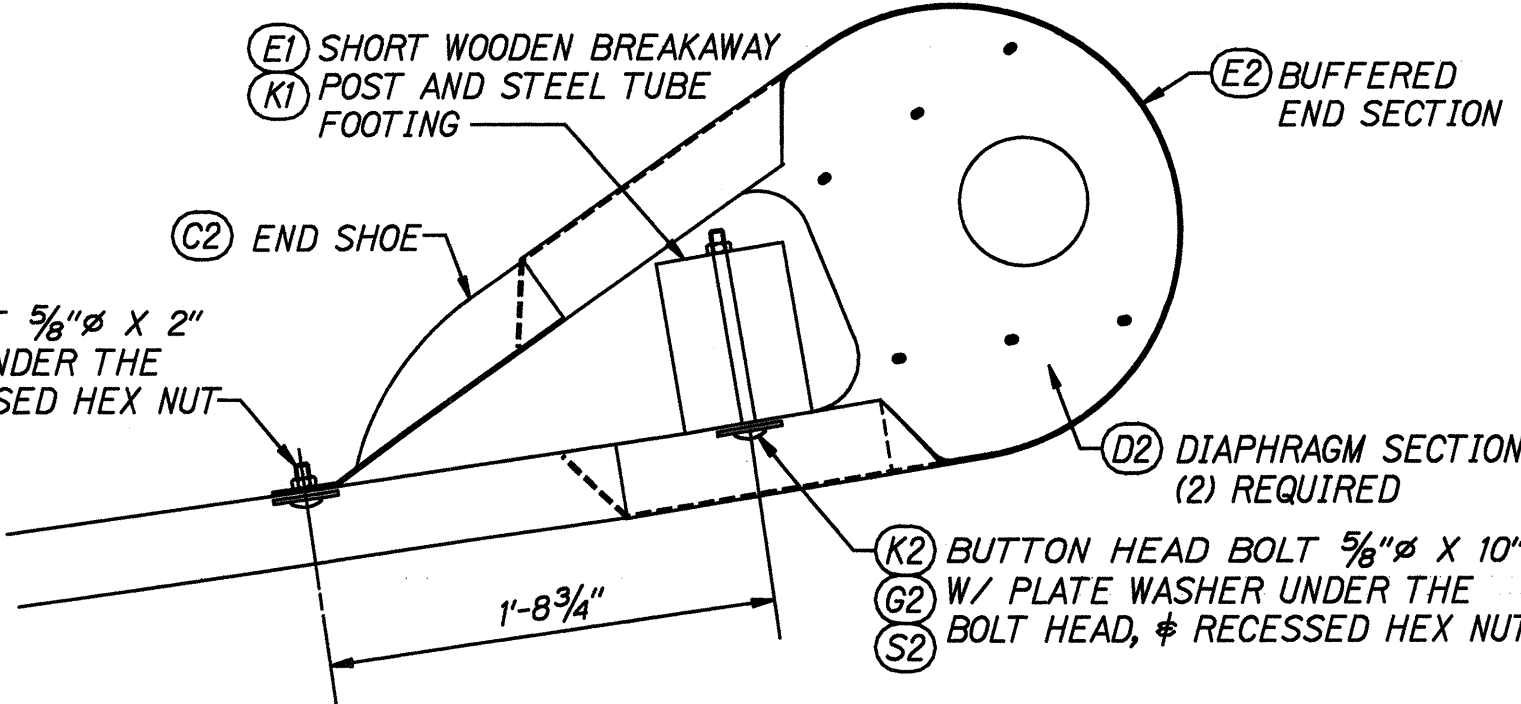


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	377B-01-96M	1996	16	28

NOTES

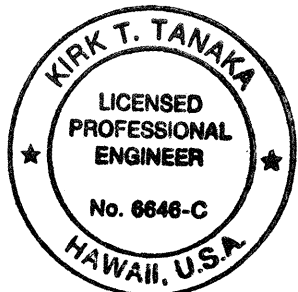
1. THE POST OFFSET DIMENSIONS ARE GIVEN TO THE CENTER OF THE TRAFFIC FACE OF THE BLOCKOUTS, EXCEPT AT THE FIRST POST, WHERE THE DIMENSION IS TO THE CENTER OF THE TRAFFIC FACE OF THE POST. OFFSET POINTS ARE TO BE LOCATED BY CHORD MEASUREMENTS AT THE BACK OF THE RAIL EQUAL TO THE NOMINAL POST SPACINGS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



BUFFERED END ASSEMBLY

SUMMARY OF COMPONENTS

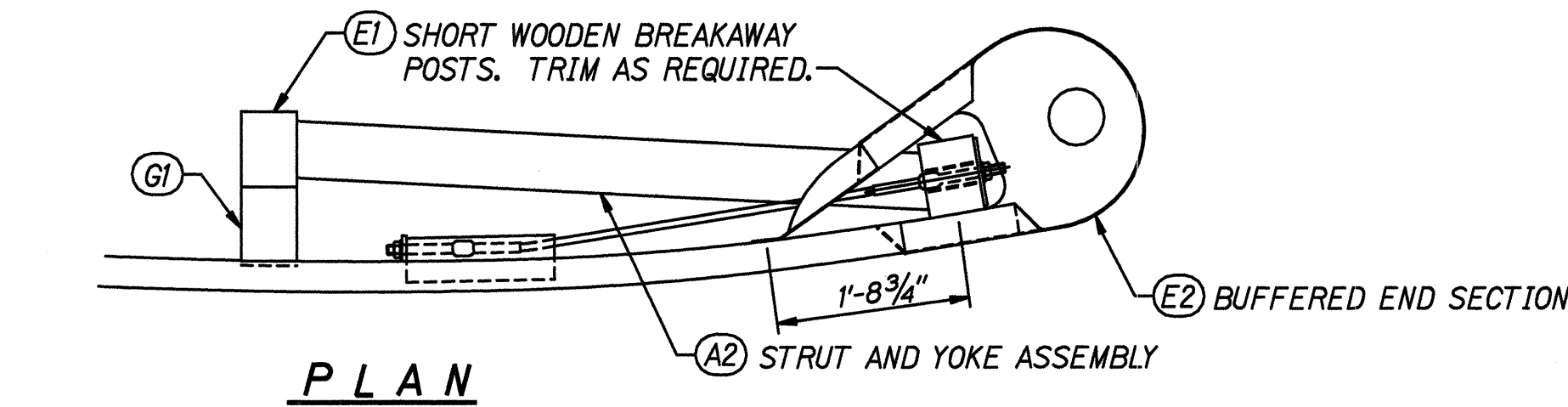
FIND NO.	DESCRIPTION
(A)	GUARDRAIL, 12GA X 12'-6"
(B)	GUARDRAIL, 12GA X 12'-6"
(C)	GUARDRAIL, 12GA X 12'-6"
(D)	BREAKAWAY LINE POST, TIMBER - 6" X 8" X 6'-0"
(E)	BREAKAWAY POST, TIMBER - 5 1/2" X 7 1/2" X 3'-6 1/2"
(G)	BLOCK, TIMBER - 5 1/2" X 7 1/2" X 1'-2"
(H)	POST - W6 X 8.5 X 6'-0"
(J)	BLOCK - W6 X 8.5 X 1'-2"
(K)	SOIL TUBE - TS 8 X 6 X .188 X 5'-0"
(L)	CABLE ANCHOR BRACKET
(M)	BEARING PLATE
(R)	PIPE SPACER
(S)	SOIL PLATE
(T)	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 5/8" X 1 1/4"
(J2)	BOLT, POST 5/8" X 2"
(K2)	BOLT, POST 5/8" X 10"
(L2)	BOLT, POST 5/8" X 18"
(M2)	BOLT, HEX 5/8" X 1 1/2"
(N2)	BOLT, HEX 3/4" X 7 1/2"
(R2)	BOLT, HEX 3/4" X 10"
(S2)	NUT, HEX, RECESSED 5/8"
(T2)	NUT, HEX 5/8"
(U2)	NUT, HEX 3/4"
(W2)	NUT, HEX 1"
(X2)	WASHER, FLAT 5/8"
(Y2)	WASHER, FLAT 3/4"
(Z2)	WASHER, FLAT 1"



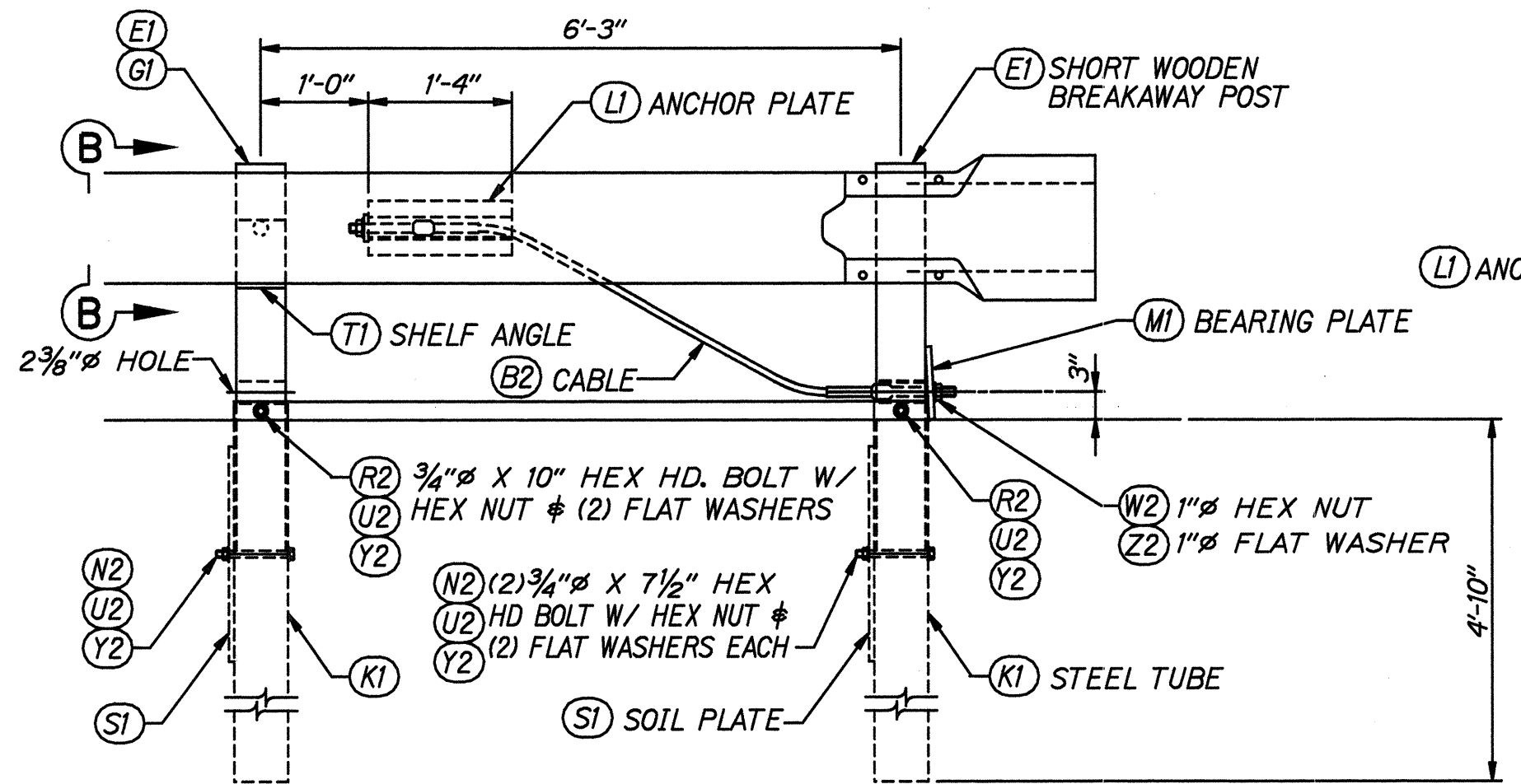
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION
K. T. Tanaka
R. T. TANAKA ENGINEERS, INC.
CIVIL ENGINEERING - LAND SURVEYING

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.

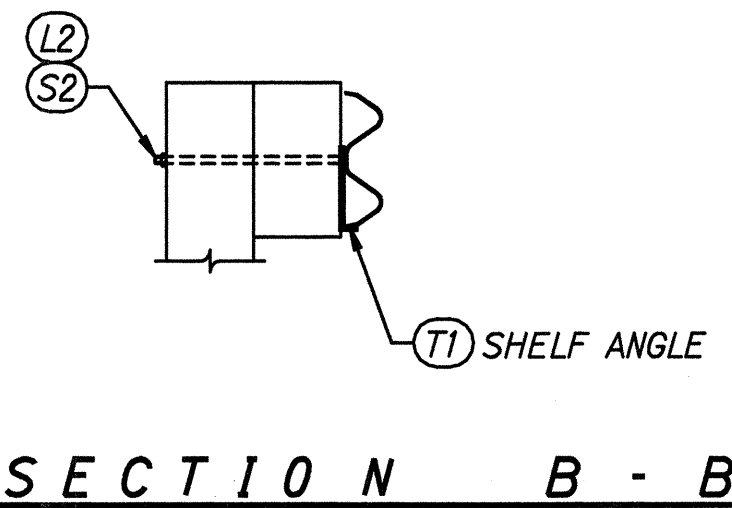


PLAN

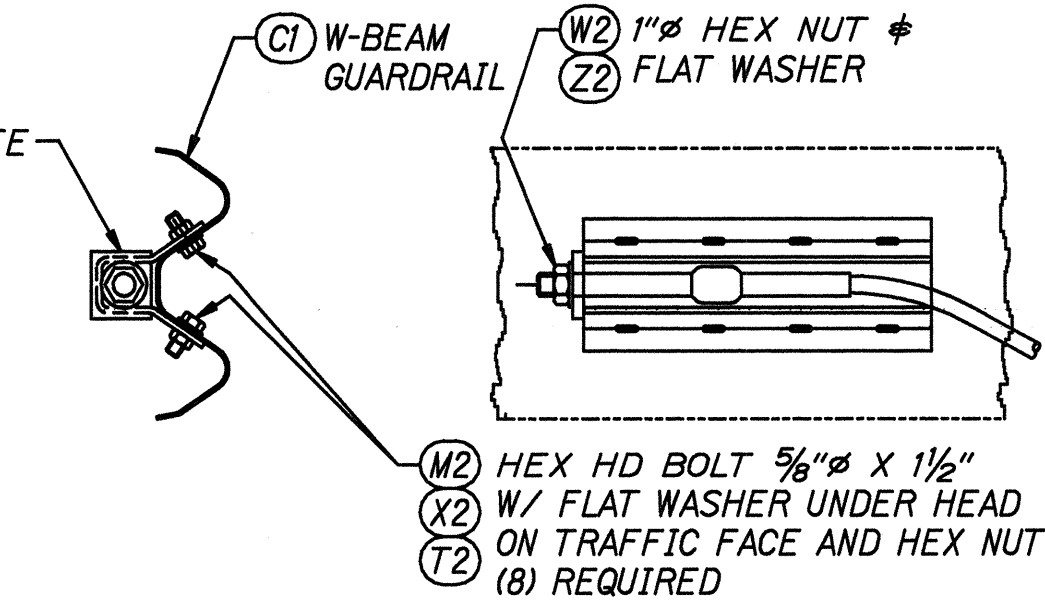


ELEVATION

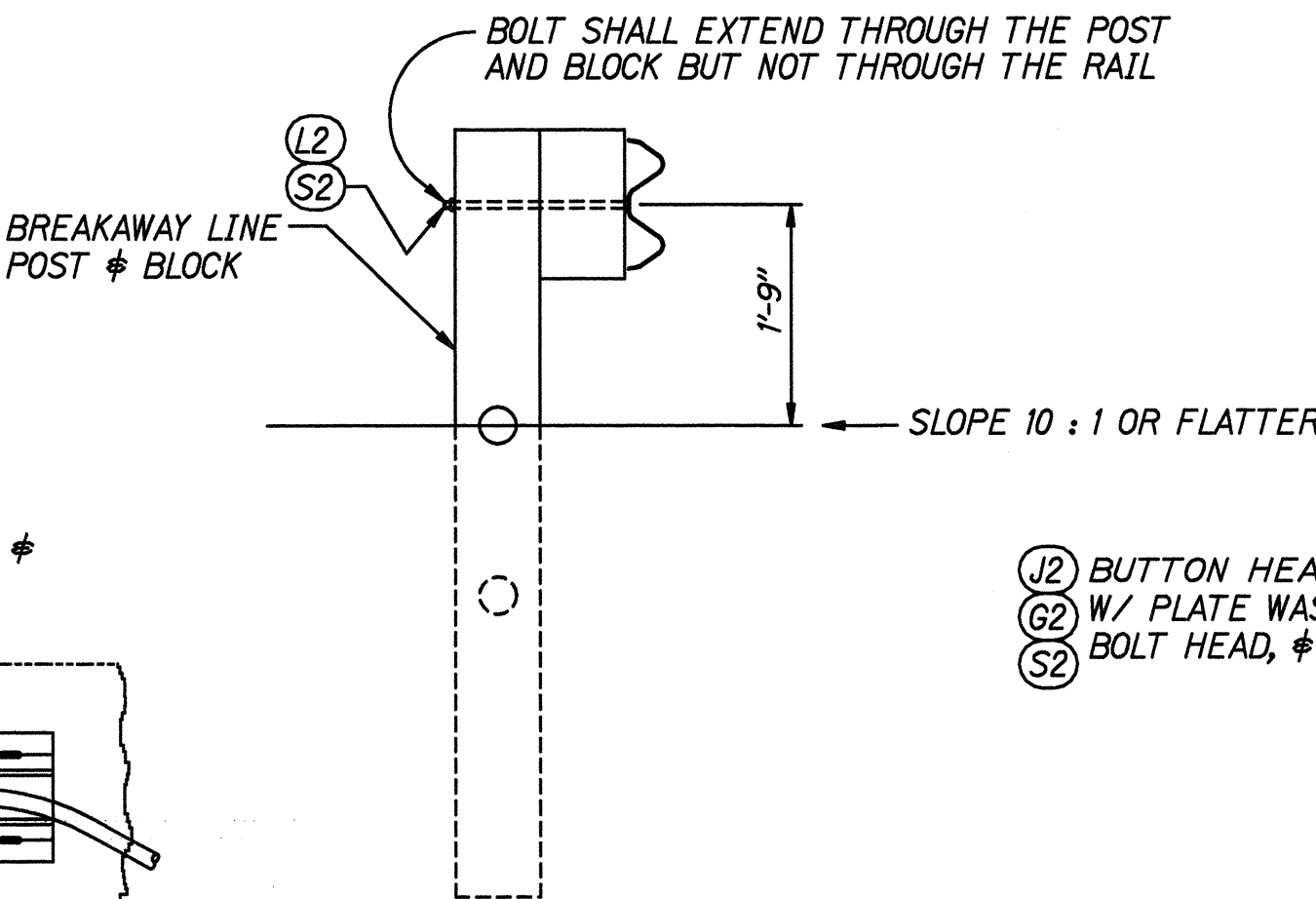
BUFFERED END & ANCHORAGE ASSEMBLY



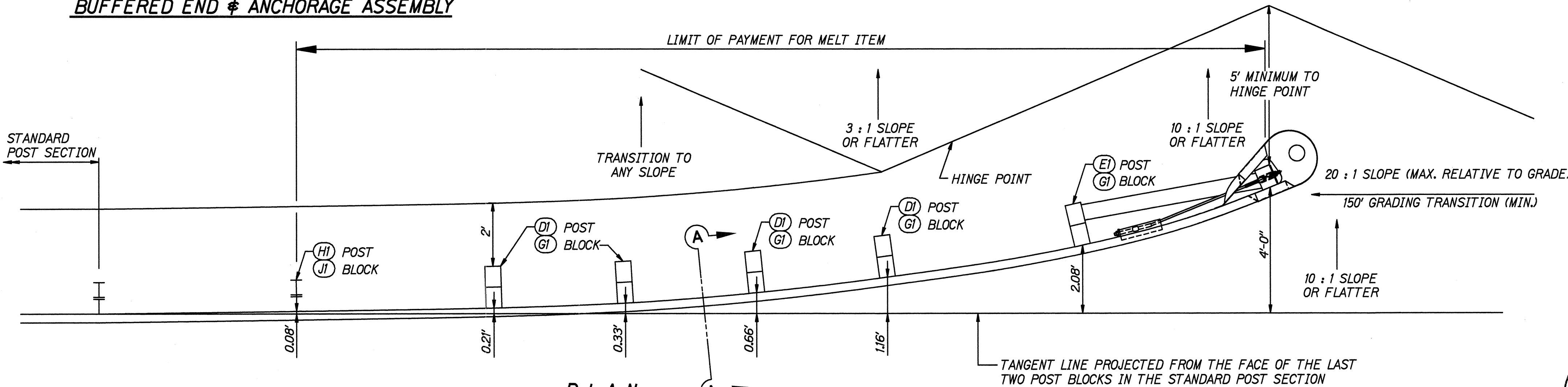
SECTION B - B



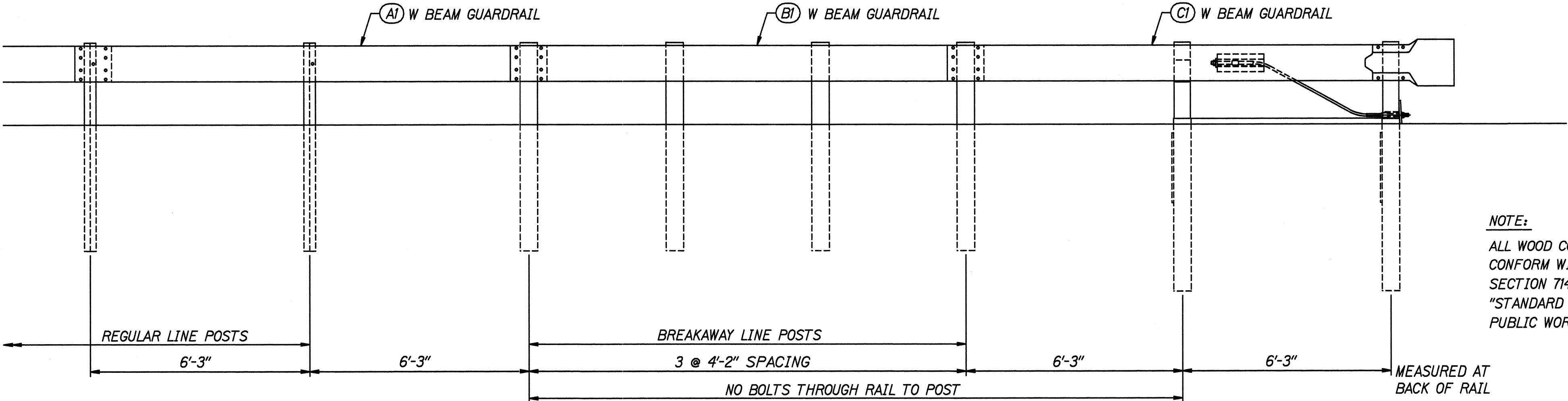
ANCHOR PLATE ASSEMBLY DETAILS



SECTION A - A



PLAN



ELEVATION

DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____

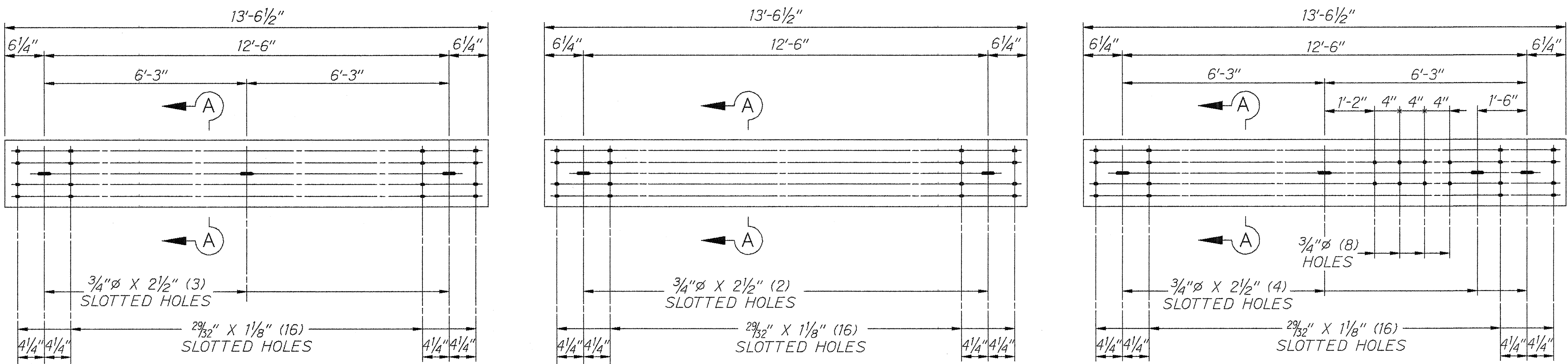
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**MODIFIED ECCENTRIC LOADER
TERMINAL (MELT)**
POST LAYOUT & ERECTION DETAILS
KEKAULIKE AVENUE RESURFACING
HALEAKALA CRATER ROAD TO KULA HIGHWAY
PROJECT NO. 377B-01-96M
Not to Scale
Date: APRIL, 1996

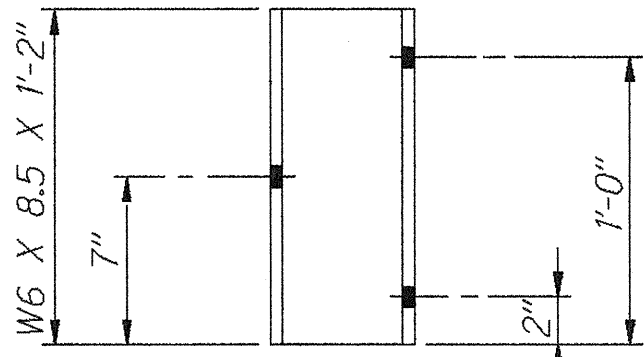
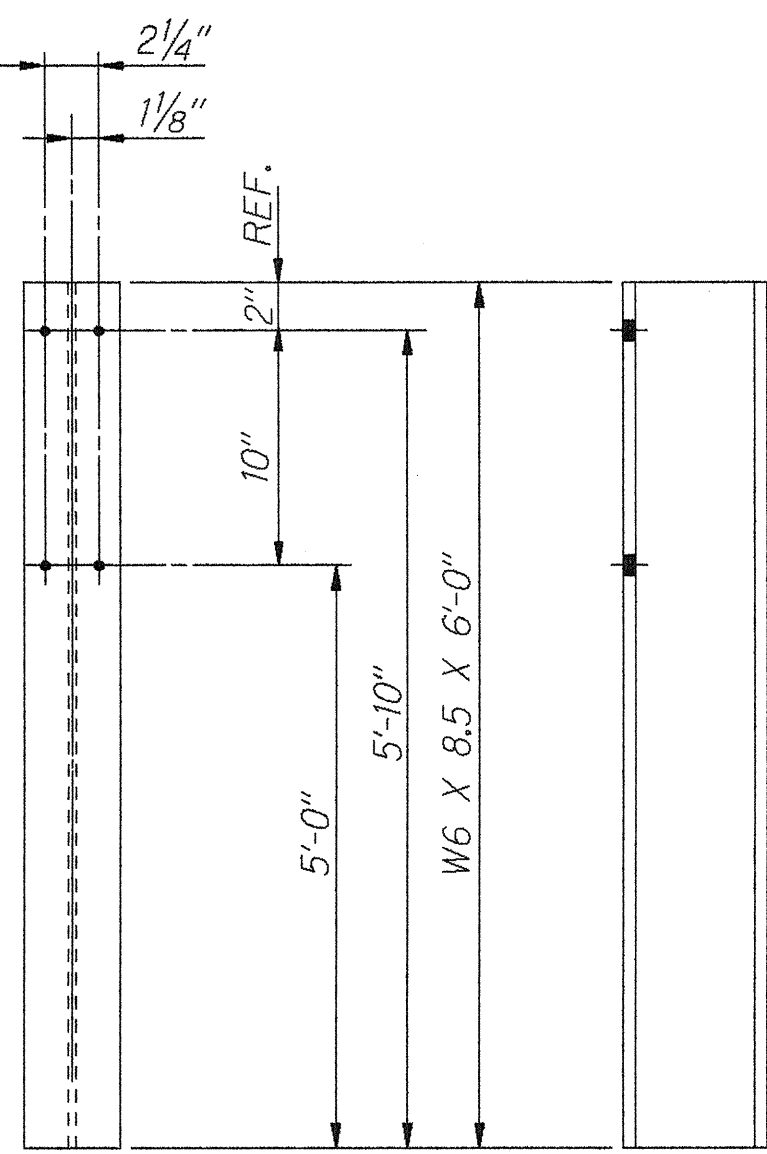
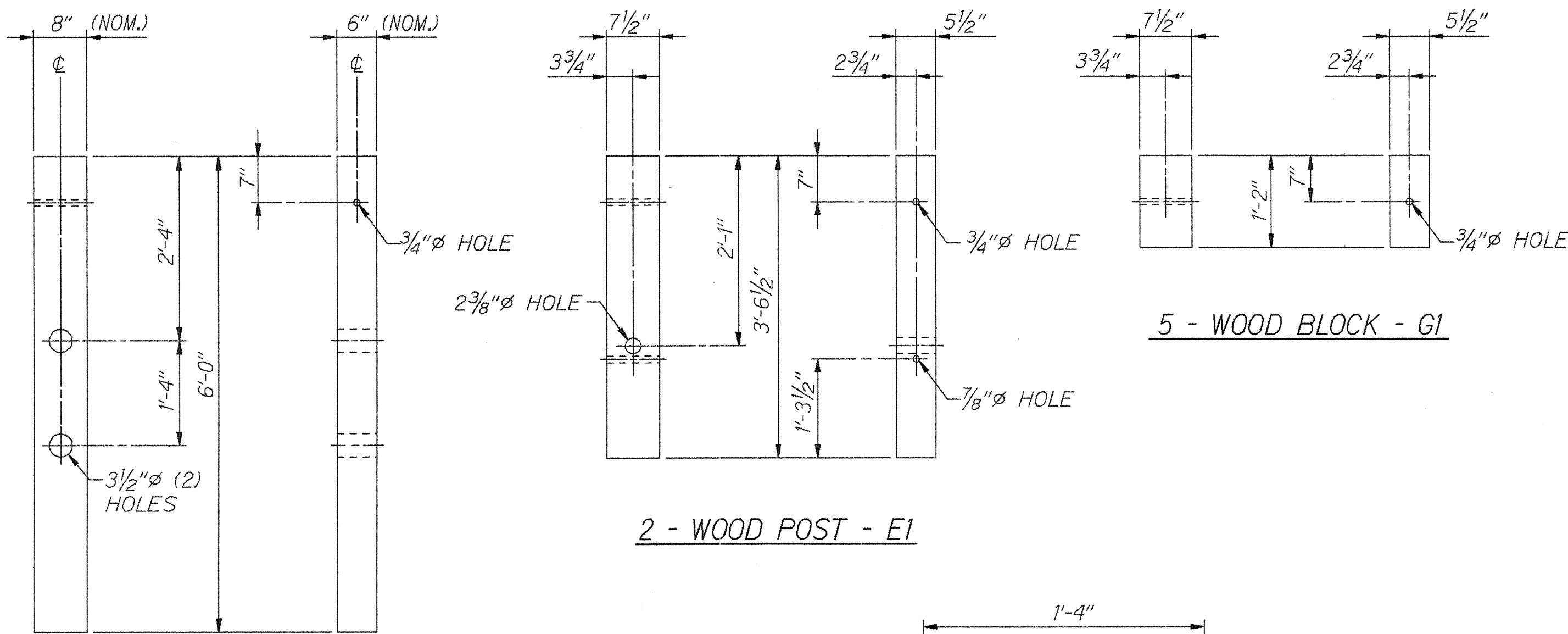
SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	377B-01-96M	1996	22	28

MATERIAL SCHEDULE					
FIND No.	PIECE MARK	MATERIAL	LENGTH FEET	WEIGHT INCHES	UNIT WEIGHT
A1		GUARDRAIL, W-BEAM			95.0
		12 GA. W-BEAM GUARDRAIL	12	6	89.0
B1		GUARDRAIL, W-BEAM			95.0
		12 GA. W-BEAM GUARDRAIL	12	6	89.0
C1		GUARDRAIL, W-BEAM			95.0
		12 GA. W-BEAM GUARDRAIL	12	6	89.0
D1		BREAKAWAY LINE POST			88.0
		TIMBER POST 6 X 8	6	0	352.0
E1		BREAKAWAY POST, SHORT			44.6
		TIMBER POST 5 1/2 X 7 1/2	3	6 1/2	89.2
G1		BLOCK			16.8
		TIMBER BLOCK 5 1/2 X 7 1/2	1	2	84.0
H1		POST			54.9
		W6 X 8.5	6	0	52.0
J1		BLOCK			11.0
		W6 X 8.5	1	2	10.1
K1		SOIL TUBE			88.9
		TS 8 X 6 X .1875	5	0	170.8
L1		CABLE ANCHOR BRACKET			19.3
	a	PL 1/4 X 12 3/8	1	4	17.6
	b	PL 1/2 X 2 3/4	0	3	1.17
M1		BEARING PLATE			11.9
	c	PL 5/8 X 8	0	8	11.3
	d	PL 3/16 X 1	0	8	0.4
R1		POST SLEEVE			1.76
		PIPE 28 STD	0	5 1/2	1.67
S1		SOIL PLATE			84.8
		PL 1/4 X 24	2	0	40.8
T1		SHELF ANGLE			3.7
		PL 1/4 X 6	0	8 1/2	3.61

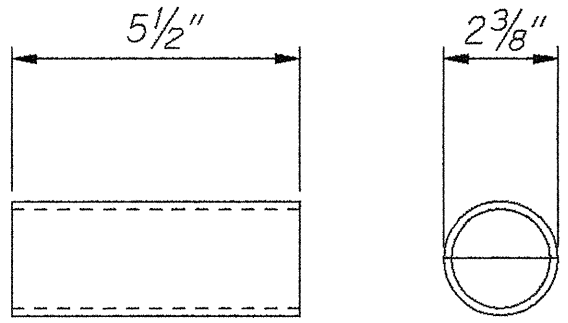


SECTION A - A

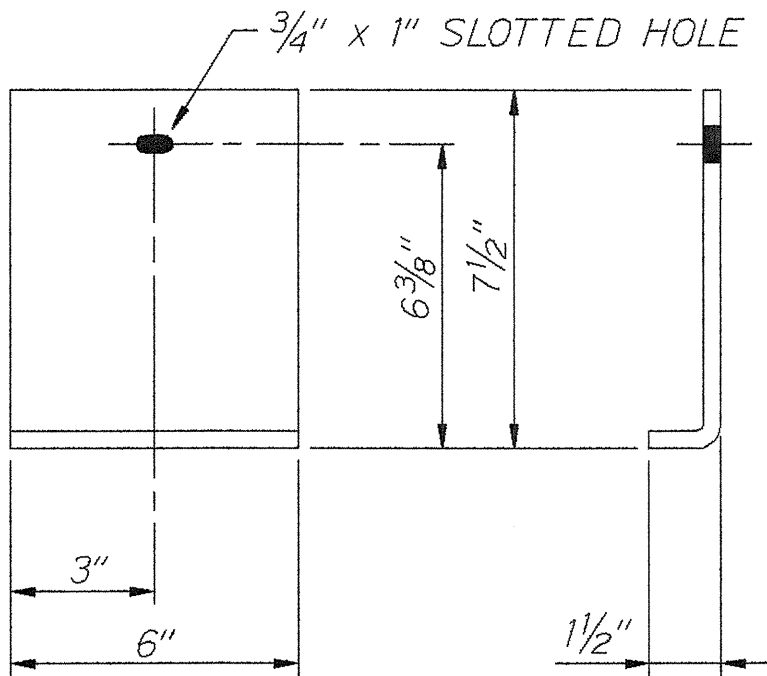


ALL HOLES 1 3/16" (6) REQD. @ 2 1/4" GA

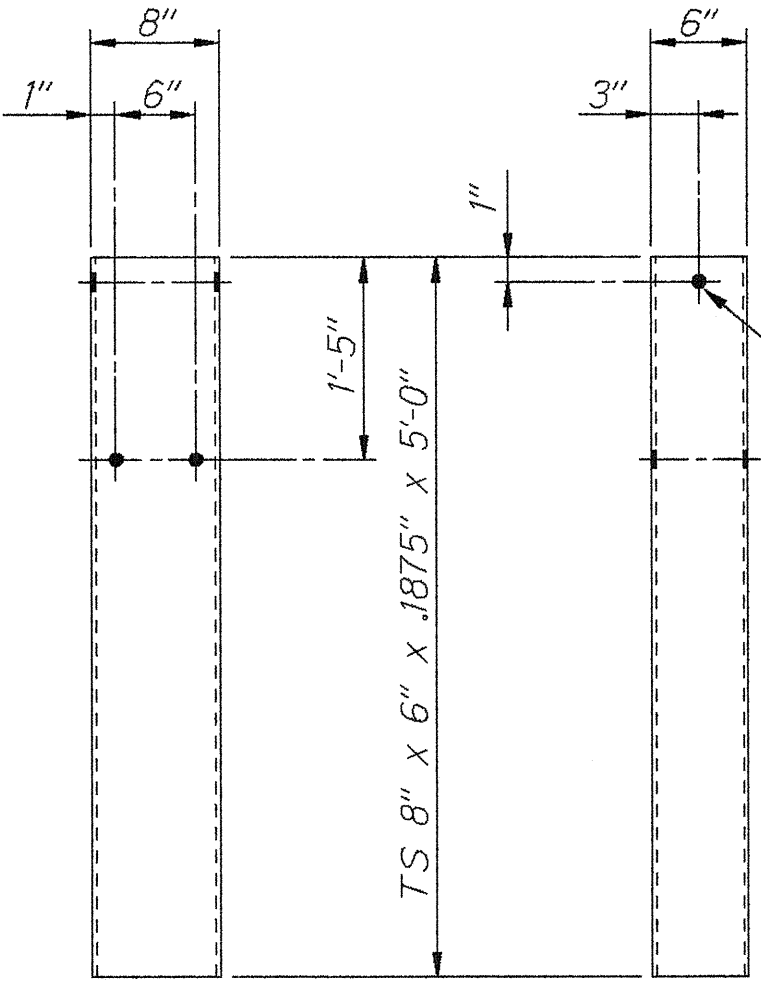
ONE - BLOCK - J1



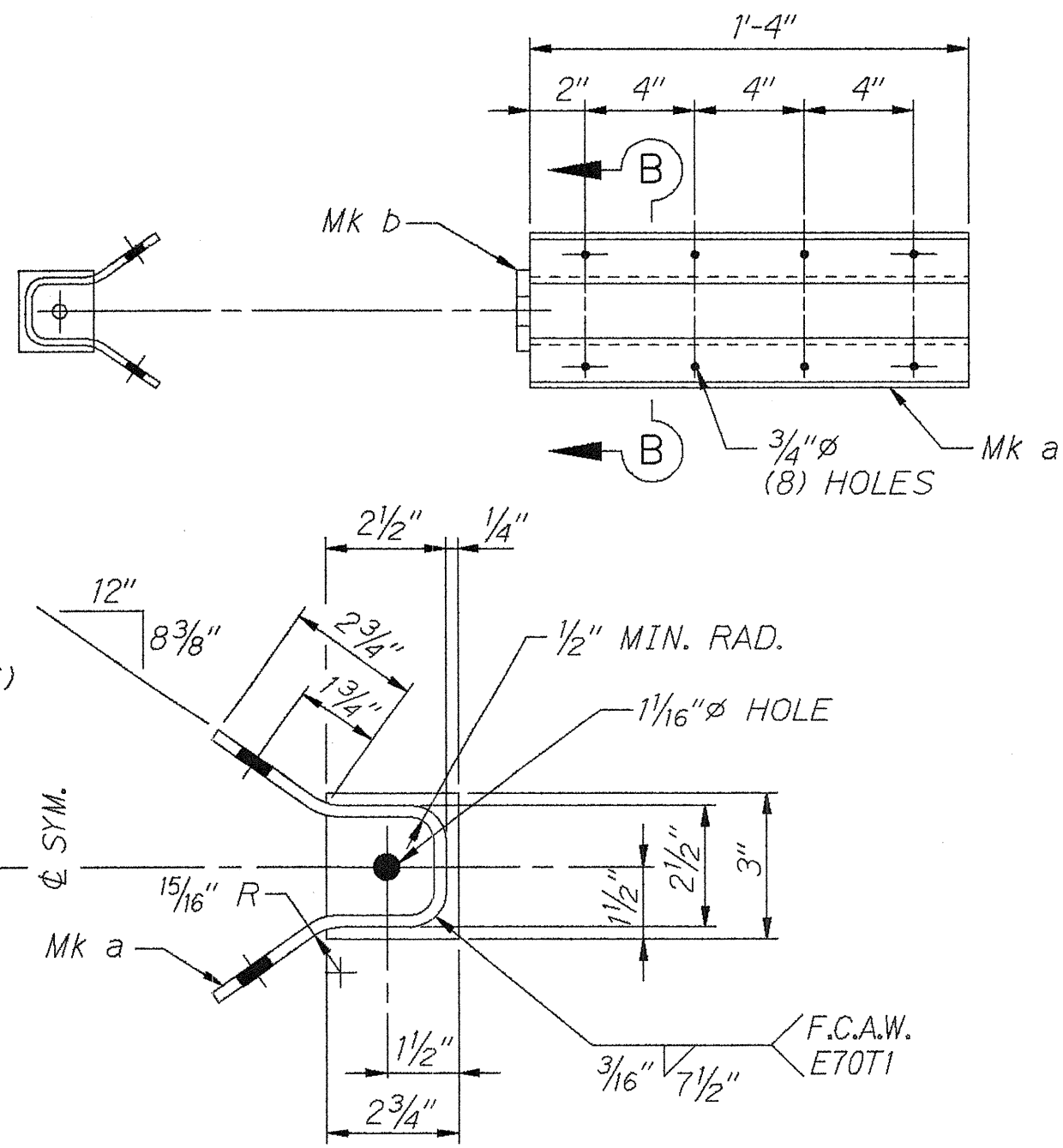
ONE - PIPE SPACER - R1



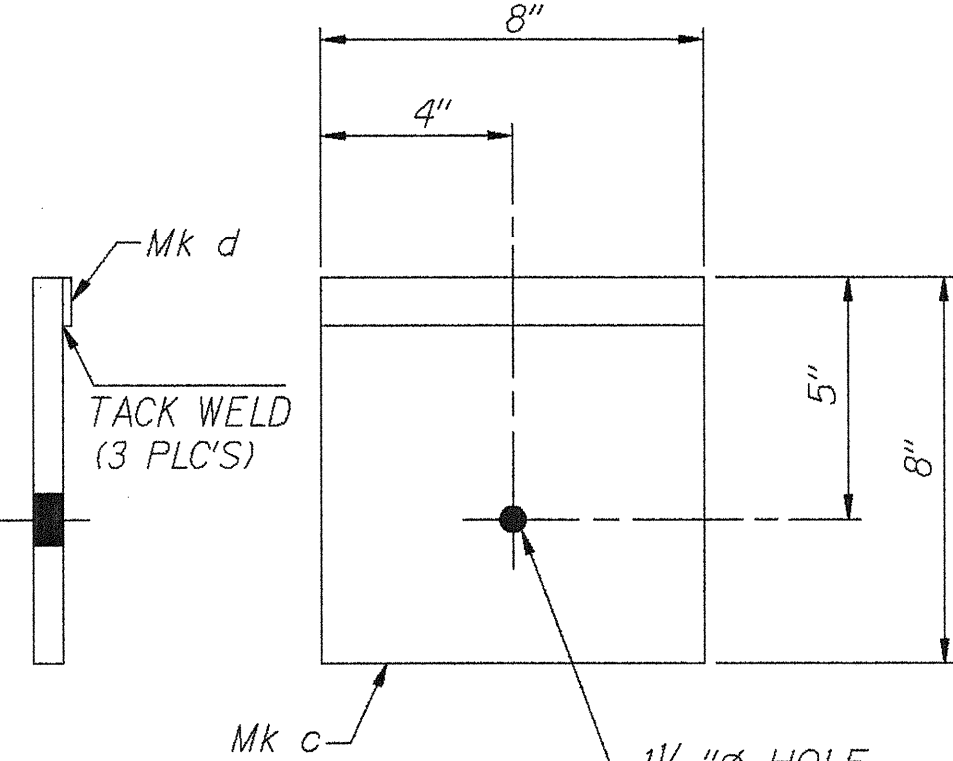
ONE - SHELF ANGLE - T1



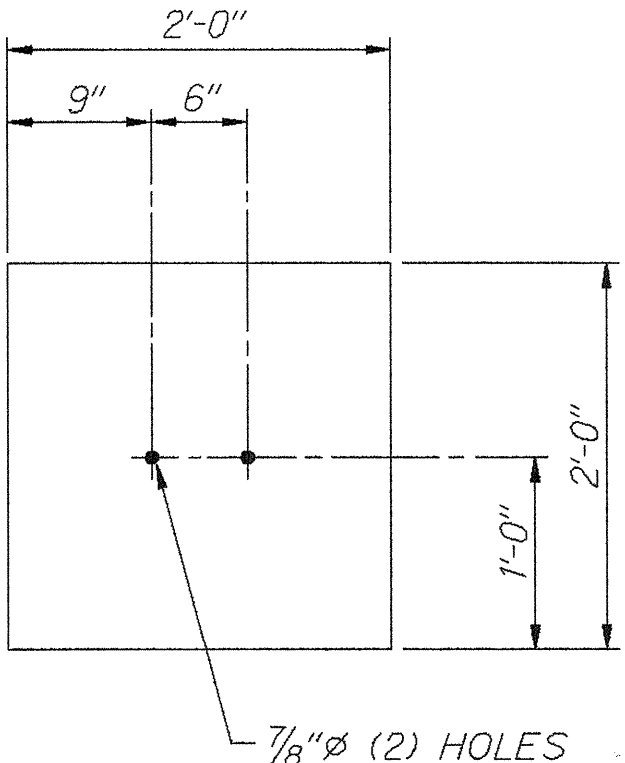
2 - SOIL TUBE - K1



ONE - CABLE ANCHOR BRACKET - L1



ONE - BEARING PLATE - M1



2 - SOIL PLATE - S1

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
.....	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
K. T. Tanaka

R. T. TANAKA ENGINEERS, INC.
CIVIL ENGINEERING - LAND SURVEYING

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MODIFIED ECCENTRIC LOADER
TERMINAL (MELT)
COMPONENT DETAILS
KEKAULIKE AVENUE RESURFACING
HALEAKALA CRATER ROAD TO KULA HIGHWAY
PROJECT NO. 377B-01-96M
Not to Scale
Date: APRIL, 1996
SHEET No. 2 OF 3 SHEETS

