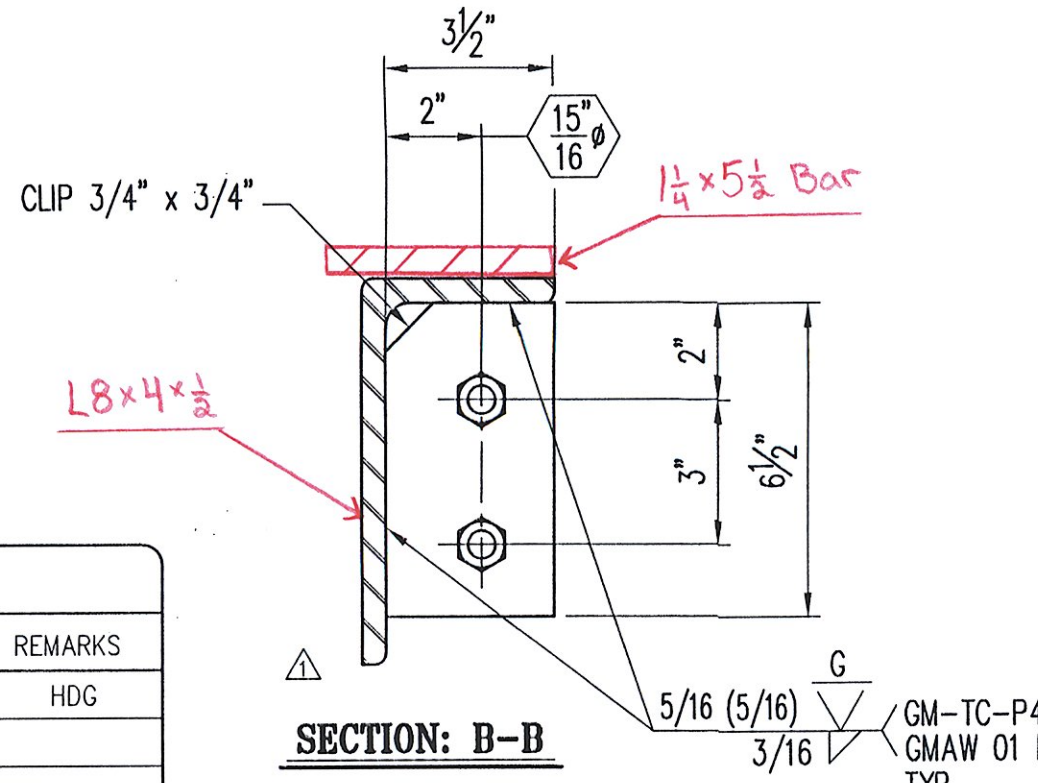
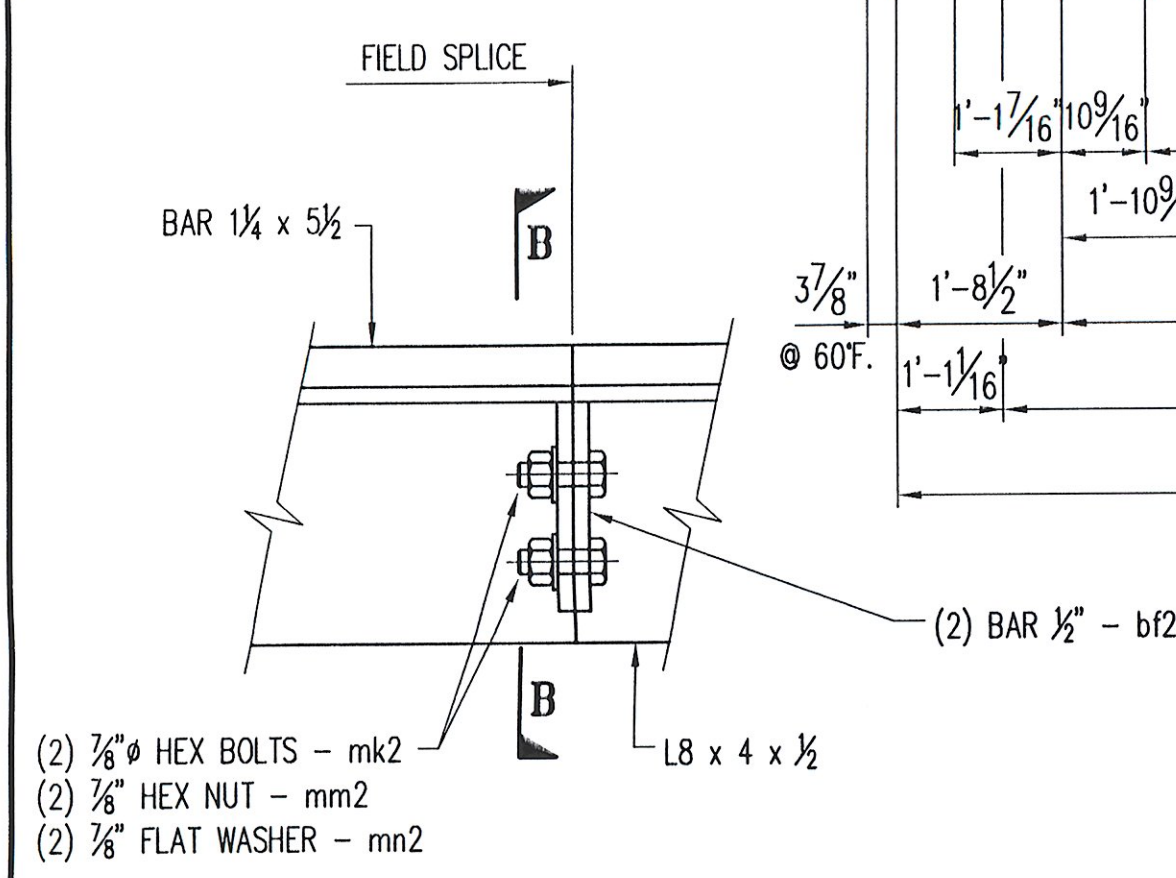
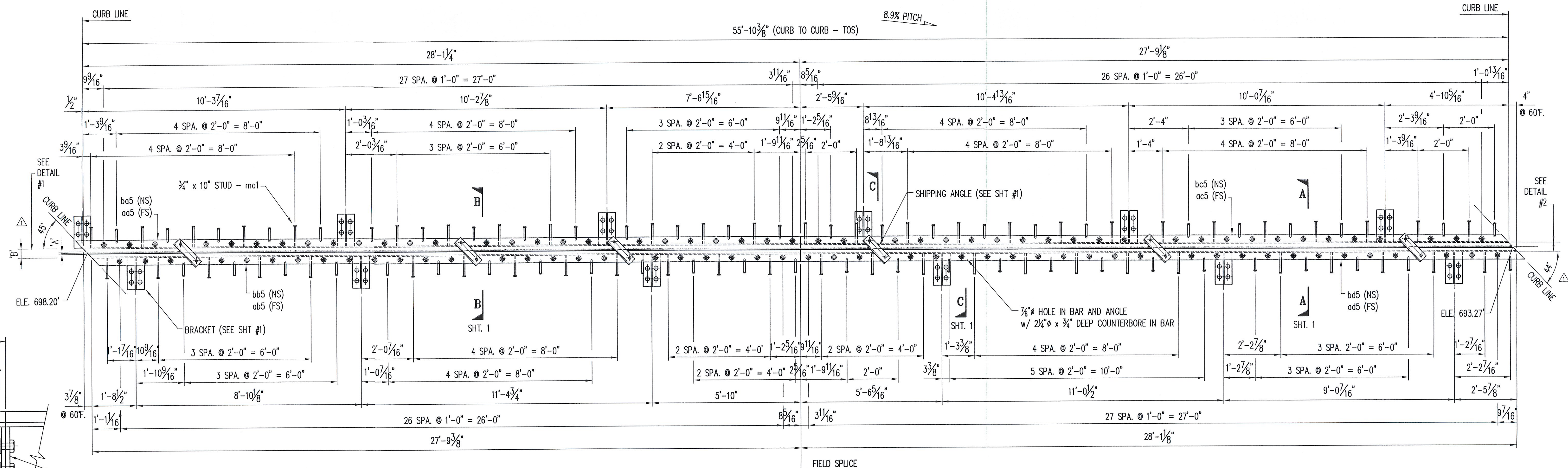




JOINT OPENING		
TEMP	'A'	'B'
105° F.	1/2"	3/2"
90° F.	5/8"	3 3/8"
75° F.	3/4"	3 3/4"
60° F.	7/8"	3 7/8"
45° F.	1 1/16"	3 15/16"
30° F.	1 1/8"	4 1/8"
15° F.	1 3/16"	4 3/16"
0° F.	1 1/2"	4 1/2"
-15° F.	1 5/8"	4 5/8"



**SHOP NOTES:**

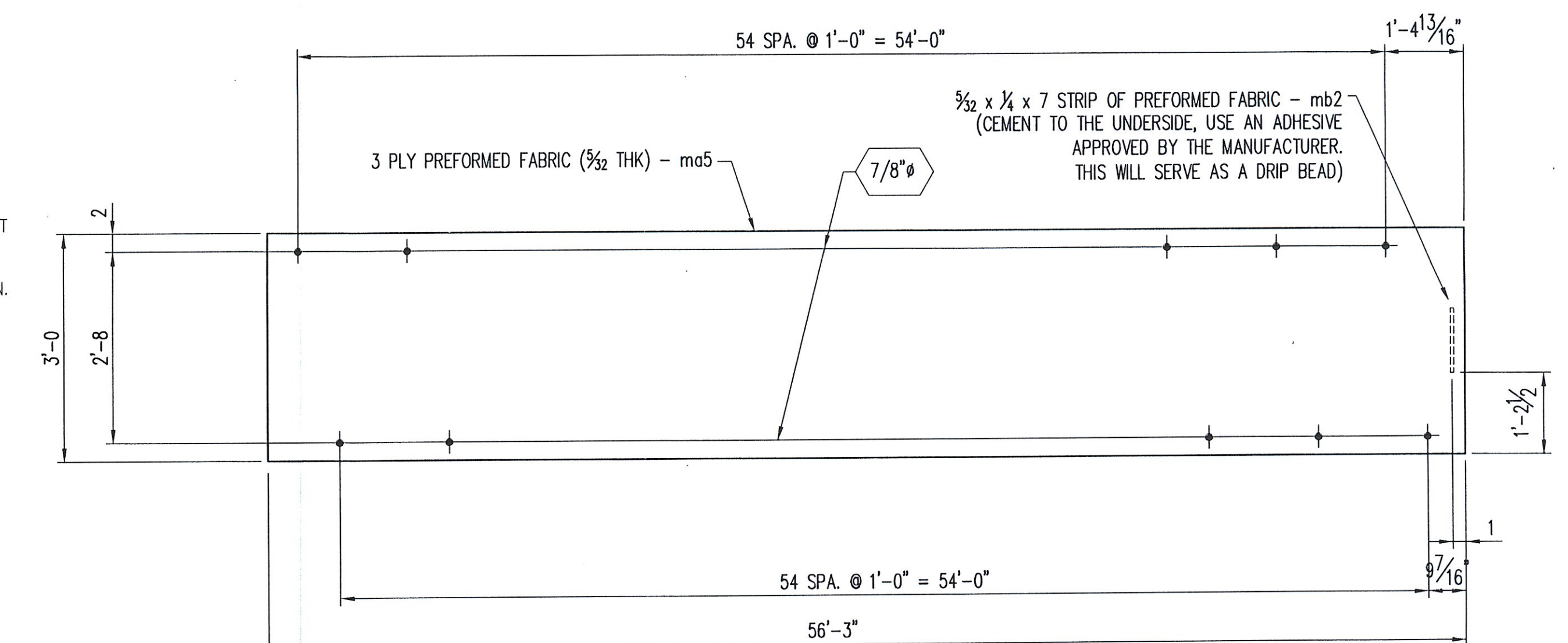
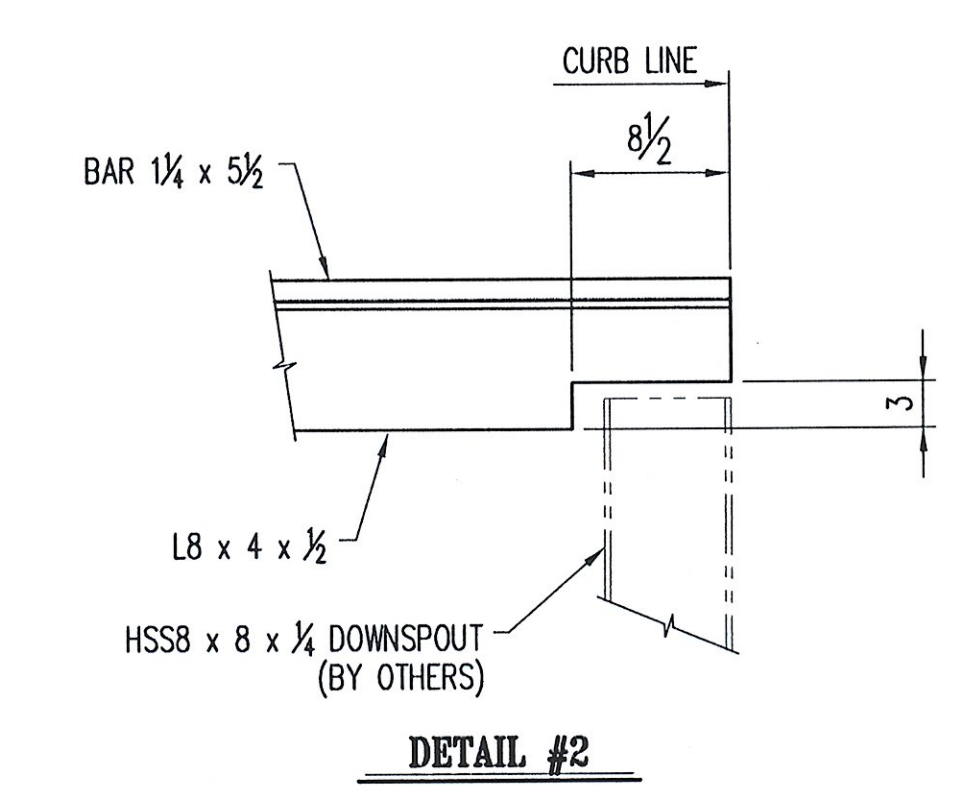
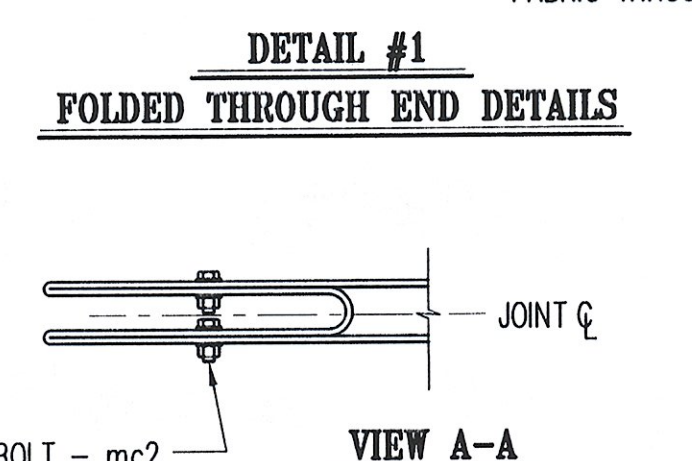
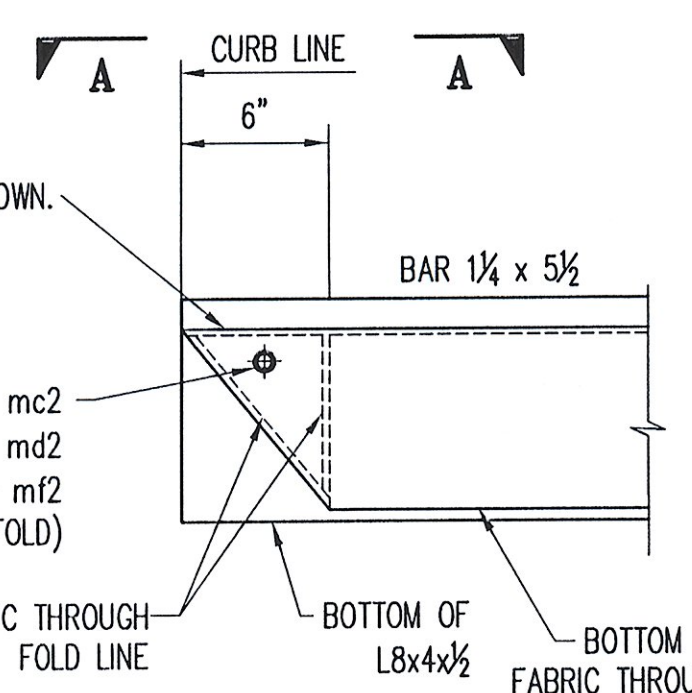
1. WORK THIS SHEET ALONG WITH STANDARD SHEET #1.
2. COAT ALL BOLTS AND NUTS WITH NEVER SEIZE GREASE PRIOR TO ASSEMBLY.
3. WRENCH TIGHTEN BOLTS AFTER ASSEMBLY OF THE EXPANSION JOINT.
4. SEAL ALL ACCESSIBLE JOINTS PRIOR TO GALVANIZING.

**CONTRACTOR NOTES:**

1. REMOVE SHIPPING ANGLES AND REPLACE WITH 3/4" x 2 1/4" HEX BOLTS. REUSE EXISTING FLAT WASHERS. COAT BOLT TREATS WITH NEVER SEIZE PRIOR TO ASSEMBLY.
2. FILL ALL COUNTERBORED HOLES WITH HOT POURED JOINT SEALER AFTER THE BOLT INSTALLATION. WORK AND MATERIALS ARE TO BE DONE BY OTHERS.

BILL OF MATERIALS					
#	MARK No.	QTY	DESCRIPTION	MATERIAL	REMARKS
1			ONE - EXPANSION JOINT - 3EJ1		HDG
2	aa1	6	L4 x 4 x 1/2 x 1'-3	A36	
3	ma1	49	3/4" x 10 CONCRETE HEADED STUD	A108	
4	mb1	51	3/4" x 10 CONCRETE HEADED STUD	A108	BENT
5	mc1	4	1/16" x 1 1/2 (MIN) BUTYL RUBBER TAPE (50FT ROLL)	AASHTO M-198	#75385A15
6	md1	110	3/4" x 2 1/4 HEX BOLT	A325	M/G
7	mf1	12	3/4" x 3 3/4 HEX BOLT	A325	M/G
8	mh1	110	3/4" FLAT WASHER	F436	M/G
9	mk1	110	3/4" HEX COUPLER NUT	A563	M/G
10	mm1	48	1" x 6 THREADED ROD	A36	HDG
11	ms1	96	1" HEAVY HEX NUT	A563	HDG
12	pa1	12	PL 1/2 x 6 x 1'-3	A36	
13	pb1	12	PL 1/2 x 8 x 1'-3	A36	
14	pd1	96	PL 3/8 x 3 x 3	A36	HDG
15	aa5	ONE	L8 x 4 x 1/2 x 28'-5 1/4	A36	
16	ab5	ONE	L8 x 4 x 1/2 x 27'-9 3/8	A36	
17	ac5	ONE	L8 x 4 x 1/2 x 27'-9 1/8	A36	
18	ad5	ONE	L8 x 4 x 1/2 x 28'-5 1/4	A36	
19	ba5	ONE	BAR 1 1/4 x 5 1/2 x 28'-5 1/4	A36	
20	bb5	ONE	BAR 1 1/4 x 5 1/2 x 27'-10 7/8	A36	
21	bc5	ONE	BAR 1 1/4 x 5 1/2 x 27'-10 11/16	A36	
22	bd5	ONE	BAR 1 1/4 x 5 1/2 x 28'-5 1/4	A36	
23	bf2	4	BAR 1/2 x 3 1/2 x 6 1/2	A36	
24	ma5	ONE	3 PLY FABRIC TROUGH 5/32 x 36 x 56'-3	PER SPEC	
25	mb2	ONE	3 PLY FABRIC DRIP 5/32 x 1/4 x 7	PER SPEC	
26	mc2	ONE	1/2" x 1" HEX BOLT	A307	M/G
27	md2	ONE	1/2" HEX NUT	A563	M/G
28	mf2	ONE	1/2" FLAT WASHER	F436	M/G
29	mh2	ONE	ANTI SEIZE GREASE	-	
30	mk2	4	7/8" x 2 HEX BOLT	A325	M/G
31	mm2	4	7/8" HEX NUT	A563	M/G
32	mn2	4	7/8" FLAT WASHER	F436	M/G
33					

FOLD THE END OF THE FABRIC TROUGH AS SHOWN. DRILL 3/8" HOLES IN FABRIC TROUGH. USE HARDWARE TO CLOSE OFF THE CHANNEL.



RECEIVED  
 MAY - 7 2008  
 APPROVED As Noted  
 DATE 5/8/08

**Niagara Bridge and Rail**  
 4817 Henry Avenue, Niagara Falls, N.Y. 14304  
 Phone: (716) 283-4710 Fax: (716) 283-5137

Project Information:  
 STATE: VERMONT  
 COUNTY: BERLIN  
 CITY / TOWNSHIP: BERLIN  
 LOCATION: I-89 (NB & SB) OVER VT ROUTE 12  
 PROJECT NO.: 1M 089-1 (20)  
 OWNER: VT-AOT  
 CONTRACTOR:

Drawn By: JJB Date: 3/28/08 Checked By: TFW Date: 3/30/08  
 Description: VERMONT - EXPANSION JOINT DETAIL  
 EXPANSION JOINT @ PIER 4  
 Sheet No.: 5 of 5 Scale: NONE  
 Drawing No.: 10064-01 Rev No.: 1

REVISIONS				
No.	Description	Date	By	Approved
1	REVISIONS PER APPROVAL DWGS	4/30/08	SB	