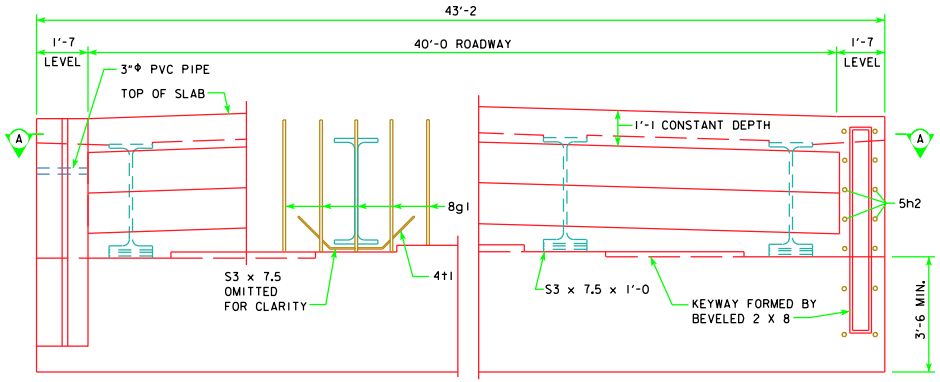
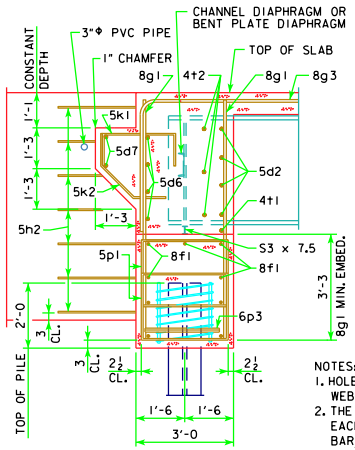


PART REAR ELEVATION AT ABUTMENT

ABUTMENT PILE SPACING

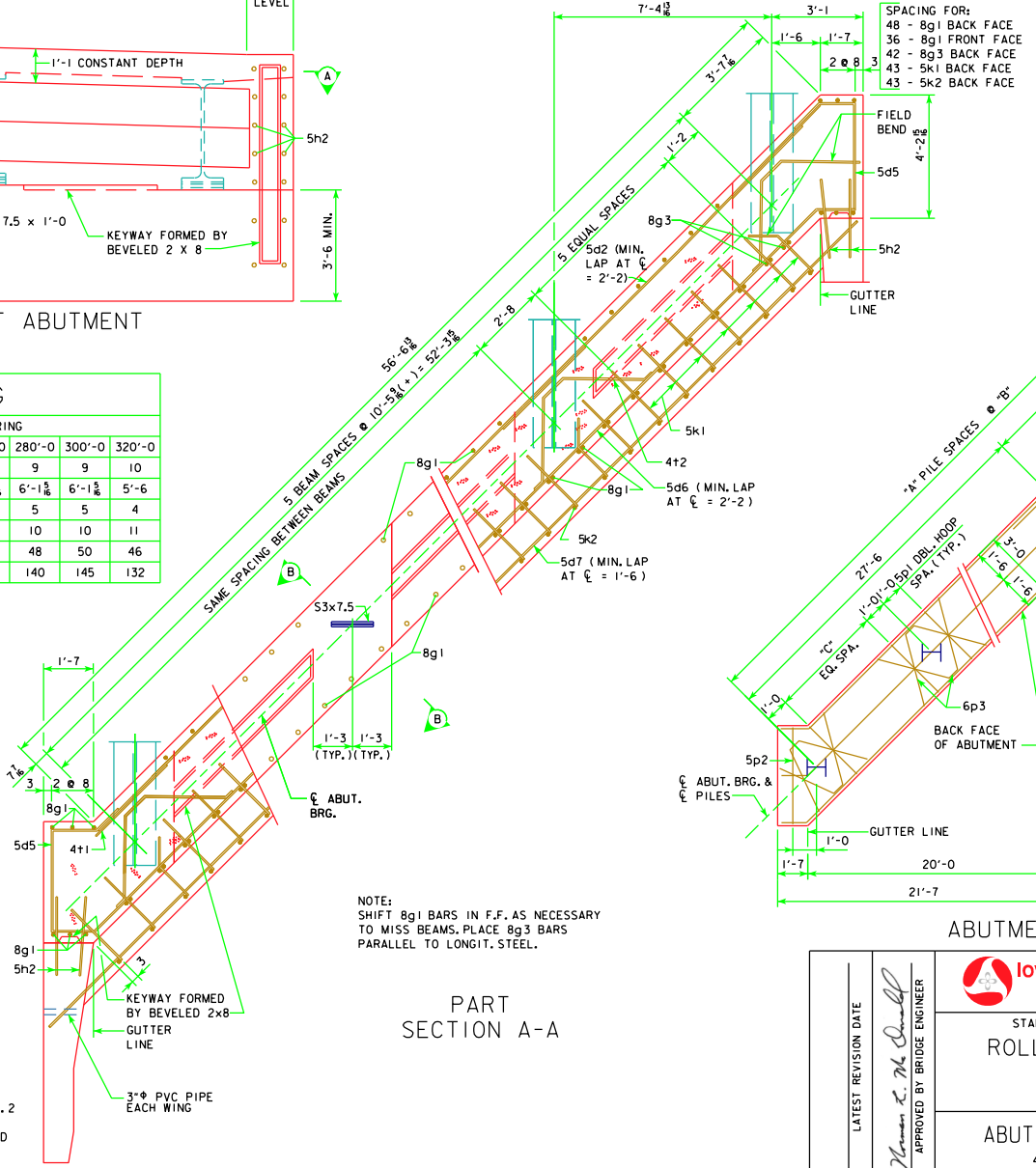
DIMENSION OR NO.	℄ TO ℄ ABUTMENT BEARING								
	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0
"A"	8	8	8	8	9	9	9	9	10
"B" (FT-IN)	6'-10½	6'-10½	6'-10½	6'-10½	6'-1 5/16	6'-1 5/16	6'-1 5/16	6'-1 5/16	5'-6
"C" EQUAL SPACES	5	5	5	5	5	5	5	5	4
NO. OF PILES PER ABUT.	9	9	9	9	10	10	10	10	11
① DESIGN PILE LOAD (TONS)	43	45	47	49	45	47	48	50	46
② STRENGTH I DESIGN LOAD (KIPS)	124	129	135	141	130	136	140	145	132

NOTE: HP 10 x 57 STEEL BEARING PILING REQUIRED.
① FOR DETERMINING ACTUAL PILE LENGTHS IN FIELD.
② FOR ESTIMATING PILE LENGTHS USING AASHTO LRFD SPECIFICATIONS.



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, 21" DIAMETER, 3" PITCH WITH 3 - L 7/8 x 7/8 x 1/4 SPACERS PUNCHED TO HOLD SPIRAL.



PART SECTION A-A

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 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.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

ABUTMENT DETAILS 45° SKEW

RS40-015-10