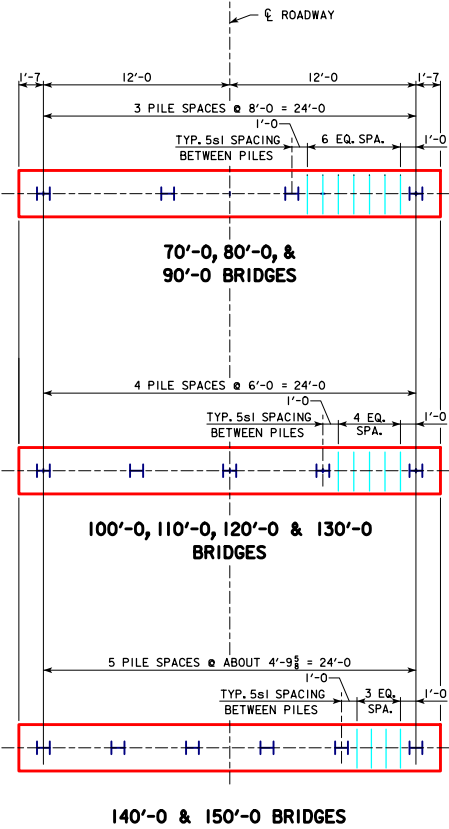
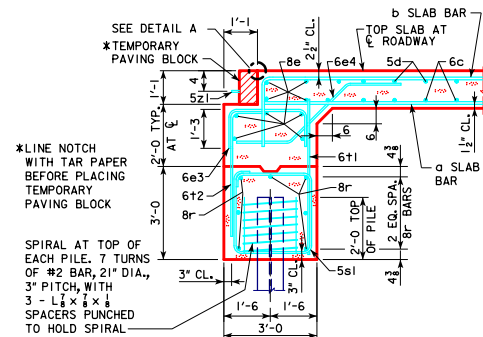


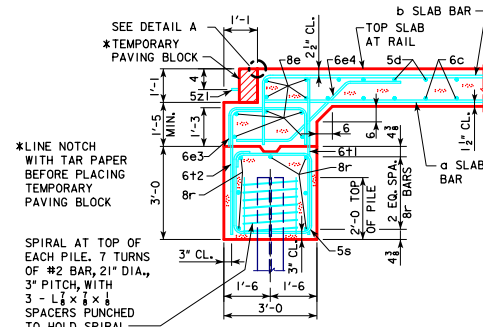
REVISED 06-13 - REVISION FOR LRPD, PILE DESIGN, CHANGED PAVING BLOCK LIFTING HOOP BAR MARK, WAS 5x11.
REVISED 08-2022: UPDATED BRIDGE ENGINEER SIGNATURE.



PILE PLAN - 0° SKEW STEEL PILING



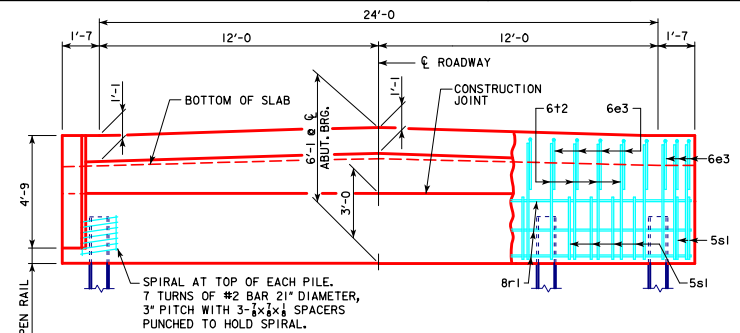
SECTION NORMAL TO ABUTMENT AT CL



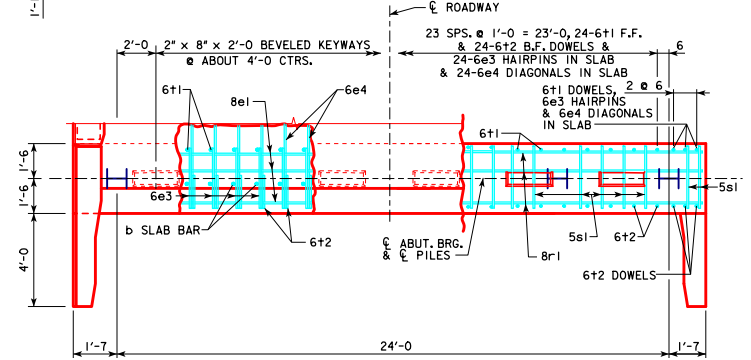
SECTION NORMAL TO ABUTMENT AT GUTTERLINE

ABUTMENT NOTES:

- ALL PILING HP 10x42.
- 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 ABUTMENT PILES SHALL BE DRIVEN TO FULL PENETRATION IF PRACTICABLE BUT IN NO CASE TO A BEARING VALUE LESS THAN SHOWN IN DESIGN PLANS.
- 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

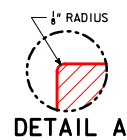


PLAN VIEW

NOTE: WING REINFORCING AND RAIL NOT SHOWN.
6e3, 6e4, AND 8e ARE INCLUDED WITH SUPERSTRUCTURE QUANTITIES.

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	4	4	4	5	5	5	5	6	6
PU, STRENGTH I DESIGN LOAD - KIPS	345	366	387	414	439	458	496	Δ 587	Δ 619

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



08-2022
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER

IOWA DOT
STANDARD DESIGN - 24'-0 ROADWAY, 3 SPAN BRIDGES
CONTINUOUS CONCRETE SLAB BRIDGES
NOVEMBER, 2006

ABUTMENT DETAILS
0° SKEW - STEEL PILING

J24-34-06