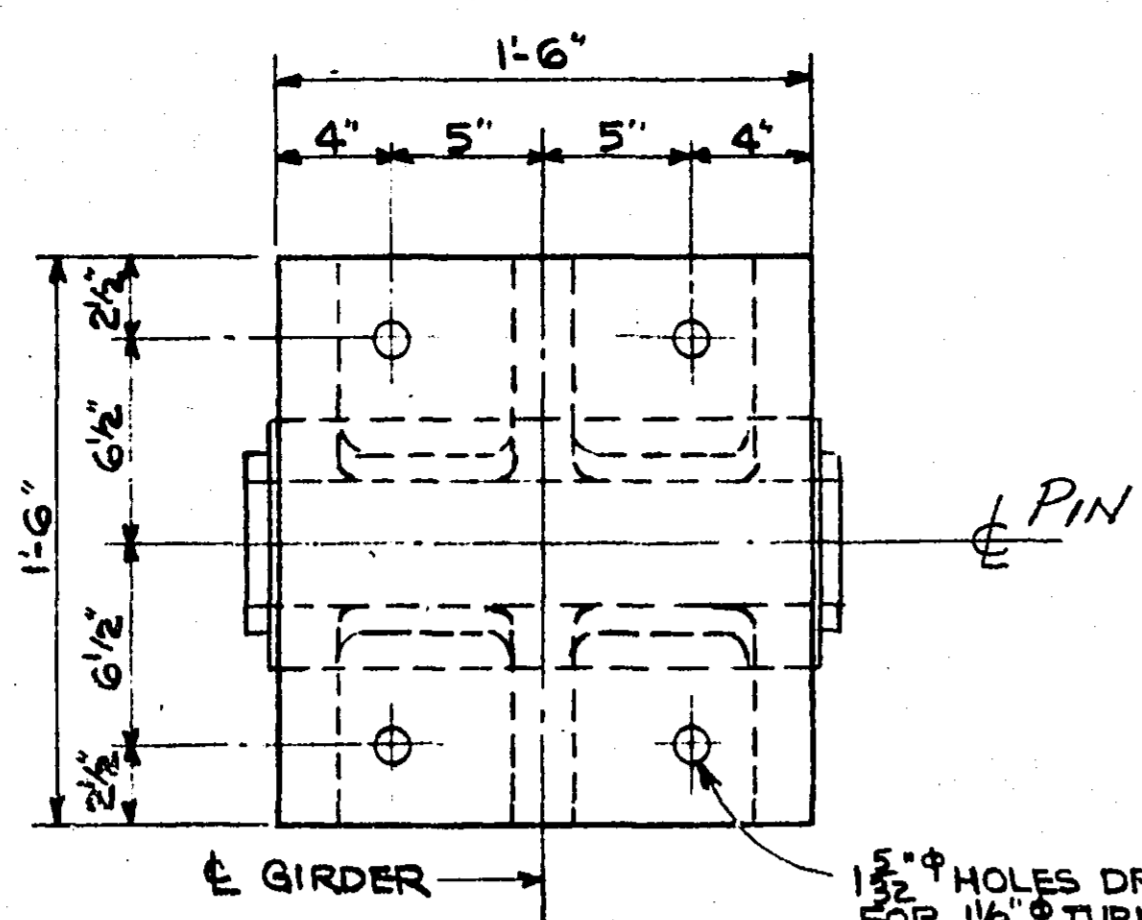
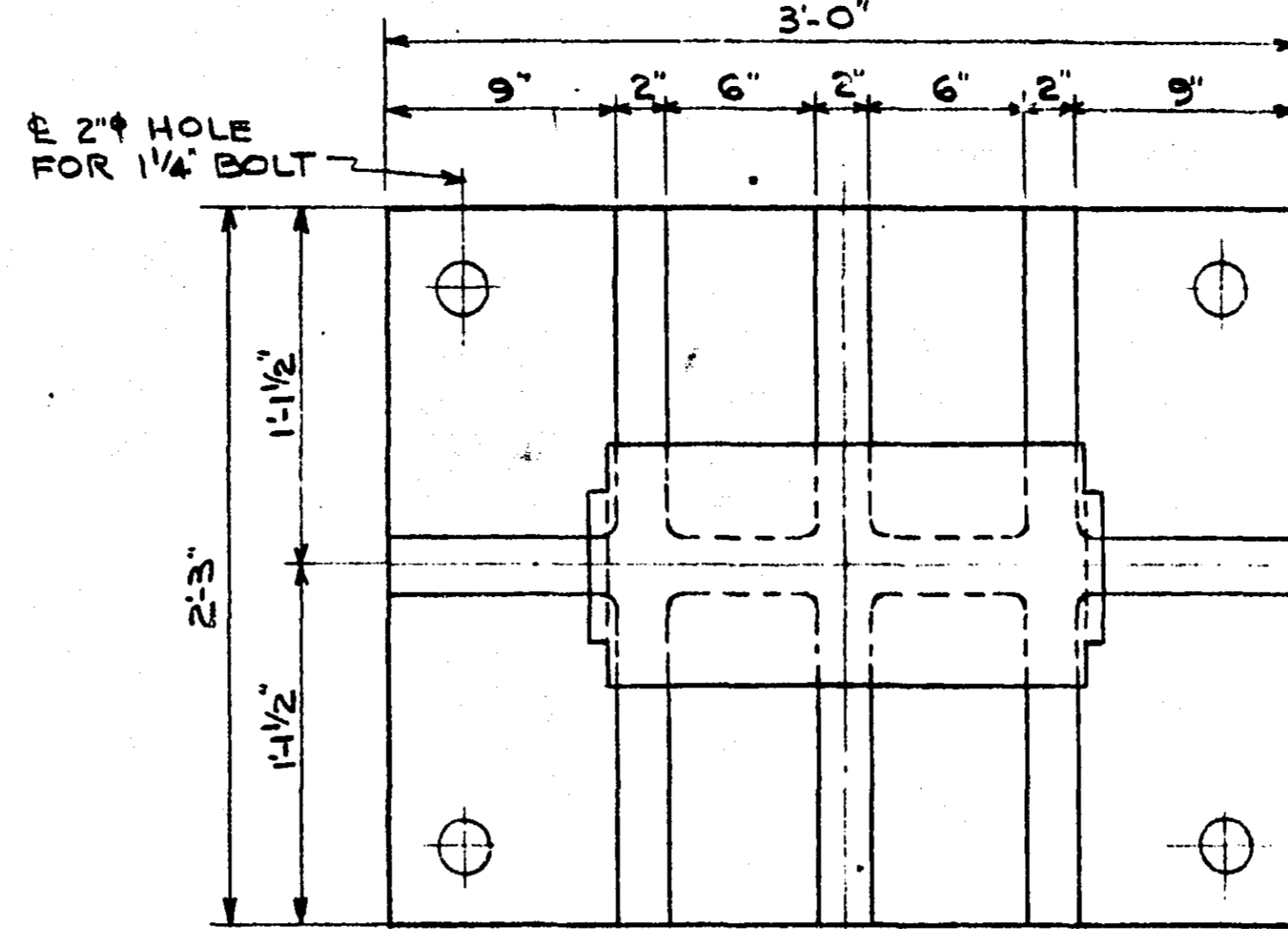


LOWER CASTING

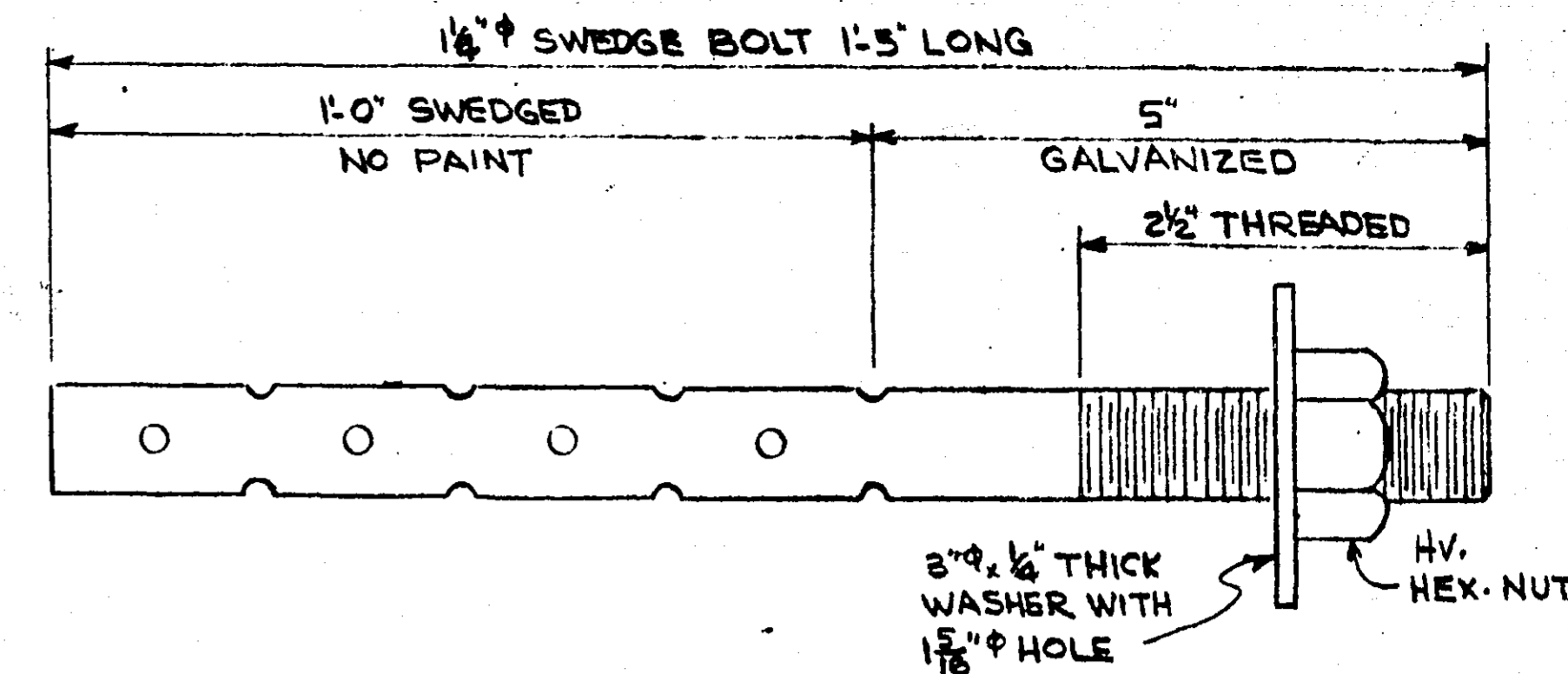


UPPER CASTING

1 1/2" HOLES DRILLED FOR 1/2" TURNED BOLTS WITH NUT & LOCK NUT. LOCK NUT SHALL BE MAC LEANFOGG LOCK NUT NO. 1 OR AN APPROVED EQUAL. DRILL HOLES USING TEMPLATE RT-1

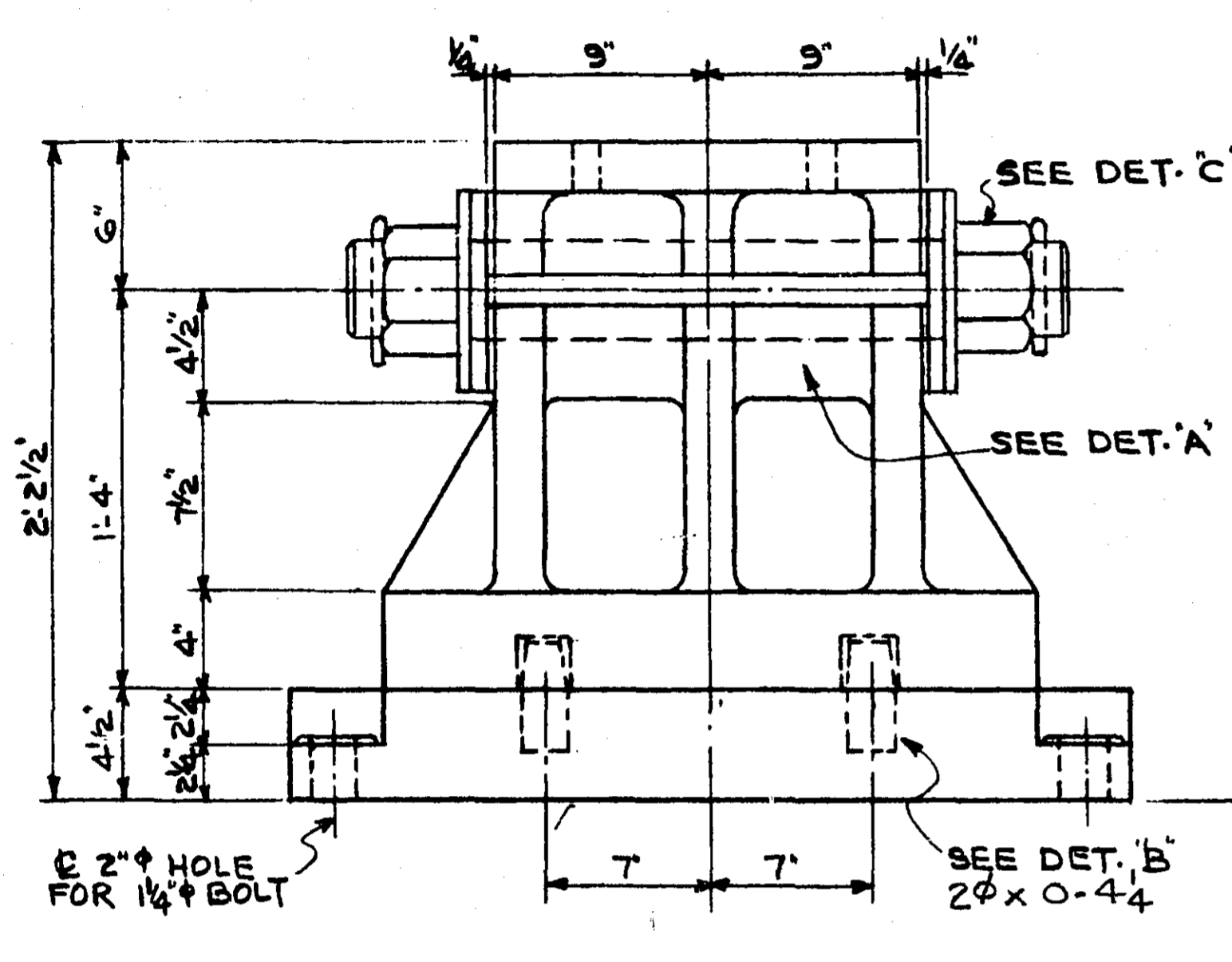


LOWER CASTING



20- ANCHOR BOLT 1K1
20- WASHERS 1W1

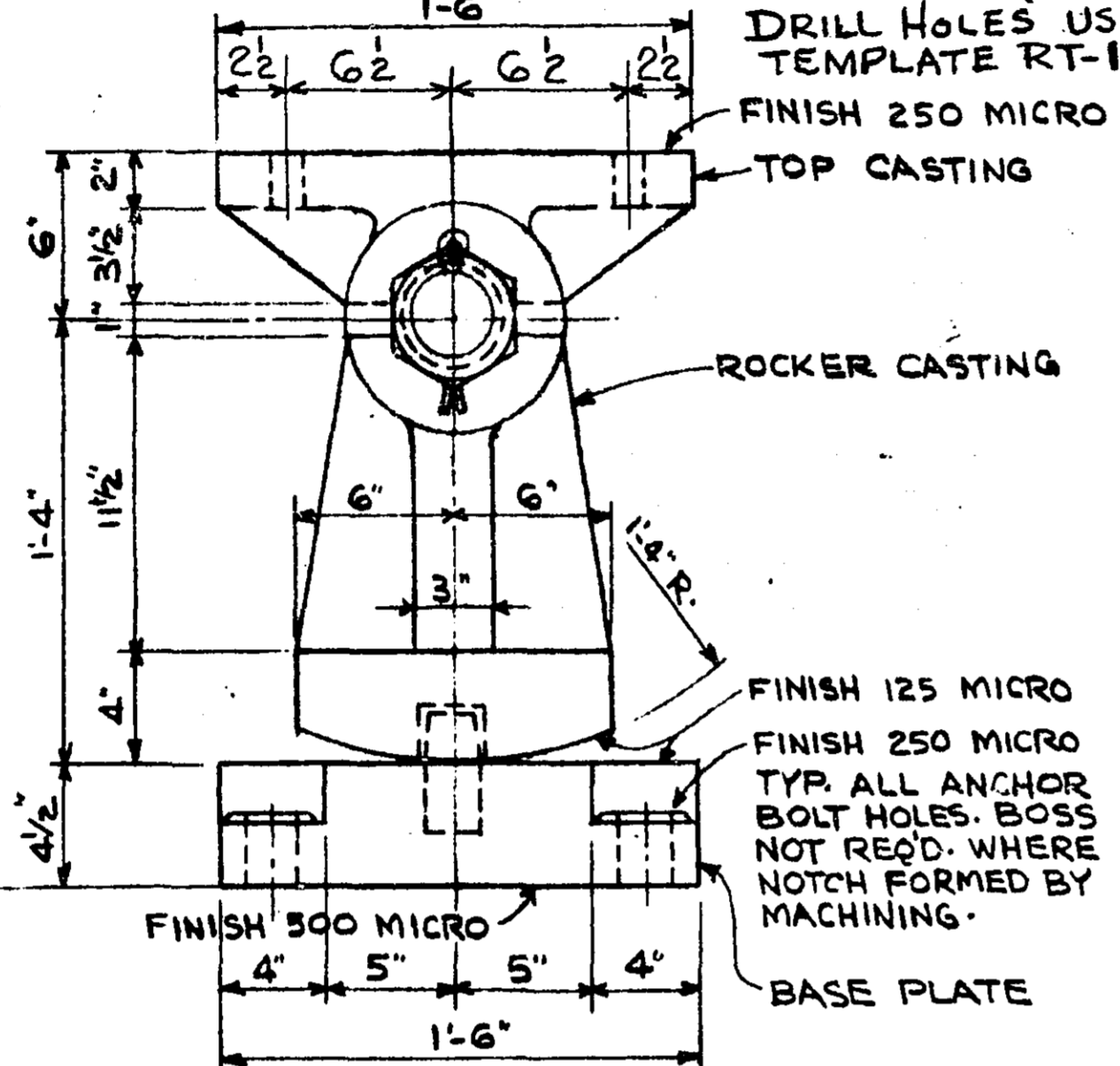
NOTE:
USE SAME TOP CASTING FOR THE FIXED BEARING ASSEMBLY TYPE 1 AS USED FOR THE EXPANSION BEARING ASSEMBLY TYPE 2.



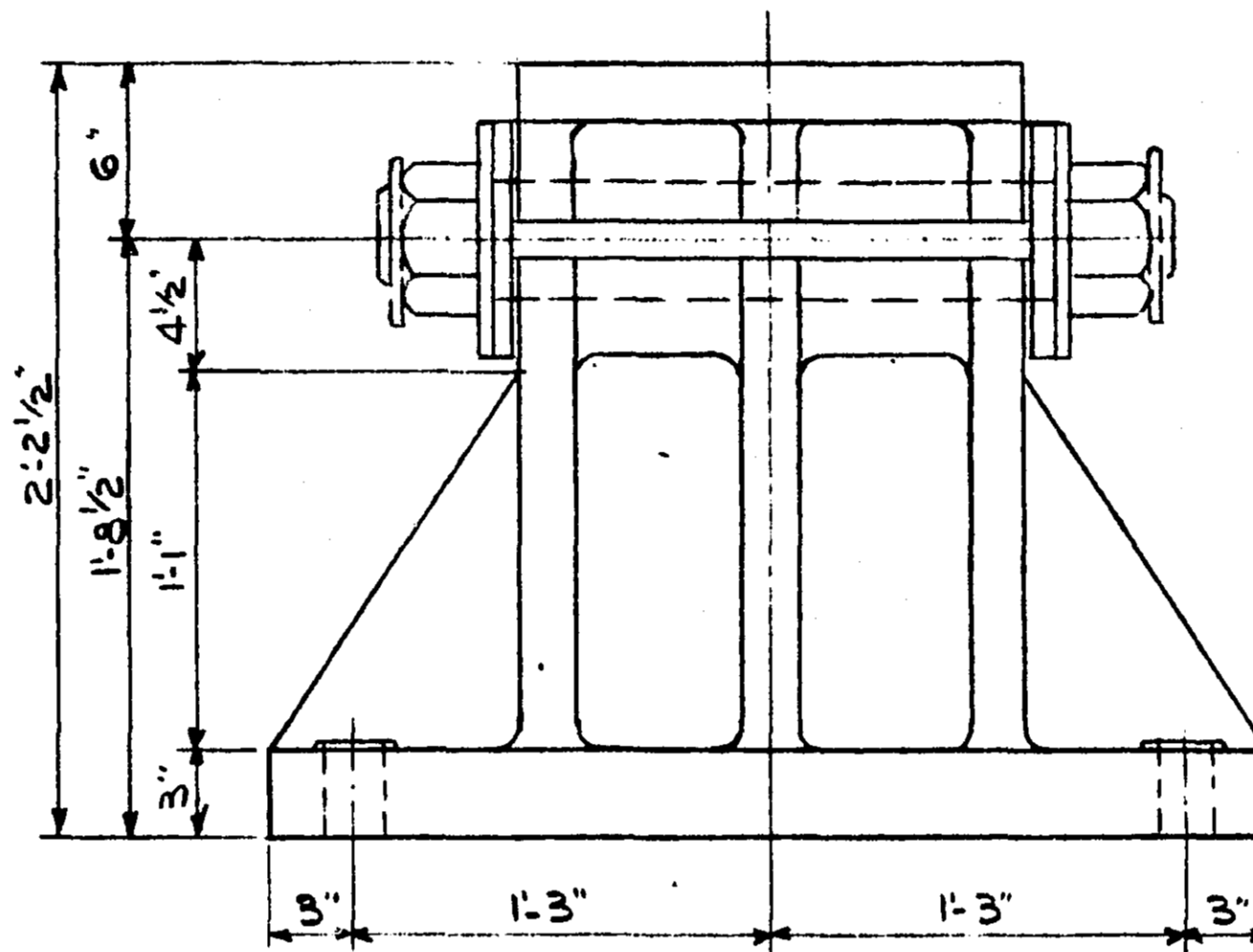
FRONT ELEVATION

TWO EXPANSION BEARING ASSEMBLY TYPE 2

SCALE 1/2" = 1'-0"



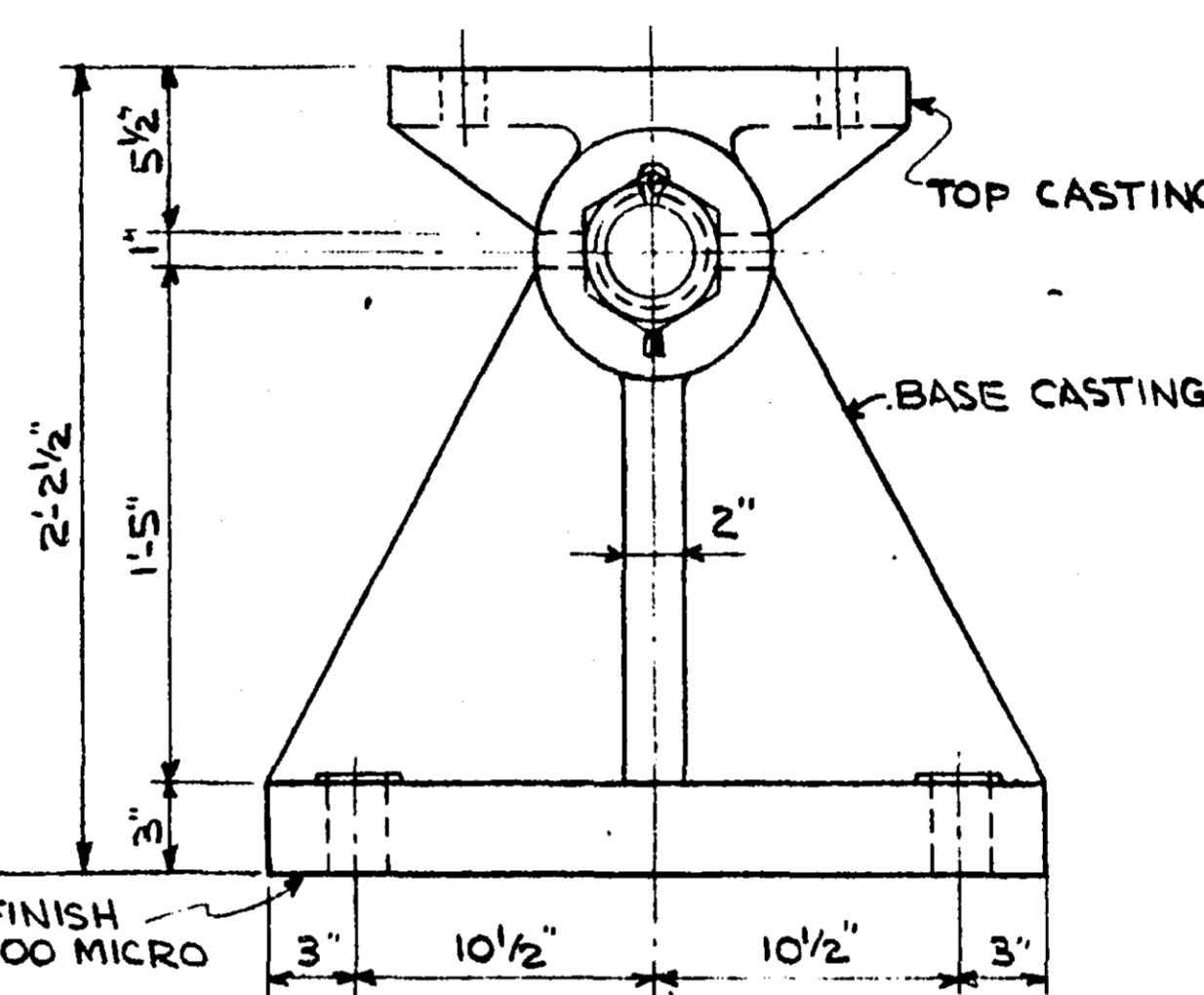
SIDE ELEVATION



FRONT ELEVATION

TWO FIXED BEARING ASSEMBLY TYPE 1

SCALE 1/2" = 1'-0"



SIDE ELEVATION

NOTES:
ROCKER CASTING FOR EXPANSION BEARING ASSEMBLY TYPE 2 SHALL BE ALLOY STEEL CASTING M.H.D. 3323 GRADE 90-60.
BASE PLATE FOR EXPANSION BEARING ASSEMBLY TYPE 2 SHALL BE ALLOY STEEL CASTING M.H.D. 3323 GRADE 90-60 OR ALLOY STEEL FORGING M.H.D. 3315 TYPE II.

TOP CASTINGS FOR EXPANSION BEARING ASSEMBLY TYPE 2 AND FIXED BEARING ASSEMBLY TYPE 1 SHALL BE CARBON STEEL CASTING M.H.D. 3322 GRADE 70-36.
BASE CASTING FOR FIXED BEARING ASSEMBLY TYPE 1 SHALL BE CARBON STEEL CASTING M.H.D. 3322 GRADE 70-36.

PLATES FOR EXPANSION BEARING ASSEMBLY TYPE 3 SHALL BE CORROSION-RESISTANT HIGH STRENGTH STEEL M.H.D. 3309.

PINS SHALL BE COLD FINISHED ALLOY BAR STEEL M.H.D. 3314 TYPE II.

PINTLES SHALL BE COLD FINISHED ALLOY BAR STEEL M.H.D. 3314 TYPE II.

ALL OTHER STEEL ITEMS SHALL BE STRUCTURAL STEEL M.H.D. 3306.

ALL FILLETS FOR CASTINGS SHALL BE 3/4" UNLESS OTHERWISE NOTED.

EXPANSION BEARING ASSEMBLY TYPE 3 SHALL BE ANNEALED AFTER WELDING IS COMPLETED AND BEFORE ANY MACHINE FINISHING OF THE COMPLETE ASSEMBLY IS UNDERTAKEN. ALL WELDS TO BE CHECKED BY "MAGNETIC PARTICLE" BEFORE AND AFTER ANNEALING. ALL PLATES TO BE FLAT AFTER WELDING.

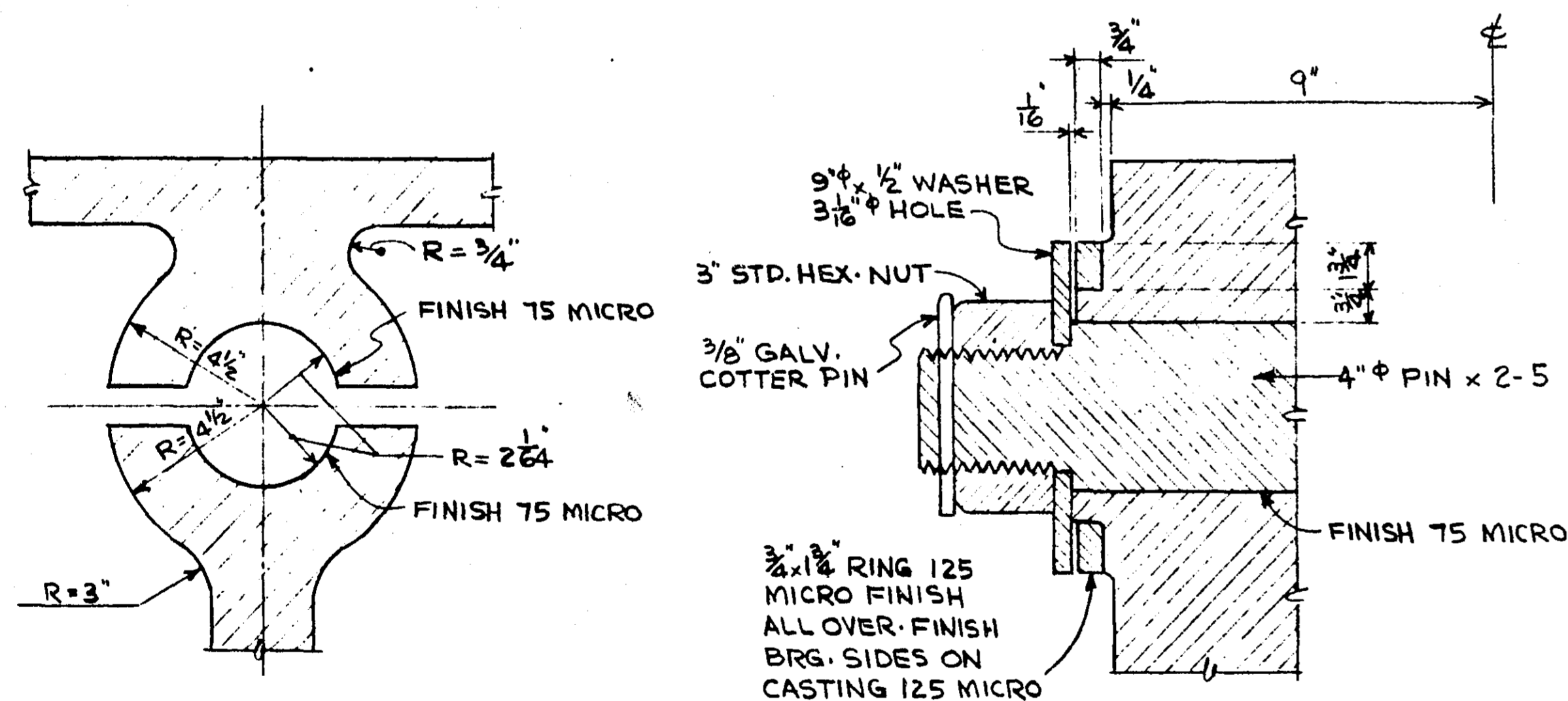
PROVIDE 8 POUNDS PER SQ. FT. SHEET LEAD UNDER ALL BEARING ASSEMBLIES.

SPACES AROUND ANCHOR BOLTS, IN BASE CASTINGS AND BASE PLATE OF ALL BEARING ASSEMBLIES, SHALL BE FILLED WITH LEAD POURED IN PLACE BEFORE SETTING NUTS.

PAINT BEARING ASSEMBLIES SAME AS STRUCTURAL STEEL EXCEPT PIN HOLES AND PINS. PAINT PIN HOLES AND PINS ONLY WITH WHITE LEAD AND TALLOW IN SHOP. CLEAN OFF WHITE LEAD AND TALLOW IN FIELD AND PAINT WITH RED LEAD WHEN PLACING.

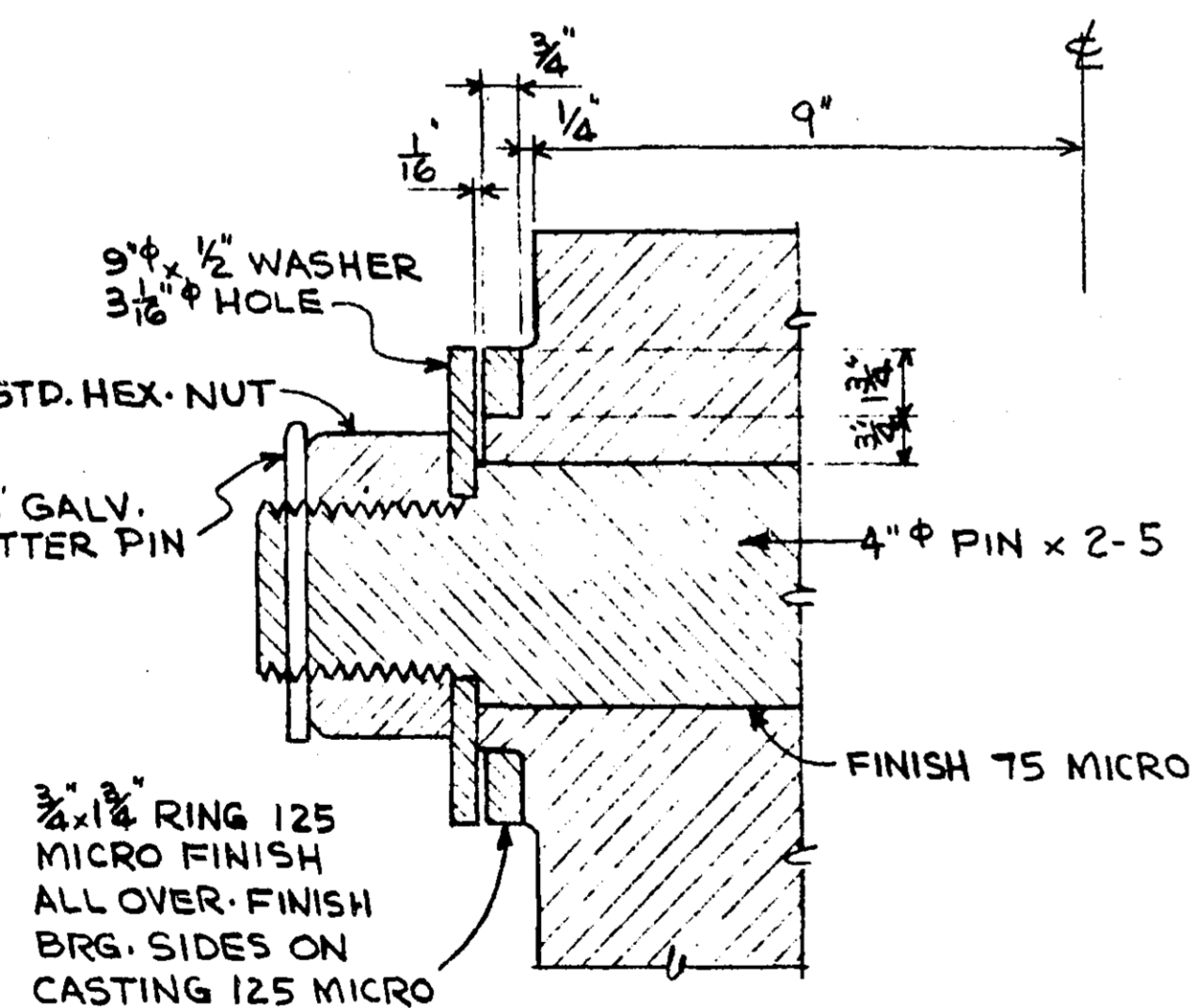
THE PRICE BID FOR BEARING ASSEMBLY SHALL INCLUDE ALL MATERIALS (ANCHOR BOLTS, SHEET LEAD, POURED LEAD, BEARING, AND BOLTS FOR ATTACHING BEARING TO GIRDER) FOR EACH TYPE AS SHOWN.

SHOP INSPECTION BY MINN. HY. DEPT.



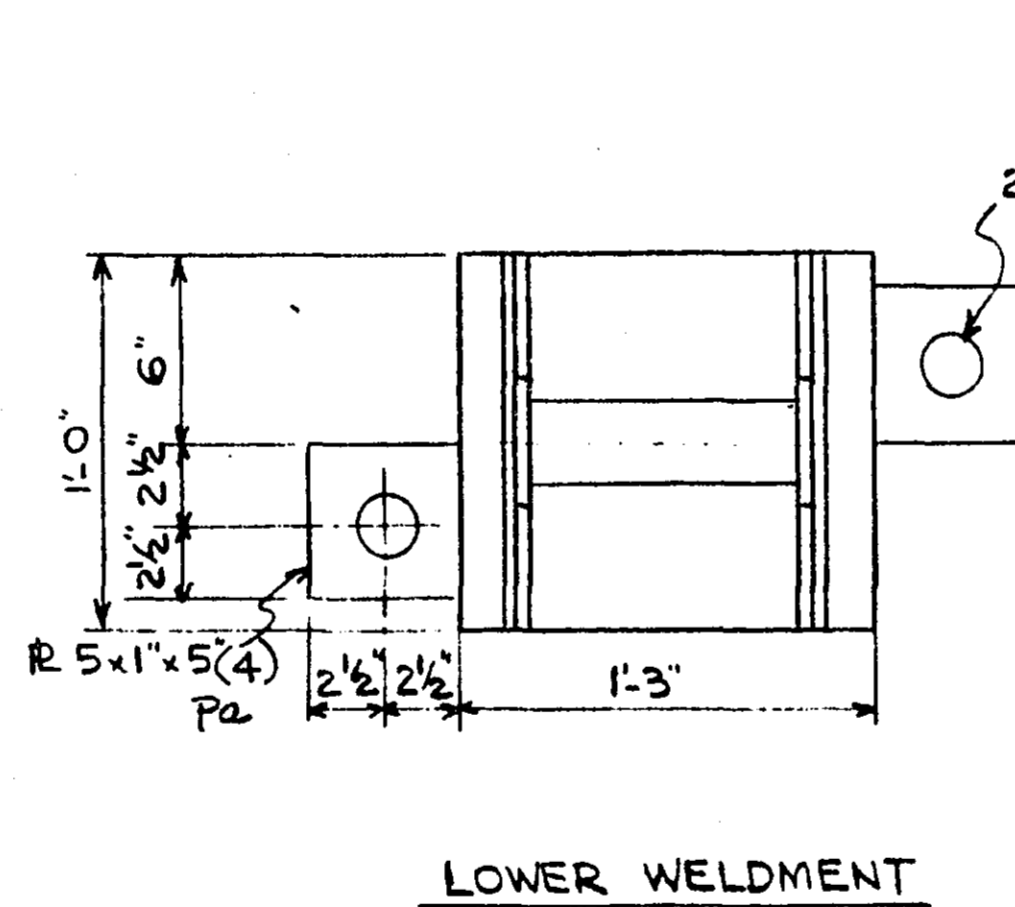
DETAIL 'A'

NO SCALE

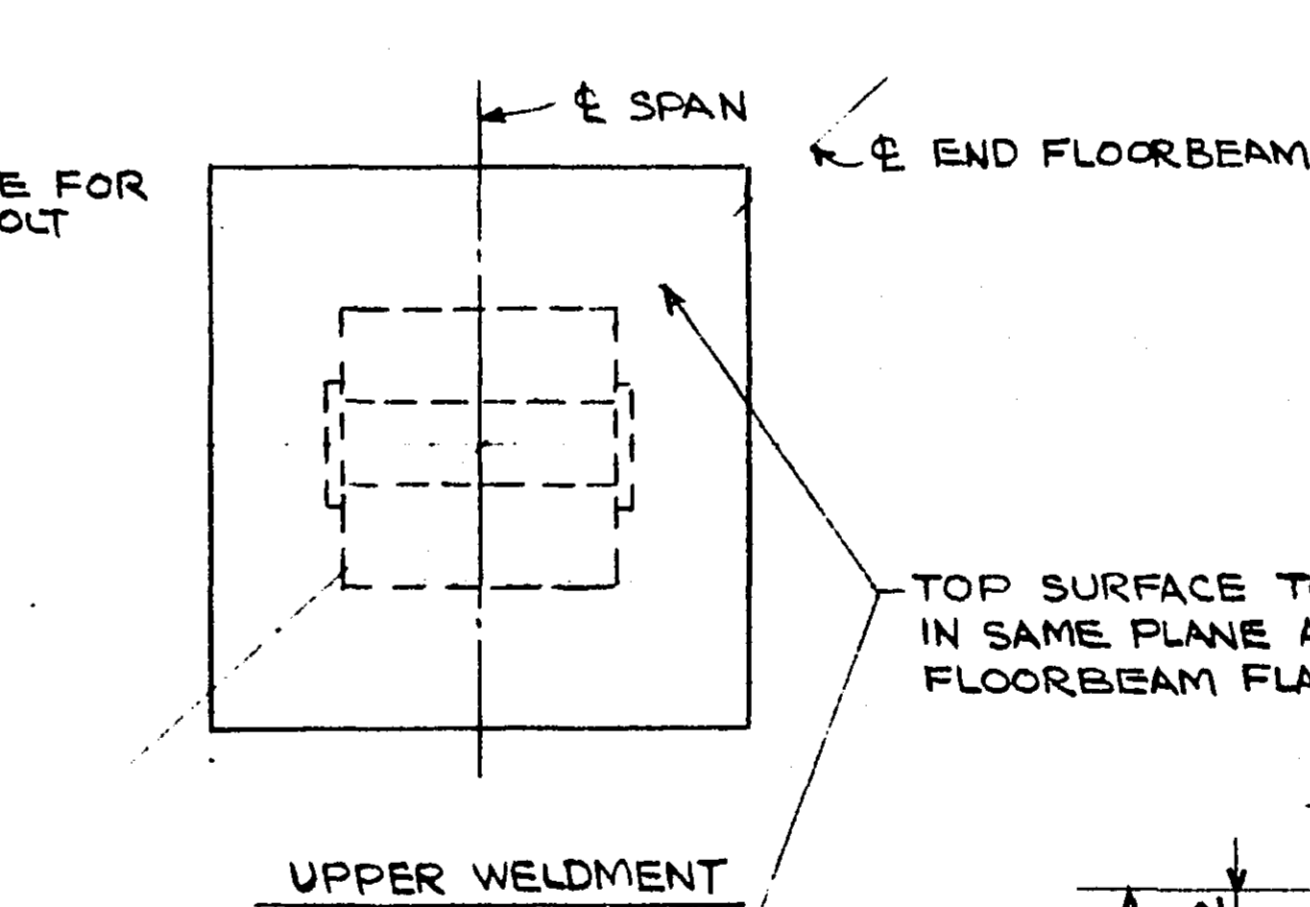


DETAIL 'C'

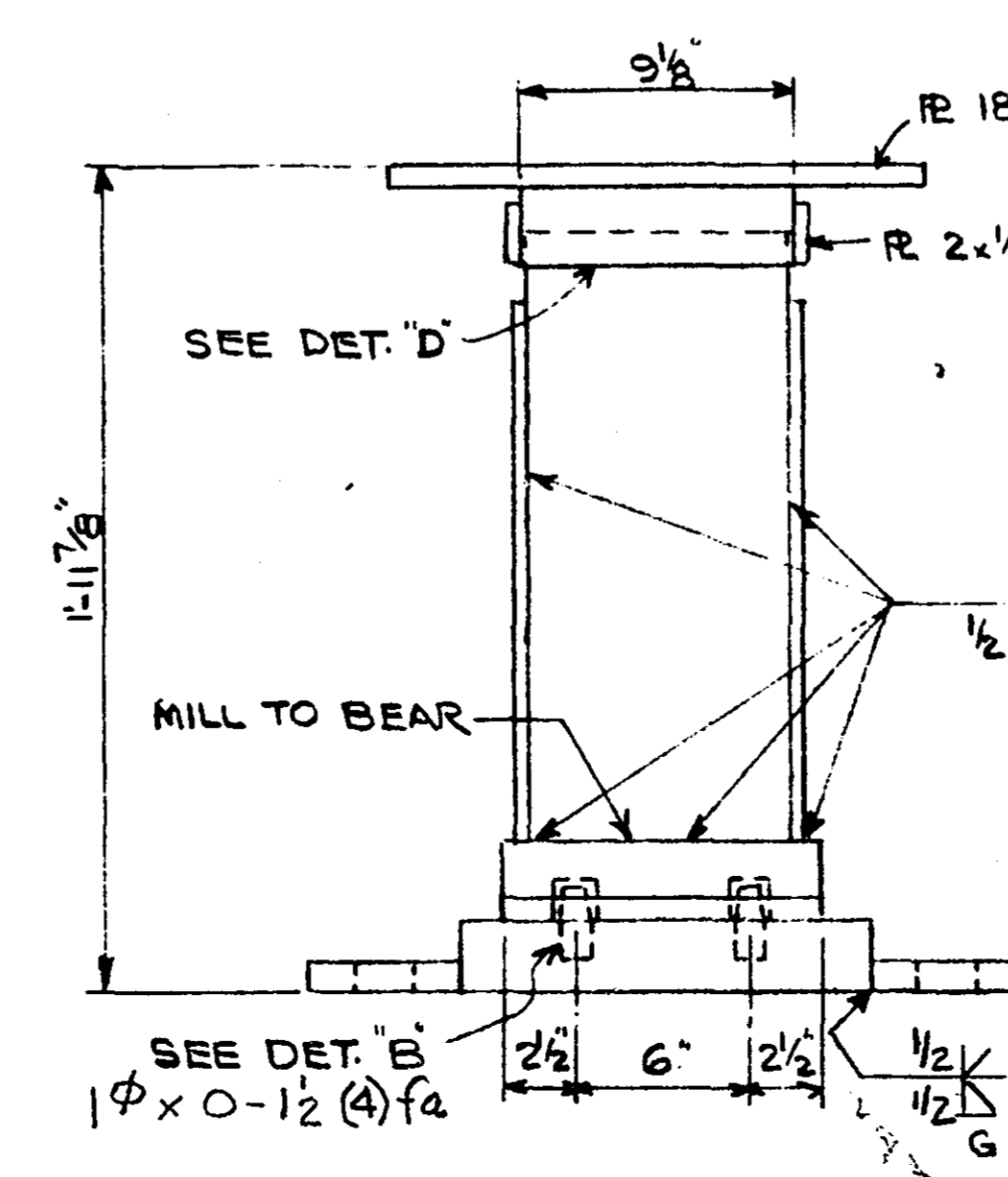
NO SCALE



LOWER WELDMENT



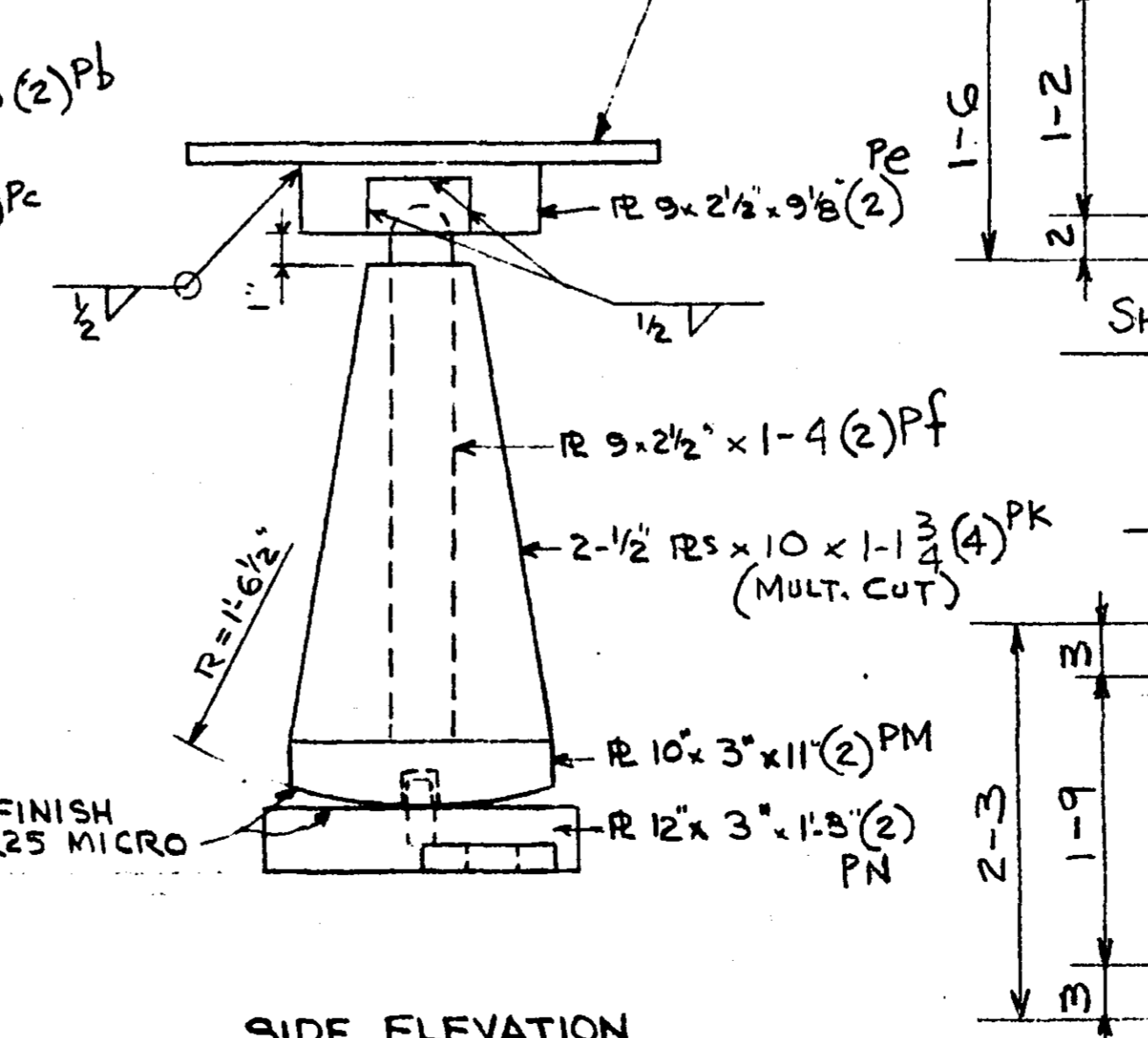
UPPER WELDMENT



FRONT ELEVATION

TWO EXPANSION BEARING ASSEMBLY TYPE 3

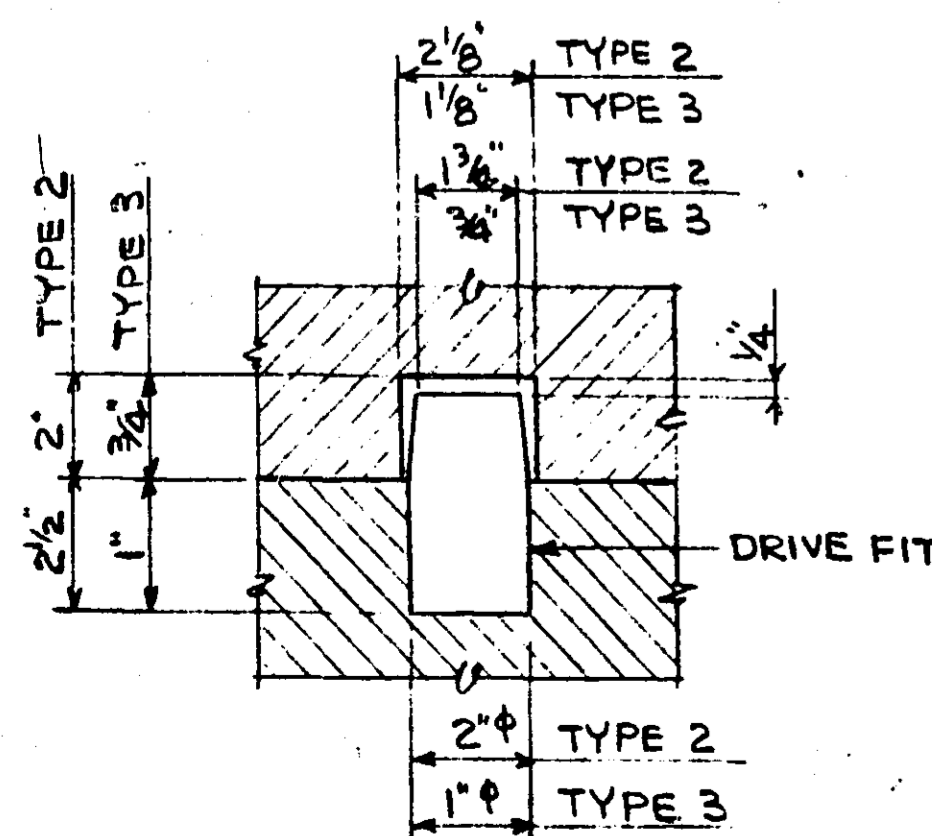
SCALE 1/2" = 1'-0"



SIDE ELEVATION

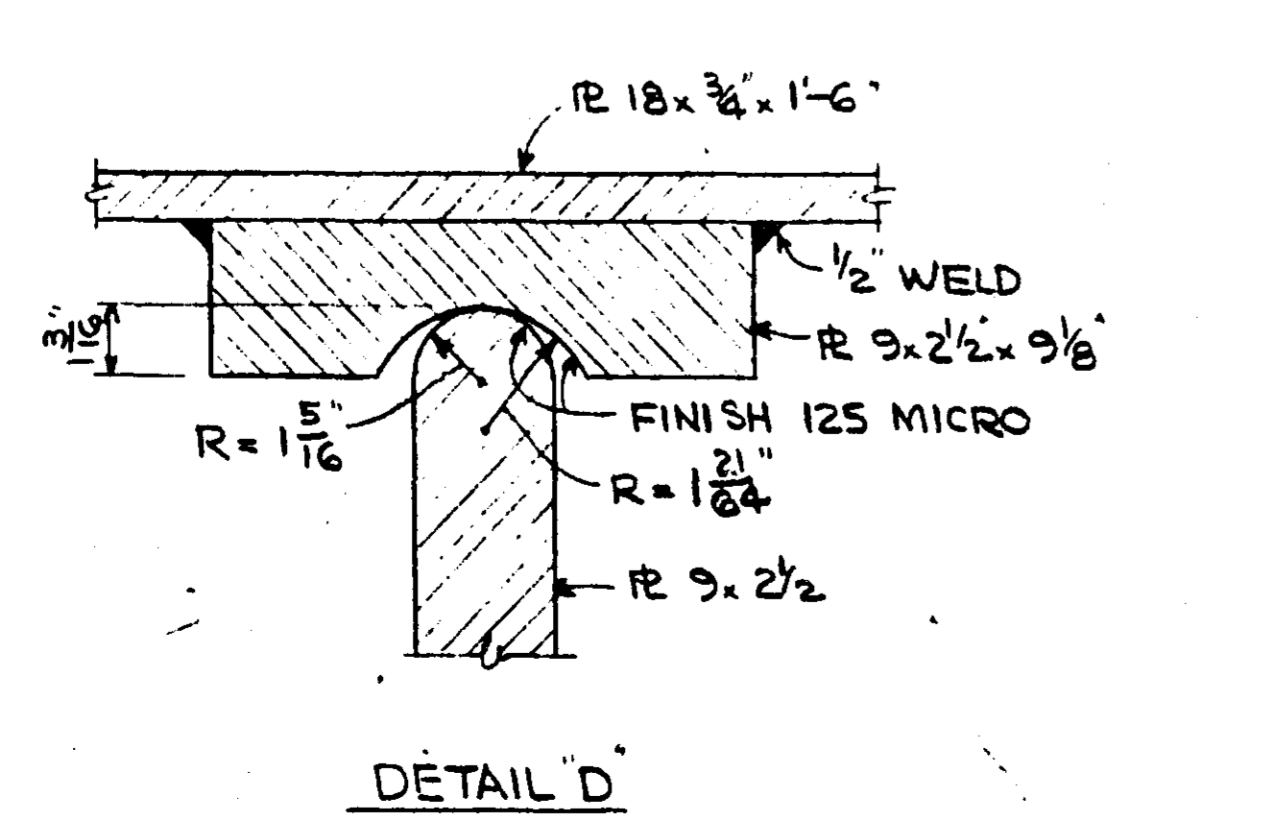
SHT LD. 8# 27 x 3'-0 (2) TAG #1

S.A.P. NO. 62-623-07



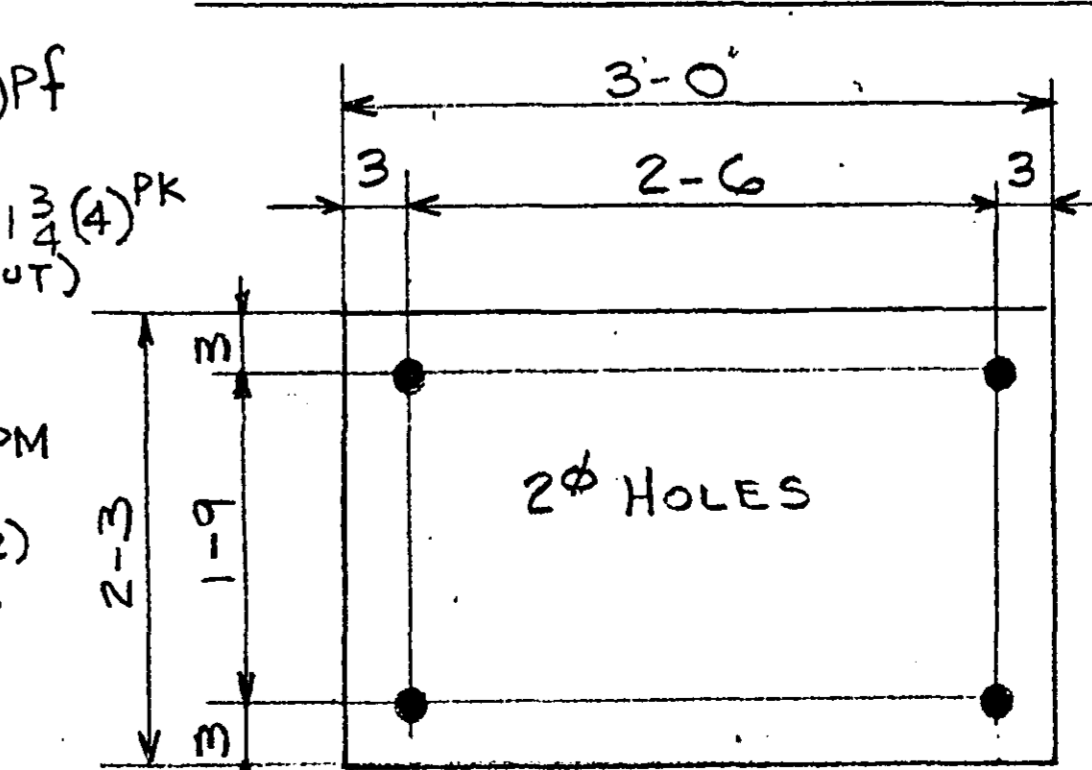
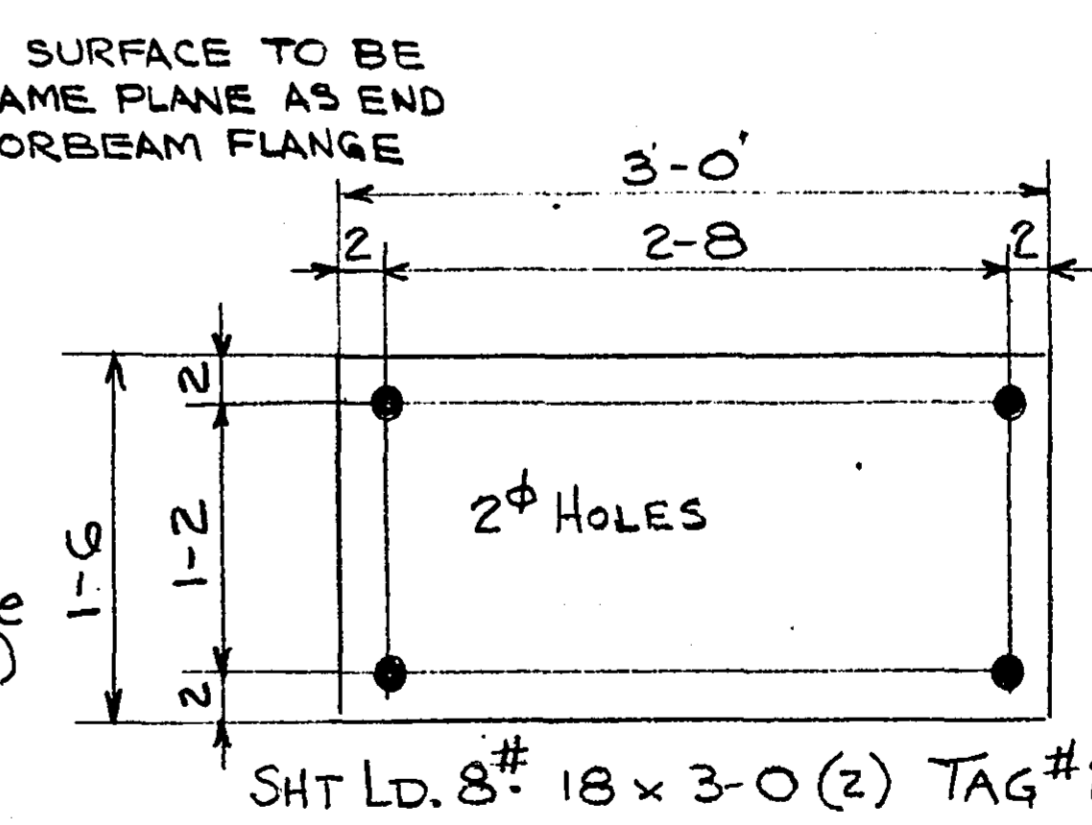
DETAIL 'B'

NO SCALE



DETAIL 'D'

NO SCALE

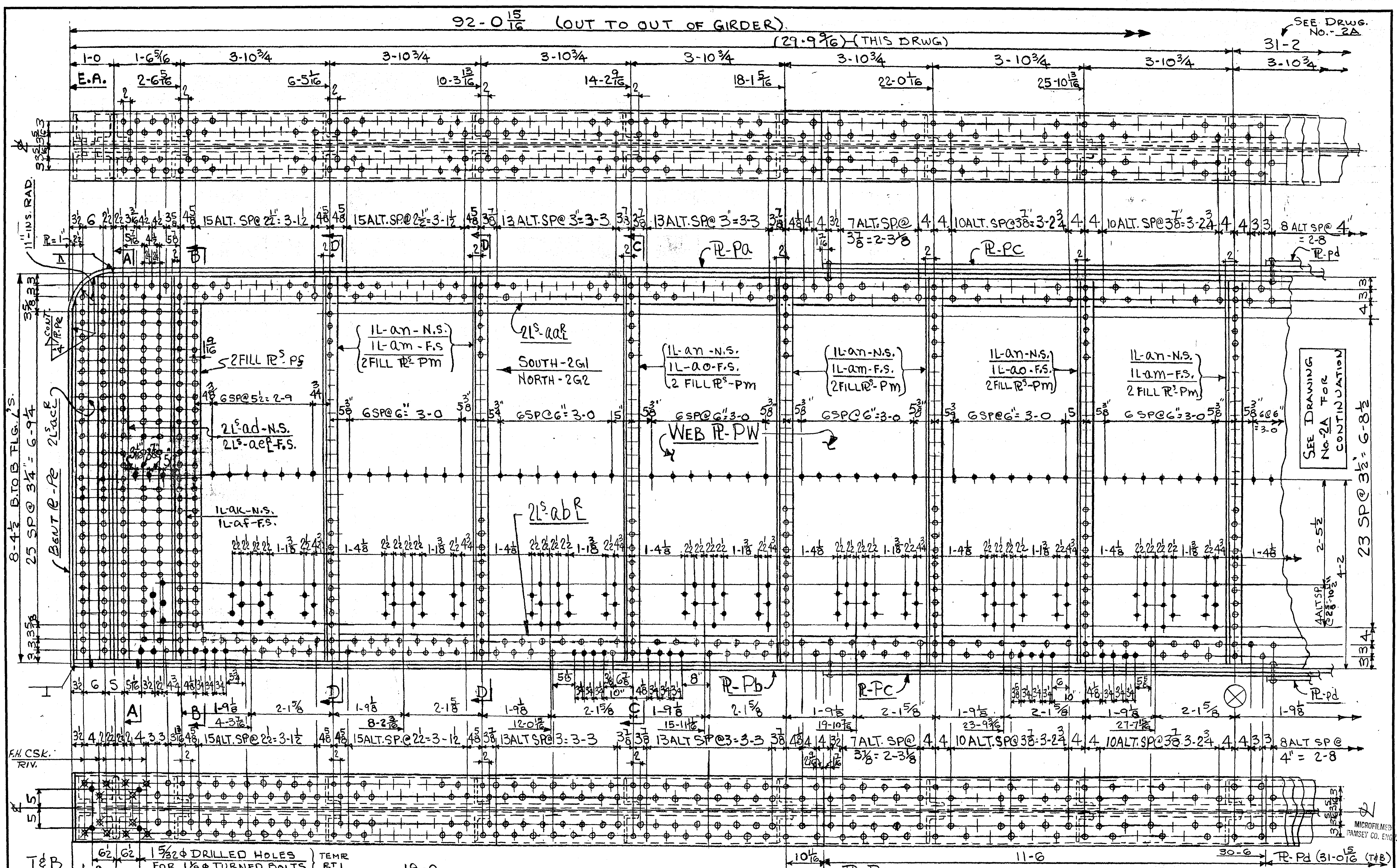


FURNISH -
SHT. LD. 8# 12 x 1-3 (2) TAG #3
B. ASSY. TO GIRDER { TURNED BOLTS 1/8" x 0-6 (16) MHD 3391.2F
1/4" THICK WASHERS (16)
MAC. LEAN FOGG LOCK NUT NO 1 (16)

ST. PAUL STRUCTURAL STEEL CO.	
162 YORK AVE.	ST. PAUL 17, MINN.
DESCRIPTION BR. NO. G2520	
LOCATION SIOUX LINE OVER CT. RD. C. CANADA	
CUSTOMER ROBERT SCHROEDER CONST., INC.	
ARCHITECT	
MADE BY C	DATE 12-7-70
CHECKED BY JEB	DATE 2-15-71
SHOP PAINT MHD 3506 AS NOTED	
OPEN HOLES UNLESS NOTED	
CONTRACT NO. 70-94	SHEET 1

92-0 $\frac{15}{16}$ (OUT TO OUT OF GIRDER)
 (29-9 $\frac{9}{16}$) (THIS DRWG)

SEE DRWG. No. 2A



SEE DRAWING No. 2A FOR CONTINUATION

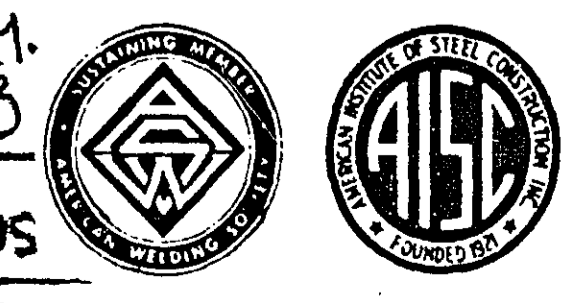
8-4 $\frac{1}{2}$ B.T.O.B. FLG. I.S.
 25 SP@ 34"=6-94

F.H. CSK. RIV.

15 $\frac{1}{2}$ ϕ DRILLED HOLES FOR 1 $\frac{1}{2}$ ϕ TURNED BOLTS

CAMBER - $\frac{1}{2}$ "
 (LIFTING WGT. - APT. 4L TON)
 IDENTICAL (EXCEPT DIRECTION)
 GIRDER - 2G1
 GIRDER - 2G2

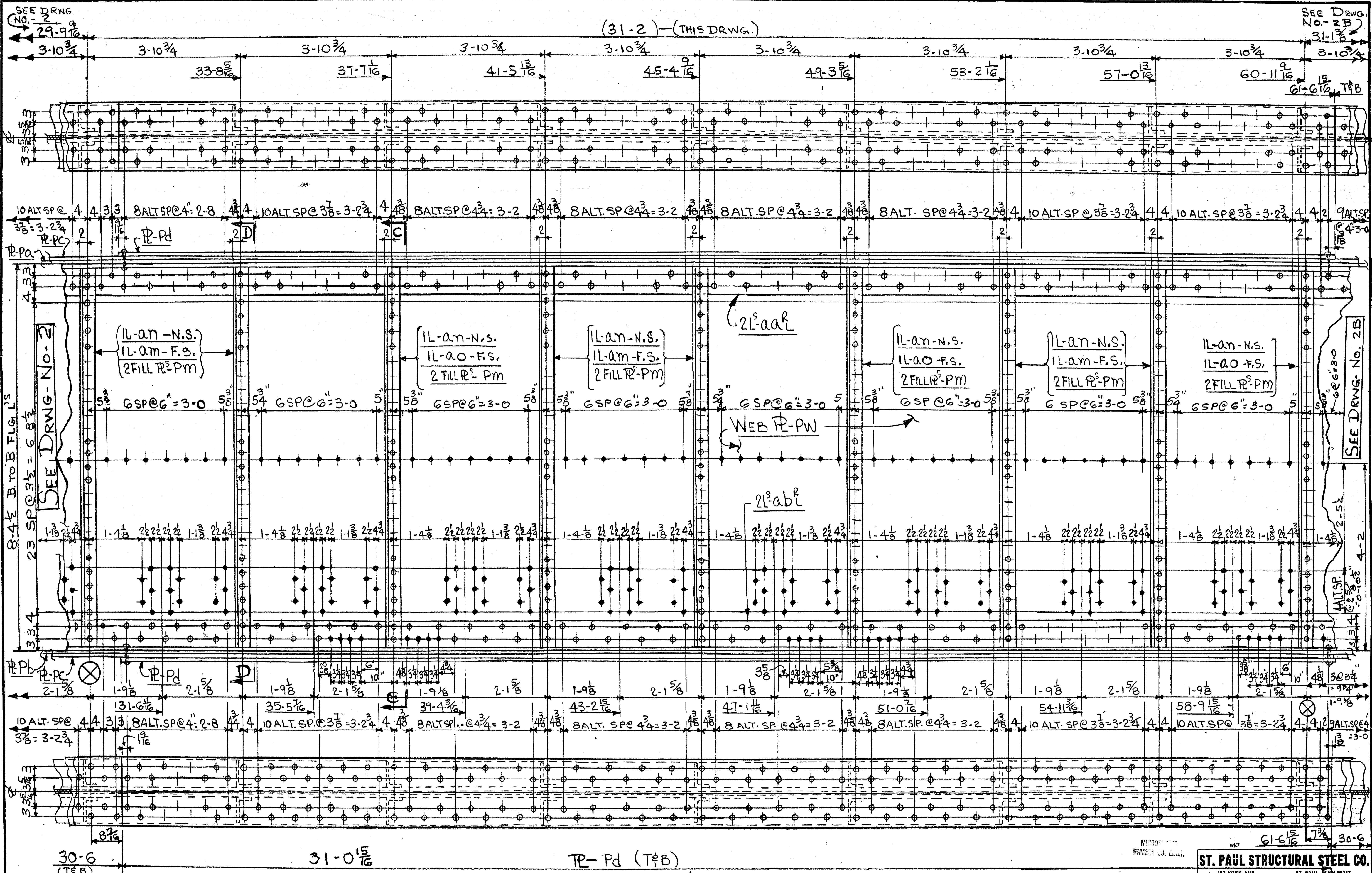
NOTES
 - ALL HOLES FOR RIVETS TO BE $\frac{15}{16}$ ϕ
 - ALL OPEN HOLES - $\frac{1}{2}$ ϕ FREAMED $\frac{15}{16}$ ϕ @ ASSEM.
 - WORK THIS DRAWG. WITH - 2A & 2B
 - SEE DRWG. NO. 2C FOR SECTIONS
 - SEE DRWG. NO. E1 FOR NOTES



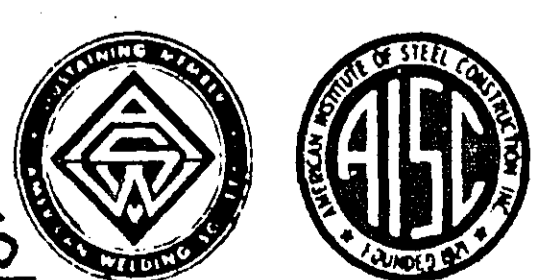
SHAPE	DEPTH	FLANGE	WEB	a	k	c	sp
S. A. - PROJ. No. 62-623-07							

ST. PAUL STRUCTURAL STEEL CO.
 162 YORK AVE. ST. PAUL, MINN 55117
 BRIDGE NO. 625 20
 MADE BY Bob T. DATE 11-5-70
 CHECKED BY JEB DATE 2-15-71
 SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED
 OPEN HOLES SEE - NOTES
 CONTRACT NO. 70-94 SHEET 2

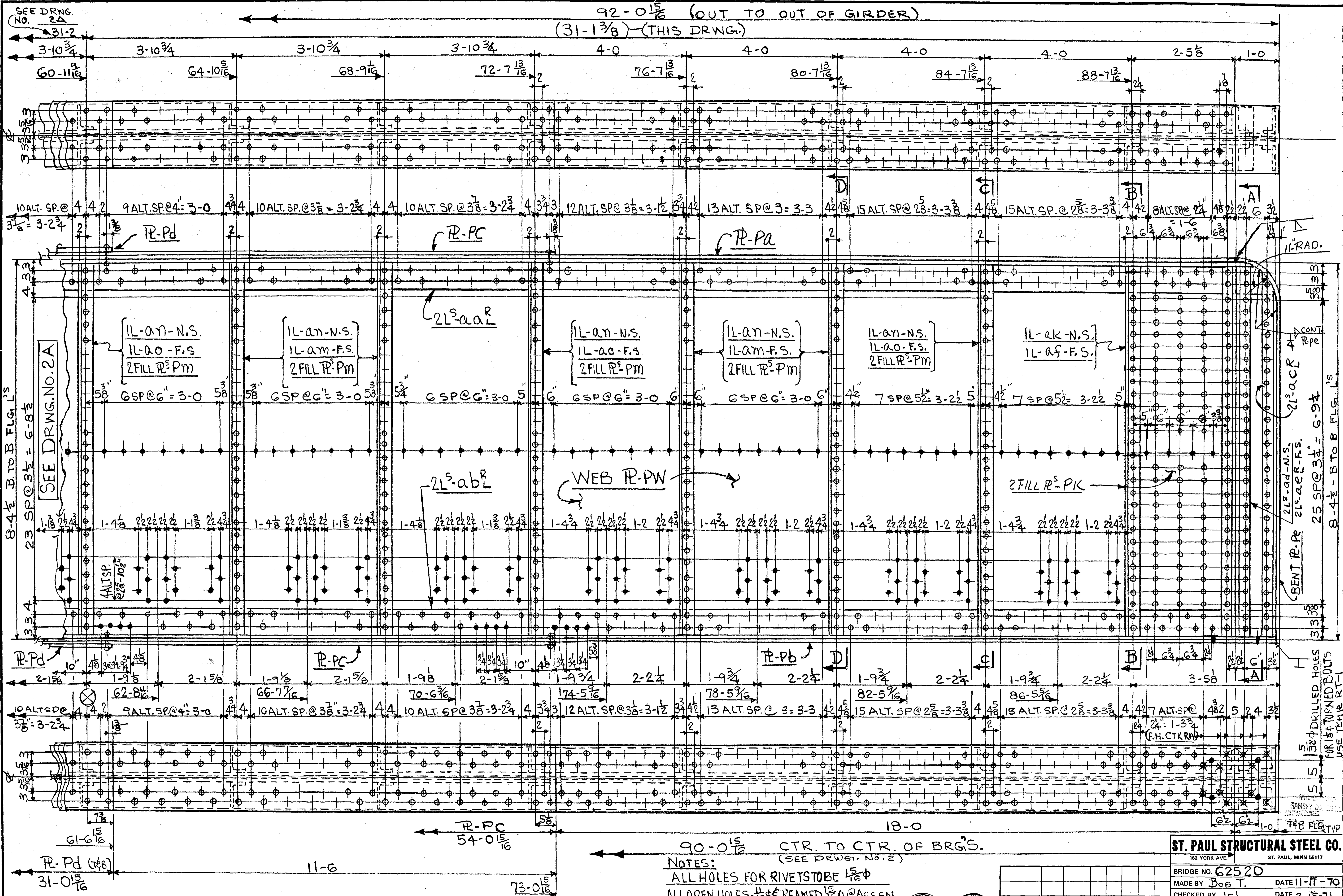
SEE NOTE ON SHT. 7



NOTES:
 ALL HOLES FOR RIVETS TO BE $\frac{15}{16}\phi$
 ALL OPEN HOLES $\frac{15}{16}\phi$ REAMED $\frac{15}{16}\phi$ @ ASSEM.
 WORK THIS DRWG WITH - 2 & 2B
 SEE DRWG NO. 2C FOR SECTIONS
 SEE DRWG NO. E1 FOR NOTES

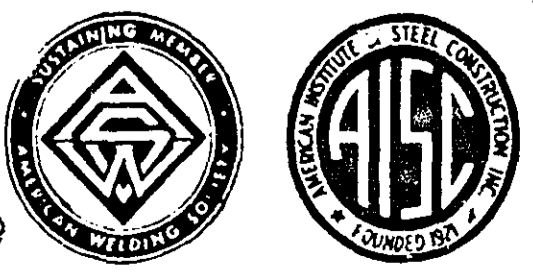


SHAPE		DEPTH	FLANGE	WEB	a	k	c	e'
S.A. PROJ. No. 62-623-07								
DESCRIPTION GIRDER - (PART-2)								
ST. PAUL STRUCTURAL STEEL CO. 162 YORK AVE. ST. PAUL, MINN 56117								
BRIDGE NO. 62520			DATE 11-9-70					
MADE BY Bob T.			DATE 2-15-71					
CHECKED BY JEB								
SHOP PAINT: RED LEAD M. H. D. 3006 UNLESS NOTED								
OPEN HOLES SEE - NOTES								
CONTRACT NO. 70-94							SHEET 2A	
6886								

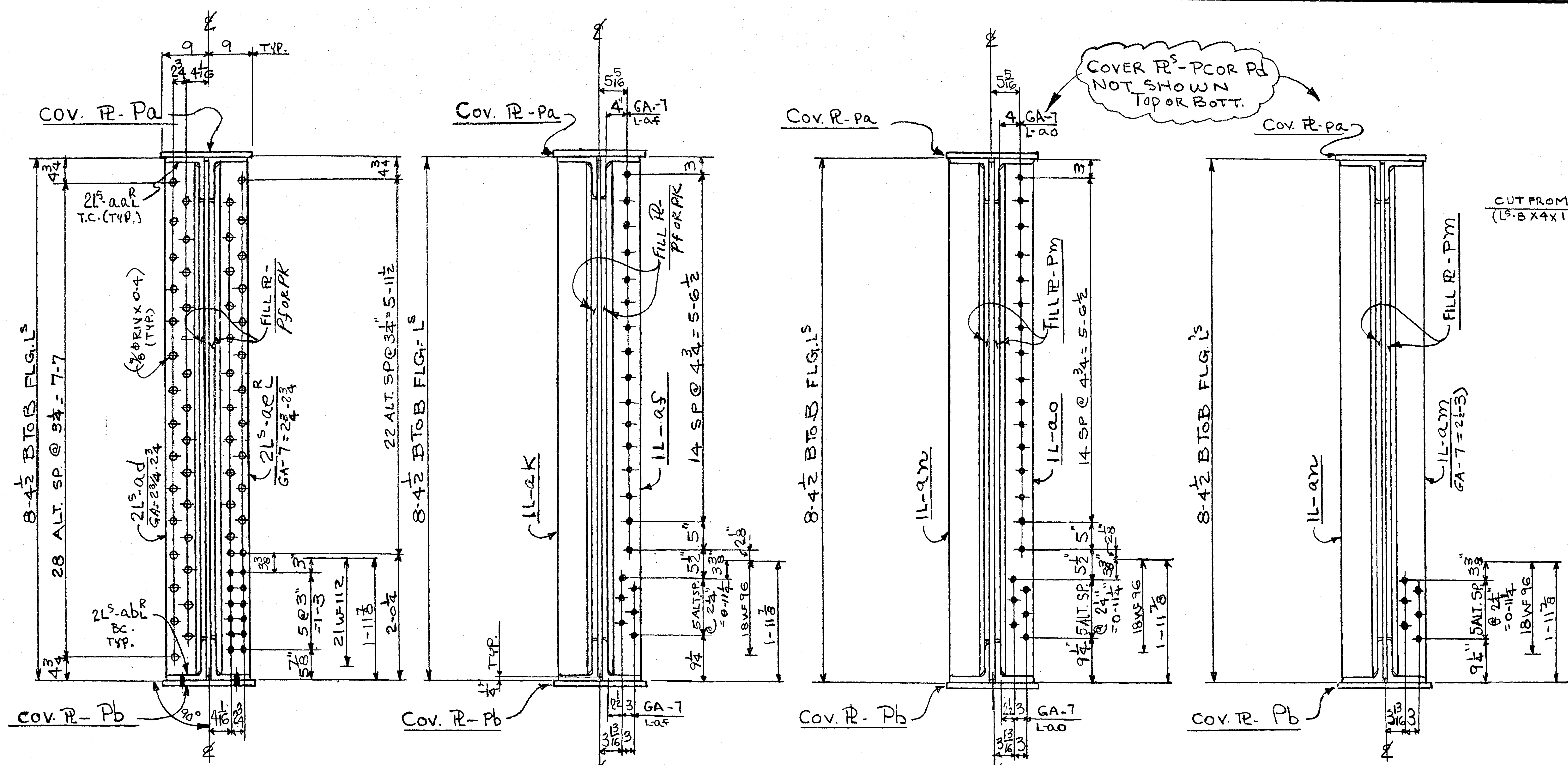


NOTES:
 ALL HOLES FOR RIVETSTOBE 1 1/2" ϕ
 ALL OPEN HOLES - 1/8" ϕ REAMED 1/8" ϕ AT ASSEM.
 WORK THIS DRAWG WITH - 2 & 2A
 SEE DRWG. NO. 2C FOR SECTIONS
 SEE DRWG. NO. E1 FOR NOTES

ST. PAUL STRUCTURAL STEEL CO.	
162 YORK AVE.	ST. PAUL, MINN 55117
BRIDGE NO. 62520	DATE 11-17-70
MADE BY Bob T.	DATE 2-15-71
CHECKED BY JEB	DATE 2-15-71
SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED	
S. A. PROJ. No. 62-623-07	OPEN HOLES SEE - NOTES
CONTRACT NO. 70-94	SHEET 2B



SHAPE	DEPTH	FLANGE	WEB	a	k	c	SP



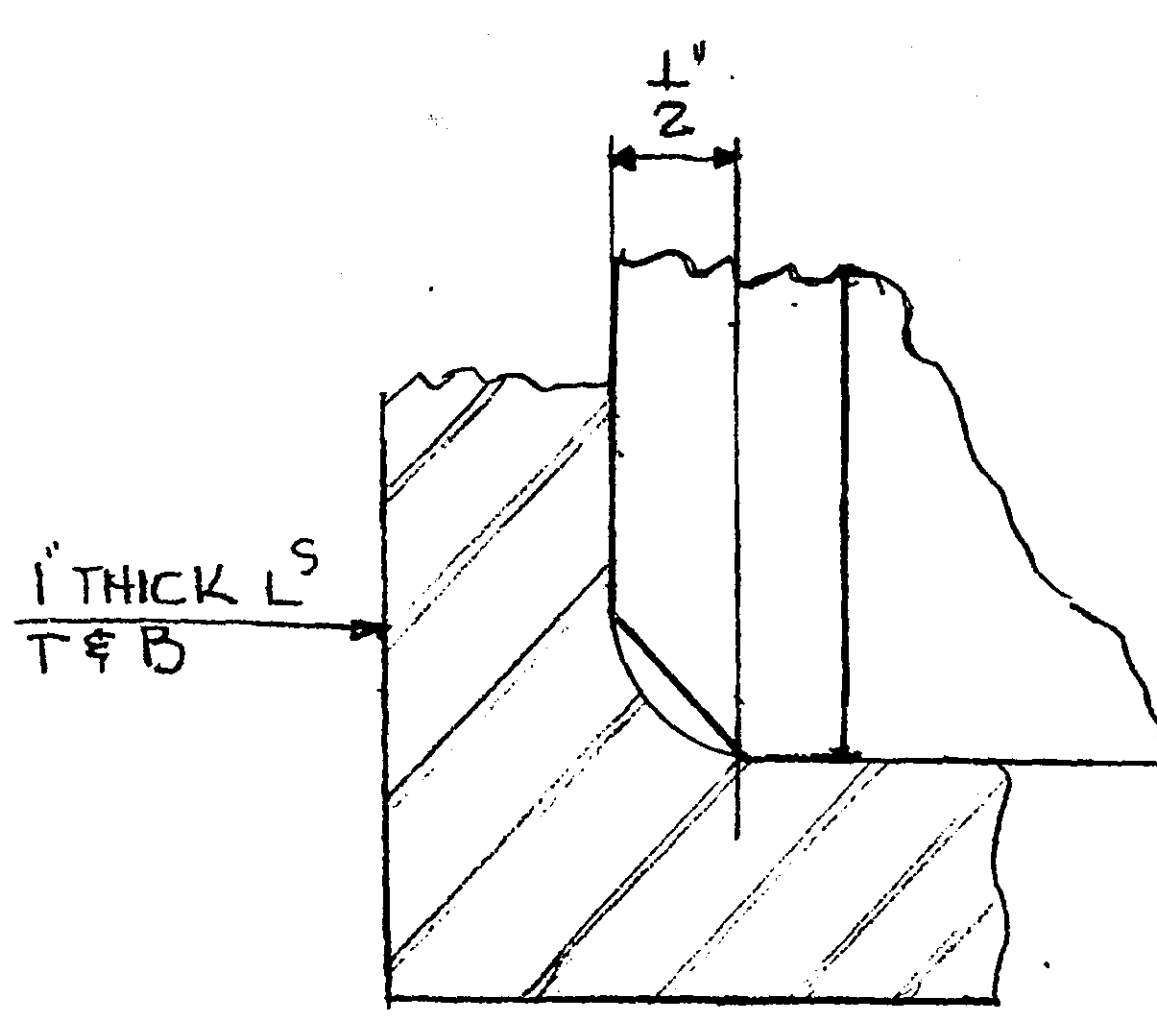
ITEM	QTY	MATERIAL
PI-5	Pa	2 1"UMR-18x90-0 1/8
PI-7	Pb	2 1"UMR-18x91-10 1/8
PI-4	Pc	4 3/4"UMR-18x54-0 1/8
PI-3	Pd	4 3/4"UMR-18x31-0 1/8
PI-2	aaf	4 L-8x8x1x91-10 1/8
PI-2	abf	4 L-8x8x1x91-10 1/8
PI-6	PE	4 1"UMR-18x8-11 7/8
PI-9	act	8 L-7x4x1/2x8-0
PI-10	ad	8 L-7x4x1x8-2 1/2
PI-10	ae	8 L-7x4x1x8-2 1/2
PI-10	af	4 L-7x4x3/4x8-2 1/2
PI-11	ak	4 L-7x4x3/4x8-2 1/2
PI-11	ao	14 L-7x4x3/4x8-2 1/2
PI-11	an	42 L-7x4x3/4x8-2 1/2
PI-11	am	28 L-7x4x3/4x8-2 1/2
PI-12	Pf	4 1"R-35 1/2x7-0 3/8
PI-13	Pk	4 1"R-42x7-0 3/8
PI-14	Pm	84 1"BAR-4x7-0 3/8
PI-1	Pw	2 5/8"R-100x91-10 1/8

SECT. - AA
(21 WF CONN. & END BRG.)

SECT. - BB
(KNEE BRACE & 18 WF CONN. STIFF L^S @ END BRG.)

SECT. - CC
(KNEE BRACE & 18 WF CONN. TO INTERMEDIATE STIFF L^S)

SECT. - DD
(TYP. 18 WF CONN. TO STIFF L^S)



TYP. SCARF FOR L^S @ T & B FLG ANGLES

NOTES:

- SEE DRWG. NO. EI FOR NOTES
- WORK THIS DRWG. WITH - DRWG. NO. 2, 2A & 2B
- ALL OPEN HOLES 1/16" & REAMED TO 1/8" @ ASSEMBLY
- ALL STIFF. ANGLES TO BE FIT TIGHT TOP & BOTT

SHOP VERIFY

QUANT. FOR (2) GIRD.

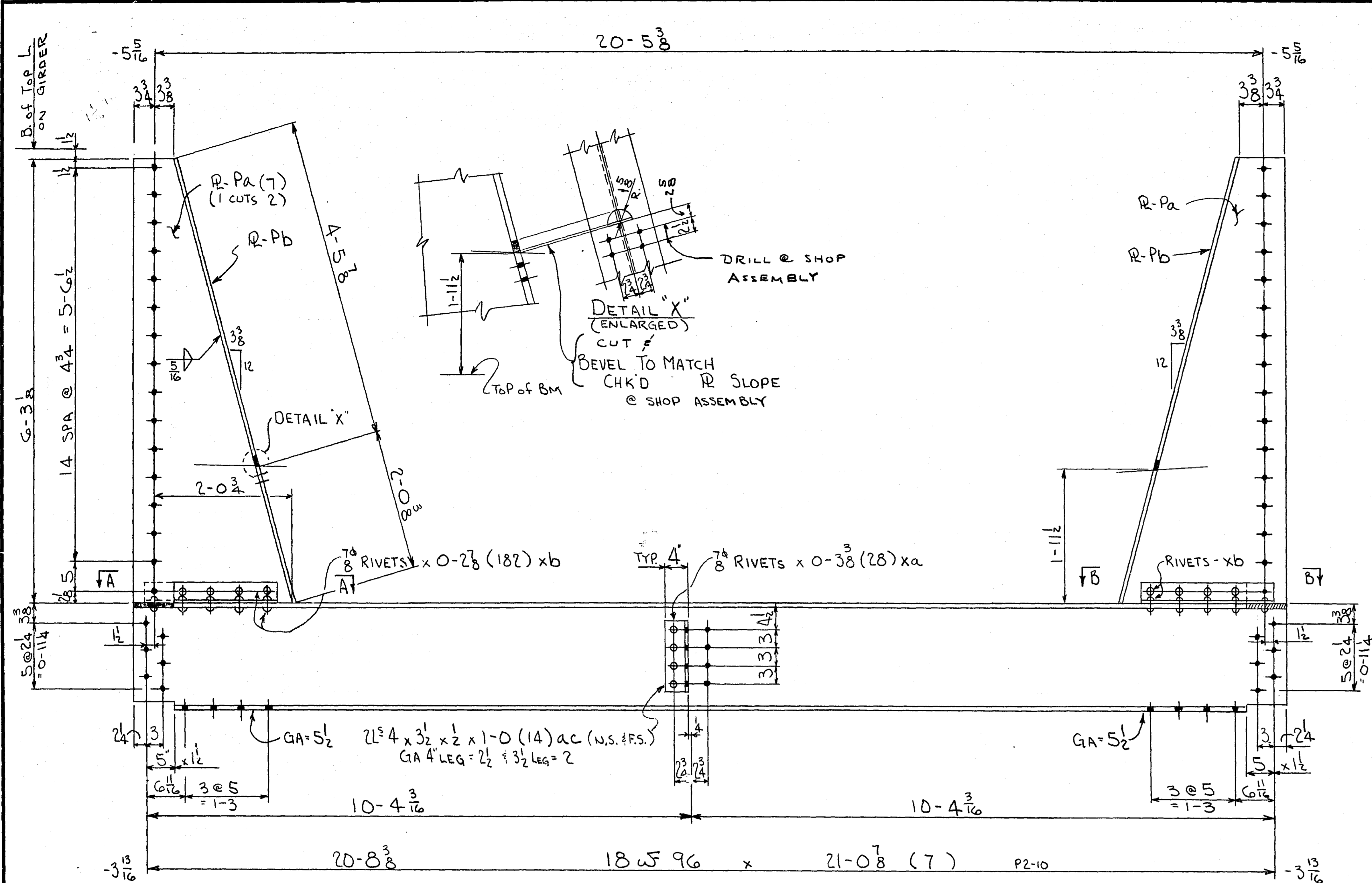
SHOP RIVETS - 7/8" φ

GRIP	LENGTH	AMT.	TYPE
2"	0-4	1424	FULL HD.
2 5/8"	0-4 5/8	1394	
2 3/4"	0-4 3/4	576	
3 1/2"	0-5 5/8	704	
4 1/8"	0-6 1/2	1296	
4 3/8"	0-6 3/4	116	
4 5/8"	0-7	240	
2"	0-4	48	FLAT HD.
3/8"	0-5/8	108	FULL HD.

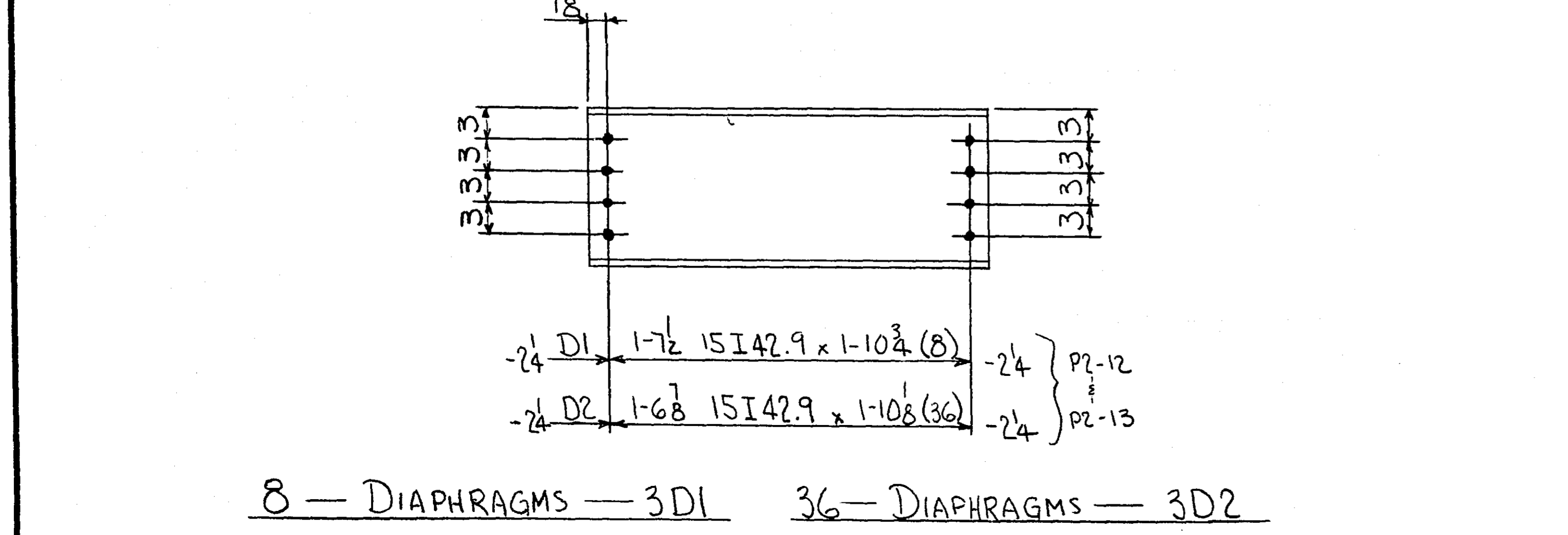
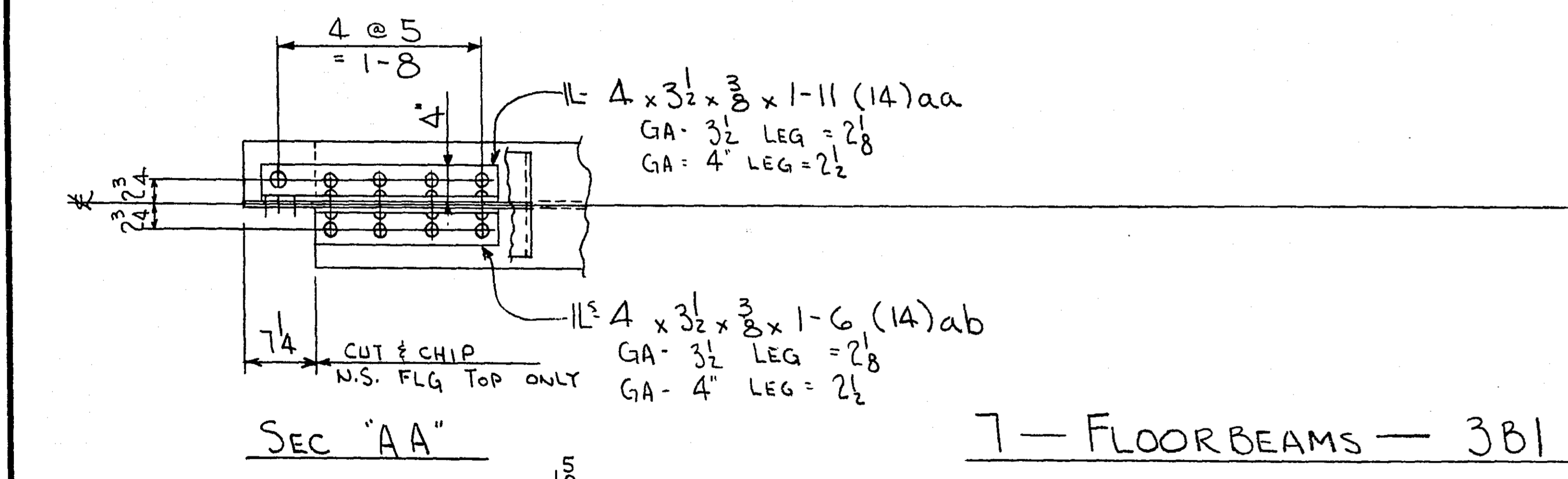
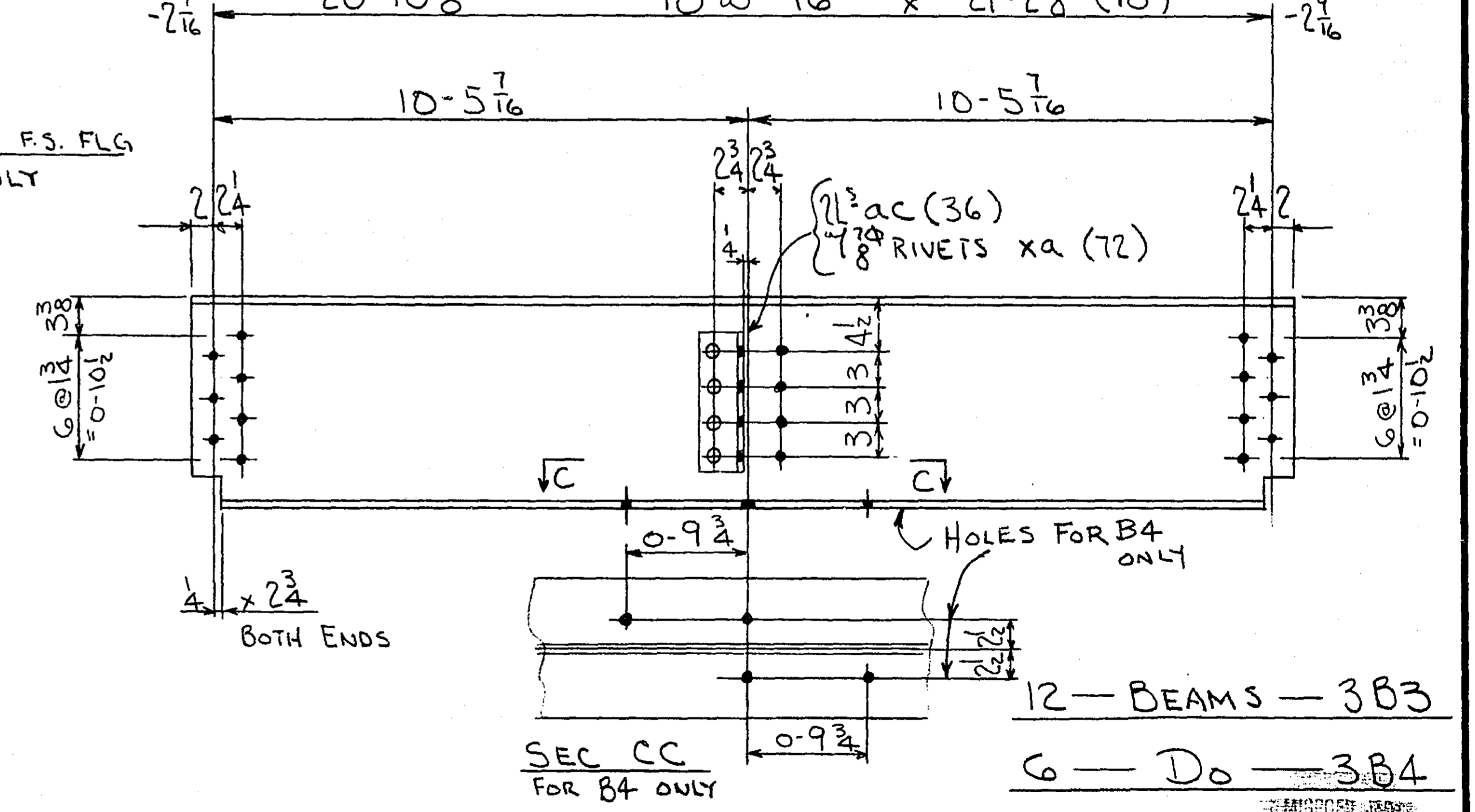
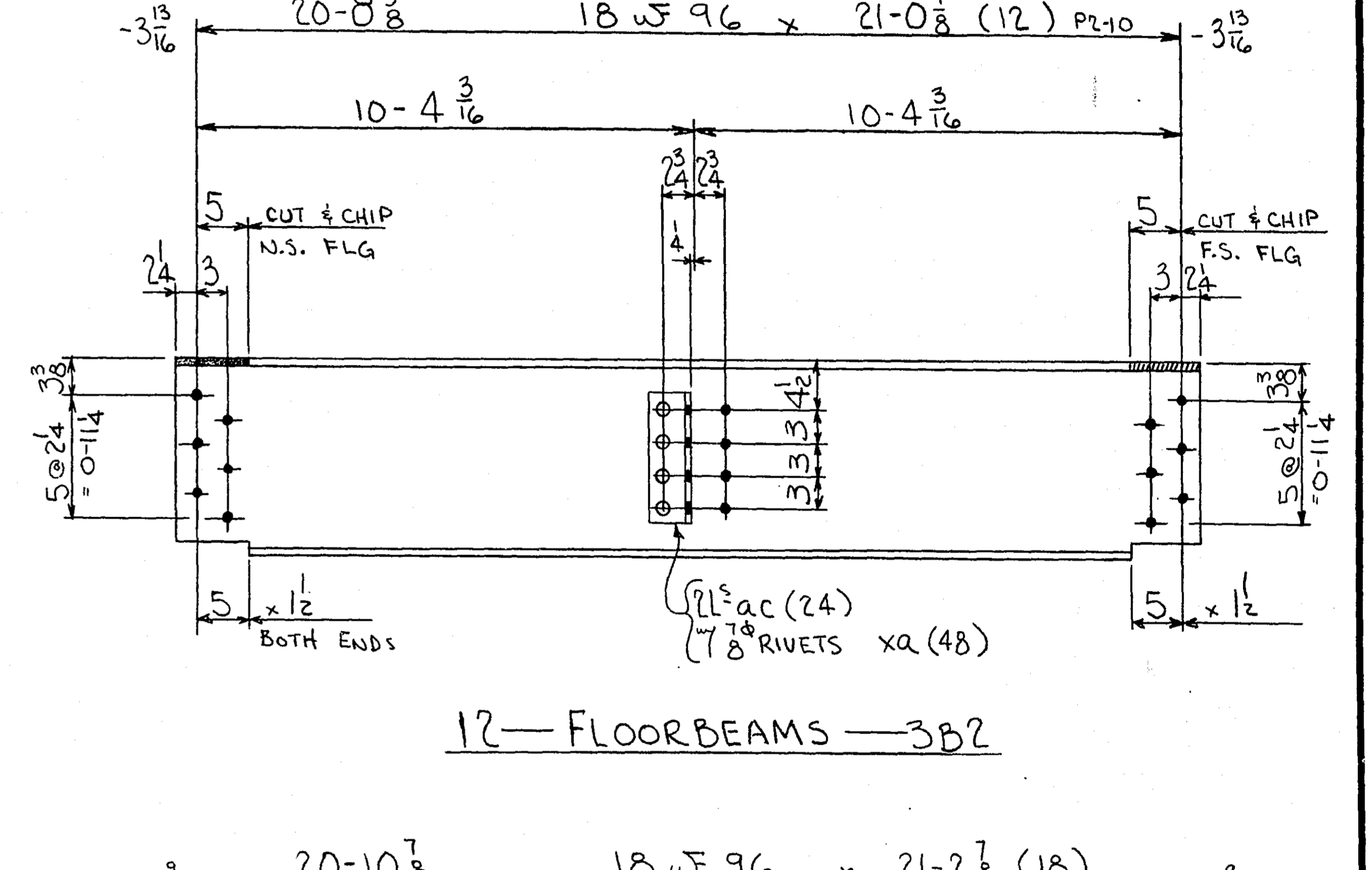
ST. PAUL STRUCTURAL STEEL CO.
162 YORK AVE. ST. PAUL, MINN 55117

BRIDGE NO.	62520
MADE BY	BOE T.
DATE	11-12-70
CHECKED BY	JEB
DATE	2-15-71
SHOP PAINT:	RED LEAD M. H. D. 3606 UNLESS NOTED
OPEN HOLES	SEE - NOTES
CONTRACT NO.	70-94
SHEET	2C





ITEM	QTY	MATERIAL
P2-10	3B1	7 18 W F 96 x 21-0 7/8
P1-18	Pa	7 1/2 x 3 5/8 x 6-3 8
P1-17	Pb	14 1/2 x 10 x 6-6 1/16
	aa	14 1/4 x 3 1/2 x 3/8 x 1-11
	ab	14 D _o x 1-6
	ac	74 1/4 x 3 1/2 x 1/2 x 1-0
	xa	148 7/8 RIVET x 0-3 3/8
	xb	182 D _o x 0-2 3/8
	3D1	8 15 I 42.9 x 1-10 3/4
	3D2	36 D _o x 1-10 8
P2-10	3B2	12 18 W F 96 x 21-0 8
P2-11	3B3	12 D _o x 21-2 8
P2-11	3B4	6 D _o x 21-2 8



NOTES:
 ALL HOLES FOR RIVETS TO BE 15/16"
 ALL OPEN HOLES - 11/16" REAMED TO 15/16" AT ASSEMBLY
 SEE SHT E1 FOR REMAINDER OF NOTES
 ALL MATL TO BE MHD 3306 U.N.
 RIVETS TO BE MHD 3316 TYPE 1

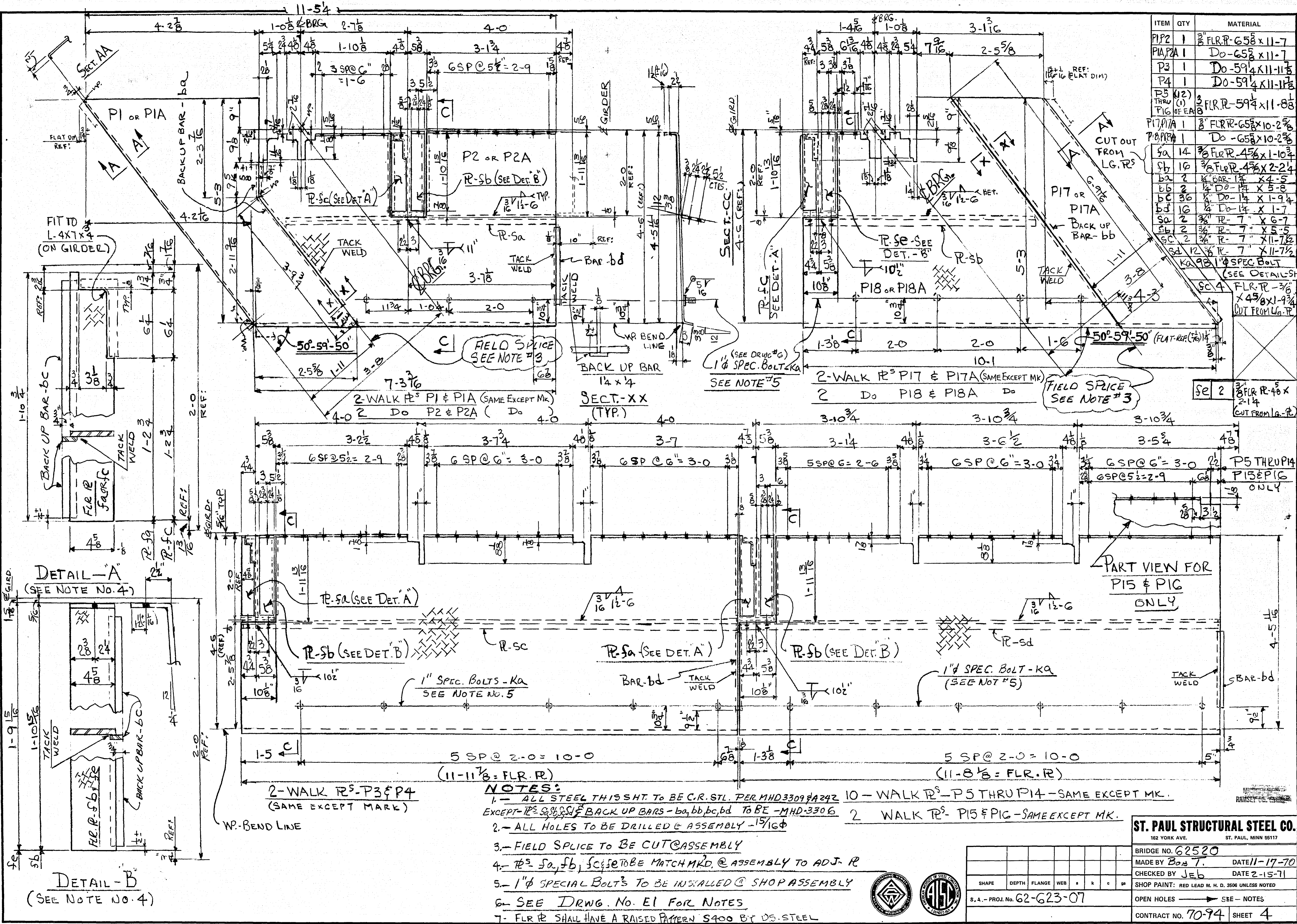
ST. PAUL STRUCTURAL STEEL CO.
 162 YORK AVE. ST. PAUL, MINN 55117

BRIDGE NO. G2520
 MADE BY ALAN DATE 11-13-10
 CHECKED BY JEB DATE 2-11-11
 SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED

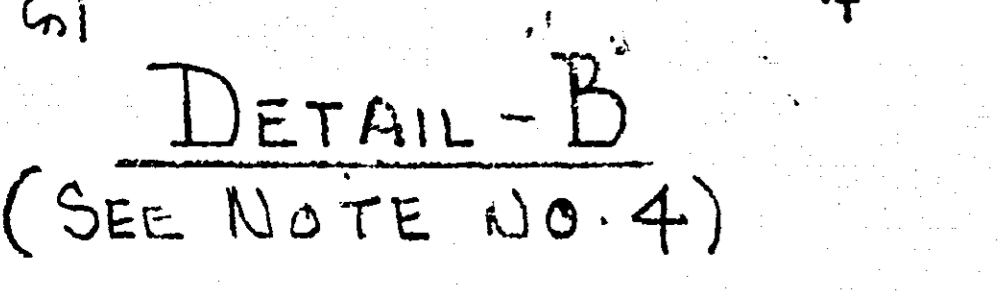
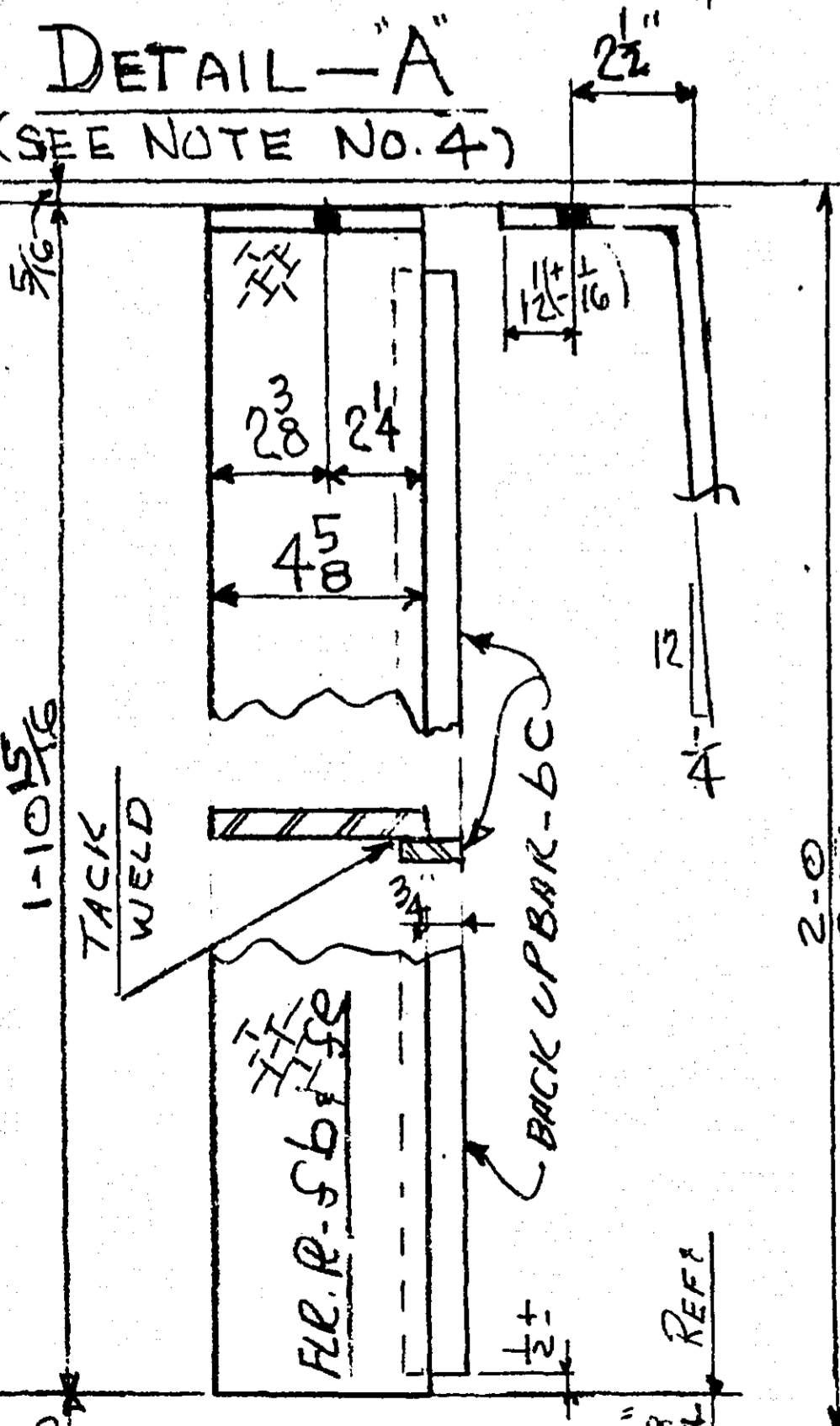
S. A. PROJ. No. G2-623-07
 OPEN HOLES → SEE NOTES
 CONTRACT NO. 70-94 SHEET 3

SHAPE	DEPTH	FLANGE	WEB	a	k	c	g _o
15I42.9	15	5 1/2 x 5/8	7	2 1/2	1 3/8	4	3 1/2
18W96	18	11 3/4 x 1 1/2	5 3/8	12	5 1/2	5 1/2	5 1/2





ITEM	QTY	MATERIAL
PIP2	1	3/8" FLR.R-658 x 11-7
PIA/P2A	1	Do-658 x 11-7
P3	1	Do-594 x 11-11 1/2
P4	1	Do-594 x 11-11 1/2
P5 THRU P14	(12)	3/8" FLR.R-594 x 11-88
PI7/P17A	1	3/8" FLR.R-658 x 10-2 5/8
PI8/P18A	1	Do-658 x 10-2 5/8
5a	14	3/8" FLR.R-458 x 1-10 3/4
5b	16	3/8" FLR.R-458 x 2-2 1/4
5c	2	1/2" BAR-14 x 4-5
5d	2	1/2" Do-14 x 5-8
5e	36	1/2" Do-14 x 1-9 1/4
5f	16	1/2" Do-14 x 1-7
5g	2	3/4" R-7" x 6-7
5h	2	3/4" R-7" x 5-5
5i	2	3/4" R-7" x 11-7 1/2
5j	12	3/4" R-7" x 11-7 1/2
5k	98	1" SPEC. BOLT (SEE DETAIL SP-16)
5l	1	FLR.R-3/8" x 4 5/8 x 1-9 3/4 (CUT FROM LG.R)



NOTES:

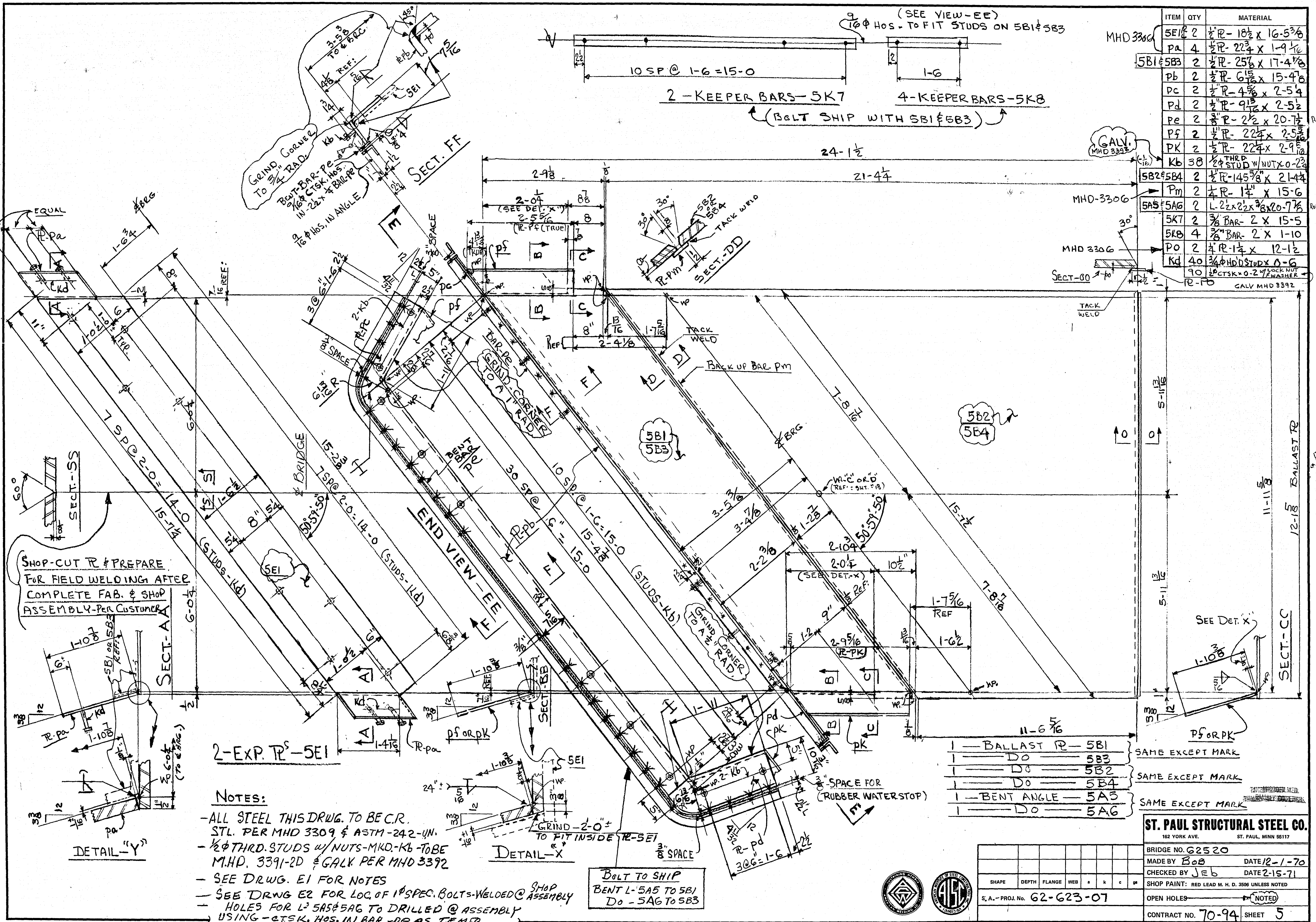
- ALL STEEL THIS SHT. TO BE C.R. STL. PER MHD3309 & A242 EXCEPT R-Sc, R-Sa, R-Sb & BACK UP BARS - ba, bb, bc, bd TO BE -MHD-3306
- ALL HOLES TO BE DRILLED @ ASSEMBLY - 15/16"
- FIELD SPICE TO BE CUT @ ASSEMBLY
- R-Sc, R-Sa, R-Sb, R-Sd TO BE MATCH MKD. @ ASSEMBLY TO ADJ. R
- 1" SPECIAL BOLTS TO BE INSTALLED @ SHOP ASSEMBLY
- SEE DRWG. NO. E1 FOR NOTES
- FLR.R SHALL HAVE A RAISED PATTERN S400 BY U.S. STEEL

10 - WALK R^s - P5 THRU P14 - SAME EXCEPT MK.

2 WALK R^s - P15 & P16 - SAME EXCEPT MK.

ST. PAUL STRUCTURAL STEEL CO.	
BRIDGE NO. 62520	DATE 11-17-70
MADE BY BOB T.	DATE 2-15-71
CHECKED BY JEB	DATE 2-15-71
SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED	OPEN HOLES - SEE - NOTES
CONTRACT NO. 70-94 SHEET 4	





ITEM	QTY	MATERIAL
SEI	2	1/2" R-18 1/2 x 16-5 3/8
PA	4	1/2" R-22 3/4 x 1-9 1/2
5B1 & 5B3	2	1/2" R-25 1/8 x 17-4 1/8
Pb	2	1/2" R-6 1/8 x 15-4 1/8
PC	2	1/2" R-4 3/8 x 2-5 1/4
Pd	2	1/2" R-9 1/2 x 2-5 1/2
Pe	2	3/8" R-2 1/2 x 20-7 1/2
Pf	2	1/2" R-22 1/4 x 2-5 1/8
PK	2	1/2" R-22 1/4 x 2-9 1/8
Kb	38	1/2" THRD. STUD W/ NUT x 0-2 3/8
5B2 & 5B4	2	1/2" R-145 5/8 x 21-4 1/4
Pm	2	1/2" R-1 1/4 x 15-6
5A5 & 5A6	2	L-2 1/2 x 2 1/2 x 3/8 x 10-7 1/8
5K7	2	3/8" BAR-2 x 15-5
5K8	4	3/8" BAR-2 x 1-10
PO	2	1/2" R-1 1/4 x 12-1 1/2
Kd	40	3/4" PHD. STUD x 0-6
	90	1/2" CTSK. HOS. IN-2 1/4" LOCK NUT WASHER
		R-FB GALV MHD 3392

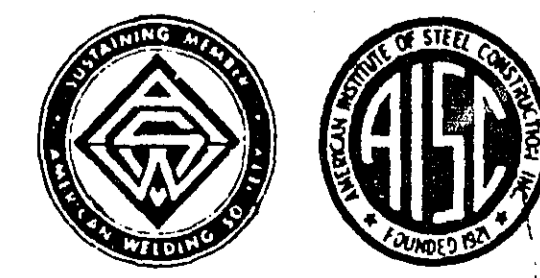
NOTES:

- ALL STEEL THIS DRWG. TO BE CR. STL. PER MHD 3309 & ASTM-242-UN.
- 1/2" THRD. STUDS W/ NUTS-MKD-Kb TO BE MHD. 3391-2D & GALV PER MHD 3392
- SEE DRWG. EI FOR NOTES
- SEE DRWG. E2 FOR LOC. OF 1" SPEC. BOLTS-WELDED @ SHOP ASSEMBLY
- HOLES FOR L-5A5 & 5A6 TO DRILLED @ ASSEMBLY USING -CTSK. HOS. IN BAR.-PE AS TEMP.

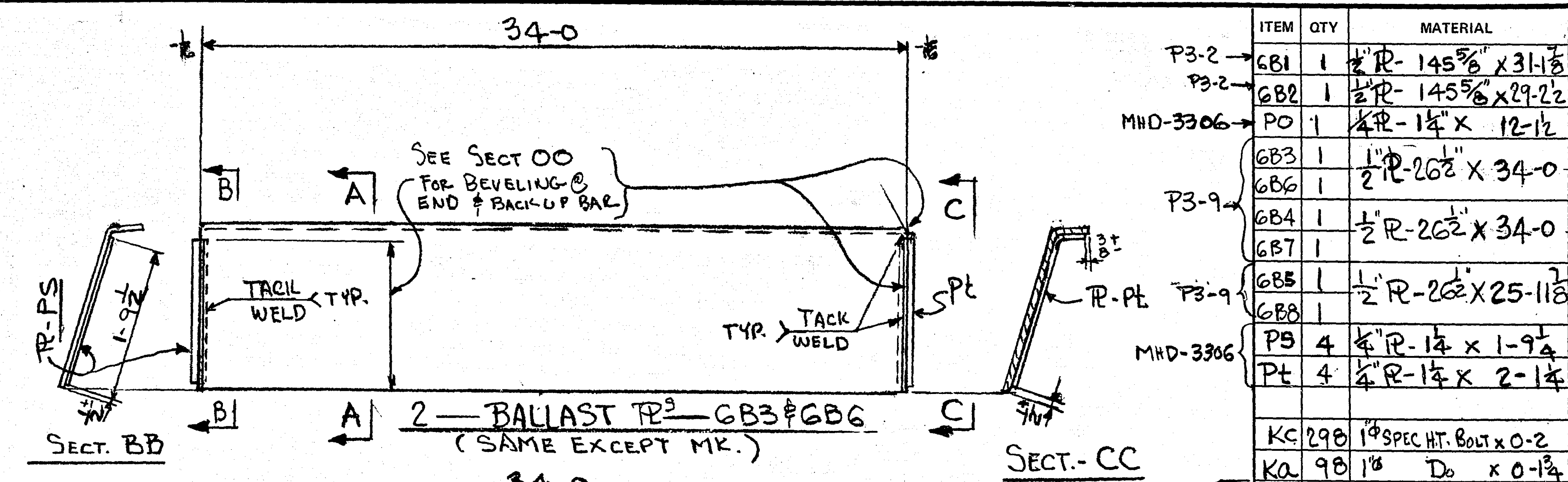
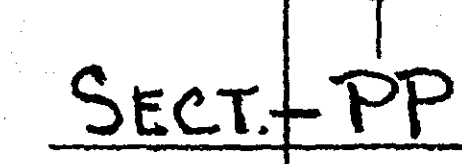
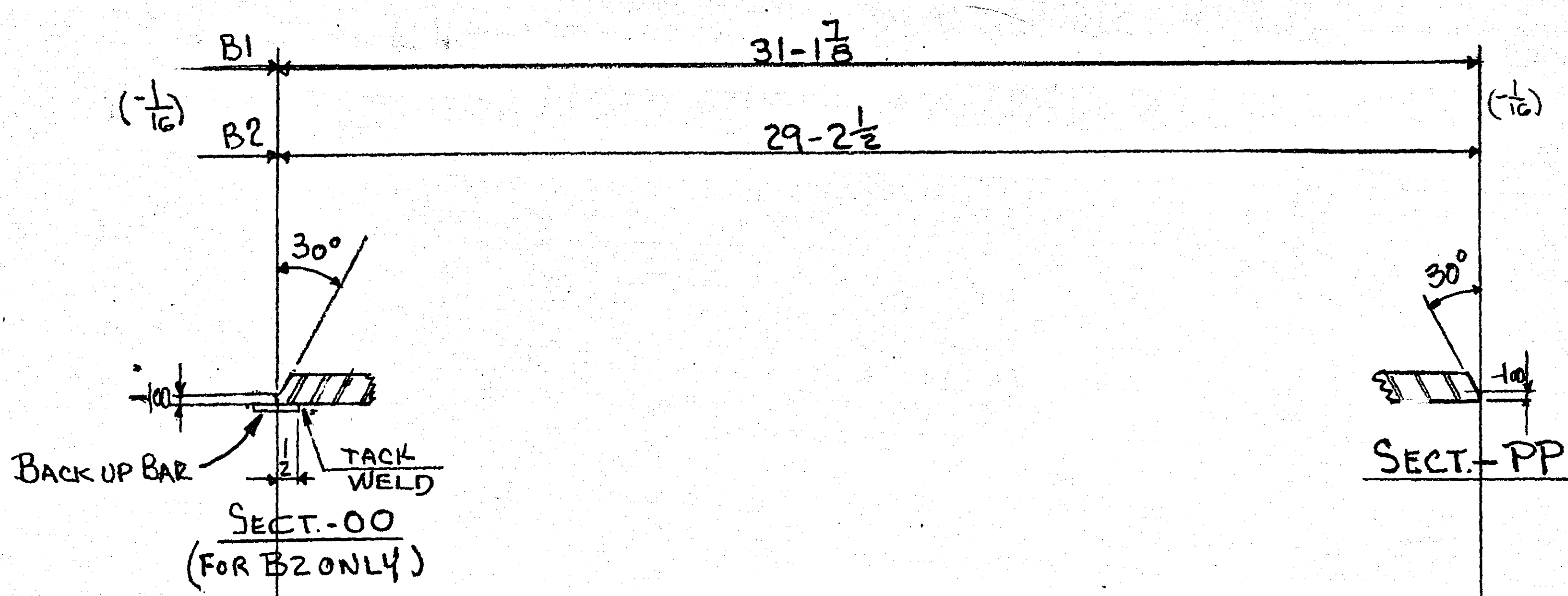
1	BALLAST R-	5B1	SAME EXCEPT MARK
1	DO	5B3	SAME EXCEPT MARK
1	DO	5B2	SAME EXCEPT MARK
1	DO	5B4	SAME EXCEPT MARK
1	BENT ANGLE	5A5	SAME EXCEPT MARK
1	DO	5A6	SAME EXCEPT MARK

ST. PAUL STRUCTURAL STEEL CO.
 162 YORK AVE. ST. PAUL, MINN 55117

BRIDGE NO. G2520
 MADE BY BOB DATE 12-1-70
 CHECKED BY JEB DATE 2-15-71
 SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED
 OPEN HOLES NOTED
 CONTRACT NO. 70-94 SHEET 5



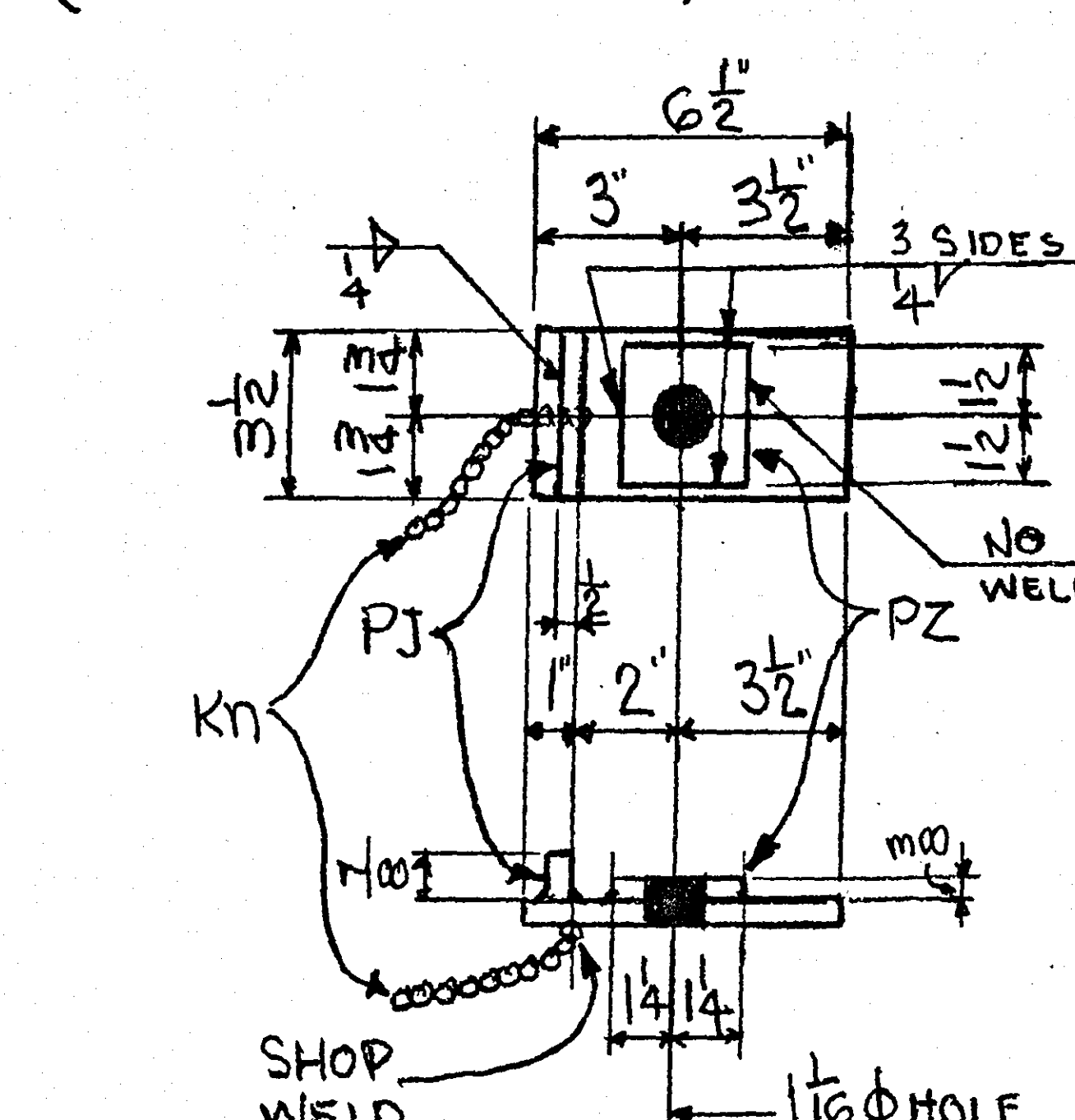
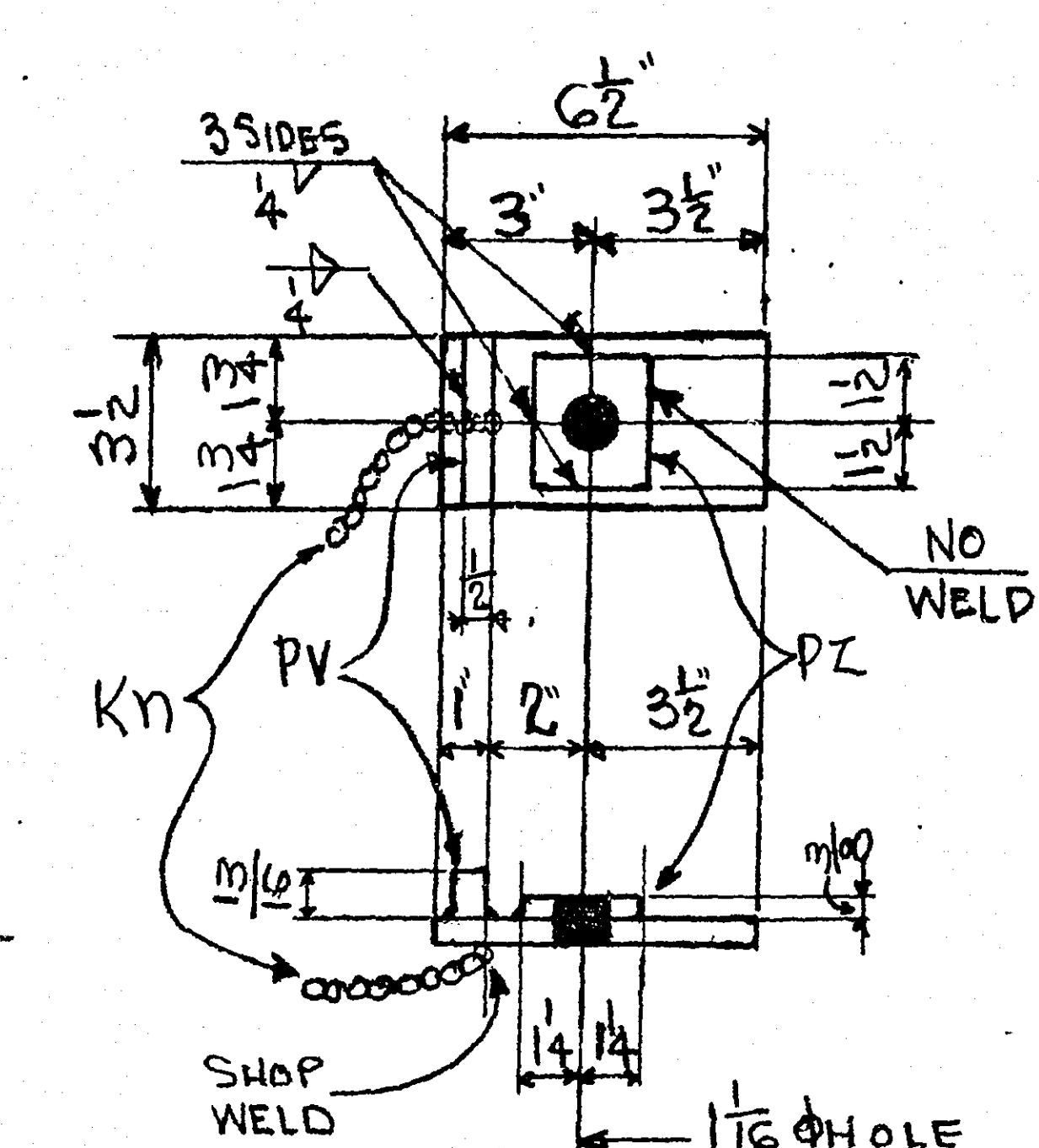
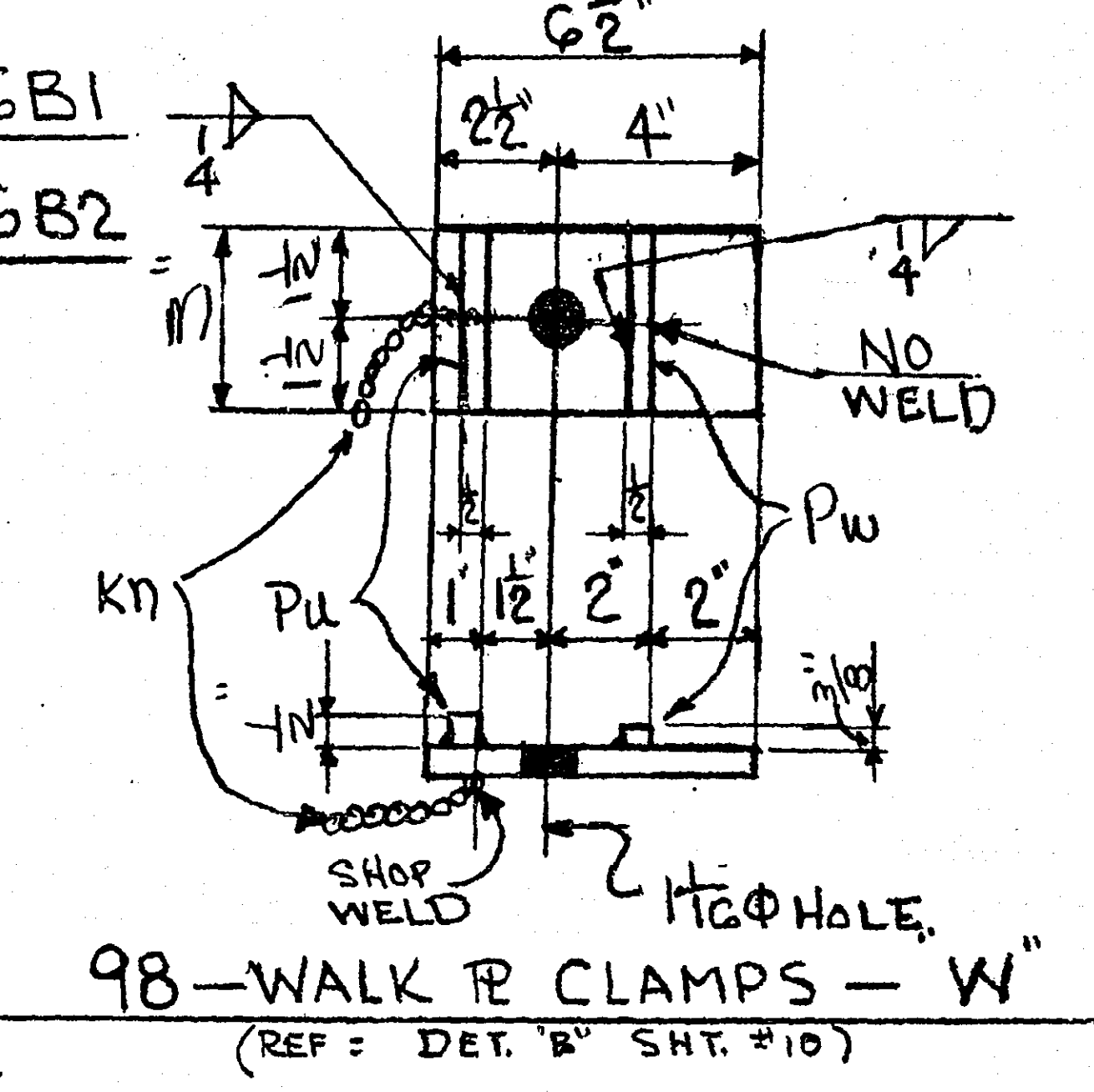
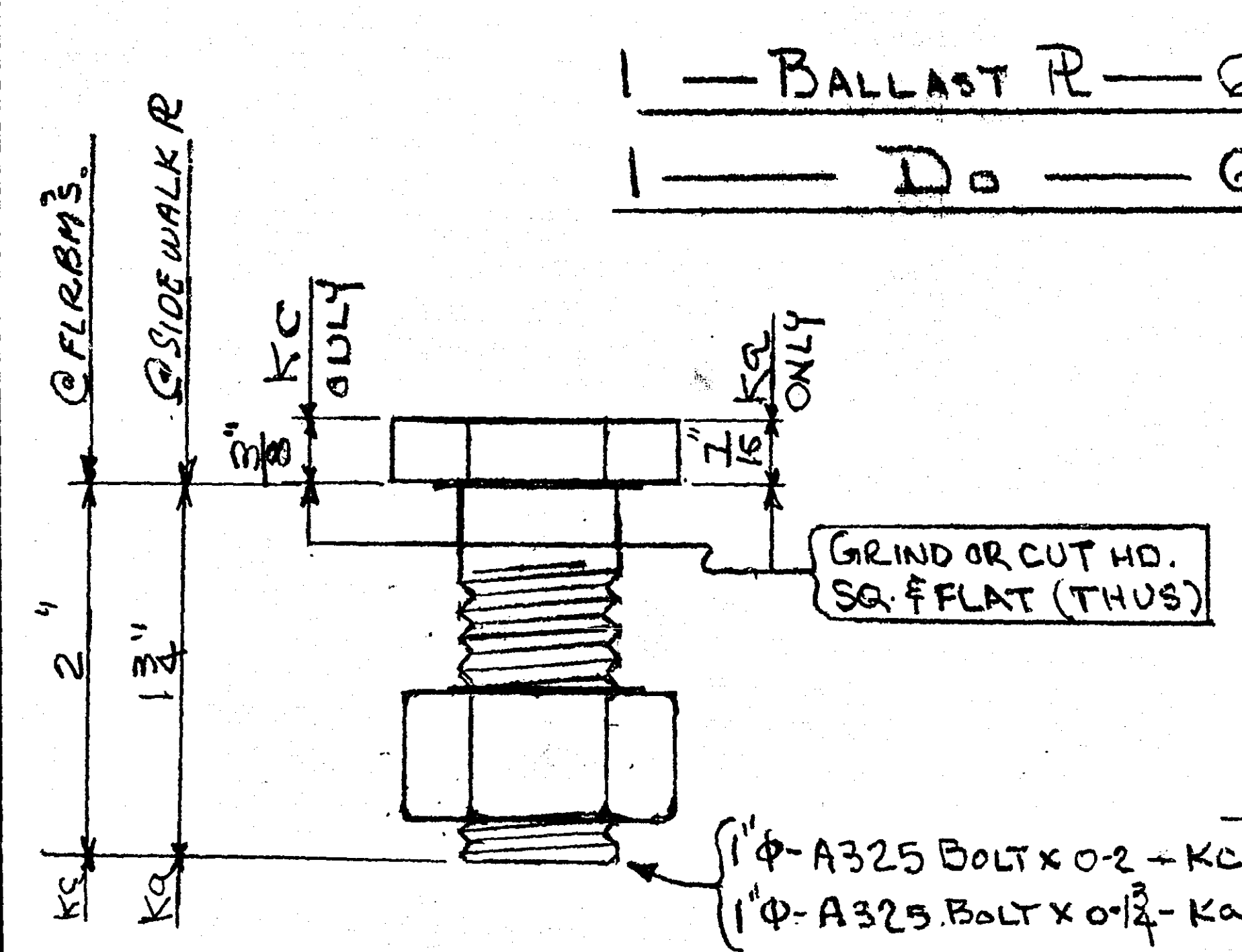
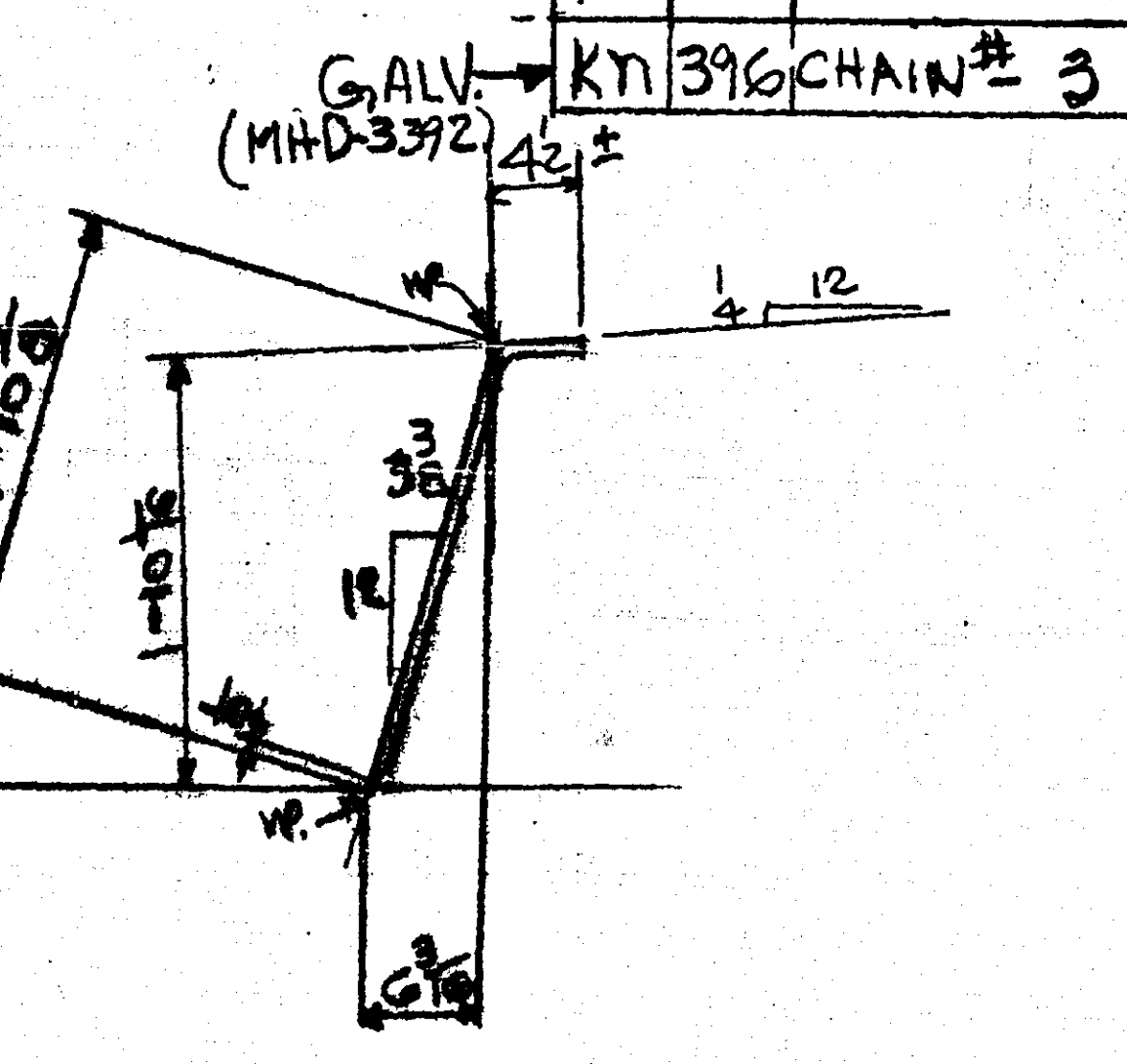
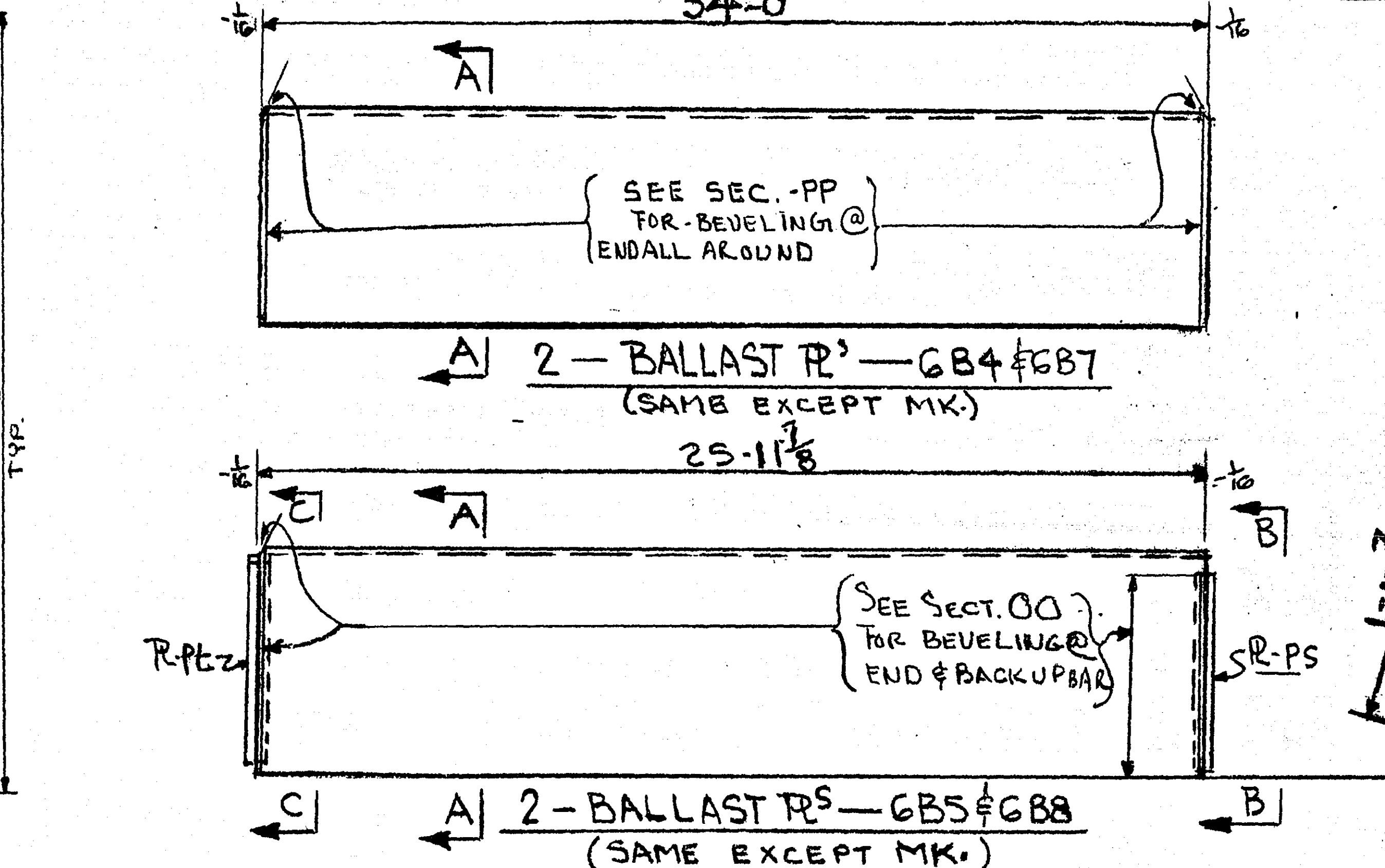
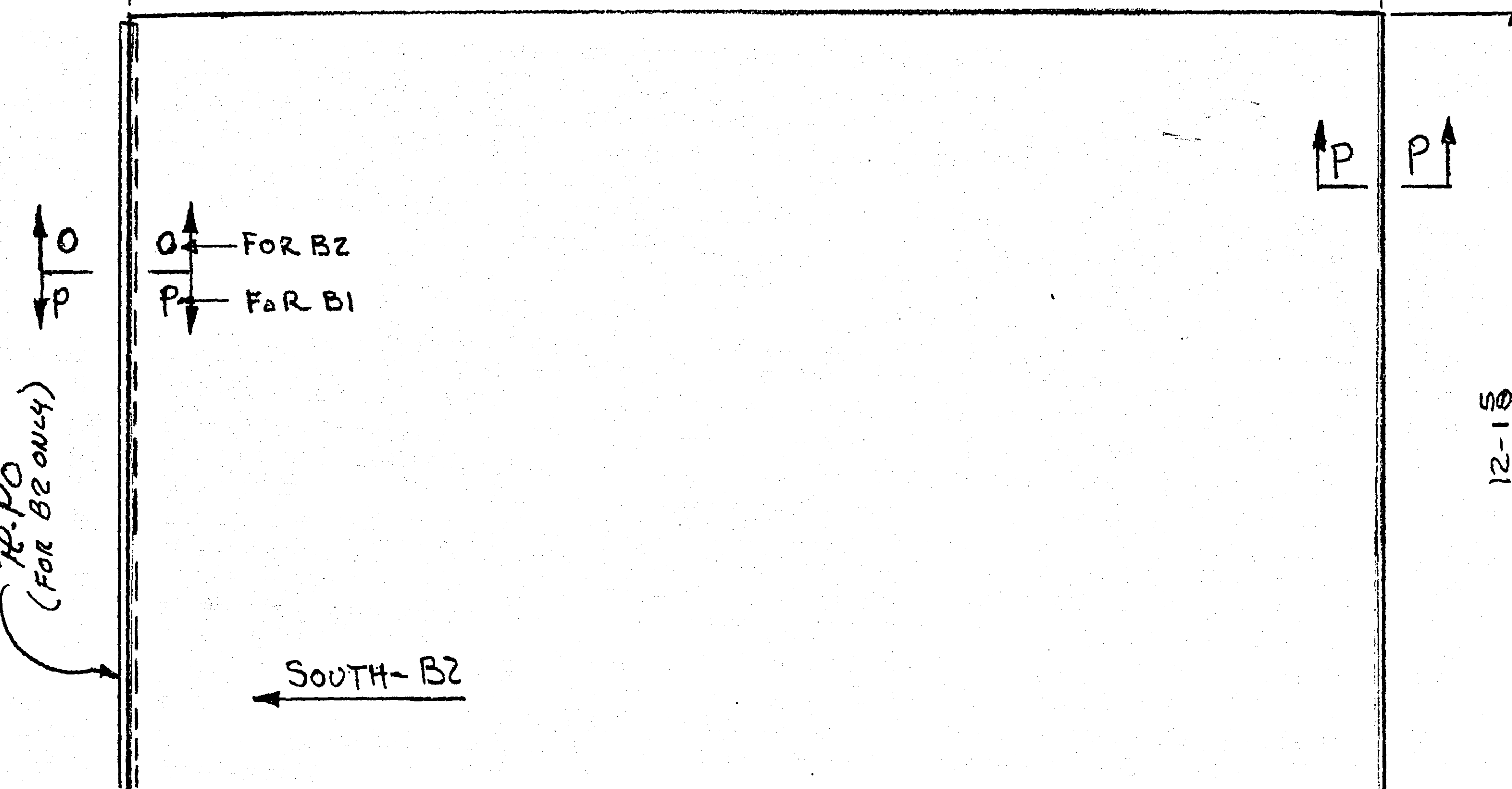
SHAPE	DEPTH	FLANGE	WEB	k	c	d
S. A. - PROJ. No. 62-623-07						
DESCRIPTION BALLAST R & BALLAST EXP. R						



ITEM	QTY	MATERIAL
P3-2	GB1	1 1/2" R-145 5/8 x 31-1/8
P3-2	GB2	1 1/2" R-145 5/8 x 29-2 1/2
MHD-3306	PO	1 1/2" R-1 1/4 x 12-1/2
P3-9	GB3	1 1/2" R-26 1/2 x 34-0
P3-9	GB6	1 1/2" R-26 1/2 x 34-0
P3-9	GB4	1 1/2" R-26 1/2 x 34-0
P3-9	GB7	1 1/2" R-26 1/2 x 34-0
P3-9	GB5	1 1/2" R-26 1/2 x 25-1 1/8
P3-9	GB8	1 1/2" R-26 1/2 x 25-1 1/8
MHD-3306	PS	4 1/4" R-1 1/4 x 1-9 1/4
MHD-3306	PL	4 1/4" R-1 1/4 x 2-1 1/4

KC	298	1" SPEC HT. BOLT x 0-2
Ka	98	1" Do x 0-1 1/4
W	98	R-1/2 x 3 x 0-6 1/2
PU	98	BAR-3/8 x 0-3
PW	98	BAR-3/8 x 1/2 x 0-3
MHD-3306	B'D	298 R-1/2 x 3 1/2 x 0-6 1/2
PV	266	BAR-1/2 x 1 1/2 x 0-3 1/2
PZ	298	R-3/8 x 2 1/2 x 0-3
PJ	32	BAR-1/2 x 3/8 x 0-3 1/2

KN	396	CHAIN # 3 x 0-4
----	-----	-----------------



- NOTES:
- 1- ALL BALLAST R^s TO BE CR. STL PER MHD 3309 & ASTM A-242
 - 2- ALL STL FOR BALLAST R CLAMPS & BALLAST R BACKUP BARS TO BE MHD 3306 AS NOTED
 - 3- SEE DRWG. # E1 FOR NOTES
 - 4- SEE DRWG. # E2 FOR LOC. OF BALLAST R CLAMPS & 1" SPEC. BOLTS

298 — SPECIAL BOLTS — KC
 98 — DO — Ka

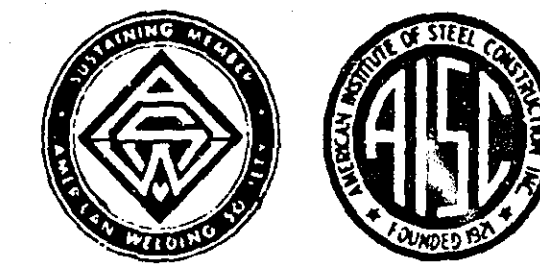
REF: (FOR SIDE WALK R — DET. B' — SHT #10) — Ka
 (FOR BALLAST R @ FLE BMS. — SHT #12) — KC

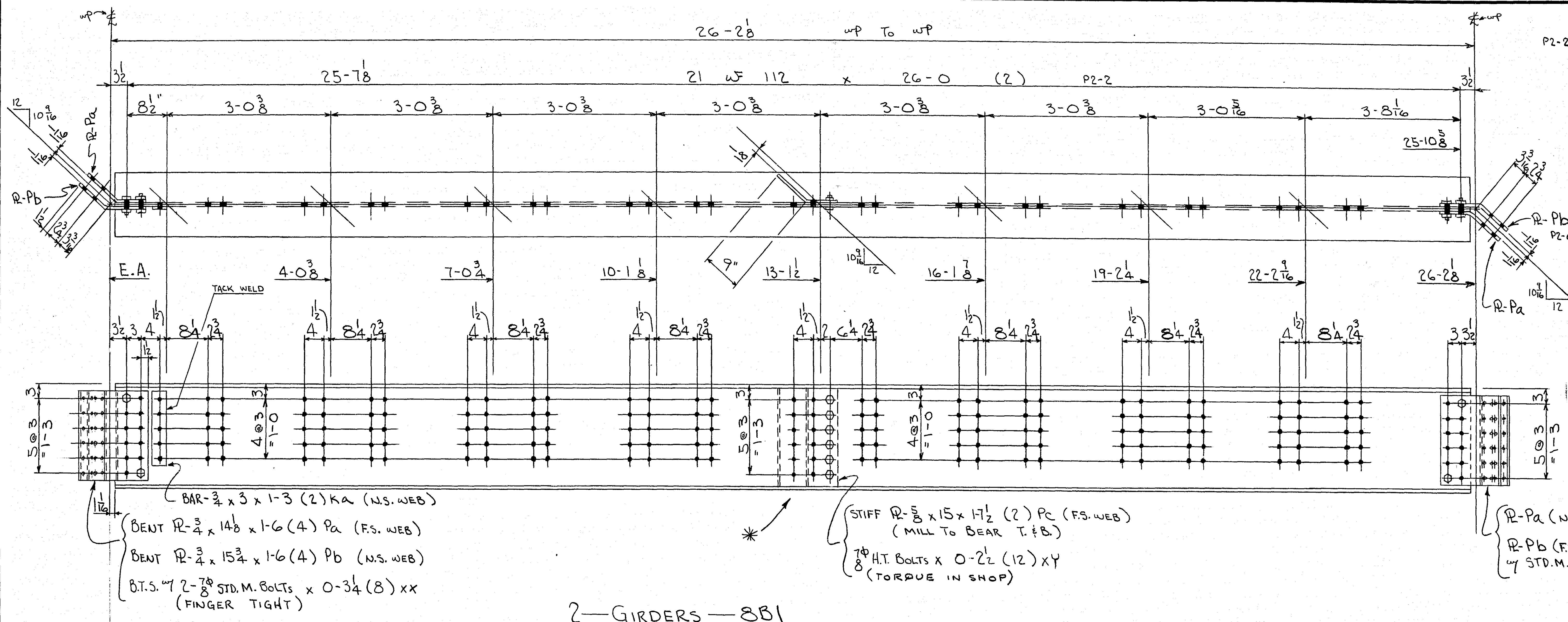
98 — WALK R CLAMPS — "W"
 (REF: DET. B' SHT #10)

266 — BALLAST R CLAMPS — "B"
 (FOR 18" & 96 BMS)
 (REF: SHT #12)

32 — BALLAST R CLAMPS — "D"
 (FOR 21" & 112 BMS)
 (REF: SHT #12)

ST. PAUL STRUCTURAL STEEL CO.	
BRIDGE NO.	62520
MADE BY	Bob T. DATE 12-7-70
CHECKED BY	Jeb DATE 2-15-71
S.A.—PROJ. No.	62-623-07
CONTRACT NO.	70-94 SHEET 6





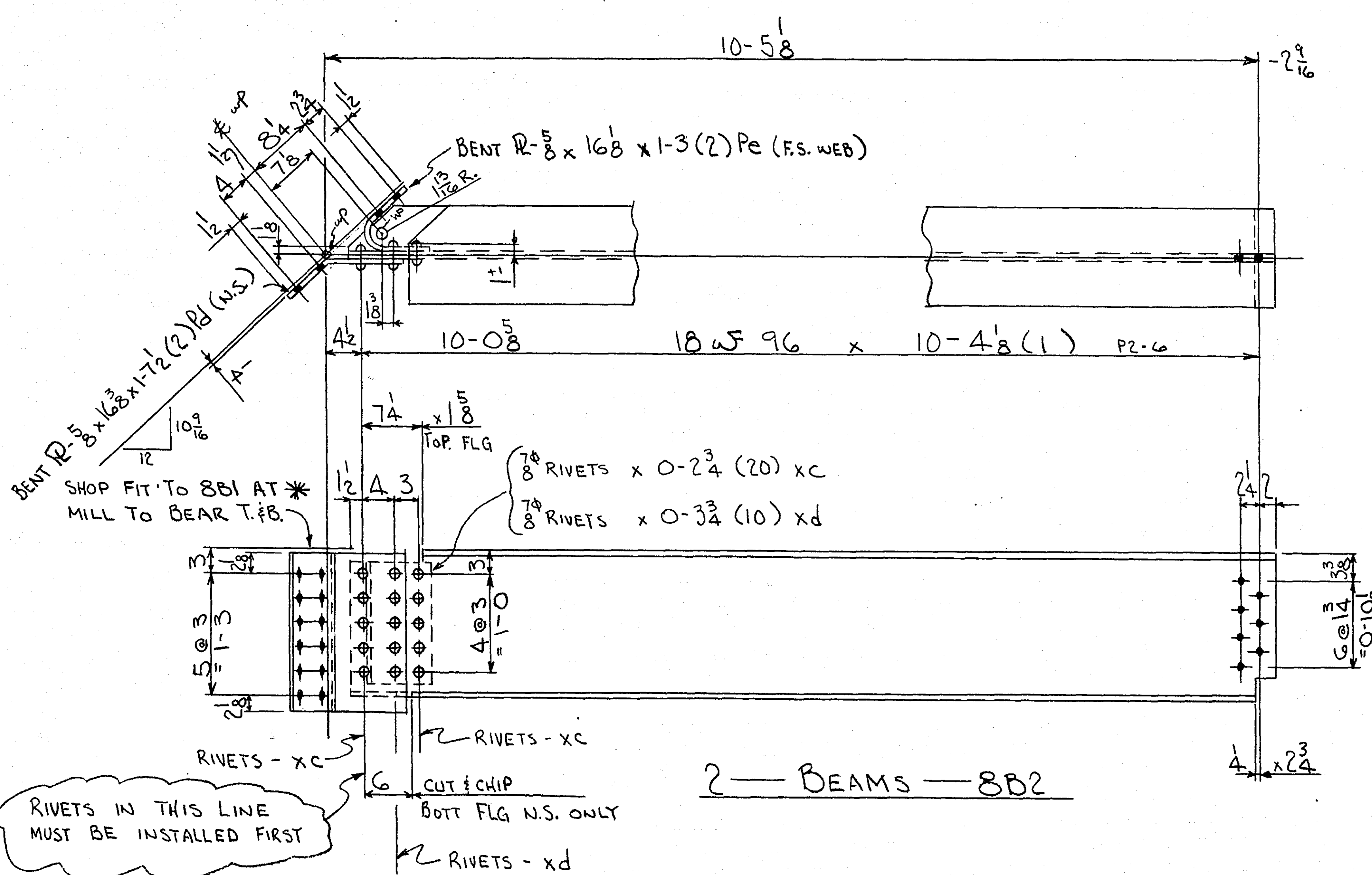
ITEM	QTY	MATERIAL
8B1	2	21 WF 112 x 26-0
Pa	4	BENT $R-\frac{3}{4} \times 14\frac{1}{8} \times 1-6$
Pb	4	BENT $R-\frac{3}{4} \times 15\frac{3}{4} \times 1-6$
Pc	2	$R-\frac{5}{8} \times 15 \times 1-7\frac{1}{2}$
x6	12	$\frac{7}{8}$ RIVETS x 0-2 1/8
Ka	2	BAR- $\frac{3}{4} \times 3 \times 1-3$
XX	8	$\frac{7}{8}$ STD. M.BOLT x 0-3/4
8B2	2	18 WF 96 x 10-4 1/8
Pd	2	BENT $R-\frac{5}{8} \times 16\frac{3}{8} \times 1-7\frac{1}{2}$
Pe	2	BENT $R-\frac{5}{8} \times 16\frac{3}{8} \times 1-3$
xc	20	$\frac{7}{8}$ RIVETS x 0-2 1/4
xd	10	$\frac{7}{8}$ RIVETS x 0-3/4
8A3	16	ANC. UNITS
fa	64	MB- $\frac{3}{4} \times 1-0$ W/2-NUTS #1 CUT WASH EACH BOLT
P1	32	4" BAR- $\frac{1}{2} \times 3-0\frac{3}{8}$
8B4	16	8" SHT. LEAD- $1\frac{1}{4} \times 1\frac{1}{4}$

BAR- $\frac{3}{4} \times 3 \times 1-3$ (2) Ka (N.S. WEB)
 BENT $R-\frac{3}{4} \times 14\frac{1}{8} \times 1-6$ (4) Pa (F.S. WEB)
 BENT $R-\frac{3}{4} \times 15\frac{3}{4} \times 1-6$ (4) Pb (N.S. WEB)
 B.T.S. w/ 2- $\frac{7}{8}$ STD. M. BOLTS x 0-3/4 (8) xx (FINGER TIGHT)

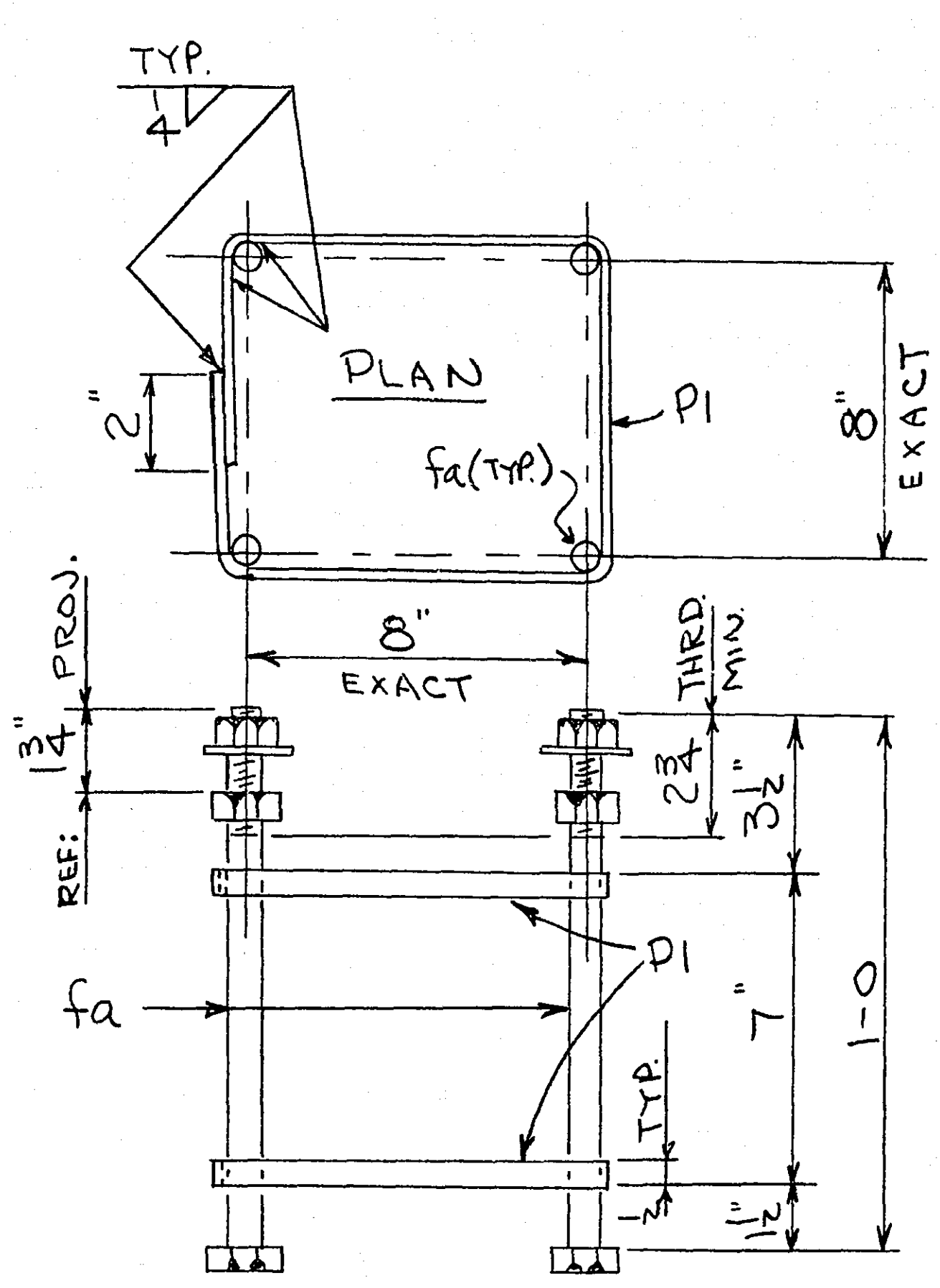
STIFF $R-\frac{5}{8} \times 15 \times 1-7\frac{1}{2}$ (2) Pc (F.S. WEB)
 (MILL TO BEAR T.#B.)
 7" H.T. BOLTS x 0-2 1/2 (12) xy
 (TORQUE IN SHOP)

R-Pa (N.S. WEB)
 R-Pb (F.S. WEB)
 w/ STD. M. BOLT = xx

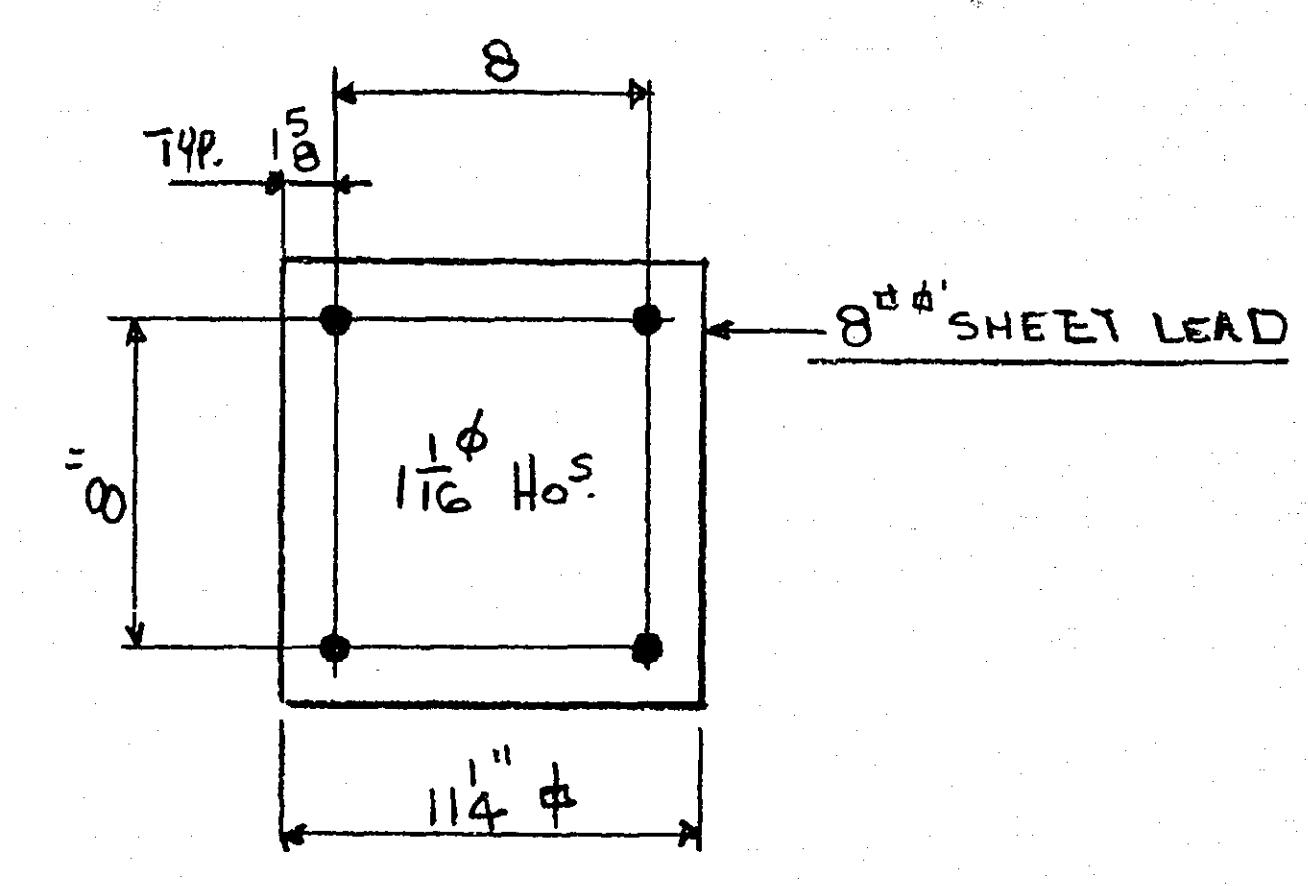
2-GIRDERS-8B1



2-BEAMS-8B2



16-HANDRAIL ANC. UNITS-8A3

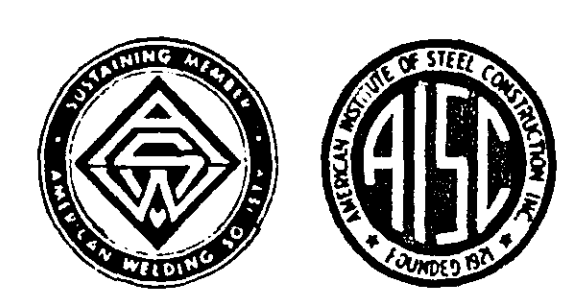


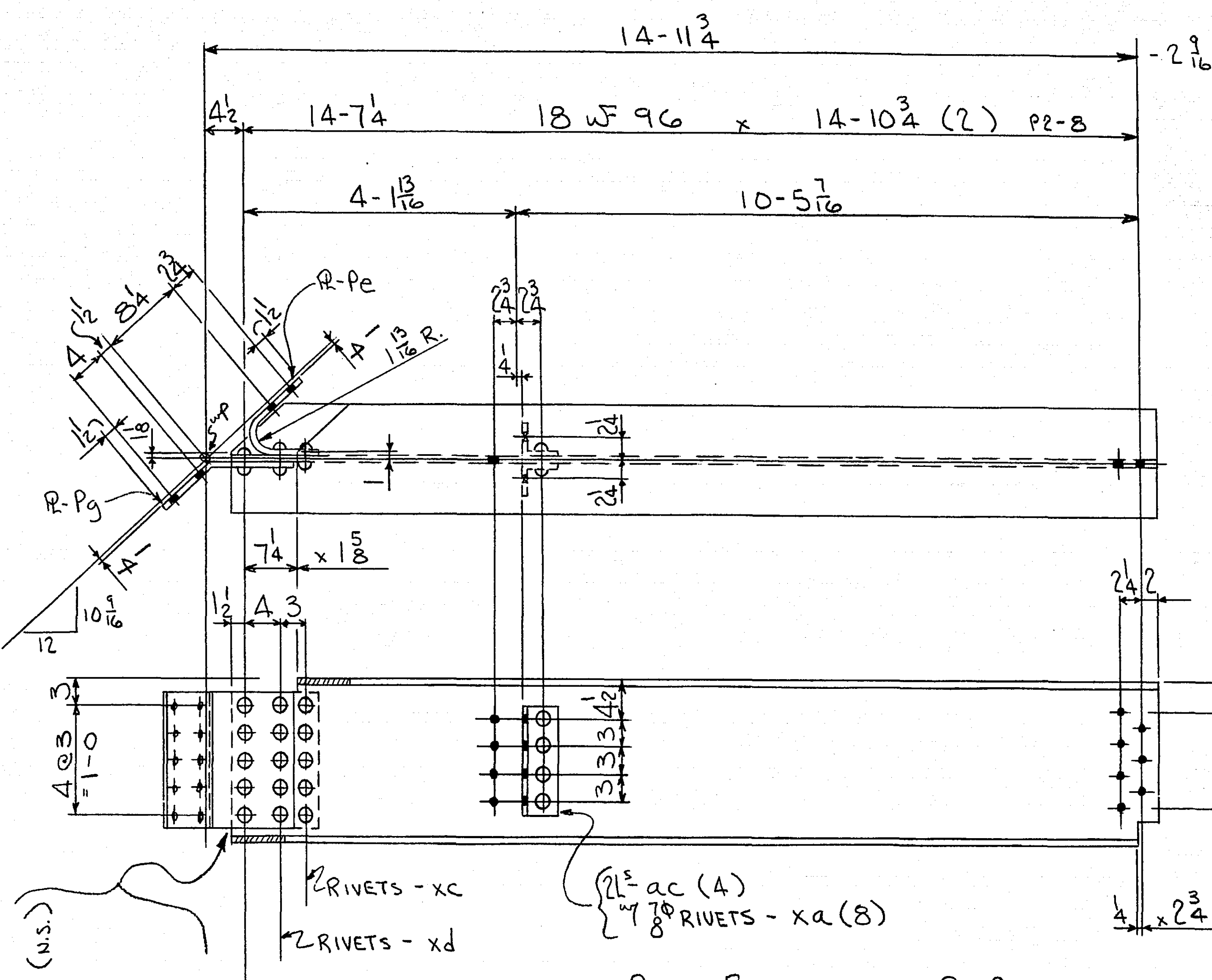
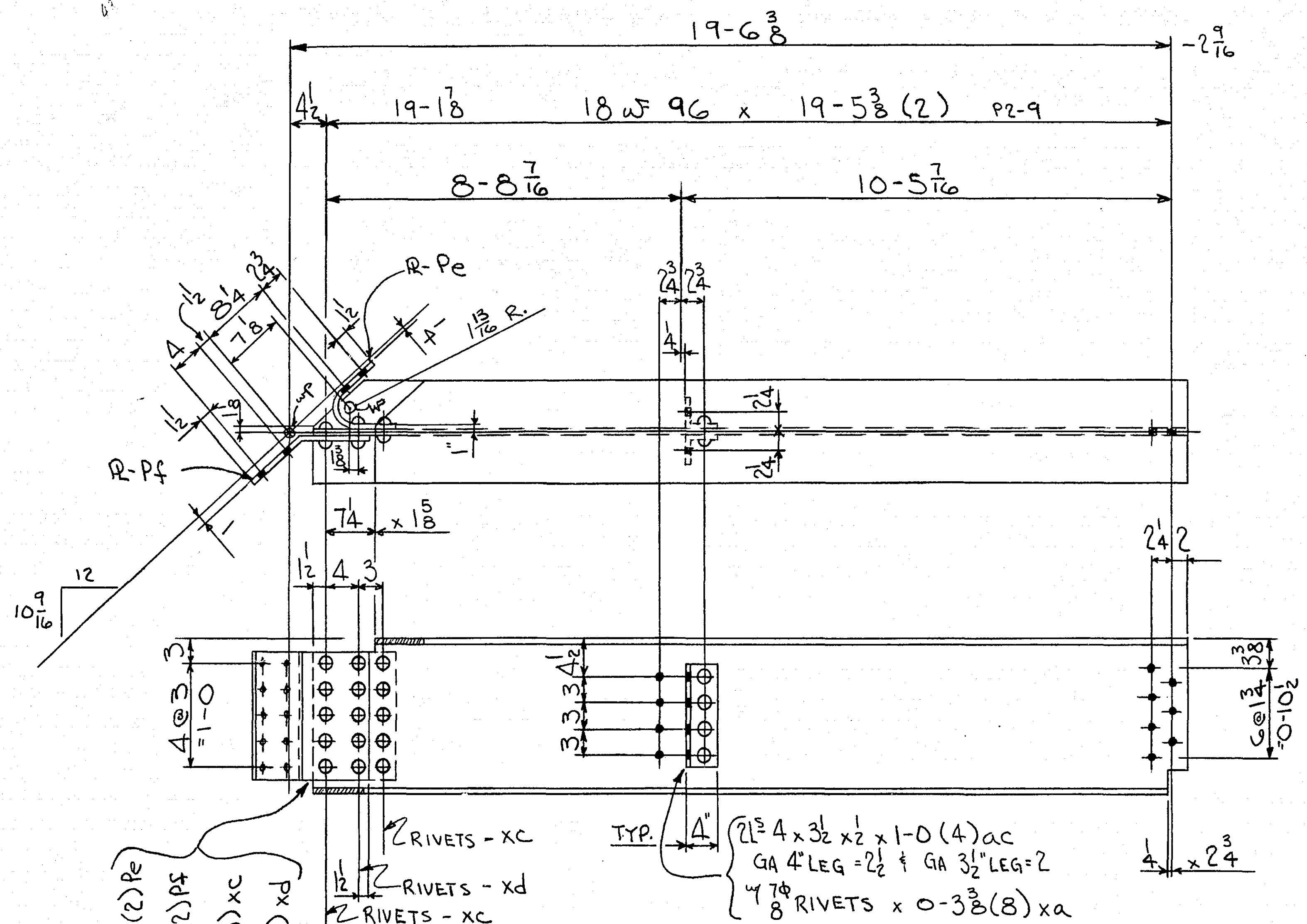
16-SHT. LEAD SHIMS-8B4

NOTES:
 ALL HOLES FOR RIVETS TO BE $\frac{15}{16}$ "
 ALL OPEN HOLES TO BE $\frac{11}{16}$ " REAMED TO $\frac{15}{16}$ " @ ASSEMBLY
 SEE SHT E1 FOR REMAINDER OF NOTES.
 ALL MAT'L MHD 3306 U.N.

ST. PAUL STRUCTURAL STEEL CO.
 162 YORK AVE. ST. PAUL, MINN 55117

SHAPE	DEPTH	FLANGE	WEB	k	c	sp	BRIDGE NO.	MADE BY	DATE	CHECKED BY	DATE	SHOP PAINT	OPEN HOLES	SEE NOTES	CONTRACT NO.	SHEET
21 WF 112	21	13 x 8	9	6 1/2	18	5/16	G2520	ALAN	12-3-70	Jeb	2-11-71	RED LEAD M. H. D. 3506 UNLESS NOTED	SEE NOTES	70-94	8	
18 WF 96	18	11 1/4 x 13	2	5 1/8	12	5/16										





ITEM	QTY	MATERIAL
P2-9	9B1	2 18W F 96 x 19-5 3/8
P2-8	9B2	2 18W F 96 x 14-10 3/4
P2-4	9B3	2 18W F 96 x 5-9 1/2
Pe	6	BENT R-5/8 x 16 1/8 x 1-3
Pf	2	BENT R-5/8 x 16 x 1-3
Pg	4	BENT R-5/8 x 16 3/8 x 1-3
9A4	46	L-8 x 6 x 5/8 x 1-2 1/4
9A5	88	L-6 x 6 x 5/8 x 1-1 1/2
ac	8	2L 4 x 3 1/2 x 1/2 x 1-0
9AG	88	D0 x 1-0
xa	16	8 7/8 RIVETS x 0-3 3/8
xc	60	D0 x 0-2 3/4
xd	30	D0 x 0-3 3/8

2 BEAMS — 9B1

(F.S.) BENT R-5/8 x 16 1/8 x 1-3 (2) Pe
 (N.S.) BENT R-5/8 x 16 x 1-3 (2) Pf
 8 7/8 RIVETS x 0-2 3/4 (20) xc
 8 7/8 RIVETS x 0-3 3/8 (10) xd

2 RIVETS - xc
 2 RIVETS - xd
 2 RIVETS - xc

RIVETS IN THIS LINE MUST BE INSTALLED FIRST

2L 4 x 3 1/2 x 1/2 x 1-0 (4) ac
 GA 4" LEG = 2 1/2" GA 3 1/2" LEG = 2
 4 7/8 RIVETS x 0-3 3/8 (8) xa

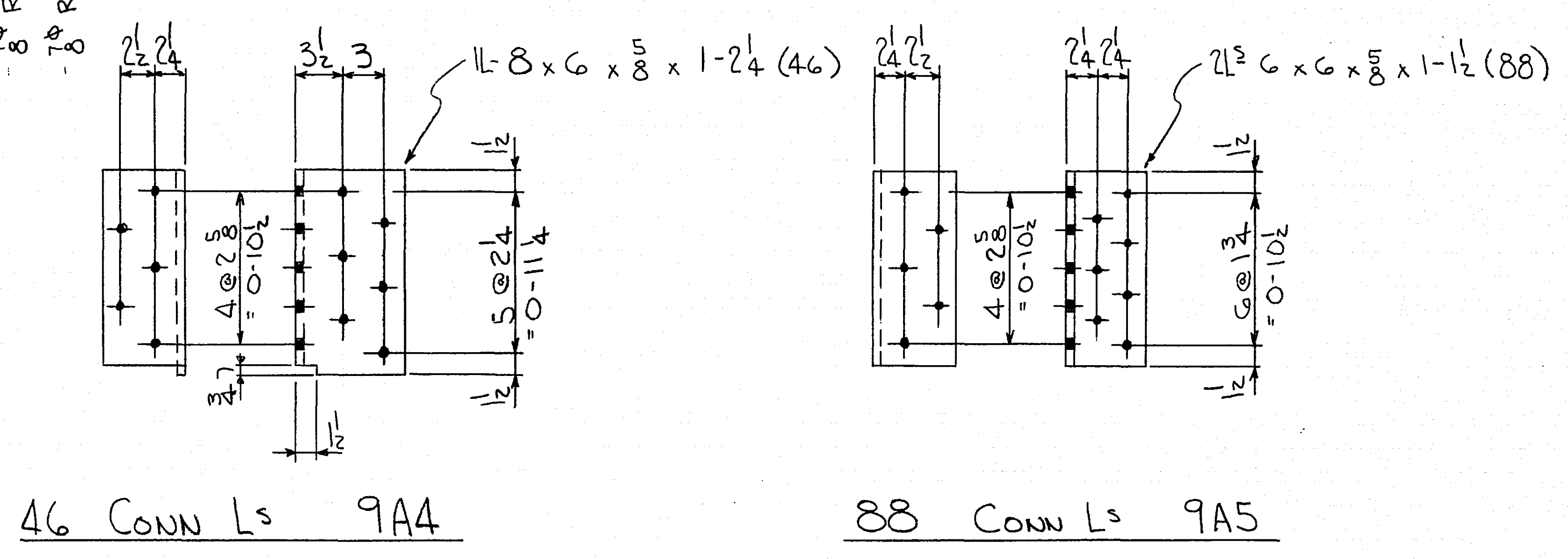
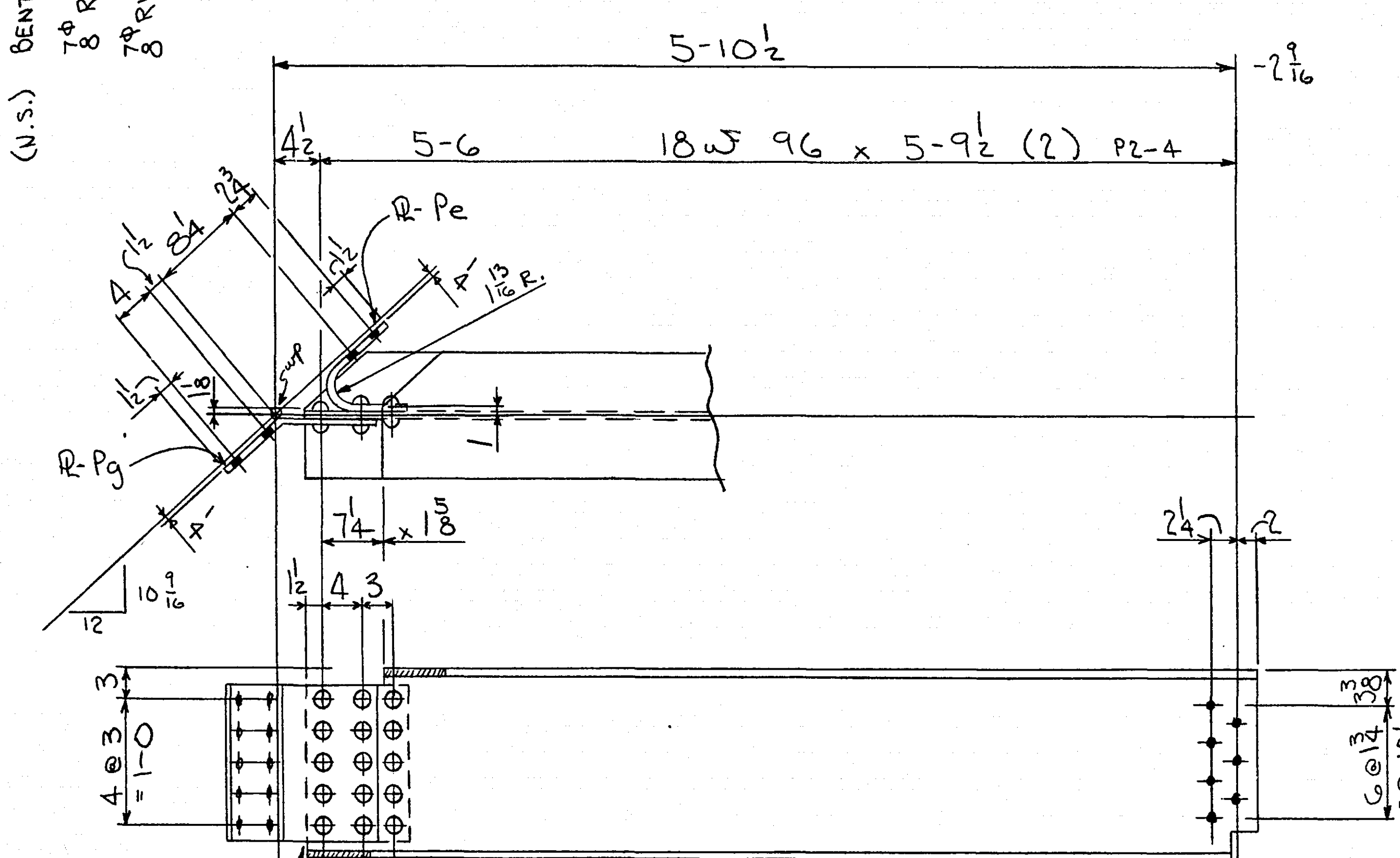
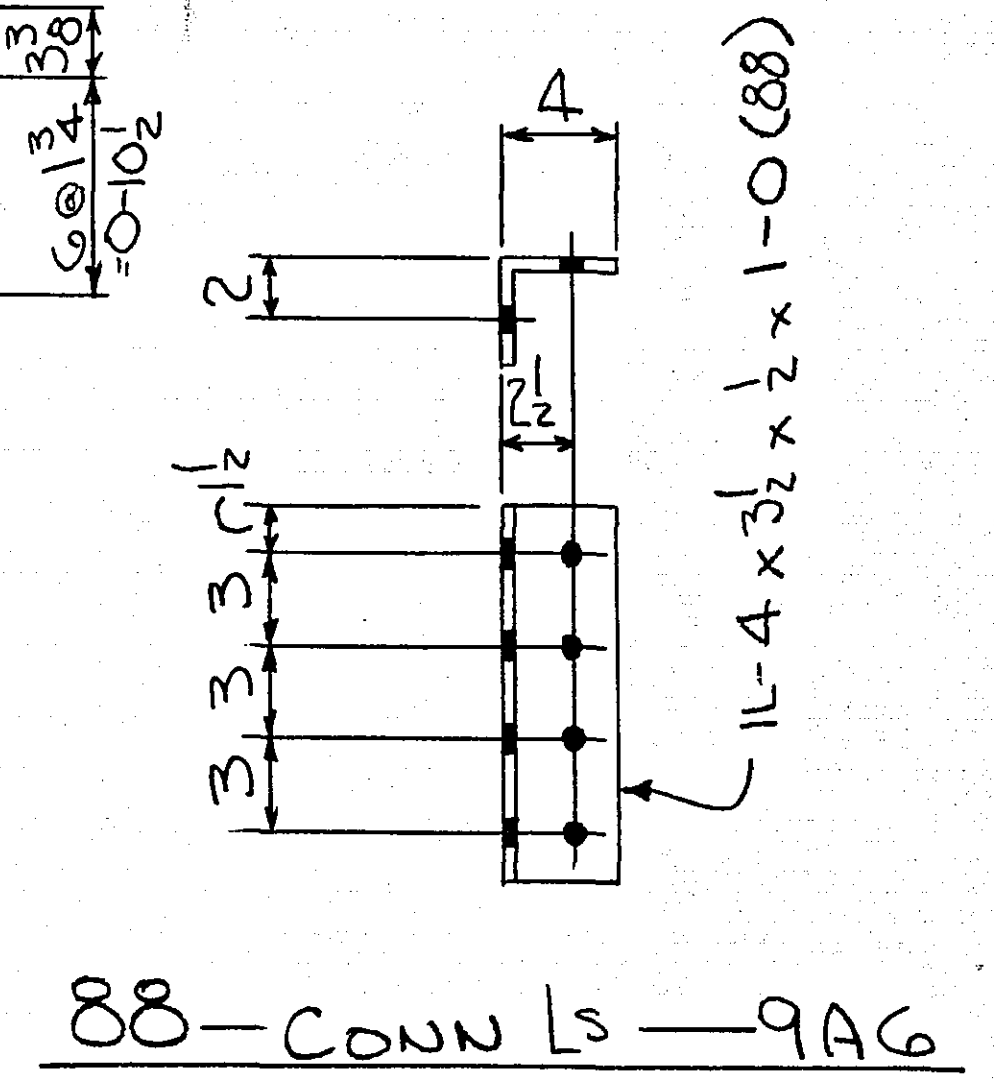
2 BEAMS — 9B2

BENT R-5/8 x 16 3/8 x 1-3 (2) Pg (N.S.)
 BENT R-5/8 x 16 (2) F.S.
 8 7/8 RIVETS - xc (20)
 8 7/8 RIVETS - xd (10)

2 RIVETS - xc
 2 RIVETS - xd
 2 RIVETS - xc

RIVETS IN THIS LINE MUST BE INSTALLED FIRST

2L ac (4)
 8 7/8 RIVETS - xa (8)



2 BEAMS — 9B3

BENT R-5/8 x 16 3/8 x 1-3 (2) Pg (N.S. WEB)
 BENT R-5/8 x 16 (2) (F.S. WEB)
 8 7/8 RIVETS - xc (20)
 8 7/8 RIVETS - xd (10)

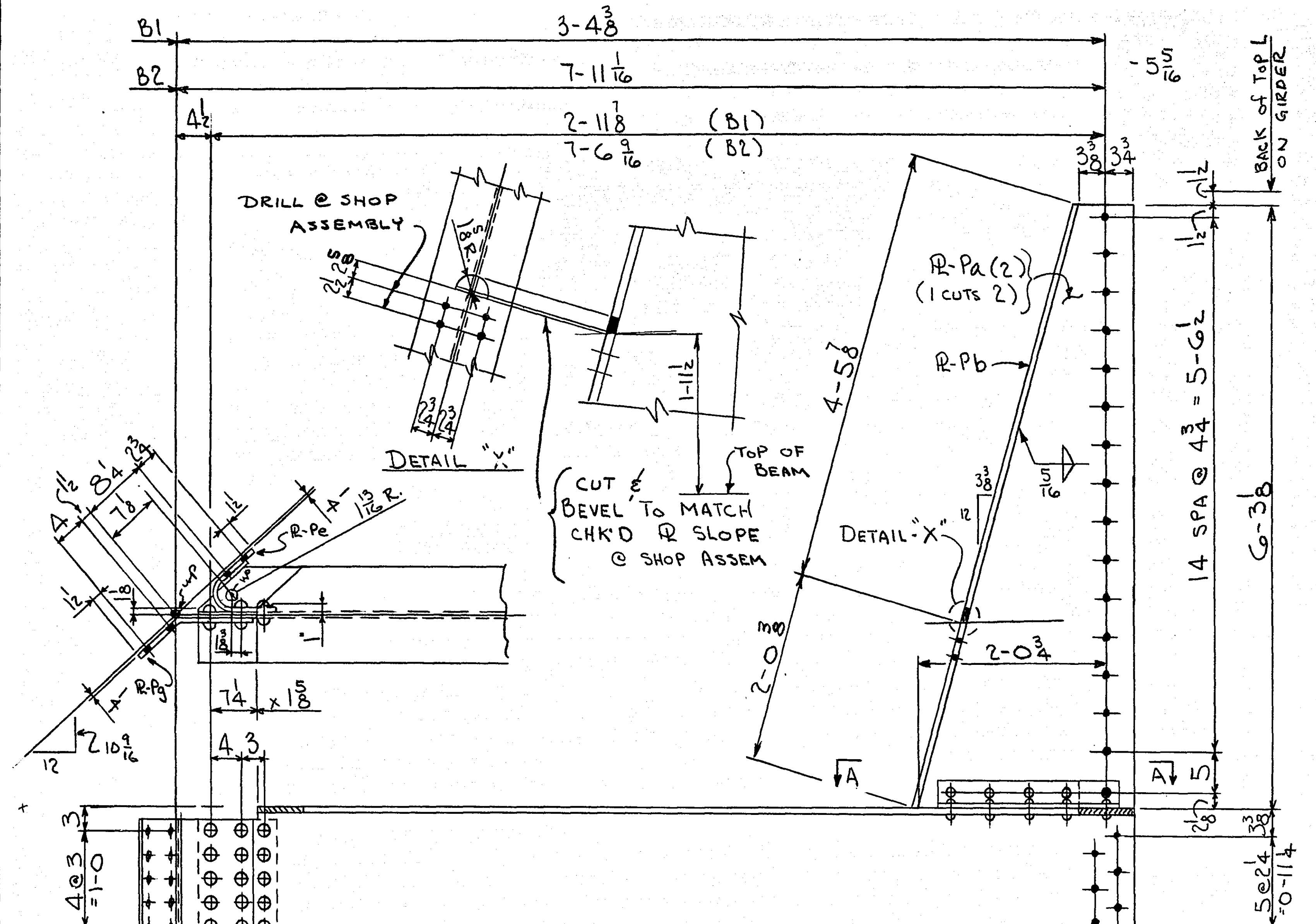
2 RIVETS - xc
 2 RIVETS - xd
 2 RIVETS - xc

RIVETS IN THIS LINE MUST BE INSTALLED FIRST

NOTES:
 ALL HOLES FOR RIVETS TO BE 15/16"
 ALL OPEN HOLES TO BE 11/16" REAMED TO 15/16" AT ASSEMBLY
 SEE SHIT E1 FOR REMAINDER OF NOTES.
 ALL MAT'L TO BE MHD 3306
 ALL RIVETS TO BE MHD 3316 TYPE I

ST. PAUL STRUCTURAL STEEL CO.	
162 YORK AVE. ST. PAUL, MINN 55117	
BRIDGE NO. G2520	DATE 12-4-70
MADE BY ALAN	CHECKED BY JEB
SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED	
OPEN HOLES — SEE NOTES	
CONTRACT NO. 70-94	SHEET 9

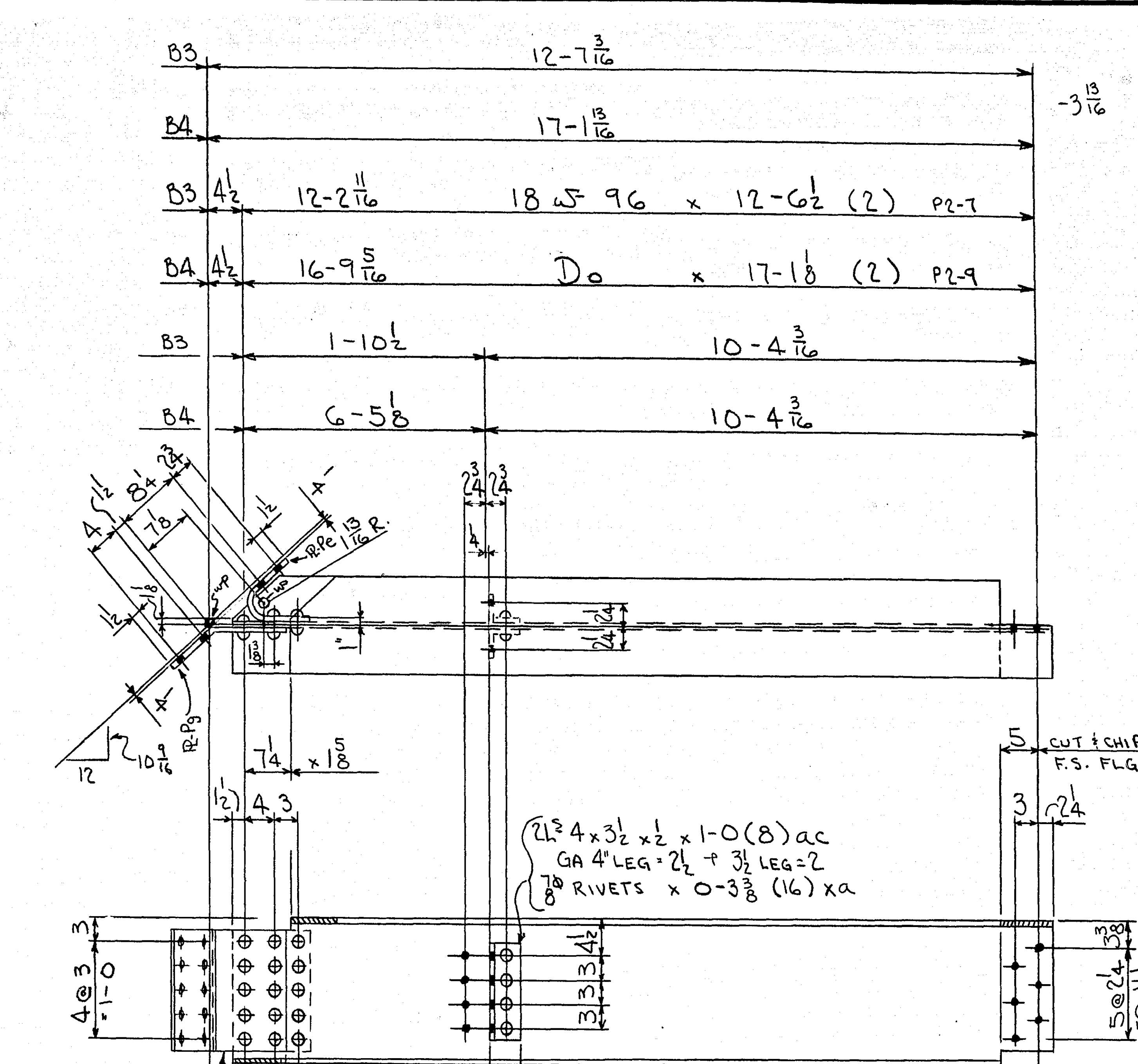
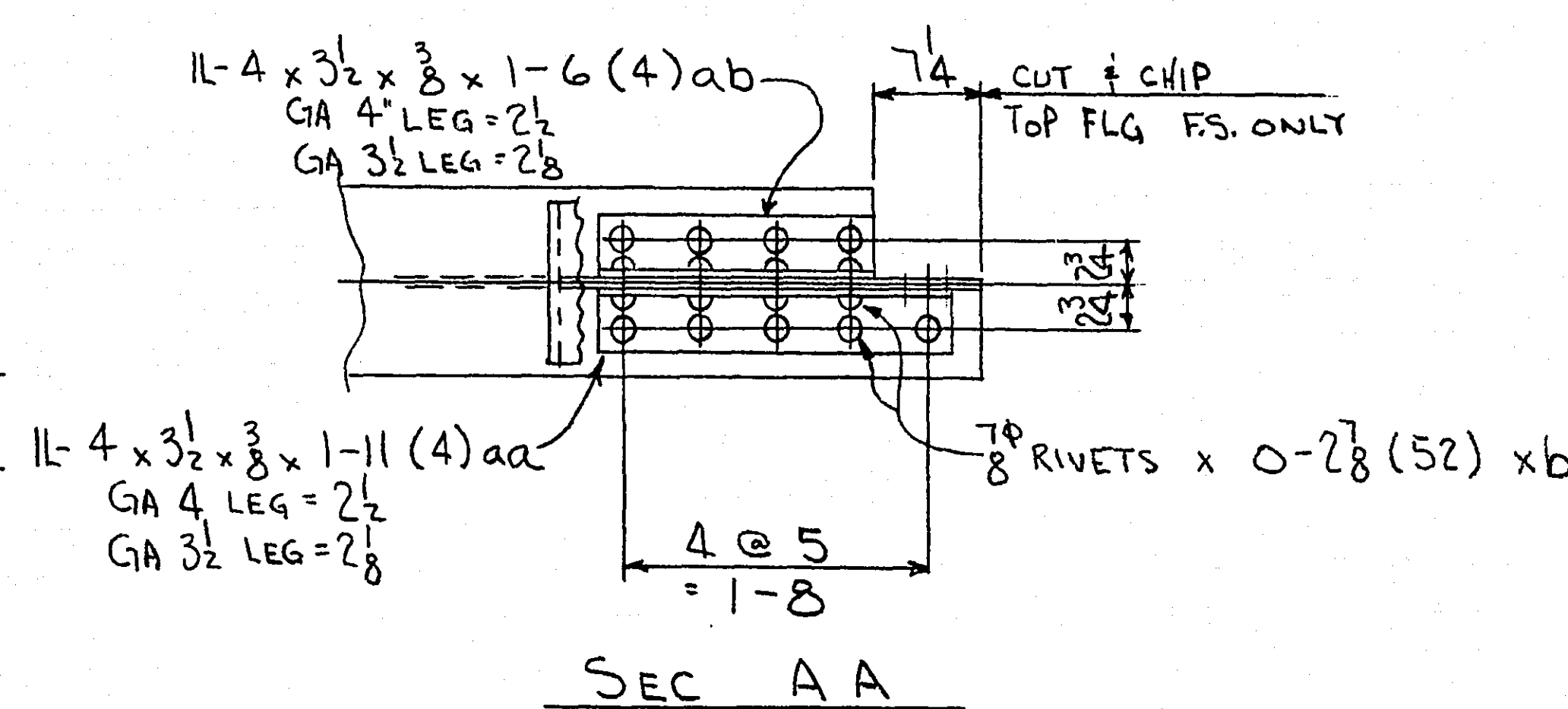




BENT R-5 x 1/8 x 1-3 (4) Pg (N.S. WEB)
 BENT R-5 x 1/8 x 1-3 (4) Pe (F.S. WEB)
 8 RIVETS - X O-2 3/8 (40) XC
 8 RIVETS - X O-3 3/8 (20) XD

RIVETS IN THIS LINE MUST BE INSTALLED FIRST

2 — BEAMS — 10B1
 2 — Do — 10B2



R-Pg (4) N.S. WEB
 R-Pe (4) F.S. WEB
 RIVETS IN THIS LINE MUST BE INSTALLED FIRST

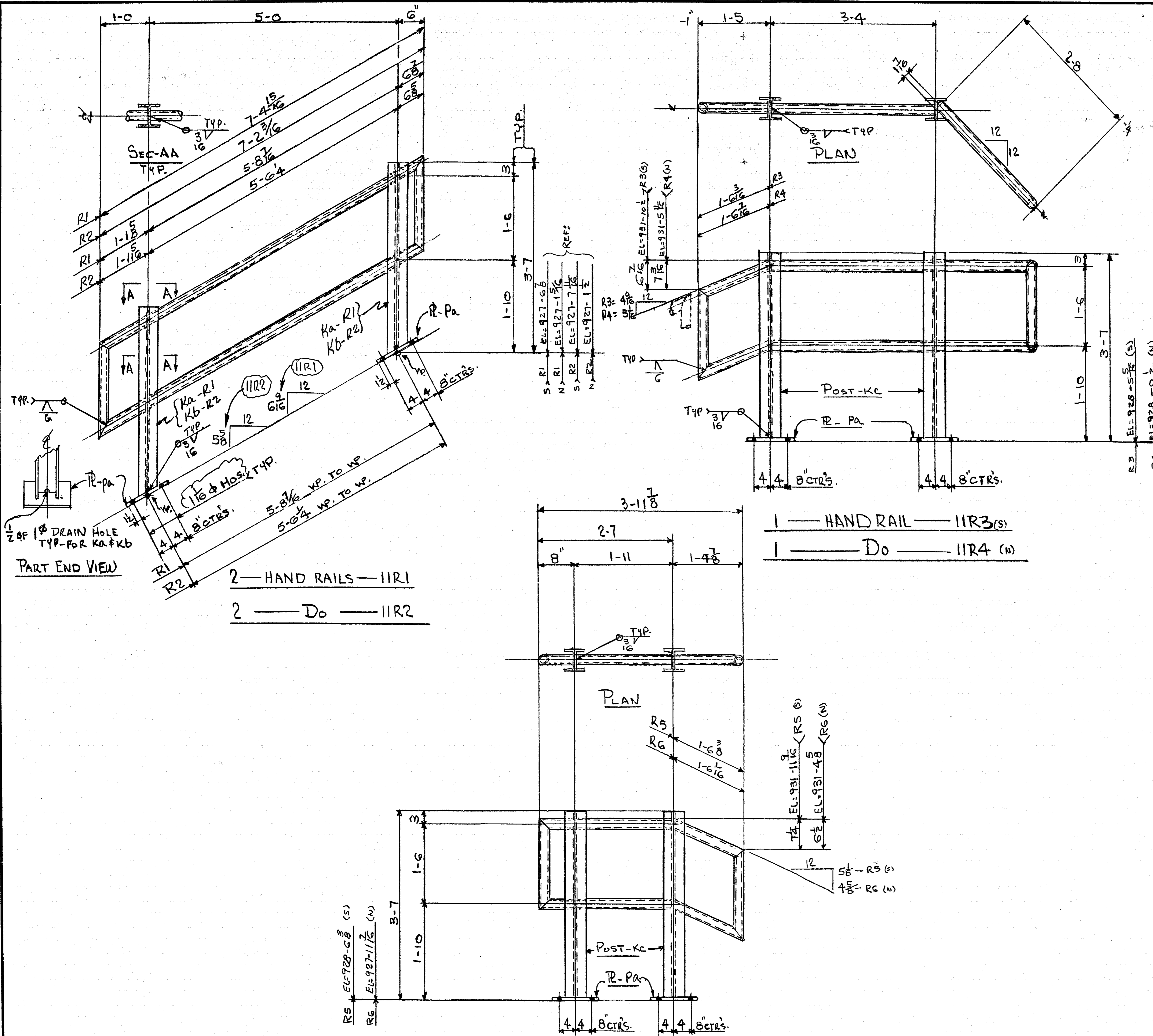
2 — BEAMS — 10B3
 2 — Do — 10B4

ITEM	QTY	MATERIAL
P2-3	10B1	2 18W96 x 3-5 1/8
P2-5	10B2	2 Do x 7-11 1/8
P1-8	Pa	2 R-1/2 x 35 3/8 x 6-3 1/8
P1-17	Pb	4 R-5/8 x 10 x 6-6 1/16
	ab	4 L-4 x 3 1/2 x 3/8 x 1-6
	aa	4 Do x 1-11
	Pe	8 BENT R-5/8 x 16 3/8 x 1-3
	Pg	8 BENT R-5/8 x 16 3/8 x 1-3
	Xb	52 7/8 RIVETS x O-2 7/8
	Xc	80 Do x O-2 3/8
	Xd	40 Do x O-3 3/8
	xa	16 Do x O-3 3/8
P2-7	10B3	2 18W96 x 12-6 1/2
P2-9	10B4	2 Do x 17-1 1/8
	ac	8 L-4 x 3 1/2 x 1/2 x 1-0

NOTES
 ALL HOLES FOR RIVETS TO BE 15/16"
 ALL OPEN HOLES TO BE 11/16" REAMED TO 15/16" AT ASSEM.
 SEE SHIT EI FOR REMAINDER OF NOTES.
 ALL MATL TO BE MHD 3306
 ALL RIVETS TO BE MHD 3316 TYPE I

ST. PAUL STRUCTURAL STEEL CO.	
162 YORK AVE. ST. PAUL, MINN 55117	
BRIDGE NO. G2520	DATE 12-7-70
MADE BY ALAN	CHECKED BY JEB
DATE 2-11-71	SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED
S. A. PROJ. No. G2-623-07	OPEN HOLES — SEE NOTES
MINN. PROJ. No.	CONTRACT NO. 70-94 SHEET 10





ITEM	QTY	MATERIAL
PA	16	PL-11 x 1/2 x 0-11
11R1	2	2" STD. PIPE x 18-4
11R2	2	Do x 17-10
Ka	4	5" WF 16 x 3-7 1/8
Kb	4	5" WF 16 x 3-7 3/8
Kc	8	5" WF 16 x 3-6 1/2
11R3	1	2" STD. PIPE x 18-5 1/2
11R4	1	Do x 18-6
11R5	1	Do x 11-8
11R6	1	Do x 11-7

- 1 — HANDRAIL — 11R3 (S)
- 1 — Do — 11R4 (N)

- 2 — HAND RAILS — 11R1
- 2 — Do — 11R2

- 1 — HANDRAIL — 11R5 (S)
- 1 — Do — 11R6 (N)

SEE SHT. # E1 FOR NOTES
SEE SHT. # E3 FOR ERECTION

ST. PAUL STRUCTURAL STEEL CO.
162 YORK AVE. ST. PAUL, MINN. 55117

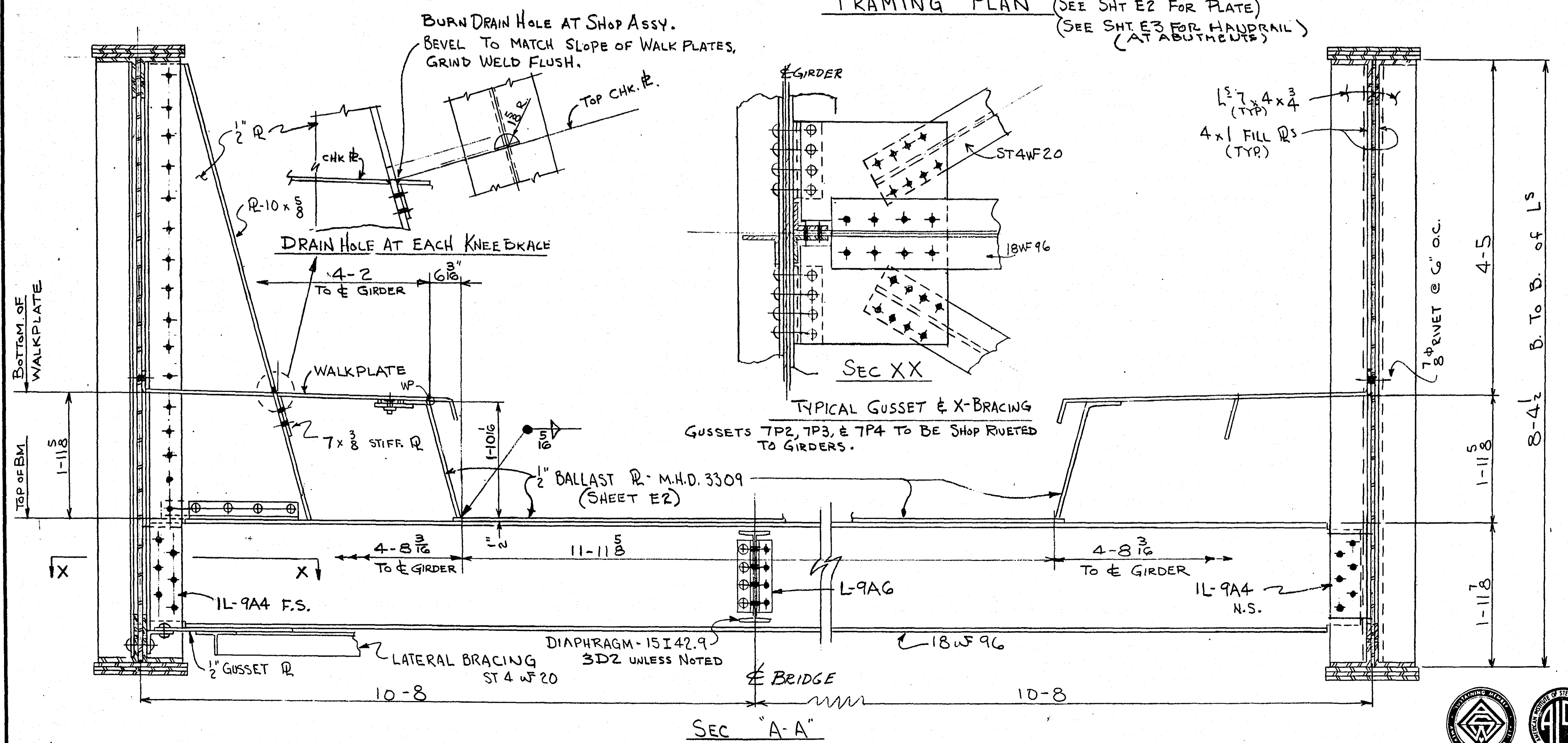
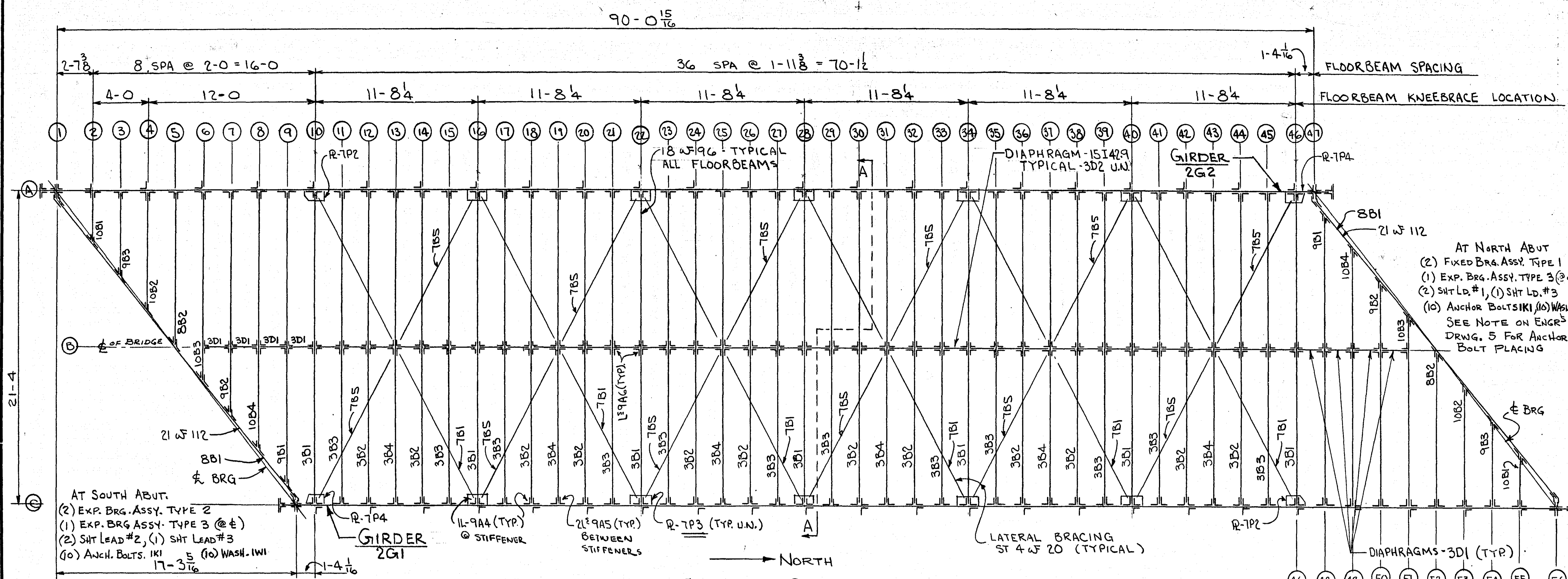
BRIDGE NO.	G2520	
MADE BY	BOB T.	DATE 1-6-71
CHECKED BY	J	DATE 2-15-71
SHOP PAINT:	RED LEAD M. H. D. 3506 UNLESS NOTED	
S A PROJ. No.	62-623-07	
OPEN HOLES	NOTED	
CONTRACT NO.	70-94	SHEET 11



DESCRIPTION **RAILING**

6886

SHEET SCHEDULE	
NO.	DESCRIPTION
E1	GIRDER & BM ERECTION
E2	PLATE ERECTION
E3	HANDRAIL ERECTION
1	BEARING ASSYS.
2	GIRDERS
2A	
2B	
2C	
3	FLOOR BEAMS
4	WALKWAY PLATES
5	EXP. PLATE & BALLAST PL.
6	BALLAST PL., CLAMPS
7	CROSS BRACING
8	FLOOR BEAMS
9	Do
10	Do
11	RAILING



- NOTES.
1. WORKMANSHIP AND MAT'L TO BE IN ACCORDANCE WITH MHD SPEC. FOR HIWAY CONST. DATED JAN. 1, 1968 AS AMENDED BY SUPPLEMENTAL SPEC. DATED JULY 1, 1969, EXCEPT AS MODIFIED OR ALTERED BY THE SPEC. PROVISIONS.
 2. ALL RIVETS SHALL BE $\frac{7}{8}$ " EXCEPT AS NOTED. ALL RIVETS SHALL CONFORM TO MHD 3316 TYPE I. ALL CONNECTIONS TO BE RIVETED UNLESS NOTED.
 3. ALL WELDING TO BE DONE IN ACCORDANCE WITH AWS SPEC. FOR WELDED HIWAY & RR BRIDGES AND PER MHD 2471.3J
 4. ALL H.S. BOLTS SHALL BE $\frac{7}{8}$ " AND SHALL CONFORM TO MHD 3391-B
 5. FULL ASSEMBLY REAMING WILL BE REQ'D AS PER MHD 2471.3E12
 6. FLOORBEAM TOP FLANGES TO BE AT 90° ANGLE TO THE WEBS AND IN FULL CONTACT WITH THE BOTTOM SURFACE OF THE BALLAST PL.
 7. NO SHOP PAINT ON PARTS TO BE FIELD WELDED.
 8. ALL SHOP AND FIELD WELDS SHALL BE CONTINUOUS AND RESULT IN A WATERTIGHT DECK.
 9. PARTS INACCESSIBLE AFTER ERECTION TO BE GIVEN 2 FIELD COATS BEFORE ERECTION
 10. INSPECTION BY MINN. HIGHWAY DEPT. (SEE SPEC. PROV.)
 11. ALL MAT'L TO BE MHD. 3306. U.N.
 12. ALL PIECES TO BE MATCHED MHD.

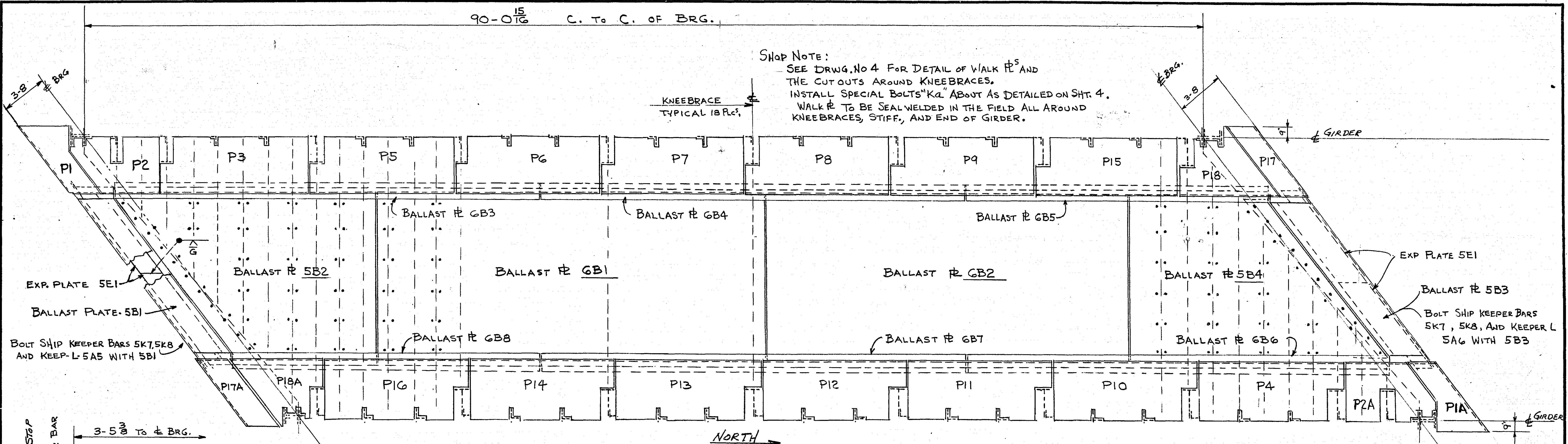
ST. PAUL STRUCTURAL STEEL CO.
162 YORK AVE. ST. PAUL, MINN 55117

BRIDGE NO.	62520
MADE BY	ALAN DATE 12-7-70
CHECKED BY	Jeb DATE 2-15-71
SHOP PAINT:	RED LEAD M. H. D. 3506 UNLESS NOTED.
OPEN HOLES	UNLESS NOTED
CONTRACT NO.	70-94 SHEET E1

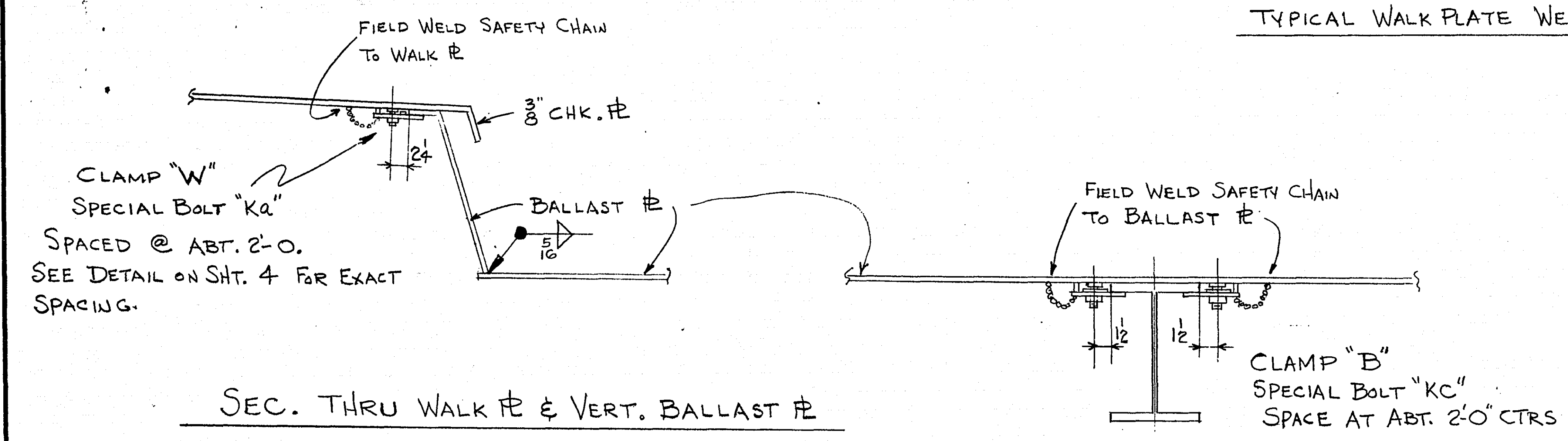
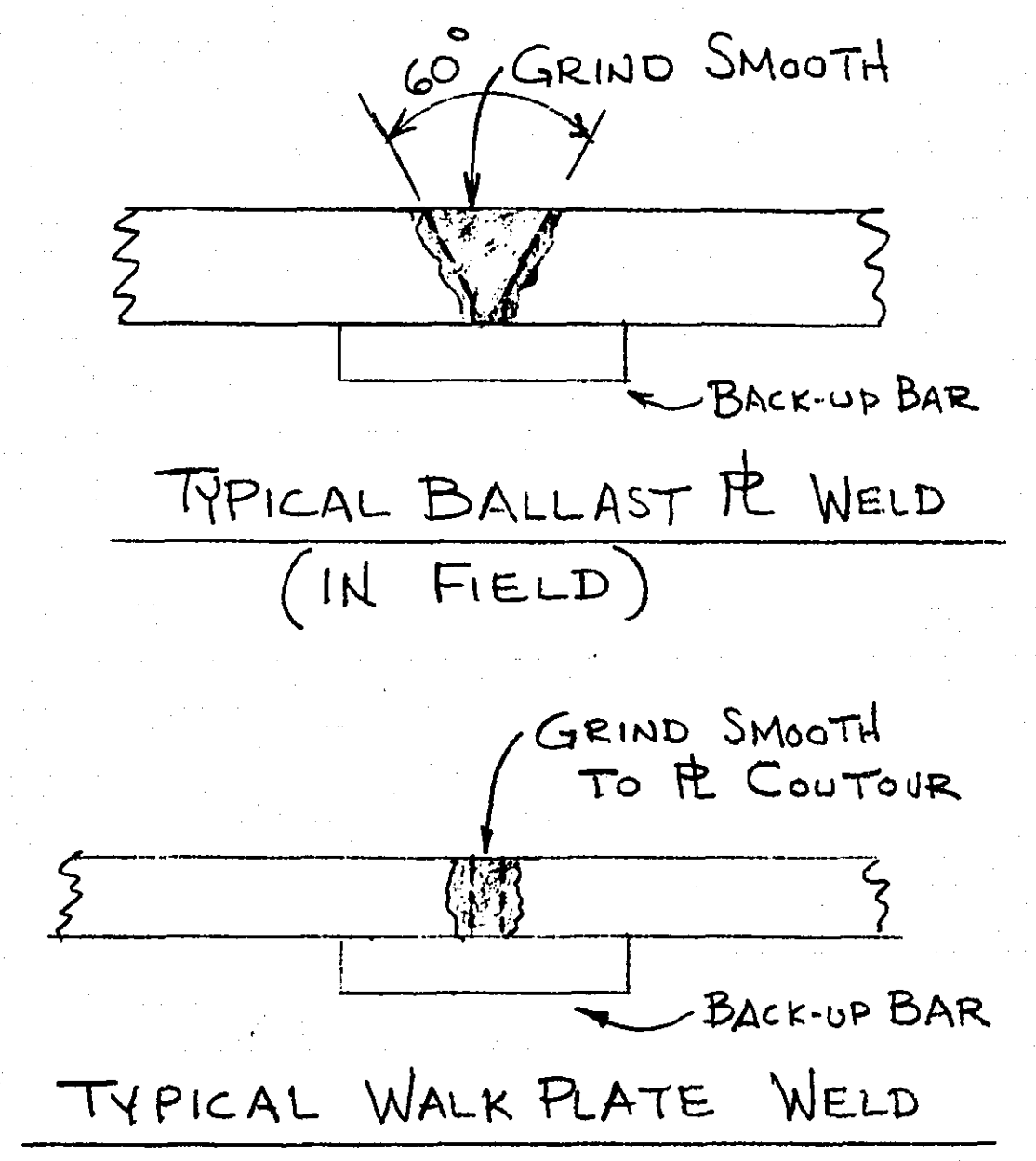
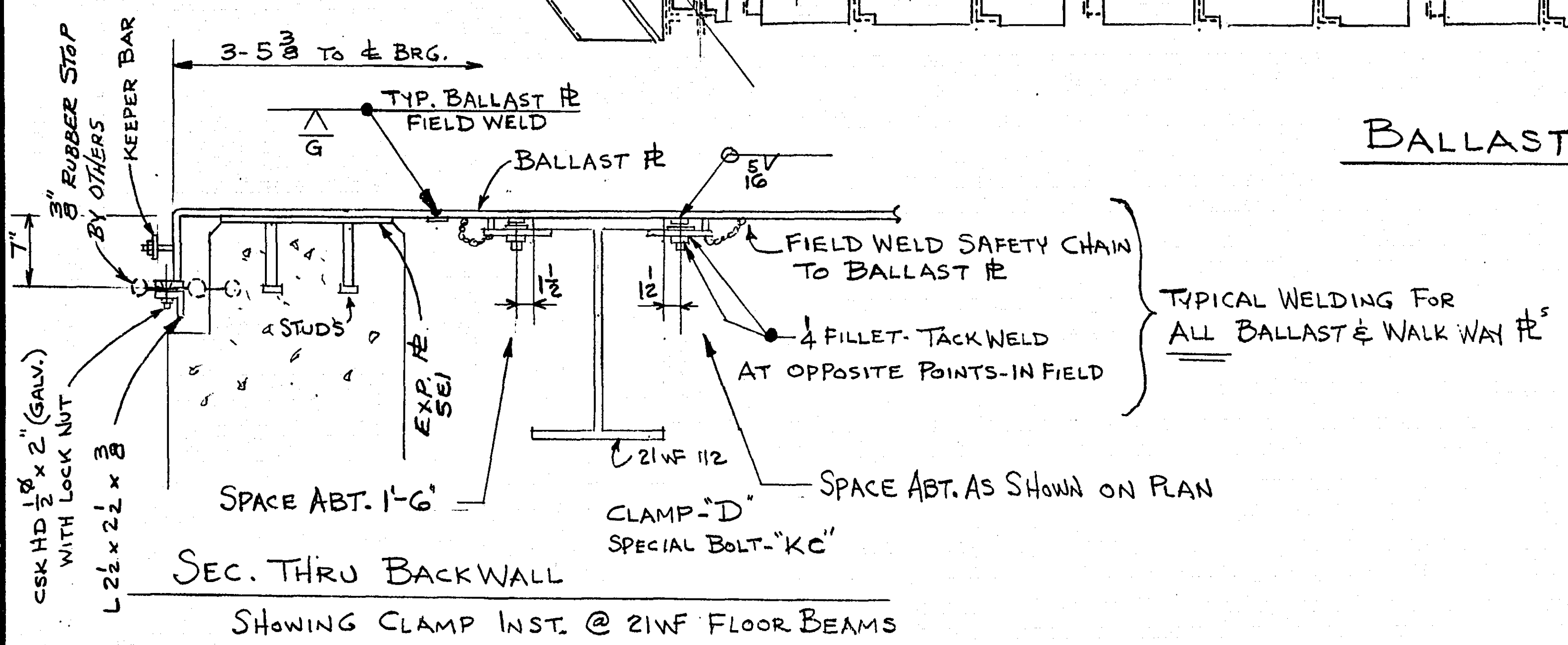
90-016¹⁵ C. TO C. OF BRG.

SHOP NOTE:

SEE DRWG. NO 4 FOR DETAIL OF WALK PLATES AND THE CUT OUTS AROUND KNEEBRACES. INSTALL SPECIAL BOLTS "Ka" ABOUT AS DETAILED ON SHT. 4. WALK PLATE TO BE SEAL WELDED IN THE FIELD ALL AROUND KNEEBRACES, STIFF, AND END OF GIRDER.



BALLAST PLATE ERECTION PLAN

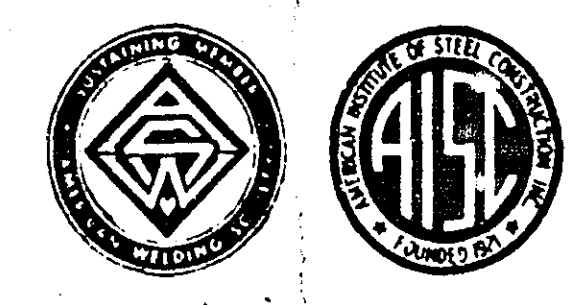


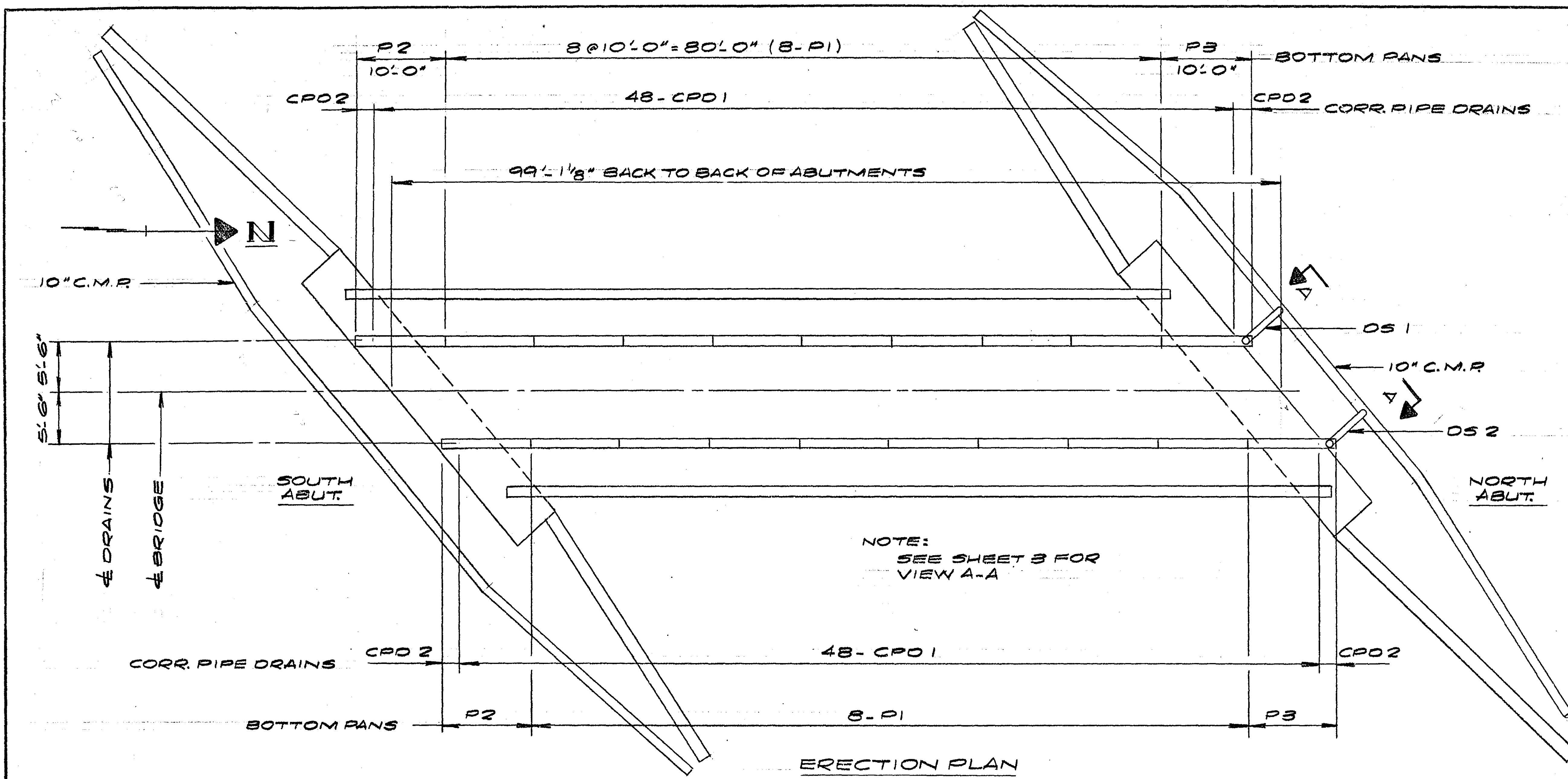
SEC. THRU FLOOR BEAMS 18WF96

SEE SHT. E1 FOR NOTES. ALL CLAMPS & SPECIAL BOLTS TO BE LOCATED AT SHOP ASSEMBLY

ST. PAUL STRUCTURAL STEEL CO. 162 YORK AVE. ST. PAUL, MINN 55117

BRIDGE NO. G2520	MADE BY c	DATE 12-9-70
CHECKED BY JEB	DATE 2-15-71	SHOP PAINT: RED LEAD M. H. D. 3506 UNLESS NOTED
STATE PROJ. No.	OPEN HOLES UNLESS NOTED	
MINN. PROJ. No.	CONTRACT NO. 70-94	SHEET E2





ERECTION PLAN

GENERAL NOTES
 CORRUGATED METAL PIPE:
 TO CONFORM TO M.H.O. 3286
 TO BE 18 GA. GALV. HELICALLY CORRUGATED &
 SHALL CONFORM TO M.H.O. 3227.
 BITUMINOUS COATED PER M.H.O. 3227.1C TYPE A.
 GALV. PER M.H.O. 3226.
 SHOP INSPECTION BY M.H.O. BEFORE & AFTER
 BIT. COATING & GALV.
 PERFORMATIONS PER M.H.O. 3226.1 TYPE 3 &
 3226.2.

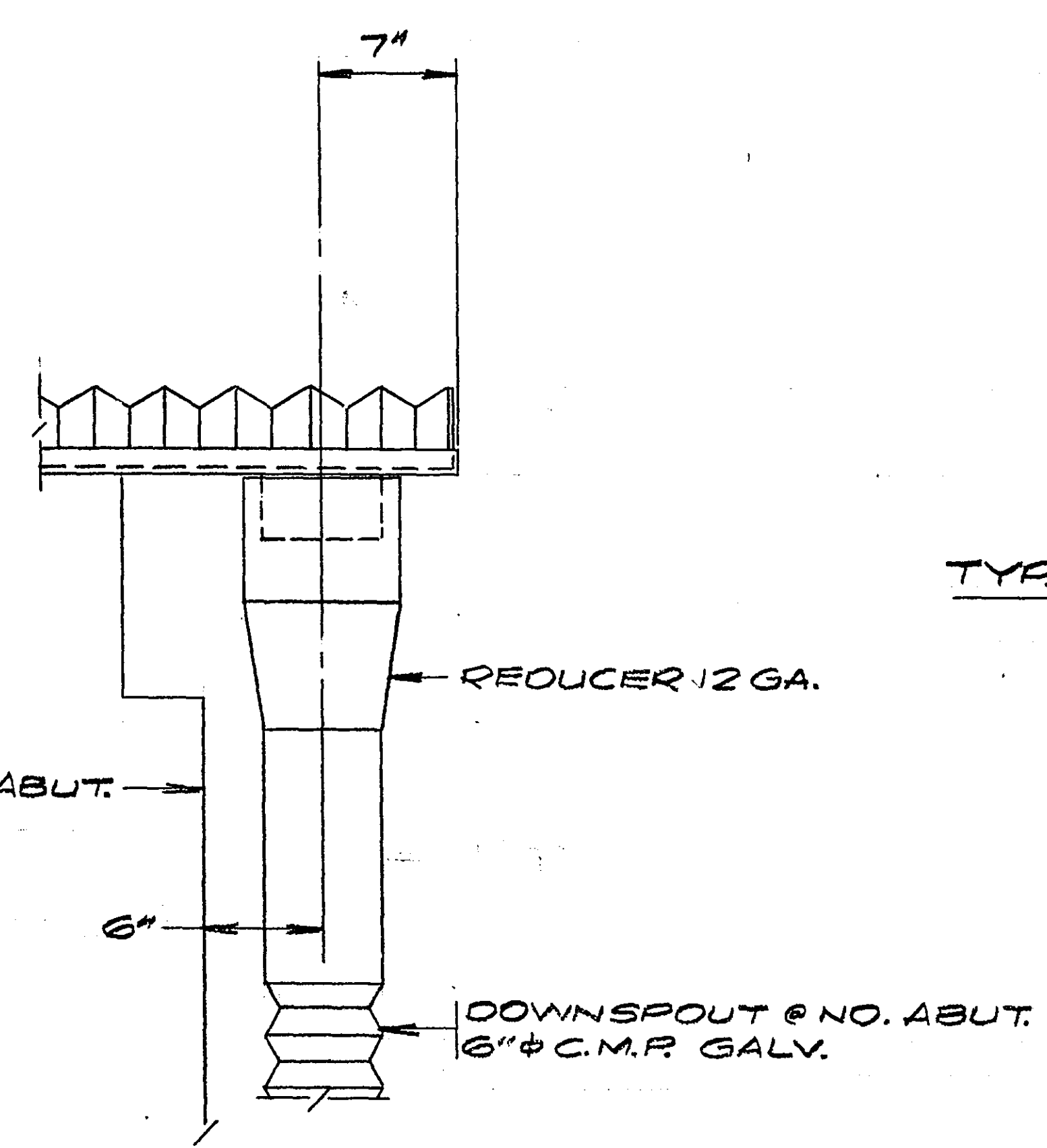
DECK DRAINS:
 PANS & COVERS TO BE HOT DIPPED GALV.
 AFTER FABRICATION PER M.H.O. 3394.
 COVERS TO BE FABRICATED FROM GALV. C.M.R.
 PER M.H.O. 3226.
 COVERS & PANS TO BE BIT. COATED PER M.H.O.
 3227.2C1.
 SHOP INSPECTION BY M.H.O. BEFORE & AFTER
 BIT. COATING & GALV.
 ANY GALV. DAMAGED DURING FABRICATION
 SHALL BE REGALV. PER M.H.O. 3394

ANCHORAGES:
 BARS, ANCHOR ROOS & ANCHOR BOLTS TO BE
 M.H.O. 3306.
 GALV. BARS PER M.H.O. 3394 AFTER FABRICATION.
 ANCHOR ROOS & BOLTS GALV. PER M.H.O. 3392
 AFTER FABRICATION.
 ANCHORS TO BE PER M.H.O. 3387.
 SHOP INSPECTION BY M.H.O. BEFORE & AFTER
 GALV.

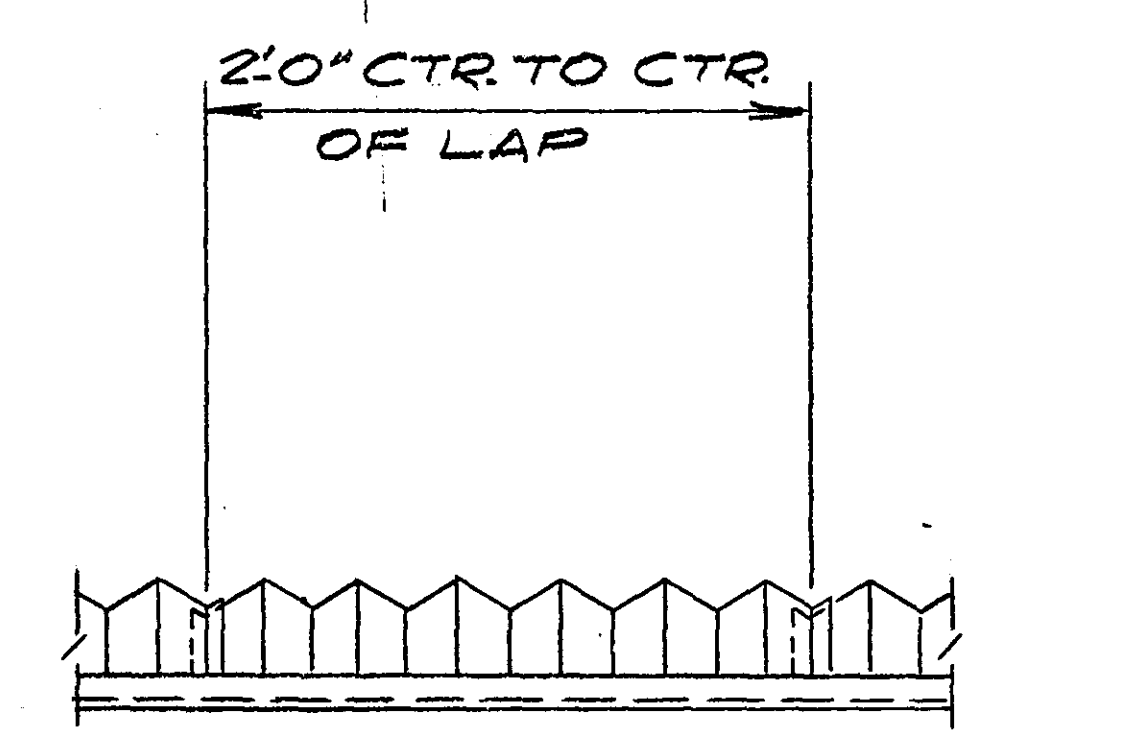
GENERAL:
 MATERIAL & WORKMANSHIP IN ACCORDANCE
 WITH SPECIAL PROVISIONS.
 ERECTION MARKS SHALL BE ATTACHED TO
 THE LEFT END OF PIPES & PANS.

NOTE:
 EACH MEMBER SHALL BE
 POSITIONED SO THE ATTACHED
 ERECTION MARK WILL
 CORRESPOND WITH PLAN.

NOTE:
 SHOWING SPACING OF BOTTOM PANS AND THE
 LOCATION OF CORRESPONDING COVERS AND
 DOWNSPOUTS. FOR COVERS, SLEEVES AND
 ANCHORAGES REFER TO DETAILS SHOWN.



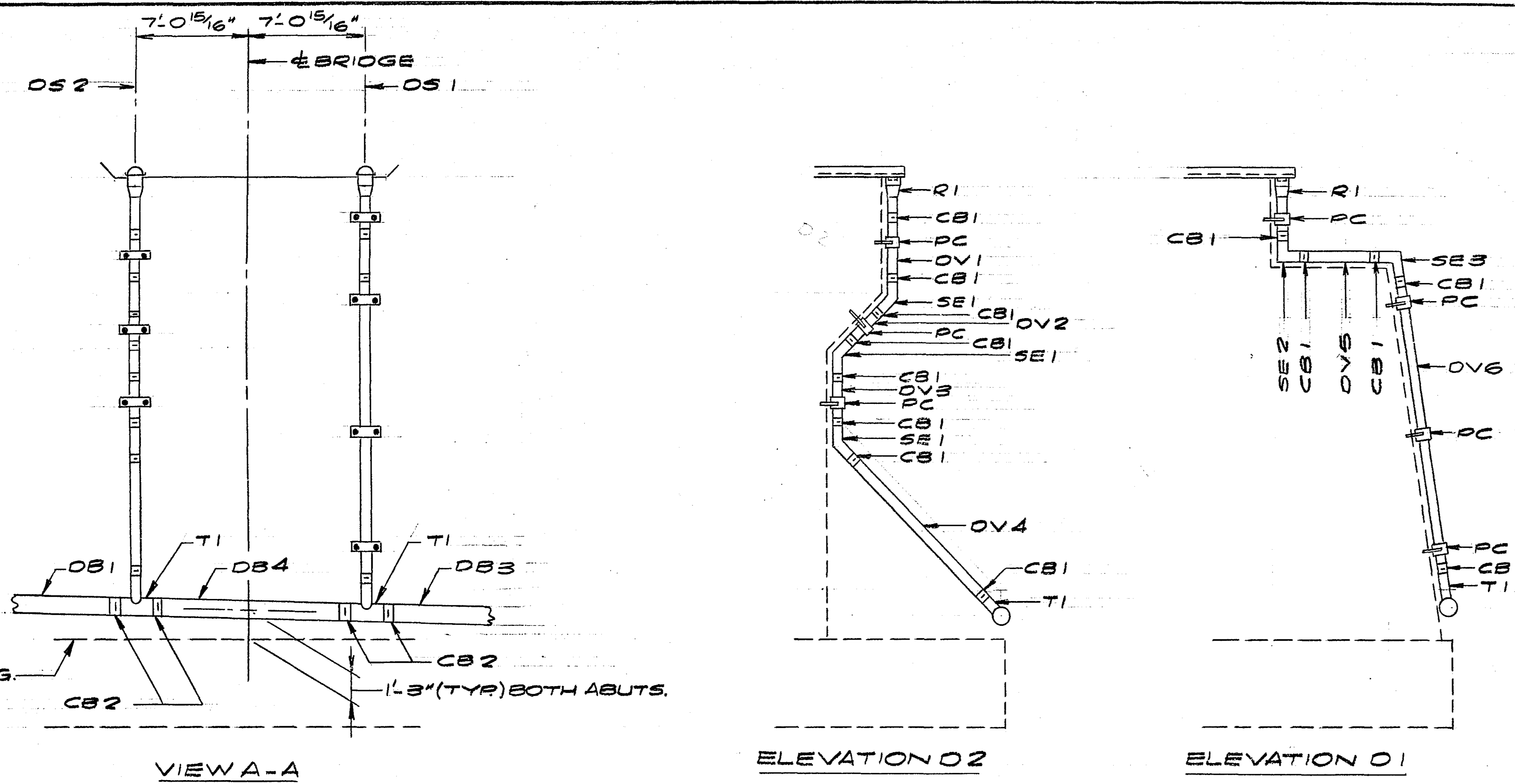
DETAIL OF END DRAINS
 (NORTH ABUT.)



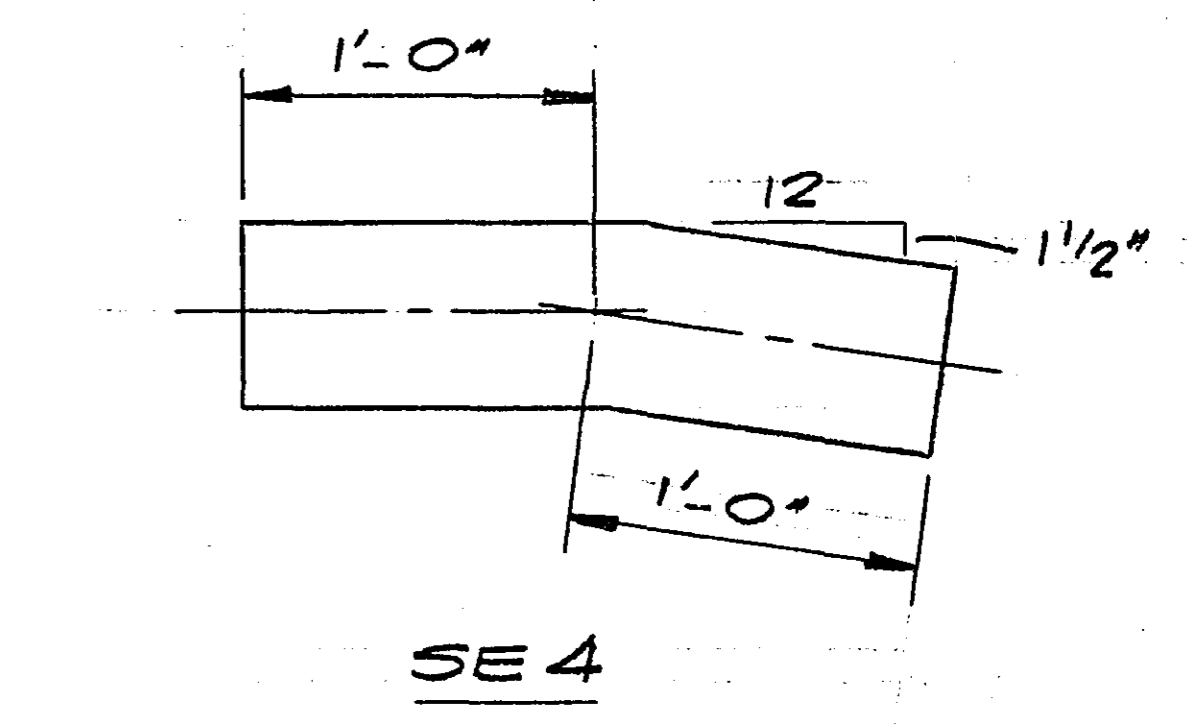
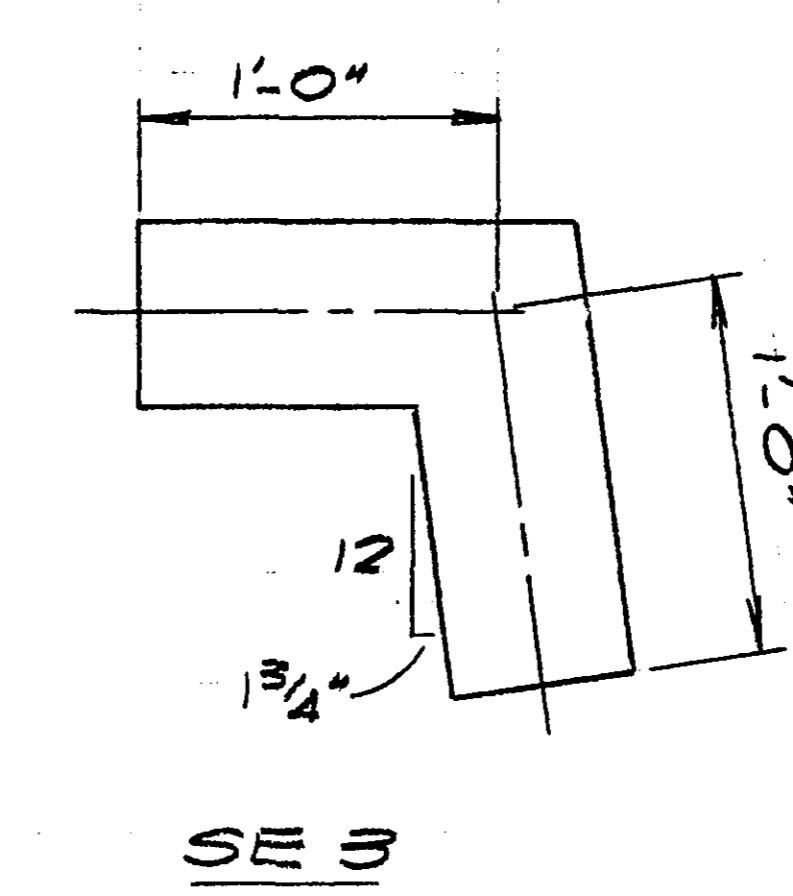
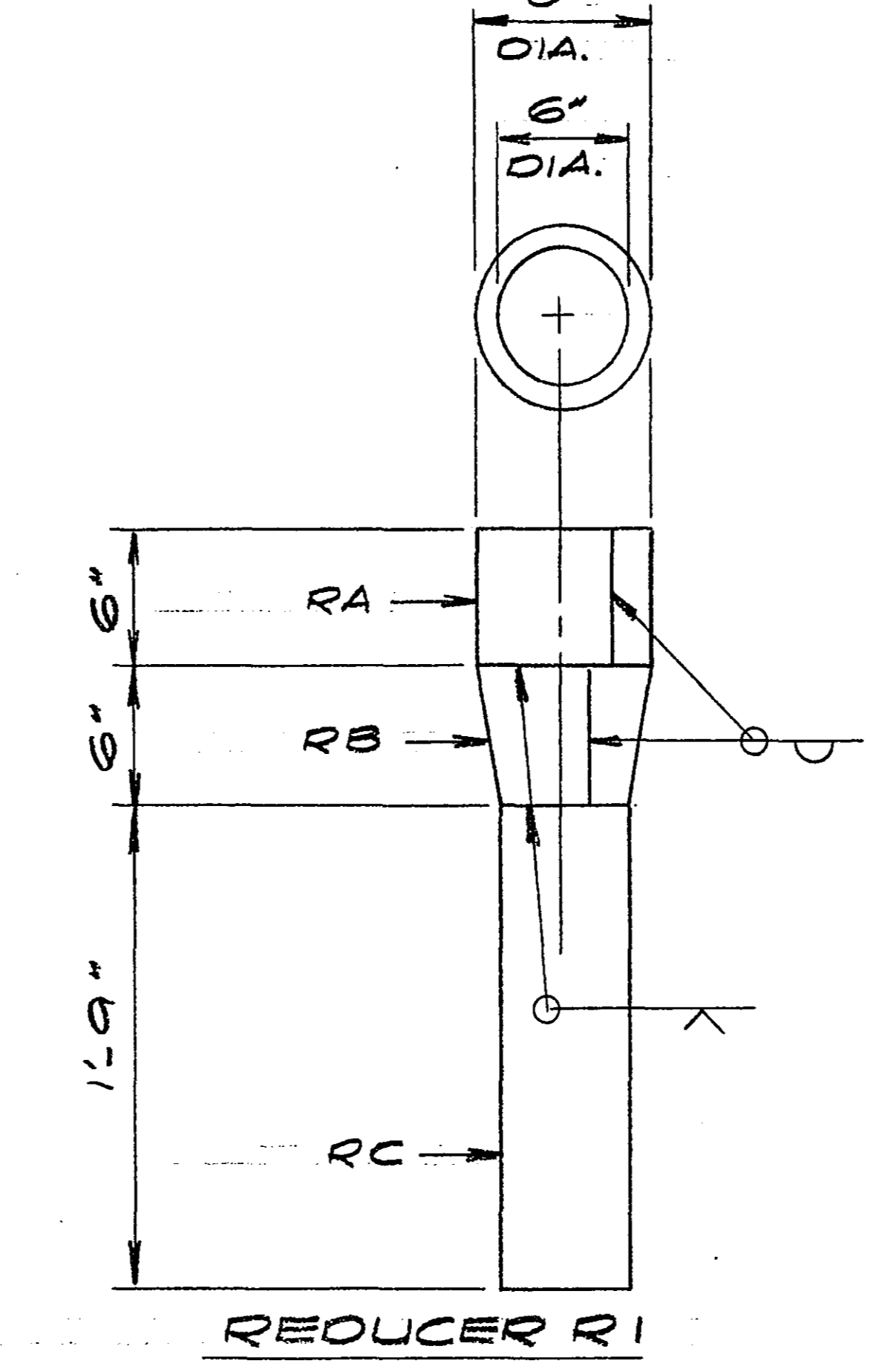
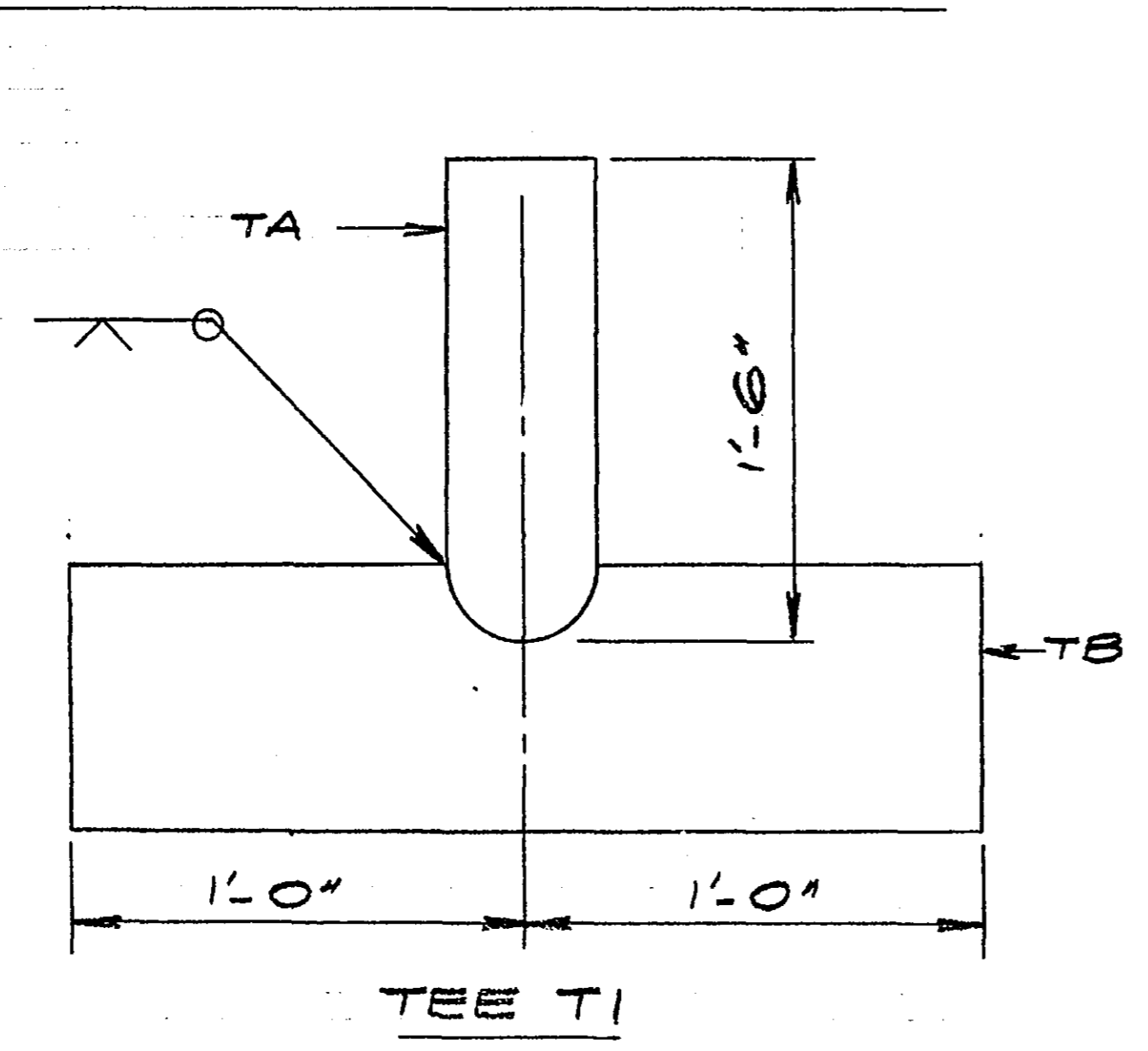
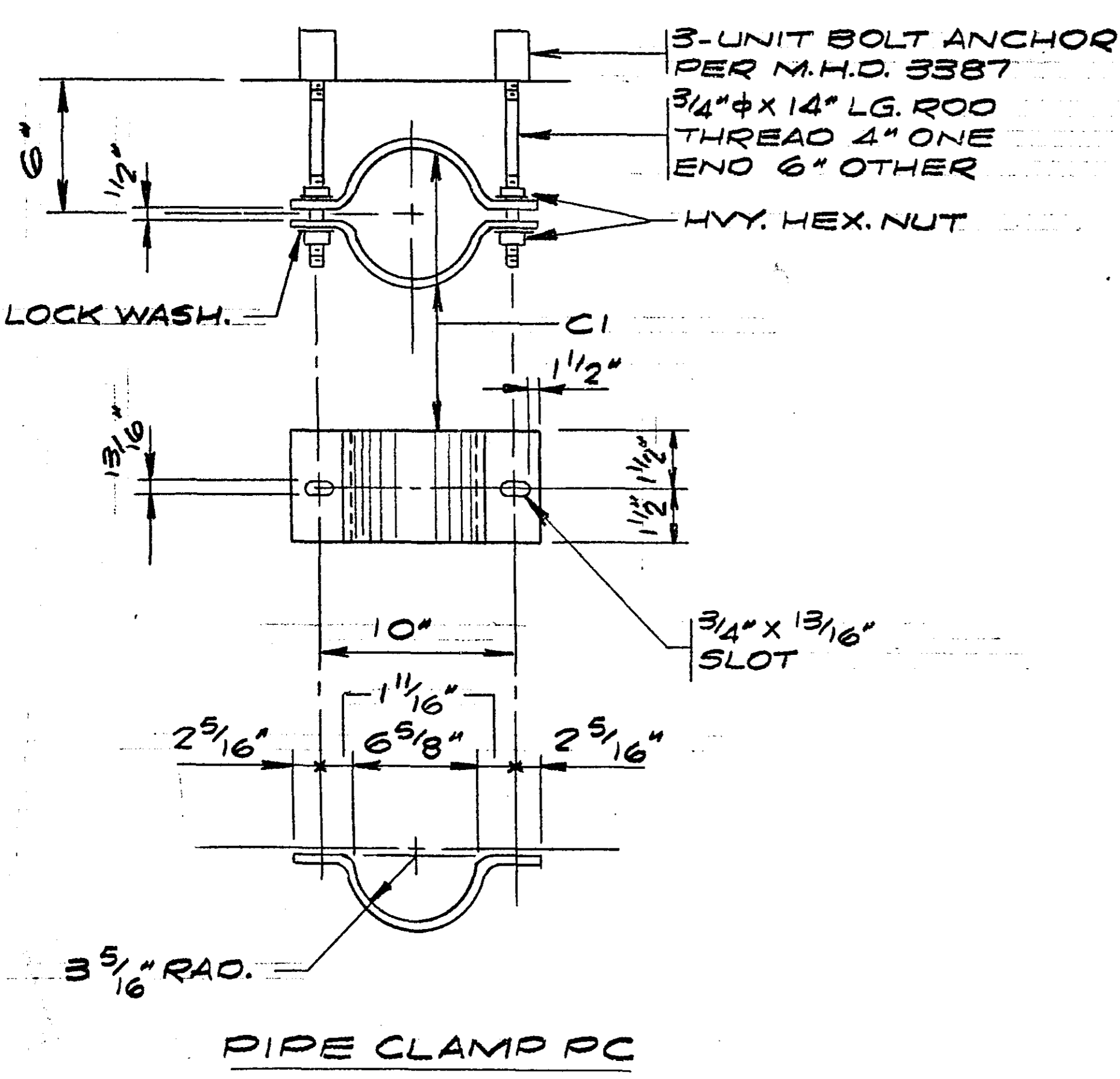
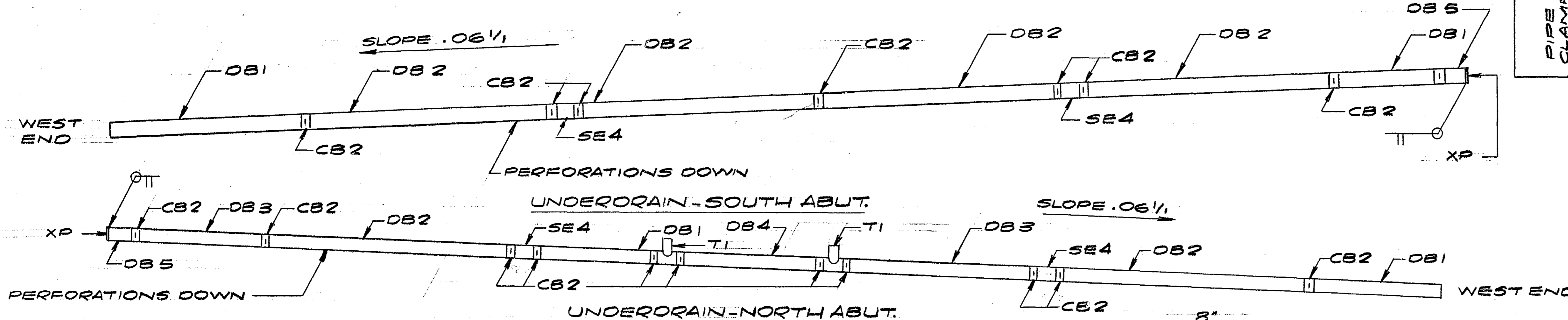
TYP. DETAIL OF CORR. COVERS
 (SEE DETAILS)

NORTHERN CULVERT & MFTG. COMPANY
 SHAKOPEE, MINN.
 BRIDGE NO. 62520
 S.A.P. 62-623-07
 LOCATION: CO. RD. C UNDER 500 LINE R.R. CO. TRK. 1.0 MI.
 WEST OF LITTLE CANADA ON CO. RD. C
 DESCRIPTION: DRAINAGE SYSTEM

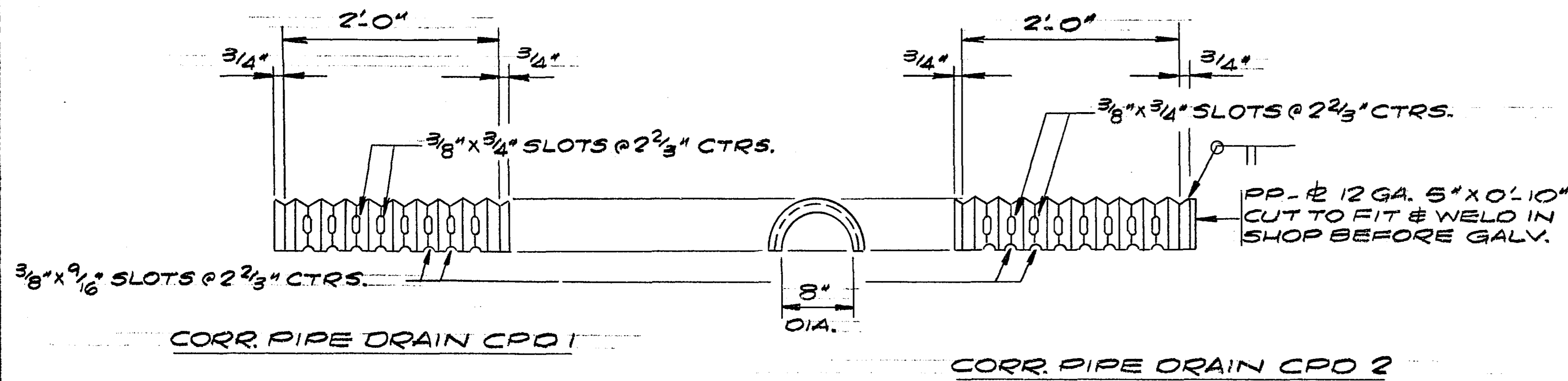
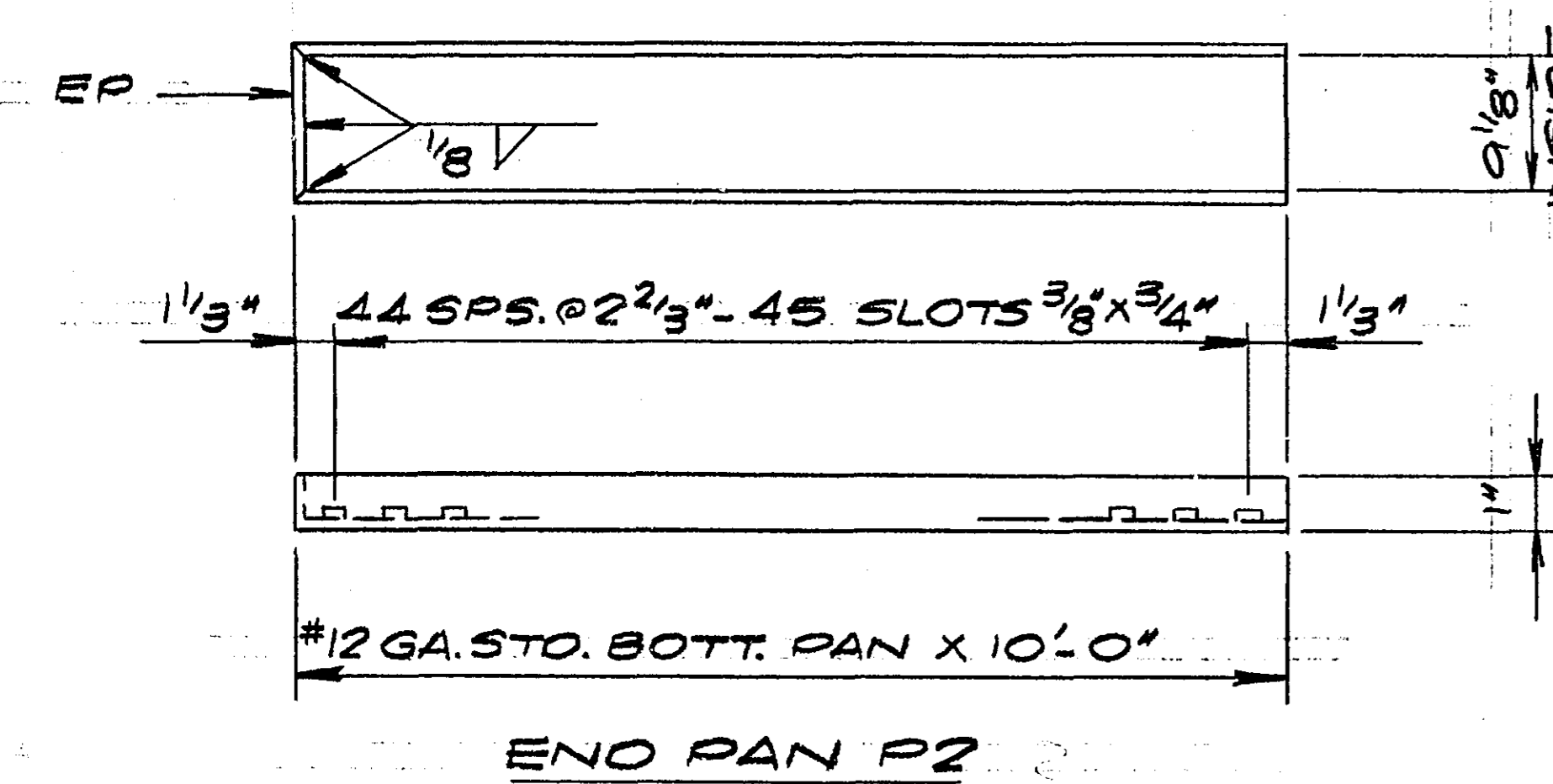
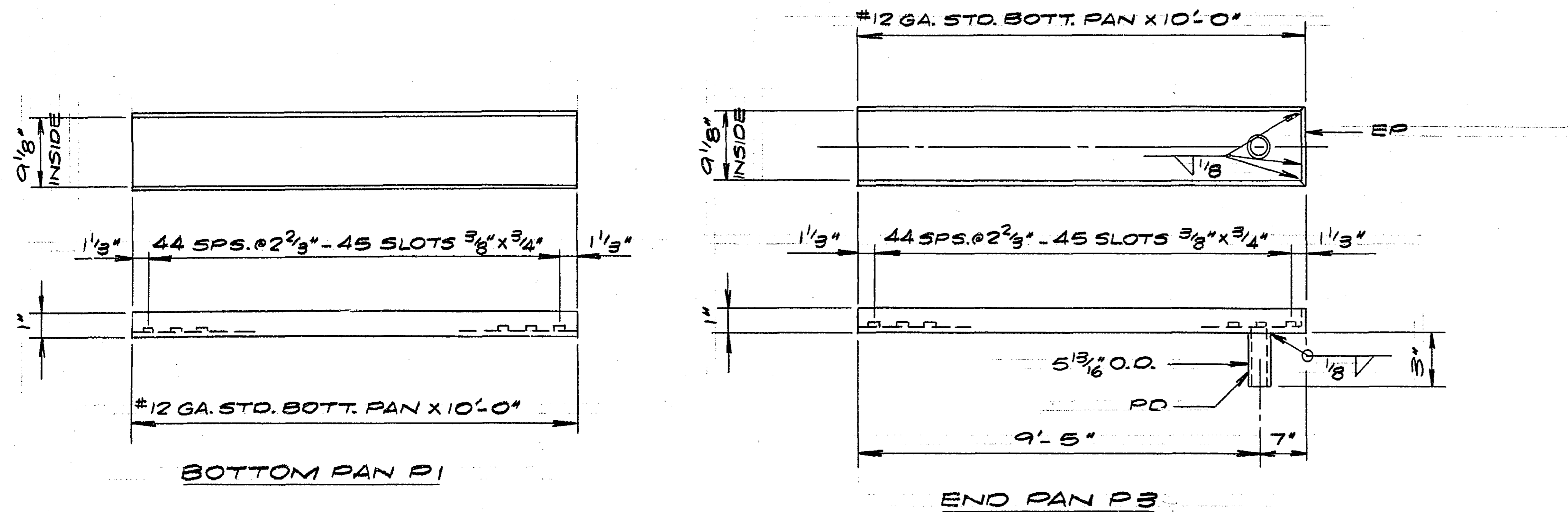
MICROFILMED
 RAMSEY CO. ENGR.



BILL OF MATERIALS			
ITEM	NO.	MARK	DESCRIPTION
UNDER DRAINS	4	OB1	10" φ C.M.P. 10'-0" LG. PERFORATED 16 GA.
	6	OB2	" " " 20'-0" " " " " "
	2	OB3	" " " 15'-0" " " " " "
	1	OB4	" " " 12'-1 3/4" " " " " "
	2	OB5	" " " 2'-0" " " " " "
	2	XP	10" OIA. 14 GA. WELD TO OB5
DOWN-SPROUTS	1	OV1	6" φ C.M.P. 6'-2" LG. 16 GA.
	1	OV2	" " " 1'-9" " " " "
	1	OV3	" " " 2'-0" " " " "
	1	OV4	" " " 9'-1" " " " "
	1	OV5	" " " 3'-6" " " " "
	1	OV6	" " " 12'-9" " " " "
ELBOWS	3	SE1	6" φ C.M.P. 45° STD. ELBOW 16 GA.
	1	SE2	" " " 45° " " " "
	1	SE3	" " " 16 GA.
	4	SE4	10" φ " " "
CONN. BANDS	18	CB1	STD. CONNECTION BAND FOR 6" φ C.M.P.
	19	CB2	" " " " " 10" φ "
TEE	2	TA	6" φ C.M.P. 1'-6" LG. 16 GA. (CUT TO FIT)
	2	TB	10" φ " 2'-0" " " " "
REDUCER	2	RA	6" X 2'-1 5/8" 12 GA.
	2	RB	6" X 2'-1 5/8" " " (CUT TO FIT)
	2	RC	6" φ C.M.P. 1'-9" LG. 16 GA.
PIPE CLAMPS	7 UNITS	PC	14 - C1 3" X 3 3/8" (BENT)
			28 - H.V.Y. HEX. NUTS
			14 - 3 UNIT BOLT ANCHORS
			14 - 3/4" φ X 14 LG. RODS (THREADED BOTH ENDS)
			28 - LOCK WASHERS



NORTHERN CULVERT & MFG. COMPANY
 SHAKOPEE, MINN.
 BRIDGE NO. 62520
 S.A.R 62-623-07
 LOCATION: CO. RD. C UNDER 500 LINE R.R. CO. TRK. 1.0 MI.
 WEST OF LITTLE CANADA ON CO. RD. C
 DESCRIPTION: DRAINAGE SYSTEM



BILL OF MATERIAL				
ITEM	NO.	MARK	LENGTH	DESCRIPTION
INTERM. PANS	16	P1	10'-0"	12 GA. STD. BOTTOM PAN
END PAN	2	P2	10'-0"	12 GA. STD. BOTTOM PAN WITH END P.
END PAN	2	EP		#12 GA. X 7 7/8" X 9 1/8"
END PAN	2	P3	10'-0"	12 GA. STD. BOTTOM PAN WITH END P.
END PAN	2	EP		#12 GA. X 7 7/8" X 9 1/8"
END PAN	2	PD	0'-3"	10 GA. 5 3/16" Φ X 0'-3" LG.
CORR. PIPE DRAIN	96	CPD1	2'-1 1/2"	8" Φ HALF CIRCLE PIPE
CORR. PIPE DRAIN	4	CPD2	2'-1 1/2"	8" Φ HALF CIRCLE PIPE
CORR. END PIPE DRAIN	4	PP		12 GA. 5" X 10" (CUT TO FIT)

NORTHERN CULVERT & MFTG. COMPANY
 SHAKOPEE, MINN.
 BRIDGE NO. 62520
 S.A.P. NO. 62-623-07
 LOCATION: CO. RD C UNDER 500 LINE R.R. CO. TRK. 1.0 MI.
 WEST OF LITTLE CANADA ON CO. RD. C
 DESCRIPTION: DRAINAGE SYSTEM

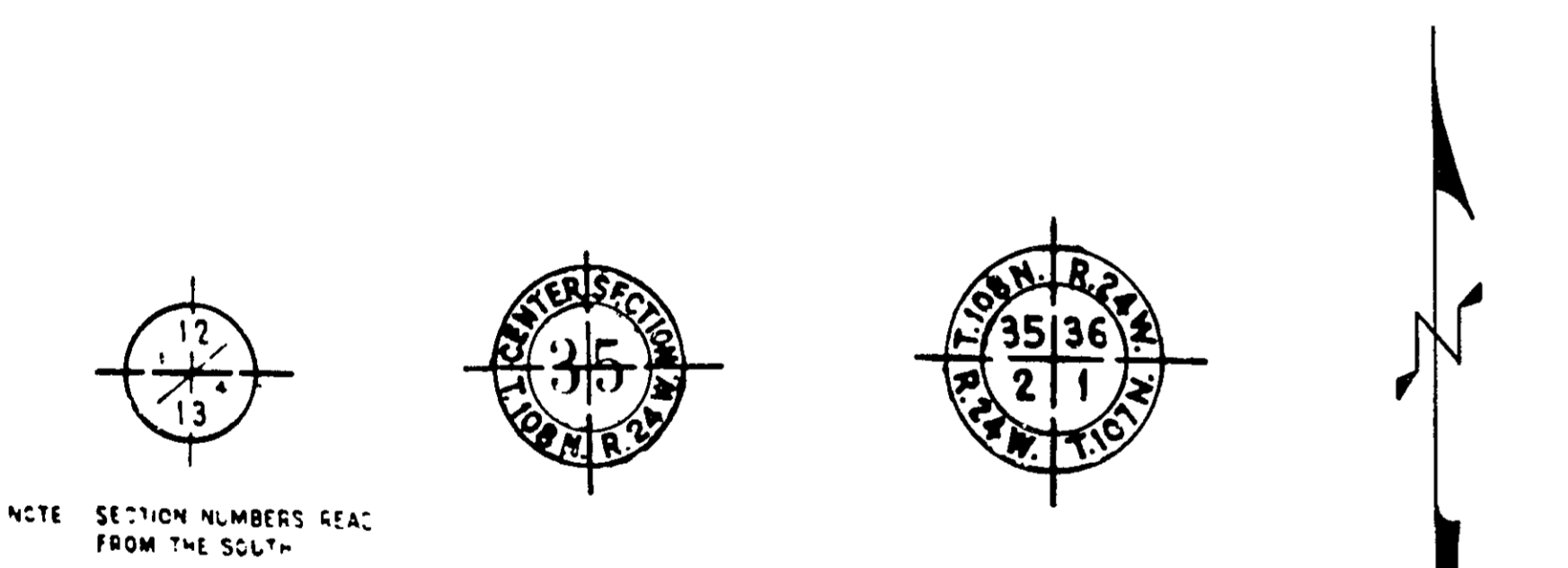
MICROFILMED
 RAMSEY CO. ENGR.

PLANS SYMBOLS

STATE LINE	SPRINGS
COUNTY LINE	MARSH
TOWNSHIP OR RANGE LINE	TIMBER
SECTION LINE	ORCHARD
QUARTER LINE	BRUSH
SIXTEENTH LINE	NURSERY
RIGHT-OF-WAY LINE	CATCH BASIN
PRESENT RIGHT-OF-WAY LINE	FIRE HYDRANT
CONTROL OF ACCESS LINE	CATTLE GUARD
PROPERTY LINE (Except Land Lines)	OVERPASS (Highway Over)
VACATED PLATTED PROPERTY	UNDERPASS (Highway Under)
CORPORATE OR CITY LIMITS	BRIDGE
TRUNK HIGHWAY CENTER LINE	BUILDING (One Story Frame)
RETAINING WALL	F FRAME
RAILROAD	S STONE
RAILROAD RIGHT-OF-WAY LINE	T TILE
RIVER OR CREEK	B BRICK
DRY RUN	ST STUCCO
DRAINAGE DITCH	IRON PIPE OR ROD
DRAIN TILE	MONUMENT (STONE, CONCRETE, OR METAL)
CULVERT	WOODEN HUB
DROP INLET	GRAVEL PIT
GUARD RAIL	SAND PIT
BARBED WIRE FENCE	BORROW PIT
WOVEN WIRE FENCE	ROCK QUARRY
CHAIN LINK FENCE	
RAILROAD SNOW FENCE	
STONE WALL OR FENCE	
HEDGE	
RAILROAD CROSSING SIGN	
RAILROAD CROSSING BELL	
ELECTRIC WARNING SIGN	
CROSSING GATE	
MEANDER CORNER	

UTILITIES SYMBOLS

POWER POLE LINE	CONDUIT
TELEPHONE OR TELEGRAPH POLE LINE	TELEPHONE CABLE IN CONDUIT
JOINT TELEPHONE AND POWER ON POWER POLES	ELECTRIC CABLE IN CONDUIT
ANCHOR	TELEPHONE MANHOLE
STEEL TOWER	ELECTRIC MANHOLE
STREET LIGHT	BURIED TELEPHONE CABLE
PEDESTAL TELEPHONE CABLE TERMINAL	BURIED ELECTRIC CABLE
GAS MAIN	AERIAL TELEPHONE CABLE
WATER MAIN	SEWER, (SANITARY OR STORM)
	SEWER MANHOLE



PIT DATA

PIT NO. _____	Located in _____
PIT NO. _____	Located in _____

SPECIFICATIONS

THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1968, AS AMENDED BY SUPPLEMENTAL SPECIFICATIONS DATED JULY 1, 1969, SHALL GOVERN.

**OFFICE OF COUNTY ENGINEER
RAMSEY COUNTY
CONSTRUCTION PLAN
FOR GRADING OF RAILROAD SHOO-FLY AND BRIDGE NO. 62520**

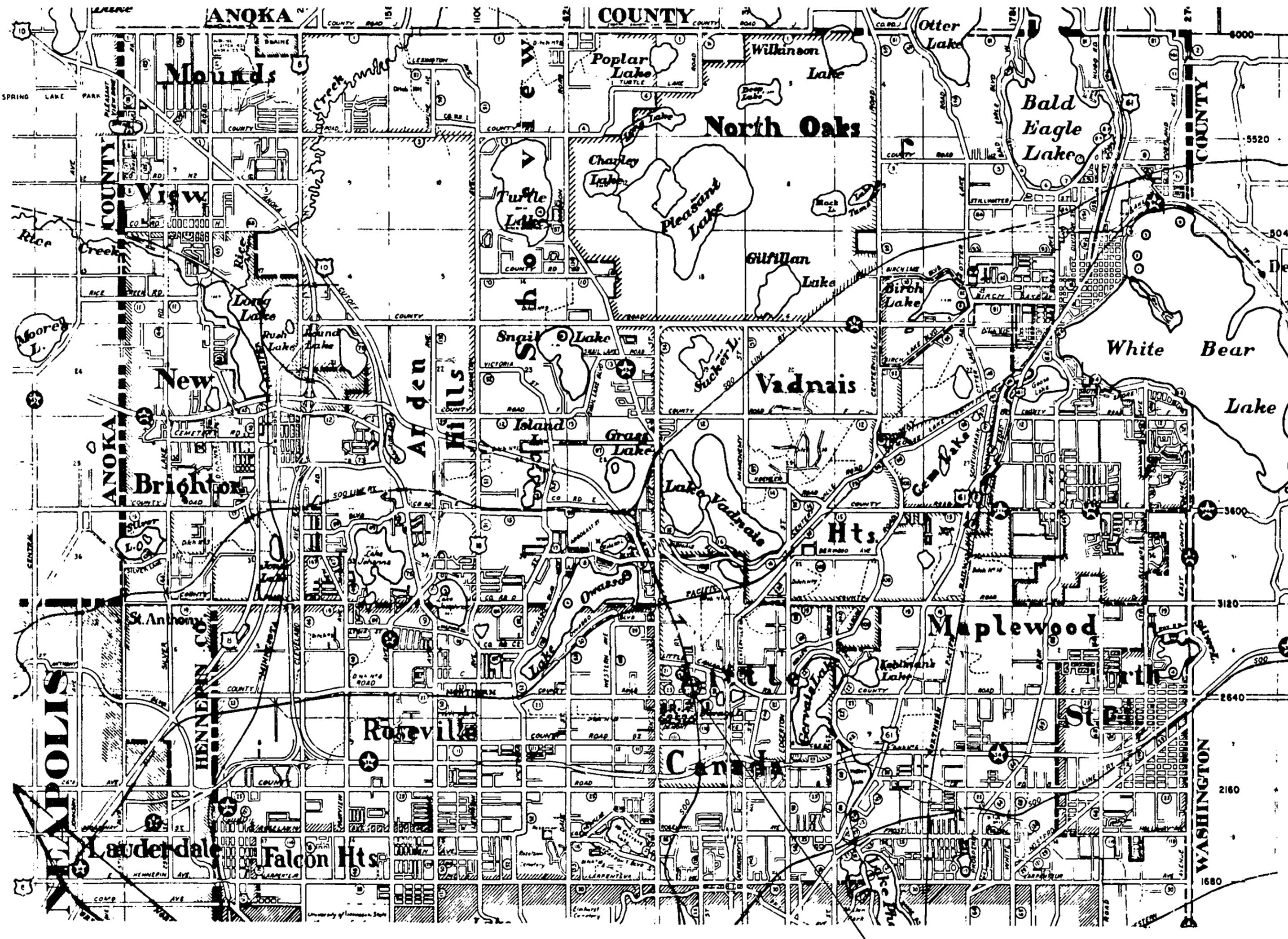
GROSS LENGTH	95.09 FEET	0.018 MILES
BRIDGES-LENGTH	95.09 FEET	0.018 MILES
EXCEPTIONS-LENGTH	0 FEET	0 MILES
NET LENGTH	95.09 FEET	0.018 MILES

SCALES

PLAN, 1 Inch = 50 Feet
PROFILE, Horiz. 1 Inch = 50 Feet Vert. 1 Inch = 5 Feet
CROSS-SECTIONS, 1 Inch = 10 Feet
LAYOUT, 0.75 Inch = 5280 Feet

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1A	TYPICAL SECTION (SHOO-FLY) AND ESTIMATED QUANTITIES
2	TYPICAL SECTION & GENERAL PLAN (BRIDGE)
3	GENERAL NOTES & ESTIMATED QUANTITIES
4	LAYOUT PLAN
5	ABUTMENT DETAILS
6	ABUTMENT DETAILS
7	ABUTMENT DETAILS
8	FRAMING PLAN & GIRDER ELEVATION
9	BEARING ASSEMBLY DETAILS
10	TYPICAL GIRDER SECTION & DETAILS
11	MISCELLANEOUS DETAILS
12	BALLAST PLATE & DRAINAGE DETAILS
13	GRADING PLAN
14	DETAILS
14A	DRAINAGE PLAN
15	SURVEY SHEET
16	SURVEY SHEET
17-28	SHOO FLY DRAWINGS



CITY OF ST. PAUL
BR. 62520
S.A.P. 62-623-07

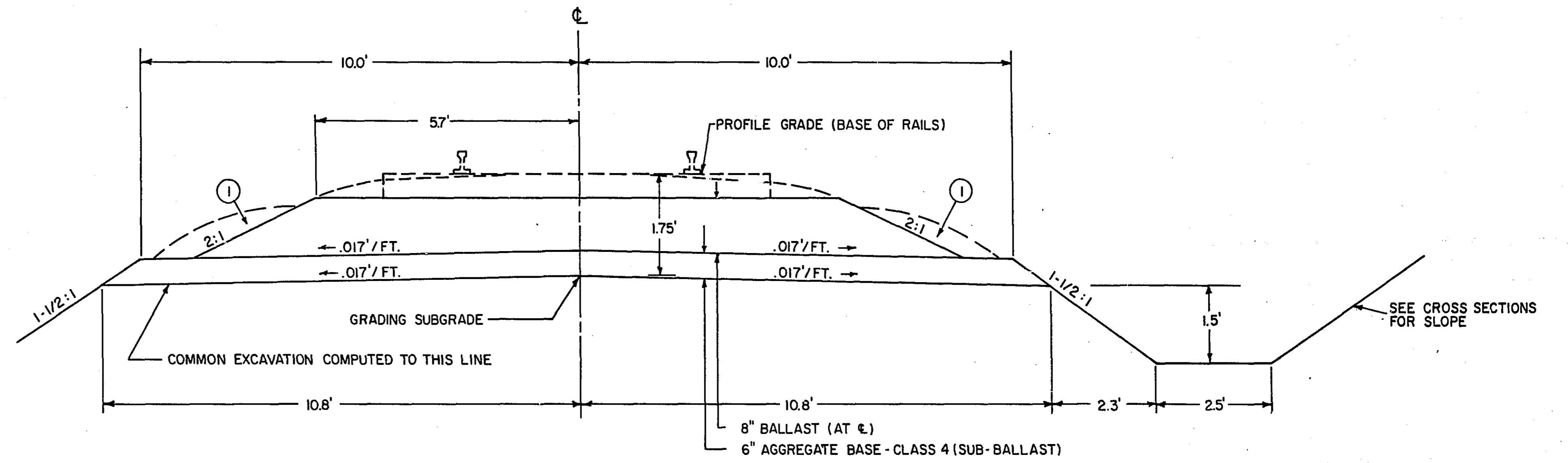
RECOMMENDED FOR APPROVAL *W. V. Johnson* DATE 8/15/70
DIRECTOR OF HIGHWAY
RECOMMENDED FOR APPROVAL *M. N. Johnson* DATE 8/15/70
MAINTENANCE ENGINEER
RECOMMENDED FOR APPROVAL *M. N. Johnson* DATE 8/15/70
CONSTRUCTION ENGINEER
RECOMMENDED FOR APPROVAL _____ DATE _____
RECOMMENDED FOR APPROVAL _____ DATE _____
APPROVED _____ DATE _____
COUNTY ENGINEER

RECOMMENDED FOR APPROVAL *Diana L. Arblan* DATE 4-30-70
COUNTY ENGINEER
APPROVED *Harold R. Borne* DATE 11-3-69
CHAIRMAN OF THE RAMSEY COUNTY BOARD
APPROVED _____ DATE _____
MAYOR,
APPROVED _____ DATE _____
MAYOR,
MINNESOTA STATE HIGHWAY DEPARTMENT
RECOMMENDED FOR APPROVAL *B. J. Sullivan* DATE 5-22-70
BRIDGE DESIGN & PLANNING ENGINEER
RECOMMENDED FOR APPROVAL *B. J. Sullivan* DATE 5-22-70
DISTRICT STATE AID ENGINEER
APPROVAL *W. M. M. Gay* DATE 5/22/70
STATE AID ENGINEER

I HEREBY CERTIFY THAT THESE PLAN SHEETS 181A AND SHEETS 23 TO 28 WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Walter Anderson
DATE 5-1-70 REG. NO. 2042

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
BRIDGE QUANTITIES			
2031.501	FIELD OFFICE, TYPE C	EACH	1
2105.501	COMMON EXCAVATION, BRIDGE	CU. YD.	7,800
2401.501	CONCRETE MIX NO. 1A43	CU. YD.	308
2401.501	CONCRETE MIX NO. 3Y43	CU. YD.	407
2401.521	STRUCTURE EXCAVATION (CLASS U)	CU. YD.	830
2401.531	GRAVEL BACKFILL	CU. YD.	2,335
2401.533	GRANULAR BACKFILL	CU. YD.	975
2401.539	REINFORCEMENT BARS DELIVERED	POUND	94,250
2401.540	REINFORCEMENT BARS PLACED	POUND	94,250
2402.532	FURNISHING STRUCTURAL STEEL (3306)	POUND	323,080
2402.532	FURNISHING STRUCTURAL STEEL (3309)	POUND	34,960
2402.533	ERECTING STRUCTURAL METALS	POUND	358,040
2402.577	STANDARD NAME PLATES	UNIT	1
2402.593	FIXED BEARING ASSEMBLIES (TYPE 1)	UNIT	2
2402.594	EXPANSION BEARING ASSEMBLIES (TYPE 2)	UNIT	2
2402.594	EXPANSION BEARING ASSEMBLIES (TYPE 3)	UNIT	2
2452.507	CAST-IN-PLACE CONCRETE PILING DELIVERED	LIN. FT.	7,290
2452.508	CAST-IN-PLACE CONCRETE PILING DRIVEN	LIN. FT.	7,128
2452.519	CAST-IN-PLACE CONCRETE TEST PILES 55 FT. LONG	PILE	6
2452.526	LOADING TESTS	PILE	2
2476.501	PAINTING METAL STRUCTURES	STRUCTURE	1
481.602	SURFACE WATERPROOFING	SQ. FT.	428
481.603	ONE-PLY MEMBRANE WATERPROOFING	SQ. FT.	1,590
502.671	DRAINAGE SYSTEM	SYSTEM	1
481.605	BUTYL-RUBBER MEMBRANE WATER-PROOFING	SQ. FT.	1,590
SHOO-FLY QUANTITIES			
2104.510	REMOVE FENCE	L.F.	1,520
2105.501	COMMON EXCAVATION	C.Y.	22,519
2211.501	AGGREGATE BASE, CLASS 4	TON	800
2451.505	GRAVEL BACKFILL	C.Y.	200
2501.503	STRUCTURE EXCAVATION, CLASS U	C.Y.	140
2501.511	18" METAL PIPE CULVERT, 14 GAUGE	L.F.	72
2501.524	44" SPAN CONCRETE PIPE-ARCH CULVERT, CLASS II	L.F.	160
2501.524	44" SPAN CONCRETE PIPE-ARCH CULVERT, CLASS III	L.F.	90
2501.537	44" SPAN CONCRETE APRONS	APRON	1
2557.501	WIRE FENCE, WOOD POST, 4 STRAND BARBED WIRE	L.F.	1,392
2575.501	ROADSIDE SEEDING	ACRE	1.5
2575.502	SEED MIXTURE G	POUND	75
2575.505	SODDING	S.Y.	900
599.603	SPECIAL RAILROAD WORK	LUMP SUM	
599.606	RAILROAD TRACK BALLAST, G-3	C.Y.	661



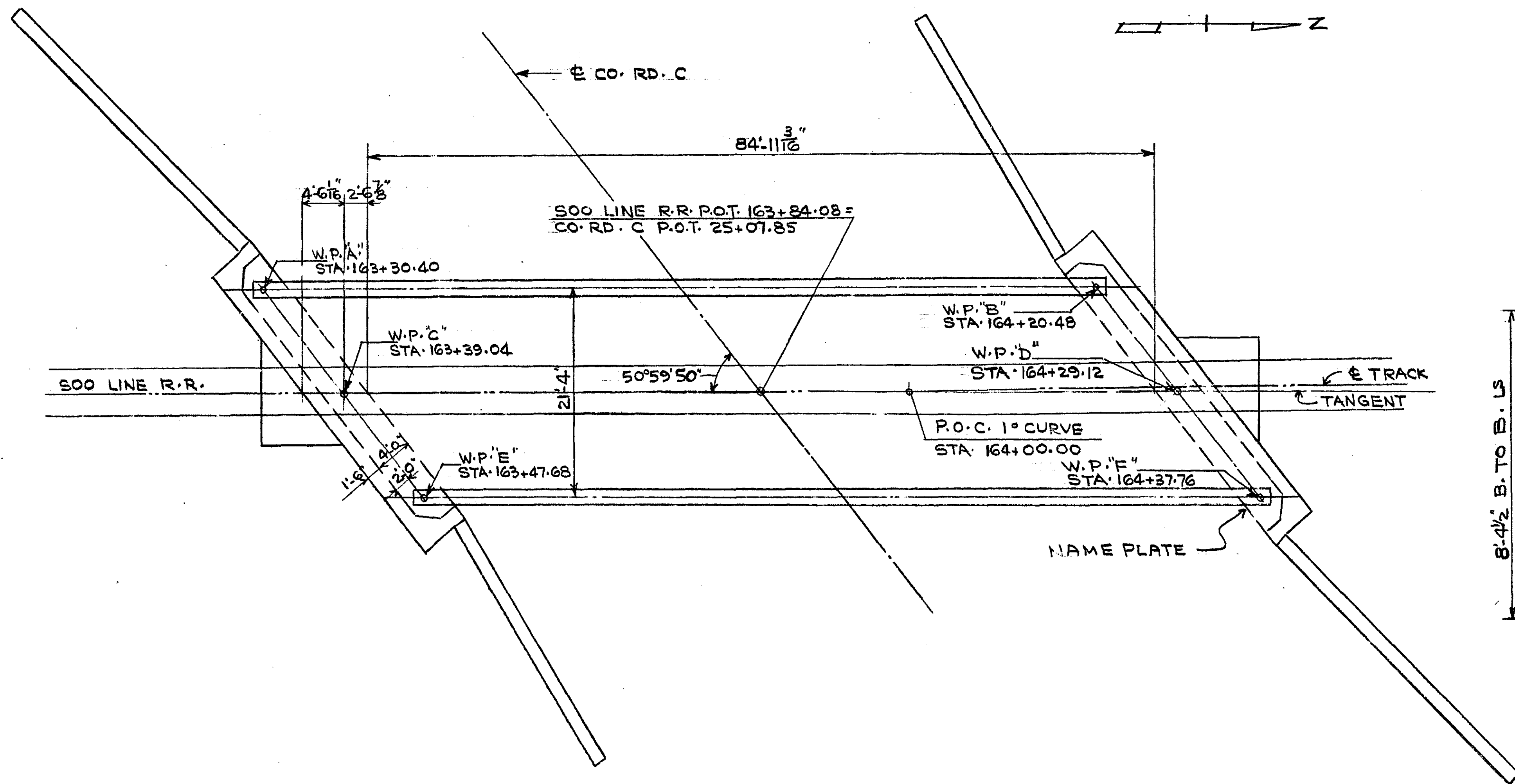
① BALLAST MATERIAL FOR BETWEEN TIES (APPROX. 14 CU. YDS. PER STA.) SHALL BE PLACED IN APPROXIMATELY EQUAL AND UNIFORM WINDROWS ALONG THE OUTSIDE EDGES OF TRACK BED

SHOO-FLY EARTHWORK QUANTITIES

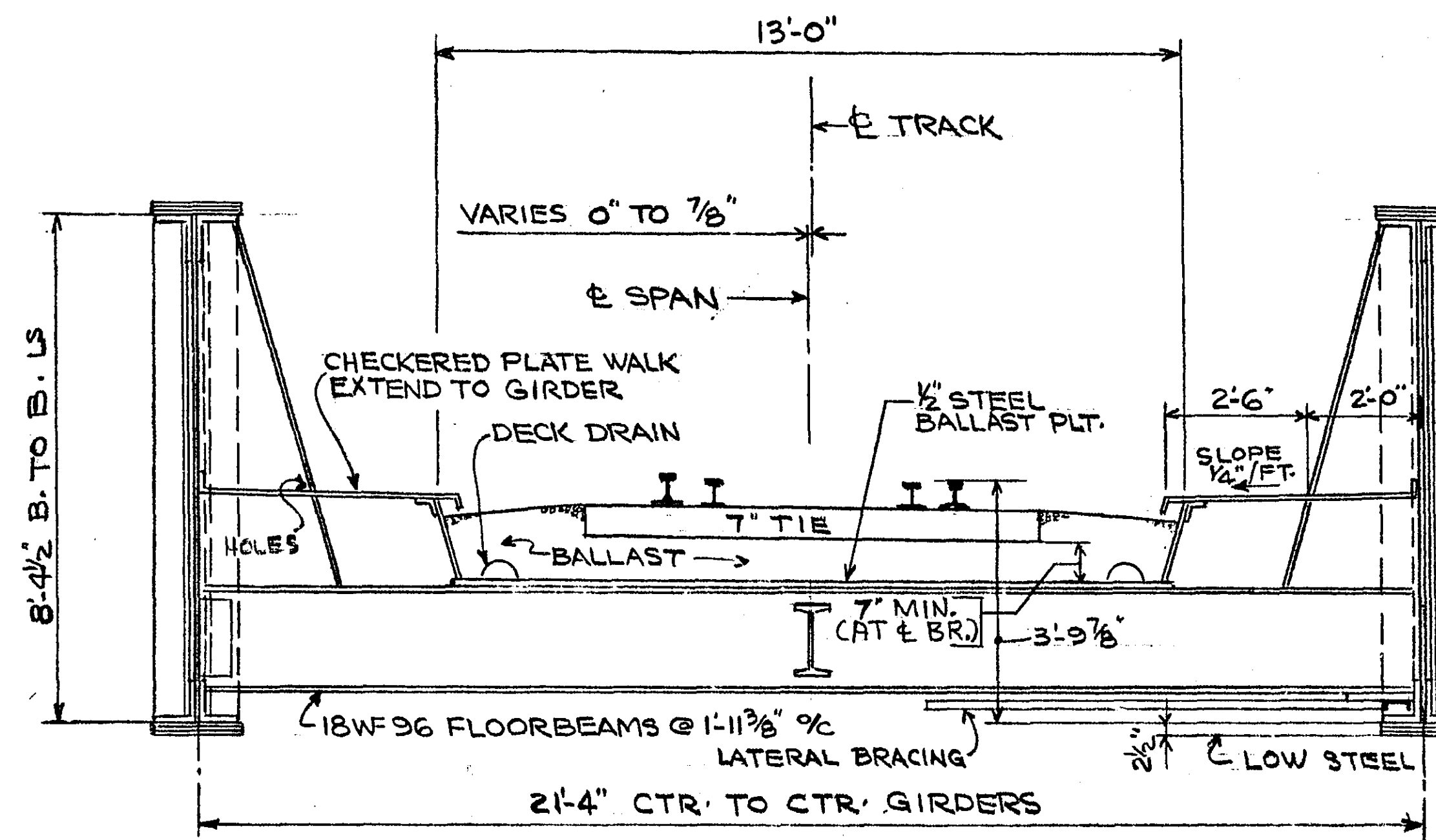
RAILROAD CUT	3,297	II, II2 EMBANKMENT
FROM CO. RD. "C"	11,148	
	14,445	
SHOO-FLY REMOVAL	8,074	
	22,519	

STANDARD DETAIL PLATES

0001 A	SPECIFICATION REFERENCE TO STANDARD PLATES
3014 D	REINFORCED CONCRETE PIPE-ARCH
3014 E	REINFORCED CONCRETE PIPE-ARCH
3040 C	CORRUGATED METAL PIPE
3110 C	CONCRETE APRON FOR REINFORCED CONCRETE PIPE-ARCH
3145 A	CONCRETE PIPE JOINT TIES
9102 C	SODDING AT PIPE CULVERT ENDS
9323 B	BARBED WIRE FENCE



PLAN
SCALE 1" = 10'

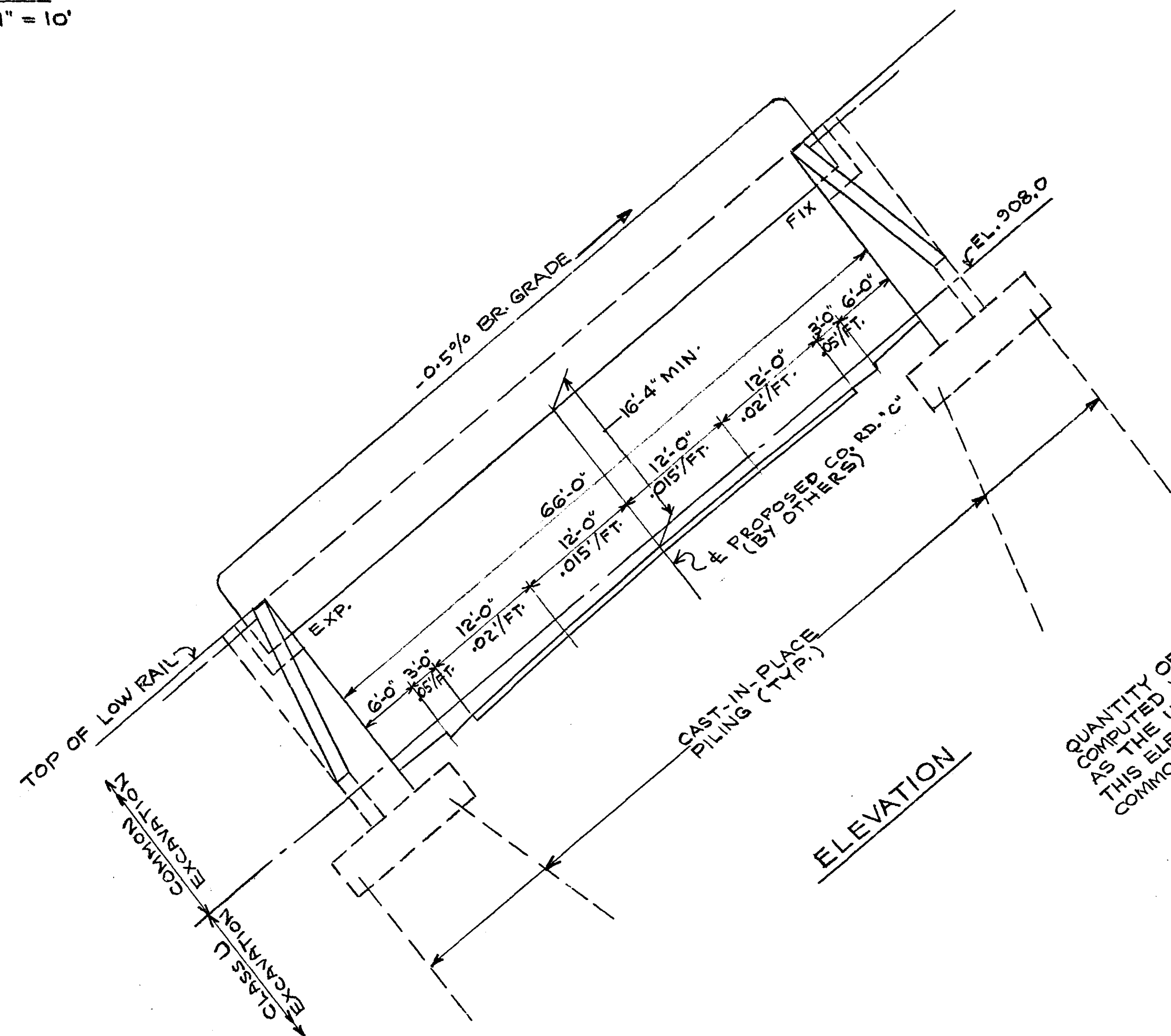


CROSS SECTION
SCALE 3/8" = 1'-0"

DESIGN DATA

DESIGN SPECIFICATIONS: CURRENT A.R.E.A. (1967)
 LOADING: COOPER'S E-80 DIESEL IMPACT
 DESIGN SPEED 60 M.P.H.

MAXIMUM ALLOWABLE DESIGN STRESSES:
 CONCRETE $f_c = 1,600$ P.S.I. ($n=8$)
 REINFORCING BARS $f_s = 20,000$ P.S.I. INTERMEDIATE GRADE
 STRUCTURAL STEEL $f = 20,000$ P.S.I. M.H.D. 3309
 BALLAST PLATE: $f_s = 27,000$ P.S.I. M.H.D. 3309



ELEVATION

QUANTITY OF CLASS U EXCAVATION IS COMPUTED WITH THE ELEVATION AS SHOWN AS THE UPPER LIMIT. EXCAVATION ABOVE THIS ELEVATION WILL BE PAID FOR AS COMMON EXCAVATION.

500 LINE RAILROAD COMPANY

APPROVED

P. Pearson
CHIEF ENGINEER

D. J. Kellerman
ENGR. STRUCTURES

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Val S. Marchant
Date 1-16-70 Reg. No. 3505

COUNTY ROAD C, RAMSEY COUNTY
STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

BRIDGE NO. 62520
CO. RD. C UNDER 500 LINE R.R. CO. TRK.
1.0 MI. W. OF LITTLE CANADA ON CO. RD. C

TYPICAL SECTION
& GENERAL PLAN

APPROVED: 5-22-70
P. D. Swanson
BRIDGE DESIGN & PLANNING ENGR.

S.A.P. NO. 62-623-07

Sheet No. 2 of 28 Sheets

GENERAL NOTES

1. CONSTRUCTION SPECIFICATION
THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1968 SHALL APPLY EXCEPT AS MODIFIED BY SPECIAL PROVISIONS. (AMENDED BY SUPPLEMENTAL SPECIFICATIONS DATED JULY 1, 1969)
2. CONCRETE
THE EDGES OF CONCRETE ON ALL EXPOSED CONSTRUCTION AND EXPANSION JOINTS SHALL BE FINISHED WITH 1/2" V STRIP UNLESS OTHERWISE NOTED.
ALL KEYWAY SIZES ARE NOMINAL.
ALL EXPOSED CORNERS OF CONC. TO HAVE 3/4" CHAMFER.
3. DIMENSIONS
ALL DIMENSIONS ARE MEASURED HORIZONTALLY AND AT 45° F. UNLESS OTHERWISE NOTED.
4. REINFORCING STEEL
ALL BARS ARE DESIGNATED ON THE PLANS BY BAR NUMBERS.
THE FIRST DIGIT ON 3 DIGIT BAR MARKS OR THE FIRST 2 DIGITS ON 4 DIGIT BAR MARKS INDICATE THE BAR SIZE.
ALL BAR DIMENSIONS ARE OUT TO OUT.
BARS OF A SERIES SHALL VARY BY A CONSTANT INCREMENT.
ALL BAR DETAILS SHALL CONFORM TO ACI 315 (LATEST EDITION).
THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND FACE OF CONCRETE SHALL BE 3" ON FOOTINGS AND 2" ELSEWHERE UNLESS OTHERWISE SHOWN ON PLANS.
REINFORCING BARS TO BE INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO A.S.T.M. A-15 WITH DEFORMATIONS CONFORMING TO A.S.T.M. A305.
5. LEGEND
E.F. DENOTES EACH FACE
F.F. DENOTES FAR FACE
N.F. DENOTES NEAR FACE
TYP. DENOTES TYPICAL
6. WORK TO BE DONE BY OTHERS
"BY OTHERS" INDICATES WORK THAT IS NOT INCLUDED IN THIS CONTRACT. SEE SPECIAL PROVISIONS.
7. PILE LOADING TEST
PILE LOADING TESTS SHALL BE MADE AS DIRECTED BY THE ENGINEER.

STRUCTURAL STEEL NOTES

- BALLAST PLATES, RAISED PATTERN PLATES, AND ASPHALT PLANK KEEPER BARS SHALL CONFORM TO STRUCTURAL STEEL M.H.D. 3309, ALSO MUST CONFORM TO A.S.T.M. A-242.
- ALL OTHER STEEL FOR STRUCTURAL ITEMS SHALL CONFORM TO STRUCTURAL STEEL M.H.D. 3306, UNLESS OTHERWISE NOTED.
ALL RIVETS SHALL BE 7/8" φ, HOLES 15/16" φ, EXCEPT AS NOTED OTHERWISE.
ALL RIVETS SHALL CONFORM TO M.H.D. 3316 TYPE I.
ALL HIGH STRENGTH BOLTS SHALL BE 7/8" φ AND SHALL CONFORM TO M.H.D. 3391-B, HOLES 15/16" φ.
- ALL CONNECTIONS TO BE RIVETED EXCEPT WHERE NOTED TO BE BOLTED OR WELDED.
- ALL WELDING TO BE DONE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES AND M.H.D. 2471-3J.
- FULL ASSEMBLY REAMING WILL BE REQUIRED AS PER M.H.D. 2471-3E1d. ALL MEMBERS AND PARTS OF THE STRUCTURE INCLUDING BEARING ASSEMBLIES, GIRDERS, FLOORBEAMS, DIAPHRAGMS, KNEEBRACES, BALLAST PLATES, RAISED PATTERN PLATES AND LATERAL BRACING SHALL BE ASSEMBLED.
- FLOORBEAM TOP FLANGES TO BE AT 90° ANGLES TO THE WEBS AND IN FULL CONTACT WITH THE BOTTOM SURFACE OF THE BALLAST PLATE. GIRDER STIFFENERS TO BE PLACED NORMAL TO BALLAST PLATE PROFILE.
- PATTERN PLATES SHALL HAVE A RAISED PATTERN SIMILAR TO INLAND STEEL COMPANY'S LARGE PATTERN, U.S. STEELS SECTION S-300, OR ALAN WOOD COMPANY'S SUPER DIAMOND.
- ALL SHOP AND FIELD WELDS SHALL BE CONTINUOUS AND RESULT IN A WATER-TIGHT DECK.
- PAINT ALL STRUCTURAL STEEL EXCEPT GALVANIZED MATERIAL AS FOLLOWS:
SHOP COAT, RED LEAD ----- M.H.D. 3506
FIRST FIELD COAT DULL INTERMEDIATE COAT, ALUMINUM ---- M.H.D. 3527
2ND FIELD COAT FINISH COAT, ALUMINUM ----- M.H.D. 3528
- THE FIELD COATS OF PAINT WILL NOT BE REQUIRED ON THOSE SURFACES OF THE BALLAST PLATE WHICH ARE COVERED BY MEMBRANE WATERPROOFING.
- NO SHOP PAINT ON PARTS TO BE FIELD WELDED.
- PARTS INACCESSIBLE AFTER ERECTION TO BE GIVEN 2 FIELD COATS BEFORE ERECTION.
- AFTER ALL SHOP WORK HAS BEEN COMPLETED, THE CONTRACTOR SHALL DELIVER TO THE COUNTY 2 SETS OF THE DETAILED DRAWINGS IN THE FORM OF TRACINGS AS REQUIRED PER M.H.D. 2471-3B, ONE SET FOR THE COUNTY AND ONE SET FOR THE RAILROAD COMPANY.
- STRUCTURAL STEEL QUANTITIES FOR 3306 & 3309 STEELS INCLUDE 5% INCREASE TO COMPENSATE FOR FASTENINGS, RIVETS, SHIMS AND FOR ALL OTHER INCIDENTAL METAL ITEMS FOR WHICH NO DIRECT WEIGHT MEASUREMENT IS MADE.

* SEE SPECIAL PROVISIONS

SCHEDULE OF QUANTITIES FOR BRIDGE NO. 62520													
ITEM NO.	2401.501	2401.501	2401.521	2401.539	2401.540	2402.532	2402.532	2402.533	2402.593	2402.594	2402.594	2401.533	2401.531
ITEM	CONCRETE MIX NO. 1A43	CONCRETE MIX NO. 3Y43	STRUCTURE EXCAVATION (CLASS U)	REINFORCEMENT BARS DELIVERED	REINFORCEMENT BARS PLACED	FURNISHING STRUCTURAL STEEL (3306)	FURNISHING STRUCTURAL STEEL (3309)	ERECTING STRUCTURAL METALS	FIXED BEARING ASSEMBLIES (TYPE 1)	EXPANSION BEARING ASSEMBLIES (TYPE 2)	EXPANSION BEARING ASSEMBLIES (TYPE 3)	GRANULAR BACKFILL	GRAVEL BACKFILL
UNIT	CU. YD.	CU. YD.	CU. YD.	POUND	POUND	POUND	POUND	POUND	UNIT	UNIT	UNIT	CU. YD.	CU. YD.
QUANTITY	308	407	830	94250	94250	323080	34960	358040	2	2	2	975	2335

ITEM NO.	2452.501	2452.508	2452.519	2402.517	481.603	481.605	2476.501	2452.526	2031.501	* 502.671	2105.501	481.602
ITEM	CAST-IN-PLACE CONCRETE PILING DELIVERED	CAST-IN-PLACE CONCRETE PILING DRIVEN	CAST-IN-PLACE CONCRETE TEST PILES 55 FT. LONG	STANDARD NAME PLATES	ONE-PLY MEMBRANE WATER-PROOFING	BUTYL-RUBBER MEMBRANE WATER-PROOFING	PAINTING METAL STRUCTURES	LOADING TESTS	FIELD OFFICE TYPE C	DRAINAGE SYSTEM	COMMON EXCAVATION	SURFACE WATER-PROOFING
UNIT	LIN. FT.	LIN. FT.	PILE	UNIT	SQ. FT.	SQ. FT.	STRUCTURE	PILE	EACH	SYSTEM	CU. YD.	SQ. FT.
QUANTITY	7290	7128	6	1	1590	1590	1	2	1	1	7800	428

SHOO-FLY QUANTITIES NOT INCLUDED IN THIS SCHEDULE
SEE DRAWINGS 17 THROUGH 27 FOR SHOO-FLY QUANTITIES.

BRIDGE NO. 62520

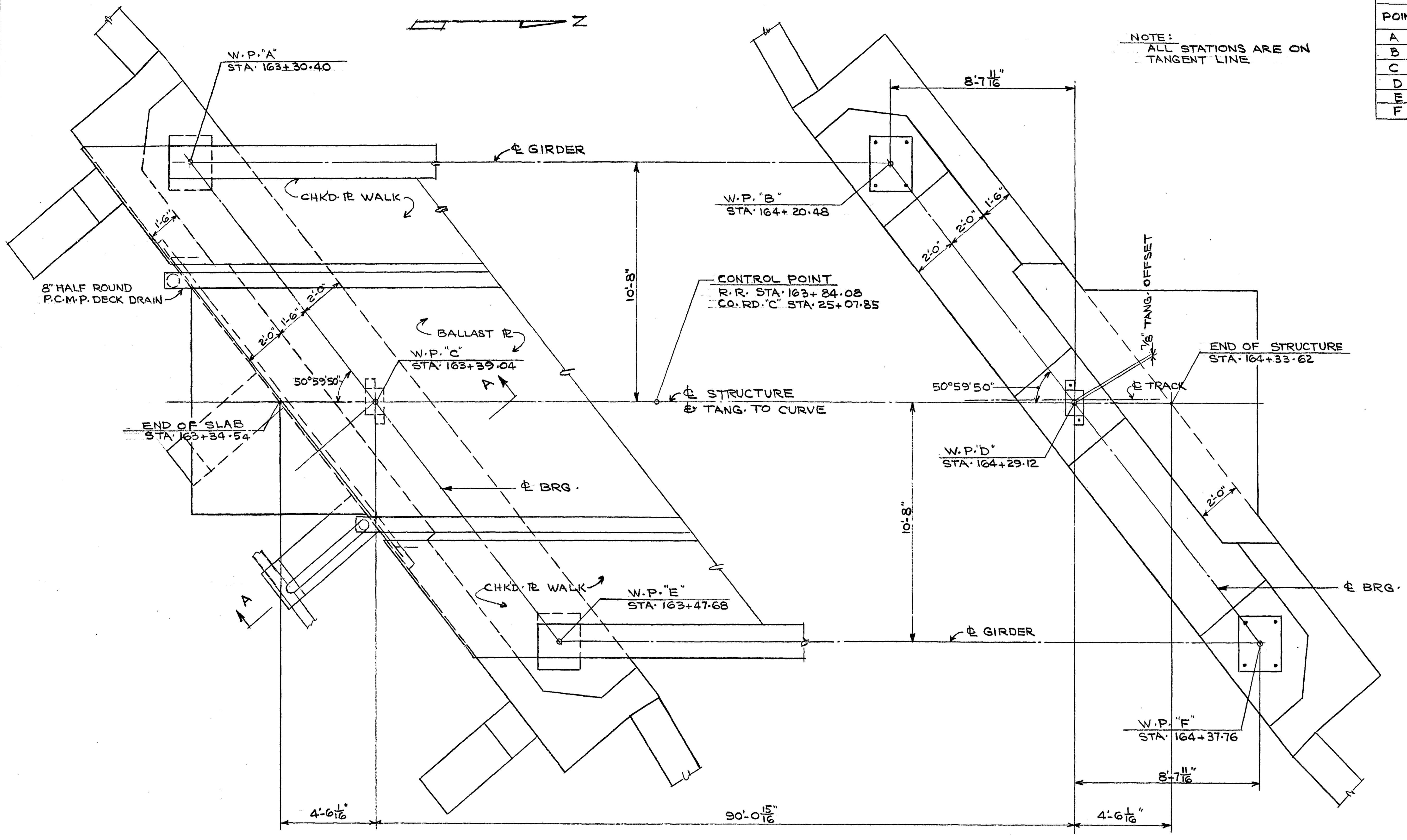
GENERAL NOTES &
ESTIMATED QUANTITIES

MICROFILMED
RAMSEY CO. ENGR.

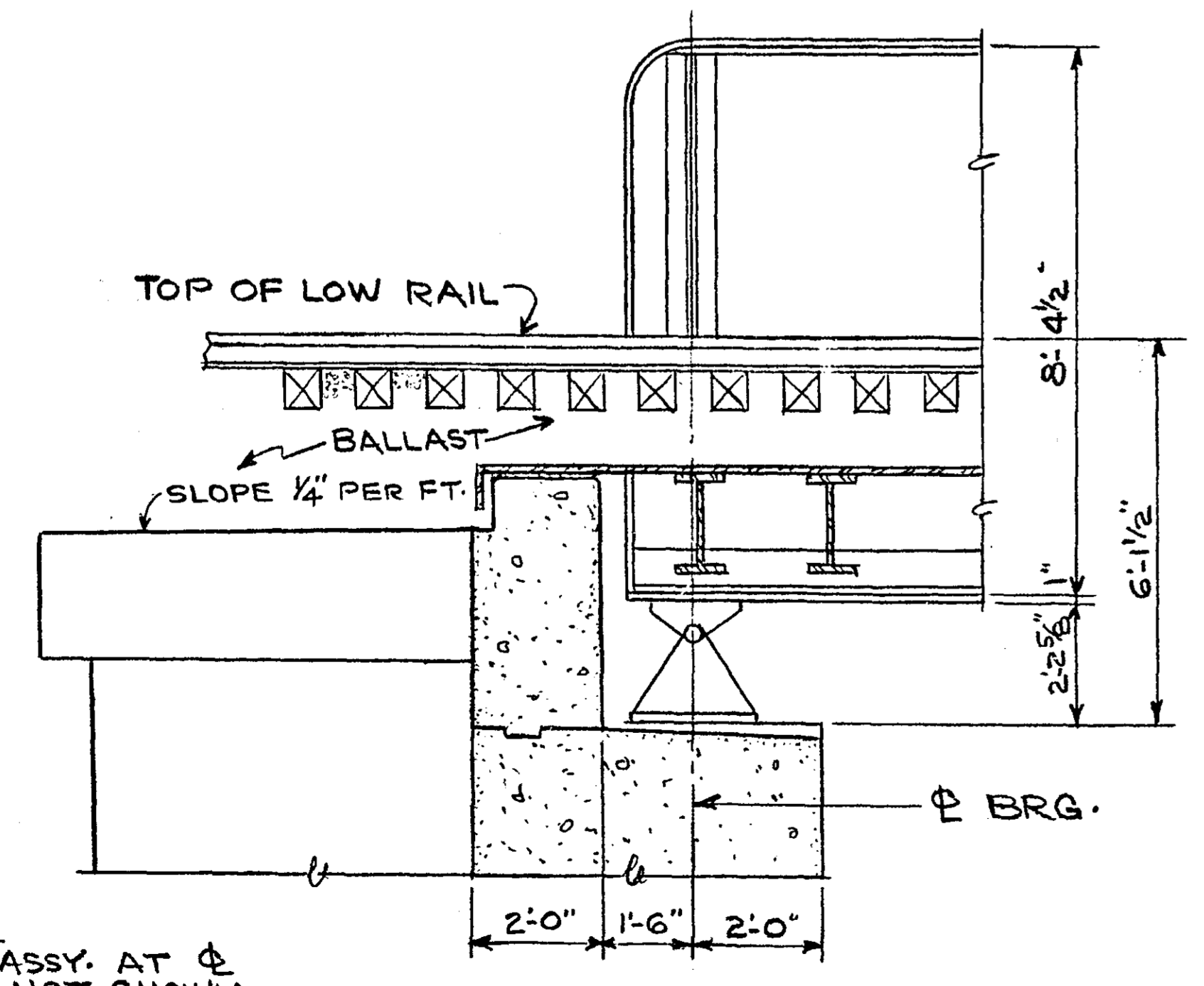
APPROVED: 5-22-70

ELEVATIONS			
POINT	TOP OF LOW RAIL ELEV.	TOP OF RAIL TO BR. SEAT	BR. SEAT ELEVATION
A	928.37	6.12	922.25
B	927.92	6.12	921.80
C	928.33	5.58	922.75
D	927.87	5.58	922.29
E	928.28	6.12	922.16
F	927.83	6.12	921.71

NOTE:
ALL STATIONS ARE ON TANGENT LINE



LAYOUT PLAN
SCALE 3/8"=1'-0"



SECTION A-A
SCALE 3/8"=1'-0"

NOTE:
BRG. ASSY. AT Φ SPAN NOT SHOWN IN SECTION A-A

BRIDGE NO. 62520
LAYOUT PLAN
MICROFILMED
RAMSEY CO. ENGRS.
APPROVED: 5-22-70

S.A.P. NO. 62-623-07

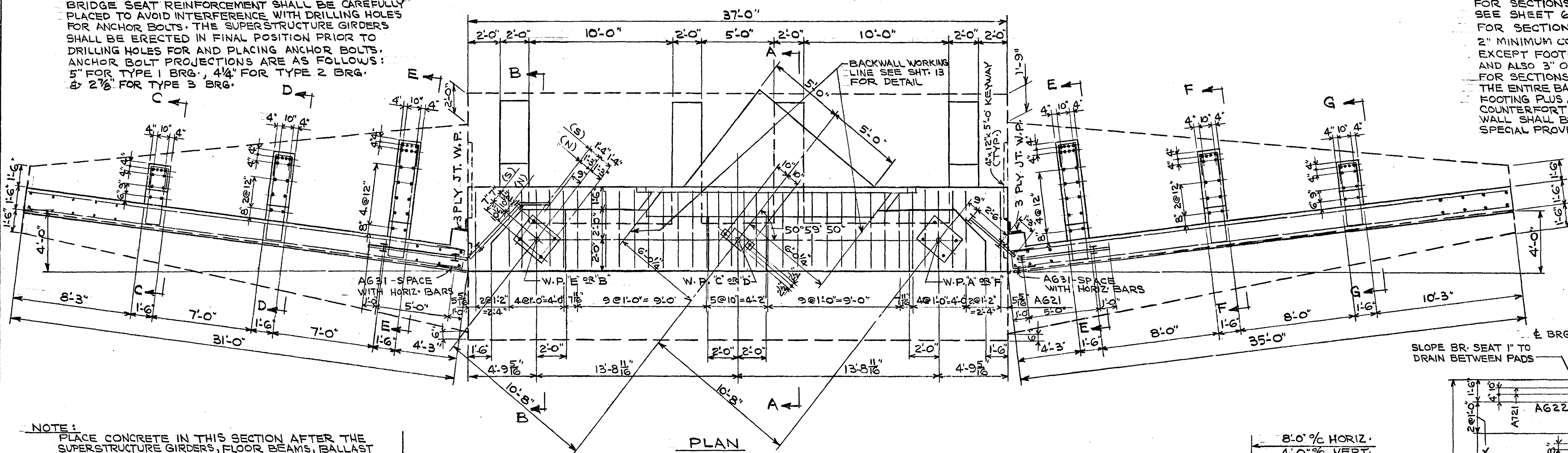
Sheet No. 4 of 28 Sheets

NOTE:

BRIDGE SEAT REINFORCEMENT SHALL BE CAREFULLY PLACED TO AVOID INTERFERENCE WITH DRILLING HOLES FOR ANCHOR BOLTS. THE SUPERSTRUCTURE GIRDERS SHALL BE ERECTED IN FINAL POSITION PRIOR TO DRILLING HOLES FOR AND PLACING ANCHOR BOLTS. ANCHOR BOLT PROJECTIONS ARE AS FOLLOWS: 5" FOR TYPE 1 BRG., 4 1/4" FOR TYPE 2 BRG. & 2 3/8" FOR TYPE 3 BRG.

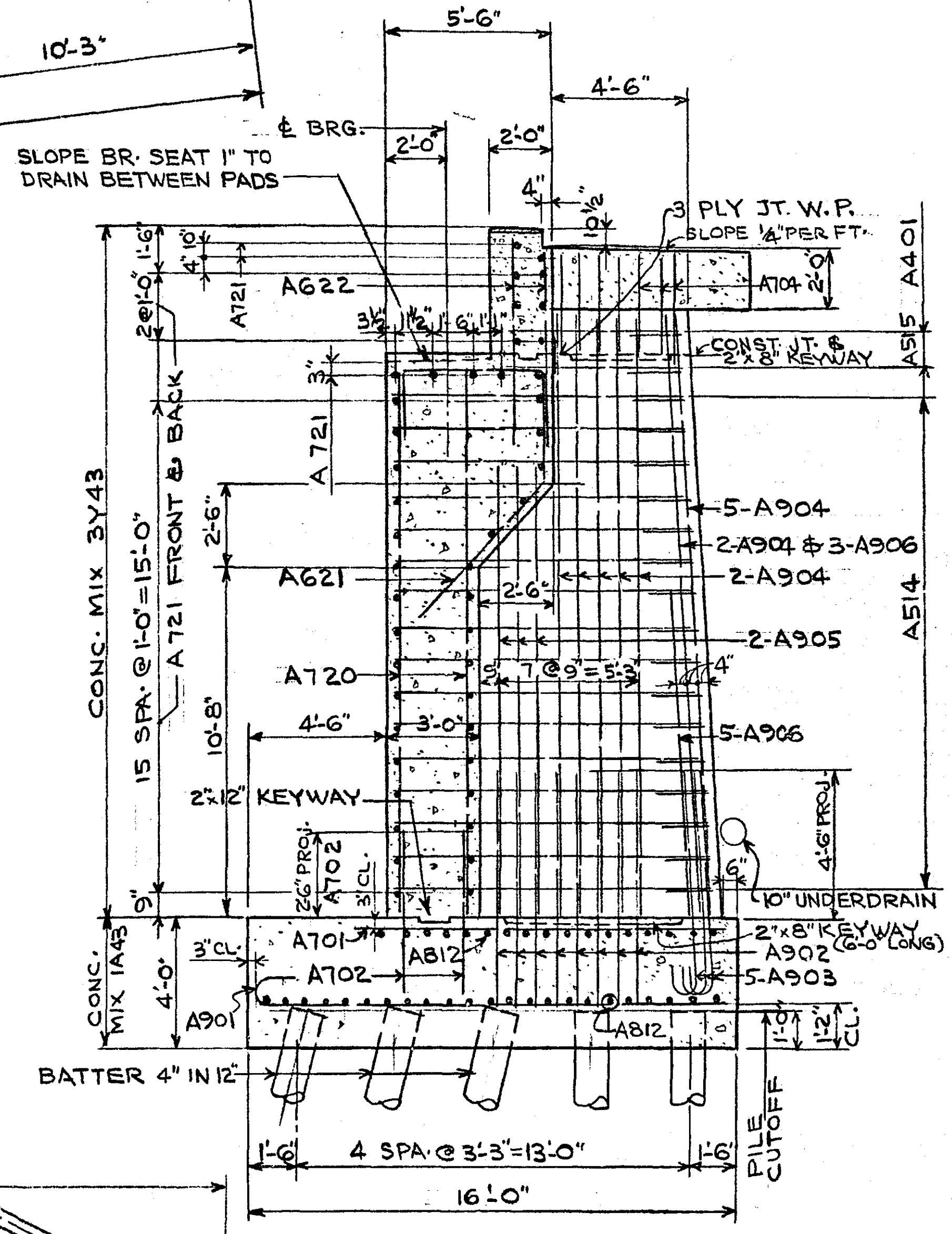
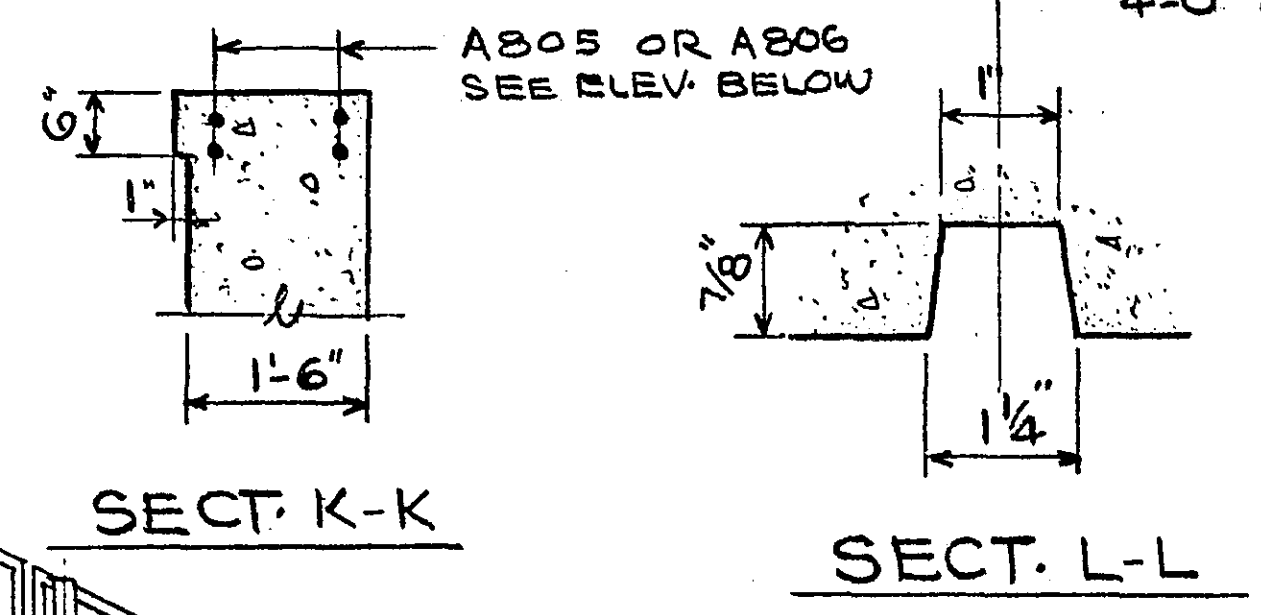
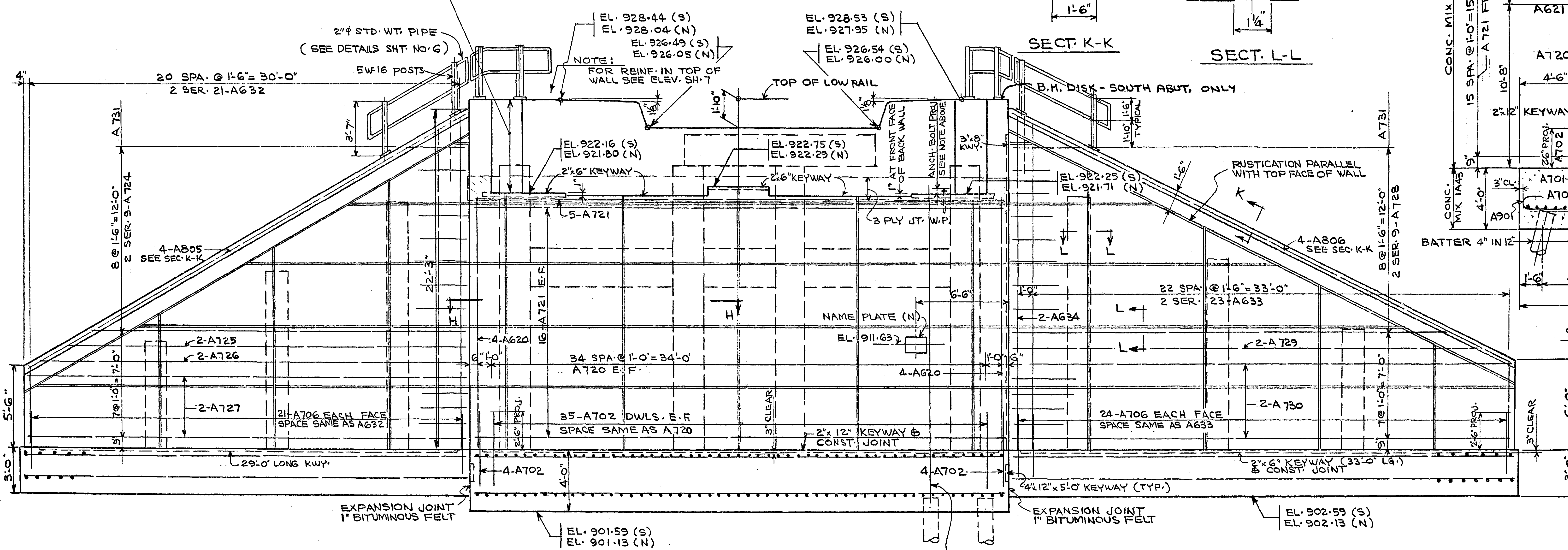
NOTE:

FOR SECTIONS B-B, C-C, D-D, E-E, F-F & G-G SEE SHEET 6
FOR SECTION H-H SEE SHEET 7
2" MINIMUM COVER FOR REINFORCEMENT BARS EXCEPT FOOTINGS WHICH IS 3" MINIMUM COVER, AND ALSO 3" ON FACES WITH RUSTICATIONS.
FOR SECTIONS AND VIEW OF BACKWALL SEE SHT. 12 & 13.
THE ENTIRE BACKFACE OF ABUTMENT WALL ABOVE THE FOOTING PLUS A 1 FOOT WIDE VERTICAL STRIP OF COUNTERFORT SIDES ADJACENT TO THE ABUTMENT WALL SHALL BE SURFACED WATERPROOFED PER SPECIAL PROVISIONS.



NOTE:

PLACE CONCRETE IN THIS SECTION AFTER THE SUPERSTRUCTURE GIRDERS, FLOOR BEAMS, BALLAST PLATES, AND CHECKERED PLATES HAVE BEEN ERECTED IN THEIR FINAL LOCATION. THE ELEVATIONS AND DIMENSIONS SHOWN SHALL BE ADJUSTED SO THAT THEY WILL FIT THE BALLAST PLATES AND CHK'D. PLATES AS THEY EXTEND FROM THE SUPERSTRUCTURE. SEE ALSO RELATED NOTE ON SHEET NO. 12.



PILE NOTE:
162 PILES (ESTIMATED) 45 FT. LONG REQ'D. FOR 2 ABUTS.
6 TEST PILES 55' LONG, REQ'D. FOR 2 ABUTS.
168 TOTAL (ESTIMATED) FOR 2 ABUTS.
PILES TO BE CAST-IN-PLACE CONCRETE POURED IN DRIVEN STEEL SHELLS NOMINAL DIA. 12 3/4".

NO. 8 BARE COPPER GROUND WIRE - ATTACH TO PILE SHELL AND GIRDER FLANGE WITH BRONZE CLAMPS. COPPER WIRE SHALL RUN AS STRAIGHT AS POSSIBLE FROM GIRDER TO PILE. TYPICAL ON ONE SIDE OF EACH ABUTMENT. (INCLUDED IN PRICE BID FOR OTHER ITEMS).

COMPUTED PILE LOADS - TONS / PILE	
DEAD LOAD + EARTH PRESSURE	28.0
LIVE LOAD + C.F. + SURCHARGE	14.3
TOTAL LOAD	42.3

BRIDGE NO. 62520

ABUTMENT DETAILS

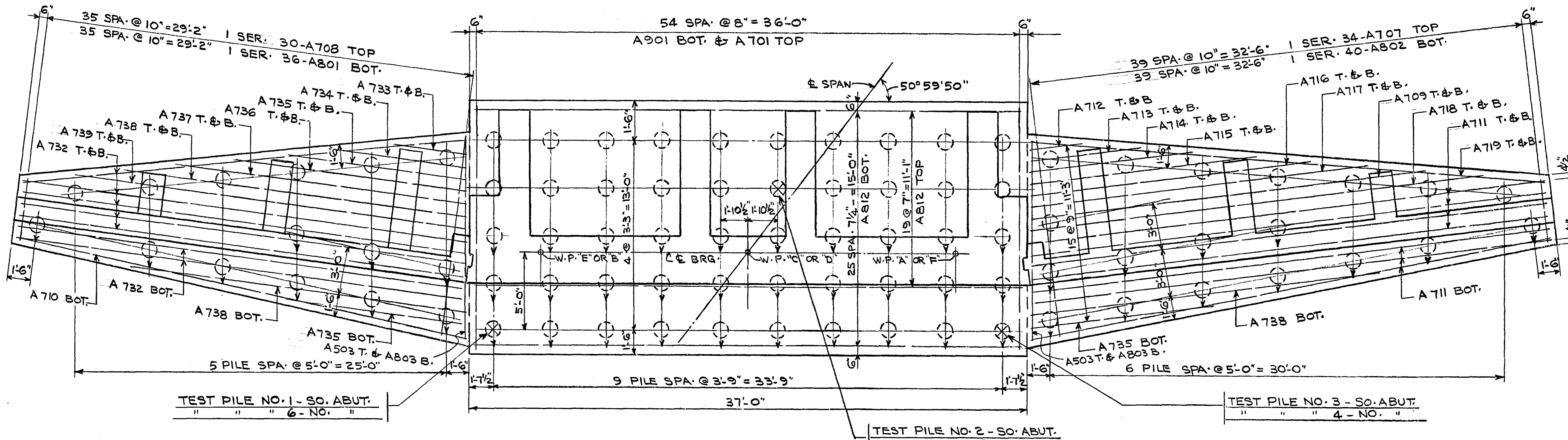
APPROVED: 5-22-70

MICROFILMED
RAMSEY CO. ENGRS.

FOR FABRICATION, MATERIALS AND DRIVING SEE SPECIAL PROVISIONS.

S.A.P. NO. 62-623-07

Sheet No. 5 of 28 Sheets

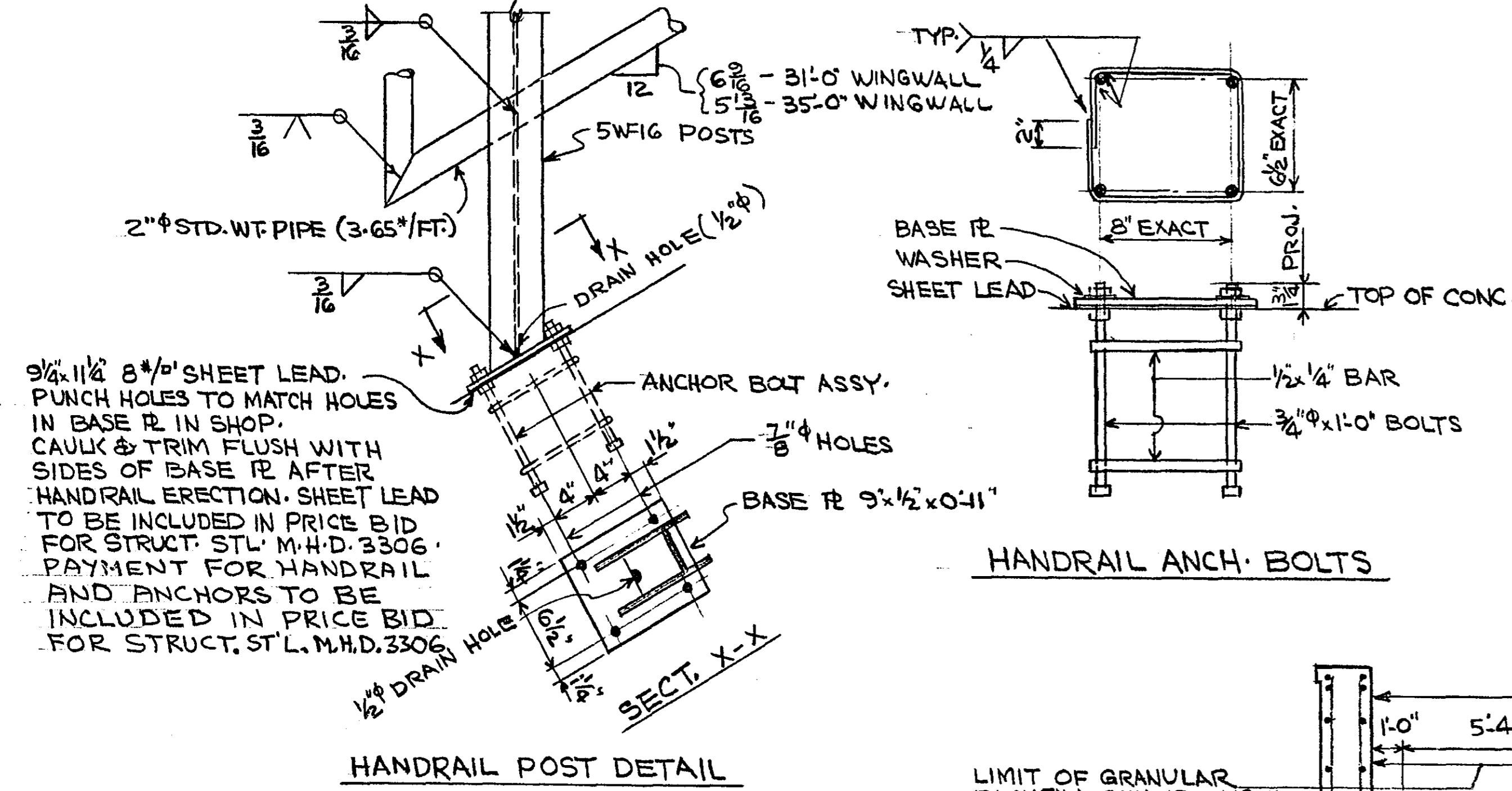


FOOTING & PILE PLAN

SUMMARY OF QUANTITIES FOR 2 ABUTMENTS	
CLASS U EXCAVATION	830 CU.YD.
CONCRETE MIX 1A43	308 CU.YD.
CONCRETE MIX 3Y43	407 CU.YD.
REINFORCEMENT BARS	94250 LBS.
6 CAST-IN-PLACE CONC. TEST PILES 55 FT. LG.	
1 CAST-IN-PLACE CONC. PILES DELIVERED 7290 LIN.FT.	
2 FIXED BEARING ASSEMBLIES TYPE 1	
2 EXP. BEARING ASSEMBLIES TYPE 2	
2 EXP. BEARING ASSEMBLIES TYPE 3	
SURFACE WATERPROOFING	428 SQ.FT.
ONE BRIDGE NAME PLATE (2104)	
2 BENCH MARK DISK (9300)	
GRANULAR BACKFILL	975 CU.YD.
PREFORMED JOINT FILLER (SEE SCHEDULE)	
GRAVEL BACKFILL	2335 CU.YD.

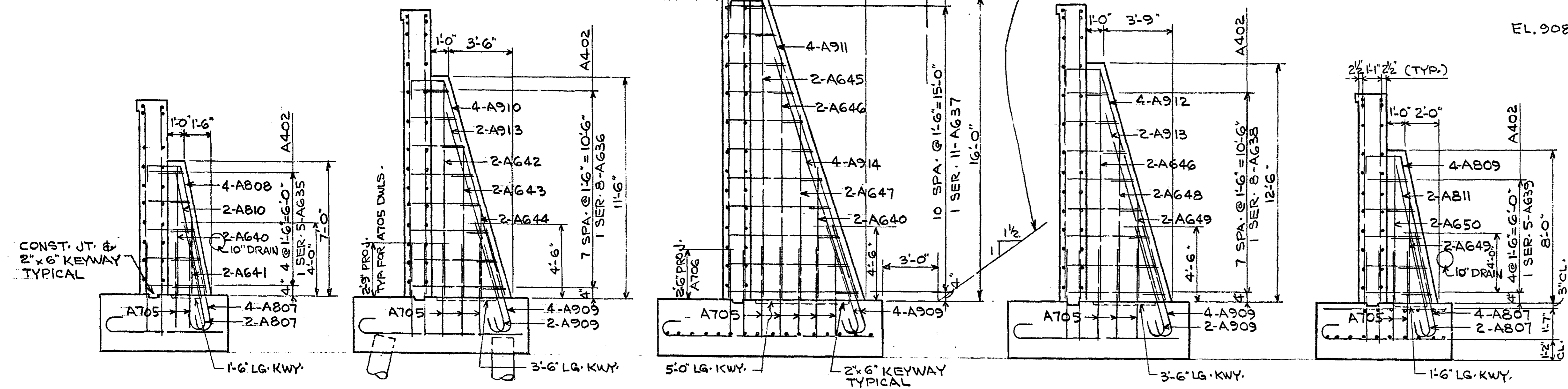
- DOES NOT INCLUDE TEST PILES
- STATE WILL FURNISH DISK PAYMENT FOR PLACING TO BE INCLUDED IN OTHER ITEMS. SEE DETAIL NO. 9301 FOR PLACING.
- BRIDGE NO. 62520
DATE
- INCLUDED IN PRICE BID FOR CONCRETE. SEE SCHEDULE SHT. NO. 7.

NOTE:
HANDRAIL TO BE ERECTED AFTER SUPERSTRUCTURE IS IN FINAL POSITION.



HANDRAIL ANCH. BOLTS

HANDRAIL POST DETAIL



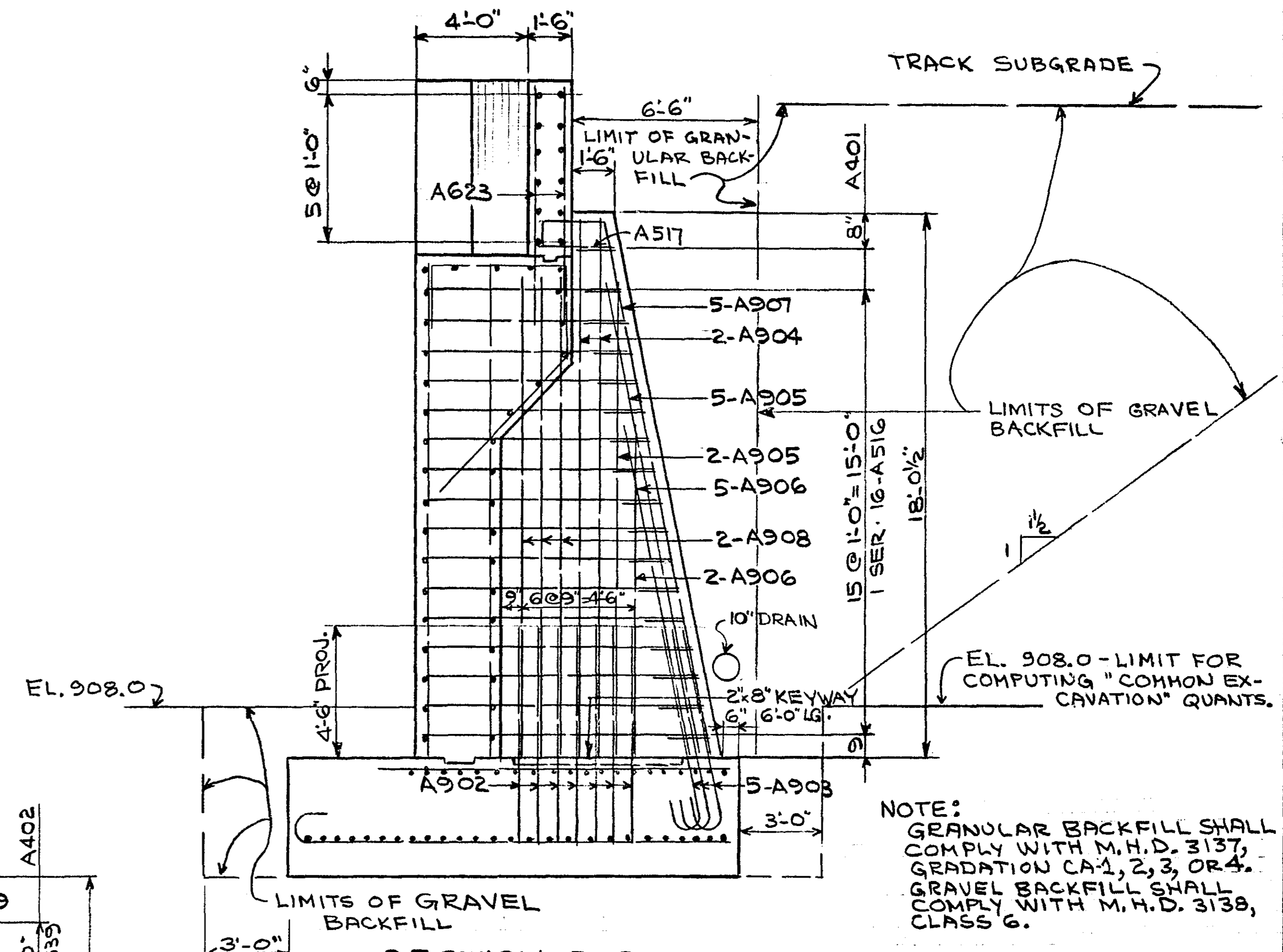
SECTION C-C SHEET 5

SECTION D-D SHEET 5

SECTION E-E SHEET 5

SECTION F-F SHEET 5

SECTION G-G SHEET 5



SECTION B-B SHEET 5

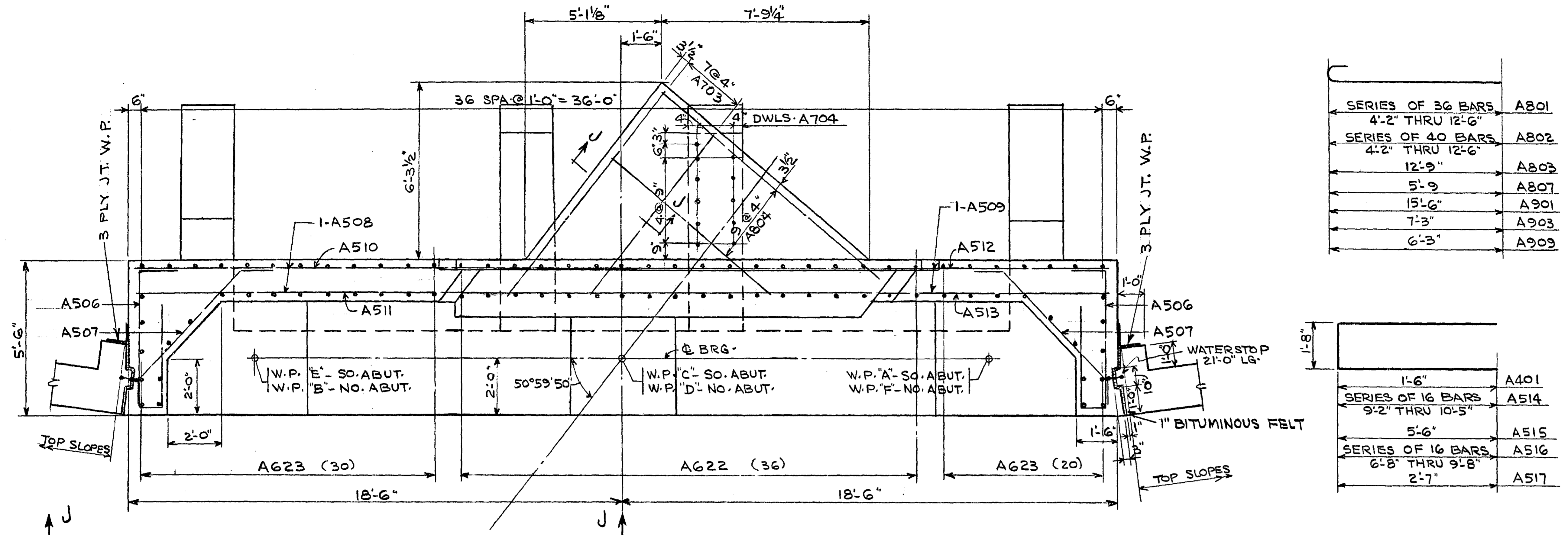
NOTE:
PILES MARKED THIS ARE TO BE BATTERED 4" PER FOOT IN THE DIRECTION SHOWN.

NOTE:
GRANULAR BACKFILL SHALL COMPLY WITH M.H.D. 3137, GRADATION CA-1, 2, 3, OR 4. GRAVEL BACKFILL SHALL COMPLY WITH M.H.D. 3138, CLASS G.

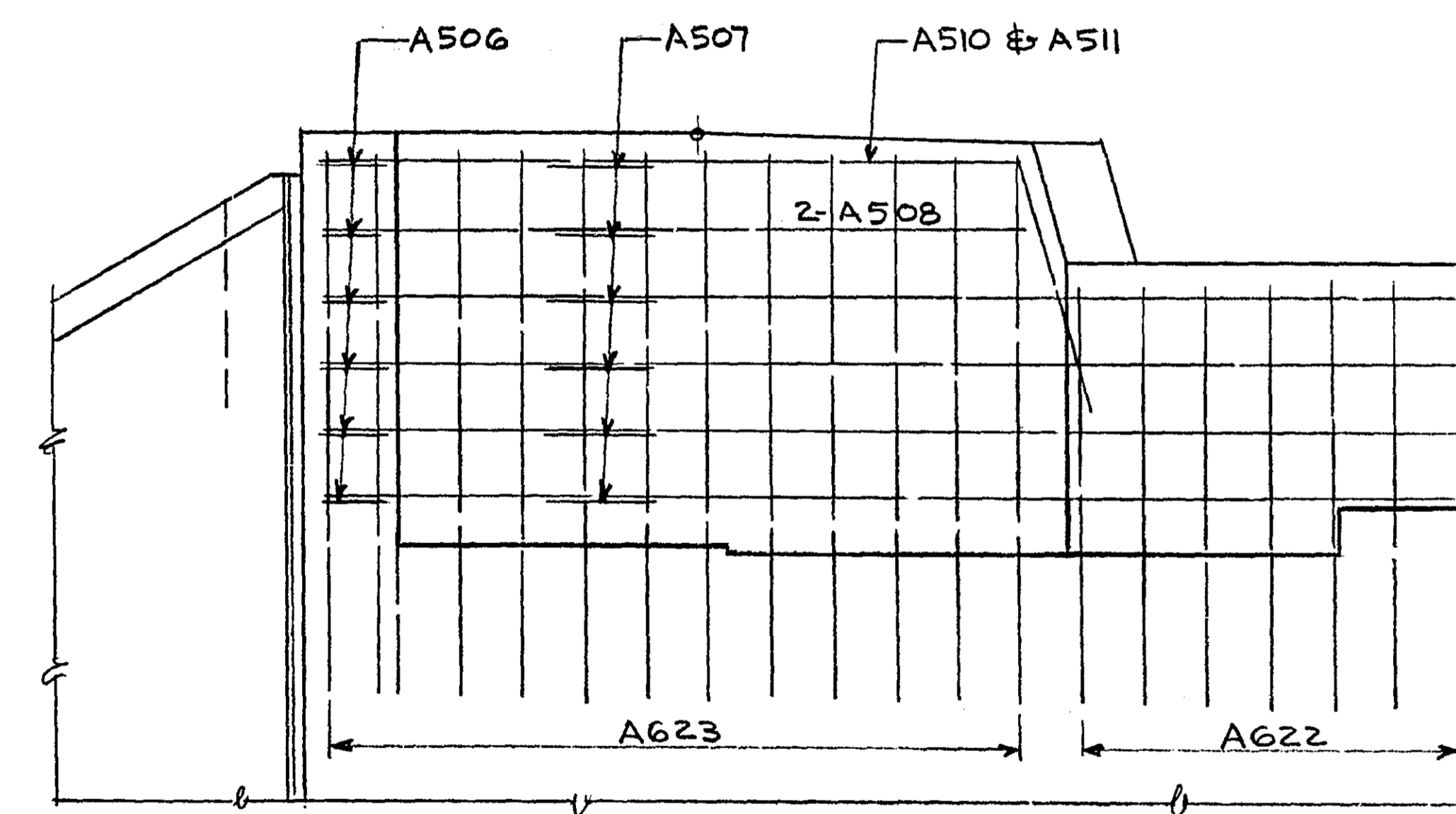
BRIDGE NO. 62520

ABUTMENT DETAILS

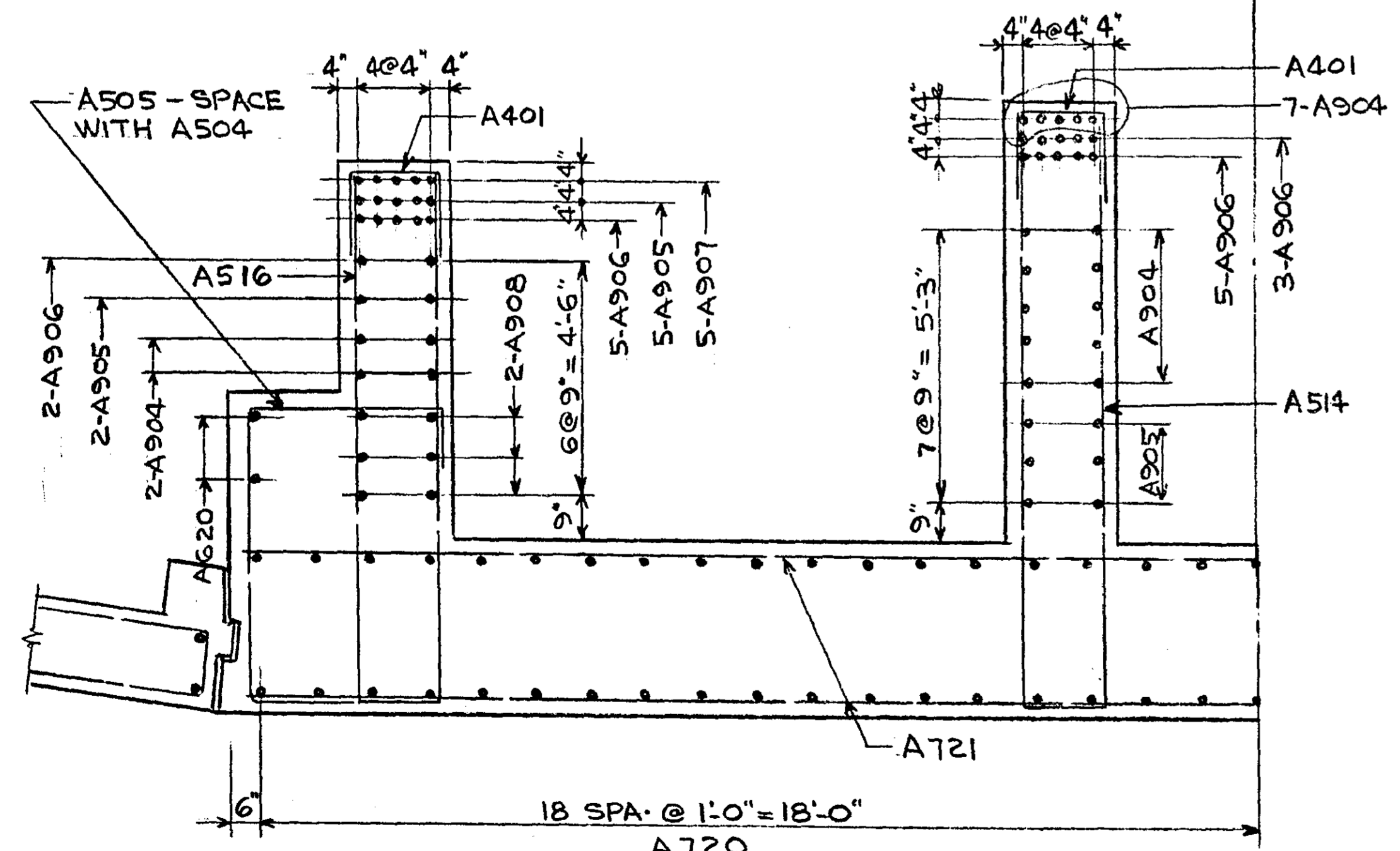
APPROVED: 5-22-70
MICROFILMED
RAMSEY CO. ENGR.



PLAN OF CENTER WALL SHOWING REINF. AT TOP



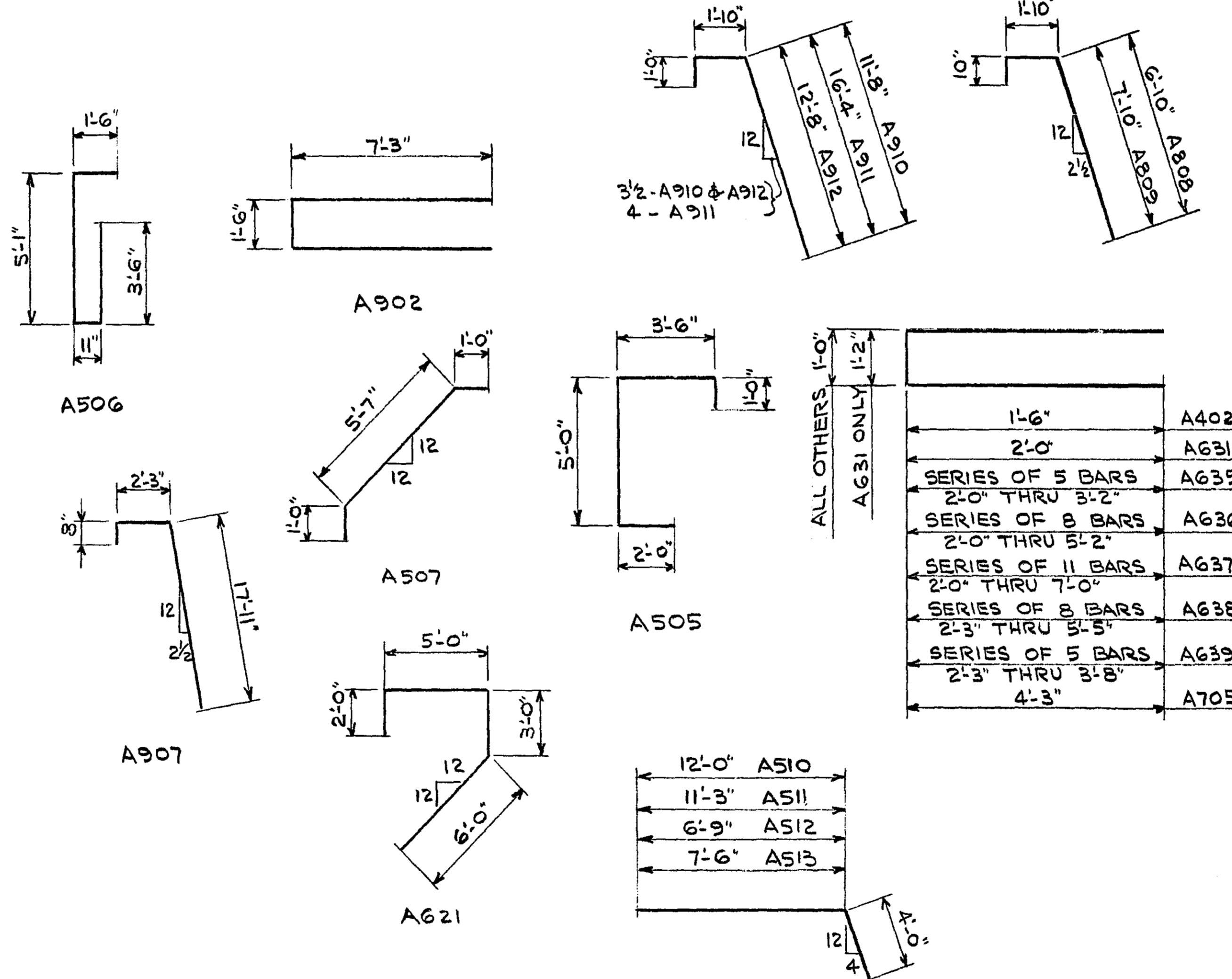
PART TOP ELEVATION J-J



SECTION H-H SHEET 5

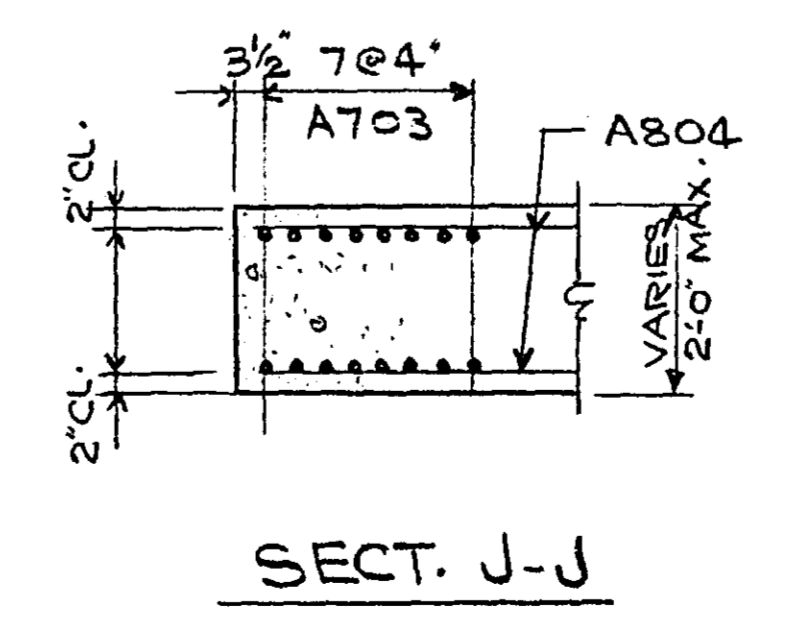
SERIES OF 36 BARS 4'-2" THRU 12'-6"	A801
SERIES OF 40 BARS 4'-2" THRU 12'-6"	A802
12'-9"	A803
5'-9"	A807
15'-6"	A901
7'-3"	A903
6'-3"	A909

1'-6"	A401
SERIES OF 16 BARS 9'-2" THRU 10'-5"	A514
5'-6"	A515
SERIES OF 16 BARS 6'-8" THRU 9'-8"	A516
2'-7"	A517



LIST OF PREFORMED BIT. JOINT FILLER	
4 PCS.	3'-0" x 1" x 13'-9" ABUTMENTS
8 PCS.	12" x 1" x 21'-0" ABUTMENTS
4 PCS.	10" x 1" x 21'-0" ABUTMENTS
8 PCS.	3" x 1/2" x 21'-0" ABUTMENTS

THE JOINT FILLER LIST IS FOR THE CONTRACTOR'S CONVENIENCE ONLY. ANY ADDITIONAL JOINT FILLER REQUIRED AS SHOWN ON THE PLANS SHALL BE FURNISHED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION. TRIM JOINT FILLER TO FACE OF CONCRETE.



SECT. J-J

BILL OF REINFORCEMENT FOR 2 ABUTMENTS											
BAR NO.	NO.	SIZE	LENGTH	SHAPE	LOCATION	BAR NO.	NO.	SIZE	LENGTH	SHAPE	LOCATION
A401	140	#4	4'-8"	U	TIES (C.F.)	A639	2	#6	5'-6"	U	C.F. HORIZ.
A402	96	#4	4'-0"	U	" "	A640	12	#6	6'-9"	STRT.	" VERT.
						A641	4	#4	4'-0"	"	" "
						A642	4	#4	11'-3"	"	" "
						A643	4	#4	8'-0"	"	" "
A503	4	#5	10'-3"	STRT.	" "	A644	4	#4	4'-6"	"	" "
A721	90	#7	36'-6"	"	WALL HORIZ. (CTR.)	A645	8	#5	15'-9"	"	" "
A505	68	#5	11'-6"	U	" END "	A646	12	#5	12'-3"	"	" "
A506	24	#5	11'-0"	U	" "	A647	8	#5	9'-6"	"	" "
A507	24	#5	7'-7"	U	" "	A648	4	#5	8'-6"	"	" "
A508	4	#5	11'-3"	STRT.	" "	A649	8	#5	5'-0"	"	" "
A509	4	#5	6'-9"	"	" "	A650	4	#6	7'-9"	"	" "
A510	2	#5	16'-0"	"	" "						
A511	2	#5	15'-3"	"	" "	A708	2	#7	36'-6"	STRT.	FTG. (W.W.)
A512	2	#5	10'-9"	"	" "	A701	110	#7	12'-6"	STRT.	FOOTING (CTR.)
A513	2	#5	11'-6"	"	" "	A702	78	#7	5'-6"	STRT.	FTG. DWLS. (CTR.)
A514	4	#5	16'-8"	U	C.F. (CTR.)	A703	2	#8	8'-6"	STRT.	SLAB
A515	8	#5	12'-8"	U	" "	A704	14	#5	3'-9"	STRT.	" DWLS.
A516	4	#5	15'-0"	U	" "	A705	40	#5	9'-6"	U	C.F. FTG. DWLS.
A517	4	#5	6'-10"	U	" "	A706	180	#5	4'-6"	STRT.	FTG. DWLS. (W.W.)
						A707	2	#7	40'-0"	STRT.	FTG. (W.W.)
						A801	2	#8	36'-6"	STRT.	FTG. (W.W.)
						A802	4	#8	13'-10"	U	" "
A732	24	#7	30'-3"	STRT.	FTG. LONGIT. (W.W.)	A803	4	#8	10'-0"	U	" "
A733	4	#7	5'-0"	"	" "	A804	2	#8	10'-0"	U	SLAB
A734	4	#7	9'-0"	"	" "	A805	8	#8	34'-6"	STRT.	W.W. TOP
A735	8	#7	12'-0"	"	" "	A806	8	#8	38'-0"	"	" "
A736	4	#7	16'-0"	"	" "	A807	24	#8	6'-10"	U	C.F. FTG. DWLS.
A737	4	#7	20'-0"	"	" "	A808	8	#8	9'-6"	U	COUNTERFORT
A738	8	#7	23'-0"	"	" "	A809	8	#8	10'-6"	U	" "
A739	8	#7	26'-6"	"	" "	A810	4	#8	6'-6"	STRT.	" "
A740	2	#7	31'-0"	"	" "	A811	4	#8	7'-6"	"	" "
A741	22	#7	34'-6"	"	" "	A812	94	#8	36'-6"	"	FOOTING (CTR.)
A742	4	#7	3'-6"	"	" "						
A743	4	#7	7'-6"	"	" "	A901	110	#9	16'-9"	U	FOOTING (CTR.)
A744	4	#7	11'-0"	"	" "	A902	60	#9	16'-0"	U	FTG. DWLS. (CTR. C.F.)
A745	4	#7	15'-0"	"	" "	A903	120	#9	8'-6"	U	" "
A746	4	#7	18'-6"	"	" "	A904	84	#9	17'-10"	STRT.	C.F. VERT. (CTR.)
A747	4	#7	22'-6"	"	" "	A905	52	#9	16'-0"	"	" "
A748	4	#7	30'-0"	"	" "	A906	60	#9	11'-0"	"	" "
A749	4	#7	34'-0"	"	" "	A907	20	#9	20'-10"	U	" "
A720	78	#7	16'-4"	"	WALL VERT. (CTR.)	A908	24	#9	16'-3"	STRT.	" "
A621	76	#6	16'-0"	U	BR. SEAT	A909	56	#6	7'-6"	U	C.F. FTG. DWLS.
A622	72	#6	6'-0"	STRT.	WALL TOP (CTR.)	A910	8	#6	14'-6"	U	C.F.
A623	100	#6	8'-0"	"	" "	A911	16	#6	19'-2"	U	" "
A724	4	#7	4'-0"	STRT.	W.W. HORIZ.	A912	8	#6	15'-6"	U	" "
A725	4	#7	27'-9"	STRT.	" "	A913	8	#6	10'-0"	STRT.	" "
A726	4	#7	29'-6"	"	" "	A914	8	#6	13'-0"	"	" "
A727	20	#7	30'-4"	"	" "						
A728	4	#7	9'-9"	STRT.	" "						
A729	4	#7	32'-6"	STRT.	" "						
A730	24	#7	34'-3"	"	" "						
A731	64	#7	5'-0"	U	TIES (W.W.)						
A632	4	#6	21'-0"	STRT.	W.W. VERT.						
A633	4	#6	23'-0"	STRT.	" "						
A634	4	#6	21'-8"	STRT.	" "						
A635	2	#6	5'-0"	STRT.	C.F. HORIZ.						
A636	2	#6	9'-0"	STRT.	" "						
A637	4	#6	11'-0"	STRT.	" "						
A638	2	#6	16'-0"	STRT.	" "						

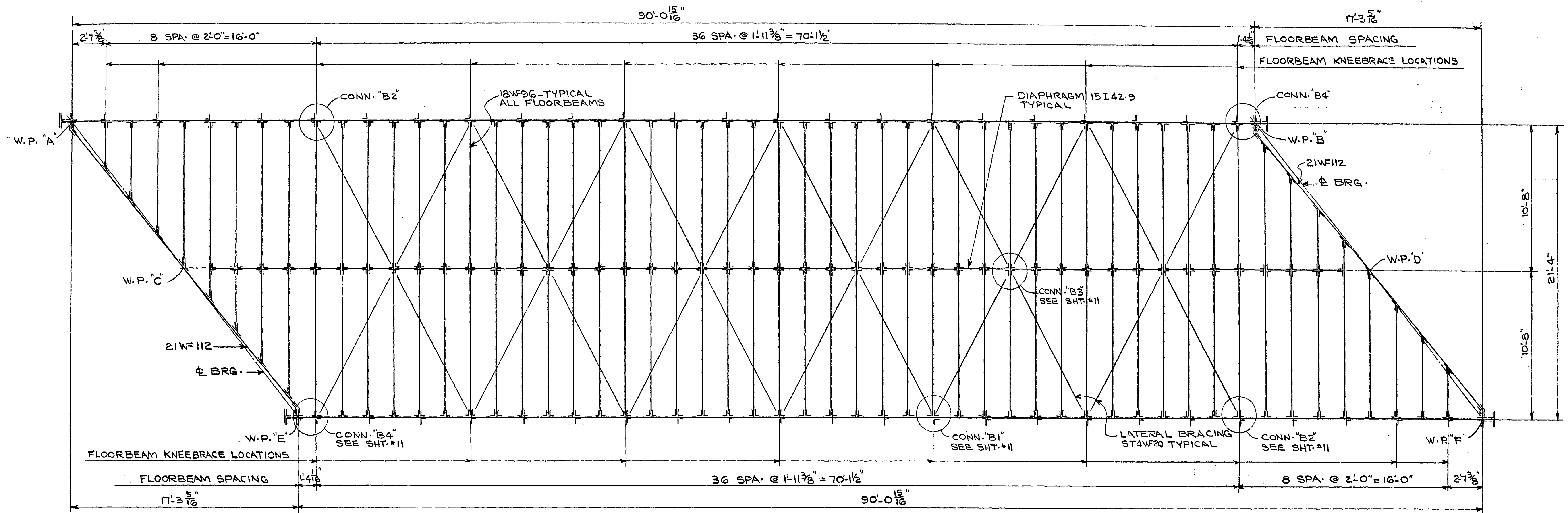
NOTE:
ALL BAR DIMENSIONS ARE OUT TO OUT.
BARS ARE DETAILED IN ACCORDANCE WITH
A.C.I. 315 LATEST EDITION UNLESS OTHERWISE
NOTED.
2" MIN. CLEAR COVER FOR REINF. BARS.
EXCEPT AS NOTED ON SHEET NO. 5.

BRIDGE NO. 62520

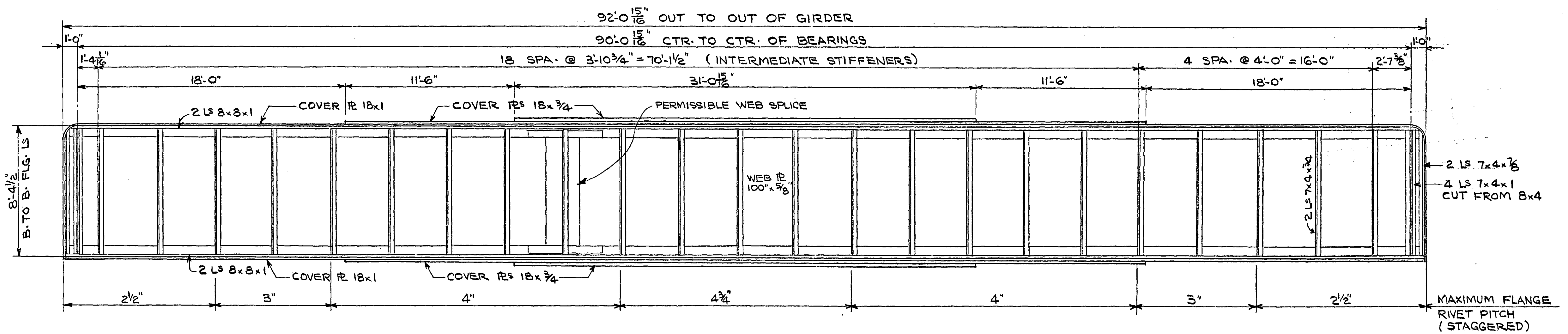
ABUTMENT DETAILS

MICROFILMED
RAMSEY CO. ENGR.

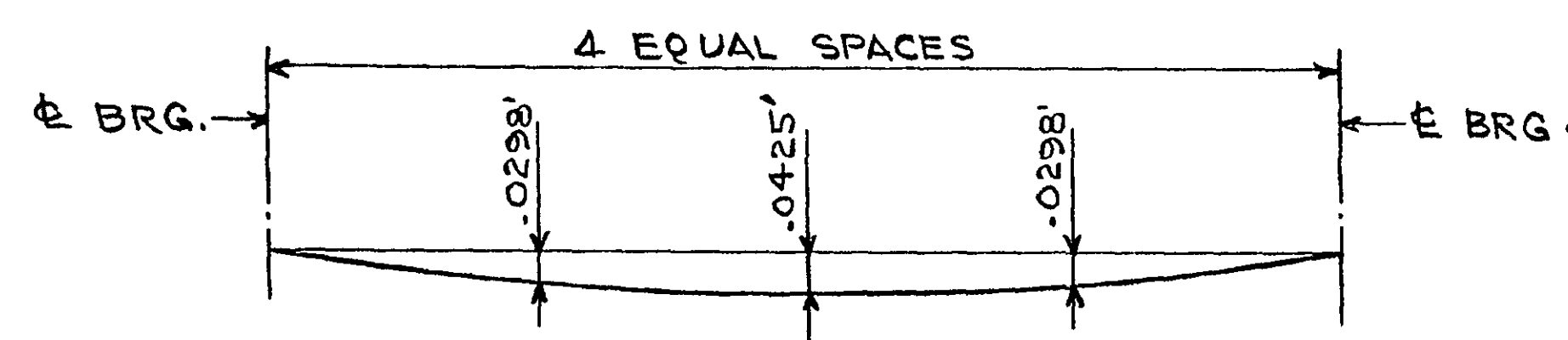
APPROVED: 5-22-70



FRAMING PLAN



GIRDER ELEVATION



DEAD LOAD DEFLECTIONS

NOTE:

GIRDERS TO BE CAMBERED FOR FULL DEAD LOAD DEFLECTIONS SHOWN.

BRIDGE NO. 62520

FRAMING PLAN &
GIRDER ELEVATION

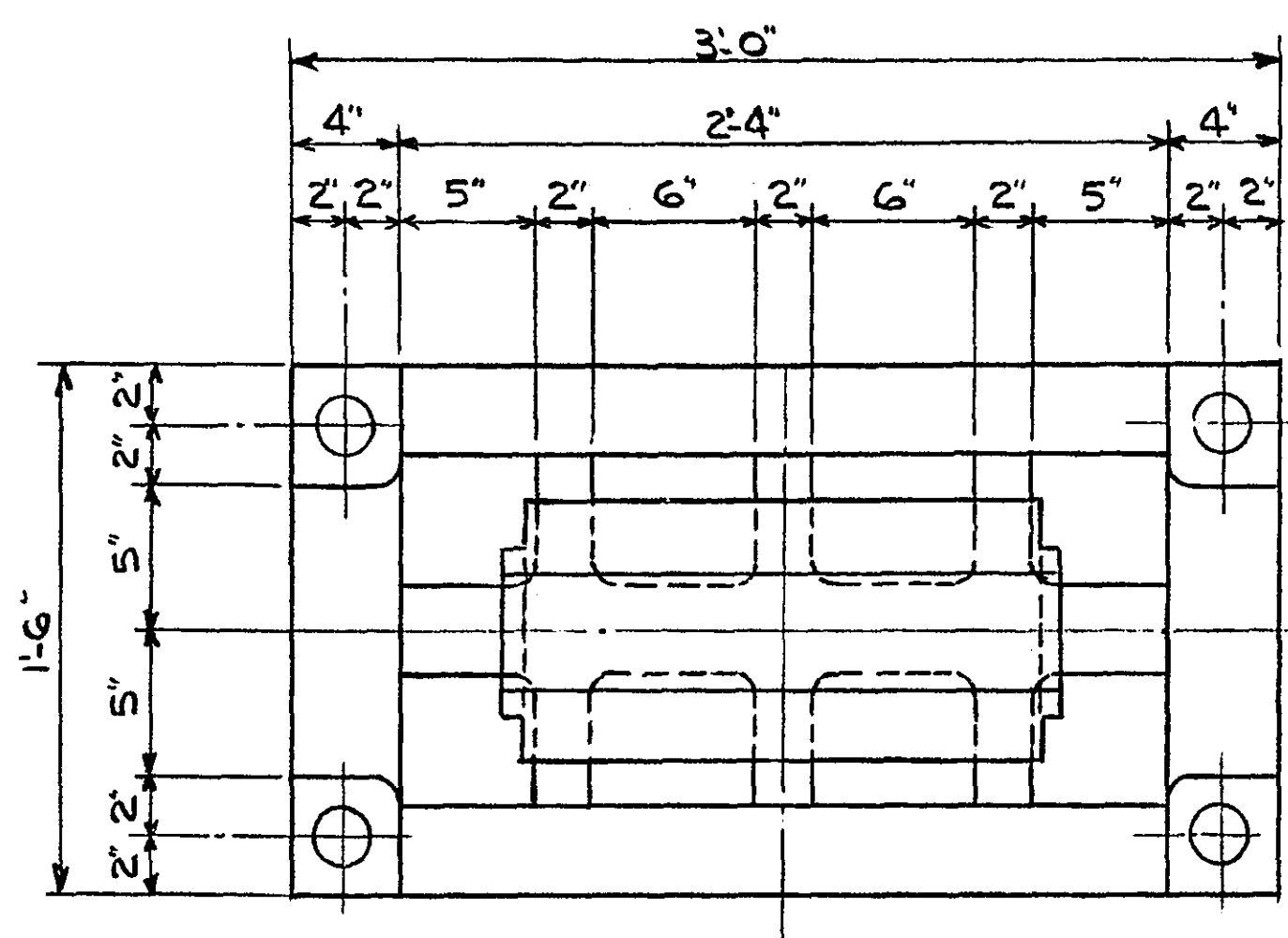
APPROVED: 5-22-70

MICROFILMED
RAMSEY CO. ENGR.

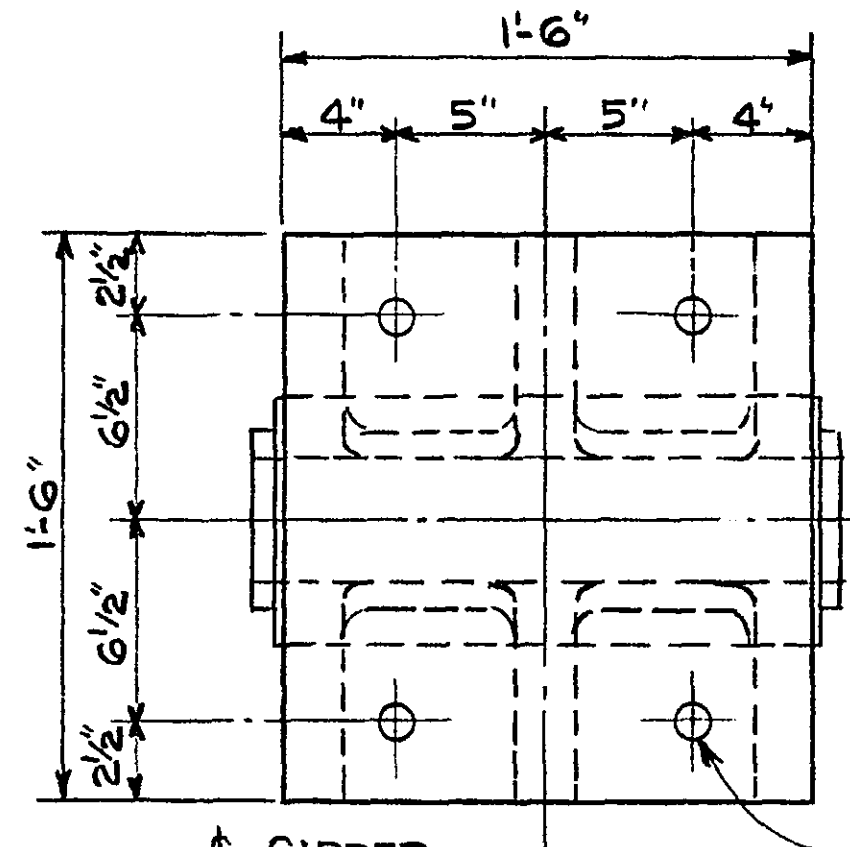
S.A.P. NO. 62-623-07

Sheet No. 8 of 28 Sheets

6886

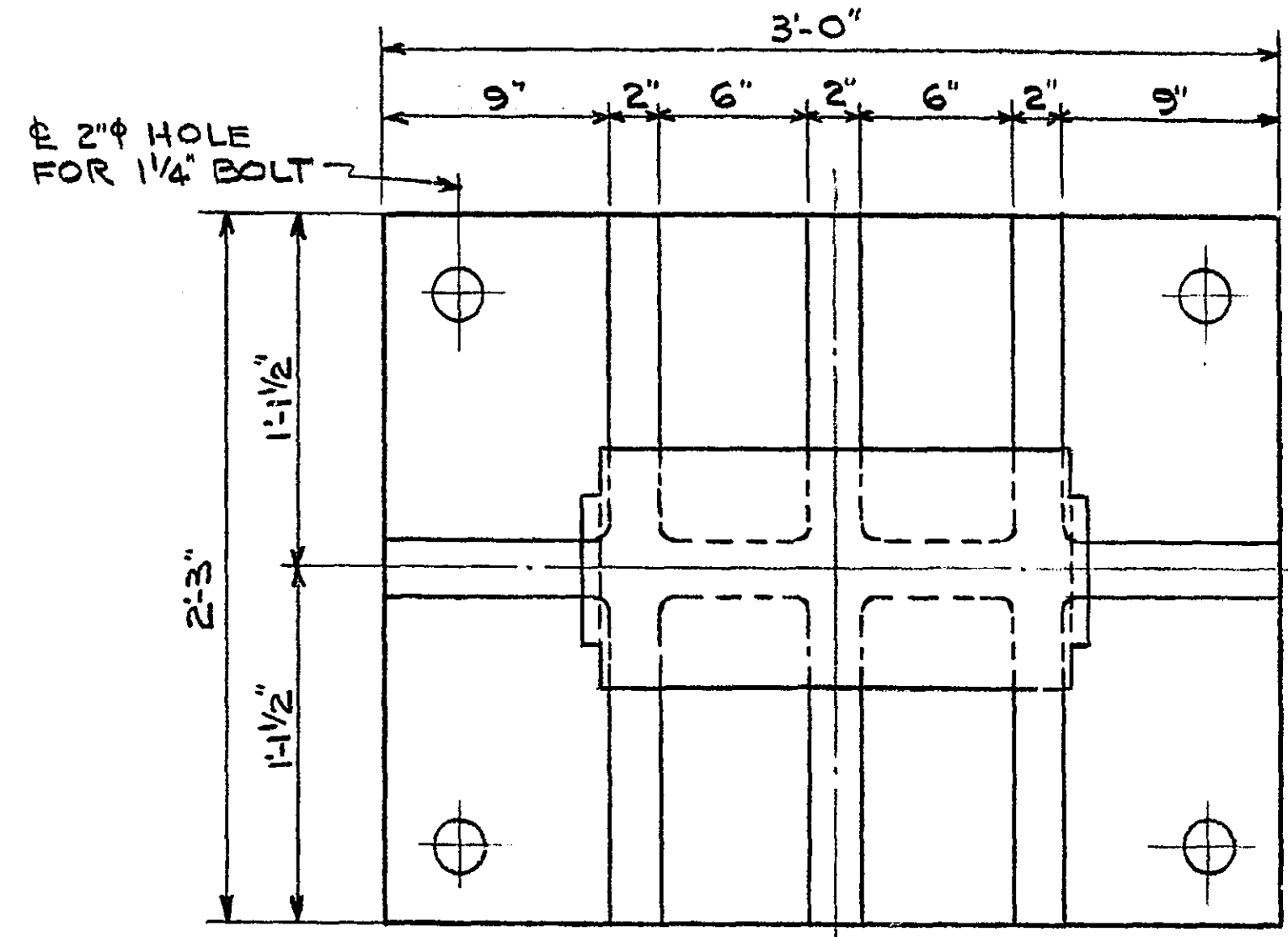


LOWER CASTING



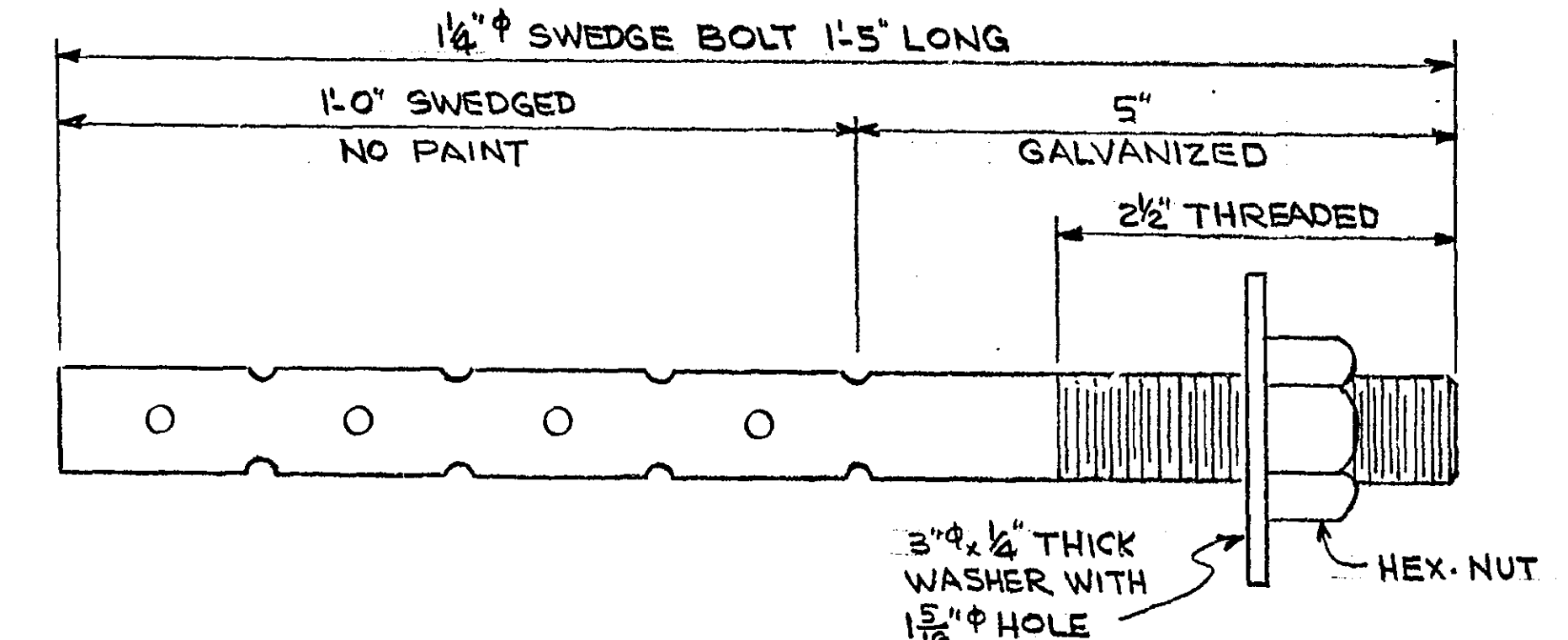
UPPER CASTING

1/2" HOLES DRILLED FOR 1/4" TURNED BOLTS WITH NUT & LOCK NUT. LOCK NUT SHALL BE MAC LEANFOGG LOCK NUT NO. 1 OR AN APPROVED EQUAL.

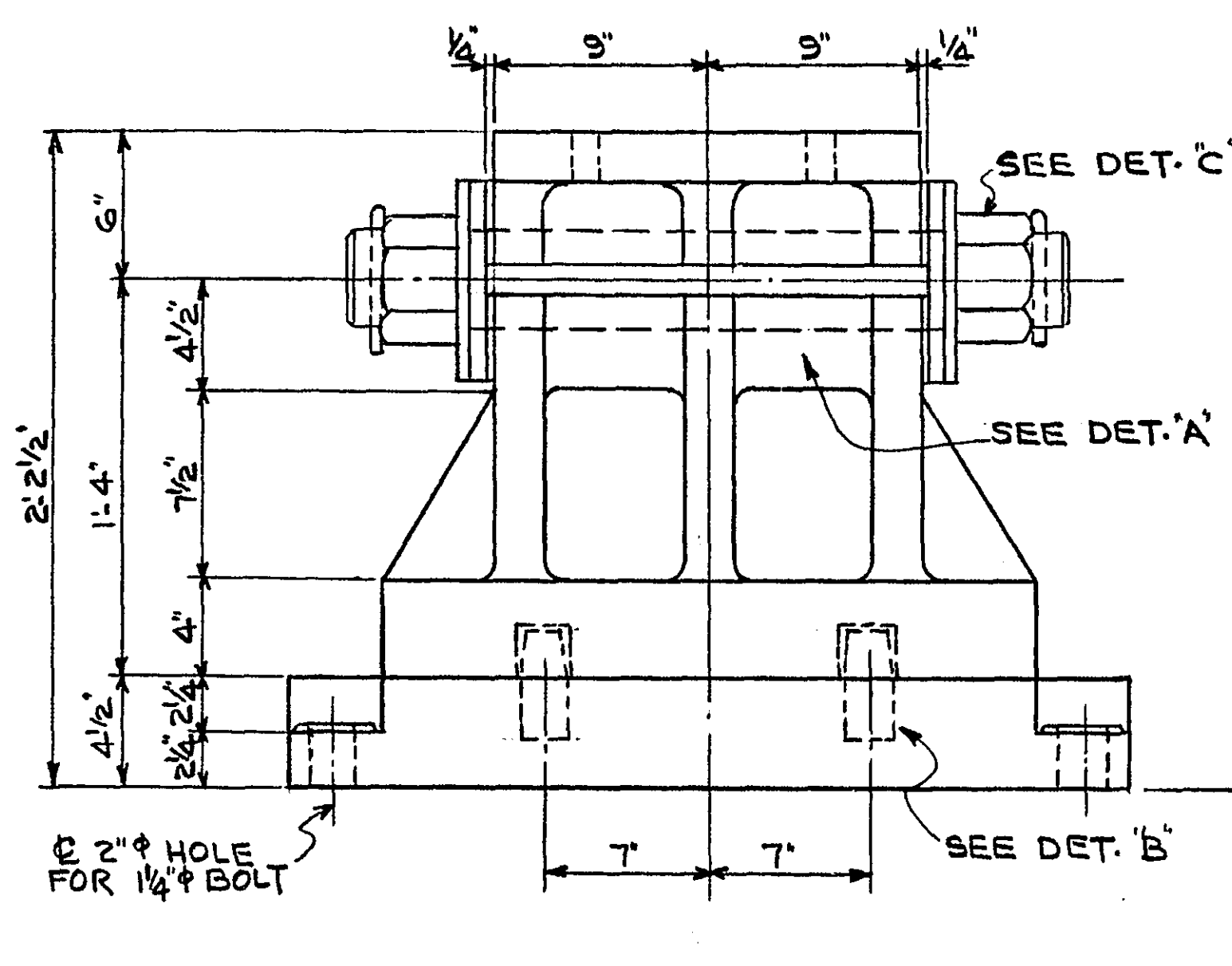


LOWER CASTING

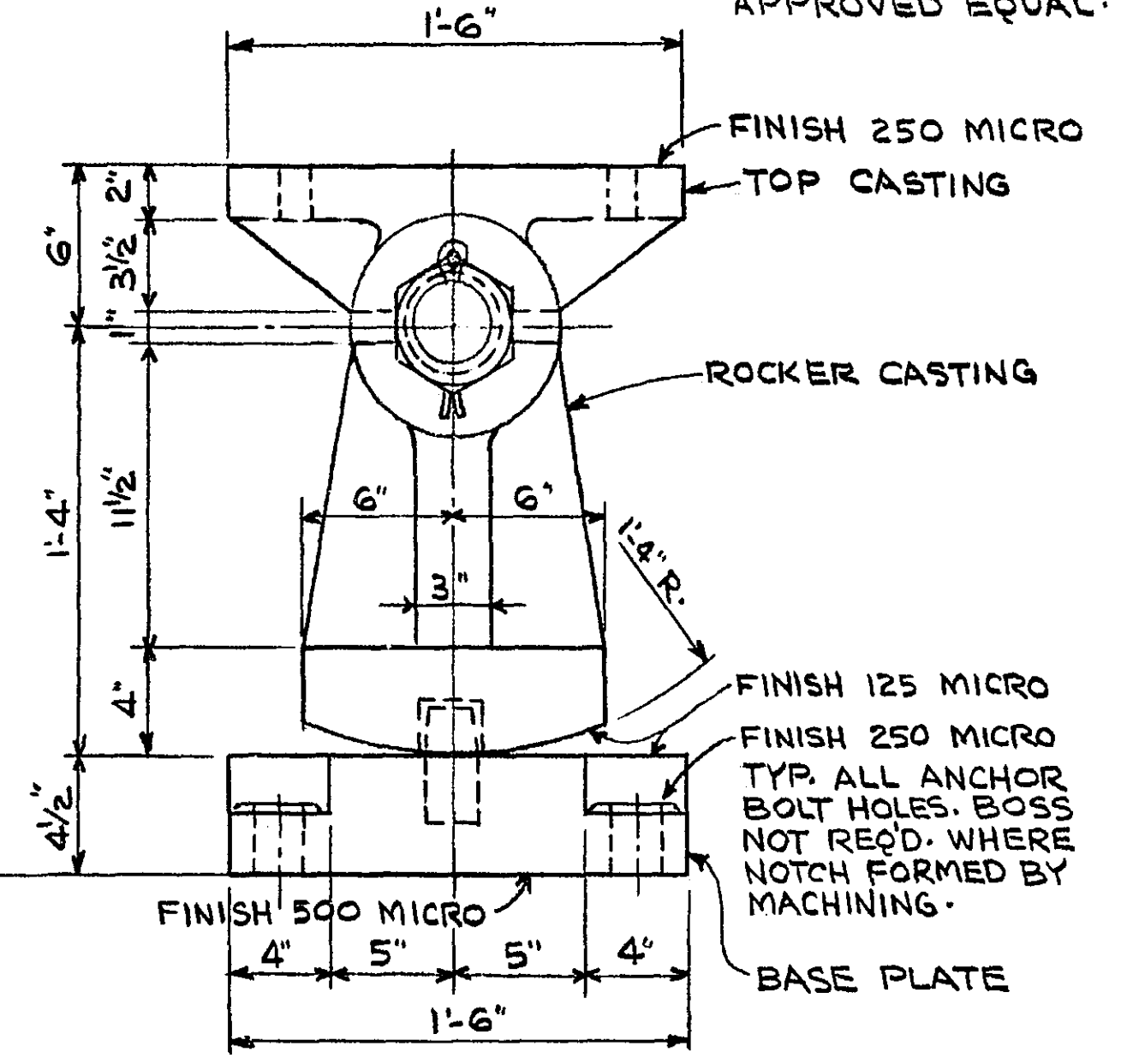
NOTE:
USE SAME TOP CASTING FOR THE FIXED BEARING ASSEMBLY TYPE 1 AS USED FOR THE EXPANSION BEARING ASSEMBLY TYPE 2.



ANCHOR BOLT DETAIL
NO SCALE

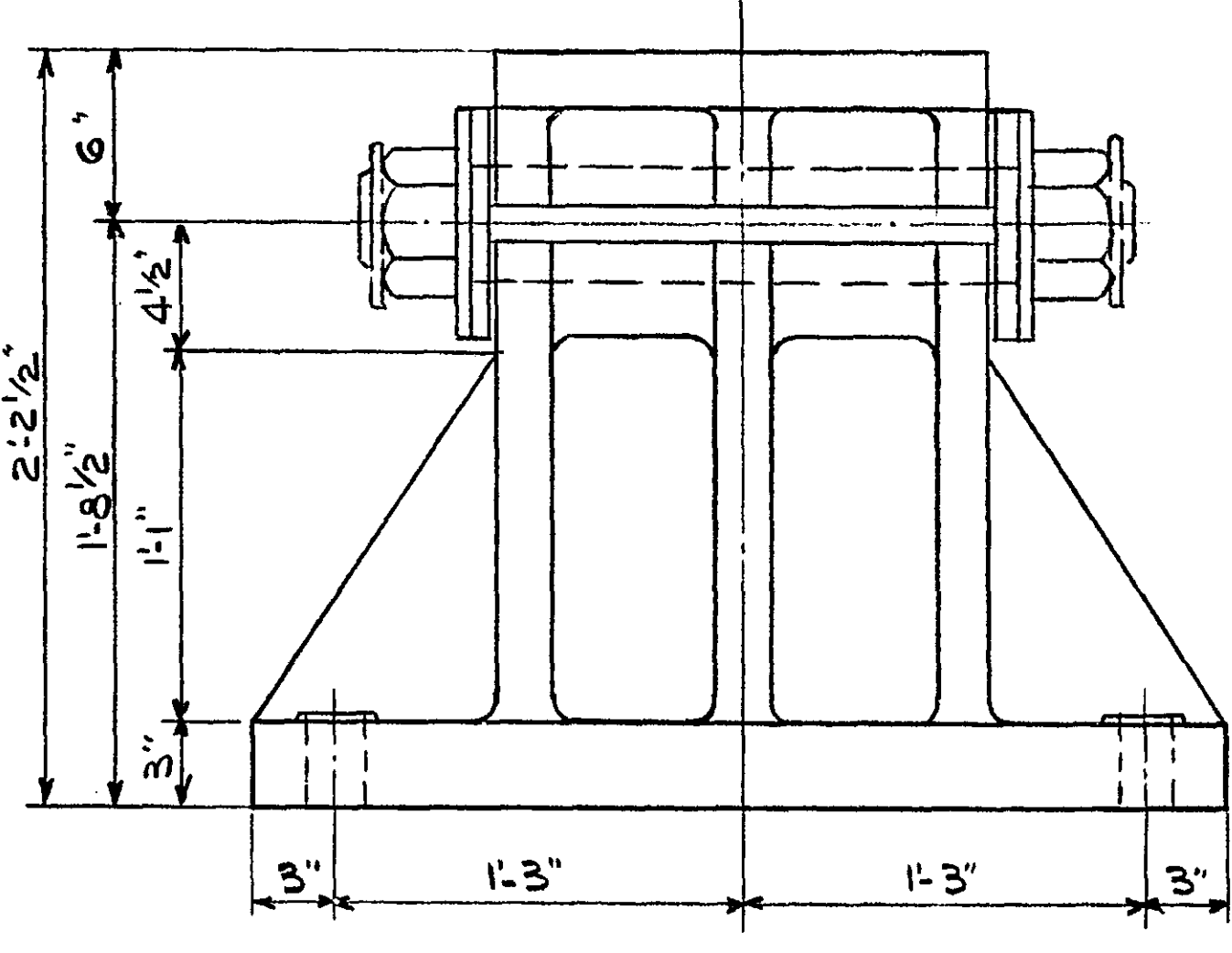


FRONT ELEVATION

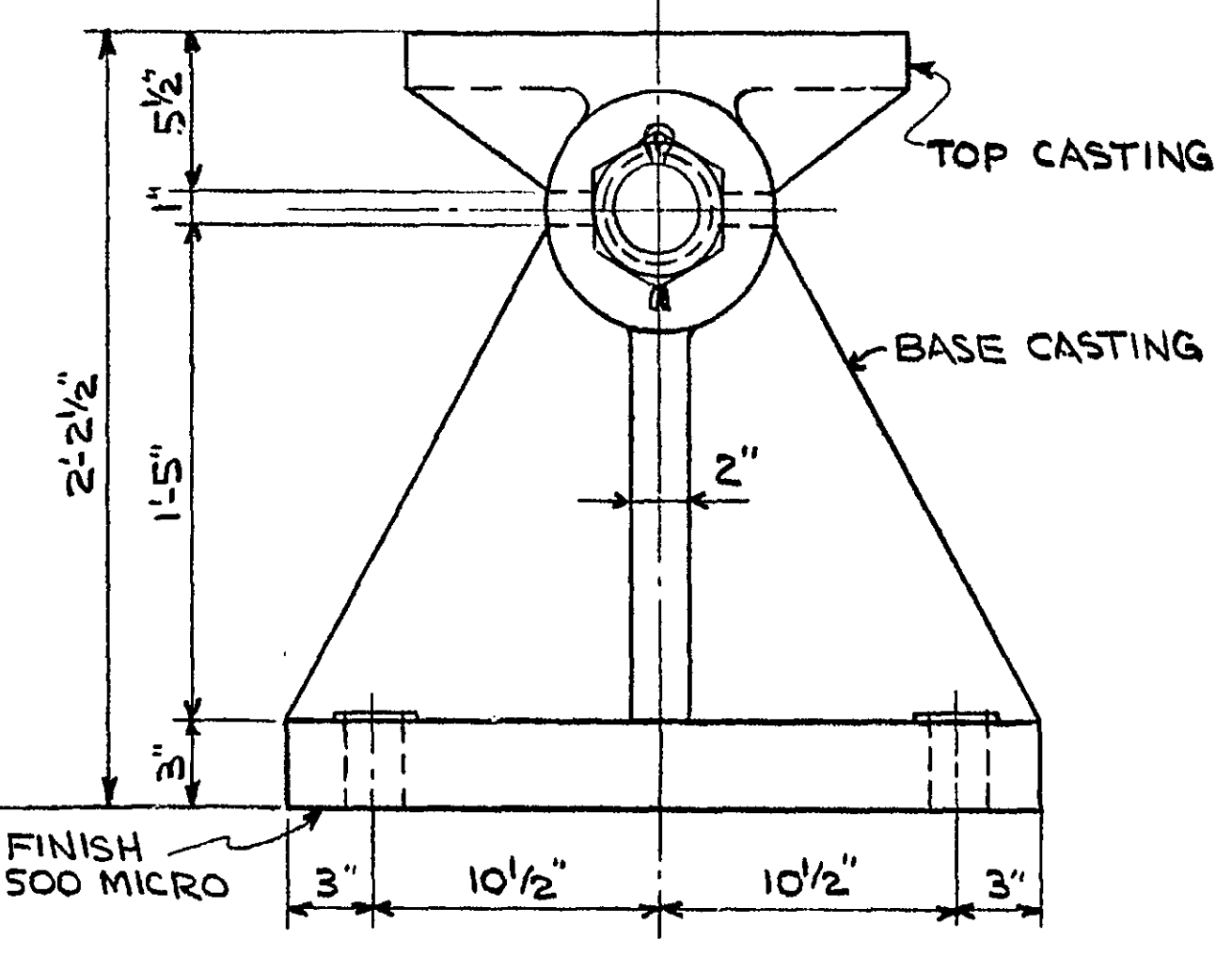


SIDE ELEVATION

EXPANSION BEARING ASSEMBLY TYPE 2
SCALE 1/2" = 1'-0"

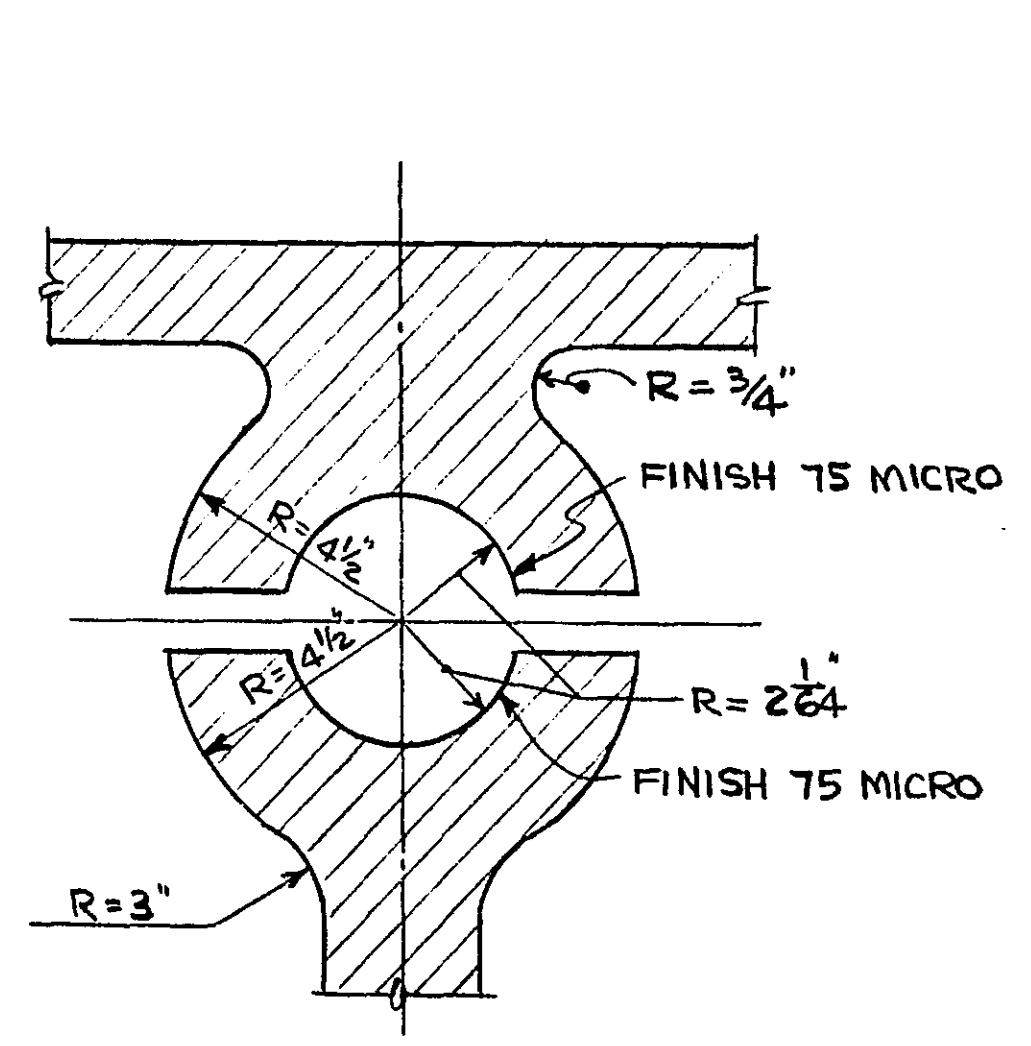


FRONT ELEVATION

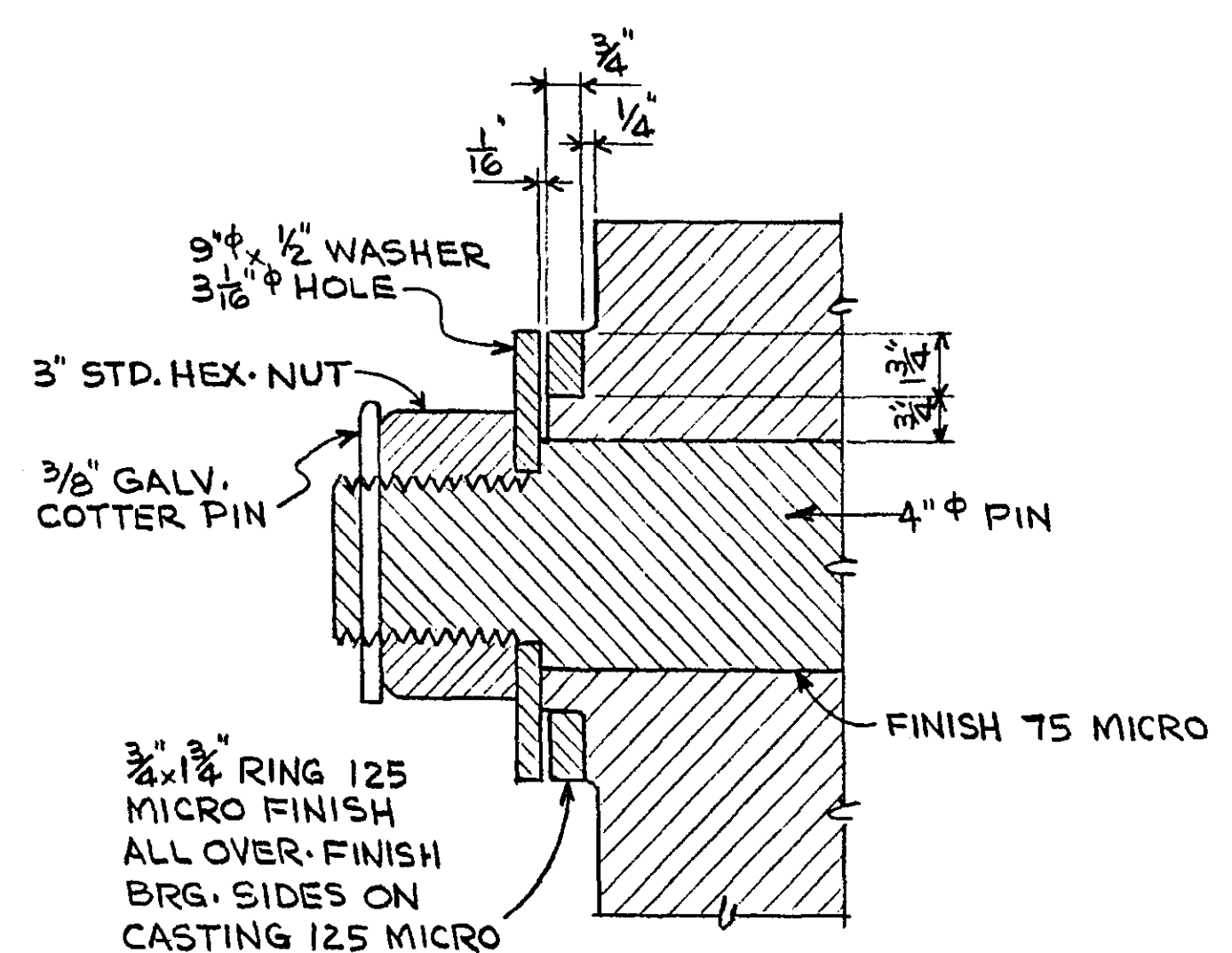


SIDE ELEVATION

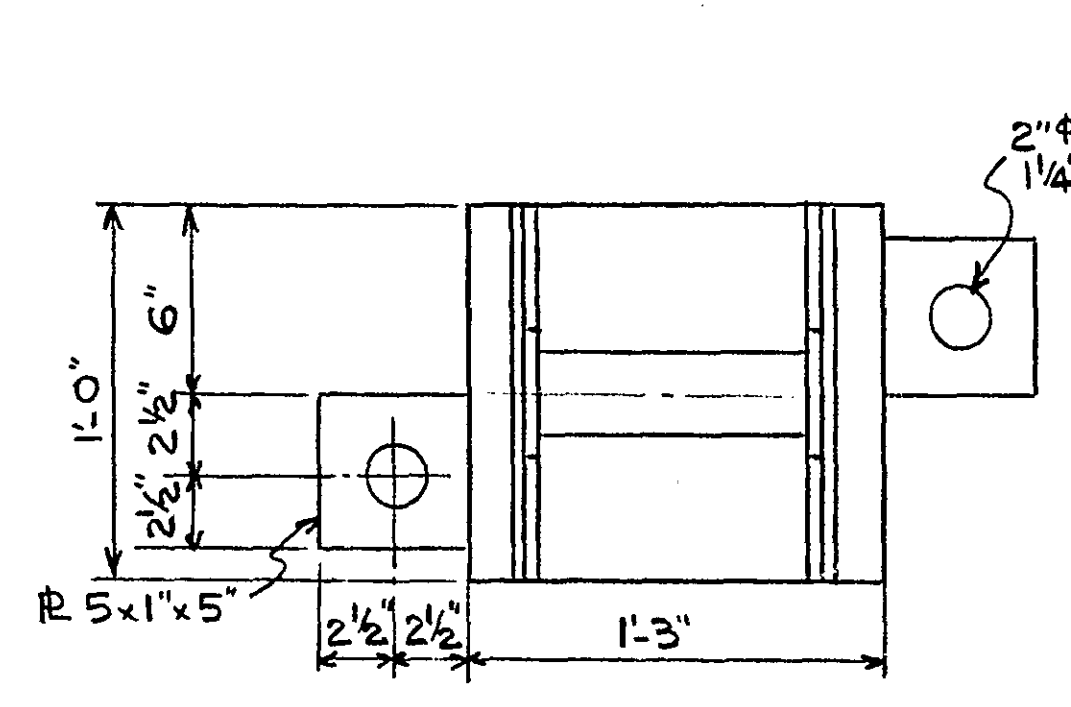
FIXED BEARING ASSEMBLY TYPE 1
SCALE 1/2" = 1'-0"



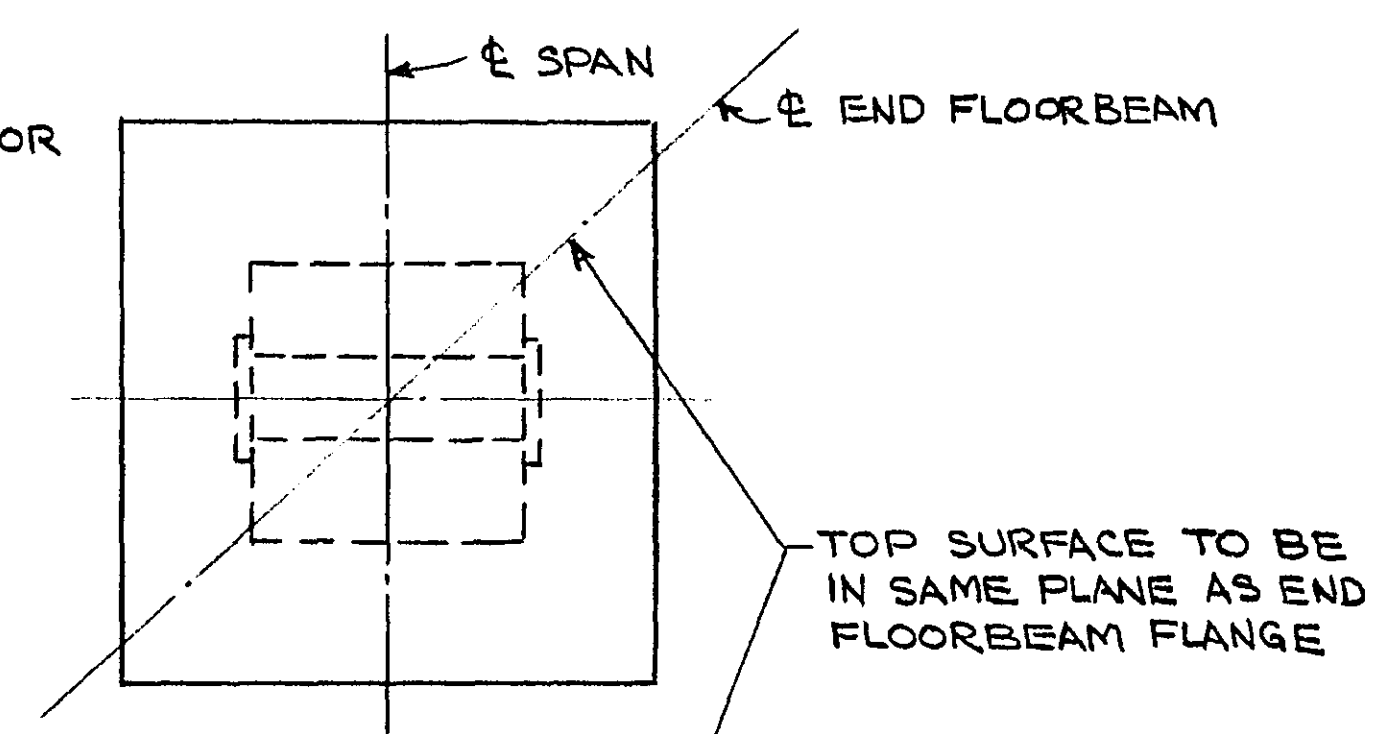
DETAIL "A"
NO SCALE



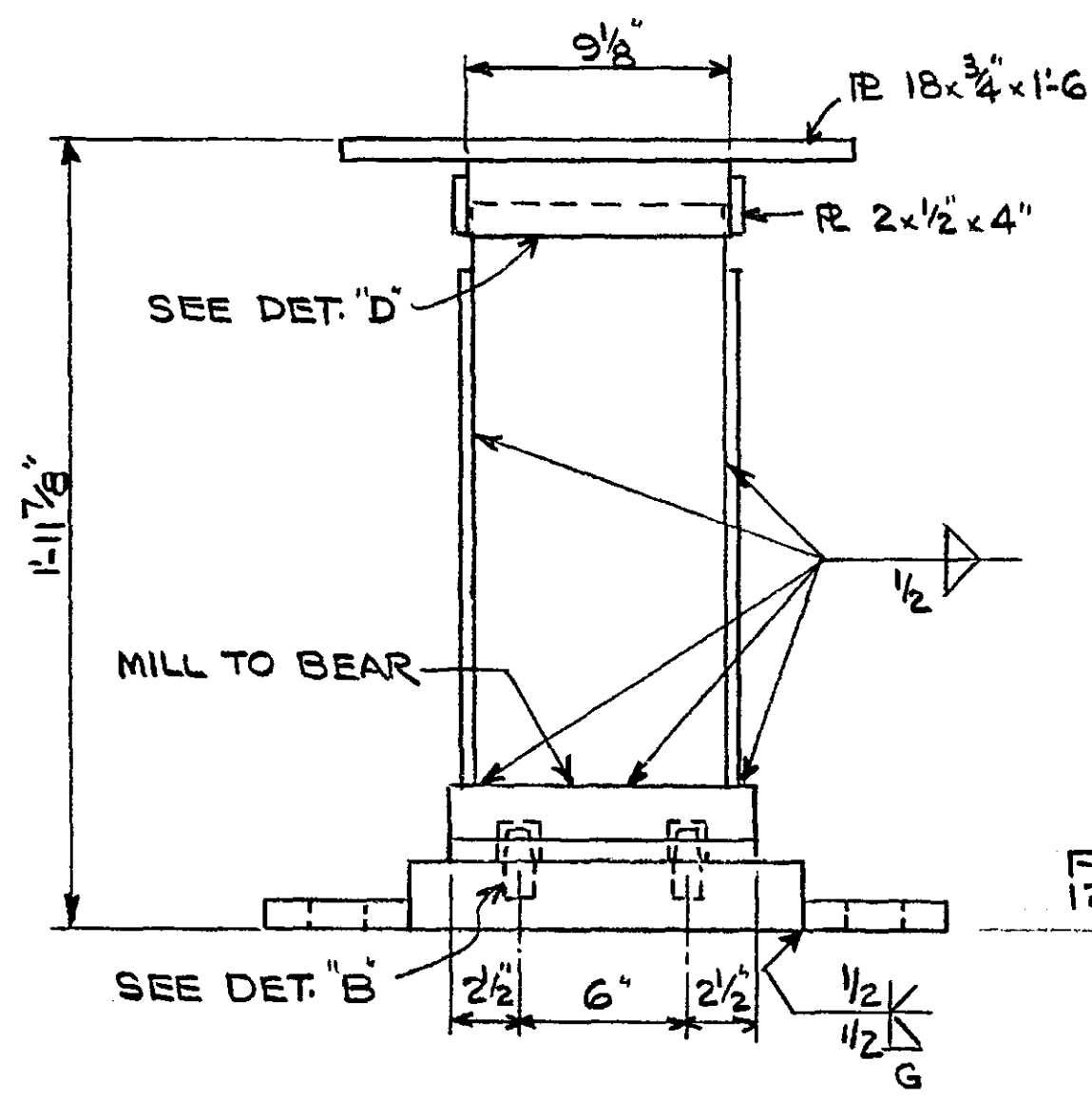
DETAIL "C"
NO SCALE



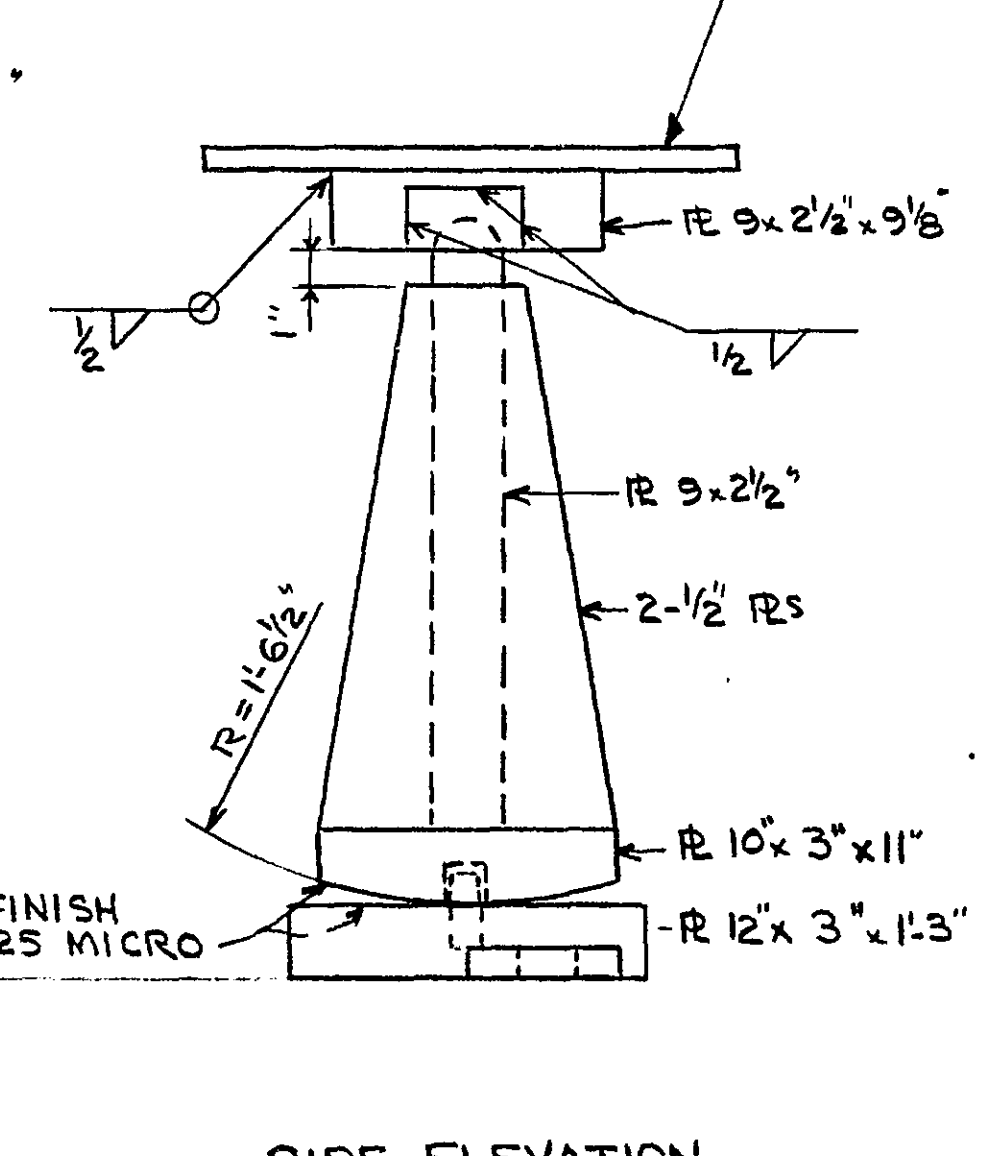
LOWER WELDMENT



UPPER WELDMENT

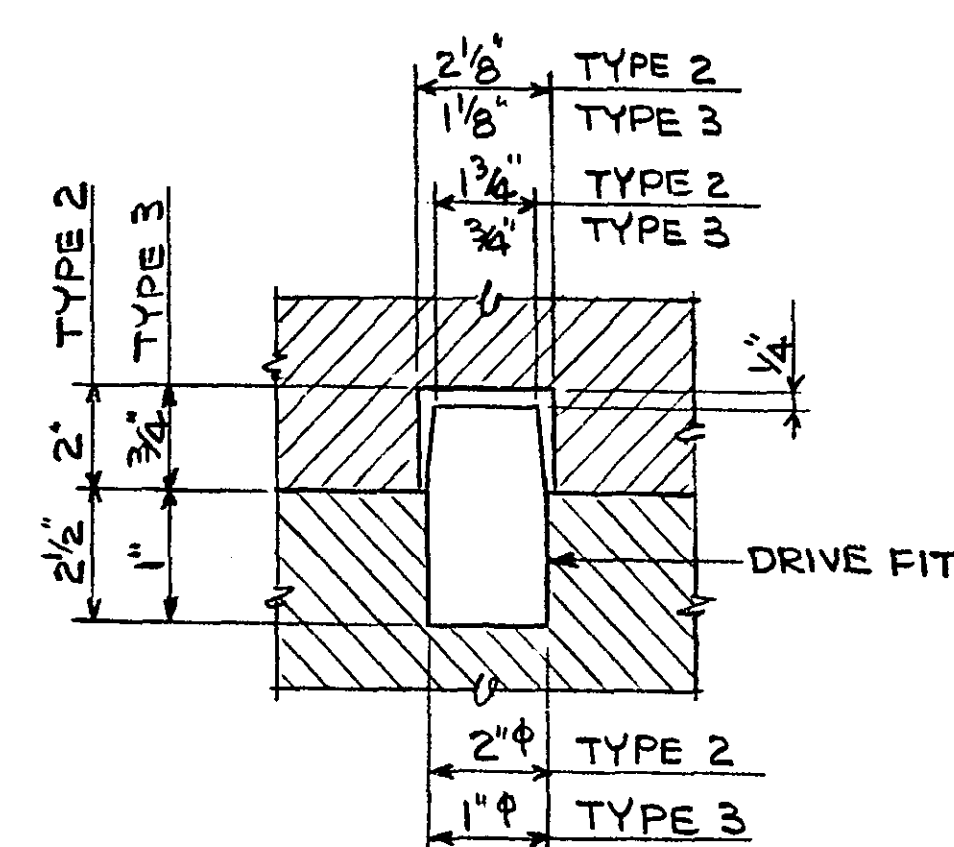


FRONT ELEVATION

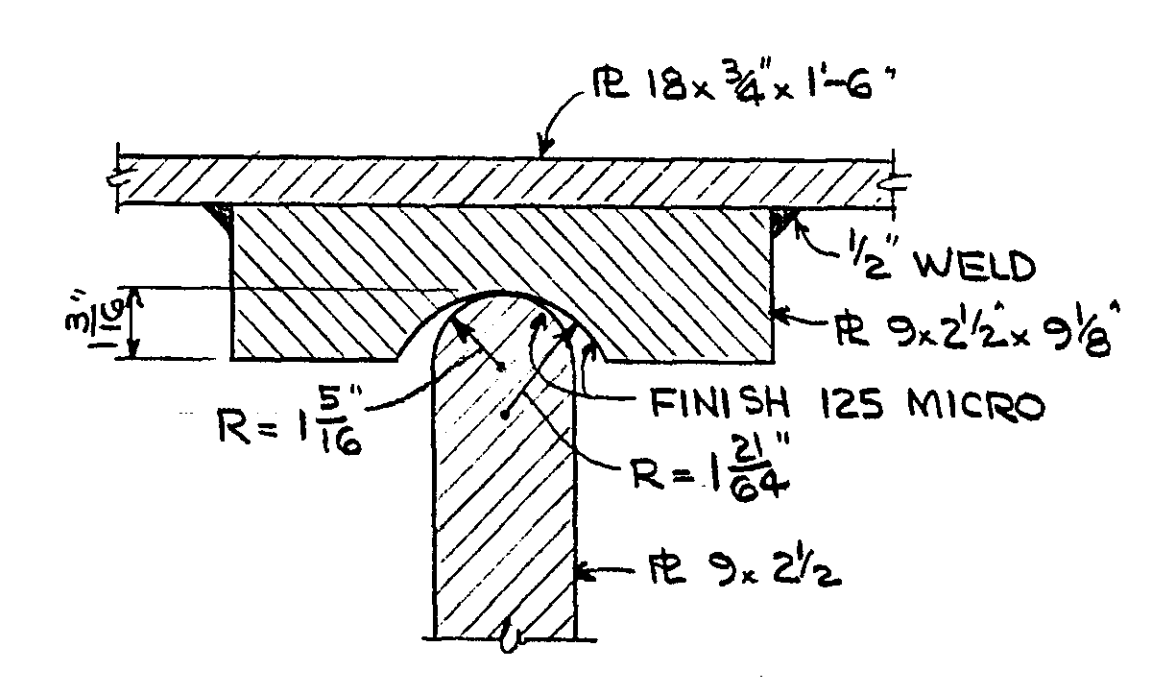


SIDE ELEVATION

EXPANSION BEARING ASSEMBLY TYPE 3
SCALE 1/2" = 1'-0"



DETAIL "B"
NO SCALE



DETAIL "D"
NO SCALE

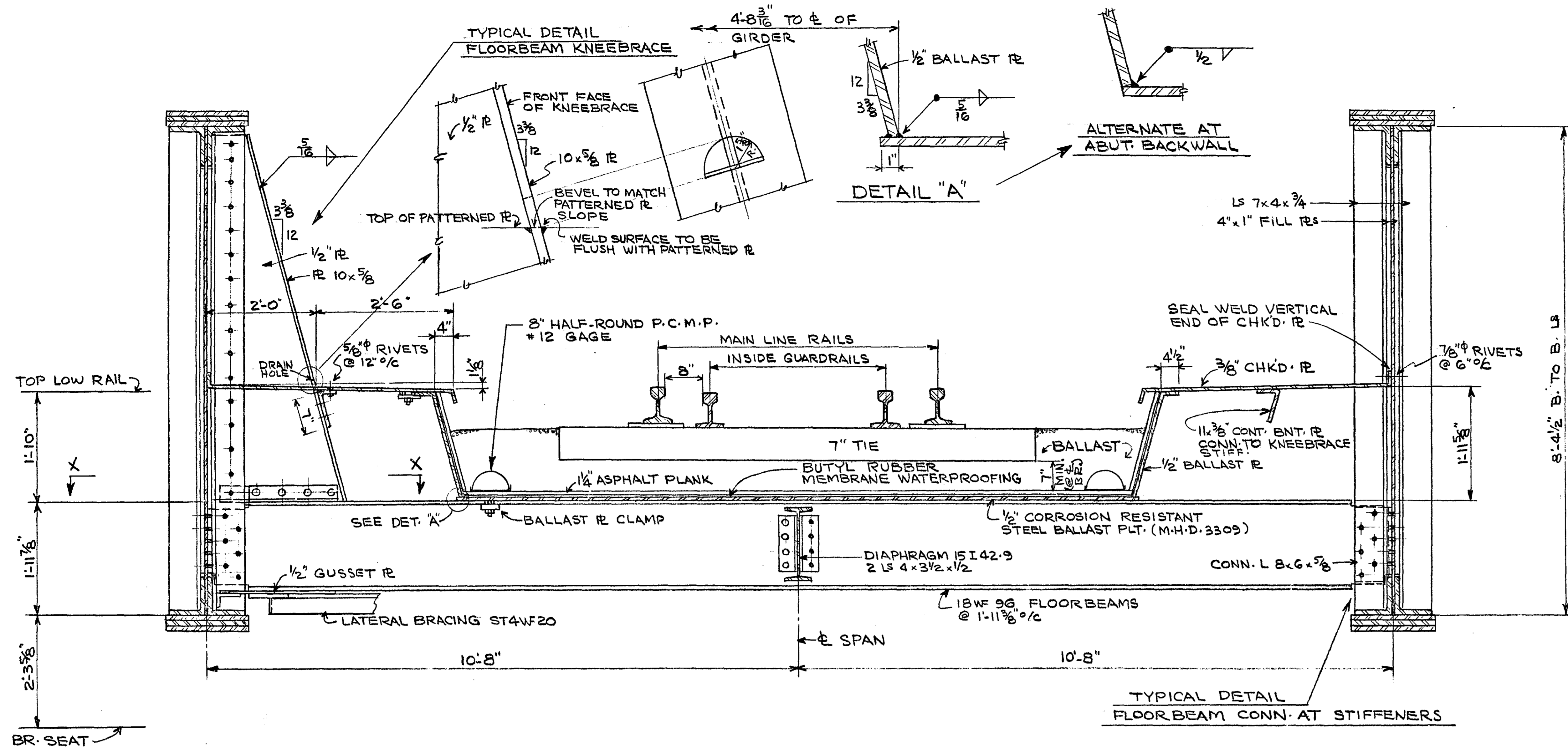
NOTES:
ROCKER CASTING FOR EXPANSION BEARING ASSEMBLY TYPE 2 SHALL BE ALLOY STEEL CASTING M.H.D. 3323 GRADE 90-60.
BASE PLATE FOR EXPANSION BEARING ASSEMBLY TYPE 2 SHALL BE ALLOY STEEL CASTING M.H.D. 3323 GRADE 90-60 OR ALLOY STEEL FORGING M.H.D. 3315 TYPE II.
TOP CASTINGS FOR EXPANSION BEARING ASSEMBLY TYPE 2 AND FIXED BEARING ASSEMBLY TYPE 1 SHALL BE CARBON STEEL CASTING M.H.D. 3322 GRADE 70-36.
BASE CASTING FOR FIXED BEARING ASSEMBLY TYPE 1 SHALL BE CARBON STEEL CASTING M.H.D. 3322 GRADE 70-36.
PLATES FOR EXPANSION BEARING ASSEMBLY TYPE 3 SHALL BE CORROSION-RESISTANT HIGH STRENGTH STEEL M.H.D. 3309.
PINS SHALL BE COLD FINISHED ALLOY BAR STEEL M.H.D. 3314 TYPE II.
PINTLES SHALL BE COLD FINISHED ALLOY BAR STEEL M.H.D. 3314 TYPE II.
ALL OTHER STEEL ITEMS SHALL BE STRUCTURAL STEEL M.H.D. 3306.
ALL FILLETS FOR CASTINGS SHALL BE 3/4" UNLESS OTHERWISE NOTED.
EXPANSION BEARING ASSEMBLY TYPE 3 SHALL BE ANNEALED AFTER WELDING IS COMPLETED AND BEFORE ANY MACHINE FINISHING OF THE COMPLETE ASSEMBLY IS UNDERTAKEN. ALL WELDS TO BE CHECKED BY "MAGNETIC PARTICLE" BEFORE AND AFTER ANNEALING. ALL PLATES TO BE FLAT AFTER WELDING.
PROVIDE 8 POUNDS PER SQ. FT. SHEET LEAD UNDER ALL BEARING ASSEMBLIES.
SPACES AROUND ANCHOR BOLTS, IN BASE CASTINGS AND BASE PLATE OF ALL BEARING ASSEMBLIES, SHALL BE FILLED WITH LEAD POURED IN PLACE BEFORE SETTING NUTS.
PAINT BEARING ASSEMBLIES SAME AS STRUCTURAL STEEL EXCEPT PIN HOLES AND PINS. PAINT PIN HOLES AND PINS ONLY WITH WHITE LEAD AND TALLOW IN SHOP. CLEAN OFF WHITE LEAD AND TALLOW IN FIELD AND PAINT WITH RED LEAD WHEN PLACING.
THE PRICE BID FOR BEARING ASSEMBLY SHALL INCLUDE ALL MATERIALS (ANCHOR BOLTS, SHEET LEAD, POURED LEAD, BEARING, AND BOLTS FOR ATTACHING BEARING TO GIRDER) FOR EACH TYPE AS SHOWN.

BRIDGE NO. 62520
BEARING ASSEMBLY
DETAILS
APPROVED: 5-22-70
DES. V.M.
D.G. V.M.
C.C. L.P.

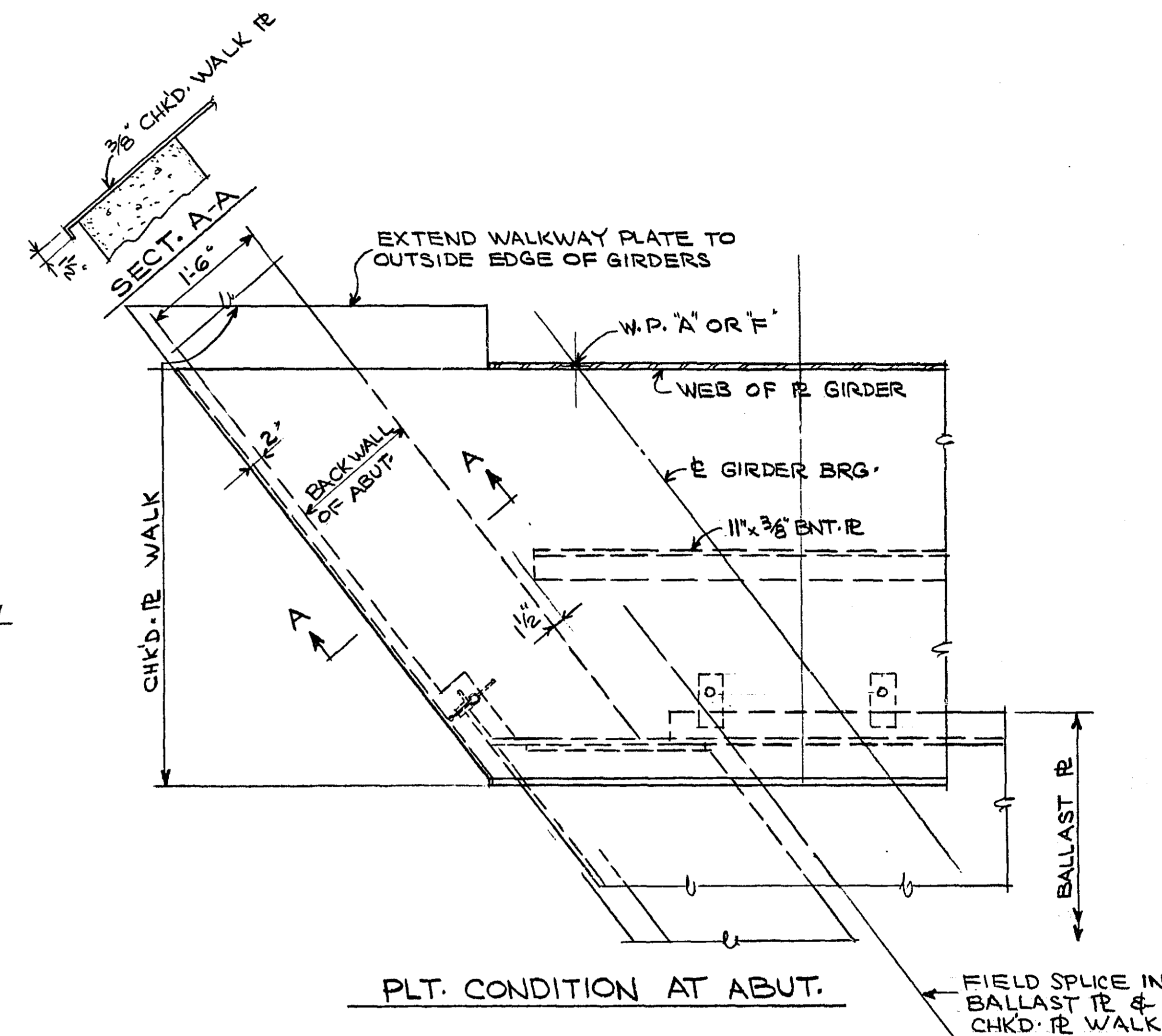
S.A.P. NO. 62-623-07

QUANTITY SUMMARY FOR SUPERSTRUCTURE	
ITEM	QUANTITY
STRUCTURAL STEEL (3306)	32,308.0 LBS.
STRUCTURAL STEEL (3309)	34,960 LBS.
* BUTYL-RUBBER WATERPROOFING DRAINAGE SYSTEM	1,590 SQ. FT.
	ONE

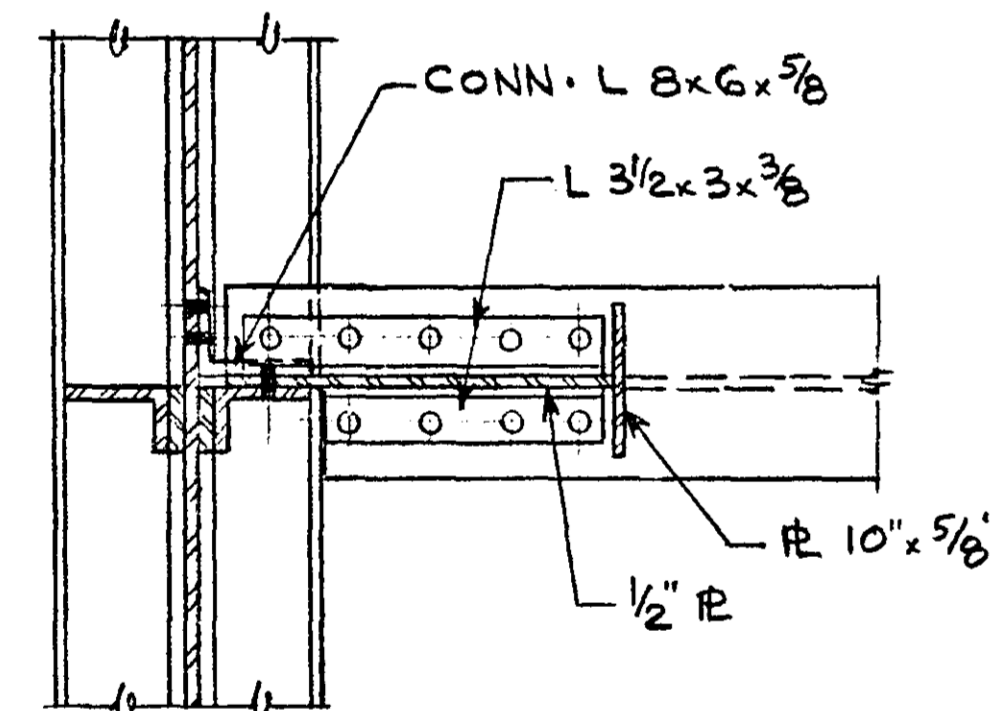
* INCLUDES ASPHALT PLANK PROTECTION COURSE.



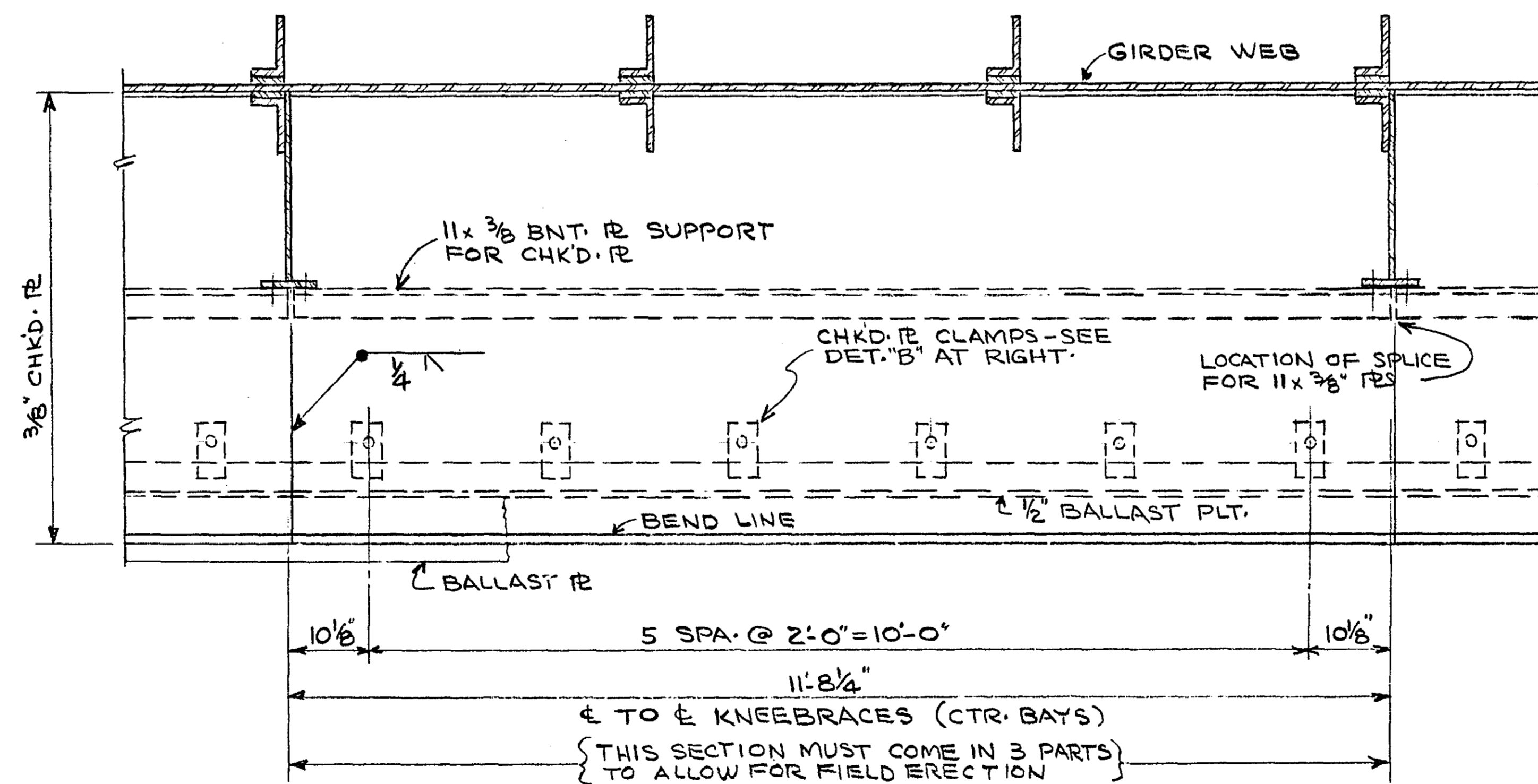
TYPICAL CROSS SECTION



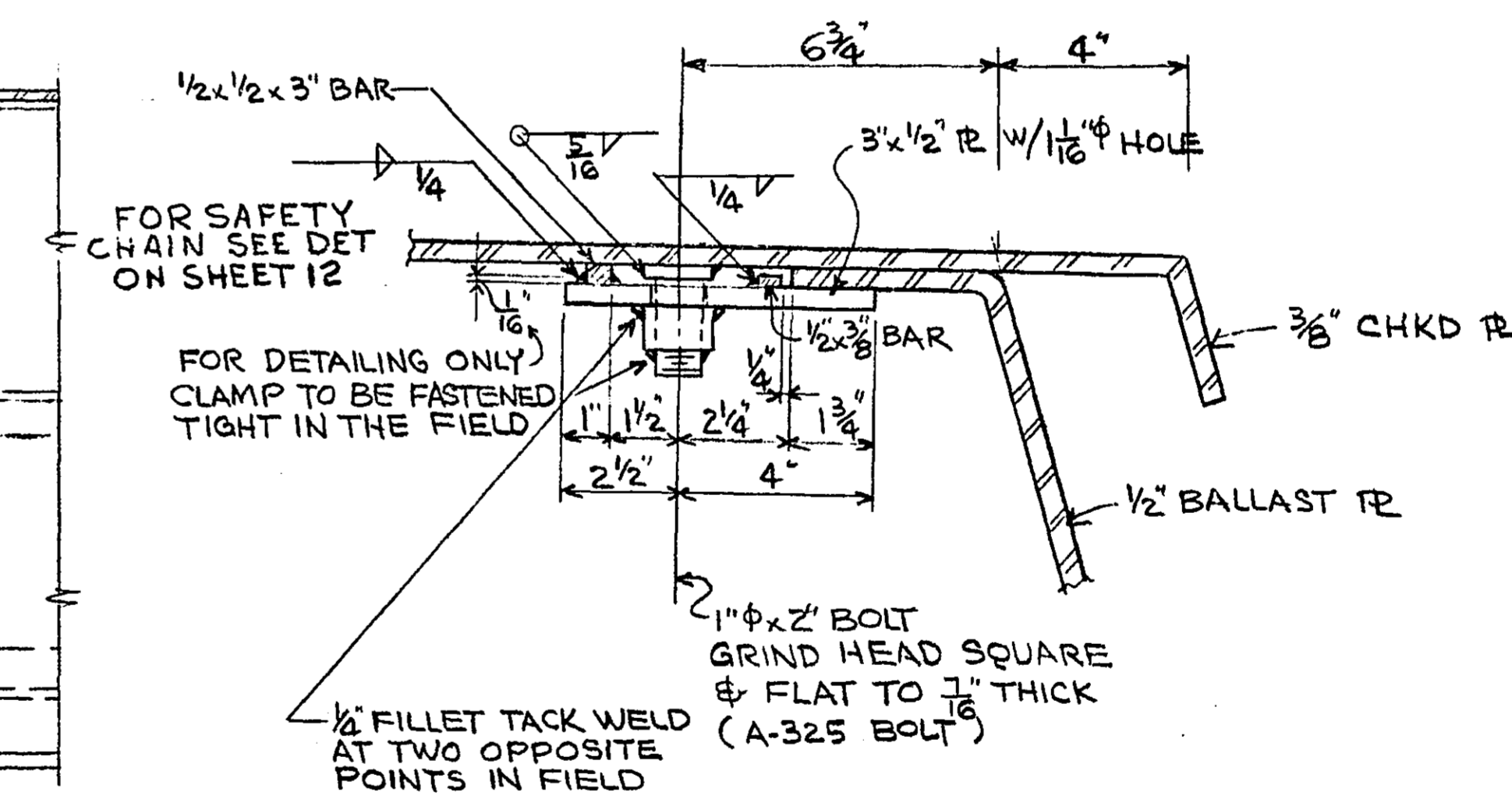
PLT. CONDITION AT ABUT.



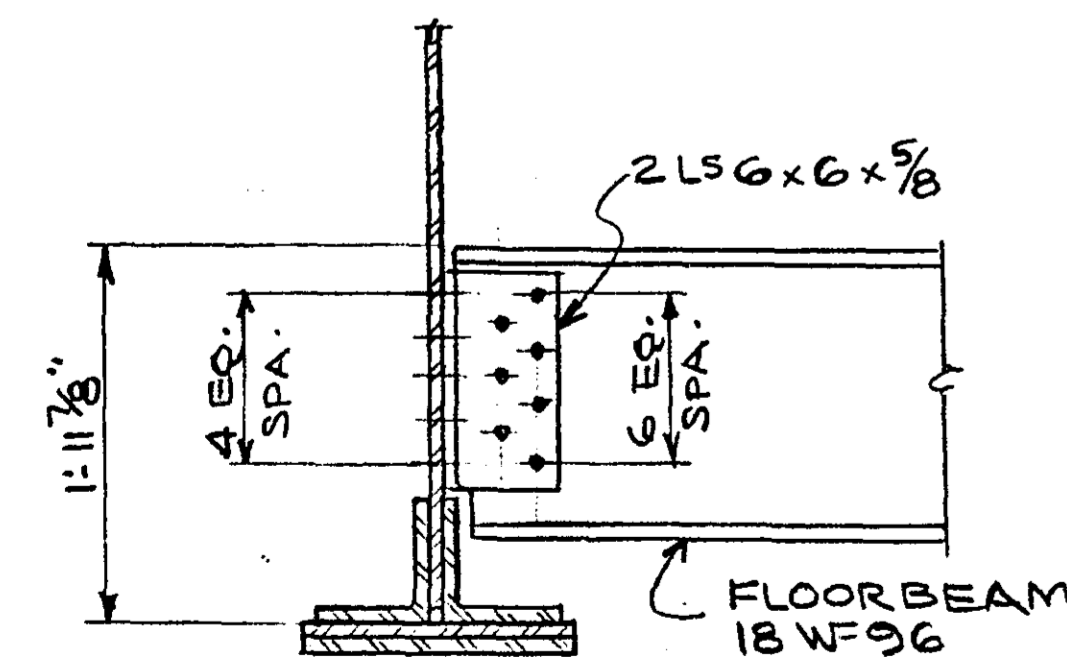
SECTION X-X



PART PLAN OF CHECKERED PLATE WALK



DETAIL "B"
WALK PLATE CLAMPS



FLOORBEAM CONN. BETWEEN STIFFENERS - TYPICAL

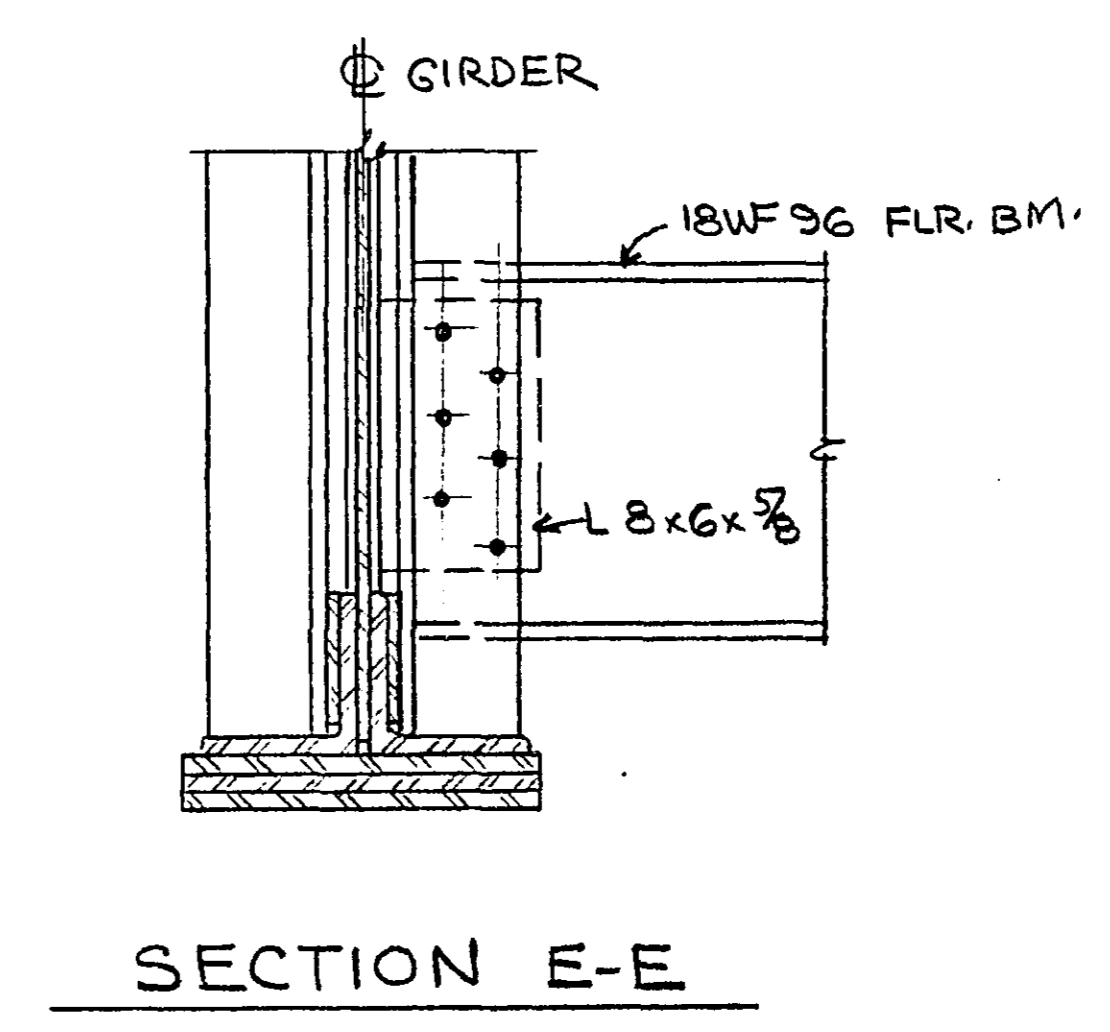
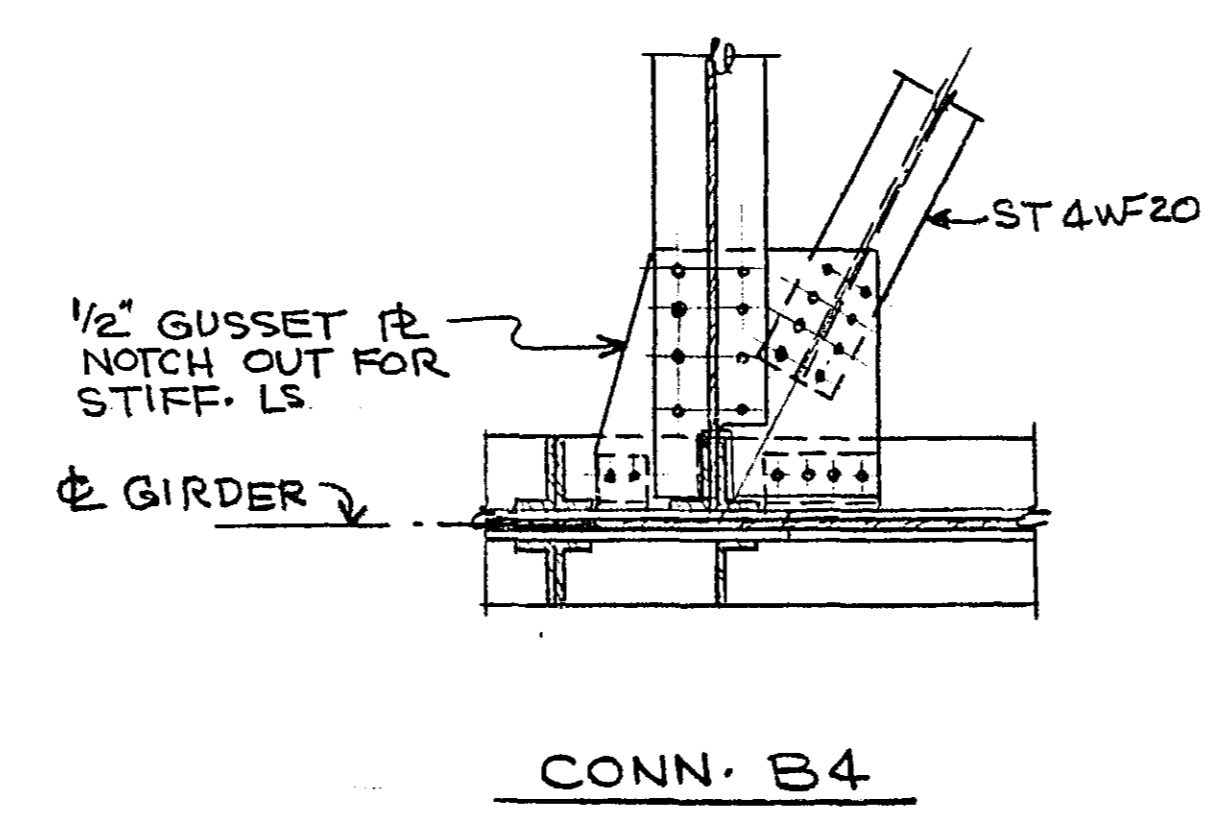
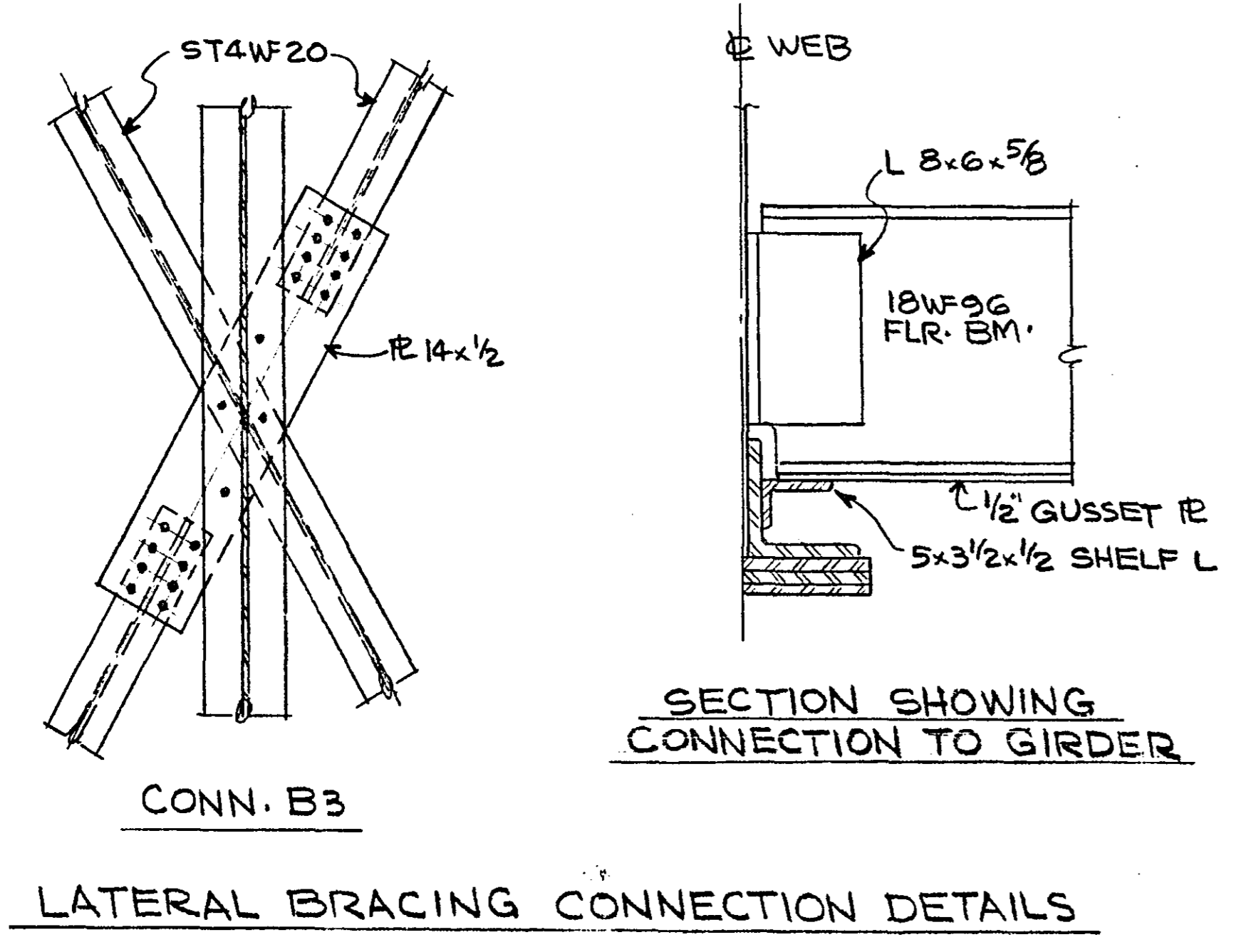
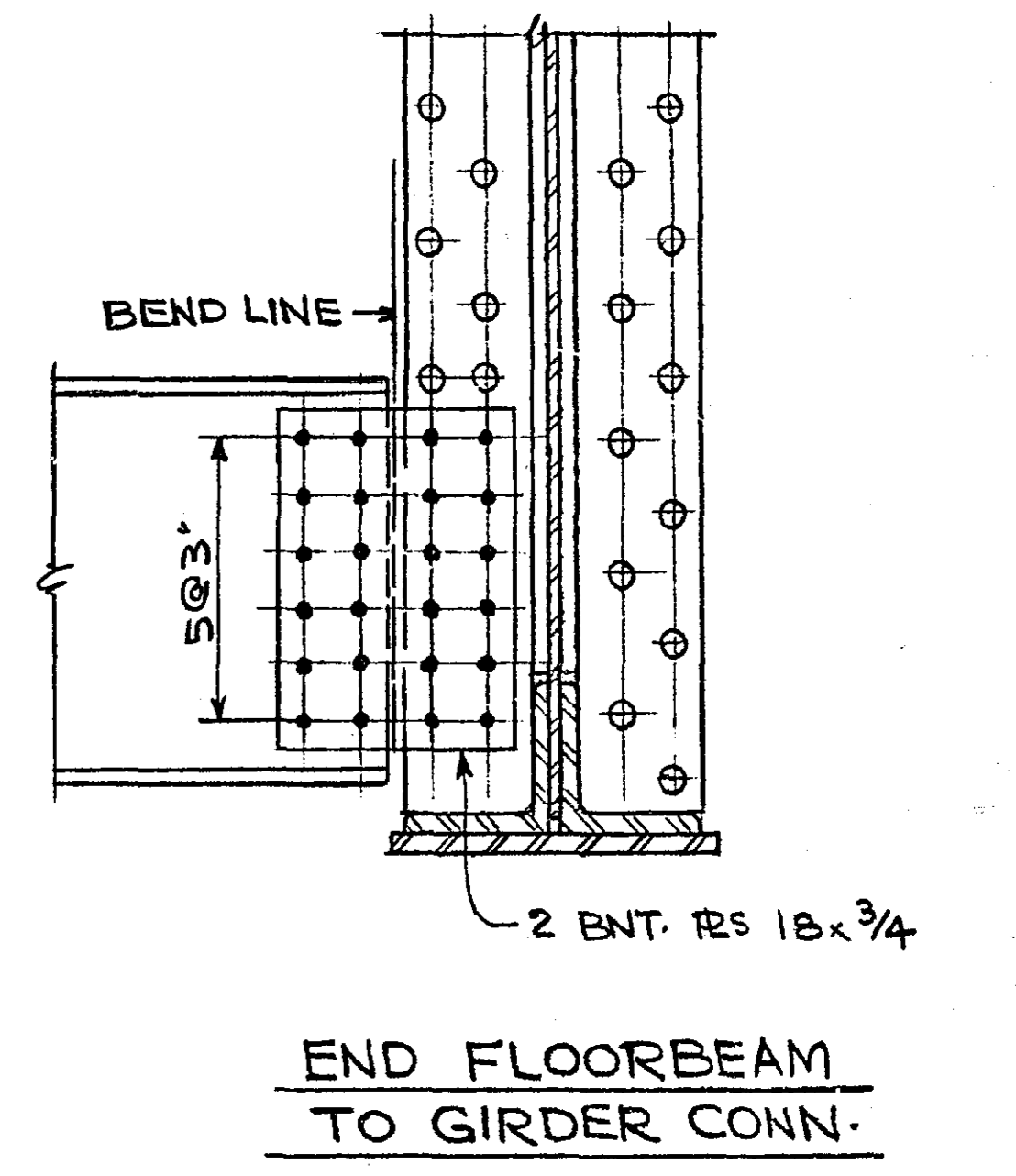
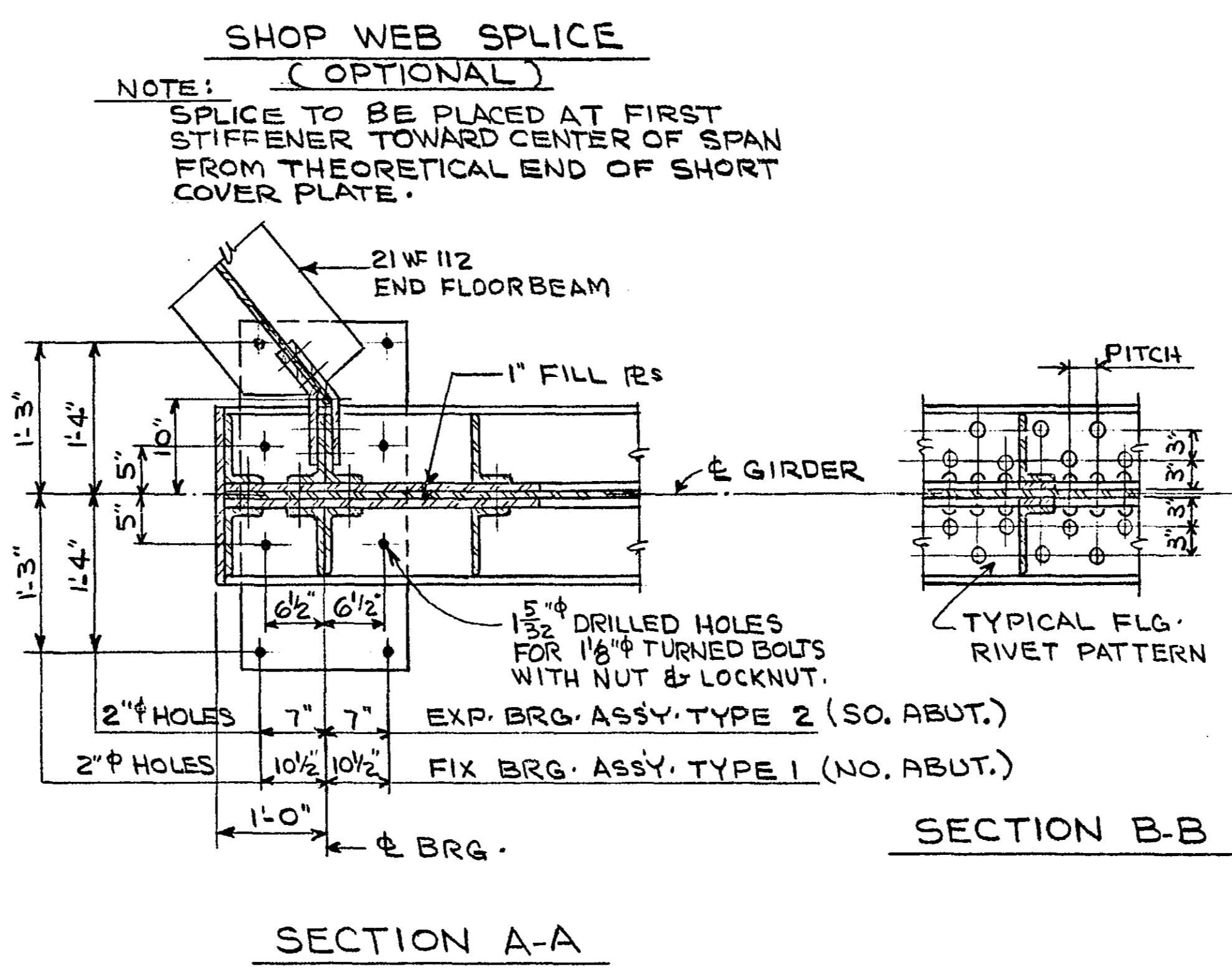
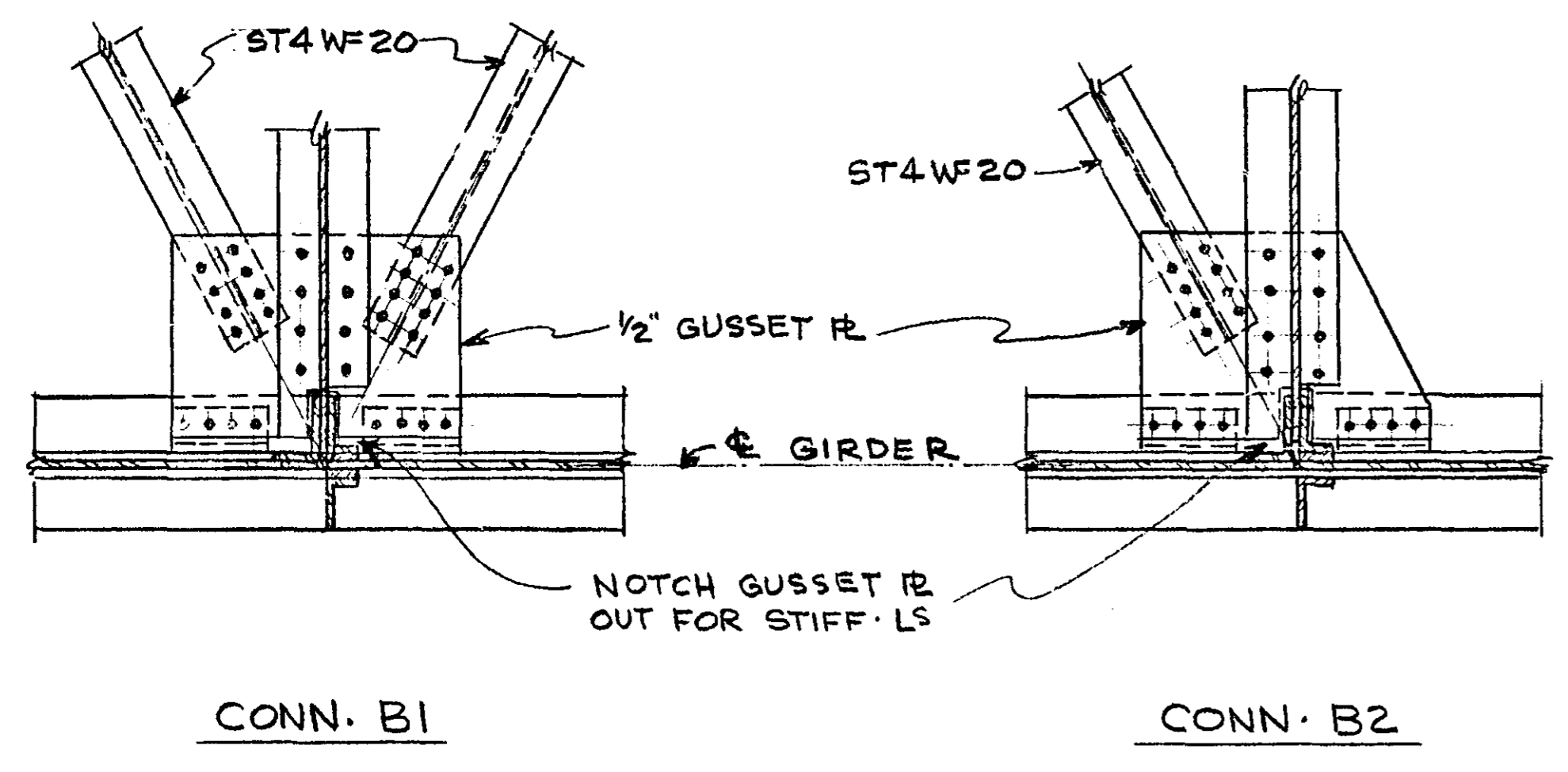
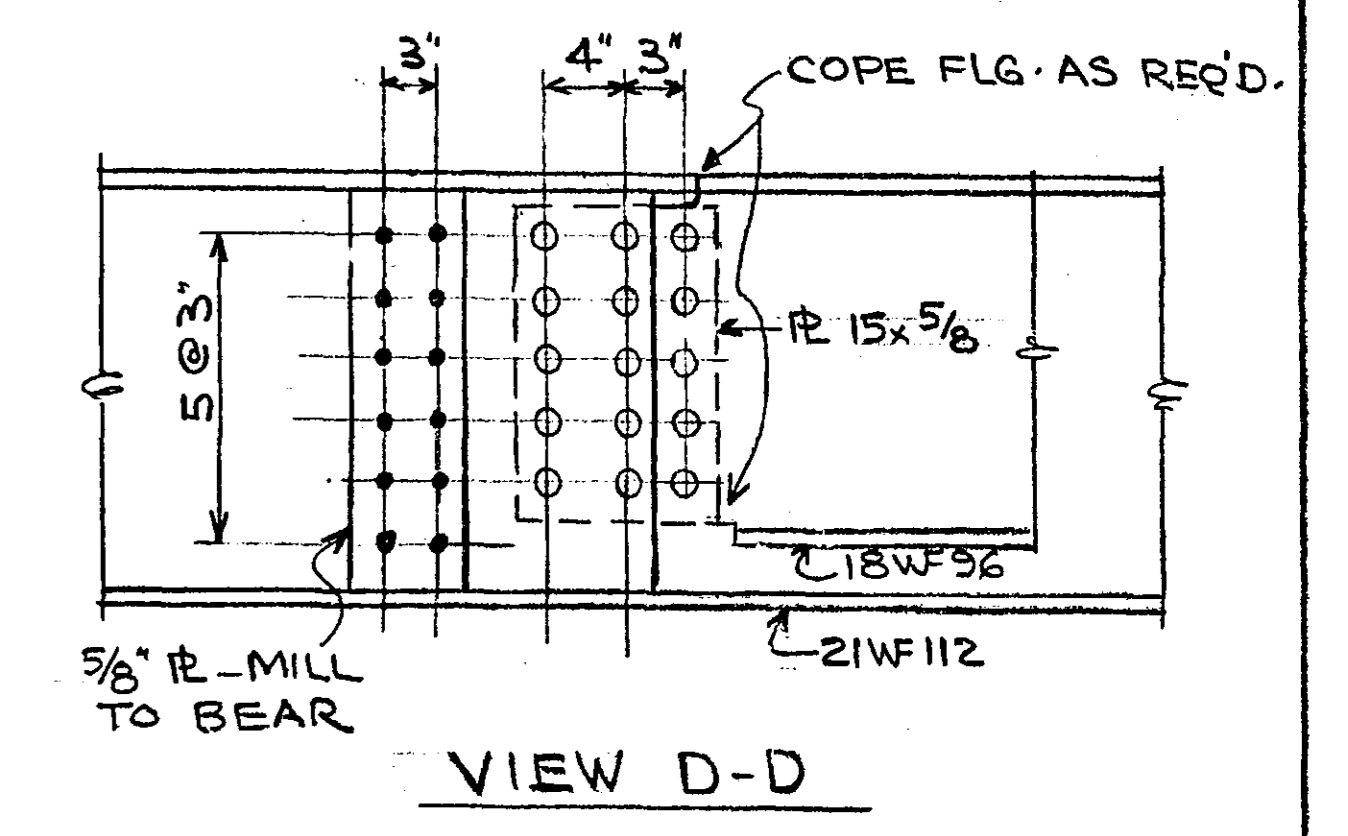
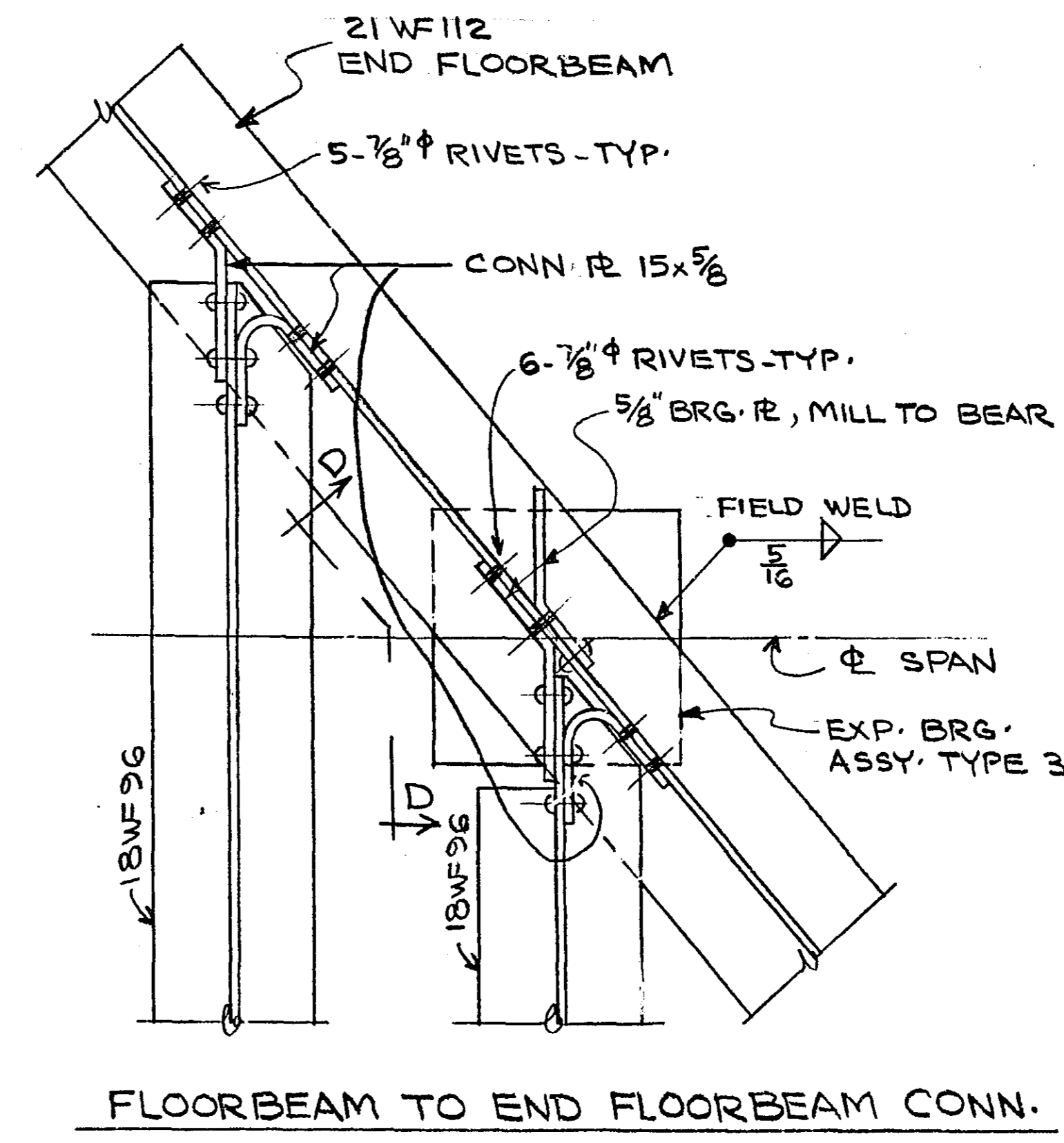
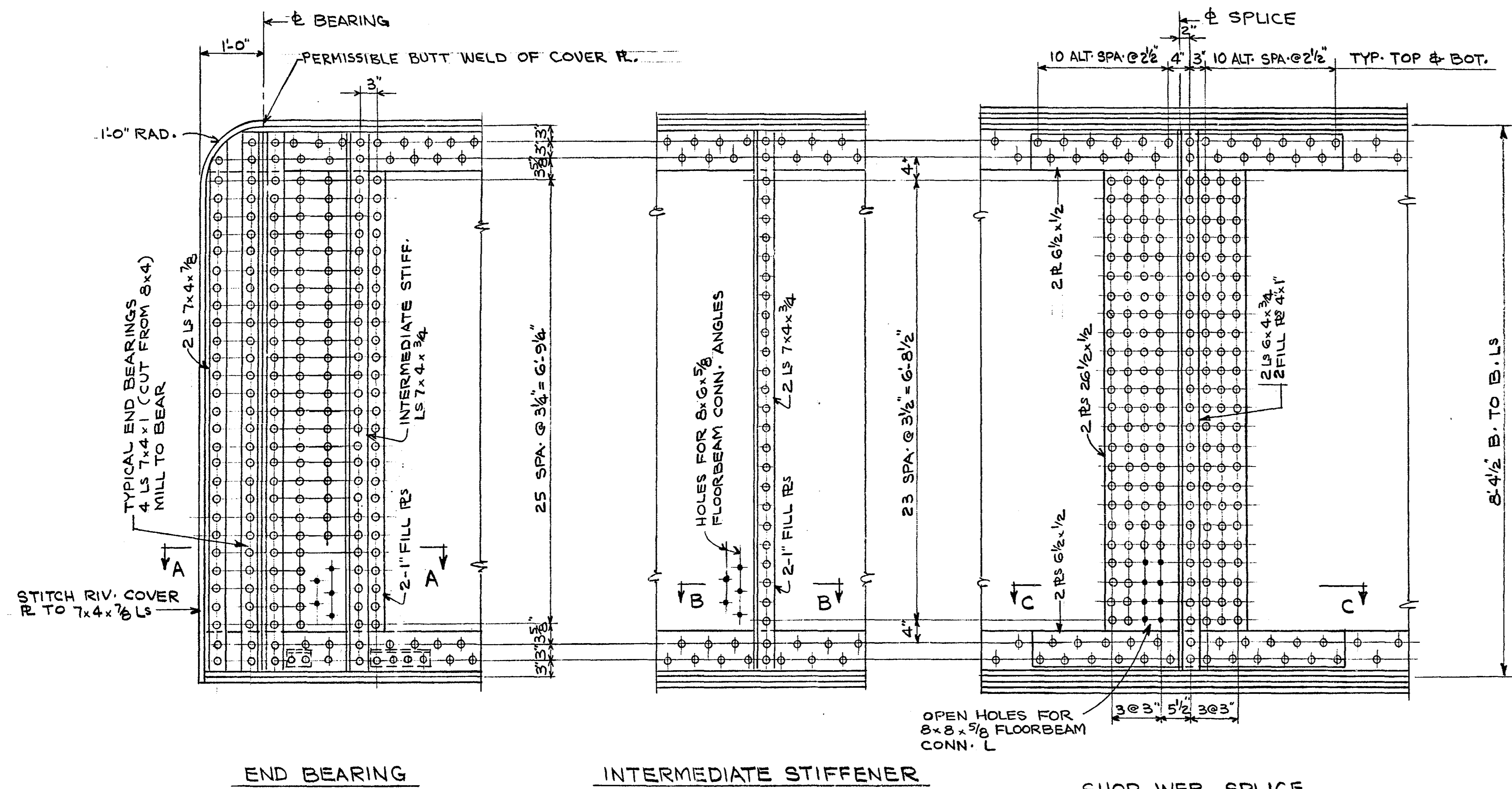
NOTE:
CHECKERED PLT. & 1/2" BALLAST PLT. TO EXTEND FROM BACK FACE TO BACKFACE OF ABUTMENTS PER DETAIL THIS PLAN. CHKD. PLT. TO BE SEAL WELDED ALL AROUND KNEEBRACES, STIFFENERS AND END OF GIRDERS.

BRIDGE NO. 62520

TYPICAL GIRDER SECTION AND DETAILS

APPROVED: 5-22-70

MICROFILMED
RAMSEY CO. ENGR
DES. V.M.
DR. G.B.
CHK. V.M.



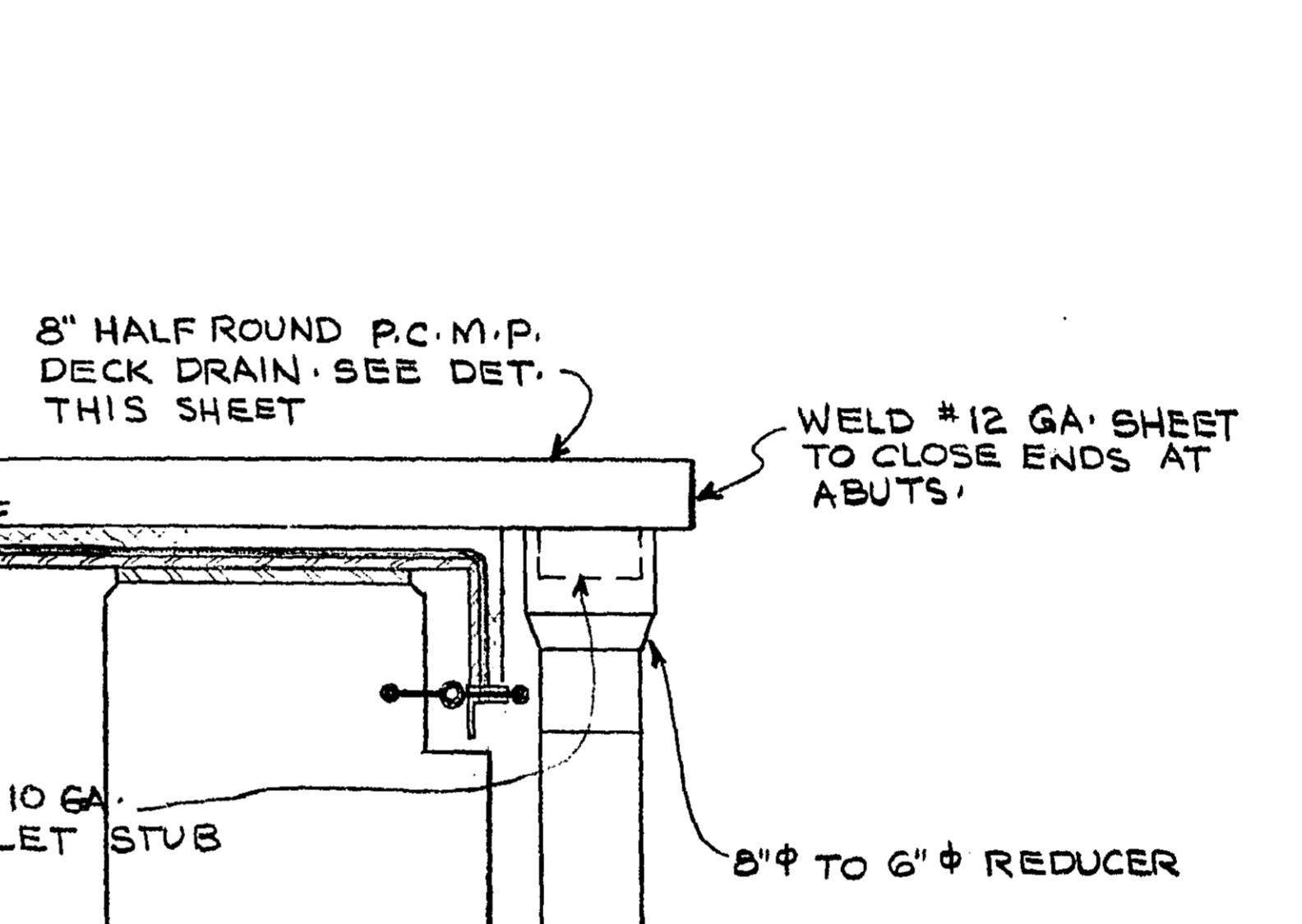
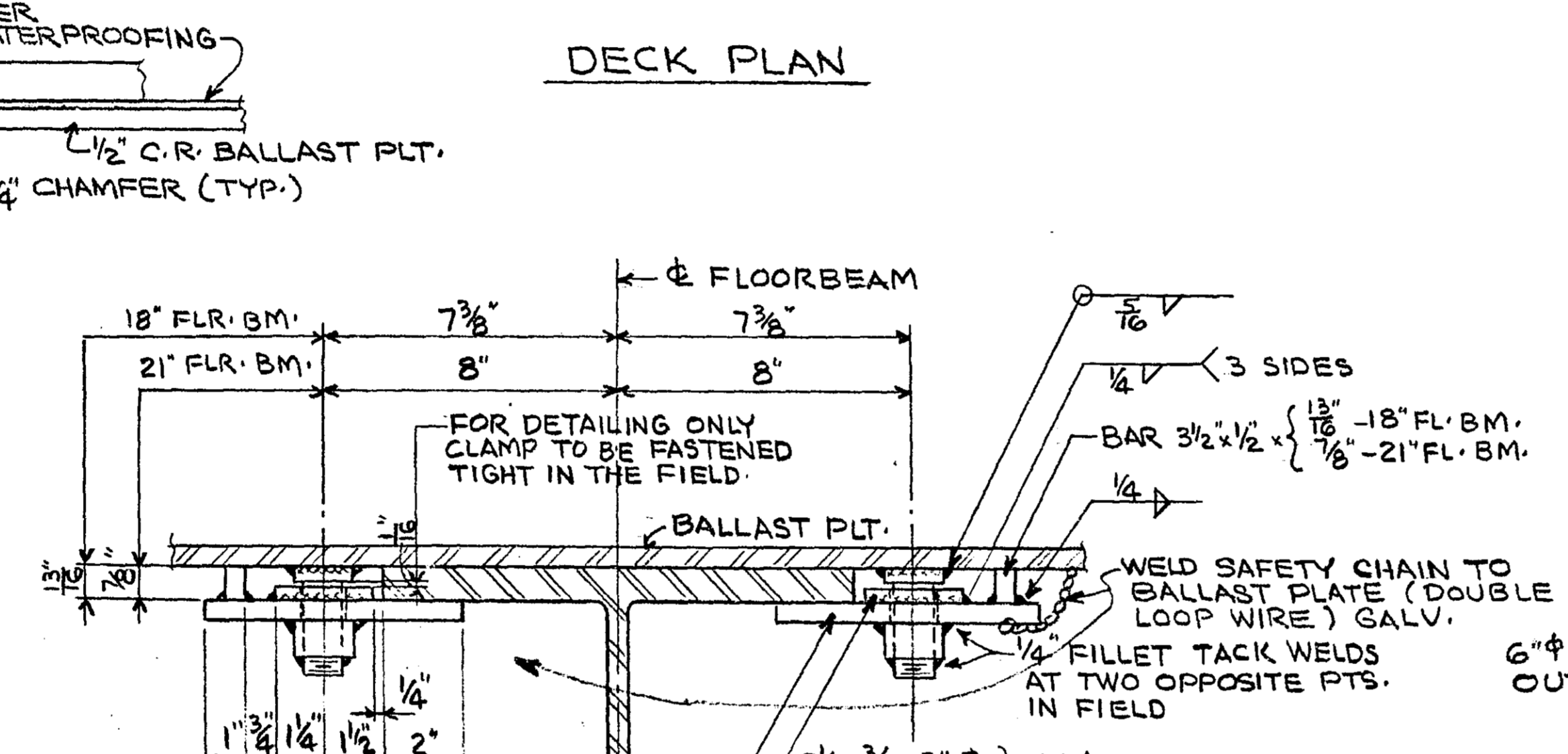
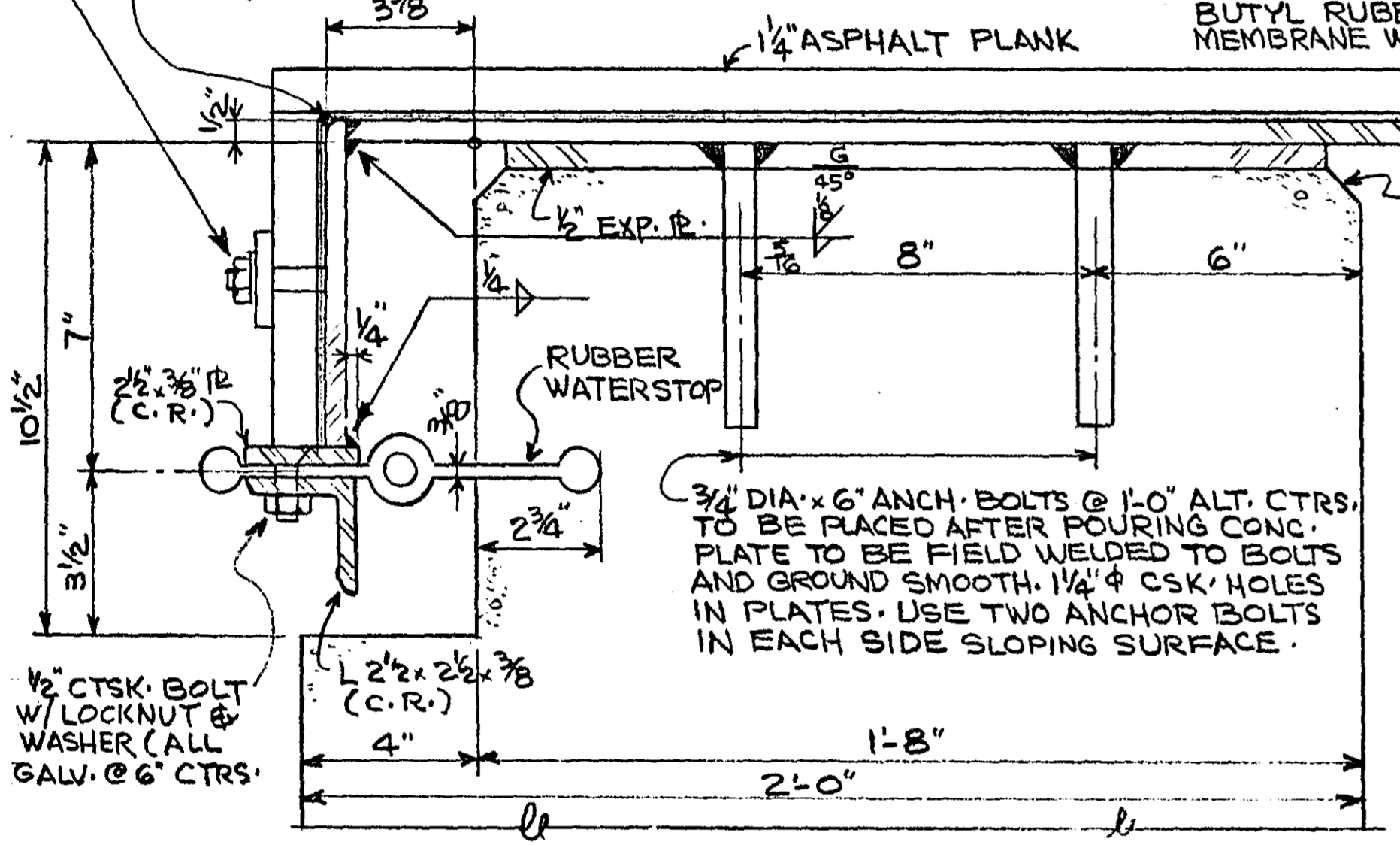
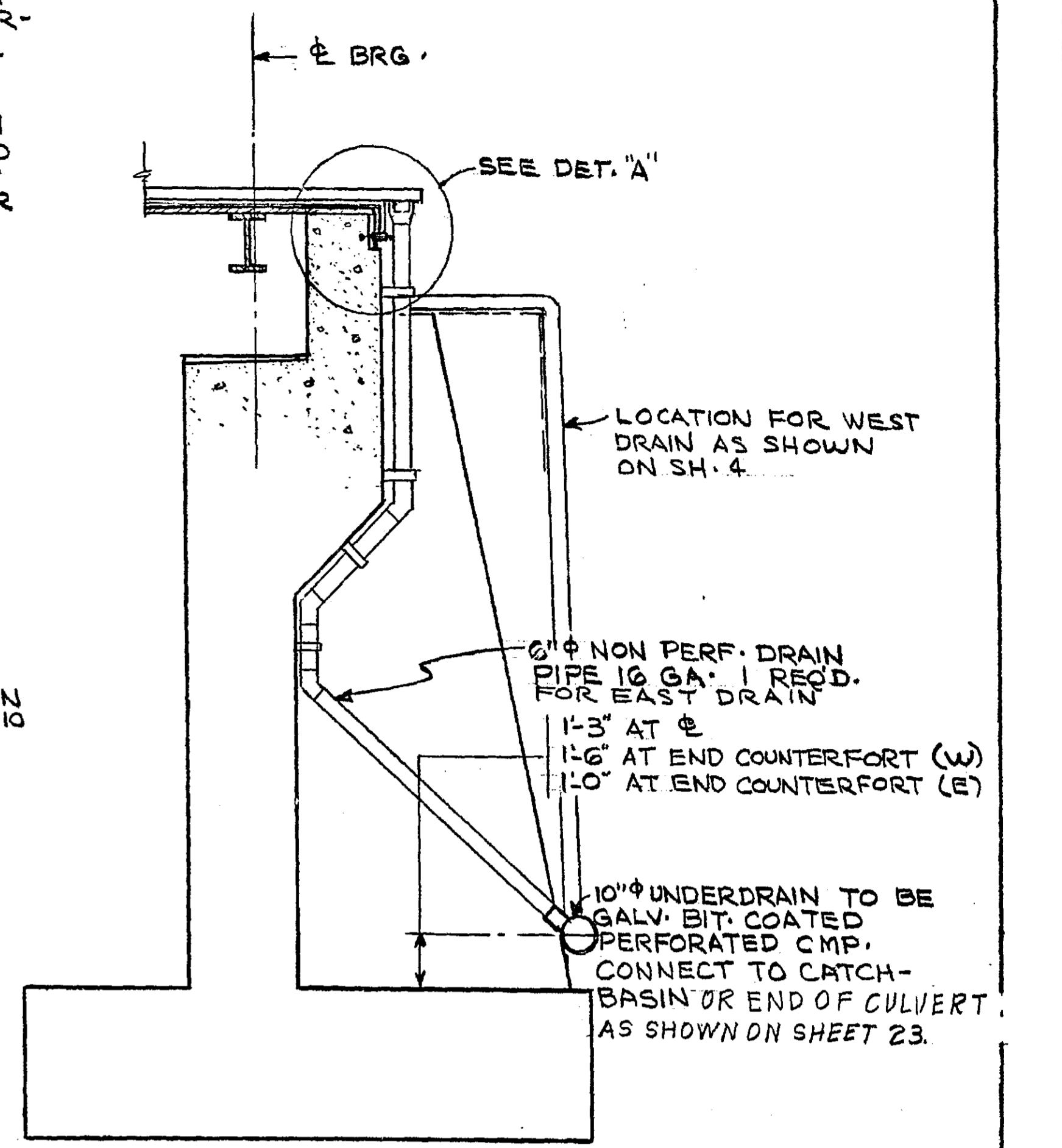
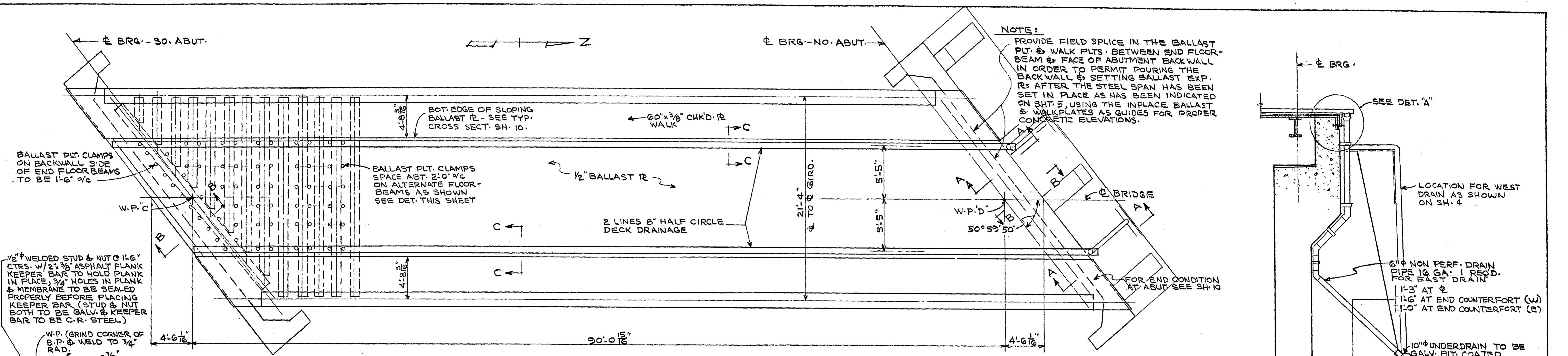
NOTE: ALL FIELD RIVETS 7/8"

BRIDGE NO. 62520

MISCELLANEOUS DETAILS

APPROVED: 5-22-70

MICROFILMED
RAMSEY CO. ENGR.



GENERAL DRAINAGE NOTES:

ALL PIPES SHALL CONFORM TO MHD 3286 AND SHALL BE GALVANIZED AFTER FABRICATION PER MHD 3394.

ALL SHEET METAL SHALL CONFORM TO MHD 3338 AND SHALL BE GALVANIZED AFTER FABRICATION PER MHD 3394.

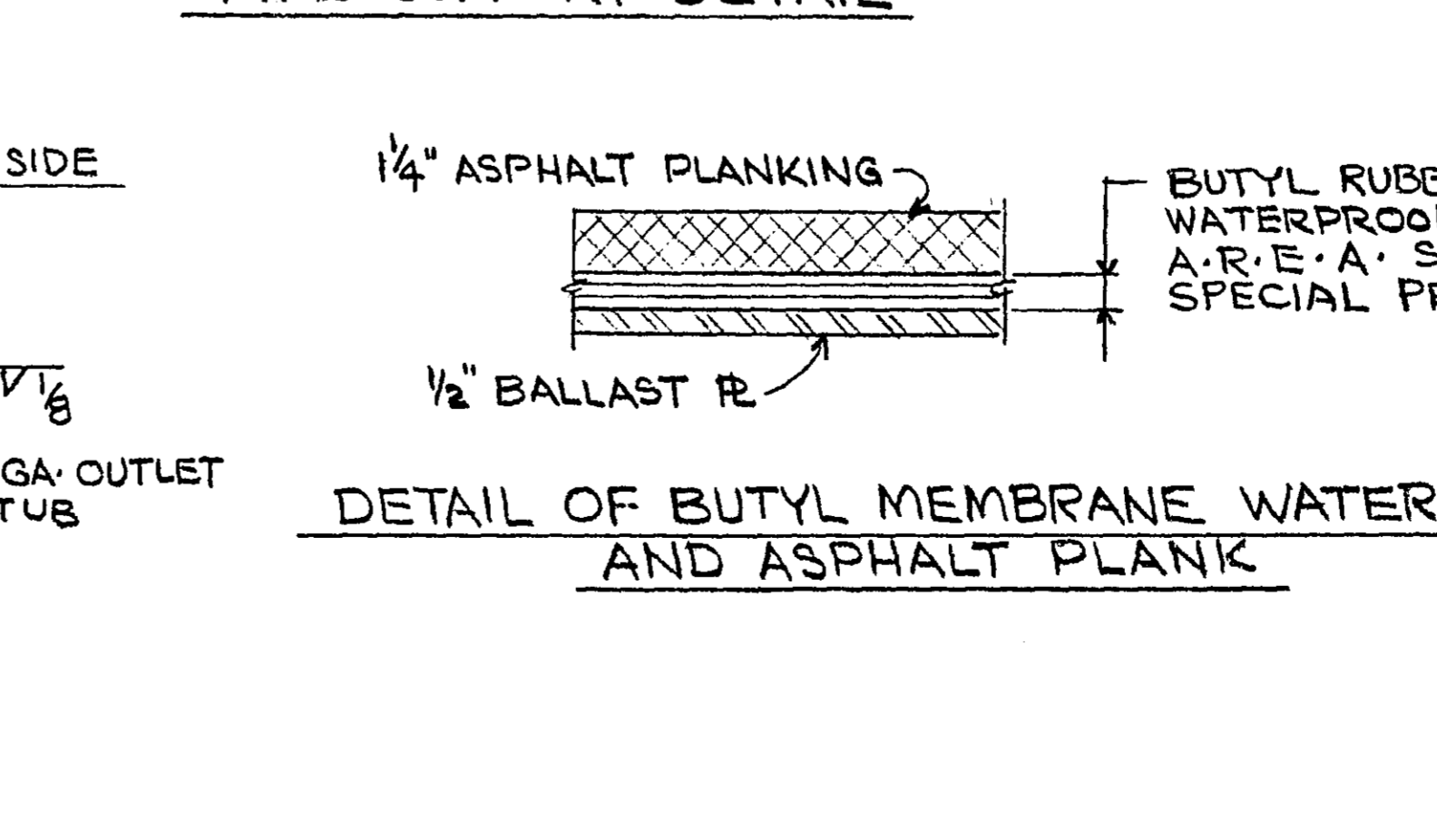
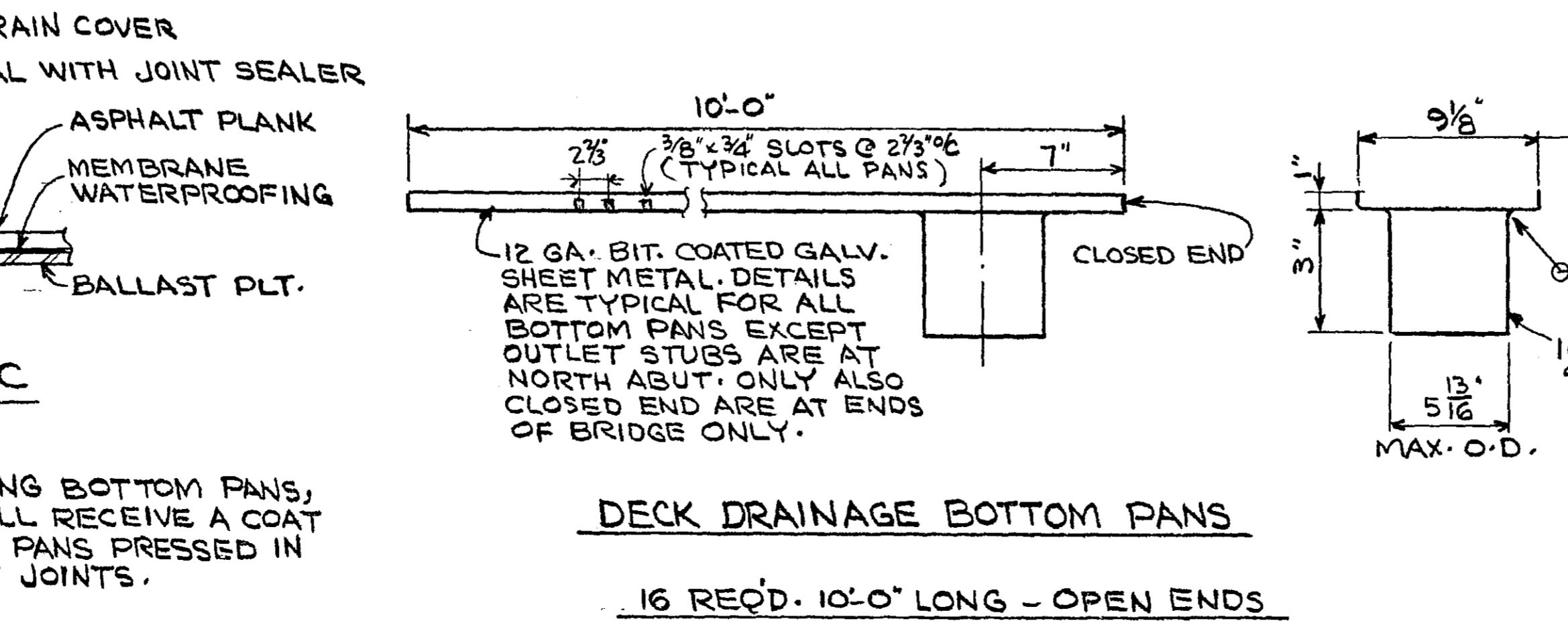
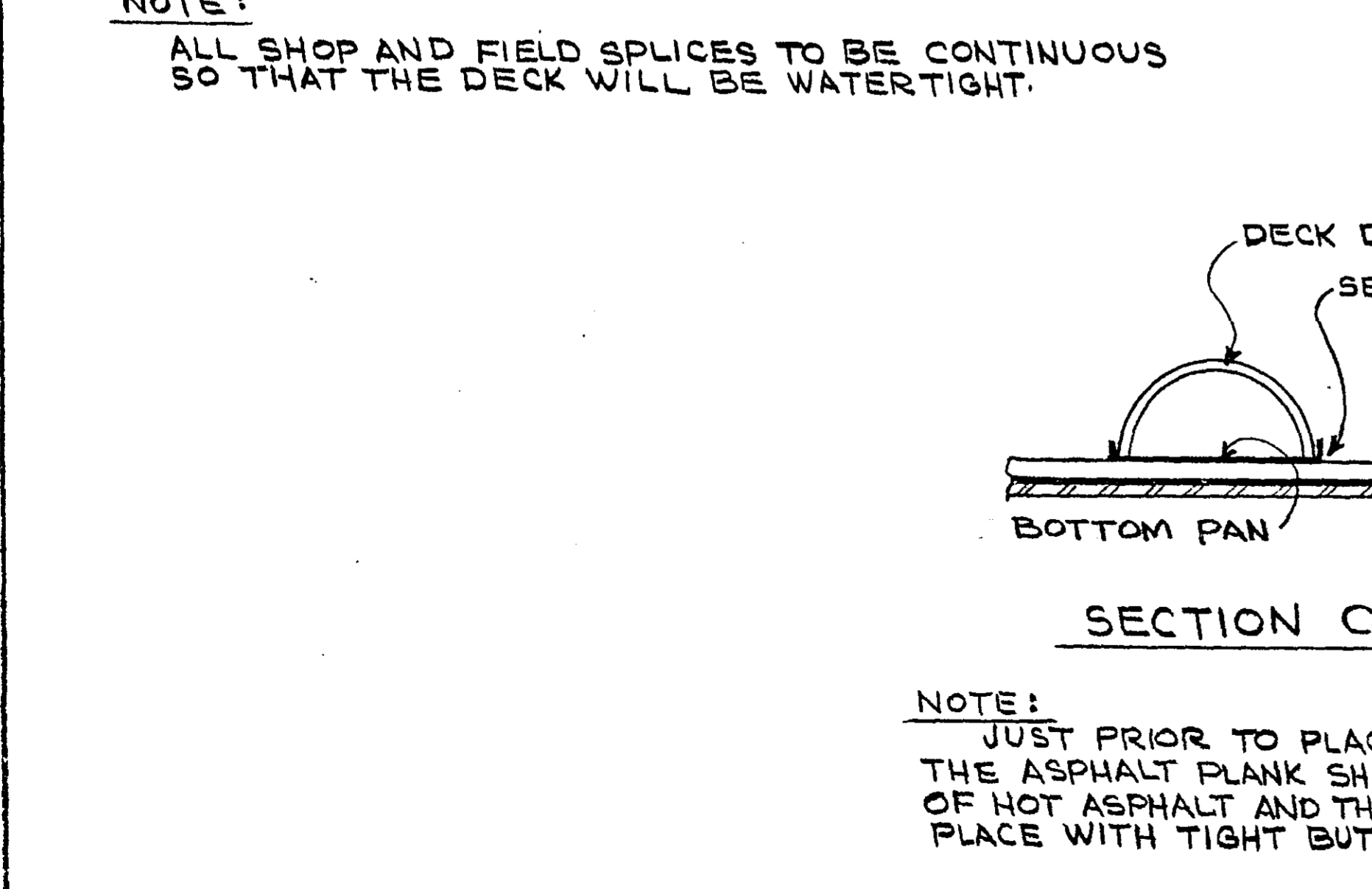
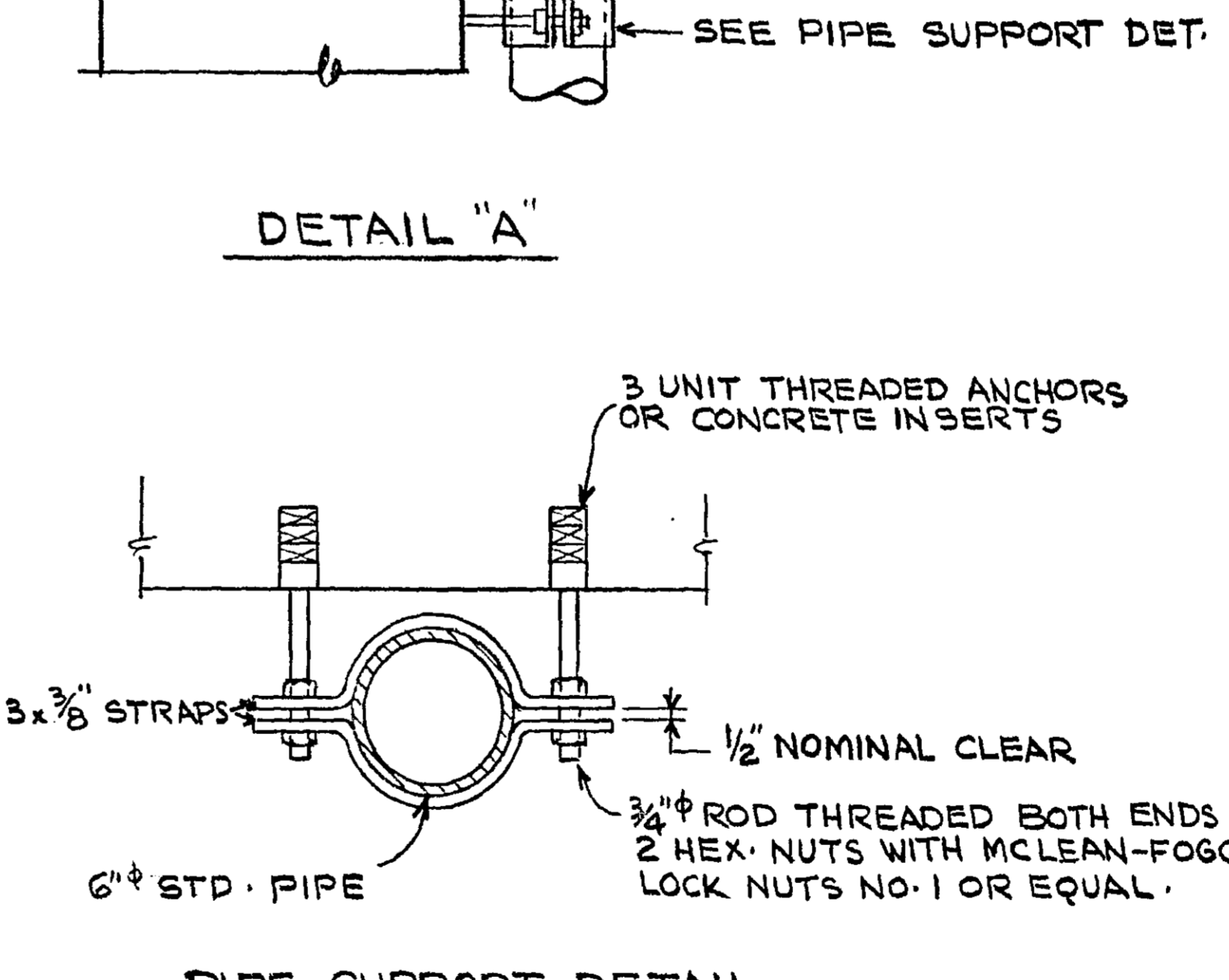
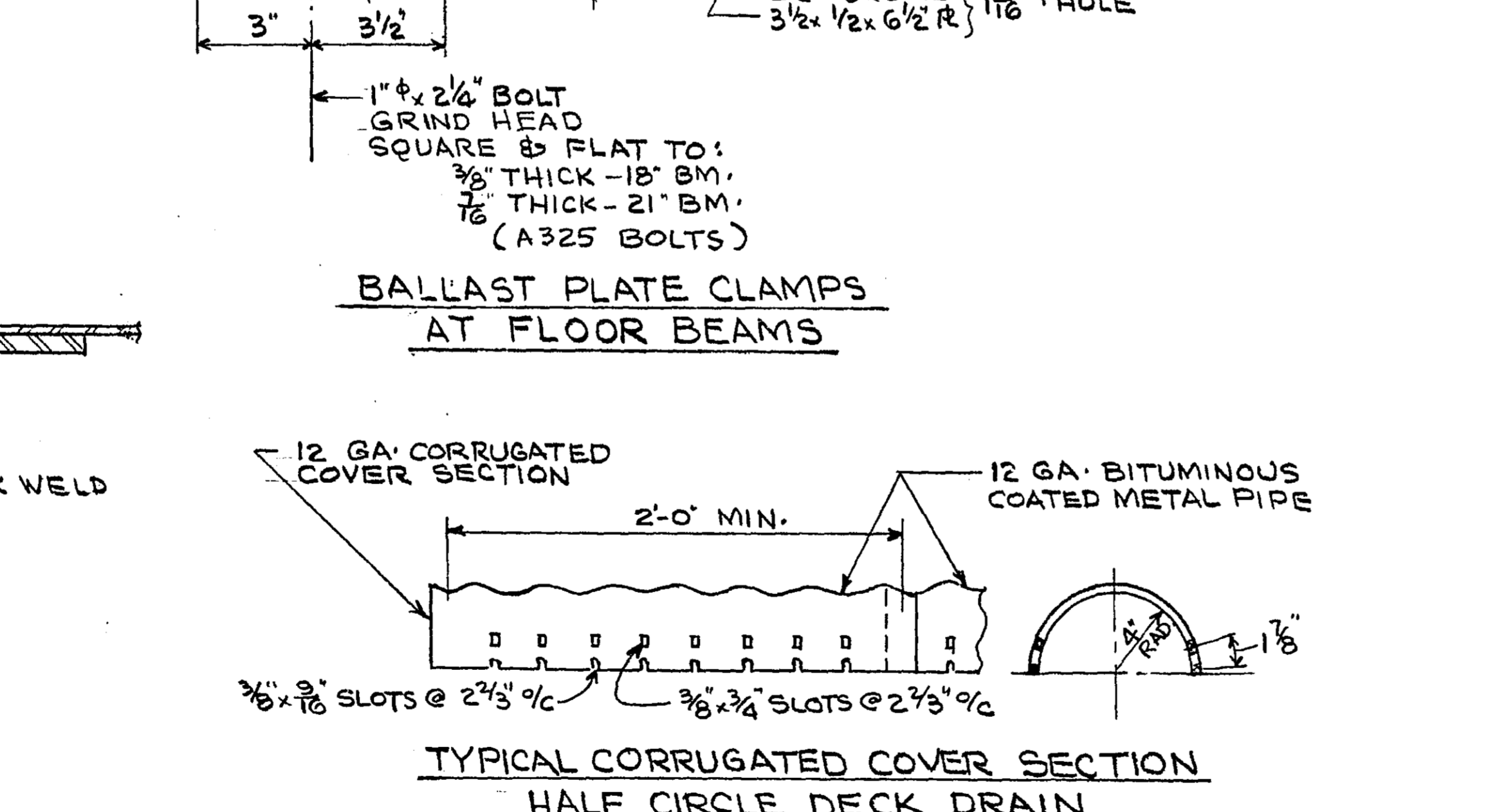
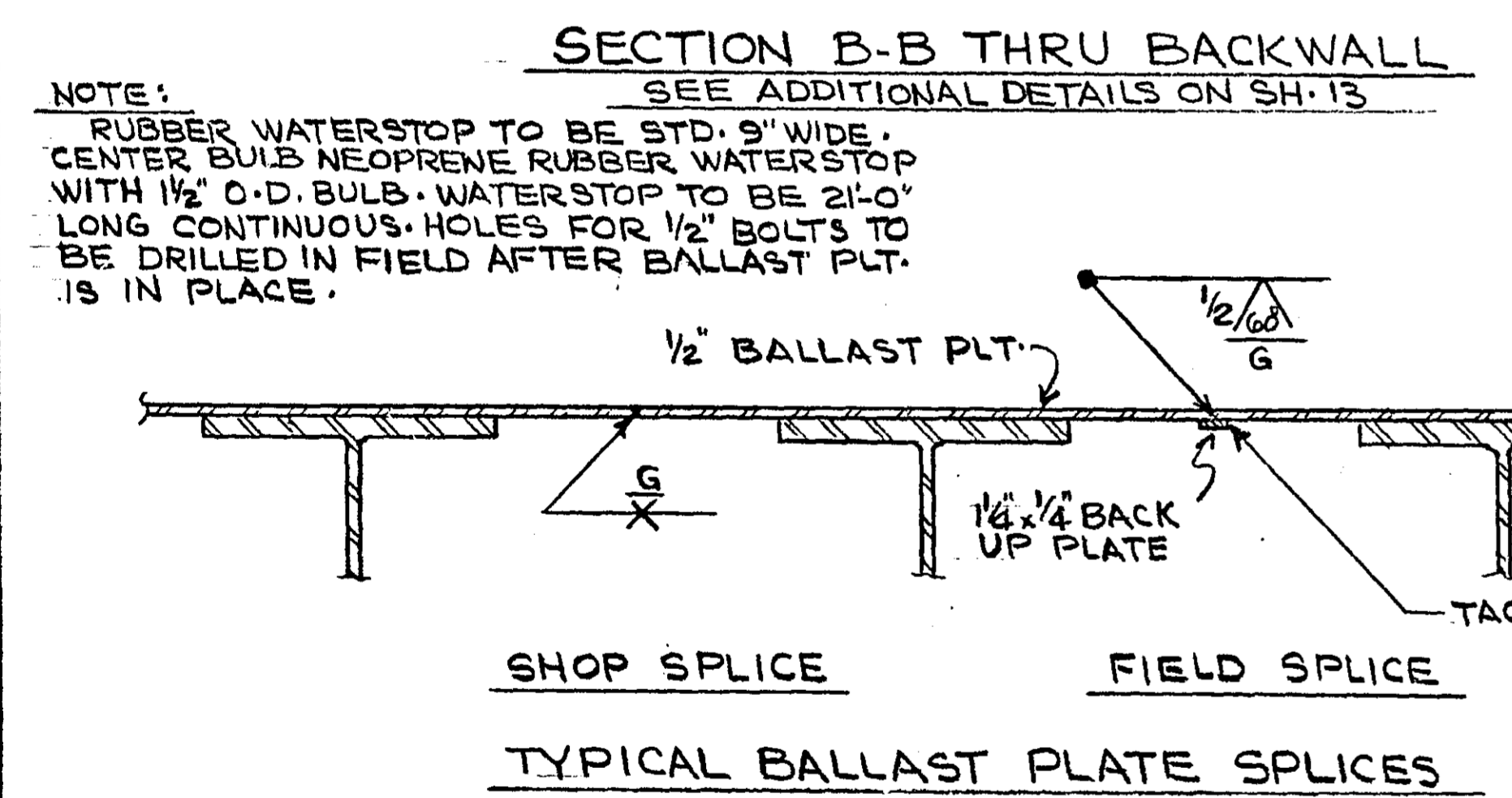
ALL DECK DRAIN MATERIAL AND DOWNSPOUTS SHALL BE COATED WITH BITUMINOUS MATERIAL BOTH INSIDE AND OUTSIDE PER MHD 3327.

STRAPS TO BE GALVANIZED PER MHD 3394 AND ANCHOR BOLTS TO BE GALVANIZED PER MHD 3392.

ALL DRAINAGE PIPES, SHEET METAL, ELBOWS, REDUCERS, STRAPS AND ANCHOR BOLTS AND 10" DIA. UNDERDRAINS SHALL BE INCLUDED IN PRICE BID FOR DRAINAGE SYSTEM.

BALLAST PLATE NOTES:

BALLAST PLT. TO CONFORM TO MHD. 3309 & TO A.S.T.M. A-242



- 16 RECD. 10'-0" LONG - OPEN ENDS
- 2 " 10'-0" LONG - ONE END CLOSED
- 2 " 10'-0" LONG - ONE CLOSED END WITH OUTLET

S.A.P. NO. 62-623-07

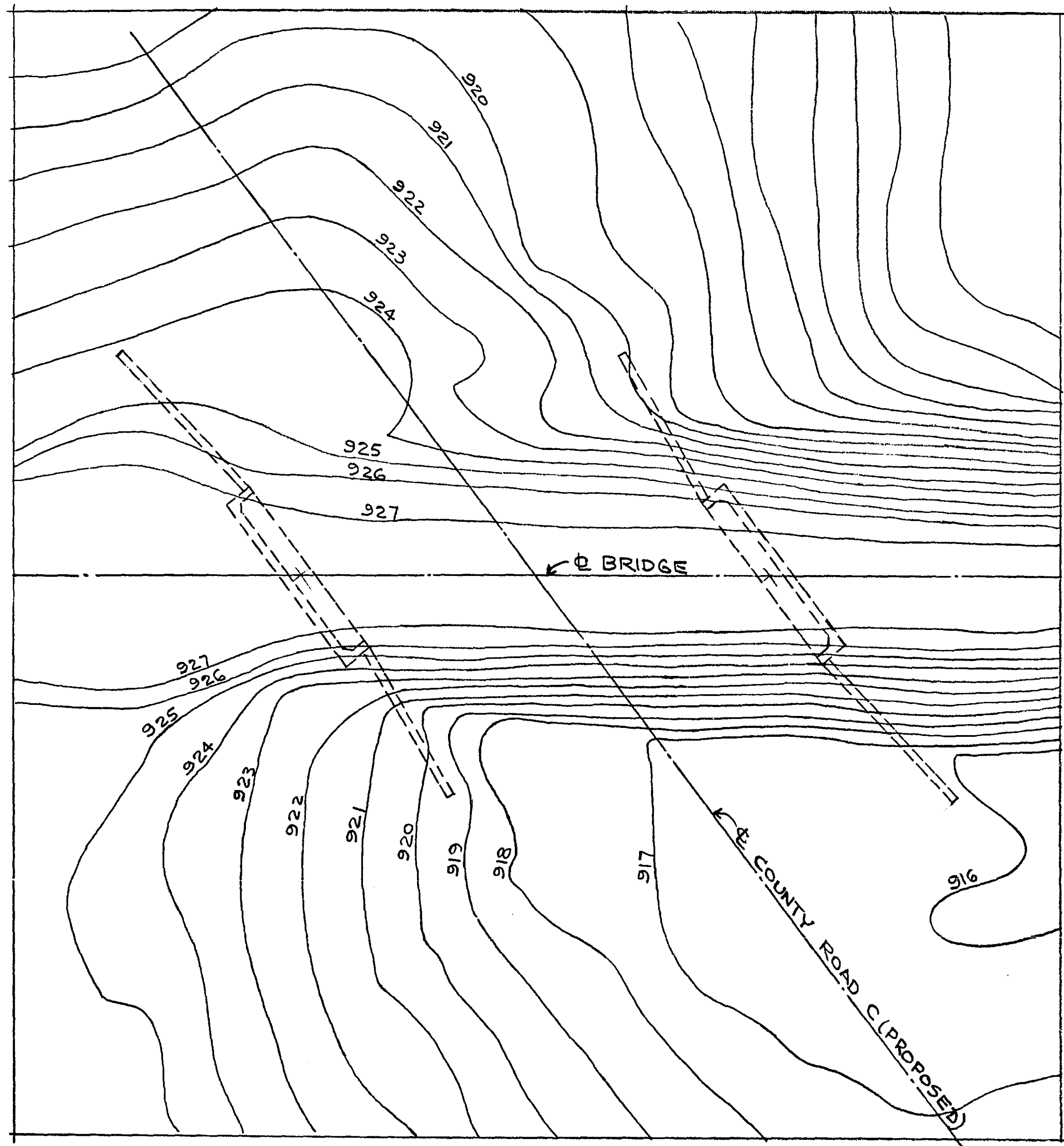
BRIDGE NO. 62520

BALLAST PLATE AND DRAINAGE DETAILS

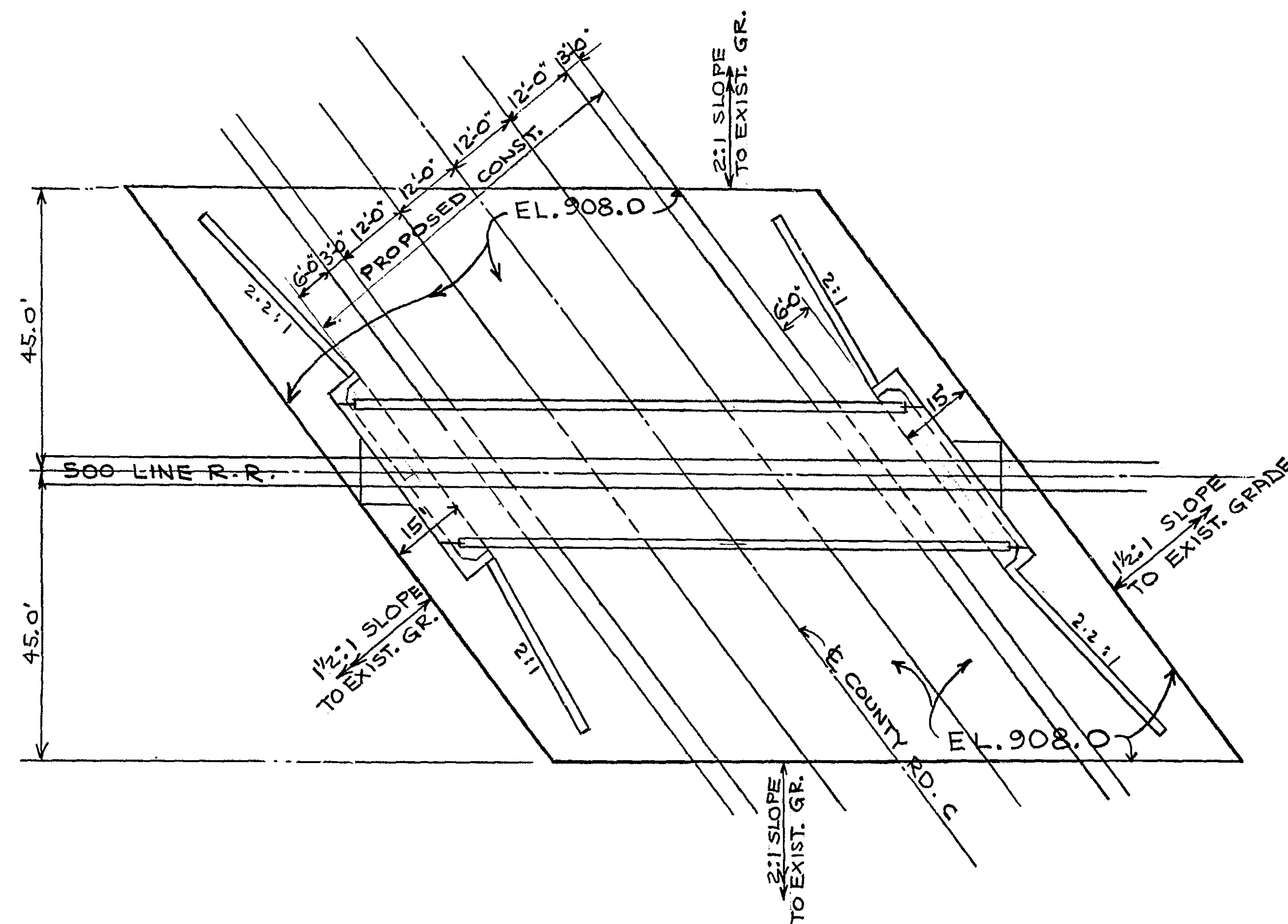
APPROVED: 5-22-70

MICROFILMED RAMSEY CO. ENGR.

DES. W.M. DR. W.M. CK. L.P.

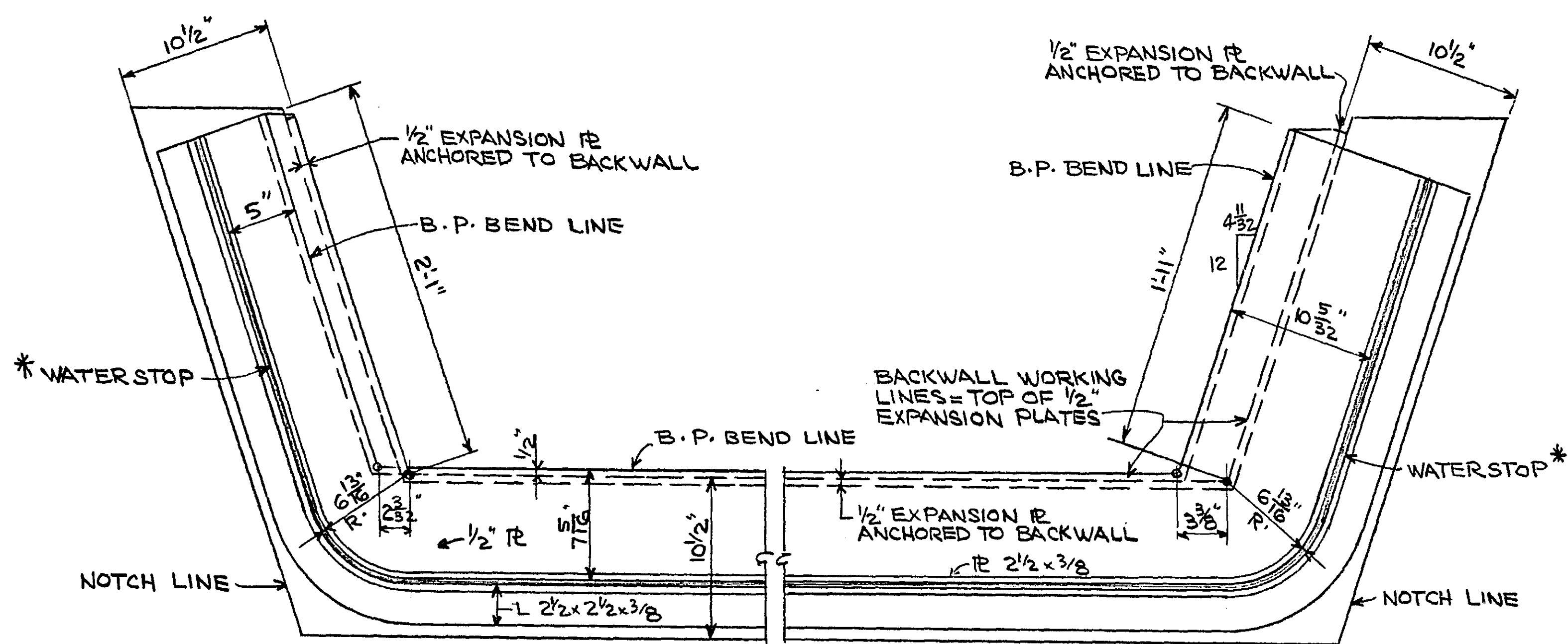


MAP OF EXISTING CONTOURS



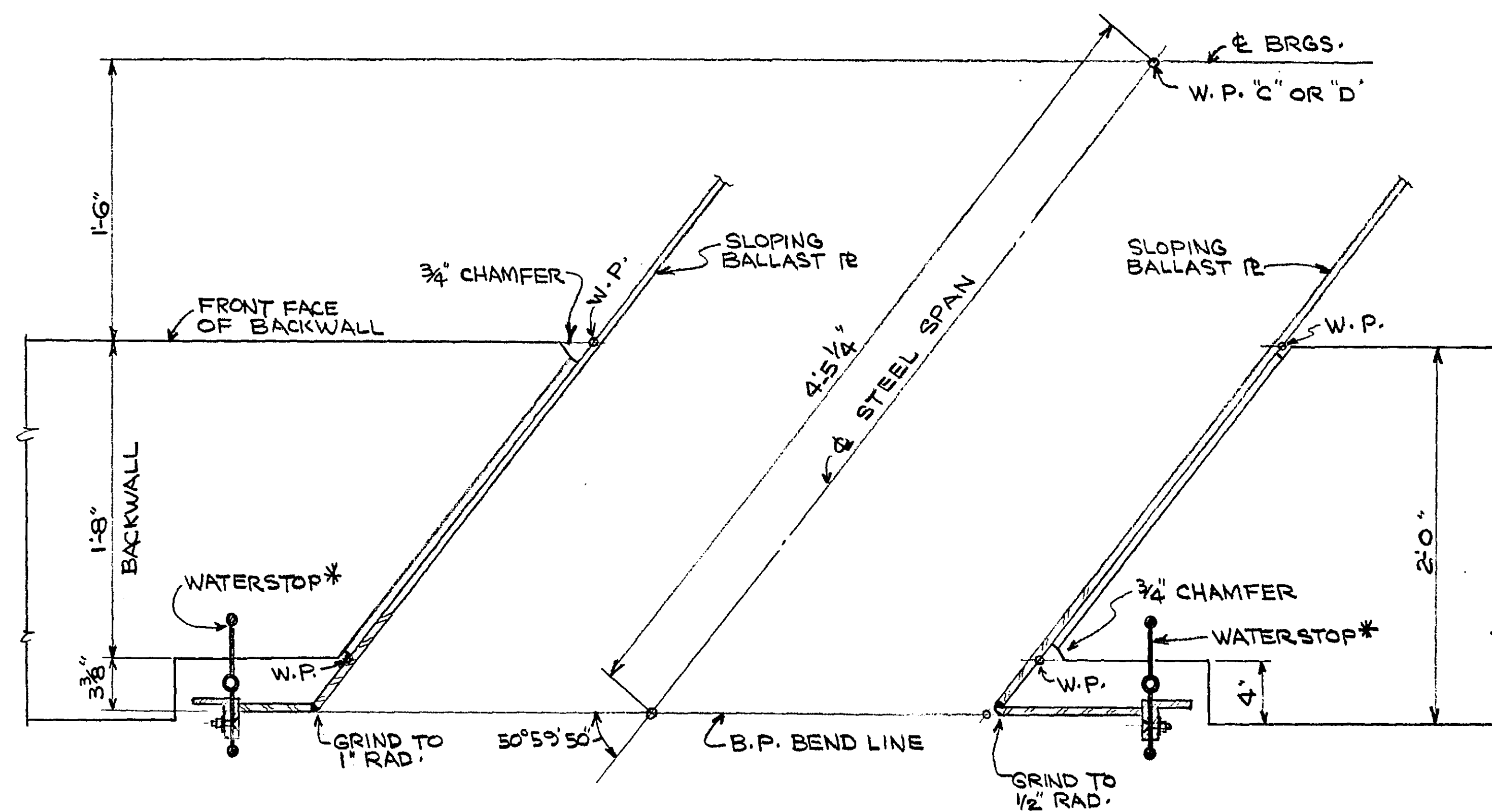
PLAN
SCALE 1" = 20'

CONTRACTOR SHALL EXCAVATE TO EL. 908.0 AS SHOWN ABOVE. THIS EXCAVATION SHALL BE PAID FOR AS "COMMON EXCAVATION" SEE SPECIAL PROVISIONS.



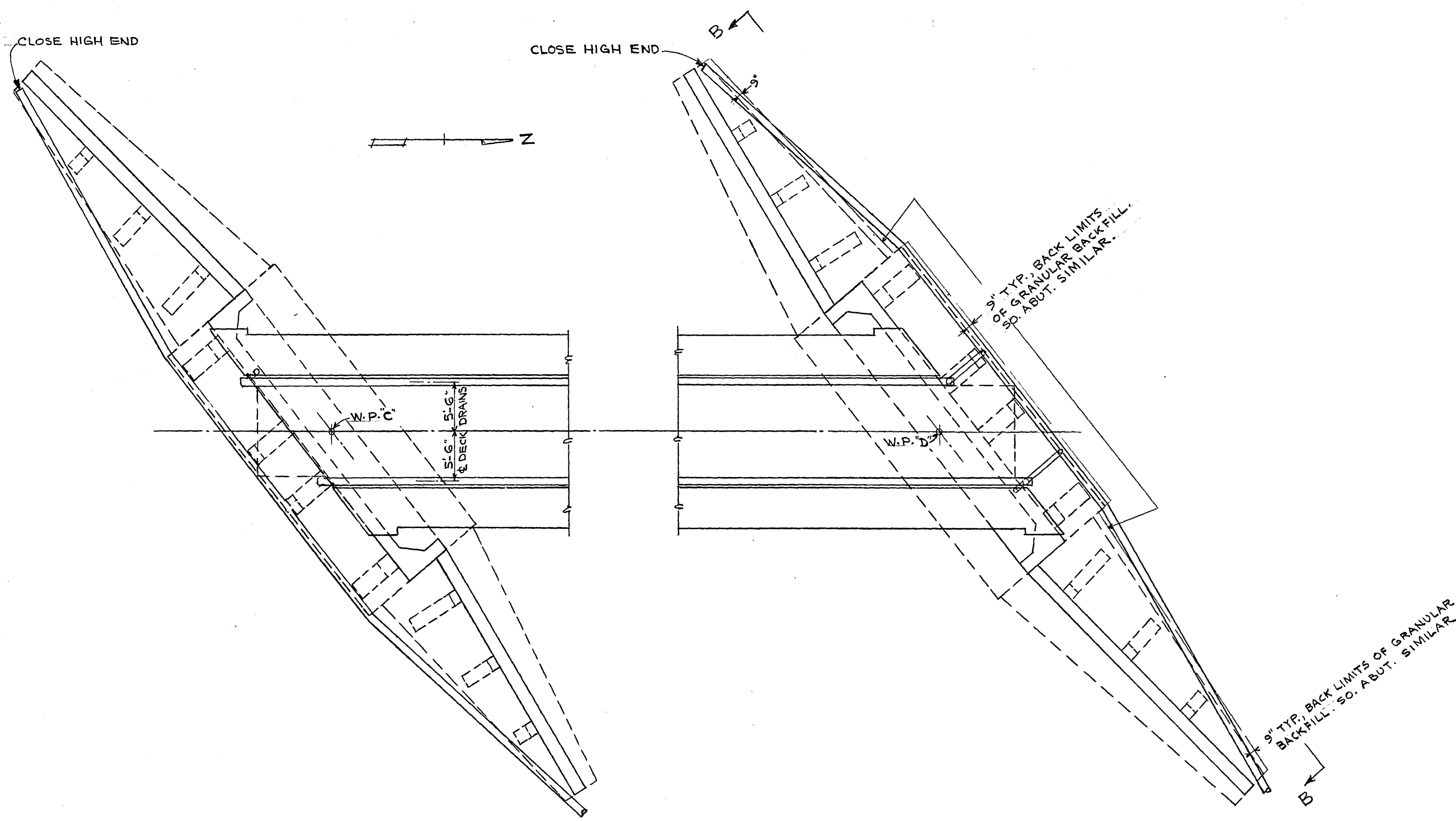
VIEW OF BACK FACE OF BACKWALL AT ABUT.

*INCLUDED IN PRICE BID FOR OTHER ITEMS.

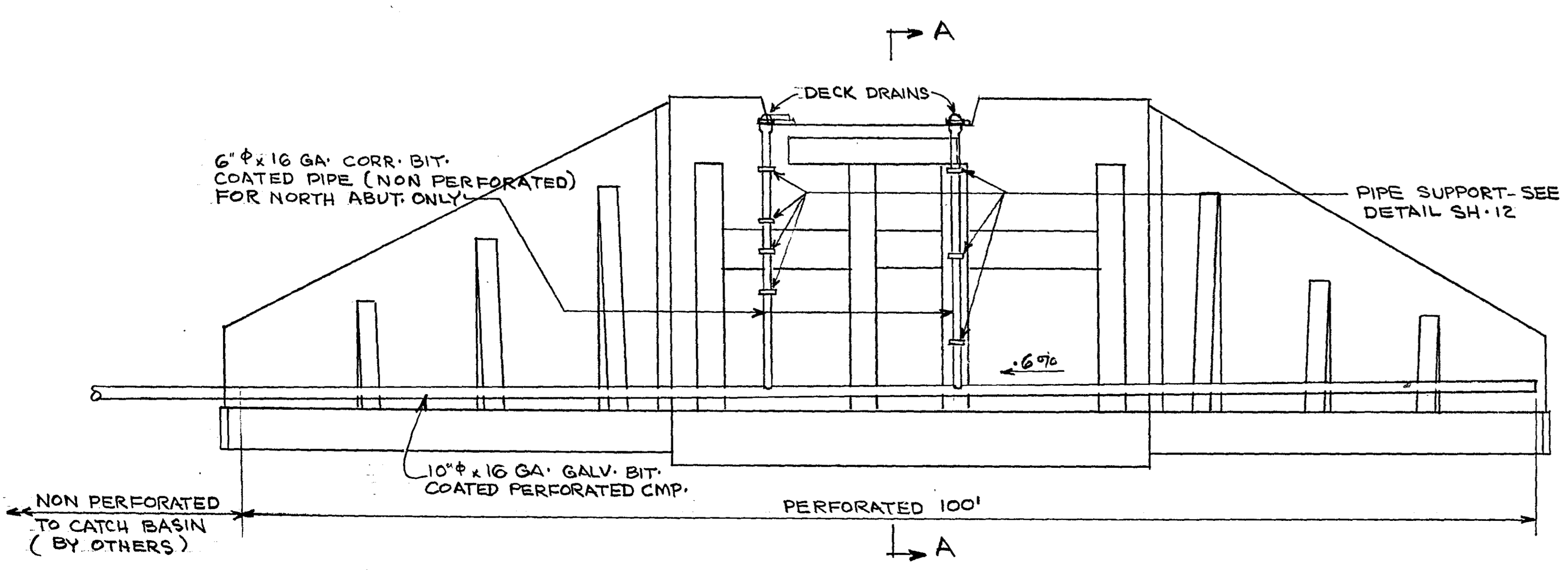


PLAN OF BACKWALL

BRIDGE NO. 62520
 GRADING PLAN
 & DETAILS
 MICROFILMED
 RAMSEY CO. ENGR.
 APPROVED: 5-22-70

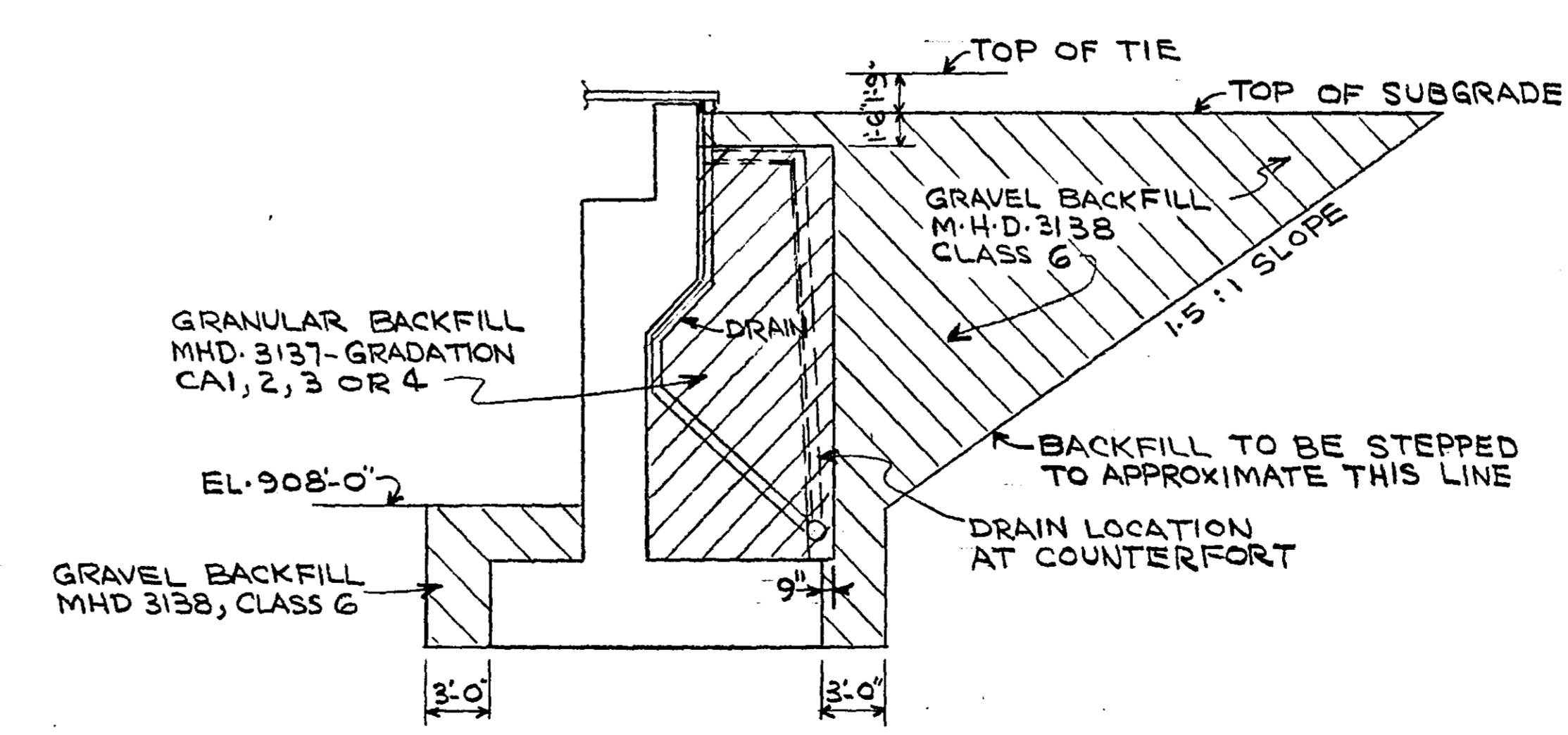


PART DECK DRAINAGE PLAN



VIEW B-B
(NORTH ABUTMENT)

NOTE: SOUTH ABUTMENT REVERSED EXCEPT NO DRAINS FROM DECK.



SECTION A-A

BRIDGE NO. 62520
DRAINAGE PLAN
APPROVED: 5-22-70
DES. J.M.
CHK. G.E.
L.P.

S.A.P. NO. 62-623-07

Sheet No. 14A of 28 Sheets

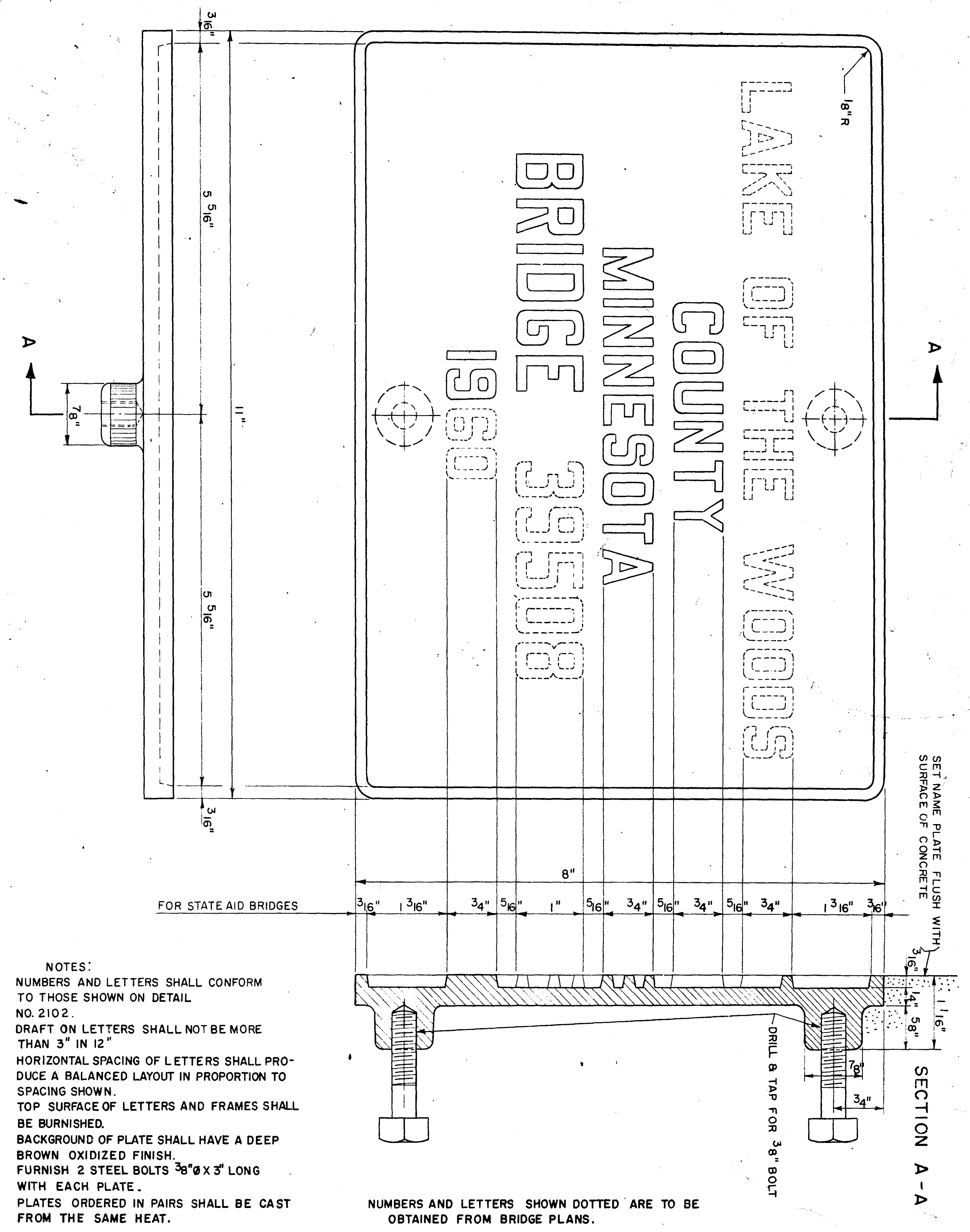
ABCDEFGHIJKLMNOP
 OPQRSTUVWXYZ
 1234567890

1964 & 1968 SPEC.
 APPROVED: 7/2 1959
 A. E. LaBonte
 BRIDGE ENGINEER

STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
 LETTERS FOR BRIDGE NAME PLATES

REVISIONS
 2102

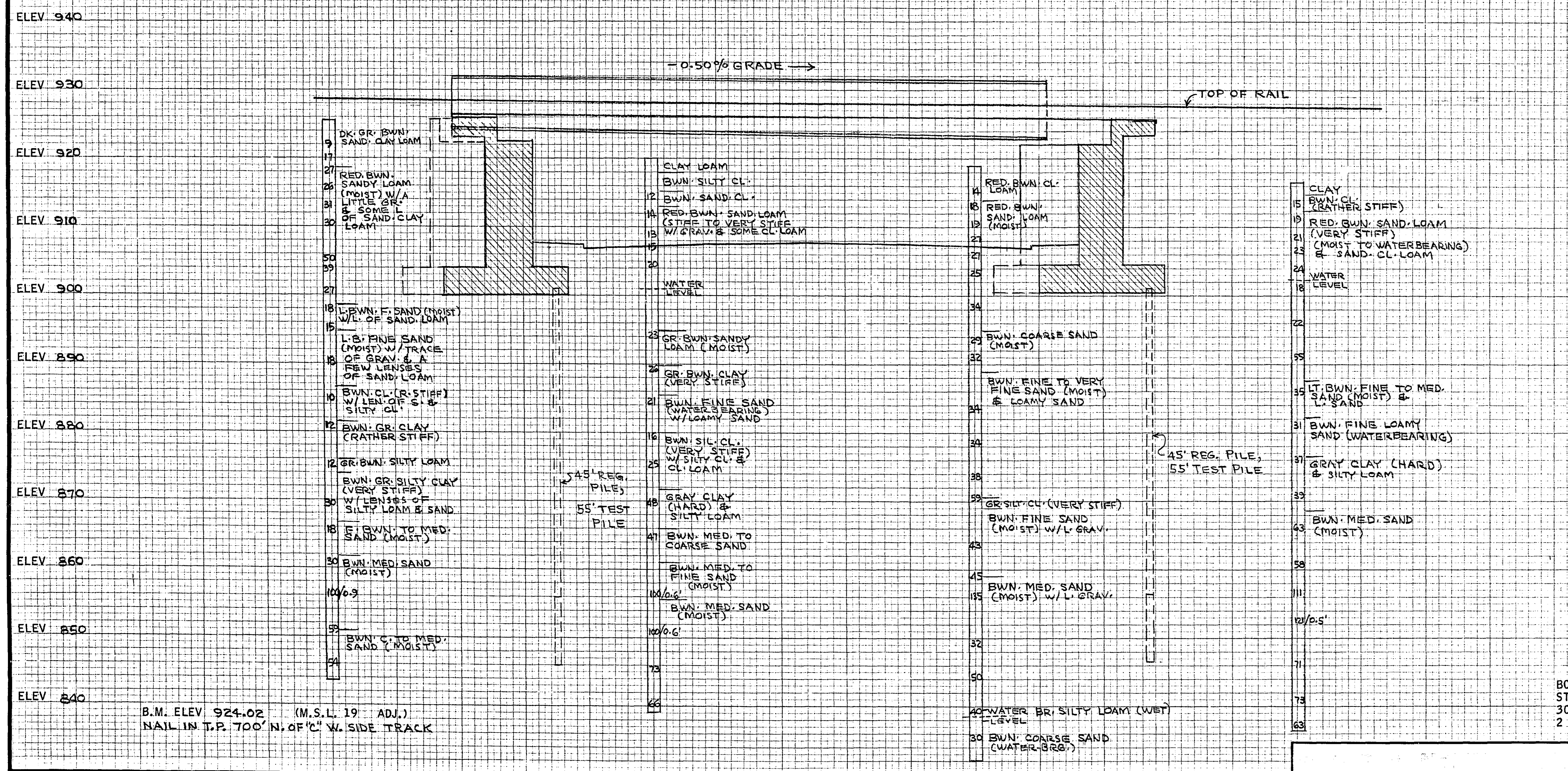
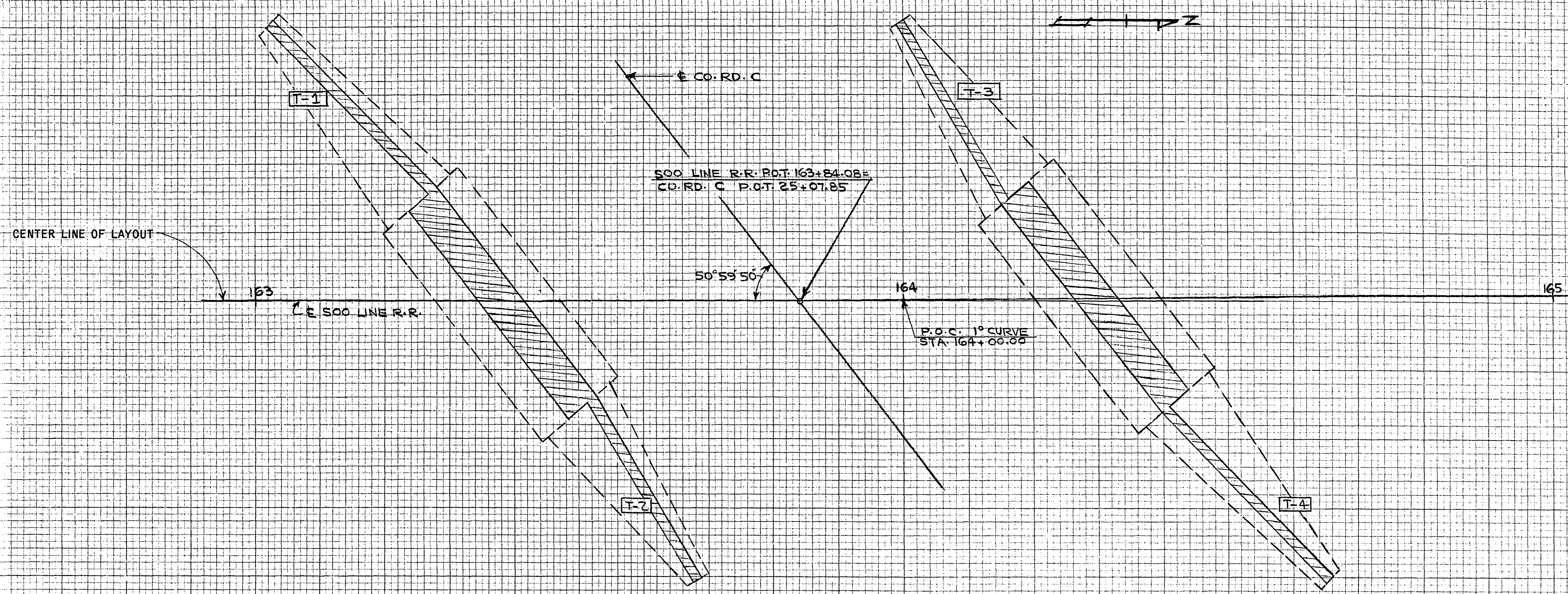
NOTE:
 ALL DIMENSIONS FOR 3/4" HIGH LETTERS AND NUMBERS SHALL BE IN DIRECT PROPORTION TO THOSE SHOWN ABOVE FOR THE 1" HIGH LETTERS AND NUMBERS. THE THICKNESS OF THE LETTERS AND NUMBERS SHALL BE 3/16".



NOTES:
 NUMBERS AND LETTERS SHALL CONFORM TO THOSE SHOWN ON DETAIL NO. 2102.
 DRAFT ON LETTERS SHALL NOT BE MORE THAN 3" IN 12"
 HORIZONTAL SPACING OF LETTERS SHALL PRODUCE A BALANCED LAYOUT IN PROPORTION TO SPACING SHOWN.
 TOP SURFACE OF LETTERS AND FRAMES SHALL BE BURNISHED.
 BACKGROUND OF PLATE SHALL HAVE A DEEP BROWN OXIDIZED FINISH.
 FURNISH 2 STEEL BOLTS 3/8" x 3" LONG WITH EACH PLATE.
 PLATES ORDERED IN PAIRS SHALL BE CAST FROM THE SAME HEAT.

APPROVED _____ 1959 BRIDGE ENGINEER	STATE OF MINNESOTA DEPARTMENT OF HIGHWAYS BRIDGE NAME PLATE FOR COUNTY BRIDGES	REVISIONS 2-19-68	DETAIL NO. 2104
SPECIFICATION REFERENCE 2471.3 H, 3327 (BRONZE CASTINGS)		1964 & 1968 SPECS.	

STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
 Bridge No.
 62520
 DETAILS
 APPROVED 5-22-70
 MICROFILMED
 RAMSEY CO. ENGR.
 Sheet No. 14 of
 28 Sheets



TRUNK HIGHWAY NO.
STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS

BRIDGE NO. 62520

**BRIDGE SURVEY
PLAN AND PROFILE**

MICROFILMED
RAMSEY CO. ENG'G.

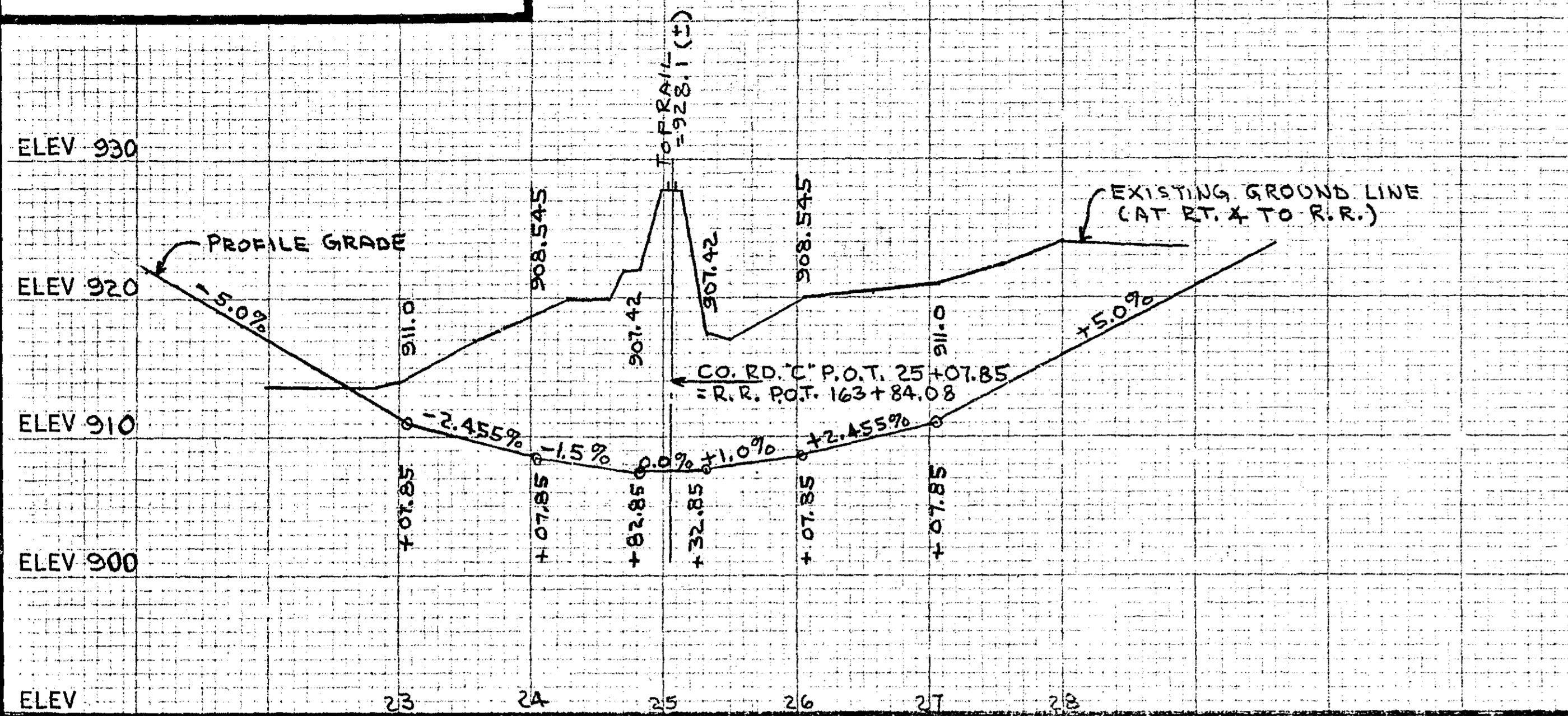
SEE SHEET NO. 16 FOR ADDITIONAL INFORMATION

BORINGS SHOWN TAKEN WITH
STD. 140 LB. HAMMER
30 INCH DROP
2 INCH O.D. SAMPLER

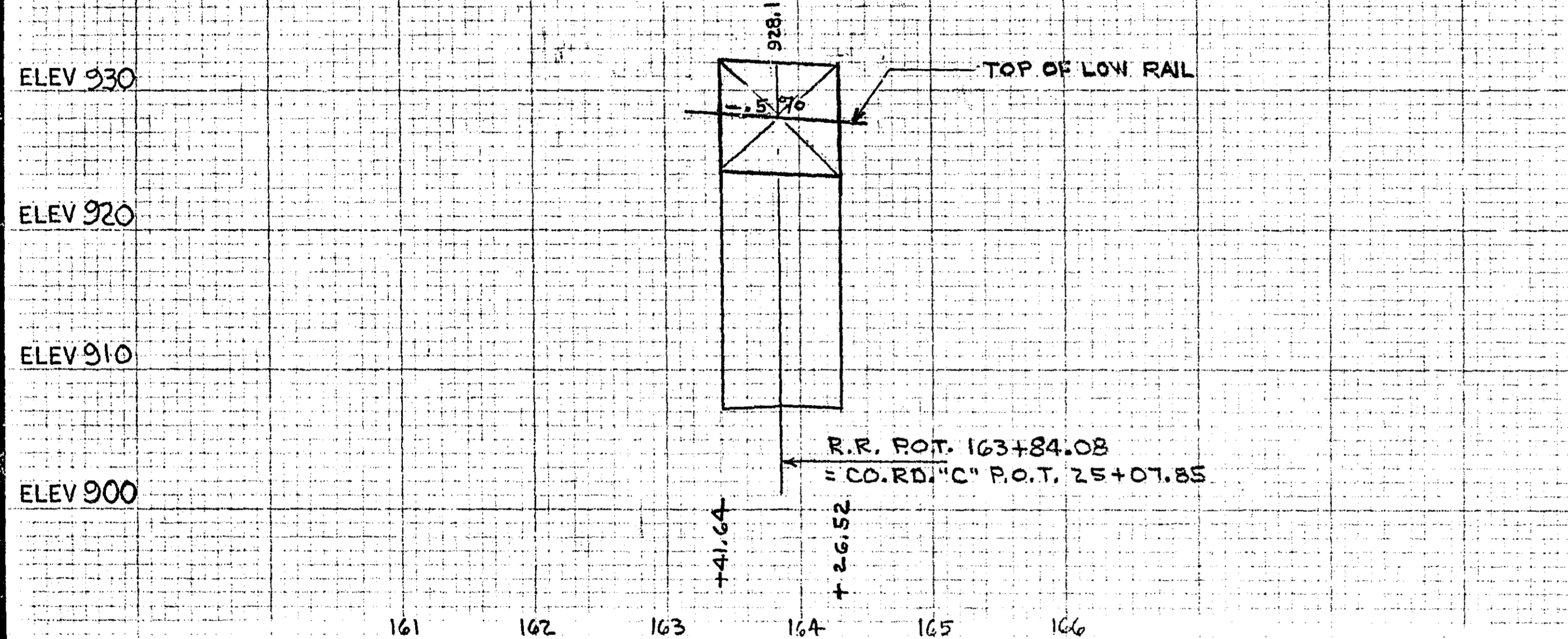
CONTRACTED PROFILE

SCALE: HOR. 1" = 100' VER. 1" = 10'

± PROFILE OF Co. Rd. "C" (PROPOSED) (UNDER)

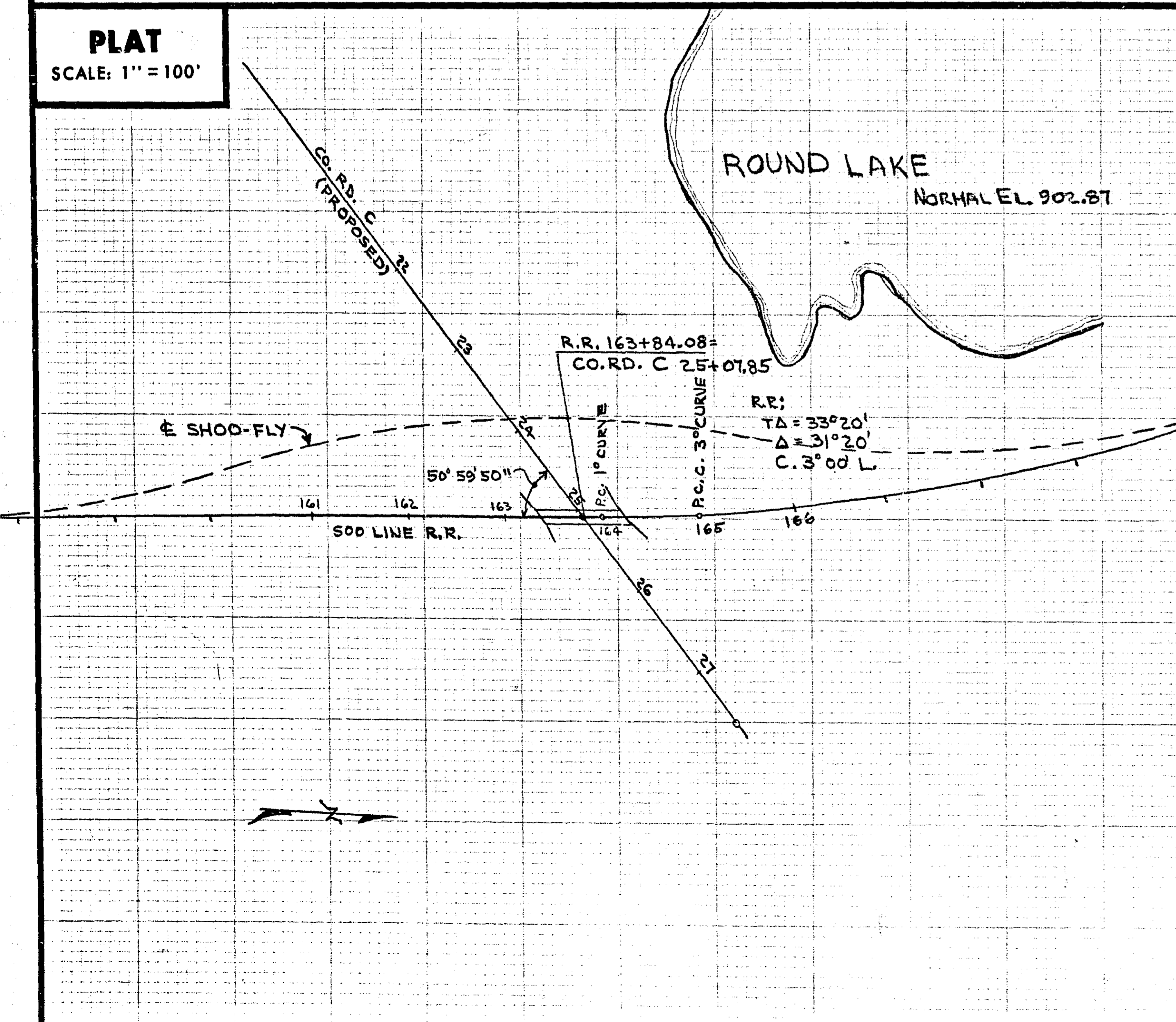


± PROFILE OF SOD LINE R.R. (OVER)



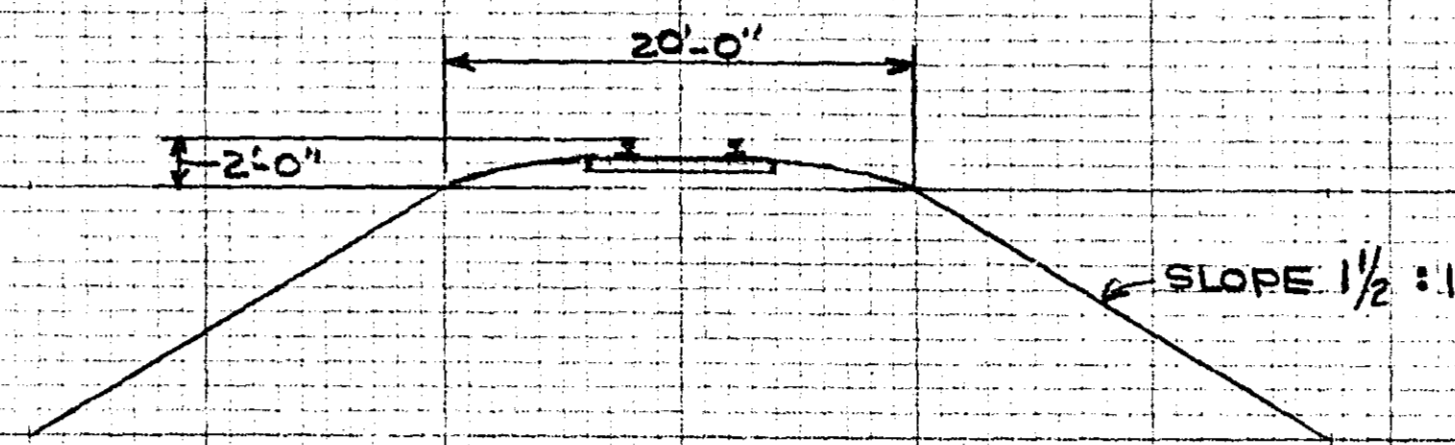
PLAT

SCALE: 1" = 100'



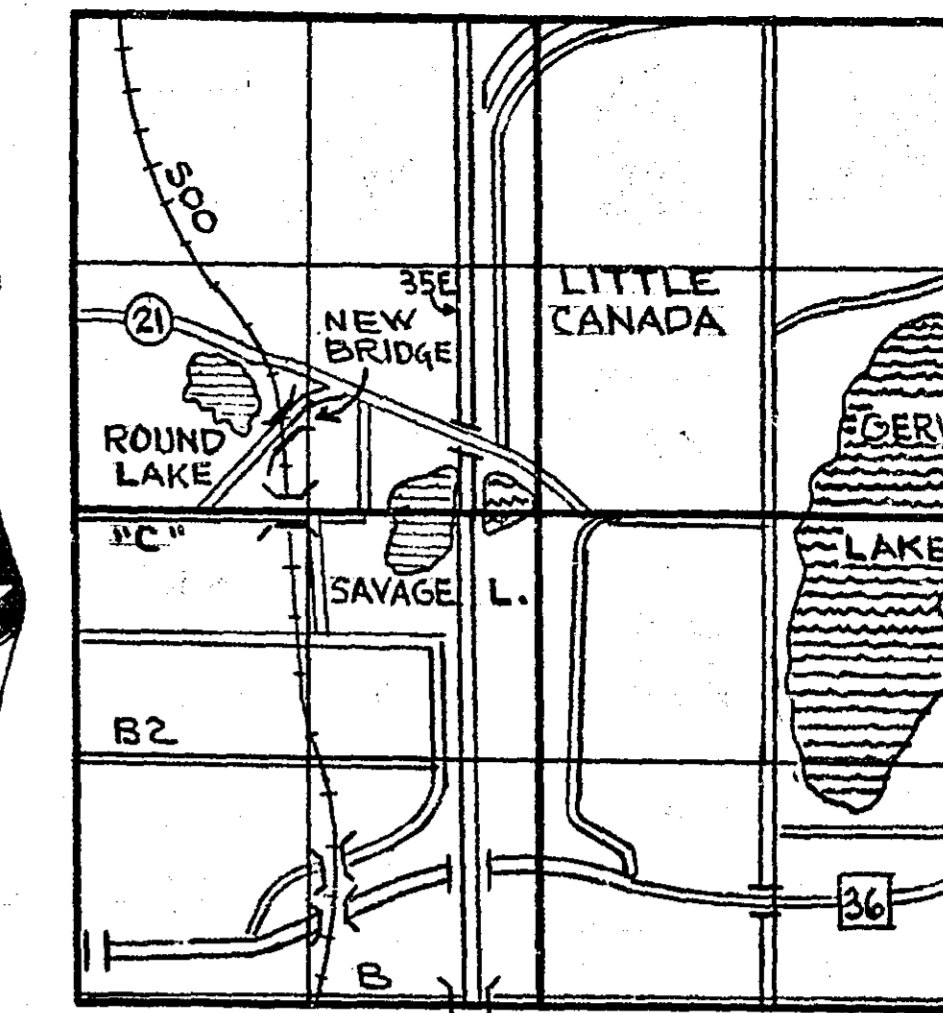
TYPICAL SECTIONS & PERTINENT DATA

SCALES AS SHOWN



TYPICAL RAILROAD SECTION

See Sheet 17 for Details.



INDEX MAP (FOUR SECTIONS)

FOLLOW SEPARATE "INSTRUCTIONS FOR PREPARATION OF BRIDGE SURVEYS" WHEN MAKING BRIDGE SURVEYS.

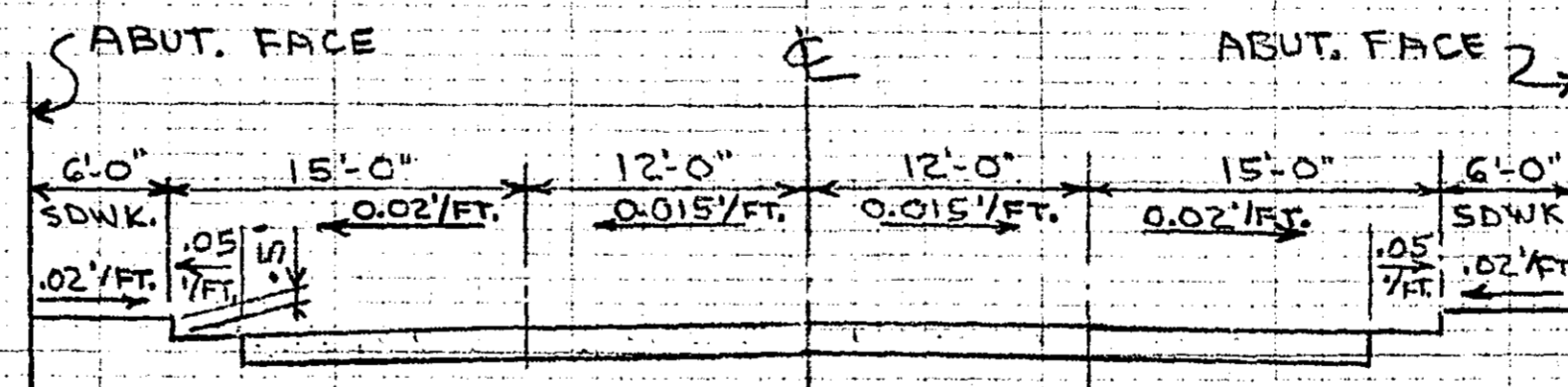
DATA

- Preliminary recommendations of Engineer in charge of Bridge Survey:
 - Net span length and type of bridge: 90 FT. SPAN THROUGH-GIRDER RAILROAD BRIDGE
 - Width of roadway on bridge: 21'-4" E TO E THROUGH-GIRDERS (SINGLE TRACK)
 - Number and width of sidewalks, if any: 1-3'-0" WALK-WAY EA. SIDE OF BRIDGE
 - Locate center of bridge at station: SOD LINE R.R. P.O.T. 163+84.08 = CO. RD. 'C' P.O.T. 25+07.85
 - If a skew bridge is recommended, the angle of skew should be: 39°-00'-10"
 - Is piling required? YES - CAST-IN-PLACE CONCRETE PILING RECOMMENDED
- Special features: Waterfalls, dams, exceptional floods, ice, driftwood, sliding banks, logging, etc. NONE
- Changes: In height or length from that of old bridge, and reasons why:
- Other bridges in vicinity:
 - Over same stream (particularly structures which carry high water without overflow of roadway); give location, length, height above water, net cross-sectional area at high water stage and estimated age:
 - Over or under same highway or railroad; give location, length, horizontal and vertical clearances and estimated age:
 - Reasons why these bridges are, or are not, fair indications of what length the proposed bridge should be:
- If structure is over a drainage ditch, is ditch gradient liable to be altered?
- Navigation clearances required, if any:
- Information and evidence in regard to high water stages was obtained as follows:
- Must contractor provide for traffic during construction of proposed bridge?

If so, by what means?

HYDRAULIC ENGINEERS RECOMMENDATION

.....



TYPICAL SECTION - Co. Rd. "C" (UNDER BRIDGE) (PROPOSED)

B.M. ELEV. 924.02 (M.S.L. 19 ADJ.)
 NAIL IN T.P. 700' N. OF "C" W. SIDE TRACK

SEE SHEET 15 OF 27 SHEETS FOR PLAN AND PROFILE

HIGH AND LOW WATER ELEVATIONS

Data obtained from:
 reflects highest water elevation in the area of this construction to be and the lowest water elevation to be The above figures are for informational purposes only. The state neither warrants nor represents that these figures for high water and low water are in any way indicative of the high water or low water to be expected or encountered during this construction.

STATE OF MINNESOTA DEPARTMENT OF HIGHWAYS

BRIDGE SURVEY

FOR

PROPOSED BRIDGE LOCATED 1.0 MILES WEST OF

LITTLE CANADA ON Co. Rd. 'C' (PROPOSED) (TOWN OR CITY) (T.H., C.S.A.H. OR C.A.R. NUMBER)

SEC. 6 TWP. T.29.N. R. R.22.W.

TOWNSHIP LITTLE CANADA COUNTY RAMSEY

SURVEY MADE DURING MONTH OF DECEMBER, 1967

SURVEY MADE BY RAMSEY COUNTY

BRIDGE NO. 62520 MICROFILMED BY RAMSEY COUNTY

SHIPPING POINT

Proposed Bridge is miles of

* which is the nearest

Railroad shipping point.

*(Give name of town, station or siding)

Date Project or County Engineer

Date District Engineer

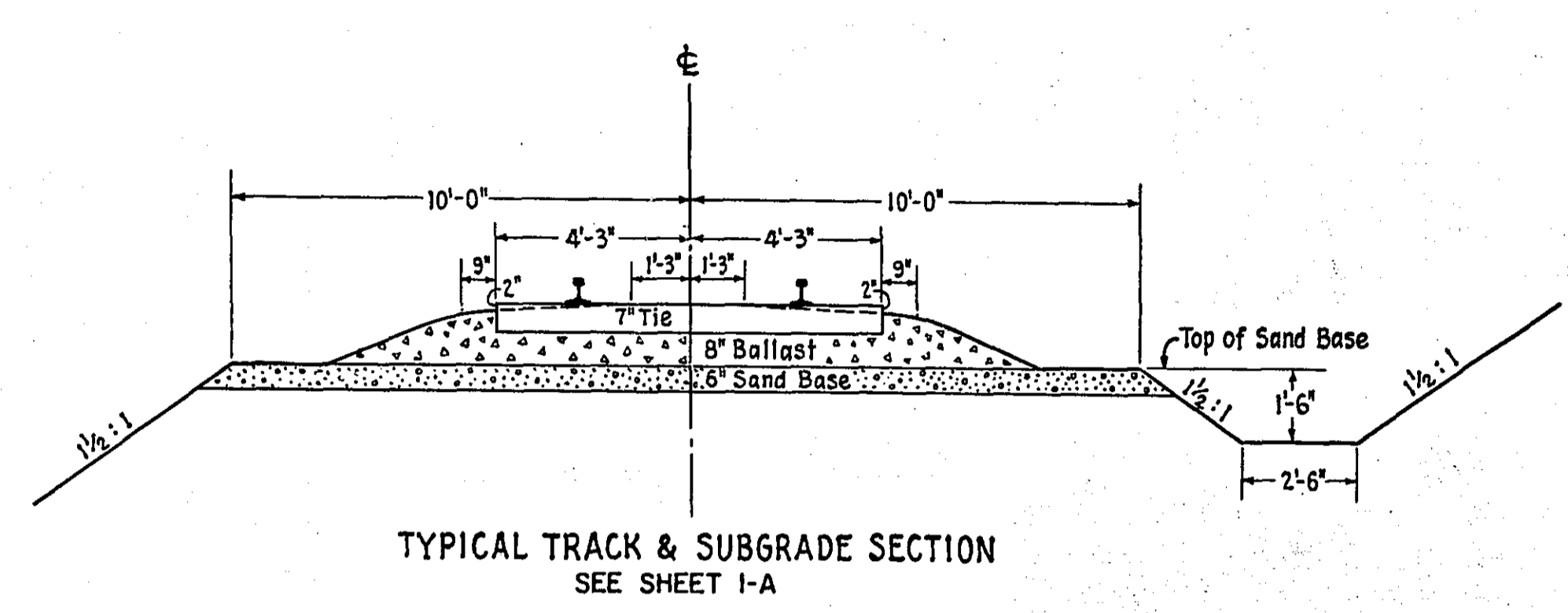
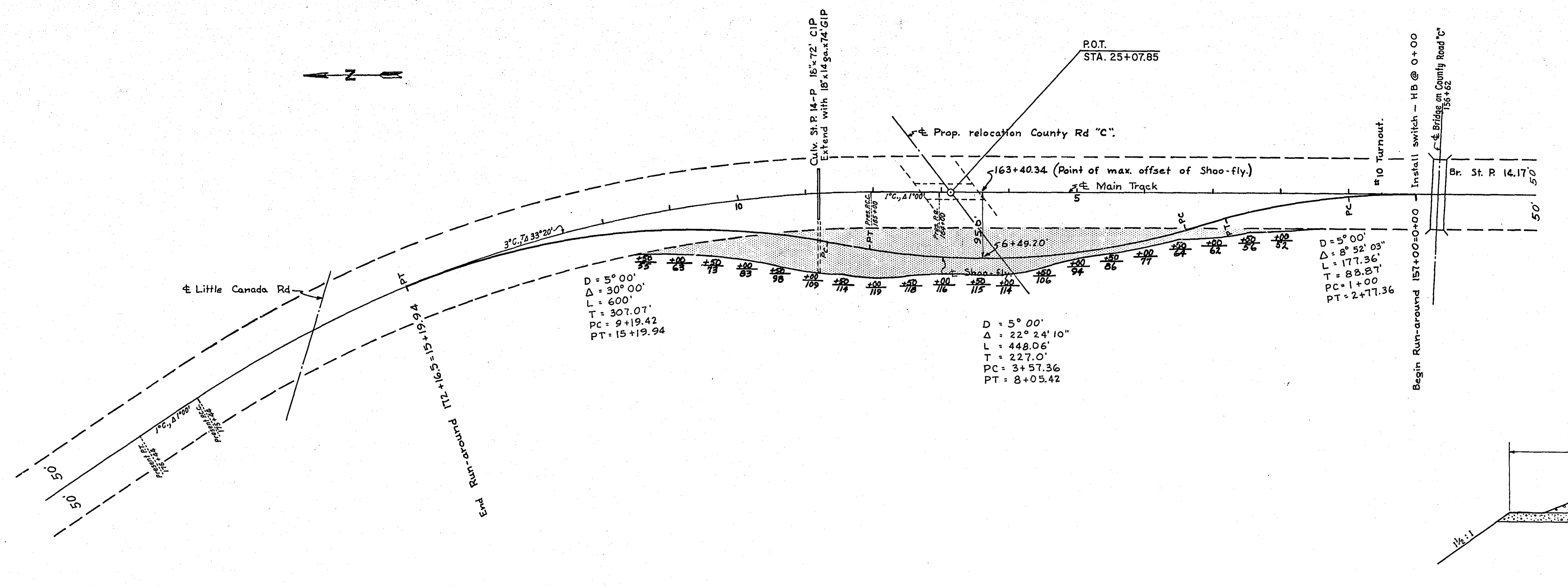
Area No. Job No.

S.A.P. # 62-623-07

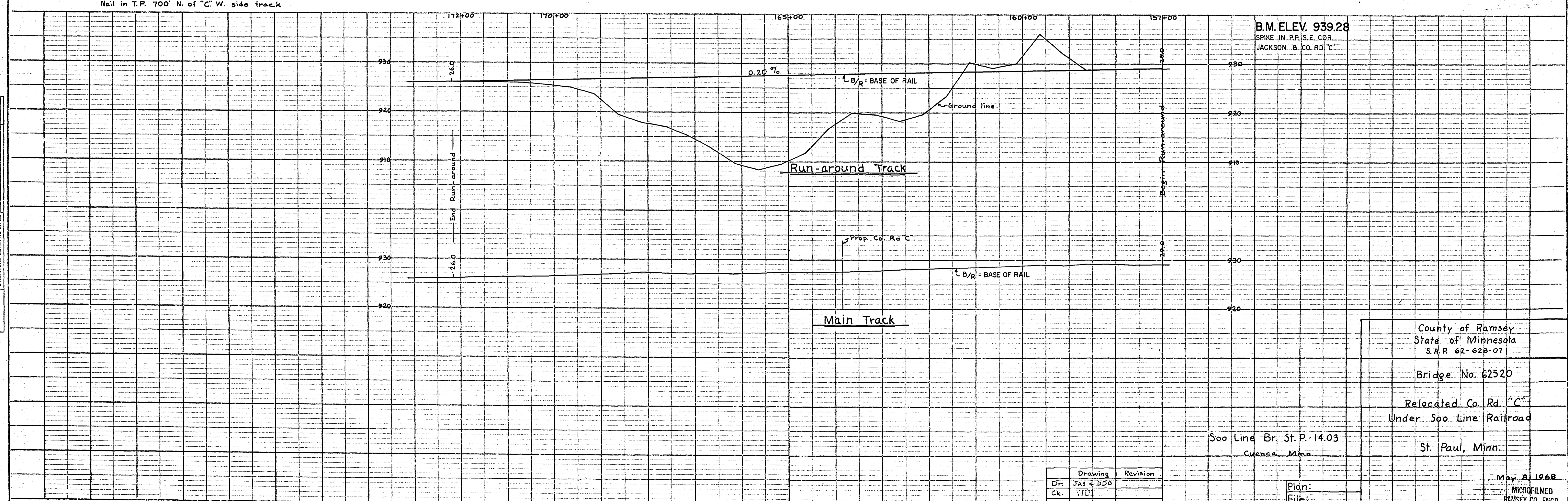
Sheet No. 16 of 28 Sheets

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NOTE BOOK: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 NOTE BOOK: _____
 NO. _____



B.M. Elev. 924.02 (M.S.L. 19 adj.)
Nail in T.P. 700' N. of 'C' W. side track



Drawing	Revision
DF: JAN + DDO	
CK: WDI	

Plan: _____
File: _____

County of Ramsey
State of Minnesota
S.A.P. 62-623-07

Bridge No. 62520

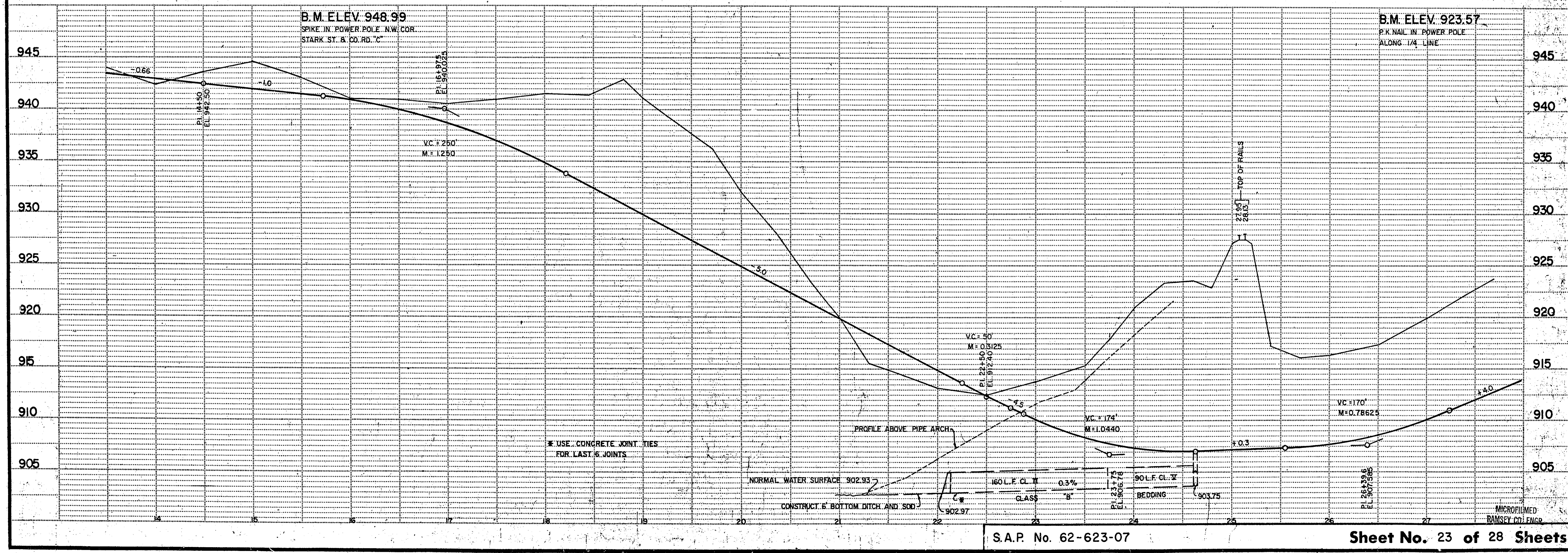
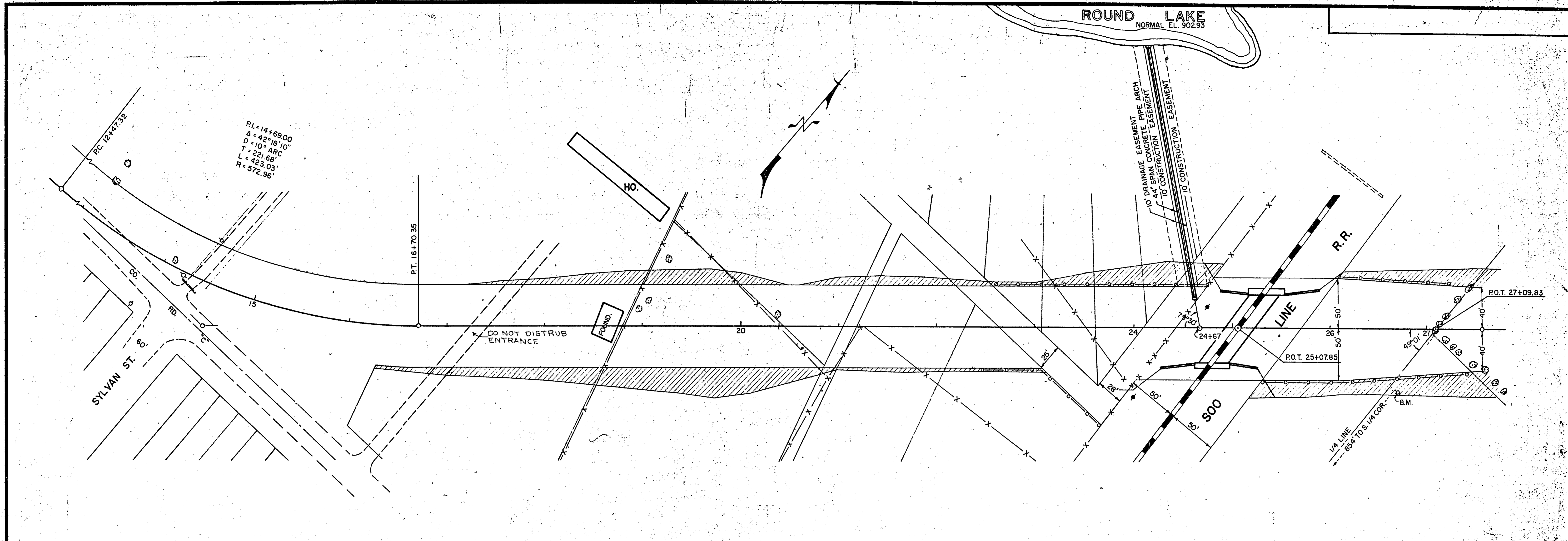
Relocated Co. Rd. "C"
Under Soo Line Railroad

St. Paul, Minn.

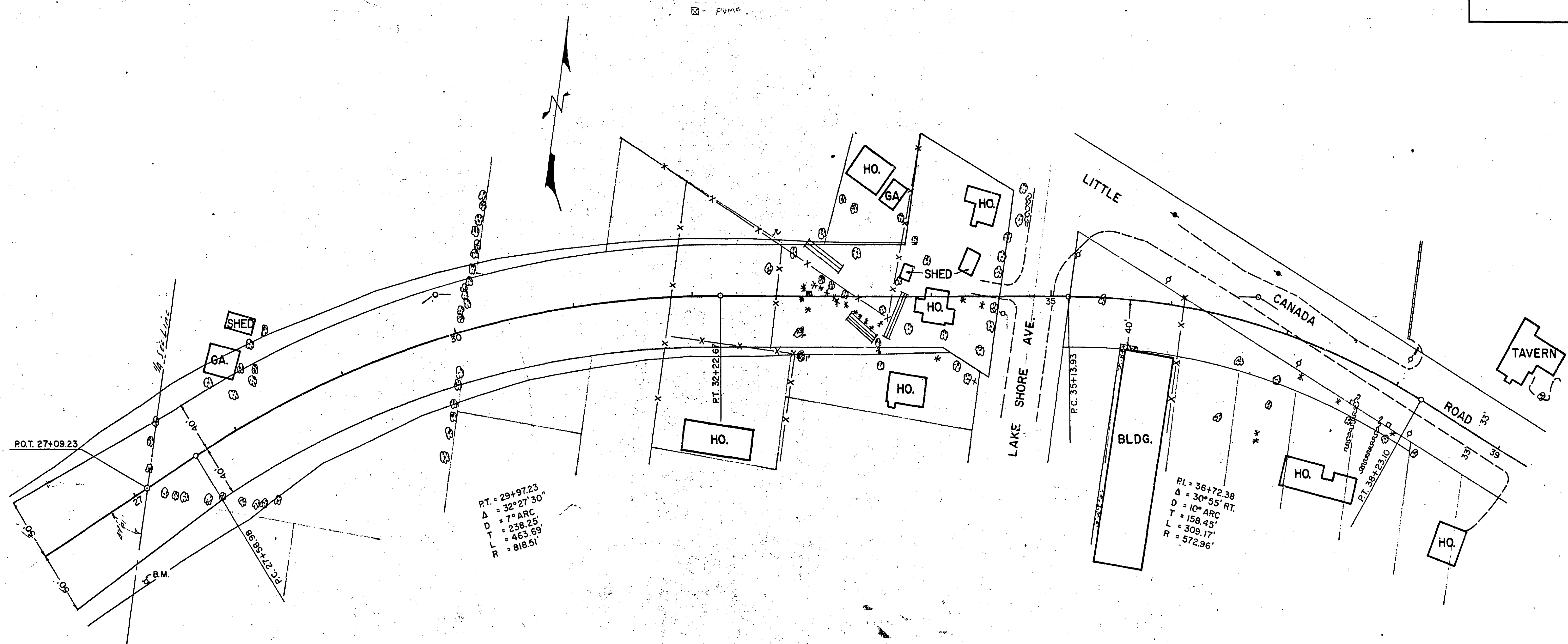
Soo Line Br. St. P. 14.03
Cuence, Minn.

May 8, 1968
MICROFILMED
RAMSEY CO. ENGR.

Sheet 17 of 28 Sheets

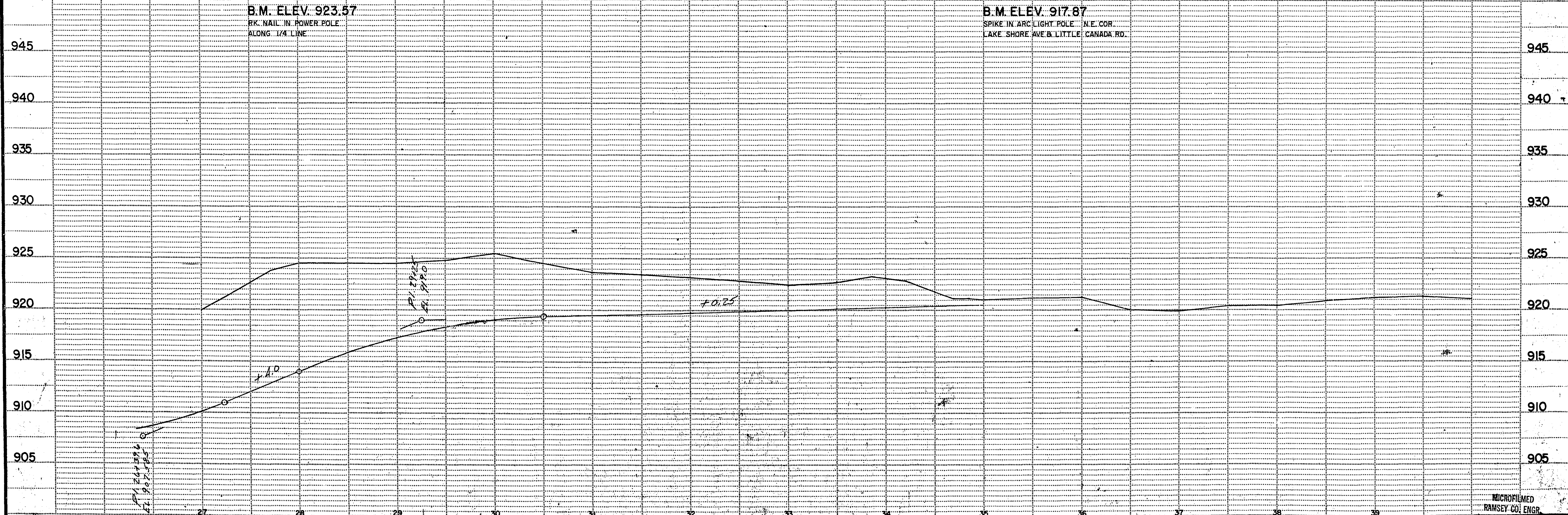


6886



B.M. ELEV. 923.57
 BK. NAIL IN POWER POLE
 ALONG 174' LINE

B.M. ELEV. 917.87
 SPIKE IN ARC LIGHT POLE N.E. COR.
 LAKE SHORE AVE & LITTLE CANADA RD.



MICROFILMED
 RAMSEY CO. ENGR.