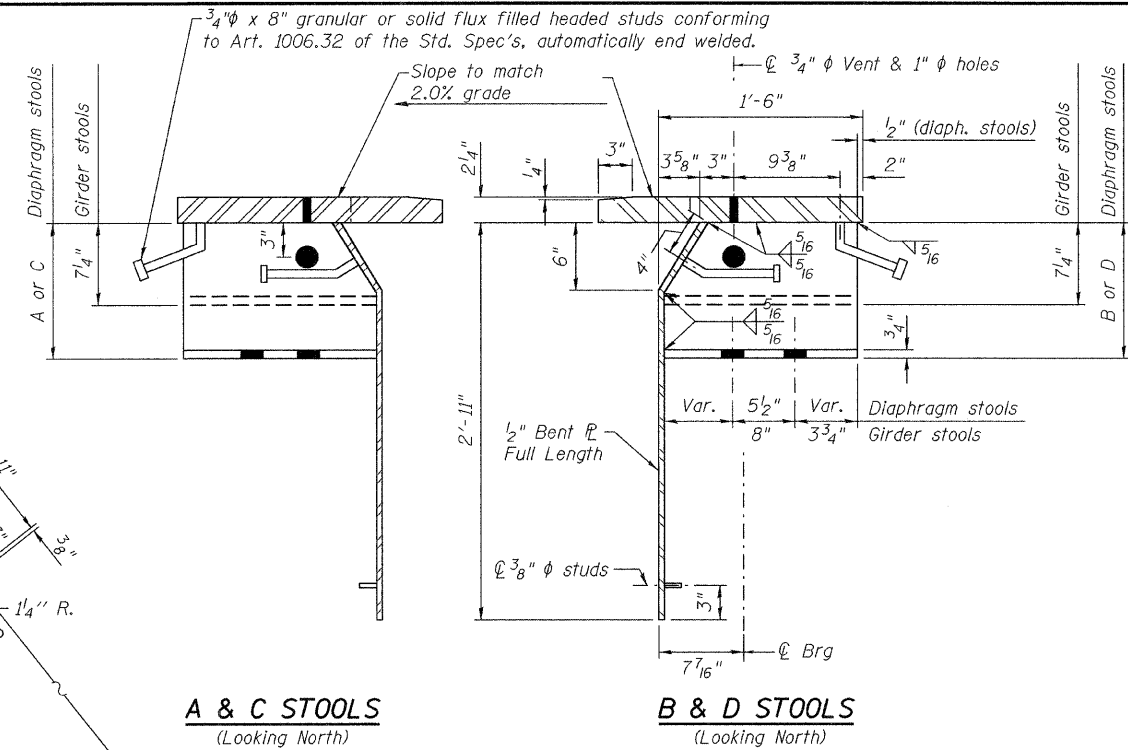
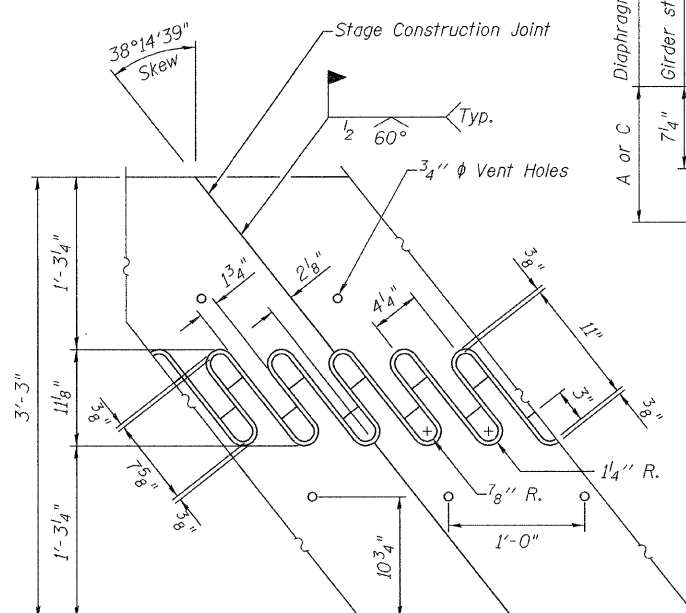
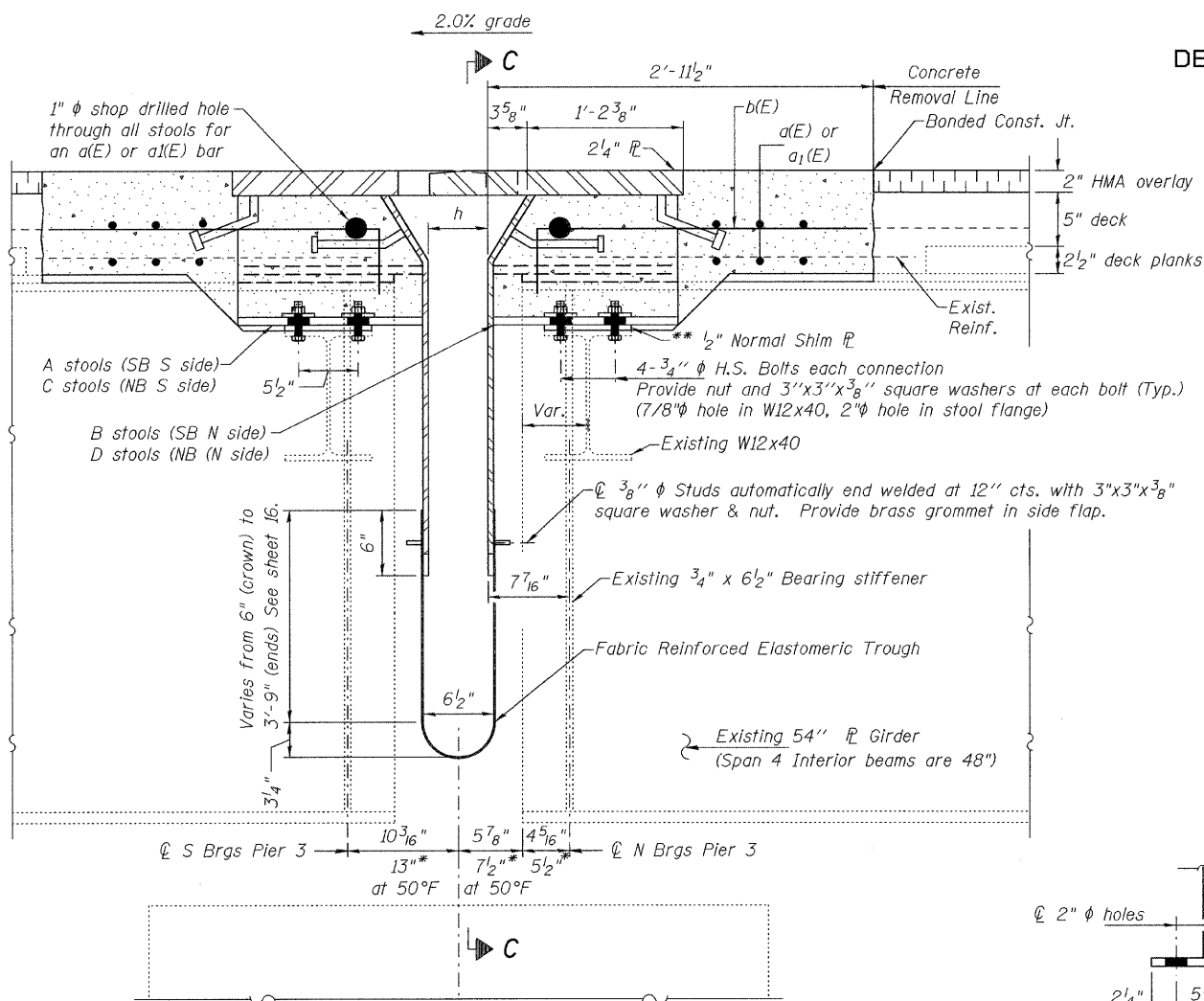


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

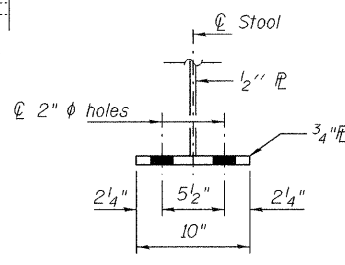


**SECTION B-B**  
(Looking North)

**FLAME CUTTING DIAGRAM**  
(Cut from 2 1/4" x 3'-3" M270 Gr. 50)

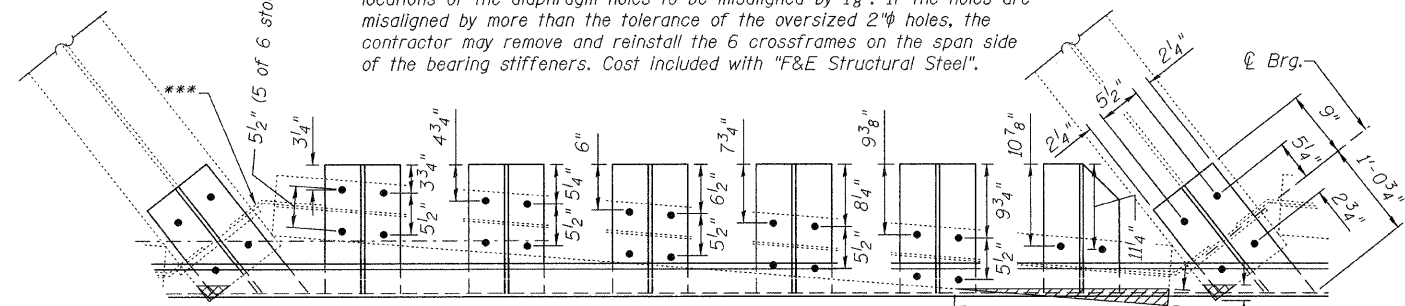
**A & C STOOLS**  
(Looking North)

**B & D STOOLS**  
(Looking North)



**STOOL SECTION**

\*\*\* The crossframes on the east side of NB Pier 3 were installed incorrectly (on the pier side of the bearing stiffeners). This will cause the theoretical locations of the diaphragm holes to be misaligned by 1/8". If the holes are misaligned by more than the tolerance of the oversized 2" holes, the contractor may remove and reinstall the 6 crossframes on the span side of the bearing stiffeners. Cost included with "F&E Structural Steel".



**PARTIAL PLAN OF STOOLS**

Notes: See sheet 10 of 20 for stool locations.

See sheet 16 of 20 for Section C-C.

Stool heights are measured at center of bearings.

All plates shall be AASHTO M270, Gr. 50.

Existing shear studs that interfere with the finger plate stool shall be removed using the air-arc method and grind smooth all weld material remaining on the top flange. Cost included with Finger Plate Expansion Joint, 6".

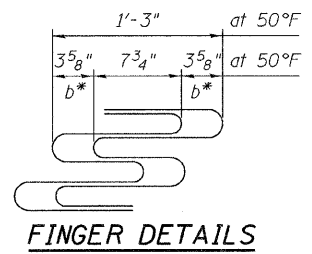
Finger Plate Expansion Joints shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection.

**DIMENSIONS A & B (SB PIER 3)**

Stool No.	Height	Stool No.	Height	Stool No.	Height	Stool No.	Height
A2	11 3/8"	A23	15 5/16"	B2	11 7/16"	B23	16"
A3	11 5/8"	A24	16 1/16"	B3	11 1/16"	B24	16 1/8"
A4	11 7/8"	A25	16 1/4"	B4	11 5/16"	B25	16 5/16"
A5	12 1/8"	A26	16 7/16"	B5	12 3/16"	B26	16 7/16"
A6	12 3/8"	A27	16 1/2"	B6	12 3/8"	B27	16 9/16"
A7	12 9/16"	A28	16 3/16"	B7	12 5/8"	B28	16 1/4"
A9	13 1/16"	A30	15 9/16"	B9	13 1/8"	B30	15 5/8"
A10	13 5/16"	A31	15 1/4"	B10	13 3/8"	B31	15 5/16"
A11	13 9/16"	A32	14 5/16"	B11	13 9/16"	B32	15"
A12	13 3/4"	A33	14 5/8"	B12	13 13/16"	B33	14 1/16"
A13	14"	A34	14 5/16"	B13	14 1/16"	B34	14 3/8"
A14	14 1/4"	A35	14 1/16"	B14	14 5/16"	B35	14 1/16"
A16	14 3/4"	A37	13 3/8"	B16	14 3/4"	B37	13 7/16"
A17	14 15/16"	A38	13"	B17	15"	B38	13 1/8"
A18	15 1/8"	A39	12 5/8"	B18	15 3/16"	B39	12 5/8"
A19	15 5/16"	A40	12 1/4"	B19	15 5/16"	B40	12 1/4"
A20	15 1/16"	A41	11 13/16"	B20	15 1/2"	B41	11 5/8"
A21	15 5/8"	A42	11 7/16"	B21	15 1/16"	B42	11 1/2"

**DIMENSIONS C & D (NB PIER 3)**

Stool No.	Height	Stool No.	Height	Stool No.	Height	Stool No.	Height
C2	11 3/8"	C23	16"	D2	11 7/16"	D23	16"
C3	11 5/8"	C24	16 1/8"	D3	11 1/16"	D24	16 3/16"
C4	11 7/8"	C25	16 5/16"	D4	11 5/16"	D25	16 5/16"
C5	12 1/8"	C26	16 7/16"	D5	12 3/16"	D26	16 7/16"
C6	12 3/8"	C27	16 9/16"	D6	12 3/8"	D27	16 9/16"
C7	12 5/8"	C28	16 1/4"	D7	12 5/8"	D28	16 1/4"
C9	13 1/16"	C30	15 5/8"	D9	13 1/8"	D30	15 5/8"
C10	13 5/16"	C31	15 1/4"	D10	13 3/8"	D31	15 5/16"
C11	13 9/16"	C32	15"	D11	13 5/8"	D32	15 1/16"
C12	13 3/4"	C33	14 5/8"	D12	13 13/16"	D33	14 3/4"
C13	14 1/16"	C34	14 1/16"	D13	14 1/16"	D34	14 1/16"
C14	14 1/4"	C35	14 1/16"	D14	14 5/16"	D35	14 1/8"
C16	14 3/4"	C37	13 7/16"	D16	14 13/16"	D37	13 1/2"
C17	15"	C38	13 1/16"	D17	15 1/16"	D38	13 1/8"
C18	15 3/16"	C39	12 4/16"	D18	15 3/16"	D39	12 1/16"
C19	15 5/16"	C40	12 5/16"	D19	15 3/8"	D40	12 5/16"
C20	15 1/2"	C41	11 15/16"	D20	15 1/2"	D41	11 15/16"
C21	15 5/8"	C42	11 1/2"	D21	15 1/16"	D42	11 9/16"



**FINGER DETAILS**

SB Pier 3 (324' Expansion Length)			NB Pier 3 (452' Expansion Length)		
Temp.	b	h	Temp.	b	h
-30°F	5 5/8"	7 1/8"	-30°F	6 1/2"	7 3/4"
50°F	3 5/8"	5 1/2"	50°F	3 5/8"	5 1/2"
130°F	1 5/8"	3 7/8"	130°F	3 1/4"	3 1/4"

\* Measured along center of girder.

\*\* Provide 1/2" normal shim, plus one 1/4" shim, plus one 1/8" shim, and one 1/16" shim for height adjustment. Tapered shims shall be added under the stools as required by the Engineer to make a smooth finger joint. Theoretical girder stool heights vary from 5 1/4" to 5 5/8". Fabricate all girder stools 5 1/4" tall and shim as needed. Cost shall be included with Finger Plate Expansion Joint, 6".

**PIER 3 FINGER PLATE DETAILS**  
SN 082-0247 & 0248

DESIGNED	J. Uehle
CHECKED	A. Hallway
DRAWN	J. Uehle
CHECKED	A. Hallway

NOVEMBER 5, 2009  
EXAMINED *Carl Kroy*  
PASSED *Ralph E. Anderson*  
ENGINEER OF STRUCTURAL SERVICES  
ENGINEER OF BRIDGES AND STRUCTURES

SHEET NO. 9 20 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	255	82-1HVB-I-1	ST. CLAIR	45	34
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 76926 IM-255( )		