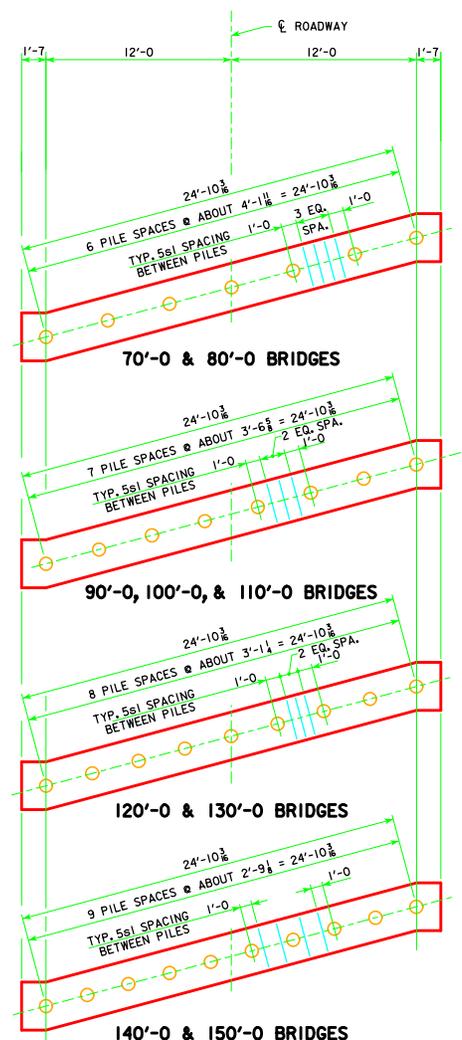
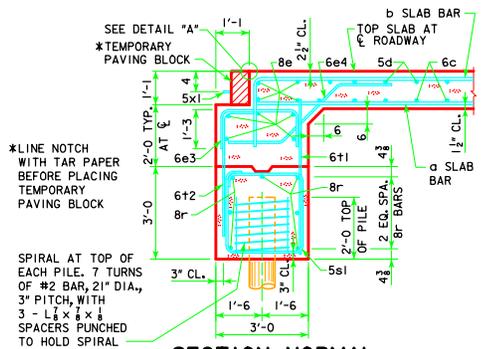


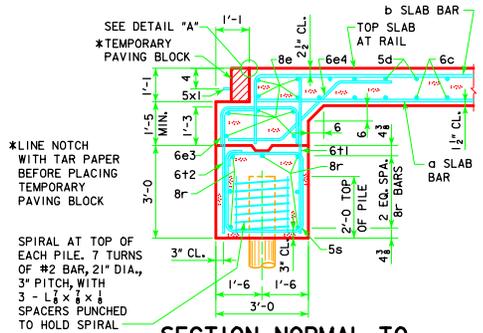
REVISED 06-13 - REVISION FOR LRFD PILE DESIGN.



PILE PLAN - 15° SKEW WOOD PILING



SECTION NORMAL TO ABUTMENT AT ROADWAY

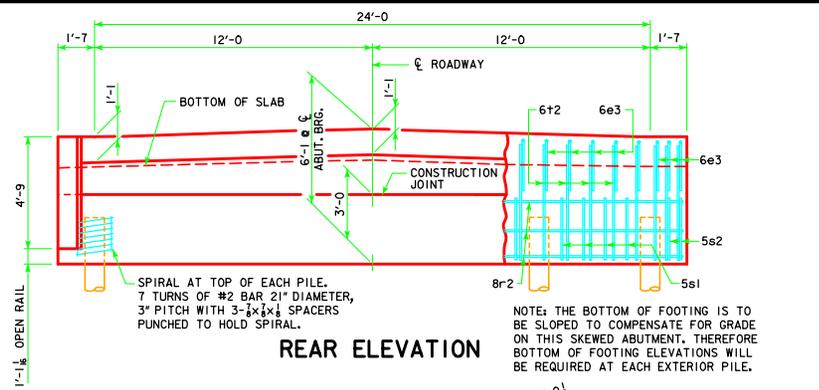


SECTION NORMAL TO ABUTMENT AT GUTTERLINE

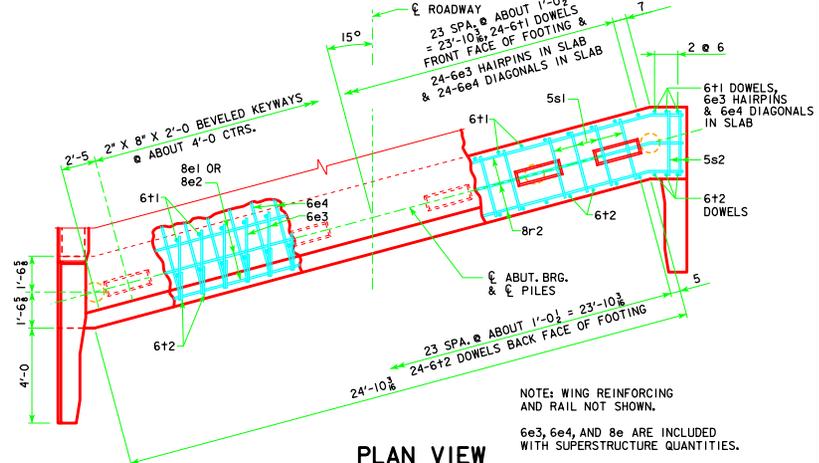


**ABUTMENT NOTES:**

- 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 TIMBER PILES.
- THE MINIMUM CLEAR DISTANCE FROM THE FACE OF THE CONCRETE TO NEAR REINFORCING BAR IS TO BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.
- TIMBER PILES SHALL BE DRIVEN TO FULL PENETRATION IF PRACTICABLE BUT IN NO CASE TO A BEARING VALUE LESS THAN SHOWN IN DESIGN PLANS. TIMBER PILES SHALL NOT BE DRIVEN TO MORE THAN 160 TONS.
- 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.



REAR ELEVATION



PLAN VIEW

NUMBER OF PILES AND ABUTMENT DESIGN LOADS									
BRIDGE LENGTH	70'-0	80'-0	90'-0	100'-0	110'-0	120'-0	130'-0	140'-0	150'-0
PILING - NUMBER	7	7	8	8	8	9	9	10	10
PI, STRENGTH I DESIGN LOAD - KIPS	348	369	390	417	442	471	499	Δ 590	Δ 622

Δ INCLUDES DYNAMIC LOAD ALLOWANCE  
 NOTE: PI, STRENGTH I DESIGN LOAD (KIPS) IS NOT THE VALUE USED IN THE FIELD FOR DRIVING PILES.

Iowa Department of Transportation  
Highway Division

STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES  
**CONTINUOUS CONCRETE  
 SLAB BRIDGES**  
 NOVEMBER, 2006

LATEST REVISION DATE 06-13 APPROVED BY BRIDGE ENGINEER 	<b>ABUTMENT DETAILS          15° SKEW - TIMBER PILING</b>	<b>J24-28-06</b>
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