

PILE BENT NOTES:

THESE PIER BENTS ARE DESIGNED FOR USE WITH STANDARD H44-07 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

PIER PILES ARE TO BE DRIVEN TO THE DESIGN BEARING VALUE W/O IMPACT.

FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD P10A.

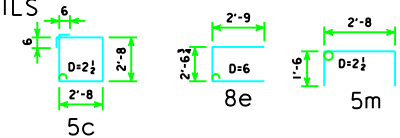
DETAILS SHOWN FOR CONCRETE PILES. FOR ORIENTATION OF STEEL PILES, SEE STANDARD P10A.

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

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	SHAPE	10 PILE BENT	11 PILE BENT	12 PILE BENT	13 PILE BENT	14 PILE BENT	15 PILE BENT	16 PILE BENT	17 PILE BENT
9a		6 44'-8 911	6 44'-8 911	6 44'-8 911	6 44'-8 911	6 44'-8 911	6 44'-8 911	4 44'-8 607	4 44'-8 607
8b		8 44'-8 954	8 44'-8 954	8 44'-8 954	8 44'-8 954	8 44'-8 954	8 44'-8 954	8 44'-8 954	8 44'-8 954
5c		38 11'-8 462	42 11'-8 511	46 11'-8 560	38 11'-8 462	41 11'-8 499	44 11'-8 535	32 11'-8 389	34 11'-8 414
8e		4 8'-1 86	4 8'-1 86	4 8'-1 86	4 8'-1 86	4 8'-1 86	4 8'-1 86	4 8'-1 86	4 8'-1 86
5m		12 5'-8 71	12 5'-8 71	12 5'-8 71	12 5'-8 71	12 5'-8 71	12 5'-8 71	12 5'-8 71	12 5'-8 71
5n		12 2'-8 33	12 2'-8 33	12 2'-8 33	12 2'-8 33	12 2'-8 33	12 2'-8 33	12 2'-8 33	12 2'-8 33
REINFORCING STEEL (LB.)		2517	2566	2615	2517	2554	2590	2140	2165
STRUCTURAL ②	PILE TYPE								
CONCRETE (CY)	1, 2	-----	-----	15.5	15.5	15.5	15.4	15.4	15.3
	3	16.1	16.1	16.1	16.1	16.1	16.1	-----	-----

BENT BAR DETAILS



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

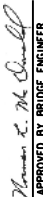
C-C ABUTMENT BEARING	FRICTION BEARING PILING					FRICTION OR POINT BEARING PILING				
	P10A TYPE 1 OR 2					P10A TYPE 3				
	NUMBER OF TRESTLE PILES AND SPACING	① "K" (INCHES)	DES. PILE BRG.(TONS) W/O IMPACT	DES. PILE BRG.(TONS) W/O IMPACT		NUMBER OF TRESTLE PILES AND SPACING	① "K" (INCHES)	DES. PILE BRG.(TONS) W/O IMPACT	DES. PILE BRG.(TONS) W/O IMPACT	
138'-10	14 PILES @ 3'-2 1/2 CTRS.	14	30	27		10 PILES @ 4'-8 CTRS.	16	41	38	
	12 PILES @ 3'-9 1/2 CTRS.	16	35	32		10 PILES @ 4'-8 CTRS.	18	41	38	
151'-4	15 PILES @ 3'-0 CTRS.	14	29	27		10 PILES @ 4'-8 CTRS.	16	43	40	
	12 PILES @ 3'-9 1/2 CTRS.	16	36	34		10 PILES @ 4'-8 CTRS.	18	43	40	
163'-10	16 PILES @ 2'-9 1/2 CTRS.	14	30	28		10 PILES @ 4'-8 CTRS.	16	47	44	
	13 PILES @ 3'-6 CTRS.	16	36	34		11 PILES @ 4'-2 1/2 CTRS.	18	43	40	
176'-4	17 PILES @ 2'-7 1/2 CTRS.	14	30	28		10 PILES @ 4'-8 CTRS.	16	50	47	
	14 PILES @ 3'-2 1/2 CTRS.	16	36	33		11 PILES @ 4'-2 1/2 CTRS.	18	45	42	
188'-10	16 PILES @ 2'-9 1/2 CTRS.	14	33	31		11 PILES @ 4'-2 1/2 CTRS.	16	48	45	
	15 PILES @ 3'-0 CTRS.	16	35	33		12 PILES @ 3'-9 1/2 CTRS.	18	44	41	
201'-4	17 PILES @ 2'-7 1/2 CTRS.	16	35	33		12 PILES @ 3'-9 1/2 CTRS.	16	50	47	
						13 PILES @ 3'-6 CTRS.	18	46	44	
213'-10	17 PILES @ 2'-7 1/2 CTRS.	16	37	35		13 PILES @ 3'-6 CTRS.	16	48	46	
	-----	--	--	--		14 PILES @ 3'-2 1/2 CTRS.	18	45	42	
226'-4	-----	--	--	--		14 PILES @ 3'-2 1/2 CTRS.	16	47	44	
	-----	--	--	--		15 PILES @ 3'-0 CTRS.	18	44	42	
243'-0	-----	--	--	--		14 PILES @ 3'-2 1/2 CTRS.	16	49	46	
	-----	--	--	--		15 PILES @ 3'-0 CTRS.	18	46	43	

① SEE STANDARD P10A FOR "K" DIMENSION.

② 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.

③ FOR ESTIMATING PILE LENGTHS AND FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

* TYPE 2 ONLY.

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES	
		HL93 SUPERSTRUCTURE	HS25 SUBSTRUCTURE
		MARCH, 2007	
PILE BENT DETAILS 0° SKEW		H44-39-07	