GEOTECHNICAL NOTES:

Date Started: 7/2/19

- 1. A geotechnical engineering report entitled Waa Street Traffic Signals dated September 12, 2019 has been prepared by HARTCROWSER. A copy of the report is on file at the office of the Engineer for review by the Contractor.
- 2. For boring locations, see Sheets XX & XX.

Date Completed: 7/30/19

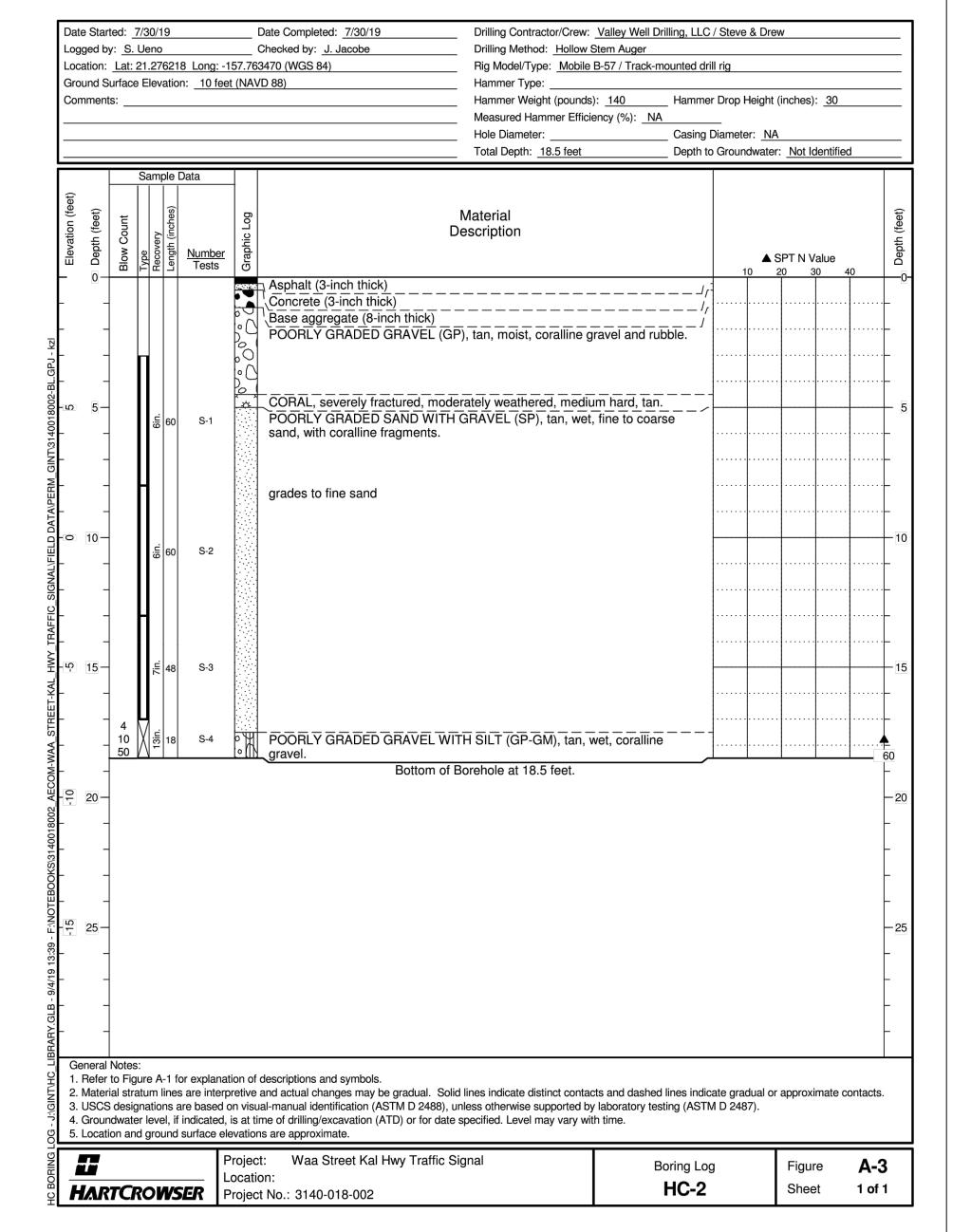
3. The information presented in the logs of borings depict the subsurface conditions encountered at that specified location and at the time of the field exploration only. Variations of subsoil conditions from those depicted in the logs of borings may occur between and beyond the borings.

Drilling Contractor/Crew: Valley Well Drilling, LLC / Steve & Drew

Ground Surface Elevation:10 feet (NAVD 88) Comments:							Measured Hammer Efficien Hole Diameter:	Measured Hammer Efficiency (%): NA Hole Diameter: Casing			g Diameter: NA to Groundwater: Not Identified				
			Sa	mpl	e Data										
Elevation (feet)	O Depth (feet)	Blow Count	Type	Recovery	Number Tests	ि Graphic Log	Material Description		WC (%) ● SPT N Value 10 20 30 40						
-	_						Asphalt (3-inch thick) POORLY GRADED GRAVEL WITH SILT (GP-GM), mediur brown, moist. [FILL]	m dense, gray to							
-	-	9 13 50 50	$\boldsymbol{-}$	4in. 16in.	6 <u>S-1</u> WC		POORLY GRADED GRAVEL WITH SILT (GP-GM), trace s gray to brown, moist, coralline gravel.	and, very dense,			•				
_	_	18	Н			× × × × × × × × × × × × × × × × × × ×	TUFF, moderately weathered, medium hard, olive, poorly lit	hified volcanic /					5		
- -	5 —	15 50 46 50	Н	_	6 S-3 7 S-4		\ash, trace sand, trace silt. \CORAL, severely fractured, moderately weathered, medium SANDY SILT WITH GRAVEL (ML), hard, moist, interbedders and.								
_	_	50	×	3in.	S-5 WC						•				
-	10 —	20 24 50	4 X i	17in.	7 <u>S-6</u> WC		SILTY GRAVEL WITH SAND (GM), very dense, tan to light brown, wet, fine to coarse sand, fine gravel.				•				
	-												[
_	-														
_	_	17	M	اے	S-7		POORLY GRADED SAND WITH GRAVEL (SP), dense, tar	n, wet, partially							
- -	15 —	17 18	А	1 9 1	8 <u>S-7</u> WC		lithified, with coral fragments.					35_	<u> </u>		
-	-	_													
_	_														
_	-	9	M	18in.	8 S-8		POORLY GRADED SAND (SP), loose, tan, wet, fine to coarse sand. POORLY GRADED SAND (SP), loose, tan, wet, fine sand, partially lithified.								
-10	20 —	6	Μ	٦			POORLY GRADED SAND (SP), loose, lan, wel, line sand,	рапіану штінец.	8						
-	-														
-	-														
_	-	6	\mathbb{H}	_			POORLY GRADED SAND (SP), dense, tan, wet, fine to coa	arse sand.							
-15	25 –	6 27	\bigvee	.i 1 3 1	8 S-9							33			
- -	-						Bottom of Borehole at 25.0 feet.								
1. 2. 3. 4.	Mater USCS Grour	to Fig rial str desi ndwat	gure atui gna er le	n lir tion: evel,	es are into are base if indicate	erpretive d on visi d, is at t	descriptions and symbols. and actual changes may be gradual. Solid lines indicate distinct contacts ual-manual identification (ASTM D 2488), unless otherwise supported by laime of drilling/excavation (ATD) or for date specified. Level may vary with ns are approximate.	aboratory testing (ASTN	ate grad I/ D 248	dual or 7).	approx	imate c	ontac		
						Projec	ct: Waa Street Kal Hwy Traffic Signal			$\equiv \equiv$			A -		

	FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	HAWAII	HAW.	<i>72C-01-19</i>	2019	28	48

- 4. The penetration resistance shown on the logs of borings indicate the number of blows required for the specific sampler type used. The blow counts may need to be factored to obtain the Standard Penetration Test (SPT) blow counts.
- 5. The data given is for general information only. Bidders shall examine the site and the boring data and draw their own conclusions therefrom as to the character of materials to be encountered. The Engineer will not assume responsibility for variations of subsoil quality or conditions other than at the boring locations shown and at the time the borings were taken.





THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

4/30/20

ARED BY ME
ERVISION.

4/30/20
EXPIRATION DATE
OF LICENSE

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

<u>BORING LOG</u> KALANJANJAOLE HIGH

KALANIANAOLE HIGHWAY
TRAFFIC SIGNAL INSTALLATION AT WAA ST.
Project No. 72C-01-19

Date: November 2019

SHEET No. 1 OF 1 SHEETS