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|-------------|------|-----------|-------------------|
| CONST. NO.  |      |           |                   |
| PROJECT NO. | YEAR | SHEET NO. |                   |
|             | 2010 |           |                   |
| REVISIONS   |      |           |                   |
| NO.         | DATE | BY        | BRIEF DESCRIPTION |
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### 1 @ 12 x 4 REINFORCED CONCRETE BOX BRIDGE

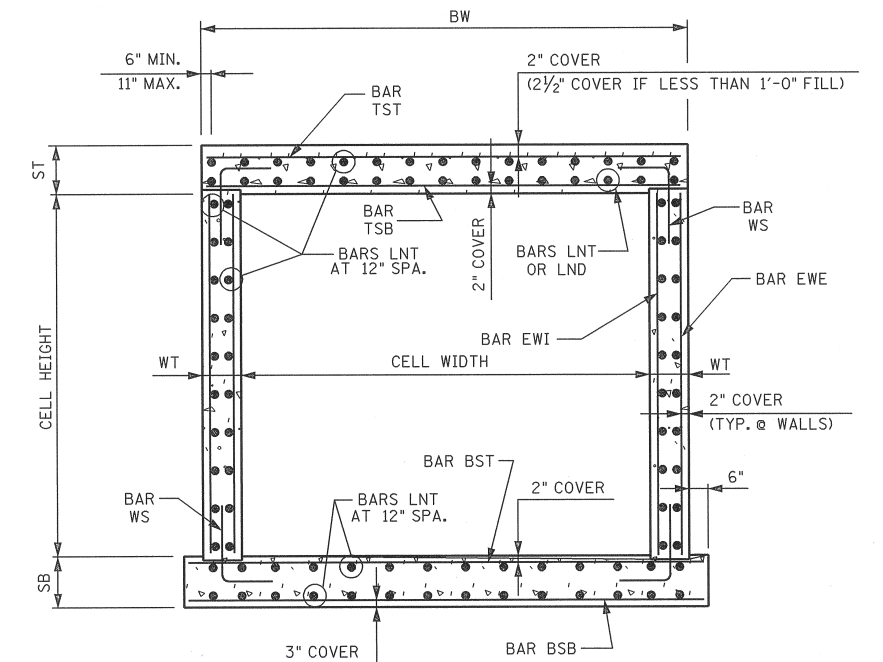
| Maximum Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |     |      | Bars LNT | Bars LND | Bars WS | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-----|------|----------|----------|---------|----------------|--------------------|
|                         | ST in.     | SB in. | WT 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. | No.      | No. | No. |      |          |          |         |                |                    |
| No Fill                 | 10.5       | 10     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 7        | 2   | 6           | 12.83      | 7        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 62       | 24       | 4       | 1.07           | 260                |
| 3                       | 13         | 13     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 9        | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 62       | 24       | 4       | 1.31           | 267                |
| 5                       | 11         | 11     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 7        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 1.14           | 259                |
| 10                      | 11         | 12     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 8        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 1.18           | 295                |
| 20                      | 16         | 16     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 9        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 1.56           | 316                |
| 30                      | 21         | 21     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 1.99           | 276                |
| 40                      | 26         | 26     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 2.42           | 276                |
| 50                      | 31         | 31     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 2.84           | 276                |
| 60                      | 34         | 34     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 9        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 4.00       | 5        | 2   | 12  | 4.00 | 74       | 0        | 4       | 3.10           | 316                |

### 1 @ 12 x 5 REINFORCED CONCRETE BOX BRIDGE

| Maximum Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |     |      | Bars LNT | Bars LND | Bars WS | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-----|------|----------|----------|---------|----------------|--------------------|
|                         | ST in.     | SB in. | WT 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. | No.      | No. | No. |      |          |          |         |                |                    |
| No Fill                 | 10.5       | 10     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 7        | 2   | 6           | 12.83      | 7        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 66       | 24       | 4       | 1.12           | 266                |
| 3                       | 13         | 13     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 9        | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 66       | 24       | 4       | 1.36           | 273                |
| 5                       | 11         | 11     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 7        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 1.19           | 266                |
| 10                      | 11         | 12     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 8        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 1.23           | 302                |
| 20                      | 16         | 16     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 1.61           | 301                |
| 30                      | 21         | 21     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 2.04           | 282                |
| 40                      | 26         | 26     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 2.47           | 282                |
| 50                      | 31         | 31     | 9      | 13.50  | 4        | 1   | 12          | 13.00      | 8        | 2   | 6           | 13.00      | 11       | 1   | 12          | 14.00      | 4        | 1   | 12          | 14.00      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 2.96           | 284                |
| 60                      | 34         | 34     | 10     | 13.67  | 4        | 1   | 12          | 13.17      | 9        | 2   | 6           | 13.17      | 9        | 2   | 6           | 14.17      | 4        | 1   | 12          | 14.17      | 4        | 2   | 12          | 5.00       | 5        | 2   | 12  | 5.00 | 78       | 0        | 4       | 3.28           | 327                |

### 1 @ 12 x 6 REINFORCED CONCRETE BOX BRIDGE

| Maximum Fill Height ft. | Dimensions |        |        |        | Bars TST |     |             |            | Bars TSB |     |             |            | Bars BST |     |             |            | Bars BSB |     |             |            | Bars EWE |     |             |            | Bars EWI |     |     |      | Bars LNT | Bars LND | Bars WS | Concrete CY/LF | Reinf. Steel LB/LF |
|-------------------------|------------|--------|--------|--------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-------------|------------|----------|-----|-----|------|----------|----------|---------|----------------|--------------------|
|                         | ST in.     | SB in. | WT 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. | No.      | No. | No. |      |          |          |         |                |                    |
| No Fill                 | 10.5       | 10     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 7        | 2   | 6           | 12.83      | 7        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 70       | 24       | 4       | 1.17           | 273                |
| 3                       | 13         | 13     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 9        | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 70       | 24       | 4       | 1.41           | 279                |
| 5                       | 11         | 11     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 7        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 82       | 0        | 4       | 1.24           | 272                |
| 10                      | 11         | 12     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 8        | 2   | 6           | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 82       | 0        | 4       | 1.28           | 308                |
| 20                      | 16         | 16     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 9        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 82       | 0        | 4       | 1.66           | 307                |
| 30                      | 21         | 21     | 8      | 13.33  | 4        | 1   | 12          | 12.83      | 8        | 2   | 6           | 12.83      | 11       | 1   | 12          | 13.83      | 4        | 1   | 12          | 13.83      | 4        | 2   | 12          | 6.00       | 6        | 2   | 12  | 6.00 | 82       | 0        | 4       | 2.09           | 294                |
| 40                      | 26         | 26     | 9      | 13.50  | 4        | 1   | 12          | 13.00      | 8        | 2   | 6           | 13.00      | 11       | 1   | 12          | 14.00      | 4        | 1   | 12          | 14.00      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 82       | 0        | 4       | 2.58           | 291                |
| 50                      | 31         | 31     | 10     | 13.67  | 4        | 1   | 12          | 13.17      | 8        | 2   | 6           | 13.17      | 11       | 1   | 12          | 14.17      | 4        | 1   | 12          | 14.17      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 82       | 0        | 4       | 3.08           | 293                |
| 60                      | 34         | 34     | 11     | 13.83  | 4        | 1   | 12          | 13.33      | 9        | 2   | 6           | 13.33      | 9        | 2   | 6           | 14.33      | 4        | 1   | 12          | 14.33      | 4        | 2   | 12          | 6.00       | 5        | 2   | 12  | 6.00 | 82       | 0        | 4       | 3.42           | 335                |



TYPICAL SECTION

NOTE: FOR DESCRIPTIONS OF BOX DIMENSIONS AND REINFORCING BAR DESIGNATIONS SEE STANDARD DRAWING NO. STD-17-5.

Note: Maximum fill height shown in the table is measured from the bottom of the top slab. To obtain the total fill height from the flow line, add the height of the box.

Note: When height of fill above the top slab is less than 1 foot, the top mat of reinforcing in the top slab shall be constructed with 2-1/2 inches of concrete cover.

The following bar information applies to all fill cases in the tables above:

Bars LNT Size = 4 Spacing = 12 in.

Bars LND Size = 5 Spacing = 6 in.

Bars WS Size = 8 Length = 5.00 ft. Spacing = 12 in.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION  
STANDARD REINFORCED CONCRETE  
BOX BRIDGE  
INTERIOR SECTION  
SPANS: 1 BARREL AT 12'-0"  
CLEAR HEIGHTS 4'-0" THRU 6'-0"  
0' THRU 60' FILL  
2010

DESIGNED BY RLL/ALP DATE 12-09  
DRAWN BY KEVIN MARTINKO DATE 1-10  
SUPERVISED BY EPW/RLC DATE 12-09  
CHECKED BY RLL/ALP DATE 2-10

CORRECT Edward P. Wasserman  
ENGINEER OF STRUCTURES