PILE BENT NOTES:

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

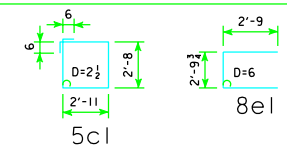
FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

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

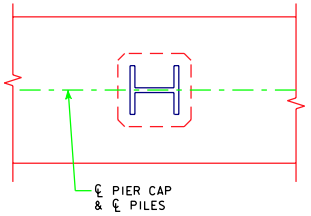
			10 PILE BENT			12 PILE BENT			14 PILE BENT			16 PILE BENT			18 PILE BENT			19 PILE BENT		
BAR	LENGTH	SHAPE	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	47'-8		8	9	1297	6	9	972	6	9	972	6	9	972	6	9	972	4	9	648
a2	47'-8		4	8	509	4	8	509	4	8	509	4	8	509	4	8	509	4	8	509
b1	47'-8		4	9	648	4	9	648	4	9	648	4	9	648	4	8	509	4	8	509
5c1	12'-2		47	5	596	57	5	723	67	5	850	62	5	787	53	5	673	38	5	482
8e1	8'-4		4	8	89	4	8	89	4	8	89	4	8	89	4	8	89	4	8	89
(1) REINFORCING STEEL (LB.)			3139			2941			3068			3005			2752			2237		
STRUCTURAL CONCRETE (CY) (2)	PILE TYPE																			
	1, 2		-----			18.1			18.0			17.9			17.8			17.8		
	3		18.6			18.6			18.6			18.6			-----			-----		

BENT BAR DETAILS



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

℄-℄ ABUTMENT BEARING	FRICTION BEARING PILING — PIOL TYPE 1 OR 2				FRICTION OR POINT BEARING PILING — PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	(3) "K" (INCHES)	(4) DES. PILE BRG. (TONS)	(5) LRFD DES. BRG. (KIPS)	NUMBER OF TRESTLE PILES	PILE SIZE	(4) DES. PILE BRG. (TONS)	(5) LRFD DES. BRG. (KIPS)
138'-10	14	14	30	87	10	HP10x57	42	122
	12	16	35	102	10	HP12x53	42	122
151'-4	14	14	32	92	10	HP10x57	44	128
	12	16	37	107	10	HP12x53	44	128
163'-10	16	14	30	87	10	HP10x57	48	139
	14	16	34	99	12	HP12x53	40	116
176'-4	16	14	31	91	10	HP10x57	50	145
	14	16	36	104	12	HP12x53	42	121
188'-10	16	14	33	95	12	HP10x57	43	126
	14	16	37	108	12	HP12x53	43	126
201'-4	18	14	32	93	12	HP10x57	48	140
	16	16	36	105	14	HP12x53	41	120
213'-10	19	14	32	93	14	HP10x57	43	126
	18	16	34	98	14	HP12x53	43	126
226'-4	18	16	36	103	14	HP10x57	46	133
					14	HP12x53	46	133
243'-0	18	16	37	108	14	HP10x57	48	139
					16	HP12x53	42	122



PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES

(1) SEE SHEET H40-24-06 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^3 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) FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

(5) 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
30° SKEW

H40-52-06

REVISED 01-10 - ADDED FRICTION & POINT BEARING DESCRIPTION NOTE.