

# FLOOD INSURANCE STUDY

VOLUME 2 OF 2



## OTTAWA COUNTY, MICHIGAN (ALL JURISDICTIONS)

Community Name	Community Number
Allendale, Charter Township of	260490
* Blendon, Township of	261005
Chester, Township of	260829
Coopersville, City of	260491
Crockery, Township of	260981
Ferrysburg, City of	260184
Georgetown, Charter Township of	260589
Grand Haven, City of	260269
Grand Haven, Charter Township of	260270
Holland, City of (Allegan and Ottawa Counties)	260006
Holland, Charter Township of	260492
Hudsonville, City of	260493
Jamestown, Charter Township of	261001
* Olive, Township of	261006
Park, Township of	260185
Polkton, Charter Township of	260923
Port Sheldon, Township of	260278
Robinson, Township of	260913
Spring Lake, Township of	260281
Spring Lake, Village of	260282
Tallmadge, Charter Township of	260494
Wright, Township of	260495
Zeeland, Charter Township of	260932
Zeeland, City of	260983

\* No Special Flood Hazard Areas identified



REVISED:  
May 16, 2013



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER  
26139CV002B

NOTICE TO  
FLOOD INSURANCE STUDY USERS

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

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision (LOMR) process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Initial Countywide FIS Effective Date: December 16, 2011

Revised Countywide FIS Date: May 16, 2013

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PUBLISHED SEPARATELY

Flood Insurance Rate Map Index

Flood Insurance Rate Maps

## 5.0 INSURANCE APPLICATIONS

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

### Zone A

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

### Zone AE

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

### Zone X

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

## 6.0 FLOOD INSURANCE RATE MAP

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

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

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

The current FIRM presents flooding information for the entire geographic area of Ottawa County. Previously, separate FIRMs were prepared for each community having SFHAs identified. Historical data relating to the maps prepared for each community are presented in TABLE 14.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Allendale, Charter Township of	March 25, 1977	None	July 5, 1982	None
* Blendon, Township of	N/A	None	N/A	None
Chester, Township of	November 20, 1991	None	November 20, 1991	None
Coopersville, City of	September 26, 1975	None	March 2, 1983	None
Crockery, Township of	December 16, 2011	None	December 16, 2011	None
Ferrysburg, City of	June 28, 1974	August 6, 1976	March 1, 1978	None
Georgetown, Charter Township of	September 26, 1975	None	July 18, 1985	February 5, 1992
Grand Haven, City of	June 28, 1974	None	February 15, 1978	None
Grand Haven, Charter Township of	August 2, 1974	July 2, 1976	January 16, 1981	None
Holland, City of (Allegan and Ottawa Counties)	April 12, 1974	None	November 15, 1978	September 28, 1990
Holland, Charter Township of	August 12, 1977	March 2, 1979	December 1, 1983	September 28, 1990
Hudsonville, City of	September 5, 1975	None	December 4, 1984	None
Jamestown, Charter Township of	December 16, 2011	None	December 16, 2011	None

\* No Special Flood Hazard Areas identified

**TABLE 14**

**FEDERAL EMERGENCY MANAGEMENT AGENCY**

**OTTAWA COUNTY, MI  
(ALL JURISDICTIONS)**

**COMMUNITY MAP HISTORY**

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
* Olive, Township of	N/A	None	N/A	None
Park, Township of	August 16, 1974	June 4, 1976	May 15, 1978	None
Polkton, Charter Township of	December 16, 2011	None	December 16, 2011	None
Port Sheldon, Township of	August 16, 1974	June 4, 1976	May 15, 1978	None
Robinson, Township of	December 16, 2011	None	December 16, 2011	None
Spring Lake, Township of	June 28, 1974	May 21, 1976	February 15, 1978	None
Spring Lake, Village of	June 28, 1974	October 15, 1976	June 1, 1978	None
Tallmadge, Charter Township of	June 10, 1977	None	March 2, 1983	None
Wright, Township of	December 16, 2011	None	December 16, 2011	None
Zeeland, Charter Township of	December 16, 2011	None	December 16, 2011	None
Zeeland, City of	December 16, 2011	None	December 16, 2011	None

\* No Special Flood Hazard Areas identified

**TABLE 14**

**FEDERAL EMERGENCY MANAGEMENT AGENCY**

**OTTAWA COUNTY, MI  
(ALL JURISDICTIONS)**

**COMMUNITY MAP HISTORY**

## 7.0 OTHER STUDIES

This countywide FIS incorporates all previously published FISs and FIRMs for all jurisdictions within Ottawa County.

Countywide FISs are in progress for Allegan, Kent, and Muskegon Counties. The results of these studies will be in agreement with the results of this countywide study.

This FIS report either supersedes or is compatible with all previous studies published on streams studied in this report and should be considered authoritative for purposes of the NFIP.

## 8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Flood Insurance and Mitigation Division, Federal Emergency Management Agency, 536 South Clark Street, Sixth Floor, Chicago, Illinois 60605.

## 9.0 BIBLIOGRAPHY AND REFERENCES

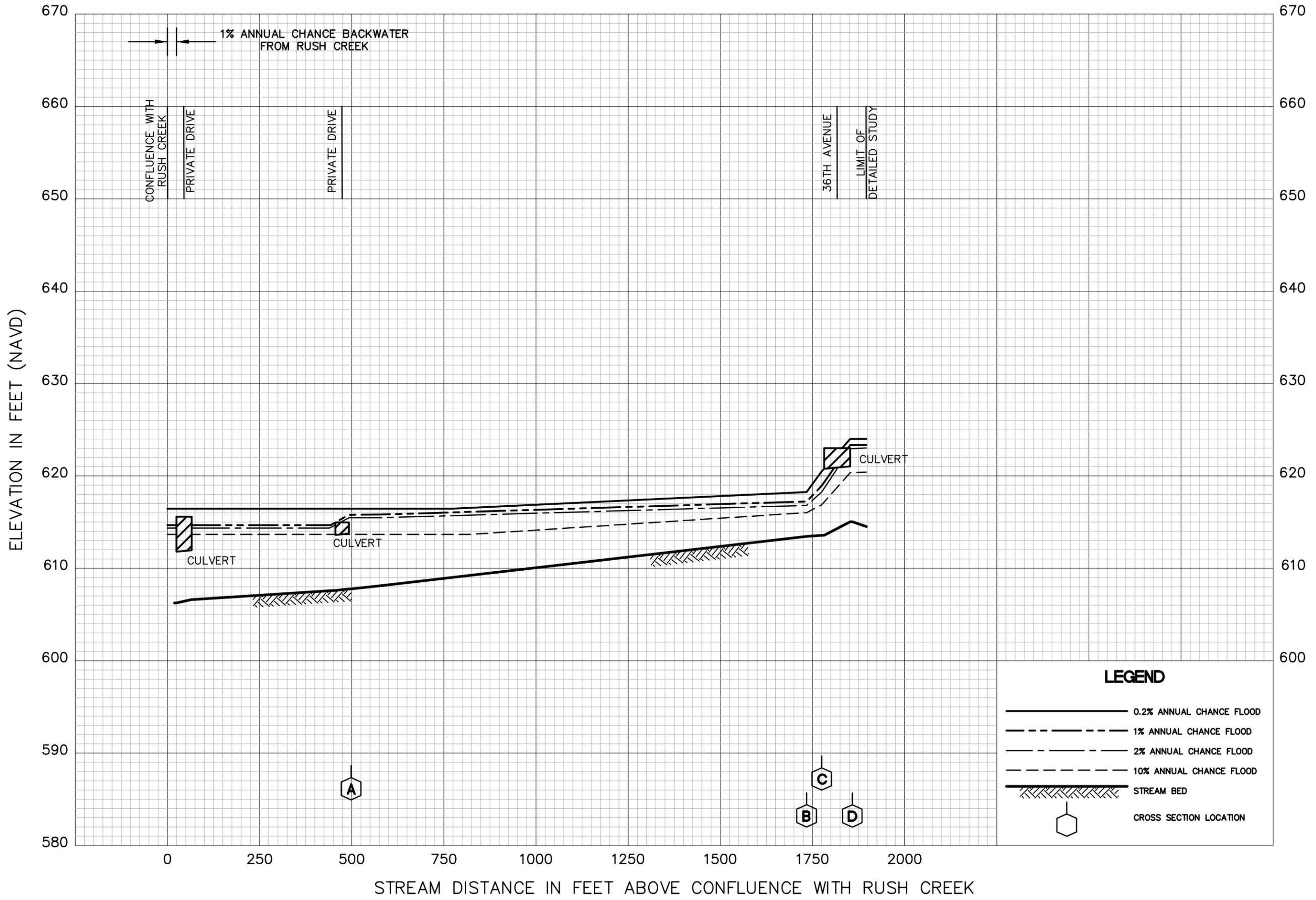
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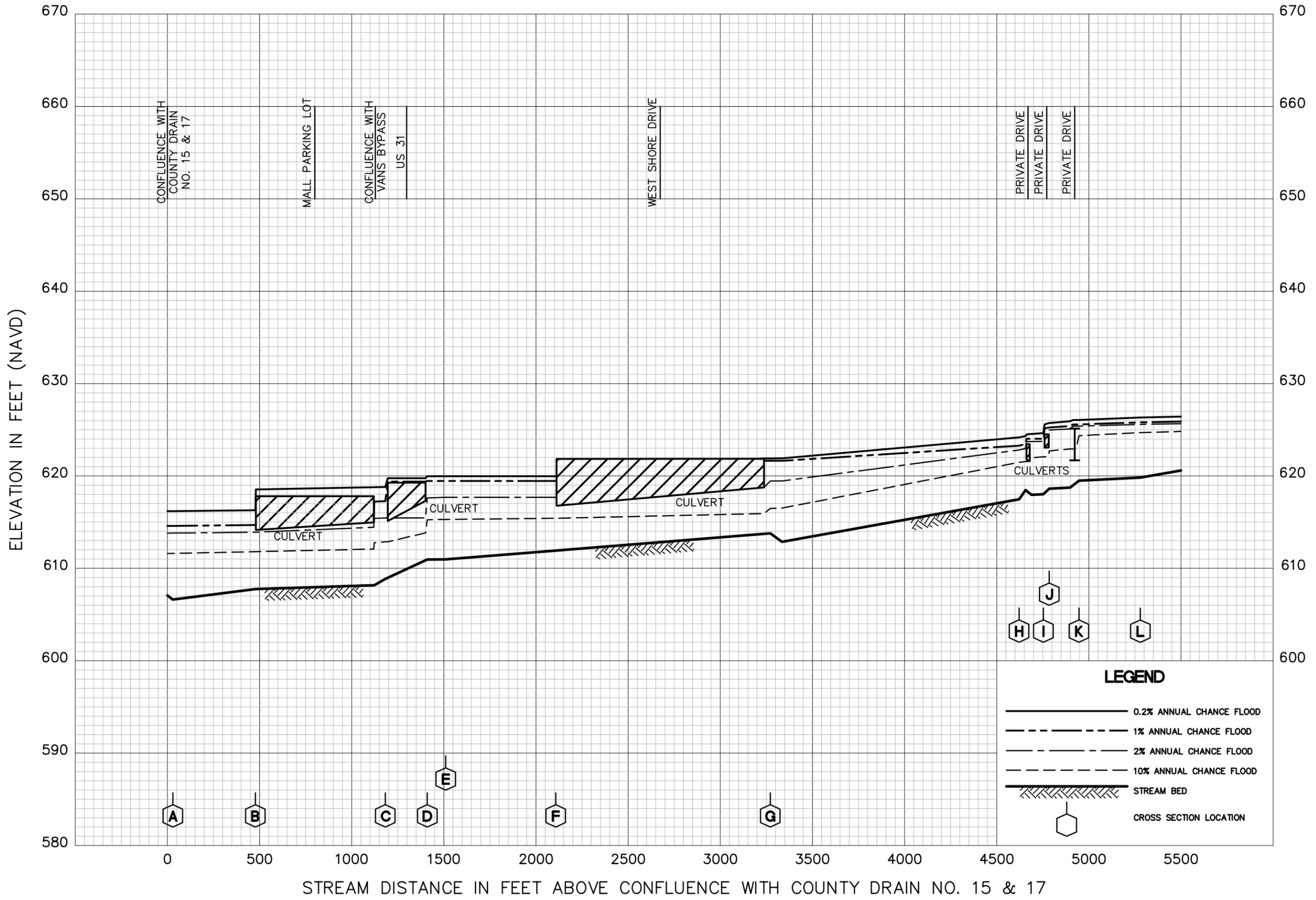


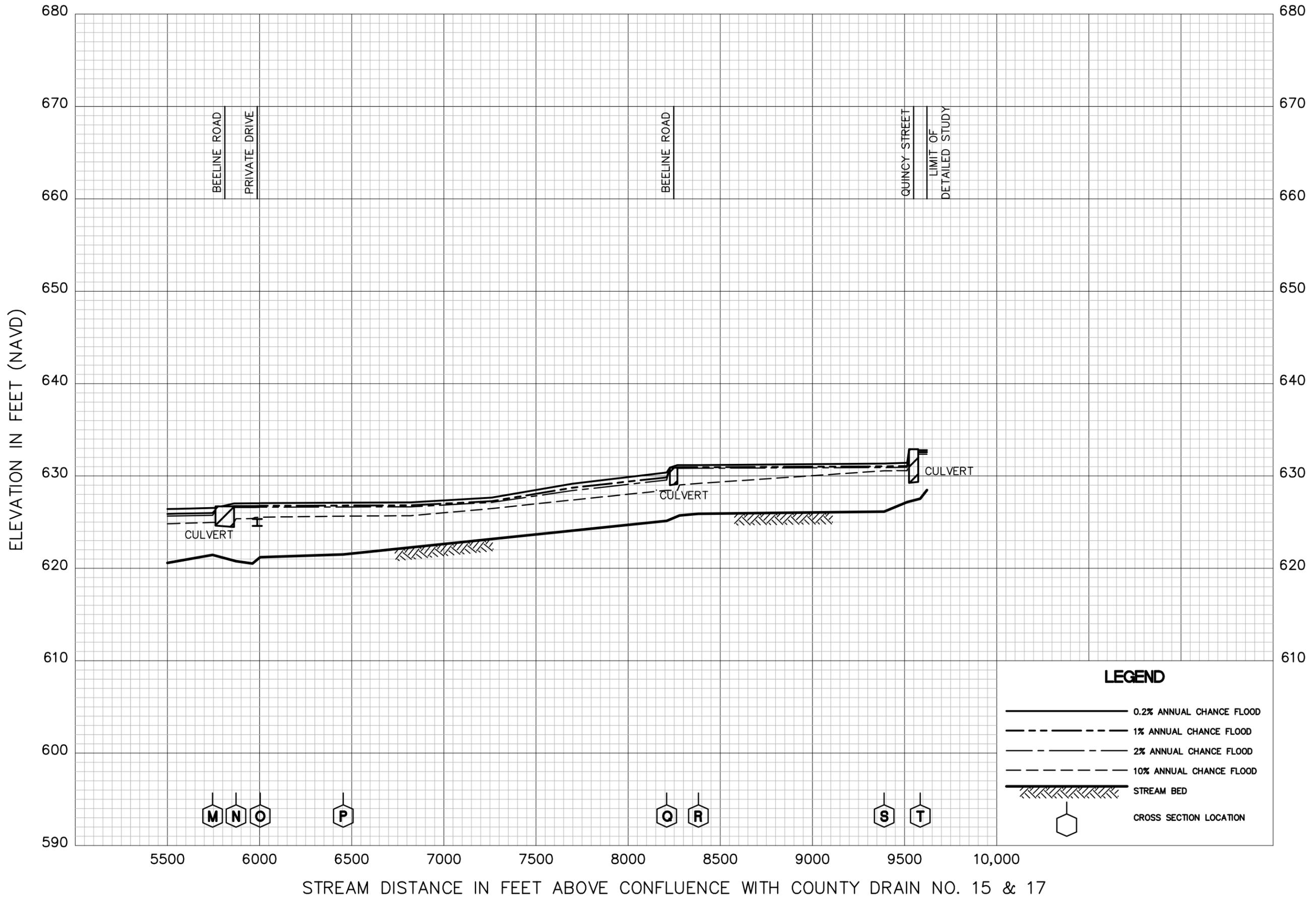
**LEGEND**

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

**FLOOD PROFILES**  
**ALWARD DRAIN**

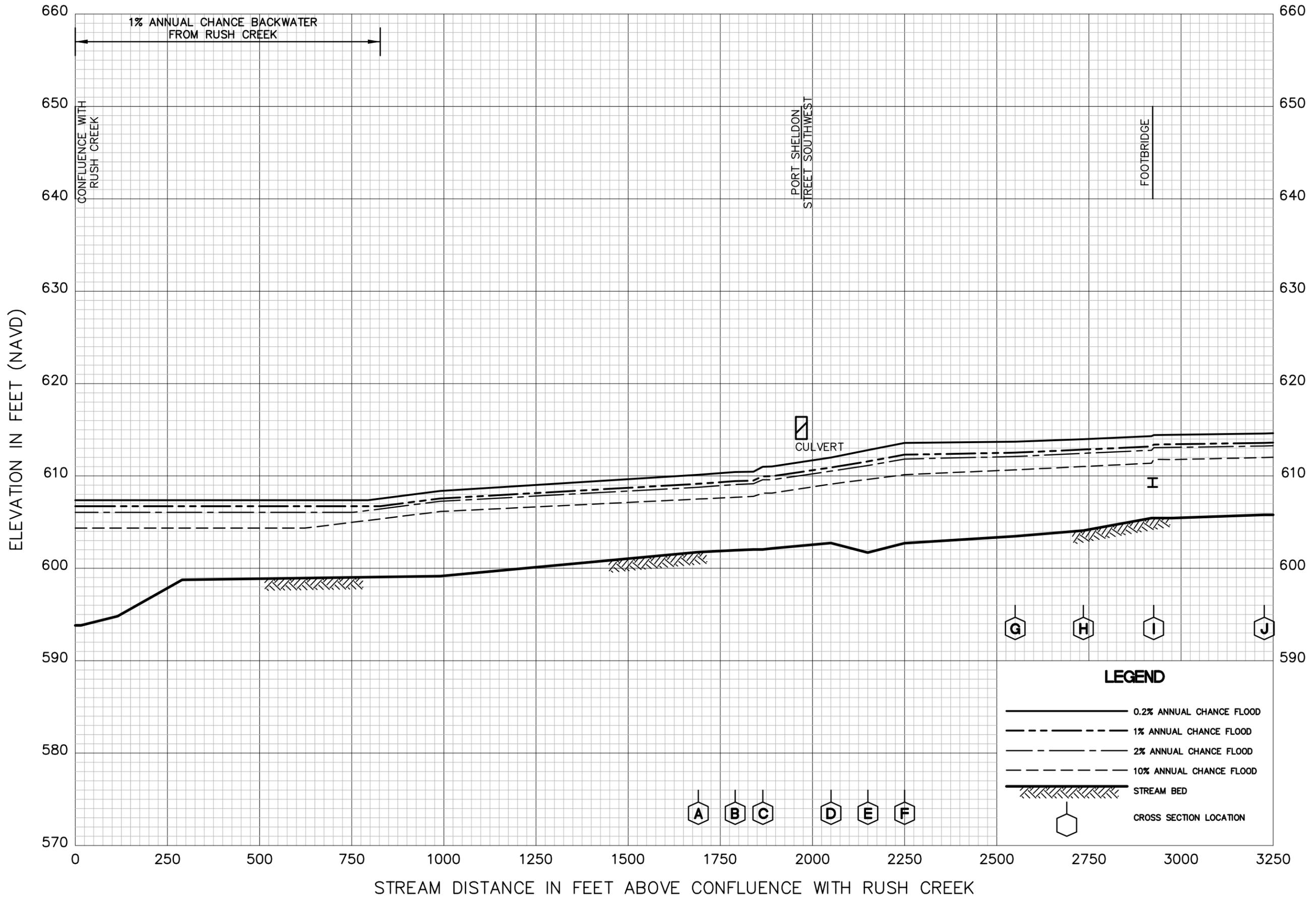
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)





**FLOOD PROFILES**  
**BAREMAN DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



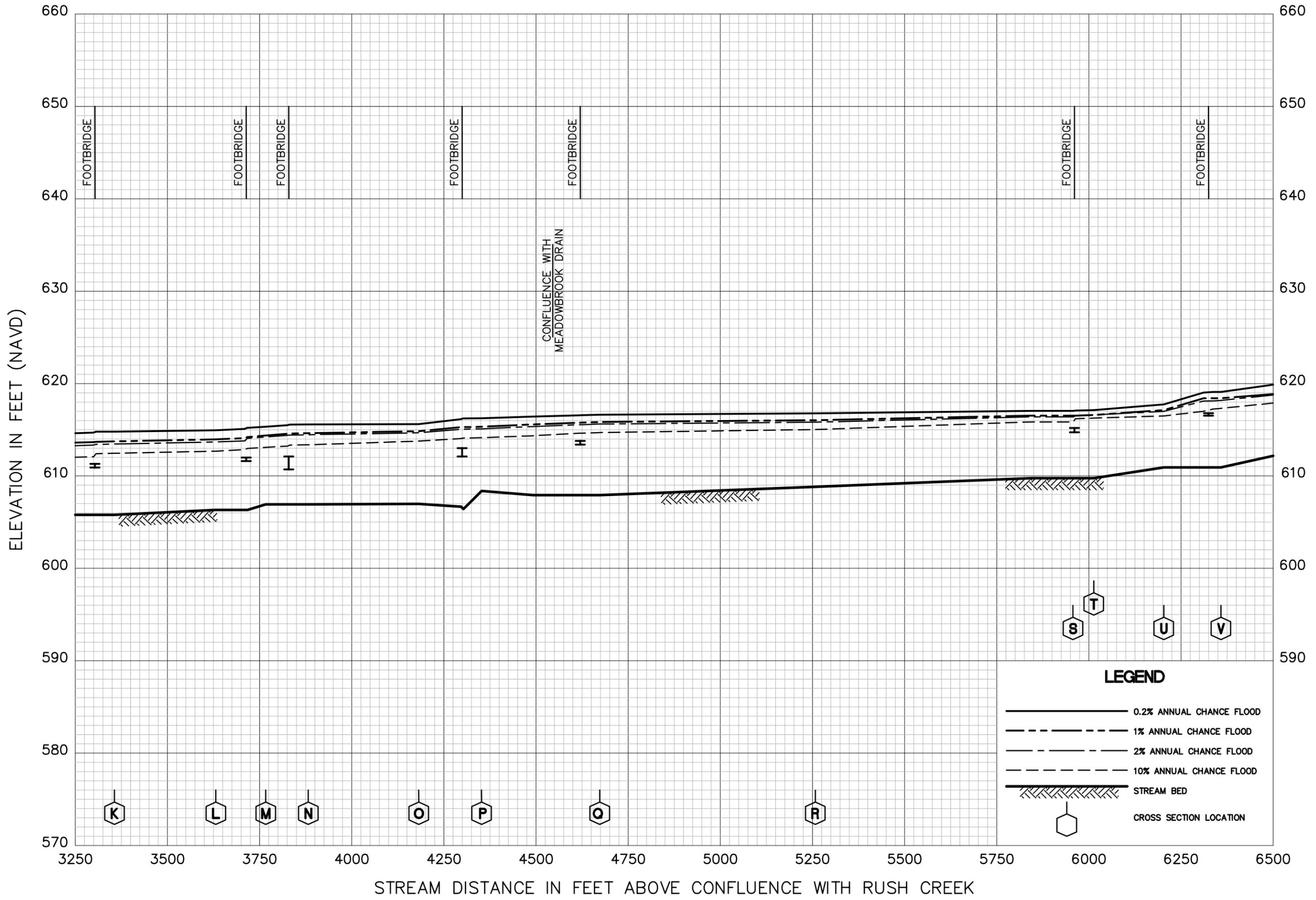
**FLOOD PROFILES**

**BLISS CREEK INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**FLOOD PROFILES**

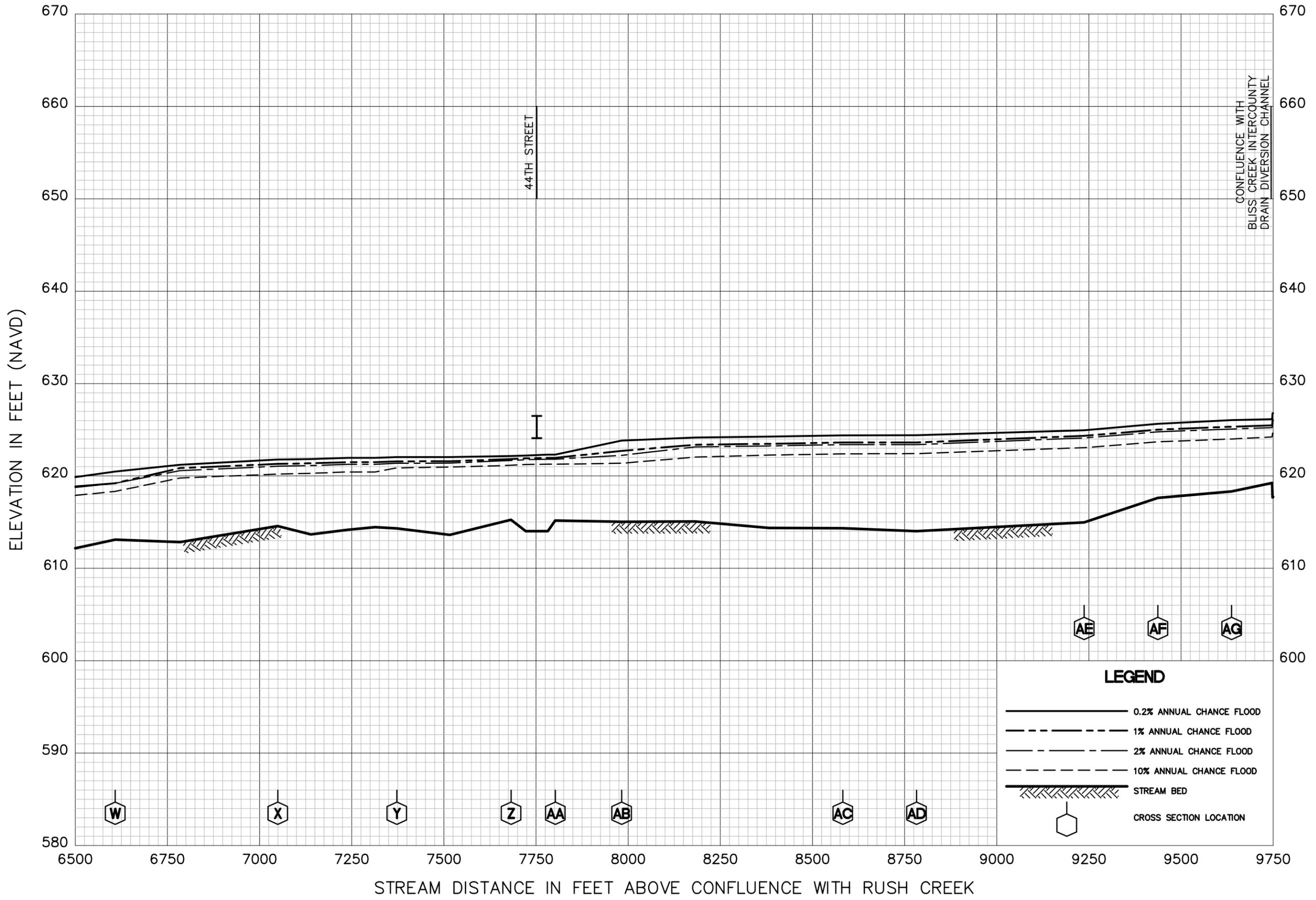
**BLISS CREEK INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)

**05P**



**FLOOD PROFILES**

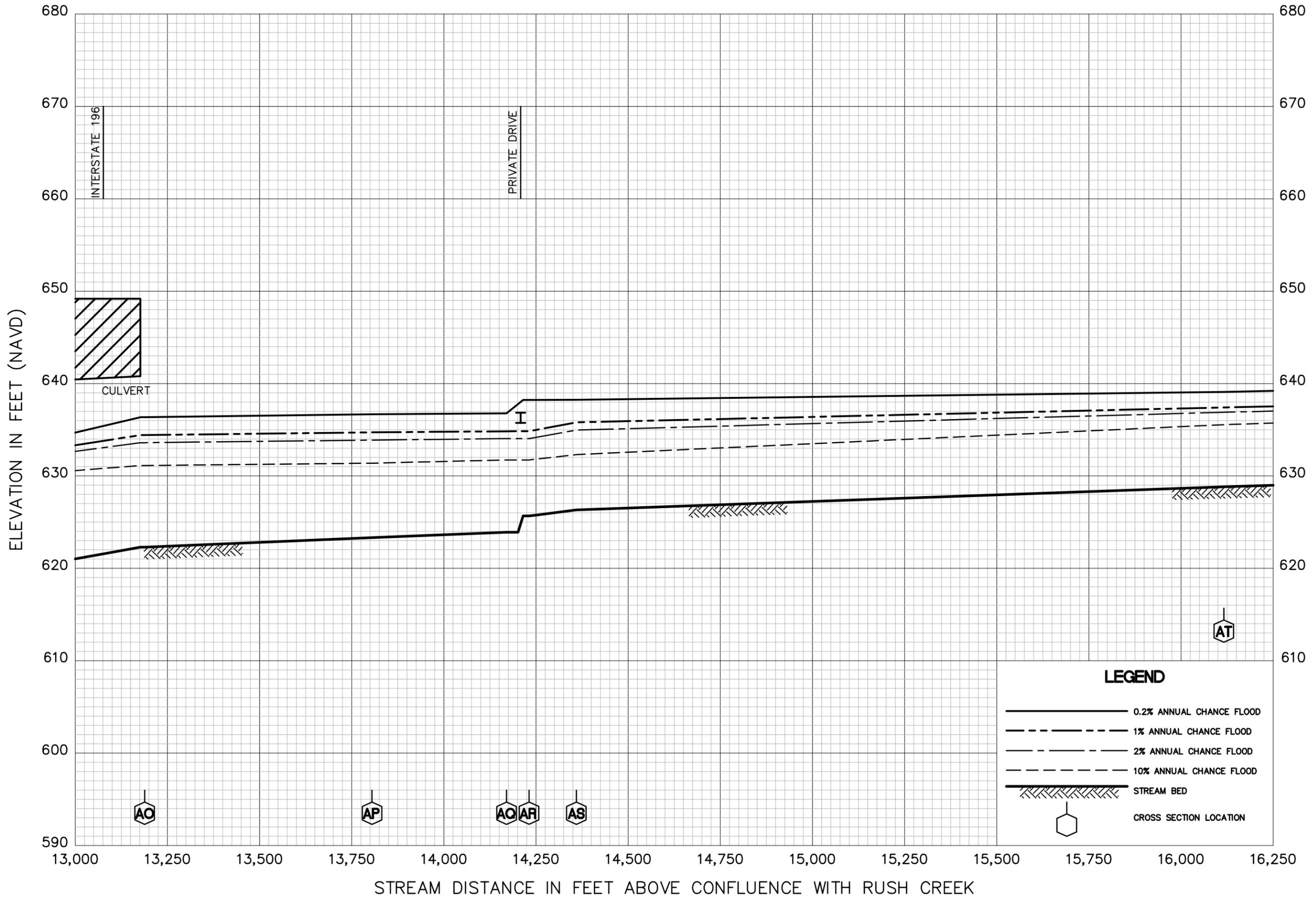
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FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)





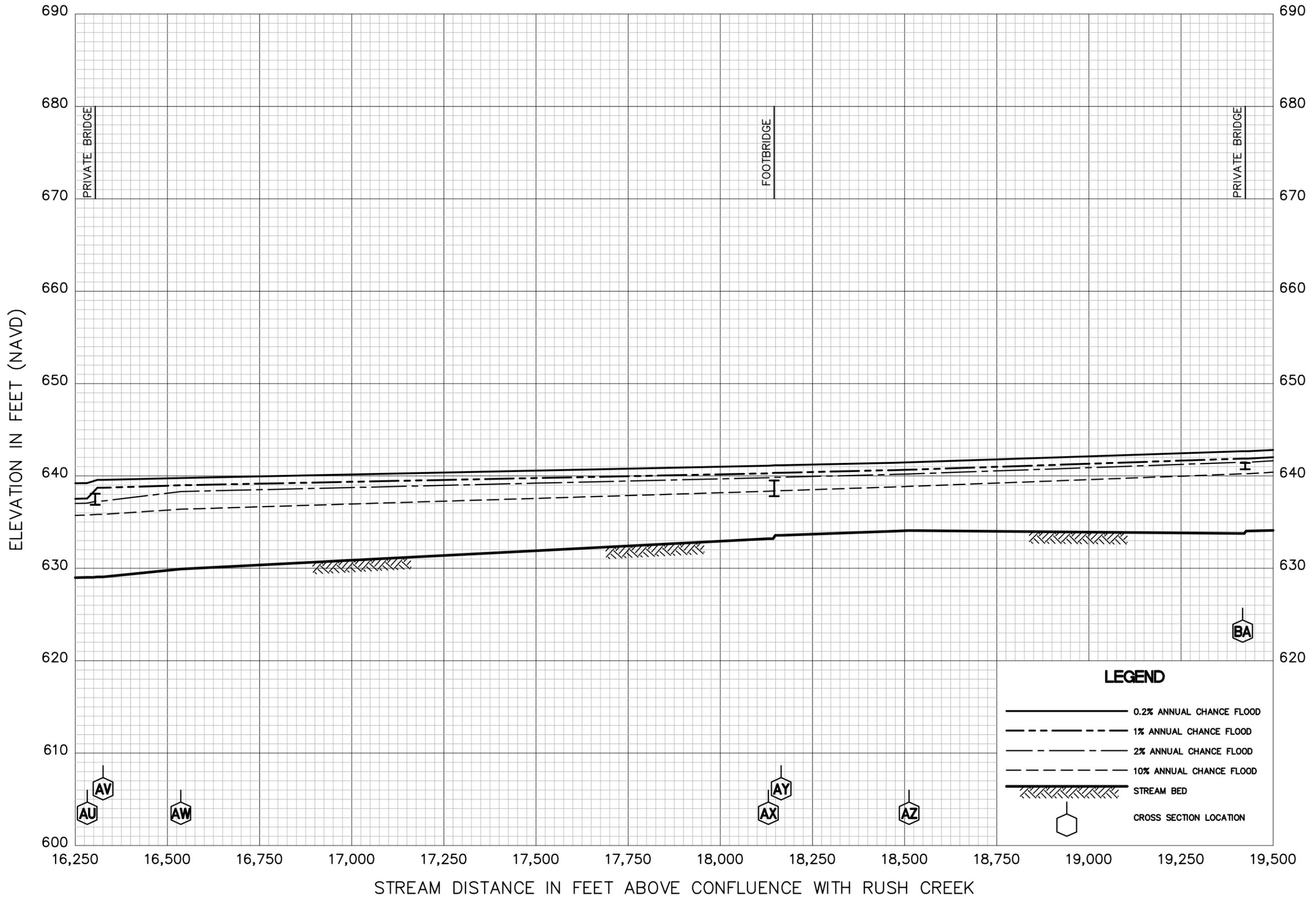
**FLOOD PROFILES**

**BLISS CREEK INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



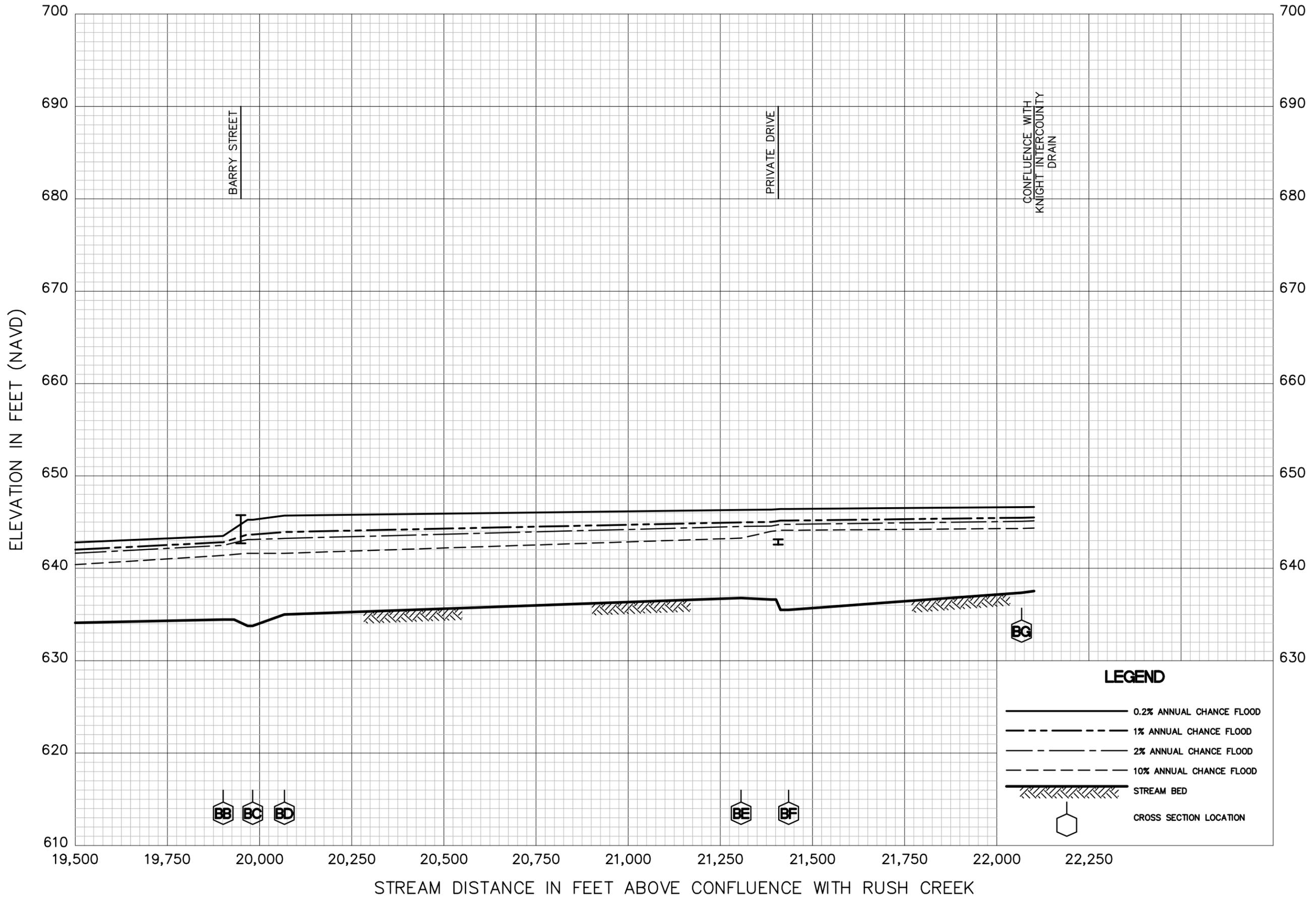
**FLOOD PROFILES**

**BLISS CREEK INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

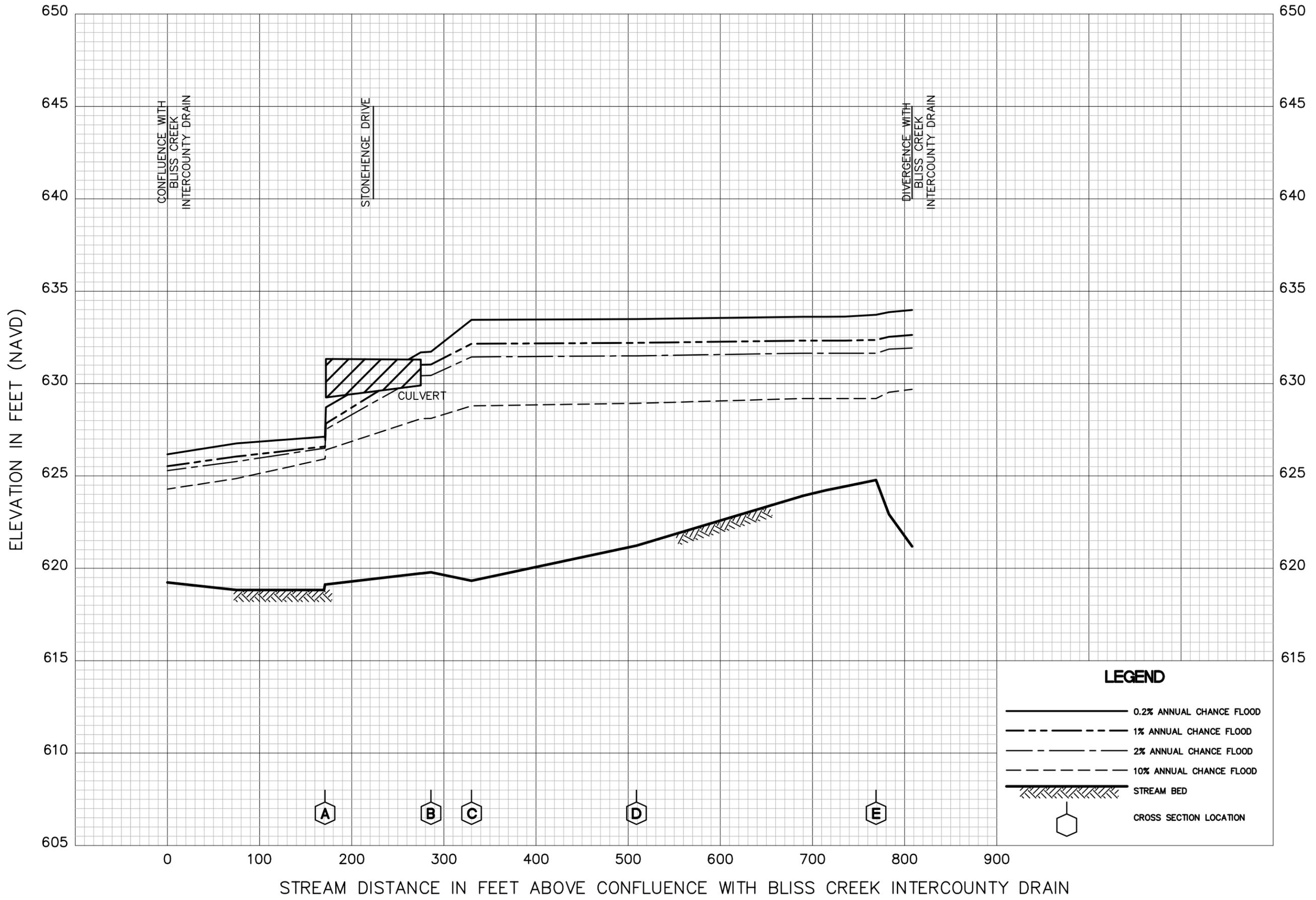
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**BLISS CREEK INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**LEGEND**

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

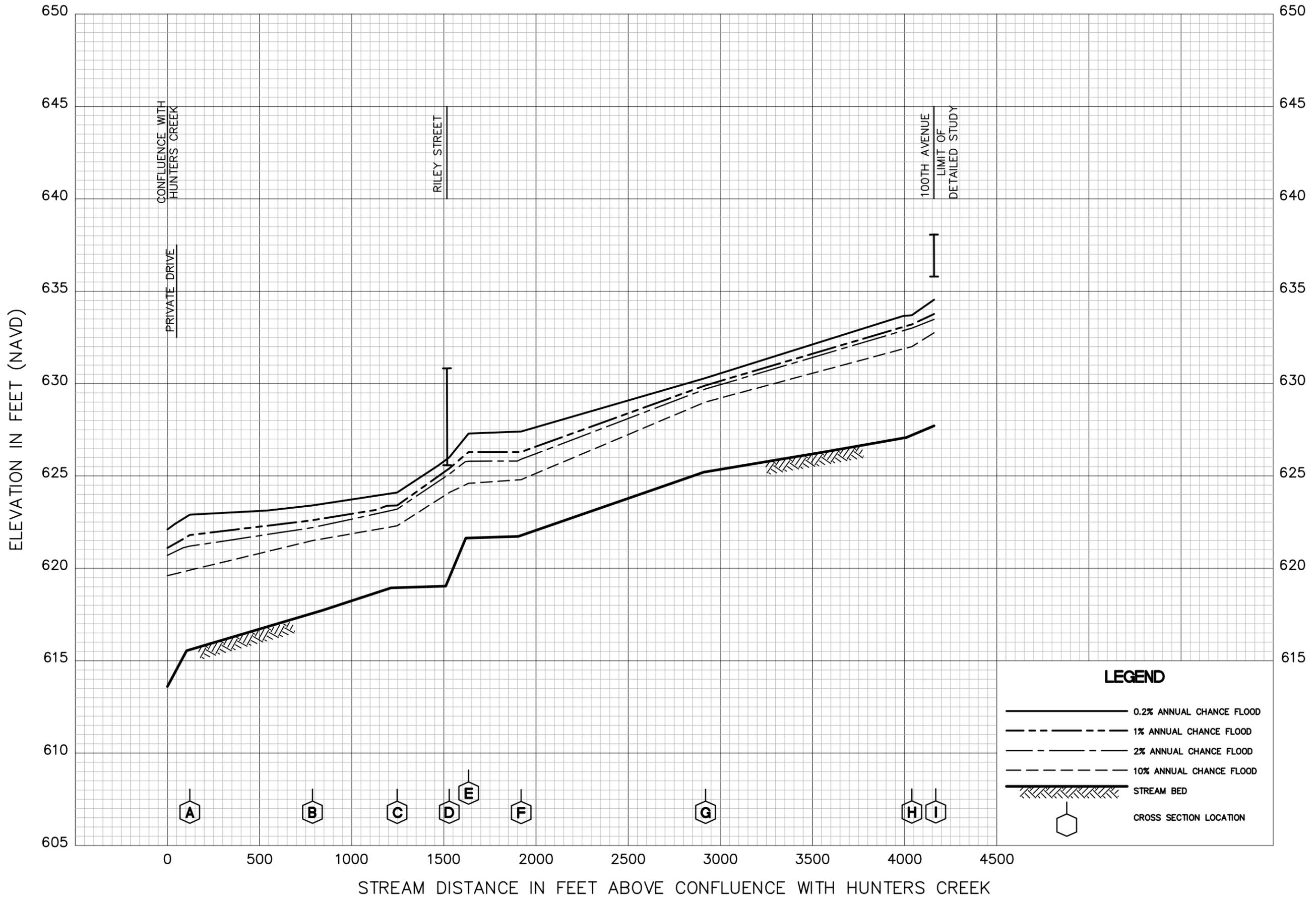
**FLOOD PROFILES**

**BLISS CREEK INTERCOUNTY DRAIN DIVERSION CHANNEL**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



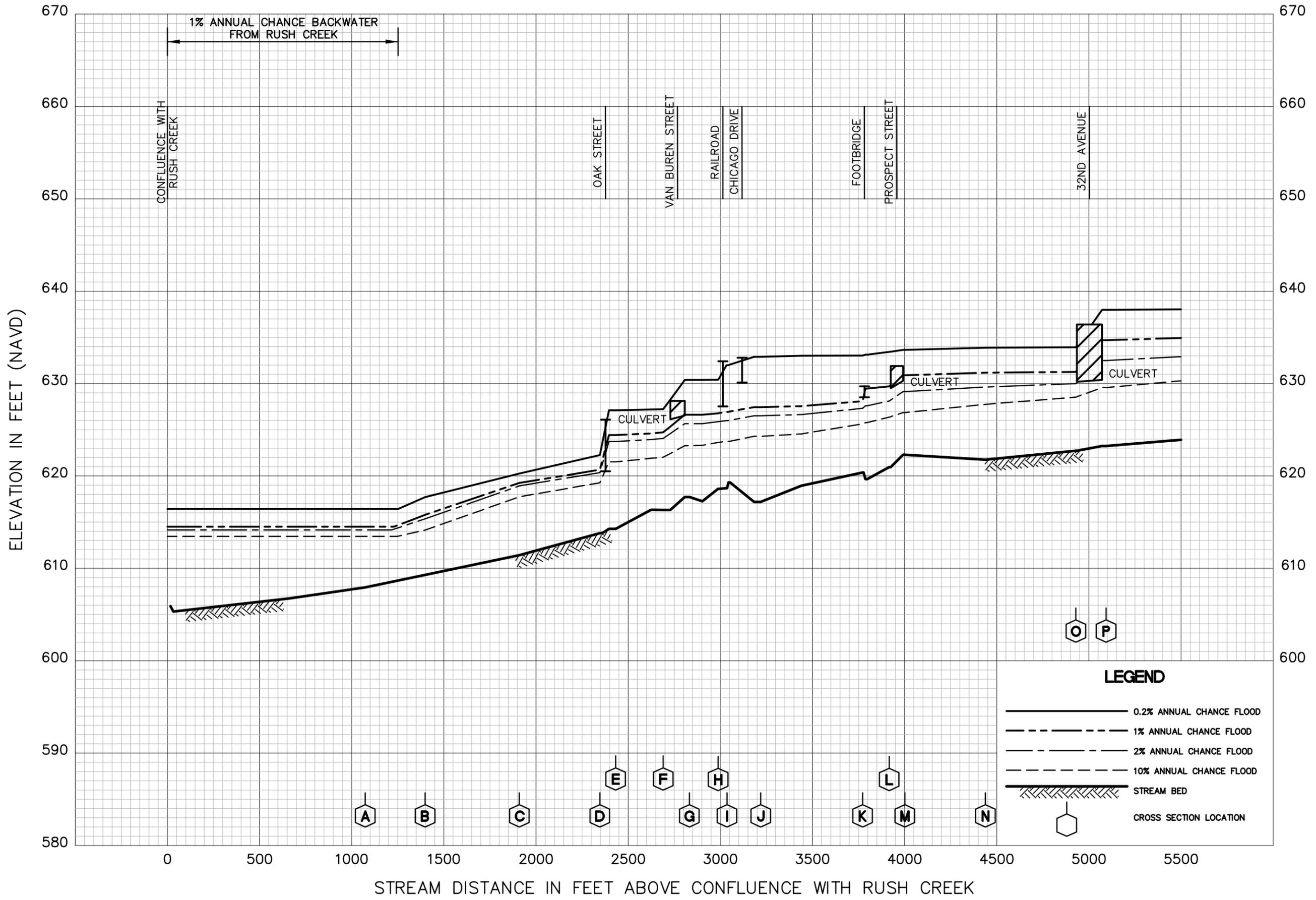
**FLOOD PROFILES**

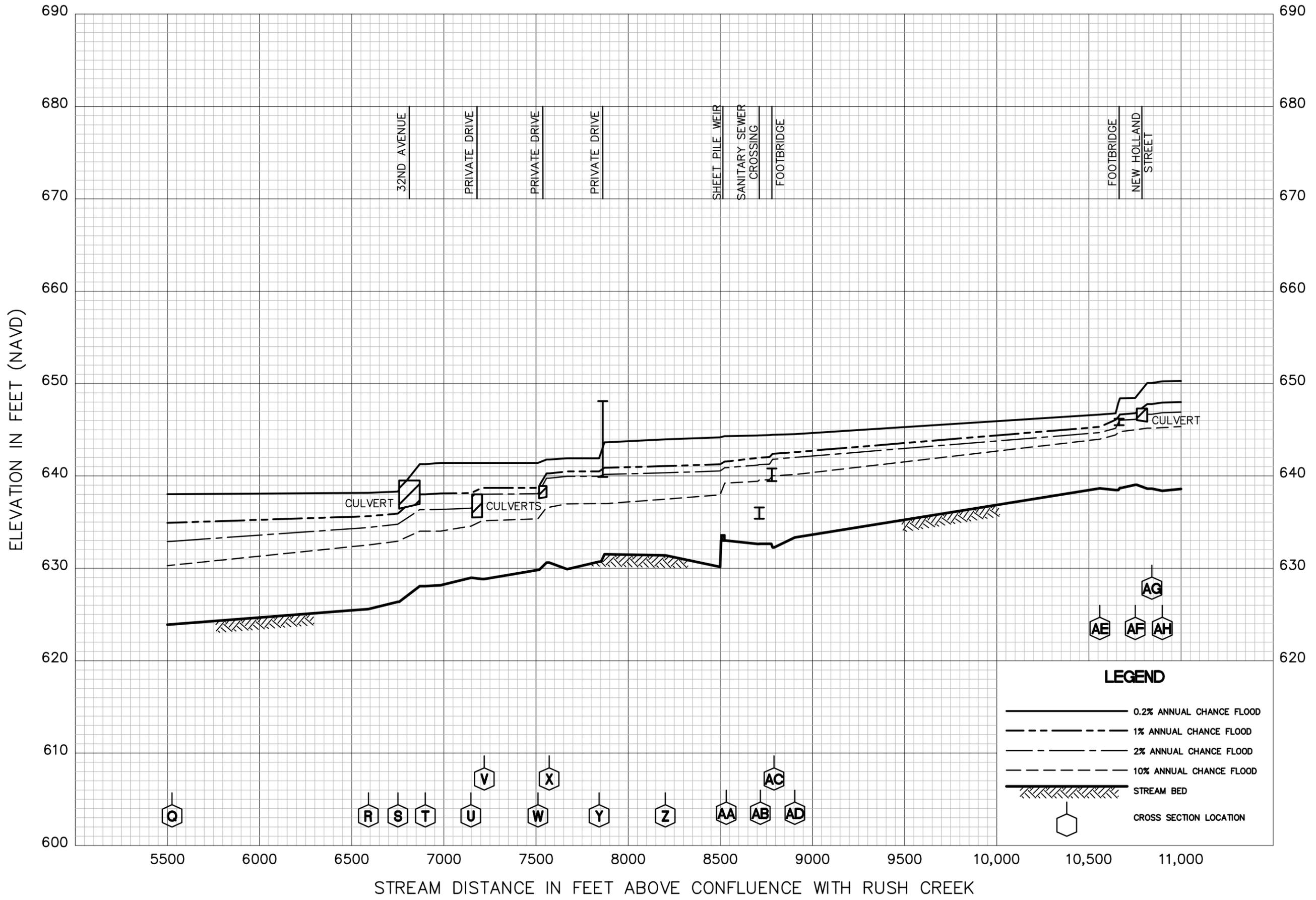
**BROWER & NO. 39 DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

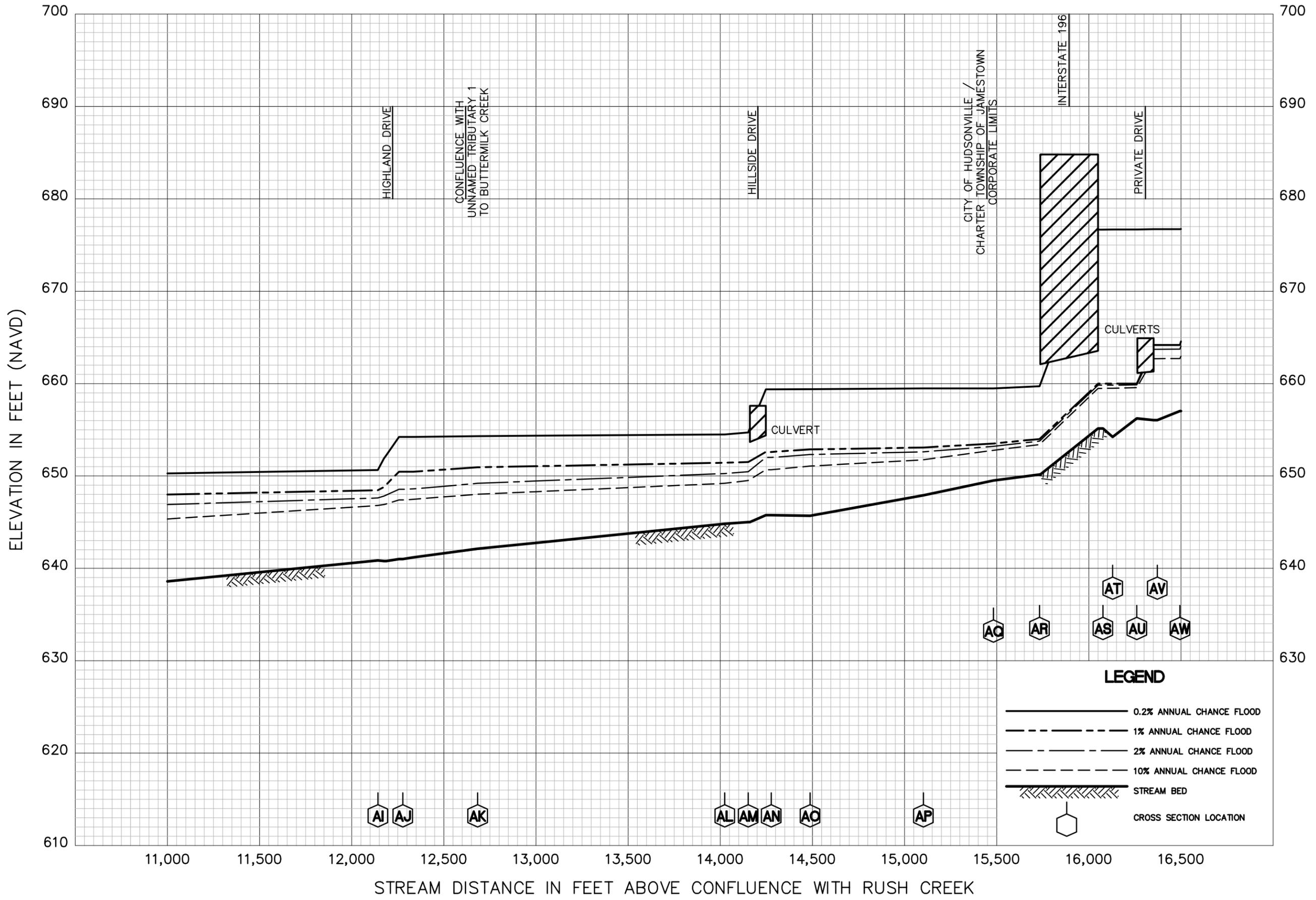
(ALL JURISDICTIONS)





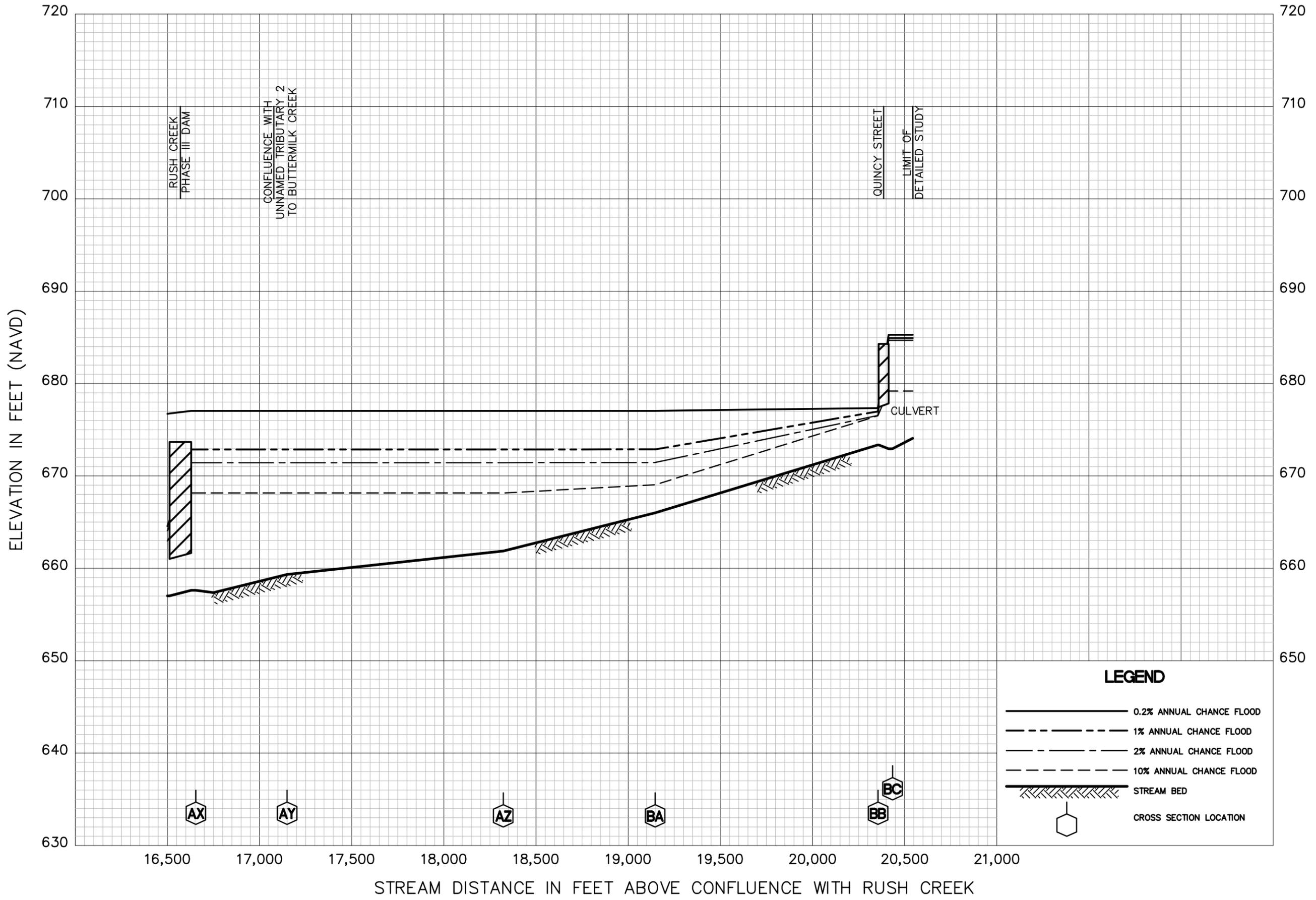
**FLOOD PROFILES**  
**BUTTERMILK CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



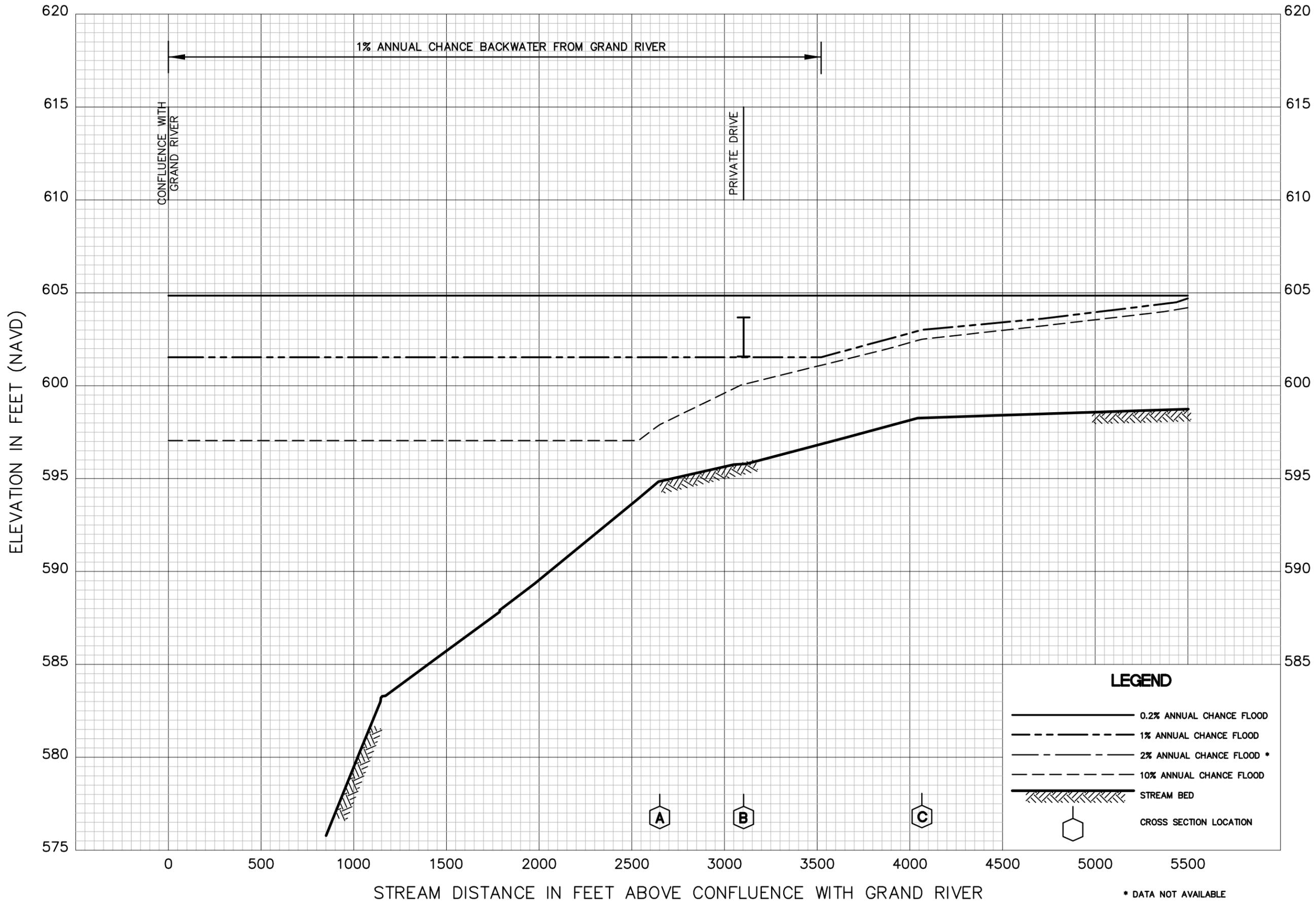
**FLOOD PROFILES**  
**BUTTERMILK CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**BUTTERMILK CREEK**

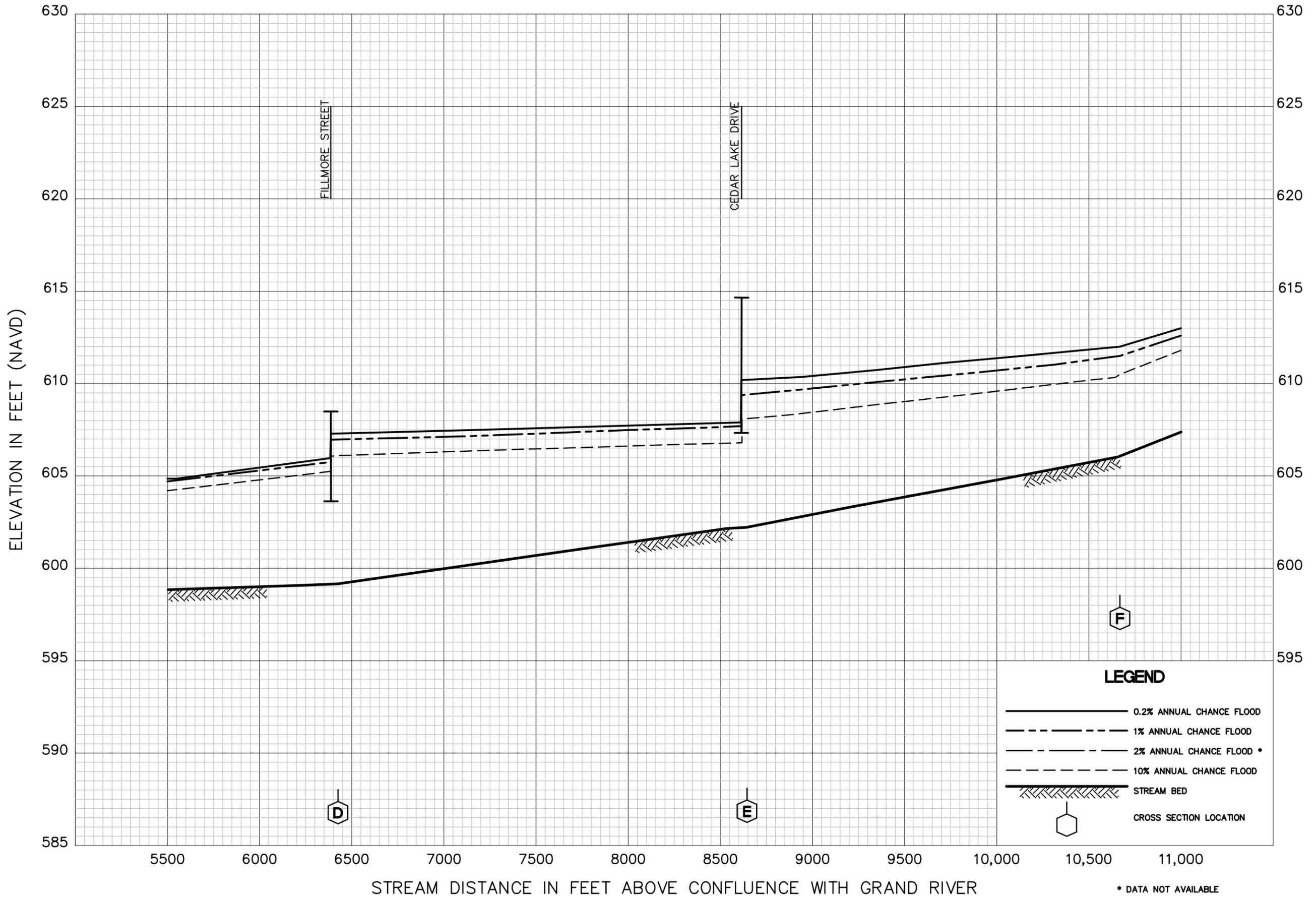
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**COMSTOCK DRAIN**

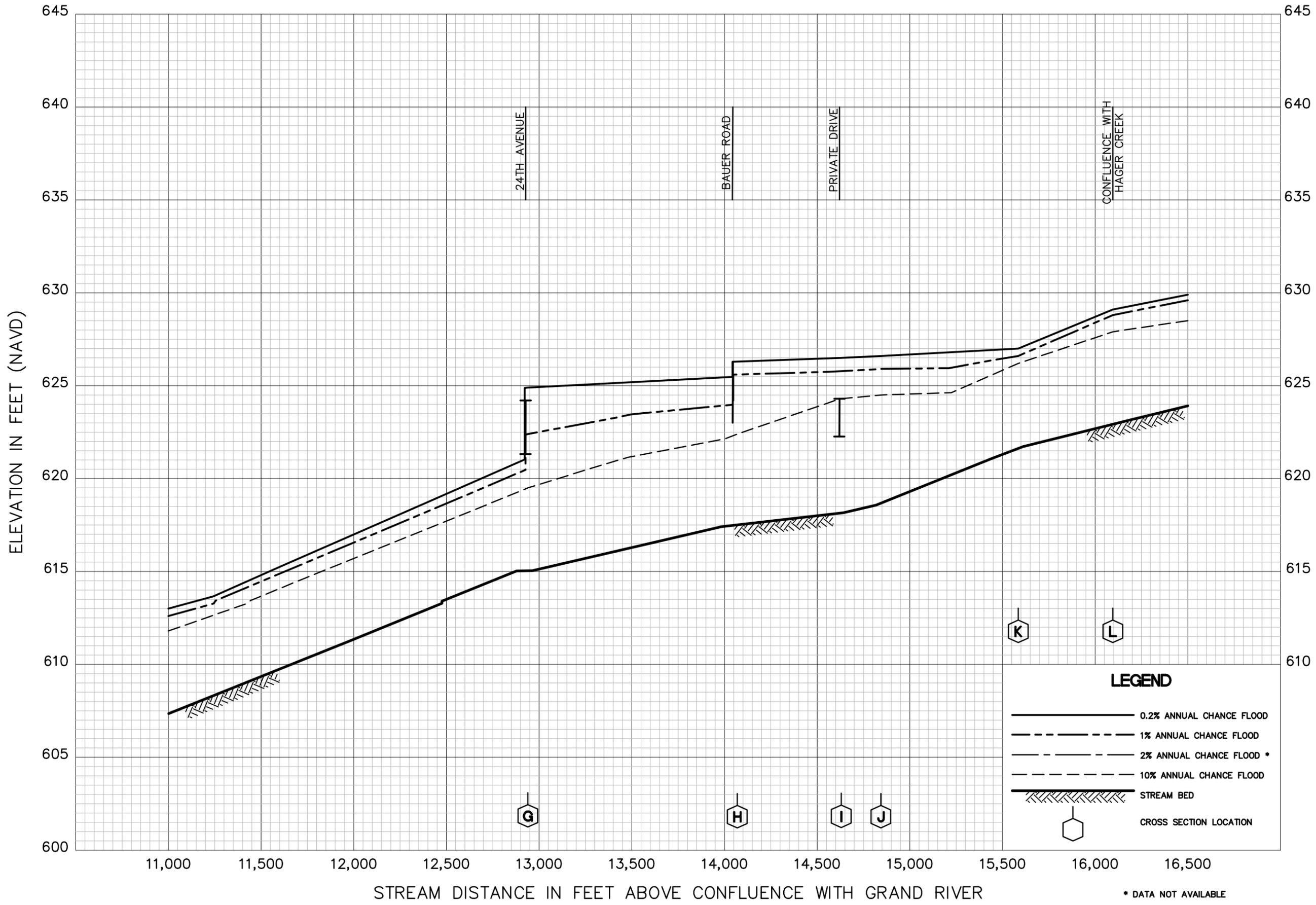
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)

\* DATA NOT AVAILABLE



**FLOOD PROFILES**  
**COMSTOCK DRAIN**

**FEDERAL EMERGENCY MANAGEMENT AGENCY**  
**OTTAWA COUNTY, MI**  
**(ALL JURISDICTIONS)**



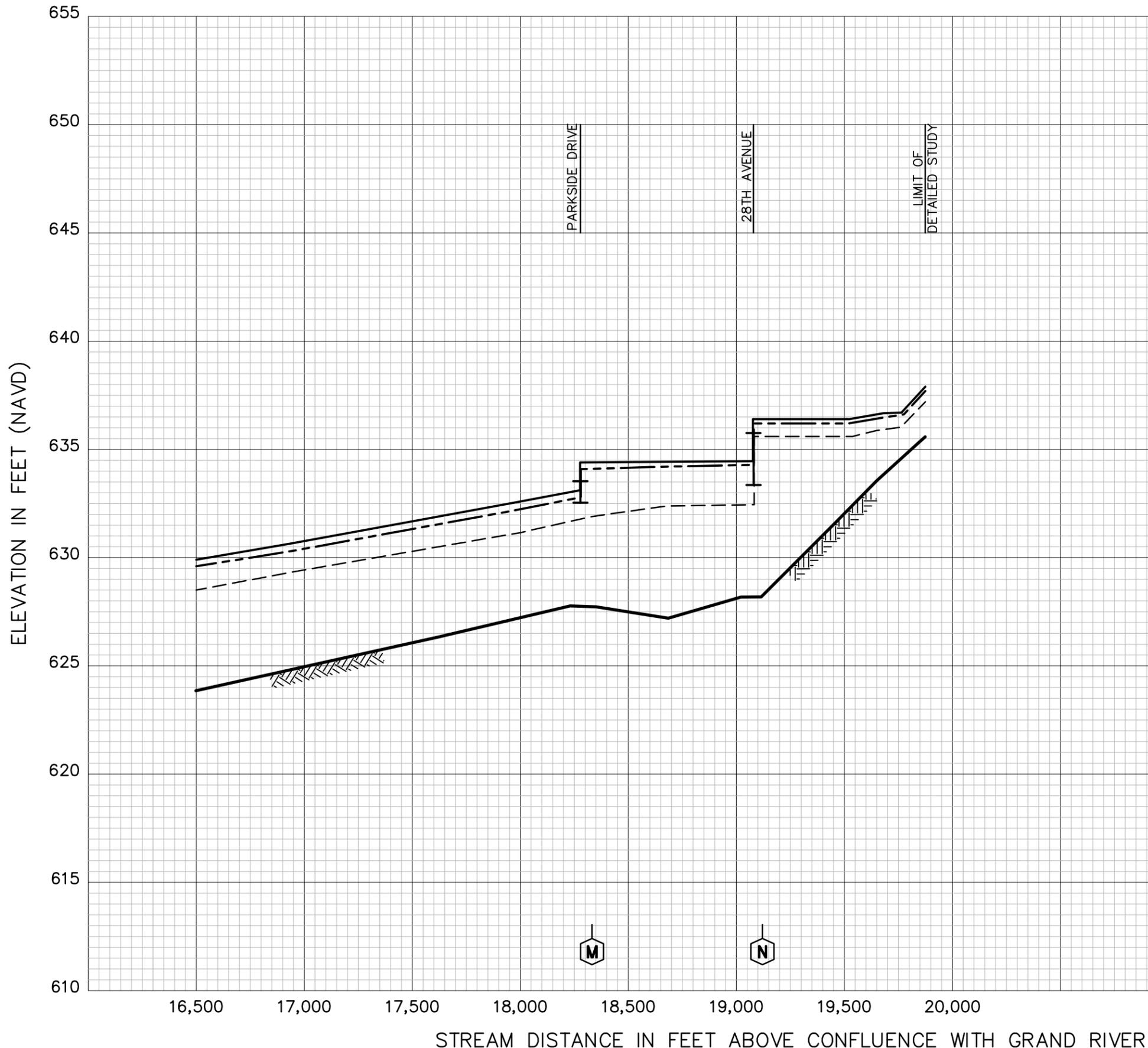
**LEGEND**

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

\* DATA NOT AVAILABLE

**FLOOD PROFILES  
COMSTOCK DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



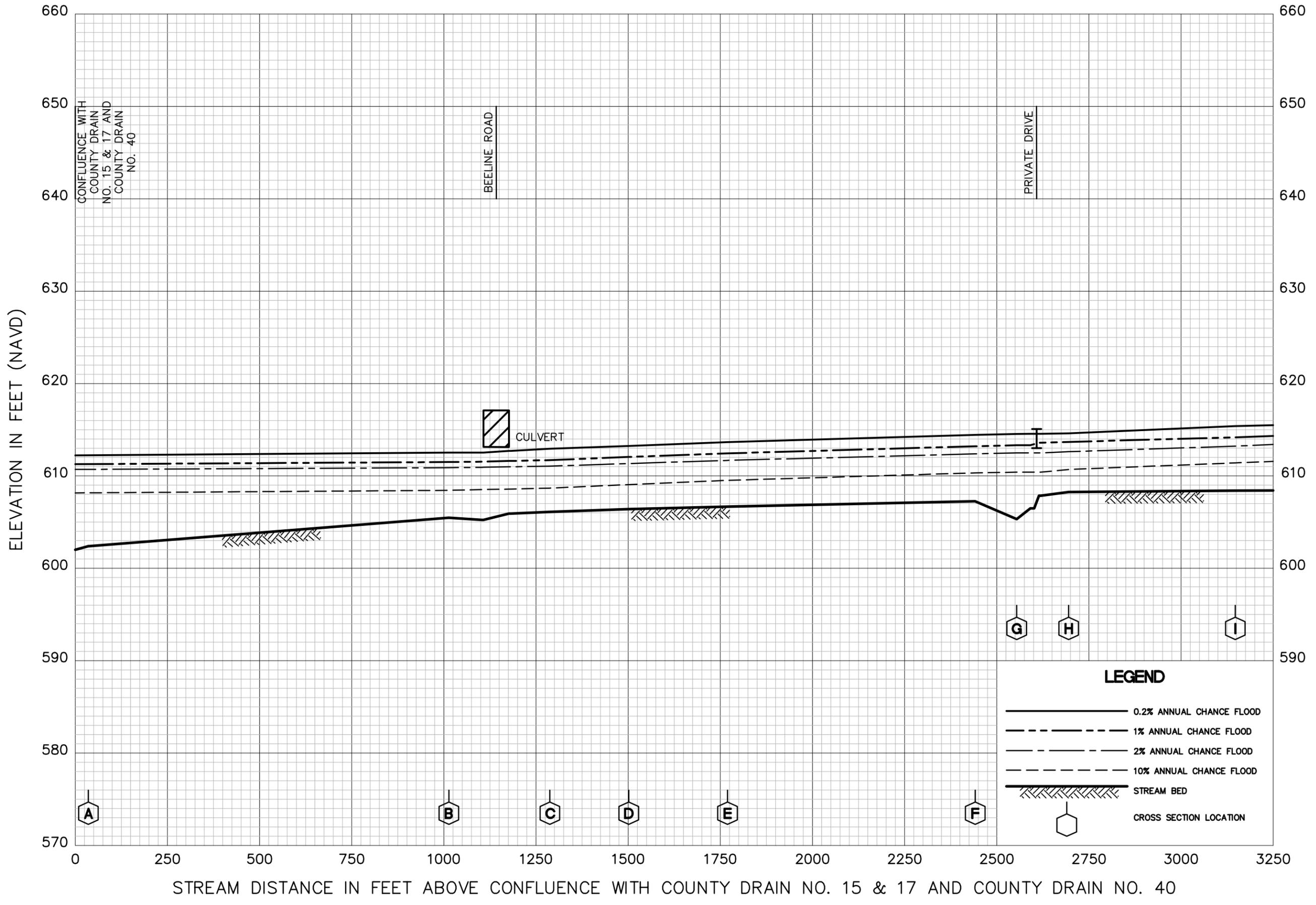
**LEGEND**

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

\* DATA NOT AVAILABLE

**FLOOD PROFILES  
COMSTOCK DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)

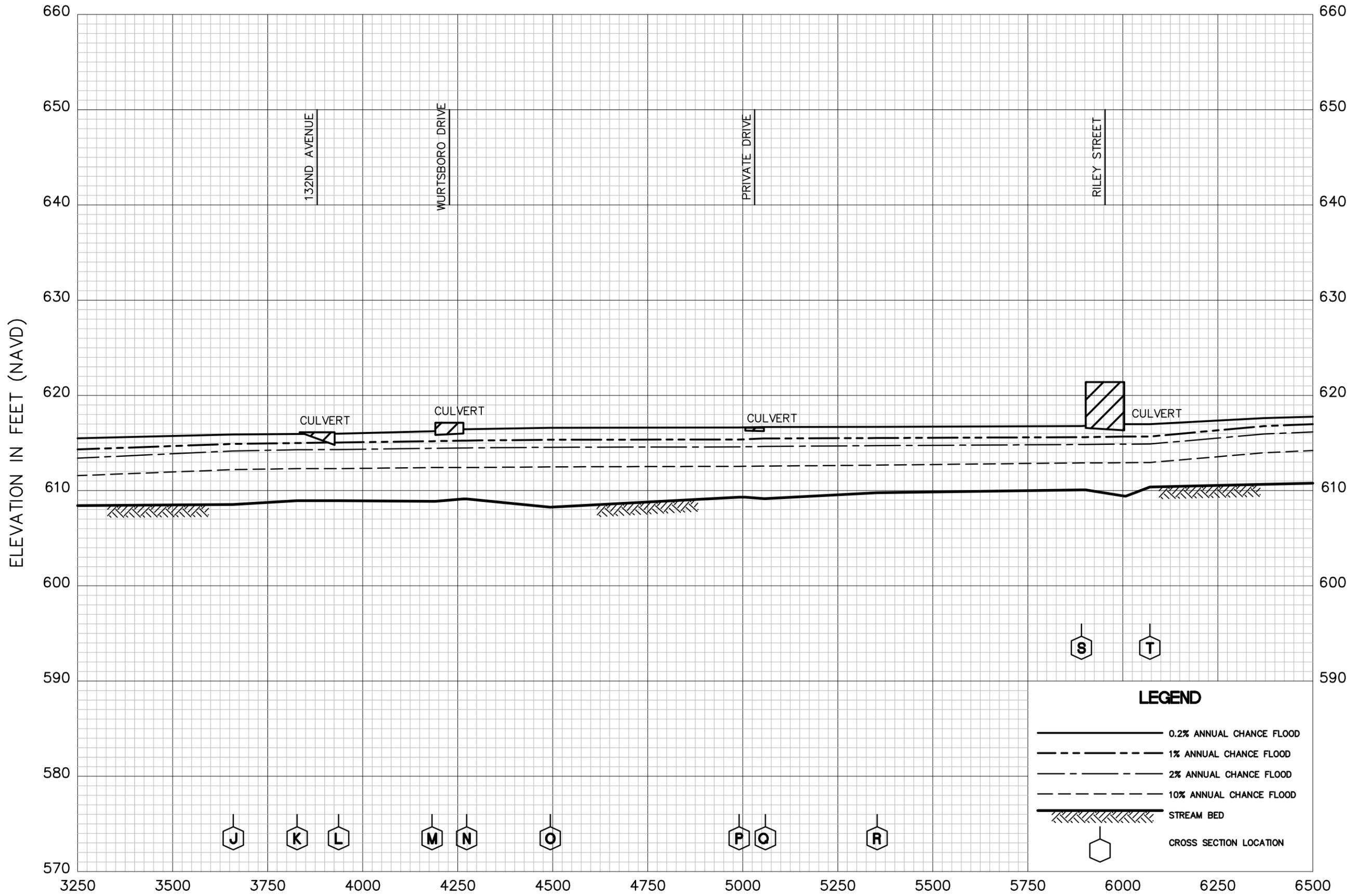


**FLOOD PROFILES**

**COUNTY DRAIN NO. 8 AND NORTH HOLLAND DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH COUNTY DRAIN NO. 15 & 17 AND COUNTY DRAIN NO. 40

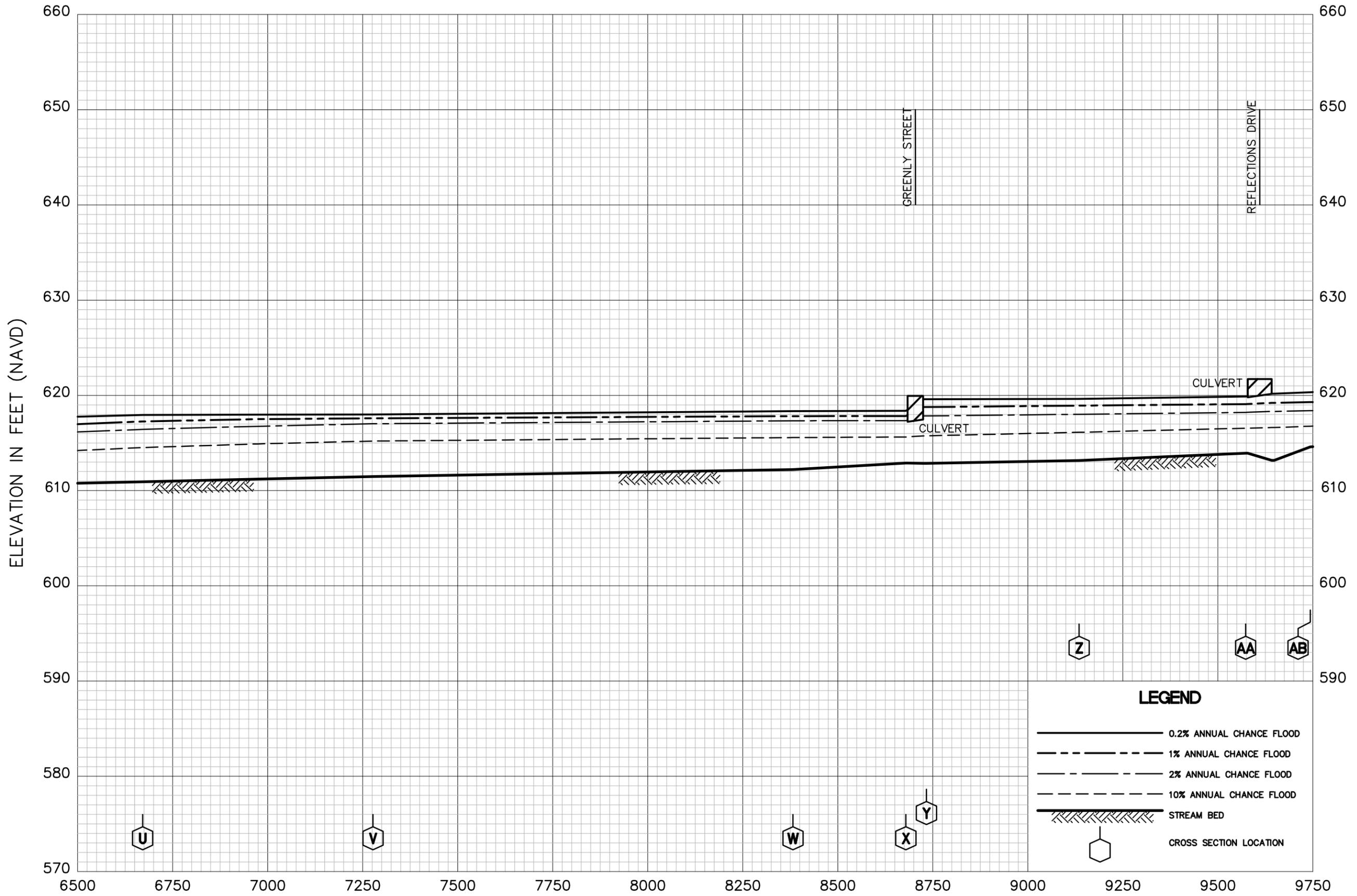
**FLOOD PROFILES**

**COUNTY DRAIN NO. 8 AND NORTH HOLLAND DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH COUNTY DRAIN NO. 15 & 17 AND COUNTY DRAIN NO. 40

**LEGEND**

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

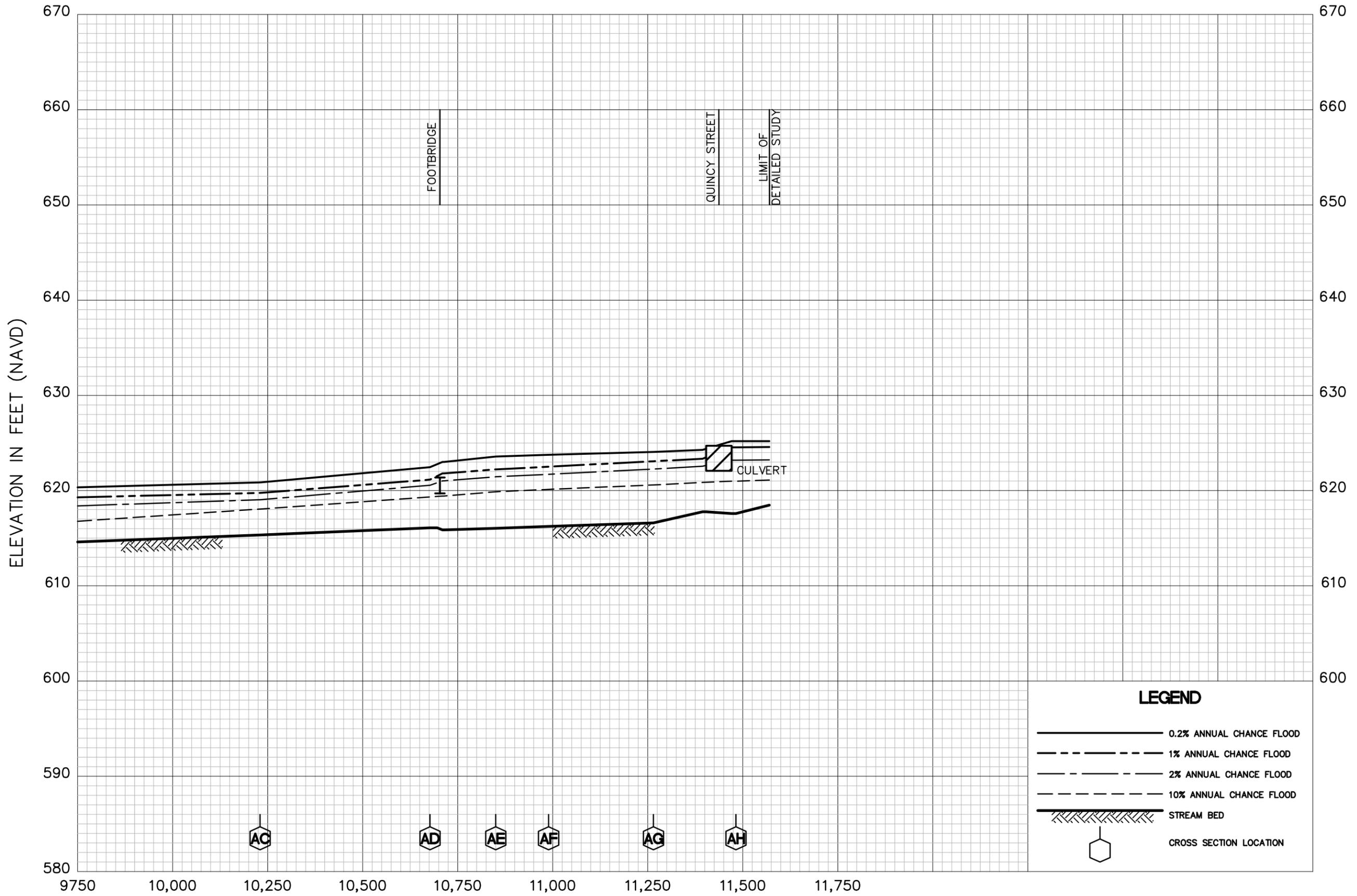
**FLOOD PROFILES**

**COUNTY DRAIN NO. 8 AND NORTH HOLLAND DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**LEGEND**

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

**FLOOD PROFILES**

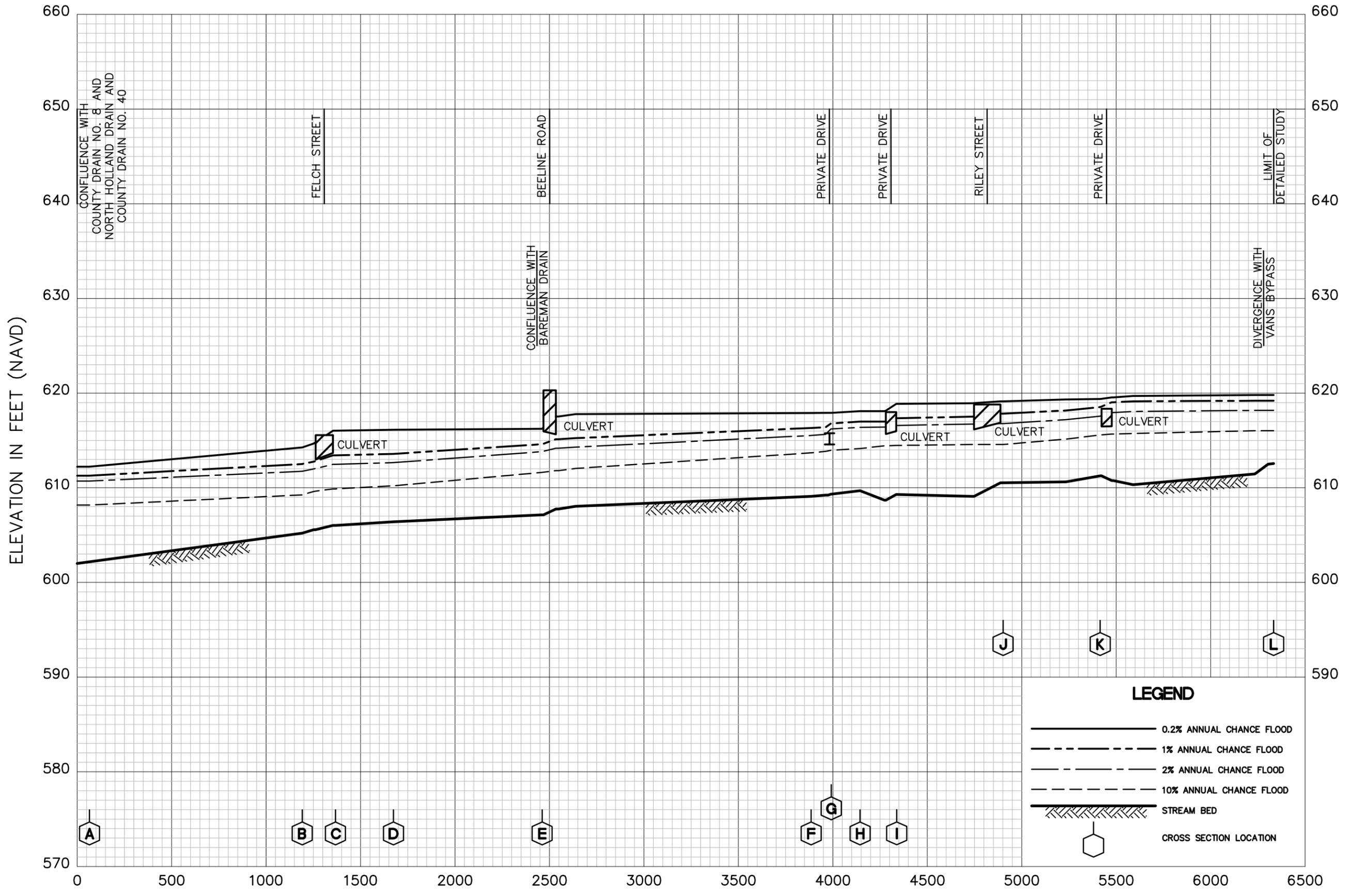
**COUNTY DRAIN NO. 8 AND NORTH HOLLAND DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH COUNTY DRAIN NO. 15 & 17 AND COUNTY DRAIN NO. 40



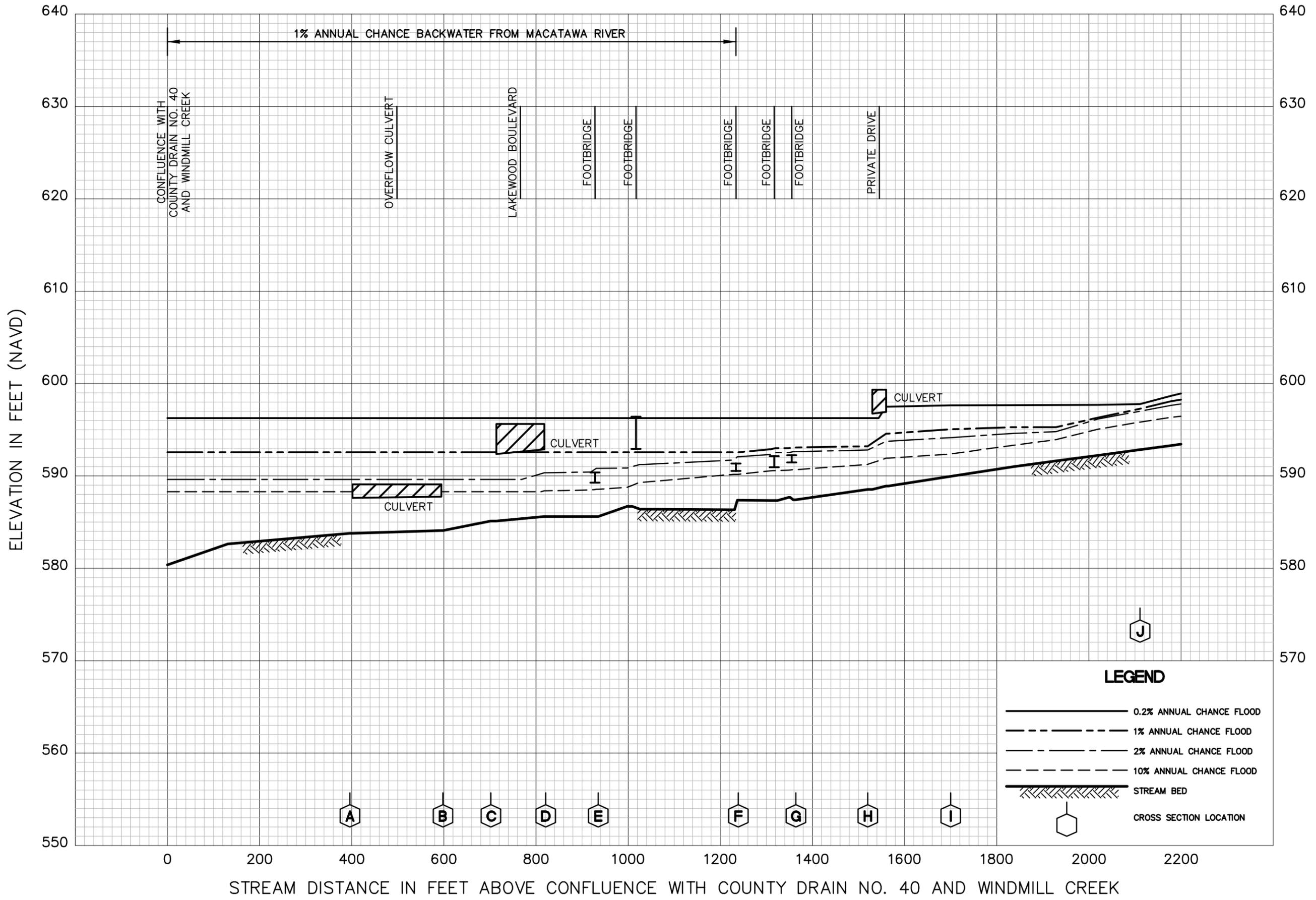
**FLOOD PROFILES**

**COUNTY DRAIN NO. 15 & 17**

FEDERAL EMERGENCY MANAGEMENT AGENCY

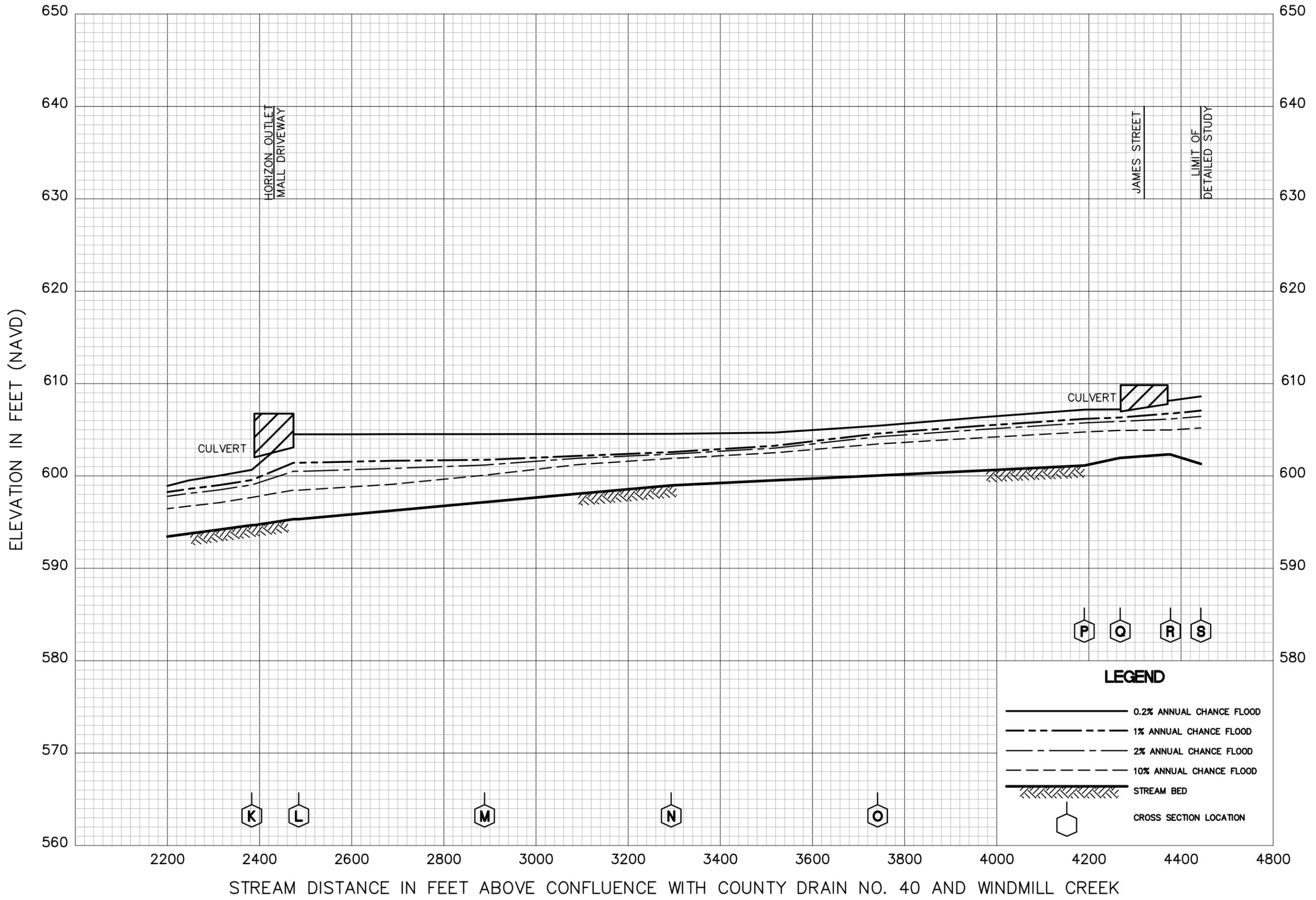
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



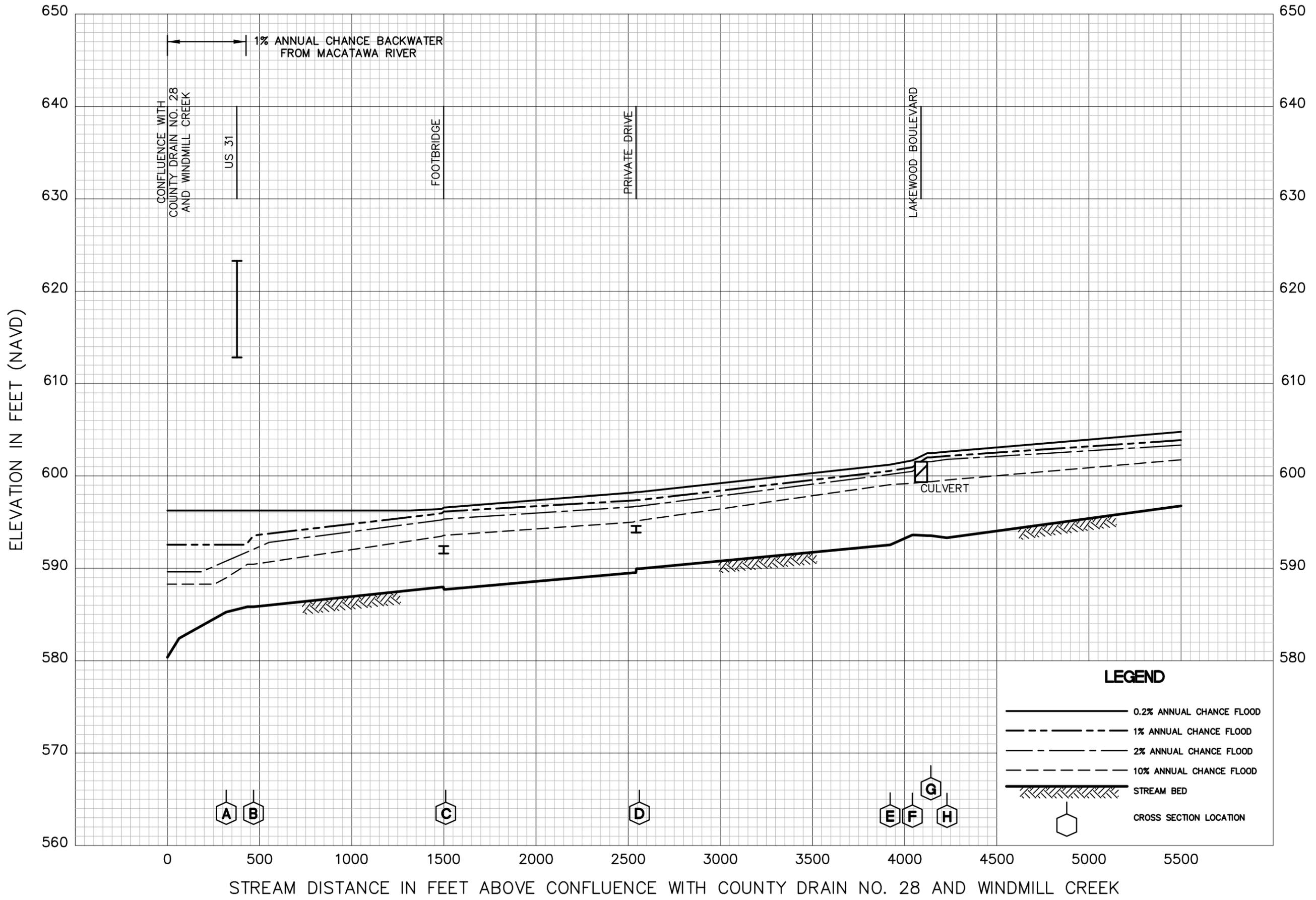
**FLOOD PROFILES**  
**COUNTY DRAIN NO. 28**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
 (ALL JURISDICTIONS)



**FLOOD PROFILES**  
**COUNTY DRAIN NO. 28**

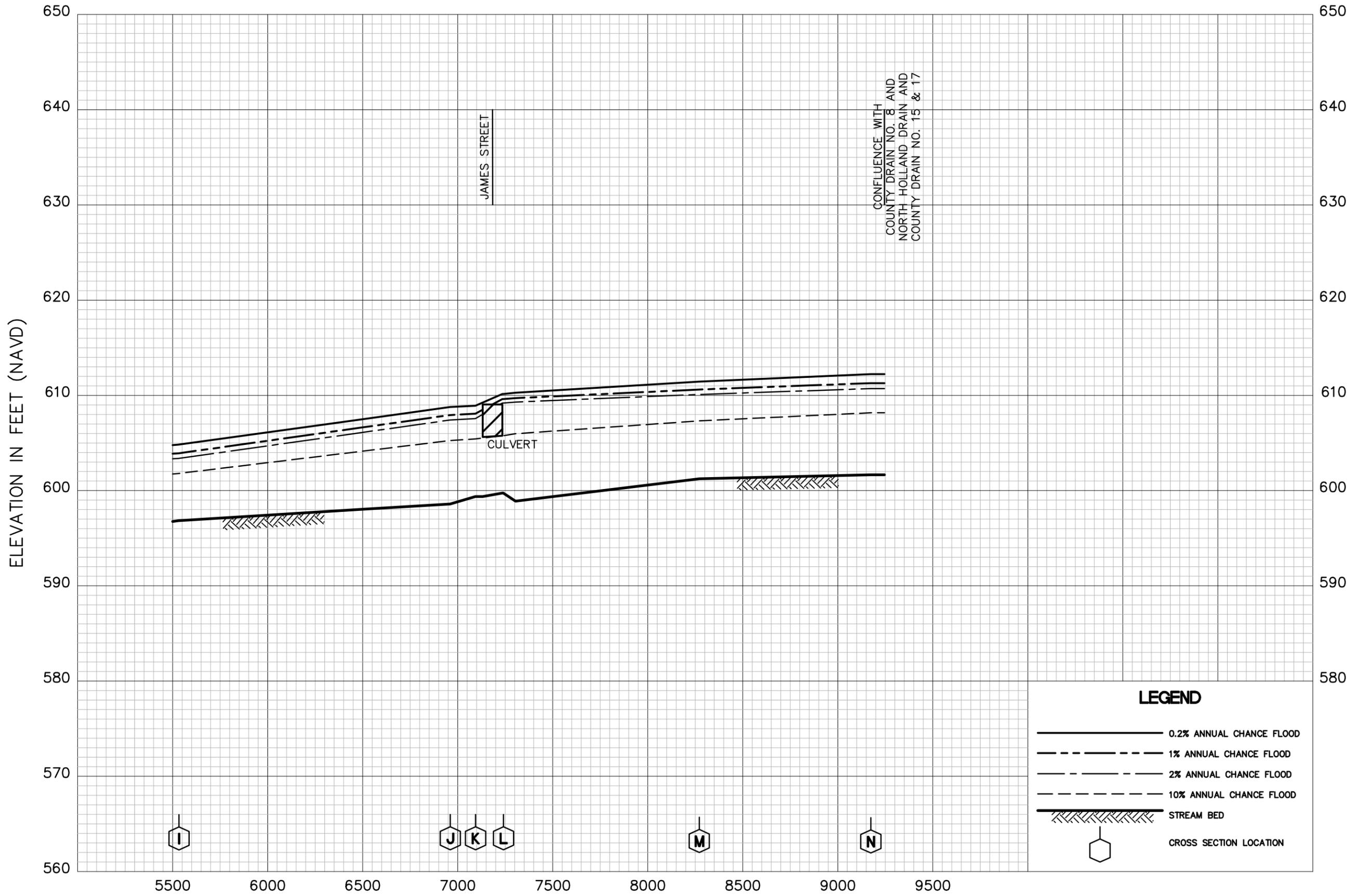
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
 (ALL JURISDICTIONS)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH COUNTY DRAIN NO. 28 AND WINDMILL CREEK

**FLOOD PROFILES**  
**COUNTY DRAIN NO. 40**

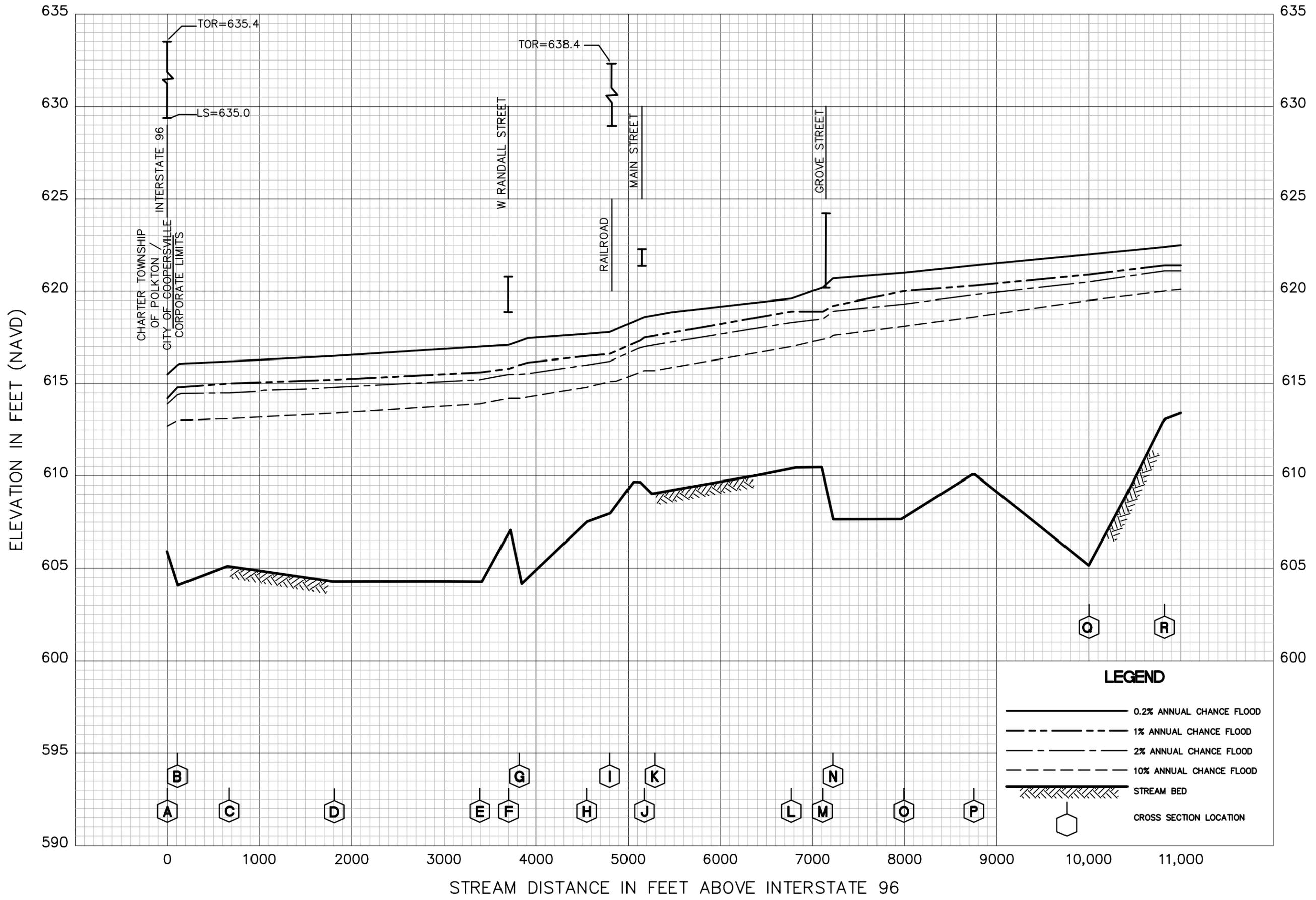
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH COUNTY DRAIN NO. 28 AND WINDMILL CREEK

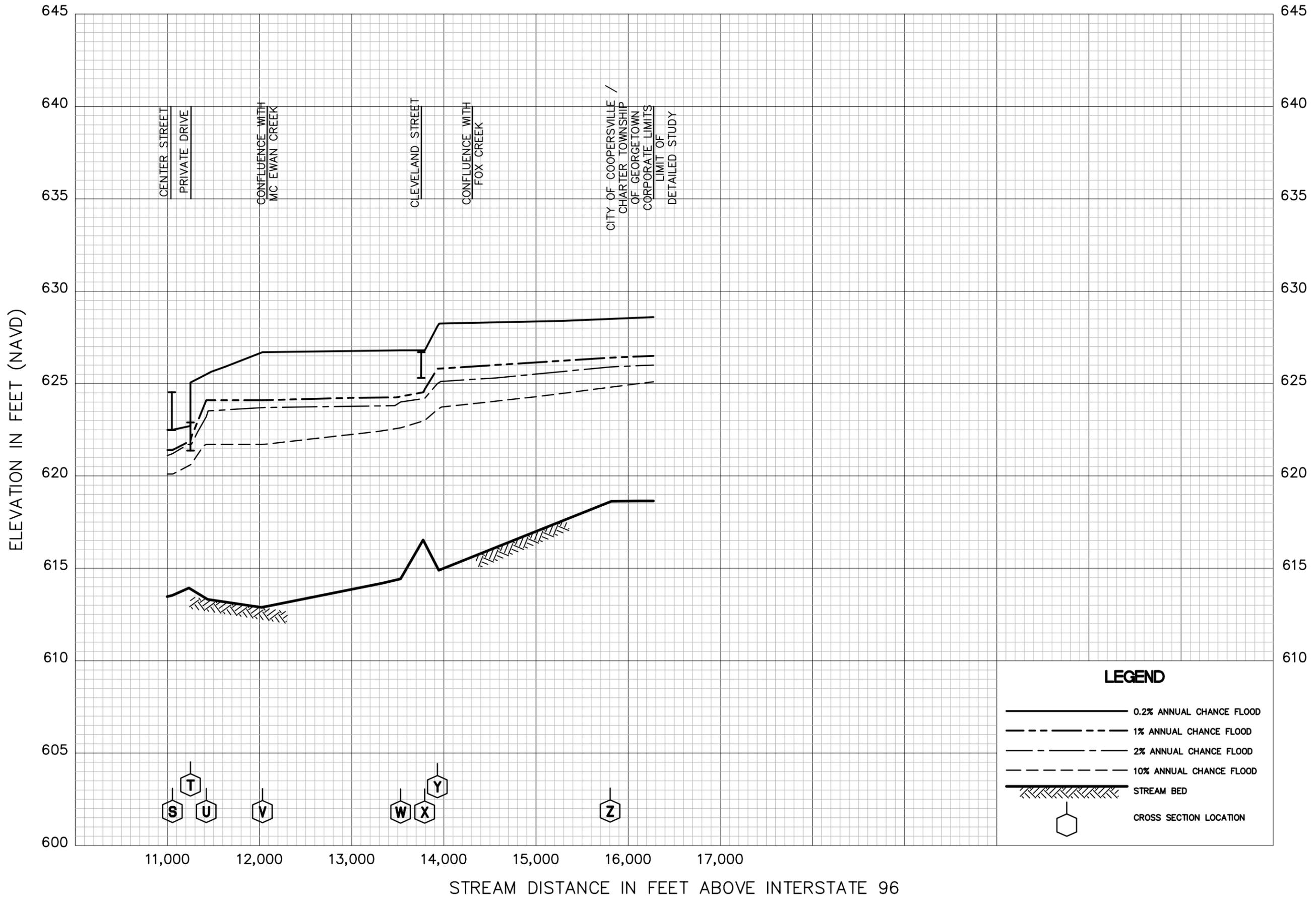
**FLOOD PROFILES**  
**COUNTY DRAIN NO. 40**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
 (ALL JURISDICTIONS)



**FLOOD PROFILES**  
**DEER CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)

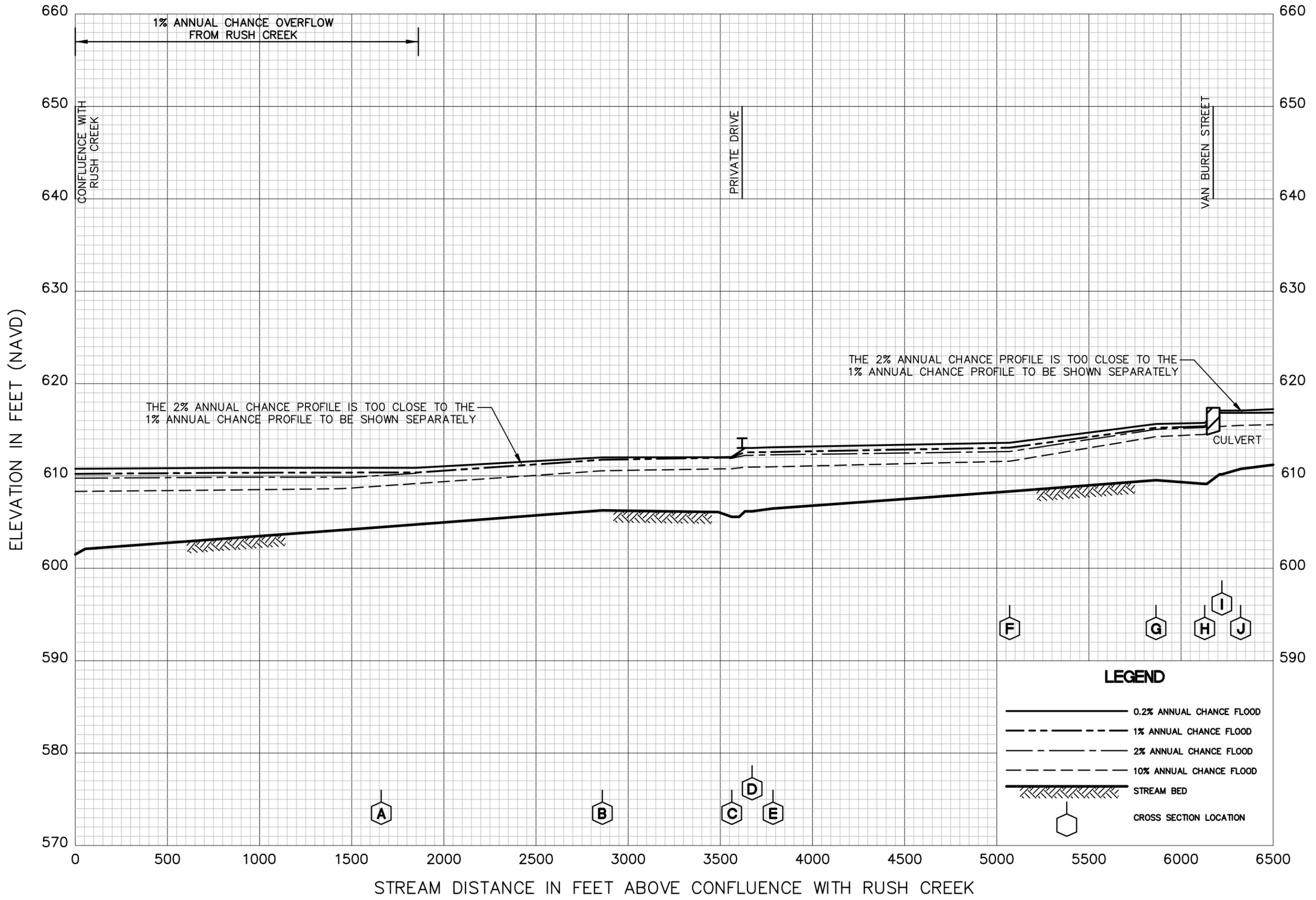


**LEGEND**

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

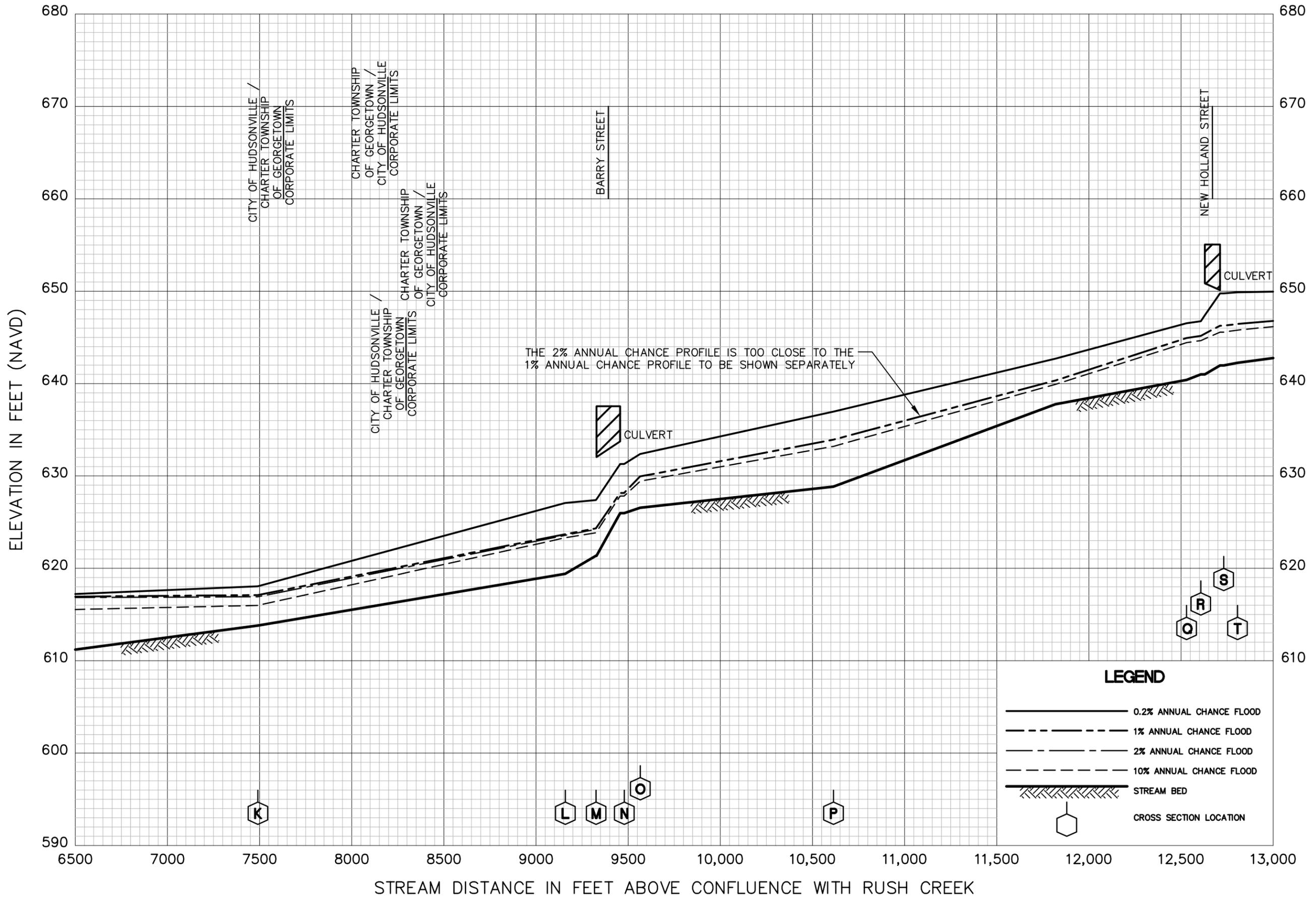
**FLOOD PROFILES  
DEER CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**DEWEERD DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**LEGEND**

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

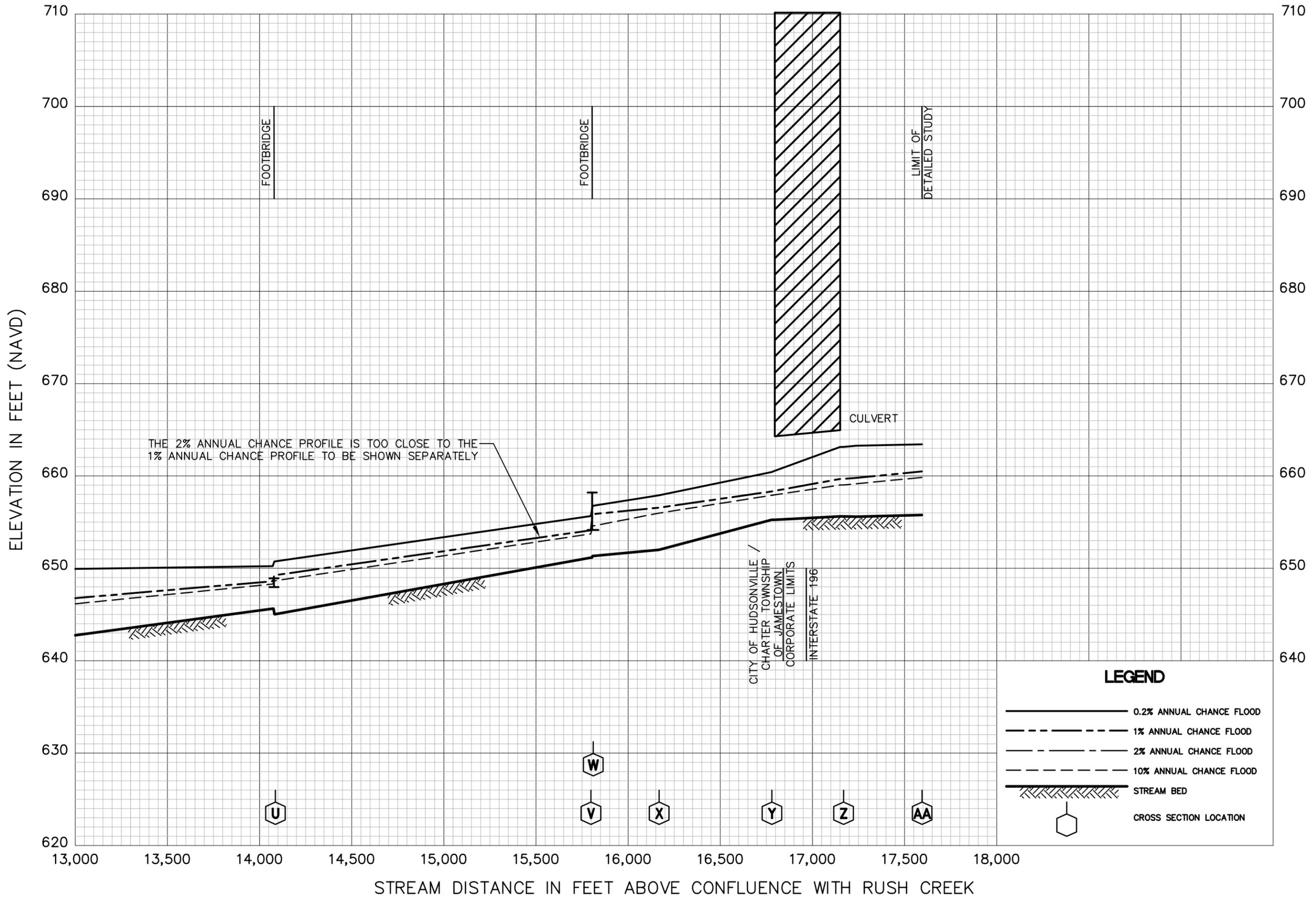
**FLOOD PROFILES**

**DEWEERD DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



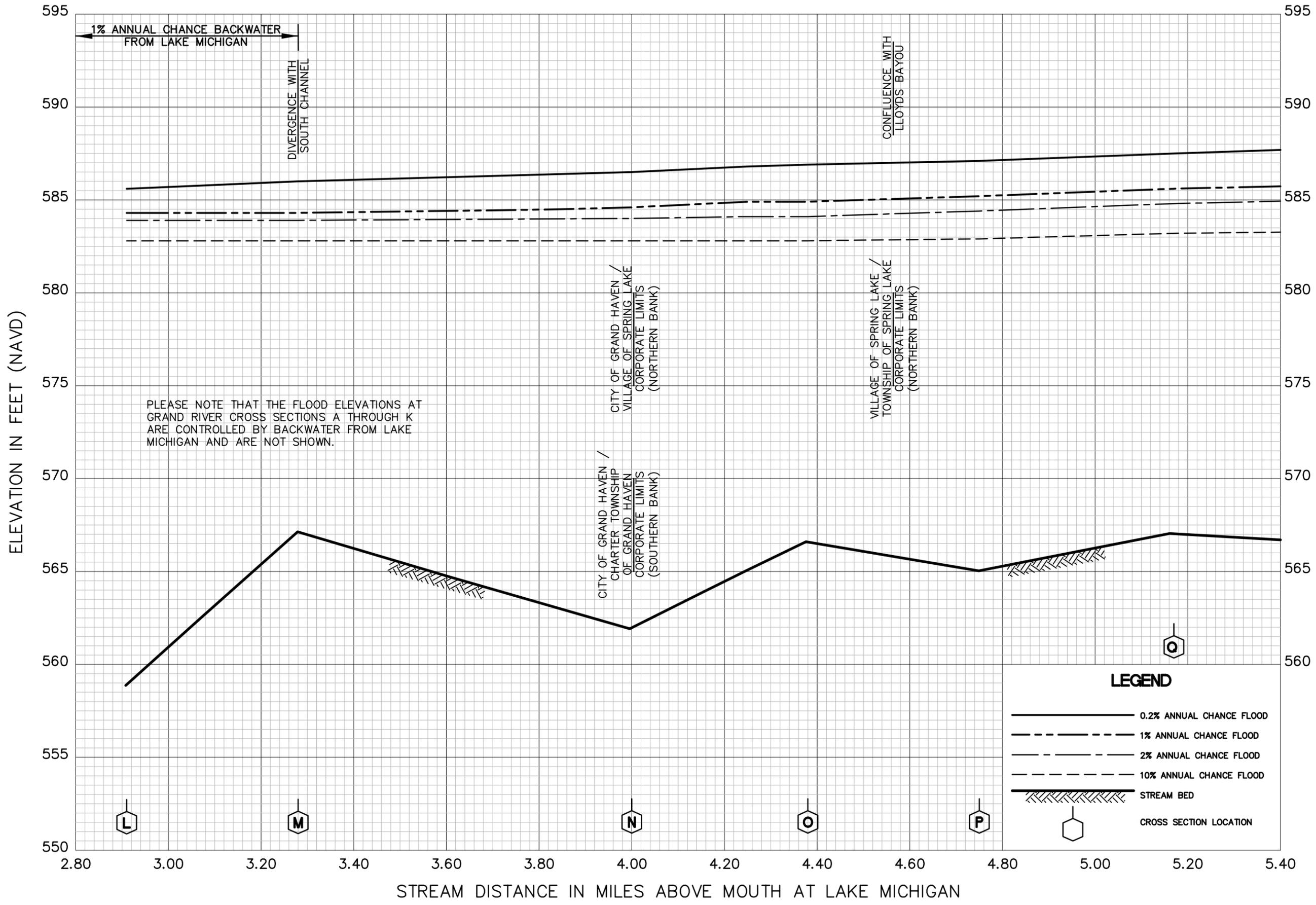
**FLOOD PROFILES**

**DEWEERD DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

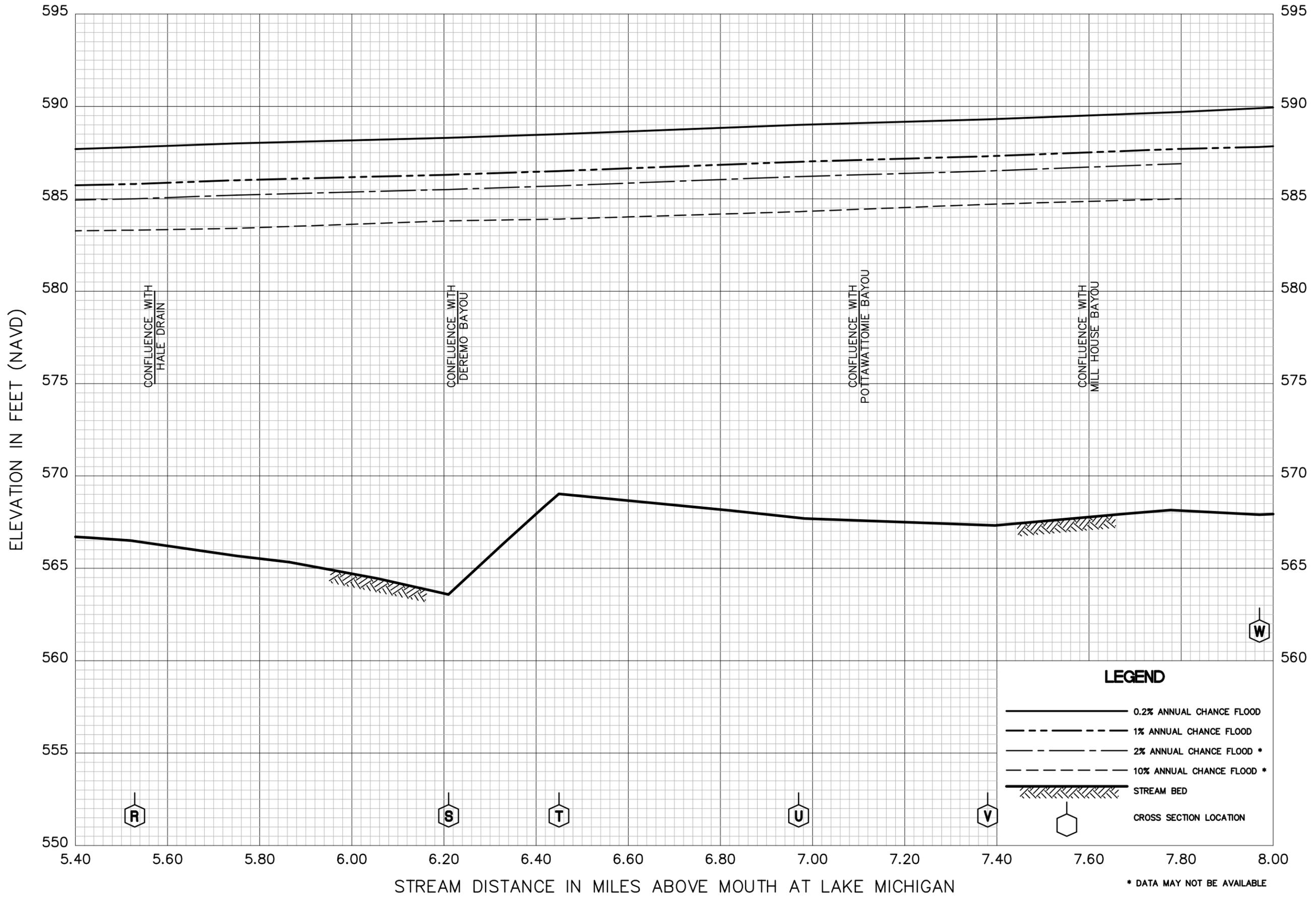
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**GRAND RIVER**

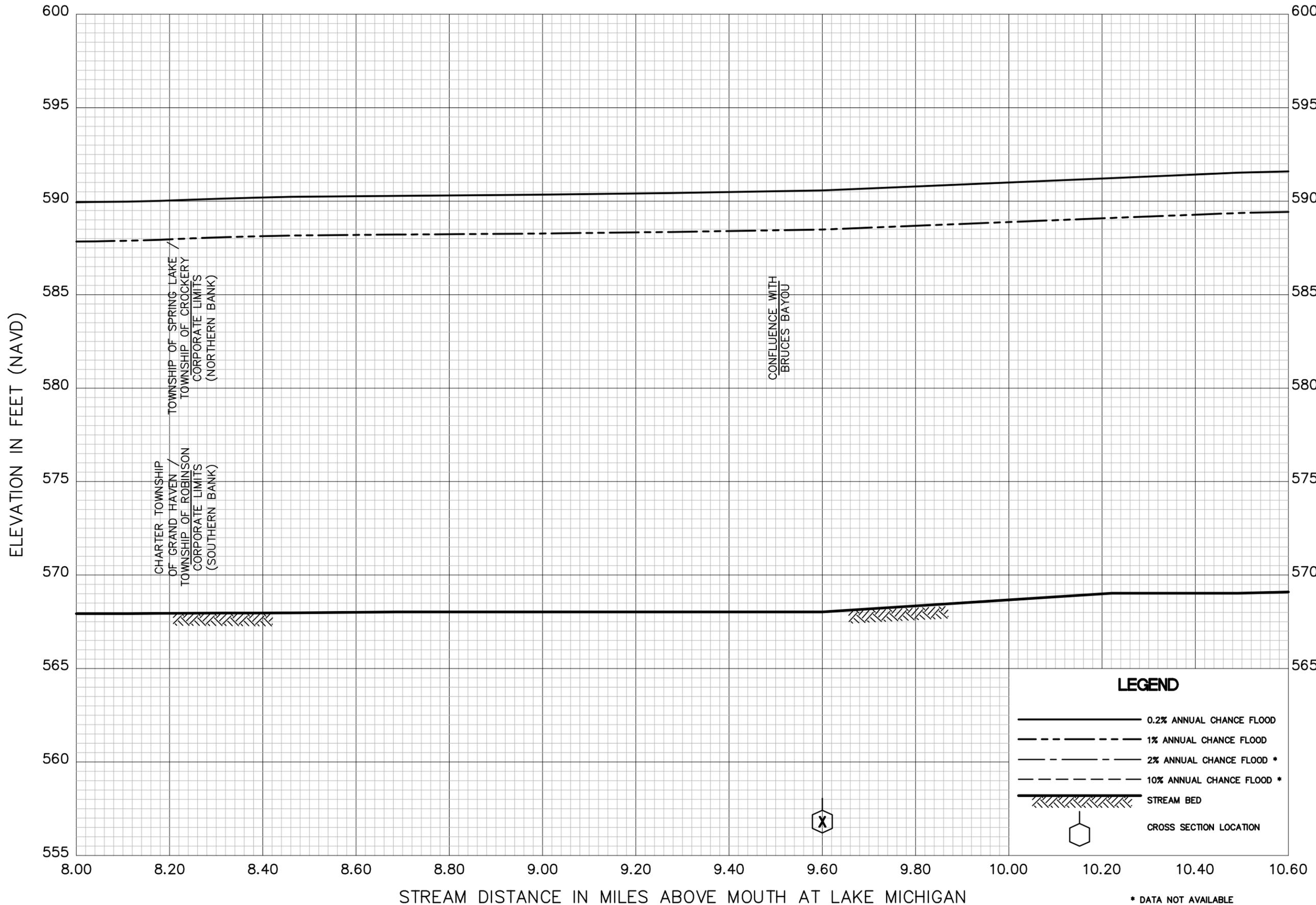
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**LEGEND**

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

\* DATA MAY NOT BE AVAILABLE



ELEVATION IN FEET (NAVD)

STREAM DISTANCE IN MILES ABOVE MOUTH AT LAKE MICHIGAN

**LEGEND**

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

\* DATA NOT AVAILABLE

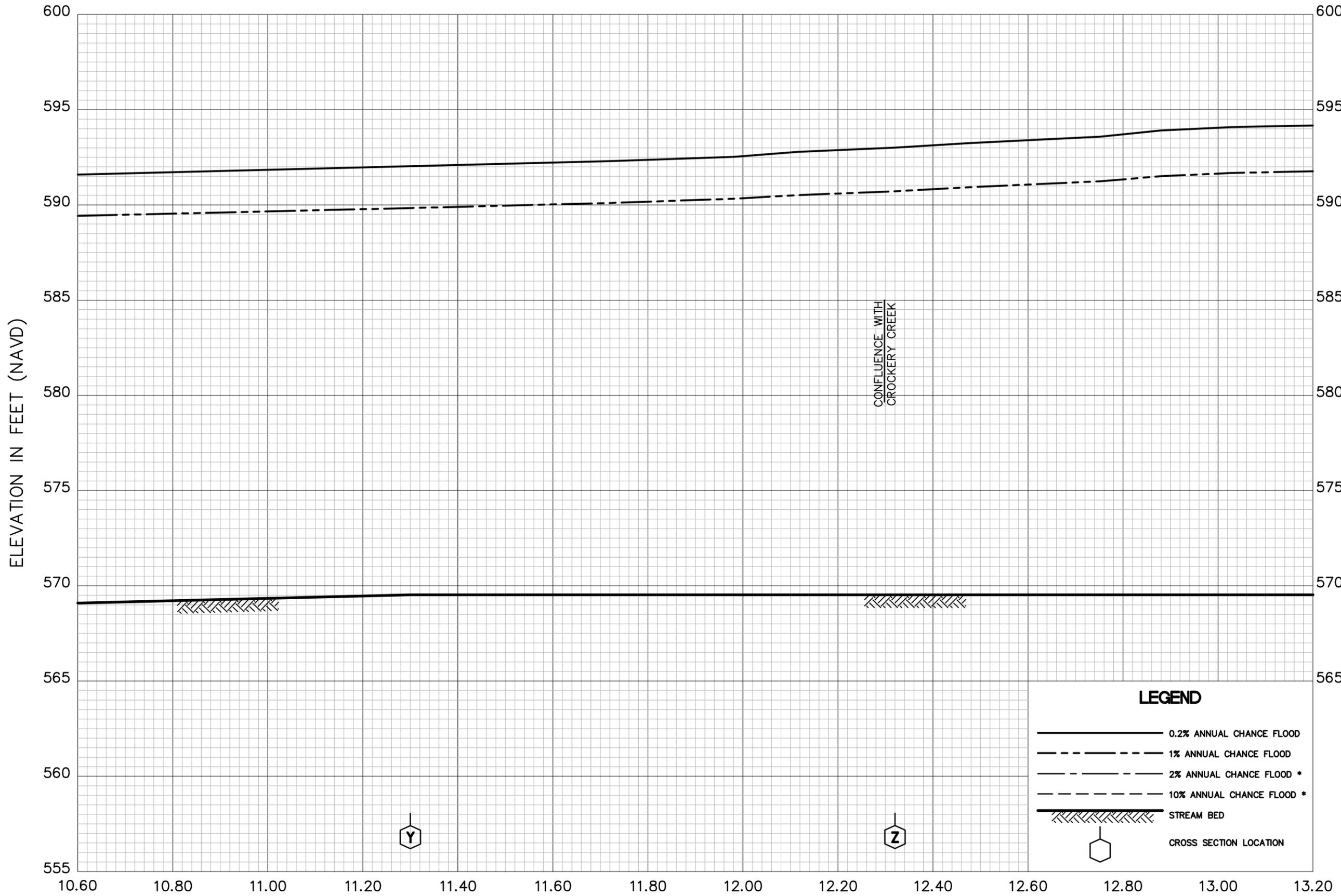
**FLOOD PROFILES**

**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



ELEVATION IN FEET (NAVD)

STREAM DISTANCE IN MILES ABOVE MOUTH AT LAKE MICHIGAN

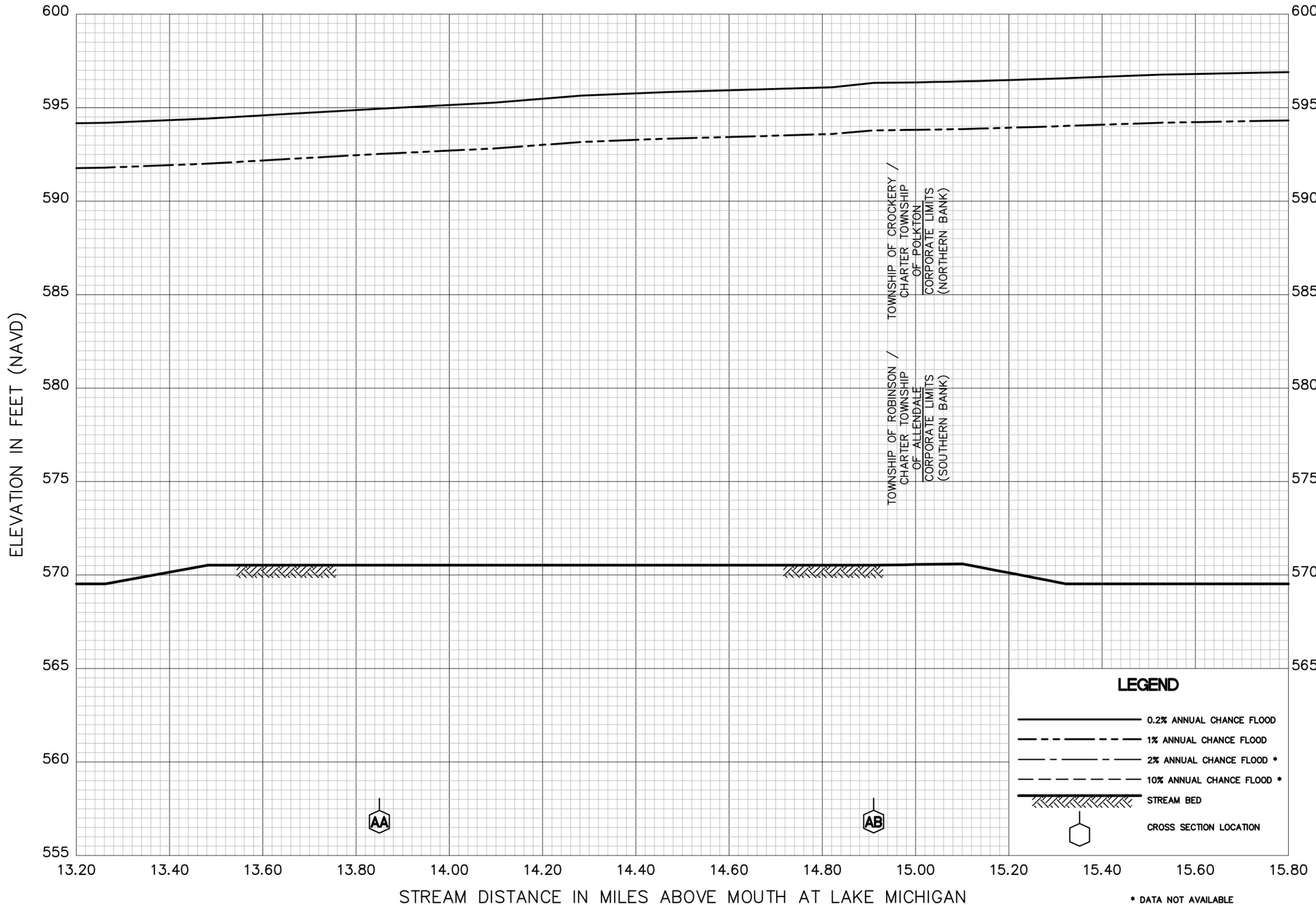
**LEGEND**

- 0.2% ANNUAL CHANCE FLOOD
- - - 1% ANNUAL CHANCE FLOOD
- · - 2% ANNUAL CHANCE FLOOD \*
- · - · 10% ANNUAL CHANCE FLOOD \*
- ▨ STREAM BED
- ⬢ CROSS SECTION LOCATION

\* DATA NOT AVAILABLE

**FLOOD PROFILES**  
**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**LEGEND**

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

\* DATA NOT AVAILABLE

**FLOOD PROFILES**

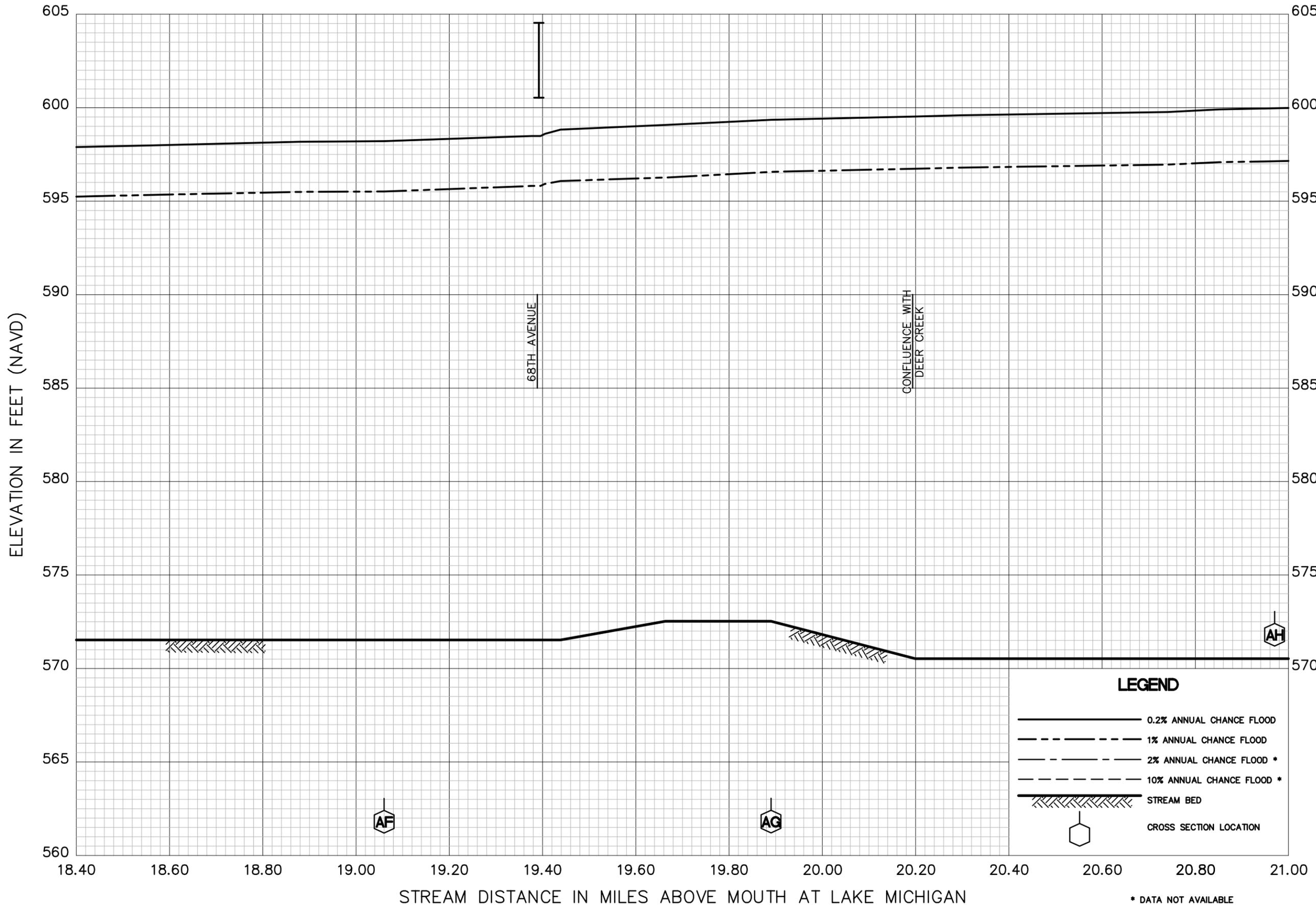
**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)





**FLOOD PROFILES**  
**GRAND RIVER**

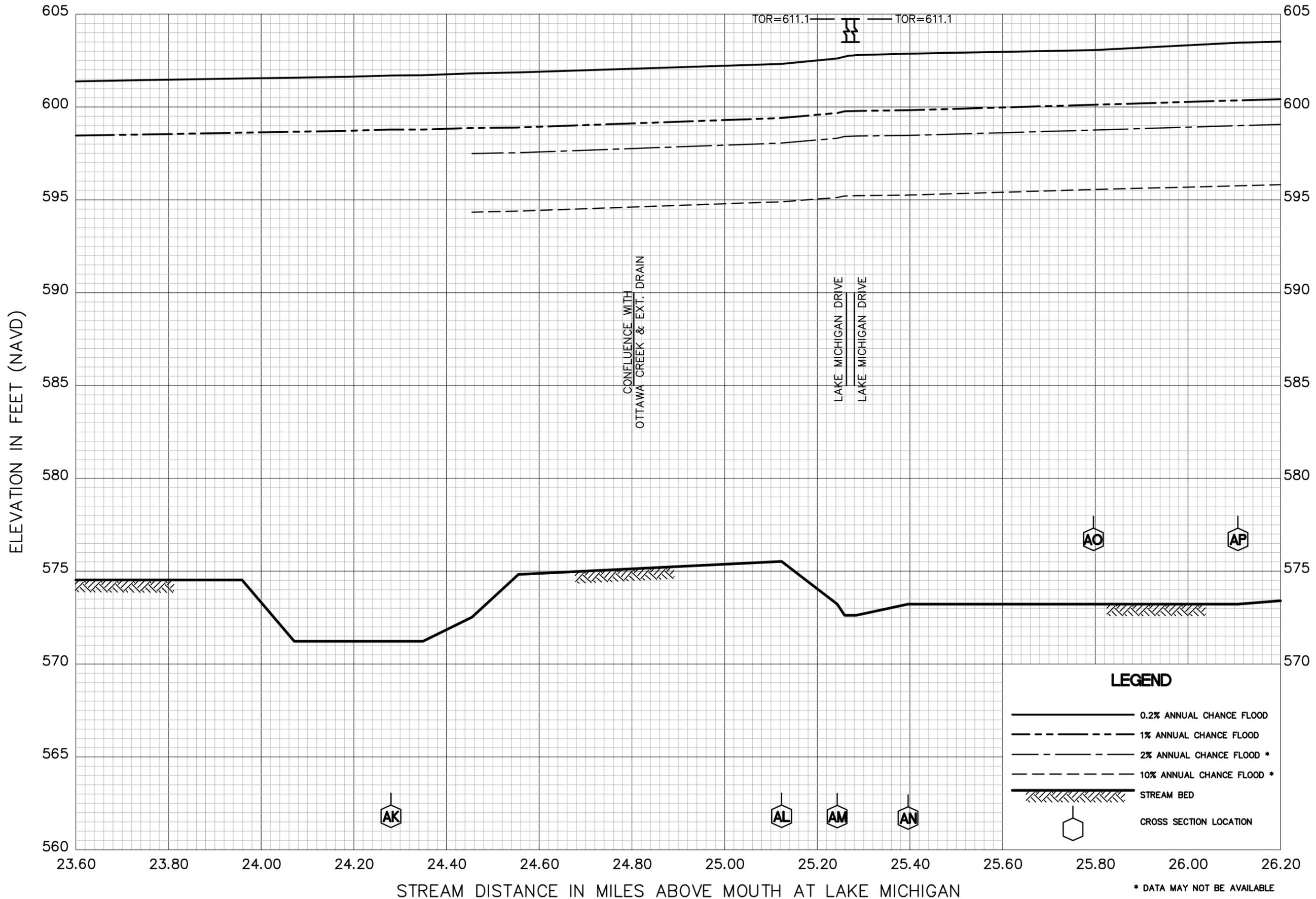
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)

**LEGEND**

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

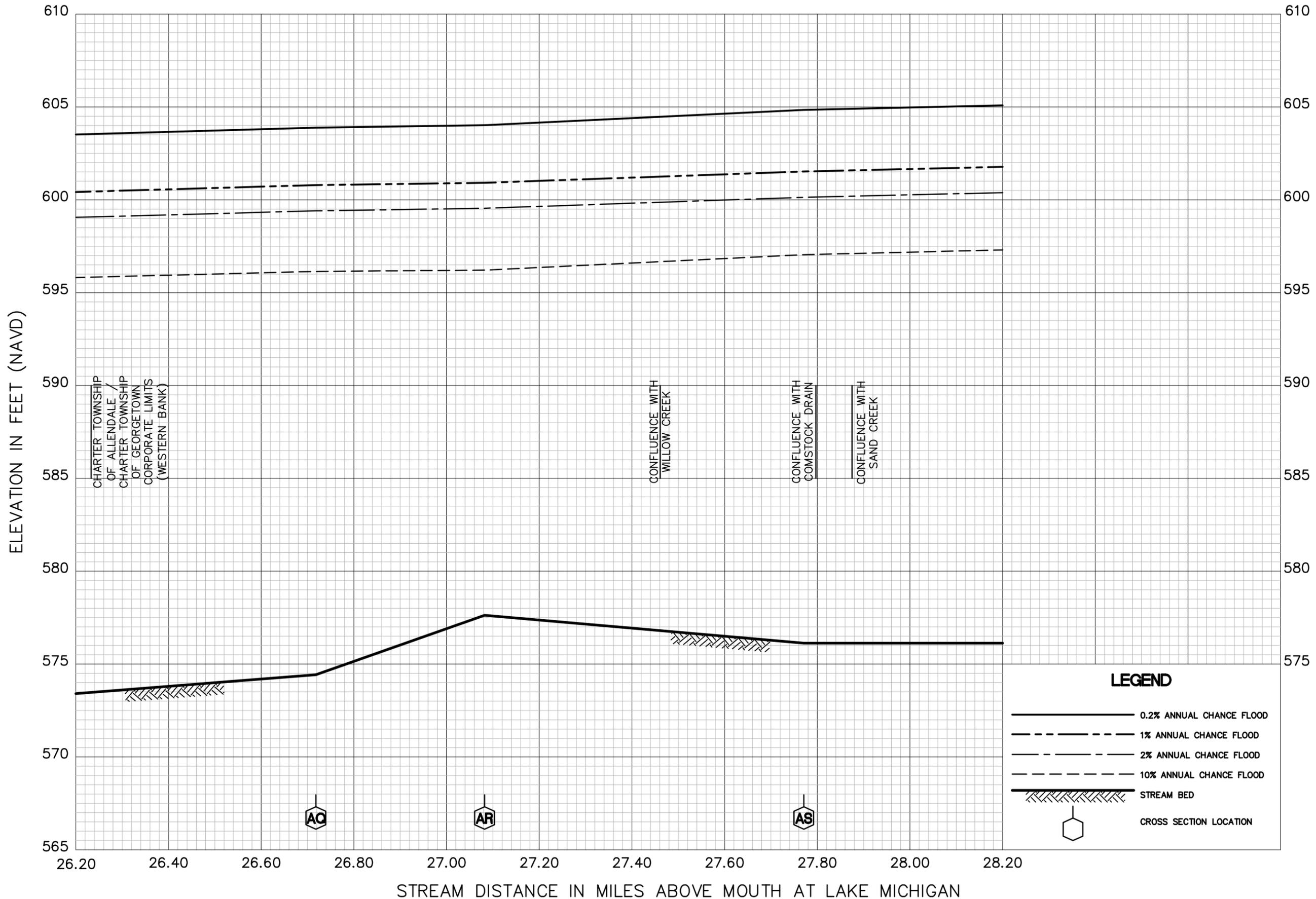
\* DATA NOT AVAILABLE





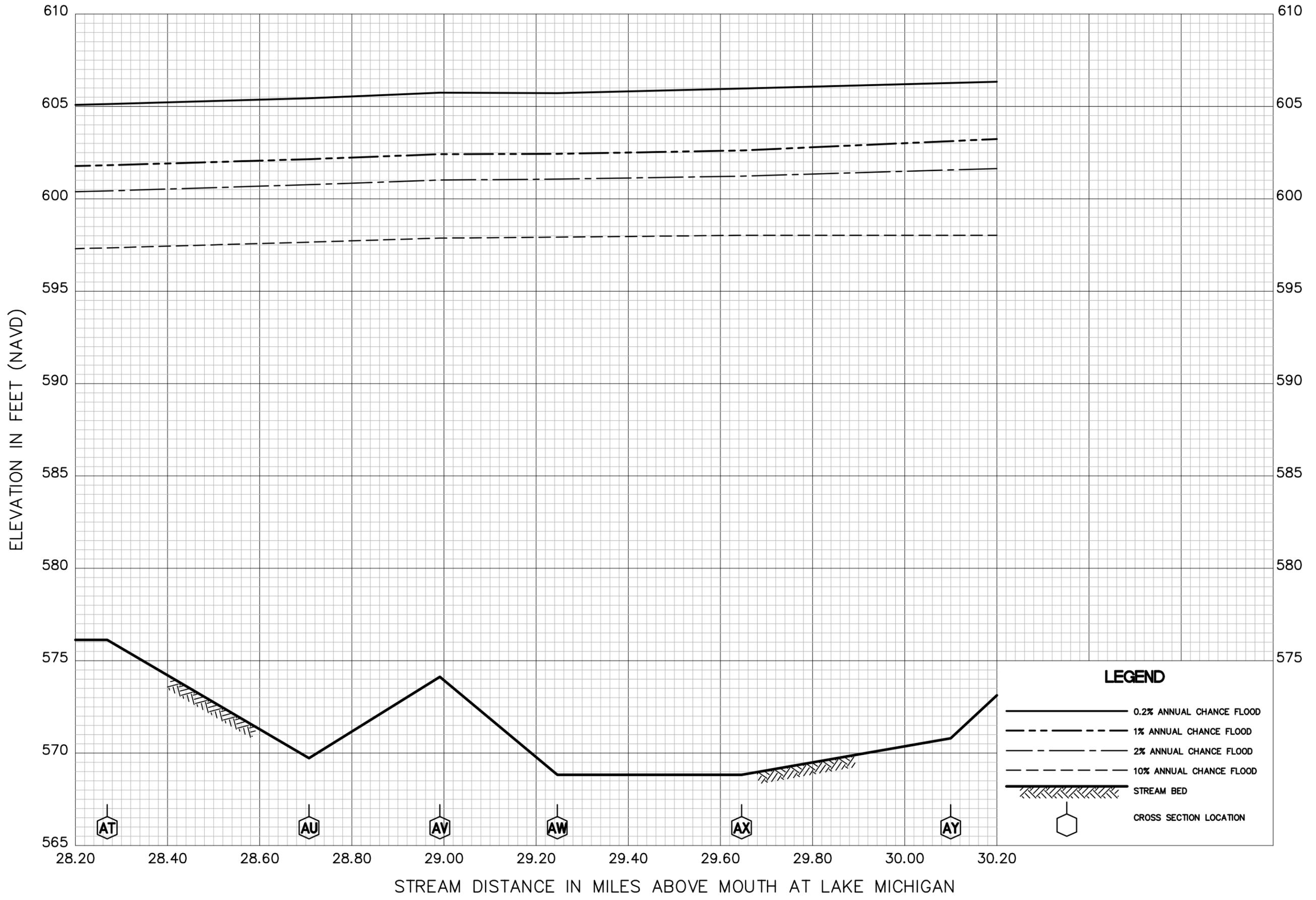
**FLOOD PROFILES  
GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



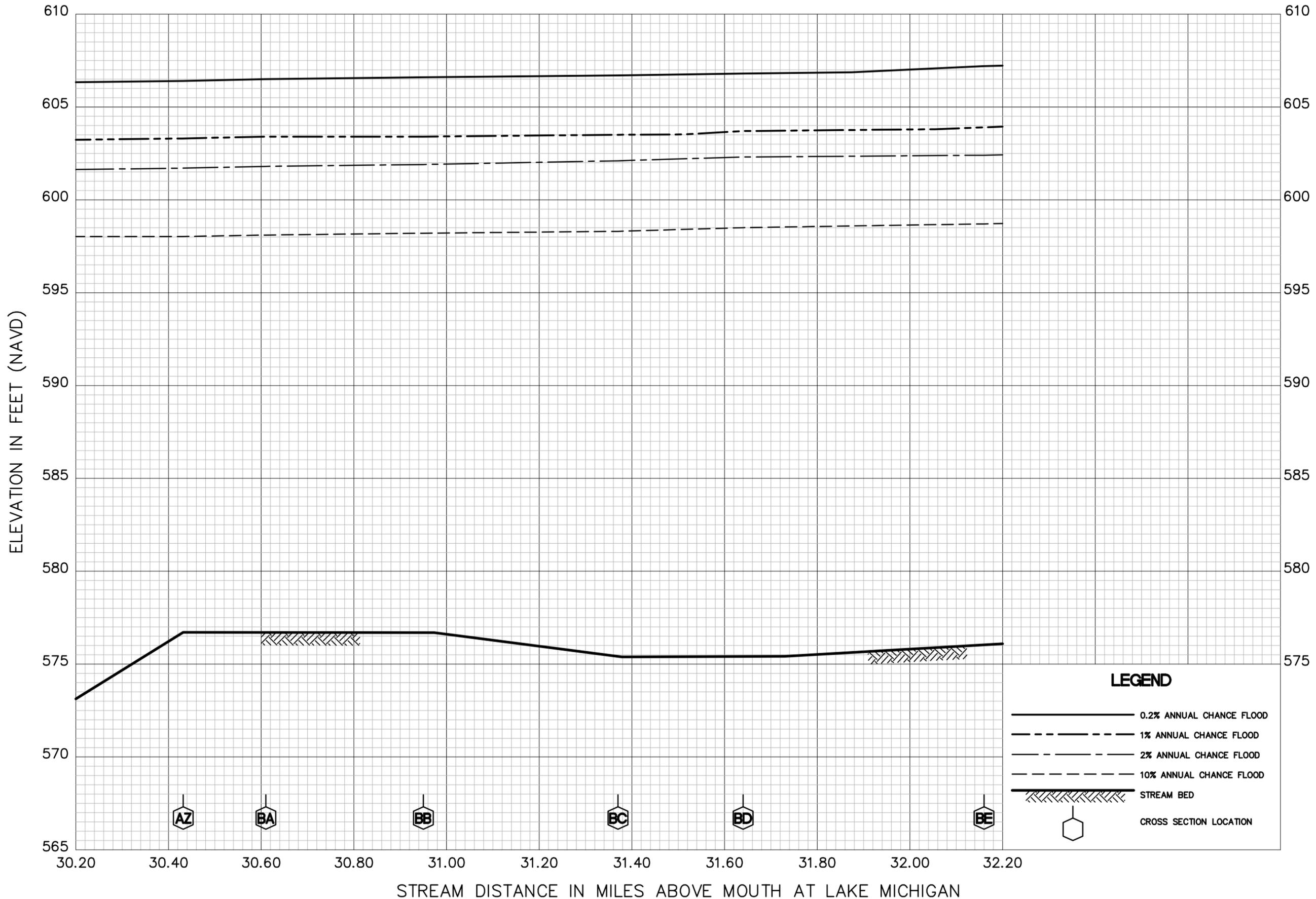
**FLOOD PROFILES**  
**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



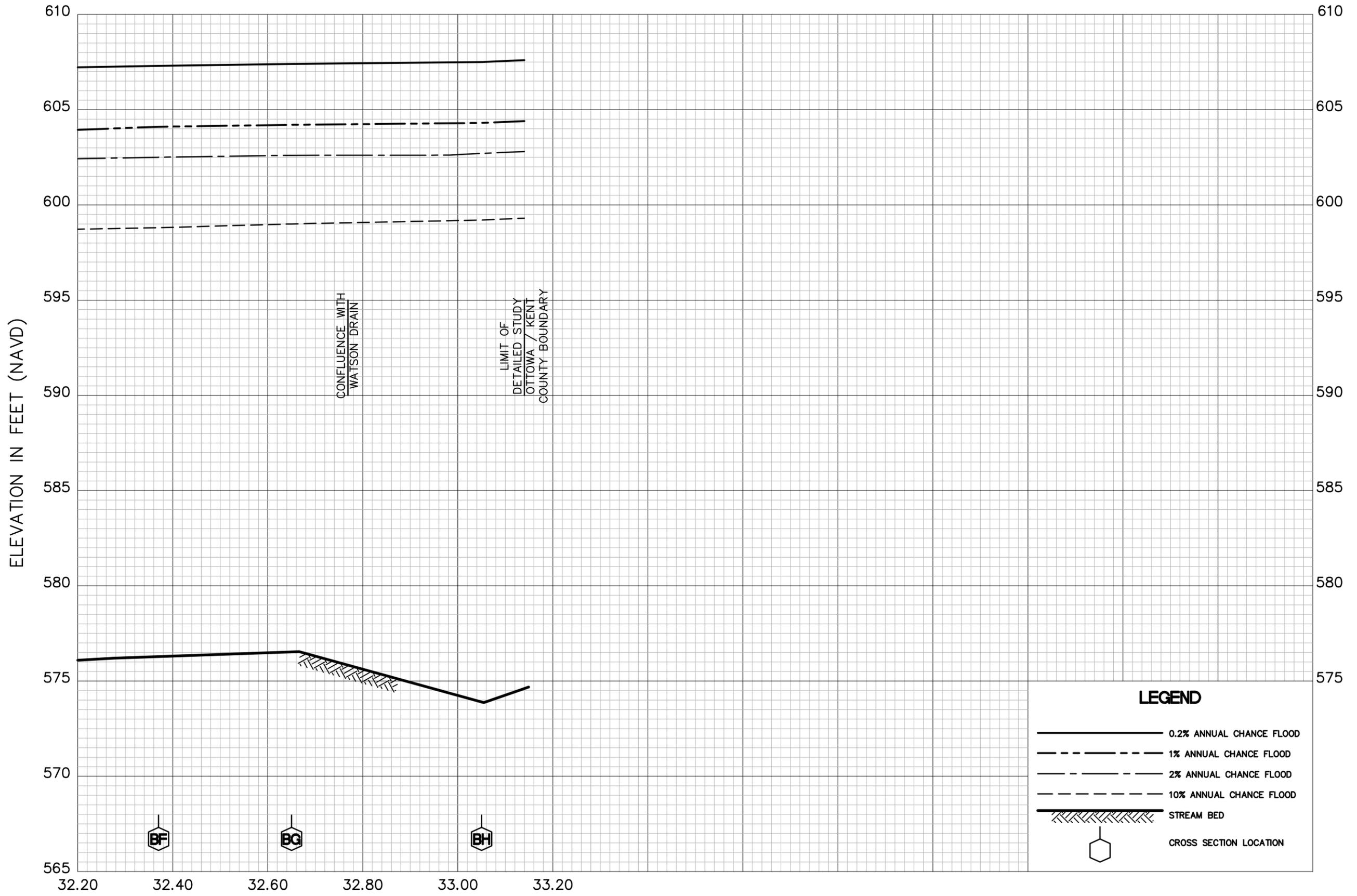
**FLOOD PROFILES**  
**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



ELEVATION IN FEET (NAVD)

STREAM DISTANCE IN MILES ABOVE MOUTH AT LAKE MICHIGAN

**LEGEND**

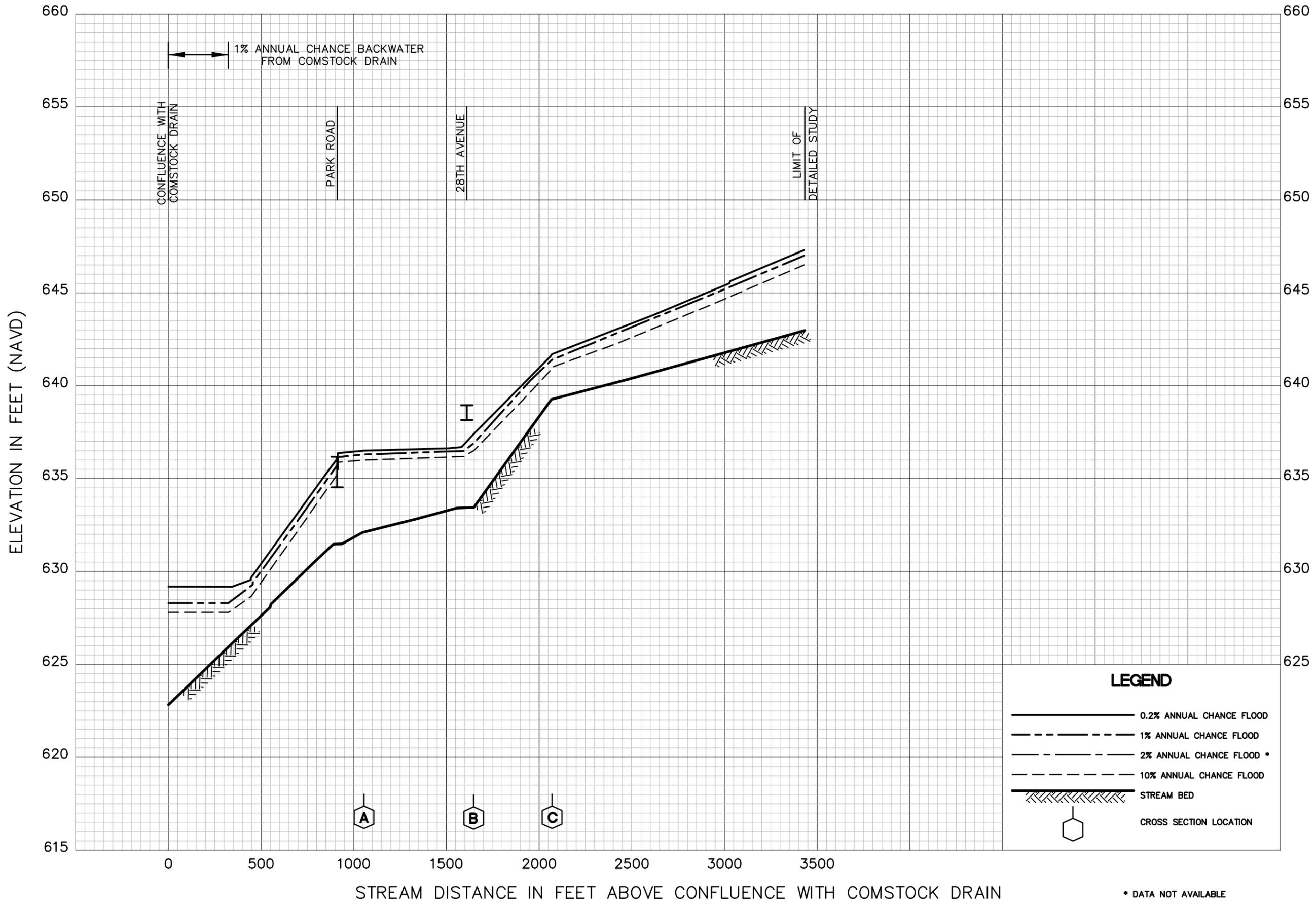
- 0.2% ANNUAL CHANCE FLOOD
- - - 1% ANNUAL CHANCE FLOOD
- · - 2% ANNUAL CHANCE FLOOD
- - - - 10% ANNUAL CHANCE FLOOD
- ▨ STREAM BED
- ⬡ CROSS SECTION LOCATION

CONFLUENCE WITH  
WATSON DRAIN

LIMIT OF  
DETAILED STUDY  
OTTAWA / KENT  
COUNTY BOUNDARY

**FLOOD PROFILES**  
**GRAND RIVER**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



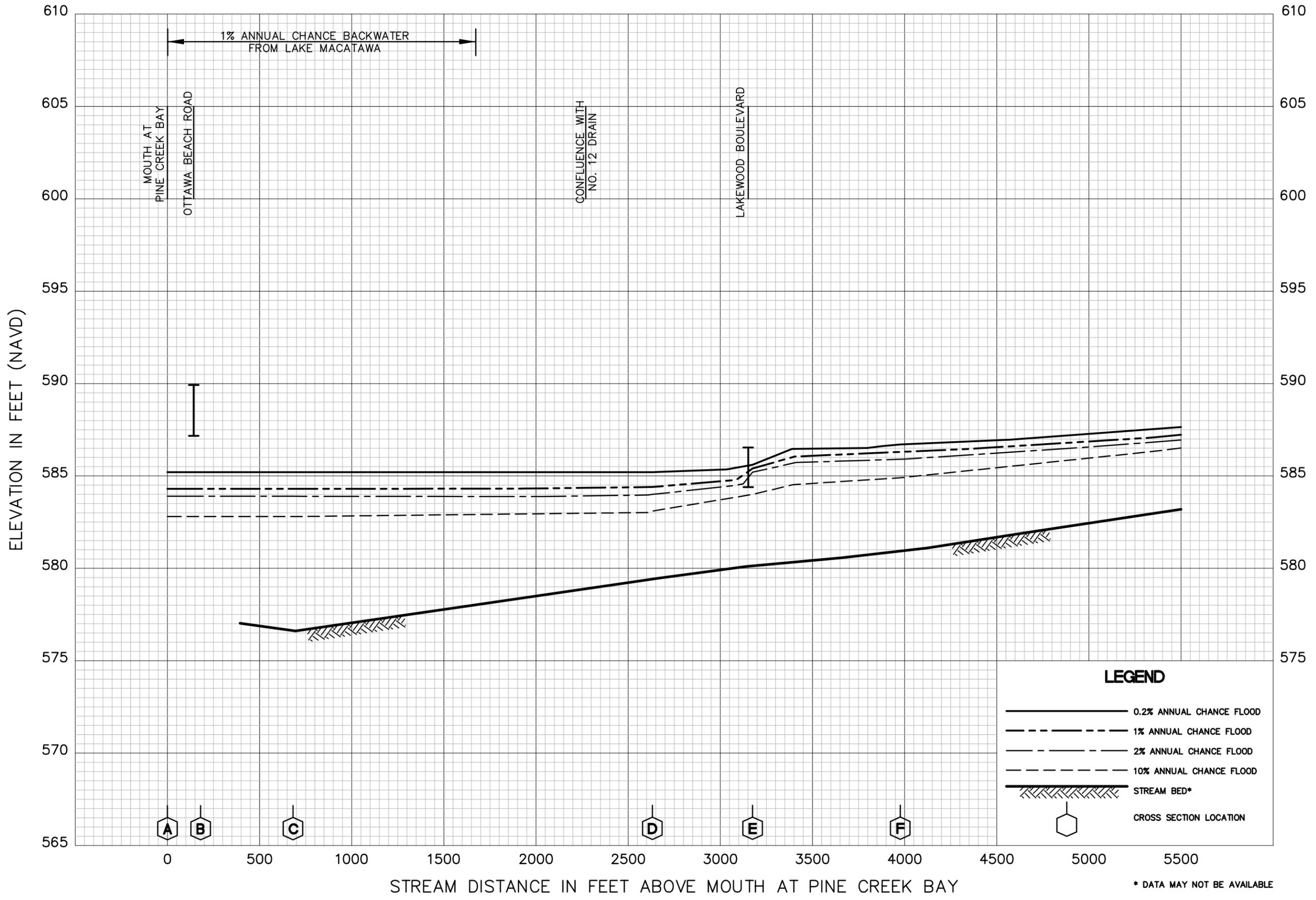
**LEGEND**

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

\* DATA NOT AVAILABLE

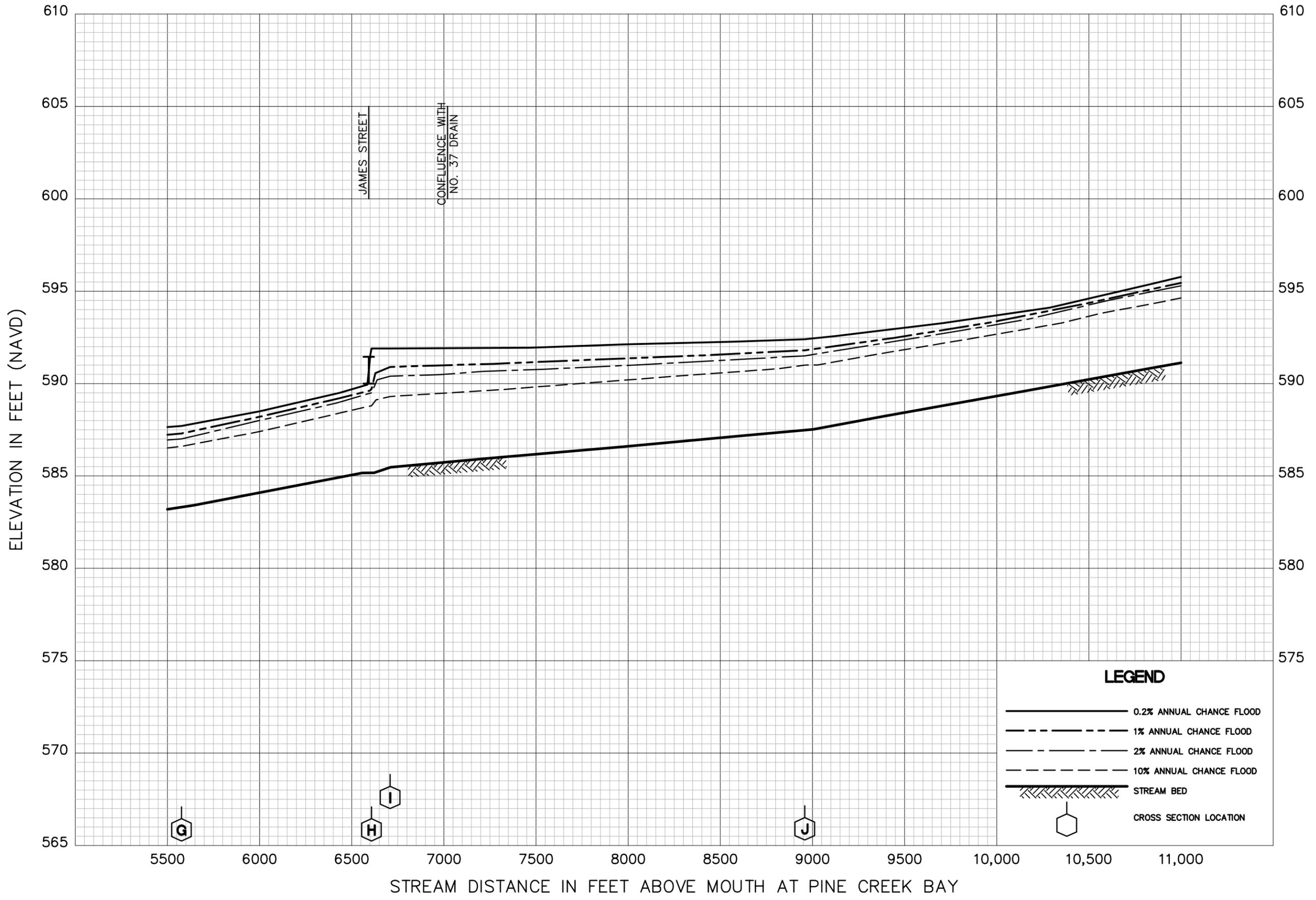
**FLOOD PROFILES  
HAGER CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



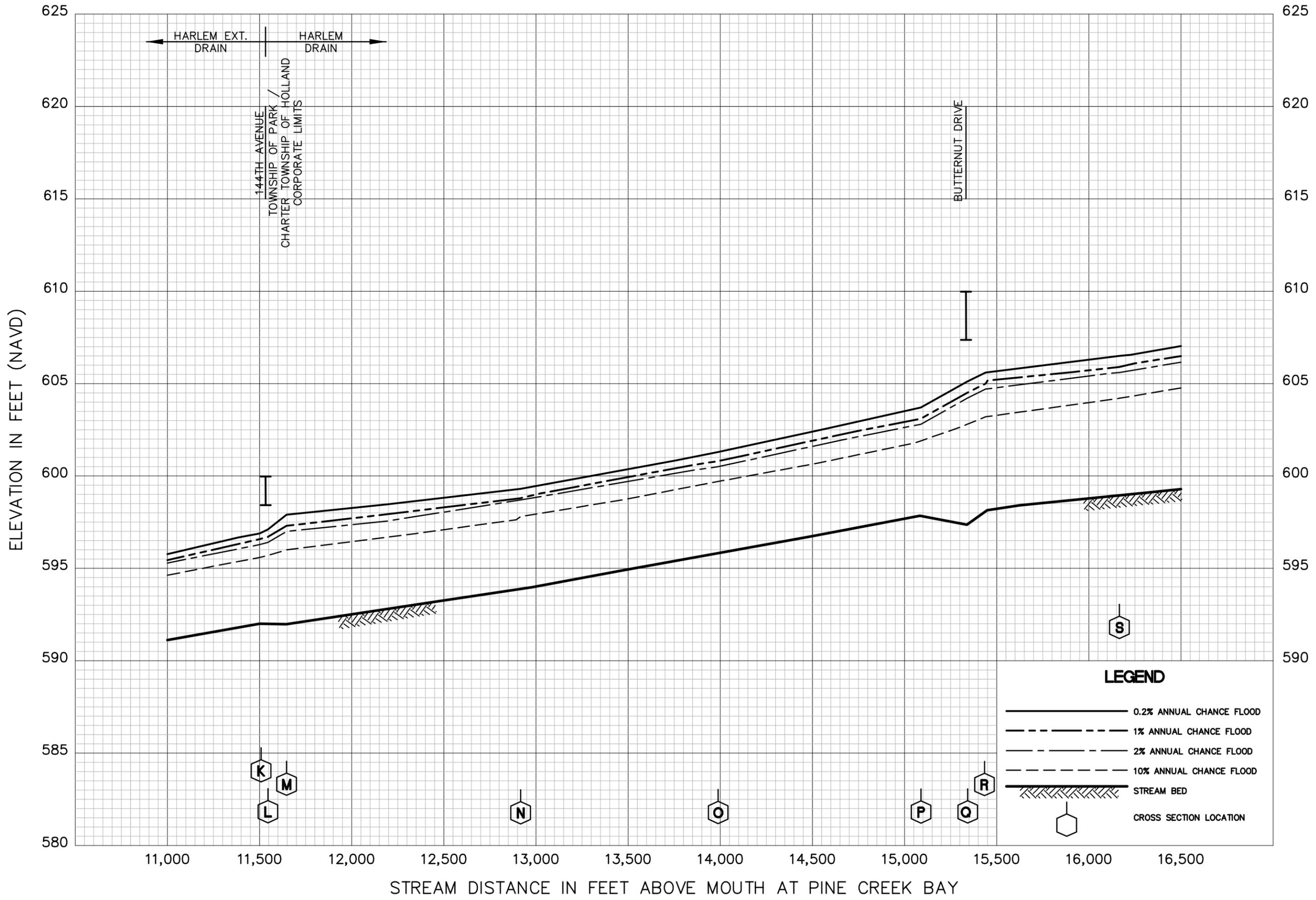
**FLOOD PROFILES**  
**HARLEM EXT. DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES  
HARLEM EXT. DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



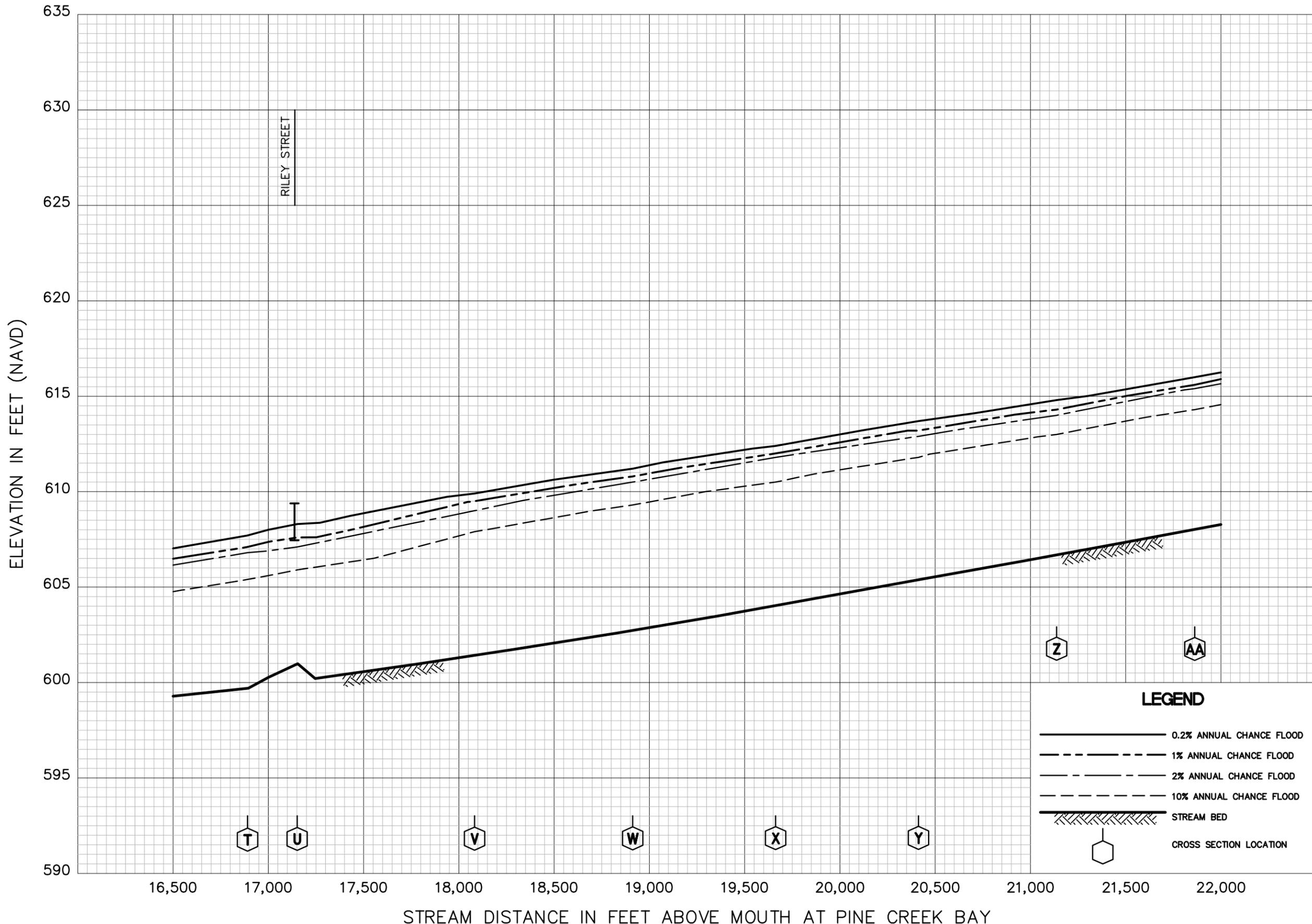
**FLOOD PROFILES**

**HARLEM EXT. DRAIN / HARLEM DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

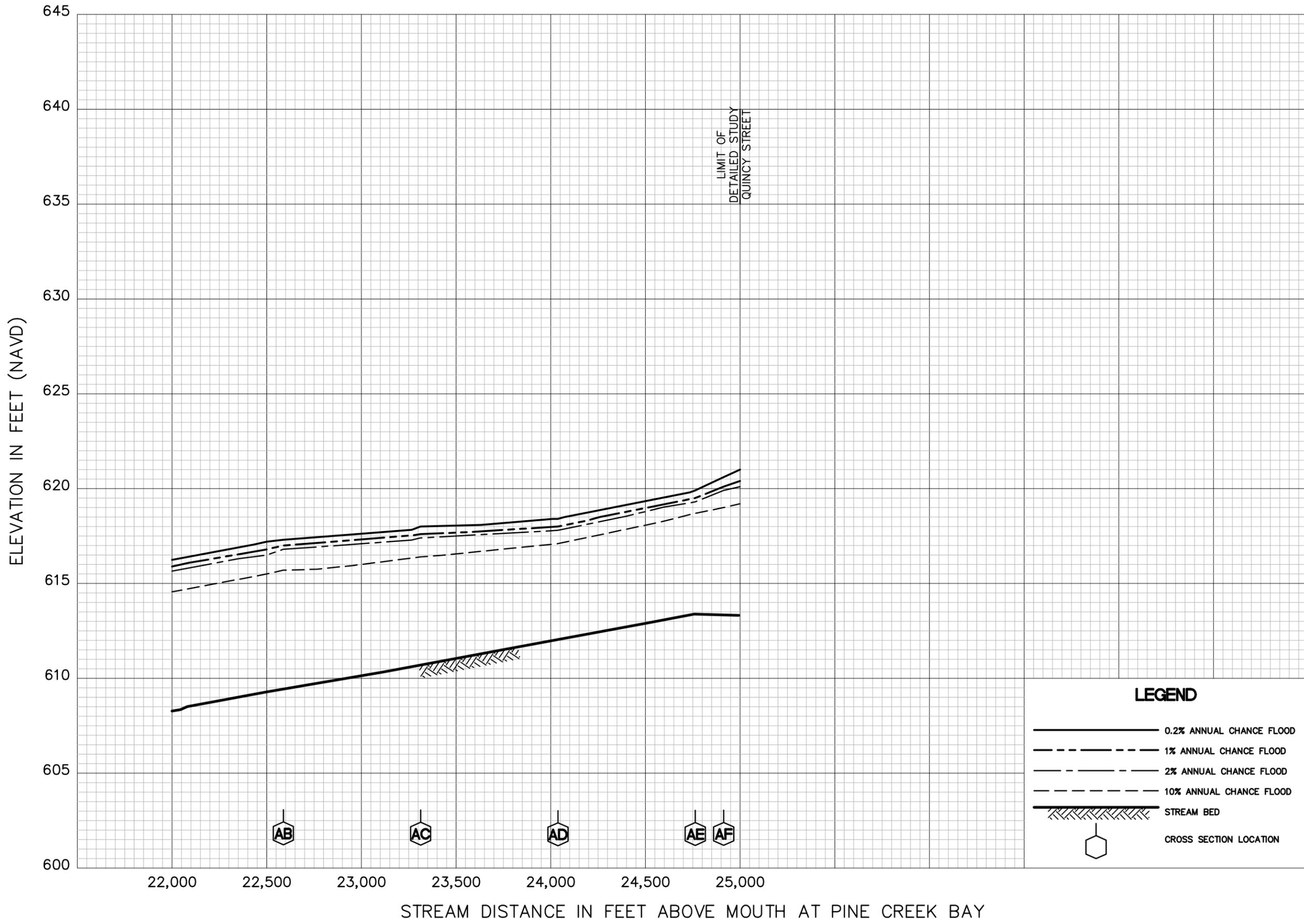
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



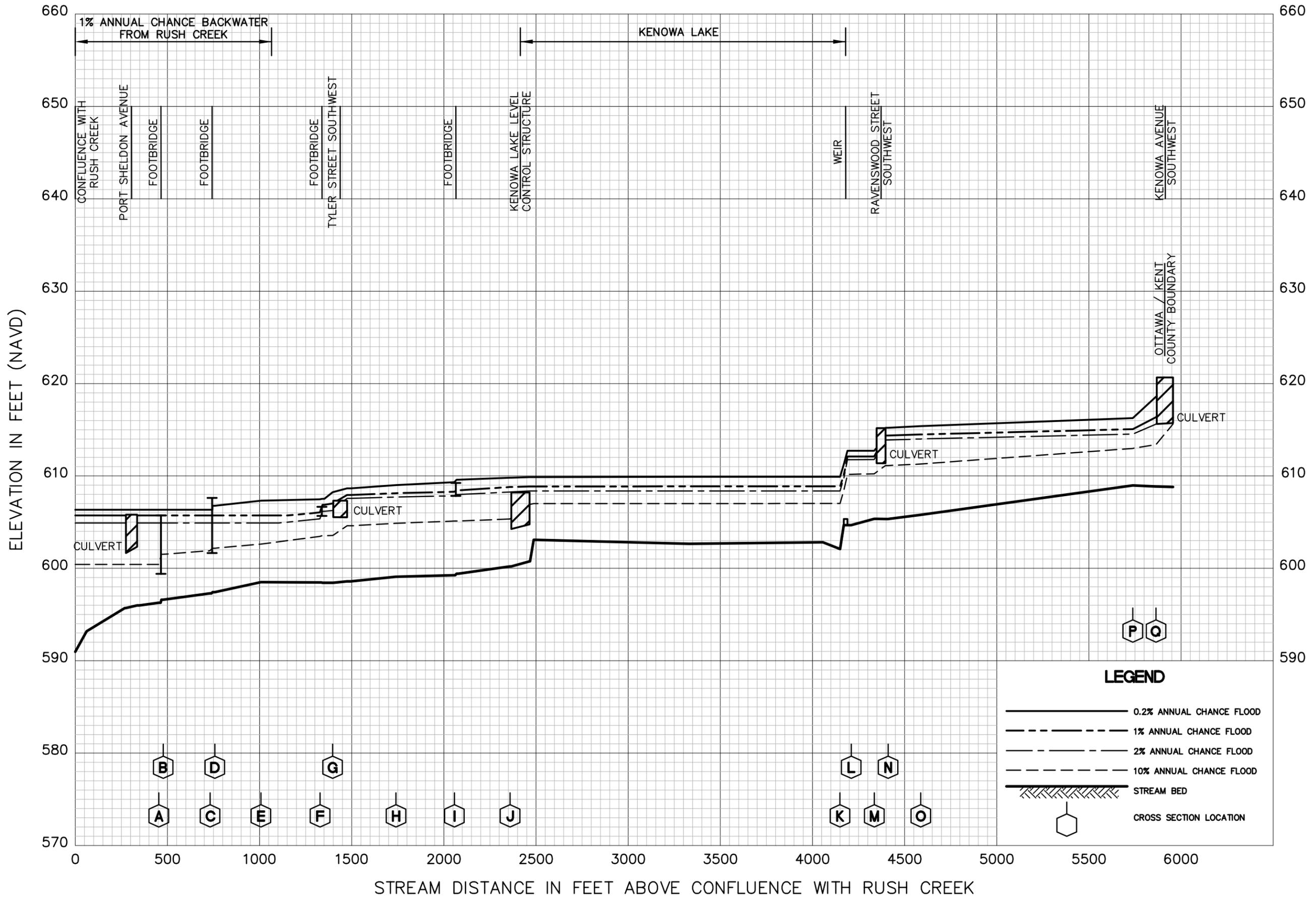
**FLOOD PROFILES  
HARLEM DRAIN**

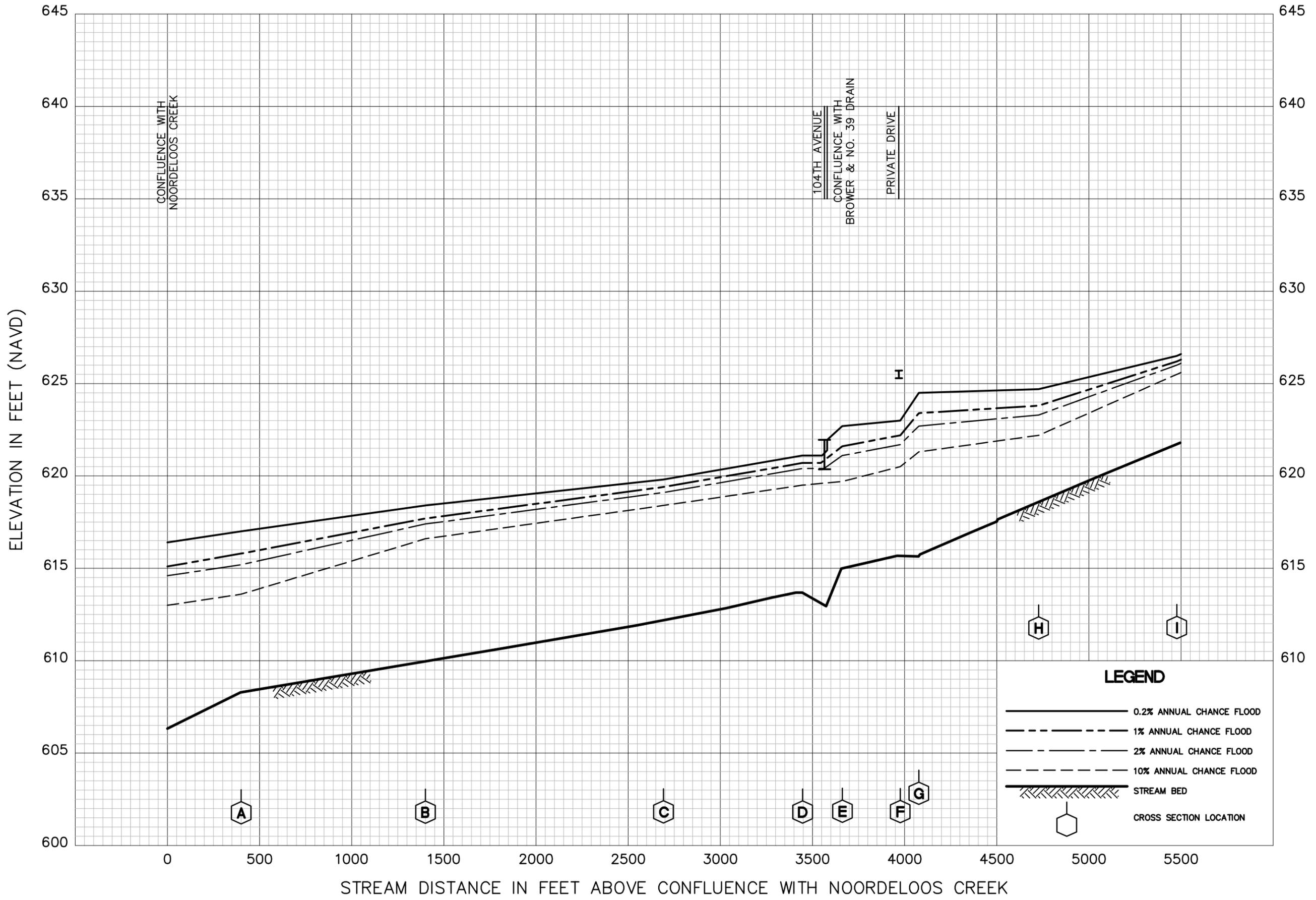
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**HARLEM DRAIN**

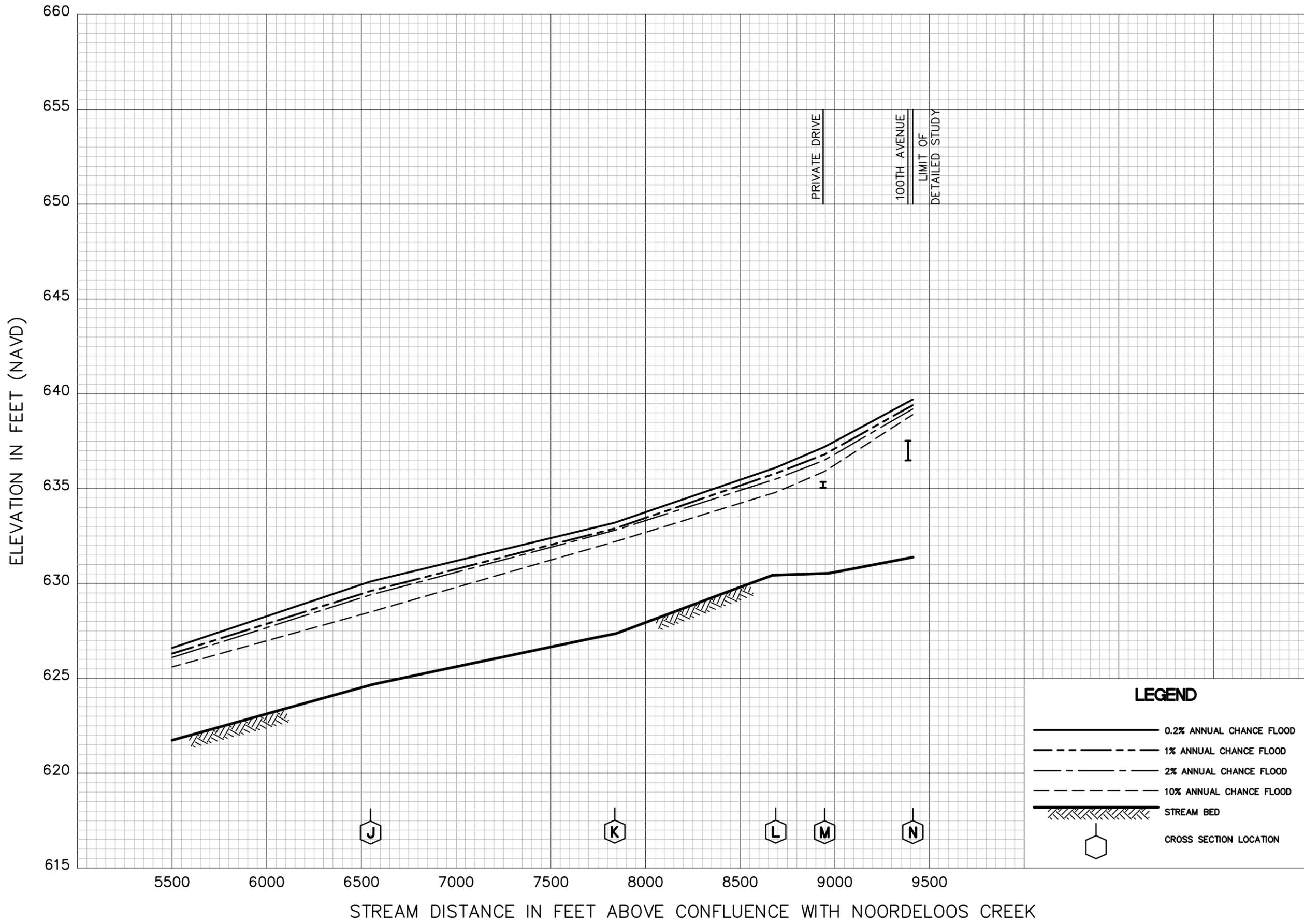
FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)





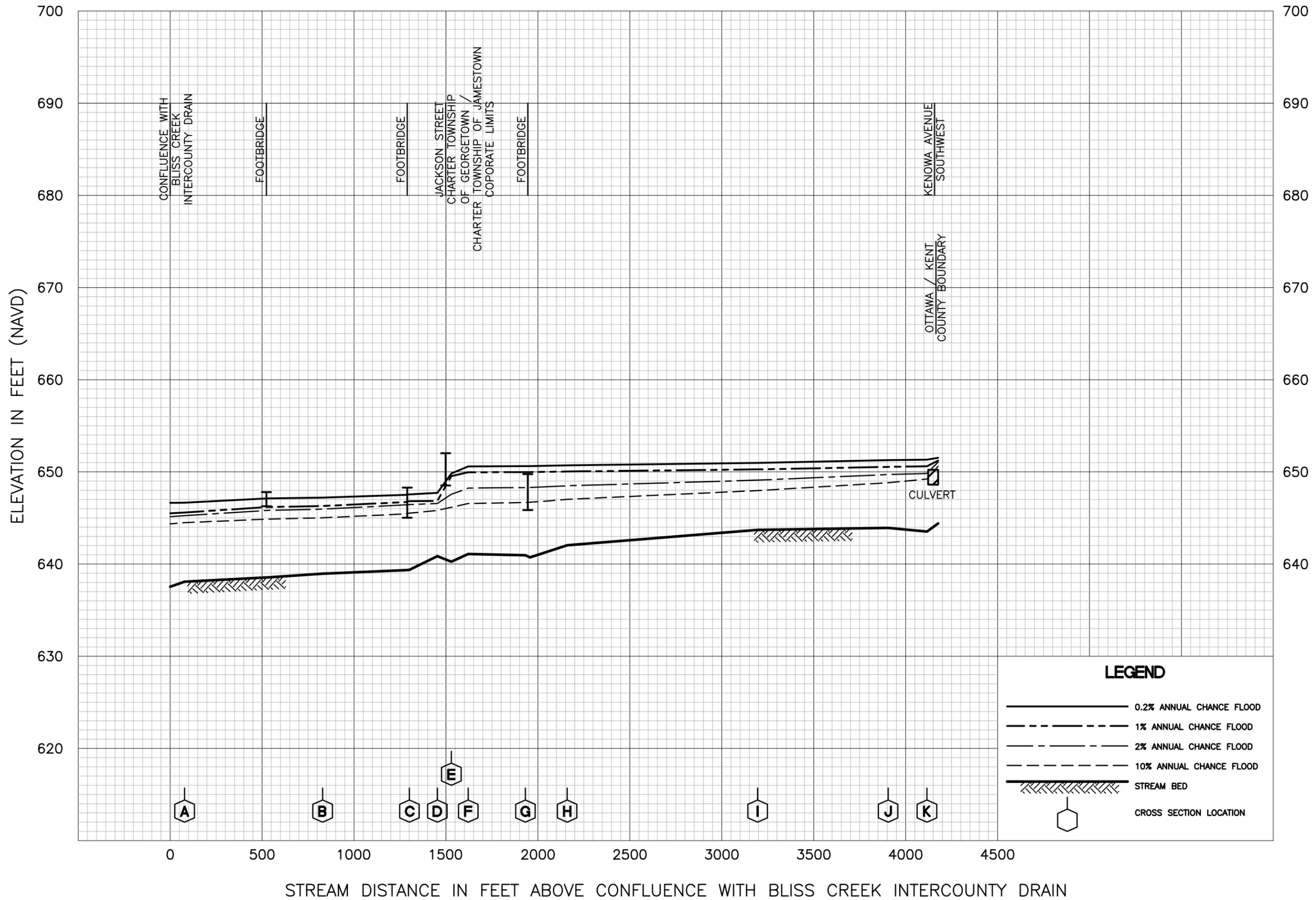
**FLOOD PROFILES  
HUNTERS CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)

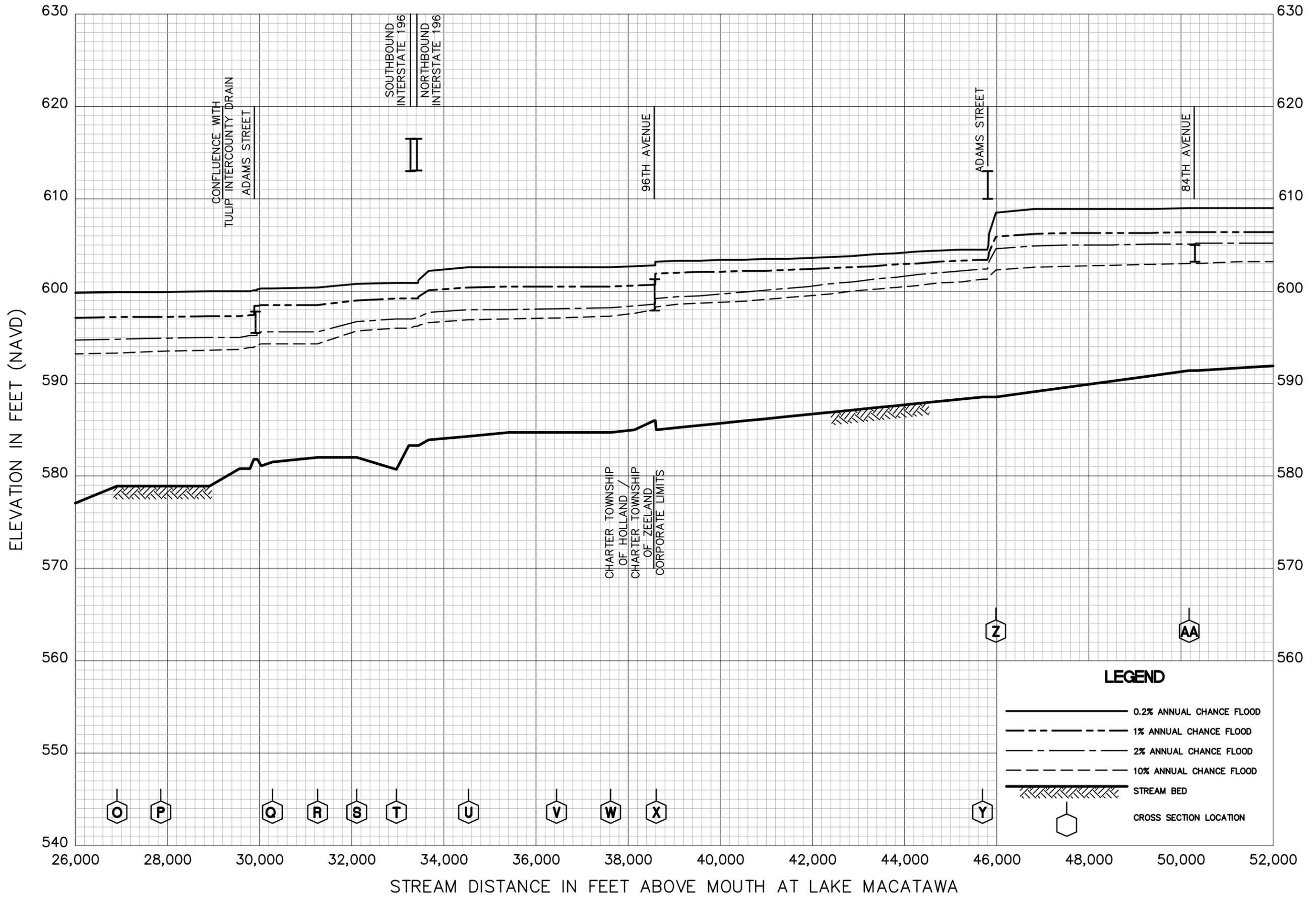


**FLOOD PROFILES**  
**HUNTERS CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)





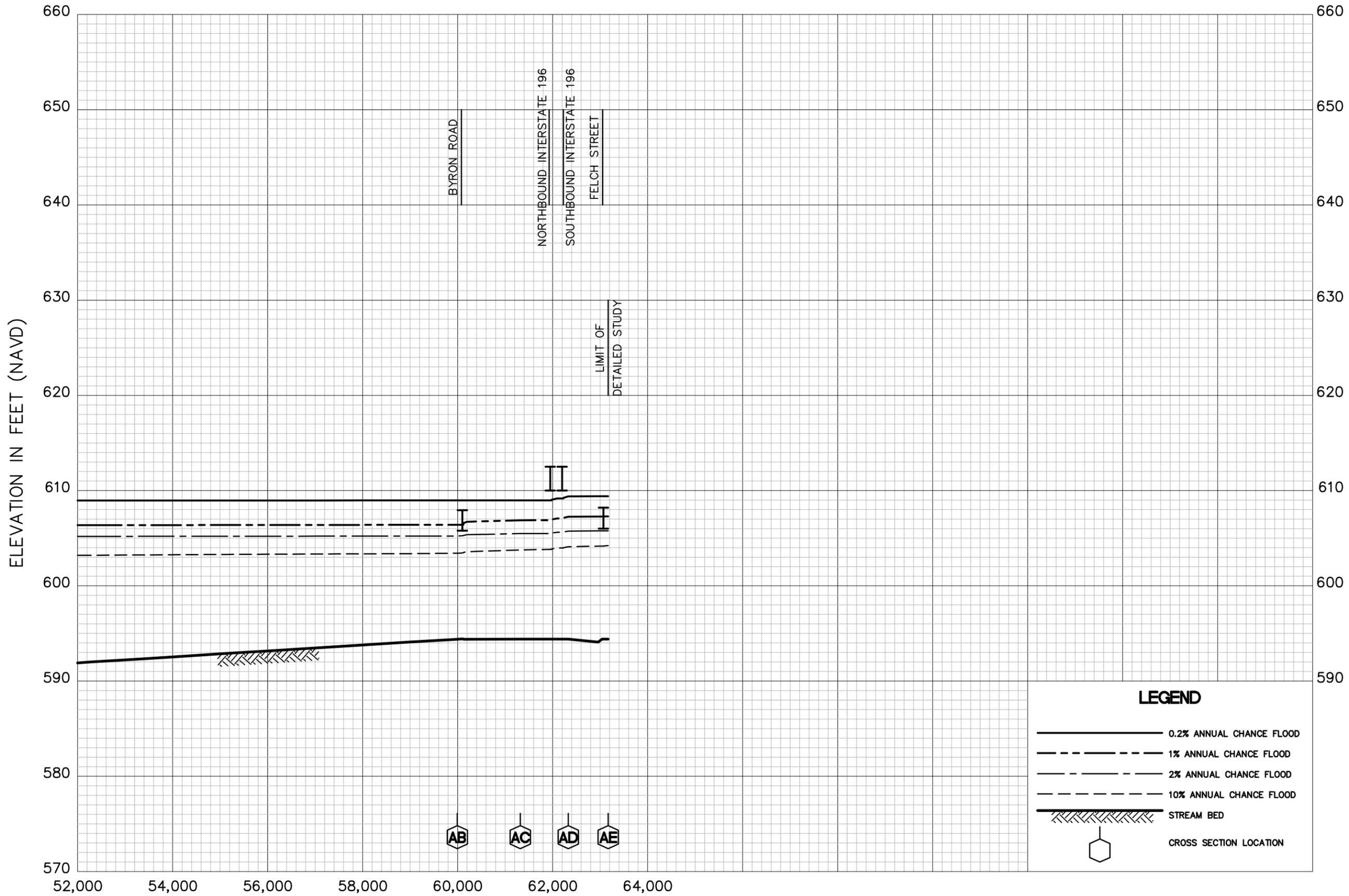


**FLOOD PROFILES**

**BLACK CREEK OF ZEELAND DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)

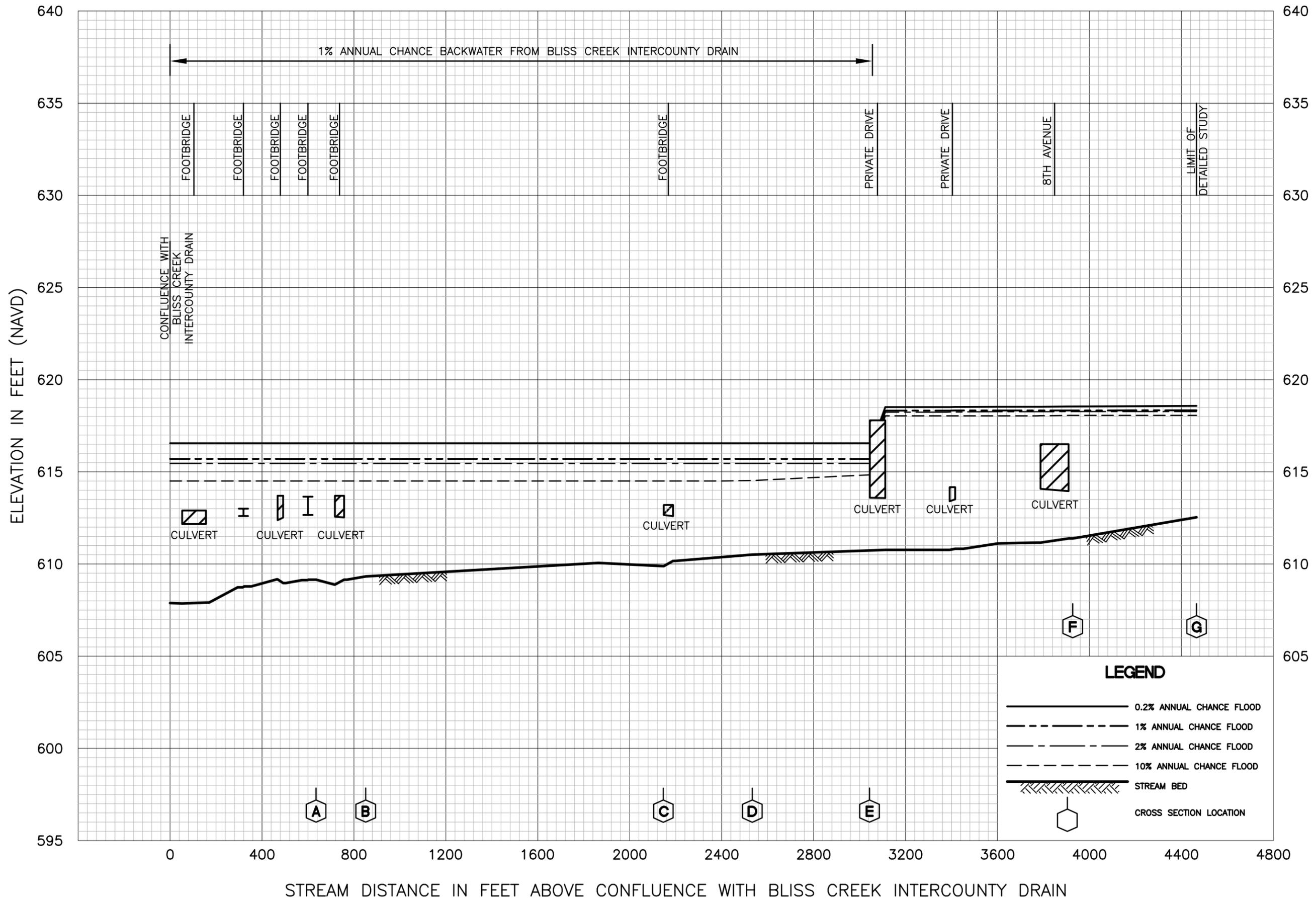


**FLOOD PROFILES**

**BLACK CREEK OF ZEELAND DRAIN**

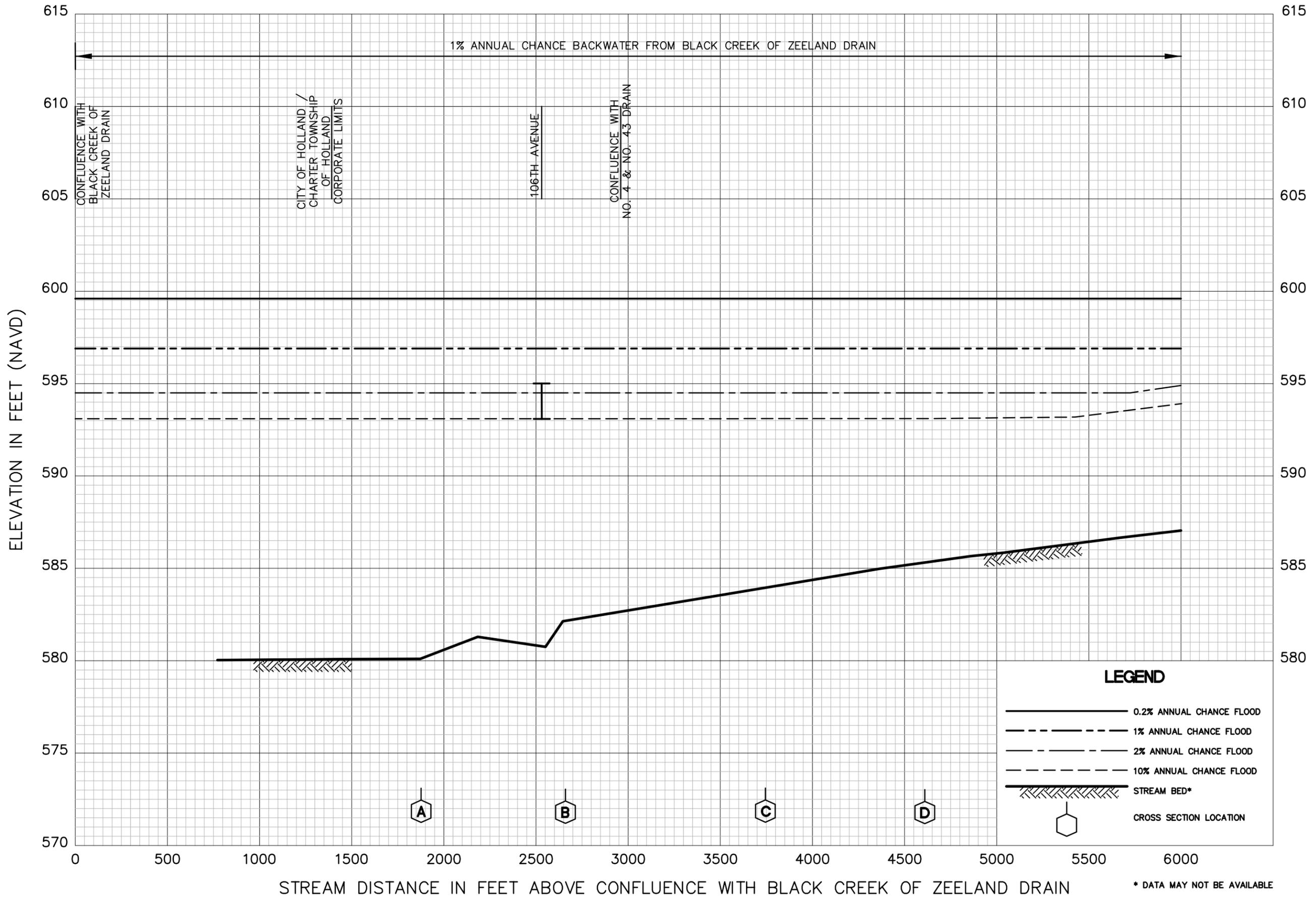
FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



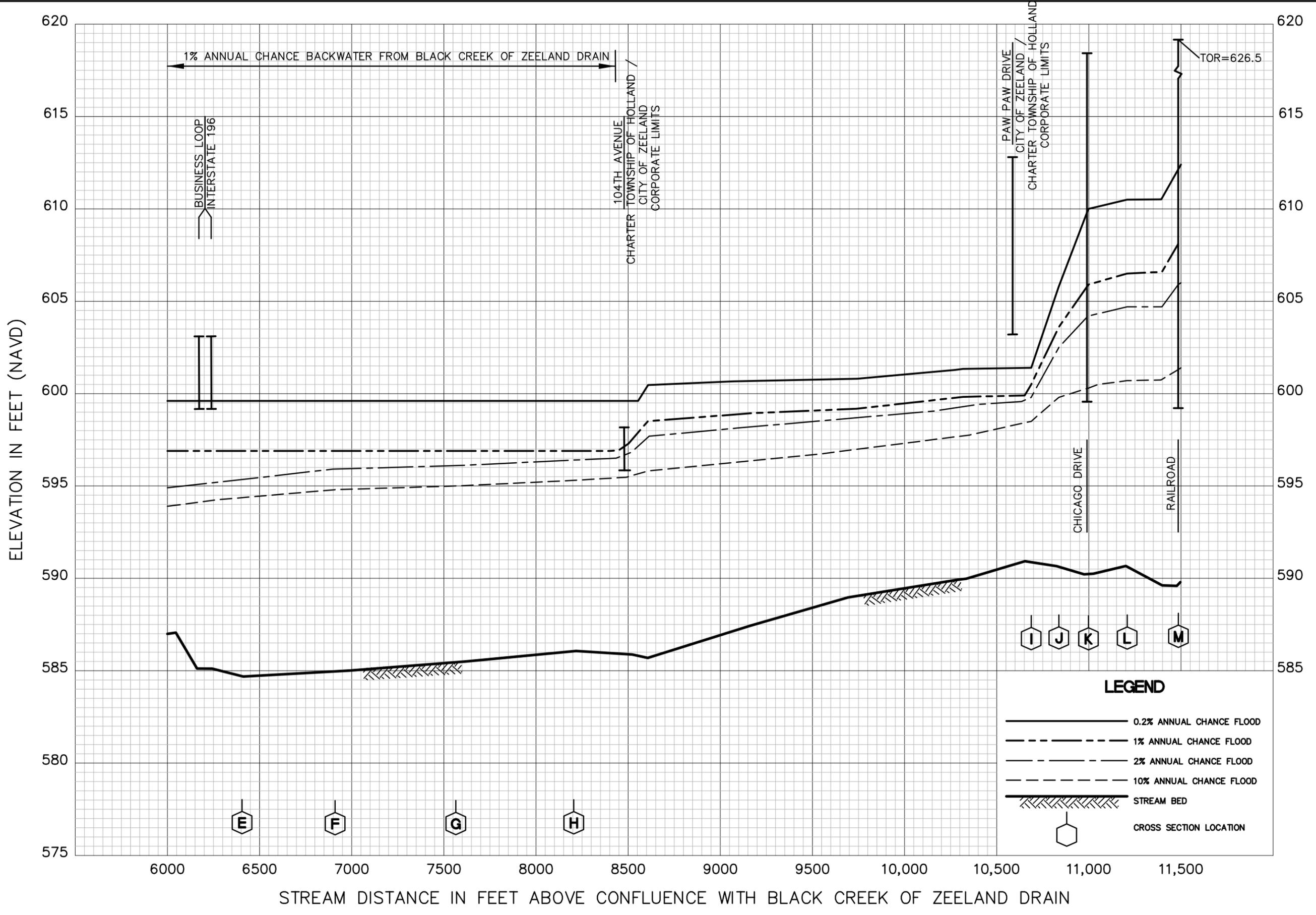
**FLOOD PROFILES**  
**MEADOWBROOK DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**NOORDELOOS CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



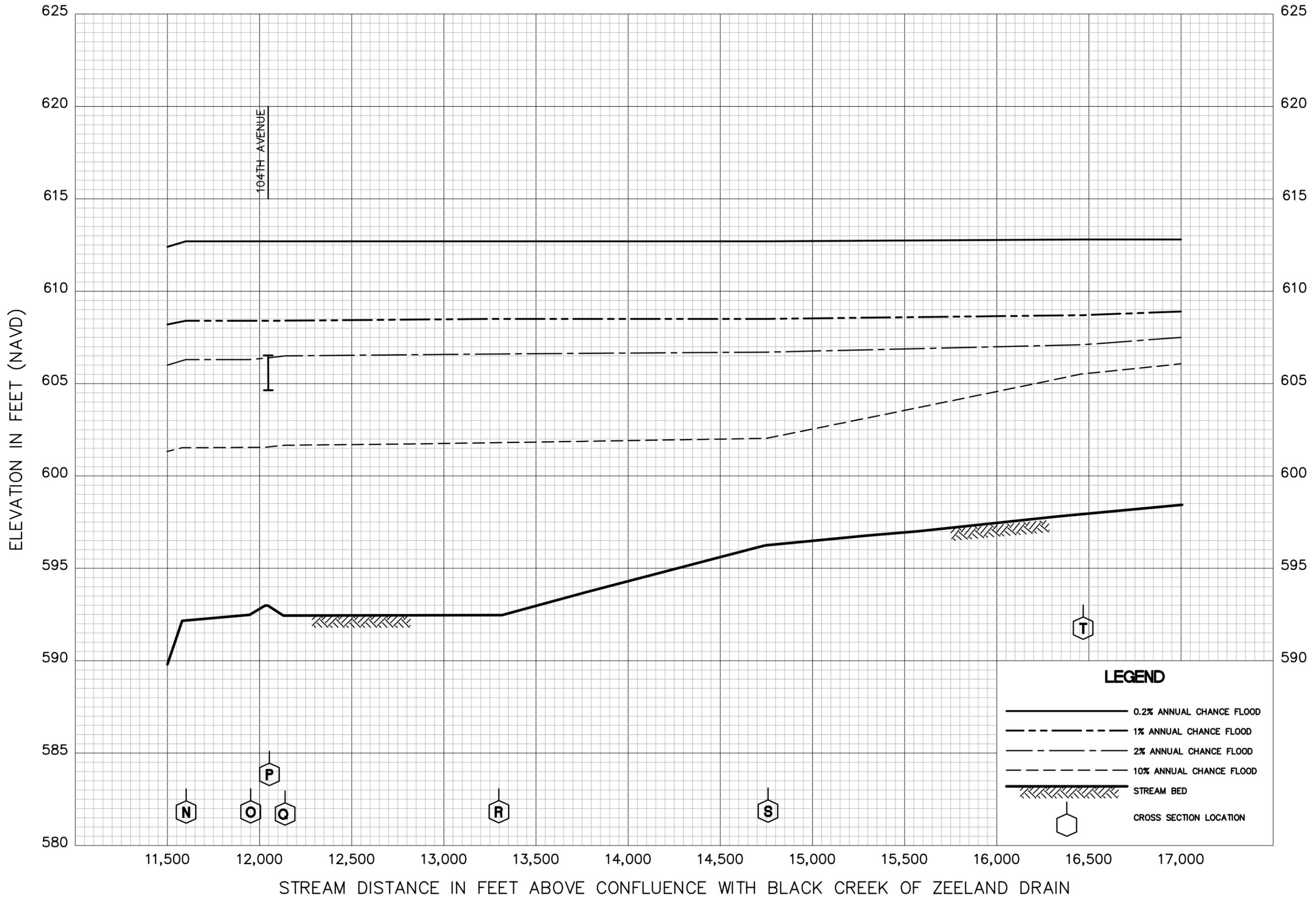
**FLOOD PROFILES**

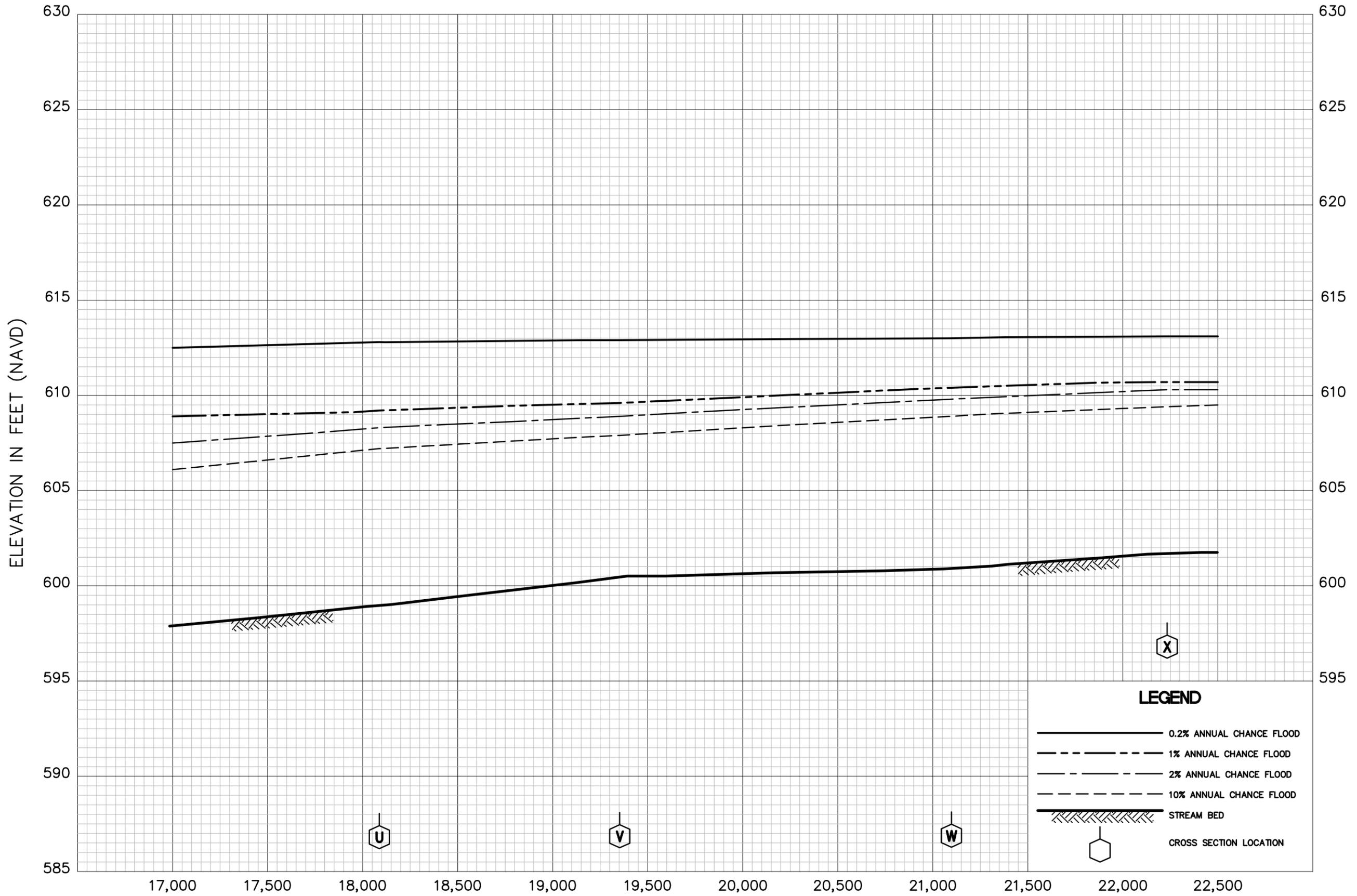
**NOORDELOOS CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)





**LEGEND**

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

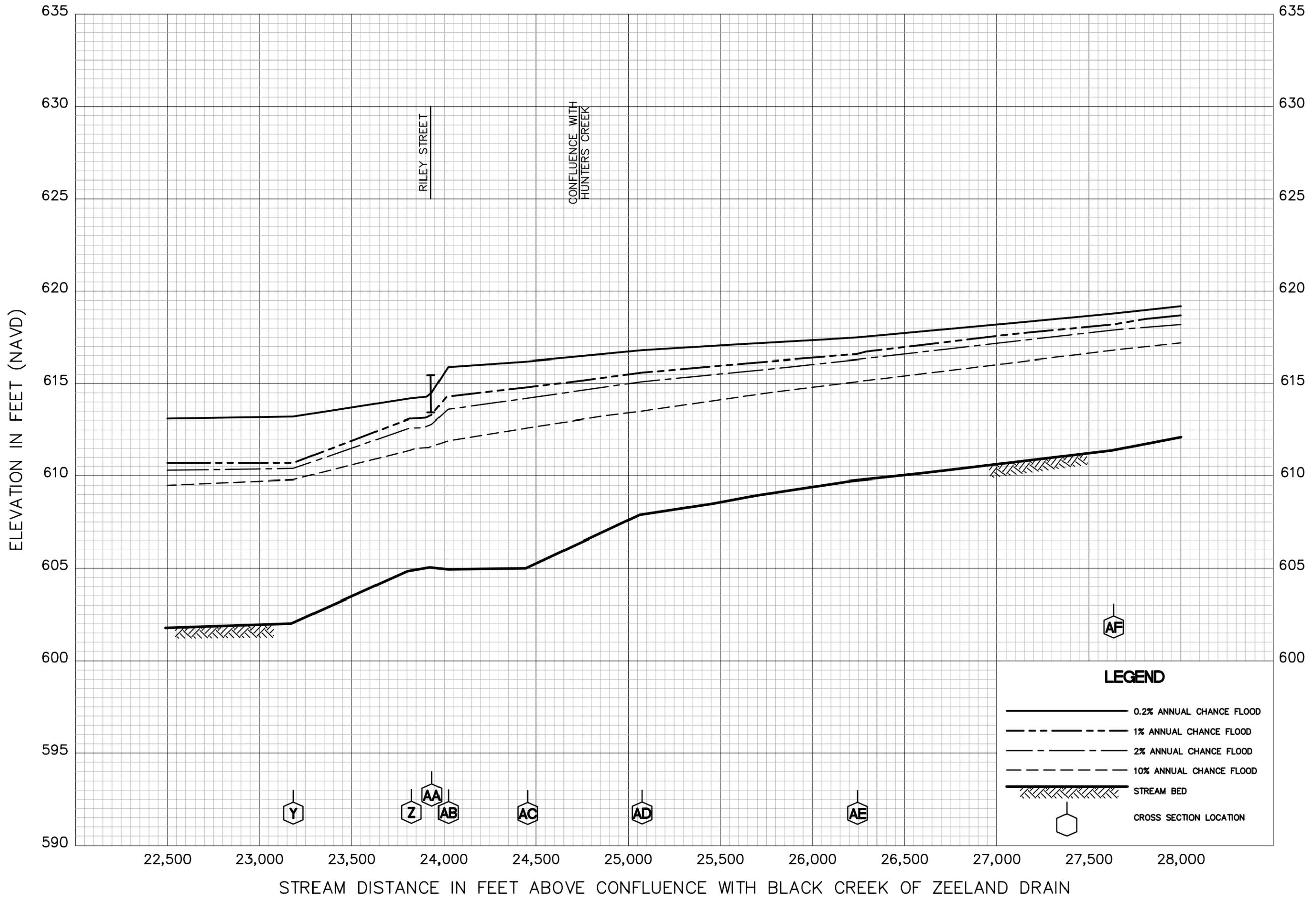
**FLOOD PROFILES**

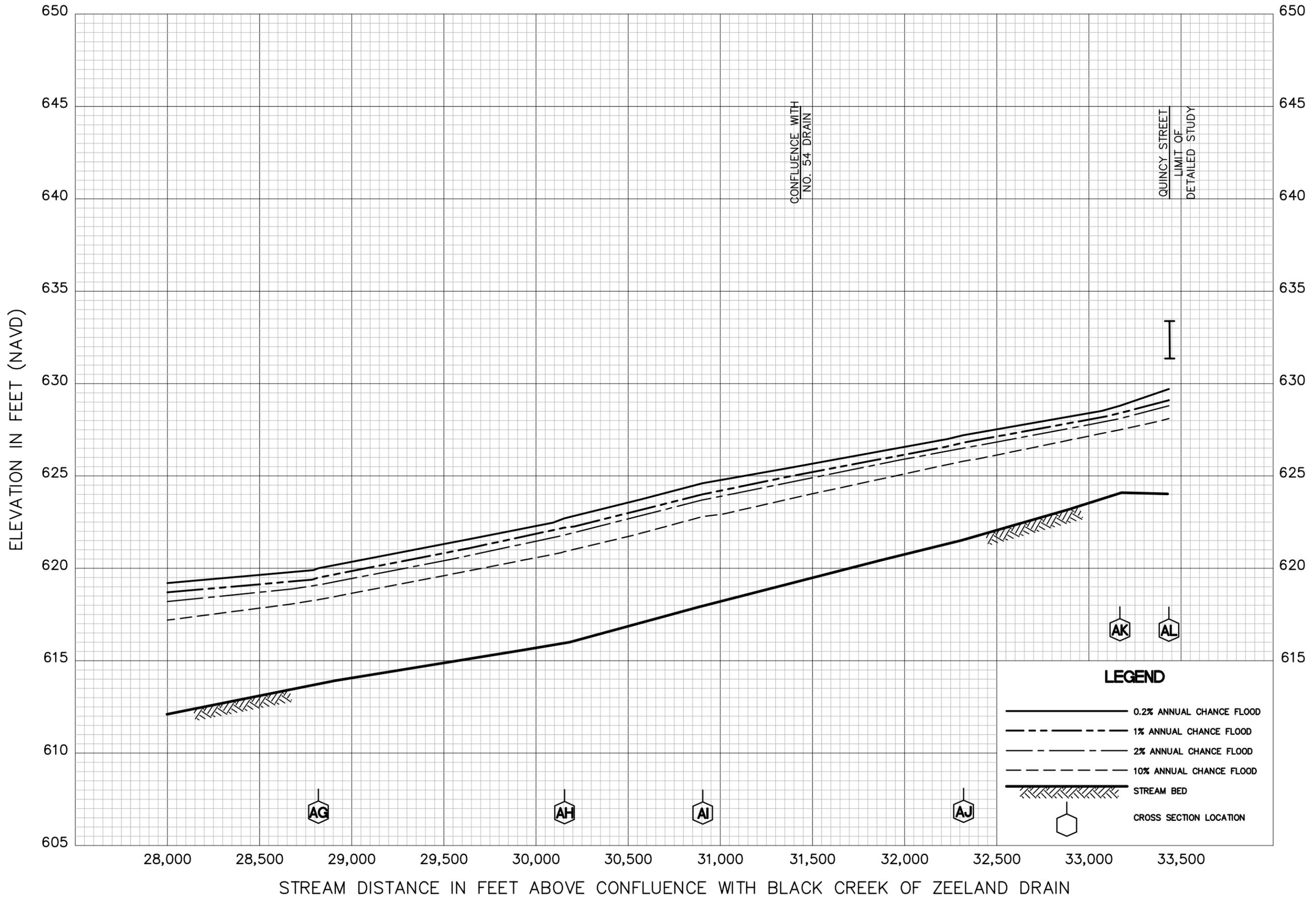
**NOORDEELOOS CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)





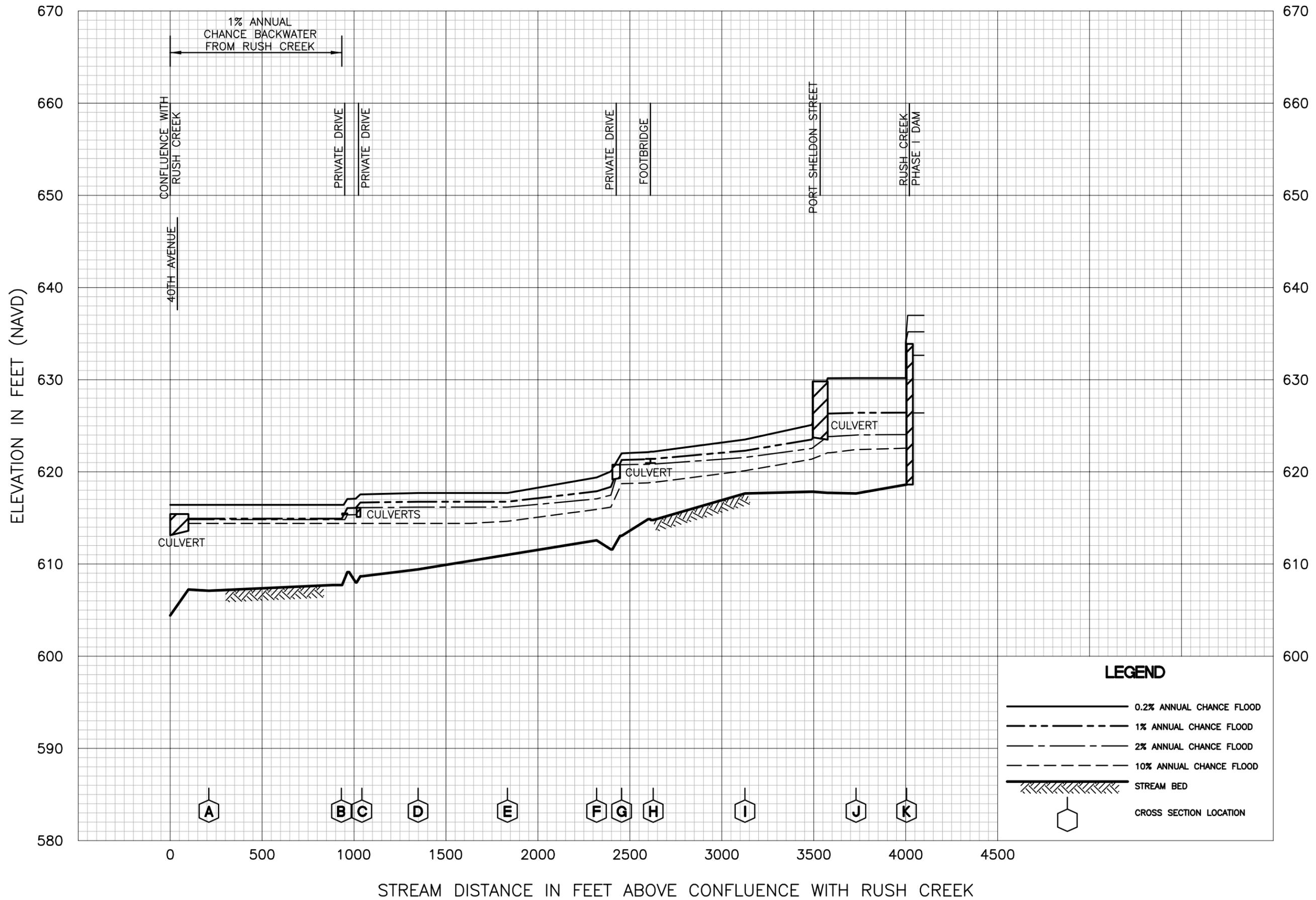
**FLOOD PROFILES**

**NOORDELOOS CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



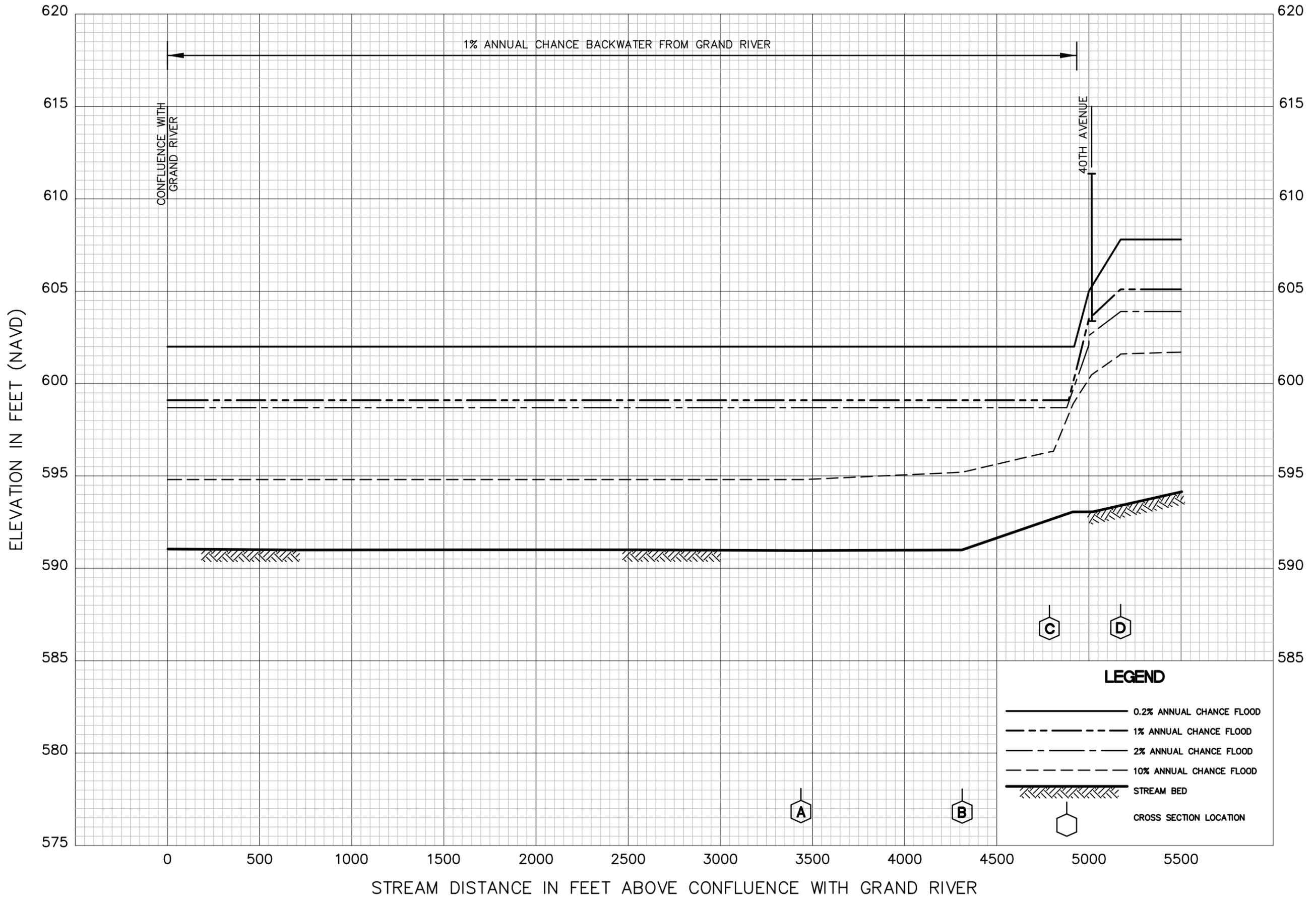
**FLOOD PROFILES**

**NORTHWEST BRANCH OF RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

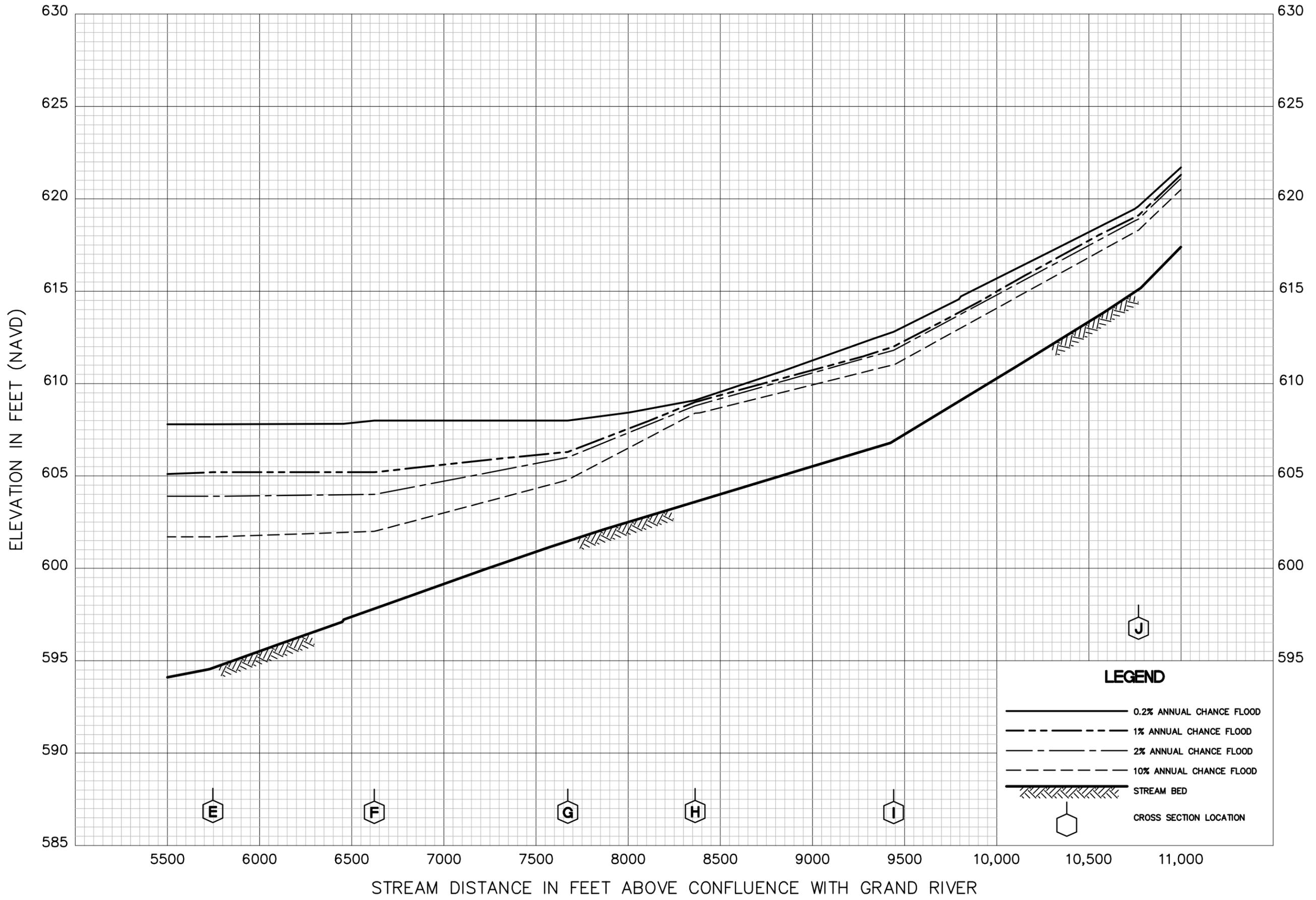
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**OTTAWA CREEK & EXT. DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**LEGEND**

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

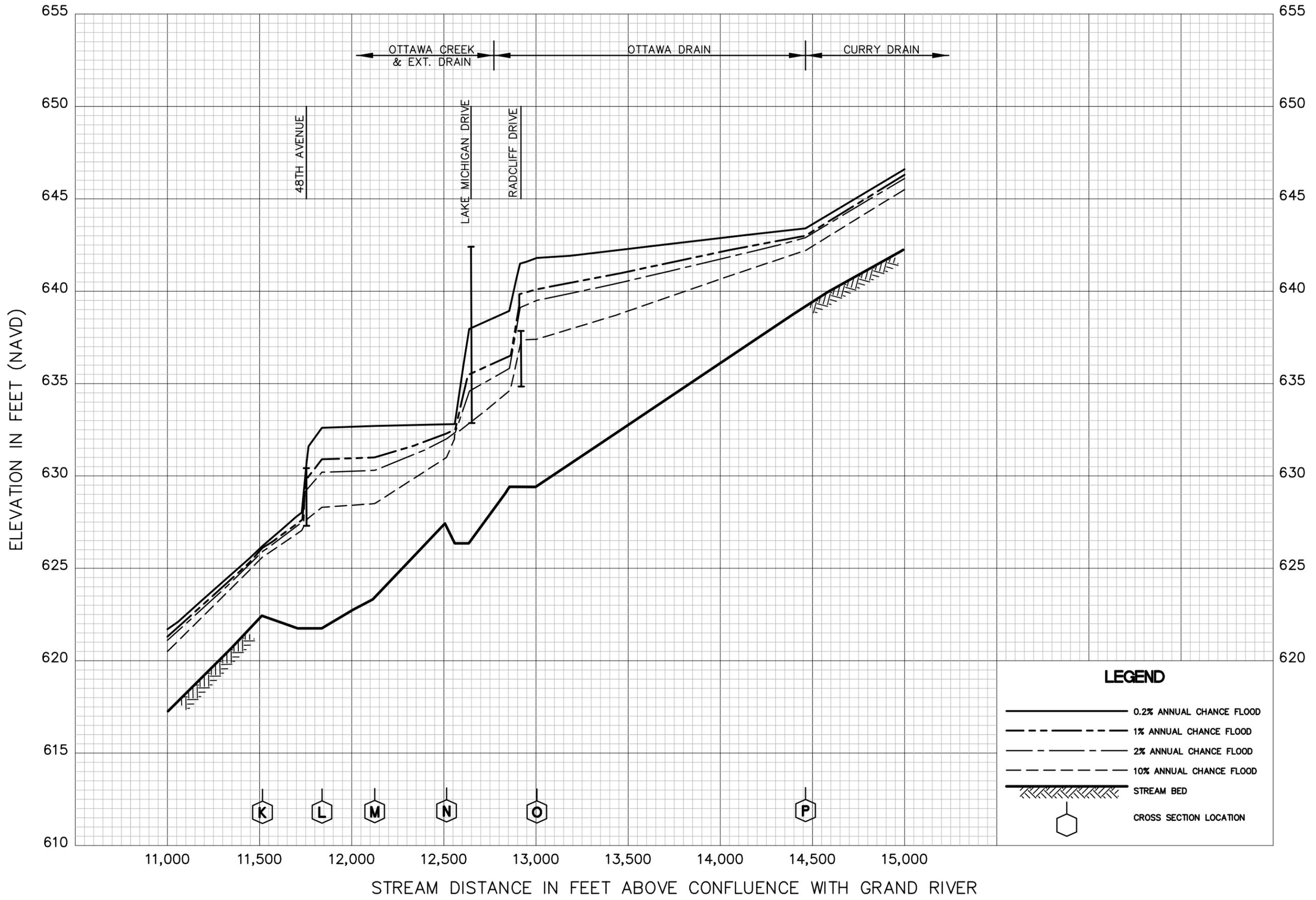
**FLOOD PROFILES**

**OTTAWA CREEK & EXT. DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**LEGEND**

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

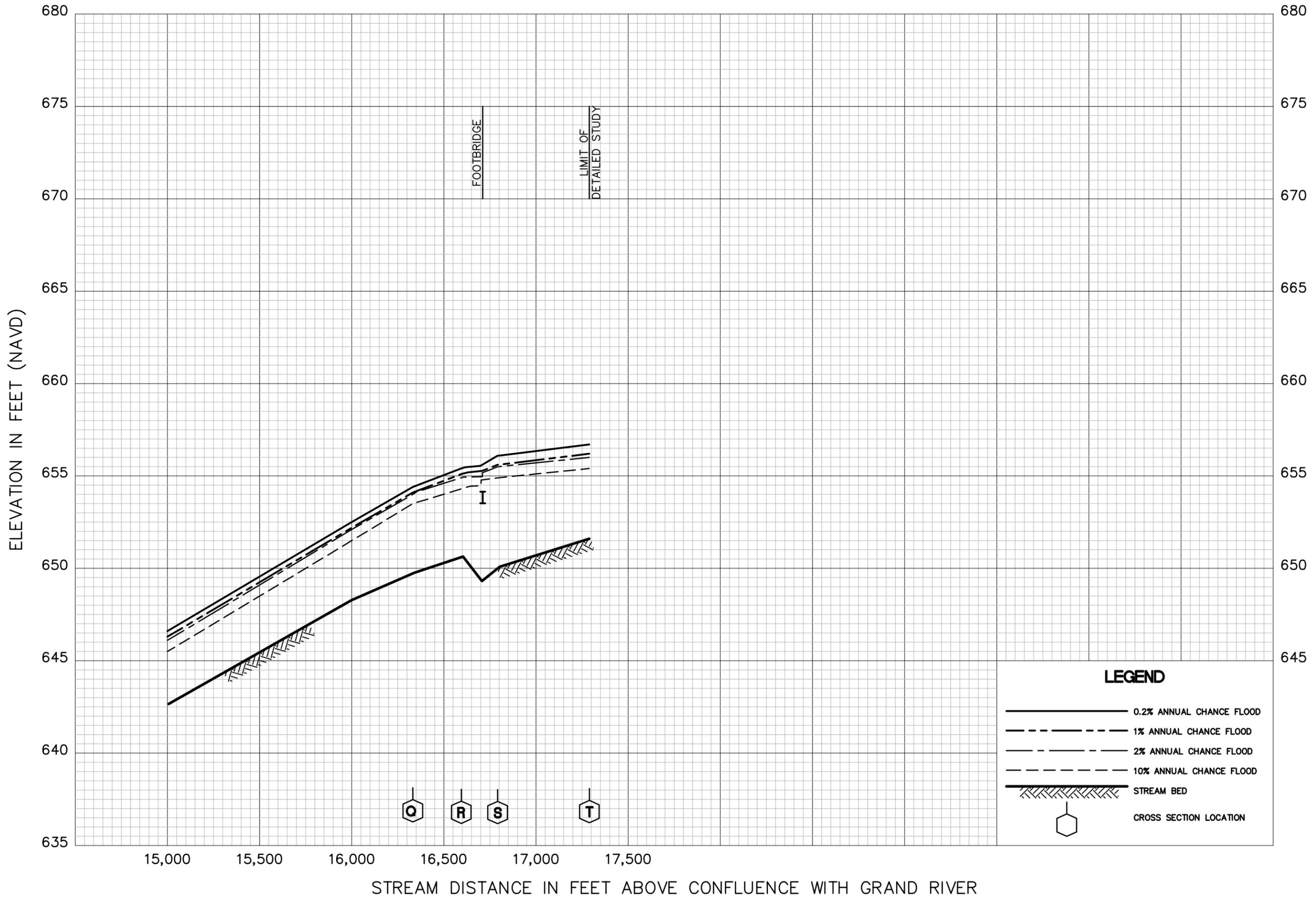
**FLOOD PROFILES**

OTTAWA CREEK AND EXT. DRAIN / OTTAWA DRAIN / CURRY DRAIN

FEDERAL EMERGENCY MANAGEMENT AGENCY

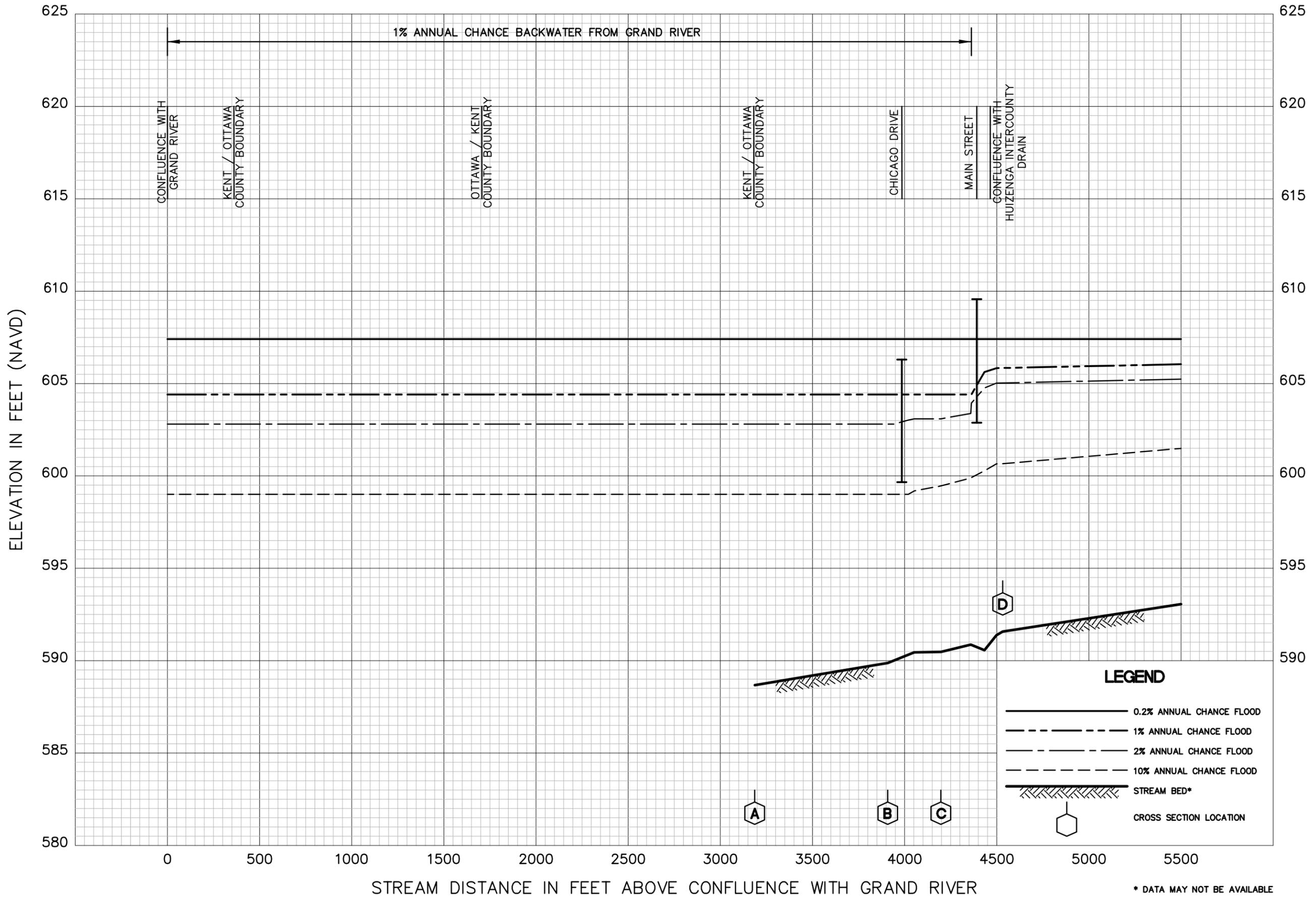
OTTAWA COUNTY, MI

(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**CURRY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



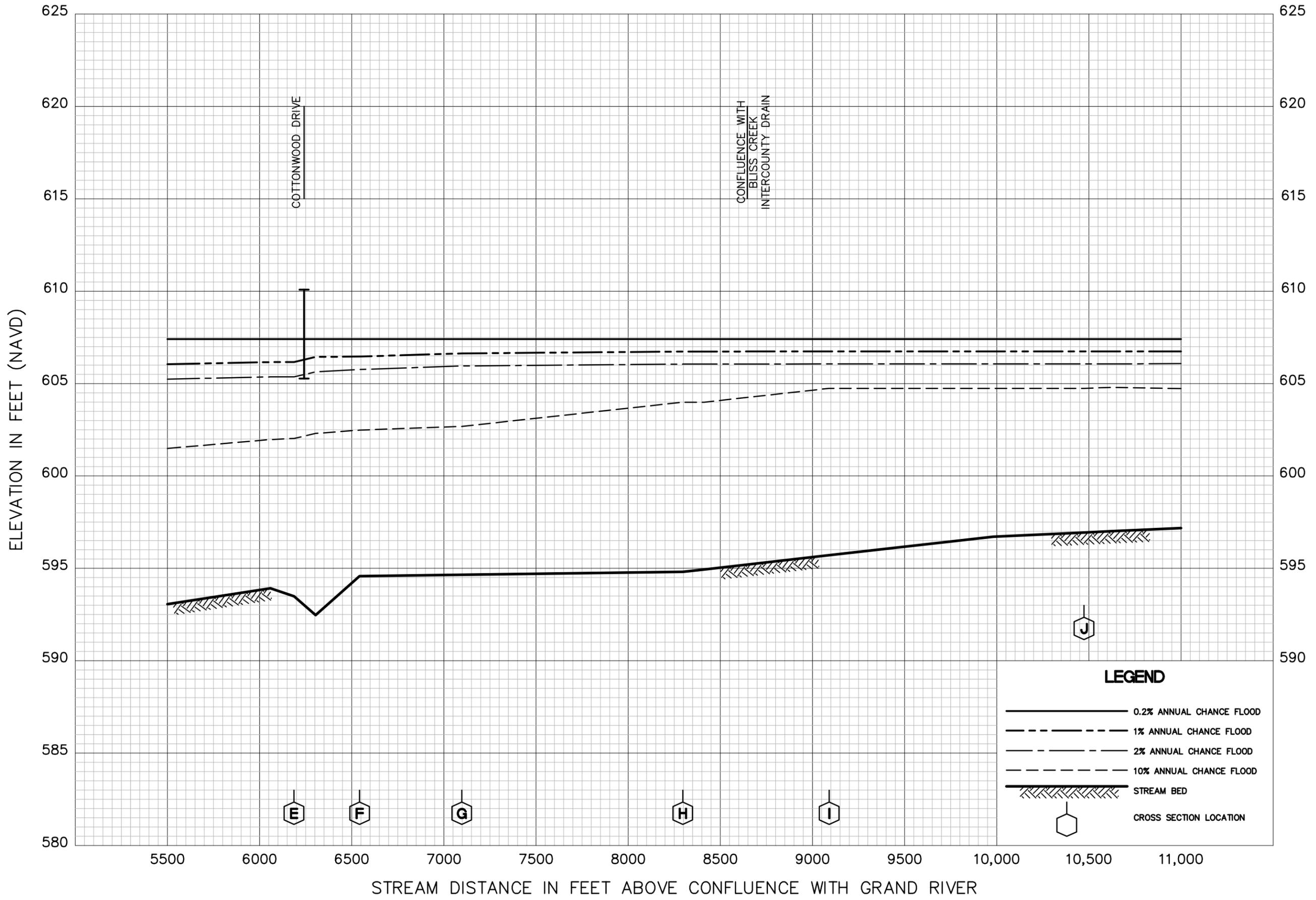
**FLOOD PROFILES**

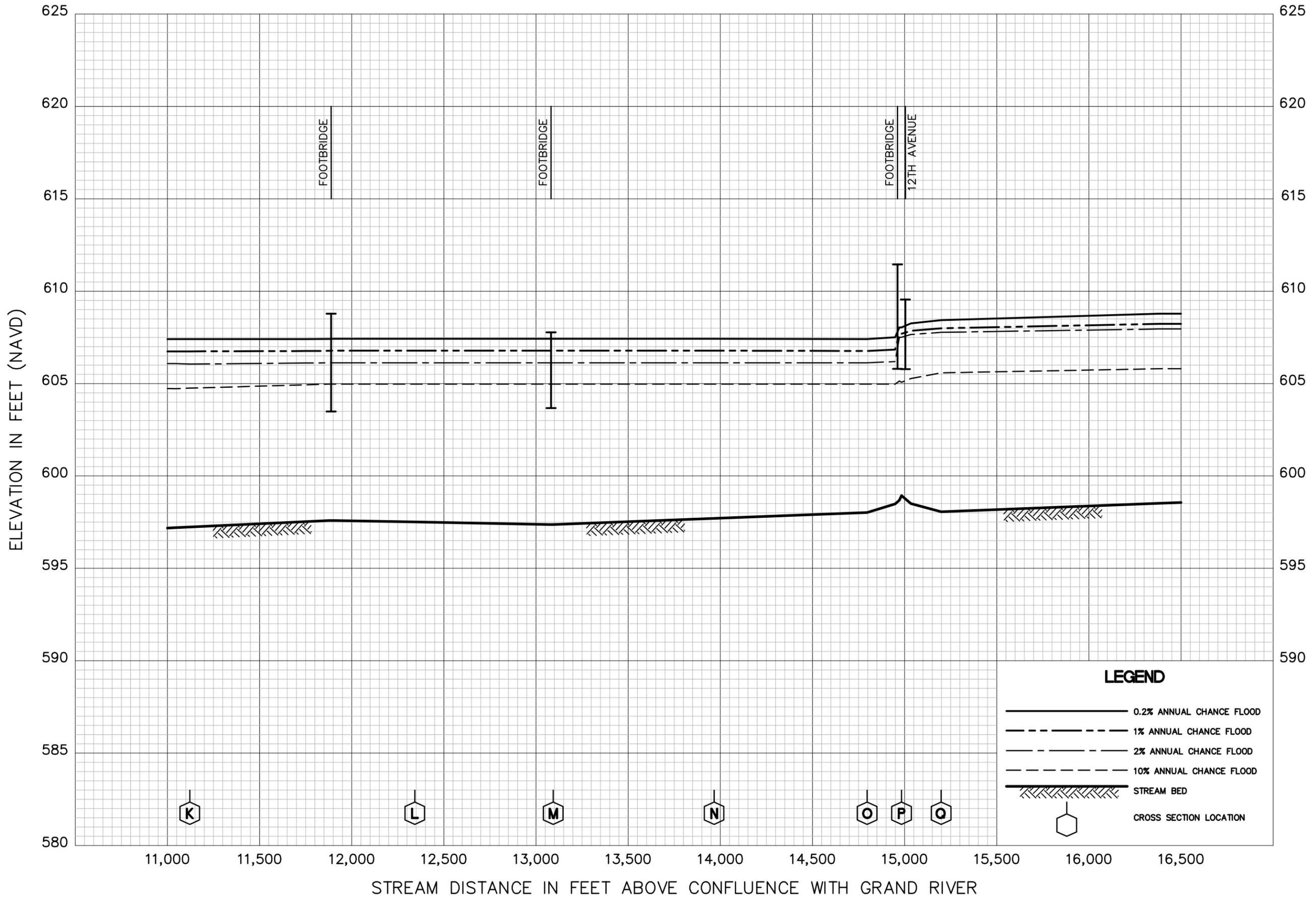
**RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)





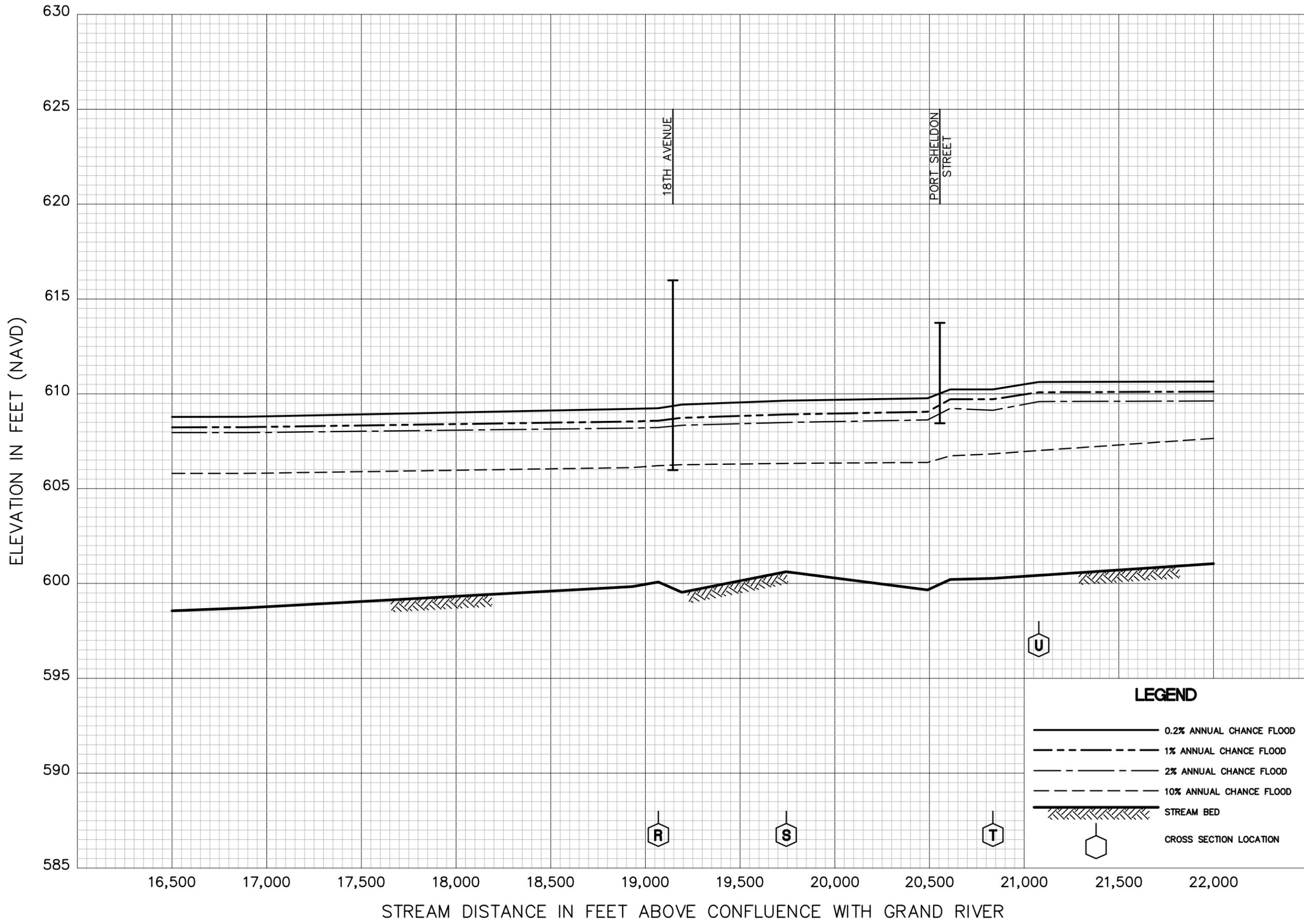
**FLOOD PROFILES**

**RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



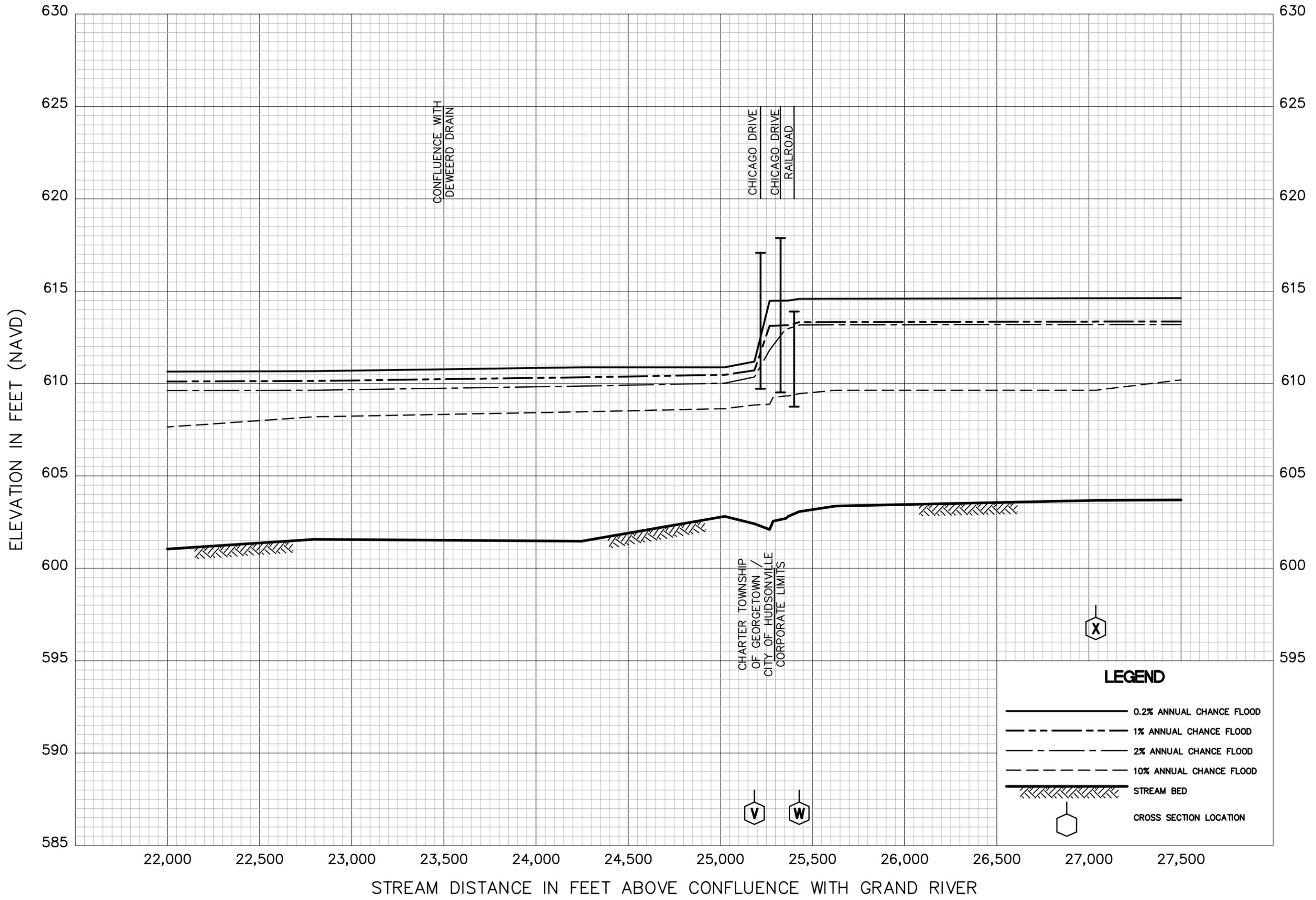
**FLOOD PROFILES**

**RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

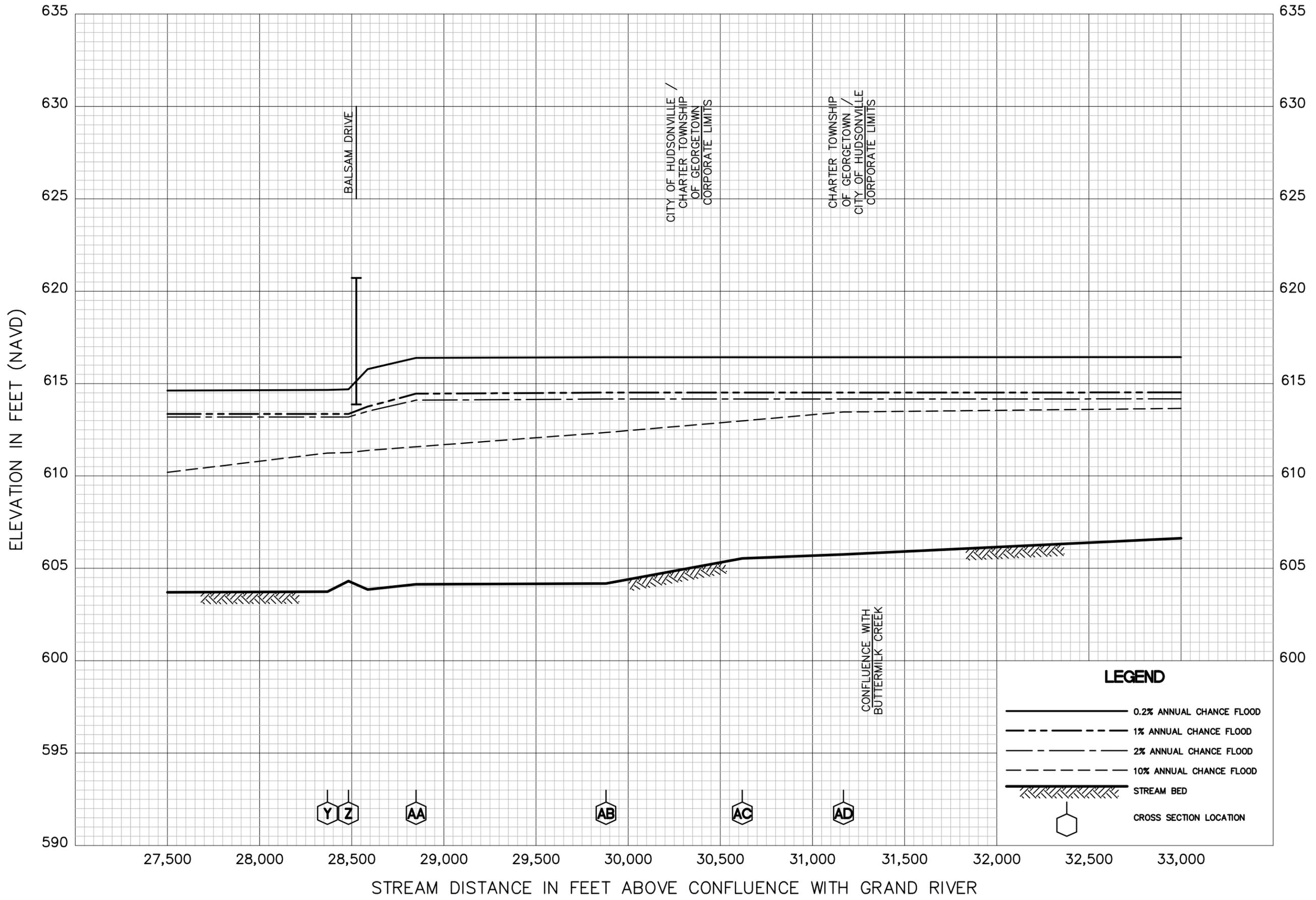
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



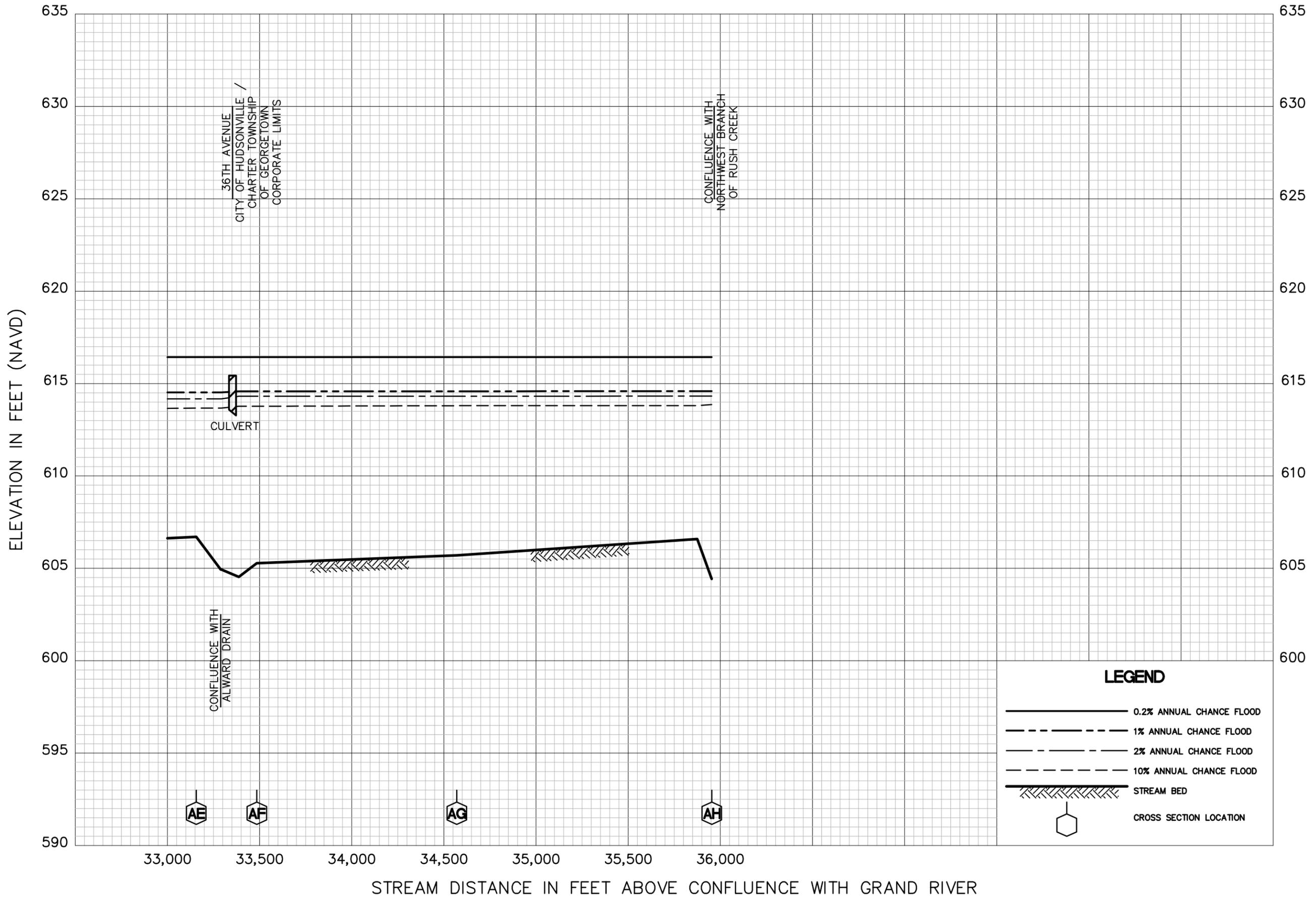
**FLOOD PROFILES**  
**RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



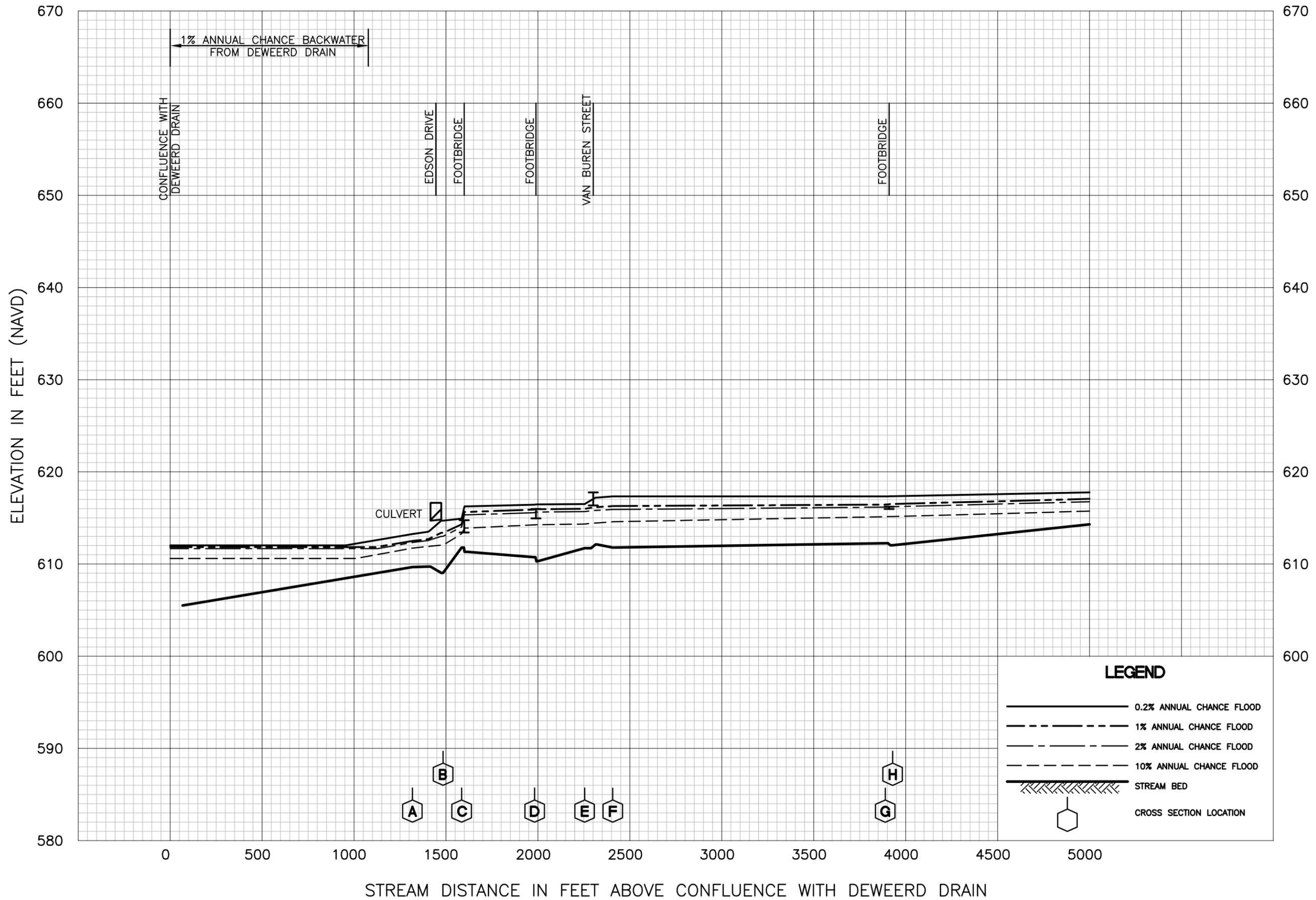
**FLOOD PROFILES**

**RUSH CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



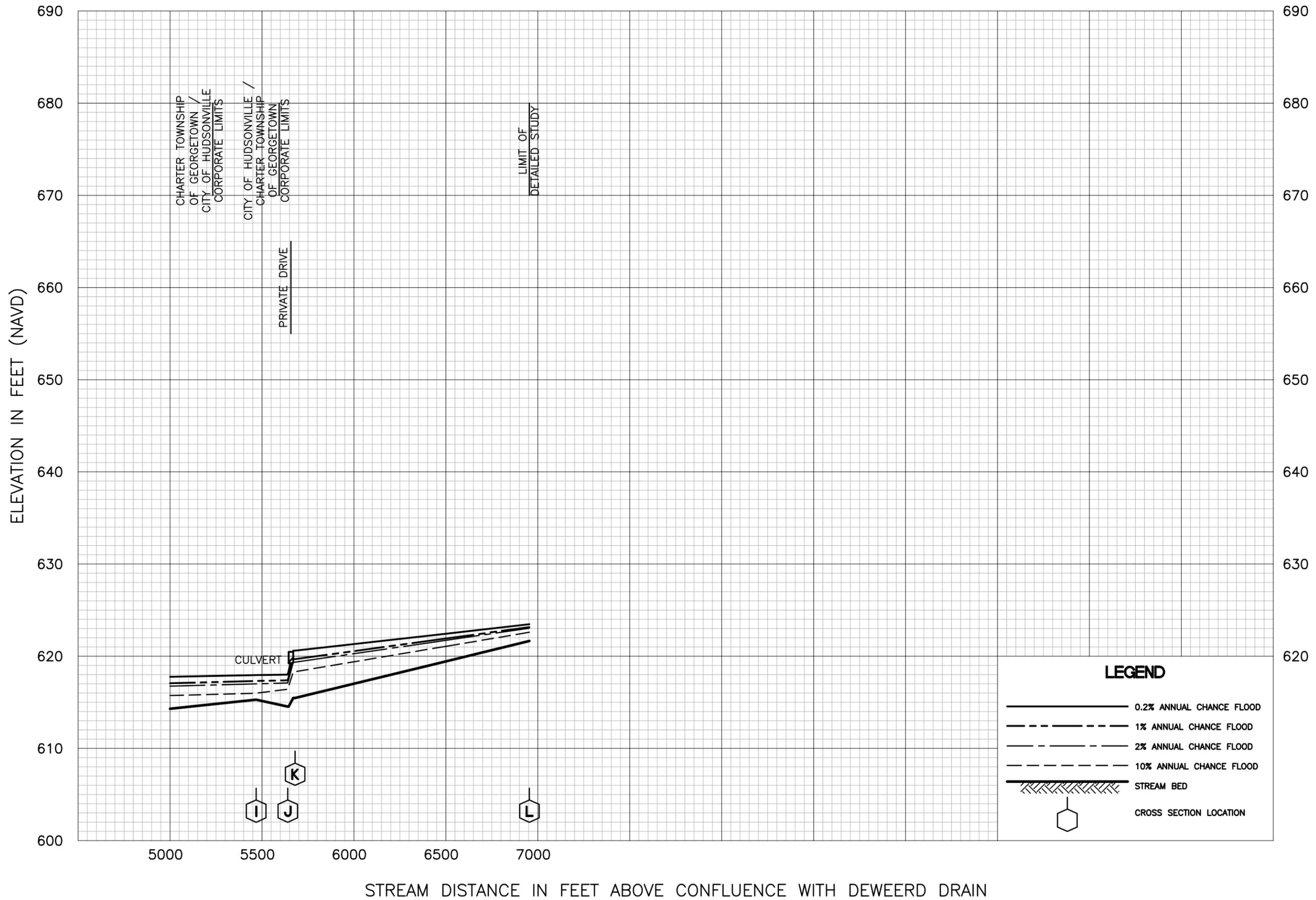
**FLOOD PROFILES**

**TROUT DRAIN**

**FEDERAL EMERGENCY MANAGEMENT AGENCY**

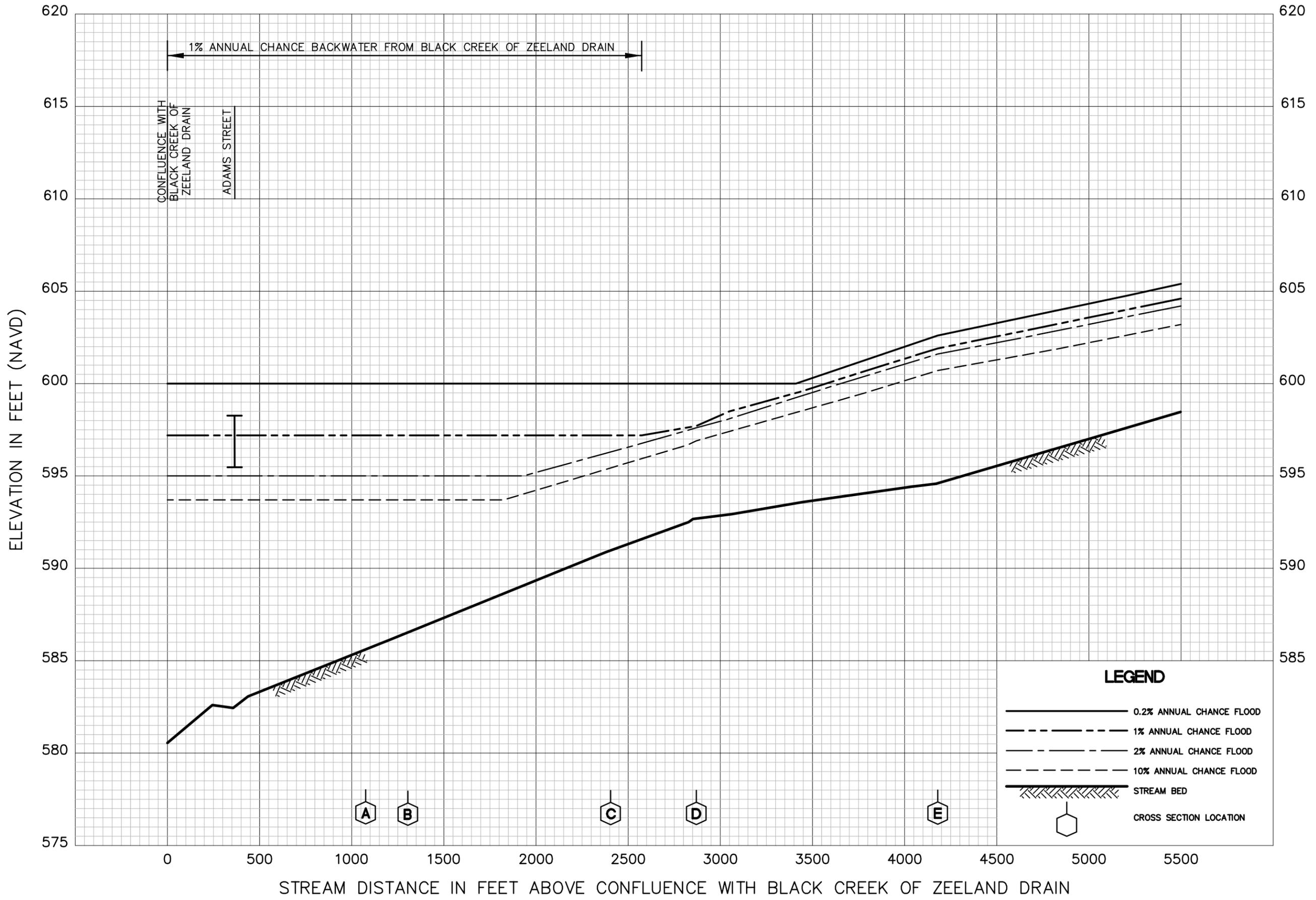
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**TROUT DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



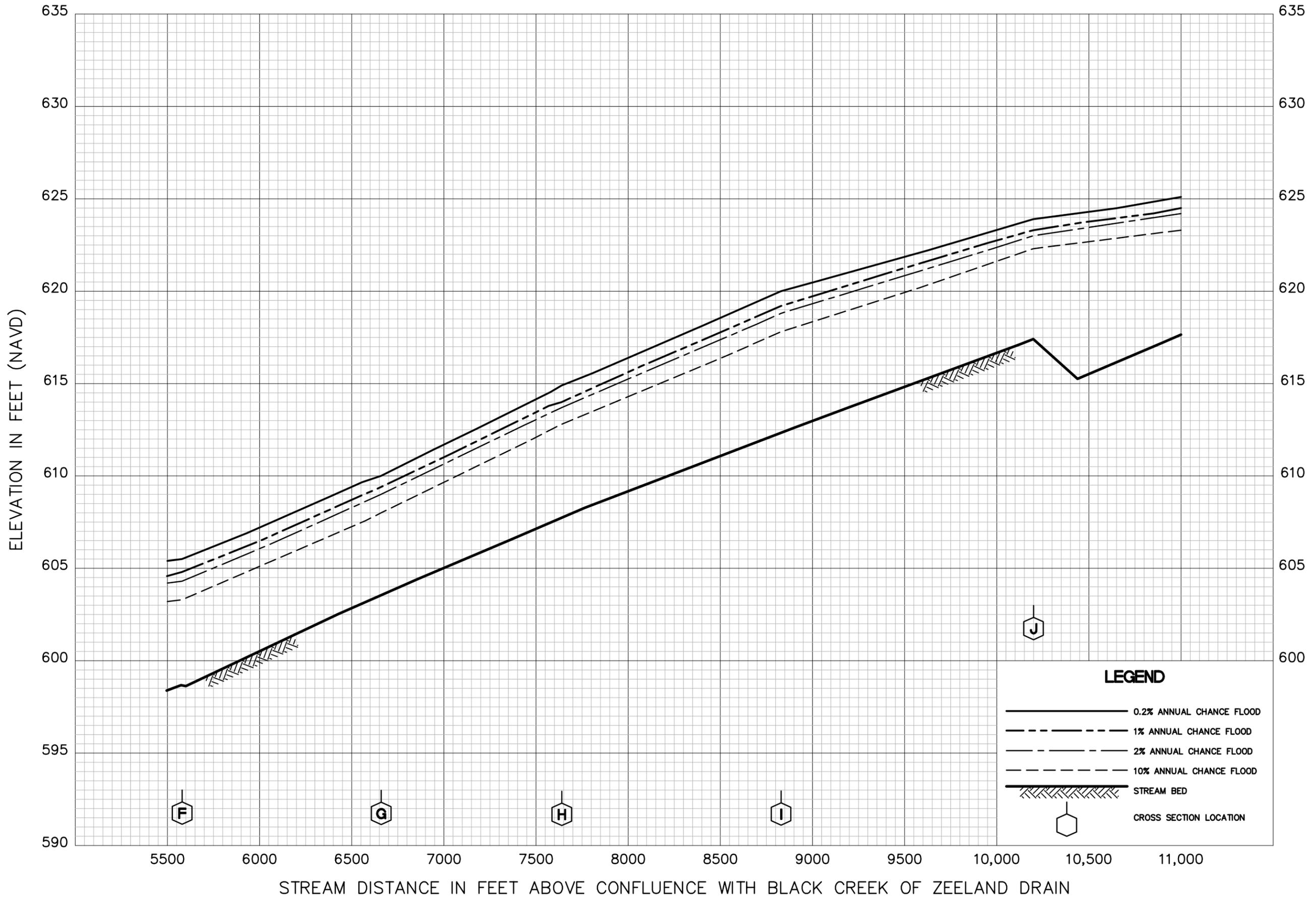
**FLOOD PROFILES**

**TULIP INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY

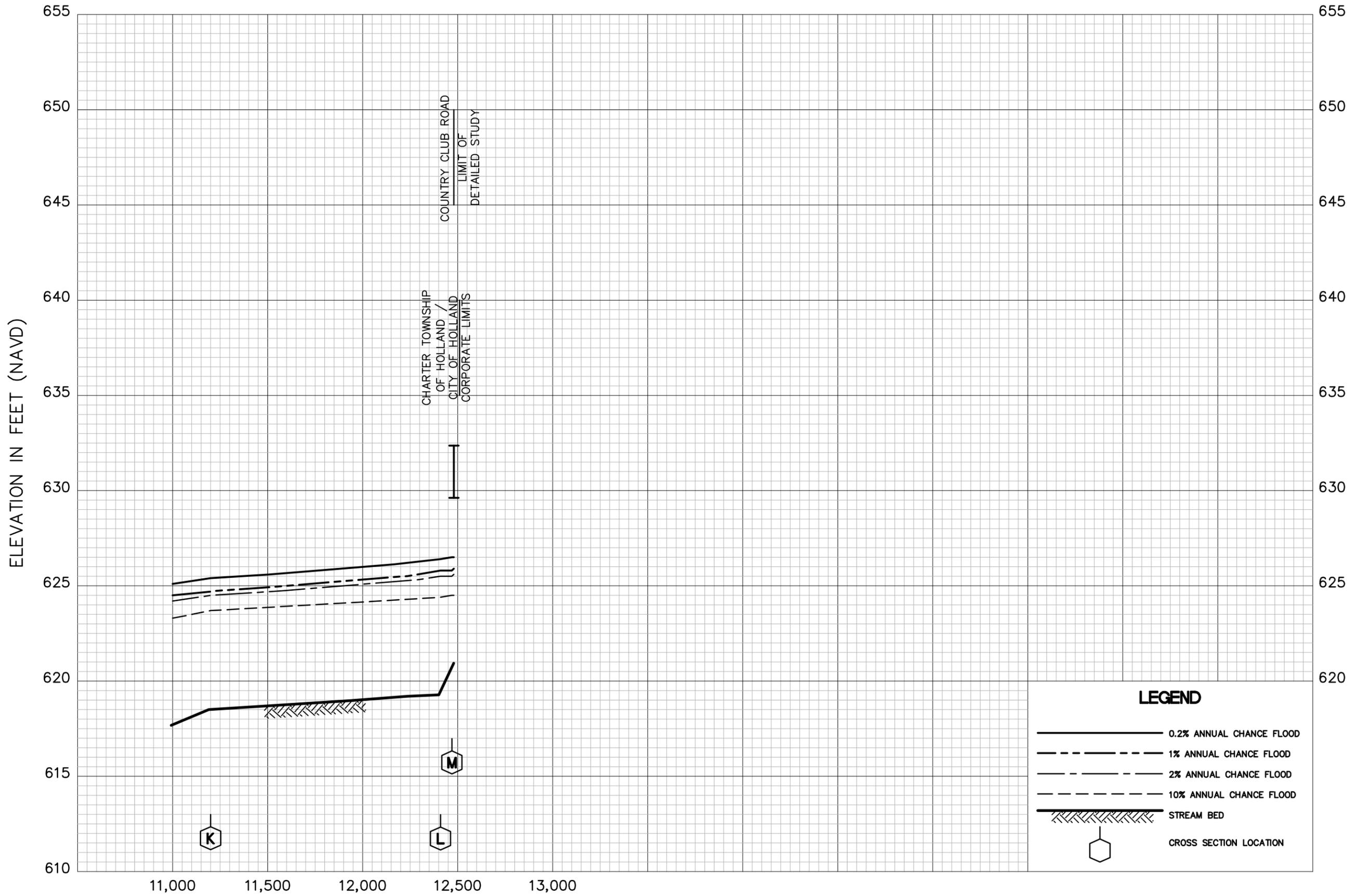
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**TULIP INTERCOUNTY DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH BLACK CREEK OF ZEELAND DRAIN

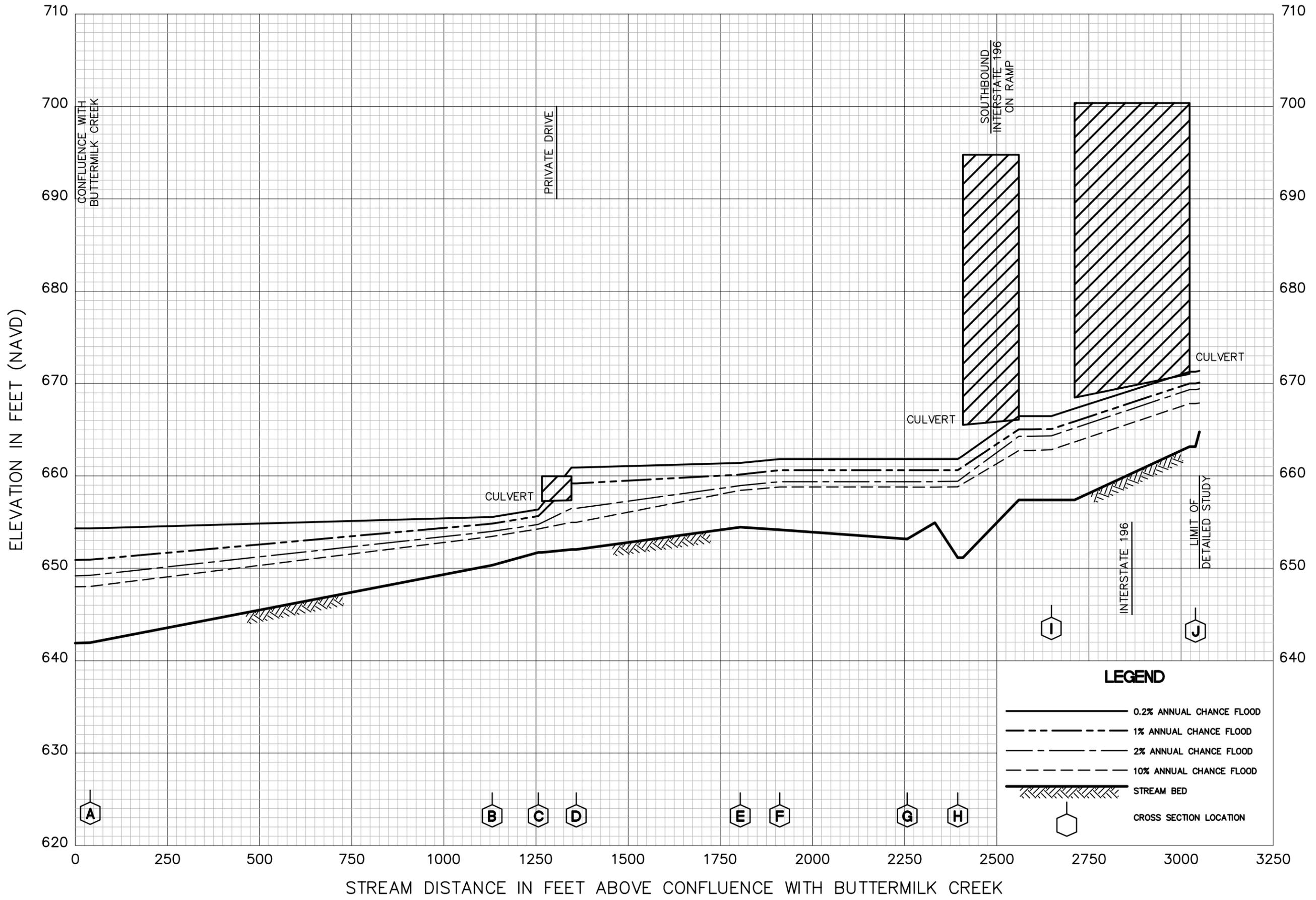
FLOOD PROFILES

TULIP INTERCOUNTY DRAIN

FEDERAL EMERGENCY MANAGEMENT AGENCY

OTTAWA COUNTY, MI

(ALL JURISDICTIONS)

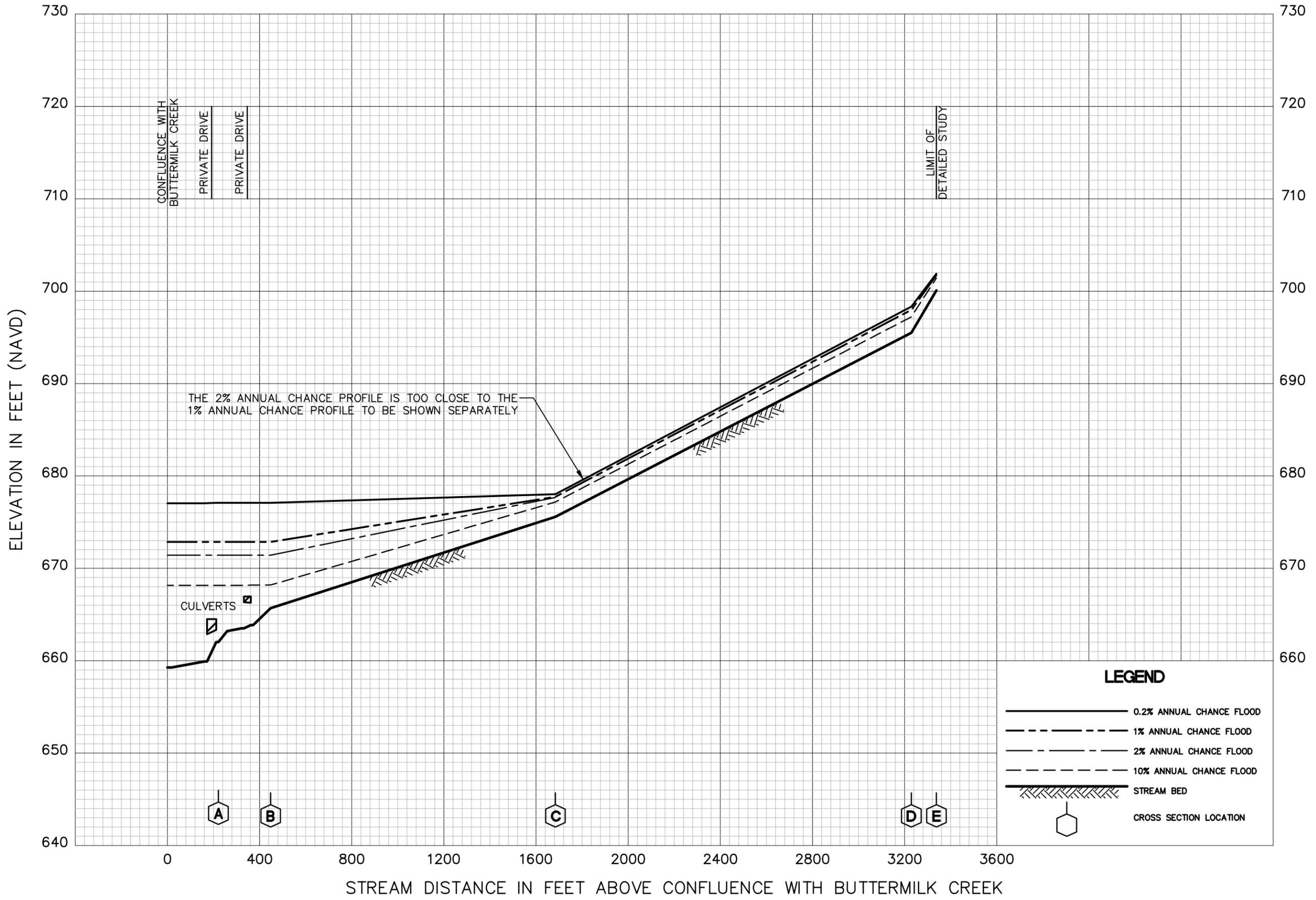


**FLOOD PROFILES**

**UNNAMED TRIBUTARY 1 TO BUTTERMILK CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



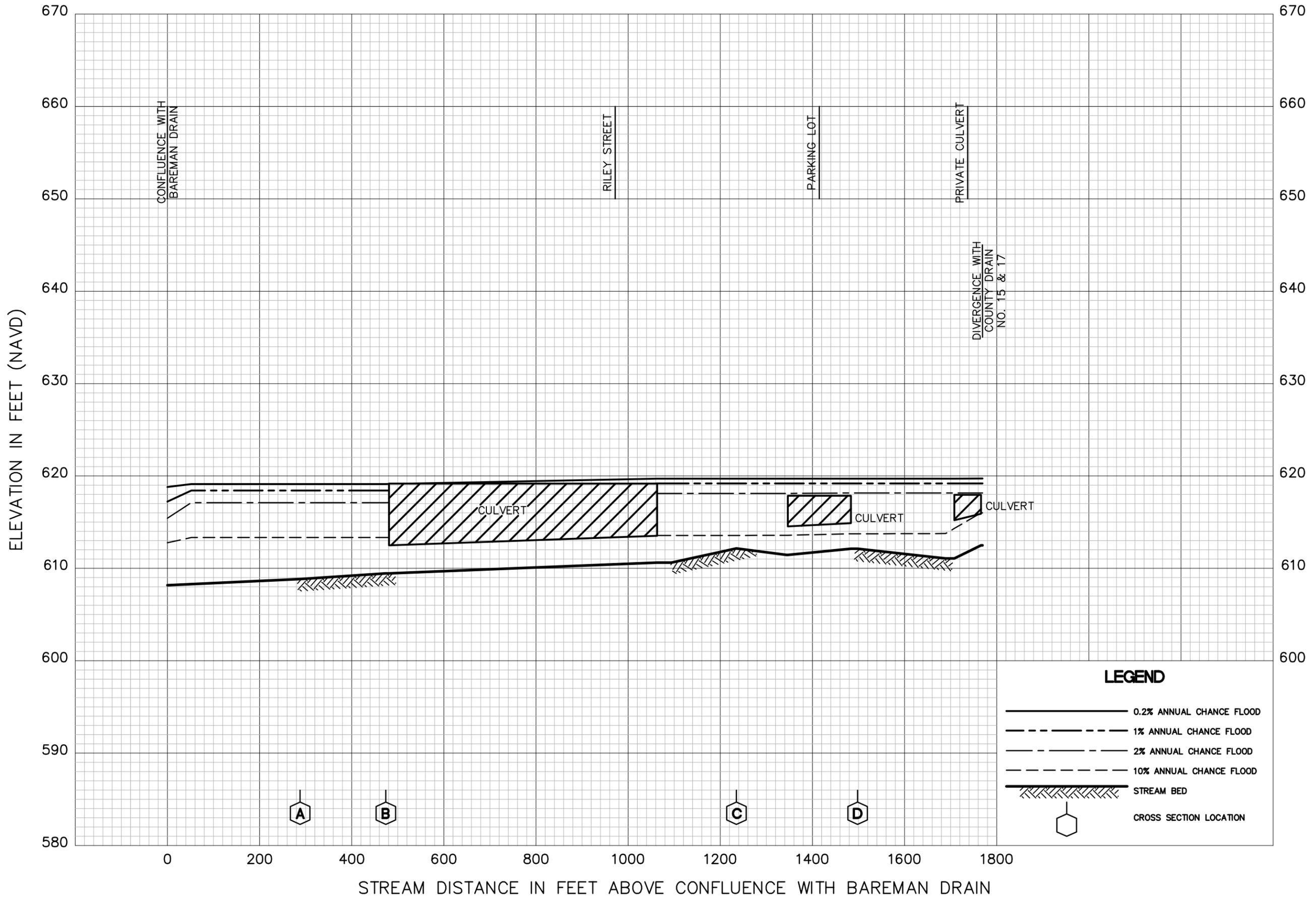
**FLOOD PROFILES**

**UNNAMED TRIBUTARY 2 TO BUTTERMILK CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY

**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



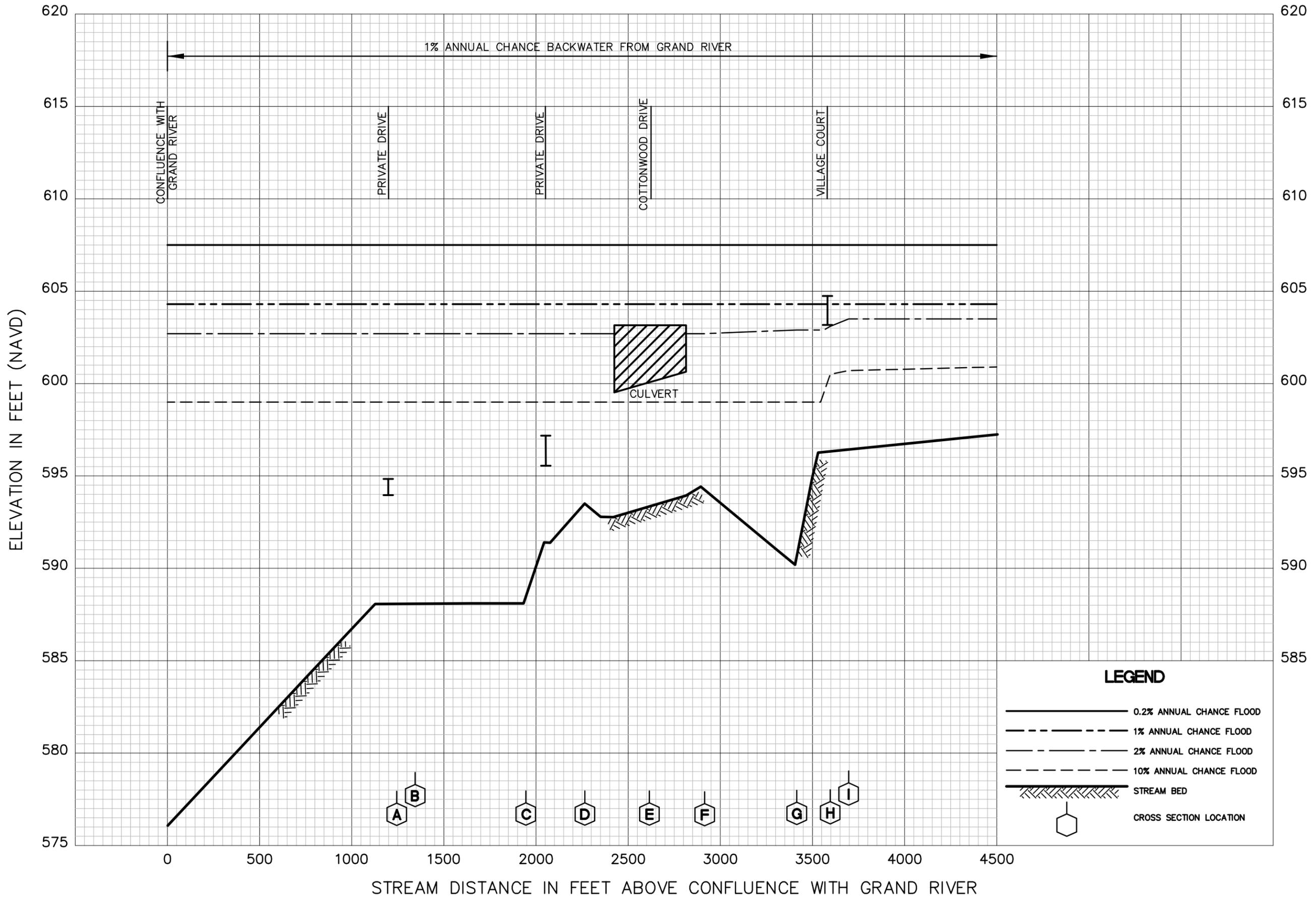
**FLOOD PROFILES**

**VANS BYPASS**

FEDERAL EMERGENCY MANAGEMENT AGENCY

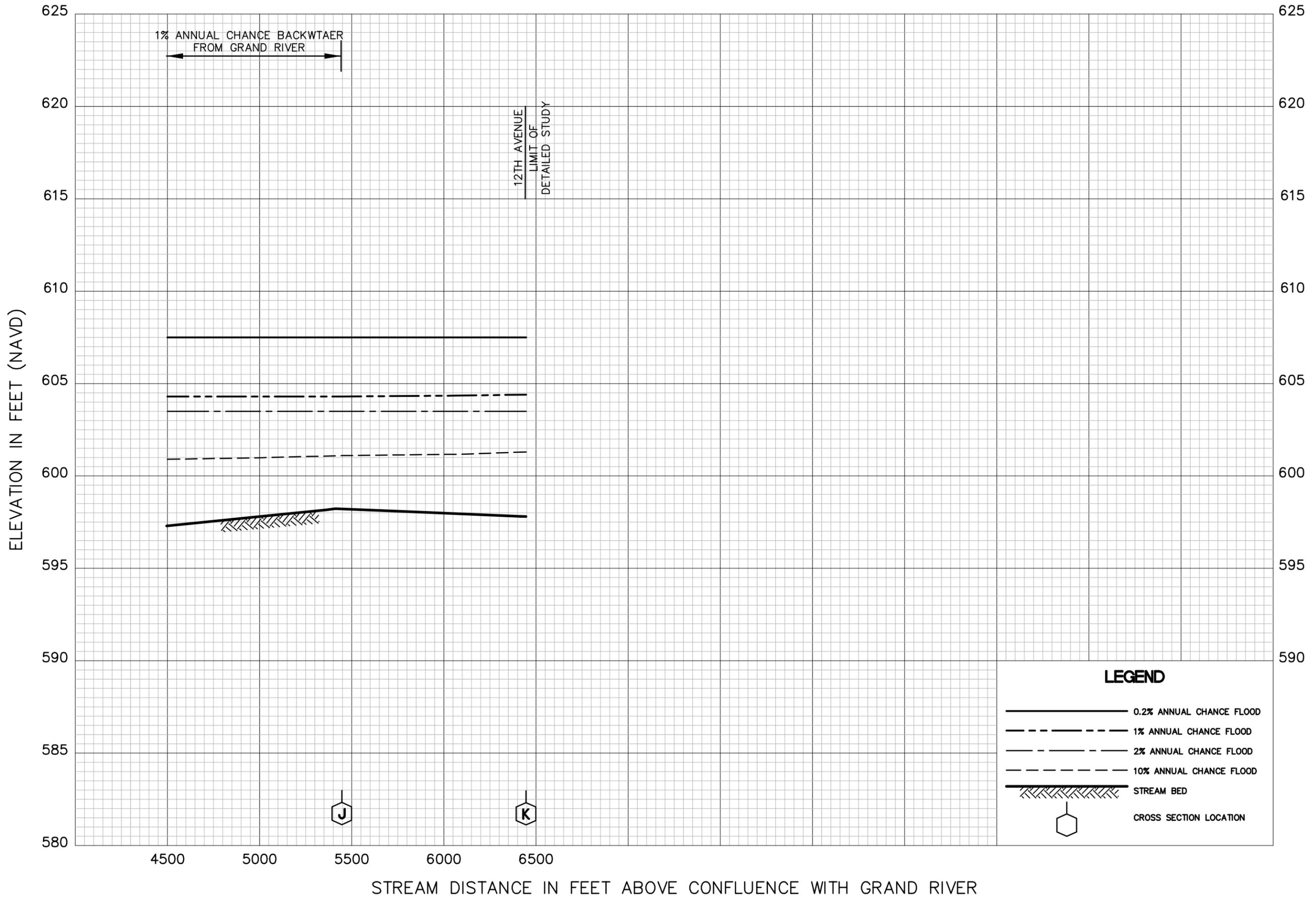
**OTTAWA COUNTY, MI**

(ALL JURISDICTIONS)



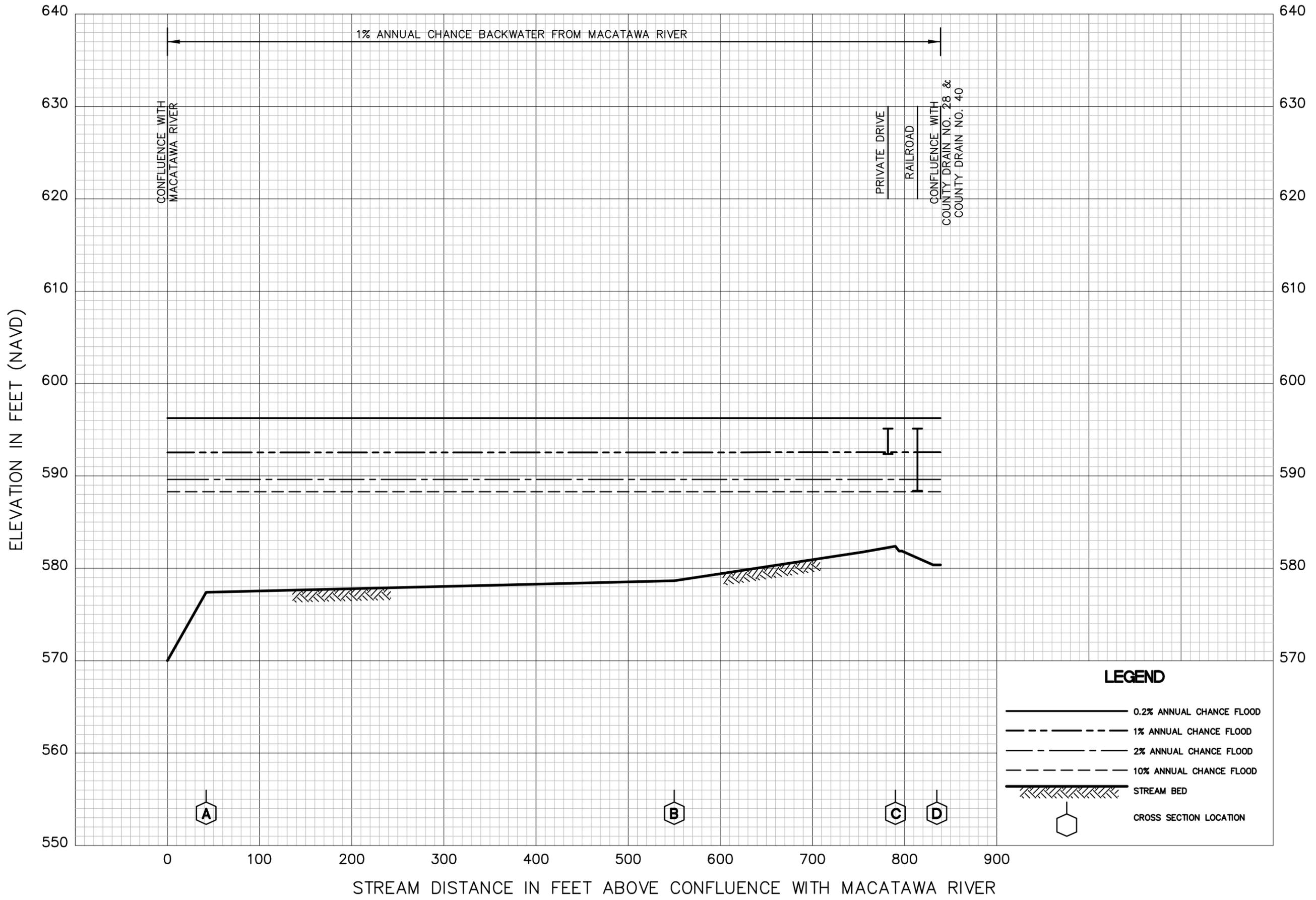
**FLOOD PROFILES**  
**WATSON DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**WATSON DRAIN**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)



**FLOOD PROFILES**  
**WINDMILL CREEK**

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**OTTAWA COUNTY, MI**  
(ALL JURISDICTIONS)