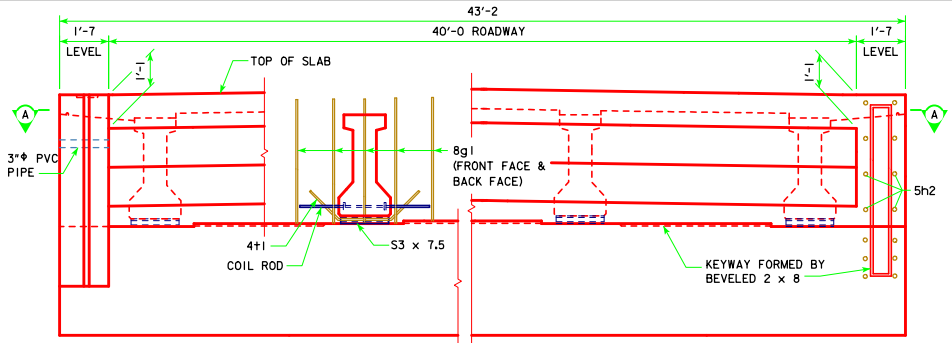
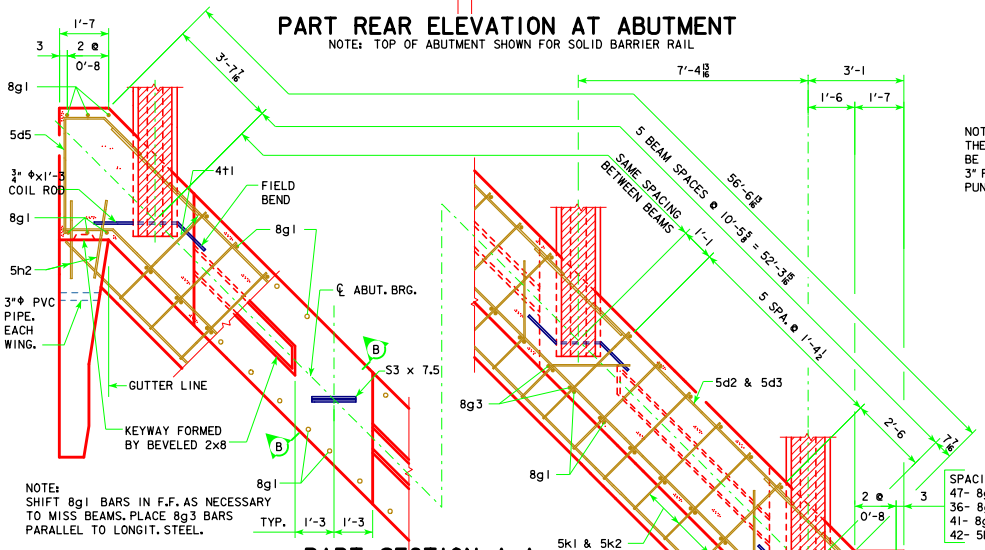


PART REAR ELEVATION AT ABUTMENT

NOTE: TOP OF ABUTMENT SHOWN FOR SOLID BARRIER RAIL



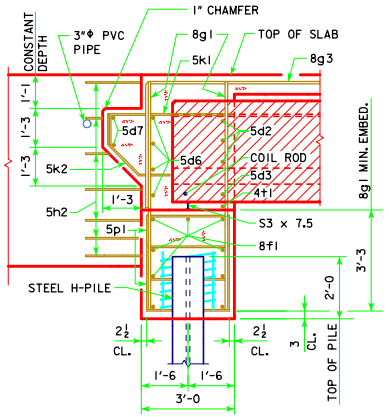
NOTE:
SHIFT 8g1 BARS IN F.F. AS NECESSARY TO MISS BEAMS. PLACE 8g3 BARS PARALLEL TO LONGIT. STEEL.

SPACING FOR:
47- 8g1 BACK FACE
36- 8g1 FRONT FACE
41- 8g3 BACK FACE
42- 5k1 & 5k2 BACK FACE

PART SECTION A-A

ABUTMENT PILE SPACING	℄-℄ ABUT. BRG.	138'-10	151'-4	163'-10	176'-4	188'-10
WITH WOOD PILES	"A" PILE SPACES	14	15	16	17	17
	"B" (FT. - IN.)	3'-10	3'-7	3'-5	3'-2	3'-2
	"C" (FT. - IN.)	3'-8 5/16	3'-7 13/16	3'-2 5/16	3'-7 5/16	3'-7 5/16
	"D" EQUAL SPACES	2	2	2	1	1
	NO. OF PILES PER ABUT.	15	16	17	18	18
	PU, STRENGTH I DESIGN LOAD (KIPS)	58	56	57	55	57
WITH STEEL H-PILES	"A" PILE SPACES	7	7	7	7	7
	"B" (FT. - IN.)	7'-9	7'-9	7'-9	7'-9	7'-9
	"C" (FT. - IN.)	3'-4 13/16	3'-4 13/16	3'-4 13/16	3'-4 13/16	3'-4 13/16
	"D" EQUAL SPACES	5	5	5	5	5
	NO. OF PILES PER ABUT.	8	8	8	8	8
	PU, STRENGTH I DESIGN LOAD (KIPS)	118	122	130	135	139

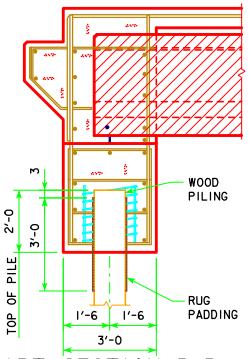
NOTE: Pu, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.
NOTE: THE PILE TYPE AND NUMBER OF PILES ARE TO BE INCLUDED ON THE SUMMARY QUANTITIES SHEET IN THE PLAN.



PART SECTION B-B

(FOR STEEL H-PILING)

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

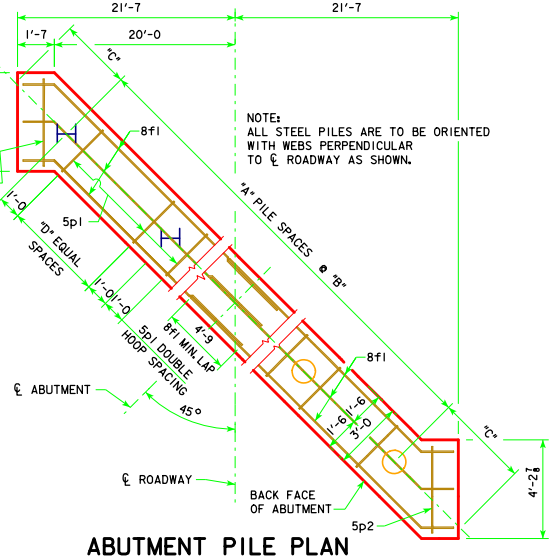


PART SECTION B-B

(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).



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

ABUTMENT PILE PLAN

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 SHALL BE DRIVEN TO VALUES SHOWN IN DESIGN PLANS.

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

BARRIER RAIL NOT SHOWN IN DETAILS.

IF ROCK IS CLOSER THAN 15' BELOW ABUTMENT FOOTING, SPECIAL ANALYSIS MAY BE REQUIRED.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

IOWA DOT Highway Division

STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

SEPTEMBER, 2014

ABUTMENT DETAILS

45° SKEW A & B BEAMS

H40-25-14