## **GENERAL NOTES:**

- 1. THE LOCATION OF UNDERGROUND FACILITIES SHOWN ON THE PLANS ARE FROM EXISTING RECORDS WITH VARYING DEGREES OF ACCURACY AND ARE NOT GUARANTEED AS SHOWN. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHENEVER CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND LINES.
- 2. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES TO HAWAIIAN ELECTRIC CO. FACILITIES AND SHALL IMMEDIATELY REPORT SUCH DAMAGES TO HAWAIIAN ELECTRIC CO.'S TROUBLE DISPATCHER AT 548-7961.
- 3. THE CONTRACTOR IS TO COMPLY WITH THE DIRECTIONS OF THE STATE OF HAWAII OCCUPATIONAL SAFETY AND HEALTH LAW (DOSH).
- 4. FOR VERIFYING THE LOCATION OF UNDERGROUND DUCT LINES AND FOR ASSISTANCE IN PROVIDING PROPER SUPPORT AND PROTECTION OF THE UNDERGROUND DUCT LINES, THE CONTRACTOR IS TO CONTACT HAWAIIAN ELECTRIC CO. UNDERGROUND DIVISION AT 548-7395 A MINIMUM OF 72 HOURS IN ADVANCE.
- 5. ALL HAWAIIAN ELECTRIC CO. UNDERGROUND FACILITIES SHOWN ON THESE PLANS OR WHOSE APPROXIMATE LOCATIONS WITHIN THE PROJECT BOUNDARIES HAVE BEEN MADE KNOWN BY ANY REASONABLE MEANS AT ANY TIME TO THE CONTRACTOR SHALL BE PROTECTED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION. COSTS FOR THE DAMAGES TO HAWAIIAN ELECTRIC CO. FACILITIES MAY BE BORNE BY THE CONTRACTOR. THIS REPAIR WORK SHALL BE DONE BY HAWAIIAN ELECTRIC CO. OR BY THE CONTRACTOR UNDER HAWAIIAN ELECTRIC CO.'S SUPERVISION.
- 6. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGEMENT DEPT. TWO WEEKS PRIOR TO WORK ON HAWAIIAN ELECTRIC CO. FACILITIES, AT 543-5668.
- 7. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN THE EXCAVATION AND CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND TELEPHONE AND SIGNAL CABLE FACILITIES. ANY DAMAGES TO THE EXISTING UNDERGROUND FACILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
- 8. FOR FIELD LOCATION OF HAWAIIAN TELEPHONE CO. FACILITIES, CONTACT HAWAIIAN TELEPHONE OUTSIDE PLANT ENGINEERING SECTION, A MINIMUM OF 72 HOURS IN ADVANCE, PRIOR TO START OF EXCAVATION.
- SHOULD FIELD CONDITIONS AND CONSTRUCTION PROCEDURES REQUIRE THAT UTILITY POLES BE BRACED. THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSON FOR POLE BRACING INSTRUCTIONS A MINIMUM OF 72 HOURS IN ADVANCE OF ACTUAL REQUIRED BRACING - HAWAIIAN TELEPHONE CO. - CALVIN CHOY - AREA CONSTRUCTION SUPERVISOR AT 546-3381.
- 10. WHEN TRENCH EXCAVATION IS ADJACENT TO EXISTING STRUCTURES OR FACILITIES. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SHEETING AND BRACING THE EXCAVATION AND STABILIZING THE EXISTING GROUND TO RENDER IT SAFE AND SECURE FROM POSSIBLE SLIDES, CAVE-INS, AND SETTLEMENT, AND FOR PROPERLY SUPPORTING EXISTING STRUCTURES AND FACILITIES WITH BEAMS, STRUTS, OR UNDERPINNING TO FULLY PROTECT IT FROM DAMAGE.
- SHOULD IT BECOME NECESSARY, ANY WORK REQUIRED TO RELOCATE HAWAIIAN ELECTRIC CO. FACILITIES SHALL BE DONE BY HAWAIIAN ELECTRIC CO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION.
- 12. ALL WORK REQUIRED TO RELOCATE HTCO FACILITIES SHALL BE PERFORMED BY HTCO IN COORDINATION WITH THE CONTRACTOR.
- 13. ALL WORK REQUIRED TO RELOCATE CATV FACILITIES SHALL BE PERFORMED BY THE CATV COMPANY IN COORDINATION WITH THE CONTRACTOR.
- 14. THE CONTRACTORS SHALL BE RESPONSIBLE FOR ANY DAMAGES TO EXISTING STREET LIGHTING FACILITIES, AND ANY AND ALL DAMAGES TO THESE FACILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS COST IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF HAWAII.
- 15. THE CONTRACTORS SHALL NOTIFY THE DEPT OF TRANSPORTATION SERVICES THREE (3) WORKING DAYS BEFORE WORKING ON THE TRAFFIC SIGNAL SYSTEM (527-5004).

## HAWAIIAN TELEPHONE SYSTEM NOTES:

- THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL LICENSES AND PERMITS AND SHALL GIVE ALL NOTICES NECESSARY AND INCIDENT TO THE DUE AND LAWFUL PROTECTION OF
- THE LOCATION OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY THEIR LOCATION AND SHALL BE RESPONSIBLE FOR ANY DAMAGES TO THESE UTILITIES AS A RESULT OF HIS OPERATIONS. ADJUSTMENTS TO THE NEW DUCTLINE ALIGNMENT, IF REQUIRED, SHALL BE MADE TO PROVIDE THE REQUIRED CLEARANCES.
- 3. SHOULD FIELD CONDITIONS AND CONSTRUCTION PROCEDURES REQUIRE THAT UTILITY POLES BE BRACED, THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSONS FOR POLE BRACING INSTRUCTIONS A MINIMUM OF 72 HOURS IN ADVANCE OF ACTUAL REQUIRED BRACING: HTCO. -J. GILMAN - AREA CONSTRUCTION INSPECTOR AT. 831-4054.
- 4. THE CONTRACTOR SHALL SAW—CUT A.C. PAVEMENT AND CONCRETE GUTTER WHEREVER NEW MANHOLES OR DUCTLINES ARE TO BE PLACED AND SHALL RESTORE TO EXISTING CONDITION OR BETTER.
- THE CONTRACTOR SHALL COMPLY WITH THE POLICY ADOPTED BY THE DEPARTMENT OF PUBLIC WORKS. CITY AND COUNTY OF HONOLULU AND DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION, STATE OF HAWAII, CONCERNING RESTORING PAVEMENT AND OTHER IMPROVEMENTS AFTER EXCAVATION WORK.
- 6. PRIOR TO THE EXCAVATION OF THE DUCTLINE, THE CONTRACTOR SHALL REQUEST THE HAWAIIAN TELEPHONE COMPANY TO LOCATE EXISTING DUCTLINE WHEREVER REQUIRED.
- 7. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTION NOT TO DAMAGE EXISTING CABLES OR DUCTS. ANY WORK INVOLVING EXISTING CABLES OR DUCTS SHALL BE DONE IN THE PRESENCE OF THE HAWAIIAN TELEPHONE COMPANY INSPECTOR OR HIS REPRESENTATIVE.
- THE CONTRACTOR SHALL PUMP ALL MANHOLES DRY DURING FINAL INSPECTION.
- 9. THE CONTRACTOR SHALL NOTIFY THE HAWAIIAN TELEPHONE COMPANY INSPECTOR 24 HOURS PRIOR TO THE POURING OF CONCRETE OR BACKFILLING: J. GILMAN 831-4054.
- 10. WHEREVER CONNECTIONS TO EXISTING UTILITIES ARE SHOWN ON THE PLANS, THE CONTRACTOR SHALL EXPOSE THE EXISTING LINES PRIOR TO EXCAVATION OF THE MAIN TRENCHES TO VERIFY THEIR LOCATIONS AND DEPTHS.
- 11. SHOULD IT BECOME NECESSARY, ANY WORK REQUIRED TO RELOCATE UNDERGROUND OR OVERHEAD FACILITIES SHALL BE DONE BY HTCO. AND PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION.
- 12. FOR FIELD LOCATION OF HTCO FACILITIES, CONTACT HTCO. OUTSIDE PLANT ENGINEERING SECTION, A MINIMUM OF 72 HOURS IN ADVANCE PRIOR TO START OF EXCAVATION.
- 13. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN THE EXCAVATION AND CONSTRUCTION CROSSES OR IS IN CLOSE PROXIMITY OF UNDERGROUND TELEPHONE AND SIGNAL CABLE FACILITIES AND MAINTAIN ADEQUATE CLEARANCE FOR HIS EQUIPMENT WHILE WORKING CLOSE TO AND/OR UNDER THE OVERHEAD FACILITIES. ANY DAMAGE TO THE EXISTING UNDERGROUND FACILITIES SHALL BE REPAIRED AND PAID FOR BY THE CONTRACTOR.
- 14. CONTRACTOR SHALL PROVIDE ALL MATERIALS, AND FURNISH ALL LABOR AND EQUIPMENT NECESSARY TO INSTALL THE DUCTLINE IN PLACE COMPLETE.
- 15. WHEN CONNECTING TO MANHOLE WALLS, ALL EXISTING REINFORCING BARS SHALL BE LEFT INTACT. DUCT SHALL BE ADJUSTED IN THE FIELD IN ORDER TO CLEAR REINFORCING.

## TRAFFIC SIGNAL NOTES:

- CONDUITS AND CABINET LOCATIONS AS SHOWN ON THE PLANS ARE SCHEMATIC. THEY MAY BE MODIFIED BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE CITY ELECTRICAL AND MAINTENANCE SERVICES DIVISION, DEPARTMENT OF TRANSPORTATION SERVICES, THREE (3) WORKING DAYS PRIOR TO COMMENCING WORK ON THE TRAFFIC SIGNAL SYSTEM (PHONE 527-5007).
- ALL WORK FOR THE INSTALLATION AND MODIFICATION OF THE TRAFFIC SIGNAL SYSTEM SHALL CONFORM TO THE "HAWAII STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 1985" AND SHEETS T-38, T-39, T-40, T-41, T-42 AND T-43 OF THE "STANDARD PLANS" OF THE DEPARTMENT OF TRANSPORTATION. HIGHWAYS DIVISION AND AS SHOWN ON THESE DRAWINGS.

**DRAWING REVIEW** Reviewed for HECO's Facilities Only Date 5-7-96 By Acfill, Him Engineering & Project Management Dept. Hawaiian Electric Company, Inc.

HECO's review of these drawings shall in no way relieve

eningeering, design, materials and any liability associated

the Customer, its Consultant, its Contractor or anyone acting on the Customer's behalf from the responsibility for

with theis project.

**APPROVED:** HAWAIIAN ELECTRIC CO. 4/11/96 DATE HAWAIIAN TELEPHONE CO.

SHEET NO. FED. ROAD DIST. NO. FED. AID PROJ. NO. FISCAL YEAR TOTAL STATE SHEETS 36 IM-STP-0750(10) HAW. 1999

01/400		MBOLS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION  SUSTAIN FOR A PROPERTY OF STANKE TO BE A PROPERTY OF STANKE TO
<b>←</b> ◎	STREET LIGHT, 150W, ALUM., TRANSF. BASE, 15FT ARM,		ELECTRIC/SIGNAL DUCTLINE WITH DESIGNATORS; INDICATES
	SEE DETAIL "A", SHEET 52	(S-A)(2-47)	TYPE "S-A" DUCT SECTION WITH "2-4T" DUCTS. SEE SHEET
	STREET LIGHT, 150W, ALUM. WITH BREAK AWAY BASE,	70	61 & 62 FOR DUCT SECTIONS AND CONDUIT SCHEDULES
	SEE DETAIL "C" ON SHEET 53		STUB, CAP, & MARK CONDUITS
•	STREET LIGHT, 150W, ALUM, TRANSF, BASE, & FT, ARM,		STREET LIGHT DUCTLINE & WIRING
	SEE DETAIL'A", SHEET 52	TS—	TRAFFIC SIGNAL DUCTLINE
			to the second
·()	EXST. STREET LIGHT		the state
1444/11/11	REMOVE EXST. STREET LIGHT		
<u>~(-)</u>	EXST. STATE 250W	<u> </u>	EXST. ELEC/SIGNAL DUCTLINE & WIRING
<u>~Ф</u> _	EXST. STATE 400W		EXST. WIRING TO BE REMOVED BY RESPECTIVE UTILITY CO
~* <del>(*)</del>	EXST. 250W STREET LIGHT TO BE REMOVE. CONCRETE	<del></del>	CAP ENDS OF EXST. ELEC/SIGNAL DUCTS & ABANDON IN
	BASE TO BE REMOVED 2 FT. BELOW FINISHED GRADE		PLACE
154	EXST. UTILITY POLE TO BE REMOVED BY RESPECTIVE	e_oh	EXST. OVERHEAD ELECTRIC LINES
74	UTILITY CO.		EXST. STREET LIGHT DUCTLINE & WRING
0	EXST. UTILITY POLE	s	EXST. TRAFFIC SIGNAL DUCTLINE
		t	EXST. DIRECT BURIED "WOLFE" CABLE
			EXST. DIRECT BURIED "WOLFE" CABLE TO BE ABANDONE!
		-*- t -*-	IN PLACE
$\boxtimes$	HECO 2' X 4' HANDHOLE		EXST. STREET LIGHT DUCTLINE W/ NEW WIRING
[ <u>\tilde{Q}]</u>	EXST. HECO 6' X 11' MANHOLE	—E-0H—	NEW OVERHEAD LINES TO MATCH EXST.
			'
Pers		S	CONCRETE STUB-OUT MARKER, SEE DETAIL "E",
			SHEET 52
<b>3</b>	HTCO 2'X4' HANDHOLE, PERHTCODING, NO. 3405G.	[M]	EXST. METER EQUIPMENT & ENCLOSURE
<b>D</b>	HTCO 5' X 10' MANHOLE, SEE DETAIL ON SHEET 69	图	TRAFFICSIGNALS ST. LT. METERING EQUIP, SEE DETAIL C/64
	HTCO 5 X 10 - G "MANHOLE, PERHTCO DWG, NO. 180016, SHT70	-	
	EXST. HTCO 4' X 6' HANDHOLE		12" RYG TRAFFIC SIGNAL HEAD
ছ	EXST. HTCO MANHOLE		12" RYGT TRAFFIC SIGNAL HEAD
7 <i>222</i>	DEMOLISH EXST. HTCO HANDHOLE		PEDESTRIAN SIGNAL HEAD
			TYPE I SIGNAL STANDARD, HEIGHT=10',
		<u> </u>	SEE DETAIL "C", SHEET 66
	CATY 2'XG' HANDHOLE, PER CATY REQUITS, SHT. 71	0	TYPE II SIGNAL STANDARD, SEE DETAIL "E", SHEET 66
Ф	CATV 2' X 4' HANDHOLE, PERCATV REQ'MTS, SHT, 71	•	TYPE III SIGNAL STANDARD, SEE DETAIL "B", SHEET 67
CI3	EXST. CATV 2' X 4' HANDHOLE		LOOP DETECTORS, SEE DETAILS ON SHEET 68
	TRAFFIC SIGNAL 19" X 28" PULLBOX,		TRAFFIC SIGNAL CONTROLLER, SEE DETAIL "A", SHEET 67
	SEE DETAIL "B", SHEET 56		
	TRAFFIC SIGNAL 2' X 4' PULLBOX,	** *	REMOVE EXST. TRAFFIC SIGNAL EQUIPMENT
	SEE DETAIL "A", SHEET 63	<del>**</del> **	
	STREET LIGHT 19" X 28" PULLBOX,		12" RY → PROGAMABLE TRAFFIC SIGNAL HEAD
	SEE DETAIL "B", SHEET 56 63		12" RYT TRAFFIC SIGNAL HEAD
<b>2</b>	STREET LIGHT 2'X 4' HANDHOLE,		
	SEE DETAIL "A", SHEET 56		
CJ	EXST. PULLBOX/HANDHOLE		
£2 <b>.</b>	REMOVE EXST. PULLBOX/HANDHOLE		
	SECONDARY ELEC. 2 'X 4' HANDHOLE	$\otimes$	OPTICOM DETECTOR, SEE DETAIL "C", SHEET 63
		8	OPTICOM DETECTOR, SEE DETAIL "E", SHEET 63
			OF HOOM DETECTOR, SEE DETAIL E, SHEET GO
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APPROVED:

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION GENERAL AND UTILITY NOTES,

ELECTRIC AND TELEPHONE LEGENDS

KUNIA ROAD WIDENING; AND H-I, KUNIA I.C., RAMP KO WIDENING F.A.I. PROJECT NO. IM-STP-0750(10) DATE: APRIL 1999 SCALE: AS NOTED

SHEET No. 1 OF 1 SHEETS

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