

# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 2 OF 4



## CHATHAM COUNTY, GEORGIA AND INCORPORATED AREAS

| COMMUNITY NAME                          | COMMUNITY NUMBER |
|-----------------------------------------|------------------|
| BLOOMINGDALE, CITY OF                   | 130452           |
| CHATHAM COUNTY,<br>UNINCORPORATED AREAS | 130030           |
| GARDEN CITY, CITY OF                    | 135161           |
| POOLER, CITY OF                         | 130261           |
| PORT WENTWORTH, CITY OF                 | 135162           |
| SAVANNAH, CITY OF                       | 135163           |
| THUNDERBOLT, TOWN OF                    | 130460           |
| TYBEE ISLAND, CITY OF                   | 135164           |
| VERNONBURG, TOWN OF                     | 135165           |



# FEMA

**REVISED: August 16, 2018**

FLOOD INSURANCE STUDY NUMBER  
**13051CV002D**

Version Number 2.3.2.1

# TABLE OF CONTENTS

## Volume 1

|                                                                 | <u>Page</u>   |
|-----------------------------------------------------------------|---------------|
| <b>SECTION 1.0 – INTRODUCTION</b>                               | <b>1</b>      |
| 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  | 7             |
| <br><b>SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS</b>     | <br><b>18</b> |
| 2.1 Floodplain Boundaries                                       | 18            |
| 2.2 Floodways                                                   | 25            |
| 2.3 Base Flood Elevations                                       | 26            |
| 2.4 Non-Encroachment Zones                                      | 26            |
| 2.5 Coastal Flood Hazard Areas                                  | 27            |
| 2.5.1 Water Elevations and the Effects of Waves                 | 27            |
| 2.5.2 Floodplain Boundaries and BFEs for Coastal Areas          | 28            |
| 2.5.3 Coastal High Hazard Areas                                 | 29            |
| 2.5.4 Limit of Moderate Wave Action                             | 30            |
| <br><b>SECTION 3.0 – INSURANCE APPLICATIONS</b>                 | <br><b>31</b> |
| 3.1 National Flood Insurance Program Insurance Zones            | 31            |
| 3.2 Coastal Barrier Resources System                            | 32            |
| <br><b>SECTION 4.0 – AREA STUDIED</b>                           | <br><b>33</b> |
| 4.1 Basin Description                                           | 33            |
| 4.2 Principal Flood Problems                                    | 33            |
| 4.3 Non-Levee Flood Protection Measures                         | 38            |
| 4.4 Levees                                                      | 38            |
| <br><b>SECTION 5.0 – ENGINEERING METHODS</b>                    | <br><b>39</b> |
| 5.1 Hydrologic Analyses                                         | 39            |
| 5.2 Hydraulic Analyses                                          | 50            |
| 5.3 Coastal Analyses                                            | 62            |
| 5.3.1 Total Stillwater Elevations                               | 63            |
| 5.3.2 Waves                                                     | 69            |
| 5.3.3 Coastal Erosion                                           | 69            |
| 5.3.4 Wave Hazard Analyses                                      | 69            |
| 5.4 Alluvial Fan Analyses                                       | 77            |
| <br><b>SECTION 6.0 – MAPPING METHODS</b>                        | <br><b>78</b> |
| 6.1 Vertical and Horizontal Control                             | 78            |
| 6.2 Base Map                                                    | 79            |
| 6.3 Floodplain and Floodway Delineation                         | 80            |
| 6.4 Coastal Flood Hazard Mapping                                | 88            |

## TABLE OF CONTENTS – continued

### Volume 1 - continued

#### Figures

|                                                                          | <u>Page</u> |
|--------------------------------------------------------------------------|-------------|
| Figure 1: FIRM Panel Index                                               | 10          |
| Figure 2: FIRM Notes to Users                                            | 11          |
| Figure 3: Map Legend for FIRM                                            | 14          |
| Figure 4: Floodway Schematic                                             | 25          |
| Figure 5: Wave Runup Transect Schematic                                  | 28          |
| Figure 6: Coastal Transect Schematic                                     | 30          |
| Figure 7: Frequency Discharge-Drainage Area Curves                       | 48          |
| Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas | 64          |
| Figure 9: Transect Location Map                                          | 74          |

#### Tables

|                                                                       | <u>Page</u> |
|-----------------------------------------------------------------------|-------------|
| Table 1: Listing of NFIP Jurisdictions                                | 2           |
| Table 2: Flooding Sources Included in this FIS Report                 | 19          |
| Table 3: Flood Zone Designations by Community                         | 31          |
| Table 4: Coastal Barrier Resources System Information                 | 32          |
| Table 5: Basin Characteristics                                        | 33          |
| Table 6: Principal Flood Problems                                     | 33          |
| Table 7: Historic Flooding Elevations                                 | 38          |
| Table 8: Non-Levee Flood Protection Measures                          | 38          |
| Table 9: Levees                                                       | 38          |
| Table 10: Summary of Discharges                                       | 43          |
| Table 11: Summary of Non-Coastal Stillwater Elevations                | 49          |
| Table 12: Stream Gage Information used to Determine Discharges        | 49          |
| Table 13: Summary of Hydrologic and Hydraulic Analyses                | 54          |
| Table 14: Roughness Coefficients                                      | 61          |
| Table 15: Summary of Coastal Analyses                                 | 62          |
| Table 16: Tide Gage Analysis Specifics                                | 67          |
| Table 17: Coastal Transect Parameters                                 | 70          |
| Table 18: Summary of Alluvial Fan Analyses                            | 77          |
| Table 19: Results of Alluvial Fan Analyses                            | 77          |
| Table 20: Countywide Vertical Datum Conversion                        | 78          |
| Table 21: Stream-Based Vertical Datum Conversion                      | 79          |
| Table 22: Base Map Sources                                            | 79          |
| Table 23: Summary of Topographic Elevation Data used in Mapping       | 81          |
| Table 24: Floodway Data                                               | 86          |
| Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams | 88          |
| Table 26: Summary of Coastal Transect Mapping Considerations          | 89          |

## TABLE OF CONTENTS – continued

### Volume 2

|                                                                    |                                       |            |
|--------------------------------------------------------------------|---------------------------------------|------------|
| 6.5                                                                | FIRM Revisions                        | 92         |
| 6.5.1                                                              | Letters of Map Amendment              | 92         |
| 6.5.2                                                              | Letters of Map Revision Based on Fill | 92         |
| 6.5.3                                                              | Letters of Map Revision               | 93         |
| 6.5.4                                                              | Physical Map Revisions                | 93         |
| 6.5.5                                                              | Contracted Restudies                  | 94         |
| 6.5.6                                                              | Community Map History                 | 94         |
| <b>SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION</b> |                                       | <b>97</b>  |
| 7.1                                                                | Contracted Studies                    | 97         |
| 7.2                                                                | Community Meetings                    | 100        |
| <b>SECTION 8.0 – ADDITIONAL INFORMATION</b>                        |                                       | <b>103</b> |
| <b>SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES</b>                   |                                       | <b>105</b> |

#### Tables

|                                                                     |             |
|---------------------------------------------------------------------|-------------|
|                                                                     | <u>Page</u> |
| Table 27: Incorporated Letters of Map Change                        | 93          |
| Table 28: Community Map History                                     | 95          |
| Table 29: Summary of Contracted Studies Included in this FIS Report | 97          |
| Table 30: Community Meetings                                        | 101         |
| Table 31: Map Repositories                                          | 103         |
| Table 32: Additional Information                                    | 104         |
| Table 33: Bibliography and References                               | 106         |

#### Exhibits

|                                       |              |
|---------------------------------------|--------------|
| Flood Profiles                        | <u>Panel</u> |
| Black Creek                           | 01-04 P      |
| Black Creek Tributary No. 2           | 05-06 P      |
| Casey Canal                           | 07-09 P      |
| Chippewa Canal                        | 10 P         |
| Colonial Oaks Canal                   | 11-12 P      |
| Colonial Oaks Canal Tributary No. 1   | 13 P         |
| Colonial Oaks Canal Tributary No. 1.1 | 14 P         |
| Culvert Swamp                         | 15 P         |
| Hardin Canal                          | 16-18 P      |
| Harmon Canal                          | 19-20 P      |
| Kingsway Canal                        | 21 P         |
| Kroger Canal                          | 22 P         |
| Little Ogeechee River                 | 23-26 P      |
| Little Ogeechee River Tributary       | 27-30 P      |
| Louis Mills Branch                    | 31-32 P      |



## TABLE OF CONTENTS – continued

### Volume 2 - continued

#### Exhibits

| Flood Profiles                               | <u>Panel</u> |
|----------------------------------------------|--------------|
| Ogeechee River                               | 33 P         |
| Pipe Makers Canal                            | 34-36 P      |
| Pipe Makers Canal Tributary No. 2            | 37-38 P      |
| Pipe Makers Canal Tributary No. 3            | 39-40 P      |
| Salt Creek Tributary                         | 41-42 P      |
| Savannah River                               | 43-44 P      |
| Springfield Canal                            | 45 P         |
| Springfield Canal Tributary A                | 46-47 P      |
| St. Augustine Creek                          | 48-52 P      |
| St. Augustine Creek Tributary                | 53-57 P      |
| St. Augustine Creek Tributary No. 1          | 58-60 P      |
| Tributary to Little Ogeechee River Tributary | 61-62 P      |
| Wilshire Canal                               | 63 P         |
| Wilshire Canal Tributary A                   | 64 P         |
| Wilshire Canal Tributary A-1                 | 65 P         |
| Windsor Forest Canal East                    | 66-67 P      |
| Windsor Forest Canal Tributary               | 68 P         |
| Windsor Forest Canal Tributary No. 2         | 69 P         |
| Windsor Forest Canal Tributary No. 3         | 70 P         |
| Windsor Forest Canal West                    | 71 P         |

### Volume 3

#### Exhibits

| Transect Profiles | <u>Panel</u> |
|-------------------|--------------|
| Transect 1        | 01-02 P      |
| Transect 2        | 03-04 P      |
| Transect 3        | 05-06 P      |
| Transect 4        | 07-08 P      |
| Transect 5        | 09-11 P      |
| Transect 6        | 12-14 P      |
| Transect 7        | 15-16 P      |
| Transect 8        | 17-19 P      |
| Transect 9        | 20-22 P      |
| Transect 10       | 23-24 P      |
| Transect 11       | 25 P         |
| Transect 12       | 26-28 P      |
| Transect 13       | 29-31 P      |
| Transect 14       | 32-35 P      |
| Transect 15       | 36-39 P      |
| Transect 16       | 40-43 P      |
| Transect 17       | 44-47 P      |
| Transect 18       | 48-53 P      |

## TABLE OF CONTENTS – continued

### Volume 3 - continued

#### Exhibits

| Transect Profiles | <u>Panel</u> |
|-------------------|--------------|
| Transect 19       | 54-56 P      |
| Transect 20       | 57-59 P      |
| Transect 21       | 60-63 P      |
| Transect 22       | 64-66 P      |
| Transect 23       | 67-70 P      |

### Volume 4

#### Exhibits

| Transect Profiles | <u>Panel</u> |
|-------------------|--------------|
| Transect 24       | 71-74 P      |
| Transect 25       | 75-78 P      |
| Transect 26       | 79-82 P      |
| Transect 27       | 83-87 P      |
| Transect 28       | 88-92 P      |
| Transect 29       | 93-97 P      |
| Transect 30       | 98-100 P     |
| Transect 31       | 101-106 P    |
| Transect 32       | 107-111 P    |
| Transect 33       | 112-114 P    |
| Transect 34       | 115-117 P    |
| Transect 35       | 118-120 P    |
| Transect 36       | 121-123 P    |
| Transect 37       | 124-126 P    |
| Transect 38       | 127-129 P    |
| Transect 39       | 130-134 P    |

### Published Separately

Flood Insurance Rate Map (FIRM)

## 6.5 FIRM Revisions

This FIS Report and the FIRM are based on the most up-to-date information available to FEMA at the time of its publication; however, flood hazard conditions change over time. Communities or private parties may request flood map revisions at any time. Certain types of requests require submission of supporting data. FEMA may also initiate a revision. Revisions may take several forms, including Letters of Map Amendment (LOMAs), Letters of Map Revision Based on Fill (LOMR-Fs), Letters of Map Revision (LOMRs) (referred to collectively as Letters of Map Change (LOMCs)), Physical Map Revisions (PMRs), and FEMA-contracted restudies. These types of revisions are further described below. Some of these types of revisions do not result in the republishing of the FIS Report. To assure that any user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data (shown in Table 31, “Map Repositories”).

### 6.5.1 Letters of Map Amendment

A LOMA is an official revision by letter to an effective NFIP map. A LOMA results from an administrative process that involves the review of scientific or technical data submitted by the owner or lessee of property who believes the property has incorrectly been included in a designated SFHA. A LOMA amends the currently effective FEMA map and establishes that a specific property is not located in a SFHA. A LOMA cannot be issued for properties located on the PFD (primary frontal dune).

To obtain an application for a LOMA, visit [www.fema.gov/floodplain-management/letter-map-amendment-loma](http://www.fema.gov/floodplain-management/letter-map-amendment-loma) and download the form “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill”. Visit the “Flood Map-Related Fees” section to determine the cost, if any, of applying for a LOMA.

FEMA offers a tutorial on how to apply for a LOMA. The LOMA Tutorial Series can be accessed at [www.fema.gov/online-tutorials](http://www.fema.gov/online-tutorials).

For more information about how to apply for a LOMA, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627).

### 6.5.2 Letters of Map Revision Based on Fill

A LOMR-F is an official revision by letter to an effective NFIP map. A LOMR-F states FEMA’s determination concerning whether a structure or parcel has been elevated on fill above the base flood elevation and is, therefore, excluded from the SFHA.

Information about obtaining an application for a LOMR-F can be obtained in the same manner as that for a LOMA, by visiting [www.fema.gov/floodplain-management/letter-map-amendment-loma](http://www.fema.gov/floodplain-management/letter-map-amendment-loma) for the “MT-1 Application Forms and Instructions for Conditional and Final Letters of Map Amendment and Letters of Map Revision Based on Fill” or by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627). Fees for applying for a LOMR-F, if any, are listed in the “Flood Map-Related Fees” section.

A tutorial for LOMR-F is available at [www.fema.gov/online-tutorials](http://www.fema.gov/online-tutorials).

### 6.5.3 Letters of Map Revision

A LOMR is an official revision to the currently effective FEMA map. It is used to change flood zones, floodplain and floodway delineations, flood elevations and planimetric features. All requests for LOMRs should be made to FEMA through the chief executive officer of the community, since it is the community that must adopt any changes and revisions to the map. If the request for a LOMR is not submitted through the chief executive officer of the community, evidence must be submitted that the community has been notified of the request.

To obtain an application for a LOMR, visit [www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions](http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/mt-2-application-forms-and-instructions) and download the form “MT-2 Application Forms and Instructions for Conditional Letters of Map Revision and Letters of Map Revision”. Visit the “Flood Map-Related Fees” section to determine the cost of applying for a LOMR. For more information about how to apply for a LOMR, call the FEMA Map Information eXchange; toll free, at 1-877-FEMA MAP (1-877-336-2627) to speak to a Map Specialist.

Previously issued mappable LOMCs (including LOMRs) that have been incorporated into the Chatham County FIRM are listed in Table 27. Please note that this table only includes LOMCs that have been issued on the FIRM panels updated by this map revision. For all other areas within this county, users should be aware that revisions to the FIS Report made by prior LOMRs may not be reflected herein and users will need to continue to use the previously issued LOMRs to obtain the most current data.

**Table 27: Incorporated Letters of Map Change**

| Case Number | Effective Date | Flooding Source               | FIRM Panel(s)                             |
|-------------|----------------|-------------------------------|-------------------------------------------|
| 16-04-1717P | 07/13/2016     | Pipe Makers Canal             | 13051C0019H <sup>1</sup><br>13051C0038J   |
| 12-04-3344P | 07/12/2013     | The Gates/Culvert Swamp       | 13051C0109G<br>13051C0117G<br>13051C0128G |
| 12-04-3661P | 12/10/2012     | Chippewa Canal, Krogers Canal | 13051C0163G                               |
| 09-04-6893P | 02/11/2010     | Casey Canal, Chippewa Canal   | 13051C0163G<br>13051C0276G                |

<sup>1</sup>Although a portion of LOMR 16-04-1717P falls within the scope of this map revision, panel 13051C00019H was not revised. Therefore, users must continue to refer to the annotated FIRM attachment for this LOMR for FIRM panel 13051C0019H.

### 6.5.4 Physical Map Revisions

Physical Map Revisions (PMRs) are an official republication of a community’s NFIP map to effect changes to base flood elevations, floodplain boundary delineations, regulatory floodways and planimetric features. These changes typically occur as a result of structural works or improvements,

annexations resulting in additional flood hazard areas or correction to base flood elevations or SFHAs.

The community's chief executive officer must submit scientific and technical data to FEMA to support the request for a PMR. The data will be analyzed and the map will be revised if warranted. The community is provided with copies of the revised information and is afforded a review period. When the base flood elevations are changed, a 90-day appeal period is provided. A 6-month adoption period for formal approval of the revised map(s) is also provided.

For more information about the PMR process, please visit [www.fema.gov](http://www.fema.gov) and visit the "Flood Map Revision Processes" section.

### **6.5.5 Contracted Restudies**

The NFIP provides for a periodic review and restudy of flood hazards within a given community. FEMA accomplishes this through a national watershed-based mapping needs assessment strategy, known as the Coordinated Needs Management Strategy (CNMS). The CNMS is used by FEMA to assign priorities and allocate funding for new flood hazard analyses used to update the FIS Report and FIRM. The goal of CNMS is to define the validity of the engineering study data within a mapped inventory. The CNMS is used to track the assessment process, document engineering gaps and their resolution, and aid in prioritization for using flood risk as a key factor for areas identified for flood map updates. Visit [www.fema.gov](http://www.fema.gov) to learn more about the CNMS or contact the FEMA Regional Office listed in Section 8 of this FIS Report.

### **6.5.6 Community Map History**

The current FIRM presents flooding information for the entire geographic area of Chatham County. Previously, separate FIRMs, Flood Hazard Boundary Maps (FHBM) and/or Flood Boundary and Floodway Maps (FBFM) may have been prepared for the incorporated communities and the unincorporated areas in the county that had identified SFHAs. Current and historical data relating to the maps prepared for the project area are presented in Table 28, "Community Map History." A description of each of the column headings and the source of the date is also listed below.

- *Community Name* includes communities falling within the geographic area shown on the FIRM, including those that fall on the boundary line, nonparticipating communities, and communities with maps that have been rescinded. Communities with No Special Flood Hazards are indicated by a footnote. If all maps (FHBM, FBFM, and FIRM) were rescinded for a community, it is not listed in this table unless SFHAs have been identified in this community.
- *Initial Identification Date (First NFIP Map Published)* is the date of the first NFIP map that identified flood hazards in the community. If the FHBM has been converted to a FIRM, the initial FHBM date is shown. If the community has never been mapped, the upcoming effective date or "pending" (for Preliminary FIS Reports) is shown. If the community is listed in Table 28 but not identified on the map, the community is treated as if it were unmapped.

- *Initial FHBM Effective Date* is the effective date of the first Flood Hazard Boundary Map (FHBM). This date may be the same date as the Initial NFIP Map Date.
- *FHBM Revision Date(s)* is the date(s) that the FHBM was revised, if applicable.
- *Initial FIRM Effective Date* is the date of the first effective FIRM for the community.
- *FIRM Revision Date(s)* is the date(s) the FIRM was revised, if applicable. This is the revised date that is shown on the FIRM panel, if applicable. As countywide studies are completed or revised, each community listed should have its FIRM dates updated accordingly to reflect the date of the countywide study. Once the FIRMs exist in countywide format, as Physical Map Revisions (PMR) of FIRM panels within the county are completed, the FIRM Revision Dates in the table for each community affected by the PMR are updated with the date of the PMR, even if the PMR did not revise all the panels within that community.

The initial effective date for the Chatham County FIRMs in countywide format was 09/26/2008.

**Table 28: Community Map History**

| Community Name                      | Initial Identification Date | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s)                                                                          |
|-------------------------------------|-----------------------------|-----------------------------|-----------------------|-----------------------------|------------------------------------------------------------------------------------------------|
| Bloomington, City of                | 10/15/1976                  | 10/15/1976                  | N/A                   | 07/02/1981                  | 08/16/2018<br>07/07/2014<br>08/05/2013<br>09/26/2008<br>05/07/2001                             |
| Chatham County Unincorporated Areas | 03/05/1976                  | 03/05/1976                  | N/A                   | 08/01/1980                  | 08/16/2018<br>07/07/2014<br>08/05/2013<br>09/26/2008<br>09/20/1995<br>09/03/1992<br>05/19/1987 |
| Garden City, City of                | 03/16/1973                  | 03/16/1973                  | N/A                   | 03/16/1973                  | 08/16/2018<br>08/05/2013<br>09/26/2008<br>05/19/1987<br>11/21/1980                             |
| Pooler, City of                     | 07/25/1975                  | 07/25/1975                  | N/A                   | 09/30/1981                  | 08/16/2018<br>07/07/2014<br>08/05/2013<br>09/26/2008                                           |

**Table 28: Community Map History - continued**

| Community Name          | Initial Identification Date | Initial FHBM Effective Date | FHBM Revision Date(s) | Initial FIRM Effective Date | FIRM Revision Date(s)                                                            |
|-------------------------|-----------------------------|-----------------------------|-----------------------|-----------------------------|----------------------------------------------------------------------------------|
| Port Wentworth, City of | 03/16/1973                  | 03/16/1973                  | N/A                   | 03/16/1973                  | 08/16/2018<br>07/07/2014<br>08/05/2013<br>09/26/2008<br>05/19/1987<br>12/26/1975 |
| Savannah, City of       | 09/18/1970                  | 09/18/1970                  | N/A                   | 05/21/1971                  | 08/16/2018<br>07/07/2014<br>08/05/2013<br>09/26/2008<br>09/04/1987<br>11/21/1980 |
| Thunderbolt, Town of    | 12/23/1977                  | 12/23/1977                  | N/A                   | 07/02/1987                  | 08/16/2018<br>09/26/2008                                                         |
| Tybee Island, City of   | 11/06/1970                  | 11/06/1970                  | N/A                   | 01/14/1972                  | 08/16/2018<br>09/26/2008<br>06/17/1986<br>09/05/1975                             |
| Vernonburg, Town of     | 07/27/1973                  | 07/27/1973                  | N/A                   | 10/31/1975                  | 08/16/2018<br>09/26/2008<br>07/02/1987                                           |

## SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION

### 7.1 Contracted Studies

Table 29 provides a summary of the contracted studies, by flooding source, that are included in this FIS Report.

**Table 29: Summary of Contracted Studies Included in this FIS Report**

| Flooding Source                                            | FIS Report Dated         | Contractor | Number                                           | Work Completed Date      | Affected Communities                                                                                                                             |
|------------------------------------------------------------|--------------------------|------------|--------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Atlantic Ocean (Flooding Controlled by the Atlantic Ocean) | 08/16/2018               | BakerAECOM | HSFEHQ-09-D-0368<br>Task Order: HSFE04-10-J-0075 | 2015                     | Chatham County Unincorporated Areas; Port Wentworth, City of; Savannah, City of; Thunderbolt, Town of Tybee Island, City of; Vernonburg, Town of |
| Belford Tract                                              | 08/05/2013<br>08/16/2018 | BakerAECOM | EMA-2010-GA-5087                                 | 2012                     | Chatham County Unincorporated Areas; Savannah, City of                                                                                           |
| Black Creek                                                | 09/26/2008               | PBS&J      | EMA-2005-CA5211                                  | 2007 (redelineated 2012) | Chatham County Unincorporated Areas; Port Wentworth, City of                                                                                     |
| Black Creek Tributary No. 2                                | 09/26/2008               | PBS&J      | EMA-2005-CA5211                                  | 2007 (redelineated 2012) | Port Wentworth, City of                                                                                                                          |
| Casey Canal                                                | 09/26/2008               | PBS&J      | DR912                                            | (redelineated 2007)      |                                                                                                                                                  |
| Chippewa Canal                                             | 09/26/2008<br>08/16/2018 | PBS&J      | DR912/LOMR 12-04-3661P                           | 2007 (2012 LOMR)         | Savannah, City of                                                                                                                                |
| Coffee Bluff Basin                                         | 09/26/2008               | PBS&J      | DR912                                            | 1996 (redelineated 2007) | N/A                                                                                                                                              |
| Colonial Oaks Canal                                        | 09/26/2008               | PBS&J      | DR912                                            | 2007                     | Savannah, City of                                                                                                                                |
| Colonial Oaks Canal Tributary No. 1                        | 09/26/2008               | PBS&J      | DR912                                            | 2007                     | Savannah, City of                                                                                                                                |
| Colonial Oaks Canal Tributary No. 1.1                      | 09/26/2008               | PBS&J      | DR912                                            | 2007                     | Savannah, City of                                                                                                                                |
| Culvert Swamp                                              | 08/16/2018               | LOMR       | LOMR 12-04-3344P                                 | 2013                     | Chatham County Unincorporated Areas; Pooler, City of                                                                                             |



**Table 29: Summary of Contracted Studies Included in this FIS Report - continued**

| Flooding Source                 | FIS Report Dated                       | Contractor | Number                             | Work Completed Date            | Affected Communities                                                                               |
|---------------------------------|----------------------------------------|------------|------------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------|
| Evergreen Cemetery Tributary    | 09/26/2008                             | PBS&J      | DR912                              | precouny (redelineated 2007)   | N/A                                                                                                |
| Fell Street Basin               | 09/26/2008                             | PBS&J      | DR912                              | precouny (redelineated 2007)   | N/A                                                                                                |
| Hardin Canal                    | 07/07/2014                             | Atkins     | EMA-2010-GA-5087                   | 2012                           | Bloomingtondale, City of                                                                           |
| Hardin Canal                    | 09/26/2008                             | PBS&J      | QBS-06-8-4                         | 2007 (redelineated in 2012)    | Chatham County Unincorporated Areas; Bloomingtondale, City of; Pooler, City of; Savannah, City of; |
| Harmon Canal                    | 09/26/2008                             | PBS&J      | DR912                              | 2007                           | Savannah, City of                                                                                  |
| Kingsway Canal                  | 09/26/2008                             | PBS&J      | QBS-06-8-4                         | 2007                           | Chatham County Unincorporated Areas                                                                |
| Kroger Canal                    | 08/16/2018                             | LOMR       | LOMR 12-04-3661P                   | 2012                           | Savannah, City of                                                                                  |
| Little Ogeechee River           | 07/07/2014<br>08/16/2018               | Atkins     | EMA-2010-GA-5087                   | 2012                           | Chatham County Unincorporated Areas; Bloomingtondale, City of                                      |
| Little Ogeechee River           | 07/02/1981<br>05/19/1987<br>09/04/1987 | PBS&J      | 11-4778                            | 1979, 1984 (redelineated 2012) | Chatham County Unincorporated Areas; Bloomingtondale, City of; Pooler, City of; Savannah, City of  |
| Little Ogeechee River Tributary | 09/26/2008                             | PBS&J      | DR912                              | 2007 (redelineated 2012)       | Chatham County Unincorporated Areas; Savannah, City of                                             |
| Louis Mills Branch              | 09/26/2008                             | PBS&J      | QBS-06-8-4                         | 2007                           | Chatham County Unincorporated Areas; Savannah, City of                                             |
| Ogeechee River                  | 08/16/2018                             | Atkins     | EMA-2010-GA-5087                   | 2012                           | Chatham County Unincorporated Areas                                                                |
| Pipe Makers Canal               | 08/05/2013                             | BakerAECOM | HSFEHQ-09-D-0368                   | 2010                           | Chatham County Unincorporated Areas; Bloomingtondale, City of; Pooler, City of; Savannah, City of  |
| Pipe Makers Canal               | 08/16/2018                             | Atkins     | EMA-2010-GA-5087/ LOMR 16-04-1717P | 2012                           | Pooler, City of; Savannah, City of                                                                 |
| Pipe Makers Canal               | 07/07/2014                             | LOMR       | EMA-2010-GA-5087                   | 2007                           | Bloomingtondale, City of                                                                           |

**Table 29: Summary of Contracted Studies Included in this FIS Report - continued**

| Flooding Source                              | FIS Report Dated         | Contractor | Number           | Work Completed Date             | Affected Communities                                                                     |
|----------------------------------------------|--------------------------|------------|------------------|---------------------------------|------------------------------------------------------------------------------------------|
| Pipe Makers Canal Tributary No. 2            | 01/02/1981<br>03/30/1981 | PBS&J      | 11-4778          | 1979<br>(redelineated in 2012)  | Bloomingtondale, City of;<br>Pooler, City of                                             |
| Pipe Makers Canal Tributary No. 2            | 07/07/2014               | Atkins     | EMA-2010-GA-5087 | 2012                            | Bloomingtondale, City of;<br>Pooler, City of                                             |
| Pipe Makers Canal Tributary No. 3            | 07/07/2014<br>08/16/2018 | Atkins     | EMA-2010-GA-5087 | 2012                            | Bloomingtondale, City of;<br>Pooler, City of                                             |
| Placentia Canal                              | 09/26/2008               | PBS&J      | QBS-06-8-4       | 2007                            | N/A                                                                                      |
| Quacco Canal                                 | 09/26/2008               | PBS&J      | QBS-06-8-4       | 2007                            | Chatham County<br>Unincorporated Areas                                                   |
| Rahn Dairy Canal                             | 09/26/2008               | PBS&J      | QBS-06-8-4       | 2007                            | Chatham County<br>Unincorporated Areas                                                   |
| Salt Creek Tributary                         | 03/30/1981               | PBS&J      | 11-4778          | 1979                            | Garden City, City of;<br>Pooler, City of                                                 |
| Savannah River                               | 05/19/1987               | PBS&J      | EMW-C-0947       | 1984                            | Chatham County<br>Unincorporated Areas;<br>Port Wentworth, City of                       |
| Springfield Canal                            | 09/26/2008               | PBS&J      | DR912            | precouny<br>(redelineated 2007) | Savannah, City of                                                                        |
| Springfield Canal Tributary A                | 09/26/2008               | PBS&J      | DR912            | precouny<br>(redelineated 2007) | Savannah, City of                                                                        |
| St. Augustine Creek                          | 08/16/2018               | Atkins     | EMA-2010-GA-5087 | 2012                            | Chatham County<br>Unincorporated Areas;<br>Port Wentworth, City of;<br>Savannah, City of |
| St. Augustine Creek Tributary                | 08/16/2018               | Atkins     | EMA-2010-GA-5087 | 2012                            | Pooler, City of;<br>Savannah, City of                                                    |
| St. Augustine Creek Tributary No. 1          | 08/16/2018               | Atkins     | EMA-2010-GA-5087 | 2012                            | N/A                                                                                      |
| Tributary to Little Ogeechee River Tributary | 09/26/2008               | PBS&J      | DR912            | 2007<br>(redelineated 2012)     | Chatham County<br>Unincorporated Areas;<br>Savannah, City of                             |
| Wilshire Canal                               | 09/26/2008               | PBS&J      | DR912            | precouny<br>(redelineated 2007) | Savannah, City of                                                                        |
| Wilshire Canal Tributary A                   | 09/26/2008               | PBS&J      | DR912            | precouny<br>(redelineated 2007) | Savannah, City of                                                                        |

**Table 29: Summary of Contracted Studies Included in this FIS Report - continued**

| Flooding Source                      | FIS Report Dated         | Contractor | Number           | Work Completed Date          | Affected Communities                                                                                                  |
|--------------------------------------|--------------------------|------------|------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Wilshire Canal Tributary A-1         | 09/26/2008               | PBS&J      | DR912            | precouny (redelineated 2007) | Savannah, City of                                                                                                     |
| Windsor Forest Canal East            | 09/26/2008               | PBS&J      | DR912            | 2007                         | Savannah, City of                                                                                                     |
| Windsor Forest Canal Tributary       | 09/26/2008               | PBS&J      | DR912            | 2007                         | Savannah, City of                                                                                                     |
| Windsor Forest Canal Tributary No. 2 | 09/26/2008               | PBS&J      | DR912            | 2007                         | Savannah, City of                                                                                                     |
| Windsor Forest Canal Tributary No. 3 | 09/26/2008               | PBS&J      | DR912            | 2007                         | Savannah, City of                                                                                                     |
| Windsor Forest Canal West            | 09/26/2008               | PBS&J      | DR912            | 2007                         | Savannah, City of                                                                                                     |
| Miscellaneous Zone A Streams         | 07/07/2014<br>08/16/2018 | Atkins     | EMA-2010-GA-5087 | 2012                         | Bloomingtondale, City of;<br>Chatham County<br>Unincorporated Areas;<br>Port Wentworth, City of;<br>Savannah, City of |

## 7.2 Community Meetings

The dates of the community meetings held for this Flood Risk Project and previous Flood Risk Projects are shown in Table 30. These meetings may have previously been referred to by a variety of names (Community Coordination Officer (CCO), Scoping, Discovery, etc.), but all meetings represent opportunities for FEMA, community officials, study contractors, and other invited guests to discuss the planning for and results of the project.

**Table 30: Community Meetings**

| Community                           | FIS Report Dated | Date of Meeting | Meeting Type | Attended By                                                                    |
|-------------------------------------|------------------|-----------------|--------------|--------------------------------------------------------------------------------|
| Bloomingdale, City of               | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                                     |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Chatham County Unincorporated Areas | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                                     |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Garden City, City of                | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                                     |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Pooler, City of                     | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                                     |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Port Wentworth, City of             | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                                     |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Savannah, City of                   | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                                     |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |

**Table 30: Community Meetings**

| Community             | FIS Report Dated | Date of Meeting | Meeting Type | Attended By                                                                    |
|-----------------------|------------------|-----------------|--------------|--------------------------------------------------------------------------------|
| Thunderbolt, Town of  | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                       |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Tybee Island, City of | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                       |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
| Vernonburg, Town of   | 08/16/2018       | 08/20/2015      | Workmap      | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |
|                       |                  | 07/19/2016      | CCO Meeting  | FEMA; Georgia DNR; CDM Smith; BakerAECOM, LLC; Atkins; and community officials |

## SECTION 8.0 – ADDITIONAL INFORMATION

Information concerning the pertinent data used in the preparation of this FIS Report can be obtained by submitting an order with any required payment to the FEMA Engineering Library. For more information on this process, see [www.fema.gov](http://www.fema.gov).

The additional data that was used for this project includes the FIS Report and FIRM that were previously prepared for Chatham County, (FEMA 2014).

Table 31 is a list of the locations where FIRMs for Chatham County can be viewed. Please note that the maps at these locations are for reference only and are not for distribution. Also, please note that only the maps for the community listed in the table are available at that particular repository. A user may need to visit another repository to view maps from an adjacent community.

**Table 31: Map Repositories**

| Community                              | Address                                                                                | City           | State | Zip Code |
|----------------------------------------|----------------------------------------------------------------------------------------|----------------|-------|----------|
| Bloomington, City of                   | City Hall<br>8 West Highway 80                                                         | Bloomington    | GA    | 31302    |
| Chatham County<br>Unincorporated Areas | Old Chatham County<br>Courthouse<br>124 Bull Street<br>Room 430                        | Savannah       | GA    | 31401    |
| Garden City, City of                   | City Hall<br>100 Central Avenue                                                        | Garden City    | GA    | 31405    |
| Pooler, City of                        | City Hall<br>100 Southwest Highway 80                                                  | Pooler         | GA    | 31322    |
| Port Wentworth, City of                | City Hall<br>305 South Coastal Highway                                                 | Port Wentworth | GA    | 31407    |
| Savannah, City of                      | Department of Development<br>Services<br>5515 Abercorn Street                          | Savannah       | GA    | 31405    |
| Thunderbolt, Town of                   | Town Hall<br>2821 River Drive                                                          | Thunderbolt    | GA    | 31404    |
| Tybee Island, City of                  | City Hall<br>403 Butler Avenue                                                         | Tybee Island   | GA    | 31328    |
| Vernonburg, Town of                    | Office of the Town of<br>Vernonburg Mayor<br>110 East President Street<br>Second Floor | Savannah       | GA    | 31401    |

The National Flood Hazard Layer (NFHL) dataset is a compilation of effective FIRM databases and LOMCs. Together they create a GIS data layer for a State or Territory. The NFHL is updated as studies become effective and extracts are made available to the public monthly. NFHL data can be viewed or ordered from the website shown in Table 32.

Table 32 contains useful contact information regarding the FIS Report, the FIRM, and other relevant flood hazard and GIS data. In addition, information about the State NFIP Coordinator and GIS Coordinator is shown in this table. At the request of FEMA, each Governor has designated an agency of State or territorial government to coordinate that State's or territory's NFIP activities. These agencies often assist communities in developing and adopting necessary floodplain management measures. State GIS Coordinators are knowledgeable about the availability and location of State and local GIS data in their state.

**Table 32: Additional Information**

| FEMA and the NFIP                         |                                                                                                                                                                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FEMA and FEMA Engineering Library website | <a href="http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library">www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/engineering-library</a>                                     |
| NFIP website                              | <a href="http://www.fema.gov/national-flood-insurance-program">www.fema.gov/national-flood-insurance-program</a>                                                                                                                       |
| NFHL Dataset                              | <a href="http://msc.fema.gov">msc.fema.gov</a>                                                                                                                                                                                         |
| FEMA Region IV                            | Federal Emergency Management Agency, 3003 Chamblee Tucker Road, Atlanta, Georgia 30341                                                                                                                                                 |
| Other Federal Agencies                    |                                                                                                                                                                                                                                        |
| USGS website                              | <a href="http://www.usgs.gov">www.usgs.gov</a>                                                                                                                                                                                         |
| Hydraulic Engineering Center website      | <a href="http://www.hec.usace.army.mil">www.hec.usace.army.mil</a>                                                                                                                                                                     |
| State Agencies and Organizations          |                                                                                                                                                                                                                                        |
| State NFIP Coordinator                    | Haydn Blaize<br>Georgia Dept of Natural Resources<br>Environmental Protection Division<br>2 Martin Luther King Jr. Dr. S.E., Ste. 1152 E.<br>Atlanta, GA 30334<br><a href="mailto:haydn.blaize@dnr.ga.gov">haydn.blaize@dnr.ga.gov</a> |
| State GIS Coordinator                     | Lisa Westin<br>Senior GIS Specialist<br>Department of Community Affairs<br>60 Executive Park South, NE<br>Atlanta, GA 30329<br>(404) 679-3125<br><a href="mailto:lisa.westin@dca.state.ga.us">lisa.westin@dca.state.ga.us</a>          |

## **SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES**

Table 33 includes sources used in the preparation of and cited in this FIS Report as well as additional studies that have been conducted in the study area.



**Table 33: Bibliography and References**

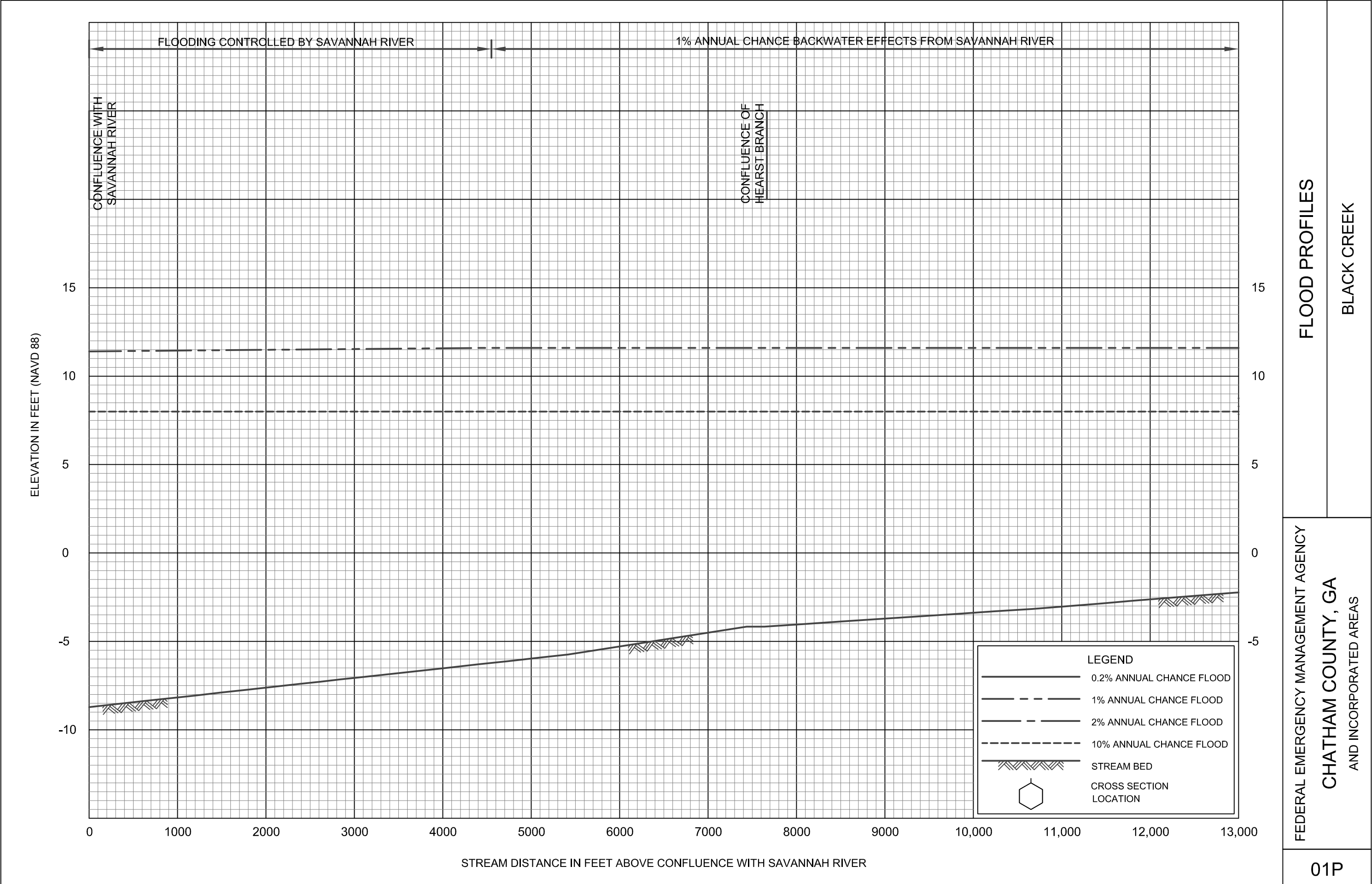
| Citation in this FIS | Publisher/Issuer                    | Publication Title, "Article," Volume, Number, etc.                                 | Author/Editor                       | Place of Publication | Publication Date/Date of Issuance | Link                                                                            |
|----------------------|-------------------------------------|------------------------------------------------------------------------------------|-------------------------------------|----------------------|-----------------------------------|---------------------------------------------------------------------------------|
| EMC Engineering      | EMC Engineering                     | <i>Pipe Makers Canal Drainage Study, Supplemental Report</i>                       | EMC Engineering                     |                      | April 1999                        |                                                                                 |
| FEMA 1971            | Federal Emergency Management Agency | <i>Type 10 Flood Insurance Study, Chatham County Unincorporated Areas, Georgia</i> |                                     | Washington, D.C.     | June 1971                         | FEMA Flood Map Service Center<br><a href="http://msc.fema.gov">msc.fema.gov</a> |
| FEMA 2014            | Federal Emergency Management Agency | <i>Flood Insurance Study, Chatham County, Georgia, and Incorporated Areas</i>      |                                     | Washington, D.C.     | July 7, 2014                      | FEMA Flood Map Service Center<br><a href="http://msc.fema.gov">msc.fema.gov</a> |
| GEMA 2006            | Georgia Emergency Management Agency | <i>Preparedness Bulletin #2</i>                                                    | Georgia Emergency Management Agency |                      | April 14, 2006                    |                                                                                 |
| HEC 1984             | U.S. Army Corps of Engineers        | <i>HEC-2 Water Surface Profiles</i>                                                | Hydrologic Engineering Center       | Davis, California    | April 1984                        |                                                                                 |
| HEC 1991             | U.S. Army Corps of Engineers        | <i>HEC-2 Water Surface Profiles</i>                                                | Hydrologic Engineering Center       | Davis, California    | May 1991                          |                                                                                 |
| HEC 1998             | U.S. Army Corps of Engineers        | <i>HEC-HMS Hydrologic Modeling System, Version 1.0</i>                             | Hydrologic Engineering Center       | Davis, California    | May 1998                          |                                                                                 |
| HEC 2001b            | U.S. Army Corps of Engineers        | <i>HEC-RAS River Analysis System, Version 3.0.1</i>                                | Hydrologic Engineering Center       | Davis, California    | March 2001b                       |                                                                                 |

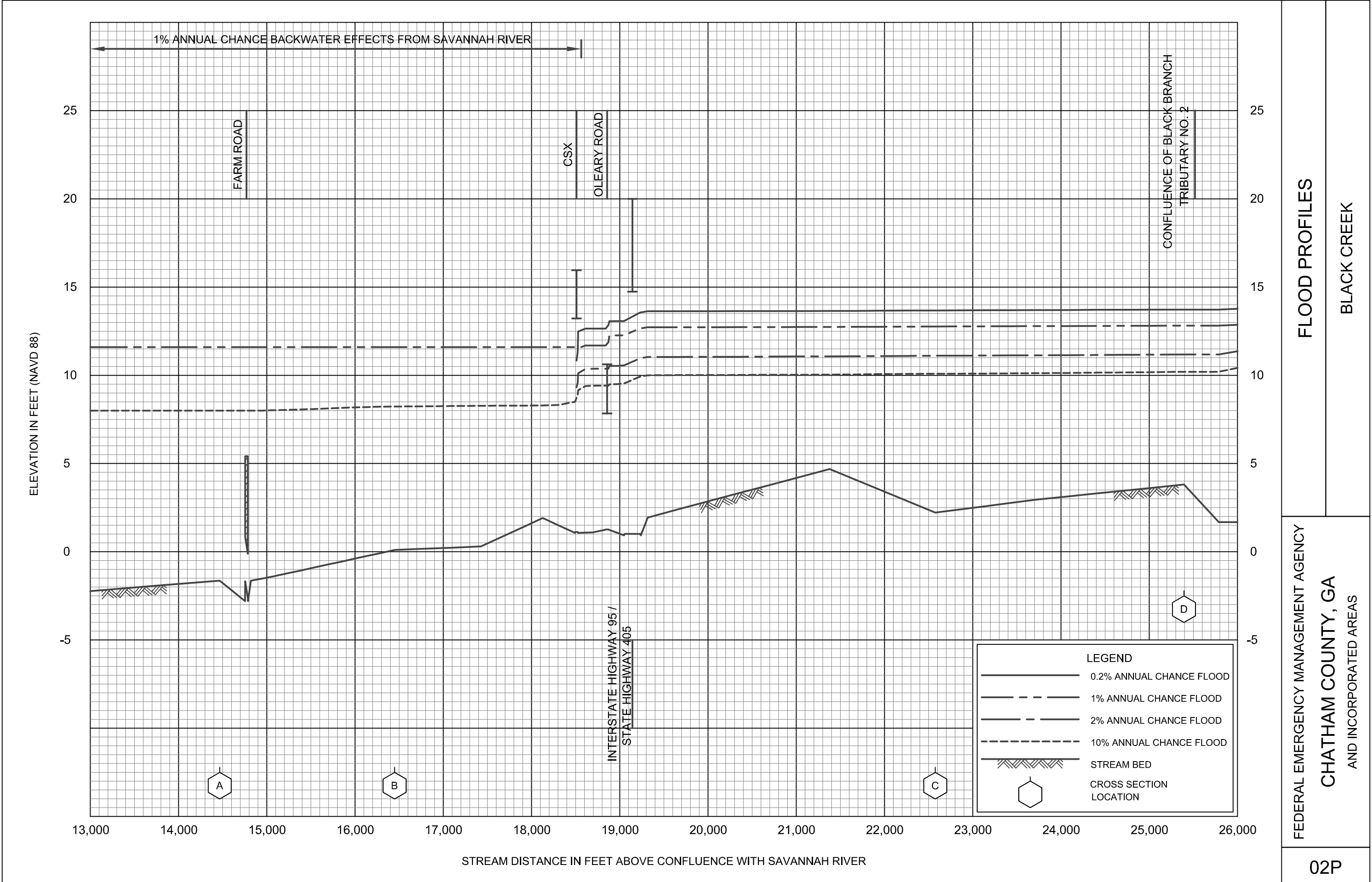
**Table 33: Bibliography and References - continued**

| Citation in this FIS                     | Publisher/Issuer                    | Publication Title, "Article," Volume, Number, etc.                                                                                                                    | Author/Editor                       | Place of Publication    | Publication Date/ Date of Issuance | Link |
|------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------|------------------------------------|------|
| HEC 2002                                 | U.S. Army Corps of Engineers        | <i>HEC-GeoRAS, Version 3.1.1</i>                                                                                                                                      | Hydrologic Engineering Center       | Davis, California       | October 2002                       |      |
| HEC 2003                                 | U.S. Army Corps of Engineers        | <i>HEC-RAS River Analysis System, Version 3.1.1</i>                                                                                                                   | Hydrologic Engineering Center       | Davis, California       | May 2003                           |      |
| HEC 2005                                 | U.S. Army Corps of Engineers        | <i>HEC-RAS River Analysis System, Version 3.1.3</i>                                                                                                                   | Hydrologic Engineering Center       | Davis, California       | May 2005                           |      |
| NWS 1961                                 | U.S. Department of Commerce         | <i>National Weather Service, Rainfall Frequency Atlas of the United States, 30-Minute to 24-Hour Durations, 1- to 100-year Return Periods, Technical Paper No. 40</i> | National Weather Service            |                         | 1961                               |      |
| Sanborn 2009                             | Metropolitan Planning Commission    | <i>LiDAR Data, Contour Interval 1 foot: Chatham County, Georgia</i>                                                                                                   | Sanborn                             | Chatham County, Georgia | 2009                               |      |
| Thomas & Hutton Engineering Company 2001 | Thomas & Hutton Engineering Company | <i>LiDAR Data, Contour Interval 1 foot: Chatham County, Georgia</i>                                                                                                   | Thomas & Hutton Engineering Company |                         | August 2001                        |      |
| Thomas & Hutton Engineering Company 2004 | Thomas & Hutton Engineering Company | <i>Redgate/Rahn Dairy Canal Design Study Report</i>                                                                                                                   | Thomas & Hutton Engineering Company |                         | July 2004                          |      |

**Table 33: Bibliography and References - continued**

| Citation in this FIS                     | Publisher/Issuer                    | Publication Title, "Article," Volume, Number, etc.                                                                                               | Author/Editor                              | Place of Publication | Publication Date/ Date of Issuance | Link |
|------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------|------------------------------------|------|
| Thomas & Hutton Engineering Company 2005 | Thomas & Hutton Engineering Company | <i>Quacco/Regency Park Drainage Improvements Alternatives Report</i>                                                                             | Thomas & Hutton Engineering Company        |                      | November 2005                      |      |
| USACE 1976                               | U.S. Army Corps of Engineers        | <i>100-Year Tidal Flood Elevations for Chatham County, Georgia, Scale 1:48,000</i>                                                               | U.S. Army Corps of Engineers               |                      | December 1976                      |      |
| USDA 1986                                | U.S. Department of Agriculture      | <i>Urban Hydrology for Small Watersheds, Technical Release No. 55</i>                                                                            | Soil Conservation Service                  |                      | 1986                               |      |
| USGS 1993                                | U.S. Department of the Interior     | <i>Techniques For Estimating Magnitude and Frequency of Floods in Rural Basins of Georgia, Water Resources Investigations Report 93-4016</i>     | U.S. Geological Survey                     |                      | 1993                               |      |
| USGS 1994                                | U.S. Department of the Interior     | <i>Flood Frequency Relations for Urban Streams in Georgia – 1994 Update, Water Resources Investigations Report 93-4017</i>                       | U.S. Geological Survey                     |                      | 1994                               |      |
| USGS 2011a                               | USGS                                | <i>Magnitude and Frequency of Rural Floods in the U.S., Magnitude and Frequency of Floods for Urban and Small Rural Streams in Georgia, 2008</i> | Scientific Investigations Report 2011-5042 |                      | 2011                               |      |
| XP Software Inc. 2006                    | XP Software Inc.                    | <i>XP-SWMM Storm and Wastewater Management Model, Version 10.00</i>                                                                              | XP Software Inc.                           | Portland, Oregon     | February 2006                      |      |





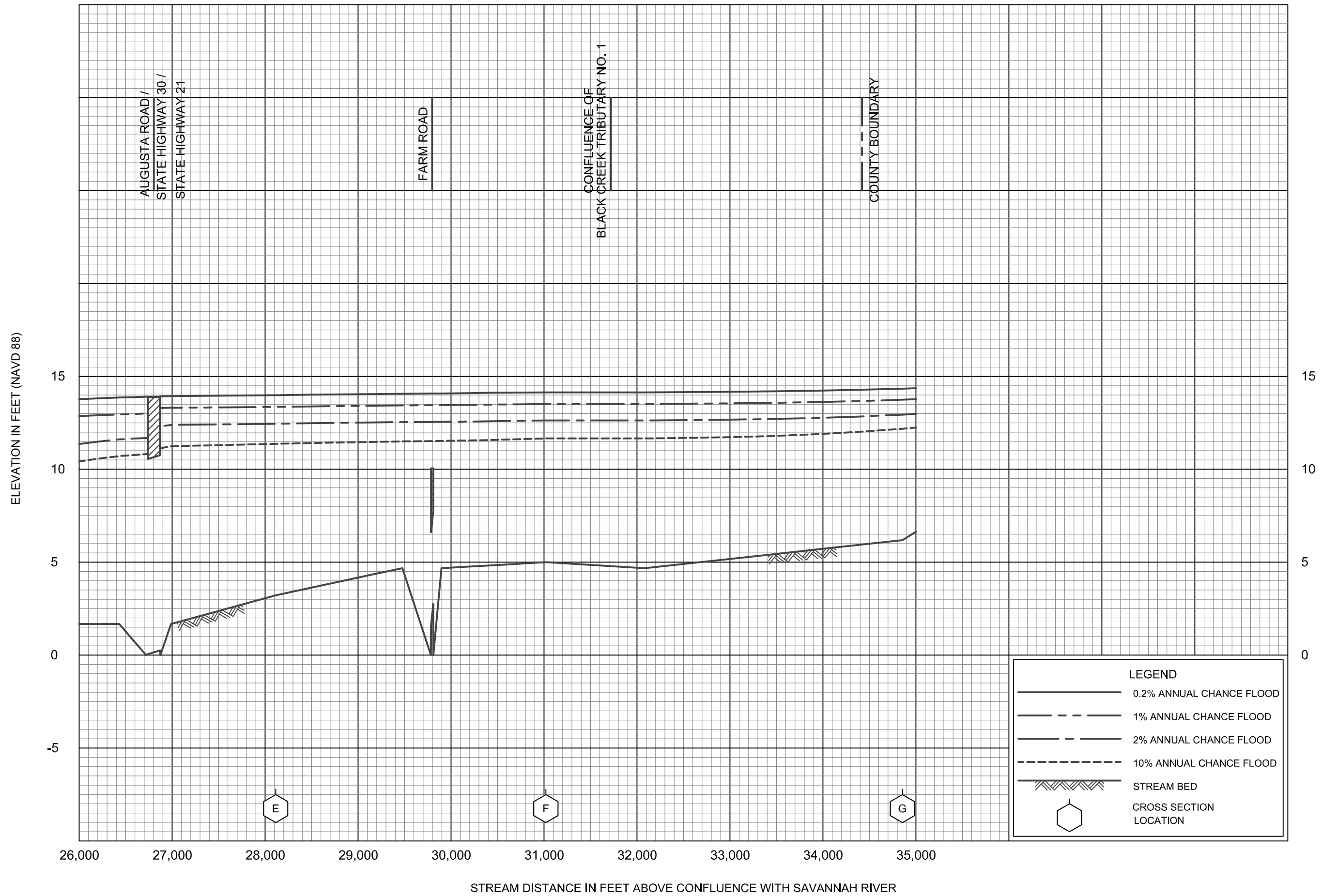
FLOOD PROFILES

BLACK CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA

AND INCORPORATED AREAS



FEDERAL EMERGENCY MANAGEMENT AGENCY

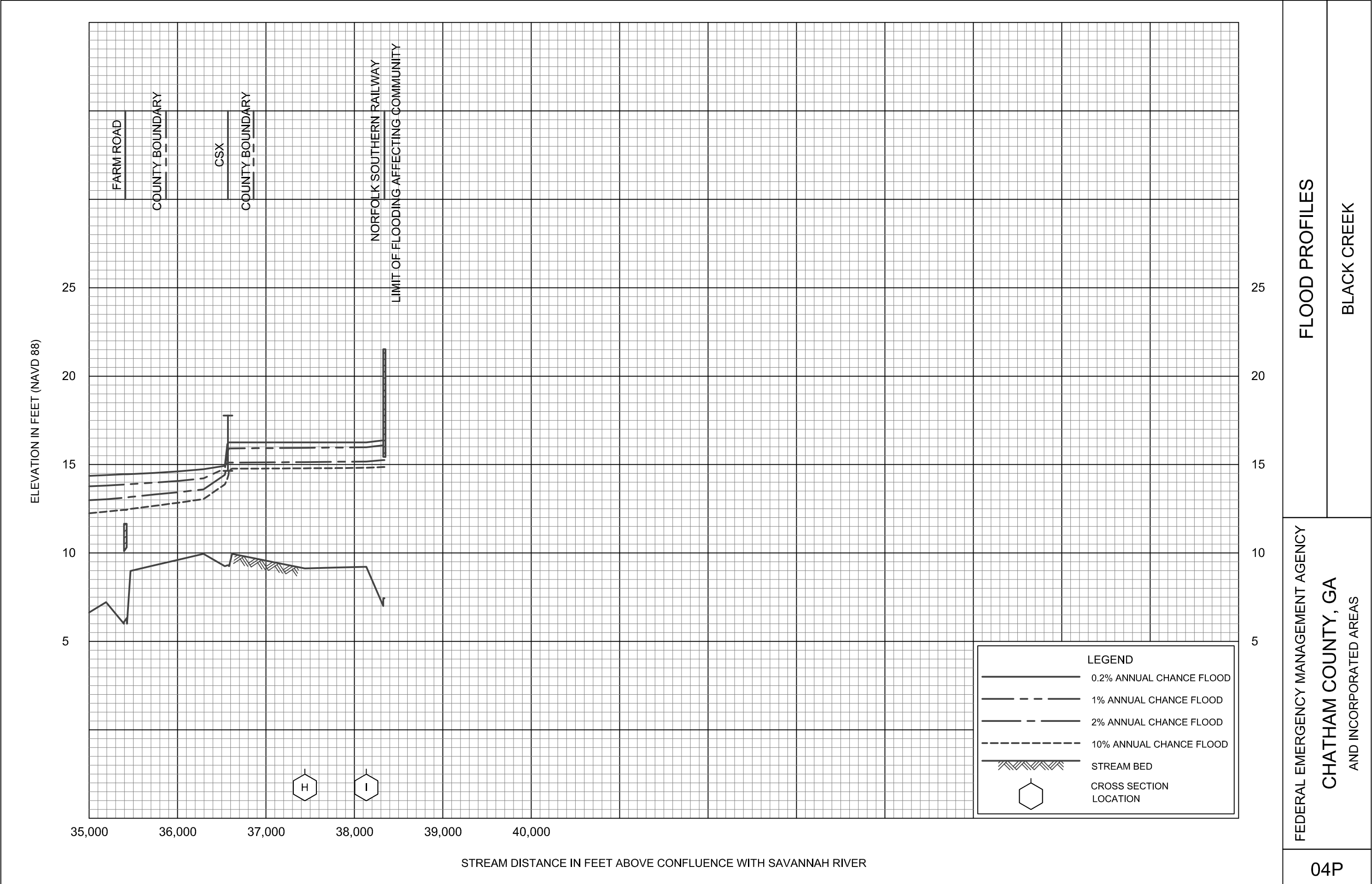
CHATHAM COUNTY, GA

## AND INCORPORATED AREAS

# FLOOD PROFILES

# BLACK CREEK

03P



FLOOD PROFILES

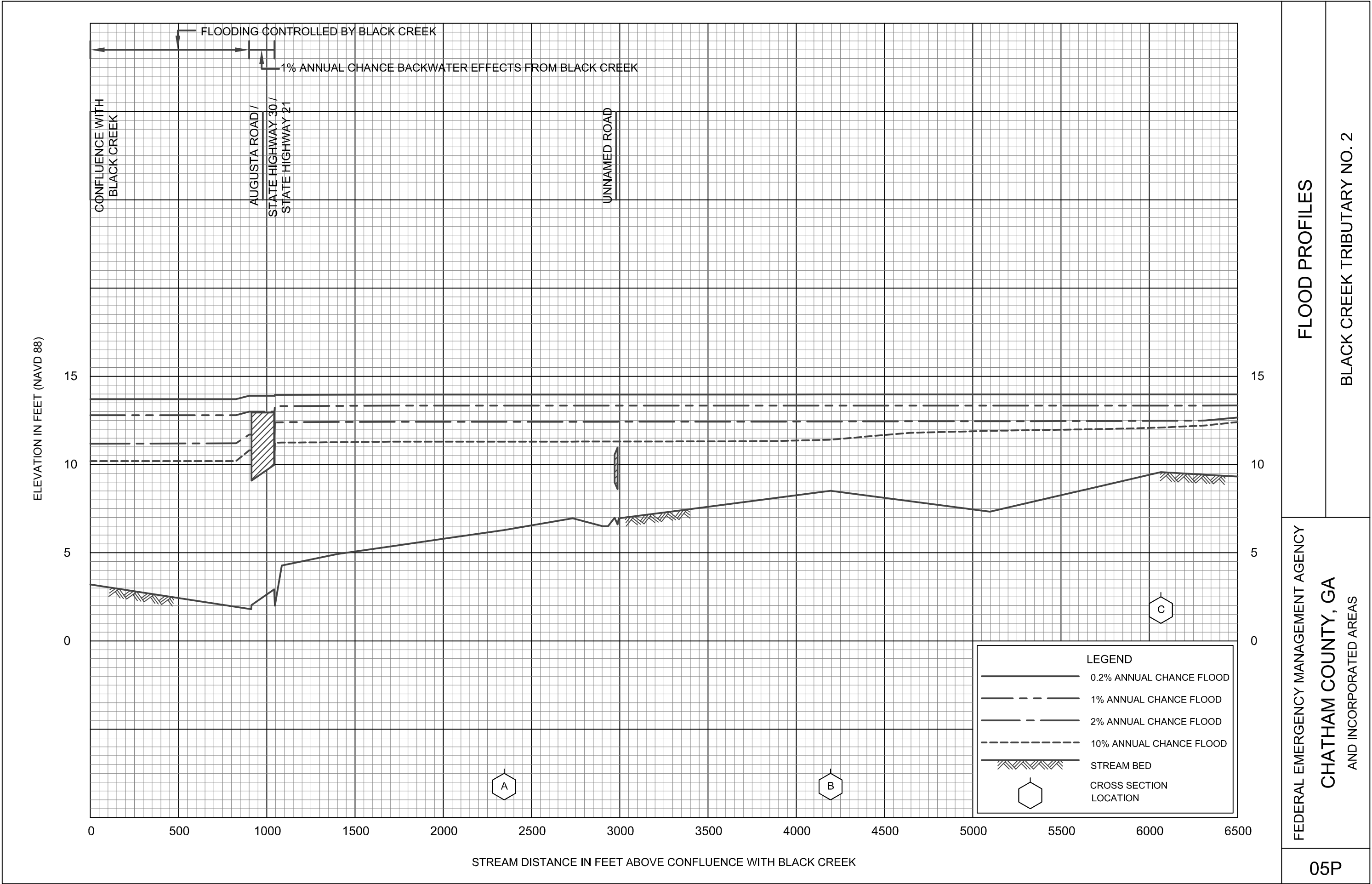
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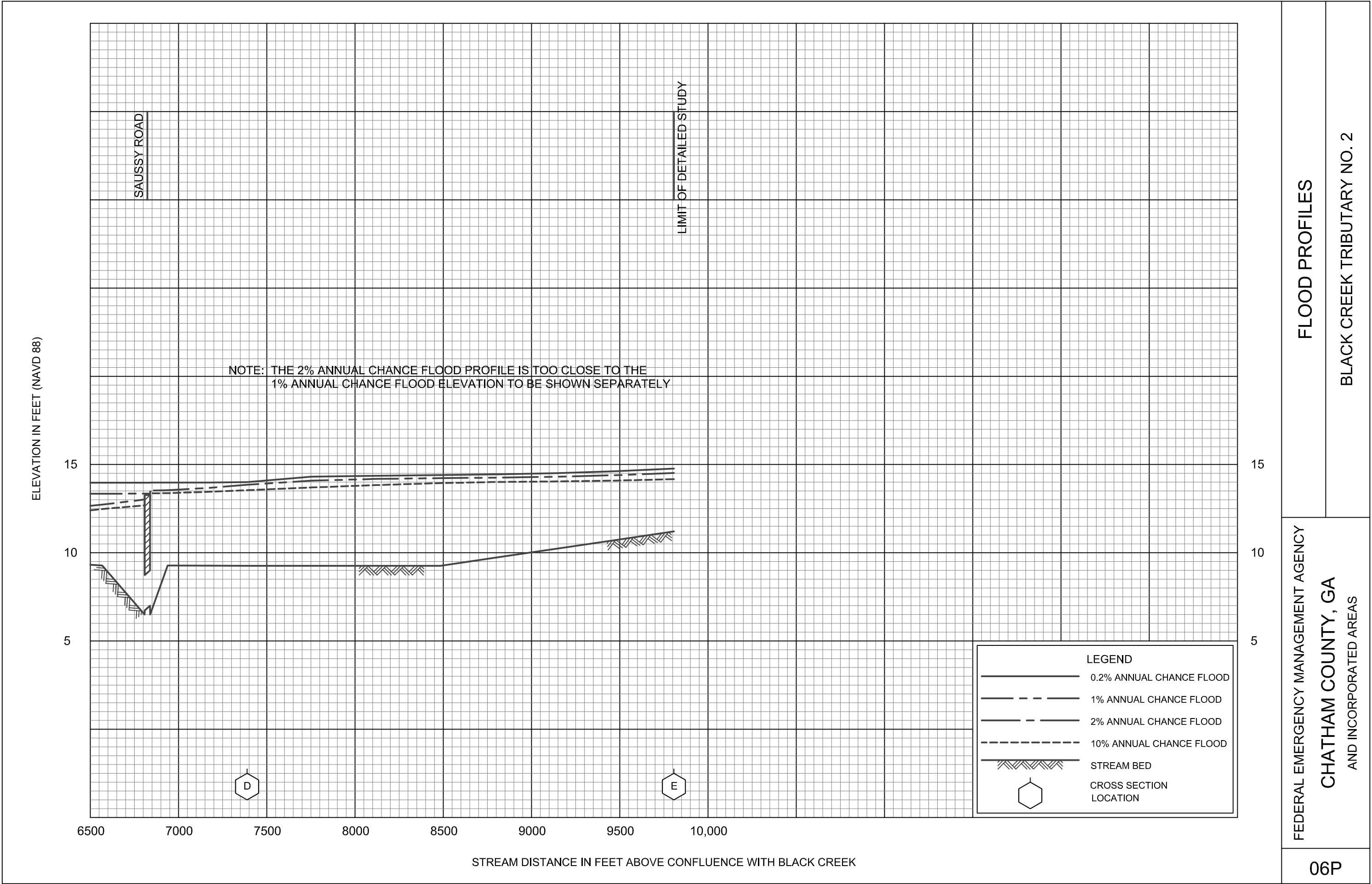
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AND INCORPORATED AREAS





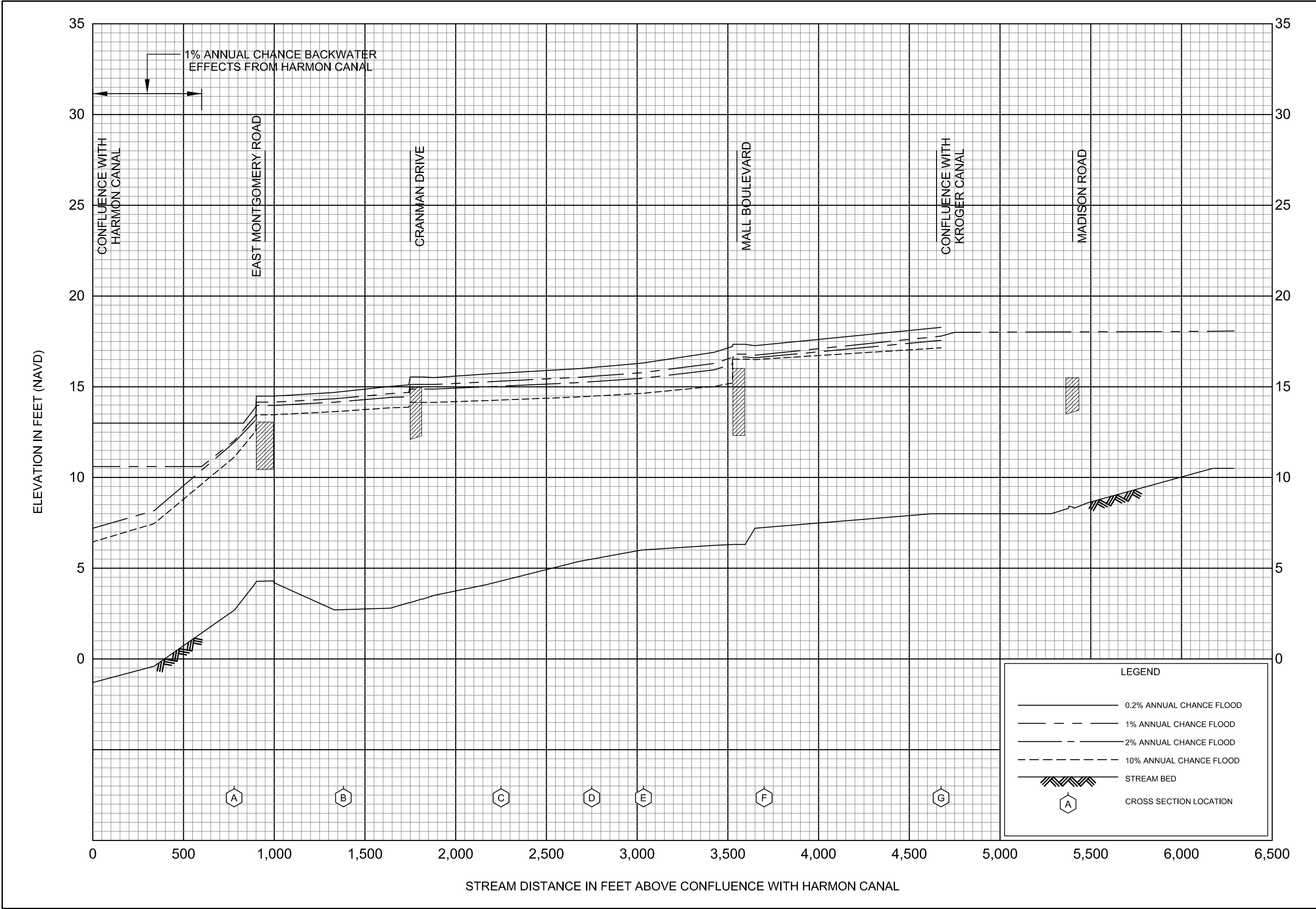












FLOOD PROFILES

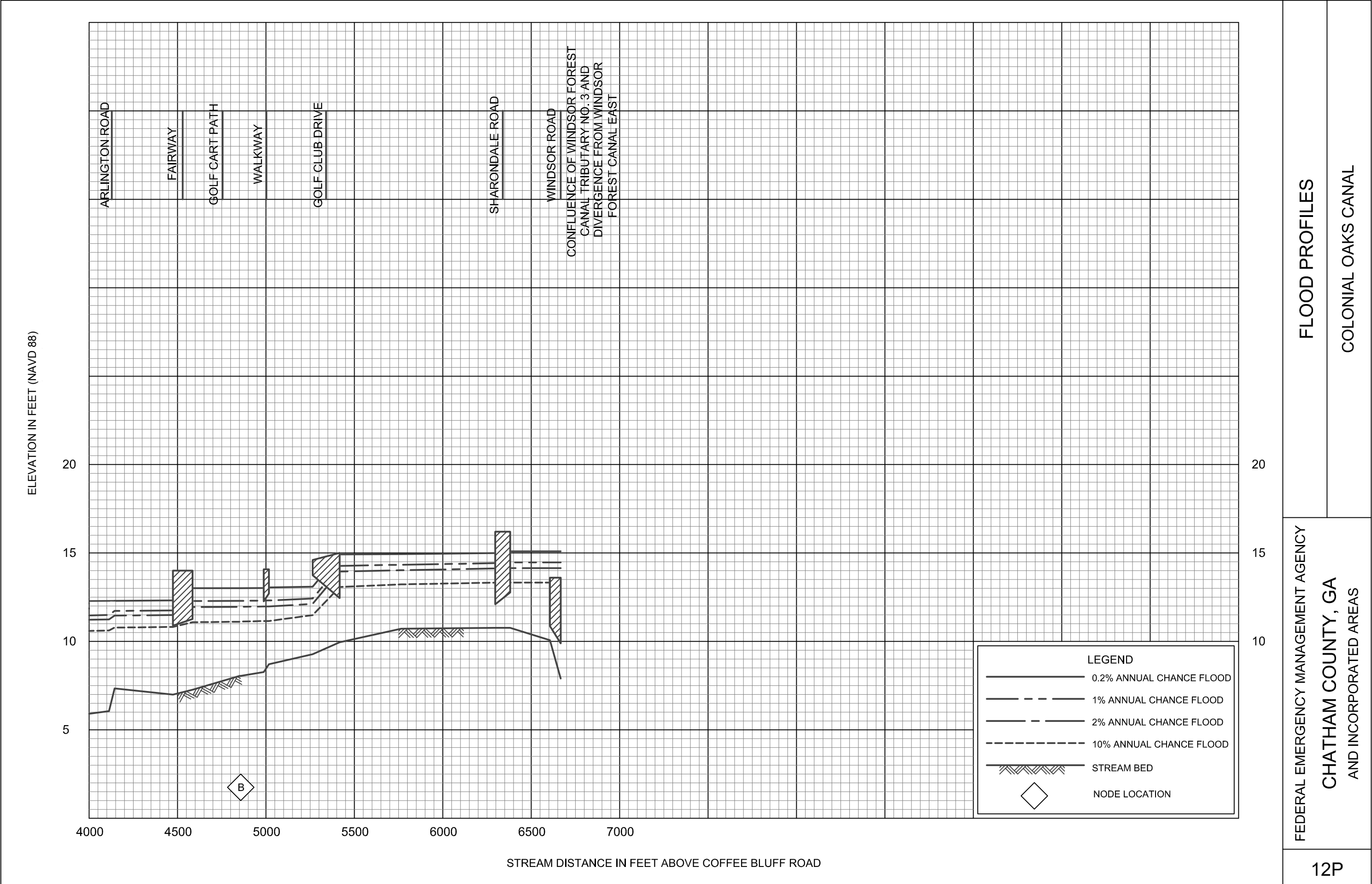
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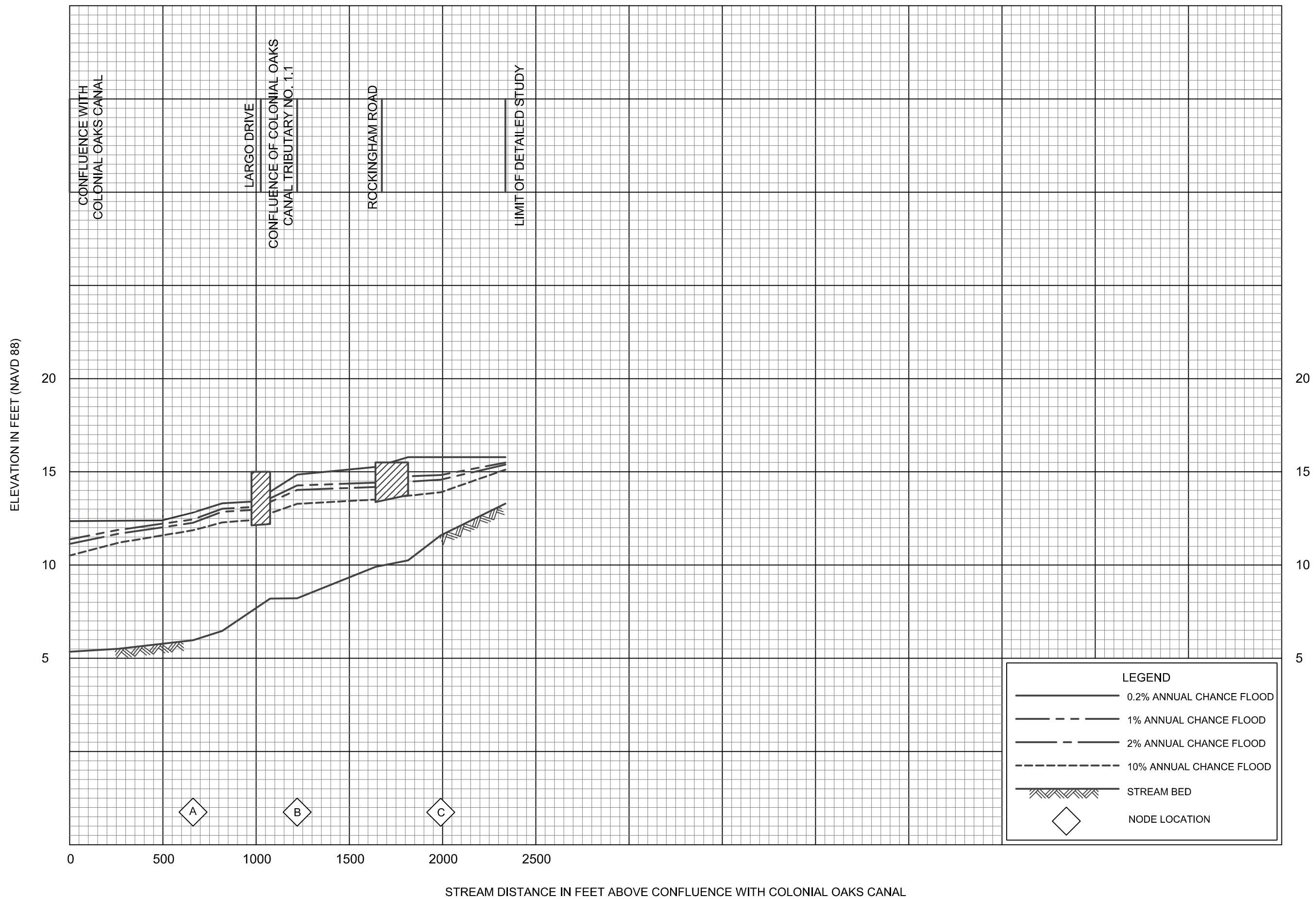
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AND INCORPORATED AREAS





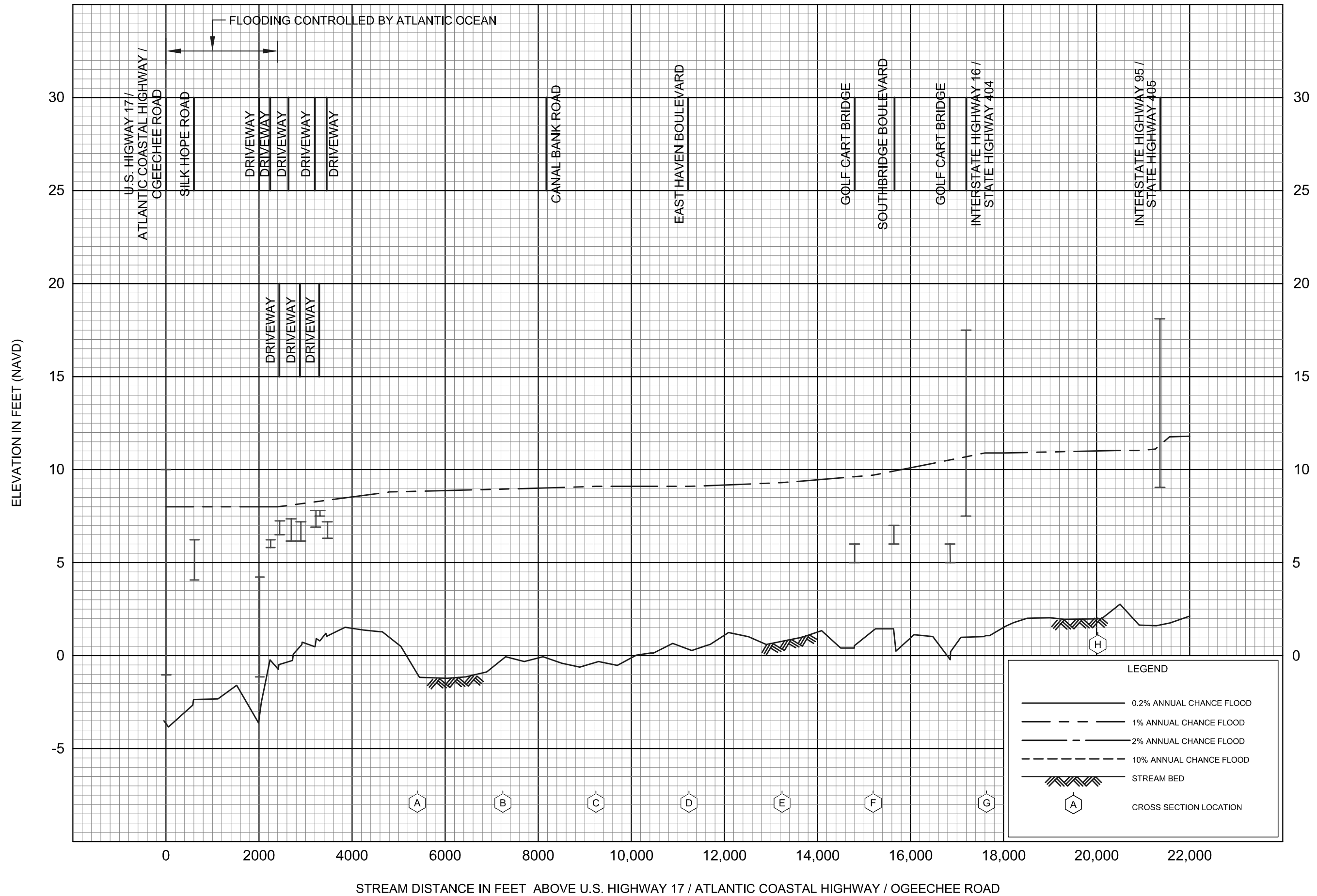










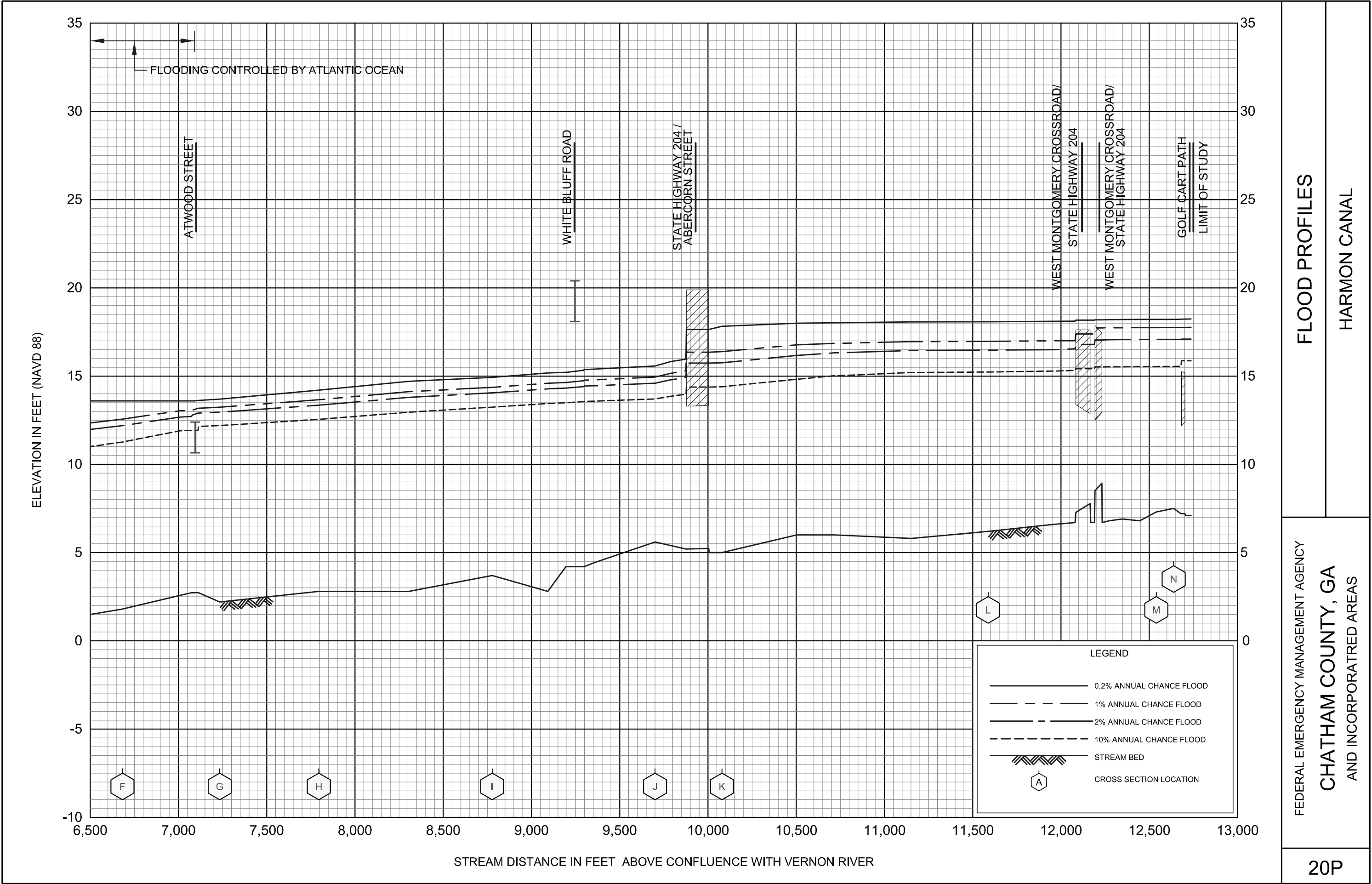






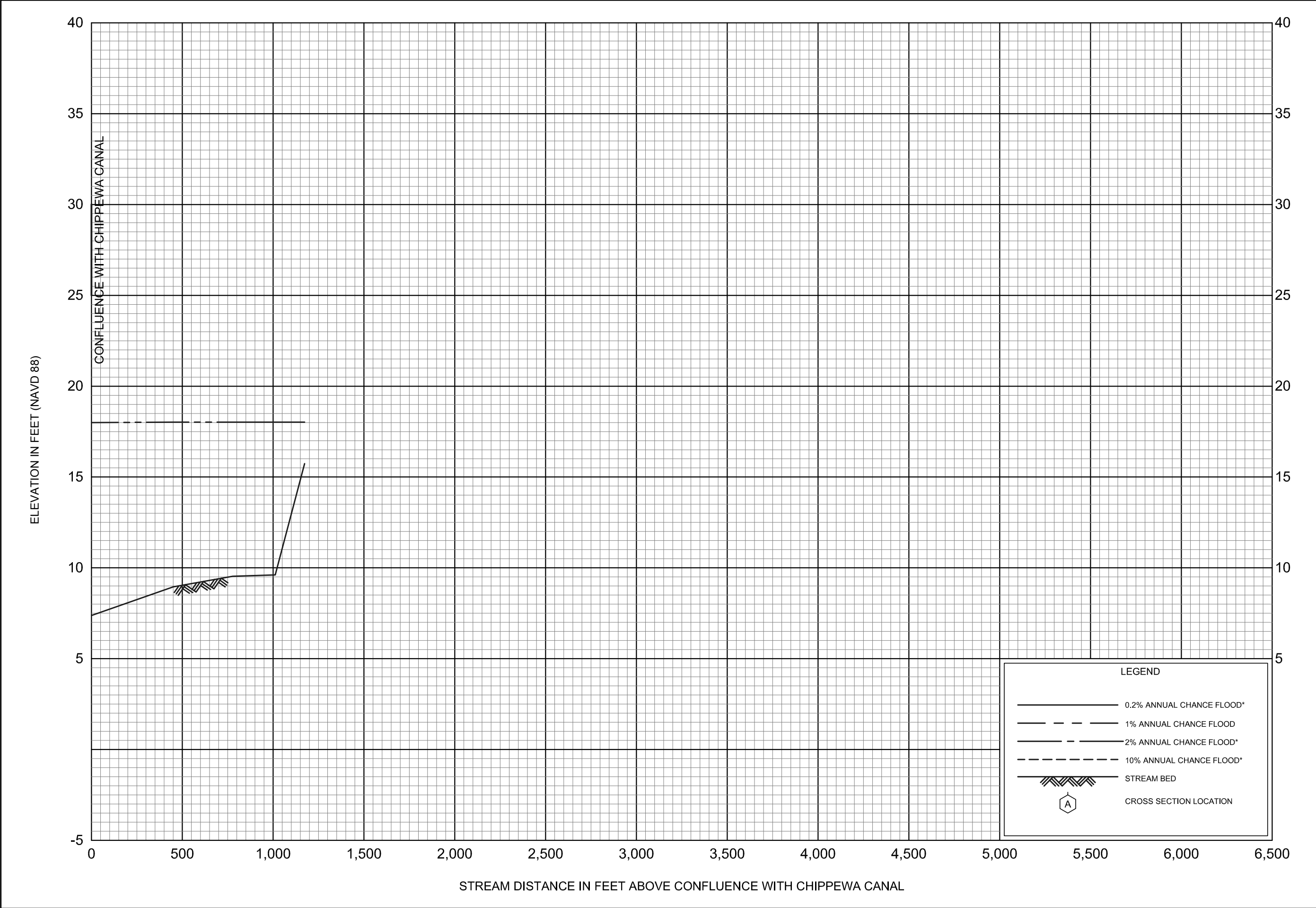












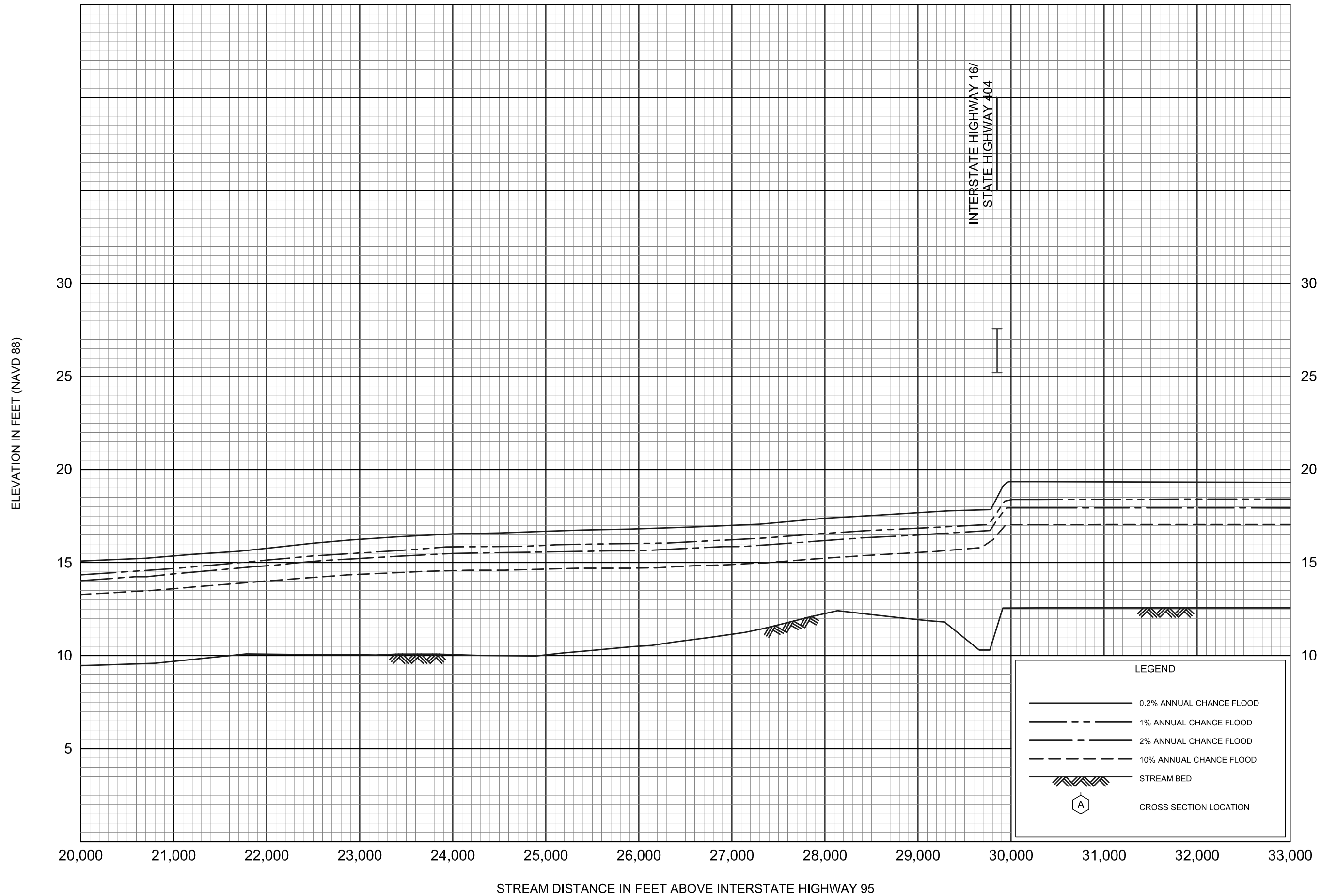
FLOOD PROFILES

KROGER CANAL

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA  
AND INCORPORATED AREAS





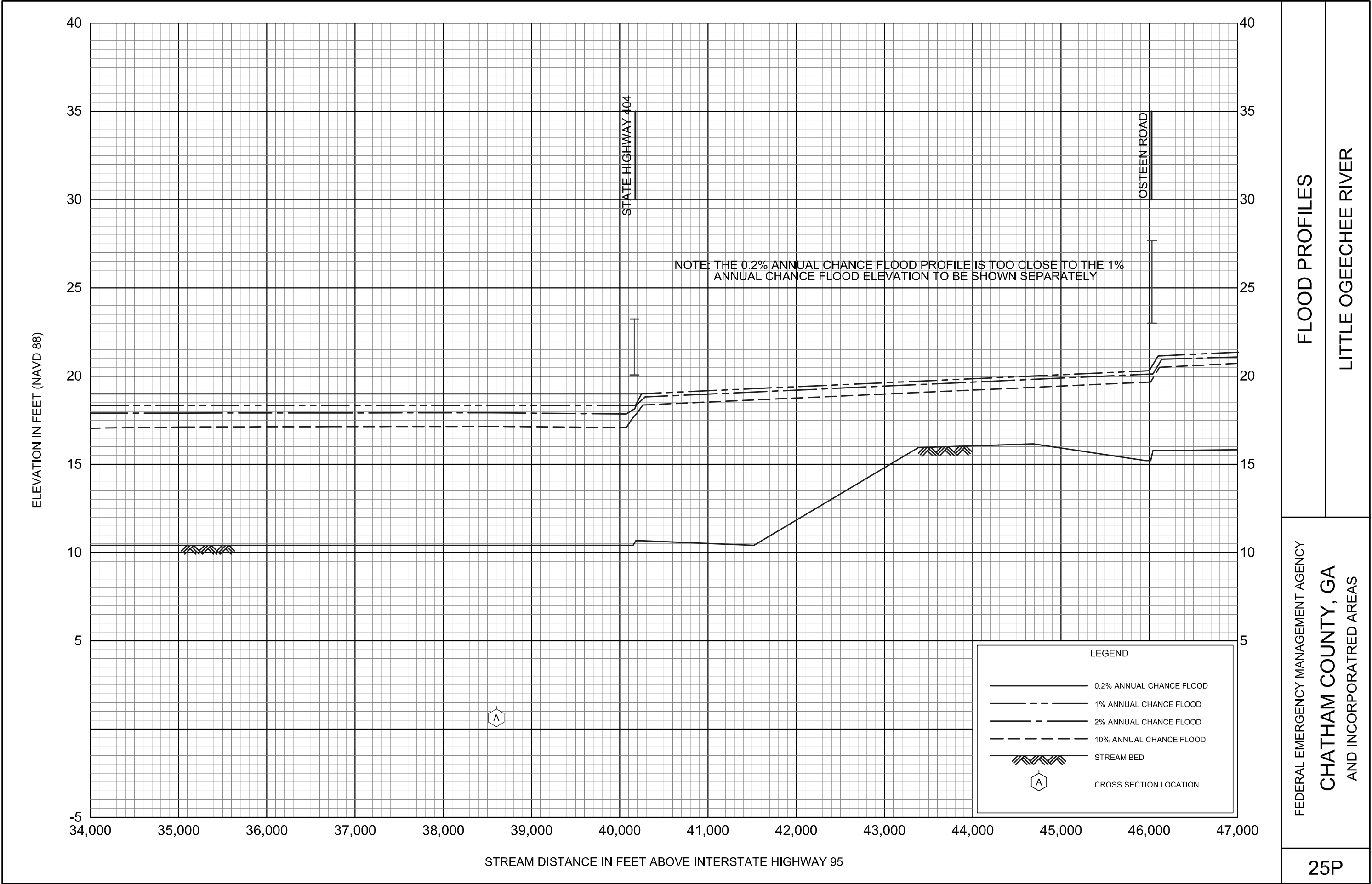
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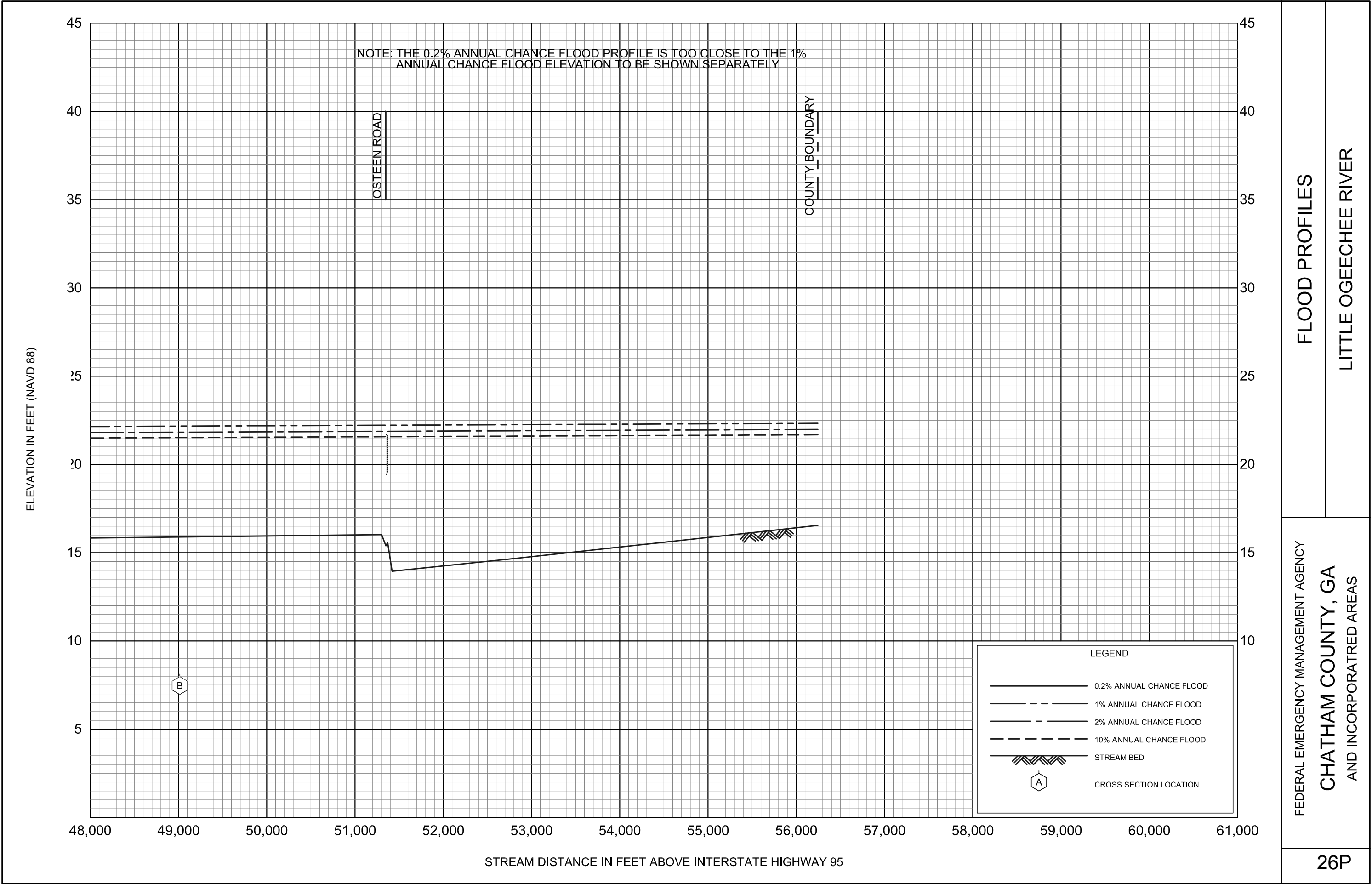
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AND INCORPORATED AREAS

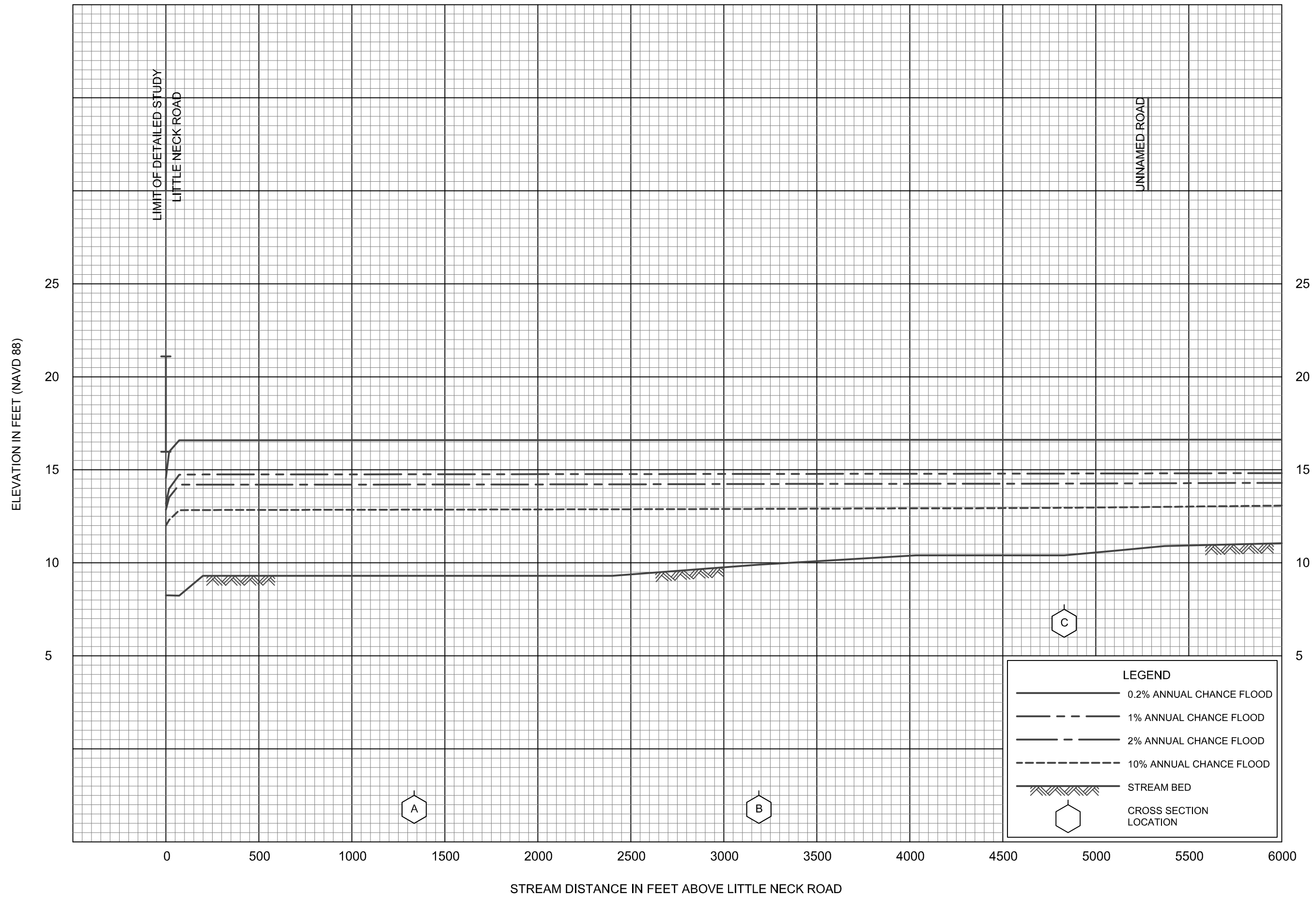
# FLOOD PROFILES

# LITTLE OGEECHEE RIVER

24P







FEDERAL EMERGENCY MANAGEMENT AGENCY

# CHATHAM COUNTY, GA AND INCORPORATED AREAS

# FLOOD PROFILES

# LITTLE OGEECHEE RIVER TRIBUTARY

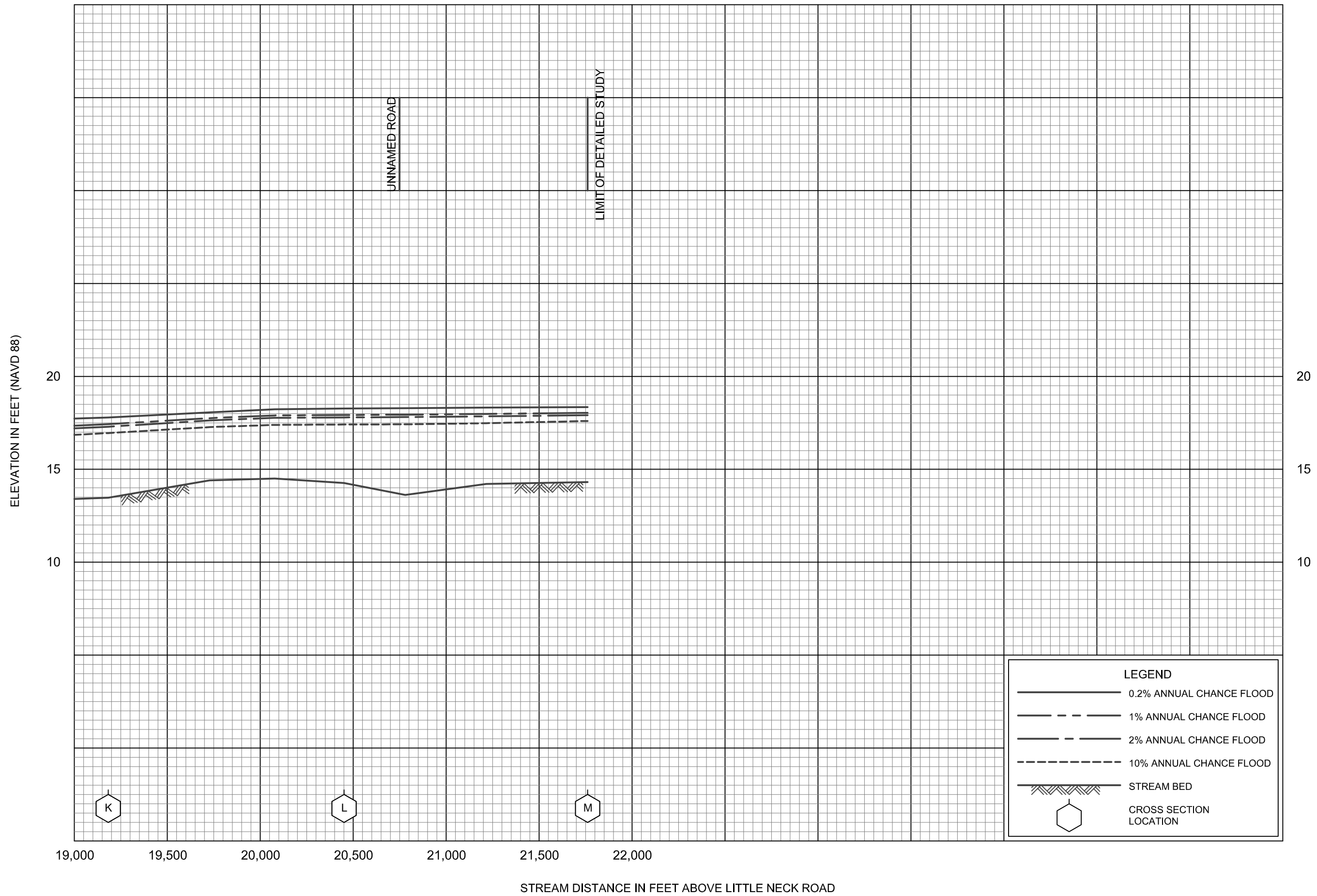
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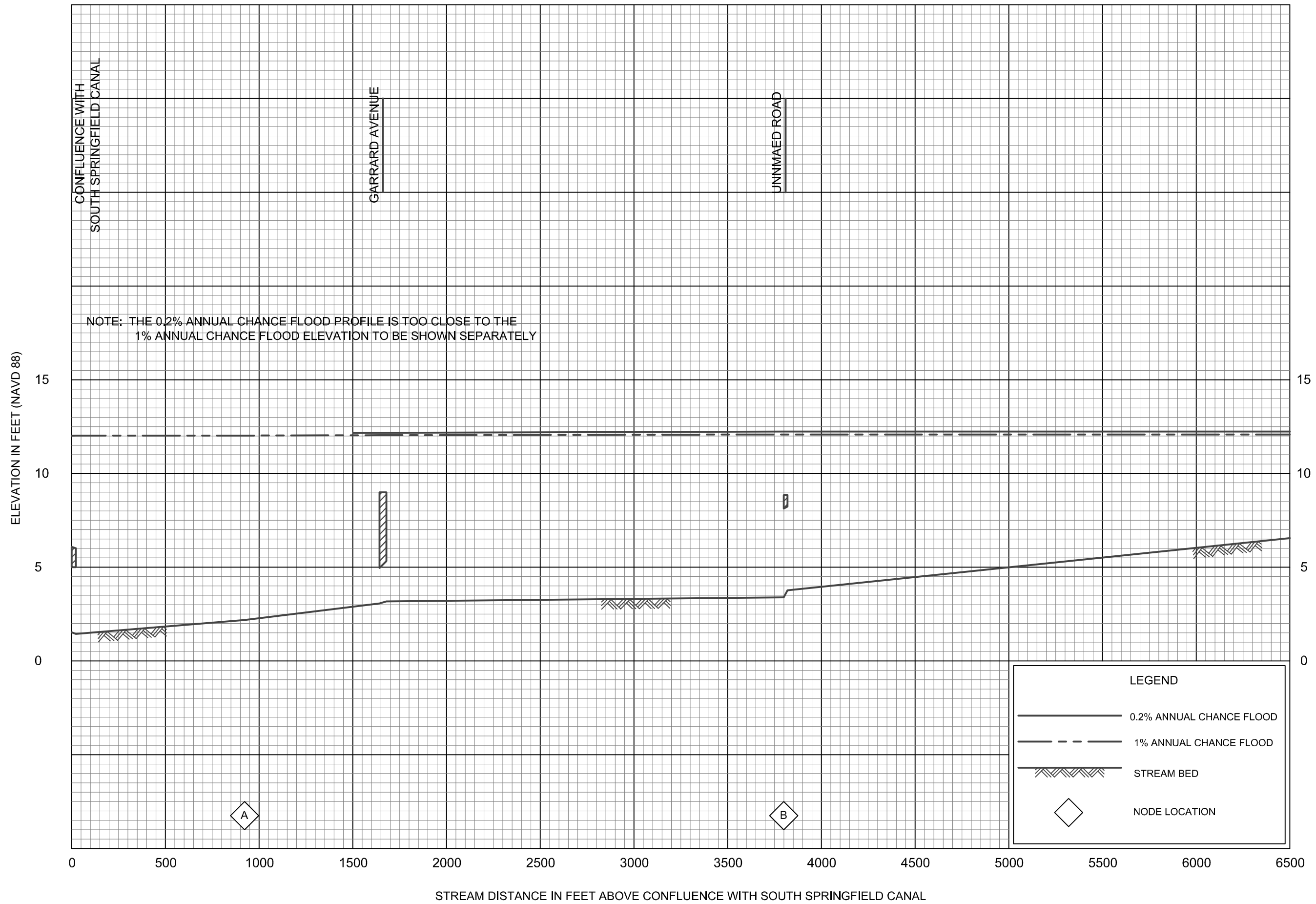












CONFLUENCE WITH  
SOUTH SPRINGFIELD CANAL

GARRARD AVENUE

UNNMAED ROAD

NOTE: THE 0.2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY



### LEGEND

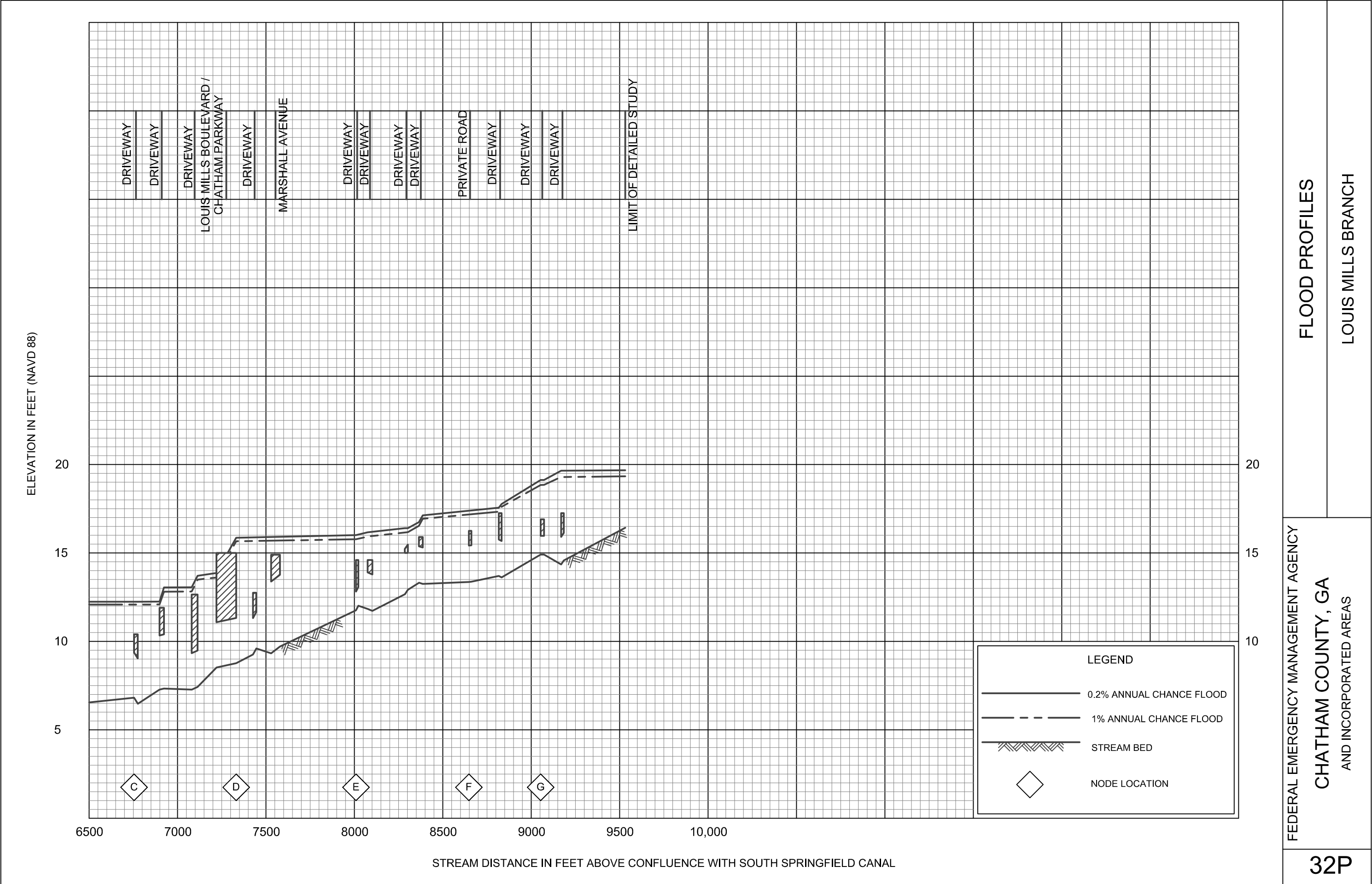
0.2% ANNUAL CHANCE FLOOD

————— 1% ANNUAL CHANCE FLOOD

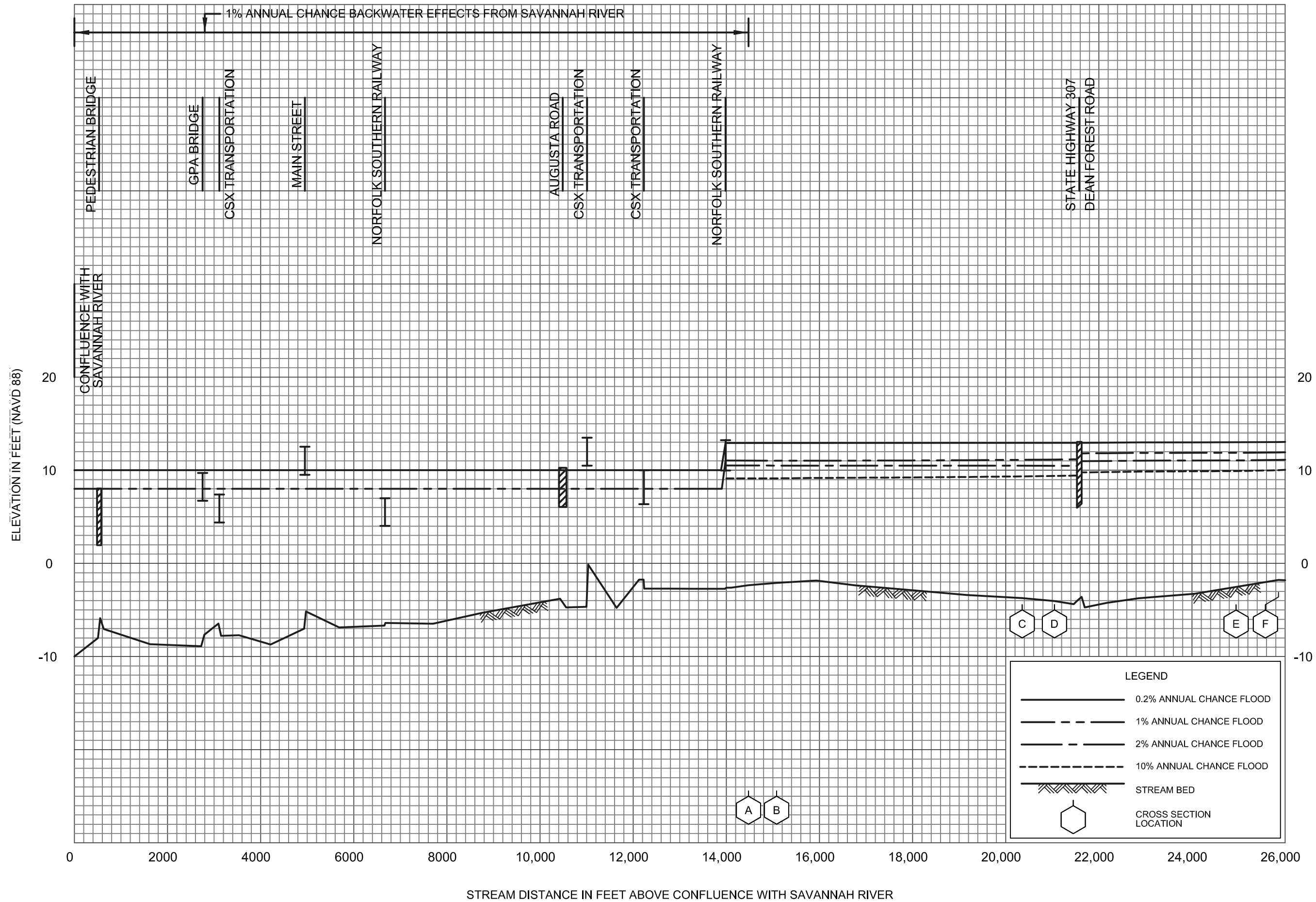


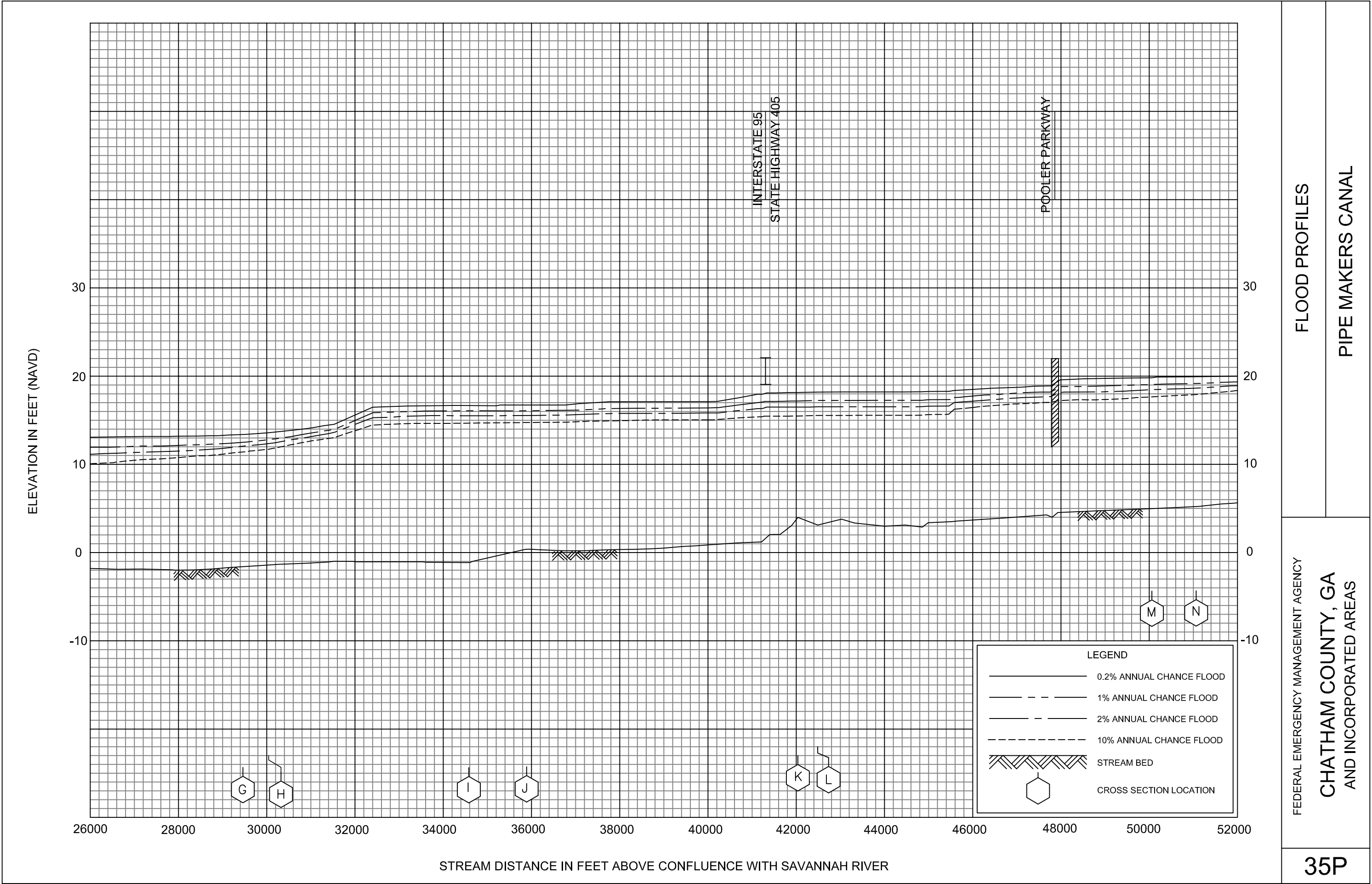
STREAM BED

 NODE LOCATION

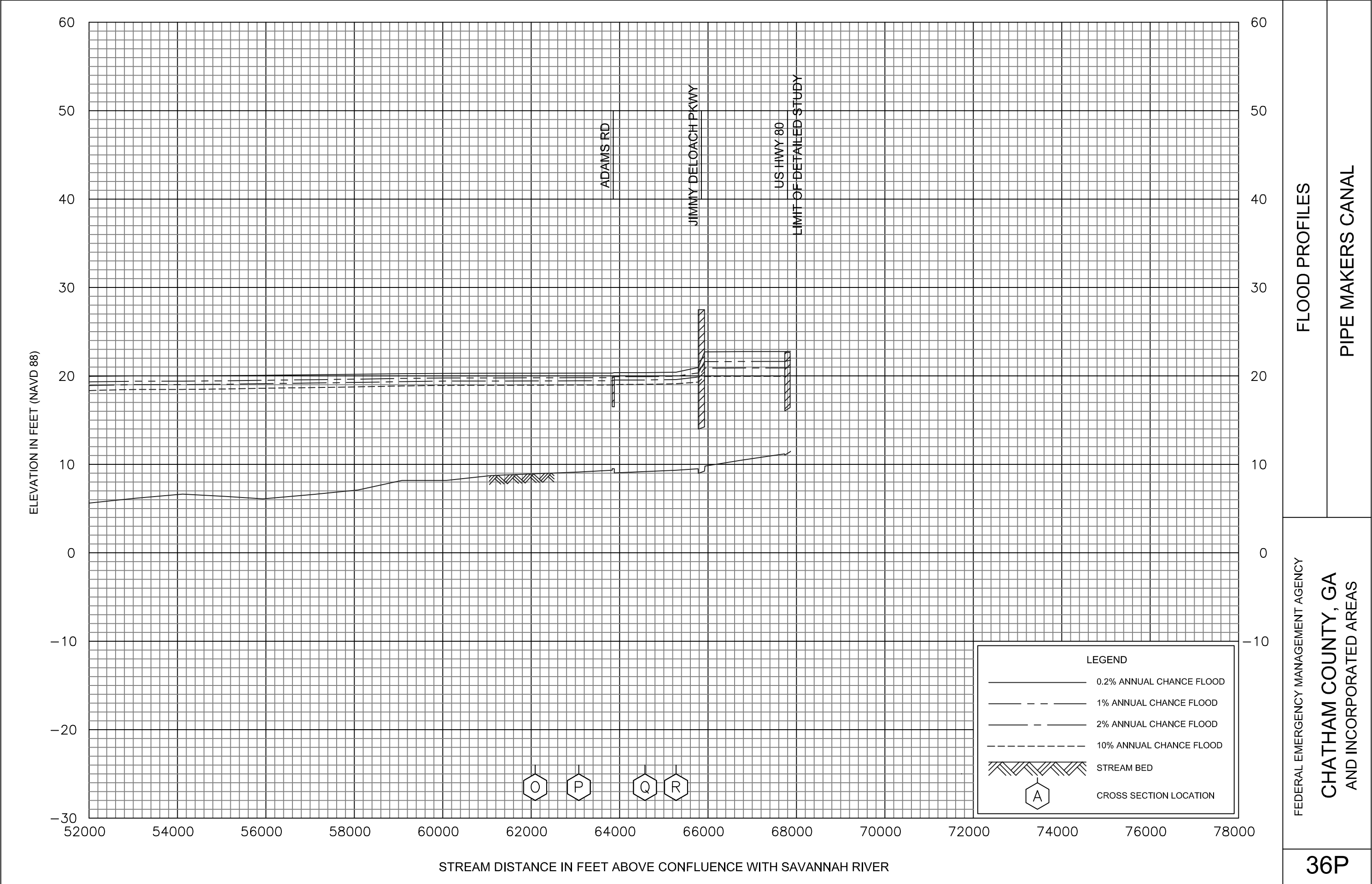


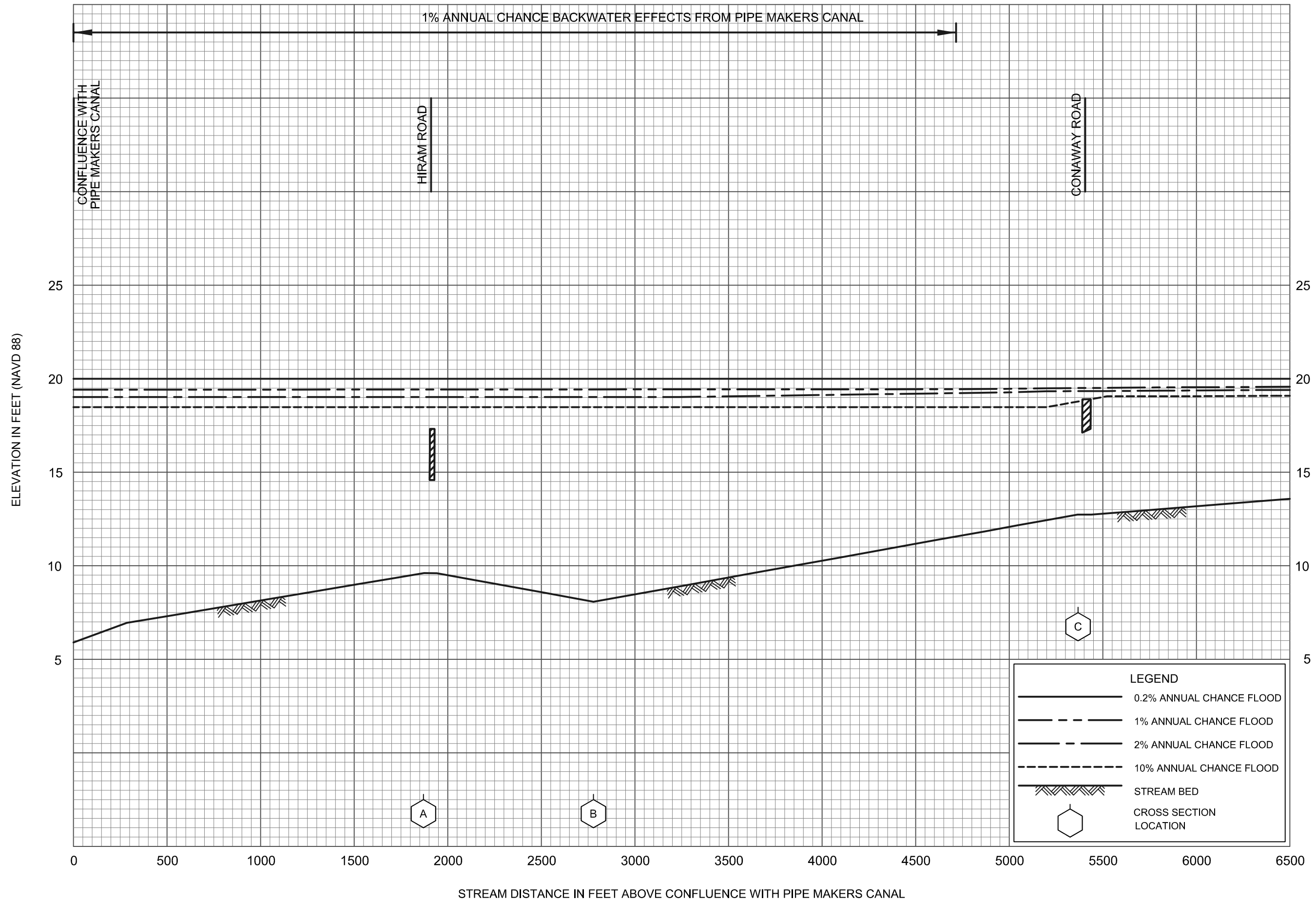












FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA  
AND INCORPORATED AREAS

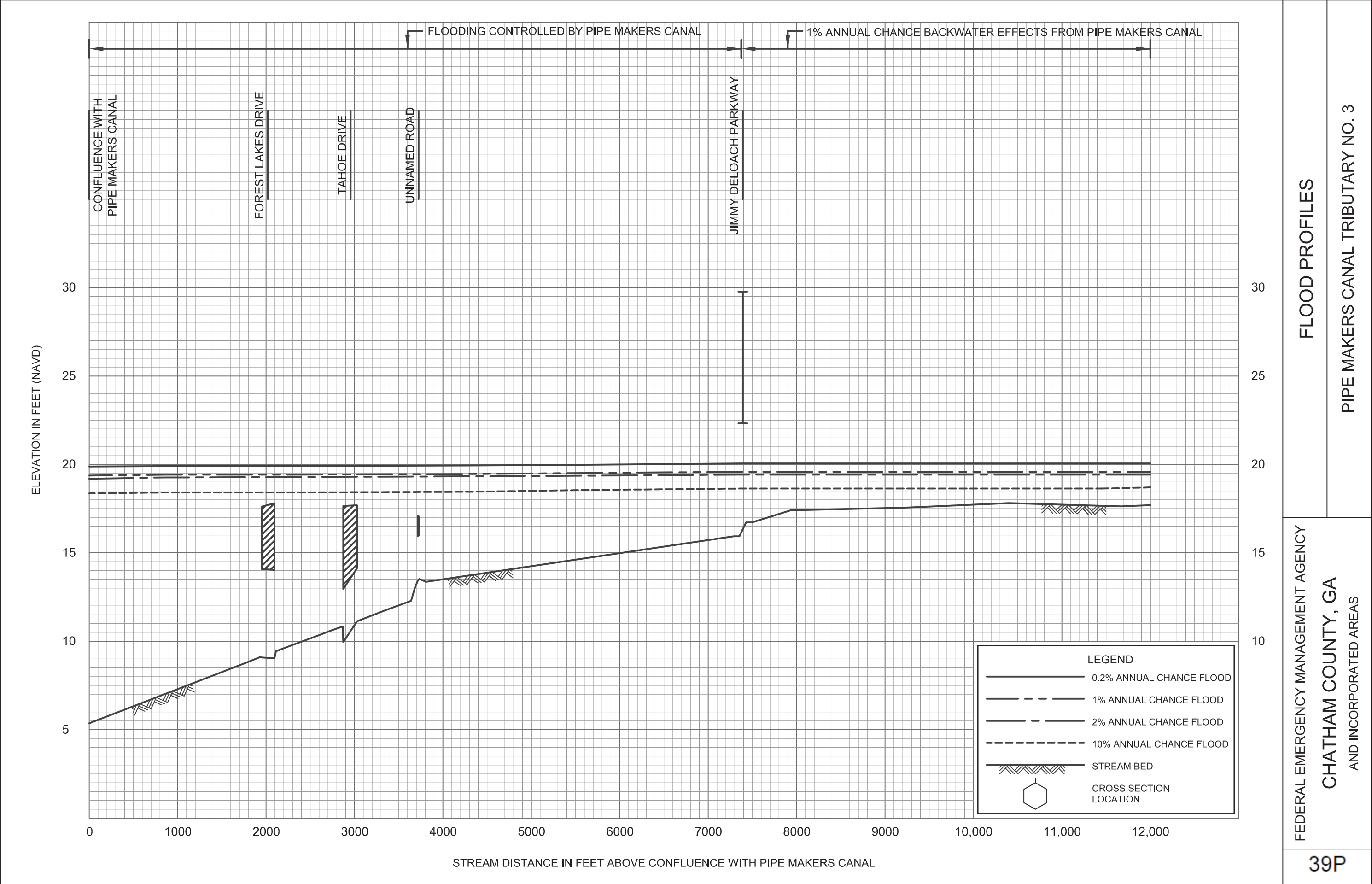
# FLOOD PROFILES

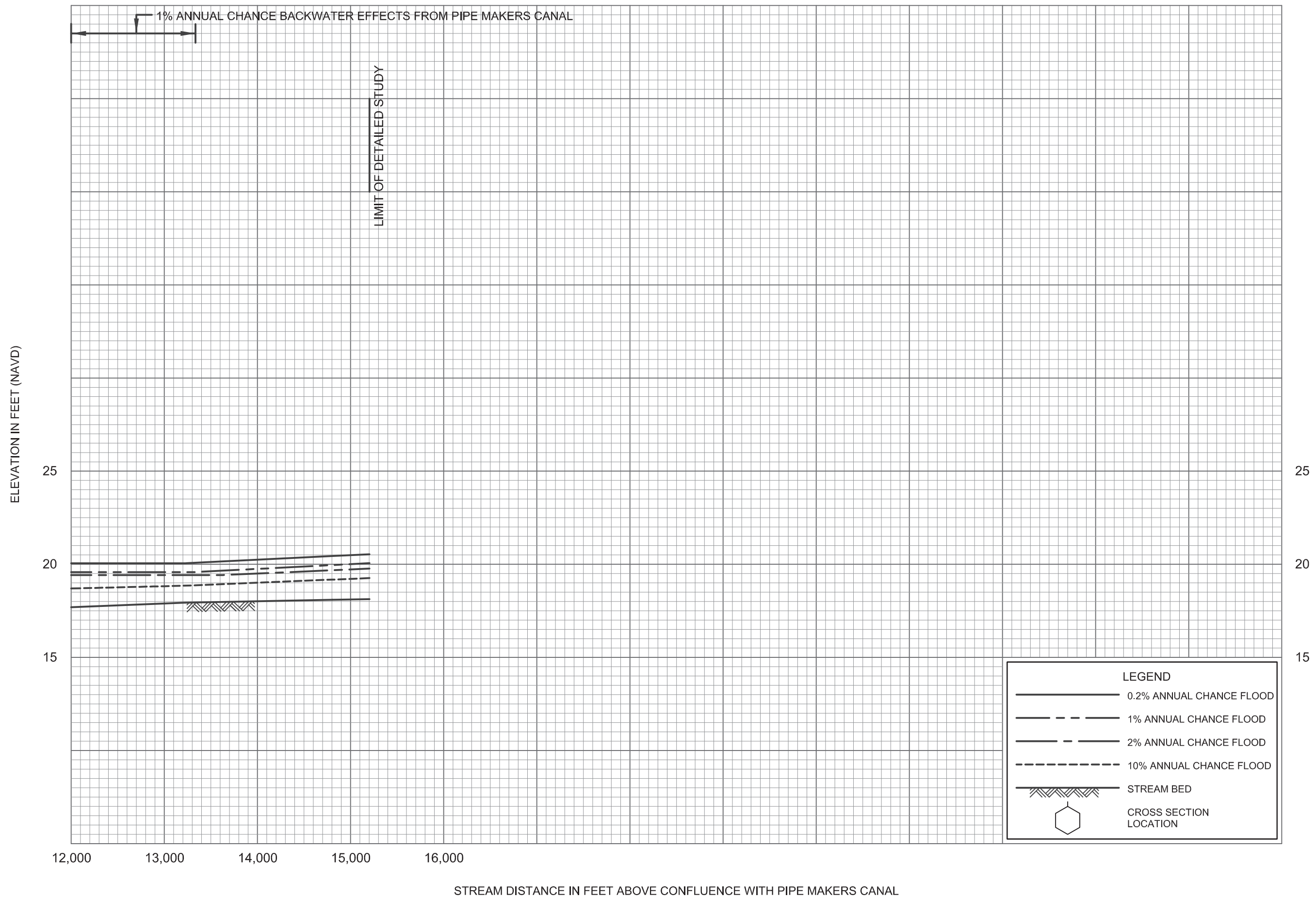
# PIPE MAKERS CANAL TRIBUTARY NO. 2

37P









FEDERAL EMERGENCY MANAGEMENT AGENCY

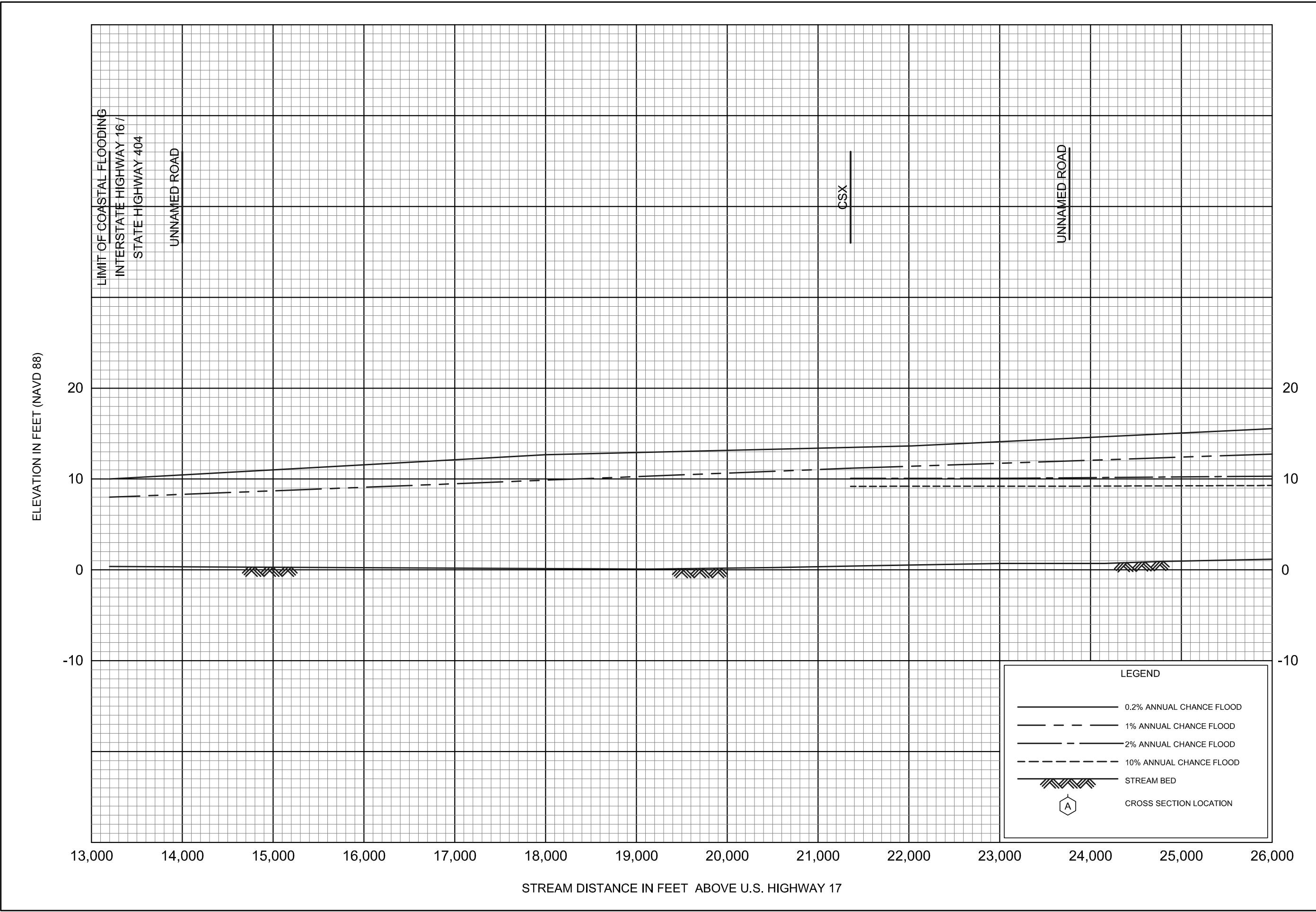
CHATHAM COUNTY, GA

## AND INCORPORATED AREAS

# FLOOD PROFILES

PIPE MAKERS CANAL TRIBUTARY NO. 3

40P

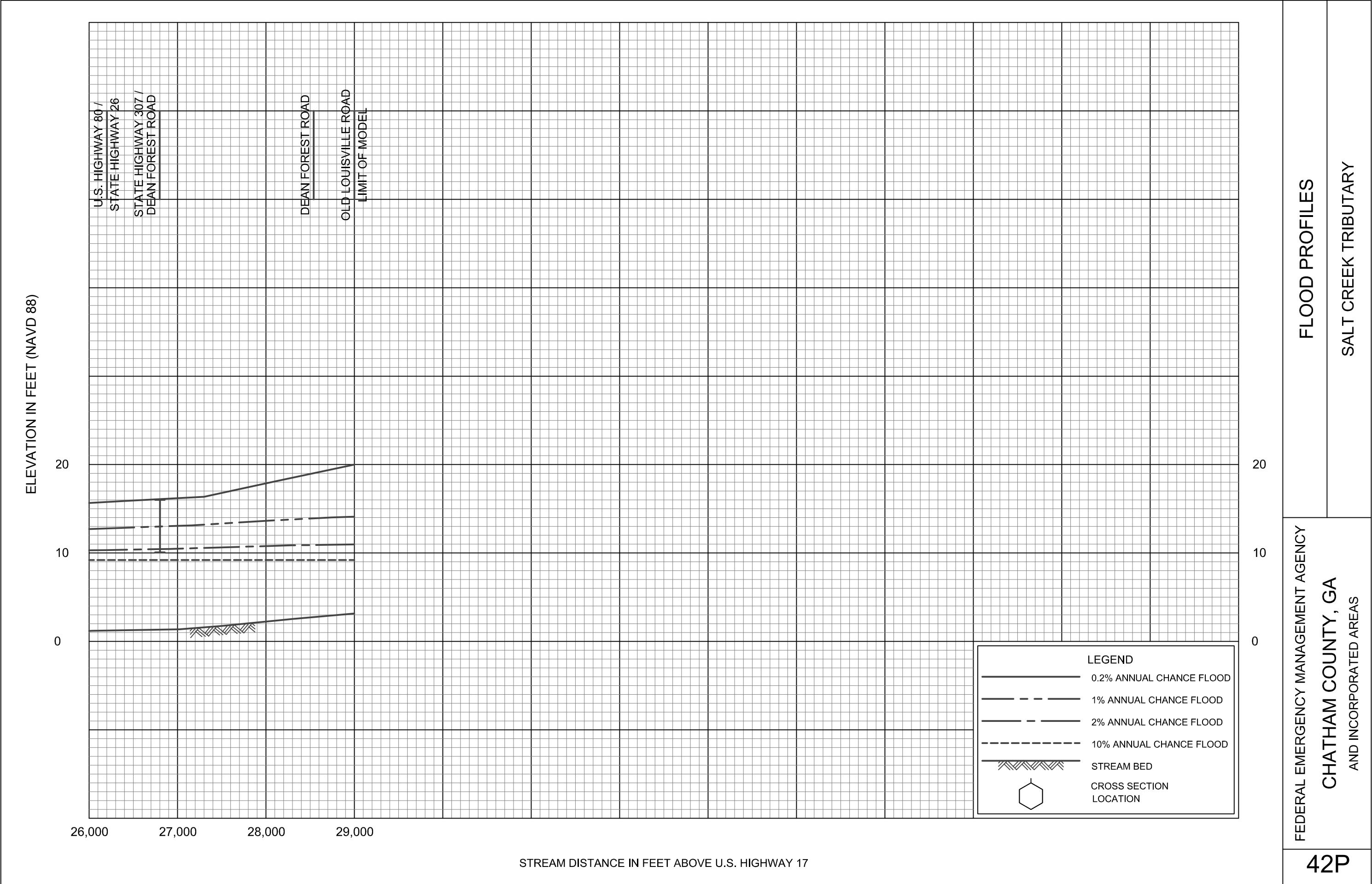


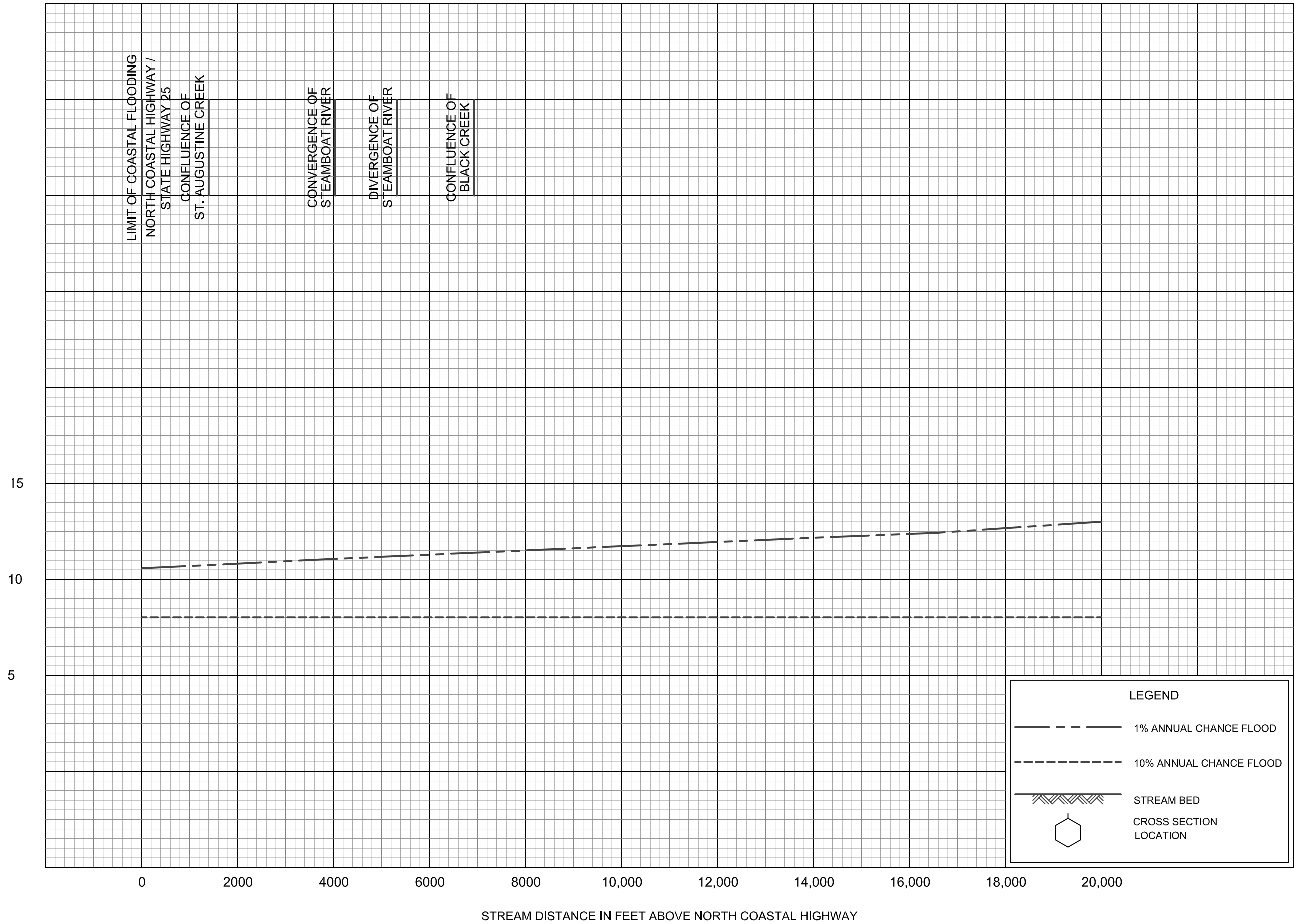
FLOOD PROFILES

SALT CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA  
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The diagram is a cross-section plot with the following components:

- X-axis:** Stream Distance in Feet Above North Coastal Highway, ranging from 0 to 20,000 feet with major grid lines every 2,000 feet.
- Y-axis:** Elevation in feet, with major grid lines at 5, 10, and 15 feet.
- Legend:**
  - 1% ANNUAL CHANCE FLOOD:** Represented by a solid line.
  - 10% ANNUAL CHANCE FLOOD:** Represented by a dashed line.
  - STREAM BED:** Represented by a line with diagonal hatching.
  - CROSS SECTION LOCATION:** Represented by a hexagonal symbol.
- Key Locations (marked with vertical lines and labels):**
  - 0 feet: LIMIT OF COASTAL FLOODING, NORTH COASTAL HIGHWAY / STATE HIGHWAY 25, CONFLUENCE OF ST. AUGUSTINE CREEK
  - ~4,000 feet: CONVERGENCE OF STEAMBOAT RIVER
  - ~5,500 feet: DIVERGENCE OF STEAMBOAT RIVER
  - ~7,000 feet: CONFLUENCE OF BLACK CREEK
- Data Series:**
  - Stream Bed:** A solid line starting at approximately 10.5 feet at 0 feet distance and rising to about 13.5 feet at 20,000 feet.
  - 10% Annual Chance Flood:** A dashed line starting at approximately 8.5 feet at 0 feet distance and rising to about 13.0 feet at 20,000 feet.
  - 1% Annual Chance Flood:** A solid line starting at approximately 10.5 feet at 0 feet distance and rising to about 13.5 feet at 20,000 feet, closely following the stream bed profile.

# FLOOD PROFILES

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## SAVANNAH RIVER

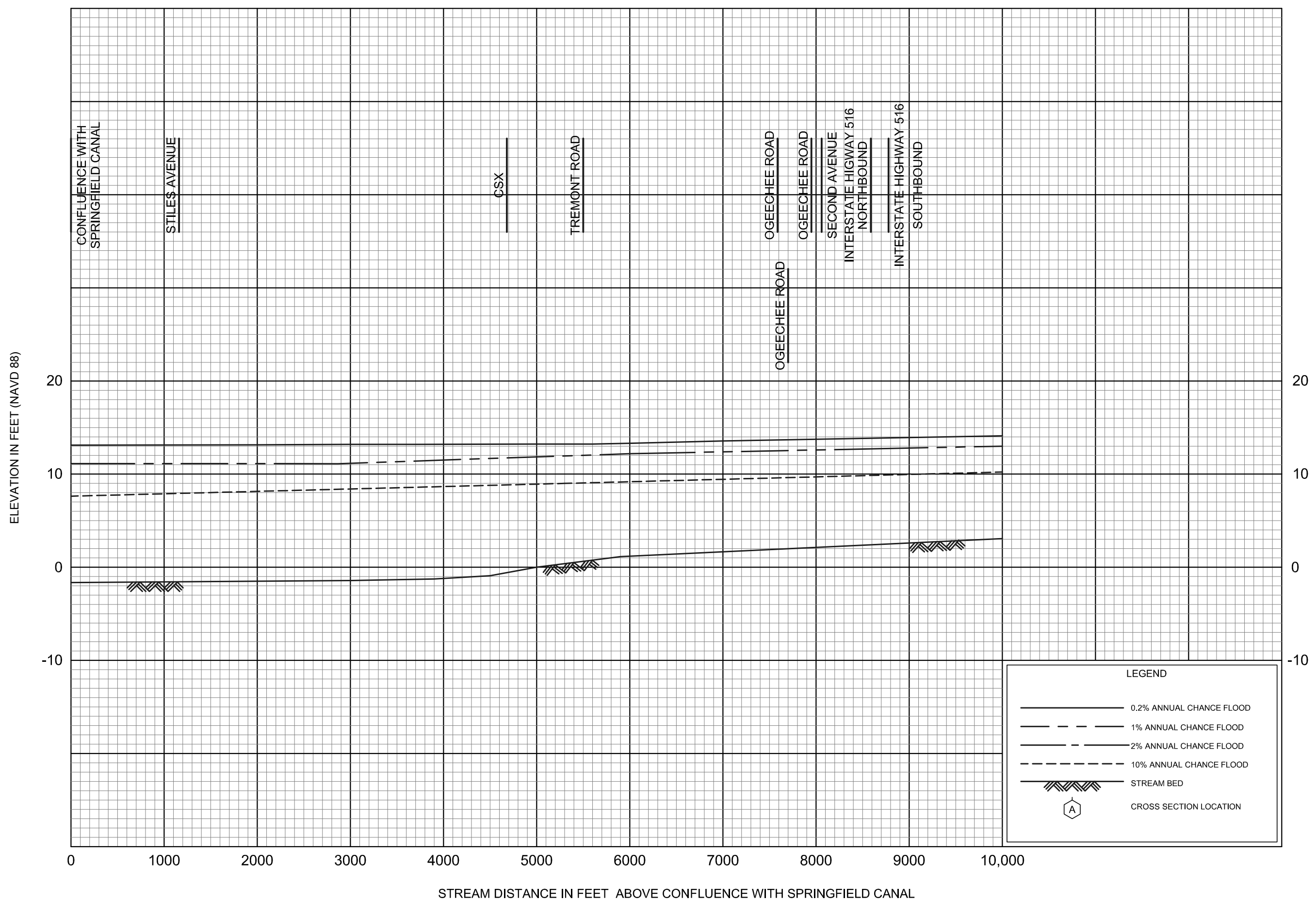
SAVANNAH RIVER











# FLOOD PROFILES

SPRINGFIELD CANAL TRIBUTARY A

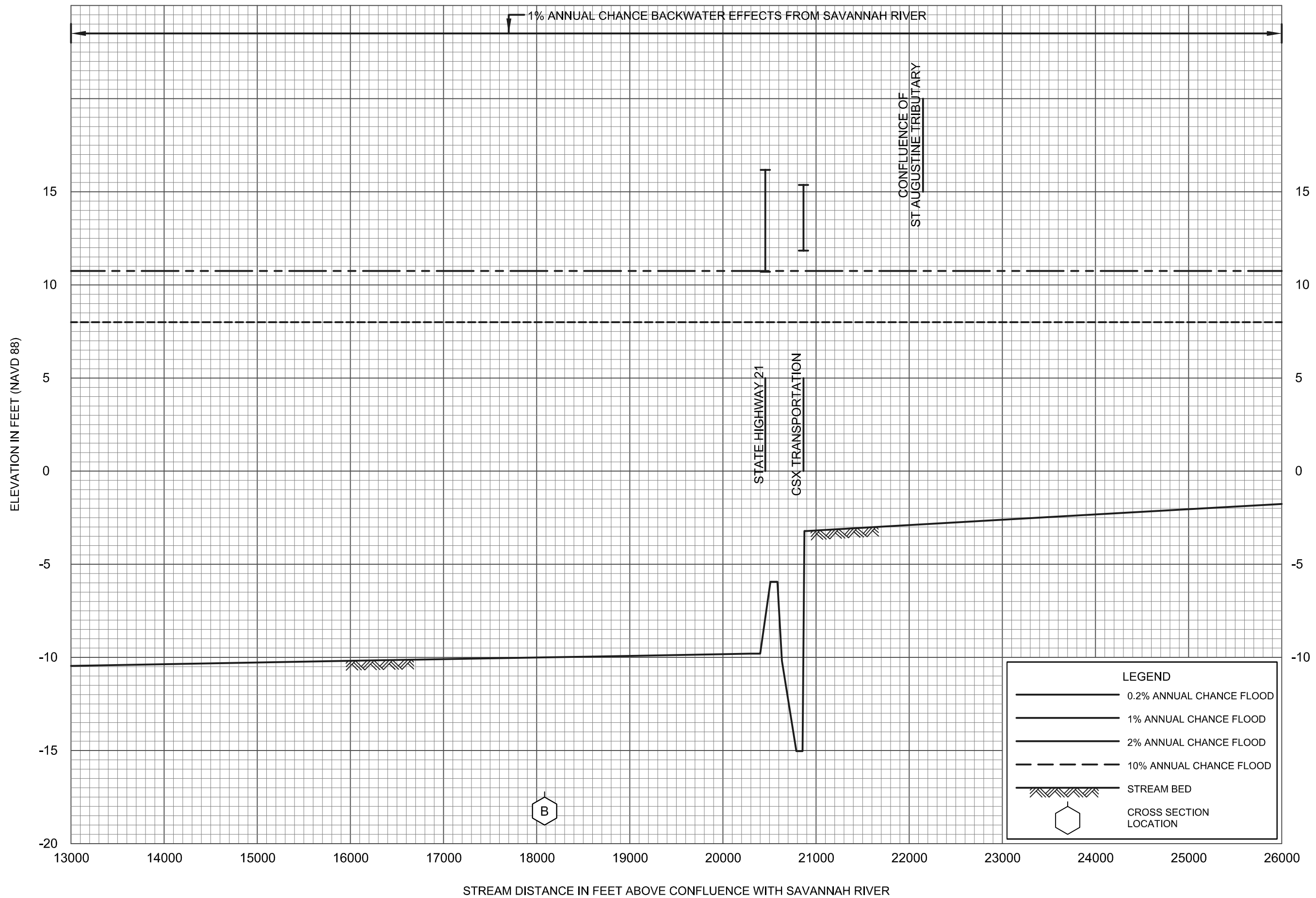
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA  
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46P







FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA

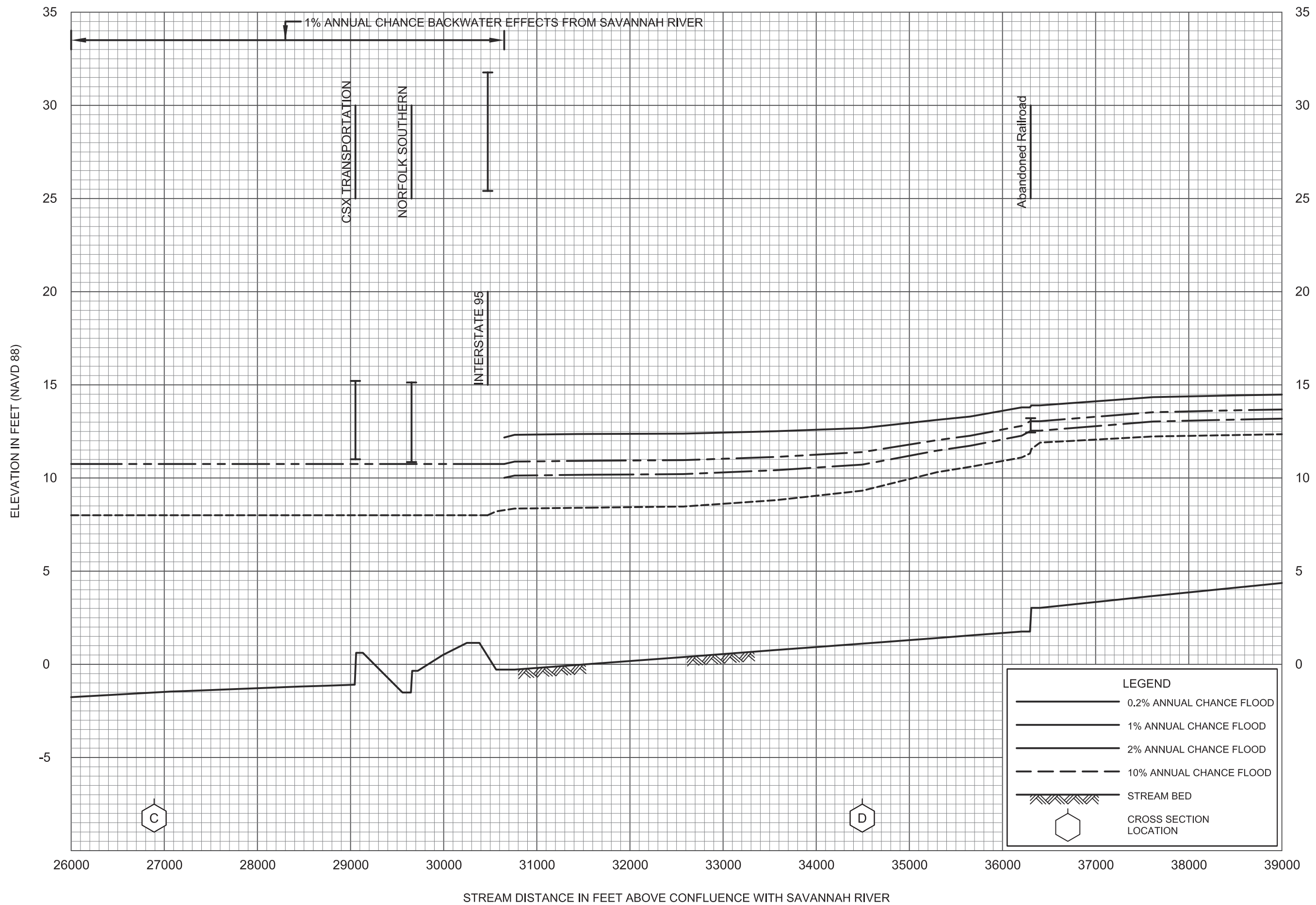
## AND INCORPORATED AREAS

# FLOOD PROFILES

ST AUGUSTINE CREEK

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49P



## FLOOD PROFILES

ST AUGUSTINE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

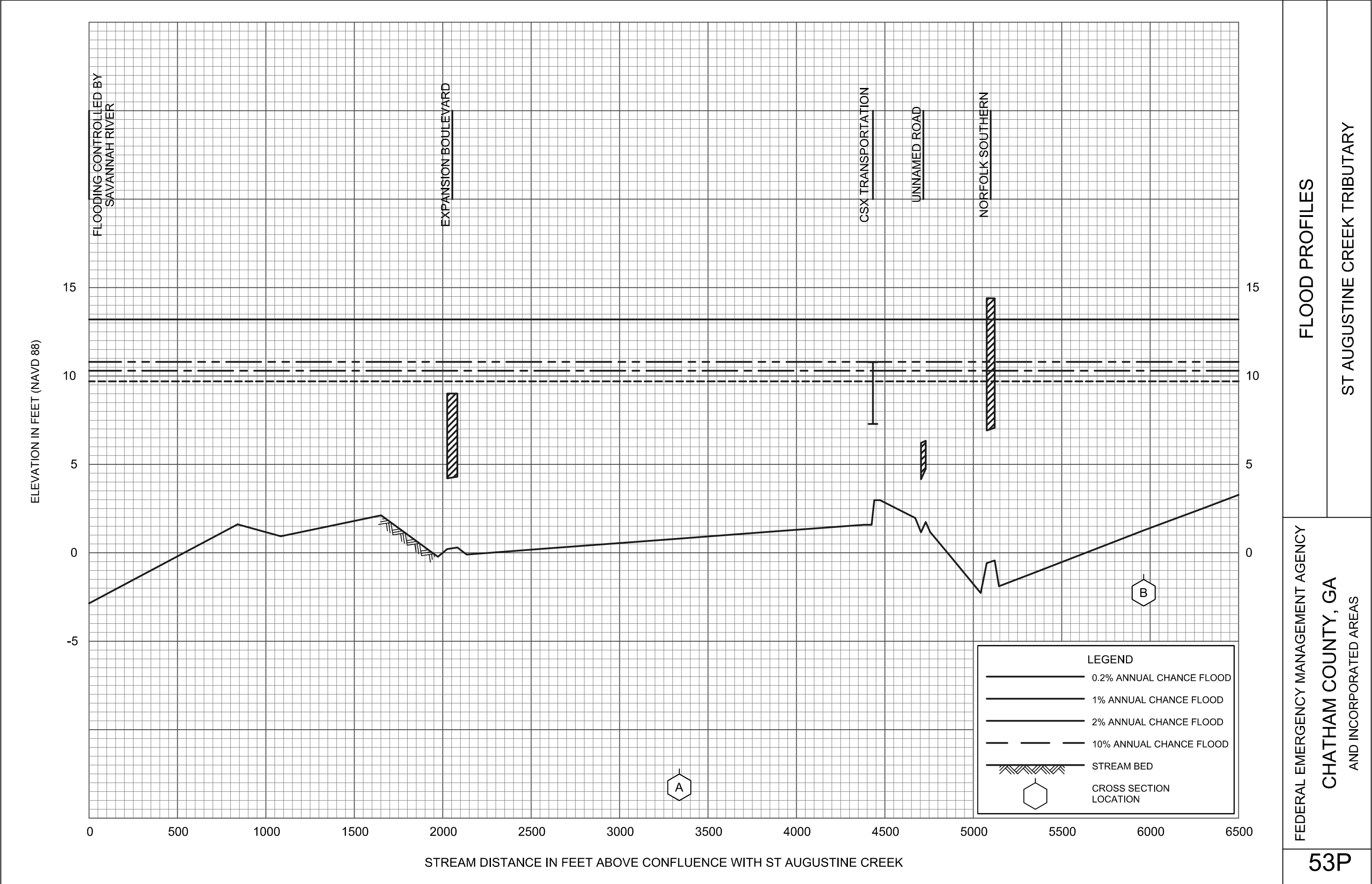
CHATHAM COUNTY, GA  
AND INCORPORATED AREAS

50P









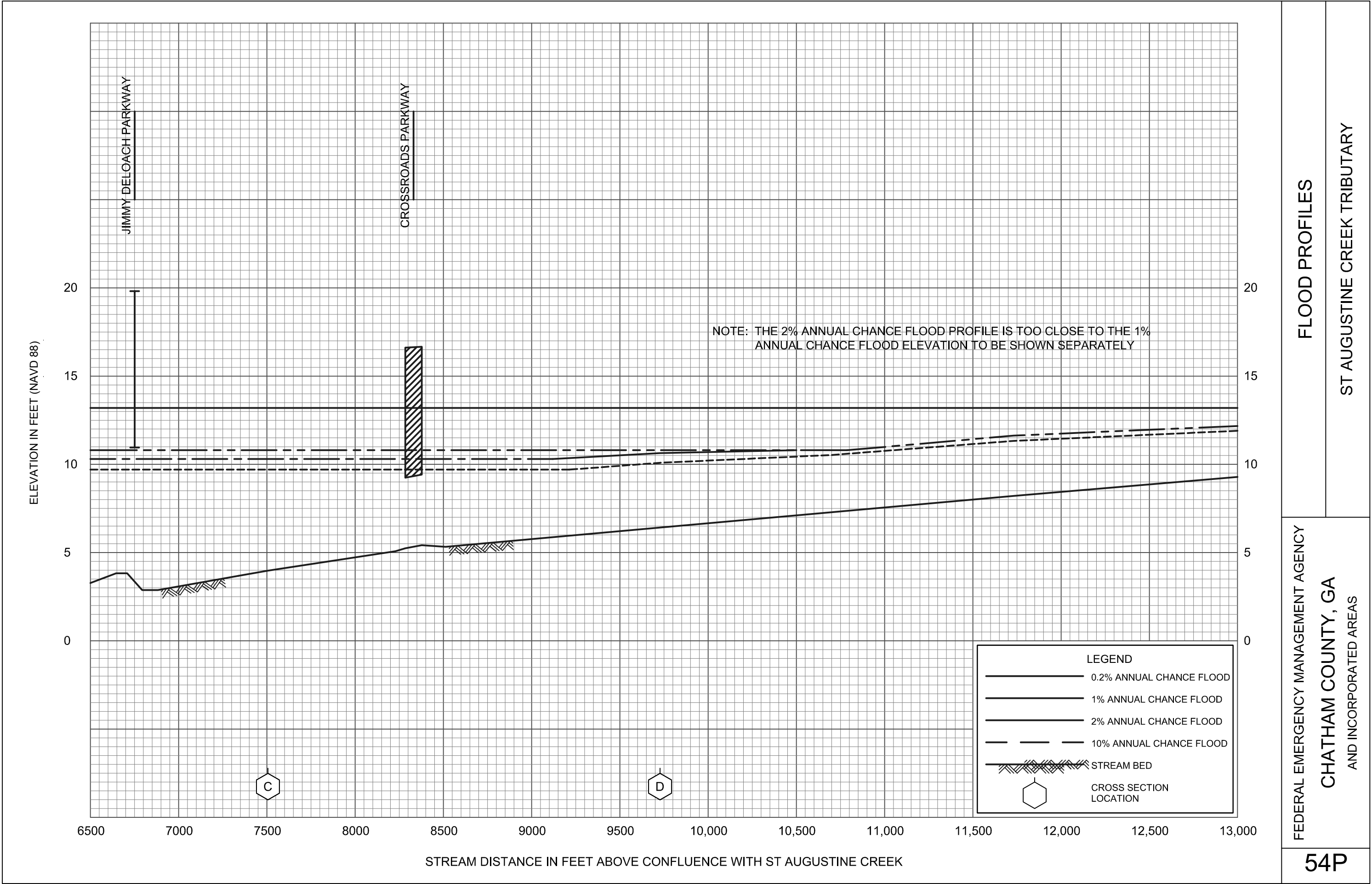
FLOOD PROFILES

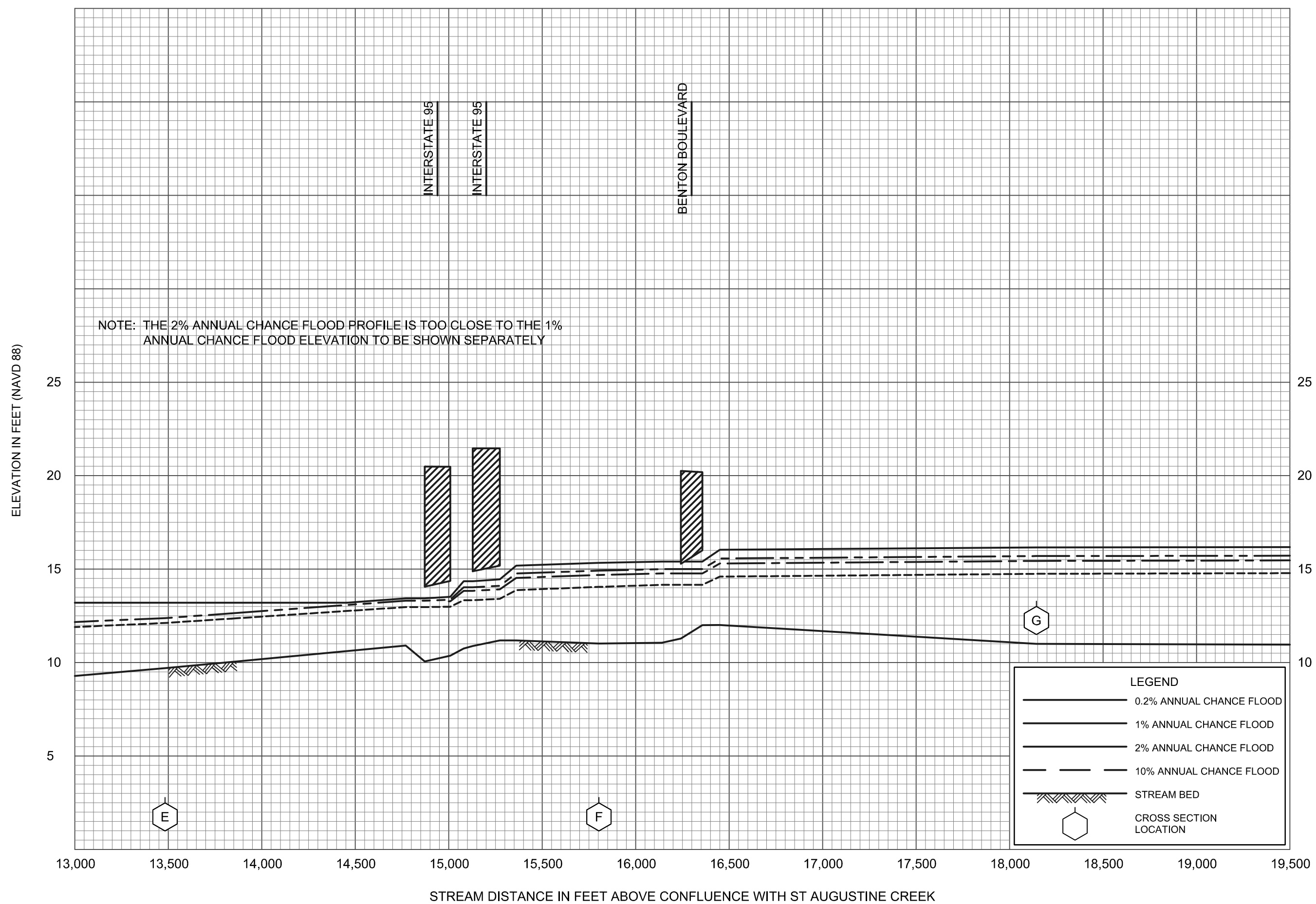
ST AUGUSTINE CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA  
AND INCORPORATED AREAS







## FLOOD PROFILES

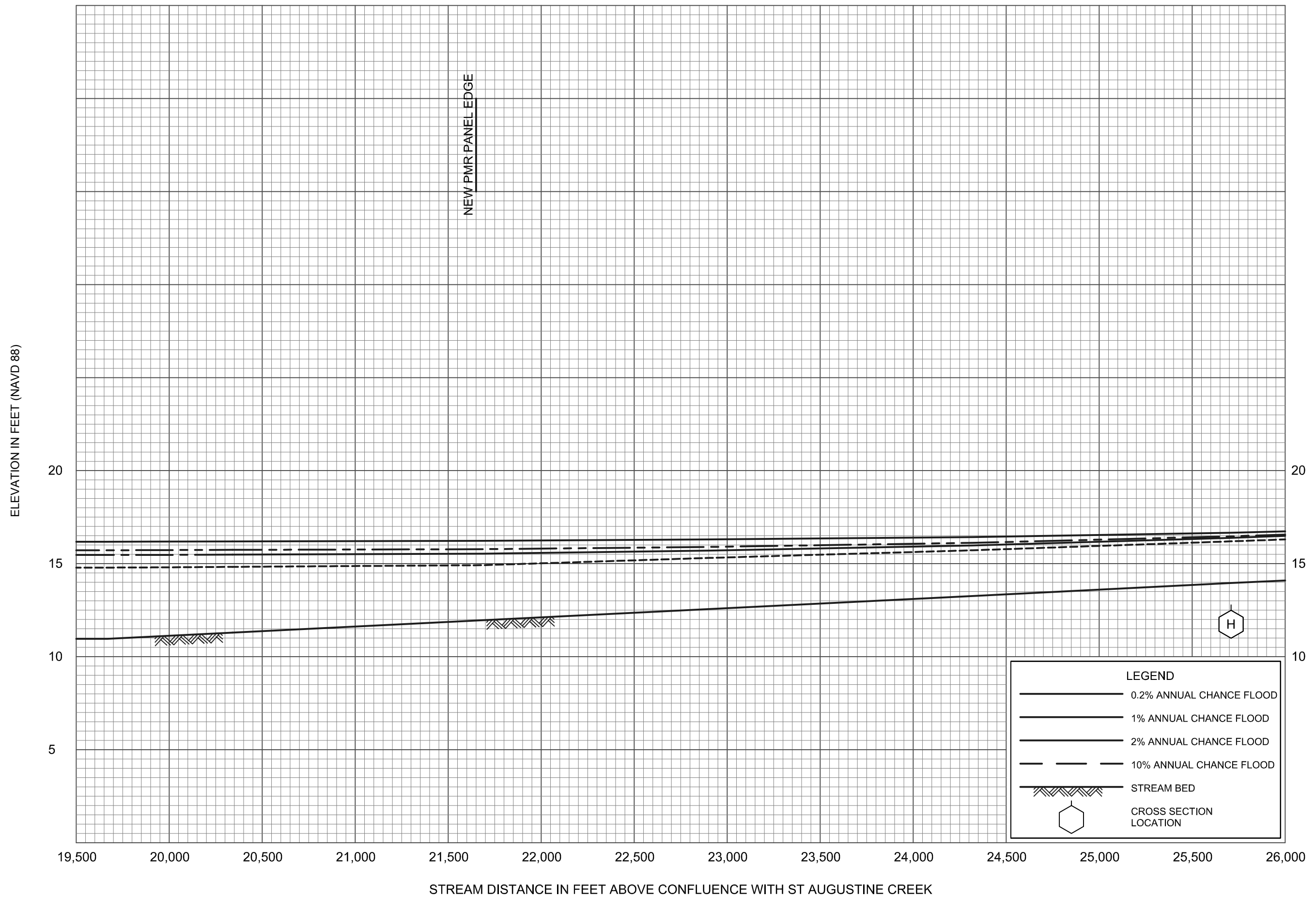
ST AUGUSTINE CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA

## AND INCORPORATED AREAS

55P



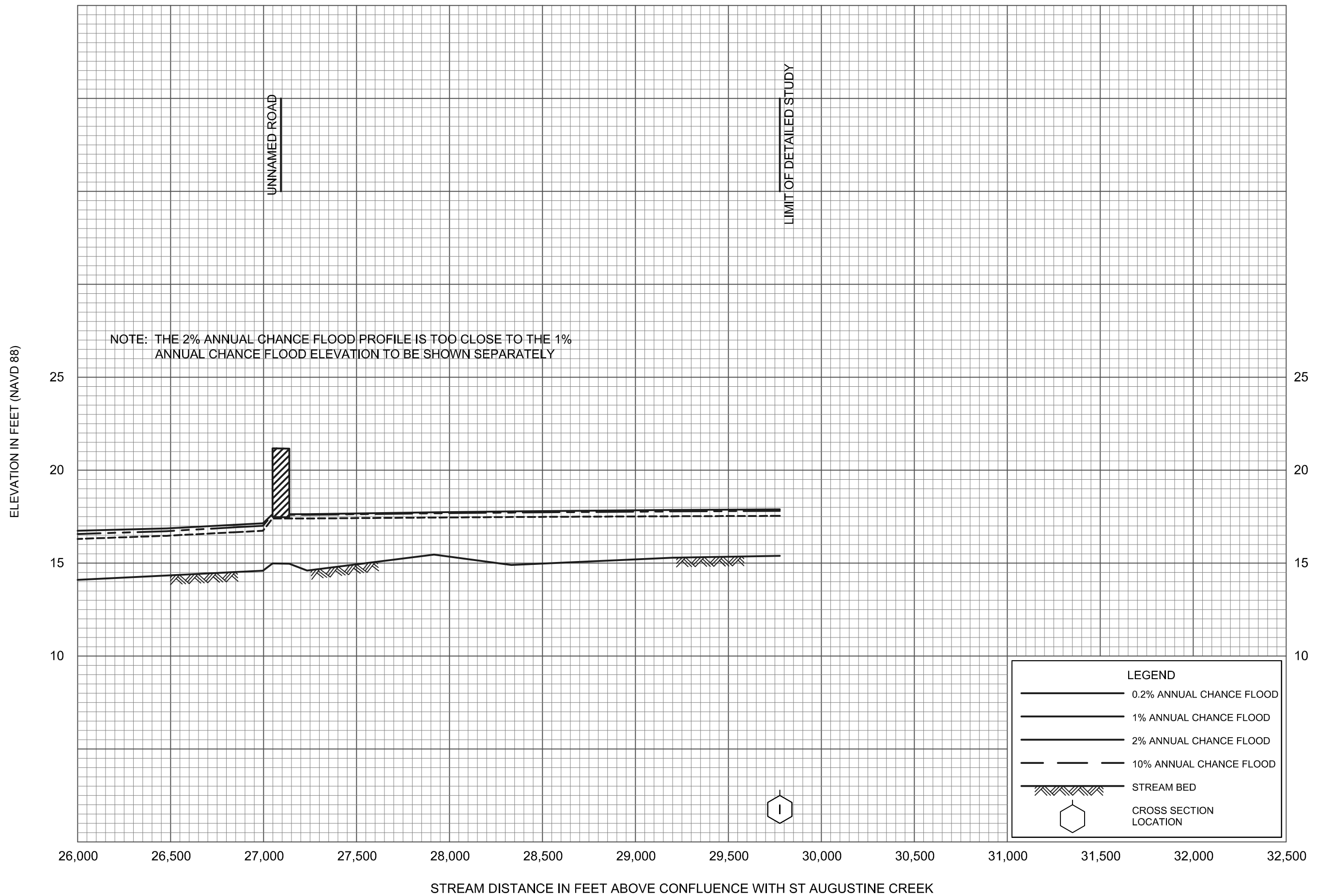
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHATHAM COUNTY, GA  
AND INCORPORATED AREAS

# FLOOD PROFILES

ST AUGUSTINE CREEK TRIBUTARY

56P

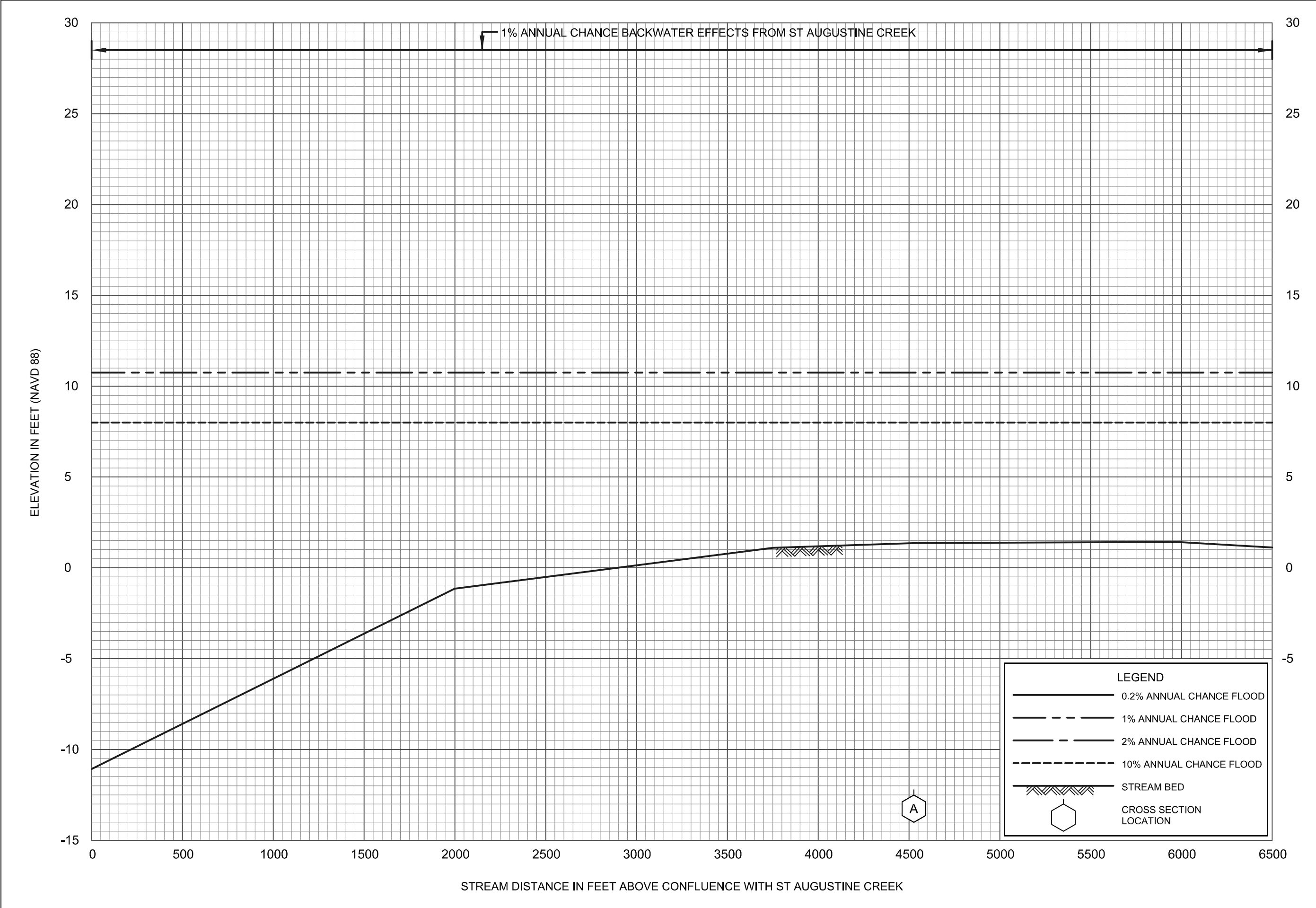


# FLOOD PROFILES

ST AUGUSTINE CREEK TRIBUTARY

FEDERAL EMERGENCY MANAGEMENT AGENCY  
CHATHAM COUNTY, GA  
AND INCORPORATED AREAS

57P



FEDERAL EMERGENCY MANAGEMENT AGENCY

FLOOD PROFILES

CHATHAM COUNTY, GA

AND INCORPORATED AREAS

ST. AUGUSTINE CREEK TRIBUTARY NO. 1

