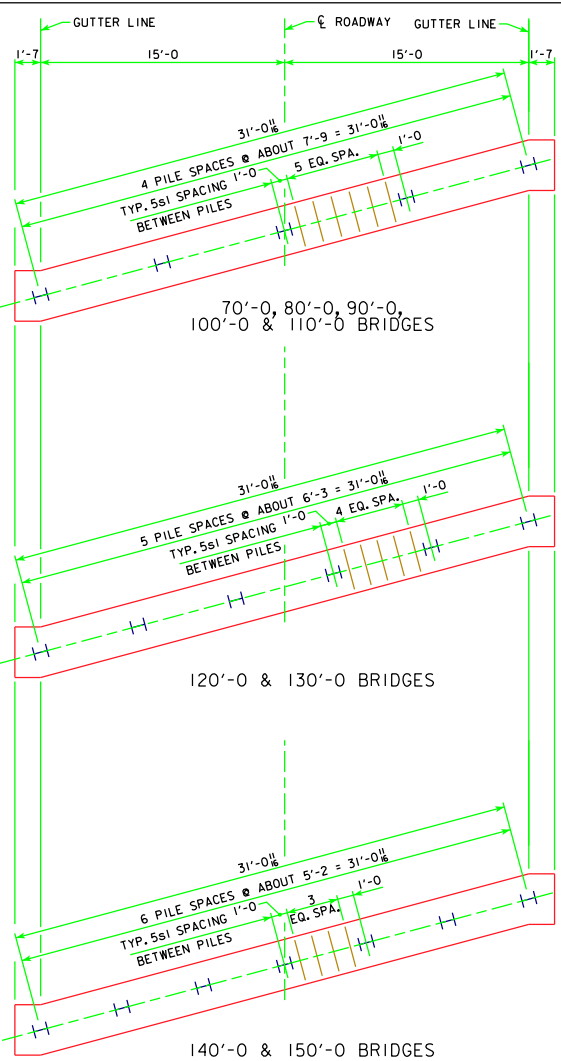


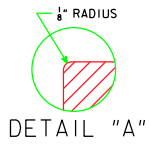
REVISED 12-08 - REVISED SHEET FOR NEW PAVING NOTCH, DESIGN FOR HL-93 LOADING.



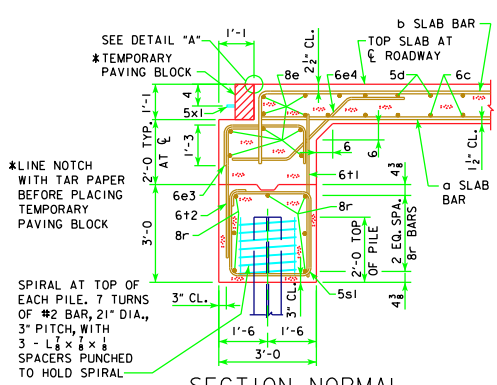
PILE PLAN - 15° SKEW
STEEL PILING

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	285	303	319	339	358	381	403	Δ 462	Δ 488
BEARING - TONS	29	31	32	34	36	32	34	33	35
PILING - NUMBER	5	5	5	5	5	6	6	7	7
STRENGTH I REACTION - KIPS	381	406	429	460	489	522	555	Δ 650	Δ 688

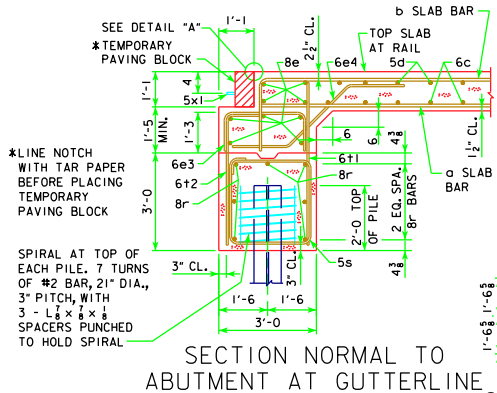
Δ INCLUDES IMPACT



DETAIL "A"



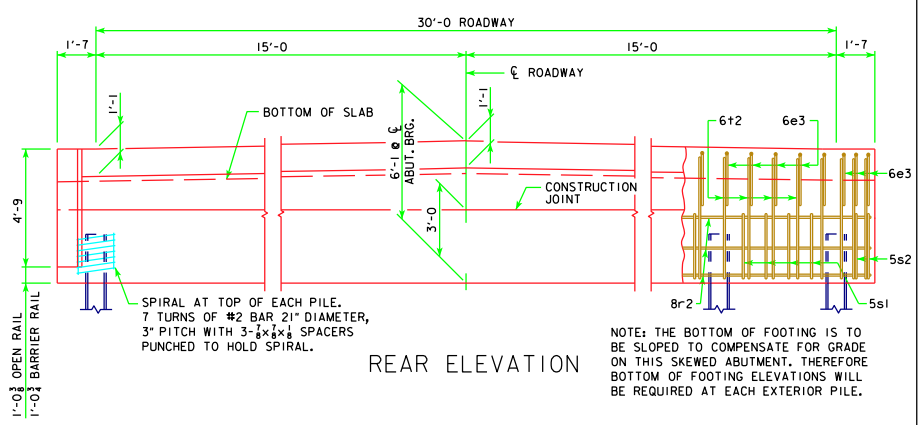
SECTION NORMAL TO ABUTMENT AT ROADWAY



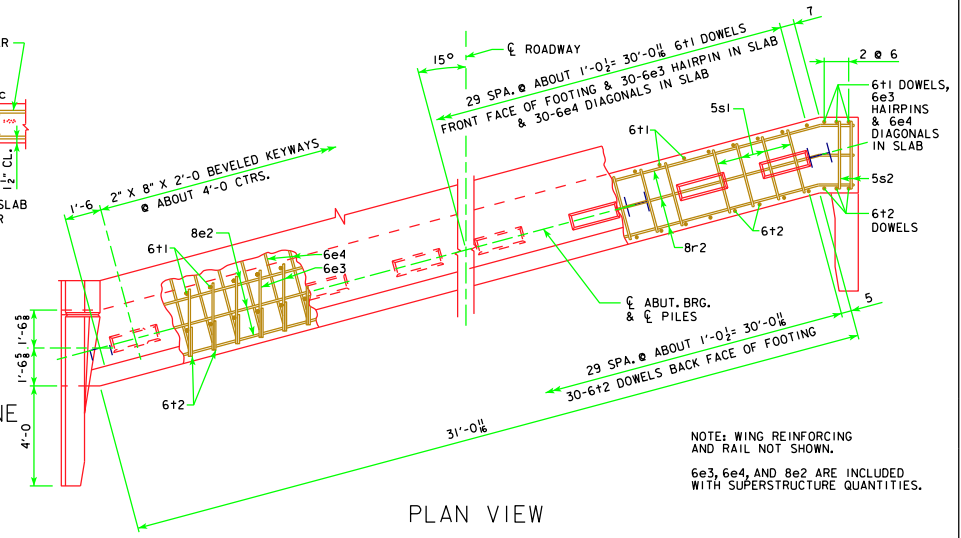
SECTION NORMAL TO ABUTMENT AT GUTTERLINE

ABUTMENT NOTES:

- ALL PILING 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 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.



REAR ELEVATION



PLAN VIEW

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.

NOTE: WING REINFORCING AND RAIL NOT SHOWN.
6e3, 6e4, AND 8e2 ARE INCLUDED WITH SUPERSTRUCTURE QUANTITIES.

LATEST REVISION DATE 12-08 APPROVED BY BRIDGE ENGINEER <i>Thomas C. McQuinn</i>		
	STANDARD DESIGN - 30' ROADWAY, 3 SPAN BRIDGES CONTINUOUS CONCRETE SLAB BRIDGES NOVEMBER, 2006	
	ABUTMENT DETAILS 15° SKEW - STEEL PILING	J30-35-06