

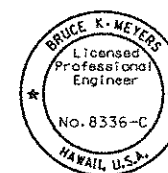
M:\Mproj\Lenlie\204028\100%\sheets\shra002.dgn

abutment	abut.
acceleration	Accel
aggregate	aggr.
ahead	AH
algebraic difference in grades	A
alternate	alt.
and	&
and others	et al
and wife	et ux
and so forth (et cetera)	etc.
approach	appr.
approximate	approx.
asphalt	asph.
asphalt concrete	A.C.
at	@
average daily traffic	ADT
back	BK
back to back	b. to b.
balance point	BP
baseline	@
batter	btr.
beam	bm.
bearing	brg.
beginning	beg.
bench mark	BM
bottom	Bot.
bridge	br.
cast iron	C.I.
cement rubble masonry	CRM
centerline	CL
center to center	cc or c. to c.
centers	ctrs.
channel change	ch. ch.
chord	chord
clear	clr.
column	col.
concrete	conc.
connection	conn.
construction	constr.
construction joint	constr. jt.
contingent sum	CTSM
continuous	cont.
contracting officer	co
corrugated	corr.
corrugated metal pipe	CMP
coulomb	C
county	co.
countersink	ctsk.
creek	cr.
cubic meter	m or m3
culvert	culv.
curve left	LT
curve right	RT
deceleration	Decel
degree	°. deg.
degree Celsius	°C
delta	Δ
Department of Hawaiian Homelands	DHHL
design hour volume	DHV
design speed	V
detail	Det.
diagonal	diag.
diameter	dia. or D
diaphragm	diaph.
district	Dist.
Division of Forestry and Wildlife	DOFAW
donation land claim	DLC
drawing(s)	drwg(s).
ductile iron	D.I.

east	E
edge of pavement	EP
edge of shoulder	ES
edge of water	EW
edge of road	ER
elevation	elev.
elevation with number	El. 94.066
embankment	emb.
Engineer(s)	enr(s).
equation	EQ or eq.
excavation	exc.
existing	Exist.
expansion joint	exp. jt.
federal	Fed.
feet	ft.
finish	fin.
flange	flg.
footing	ftg.
for example	e.g.
galvanized	galv.
gage (gauge)	ga.
Hawaii Department of Transportation	HDOT
Hawaii Electric Light Company	HELCO
headwall	hdwl.
hectare	ha
height	Ht.
hexagon	hex.
high water	HW
highway	hwy.
house	hse.
homestead entry survey	HES
horizontal	Horiz.
hydraulic grade line	H.G.R.
identification	iden.
inch	"
inclusive	incl.
incoming road grade	GI
inside diameter	ID
invert	Inv.
joint	jt.
K (length of vert curve per percent change in algebraic difference in grades)	L/A
kilogram	kg
kilometer	km
kilometer per hour	km/h
lamination	lam.
latitude	lat.
left	lt.
length of curve	Lc
linear feet	L.F.
longitudinal	long.
low water	LW
lump sum	LPSM
magnetic	mag.
maintenance	maint.
material	matl.
maximum	max.
meter (measurement)	m
metric ton	t
millimeter	mm

mile post	M.P.
miles per hour	M.P.H.
minute(s) (angular)	'
minimum	min.
miscellaneous	misc.
modified	mod.
monument	mon.
mountain(s)	mtn(s).
negative	neg.
not in contract	N.I.C.
north	N
newton	N
not to scale	N.T.S.
number	no. or #
on center	O.C.
offset	O/S
original ground	OG
out to out	o. to o.
outgoing road grade	G2
outside diameter	OD
pascal	Pa
pavement	pvmf.
pedestrian	ped.
percent	pct. or %
perforate	perf.
permanent berm	PB
Plan & Profile	PP
plate	pl. or plt.
Pohakuloa Training Area	PTA
point of beginning	POB
point of compound curve	PCC
point of ending	POE
point of vertical curve	PVC
point of vertical intersection	PVI
point of vertical tangent	PVT
Portland Cement Concrete	P.C.C.
point of curve	PC
point on curve	POC
point of intersection	PI
point of spiral to curve	PSC or SC
point of curve to spiral	PCS or CS
point on spiral	POS
point of spiral to tangent	PST or ST
point on tangent	POT
point of tangent to spiral	PS or TS
point of tangent	PT
project	proj.
Q ₅₀	50-year water runoff
quantities	quant.
radian	rad
radius	R
range	R.
reconstruction	reconst.
reinforcement	reinf.
required	req'd.
reservoir or Reservation	res.
retaining wall	ret. wall
right	rt.
right-of-way	R/W or ROW
road	rd.
roadway	rdwy.
route	rte.
school	sch.
second (angular)	"
second (time)	s

section	sec.
sheet	shf.
sidewalk	sidewlk
slope	slp.
slope protection	sl. prot.
south	S
spacing, Spaces or Spaced	spa.
specification	spec.
speed	spd
square	sq
square meter	m ² or m2
standard	std.
station	sta.
stiffener	stiff.
straight	str.
street	st.
stringer	strgr.
structural	struc. or strctl.
superelevation	SE
superelevation rate	e
symmetrical	sym.
tangent	tan.
tangent length	T
tax map key	TMK
temporary construction easement	TCE
temporary bench mark	TBM
that is	i.e.
thick	thk.
thread	thd.
township	T.
typical	typ.
vehicles per hour	vph
velocity	V
vertical	vert.
vertical point of intersection	VPI
warehouse	whs.
weight	wt.
west	W



The work was prepared by me or under my supervision and construction of this project will be my responsibility.
Expiration Date of License 3/08

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PLAN ABBREVIATIONS

Scale: N/A

Date: June 29, 2007

SHEET No. 1 OF 1

M:\Mpro\Lenzie\20402B\100% sheets\shra003.dgn

NATIONAL BOUNDARY	
STATE BOUNDARY	
COUNTY BOUNDARY	
CITY BOUNDARY	
TOWNSHIP or RANGE LINE	
SECTION LINE	
1/4 SECTION LINE	
1/16 SECTION LINE	
NATIONAL PARK or FOREST BOUNDARY	
PROPERTY LINE	
RIGHT-OF-WAY LINE	
RIGHT-OF-WAY LINE with MONUMENT	EXISTING PROPOSED
PARTIAL CONTROL OF ACCESS	EXISTING PROPOSED
FULL CONTROL OF ACCESS	EXISTING PROPOSED
EASEMENT (Permanent)	PE
SLOPE STAKE	TOP OF CUT TOE OF FILL
JEEP TRAIL/GRAVEL ROAD	
ROADWAY, EXISTING	
RAILROAD	SINGLE TRACK MULTIPLE TRACK
TRAIL	
INTERMITTENT DRAINAGE & SMALL CREEK	
LARGE CREEK	
RIVER	
CONSTRUCTION LIMITS	
EARTH BERM	
EARTH LINED CHANNEL	
ENVIRONMENTALLY SENSITIVE AREA	
EROSION CONTROL MAT TYPE 3	
GRADE FIELD ACCESS ROAD	
OBLITERATE EXISTING ROADWAY	
SEDIMENT CONTROL LOGS	
SILT FENCE	
SURVEY CONTROL POINT TIES	
TEMPORARY CONSTRUCTION EASEMENT (TCE)	
WATERLINE	EXISTING PROPOSED
EXISTING WATERLINE TO BE REMOVED WITHIN THE ROW OR ABANDONED OUTSIDE OF ROW	

CONTOURS	EXISTING	PROPOSED
FENCE		
GATE with FENCE		
CONSTRUCTION FENCE	No Symbol	
CATTLEGUARD		
GUARDRAIL	No Symbol	
MEDIAN & SIDE BARRIER		
SIGNS	POST MOUNTED PORTABLE COMMERCIAL	
RETAINING WALL	wall face	
POWER POLE with UTILITY LINE		
TELEPHONE POLE with UTILITY LINE		
JOINT USE POLE with UTILITY LINES		
SUPPORT POLE with ANCHOR		
TELEPHONE BOOTH or PEDESTAL	TB or TP	TB or TP
STREET LIGHT		
UNDERGROUND UTILITIES	G= gas, O= oil, P= power, SA= sanitary sewer, SS= storm sewer, T= telephone,	
BRIDGE		
PIPE CULVERT (arrow shows flow)		
PIPE CULVERT with END SECTION		
PIPE CULVERT with HEADWALL		
BOX CULVERT		
CULVERT with DROP INLET		
UNDERDRAIN		
TRAVERSE POINT (Horizontal & Vertical)	T-45 645.934	No Symbol
TRAVERSE POINT (Horizontal)	T-3	No Symbol
BRASS CAP		No Symbol
STEEL PIN		No Symbol
HUB & TACK		No Symbol
SPOT ELEVATION	x 99.9	No Symbol
COORDINATE GRID TICK		No Symbol
BUILDING		
BORING LOCATION		No Symbol

STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD 6(4)	A3	A4

LAKE, POND or RESERVOIR;
MARSHLAND

SPRING

TREELINE; TREE

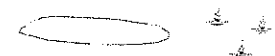
BUSH

MATERIAL SOURCE

MORTARED RIPRAP

RIPRAP

CHECK DAM



FOUND

PROJECTED

SECTION CORNER

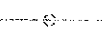
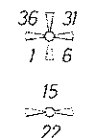
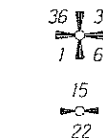
1/4 SECTION CORNER

1/16 SECTION or PROPERTY CORNER

PROPERTY CORNER

PARCEL NUMBER

NORTH ARROW



No Symbol

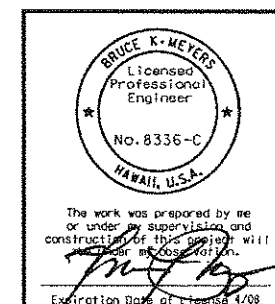
No Symbol

No Symbol

400



NOTE:
Other symbols used in the plans will be shown in a legend on the appropriate plan sheet.



U.S. DEPARTMENT OF TRANSPORTATION
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CENTRAL FEDERAL LANDS HIGHWAY DIVISION

PLAN SYMBOLS

Scale: N/A

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SHEET No. 1 OF 1