

PILE BENT NOTES:

THESE PIER BENTS ARE DESIGNED FOR USE IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

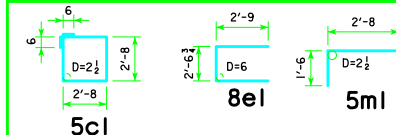
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

PIER PILES SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

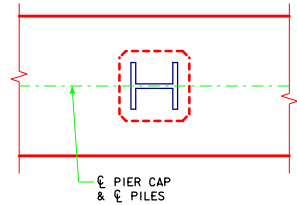
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

| BAR | LENGTH | SHAPE | 9 PILE BENT | | | 10 PILE BENT | | | 11 PILE BENT | | | 12 PILE BENT | | | 13 PILE BENT | | | 14 PILE BENT | | | 15 PILE BENT | | | 16 PILE BENT | | | | | |
|--------------------------|--------|-------|-------------|------|--------|--------------|------|--------|--------------|------|--------|--------------|------|--------|--------------|------|--------|--------------|------|--------|--------------|------|--------|--------------|------|--------|------|--|--|
| | | | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | NO. | SIZE | WEIGHT | | | |
| a1 | 40'-8 | ===== | 8 | 9 | 1106 | 8 | 9 | 1106 | 6 | 9 | 830 | 6 | 9 | 830 | 6 | 9 | 830 | 6 | 9 | 830 | 6 | 9 | 830 | 6 | 9 | 830 | | | |
| a2 | 40'-8 | ===== | 4 | 8 | 434 | 4 | 8 | 434 | 4 | 8 | 434 | 4 | 8 | 434 | 4 | 8 | 434 | 4 | 8 | 434 | 4 | 8 | 434 | 4 | 8 | 434 | | | |
| b1 | 40'-8 | ===== | 4 | 9 | 553 | 4 | 9 | 553 | 4 | 9 | 553 | 4 | 9 | 553 | 4 | 9 | 553 | 4 | 9 | 553 | 4 | 9 | 553 | 4 | 9 | 553 | | | |
| 5c1 | 11'-8 | ===== | 42 | 5 | 511 | 38 | 5 | 462 | 42 | 5 | 511 | 46 | 5 | 560 | 50 | 5 | 608 | 54 | 5 | 657 | 44 | 5 | 535 | 47 | 5 | 572 | | | |
| 8e1 | 8'-1 | ===== | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | 4 | 8 | 86 | | | |
| 5m1 | 5'-8 | ===== | 8 | 5 | 47 | 8 | 5 | 47 | 8 | 5 | 47 | 8 | 5 | 47 | 8 | 5 | 47 | 8 | 5 | 47 | 8 | 5 | 47 | 8 | 5 | 47 | | | |
| 5n1 | 2'-10 | ===== | 8 | 5 | 24 | 8 | 5 | 24 | 8 | 5 | 24 | 8 | 5 | 24 | 8 | 5 | 24 | 8 | 5 | 24 | 8 | 5 | 24 | 8 | 5 | 24 | | | |
| REINFORCING STEEL (LB.) | | | 2761 | | | 2712 | | | 2485 | | | 2534 | | | 2582 | | | 2631 | | | 2509 | | | 2546 | | | | | |
| STRUCTURAL CONCRETE (CY) | | | 1, 2 | | | 14.5 | | | 14.5 | | | 14.0 | | | 14.0 | | | 13.9 | | | 13.9 | | | 13.8 | | | 13.8 | | |
| PILE TYPE | | | 3 | | | 14.5 | | | 14.5 | | | 14.5 | | | 14.5 | | | 14.5 | | | 14.5 | | | 14.5 | | | 14.5 | | |

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIN DIAMETER.



PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES

| E-E ABUTMENT BEARING | FRICITION BEARING PILING | | | FRICITION OR POINT BEARING PILING | | |
|----------------------|--------------------------|----------------|--|-----------------------------------|-----------|--|
| | PIOL TYPE 1 OR 2 | | | PIOL TYPE 3 | | |
| | NUMBER OF TRESTLE PILES | ② "k" (INCHES) | ③ LRFD P _u , STRENGTH I, DES. LOAD (KIPS) | NUMBER OF TRESTLE PILES | PILE SIZE | ③ LRFD P _u , STRENGTH I, DES. LOAD (KIPS) |
| 160'-0 | 13 | 14 | 92 | 9 | HP10x57 | 133 |
| | 11 | 16 | 109 | 9 | HP12x53 | 133 |
| 180'-0 | 14 | 14 | 93 | 9 | HP10x57 | 145 |
| | 12 | 16 | 109 | 10 | HP12x53 | 131 |
| 200'-0 | -- | -- | -- | 10 | HP10x57 | 142 |
| | -- | -- | -- | 11 | HP12x53 | 129 |
| 220'-0 | -- | -- | -- | 11 | HP10x57 | 141 |
| | -- | -- | -- | 12 | HP12x53 | 129 |
| 240'-0 | -- | -- | -- | 12 | HP10x57 | 141 |
| | -- | -- | -- | 13 | HP12x53 | 130 |
| 260'-0 | -- | -- | -- | 13 | HP10x57 | 141 |
| | -- | -- | -- | 14 | HP12x53 | 131 |
| 280'-0 | -- | -- | -- | 14 | HP10x57 | 141 |
| | -- | -- | -- | 15 | HP12x53 | 131 |
| 300'-0 | -- | -- | -- | 15 | HP10x57 | 141 |
| | -- | -- | -- | 16 | HP12x53 | 132 |
| 320'-0 | -- | -- | -- | 16 | HP10x57 | 141 |
| 340'-0 | -- | -- | -- | -- | -- | -- |

- ① CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT³ PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.
- ② SEE STANDARD PIOL FOR "k" DIMENSION.
- ③ NOTE: P_u, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

REVISED 05-13 -- REVISION FOR LRFD PILE DESIGN.

NOTE: FRICTION BEARING INCLUDES SIDE FRICTION AND END BEARING IN SOIL. POINT BEARING INCLUDES SIDE FRICTION AND POINT BEARING IN ROCK.

| | | |
|---|---|--------------------|
| 05-13 LATEST REVISION DATE Approved by BRIDGE ENGINEER | | |
| | STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES JUNE, 2010 | |
| | PILE BENT PIERS 0° SKEW | RS40-097-10 |