

FLOOD INSURANCE STUDY



VOLUME 3 of 3

ROCKINGHAM COUNTY, NEW HAMPSHIRE ALL JURISDICTIONS

Rockingham County



COMMUNITY NAME	COMMUNITY NUMBER	COMMUNITY NAME	COMMUNITY NUMBER
Atkinson, Town of	330175	New Castle, Town of	330135
Auburn, Town of	330176	Newfields, Town of	330228
Brentwood, Town of	330125	Newington, Town of	330229
Candia, Town of	330126	Newmarket, Town of	330136
Chester, Town of	330182	Newton, Town of	330240
Danville, Town of	330199	North Hampton, Town of	330232
Deerfield, Town of	330127	Northwood, Town of	330855
Derry, Town of	330128	Nottingham, Town of	330137
East Kingston, Town of	330203	Plaistow, Town of	330138
Epping, Town of	330129	Portsmouth, City of	330139
Exeter, Town of	330130	Raymond, Town of	330140
Fremont, Town of	330131	Rye, Town of	330141
Greenland, Town of	330210	Salem, Town of	330142
Hampstead, Town of	330211	Sandown, Town of	330191
Hampton Falls, Town of	330133	Seabrook Beach Village District	330854
Hampton, Town of	330132	Seabrook, Town of	330143
Kensington, Town of	330216	South Hampton, Town of	330193
Kingston, Town of	330217	Stratham, Town of	330197
Londonderry, Town of	330134	Windham, Town of	330144

**PRELIMINARY
DECEMBER 9, 2013**



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
33015CV003A

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) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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

Initial Countywide FIS Effective Date: May 17, 2005

Revised Countywide FIS Effective Date: _____

TABLE OF CONTENTS - Volume 1

	<u>Page</u>
1.0 <u>INTRODUCTION</u>	1
1.1 Purpose of Study	1
1.2 Authority and Acknowledgments	2
1.3 Coordination	7
2.0 <u>AREA STUDIED</u>	9
2.1 Scope of Study	9
2.2 Community Description	11
2.3 Principal Flood Problems	12
2.4 Flood Protection Measures	14
3.0 <u>ENGINEERING METHODS</u>	15
3.1 Riverine Hydrologic Analyses	16
3.2 Riverine Hydraulic Analyses	34
3.3 Coastal Analyses	44
3.4 Vertical Datum	65
4.0 <u>FLOODPLAIN MANAGEMENT APPLICATIONS</u>	67
4.1 Floodplain Boundaries	67
4.2 Floodways	68
5.0 <u>INSURANCE APPLICATIONS</u>	96
6.0 <u>FLOOD INSURANCE RATE MAP</u>	99
7.0 <u>OTHER STUDIES</u>	101
8.0 <u>LOCATION OF DATA</u>	101
9.0 <u>BIBLIOGRAPHY AND REFERENCES</u>	101

TABLE OF CONTENTS – Volume 1 – continued

FIGURES

Figure 1 —Transect Schematic	45
Figure 2 – Transect Location Map	48
Figure 3 - Floodway Schematic	96

TABLES

Table 1 - Initial and Final CCO Meetings	8
Table 2 - Flooding Sources Studied by Detailed Methods	9-10
Table 3 - Letters of Map Change	10
Table 4 - Summary of Discharges	24-32
Table 5 - Summary of Stillwater Elevations	33-34
Table 6 - Manning's "n" Values	42-43
Table 7 - Transect Descriptions	49-56
Table 8 - Transect Data	56-64
Table 9 – Vertical Datum Reference by Community	65-66
Table 10 - 100-Year Flood Data	70
Table 11 - Floodway Data	71-96
Table 12 – Community Map History	99-100

EXHIBITS

Exhibit 1 - Flood Profiles	
Beaver Brook	Profiles 01P-15P
Black Brook	Profiles 16P-20P
Bryant Brook	Profiles 21P-22P
Cohas Brook	Profiles 23P-24P

TABLE OF CONTENTS - Volume 2

EXHIBITS – continued

Exhibit 1 - Flood Profiles (continued)	
Cunningham Brook	Profiles 25P-34P
Drew Brook	Profiles 35P-37P
Dudley Brook	Profiles 38P-41P
Exeter River (Town of Exeter)	Profiles 42P-48P
Squamscott River - Exeter River	Profiles 49P-51BP
Flatrock Brook	Profiles 52P-56P
Golden Brook	Profiles 57P-63P
Grassy Brook	Profile 64P
Hidden Valley Brook	Profiles 65P-68P
Hill Brook	Profile 69P
Hog Hill Brook	Profiles 70P-71P
Homes Brook	Profiles 72P-75P
Kelly Brook	Profiles 76P-77P
Lamprey River	Profiles 78P-81P
Little Cohas Brook	Profiles 89P-99P
Little River No. 1	Profile 100P
Little River No. 2	Profiles 101P-102P
Little River No. 3	Profiles 103P-107P
Nesenkeag Brook	Profiles 108P-124P

TABLE OF CONTENTS - Volume 3

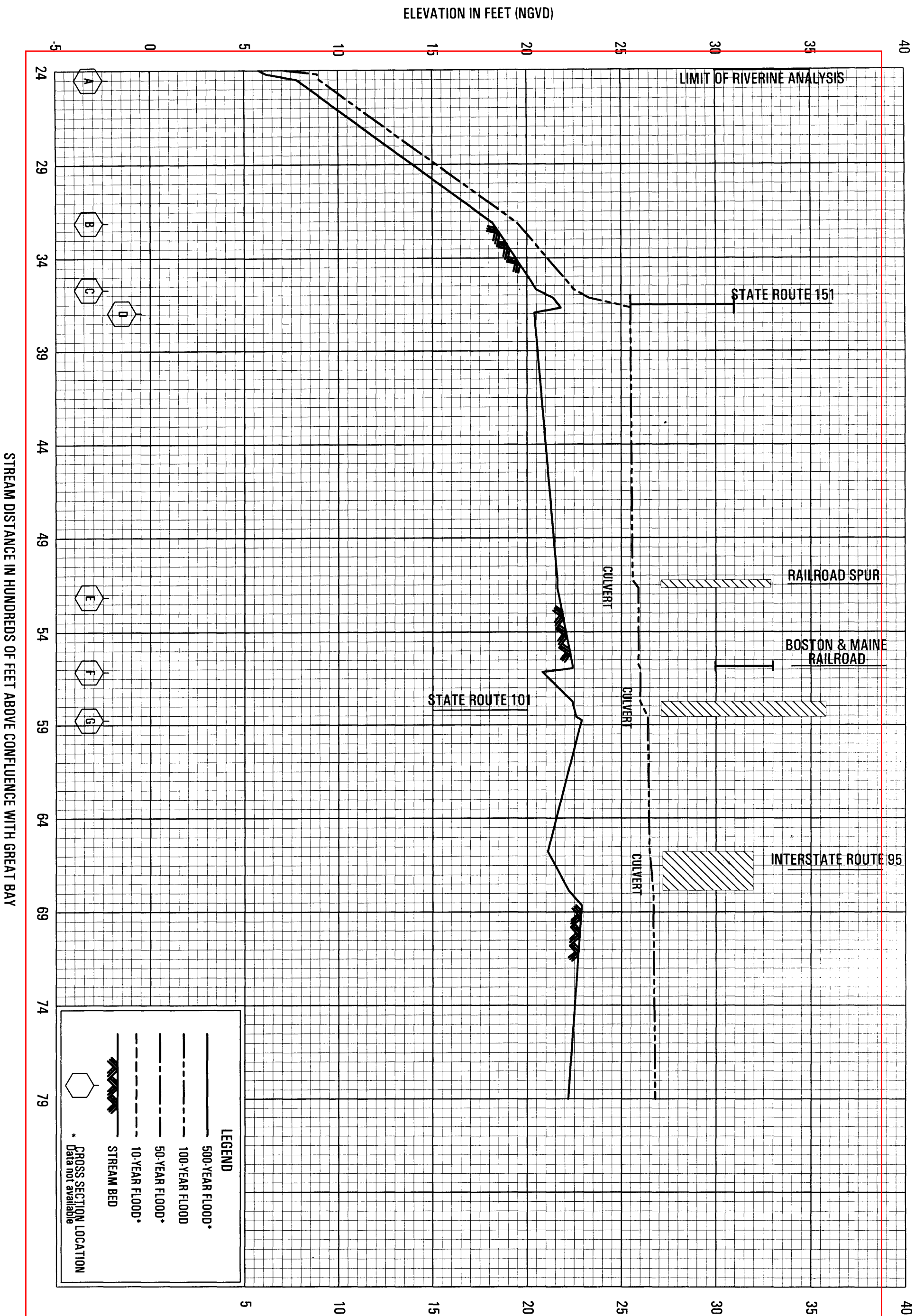
EXHIBITS – continued

Exhibit 1 - Flood Profiles (continued)	
Pickering Brook	Profiles 125P-126P
Piscassic River	Profiles 127P-128P
Policy Brook-Unnamed Brook	Profile 129P
Porcupine Brook	Profile 130P
Porcupine Brook Tributary	Profile 131P
Powwow River (Downstream Reach)	Profile 132P
Powwow River (Upstream Reach)	Profiles 133P-134P
Shields Brook	Profiles 135P-153P
Spicket River	Profiles 154P-156P
Taylor Brook (including Ballard Pond)	Profiles 157P-161P
Tributary C to Beaver Brook	Profiles 162P-165P
Tributary E to Beaver Lake	Profiles 166P-167P
Tributary E to Little Cohas Brook	Profiles 168P-169P
Tributary F to Beaver Lake	Profiles 170P-174P
Tributary G to Beaver Brook	Profiles 175P-178P
Tributary H to Drew Brook	Profiles 179P-183P
Tributary H to Nesenkeag Brook	Profiles 184P-186P

TABLE OF CONTENTS-Volume 3- continued

EXHIBITS – continued

Exhibit 1 - Flood Profiles (continued)	
Tributary J to Black Brook	Profiles 187P-188P
Tributary O to Beaver Brook	Profiles 189P-195P
Upper Beaver Brook	Profiles 196P-198P
Wash Pond Tributary	Profile 199P
West Channel Policy Brook	Profiles 200P-201P
Winnicut River	Profile 202
Exhibit 2 - Flood Insurance Rate Map Index	
Flood Insurance Rate Map Legend	
Map Notes to Users	
Flood Insurance Rate Map	



STREAM DISTANCE IN HUNDREDS OF FEET ABOVE CONFLUENCE WITH GREAT BAY

LEGEND

- 500-YEAR FLOOD*
- - - 100-YEAR FLOOD
- - - 50-YEAR FLOOD*
- - - 10-YEAR FLOOD*
- STREAM BED
- CROSS SECTION LOCATION

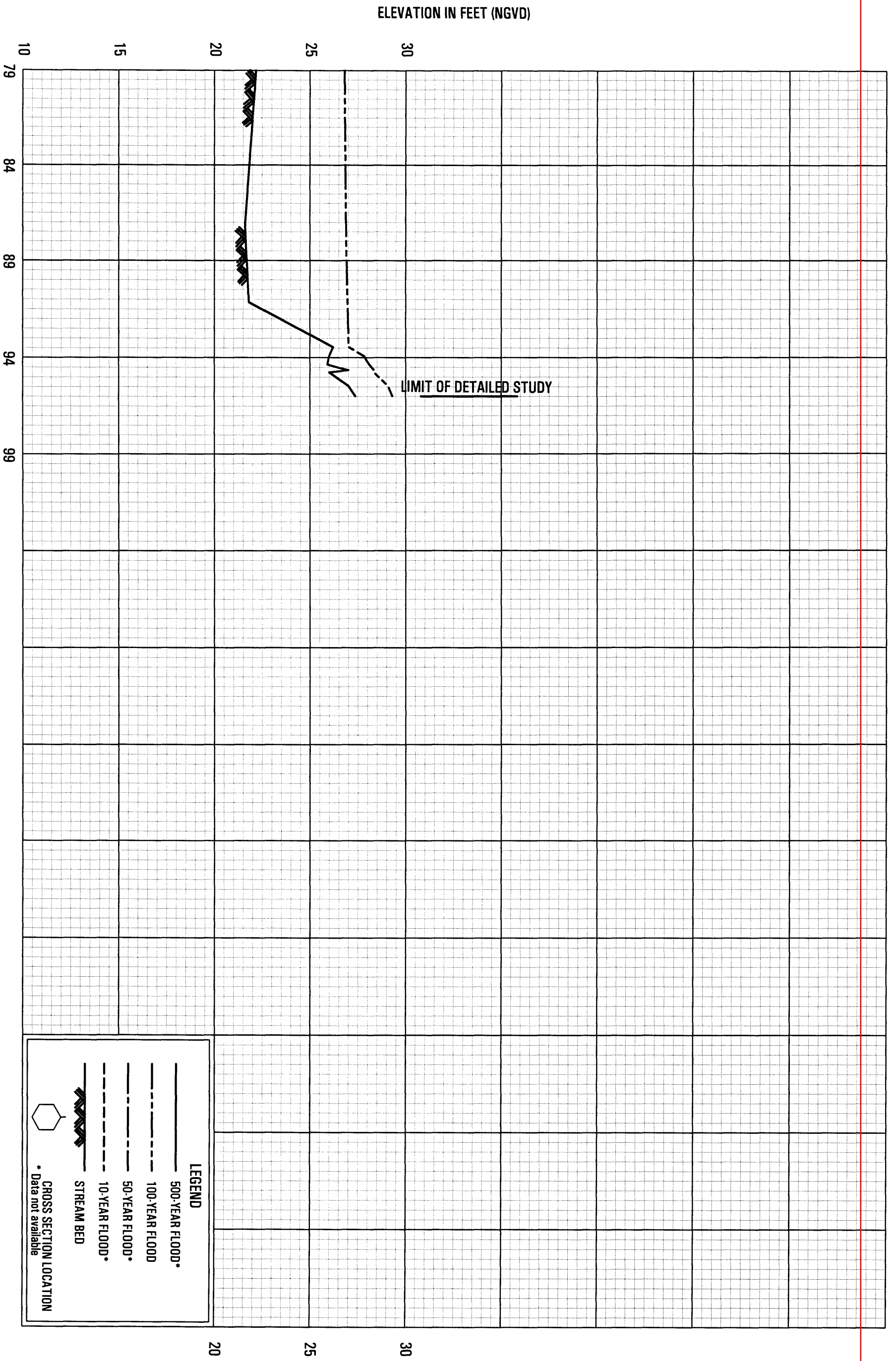
* Data not available

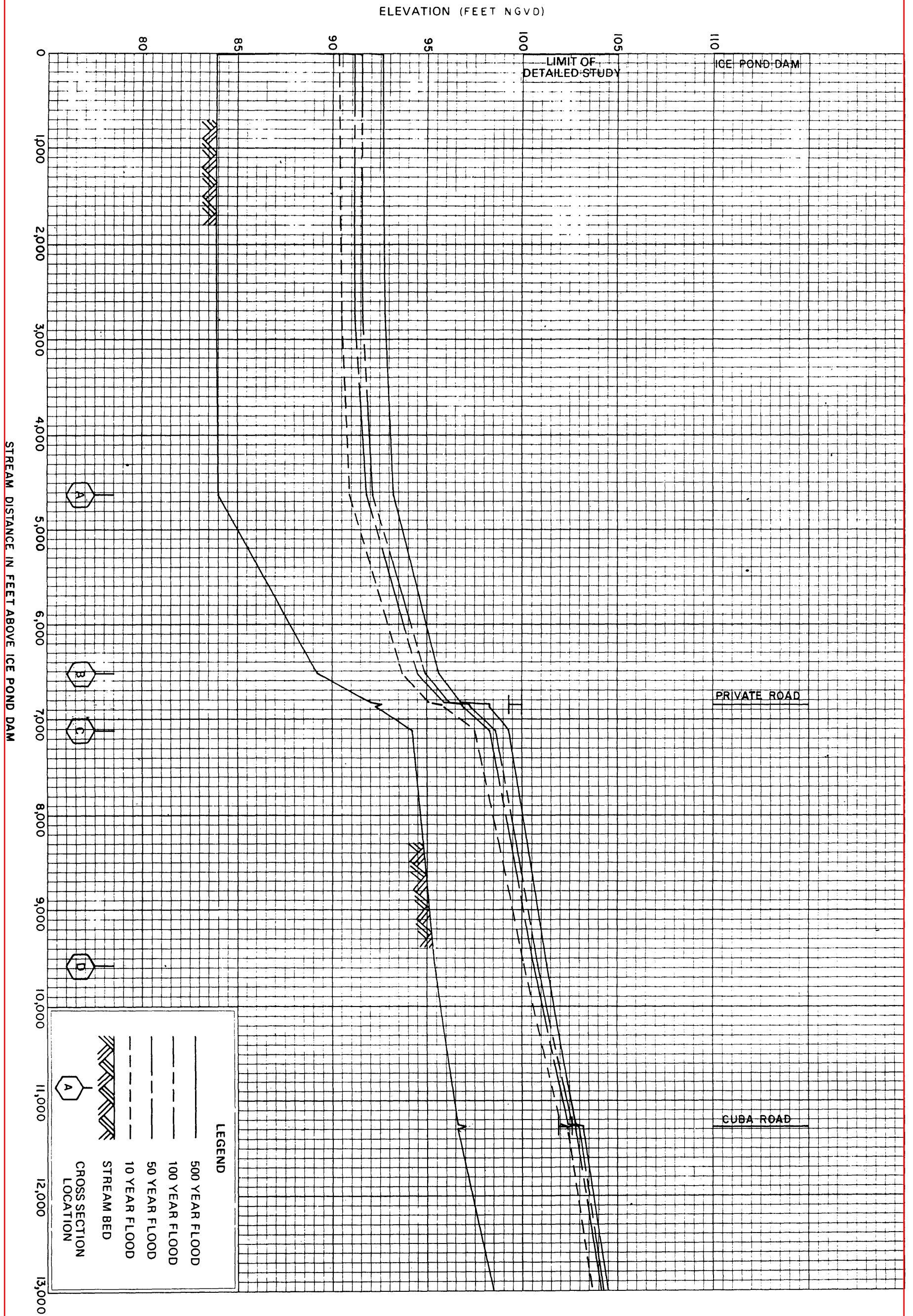
FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

125P

FLOOD PROFILES
 PICKERING BROOK

STREAM DISTANCE IN HUNDREDS OF FEET ABOVE CONFLUENCE WITH GREAT BAY





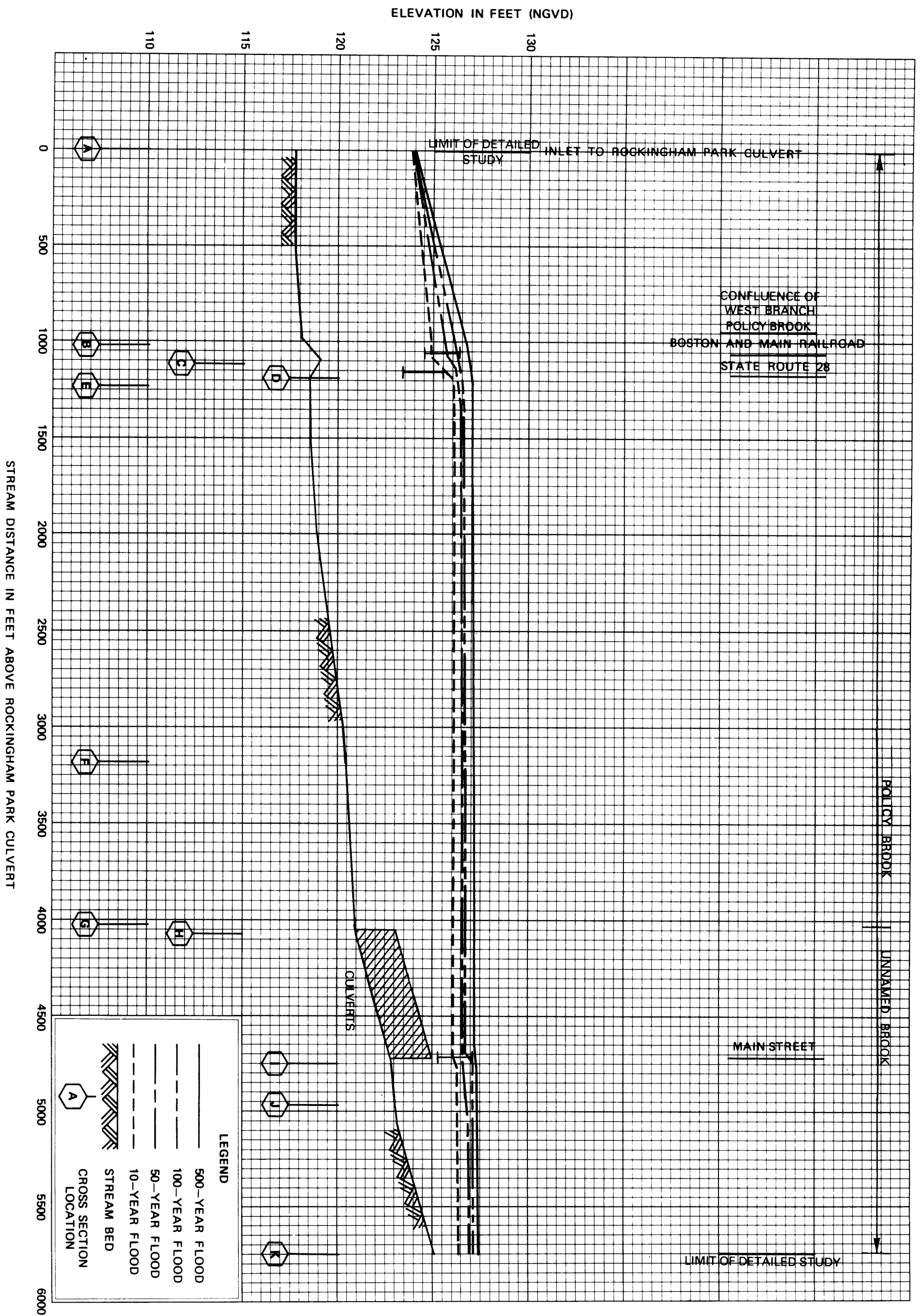
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

PISCASSIC RIVER

127P

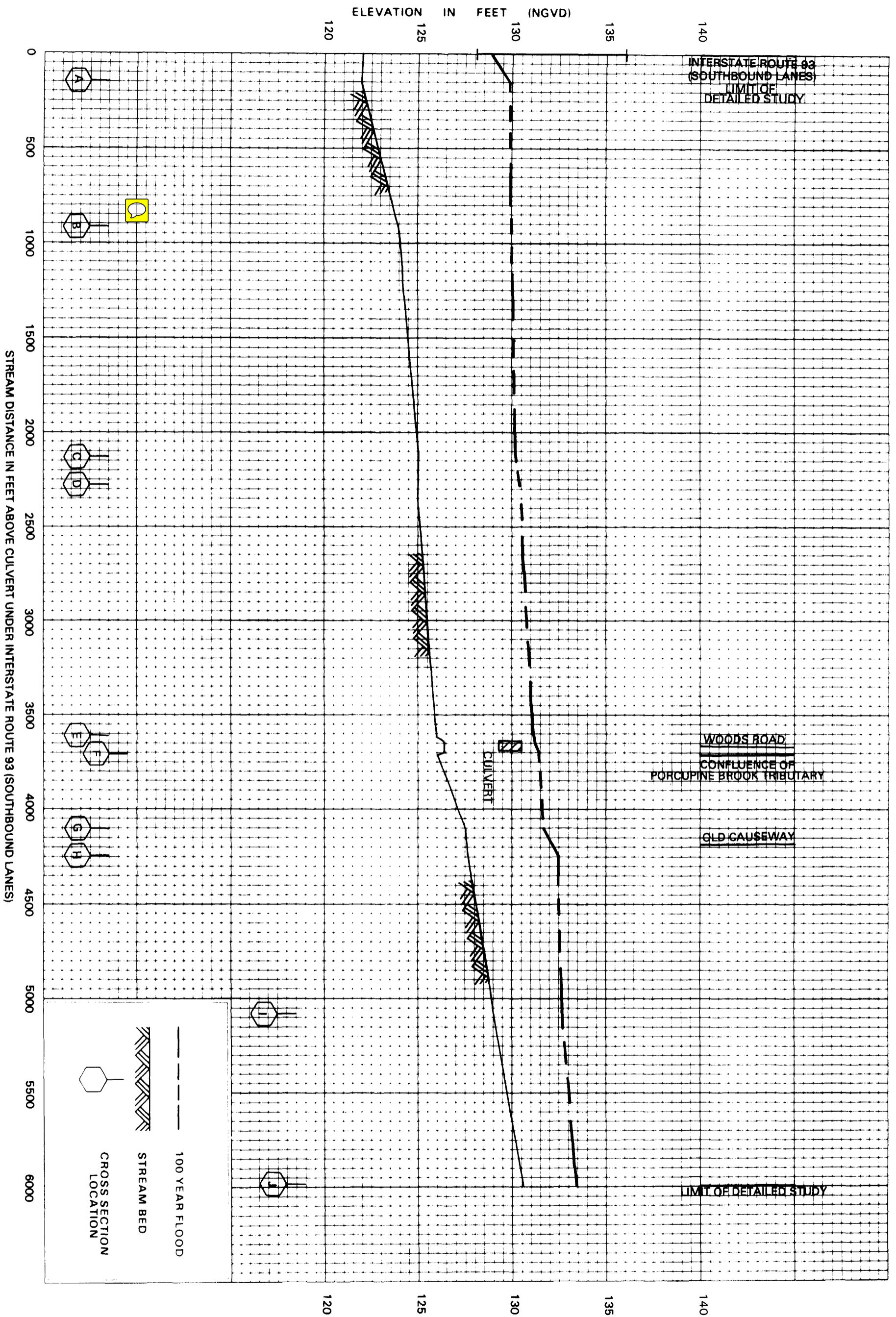


FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

POLICY BROOK-UNNAMED BROOK



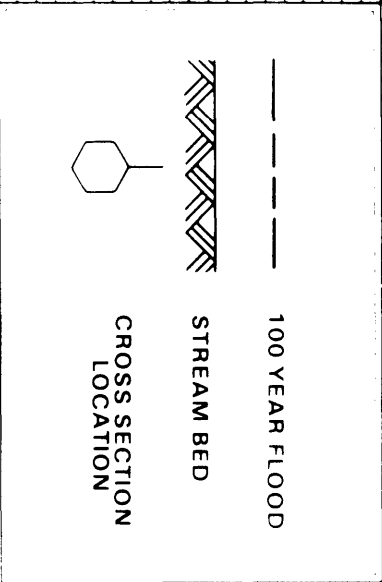
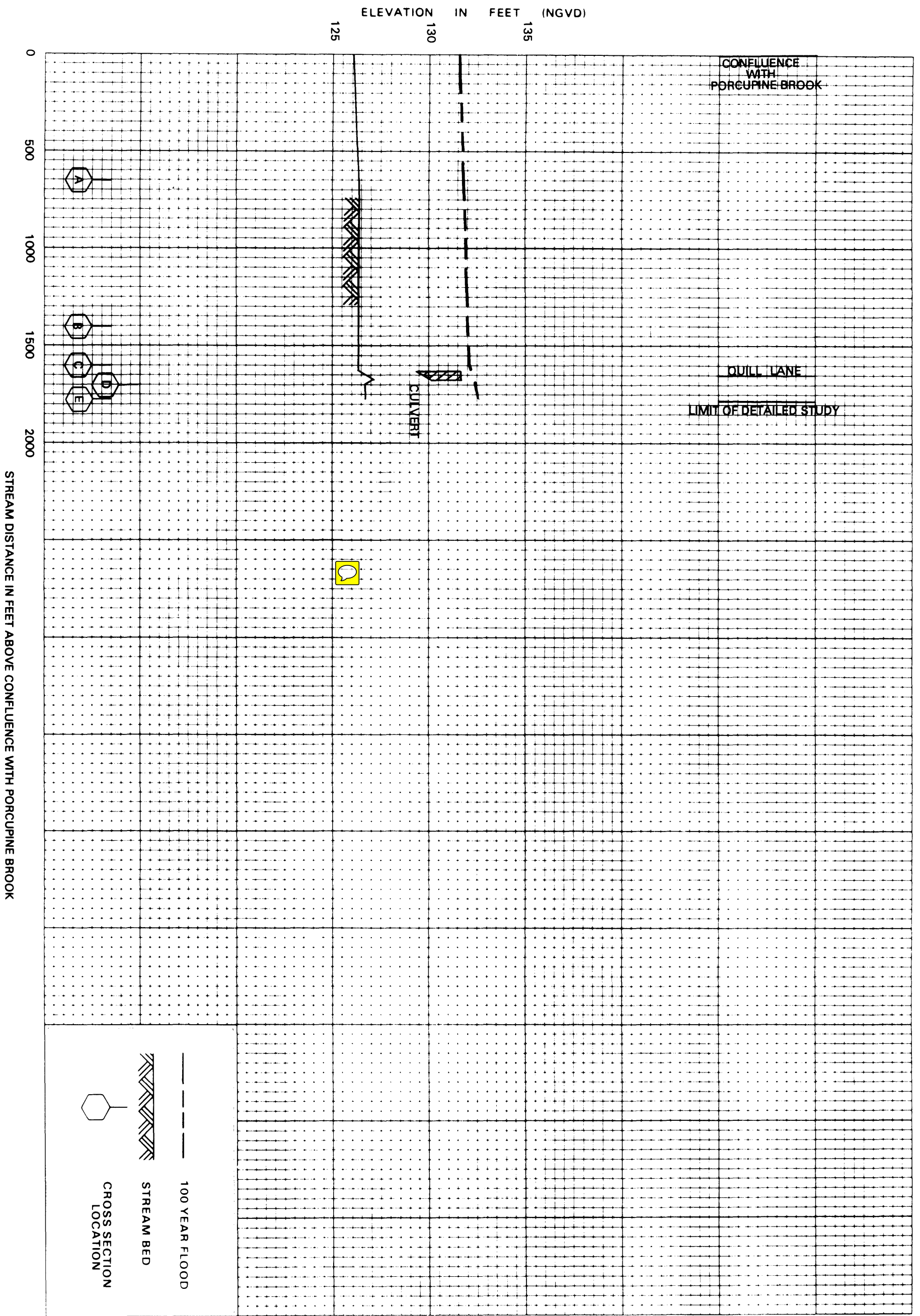
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

PORCUPINE BROOK

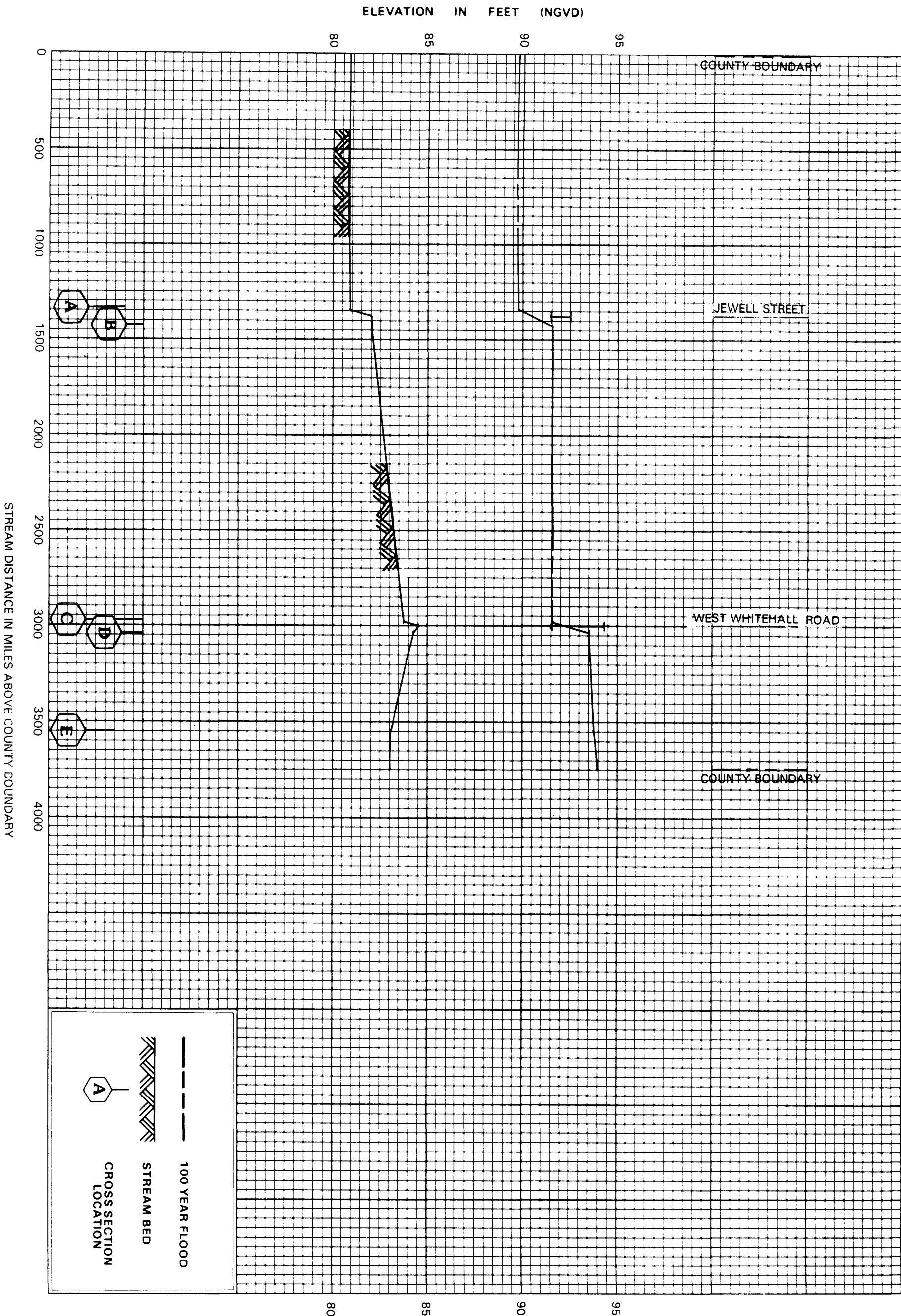
130P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

131P

FLOOD PROFILES
PORCUPINE BROOK TRIBUTARY



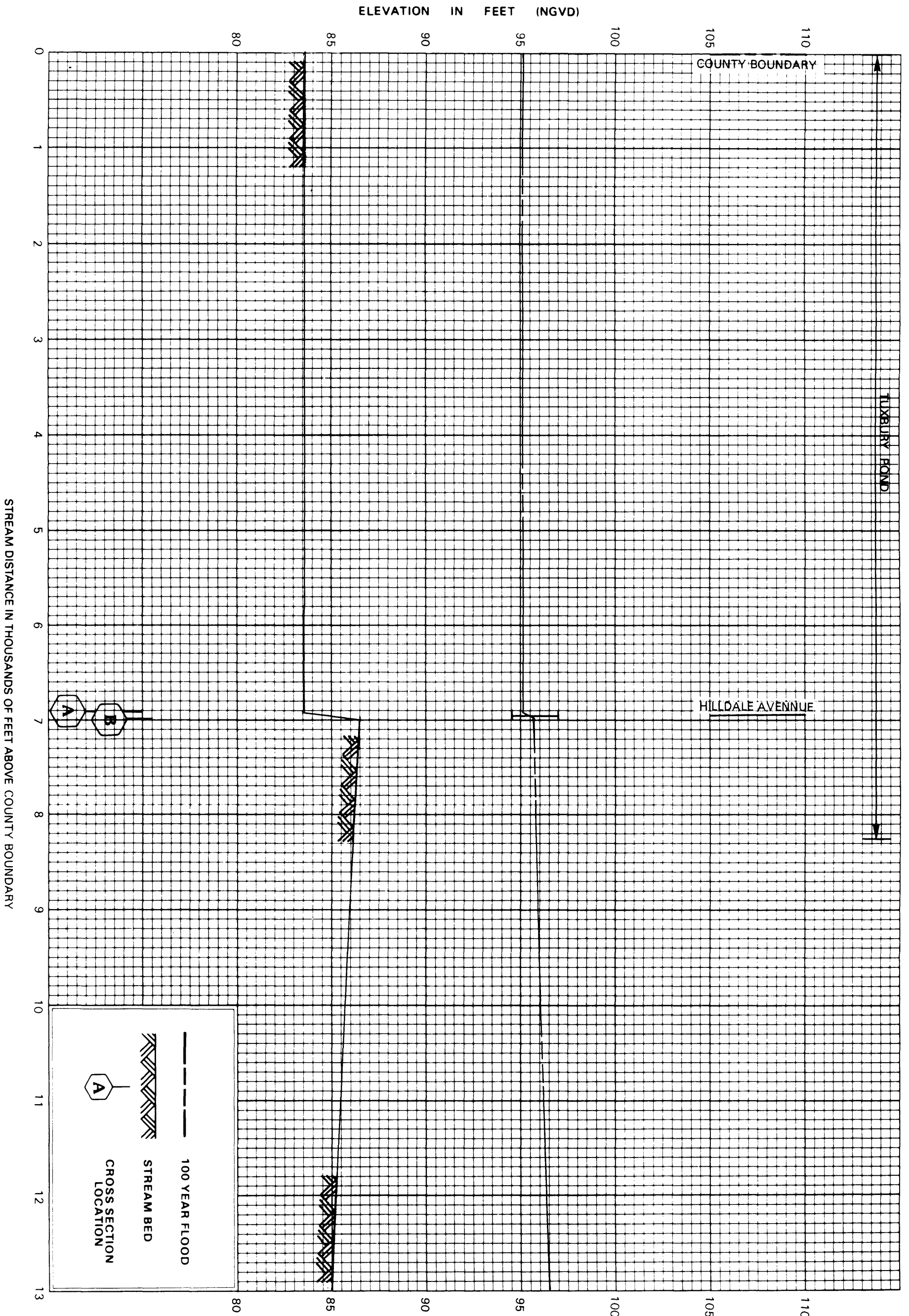
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

POWWOW RIVER (DOWNSTREAM REACH)

132P



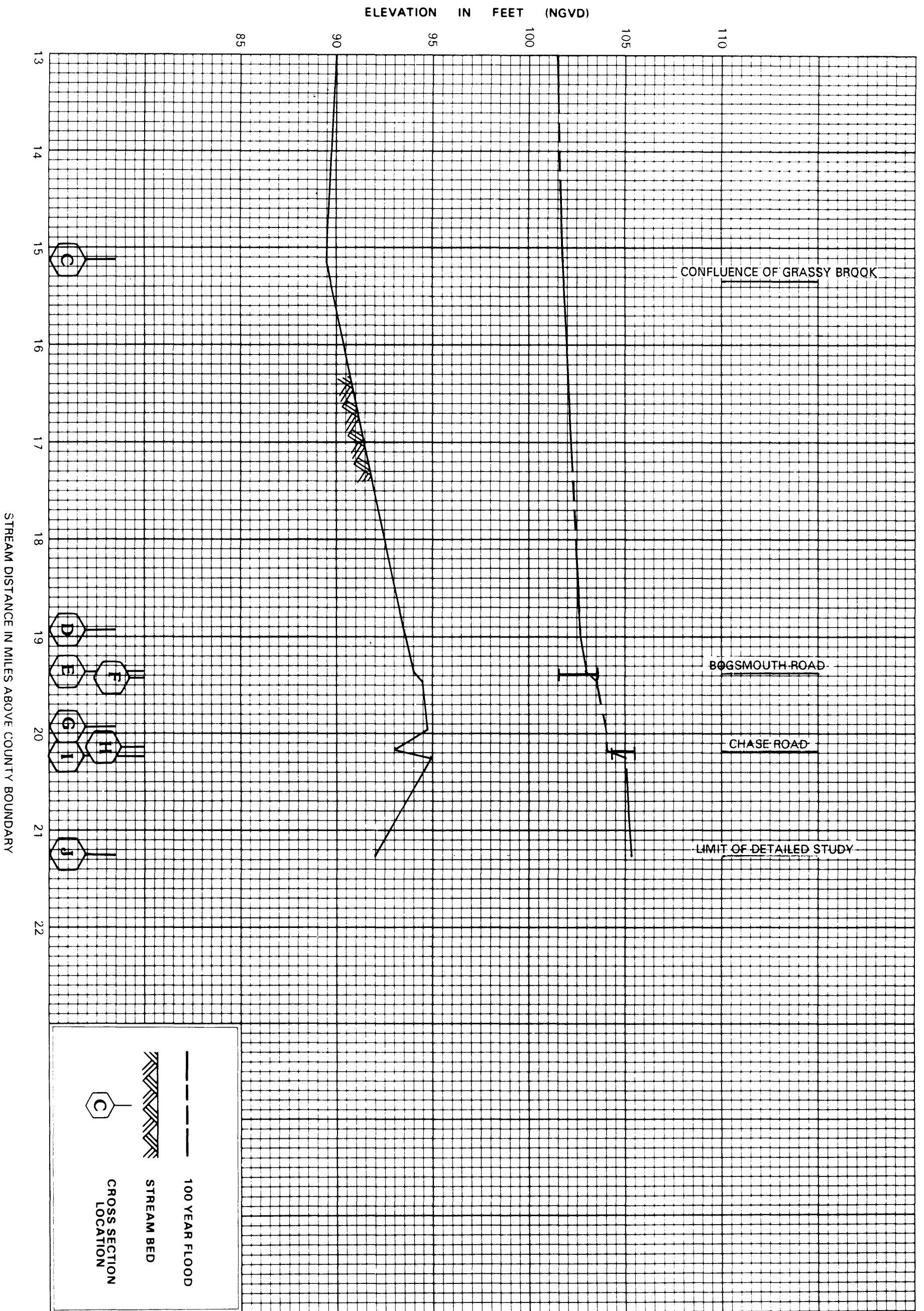
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

POWWOW RIVER (UPSTREAM REACH)

133P



FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

POWWOW RIVER (UPSTREAM REACH)

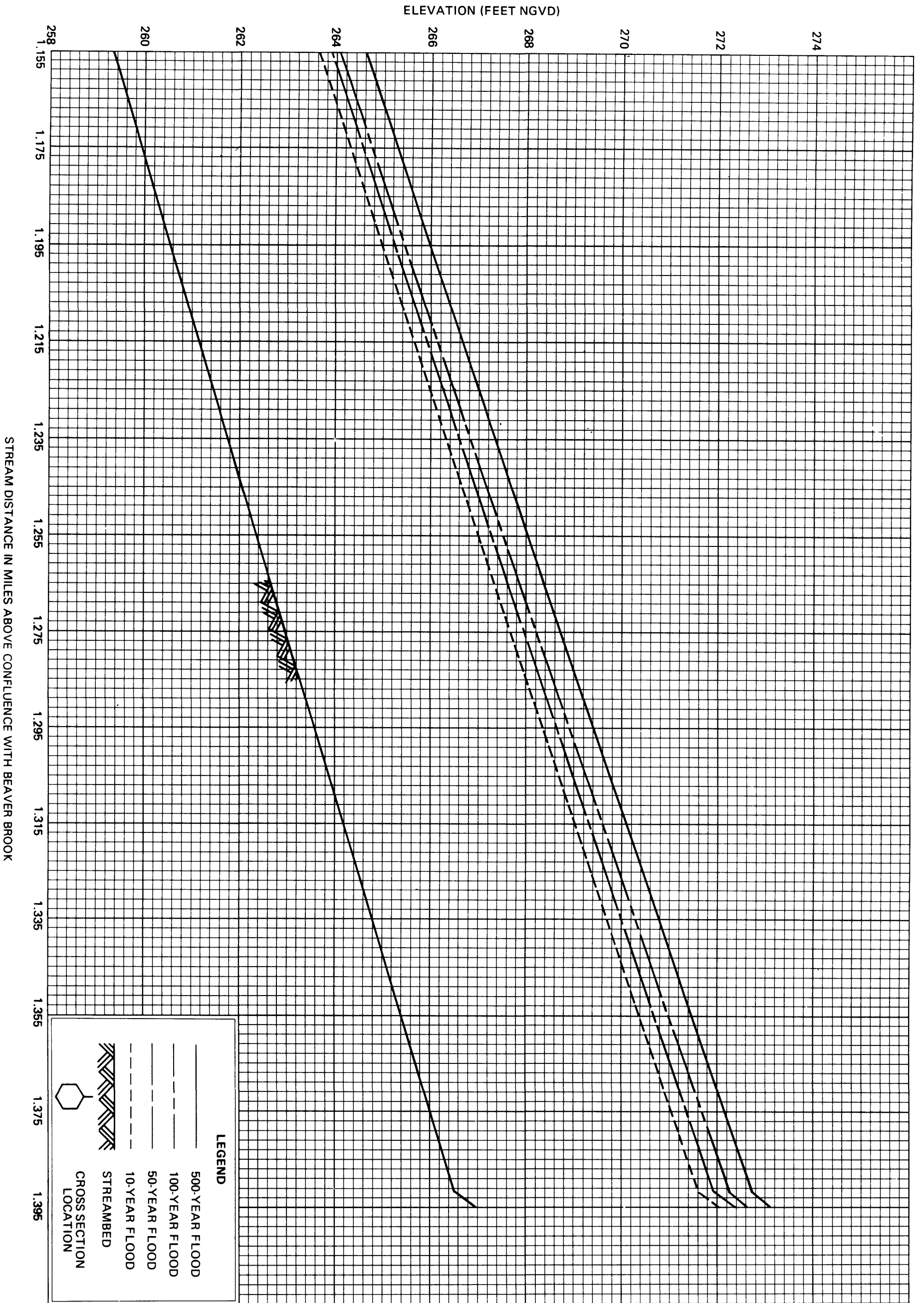
134P









FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

135P

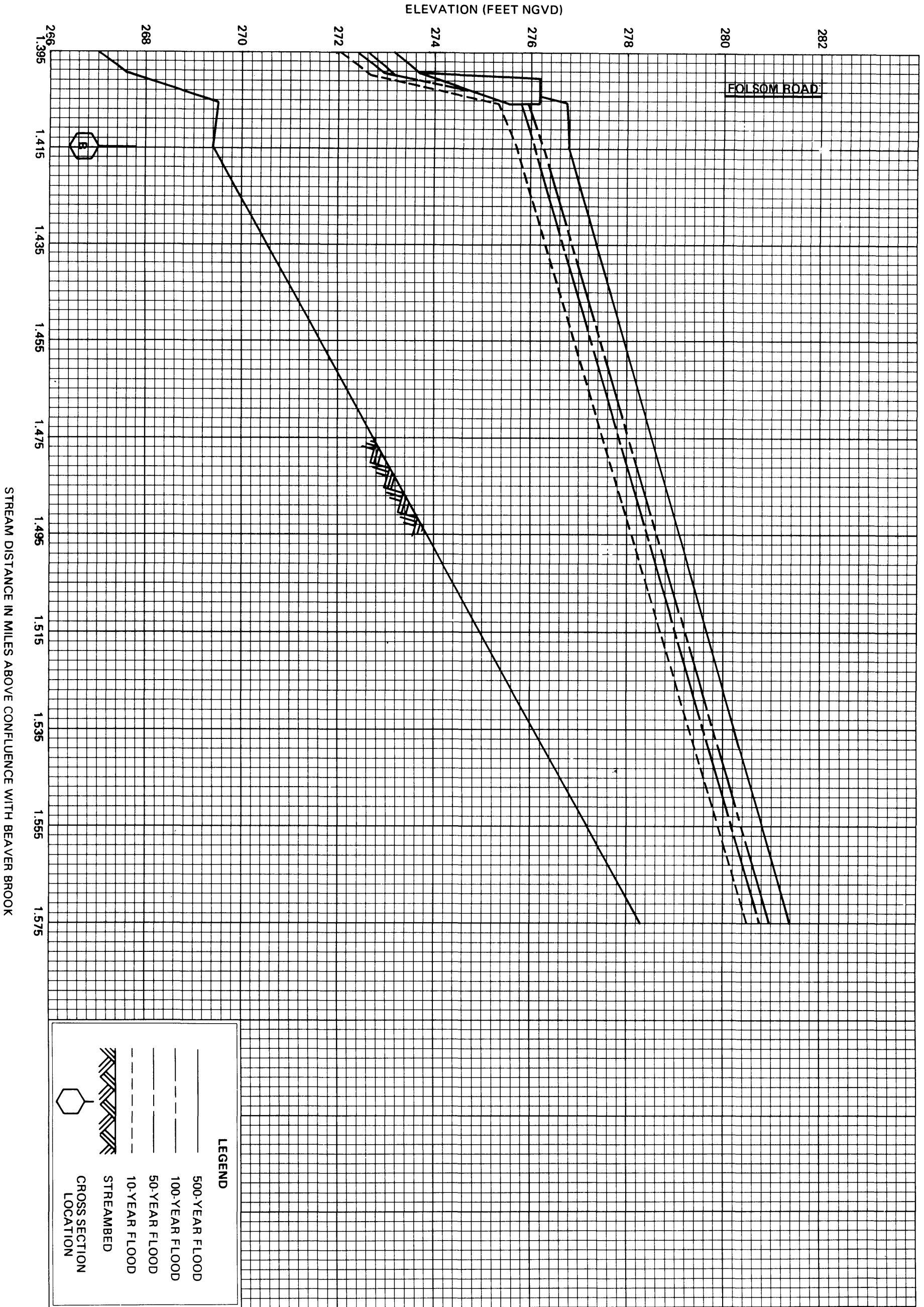


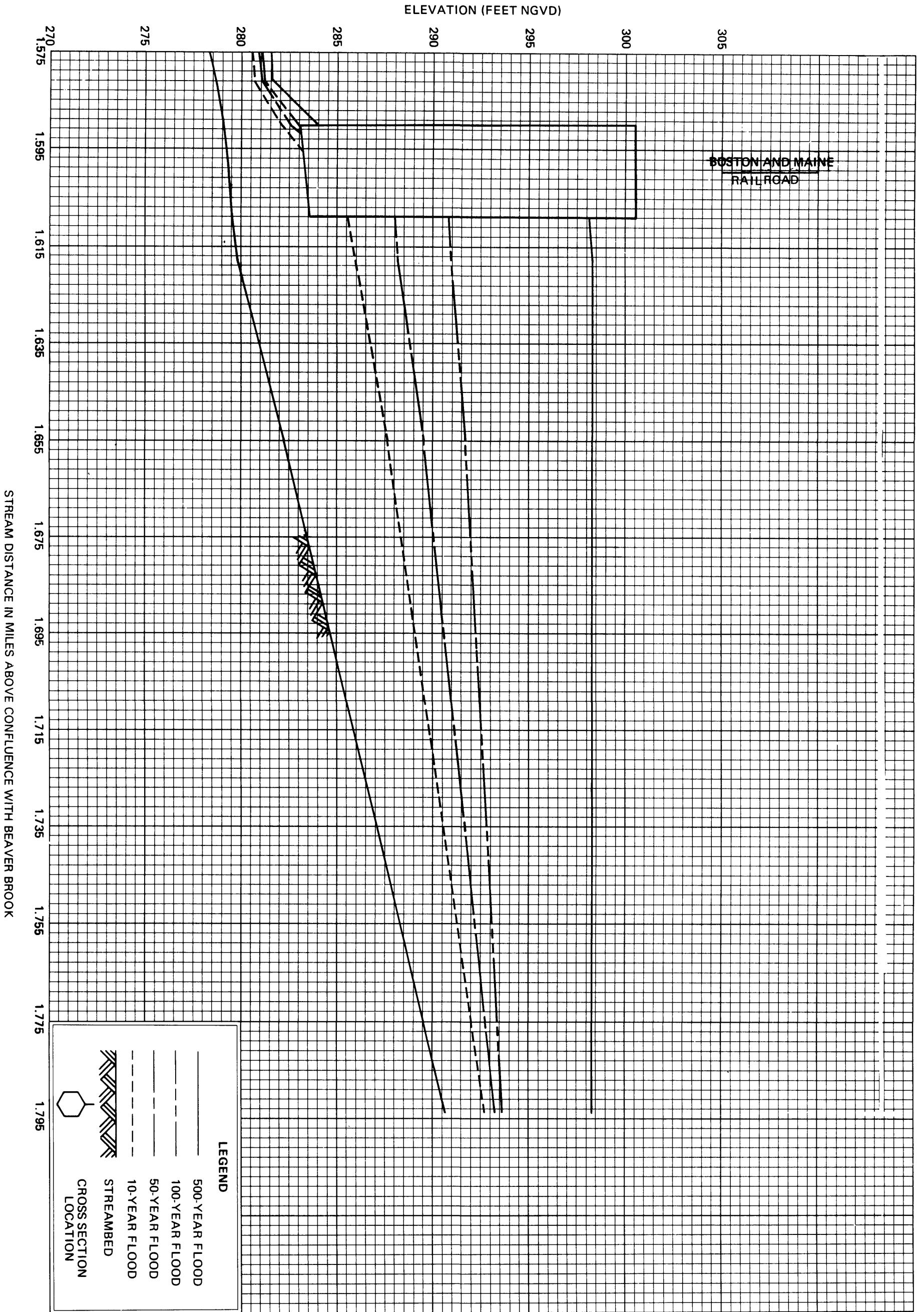
LEGEND

-  500-YEAR FLOOD
-  100-YEAR FLOOD
-  50-YEAR FLOOD
-  10-YEAR FLOOD
-  STREAMBED
-  CROSS SECTION LOCATION

FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

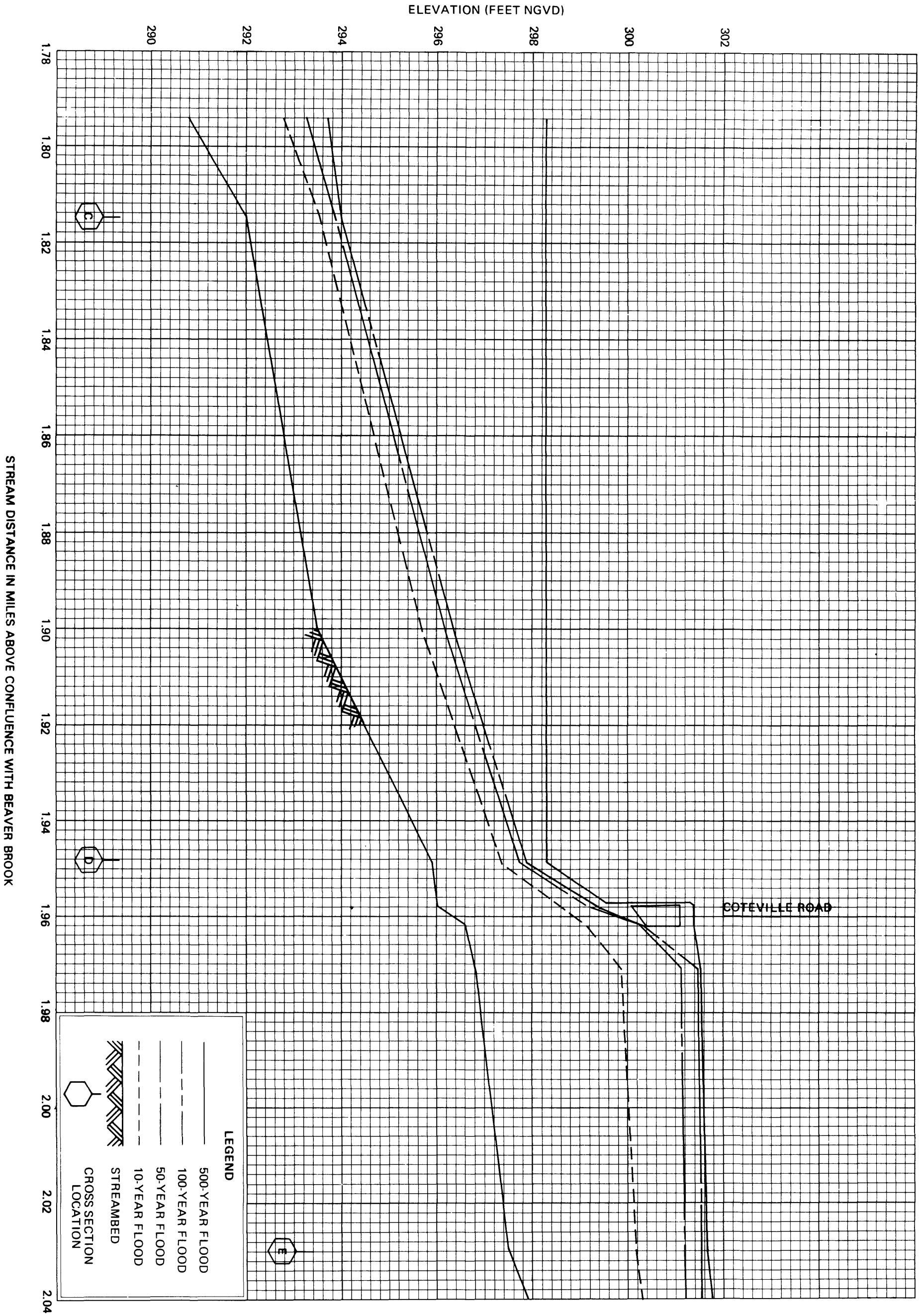




FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

138P



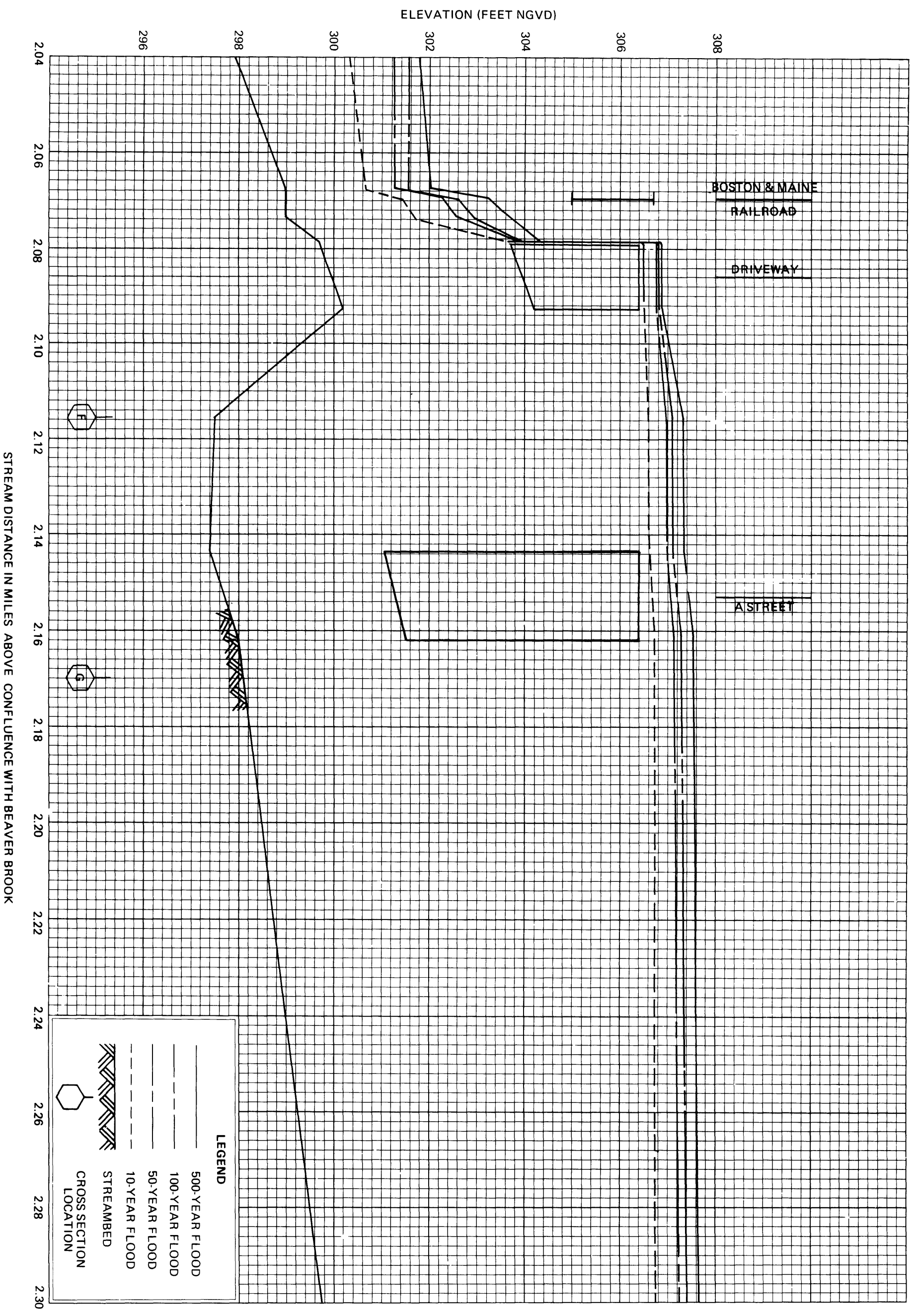
FEDERAL EMERGENCY MANAGEMENT AGENCY

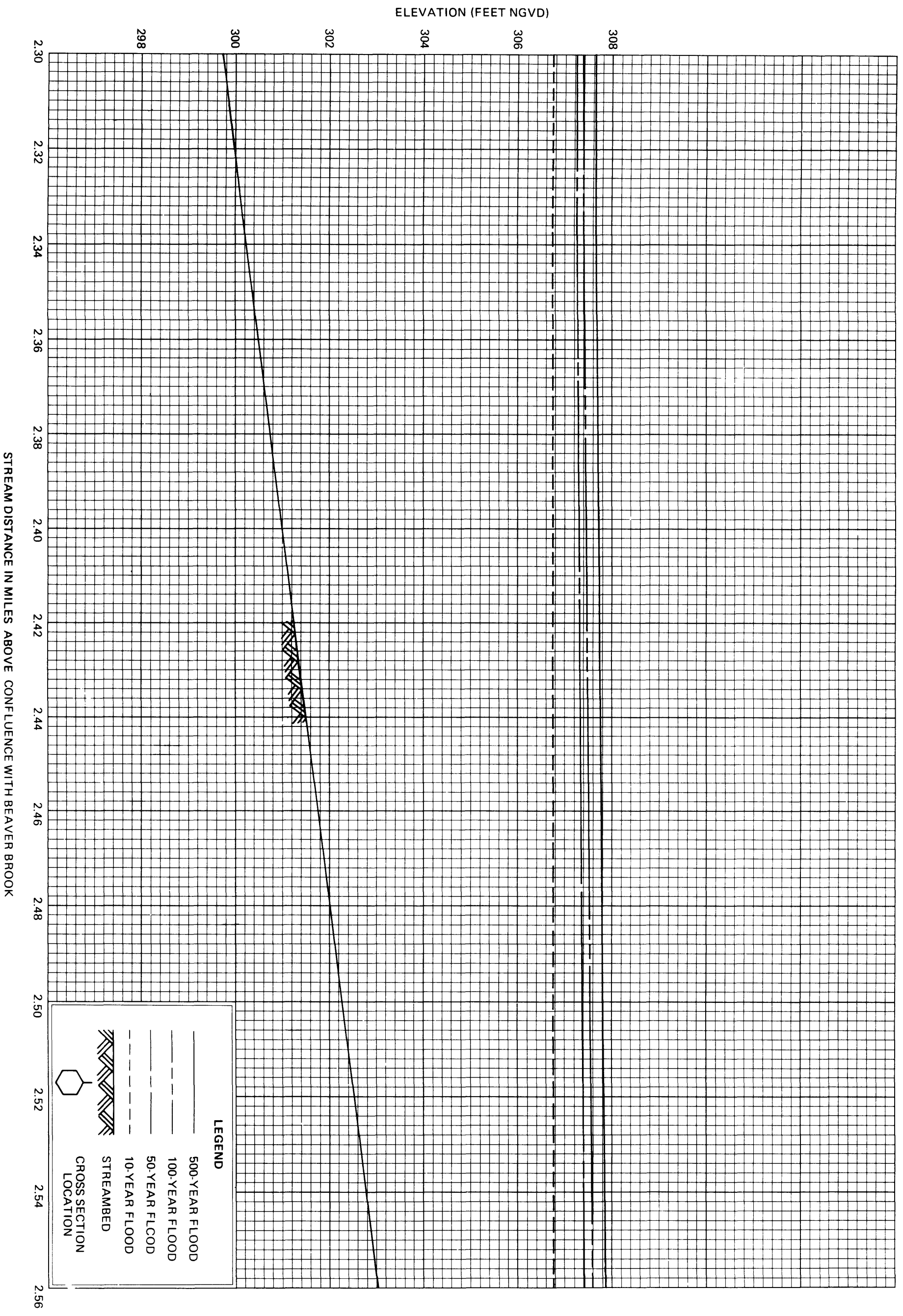
ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SHIELDS BROOK

139P

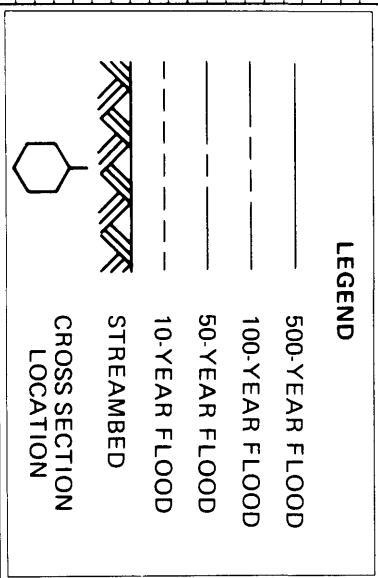
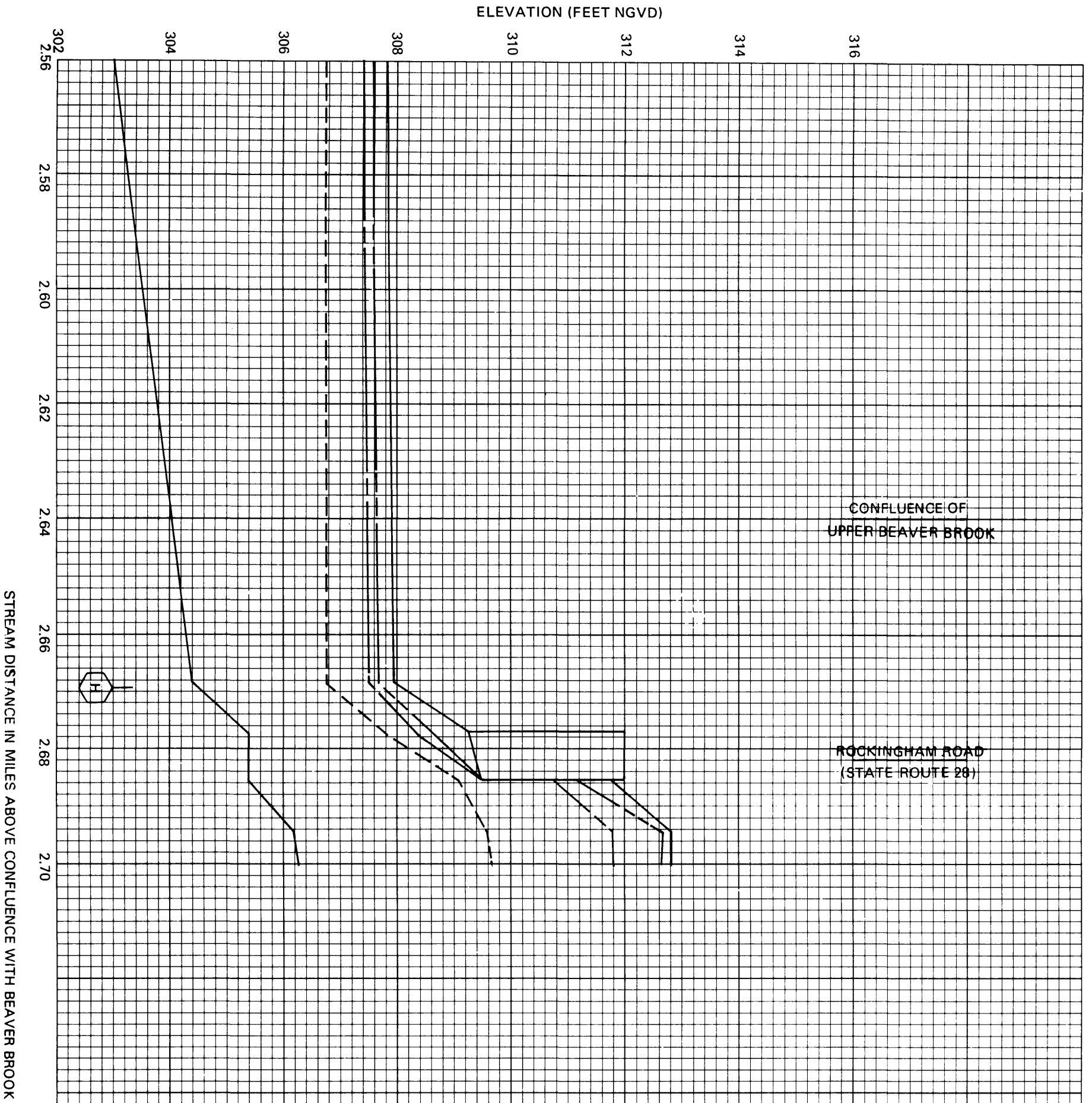




FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

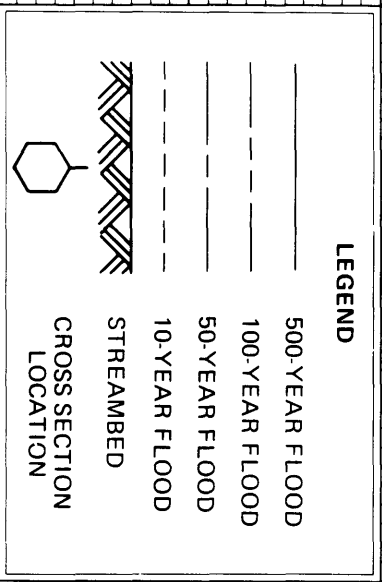
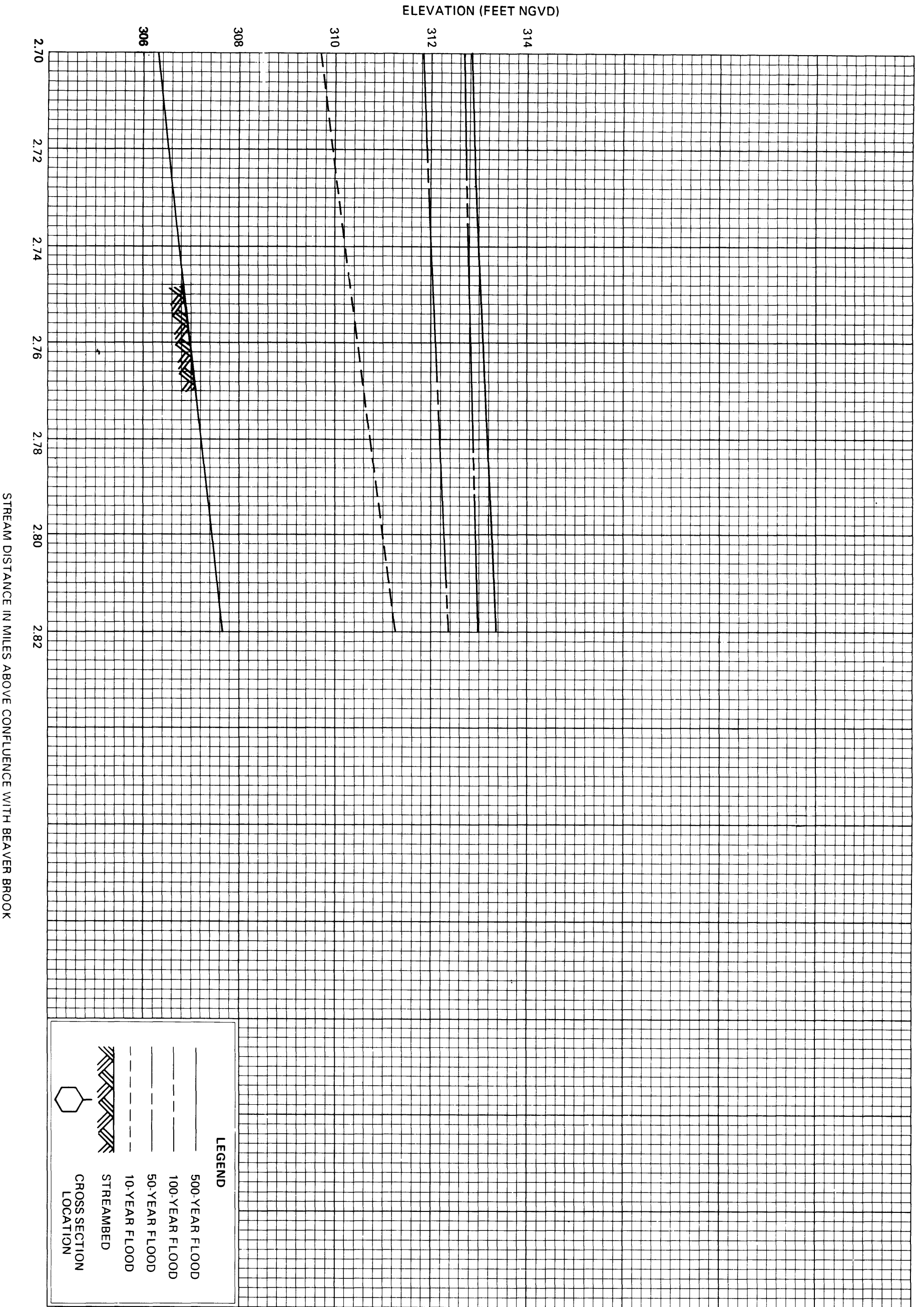
141P

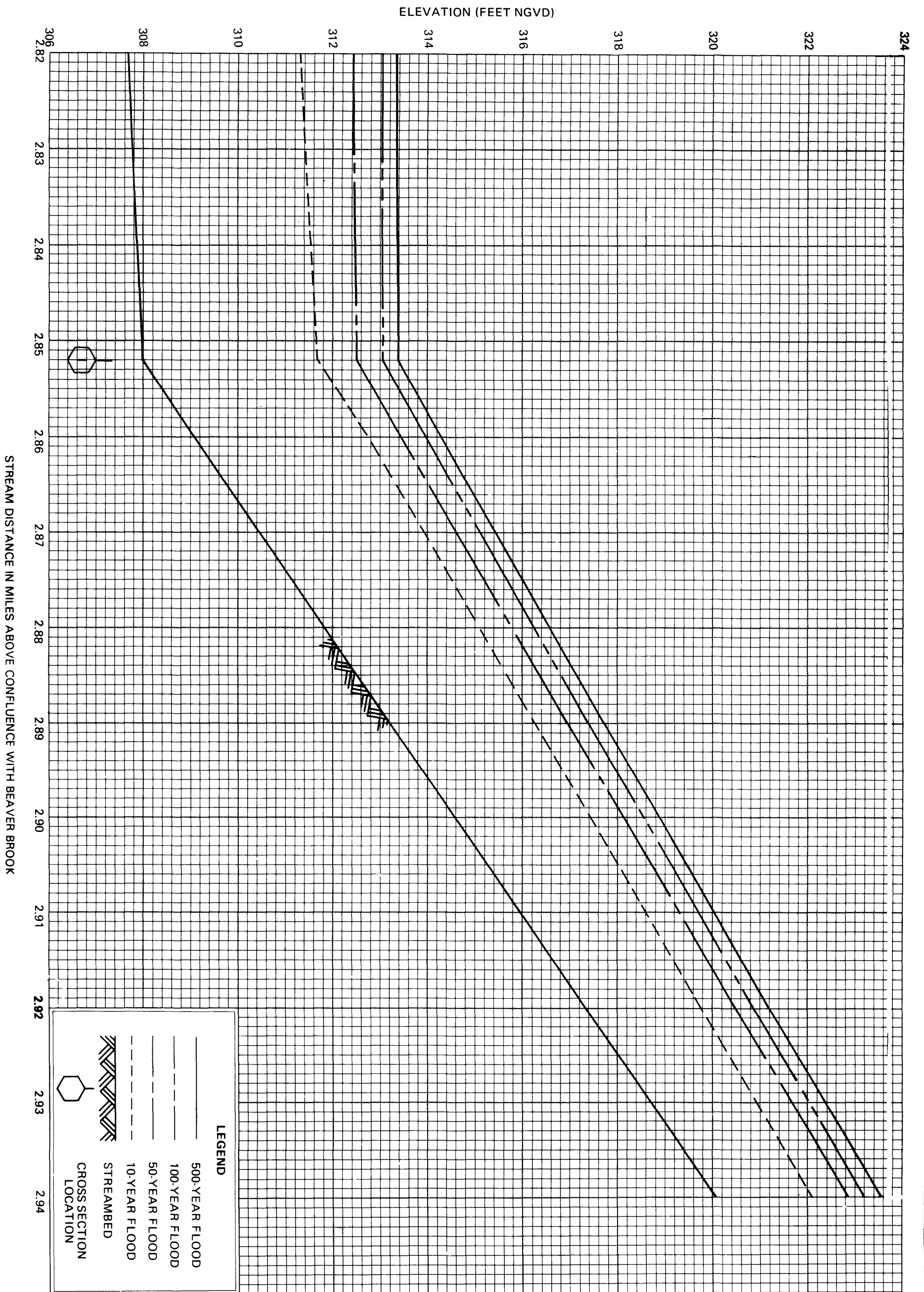


FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

142P





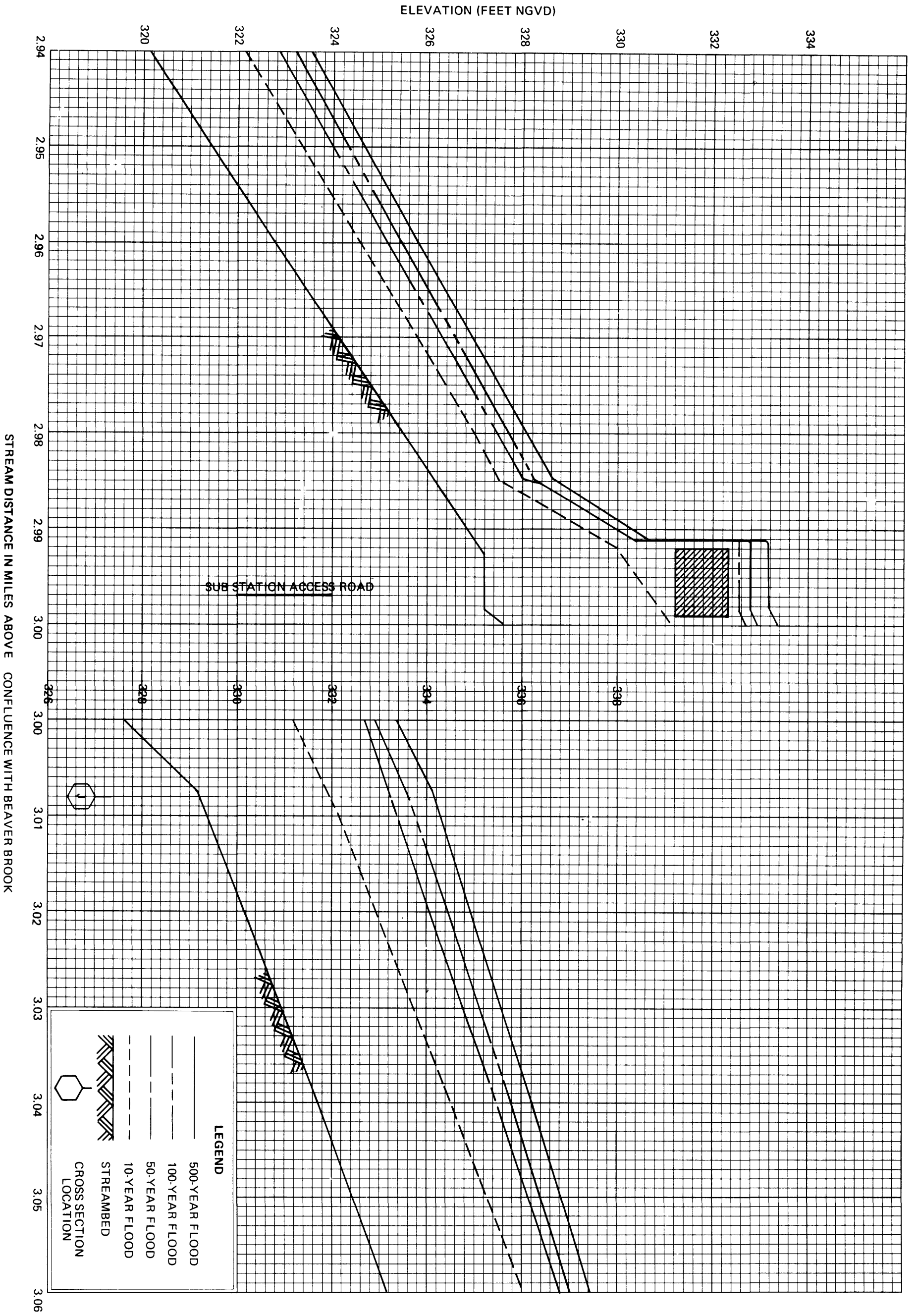
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SHIELDS BROOK

144P



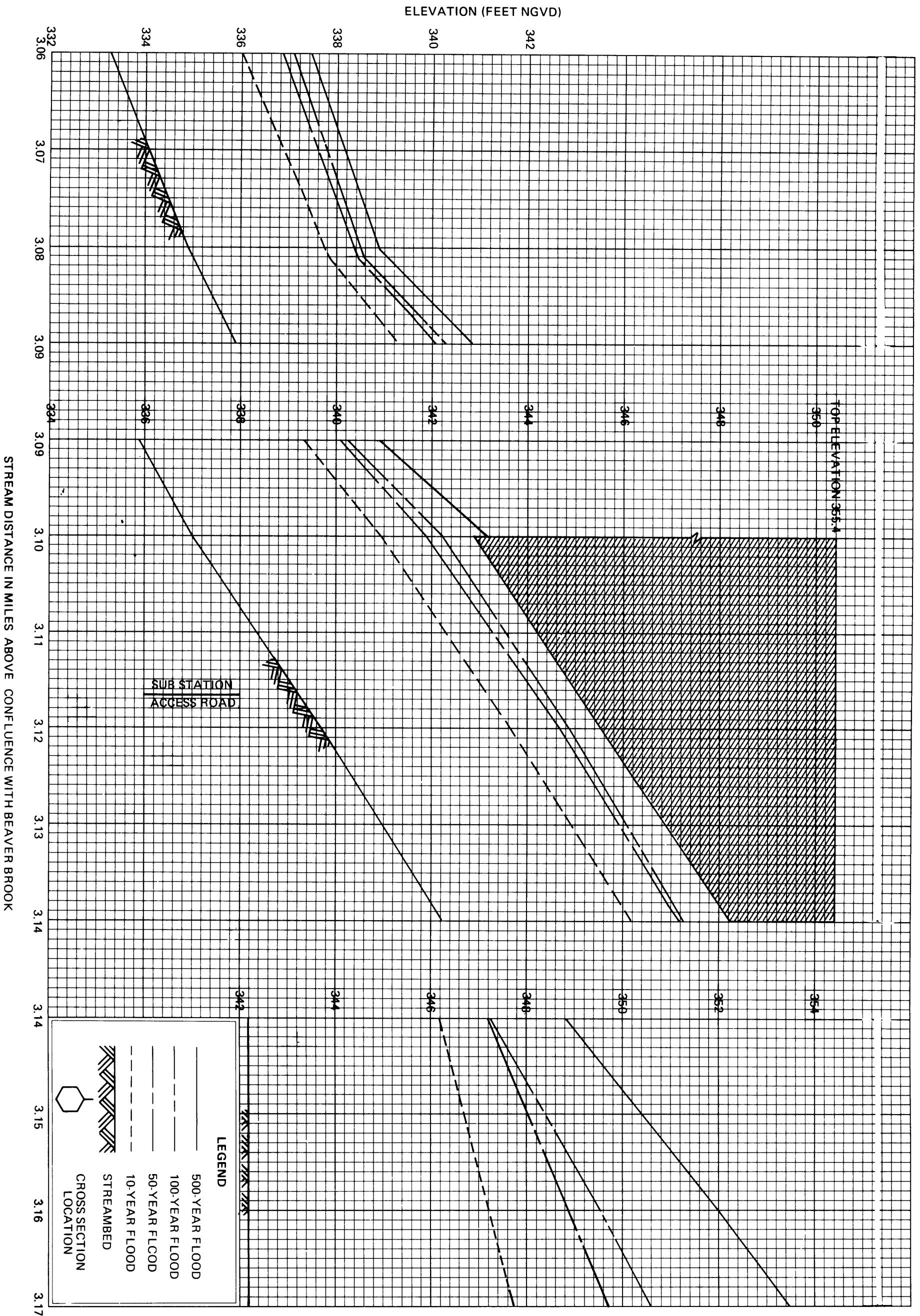
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SHIELDS BROOK

145P

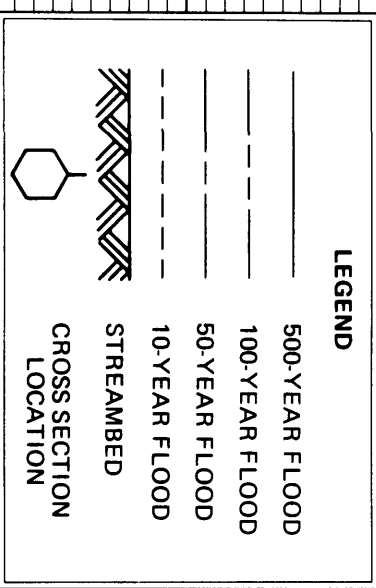
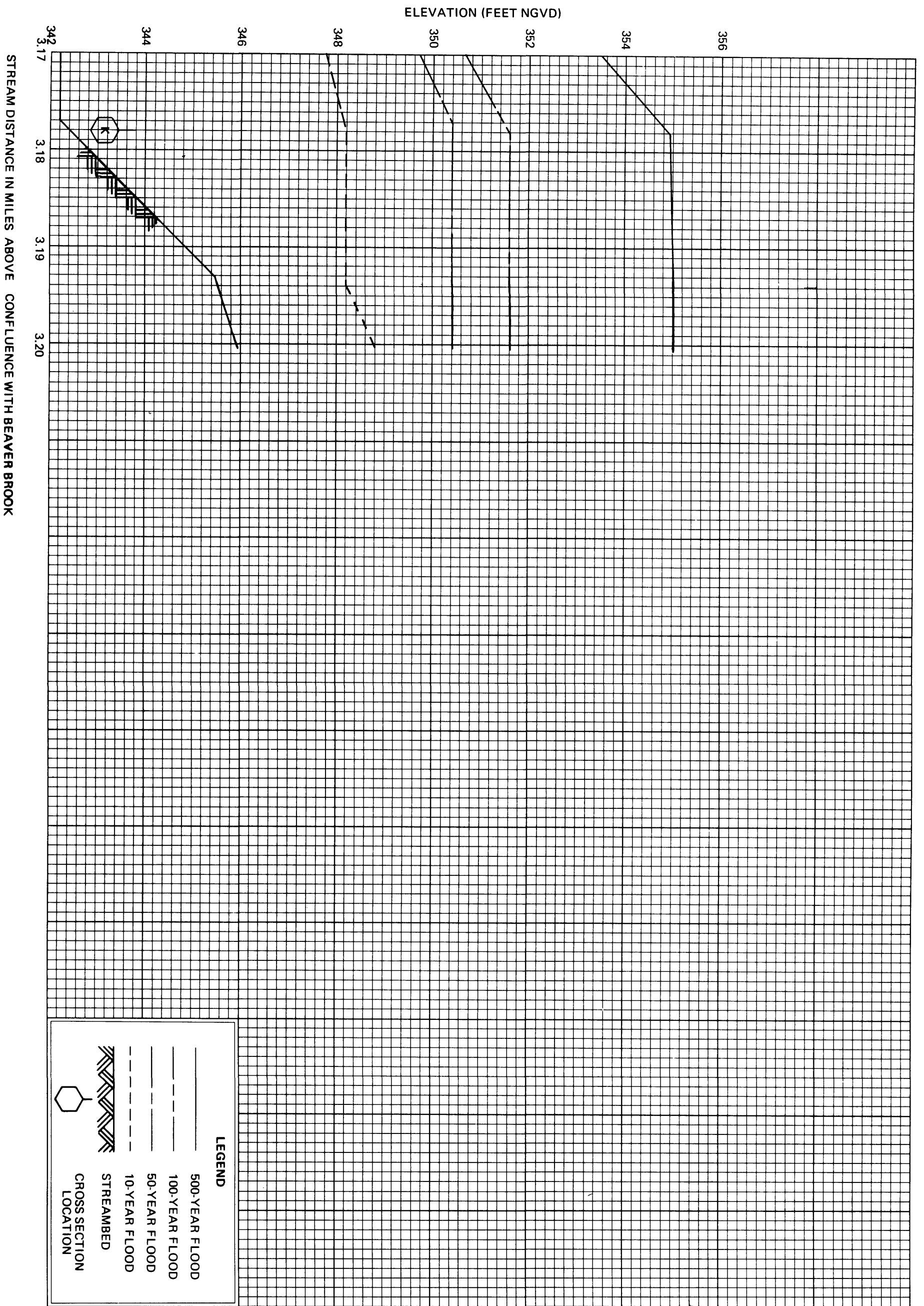


FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SHIELDS BROOK



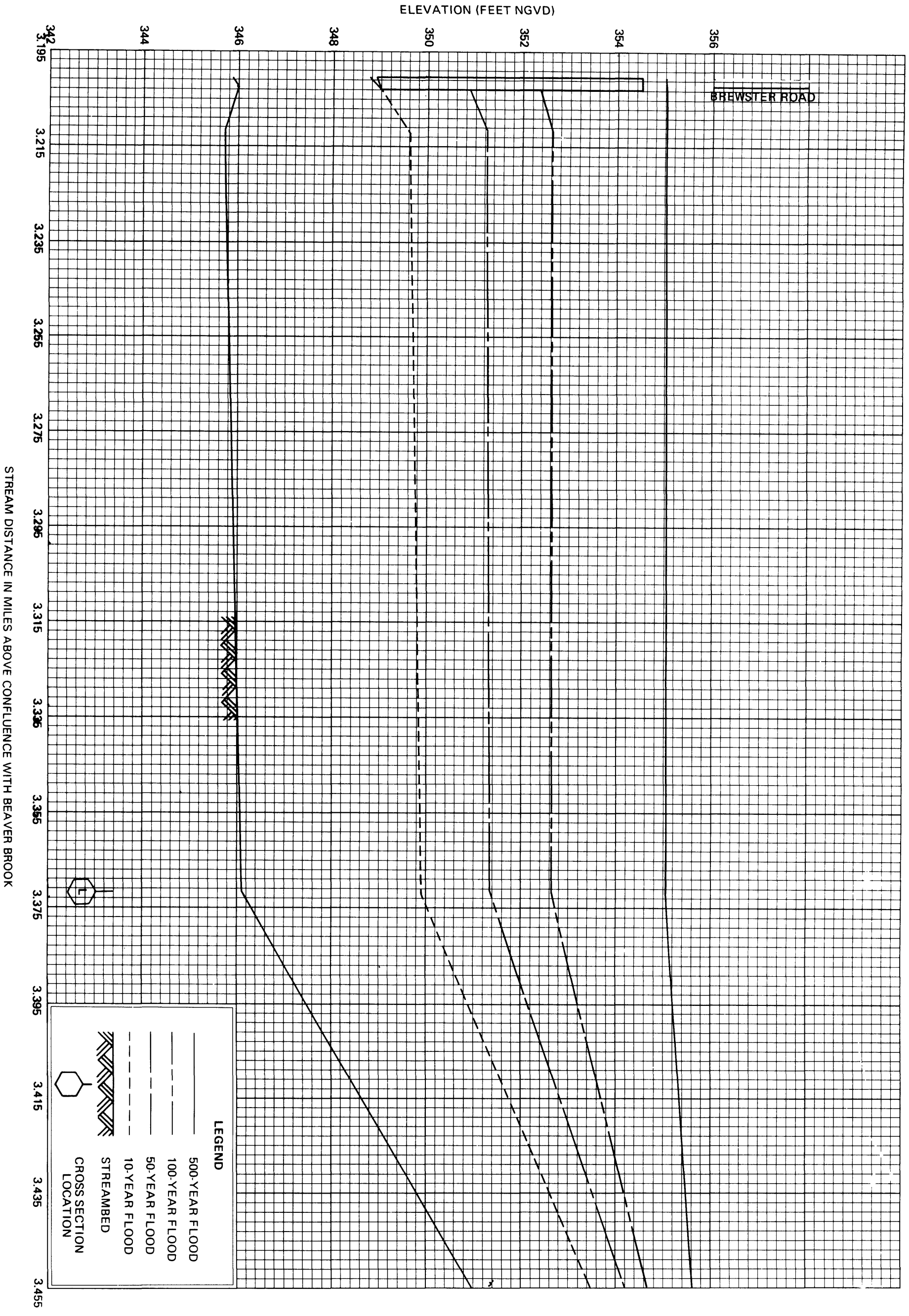
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

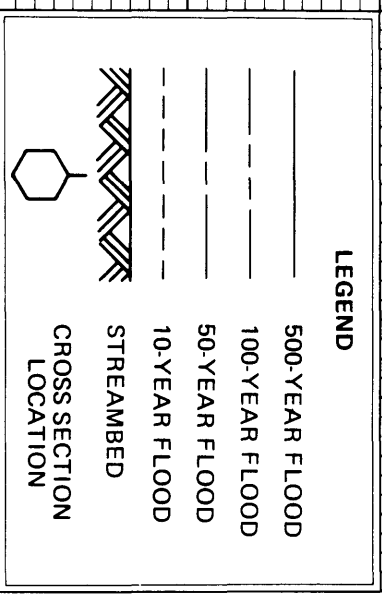
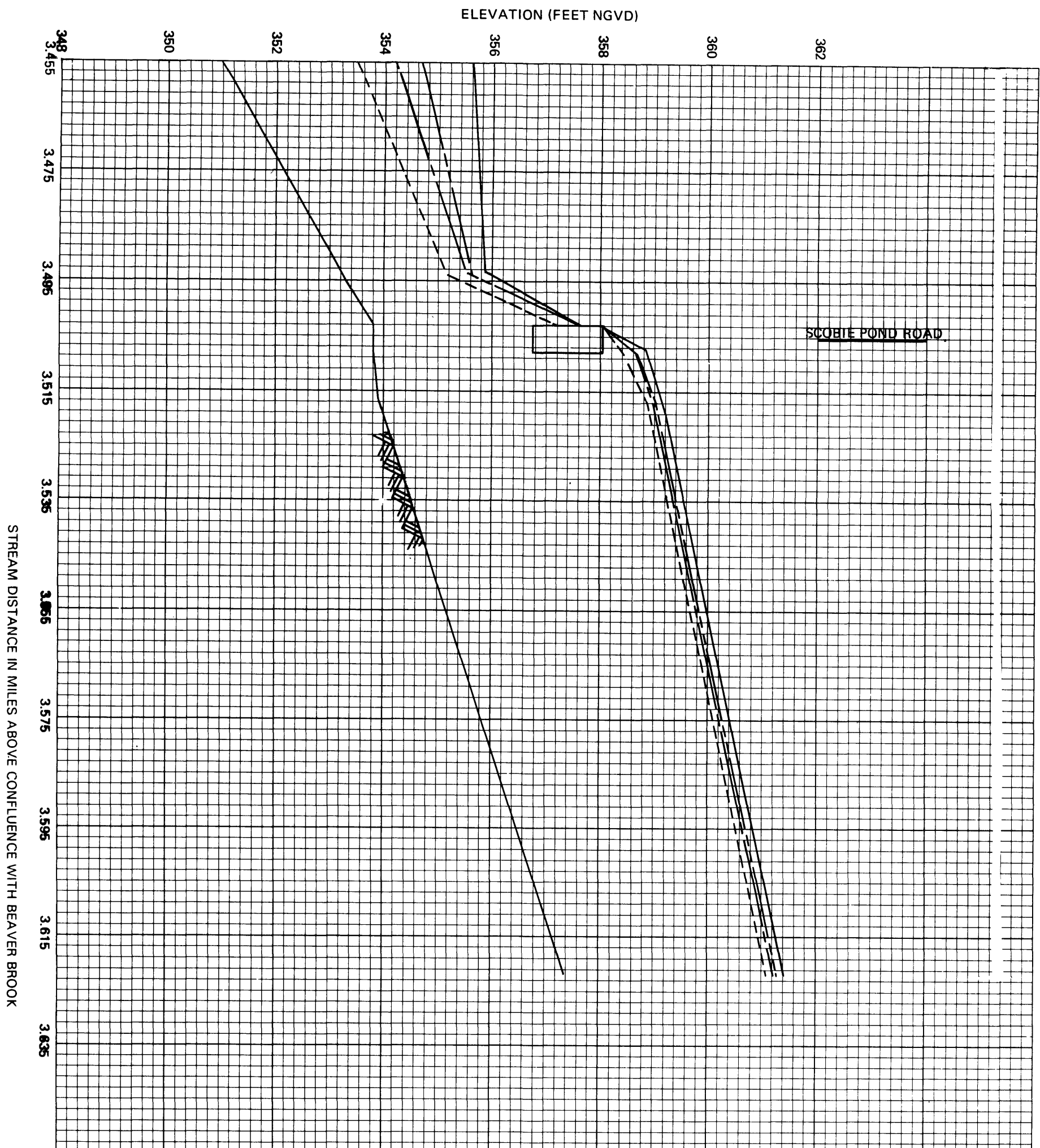
FLOOD PROFILES

SHIELDS BROOK

147P



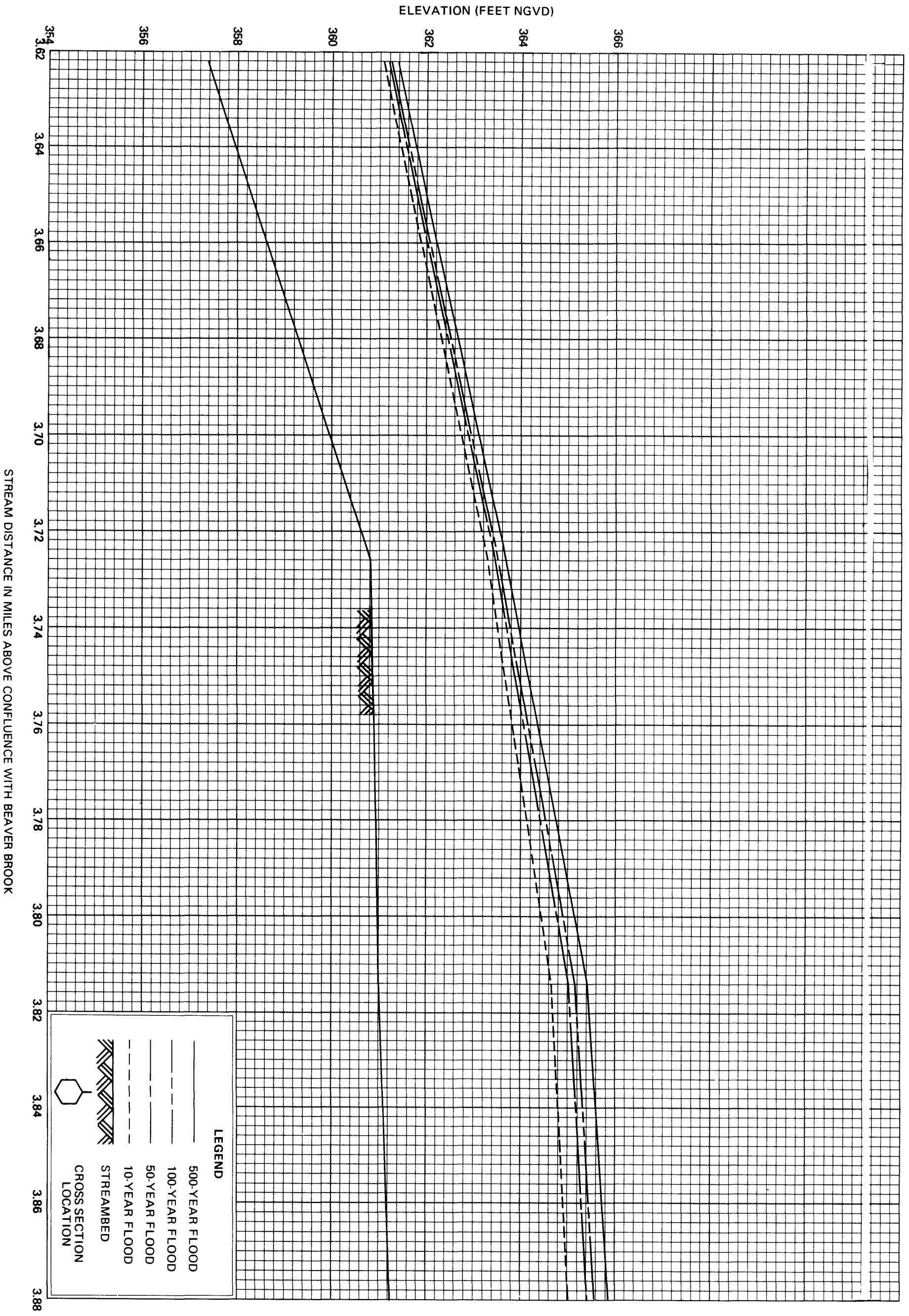
STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH BEAVER BROOK



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

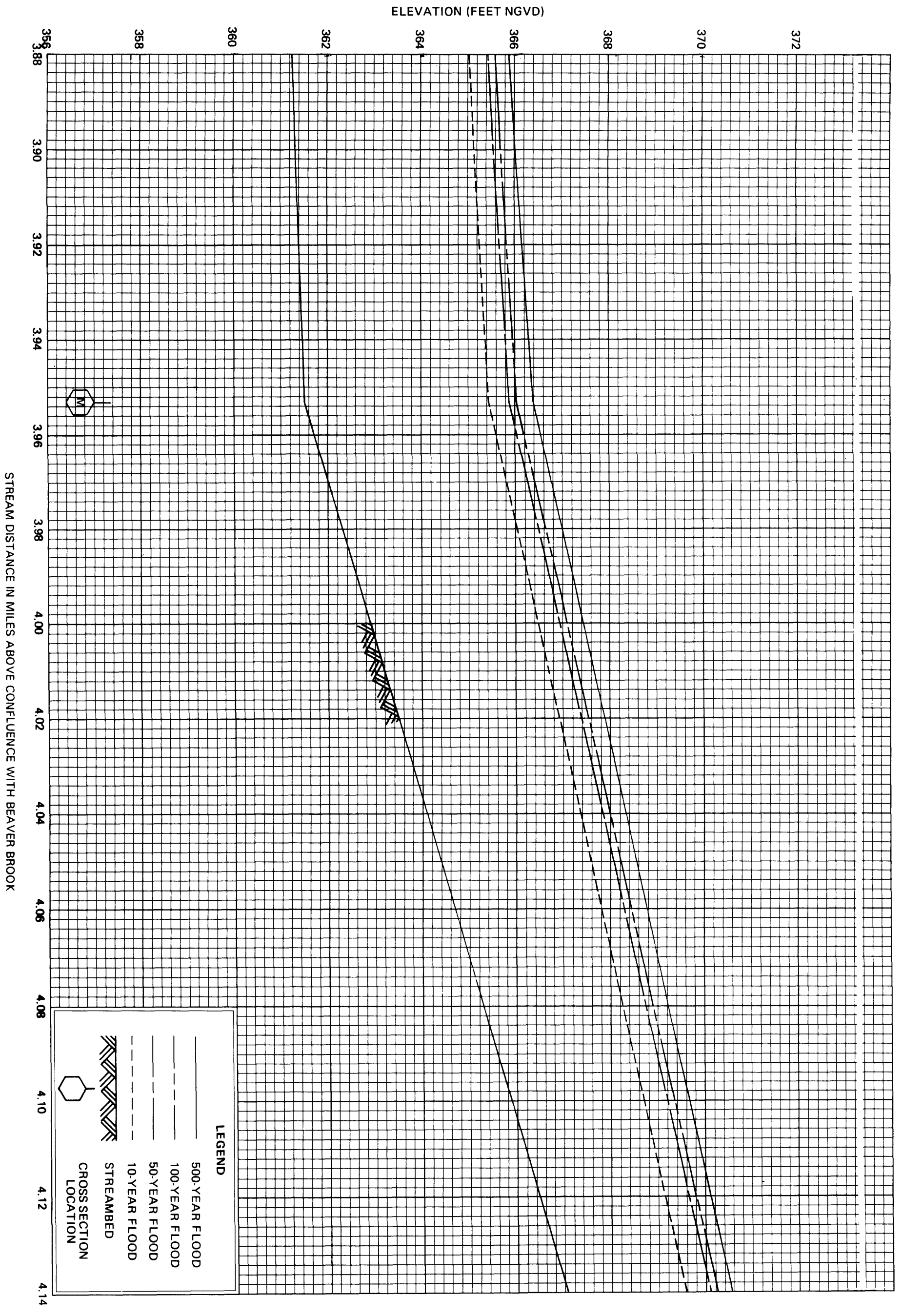
149P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SHIELDS BROOK

150P



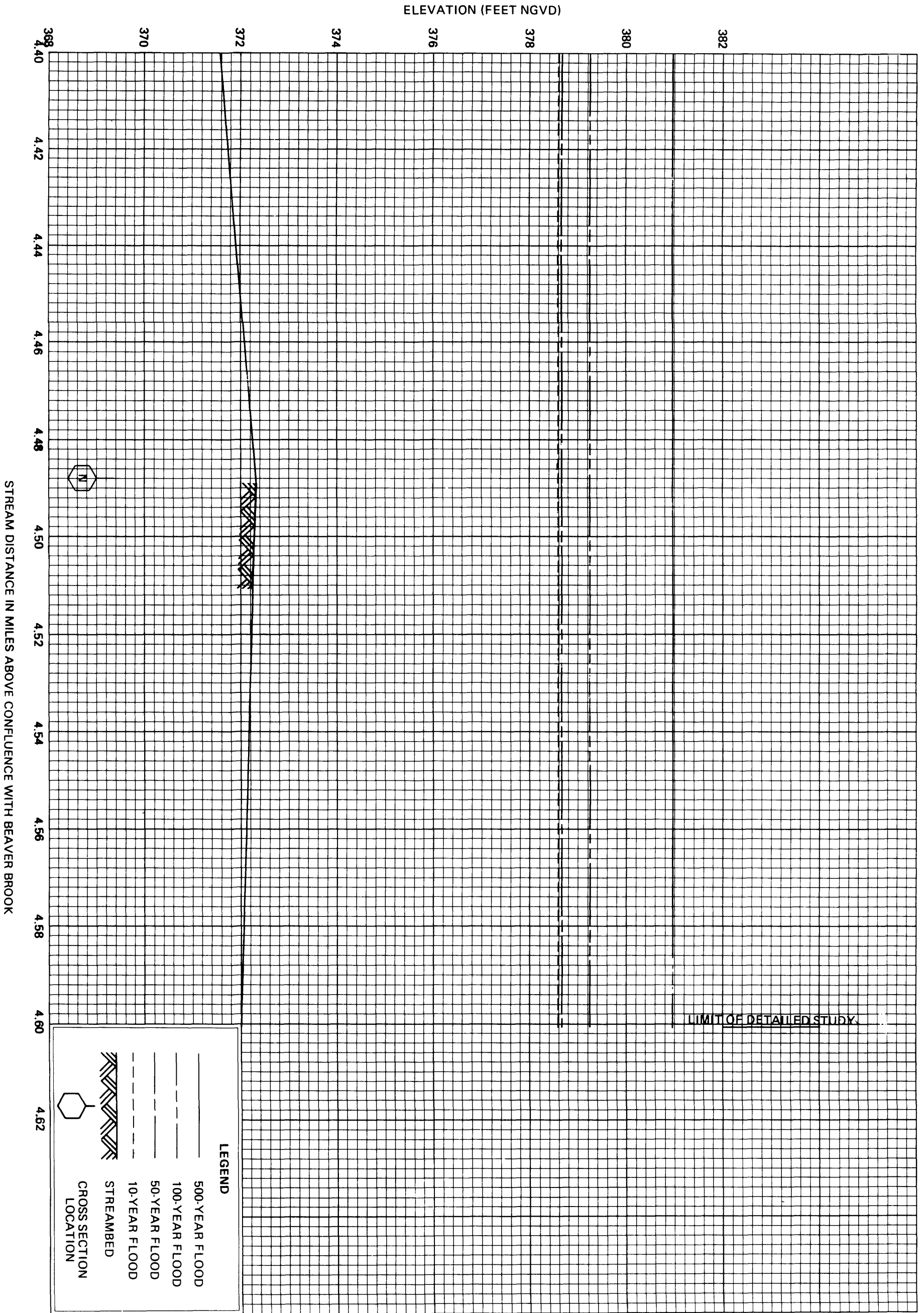
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SHIELDS BROOK

151P



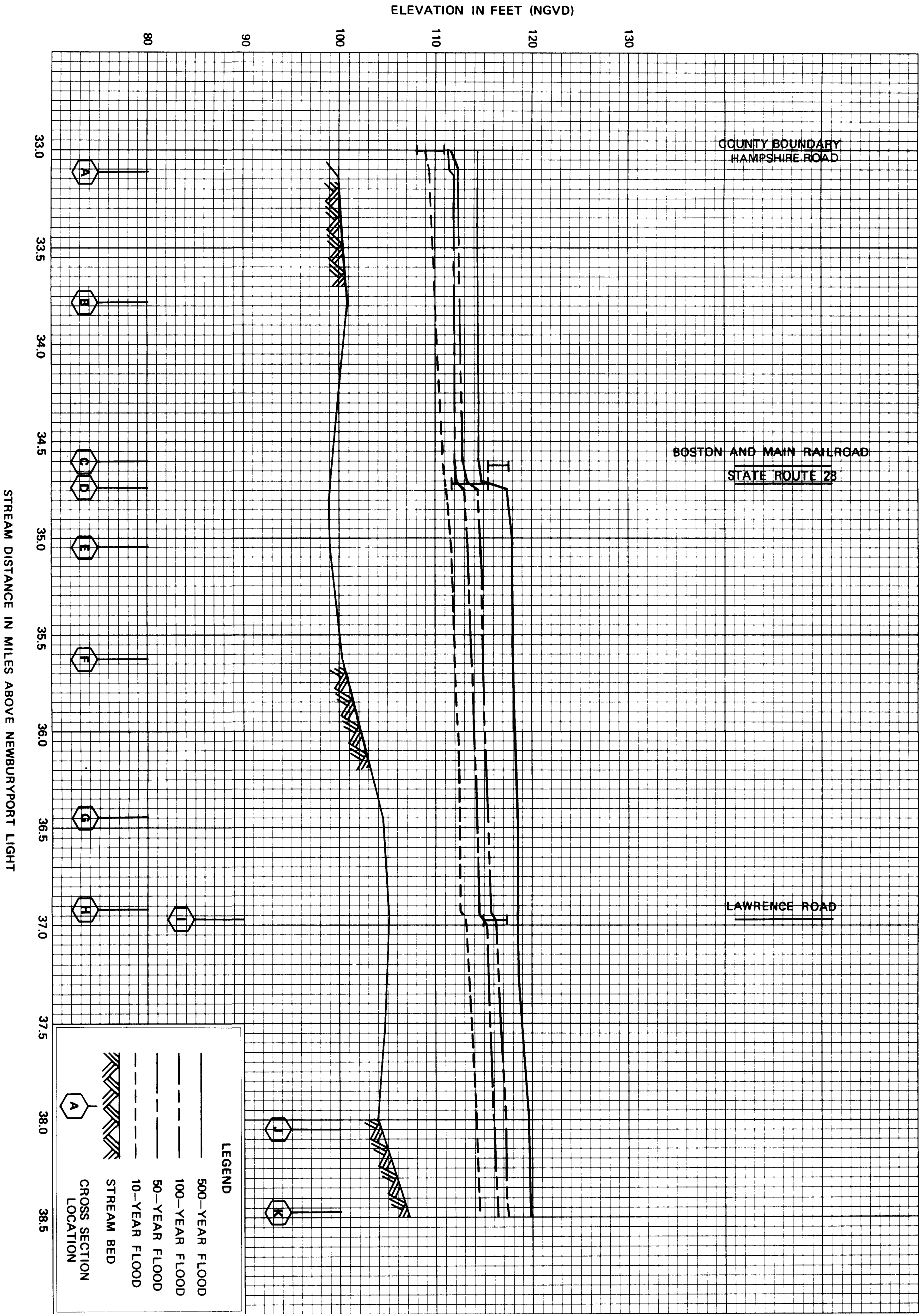
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SHIELDS BROOK

153P



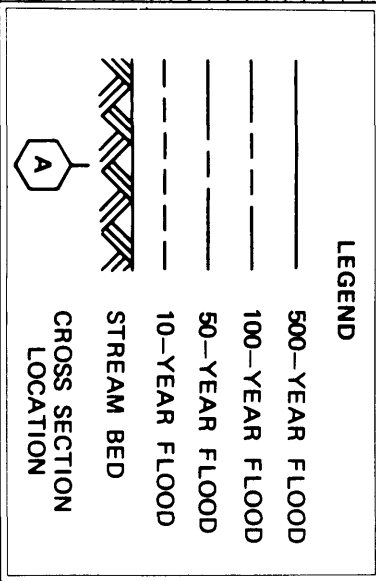
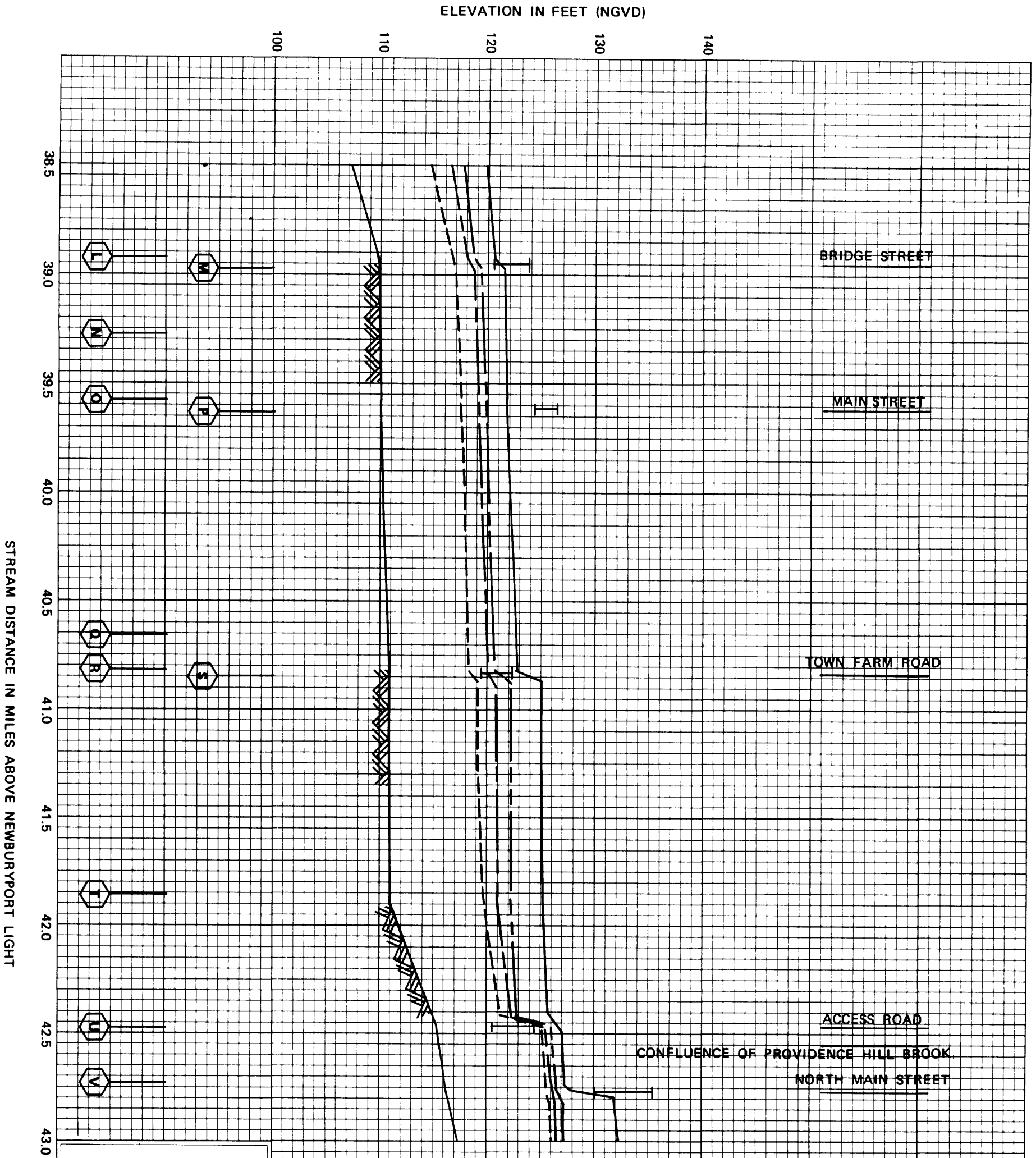
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SPICKET RIVER

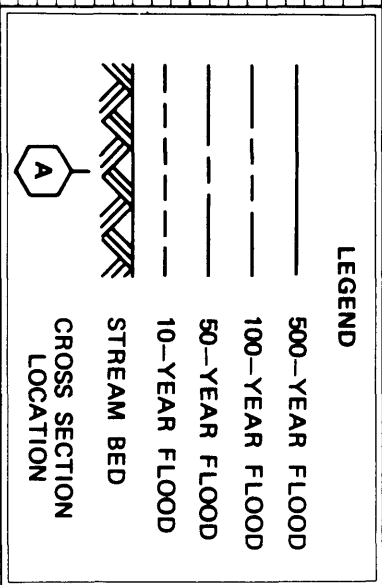
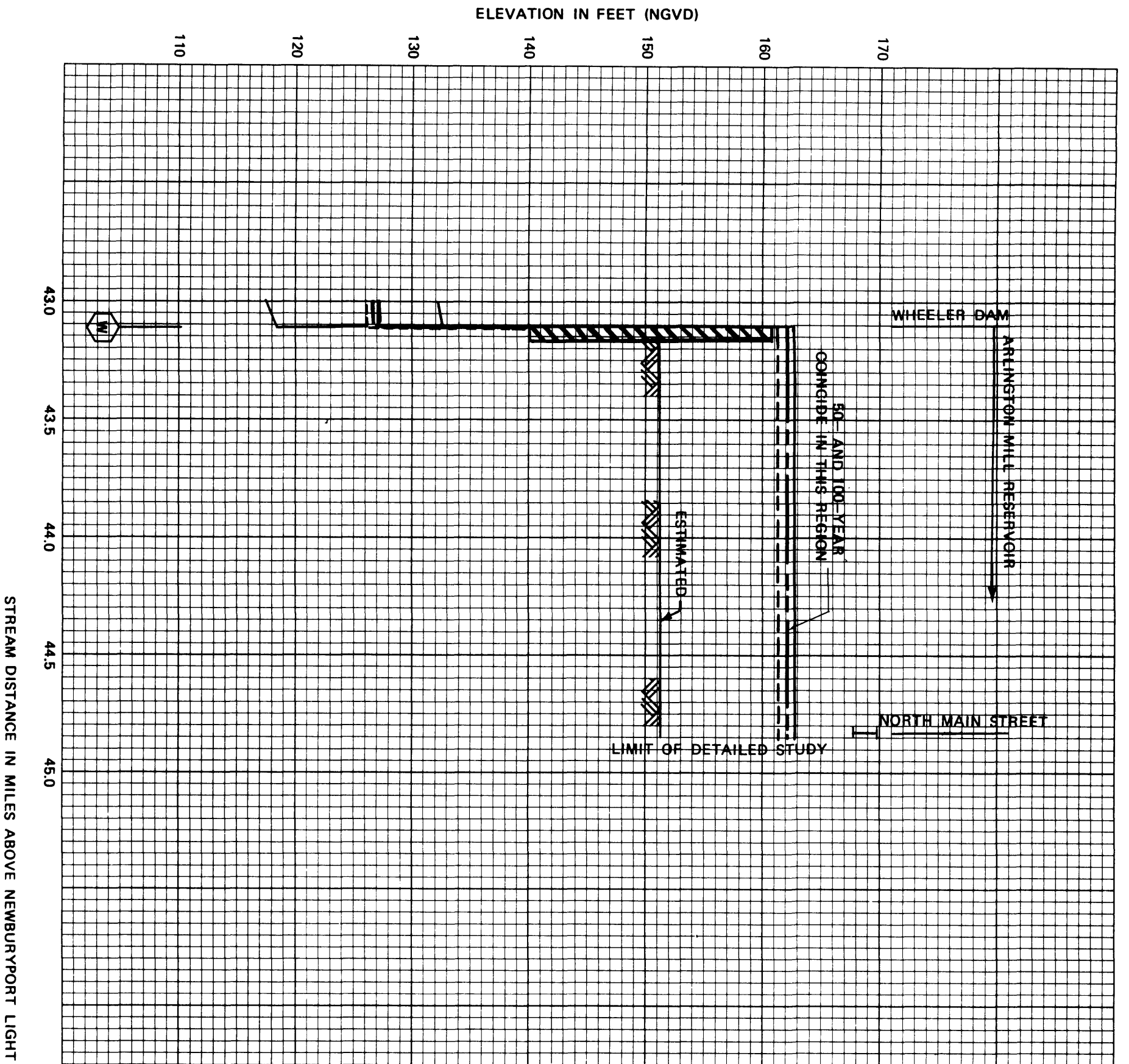
154P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
SPICKET RIVER

155P

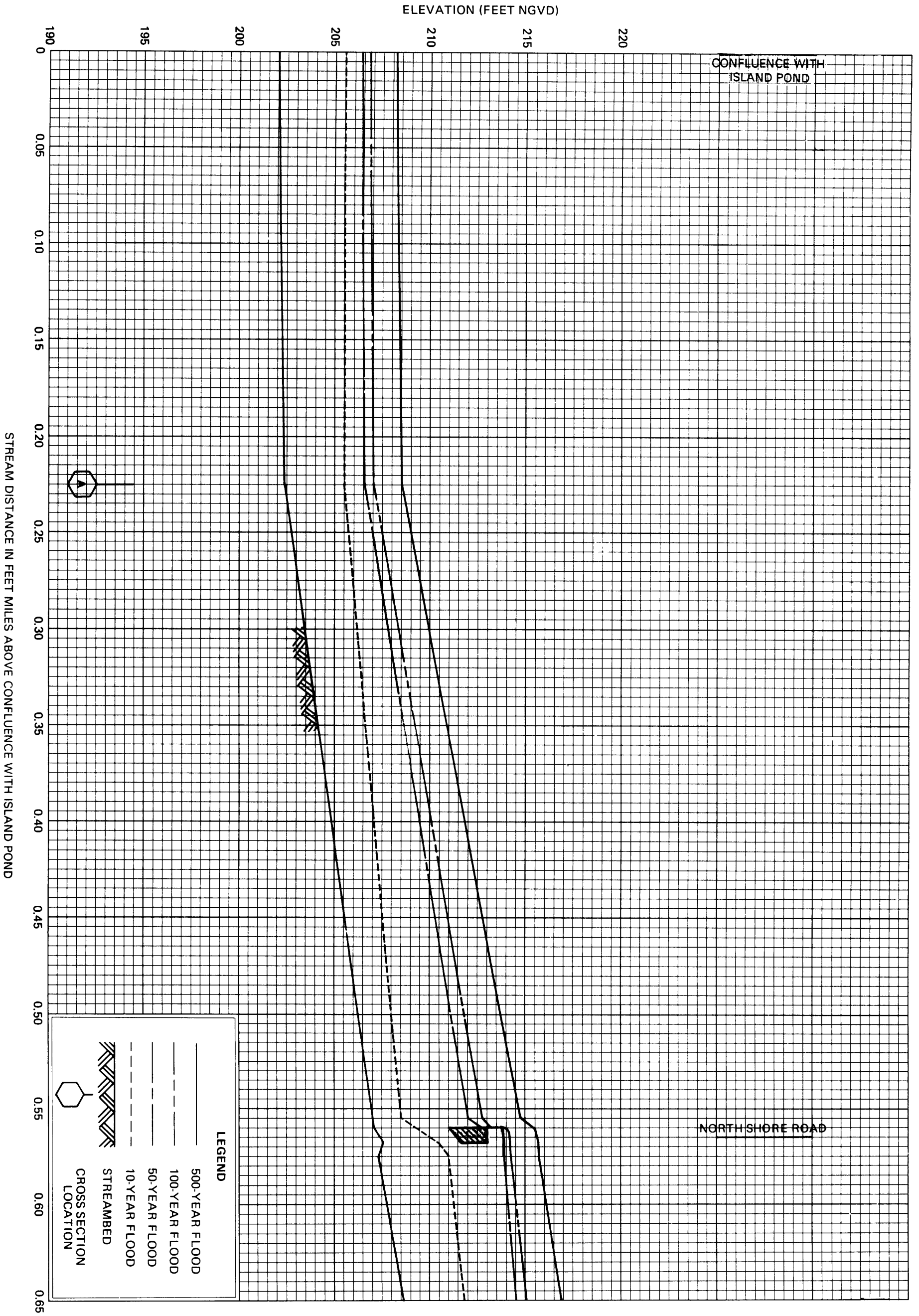


FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

SPICKET RIVER



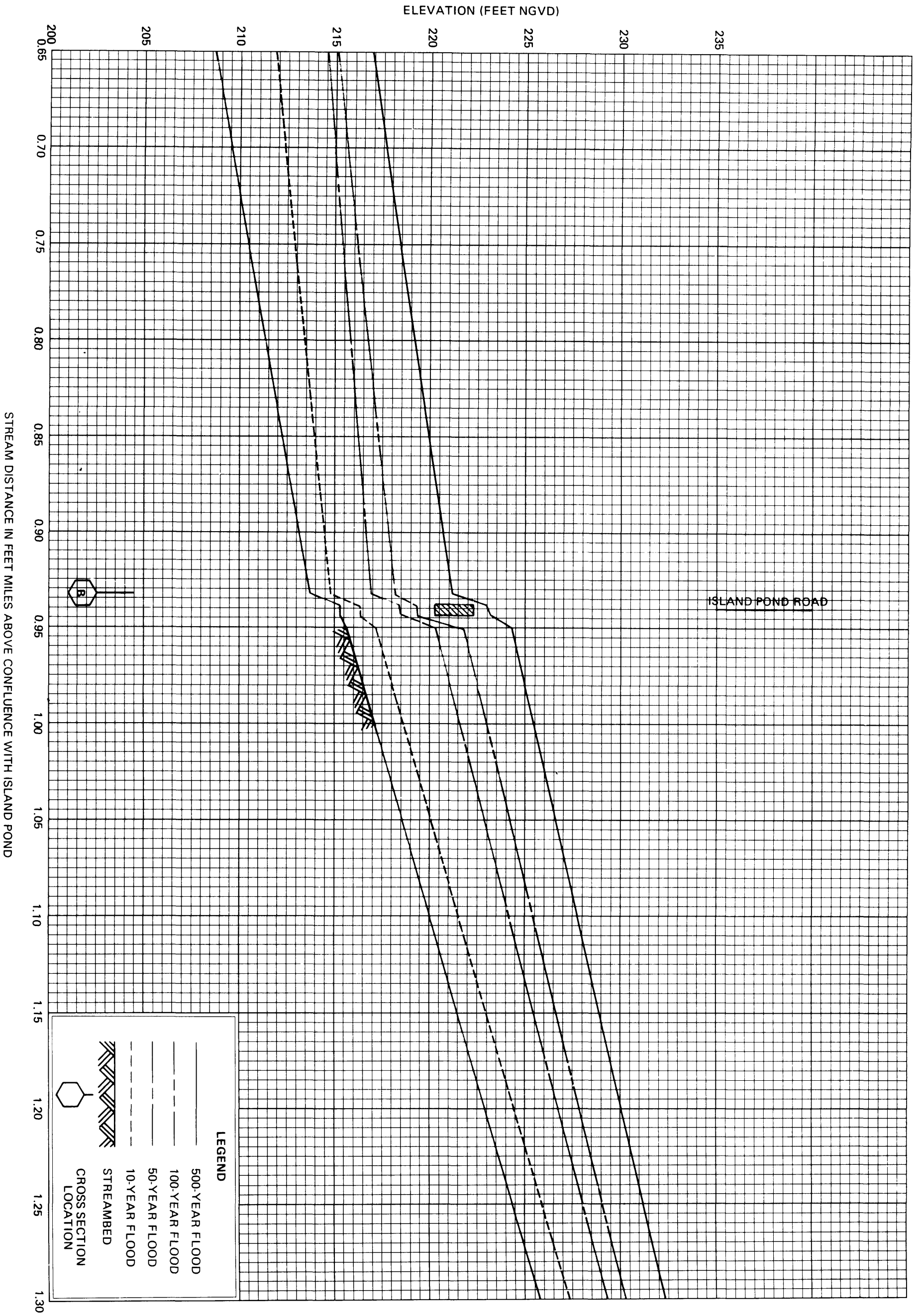
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TAYLOR BROOK (INCLUDING BALLARD POND)

157P



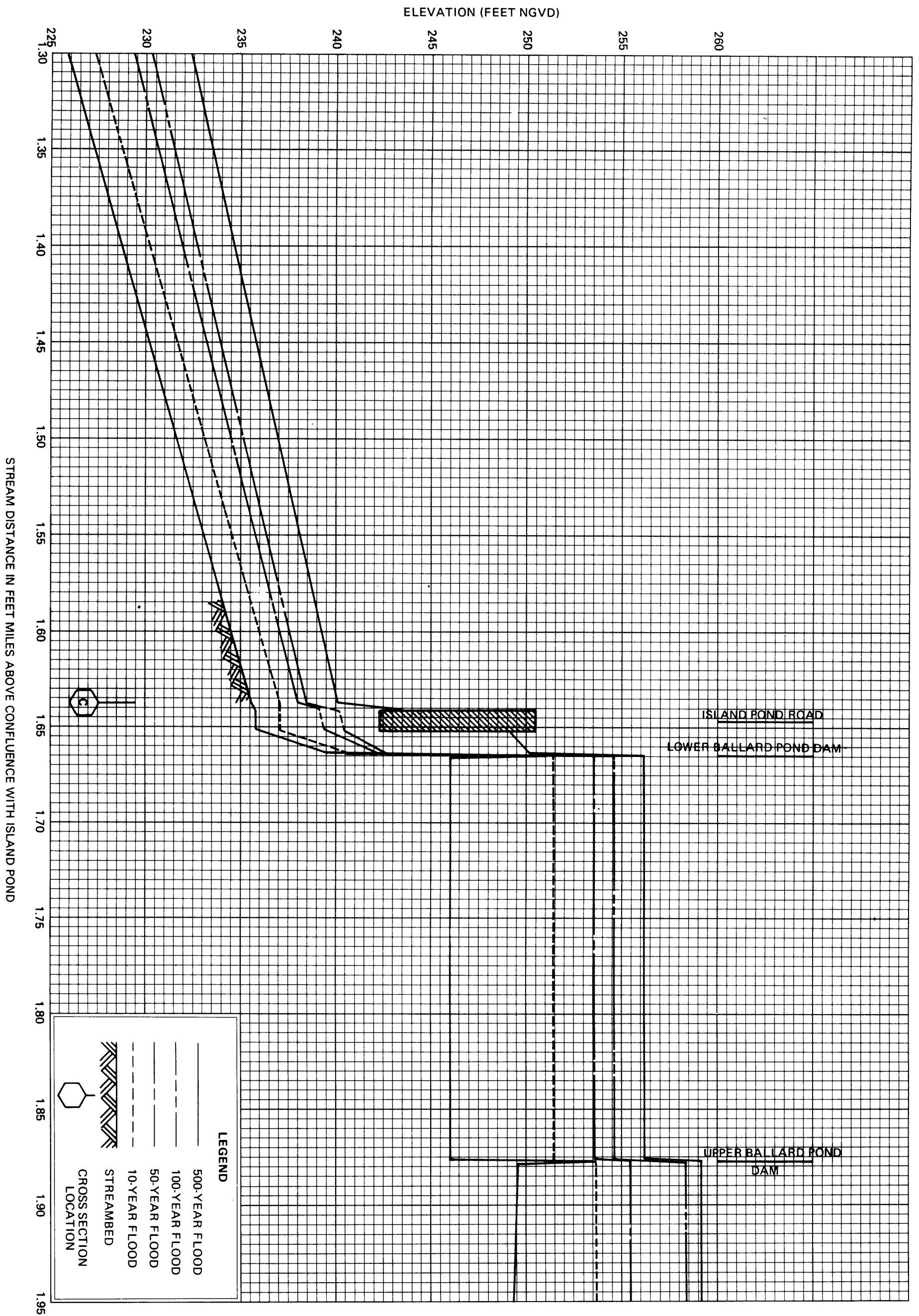
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TAYLOR BROOK (INCLUDING BALLARD POND)

158P



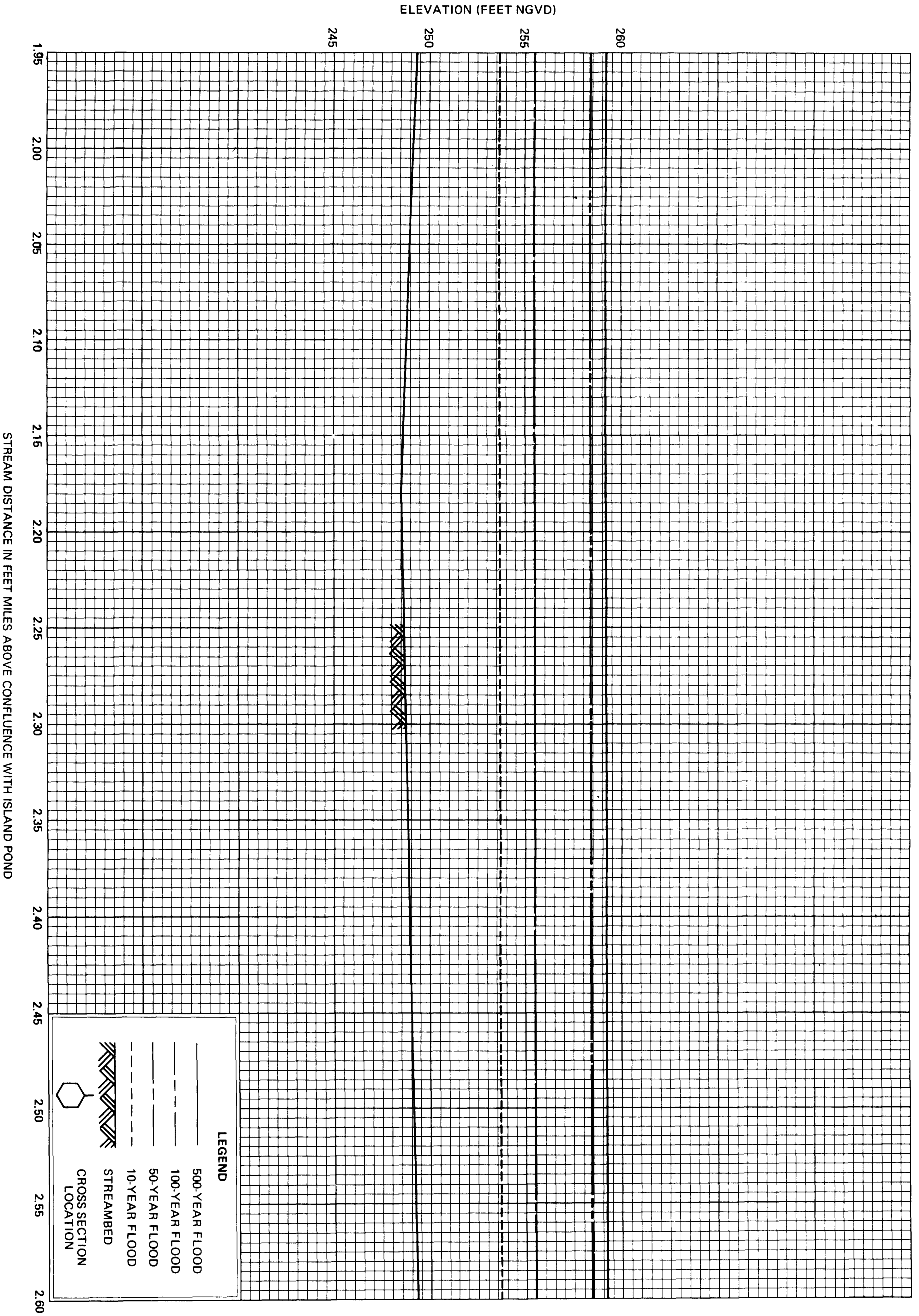
LEGEND

- 500-YEAR FLOOD
- - - 100-YEAR FLOOD
- · - · 50-YEAR FLOOD
- · · 10-YEAR FLOOD
- ▨ STREAMBED
- CROSS SECTION LOCATION

FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

159P

FLOOD PROFILES
TAYLOR BROOK (INCLUDING BALLARD POND)



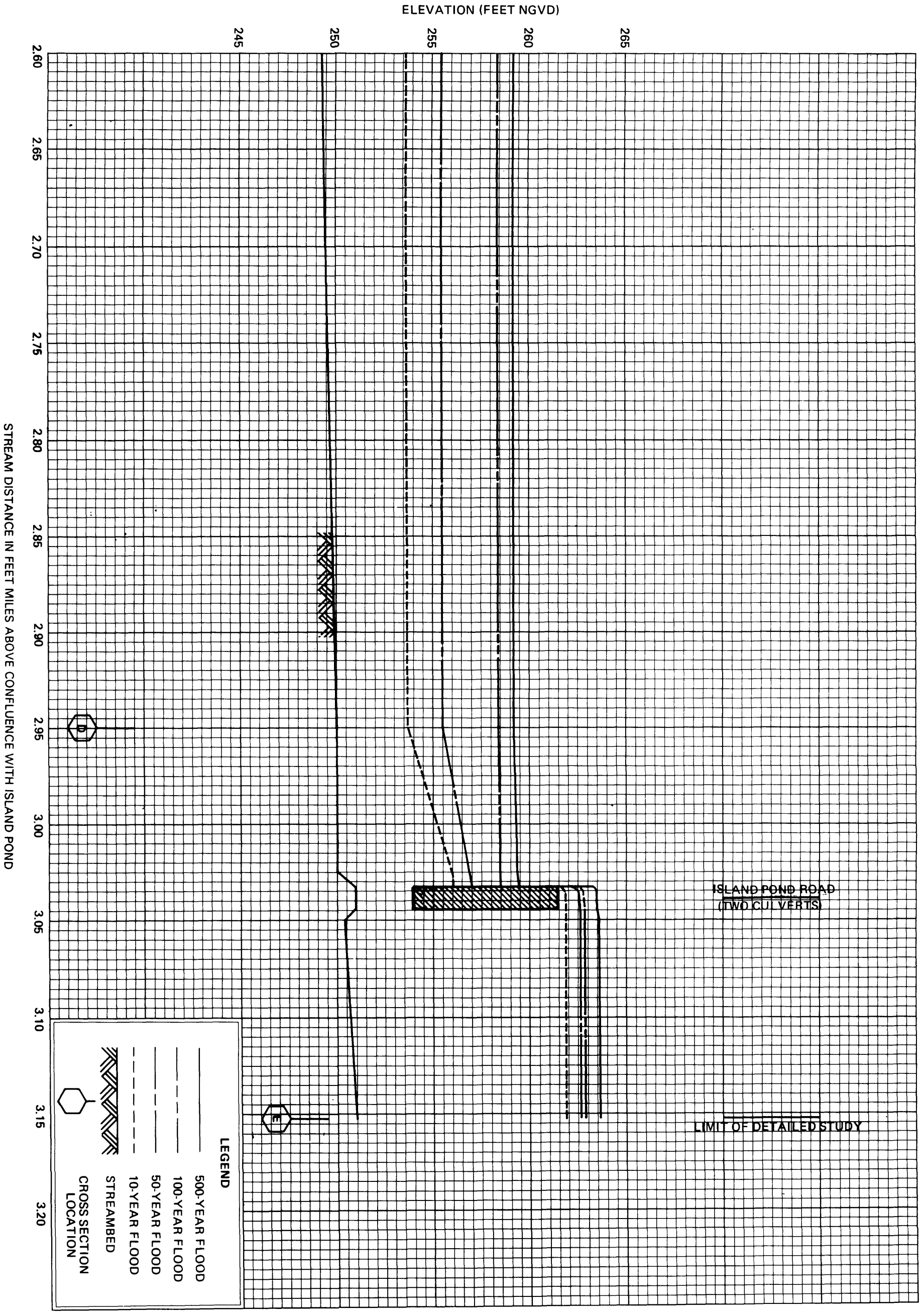
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

160P

FLOOD PROFILES

TAYLOR BROOK (INCLUDING BALLARD POND)



FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

161P

FLOOD PROFILES

TAYLOR BROOK (INCLUDING BALLARD POND)



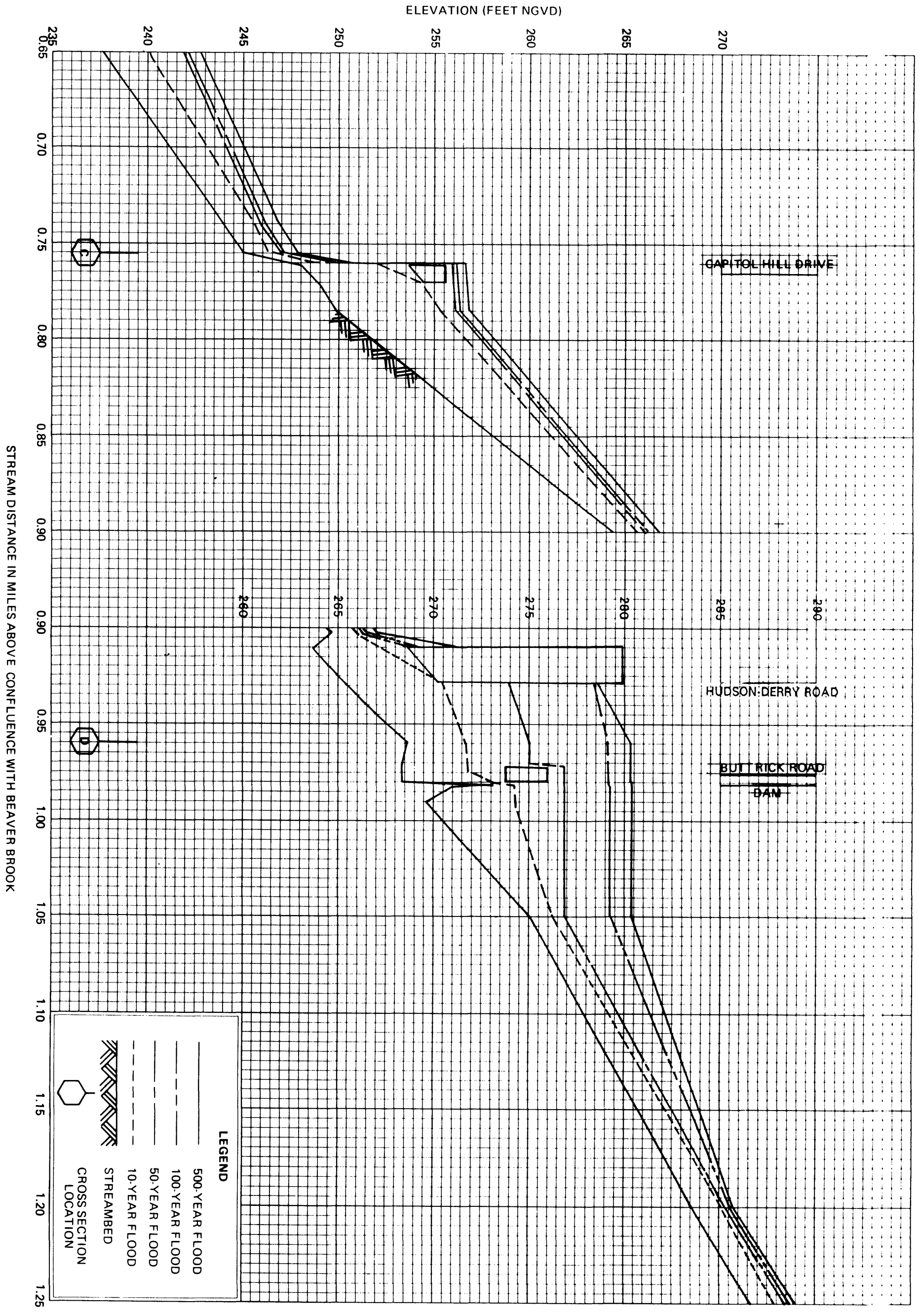
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY C TO BEAVER BROOK

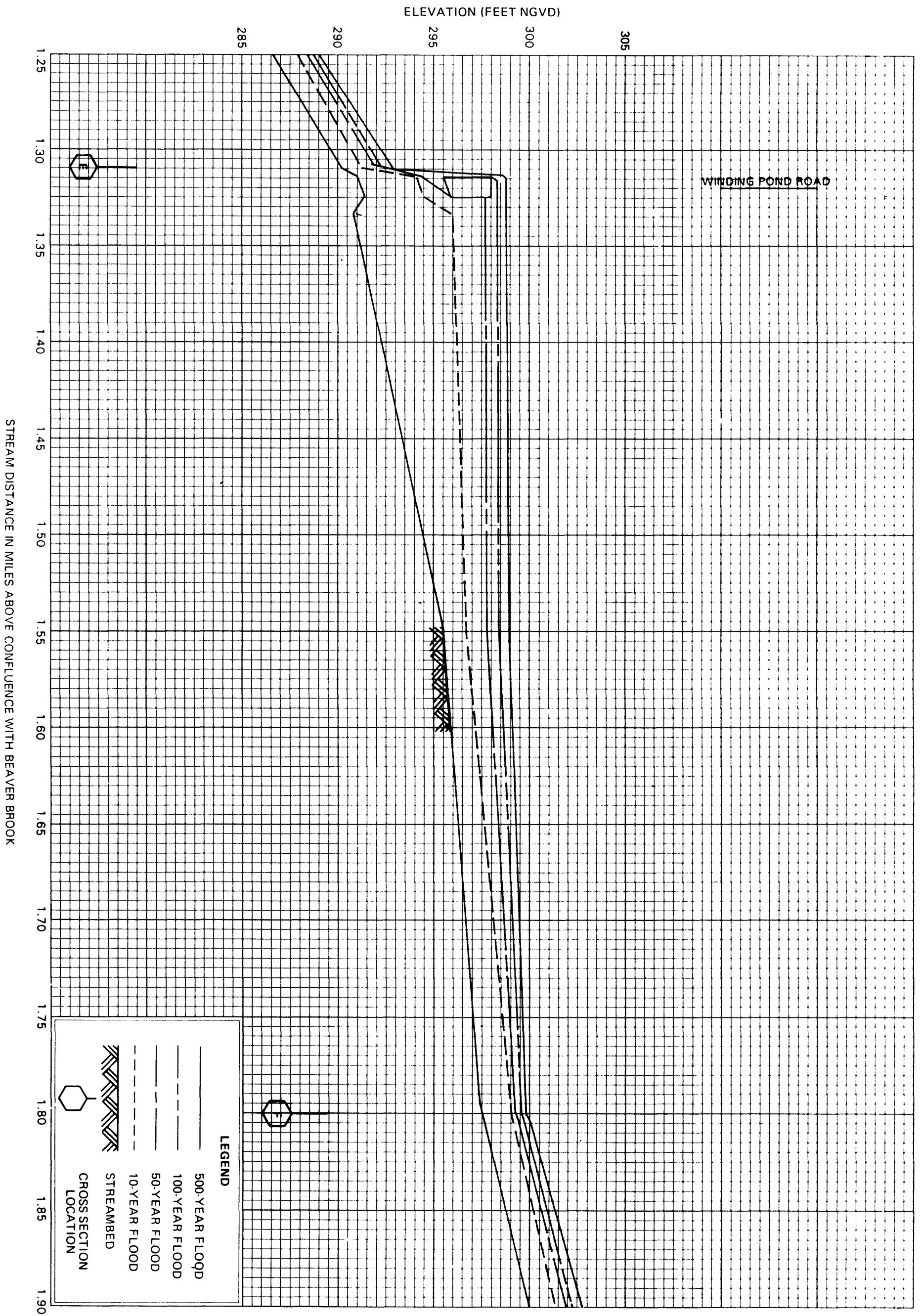
162P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
TRIBUTARY C TO BEAVER BROOK

163P



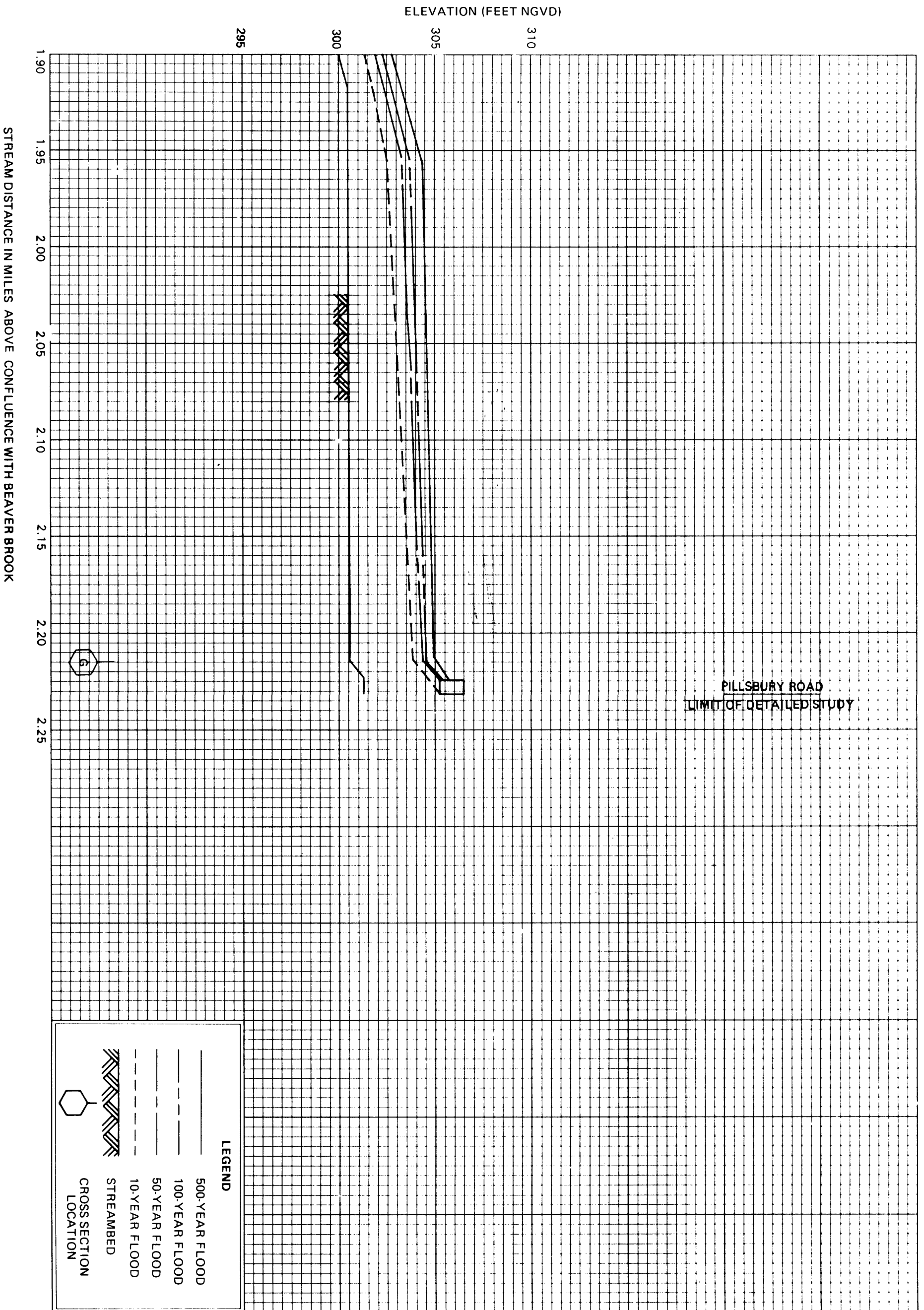
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY C TO BEAVER BROOK

164P



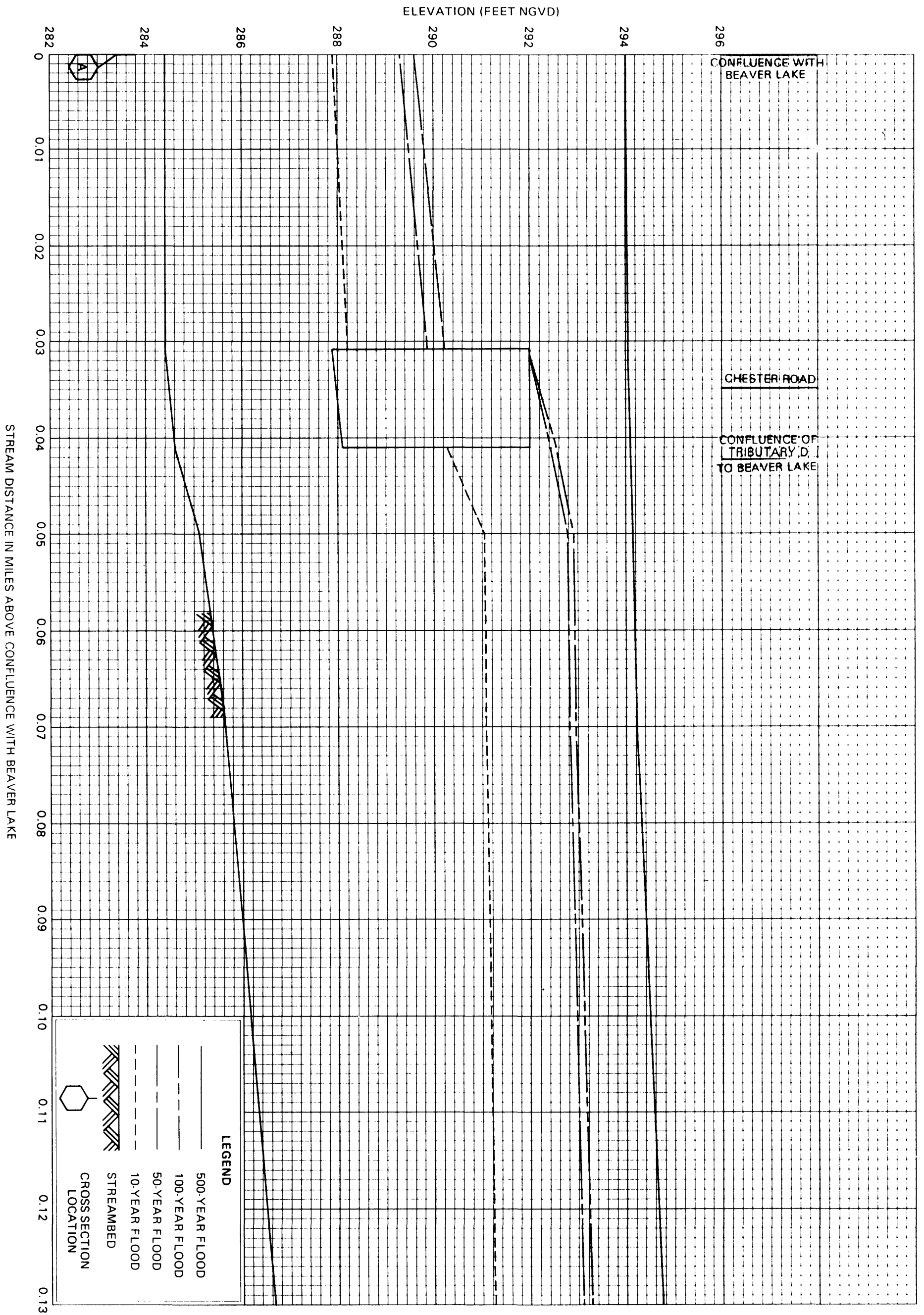
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY C TO BEAVER BROOK

165P



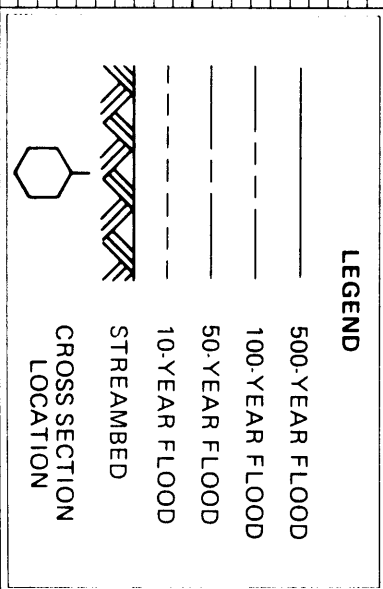
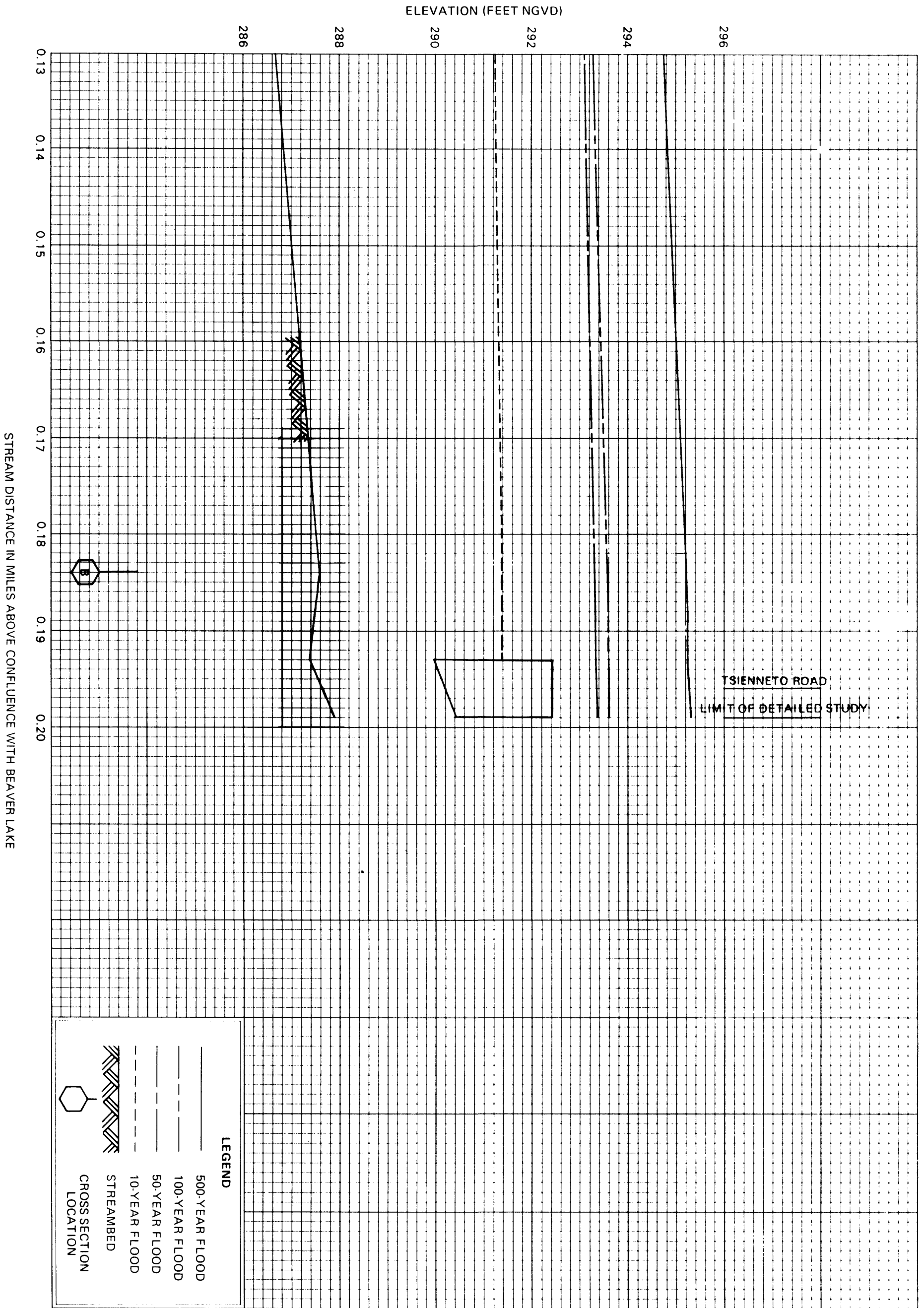
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY E TO BEAVER LAKE

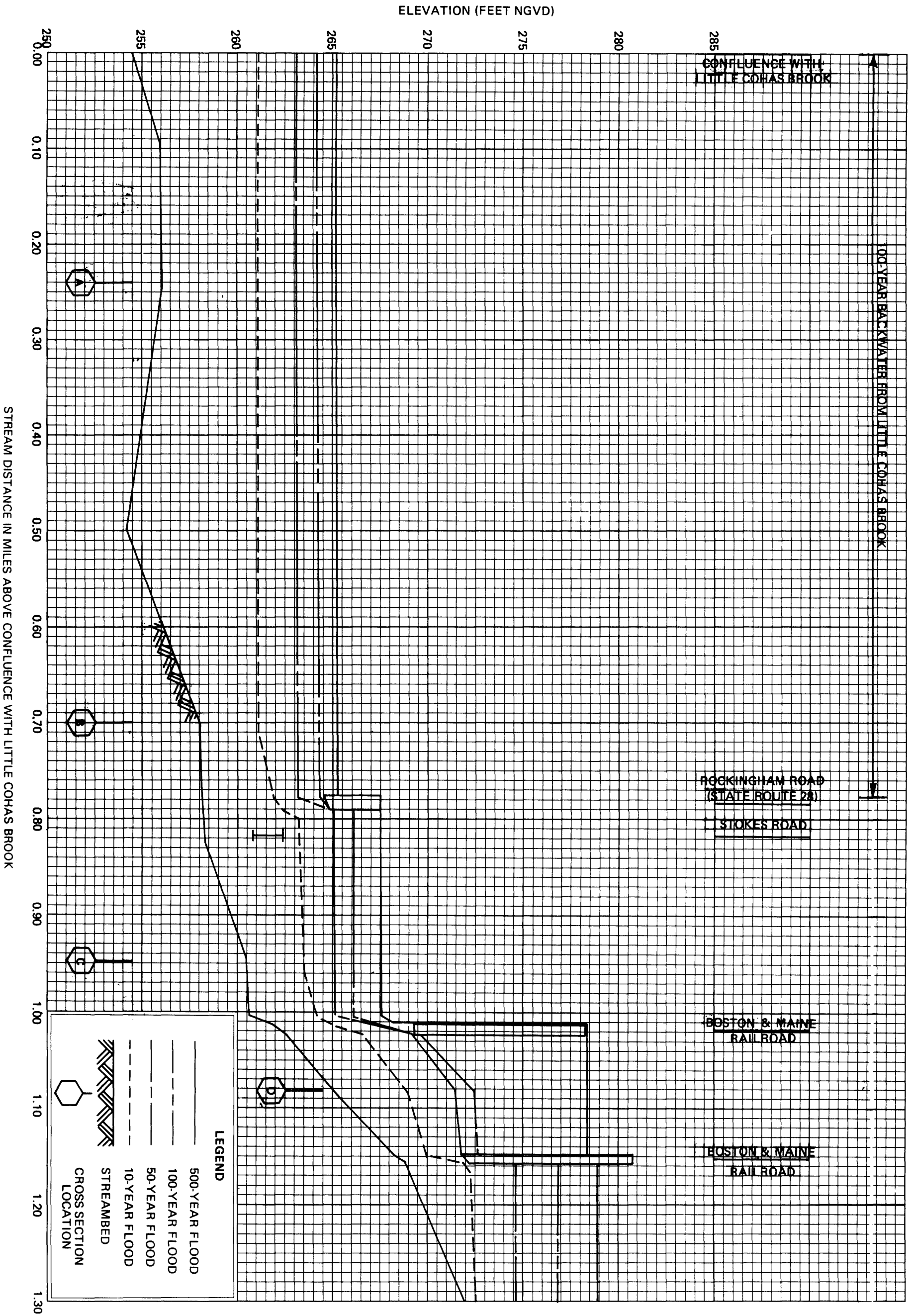
166P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
TRIBUTARY E TO BEAVER LAKE

167P



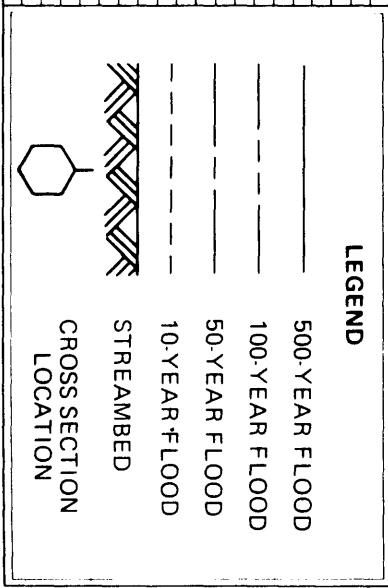
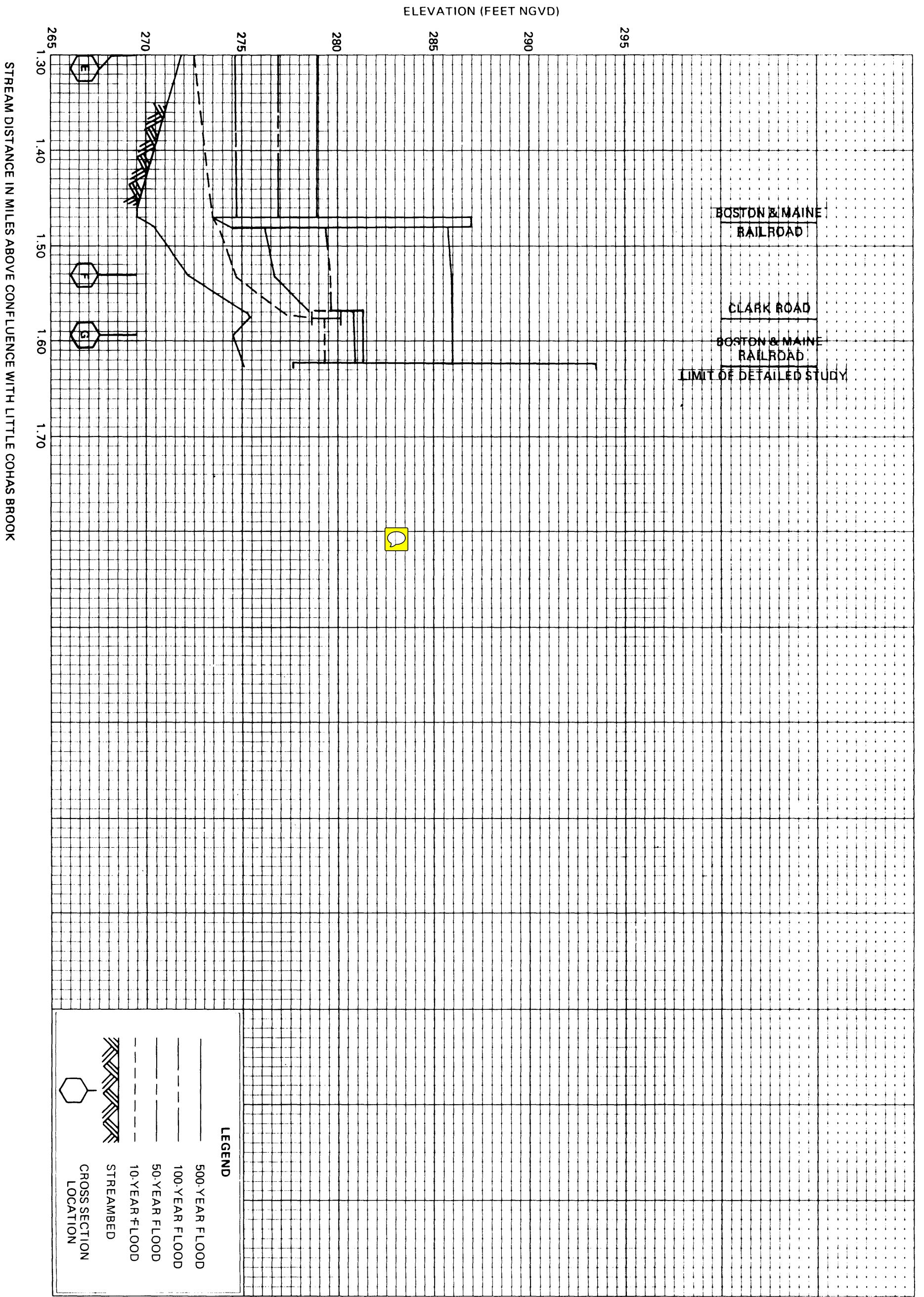
FEDERAL EMERGENCY MANAGEMENT AGENCY

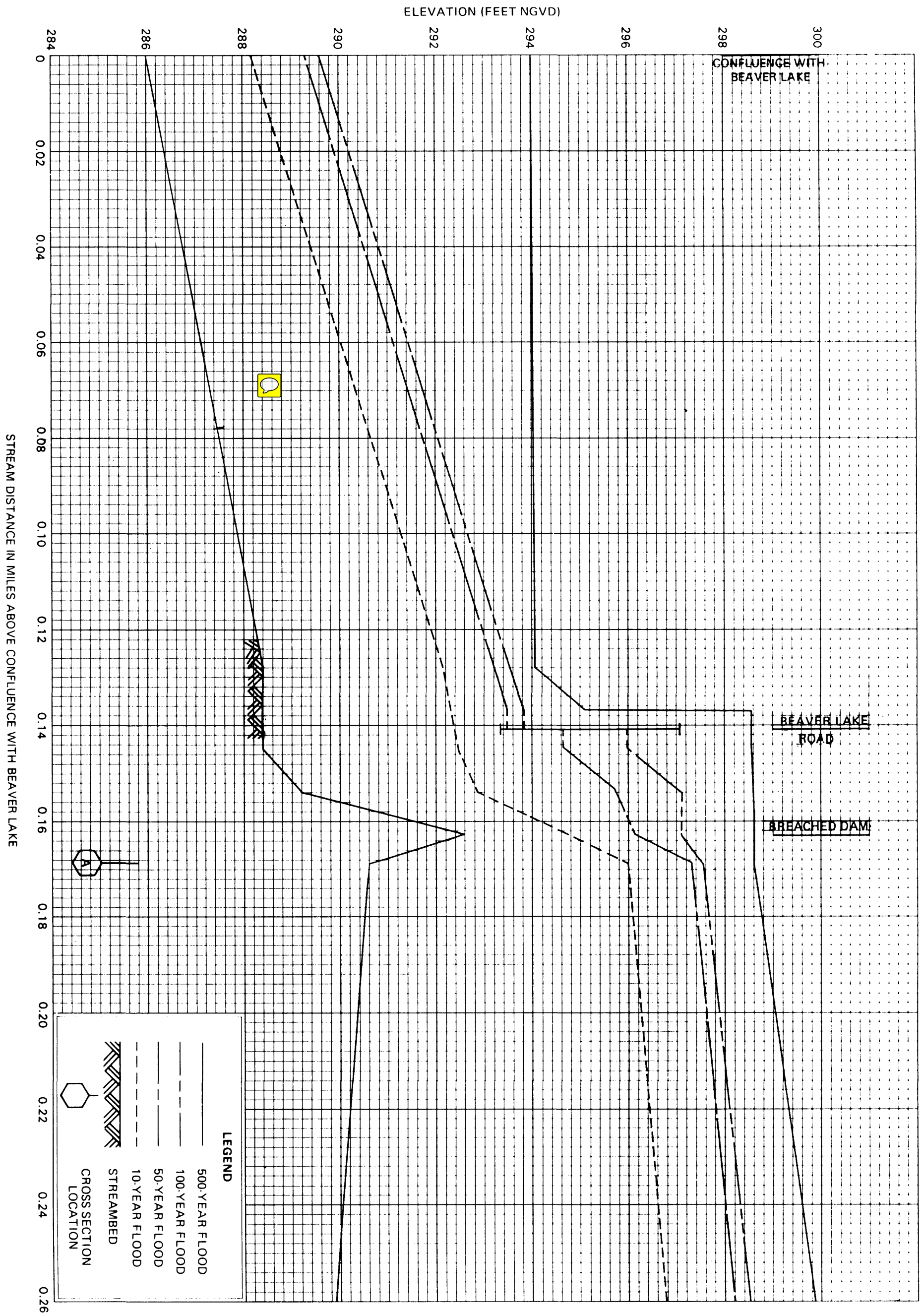
ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY E TO LITTLE COHAS BROOK

168P





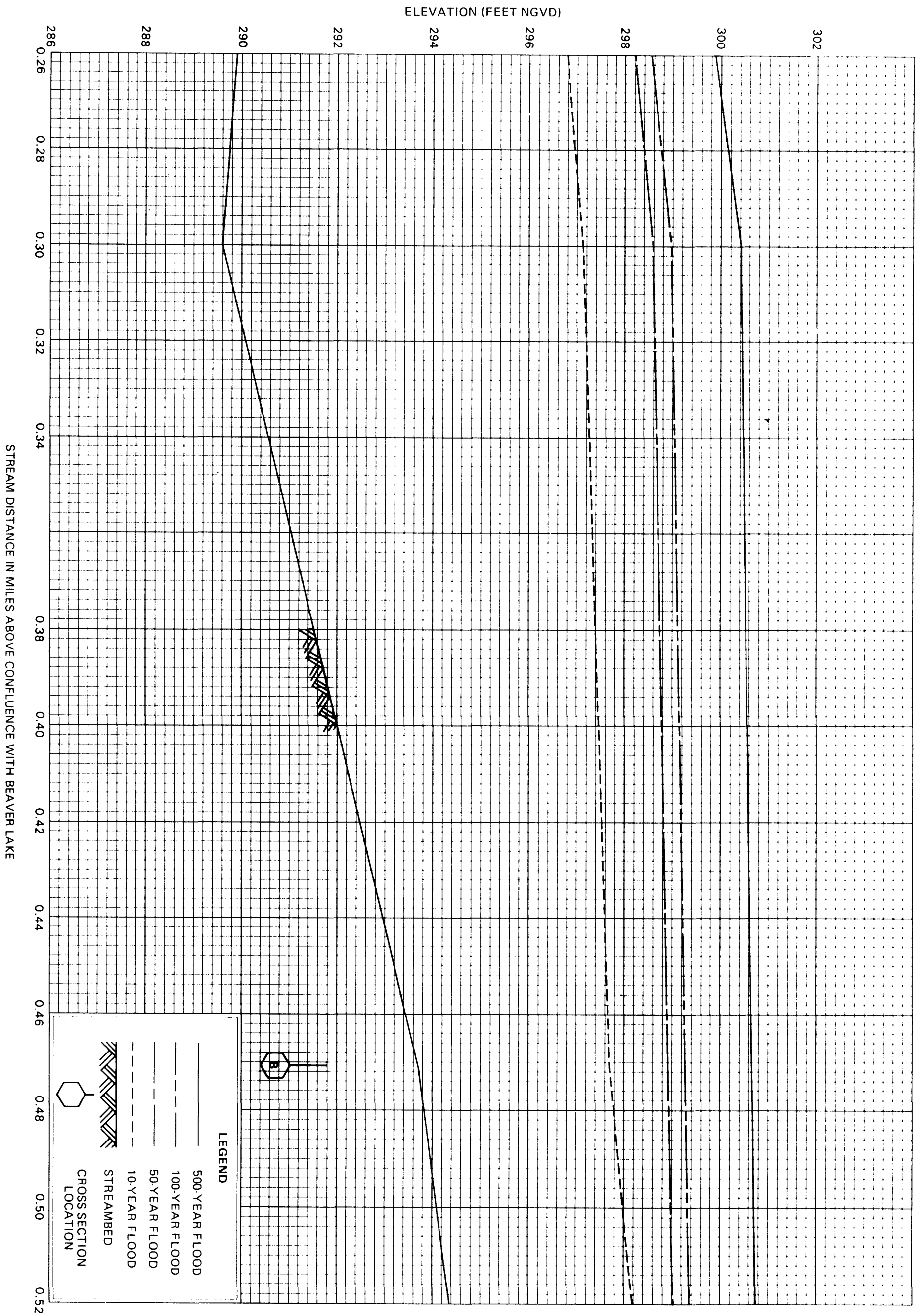
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY F TO BEAVER LAKE

170P



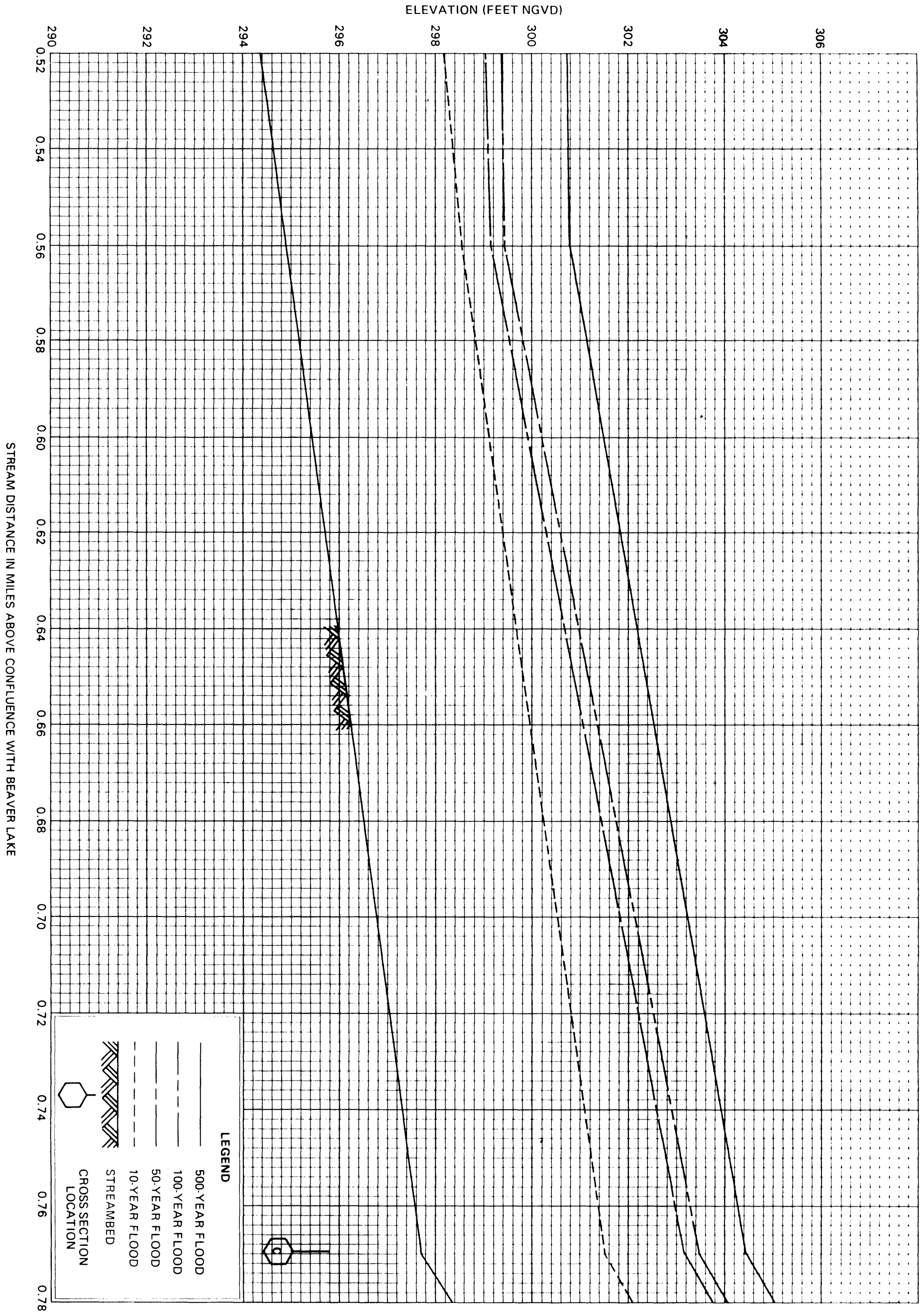
FLOOD PROFILES

TRIBUTARY F TO BEAVER LAKE

FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

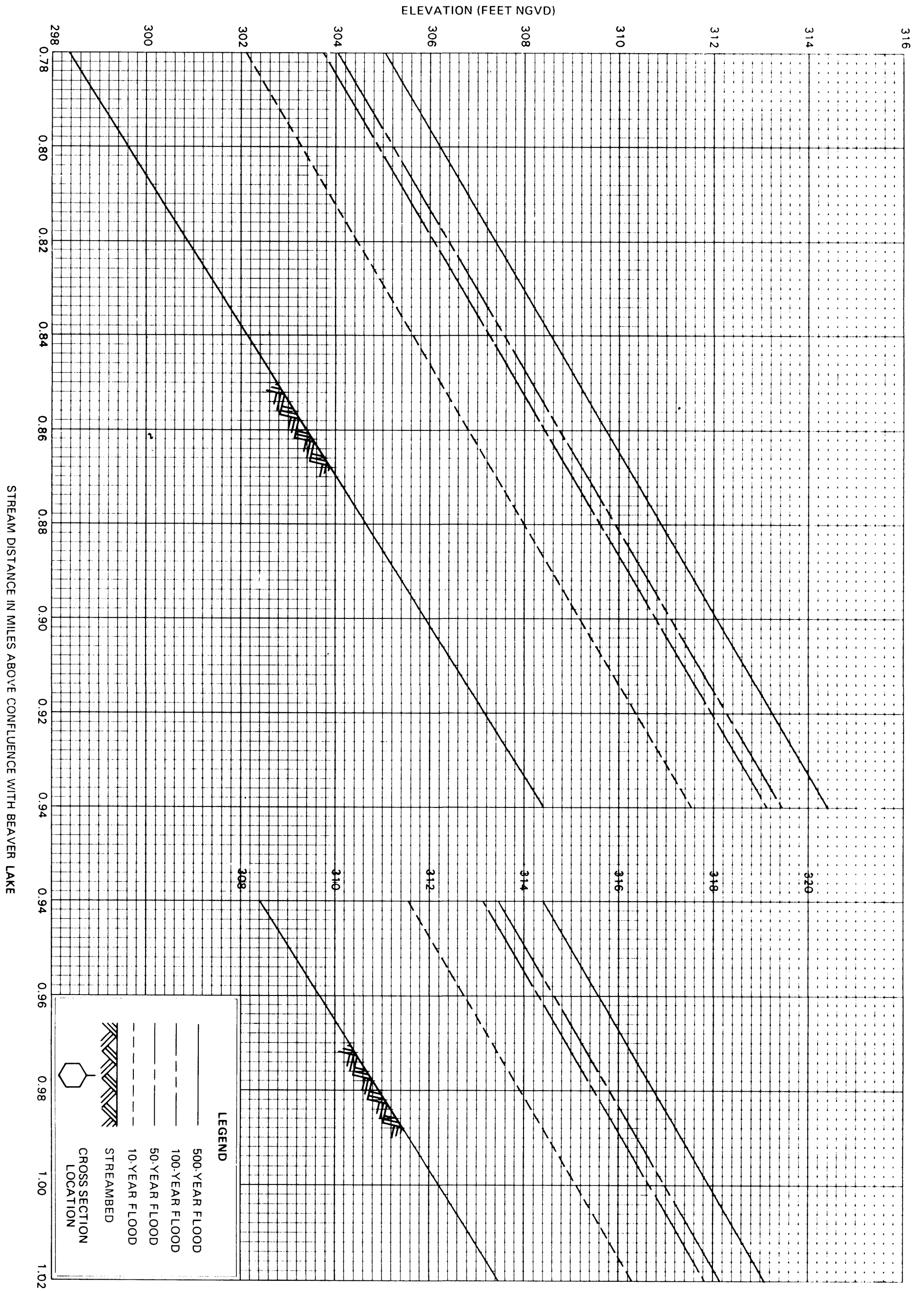
171P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
TRIBUTARY F TO BEAVER LAKE

172P



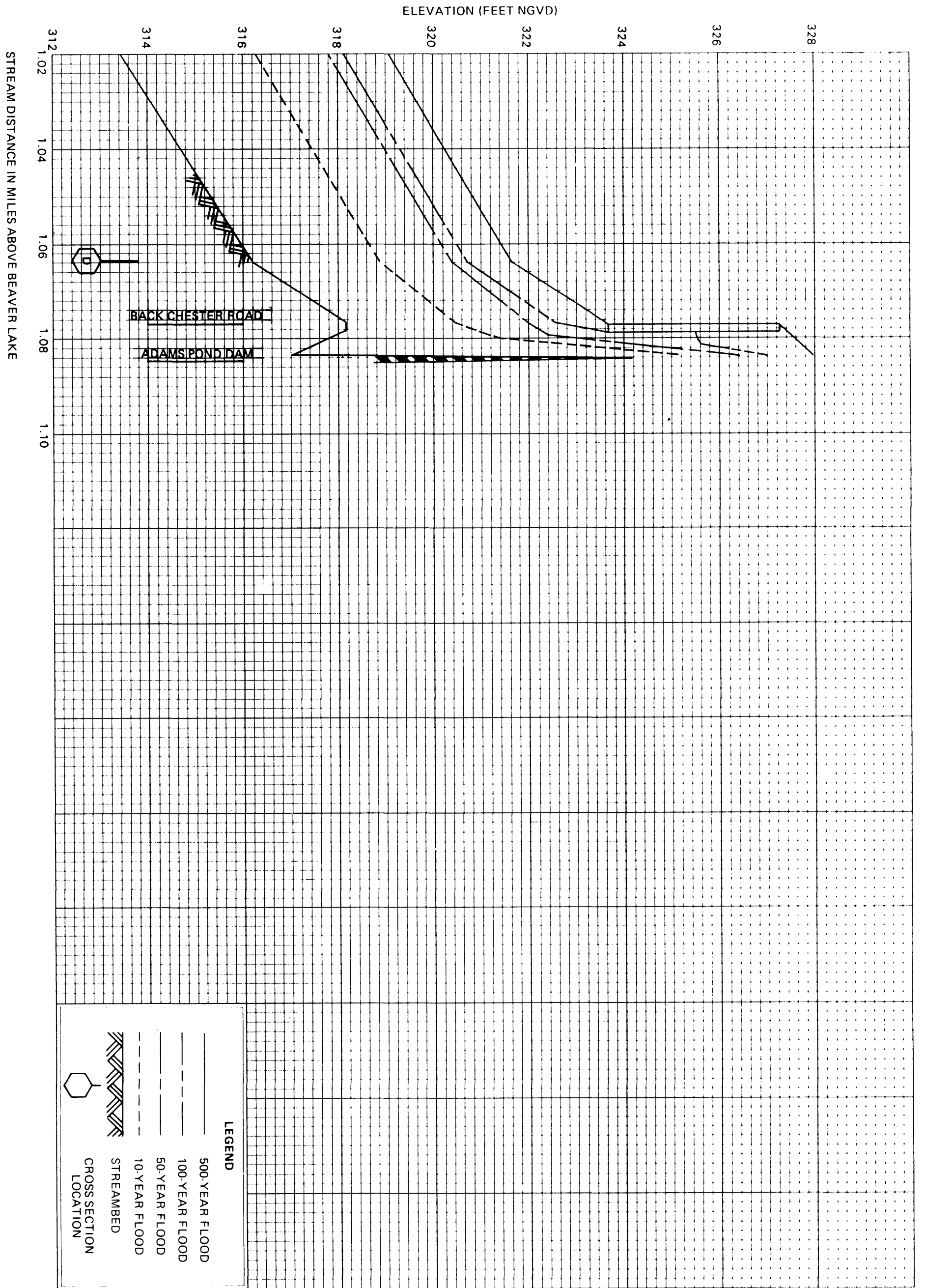
FEDERAL EMERGENCY MANAGEMENT AGENCY

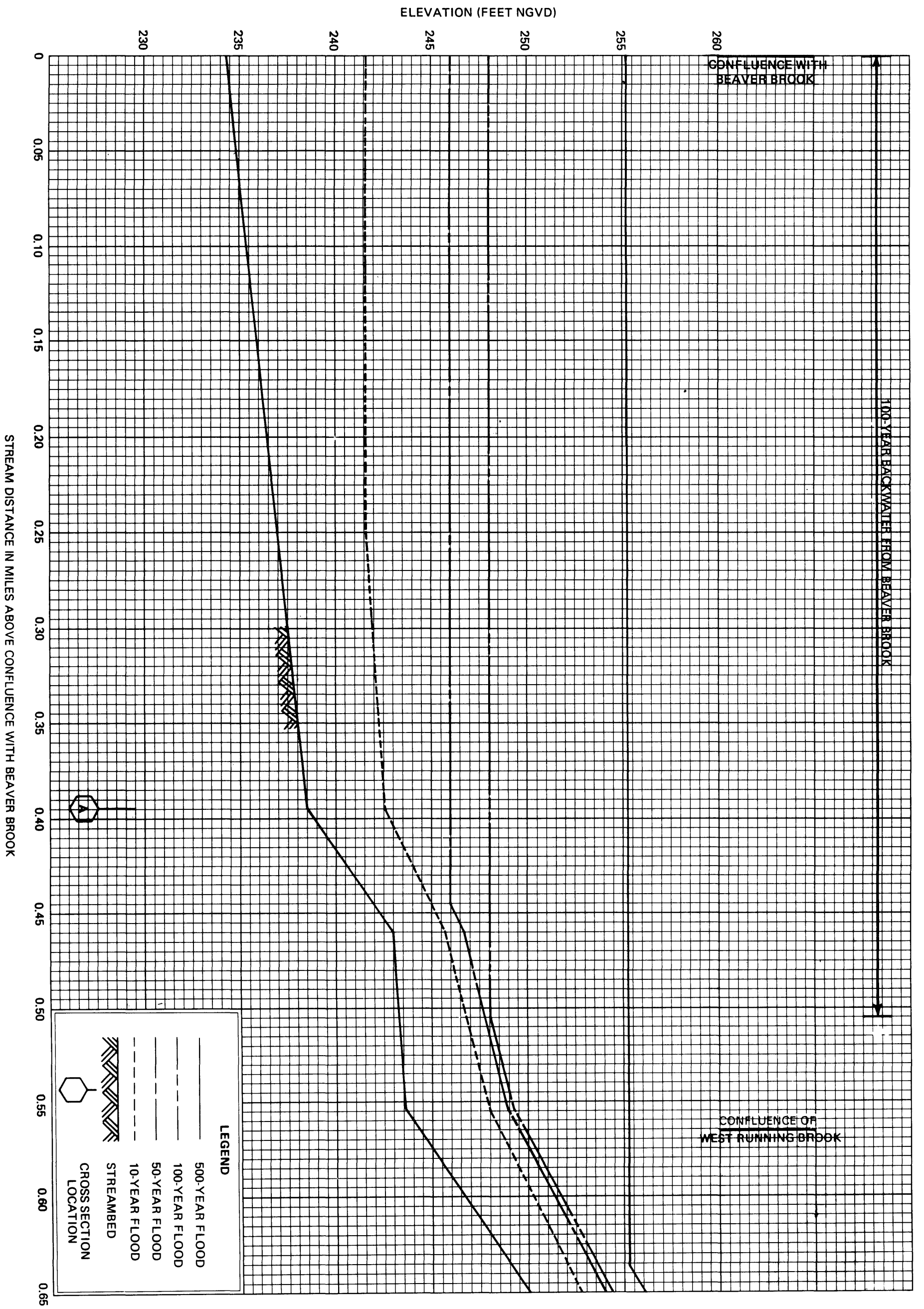
ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

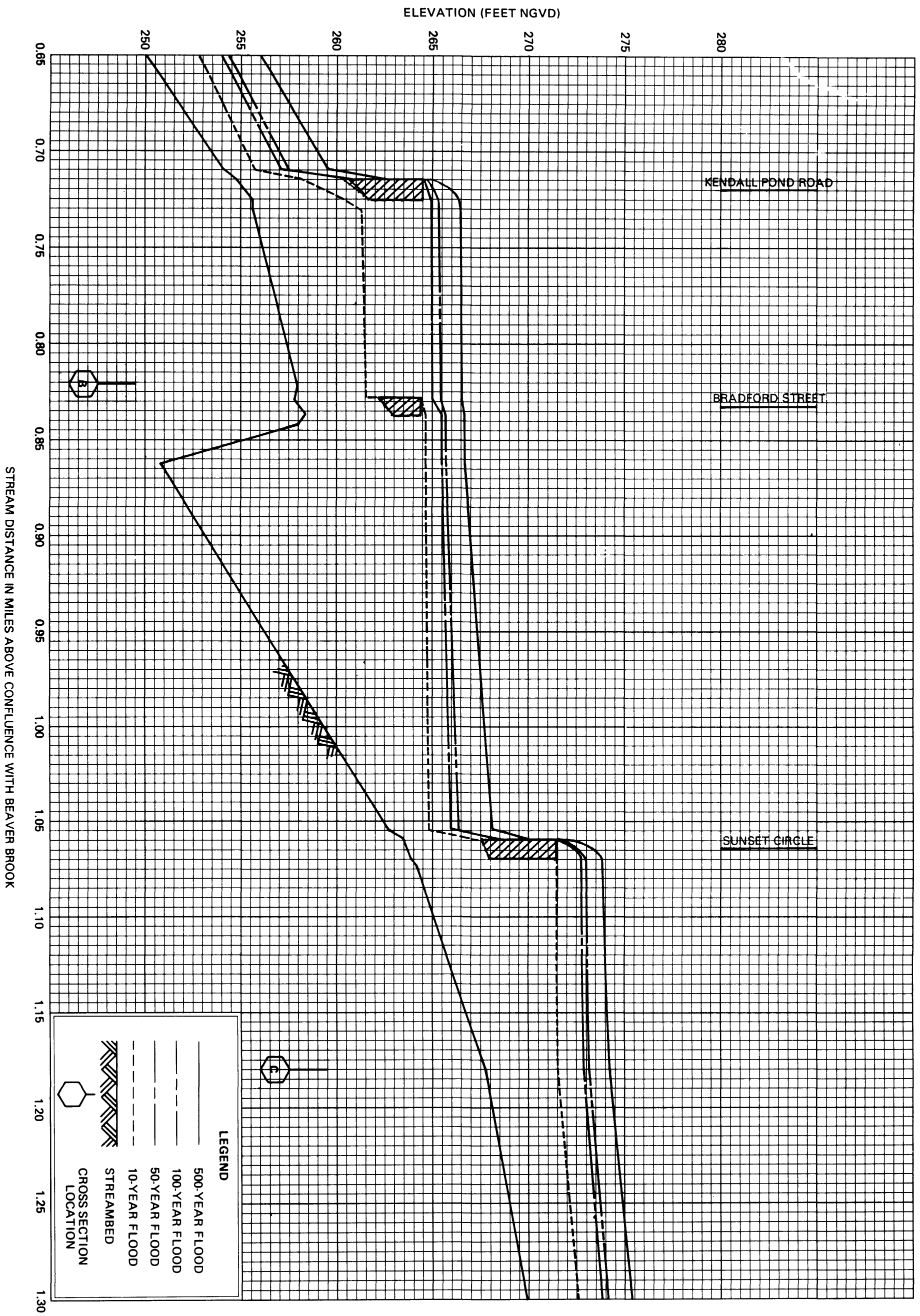
FLOOD PROFILES

TRIBUTARY F TO BEAVER LAKE

173P







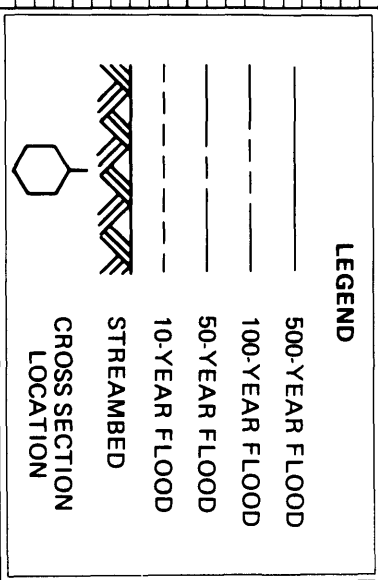
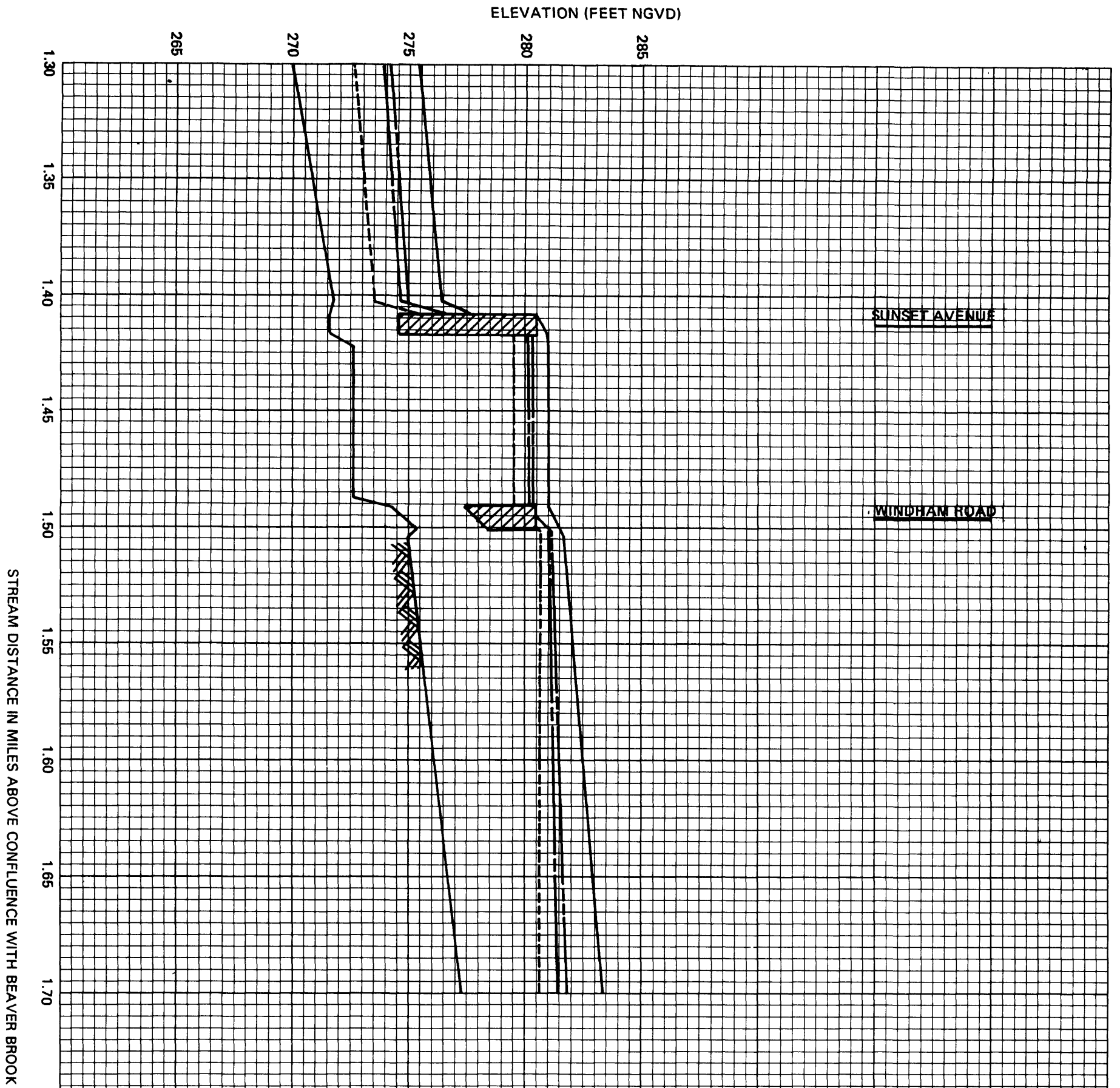
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY G TO BEAVER BROOK

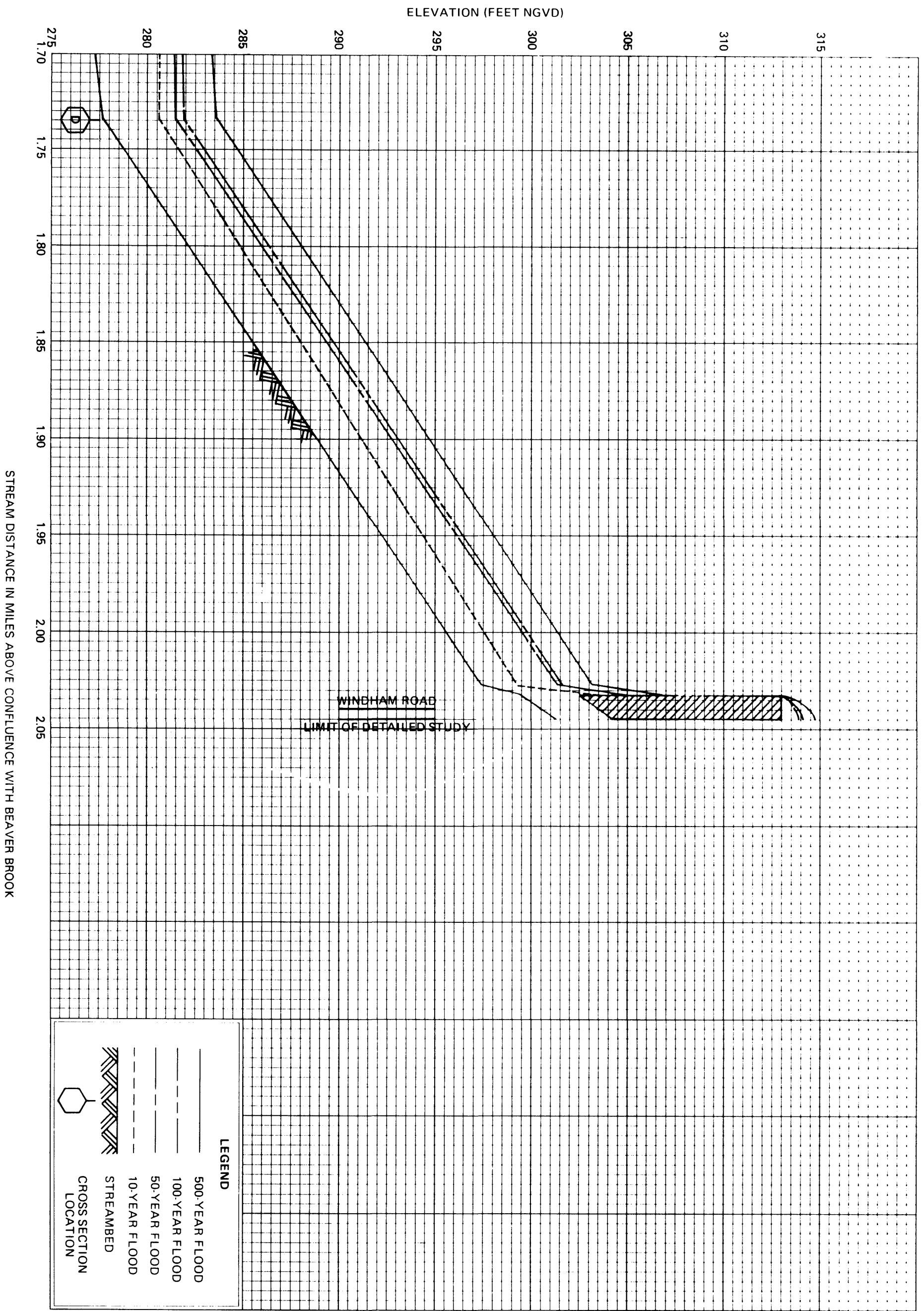
176P



FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
TRIBUTARY G TO BEAVER BROOK

177P



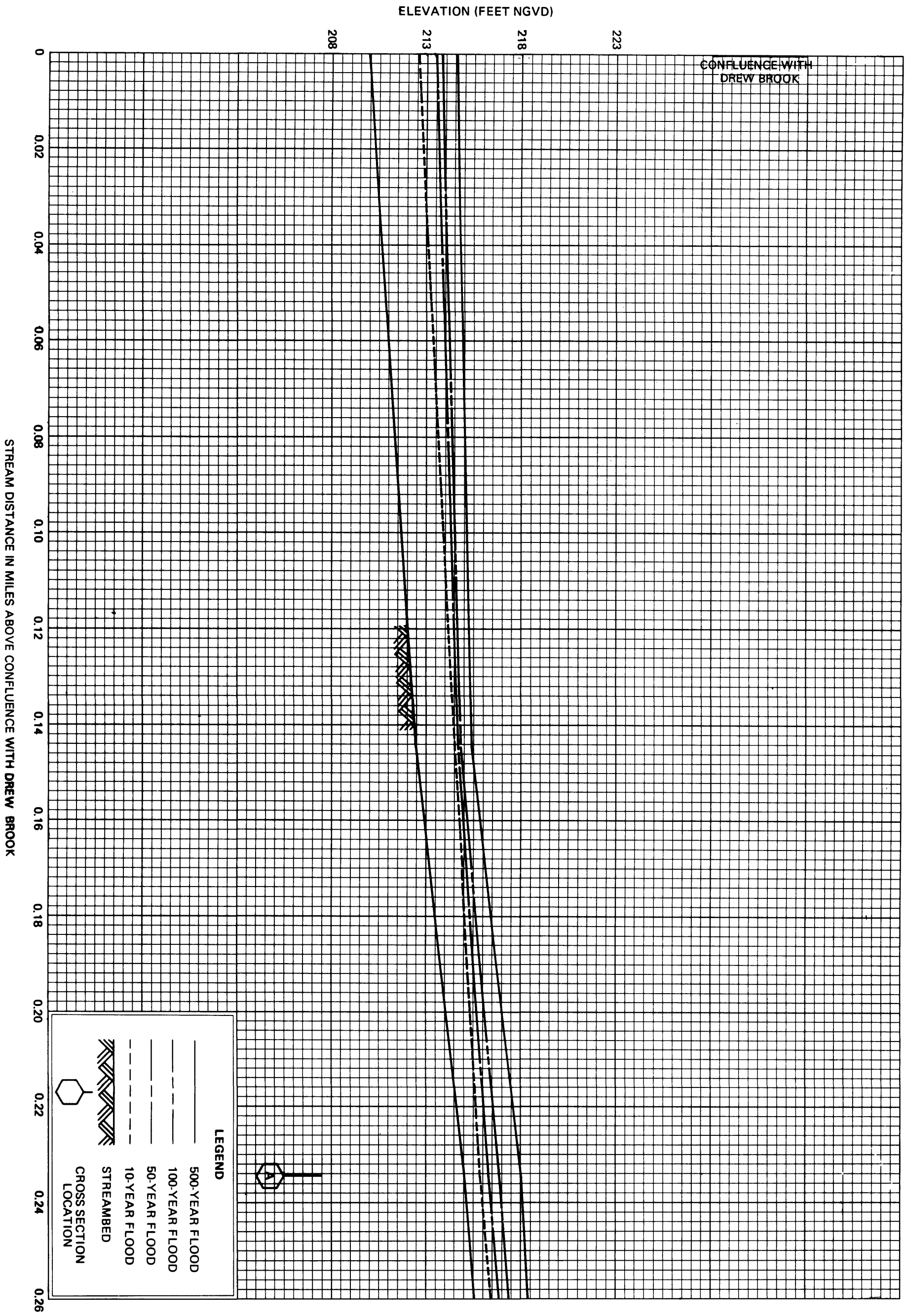
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY G TO BEAVER BROOK

178P



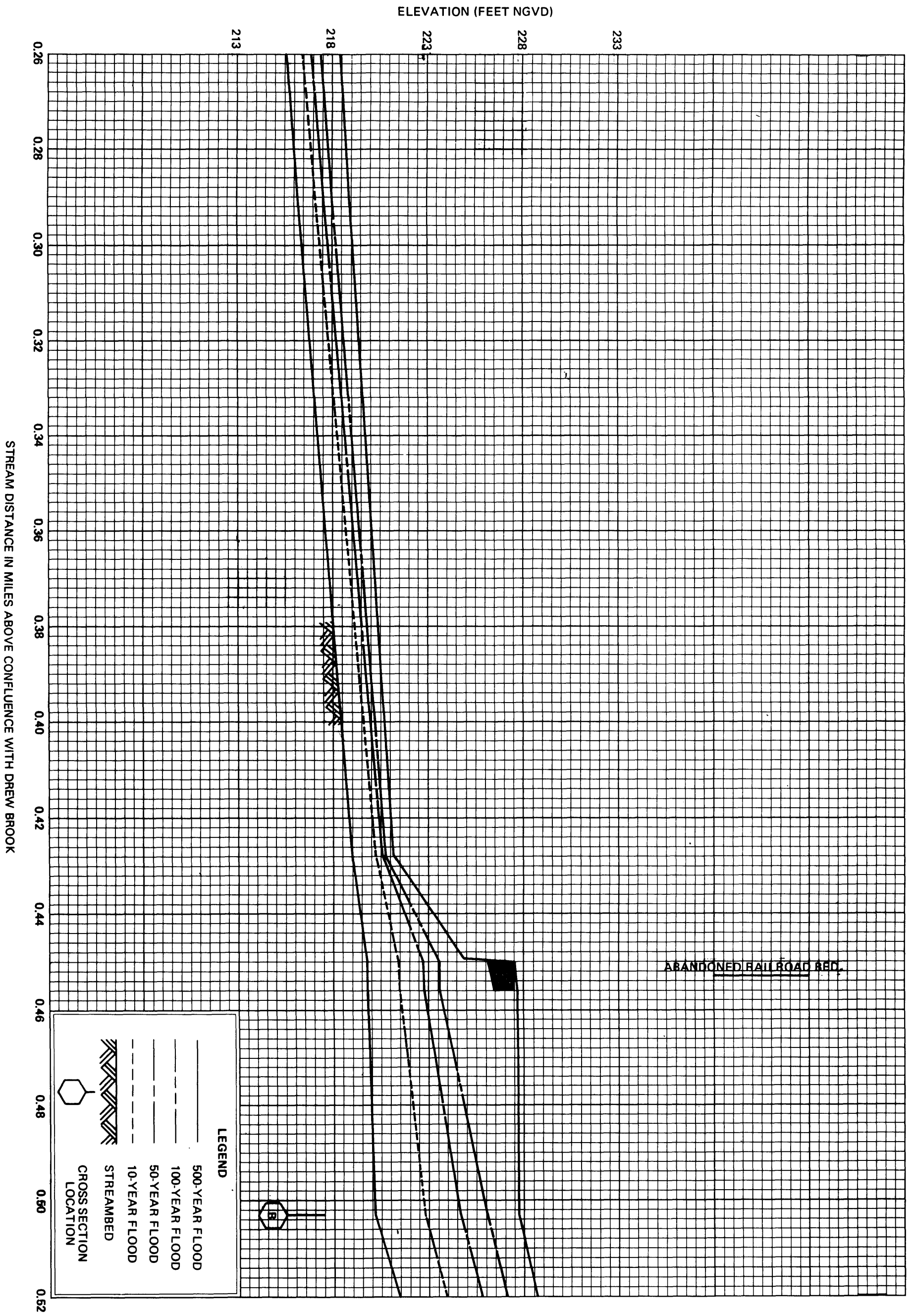
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY H TO DREW BROOK

179P



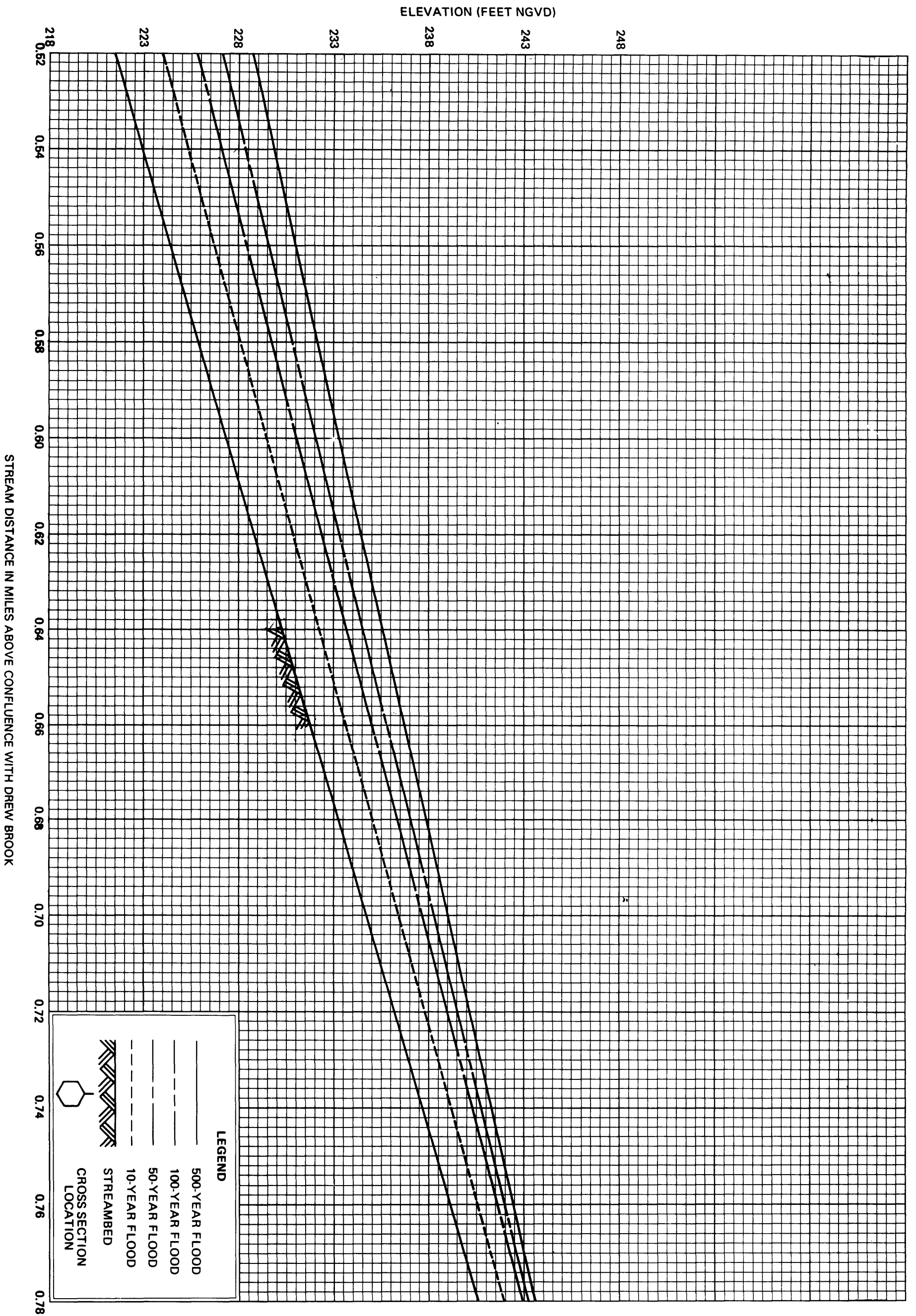
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY H TO DREW BROOK

180P



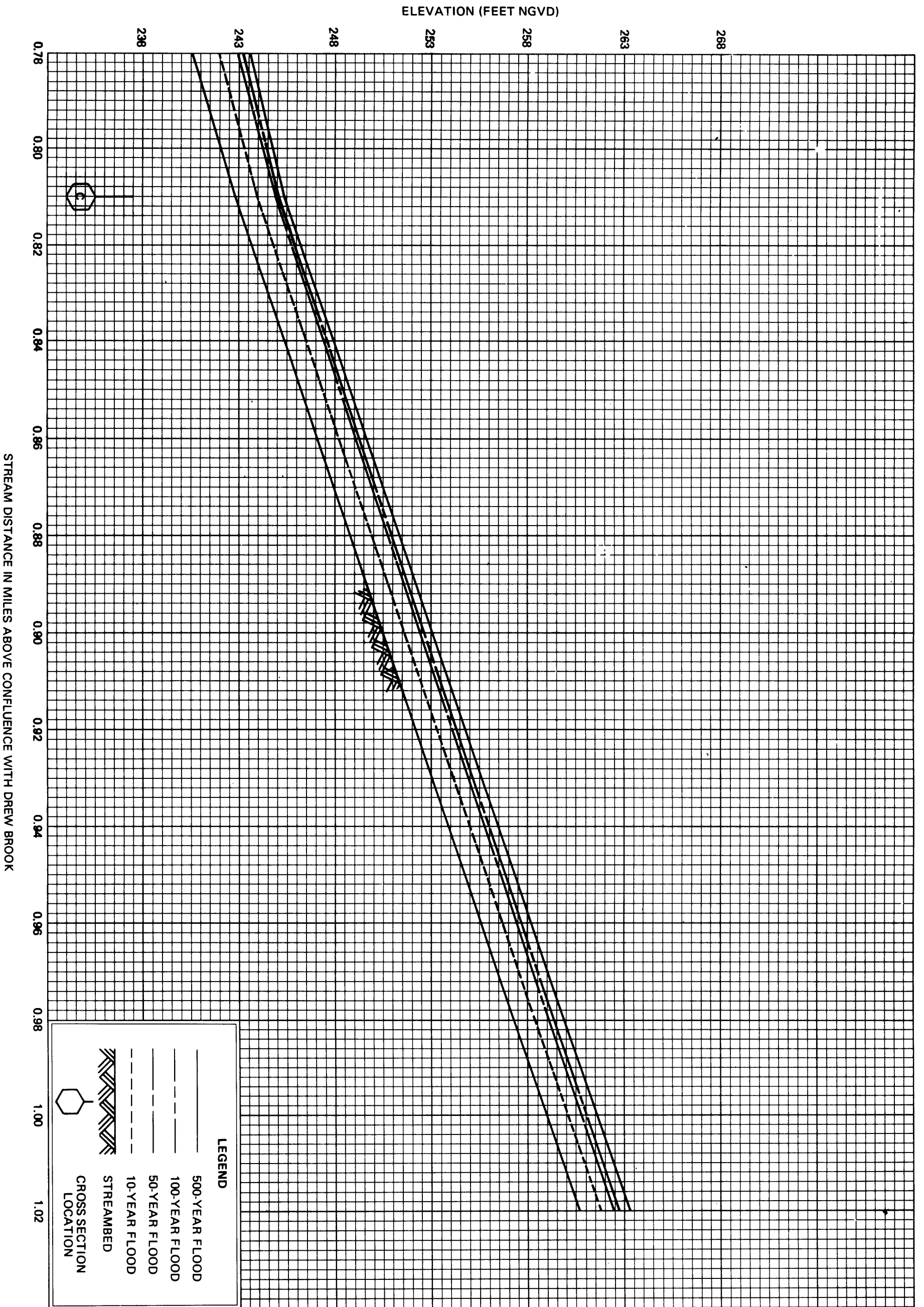
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY H TO DREW BROOK

181P



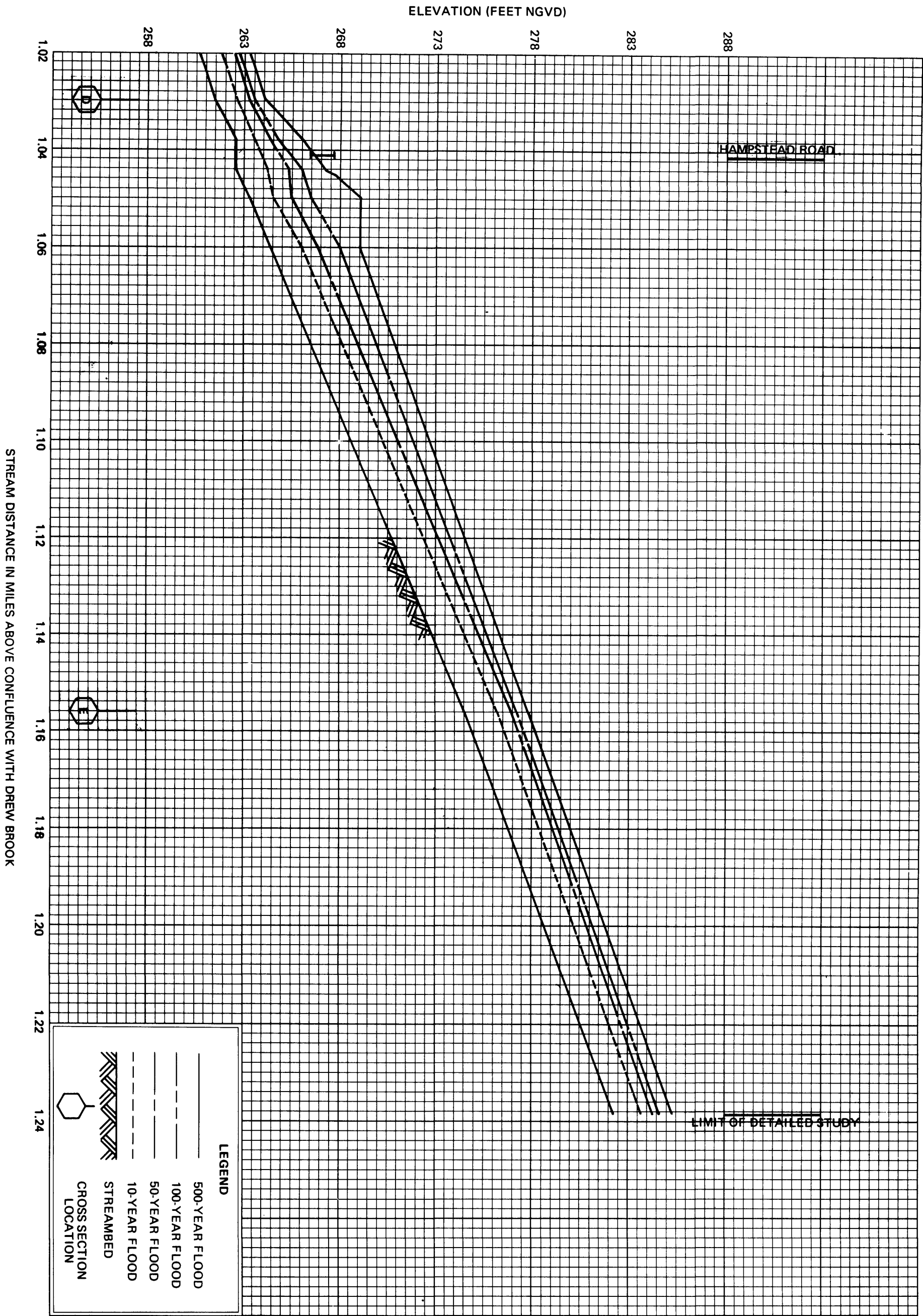
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY H TO DREW BROOK

182P



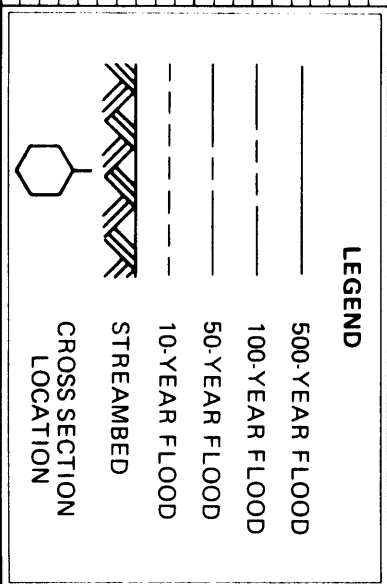
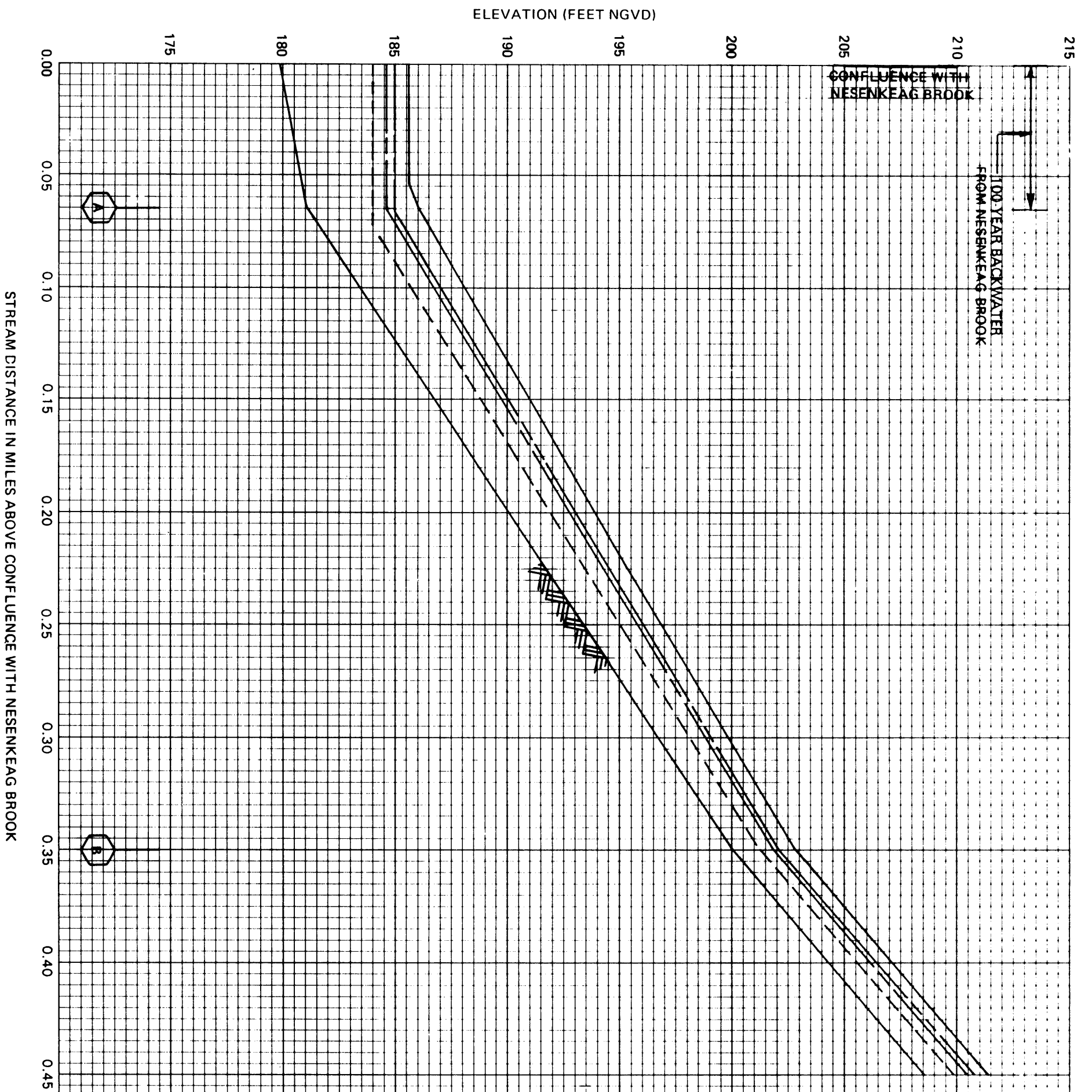
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY H TO DREW BROOK

183P



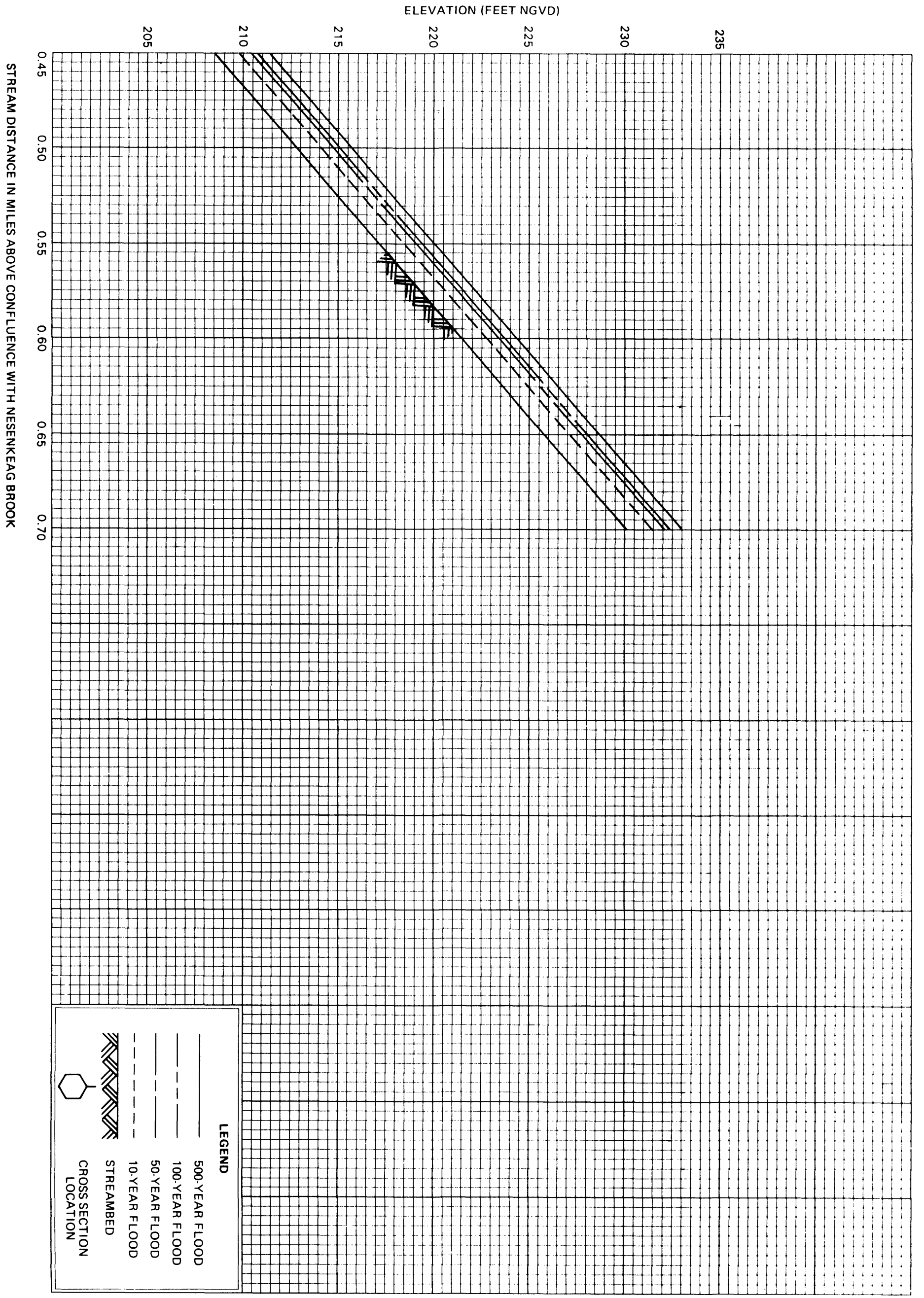
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

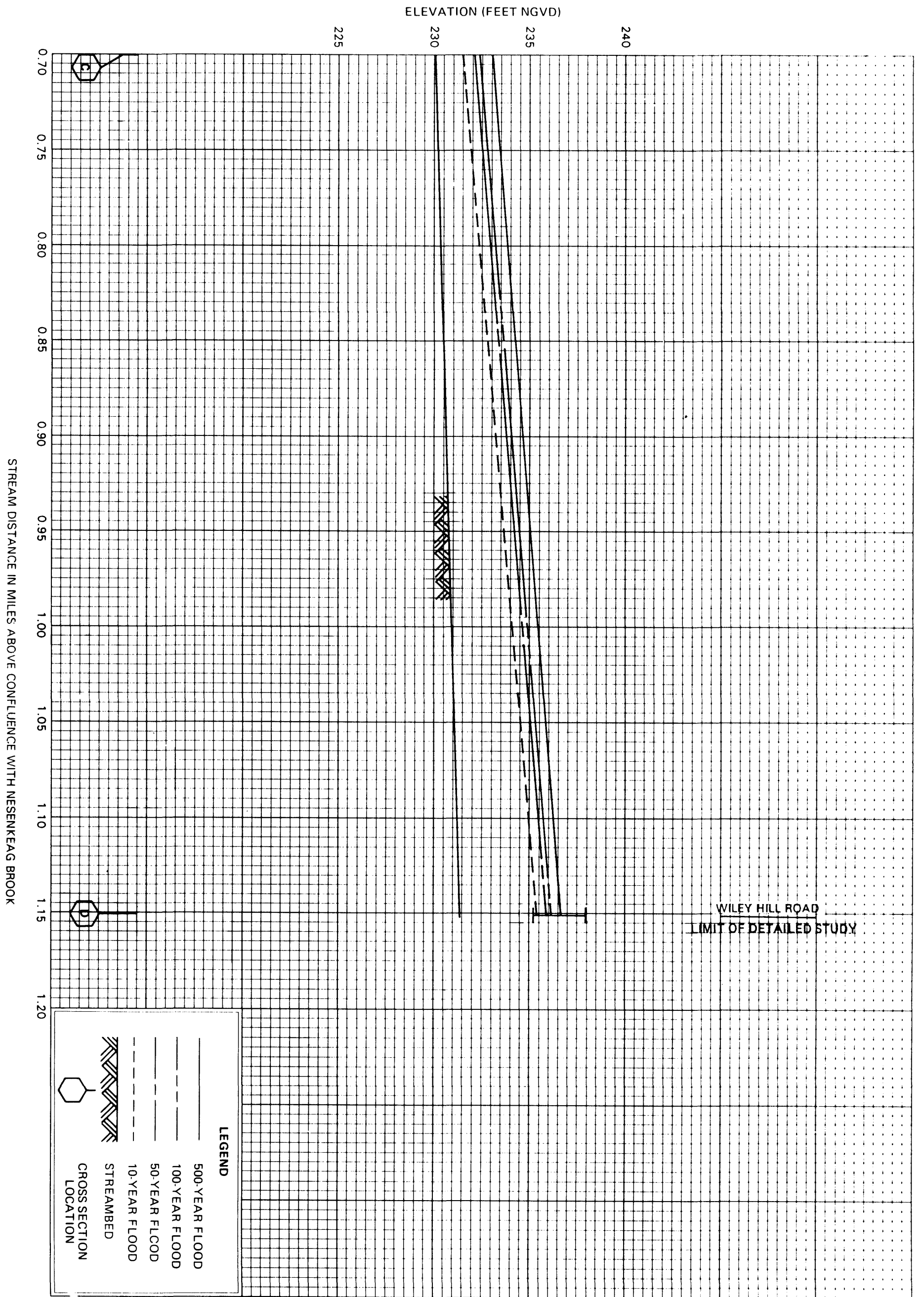
TRIBUTARY H TO NESENKEAG BROOK

184P



LEGEND

- 500-YEAR FLOOD
- - - 100-YEAR FLOOD
- - - 50-YEAR FLOOD
- - - 10-YEAR FLOOD
- ▨ STREAMBED
- CROSS SECTION LOCATION



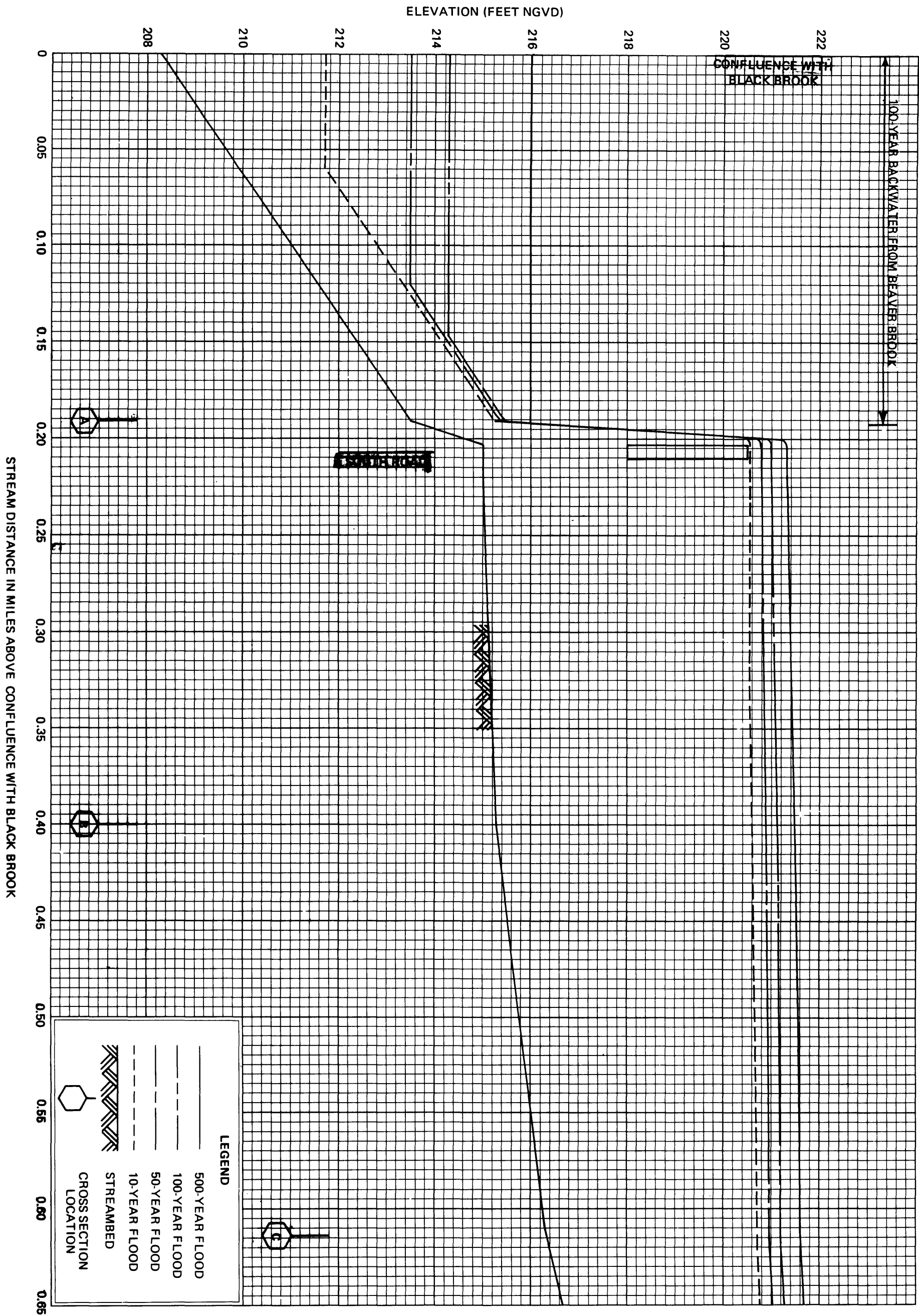
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY H TO NESENKEAG BROOK

186P

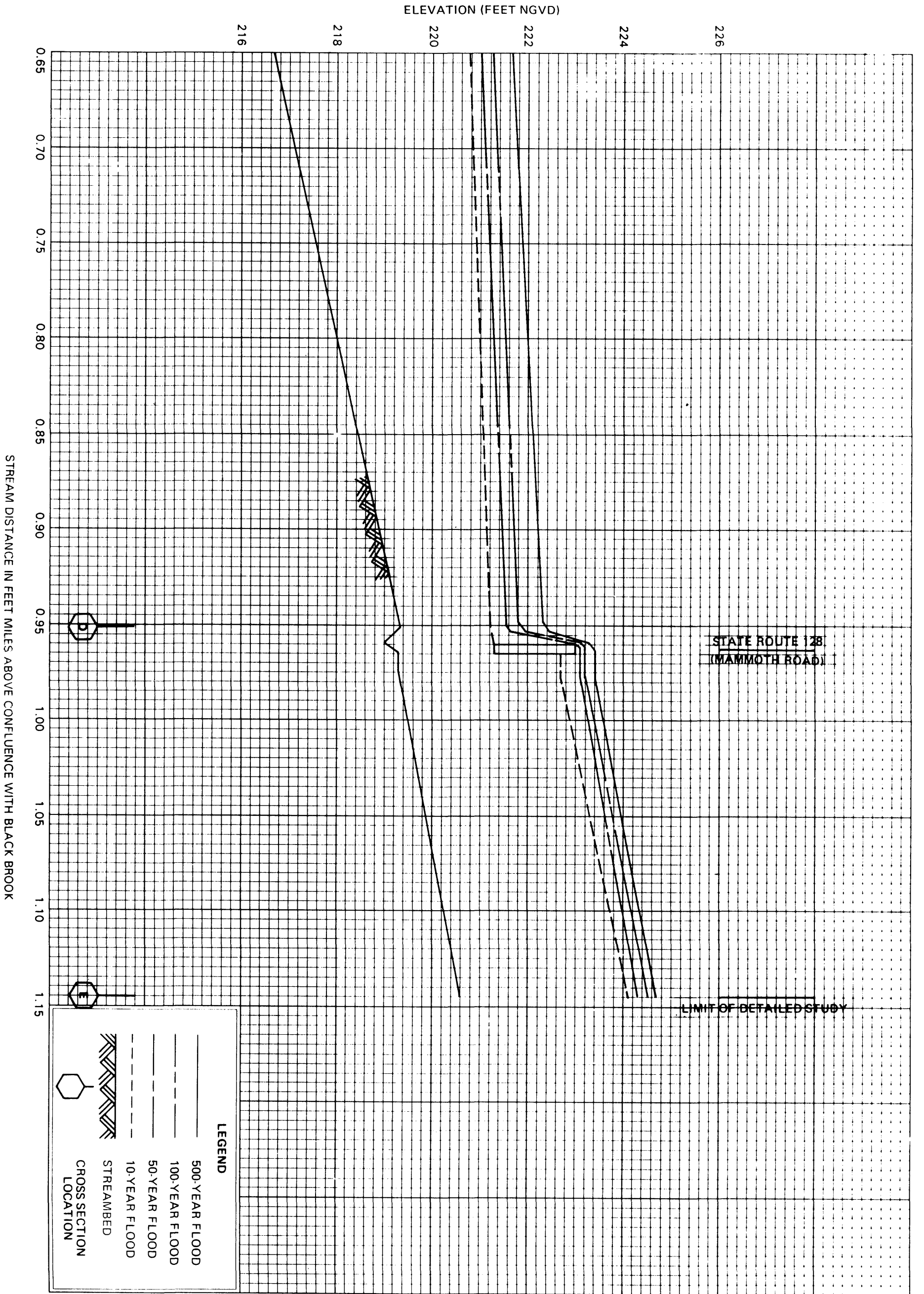


LEGEND

- 500-YEAR FLOOD
- - - 100-YEAR FLOOD
- - - 10-YEAR FLOOD
- - - STREAMBED
- CROSS SECTION LOCATION

FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
TRIBUTARY J TO BLACK BROOK



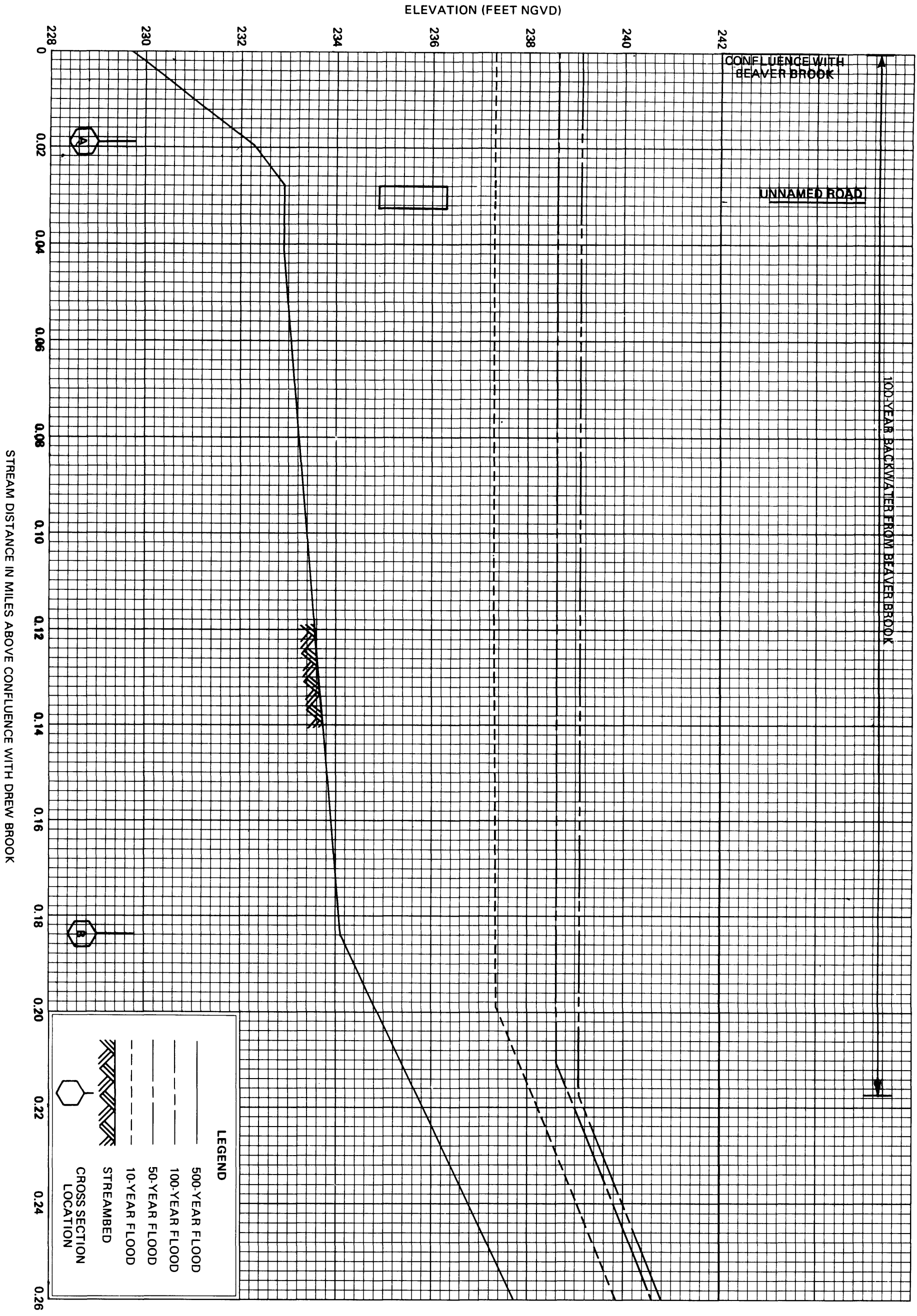
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY J TO BLACK BROOK

188P



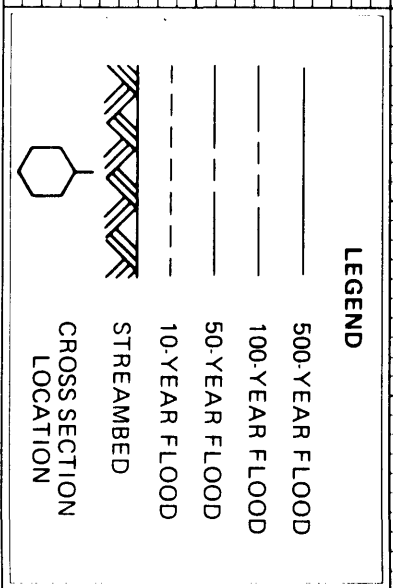
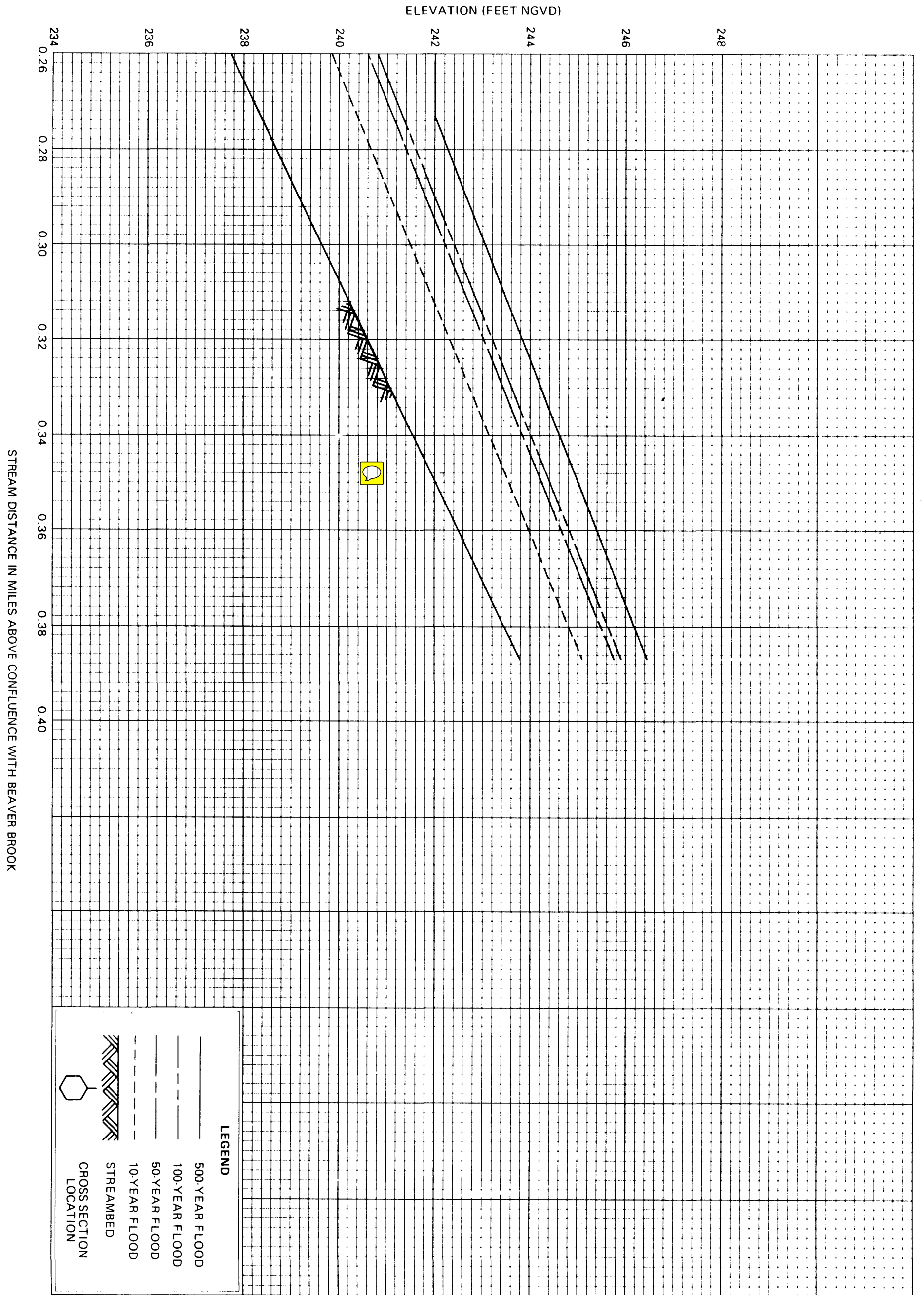
LEGEND

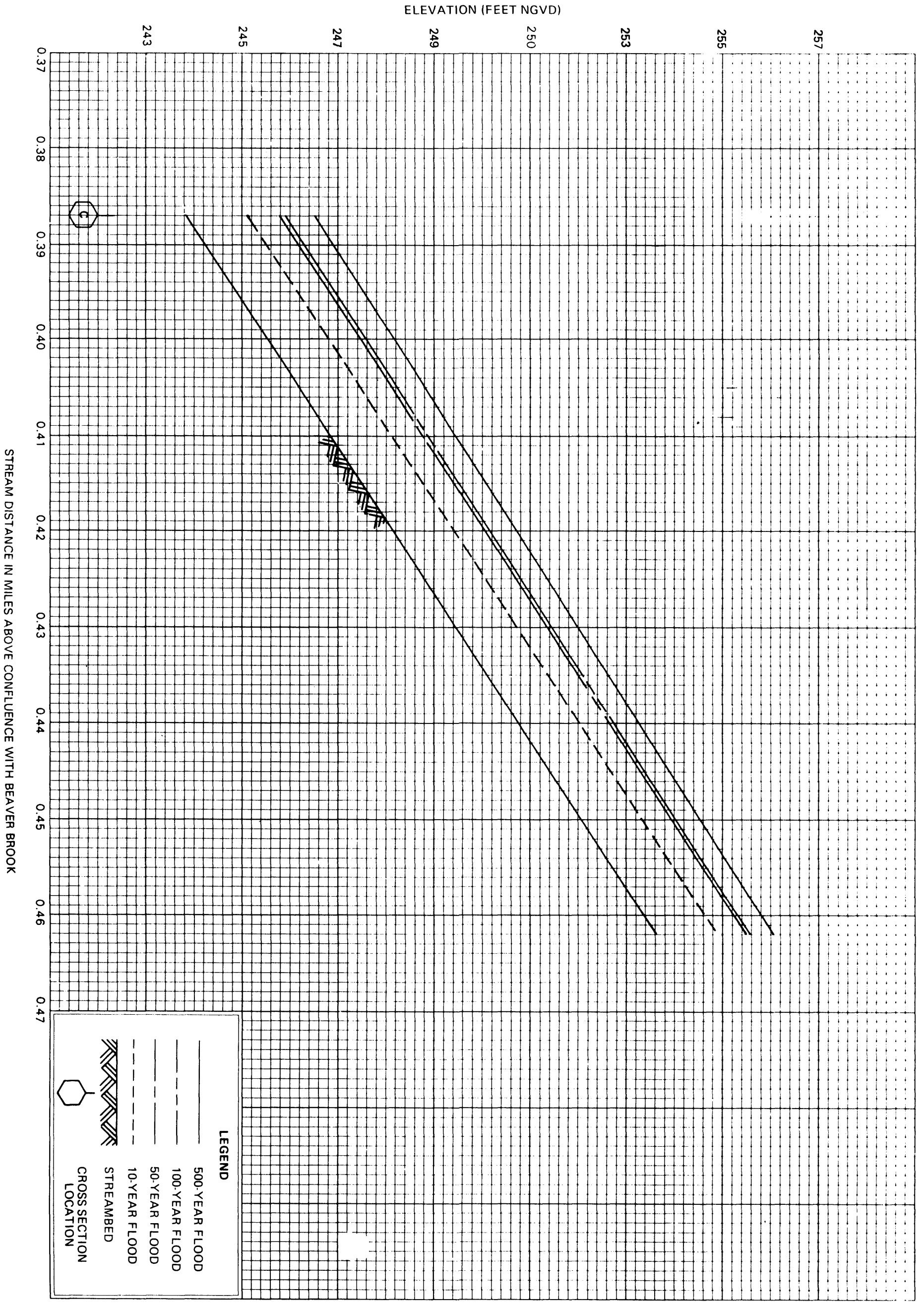
- 500-YEAR FLOOD
- - - 100-YEAR FLOOD
- - - 50-YEAR FLOOD
- - - 10-YEAR FLOOD
- - - STREAMBED
- CROSS SECTION LOCATION

FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES

TRIBUTARY 0 TO BEAVER BROOK

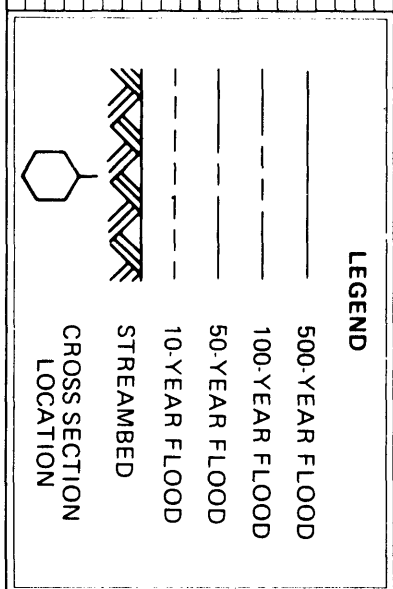
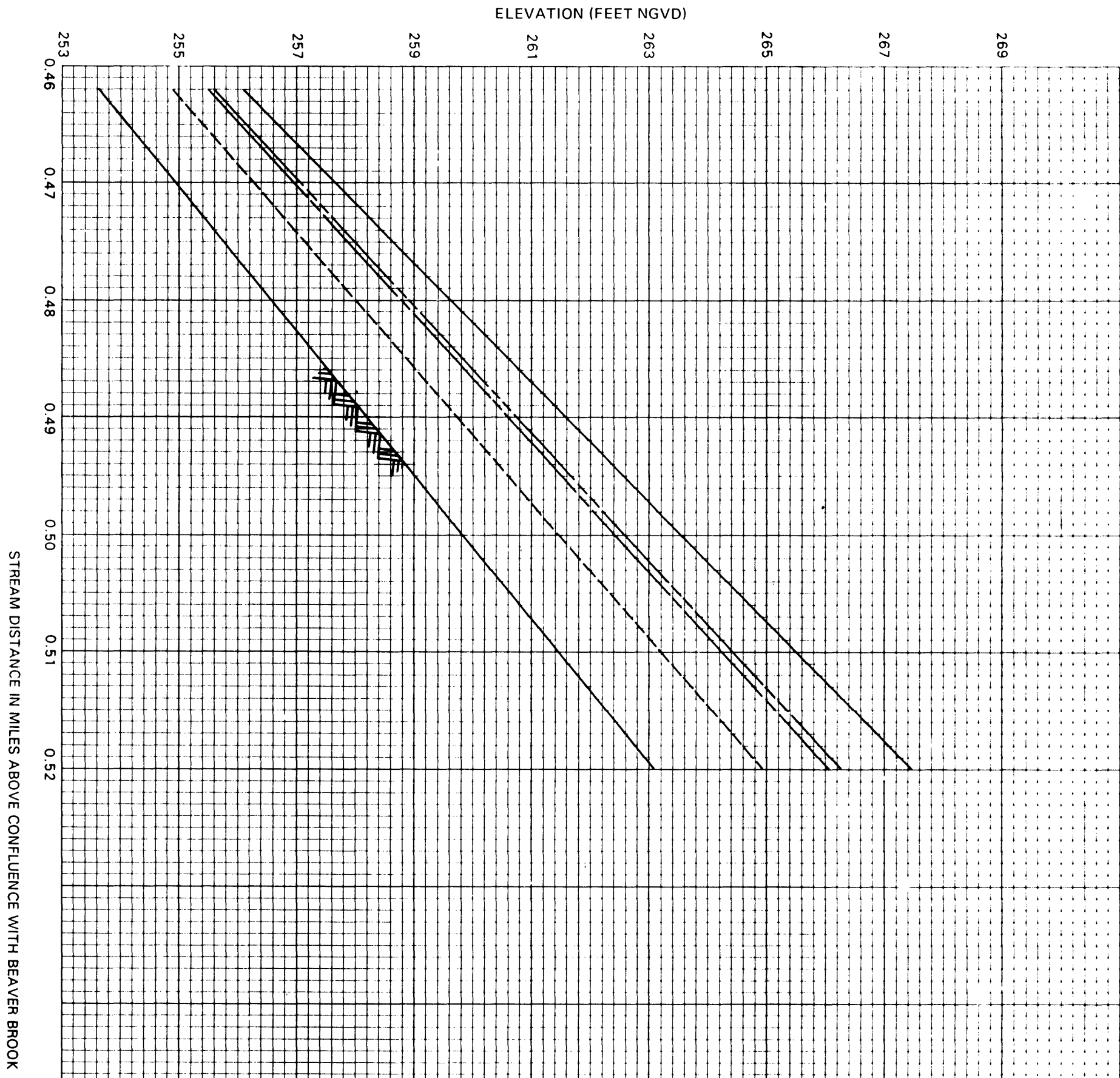


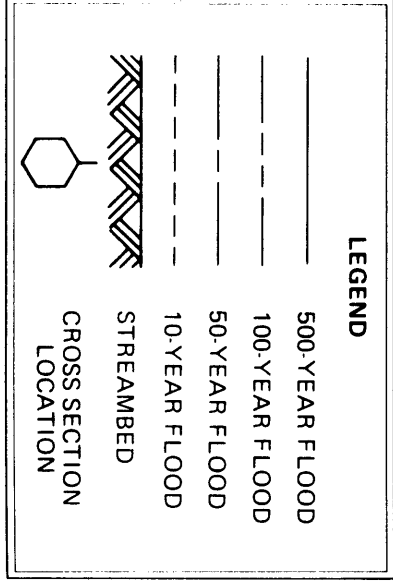
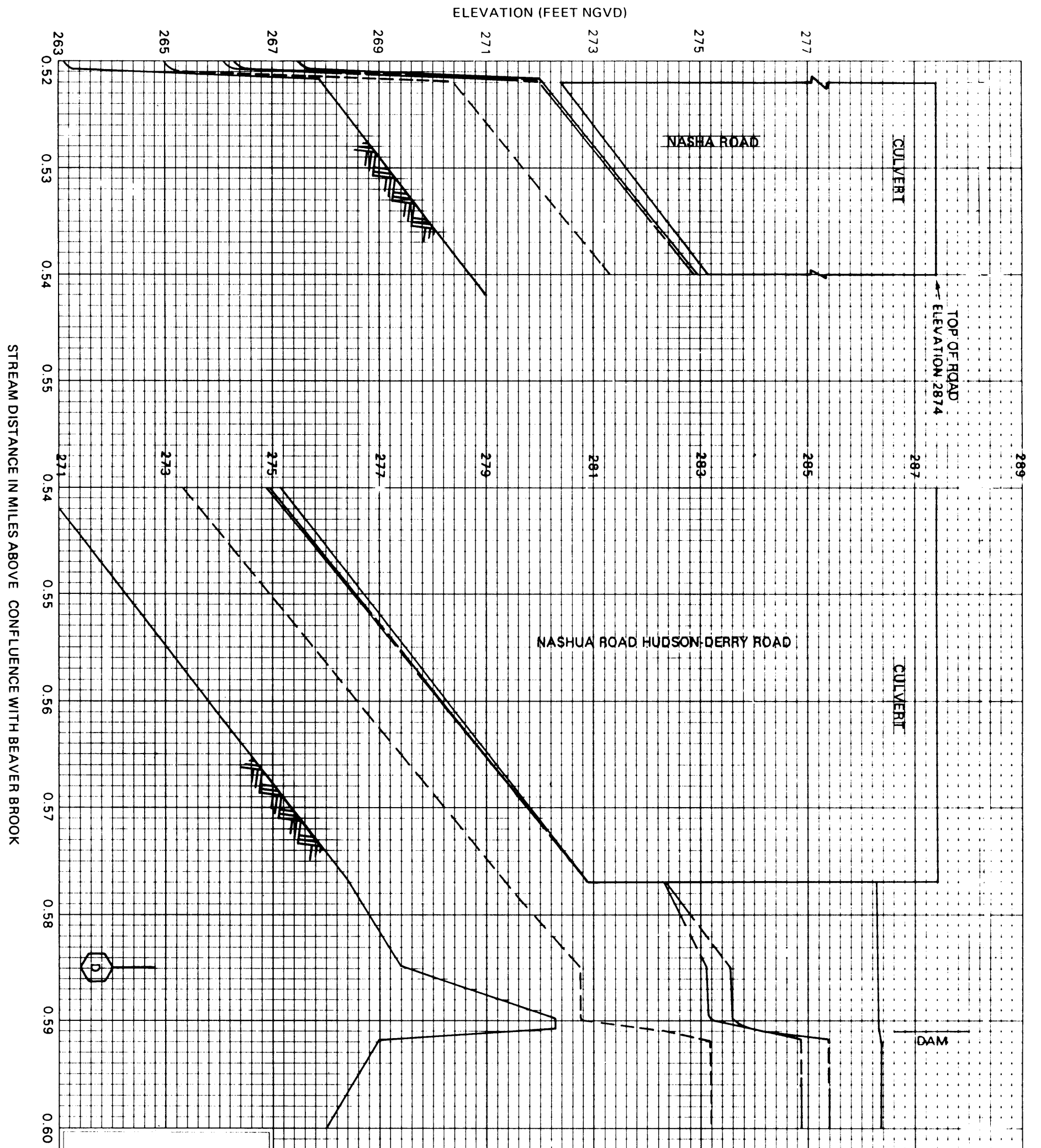


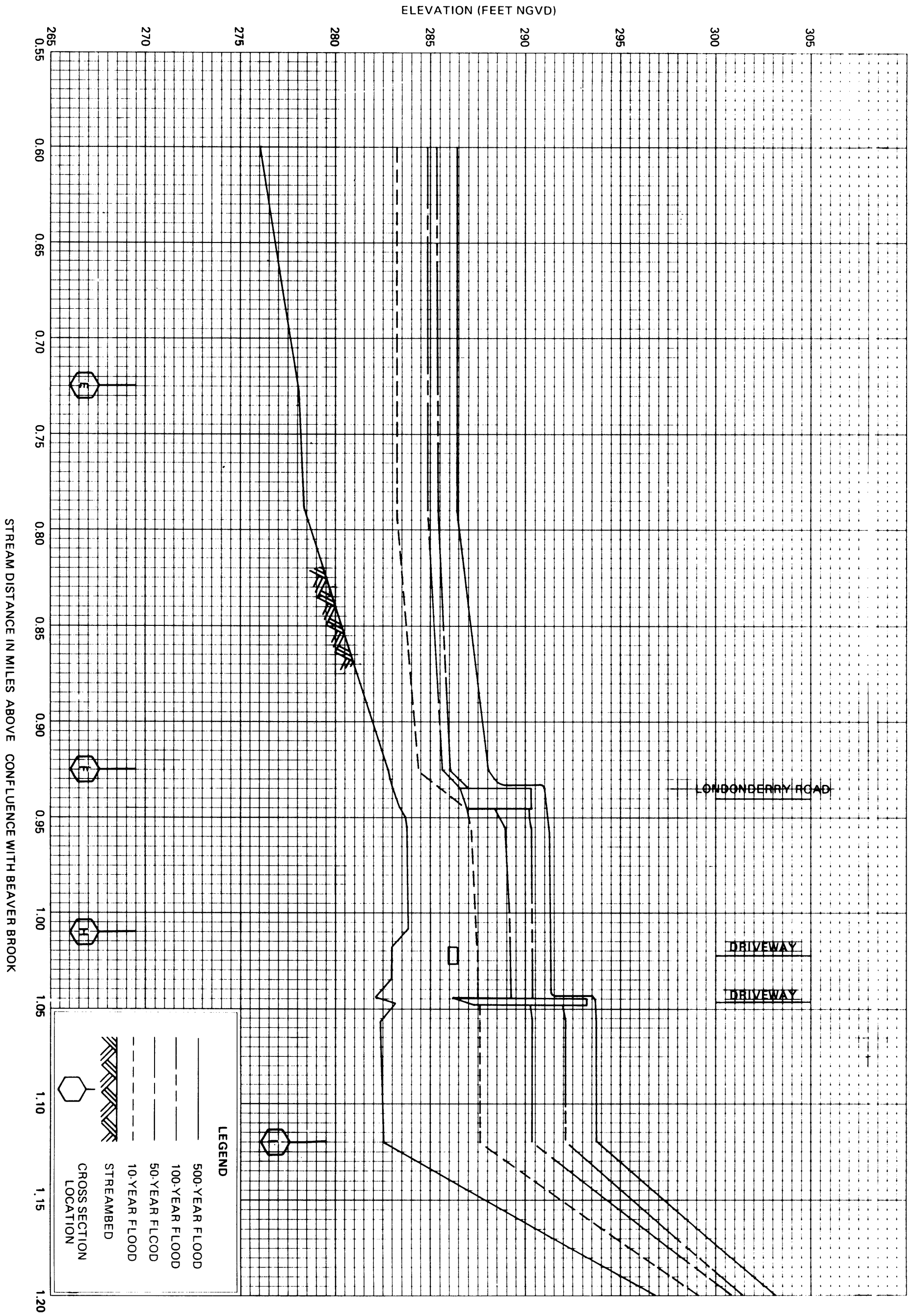
FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
TRIBUTARY 0 TO BEAVER BROOK

191P



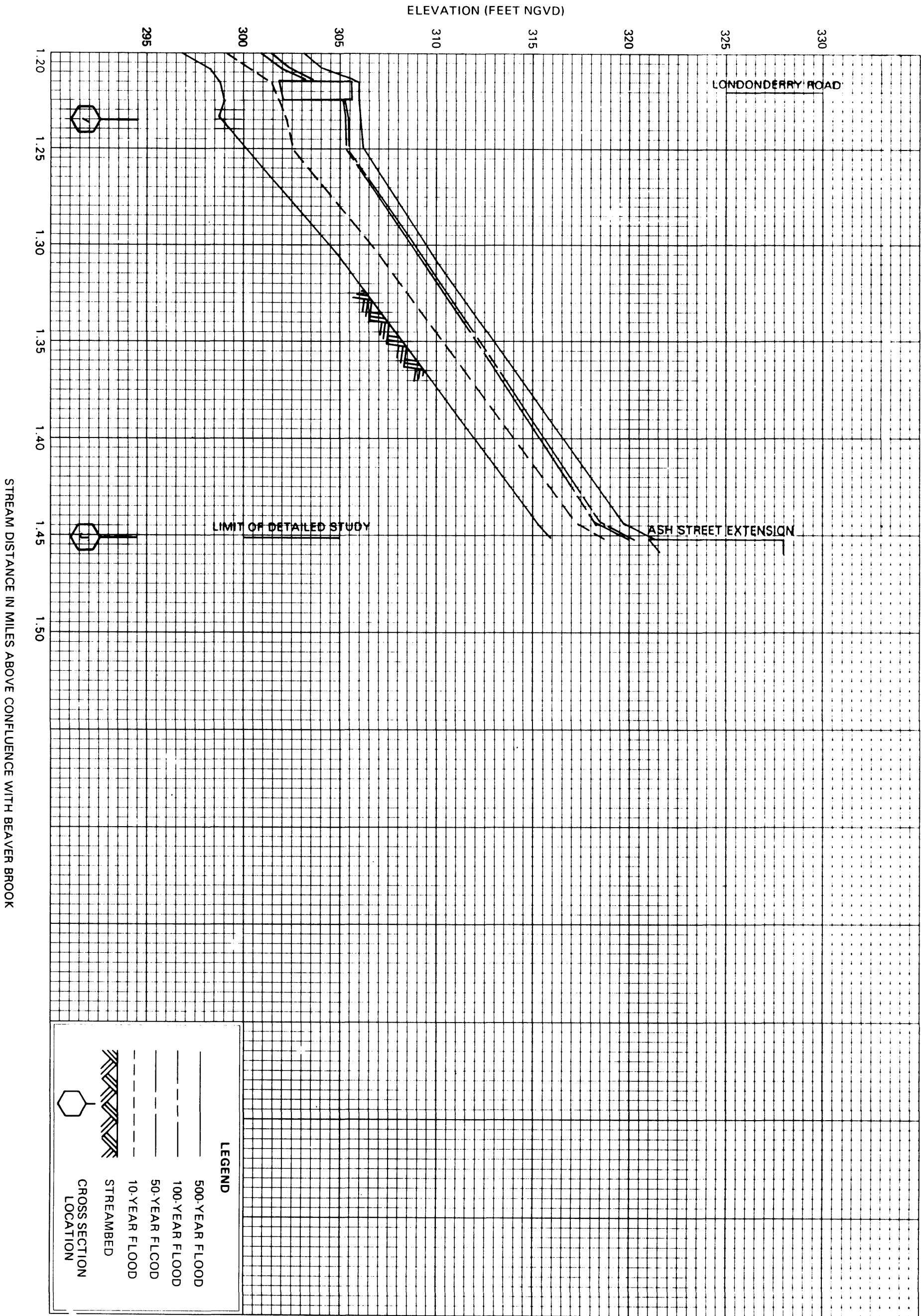




FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

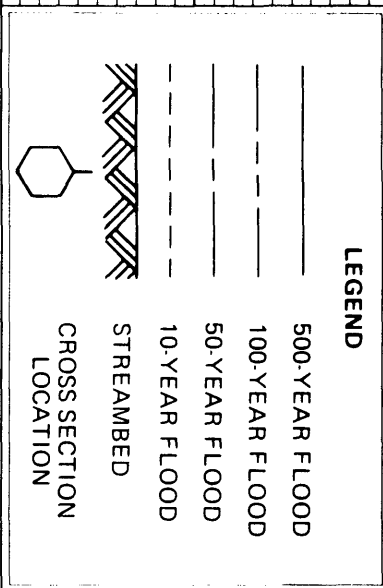
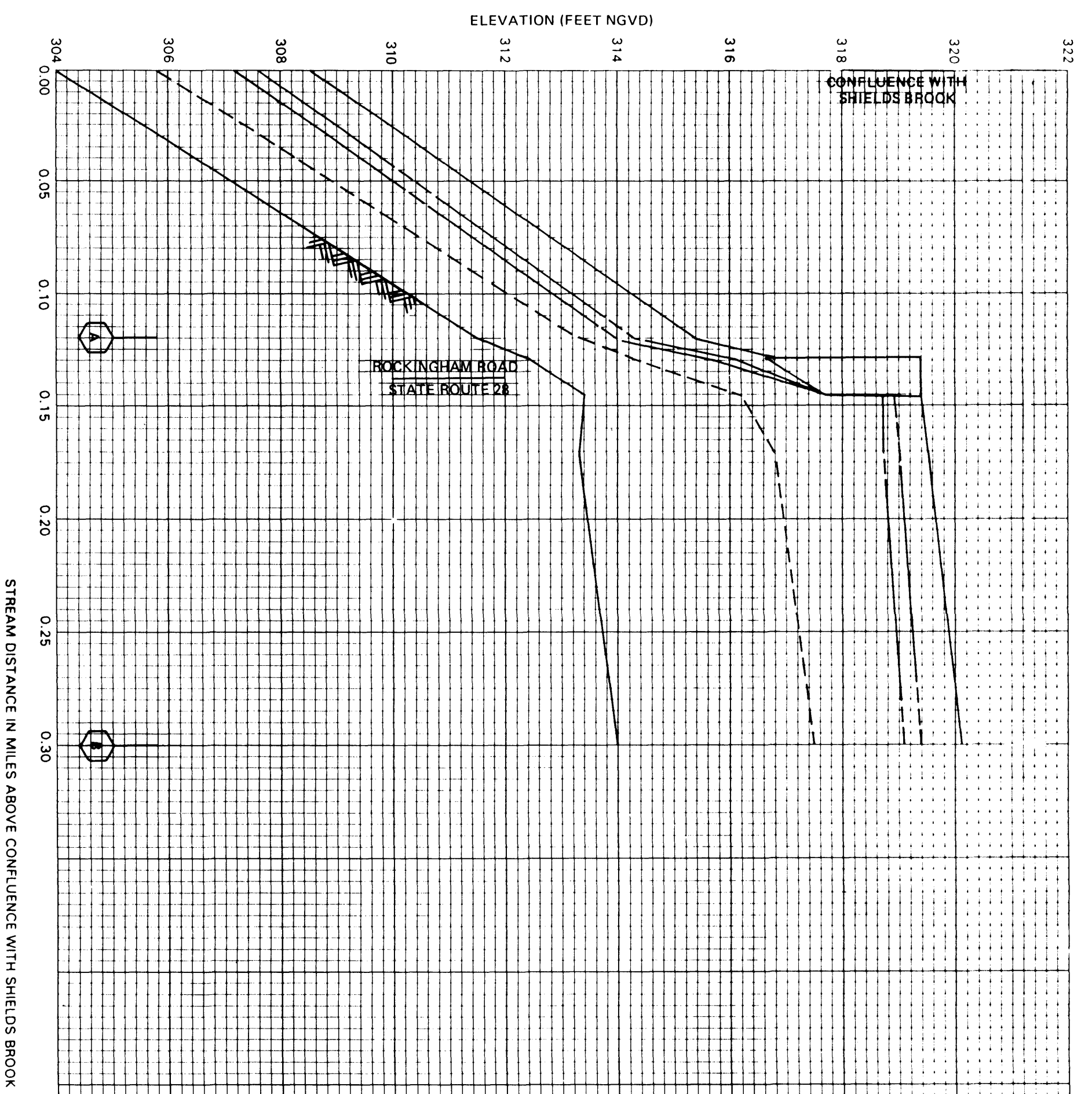
FLOOD PROFILES
TRIBUTARY 0 TO BEAVER BROOK

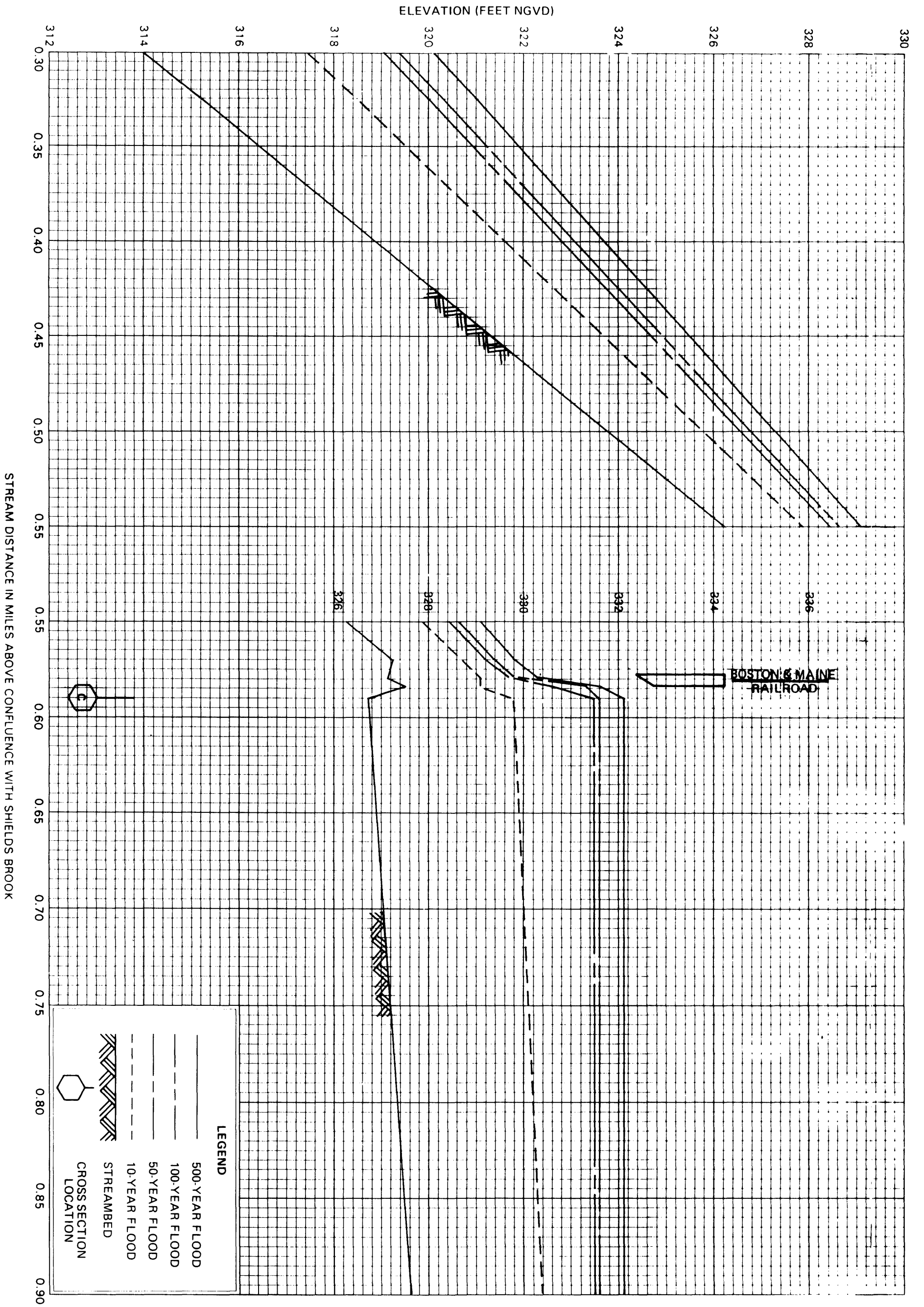
194P



LEGEND

- 500-YEAR FLOOD
- - - 100-YEAR FLOOD
- - - 50-YEAR FLOOD
- - - 10-YEAR FLOOD
- ▨ STREAMBED
- CROSS SECTION LOCATION





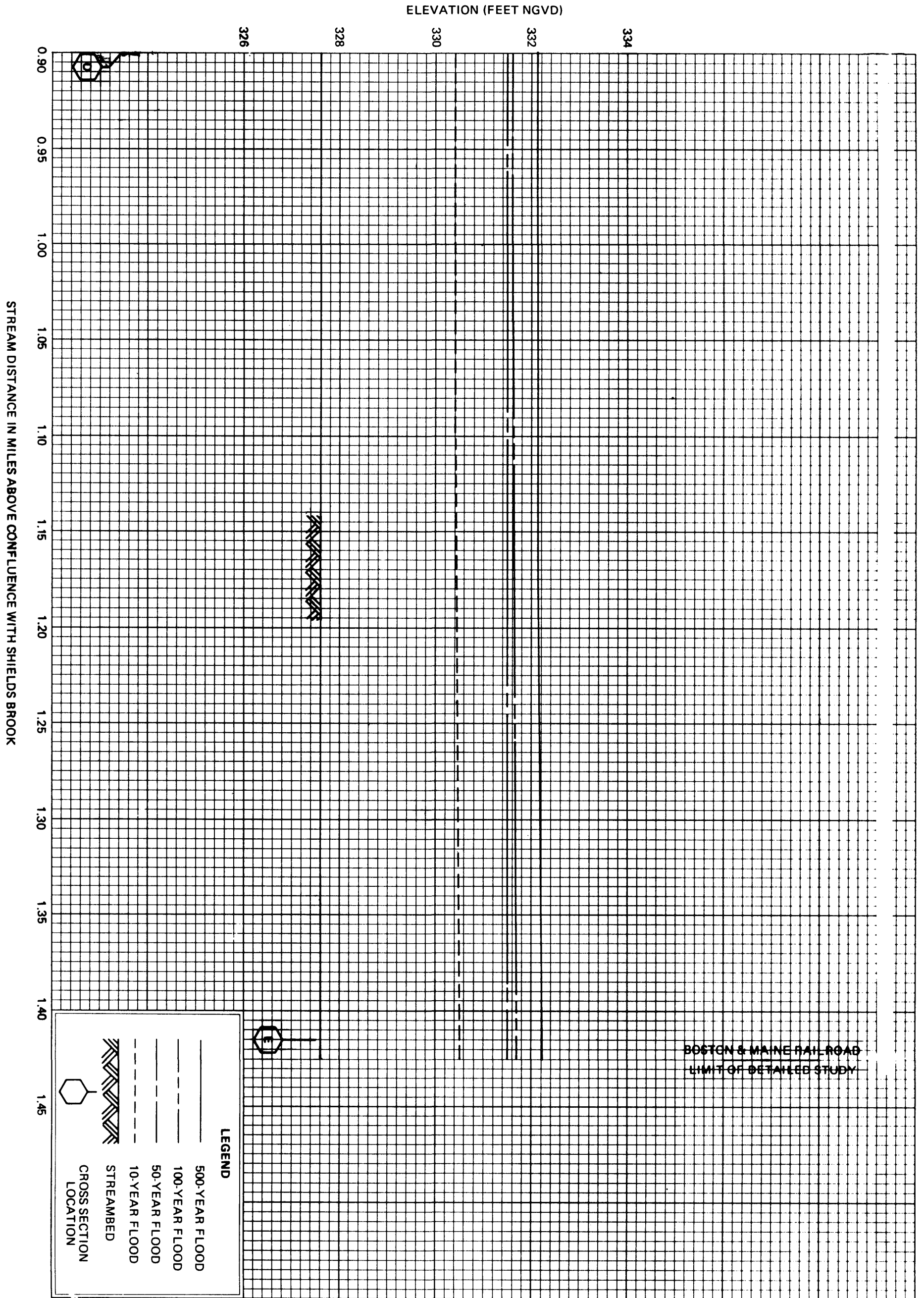
FEDERAL EMERGENCY MANAGEMENT AGENCY

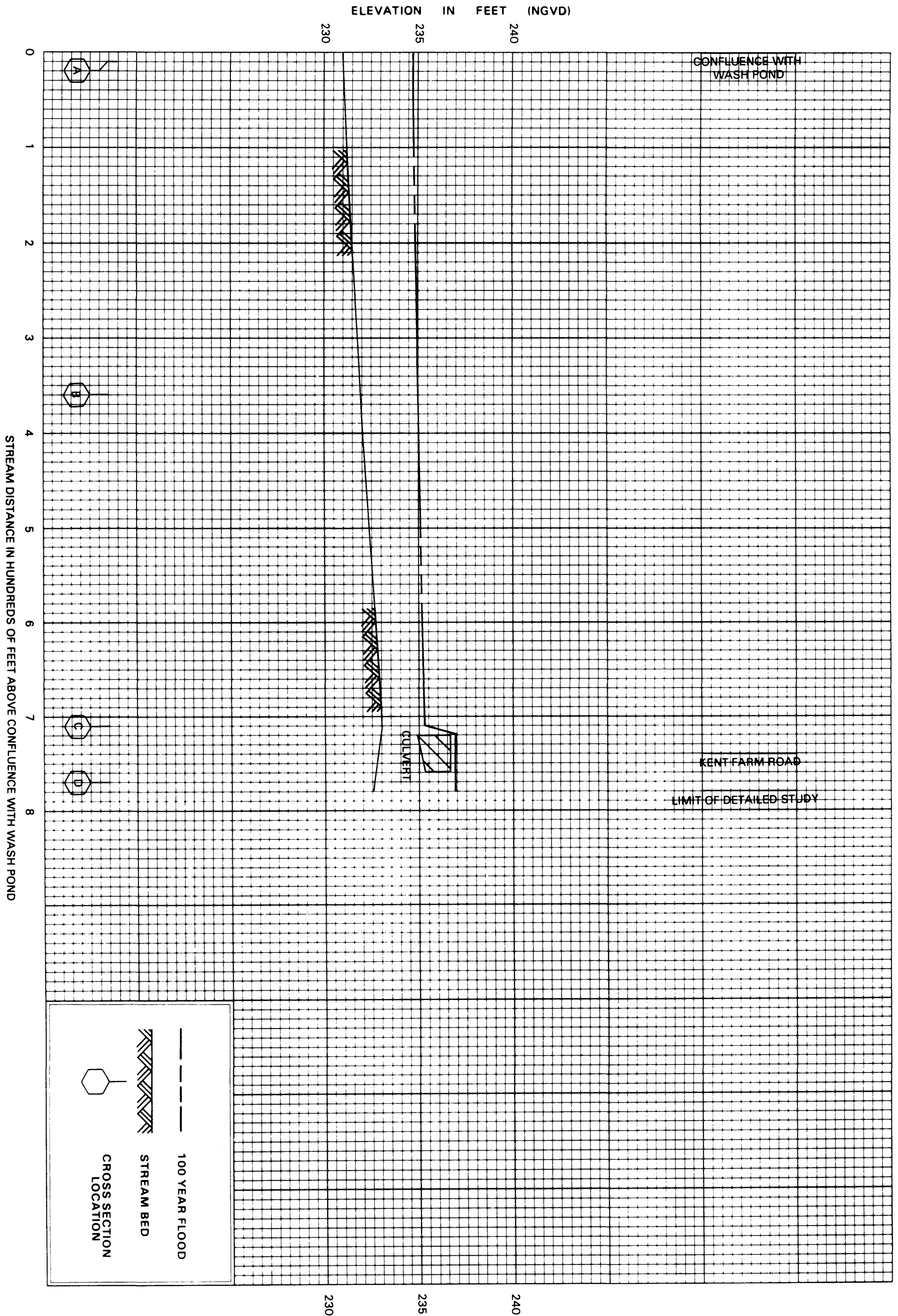
ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

197P

FLOOD PROFILES

UPPER BEAVER BROOK





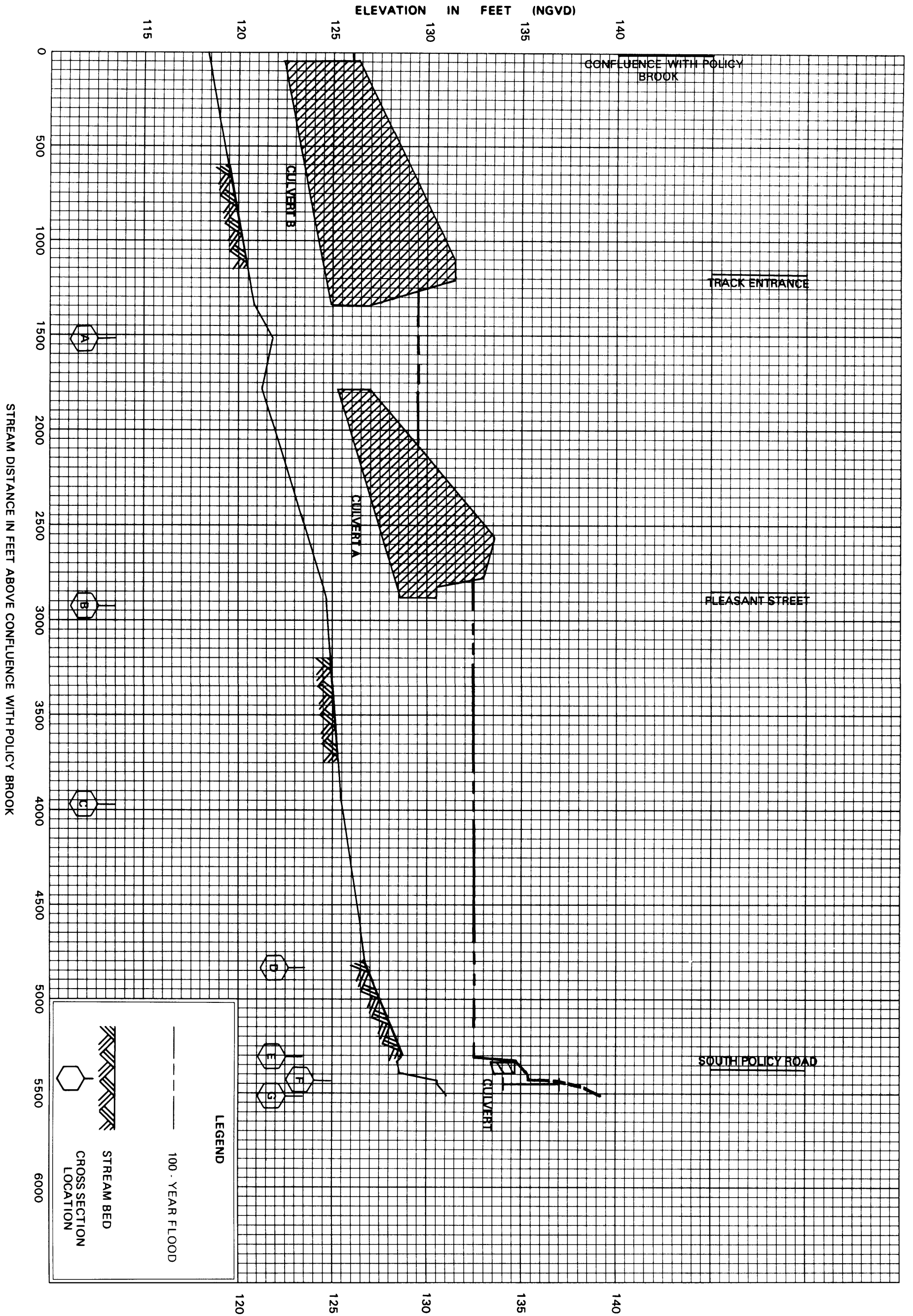
FEDERAL EMERGENCY MANAGEMENT AGENCY

ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

WASH POND TRIBUTARY

199P



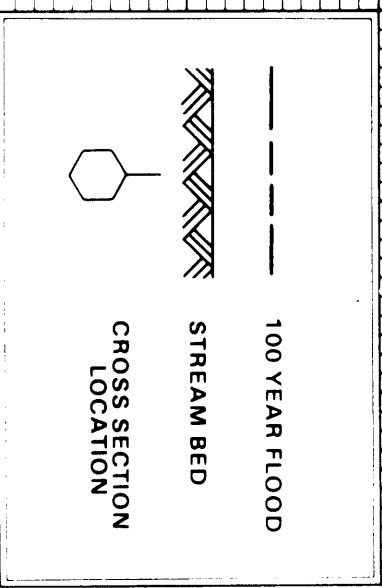
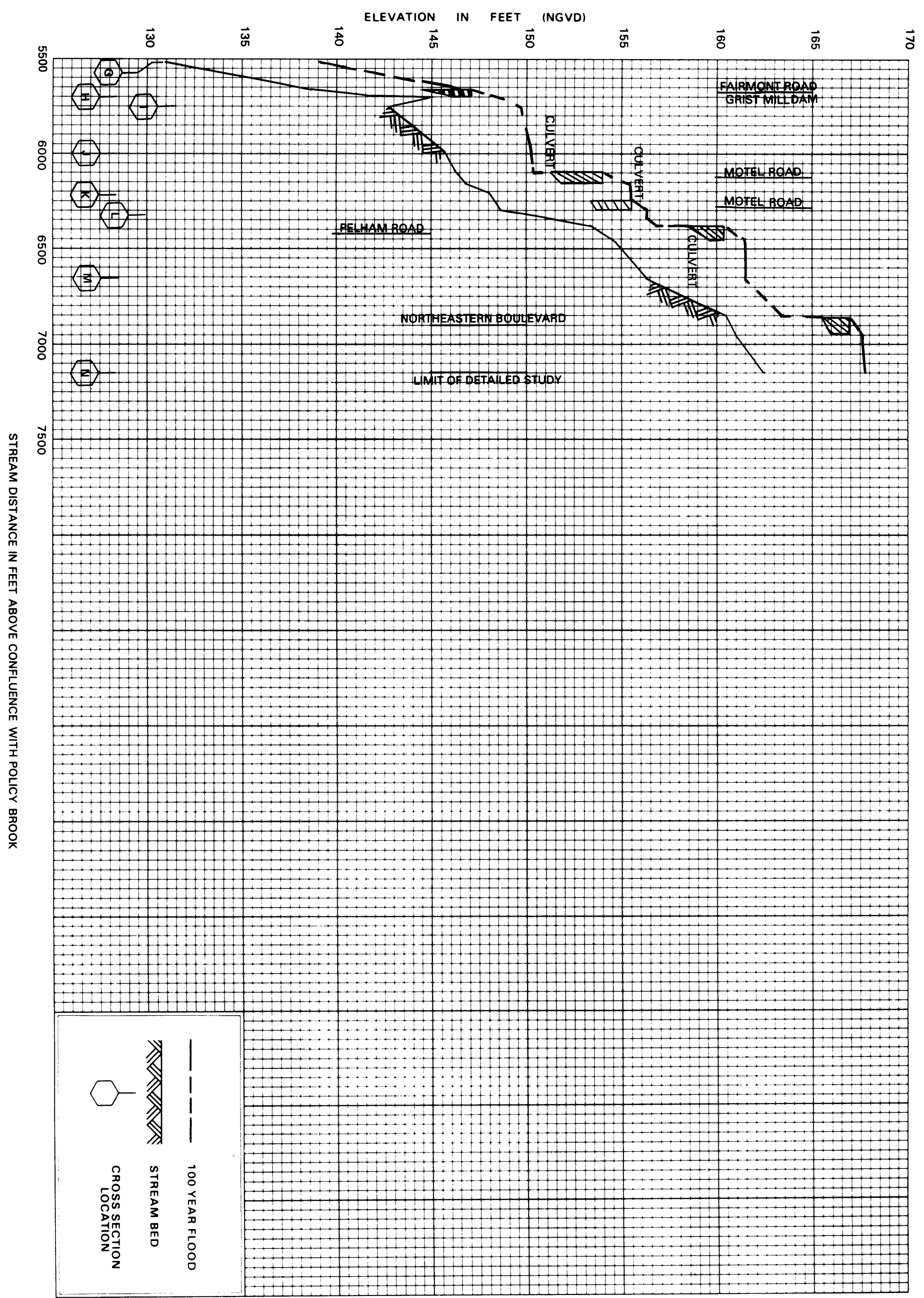
FEDERAL EMERGENCY MANAGEMENT AGENCY

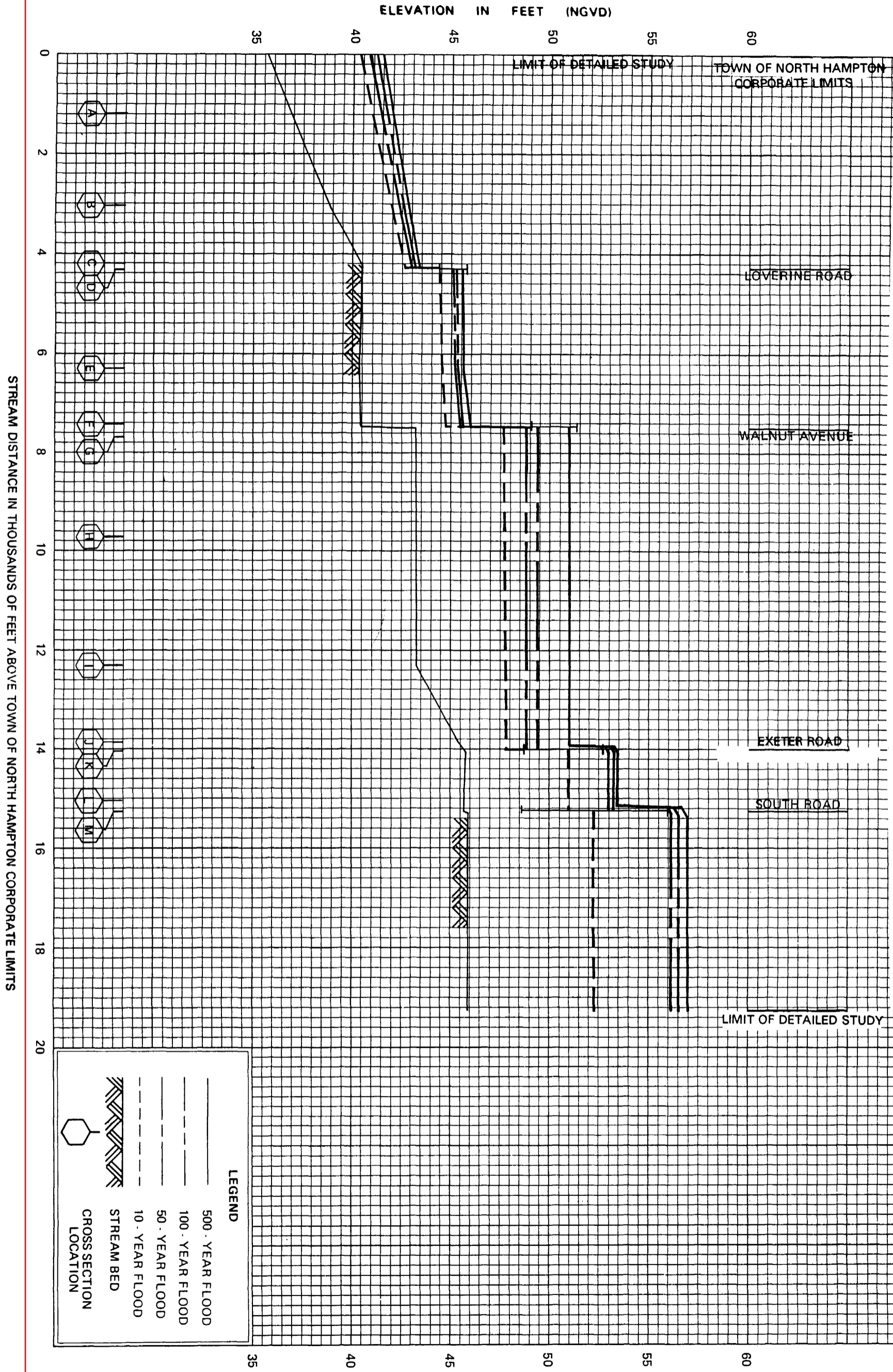
ROCKINGHAM COUNTY, NH
(ALL JURISDICTIONS)

FLOOD PROFILES

WEST CHANNEL POLICY BROOK

200P

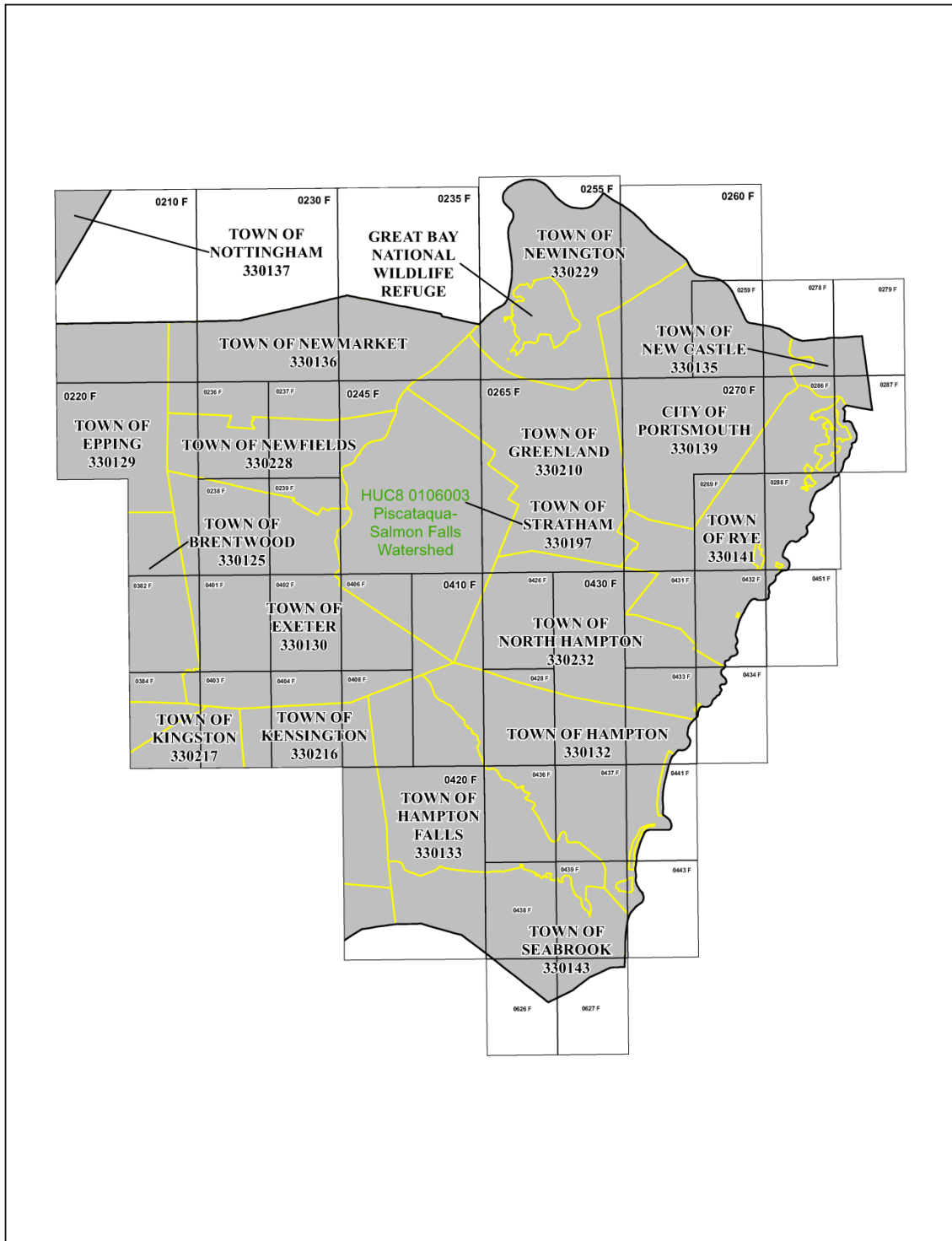




FEDERAL EMERGENCY MANAGEMENT AGENCY
ROCKINGHAM COUNTY, NH
 (ALL JURISDICTIONS)

FLOOD PROFILES
WINNICUT RIVER

202P



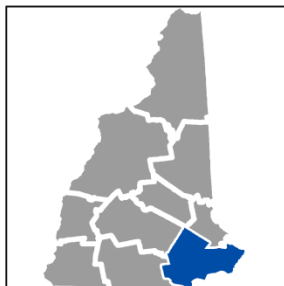
1 inch = 2 miles

Map Projection:
NAD 1983 StatePlane New Hampshire
FIPS 2800 Feet

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

[HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FIS REPORT FOR ADDITIONAL INFORMATION



NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP INDEX

PISCATAQUA/SALMON FALLS BASIN,
ROCKINGHAM COUNTY, NEW HAMPSHIRE

ALL JURISDICTIONS

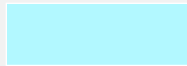
PANELS PRINTED:

0210, 0220, 0230, 0235, 0236, 0237, 0238, 0239, 0245, 0255, 0259, 0260, 0265, 0269, 0270, 0278, 0279, 0286, 0287, 0288, 0382, 0384, 0401, 0402, 0403, 0404, 0406, 0408, 0410, 0420, 0426, 0428, 0430, 0431, 0432, 0433, 0434, 0436, 0437, 0438, 0439, 0441, 0443, 0451, 0626, 0627



MAP NUMBER
33015CIND0
MAP REVISED

SPECIAL FLOOD HAZARD AREAS: *The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. See note for specific types. If the floodway is too narrow to be shown, a note is shown.*



Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)

- Zone A The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone.
- Zone AE The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone, either at cross section locations or as static whole-foot elevations that apply throughout the zone.
- Zone AH The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone.
- Zone AO The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone.
- Zone AR The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- Zone A99 The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone.
- Zone V The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone.
- Zone VE Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone.



Regulatory Floodway determined in Zone AE.

OTHER AREAS OF FLOOD HAZARD



Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.



Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone.



Zone X Protected by Accredited Levee: Areas protected by an accredited levee, dike or other flood control structures. See Notes to Users for important information.

OTHER AREAS

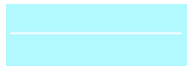


Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible



Unshaded Zone X: Areas determined to be outside the 0.2% annual chance floodplain

FLOOD HAZARD AND OTHER BOUNDARY LINES



Flood Zone Boundary (white line)



Limit of Study

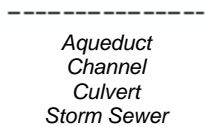


Jurisdiction Boundary



Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet

GENERAL STRUCTURES



Channel, Culvert, Aqueduct, or Storm Sewer



Dam, Jetty, Weir



Levee, Dike or Floodwall accredited or provisionally accredited to provide protection from the 1% annual chance flood



Levee, Dike or Floodwall not accredited to provide protection from the 1% annual chance flood.



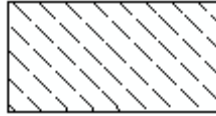
Bridge

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA): *CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas. See Notes to Users for important information.*



CBRS AREA
09/30/2009

Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.



OTHERWISE PROTECTED AREA
09/30/2009

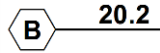
Otherwise Protected Area

REFERENCE MARKERS



River mile Markers

CROSS SECTION & TRANSECT INFORMATION



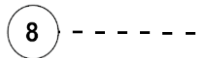
Lettered Cross Section with Regulatory Water Surface Elevation (BFE)



Numbered Cross Section with Regulatory Water Surface Elevation (BFE)



Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)



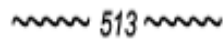
Coastal Transect



Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation.



Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.



Base Flood Elevation Line (shown for flooding sources for which no cross sections or profile are available)

**ZONE AE
(EL 16)**

Static Base Flood Elevation value (shown under zone label)

**ZONE AO
(DEPTH 2)**

Zone designation with Depth

**ZONE AO
(DEPTH 2)
(VEL 15 FPS)**

Zone designation with Depth and Velocity

BASE MAP FEATURES

Missouri Creek

River, Stream or Other Hydrographic Feature



Interstate Highway



U.S. Highway



State Highway



County Highway

MAPLE LANE

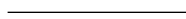


Street, Road, Avenue Name, or Private Drive if shown on Flood Profile



RAILROAD

Railroad



Horizontal Reference Grid Line



Horizontal Reference Grid Ticks



Secondary Grid Crosshairs

Land Grant

Name of Land Grant

7

Section Number

R. 43 W. T. 22 N.

Range, Township Number

⁴²76^{000m}E

Horizontal Reference Grid Coordinates (UTM)

365000 FT

Horizontal Reference Grid Coordinates (State Plane)

80° 16' 52.5"

Corner Coordinates (Latitude, Longitude)

NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Map Service Center at the number listed above.

For community and countywide map dates, refer to Section 6 in this FIS Report.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.

BASE FLOOD ELEVATIONS: For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.

Coastal Base Flood Elevations shown on the map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the FIS Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.

FLOODWAY INFORMATION: Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.

FLOOD CONTROL STRUCTURE INFORMATION: Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 4.3 "Non-Levee Flood Protection Measures" of this FIS Report for information on flood control structures for this jurisdiction.

PROJECTION INFORMATION: The projection used in the preparation of the map was State_Plane. The horizontal datum was NAD83. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

ELEVATION DATUM: Flood elevations on this map are referenced to either the National Geodetic Vertical Datum of 1929 (NGVD29) or the North American Vertical Datum of 1988 (NAVD88). Please refer to the title section on the lower right portion of this map to determine which datum is used for each community displayed on this panel. Additional information is available in Section 3 of the accompanying Flood Insurance Study report. Note that flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 (NGVD29) and the North American Vertical Datum of 1988 (NAVD88), visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

Communications and Outreach Branch, NOAA, N/NGS12
National Geodetic Survey, SSMC3 #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

BASE MAP INFORMATION: Base map information shown on the FIRM was provided in digital format by the United States Geological Survey (USGS). This information was derived from digital orthophotography at a 1-ft resolution from photography dated 2010.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables may reflect stream channel distances that differ from what is shown on the map.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

NOTES FOR FIRM INDEX

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Piscataqua/Salmon Falls Basin, Rockingham County, New Hampshire (All Jurisdictions), corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Section 6 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

SPECIAL NOTES FOR SPECIFIC FIRM PANELS

This Notes to Users section was created specifically for Piscataqua/Salmon Falls Basin, Rockingham County, New Hampshire (All Jurisdictions).

FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.