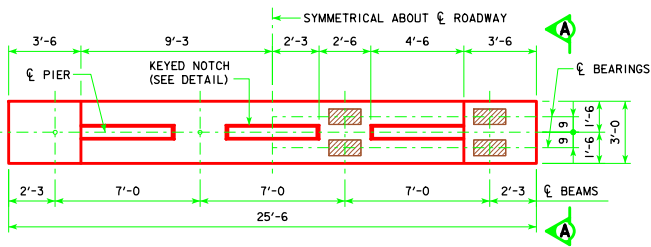


REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.



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.

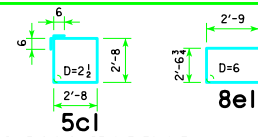
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

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

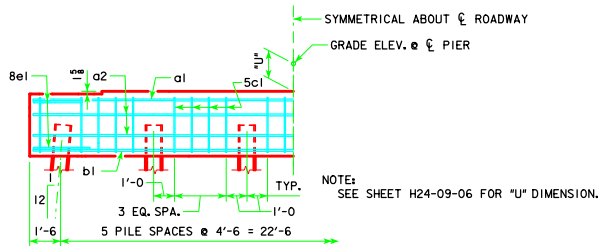
REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	LENGTH	SHAPE	6 PILE BENT		7 PILE BENT		8 PILE BENT		9 PILE BENT		10 PILE BENT	
			NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
a1	25'-2		6	9 513	6	9 513	6	9 513	6	9 513	4	9 342
a2	25'-2		4	8 269	4	8 269	4	8 269	4	8 269	4	8 269
b1	25'-2		4	8 269	4	8 269	4	8 269	4	8 269	4	8 269
5c1	11'-8		22	5 268	26	5 316	30	5 365	26	5 316	29	5 353
8e1	8'-1		4	8 86	4	8 86	4	8 86	4	8 86	4	8 86
REINFORCING STEEL (L.B.)			1405		1453		1502		1453		1319	
STRUCTURAL PILE TYPE			1, 2		---		8.4		8.4		8.3	
CONCRETE (CY)			3		8.8		8.8		8.8		8.8	

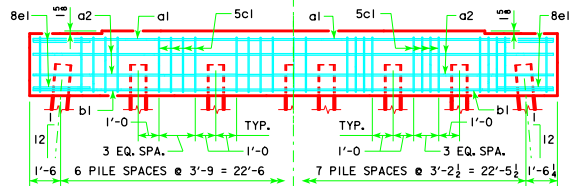
BENT BAR DETAILS



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

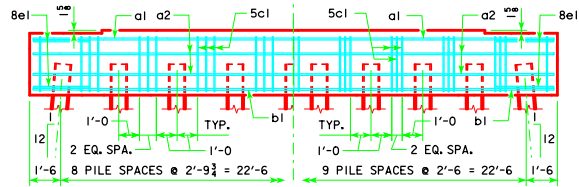


6 PILE BENT



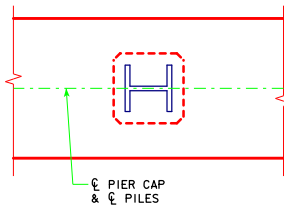
7 PILE BENT

8 PILE BENT

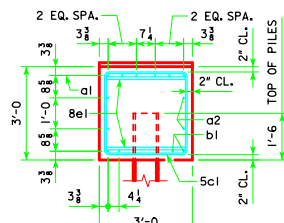


9 PILE BENT

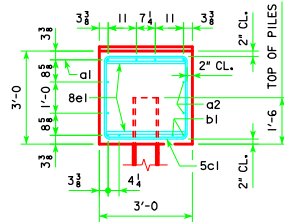
10 PILE BENT



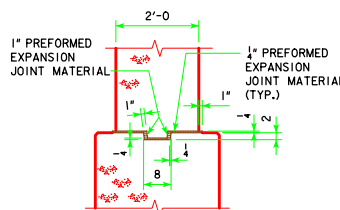
PILE ORIENTATION DETAIL FOR TYPE 3 TRESTLE BENT PILES



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



VIEW A-A FOR 10 PILE BENT



KEYED NOTCH DETAIL

ABUTMENT BEARING	PIOL TYPE 1 OR 2		PIOL TYPE 3	
	NUMBER OF TRESTLE PILES	② *K* (INCHES)	NUMBER OF TRESTLE PILES	PILE SIZE
138'-10	---	---	6	HP10x57
151'-4	---	---	7	HP12x53
163'-10	---	---	7	HP12x53
176'-4	---	---	8	HP12x53
188'-10	---	---	7	HP10x57
201'-4	---	---	8	HP12x53
213'-10	---	---	8	HP12x53
226'-4	---	---	9	HP12x53
243'-0	---	---	10	HP10x57

- ① CONCRETE QUANTITIES SHOWN HAVE HAD THE VOLUME OF EMBEDDED PILES DEDUCTED FOR TYPES 1 AND 2 BASED ON 0.8 FT³ PER FOOT OF EMBEDMENT. THE CONCRETE QUANTITIES FOR TYPE 3 PILES DO NOT REQUIRE REDUCTION FOR PILE EMBEDMENT.
- ② SEE STANDARD PIOL FOR *K* DIMENSION.
- ③ 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.

LATEST REVISION DATE
05-13
APPROVED BY BRIDGE ENGINEER
Thomas E. McQuill

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
DECEMBER, 2006

PILE BENT PIERS

H24-42-06

0° SKEW