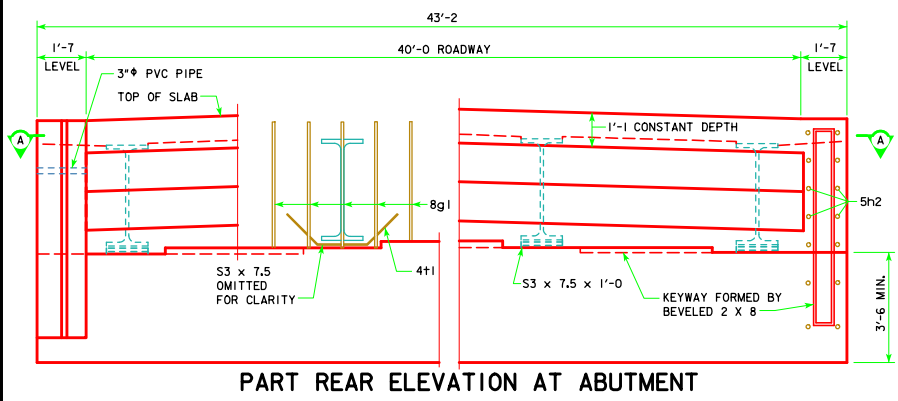


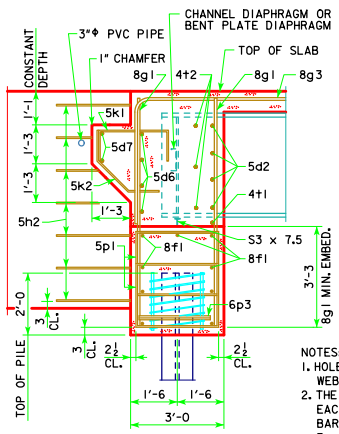
REVISED: 05-13 -- REVISION FOR LRED PILE DESIGN.



PART REAR ELEVATION AT ABUTMENT

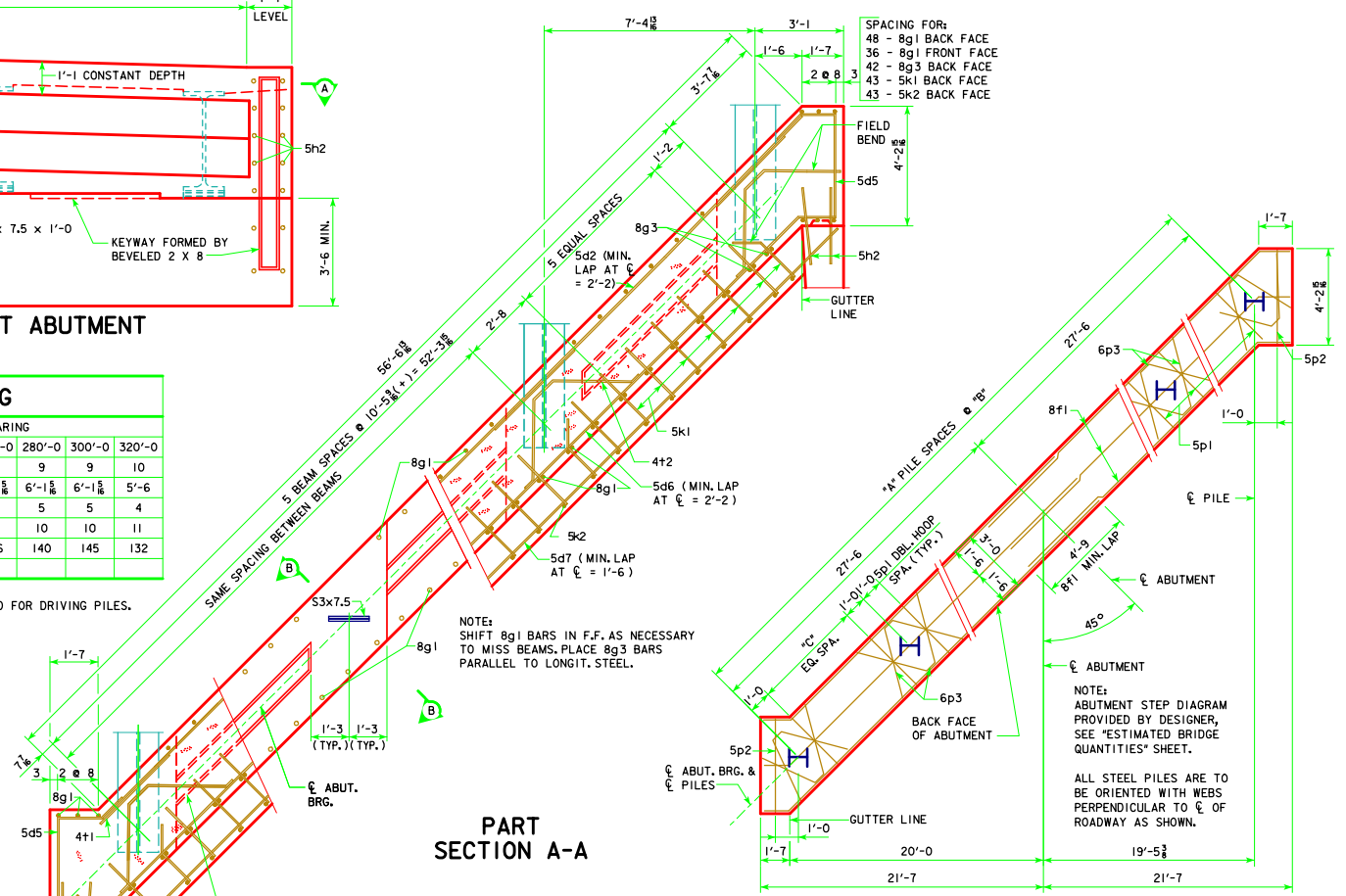
DIMENSION OR NO.	℄ TO ℄ ABUTMENT BEARING								
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0
"A"	8	8	8	8	9	9	9	9	10
"B" (FT-IN)	6'-10½	6'-10½	6'-10½	6'-10½	6'-11½	6'-11½	6'-11½	6'-11½	5'-6
"C" EQUAL SPACES	5	5	5	5	5	5	5	5	4
NO. OF PILES PER ABUT.	9	9	9	9	10	10	10	10	11
PU, STRENGTH I DESIGN LOAD (KIPS)	124	129	135	141	130	136	140	145	132

NOTE: HP 10 x 57 STEEL BEARING PILING REQUIRED.
 NOTE: PU, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.



PART SECTION B-B

NOTES:
 1. HOLES DRILLED THROUGH BEAM WEB FOR 5d2 AND 4t2 BARS.
 2. THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF No. 2 BAR, 2" DIAMETER, 3" PITCH WITH 3 - 1½ x ½ x ¼ SPACERS PUNCHED TO HOLD SPIRAL.



PART SECTION A-A

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.

ABUTMENT PILE PLAN

LATEST REVISION DATE

05-13

APPROVED BY BRIDGE ENGINEER

Thomas E. McQuinn

Iowa Department of Transportation

Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

RS40-015-10

ABUTMENT DETAILS

45° SKEW

RS40-015-10