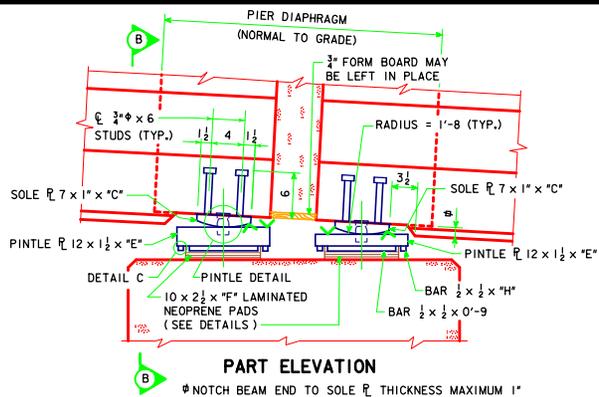
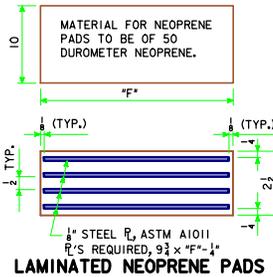


CORRECTION 09-12 - REFERENCE TO ASTM A852 WAS DELETED.

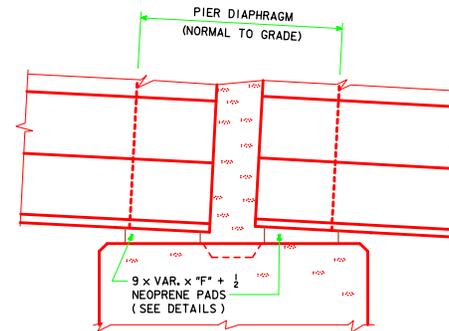


**PART ELEVATION**

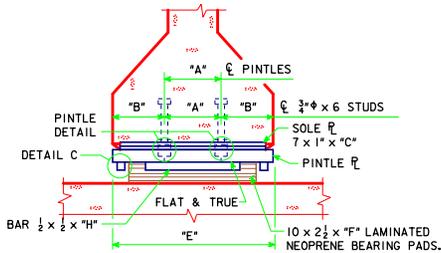
Ø NOTCH BEAM END TO SOLE PLATE THICKNESS MAXIMUM 1"



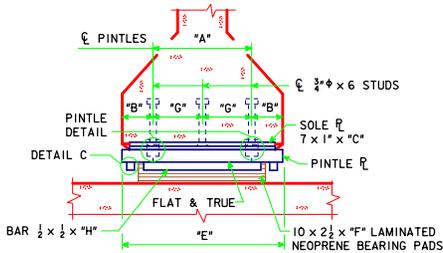
**LAMINATED NEOPRENE PADS**



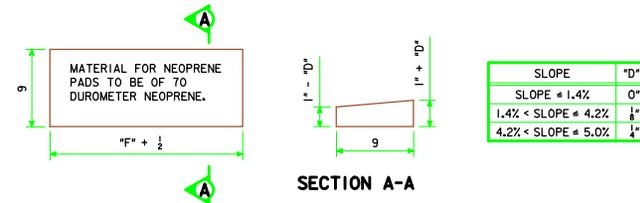
**PART ELEVATION**



**SECTION B-B FOR A & B BEAMS**  
(DIAPHRAGM CONCRETE NOT SHOWN)



**SECTION B-B FOR C BEAMS**  
(DIAPHRAGM CONCRETE NOT SHOWN)



**PLAN OF NEOPRENE PAD**

**SECTION A-A**

SLOPE	"D"
SLOPE = 1.4%	0"
1.4% < SLOPE = 4.2%	1/4"
4.2% < SLOPE = 5.0%	1/2"

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

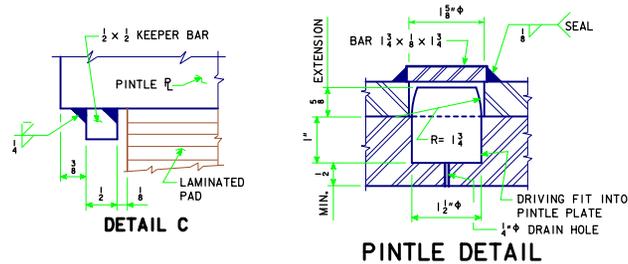
$$\text{SLOPE}_{\text{SPAN 2}} = 100\% \frac{\text{P/G ELEV. @ PIER 1} - \text{P/G ELEV. @ PIER 2}}{\text{SPAN 2 LENGTH}}$$

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

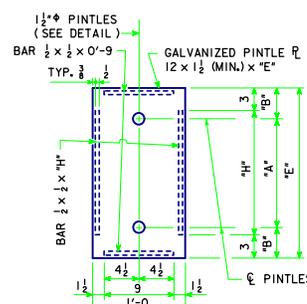
**SLOPE CALCULATION FORMULA**

**FIXED PIER**

**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".



**PINTLE DETAIL**



**PLAN OF PINTLE PLATE**

**EXPANSION PIER BEARING NOTES:**

SURFACES MARKED "M" 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**

**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"

LATEST REVISION DATE  
09-12  
APPROVED BY BRIDGE ENGINEER  
Norman E. M. Donnell

Iowa Department of Transportation  
Highway Division  
STANDARD DESIGN - 30' ROADWAY, THREE SPAN BRIDGES  
**PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES**  
DECEMBER, 2006

**PIER BEARING DETAILS**      **H30-44-06**