

VMAK - Makena Beach

Date 1st used	MAKENA BEACH VMAK		Survey Dates										
			1/2/1995	9/3/1995	2/17/1996	8/10/1996	1/7/1997	7/8/1997	1/15/1998	7/7/1998	1/11/1999	6/29/1999	
1/2/95	RP#1	PK nail in "V" of tree across road	RP1	-	-	-	-	-	-	-	-	-	-
1/2/95	RP#2	PK nail on LNDWD curb of median	RP2	-	-	-	-	-	-	-	-	-	-
1/2/95	RP#3	PK, tilted top/center of wood post	RP3	RP1	-	-	-	SRP	SRP	-	-	-	-
1/2/95	RP#4	PK on post, N end of NO PKG sign	RP4	RP2	RP1	SRP	-	-	-	-	-	-	-
1/2/95	RP#5	PK nail on basalt boulder	RP5	-	RP2	-	-	-	-	-	-	-	-
9/3/95	RP#6**,**	PK on low basalt rock border on dune	-	RP3	BRP	BRP	BRP	BRP	BRP/GPS1	BRP	BRP	BRP	BRP
9/3/95	RP#7	PK nail on flag, S side of palm	-	RP4	FRP	FRP	FRP	FRP	FRP	FRP	FRP	FRP	FRP
9/3/95	RP#8	center of survey BM on basalt boulder	-	-	-	-	-	-	GPS2	GPS	GPS	GPS	-
	<b>Start of Line</b>		Indwd.rd	on.BRP	base.palm	base.palm	on.BRP	base.palm	ON.BRP	base.palm	makai of BRP	AT.FRP	
	<b>Line Number</b>		1.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	-	-	
	<b>bearing</b>		260°	278°	-	285°	285°	285°	290°	290°	291	-	
* = new PK nail or other marker													
<b>location:</b>	Heading S on Wailea Alanui Rd/ Makena Alanui Rd, turn R onto Makena Rd. pass public boat ramp. Unload at turnaround at end of street, then park across from Keawaii church at public restrooms												
<b>LINE-UP1.1</b>	Kiawe tree across road (RP1) and wooden post at beach access (RP3)												
<b>LINE-UP2.1</b>	FRP palm (RP7) and tall stadia rod on BRP (RP6) on low rock border												
<b>Hor.Ref:</b>	Seaward corner of restroom south of line												
<b>RP#1</b>	PK nail on orange flag in apex of "Y" kiawe tree across Makena Rd from beach access												
<b>RP#2</b>	PK nail on orange flag on landward yellow curb at S end of median defining beach access turn-around												
<b>RP#3</b>	PK nail on orange flag on tilted top/center of wooden post on S/LNDWD side of break in metal cable "fence"												
<b>RP#4</b>	PK nail on tilted top/center of wooden post at N end of large brown "NO PKG/Loading Zone Only" sign at beach access turnaround												
<b>RP#5</b>	PK nail on orange flag on top of basalt boulder (3'x2'x4') SE of group of rocks by wood snag												
<b>RP#6</b>	PK nail flush with low basalt rock border. Nail is 6" from Indwd edge of border and 7 paces E of fencepost tied to water spigot												
<b>RP#7</b>	PK nail on flag at 1 m in S/Indwd-ish side of 2nd palm from N end of vegetated dune area. Palm curves SWD.												
<b>RP#8</b>	Center of "Seibu Hawaii Survey Marker" on rock 11m LNDWD of dead log/snag and 18m SWD of "PUBLIC....RIGHT of WAY" sign												
<b>GPS</b>	VMK1: Online backbeach GPS1 (1/2/95)												
<b>GPS</b>	VMK2: Online makai on beach GPS2 (1/2/95)												
<b>GPS1</b>	RP6, MAK1 (7/8/97) = 7.614												
<b>GPS2</b>	RP8, MAK2 (7/8/97) = 2.138												
<b>NOTES:</b>													
1/2/95	GPS Survey												
7/8/97	GPS Survey												
	GPS Positions	Longitude	Latitude	Elevation (meters above local tidal datum)									
	MAK1	-156.442368	20.646976	7.614									
	MAK2	-156.442383	20.648304	2.138									
	*Primary GPS for elevation control; GPS1, MAK1, RP6 (7/97) = 7.614												
	**Primary reference point; RP6/BRP = 7.614												