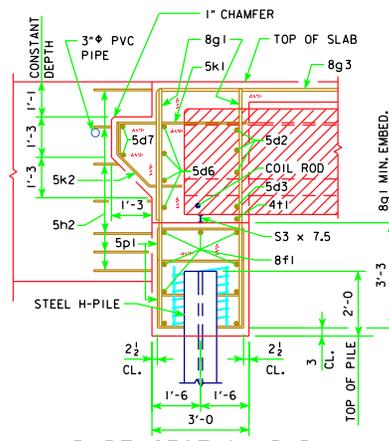
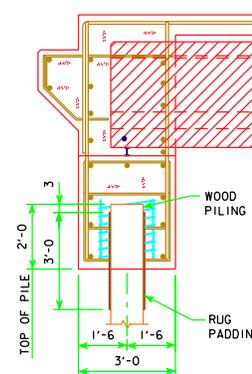


PART REAR ELEVATION AT ABUTMENT
NOTE: TOP OF ABUTMENT SHOWN FOR SOLID BARRIER RAIL

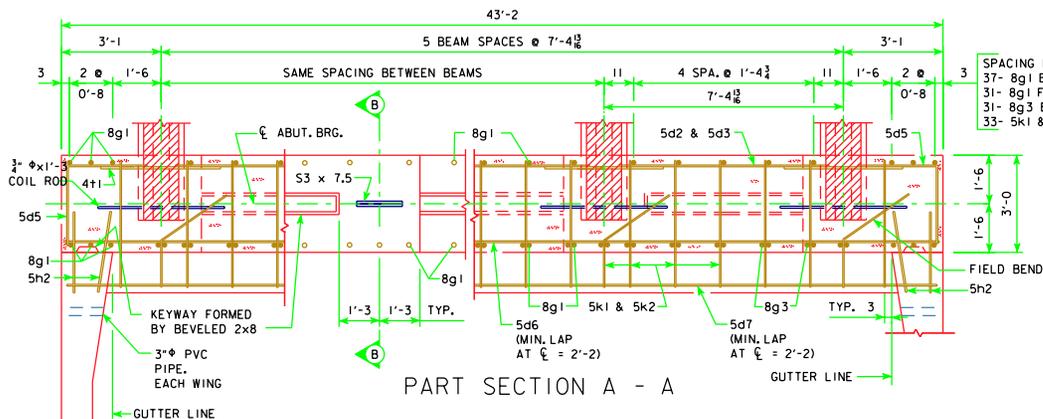


PART SECTION B-B
(FOR STEEL H-PIILING)



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" PITCH, CARE IS TO BE TAKEN NOT TO DAMAGE PADDING WHEN PLACING CONCRETE. RUG PADDING MAY BE EITHER OF THE FOLLOWING:
(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).



PART SECTION A - A

SPACING FOR:
37- 8g1 BACK FACE
31- 8g1 FRONT FACE
31- 8g3 BACK FACE
33- 5k1 & 5k2 BACK FACE

ABUTMENT NOTES:

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

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.

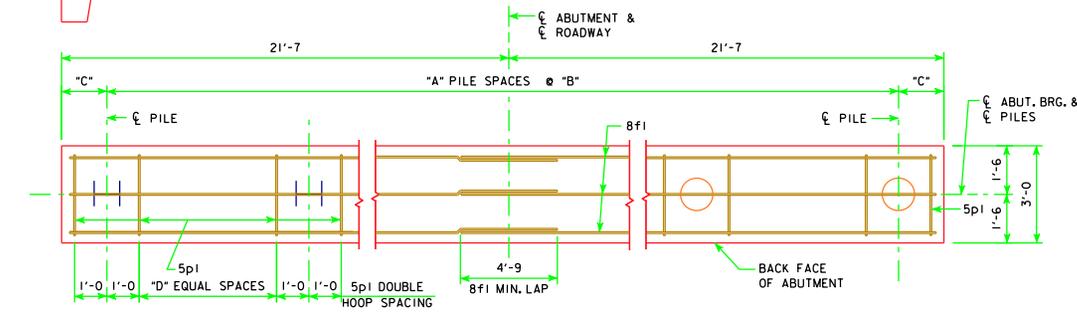
ABUTMENT PILES ARE TO BE DRIVEN TO THE DESIGN BEARING VALUE AS GIVEN IN THE ABUTMENT PILE SPACING TABLE.

PLACE 5h2 BAR AT 1:6 SLOPE TO MATCH TRAFFIC SIDE OF ABUTMENT WING FACE. (BOTH SIDES TYPICAL)

BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT PILE SPACING		138'-10"	151'-4"	163'-10"	176'-4"	188'-10"
WITH WOOD PILES	"A" PILE SPACES	13	14	15	15	16
	"B" (FT. - IN.)	2'-11"	2'-9"	2'-6"	2'-6"	2'-6"
	"C" (FT. - IN.)	2'-7 1/2"	2'-4"	2'-10"	2'-10"	1'-7"
	"D" EQUAL SPACES	1	1	1	1	1
NO. OF PILES PER ABUT.		14	15	16	16	17
WITH STEEL H-PILES	① PILE BEARING (TONS)	20	19	19	20	19
	② STRENGTH I DESIGN LOAD (KIPS)	56	55	55	57	56
WITH WOOD PILES	"A" PILE SPACES	5	6	6	6	7
	"B" (FT. - IN.)	7'-8"	6'-5"	6'-5"	6'-5"	5'-6"
	"C" (FT. - IN.)	2'-5"	2'-4"	2'-4"	2'-4"	2'-4"
	"D" EQUAL SPACES	5	4	4	4	3
NO. OF PILES PER ABUT.		6	7	7	7	8
WITH STEEL H-PILES	① PILE BEARING (TONS)	50	44	47	49	44
	② STRENGTH I DESIGN LOAD (KIPS)	144	128	137	142	128

- ① FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.
- ② FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.



ABUTMENT PILE PLAN

LATEST REVISION DATE	01-10		Iowa Department of Transportation Highway Division
	<i>Thomas L. McDaniel</i> APPROVED BY BRIDGE ENGINEER		
STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES AUGUST, 2009			
ABUTMENT DETAILS 0° SKEW A & B BEAMS			H40-05-06

REVISED 01-10 - ADDED DETERMINING & ESTIMATING DESCRIPTIONS FOR PILE LENGTHS.