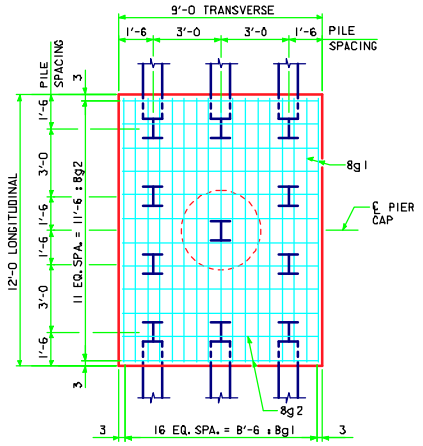
# REINFORCING BAR LIST

NON- COATED REINFORCING

| BAR | LOCATION | SHAPE | 252'-0 BTD125 19'-0 NO. | LENGTH | WEIGHT | 22'-0 NO. | LENGTH | WEIGHT | 25'-0 NO. | LENGTH | WEIGHT | 262'-0 BTD130 19'-0 NO. | LENGTH | WEIGHT | 22'-0 NO. | LENGTH | WEIGHT | 25'-0 NO. | LENGTH | WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9a1 | CAP, LONGITUDINAL, TOP | | 10 | 34'-0 | 1,156 | 10 | 34'-0 | 1,156 | 10 | 34'-0 | 1,156 | 10 | 34'-0 | 1,156 | 10 | 34'-0 | 1,156 | 10 | 34'-0 | 1,156 |
| 5a2 | CAP, LONGITUDINAL, SIDES | | 8 | VARIES | 244 | 8 | VARIES | 244 | 8 | VARIES | 244 | 8 | VARIES | 244 | 8 | VARIES | 244 | 8 | VARIES | 244 |
| 5a3 | CAP, CANTILEVER - END | | 14 | 5'-9 | 84 | 14 | 5'-9 | 84 | 14 | 5'-9 | 84 | 14 | 5'-9 | 84 | 14 | 5'-9 | 84 | 14 | 5'-9 | 84 |
| 8b1 | CAP, LONGITUDINAL, BOT. | | 10 | 26'-8 | 712 | 10 | 26'-8 | 712 | 10 | 26'-8 | 712 | 10 | 26'-8 | 712 | 10 | 26'-8 | 712 | 10 | 26'-8 | 712 |
| 7b2 | CAP, LONGITUDINAL, BOT., ENDS | | 8 | 9'-11 | 162 | 8 | 9'-11 | 162 | 8 | 9'-11 | 162 | 8 | 9'-11 | 162 | 8 | 9'-11 | 162 | 8 | 9'-11 | 162 |
| 5c1 | CAP, STIRRUP | | 58 | 14'-6 | 877 | 58 | 14'-6 | 877 | 58 | 14'-6 | 877 | 58 | 14'-6 | 877 | 58 | 14'-6 | 877 | 58 | 14'-6 | 877 |
| 5c2 | CAP, STIRRUP, CANTILEVER, ENDS | | 16 | VARIES | 144 | 16 | VARIES | 144 | 16 | VARIES | 144 | 16 | VARIES | 144 | 16 | VARIES | 144 | 16 | VARIES | 144 |
| 9d1 | COLUMN, VERTICAL | | 28 | 21'-9 | 2,071 | -- | -- | -- | -- | -- | -- | 28 | 21'-9 | 2,071 | -- | -- | -- | -- | -- | -- |
| 10d1 | COLUMN, VERTICAL | | -- | -- | -- | 36 | 26'-4 | 4,079 | -- | -- | -- | -- | -- | -- | 36 | 26'-4 | 4,079 | -- | -- | -- |
| 11d1 | COLUMN, VERTICAL | | -- | -- | -- | -- | -- | -- | 48 | 29'-4 | 7,481 | -- | -- | -- | -- | -- | -- | 48 | 29'-4 | 7,481 |
| 9d2 | FOOTING TO COLUMN DOWEL | | 28 | 9'-2 | 873 | -- | -- | -- | -- | -- | -- | 28 | 9'-2 | 873 | -- | -- | -- | -- | -- | -- |
| 10d2 | FOOTING TO COLUMN DOWEL | | -- | -- | -- | 36 | 12'-0 | 1,859 | -- | -- | -- | -- | -- | -- | 36 | 12'-0 | 1,859 | -- | -- | -- |
| 11d2 | FOOTING TO COLUMN DOWEL | | -- | -- | -- | -- | -- | -- | 48 | 13'-10 | 3,528 | -- | -- | -- | -- | -- | -- | 48 | 13'-10 | 3,528 |
| 5f1 | FOOTING, LONGITUDINAL, TOP | | 18 | 11'-6 | 216 | 18 | 11'-6 | 216 | 18 | 11'-6 | 216 | 18 | 11'-6 | 216 | 18 | 11'-6 | 216 | 18 | 11'-6 | 216 |
| 5f2 | FOOTING, TRANSVERSE, TOP | | 24 | 8'-6 | 213 | 24 | 8'-6 | 213 | 24 | 8'-6 | 213 | 24 | 8'-6 | 213 | 24 | 8'-6 | 213 | 24 | 8'-6 | 213 |
| 8g1 | FOOTING, LONGITUDINAL, BOT. | | 34 | 11'-6 | 1,044 | 34 | 11'-6 | 1,044 | 34 | 11'-6 | 1,044 | 34 | 11'-6 | 1,044 | 34 | 11'-6 | 1,044 | 34 | 11'-6 | 1,044 |
| 8g2 | FOOTING, TRANSVERSE, BOT. | | 24 | 8'-6 | 545 | 24 | 8'-6 | 545 | 24 | 8'-6 | 545 | 24 | 8'-6 | 545 | 24 | 8'-6 | 545 | 24 | 8'-6 | 545 |
| 5m1 | STEP, LONGITUDINAL | | 12 | 3'-2 | 40 | 12 | 3'-2 | 40 | 12 | 3'-2 | 40 | 12 | 3'-2 | 40 | 12 | 3'-2 | 40 | 16 | 3'-2 | 40 |
| 5n1 | STEP, TRANSVERSE | | 12 | 6'-6 | 81 | 12 | 6'-6 | 81 | 12 | 6'-6 | 81 | 12 | 6'-6 | 81 | 12 | 6'-6 | 81 | 16 | 6'-6 | 81 |
| | #4 COLUMN SPIRAL | | 2 | 206' | 275 | 2 | 234' | 313 | 2 | 262' | 350 | 2 | 206' | 275 | 2 | 234' | 313 | 2 | 262' | 350 |
| | SPIRAL SPACERS, $L\frac{7}{8} \times \frac{7}{8} \times \frac{1}{8} \times 0.75$ | | 8 | 19'-0 | 114 | 8 | 22'-0 | 132 | 8 | 25'-0 | 150 | 8 | 19'-0 | 114 | 8 | 22'-0 | 132 | 8 | 25'-0 | 150 |
| | REINFORCING STEEL - NON-EPOXY COATED (LB) | | | | 8,851 | | | 11,901 | | | 17,027 | | | 8,851 | | | 11,901 | | | 17,027 |

| | | 252'-0 19'-0 | 22'-0 | 25'-0 | 262'-0 19'-0 | 22'-0 | 25'-0 |
|---|---|---|---|---|---|---|---|
| STRUCTURAL CONCRETE QUANTITIES (CU. YDS.) | CAP | 23.4 | 23.4 | 23.4 | 23.4 | 23.4 | 23.4 |
| | COLUMNS | 13.5 | 15.7 | 17.8 | 13.5 | 15.7 | 17.8 |
| | FOOTINGS | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 | 32.0 |
| | TOTAL | 68.9 | 71.1 | 73.2 | 68.9 | 71.1 | 73.2 |
| NO. OF PILES, DRIVE STEEL BEARING, HP 10x57 ① | | 22 | 22 | 22 | 22 | 22 | 22 |
| NO. OF PILES, FURNISH STEEL BEARING, HP 10x57 ① | | 22 | 22 | 22 | 22 | 22 | 22 |
| DESIGN BEARING (TONS) | | 50 | 50 | 50 | 50 | 50 | 50 |

① THIS QUANTITY REPRESENTS THE NUMBER OF PILES. PILE LENGTH SHALL BE DETERMINED BASED ON SOIL INFORMATION AND TO BE INCLUDED ON THE "ESTIMATED PROJECT QUANTITIES" SHEET.




## FOOTING PLAN FOR 125', 130' SPANS

(ONLY BOTTOM REINFORCING SHOWN)

## PIER NOTES:

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

THE d2 FOOTING TO COLUMN DOWELS ARE TO BE IN PLACE BEFORE FOOTING CONCRETE IS PLACED.

THE SPIRAL REINFORCING MAY BE SPLICED BY LAPPING 2'-2. THE LENGTH OF THE SPIRAL SHOWN DOES NOT INCLUDE THE LAPPED LENGTH OF THE SPLICES. THE COST OF THE LAPS AT SPLICES IS TO BE INCLUDED IN THE PRICE BID FOR OTHER REINFORCEMENT.

SPIRAL REINFORCING IS TO BE NO. 4 BAR WITH 3'-0 OUTSIDE DIAMETER, 1'-0 PITCH WITH 4 EQUALLY SPACED $L\frac{7}{8}\times\frac{7}{8}\times\frac{1}{8}$ SPACERS PUNCHED TO HOLD SPIRALS. SPIRALS ARE TO HAVE $1\frac{1}{2}$ EXTRA TURNS AT TOP AND BOTTOM OF COLUMNS.

CLASS 20 EXCAVATION TO BE CALCULATED AND TO BE INCLUDED ON THE "ESTIMATED PROJECT QUANTITIES" SHEET.

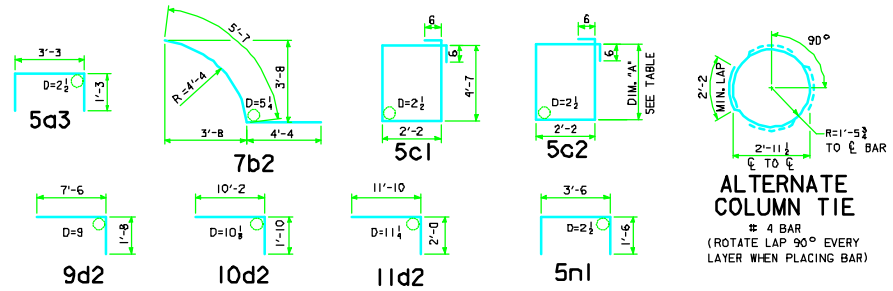
PILE DIMENSIONS SHOWN ARE AT THE BOTTOM OF THE FOOTING. BATTER PILES 1:4 IN DIRECTION SHOWN.

SEE BT30-AS1-04 FOR RUSTICATION DETAILS.

## VARIABLE BARS

| BAR | SETS | DIM. "A" | TOTAL LENGTH |
|---|---|---|---|
| 5a2 | 1 SET OF 2 | -- | 27'-4 |
| 5a2 | 1 SET OF 2 | -- | 28'-2 |
| 5a2 | 1 SET OF 2 | -- | 29'-6 |
| 5a2 | 1 SET OF 2 | -- | 32'-0 |
| 5c2 | 1 SET OF 4 | 0'-11 | 7'-2 |
| 5c2 | 1 SET OF 4 | 1'-3 | 7'-10 |
| 5c2 | 1 SET OF 4 | 1'-9 | 8'-10 |
| 5c2 | 1 SET OF 4 | 2'-8 | 10'-8 |

## BENT BAR DETAILS




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

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, 2 SPAN BRIDGES

PRETENSIONED PRESTRESSED BULB TEE CONCRETE BEAM BRIDGES

125'-0, 130'-0 SPANS — JULY, 2004

PIER FOOTING & PIER BAR LISTS
ALL SKEWS

BT30-PR6-04