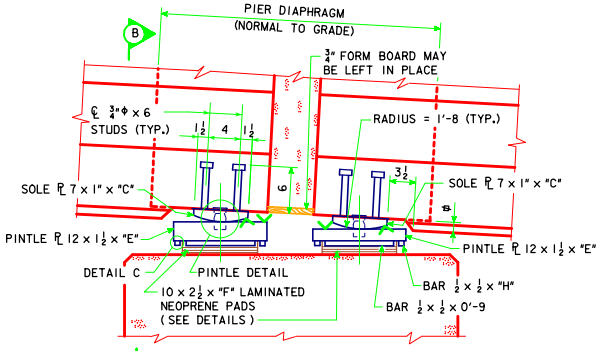
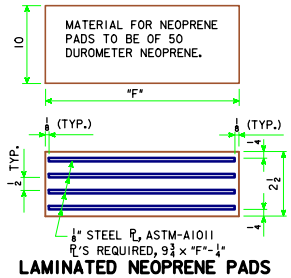
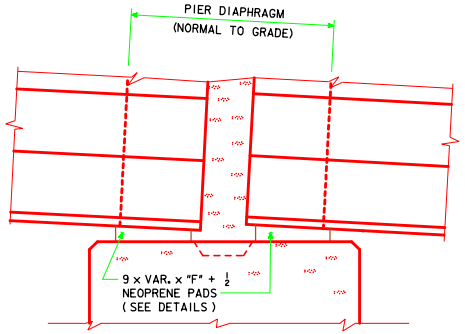


PART ELEVATION

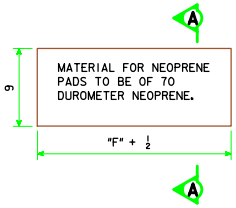
Φ NOTCH BEAM END TO SOLE PL THICKNESS MAXIMUM 1"



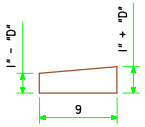
LAMINATED NEOPRENE PADS



PART ELEVATION

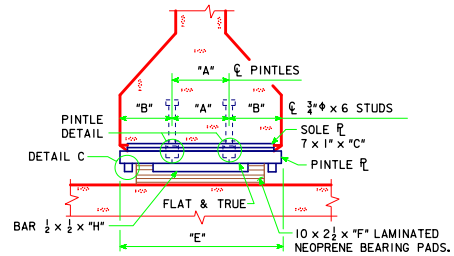


PLAN OF NEOPRENE PAD



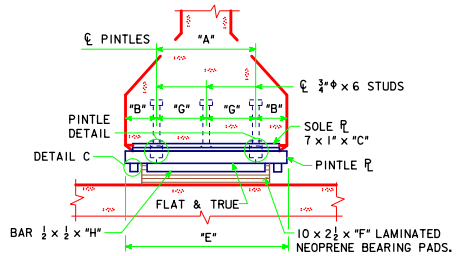
SECTION A-A

SLOPE	"D"
SLOPE ≤ 1.4%	0"
1.4% < SLOPE ≤ 4.2%	1/8"
4.2% < SLOPE ≤ 5.0%	1/4"



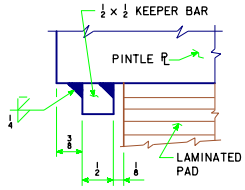
SECTION B-B FOR A & B BEAMS

(DIAPHRAGM CONCRETE NOT SHOWN)

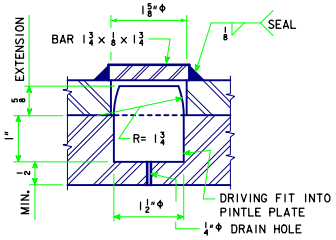


SECTION B-B FOR C BEAMS

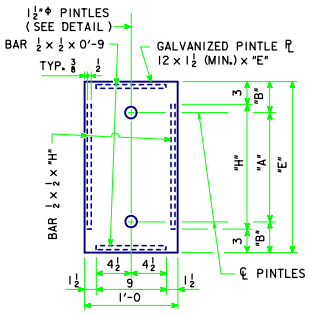
(DIAPHRAGM CONCRETE NOT SHOWN)



DETAIL C



PINTLE DETAIL



PLAN OF PINTLE PLATE

EXPANSION PIER BEARING NOTES:

SURFACES MARKED "V" SHALL BE FINISHED ANSI 250.

PINTLE PLATES ARE A PART OF THE SUPERSTRUCTURE "STRUCTURAL STEEL QUANTITY".

COSTS OF ANCHORED CURVED SOLE PLATES AND NEOPRENE PADS ARE TO BE INCLUDED IN THE PRICE BID FOR "PRETENSIONED PRESTRESSED CONCRETE BEAMS".

THE SOLE PLATES AND PINTLE PLATES SHALL BE GALVANIZED. ALL WELDING SHALL BE COMPLETED PRIOR TO GALVANIZING. THE SURFACE OF THE PINTLE PLATE IN CONTACT WITH THE LAMINATED NEOPRENE PADS SHALL BE FREE OF PROJECTIONS DUE TO THE GALVANIZING.

SOLE PLATES ARE TO BE SET IN FORMS WHEN BEAMS ARE CAST AND THE BOTTOM OF BEAMS FORMED OUT AS SHOWN TO EXCLUDE CONCRETE.

SOLE PLATES SHALL COMPLY WITH ONE OF THE FOLLOWING :

ASTM A 514 GRADE B

ASTM A 709 GRADE HPS 70W

EXPANSION PIER

$$SLOPE_{SPAN\ 1} = 100\% \frac{\text{P/G ELEV. @ NEAR ABUT. - P/G ELEV. @ PIER 1}}{\text{SPAN 1 LENGTH}}$$

$$SLOPE_{SPAN\ 2} = 100\% \frac{\text{P/G ELEV. @ PIER 1 - P/G ELEV. @ PIER 2}}{\text{SPAN 2 LENGTH}}$$

$$SLOPE_{SPAN\ 3} = 100\% \frac{\text{P/G ELEV. @ PIER 2 - P/G ELEV. @ FAR ABUT.}}{\text{SPAN 3 LENGTH}}$$

SLOPE CALCULATION FORMULA

FIXED PIER BEARING NOTES:

IF CALCULATED SLOPE FOR A GIVEN SPAN EXCEEDS 1.4%, THE NEOPRENE BEARING PADS AT THE FIXED PIER FOR THAT SPAN SHALL BE TAPERED. REFER TO TABLE FOR DIMENSIONS OF TAPERED PADS.

COST OF NEOPRENE PADS SHALL BE INCLUDED IN THE PRICE BID FOR "PRETENSIONED PRESTRESSED CONCRETE BEAMS".

FIXED PIER

VARIABLE DIMENSIONS

	BEAM BOTTOM FLANGE WIDTH	
	A & B BEAMS 1'-5	C BEAMS 1'-8
"A"	0'-6	1'-0
"B"	0'-5 1/2	0'-4
"C"	1'-3 1/2	1'-6 1/2
"E"	1'-5	1'-8
"F"	1'-3	1'-6
"G"	———	0'-6
"H"	0'-11	1'-2

09-12
LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

DECEMBER, 2006

PIER BEARING DETAILS | H24-41-06

CORRECTION 09-12 - REFERENCE TO ASTM A852 WAS DELETED.