

REACTION, PILE NUMBER & BEARING									
BRIDGE LENGTH	70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
REACTION - KIPS	386	410	432	460	487	519	550	Δ 627	Δ 664
BEARING - TONS	28	30	31	33	35	33	35	35	37
PILING - NUMBER	7	7	7	7	7	8	8	9	9
STRENGTH 1 REACTION - KIPS	509	544	577	618	658	705	749	Δ 875	Δ 927

Δ INCLUDES IMPACT

SPIRAL AT TOP OF EACH PILE. 7 TURNS OF #2 BAR, 21" DIA., 3" PITCH, WITH 3 - L<sub>4</sub> × 7/8 × 3/8 SPACERS PUNCHED TO HOLD SPIRAL

SECTION NORMAL TO ABUTMENT AT CL

SPIRAL AT TOP OF EACH PILE. 7 TURNS OF #2 BAR, 21" DIA., 3" PITCH, WITH 3 - L<sub>4</sub> × 7/8 × 3/8 SPACERS PUNCHED TO HOLD SPIRAL

SECTION NORMAL TO ABUTMENT AT GUTTERLINE

ABUTMENT NOTES:

ALL PILING ARE HP 10 X 42.

THE CONCRETE AND REINFORCING STEEL FOR THE WINGS IS INCLUDED WITH THE SUPERSTRUCTURE.

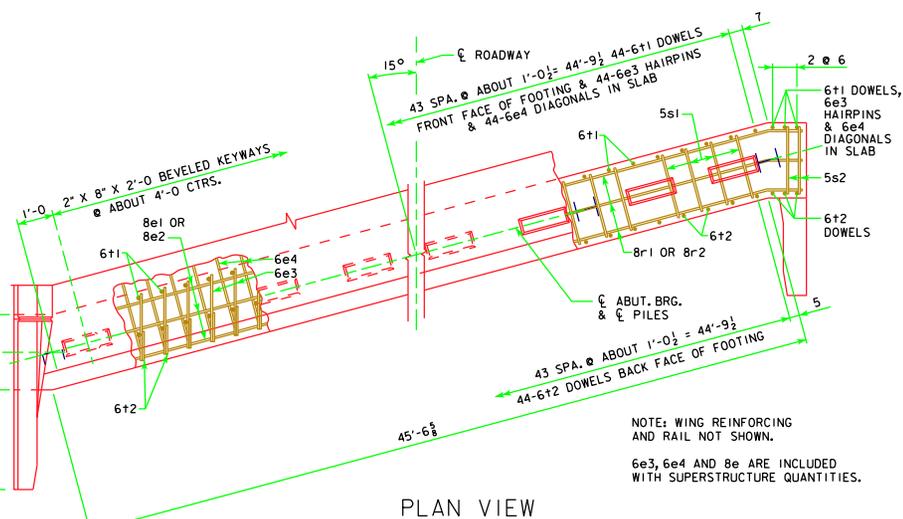
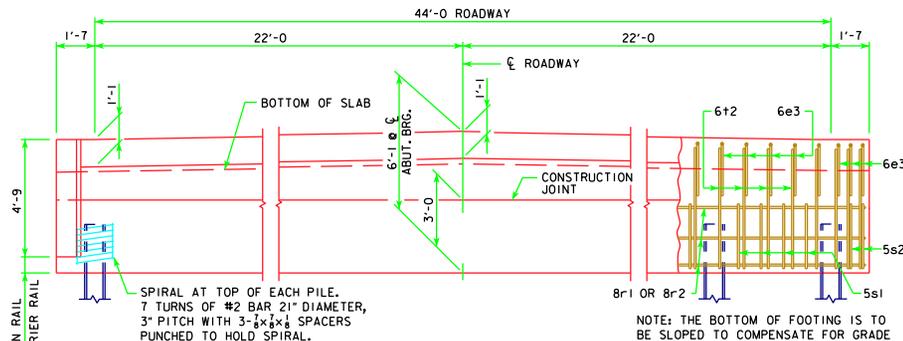
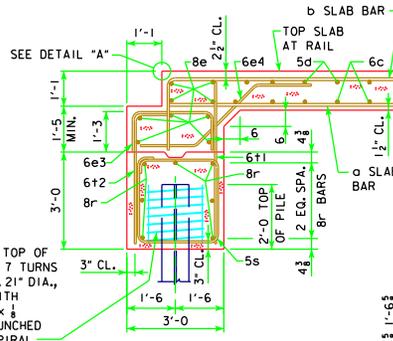
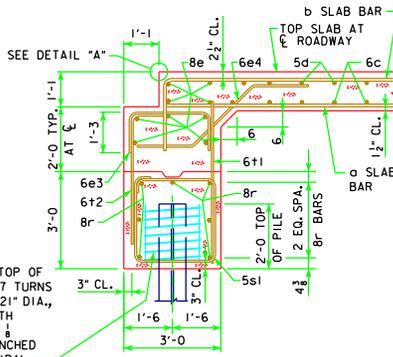
DETAILS ON THIS SHEET ARE TO BE USED ONLY WHEN ABUTMENTS ARE PLACED ON STEEL PILES. IF ROCK IS ENCOUNTERED CLOSER THAN 12' BELOW ABUTMENT FOOTING, SPECIAL ANALYSIS MAY BE REQUIRED.

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

STEEL PILING USED AS FRICTION PILE SHALL BE DRIVEN TO FULL PENETRATION IF PRACTICABLE BUT IN NO CASE TO A BEARING VALUE LESS THAN THE PILE BEARING REQUIRED FOR EACH BRIDGE LENGTH AS SHOWN ON THIS SHEET.

ALL REINFORCING STEEL IS TO BE GRADE 60.

ABUTMENT PILING WAS DESIGNED FOR HL-93 LOADING WITH AN ALLOWANCE FOR 20 LBS. PER SQ. FT. FUTURE WEARING SURFACE.



11-08 LATEST REVISION DATE Approved by APPROVED BY BRIDGE ENGINEER	Iowa Department of Transportation Highway Division STANDARD DESIGN - 44' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006
	ABUTMENT DETAILS 15° SKEW - STEEL PILING J44-40-06