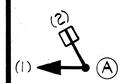
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HES-0300(21)	1983	2	25

LEGEND - NEW WORK

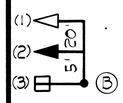
NEW TYPE "B" TSPB.

NEW TYPE "A" TSPB.

NEW CONTROLLER AND BASE.



NEW TYPE I SIGNAL STANDARD WITH VEHICULAR(1) AND PEDESTRIAN(2) SIGNAL FACES.



NEW TYPE II SIGNAL STANDARD WITH 25' MAST ARM AND VEHICULAR AND PEDESTRIAN SIGNAL FACES.
(1) PROGRAMMED VISIBILITY SIGNAL (2) STANDARD SIGNAL
(3) PEDESTRIAN SIGNAL

REMOVE AND/OR DEMOLISH ENCLOSED STRUCTURE AND CONSTRUCT NEW TSPB AT SAME LOCATION.

REMOVE AND/OR DEMOLISH ENCLOSED STRUCTURE IF ENCLOSED STRUCTURE IS A TSS, REMOVE ALL ATTACHED SIGNAL EQUIPMENT IN ADDITION TO TSS.

NEW CONDUIT(S) WITH SIZE AND NUMBER OF CABLES AS INDICATED ON SCHEDULE. THE NUMBER DESIGNATION WITHIN THE TRIANGLE SHALL APPLY ONLY TO THAT PARTICULAR INTERSECTION OR DRAWING ON WHICH IT APPEARS.

NEW SIGNAL FACES ON EXISTING TSS OR SLP.

NEW MASTER CONTROLLER AND BASE.

TYPES OF CABLES

TYPE 1	SIGNAL LOOP CABLE, 2C #14
TYPE 2	VEHICLE DETECTOR LEAD IN CABLE, 2C #14
TYPE 3	INTERCONNECT CABLE, 24C #20
TYPE 4	SENSOR LOOP CABLE, 1C #12
TYPE 5	CABLE FROM SIGNAL LOOP TO SIGNAL FACE, 1C #14
TYPE 6	SERVICE CABLE, 3C #6
TYPE 7	PPB CIRCUIT CABLE, 2C #14

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

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY WITH THE RESPECTIVE UTILITY COMPANIES AND GOVERNMENT AGENCIES, THE LOCATIONS OF ALL ELECTRIC, TELEPHONE, TRAFFIC SIGNAL, STREET LIGHT, FIRE ALARM, GAS, WATER, SEWER, DRAIN AND OTHER LINES CROSSING THE EXCAVATION PATH OR IN EXCAVATION AREAS. ANY AND ALL DAMAGES TO THE EXISTING LINES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

2. ALL STRUCTURES, PAVEMENTS, UTILITIES, LANDSCAPING AND OTHER TOPOGRAPHICAL FEATURES SHOWN ON THE INTERSECTION DRAWINGS ARE EXISTING AND ARE TO REMAIN UNLESS NOTED OR INDICATED OTHERWISE.

3. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITY COMPANIES AND GOVERNMENT AGENCIES OF HIS INTENT TO BEGIN CONSTRUCTION ON ANY INTERSECTION OR STREET AT LEAST TWO (2) WEEKS PRIOR TO THE START OF SUCH CONSTRUCTION.

4. THE LOCATIONS OF TRAFFIC SIGNAL STANDARDS, CONTROLLERS, PULLBOXES AND CONDUITS SHALL BE STAKED OUT BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ANY EXCAVATION. SCHEDULE 80 PVC CONDUIT SHALL BE USED IN PAVEMENT AREAS; SCHEDULE 40 MAY BE USED IN SIDEWALK AREAS.

5. CONDUIT BETWEEN SIGNAL POLE AND ADJACENT TSPB SHALL BE ONE NEW 2" PVC CONDUIT UNLESS NOTED OTHERWISE ON THE PLANS. GROUND WIRE AND A SUFFICIENT NUMBER OF TYPE 5 CABLES SHALL BE INSTALLED WITHIN THE CONDUIT TO SERVICE ALL PEDESTRIAN AND VEHICULAR SIGNALS ON THAT POLE.

6. ALL VEHICULAR SIGNAL LENS SHALL BE 12" IN DIAMETER.

7. ALL BURIED CONDUCTORS SHALL BE INSTALLED IN CONDUITS EXCEPT FOR TYPE 4 SENSOR LOOP CABLES. CONDUIT AT CURBLINES AND EDGE OF PAVEMENT LINES COLLECTING TYPE 4 CABLES SHALL BE OF 2" STEEL.

8. CONSTRUCTION OF SIGNAL SYSTEMS WILL BE SUBJECT TO THE INSPECTION OF THE C & C DEPARTMENT OF TRANSPORTATION SERVICES IN ADDITION TO THAT OF THE STATE.

9. THE C&C DEPARTMENT OF TRANSPORTATION SERVICES WILL MAKE ALL CONNECTIONS AND SPLICES AT TSPB'S, SIGNAL FACES, STANDARDS AND CONTROLLER TERMINAL BLOCKS, BUT NOT WORK ON GROUNDING SYSTEMS NOR CONNECTIONS WITHIN THE CONTROLLER ASSEMBLY. THE CONTRACTOR SHALL NOTIFY THE C&C D.T.S. AT LEAST 3 WORKING DAYS PRIOR TO THE TIME AT WHICH SUCH WORK CAN BE PERFORMED.

10. A BARE COPPER 1C #8 WIRE SHALL BE INSTALLED ALONG THE ENTIRE TRAFFIC SIGNAL GROUNDING SYSTEM.

11. WHERE SIGNAL FACES AND STANDARDS ARE TO BE REMOVED, THEY SHALL BE CAREFULLY DISMANTLED. THE ENGINEER WILL DETERMINE WHETHER THE REMOVED MATERIALS SHALL BE DISPOSED OF, SALVAGED OR REUSED.

12. ALL SENSOR LOOPS SHALL BE CENTERED WITHIN THEIR RESPECTIVE LANES.

13. EXISTING PAVEMENT MARKINGS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR. COST SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS.

TYPES OF SIGNAL MOUNTINGS

TP-2W	= TOP OF POLE MOUNTING, 2-WAY.
B-1W	= BRACKET MOUNTING, 1-WAY.
C-1W	= CANTILEVER MOUNTING, 1-WAY.
US-1W	= UNDERSLUNG MOUNTING, 1-WAY.
MA-1W	= MASTARM MOUNTING, 1-WAY.

TYPES OF SIGNAL FACES

H+M	=	PEDESTRIAN SIGNAL: HAND & MAN.
R+Y+G	=	3-SECTION VEHICULAR SIGNAL: RED, YELLOW AND GREEN.
R+Y+↑	=	3-SECTION VEHICULAR SIGNAL: RED, YELLOW AND GREEN ARROW.
P(R+Y+←→)	=	3-SECTION PROGRAMMED VISIBILITY VEHICULAR SIGNAL: RED, YELLOW AND GREEN ARROW.

ABBREVIATIONS

TSS	TRAFFIC SIGNAL STANDARD
TSPB	TRAFFIC SIGNAL PULLBOX
SLP	STREET LIGHT ON STEEL POLE
PPSL	STREET LIGHT ON WOODEN POLE
PP	WOODEN POLE

PAUL T. TANIGUCHI
REGISTERED PROFESSIONAL ENGINEER
No. 864
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES AND LEGEND

MODERNIZATION OF TRAFFIC SIGNAL SYSTEMS
KING-KAPIOLANI-HARDING-KAPAHULU-WAIALAE-OLD WAIALAE
PROJECT NO. HES-0300(21)

SCALE: NO SCALE DATE:

SHEET No. 1 OF 1 SHEETS

2

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION