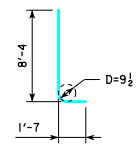
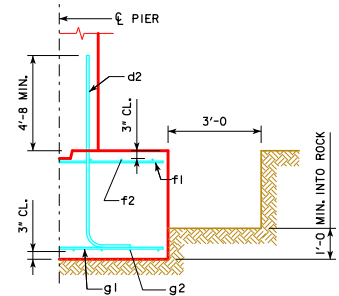
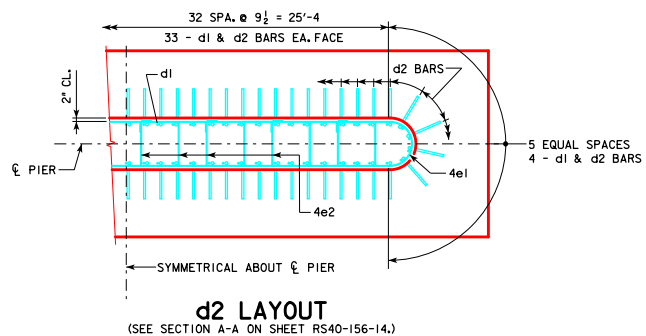
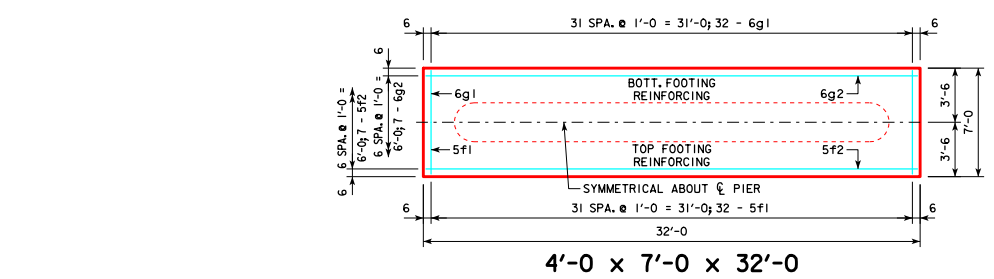


REVISED 02-2017 - CHANGED VERTICAL CLEARANCE OF REBAR #f2 TO TOP OF PIER FOOTING TO 3" WAS 2".

| H IN FT. | ℄ - ℄ ABUT. BRG. | FOOTING SIZE  | H IN FT. | ℄ - ℄ ABUT. BRG. | FOOTING SIZE   |
|----------|------------------|---------------|----------|------------------|----------------|
| 16 TO 18 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |
| 19 TO 21 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |
| 22 TO 24 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |
| 25 TO 27 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |
| 28 TO 30 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |
| 31 TO 33 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |
| 34 TO 36 | 160'-0           | 4' x 7' x 32' | 37 TO 40 | 160'-0           | 4' x 8' x 36'  |
|          | 180'-0           | 4' x 7' x 34' |          | 180'-0           | 4' x 9' x 36'  |
|          | 200'-0           | 4' x 7' x 34' |          | 200'-0           | 4' x 9' x 36'  |
|          | 220'-0           | 4' x 8' x 34' |          | 220'-0           | 4' x 9' x 38'  |
|          | 240'-0           | 4' x 8' x 34' |          | 240'-0           | 4' x 10' x 38' |
|          | 260'-0           | 4' x 8' x 36' |          | 260'-0           | 4' x 10' x 40' |
|          | 280'-0           | 4' x 8' x 36' |          | 280'-0           | 4' x 10' x 40' |
|          | 300'-0           | 4' x 9' x 36' |          | 300'-0           | 4' x 10' x 40' |
|          | 320'-0           | 4' x 9' x 38' |          | 320'-0           | 4' x 10' x 40' |
|          | 340'-0           | 4' x 9' x 38' |          | 340'-0           | 4' x 10' x 40' |

| FOOTING SIZE   | REINFORCING STEEL (ONE FOOTING) |                     |        |               | TOTAL WEIGHT (L.B.) | STRUCTURAL CONCRETE (CY) |
|----------------|---------------------------------|---------------------|--------|---------------|---------------------|--------------------------|
|                | BAR                             | NO., SIZE & SPACING | LENGTH | WEIGHT (L.B.) |                     |                          |
| 4' x 7' x 32'  | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 3602                | 33.2                     |
|                | f1                              | 32 - #5 @ 1'-0"     | 6'-8"  | 223           |                     |                          |
|                | f2                              | 7 - #5 @ 1'-0"      | 31'-8" | 231           |                     |                          |
|                | g1                              | 32 - #6 @ 1'-0"     | 6'-8"  | 320           |                     |                          |
|                | g2                              | 7 - #6 @ 1'-0"      | 31'-8" | 333           |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 7' x 34'  | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 3772                | 35.3                     |
|                | f1                              | 34 - #5 @ 1'-0"     | 6'-8"  | 236           |                     |                          |
|                | f2                              | 7 - #5 @ 1'-0"      | 33'-8" | 246           |                     |                          |
|                | g1                              | 34 - #6 @ 1'-0"     | 6'-8"  | 340           |                     |                          |
|                | g2                              | 9 - #6 @ 0'-9 1/2"  | 33'-8" | 455           |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 8' x 34'  | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 3946                | 40.3                     |
|                | f1                              | 34 - #5 @ 1'-0"     | 7'-8"  | 272           |                     |                          |
|                | f2                              | 8 - #5 @ 1'-0"      | 33'-8" | 281           |                     |                          |
|                | g1                              | 34 - #6 @ 1'-0"     | 7'-8"  | 392           |                     |                          |
|                | g2                              | 10 - #6 @ 0'-10"    | 33'-8" | 506           |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 8' x 36'  | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 4444                | 42.7                     |
|                | f1                              | 36 - #5 @ 1'-0"     | 7'-8"  | 288           |                     |                          |
|                | f2                              | 8 - #5 @ 1'-0"      | 35'-8" | 298           |                     |                          |
|                | g1                              | 36 - #6 @ 1'-0"     | 7'-8"  | 415           |                     |                          |
|                | g2                              | 13 - #7 @ 0'-7 1/2" | 35'-8" | 948           |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 9' x 36'  | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 4776                | 48.0                     |
|                | f1                              | 36 - #5 @ 1'-0"     | 8'-8"  | 325           |                     |                          |
|                | f2                              | 9 - #5 @ 1'-0"      | 35'-8" | 335           |                     |                          |
|                | g1                              | 44 - #6 @ 0'-9 1/2" | 8'-8"  | 573           |                     |                          |
|                | g2                              | 11 - #8 @ 0'-10"    | 35'-8" | 1048          |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 9' x 38'  | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 5413                | 50.7                     |
|                | f1                              | 38 - #5 @ 1'-0"     | 8'-8"  | 343           |                     |                          |
|                | f2                              | 9 - #5 @ 1'-0"      | 37'-8" | 354           |                     |                          |
|                | g1                              | 47 - #6 @ 0'-9 1/2" | 8'-8"  | 612           |                     |                          |
|                | g2                              | 16 - #8 @ 0'-6 1/2" | 37'-8" | 1609          |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 10' x 38' | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 5910                | 56.3                     |
|                | f1                              | 38 - #5 @ 1'-0"     | 9'-8"  | 383           |                     |                          |
|                | f2                              | 10 - #5 @ 1'-0"     | 37'-8" | 393           |                     |                          |
|                | g1                              | 47 - #7 @ 0'-9 1/2" | 9'-8"  | 929           |                     |                          |
|                | g2                              | 17 - #8 @ 0'-7"     | 37'-8" | 1710          |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |
| 4' x 10' x 40' | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          | 6593                | 59.3                     |
|                | f1                              | 40 - #5 @ 1'-0"     | 9'-8"  | 403           |                     |                          |
|                | f2                              | 10 - #5 @ 1'-0"     | 39'-8" | 414           |                     |                          |
|                | g1                              | 50 - #7 @ 0'-9 1/2" | 9'-8"  | 988           |                     |                          |
|                | g2                              | 17 - #9 @ 0'-7"     | 39'-8" | 2293          |                     |                          |
|                | d2                              | 74 - #9 AS SHOWN    | 9'-11" | 2495          |                     |                          |

NOTE: THE REINFORCING STEEL QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.  
 NOTE: THE CONCRETE QUANTITY IS TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.



**FOOTING NOTES:**

THESE SPREAD FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET RS40-156-14.  
 THESE SPREAD FOOTINGS SHALL EXTEND AT LEAST 12 INCHES INTO SUITABLE FOUNDATION ROCK AND THE LAST 12 INCHES OF ROCK EXCAVATION SHALL BE TO NEAT LINES OF MASONRY. THE FOUNDATION ROCK SHALL HAVE A MINIMUM LRFD NOMINAL BEARING RESISTANCE OF 30 KIPS PER SQUARE FOOT (ALLOWABLE BEARING VALUE OF AT LEAST 10 KIPS PER SQUARE FOOT).

|   |  |
|---|--|
| 02-2017<br>LATEST REVISION DATE<br>Approved by<br>BRIDGE ENGINEER |  |
|   | STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES<br><b>ROLLED STEEL BEAM BRIDGES</b><br>OCTOBER, 2014 |
| <b>TEE PIER - SPREAD FOOTINGS</b><br>45° SKEW - SHEET 1           | <b>RS40-164-14</b>   |