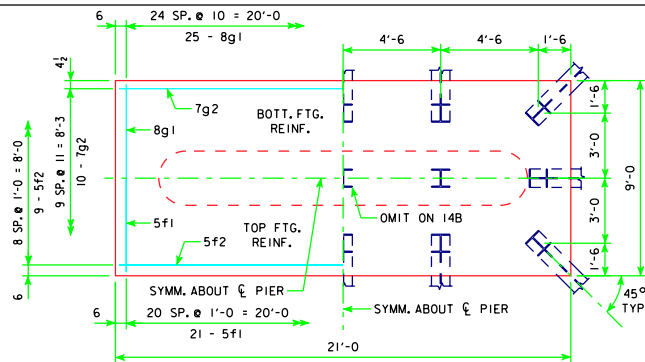
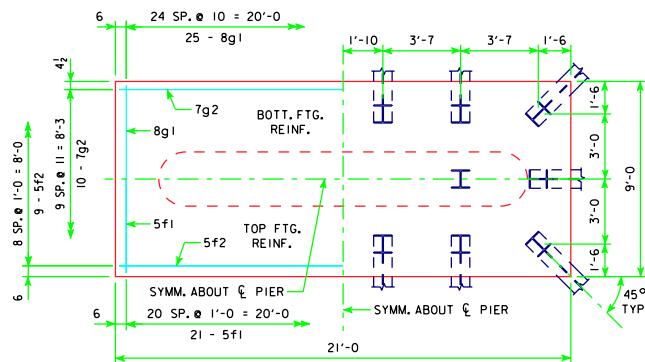


| H<br>IN<br>FT. | C - C<br>ABUT.<br>BRG. | PILING (HP10x57) |                  |                               | FOOTING SIZE   |
|----------------|------------------------|------------------|------------------|-------------------------------|----------------|
|                |                        | NO. &<br>LAYOUT  | ① DES.<br>(BRG.) | ② LRFD<br>DES. BRG.<br>(KIPS) |                |
| 21             | 201'-4                 | 14B              | 72               | 208                           | 4' x 9' x 21'  |
| 23             | 213'-10                | 14B              | 75               | 216                           |                |
| 26             | 226'-4                 | 15B              | 75               | 216                           |                |
| 29             | 243'-0                 | 16B              | 71               | 206                           | 4' x 9' x 23'  |
| 31             | 201'-4                 | 14C              | 70               | 203                           |                |
| 33             | 213'-10                | 14C              | 73               | 210                           |                |
| 36             | 226'-4                 | 15C              | 73               | 210                           | 4' x 9' x 23'  |
| 38             | 243'-0                 | 16C              | 71               | 206                           |                |
| 40             | 201'-4                 | 14C              | 71               | 206                           |                |
| 43             | 213'-10                | 14C              | 74               | 213                           | 4' x 9' x 23'  |
| 46             | 226'-4                 | 15C              | 74               | 213                           |                |
| 49             | 243'-0                 | 16C              | 72               | 209                           |                |
| 52             | 201'-4                 | 14D              | 71               | 204                           | 4' x 10' x 24' |
| 55             | 213'-10                | 14D              | 73               | 211                           |                |
| 58             | 226'-4                 | 15D              | 73               | 210                           |                |
| 61             | 243'-0                 | 16D              | 71               | 206                           | 4' x 10' x 24' |
| 64             | 201'-4                 | 14D              | 72               | 208                           |                |
| 67             | 213'-10                | 14D              | 75               | 216                           |                |
| 70             | 226'-4                 | 15D              | 74               | 215                           | 4' x 10' x 24' |
| 73             | 243'-0                 | 16D              | 73               | 212                           |                |

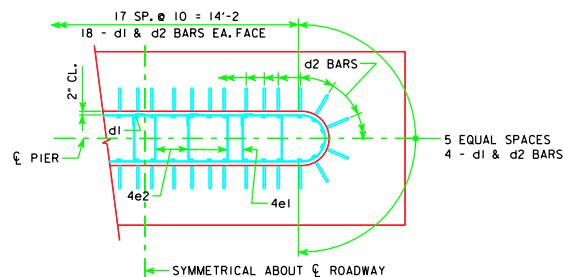
| FOOTING SIZE   | REINFORCING STEEL (ONE FOOTING) |                     |        |              |                    | STRUCTURAL CONCRETE (CY) |
|----------------|---------------------------------|---------------------|--------|--------------|--------------------|--------------------------|
|                | BAR                             | NO., SIZE & SPACING | LENGTH | WEIGHT (LB.) | TOTAL WEIGHT (LB.) |                          |
| 4' x 9' x 21'  | d2                              | 44 - #9 AS SHOWN    | 9'-1   | 1359         | 2744               | 28.0                     |
|                | f1                              | 21 - #5 @ 1'-0      | 8'-8   | 190          |                    |                          |
|                | f2                              | 9 - #5 @ 1'-0       | 20'-8  | 194          |                    |                          |
|                | g1                              | 25 - #8 @ 0'-10     | 8'-8   | 579          |                    |                          |
|                | g2                              | 10 - #7 @ 0'-11     | 20'-8  | 422          |                    |                          |
| 4' x 9' x 23'  | d2                              | 44 - #9 AS SHOWN    | 9'-1   | 1359         | 3123               | 30.7                     |
|                | f1                              | 23 - #5 @ 1'-0      | 8'-8   | 208          |                    |                          |
|                | f2                              | 9 - #5 @ 1'-0       | 22'-8  | 213          |                    |                          |
|                | g1                              | 28 - #7 @ 0'-10     | 8'-8   | 496          |                    |                          |
|                | g2                              | 14 - #8 @ 0'-7 1/2  | 22'-8  | 847          |                    |                          |
| 4' x 10' x 24' | d2                              | 44 - #9 AS SHOWN    | 9'-1   | 1359         | 3591               | 35.6                     |
|                | f1                              | 24 - #5 @ 1'-0      | 9'-8   | 242          |                    |                          |
|                | f2                              | 10 - #5 @ 1'-0      | 23'-8  | 247          |                    |                          |
|                | g1                              | 27 - #8 @ 0'-10 1/2 | 9'-8   | 697          |                    |                          |
|                | g2                              | 13 - #9 @ 0'-9 1/2  | 23'-8  | 1046         |                    |                          |



4'-0 x 9'-0 x 21'-0 FOR 14B & 15B

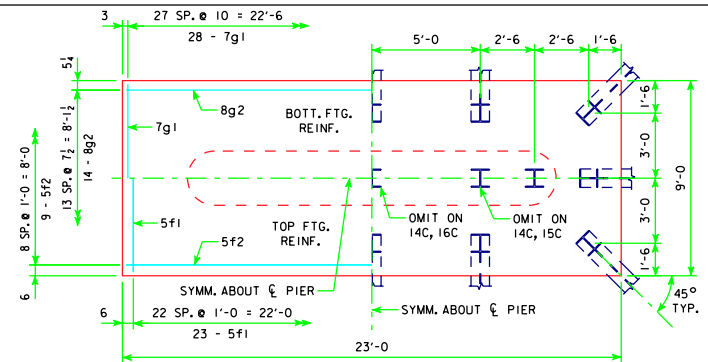


4'-0 x 9'-0 x 21'-0 FOR 16B

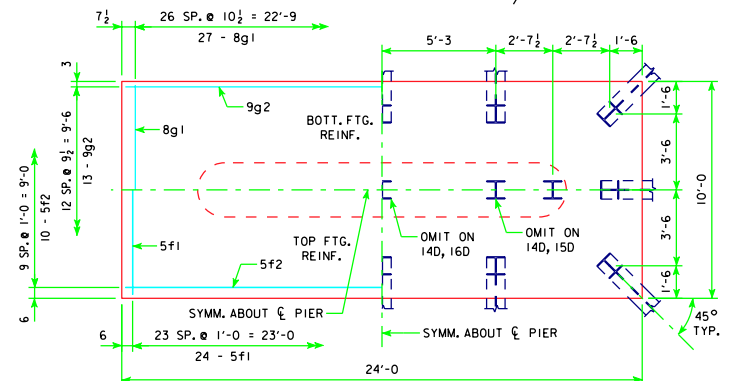


d2 BAR LAYOUT  
(SEE SECTION A-A ON SHEET H40-57-06.)

- ① FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.
- ② FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.



4'-0 x 9'-0 x 23'-0 FOR 14C, 15C & 16C



4'-0" x 10'-0" x 24'-0" FOR 14D, 15D & 16D

THESE FOOTINGS ARE DESIGNED AND DETAILED TO BE USED WITH THE CAP  
AND COLUMN DETAILS OF THE TEE PIERS AS SHOWN ON SHEET H40-57-06.

BATTER PILES IN EXTERIOR ROWS 1:4 IN THE DIRECTION SHOWN.

STEEL PILING USED AS POINT BEARING SHALL HAVE A MINIMUM DISTANCE OF APPROXIMATELY 10 FEET FROM BOTTOM OF FOOTING TO TOP OF BEARING ROCK. THE PILE LAYOUTS ARE SUCH THAT THE DISTANCE CENTER TO CENTER OF ADJACENT PILING SHALL NOT EXCEED 8'-0".

|                                                                                               |                                                                                                                                                           |           |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 01-10<br>LATEST REVISION DATE<br><br><i>Norman E. McDaniel</i><br>APPROVED BY BRIDGE ENGINEER |  <b>Iowa Department of Transportation</b><br><b>Highway Division</b> |           |
|                                                                                               | STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE<br>PRETENSIONED PRESTRESSED<br>CONCRETE BEAM BRIDGES<br>AUGUST, 2009                                     |           |
|                                                                                               | TEE PIER - 75 TON<br>STEEL PILE FOOTINGS<br>0° SKEW - H=25' TO 40'                                                                                        | H40-62-06 |