

**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.

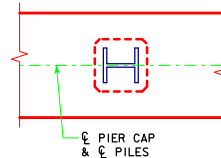
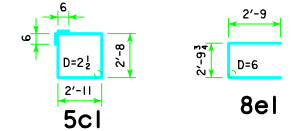
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

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

**REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT**

BAR	LENGTH	SHAPE	7 PILE BENT			8 PILE BENT			9 PILE BENT			10 PILE BENT			11 PILE BENT			12 PILE BENT			13 PILE BENT			14 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	43'-8"		8	9	1188	8	9	1188	8	9	1188	8	9	1188	6	9	891	6	9	891	6	9	891	6	9	891
a2	43'-8"		4	8	466	4	8	466	4	8	466	4	8	466	4	8	466	4	8	466	4	8	466	4	8	466
b1	43'-8"		4	10	752	4	9	594	4	9	594	4	9	594	4	10	752	4	9	594	4	9	594	4	9	594
5c1	12'-2"		38	5	482	37	5	470	42	5	533	56	5	711	62	5	787	57	5	723	50	5	634	54	5	685
8e1	8'-4"		4	8	89	4	8	89	4	8	89	4	8	89	4	8	89	4	8	89	4	8	89	4	8	89
① REINFORCING STEEL (L.B.)			2977			2807			2870			3048			2985			2763			2674			2725		
② STRUCTURAL CONCRETE (CY)			-----			-----			-----			16.4			16.4			16.3			16.3			16.2		
			3			16.9			16.9			16.9			16.9			16.9			16.3			-----		

**BENT BAR DETAILS**



**PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES**

C-C ABUTMENT BEARING	FRICTION BEARING PILING				FRICTION OR POINT BEARING PILING		
	PIOL TYPE 1 OR 2				PIOL TYPE 3		
	NUMBER OF TRESTLE PILES	③ "K" (INCHES)	④ LRFD P <sub>u</sub> STRENGTH I <sub>1</sub> DES. LOAD (KIPS)		NUMBER OF TRESTLE PILES	PILE SIZE	④ LRFD P <sub>u</sub> STRENGTH I <sub>1</sub> DES. LOAD (KIPS)
138'-10	11	14	90		7	HP10x57	142
	10	16	99		8	HP12x53	124
151'-4	11	14	95		8	HP10x57	130
	10	16	104		8	HP12x53	130
163'-10	12	14	94		8	HP10x57	141
	11	16	102		9	HP12x53	125
176'-4	13	14	91		9	HP10x57	131
	11	16	107		9	HP12x53	131
188'-10	13	14	94		9	HP10x57	136
	12	16	102		10	HP12x53	123
201'-4	13	16	105		10	HP10x57	137
					11	HP12x53	124
213'-10	----	--	----		10	HP10x57	143
					11	HP12x53	130
226'-4	----	--	----		12	HP10x57	137
					12	HP12x53	126
243'-0	----	--	----		11	HP10x57	144
					12	HP12x53	132

- ① SEE SHEET H30-31-06 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.
- ② CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT<sup>3</sup> PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.
- ③ SEE STANDARD PIOL FOR "K" DIMENSION.
- ④ NOTE: P<sub>u</sub>, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

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

REVISED 04-13 -- REVISION FOR LRFD PILE DESIGN.

04-13 LATEST REVISION DATE  <i>Thomas E. M. Donnell</i> APPROVED BY BRIDGE ENGINEER	
	STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES <b>PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES</b> DECEMBER, 2006
	<div style="width: 45%;"> <b>PILE BENT PIERS</b>                  45° SKEW             </div> <div style="width: 45%; text-align: right;"> <b>H30-55-06</b> </div>