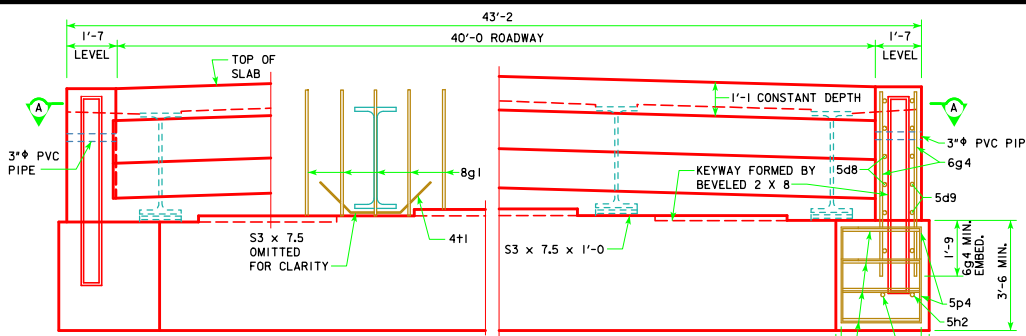
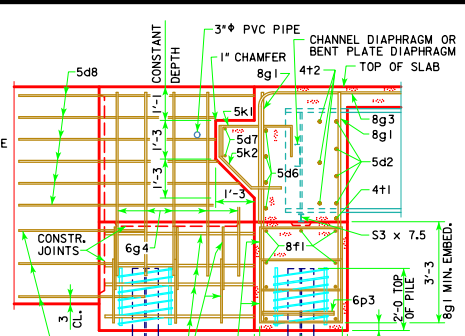


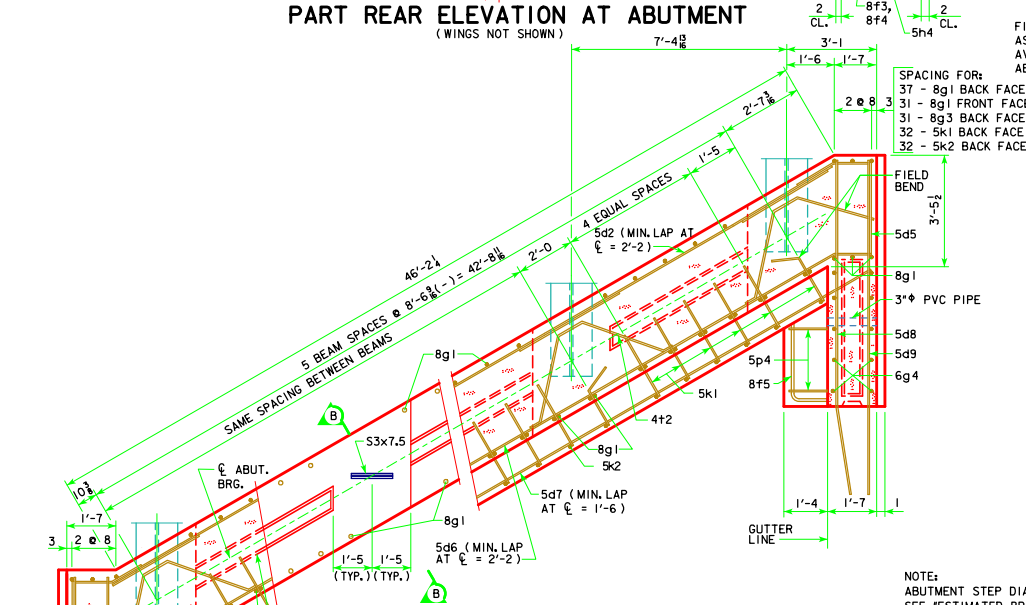
REVISED 05-13 - REVISION FOR LRED PILE DESIGN.



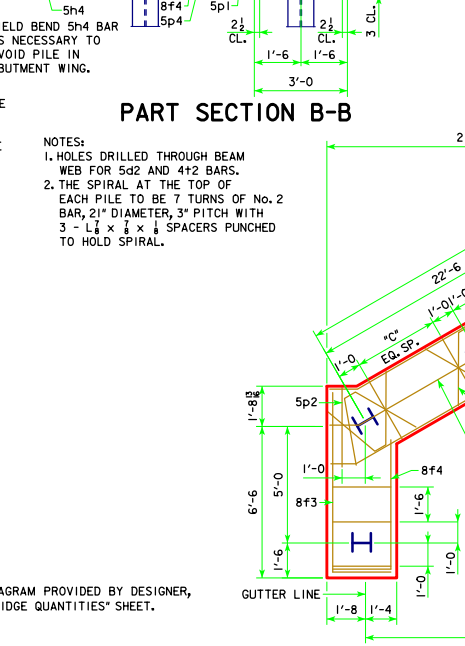
PART REAR ELEVATION AT ABUTMENT
(WINGS NOT SHOWN)



PART SECTION B-B



PART SECTION A-A



ABUTMENT PILE PLAN

ABUTMENT PILE SPACING	
DIMENSION OR NO.	℄ TO ℄ ABUTMENT BEARING
"A"	340'-0"
"B" (F.T-IN)	10
"C" EQUAL SPACES	4'-6"
NO. OF PILES PER ABUT.	3
PU, STRENGTH I DESIGN LOAD (KIPS)	13
	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.

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 5#2 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.

FIELD BEND 5#4 BAR AS NECESSARY TO AVOID PILE IN ABUTMENT WING.

- NOTES:
- HOLES DRILLED THROUGH BEAM WEB FOR 5#2 AND 4#2 BARS.
 - THE SPIRAL AT THE TOP OF EACH PILE TO BE 7 TURNS OF No. 2 BAR, 2 1/2" DIAMETER, 3" PITCH WITH 3 - L 3/8 x 1/4 x 1/8 SPACERS PUNCHED TO HOLD SPIRAL.

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

05-13
LATEST REVISION DATE
Norman E. Mc Donald
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
30° SKEW

RS40-014-10