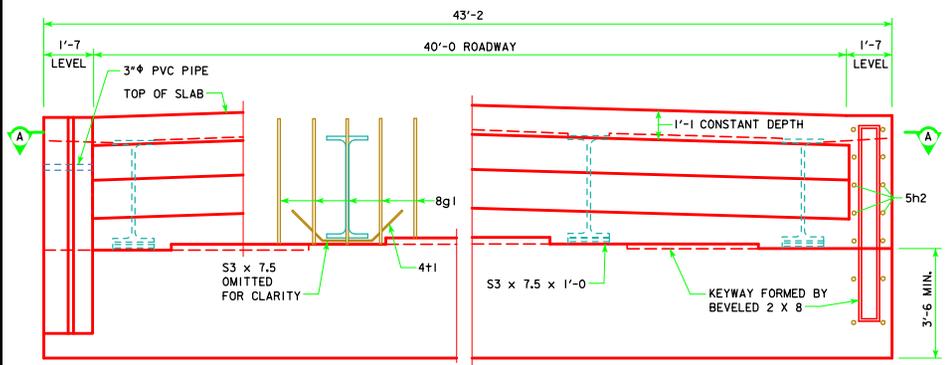
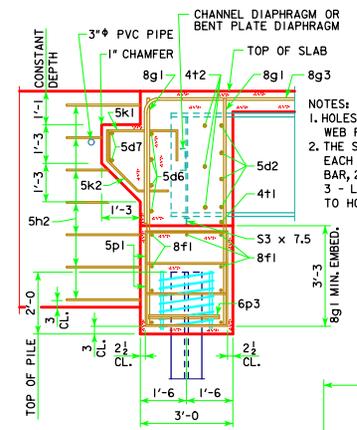


REVISED 05-13 - REVISION FOR LRFD PILE DESIGN.



PART REAR ELEVATION AT ABUTMENT



PART SECTION B-B

ABUTMENT NOTES:

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

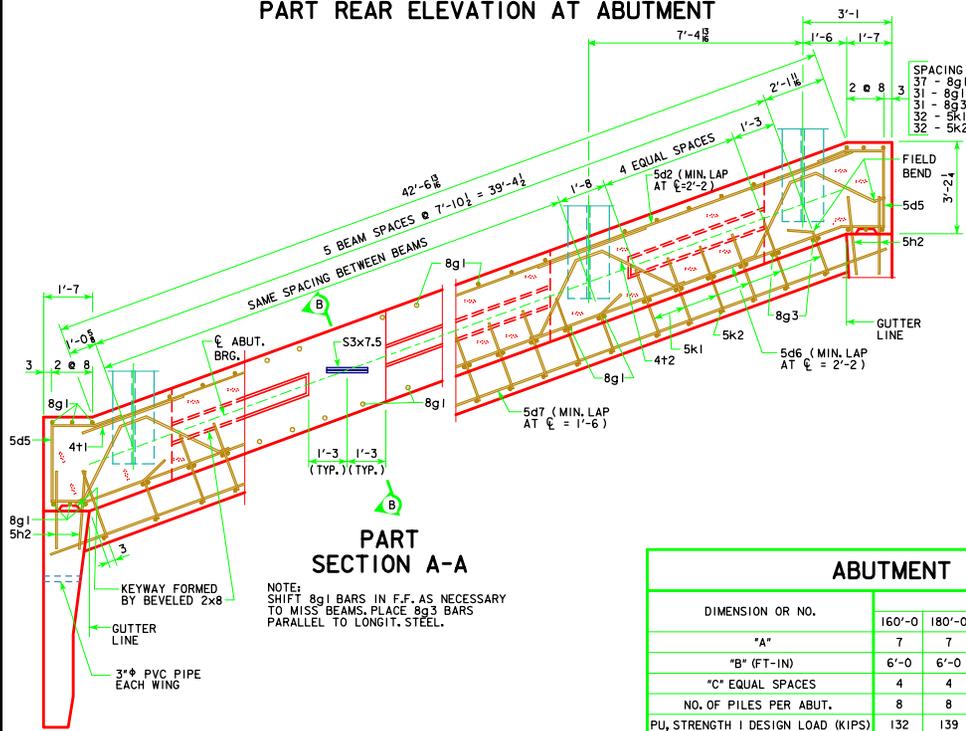
IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK OR BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE COUNTY OR STATE.

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.



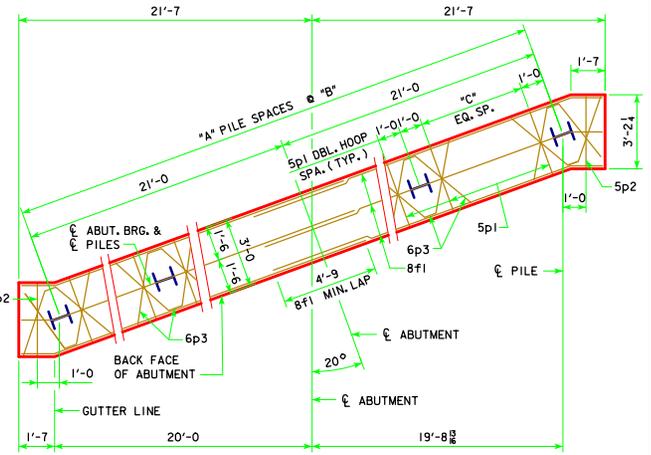
PART SECTION A-A

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

ABUTMENT PILE SPACING

DIMENSION OR NO.	CL TO CL ABUTMENT BEARING										
	160'-0"	180'-0"	200'-0"	220'-0"	240'-0"	260'-0"	280'-0"	300'-0"	320'-0"		
"A"	7	7	7	8	8	8	9	9	9		
"B" (FT-IN)	6'-0"	6'-0"	6'-0"	5'-3"	5'-3"	5'-3"	4'-8"	4'-8"	4'-8"		
"C" EQUAL SPACES	4	4	4	3	3	3	3	3	3		
NO. OF PILES PER ABUT.	8	8	8	9	9	9	10	10	10		
PU, STRENGTH I DESIGN LOAD (KIPS)	132	139	145	133	138	144	132	137	139		

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.



ABUTMENT PILE PLAN

NOTE: ABUTMENT STEP DIAGRAM PROVIDED BY DESIGNER, SEE "ESTIMATED BRIDGE QUANTITIES" SHEET.

LATEST REVISION DATE
05-13
APPROVED BY BRIDGE ENGINEER
Norman E. McQuinn



Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

ABUTMENT DETAILS 20° SKEW	RS40-011-10
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