

PILE BENT NOTES:

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

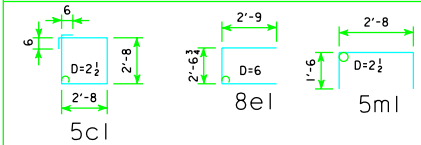
FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

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

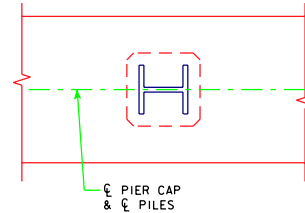
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	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		
			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	44'-8		8	9	1215	6	9	911	6	9	911	6	9	911	6	9	911	6	9	911	6	9	911	4	9	607
a2	44'-8		4	8	477	4	8	477	4	8	477	4	8	477	4	8	477	4	8	477	4	8	477	4	8	477
b1	44'-8		4	9	607	4	9	607	4	9	607	4	9	607	4	9	607	4	8	477	4	8	477	4	8	477
5c1	11'-8		38	5	462	42	5	511	46	5	560	50	5	608	54	5	657	44	5	535	47	5	572	34	5	414
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		12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71	12	5	71
5n1	2'-8		12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33	12	5	33
REINFORCING STEEL (LB.)			2951			2696			2745			2793			2842			2590			2627			2165		
STRUCTURAL ① PILE TYPE			1, 2			3																				
CONCRETE (CY)			16.1			16.1			16.1			16.1			16.1			16.1			16.1			15.3		

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	FRICTION BEARING PILING				FRICTION OR POINT BEARING PILING			
	PIOL TYPE 1 OR 2				PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	② "K" (INCHES)	③ DES. PILE BRG. (TONS)	④ LRFD DES. BRG. (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	③ DES. PILE BRG. (TONS)	④ LRFD DES. BRG. (KIPS)
138'-10	14	14	31	89	10	HP10x57	43	124
	12	16	36	104	10	HP12x53	43	124
151'-4	14	14	32	94	10	HP10x57	45	131
	12	16	38	109	10	HP12x53	45	131
163'-10	15	14	33	95	10	HP10x57	49	142
	13	16	38	109	11	HP12x53	44	129
176'-4	16	14	32	93	11	HP10x57	47	135
	14	16	37	106	12	HP12x53	43	124
188'-10	17	14	32	91	11	HP10x57	49	141
	15	16	36	104	12	HP12x53	45	130
201'-4	16	16	38	109	12	HP10x57	50	145
					13	HP12x53	46	134
213'-10	17	16	37	108	13	HP10x57	49	141
					14	HP12x53	45	131
226'-4	-----	--	--	--	14	HP10x57	48	138
					15	HP12x53	44	129
243'-0	-----	--	--	--	14	HP10x57	50	145
					16	HP12x53	44	127

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 FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

④ FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.

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

LATEST REVISION DATE 11-09	APPROVED BY BRIDGE ENGINEER <i>Thomas L. McQuinn</i>	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES MARCH, 2007	
		PILE BENT PIERS 0° SKEW	H44-39-07