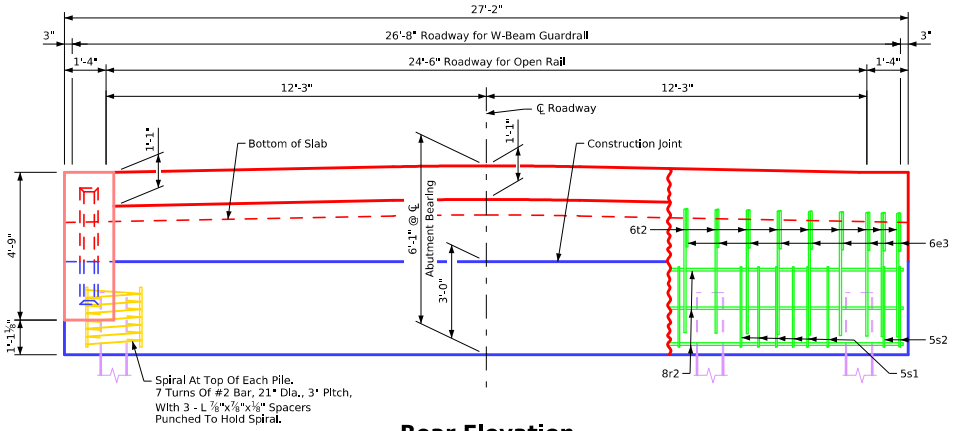
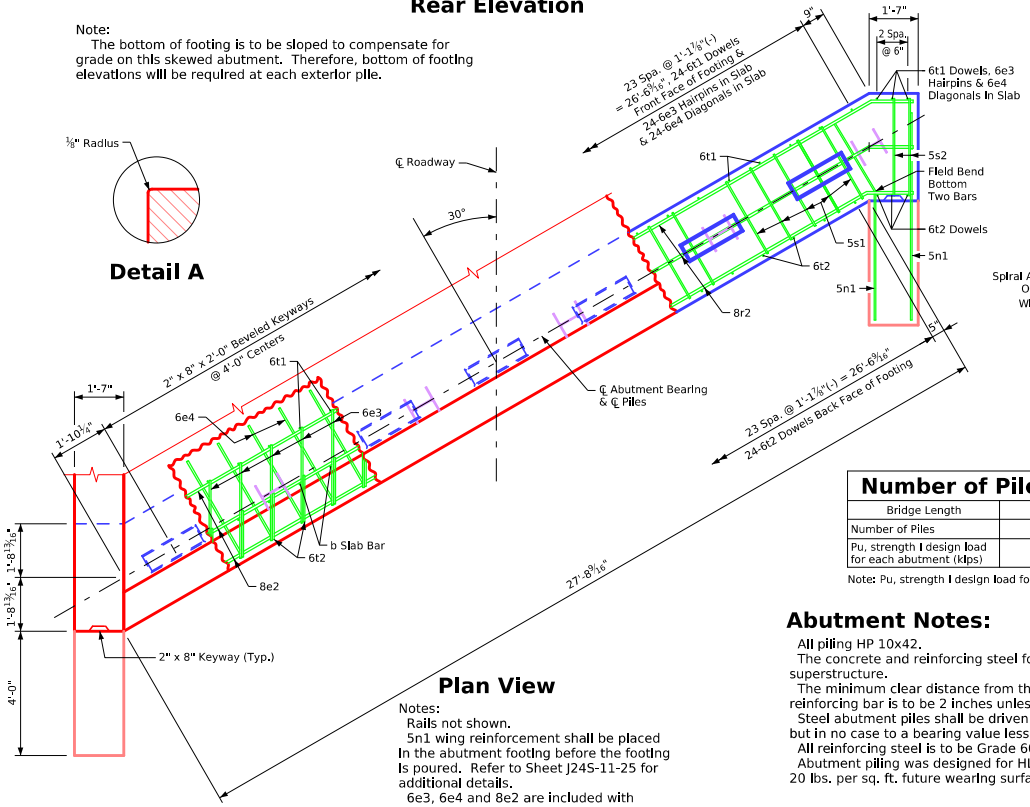


Rear Elevation

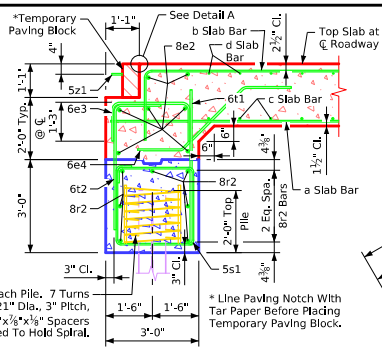
Note:
The bottom of footing is to be sloped to compensate for grade on this skewed abutment. Therefore, bottom of footing elevations will be required at each exterior pile.

Detail A

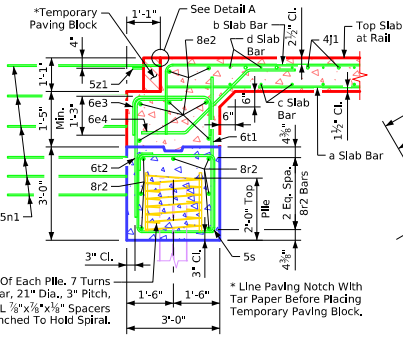


Plan View

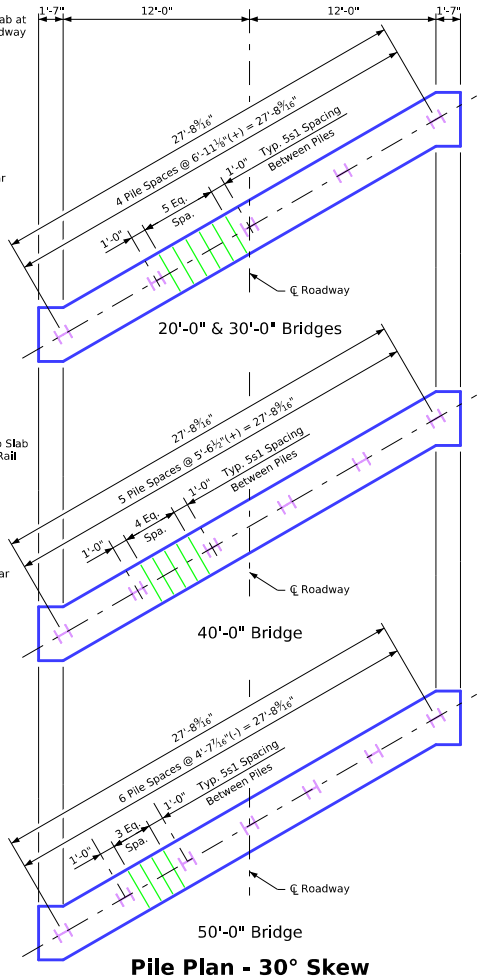
Notes:
Rails not shown.
5n1 wing reinforcement shall be placed in the abutment footing before the footing is poured. Refer to Sheet J24S-11-25 for additional details.
6e3, 6e4 and 8e2 are included with superstructure quantities.



Section Normal to Abutment at ℄



Section Normal to Abutment at Gutterline



Pile Plan - 30° Skew Steel Piling

Number of Piles and Abutment Design Loads

Bridge Length	20'-0"	30'-0"	40'-0"	50'-0"
Number of Piles	5	5	6	7
Pu, strength I design load for each abutment (kips)	443	526	616	728

Note: Pu, strength I design load for each abutment (kips) is not the value used in the field for driving piles.

Abutment Notes:

All piling HP 10x42.
The concrete and reinforcing steel for the wings is included with the superstructure.
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 specified in the 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.

Latest Revision Date

Approved by Bridge Engineer

IOWA DOT

Standard Design - 24'-0" Roadway, Single Span Bridge

Single Span Concrete Slab Bridges

July, 2025

Integral Abutment Details
30° Skew

J24S-16-25