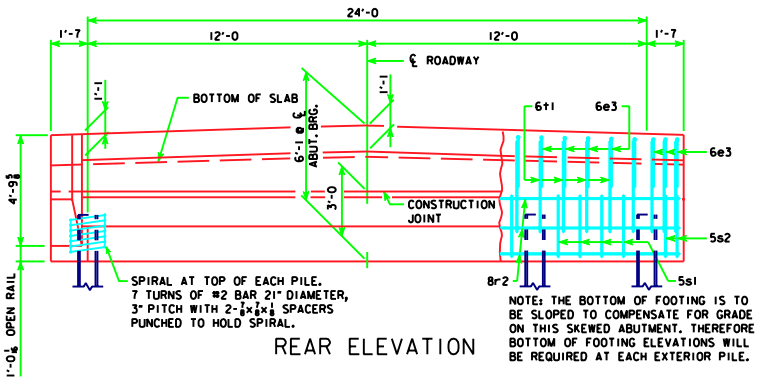
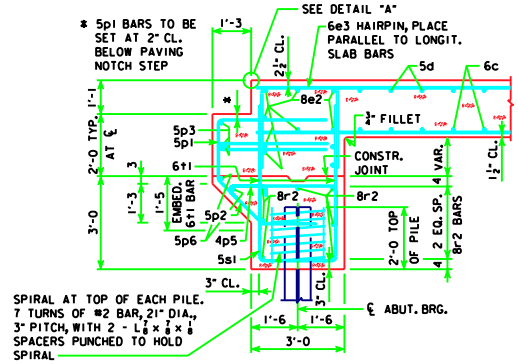
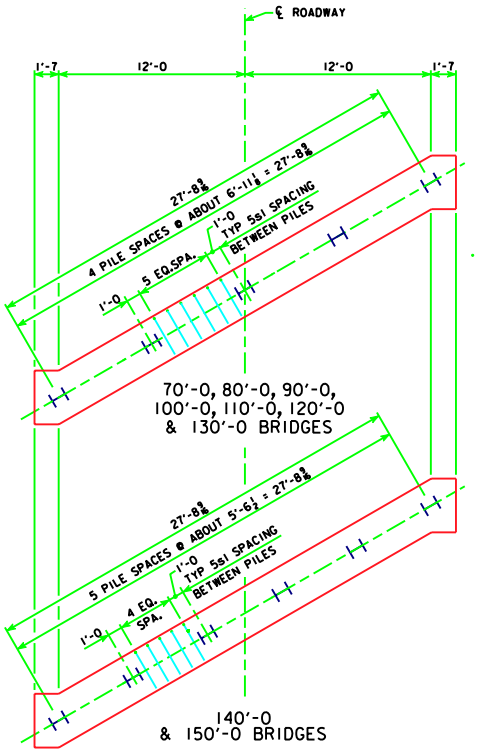


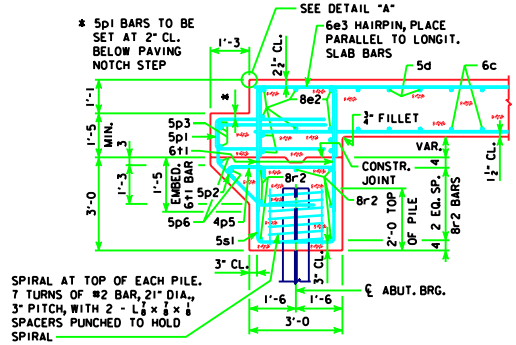

REAR ELEVATION



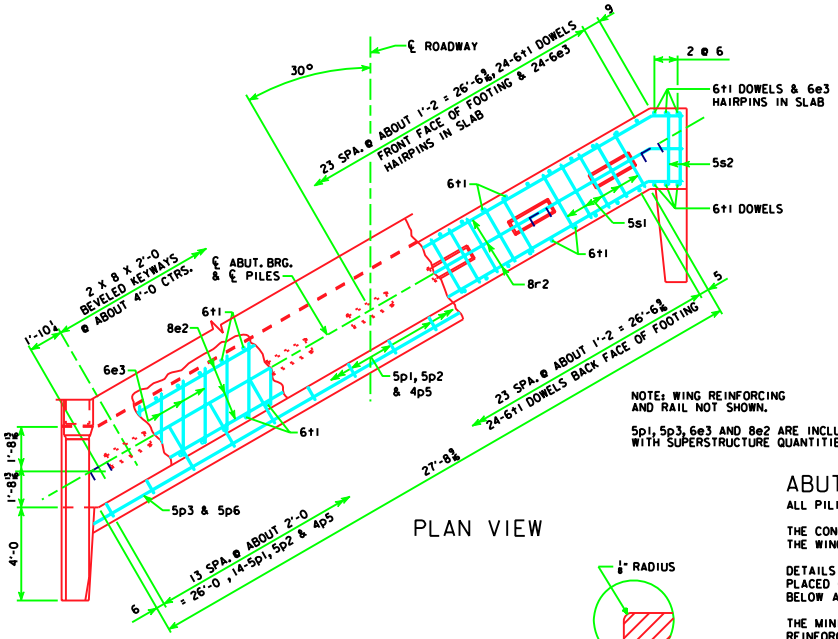

SECTION NORMAL TO ABUTMENT AT ℄




PILE PLAN - 30° SKEW
STEEL PILING



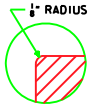

SECTION NORMAL TO
ABUTMENT AT RAIL




NOTE: WING REINFORCING AND RAIL NOT SHOWN.

5p1, 5p3, 6e3 AND 8e2 ARE INCLUDED WITH SUPERSTRUCTURE QUANTITIES.

PLAN VIEW




DETAIL "A"

## 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 | 249 | 268 | 285 | 301 | 318 | 336 | 354 | Δ 412 | Δ 433 |
| BEARING - TONS | 25 | 27 | 29 | 31 | 32 | 34 | 36 | 35 | 37 |
| PILING - NUMBER | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 |

Δ INCLUDES IMPACT

## ABUTMENT NOTES:

ALL PILING HP10X42.

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 HS25 LOADING WITH AN ALLOWANCE FOR 20 LBS. PER SQ. FT. FUTURE WEARING SURFACE.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, 3 SPAN BRIDGES

CONTINUOUS CONCRETE SLAB BRIDGES

NOVEMBER, 2006

ABUTMENT DETAILS
30° SKEW - STEEL PILING

J24-36-06