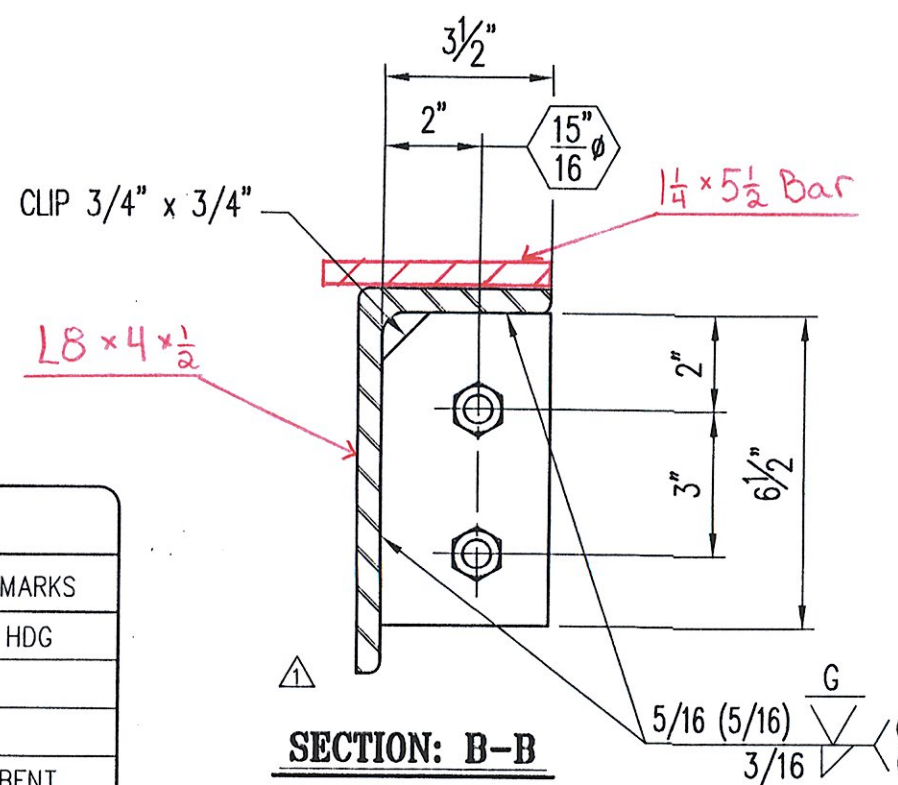
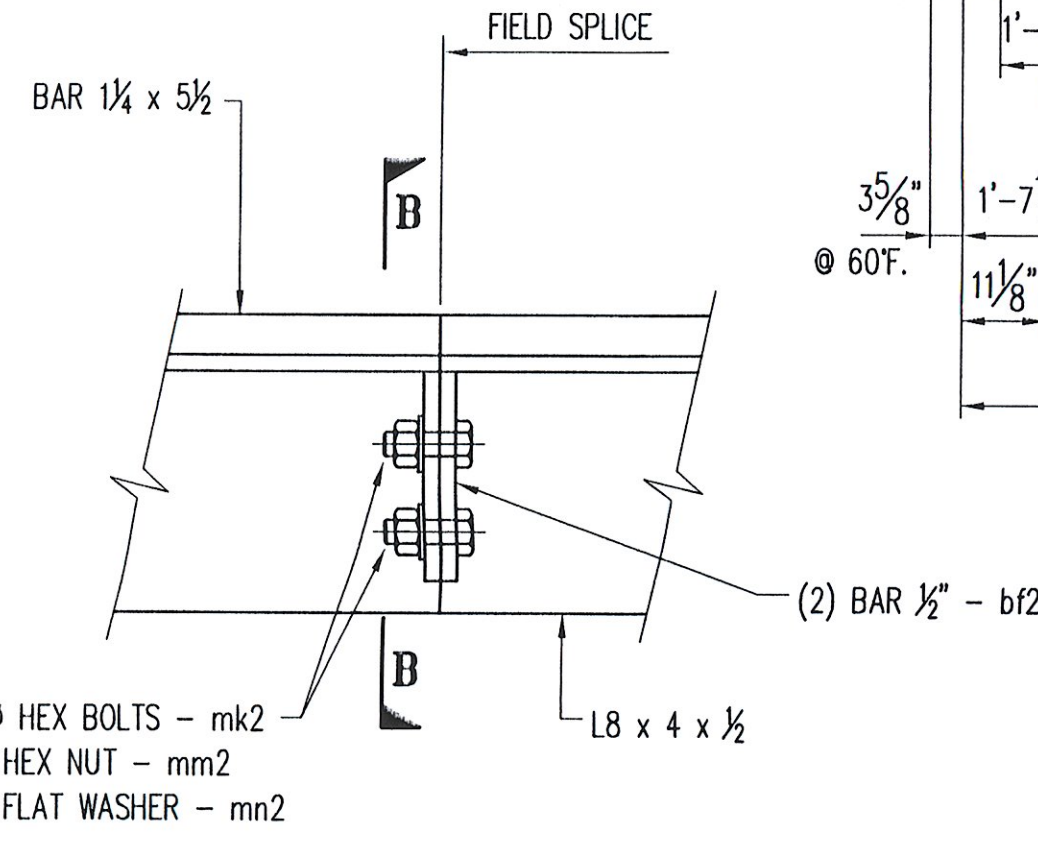
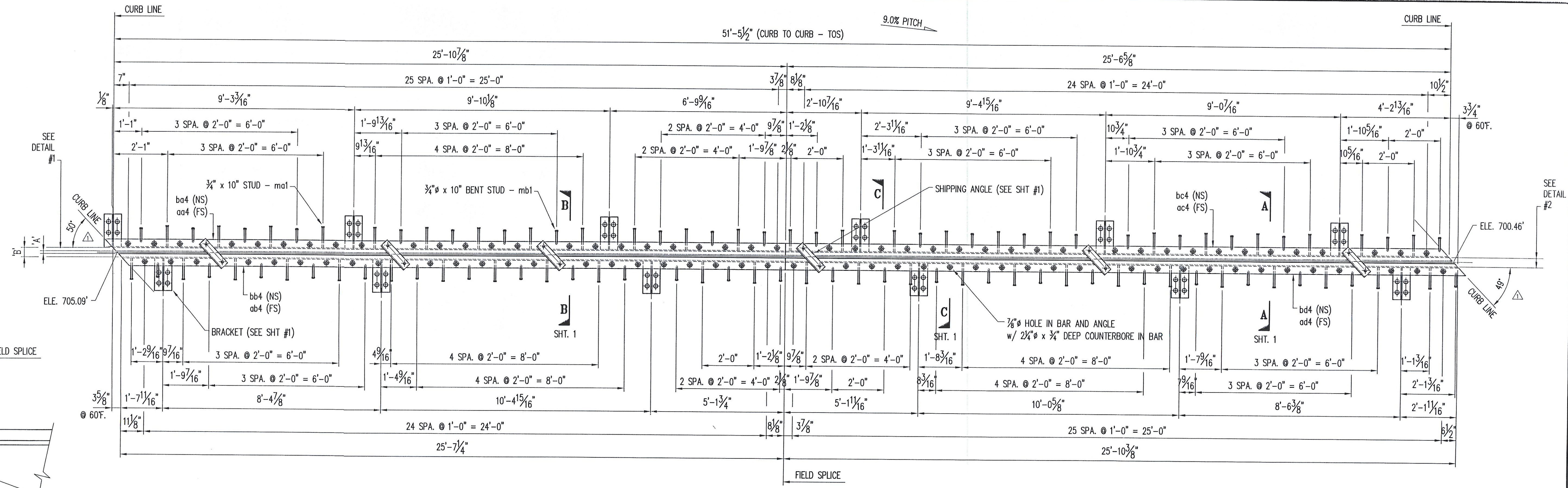




JOINT OPENING		
TEMP	'A'	'B'
105° F.	1/2"	3/2"
90° F.	3/4"	3 3/4"
75° F.	1"	4"
60° F.	1 1/16"	4 3/16"
45° F.	1 1/8"	4 1/2"
30° F.	1 1/4"	4 5/8"
15° F.	2 1/8"	5 1/8"
0° F.	2 3/8"	5 3/8"
-15° F.	2 7/8"	5 7/8"



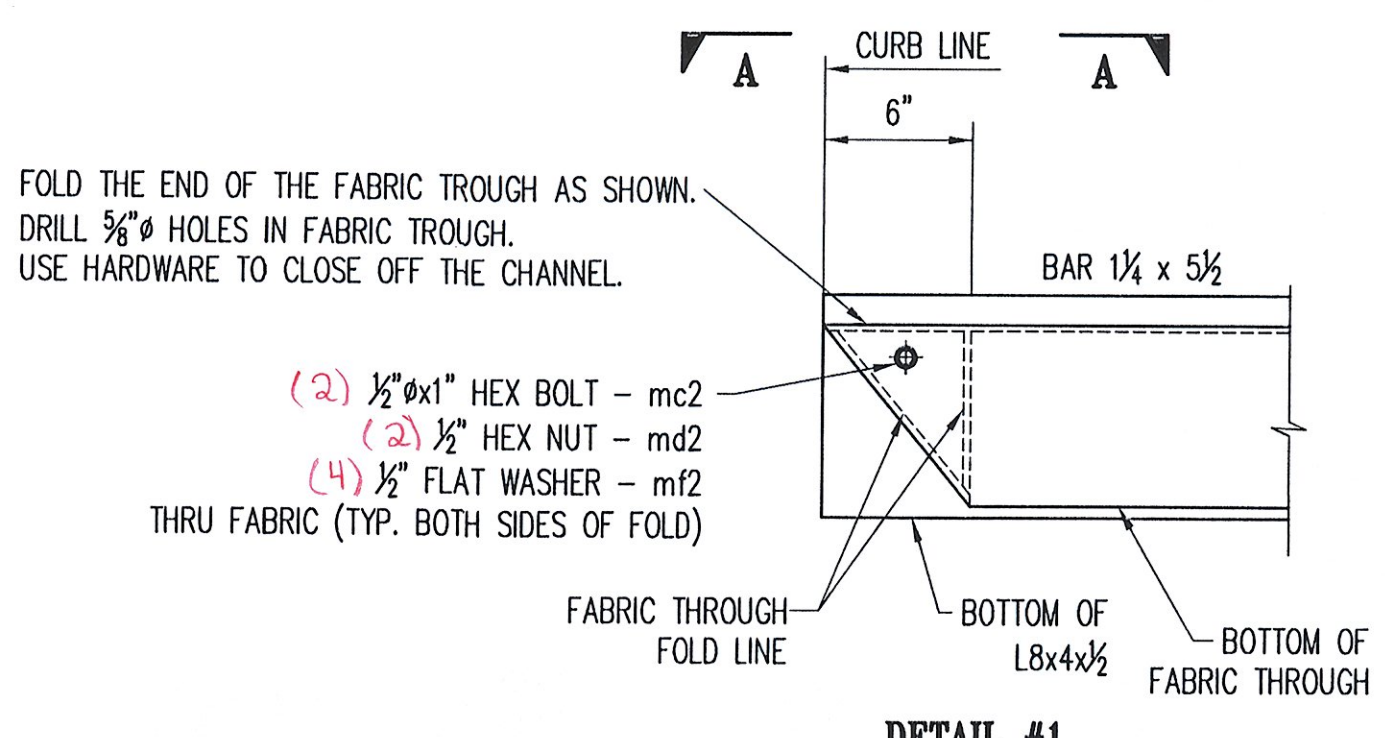
SHOP NOTES:

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.

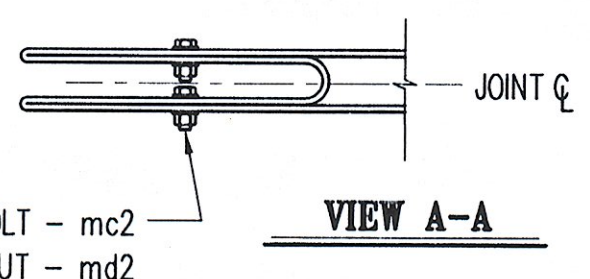
CONTRACTOR NOTES:

1. REMOVE SHIPPING ANGLES AND REPLACE WITH 3/4" x 2 1/4" HEX BOLTS. REUSE EXISTING FLAT WASHERS. COAT BOLT TREADS 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.

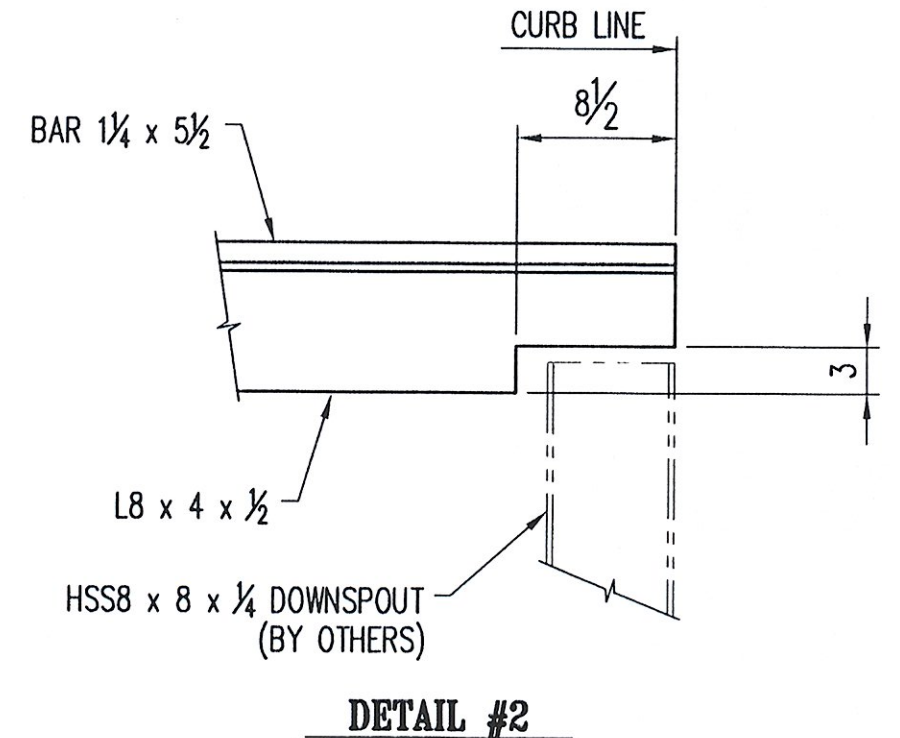
#	MARK No.	QTY	DESCRIPTION	MATERIAL	REMARKS
1			ONE - EXPANSION JOINT - 4EJ1		HDG
2	aa1	6	L4 x 4 x 1/2 x 1'-3"	A36	
3	ma1	48	3/4" x 10 CONCRETE HEADED STUD	A108	M/G
4	mb1	46	3/4" x 10 CONCRETE HEADED STUD	A108	BENT
5	mc1	4	1/16" x 1 1/2 (MIN) BUTYL RUBBER TAPE (SOFT ROLL)	AASHTO M-198	#75385A15
6	md1	102	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	102	3/4" FLAT WASHER	F436	M/G
9	mk1	102	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	aa4	ONE	L8 x 4 x 1/2 x 26'-2 1/4"	A36	
16	ab4	ONE	L8 x 4 x 1/2 x 25'-7 1/4"	A36	
17	ac4	ONE	L8 x 4 x 1/2 x 25'-6 5/8"	A36	
18	ad4	ONE	L8 x 4 x 1/2 x 26'-1 7/8"	A36	
19	ba4	ONE	BAR 1 1/4 x 5 1/2 x 26'-2 1/4"	A36	
20	bb4	ONE	BAR 1 1/4 x 5 1/2 x 25'-8 1/4"	A36	
21	bc4	ONE	BAR 1 1/4 x 5 1/2 x 25'-7 15/16"	A36	
22	bd4	ONE	BAR 1 1/4 x 5 1/2 x 26'-1 7/8"	A36	
23	bf2	4	BAR 1/2 x 3 1/2 x 6 1/2"	A36	
24	ma4	ONE	3 PLY FABRIC TROUGH 5/32 x 36 x 51'-10"	PER SPEC	
25	mb2	ONE	3 PLY FABRIC DRIP 5/32 x 1/4 x 7"	PER SPEC	
26	mc2	ONE	1/2" x 2" 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					



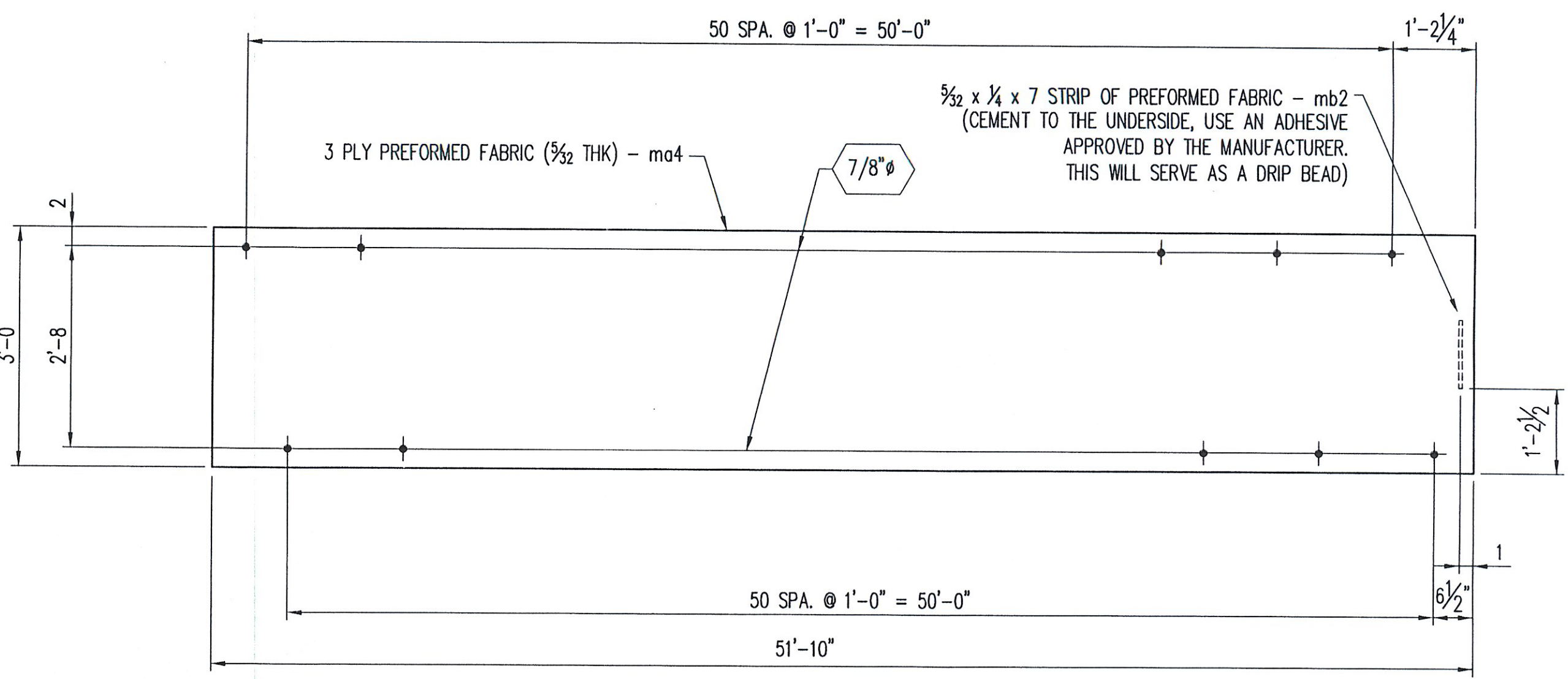
DETAIL #1 FOLDED THROUGH END DETAILS



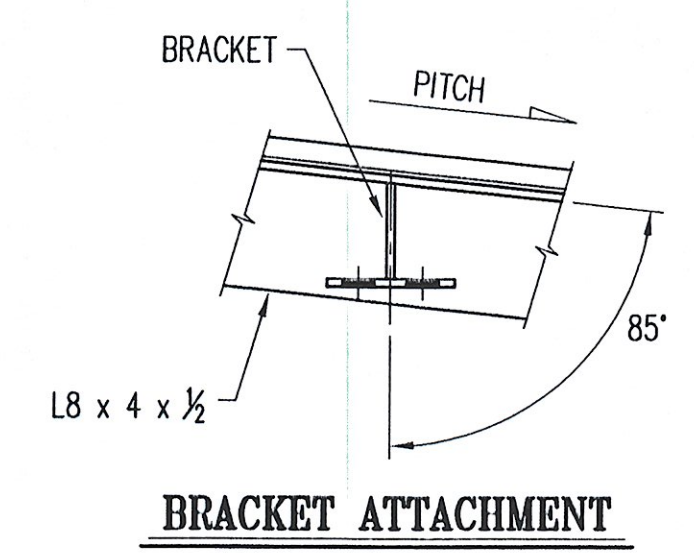
VIEW A-A



DETAIL #2



TROUGH DETAIL



BRACKET ATTACHMENT

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:
 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 SHEET No.: 4 of 5 Scale: NONE
 EXPANSION JOINT @ PIER 3 Drawing No.: 10064-01 Rev No.: 1

RECEIVED
 MAY - 7 2008
 APPROVED BY: [Signature] DATE: 5/8/08