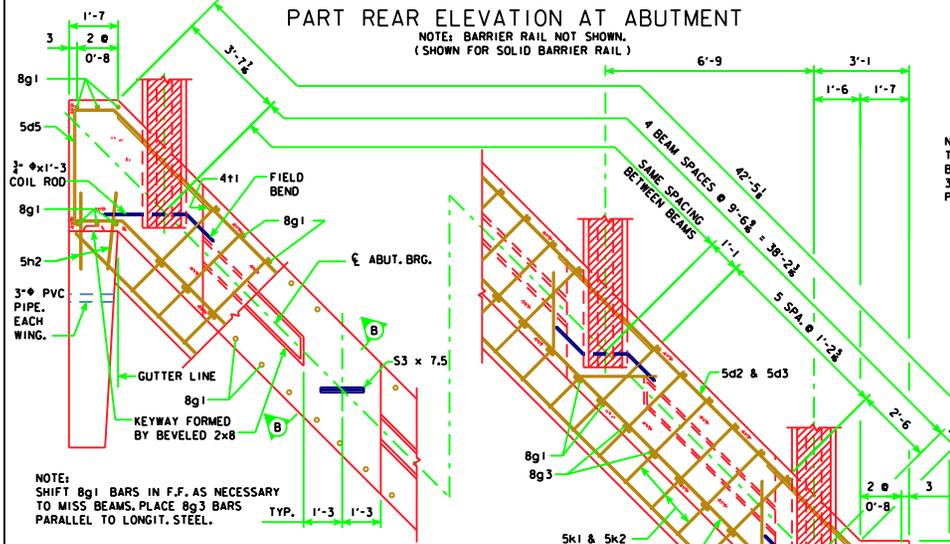


PART REAR ELEVATION AT ABUTMENT

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.

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

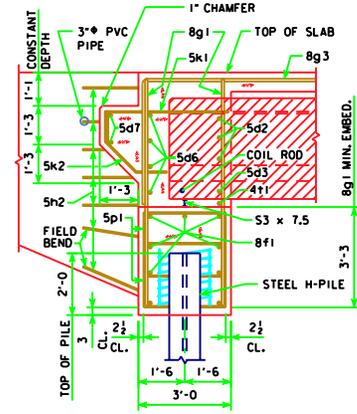
SPACING FOR:
39- 8g1 BACK FACE
30- 8g1 FRONT FACE
33- 8g3 BACK FACE
34- 5k1 & 5k2 BACK FACE

ABUTMENT NOTES:

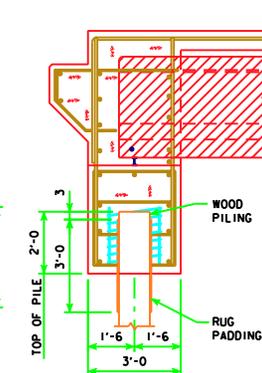
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE
TO NEAR REINFORCING BAR IS TO BE 2\"/>

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.



**PART SECTION B-B
(FOR STEEL H-PILE)**

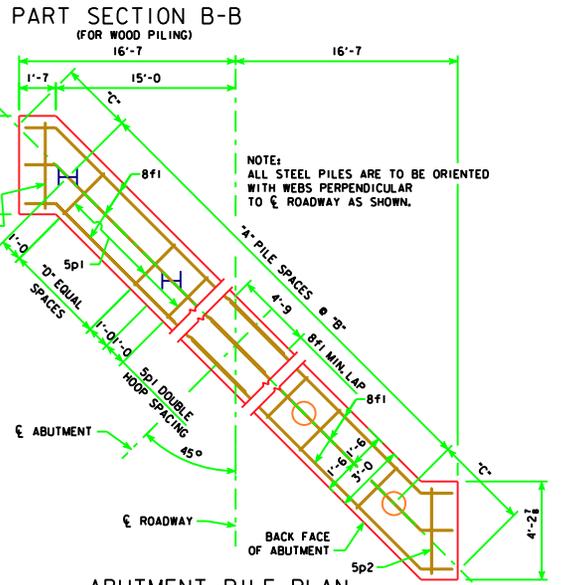


**PART SECTION B-B
(FOR WOOD PILING)**

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\"/>



ABUTMENT PILE PLAN

NOTE:
ALL STEEL PILES ARE TO BE ORIENTED
WITH WEBS PERPENDICULAR
TO ROADWAY AS SHOWN.

ABUTMENT PILE SPACING		ξ-ξ ABUT. BRG.	138'-10"	151'-4"	163'-10"	176'-4"	188'-10"
WITH WOOD PILES	*A* PILE SPACES		11	11	12	12	13
	B (FT. - IN.)		3'-8"	3'-8"	3'-4"	3'-4"	3'-1"
	C (FT. - IN.)		3'-3 3/4"	3'-3 3/4"	3'-5 1/2"	3'-5 1/2"	3'-4 1/2"
	D EQUAL SPACES		2	2	2	2	1
NO. OF PILES PER ABUT.			12	12	13	13	14
DESIGN PILE LOAD (TONS)			19	20	20	20	20
WITH STEEL H-PILES	*A* PILE SPACES		6	6	6	6	6
	B (FT. - IN.)		6'-9"	6'-9"	6'-9"	6'-9"	6'-9"
	C (FT. - IN.)		3'-2 1/2"	3'-2 1/2"	3'-2 1/2"	3'-2 1/2"	3'-2 1/2"
	D EQUAL SPACES		4	4	4	4	4
NO. OF PILES PER ABUT.			7	7	7	7	7
DESIGN PILE LOAD (TONS)			35	36	39	40	41

LATEST REVISION DATE

Thomas E. M. Donnell

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES

**PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGES**

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

ABUTMENT DETAILS
45° SKEW A & B BEAMS

H30-25-06