PILE BENT NOTES:

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

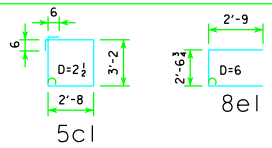
FOR DETAILS OF TRESTLE PILES, SEE STANDARD PIOL.

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

			7 PILE BENT			8 PILE BENT			9 PILE BENT			10 PILE BENT			11 PILE BENT			12 PILE BENT			13 PILE BENT		
BAR	LENGTH	SHAPE	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	41'-8		8	9	1133	8	9	1133	8	9	1133	8	9	1133	8	9	1133	6	9	850	6	9	850
a2	41'-8		4	8	445	4	8	445	4	8	445	4	8	445	4	8	445	4	8	445	4	8	445
b1	41'-8		4	9	567	4	10	717	4	9	567	4	9	567	4	10	717	4	9	567	4	9	567
5c1	12'-8		42	5	555	49	5	647	56	5	740	56	5	740	62	5	819	57	5	753	50	5	661
8e1	8'-1		4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86	4	8	86
(1) REINFORCING STEEL (LB.)			2786			3028			2971			2971			3200			2701			2609		
STRUCTURAL CONCRETE (CY)		PILE TYPE																					
		3	17.2			17.2			17.2			17.2			17.2			17.2			17.2		

BENT BAR DETAILS



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

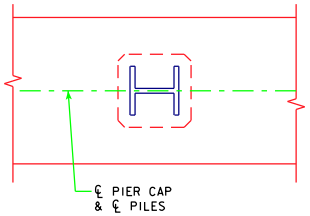
FRICTION OR POINT BEARING PILING

℄-℄ ABUTMENT BEARING	PIOL TYPE 3			
	NUMBER OF TRESTLE PILES	PILE SIZE	(2) DES. PILE BRG. (TONS)	(3) LRFD DES. BRG. (KIPS)
160'-0	7	HP14x73	60	173
	7	HP14x89	60	173
180'-0	8	HP14x73	57	165
	7	HP14x89	65	189
200'-0	8	HP14x73	62	179
	7	HP14x89	70	204
220'-0	9	HP14x73	60	174
	7	HP14x89	77	223
240'-0	10	HP14x73	59	171
	8	HP14x89	74	214
260'-0	10	HP14x73	64	185
	9	HP14x89	71	205
280'-0	11	HP14x73	62	180
	9	HP14x89	76	221
300'-0	12	HP14x73	61	178
	10	HP14x89	74	213
320'-0	13	HP14x73	60	175
	11	HP14x89	71	207
340'-0	13	HP14x73	63	184
	11	HP14x89	75	218

(1) SEE SHEET RS40-166-10 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.

(2) FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

(3) FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.



PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES

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

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

PILE BENT PIERS
HP14 PILES
10° SKEW

RS40-103-10