FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	9000A-02-82	1982	2	15

LEGEND

- 12" RYG STANDARD TRAFFIC SIGNAL HEAD
- 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 26' AND DISTANCE BETWEEN SIGNAL HEADS IS 12' (26', 12")
- 12" RY← TRAFFIC SIGNAL HEAD
- 12" RY↑ TRAFFIC SIGNAL HEAD
- PROGRAMMED VISIBILITY HEAD
- TYPE "A" PULLBOX
- TYPE "B" PULLBOX
- M TYPE "B" PULLBOX WITH MODIFIED COVER
- LOOP DETECTOR, SERIES-PARALLEL CONNECTED
- LOOP DETECTOR, SERIES CONNECTED
- LP LIGHT POLE
- PP POWER POLE
- TP TELEPHONE POLE
- WV WATER VALVE
- WMH WATER MANHOLE
- WM WATER METER
- SMH SEWER MANHOLE
- SDMH STORM DRAIN MANHOLE
- FH FIRE HYDRANT
- CB CATCH BASIN
- EXISTING STRIPING AND MARKERS TO BE REMOVED
- EXISTING PAVEMENT ARROW TO BE REMOVED
- NEW PAVEMENT ARROW
- TS NEW TRAFFIC SIGNAL STANDARD
- EXISTING CROSSWALK MARKINGS
- NEW OR RESTRIPED CROSSWALK MARKINGS
- EXISTING MARKINGS
- NEW STRIPING
- W_{12} EXISTING UTILITY LINES AND SIZES AS INDICATED
  - W = WATER
  - S = SEWER
  - D = DRAIN
  - G = GAS

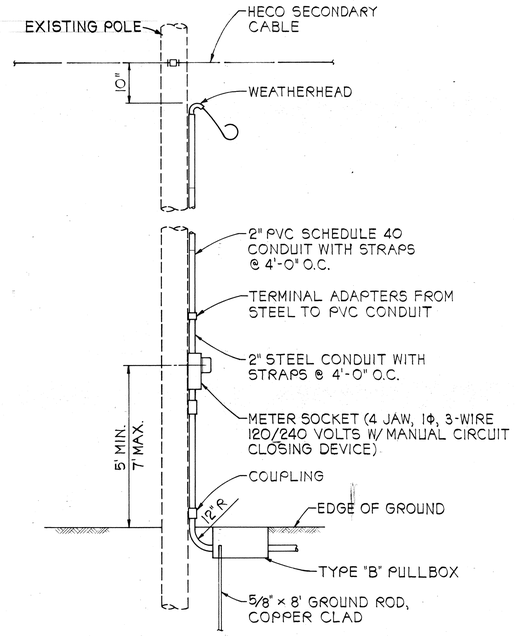
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

CONSTRUCTION NOTES

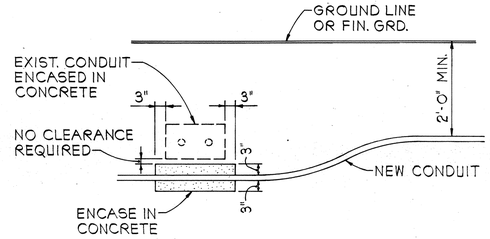
1. LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES SUCH AS PIPELINES, CONDUITS, CABLES, ETC., SHOWN ON PLANS ARE APPROXIMATE ONLY. IT IS NOT THE INTENT OF THESE PLANS TO SHOW THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY 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 (1978) AND AMENDMENTS.
4. LOCATIONS OF TRAFFIC MARKINGS AND MARKERS (LANE LINES, STOP LINES, CROSSWALK, ETC.) SHOWN ON THE PLANS SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO THE INSTALLATION OF THE TRAFFIC SIGNAL SYSTEM.
5. REMOVAL OF PAVEMENT MARKINGS AND STRIPINGS SHALL BE DONE BY THE CONTRACTOR.
6. 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 (1978) 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.
7. DEPARTMENT OF TRANSPORTATION SERVICES, CITY AND COUNTY OF HONOLULU, WILL ASSIST THE ENGINEER IN CONSTRUCTION INSPECTION FOR THE TRAFFIC SIGNAL SYSTEM.
8. WORK BY THE DEPARTMENT OF TRANSPORTATION SERVICES, CITY AND COUNTY OF HONOLULU:
   A. TEST CONTROLLER AND AUXILIARY EQUIPMENT IN CABINET.
   B. MAKE ALL ELECTRICAL CONNECTIONS IN THE FIELD FOR SIGNAL SYSTEM AFTER THE SYSTEM HAS BEEN INSTALLED IN PLACE BY THE CONTRACTOR.
   C. FINAL ADJUSTMENT OF TRAFFIC SIGNAL CONTROL EQUIPMENT.
9. REMOVAL OF EXISTING SIGNS SHALL ALSO INCLUDE THE REMOVAL OF POSTS AND FOUNDATIONS UNLESS OTHERWISE NOTED. ALL SUCH MATERIALS SHALL BE THE PROPERTY OF THE CONTRACTOR. 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 ~~<6~~ AND WILL REMAIN G OR ~~<6~~ DURING THE NEXT PHASE, IT SHALL BE G OR ~~<6~~ DURING THE CLEARANCE INTERVAL.
   B. IF A SIGNAL IS G OR ~~<6~~ 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. EACH CONTROLLER FURNISHED SHALL BE A 2- TO 8-PHASE CONTROLLER, COMPLETELY WIRED IN THE CABINET, INCLUDING ALL LOAD SWITCHES, LOOP DETECTOR AMPLIFIERS, AND OTHER APPURTENANCES, NECESSARY TO OPERATE THE INTERSECTION AS INDICATED ON THE TRAFFIC SIGNAL PLANS.
4. A COORDINATION UNIT IS NOT REQUIRED FOR THIS PROJECT, HOWEVER, THE CABINET SHALL BE WIRED FOR THE FUTURE INSTALLATION OF A COORDINATION UNIT OF THE SAME MANUFACTURER AS THE FURNISHED CONTROLLER UNIT.
5. MINIMUM CONTROLLER CABINET SIZE SHALL BE 40" HIGH, 24" WIDE AND 14" DEEP.
6. 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.
7. CONTRACTOR SHALL INSTALL METER SOCKET AND BREAKER ON POWER POLE AS SHOWN ON PLANS IN ACCORDANCE WITH HECO REQUIREMENTS. METER SHALL BE MOUNTED BETWEEN 5' AND 7' ABOVE GROUND. METER SOCKETS SHALL BE 4-PRONG, COMPLETE WITH A MANUAL CIRCUIT CLOSING DEVICE.



SERVICE POLE DETAIL
NOT TO SCALE



CONDUIT BY-PASS DETAIL
NOT TO SCALE

THEODORE S. KAWAHIGASHI REGISTERED PROFESSIONAL ENGINEER No. 3244-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Theodore S. Kawahigashi
Signature

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND AND NOTES

FARRINGTON HIGHWAY
TRAFFIC SIGNALS AT
MOKUOLA STREET
PROJECT NO. 9000A-02-82

NOT TO SCALE DATE: 1-22-82

SHEET No. 1 OF 1 SHEETS