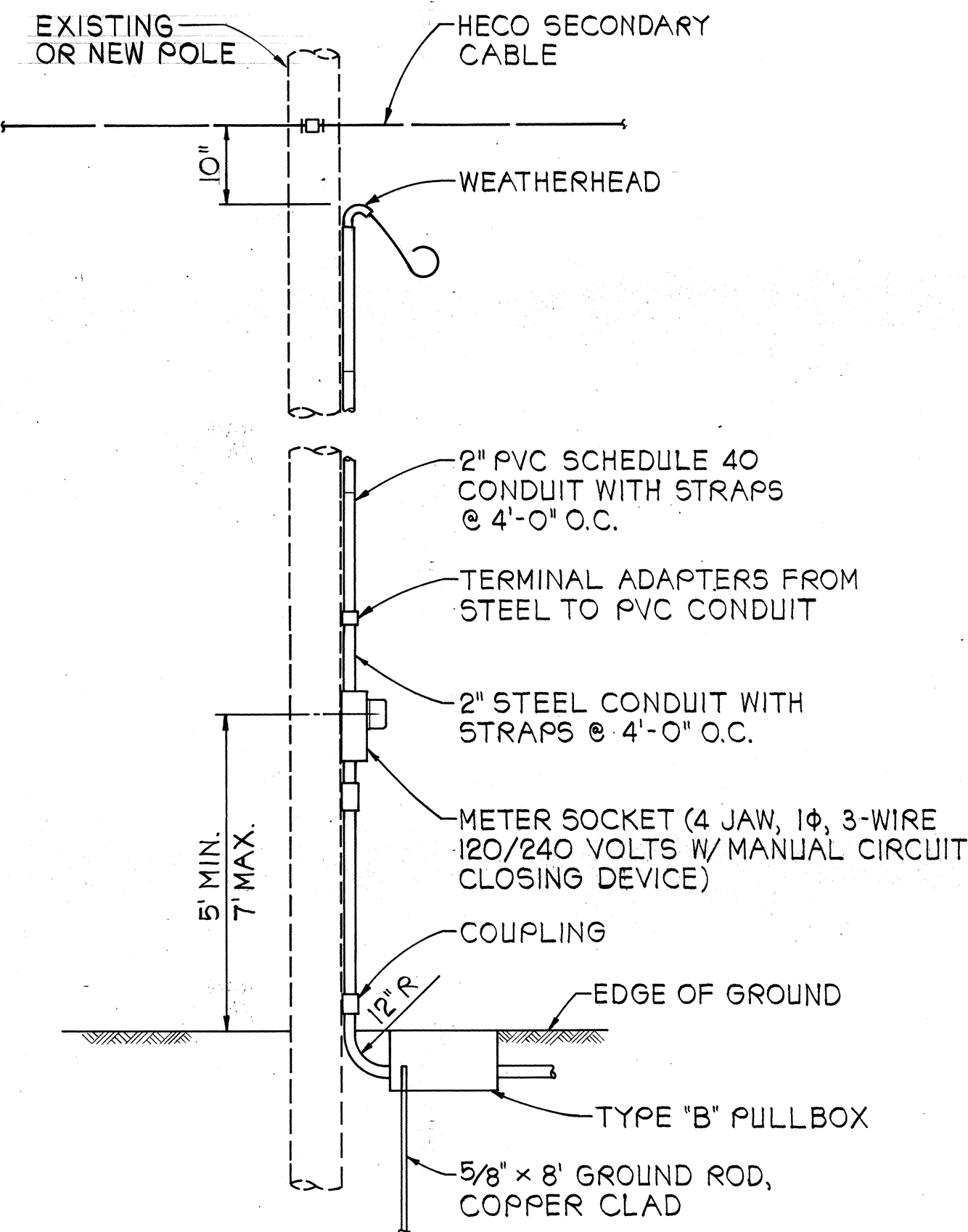
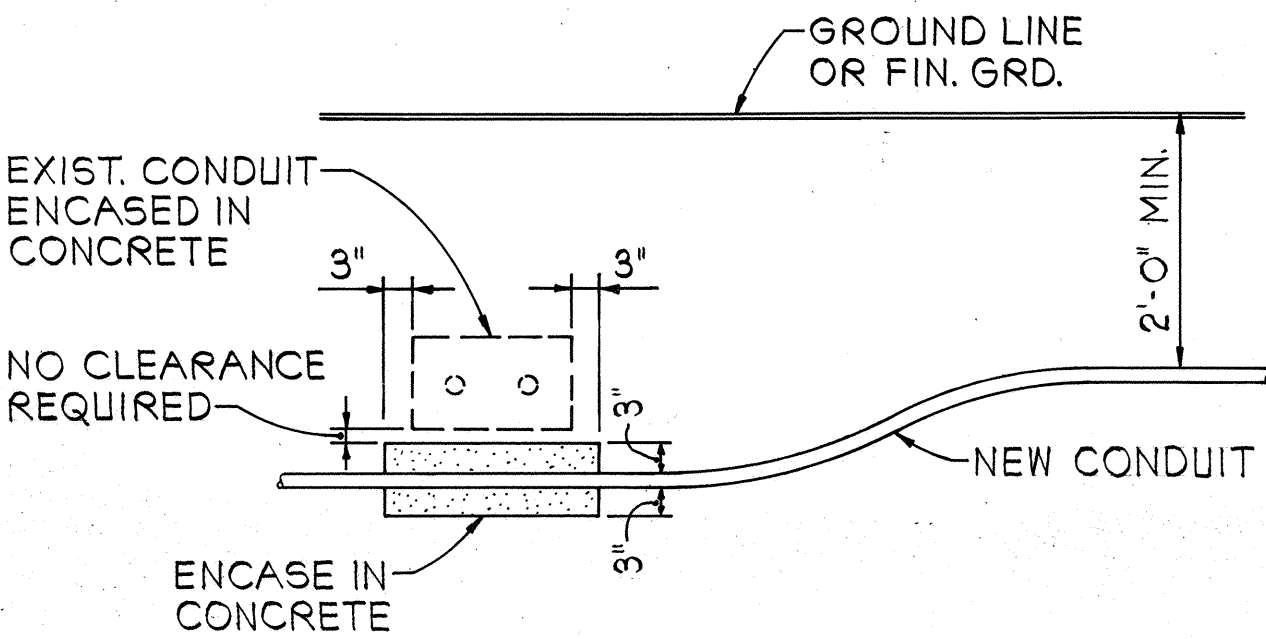


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	93A-01-82	1982	2	14



SERVICE POLE DETAIL  
NOT TO SCALE



CONDUIT BY-PASS DETAIL  
NOT TO SCALE



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 HWY., TRAFFIC SIGNALS  
AT HELELUA STREET AND  
AT HALEAKALA AVENUE  
PROJECT NO. 93A-01-82

NOT TO SCALE      DATE: 3-11-82

SHEET No. 1 OF 1 SHEETS

LEGEND

- 12" RYG STANDARD TRAFFIC SIGNAL HEAD
- ↑

12" RY↑ TRAFFIC SIGNAL HEAD
- ↗

STANDARD TRAFFIC AND PEDESTRIAN SIGNAL HEADS MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 10'
- ↗  
20'  
11'

TRAFFIC SIGNAL HEADS MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN IS 20' AND DISTANCE BETWEEN SIGNAL HEADS IS 11'
- PEDESTRIAN SIGNAL HEAD MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 8'
- ⊠

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 OR STREET LIGHT STANDARD
- PP

POWER POLE
- TP

TELEPHONE POLE
- WV

WATER VALVE
- WMH

WATER MANHOLE
- ⊠WM

WATER METER
- SMH

SEWER MANHOLE
- ✦FH

FIRE HYDRANT
- GMH

GAS MANHOLE
- \*\*\*\*\*

EXISTING STRIPING AND MARKERS TO BE REMOVED
- \$STOP

EXISTING PAVEMENT WORD TO BE REMOVED
- TS

NEW TRAFFIC SIGNAL STANDARD
- ||||

EXISTING CROSSWALK MARKINGS
- ||||

NEW CROSSWALK MARKINGS
- EXISTING MARKINGS
- NEW STRIPING
- W12

EXISTING UTILITY LINES AND SIZES AS INDICATED
- W

= WATER
- S

= SEWER
- G

= GAS
- SC

= SIGNAL CORPS

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 <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. EACH CONTROLLER FURNISHED SHALL BE A 2-4 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 TRAFFIC CONTROL SYNCHRONIZER UNIT SHALL BE PROVIDED AT EACH INTERSECTION FOR COORDINATED CONTROL WITHOUT THE USE OF AN INTERCONNECTING CABLE. ADDITIONAL TRAFFIC CONTROL SYNCHRONIZER UNITS SHALL BE FURNISHED AND WIRED IN THE EXISTING TRAFFIC CONTROLLER CABINETS AT THE INTERSECTIONS OF FARRINGTON HIGHWAY AT NANAKULI AVENUE AND AT LUALUE-LEI NAVAL ROAD. SEE SPECIAL PROVISIONS.
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 EACH 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.
8. STATE WILL FURNISH THE 19C #14 TRAFFIC CONTROL CABLE. CONTRACTOR SHALL PICK UP THE CABLE AT 727 KAKOI STREET AND INSTALL THE CABLE AS REQUIRED BY PLANS AND SPECIFICATIONS.

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