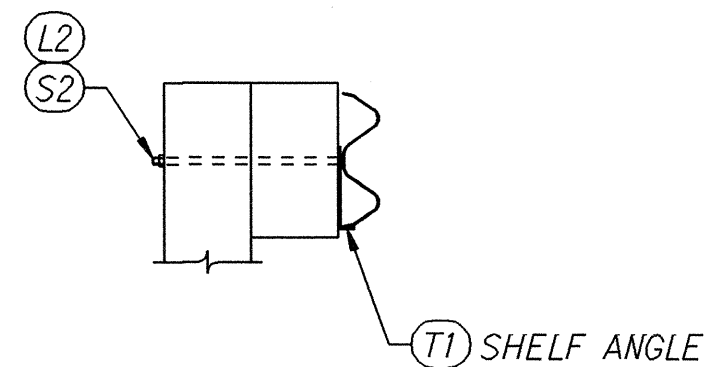
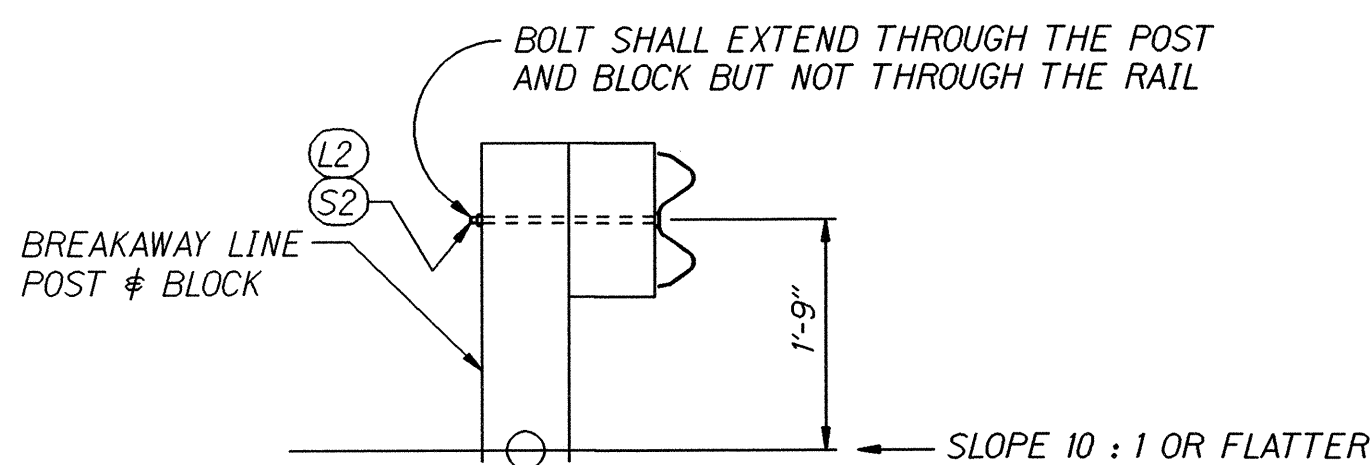


NOTES

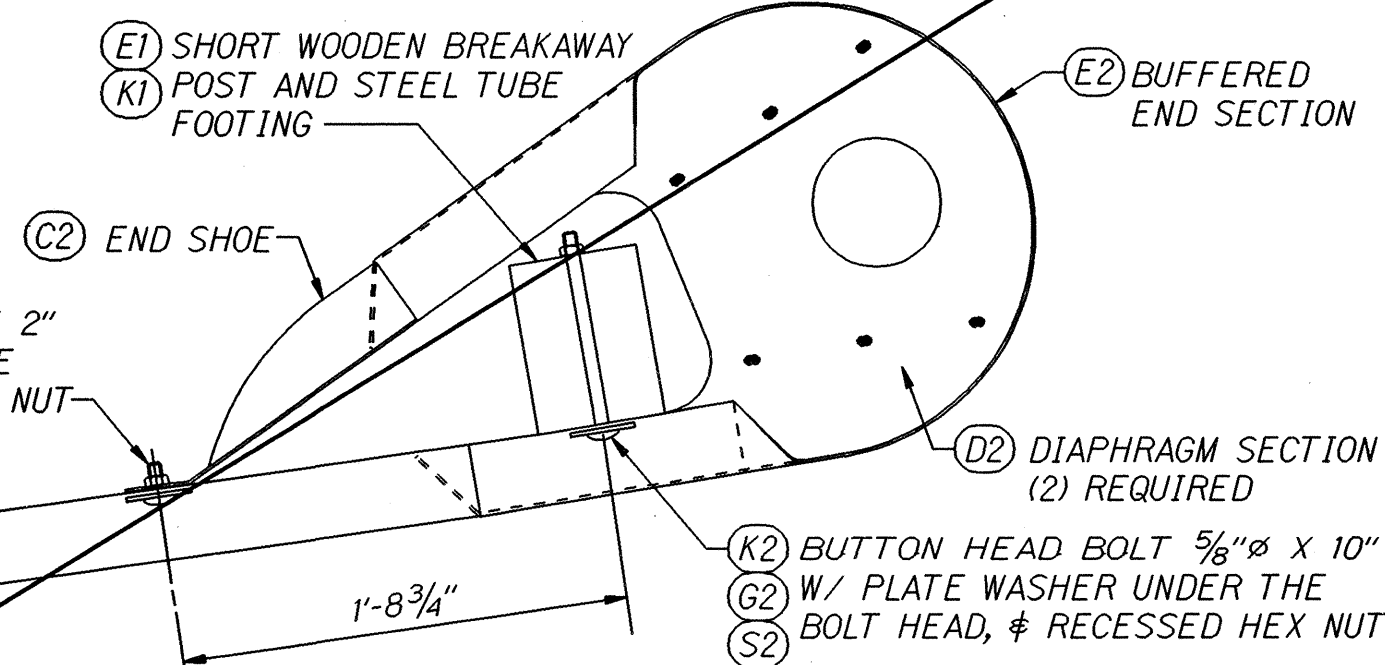
P L A N



S E C T I O N B - B



SECTION \ N A - A

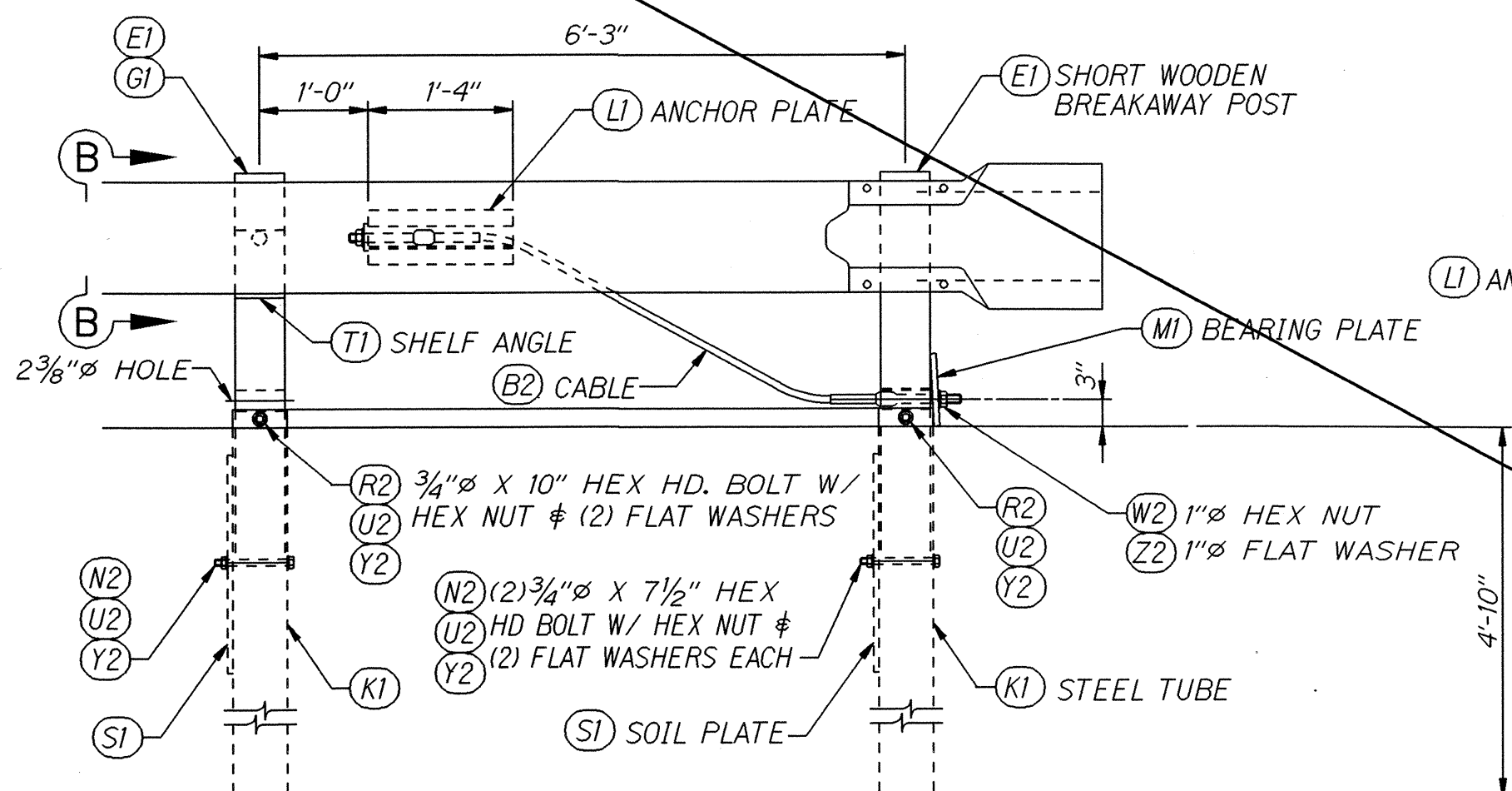


BUFFERED END ASSEMBLY

SUMMARY OF COMPONENTS

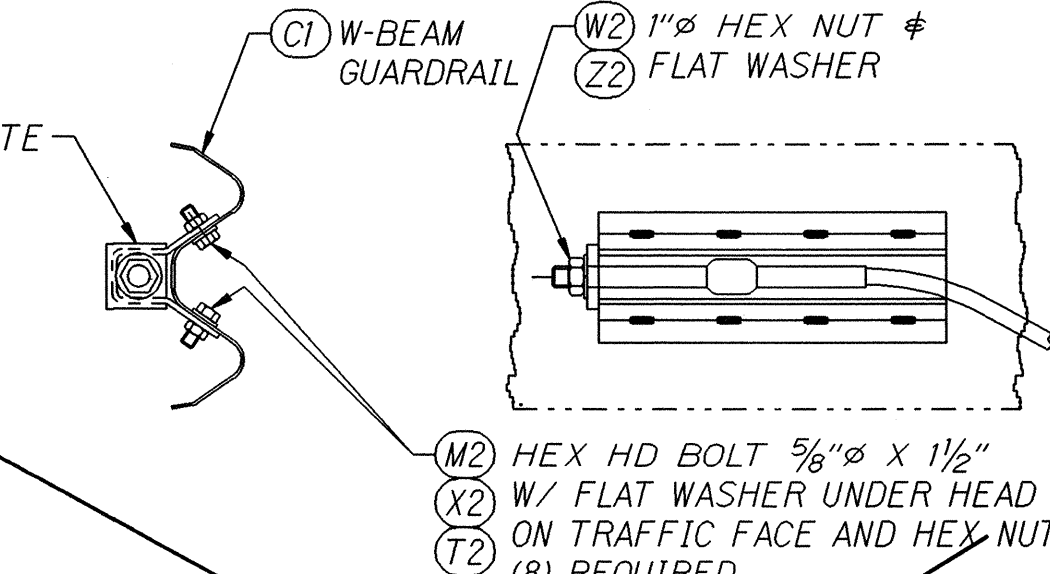
FIND NO.	DESCRIPTION
(A1)	GUARDRAIL, 12GA X 12'-6"
(B1)	GUARDRAIL, 12GA X 12'-6"
(C1)	GUARDRAIL, 12GA X 12'-6"
(D1)	BREAKAWAY LINE POST, TIMBER - 6" X 8" X 6'-0"
(E1)	BREAKAWAY POST, TIMBER - 5½" X 7½" X 3'-6½"
(G1)	BLOCK, TIMBER - 5½" X 7½" X 1'-2"
(H1)	POST - W6 X 8.5 X 6'-0"
(J1)	BLOCK - W6 X 8.5 X 1'-2"
(K1)	SOIL TUBE - TS 8 X 6 X .188 X 5'-0"
(L1)	CABLE ANCHOR BRACKET
(M1)	BEARING PLATE
(R1)	PIPE SPACER
(S1)	SOIL PLATE
(T1)	SHELF ANGLE
(A2)	STRUT & YOKE ASSEMBLY
(B2)	CABLE ASSEMBLY
(C2)	END SHOE
(D2)	DIAPHRAGM PLATE
(E2)	BUFFERED END SECTION
(G2)	WASHER, PLATE
(H2)	BOLT, SPLICE ⅝"ø X 1¼"
(J2)	BOLT, POST ⅝"ø X 2"
(K2)	BOLT, POST ⅝"ø X 10"
(L2)	BOLT, POST ⅝"ø X 18"
(M2)	BOLT, HEX ⅝"ø X 1½"
(N2)	BOLT, HEX ¾"ø X 1½"
(R2)	BOLT, HEX ¾"ø X 10"
(S2)	NUT, HEX, RECESSED ⅝"ø
(T2)	NUT, HEX ⅝"ø
(U2)	NUT, HEX ¾"ø
(W2)	NUT, HEX 1"ø
(X2)	WASHER, FLAT ⅝"ø
(Y2)	WASHER, FLAT ¾"ø
(Z2)	WASHER, FLAT 1"ø

NOTE:
ALL WOOD COMPONENTS SHALL BE TREATED TO
CONFORM WITH ANY OF THE ACCEPTED METHODS IN
SECTION 714 OF THE DEPARTMENT OF TRANSPORTATION
"STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND
PUBLIC WORKS CONSTRUCTION", 1994.

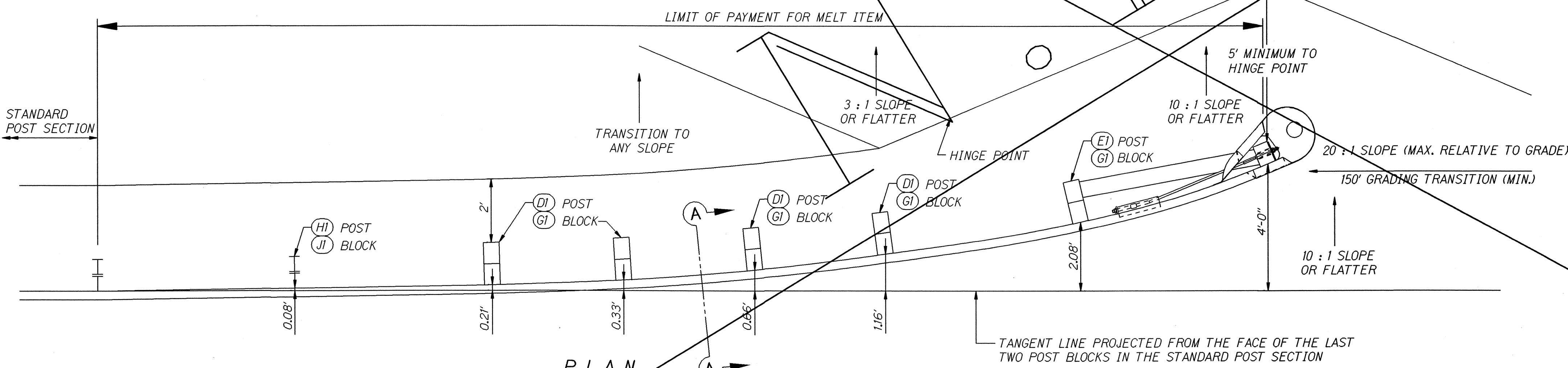


ELEVATION

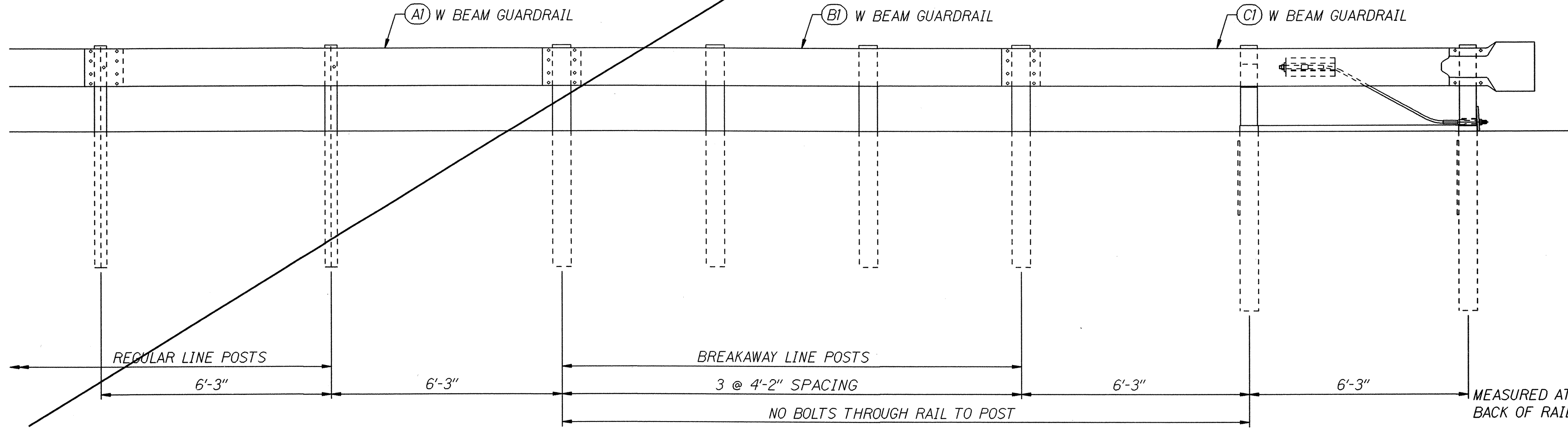
BUFFERED END & ANCHORAGE ASSEMBLY



~~ANCHOR PLATE ASSEMBLY DETAILS~~



PLAN



E L E V A T I O N

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK <i>Vol. 1</i> <i>Lat. 11° 50'</i> <i>Long. 78° 15'</i>	DRAWN BY <i>X</i>	* <i>X</i>
	TRACED BY _____	_____
	DESIGNED BY <i>X</i>	_____
	QUANTITIES BY _____	_____
<i>met / meil / dg</i>	CHECKED BY _____	_____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MODIFIED ECCENTRIC LOADER
TERMINAL (MELT)
POST LAYOUT & ERECTION DETAILS
HAWAII BELT ROAD RESURFACING
Kaala Bridge to Kaawallii Gulch
F.A. Project No. STP-019-2(37)

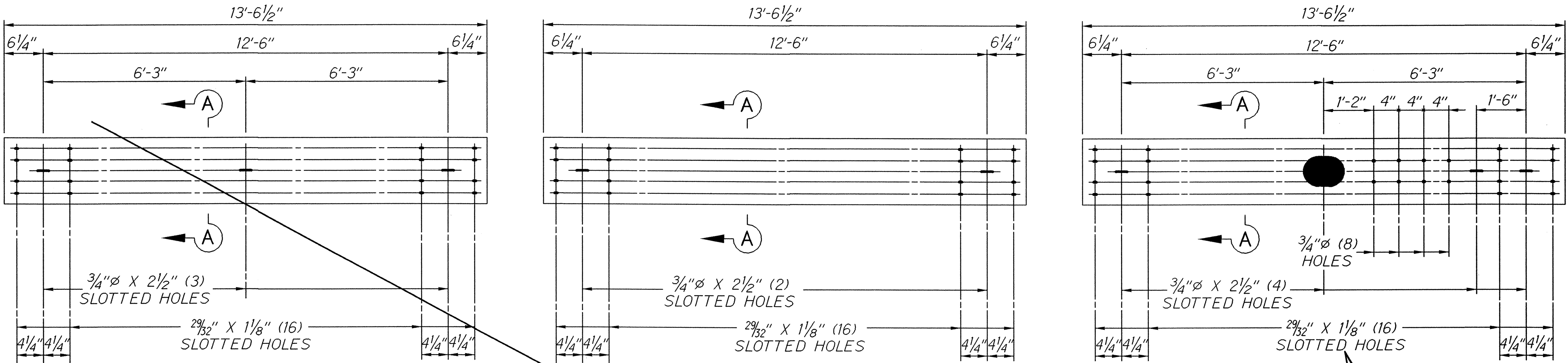
Not to Scale *Date: Feb., 1995*

SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(37)	1995	33	36

MATERIAL SCHEDULE					
FIND	PIECE	MATERIAL	LENGTH	WEIGHT	REMARKS
No.	MARK		FEET	INCHES	
AI		GUARDRAIL, W-BEAM		95.0	A123
		12 GA. W-BEAM GUARDRAIL	12	6	M180
BI		GUARDRAIL, W-BEAM		95.0	A123
		12 GA. W-BEAM GUARDRAIL	12	6	M180
CI		GUARDRAIL, W-BEAM		95.0	A123
		12 GA. W-BEAM GUARDRAIL	12	6	M180
DI		BREAKAWAY LINE POST		88.0	
		TIMBER POST 6 X 8	6	0	M168
EI		BREAKAWAY POST, SHORT		44.6	
		TIMBER POST 5 1/2 X 7 1/2	3	6 1/2	M168
GI		BLOCK		16.8	
		TIMBER BLOCK 5 1/2 X 7 1/2	1	2	M168
HI		POST		54.9	A123
		W6 X 8.5	6	0	A36
JI		BLOCK		11.0	A123
		W6 X 8.5	1	2	A36
KI		SOIL TUBE		88.9	A123
		TS 8 X 6 X .1875	5	0	A500B
LI		CABLE ANCHOR BRACKET		19.3	A123
	a	PL 1/4 X 12 3/8	1	4	A36
	b	PL 1/2 X 2 3/4	0	3	A36
MI		BEARING PLATE		11.9	A123
	c	PL 5/8 X 8	0	8	A36
	d	PL 3/16 X 1	0	8	A36
RI		POST SLEEVE		1.76	A123
		PIPE 2ø STD	0	5 1/2	A53
SI		SOIL PLATE		84.8	A123
		PL 1/4 X 24	2	0	A36
TI		SHELF ANGLE		3.7	A123
		PL 1/4 X 6	0	8 1/2	A36

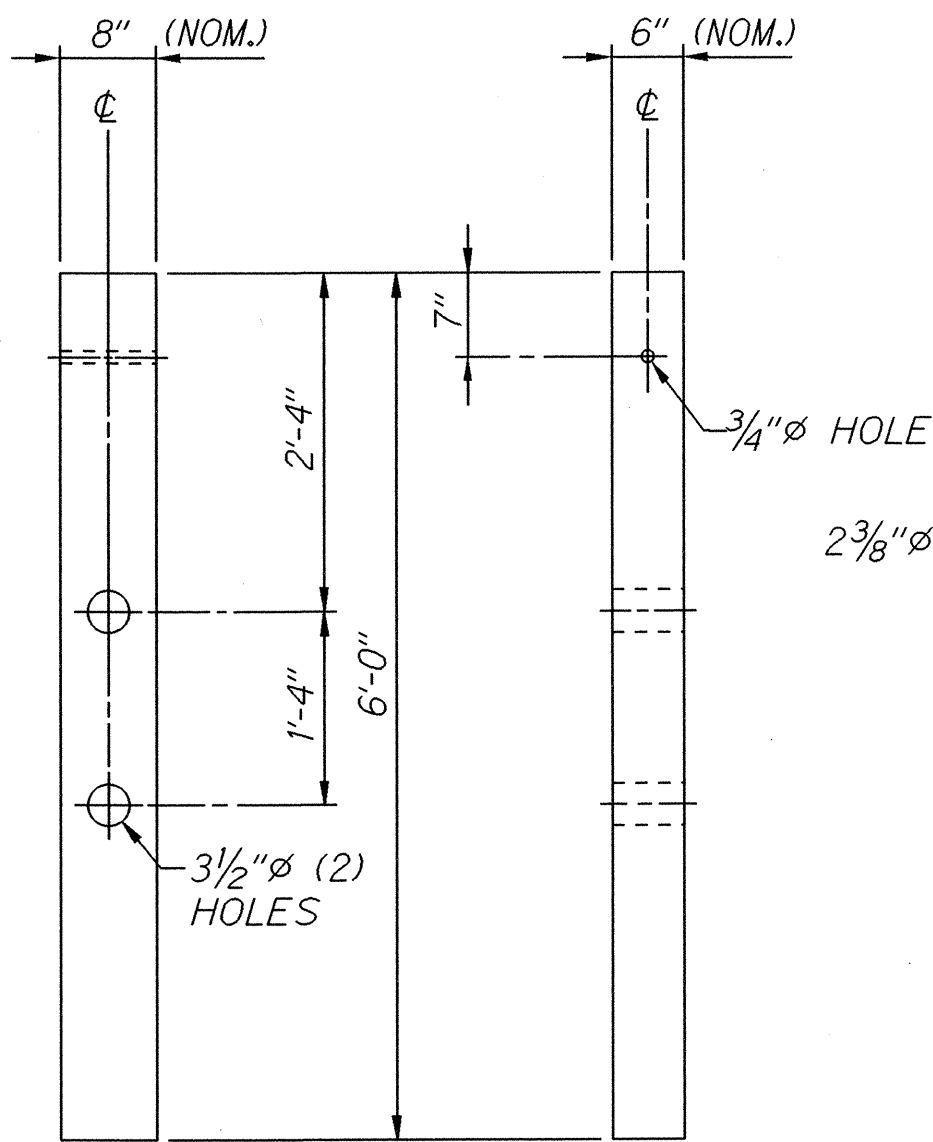
SECTION A - A



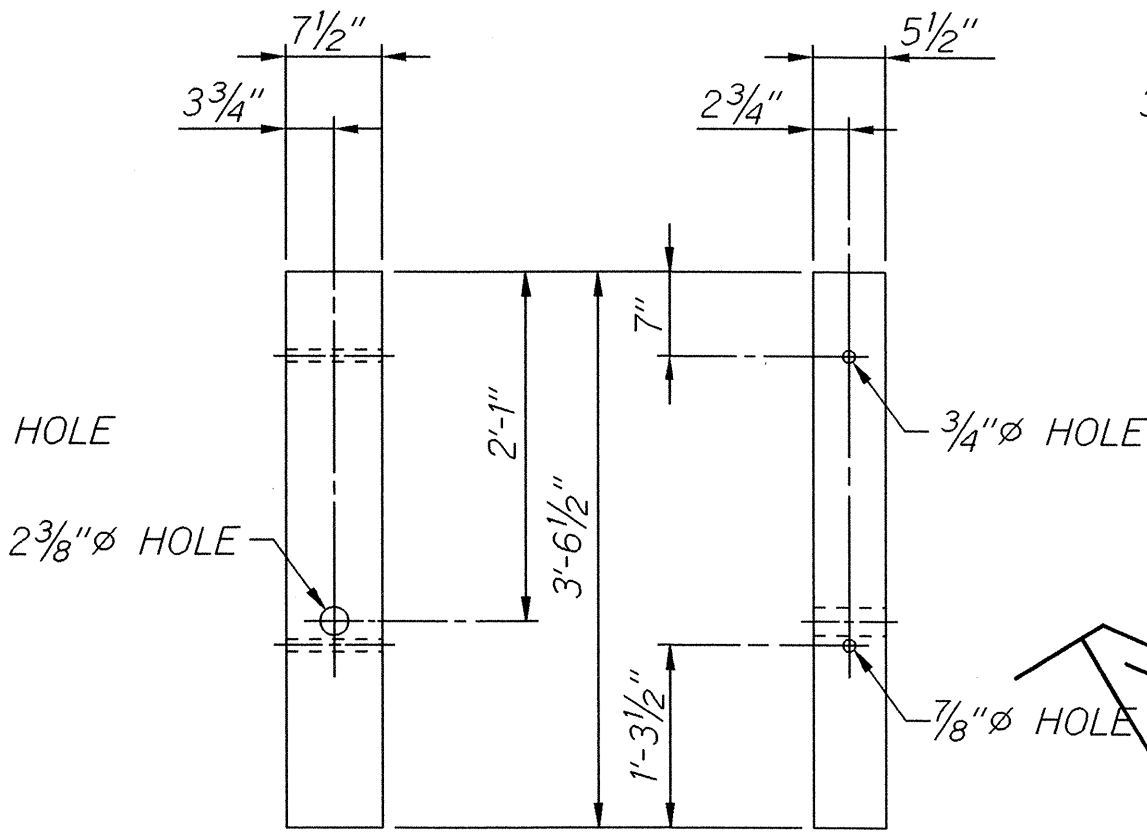
ONE - GUARDRAIL - AI

ONE - GUARDRAIL - BI

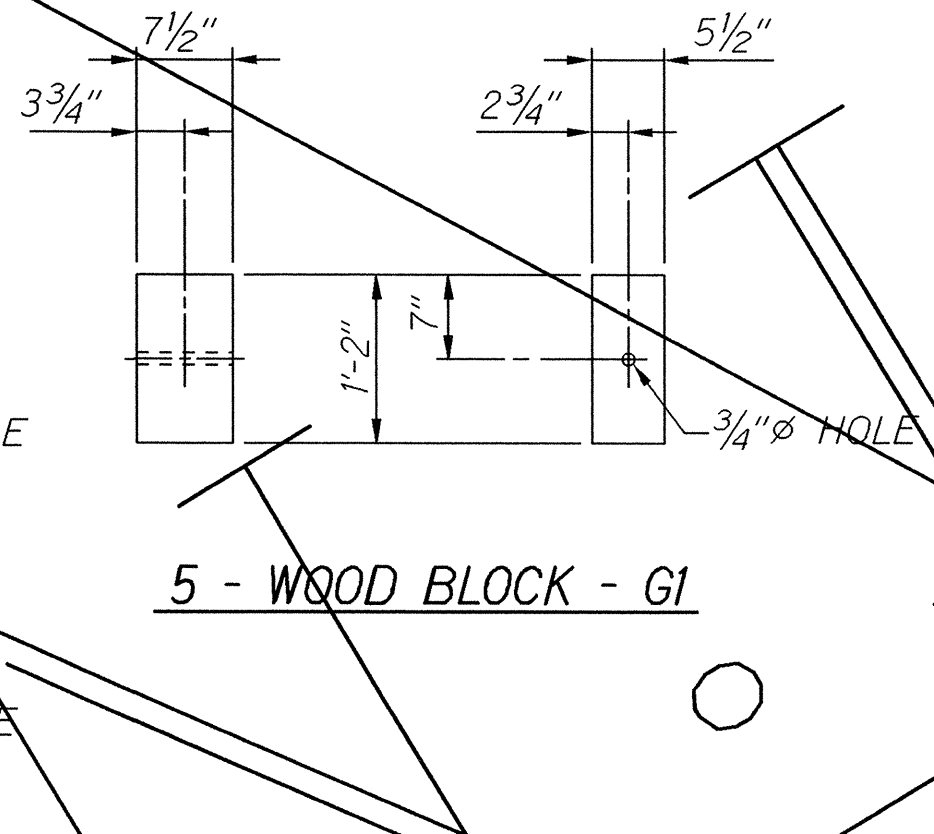
ONE - GUARDRAIL - CI



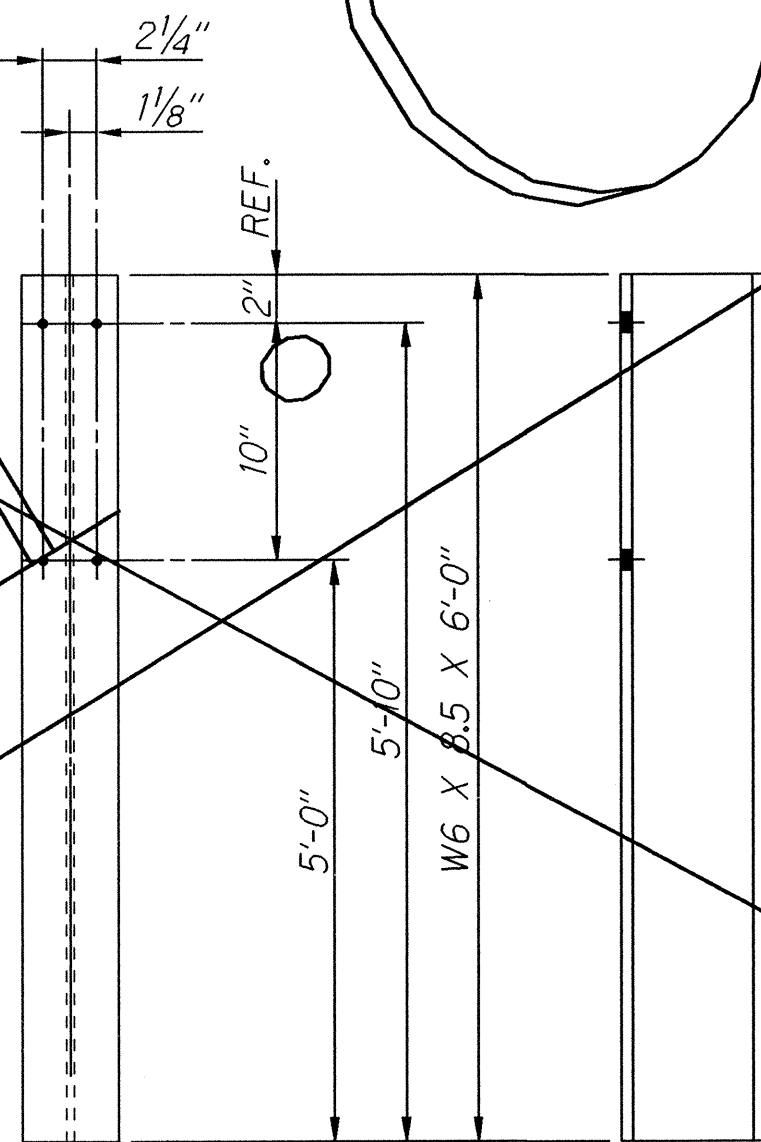
4 - WOOD POST - DI



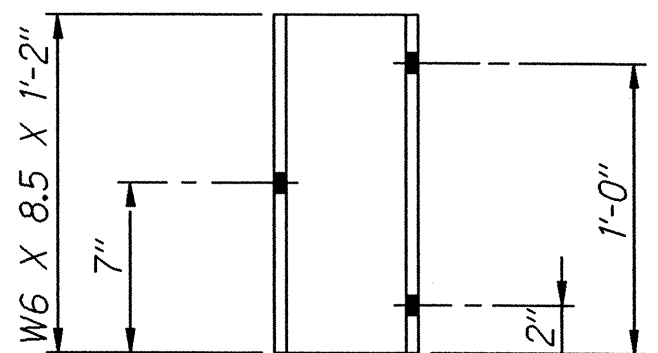
2 - WOOD POST - EI



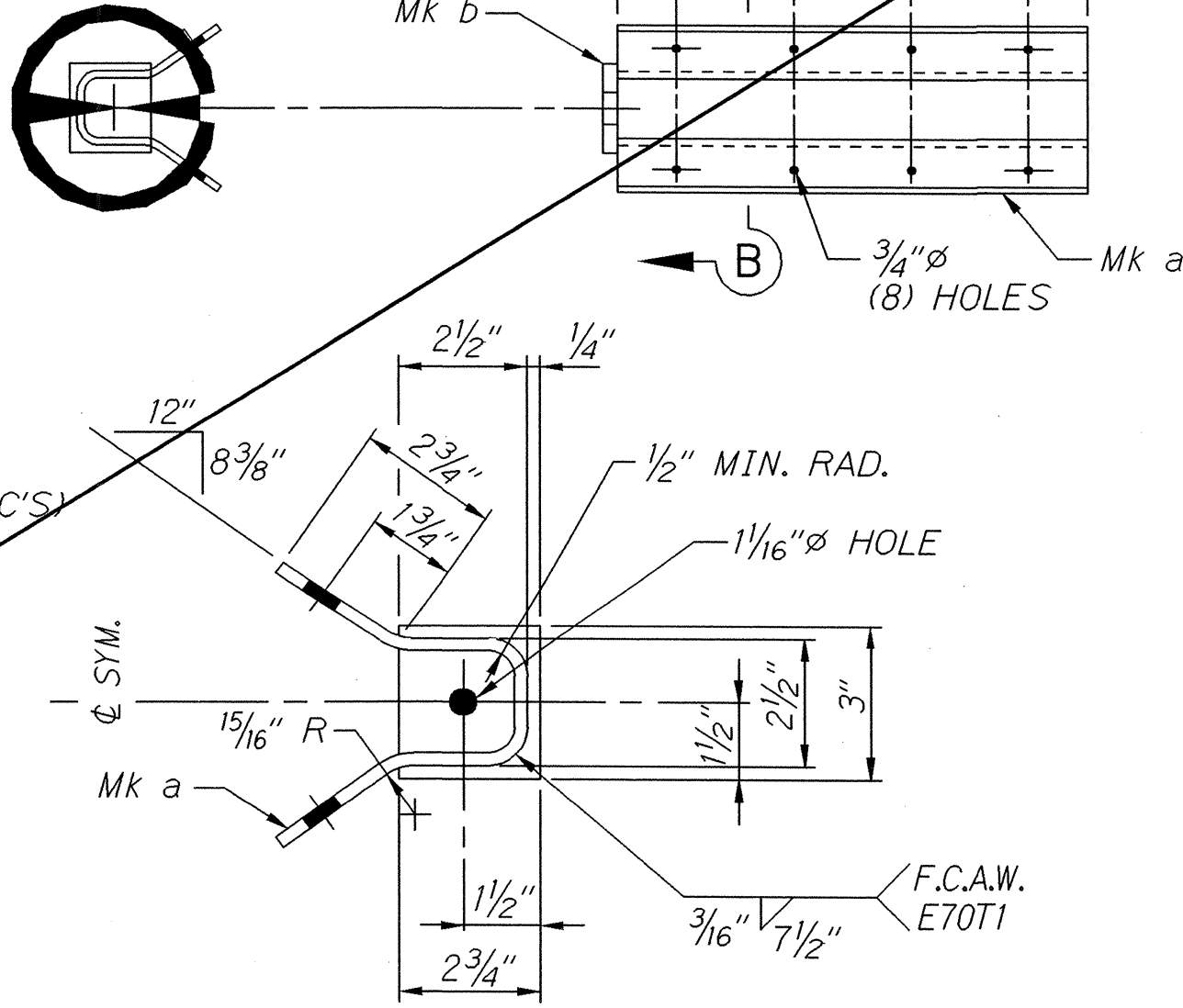
5 - WOOD BLOCK - GI



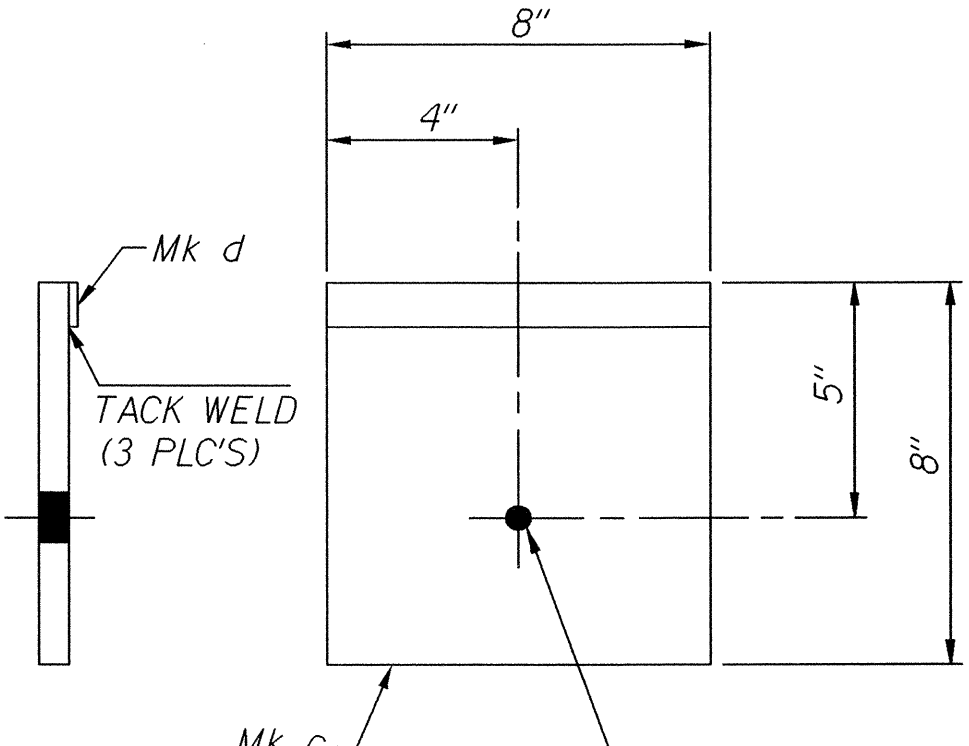
ONE - POST - HI



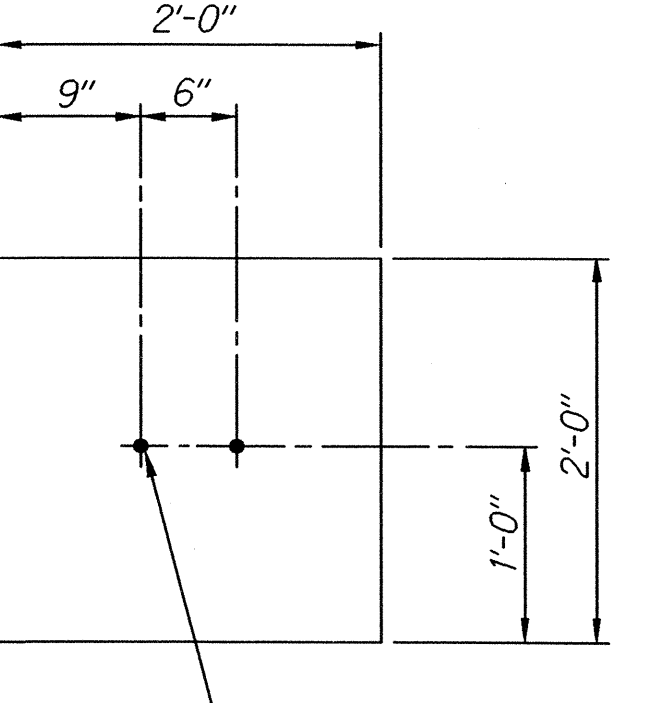
ONE - BLOCK - JI



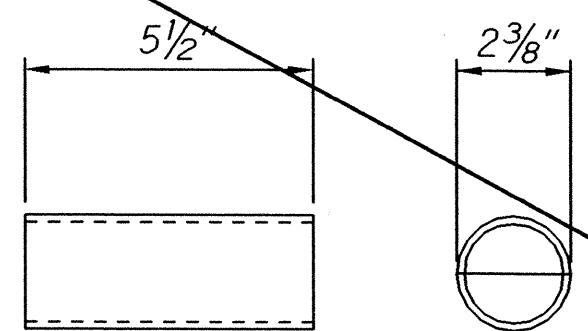
SECTION B - B
ONE - CABLE ANCHOR BRACKET - LI



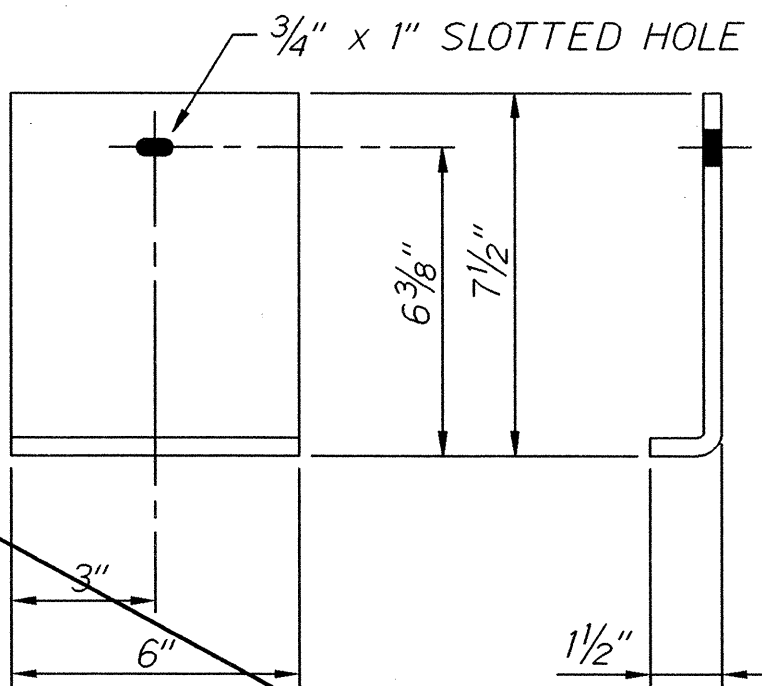
ONE - BEARING PLATE - MI



2 - SOIL PLATE - SI

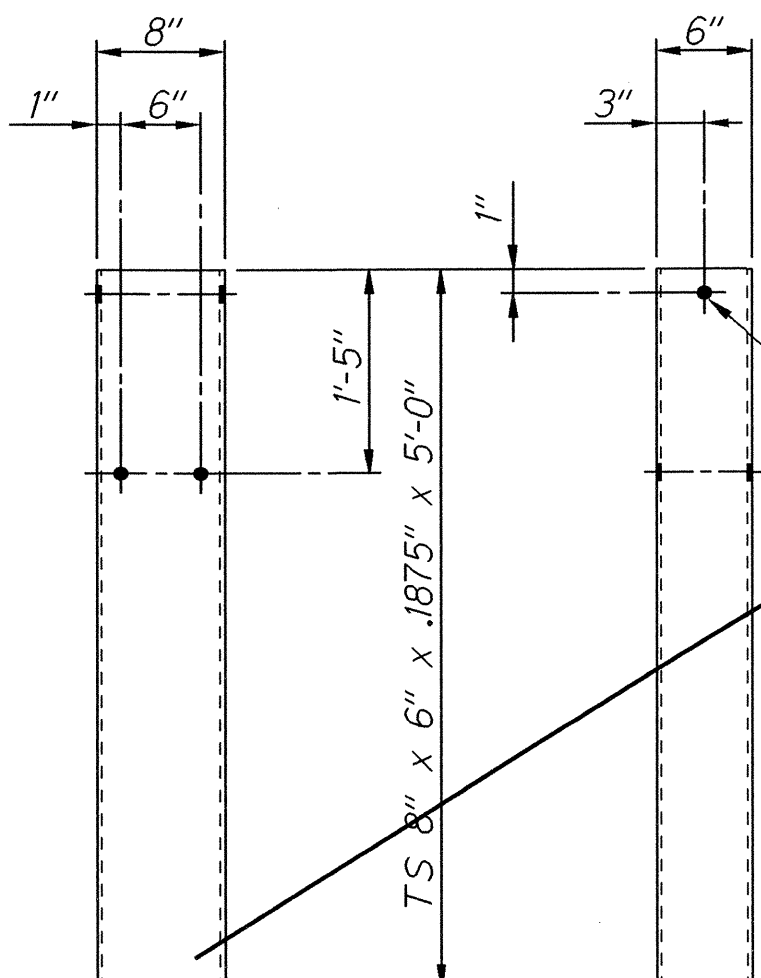


ONE - PIPE SPACER - RI



ONE - SHELF ANGLE - TI

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
DESIGNED BY		
CHECKED BY		

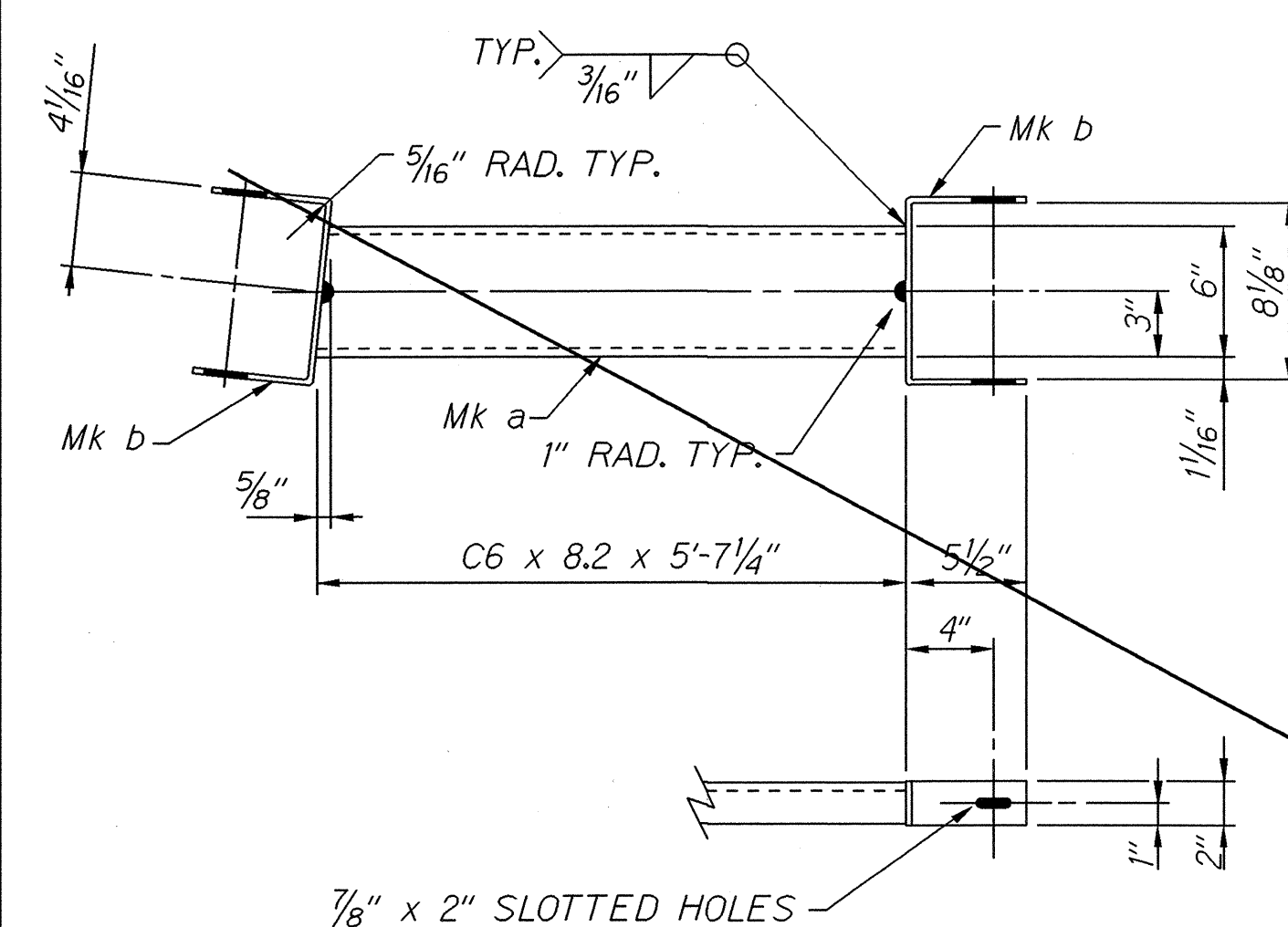


2 - SOIL TUBE - KI

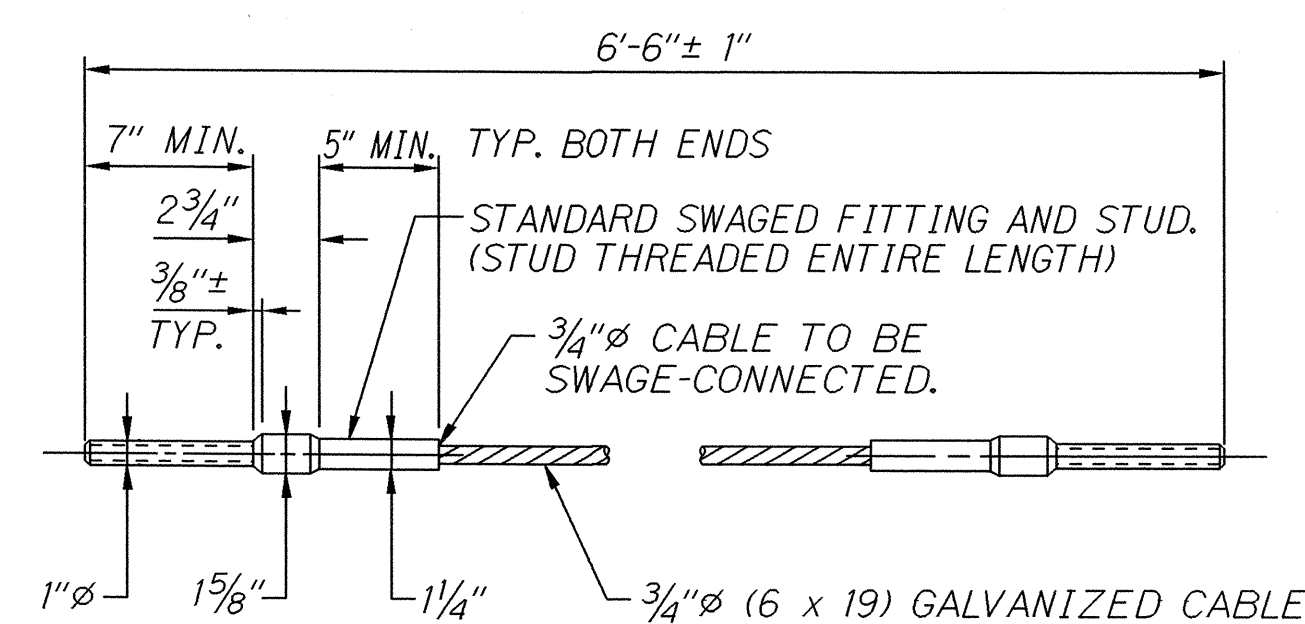
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MODIFIED ECCENTRIC LOADER
TERMINAL (MELT)
COMPONENT DETAILS
HAWAII BELT ROAD RESURFACING
Kaala Bridge to Kaawili Gulch
F.A. Project No. STP-019-2(37)

Not to Scale
Date: Feb., 1995



ONE - STRUT AND YOKE ASSEMBLY - A2



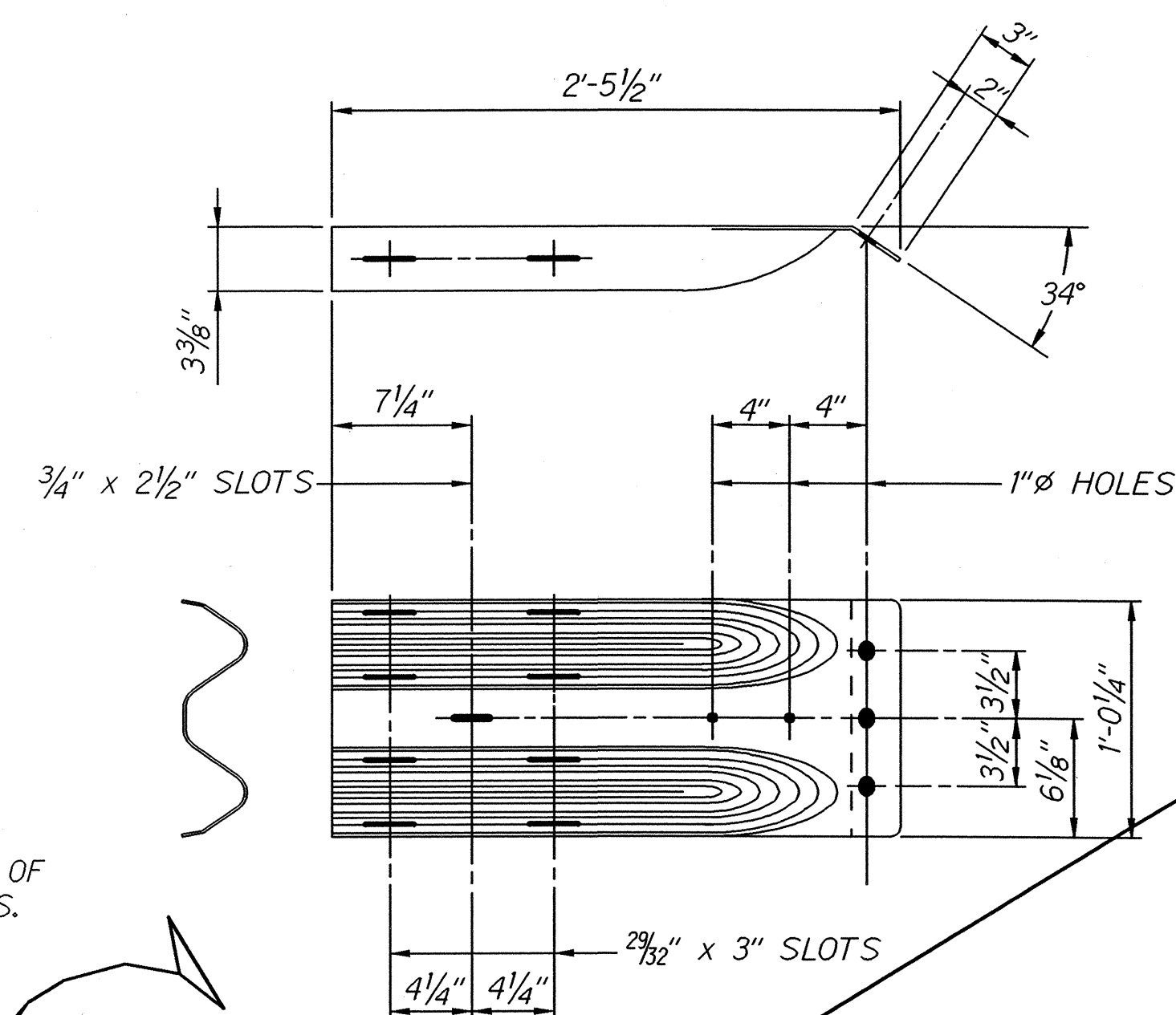
NOTES:

THE STUD SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. A449 AND SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. A153. THE THREADS SHALL HAVE A CLASS 2A FIT BEFORE GALVANIZING.

~~WIRE ROPE SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. M-30 AND SHALL BE 3/4-INCH PREFORMED, 6 x 19, WIRE STRAND CORE OR INDEPENDENT WIRE ROPE CORE (IWRC), GALVANIZED, RIGHT REGULAR LAY, MANUFACTURED OF IMPROVED PLAIN STEEL WITH A MINIMUM BREAKING STRENGTH OF 46,000 POUNDS.~~

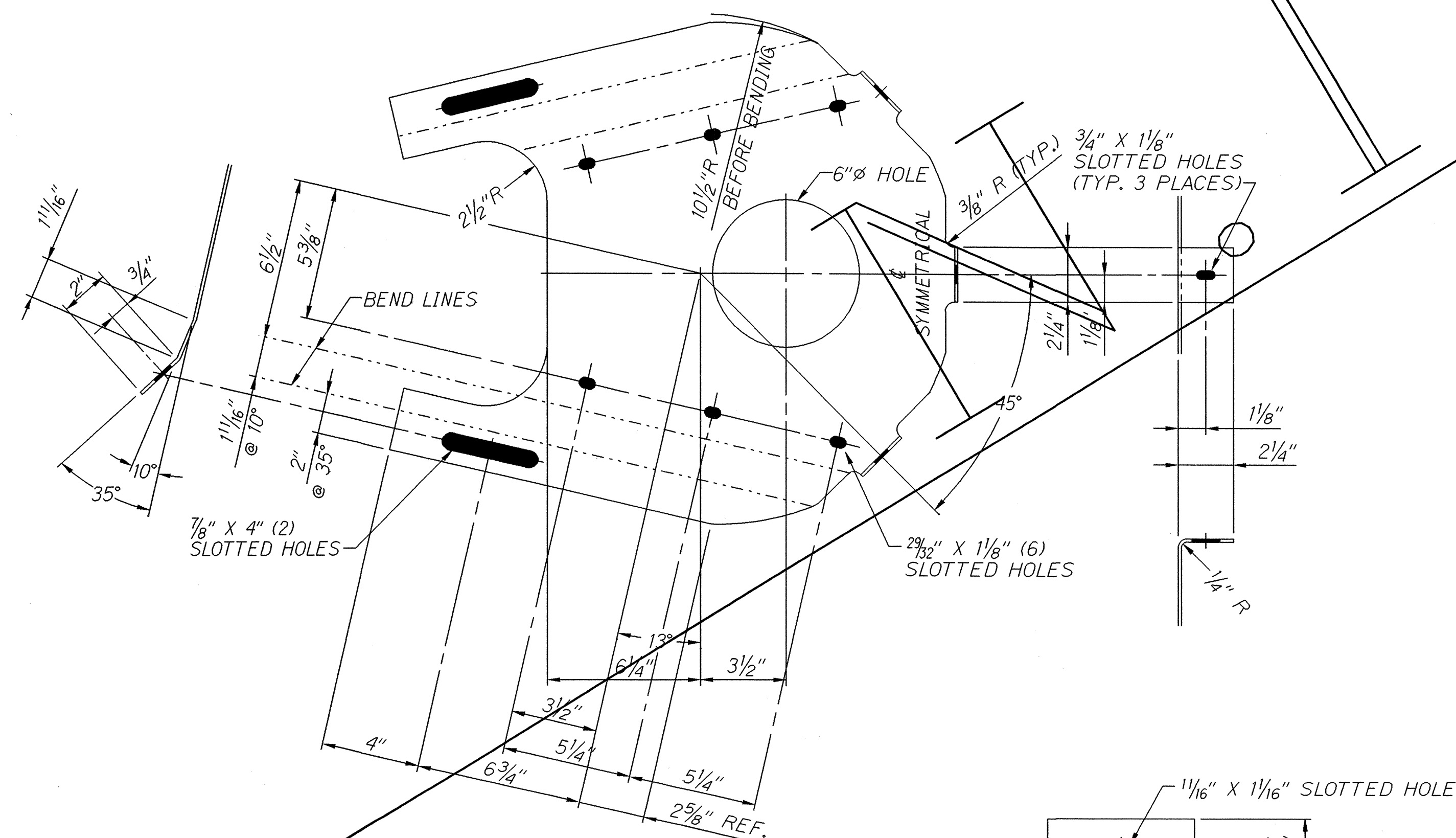
~~THE SWAGED FITTING, STUD, AND NUT SHALL DEVELOP THE BREAKING STRENGTH OF THE WIRE ROPE.~~

~~ONE - CABLE ASSEMBLY - B2~~

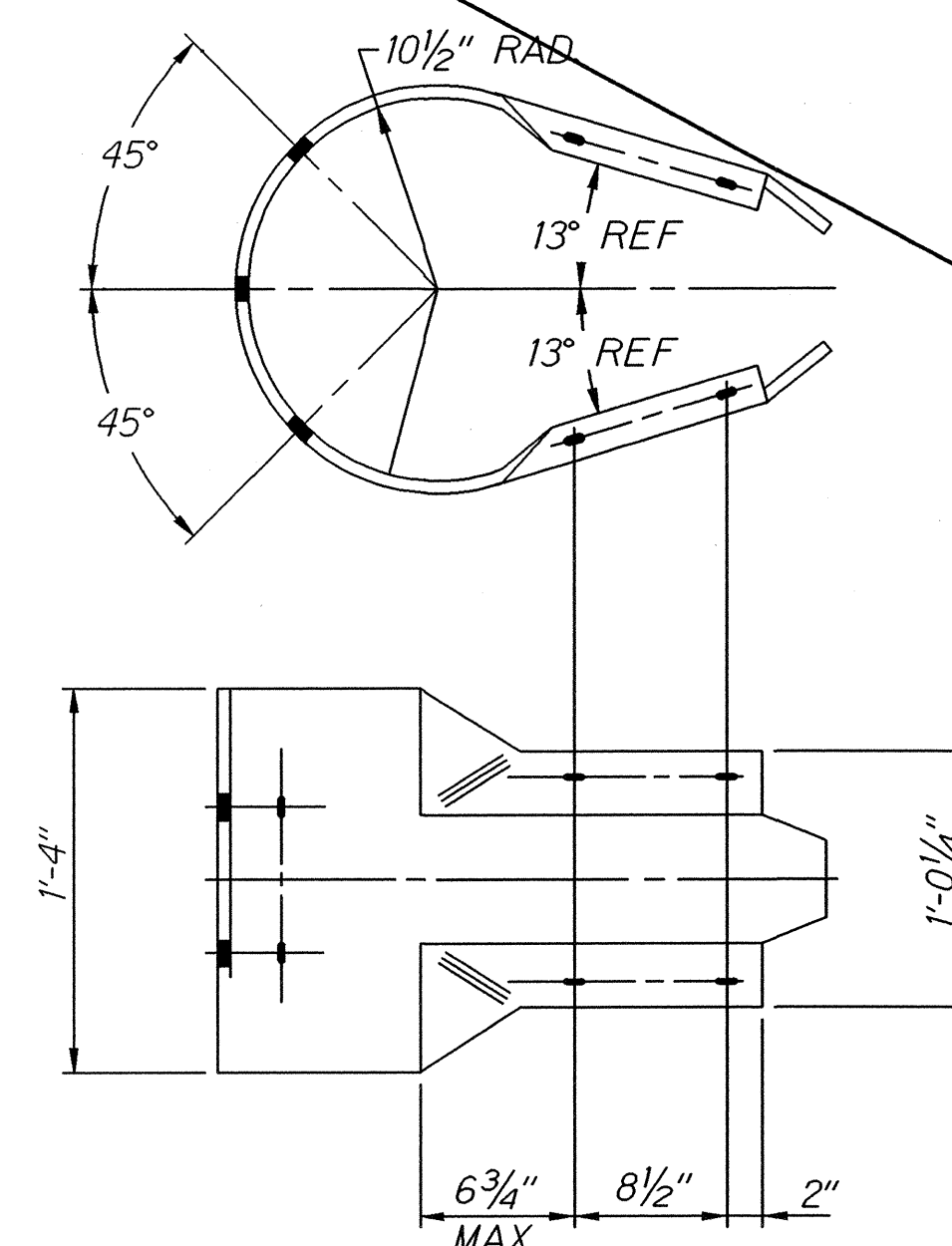


~~ONE - END SHOE - C2~~

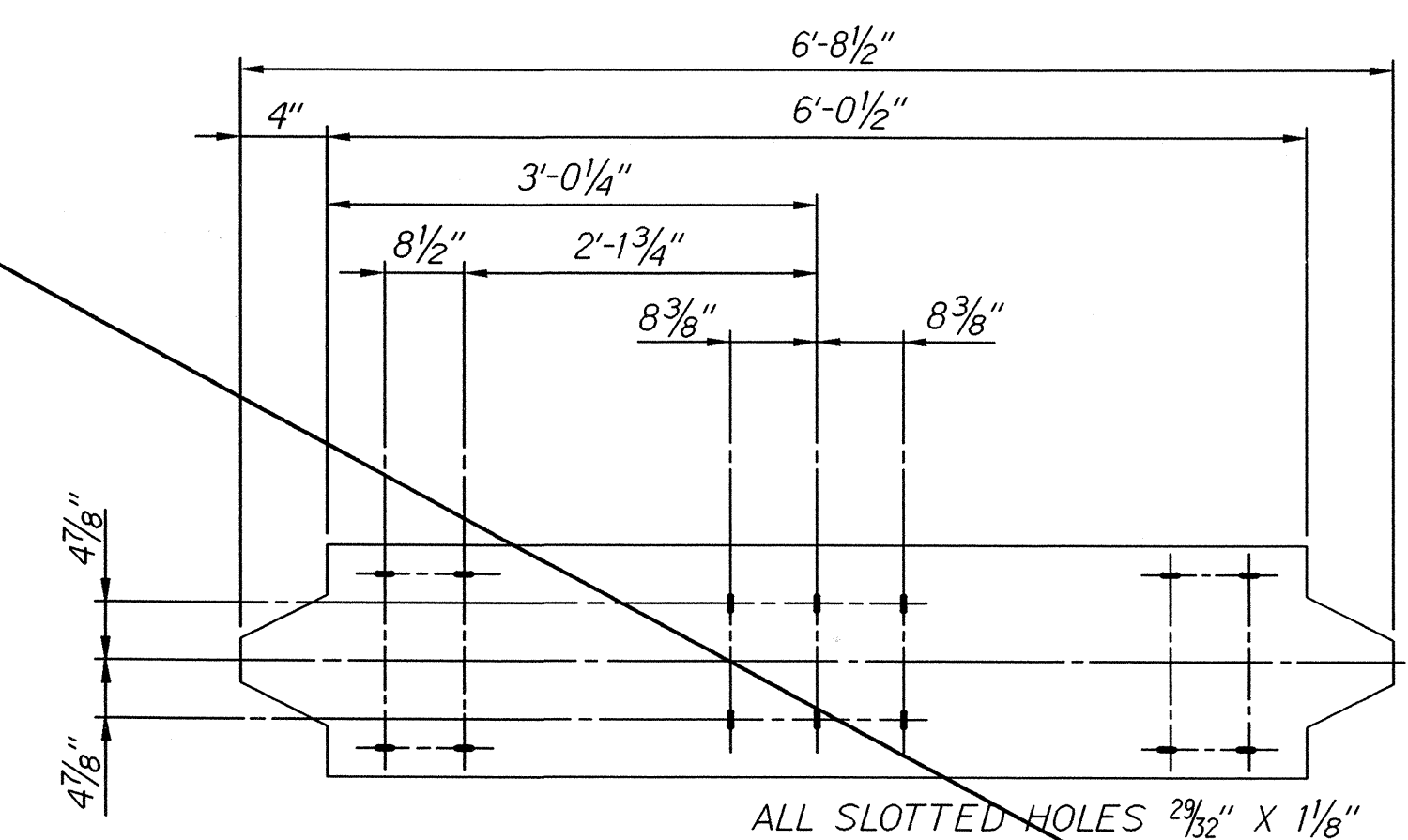
MATERIAL SCHEDULE							
FIND NO.	PIECE MARK	MATERIAL	LENGTH		WEIGHT	UNIT WEIGHT	REMARKS
			FEET	INCHES			
A2		STRUT AND YOKE ASSEMBLY				52.0	A123
	a	C6 X 8.2	5	7 1/4	46.0		A36
	b	BAR 2 X 3 1/16	1	6 3/4	4.0		A36
B2		CABLE ASSEMBLY				9.6	SEE NOTES
		3/4" Ø CABLE ASSEMBLY	6	6			SEE DETAIL
C2		END SHOE				23.1	A123
		PL 10 GA. X 19 1/8	2	6	21.9		M180
D2		DIAPHRAGM PLATE				9.7	A123
		PL 12 GA. X 21	2	15 1/8	32.6		M180
E2		BUFFERED END SECTION				37.5	A123
		PL 12 GA. X 16	6	8 1/2	39.0		M180
G2		WASHER, PLATE				.22	A123
		PL 3/16 X 1 3/4	0	3	.56		A36
		H A R D W A R E					
H2		BOLT, SPLICE 5/8" x 1 1/4				6.3	A307 A153
J2		BOLT, POST 5/8" X 2				.44	A307 A153
K2		BOLT, POST 5/8" X 10				.88	A307 A153
L2		BOLT, POST 5/8" X 18				7.75	A307 A153
M2		BOLT, HEX 5/8" X 1 1/2				2.04	A307 A153
N2		BOLT, HEX 3/4" X 7 1/2				4.2	A307 A153
R2		BOLT, HEX 3/4" X 10				2.66	A307 A153
S2		NUT, HEX, RECESSED 5/8"				7.31	A563 A153
T2		NUT, HEX 5/8"				1.3	A563 A153
U2		NUT, HEX 3/4"				.72	A563 A153
W2		NUT, HEX 1"				.57	A563 A153
X2		WASHER, FLAT 5/8"				.75	F844 A123
Y2		WASHER, FLAT 3/4"				.95	F844 A123
Z2		WASHER, FLAT 1"				.29	F844 A123



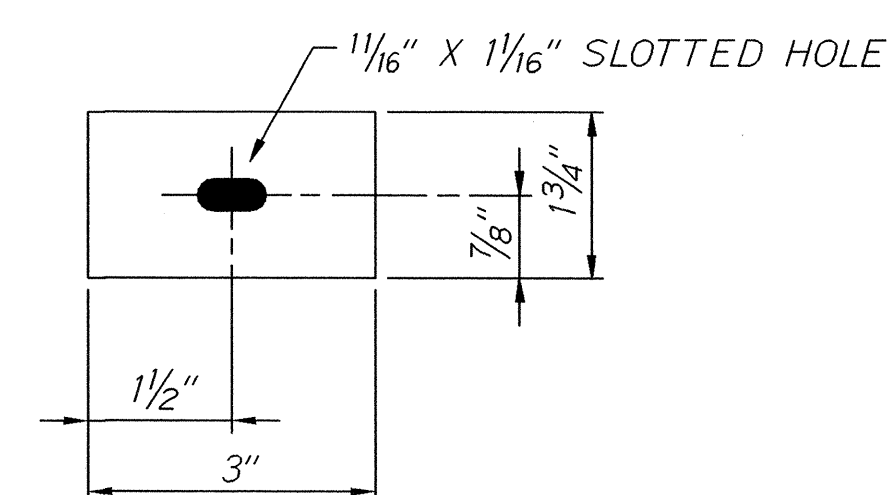
2 - DIAPHRAGM PLATE - D2



ONE - BUFFERED END SECTION - E2



~~BUFFERED END SECTION, FLAT PLATE LAYOUT~~



2 - WASHERS, PLATE - G2

file name: melt3.dgn

ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTE BOOK	DRAWN BY <u>X</u> _____
QUANTITIES BY	TRACED BY _____
CHECKED BY	DESIGNED BY <u>X</u> _____
	QUANTITIES BY _____
	CHECKED BY _____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

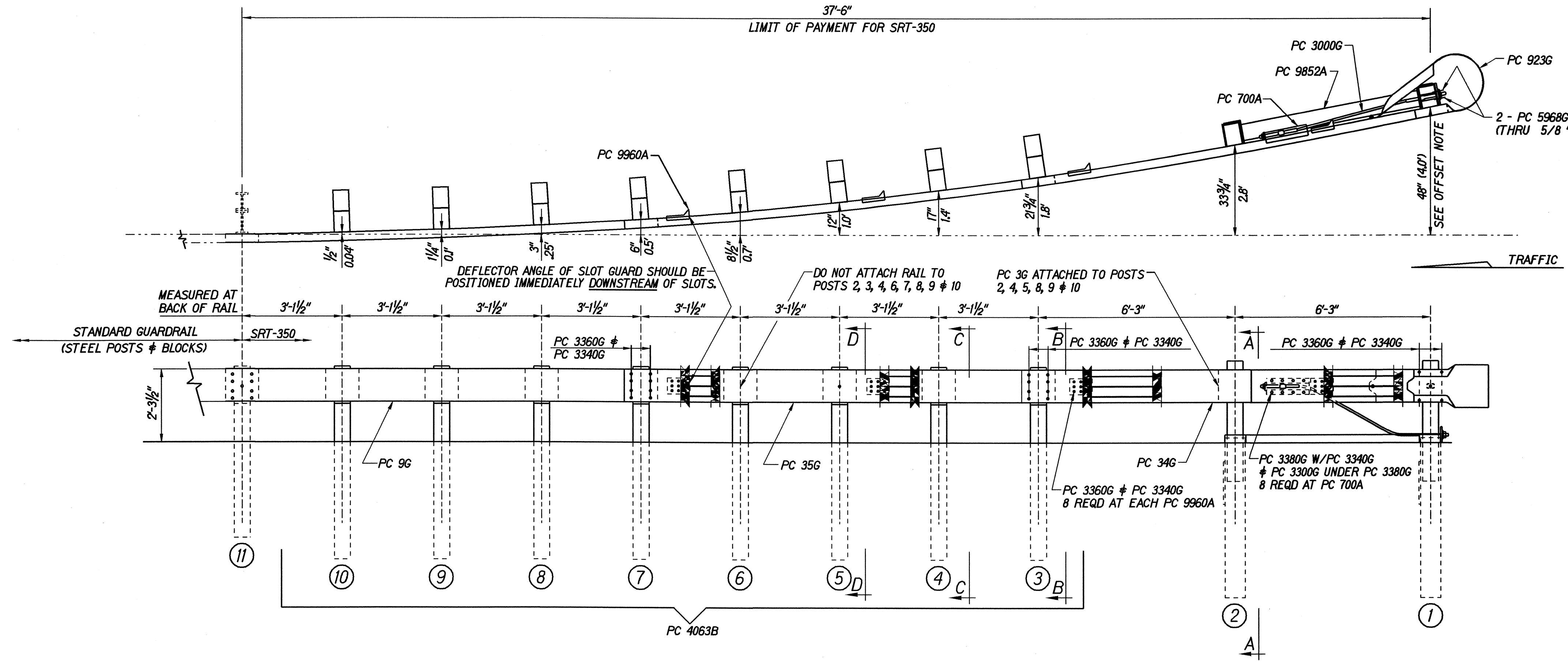
MODIFIED ECCENTRIC LOADER
TERMINAL (MELT)
COMPONENT DETAILS

HAWAII BELT ROAD RESURFACING
Kaala Bridge to Kaawalli Gulch
F.A. Project No. STP-019-2(37)

Not to Scale *Date: Feb., 1995*

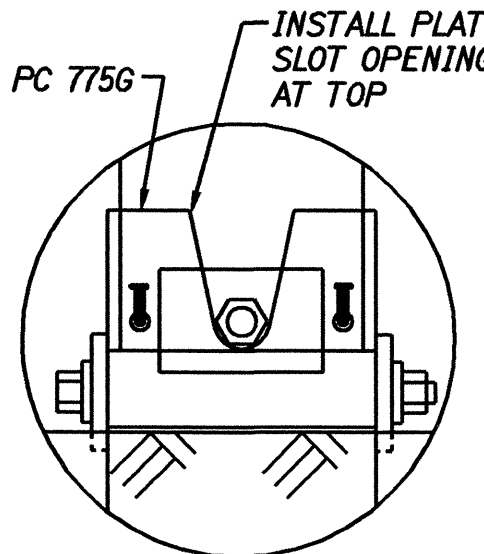
SHEET No. 3 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-019-2(37)	1995	34S-1	36

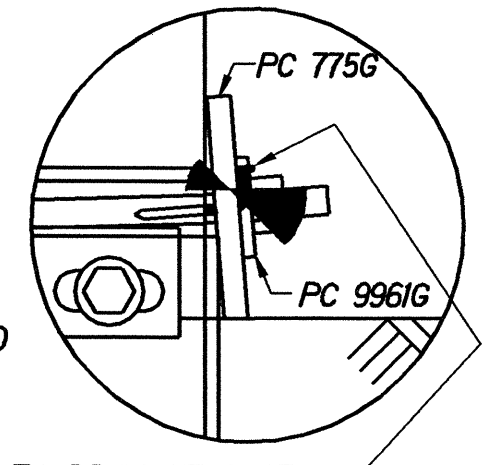


OFFSET NOTE:
THE POST OFFSET DIMENSIONS ARE GIVEN TO THE CENTER OF THE TRAFFIC FACE OF THE BLOCKOUTS, EXCEPT AT THE FIRST TWO POSTS, WHERE THE DIMENSION IS TO THE CENTER OF THE TRAFFIC FACE OF THE POST. OFFSET POINTS ARE TO BE LOCATED BY CHORD MEASUREMENTS AT THE BACK OF THE RAIL EQUAL TO THE NOMINAL POST SPACINGS SHOWN. POSTS ARE TO BE SET APPROXIMATELY RADIAL TO THE RAILING AT EACH POST LOCATION.

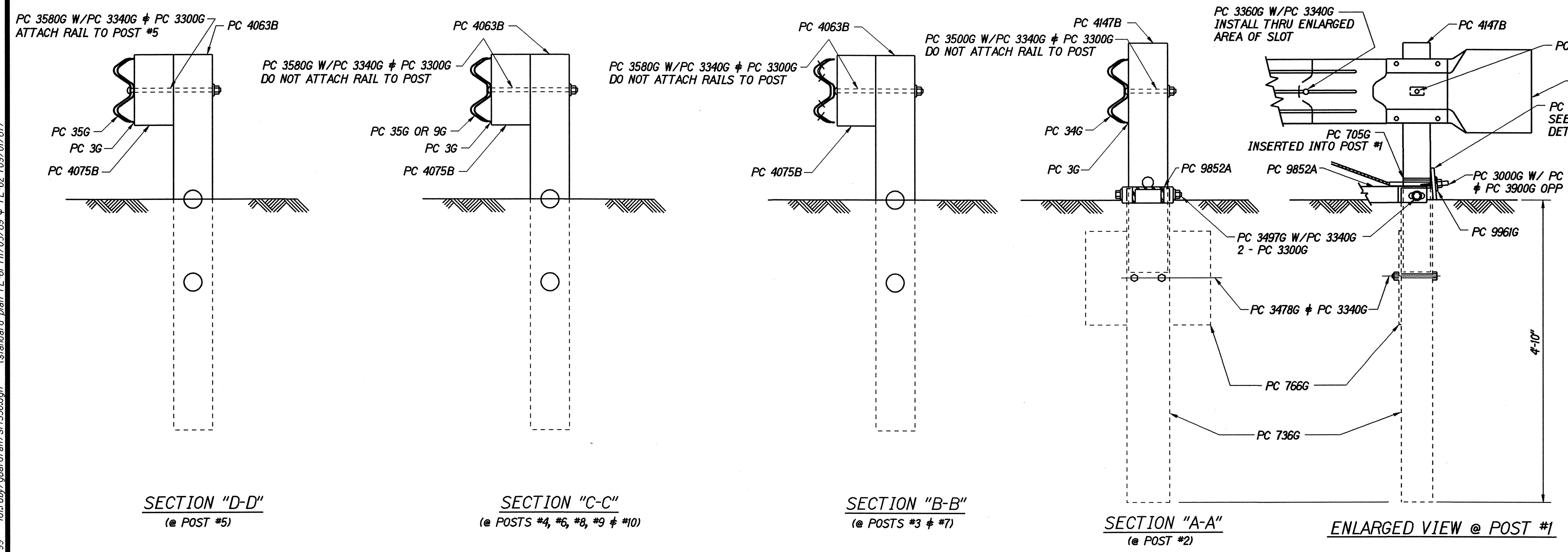
BILL OF MATERIAL		
PC	QTY	DESCRIPTION
3G	7	12/12"/BACKUP (GUARDRAIL)
9G	1	12/126"/63/S (GUARDRAIL)
34G	1	12/126"/S SRT-1 (GUARDRAIL)
35G	1	12/126"/63/S SRT-2 (GUARDRAIL)
700A	1	CABLE ANCHOR BRACKET
705G	1	2"Ø x 5 1/2" PIPE
736G	2	5'0 TUBE SLEEVE
766G	2	1/4x 18 x 24 SOIL PLATE
775G	1	5/8x 6 x 8 BEARING PLATE
923G	1	12/BARRIER/98" (TERMINAL)
3000G	1	3/4x 6'6 CABLE
3300G	22	5/8" WASHER
3320G	1	3/16x 1 3/4x 3 WASHER
3340G	77	5/8" HEX NUT
3360G	53	5/8"Ø x 1 1/4" SPLICE BOLT
3380G	8	5/8"Ø x 1 1/2" HEX HD BOLT
3478G	4	5/8"Ø x 7 1/2" HEX HD BOLT
3497G	2	5/8"Ø x 9 1/2" HEX HD BOLT
3500G	2	5/8"Ø x 10" POST BOLT
3580G	8	5/8"Ø x 18" POST BOLT
3900G	1	1" WASHER
3910G	2	1" HEX NUT
4063B	8	6'0 POST 6 x 8
4075B	8	14" BLOCK 6 x 8
4147B	2	3' 9 POST 5 1/2x 7 1/2
5968G	2	16d NAIL SRT
9852A	1	STRUT ASSEMBLY
9960A	4	SLOT GUARD
9961G	1	5/8x 3 x 4 PLATE WASHER



BEARING PLATE ORIENTATION



2 - PC 5968G TO PREVENT PLATE ROTATION (THRU 5/8" DIA HOLES IN PL & BENT)



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SRT-350
SLOTTED RAIL TERMINAL
COMPONENT DETAILS
HAWAII BELT ROAD RESURFACING
Kaala Bridge to Kaawali Gulch
F.A. Project No. STP-019-2(37)

Not to Scale
SHEET No. 1 OF 1 SHEETS

Date: Feb., 1995

ORIGINAL PLAN	DATE	9/6/95
DRAWN BY		
TRACED BY		
DESIGNED BY		
CHECKED BY		
NOTED BY		

r2/01/99 tdr/rubby/quadrail/srt350.dgn (standard plan TE-61 r11/03/89 # TE-62 089/01/87)