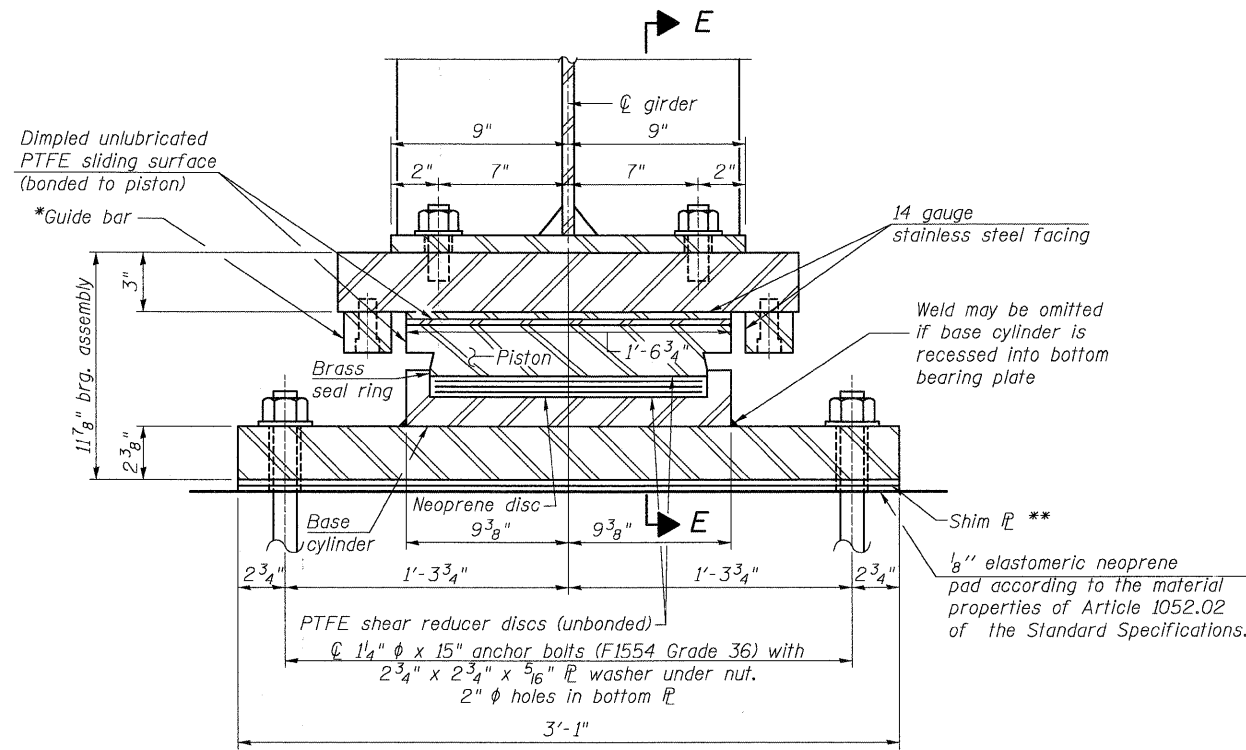
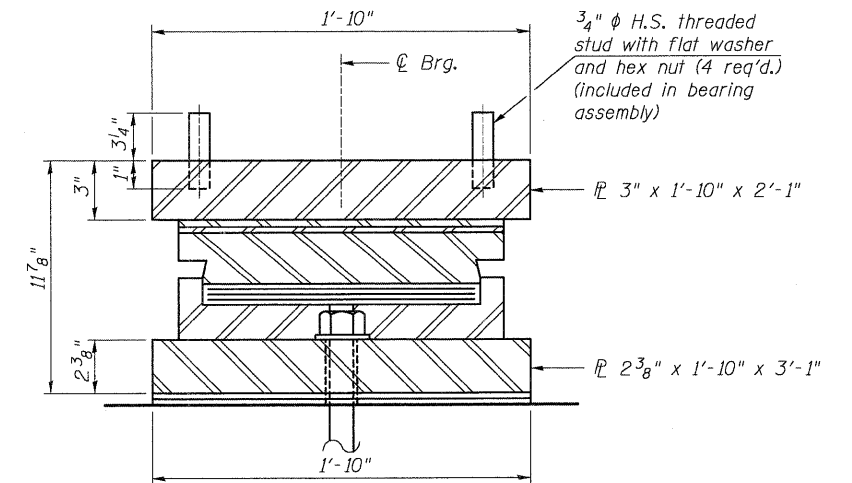


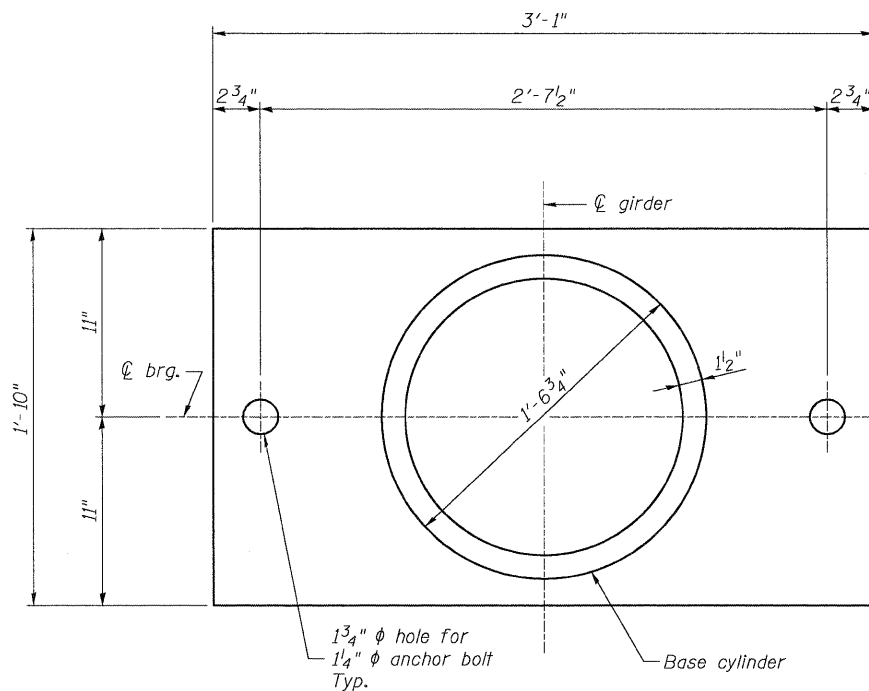
ELEVATION AT PIER 2



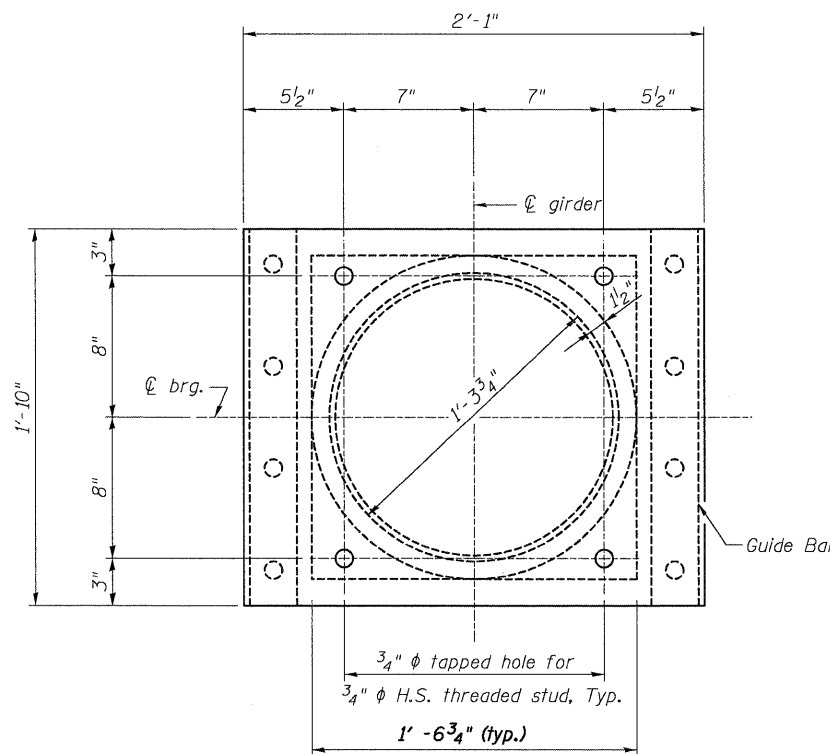
SECTION D-D



SECTION E-E  
(Guide Bar omitted for clarity)

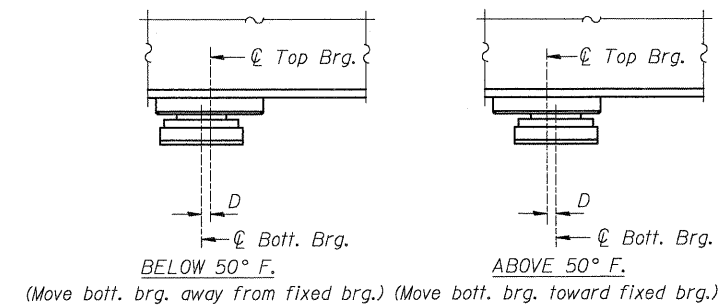


BOTTOM BEARING  $\varnothing$  AND BASE CYLINDER PLAN



TOP BEARING  $\varnothing$  AND PISTON PLAN

GUIDED EXPANSION POT BEARING



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

Notes:  
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270, Grade 50. Cost included with HLMR Guided Expansion Bearings 650k.

\*\* Contractor shall provide additional steel shim(s) as required beneath Girders 3 and 5 at WB Pier #2 to result in an elevation difference between top of Girder 2 (and 4) and the top of Girder 3 (and 5) of 7/8" (and 5/8"). (Girder 3 and 5 are higher).  
Total estimated shim height = 1 1/2" (Contractor to field verify).  
Shim plate(s) shall be the full dimension of the bottom bearing plate.  
Cost of shims is included with HLMR, Guided Expansion Bearings 650k.

The Bearing Assembly shall be capable of transmitting 20% of the vertical design load as a horizontal force in the direction normal to the guide bars.

\* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

HLMR BEARING SUMMARY TABLE

Type	Exp.
DL + LL	610
Total Required Movement	1 3/8"
Required Rotation	±0.02 Rad.

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotational Bearings, 650k	Each	17
Anchor Bolts, 1 1/4"	Each	34

BEARING DETAILS

STRUCTURE NO. 082-0162 (E.B.)  
STRUCTURE NO. 082-0163 (W.B.)

COOMBE-BLOXDORF P.C.  
Engineers / Land Surveyors  
Springfield, Illinois  
Design Firm License No. 184-002703

PROJECT NO. 07004  
SCALE  
DATE 5/12/09  
DESIGN BY  
DRAWN BY CFC  
CHECKED BY

SHEET NO. 37  
59 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
64	82-2VB	ST. CLAIR	153	92
CONTRACT NO. 76867				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

USER NAME = CFC