

### 3 @ 16 x 9 REINFORCED CONCRETE BOX BRIDGE

| Maximum Fill Height ft. | Dimensions |        |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |   |    |      | Bars LNT No. | Bars LND No. | Bars WS No. | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|---|----|------|--------------|--------------|-------------|----------------|--------------------|
|                         | ST in.     | SB in. | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. |         |   |    |      |              |              |             |                |                    |
| No Fill                 | 11.5       | 11     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 7        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 9.00       | 5        | 2   | 12          | 9.00       | 4       | 4 | 12 | 9.00 | 224          | 48           | 8           | 4.44           | 1030               |
| 3                       | 15         | 15     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 8        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 9.00       | 6        | 2   | 12          | 9.00       | 4       | 4 | 12 | 9.00 | 224          | 48           | 8           | 5.63           | 1070               |
| 5                       | 15         | 15     | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 6        | 2   | 6           | 51.17      | 7        | 2   | 6           | 51.17      | 4        | 2   | 12          | 9.00       | 6        | 2   | 12          | 9.00       | 4       | 4 | 12 | 9.00 | 274          | 0            | 8           | 5.63           | 1189               |
| 10                      | 18         | 18     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 9        | 1   | 12          | 51.17      | 7        | 2   | 6           | 51.17      | 4        | 2   | 12          | 9.00       | 6        | 4   | 6           | 9.00       | 4       | 4 | 12 | 9.00 | 274          | 0            | 8           | 6.57           | 1173               |
| 20                      | 19         | 19     | 9      | 8      | 50.83  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.33      | 10       | 2   | 6           | 51.33      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 9.00       | 7        | 4   | 6           | 9.00       | 5       | 4 | 12 | 9.00 | 274          | 0            | 8           | 6.97           | 1355               |
| 30                      | 26         | 27     | 11     | 8      | 51.17  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.67      | 9        | 2   | 6           | 51.67      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 9.00       | 6        | 4   | 6           | 9.00       | 4       | 8 | 6  | 9.00 | 278          | 0            | 8           | 9.51           | 1169               |
| 40                      | 32         | 33     | 13     | 8      | 51.50  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.00      | 9        | 2   | 6           | 52.00      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 9.00       | 6        | 4   | 6           | 9.00       | 7       | 4 | 12 | 9.00 | 278          | 0            | 8           | 11.60          | 1199               |
| 50                      | 37         | 38     | 14     | 8      | 51.67  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.17      | 10       | 2   | 6           | 52.17      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 9.00       | 7        | 2   | 12          | 9.00       | 8       | 4 | 12 | 9.00 | 278          | 0            | 8           | 13.30          | 1393               |
| 60                      | 41         | 42     | 16     | 8      | 52.00  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.50      | 10       | 2   | 6           | 52.50      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 9.00       | 6        | 2   | 12          | 9.00       | 6       | 8 | 6  | 9.00 | 282          | 0            | 8           | 14.78          | 1404               |

### 3 @ 16 x 10 REINFORCED CONCRETE BOX BRIDGE

| Maximum Fill Height ft. | Dimensions |        |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Bars LNT No. | Bars LND No. | Bars WS No. | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|--------------|--------------|-------------|----------------|--------------------|
|                         | ST in.     | SB in. | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |              |              |             |                |                    |
| No Fill                 | 11.5       | 11     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 7        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 10.00      | 6        | 2   | 12          | 10.00      | 4       | 4   | 12          | 10.00      | 232          | 48           | 8           | 4.54           | 1050               |
| 3                       | 15         | 15     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 8        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 10.00      | 5        | 4   | 6           | 10.00      | 4       | 4   | 12          | 10.00      | 232          | 48           | 8           | 5.73           | 1094               |
| 5                       | 15         | 15     | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 6        | 2   | 6           | 51.17      | 7        | 2   | 6           | 51.17      | 4        | 2   | 12          | 10.00      | 7        | 2   | 12          | 10.00      | 4       | 4   | 12          | 10.00      | 282          | 0            | 8           | 5.73           | 1212               |
| 10                      | 18         | 18     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 9        | 1   | 12          | 51.17      | 7        | 2   | 6           | 51.17      | 4        | 2   | 12          | 10.00      | 7        | 4   | 6           | 10.00      | 4       | 4   | 12          | 10.00      | 282          | 0            | 8           | 6.67           | 1210               |
| 20                      | 19         | 19     | 10     | 8      | 51.00  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.50      | 10       | 2   | 6           | 51.50      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 10.00      | 7        | 4   | 6           | 10.00      | 5       | 4   | 12          | 10.00      | 286          | 0            | 8           | 7.15           | 1379               |
| 30                      | 26         | 27     | 12     | 8      | 51.33  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 50.83      | 9        | 2   | 6           | 51.83      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 10.00      | 7        | 4   | 6           | 10.00      | 4       | 8   | 6           | 10.00      | 286          | 0            | 8           | 9.72           | 1211               |
| 40                      | 32         | 33     | 14     | 8      | 51.67  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.17      | 9        | 2   | 6           | 52.17      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 10.00      | 6        | 4   | 6           | 10.00      | 7       | 4   | 12          | 10.00      | 286          | 0            | 8           | 11.83          | 1222               |
| 50                      | 37         | 38     | 16     | 8      | 52.00  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.50      | 10       | 2   | 6           | 52.50      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 10.00      | 6        | 4   | 6           | 10.00      | 8       | 4   | 12          | 10.00      | 290          | 0            | 8           | 13.64          | 1443               |
| 60                      | 41         | 42     | 17     | 8      | 52.17  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.67      | 10       | 2   | 6           | 52.67      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 10.00      | 6        | 4   | 6           | 10.00      | 6       | 8   | 6           | 10.00      | 290          | 0            | 8           | 15.04          | 1459               |

### 3 @ 16 x 11 REINFORCED CONCRETE BOX BRIDGE

| Maximum Fill Height ft. | Dimensions |        |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Bars LNT No. | Bars LND No. | Bars WS No. | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|--------------|--------------|-------------|----------------|--------------------|
|                         | ST in.     | SB in. | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |              |              |             |                |                    |
| No Fill                 | 11.5       | 11     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 7        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 11.00      | 6        | 2   | 12          | 11.00      | 4       | 4   | 12          | 11.00      | 240          | 48           | 8           | 4.64           | 1063               |
| 3                       | 15         | 15     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 8        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 11.00      | 7        | 2   | 12          | 11.00      | 4       | 4   | 12          | 11.00      | 240          | 48           | 8           | 5.82           | 1107               |
| 5                       | 15         | 15     | 8      | 8      | 50.67  | 8        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 6        | 2   | 6           | 51.17      | 7        | 2   | 6           | 51.17      | 4        | 2   | 12          | 11.00      | 7        | 4   | 6           | 11.00      | 4       | 4   | 12          | 11.00      | 290          | 0            | 8           | 5.82           | 1270               |
| 10                      | 18         | 18     | 9      | 8      | 50.83  | 7        | 2   | 6           | 50.33      | 7        | 2   | 6           | 50.33      | 9        | 1   | 12          | 51.33      | 7        | 2   | 6           | 51.33      | 4        | 2   | 12          | 11.00      | 7        | 4   | 6           | 11.00      | 4       | 4   | 12          | 11.00      | 290          | 0            | 8           | 6.86           | 1230               |
| 20                      | 19         | 19     | 11     | 8      | 51.17  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.67      | 10       | 2   | 6           | 51.67      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 11.00      | 7        | 4   | 6           | 11.00      | 5       | 4   | 12          | 11.00      | 294          | 0            | 8           | 7.35           | 1401               |
| 30                      | 26         | 27     | 13     | 8      | 51.50  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.00      | 9        | 2   | 6           | 52.00      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 11.00      | 7        | 4   | 6           | 11.00      | 4       | 8   | 6           | 11.00      | 294          | 0            | 8           | 9.93           | 1234               |
| 40                      | 32         | 33     | 15     | 8      | 51.83  | 4        | 3   | 12          | 16.66      | 9        | 2   | 6           | 51.33      | 9        | 2   | 6           | 52.33      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 11.00      | 7        | 4   | 6           | 11.00      | 7       | 4   | 12          | 11.00      | 294          | 0            | 8           | 12.06          | 1269               |
| 50                      | 37         | 38     | 17     | 8      | 52.17  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 51.67      | 10       | 2   | 6           | 52.67      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 11.00      | 7        | 4   | 6           | 11.00      | 8       | 4   | 12          | 11.00      | 298          | 0            | 8           | 13.89          | 1493               |
| 60                      | 41         | 42     | 19     | 9      | 52.67  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 52.17      | 10       | 2   | 6           | 53.17      | 4        | 3   | 12          | 16.66      | 4        | 2   | 12          | 11.00      | 6        | 4   | 6           | 11.00      | 5       | 8   | 6           | 11.00      | 298          | 0            | 8           | 15.52          | 1452               |

### 3 @ 16 x 12 REINFORCED CONCRETE BOX BRIDGE

| Maximum Fill Height ft. | Dimensions |        |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |             |            | Bars IW |     |             |            | Bars LNT No. | Bars LND No. | Bars WS No. | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|---------|-----|-------------|------------|--------------|--------------|-------------|----------------|--------------------|
|                         | ST in.     | SB in. | WT in. | IT in. | BW ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size     | No. | Spacing in. | Length ft. | Size    | No. | Spacing in. | Length ft. |              |              |             |                |                    |
| No Fill                 | 11.5       | 11     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 7        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 12.00      | 7        | 2   | 12          | 12.00      | 5       | 4   | 12          | 12.00      | 248          | 48           | 8           | 4.74           | 1106               |
| 3                       | 15         | 15     | 8      | 8      | 50.67  | 7        | 2   | 6           | 50.17      | 7        | 2   | 6           | 50.17      | 8        | 1   | 12          | 51.17      | 6        | 2   | 6           | 51.17      | 4        | 2   | 12          | 12.00      | 7        | 4   | 6           | 12.00      | 5       | 4   | 12          | 12.00      | 248          | 48           | 8           | 5.92           | 1187               |
| 5                       | 15         | 15     | 9      | 8      | 50.83  | 8        | 2   | 6           | 50.33      | 7        | 2   | 6           | 50.33      | 6        | 2   | 6           | 51.33      | 7        | 2   | 6           | 51.33      | 4        | 2   | 12          | 12.00      | 7        | 4   | 6           | 12.00      | 5       | 4   | 12          | 12.00      | 298          | 0            | 8           | 6.01           | 1309               |
| 10                      | 18         | 18     | 10     | 8      | 51.00  | 7        | 2   | 6           | 50.50      | 7        | 2   | 6           | 50.50      | 9        | 1   | 12          | 51.50      | 7        | 2   | 6           | 51.50      | 4        | 2   | 12          | 12.00      | 7        | 4   | 6           | 12.00      | 5       | 4   | 12          | 12.00      | 302          | 0            | 8           | 7.06           | 1271               |
| 20                      | 19         | 19     | 12     | 8      | 51.33  | 4        | 3   | 12          | 16.66      | 10       | 2   | 6           | 50.83      | 10       | 2   | 6           | 51.83      | 4        |     |             |            |          |     |             |            |          |     |             |            |         |     |             |            |              |              |             |                |                    |