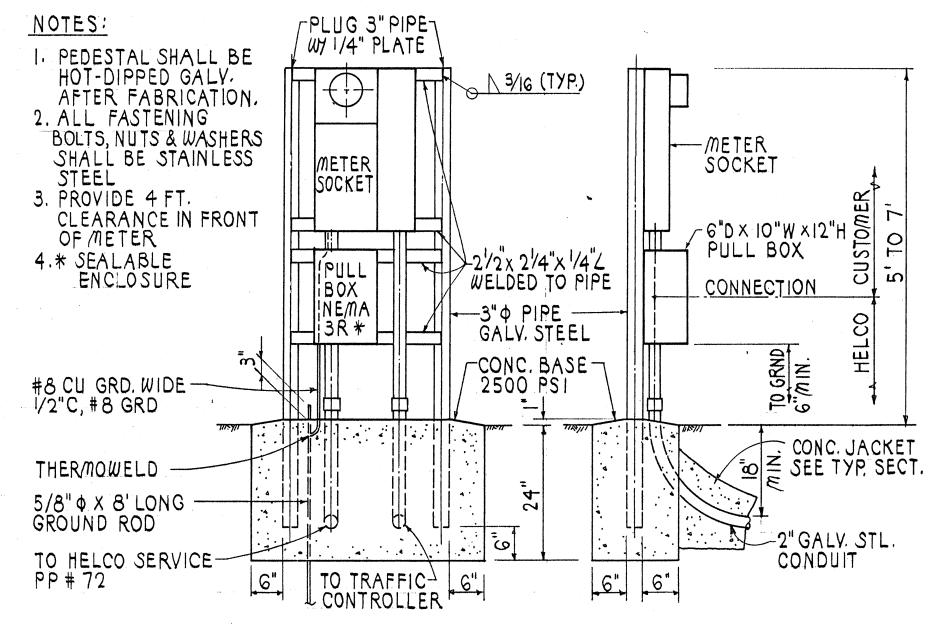
ONE LINE DIAGRAM



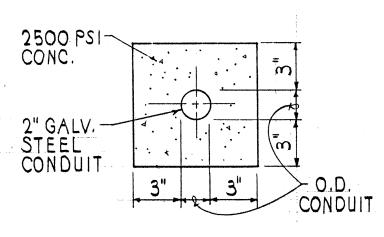
FRONT ELEVATION SIDE ELEVATION

METER PEDESTAL FOR UNDERGROUND SERVICE

NOT TO SCALE

PANEL 120/240V 10 3W NEMA 3R ENCLOSURE 50 A LUGS ONLY LOAD CENTER WIDOOR BKR 10:10,000 A								
CKT	DESCRIPTION	Αф	ВФ	BKR	WIRE			
1,3	TRAFFIC CONTROLLER	3.5	3.5	2P50A	ေ			
2	PFB		<i>x</i> -	IP.				
4-8	PFB			5-19				
				•				

PANEL SCHEDULE



CONC. JACKET TYP. SECTION NOT TO SCALE

SERVICE DATA

1. SERVICE VOLTAGE: 1Φ, 120/240V, 3W

2. LOAD DATA: CONNECTED - 7 KVA ESTIMATED DEMAND-3 KVA

3. SERVICE CONDUCTORS: 3 # G CU

4. METERING: METER STANDARD B5 RATE G

5. Type: UNDERGROUND

G. BILLING INFORMATION: HIGHWAYS DIVISION
DEPARTMENT OF TRANSPORTATION
STATE OF HAWAIL

ELECTRICAL NOTES

- I. HAWAII ELECTRIC LIGHT CO. SHALL FURNISH AND INSTALL CABLE BETWEEN SECONDARY AND METER SOCKET.
- 2. CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS TO CONTROLLER, PROVIDE BREAKER, GROUND, CONCRETE ENCASED 2"GALV. STEEL CONDUIT AND RISER.
- 3. CONTRACTOR SHALL PROVIDE HELCO ONE WEEK ADVANCE NOTICE FOR ANY WORK BY HELCO.

CONSTRUCTION NOTES

- 1. LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES SUCH AS PIPELINES, CONDUITS, CABLES, ETC., SHOWN ON PLANS ARE APPROXIMATE ONLY. IT IS NOT THE INTENT OF THESE PLANS TO SHOW THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES WITH THE RESPECTIVE OWNERS. EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.
- 2. THE LOCATIONS OF THE TRAFFIC SIGNAL STANDARDS, TRAFFIC SIGNAL STANDARDS WITH MAST-ARM, PEDESTRIAN PUSH BUTTONS, TRAFFIC CONTROLLER, PULLBOXES, CONDUITS AND LOOP DETECTORS SHALL BE STAKED OUT IN THE FIELD BY THE CONTRACTOR AND APPROVAL OF THE LOCATIONS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION AND INSTALLATION.
- 3. ALL TRAFFIC SIGNAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", FEDERAL HIGHWAY ADMINISTRATION (1984) AND AMENDMENTS.
- 4. LOCATIONS OF TRAFFIC MARKINGS AND MARKERS (LANE LINES, STOP LINES, CROSS-WALK, ETC.) SHOWN ON THE PLANS SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO THE INSTALLATION OF THE TRAFFIC SIGNAL SYSTEM.
- 5. MAINTENANCE OF TRAFFIC THROUGH THE CONSTRUCTION AREA SHALL BE IN ACCORDANCE WITH PART VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", FEDERAL HIGHWAY ADMINISTRATION (1984) AND AS SPECIFIED IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE BARRICADES, BLINKERS, CONSTRUCTION SIGNS, ETC., FOR THE SAFETY OF THE MOTORING PUBLIC.
- 6. EXISTING STOP SIGN SHALL BE REMOVED AND RETURNED TO THE ENGINEER. COSTS SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.

TRAFFIC SIGNAL NOTES

- 1. ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE COMPLETELY WIRED IN THE CABINET AND SHALL CONTROL THE TRAFFIC SIGNALS AS CALLED FOR IN THE PLANS.
- 2. SIGNAL INDICATIONS DURING CLEARANCE INTERVAL:
 - A. IF A SIGNAL IS G OR <G AND WILL REMAIN G OR G DURING THE NEXT PHASE, IT SHALL BE G OR <G DURING THE CLEARANCE INTERVAL.
 - B. IF A SIGNAL IS G OR <G AND WILL BECOME R OR EXTINGUISHED DURING THE NEXT PHASE, IT SHALL BE Y OR <Y DURING THE CLEARANCE INTERVAL.
 - C. IF A SIGNAL IS R AND WILL REMAIN R OR BECOMES G DURING THE NEXT PHASE, IT SHALL REMAIN R DURING THE CLEARANCE INTERVAL.
- 3. A SOLID #8 BARE COPPER WIRE SHALL BE PULLED WITH THE TRAFFIC CONTROL CABLE FOR EQUIPMENT GROUND. COST SHALL BE INCIDENTAL TO THE INSTALLATION OF THE CONTROL CABLE.
- 4. CONTRACTOR SHALL INSTALL METER SOCKET AND BREAKER AS SHOWN ON PLANS IN ACCORDANCE WITH HELCO REQUIREMENTS. METER SHALL BE MOUNTED BETWEEN 5' AND 7' ABOVE GROUND. METER SOCKETS SHALL BE 4-PRONG, COMPLETE WITH A MANUAL CIRCUIT CLOSING DEVICE.
- 5. CONDUITS, STANDARDS, CABLE AND CABINET LOCATIONS AS SHOWN ON THE PLANS ARE SCHEMATIC. THEY MAY BE MODIFIED BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.
- 6. THE CONTRACTOR SHALL SPLICE ALL SIGNAL CONDUCTORS IN PULLBOX. NO SPLICES SHALL BE PERMITTED IN DETECTOR LEAD-IN CABLE.
- 7. MINIMUM CONTROLLER CABINET SIZE SHALL BE 48"HIGH, 30" WIDE AND 16" DEEP

FED. ROAD	STATE	FED. AID	FISCAL	SHEET	TOTAL
DIST. NO.		PROJ. NO.	YEAR	NO.	SHEETS
HAWAII	HAW.	HES=011-2(21)	1990	3	-5

LEGEND

O TS NEW TRAFFIC SIGNAL STANDARD

MOUN'
TRAFF

STANDARD TRAFFIC AND PEDESTRIAN SIGNAL HEADS MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 10'

TRAFFIC SIGNAL HEADS MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN IS 40' AND DISTANCE BETWEEN SIGNAL HEADS IS 11'

→ 12" RYG TRAFFIC SIGNAL HEAD

12" RY PROGRAMMABLE VISIBILITY TRAFFIC SIGNAL HEAD

CONTROLLER CABINET

TYPE "A" PULLBOX

■ M TYPE "B" PULLBOX WITH MODIFIED COVER

LOOP DETECTOR, SERIES-PARALLEL CONNECTED

LOOP DETECTOR, SERIES CONNECTED

O PP POWER POLE

WATER VALVE

III WM WATER METER

— EXISTING MARKINGS

W₁₂ EXISTING UTILITY LINES AND SIZES AS INDICATED

W = WATER

REGISTERED PROFESSIONAL ENGINEER
No.3244-C

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

1/22/90 ADD RISER & CONTROLLER CABINET SIZE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

REVISION

LEGEND AND NOTES

KANOELEHUA AVENUE TRAFFIC SIGNAL SYSTEM AT KAWAILANI STREET F.A. PROJECT NO. HES-OII-2 (21)

SCALE: NONE

DATE

DATE 9/89

SHEET No. 3 OF 5 SHEETS

1DD. 3