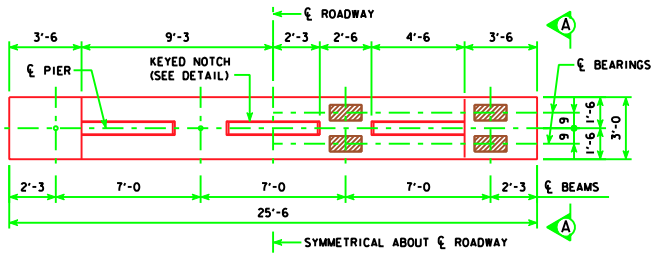
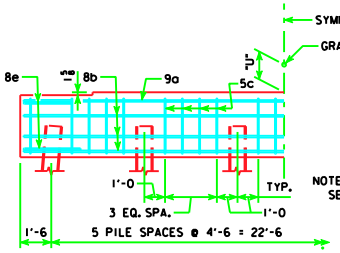
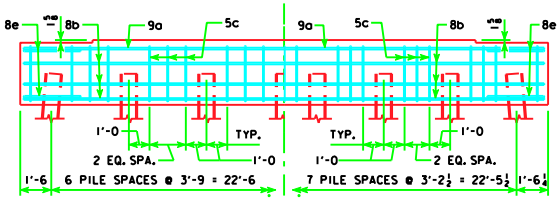


TYPICAL PLAN



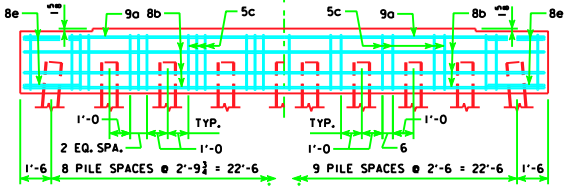
NOTE:
SEE SHEET H24-09-06 FOR "U" DIMENSION.

6 PILE BENT



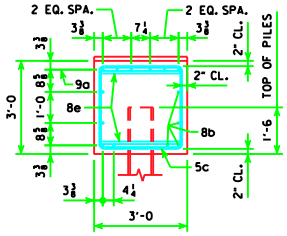
7 PILE BENT

8 PILE BENT

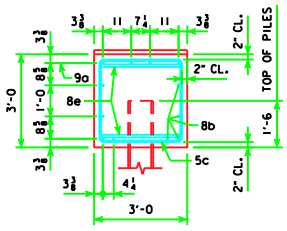


9 PILE BENT

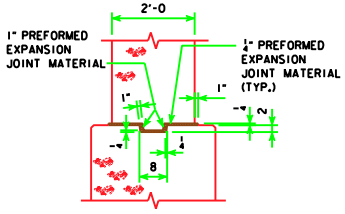
10 PILE BENT



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



VIEW A-A
FOR 9 & 10 PILE BENTS

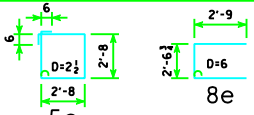


KEYED NOTCH DETAIL

REINFORCING BAR LIST AND ESTIMATED QUANTITIES - PER PILE BENT

BAR	SHAPE	6 PILE BENT NO.	6 PILE BENT LENGTH	6 PILE BENT WEIGHT	7 PILE BENT NO.	7 PILE BENT LENGTH	7 PILE BENT WEIGHT	8 PILE BENT NO.	8 PILE BENT LENGTH	8 PILE BENT WEIGHT	9 PILE BENT NO.	9 PILE BENT LENGTH	9 PILE BENT WEIGHT	10 PILE BENT NO.	10 PILE BENT LENGTH	10 PILE BENT WEIGHT
9a		6	25'-2	513	6	25'-2	513	6	25'-2	513	4	25'-2	342	4	25'-2	342
8b		8	25'-2	538	8	25'-2	538	8	25'-2	538	8	25'-2	538	8	25'-2	538
5c		22	11'-8	268	20	11'-8	243	23	11'-8	280	26	11'-8	316	20	11'-8	243
8e		4	8'-1	86	4	8'-1	86	4	8'-1	86	4	8'-1	86	4	8'-1	86
REINFORCING STEEL (LB.)		1405			1380			1417			1282			1209		
STRUCTURAL CONCRETE (CY) ②	PILE TYPE															
	1, 2	-----			-----			8.4			8.4			8.3		
	3	8.8			8.8			8.8			8.8			8.8		

BENT BAR DETAILS



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

℄-℄ ABUTMENT BEARING	FRICTION BEARING PILING — PIOA TYPE 1 OR 2: NUMBER OF TRESTLE PILES AND SPACING	① "K" (INCHES)	DES. PILE BRG.(TONS) W/IMPACT	DES. PILE ③ BRG.(TONS) W/O IMPACT	FRICTION OR POINT BEARING PILING — PIOA TYPE 3: NUMBER OF TRESTLE PILES AND SPACING	① "K" (INCHES)	DES. PILE BRG.(TONS) W/IMPACT	DES. PILE ③ BRG.(TONS) W/O IMPACT
138'-10	9 PILES @ 2'-9¾ CTRS.	14	30	27	6 PILES @ 4'-6 CTRS.	16	44	40
	8 PILES @ 3'-2½ CTRS.	16	33	30	6 PILES @ 4'-6 CTRS.	18	44	40
151'-4	10 PILES @ 2'-6 CTRS.	14	28	26	6 PILES @ 4'-6 CTRS.	16	46	42
	8 PILES @ 3'-2½ CTRS.	16	35	32	6 PILES @ 4'-6 CTRS.	18	46	42
163'-10	10 PILES @ 2'-6 CTRS.	14	30	28	6 PILES @ 4'-6 CTRS.	16	50	46
	9 PILES @ 2'-9¾ CTRS.	16	33	31	7 PILES @ 3'-9 CTRS.	18	43	40
176'-4	*10 PILES @ 2'-6 CTRS.	14	32	29	7 PILES @ 3'-9 CTRS.	16	45	42
	9 PILES @ 2'-9¾ CTRS.	16	35	33	7 PILES @ 3'-9 CTRS.	18	45	42
188'-10	*10 PILES @ 2'-6 CTRS.	14	33	31	7 PILES @ 3'-9 CTRS.	16	48	44
	10 PILES @ 2'-6 CTRS.	16	33	31	8 PILES @ 3'-2½ CTRS.	18	42	39
201'-4	*10 PILES @ 2'-6 CTRS.	16	38	35	8 PILES @ 3'-2½ CTRS.	16	47	44
					9 PILES @ 2'-9¾ CTRS.	18	42	39
213'-10	-----	-----	-----	-----	8 PILES @ 3'-2½ CTRS.	16	49	46
					9 PILES @ 2'-9¾ CTRS.	18	44	41
226'-4	-----	-----	-----	-----	9 PILES @ 2'-9¾ CTRS.	16	46	43
					9 PILES @ 2'-9¾ CTRS.	18	46	43
243'-0	-----	-----	-----	-----	9 PILES @ 2'-9¾ CTRS.	16	48	45
					10 PILES @ 2'-6 CTRS.	18	43	41

① SEE STANDARD PIOA FOR "K" DIMENSION.

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 FOR ESTIMATING PILE LENGTHS AND FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.

* TYPE 2 ONLY.

PILE BENT NOTES:

THESE PIERS BENTS ARE DESINGED FOR USE WITH STANDARD H24-06 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES IN LOCATIONS WHERE ICE AND DRIFT CONDITIONS ARE NOT SEVERE.

PIER PILES ARE TO BE DRIVEN TO THE DESIGN BEARING VALUE W/O INPACT.

FOR DETAILS OF TRESTLE PILES, TYPES 1, 2 AND 3, SEE STANDARD PIOA. DETAILS SHOWN FOR CONCRETE PILES. FOR ORIENTATION OF STEEL PILES, SEE STANDARD PIOA.

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

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

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

PILE BENT DETAILS

0° SKEW

H24-42-06