

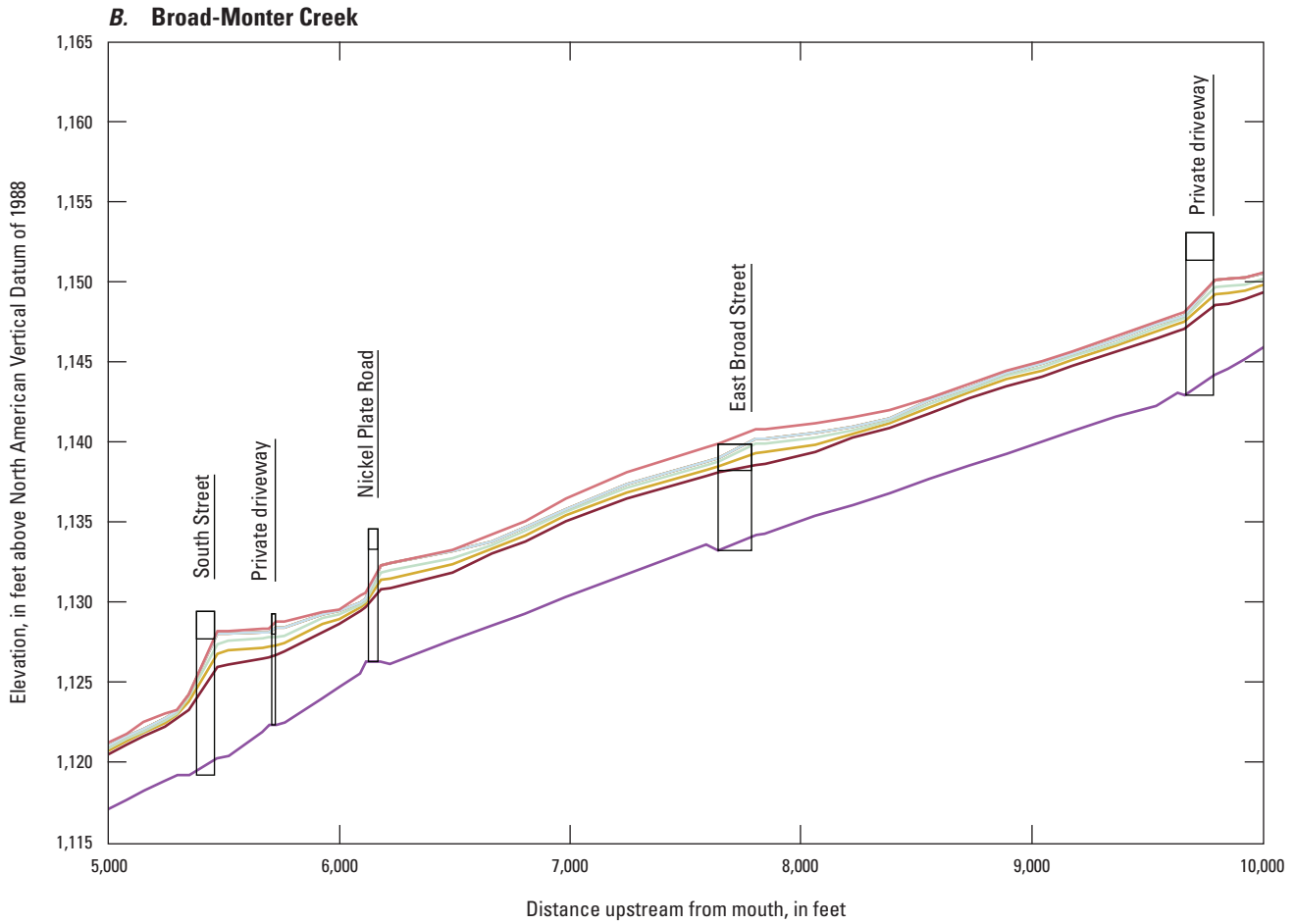
#### EXPLANATION

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |   |   |
|---|---|---|---|
|  | <b>Minimum channel elevation</b>                |  | <b>1-percent plus annual exceedance probability</b> |
|  | <b>10-percent annual exceedance probability</b> |  | <b>0.2-percent annual exceedance probability</b>    |
|  | <b>4-percent annual exceedance probability</b>  |  | <b>Regulatory floodway</b>                          |
|  | <b>2-percent annual exceedance probability</b>  |  | <b>Hydraulic structures</b>                         |
|  | <b>1-percent annual exceedance probability</b>  |   |   |

**Figure 3.1.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Broad-Monter Creek, Stark County, Ohio.

2 Hydrologic and Hydraulic Analyses of Selected Streams in Stark County, Ohio

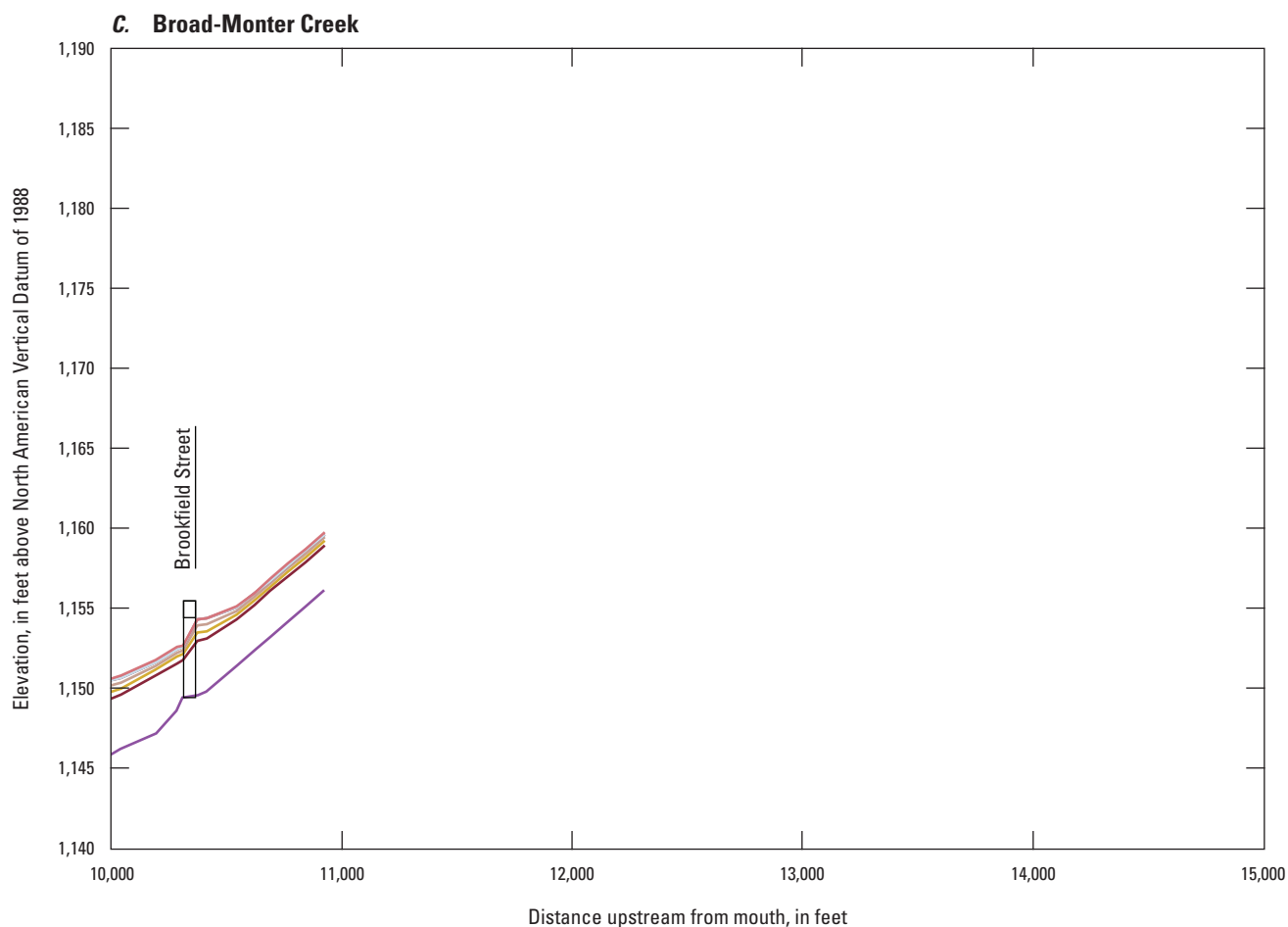


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]



- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.1.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Broad-Monter Creek, Stark County, Ohio.—Continued



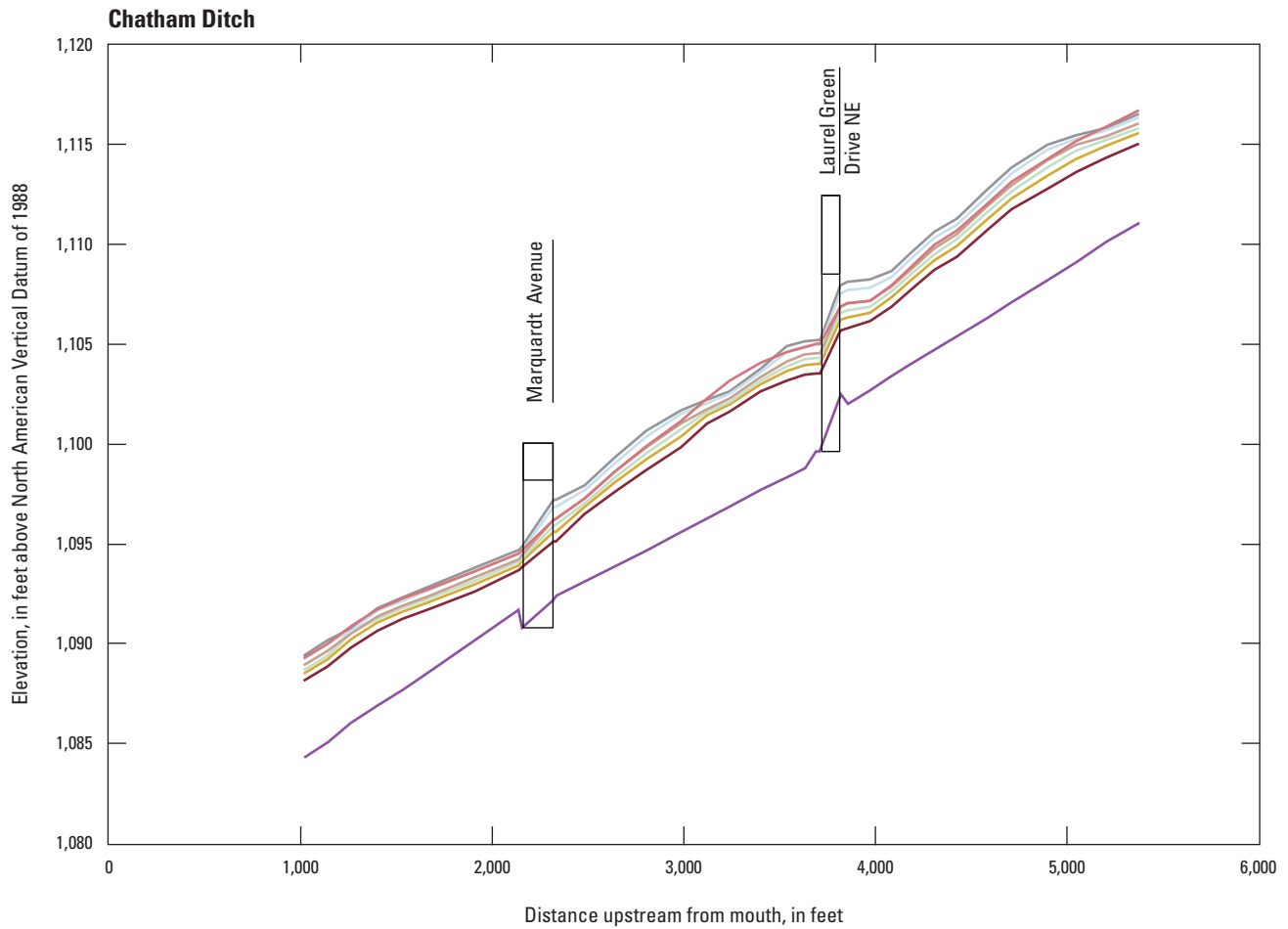
**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
|  <b>Minimum channel elevation</b>                |  <b>1-percent plus annual exceedance probability</b> |
|  <b>10-percent annual exceedance probability</b> |  <b>0.2-percent annual exceedance probability</b>    |
|  <b>4-percent annual exceedance probability</b>  |  <b>Regulatory floodway</b>                          |
|  <b>2-percent annual exceedance probability</b>  |  <b>Hydraulic structures</b>                         |
|  <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.1.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Broad-Monter Creek, Stark County, Ohio.—Continued

4 Hydrologic and Hydraulic Analyses of Selected Streams in Stark County, Ohio

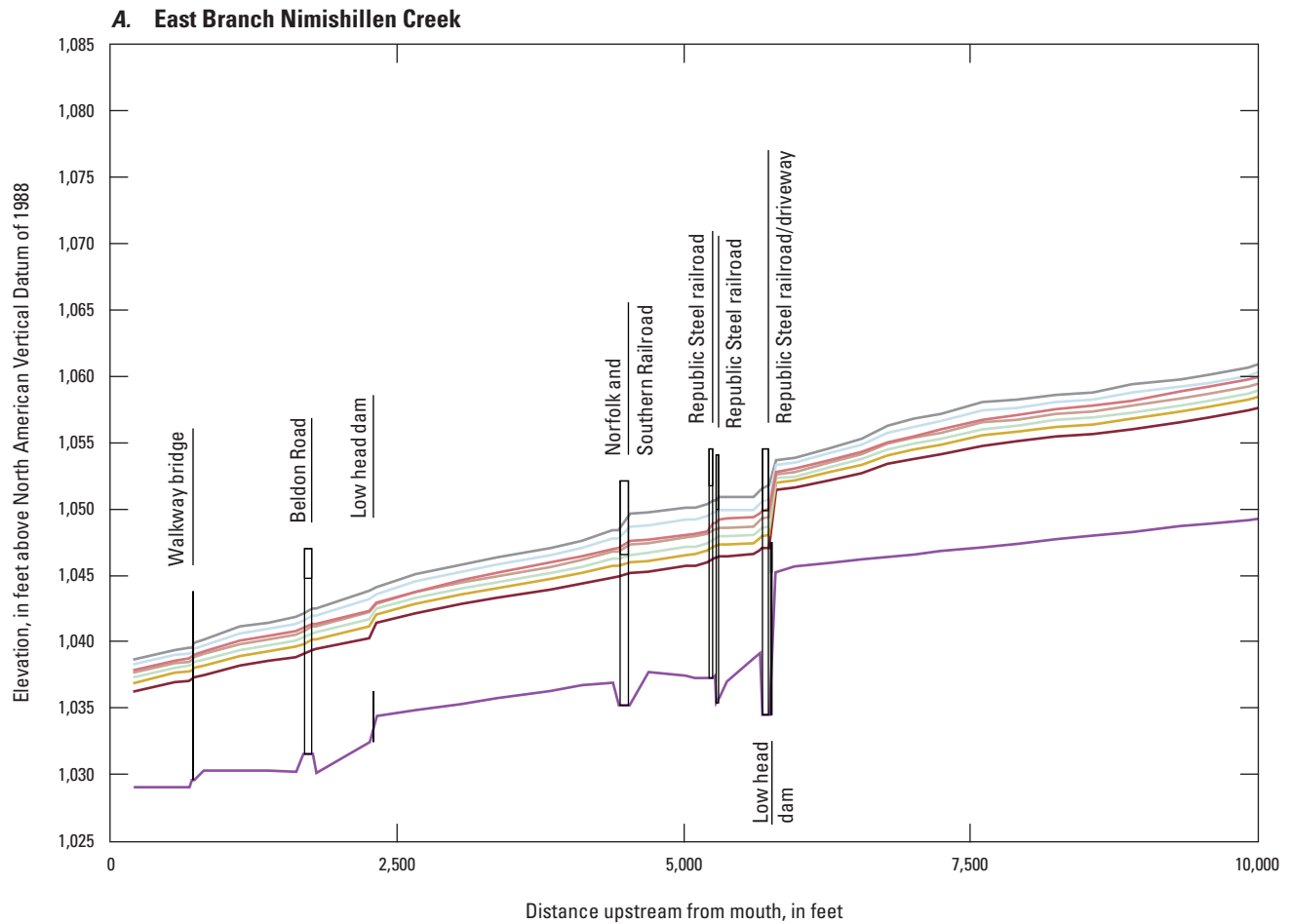


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.2.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Chatham Ditch, Stark County, Ohio.

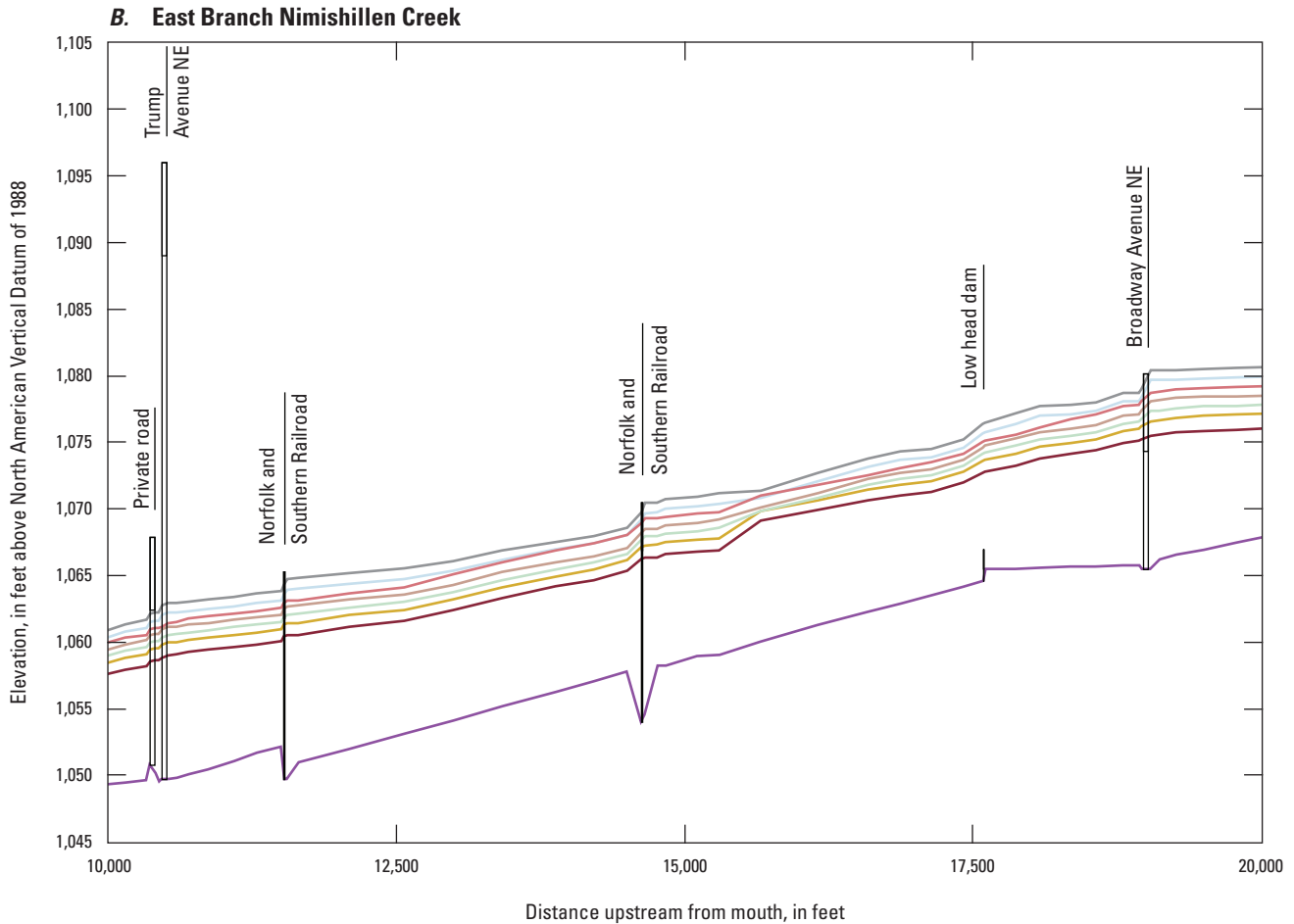


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.3.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for East Branch Nimishillen Creek, Stark County, Ohio.

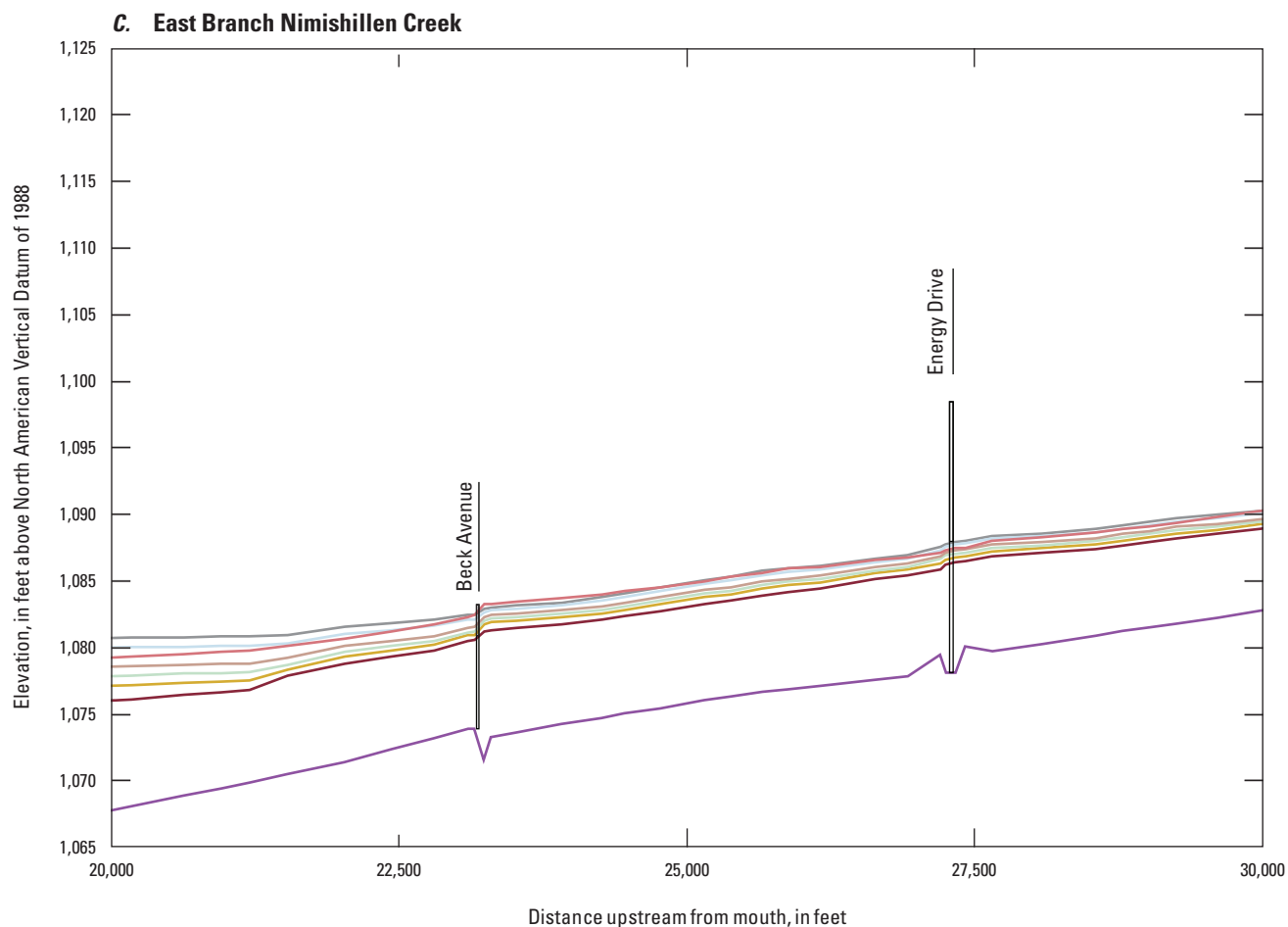


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.3.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for East Branch Nimishillen Creek, Stark County, Ohio.—Continued

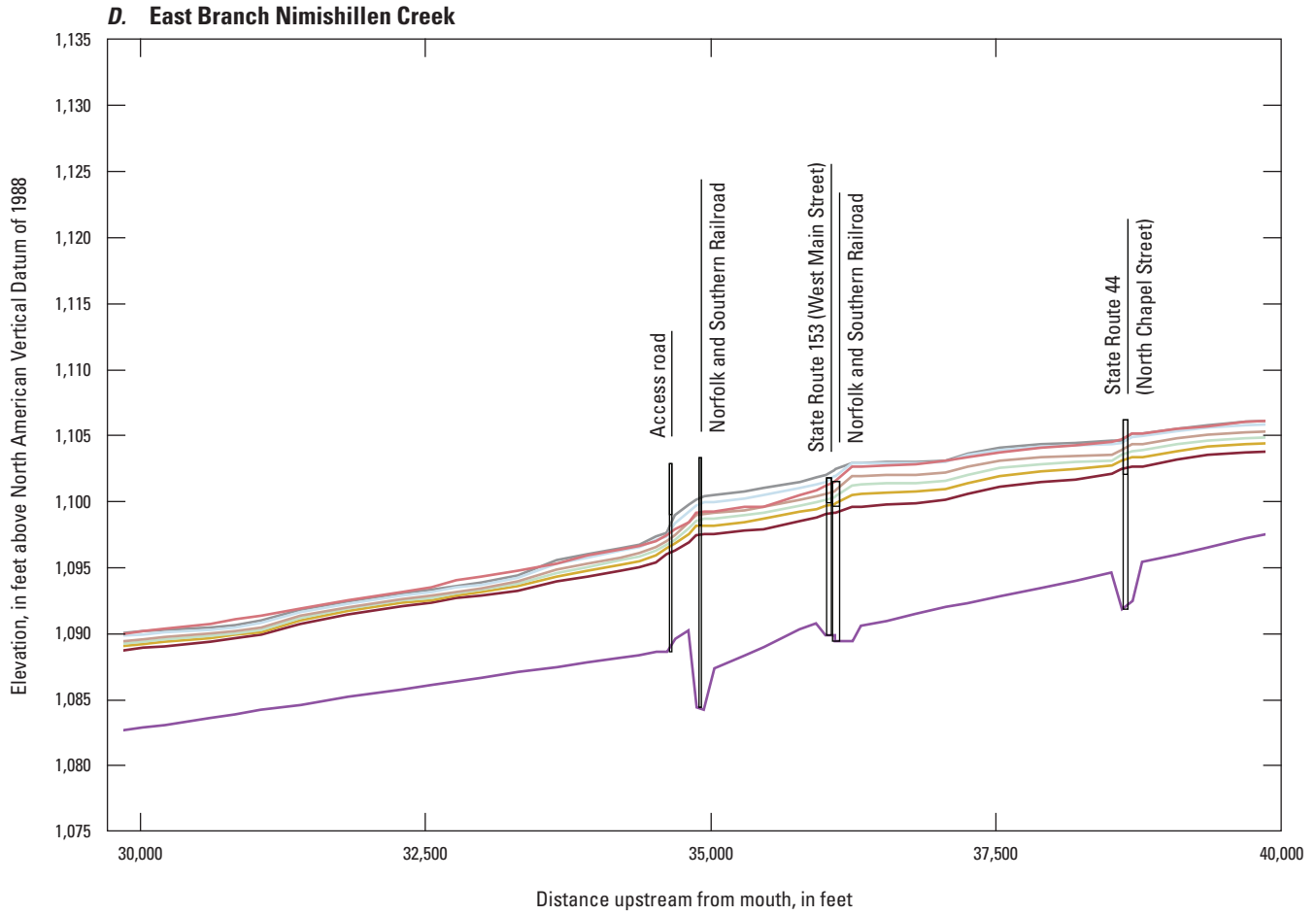


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.3.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for East Branch Nimishillen Creek, Stark County, Ohio.—Continued

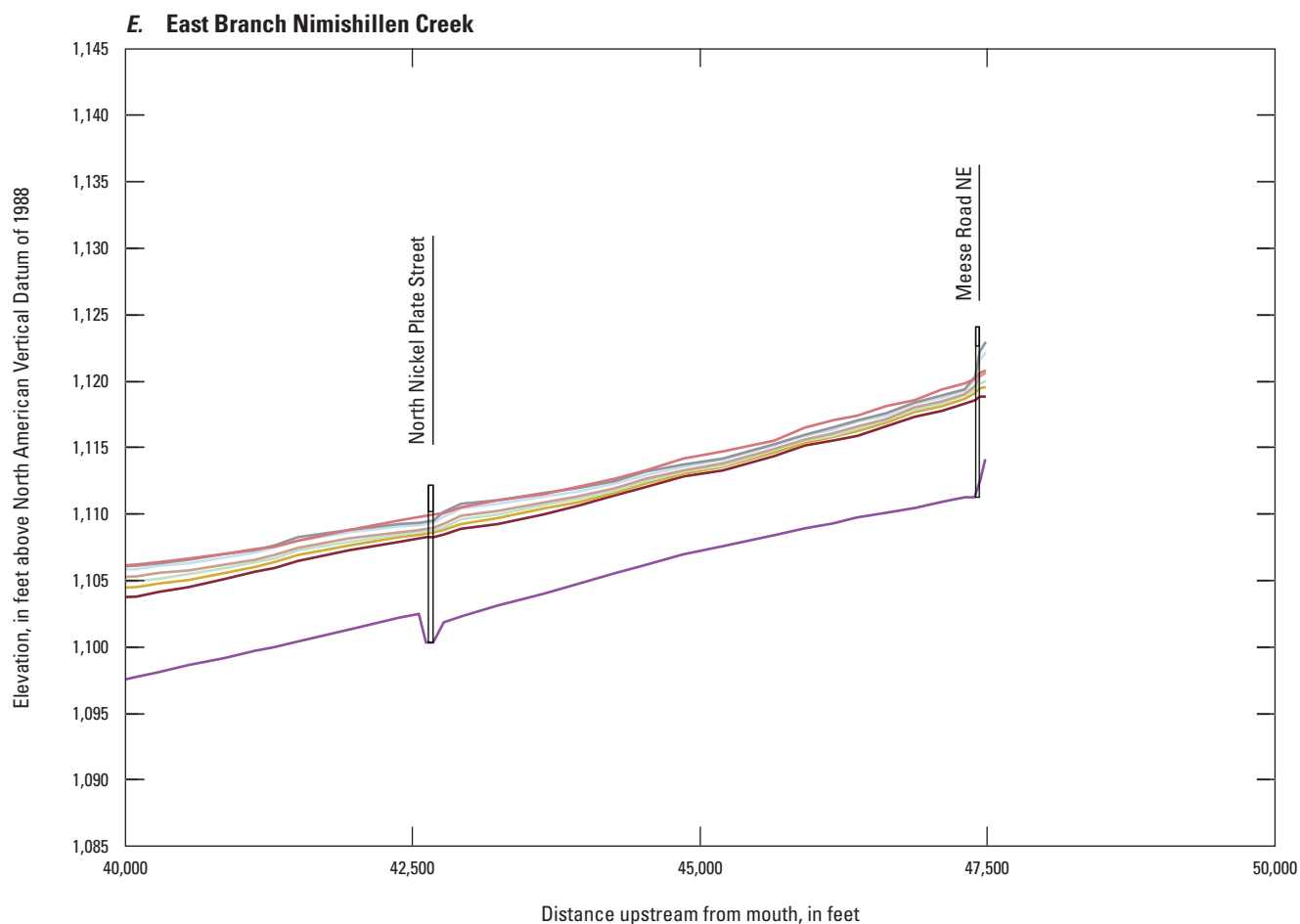


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.3.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for East Branch Nimishillen Creek, Stark County, Ohio.—Continued

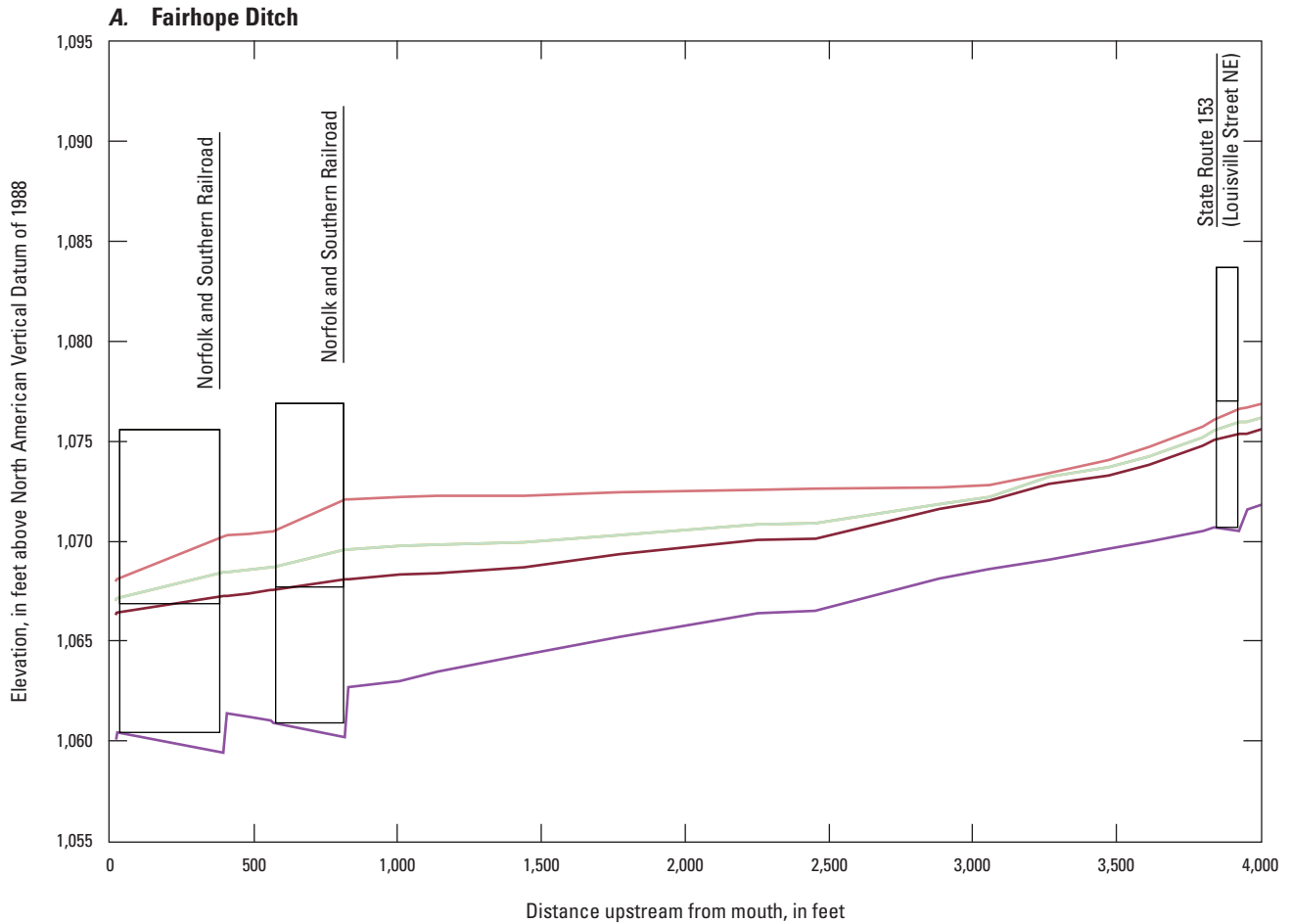


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
| <b>Minimum channel elevation</b>                | <b>1-percent plus annual exceedance probability</b> |
| <b>10-percent annual exceedance probability</b> | <b>0.2-percent annual exceedance probability</b>    |
| <b>4-percent annual exceedance probability</b>  | <b>Regulatory floodway</b>                          |
| <b>2-percent annual exceedance probability</b>  | <b>Hydraulic structures</b>                         |
| <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.3.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for East Branch Nimishillen Creek, Stark County, Ohio.—Continued

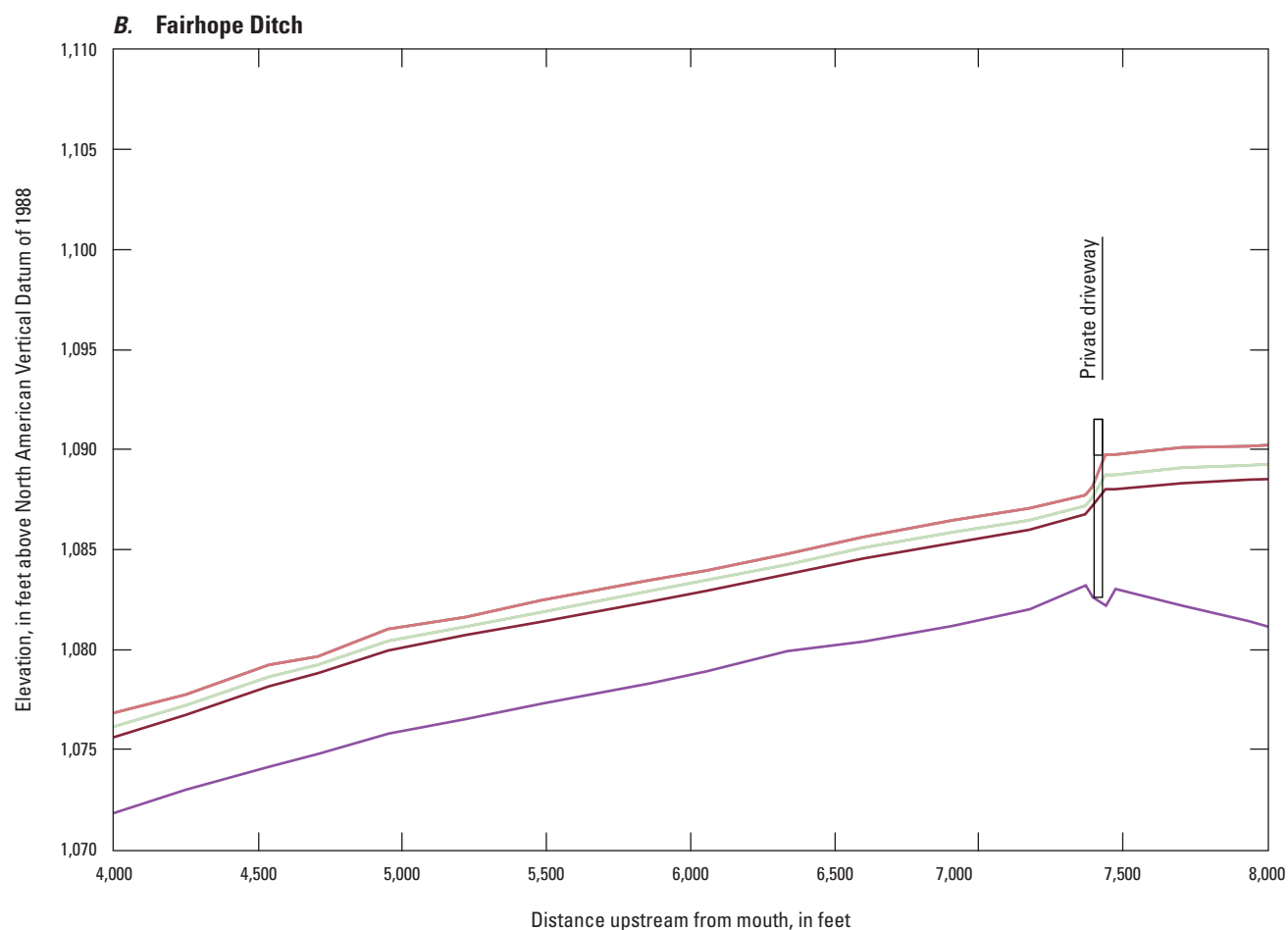


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.4** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Fairhope Ditch, Stark County, Ohio.

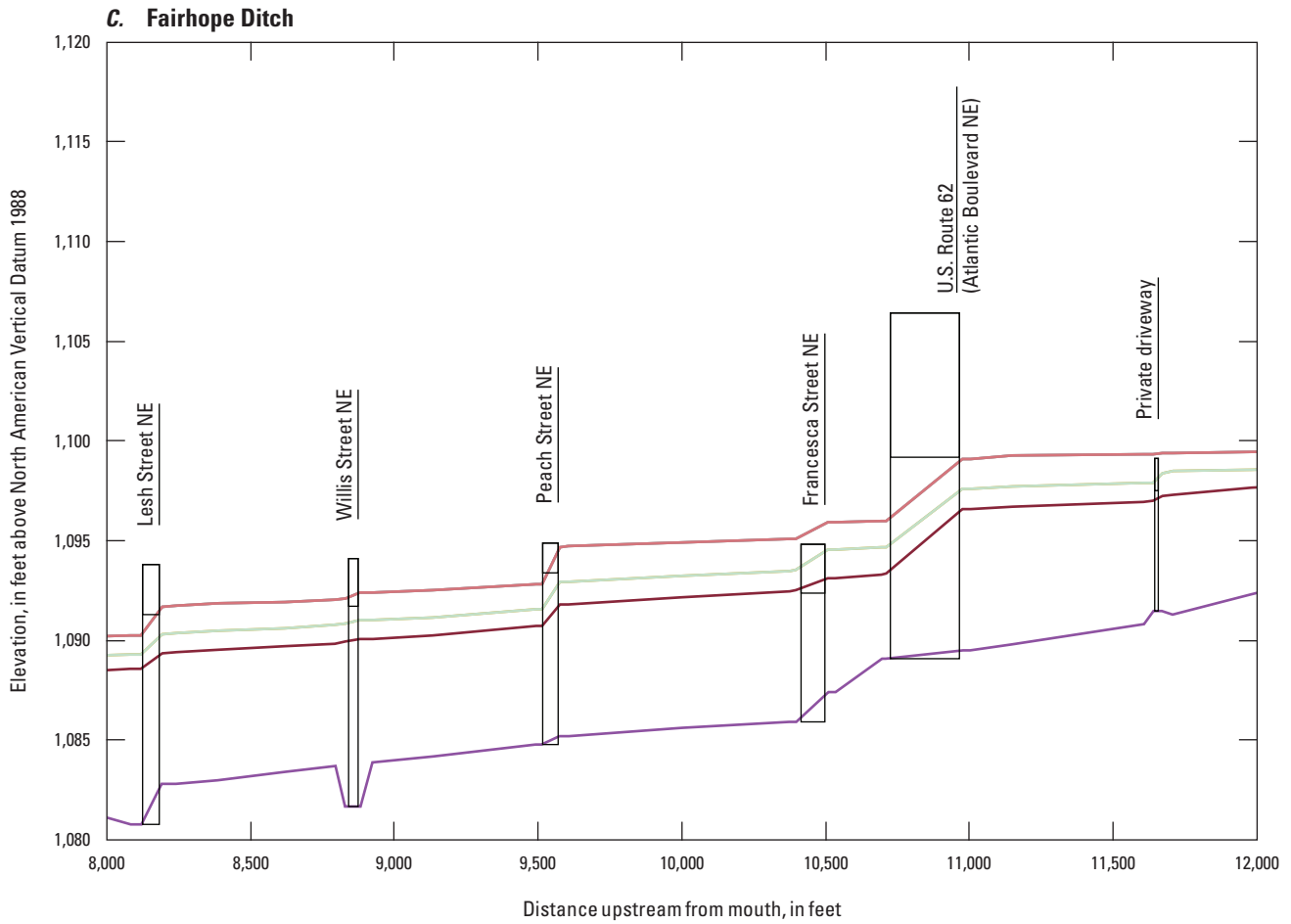


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.4** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Fairhope Ditch, Stark County, Ohio.—Continued

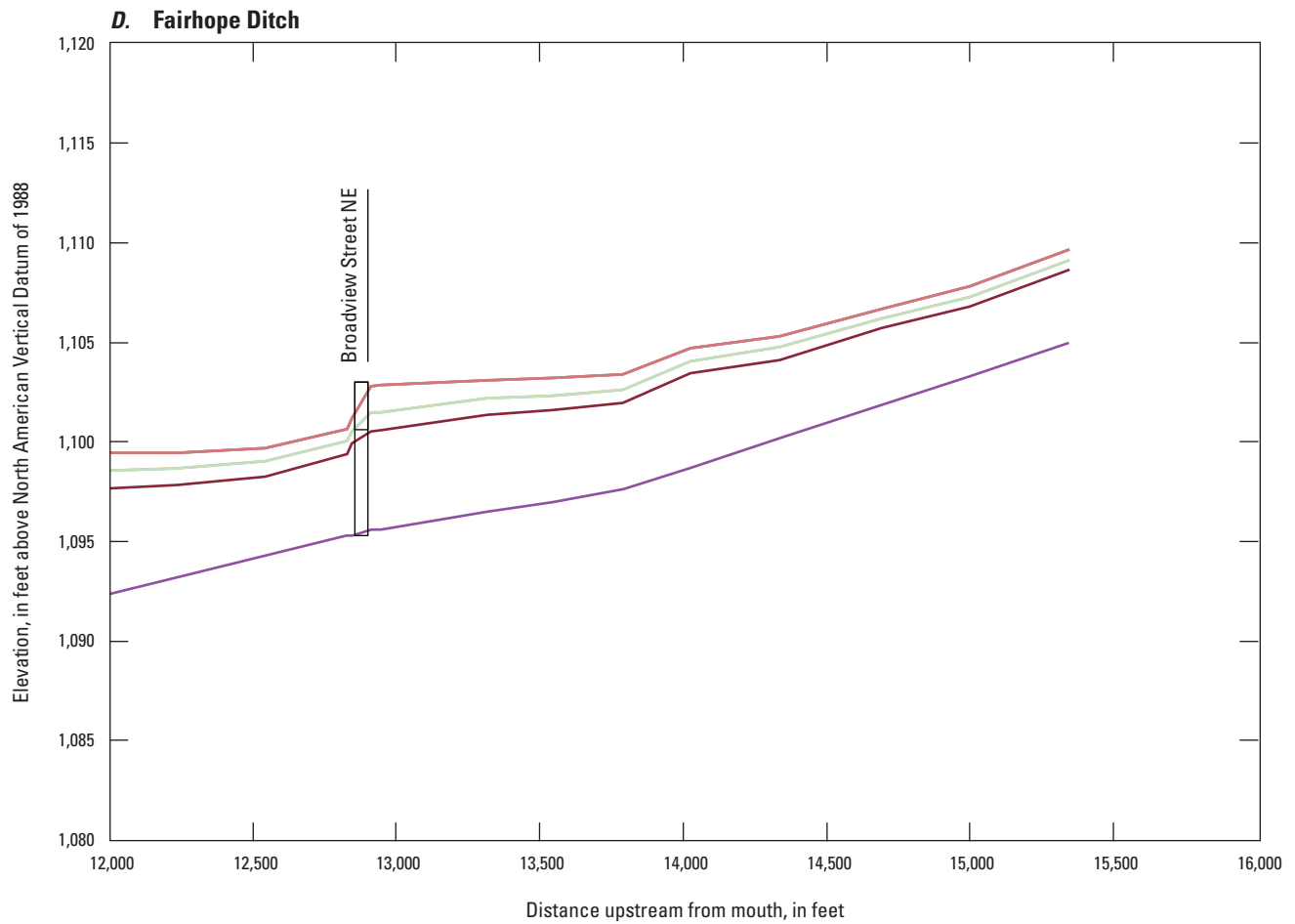


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.4** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Fairhope Ditch, Stark County, Ohio.—Continued

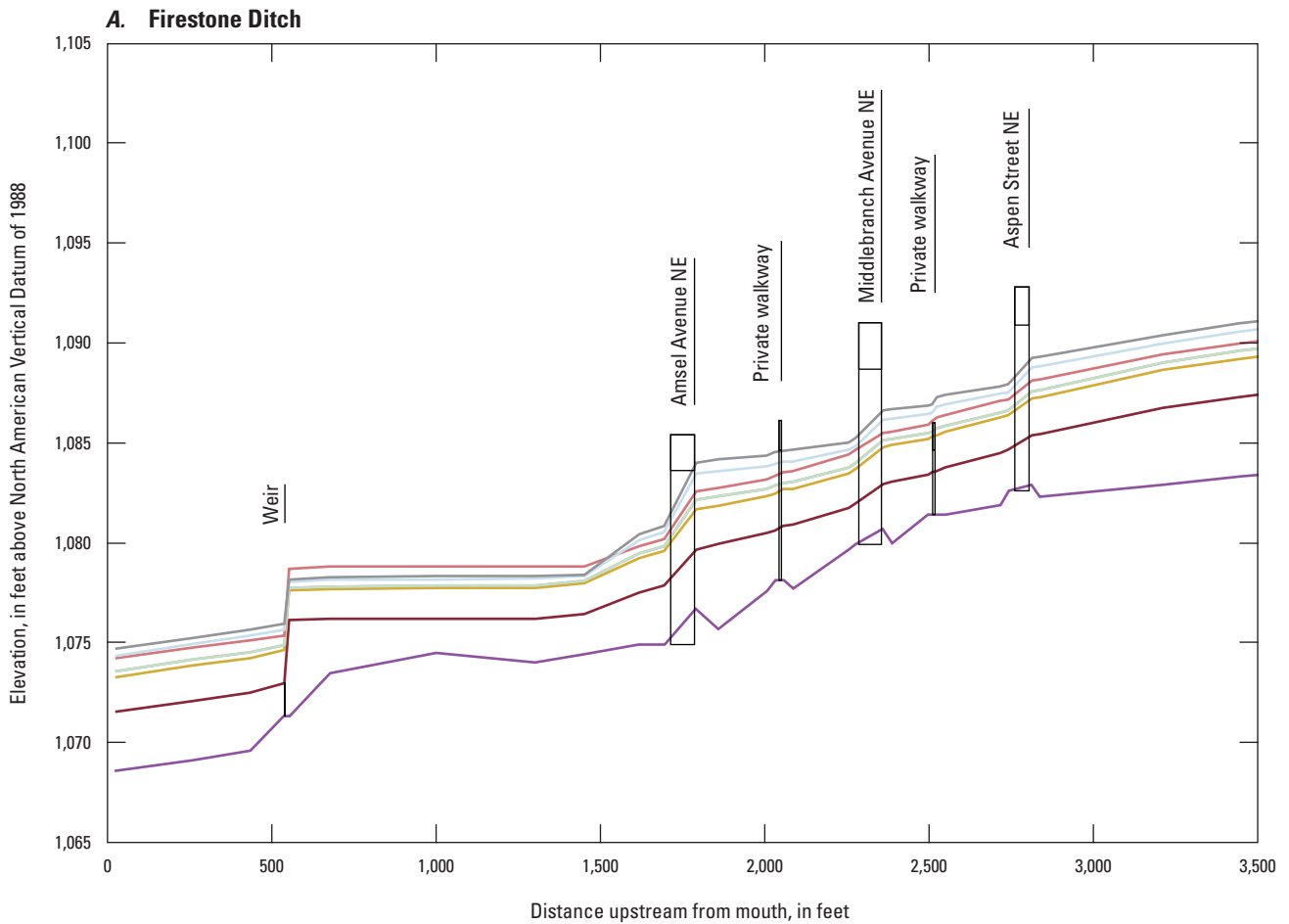


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.4** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Fairhope Ditch, Stark County, Ohio.—Continued

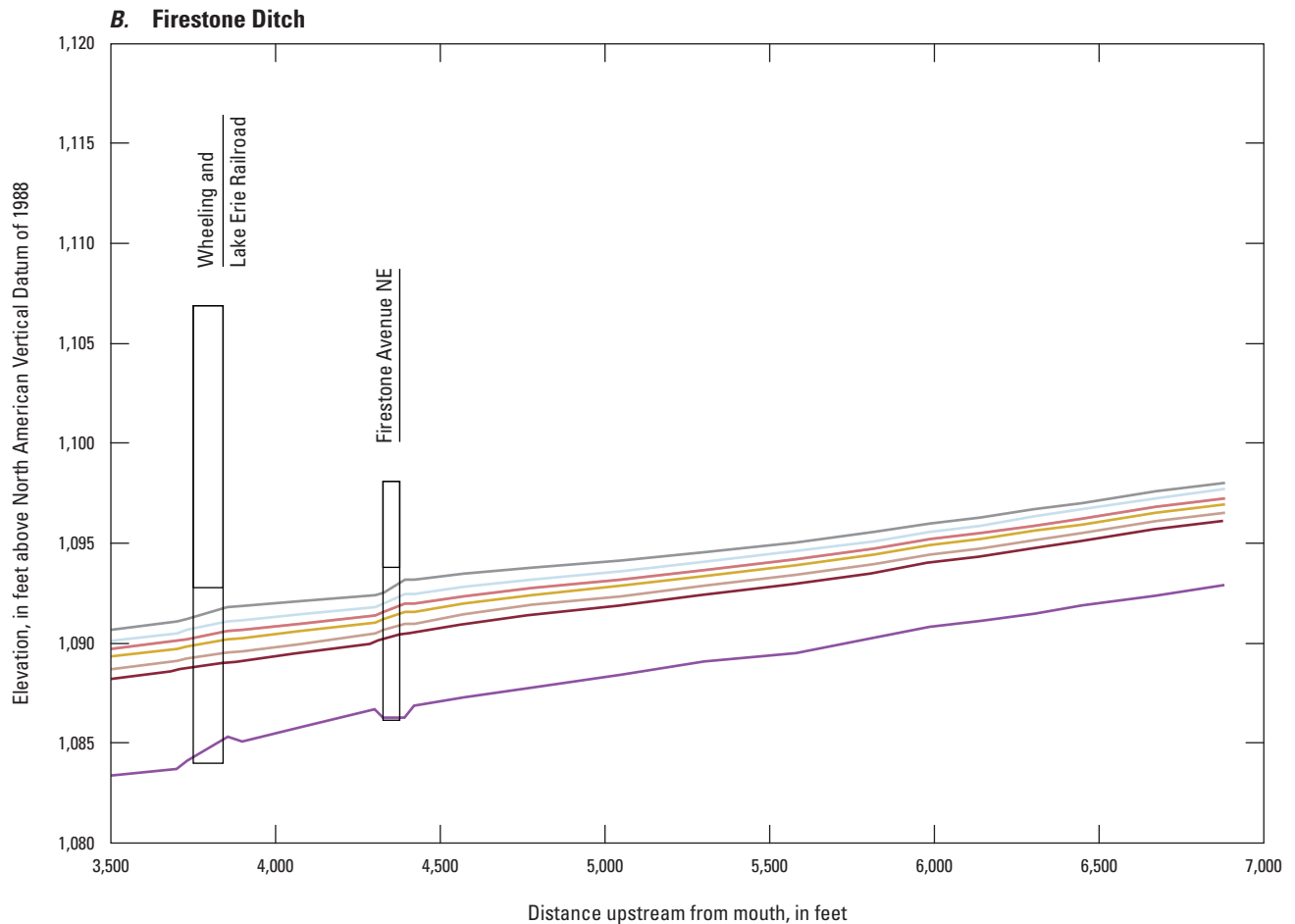


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.5.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Firestone Ditch, Stark County, Ohio.

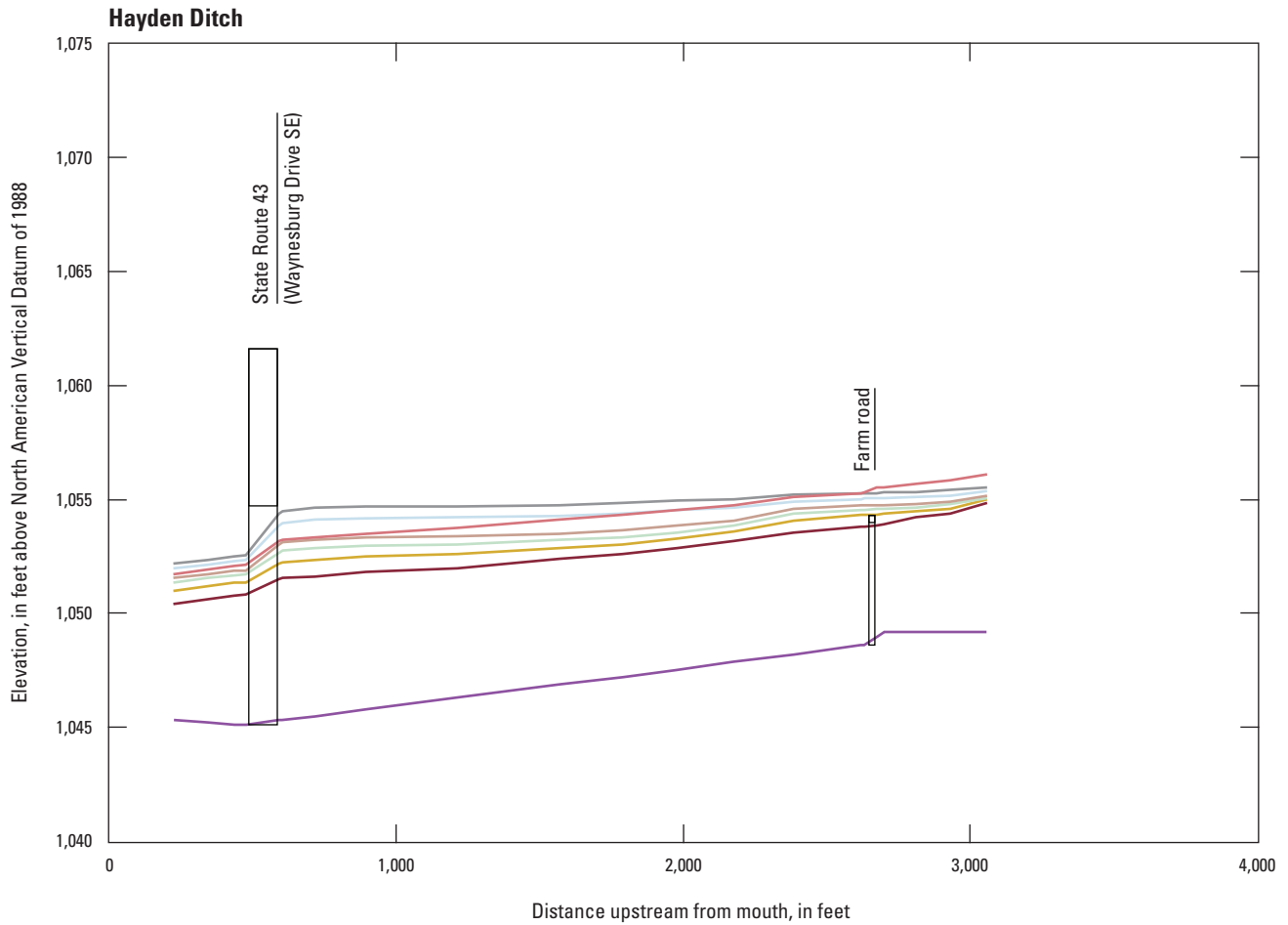


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.5.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Firestone Ditch, Stark County, Ohio.—Continued

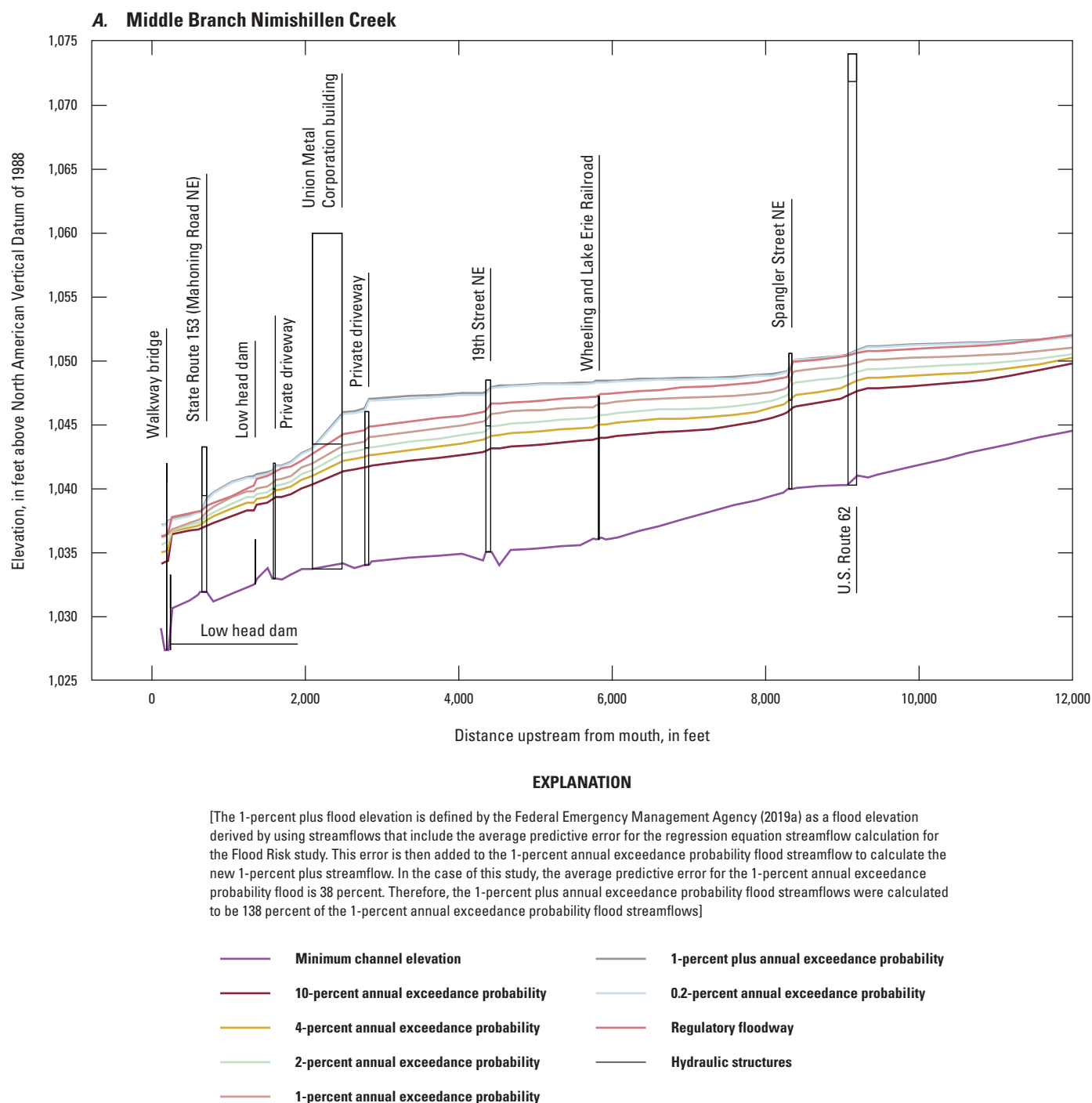


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.6.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Hayden Ditch, Stark County, Ohio.



**Figure 3.7.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Middle Branch Nimishillen Creek, Stark County, Ohio.

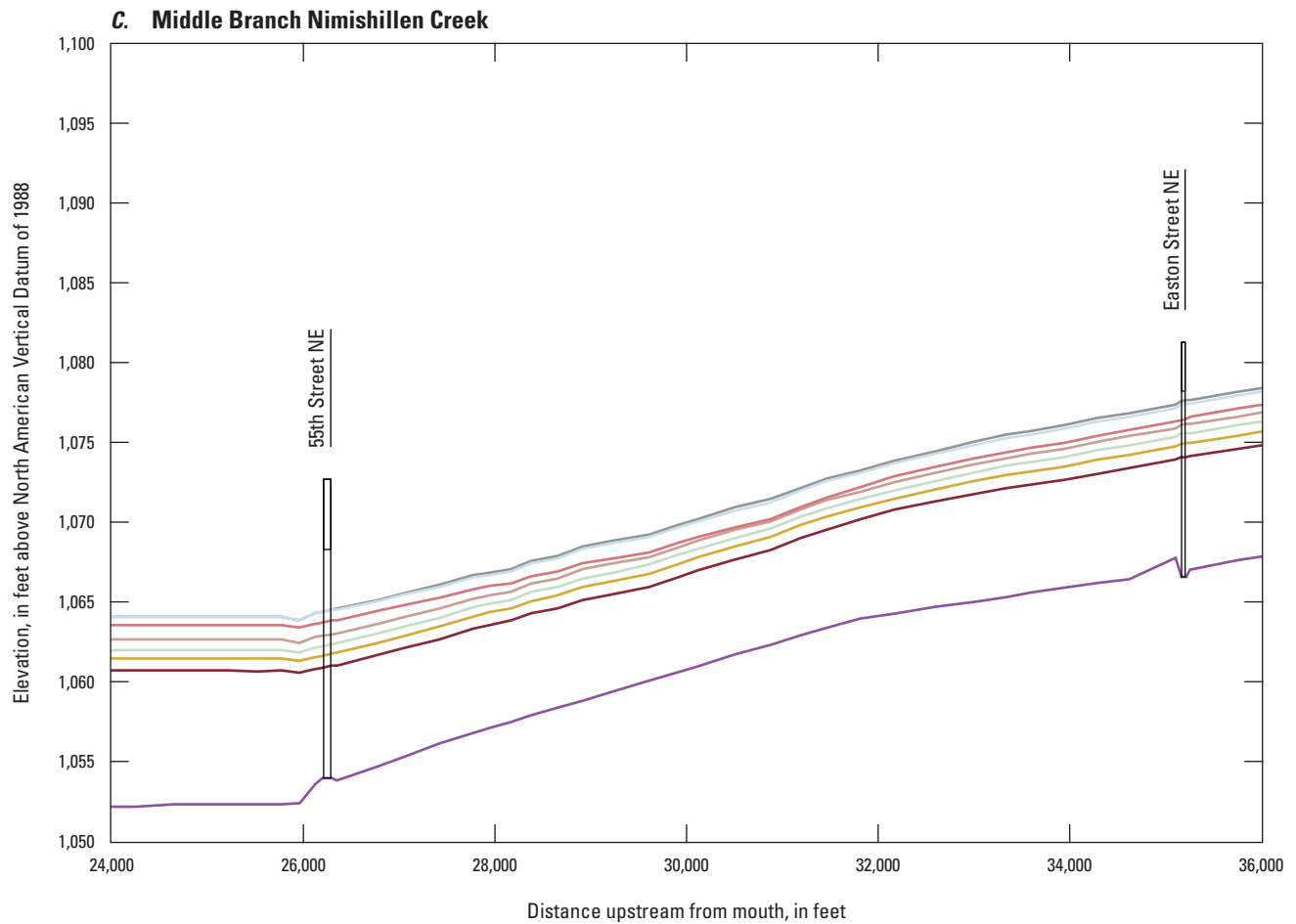


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.7.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Middle Branch Nimishillen Creek, Stark County, Ohio.—Continued

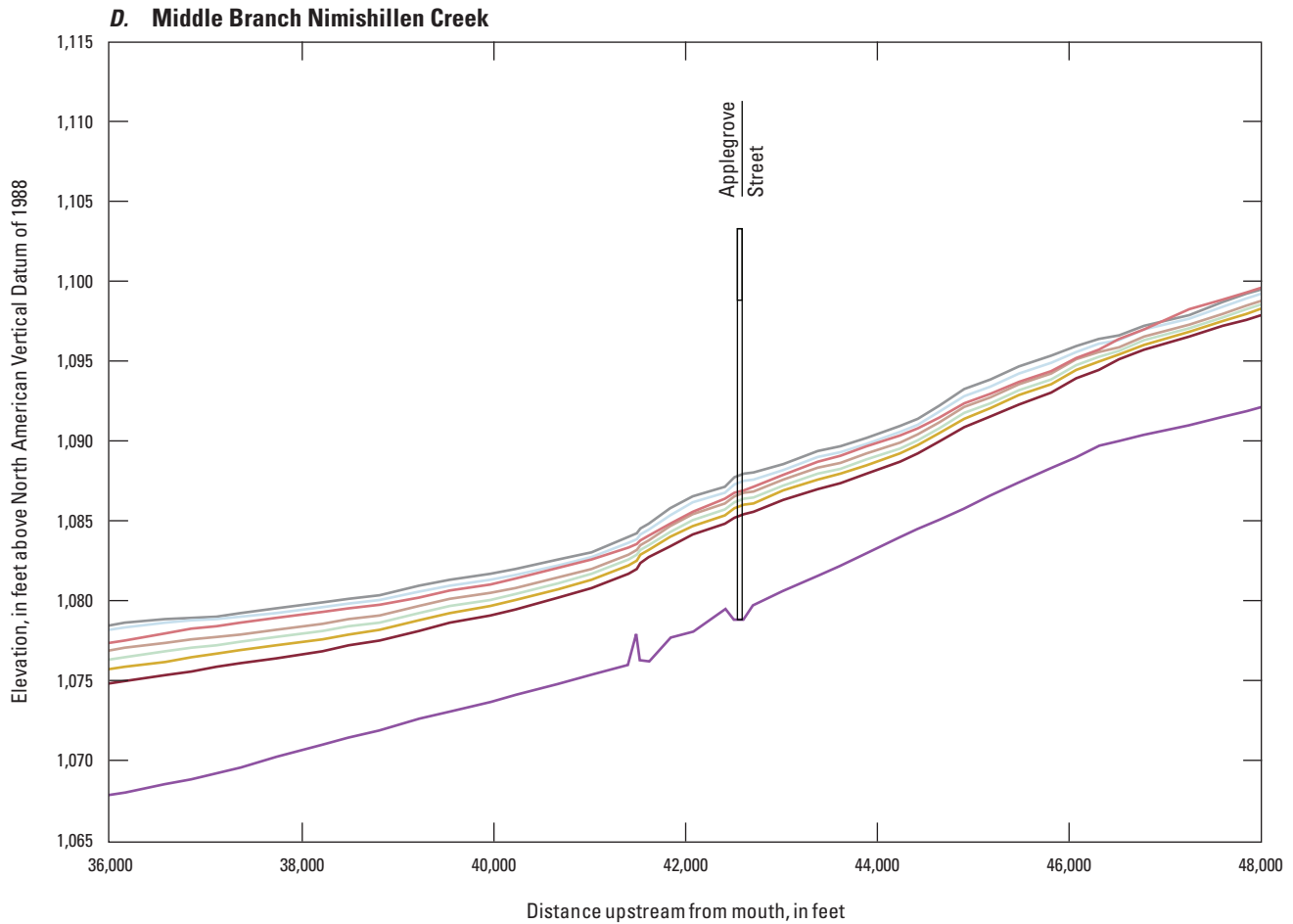


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.7.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Middle Branch Nimishillen Creek, Stark County, Ohio.—Continued

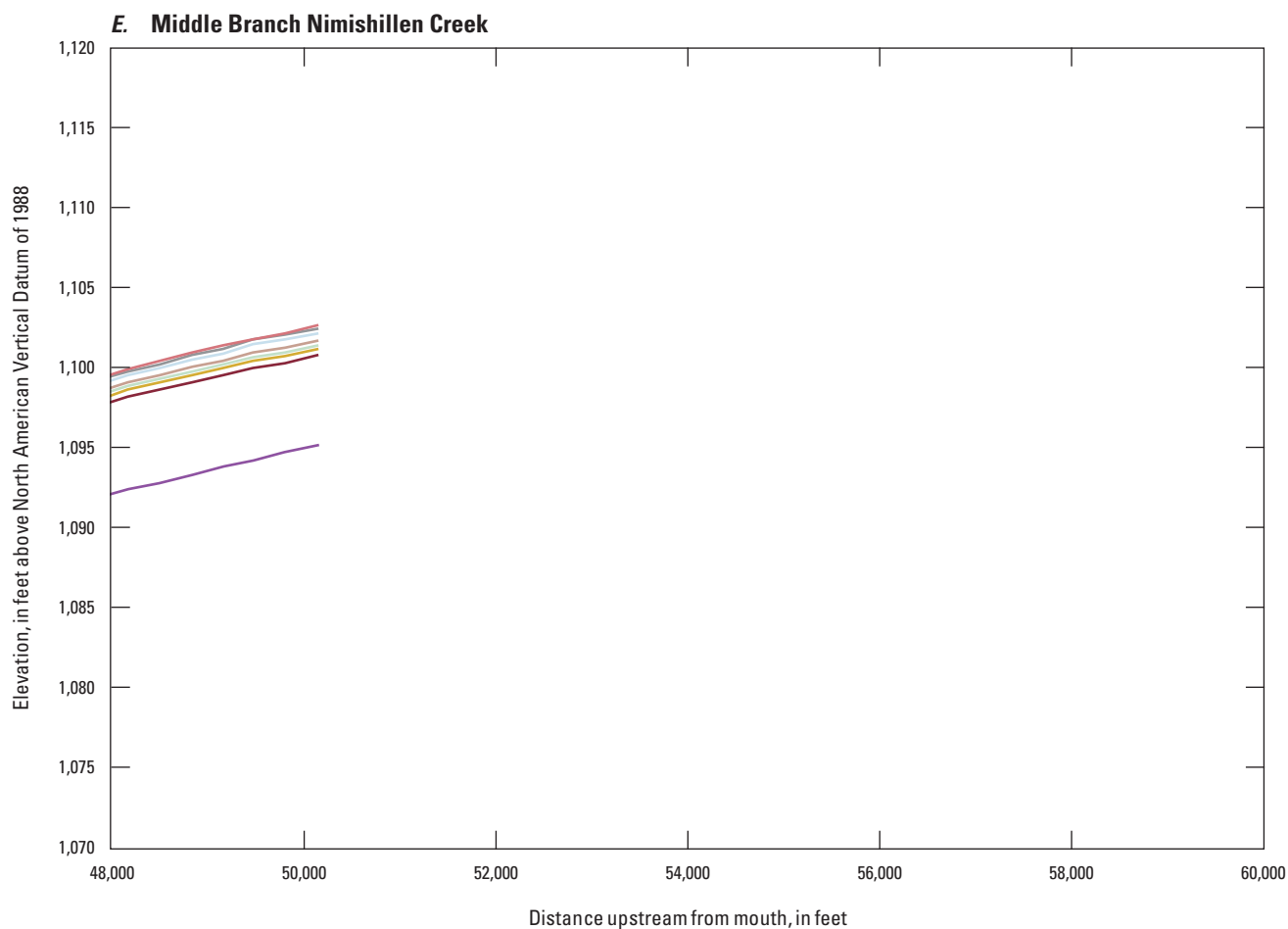


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.7.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Middle Branch Nimishillen Creek, Stark County, Ohio.—Continued

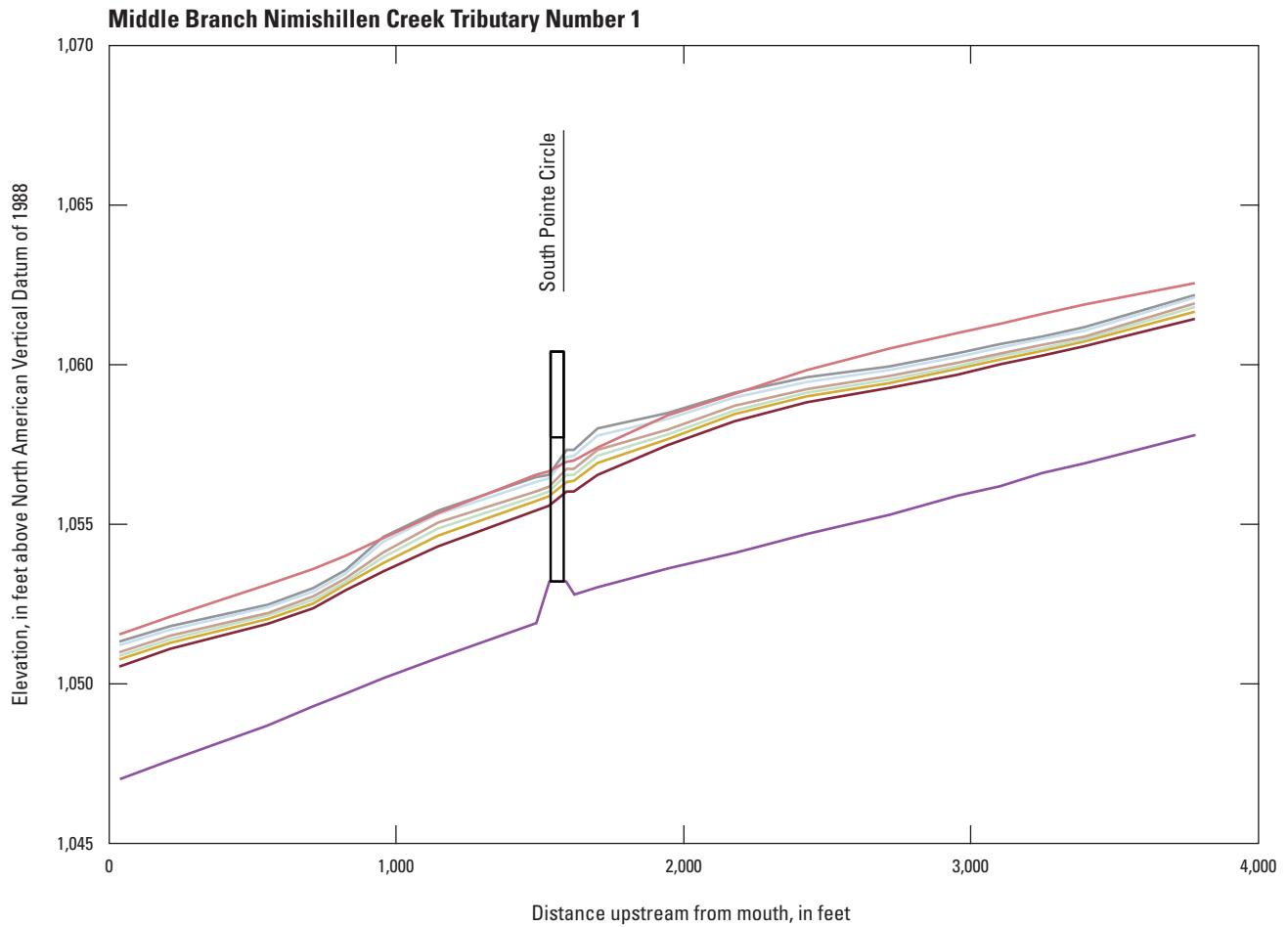


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
| <span style="color: purple;">—</span> <b>Minimum channel elevation</b>                    | <span style="color: grey;">—</span> <b>1-percent plus annual exceedance probability</b>   |
| <span style="color: darkred;">—</span> <b>10-percent annual exceedance probability</b>    | <span style="color: lightblue;">—</span> <b>0.2-percent annual exceedance probability</b> |
| <span style="color: yellowgreen;">—</span> <b>4-percent annual exceedance probability</b> | <span style="color: red;">—</span> <b>Regulatory floodway</b>                             |
| <span style="color: lightgreen;">—</span> <b>2-percent annual exceedance probability</b>  | <span style="color: black;">—</span> <b>Hydraulic structures</b>                          |
| <span style="color: orange;">—</span> <b>1-percent annual exceedance probability</b>      |   |

**Figure 3.7.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Middle Branch Nimishillen Creek, Stark County, Ohio.—Continued

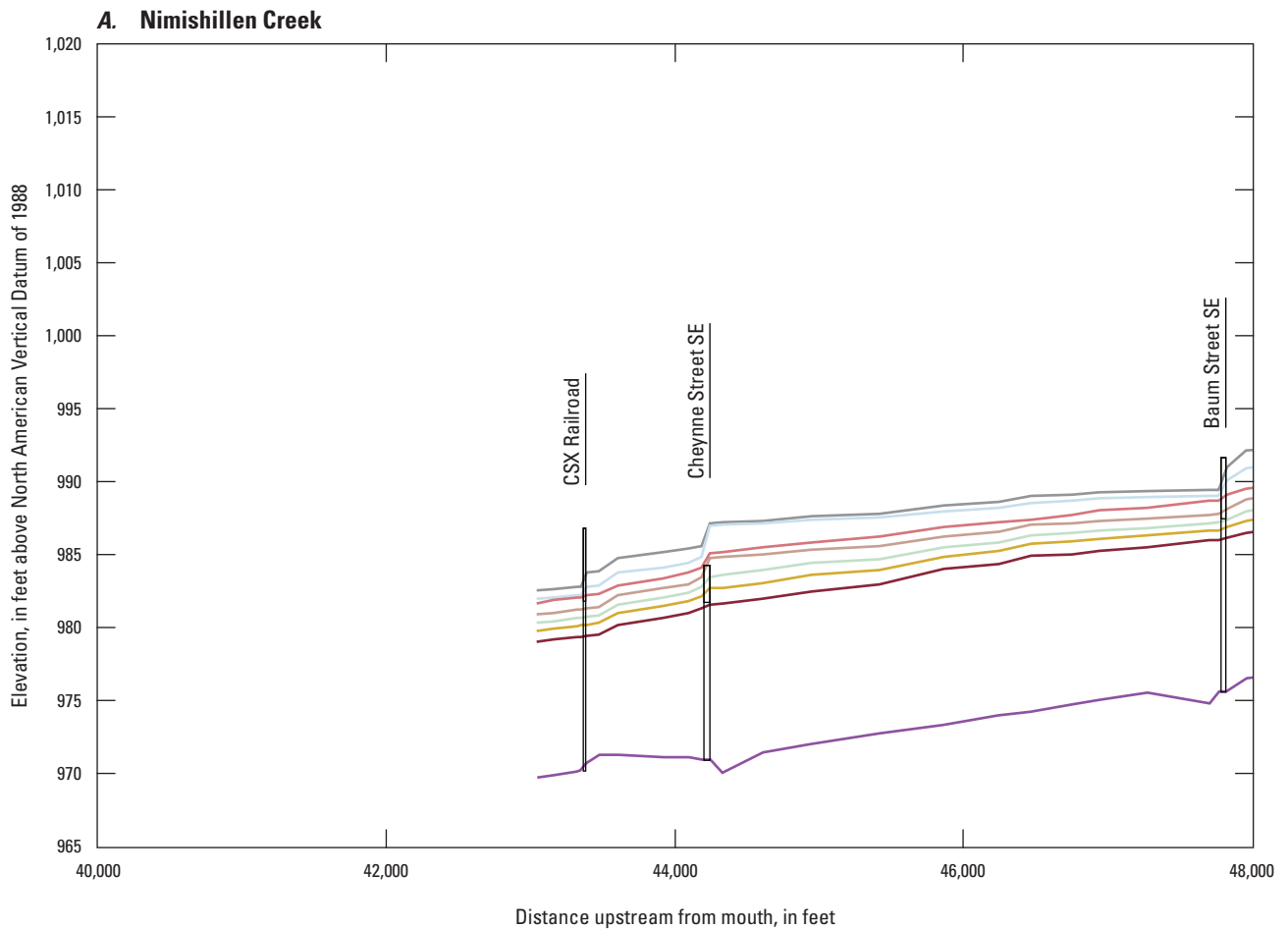


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.8.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Middle Branch Nimishillen Creek Tributary Number 1, Stark County, Ohio.

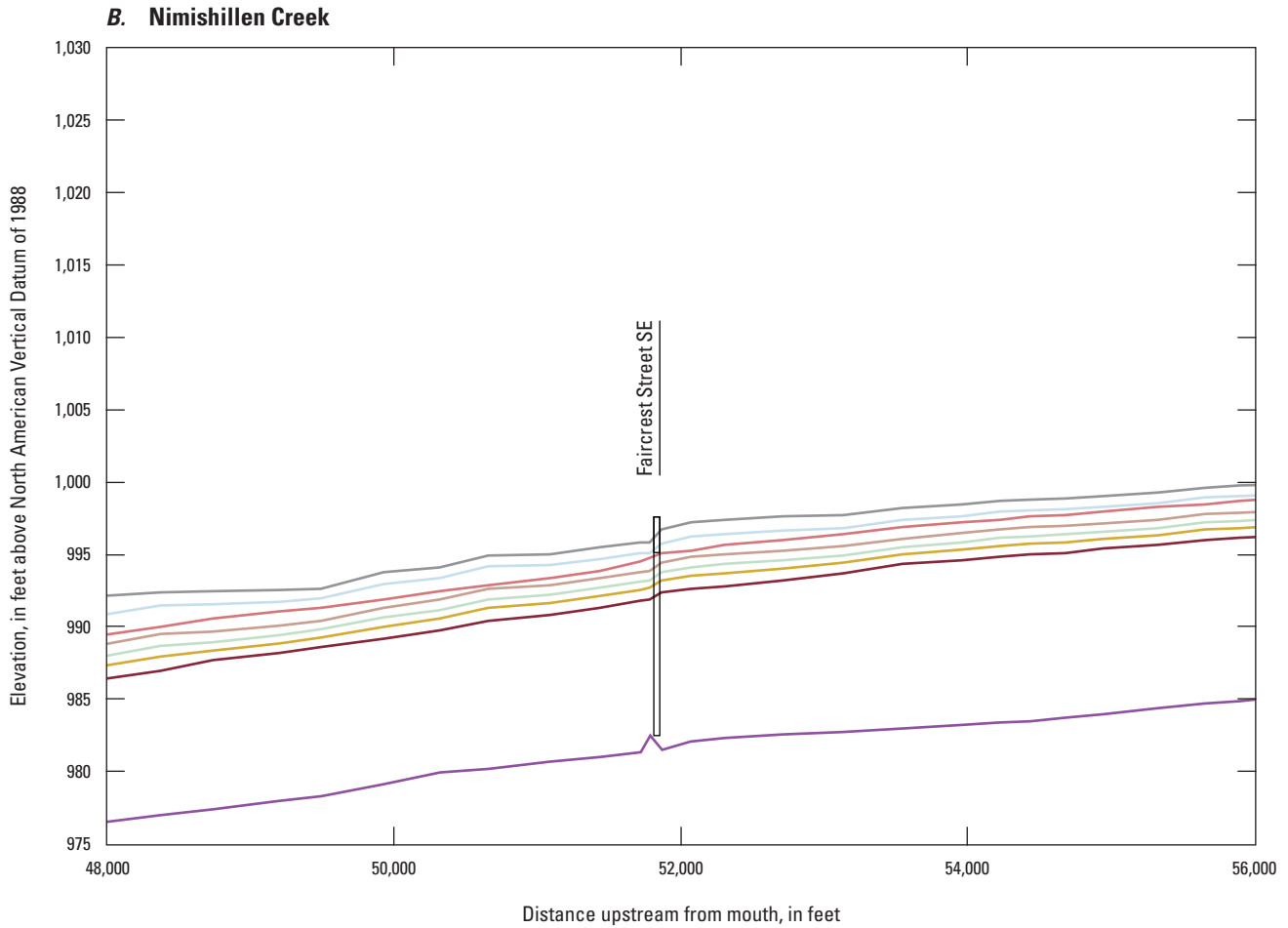


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.9.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Nimishillen Creek, Stark County, Ohio.

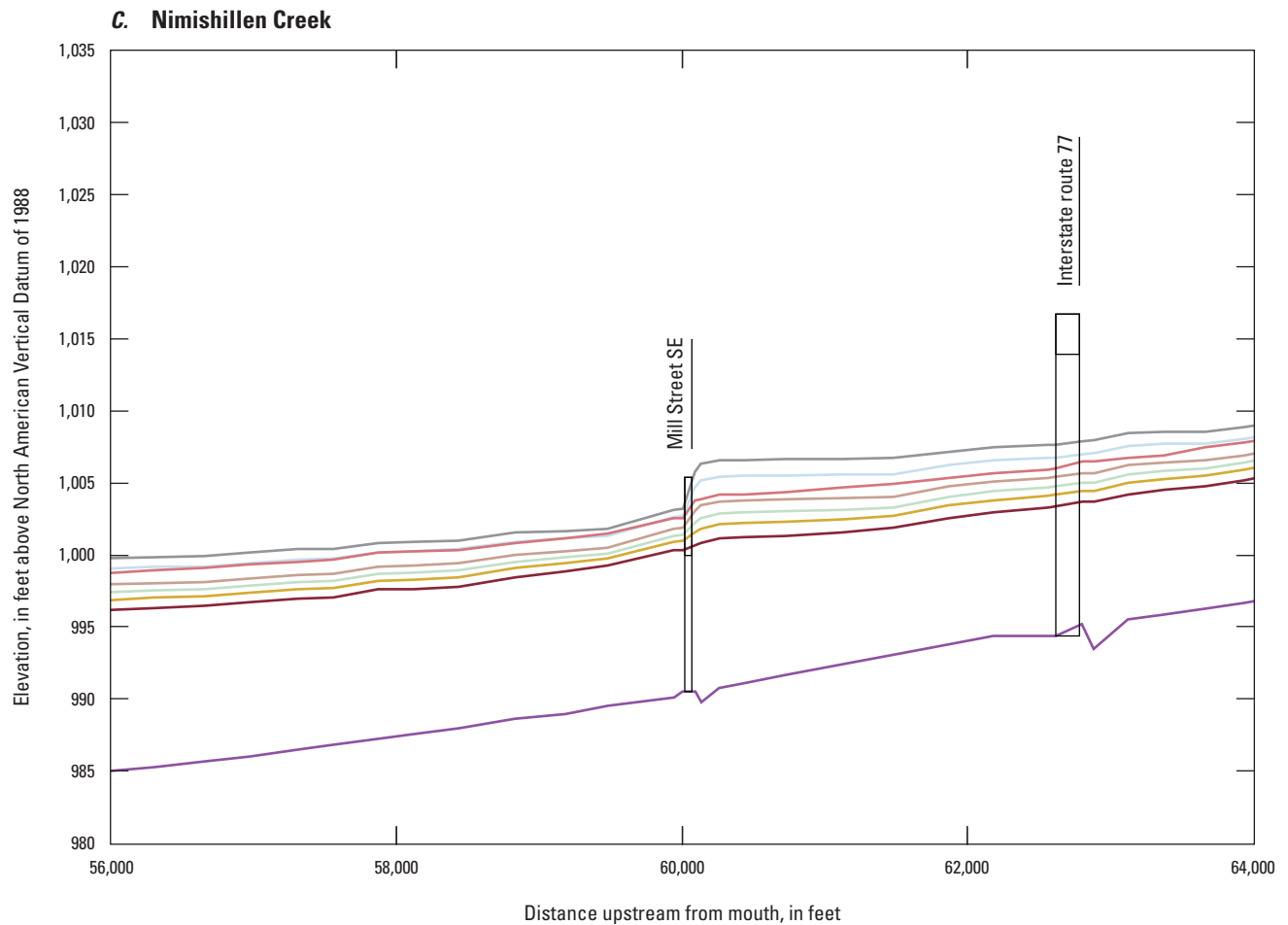


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.9.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Nimishillen Creek, Stark County, Ohio.—Continued



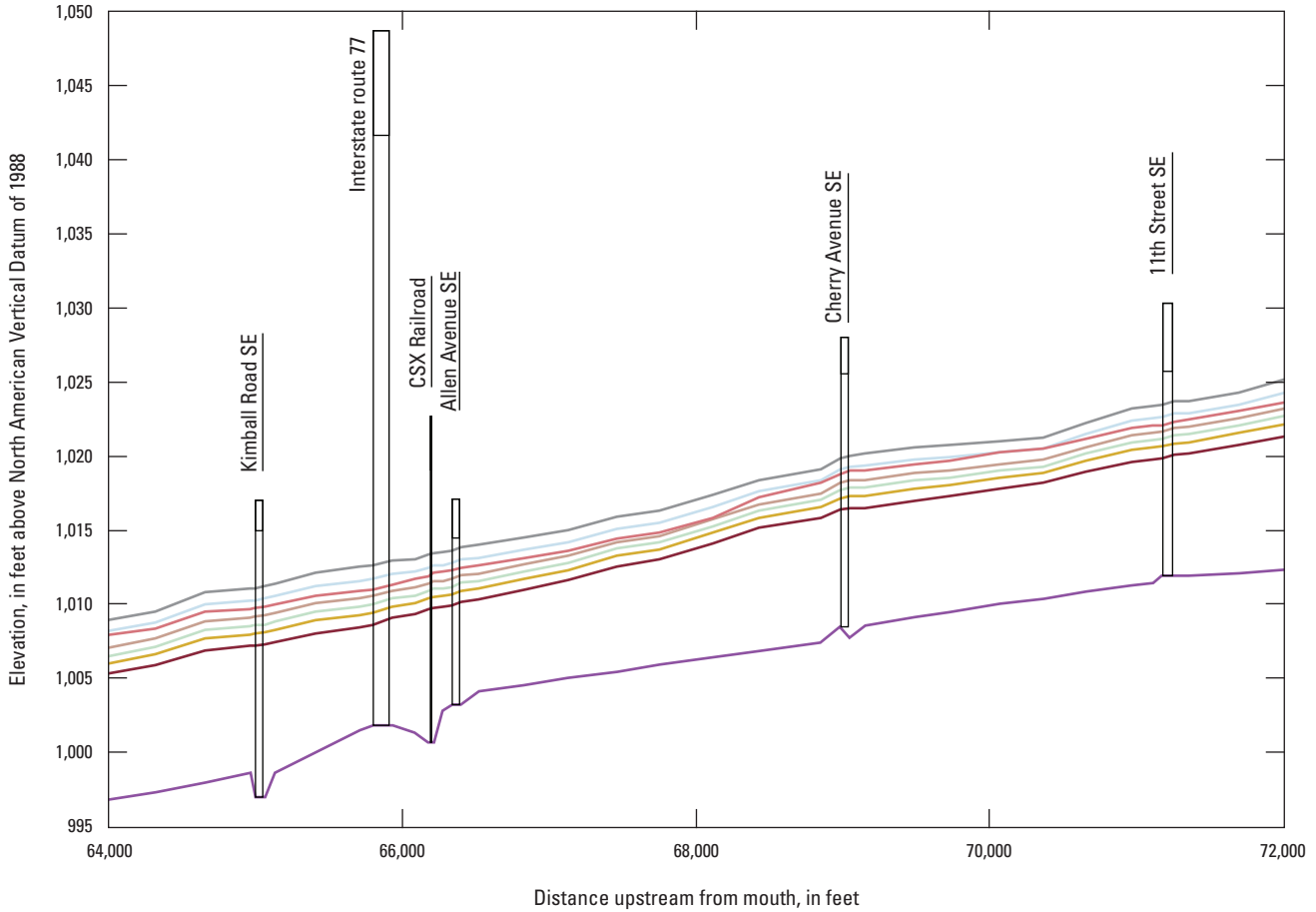
**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.9.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Nimishillen Creek, Stark County, Ohio.—Continued

**D. Nimishillen Creek**

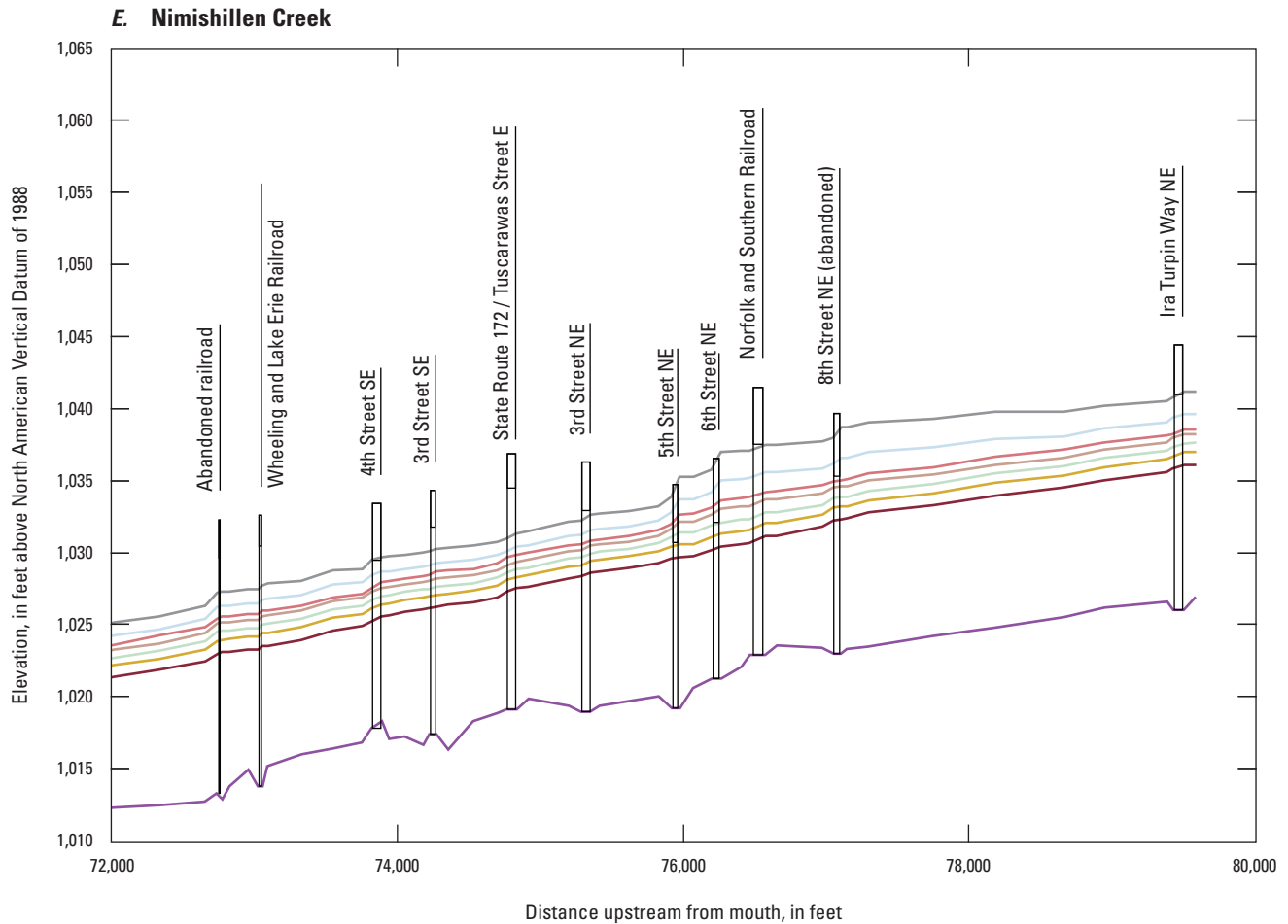


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.9.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Nimishillen Creek, Stark County, Ohio.—Continued

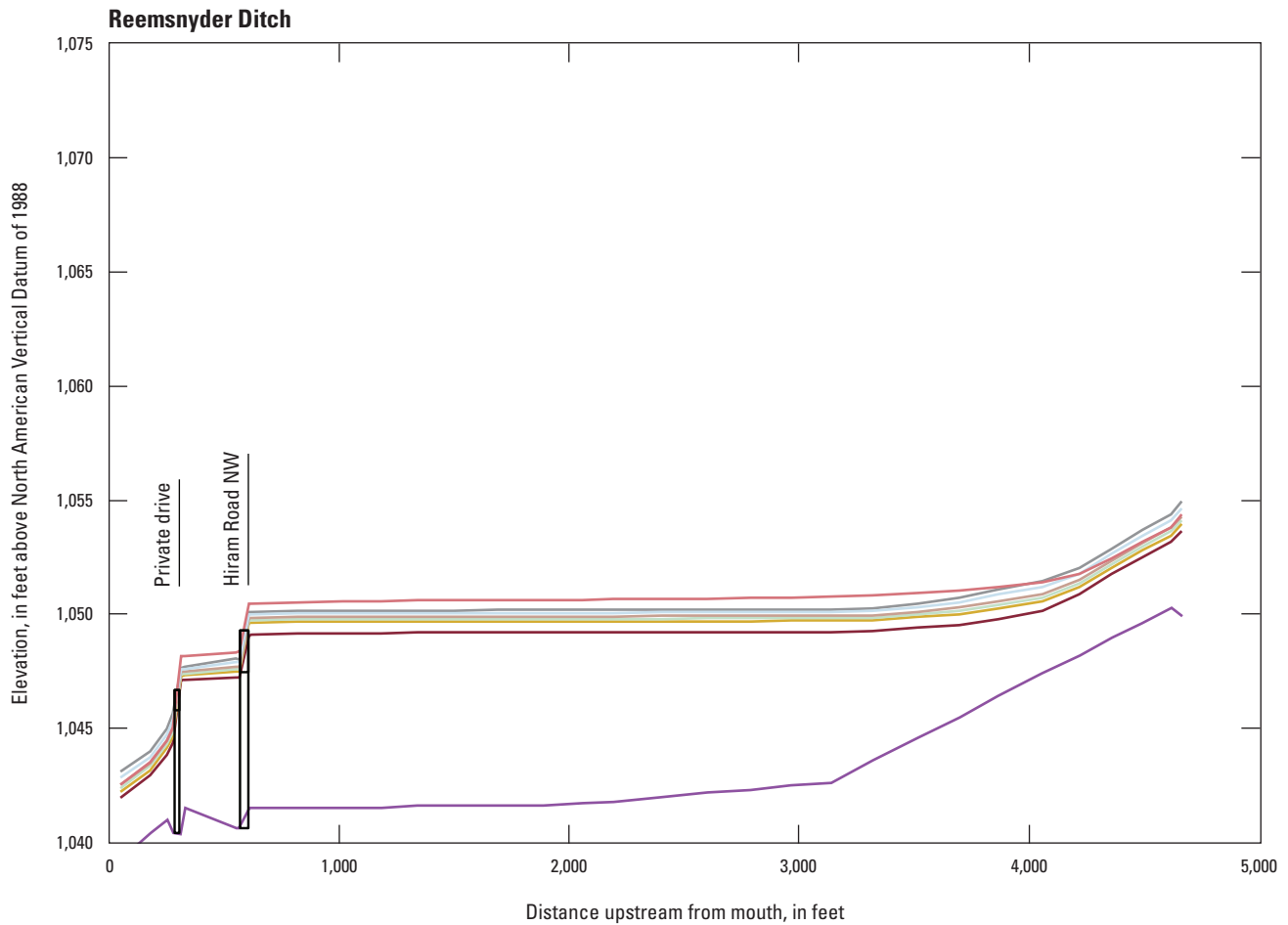


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.9.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Nimishillen Creek, Stark County, Ohio.—Continued

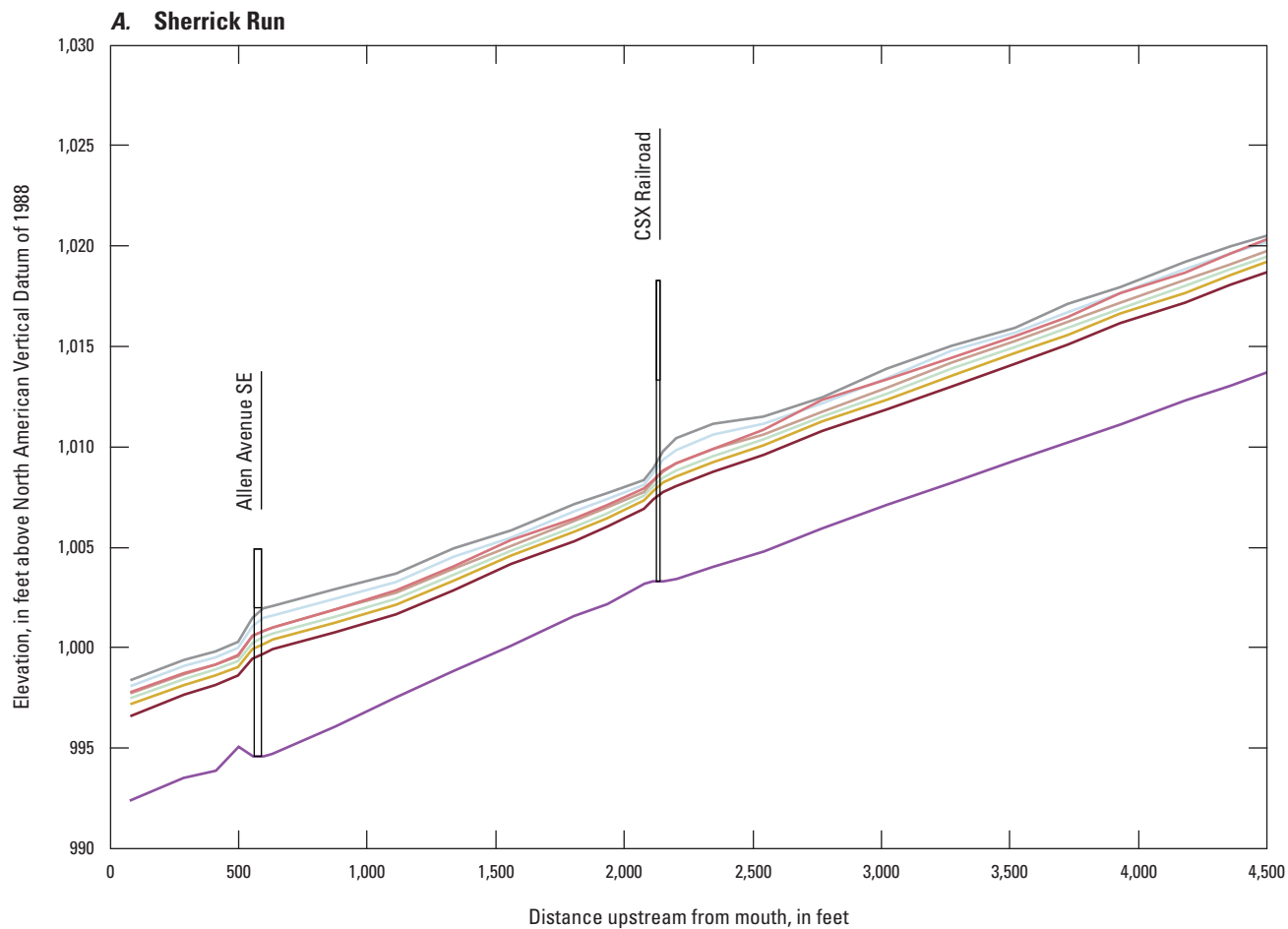


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]









- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  | Succeeding figure boundaries                 |

**Figure 3.10.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Reemsnyder Ditch, Stark County, Ohio.

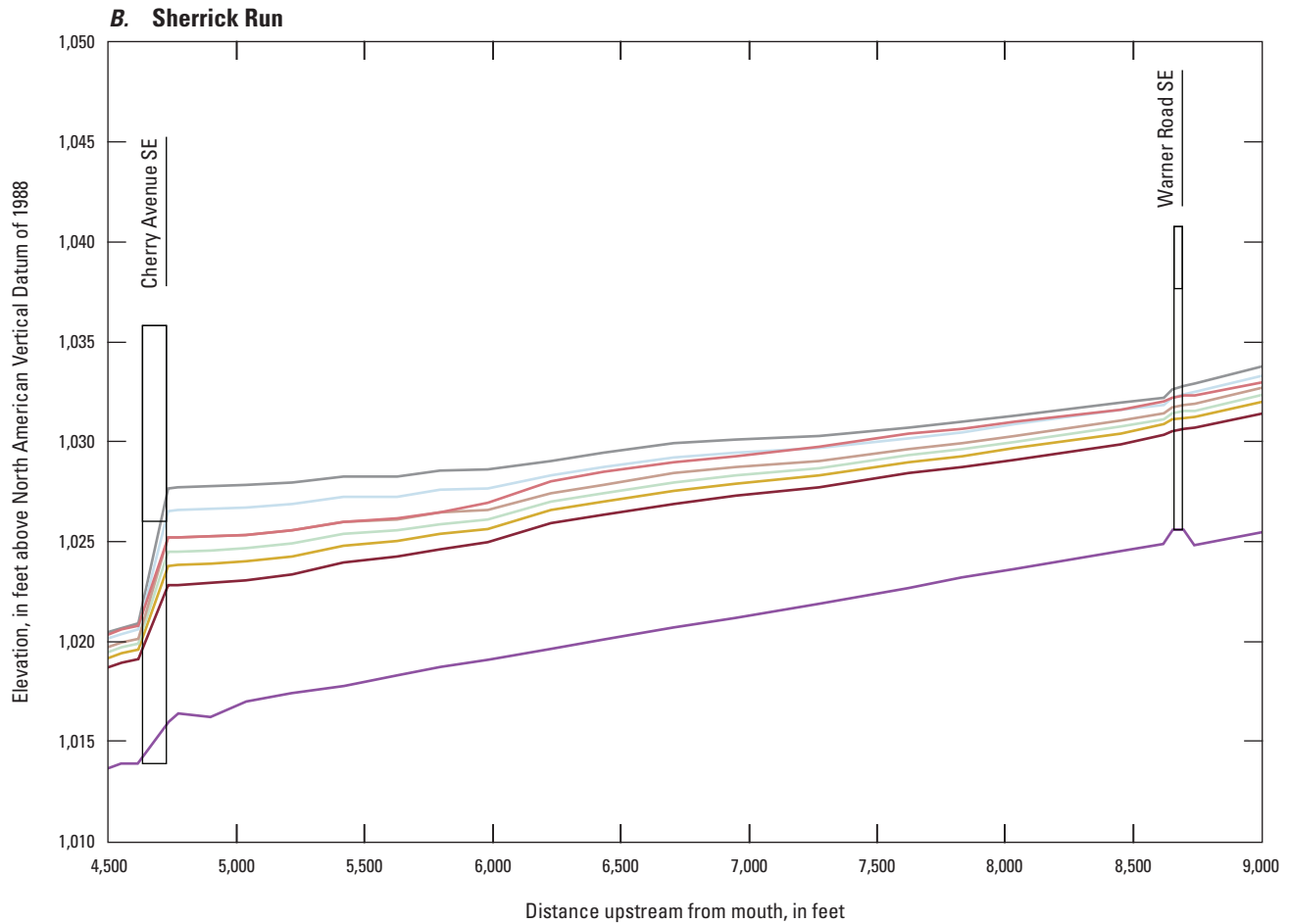


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
|  <b>Minimum channel elevation</b>                |  <b>1-percent plus annual exceedance probability</b> |
|  <b>10-percent annual exceedance probability</b> |  <b>0.2-percent annual exceedance probability</b>    |
|  <b>4-percent annual exceedance probability</b>  |  <b>Regulatory floodway</b>                          |
|  <b>2-percent annual exceedance probability</b>  |  <b>Hydraulic structures</b>                         |
|  <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.11.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Sherrick Run, Stark County, Ohio.

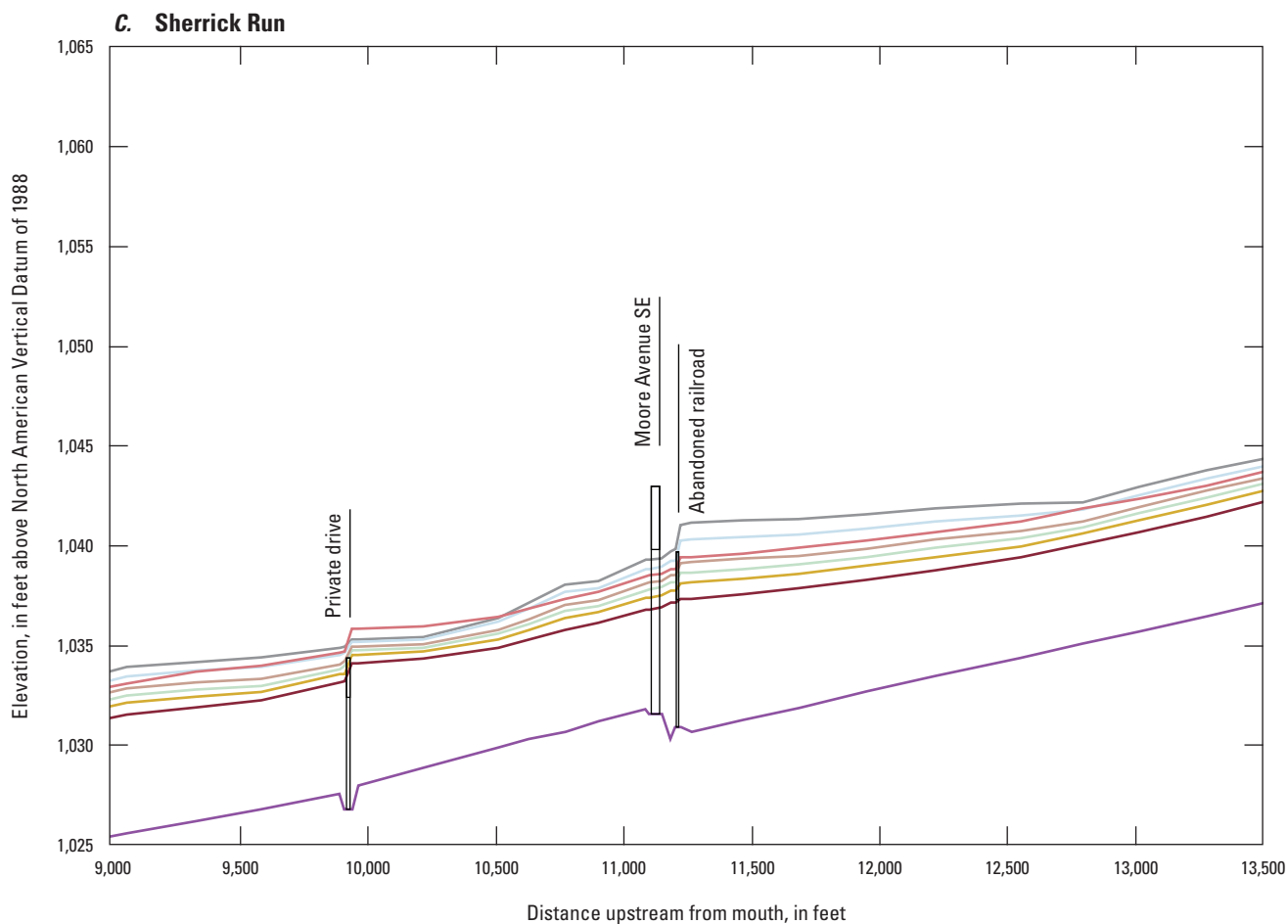


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]






- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.11.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Sherrick Run, Stark County, Ohio.—Continued

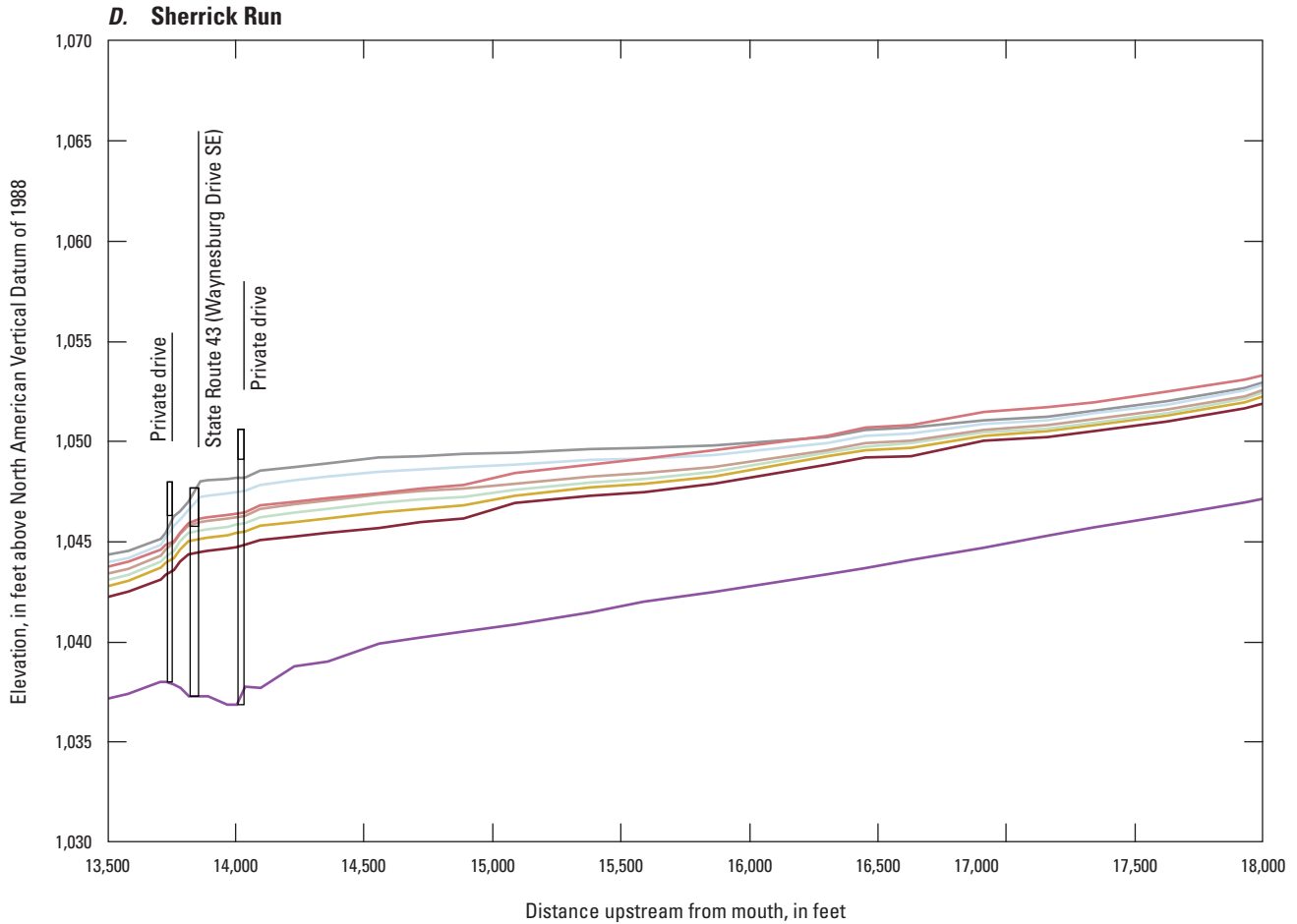


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
|  <b>Minimum channel elevation</b>                |  <b>1-percent plus annual exceedance probability</b> |
|  <b>10-percent annual exceedance probability</b> |  <b>0.2-percent annual exceedance probability</b>    |
|  <b>4-percent annual exceedance probability</b>  |  <b>Regulatory floodway</b>                          |
|  <b>2-percent annual exceedance probability</b>  |  <b>Hydraulic structures</b>                         |
|  <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.11.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Sherrick Run, Stark County, Ohio.—Continued

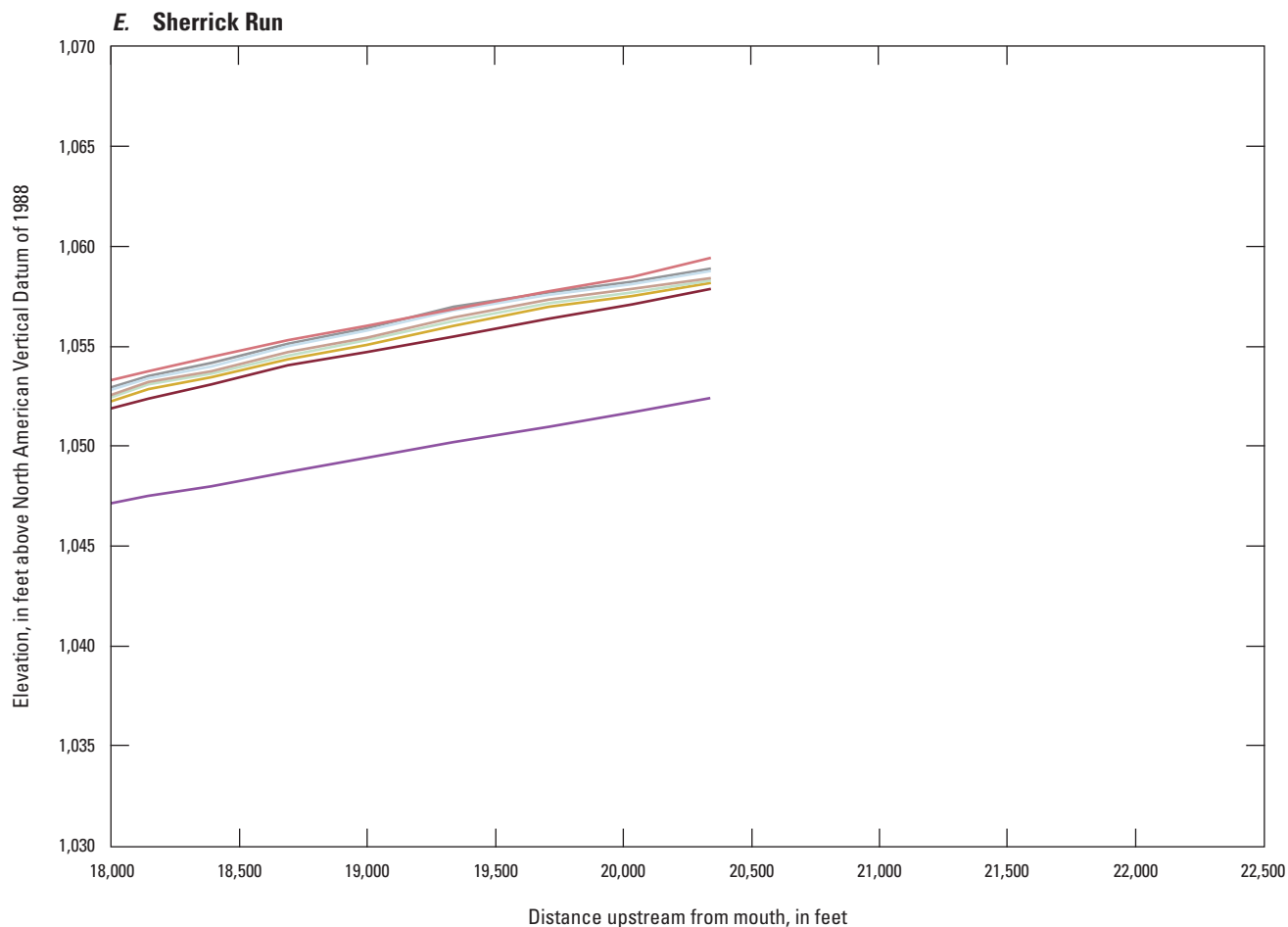


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.11.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Sherrick Run, Stark County, Ohio.—Continued

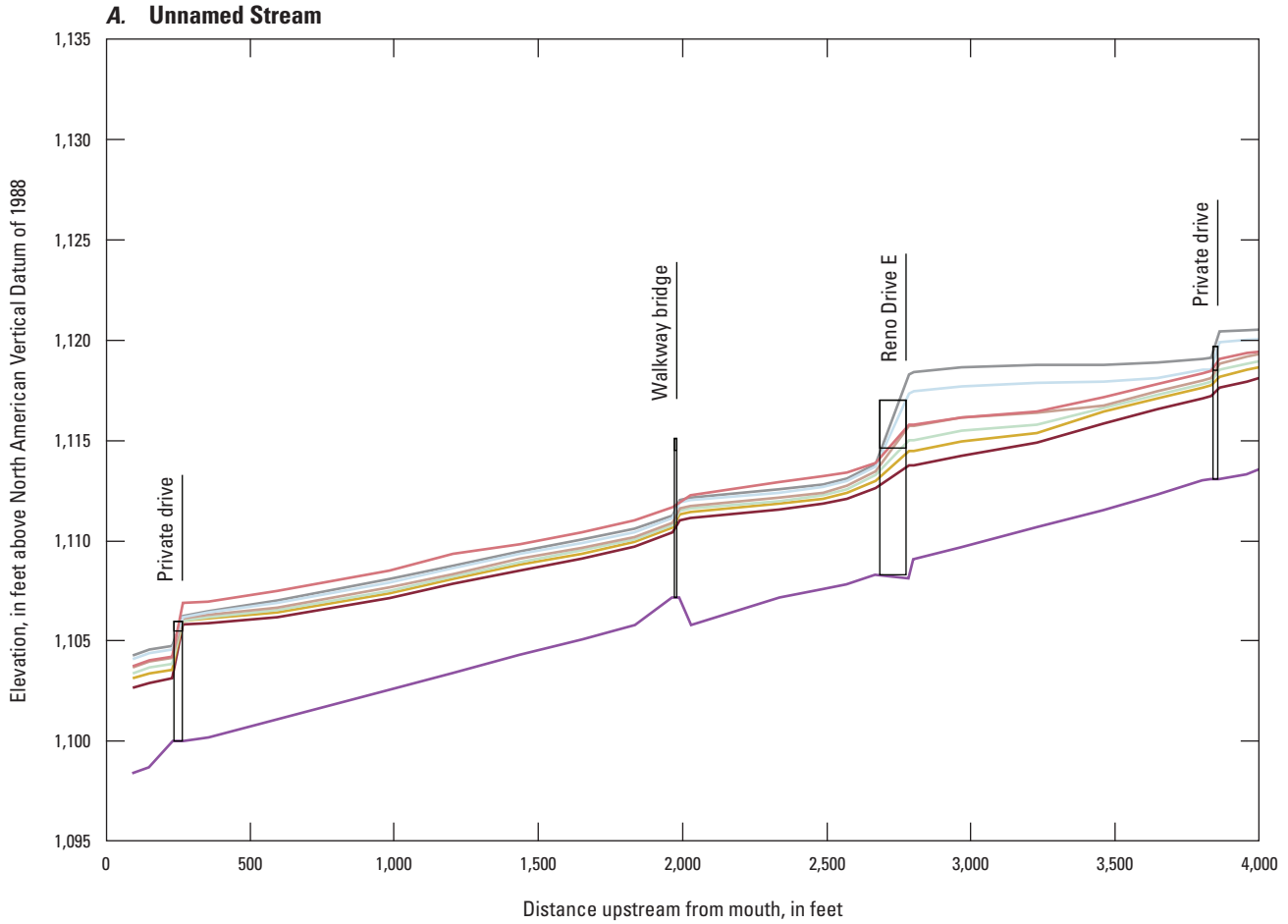


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.11.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Sherrick Run, Stark County, Ohio.—Continued

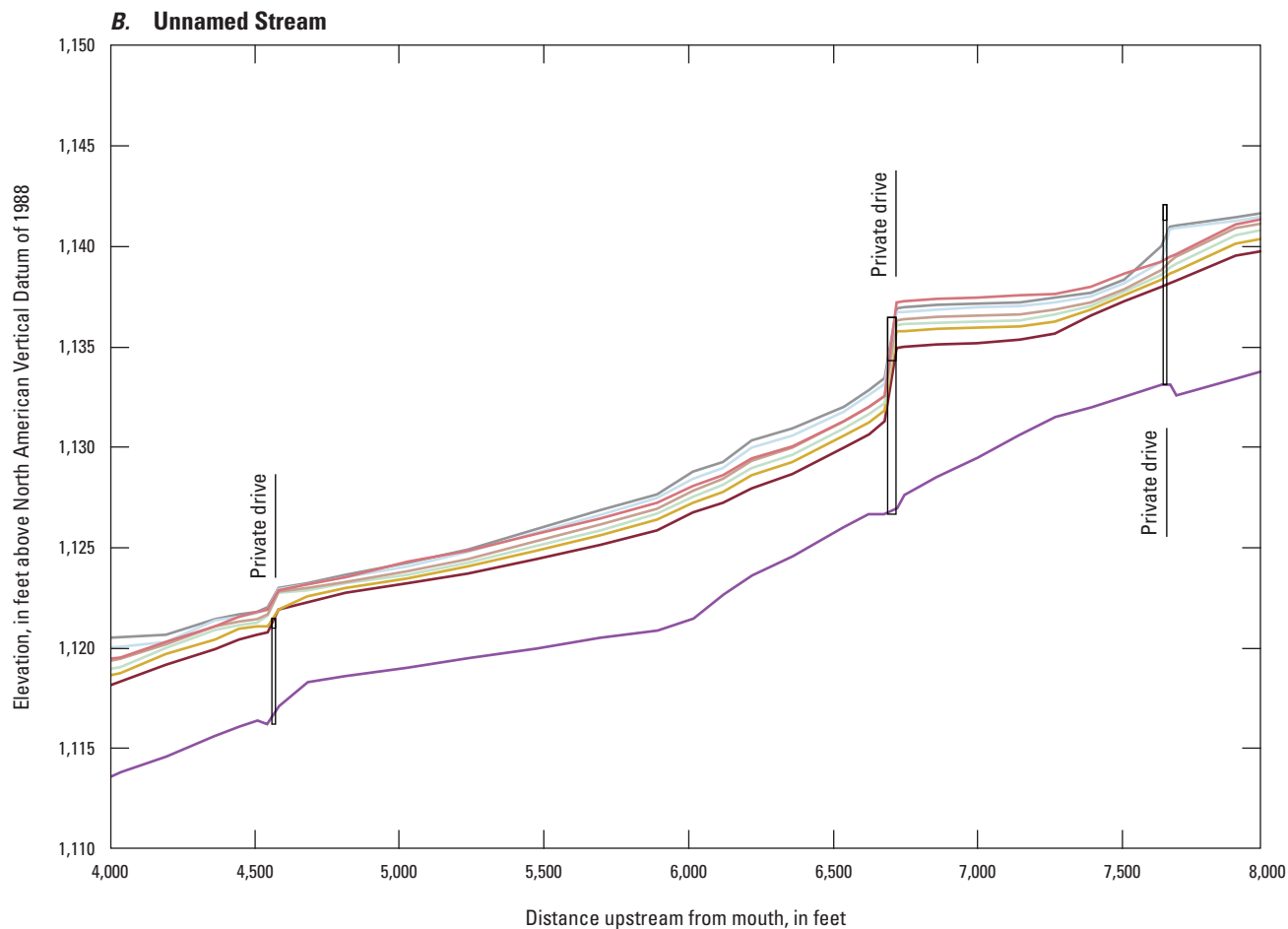


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.12.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for unnamed stream, Stark County, Ohio.

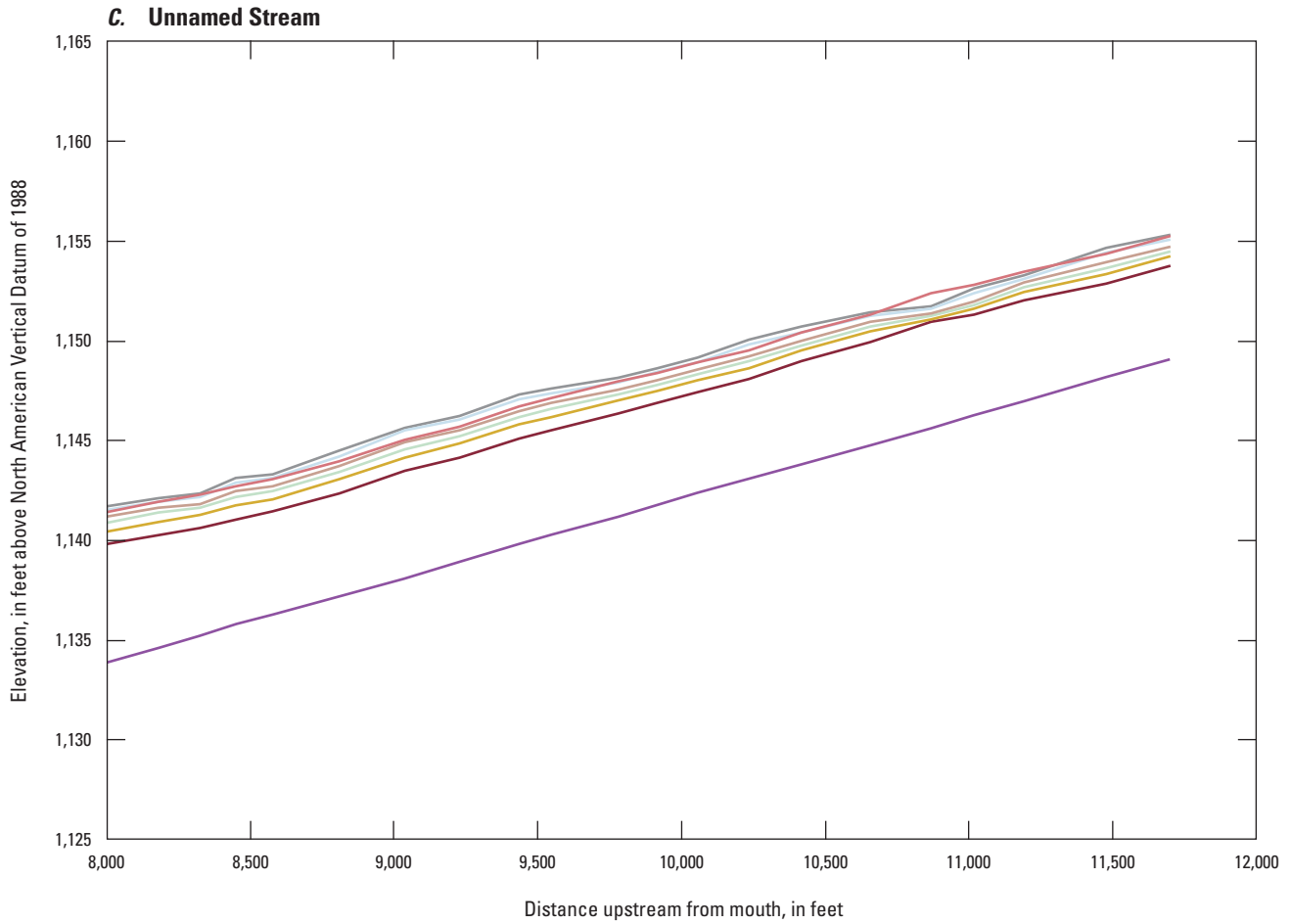


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]










- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.12.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for unnamed stream, Stark County, Ohio.—Continued

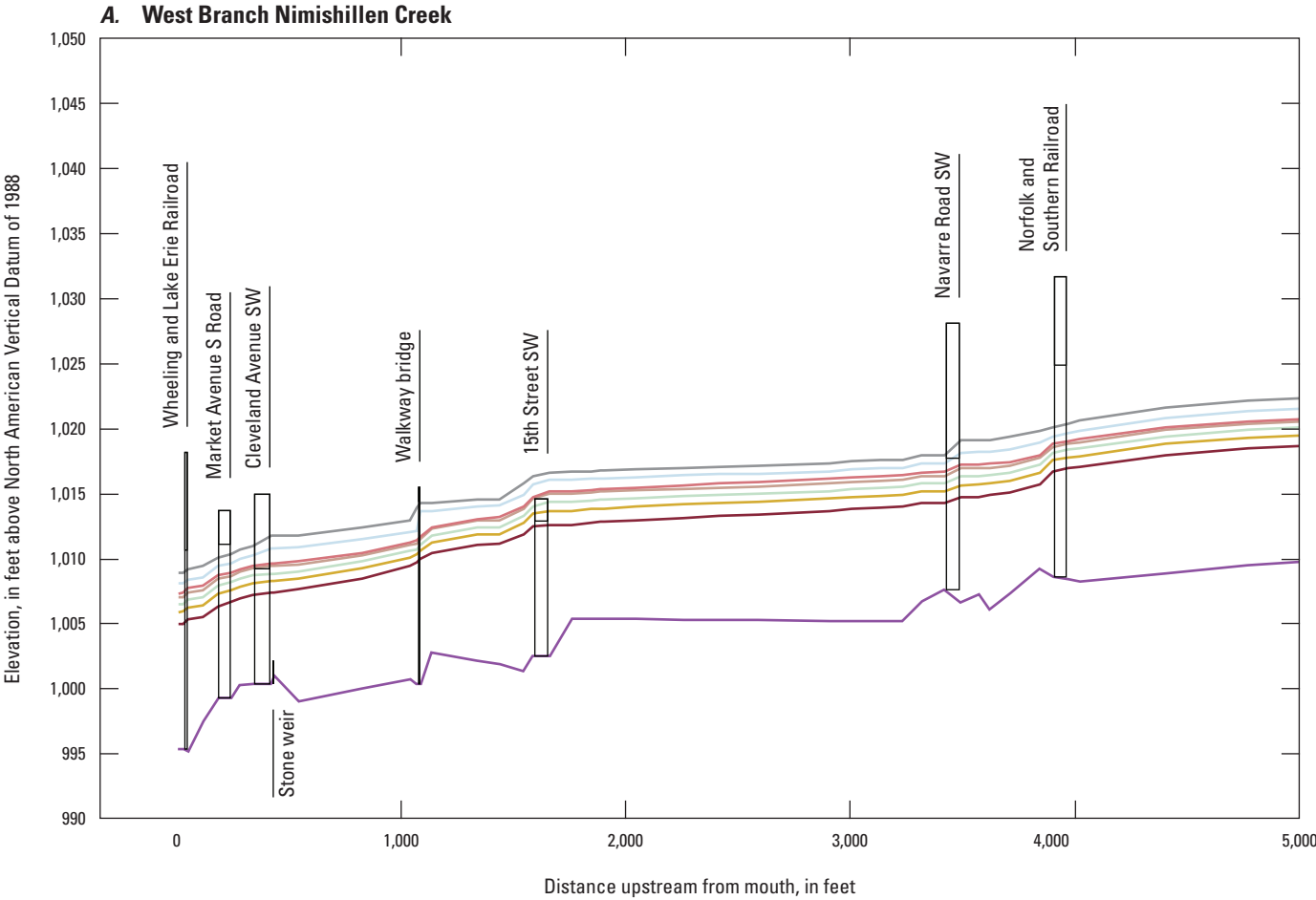


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
|  <b>Minimum channel elevation</b>                |  <b>1-percent plus annual exceedance probability</b> |
|  <b>10-percent annual exceedance probability</b> |  <b>0.2-percent annual exceedance probability</b>    |
|  <b>4-percent annual exceedance probability</b>  |  <b>Regulatory floodway</b>                          |
|  <b>2-percent annual exceedance probability</b>  |  <b>Hydraulic structures</b>                         |
|  <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.12.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for unnamed stream, Stark County, Ohio.—Continued

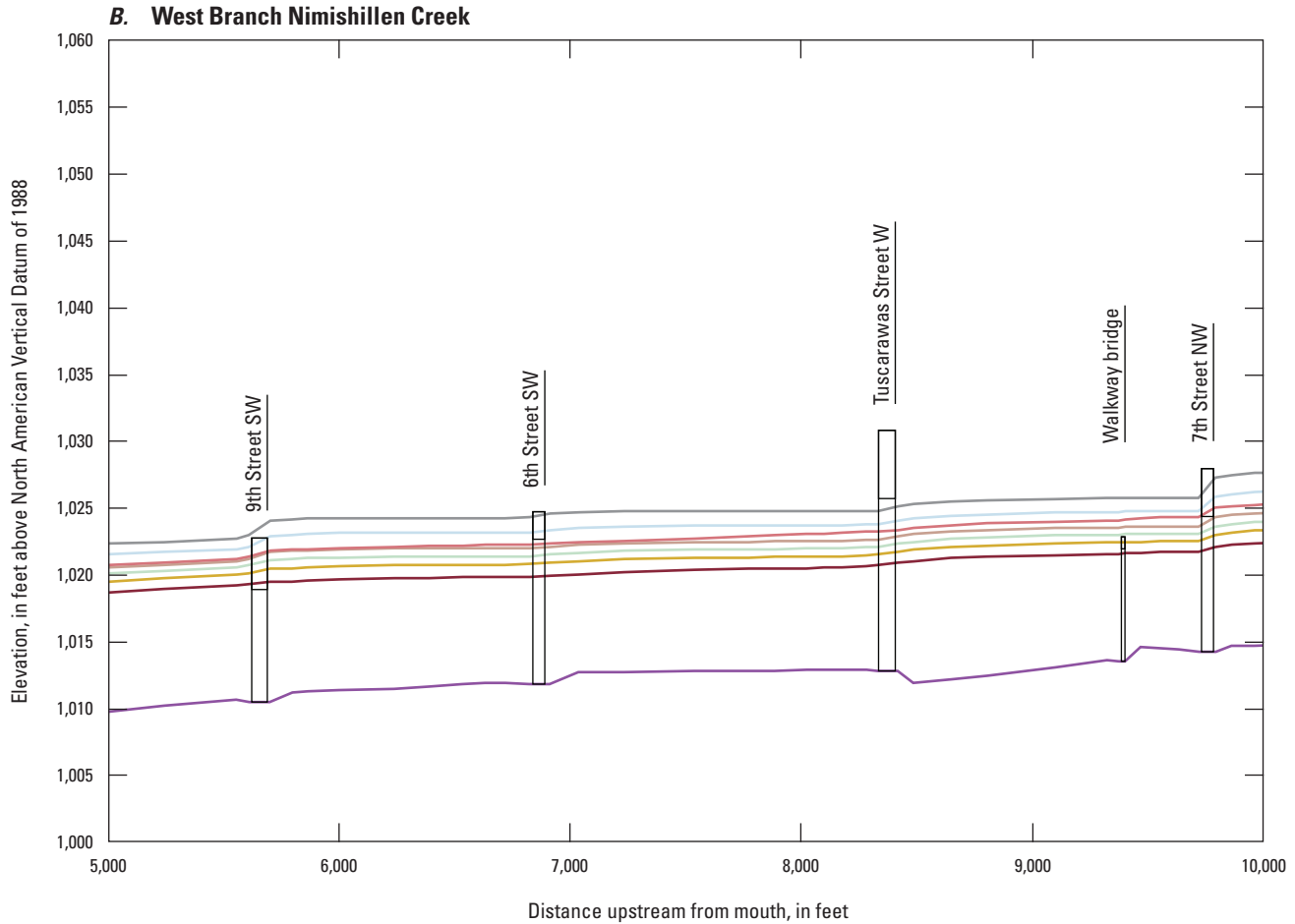


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.13.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for West Branch Nimishillen Creek, Stark County, Ohio.

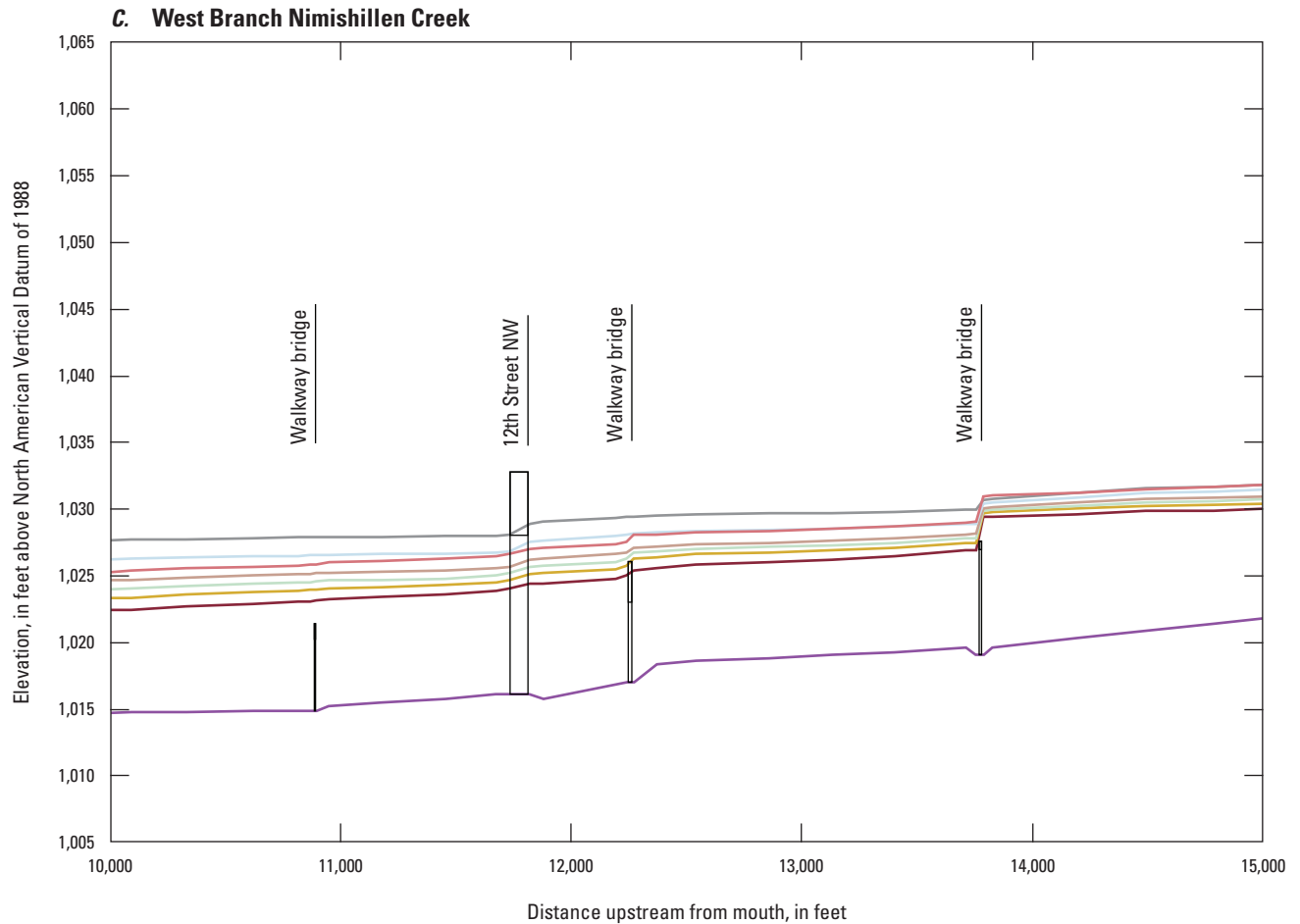


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.13.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for West Branch Nimishillen Creek, Stark County, Ohio.—Continued

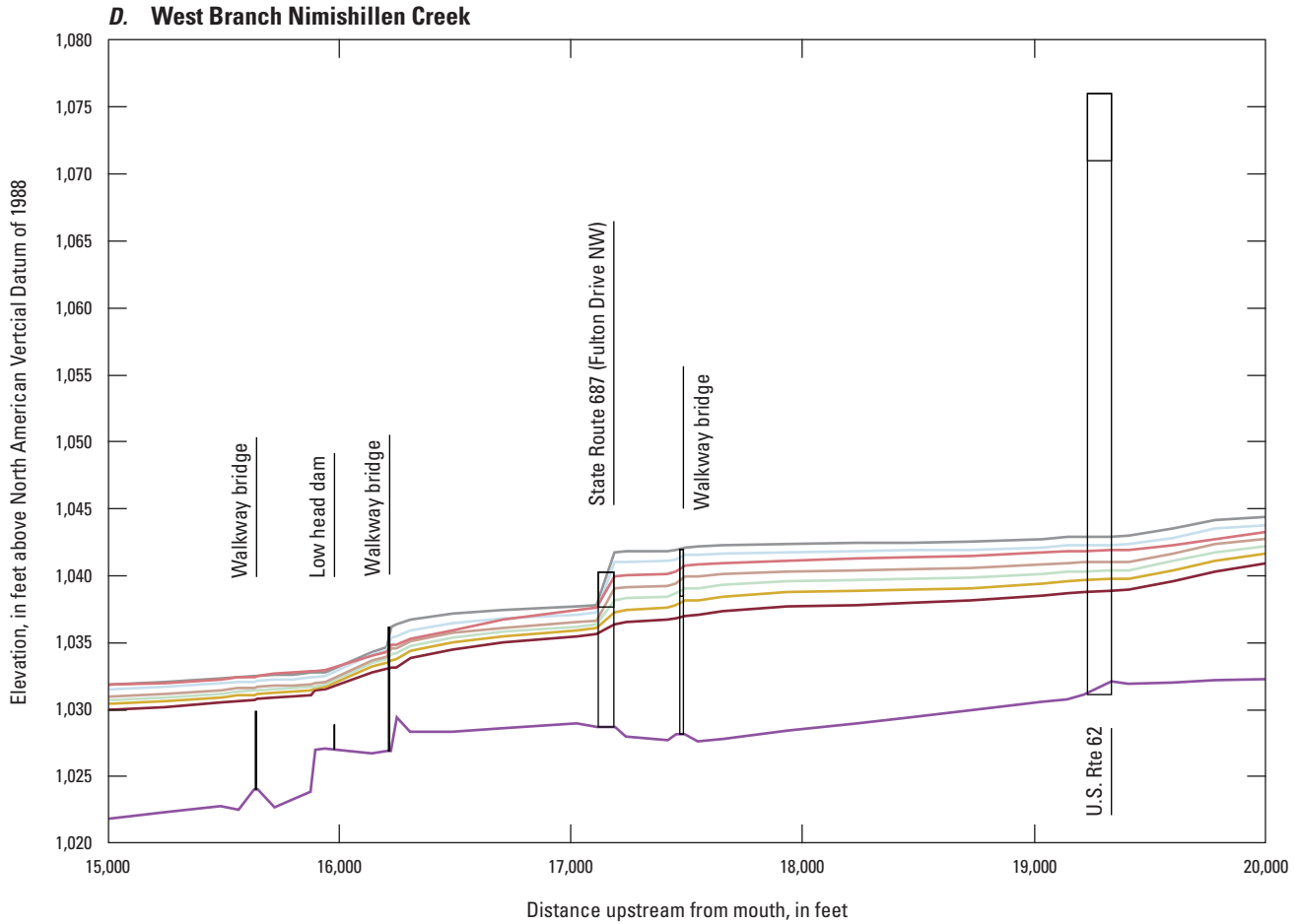


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
| <b>Minimum channel elevation</b>                | <b>1-percent plus annual exceedance probability</b> |
| <b>10-percent annual exceedance probability</b> | <b>0.2-percent annual exceedance probability</b>    |
| <b>4-percent annual exceedance probability</b>  | <b>Regulatory floodway</b>                          |
| <b>2-percent annual exceedance probability</b>  | <b>Hydraulic structures</b>                         |
| <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.13.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for West Branch Nimishillen Creek, Stark County, Ohio.—Continued

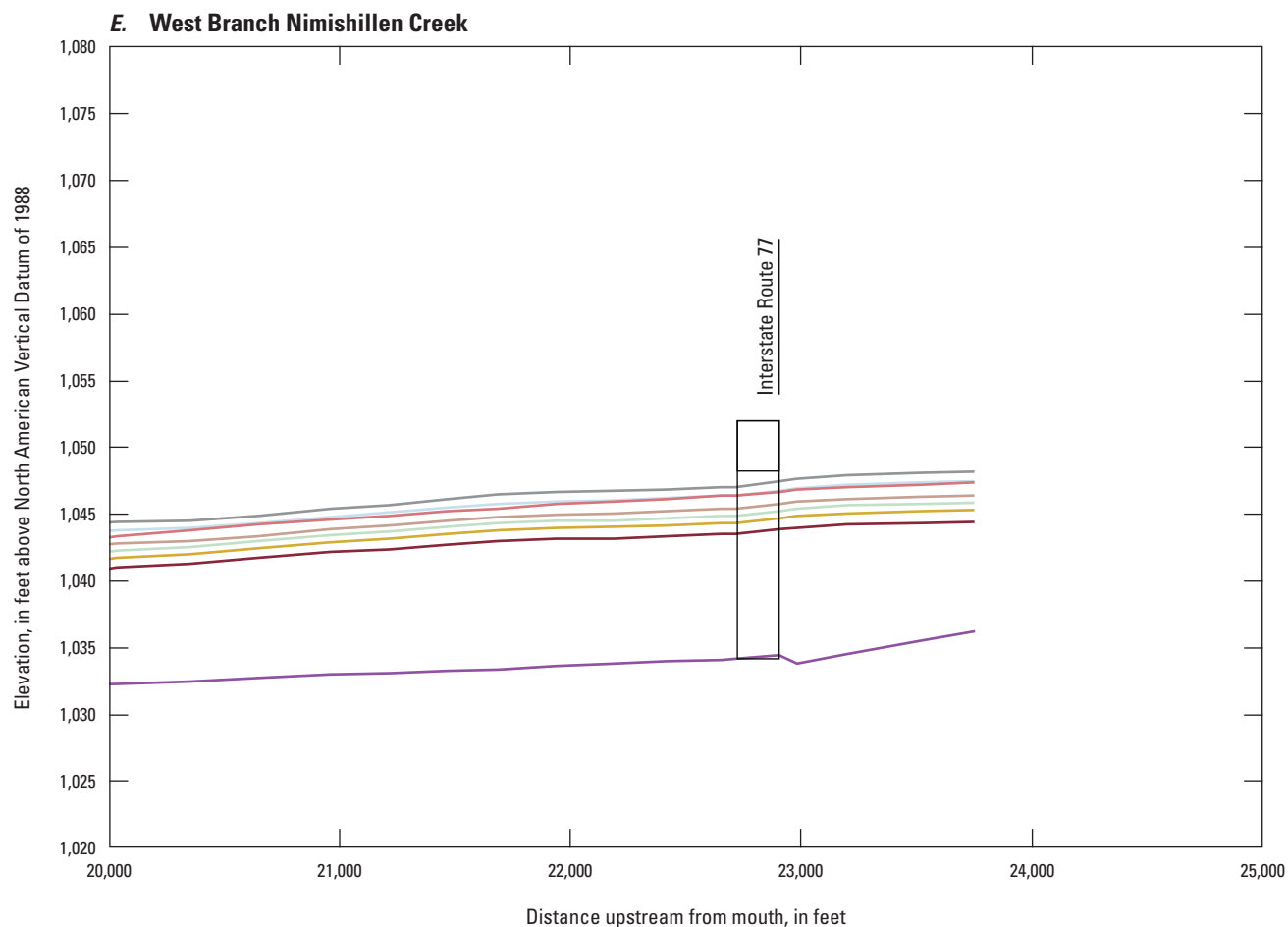


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.13.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for West Branch Nimishillen Creek, Stark County, Ohio.—Continued

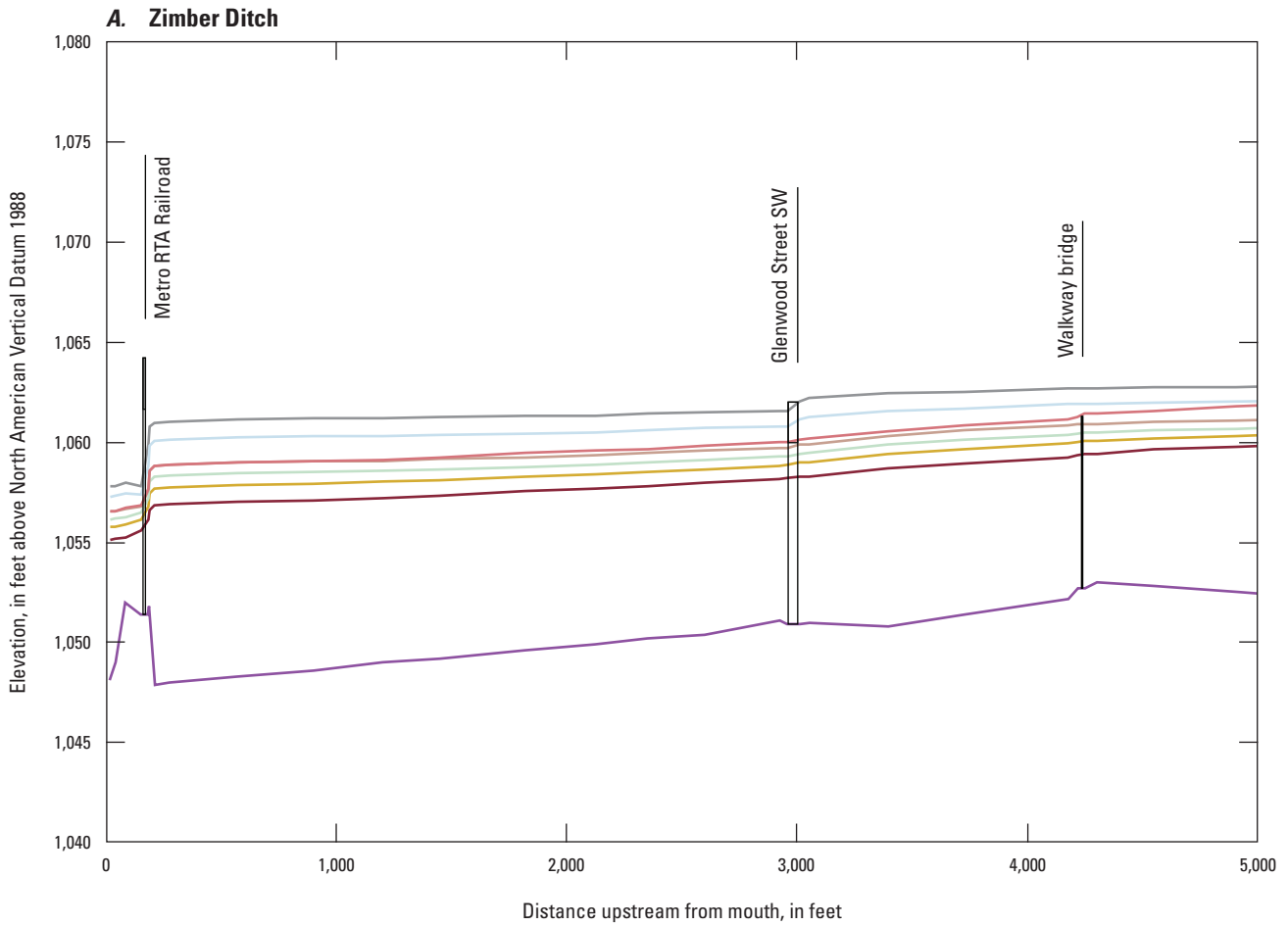


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |  |  |
|--|--|
| Minimum channel elevation                | 1-percent plus annual exceedance probability |
| 10-percent annual exceedance probability | 0.2-percent annual exceedance probability    |
| 4-percent annual exceedance probability  | Regulatory floodway                          |
| 2-percent annual exceedance probability  | Hydraulic structures                         |
| 1-percent annual exceedance probability  |  |

**Figure 3.13.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for West Branch Nimishillen Creek, Stark County, Ohio.—Continued

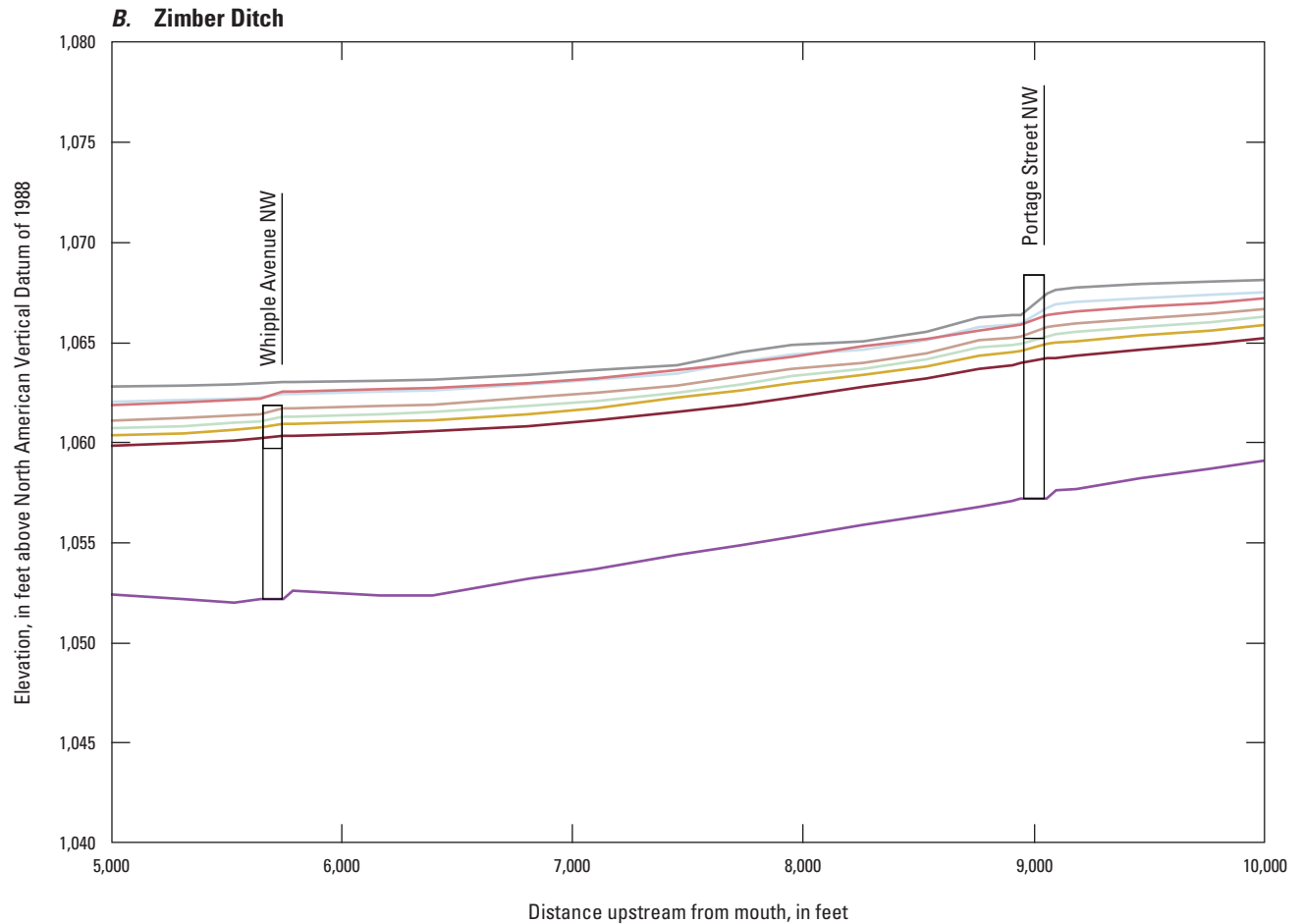


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.14.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Zimmer Ditch, Stark County, Ohio.

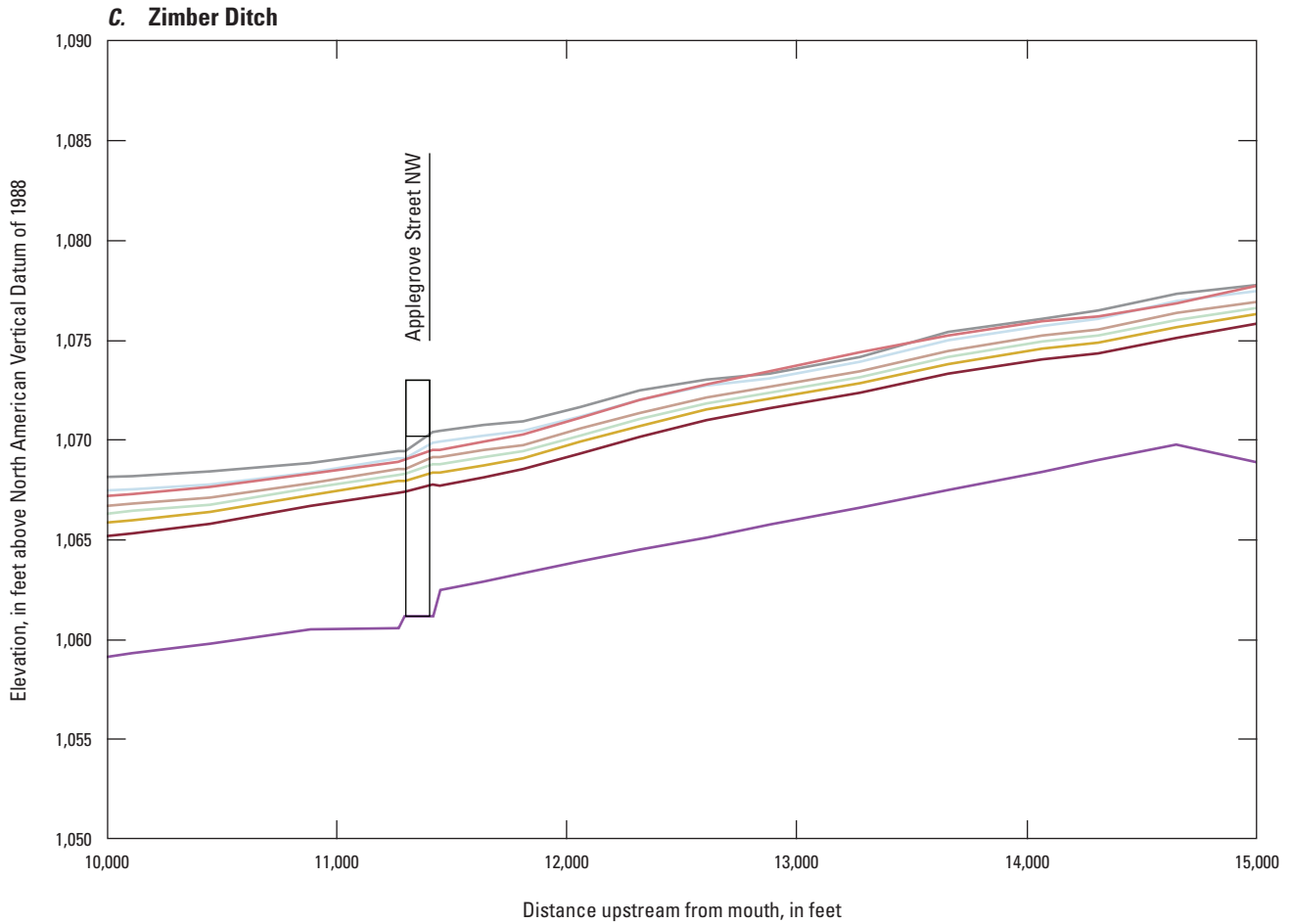


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.14.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Zimber Ditch, Stark County, Ohio.—Continued

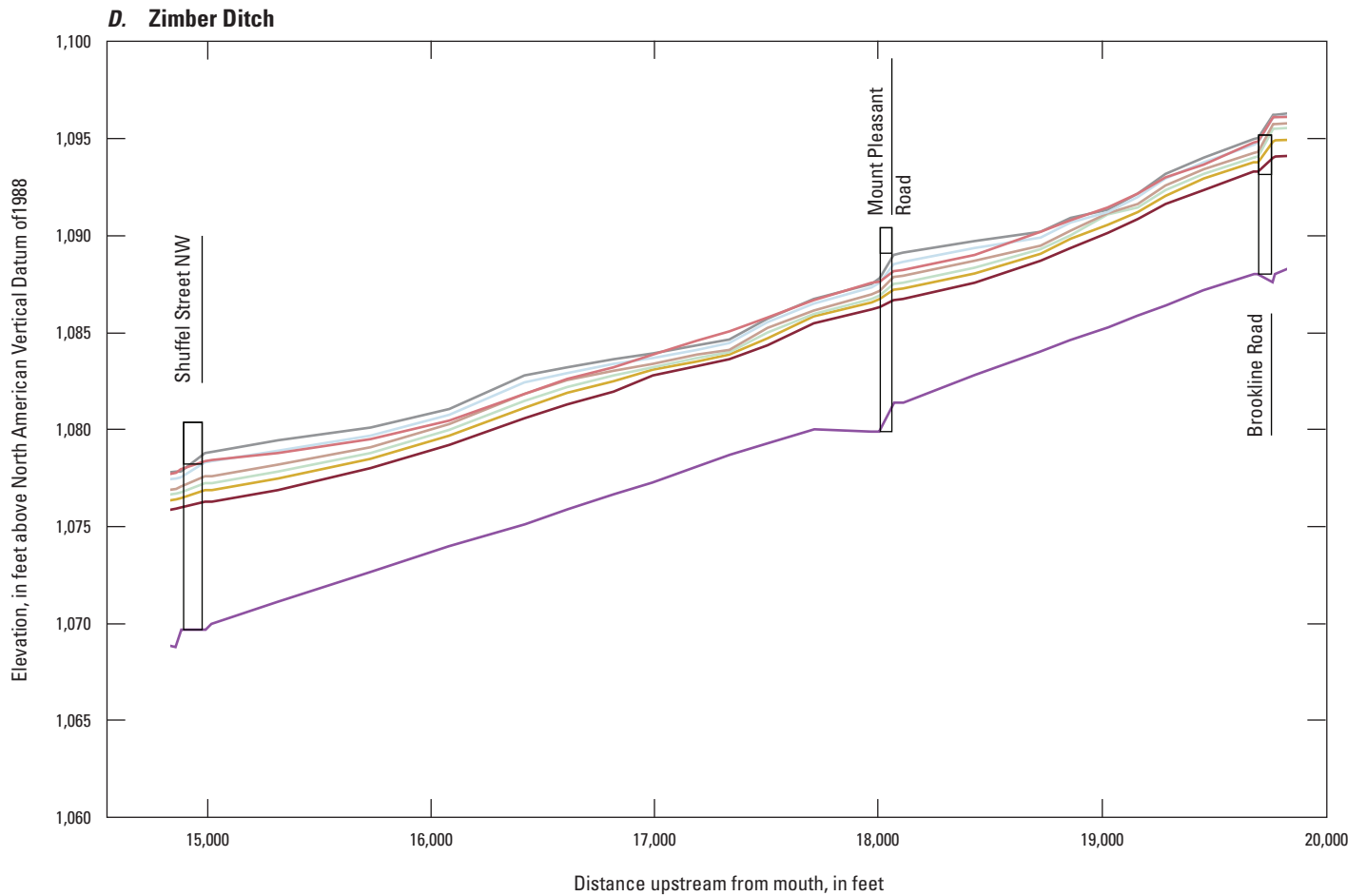


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
  - 10-percent annual exceedance probability
  - 4-percent annual exceedance probability
  - 2-percent annual exceedance probability
  - 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
  - 0.2-percent annual exceedance probability
  - Regulatory floodway
  - Hydraulic structures

**Figure 3.14.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Zimber Ditch, Stark County, Ohio.—Continued

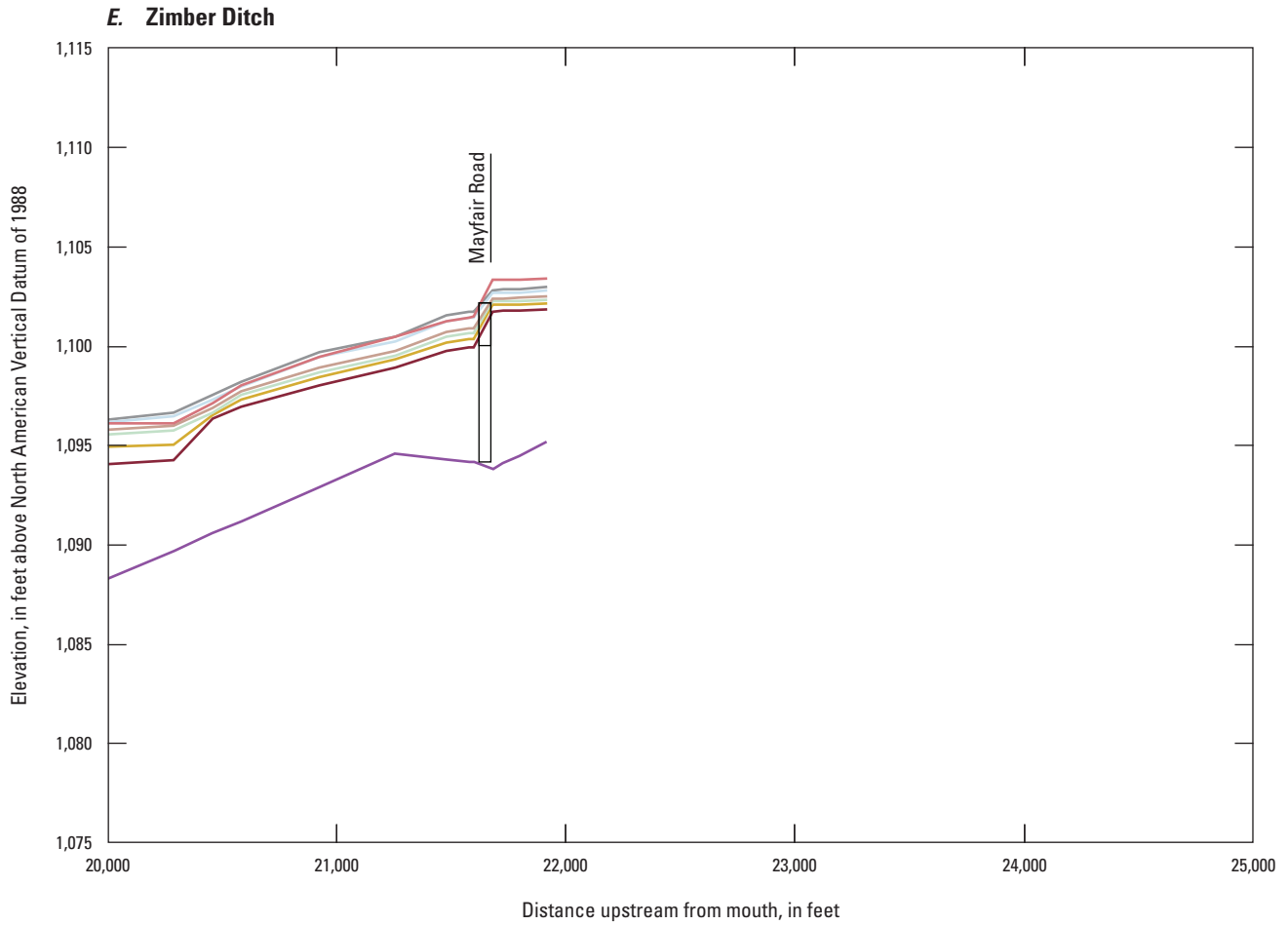


**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- Minimum channel elevation
- 10-percent annual exceedance probability
- 4-percent annual exceedance probability
- 2-percent annual exceedance probability
- 1-percent annual exceedance probability
- 1-percent plus annual exceedance probability
- 0.2-percent annual exceedance probability
- Regulatory floodway
- Hydraulic structures

**Figure 3.14.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Zimmer Ditch, Stark County, Ohio.—Continued



**EXPLANATION**

[The 1-percent plus flood elevation is defined by the Federal Emergency Management Agency (2019a) as a flood elevation derived by using streamflows that include the average predictive error for the regression equation streamflow calculation for the Flood Risk study. This error is then added to the 1-percent annual exceedance probability flood streamflow to calculate the new 1-percent plus streamflow. In the case of this study, the average predictive error for the 1-percent annual exceedance probability flood is 38 percent. Therefore, the 1-percent plus annual exceedance probability flood streamflows were calculated to be 138 percent of the 1-percent annual exceedance probability flood streamflows]

- |   |   |
|---|---|
|  <b>Minimum channel elevation</b>                |  <b>1-percent plus annual exceedance probability</b> |
|  <b>10-percent annual exceedance probability</b> |  <b>0.2-percent annual exceedance probability</b>    |
|  <b>4-percent annual exceedance probability</b>  |  <b>Regulatory floodway</b>                          |
|  <b>2-percent annual exceedance probability</b>  |  <b>Hydraulic structures</b>                         |
|  <b>1-percent annual exceedance probability</b>  |   |

**Figure 3.14.** Computed water-surface profiles for flood events with annual exceedance probabilities of 10-, 4-, 2-, 1-, and 0.2-percent and 1-percent plus for Zimmer Ditch, Stark County, Ohio.—Continued