

TYPICAL PLAN

NOTE:
THE HEIGHT OF THE STEPS ON THE BRIDGE SEAT IS EQUAL TO THE DIFFERENCE IN ELEVATIONS OF THE TOP OF SLAB AT ADJACENT BEAMS ALONG ϕ PIER.
SEE SHEET H30-15-06 FOR "U" DIMENSION.

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.

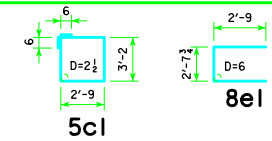
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

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

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	6 PILE BENT			7 PILE BENT			8 PILE BENT			9 PILE BENT		
			NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
a1	32'-8"		8	9	889	8	9	889	6	9	666	6	9	666
a2	32'-8"		4	8	349	4	8	349	4	8	349	4	8	349
b1	32'-8"		4	8	349	4	9	444	4	9	444	4	8	349
5c1	12'-10"		27	5	361	32	5	428	30	5	402	34	5	455
8e1	8'-2"		4	8	87	4	8	87	4	8	87	4	8	87
REINFORCING STEEL (L.B.)			2035			2197			1948			1906		
STRUCTURAL PILE TYPE														
CONCRETE (CY)			3			13.8			13.8			13.8		

BENT BAR DETAILS



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

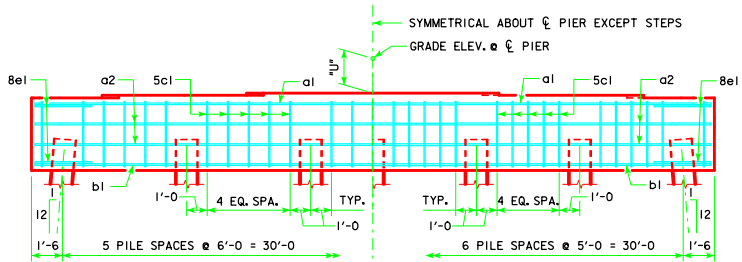
FRICTION OR POINT BEARING PILING

ϕ - ϕ ABUTMENT BEARING	PIOL TYPE 3		
	NUMBER OF TRESTLE PILES	PILE	LRFD P_u STRENGTH I_p DES. LOAD (KIPS)
138'-10"	6	HP14x73	160
	6	HP14x89	160
151'-4"	6	HP14x73	168
	6	HP14x89	168
163'-10"	6	HP14x73	182
	6	HP14x89	182
176'-4"	7	HP14x73	163
	6	HP14x89	190
188'-10"	7	HP14x73	170
	6	HP14x89	198
201'-4"	8	HP14x73	166
	6	HP14x89	221
213'-10"	8	HP14x73	174
	7	HP14x89	199
226'-4"	8	HP14x73	184
	7	HP14x89	210
243'-0"	9	HP14x73	172
	7	HP14x89	221

① SEE SHEET H30-17-06 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.

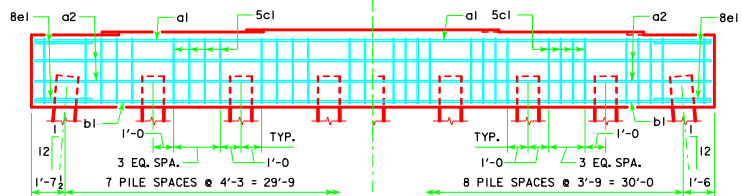
② NOTE: P_u STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

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



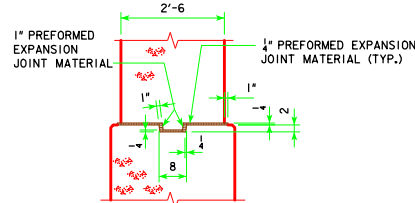
6 PILE BENT

7 PILE BENT

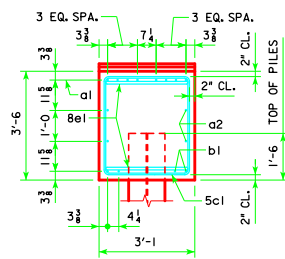


8 PILE BENT

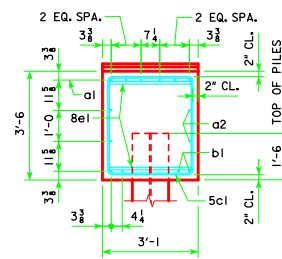
9 PILE BENT



KEYED NOTCH DETAIL



VIEW A-A
FOR 6 & 7 PILE BENTS



VIEW A-A
FOR 8 & 9 PILE BENTS

REVISED 04-13 - REVISION FOR LRFD PILE DESIGN.

LATEST REVISION DATE
04-13

APPROVED BY BRIDGE ENGINEER
Norman E. McQuinn

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
DECEMBER, 2006

PILE BENT PIERS
HPI4 PILES
15° SKEW

H30-50-06