

SHOP DRAWINGS FOR STEEL STRUCTURE

Jackson COUNTY BRIDGE NO. L-929

PROJECT NO. F-353-(25) Rte. 71

INDEX

See Jackson County Bridge L-950 for details not shown

ERECTION SHEET NOS. E1 THRU _____

GENERAL MATERIALS SHEET NOS. 1 THRU 5

BOLT LIST SHEET NOS. _____ THRU _____

BEARING DETAILS SHEET NOS. _____ THRU _____

BRIDGE RAILING DETAILS SHEET NOS. _____ THRU _____

PAINT DETAILS SHEET NOS. _____ THRU _____

BLOCKING DIAGRAM SHEET NOS. _____ THRU _____

EXPANSION DEVICE DETAILS SHEET NOS. _____ THRU _____

SHOP WELDED SPLICE DETAILS SHEET NOS. _____ THRU _____

WEB AND FLANGE CUTTING DETAILS SHEETS NOS. _____ THRU _____

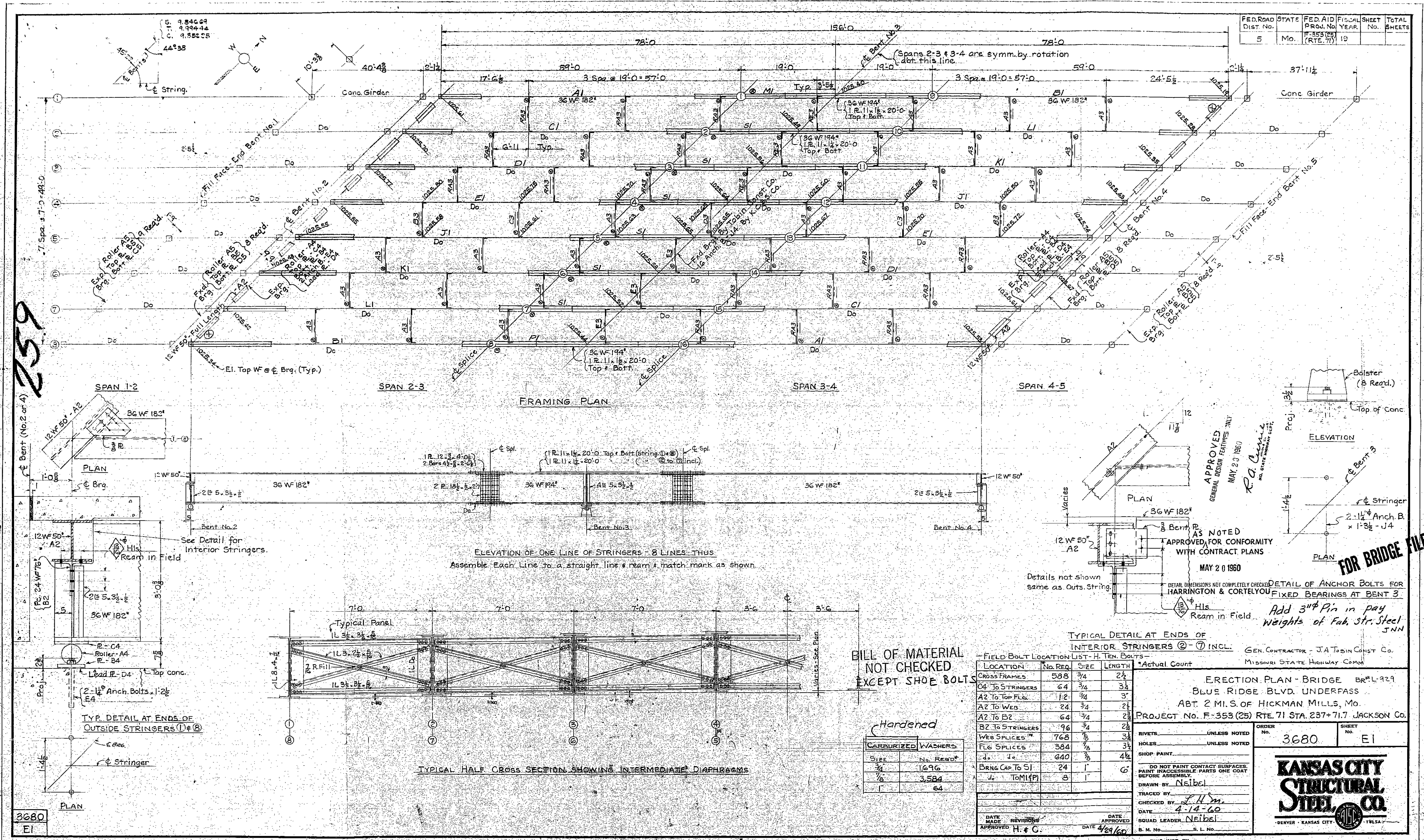
DRAIN DETAILS SHEET NOS. _____ THRU _____

DRAINAGE SYSTEM DETAILS SHEET NOS. _____ THRU _____

STEEL GRID FLOORING DETAILS SHEET NOS. _____ THRU _____

PEDESTRIAN FENCE DETAILS SHEET NOS. _____ THRU _____

852



FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	Mo.	F-353 (25) (RTE. 71)	19		

259

APPROVED
GENERAL DESIGN FEATURES ONLY
MAY 20 1960
R.A. Currie
INC. STATE ENGINEER, MISSOURI

FOR BRIDGE FILES

BILL OF MATERIAL NOT CHECKED EXCEPT SHOE BOLTS

FIELD BOLT LOCATION LIST - H. TEN BOLTS -

LOCATION	No. REQ.	SIZE	LENGTH	*Actual Count
CROSS FRAMES	388	3/4"	2 1/2"	
C4 TO STRINGERS	64	3/4"	3 1/2"	
A2 TO TOP FLG.	112	3/4"	3"	
A2 TO WEB	24	3/4"	2 1/2"	
A2 TO B2	64	3/4"	2 1/2"	
B2 TO STRINGERS	96	3/4"	2 1/2"	
WEB SPLICES	768	7/8"	3 1/2"	
FLG SPLICES	384	7/8"	3 1/2"	
BRNG CAP. TO SJ	24	1"	6"	
TO MIFP	8	1"		

ERECTION PLAN - BRIDGE BR#L-929
BLUE RIDGE BLVD. UNDERPASS
ABT. 2 MI. S. OF HICKMAN MILLS, MO.
PROJECT No. F-353 (25) RTE. 71 STA. 237+71.7 JACKSON CO.

RIVETS UNLESS NOTED
HOLES UNLESS NOTED
SHOP PAINT UNLESS NOTED
DO NOT PAINT CONTACT SURFACES BEFORE ASSEMBLY. PARTS ONE COAT BEFORE ASSEMBLY.
DRAWN BY Neibel
TRACED BY
CHECKED BY L.H.S.M.
DATE 4-14-60
SQUAD LEADER Neibel
B. M. No. S. I. No.

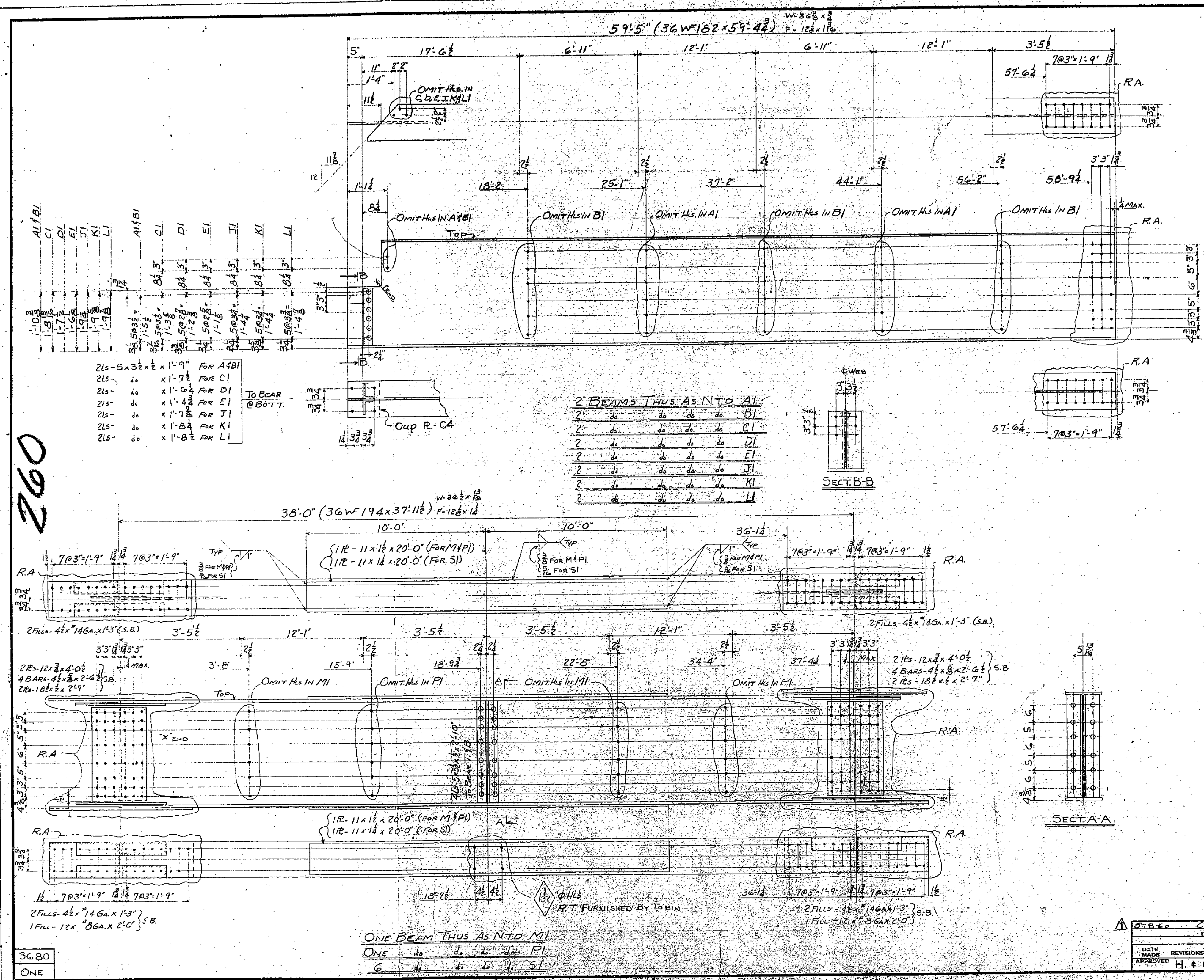
ORDER No. 3680 SHEET No. E1

KANSAS CITY STRUCTURAL STEEL CO.
DENVER - KANSAS CITY - TULSA

3680
E1

5 Final

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	F-353 (25) (Rte. 71)			



GENERAL NOTES:
 STRUCTURAL STEEL SHALL CONFORM TO ASTM A7-53T.
 ALL WELDING SHALL CONFORM TO AWS SPECS. FOR WELDING HIGHWAY & RAILWAY BRIDGES, 1956
 HIGH TENSILE BOLTS, NUTS, & HARDENED WASHERS SHALL CONFORM TO SPECS. FOR QUENCHED AND TEMPERED STEEL BOLTS AND STUDS WITH SUITABLE NUTS & FLAT WASHERS, ASTM A325-58T.
 ALL STRUCTURAL SHAPES TO BE CARNEGIE SECTIONS.

FOR BRIDGE FILES

APPROVED
 GENERAL DESIGN FEATURES ONLY
 MAY 23 1960
R.A. Currie
 MO. STATE HIGHWAY DEPT.

APPROVED FOR CONFORMITY WITH CONTRACT PLANS
 MAY 20 1960

NOTE:
 ALL HLS. MARKED R.A. TO BE SUBDRILLED $\frac{11}{16}$ " & REAMED ASSEMBLED TO $\frac{11}{16}$ ". ALL BEAMS TO BE ASSEMBLED TO A STRAIGHT LINE & MATCH MARKED AS SHOWN ON SH # E1
 HLS. MARKED R.T. TO BE SUBDRILLED $\frac{11}{16}$ " & REAMED TO $1\frac{1}{2}$ " THRU A STEEL TEMPLATE. TEMPLATE FURNISHED BY TOBIN CONST. CO.

GENERAL CONTRACTOR - J.A. TOBIN CONST. CO.
 MISSOURI STATE HIGHWAY COMMISSION

BEAMS B7-L-929
 BLUE RIDGE BLVD UNDERPASS
 APT. 2 MI. S. OF HICKMAN MILLS, MISSOURI
 PROJECT NO. F-353 (25) RTE. 71 STA. 237+71.7 JACKSON CO.

RIVETS $\frac{3}{4}$ "	UNLESS NOTED	ORDER NO. 3680	SHEET NO. ONE
HOLES $\frac{13}{16}$ "	UNLESS NOTED		
SHOP PAINT - NONE			
DO NOT PAINT CONTACT SURFACES. PAINT INACCESSIBLE PARTS ONE COAT BEFORE ASSEMBLY.			
DRAWN BY: PETERS			
TRACED BY: J.H.M.			
CHECKED BY: J.H.M.			
DATE: 4-14-60			
SQUAD LEADER: NEIBEL			
B. M. No. ONE S. L. No. ONE			

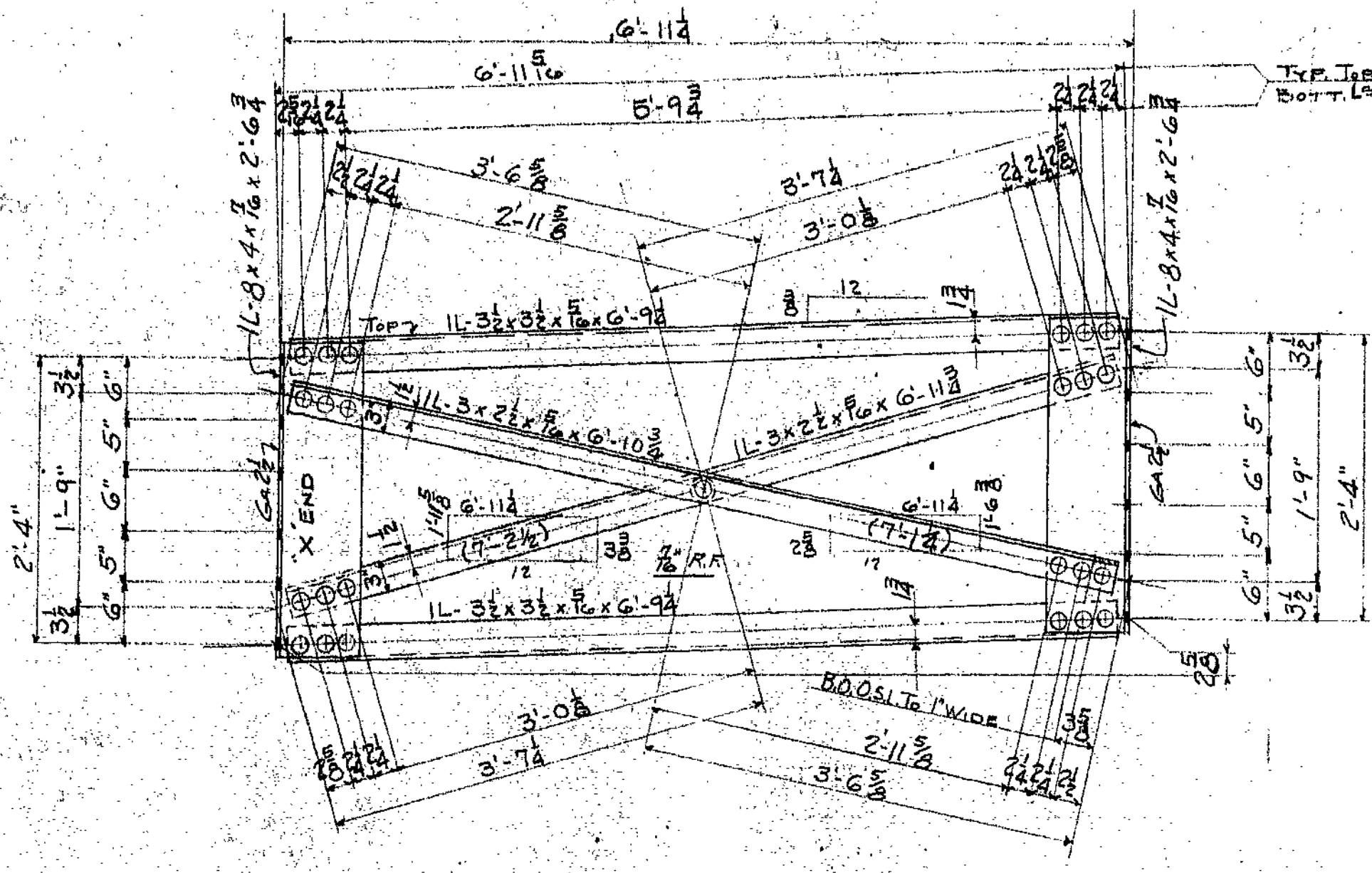
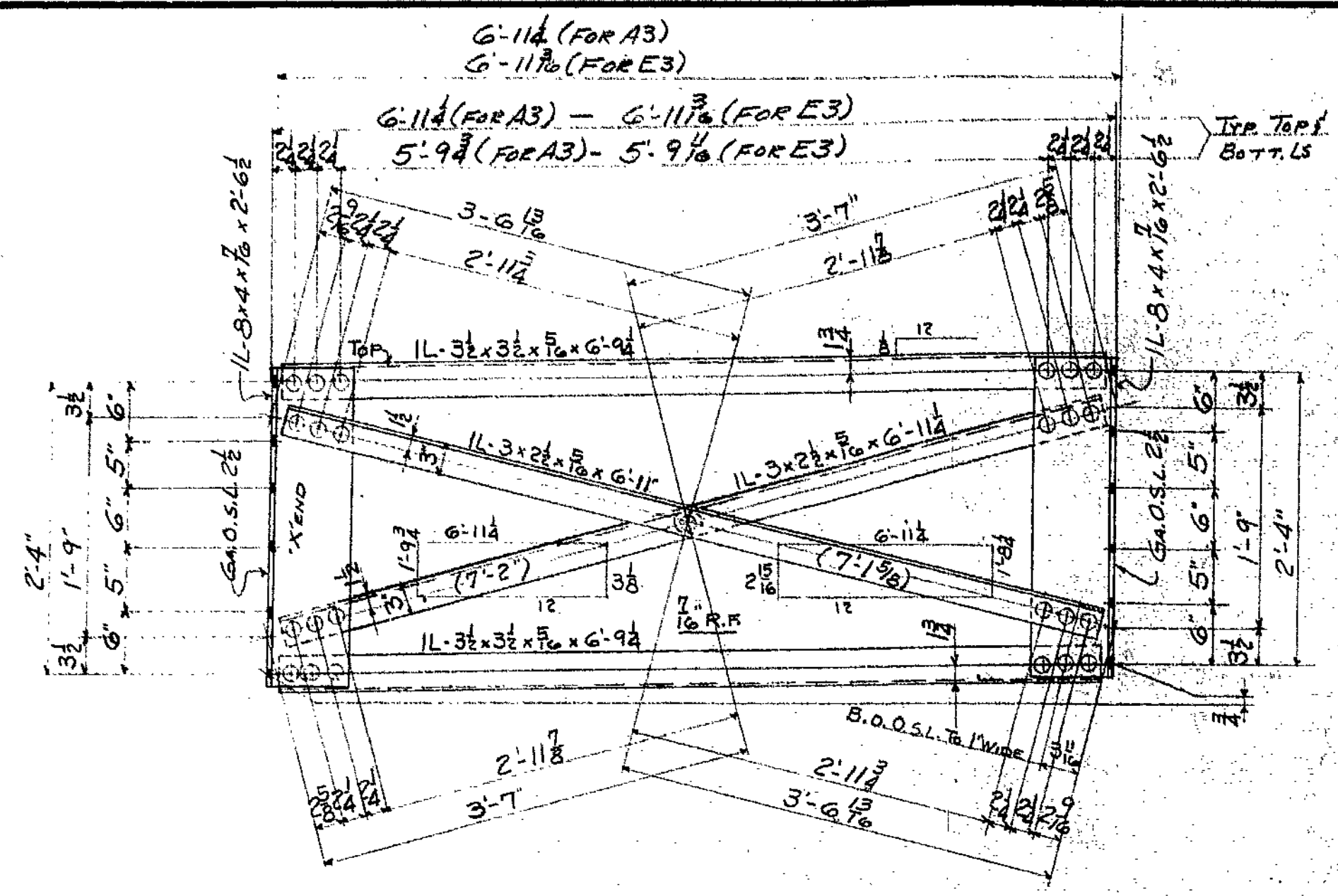
DATE MADE: 4/29/60 DATE APPROVED: 4/29/60
 APPROVED: H. & C.

KANSAS CITY STRUCTURAL STEEL CO.
 DENVER - KANSAS CITY - TULSA

260

5 Final

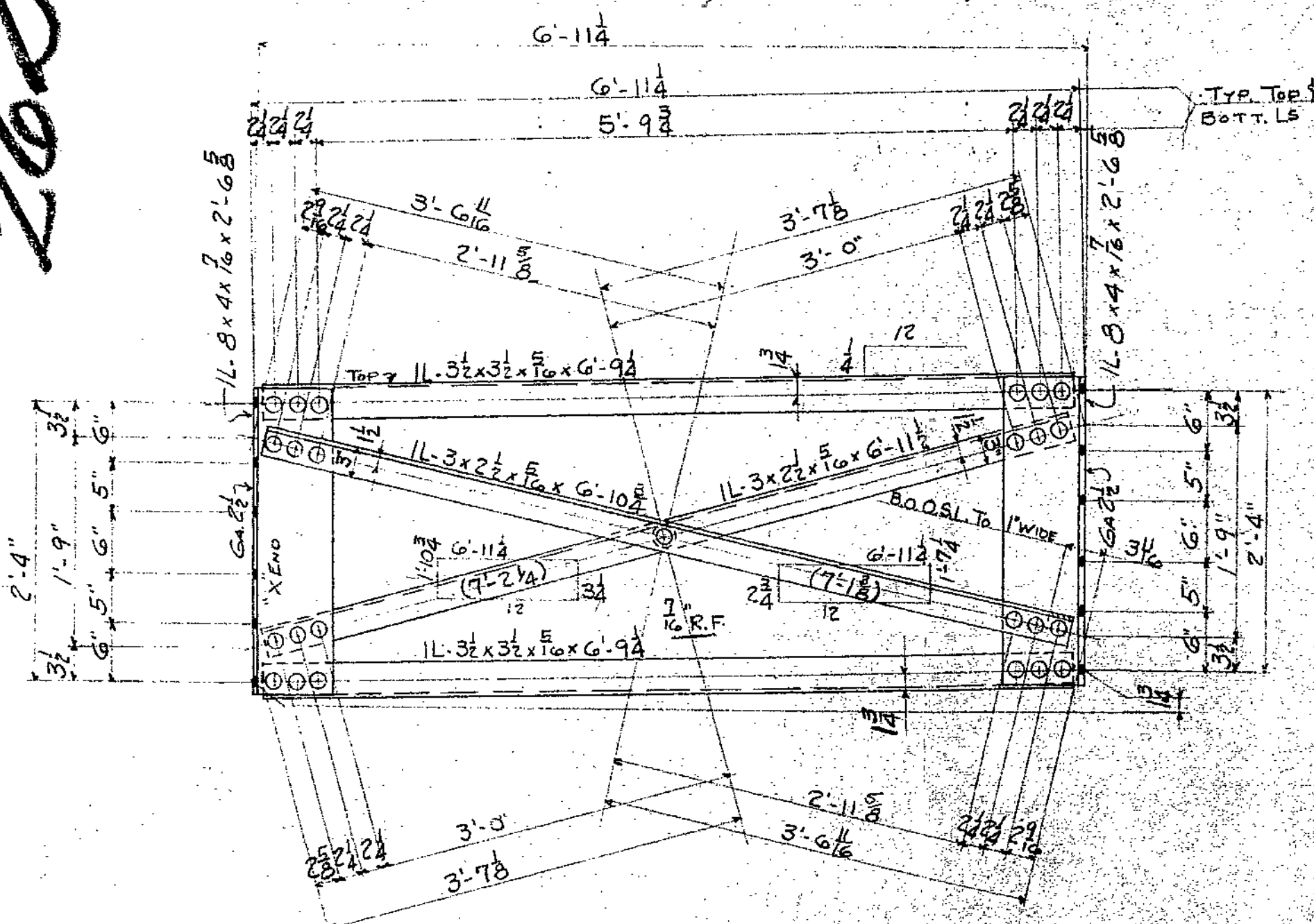
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO	F-353 (25) (RTE 71)			



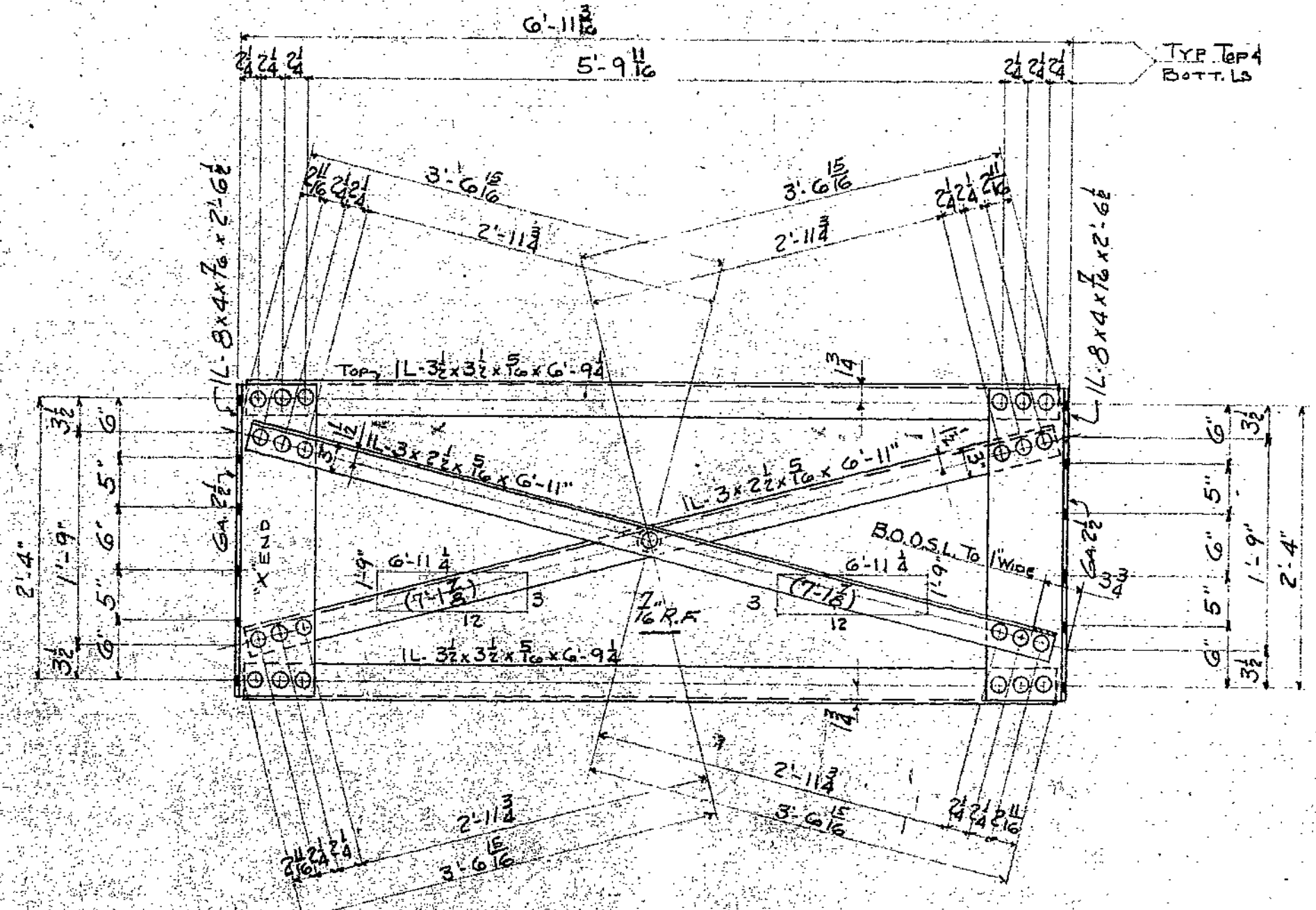
20 CROSS FRAMES THUS A3 NT D3
 3 do do do do do E3
 18 do do REV OF A3-RA3
 3 do do do E3-RE3

2 CROSS FRAMES THUS B3

262



2 CROSS FRAMES THUS C3



ONE CROSS FRAME THUS D3

FOR BRIDGE FILES

APPROVED MAY 12 1960
 MO. STATE HIGHWAY DEPT.
R. A. Curie
 BRIDGE ENGINEER
 THIS APPROVAL IS FOR GENERAL DESIGN FEATURES ONLY.

APPROVED FOR CONFORMITY WITH CONTRACT PLANS

MAY 11 1960

DETAIL DESIGNER: NOT COMPLETELY CHECKED
 HARRINGTON & CORTEYOU

GENERAL CONTRACTOR - J.A. TOBIN CONST. CO.
 MISSOURI STATE HIGHWAY COMMISSION

CROSS FRAMES Br. # L-929
 BLUE RIDGE BLVD. UNDERPASS
 APT. 2 MI. S. OF HICKMAN MILLS, MISSOURI
 PROJECT NO. F-353 (25) RTE. 71 STA. 237+71.7 JACKSON CO.

RIVETS 3/4" UNLESS NOTED
 HOLES 7/8" UNLESS NOTED
 SHOP PAINT NONE

ORDER No. 3680 SHEET No. 3

DO NOT PAINT CONTACT SURFACES
 PAINT INACCESSIBLE PARTS ONE COAT BEFORE ASSEMBLY.

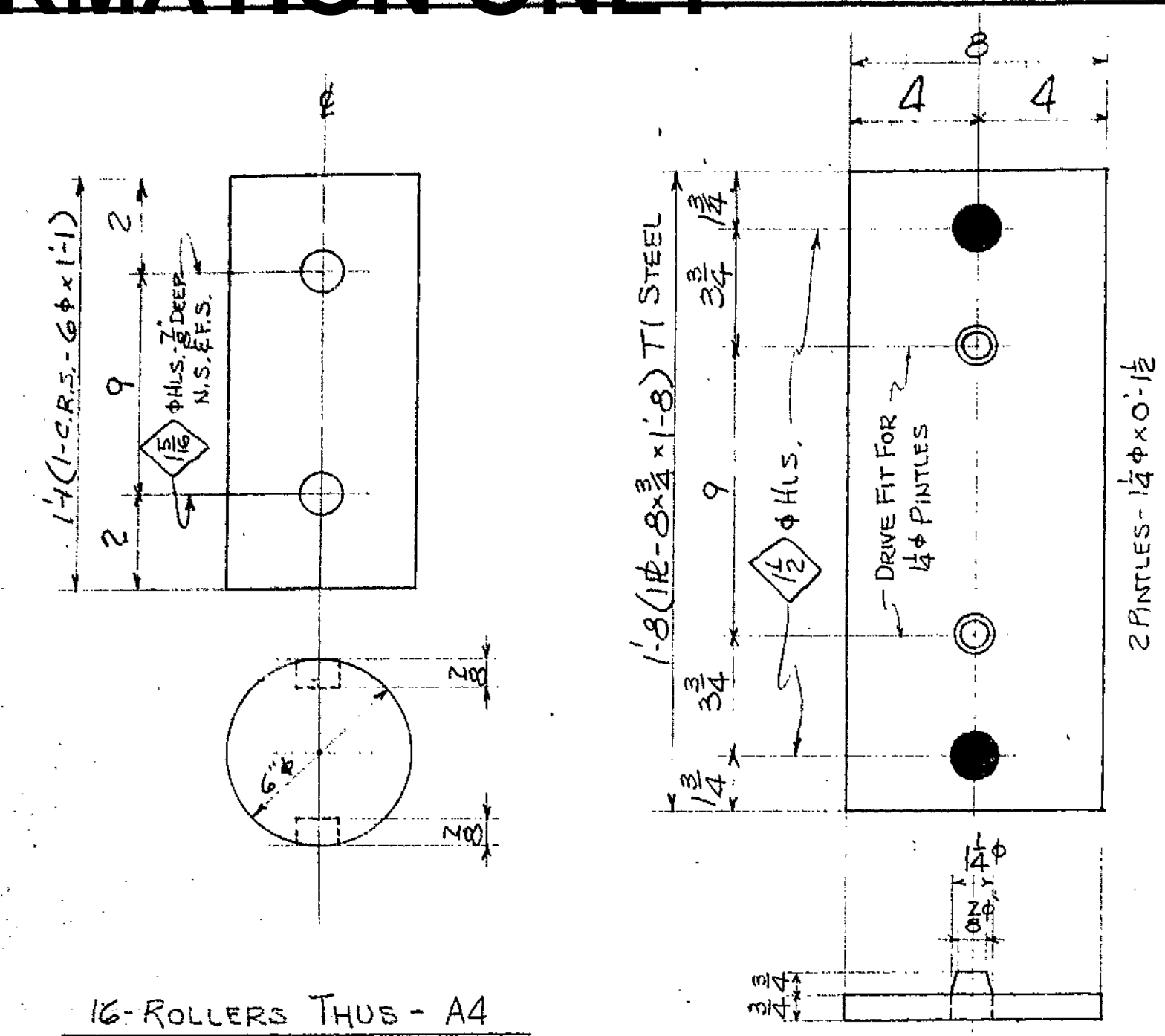
DRAWN BY PETERS
 TRACED BY J.H.S.
 CHECKED BY J.H.S.
 DATE 4-14-60
 SQUAD LEADER NEISEL
 B. M. No. 3 S. L. No. 142



DATE MADE APPROVED H.4 G. DATE 4/29/60

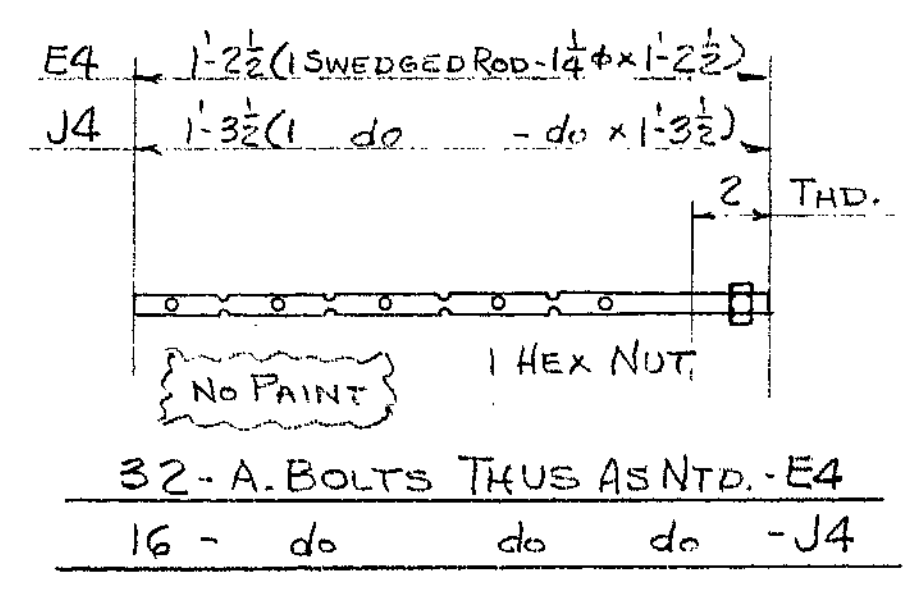
3680
3

DWG. INSP. BY

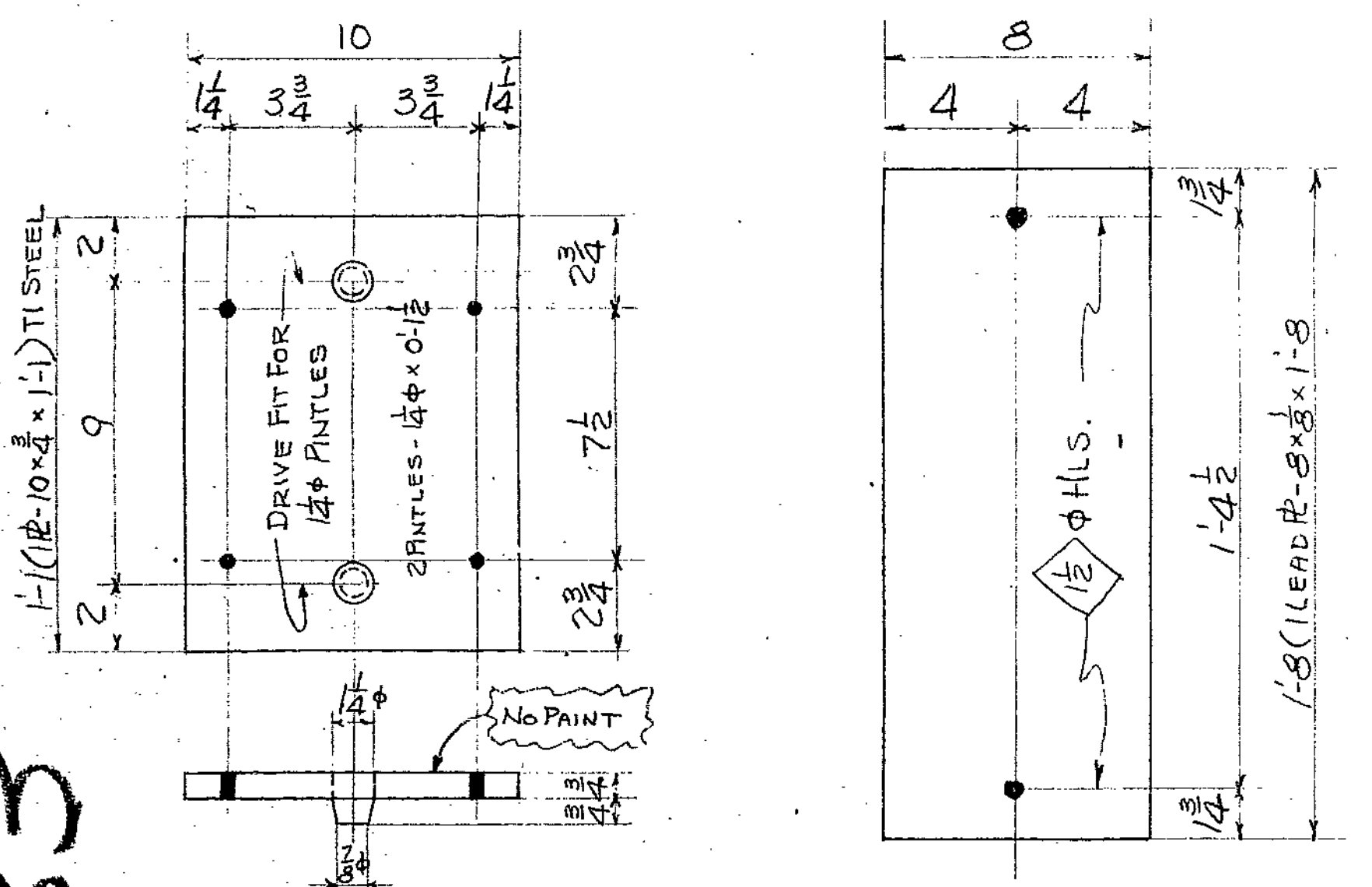


16-ROLLERS THUS - A4

16-PLATES THUS - B4



32 - A. BOLTS THUS AS NTD. - E4
16 - do do do - J4



16-PLATES THUS - C4

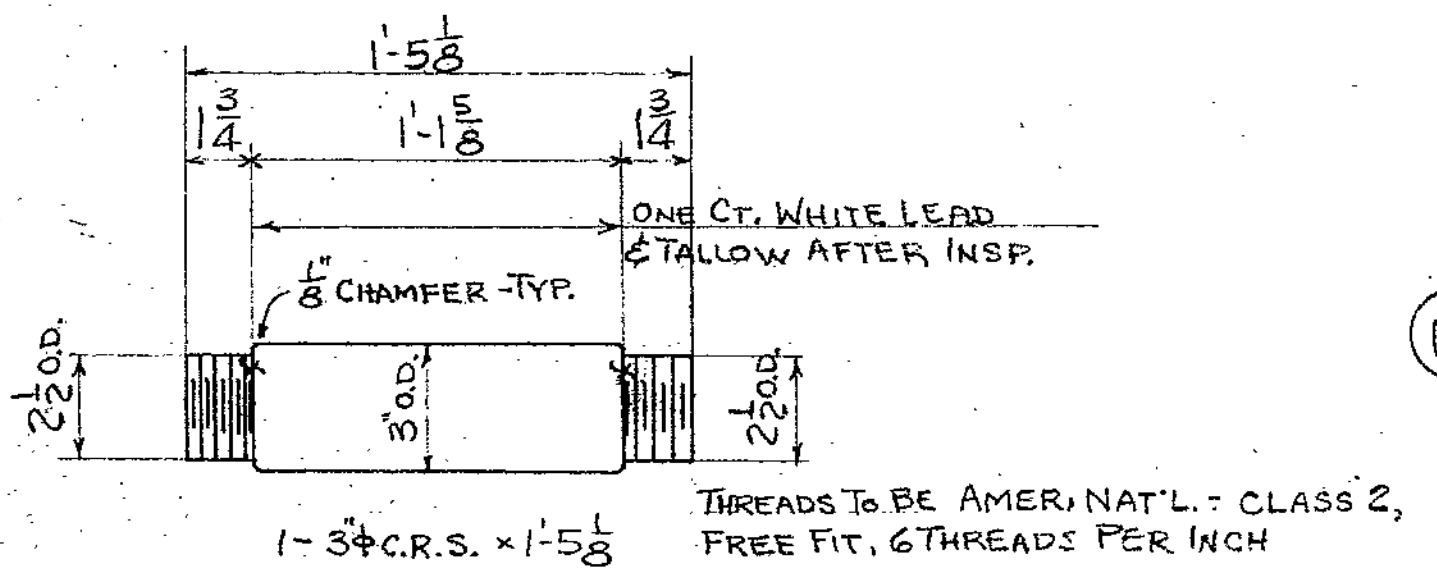
16-LEAD P's THUS - D4

263

APPROVED
GENERAL DESIGN FEATURES ONLY
JUN 14 1960
R.A. Currie
BRIDGE ENGINEER
MO. STATE HIGHWAY DEPT.

FOR BRIDGE FILES
APPROVED FOR CONFORMITY
WITH CONTRACT PLANS
MAY 13 1960

NOTE!
MAT. FOR P's SHALL BE U.S.S. T1 ALLOY STEEL OR EQUIV.
MAT. FOR ROLLERS & PINTLES SHALL BE COLD FINISHED CARBON STEEL A.I.S.I. C-1042 OR A.I.S.I. C-1045 (TURNED & POLISHED).
MAT. FOR PINS K4 SHALL BE A.I.S.I. C-1018 (TURNED & POLISHED)



8 - PINS THUS - K4 A

NUTS FURNISHED BY J.A. TOBIN CONST. CO.

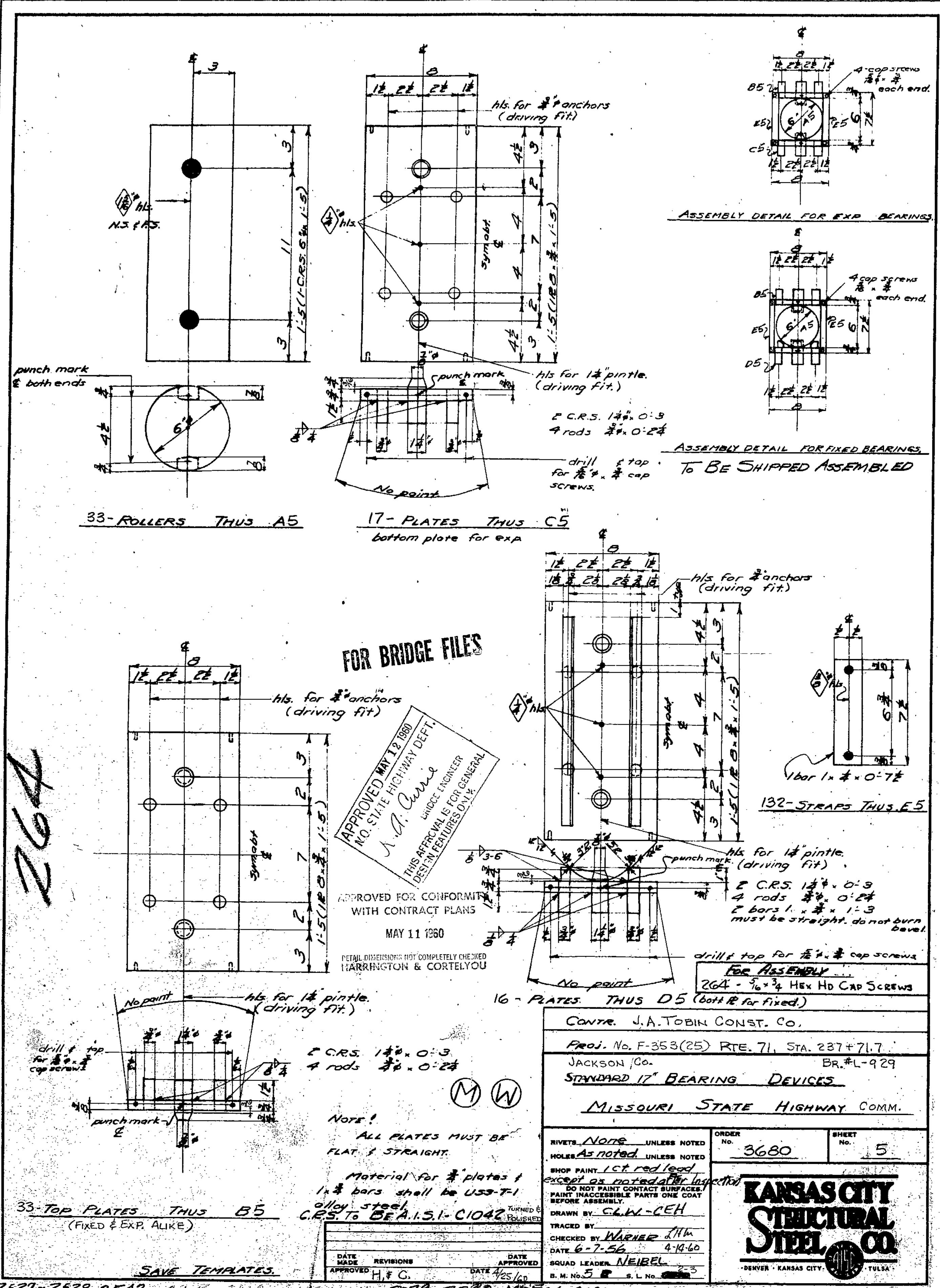
GEN. CONTRACTOR - J.A. TOBIN CONST. CO.
MO. STATE HWY. COMM. BR. #L-929

BEARING DEVICES
BLUE RIDGE BLVD. UNDERPASS
ABT. 2 MI. S. OF HICKMAN MILLS, MO.
PROJECT NO. F-353(25) RTE. 71 STA. 237+71.7 JACKSON CO.

RIVETS - NONE UNLESS NOTED	ORDER No. 3680	SHEET No. 4
HOLES - 1 3/16 φ UNLESS NOTED		
SHOP PAINT - 1 CT. RED LEAD EXC. AS NTD.		
DO NOT PAINT CONTACT SURFACES. PAINT INACCESSIBLE PARTS ONE COAT BEFORE ASSEMBLY.		
DRAWN BY - CEH		
TRACED BY -		
CHECKED BY - LHM		
DATE - 4-17-60		
SQUAD LEADER - WEIBEL		
B. M. No. 4 S. L. No. 2		



DATE MADE	REVISIONS	DATE APPROVED
		4/24/60
APPROVED H.S.G.		



SHOP DRAWINGS FOR STEEL STRUCTURE

Jackson COUNTY BRIDGE NO. L-929

PROJECT NO. U-F-71-4 (30)

INDEX

ERECTION SHEET NOS. _____ THRU _____

GENERAL MATERIALS SHEET NOS. 1 THRU 54

BOLT LIST SHEET NOS. _____ THRU _____

BEARING DETAILS SHEET NOS. 10419 THRU _____

BRIDGE RAILING DETAILS SHEET NOS. 184 THRU _____

PAINT DETAILS SHEET NOS. _____ THRU _____

BLOCKING DIAGRAM SHEET NOS. _____ THRU _____

EXPANSION DEVICE DETAILS SHEET NOS. 906 THRU 906-1, 906-2, 906-3, Spec. 1, T20, T30A

SHOP WELDED SPLICE DETAILS SHEET NOS. _____ THRU _____

WEB AND FLANGE CUTTING DETAILS SHEETS NOS. _____ THRU _____

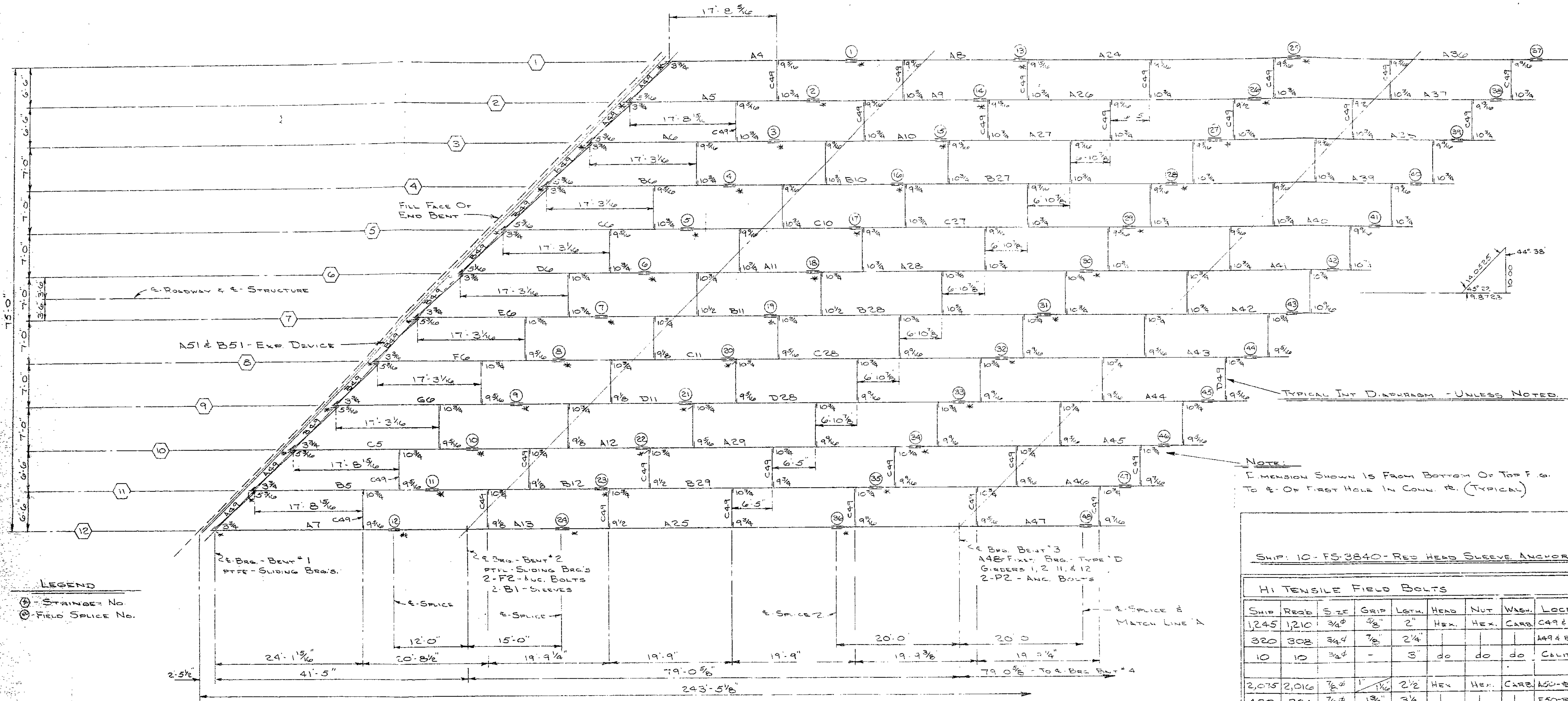
DRAIN DETAILS SHEET NOS. _____ THRU _____

DRAINAGE SYSTEM DETAILS SHEET NOS. _____ THRU _____

STEEL GRID FLOORING DETAILS SHEET NOS. _____ THRU _____

PEDESTRIAN FENCE DETAILS SHEET NOS. _____ THRU _____

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NOTE:
 DIMENSION SHOWN IS FROM BOTTOM OF TOP F.G.
 TO E. OF FIRST HOLE IN CONN. #. (TYPICAL)

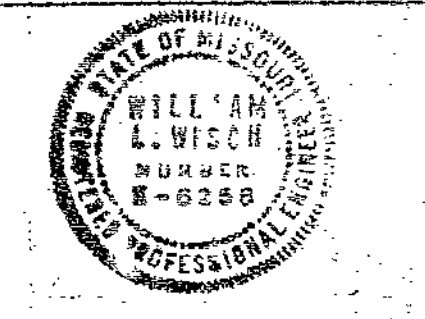
SHIP: 10- FS-3840- RED HEAD SLEEVE ANCHORS (FOR CURB #S.)

HI TENSILE FIELD BOLTS								
SHIP	REQ'D	SIZE	GRIP	LETH.	HEAD	NUT	WASH.	LOCATION
1245	1210	3/4"	3/8"	2"	Hex.	Hex.	CARB.	C49 & D49-INT DIAPHR. TO STRINGERS
320	308	3/4"	7/8"	2 1/4"				A49 & B49- END DIAPHR. TO STRINGERS
10	10	3/4"	-	3"	do	do	do	CALIBRATION BOLTS
2075	2016	7/8"	1 1/8"	2 1/2"	Hex.	Hex.	CARB.	A50-E. TO WAS. - TO A50-F.
400	384	7/8"	1 3/4"	3 1/4"				F50-F. TO TOP FLG. & H50-F. TO BOT. FLG.
1385	1344	7/8"	2 1/8"	3 1/2"				B50-E. TO TOP FLG. - C50-F.
								D50-F. TO BOT. FLG. - E50-F.
								F50-F. TO TOP FLG. - G50-F.
1190	1152	7/8"	2 3/8"	3 3/4"				H50-E. TO BOT. FLG. - J50-F.
10	10	7/8"	-	3"	do	do	do	CALIBRATION BOLTS

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979

FIELD MACHINE BOLTS								
SHIP	REQ'D	SIZE	GRIP	LETH.	HEAD	NUT	WASH.	LOCATION
50	48	1/2"	3/8"	1 1/2"	Hex.	Hex.	PLAN	C51-L. TO END DEVICE CONN. #.
50	48	1/2"	1 1/8"	1 3/4"				C51-L. TO STRINGERS
65	64	1/2"	2 3/8"	3 1/4"	do	do	do	A51-L. TO B51-L & A52-L. TO B52-L

FIELD WELDERS			
SHIP	REQ'D	SIZE	TYPE
1575	1528	3/4"	CARB.
5265	4908	7/8"	CARB.
165	160	1/2"	PLAN
8	8	1 1/4"	CUT



BRIDGE BLUE RIDGE BLUE UNDER PASS L9292R

LEGEND
 (1) - STRINGER NO.
 (2) - FIELD SPICE NO.

2-E. BRG. - BENT #1
 PTFE - SLIDING BRG'S.

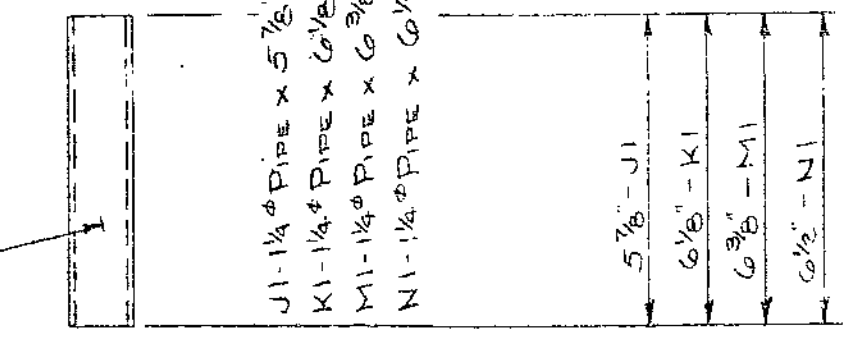
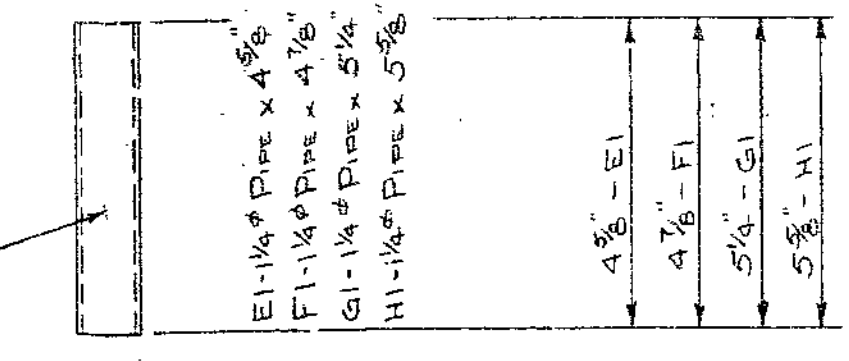
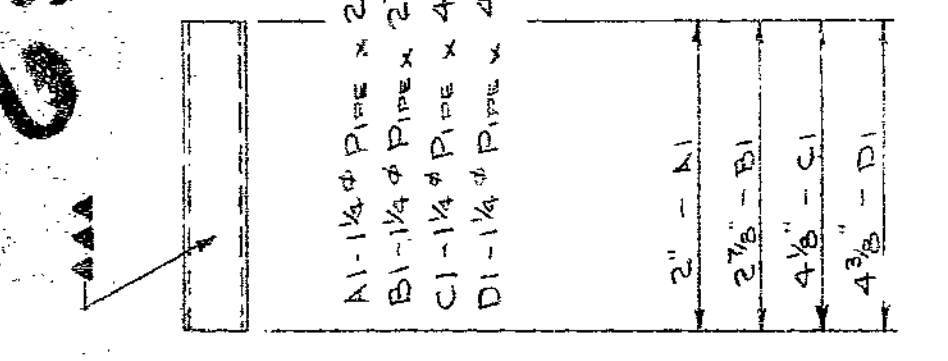
2-E. BRG. - BENT #2
 PTFE - SLIDING BRG'S
 2-FE - ANCH. BOLTS
 2-B1 - SLEEVES

2-E. BRG. - BENT #3
 A48-F. TYPE 'D'
 GRADERS 1, 2, 11, & 12
 2-P2 - ANCH. BOLTS

PART ERECTION PLAN

LONGITUDINAL DIMENSIONS SHOWN ARE TAKEN PARALLEL TO GRADE AT TOP OF BOTTOM FLANGE.
 SEE SHT. # 4B FOR GENERAL NOTES.

NOTE:
 SLEEVES MUST FIT OVER 1/4" SWEDGED ANCHOR BOLT.



- MAKE - 8 - A1 - SLEEVES - BNT #1 - GRD. 1 & 2
- MAKE - 48 - B1 - SLEEVES - BNT'S 2 & 4
- MAKE - 2 - C1 - SLEEVES - BNT #5 - GRD. 11
- MAKE - 2 - D1 - SLEEVES - BNT #5 - GRD. 2

- MAKE - 2 - E1 - SLEEVES - BNT #1 - GRD. 11
- MAKE - 2 - F1 - SLEEVES - BNT #5 - GRD. 10
- MAKE - 2 - G1 - SLEEVES - BNT #1 - GRD. 2
- MAKE - 2 - H1 - SLEEVES - BNT #5 - GRD. 9

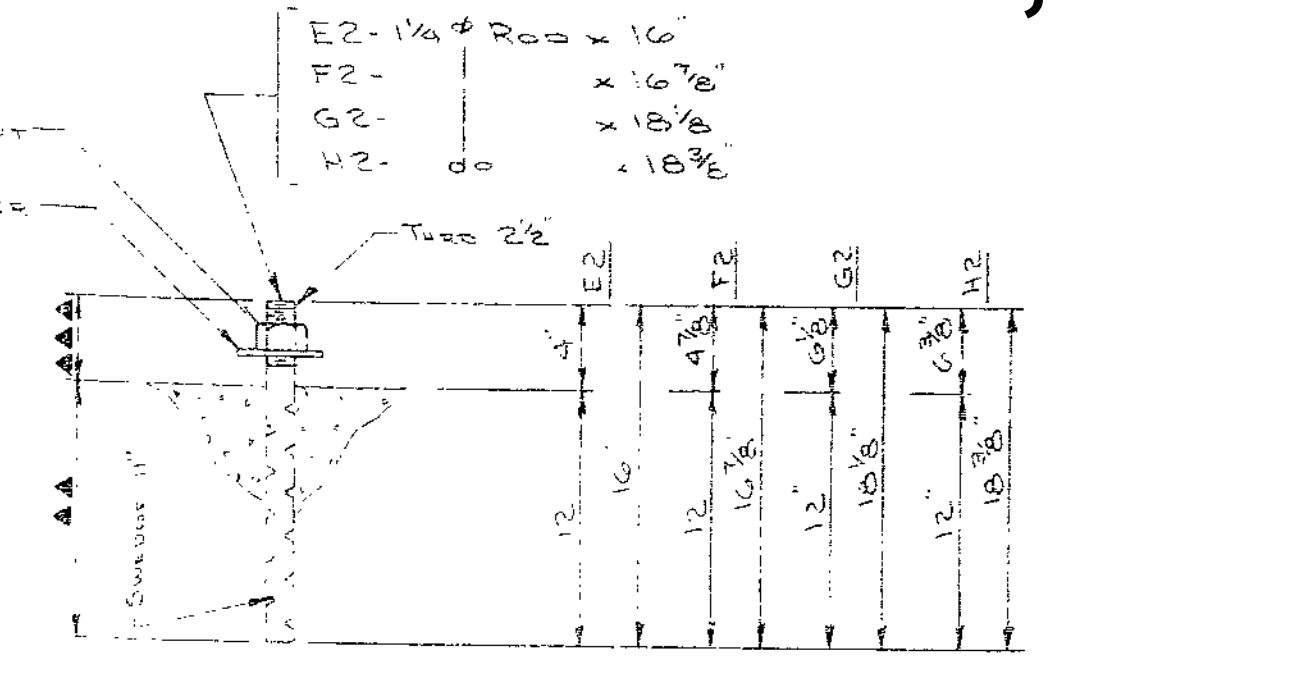
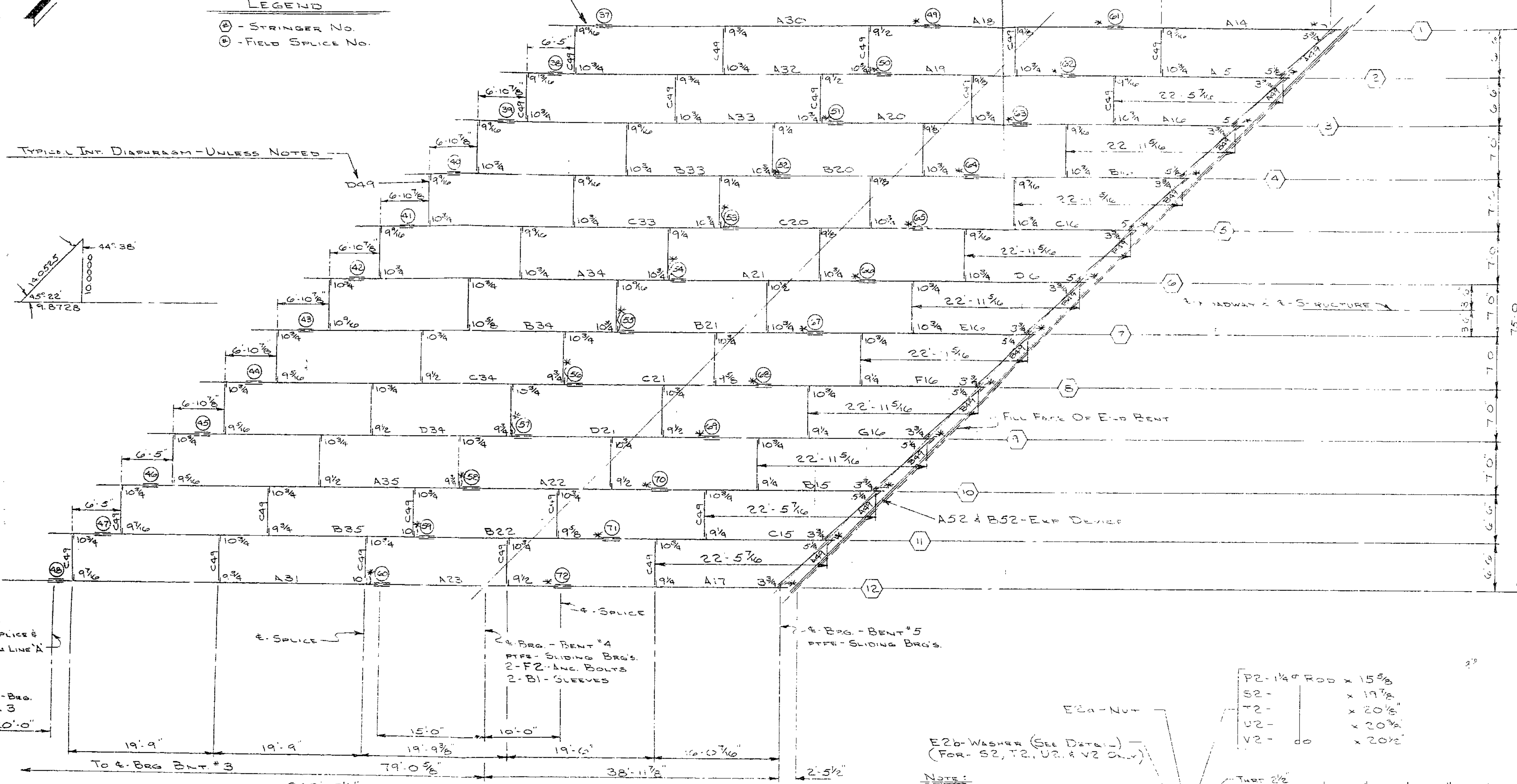
- MAKE - 2 - J1 - SLEEVES - BNT #5 - GRD. 5
- MAKE - 6 - K1 - SLEEVES - BNT #1 GRD. 3 & 5 - BNT #5 GRD. 4
- MAKE - 8 - M1 - SLEEVES - BNT #5 GRD. 9
- MAKE - 2 - N1 - SLEEVES - BNT #1 GRD. 10

	STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN	<p>PRINT RECORD</p> <table border="1"> <tr> <th>NO.</th> <th>REV.</th> <th>DATE</th> <th>NO.</th> <th>REV.</th> <th>DATE</th> </tr> <tr> <td>1</td> <td></td> <td>6-28-79</td> <td>1</td> <td></td> <td>9-20-79</td> </tr> <tr> <td>2</td> <td></td> <td>8-3-79</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td>9-20-79</td> <td></td> <td></td> <td></td> </tr> </table>	NO.	REV.	DATE	NO.	REV.	DATE	1		6-28-79	1		9-20-79	2		8-3-79				3		9-20-79				<p>DE LONG'S INC. DIAL 635-6121 JEFFERSON CITY, MISSOURI DIX RD. & IND. DR.</p>	<p>DETAILED BY J.W.N. /</p> <p>DATE 5-1-79</p> <p>CHECKED BY [Signature]</p> <p>DATE 7-1-79</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>DATE</th> <th>MK. BY</th> <th>REMARKS</th> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>	DATE	MK. BY	REMARKS				<p>CUSTOMER CLARKSON CONST. CO. 4071-71 U.F. 71-4(30) 4+77.07</p> <p>LOCATION JACKSON COUNTY, MO. RT. 71 STATE ROAD RT. 71 IN GRANDVIEW ARCH. ENGR. MO. STATE HWY. DEPT.</p>	<p>JOB NO. 79-40</p> <p>SHT. 1</p>
	NO.	REV.	DATE	NO.	REV.	DATE																															
1		6-28-79	1		9-20-79																																
2		8-3-79																																			
3		9-20-79																																			
DATE	MK. BY	REMARKS																																			
<p>BEAM & PL LINTEL</p> <p>BEAM CONN.</p> <p>BASE & CAP PLATE H. COL.</p> <p>PIPE COL.</p>	<p>BOLTS UNLESS NOTED.</p> <p>RIVETS UNLESS NOTED.</p> <p>OPEN MS. UNLESS NOTED.</p>	<p>DATE 7-1-79</p>	<p>BRIDGE BLUE RIDGE BLUE UNDER PASS L9292R</p>	<p>ARCH. ENGR. MO. STATE HWY. DEPT.</p>	<p>DATE 7-1-79</p>																																

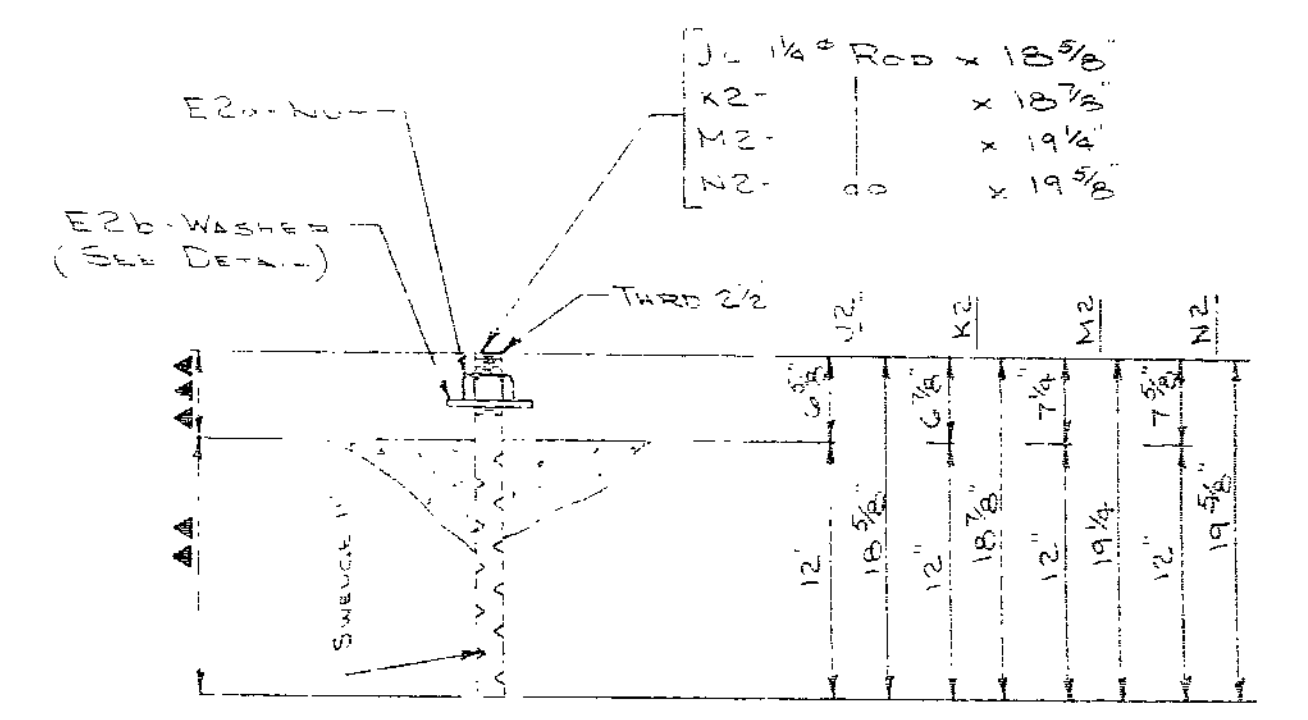
A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ

NOTE:
DIMENSION SHOWN IS FROM BOTTOM OF TOP
FLG. TO E-OF FIRST HOLE IN CONN. PL.
(TYPICAL)

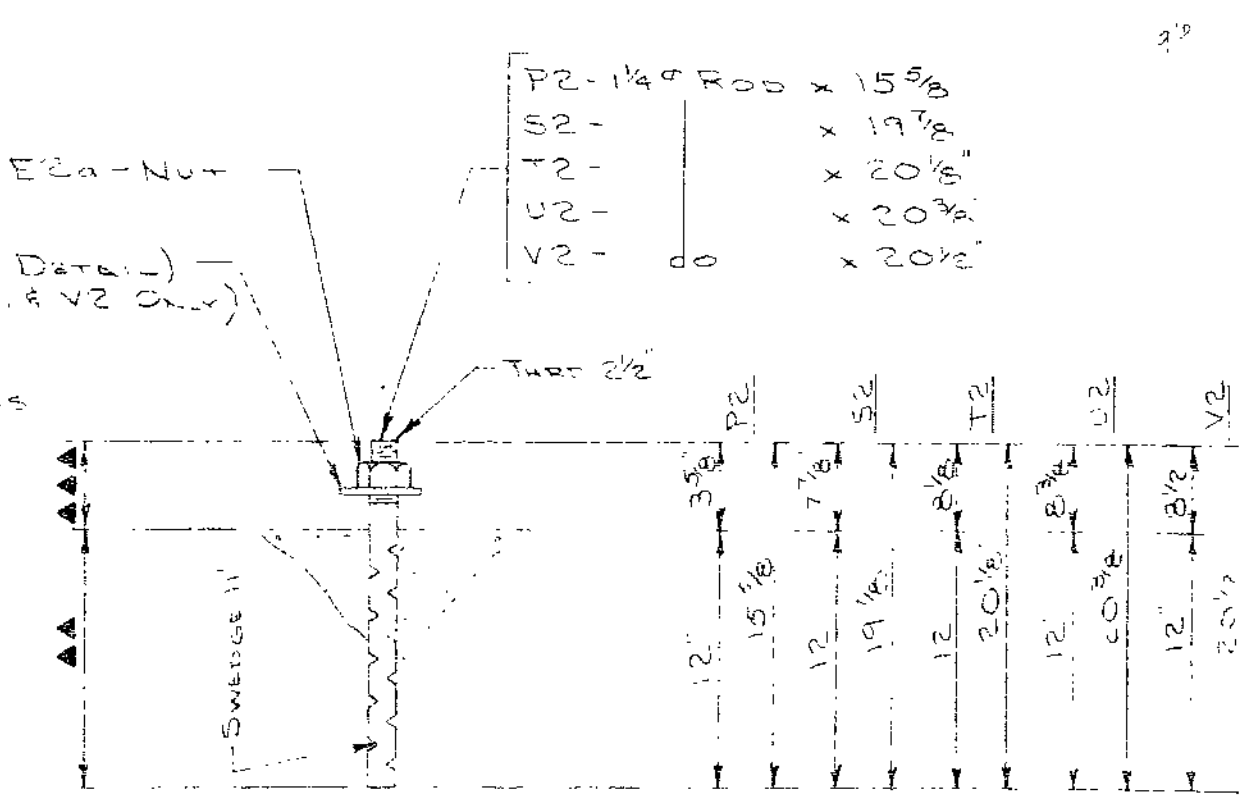
LEGEND
⊙ - STRINGER NO.
⊙ - FIELD SPICE NO.



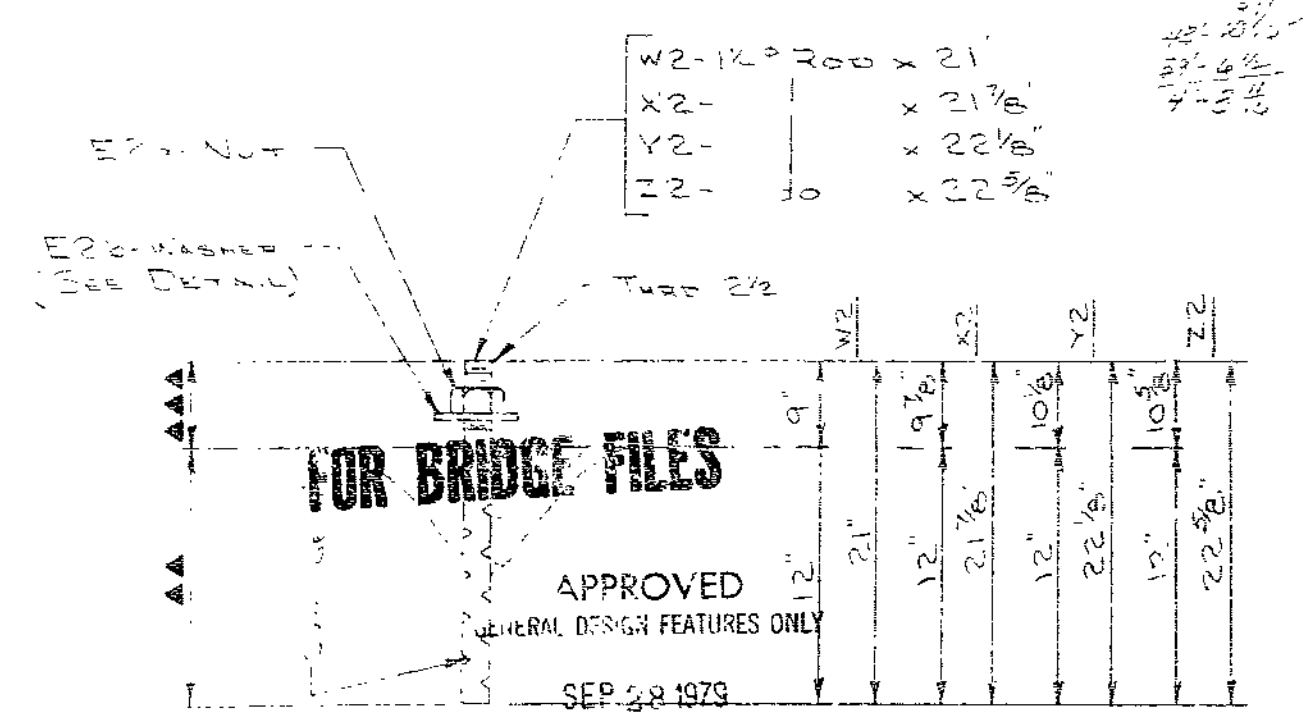
MAKE - E-F2-ANC BOLTS - BNT #1-GRD 1 & 2
MAKE - G2-F2-ANC BOLTS - BNT #2 & 4
MAKE - 2-G2-ANC BOLTS - BNT #5-GRD 11
MAKE - 2-H2-ANC BOLTS - BNT #5-GRD 2



MAKE - 2-U2-ANC BOLTS - BNT #1-GRD 11
MAKE - 2-K2-ANC BOLTS - BNT #5-GRD 10
MAKE - 2-M2-ANC BOLTS - BNT #1-GRD 2
MAKE - 2-N2-ANC BOLTS - BNT #5-GRD 9

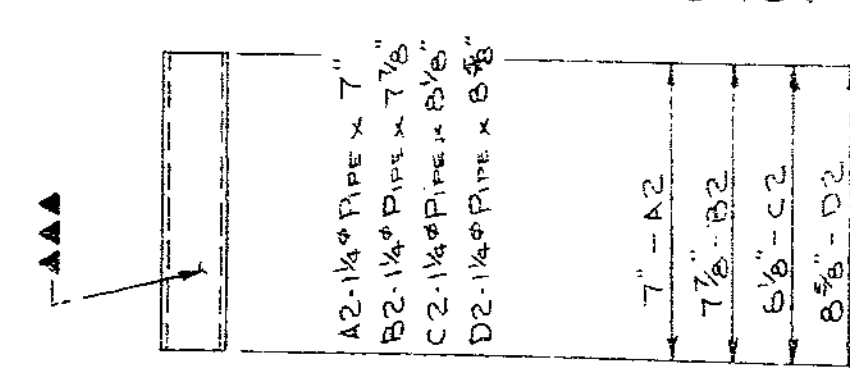


MAKE - 8-F2-ANC BOLTS - BNT #3-GRD 1,2,11,12
MAKE - 2-S2-ANC BOLTS - BNT #5-GRD 5
MAKE - 6-T2-ANC BOLTS - BNT #1-GRD 3 & 8
MAKE - 3-U2-ANC BOLTS - BNT #1-GRD 9
MAKE - 2-V2-ANC BOLTS - BNT #5-GRD 3,6,10

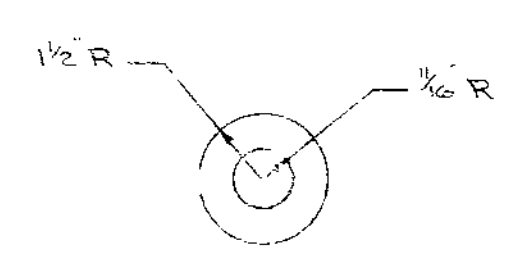


MAKE - 1-W2-ANC BOLTS - BNT #1-GRD 4
MAKE - 1-X2-ANC BOLTS - BNT #5-GRD 7
MAKE - 2-Y2-ANC BOLTS - BNT #1-GRD 7
MAKE - 2-Z2-ANC BOLTS - BNT #1-GRD 6

PART ERECTION PLAN
LONGITUDINAL DIMENSIONS SHOWN ARE TAKEN PARALLEL TO GRADE
AT TOP OF BOTTOM FLANGE
SEE SHT # 48 FOR GENERAL NOTES



NOTE:
SLEEVES MUST FIT OVER 1/4" SWEGGED
END BOLT

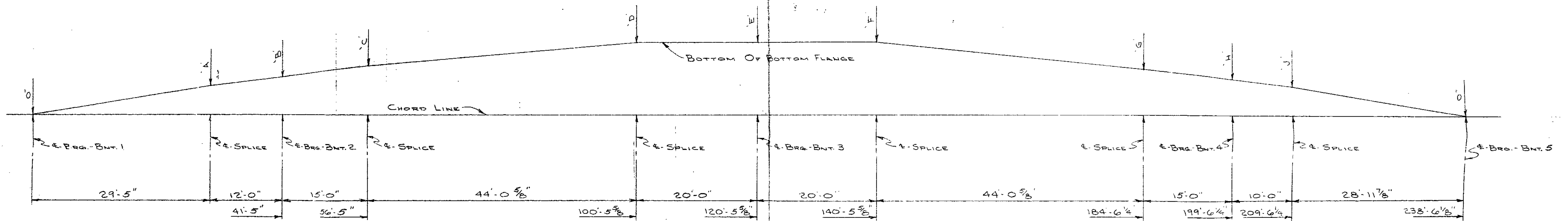


DETAIL OF E2b-WASHER

MAKE - 4-A2-SLEEVES - BNT #1-GRD 4
MAKE - 2-B2-SLEEVES - BNT #1-GRD 5
MAKE - 2-C2-SLEEVES - BNT #1-GRD 7
MAKE - 2-D2-SLEEVES - BNT #1-GRD 6

▲▲ PAINT ONE COAT - 2.0 MIN. MIN. INORGANIC ZINC.
▲▲▲ PAINT 3 COATS - 6.0 MIL. MIN.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE			
		NO.	FOR	DATE	NO.	FOR	DATE	DATE	MR. BY	REMARKS	Blue Ridge Blvd. Under Pass
		1	2	6-18-77	2	CON	9-20-77				79-40
JOB SYSTEM 'B' - TYPE II		BOUNTS UNLESS MTD.		2		A=6-3-79		CHECKED BY		LOCATION Jackson County, Rte. 71	
OPEN PLS. UNLESS MTD.		5		SHOP		4/26/77		DATE 7-21-79		ARCH. ENGR. Mo. State Hwy. Dept.	
DE LONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 635-6121				DATE 7-21-79		ARCH. ENGR.		ARCH. ENGR.		L-921R 79-40 SHT. 2 OF 54	
				MO. STATE HIGHWAY DEPT. DIVISION OF BRIDGES		APPROVED GENERAL DESIGN FEATURES ONLY SEP 28 1979		FOR BRIDGE FILES		SEP 28 1979	



BLOCKING DIAGRAM
DIM. SHOWN IS TO THE THICKER FLANGE. (TYPICAL)

DIMENSION

	A	B	C	D	E	F	G	H	J
①	3 1/16	4 1/8	5 3/8	5 1/16	5 1/8	6 3/8	2 3/8	1 5/16	1 3/16
②	2 3/16	3 1/8	5	5 9/16	5 1/8	6 3/8	2 1/16	2 1/8	1 3/16
③	2 3/16	3 3/4	4 1/8	5 9/16	6 1/16	6 3/16	2 5/16	2 1/2	1 5/16
④	2 3/16	3 3/16	4 1/2	5 1/16	6	6 1/16	3 1/4	2 1/2	2 1/8
⑤	2 3/8	3 1/4	4 3/16	5 3/8	6	6	3 1/2	2 3/16	2 1/4
⑥	2 3/8	3 1/16	4	5 15/16	6 1/16	5 5/16	3 3/16	2 15/16	2 3/8
⑦	2 1/16	2 3/4	3 1/16	5 15/16	6	5 1/16	4	3 1/8	2 9/16
⑧	1 5/16	2 1/16	3 5/16	6	6	5 1/16	4 3/16	3 5/16	2 1/16
⑨	1 7/8	2 3/8	3 1/8	6 3/16	5 5/16	5 1/16	4 5/16	3 1/2	2 1/8
⑩	1 5/8	2 1/16	2 1/16	6 1/8	5 1/8	5 5/16	4 1/16	3 1/16	2 1/8
⑪	1 1/2	1 5/16	2 1/16	6 3/16	5 3/16	5 1/4	5 1/8	3 3/16	3 1/8
⑫	1 1/2	1 3/4	2 1/16	6 1/2	5 1/8	5 5/16	5 1/4	4 1/8	3 1/4

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

BEAM & PL LINTEL: 1/4" V-12, 1/4" V-12

BEAM CONN.:

BASE & CAP PLATE: 1/4" WELD AS SHOWN, H. COL.

PIPE COL.:

PRINT RECORD:

NO.	FOR	DATE	NO.	FOR	DATE
1	REVISED	5-28-79			
2	REVISED	7-20-79			
3	REVISED	8-10-79			

DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI

DETAILED BY: J.W.N. DATE: 5-4-79

CHECKED BY: [Signature] DATE: 7-31-79

REVISIONS:

DATE	MK. BY	REMARKS

BRIDGE: BLUE RIDGE BLVD UNDER PASS

JOB: 4-U071-71 U-F-71-2(30) 4-17-07

LOCATION: JACKSON COUNTY, RTE. 71

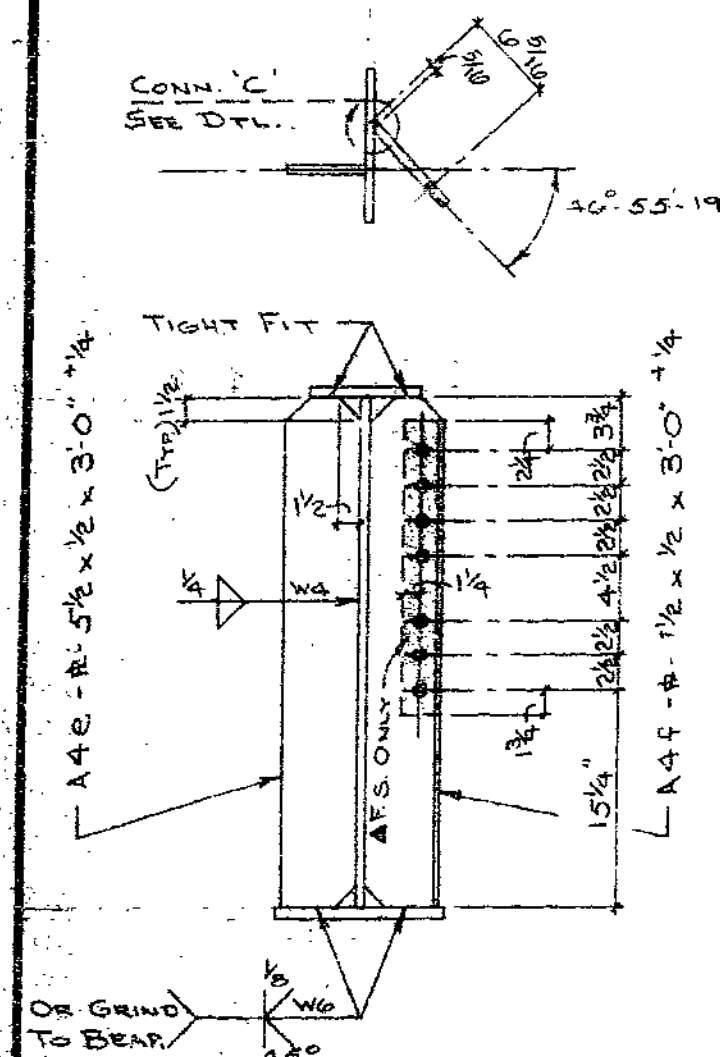
ARCH. ENGR. MO. STATE HWY. DEPT.

JOB No. 79-40

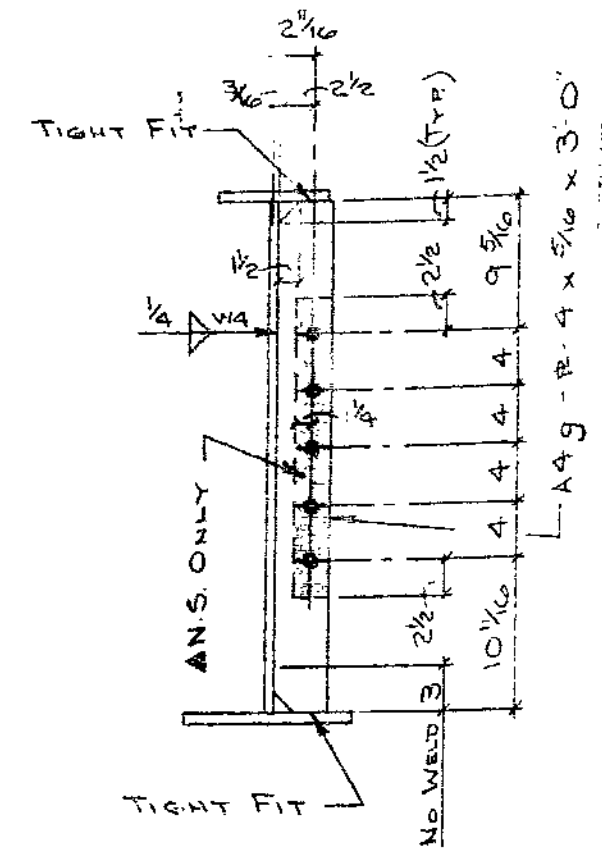
SYTT. No. 3

54

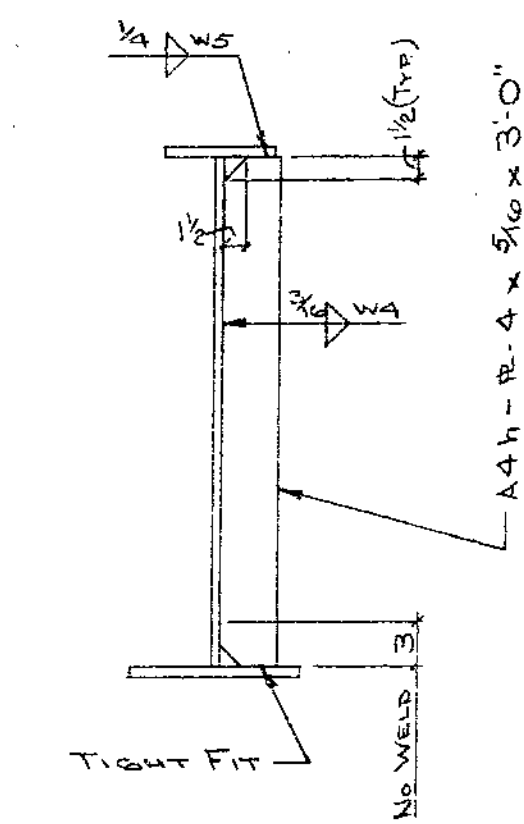
65



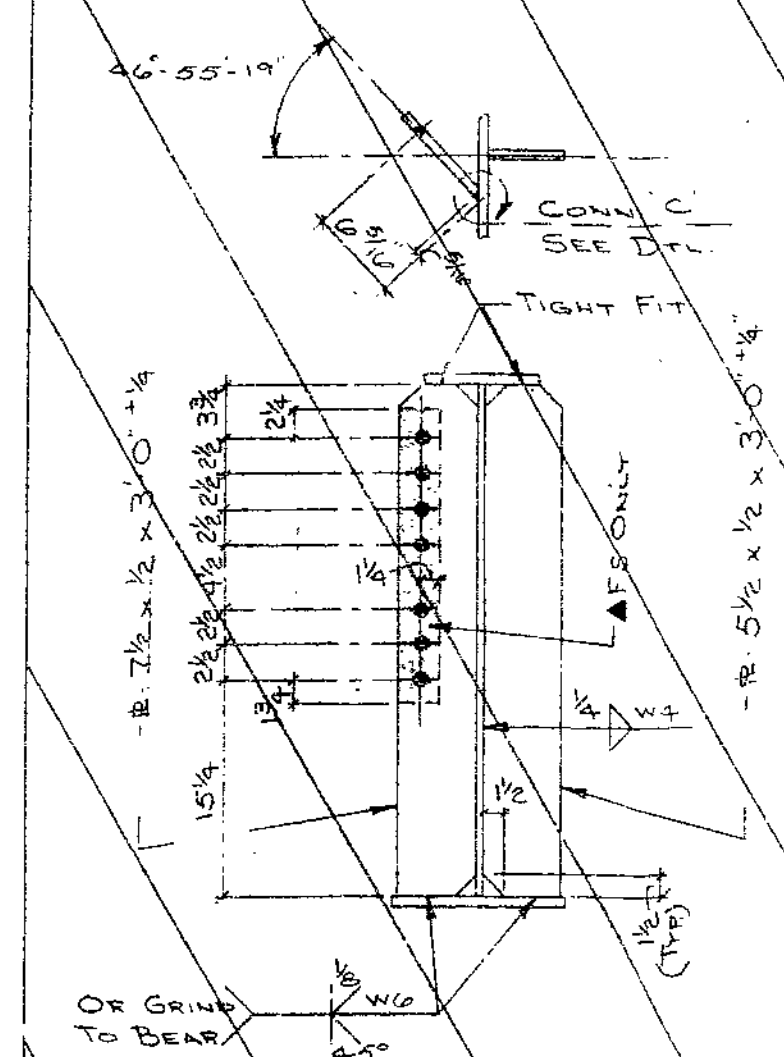
SECTION A-A



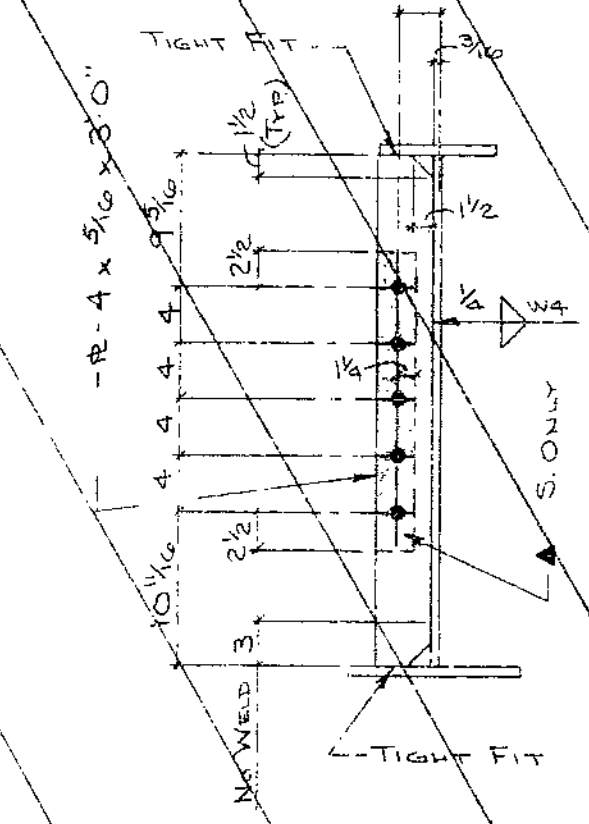
SECTION B-B



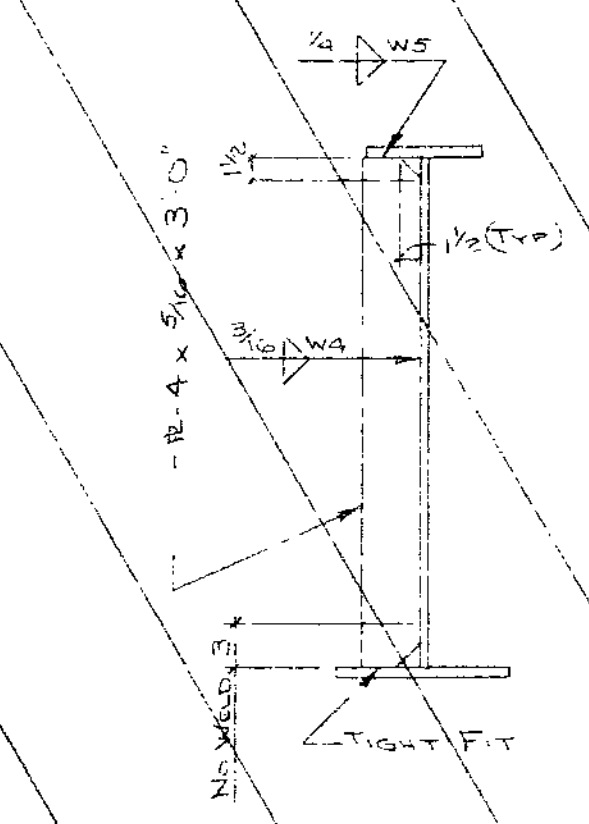
SECTION C-C



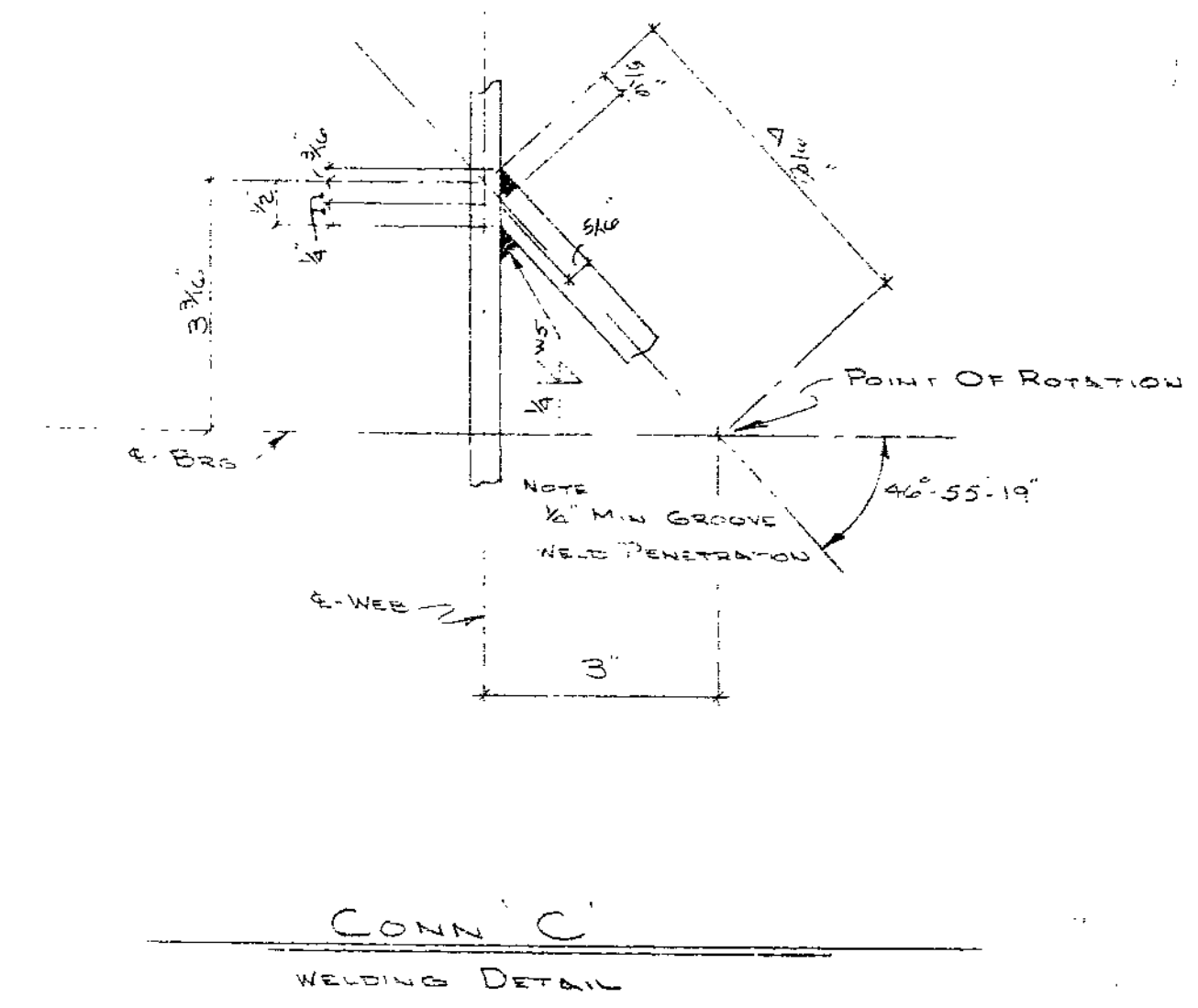
SECTION A-A



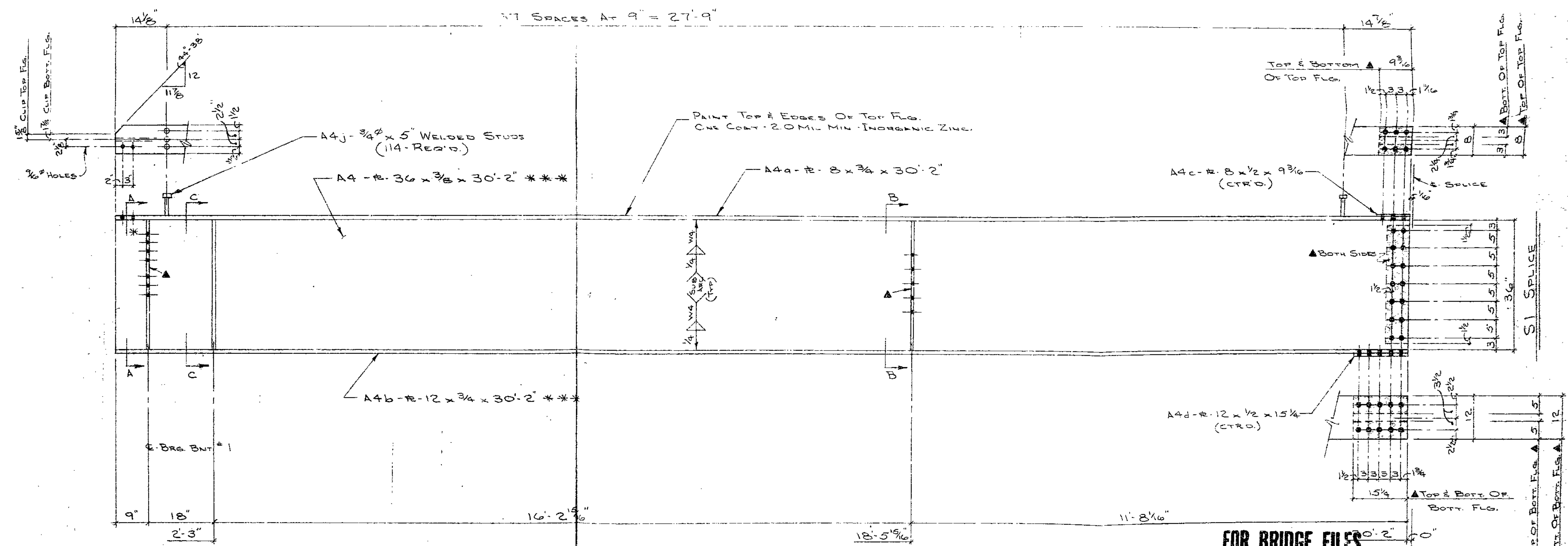
SECTION B-B



SECTION C-C



CONN C WELDING DETAIL



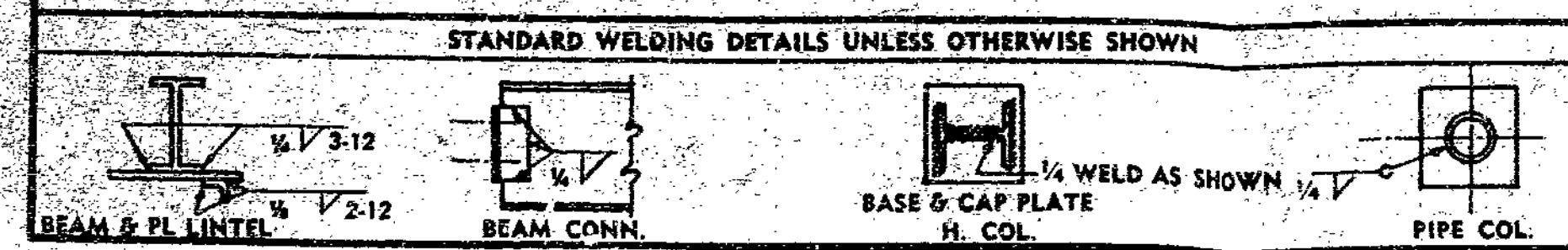
FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979

MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

MAKE - ONE - A4

*** DENOTES NOTCH TOUGHNESS OF 15 FT/LS @ 40° F. REQ'D.
▲ PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.



PRINT RECORD			
NO.	FOR DATE	NO.	FOR DATE
2	AP 837		

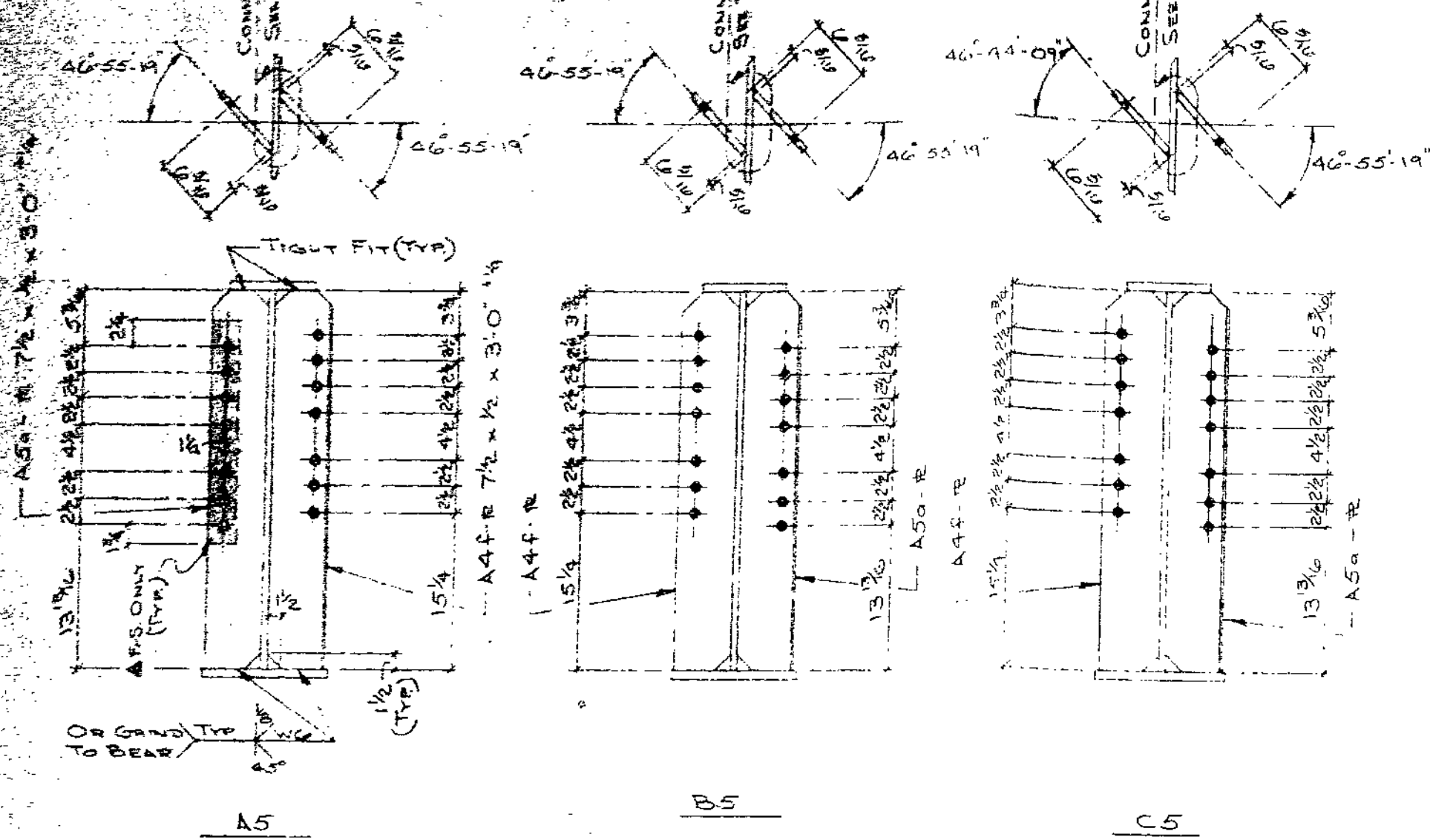
BOLTS REVERS 3/4" UNLESS NTD.
OPEN HES 1 3/16" UNLESS NTD.

DELONG'S
INC.
DIX RD. & IND. DR.
JEFFERSON CITY, MISSOURI

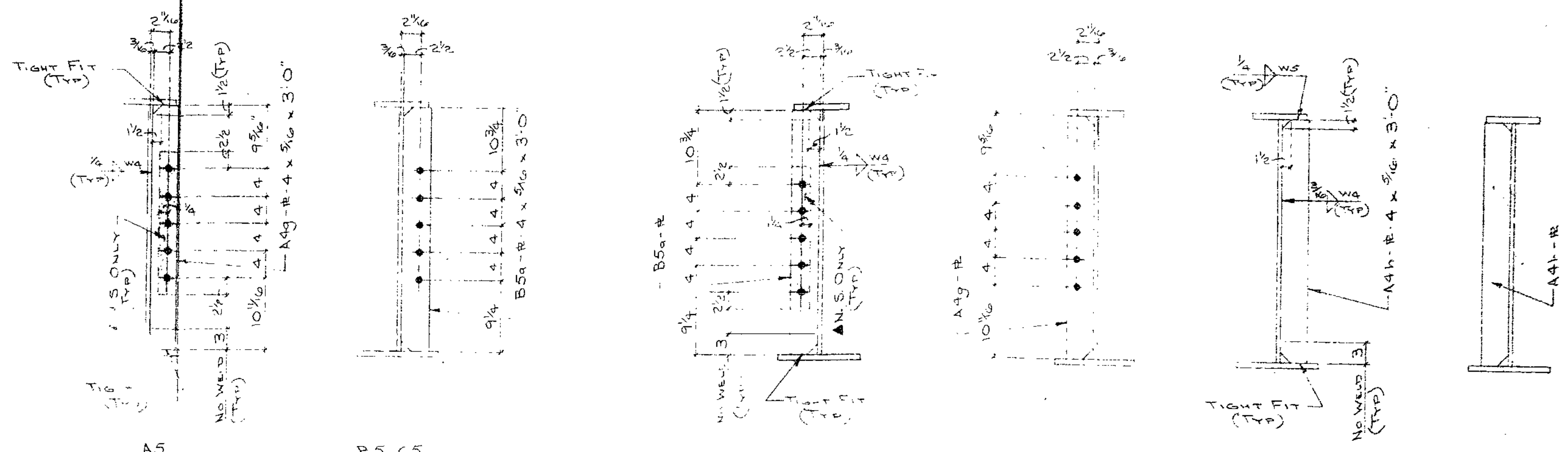
DETAILS BY		REVISIONS	
DATE	MK	BY	REMARKS
DATE 5-11-79			
CHECKED BY			
DATE 7-31-79			

BRIDGE	Blue Ridge Blvd Under Pass	JOB No	L-921R
PROJ. No	4-0071-71 U-E-71-4(80) 4+77.07	79-40	
LOCATION	Jackson County, Rts. 71	CHG. No	4
ARCH. ENGR.	MO. STATE HWY. DEPT.	DATE	3/79

A B C D E F G H J K M N P S T U Y W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



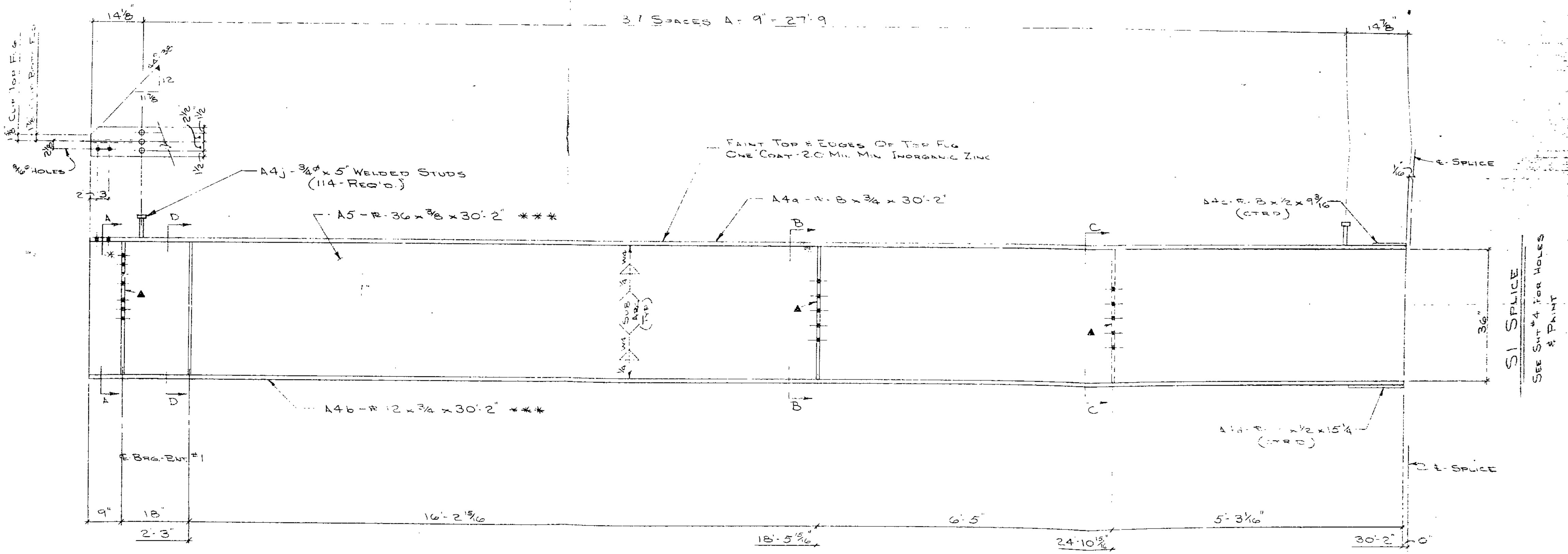
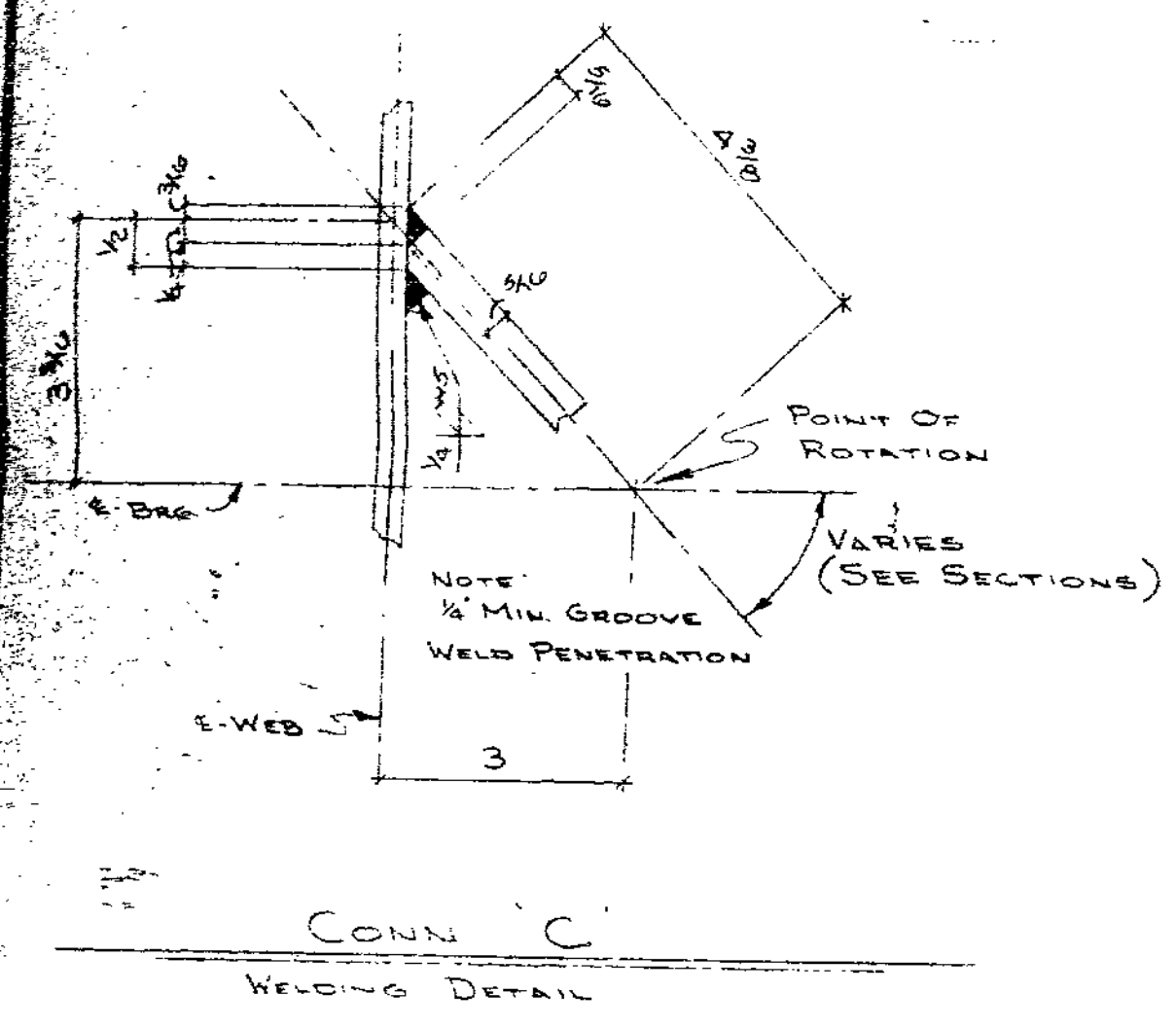
SECTION A-A



SECTION B-B

SECTION C-C

SECTION D-D



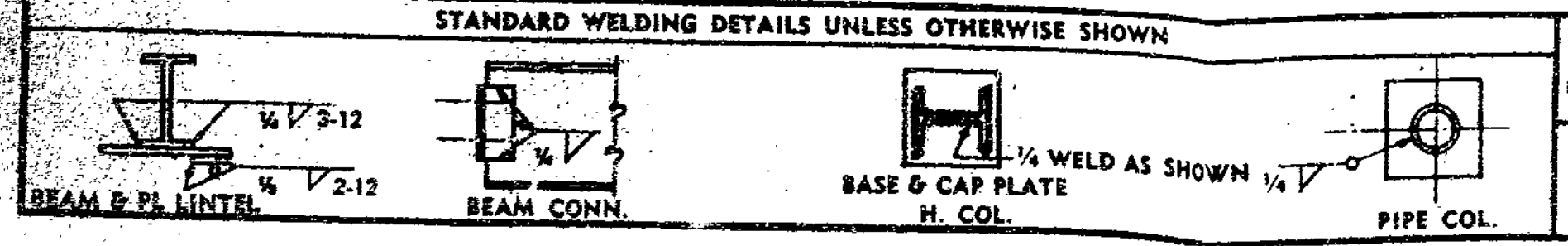
MAKE -- ONE -- A5
 MAKE -- ONE -- B5
 MAKE -- ONE -- C5

FOR BRIDGE FILES

APPROVED
 GENERAL DESIGN FEATURES ONLY

SEP 28 1979

MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

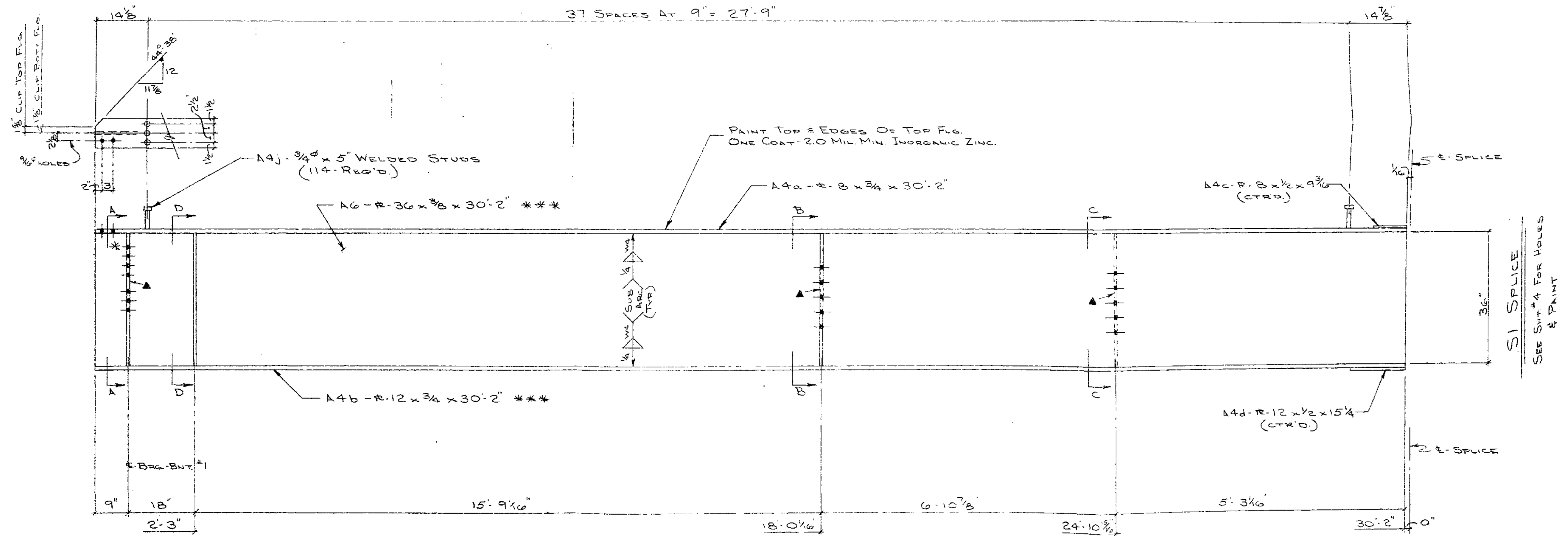
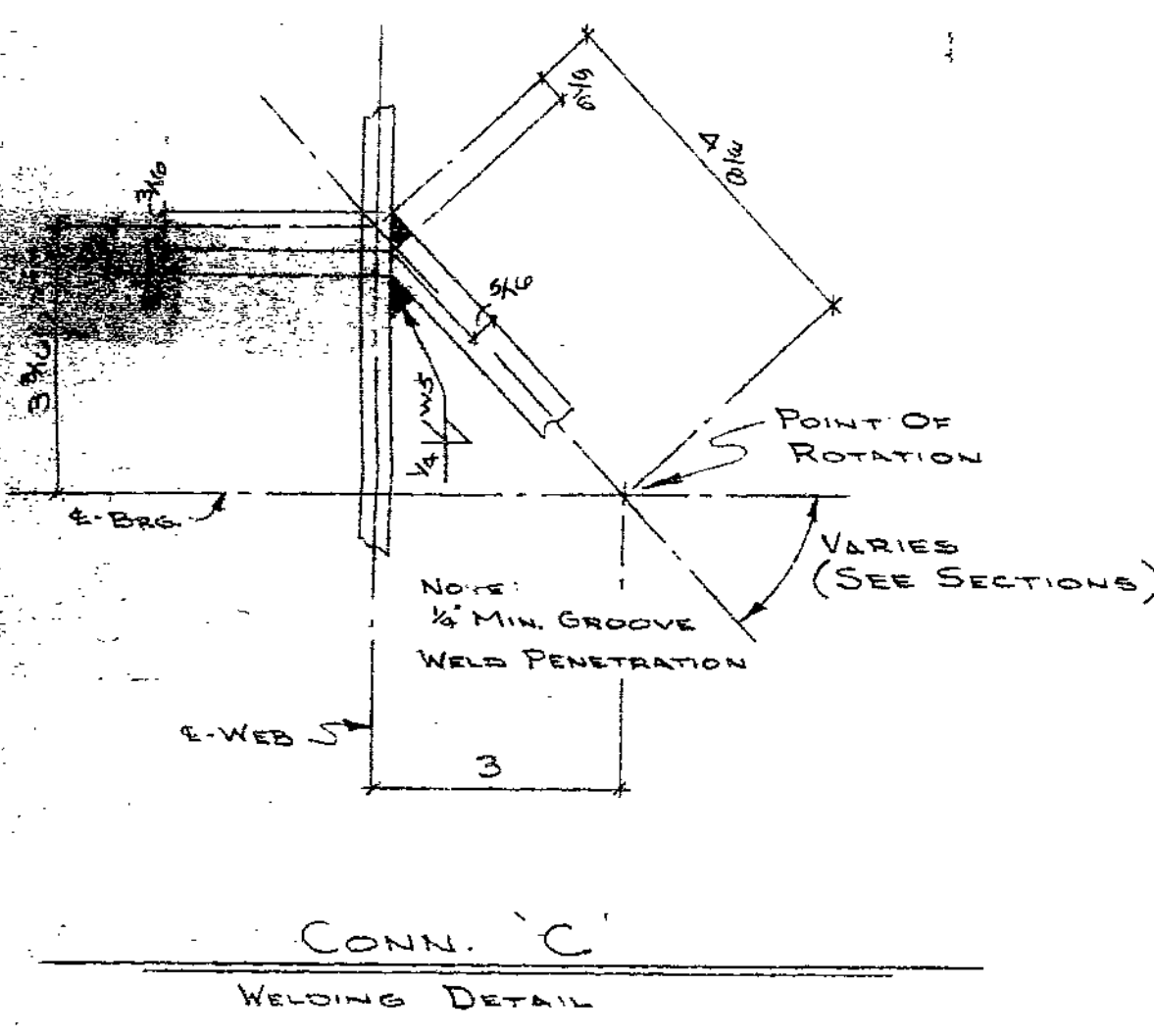
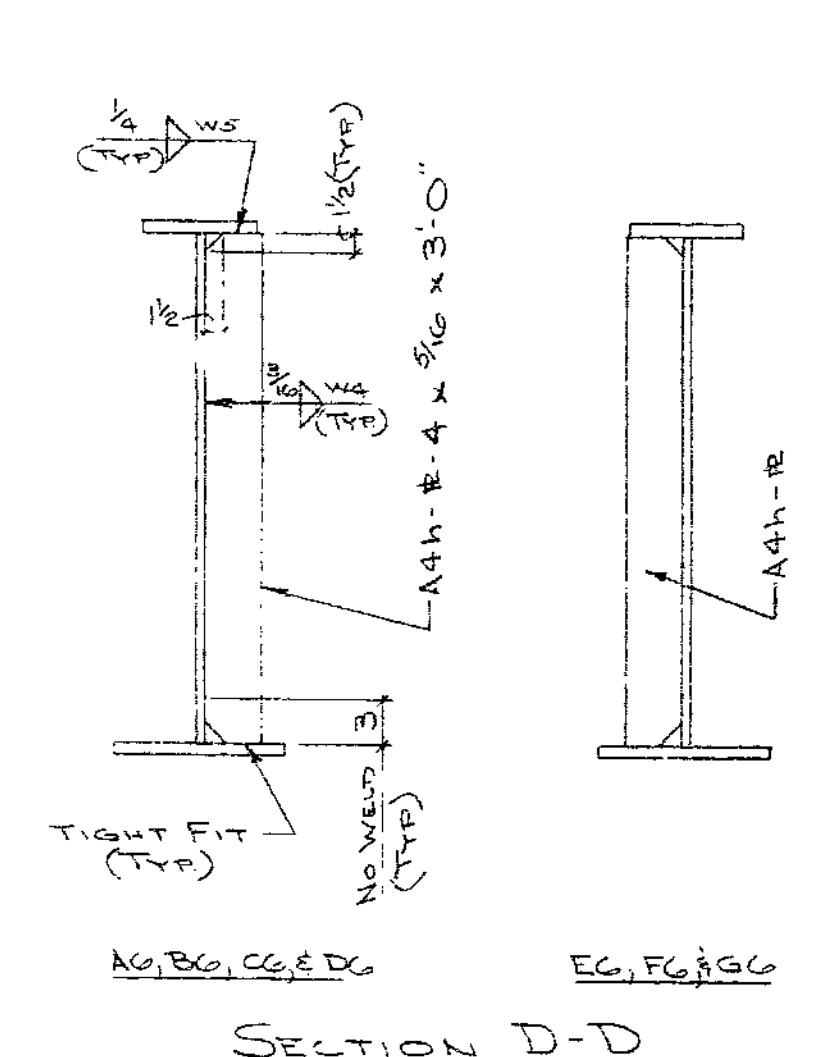
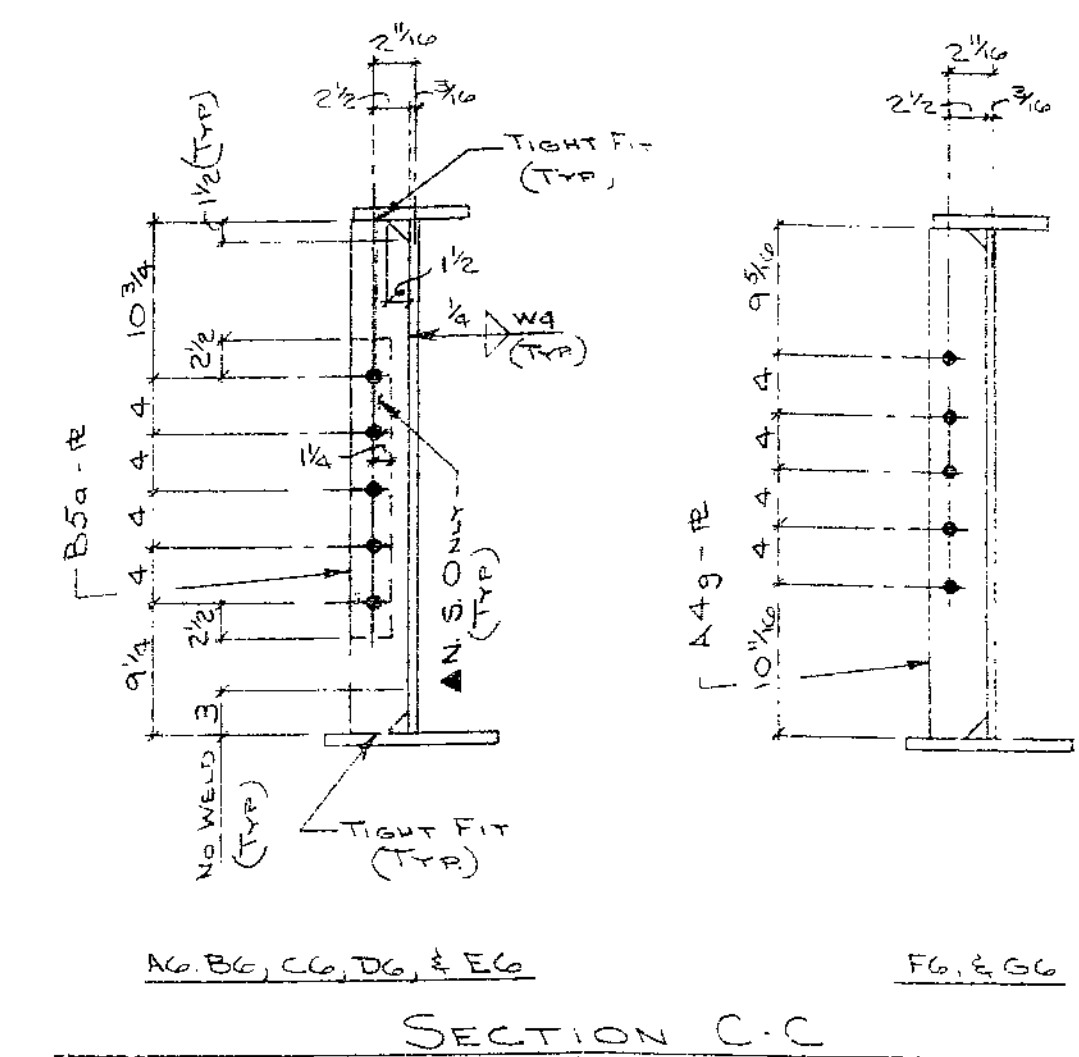
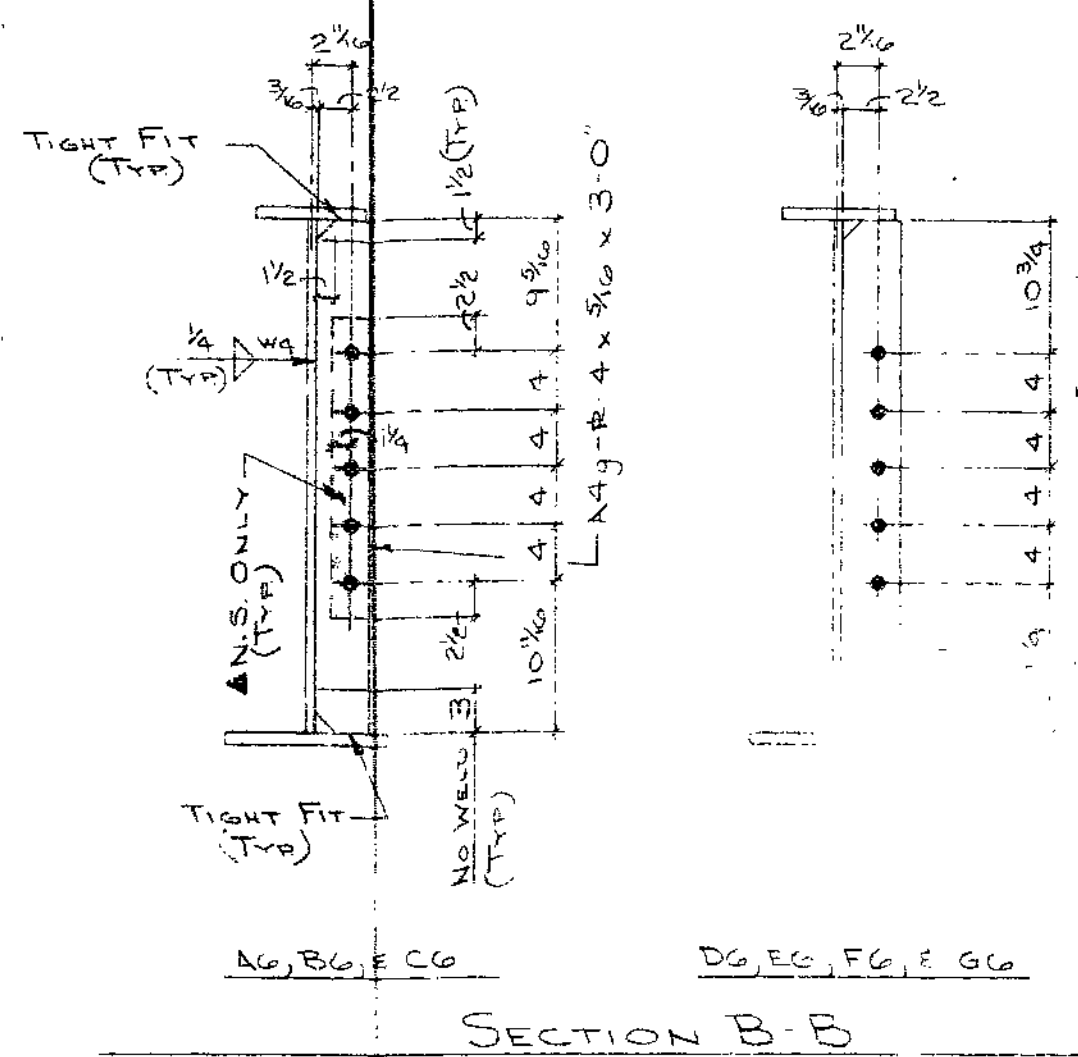
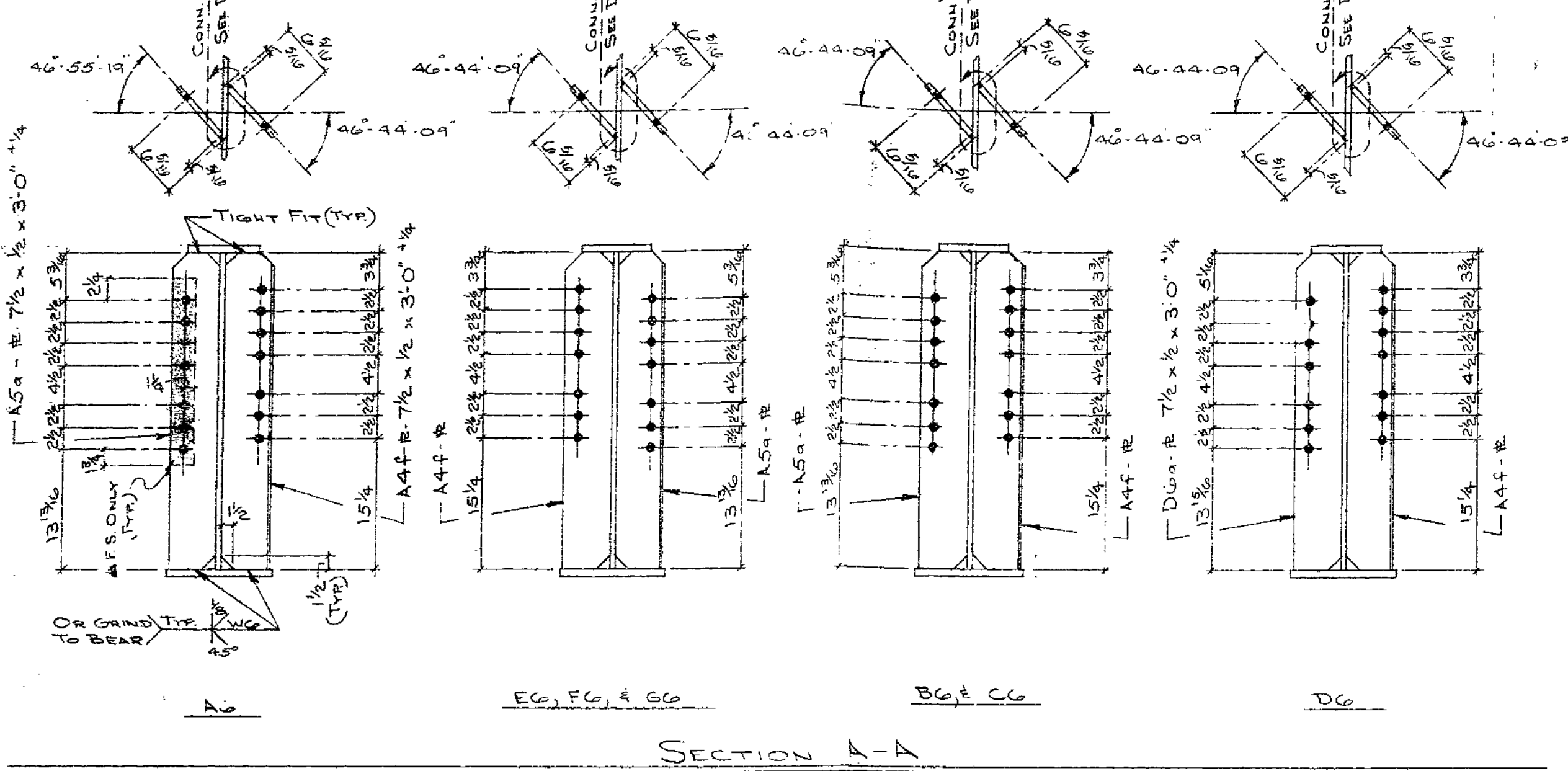


PRINT RECORD	NO.		DATE	
	NO.	FOR	NO.	FOR
SYSTEM 'B'-TYPE II	2	AP	8	79
BOLTS	3/4 φ	UNLESS NTD.		
RYETS	13/16 φ	UNLESS NTD.		
OPEN HLS.				

DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 635-6121

DATE	MK.	BY	REVISIONS
5-14-79		J.W.N.	
7-31-79		O.H.P.	

BRIDGE	PROJ.	STA.	JOB No.
Blue Ridge Blvd Under Pass	4-U071-71	U-7-71-4(30)	79-40
LOCATION	ARCH. ENGR.	MO. STATE HWY. DEPT.	SHT. No.
JACKSON COUNTY, MO.			5

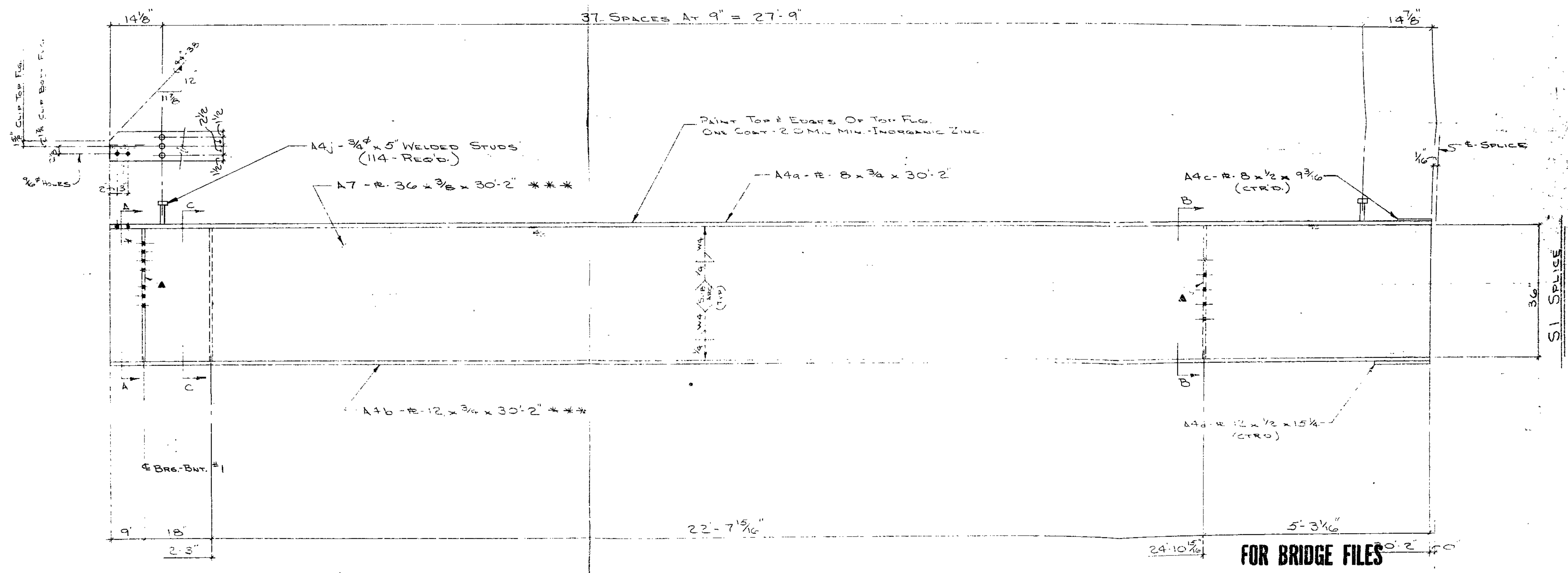
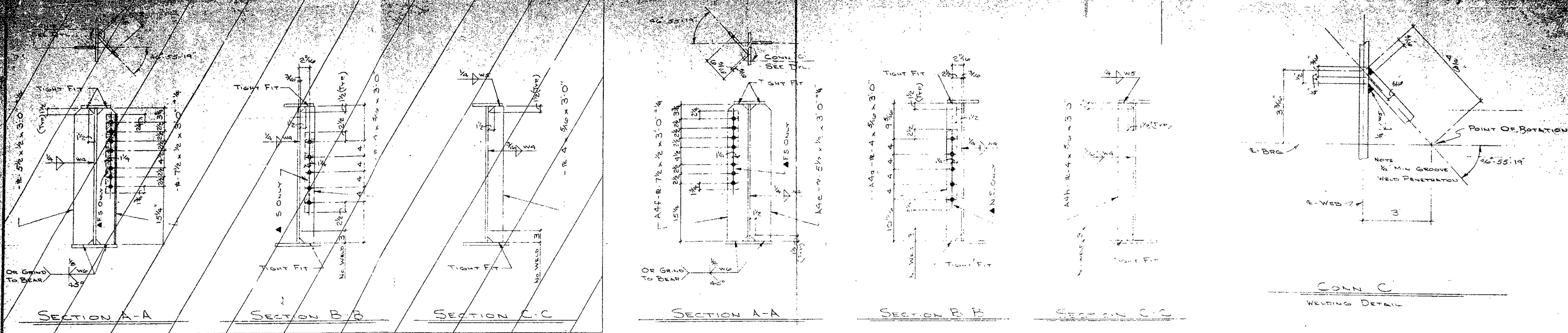


- MAKE — ONE — A6
- MAKE — ONE — BG
- MAKE — ONE — CG
- MAKE — ONE — DG
- MAKE — ONE — EG
- MAKE — ONE — FG
- MAKE — ONE — GG

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		DeLONG'S INC. DIAL 635-6121 DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI	PRINT RECORD NO. FOR DATE INC. PSE DATE 2 4 83 79	DETAILED BY J.W.N. DATE 5-14-79 CHECKED BY OHP DATE 7-31-79	REVISIONS DATE MK. BY REMARKS	BRIDGE Blue Ridge Blvd UNDER PASS JOB # 4-U071-71 U-F-71-4(30) 4+77.07 LOCATION JACKSON COUNTY, RTE 71 ARCH. ENGR. MO. STATE HWY. DEPT	JOB No. 79-40 SHT. No. 6 OF 54
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A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



69

***-DENOTES NOTCH TOUGHNESS OF 15 FT/LB'S @ 40° F REQ'D.

▲-PAINT ONE COAT - 1.5 MIL MIN. - 2.5 MIL MAX. - INORGANIC ZINC.

MAKE - ONE - A7

FOR BRIDGE FILES

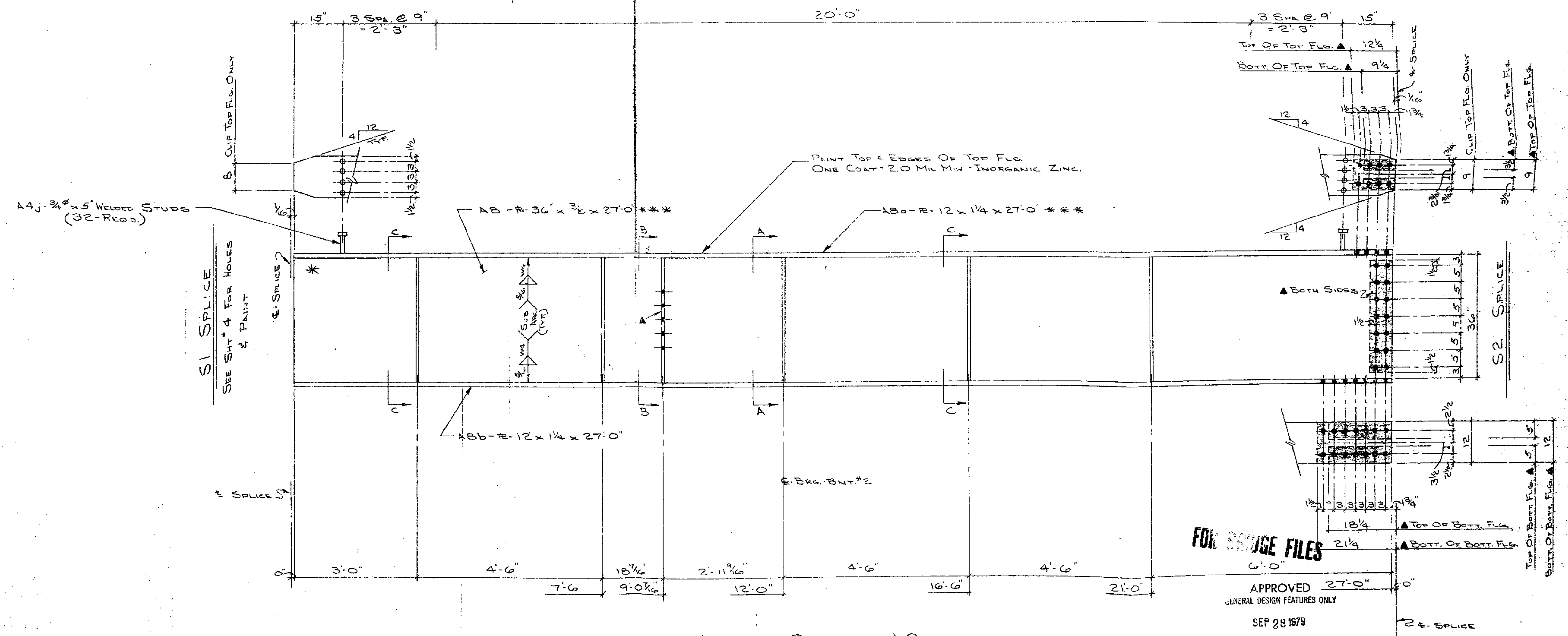
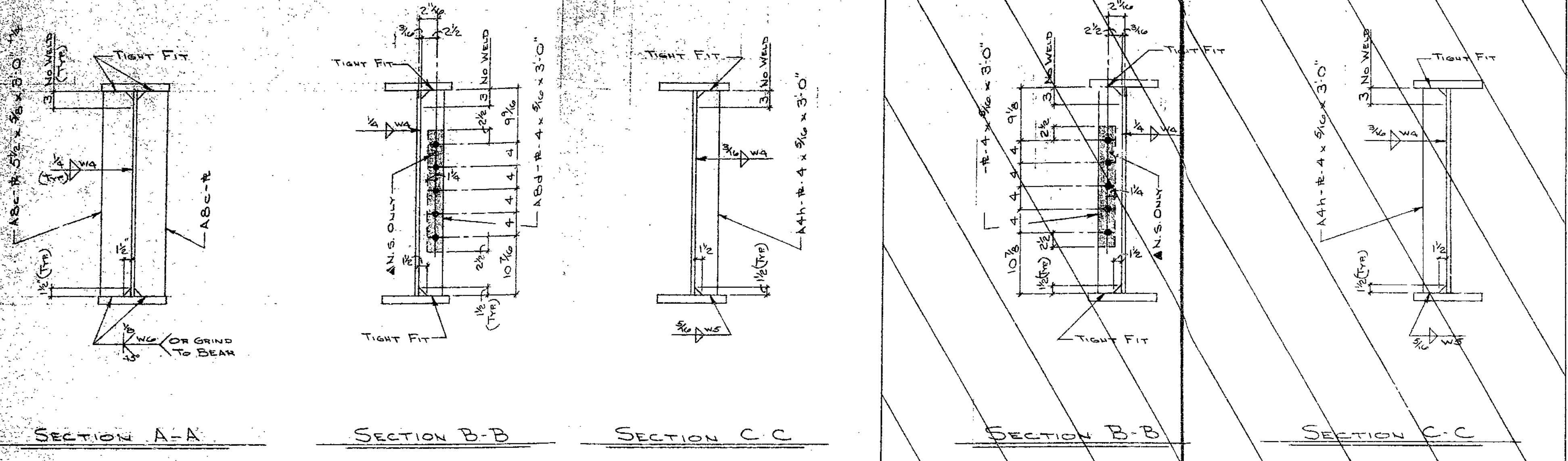
APPROVED
GENERAL DESIGN FEATURES ONLY

SEP 28 1979

MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN						DE LONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 635-6121		DETAILED BY JWN ✓ DATE 5-14-79 CHECKED BY CHP ✓ DATE 7-31-79		BRIDGE Blue Ridge Blvd Under Pass JOB # 4-U071-71 U-F-71-4(30) 4-71.07 LOCATION JACKSON COUNTY, Rts. 71 ARCH. ENGR. MO. STATE HWY. DEPT.		JOB No. 79-40 SHT. No. 7 OF 34	
PRINT RECORD NO. FOR DATE NO. FOR DATE 2 Apr 23-79								REVISIONS DATE MK. BY REMARKS					

A B C D E F G H J K M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



70

*** DENOTES NOTCH TOUGHNESS OF 15 FT./LB'S @ 40° F. REQ'D.
 * PAINT ONE COAT 1.5 MIL MIN. - 2.5 MIL MAX. - INORGANIC ZINC.

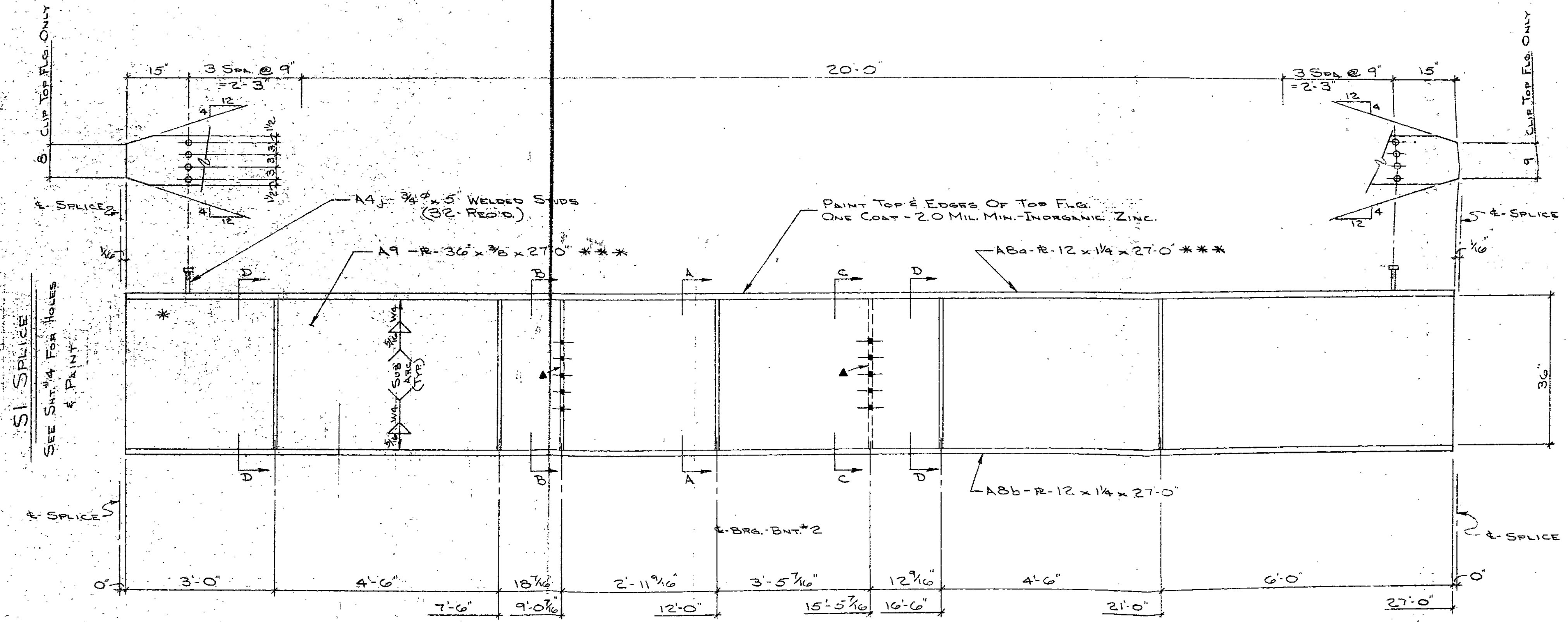
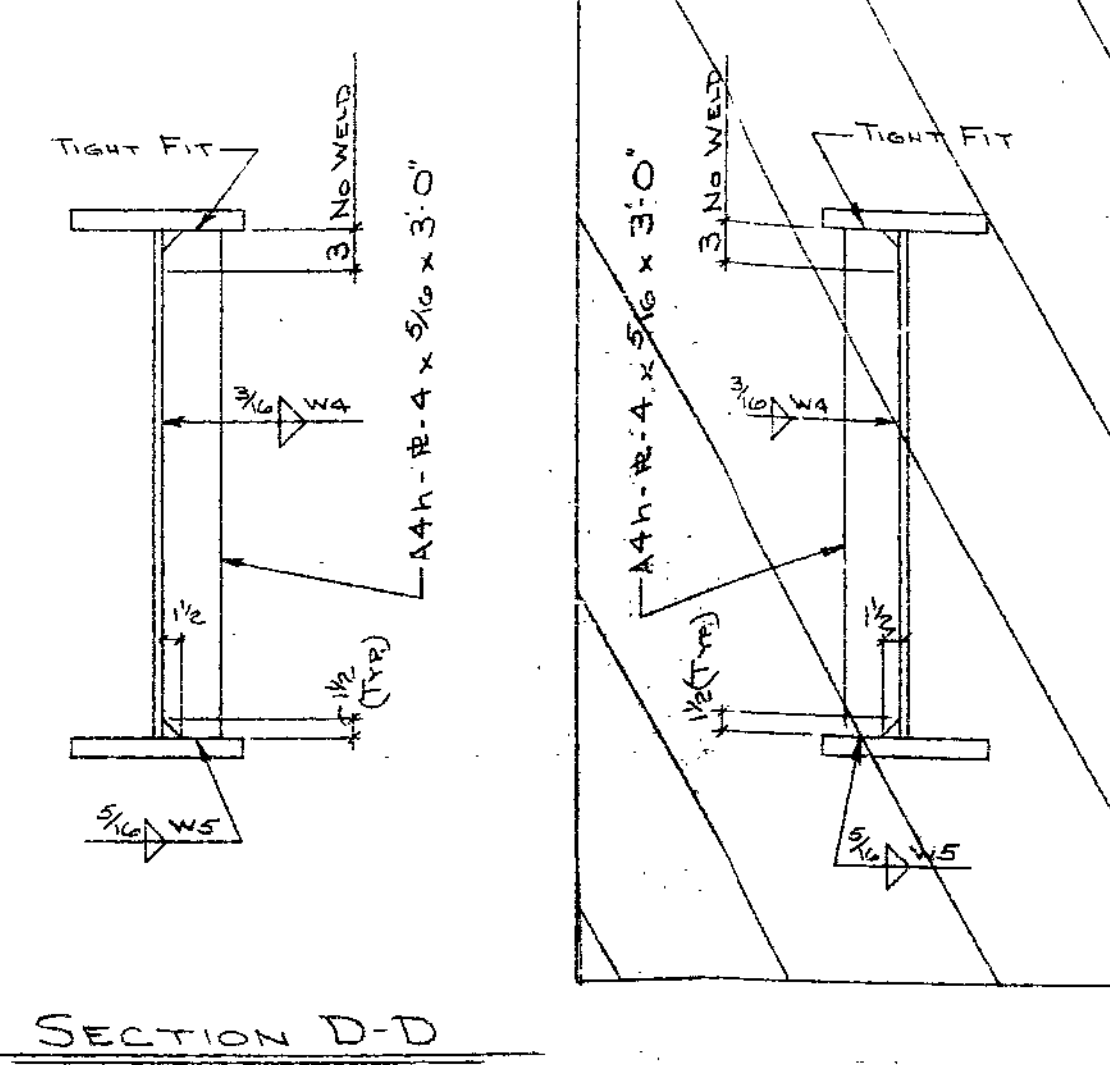
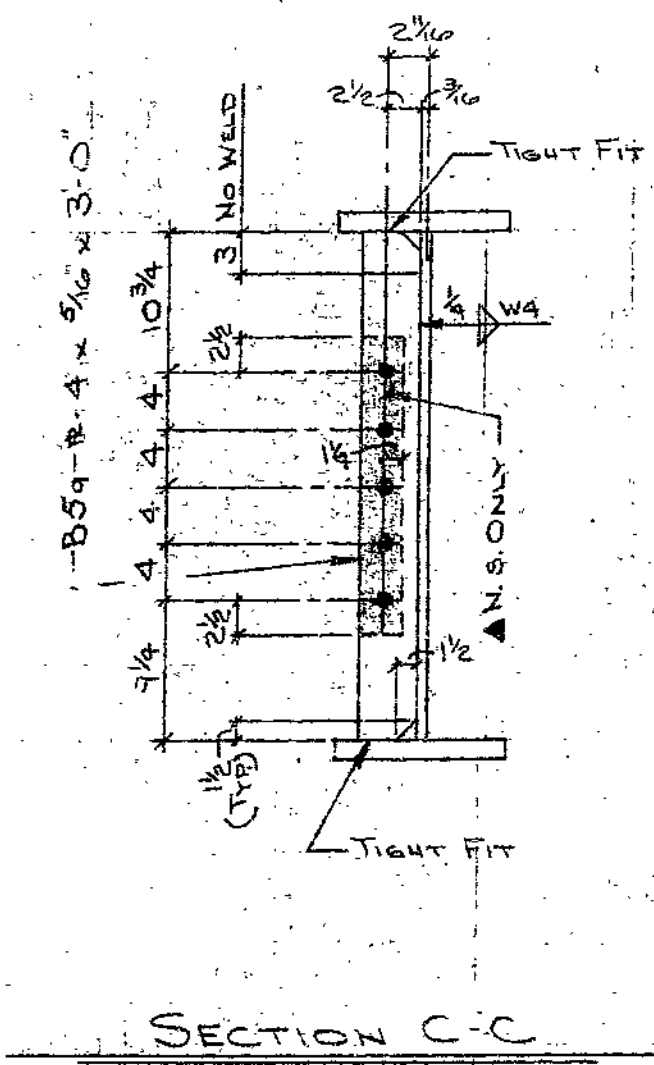
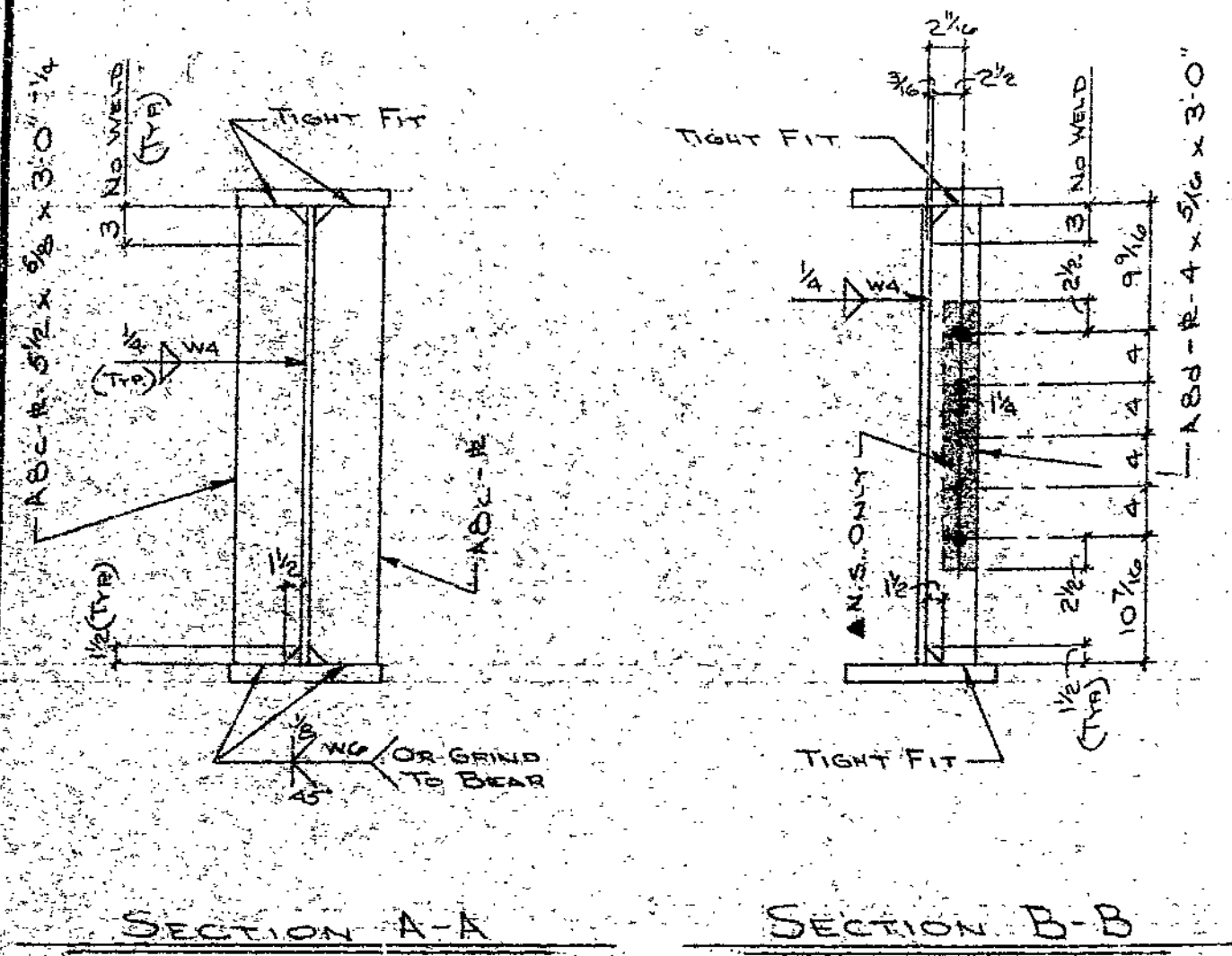
MAKE - ONE - AS

FOR BRIDGE FILES

APPROVED 27'-0"
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE		JOB No.	
	WELD AS SHOWN	NO.	FOR	DATE	NO.	FOR	DATE	DATE	MK. BY	REMARKS	
	BASE & CAP PLATE	2	AP	8-3-79				5-16-79			79-40
	PIPE COL.										8
BOLTS 3/4" UNLESS NTD.		DIAL 635-6121		DELONG'S INC.		DIX RD. & IND. DR.		CHECKED BY		LOCATION JACKSON COUNTY, Rte 71	
OPEN H.S. 1 1/16" UNLESS NTD.		JEFFERSON CITY, MISSOURI		DATE 7-31-79		ARCH. ENGR. MO. STATE HWY. DEPT.				OF 54	

A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



S1 SPLICE
SEE SHT. #4 FOR HOLES
& PAINT

S2 SPLICE
SEE SHT. #8 FOR HOLES
& PAINT

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY

SEP 28 1973

MO. STATE HIGHWAY DEPT.
DIVISION OF BRIDGES

MAKE — ONE — A9

***-DENOTES NOTCH TOUGHNESS OF 15 FT./LBS @ 40° F. REQ'D.

▲-PAINT ONE COAT-1.5 MIL. MIN.-2.5 MIL. MAX.-INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

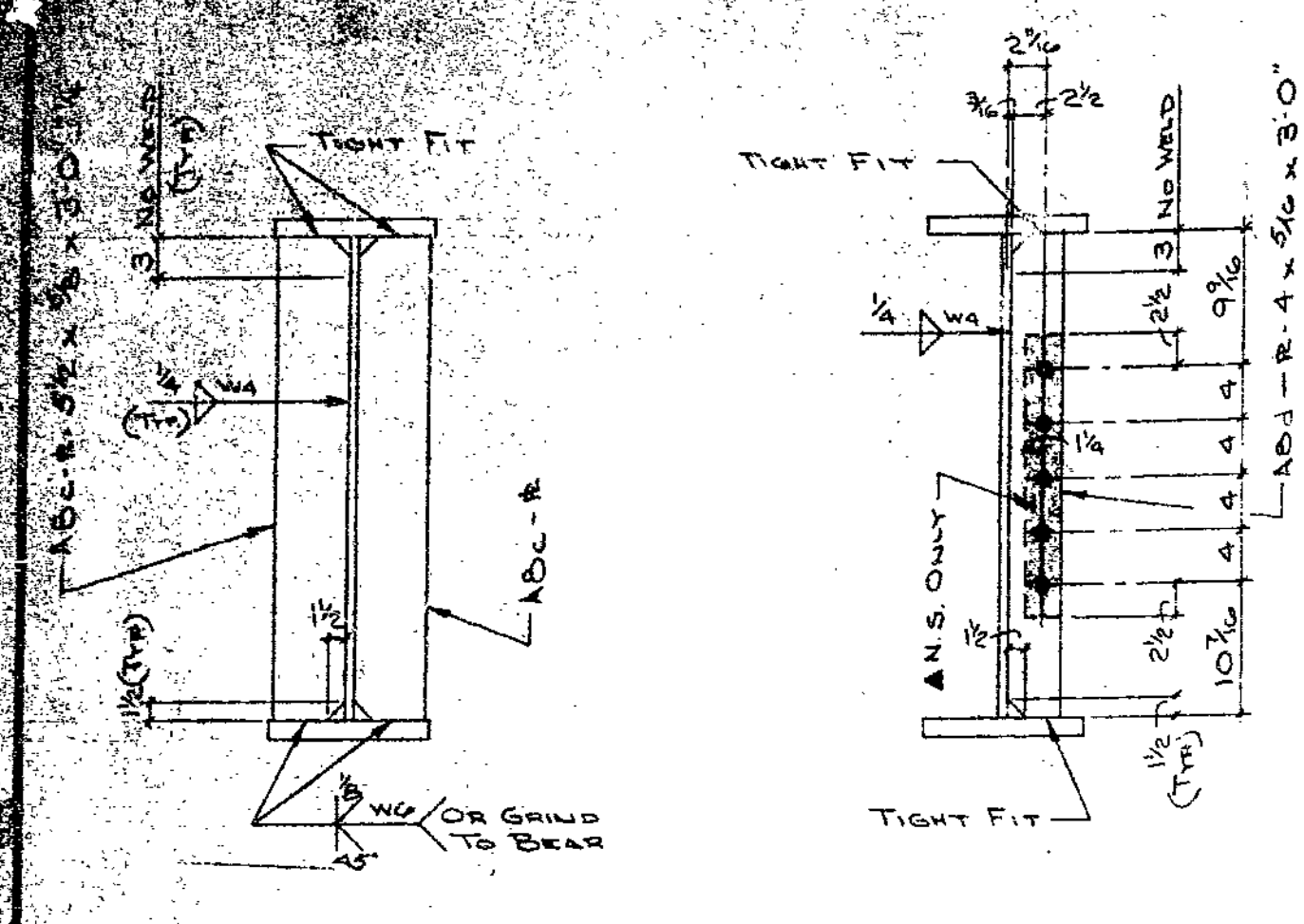


PRINT RECORD					
NO.	FOR	DATE	NO.	FOR	DATE
2	UP	8-3-73			

DELONG'S
INC.
DIAL 635-6121
JEFFERSON CITY, MISSOURI
DIX RD. & IND. DR.

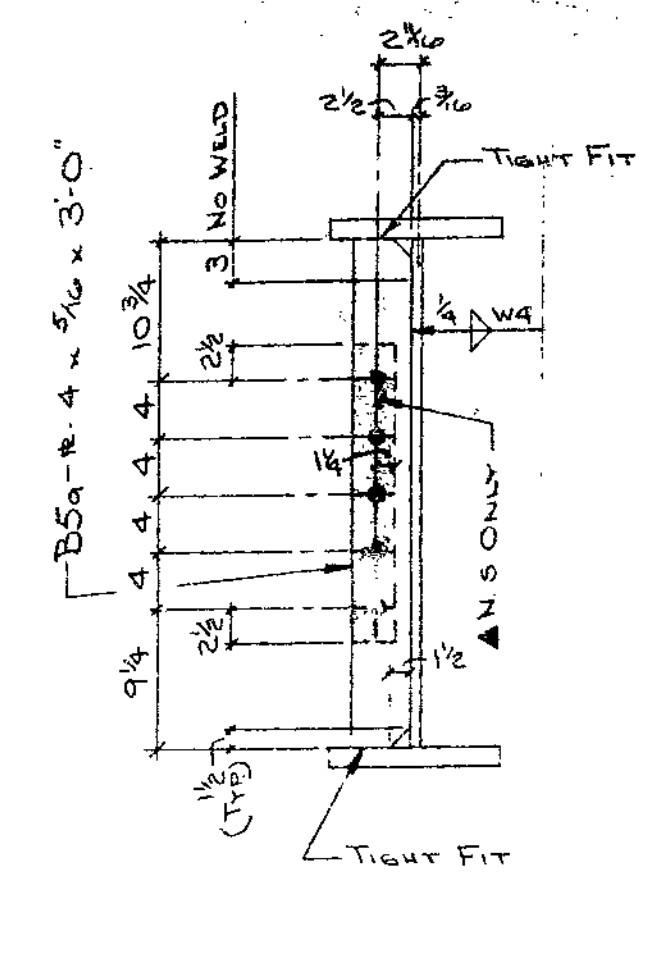
DETAILED BY		REVISIONS	
DATE	MK. BY	DATE	REMARKS
5-18-73	J.W.N.		
7-31-79	J.W.N.		

BRIDGE		JOB No.	
NO.	DESCRIPTION	NO.	DESCRIPTION
4-U071-71	Blue Ridge Blvd. Under Pass	79-40	
	4-U-F-71-4(80) STA 4+77.07		
LOCATION JACKSON COUNTY, Rte. 71		SHT. No. 9	
ARCH. ENGR. MO. STATE HWY. DEPT.		OF 54	

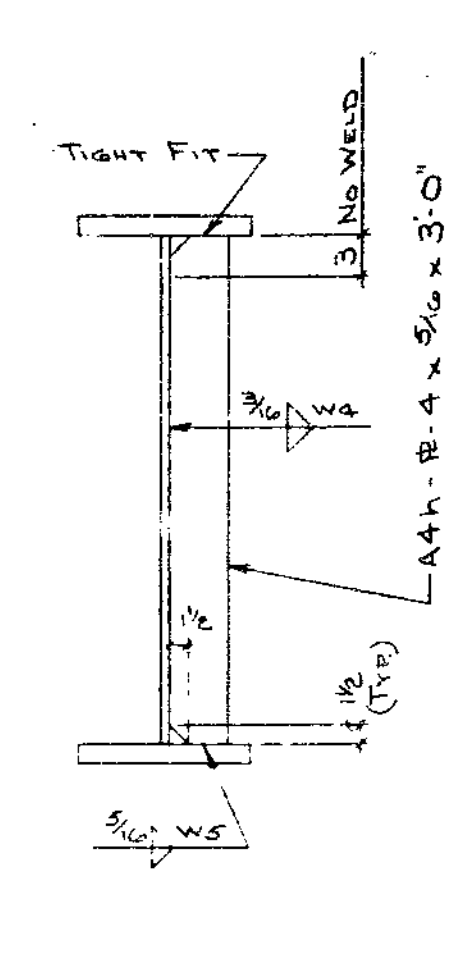


SECTION A-A

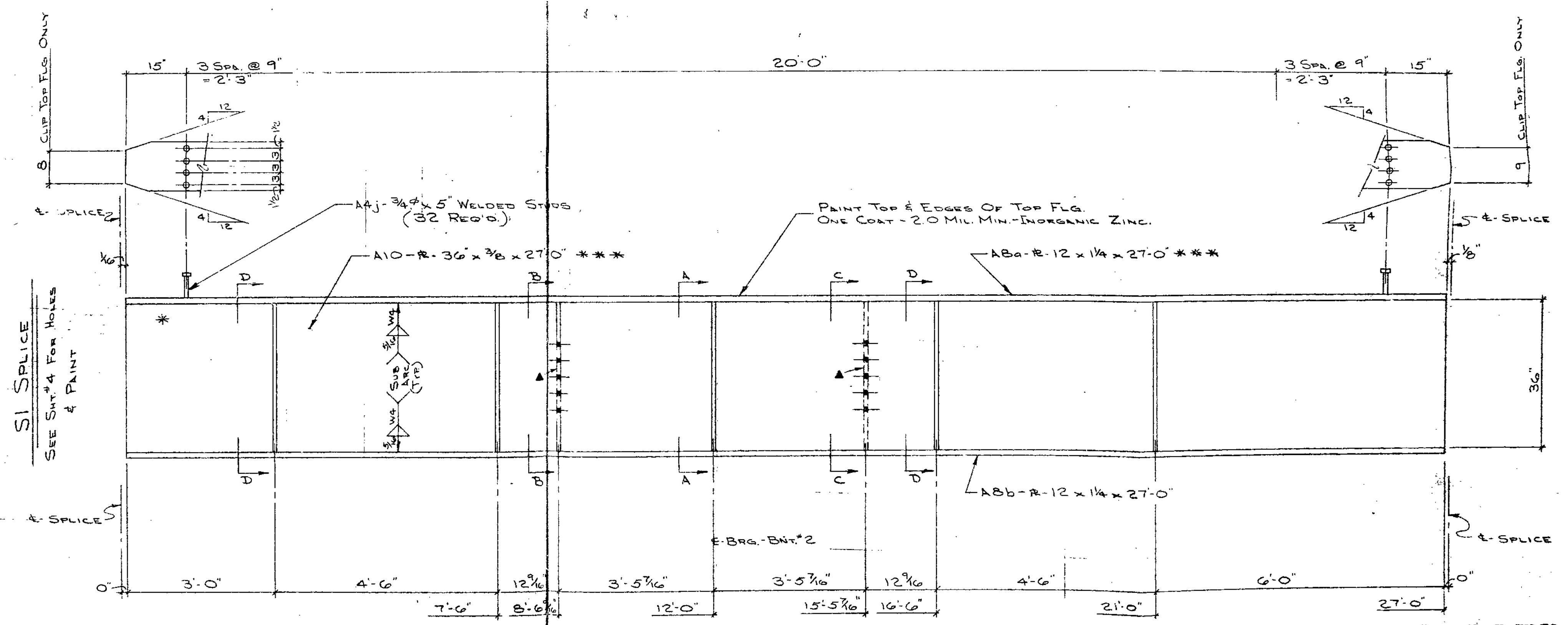
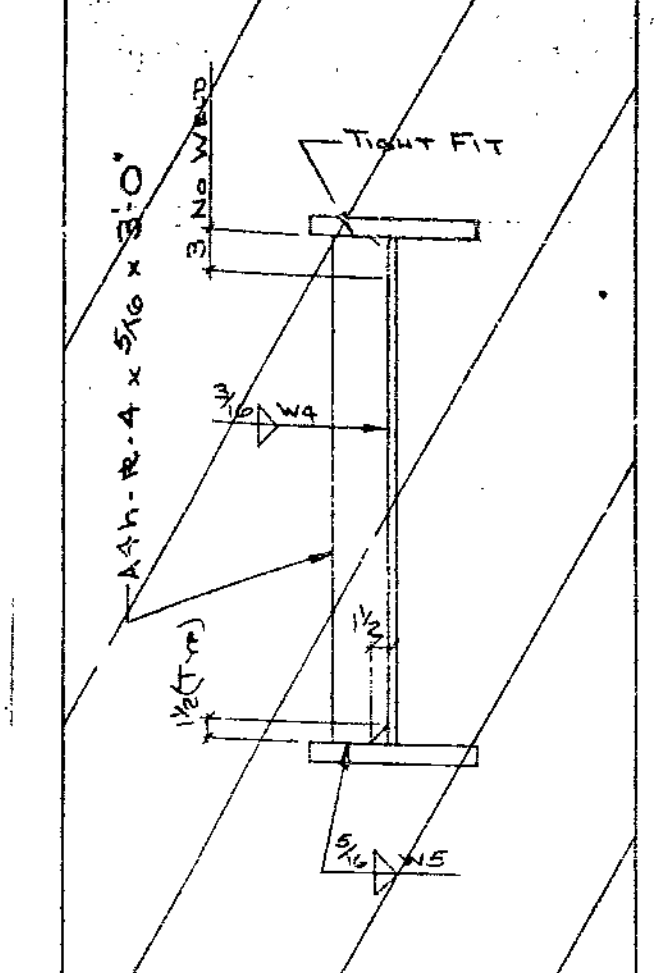
SECTION B-B



SECTION C-C



SECTION D-D



S1 SPlice
SEE SHT. 4 FOR HOLES & PAINT

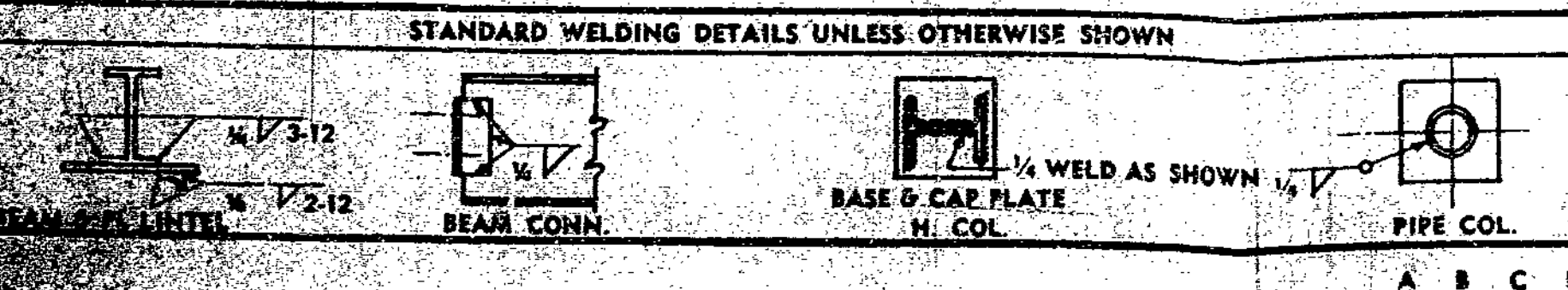
S2 SPlice
SEE SHT. 5 FOR HOLES & PAINT

IDENTICAL
MAKE — ONE — A10
MAKE — ONE — B10
MAKE — ONE — C10

***-DENOTES NOTCH TOUGHNESS OF 15 FT./LBS @ 40° F. REQ'D.
▲-PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT.
DIVISION OF BRIDGES

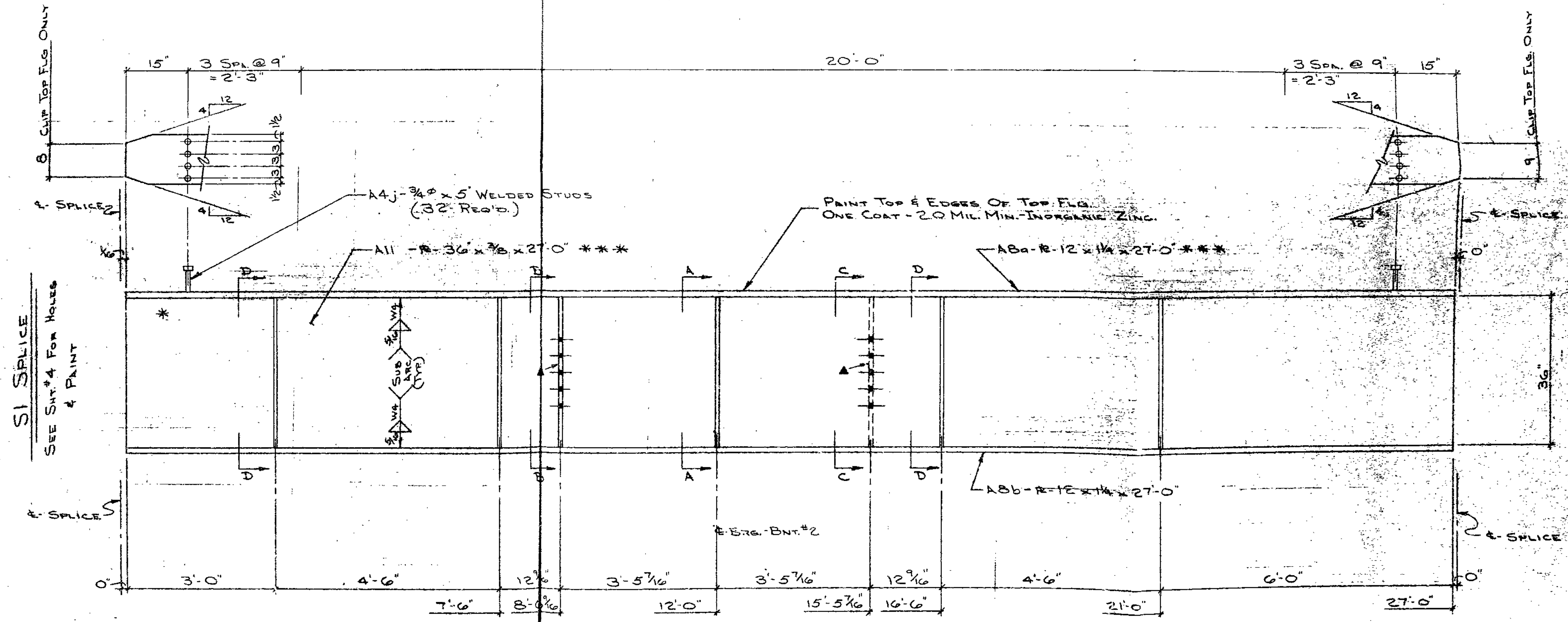
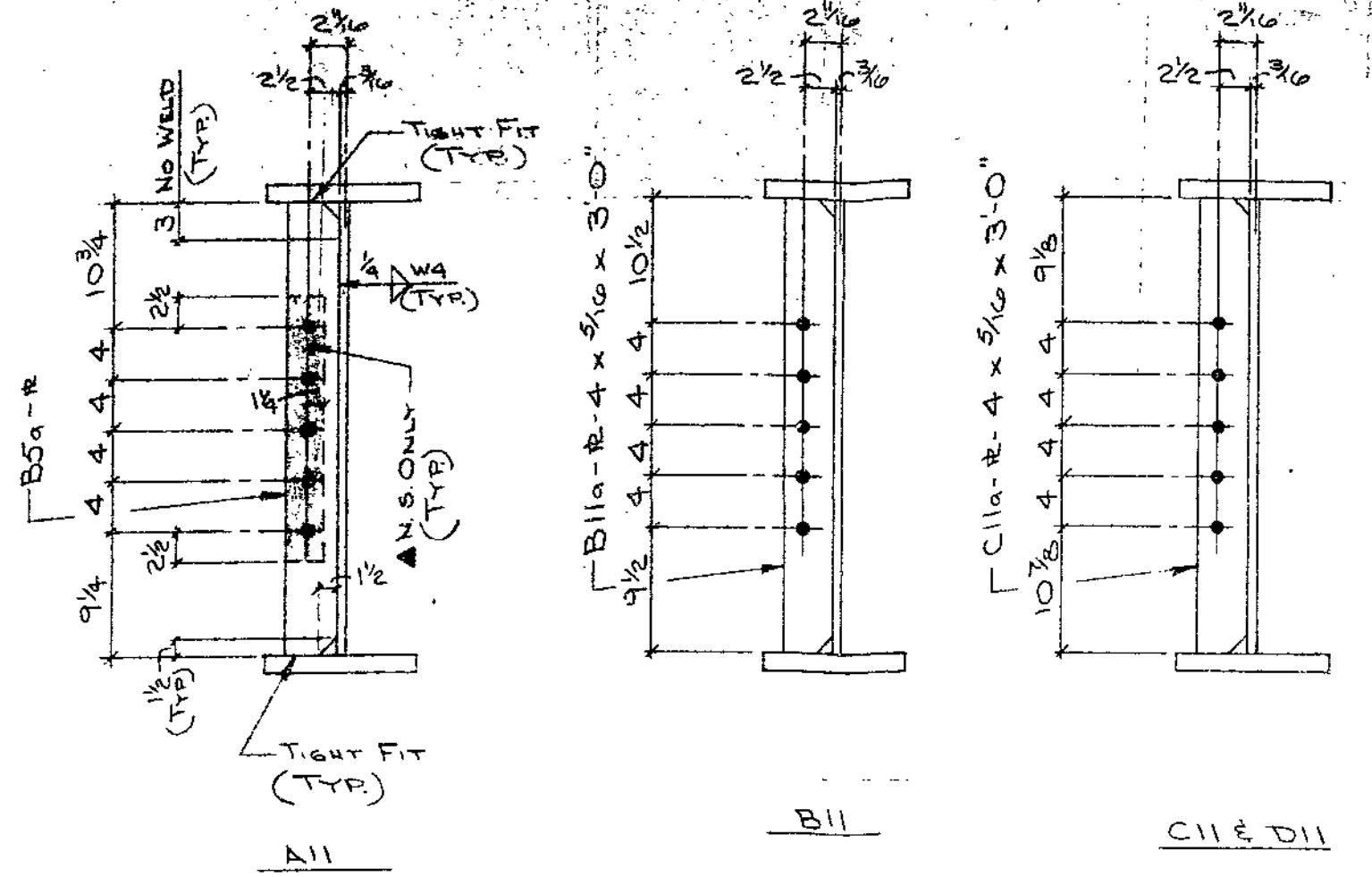
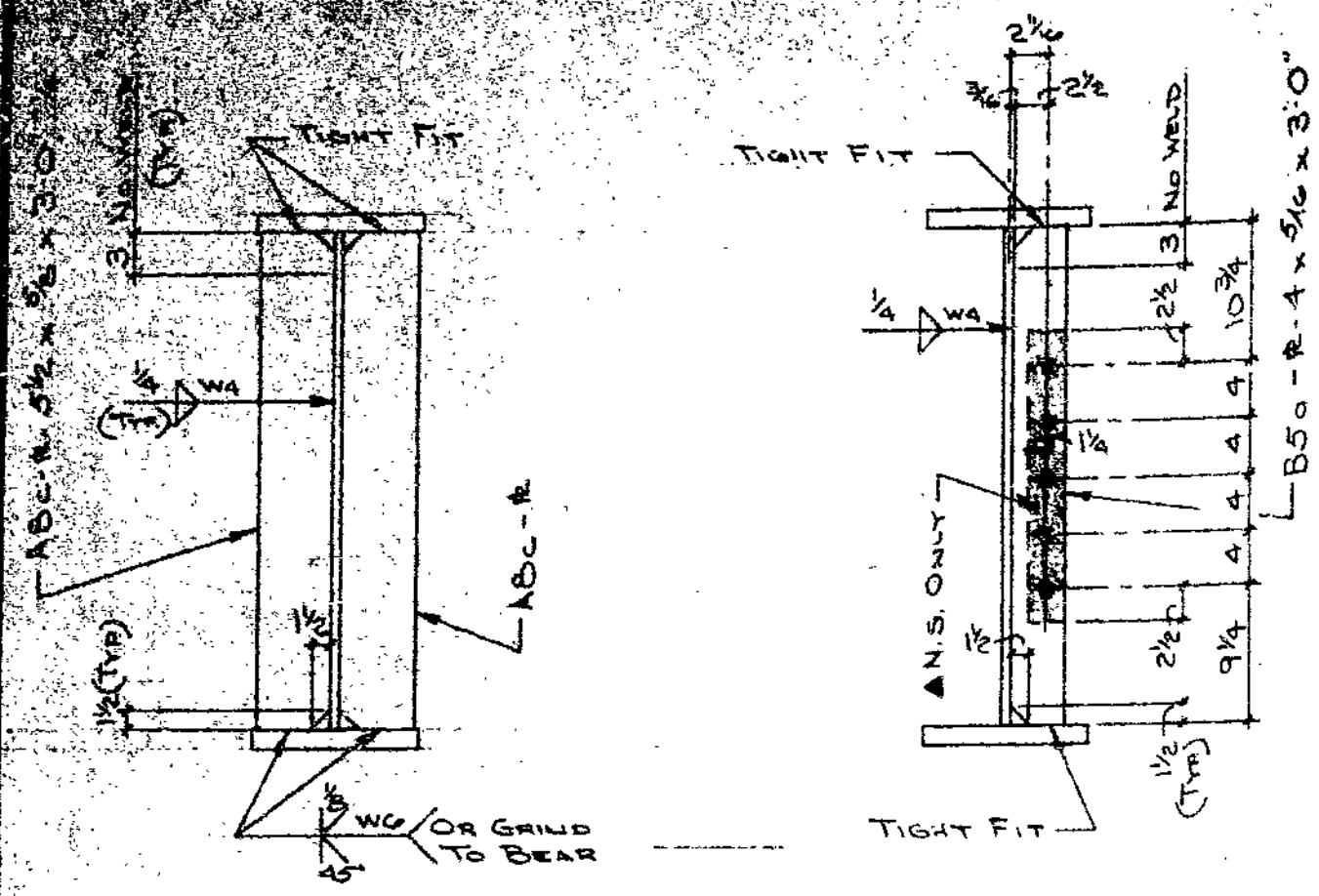


NO.	PRINT		RECORD	
	FOR	DATE	NO.	DATE
1	AP	8-3-79		
SYSTEM 'B' - TYPE II				
BOLTS	UNLESS NTD.			
NUTS	UNLESS NTD.			
OPEN HLS.	UNLESS NTD.			

DELONG'S INC.
DIX RD. & IND. DR.
JEFFERSON CITY, MISSOURI

DATE	CHK.	BY	REMARKS
5-10-79			
7-31-79			

BRIDGE	Blue Ridge Blvd. Under Pass	JOB No.
JOB	4-U071-71 U-F-71-4(30) 4-7107	79-40
LOCATION	JACKSON COUNTY, Rte. 71	SHT. 10
ARCH. ENGR.	Mo. State Hwy. Dev.	



***-DENOTES NOTCH TOUGHNESS OF 15 FT./LBS @ 40° F. REQ'D.

-PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

MAKE - ONE - A11

MAKE - ONE - B11

MAKE - ONE - C11

MAKE - ONE - D11

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY

SEP 28 1979

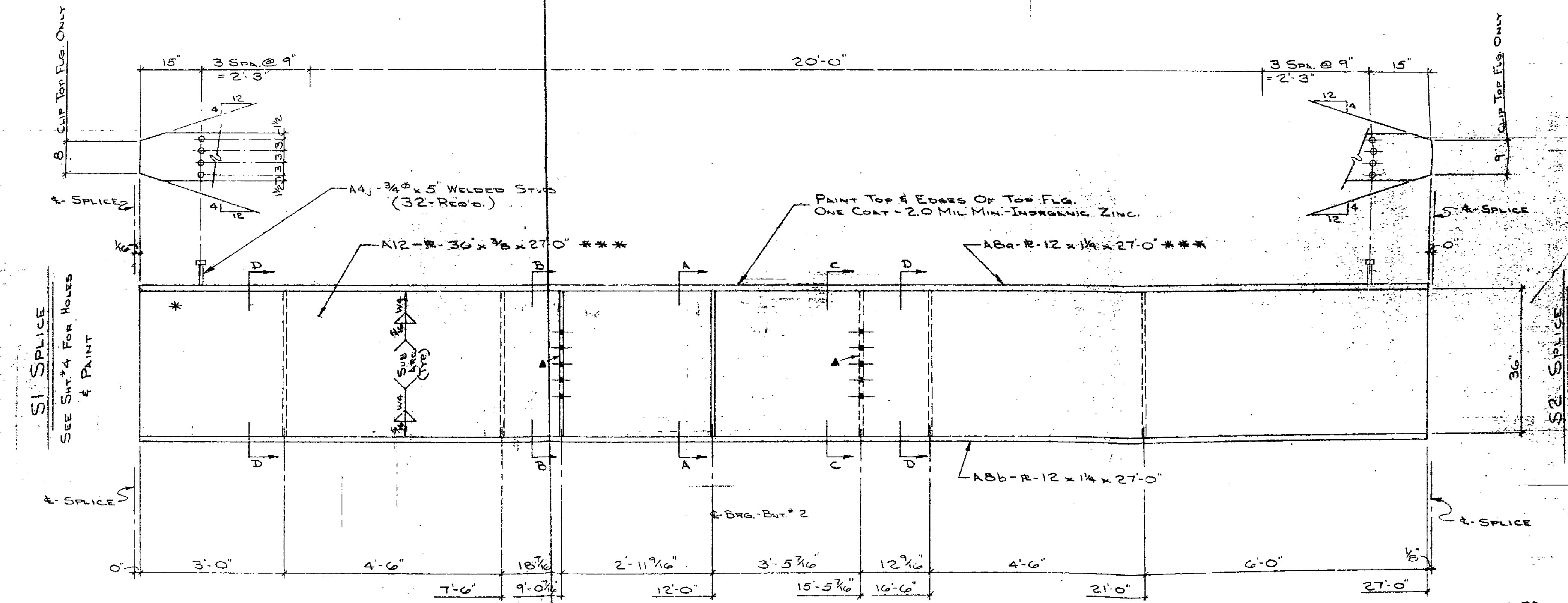
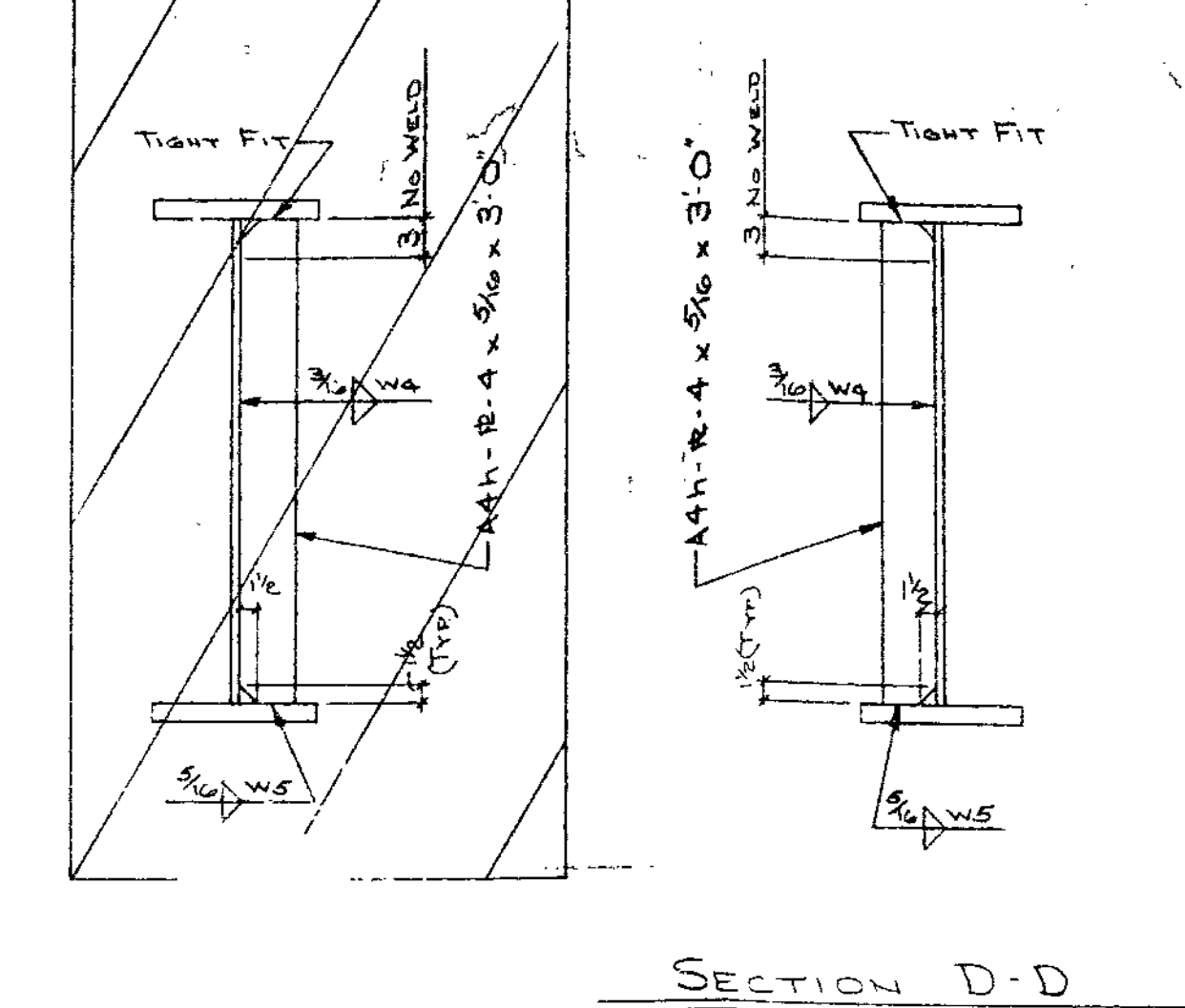
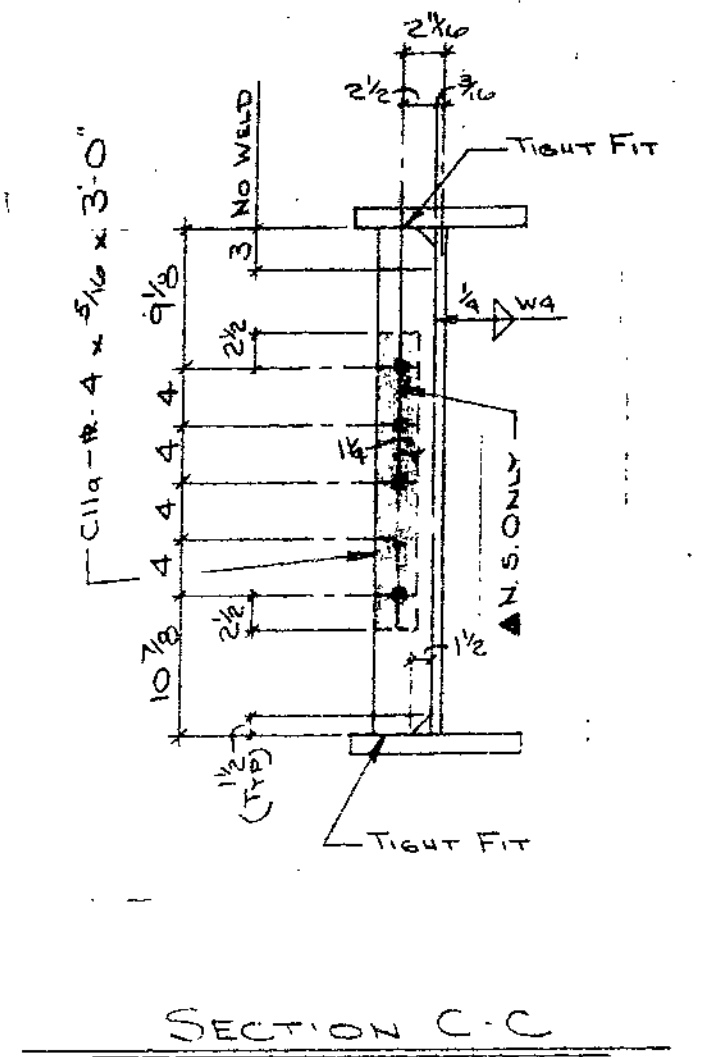
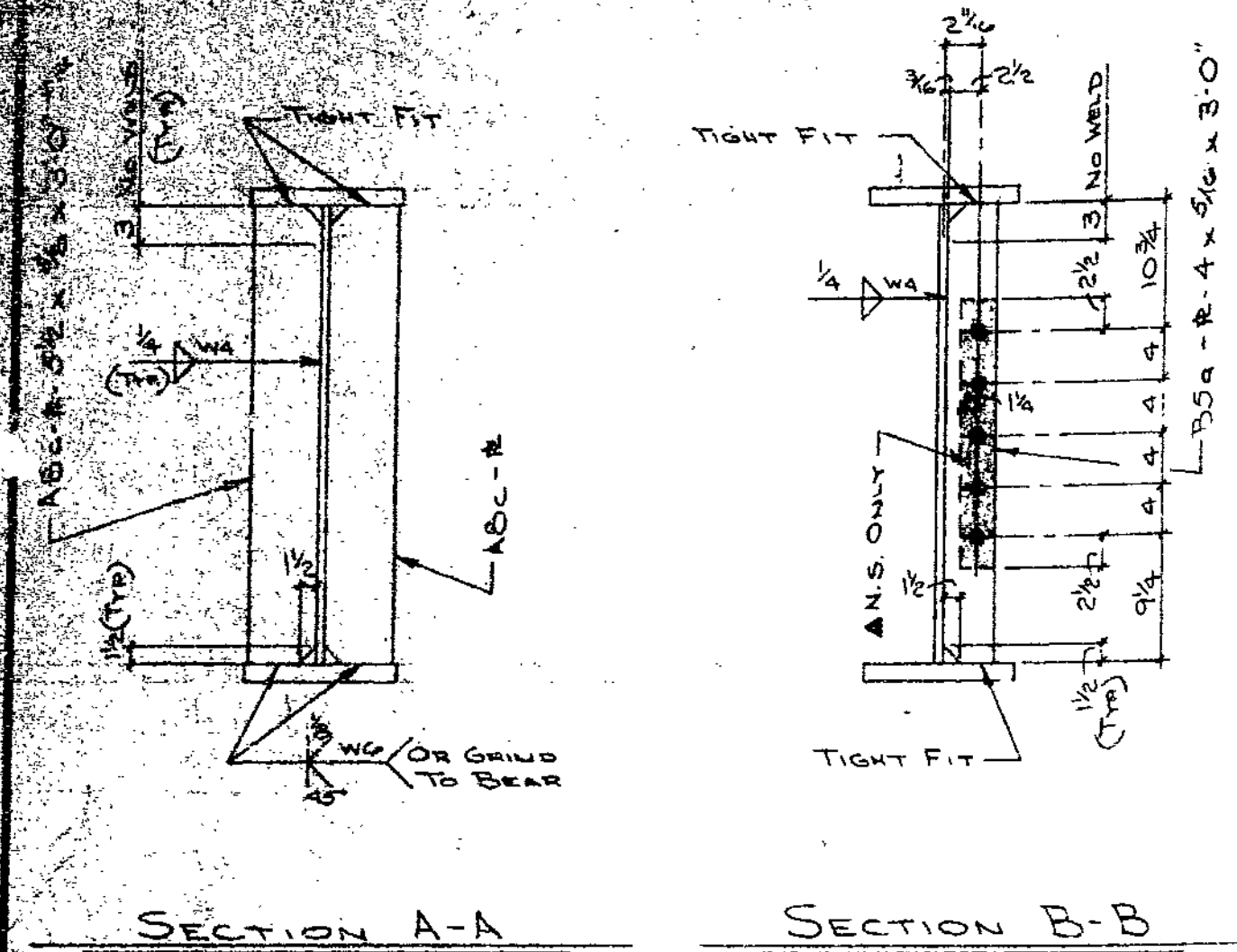
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		JOB No.	
		MO.	FOR	DATE	DATE	DATE	MK.	BY	REMARKS
		SYSTEM 'B' - TYPE II				J.W.N.			Blue Ridge Blvd Under Pass
		BOLTS				DATE 5-16-79			4-UOTI-71 USE 71-4(80) A-71.07
		RYERS				CHECKED BY			LOCATION JACKSON COUNTY Rte. 11
		OPEN H.S.				DATE 7-31-79			ARCH. ENGR. MO. STATE HWY. DEPT.
		UNLESS NTD.							
		UNLESS NTD.							

DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI

MO. STATE HIGHWAY DEPT. DIVISION OF BRIDGES

A B C D E F G H J K M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



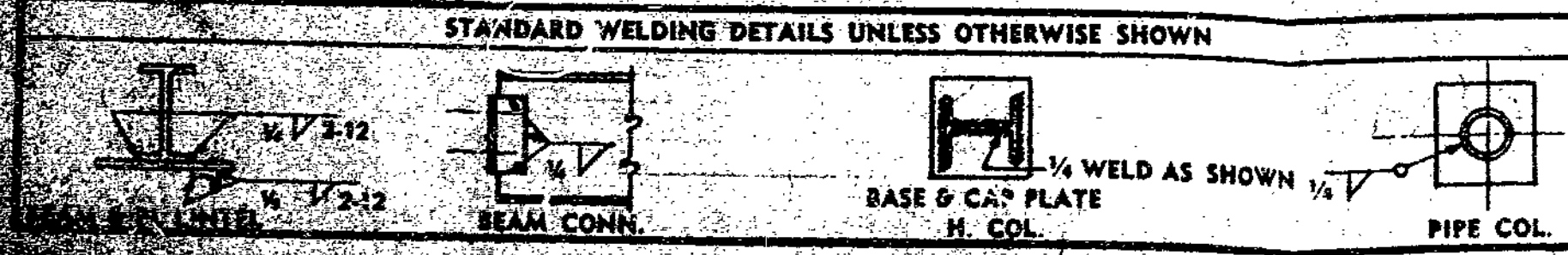
74

*** DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
▲ PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

IDENTICAL
MAKE - ONE - A12
MAKE - ONE - B12

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES



PRINT	RECORD					
	NO.	FOR	DATE	NO.	FOR	DATE
SYSTEM B-TYPE II						
BOLTS	3/4"					
NUTS	UNLESS NTD.					
OPEN HLS.	1 3/8"					
	UNLESS NTD.					

DE LONG'S
INC.
JEFFERSON CITY, MISSOURI

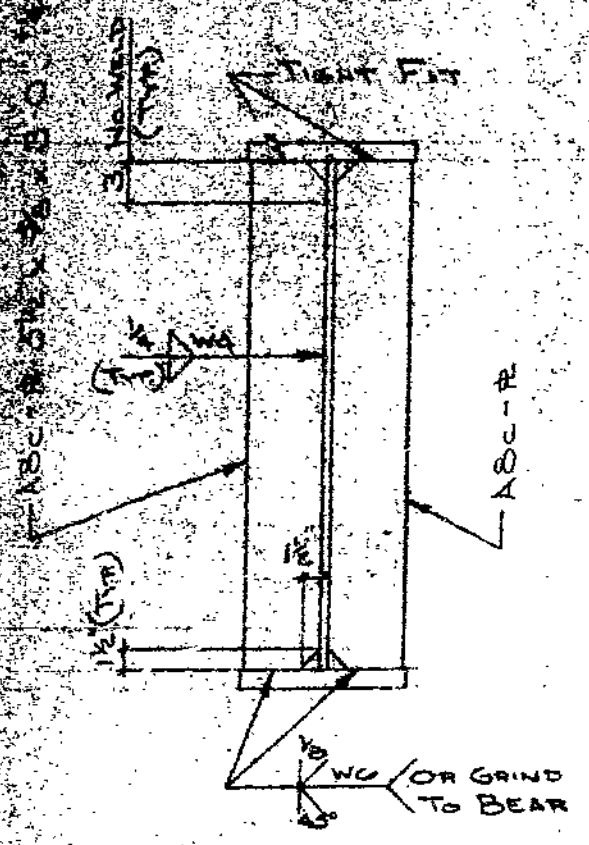
DIAL 35-6121

DIX RD. & IND. DR.

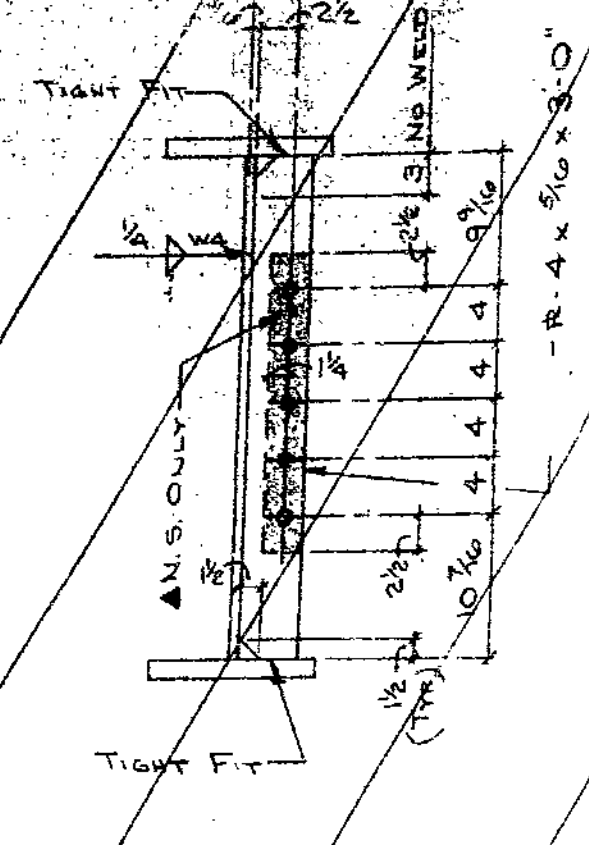
DATE	REVISIONS		REMARKS
	DATE	AMK. BY	
5-21-79			
7-31-79			

BRIDGE	Blue Ridge Blvd. Under Pass	JOB No.	L-9292
JOB	4-U071-71, 02F-71-4(50)	DATE	7-24-79
LOCATION	Jackson County, Rte. 71	DR.	
ARCH. ENGR.	MO. STATE Hwy. DEPT.		

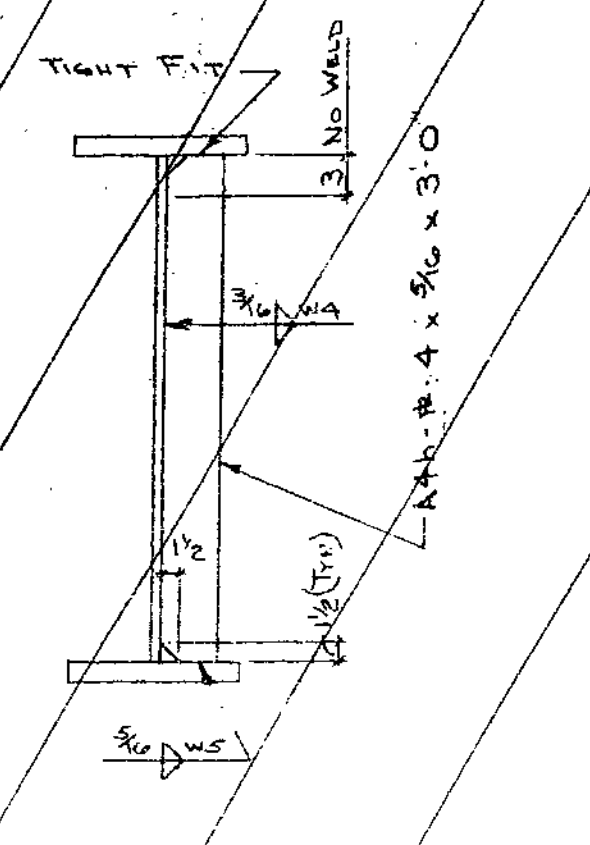
A B C D E F G H J K L M N P S T U V W X Y Z AB AC AD AE AF AG AH AJ AK AL AN AP AS AT AU AV AW AX AY AZ



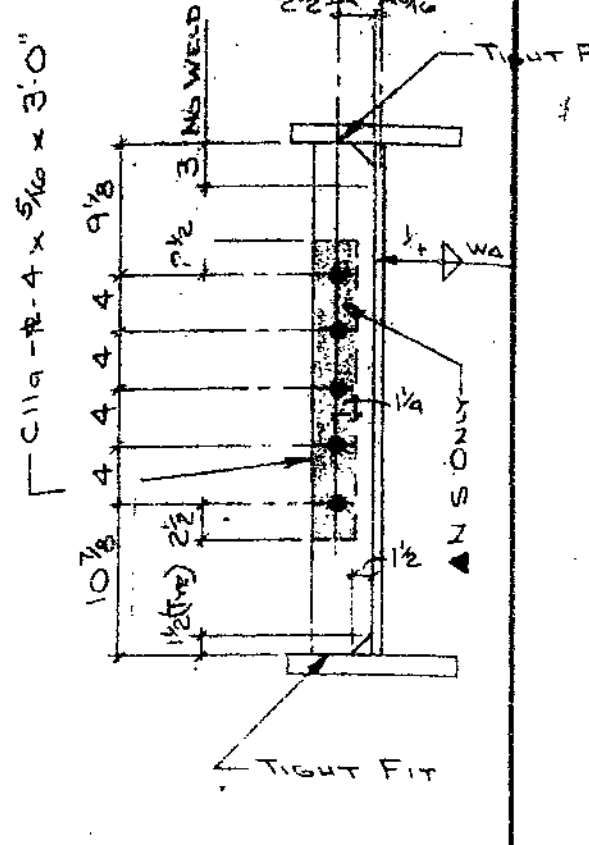
SECTION A-A



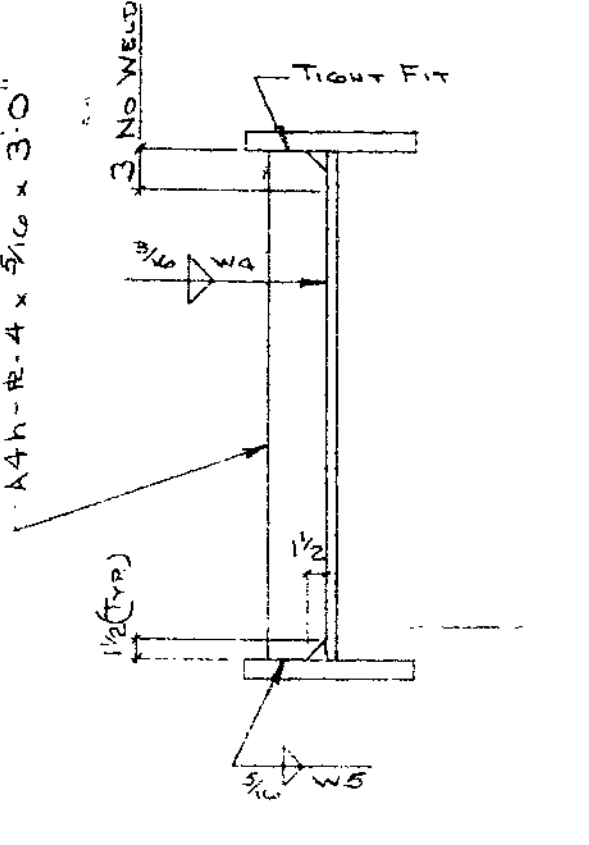
SECTION B-B



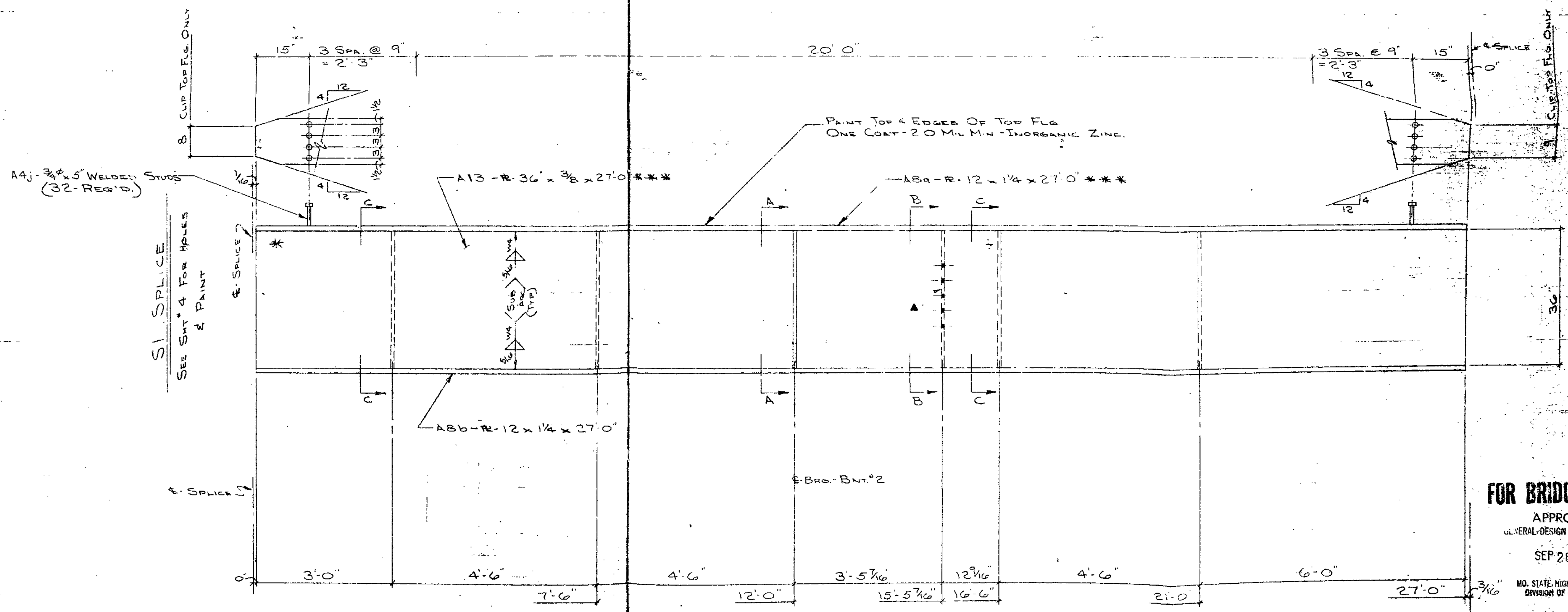
SECTION C-C



SECTION B-B



SECTION C-C



FOR BRIDGE FILES
 APPROVED
 GENERAL-DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

MAKE - ONE - A13

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



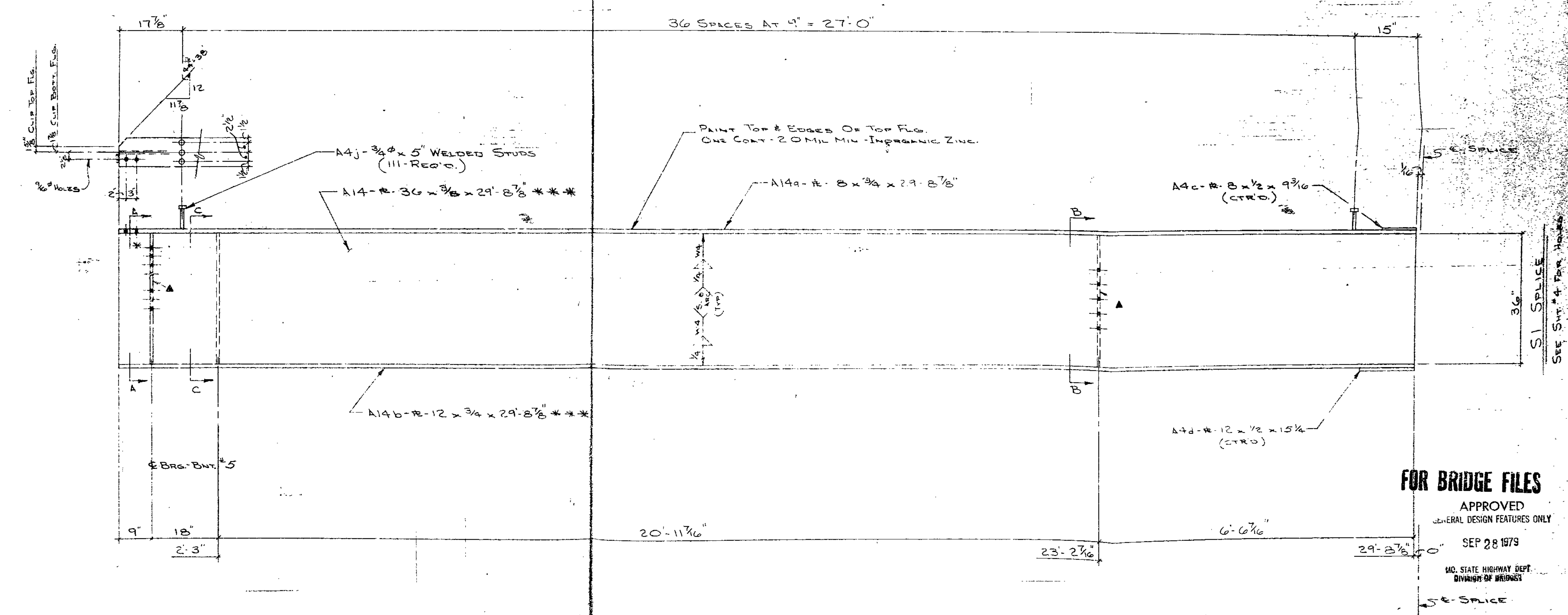
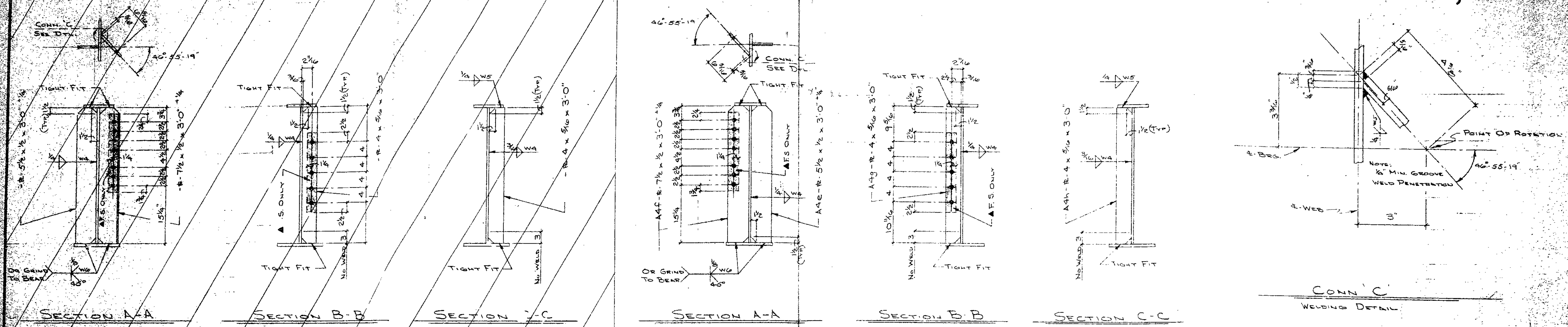
PRINT	PRINT RECORD					
	NO.	FOR	DATE	NO.	FOR	DATE
BOLTS	3/4"					
RIVETS	1 1/2"					
OPEN HLS.	1 1/2"					

DE LONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIA 635-6121

DATE	BY	REVISIONS
5-16-79	J.W.N.	
7-31-79	GAP	

BRIDGE	NO.
Blue Ridge Road Under Pass	109-40
JOB # D071-71 U-F-71-430	4-7-67
STATION JACKSON COUNTY, Rte 71	
ARCH ENGR. Mo. State Hwy. Dept.	

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AQ AR AS AT AU AV AW AX AY AZ



***-DENOTES NOTCH TOUGHNESS OF 15 FT./LB'S @ 40° F RECD.
 ▲-PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

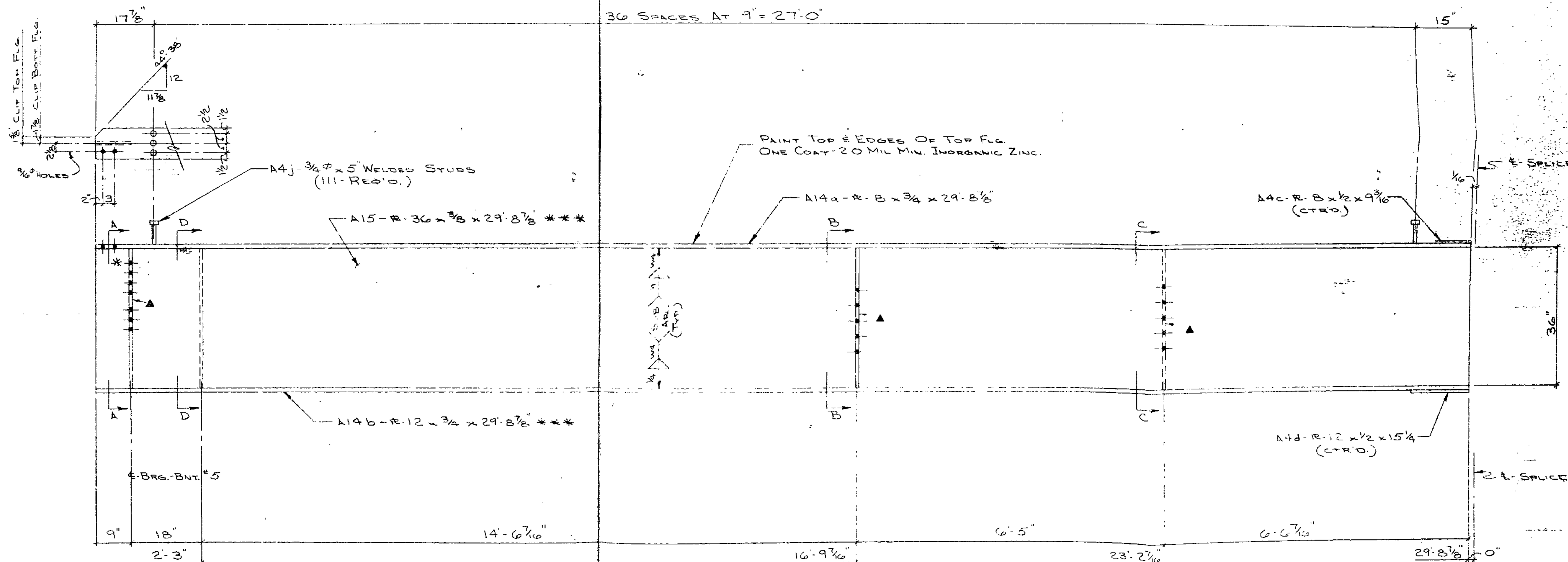
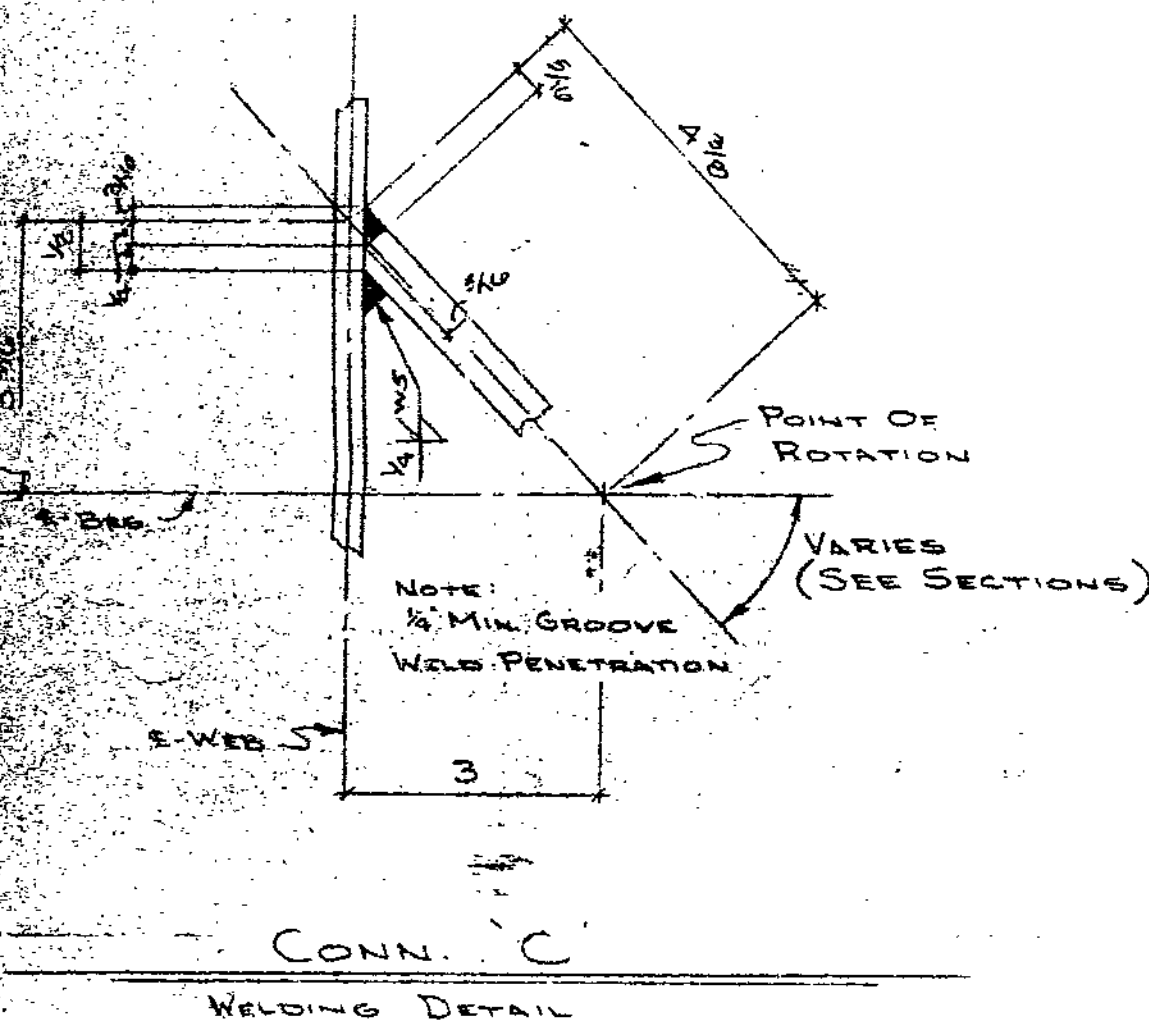
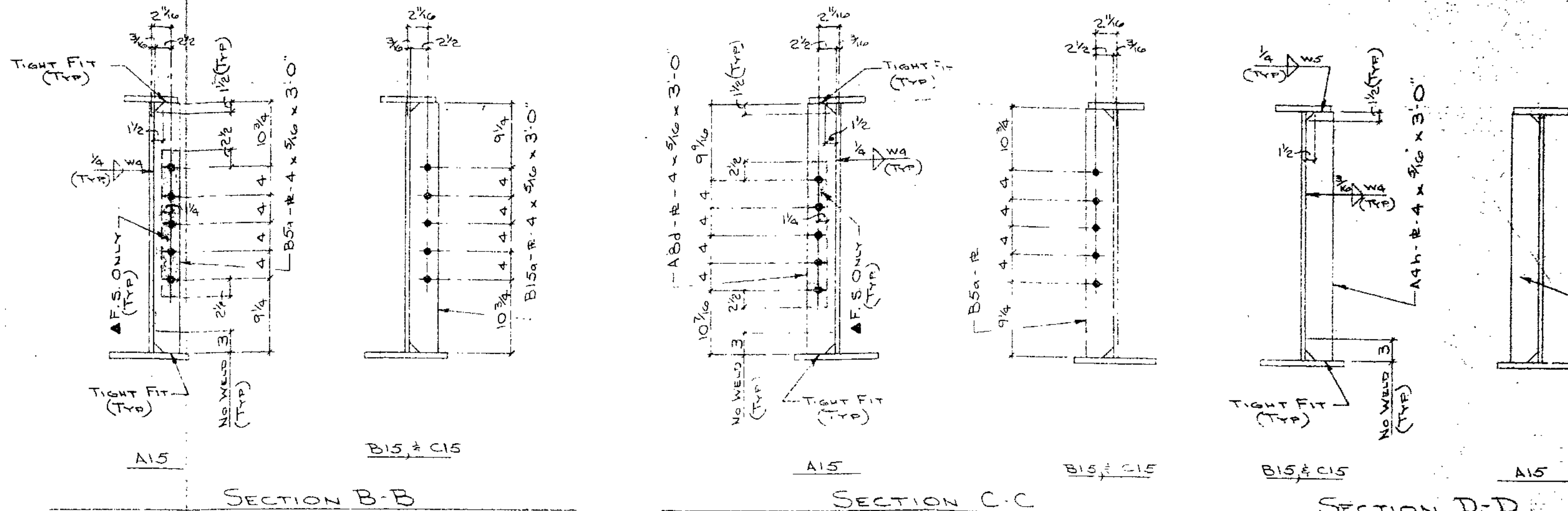
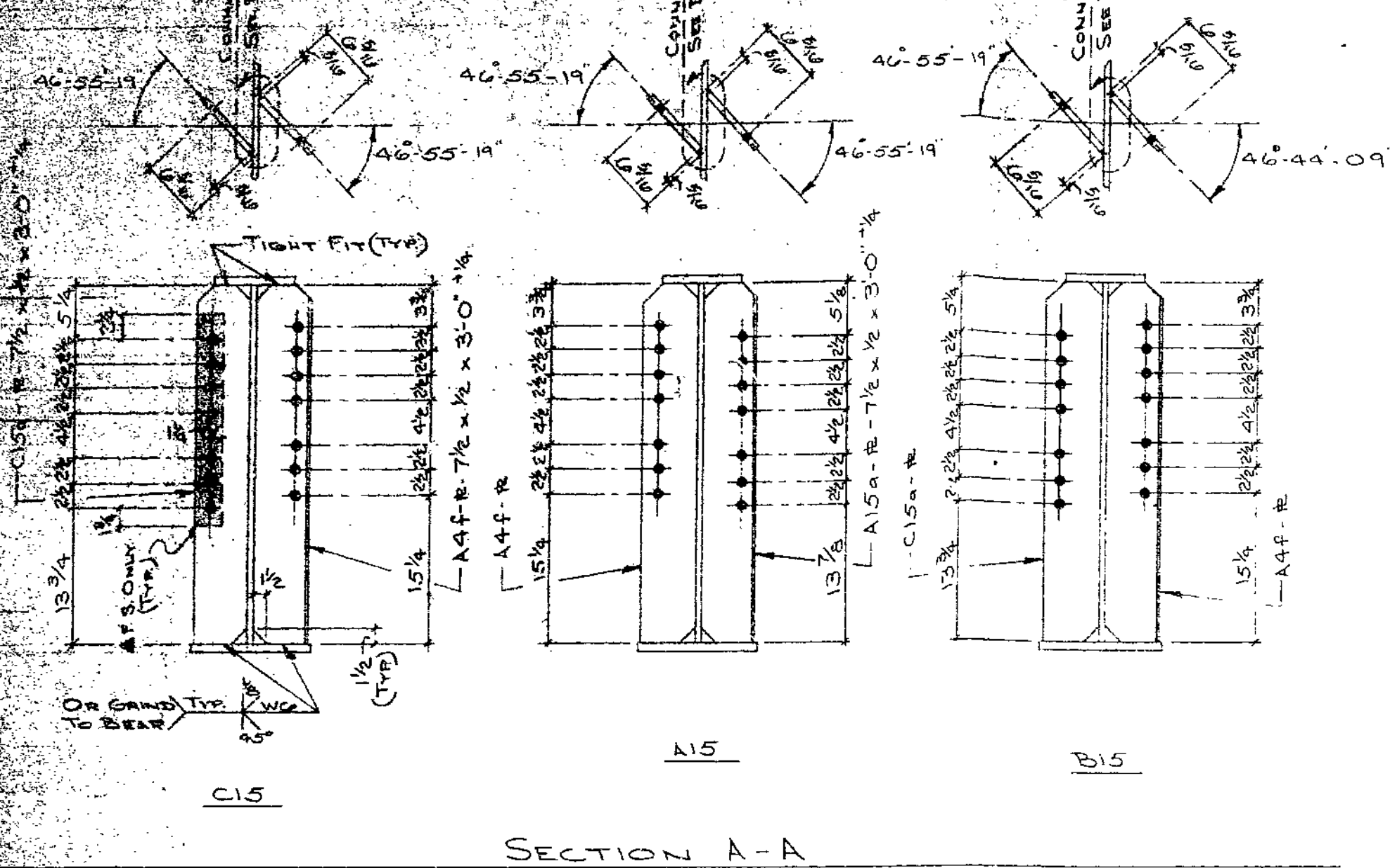
MAKE - ONE - A14

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY J.W.N. ✓	REVISIONS		JOB No. 17-40
BEAM & PL. LINT. 1/2-12	BEAM CONN. 1/2-12	NO. FOR	DATE		DATE	MK. BY	
BASE & CAP PLATE H. COL. 1/4 WELD AS SHOWN	PIPE COL. 1/4	BOLTS 3/4" UNLESS MTD.		DATE 5-21-79			Blue Ridge Blvd. Under Pass
		OPEN H.S. 1 1/2" UNLESS MTD.		CHECKED BY OHP ✓			Job 4-0071-71 U-F-71-4(30) 4-77-07
				DATE 7-31-79			LOCATION Jackson County Rte. 71
							ARCH. 1000 Mo. State Hwy. Dept.

DELONG'S INC. JEFFERSON CITY, MISSOURI DIX RD. 3 IND. DR.

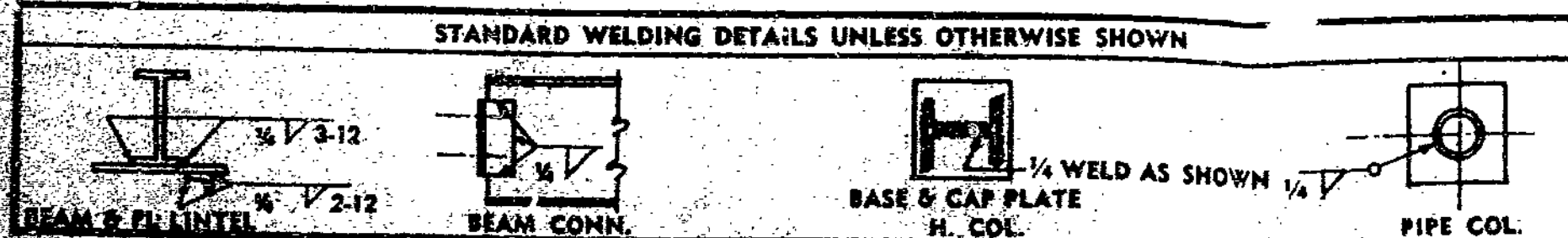
AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LB'S @ 40°F REQ'D
 ▲ - PAINT ONE COAT - 15 MIL MIN - 2.5 MIL MAX - INORGANIC ZINC.

MAKE — ONE — A15
 MAKE — ONE — B15
 MAKE — ONE — C15

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

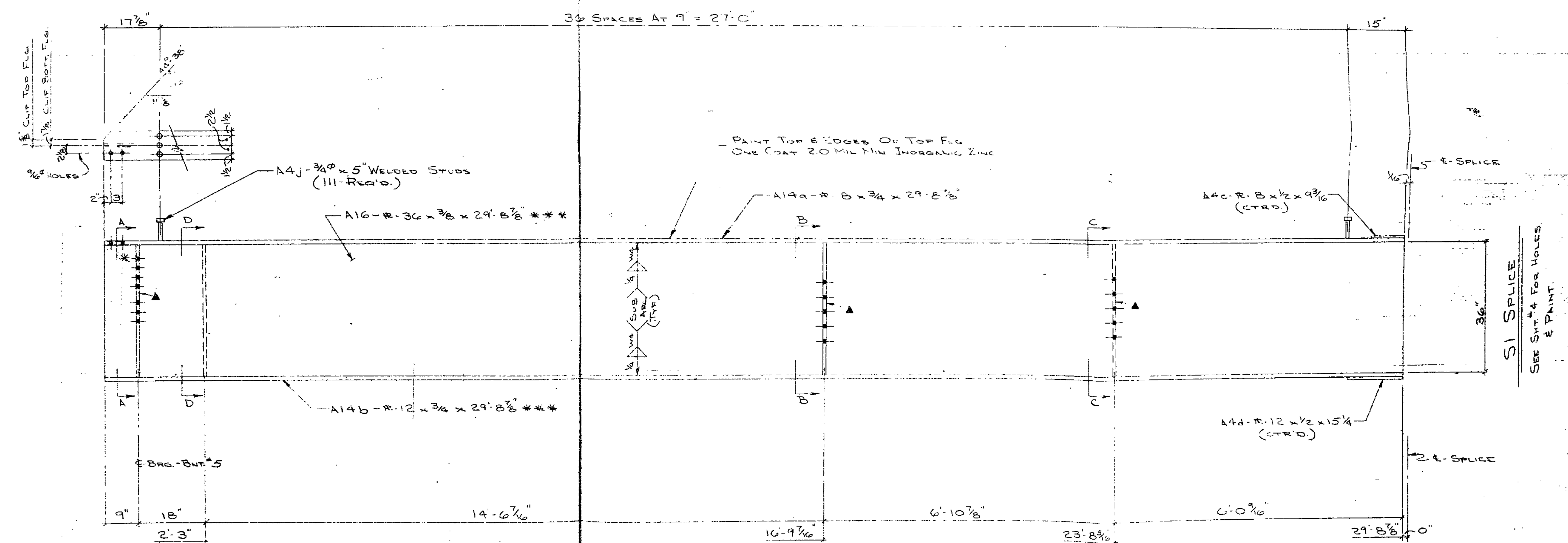
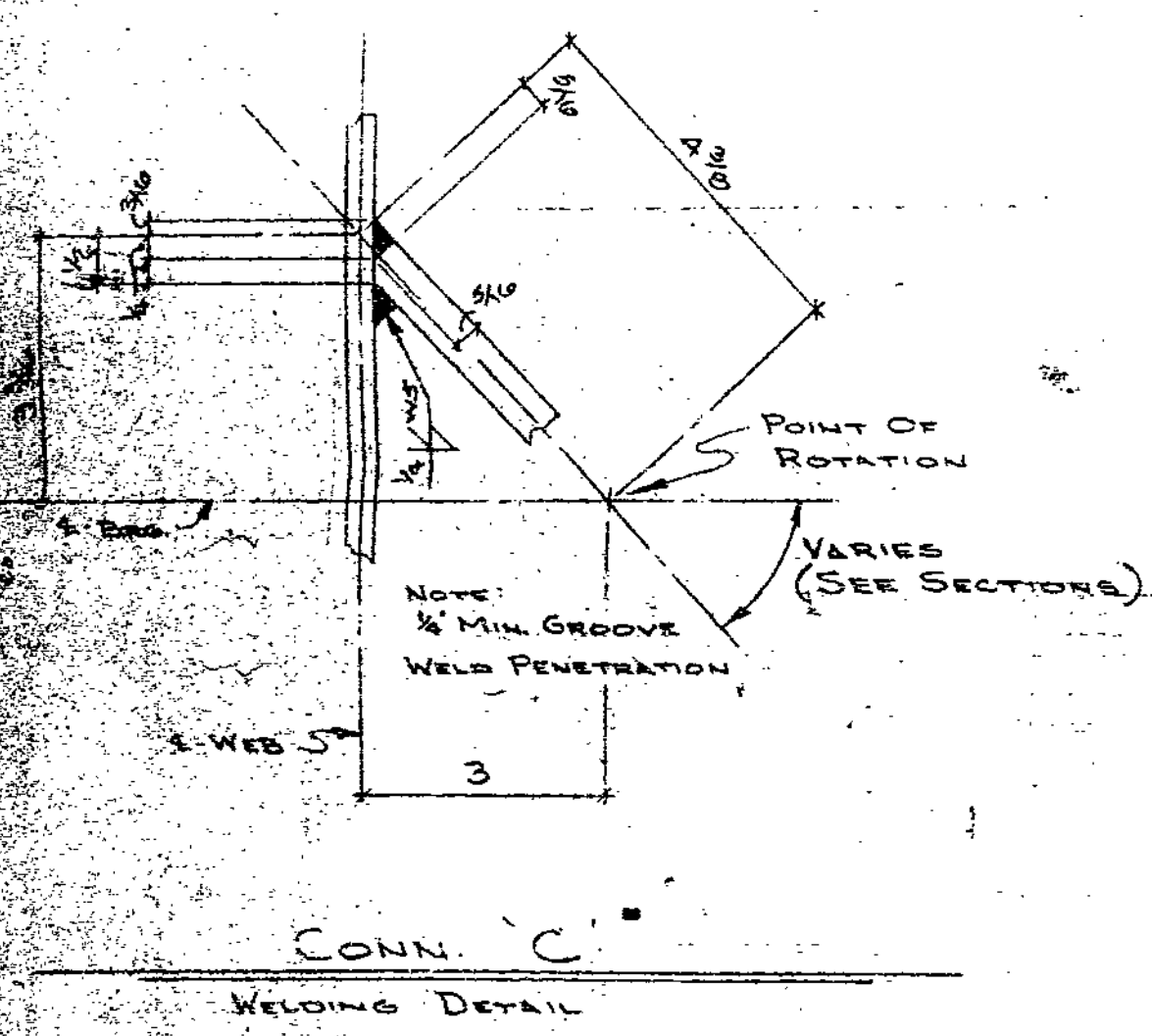
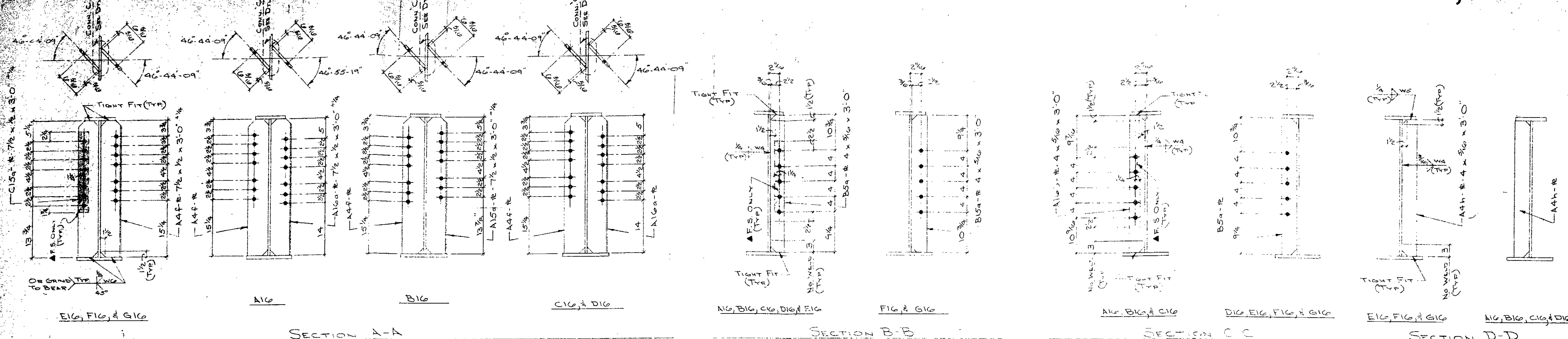


PRINT RECORD					
NO.	FOR	DATE	NO.	FOR	DATE
SYSTEM B-TYPE II					
BOLTS	3/4 φ	UNLESS NTD.			
NUTS	3/4 φ	UNLESS NTD.			
OPEN HLS.	1 3/16 φ	UNLESS NTD.			

DELONG'S
 INC.
 JEFFERSON CITY, MISSOURI
 DIX RD. & IND. DR.
 DIA# 85-6121

DATE	REVISIONS		REMARKS
	DATE	BY	
5-21-79	JWN.		
7-31-79	CHP		

BRIDGE	Blue Ridge Blvd Under Pass	JOB No.
PROJ.	4-U071-71 U-F-71-4(30)	79-40
LOCATION	JACKSON COUNTY, MISS. 71	SHT. 15
DESIGNED BY	ARCJ-ENGR. Mo. State Hwy. Dept.	OF 54



- MAKE — ONE — A16
 - MAKE — ONE — B16
 - MAKE — ONE — C16
 - MAKE — ONE — D16
- MAKE — ONE — E16
 - MAKE — ONE — F16
 - MAKE — ONE — G16
- IDENTICAL

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

78

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



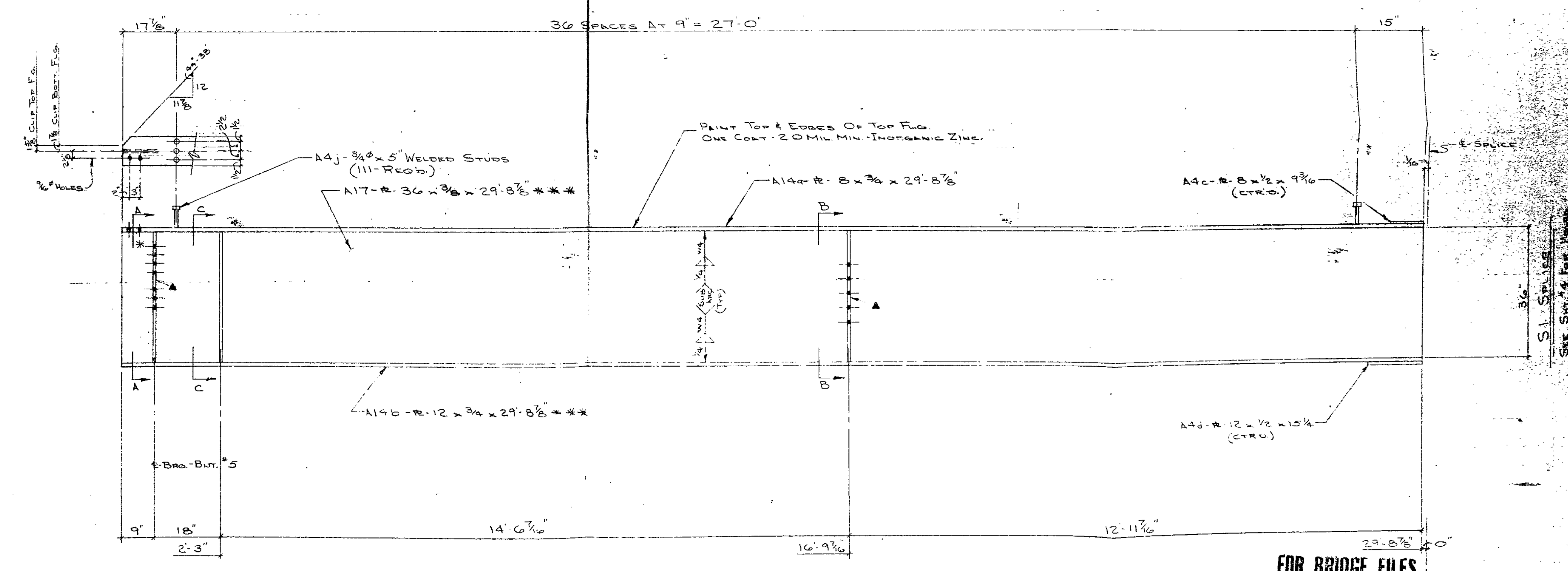
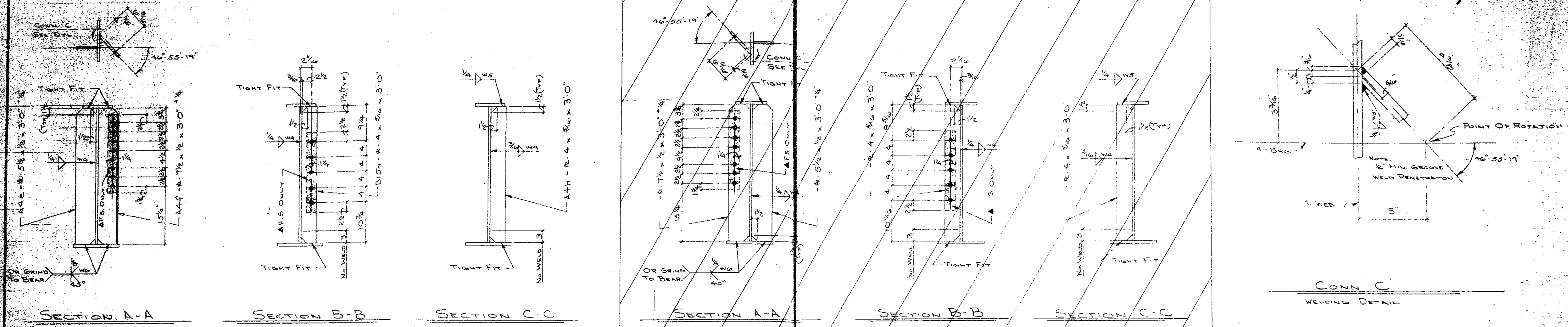
NO.	REV.	PRINT		RECORD	
		NO.	DATE	NO.	DATE
1					

DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI

DATE	CHK. BY	REVISIONS
5-21-79	J.W.N.	
7-31-79	DHP	

BRIDGE	Blue Ridge Blue Under Pass	JOB No.	79-40
PROJ. No.	4-U071-71 U-F-71-4(30) 43-17.07	DWT. No.	16
LOCATION	Jackson County, Mo. State Hwy. Dept.	DATE	9/28/79

A B C D E F G H J K L M N P S T U V W X Y Z



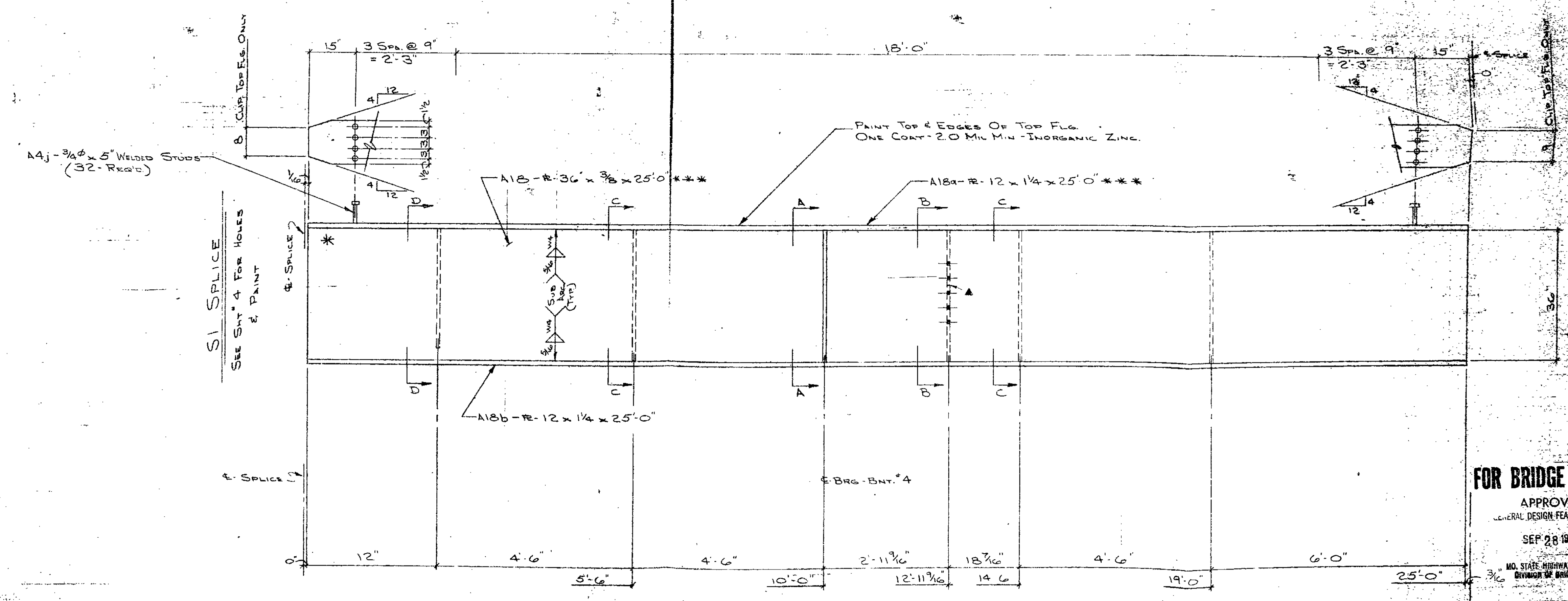
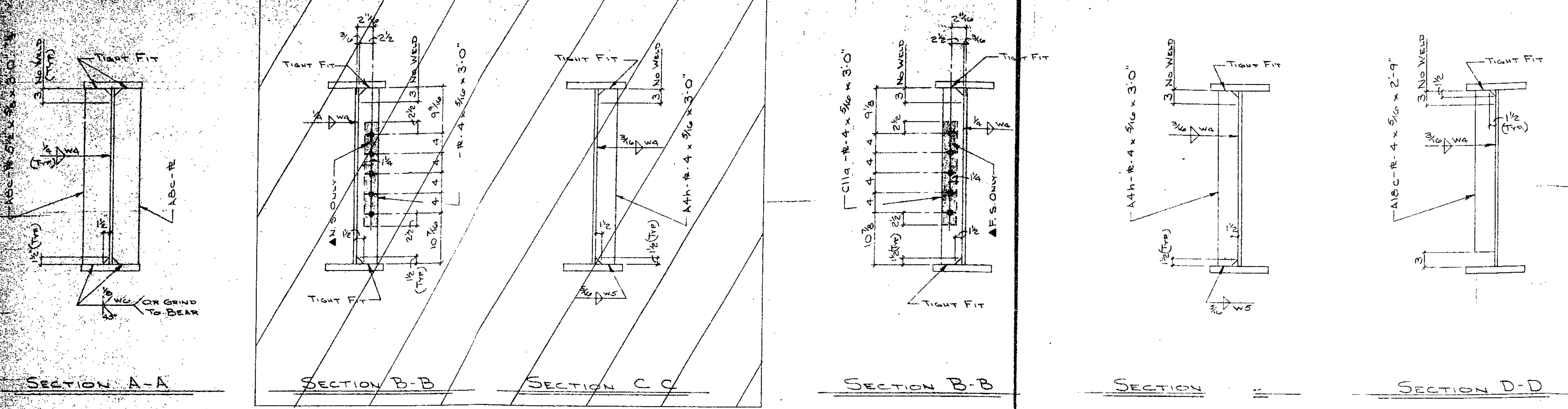
***-DENOTES NOTCH TOUGHNESS OF 15 FT./LB'S @ 40° F. REQ'D.
 ▲-PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

MAKE - ONE - A17

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

		PRINT RECORD NO. FOR DATE NO. FOR DATE SYSTEM 'B'-TYPE II		DELONG'S INC. DIAL 682-6121 JEFFERSON CITY, MISSOURI		DETAILED BY U.W.N./ DATE 5-21-79 CHECKED BY D.H.P./ DATE 7-31-79		REVISIONS DATE MK. BY REMARKS		BRIDGE Blue Ridge Blvd Under Pass JOB 4-0071-71 U-F-71-4(30) 4-77-07 LOCATION JACKSON COUNTY, RES. 71 ARCH. ENGR. MO. STATE HWY. DEPT.	
--	--	--	--	---	--	---	--	---	--	---	--

A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



A4J-3/4 x 5" WELDED STUDS (32-REG'D)

S1 SPLICE
SEE SHT. A FOR HOLES & PAINT

S2 SPLICE
SEE SHT. B FOR HOLES & PAINT

PAINT TOP & EDGES OF TOP FLG. ONE COAT - 2.0 MIL MIN - INORGANIC ZINC.

FOR BRIDGE FILES
APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

MAKE - ONE - A1B

* DENOTES NOTCH TOUGHNESS OF 15 FT. KE'S @ 40° F. REQ'D.
▲ FINISH ONE COAT 1.5 MIL MIN. - 2.5 MIL MAX. - INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



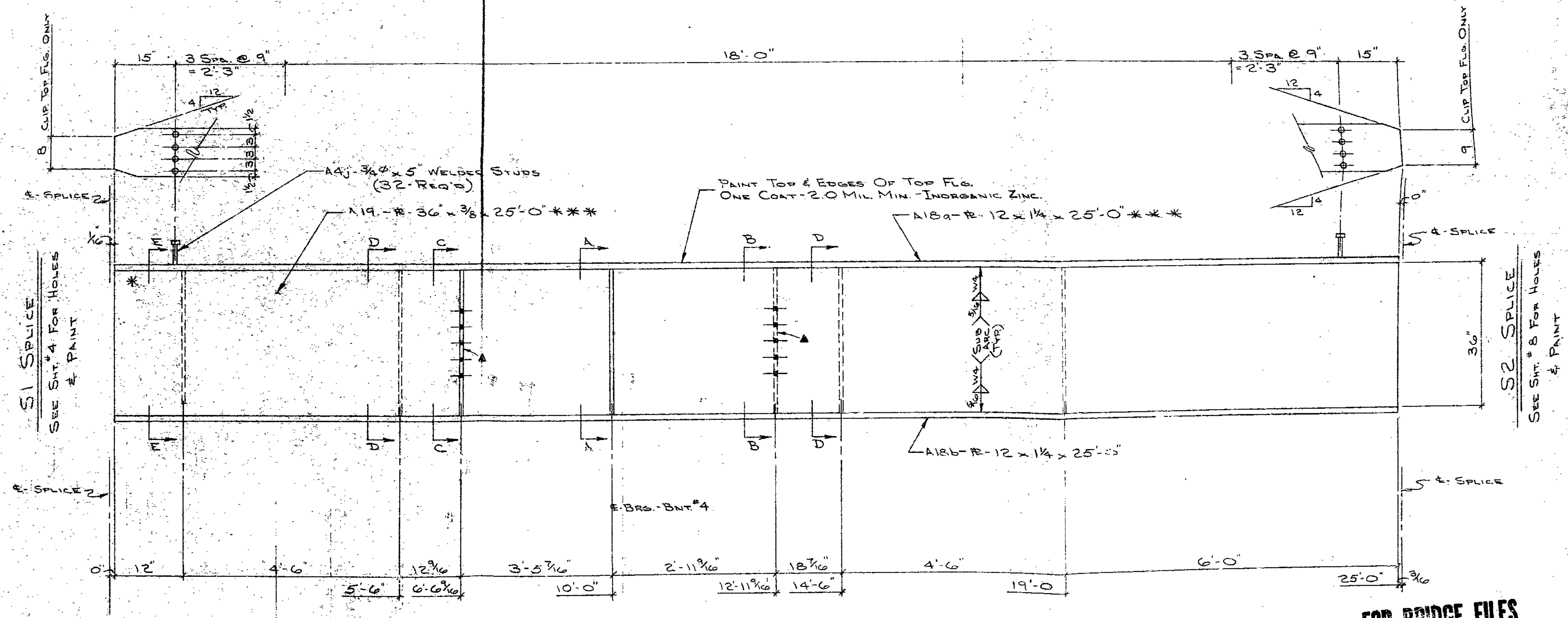
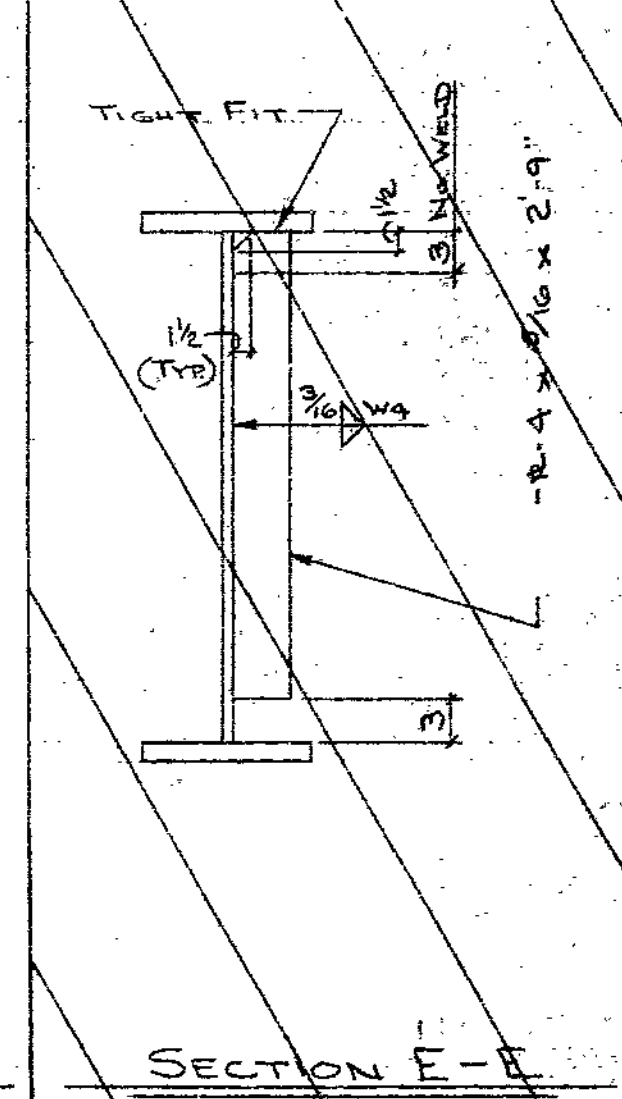
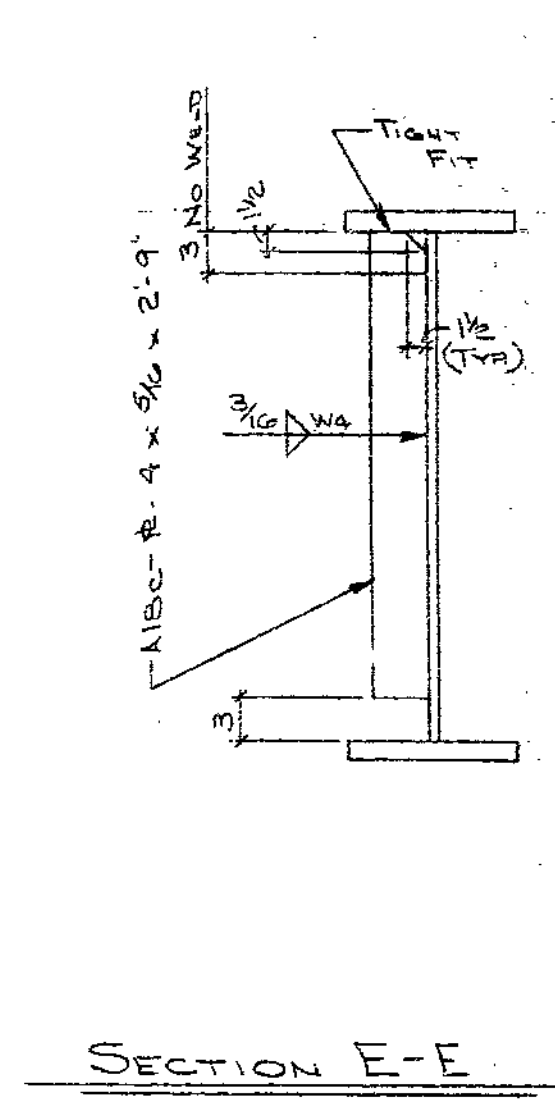
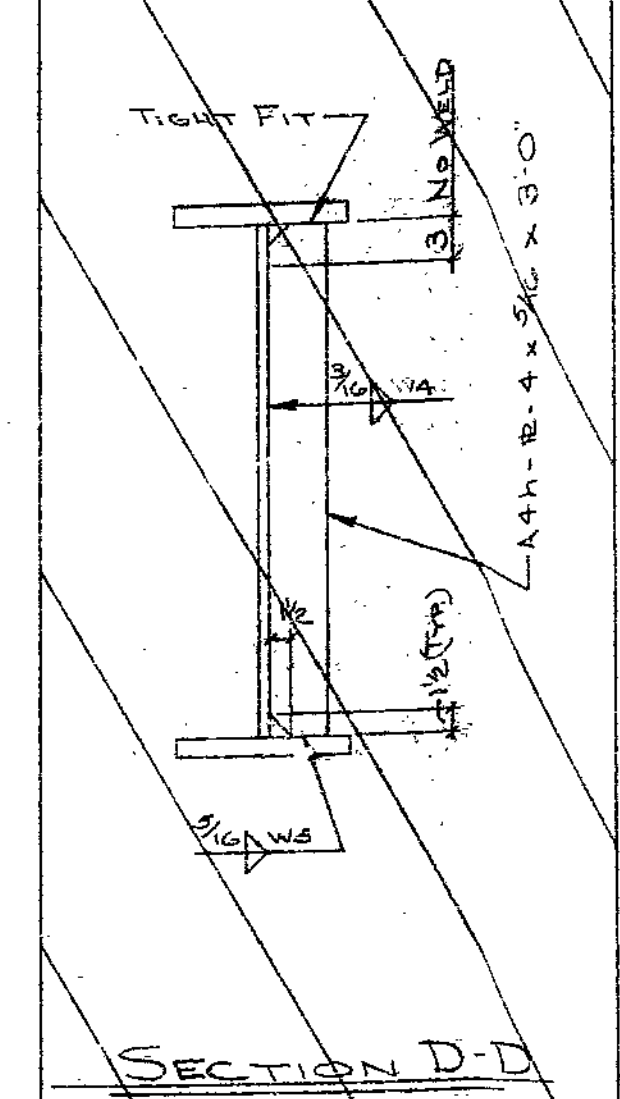
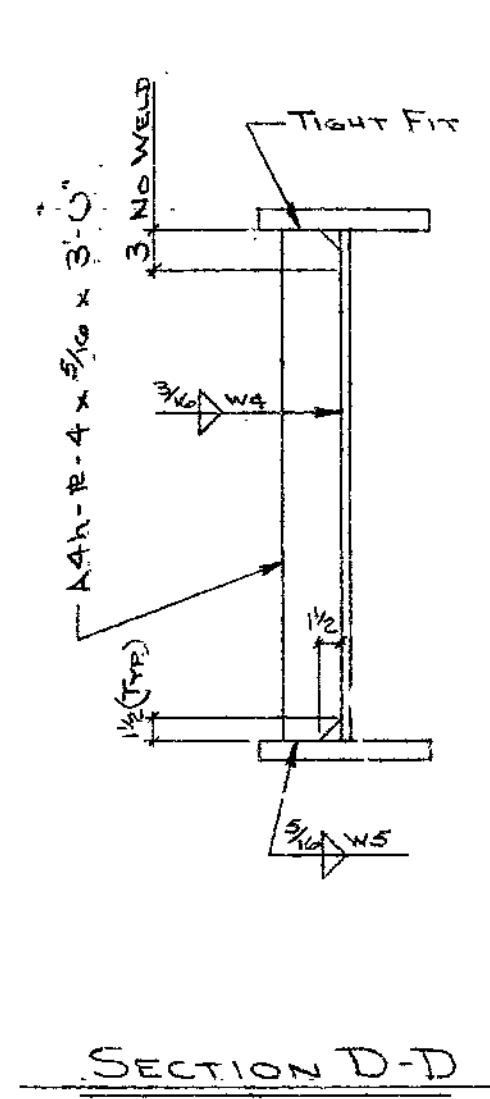
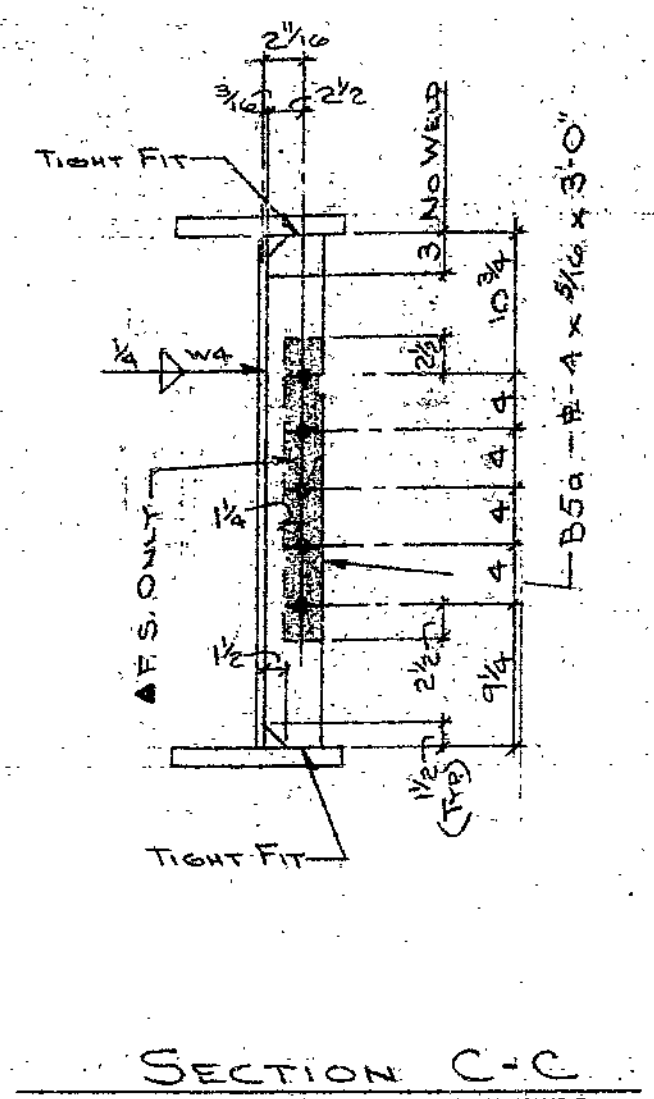
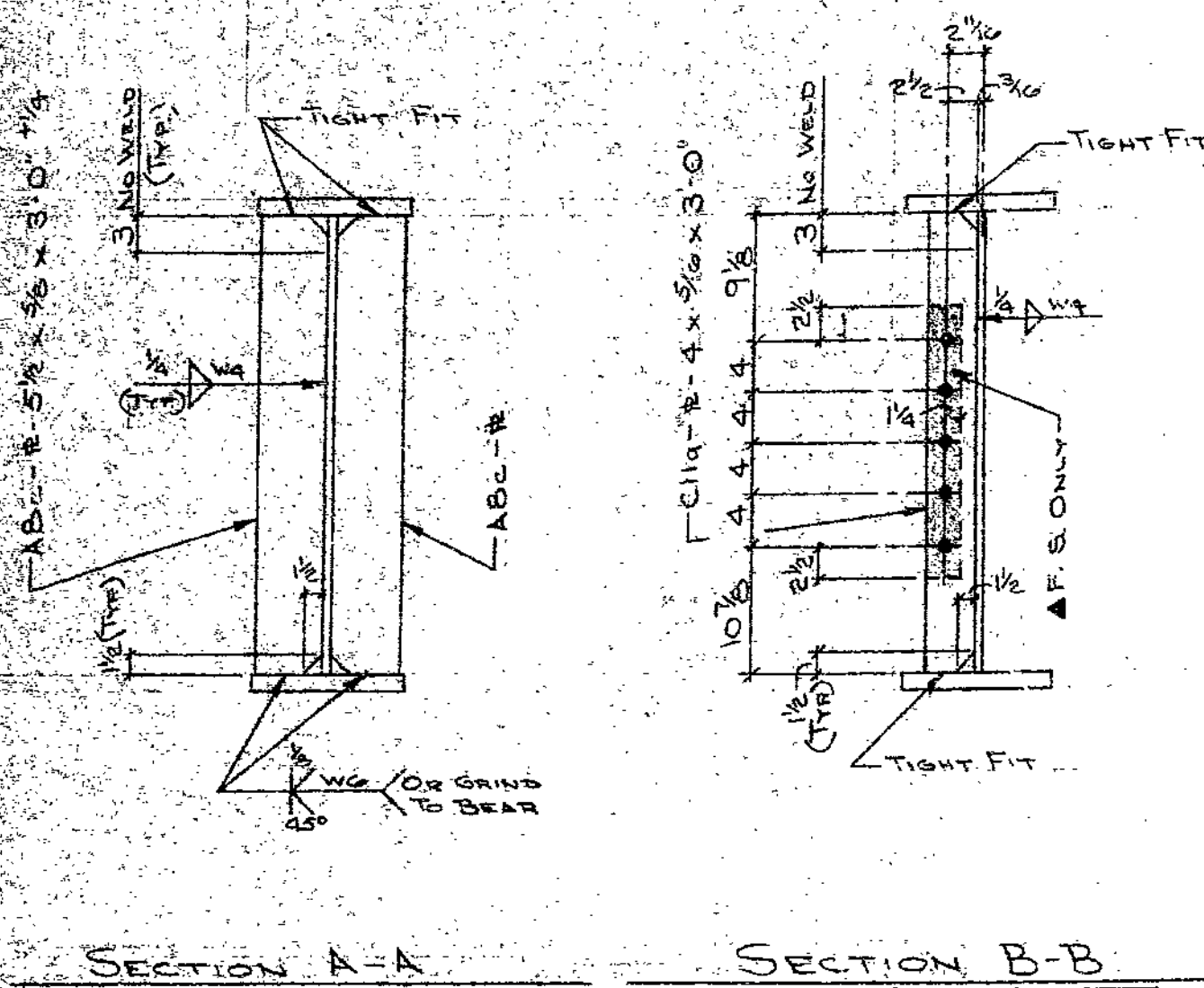
NO.	REV.	DATE	BY	CHK.	PRINT RECORD	
					NO.	DATE
SYSTEM B - TYPE II						
BOLTS	3/4"					
RYER	3/4"					
OPEN	3/4"					

DELONG'S
INC.
DIX RD. & IND. DR.
JEFFERSON CITY, MISSOURI

DATE	CHK. BY	REVISION
DATE 5-16-79		
CHECKED BY		
DATE 7-31-79		

DATE	CHK. BY	REVISION	REMARKS

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ



18

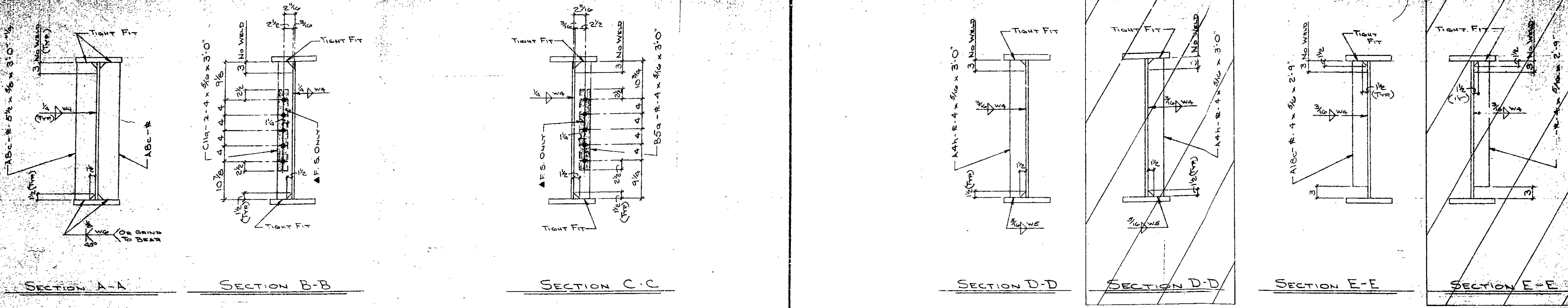
MAKE - ONE - A19

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

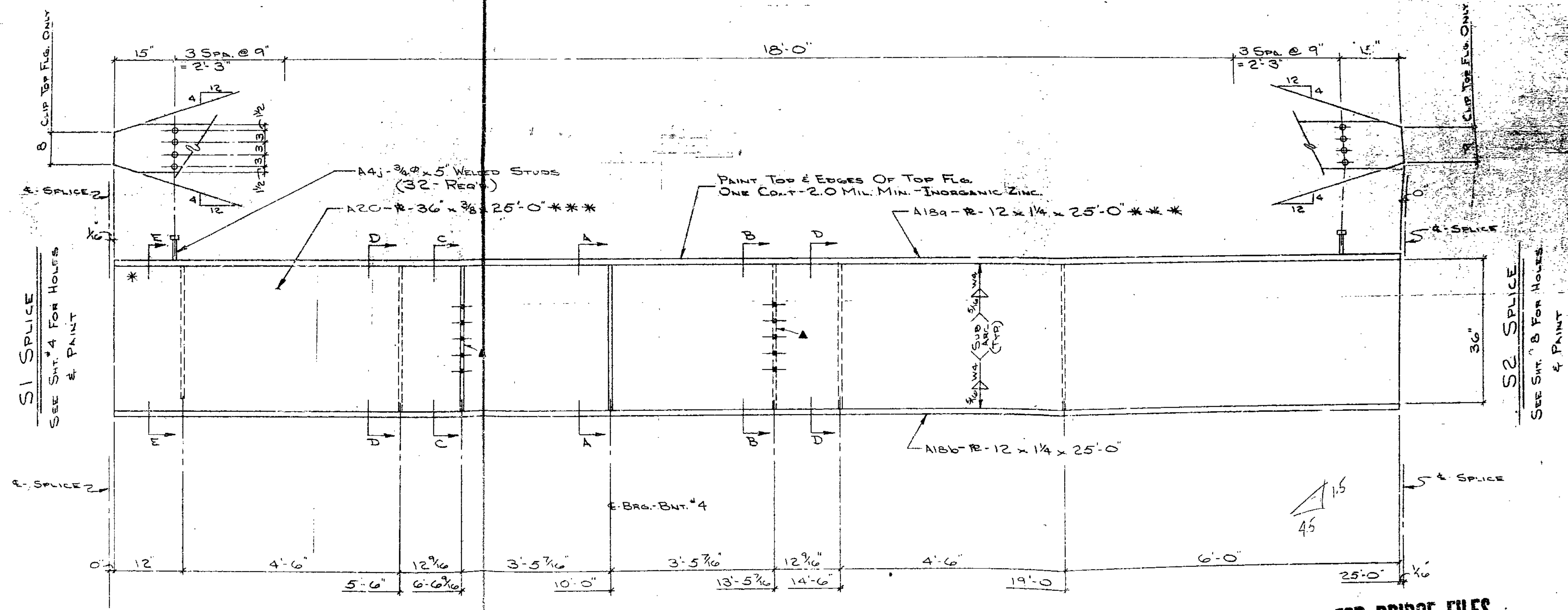
*** DENOTES NOTCH TOUGHNESS OF 15 FT LBS @ 40° F. REQ.
 ▲ PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN 		PRINT RECORD NO. FOR DATE NO. FOR DATE SYSTEM B - TYPE II		DETAILED BY J.W.H. DATE 5-31-79 CHECKED BY BHP DATE 7-31-79		REVISIONS DATE MK. BY REMARKS		Bridge Blue Ridge Blvd. Under Pass JOB 4-0071-71 U-F-71-4(30) 4+71.07 LOCATION JACKSON COUNTY, RTE 71 ARCH. ENGR. MO. STATE HWY. DEPT.		JOB No. 79-40 SHT. 19 OF 54
BEAM & SL. LINTEL 1/4" V2-12 BEAM CONN. 1/4" V2-12 BASE & CAP PLATE H. COL. 1/4" WELD AS SHOWN PIPE COL. 1/4"		BOLTS 3/4" UNLESS NTD. RIVETS 1 1/2" UNLESS NTD. OPEN HLS. 1 3/16" UNLESS NTD.		DIAL 635-6121 DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI						

A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



82



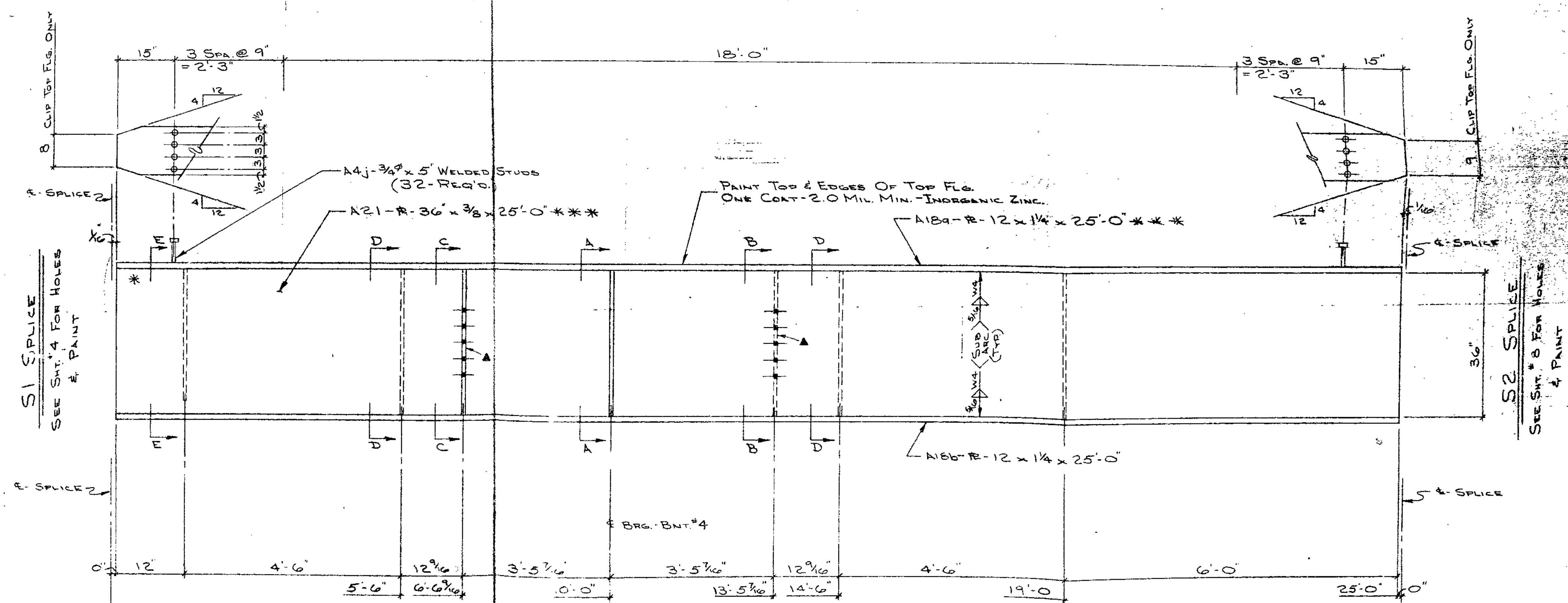
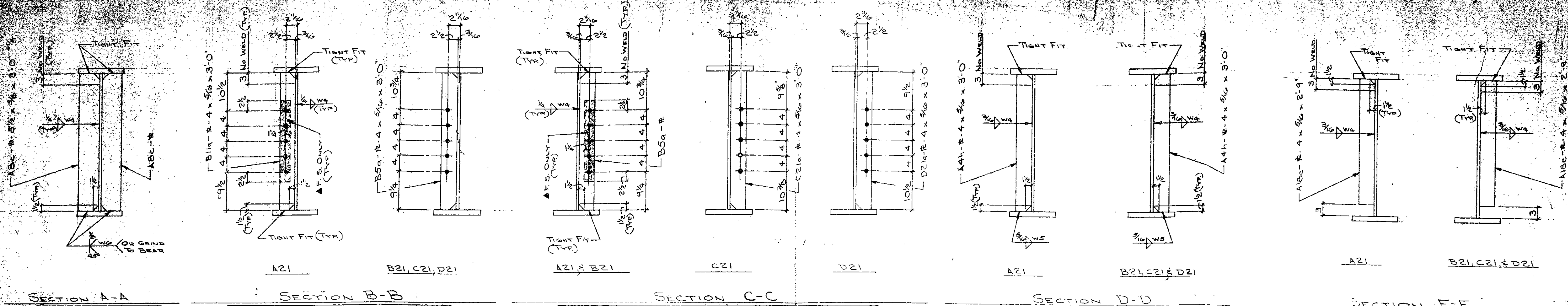
*** DENOTES NOTCH TOUGHNESS OF 15 FT. LBS. @ 40° F. REQ'D.
 A - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

MAKE - ONE - A20
 MAKE - ONE - B20
 MAKE - ONE - C20

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

<p>STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN</p>	<p>PAINT SYSTEM 'B' - TYP. 1</p>	<p>PRINT RECORD</p> <table border="1"> <tr> <th>NO.</th> <th>FOR</th> <th>DATE</th> <th>NO.</th> <th>FOR</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		NO.	FOR	DATE	NO.	FOR	DATE							<p>DETAILED BY J.W.N. / DATE 5-31-79</p> <p>CHECKED BY OHP / DATE 7-31-79</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>DATE</th> <th>MK. BY</th> <th>REMARKS</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	DATE	MK. BY	REMARKS				<p>BRIDGE BLUE RIDGE BLVD UNDER PASS</p> <p>JOB 4-U071-71 U-F-71-4(30) 79-40</p> <p>LOCATION JACKSON COUNTY, RTE 71</p> <p>ARCH. ENGR. MO. STATE HWY. DEPT.</p>	<p>JOB No. 79-40</p> <p>SHT. 2 of 5</p>
		NO.	FOR	DATE	NO.	FOR	DATE																		
DATE	MK. BY	REMARKS																							
<p>BOLTS 3/4" UNLESS NTD.</p> <p>OPEN HLS 1 3/16" UNLESS NTD.</p>	<p>DELONG'S INC. JEFFERSON CITY, MISSOURI</p> <p>DIX RD. & IND. DR. DIA. 635-6121</p>																								

A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

- MAKE — ONE — A21
- MAKE — ONE — B21
- MAKE — ONE — C21
- MAKE — ONE — D21

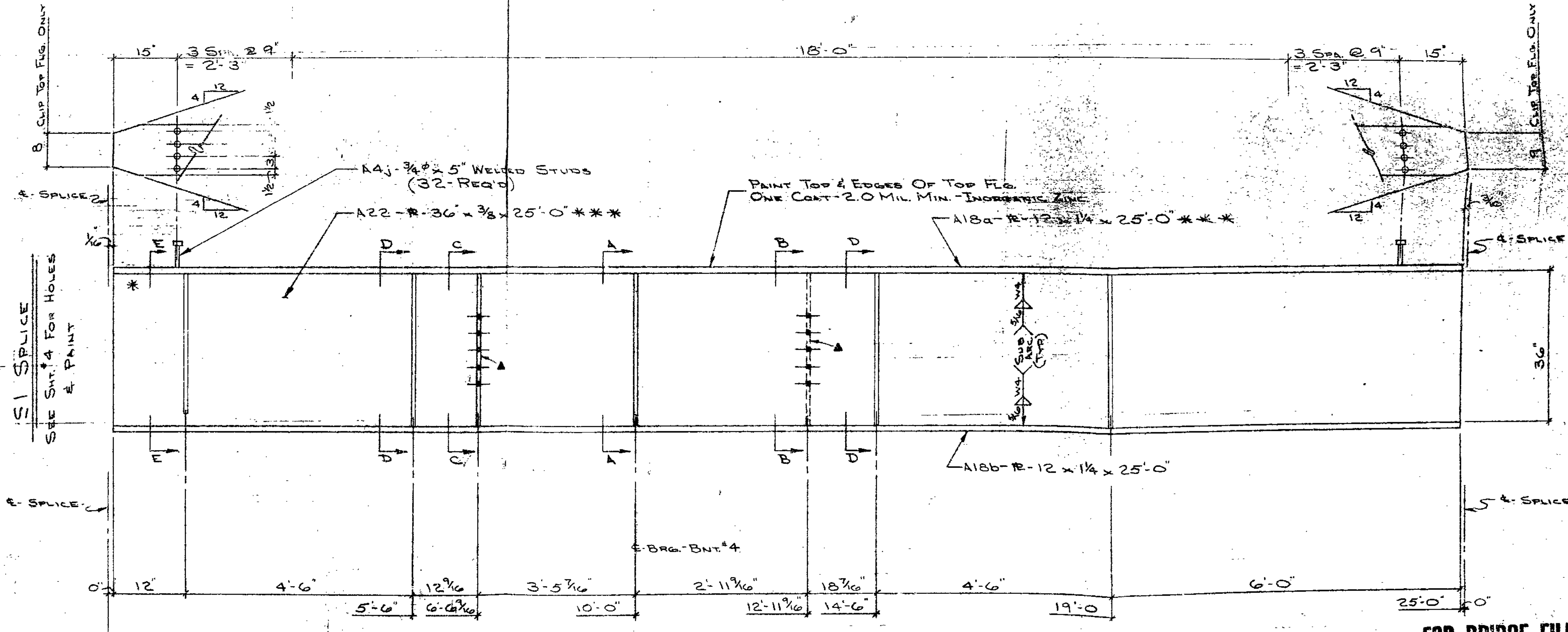
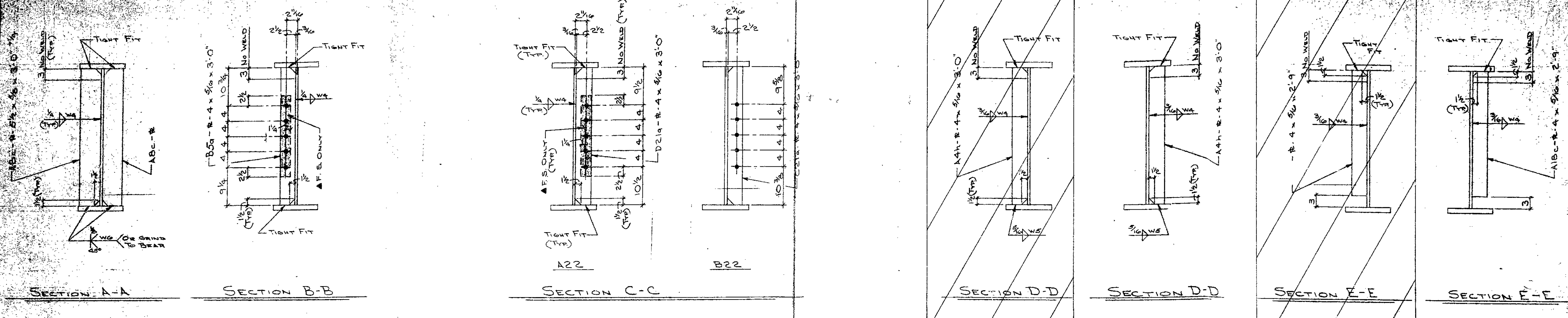
*** DENOTES NOTCH TOUGHNESS OF .15 FT./LB'S @ 40° F. REQ.
▲ PAINT: ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

83

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE		JOB No.	
		NO.	FOR	DATE	J.W.N.	DATE	CHK. BY	REMARKS	BLUE RIDGE BLVD UNDER PASS	79-40	
		NO.	FOR	DATE	6-11-79				4-UOTI-71 U-F-71-4(30) 4+7107	79-40	
		NO.	FOR	DATE	CHP				LOCATION JACKSON COUNTY, RTE 71	59	
		NO.	FOR	DATE	7-31-79				ARCH. ENGR. MO. STATE HWY. DEPT.	59	

DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI

MO. STATE HIGHWAY DEPT. DIVISION OF BRIDGES



MAKE - ONE - A22
 MAKE - ONE - B22

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

ALL DENOTES NOTCH TOUGHNESS OF 15 FT/IN @ 40° F. REQ'D.
 REPAIR ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



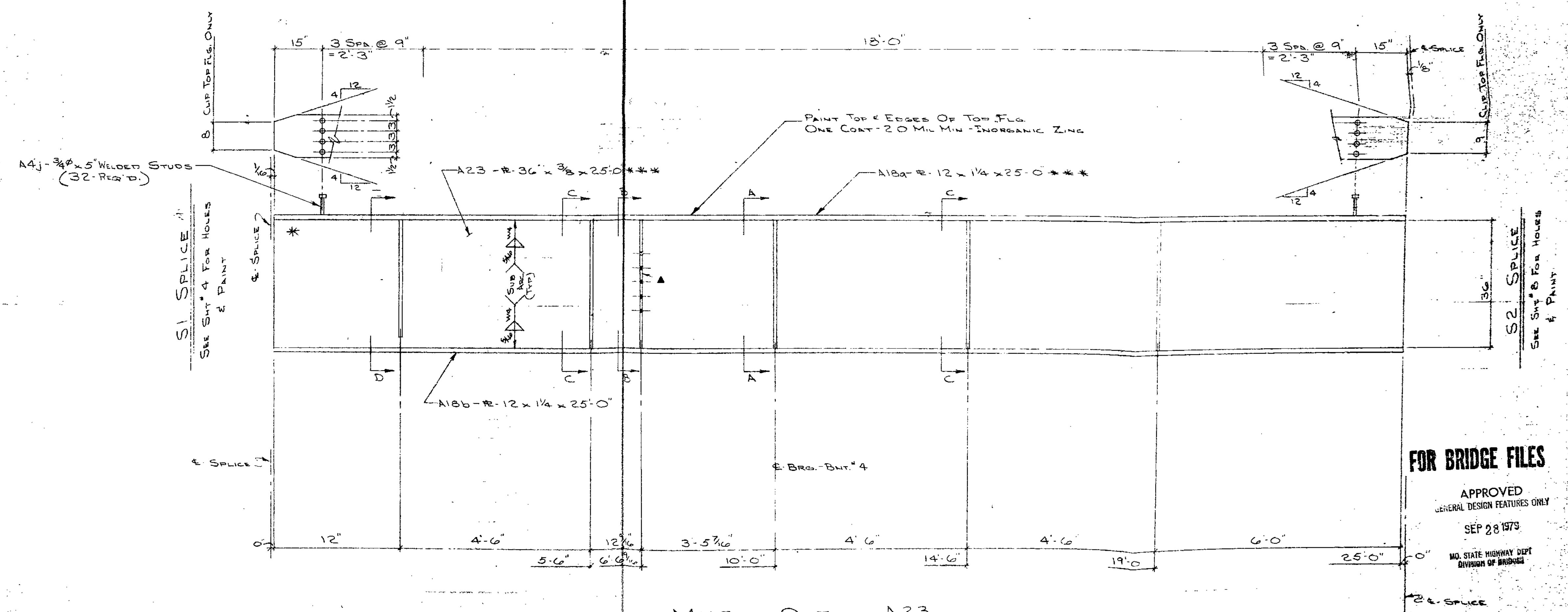
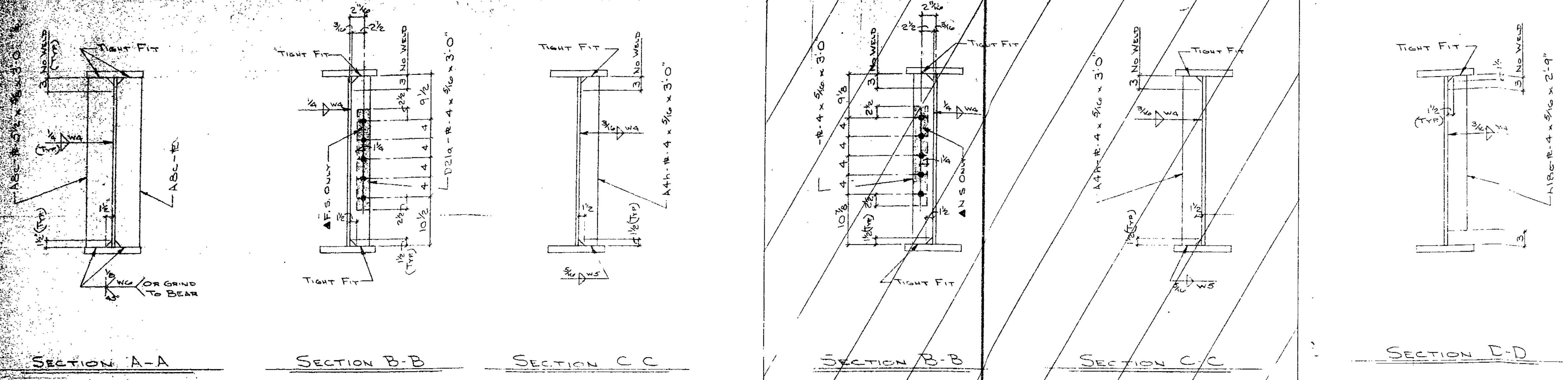
PRINT RECORD	
NO.	DATE

DE LONG'S
 INC.
 DIX. RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 633-6121

DATE	CHK'D BY	REVISIONS

DATE	CHK'D BY	REMARKS

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AS AT AU AV AW AX AY AZ



FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

*** DENOTES NOTCH TOUGHNESS OF 15 FT/LBS @ 40° F. REQ'D.
 PAINT ONE COAT 1.5 MIL MIN - 2.5 MIL MAX - INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

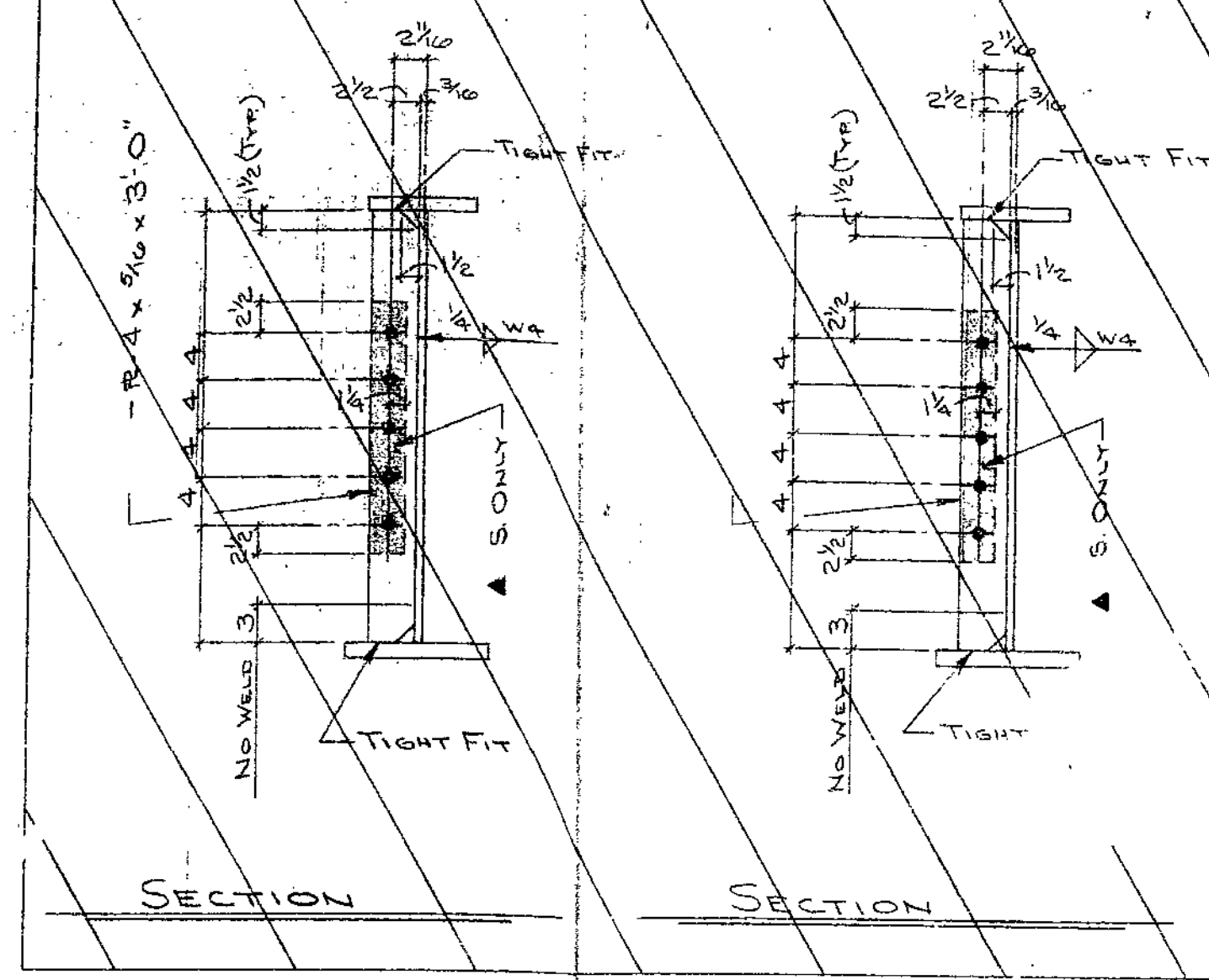
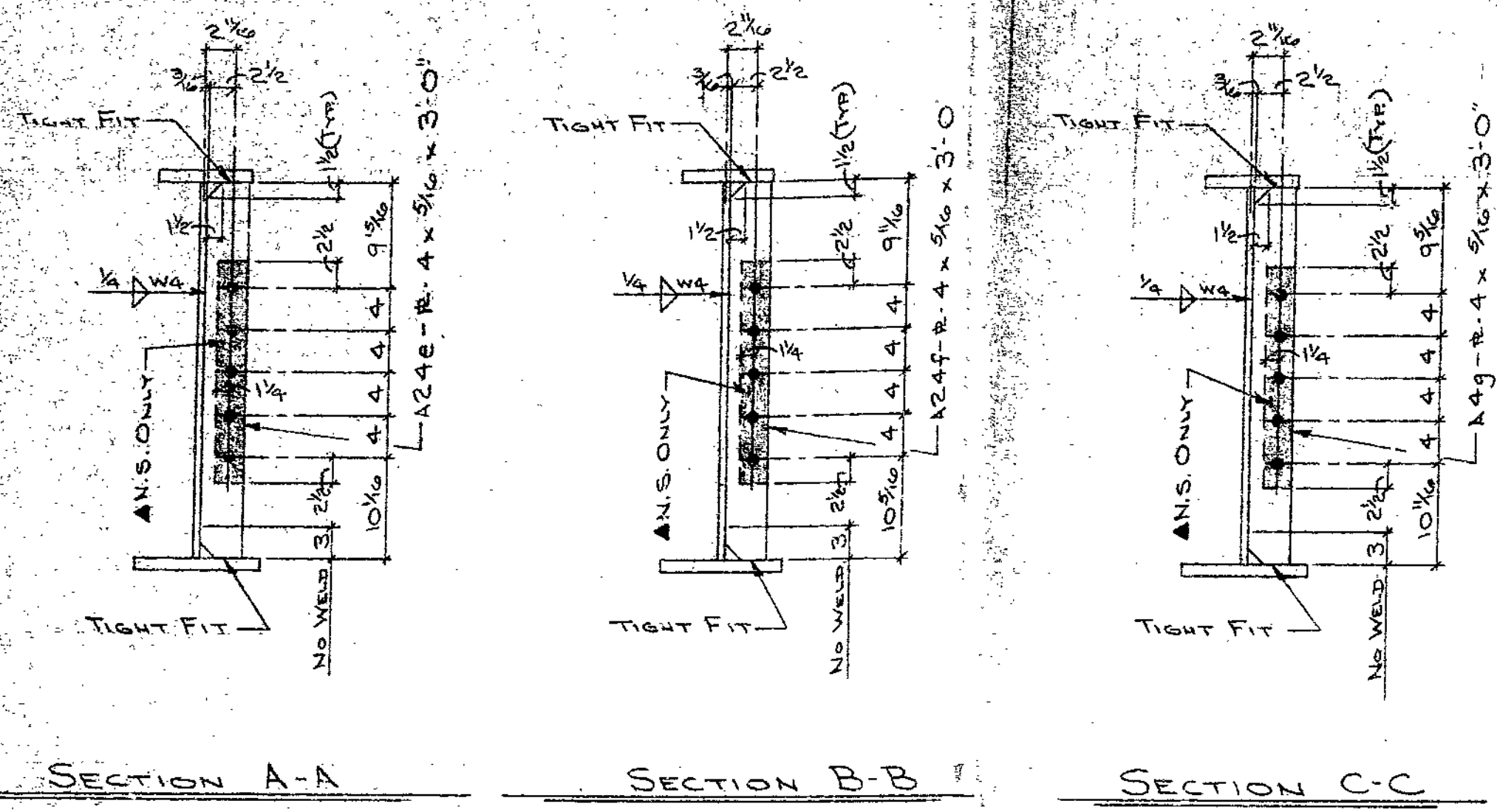


PART	QTY	PRINT		RECORD	
		NO.	FOR	NO.	FOR
System B - Type II					
BOLTS	34				
NUTS	34				
OPEN HES	13				

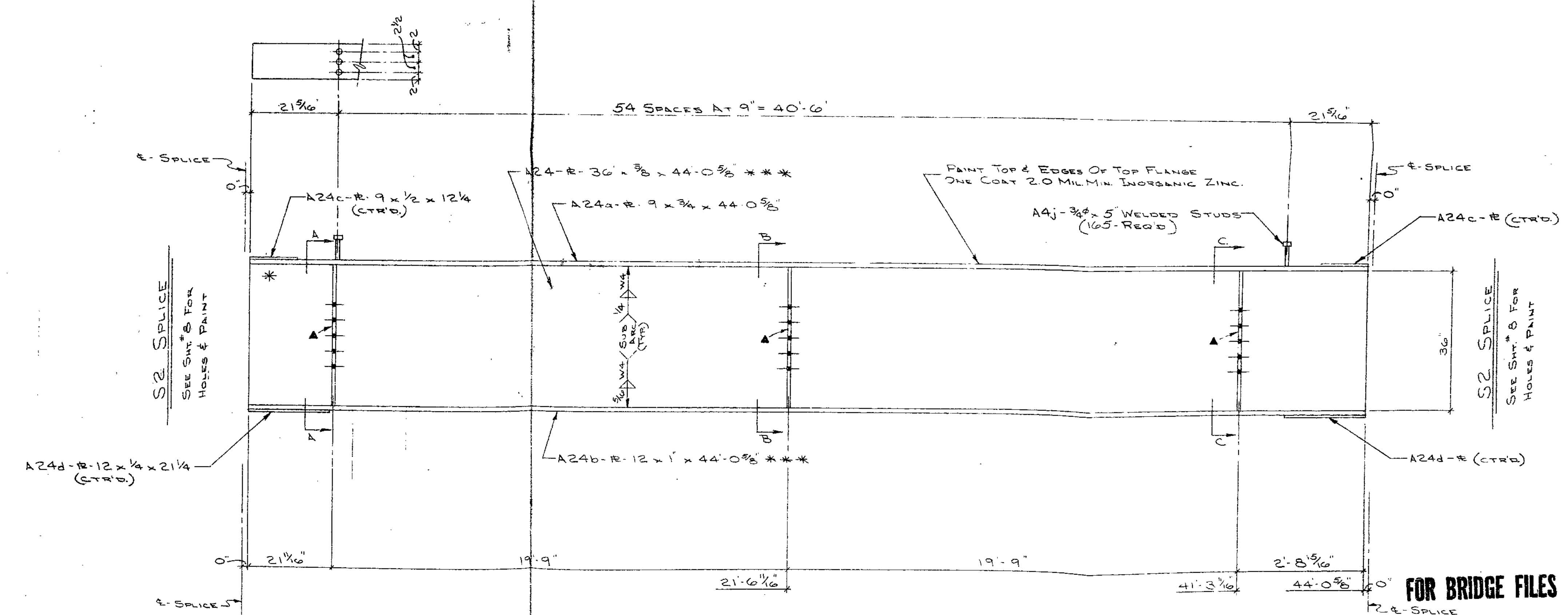
DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI

DATE	MK.	BY	REVISIONS
6-11-79			

BRIDGE	JOB No.
Blue Ridge Blvd Under Pass	79-40
Job # 4-0071-71 U.F. 71-430) A-77.01	
LOCATION JACKSON COUNTY, MO. 71	
ARCH. BRIDGE, MO. STATE HIGHWAY DEPT.	



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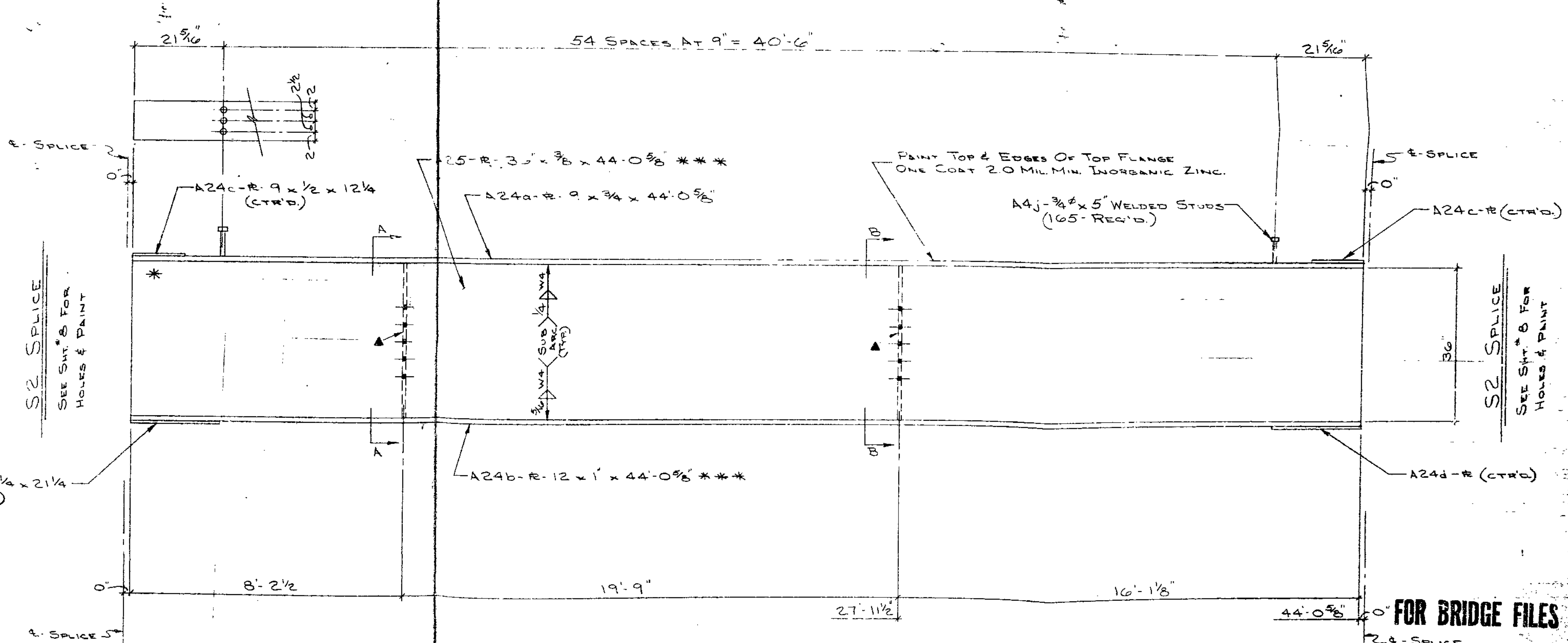
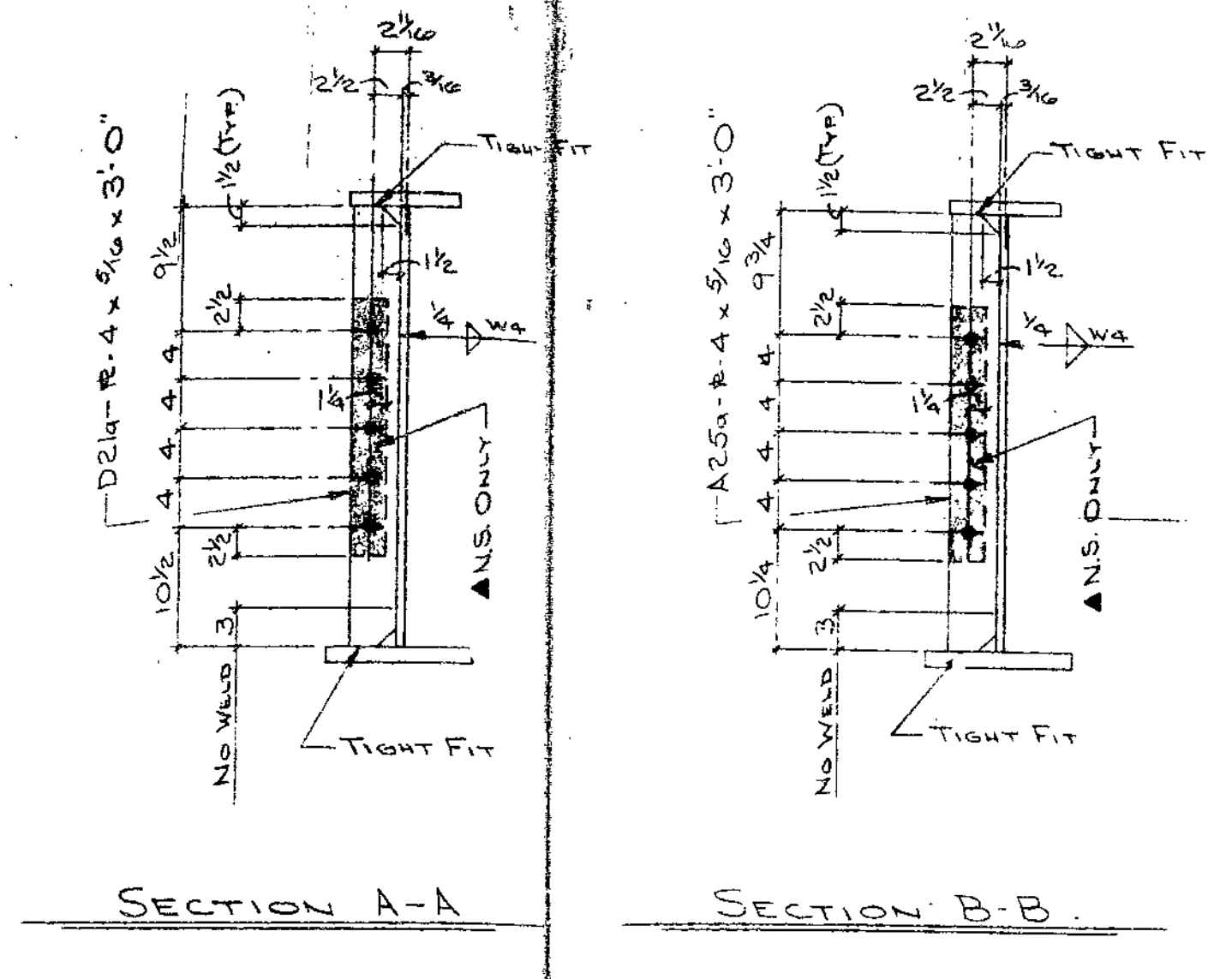
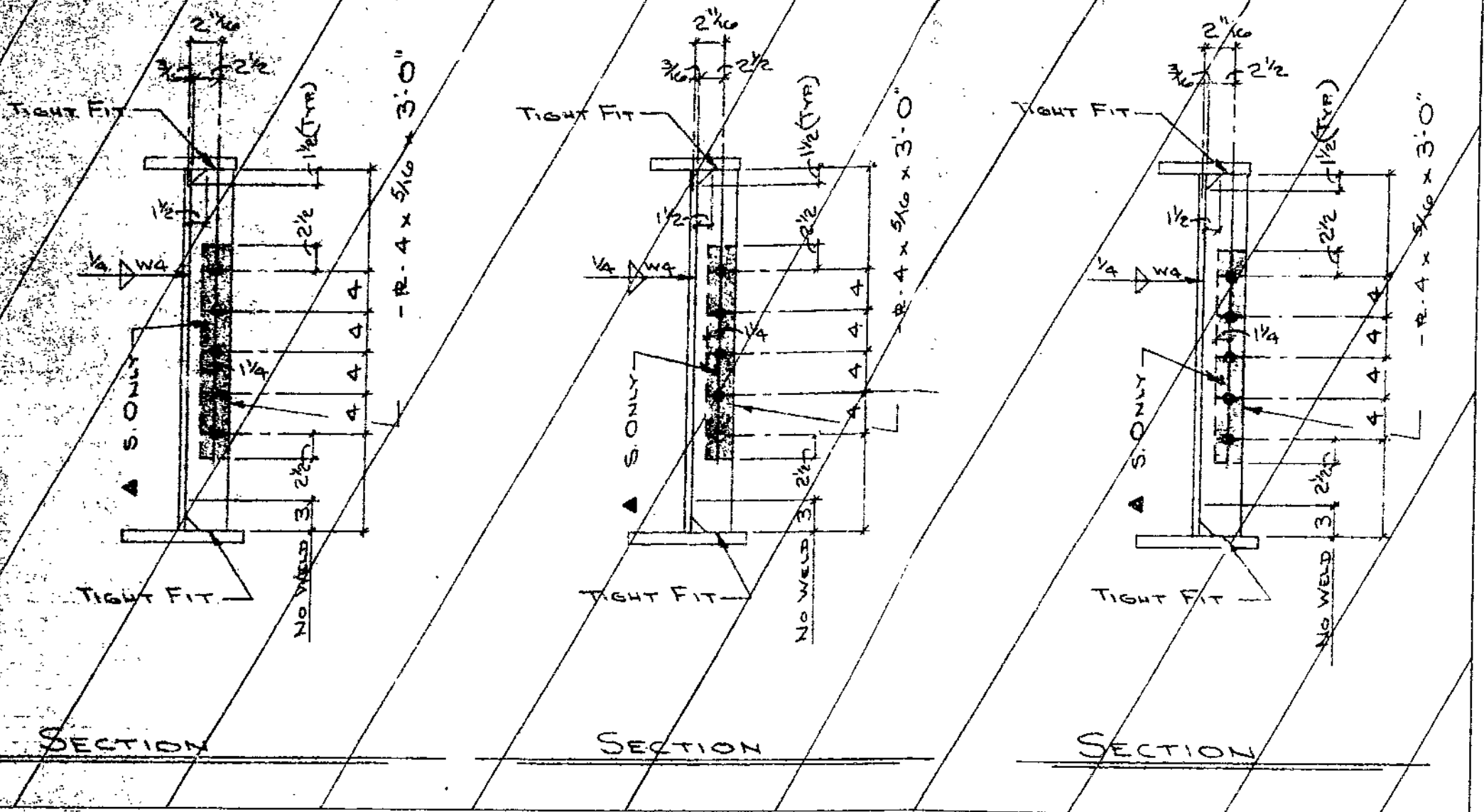
***-DENOTES NOTCH TOUGHNESS OF 15 FT.-LBS. @ 40° F REQ'D.
 ▲-PAINT ONE COAT-1.5 MIL MIN-2.5 MIL MAX-INORGANIC ZINC.

MAKE - ONE - A24

FOR BRIDGE FILES

APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 335-6121	DETAILED BY J.W.N. DATE 6-13-79 CHECKED BY OHP DATE 7-31-79	REVISIONS DATE MK BY REMARKS	BRIDGE Blue Ridge Blvd. Under Pass FROM STA. 4+71.07 JOB #4-U071-71 U-F 71-4(30) 4+71.07 LOCATION JACKSON COUNTY, RTE. 71 ARCH-ENGR. MO. STATE HWY. DEPT.	JOB No. 79-40 SMT. No. 24 OF 54
	NO. FOR DATE IND. FOR DATE BOLTS 3/4" UNLESS NTD. RIVETS 1 1/2" UNLESS NTD. OPEN HLS. 1 1/2" UNLESS NTD.	A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ			L-9292	L-9292	L-9292	



***-DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
 ▲-PAINT ONE COAT-1.5 MIL. MIN.-2.5 MIL. MAX.-INORGANIC ZINC.

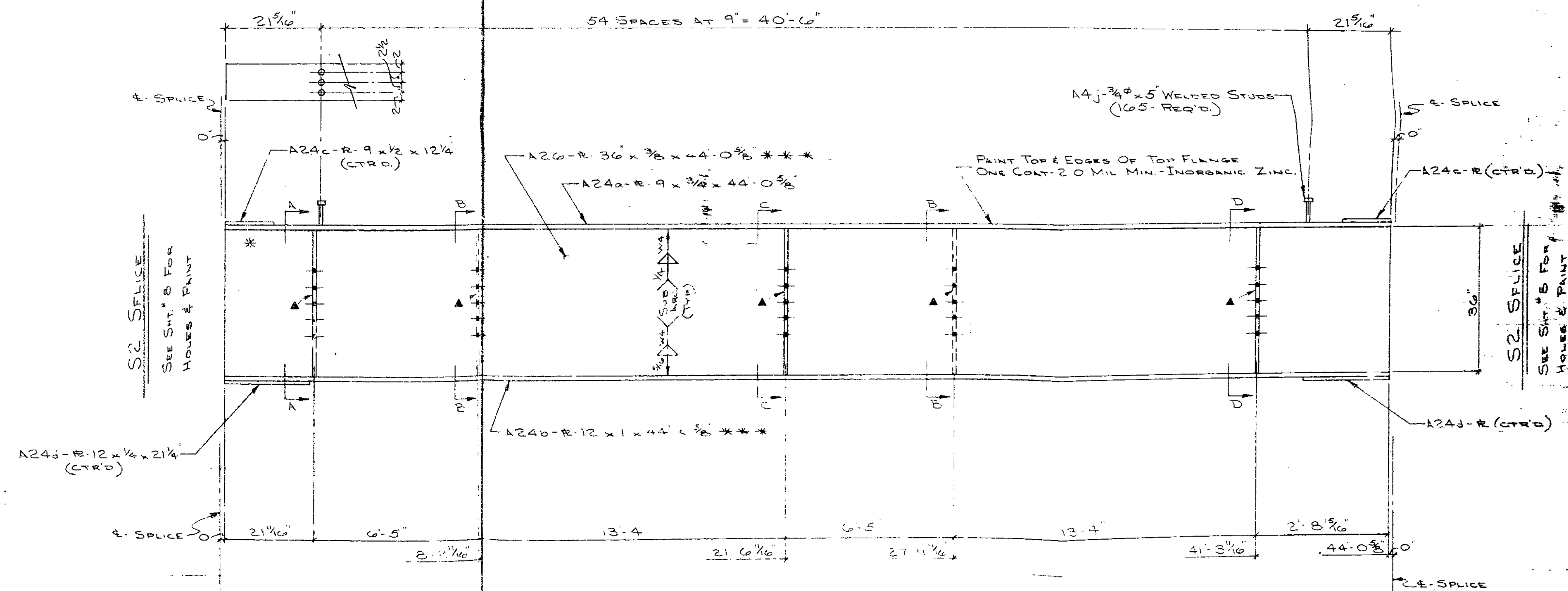
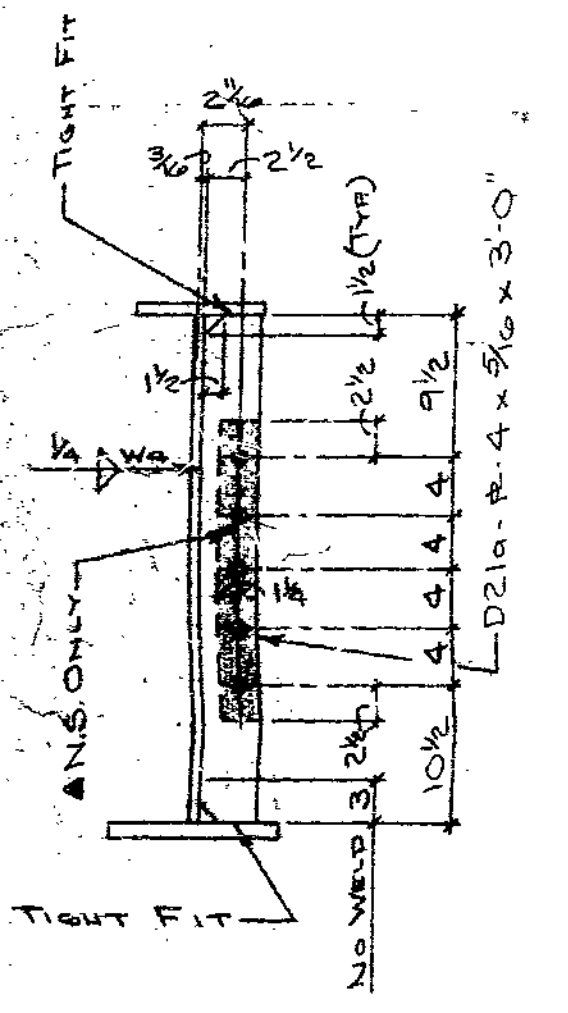
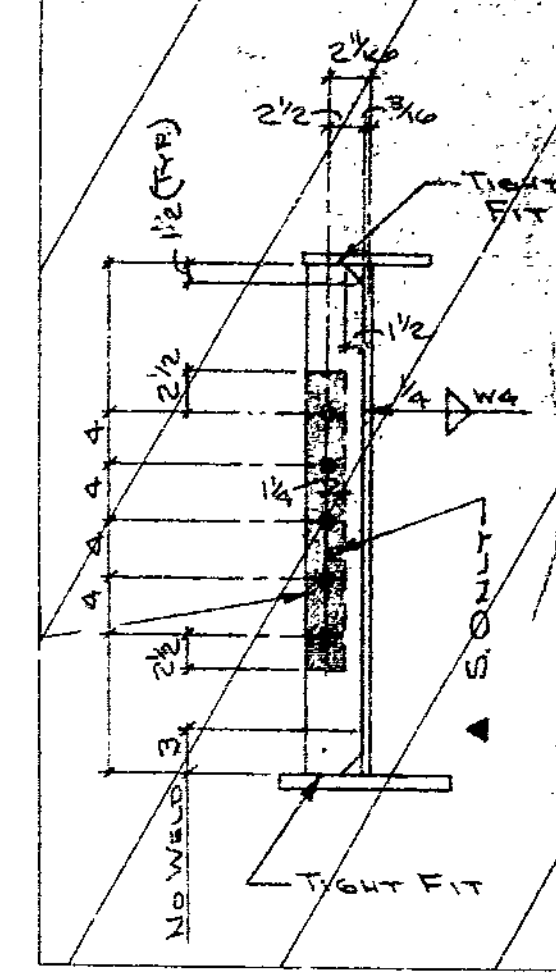
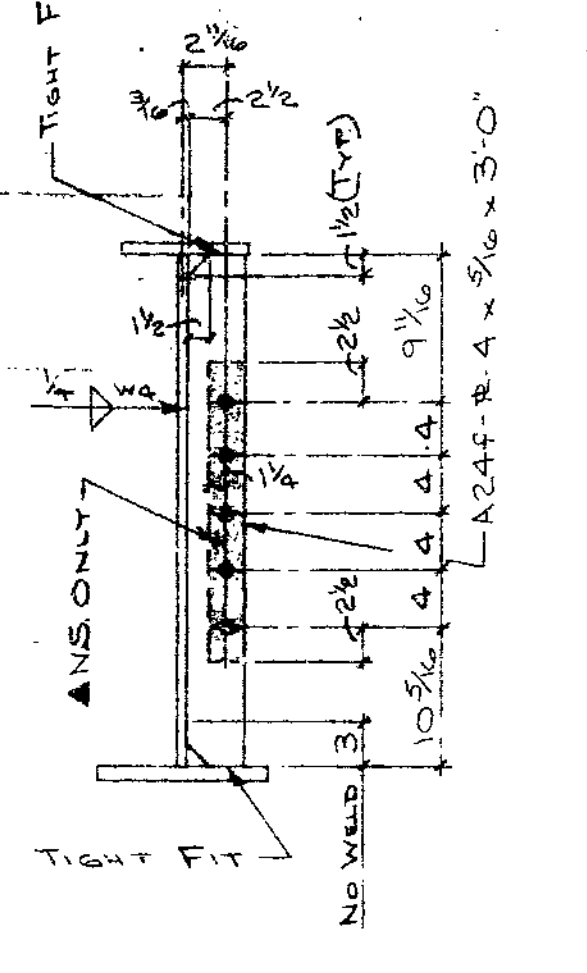
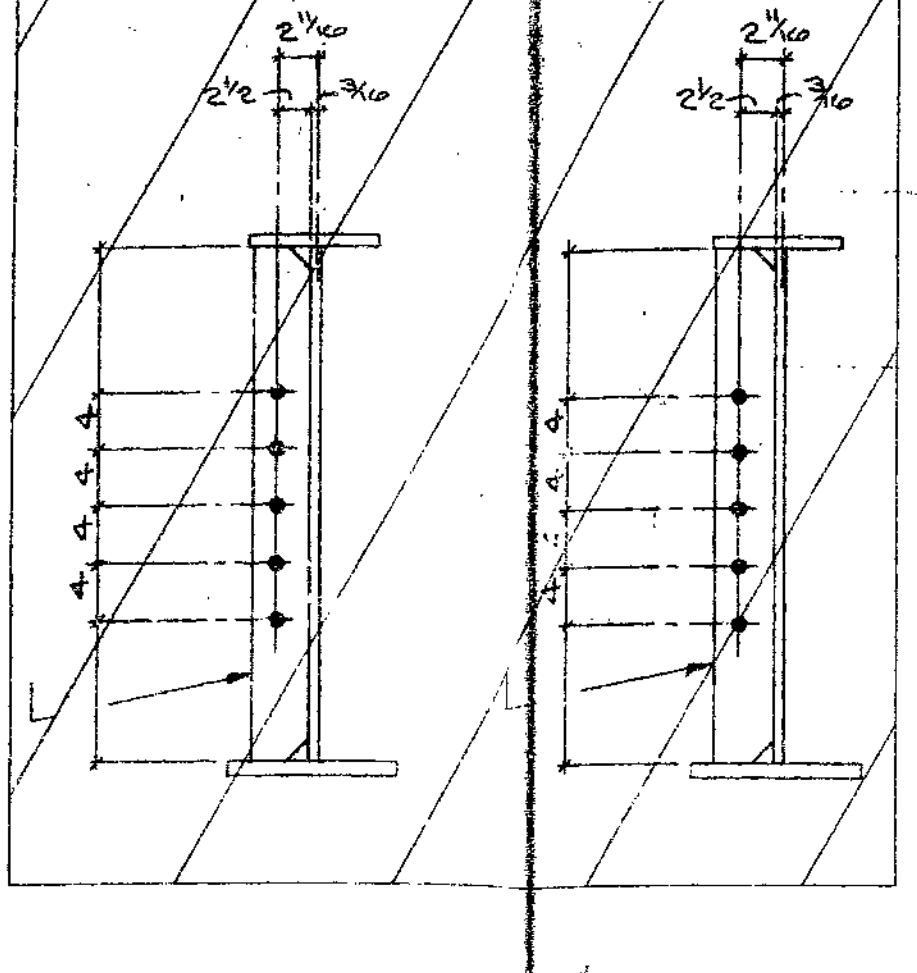
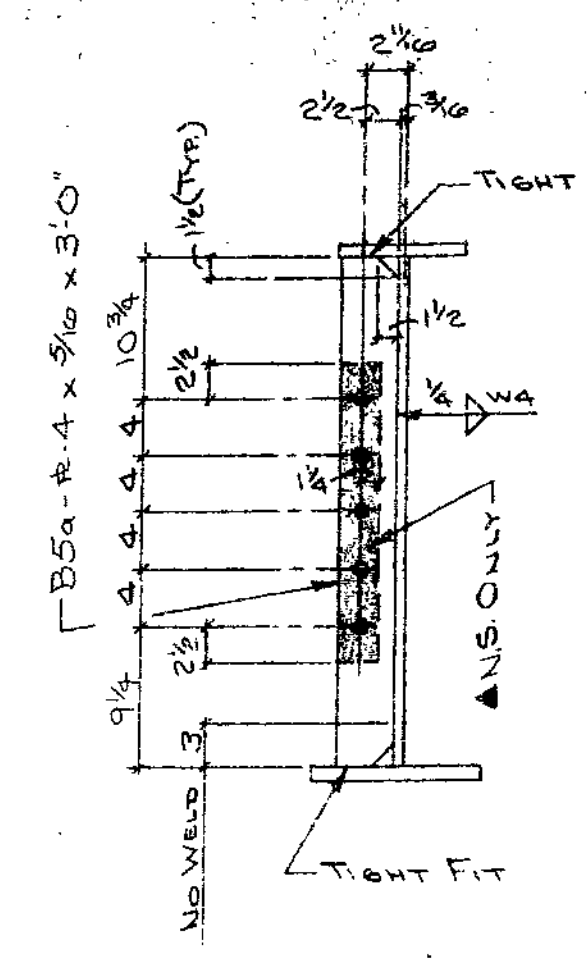
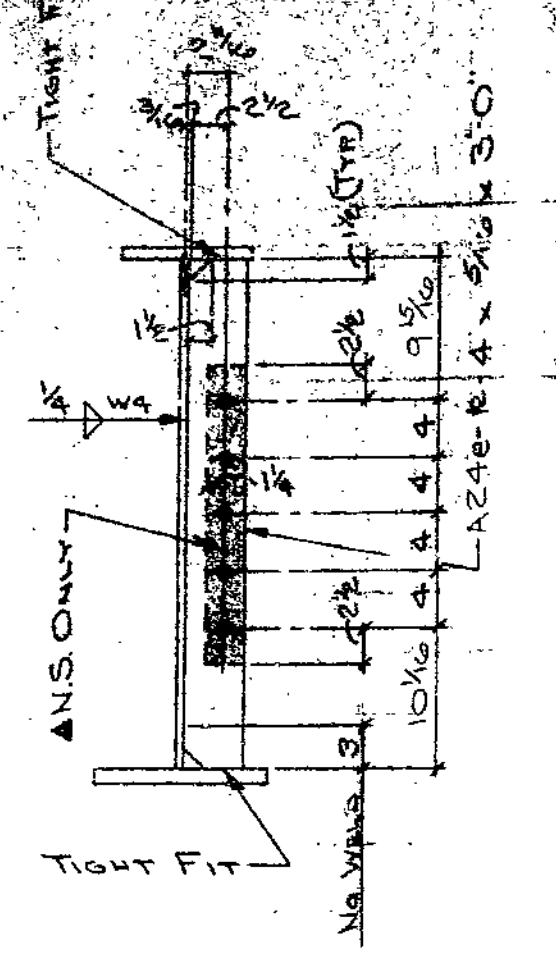
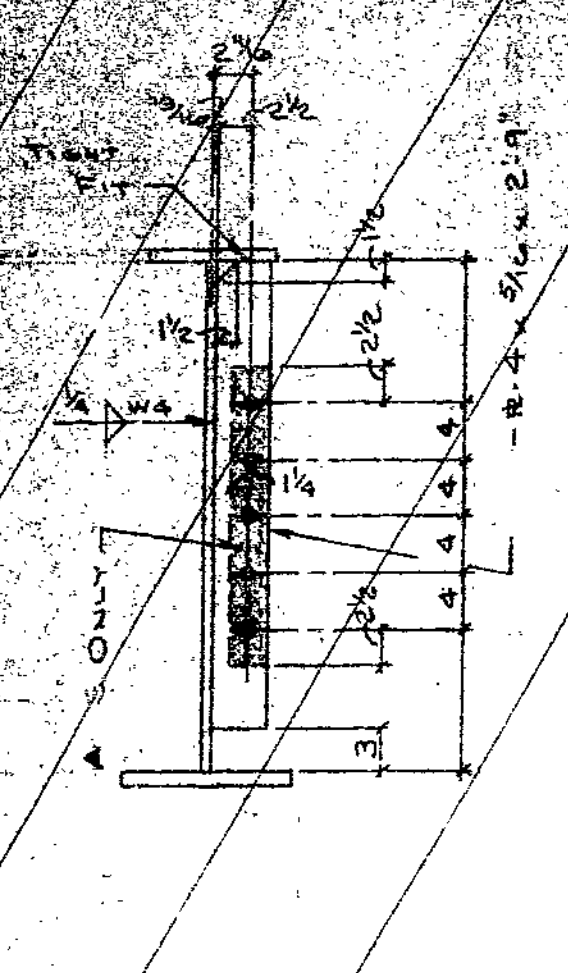
FOR BRIDGE FILES

APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

MAKE - ONE - A25

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISION		BRIDGE	
	WELD AS SHOWN	NO. FOR	DATE	NO. FOR	DATE	J. W. N.	DATE	Blue Ridge Blv. Under Pass	
	BASE & CAP PLATE	SOLTS		UNLESS MTD.		6-13-79		400' AUDUBON BLV. U-F-71-4(30) A+77(0)	
	PIPE COL.	INVERT		UNLESS MTD.		7-31-79		LOCATION Jefferson County, Mo. Rte. 71	
<p>DELONG'S INC. JEFFERSON CITY, MISSOURI</p>				<p>DIX RD. & IND. DR. DIX 405-6121</p>		<p>CHECKED BY DATE</p>		<p>ARCH. DIST. Mo. Bridge Works Dept.</p>	

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AK AL AM AN AP AS AT AU AV AW AX AY AZ



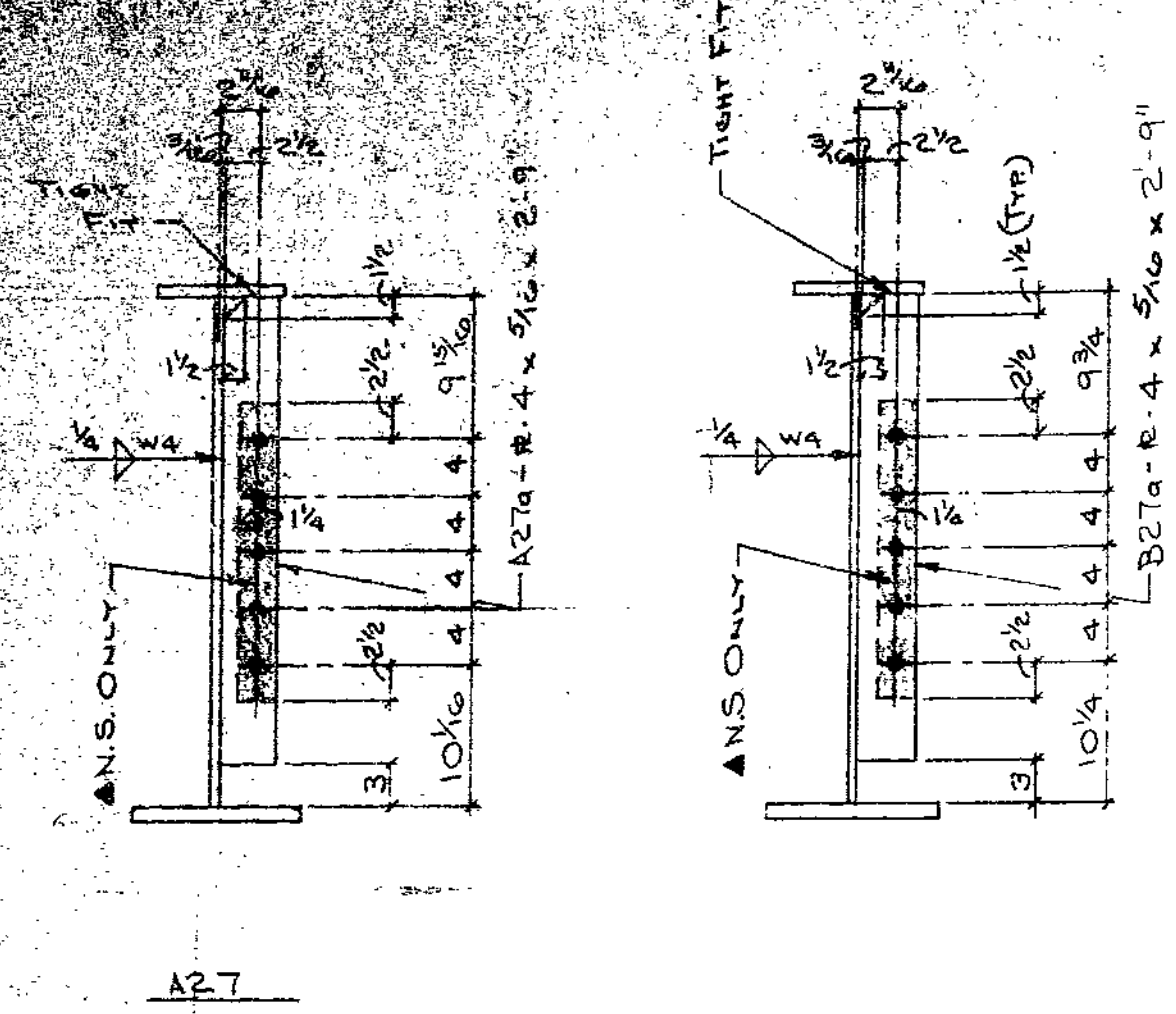
*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LB'S @ 40° F. REQ'D.

▲ - PAINT ONE COAT-1.5 MIL. MIN.-2.5 MIL. MAX. - INORGANIC ZINC

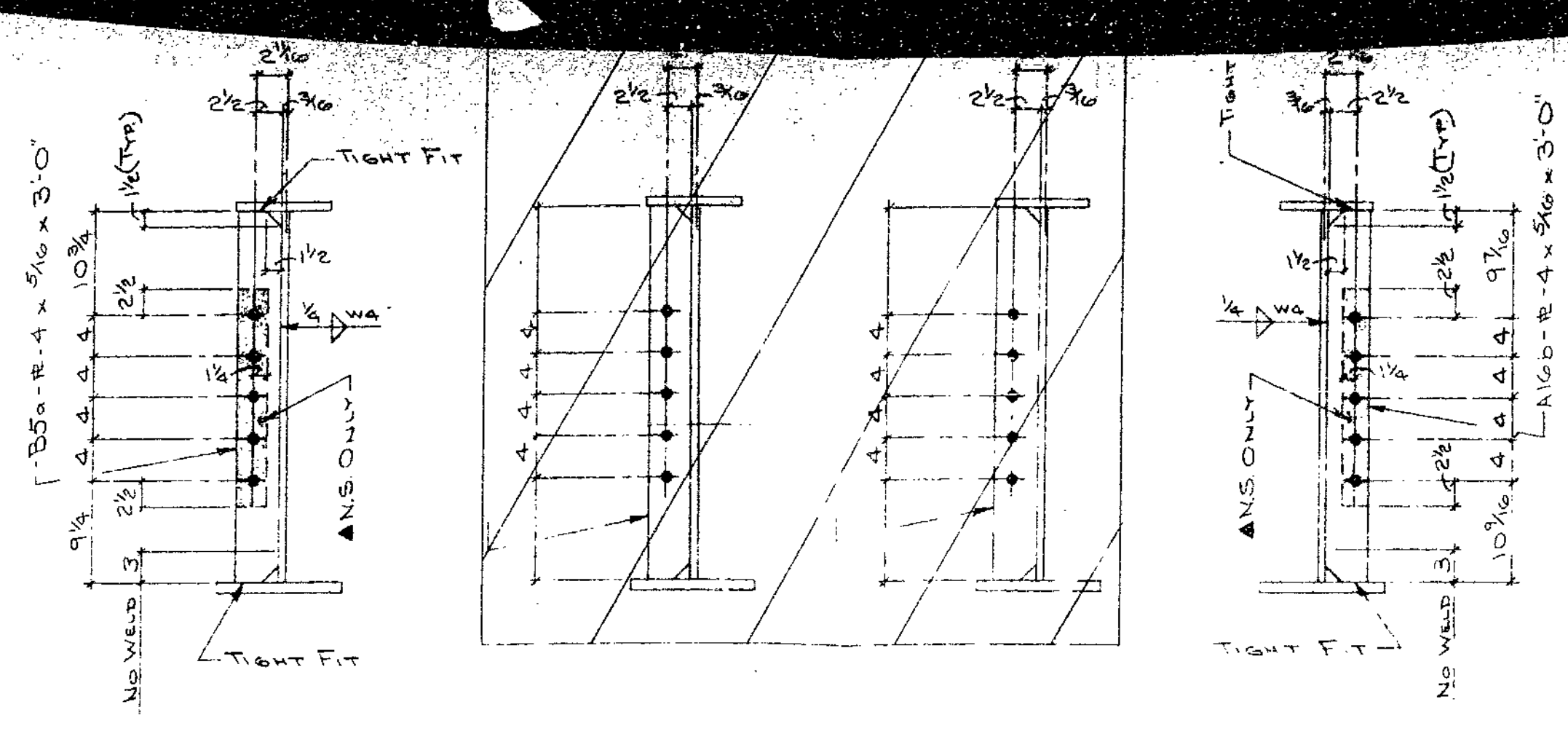
MAKE -- ONE -- A26

FOR BRIDGE FILES
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GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

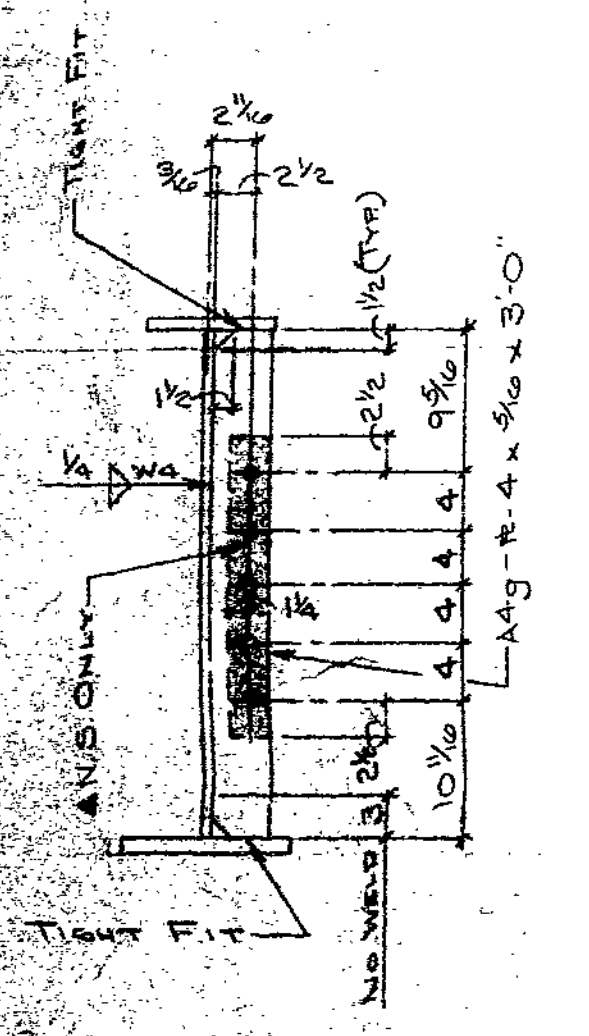
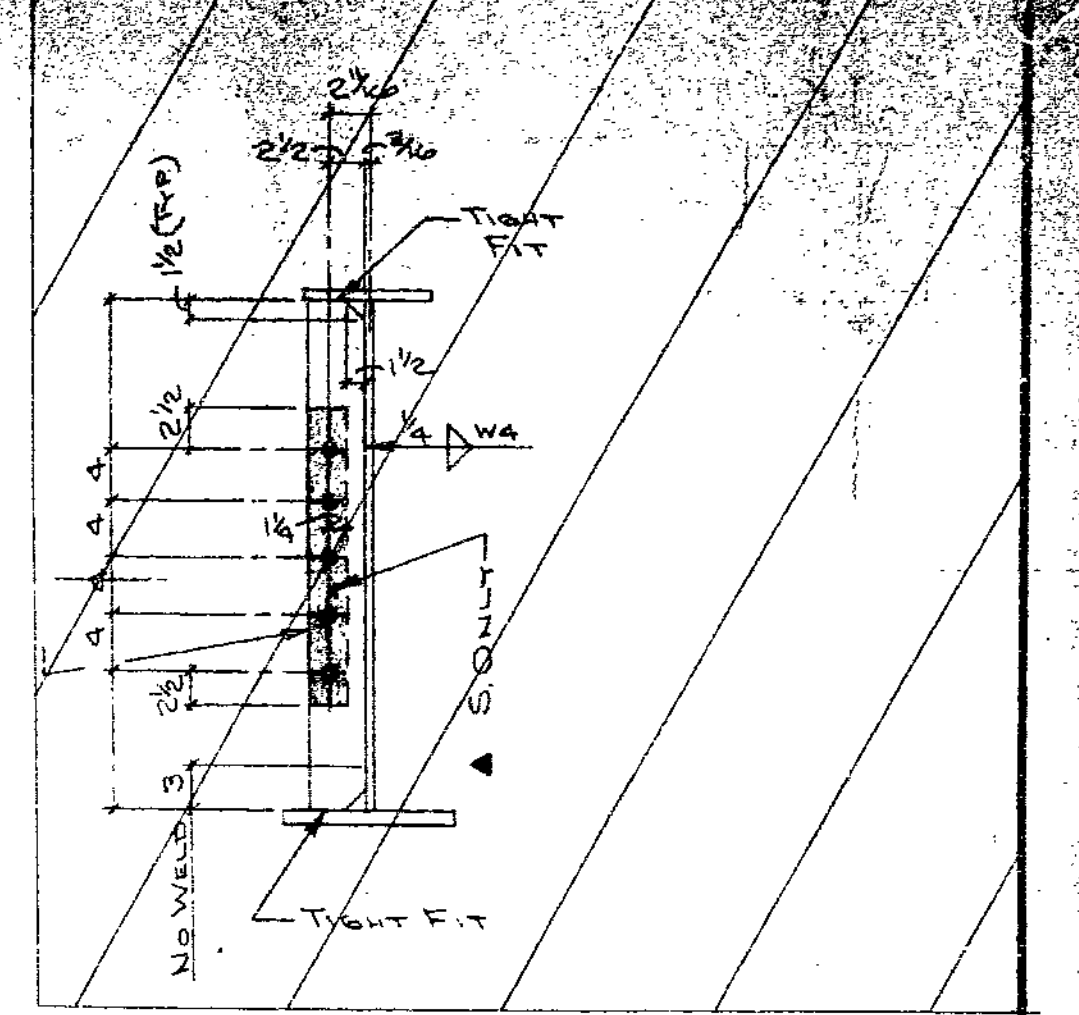
STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		P.P.T. RECORD		DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 633-6121	DETAILED BY J.W.N. DATE 6-13-79 CHECKED BY O.H.P. DATE 7-21-79	REVISIONS		BRIDGE Blue Ridge Blvd Under Pass JOB # 4-U071-71 U-F-71-4(30) 4-77.07 LOCATION JACKSON COUNTY, RE 71 ARCH. ENGR. MO. STATE HWY. DEPT.	JOB No. 79-40 SHEET No. 26 OF 54
1/4 V 3-12 BEAM & PL. LINTEL	1/4 V 2-12 BEAM CONN.	1/4 WELD AS SHOWN BASE & GAP PLATE H. COL.	PIPE COL.			BOLTS 3/4" UNLESS NTD. RIVETS 1 1/2" UNLESS NTD. OPEN HLS 1 3/4" UNLESS NTD.	DATE MK. BY REMARKS		



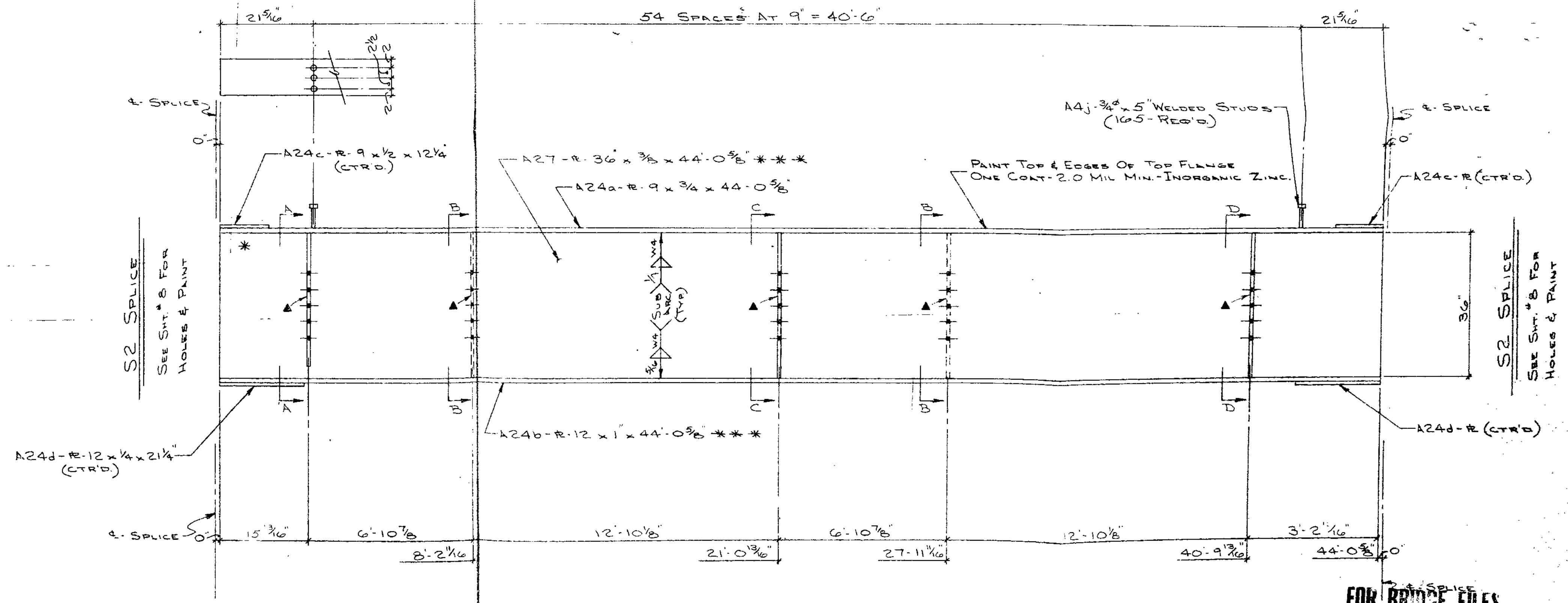
A27
SECTION A-A
B27 & C27



SECTION B-B
SECTION C-C



SECTION D-D



89

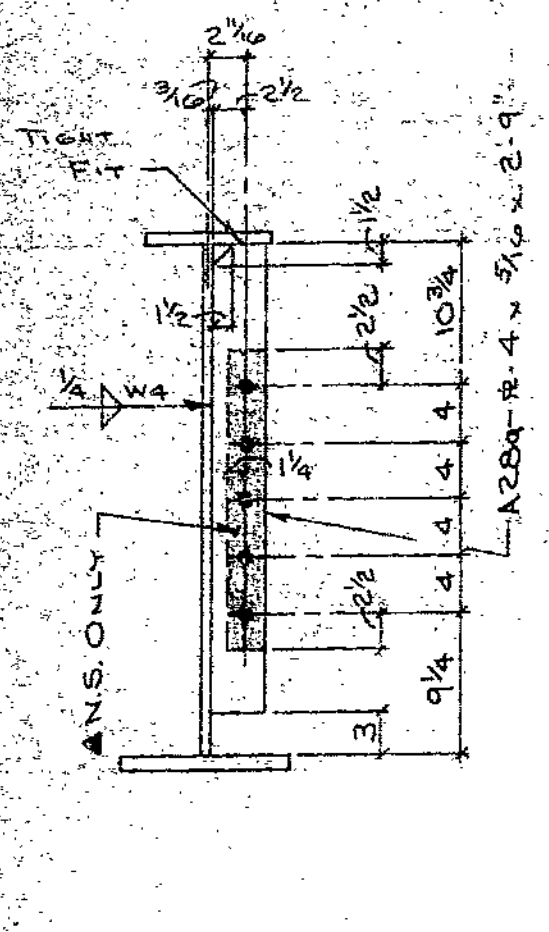
*** - DENOTES NOTCH TOUGHNESS OF 15 FT/CS. @ 40° F REQ'D.
A - PAINT ONE COAT-1.5 MIL MIN-2.5 MIL MAX - INORGANIC ZINC

MAKE - ONE - A27
MAKE - ONE - B27
MAKE - ONE - C27

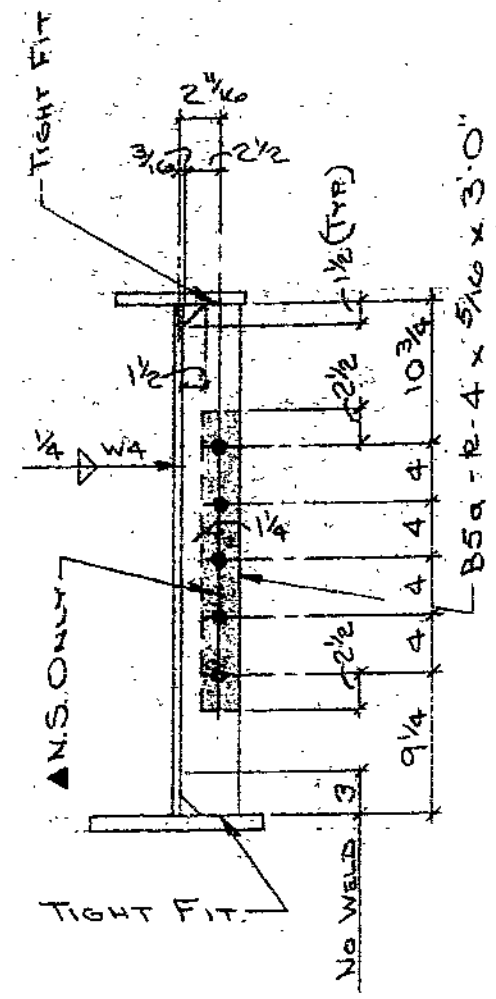
FOR BRIDGE FILES
APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE	
		NO. FOR DATE NO. FOR DATE SYSTEM B - TYPE II		J.W.N. DATE 6-13-79		DATE MK. BY REMARKS		BRIDGE NO. 4-0071-71 (V.F. 71-4(36)) A-1157 LOCATION JACKSON COUNTY, Rte 111 ARCH. ENGR. Mo. State Highway Dept.	
BOLTS 3/4" UNLESS NTD. NUTS 3/4" UNLESS NTD. OPEN HLS. 1 3/16" UNLESS NTD.		DIAL 635-6121 JEFFERSON CITY, MISSOURI		CHECKED BY OHP DATE 7-31-79		ARCH. ENGR. Mo. State Highway Dept.		FOR NO. 79-40	

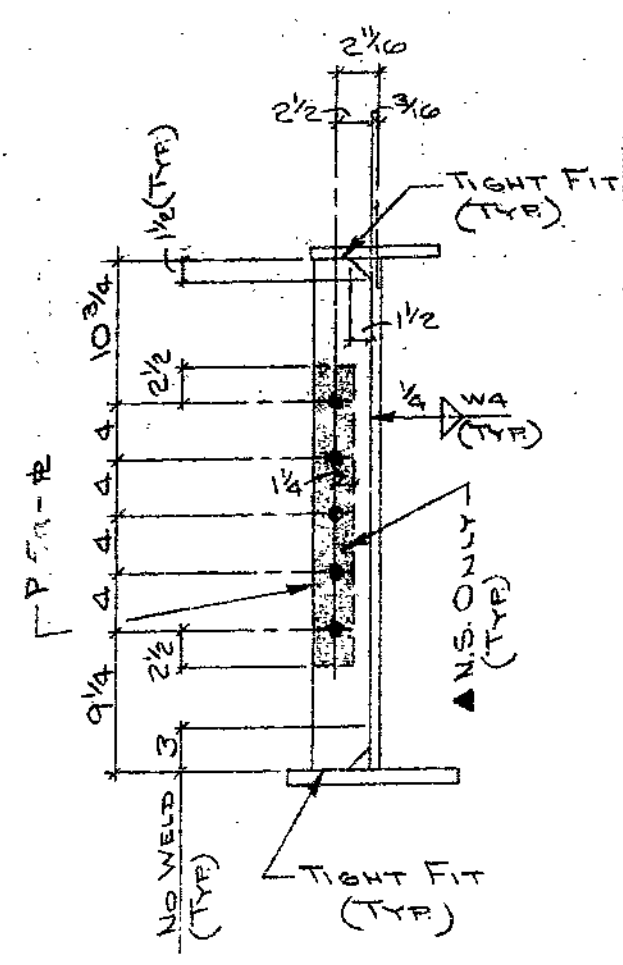
A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



SECTION A-A

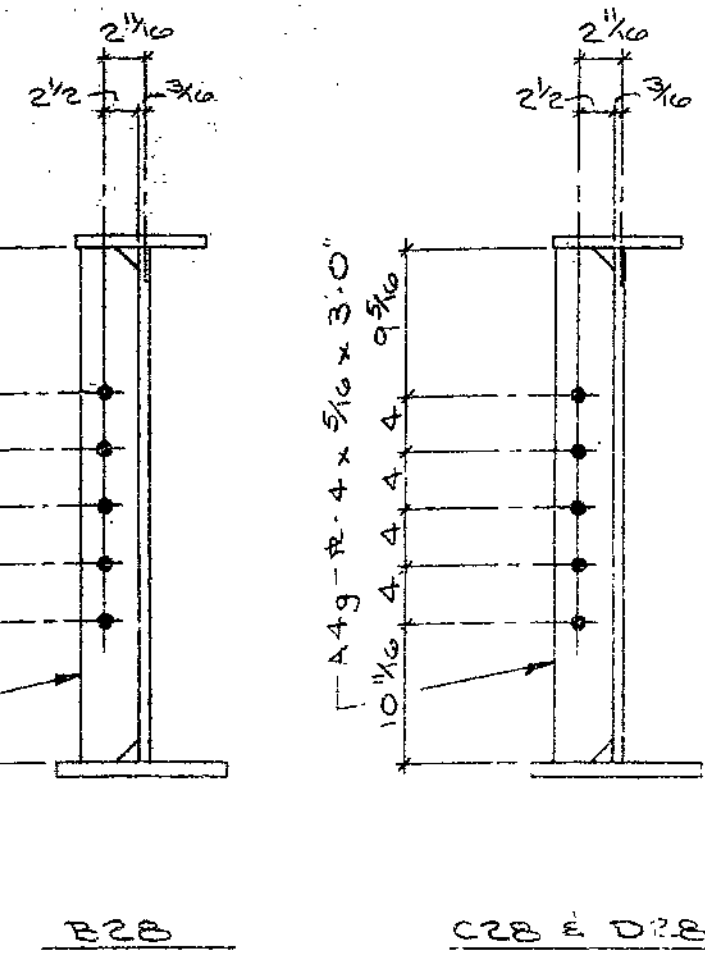


SECTION B-B



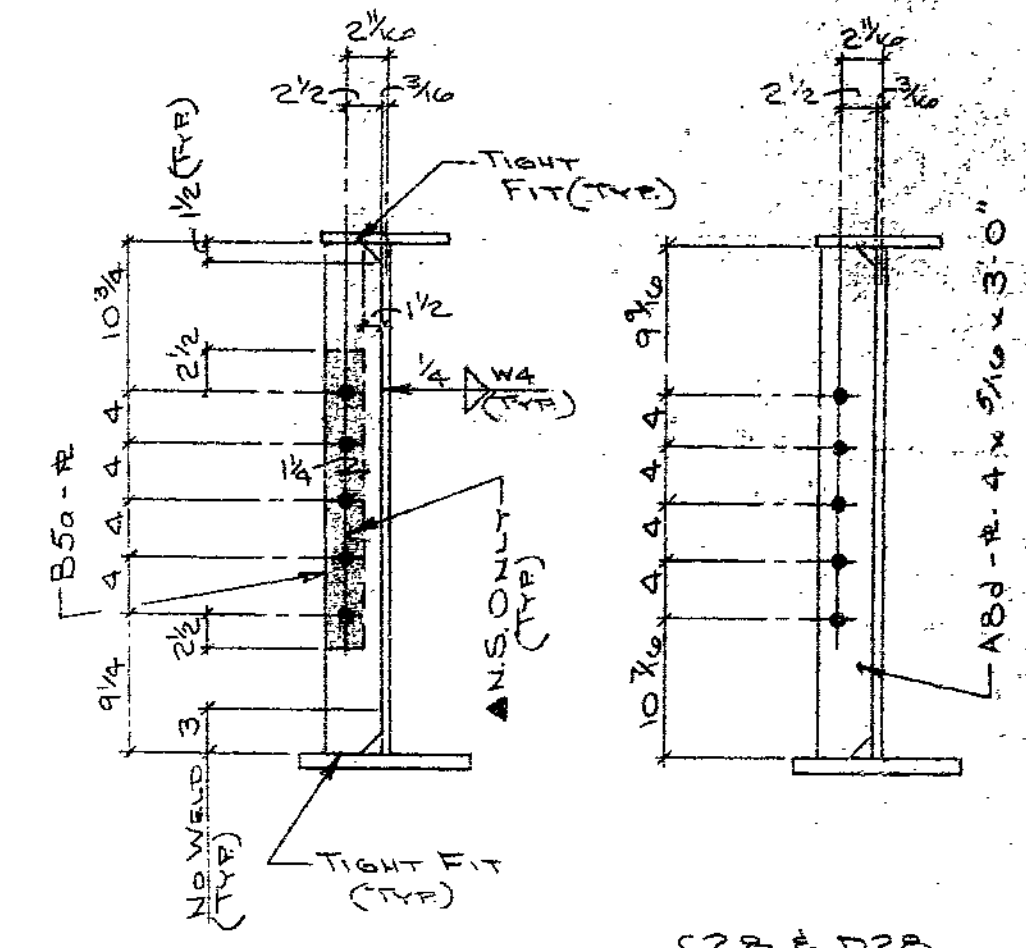
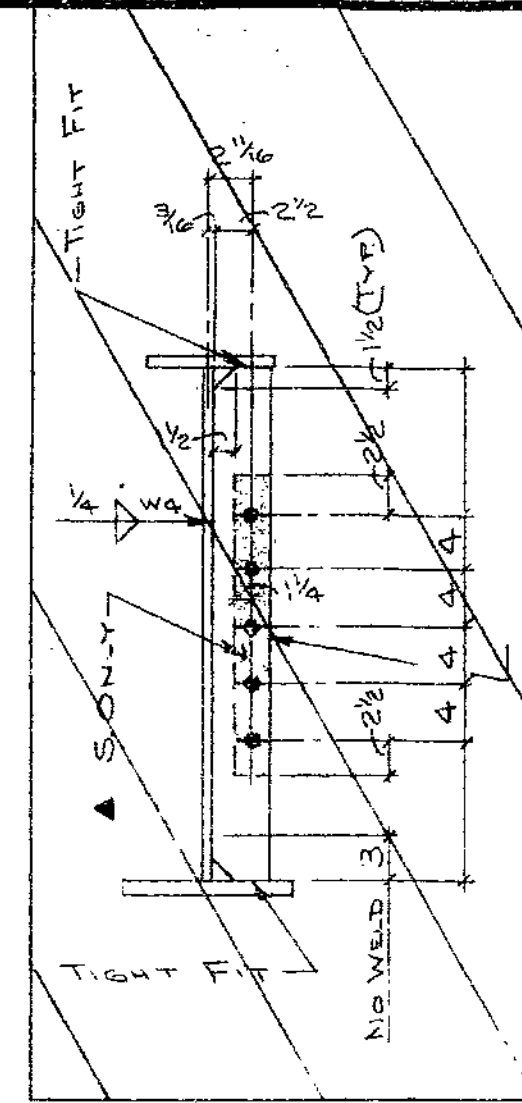
A2B

SECTION C-C



B2B

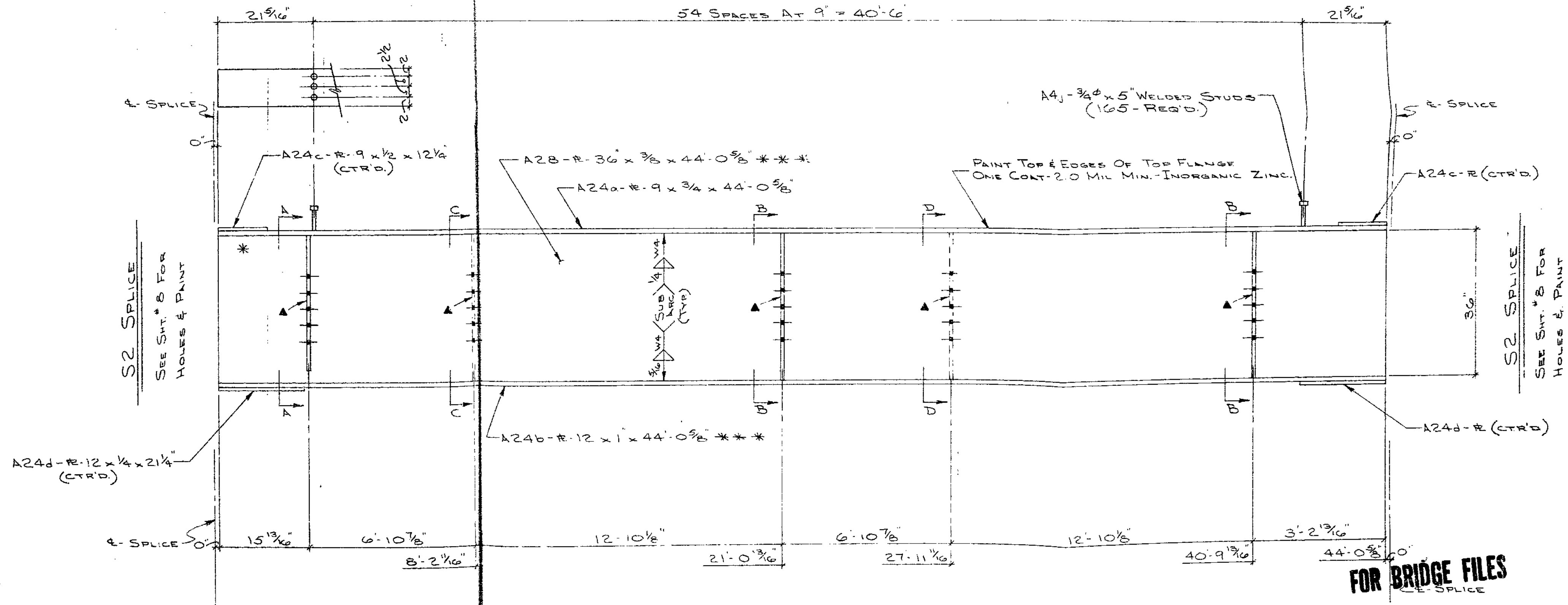
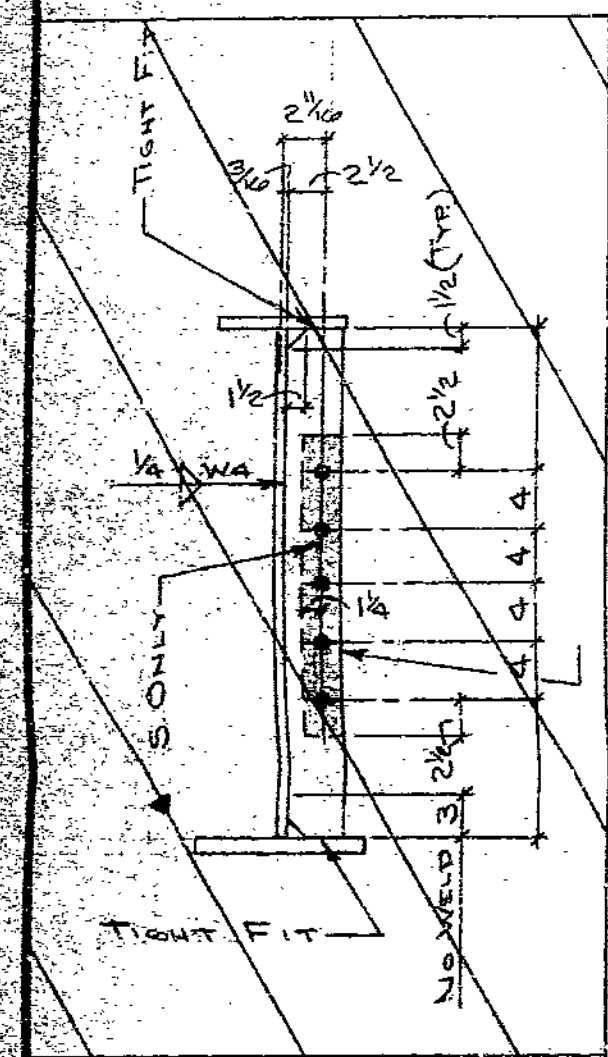
C2B & D2B



A2B & B2B

C2B & D2B

SECTION D-D



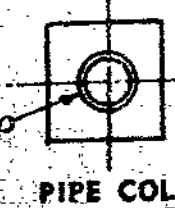
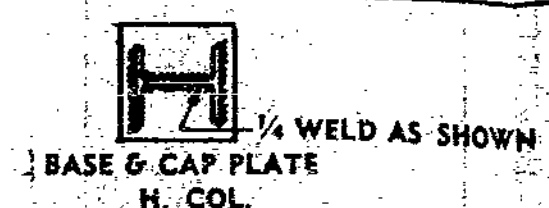
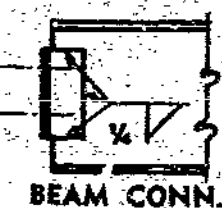
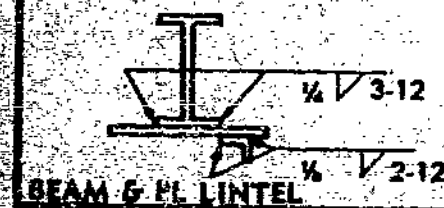
- MAKE — ONE — A2B
- MAKE — ONE — B2B
- MAKE — ONE — C2B
- MAKE — ONE — D2B

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LB'S. @ 40° F. REQ'D.
▲ - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



PART	PRINT		RECORD	
	NO.	FOR	NO.	FOR
SYSTEM 'B' - TYPE II				
BOLTS	3/4"	UNLESS NTD.		
RIVETS	1 1/2"	UNLESS NTD.		
OPEN HLS.				

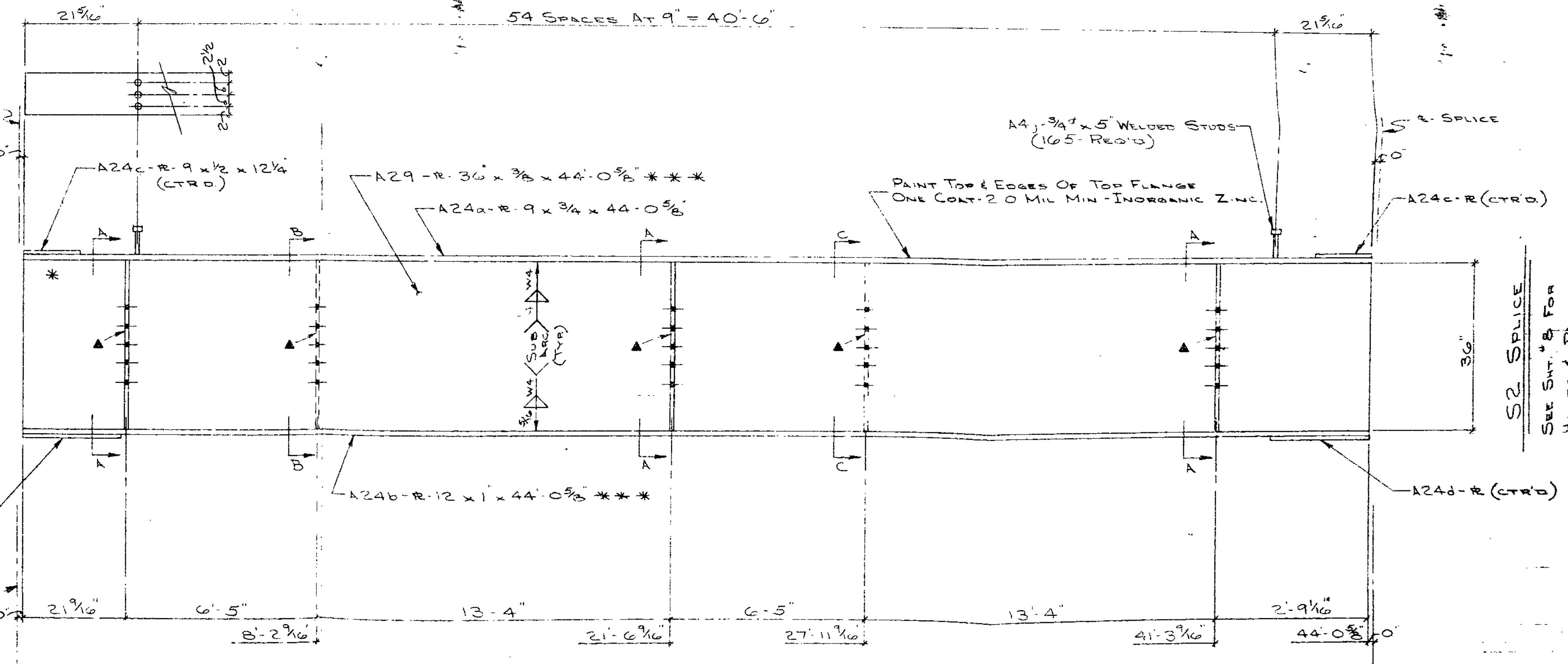
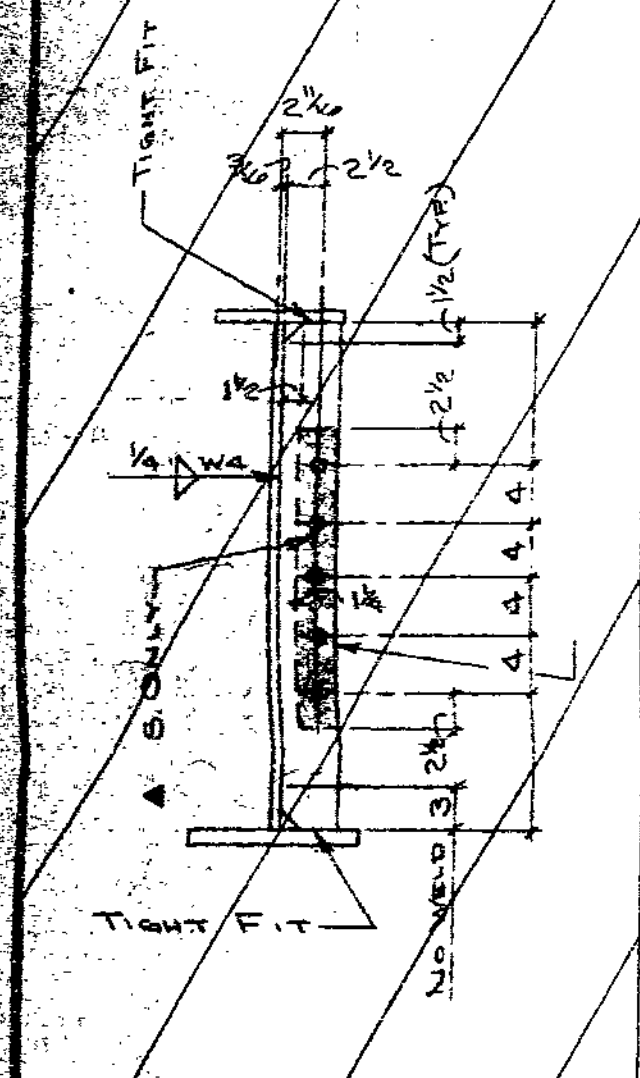
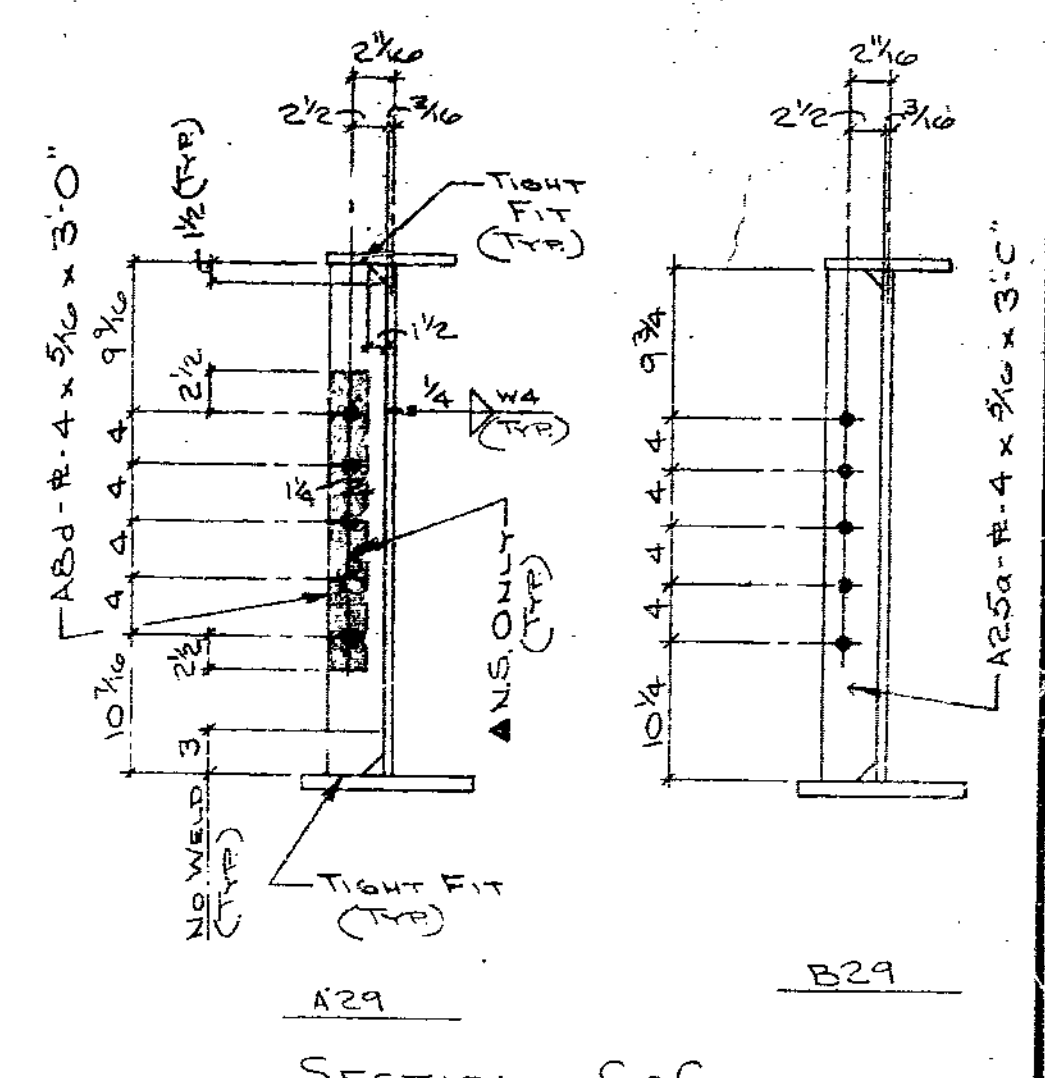
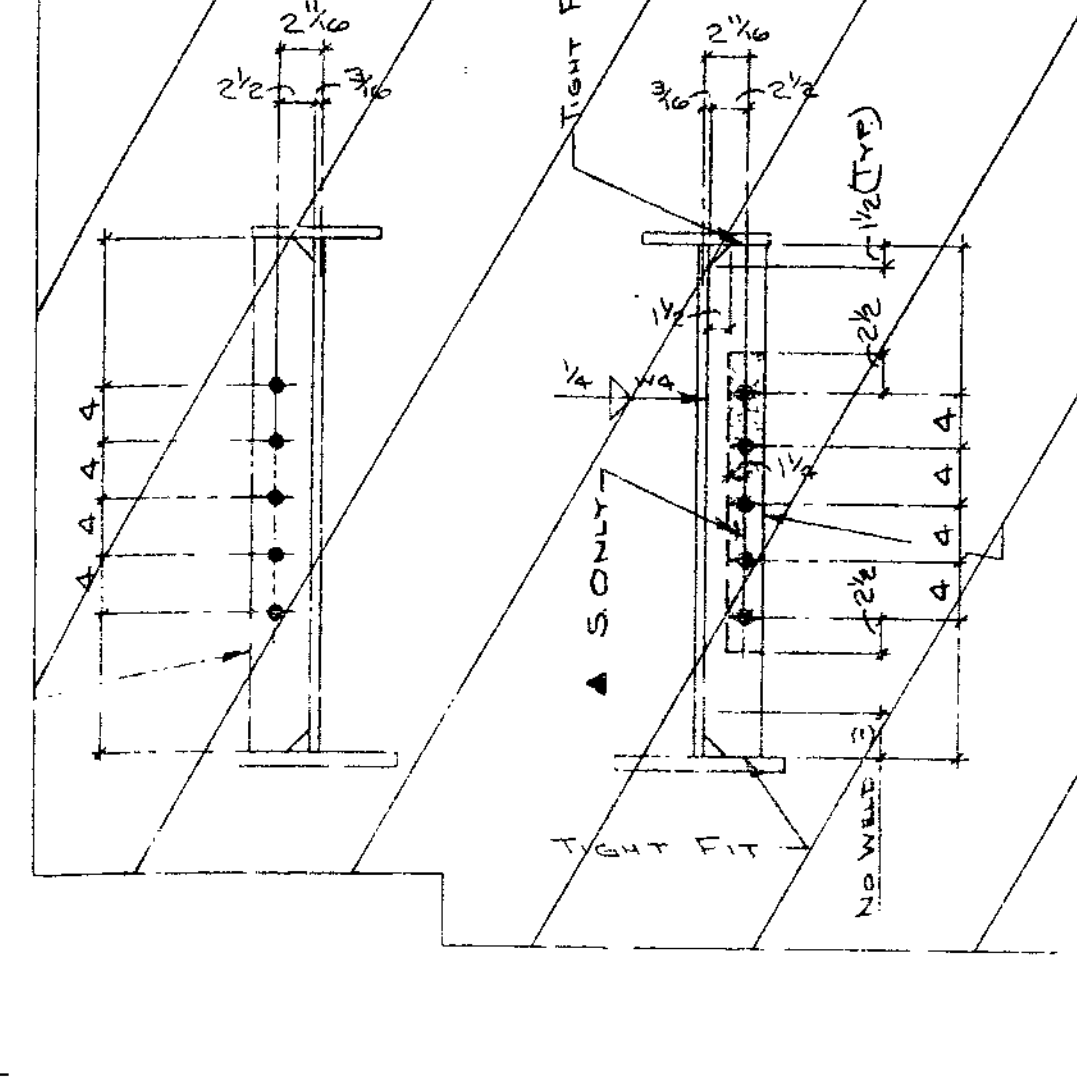
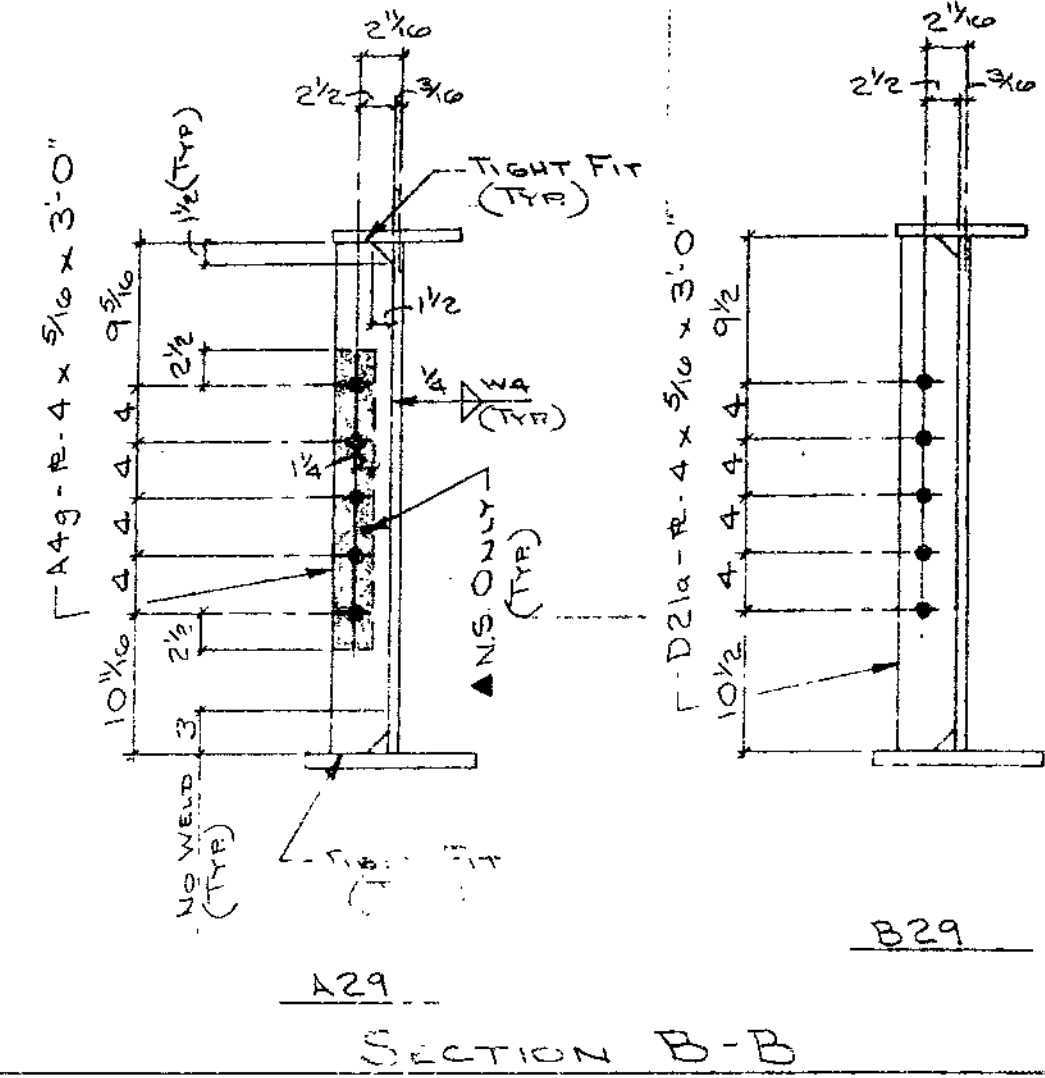
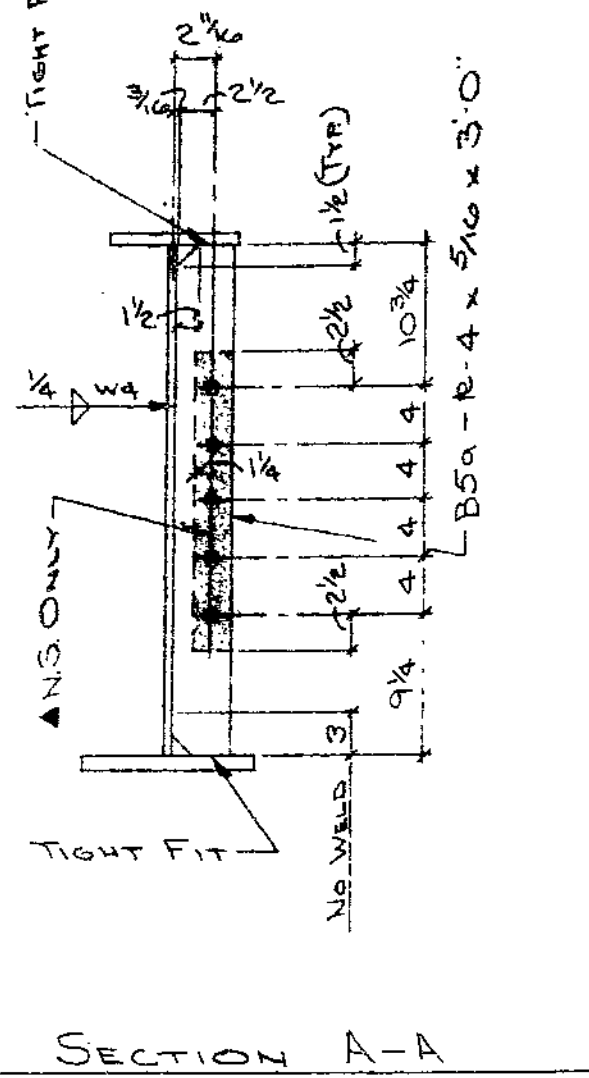
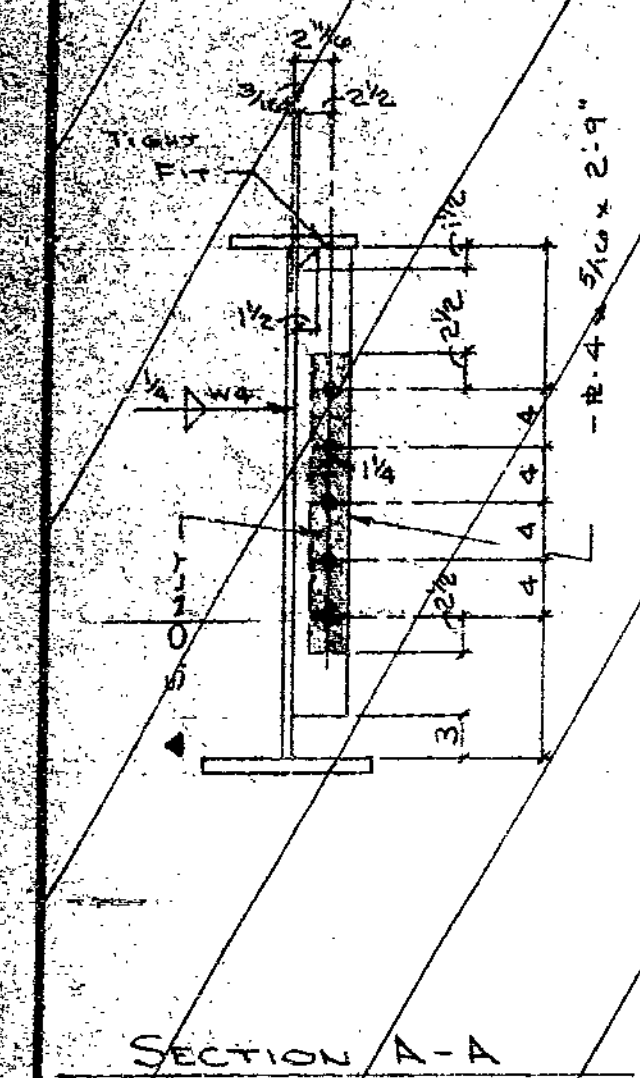
DE LONG'S
INC.
JEFFERSON CITY, MISSOURI

DETAILED BY
J.W.N.
DATE 6-14-79
CHECKED BY
D.H.O.
DATE 7-31-79

REVISIONS		
DATE	MK. BY	REMARKS

BRIDGE	BLUE RIDGE BLVD UNDER PASS	JOB No.	L-9292
	PROJ. # 4-0071-71 U-F-71-4(30) 4+71.07		79-40
LOCATION	JACKSON COUNTY, RTE 71	SHT. No.	28
ARCH. ENGR.	MO. STATE HWY. DEPT.	OF	54

A B C D E F G H J K M N P S T U V W X Y Z AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



16

MAKE - ONE - A29
MAKE - ONE - B29

FOR BRIDGE FILES

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SEP 28 1979

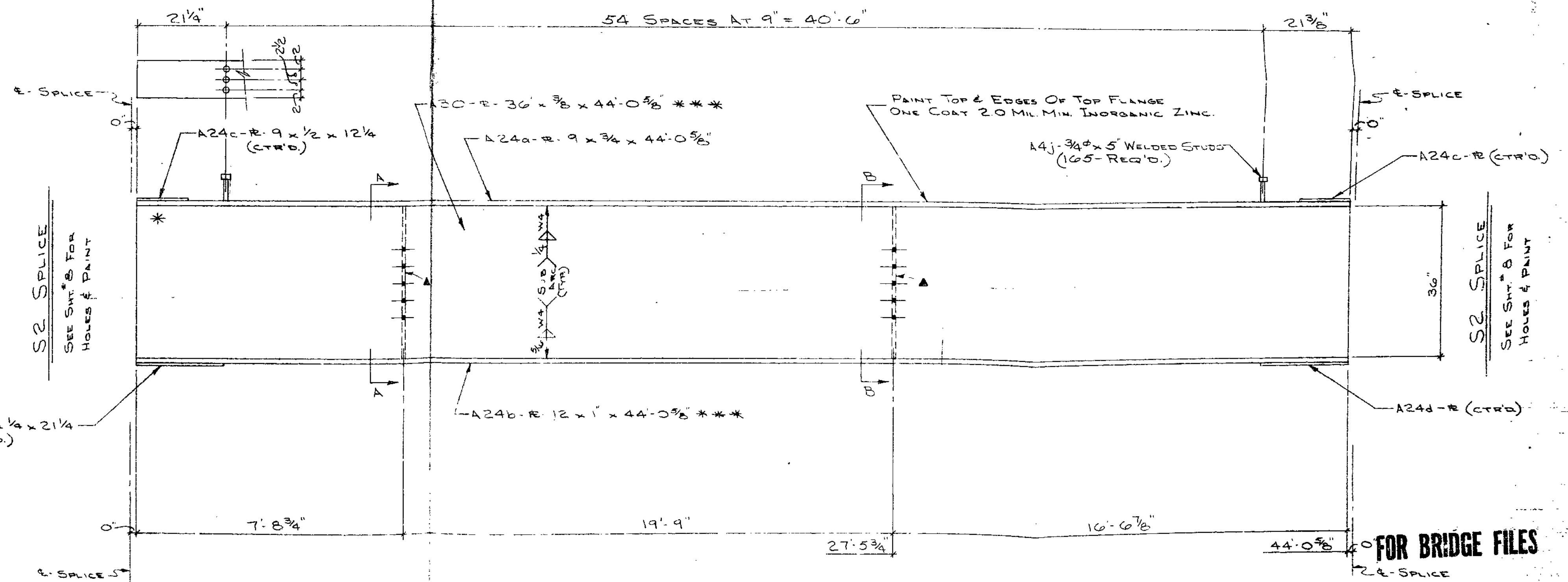
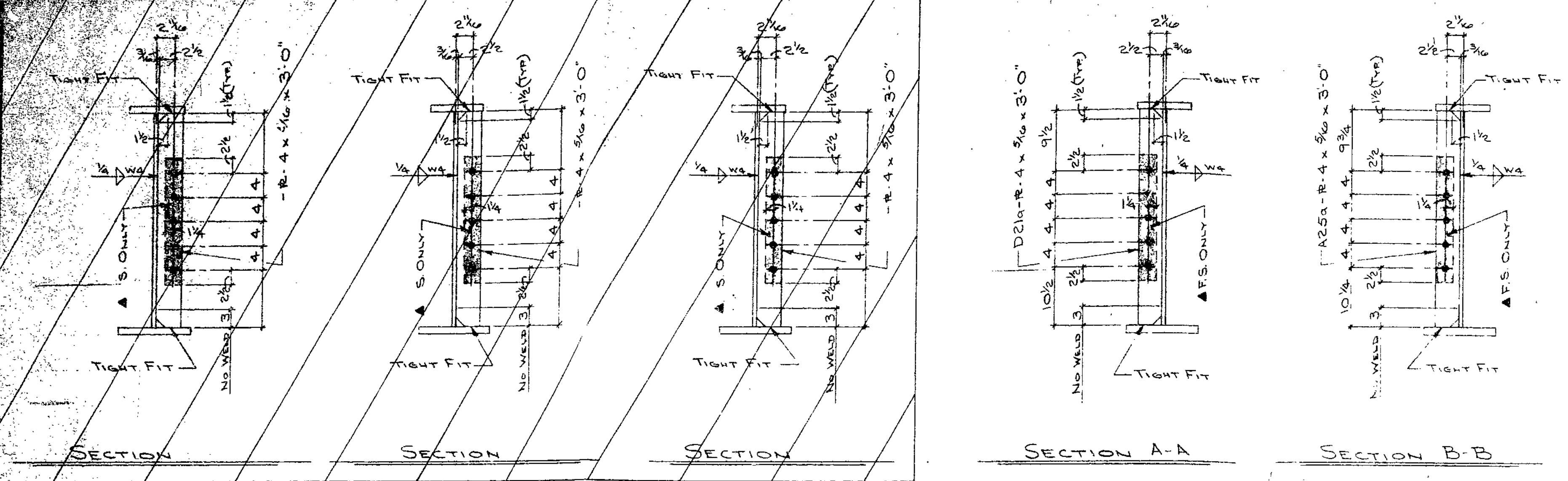
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

** - DENOTES NOTCH TOUGHNESS OF 15 FT-LE'S @ 40° F REQ'D
A - PAINT ONE COAT - 1.5 MIL MIN - 2.5 MIL MAX - INORGANIC ZINC

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

		PRINT RECORD NO. FOR DATE NO. FOR DATE SYSTEM B-TYPE II		DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 635-6121	DETAILED BY J.W.N. DATE 6-14-79	REVISIONS DATE MK. BY REMARKS	BRIDGE BLUE RIDGE BLVD UNDER PASS PROJ. 4-4071-71 U-F-71-4(30) 4-7107 LOCATION JACKSON COUNTY, Rte 71 ARCH. ENGR. MO. STATE HIGHWAY DEPT.	JOB No. 79-40 SHEET No. 29 OF 54
BOLTS 3/4" UNLESS NOTED OPEN HES. 1 3/8" UNLESS NOTED		CHECKED BY C.A.P. DATE 7-17-79			DATE 7-17-79	ARCH. ENGR. MO. STATE HIGHWAY DEPT.	SHEET No. 29 OF 54	

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



*** DENOTES NOTCH TOUGHNESS OF 15 FT/LBS @ 40° F REQ'D.
 ▲-PAINT ONE COAT - 1.5 MIL MIN - 2.5 MIL MIN - INORGANIC ZINC.

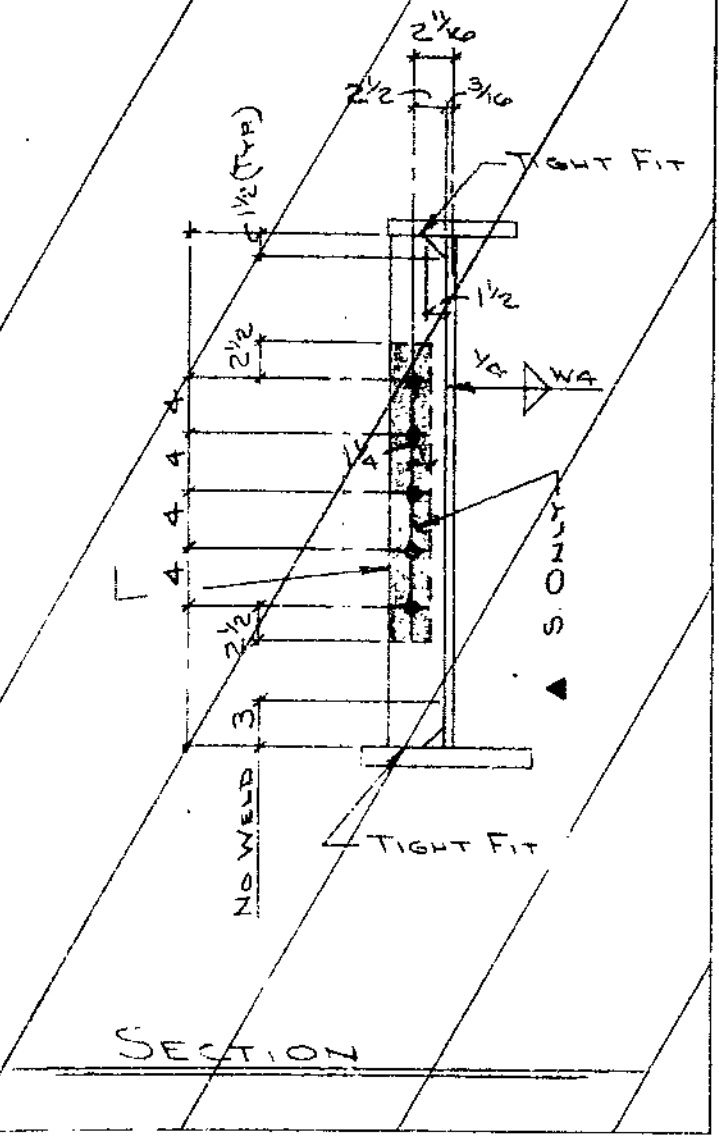
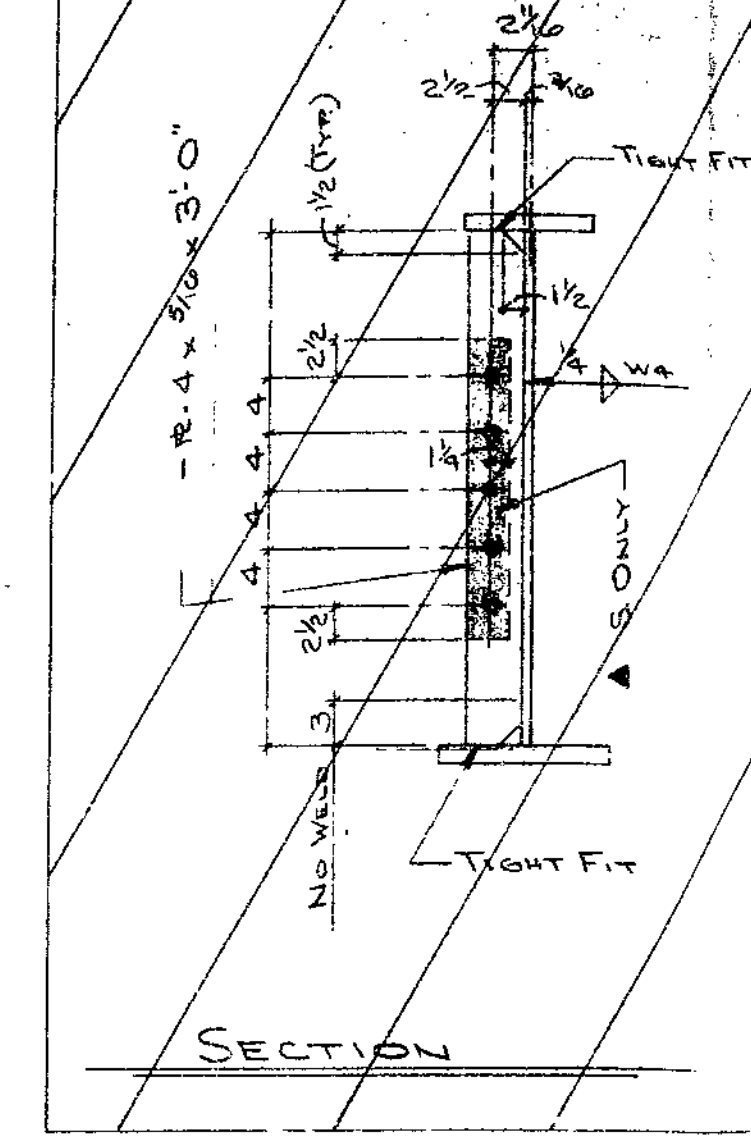
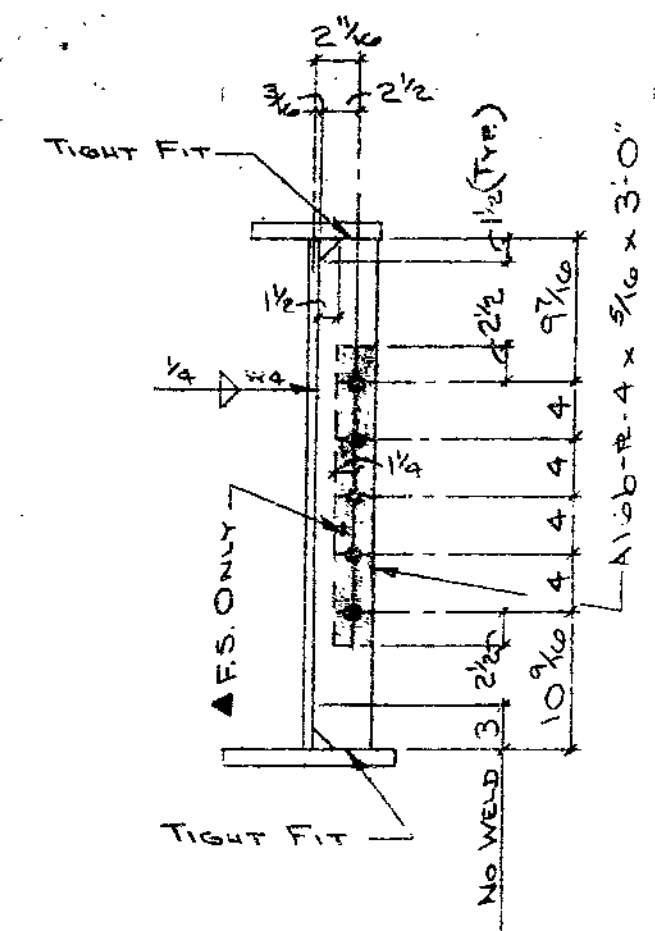
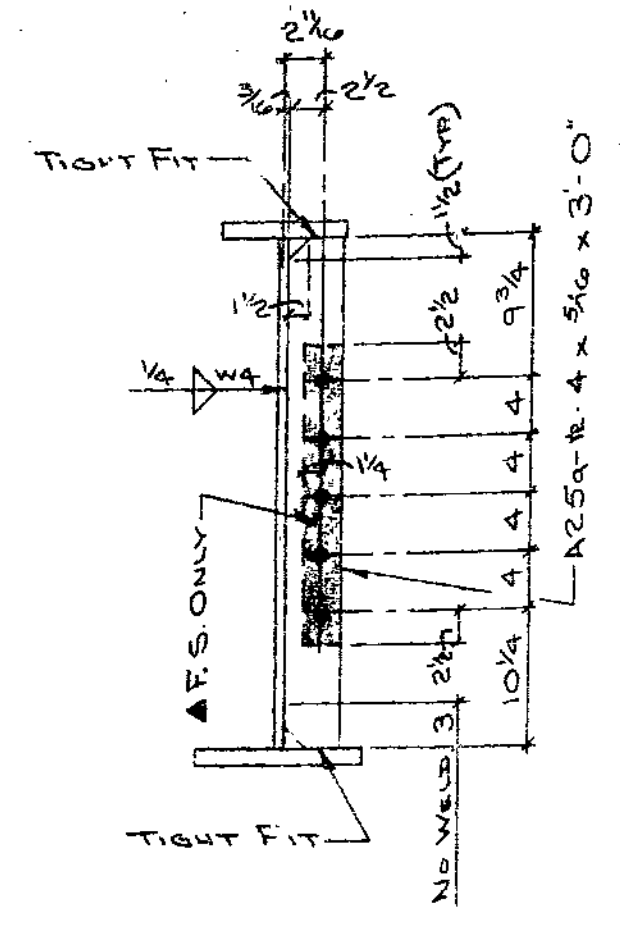
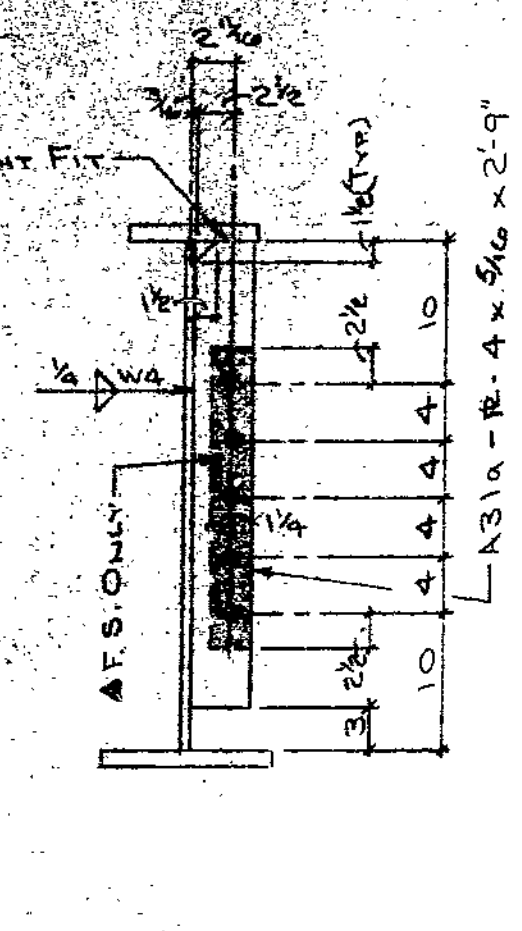
MAKE - ONE - A30

FOR BRIDGE FILES
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 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		JOB NO.	
	WELD AS SHOWN 1/4 V	NO.	FOR	DATE	J.W.N.	DATE	MK. BY	Blue Ridge Blvd. Under Pass	108
	BASE & CAP PLATE	NO.	FOR	DATE	6-14-79			Proj. 4-U07171 U-F 71-4(60) A+TLO7	19-20
	PIPE COLL.	BOUNTS	3/4"	UNLESS INTD.	CHECKED BY			LOCATION JACKSON COUNTY, RTE. 71	19-30
		OPEN HES	1 3/16"	UNLESS INTD.	DATE	7-31-79		ARCH. ENGR. Mo. State Hwy. Dept.	19-34

DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 635-6121

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AO AP AS AT AU AV AW AX AY AZ



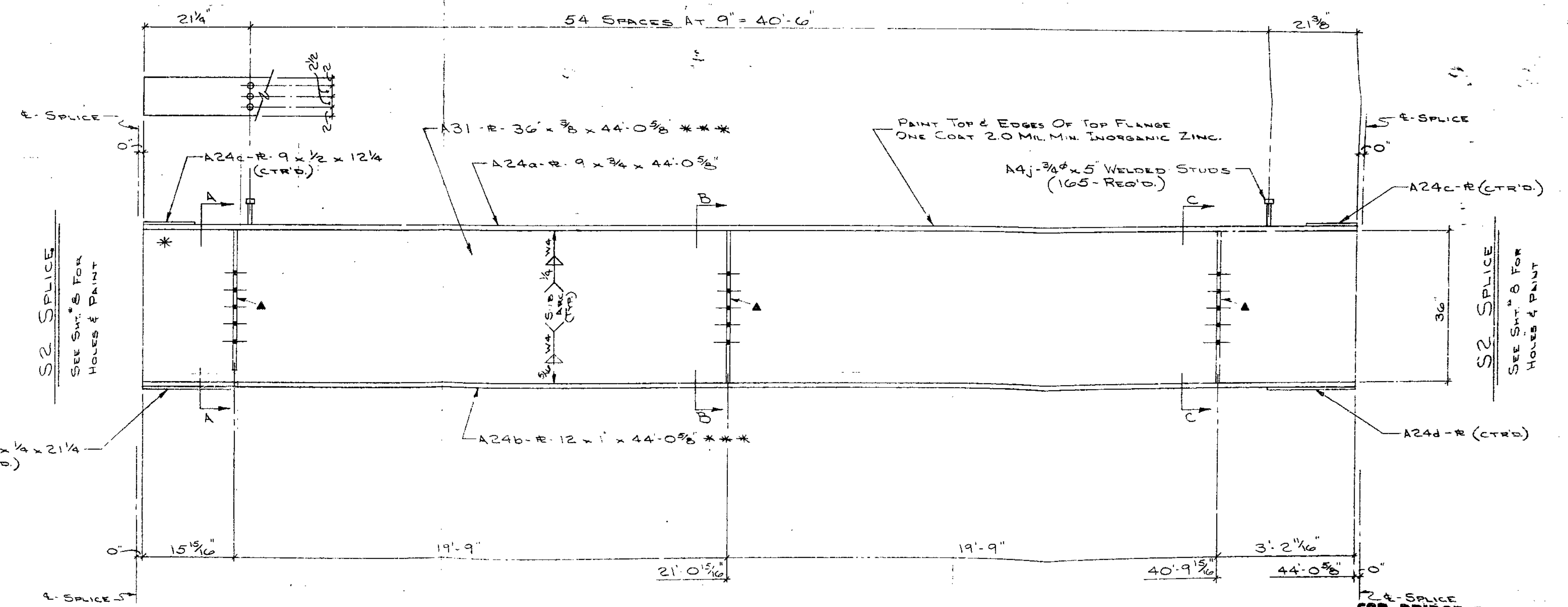
SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D

SECTION E-E



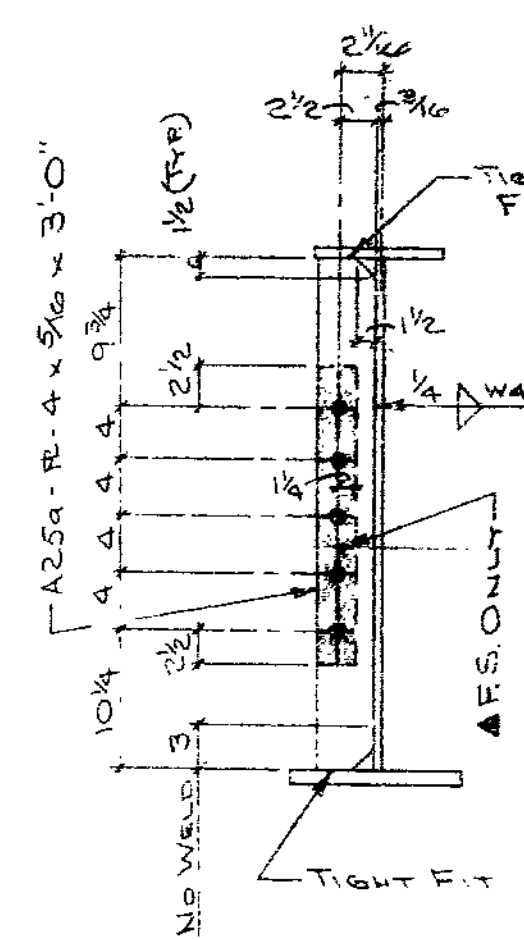
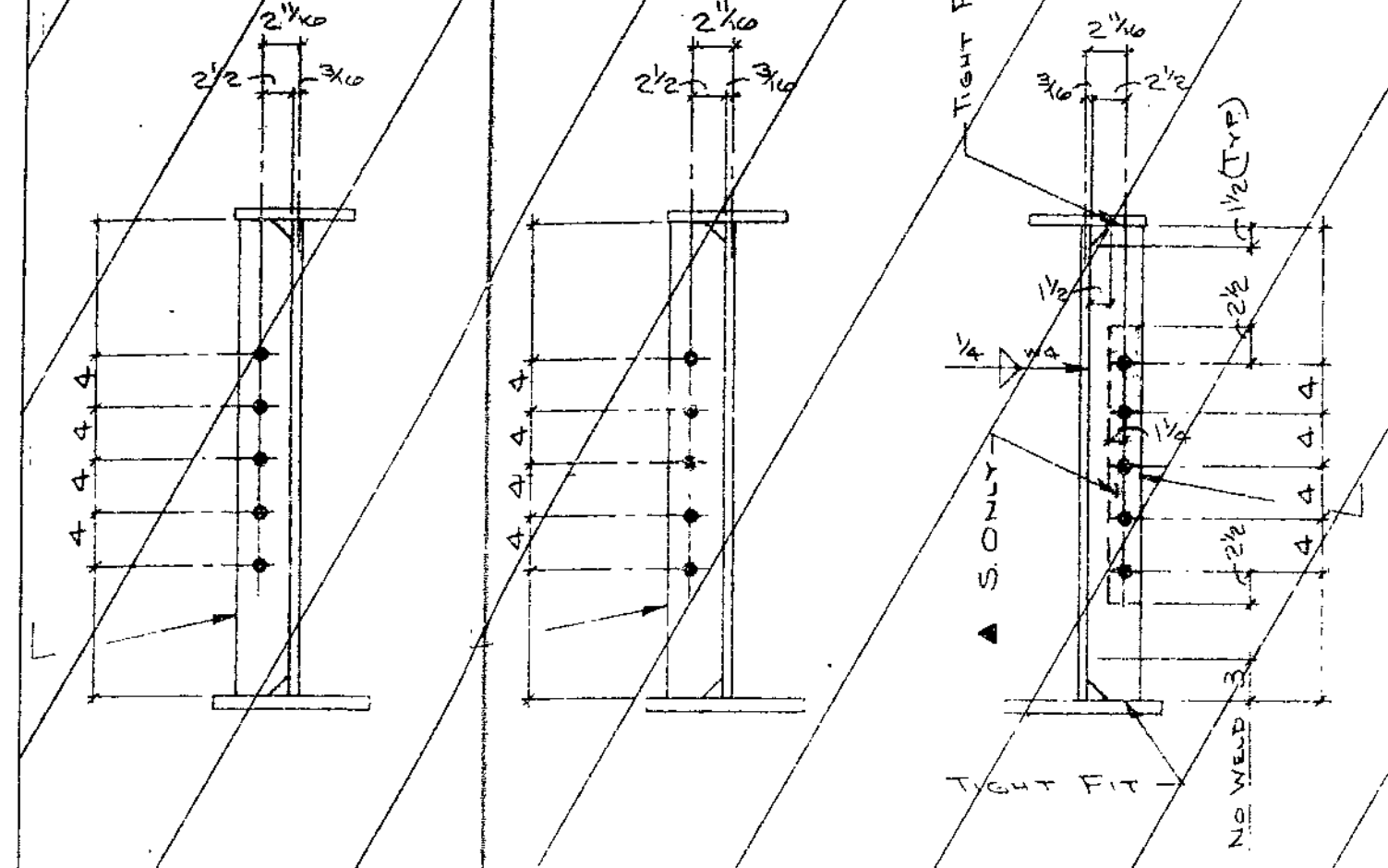
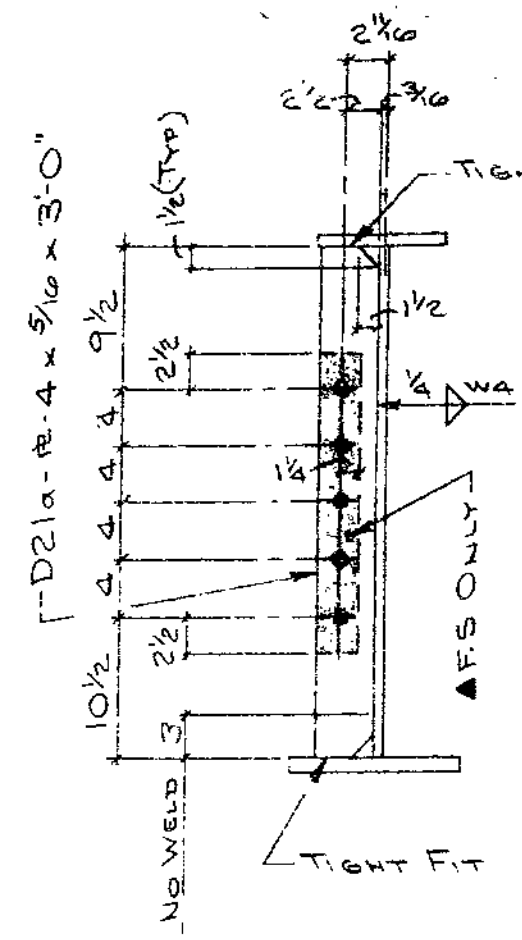
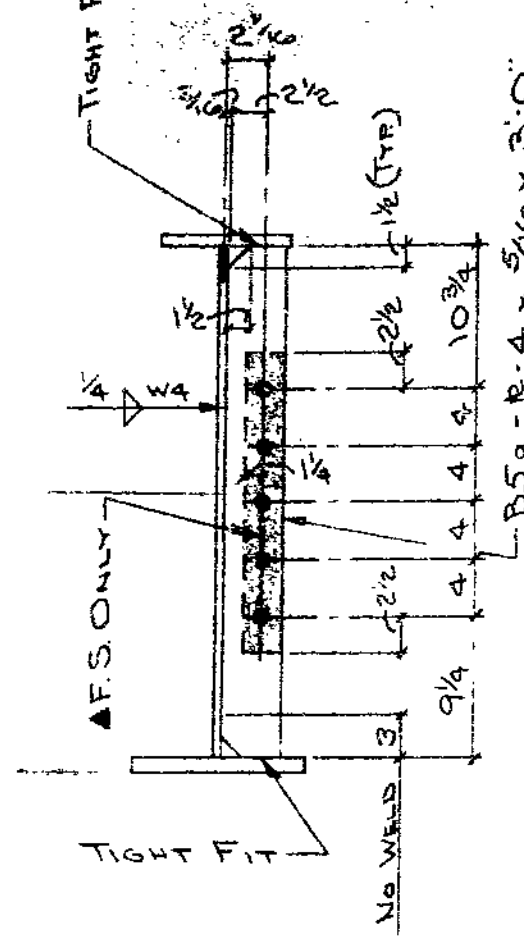
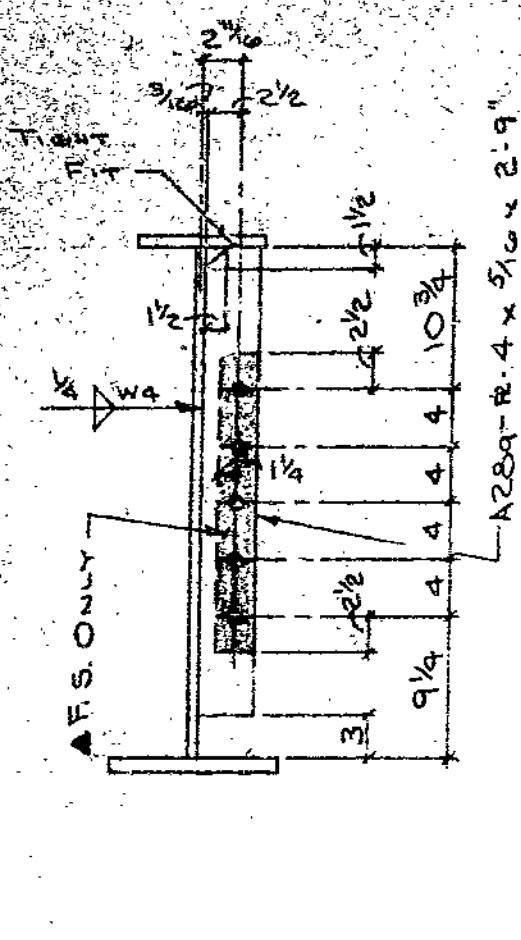
93

***-DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F REQ'D.
 * - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

MAKE - ONE - A31

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN			PRINT RECORD			<p>DELONG'S INC.</p> <p>DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI</p> <p>636-635-6121</p>	DETAILED BY J.W.N. DATE 6-14-79 CHECKED BY OHP DATE 7-31-79	REVISIONS		
WELD AS SHOWN BASE & CAP PLATE H. COL.	BOLTS 3/4" UNLESS NOTED OPEN HES. 1 1/16" UNLESS NOTED	PIPE COL.	NO. FOR DATE NO. FOR DATE NO. FOR DATE	NO. FOR DATE NO. FOR DATE NO. FOR DATE	NO. FOR DATE NO. FOR DATE NO. FOR DATE			BRIDGE Blue Ridge Blue Under Pass JOB U-7-9(2) A-7707 LOCATION JACKSON COUNTY, MISSOURI	DATE MK. BY DATE MK. BY DATE MK. BY	REMARKS REMARKS REMARKS
A B C D E F G H I K M N P S T U V W X Y Z AA AC AD AE AF AG AH AJ AR AM AN AP AS AT AU AV AW AX AY AZ										

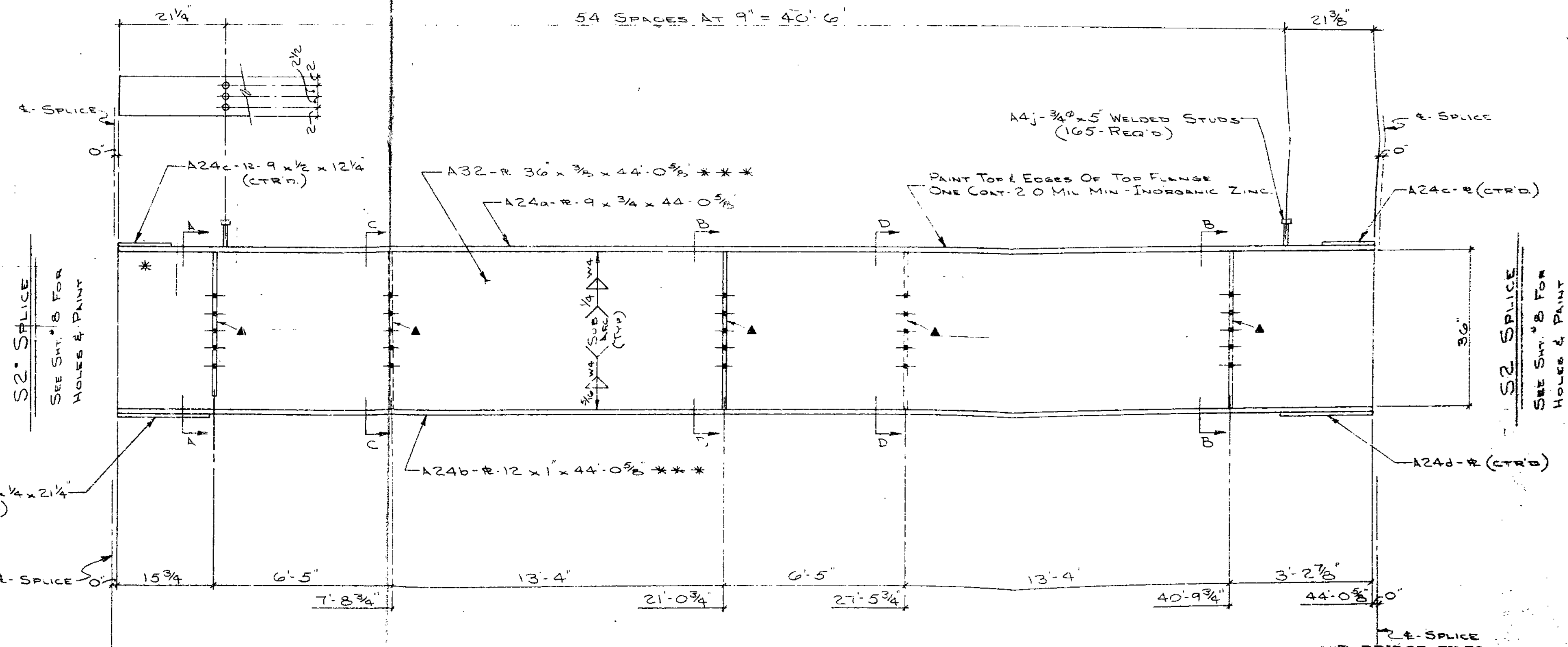
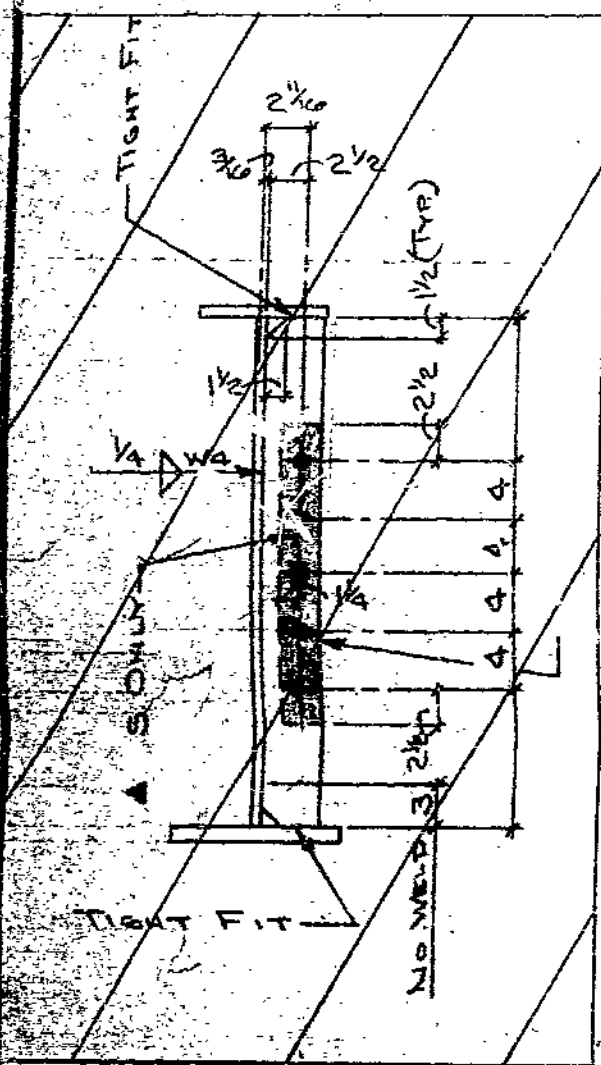


SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D



S2-SPALICE
SEE SH. B FOR
HOLES & PAINT

S2-SPALICE
SEE SH. B FOR
HOLES & PAINT

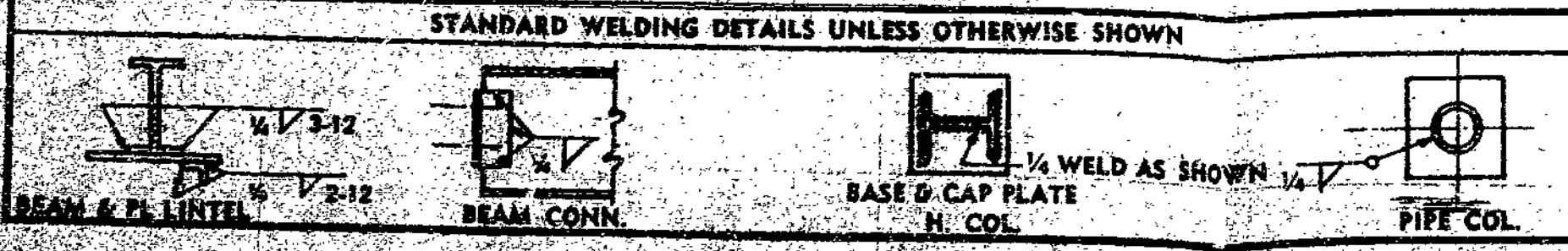
A4J-3/4 x 5 WELDED STUDS
(165-REQ'D)

PAINT TOP & EDGES OF TOP FLANGE
ONE COAT 2.0 MIL MIN - INORGANIC ZINC

MAKE -- ONE -- A32

*** - DENOTES NOTCH TOUGHNESS OF 15 FT/LS @ 40° F. REQ'D.
A - PAINT ONE COAT - 1.5 MIL MIN - 2.5 MIL MAX - INORGANIC ZINC

JR BRIDGE FILES
APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES



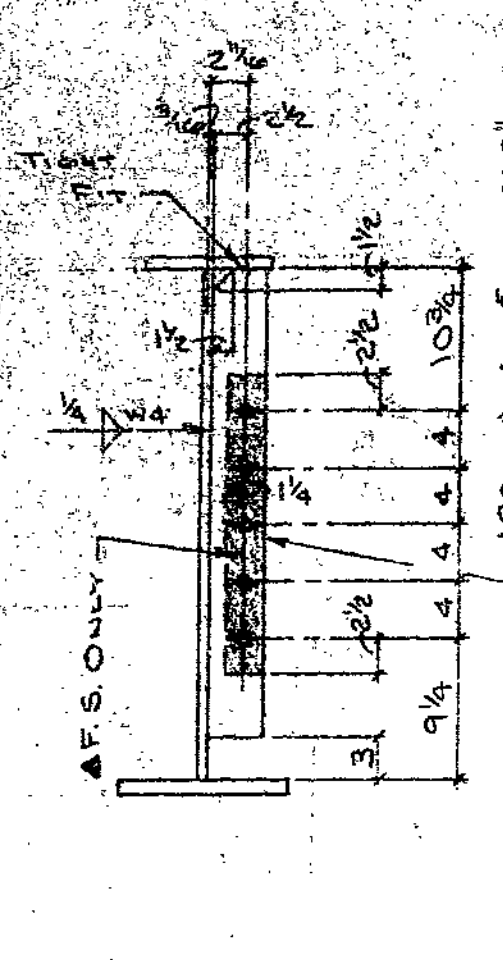
NO.	FOR	DATE	PRINT RECORD	
			NO.	FOR
SYSTEM B-TYPE II				
BOILTS	3/4"		UNLESS NTD.	
NUTS	3/4"		UNLESS NTD.	
OPEN HES.	1 3/8"		UNLESS NTD.	

DELONG'S
INC.
DIX RD. & IND. DR.
JEFFERSON CITY, MISSOURI
DIAL 632-6121

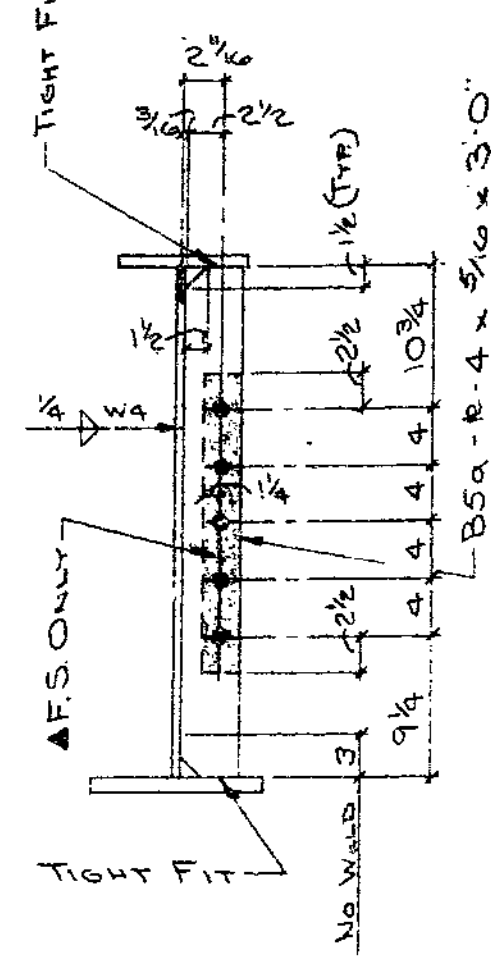
DATE	CHK.	BY	REVISIONS
6-14-79			
7-31-79			

NO.	DATE	BY	REMARKS
1			
2			

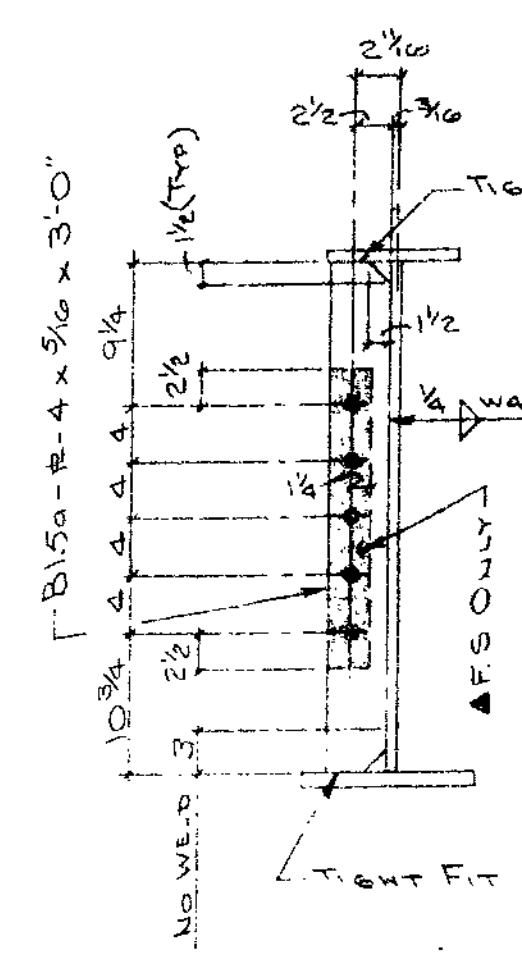
BRIDGE: Blue Ridge Blvd Under Pass
JOB: 4-U071-71 U-F-71-4(20) A-7107
LOCATION: JACKSON COUNTY, RE 71
ARCH. ENGR. MO. STATE HWY. DEPT.



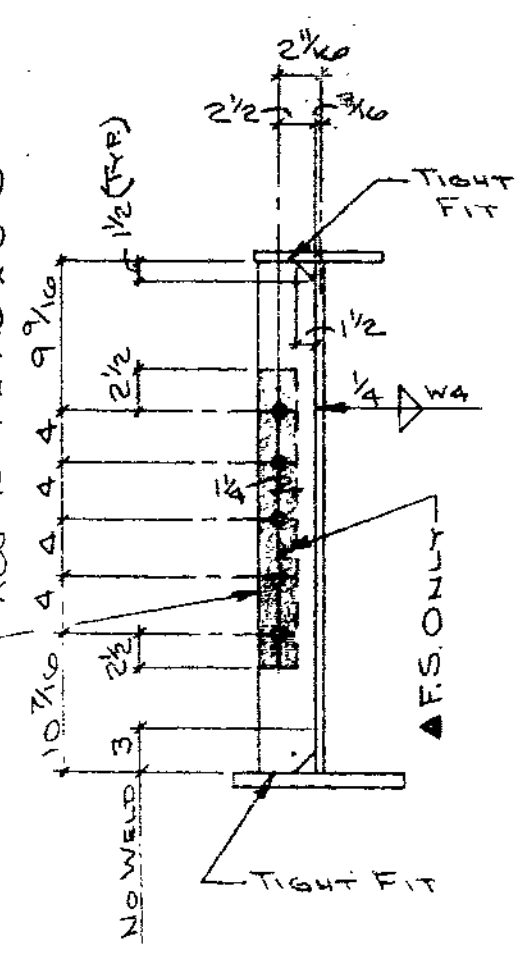
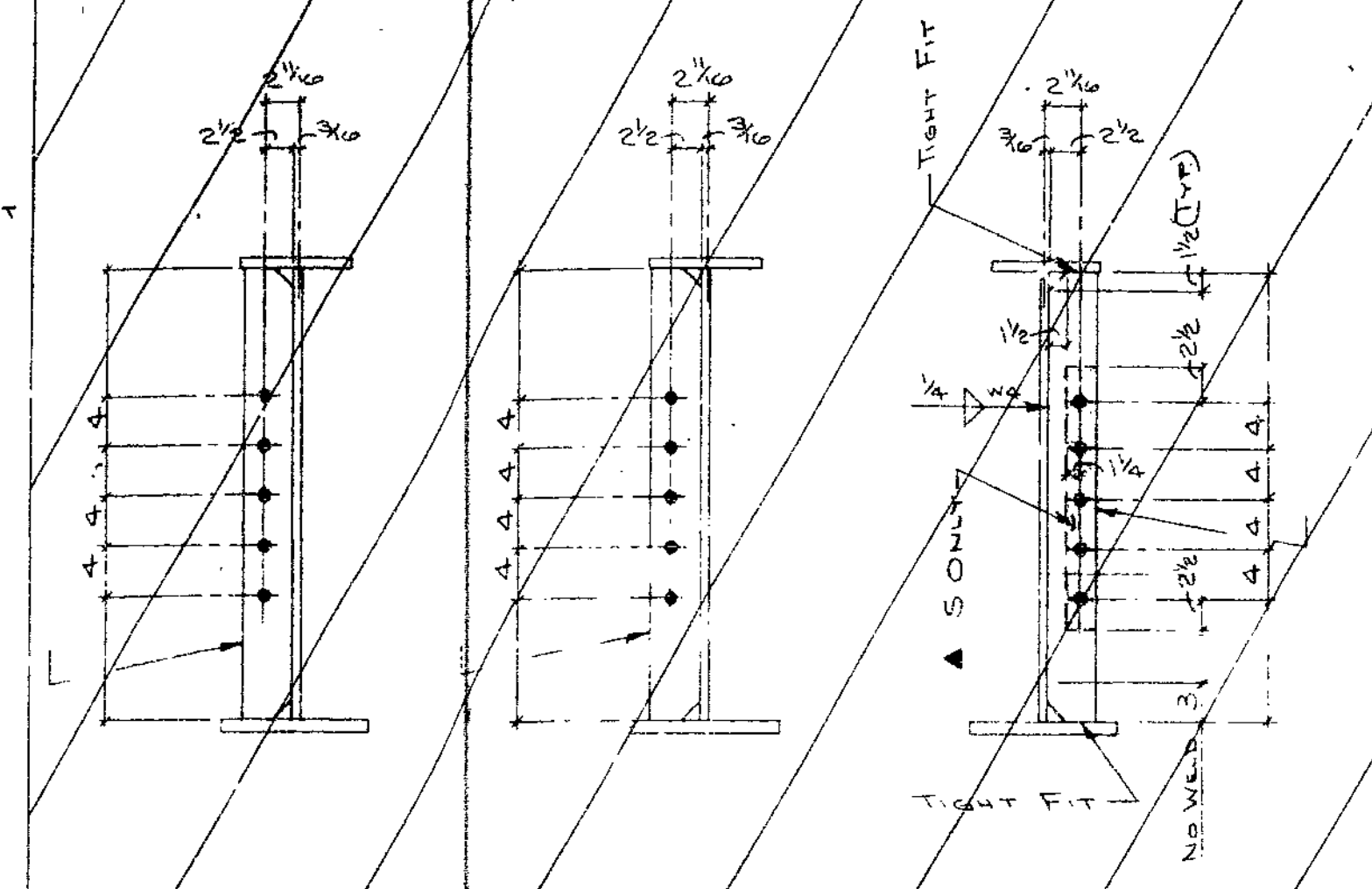
SECTION A-A



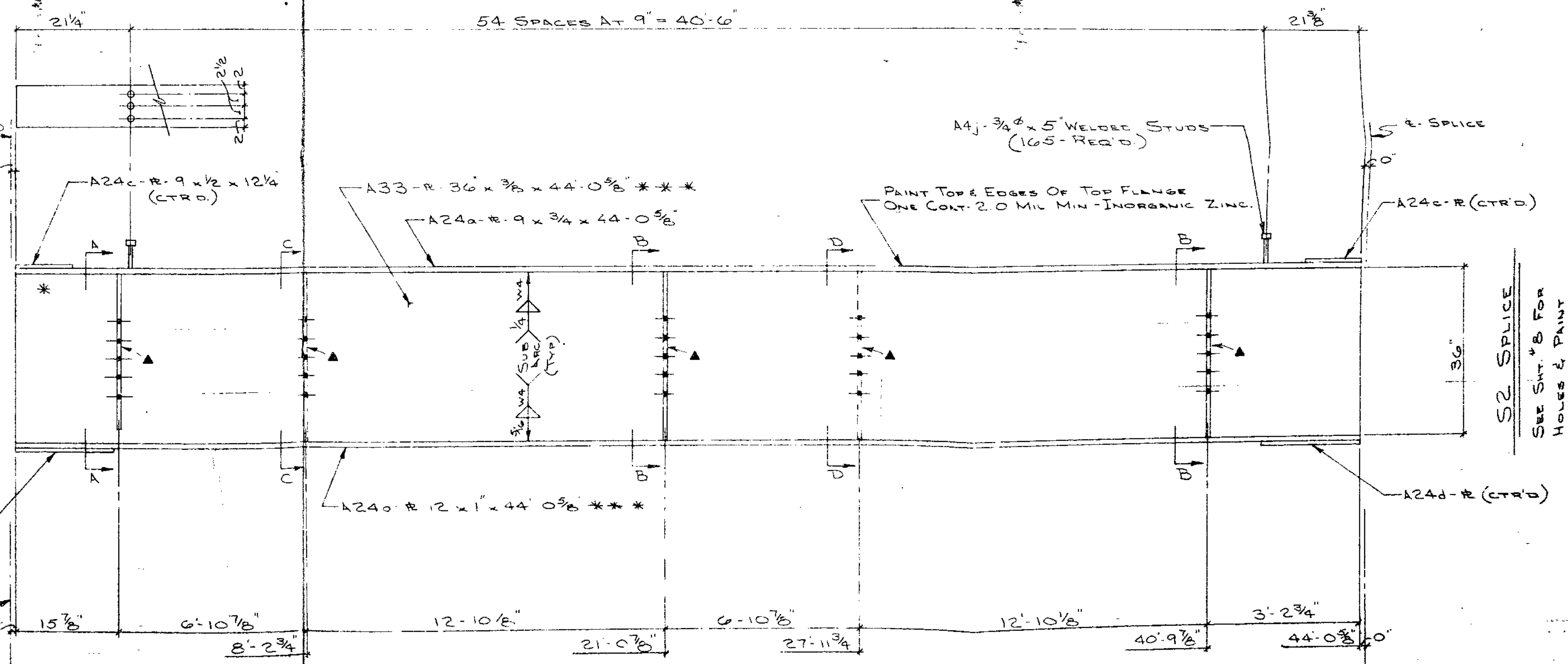
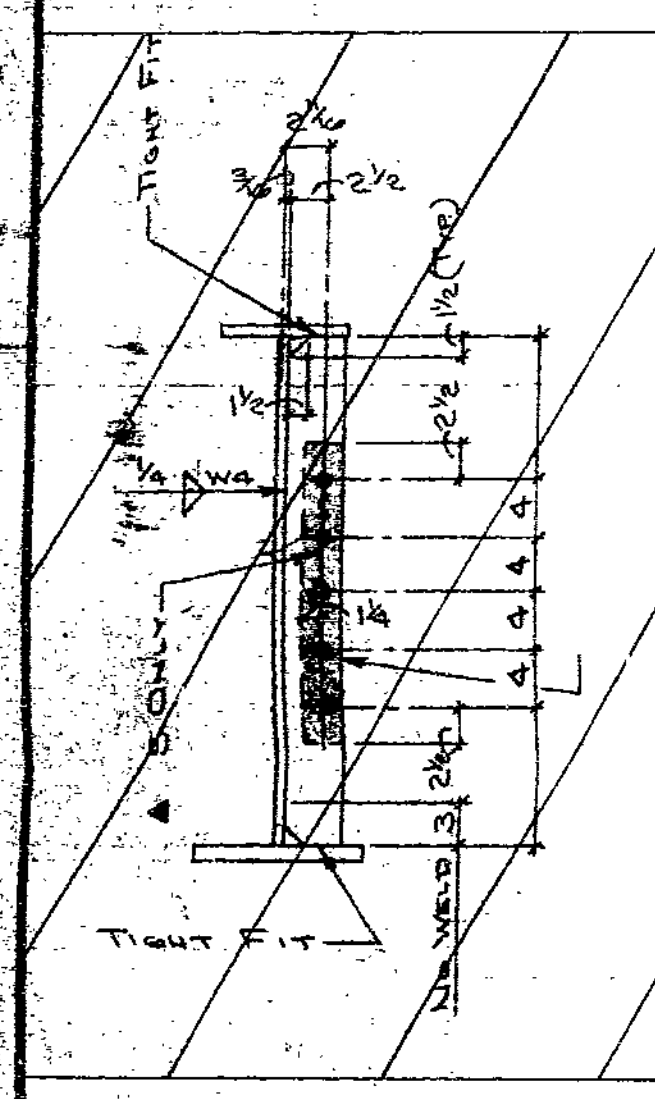
SECTION B-B



SECTION C-C



SECTION D-D



95

*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D
 A - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC

MAKE — ONE — A33
 MAKE — ONE — B33
 MAKE — ONE — C33

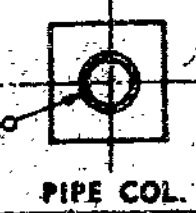
FOR BRIDGE FILES

APPROVED
 GENERAL DESIGN FEATURES ONLY

SEP 28 1979

MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



NO.	FOR	DATE	
		NO.	FOR
PRINT RECORD			
SYSTEM B - TYPE II			
BOLTS	3/4"	UNLESS NOTED	
NUTS	3/4"	UNLESS NOTED	
OPEN FILE	1 1/2"	UNLESS NOTED	

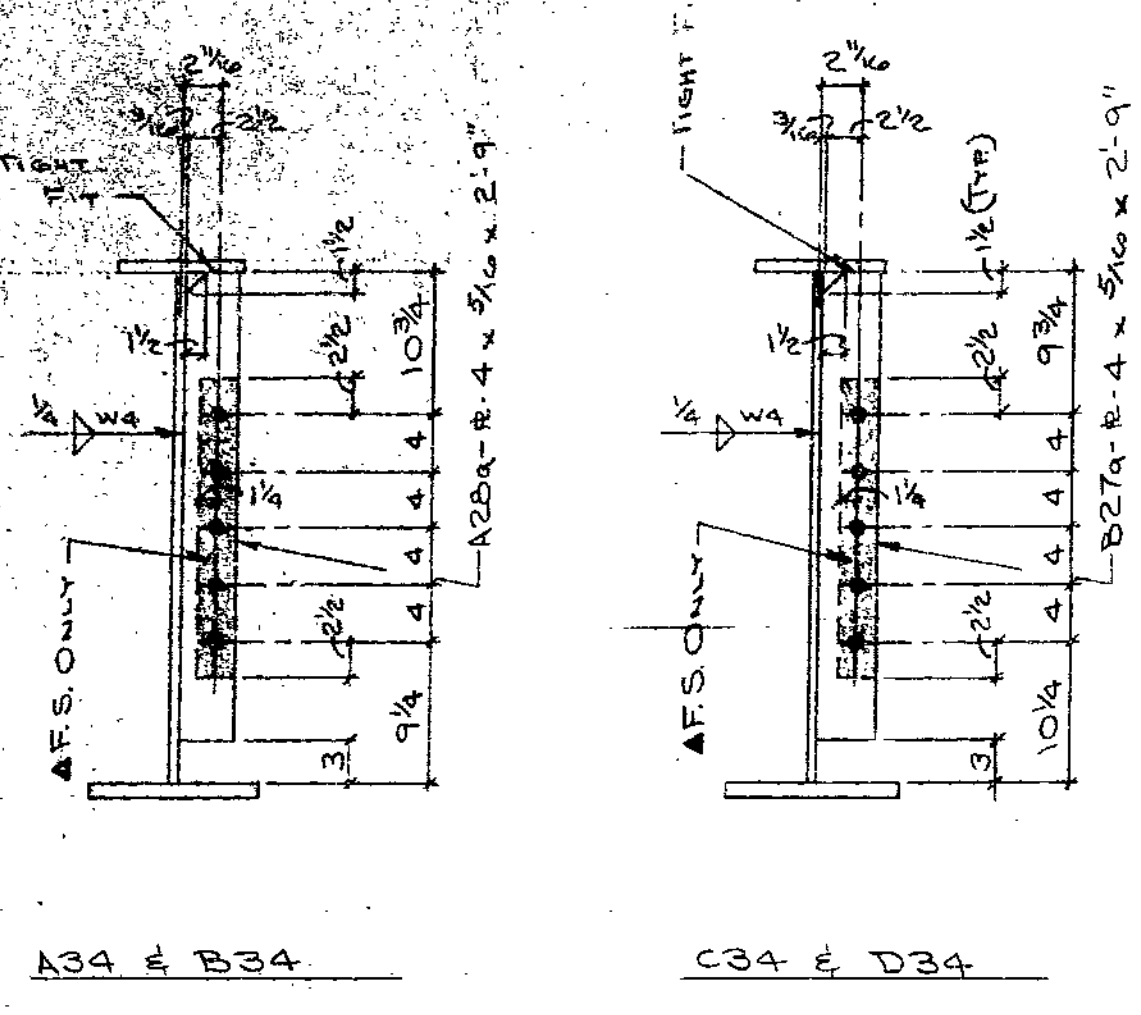
DE LONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 635-6121

DETAILED BY
 J.W.N.
 DATE 6-14-79
 CHECKED BY
 OHP
 DATE 7-27-79

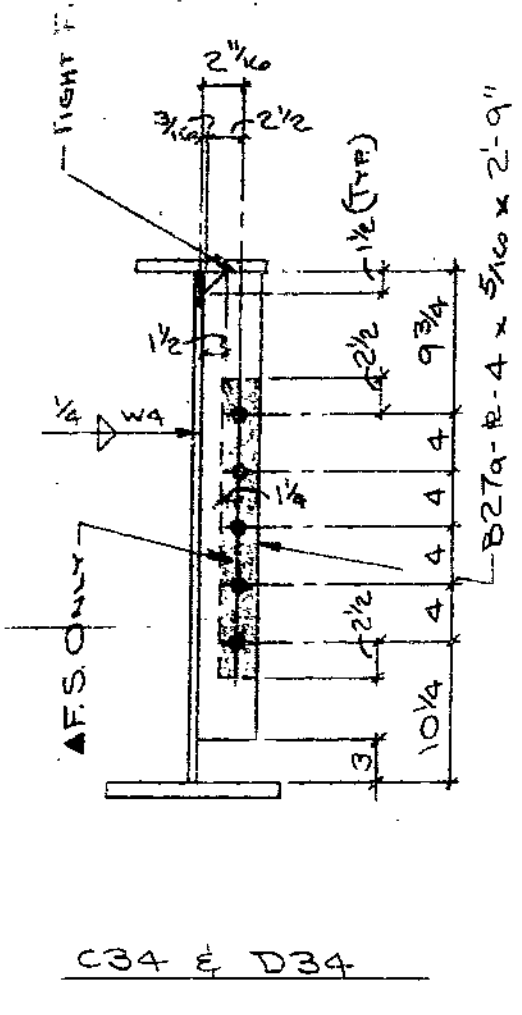
REVISIONS		REMARKS
DATE	MK. BY	

NO.	DATE	BY	REVISIONS

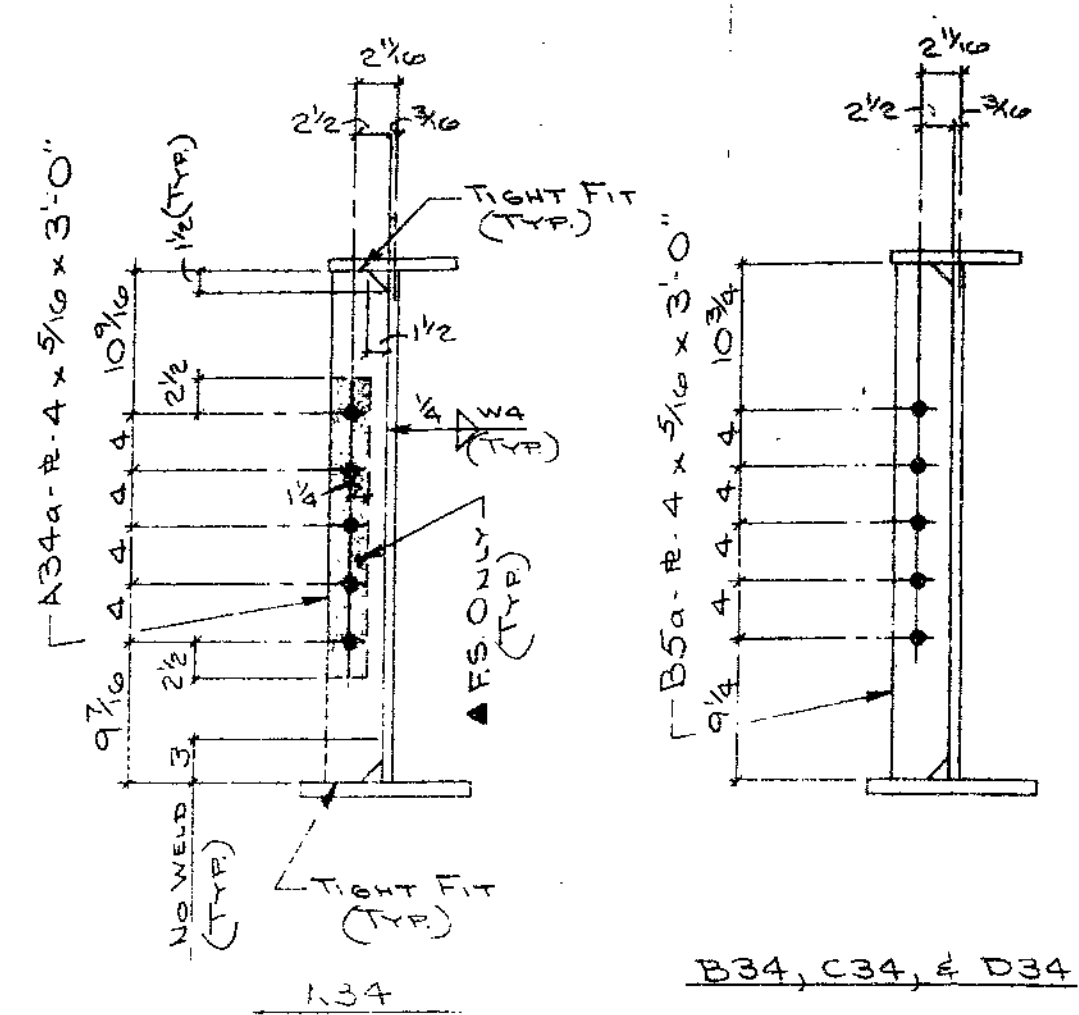
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AK AL AM AN AP AS AT AU AV AW AX AY AZ



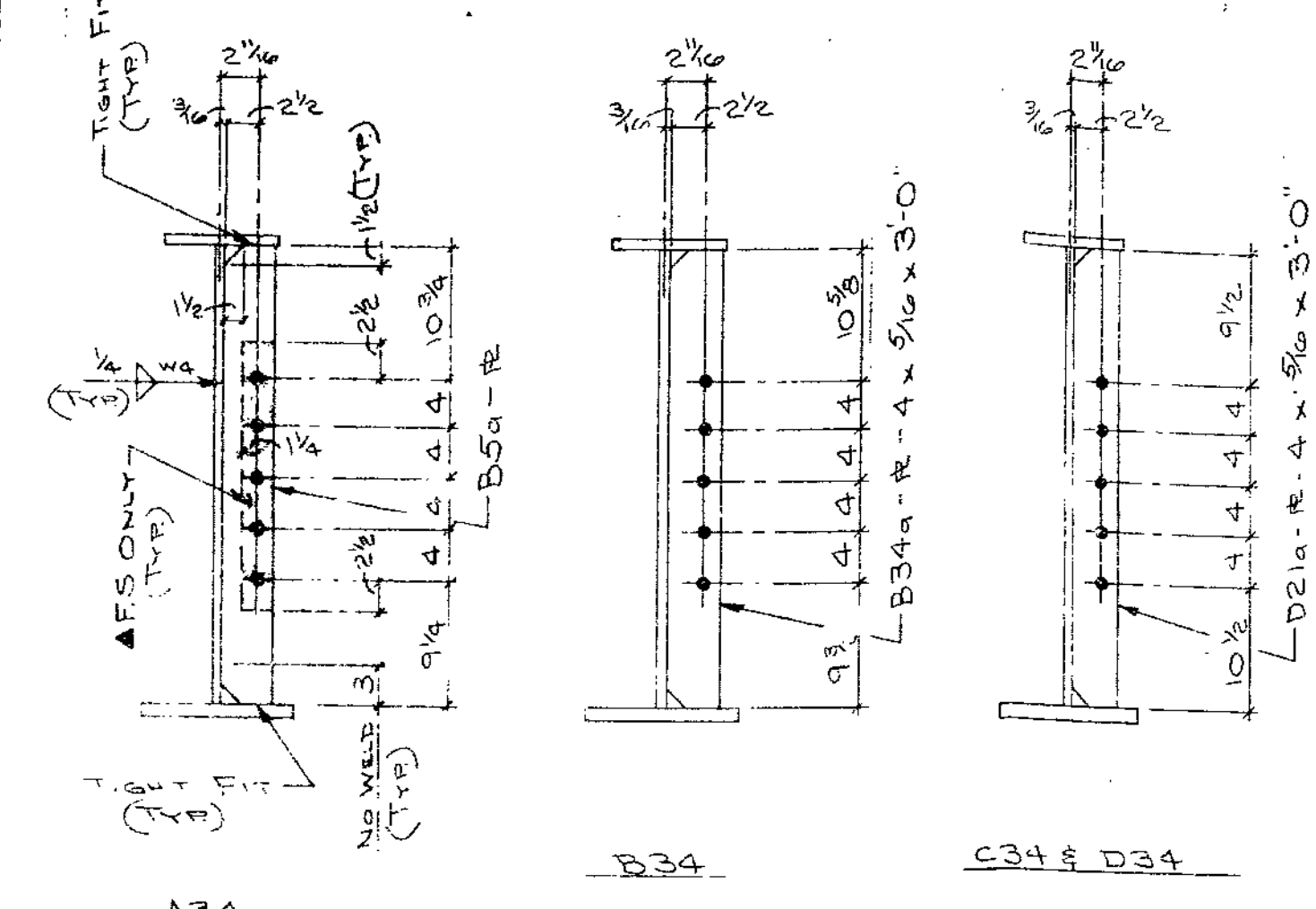
SECTION A-A



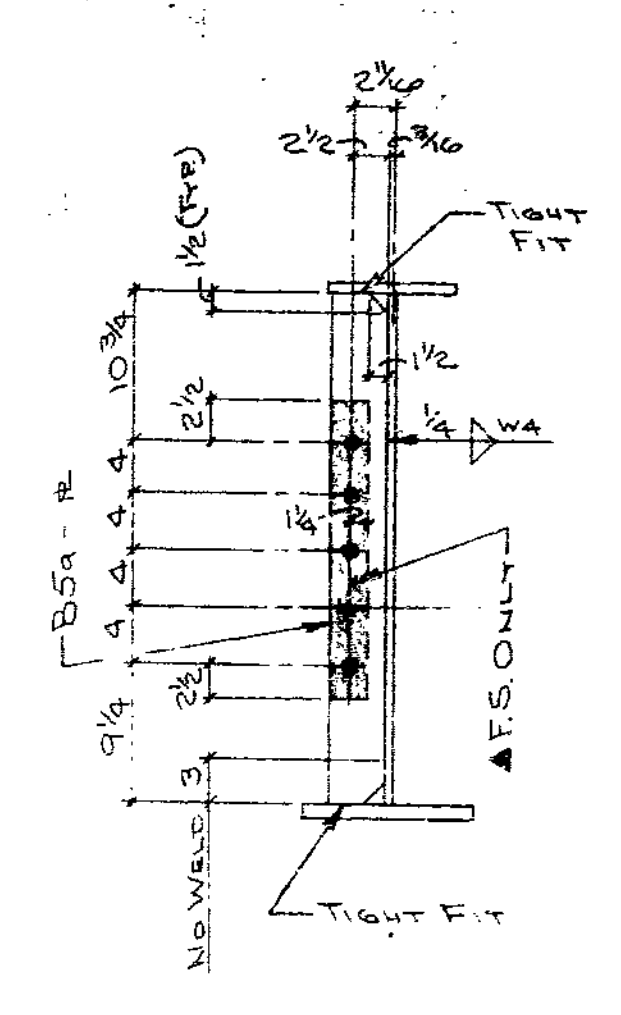
SECTION B-B



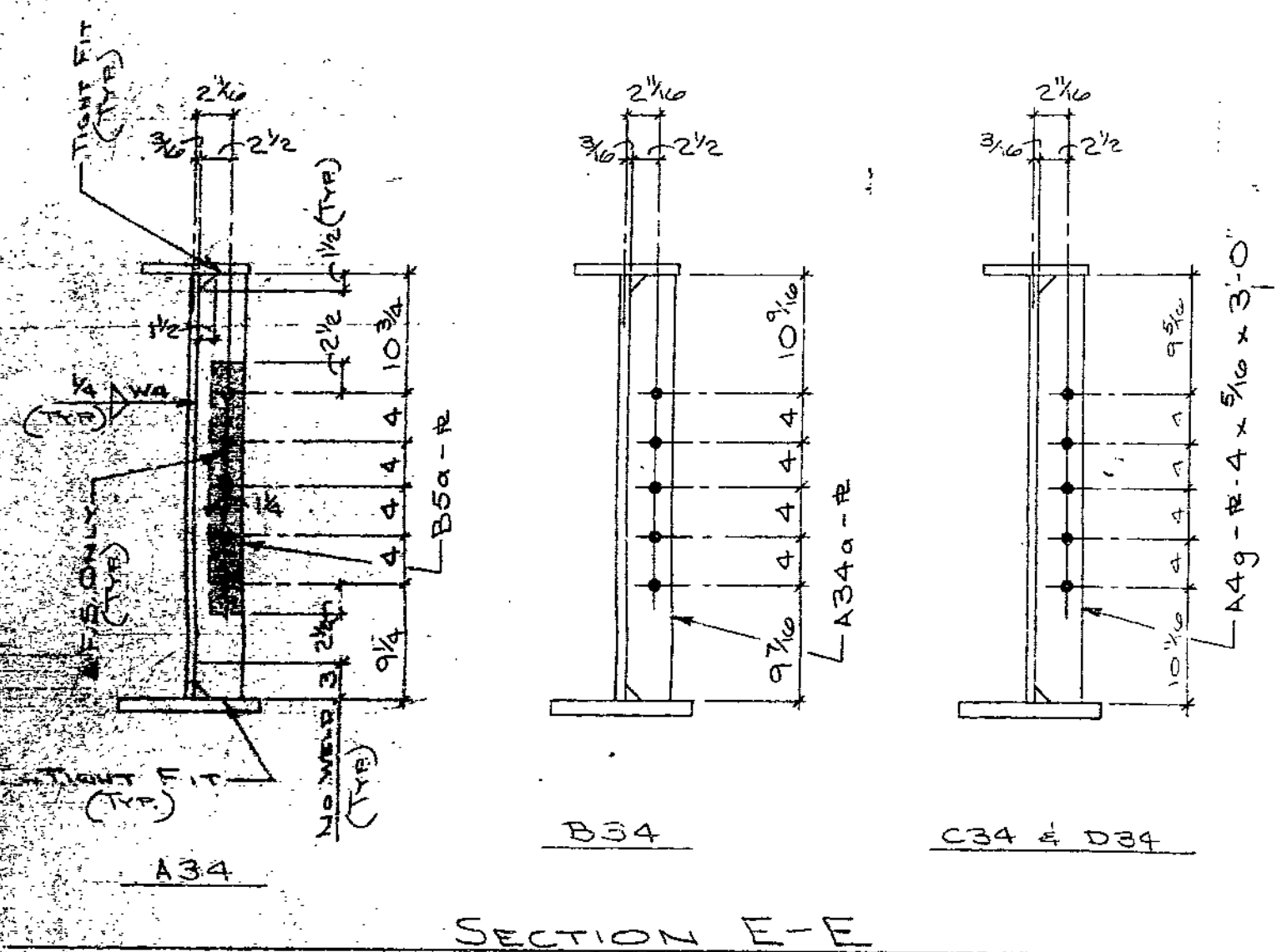
SECTION C-C



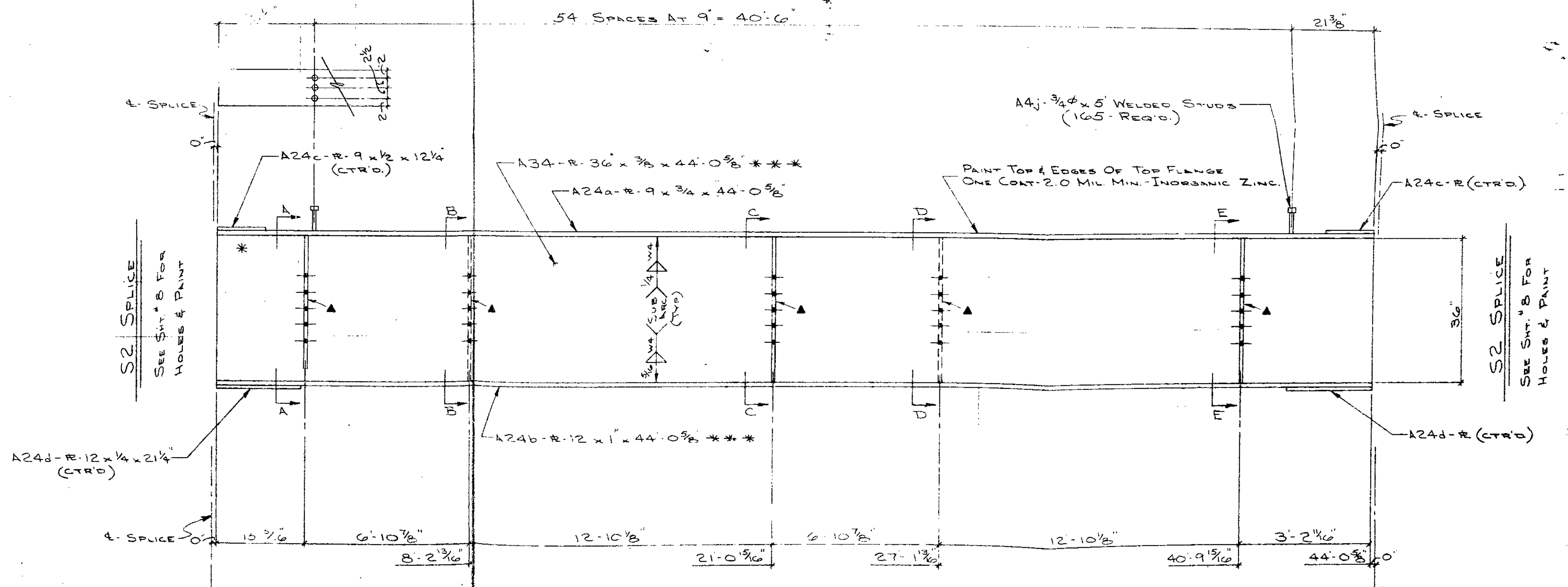
SECTION D-D



SECTION E-E



SECTION F-F



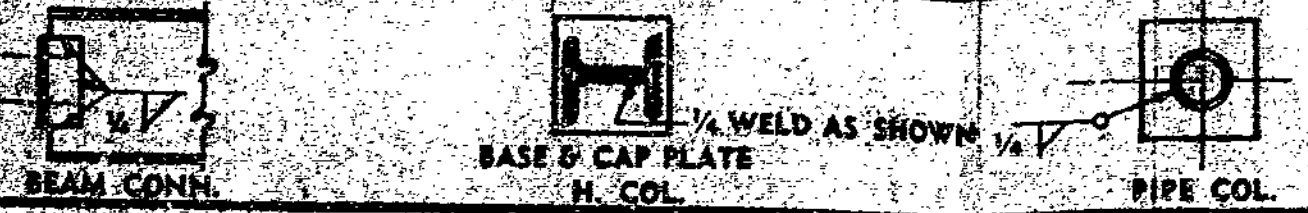
- MAKE — ONE — A34
- MAKE — ONE — B34
- MAKE — ONE — C34
- MAKE — ONE — D34

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979

*** DENOTES NOTCH TOUGHNESS OF 15 FT/LBS @ 40° F. REQ'D.
A - PAINT ONE COAT - 1.5 MIL MIN. - 2.5 MIL MAX. INORGANIC ZINC

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



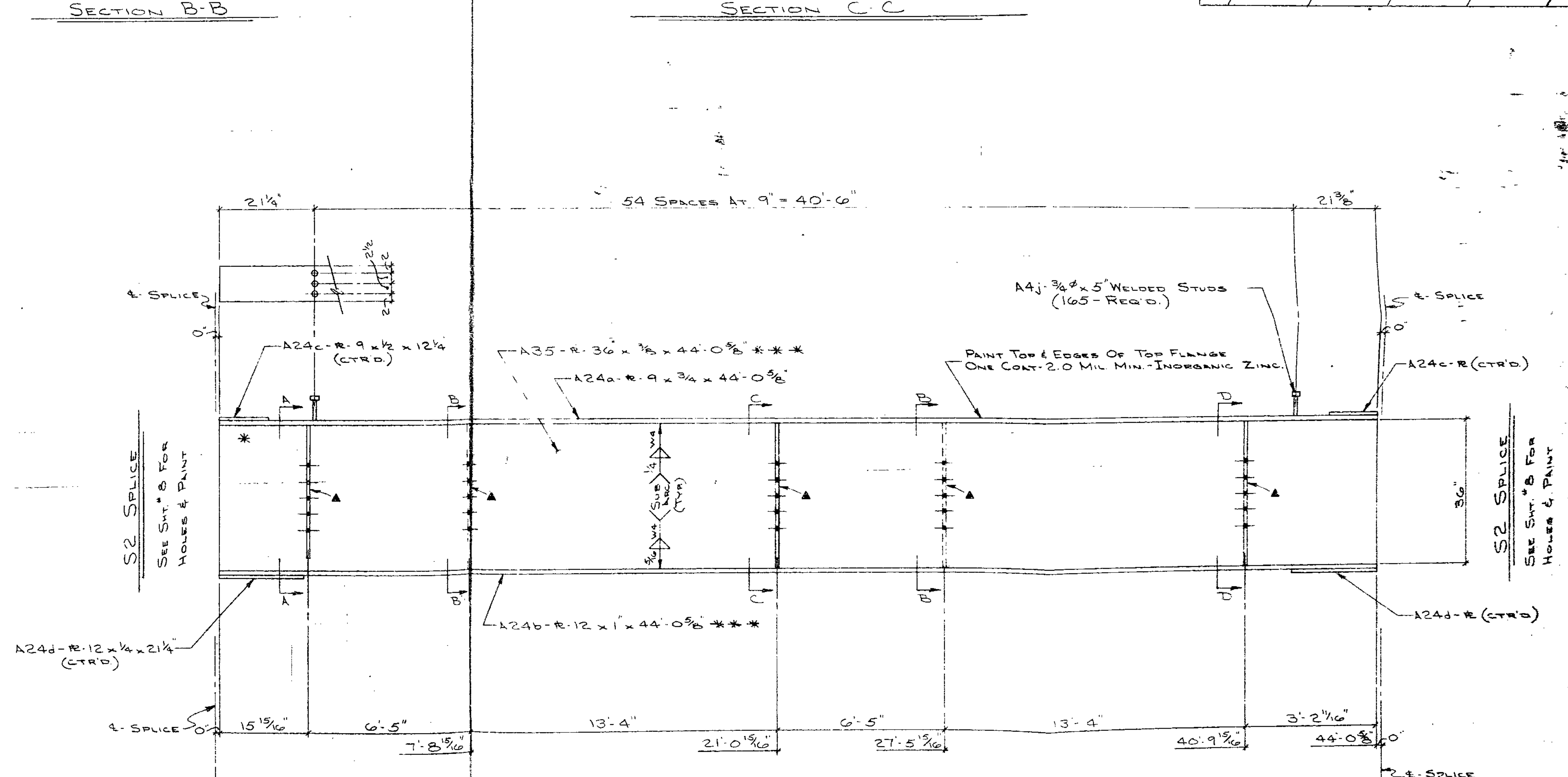
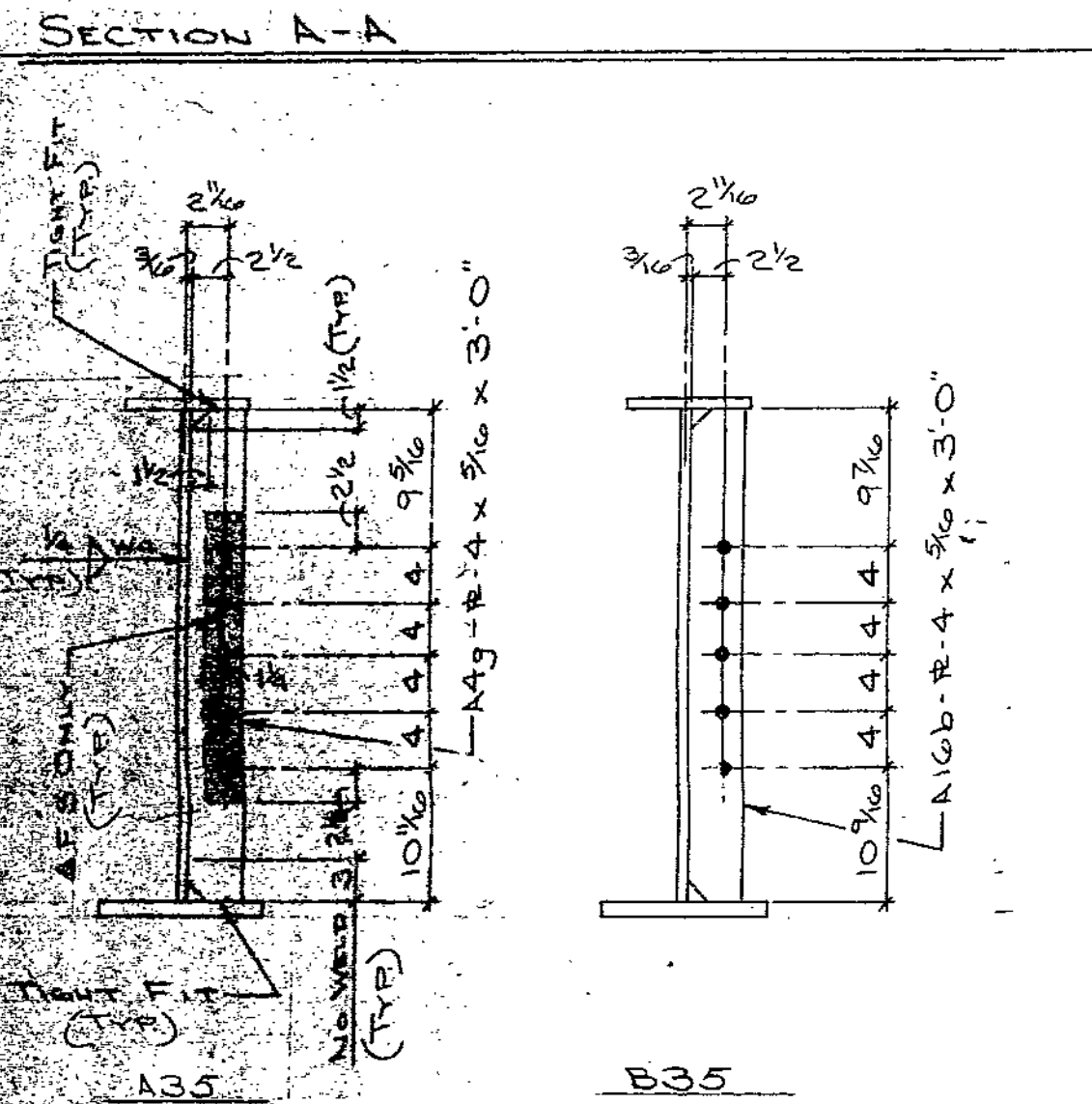
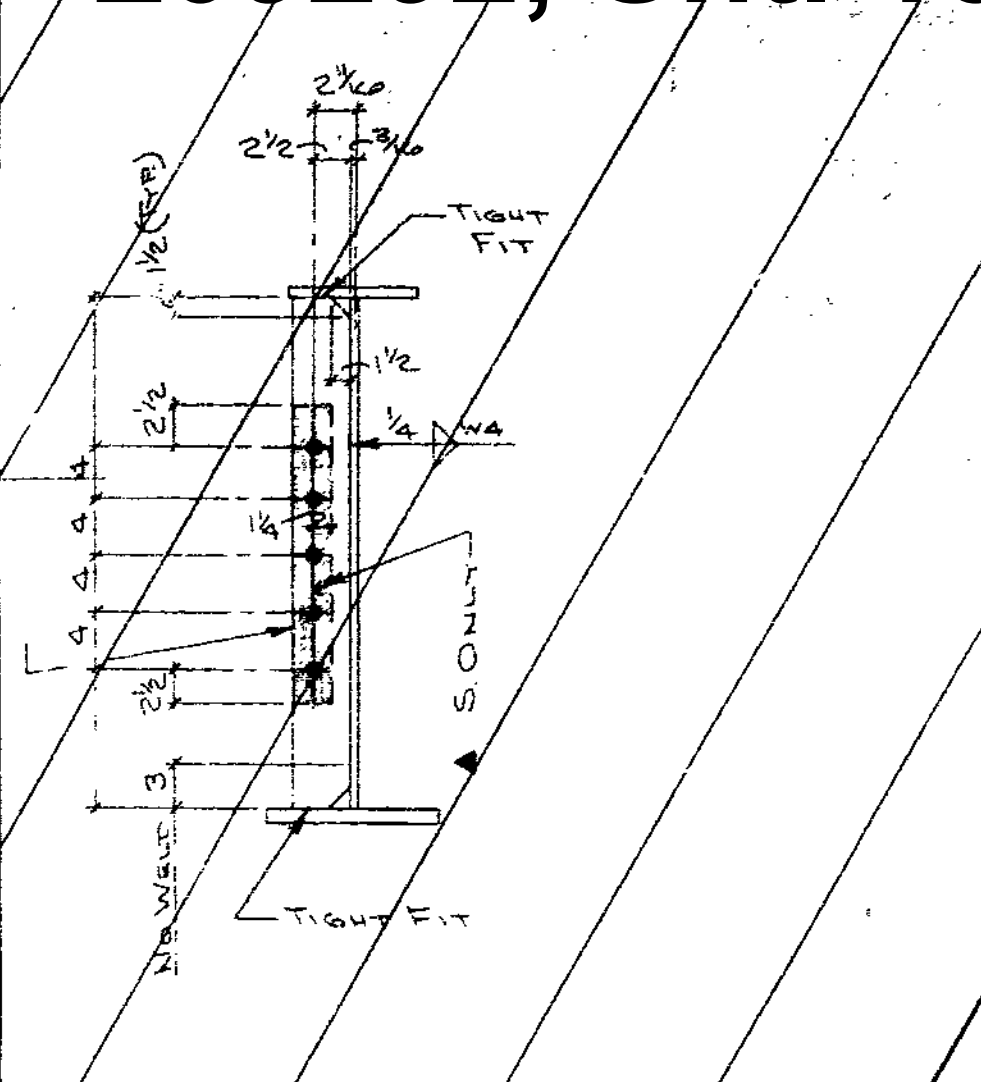
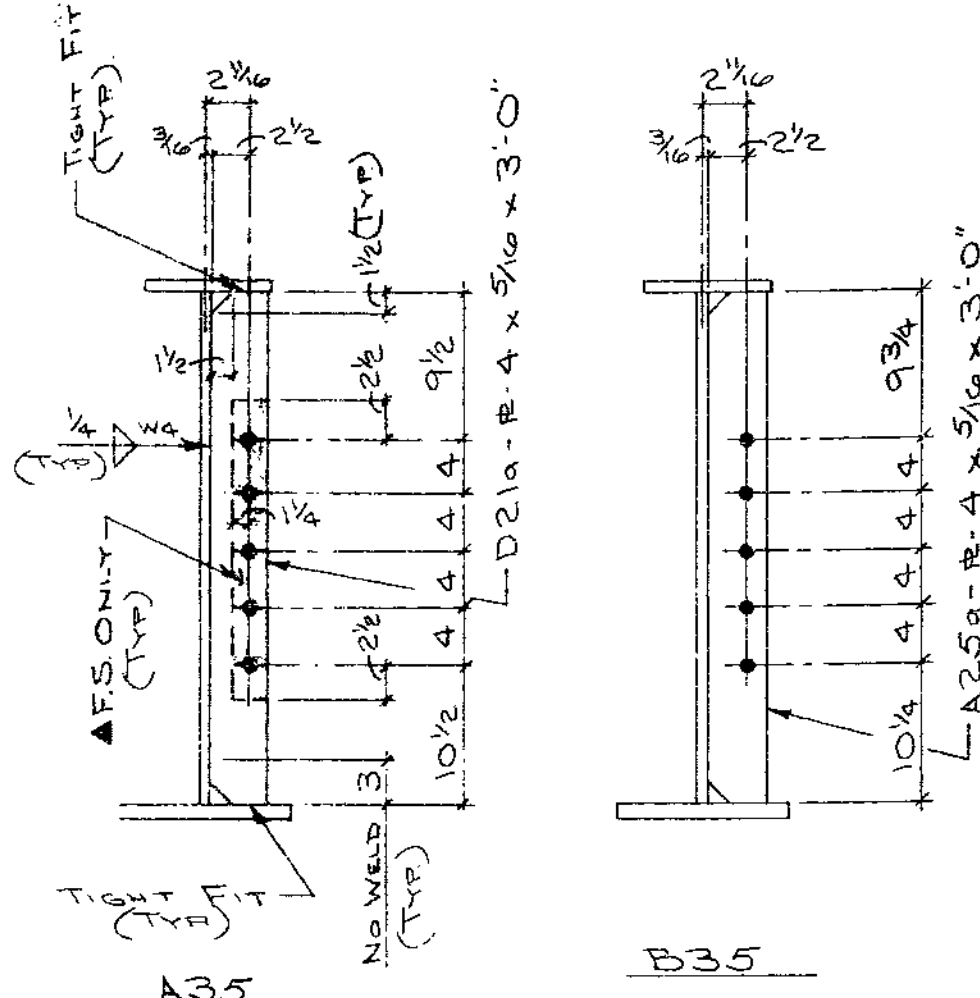
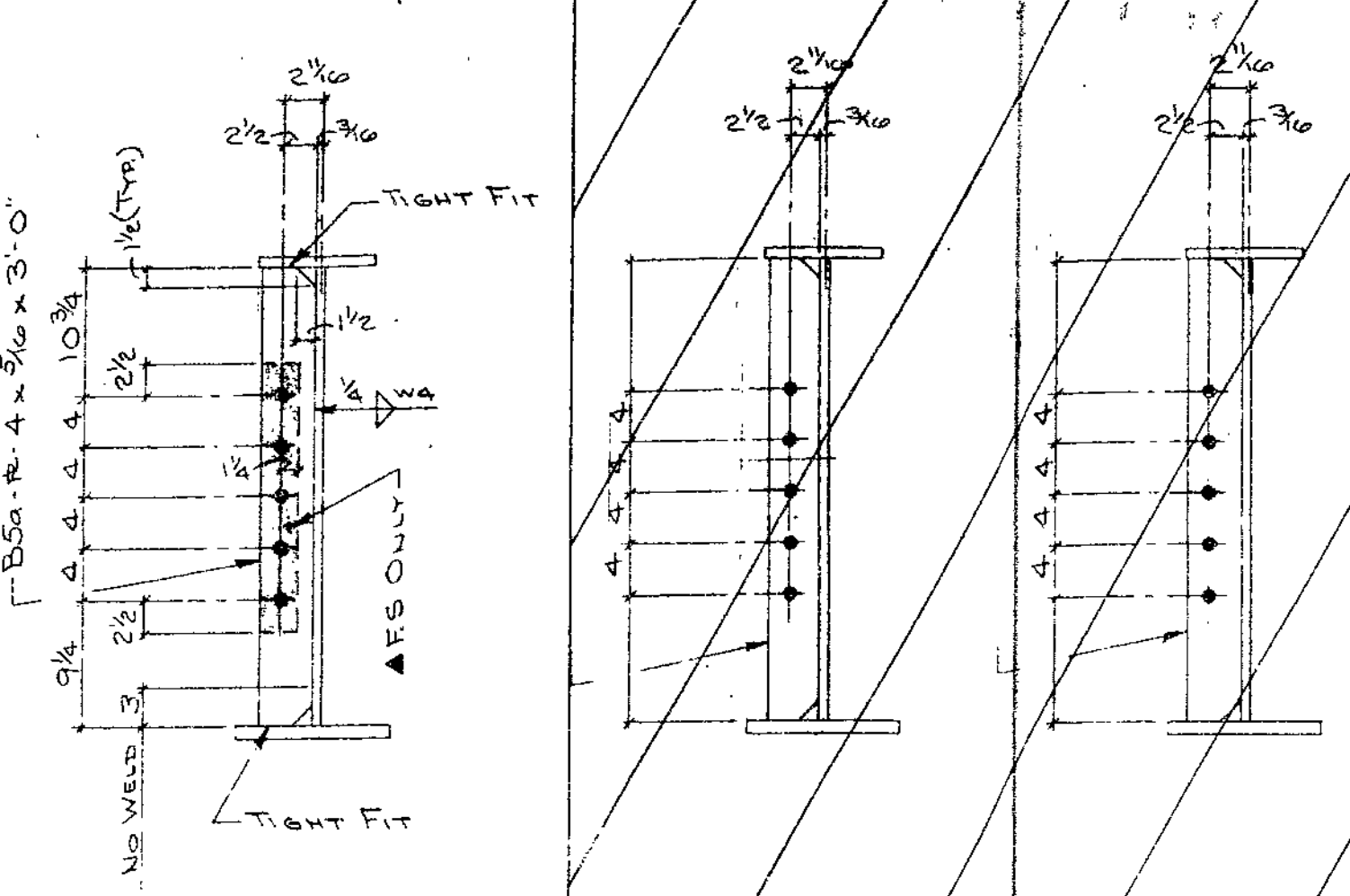
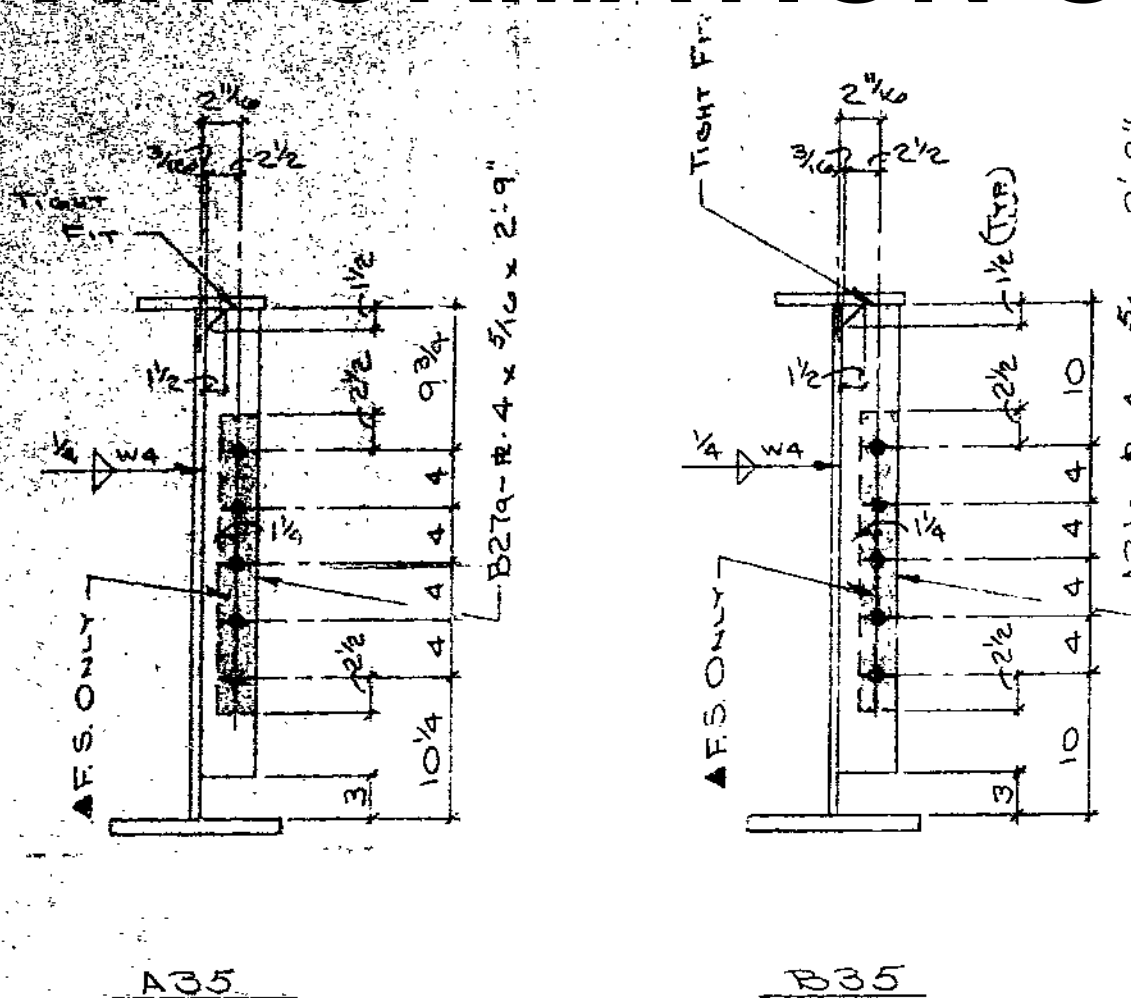
PRINT RECORD	
NO.	DATE

DELONG'S
INC.
JEFFERSON CITY, MISSOURI
DIX RD. & IND. DR.

DETAILED BY		REVISIONS	
DATE	BY	DATE	BY
6-15-79	J.W.N.		

JOB NO.		LOCATION	

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AO AP AS AT AU AV AW AX AY AZ



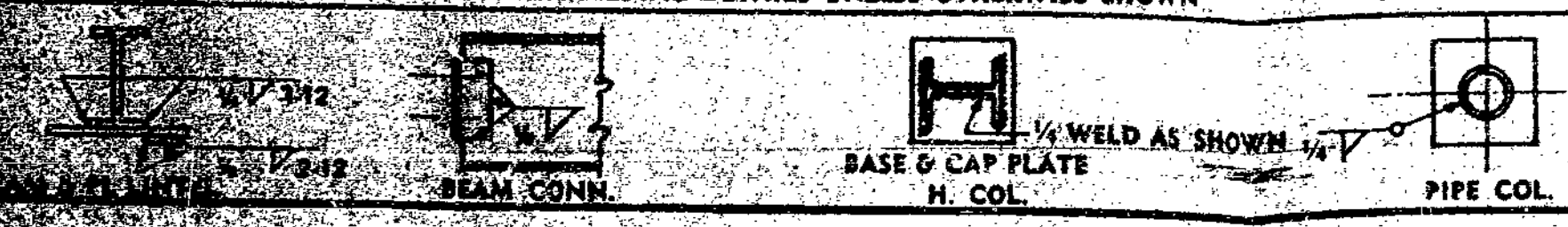
MAKE - ONE - A35
MAKE - ONE - B35

*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
▲ - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
28 1974
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



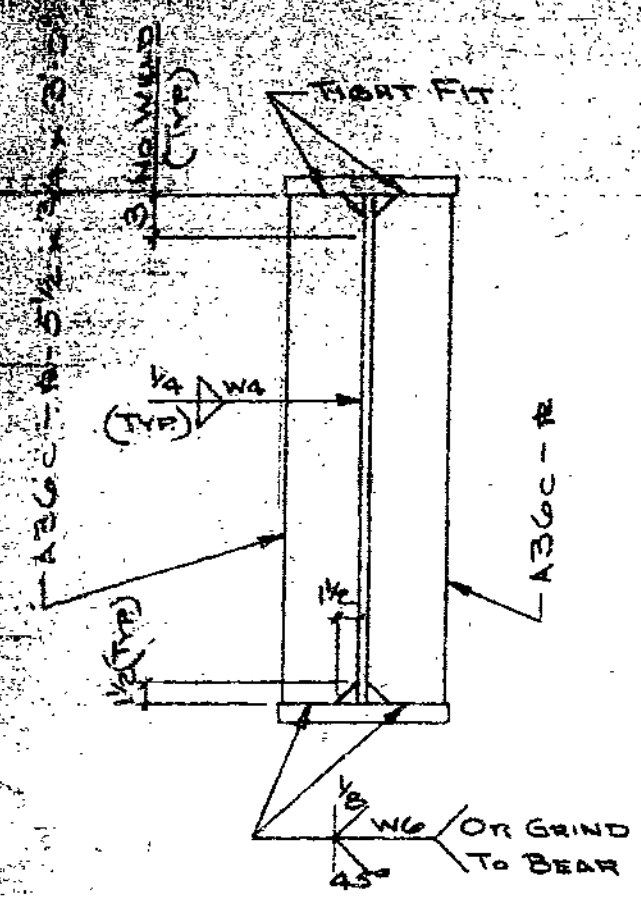
ITEM	PRINT		RECORD			
	NO.	FOR	DATE	NO.	FOR	DATE
SYSTEM 'B'-TYPE II						
BOLTS						
NUTS						
OPEN HLS						

DE LONG'S
INC.
JEFFERSON CITY, MISSOURI

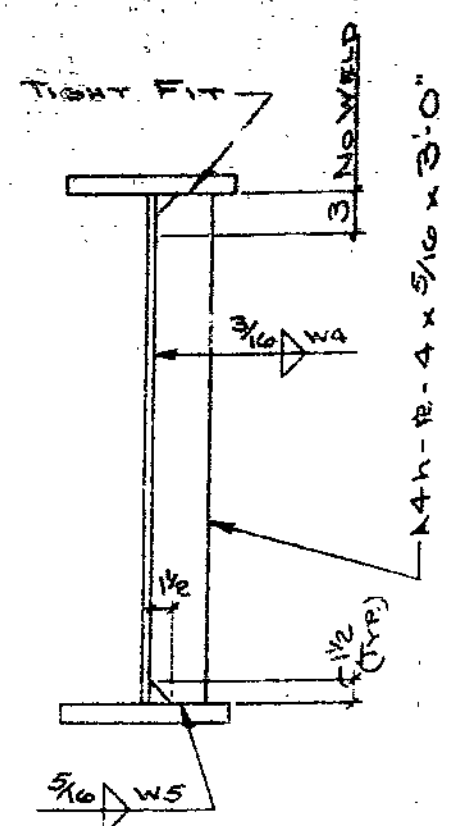
Detailed by J.W.N.
DATE 1-15-74
Checked by O.H.P.
DATE 7-31-74

REVISIONS		
DATE	AMK. BY	REMARKS

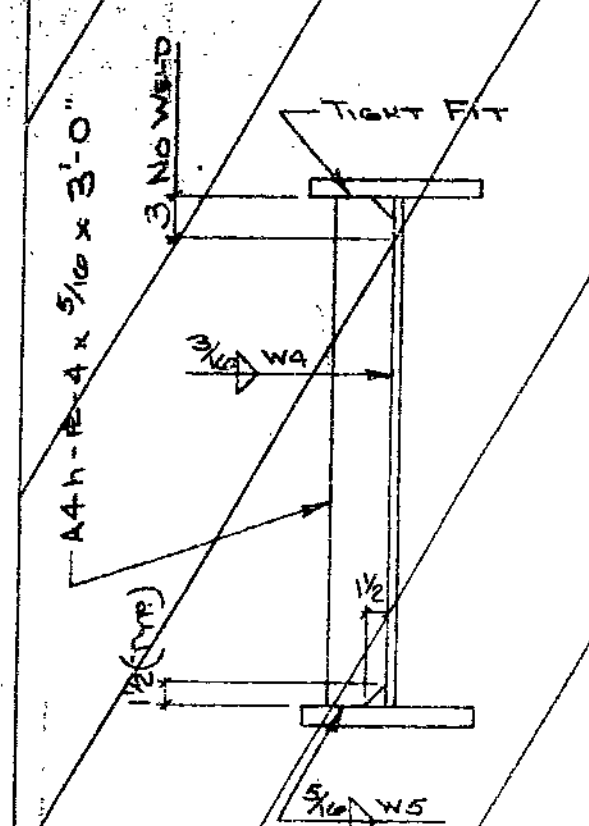
BRIDGE	Blue Ridge Flyer Under Pass	JOB No.	19-40
JOB	4-U071-71	DATE	7-11-4(30)
LOCATION	JACKSON COUNTY, MO. 71	SHEET	35
ARCH-ENGR.	Mo. State Highway Dept.	DATE	7-31-74



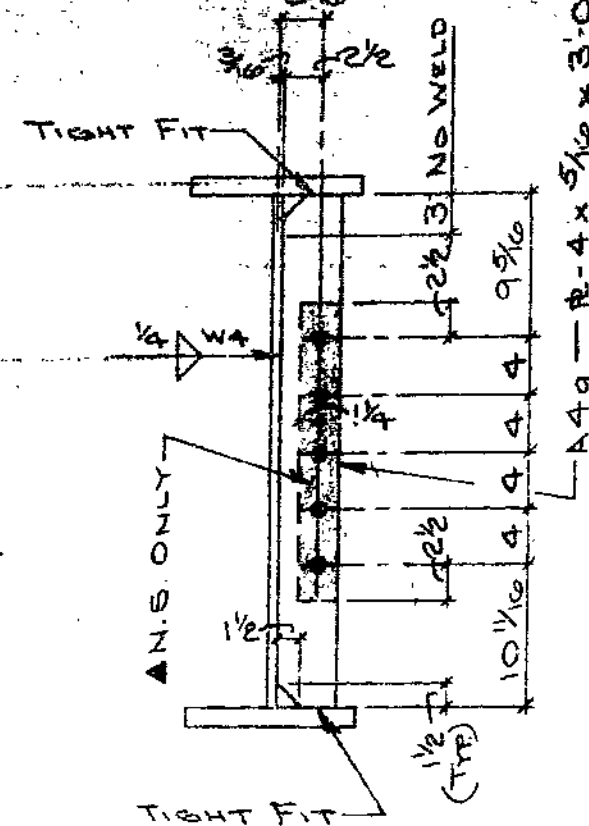
SECTION A-A



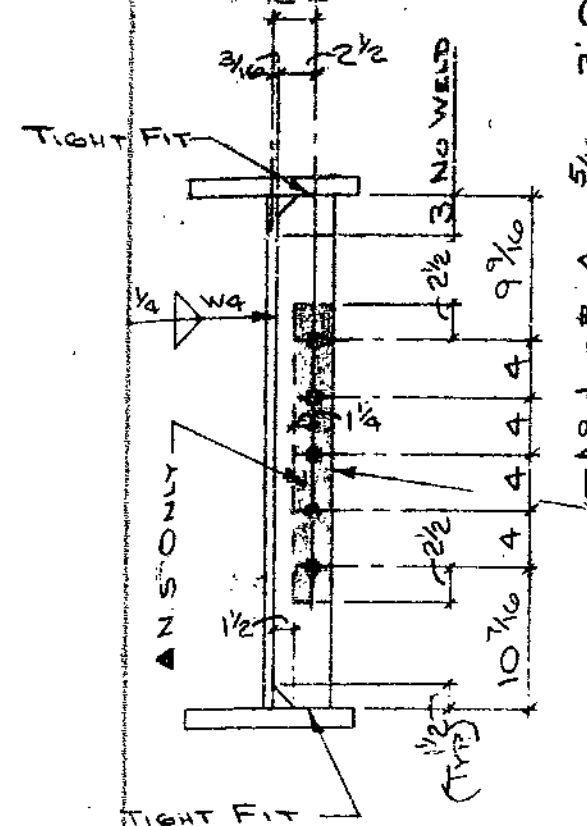
SECTION B-B



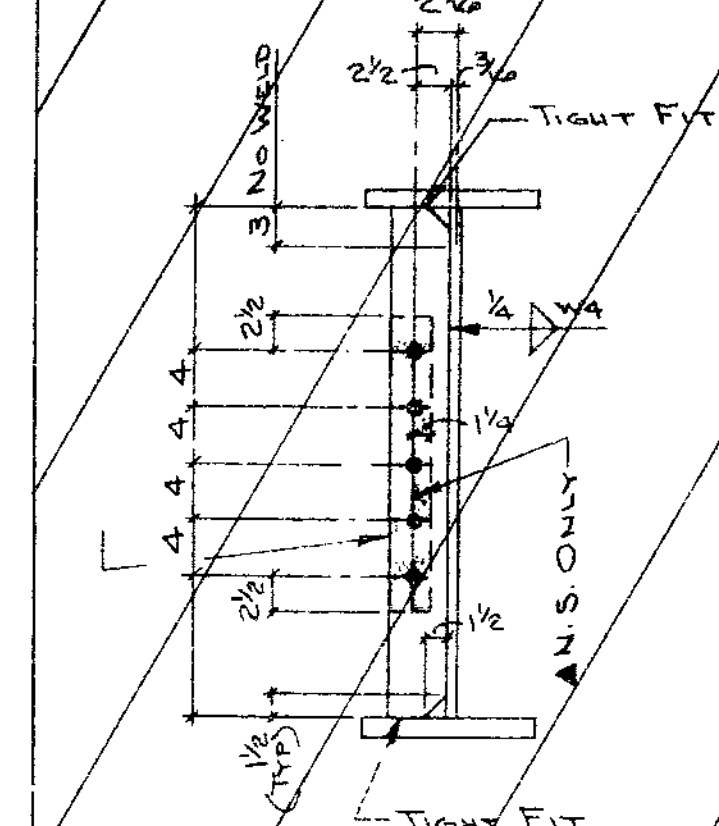
SECTION B-B



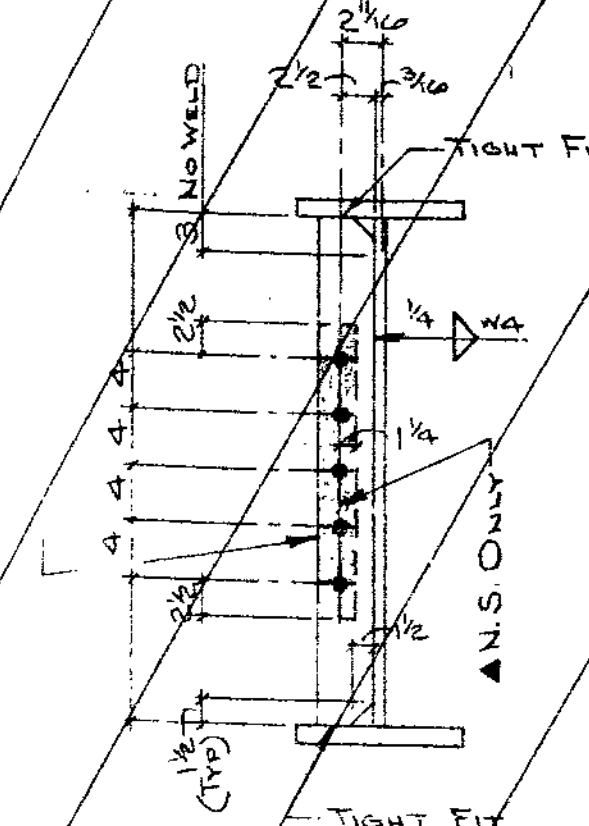
SECTION C-C



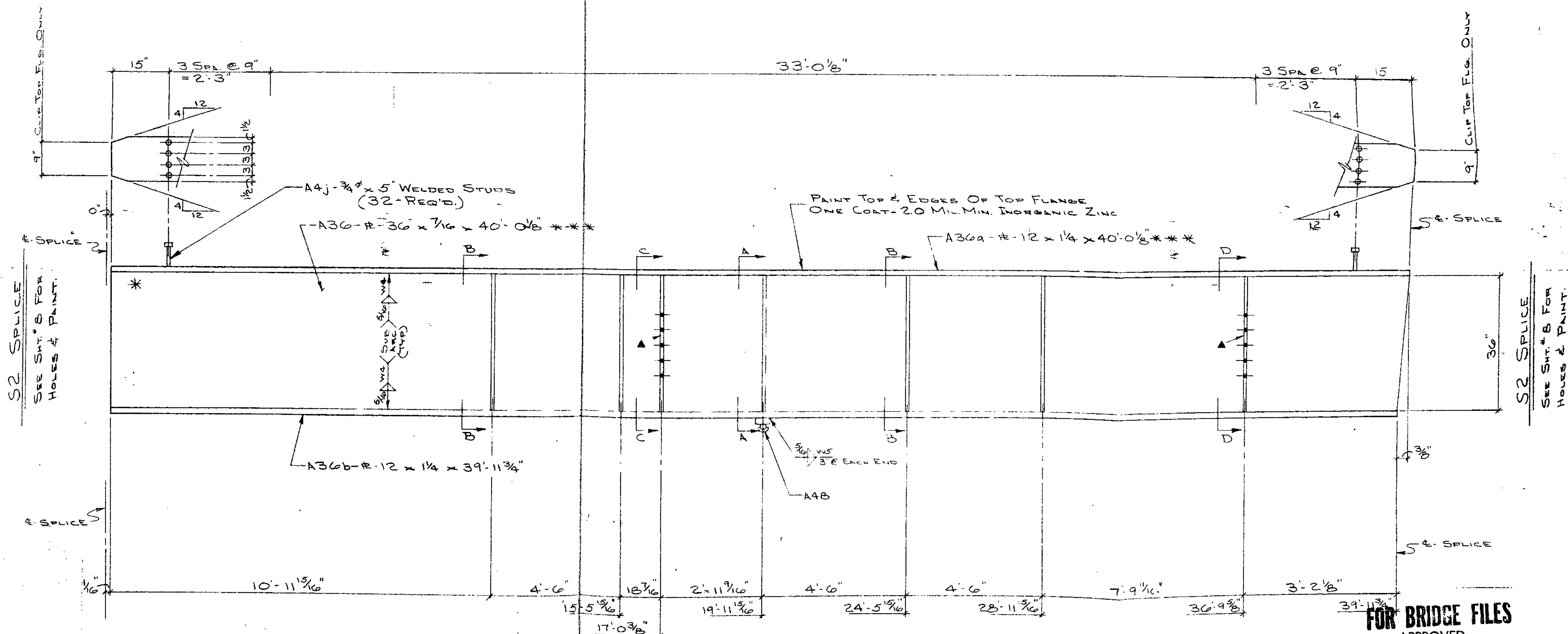
SECTION D-D



SECTION



SECTION



*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
 ▲ - PAINT ONE CONT. 1.5 MIL. MIN. - 2.5 MIL. MAX. INORGANIC ZINC.

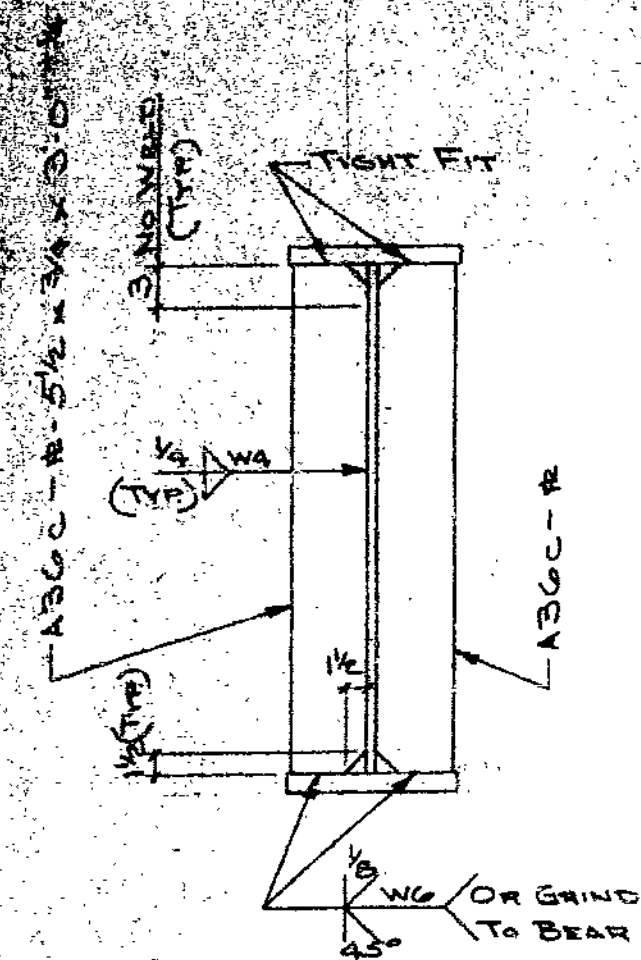
MAKE - ONE - A36

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

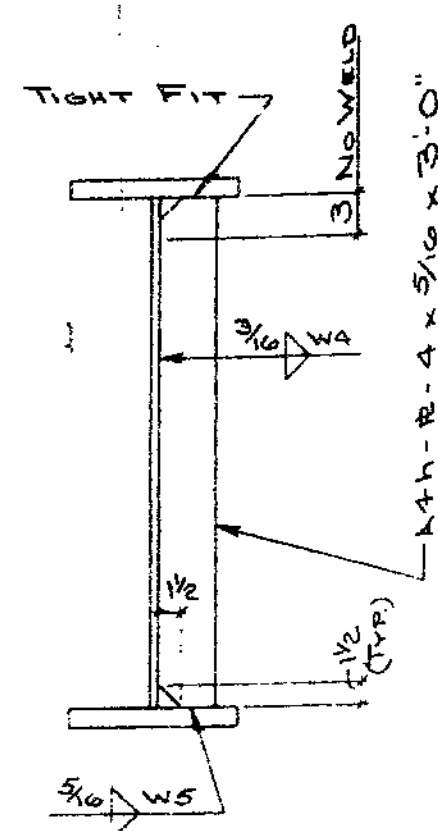
STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE	
		NO.	FOR	DATE	NO.	FOR	DATE	DATE	MK. BY
BEAM & PL. LINTL.	BEAM CONN.	SYSTEM B-TYPE II		J.W.N.		REVISIONS		Blue Ridge Blvd. Under Pass	
BASE & CAP PLATE H. COL.	PIPE COL.	BOILTS 3/4" UNLESS NTD.		DATE 6-18-79		REMARKS		JOB # 4-U071-71 U-F-71-4(80) 4+77.07	
		OPEN HLS. 1 1/2" UNLESS NTD.		CHECKED BY				LOCATION JACKSON COUNTY Rte 71	
				DATE 7-9-79				ARCH. ENGR. Mo. State Hwy. Dept.	

A B C D E F G H J K M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ

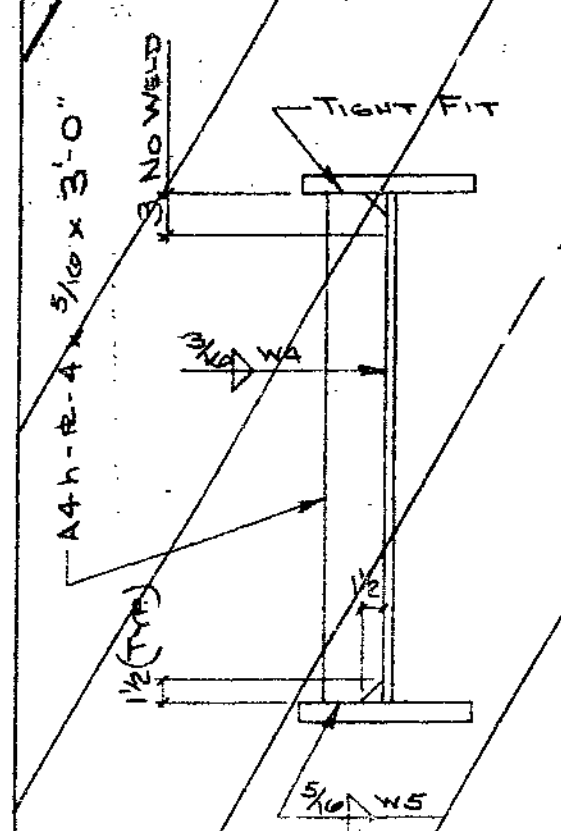
98



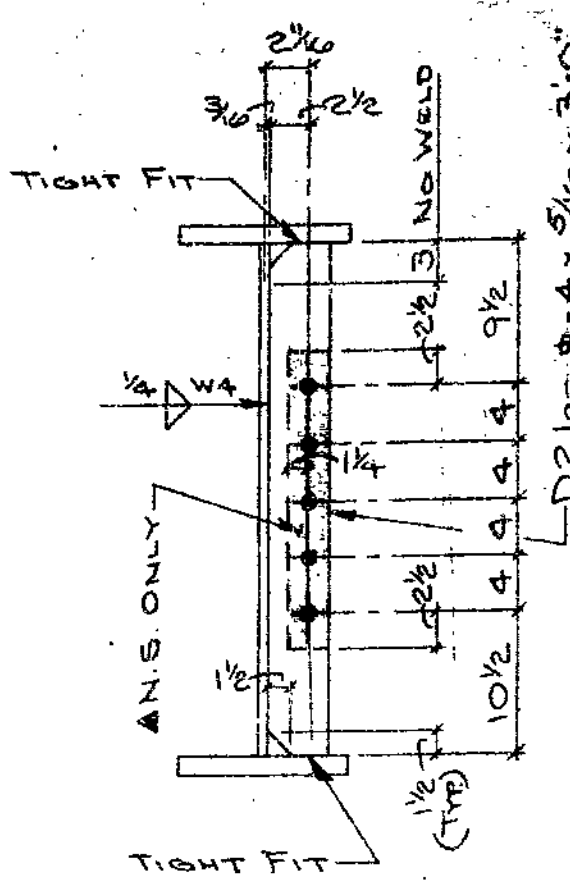
SECTION A-A



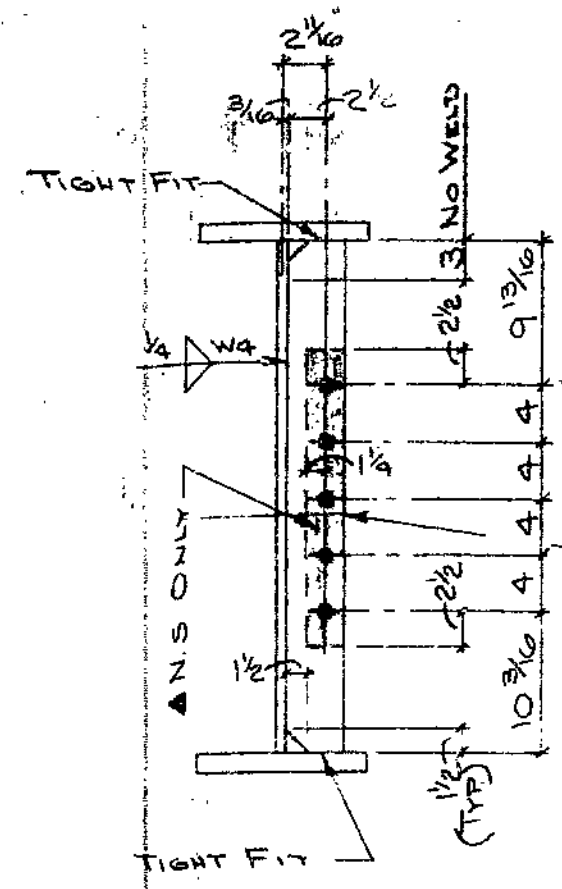
SECTION B-B



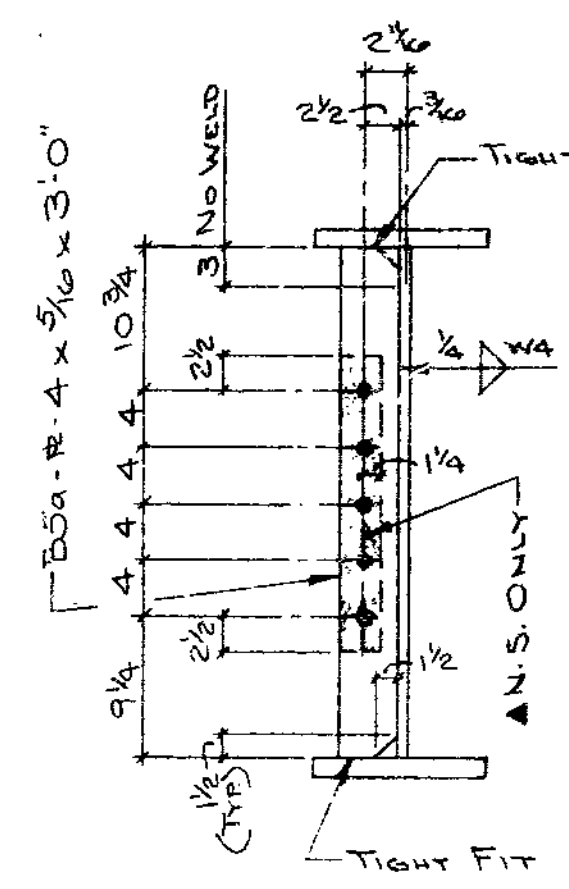
SECTION B-B



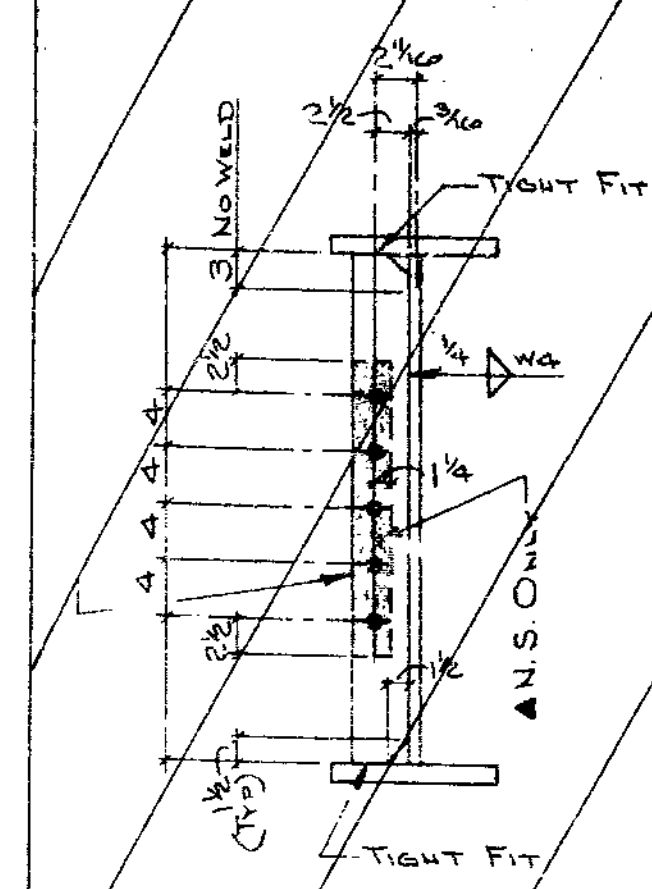
SECTION C-C



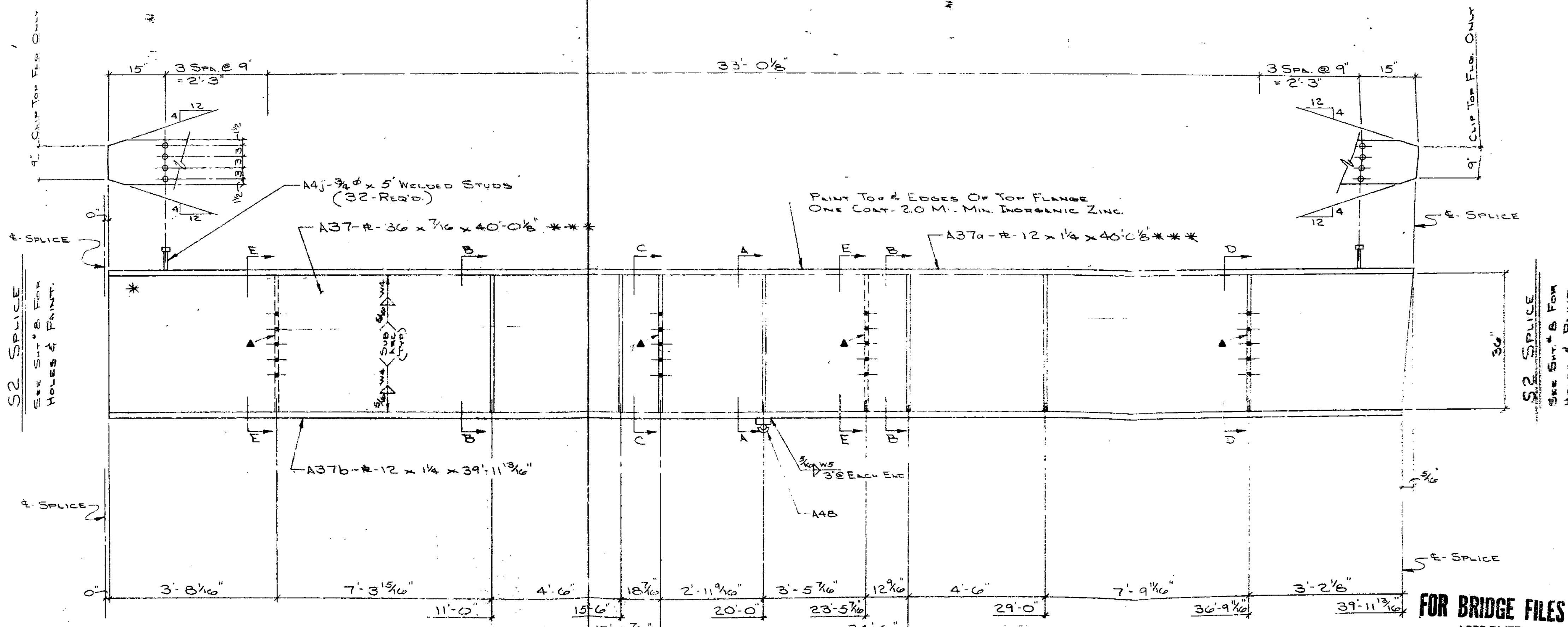
SECTION D-D



SECTION E-E



SECTION

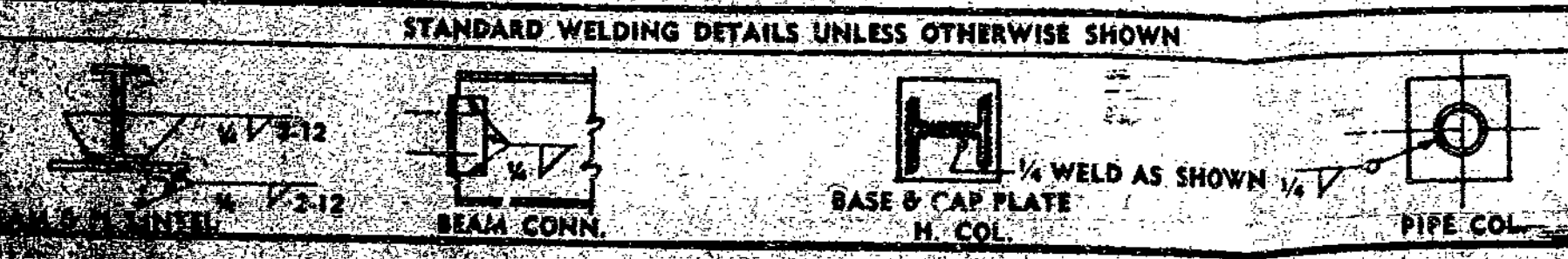


69

***-DENOTES NOTCH TOUGHNESS OF 15 FT.LBS @ 40° F. REQD.
▲-PAINT ONE COAT-1.5 MIL MIN.-2.5 MIL MAX. INORGANIC ZINC.

MAKE - ONE - A37

FOR BRIDGE FILES
APPROVED
GENERAL DESIGN FEATURES ONLY
SEP 28 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES



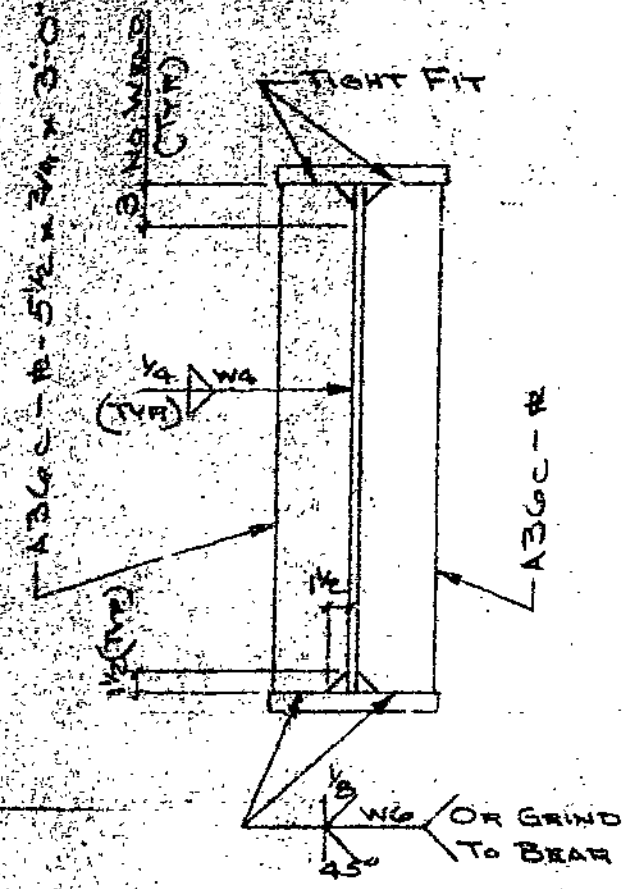
PRINT RECORD table with columns for NO, FOR, DATE, NO, FOR, DATE.

DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI

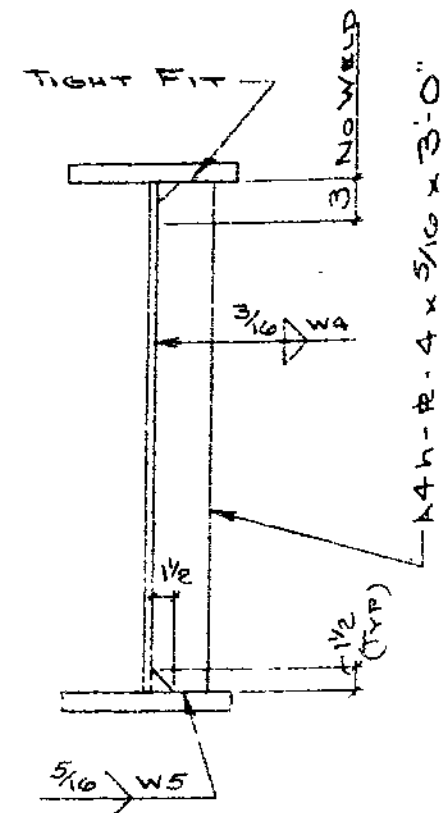
DETAILED BY J.W.N. DATE 6-19-79 CHECKED BY DATE 7-31-79 REVISIONS table.

BRIDGE Blue Ridge Blvd Under Pass Sta 4+77.07 JOB 4-0871-T1 U.F. 71-4(20) A-7707 LOCATION Jackson County, Rte. 71 ARCH-ENGR Mo. State Hwy. Dept.

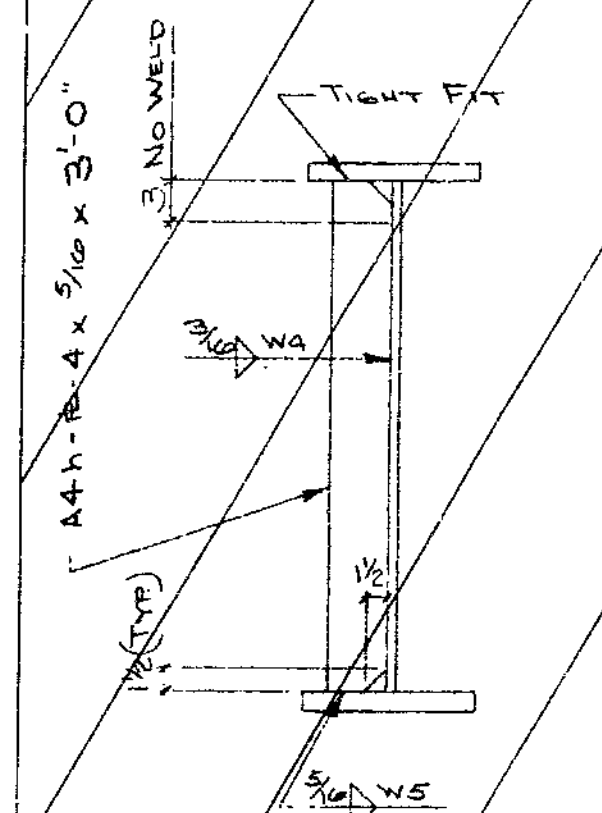
A B C D E F G H I J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AO AP AS AT AU AV AW AX AY AZ



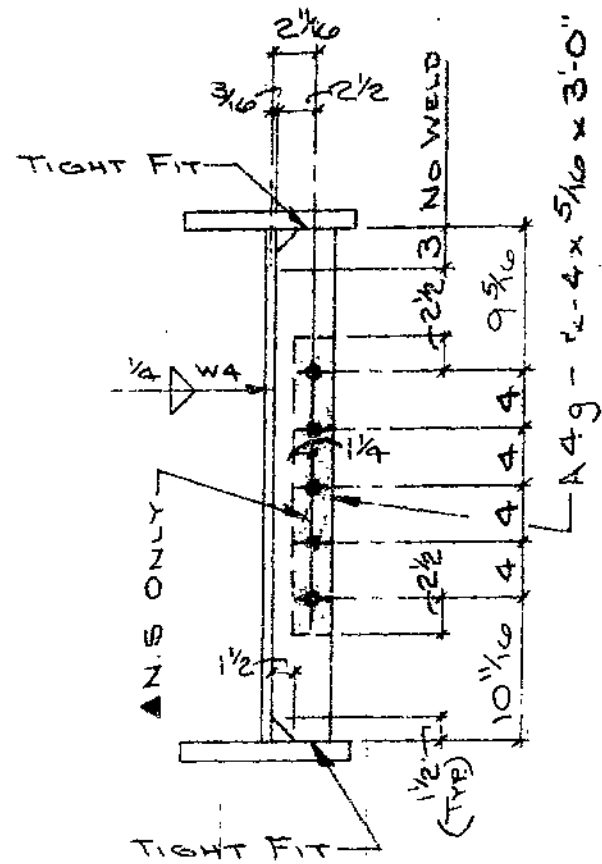
SECTION A-A



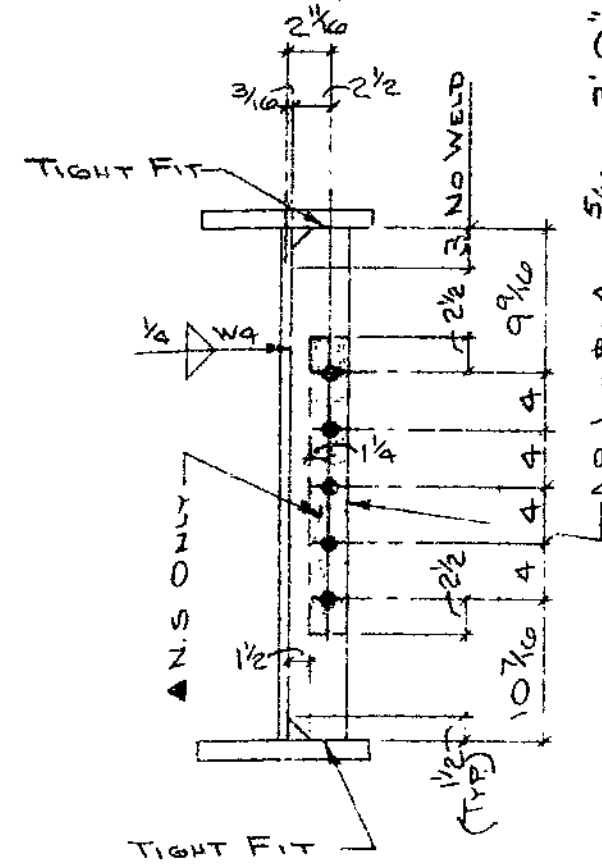
SECTION B-B



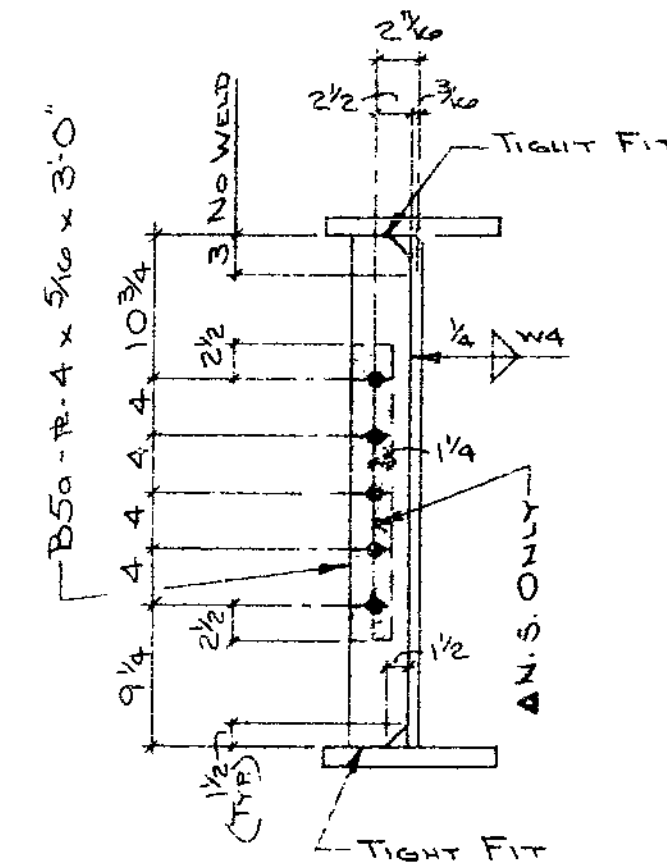
SECTION B-B



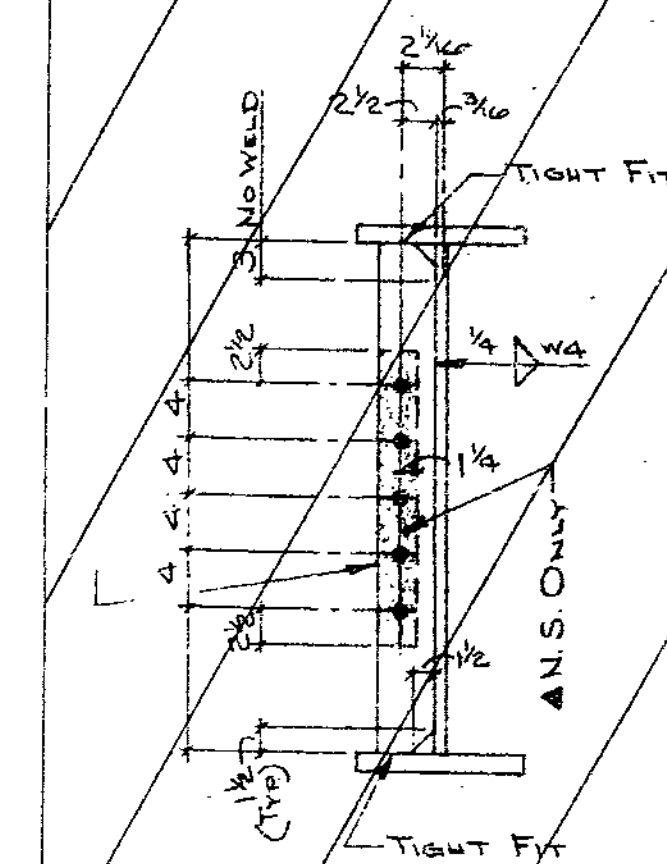
SECTION C-C



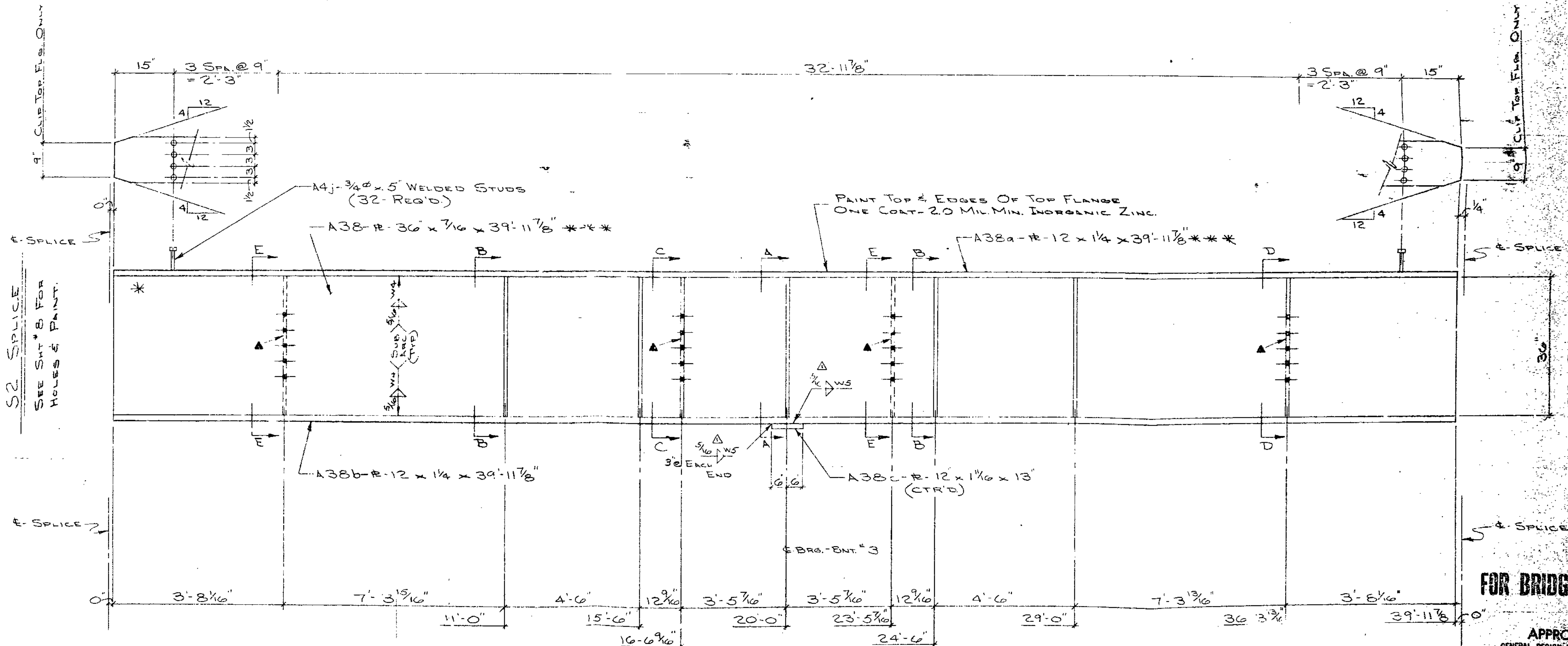
SECTION D-D



SECTION E-E



SECTION



100

***-DENOTES NOTCH TOUGHNESS OF 15 FT./LB. @ 40° F. REQ'D.
 ▲-PAINT ONE COAT-1.5 MIL MIN.-2.5 MIL MAX.-INORGANIC ZINC.

MAKE - ONE - A38

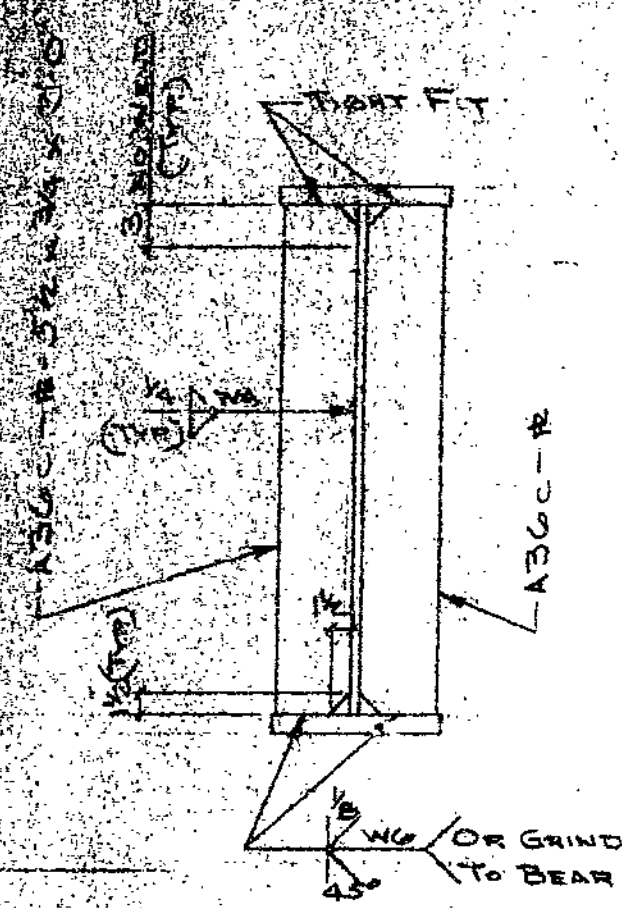
FOR BRIDGE FILES

APPROVED
 GENERAL DESIGN FEATURES ONLY
 H.S. 3 1980
 MISSOURI HIGHWAY & TRANSPORTATION DEPT.
 DIVISION OF BRIDGES

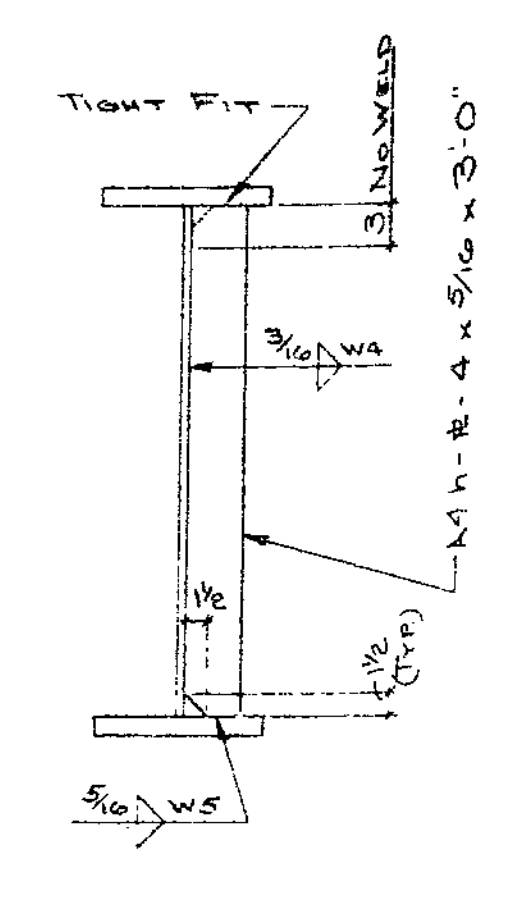
STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE	
		NO.	FOR	DATE	NO.	FOR	DATE	DATE	MK. BY
		6	10/19/79	3-4-80	1	10	CHANGED WELD, SIZE & BEG	3-4-80	10
1/4 WELD AS SHOWN		UNLESS NTD.		J.W.N.				REMARKS	
BASE & CAP PLATE		UNLESS NTD.		DATE 19-79				JOB 4-UD71-71	
H. COL.		UNLESS NTD.		CHECKED BY				LOCATION JACKSON COUNTY	
PIPE COL.		UNLESS NTD.		DATE 7-27-79				ARCH. ENGR. MO. E. L. H. H. H. H.	

DELONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI

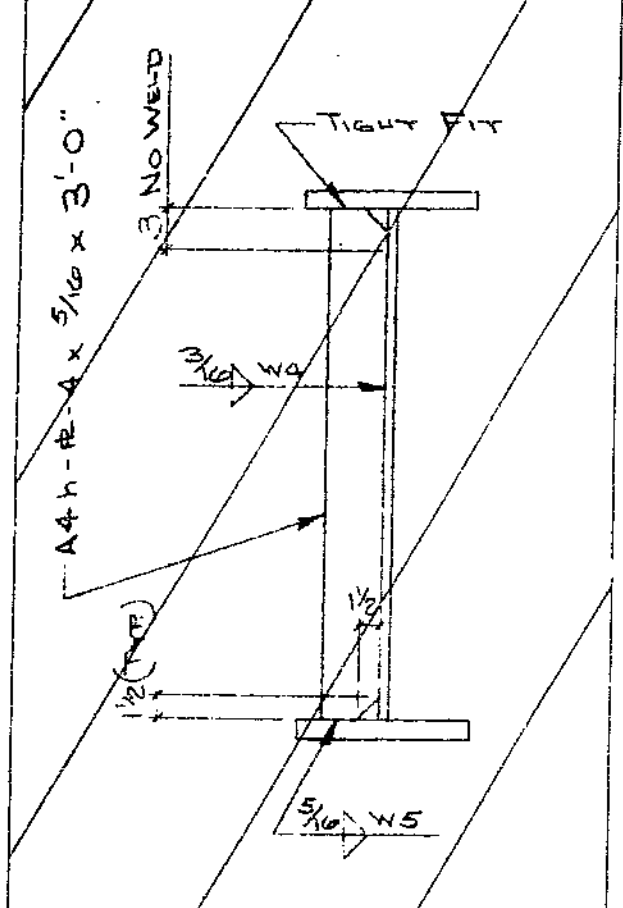
A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



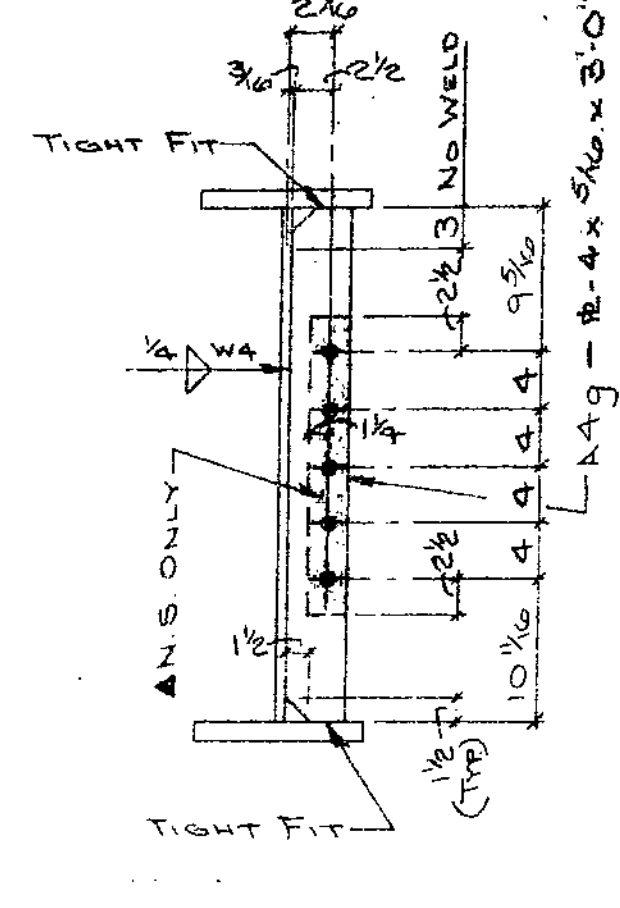
SECTION A-A



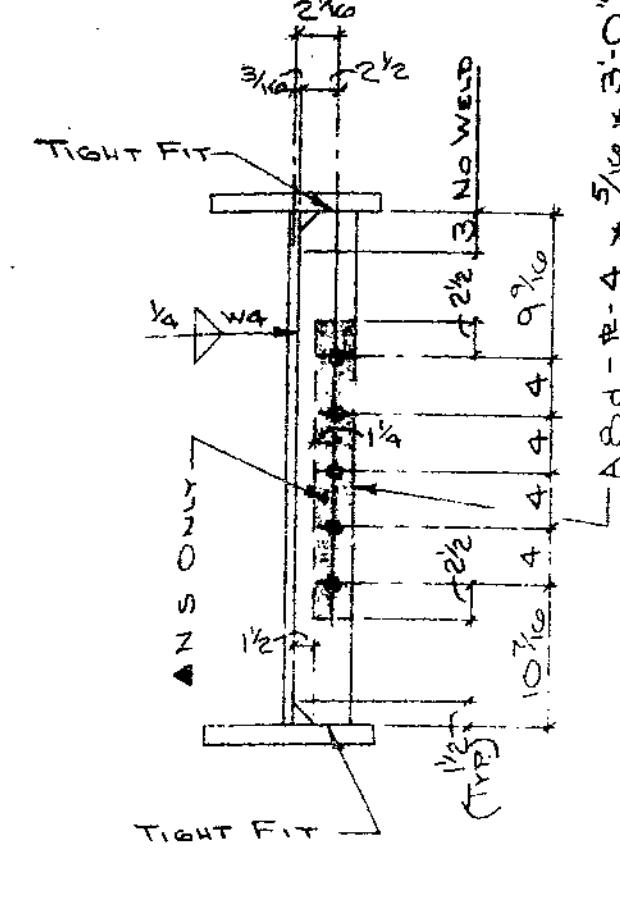
SECTION B-B



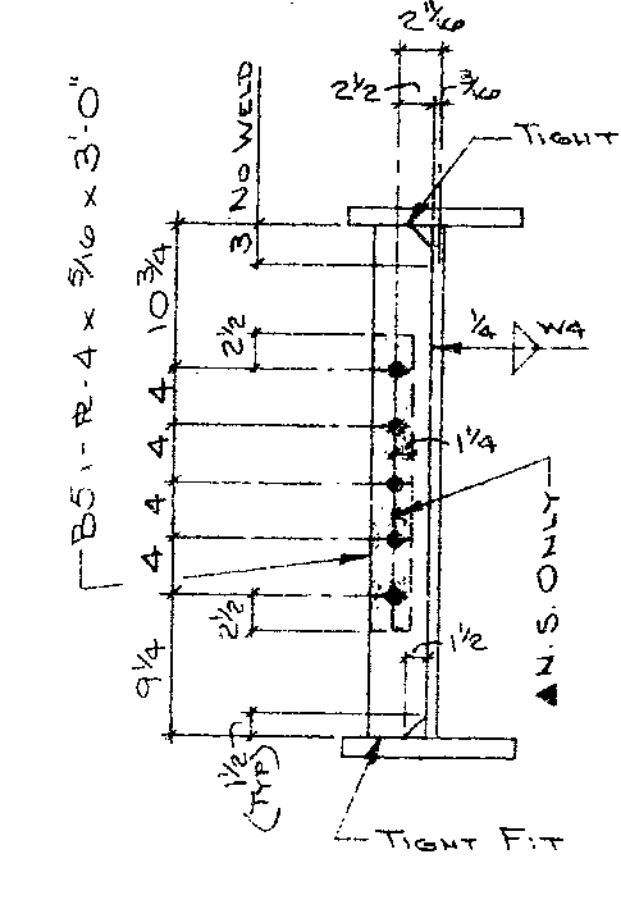
SECTION B-B



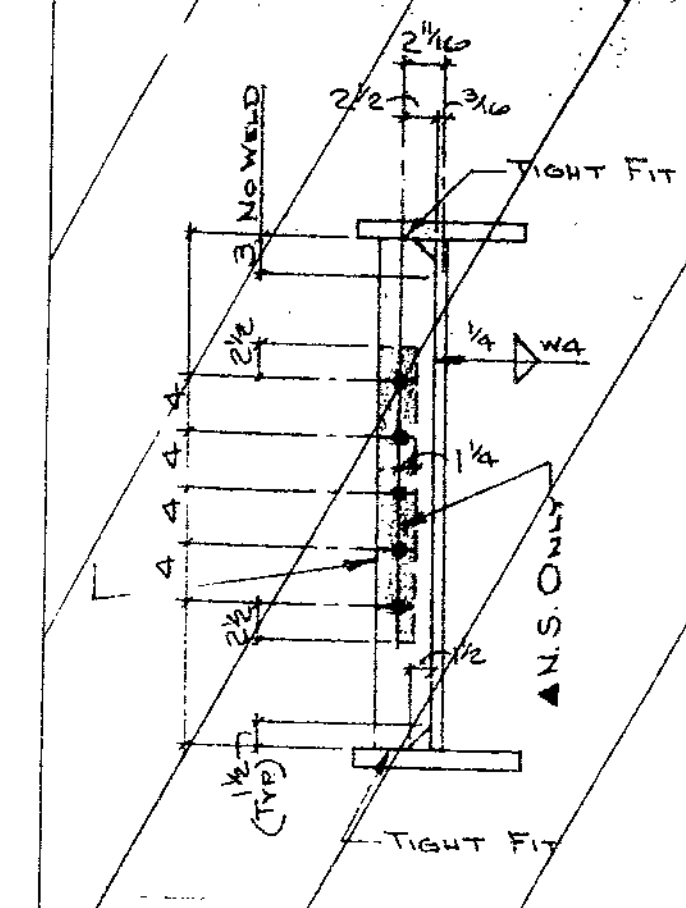
SECTION C-C



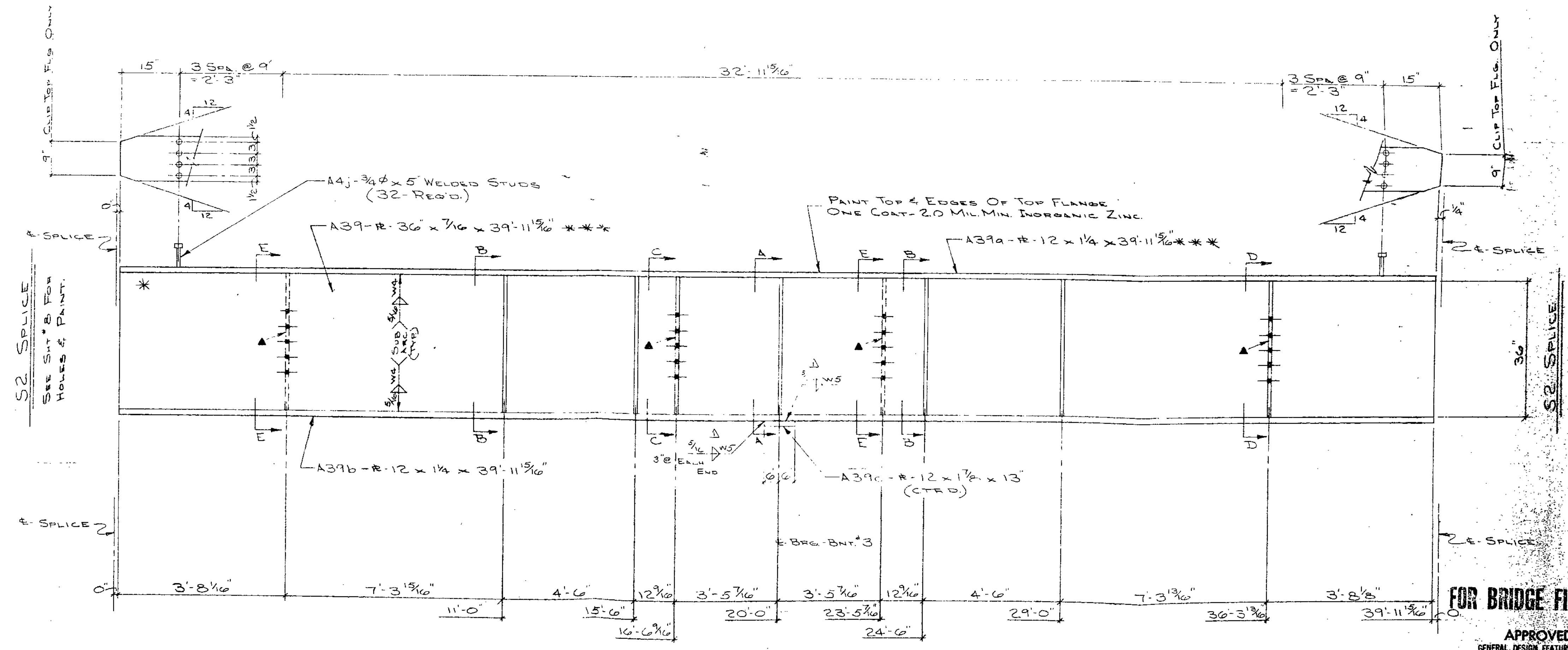
SECTION D-D



SECTION E-E



SECTION



101

***-DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
 ▲-PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

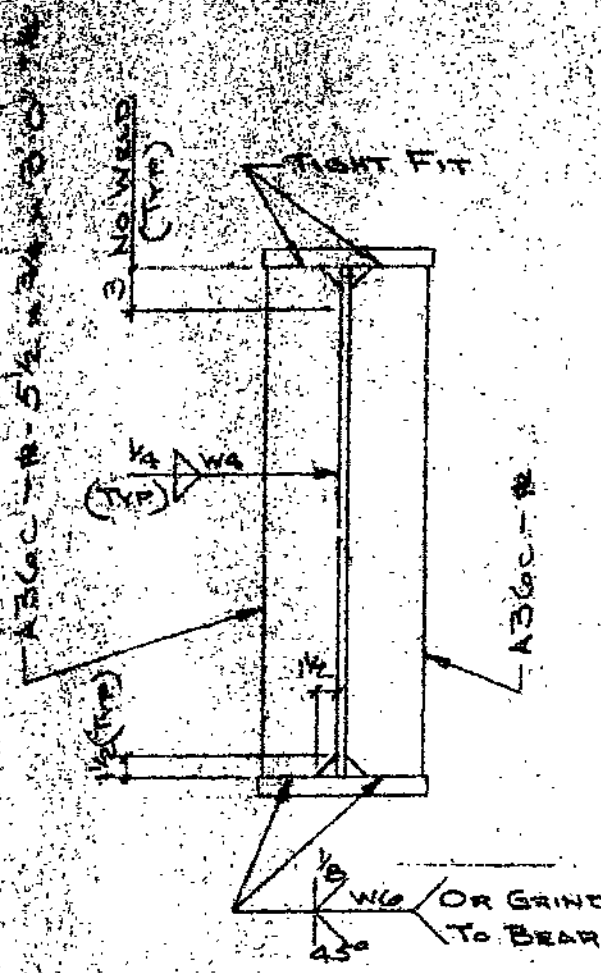
MAKE - ONE - A39

FOR BRIDGE FILES

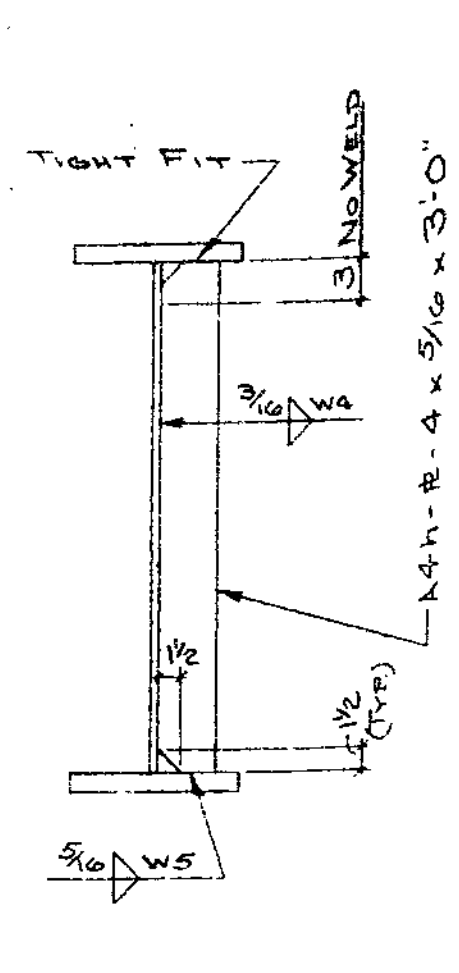
APPROVED
 GENERAL DESIGN FEATURES ONLY
 MAR 5, 1980
 MISSOURI HIGHWAY & TRANSPORTATION DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE	
				NO.	FOR	DATE	NO.	FOR	DATE
SYSTEM B - TYPE II				6	11	3-4-80			
BOILTS 3/4" UNLESS NTD.									
OPEN HLS. 1 3/16" UNLESS NTD.									
DIAL 635-6121				DELONG'S INC.		DIX RD. & IND. DR.		JEFFERSON CITY, MISSOURI	
CHECKED BY				DATE		DATE		DATE	
GHO				3-4-79		3-4-80		3-4-80	
REMARKS				REMARKS		REMARKS		REMARKS	
CHANGED WELD SIZE @ BRG.				CHANGED WELD SIZE @ BRG.		CHANGED WELD SIZE @ BRG.		CHANGED WELD SIZE @ BRG.	
JOB # U071-71 U.F.T.-(A) (20)				JOB # U071-71 U.F.T.-(A) (20)		JOB # U071-71 U.F.T.-(A) (20)		JOB # U071-71 U.F.T.-(A) (20)	
LOCATION JACKSON COUNTY, MO.				LOCATION JACKSON COUNTY, MO.		LOCATION JACKSON COUNTY, MO.		LOCATION JACKSON COUNTY, MO.	
ARCH. ENGR. MO. STATE LICENSE NO. 12345				ARCH. ENGR. MO. STATE LICENSE NO. 12345		ARCH. ENGR. MO. STATE LICENSE NO. 12345		ARCH. ENGR. MO. STATE LICENSE NO. 12345	

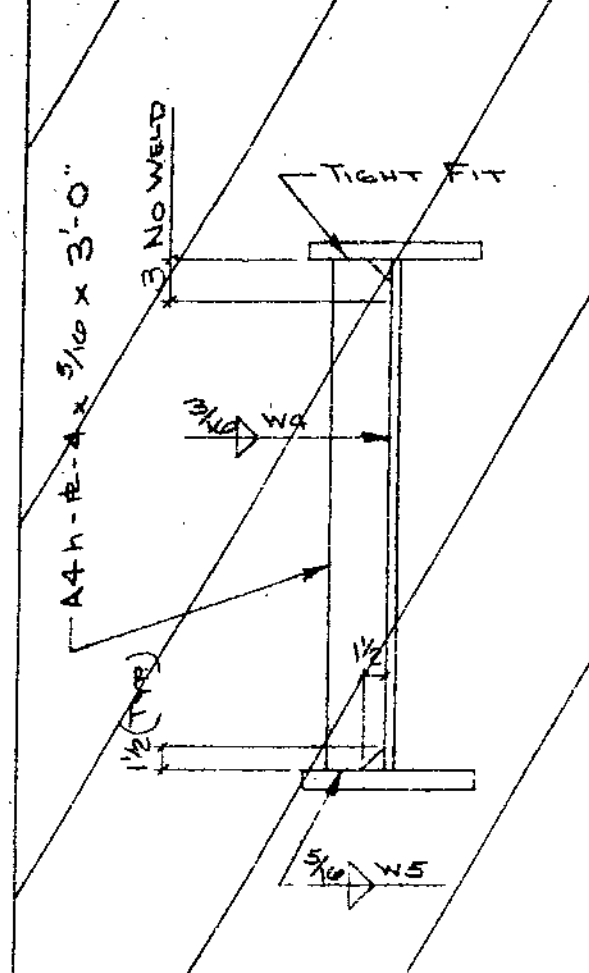
A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



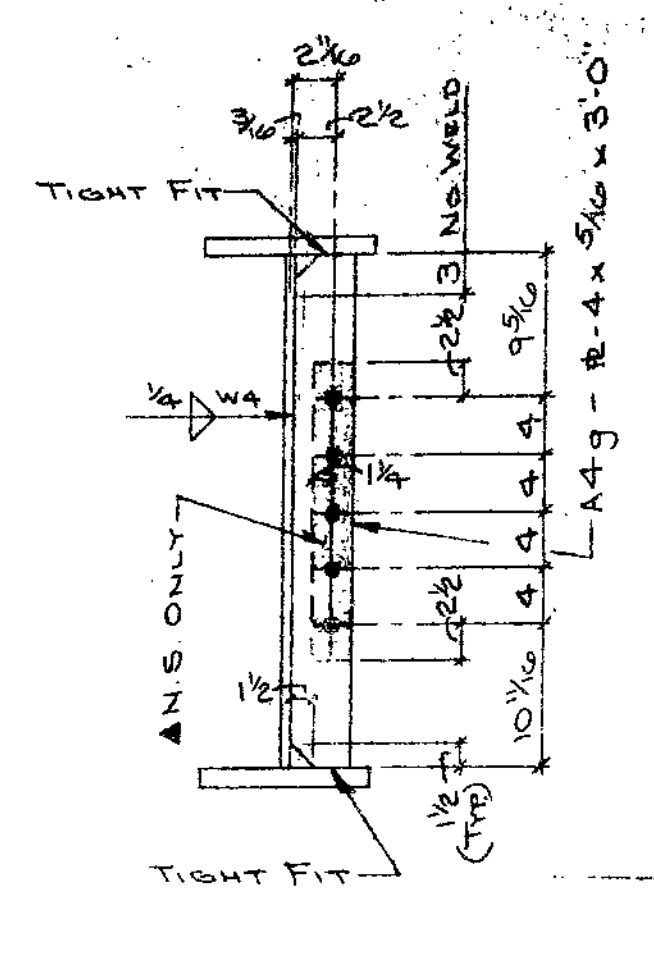
SECTION A-A



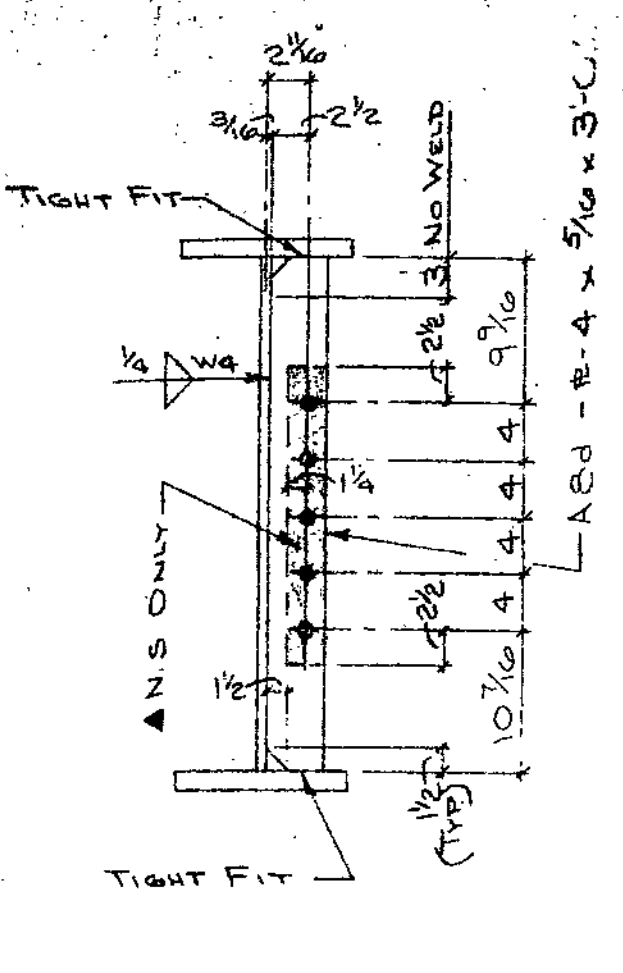
SECTION B-B



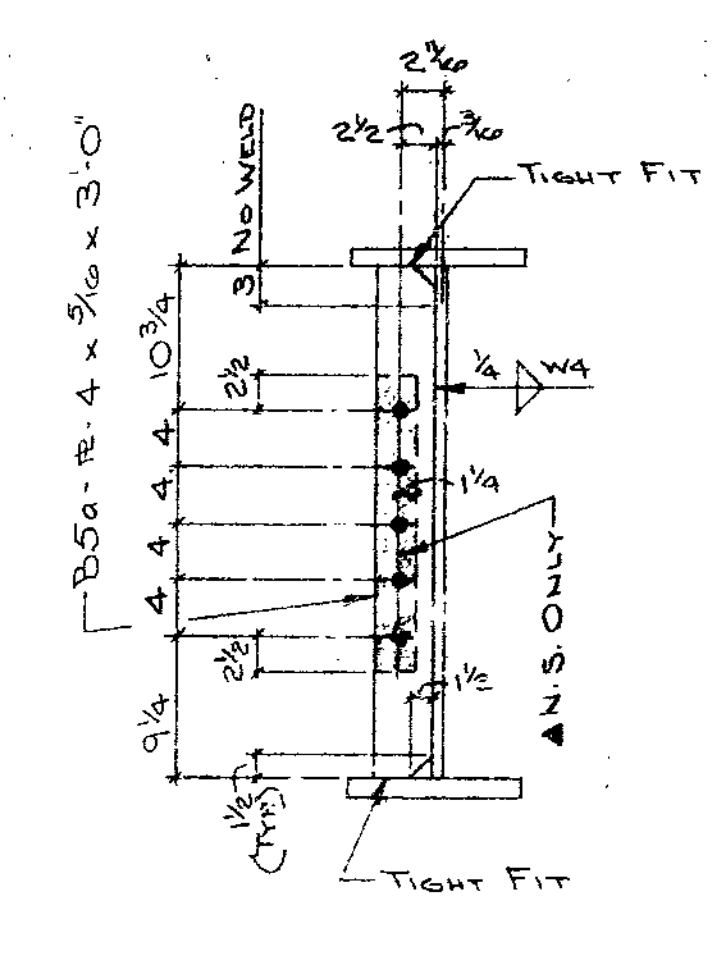
SECTION B-B



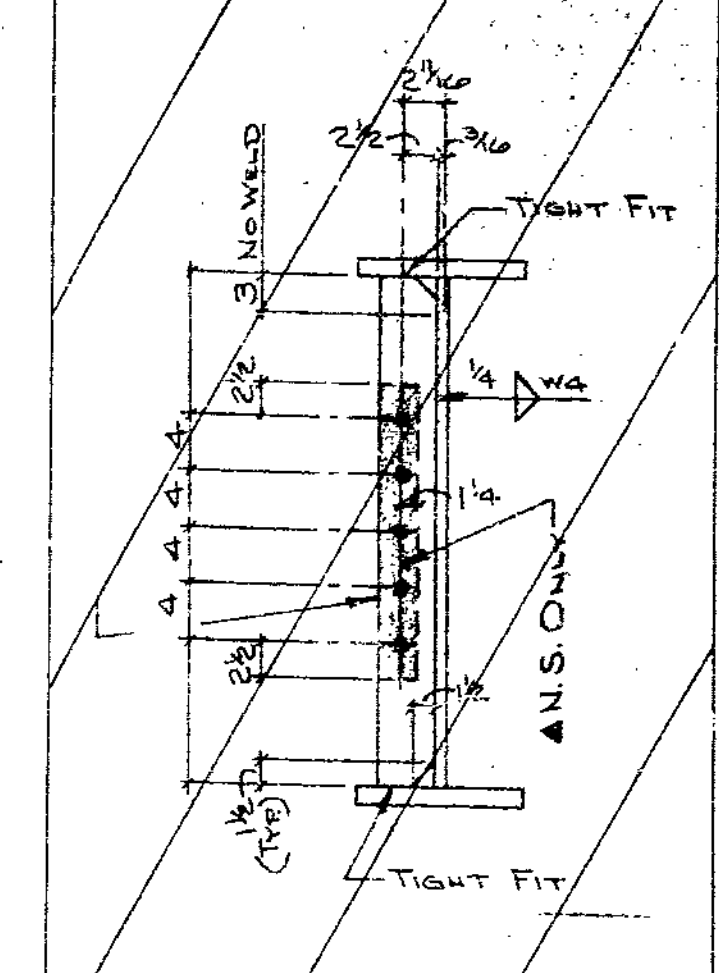
SECTION C-C



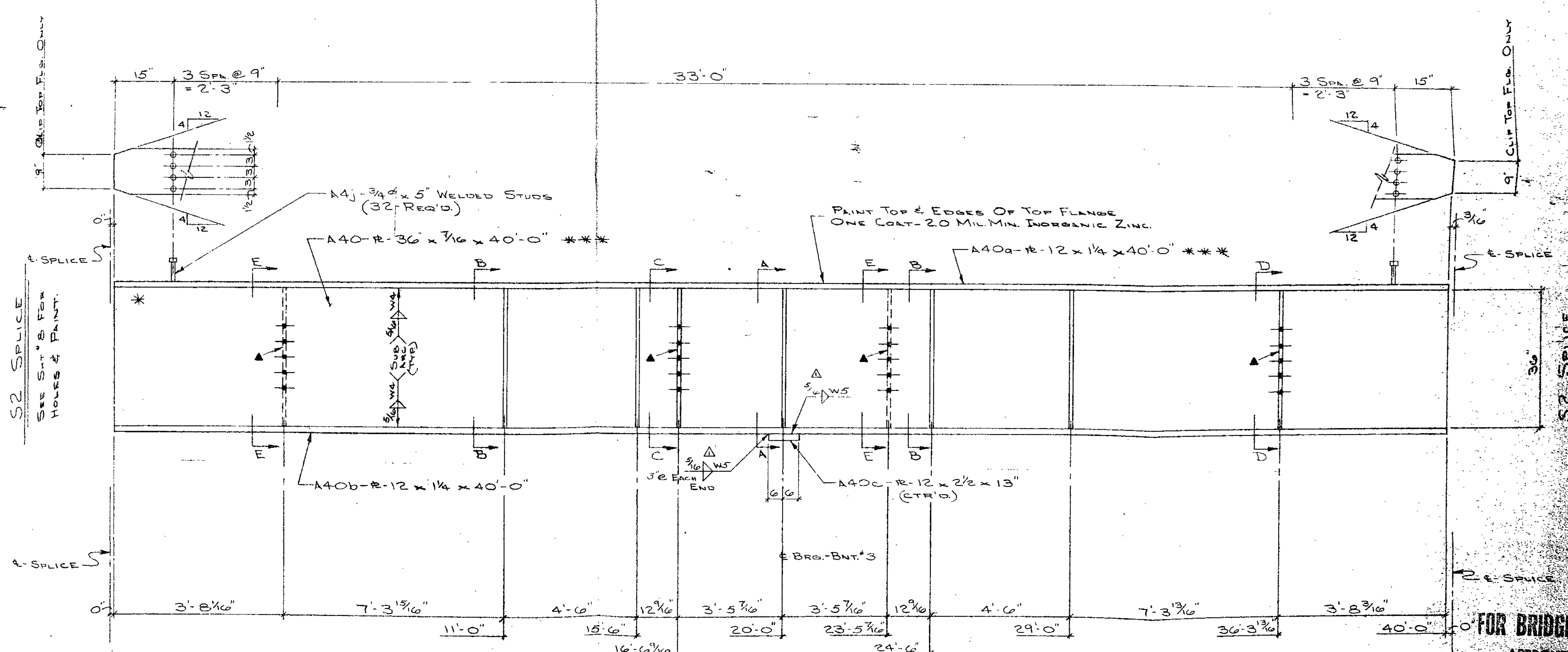
SECTION D-D



SECTION E-E



SECTION



102

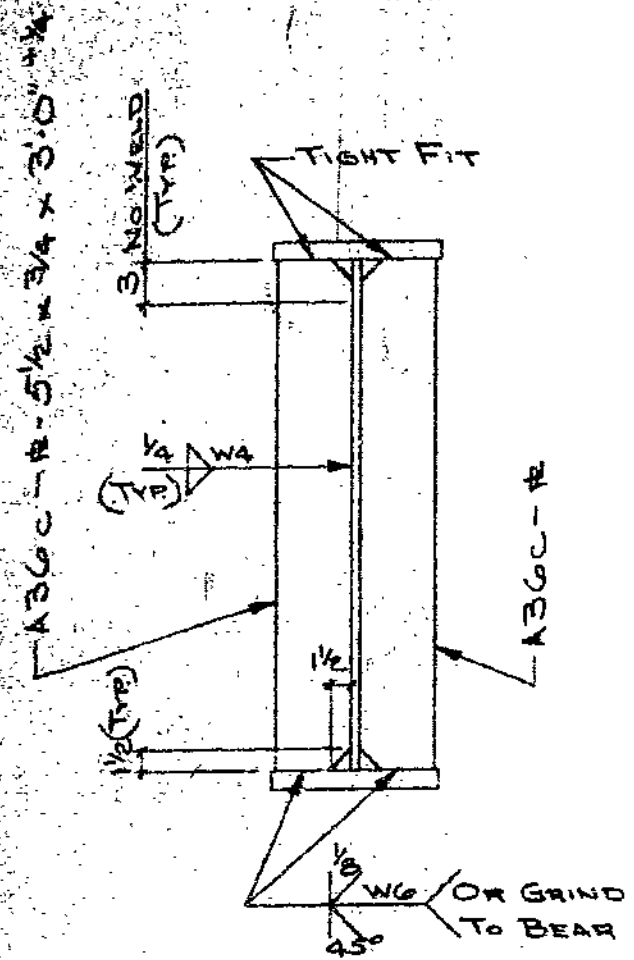
***- DENOTES NOTCH TOUGHNESS OF 15 FT./LBS @ 40° F. REQ'D.
 A- PAINT ONE COAT- 1.5 MIL MIN.- 2.5 MIL MAX. INORGANIC ZINC.

MAKE - ONE - A40

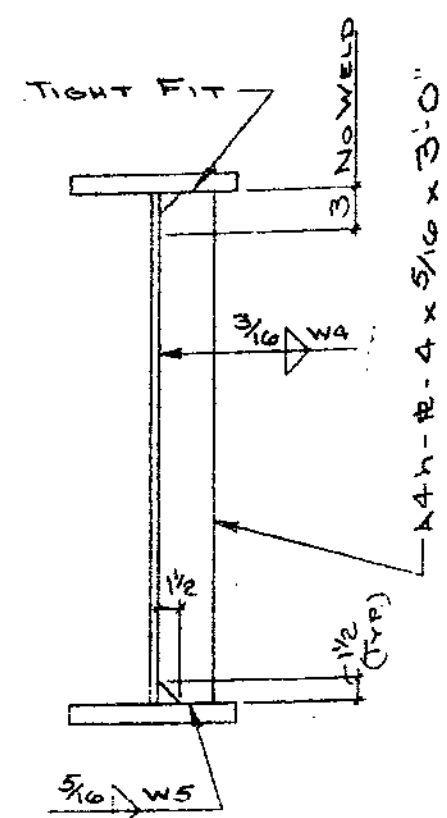
FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 MAR 5 1980
 MISSOURI HIGHWAY & TRANSPORTATION DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS	
		NO.	FOR	DATE	NO.	FOR	DATE
		SYSTEM B - TYPE II	6	May 3-9-80			
		BOLTS 3/4"		UNLESS NTD.			
		OPEN HES. 1 3/16"		UNLESS NTD.			
<p>DELONG'S INC. DIAL 635-6121 JEFFERSON CITY, MISSOURI</p>				DATE 6-19-79 CHECKED BY DATE 7-31-79		DATE 6-19-79 MK. BY DATE 7-31-79	
BEAM & PLATE BEAM CONN. BASE & CAP PLATE H. COL. PIPE COL.				JOB 4-0071-71 LOCATION APPROVED			

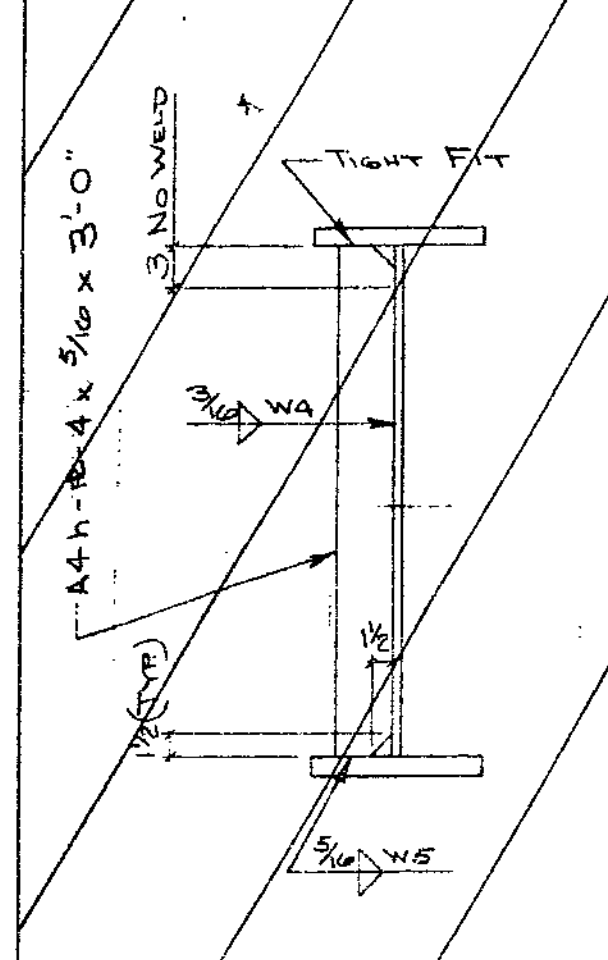
A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AN AP AS AT AU AV AW AX AY AZ



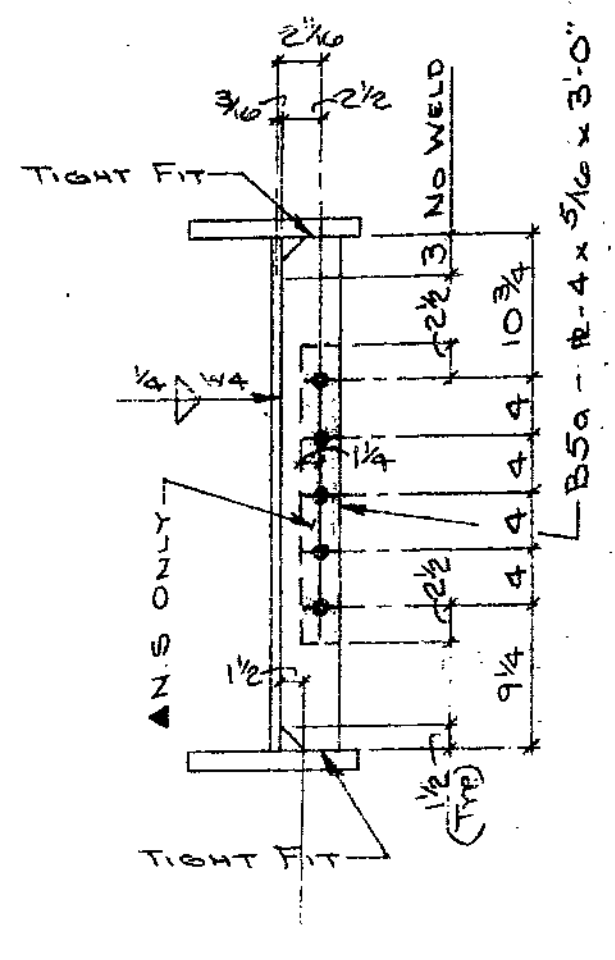
SECTION A-A



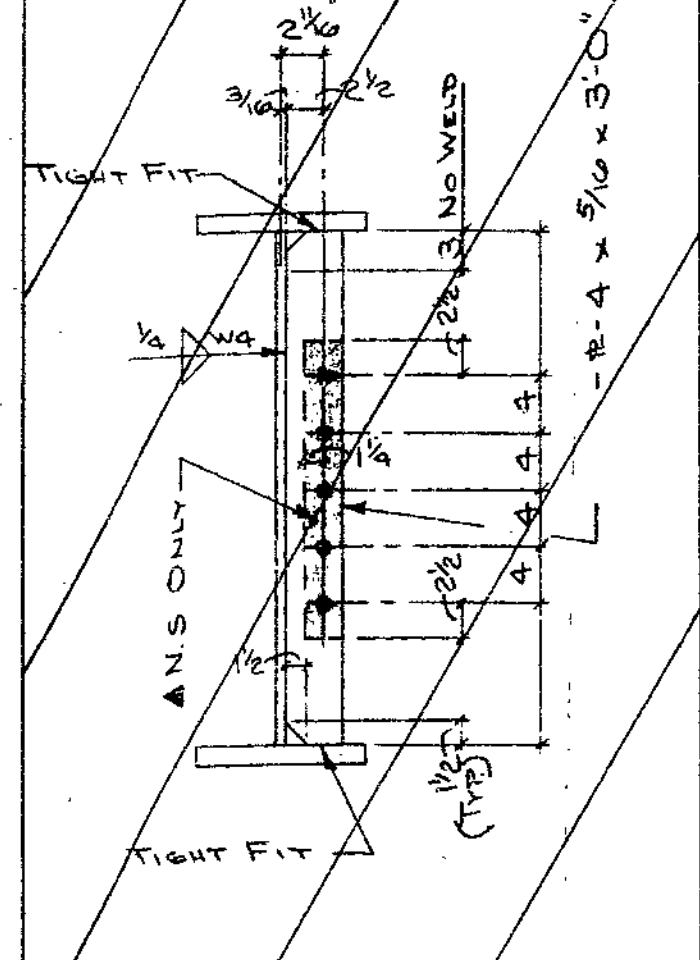
SECTION B-B



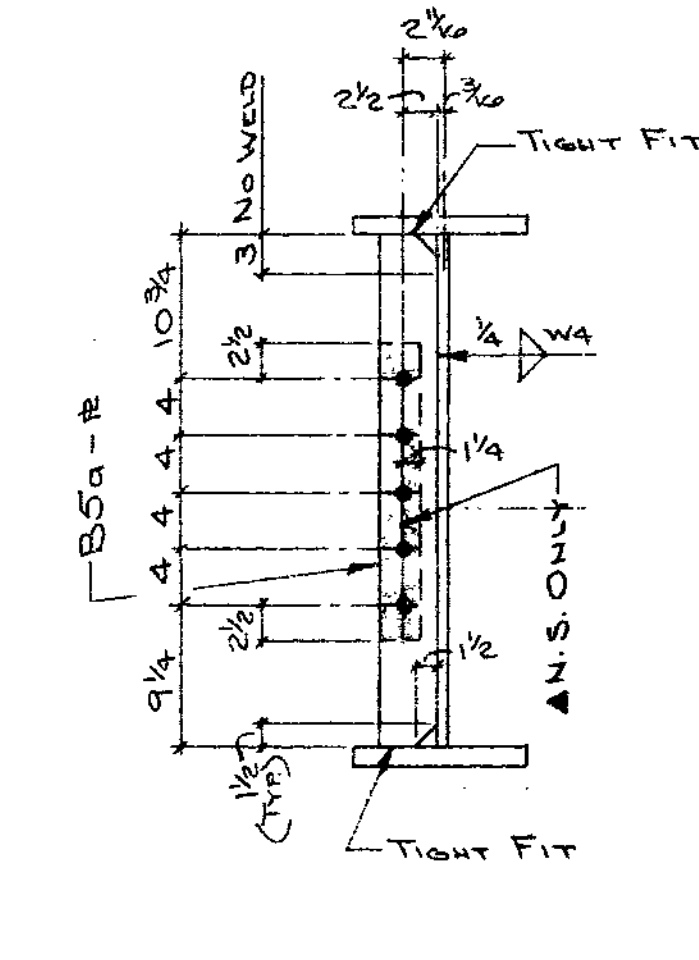
SECTION B-B



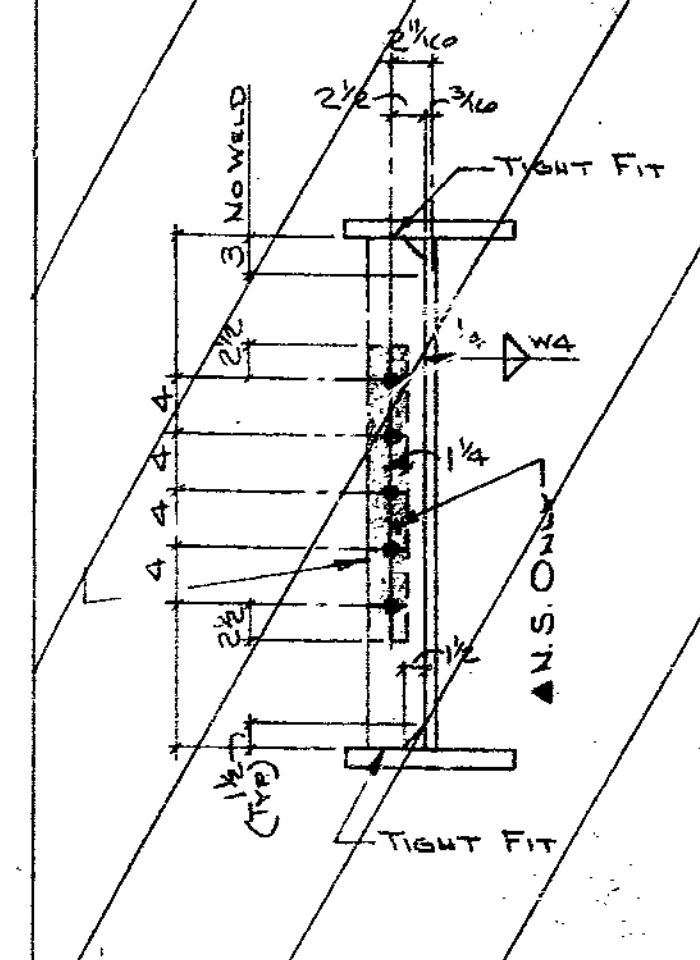
SECTION C-C



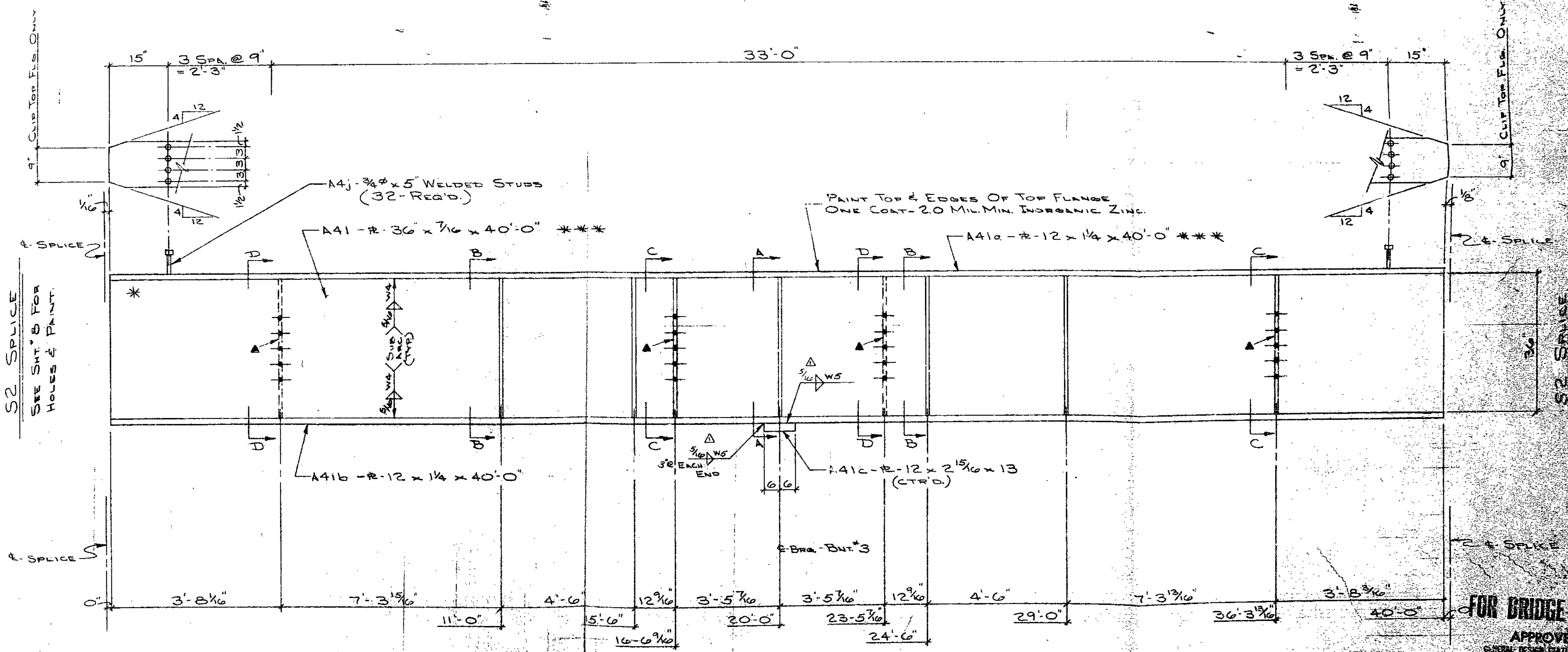
SECTION D-D



SECTION E-E



SECTION F-F



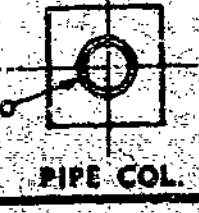
103

*** - DENOTES NOTCH TOUGHNESS OF 15 FT. LB. @ 40° F. REQ'D.
 A - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. INORGANIC ZINC.

MAKE -- ONE -- A41

FOR BRIDGE FILE
 APPROVED
 SPECIAL DESIGN FEATURES ONLY
 MAR 5 1977
 DESIGNER
 CHECKER
 PROJECT ENGINEER
 PROJECT MANAGER

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

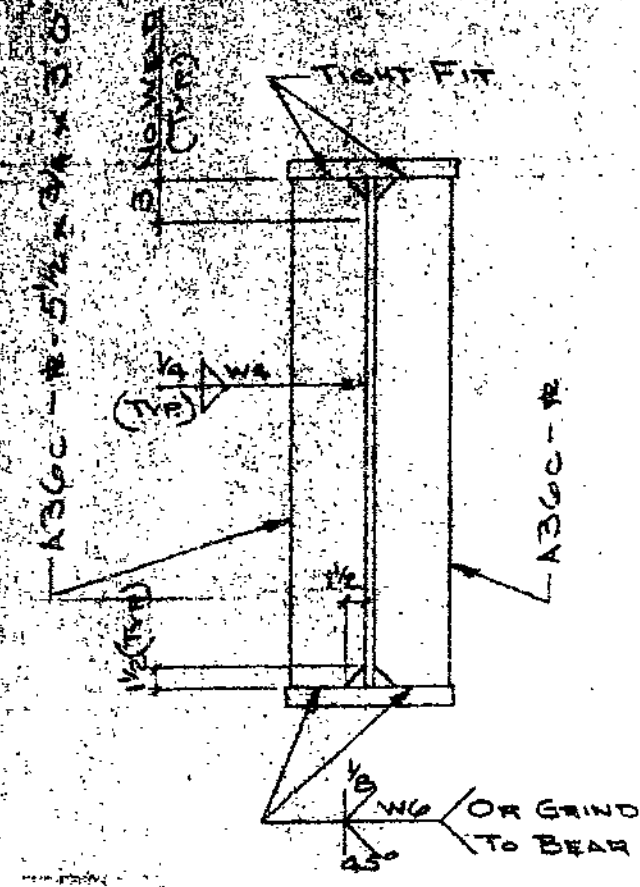


P A M T	NO.	REV.	PRINT RECORD		
			DATE	BY	CHKD
			3-4-77		

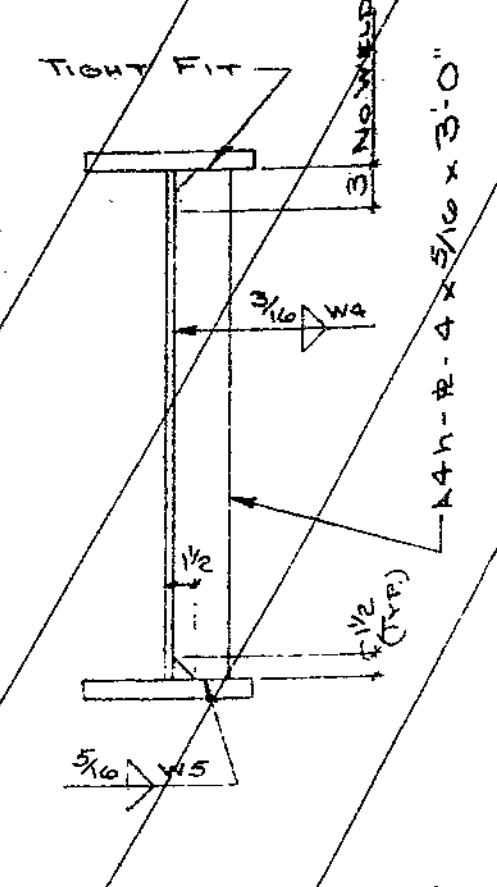
DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 635-6121

DATE	BY	REVISION
3-4-77	J.W.N.	1
		2
		3

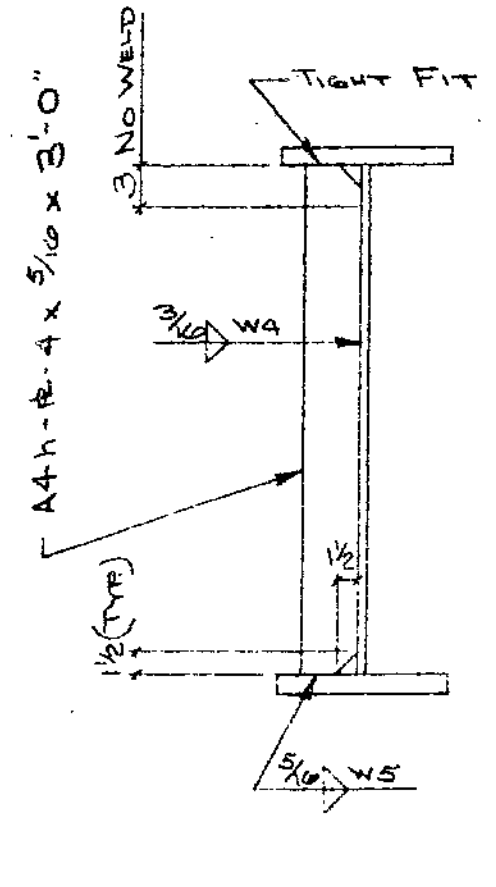
A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ



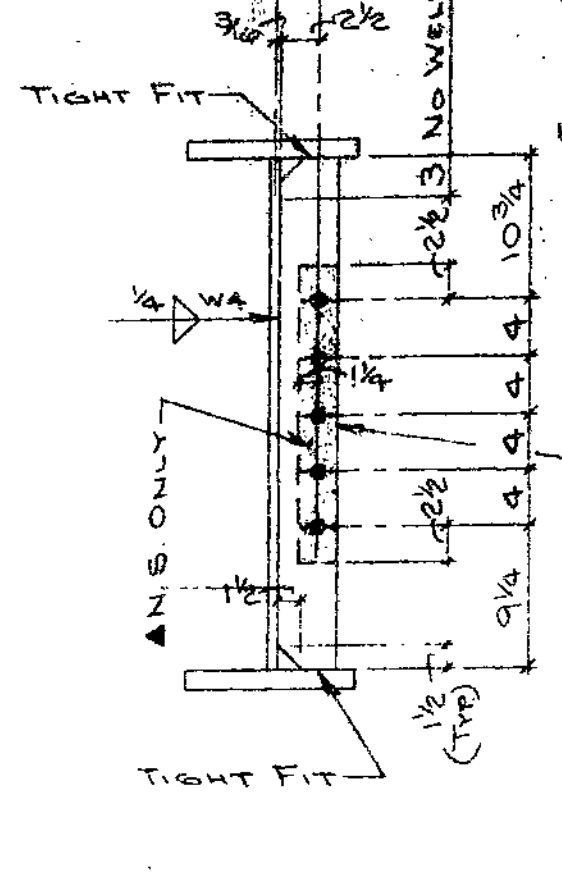
SECTION A-A



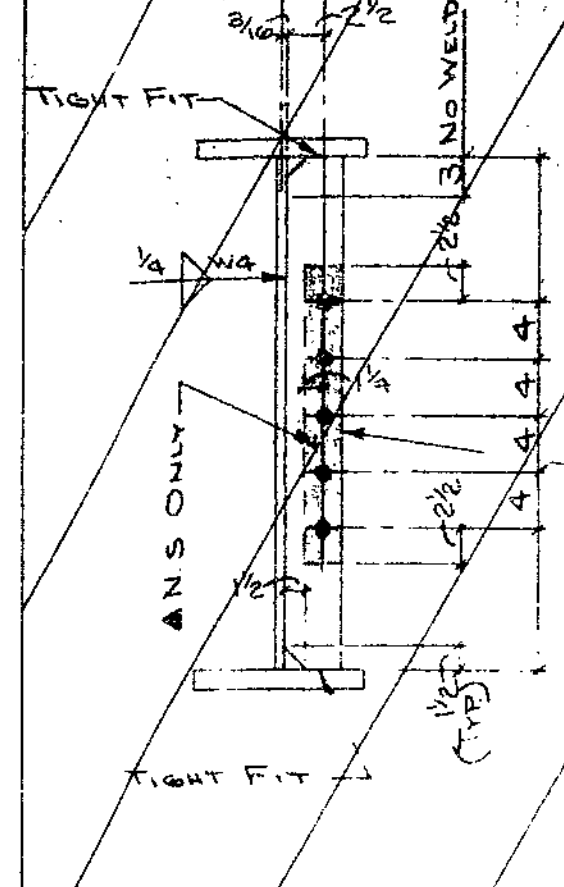
SECTION B-B



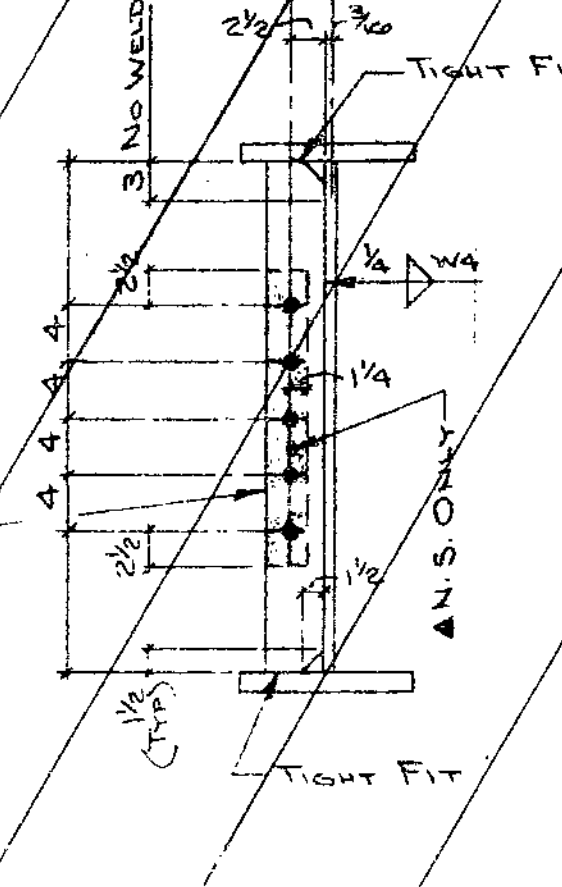
SECTION B-B



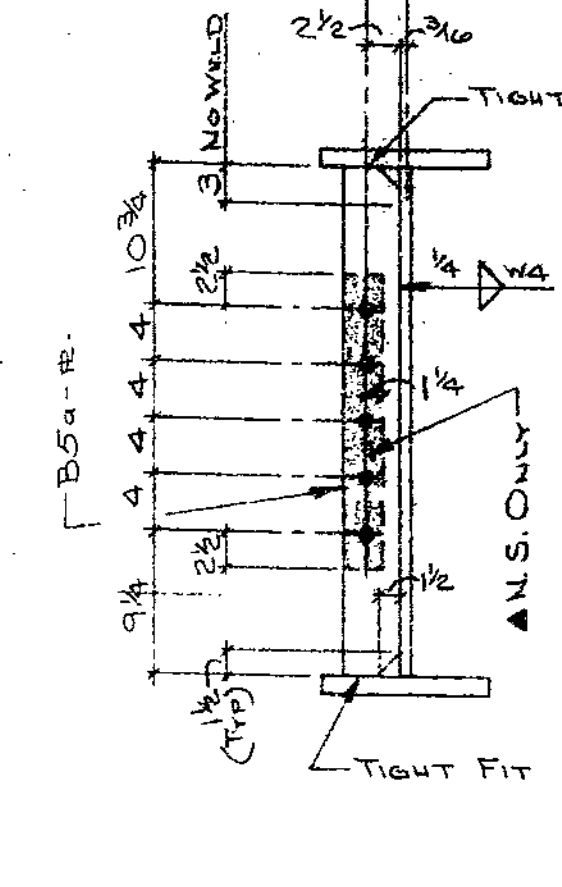
SECTION C-C



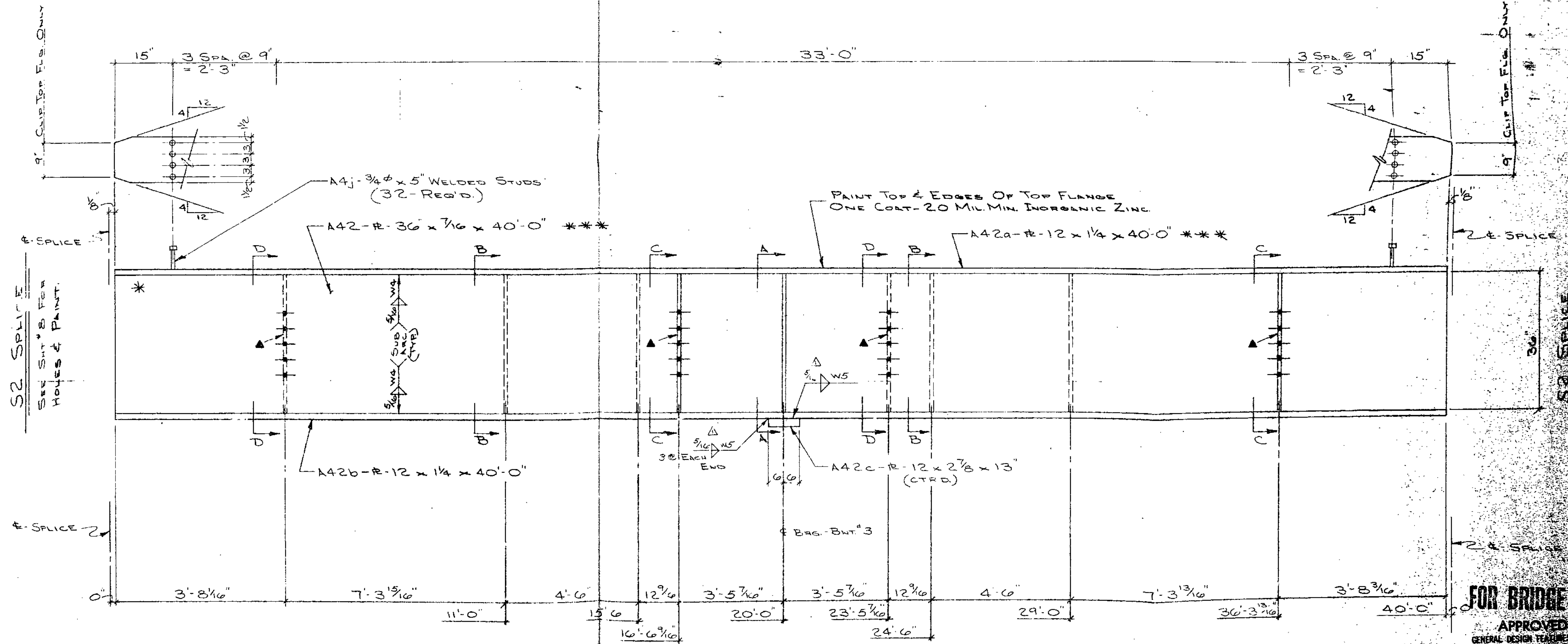
SECTION



SECTION



SECTION D-D



104

*** Denotes Notch Toughness of 15 FT-LBS @ 40° F. Req'd.
 - Paint One Coat - 1.5 MIL MIN - 2.5 MIL MAX - INORGANIC ZINC.

MAKE - ONE - A42

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES
 MAR 5 1980
 MISSOURI DEPARTMENT OF TRANSPORTATION DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

	<p>1/4 WELD AS SHOWN</p> <p>BASE OF CAP PLATE</p> <p>PIPE COLL.</p>
--	---

PRINT		RECORD	
NO.	FOR	NO.	FOR
6	REV	8-4-80	

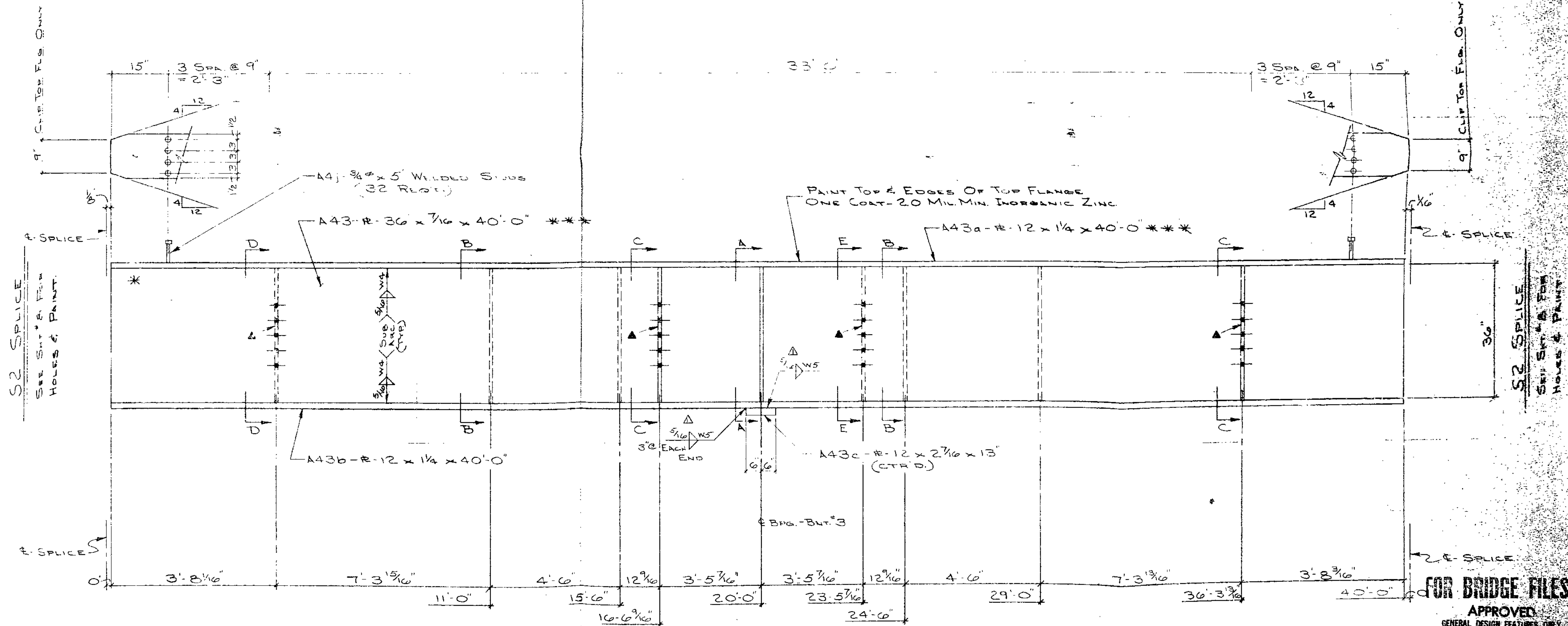
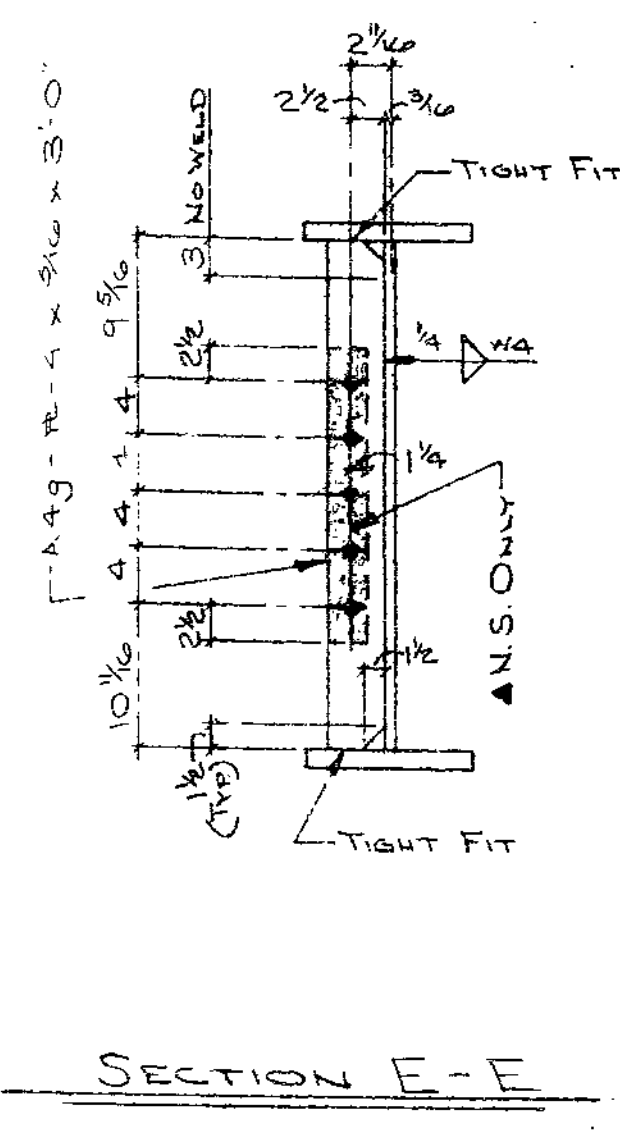
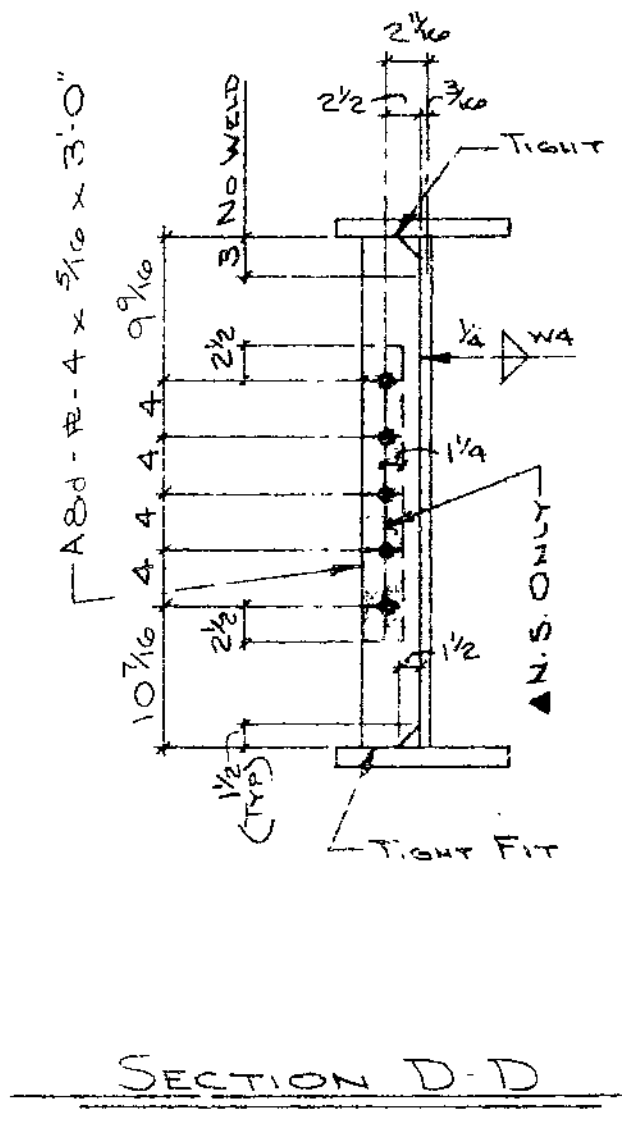
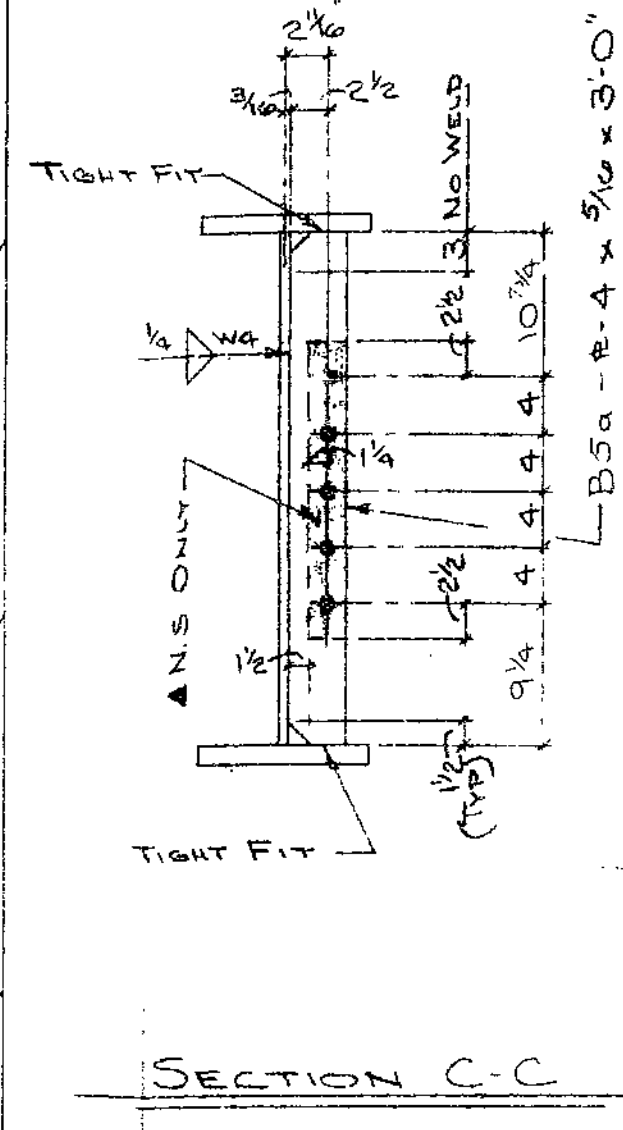
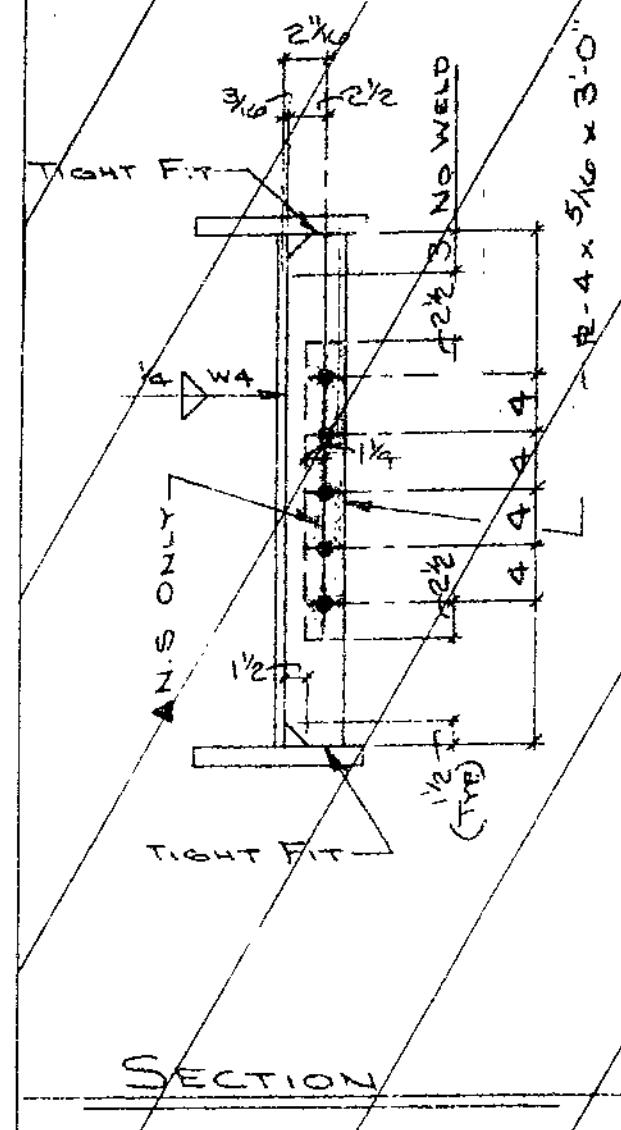
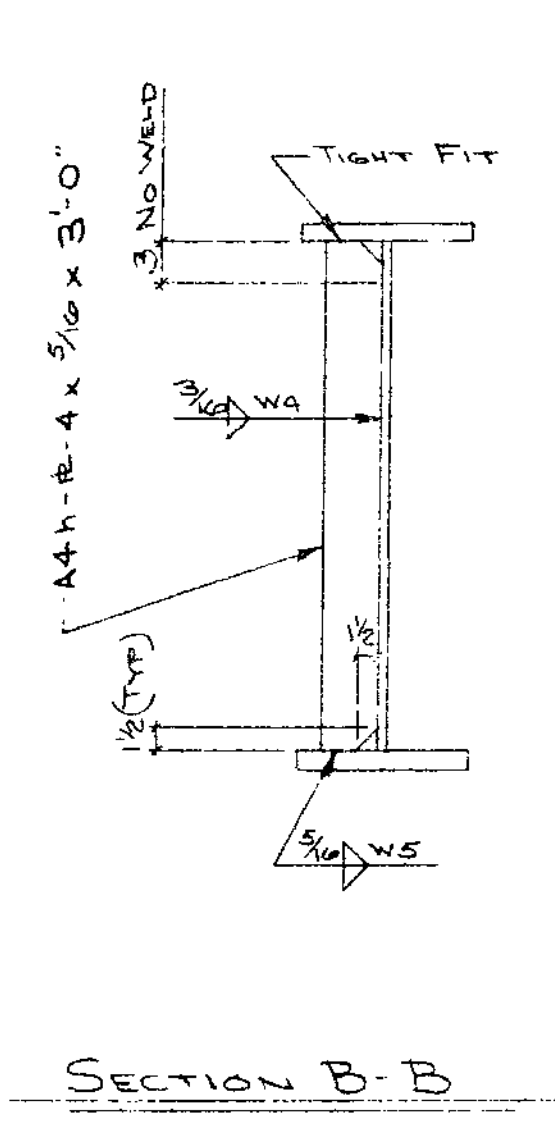
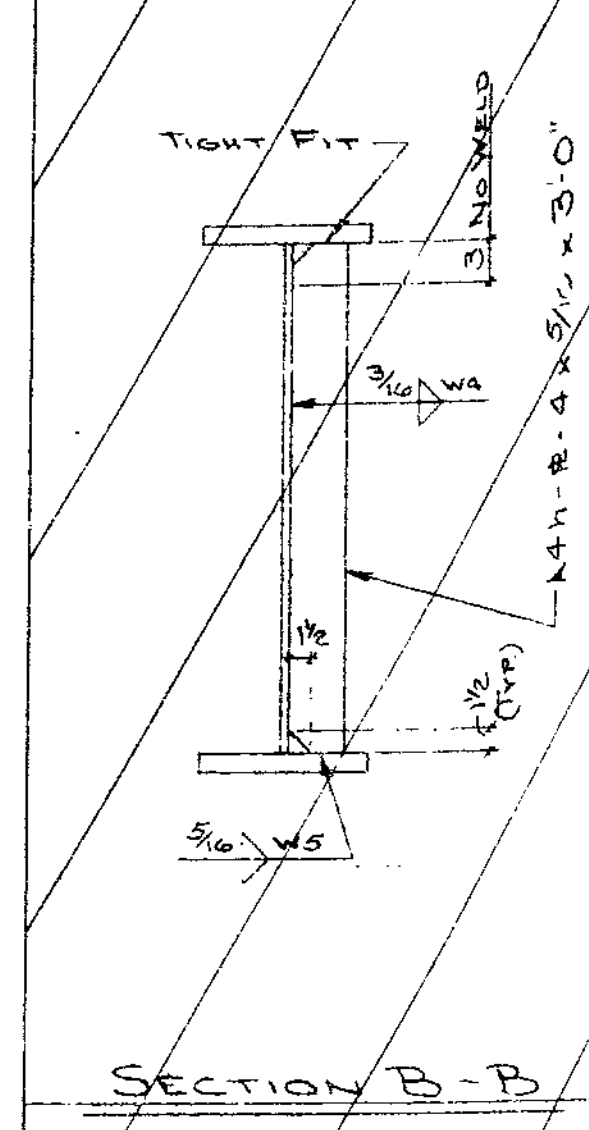
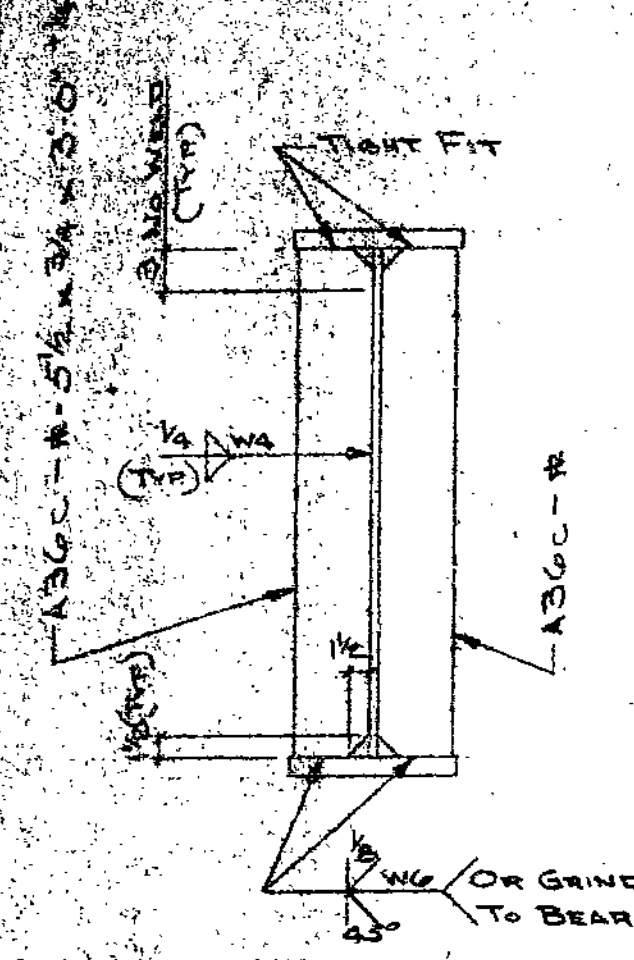
BOLTS	3/4"	UNLESS NTD.
RIVERS	1 3/16"	UNLESS NTD.
OPEN HLS.	1 3/16"	UNLESS NTD.

DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 635-6121

<p>DETAILED BY J. W. N.</p> <p>DATE 6-19-79</p> <p>CHECKED BY C.H.D.</p> <p>DATE 7-31-79</p>	<p>REVISIONS</p> <table border="1"> <tr> <th>DATE</th> <th>MK. BY</th> <th>REMARKS</th> </tr> <tr> <td>7-4-80</td> <td>A</td> <td>WELDED WELD SIZE @ 3/16"</td> </tr> </table>	DATE	MK. BY	REMARKS	7-4-80	A	WELDED WELD SIZE @ 3/16"
DATE	MK. BY	REMARKS					
7-4-80	A	WELDED WELD SIZE @ 3/16"					

<p>BRIDGE BLUE BOOK PUBLIC WORKS</p> <p>JOB NO. 10071-TH-10071-10071</p> <p>LOCATION: JEFFERSON COUNTY</p> <p>ARCH. NO. 10071-10071-10071</p>

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AO AP AS AT AU AV AW AX AY AZ

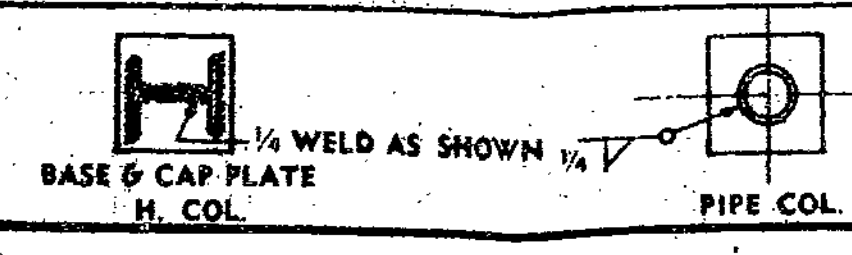
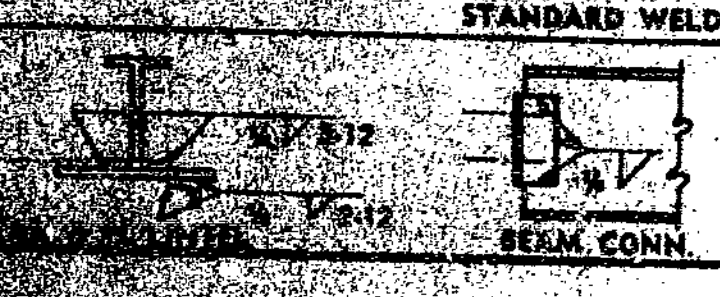


105

*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
 * - PAINT ONE COAT - 1.5 MIL MIN. - 2.5 MIL MAX. INORGANIC ZINC.

MAKE - ONE - 143

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 MAR 5 1980
 MISSOURI HIGHWAY & TRANSPORTATION DEPT.
 DIVISION OF BRIDGES



NO.	FOR	DATE	PRINT RECORD	
			NO.	FOR
6	11/14	9-4-80		

BOLTS UNLESS NTD.
 NUTS UNLESS NTD.
 OPEN HLS UNLESS NTD.

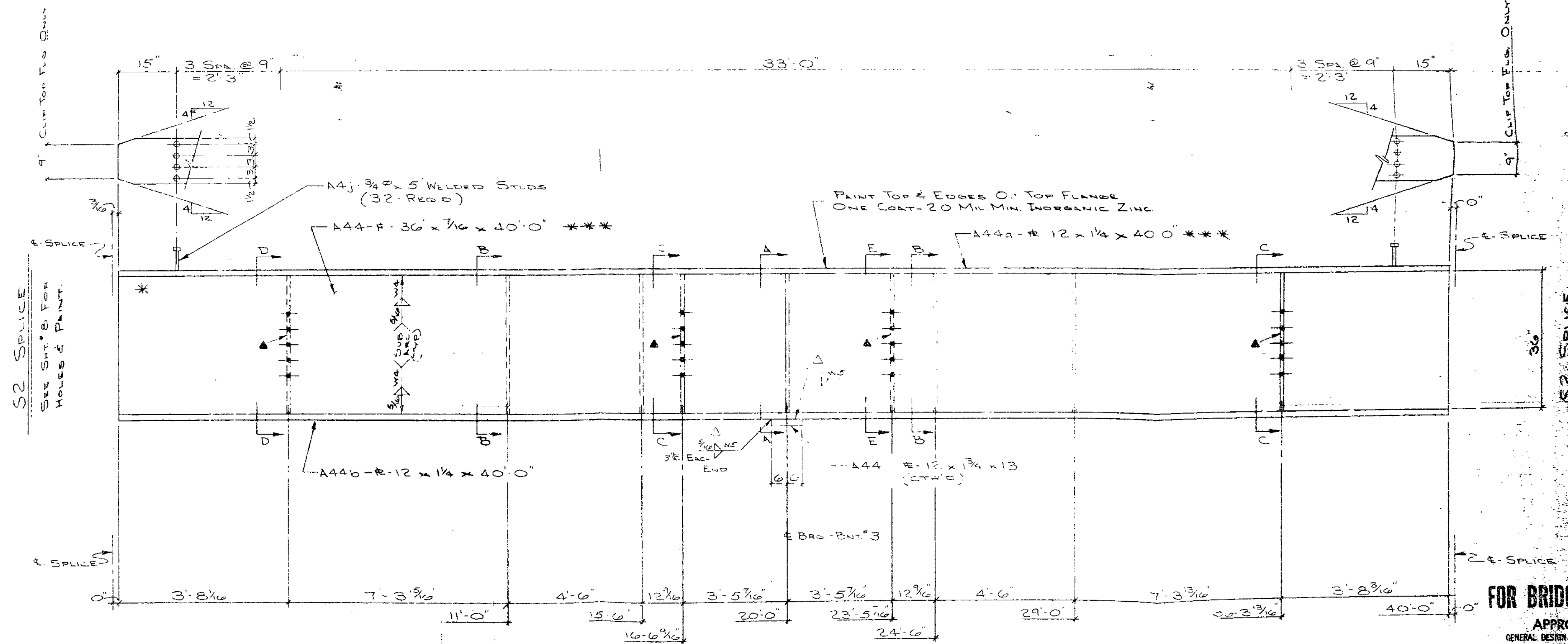
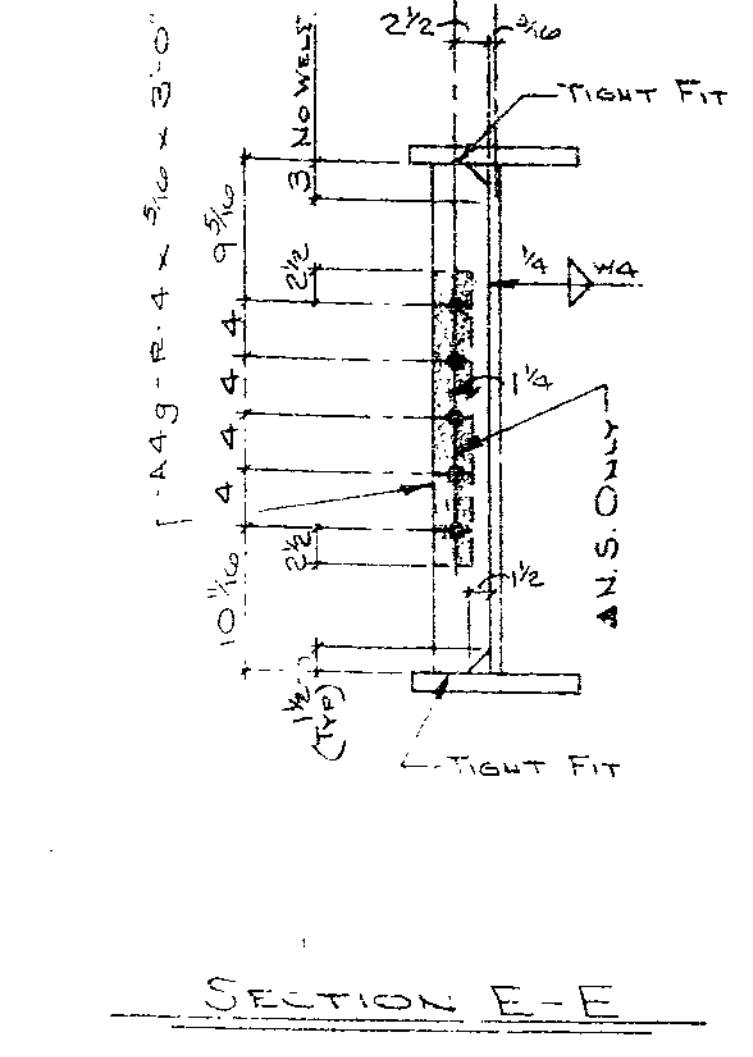
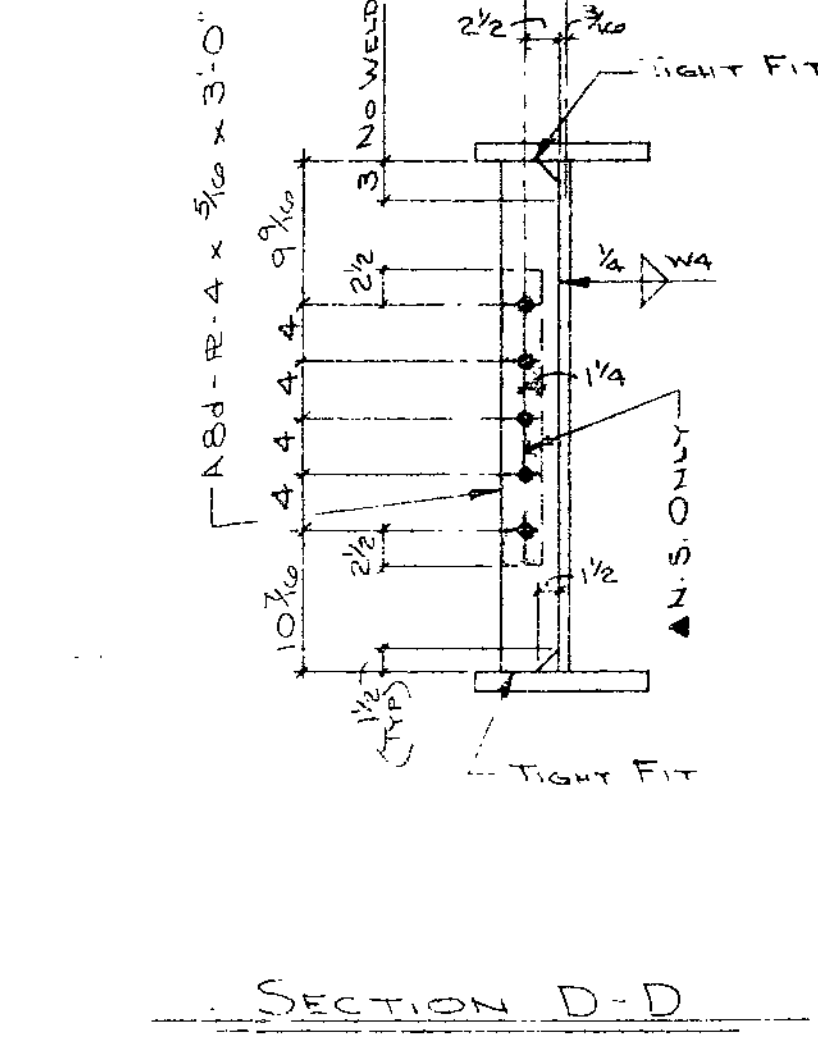
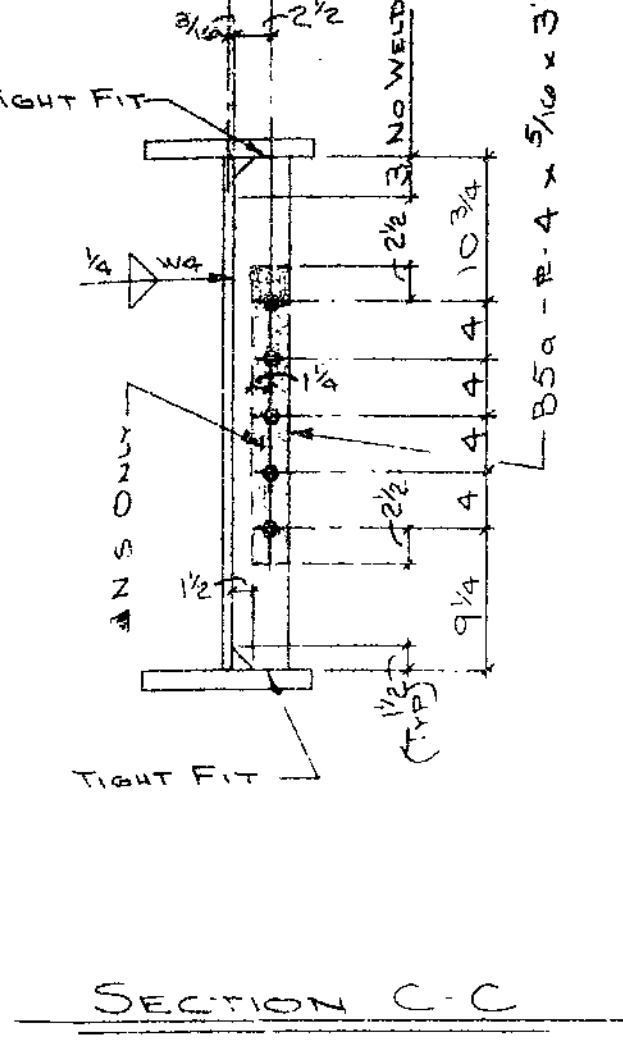
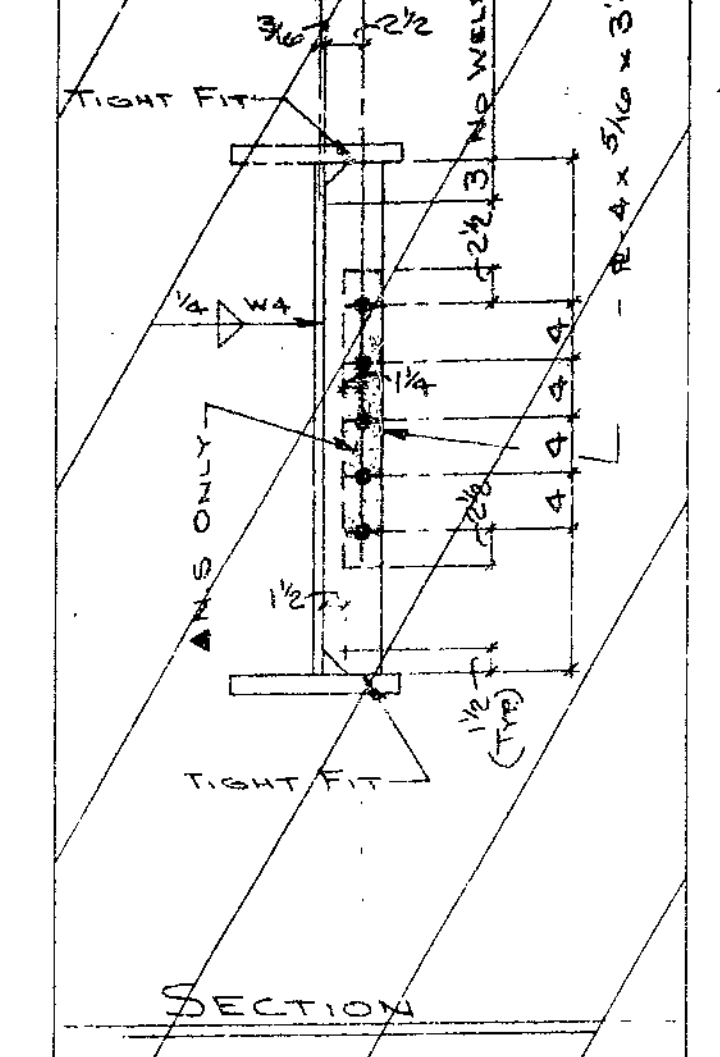
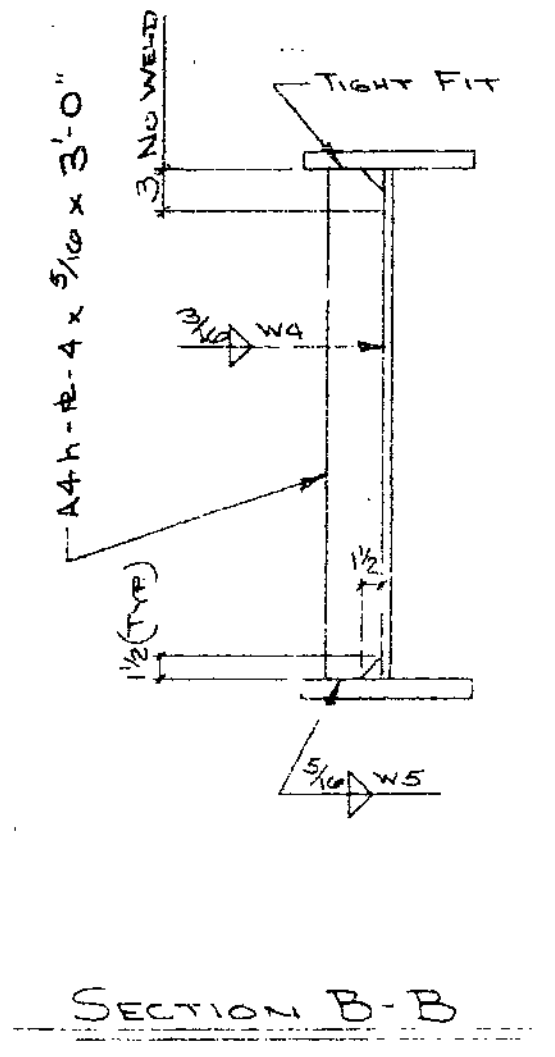
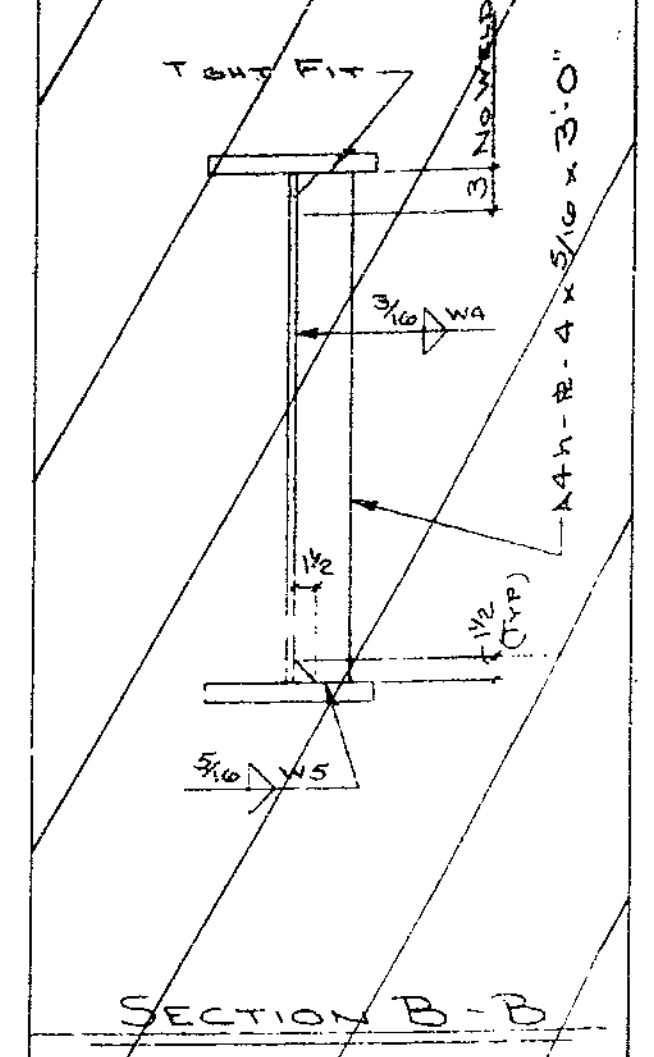
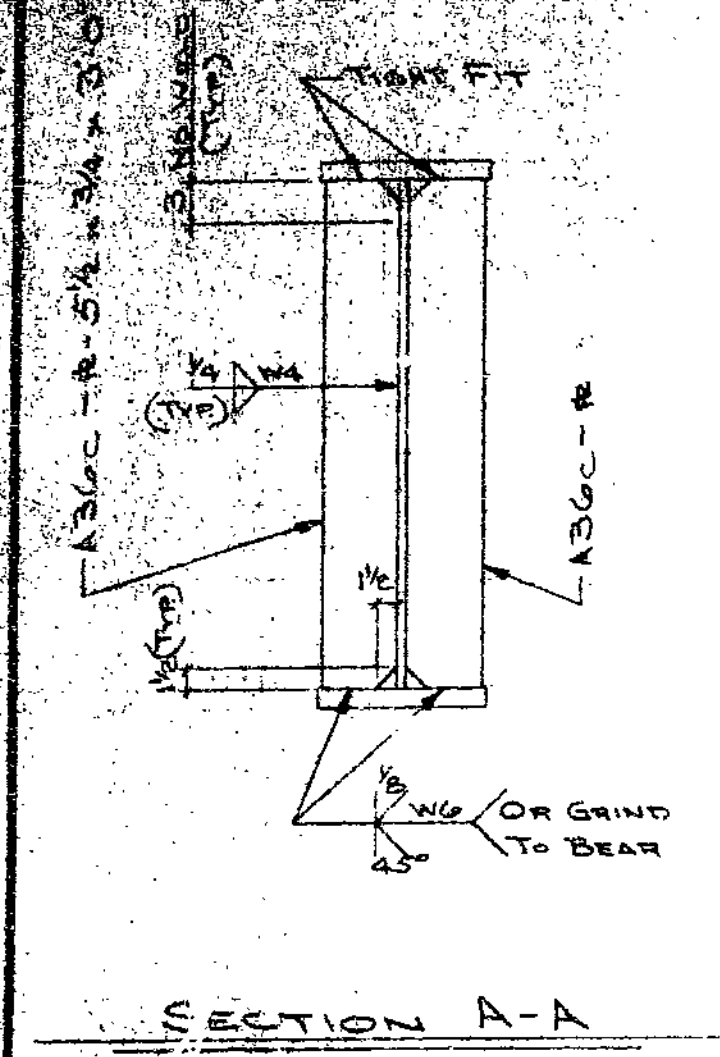
DE LONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI

DATE	MK BY	REVISIONS
9-4-80		CHANGED WELD SIZE @ END

CHECKED BY: [Signature]
 DATE: 7-27-79

BRIDGE	BLUE RIDGE BLVD
JOB NO.	4-1071-71 V-F 1-1-80
LOCATION	JACKSON COUNTY
DATE	10-2-80

A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



106

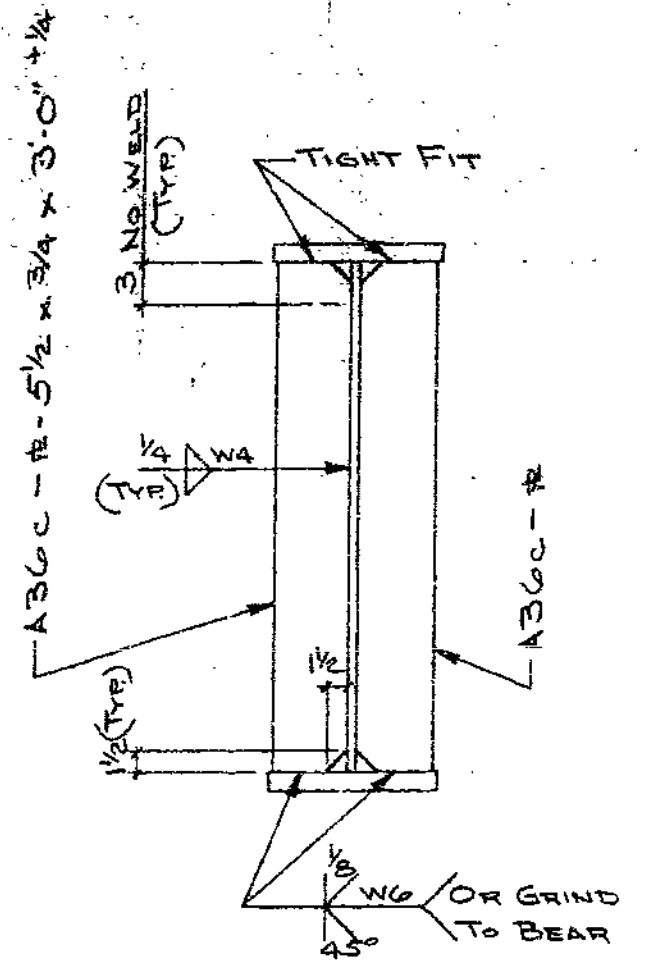
*** - DENOTES NOTCH TOUGHNESS OF 15 FT. LBS @ 40° F. REQ'D.
 ▲ - PAINT ONE COAT - 1.5 MIL MIN. - 2.5 MIL MAX. - INORGANIC ZINC.

MAKE - ONE - A44

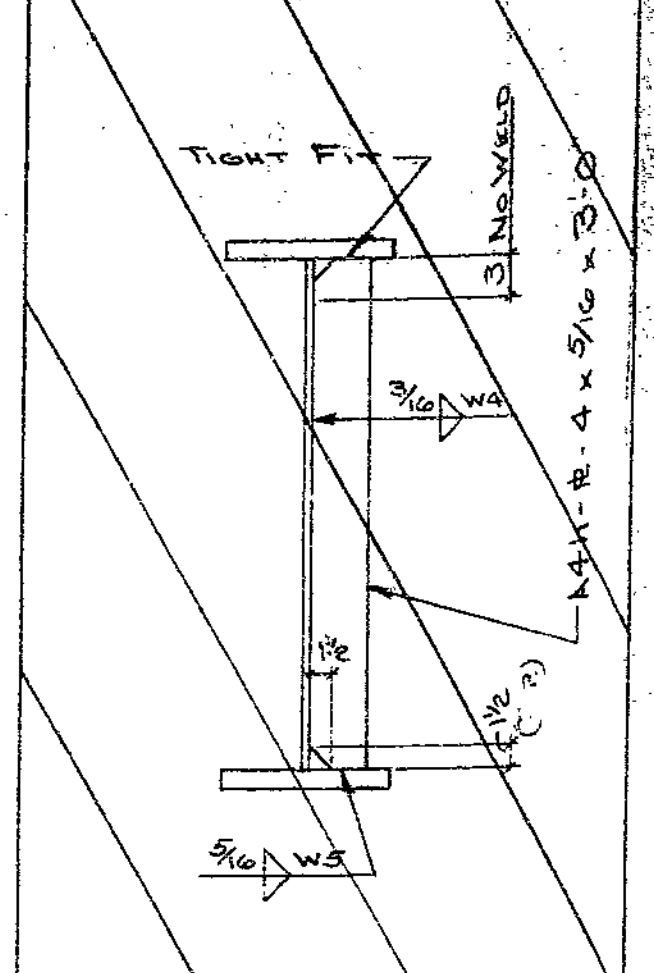
FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 MAR 5 1980
 MISSOURI HIGHWAY & TRANSPORTATION DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DE LONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 655-6121		REVISIONS		BRIDGE	
 1/4 WELD AS SHOWN BASE & CAP PLATE H. COL.	 PIPE CONN.	NO.	FOR			DATE	NO.	FOR	DATE
		SYSTEM B - TYPE II				DATE 6-20-78 3-4-80 CHU		PROJECT: Blue Ridge, Polio Underpass JOB: 4-0071-71 U-F-71-4(80) 4-71-71 LOCATION: JACKSON COUNTY, Rte. 71 ARCH. ENGR. MO. STATE HWY. DEPT.	
BOLTS 3/4" UNLESS NTD. RIVETS 1 1/2" UNLESS NTD. OPEN HLS. 1 3/16" UNLESS NTD.						CHECKED BY DATE 7/31/79			

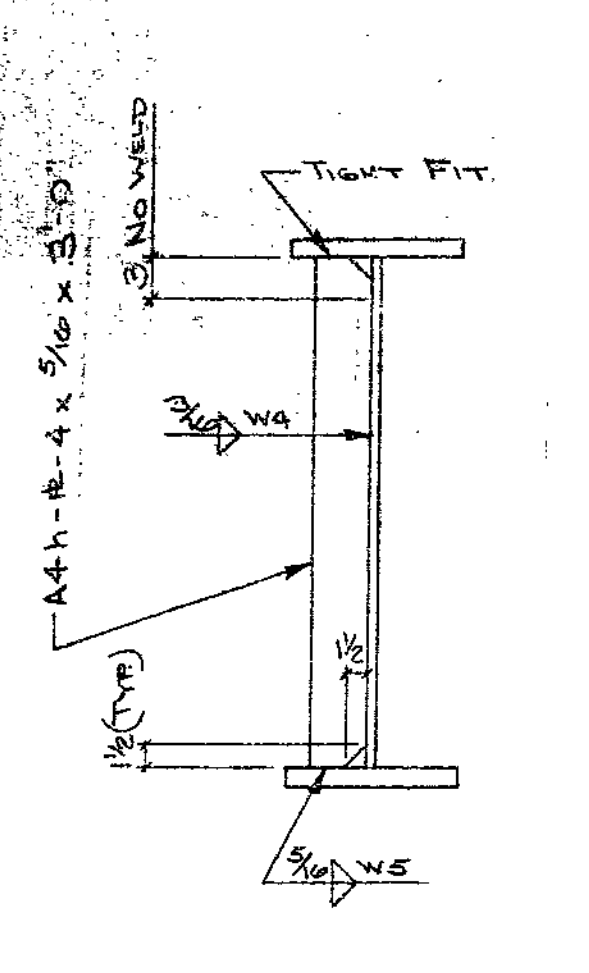
A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



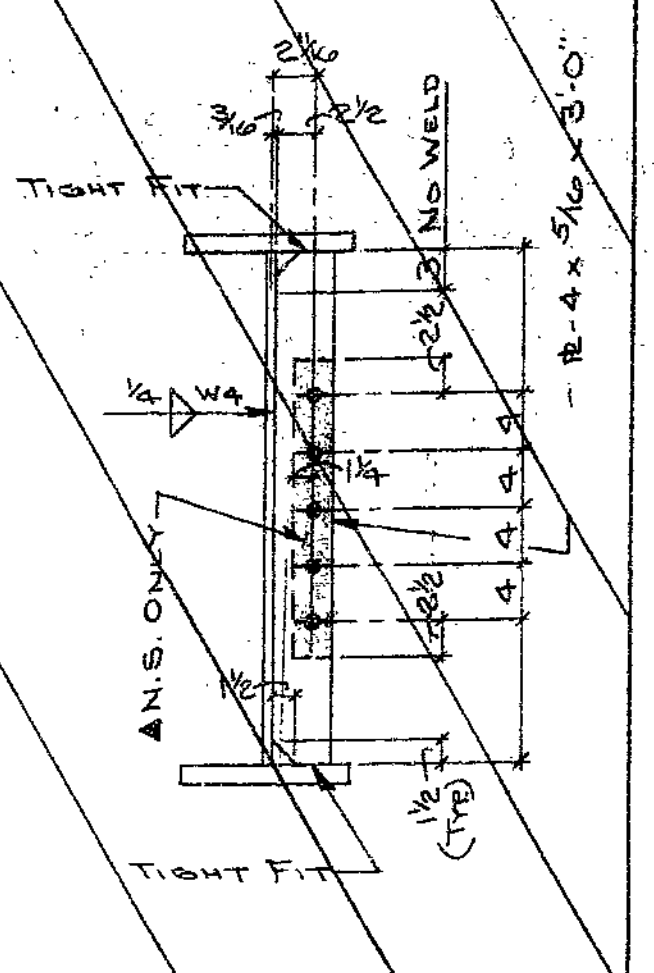
SECTION A-A



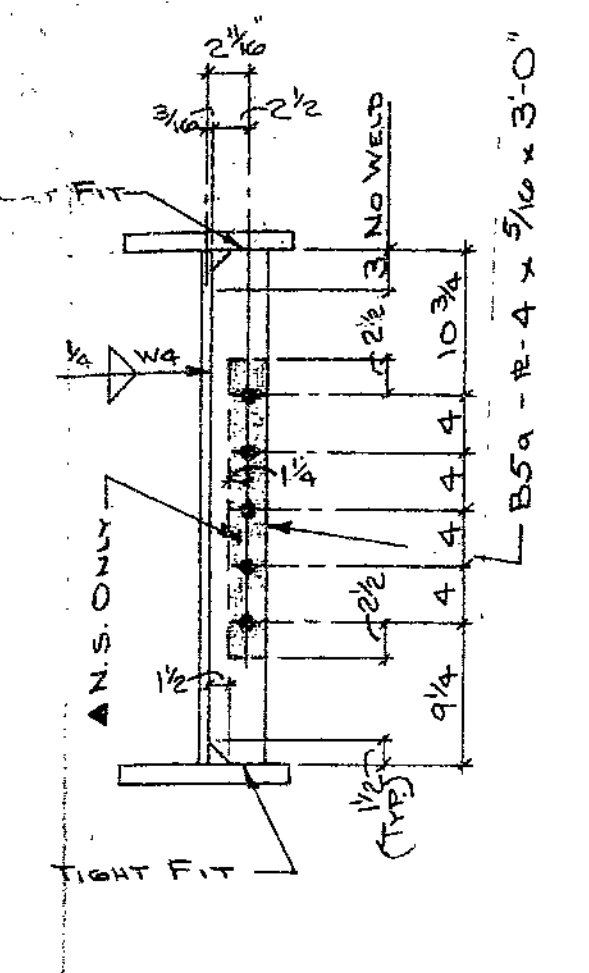
SECTION B-B



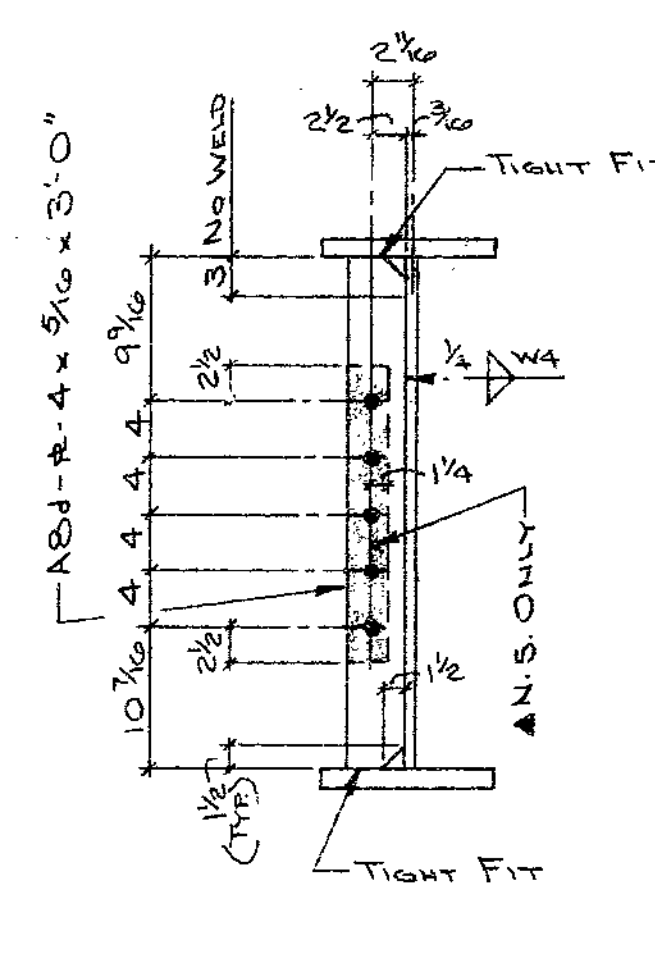
SECTION B-B



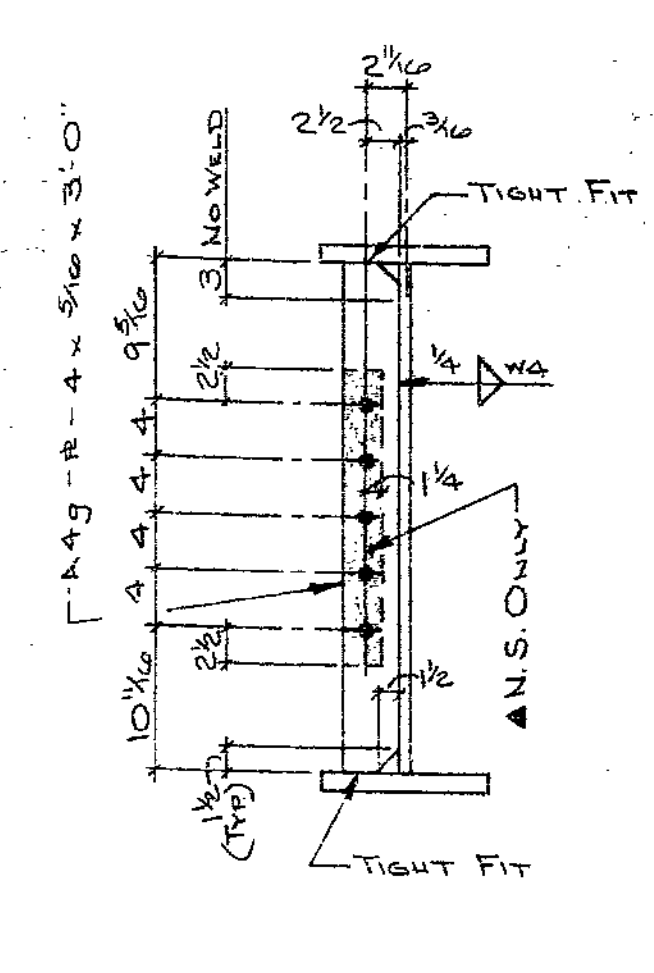
SECTION



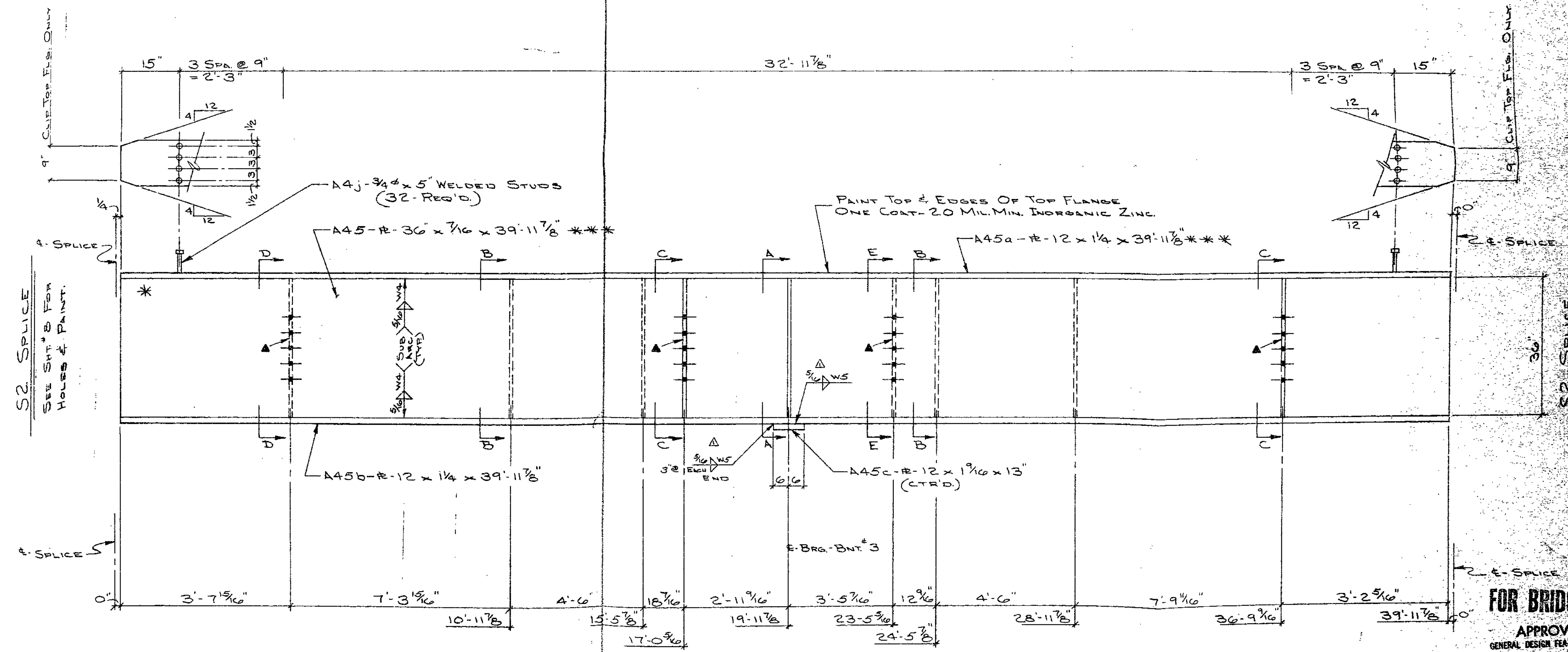
SECTION C-C



SECTION D-D



SECTION E-E



107

*** - DENOTES NOTCH TOUGHNESS OF 15 FT. LB'S @ 40° F. REQ'D.
 ▲ - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.

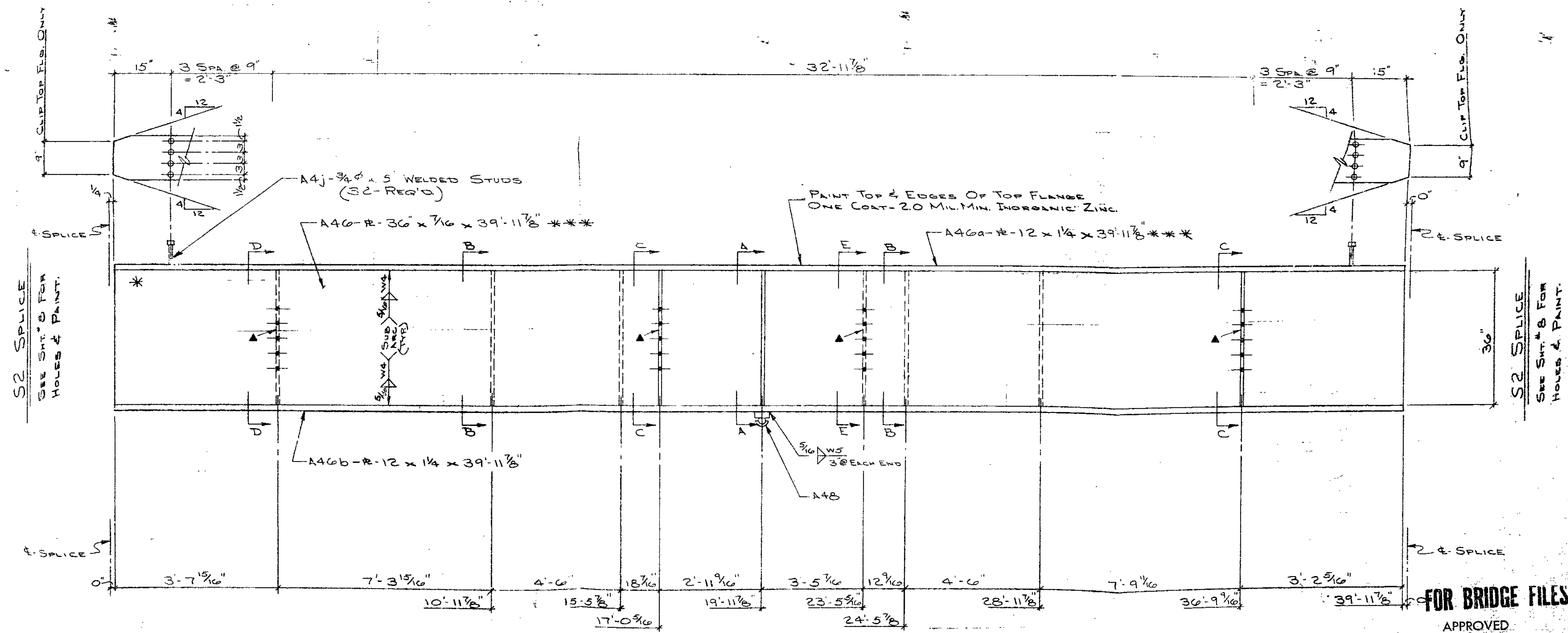
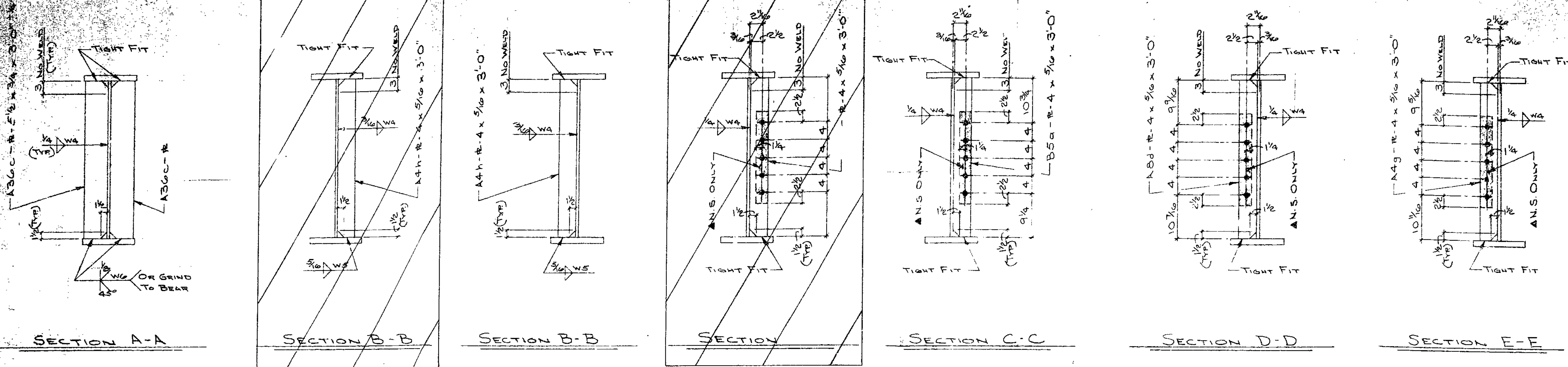
MAKE - ONE - A45

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 MAR 5 1980
 MISSOURI HIGHWAY & TRANSPORTATION DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE	
		NO. FOR	DATE	J.W.N.	DATE	MK. BY	REMARKS	Blue Ridge Blue Under Pass	JOB NO.
		NO. FOR	DATE	DATE 6-20-79	3-4-80	CHANGED WELD SIZE @ BRG.		Proj. # 4-U071-71 U-F-71-4(80) 4-7-80	71-4
		BOLTS	UNLESS NTD.	CHECKED BY				LOCATION JACKSON COUNTY, MISSOURI	ARCH. ENGR. MO. STATE HWY. DEPT.
		RIVETS	UNLESS NTD.	DATE 7-31-79					
		OPEN HLS.	UNLESS NTD.						

DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIA# 635-6121

A B C D E F G H J K M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ



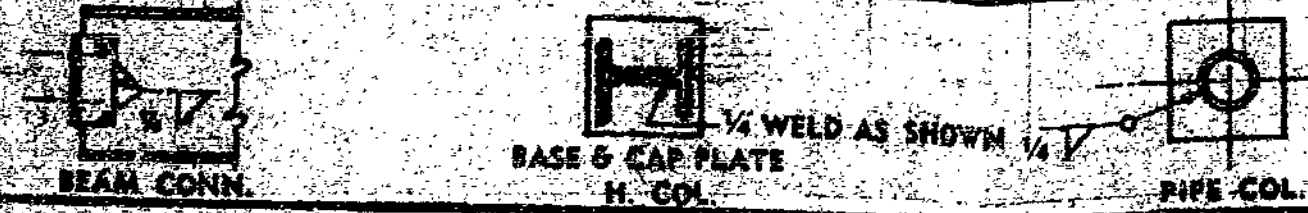
108

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

MAKE - ONE - A46

*** DEVOTES NOTCH TOUGHNESS OF 15 FT. LBS @ 40° F. REQ'D.
 & PAINT ONE COAT-1.5 MIL MIN-2.5 MIL MAX. INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN



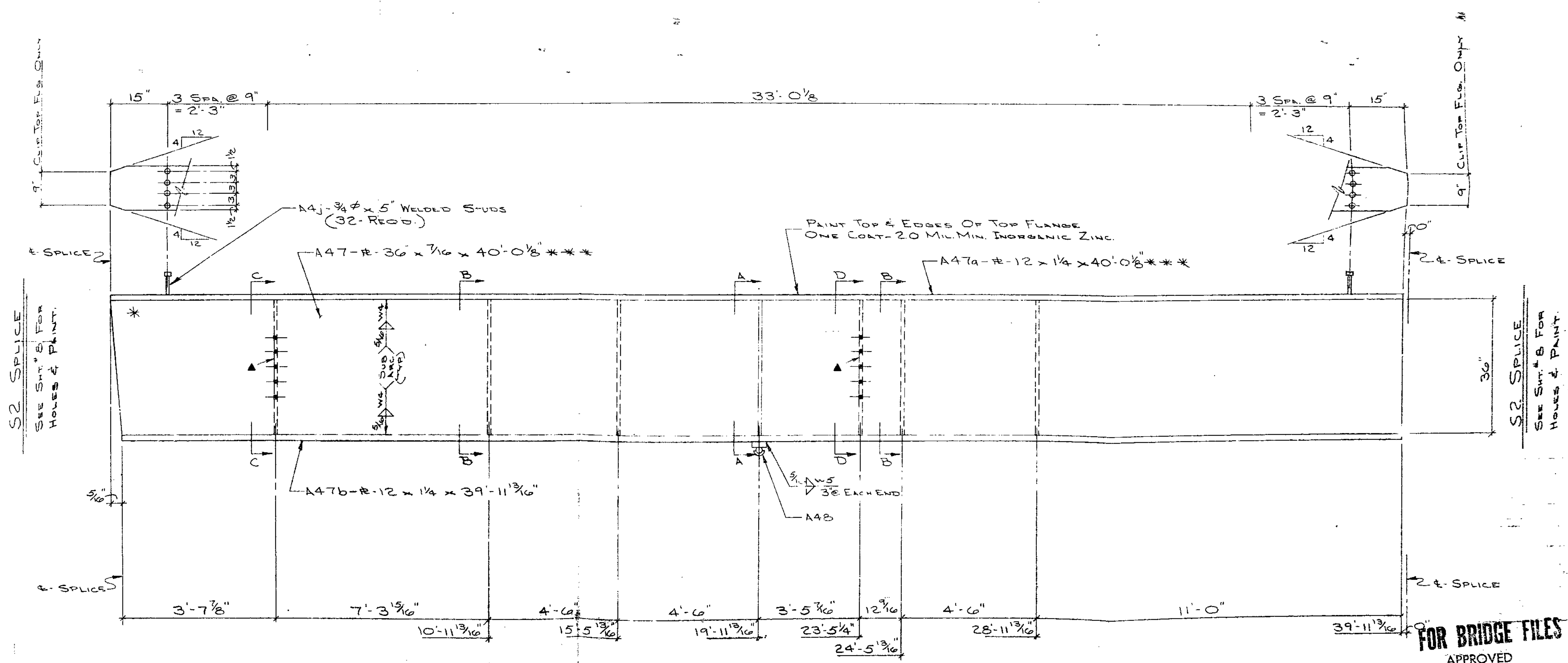
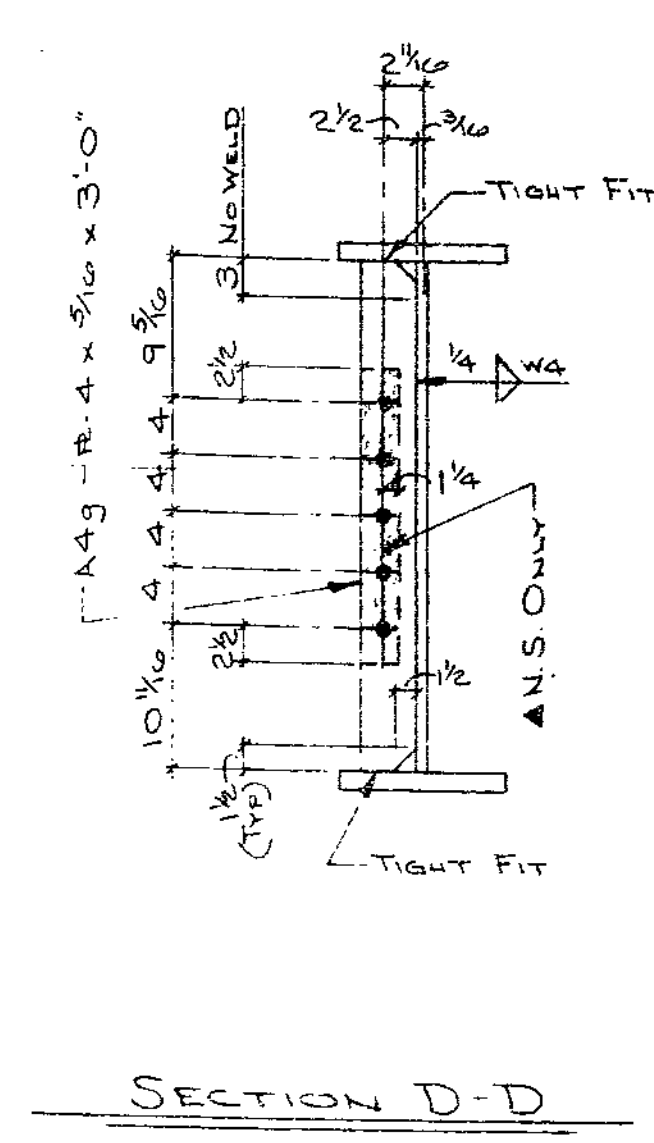
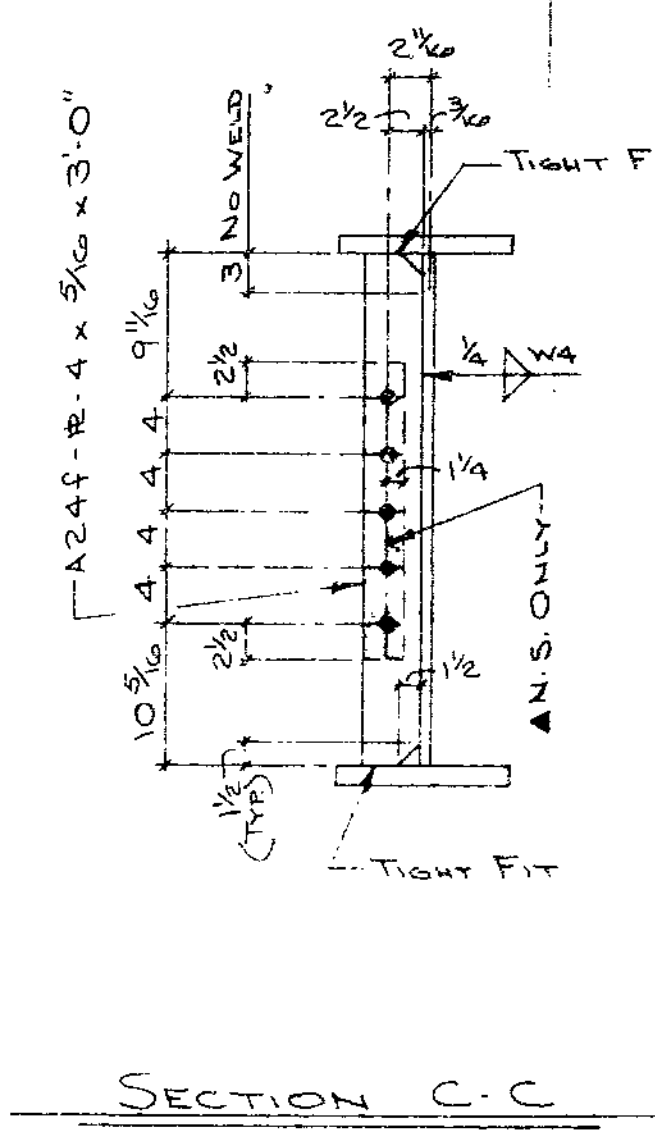
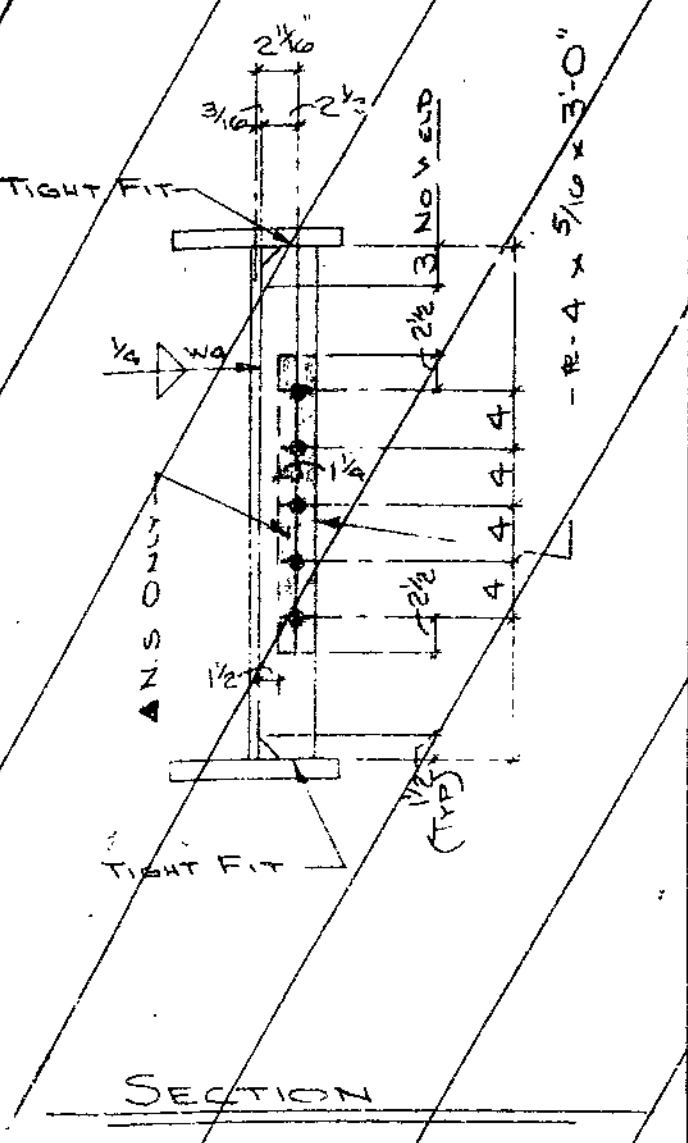
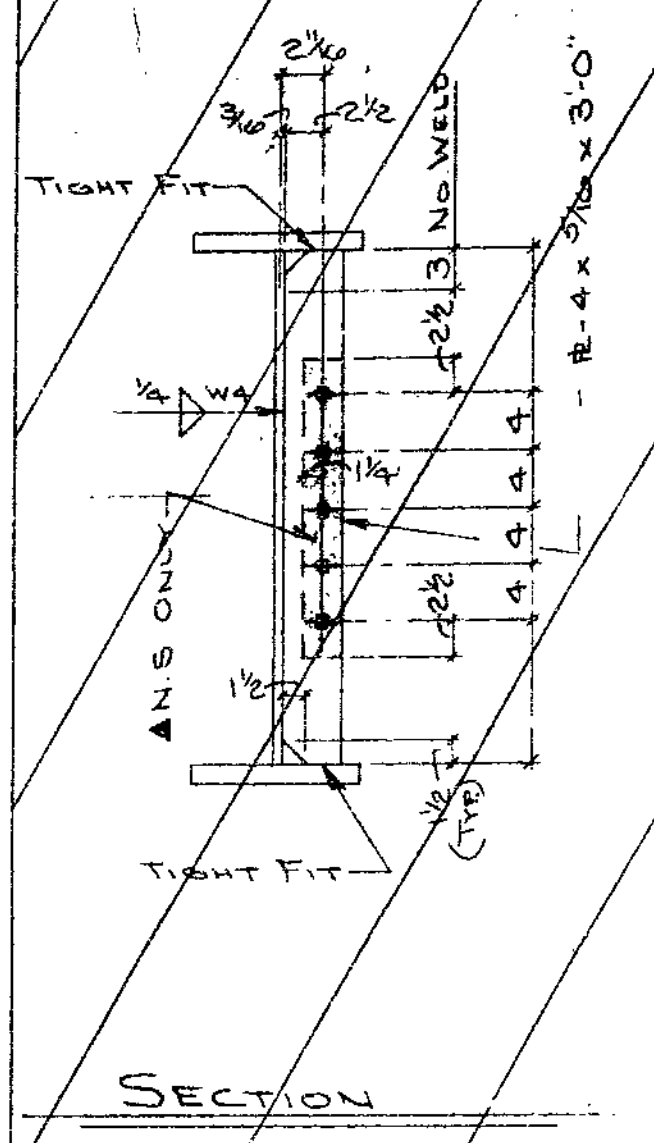
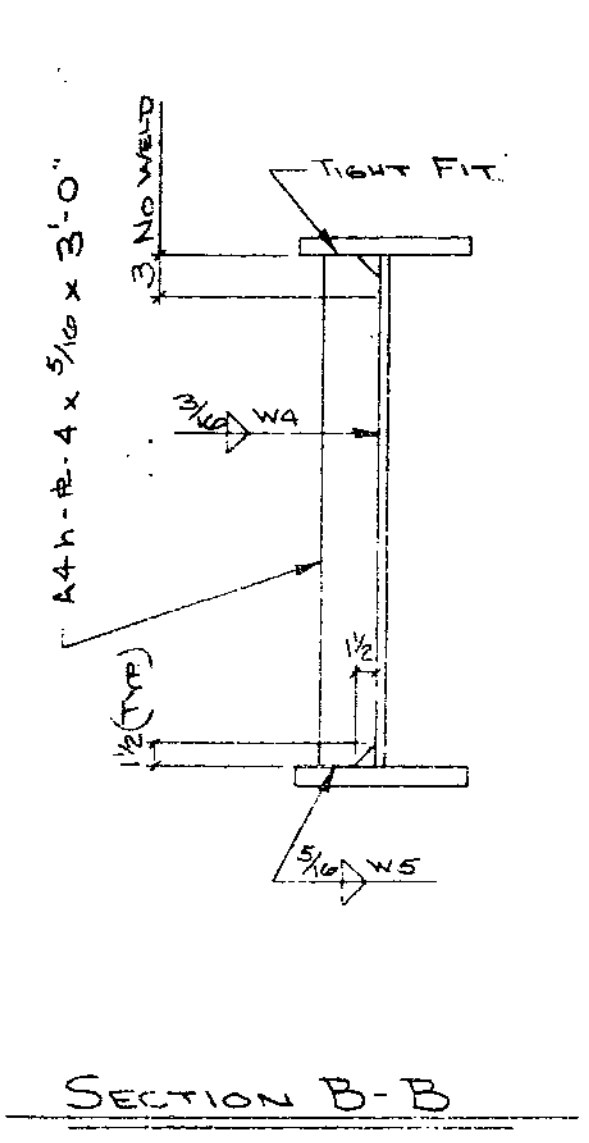
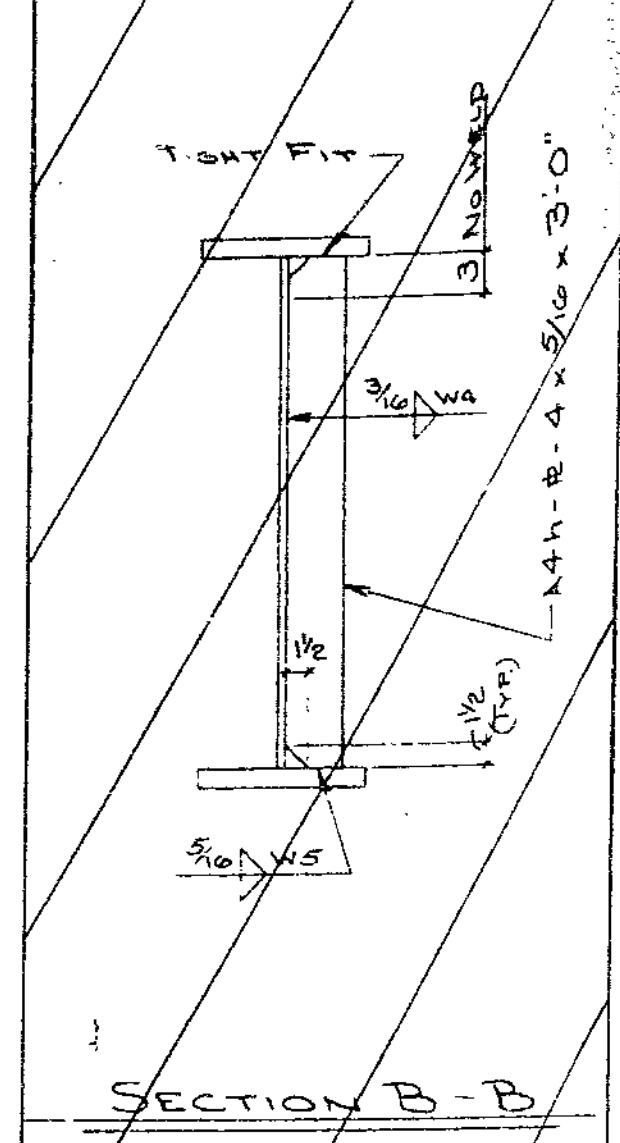
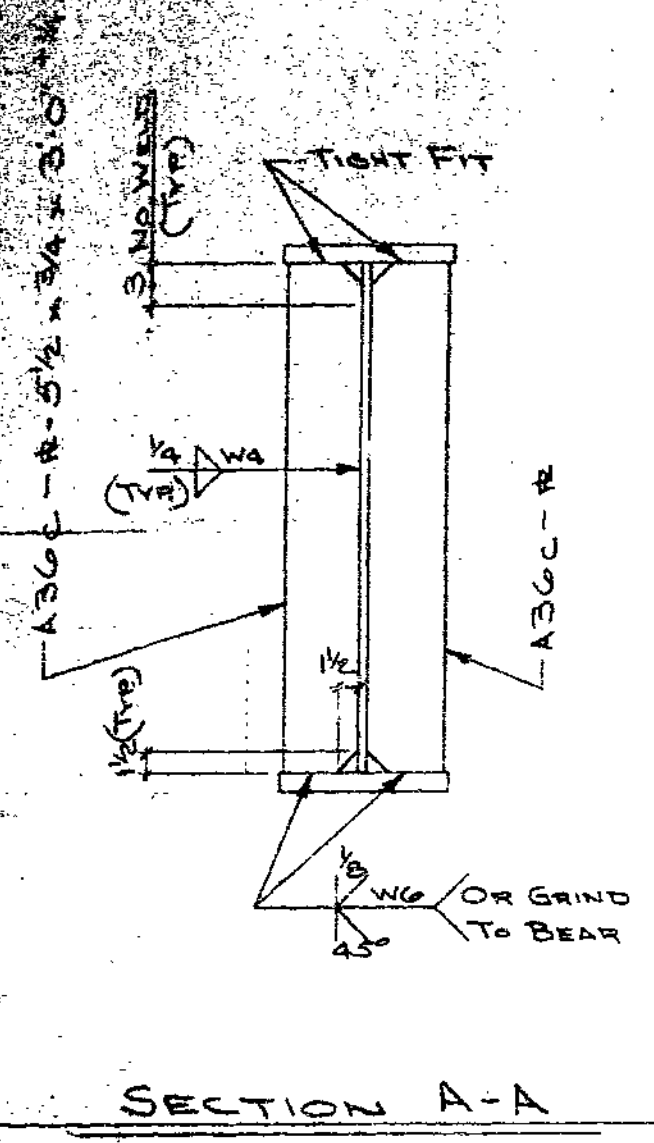
NO.	FOR	DATE	NO.	JOB	BAR	PRINT RECORD	
						NO.	DATE
BOULTS	3/4"						
WELDS	1/2"						
OPEN HES.	1 3/16"						

DELONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI
 DIAL 635-6121

DATE	BY	REVISIONS
DATE 7-31-79	CHK	

NO.	DATE	BY	REMARKS

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



109

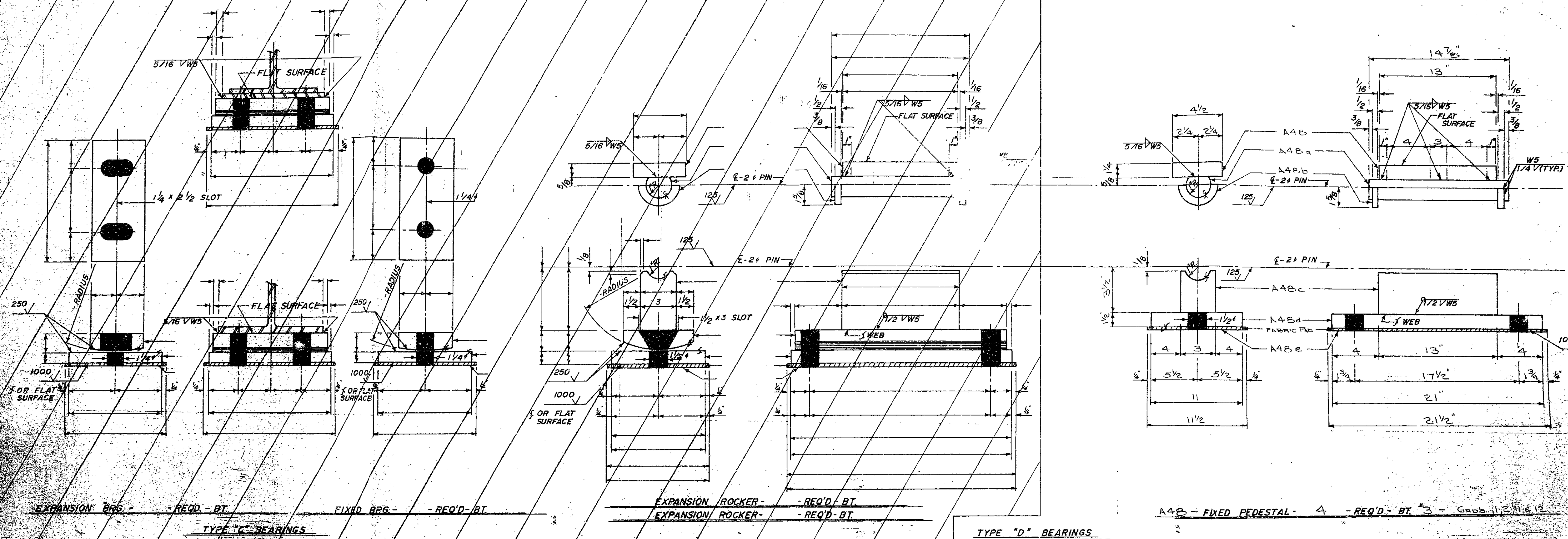
*** - DENOTES NOTCH TOUGHNESS OF 15 FT./LBS. @ 40° F. REQ'D.
 A - PRINT ONE COAT-1.5 MIL MIN.-2.5 MIL MAX. INORGANIC ZINC.

MAKE - ONE - A47

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DETAILED BY		REVISIONS		JOB	
		NO. FOR DATE FOR FOR FOR SYSTEM B-TYPE II		J.W.N. DATE 6-20-79		DATE MK. BY REMARKS		Blue Ridge Blvd. Under Pass PROJ. U-F-71-4(30) A-778	
BOLTS 3/4" UNLESS NTD. RIVETS 1 1/2" UNLESS NTD. OPEN HES. 1 1/2" UNLESS NTD.		DIAL 635-6121 JEFFERSON CITY, MISSOURI		CHECKED BY DATE 7-31-79		LOCATION JACKSON COUNTY, MISSOURI		MO. STATE HIGHWAY DEPT.	

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



MATERIAL REQ'D FOR EACH A48 - FIXED PEDESTAL
 ONE - A48 - TOP - # 4 1/2 x 1 1/4 x 13
 ONE - A48a - PIN - 2" φ x 14 7/8" (MACH DIM) (ASTM. A108 - GRADE 1018)
 2 - A48b - COLLAR - # 3 1/4 x 1/2 x 3/4 (CUT MAKES 2)
 ONE - A48c - WEB - # 3 3/8 x 3 x 13" (MACH. DIM.)
 ONE - A48d - BASE - # 11 x 1 1/2 x 21" (MACH. DIM.)
 ONE - A48e - FABRIC PAD - 11 1/2 x 1/8 x 21 1/2"

BEARING NOTES:
 MATERIAL FOR "C" & "D" BEARINGS SHALL BE ASTM. - A36 STEEL.
 MATERIAL FOR PINS SHALL BE A.I.S.I. - C1018 STEEL.
 PREHEAT IN ACCORDANCE WITH AWS.
 WHITE LEAD AND TALLOW ALL PINS & PIN SETS AFTER INSPECTION.
 WHERE FLAT SURFACE IS INDICATED TOLERANCE SHALL BE .003 IN./IN. IN ANY DIRECTION.
 ROCKERS AND PEDESTALS SHALL BE MACHINED AFTER WELDING.

GENERAL NOTES:
 BEAM OR GIRDER FLANGES SHALL BE SQUARED UP AT ALL POINTS OF BEARING.
 ALL STEEL ASTM. - A36-75 - EXCEPT AS NOTED. ALL BEAMS AND GIRDER FLG. R'S NOTED WILL HAVE NOTCH TOUGHNESS OF 15 FT./LB. AT 40°F.
 HOLES IN GIRDERS OR BEAMS AND PLATES FOR SPLICES TO BE SUBPUNCHED 1/16" AND REAMED ASSEMBLED TO 1/8", OR DRILLED FROM THE SOLID WHILE ASSEMBLED, AND MATCH MARKED.
 GIRDER OR BEAM BEARING STIFFENER PLATES SHALL BE GROUND TO BEAR OR WELDED AT BOTTOM, CLOSE JOINT AT TOP.
 MEASURE WF BEAMS BEFORE CUTTING BEARING STIFFENER PLATES.

GIRDER NOTES:
 GIRDER INTERMEDIATE WEB AND DIAPHRAGM STIFFENER PLATES SHALL BE FITTED TO FORM A CLOSE JOINT (1/16") TOP AND BOTTOM.
 GIRDER SHOP WELDED FLANGE SPLICES ARE TO BE MARKED WITH STEEL STENCIL APPROXIMATELY 1/4" FROM EDGE OF WELD AND ABOUT IN THE MIDDLE OF PLATE WITH "T" AND SHOP SPLICE NUMBER ON TOP OF TOP FLANGE AND WITH "B" AND SHOP SPLICE NUMBER ON BOTTOM OF BOTTOM FLANGE. ALL MARKS TO BE ON THE THICKER MATERIAL JOINED.
 GIRDER WELDING WILL BE SUBJECT TO RADIOGRAPHIC AND MAGNETIC PARTICLE INSPECTION.

PAINT - INSIDE SLOTS & HOLES IN BRG'S.
 3 COATS - 60 MIL. MIN.

NOTE:
 FABRIC PADS FOR BRG'S ARE 1/2" GREATER IN LENGTH & WIDTH THAN BASE R'S.
 APPROX. 1/8" THICK.

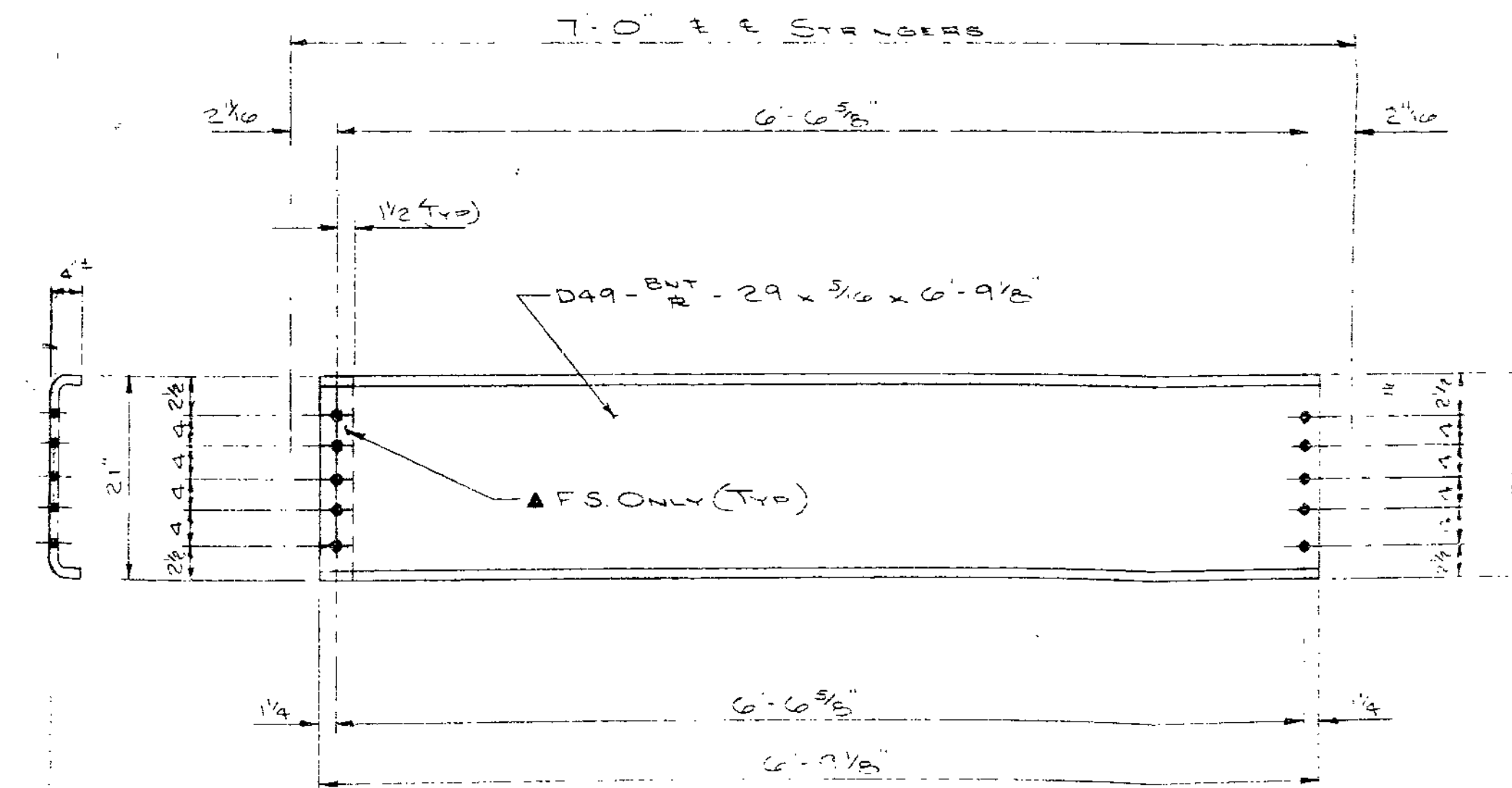
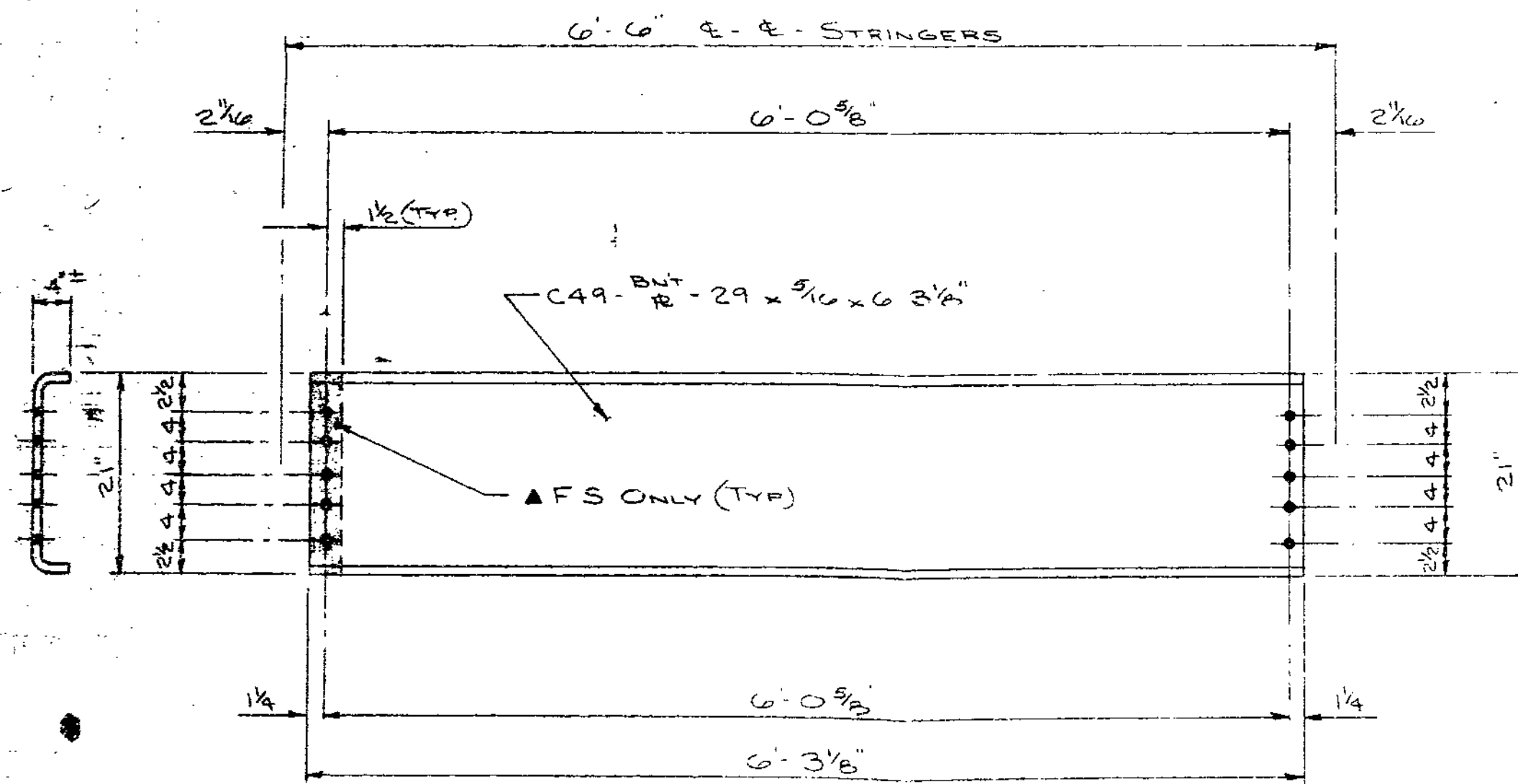
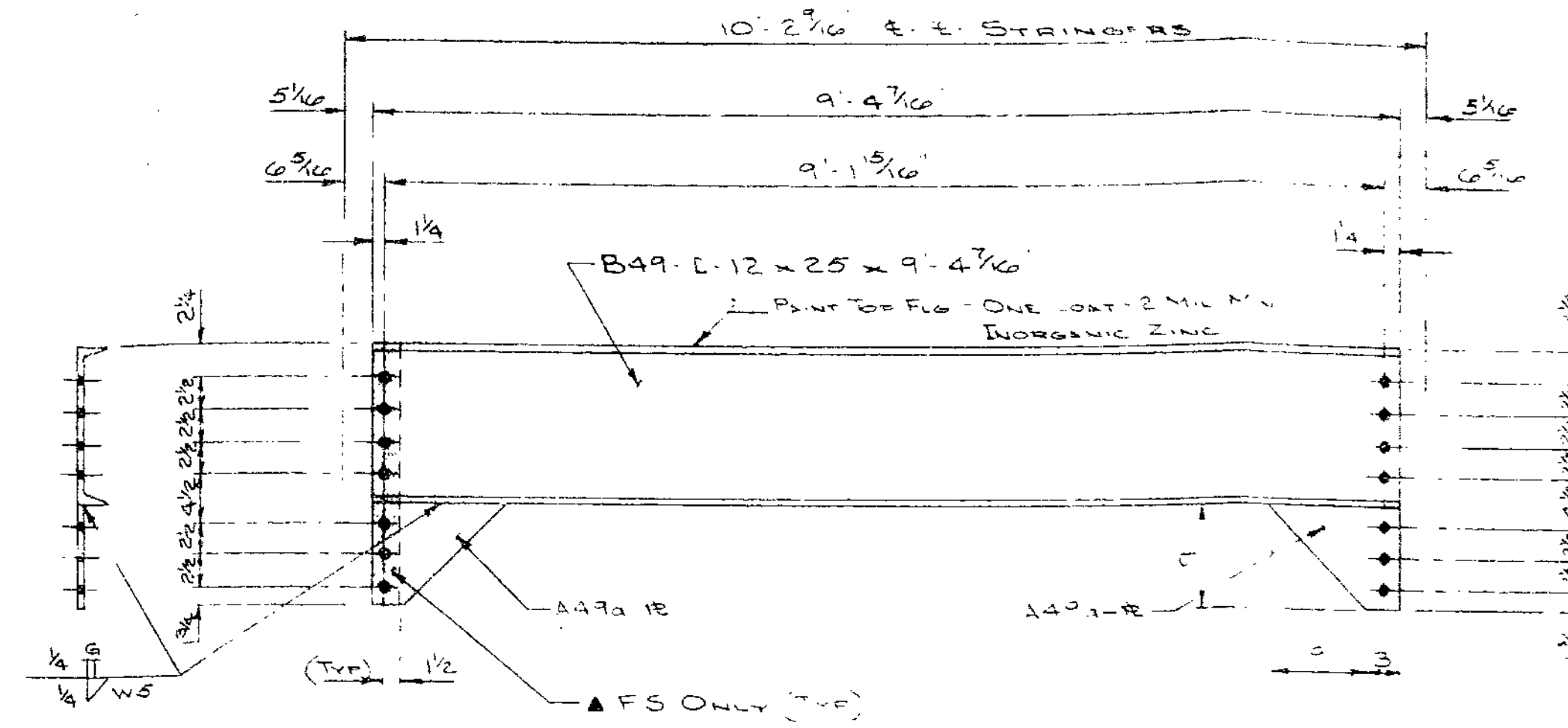
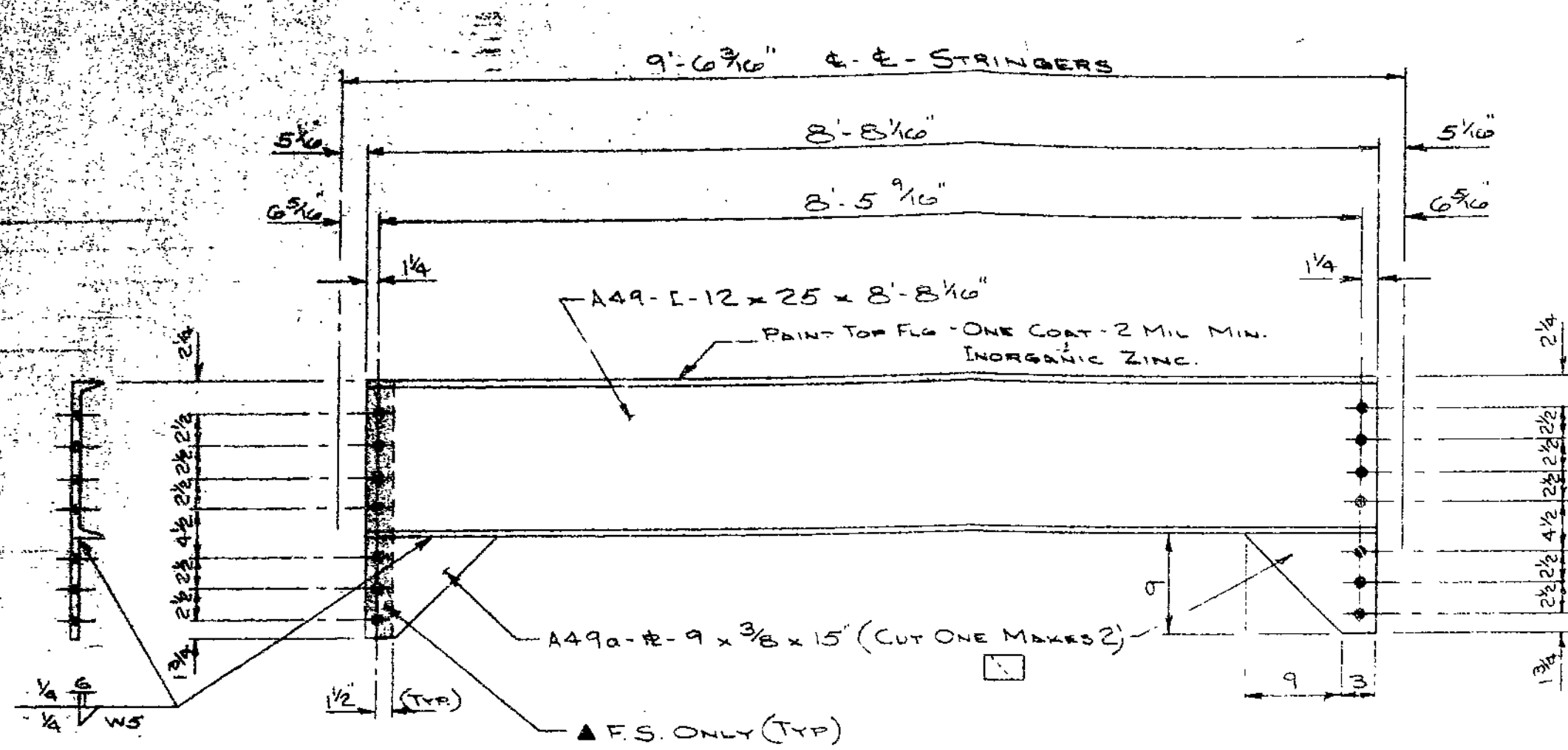
NOTE: ON ALL MATERIAL HEAT NUMBER SHALL BE PAINTED
 3-6 FROM LEFT END & ON TOP OF R'S.

FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS - UNLESS OTHERWISE SHOWN		SYSTEM 'B' - TYPE II		PRINT RECORD		DETAILED BY		REVISIONS		BRIDGE Blue Ridge Blvd UNDER PAS.		JOB NO.
		BOLTS RIVETS 3/4" UNLESS NTD		NO. FOR	DATE	NO. FOR	DATE	DATE	MK. BY	REMARKS	PROJECT NO. U-F-71-4(30)	79-40
		OPEN HLS 3/16" UNLESS NTD									LOCATION JACKSON COUNTY, RYE 71	
											STR. A17 LOT	
											ARCH. ENGR. MO. STATE HWY. DEPT	

DE LONG'S
 INC.
 DIX RD. & IND. DR.
 JEFFERSON CITY, MISSOURI

A B C D E F G H J K L M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ

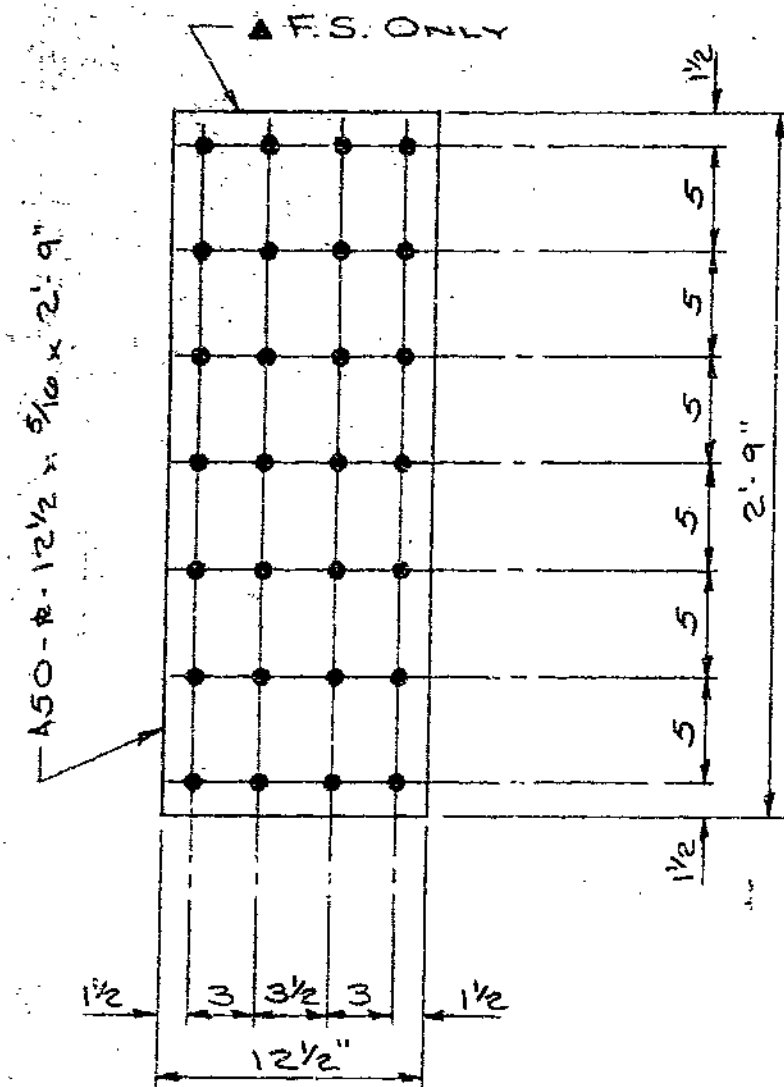


▲ - PAINT ONE COAT - 1.5 MIL MIN. - 2.5 MIL MAX - INORGANIC ZINC.

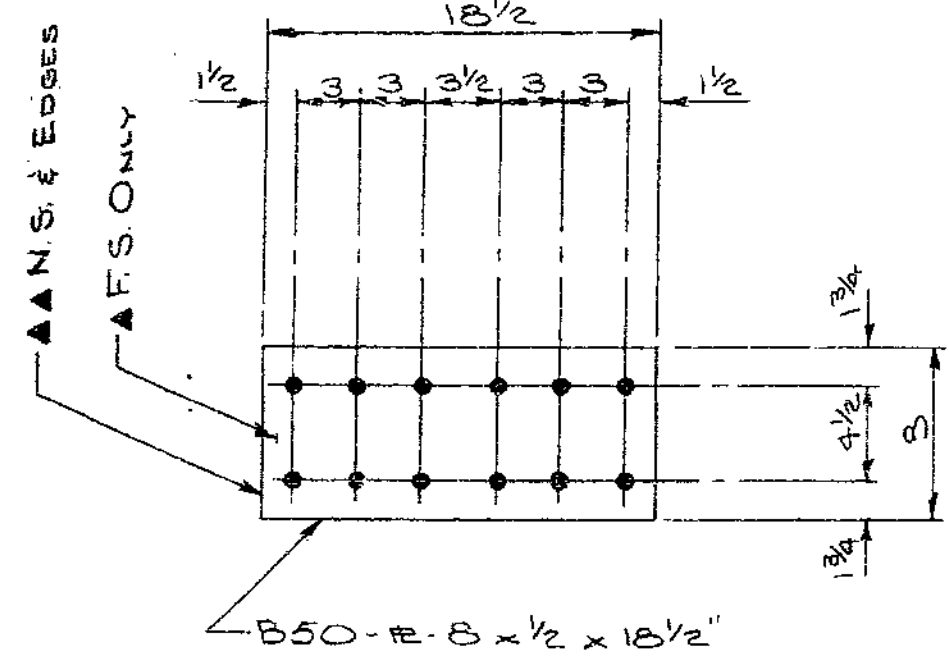
FOR BRIDGE FILES
 APPROVED
 GENERAL DESIGN FEATURES ONLY
 SEP 28 1979
 MO. STATE HIGHWAY DEPT.
 DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN		PRINT RECORD		DE LONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 635-6121	DETAILED BY J.W.N. DATE 6-21-79 CHECKED BY DATE 7-1-79	REVISIONS DATE MK. BY REMARKS	BRIDGE Blue Ridge Blvd Under Pass JOB 4-0071-71 U-F 71-4(30) 4-7707 LOCATION Jackson County, Rte 71 ARCH. ENGR. Mo. State Hwy. Dept.
	SYSTEM B-TYPE II BOLTS 3/4" UNLESS NTE. RIVETS 1 1/2" UNLESS MTD. OPEN HLS. 1 3/16" UNLESS MTD.	NO. FOR DATE NO. FOR DATE	NO. FOR DATE NO. FOR DATE		JOB No. 79-40 DATE 7/1/79	ARCH. ENGR. Mo. State Hwy. Dept.	L-929R

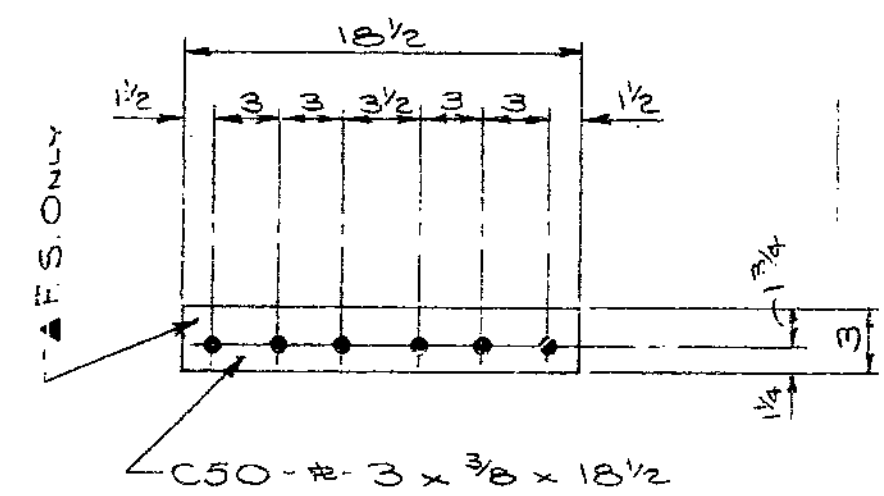
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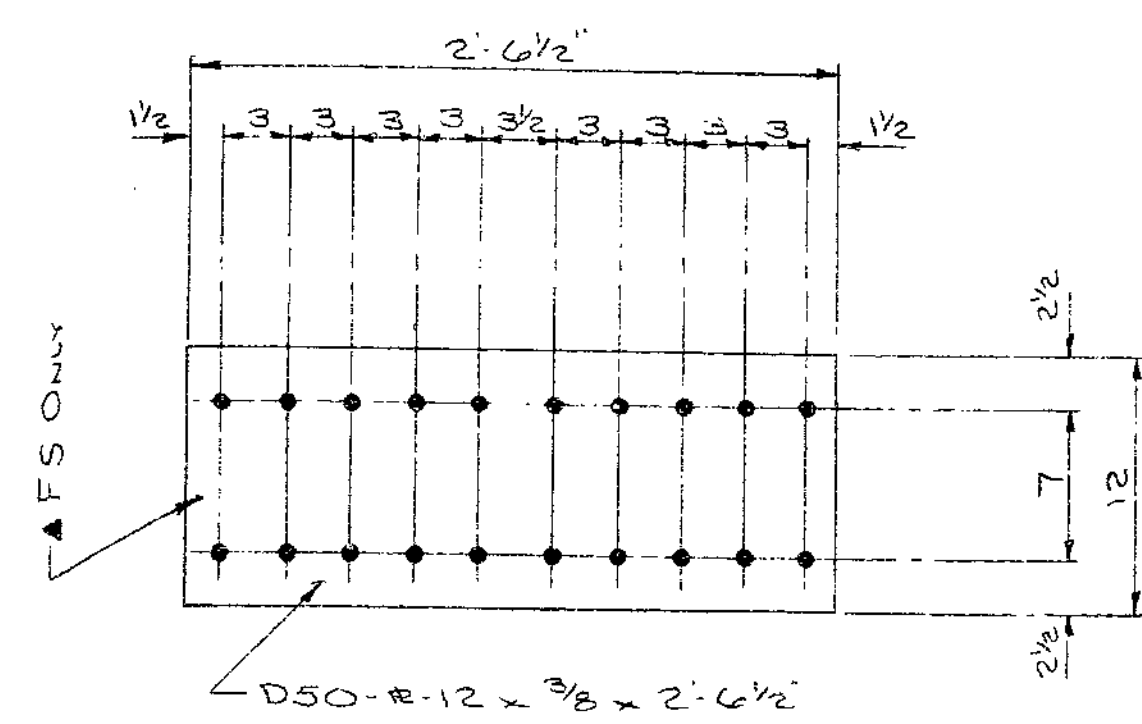
MAKE - 144 - A50 - WEB SPlice #s.
AT ALL SPLICES - 2 REQ'D.



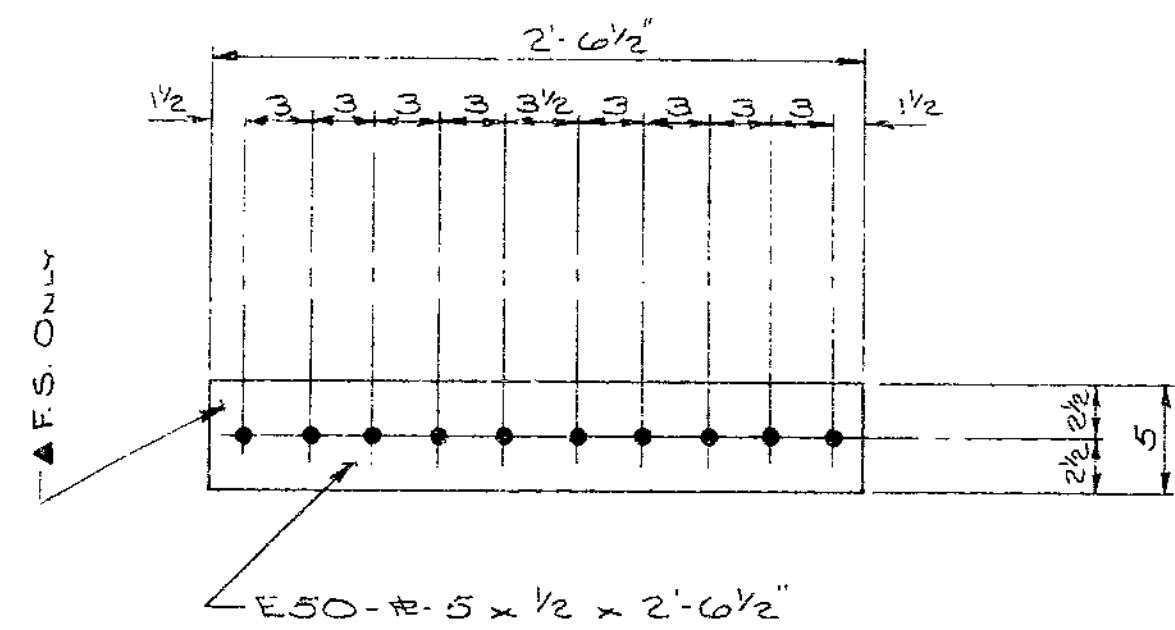
MAKE - 24 - B50 - SPlice #s.
AT SPLICES ① THRU ⑫ & ⑭ THRU ⑰
TOP OF TOP FLANGE



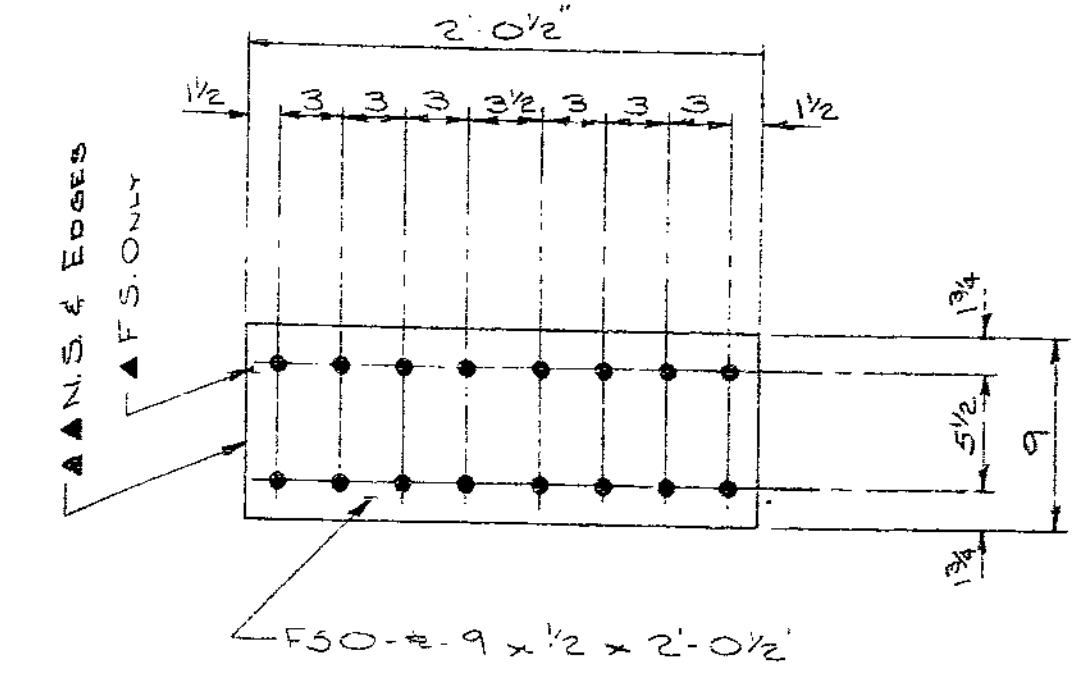
MAKE - 48 - C50 - SPlice #s.
AT SPLICES ① THRU ⑫ & ⑭ THRU ⑰
BOTTOM OF TOP FLANGE - 2 REQ'D.



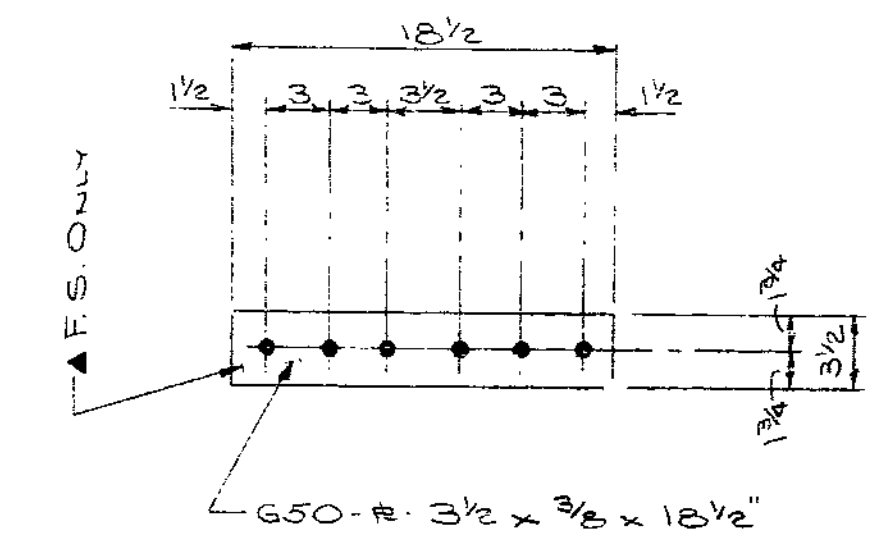
MAKE - 24 - D50 - SPlice #s.
AT SPLICES ① THRU ⑫ & ⑭ THRU ⑰
BOTTOM OF BOTTOM FLANGE



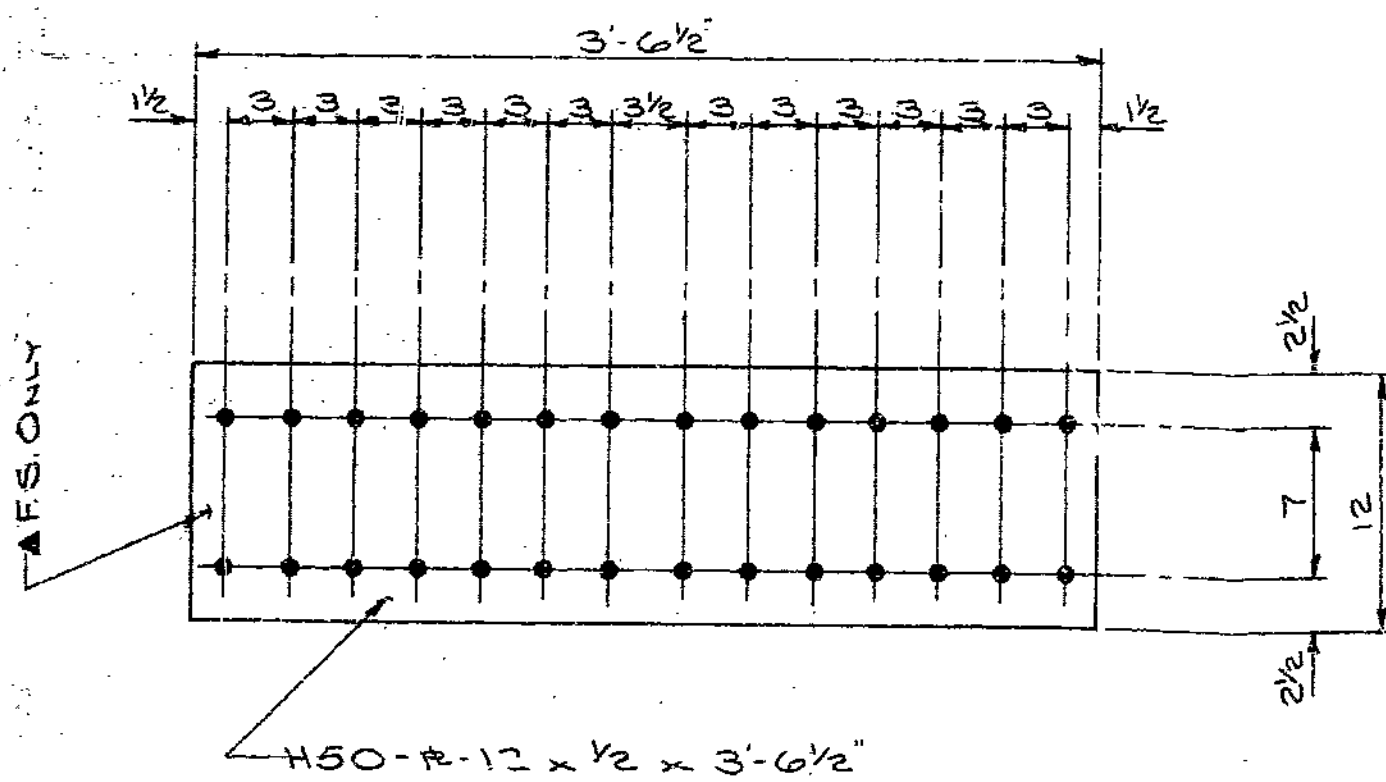
MAKE - 48 - E50 - SPlice #s.
AT SPLICES ① THRU ⑫ & ⑭ THRU ⑰
TOP OF BOTTOM FLANGE - 2 REQ'D.



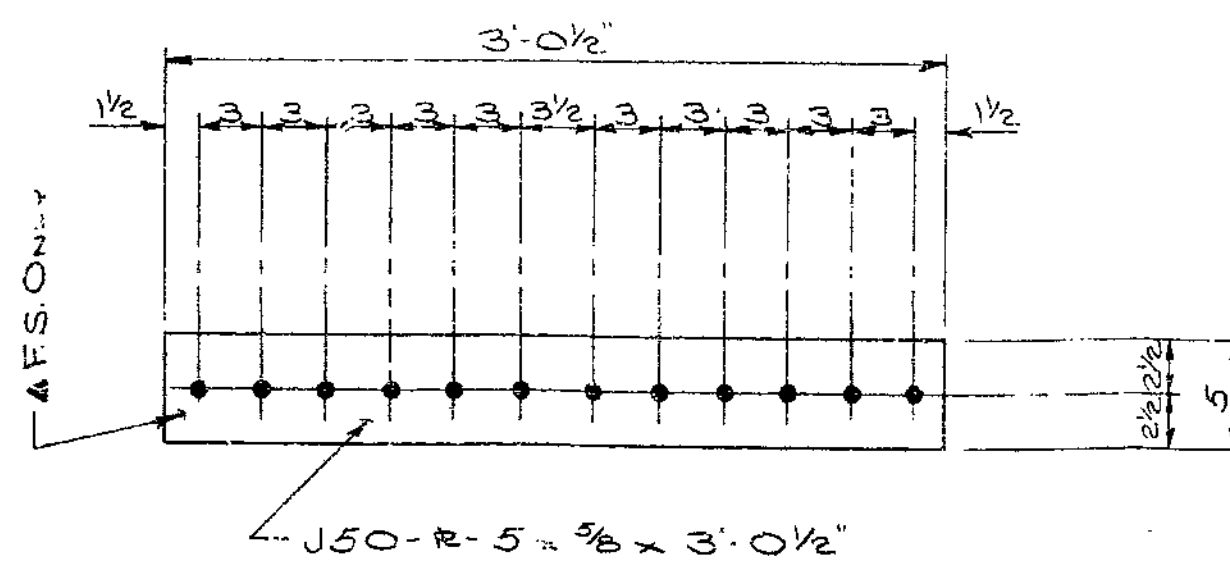
MAKE - 48 - F50 - SPlice #s.
AT SPLICES ⑬ THRU ⑰
TOP OF TOP FLANGE



MAKE - 96 - G50 - SPlice #s.
AT SPLICES ⑬ THRU ⑰
BOTTOM OF TOP FLANGE - 2 REQ'D.



MAKE - 48 - H50 - SPlice #s.
AT SPLICES ⑬ THRU ⑰
BOTTOM OF BOTTOM FLANGE



MAKE - 96 - J50 - SPlice #s.
AT SPLICES ⑬ THRU ⑰
TOP OF BOTTOM FLANGE - 2 REQ'D.

▲ - PAINT ONE COAT - 1.5 MIL. MIN. - 2.5 MIL. MAX. - INORGANIC ZINC.
▲▲ - PAINT ONE COAT - 2.0 MIL. MIN. - INORGANIC ZINC.

FOR BRIDGE FILLS

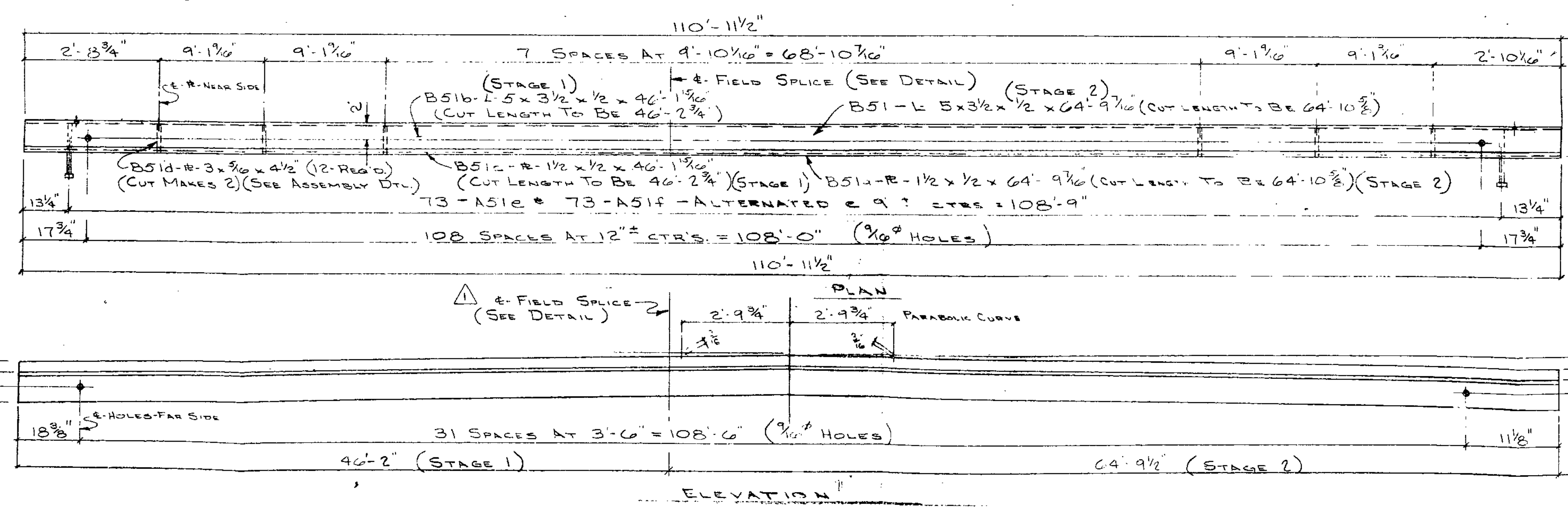
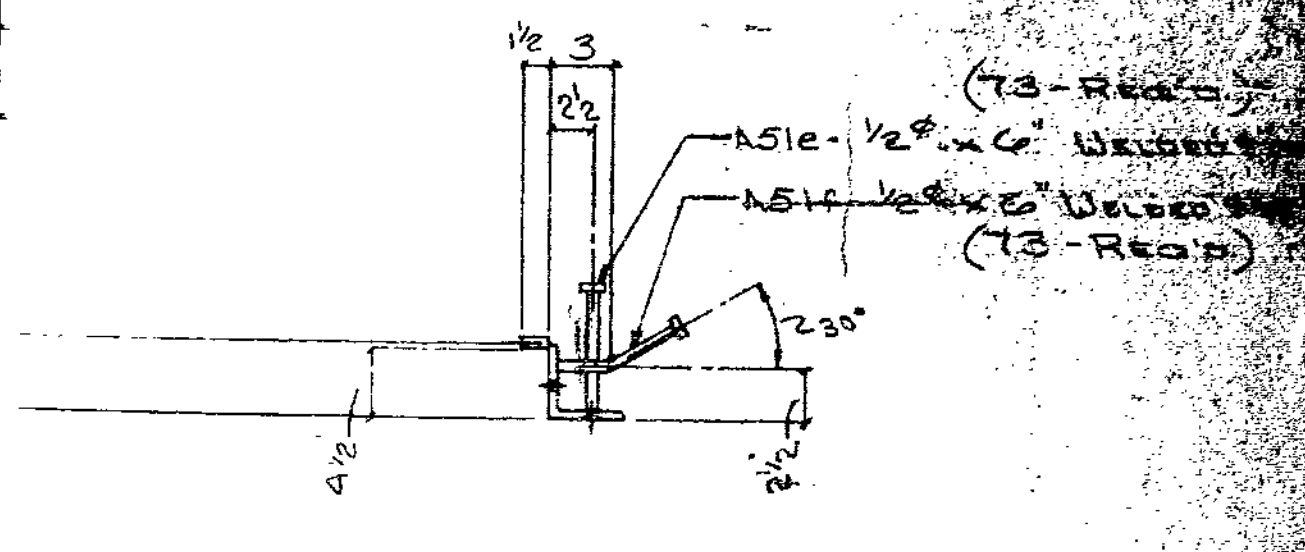
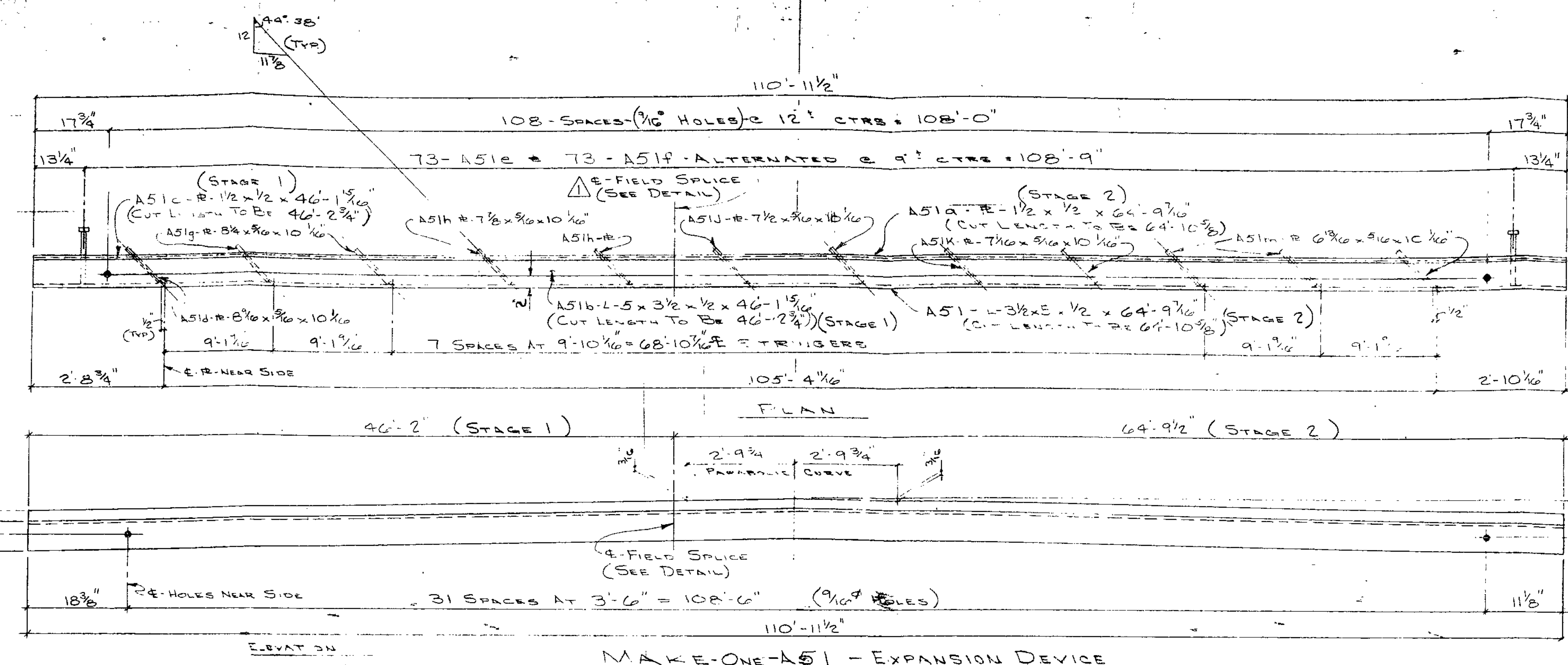
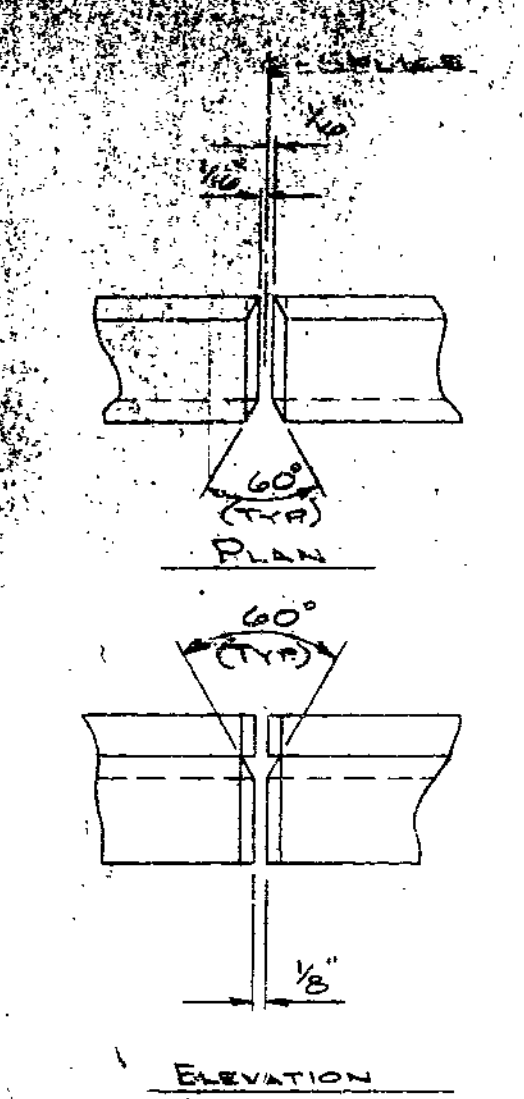
APPROVED
GENERAL DESIGN FEATURES ONLY

SEP 28 1979

MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN				PRINT RECORD				DETAILED BY				REVISIONS				JOB No.	
				SYSTEM B: TYPE II BOLTS 7/8" UNLESS NTD. RIVETS 1 1/2" UNLESS NTD. OPEN HS. UNLESS NTD.				J. W. N. DATE 6-26-79 CHECKED BY DATE 7-31-79				DATE MK. BY REMARKS				BRIDGE Blue Ridge Blvd. Under Pass JOB # 4-U071-71 U-F-71-4(80) 4+77.07 LOCATION JACKSON COUNTY, Rte. 1 ARCH. ENGR. MO. STATE HWY. DEPT.	
DE LONG'S INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI DIAL 635-6121								79-40 SHT. No. 50 OF 54				L-9292					

A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AS AT AU AV AW AX AY AZ



FOR BRIDGE FILES

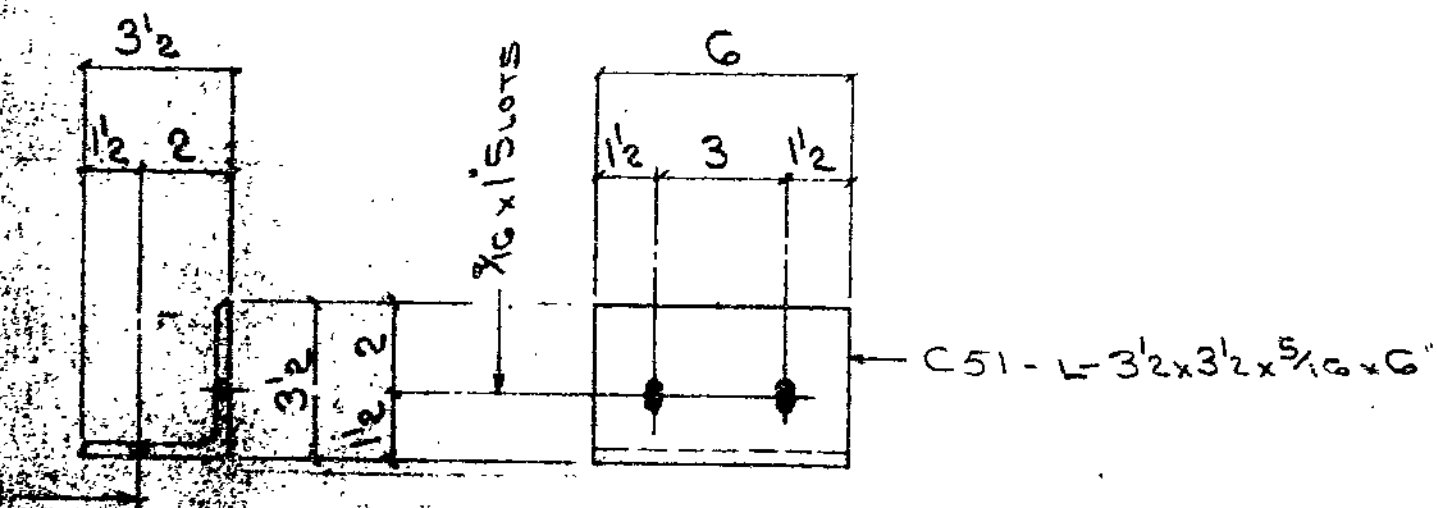
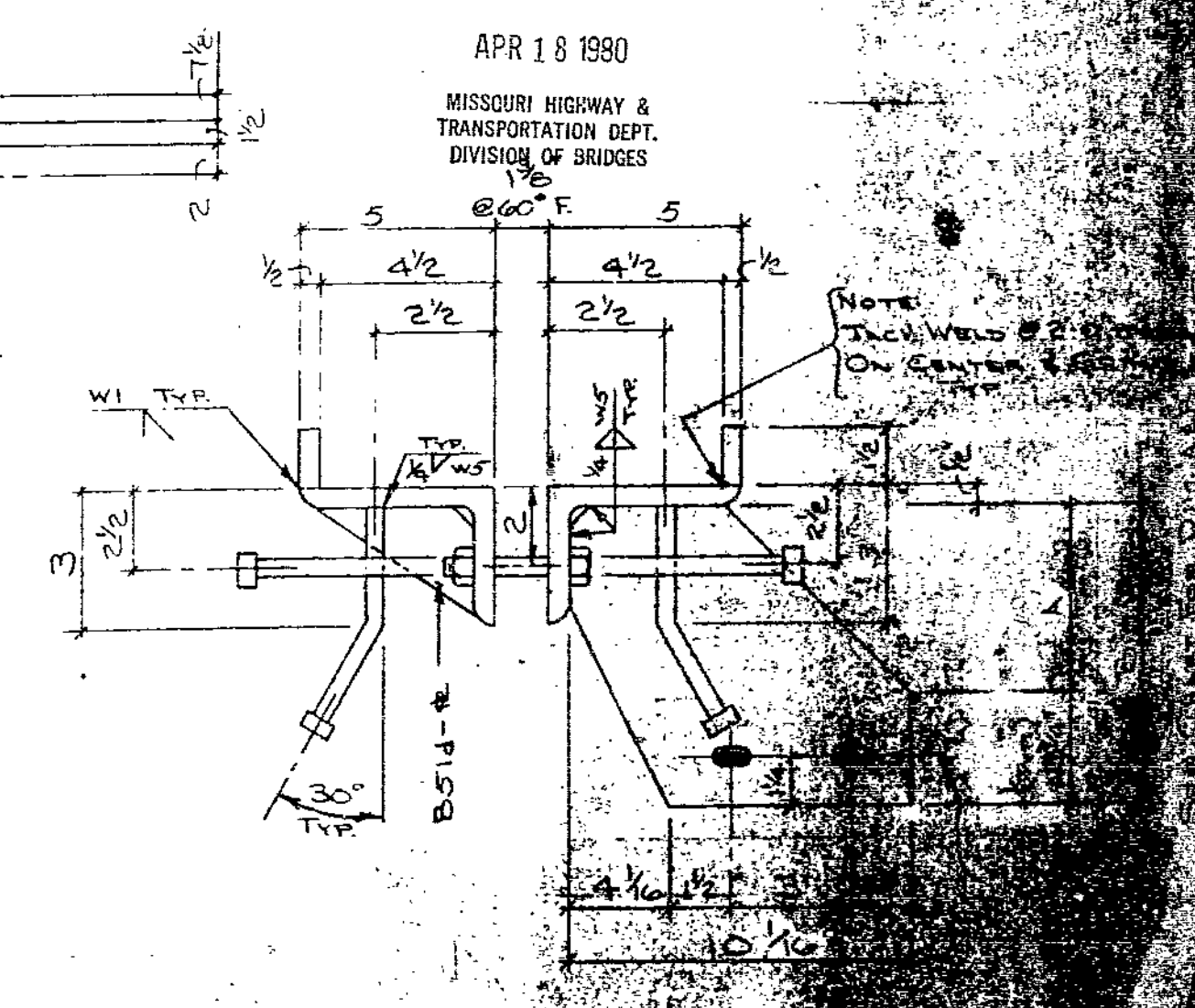
INSPECTOR

APPROVED

GENERAL DESIGN FEATURES ONLY

APR 18 1980

MISSOURI HIGHWAY & TRANSPORTATION DEPT.
DIVISION OF BRIDGES



NOTES:

- 1) REDUCED BASE ANCHOR STUDS TO BE FIELD INSTALLED.
- 2) R.B. ANCHOR STUDS NOT FURNISHED BY DELONG'S, INC.

PREFORMED COMPRESSION JOINT SEAL		
MANUFACTURER	TYPE	GROOVE SIZE
FEL-SPAN	T20	

TABLE WITH DIMENSION HEADINGS A and B.

	A	B
A51C	5 3/4	2 3/4
A51H	5	8 1/4
A51A	4 3/8	7 1/2
A51B	3 3/4	7 1/2
A51M	3 3/4	6 3/4

PAINT EXP. DEVICE & CURB #'S - 2 COATS - 5 MIL. MIN. - INORGANIC ZINC.

WARRANTY: DETAILS UNLESS OTHERWISE SHOWN

WELD AS SHOWN

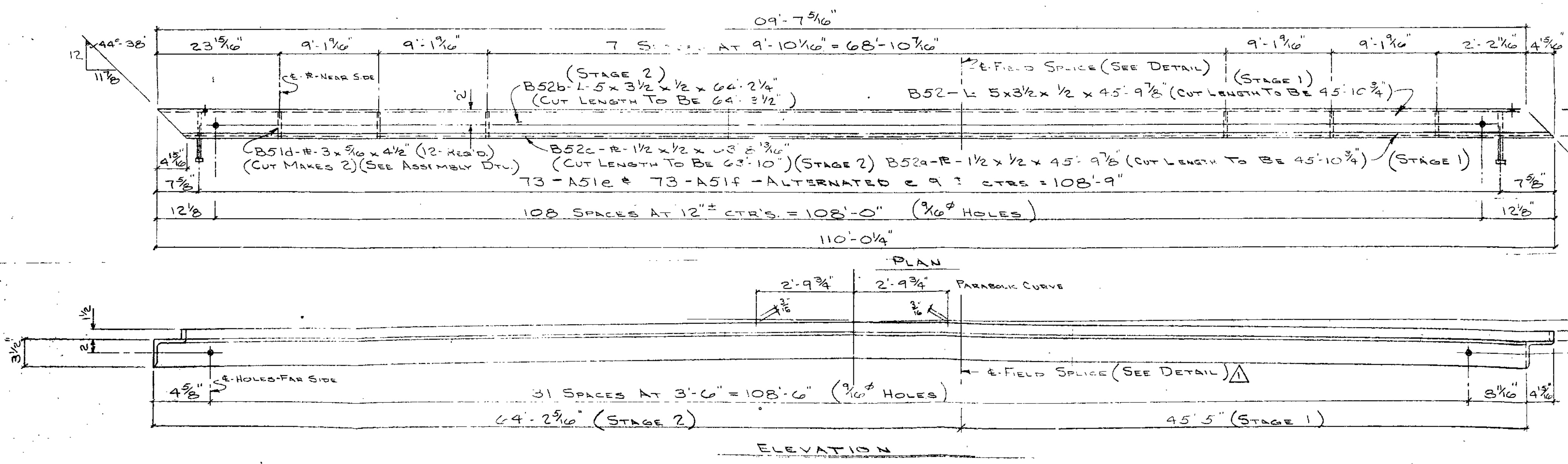
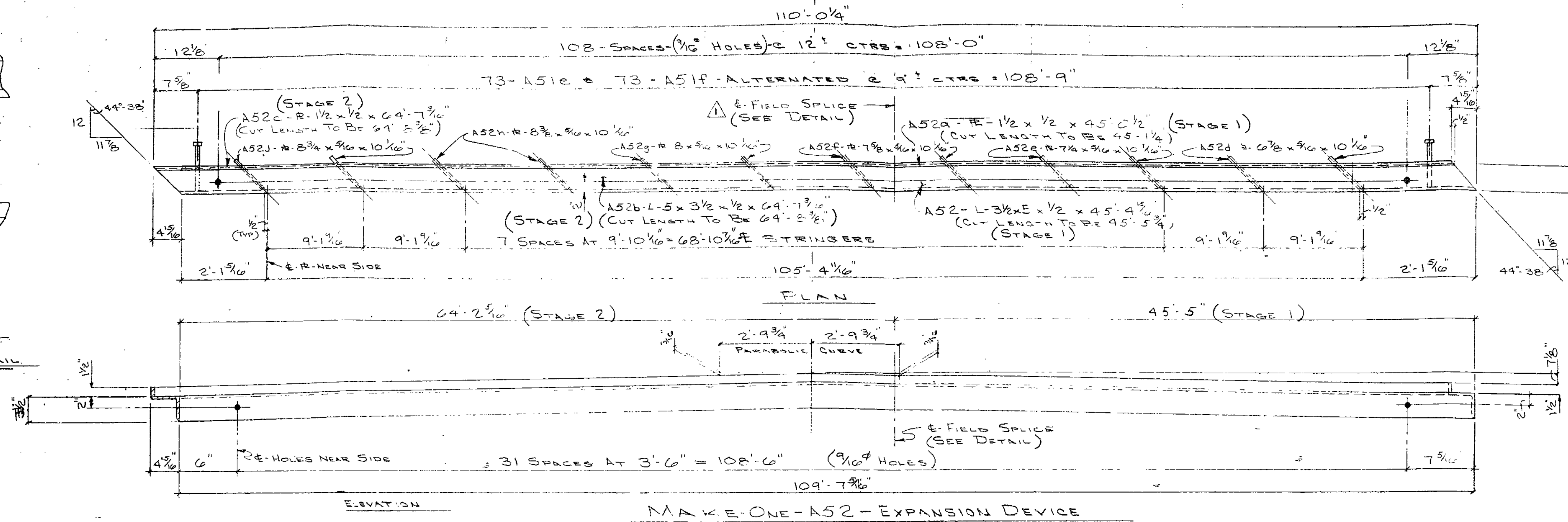
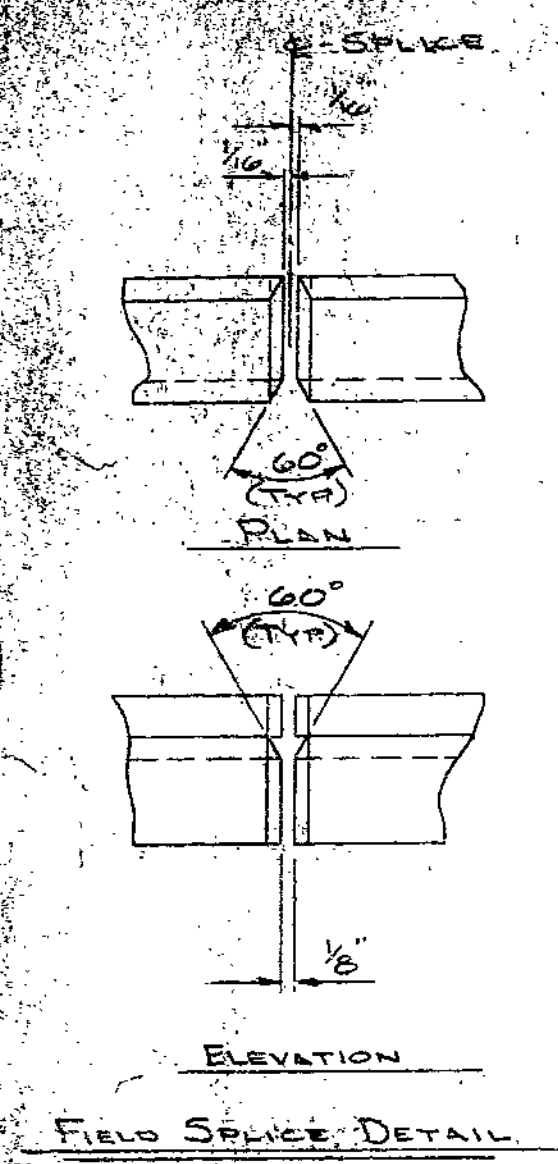
PRINT RECORD

DELONG'S INC.

DIX. RD. & IND. DR. MISSOURI CITY, MISSOURI

SYSTEM 'B' TYPE II		PRINT RECORD		DETAILED BY		REVISIONS	
NO.	FOR	DATE	BY	DATE	BY	DATE	REMARKS
1	28-79	4-14-80	J.W.N.	4-14-80	J.W.N.	4-14-80	Concrete Field Splice Location

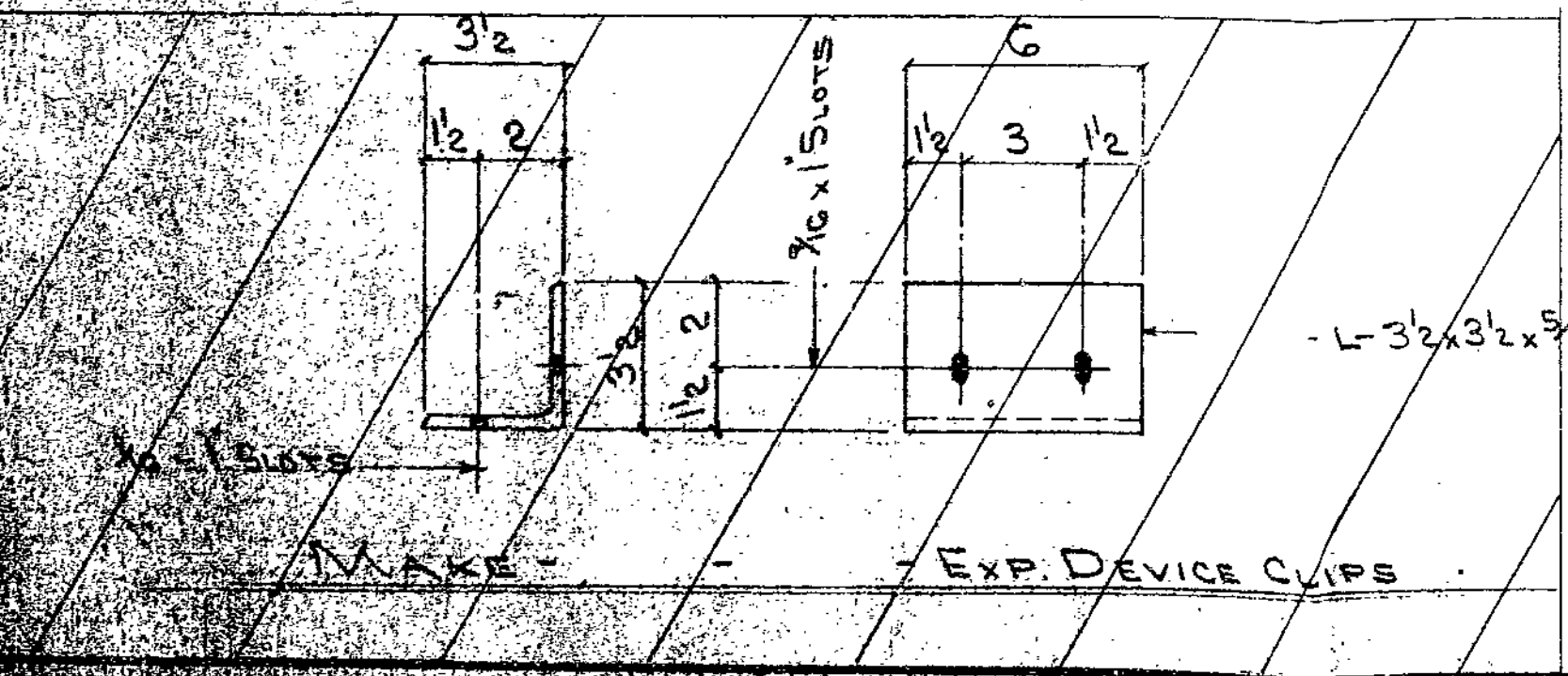
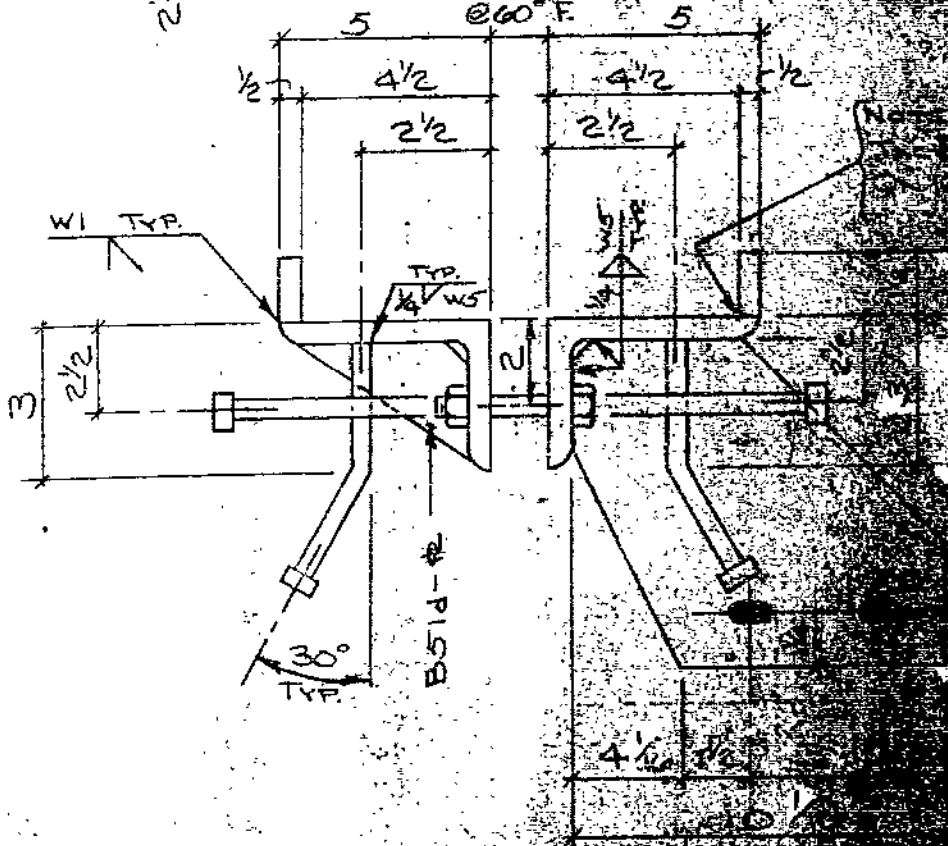
DATE 2-21-79



FOR BRIDGE FILES
APPROVED
GENERAL DESIGN FEATURES ONLY

APR 18 1980

MISSOURI HIGHWAY & TRANSPORTATION DEPT.
DIVISION OF BRIDGES



- NOTES:
- 1) REDUCED BASE ANCHOR STUDS TO BE FIELD INSTALLED.
 - 2) R.B. ANCHOR STUDS NOT FURNISHED BY DELONG'S, INC.

PREFORMED COMPRESSION JOINT SEAL

MANUFACTURER	TYPE	GROOVE SIZE
FEL-SPAN	T20	

DIMENSION

	A	B
A52d	3 3/8"	6 7/8"
A52e	4"	7 1/4"
A52f	4 3/8"	7 5/8"
A52g	4 3/4"	8"
A52h	5 1/2"	8 3/8"
A52j	5 1/2"	8 3/4"

PAINT EXP. DEVICE & CURB R'S. - 2 COATS - 5 MIL. MIN. - INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

SYSTEM "B" TYPE II

DELONG'S INC. DIX. RD. & IND. DR. JEFFERSON CITY, MISSOURI

DETAILED BY J.W.N. DATE 4-14-80

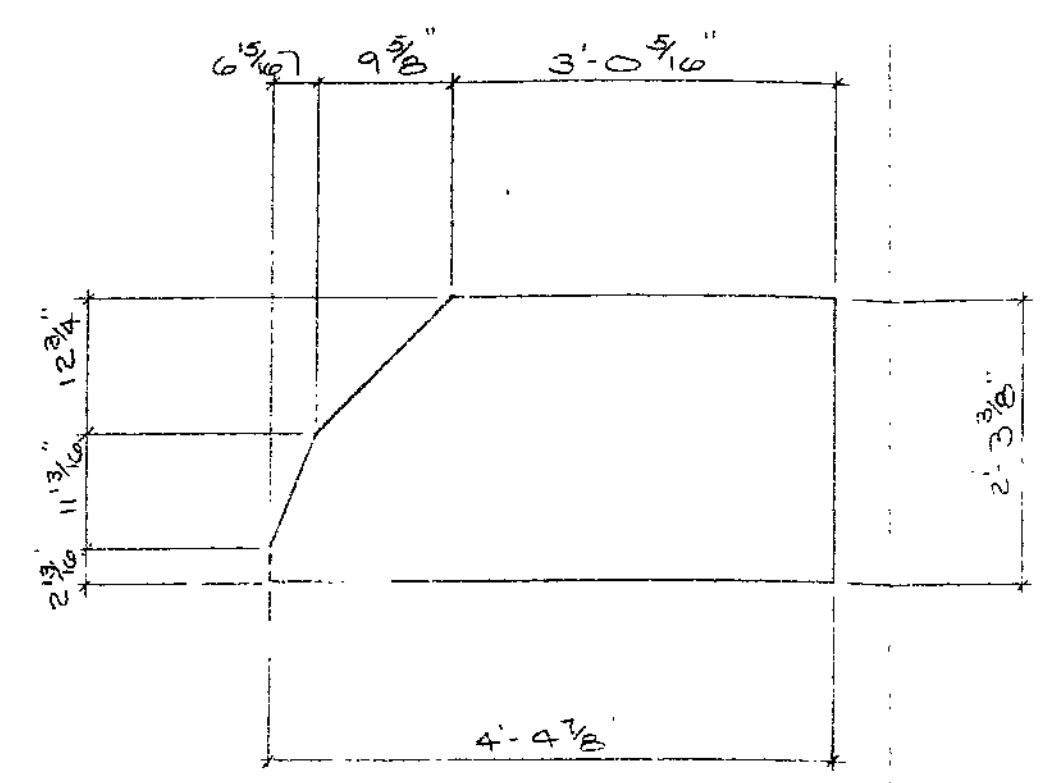
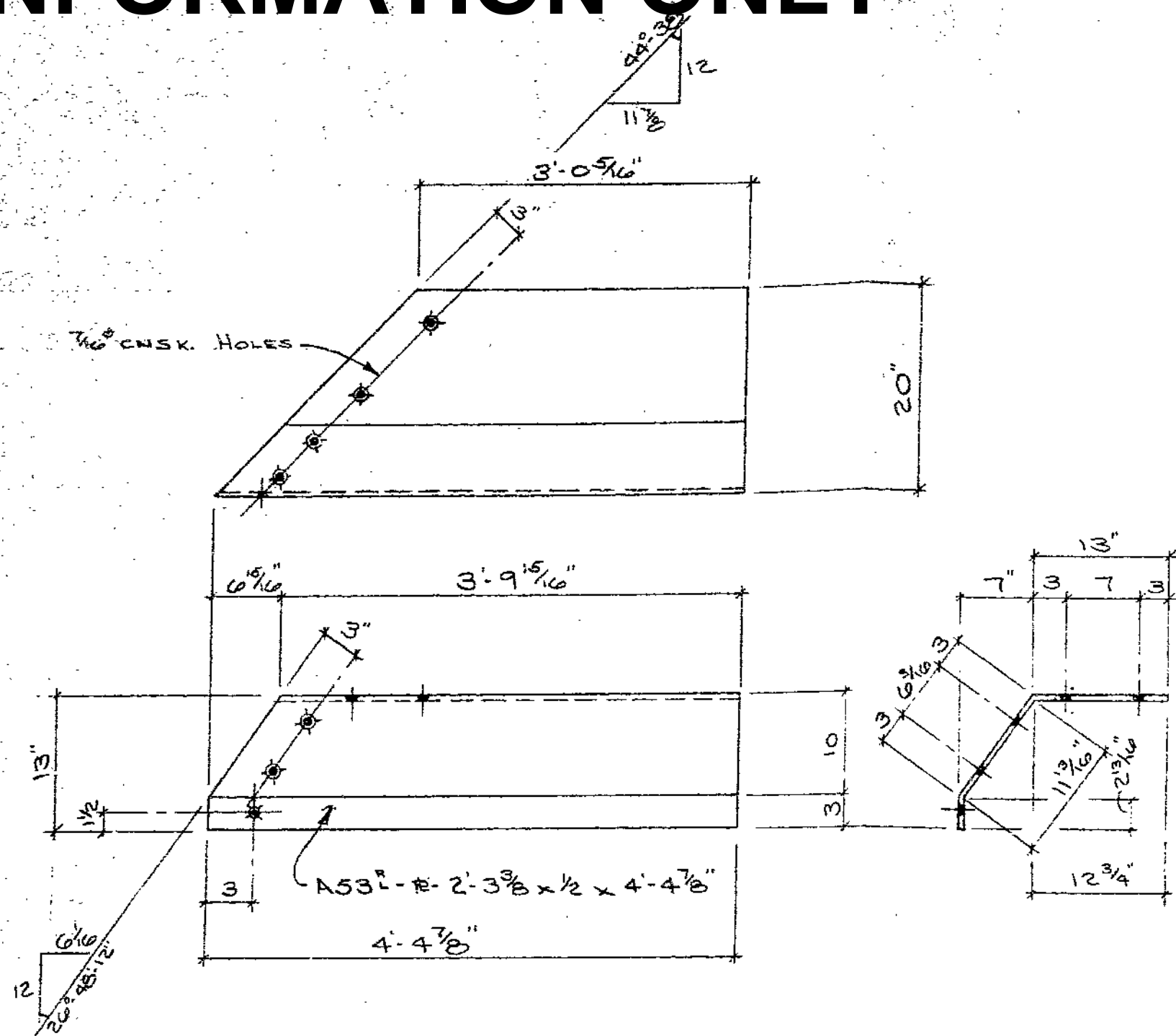
REVISIONS

NO.	DATE	BY	REMARKS
1	4-14-80	JWN	CHANGED FIELD SPLICE LENGTH

BRIDGE # 4-0071

LOCATION

ARCH. DATE



#-LAYOUT BEFORE CUTTING.

MAKE-ONE-A53⁺ CURB #-(SHOWN)

MAKE-ONE-A53⁻ CURB #-(OPP HAND)

CURB #'S AT BENT #1

115

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY

SEP 28 1979

MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

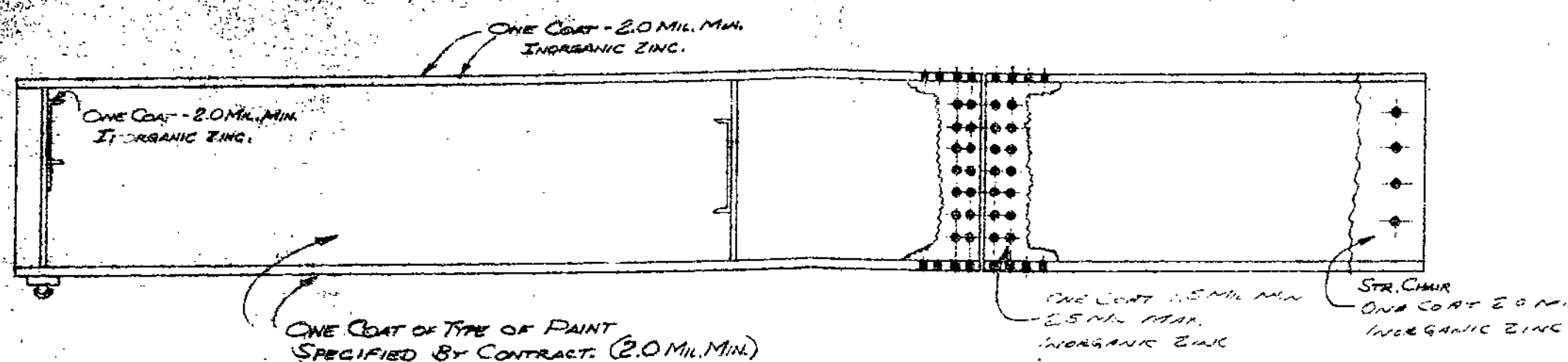
PAINT CURB # - 2 COATS - 5 MIL MIN - INORGANIC ZINC.

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN				PRINT RECORD				DETAILED BY				REVISIONS				BRIDGE				JOB No.	
				SYSTEM B-TYPE II NO. FOR DATE NO. FOR DATE 1 28 6-29-79				J.W.N. DATE 6-29-79				DATE MK. BY REMARKS				BLUE RIDGE BLVD UNDER PASS JOB 4-UOT-71 U-F-71-4(30) STA 4+77.07				79-40	
BOLTS UNLESS NTD. NUTS UNLESS NTD.				DIAL 635-6121 INC. DIX RD. & IND. DR. JEFFERSON CITY, MISSOURI				CHECKED BY C.H.O. DATE 7-2-79				LOCATION JACKSON COUNTY, RTE. 71				SHT. 53					
												ARCH. ENGR. MO. STATE HWY. DEPT				OF 54					

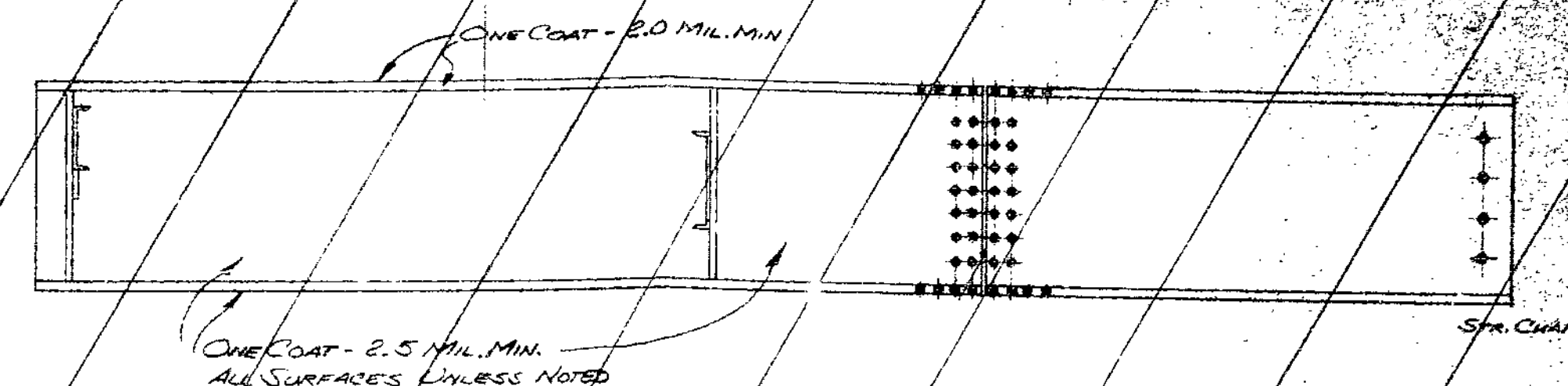
A B C D E F G H J K M N P S T U V W X Y Z AA AB AC AD AE AF AG AH AJ AK AM AN AP AS AT AU AV AW AX AY AZ

BRIDGE SHOP DRAWING NOTES AND ILLUSTRATIONS

SYSTEMS B



SYSTEM C



PAINT ONE COAT - INORGANIC ZINC - 2.0 MIL. MIN.

PAINT 2 COATS - INORGANIC ZINC - 5.0 MIL. MIN.

ALL SURFACES TO BE IN CONTACT WITH CONCRETE.

ALL SURFACES WHICH WILL NOT BE IN CONTACT, BUT WHICH WILL BE INACCESSIBLE AFTER ASSEMBLY.

ONE COAT - 2.0 MIL. MIN. INORGANIC ZINC.

SHEAR CONNECTORS NEED NOT BE PAINTED, NOR IS IT NECESSARY TO PROTECT THEM FROM OVERSPRAY.

ONE COAT - 1.5 MIL. MIN. 2.5 MIL. MAX. INORGANIC ZINC.

WITHIN 1/8" OF FIELD SPlice HOLES

3 COATS - 6.0 MIL. MIN. PAINT SPECIFIED BY CONTRACT

INSIDE SLOTS & HOLES IN BEARINGS.

BOTTOM SURFACE OF BEARING BASE R'S. ONE COAT 2.0 MIL. MIN. INORGANIC ZINC.

ONE COAT - 1.5 MIL. MIN. 2.5 MIL. MAX. INORGANIC ZINC.

CONTACT SURFACES OF FIELD SPlice R'S

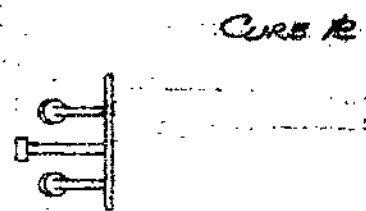
3 COATS - 6.0 MIL. MIN. PAINT SPECIFIED BY CONTRACT

INSIDE FACE OF HANGER PIN R'S & COVERED SURFACE OF MATING GIRDER OR BEAM.

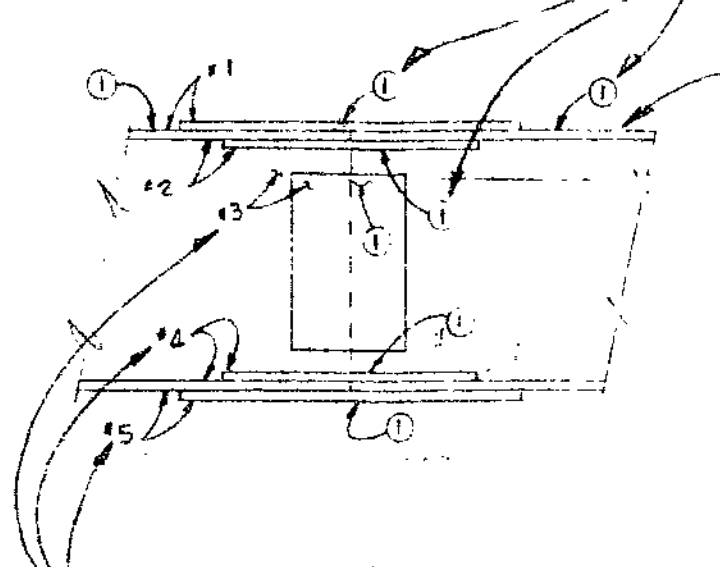


CLEAN & PAINT 2 COATS 5.0 MIL. MIN. INORGANIC ZINC.

DO NOT PAINT MACHINED SURFACES OF BEARINGS OR HANGER PINS (WHITE LEAD & TALLOW)



SPlice NUMBER (CIRCLED NO.) AS SHOWN ON ERECTION PLAN, IS STEEL STENCILED TO END OF GIRDERS & TO CENTER OF EACH SPlice R AT THAT SPlice.



DELONG'S METHOD OF STEEL STENCILING - FIELD SPlice MATERIAL & GIRDERS.

CLEANING SYSTEM B OR C NOMINAL 2.5 MIL. HEIGHT'S PROFILE.

JOB NUMBER & PIECE NUMBER AS SHOWN ON ERECTION PLAN ARE STENCILED ON TOP F. ANGE OF GIRDERS.

COAT - 2 MIL. MIN.

SHEAR CONNECTORS NEED NOT BE PAINTED, NOR IS IT NECESSARY TO PROTECT THEM FROM OVERSPRAY.

ONE COAT - 2.0 MIL. MIN. SUPPORT CHAIRS

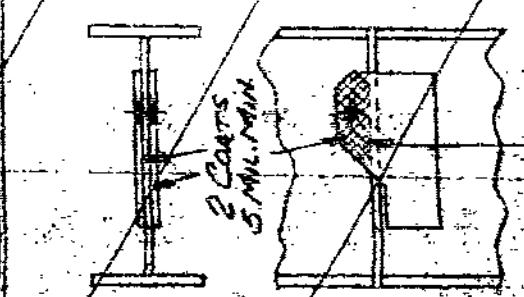
2 COATS 5.0 MIL. MIN. ONE COAT 2 MIL. MIN.

INSIDE SLOTS & HOLES IN BEARINGS.

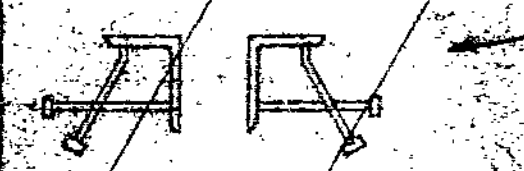
BOTTOM SURFACE OF BEARING BASE R'S.

ANC. BOLTS - PAINT AS SHOWN

3 COATS - 1.0 MIL. MIN. ONE COAT - 2 MIL. MIN.



INSIDE FACE OF HANGER BASE & COVERED SURFACE OF MATING GIRDER OR BEAM



DO NOT PAINT MACHINED SURFACES OF BEARINGS OR HANGER PINS (WHITE LEAD & TALLOW)

PAINT AS SHOWN ON CURB R 3 COATS 6.0 MIL. MIN.

NOTE: ALL SURFACES MARKED - 2.0 MIL. MIN. MAY BE PAINTED 2.5 MIL.

FOR BRIDGE FILES

APPROVED GENERAL DESIGN FEATURES ONLY

SEP 28 1979

MO. STATE HIGHWAY DEPT DIVISION OF BRIDGES

STANDARD WELDING DETAILS UNLESS OTHERWISE SHOWN

M.S.H.D. SYSTEM B TYPE II

PAINT RECORD

DELONG'S INC. SIX RD. S. IND. DR.

DETAILED BY J.W.N.

DATE 6-29-79

CHECKED BY

DATE 9-27-79

REVISIONS

DATE MK. BY

REMARKS

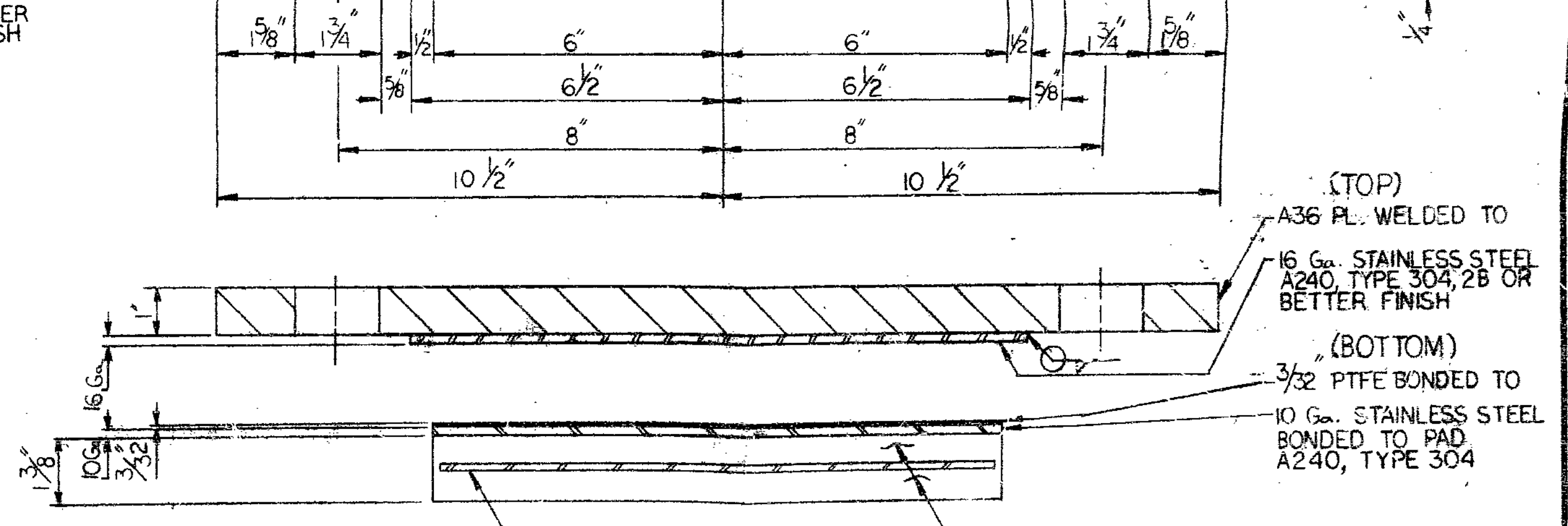
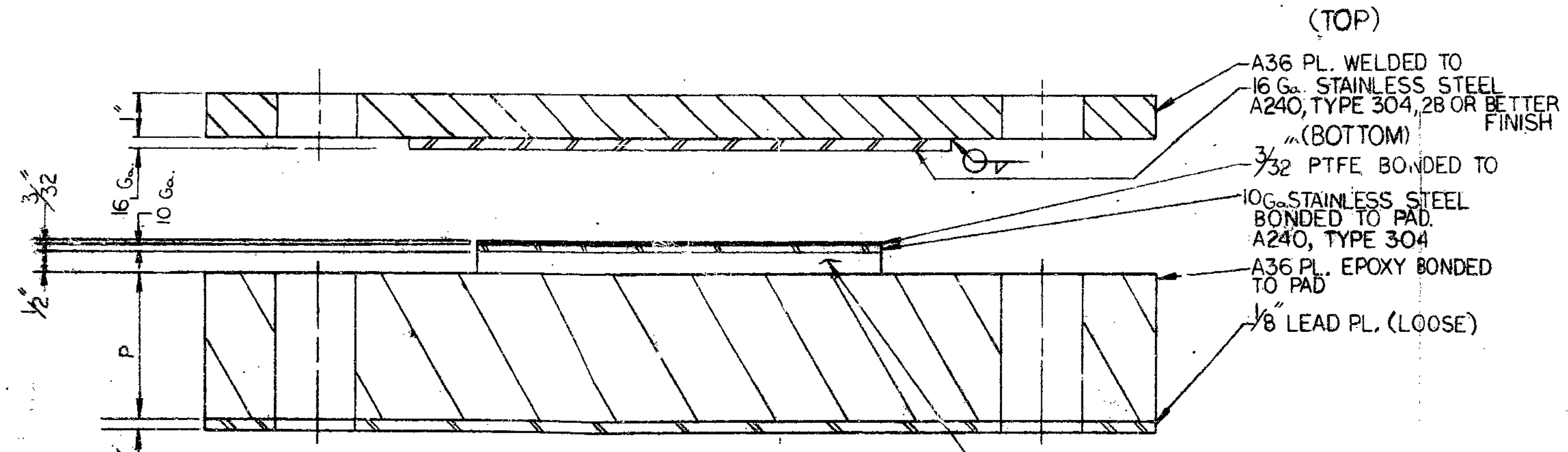
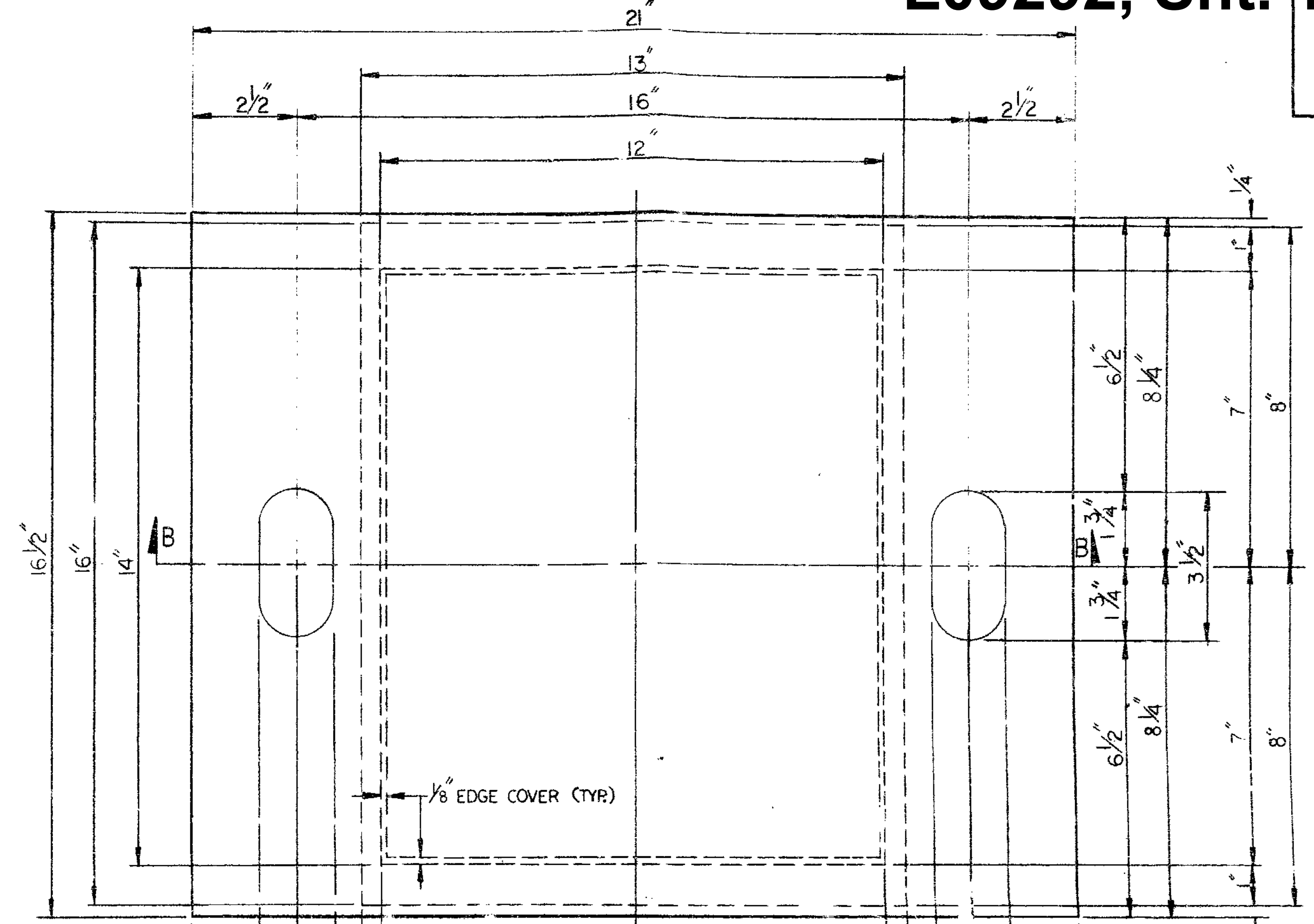
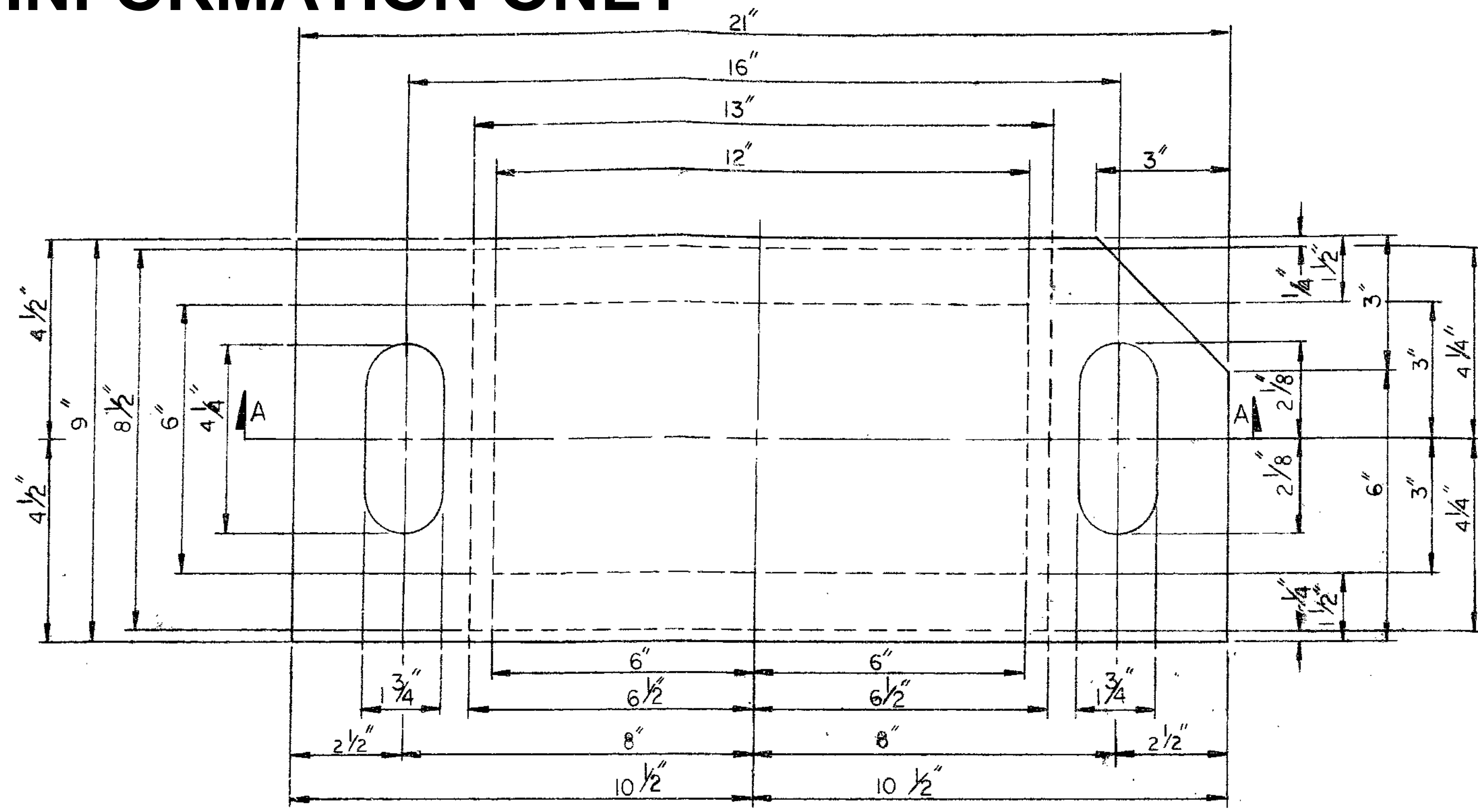
BRIDGE BLUE RIDGE BLVD. UNDER PASS

JOB 4-1071-11 0-F 31460 A-F-108

LOCATION JACKSON COUNTY, MISSOURI

ARCH. ENGR. MO. STATE HIGHWAY DEPT.

ABCDEFGHIJKLMNO PQRSTUVWXYZ



SHIM PLATES

BENT NO.	GIRDER NO.	QTY.	P
1	1&12	2	0
5	1&12	2	0
5	11	1	2 7/8"
5	2	1	2 3/8"
1	11	1	2 5/8"
5	10	1	2 7/8"
1	2	1	3 1/4"
5	9	1	3 5/8"
5	5	1	3 7/8"
1	3&8	2	4 1/8"
5	4	1	4 1/8"
1	9	1	4 7/8"
5	3&6&8	3	4 3/8"
1	10	1	4 1/2"
1	4	1	5"
5	7	1	5"
1	5	1	5 7/8"
1	7	1	6 1/8"
1	6	1	6 5/8"

24 TOTAL

NO LEAD PL.
NO LEAD PL.

SECTION A-A
BRIDGE *L-929R 24 ASSEMBLIES
PTFE SLIDING BEARINGS BENTS NO. 1&5
TYPE N ELASTOMERIC BEARINGS

1 LAYER 70 DURO. NEOPRENE AT 1/2"

NOTES:
1. MATERIALS TO MEET THE REQUIREMENTS OF THE MISSOURI HWY. DEPT. SPECIFICATIONS 1977, SEC. 1038 AND THE PLANS AND PROPOSAL FOR JACKSON-CASS COUNTIES, MISSOURI, PROJ. NO. U-F-71-4(30) ROUTE 71.

FOR BRIDGE FILES
RECEIVED JUN 1 1979
APPROVED GENERAL DESIGN FEATURES ONLY
JUN 18 1979
AYLWARD PRODUCTS CO. INC. KANSAS CITY, MO.
MO. STATE HIGHWAY DEPT. DIVISION OF BRIDGES

SECTION B-B
BRIDGE *L-929R 24 ASSEMBLIES
PTFE SLIDING BEARING BENTS NO. 2&4

JOB NO. 4-U-71-71

MISSOURI STATE HIGHWAY DEPT. U-F-71-4(30) ROUTE 71 BRIDGE *L-929R
THE AYLWARD PRODUCTS CO. JACKSON-CASS COUNTY STA. 4+77.07

JOB NO.	12	OR "D"	12	OR "D"	12
ADDED INFO.		ADDED INFO.		ADDED INFO.	
REV.		DATE		DATE	

OH. STATES RUBBER CO. ATHENS, TEXAS
PART NO. PO. * 03825
JOB NAME ELASTOMERIC BEARING PAD
TOLERANCES: FRACTIONAL 1/2" SCALE, DECIMAL-3 PLACE, DECIMAL-2 PLACE
D 10419

John Harris 5/29/77

FDC CORP. 500 4-74 82184

FEL-SPAN

HIGHWAY JOINT SYSTEM INSTALLATION DETAILS.

GENERAL NOTES: (IMPORTANT FOR INSTALLING CONTRACTOR)

- (1) IT IS VITAL FOR A SUCCESSFUL INSTALLATION THAT THE FORMING DIMENSIONS SHOWN ON THE JOINT LAYOUT AND FORMING DETAIL SHEET(S) ARE KEPT ACCURATELY. EXTRAORDINARY CARE AT THIS POINT CAN SAVE THE CONTRACTOR COSTLY CORRECTIVE MEASURES AT THE TIME OF THE INSTALLATION.
- (2) WHEN FEL-SPAN IS INSTALLED ON CONCRETE, THE CONCRETE SURFACE IN CONTACT WITH THE RUBBER PADS HAS TO BE FREE OF LAITANCE AND UNBOUND CONCRETE BEFORE BEDDING EPOXY IS APPLIED.
- (3) WHEN FEL-SPAN IS INSTALLED ON STEEL, THE STEEL SURFACE IN CONTACT WITH THE RUBBER PADS HAS TO BE FREE OF RUST AND OTHER CONTAMINATING MATERIAL COMPLETELY BEFORE APPLYING THE BEDDING EPOXY.
- (4) THE LAST PAD INSTALLED ON THE ROADWAY, SIDEWALK AND MEDIAN JOINT HAS TO BE CUT IN FIELD BY THE INSTALLING CONTRACTOR TO INSURE PROPER FIT AT THE CURB FACE. OTHER FEL-SPAN UNITS MAY HAVE TO BE FIELD CUT IF THERE ARE DISCREPANCIES BETWEEN THE DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS AND THE "AS BUILT" DIMENSIONS.
- (5) IN NEW CONSTRUCTION, IT IS STRONGLY RECOMMENDED TO SPACE THE DECK REBARS TO MISS THE FEL-SPAN ANCHOR BOLTS.

811

DRWG#	TITLE
A-FS-306	TITLE SHEET
A-FS-906-1	JOINT LAYOUT AND FORMING DETAILS (BRIDGE # A-480R)
A-FS-906-2	JOINT LAYOUT AND FORMING DETAILS (BRIDGE # L-929R)
A-FS-906-3	JOINT LAYOUT AND FORMING DETAILS (BRIDGE # L-929R)
A-FS-316C	FEL-SPAN EXPANSION JOINT SPECIFICATIONS AND INSTALLATION PROCEDURE
A-FS-T20-1 1/2	FEL-SPAN T20-1 1/2 THICK- 2" TOTAL MOTION RATING ELASTOMERIC EXPANSION DEVICE FEL-PRO# 54108
A-FS-T30A-1 1/2	FEL-SPAN T30A-1 1/2 THICK- 3" TOTAL MOTION RATING ELASTOMERIC EXPANSION DEVICE FEL-PRO# 54123

FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
JUN 6 1979

MO STATE HIGHWAY DEPT
DIVISION OF BRIDGES

MISSOURI STATE HIGHWAY COMMISSION
BRIDGE OVER ROUTE 150
STATE ROAD FROM CASS CO. LINE NORTH
ABOUT 2.5 MILES SOUTH OF GRANDVIEW
ROUTE 71 BRIDGE # A-480R
JOB # 4-U-71-71

BRIDGE BLUE RIDGE BLVD UNDER
PASS STATE ROAD ROUTE 71 IN GRANDVIEW
ROUTE 71 BRIDGE # L-929R
JOB # 4-U-071-71

JOB # U-071-4 (30)
JEFFERSON COUNTY
FEL-PRO FILE # 40-9-7 A & B

FEL-PRO INCORPORATED
CONSTRUCTION PRODUCTS DIVISION
7450 McCORMICK BLVD SKOKIE, ILLINOIS

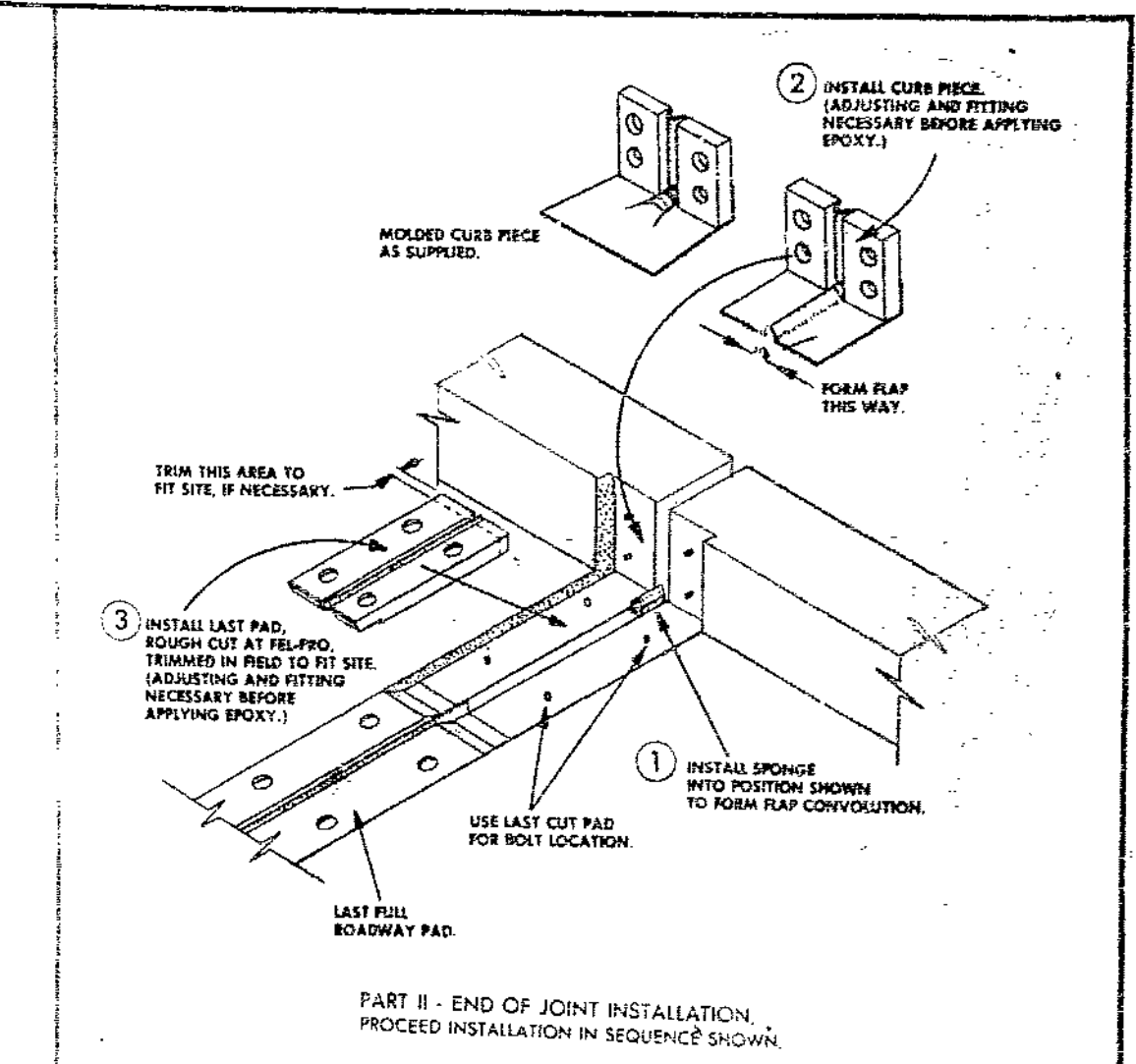
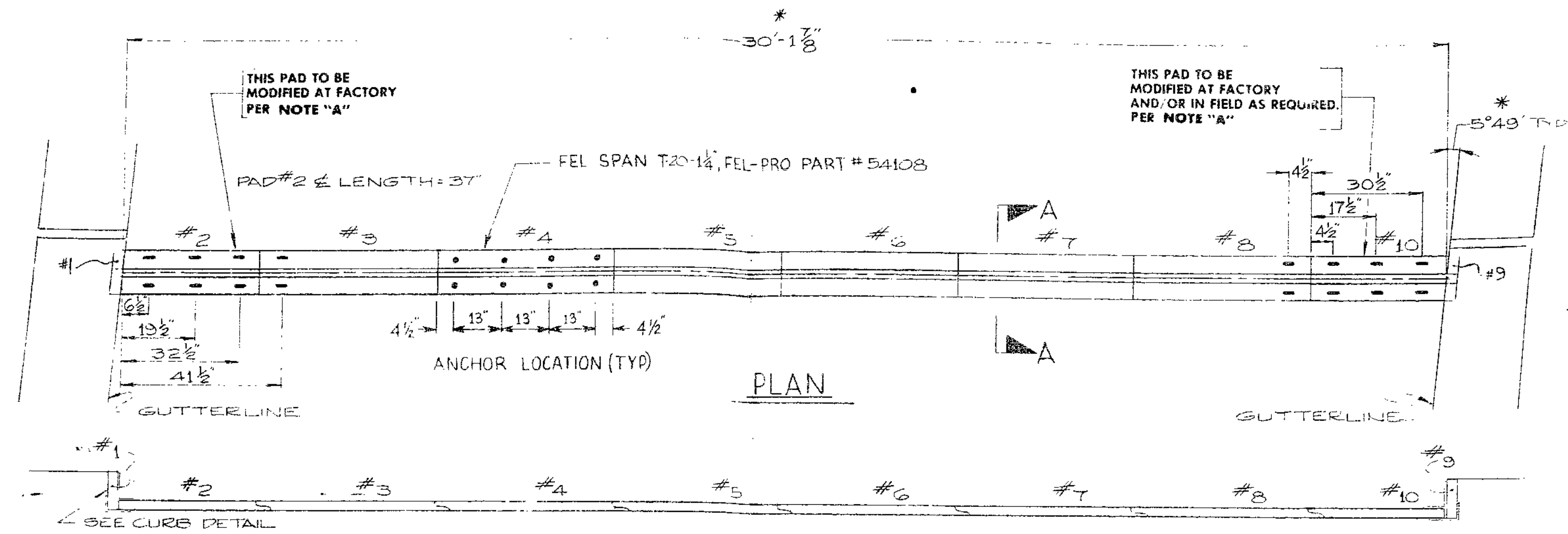
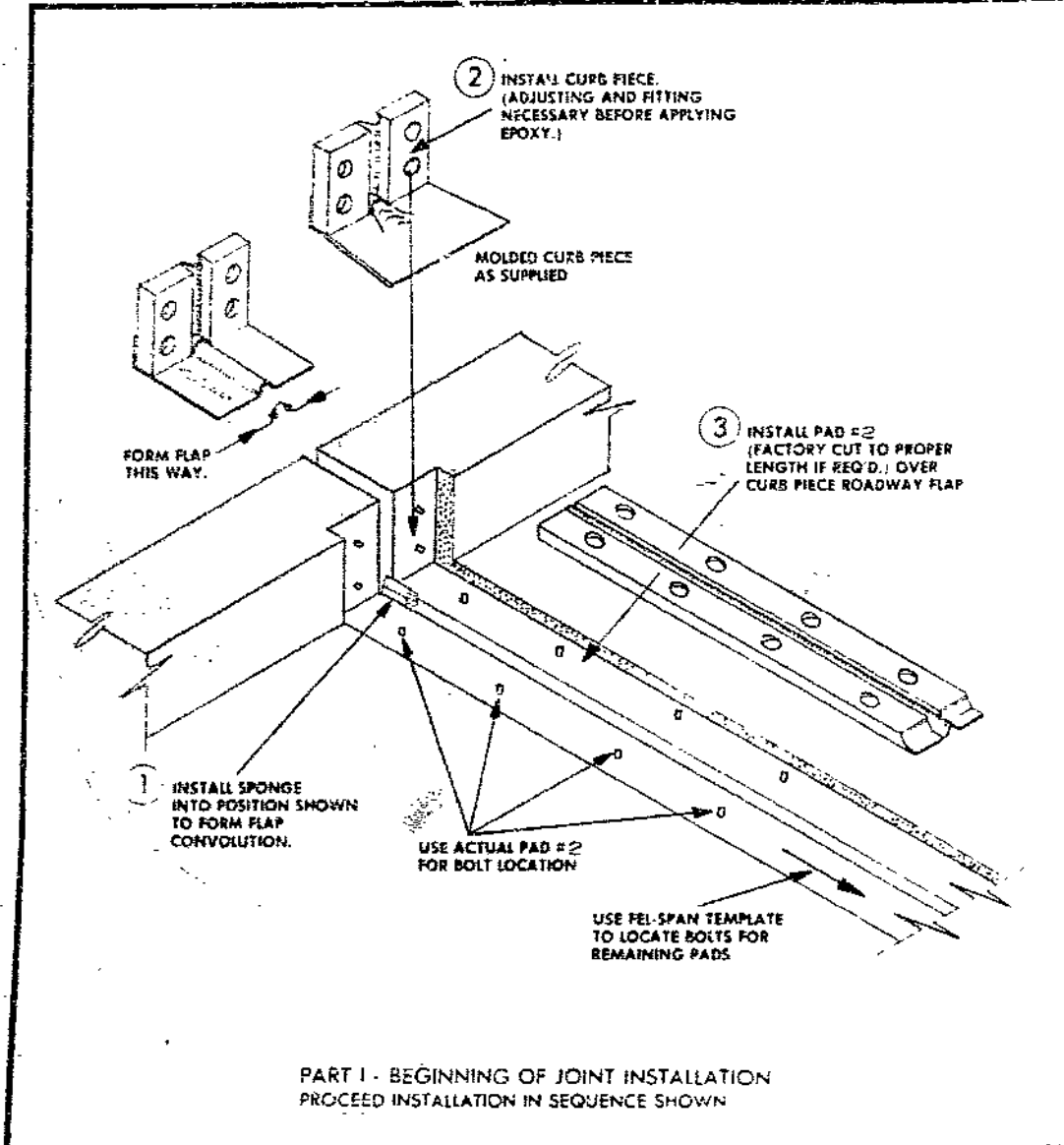
FEL-SPAN INSTALLATION TITLE SHEET

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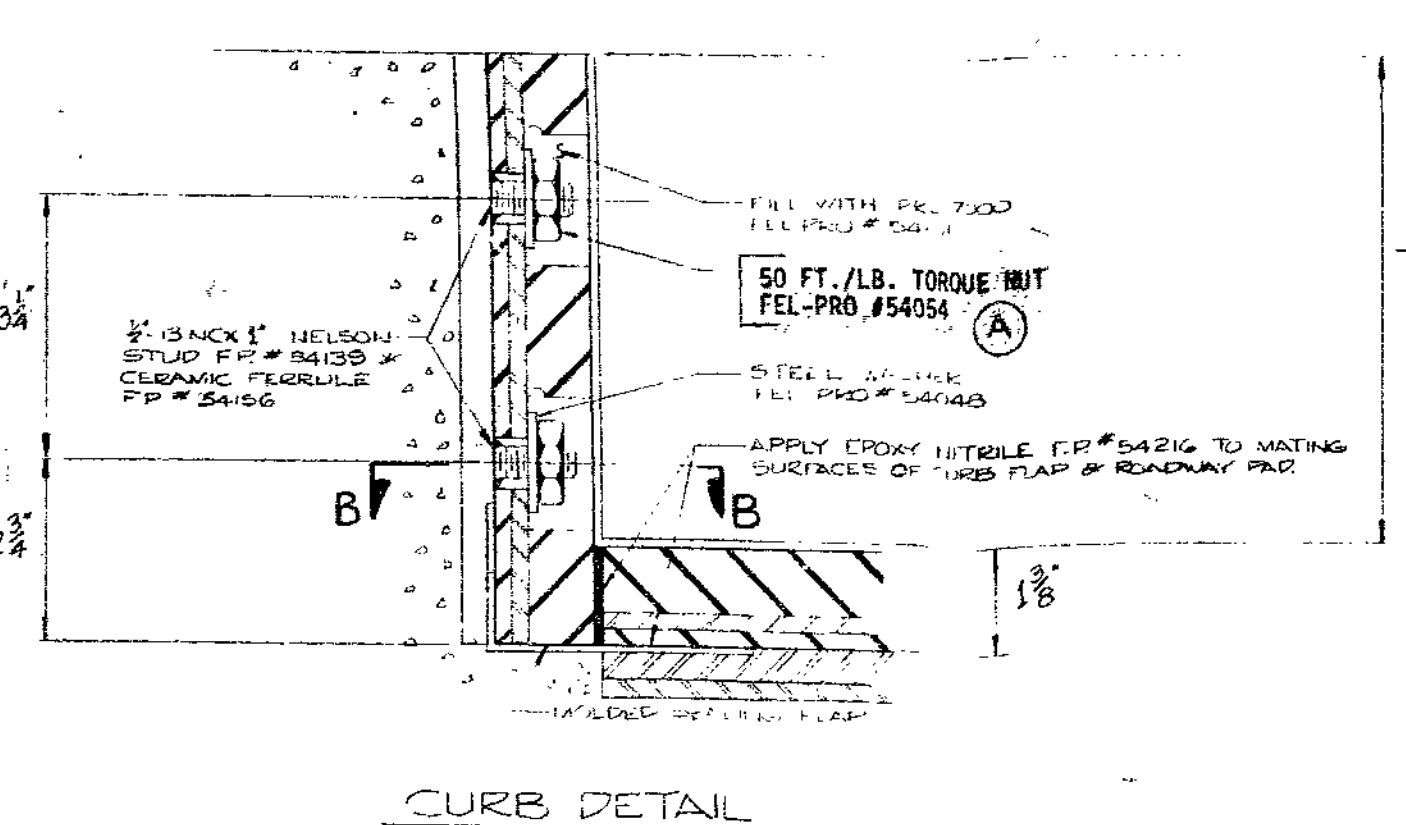
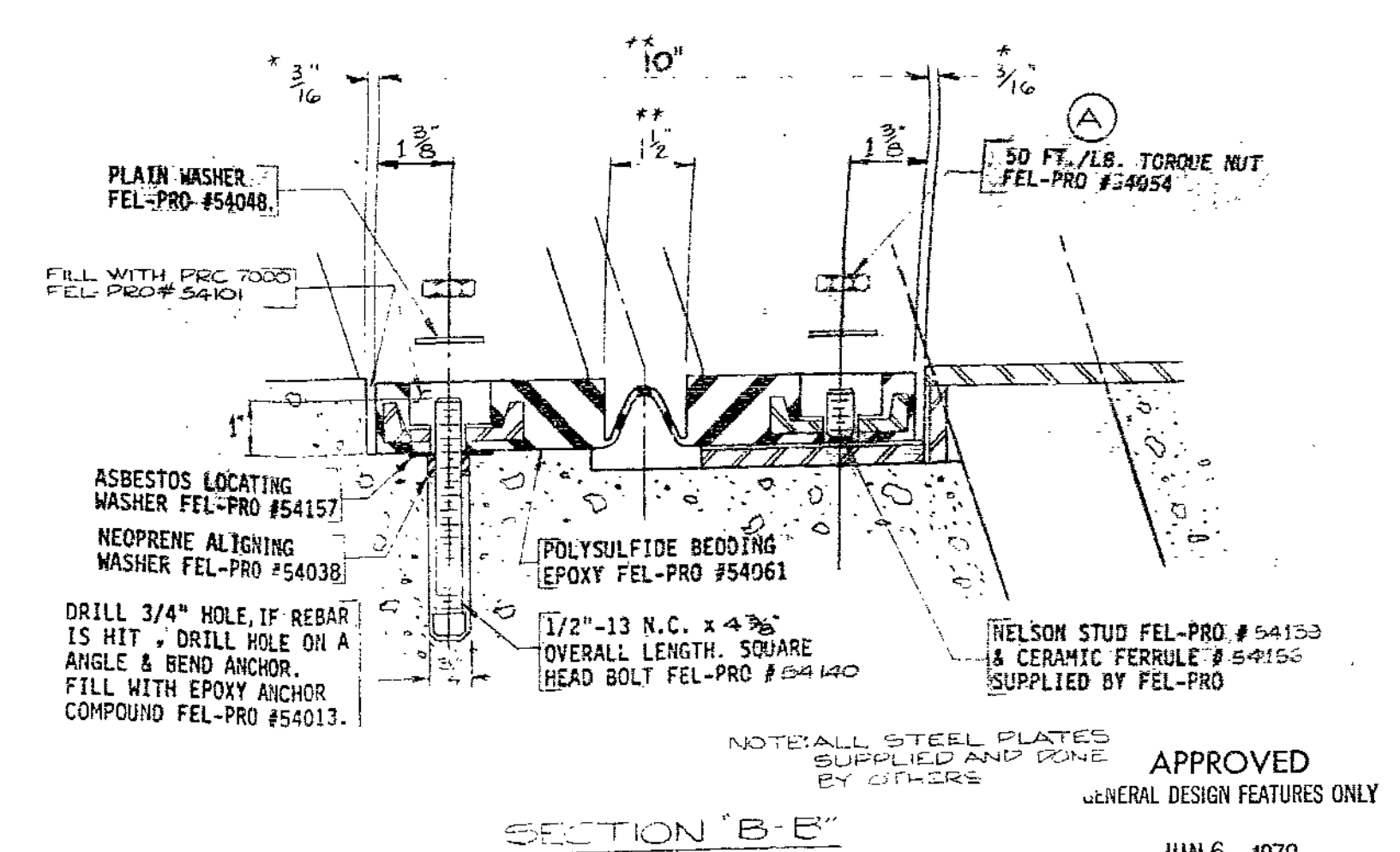
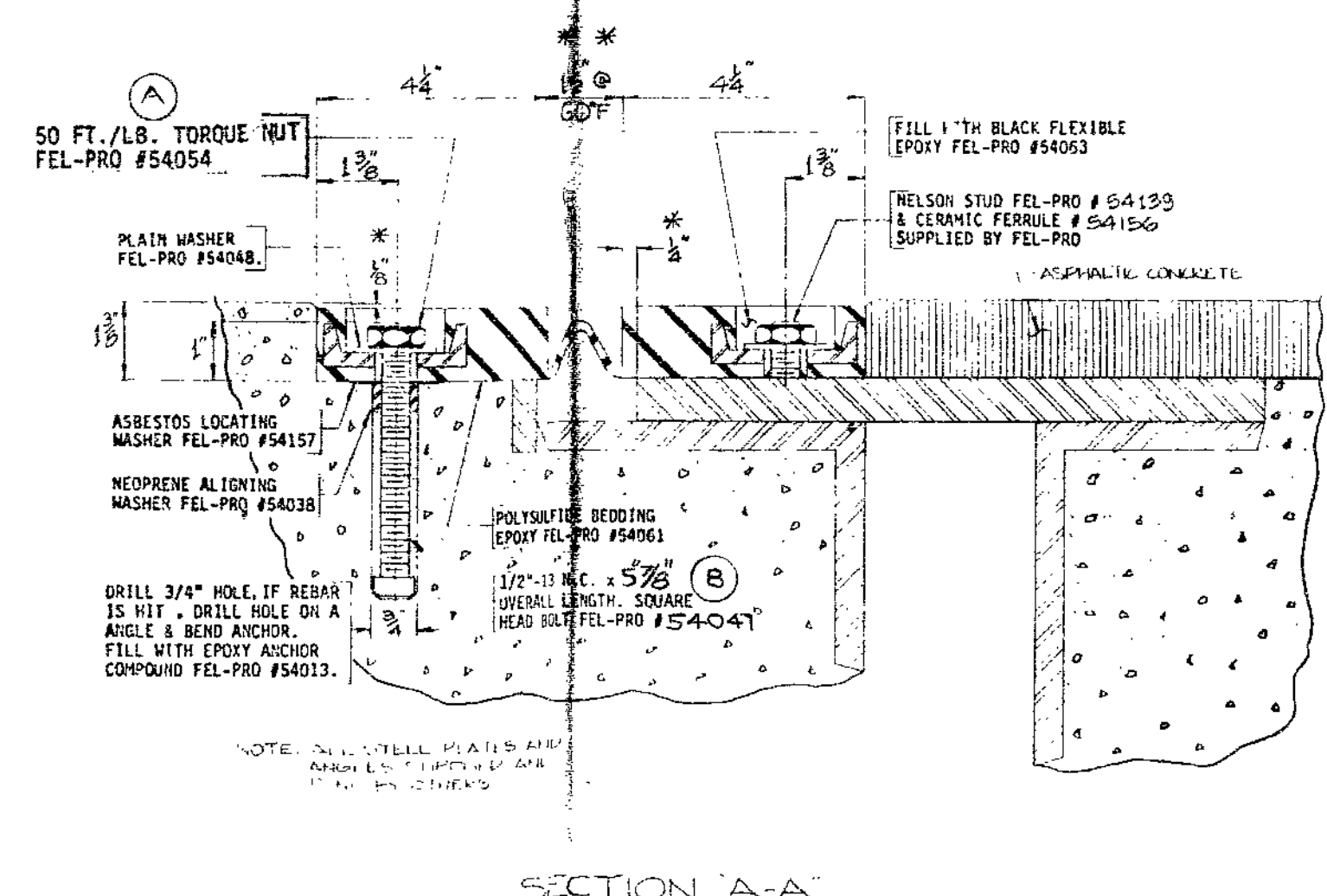
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CHECKED BY [Signature]	PROD. ENG. APPR. [Signature]	NO. A-FS-206

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CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION

FDC CORP. 500 4-74 82101



NOTE "A"
PAD #1 AND SUBSEQUENT NUMBERS INDICATE SEQUENCE OF INSTALLATION OF EXPANSION JOINT PADS. "MODIFIED AT FACTORY" INDICATES A STANDARD LENGTH PAD WAS CUT AT FEL-PRO TO THE DIMENSIONS SHOWN. "MODIFIED AT FACTORY AND/OR IN FIELD AS REQUIRED" INDICATES FEL-PRO HAS CUT A STANDARD PAD, BUT FINAL CUTTING IS REQUIRED IN THE FIELD TO CONFORM TO ACTUAL SITE DIMENSIONS.



IMPORTANT:
ALL DIMENSIONS SPECIFIED ON THE FORMOUT DETAIL MUST BE KEPT ACCURATELY ANY VARIATION BEYOND 1/8" WILL REQUIRE APPROVAL OF THE RESIDENT ENGINEER.

** DIMENSION TO BE INCREASED BY 3/32" FOR EACH 10° TEMPERATURE FALL AND DECREASED BY 3/32" FOR EACH 10° TEMPERATURE RISE.

* DIMENSION OBTAINED OR CALCULATED FROM CONTRACT DRAWINGS.

APPROVED
GENERAL DESIGN FEATURES ONLY
JUN 6 1979
MO. STATE HIGHWAY DEPT.
DIVISION OF BRIDGES

FOR BRIDGE FILES

MISSOURI STATE HIGHWAY COMMISSION
BRIDGE OVER ROUTE 150
STATE ROAD FROM CASS ST. LINE NORTH ABOUT
2.5 MILES SOUTHWEST OF GRANDVIEW
ROUTE 71, BRIDGE #A-4802

PROJECT # U-F-71-4 (30)
JOB # 4-U-71-71
JACKSON COUNTY

FEL-PRO FILE # MO-8-7A

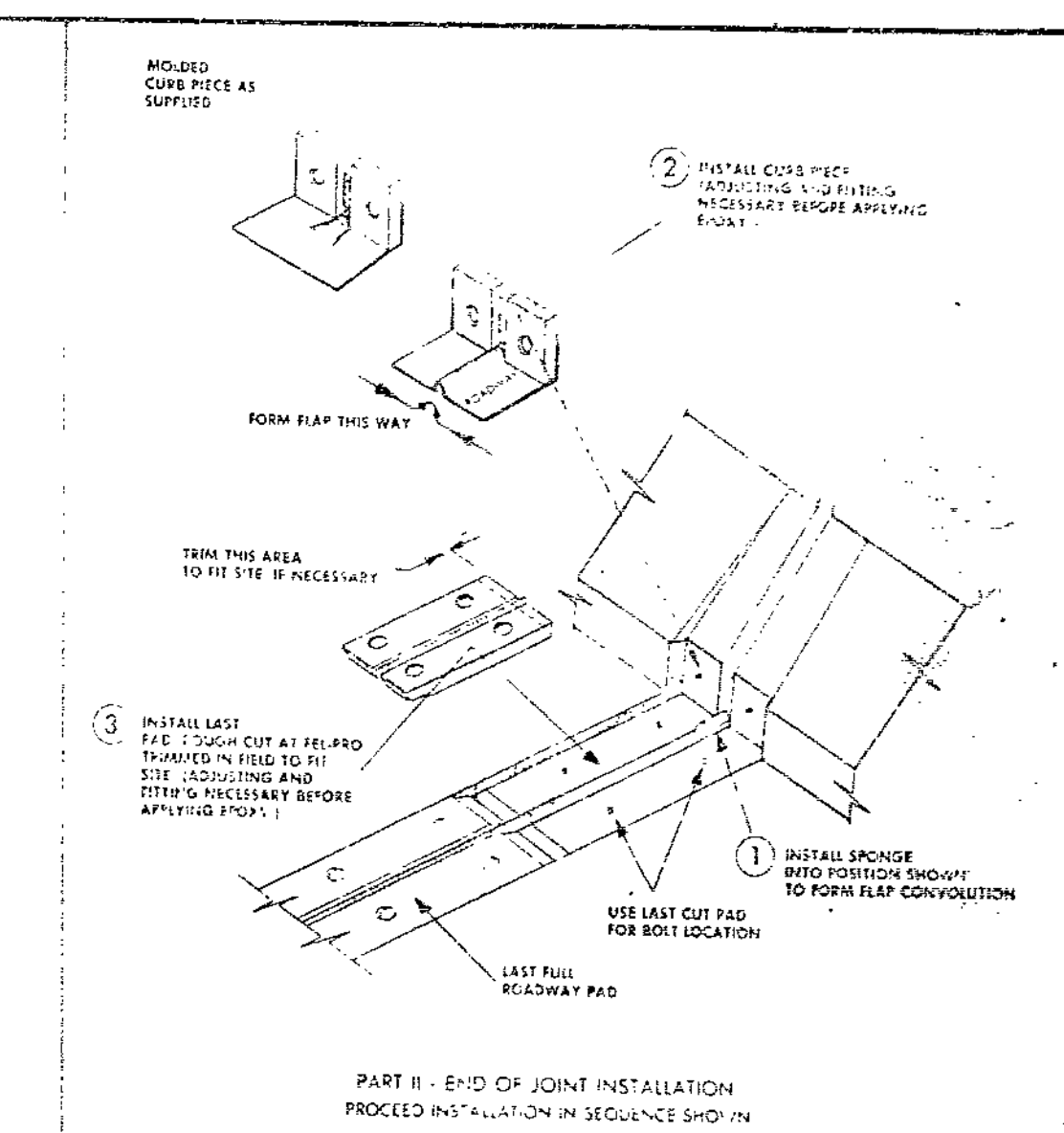
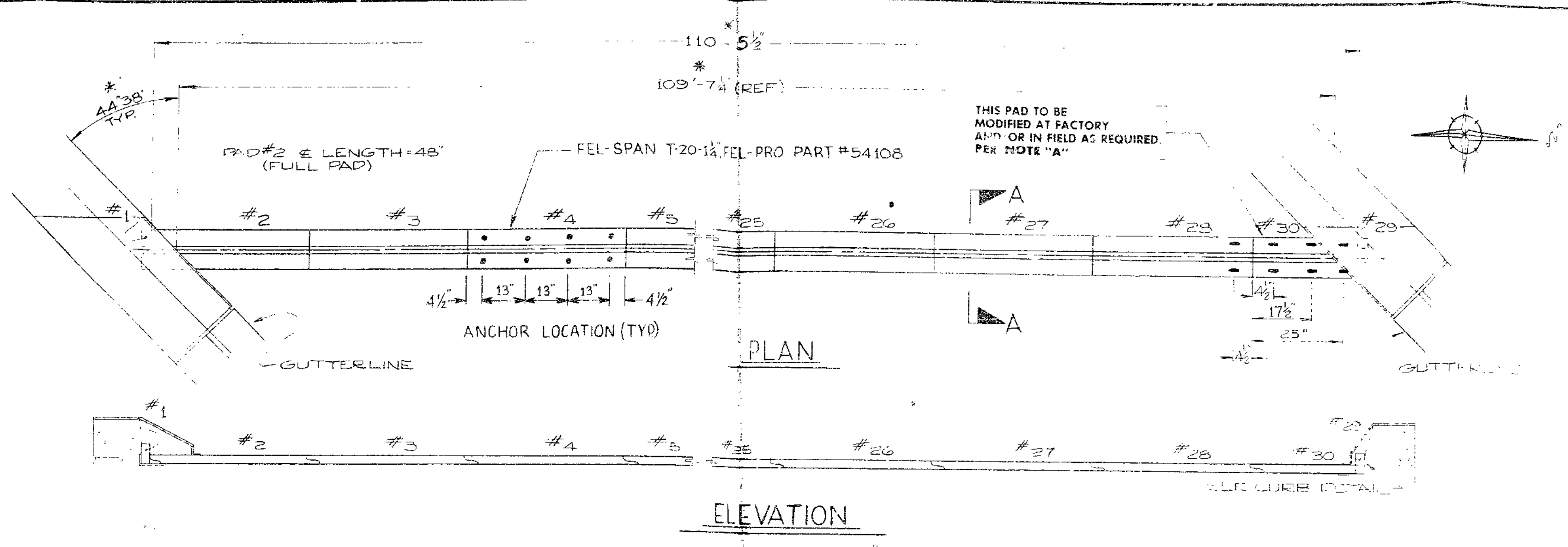
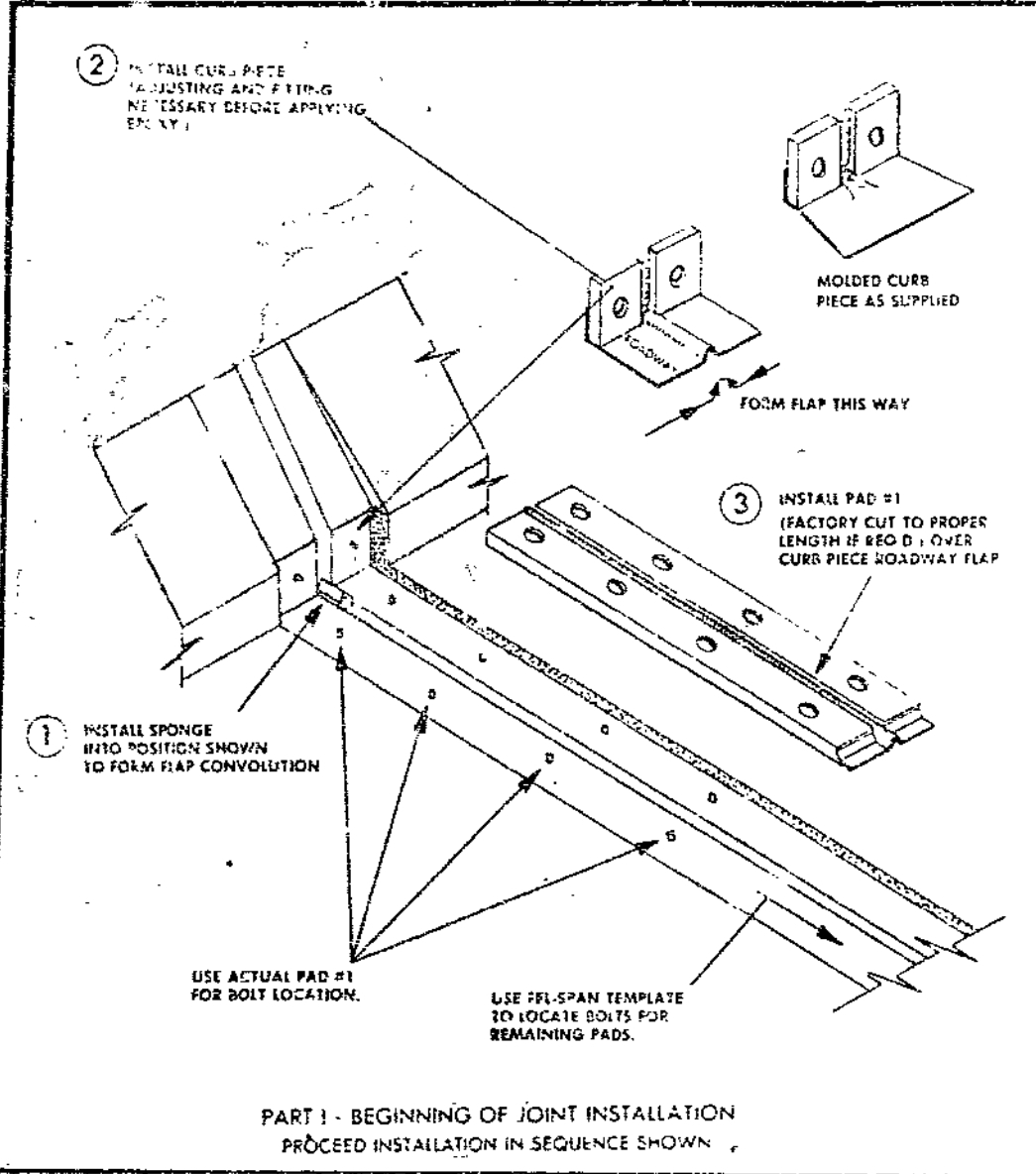
FEL-PRO INCORPORATED
CONSTRUCTION PRODUCTS DIVISION
7450 McCORMICK BLVD. SKOKIE, ILLINOIS

JOINT LAYOUT &
FORMING DETAILS

CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION
A	5-21-79	F.M.	WAS PLAIN NUT	C				E				J				L			
B	5-31-79	F.M.	WAS 1/2-13 N.C. x 4 3/8 LOW BOLT	D				F				K				M			

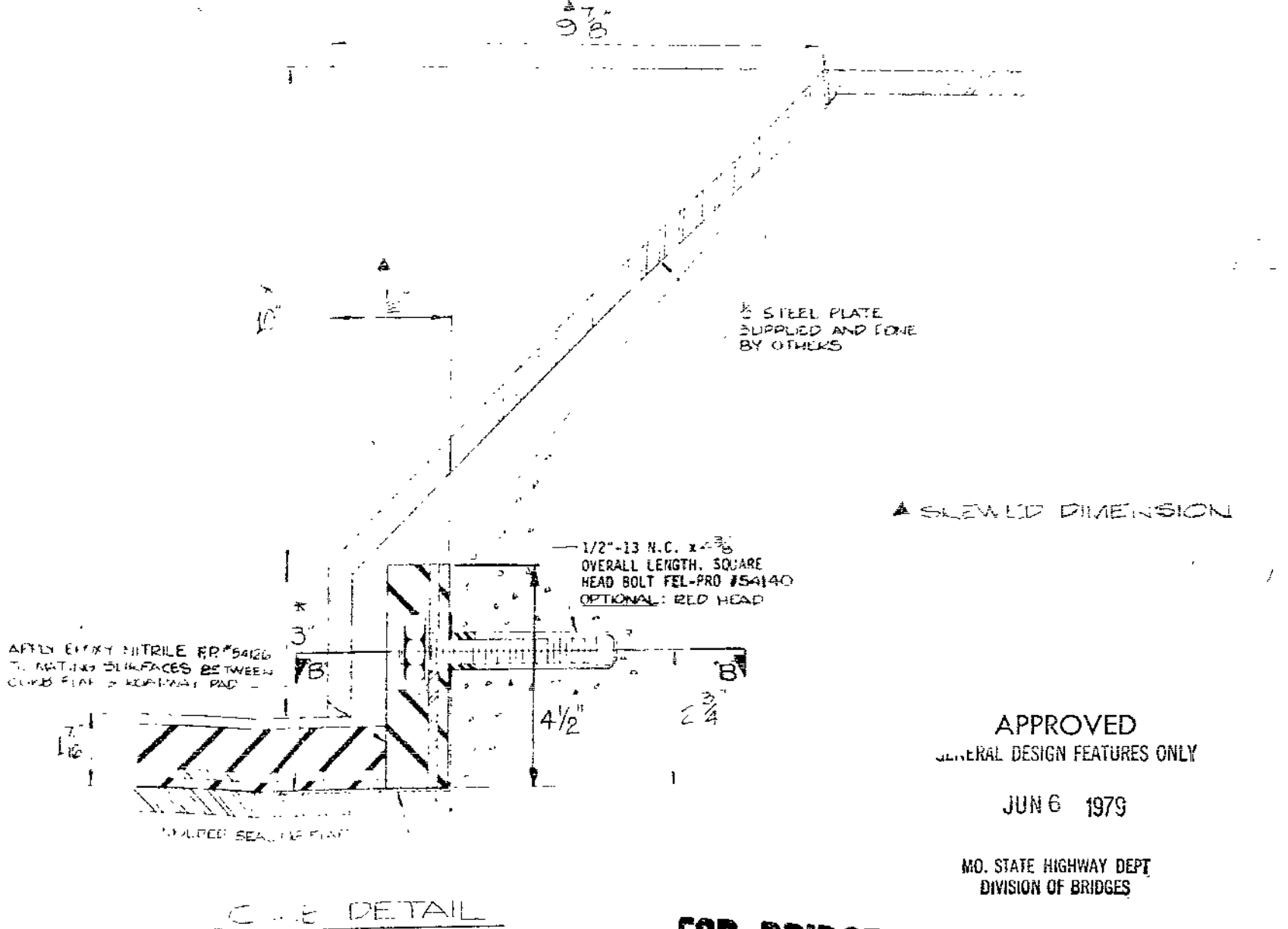
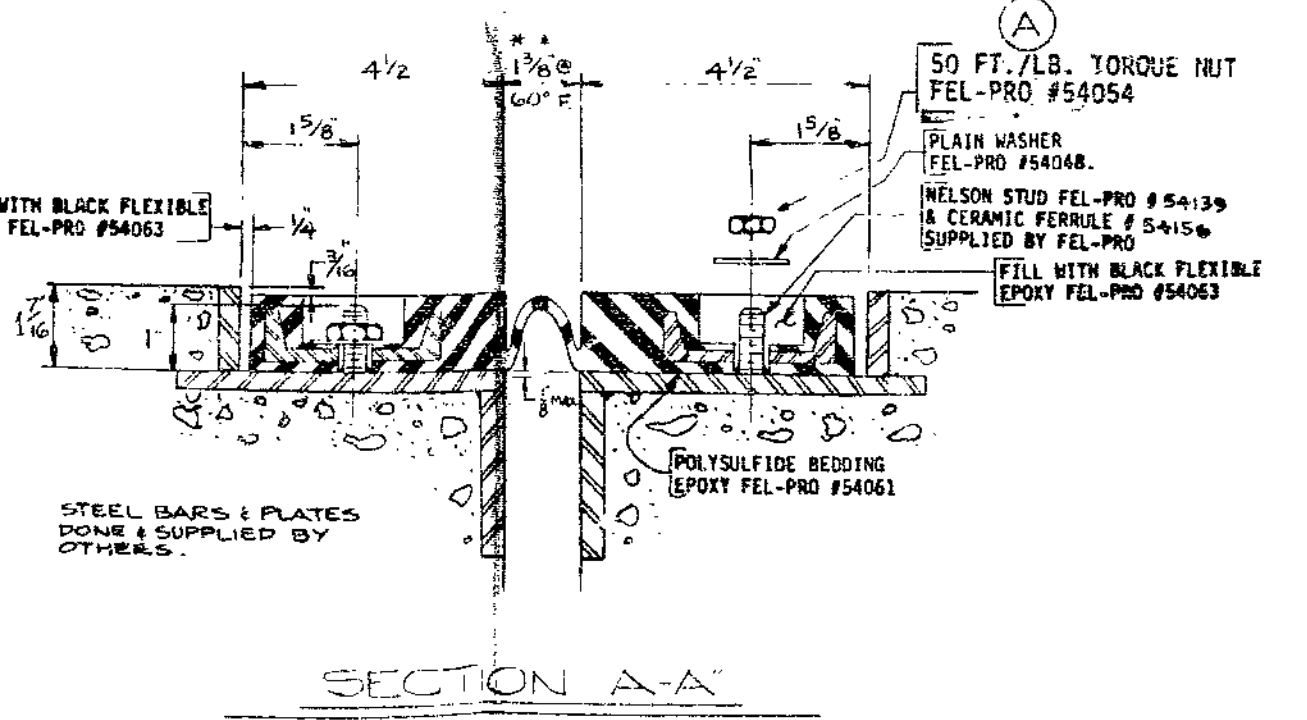
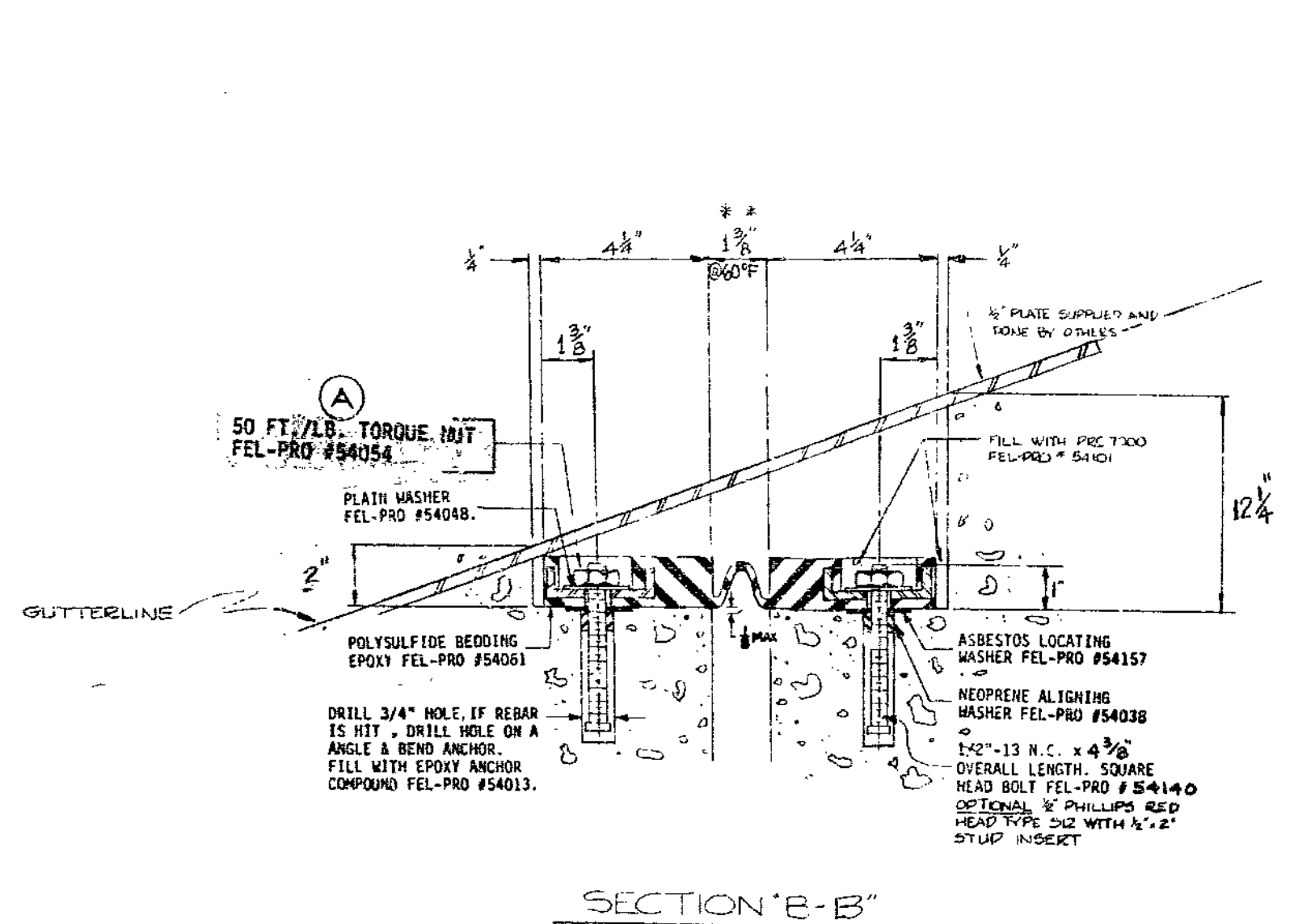
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DRAWN BY E.T. DATE MAR 29 1979 SCALE
CHECKED BY M.P. PROD. ENG. APPR. D. NO A-FS-906-1

FEL-PRO CORP. 500 4-78 61213



NOTE "A"
 PAD #1 AND SUBSEQUENT NUMBERS INDICATE SEQUENCE OF INSTALLATION OF EXPANSION JOINT PADS. "MODIFIED AT FACTORY AND CUT TO SIZE" INDICATES FEL-PRO HAS CUT A STANDARD PAD, BUT FURTHER CUTTING IS REQUIRED IN THE FIELD TO CONFORM TO ACTUAL SITE DIMENSIONS.

ELEVATION
 JOINT AT BENT #1
 ANCHOR SYSTEM: STUDWELDED 3 ROADWAY
 EPOXY GROUTING & CURBS



**EXPANSION GAP SHALL BE INCREASED BY 1/8\"/>

IMPORTANT:
 ALL DIMENSIONS SPECIFIED ON THE FORMOUT DETAIL MUST BE KEPT ACCURATELY ANY VARIATION BEYOND 1/8\"/>

*DIMENSION OBTAINED OR CALCULATED FROM CONTRACT DRAWINGS.

A	5-31-79	F.M.	WAS PLAIN NUT	C				E				G				J				L			
B				D				F				H				K				M			
CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION

APPROVED
 GENERAL DESIGN FEATURES ONLY
 JUN 6 1979
 MO. STATE HIGHWAY DEPT
 DIVISION OF BRIDGES

FOR BRIDGE FILES

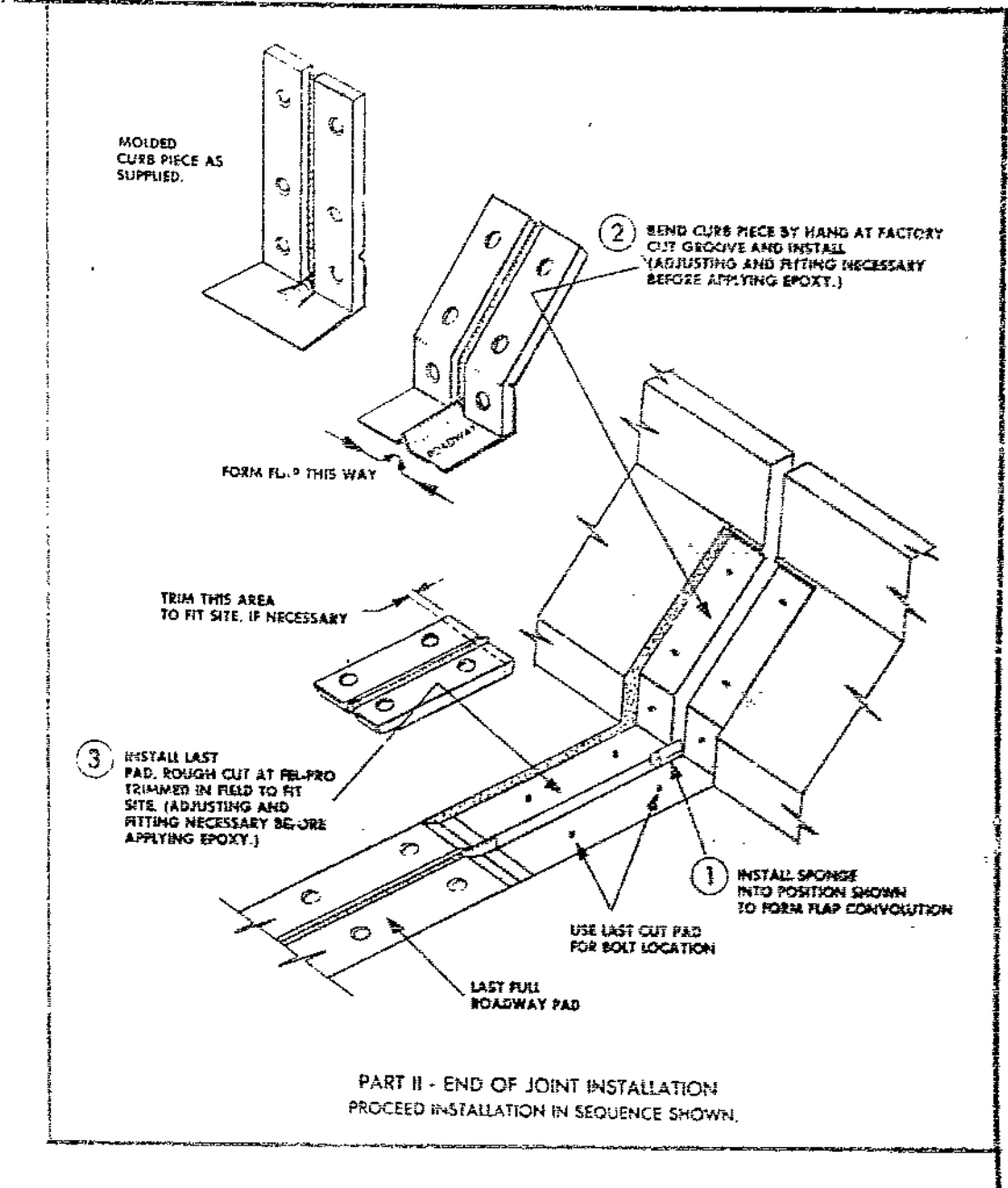
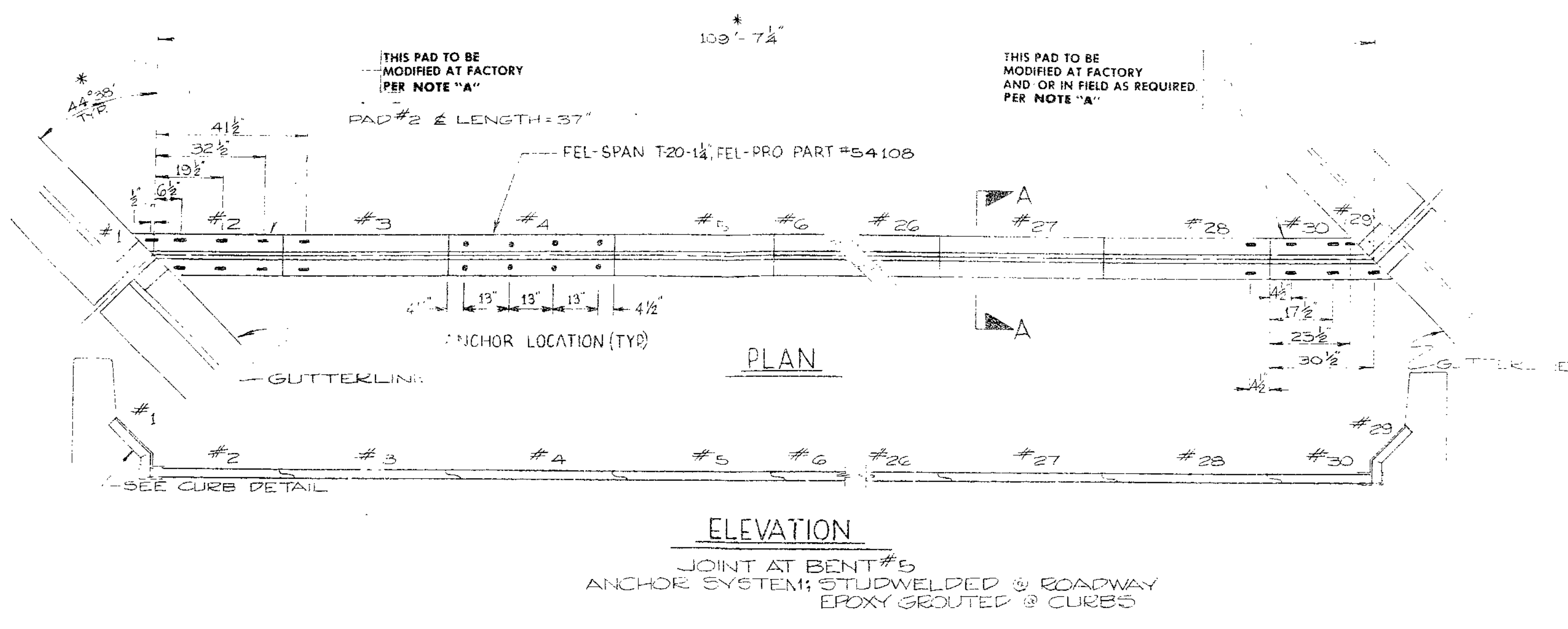
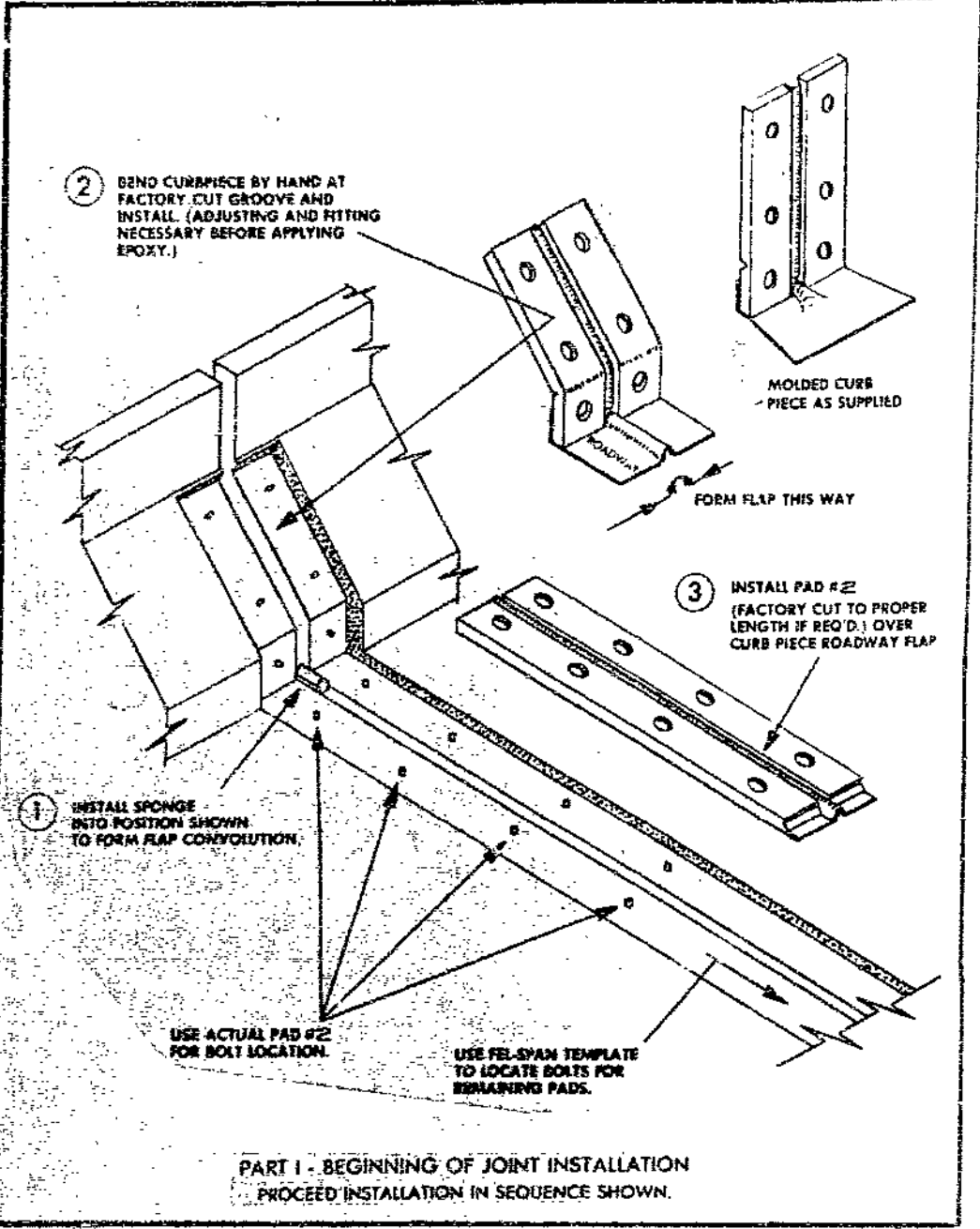
MISSOURI STATE HIGHWAY COMMISSION
 BOONVILLE BLVD UNDER PASS STATE
 ROAD ROUTE 71, GRANDVIEW
 BRIDGE #14430, ROUTE 71
 PROJECT # 14430
 JACOBSON COUNTY

FEL-PRO FILE # 14430-71
 FEL-PRO INCORPORATED
 CONSTRUCTION PRODUCTS DIVISION
 411 McCORMICK BLVD
 SKOKIE, ILLINOIS

DATE: 5-31-79
 SCALE: 1/8" = 1'-0"
 DRAWN BY: E.T.
 PROD. ENG. APP'D: [Signature]
 NO. A-FS-306-2

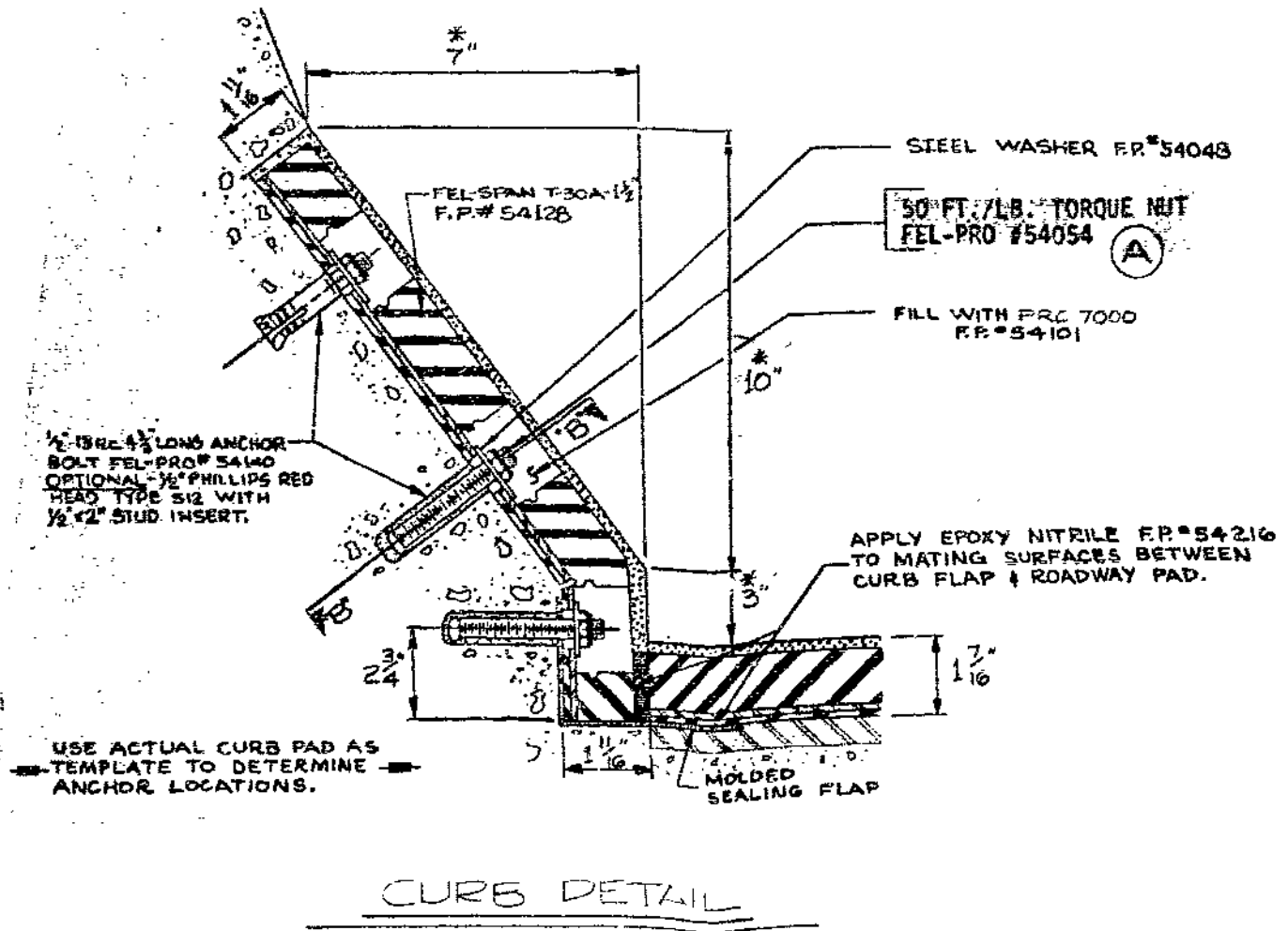
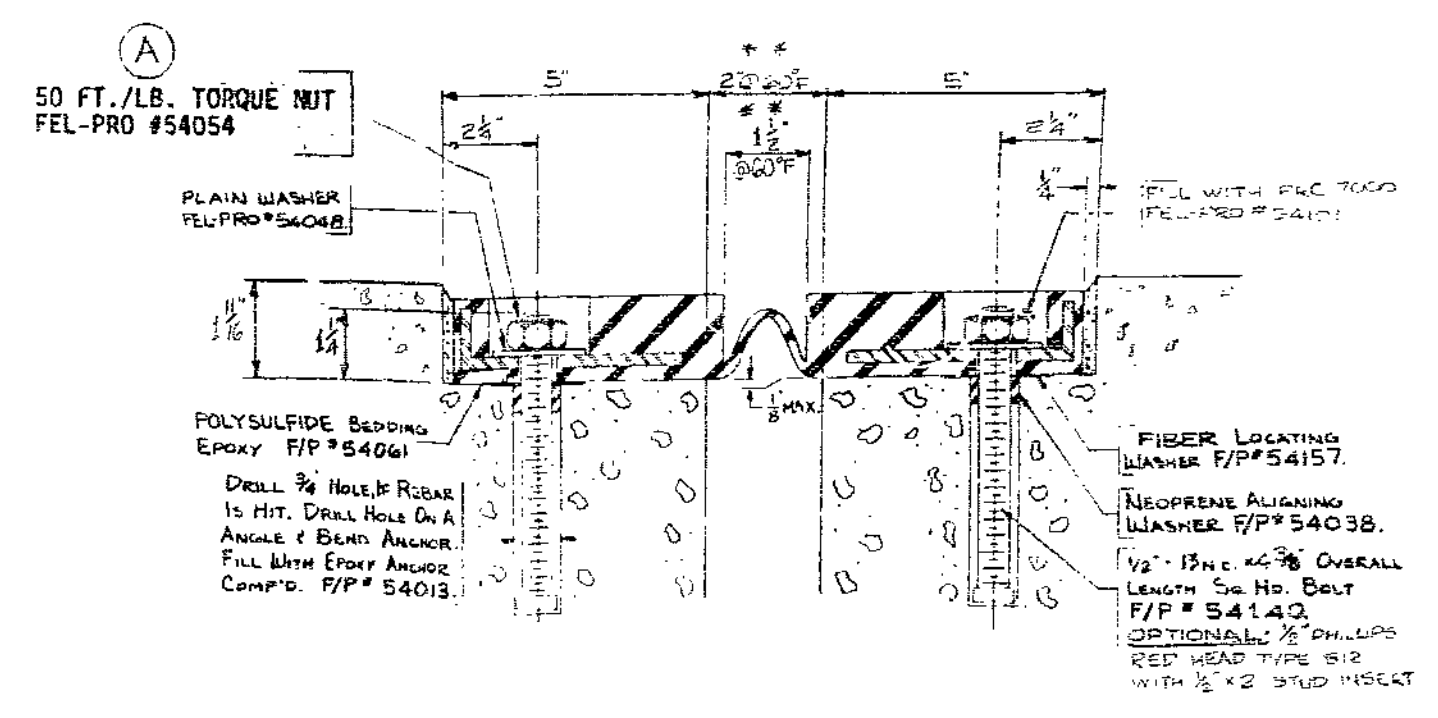
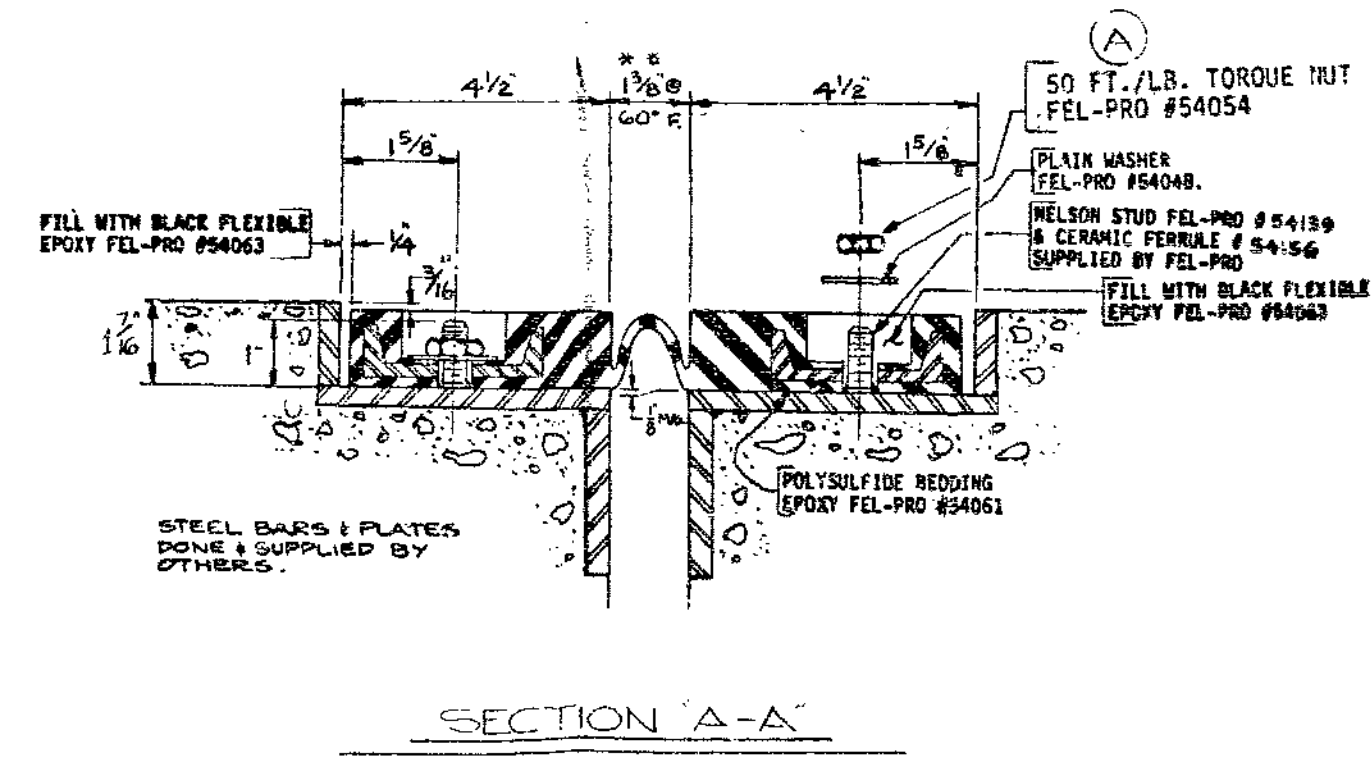
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FDC CORP 300 874 81275



NOTE "A"

PAD #1 AND SUBSEQUENT NUMBERS INDICATE SEQUENCE OF INSTALLATION OF EXPANSION JOINT PADS. "MODIFIED AT FACTORY" INDICATES A STANDARD LENGTH PAD WAS CUT AT FEL-PRO TO THE DIMENSIONS SHOWN. "MODIFIED AT FACTORY AND/OR IN FIELD AS REQUIRED" INDICATES FEL-PRO HAS CUT A STANDARD PAD, BUT FINAL CUTTING IS REQUIRED IN THE FIELD TO CONFORM TO ACTUAL SITE DIMENSIONS.



** EXPANSION GAP SHALL BE INCREASED BY 1/8" FOR EACH 10° FALL IN TEMPERATURE AND DECREASED BY 1/8" FOR EACH 10° RISE IN TEMPERATURE.

IMPORTANT:
ALL DIMENSIONS SPECIFIED ON THE FORMOUT DETAIL MUST BE KEPT ACCURATELY ANY VARIATION BEYOND 1/8" WILL REQUIRE APPROVAL OF THE RESIDENT ENGINEER.

*DIMENSION OBTAINED OR CALCULATED FROM CONTRACT DRAWINGS.

APPROVED
GENERAL DESIGN FEATURES ONLY
JUN 6 1979
MO. STATE HIGHWAY DEPT
DIVISION OF BRIDGES

MISSOURI STATE HIGHWAY COMMISSION
BRIDGE BLUE CROSS BLVD UNDER PASS STATE
ROAD ROUTE 71 IN GRANDVIEW
BRIDGE # 1-908 E. ROUTE 71
PROJECT # J-71-4 (30)
JOB # 2-107-71
JACKSON COUNTY

FEL-PRO INCORPORATED
CONSTRUCTION PRODUCTS DIVISION
7450 MCCORMICK BLVD SKOKIE, ILLINOIS

JOINT LAYOUT & CURB DETAILS

DRAWN BY: [Signature] DATE: [Date] SCALE: [Scale]
CHECKED BY: [Signature] PROJ. ENG. [Signature] APPR. [Signature]

CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION	CODE	DATE	BY	REVISION
A	5-31-79	F.M.	WAS PLAIN NUT	C				E				G				J			
B				D				F				H				K			

FEL-SPAN ELASTOMERIC EXPANSION DEVICE SPECIFICATIONS

ELASTOMERIC EXPANSION DEVICE MATERIAL SPECIFICATIONS
THE NEOPRENE COMPOUND FOR THIS EXPANSION DEVICE SHALL BE IN ACCORDANCE WITH ASTM- D2000
"LINE CALL-OUT" 28CG20A14B14C12F17K21Z1*

FLEXIBLE EPOXY-BOLT WELL SEALANT FEL-PRO COMPOUND #113
THE FLEXIBLE EPOXY FOR FILLING THE VOID AROUND THE NUT FASTENERS CONSISTS OF A BLACK, TWO COMPONENT FLEXIBLE EPOXY SEALANT HAVING THE FOLLOWING PHYSICAL PROPERTIES:

RUBBERIZED EPOXY-INTERCONNECT SEALANT FEL-PRO COMPOUND #166
THE RUBBERIZED EPOXY FOR SEALING JOINTS BETWEEN EXPANSION DEVICES SHALL BE A TWO COMPONENT, BLACK, POLYMER CURING COMPOUND, FORMULATED TO GIVE A STRONG, ELASTIC BOND WHICH WILL RESIST VIBRATION AND ACCOMMODATE THE EXPANSION AND CONTRACTION CONDITIONS TYPICALLY ENCOUNTERED IN HIGHWAY CONSTRUCTION.

EPOXY ANCHOR COMPOUND FEL-PRO COMPOUND #111
INSTALLATION WHERE ANCHOR BOLTS ARE GROUTED IN PLACE RATHER THAN CAST-IN-PLACE, THE ANCHOR COMPOUND SHALL BE SUPPLIED IN PREASSEMBLED CARTRIDGES OR IN PREMEASURED CONTAINERS AND WILL CONSIST OF A CONCRETE GREY, TWO COMPONENT, HIGH STRENGTH EPOXY HAVING THE FOLLOWING CHARACTERISTICS:

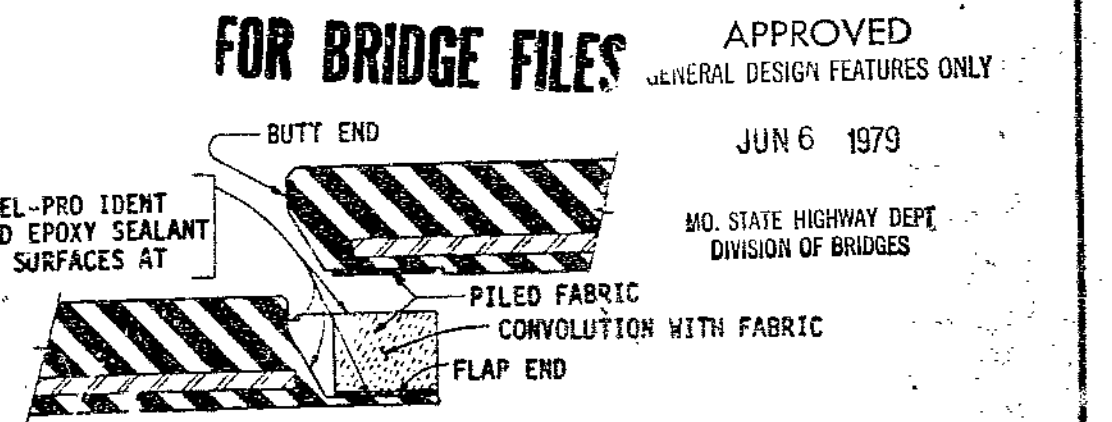
FEL-SPAN ELASTOMERIC EXPANSION DEVICE INSTALLATION PROCEDURES
STEP 1 CONCRETE FORMING
CURB RECESSES AND ROADWAY/SIDEWALK TROUGH FOR THE FEL-SPAN JOINT MUST BE FORMED OUT TO THE EXACT DIMENSIONS SHOWN ON THE CONTRACT PLANS OR AS AMENDED BY THE APPROVED FEL-PRO SHOP DRAWINGS.

FEL-SPAN ELASTOMERIC EXPANSION DEVICE INSTALLATION PROCEDURES
STEP 3 (CONT.) EPOXY ANCHORED METHOD
TO CHECK THE ACCURACY OF THE WORK AND TO PROTECT EXPOSED BOLTS FROM POSSIBLE DAMAGE, THE FEL-SPAN PADS MAY BE TEMPORARILY PLACED OVER THE ANCHOR BOLTS WHILE THE EPOXY IS CURING.

FEL-SPAN ELASTOMERIC EXPANSION DEVICE INSTALLATION PROCEDURES
STEP 5 INSTALLATION OF FEL-SPAN PADS
CLEAN ALL DUST AND DEBRIS FROM THE BEDDING SURFACE WITH COMPRESSED AIR. MIX THE A & B COMPONENT CANS OF BEDDING EPOXY (FEL-PRO #54061-SUPPLIED IN QUART KITS WITH A GREEN LABEL) IN ACCORDANCE WITH THE SUPPLIED INSTRUCTIONS.

SUMMARY OF ADHESIVE - SEALANTS
Table with 5 columns: CONTAINER IDENT NUMBER, CONTAINER LABEL COLOR, CONTAINER TYPE, COMPOUND NUMBER AND TRADE NAME, LOCATION TO BE USED (SEE SECT. FOR DETAILS)

DO NOT ATTEMPT TO USE ANY OF THESE COMPOUNDS WITHOUT CAREFULLY READING MIXING INSTRUCTIONS SUPPLIED WITH EACH CONTAINER



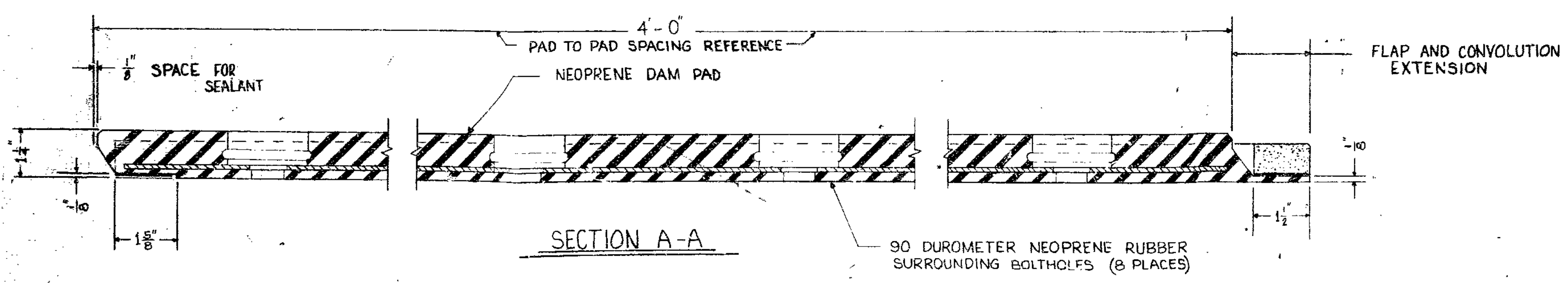
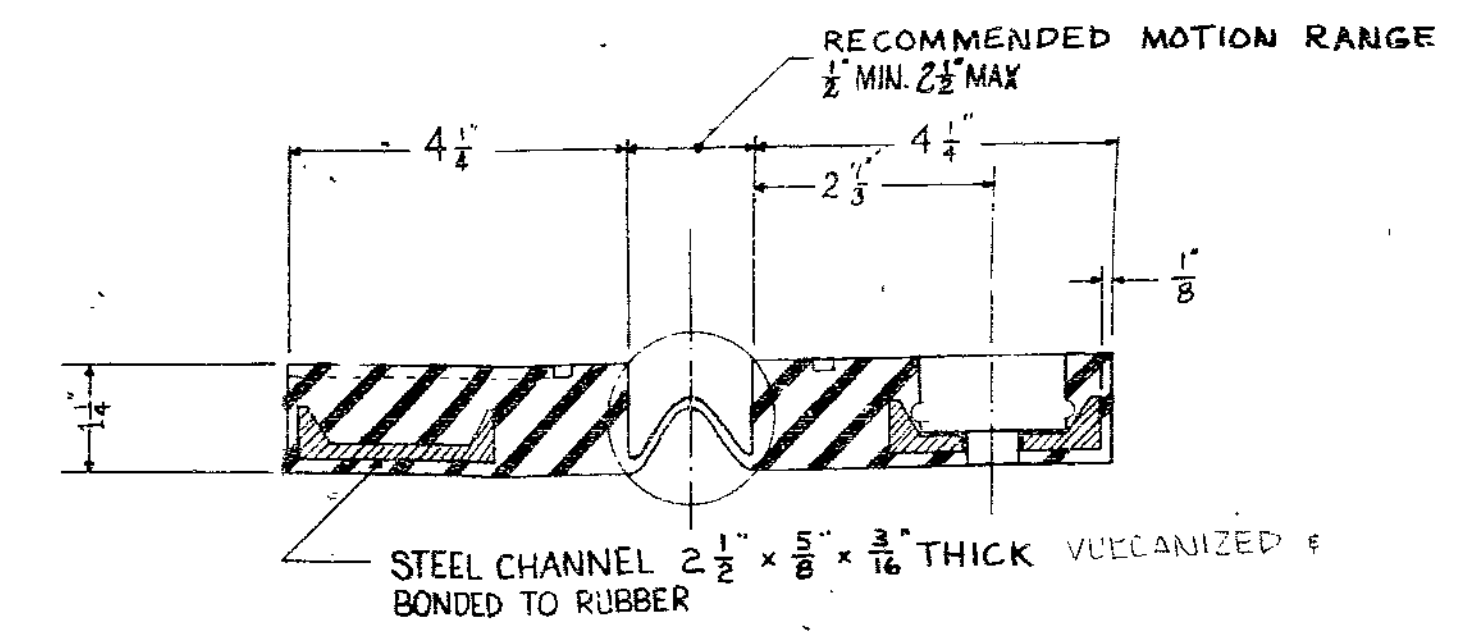
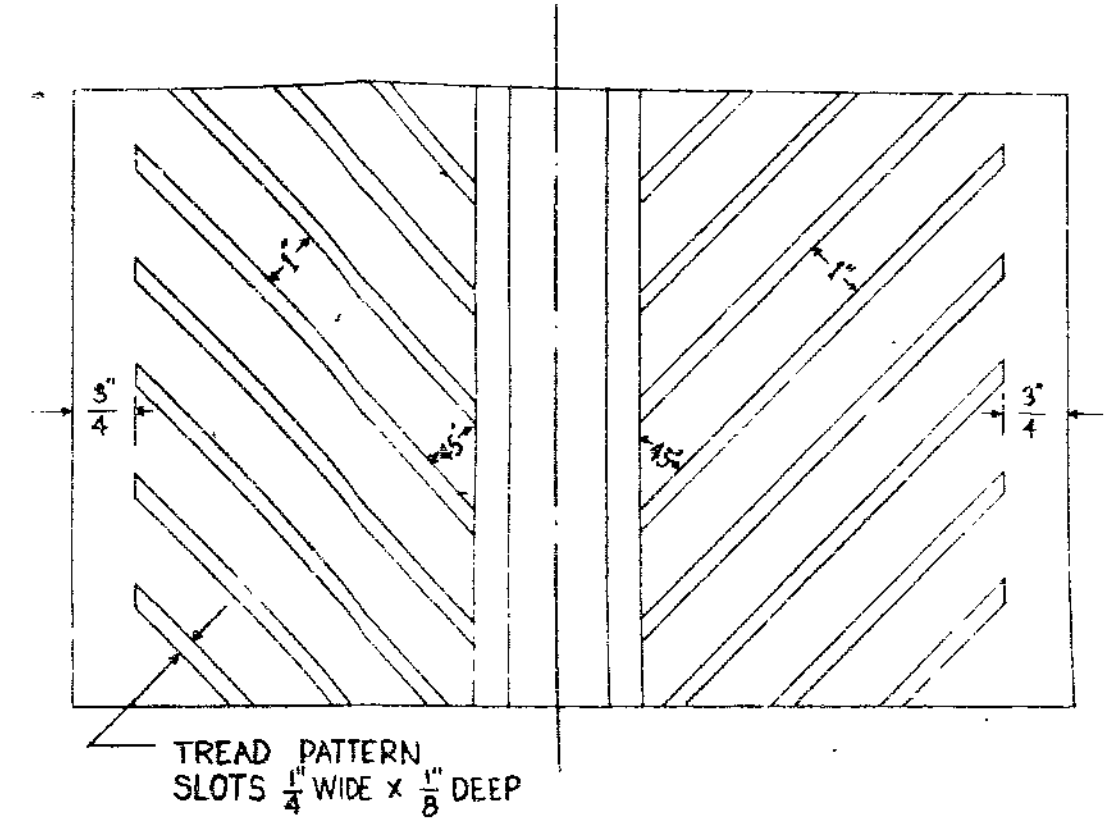
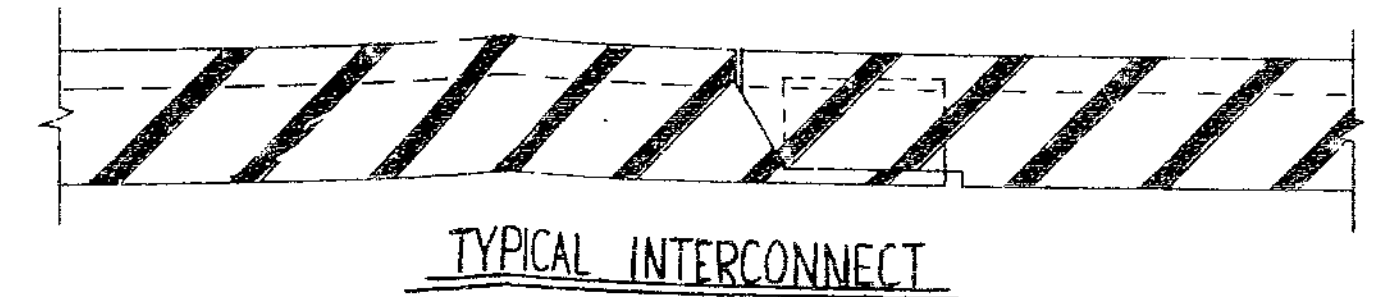
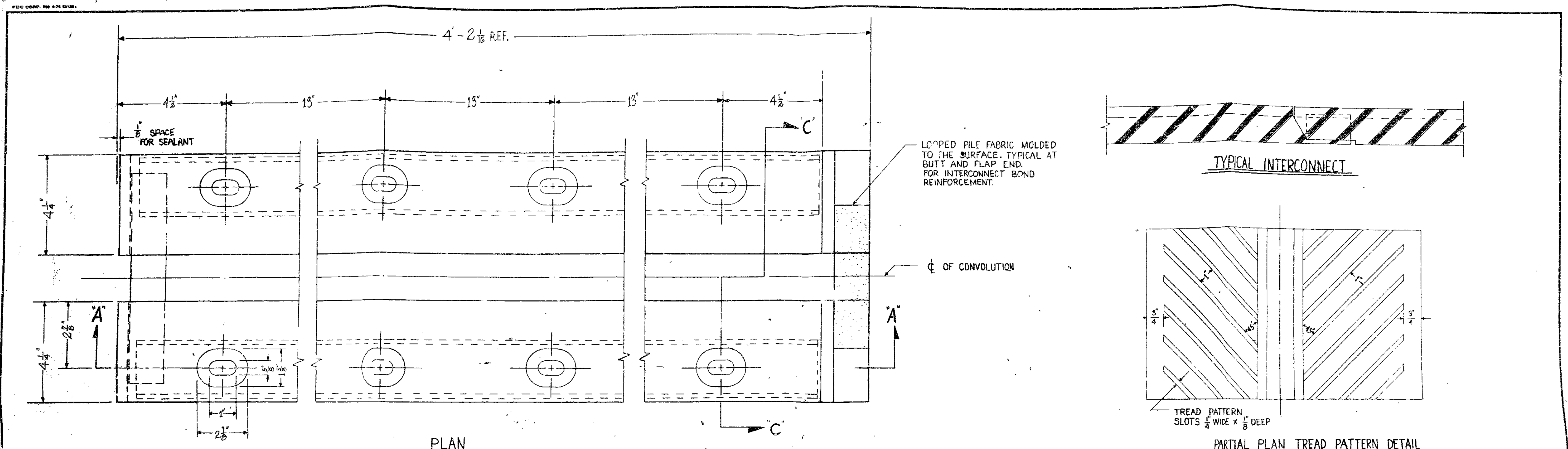
FEL-PRO INCORPORATED
CONSTRUCTION PRODUCTS DIVISION
7450 MCCORMICK BLVD. SKOKIE, ILLINOIS

Revision table with columns: CODE, DATE, BY, REVISION, CODE, DATE, BY, REVISION, CODE, DATE, BY, REVISION, CODE, DATE, BY, REVISION, CODE, DATE, BY, REVISION, CODE, DATE, BY, REVISION

222

APPROVED JUN 6 1979 MO. STATE HIGHWAY DEPT. DIVISION OF BRIDGES

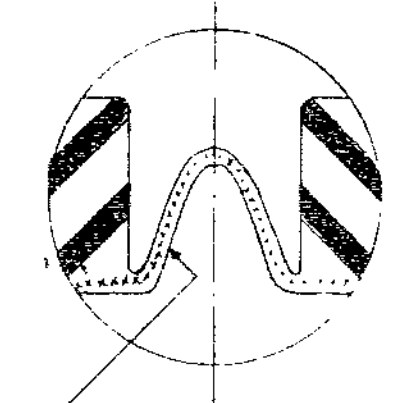
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DRAWN BY J.S. DATE 4/14/77 SCALE NONE
CHECKED BY [Signature] PROD. ENG. APP'D. G.P.B. NO. A-FS-SPEC-1



MATERIAL SPECIFICATIONS:

NEOPRENE SHALL MEET THE REQUIREMENTS OF ASTM D-2000 2BC 620 A14 B14 C12 F17 K21 & STEEL SHALL MEET THE REQUIREMENTS OF M1020.

FELSPAN LOGO AND VARIOUS PATENT NO.'S ARE MOLDED INTO THE TOP SURFACE AT VARIOUS LOCATIONS.



FOR BRIDGE FILES

APPROVED
GENERAL DESIGN FEATURES ONLY
JUN 6 1979
MO. ST. TE HIGHWAY DEPT.
DIVISION OF BRIDGES

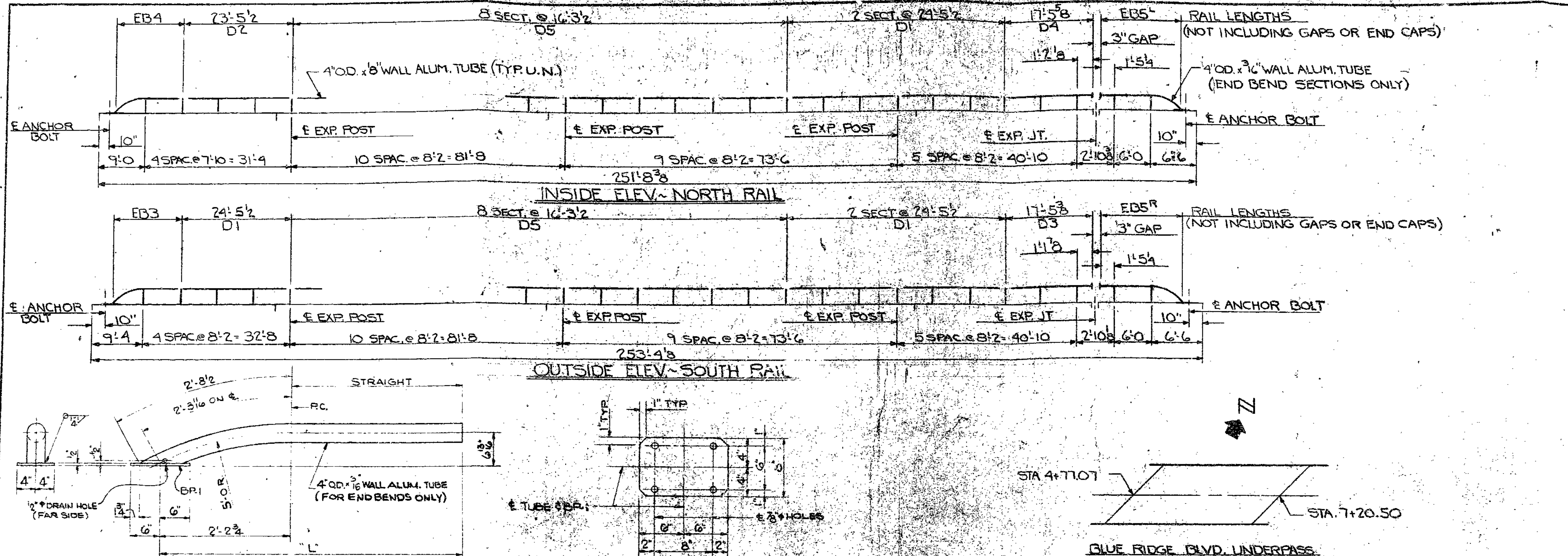
FELSPAN

FEL-PRO INCORPORATED
CONSTRUCTION PRODUCTS DIVISION
7450 MCCORMICK BLVD. BARKIE, ILL. 60430

FEL-SPAN T20-1 1/4" THICK WITH 1/2" MIN. MOTION RANGE
ELASTOMERIC EXPANSION DEVICE

REV.	DATE	BY	REVISION	REV.	DATE	BY	REVISION	REV.	DATE	BY	REVISION	REV.	DATE	BY	REVISION	REV.	DATE	BY	REVISION
1			U.S. REVISED & REPRAWN	C				E				J				L			
2			G.Z. NEOPRENE SPEC. REVID.	D				F				K				M			
3																			

DRAWN BY E.T. DATE 3-10-77
CHECKED BY [] PRO. ENGS. APPR. []
SCALE 1/8" = 1'-0"



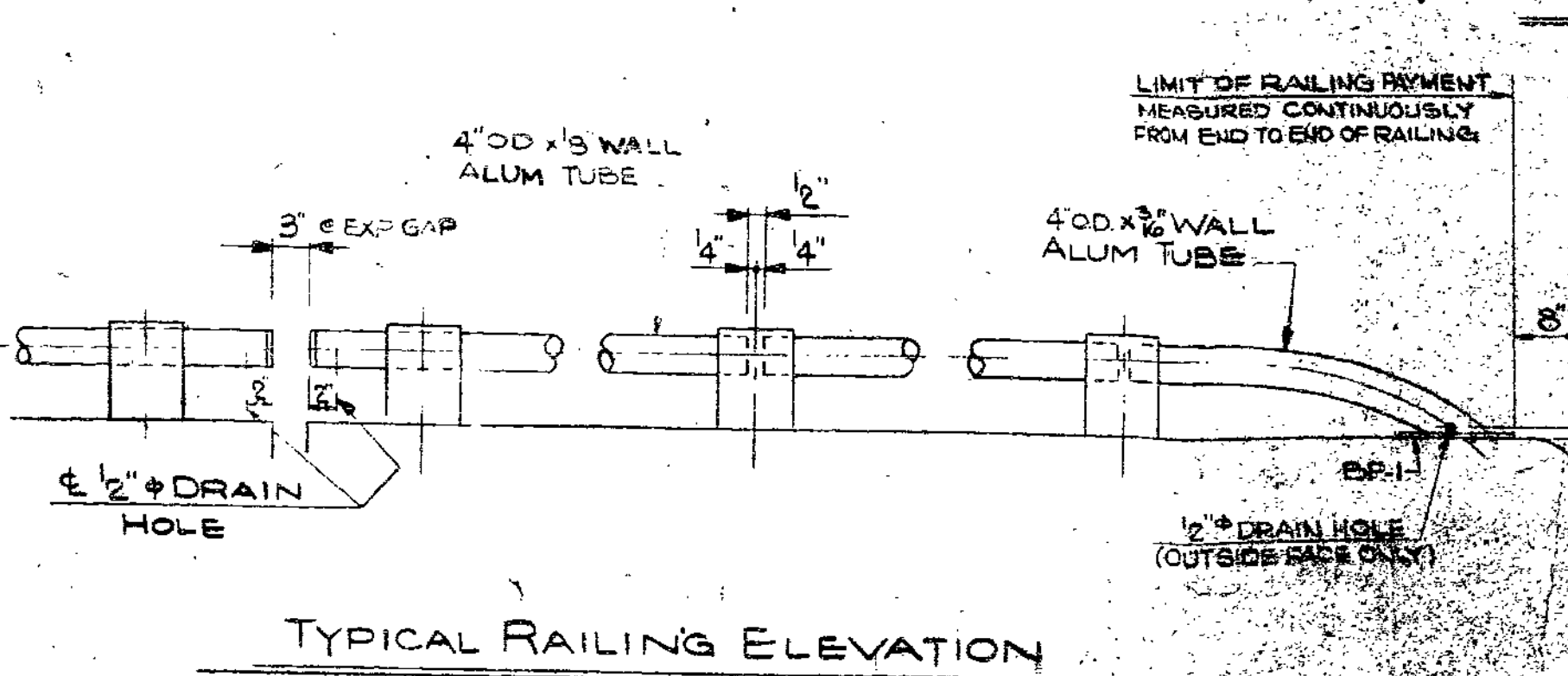
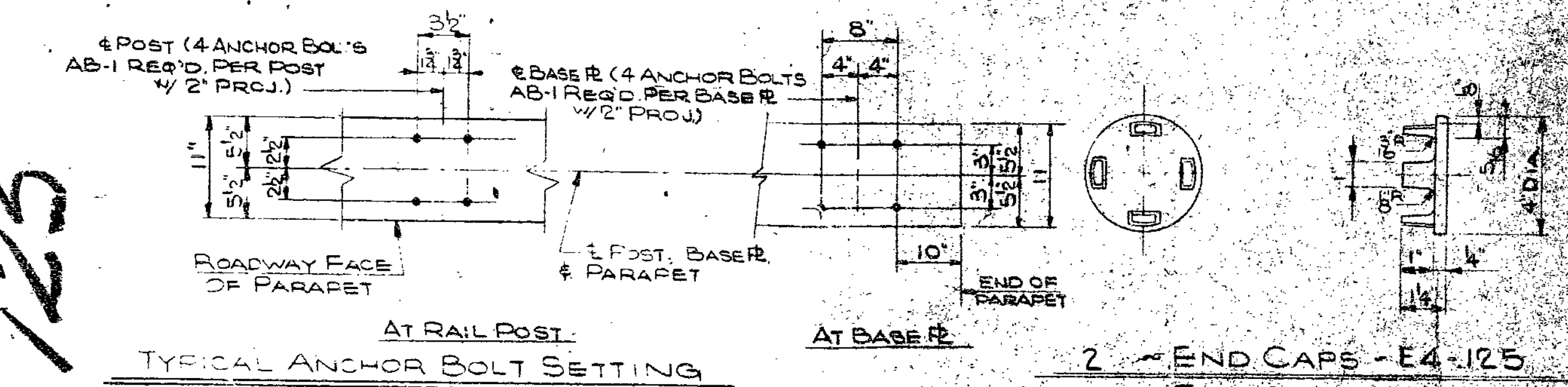
BILL OF MATERIAL						
MARK NO.	PC. NO.	NO. REQ'D.	DESCRIPTION	LENGTH		REMARKS
				FT.	IN.	
		62	ALUM RAILING POSTS			1/2\"/>
		124	5/8\"/>			
		2	ALUM END CAP E4-125			DRIVE TYPE
		2	ALUM. END CAP E4-188			DRIVE TYPE
AB-1		264	3/4\"/>			
BP-1		4	ALUM. BASE PL. 8\"/>			
		AS REQ'D	ALUM. WASHER SHIMS			
EB3		1	4\"/>			
EB4		1	16\"/>			
EB5 ^L		1	14\"/>			
EB5 ^R		1	14\"/>			
D1		5	4\"/>			
D2		1	23\"/>			
D3		1	17\"/>			
D4		1	17\"/>			
D5		16	16\"/>			

MARK NO.	NO. REQ'D.	ORD. LENGTH	REMARKS
EB3	1	17' 6 3/4"	16' 3 3/4" OFF. HAND
EB4	1	16' 10 3/4"	15' 7 3/4" AS SHOWN
EB5 ^L	1	14' 0"	12' 9" OPP. HAND
EB5 ^R	1	14' 0"	12' 9" AS SHOWN

4 - ALUM. BASE PL. BP-1
 8" x 12" x 1/8"
 ALUM. ALLOY 6061-T6 PER ASTM B-209

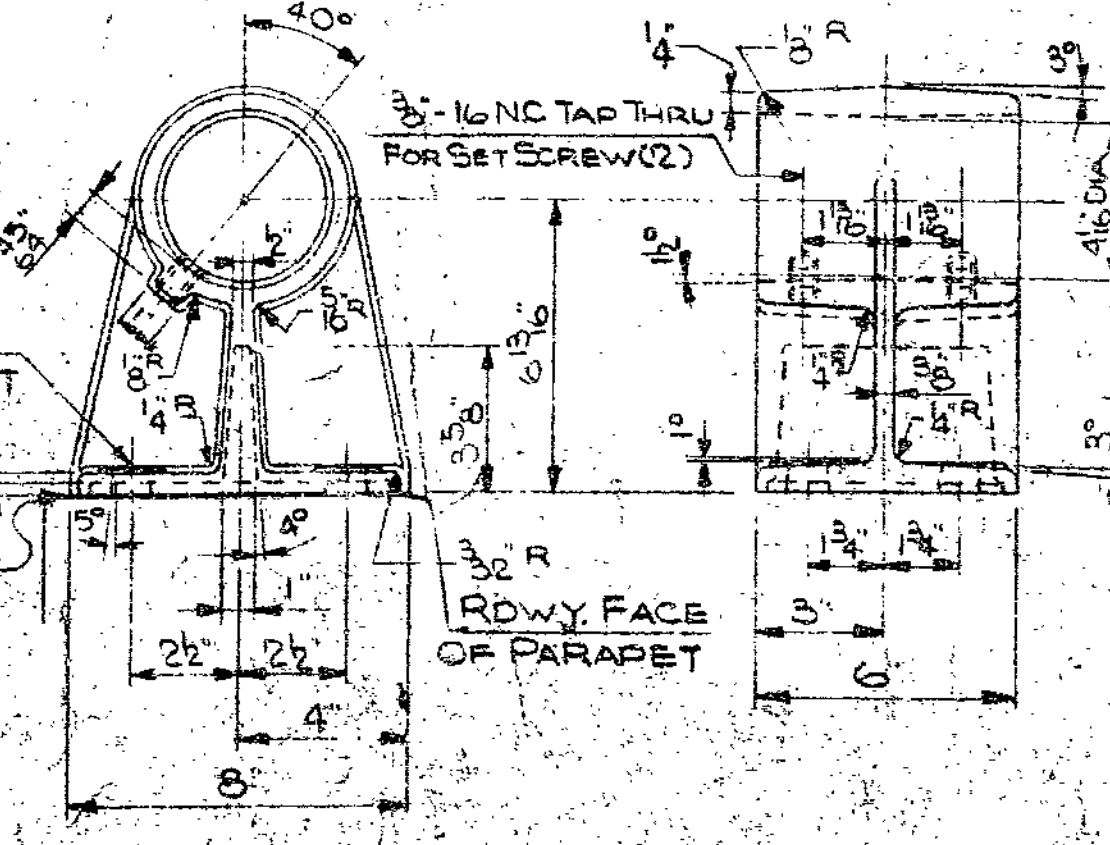
NOTE: A THIN COATING OF MATERIAL SHALL BE APPLIED TO THE STAINLESS STEEL HEADLESS SET SCREWS TO PREVENT LOCKING TO ALUMINUM POSTS. THE COATING MATERIAL SHALL BE EQUAL TO WYNN OIL COMPANY'S "VISCOTENE" OR STAHL SPECIALTY COMPANY'S "PBC SIG" OR NATIONAL CHEMSEARCH CORPORATION'S "THREAD ETC." (BY OTHERS)

THIS CONTRACT IS BASED UPON THE CONTRACT SETTING AND SPACING THE ANCHOR BOLTS TO THE MEASUREMENTS SHOWN ON THE APPROVED SHOP DRAWINGS. THE L. B. FOSTER CO. WILL NOT BE RESPONSIBLE FOR WORK NECESSITATED BY ANY OTHER SETTING AND SPACING.



2 - END CAPS - E4-125
 2 - END CAPS - E4-188 (FOR END BEND)

264 - ANCHOR BOLTS AB-1



62 - RAILING POSTS REQ'D.
 #120 GRIT BELT FINISH

GENERAL NOTES:
 ALUMINUM POSTS TO BE PERMANENT MOLD CASTINGS (355-T6) CONFORMING TO A.S.T.M. SPEC B-108, ALLOY 5052A CONDITION T6.
 ALUMINUM ALLOY TUBING (6061-T6 OR 6063-T6) SHALL CONFORM TO ASTM B221.
 ALL POSTS TO BE SET NORMAL TO GRADE & RAILS TO BE PLACED PARALLEL TO GRADE.
 OMIT SET SCREW ON SIDE OF POST NEAR FILLED JOINT AT ALL EXPANSION POSTS.
 RAIL TO BE FABRICATED IN TWO OR THREE PANEL LENGTHS UNLESS OTHERWISE APPROVED.
 ALUMINUM WASHER SHIMS TO BE FURNISHED AS REQUIRED.
 INSULATING MATERIAL FOR INSULATING POST BASES (BP-1) FROM CONCRETE & STEEL ANCHOR BOLTS SHALL BE ALUMINUM IMPREGNATED LIGHT COLORED CAULKING COMPOUND OF THE CONSISTENCY OF PUTTY. (BY OTHERS)
 ANCHOR BOLTS, NUTS & WASHERS TO BE A307 STEEL AND GALVANIZED PER ASTM SPEC. A153.
 END CAPS SHALL CONFORM TO ASTM B26-75 ALLOY B443-F.
 LENGTH OF RAILING ON THIS SHEET = 502.37' PAY LENGTH.
 ELECTRODES FOR WELDING SHALL CONFORM TO AWS A5.10-69, CLASS E308 OR E309.
ENGINEER'S NOTE:
 I HAVE EXAMINED THE CONTRACT PLANS & SPECIFICATIONS FOR PROJ. NO. U-F-71-4(30), RTE. 71, JACKSON COUNTY AND THE SHOP DRAWINGS PREPARED BY THE L. B. FOSTER CO. PURSUANT THERE TO.
 THE SAID SHOP DRAWINGS ARE IN CONFORMITY WITH SAID PLANS AND SPECIFICATIONS.
 HOWEVER, THE SCOPE OF MY EXAMINATION DID NOT INCLUDE THE PROCEDURES NECESSARY TO DETERMINE WHETHER SAID PLANS & SPECIFICATIONS ARE ADEQUATE FOR THE INTENDED USE OR THE PRODUCT, AND ACCORDINGLY, NO OPINION IS EXPRESSED NOR REPRESENTATION MADE AS TO THE ADEQUACY OF SUCH PLANS & SPECIFICATIONS FOR SUCH USE.

L-929R JOB NO. 4-U071-71

APPROVED: *[Signature]* W.D.C. RECD APPROVAL: *[Signature]* DRAWING: 6-1179

L. B. FOSTER CO.
 GENERAL OFFICES
 415 HOLIDAY DRIVE
 PITTSBURGH, PENNSYLVANIA 15220

FOR: CLARKSON CONSTRUCTION CO.
 MISSOURI STATE HIGHWAY DEPT.
 JACKSON COUNTY, PROJ. NO. U-F-71-4(30)
 ALUMINUM PARAPET RAILING FOR
 BLUE RIDGE BLVD. UNDERPASS STA. 4+71.07

APPROVED: JUN 21 1979
 MISSOURI STATE HIGHWAY DEPT. DIVISION OF BRIDGES

MADE BY: DATE: 4-19-79 JOB NO. AL-6879 ORDER NO. C-159511
 CHECKED BY: DATE: 4-19-79 DRAWING: LB-4 CUSTOMER'S NO. (LAST)

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