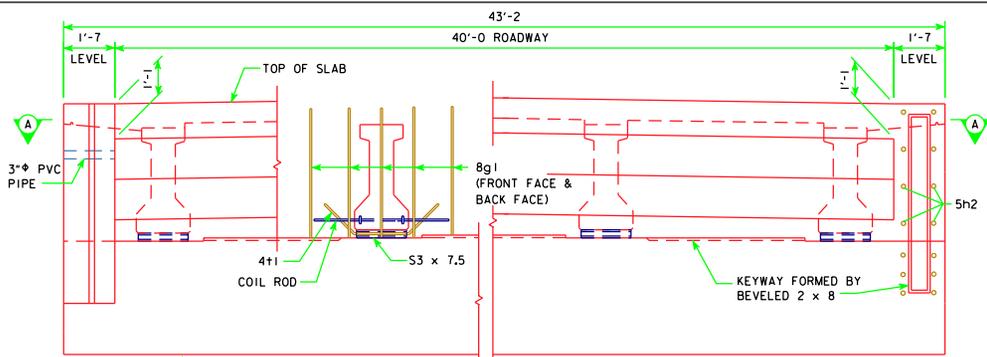
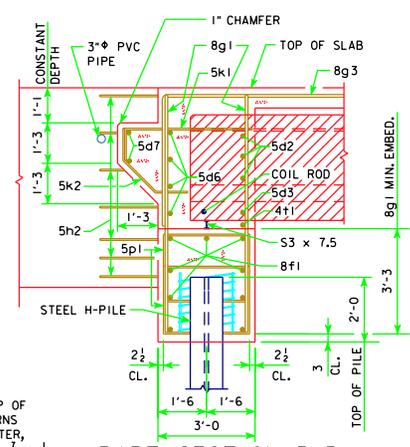


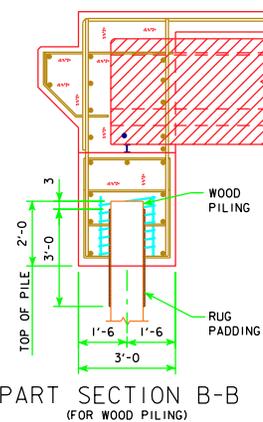
REVISED 01-10 - ADDED DETERMINING & ESTIMATING DESCRIPTIONS FOR PILE LENGTHS.



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

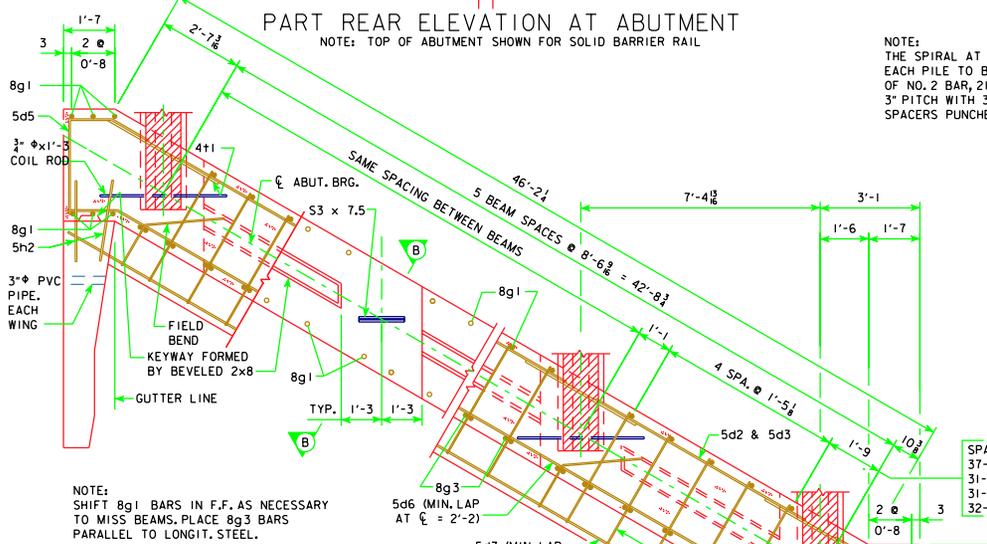


PART SECTION B-B
(FOR STEEL H-PILING)



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

NOTE: THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF NO. 2 BAR, 21" DIAMETER, 3" PITCH WITH 3 - L 6/8 x 1/4 x 1/8 SPACERS PUNCHED TO HOLD SPIRAL.

SPACING FOR:
37- 8g1 BACK FACE
31- 8g1 FRONT FACE
31- 8g3 BACK FACE
32- 5k1 & 5k2 BACK FACE

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

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

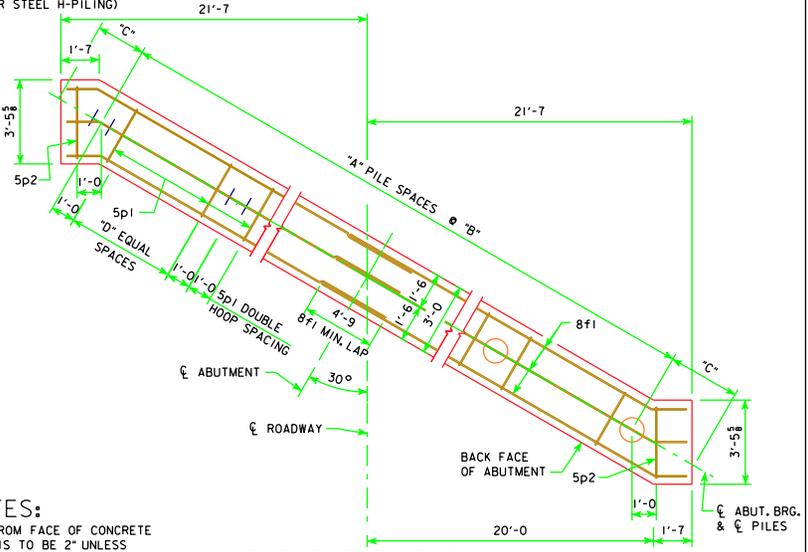
IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK OR BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE COUNTY OR STATE.

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.

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



ABUTMENT PILE PLAN

ABUTMENT PILE SPACING		℄-℄ ABUT. BRG.	138'-10	151'-4	163'-10	176'-4	188'-10
WITH WOOD PILES	"A" PILE SPACES		14	14	15	16	16
	"B" (FT. - IN.)		3'-2	3'-2	2'-11	2'-9	2'-9
	"C" (FT. - IN.)		2'-9 1/2	2'-9 1/2	3'-0 3/8	2'-11 1/2	2'-11 1/2
	"D" EQUAL SPACES		1	1	1	1	1
	NO. OF PILES PER ABUT.		15	15	16	17	17
WITH STEEL H-PILES	① PILE BEARING (TONS)		19	20	20	19	20
	② STRENGTH I DESIGN LOAD (KIPS)		54	57	57	56	57
	"A" PILE SPACES		6	6	6	6	7
	"B" (FT. - IN.)		7'-5	7'-5	7'-5	7'-5	6'-4
	"C" (FT. - IN.)		2'-8 1/2	2'-8 1/2	2'-8 1/2	2'-8 1/2	2'-9 1/2
WITH STEEL H-PILES	"D" EQUAL SPACES		5	5	5	5	4
	NO. OF PILES PER ABUT.		7	7	7	7	8
	① PILE BEARING (TONS)		44	46	49	50	46
	② STRENGTH I DESIGN LOAD (KIPS)		127	132	141	146	132

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
AUGUST, 2009

ABUTMENT DETAILS
30° SKEW A & B BEAMS

H40-18-06

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

01-10