

PILE BENT NOTES:

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

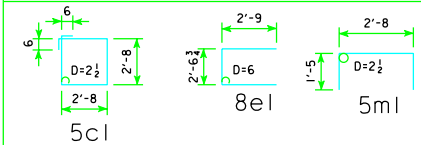
FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

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

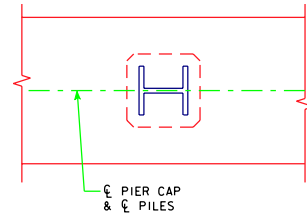
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	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"		6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	6	9	830	4	9	553
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	8	434	4	8	434
5c1	11'-8"		34	5	414	38	5	462	42	5	511	46	5	560	50	5	608	41	5	499	44	5	535	32	5	389
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'-6"		8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46	8	5	46
5n1	2'-8"		8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22	8	5	22
REINFORCING STEEL (LB.)			2385			2433			2482			2531			2579			2470			2387			1964		
STRUCTURAL ① CONCRETE (CY)			PILE TYPE																							
			1, 2			-----			14.1			14.0			14.0			13.9			13.9			13.8		
			3			14.5			14.5			14.5			14.5			14.5			14.5			-----		

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIE 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	13	14	31	91	9	HP10x57	45	131
	11	16	37	107	9	HP12x53	45	131
151'-4	14	14	31	89	9	HP10x57	48	138
	12	16	36	104	10	HP12x53	43	124
163'-10	15	14	31	90	10	HP10x57	46	134
	13	16	36	103	10	HP12x53	46	134
176'-4	15	14	32	94	10	HP10x57	48	141
	13	16	37	108	11	HP12x53	44	128
188'-10	16	14	32	92	11	HP10x57	46	133
	14	16	36	105	11	HP12x53	46	133
201'-4	15	16	38	109	12	HP10x57	47	136
					13	HP12x53	43	126
213'-10	16	16	37	107	12	HP10x57	49	143
					13	HP12x53	46	132
226'-4	-----	--	--	--	13	HP10x57	48	139
					14	HP12x53	45	129
243'-0	-----	--	--	--	14	HP10x57	47	136
					15	HP12x53	44	127

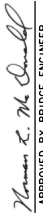
① CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT³ PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.

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.

01-10 LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES AUGUST, 2009	
		PILE BENT PIERS 0° SKEW	H40-46-06