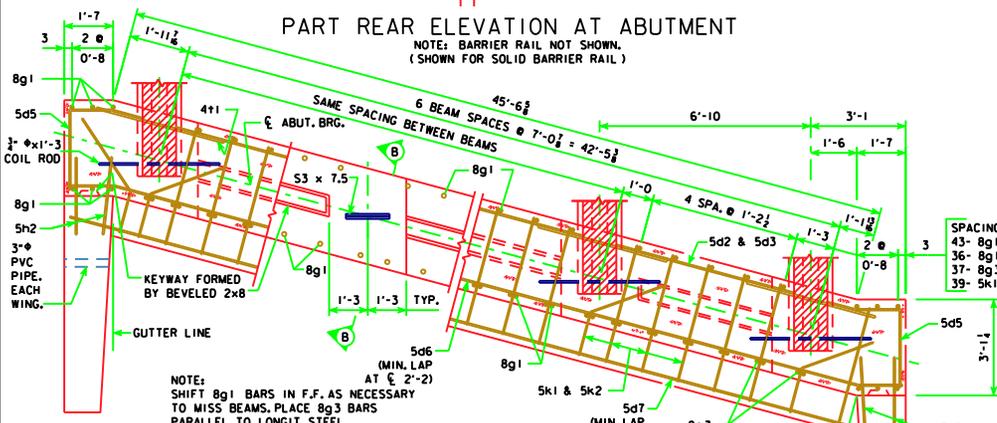


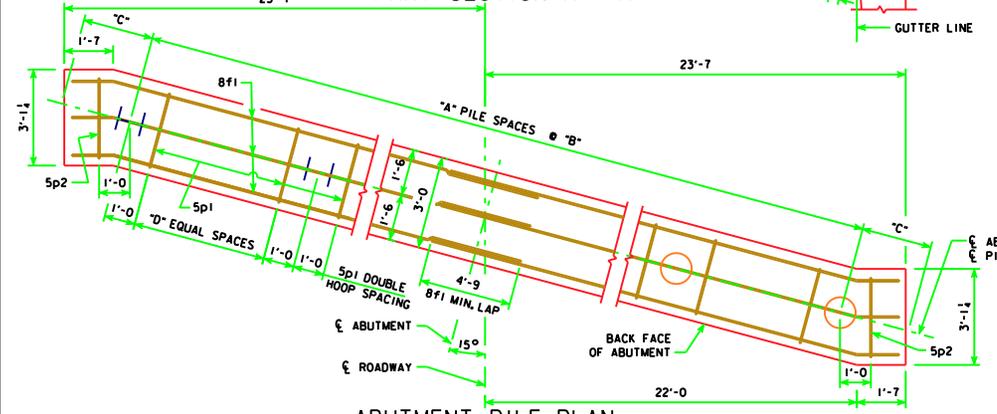
PART REAR ELEVATION AT ABUTMENT

NOTE: BARRIER RAIL NOT SHOWN.  
(SHOWN FOR SOLID BARRIER RAIL)

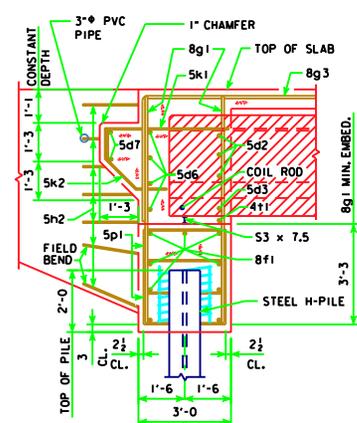


PART SECTION A - A

NOTE: SHIFT 8g1 BARS IN F.F. AS NECESSARY TO MISS BEAMS, PLACE 8g3 BARS PARALLEL TO LONGIT. STEEL.

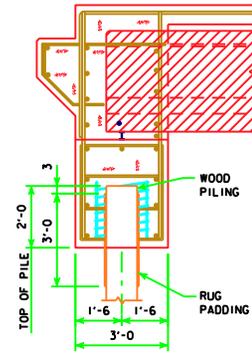


ABUTMENT PILE PLAN



PART SECTION B-B  
(FOR STEEL H-PIILING)

NOTE: THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF NO. 2 BAR, 21\"/>



PART SECTION B-B  
(FOR WOOD PILING)

WOOD PILING NOTE:  
AFTER PILES ARE CUT OFF, THE UPPER 3', EXCEPT AS SHOWN, IS TO BE WRAPPED WITH A DOUBLE THICKNESS OF RUG PADDING HELD IN PLACE BY TACKING WITH GALVANIZED ROOFING NAILS AND WRAPPED WITH #14 GAUGE GALVANIZED WIRE AT A 4\"/>

(1) HAIR AND JUTE RUG PADDING, RUBBERIZED ON BOTH SIDES, AND WEIGHING NOT LESS THAN 47 OZ. PER SQ. YD.

(2) BONDED URETHANE OR BONDED POLYFOAM WITH A MINIMUM DENSITY OF 5 LBS. PER CU. FT. AND SHALL BE AT LEAST 1/2 IN. THICK, (MATERIAL LESS THAN 1/2 IN. IN THICKNESS MAY BE USED, BUT WILL REQUIRE ADDITIONAL WRAPS FOR A TOTAL OF AT LEAST ONE INCH.)

SPACING FOR:  
43- 8g1 BACK FACE  
36- 8g1 FRONT FACE  
37- 8g3 BACK FACE  
39- 5k1 & 5k2 BACK FACE

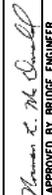
ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2\"/>

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK OR BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE COUNTY OR STATE.

ABUTMENT PILES ARE TO BE DRIVEN TO THE DESIGN BEARING VALUE AS GIVEN IN THE ABUTMENT PILE SPACING TABLE.

ABUTMENT PILE SPACING		ABUT. BRG.	138'-10	151'-4	163'-10	176'-4	188'-10
WITH WOOD PILES	"A" PILE SPACES		13	14	15	16	16
	"B" (FT. - IN.)		3'-4	3'-1	2'-11	2'-9	2'-9
	"C" (FT. - IN.)		2'-9	2'-10	2'-6 1/2	2'-5	2'-5
	"D" EQUAL SPACES		2	1	1	1	1
WITH STEEL H-PILES	NO. OF PILES PER ABUT.		14	15	16	17	17
	DESIGN PILE LOAD (TONS)		20	20	20	19	20
	"A" PILE SPACES		6	6	6	6	7
	"B" (FT. - IN.)		7'-4	7'-4	7'-4	7'-4	6'-3
"C" (FT. - IN.)		2'-5	2'-5	2'-5	2'-5	2'-6 1/2	
"D" EQUAL SPACES		5	5	5	5	4	
NO. OF PILES PER ABUT.		7	7	7	7	8	
DESIGN PILE LOAD (TONS)		44	45	49	50	45	

LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 <b>Iowa Department of Transportation</b> Highway Division	
		STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE <b>PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES</b> HL93 SUPERSTRUCTURE    MARCH, 2007    HS25 SUBSTRUCTURE	
		<b>ABUTMENT DETAILS</b> 15° SKEW A & B BEAMS	<b>H44-11-07</b>