

APPENDIX C

*Bank-full Hydraulic Geometry Tables
for Selected Hydrologic Regions*

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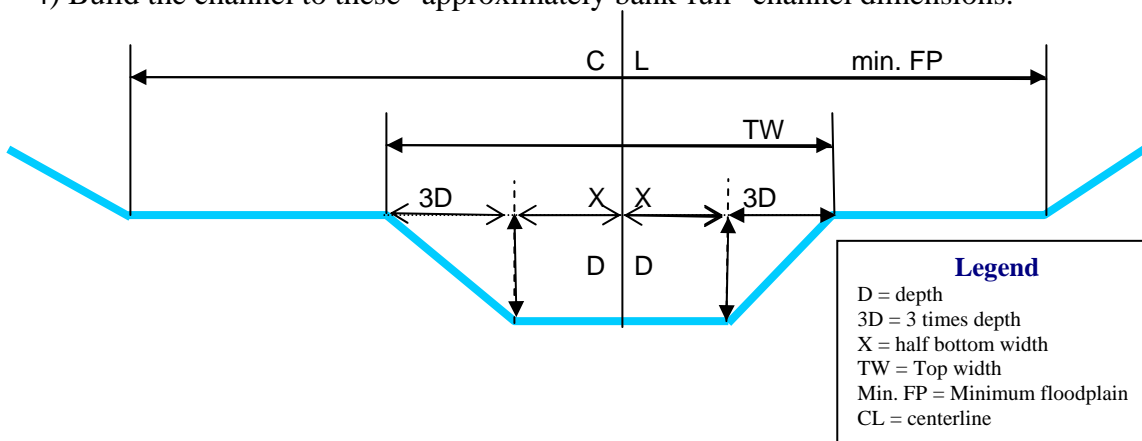
HYDROLOGIC REGION 1 (WESTERN ADIRONDACKS)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-----------|------------|-----------|------------|--------------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 22.3 | 21.5 | 1.1 | 3:1 | 1.3 | 3.9 | 6.9 | 21.5 | 47.3 |
| 2.5 | 42.1 | 30.0 | 1.4 | 3:1 | 1.7 | 5.2 | 9.8 | 30.0 | 65.9 |
| 5 | 68.1 | 38.5 | 1.8 | 3:1 | 2.2 | 6.5 | 12.8 | 38.5 | 84.7 |
| 7.5 | 90.3 | 44.6 | 2.1 | 3:1 | 2.5 | 7.4 | 14.9 | 44.6 | 98.1 |
| 10 | 110.2 | 49.5 | 2.3 | 3:1 | 2.7 | 8.1 | 16.6 | 49.5 | 108.9 |
| 12.5 | 128.7 | 53.6 | 2.4 | 3:1 | 2.9 | 8.7 | 18.1 | 53.6 | 118.0 |
| 15 | 146.1 | 57.3 | 2.6 | 3:1 | 3.1 | 9.2 | 19.4 | 57.3 | 126.1 |
| 17.5 | 162.5 | 60.6 | 2.7 | 3:1 | 3.2 | 9.7 | 20.6 | 60.6 | 133.3 |
| e20 | 178.3 | 63.6 | 2.8 | 3:1 | 3.4 | 10.1 | 21.7 | 63.6 | 139.9 |
| 22.5 | 193.5 | 66.4 | 3.0 | 3:1 | 3.5 | 10.5 | 22.7 | 66.4 | 146.0 |
| 25 | 208.2 | 68.9 | 3.1 | 3:1 | 3.6 | 10.9 | 23.6 | 68.9 | 151.7 |
| 27.5 | 222.4 | 71.4 | 3.2 | 3:1 | 3.7 | 11.2 | 24.5 | 71.4 | 157.0 |
| 30 | 236.3 | 73.6 | 3.2 | 3:1 | 3.8 | 11.5 | 25.3 | 73.6 | 162.0 |
| 32.5 | 249.8 | 75.8 | 3.3 | 3:1 | 3.9 | 11.8 | 26.1 | 75.8 | 166.8 |
| 35 | 263.0 | 77.9 | 3.4 | 3:1 | 4.0 | 12.1 | 26.8 | 77.9 | 171.3 |
| 37.5 | 275.9 | 79.8 | 3.5 | 3:1 | 4.1 | 12.4 | 27.5 | 79.8 | 175.7 |
| 40 | 288.5 | 81.7 | 3.6 | 3:1 | 4.2 | 12.7 | 28.2 | 81.7 | 179.8 |
| 42.5 | 300.9 | 83.5 | 3.6 | 3:1 | 4.3 | 12.9 | 28.9 | 83.5 | 183.8 |
| 45 | 313.1 | 85.3 | 3.7 | 3:1 | 4.4 | 13.2 | 29.5 | 85.3 | 187.6 |
| 47.5 | 325.0 | 87.0 | 3.8 | 3:1 | 4.5 | 13.4 | 30.1 | 87.0 | 191.3 |
| 50 | 336.8 | 88.6 | 3.8 | 3:1 | 4.5 | 13.6 | 30.7 | 88.6 | 194.9 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
- 4) Build the channel to these "approximately bank-full" channel dimensions.



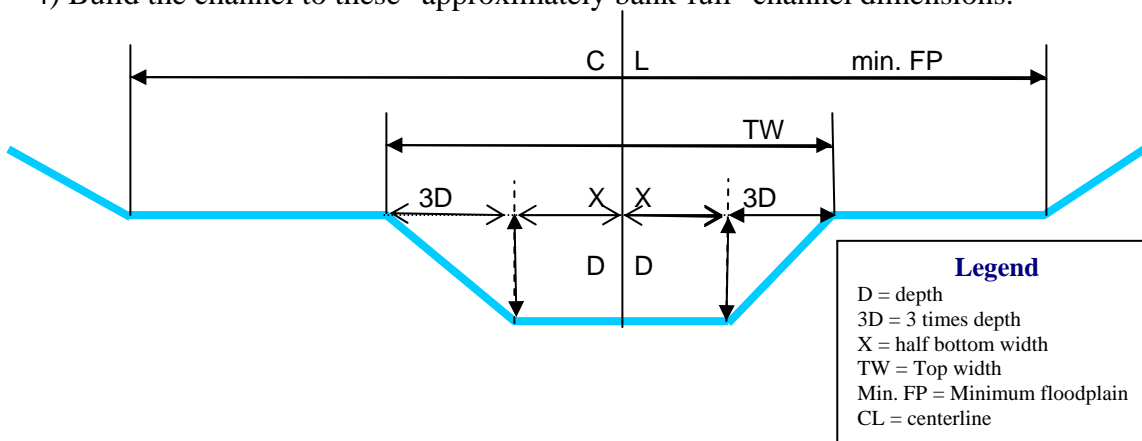
HYDROLOGIC REGION 2 (EASTERN ADIRONDACKS)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-----------|------------|-----------|------------|--------------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 22.3 | 21.5 | 1.1 | 3:1 | 1.3 | 3.9 | 6.9 | 21.5 | 47.3 |
| 2.5 | 42.1 | 30.0 | 1.4 | 3:1 | 1.7 | 5.2 | 9.8 | 30.0 | 65.9 |
| 5 | 68.1 | 38.5 | 1.8 | 3:1 | 2.2 | 6.5 | 12.8 | 38.5 | 84.7 |
| 7.5 | 90.3 | 44.6 | 2.1 | 3:1 | 2.5 | 7.4 | 14.9 | 44.6 | 98.1 |
| 10 | 110.2 | 49.5 | 2.3 | 3:1 | 2.7 | 8.1 | 16.6 | 49.5 | 108.9 |
| 12.5 | 128.7 | 53.6 | 2.4 | 3:1 | 2.9 | 8.7 | 18.1 | 53.6 | 118.0 |
| 15 | 146.1 | 57.3 | 2.6 | 3:1 | 3.1 | 9.2 | 19.4 | 57.3 | 126.1 |
| 17.5 | 162.5 | 60.6 | 2.7 | 3:1 | 3.2 | 9.7 | 20.6 | 60.6 | 133.3 |
| e20 | 178.3 | 63.6 | 2.8 | 3:1 | 3.4 | 10.1 | 21.7 | 63.6 | 139.9 |
| 22.5 | 193.5 | 66.4 | 3.0 | 3:1 | 3.5 | 10.5 | 22.7 | 66.4 | 146.0 |
| 25 | 208.2 | 68.9 | 3.1 | 3:1 | 3.6 | 10.9 | 23.6 | 68.9 | 151.7 |
| 27.5 | 222.4 | 71.4 | 3.2 | 3:1 | 3.7 | 11.2 | 24.5 | 71.4 | 157.0 |
| 30 | 236.3 | 73.6 | 3.2 | 3:1 | 3.8 | 11.5 | 25.3 | 73.6 | 162.0 |
| 32.5 | 249.8 | 75.8 | 3.3 | 3:1 | 3.9 | 11.8 | 26.1 | 75.8 | 166.8 |
| 35 | 263.0 | 77.9 | 3.4 | 3:1 | 4.0 | 12.1 | 26.8 | 77.9 | 171.3 |
| 37.5 | 275.9 | 79.8 | 3.5 | 3:1 | 4.1 | 12.4 | 27.5 | 79.8 | 175.7 |
| 40 | 288.5 | 81.7 | 3.6 | 3:1 | 4.2 | 12.7 | 28.2 | 81.7 | 179.8 |
| 42.5 | 300.9 | 83.5 | 3.6 | 3:1 | 4.3 | 12.9 | 28.9 | 83.5 | 183.8 |
| 45 | 313.1 | 85.3 | 3.7 | 3:1 | 4.4 | 13.2 | 29.5 | 85.3 | 187.6 |
| 47.5 | 325.0 | 87.0 | 3.8 | 3:1 | 4.5 | 13.4 | 30.1 | 87.0 | 191.3 |
| 50 | 336.8 | 88.6 | 3.8 | 3:1 | 4.5 | 13.6 | 30.7 | 88.6 | 194.9 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
- 4) Build the channel to these "approximately bank-full" channel dimensions.



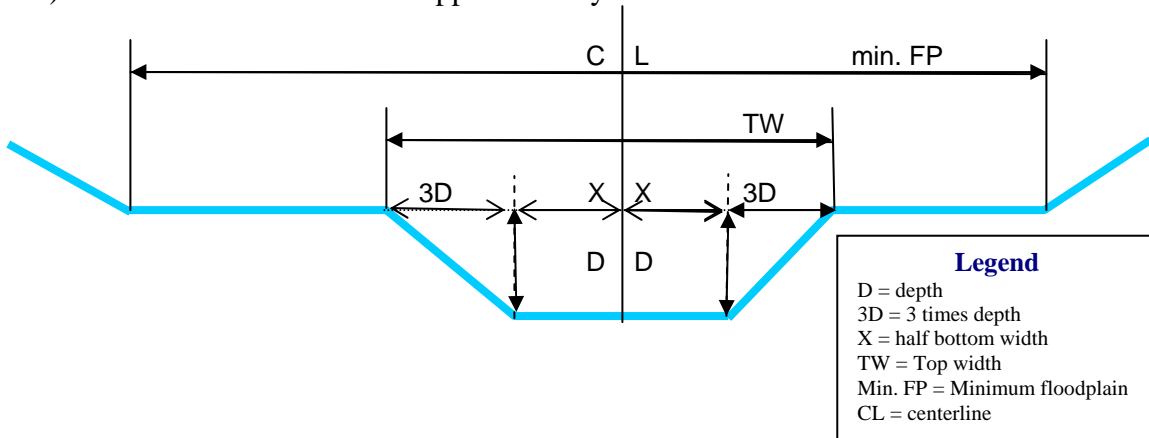
HYDROLOGIC REGION 3 (LOWER HUDSON)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-----------|------------|-----------|------------|--------------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 39.8 | 24.0 | 1.7 | 3:1 | 2.4 | 7.1 | 4.9 | 24.0 | 52.8 |
| 2.5 | 63.1 | 31.4 | 2.0 | 3:1 | 2.7 | 8.2 | 7.5 | 31.4 | 69.0 |
| 5 | 89.4 | 38.4 | 2.3 | 3:1 | 3.1 | 9.2 | 10.0 | 38.4 | 84.5 |
| 7.5 | 109.7 | 43.2 | 2.5 | 3:1 | 3.3 | 9.8 | 11.8 | 43.2 | 95.1 |
| 10 | 126.7 | 47.0 | 2.7 | 3:1 | 3.5 | 10.4 | 13.1 | 47.0 | 103.4 |
| 12.5 | 141.8 | 50.2 | 2.8 | 3:1 | 3.6 | 10.8 | 14.3 | 50.2 | 110.4 |
| 15 | 155.4 | 52.9 | 2.9 | 3:1 | 3.7 | 11.1 | 15.3 | 52.9 | 116.4 |
| 17.5 | 167.9 | 55.4 | 3.0 | 3:1 | 3.8 | 11.5 | 16.2 | 55.4 | 121.8 |
| e20 | 179.6 | 57.6 | 3.1 | 3:1 | 3.9 | 11.7 | 17.0 | 57.6 | 126.6 |
| 22.5 | 190.6 | 59.6 | 3.2 | 3:1 | 4.0 | 12.0 | 17.8 | 59.6 | 131.1 |
| 25 | 200.9 | 61.4 | 3.3 | 3:1 | 4.1 | 12.2 | 18.5 | 61.4 | 135.2 |
| 27.5 | 210.8 | 63.2 | 3.3 | 3:1 | 4.1 | 12.4 | 19.1 | 63.2 | 139.0 |
| 30 | 220.2 | 64.8 | 3.4 | 3:1 | 4.2 | 12.6 | 19.8 | 64.8 | 142.5 |
| 32.5 | 229.3 | 66.3 | 3.4 | 3:1 | 4.3 | 12.8 | 20.3 | 66.3 | 145.9 |
| 35 | 238.0 | 67.8 | 3.5 | 3:1 | 4.3 | 13.0 | 20.9 | 67.8 | 149.1 |
| 37.5 | 246.4 | 69.2 | 3.6 | 3:1 | 4.4 | 13.2 | 21.4 | 69.2 | 152.1 |
| 40 | 254.5 | 70.5 | 3.6 | 3:1 | 4.4 | 13.3 | 21.9 | 70.5 | 155.0 |
| 42.5 | 262.4 | 71.7 | 3.6 | 3:1 | 4.5 | 13.5 | 22.4 | 71.7 | 157.8 |
| 45 | 270.1 | 72.9 | 3.7 | 3:1 | 4.5 | 13.6 | 22.8 | 72.9 | 160.5 |
| 47.5 | 277.5 | 74.1 | 3.7 | 3:1 | 4.6 | 13.8 | 23.3 | 74.1 | 163.0 |
| 50 | 284.8 | 75.2 | 3.8 | 3:1 | 4.6 | 13.9 | 23.7 | 75.2 | 165.5 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
- 4) Build the channel to these "approximately bank-full" channel dimensions.



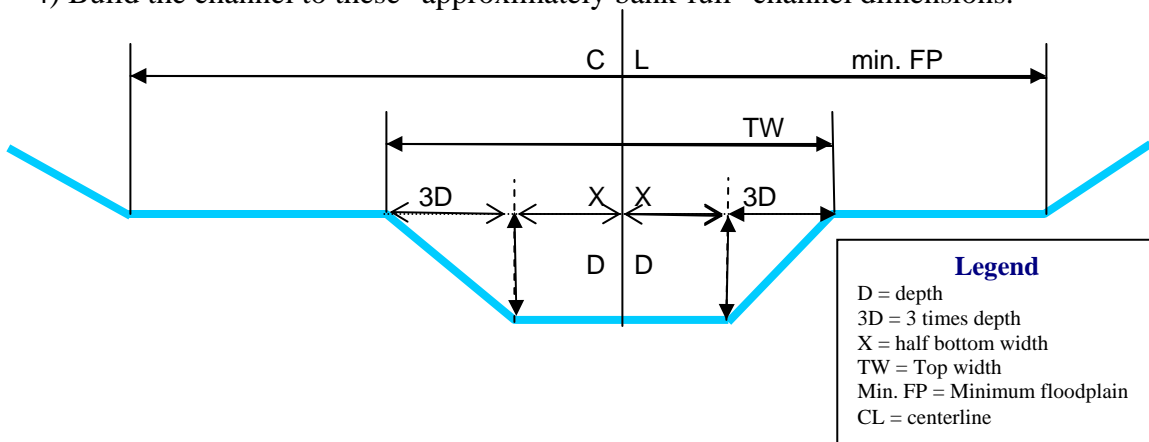
HYDROLOGIC REGION 4 (CATSKILLS EAST)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|---------------|------------------------|---------------------|---------------------|-------------------------|--------|---------|--------|---------|--------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 17.9 | 17.1 | 1.1 | 3:1 | 1.4 | 4.3 | 4.3 | 17.1 | 37.6 |
| 2.5 | 36.5 | 26.1 | 1.4 | 3:1 | 1.8 | 5.4 | 7.6 | 26.1 | 57.3 |
| 5 | 62.5 | 35.9 | 1.8 | 3:1 | 2.2 | 6.5 | 11.4 | 35.9 | 78.9 |
| 7.5 | 85.7 | 43.2 | 2.0 | 3:1 | 2.4 | 7.3 | 14.3 | 43.2 | 95.0 |
| 10 | 107.1 | 49.3 | 2.2 | 3:1 | 2.6 | 7.9 | 16.8 | 49.3 | 108.5 |
| 12.5 | 127.4 | 54.6 | 2.4 | 3:1 | 2.8 | 8.4 | 18.9 | 54.6 | 120.2 |
| 15 | 146.8 | 59.4 | 2.5 | 3:1 | 2.9 | 8.8 | 20.9 | 59.4 | 130.7 |
| 17.5 | 165.5 | 63.8 | 2.6 | 3:1 | 3.1 | 9.2 | 22.7 | 63.8 | 140.4 |
| e20 | 183.5 | 67.8 | 2.7 | 3:1 | 3.2 | 9.6 | 24.3 | 67.8 | 149.2 |
| 22.5 | 201.1 | 71.6 | 2.8 | 3:1 | 3.3 | 9.9 | 25.9 | 71.6 | 157.6 |
| 25 | 218.3 | 75.2 | 2.9 | 3:1 | 3.4 | 10.2 | 27.4 | 75.2 | 165.4 |
| 27.5 | 235.1 | 78.5 | 3.0 | 3:1 | 3.5 | 10.5 | 28.8 | 78.5 | 172.8 |
| 30 | 251.5 | 81.7 | 3.1 | 3:1 | 3.6 | 10.8 | 30.1 | 81.7 | 179.8 |
| 32.5 | 267.7 | 84.8 | 3.2 | 3:1 | 3.7 | 11.0 | 31.4 | 84.8 | 186.6 |
| 35 | 283.5 | 87.8 | 3.3 | 3:1 | 3.7 | 11.2 | 32.6 | 87.8 | 193.1 |
| 37.5 | 299.1 | 90.6 | 3.3 | 3:1 | 3.8 | 11.5 | 33.8 | 90.6 | 199.3 |
| 40 | 314.5 | 93.3 | 3.4 | 3:1 | 3.9 | 11.7 | 35.0 | 93.3 | 205.3 |
| 42.5 | 329.7 | 96.0 | 3.5 | 3:1 | 4.0 | 11.9 | 36.1 | 96.0 | 211.1 |
| 45 | 344.7 | 98.5 | 3.5 | 3:1 | 4.0 | 12.1 | 37.2 | 98.5 | 216.7 |
| 47.5 | 359.5 | 101.0 | 3.6 | 3:1 | 4.1 | 12.3 | 38.2 | 101.0 | 222.2 |
| 50 | 374.1 | 103.4 | 3.7 | 3:1 | 4.2 | 12.5 | 39.2 | 103.4 | 227.5 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
- 4) Build the channel to these "approximately bank-full" channel dimensions.



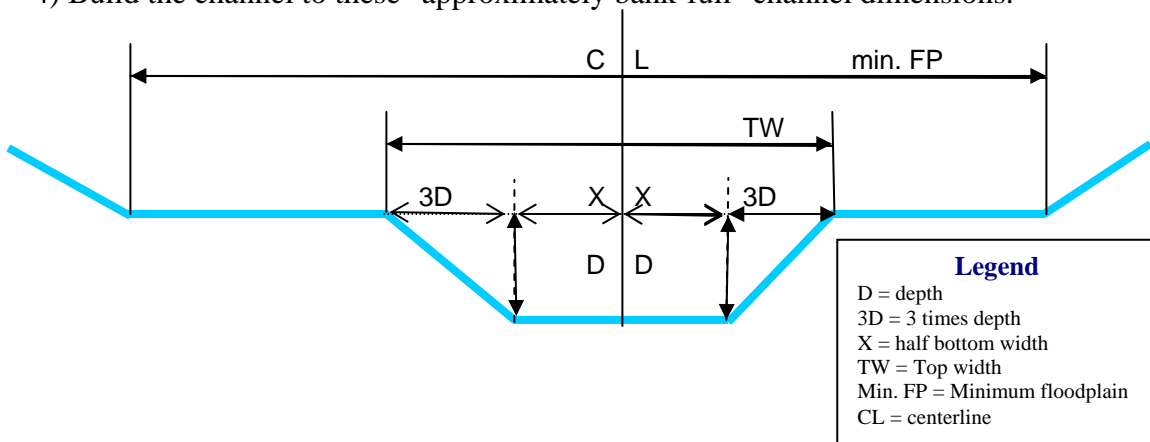
HYDROLOGIC REGION 4a (CATSKILLS WEST)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | channel bank side slope | Construction Dimensions | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-------------------------|------------|-----------|------------|--------------------|
| | | | | | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 7.2 | 9.1 | 0.8 | 2:1 | 1.0 | 2.1 | 2.5 | 9.1 | 20.0 |
| 2.5 | 16.3 | 15.0 | 1.1 | 3:1 | 1.6 | 4.8 | 2.7 | 15.0 | 33.0 |
| 5 | 30.4 | 21.9 | 1.4 | 3:1 | 1.9 | 5.6 | 5.3 | 21.9 | 48.1 |
| 7.5 | 43.6 | 27.3 | 1.6 | 3:1 | 2.1 | 6.2 | 7.4 | 27.3 | 60.0 |
| 10 | 56.4 | 31.9 | 1.8 | 3:1 | 2.2 | 6.7 | 9.2 | 31.9 | 70.2 |
| 12.5 | 68.9 | 36.0 | 1.9 | 3:1 | 2.4 | 7.2 | 10.9 | 36.0 | 79.3 |
| 15 | 81.1 | 39.8 | 2.0 | 3:1 | 2.5 | 7.5 | 12.4 | 39.8 | 87.6 |
| 17.5 | 93.0 | 43.3 | 2.2 | 3:1 | 2.6 | 7.9 | 13.8 | 43.3 | 95.3 |
| e20 | 104.8 | 46.6 | 2.3 | 3:1 | 2.7 | 8.2 | 15.1 | 46.6 | 102.5 |
| 22.5 | 116.5 | 49.7 | 2.3 | 3:1 | 2.8 | 8.5 | 16.3 | 49.7 | 109.2 |
| 25 | 128.0 | 52.6 | 2.4 | 3:1 | 2.9 | 8.8 | 17.5 | 52.6 | 115.7 |
| 27.5 | 139.3 | 55.4 | 2.5 | 3:1 | 3.0 | 9.0 | 18.7 | 55.4 | 121.9 |
| 30 | 150.6 | 58.1 | 2.6 | 3:1 | 3.1 | 9.3 | 19.8 | 58.1 | 127.8 |
| 32.5 | 161.8 | 60.7 | 2.7 | 3:1 | 3.2 | 9.5 | 20.8 | 60.7 | 133.5 |
| 35 | 172.9 | 63.2 | 2.7 | 3:1 | 3.2 | 9.7 | 21.9 | 63.2 | 139.0 |
| 37.5 | 183.9 | 65.6 | 2.8 | 3:1 | 3.3 | 9.9 | 22.9 | 65.6 | 144.3 |
| 40 | 194.8 | 67.9 | 2.9 | 3:1 | 3.4 | 10.1 | 23.8 | 67.9 | 149.5 |
| 42.5 | 205.6 | 70.2 | 2.9 | 3:1 | 3.4 | 10.3 | 24.8 | 70.2 | 154.5 |
| 45 | 216.4 | 72.5 | 3.0 | 3:1 | 3.5 | 10.5 | 25.7 | 72.5 | 159.4 |
| 47.5 | 227.1 | 74.6 | 3.1 | 3:1 | 3.6 | 10.7 | 26.6 | 74.6 | 164.2 |
| 50 | 237.8 | 76.7 | 3.1 | 3:1 | 3.6 | 10.9 | 27.5 | 76.7 | 168.8 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
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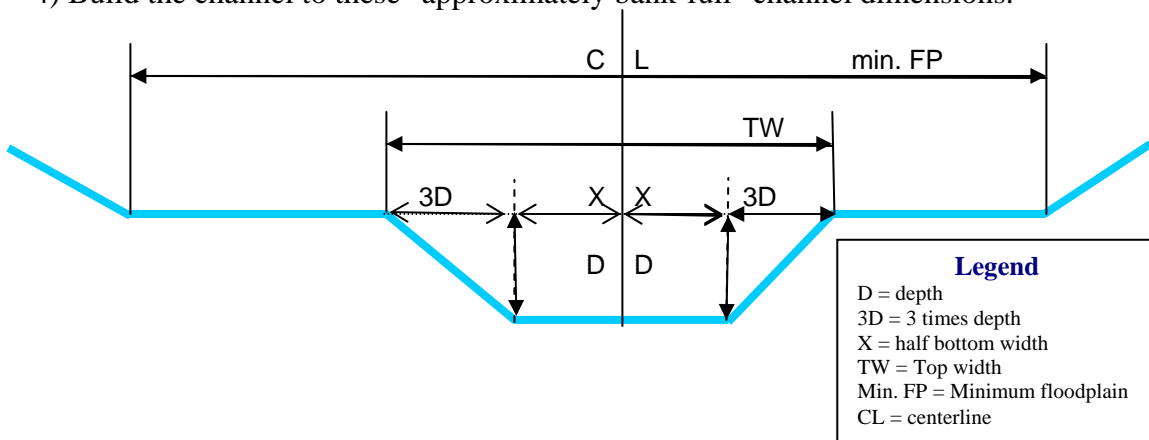
HYDROLOGIC REGION 5 (SUSQUEHANNA)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-----------|------------|-----------|------------|--------------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1.0 | 10.8 | 13.5 | 0.8 | 3:1 | 1.1 | 3.2 | 3.5 | 13.5 | 29.7 |
| 2.5 | 23.0 | 20.4 | 1.2 | 3:1 | 1.5 | 4.4 | 5.8 | 20.4 | 44.8 |
| 5.0 | 40.6 | 27.8 | 1.5 | 3:1 | 1.9 | 5.6 | 8.3 | 27.8 | 61.2 |
| 7.5 | 56.7 | 33.4 | 1.7 | 3:1 | 2.2 | 6.5 | 10.2 | 33.4 | 73.4 |
| 10.0 | 71.8 | 38.0 | 1.9 | 3:1 | 2.4 | 7.2 | 11.8 | 38.0 | 83.5 |
| 12.5 | 86.3 | 42.0 | 2.1 | 3:1 | 2.6 | 7.7 | 13.2 | 42.0 | 92.3 |
| 15.0 | 100.3 | 45.5 | 2.3 | 3:1 | 2.7 | 8.2 | 14.5 | 45.5 | 100.2 |
| 17.5 | 113.9 | 48.8 | 2.4 | 3:1 | 2.9 | 8.7 | 15.7 | 48.8 | 107.4 |
| 20.0 | 127.1 | 51.8 | 2.5 | 3:1 | 3.0 | 9.1 | 16.8 | 51.8 | 114.0 |
| 22.5 | 140.0 | 54.6 | 2.6 | 3:1 | 3.2 | 9.5 | 17.8 | 54.6 | 120.2 |
| 25.0 | 152.7 | 57.3 | 2.7 | 3:1 | 3.3 | 9.9 | 18.8 | 57.3 | 126.0 |
| 27.5 | 165.2 | 59.8 | 2.8 | 3:1 | 3.4 | 10.2 | 19.7 | 59.8 | 131.5 |
| 30.0 | 177.5 | 62.2 | 2.9 | 3:1 | 3.5 | 10.5 | 20.6 | 62.2 | 136.8 |
| 32.5 | 189.5 | 64.4 | 3.0 | 3:1 | 3.6 | 10.8 | 21.4 | 64.4 | 141.8 |
| 35.0 | 201.5 | 66.6 | 3.1 | 3:1 | 3.7 | 11.1 | 22.2 | 66.6 | 146.6 |
| 37.5 | 213.2 | 68.7 | 3.2 | 3:1 | 3.8 | 11.4 | 23.0 | 68.7 | 151.2 |
| 40.0 | 224.9 | 70.7 | 3.2 | 3:1 | 3.9 | 11.7 | 23.7 | 70.7 | 155.6 |
| 42.5 | 236.4 | 72.7 | 3.3 | 3:1 | 4.0 | 11.9 | 24.4 | 72.7 | 159.9 |
| 45.0 | 247.8 | 74.6 | 3.4 | 3:1 | 4.1 | 12.2 | 25.1 | 74.6 | 164.1 |
| 47.5 | 259.0 | 76.4 | 3.5 | 3:1 | 4.1 | 12.4 | 25.8 | 76.4 | 168.1 |
| 50.0 | 270.2 | 78.2 | 3.5 | 3:1 | 4.2 | 12.6 | 26.5 | 78.2 | 172.0 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
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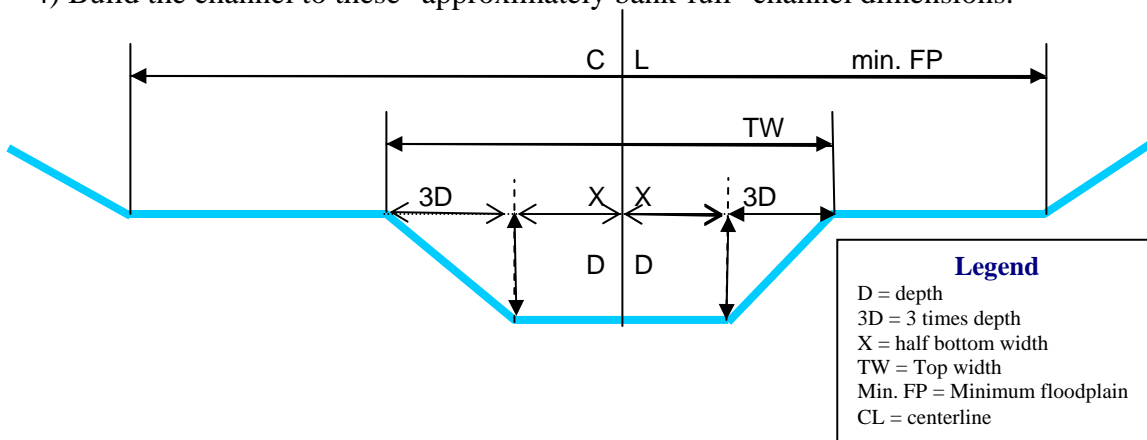
HYDROLOGIC REGION 6 (SOUTHERN TIER)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-----------|------------|-----------|------------|--------------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 17.6 | 16.9 | 1.0 | 3:1 | 1.4 | 4.1 | 4.3 | 16.9 | 37.2 |
| 2.5 | 32.3 | 24.8 | 1.3 | 3:1 | 1.6 | 4.8 | 7.6 | 24.8 | 54.6 |
| 5 | 51.1 | 33.2 | 1.5 | 3:1 | 1.8 | 5.5 | 11.0 | 33.2 | 73.0 |
| 7.5 | 66.8 | 39.3 | 1.7 | 3:1 | 2.0 | 6.0 | 13.6 | 39.3 | 86.5 |
| 10 | 80.8 | 44.3 | 1.8 | 3:1 | 2.1 | 6.4 | 15.8 | 44.3 | 97.6 |
| 12.5 | 93.7 | 48.7 | 1.9 | 3:1 | 2.2 | 6.7 | 17.6 | 48.7 | 107.1 |
| 15 | 105.7 | 52.6 | 2.0 | 3:1 | 2.3 | 7.0 | 19.3 | 52.6 | 115.6 |
| 17.5 | 117.1 | 56.1 | 2.1 | 3:1 | 2.4 | 7.2 | 20.8 | 56.1 | 123.4 |
| e20 | 127.9 | 59.3 | 2.2 | 3:1 | 2.5 | 7.4 | 22.2 | 59.3 | 130.4 |
| 22.5 | 138.2 | 62.3 | 2.2 | 3:1 | 2.5 | 7.6 | 23.6 | 62.3 | 137.0 |
| 25 | 148.2 | 65.1 | 2.3 | 3:1 | 2.6 | 7.8 | 24.8 | 65.1 | 143.2 |
| 27.5 | 157.9 | 67.8 | 2.3 | 3:1 | 2.6 | 7.9 | 25.9 | 67.8 | 149.1 |
| 30 | 167.3 | 70.3 | 2.4 | 3:1 | 2.7 | 8.1 | 27.1 | 70.3 | 154.6 |
| 32.5 | 176.4 | 72.7 | 2.4 | 3:1 | 2.7 | 8.2 | 28.1 | 72.7 | 159.9 |
| 35 | 185.2 | 75.0 | 2.5 | 3:1 | 2.8 | 8.4 | 29.1 | 75.0 | 164.9 |
| 37.5 | 193.9 | 77.2 | 2.5 | 3:1 | 2.8 | 8.5 | 30.1 | 77.2 | 169.8 |
| 40 | 202.3 | 79.3 | 2.6 | 3:1 | 2.9 | 8.6 | 31.0 | 79.3 | 174.4 |
| 42.5 | 210.6 | 81.3 | 2.6 | 3:1 | 2.9 | 8.7 | 31.9 | 81.3 | 178.9 |
| 45 | 218.7 | 83.3 | 2.6 | 3:1 | 2.9 | 8.8 | 32.8 | 83.3 | 183.2 |
| 47.5 | 226.7 | 85.2 | 2.7 | 3:1 | 3.0 | 8.9 | 33.7 | 85.2 | 187.4 |
| 50 | 234.5 | 87.0 | 2.7 | 3:1 | 3.0 | 9.0 | 34.5 | 87.0 | 191.5 |

Instructions:

- 1) Select the table for the drainage basin that your project is in.
- 2) Select the drainage area (DA) in the selected table that most closely matches the DA at your project site.
- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
- 4) Build the channel to these "approximately bank-full" channel dimensions.



HYDROLOGIC REGION 7 (LAKE PLAINS)

Bank-full Hydraulic Geometry vs. Drainage Area for Selected Hydrologic Regions

| DA (sq. mile) | Bankfull Area (sq. ft) | Bankfull Width (ft) | Bankfull Depth (ft) | Construction Dimensions | | | | | |
|------------------|------------------------------|---------------------------|---------------------------|----------------------------------|-----------|------------|-----------|------------|--------------------|
| | | | | channel bank side slope | D (ft) | 3D (ft) | X (ft) | TW (ft) | Min. FP (ft) |
| 1 | 15.9 | 10.8 | 1.5 | 2:1 | 2.3* | 4.6* | 1.3* | 10.8 | 23.8 |
| 2.5 | 29.0 | 16.4 | 1.8 | 2:1 | 3.2* | 6.4* | 1.7* | 16.4 | 36.1 |
| 5 | 45.7 | 22.6 | 2.0 | 2:1 | 3.4* | 6.8* | 3.3* | 22.6 | 49.7 |
| 7.5 | 59.6 | 27.2 | 2.2 | 3:1 | 3.5* | 10.2* | 3.7* | 27.2 | 59.8 |
| 10 | 72.0 | 31.0 | 2.3 | 3:1 | 3.5 | 10.6 | 4.9 | 31.0 | 68.2 |
| 12.5 | 83.4 | 34.3 | 2.4 | 3:1 | 3.5 | 10.5 | 6.7 | 34.3 | 75.5 |
| 15 | 94.0 | 37.3 | 2.5 | 3:1 | 3.5 | 10.5 | 8.1 | 37.3 | 82.1 |
| 17.5 | 104.0 | 40.1 | 2.6 | 3:1 | 3.5 | 10.6 | 9.4 | 40.1 | 88.1 |
| e20 | 113.5 | 42.6 | 2.7 | 3:1 | 3.6 | 10.7 | 10.6 | 42.6 | 93.7 |
| 22.5 | 122.6 | 44.9 | 2.7 | 3:1 | 3.6 | 10.8 | 11.7 | 44.9 | 98.9 |
| 25 | 131.4 | 47.2 | 2.8 | 3:1 | 3.6 | 10.9 | 12.7 | 47.2 | 103.8 |
| 27.5 | 139.8 | 49.3 | 2.8 | 3:1 | 3.7 | 11.0 | 13.7 | 49.3 | 108.4 |
| 30 | 148.0 | 51.3 | 2.9 | 3:1 | 3.7 | 11.1 | 14.6 | 51.3 | 112.8 |
| 32.5 | 156.0 | 53.2 | 2.9 | 3:1 | 3.7 | 11.2 | 15.4 | 53.2 | 117.0 |
| 35 | 163.8 | 55.0 | 3.0 | 3:1 | 3.7 | 11.2 | 16.3 | 55.0 | 121.1 |
| 37.5 | 171.4 | 56.8 | 3.0 | 3:1 | 3.8 | 11.3 | 17.1 | 56.8 | 125.0 |
| 40 | 178.8 | 58.5 | 3.1 | 3:1 | 3.8 | 11.4 | 17.8 | 58.5 | 128.7 |
| 42.5 | 186.0 | 60.1 | 3.1 | 3:1 | 3.8 | 11.5 | 18.6 | 60.1 | 132.3 |
| 45 | 193.2 | 61.7 | 3.1 | 3:1 | 3.9 | 11.6 | 19.3 | 61.7 | 135.8 |
| 47.5 | 200.1 | 63.3 | 3.2 | 3:1 | 3.9 | 11.7 | 20.0 | 63.3 | 139.2 |
| 50 | 207.0 | 64.8 | 3.2 | 3:1 | 3.9 | 11.7 | 20.7 | 64.8 | 142.6 |

* values were estimated

Instructions:

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- 3) Under "Construction Dimensions" read the channel dimensions tabulated.
- 4) Build the channel to these "approximately bank-full" channel dimensions.

