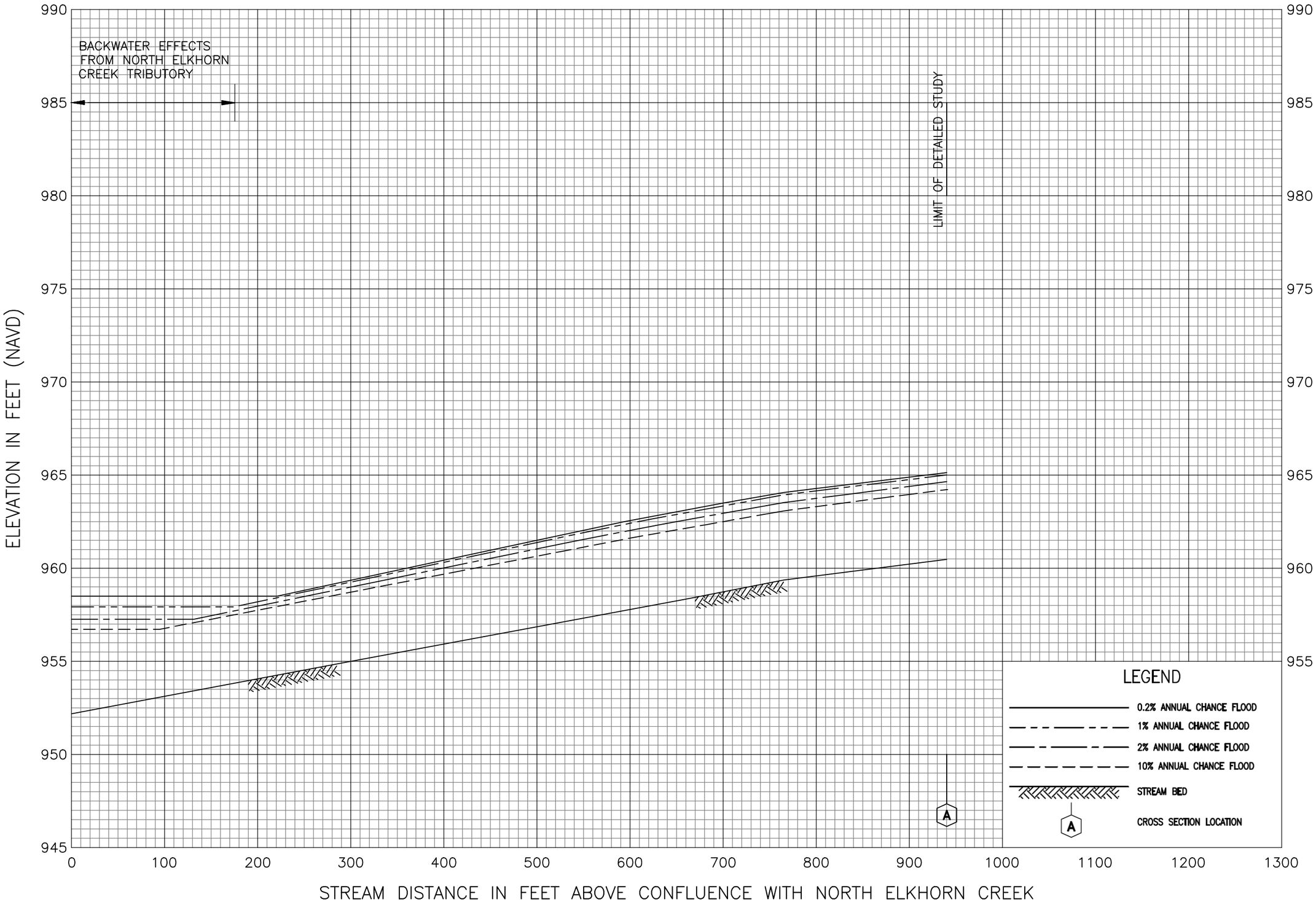
FLOOD PROFILES

UNNAMED TRIBUTARY TO LEMONS MILL ROAD TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

189P

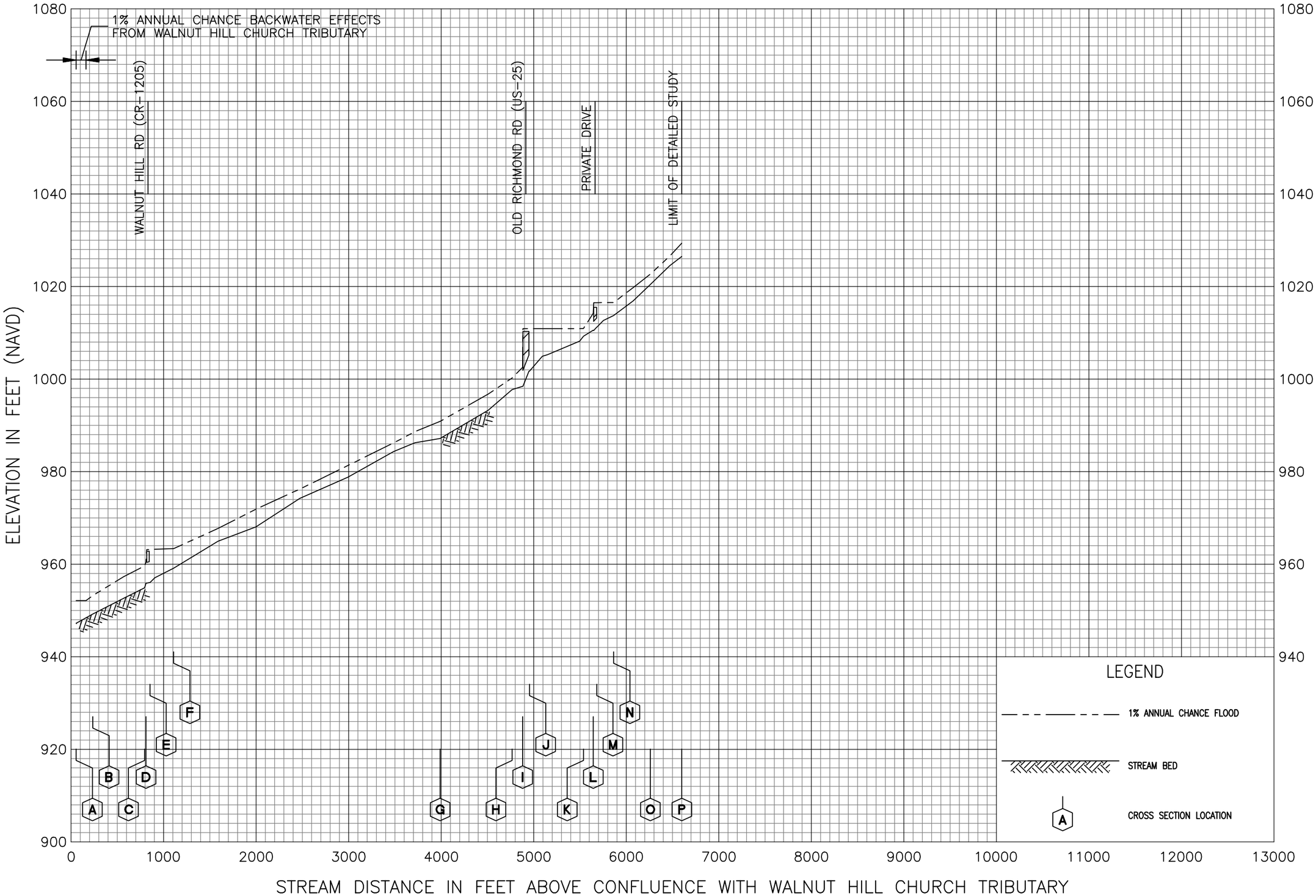


FLOOD PROFILES

UNNAMED TRIBUTARY TO NORTH ELKHORN CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

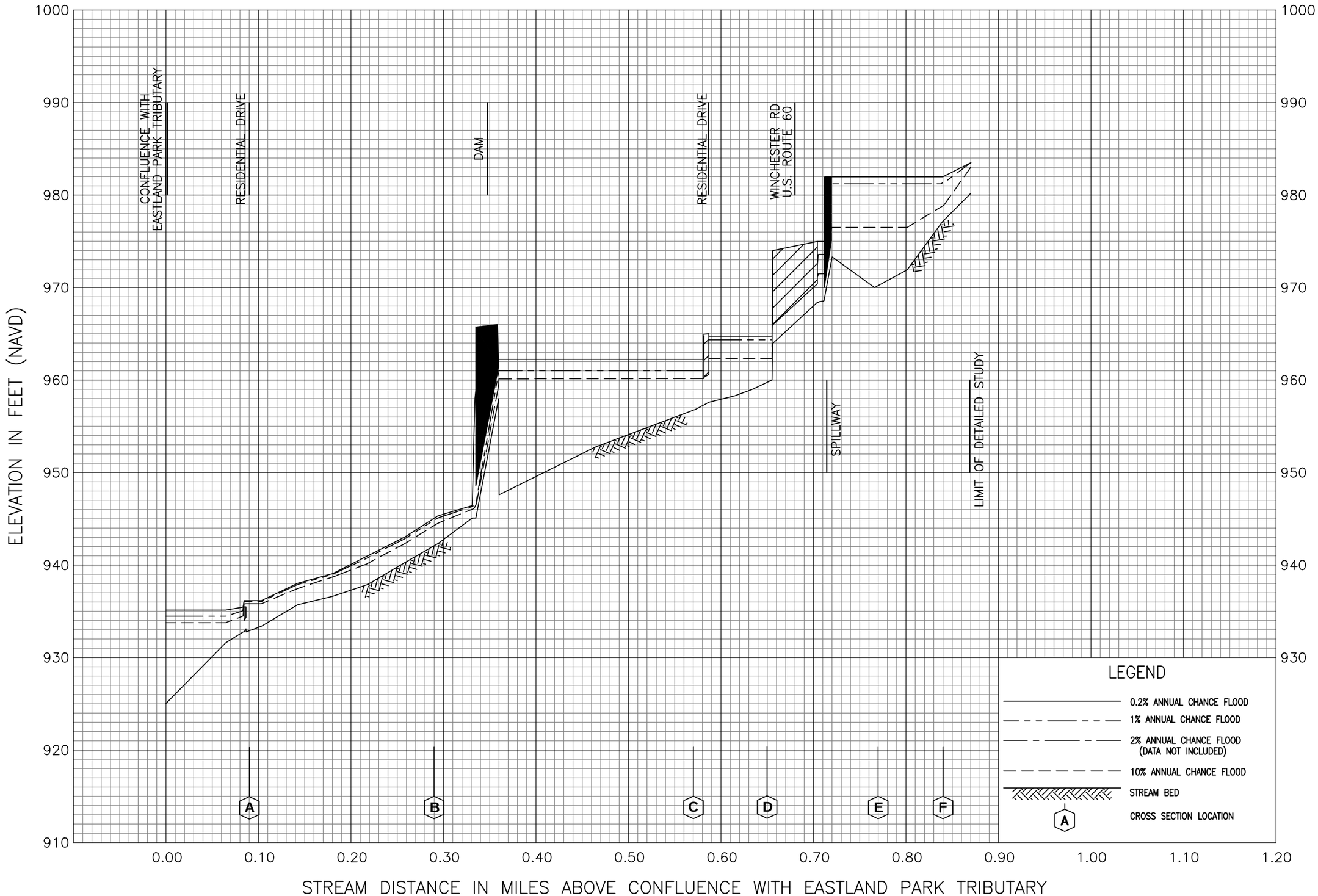


FLOOD PROFILES

UNNAMED TRIBUTARY TO WALNUT HILL CHURCH TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY



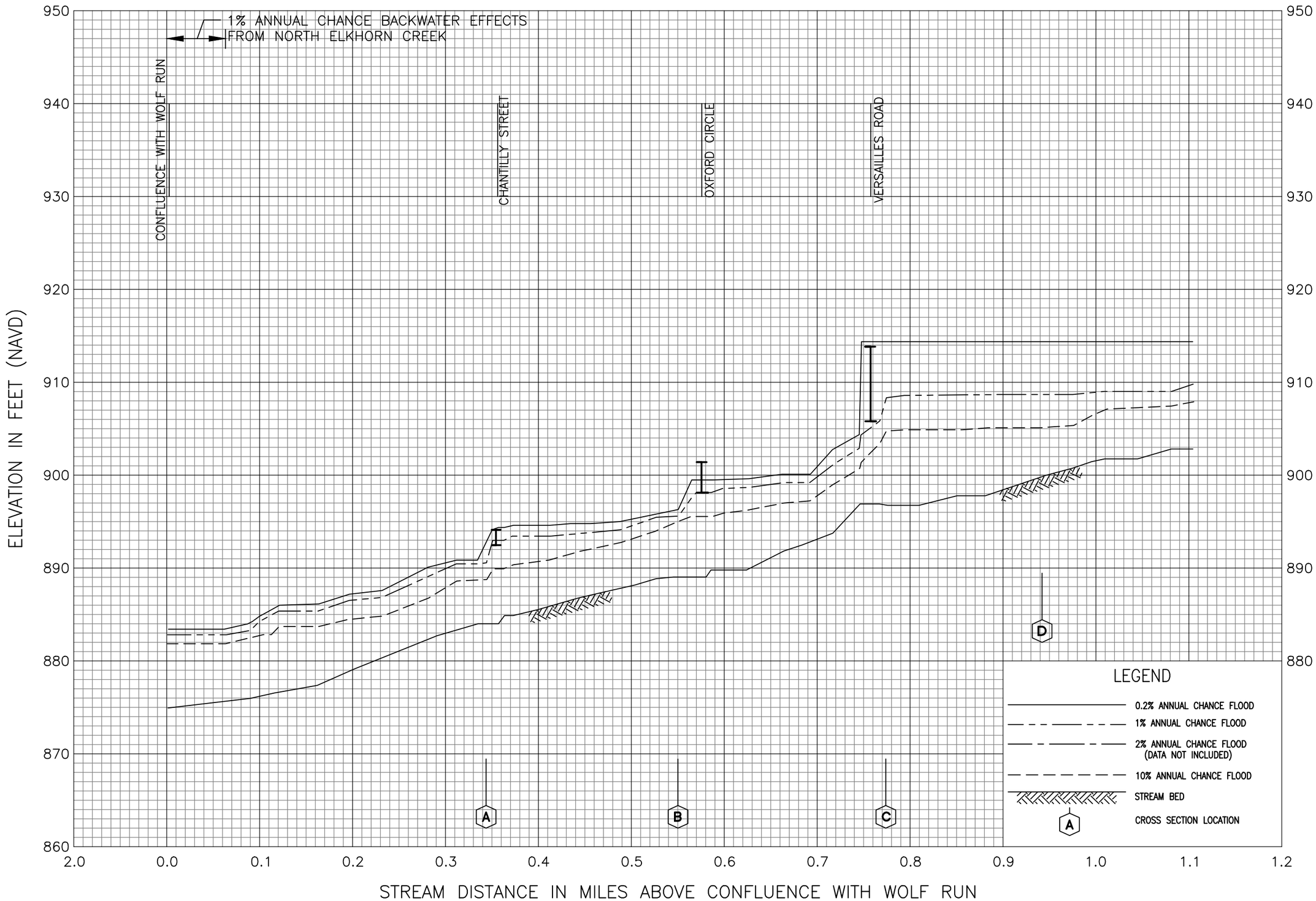
FLOOD PROFILES

US ROUTE 60 TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

192P



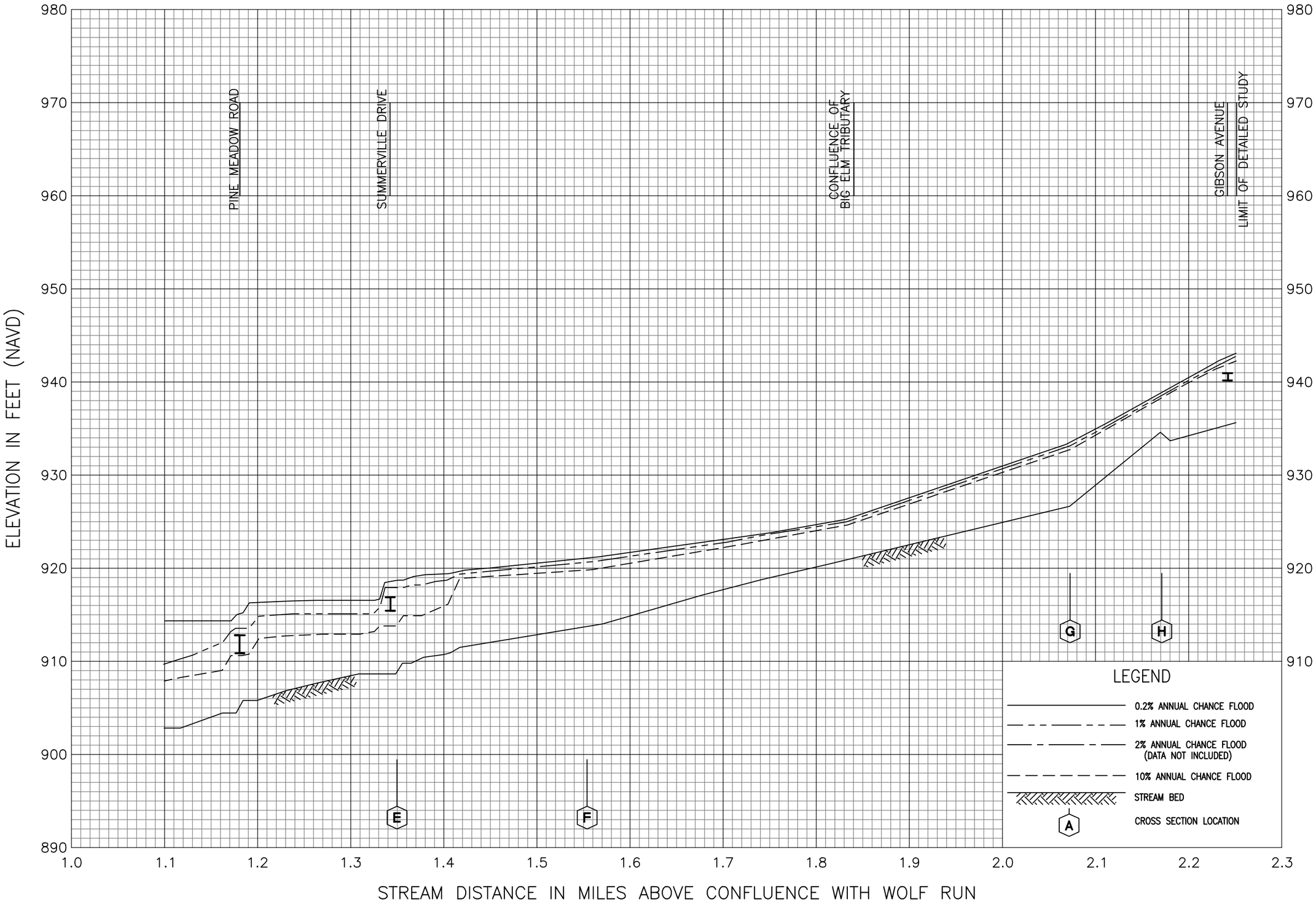
FLOOD PROFILES

VAUGHNS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

193P

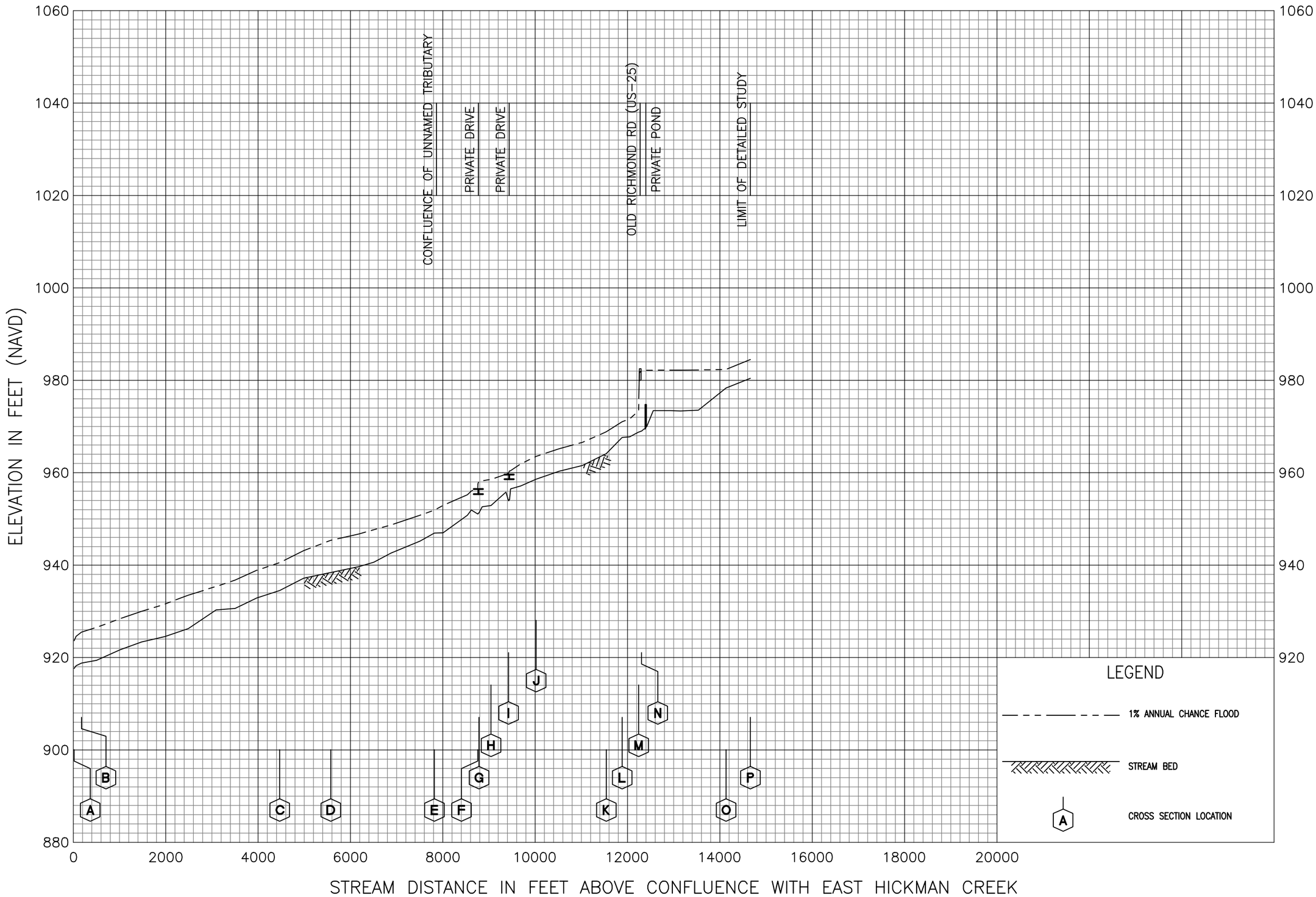


FLOOD PROFILES

VAUGHNS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

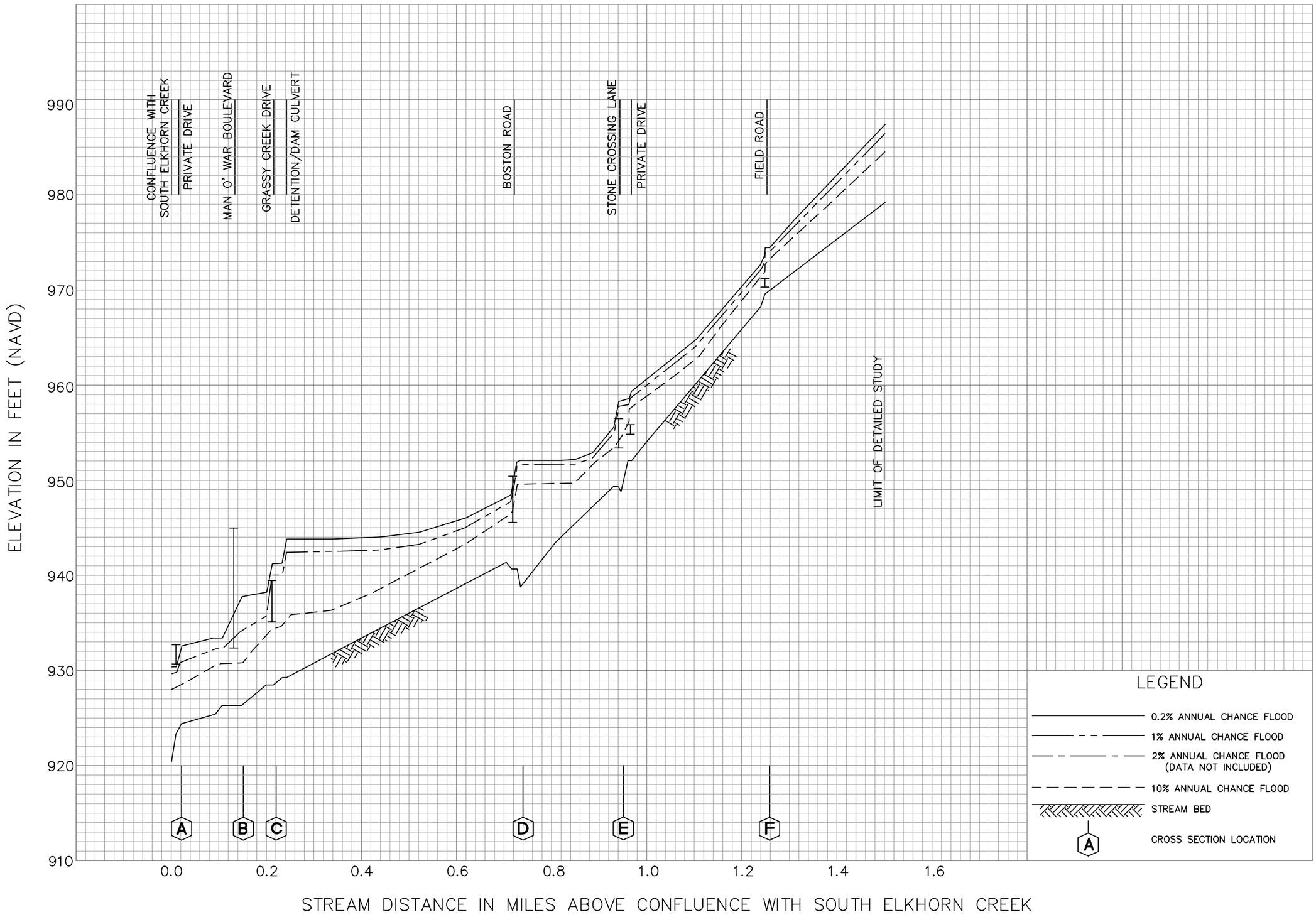


FLOOD PROFILES

WALNUT HILL CHURCH TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

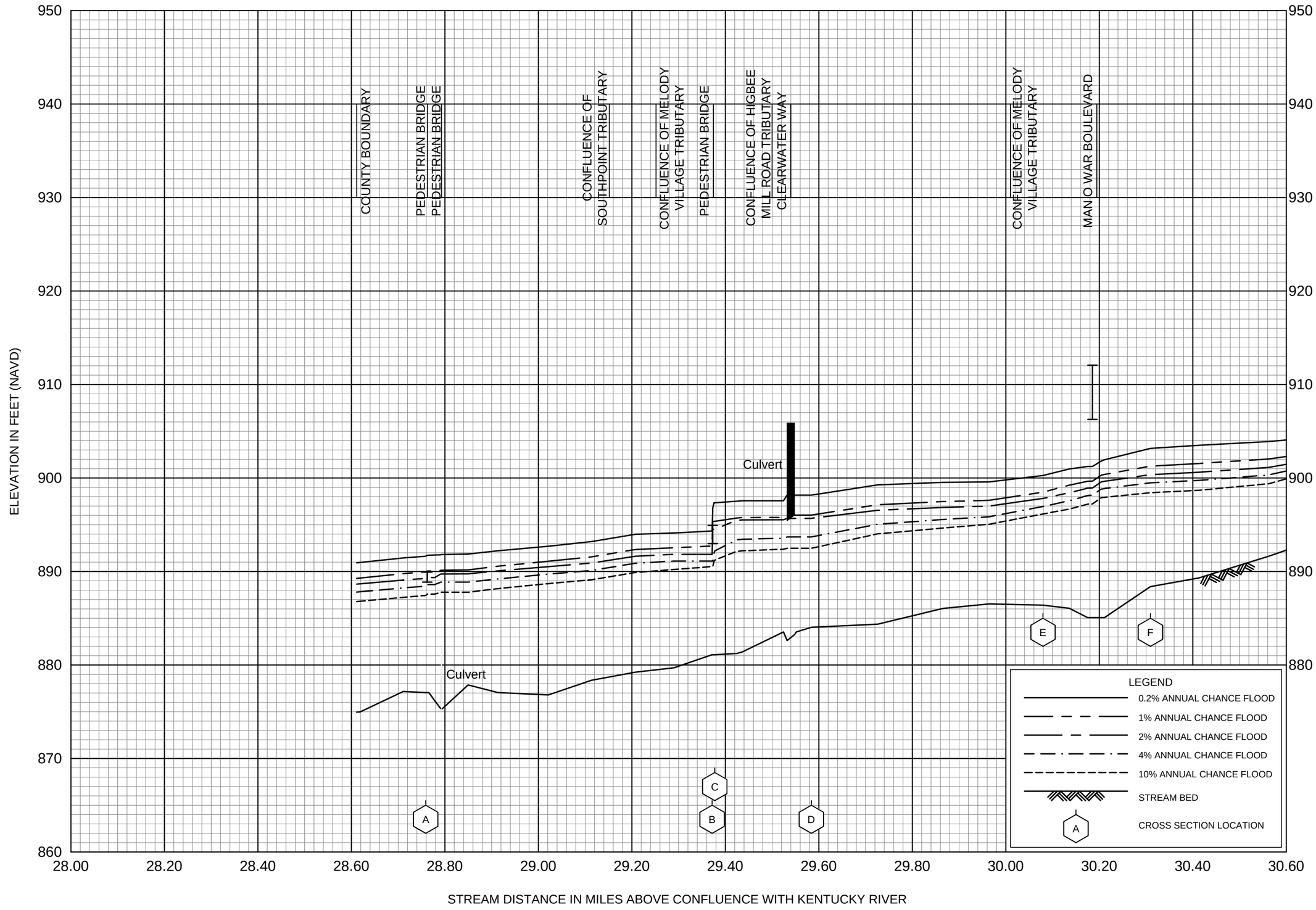


FLOOD PROFILES

WAVELAND MUSEUM TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY



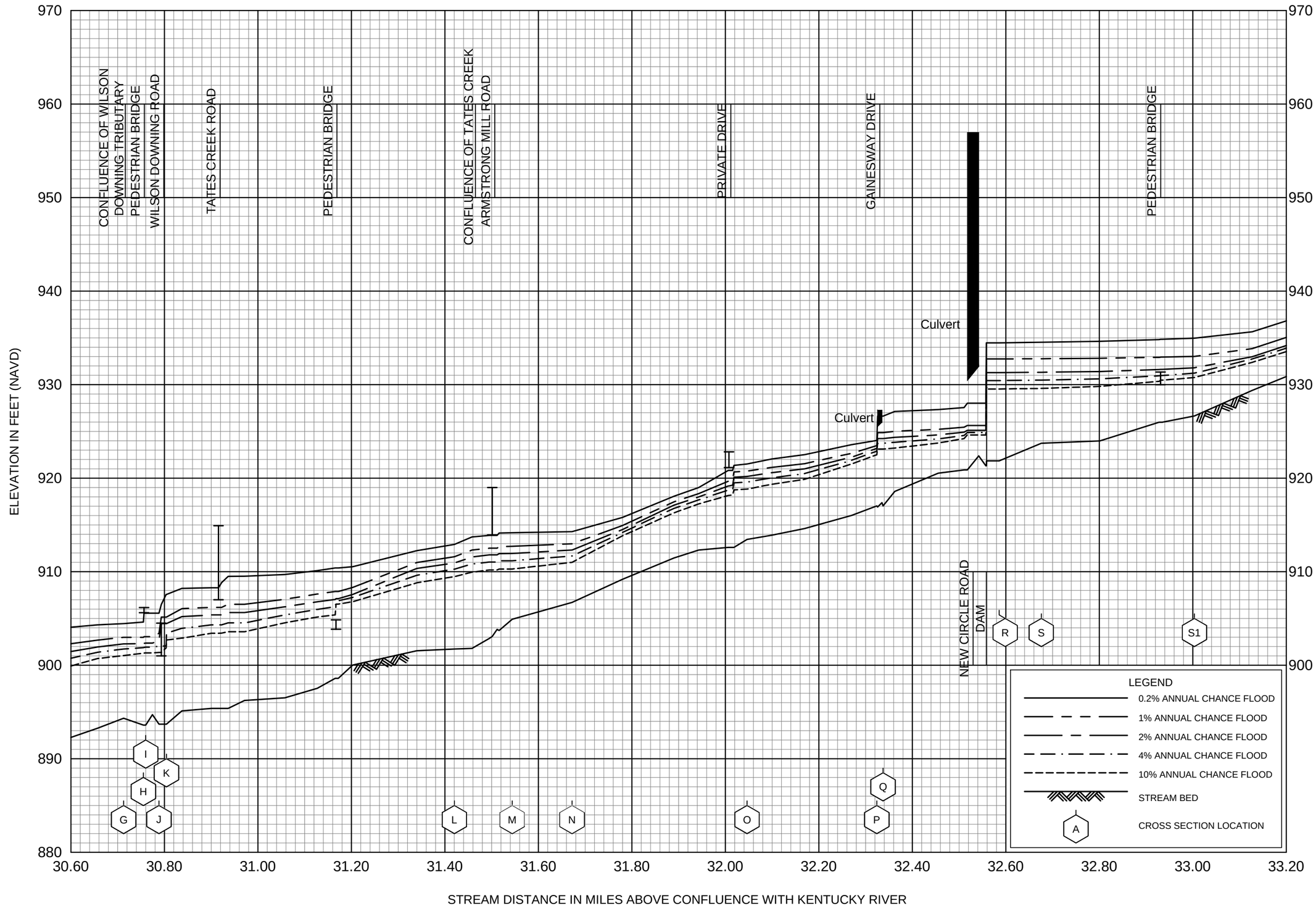
FLOOD PROFILES

WEST HICKMAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

197P



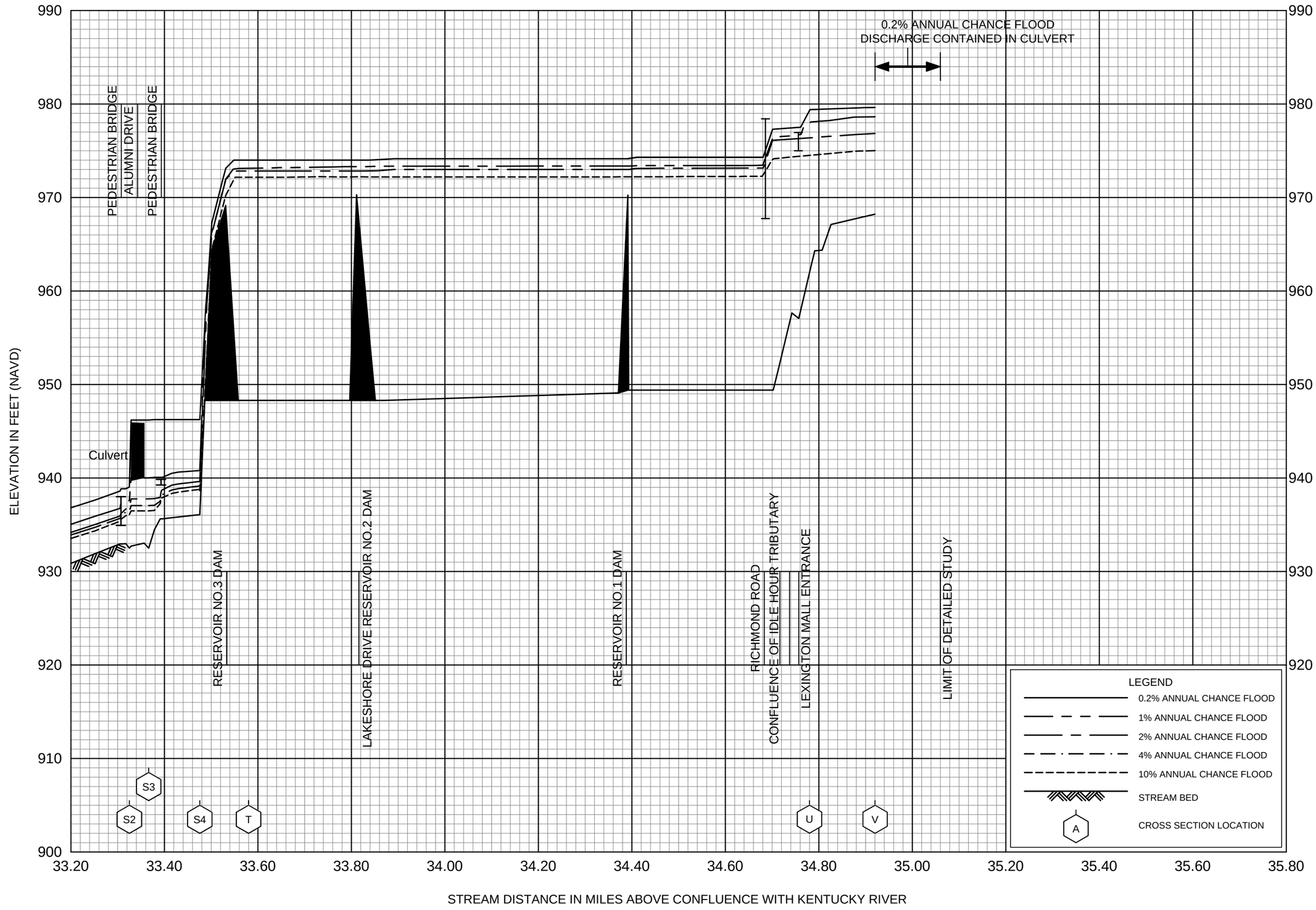
FLOOD PROFILES

WEST HICKMAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

198P

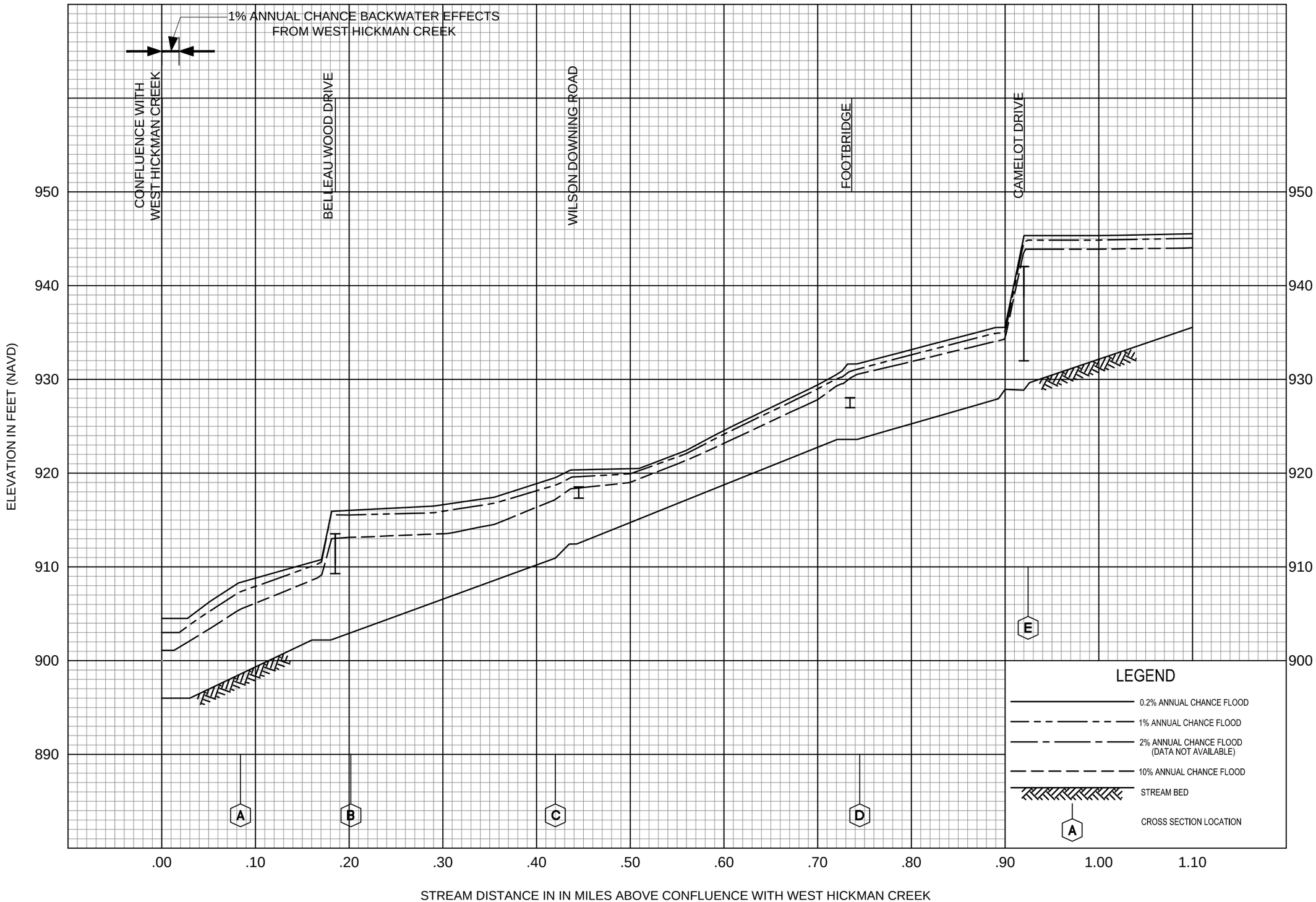


FLOOD PROFILES

WEST HICKMAN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

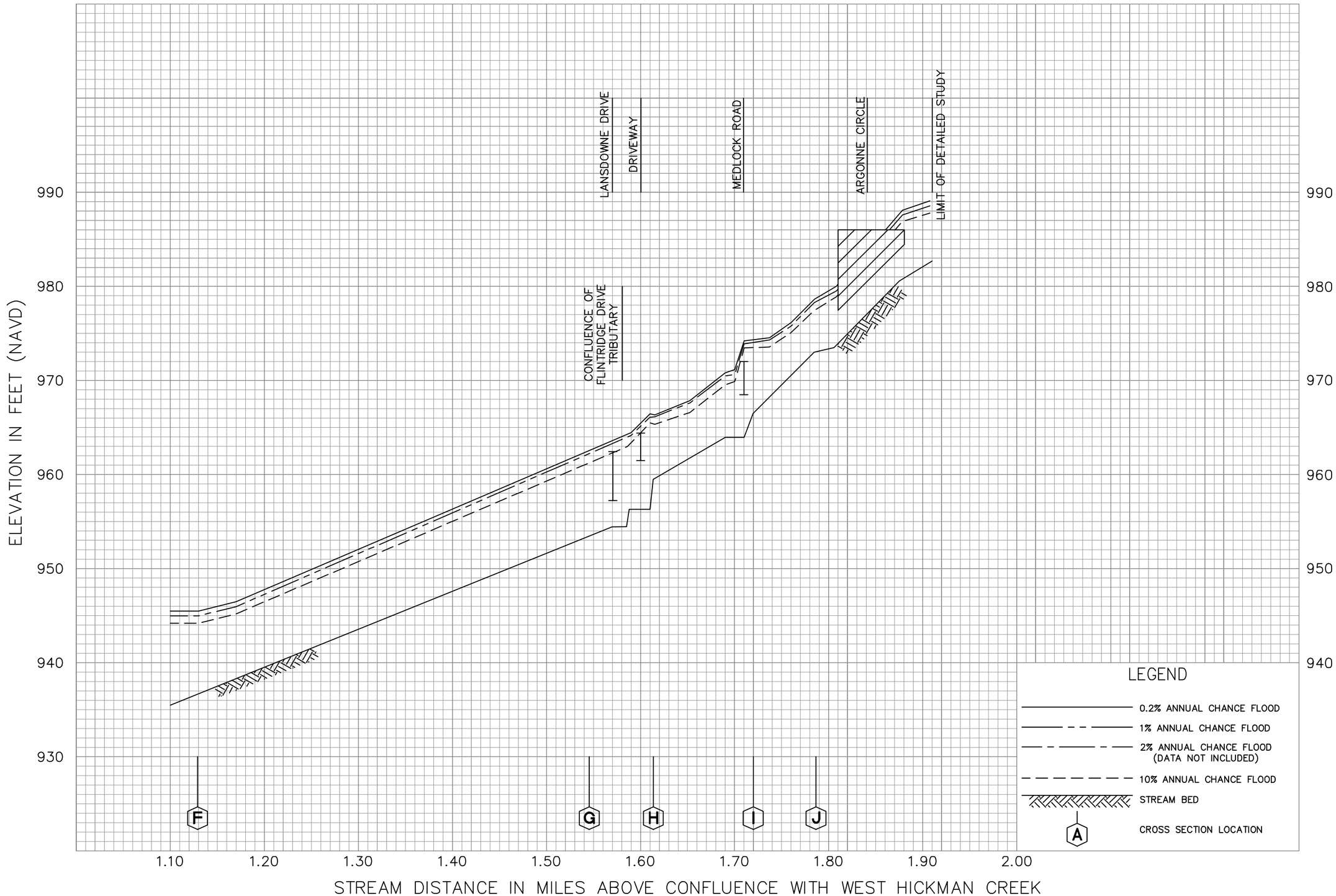


FLOOD PROFILES

WILSON DOWNING ROAD TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY
GOVERNMENT, KENTUCKY

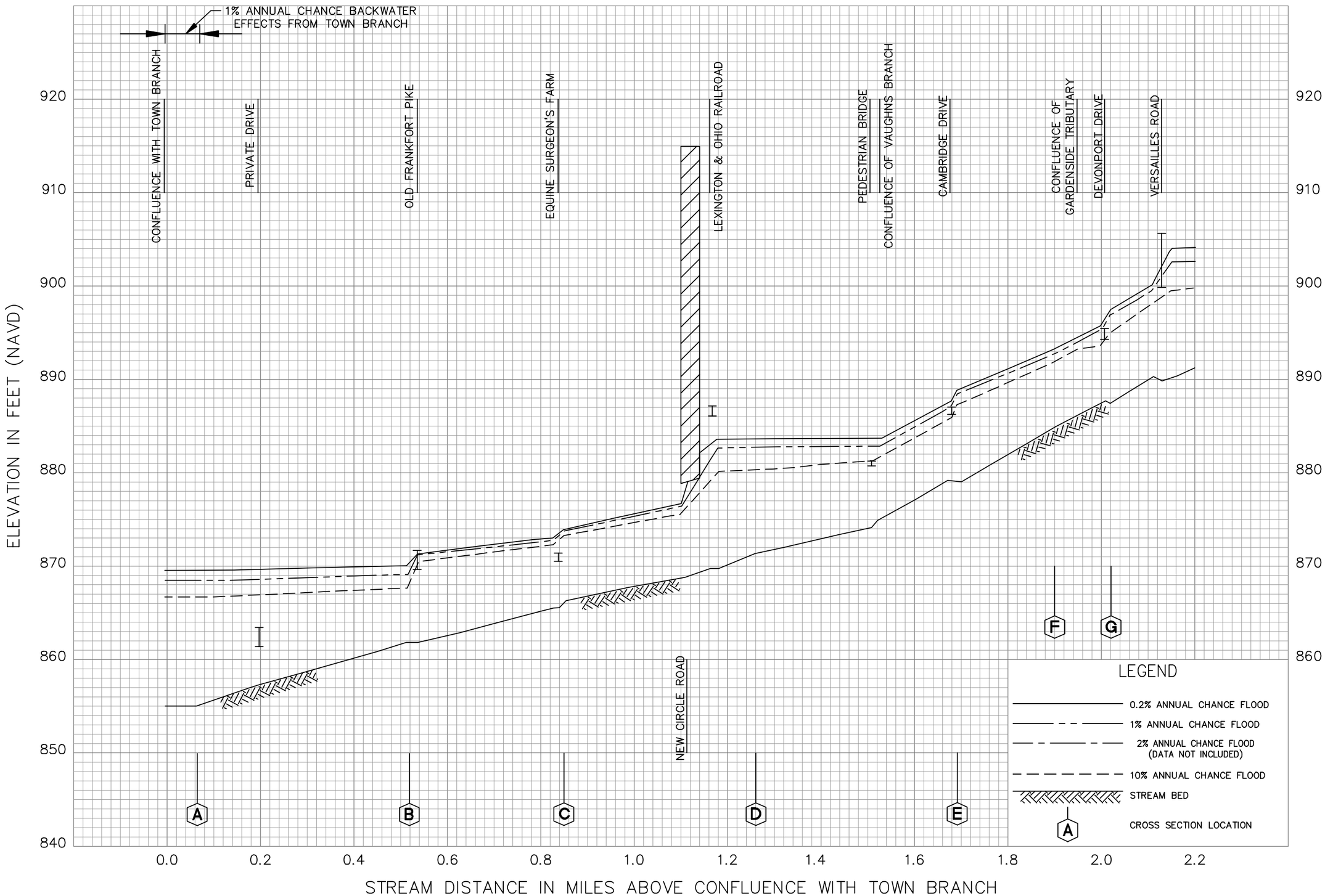


FLOOD PROFILES

WILSON DOWNING ROAD TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

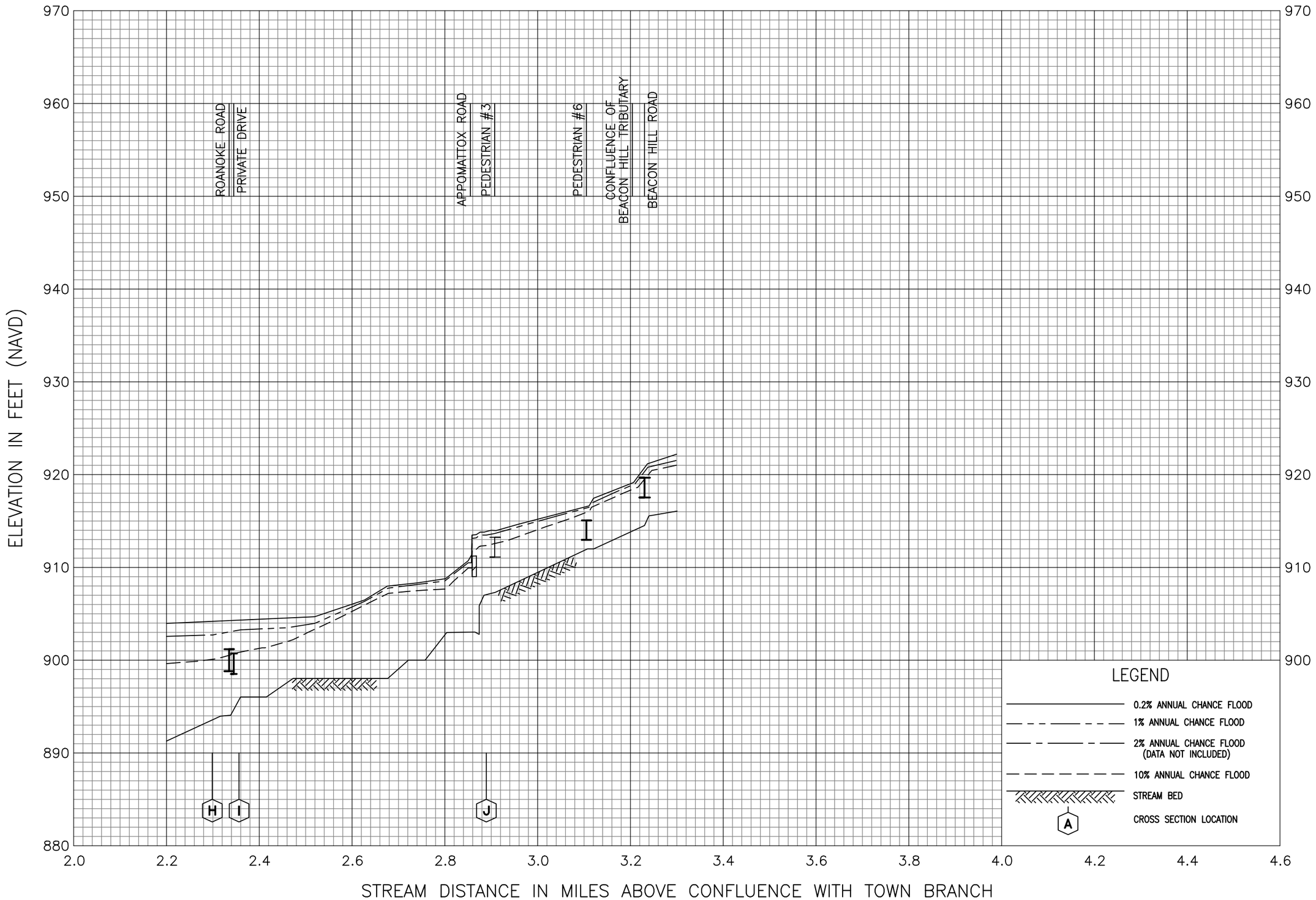


FLOOD PROFILES

WOLF RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

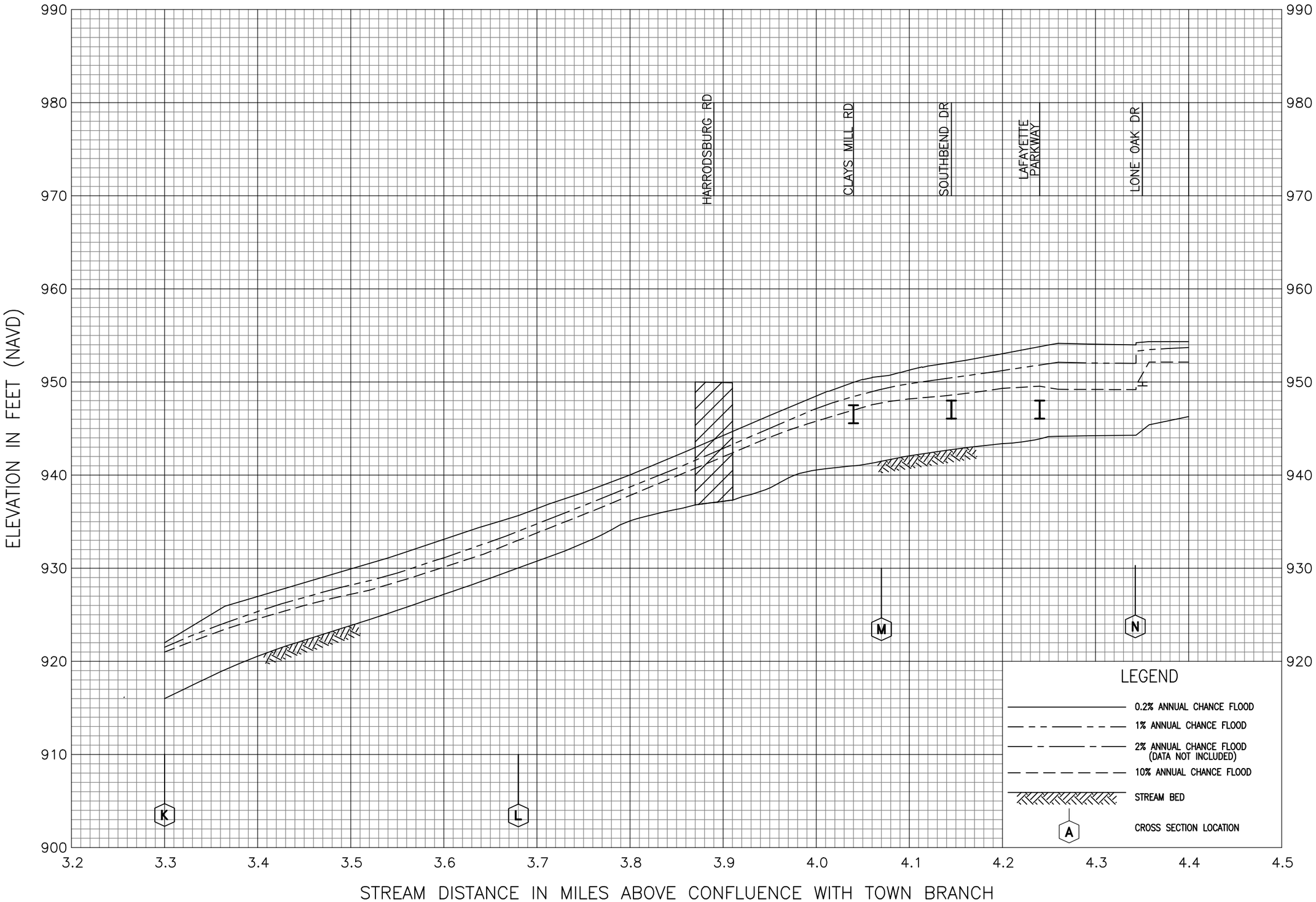


FLOOD PROFILES

WOLF RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY

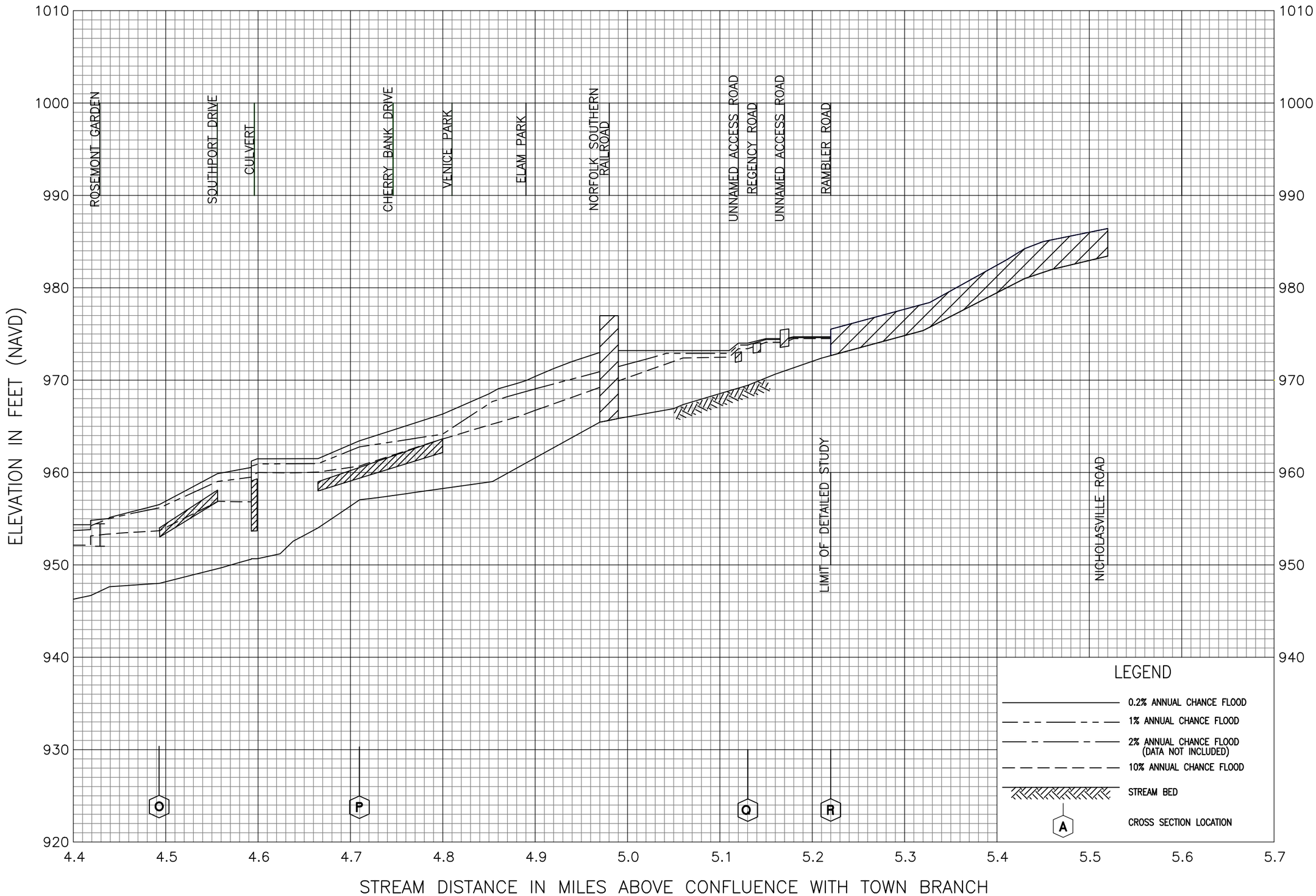


FLOOD PROFILES

WOLF RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY



FLOOD PROFILES

WOLF RUN

FEDERAL EMERGENCY MANAGEMENT AGENCY

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, KENTUCKY