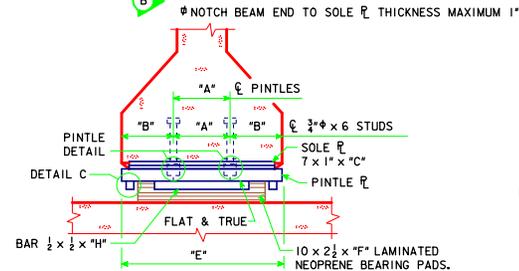
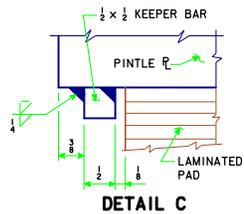


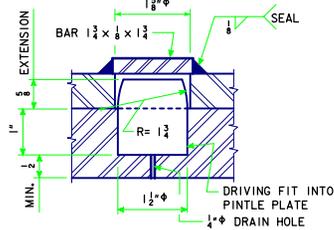
**PART ELEVATION**



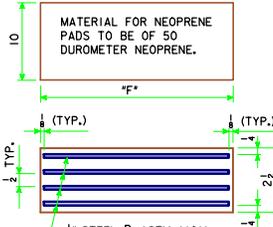
**SECTION B-B FOR A & B BEAMS**  
(DIAPHRAGM CONCRETE NOT SHOWN)



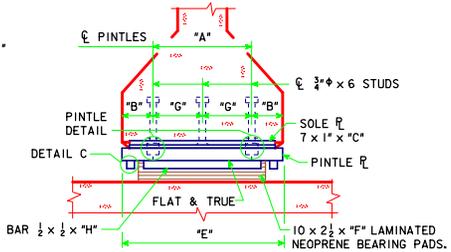
**DETAIL C**



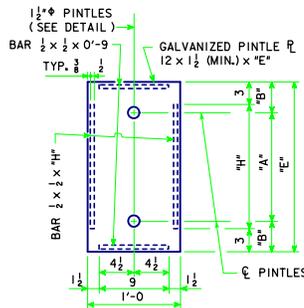
**PINTLE DETAIL**



**LAMINATED NEOPRENE PADS**



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



**PLAN OF PINTLE PLATE**

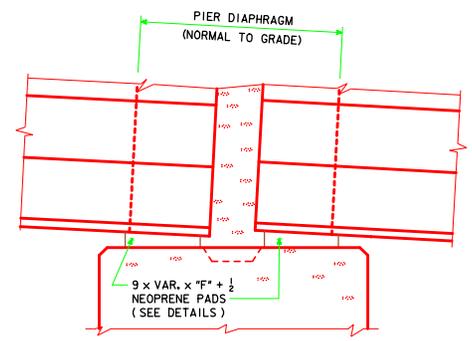
STRUCTURAL STEEL			
DATA FOR ONE BEARING			
BEAM SIZE	A	B	C
WEIGHT (LBS.)	89	89	106

DOES NOT INCLUDE CURVED SOLE PLATE

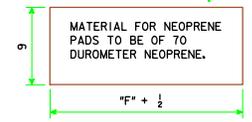
NOTE: STRUCTURAL STEEL WEIGHT IS INCLUDED ON THE SUMMARY QUANTITIES SHEET.

**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

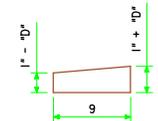
**EXPANSION PIER  
 LAMINATED NEOPRENE PAD / CURVED SOLE PLATE ASSEMBLY**



**PART ELEVATION**



**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"

**SLOPE CALCULATION FORMULA**

**FIXED PIER**

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

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

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

**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".

VARIABLE DIMENSIONS	BEAM BOTTOM FLANGE WIDTH	
	A & B BEAMS	C BEAMS
"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  
 APPROVED BY BRIDGE ENGINEER  
 [Signature]

**IOWADOT** Highway Division  
 STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE  
**PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES**  
 SEPTEMBER, 2014

**PIER BEARING DETAILS H40-44-14**