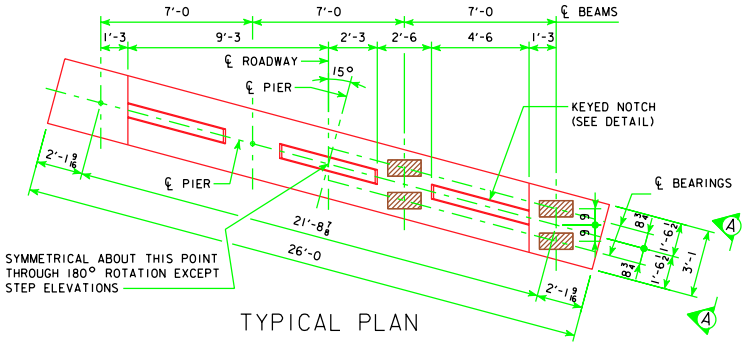


TYPICAL PLAN

PILE BENT NOTES:

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

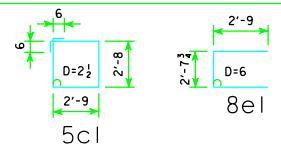
FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOL.

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

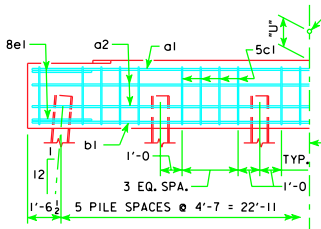
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	6 PILE BENT NO.	SIZE	WEIGHT	7 PILE BENT NO.	SIZE	WEIGHT	8 PILE BENT NO.	SIZE	WEIGHT	9 PILE BENT NO.	SIZE	WEIGHT	10 PILE BENT NO.	SIZE	WEIGHT
a1	25'-8		6	9	524	6	9	524	6	9	524	6	9	524	6	9	524
a2	25'-8		4	8	274	4	8	274	4	8	274	4	8	274	4	8	274
b1	25'-8		4	8	274	4	8	274	4	8	274	4	8	274	4	8	274
5c1	11'-10		22	5	272	26	5	321	30	5	370	26	5	321	29	5	358
8e1	8'-2		4	8	87	4	8	87	4	8	87	4	8	87	4	8	87
(1) REINFORCING STEEL (LB.)			1431			1480			1529			1480			1517		
STRUCTURAL CONCRETE (CY) (2)	PILE TYPE 1, 2		-----			-----			8.8			8.8			8.8		
	PILE TYPE 3		9.2			9.2			9.2			9.2			9.2		

BENT BAR DETAILS



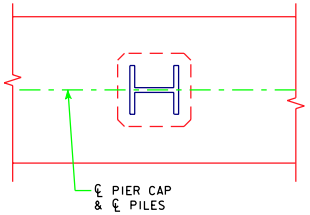
NOTE: ALL DIMENSIONS ARE OUT TO OUT. D=PIN DIAMETER.



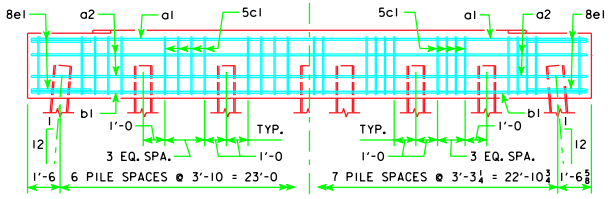
SYMMETRICAL ABOUT ℄ PIER EXCEPT STEPS

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 ℄ PIER.
SEE SHEET H24-15-06 FOR "U" DIMENSION.

6 PILE BENT



PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES



7 PILE BENT

8 PILE BENT

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

℄-℄ ABUTMENT BEARING	FRICTION BEARING PILING — PIOL TYPE 1 OR 2: NUMBER OF TRESTLE PILES	(3) "K" (INCHES)	(4) DES. PILE BRG. (TONS)	(5) LRFD DES. BRG. (KIPS)	FRICTION OR POINT BEARING PILING — PIOL TYPE 3: NUMBER OF TRESTLE PILES	PILE SIZE	(4) DES. PILE BRG. (TONS)	(5) LRFD DES. BRG. (KIPS)
138'-10	9	14	33	95	6	HP10x57	49	142
	8	16	37	107	7	HP12x53	42	122
151'-4	10	14	31	90	7	HP10x57	44	128
	9	16	34	100	7	HP12x53	44	128
163'-10	9	16	37	107	7	HP10x57	48	138
					8	HP12x53	42	121
176'-4	10	16	35	101	7	HP10x57	50	144
					8	HP12x53	44	126
188'-10	10	16	36	105	8	HP10x57	45	132
					8	HP12x53	45	132
201'-4	-----	--	--	--	9	HP10x57	45	130
					9	HP12x53	45	130
213'-10	-----	--	--	--	9	HP10x57	47	136
					10	HP12x53	42	123
226'-4	-----	--	--	--	9	HP10x57	49	144
					10	HP12x53	45	129
243'-0	-----	--	--	--	10	HP10x57	47	136

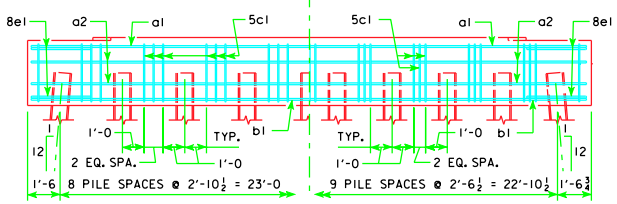
(1) SEE SHEET H24-17-06 FOR STEP REINFORCING STEEL QUANTITIES AND DETAILS.

(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.

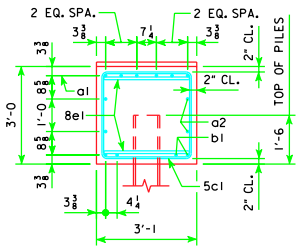
(4) FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

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

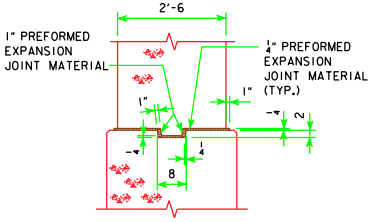


9 PILE BENT

10 PILE BENT



VIEW A-A
FOR 6, 7, 8, 9 & 10 PILE BENTS



KEYED NOTCH DETAIL

01-10
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

DECEMBER, 2006

PILE BENT PIERS

15° SKEW

H24-44-06

REVISED 01-10 - SHEET WAS REVISED TO MEET LRFD SPECIFICATIONS. PILE ORIENTATION DETAIL ADDED.