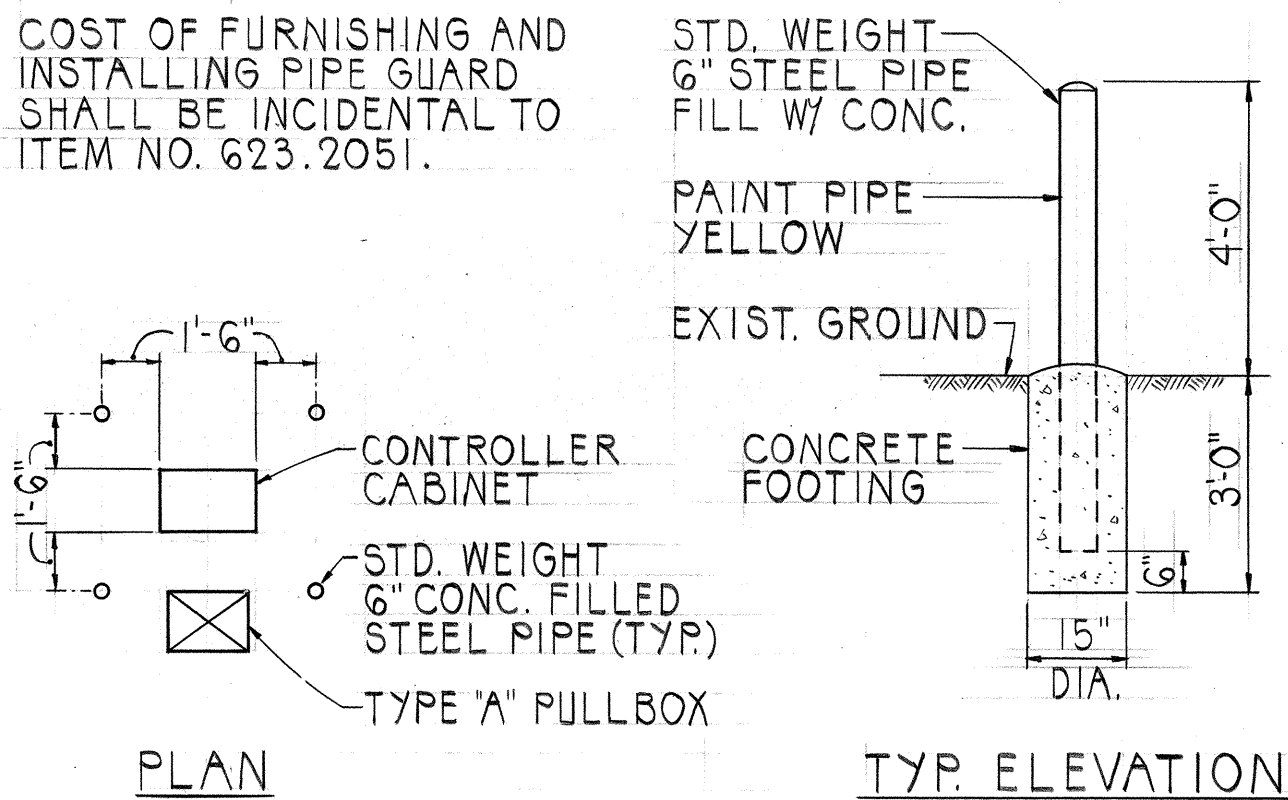


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1R-H2-1(21)	1987	106	138

# NOTE:

COST OF FURNISHING AND INSTALLING PIPE GUARD SHALL BE INCIDENTAL TO ITEM NO. 623.2051.



PIPE GUARD DETAIL  
NOT TO SCALE

PIPE GUARD, SEE DETAIL THIS SHEET

CONTROLLER CABINET  
(Behind Gutter)

CONDUIT	CABLE
2"	1-19C #14
2"	1-19C #14
2"	3-2C #14
2"	2-2C #14
2"	1-3C #6

CONDUIT	CABLE
2"	1-19C #14
2"	3-2C #14
2"	SPARE

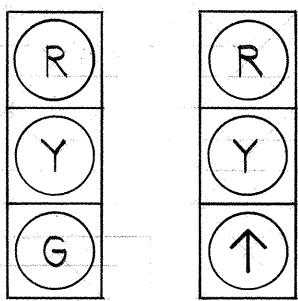
CONDUIT	CABLE
2"	1-19C #14
2"	2-2C #14

CONDUIT	CABLE
2"	1-2C #14

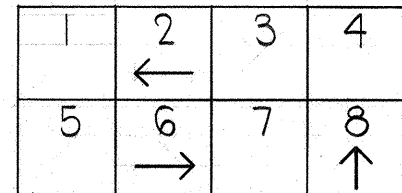
CONDUIT	CABLE
2"	1-19C #14
2"	SPARE

CONDUIT	CABLE
2"	1-2C #14

2 SETS, 5-8' x 6' LOOP DETECTORS CENTERED IN LANES



A-2  
A-3  
B-1  
B-2  
C-1  
C-2  
D-1  
D-2



SIGNAL INDICATIONS

PHASE DIAGRAM

## TRAFFIC SIGNAL NOTES

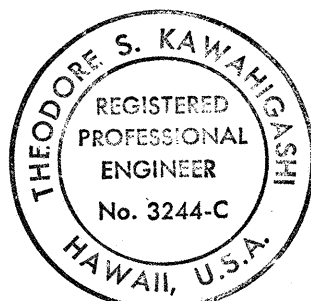
- ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE COMPLETELY WIRED IN THE CABINET AND SHALL CONTROL THE TRAFFIC SIGNALS AS CALLED FOR IN THE PLANS.
- SIGNAL INDICATIONS DURING CLEARANCE INTERVAL:
  - IF A SIGNAL IS G OR  $\leftarrow$  AND WILL REMAIN G OR  $\leftarrow$  DURING THE NEXT PHASE, IT SHALL BE G OR  $\leftarrow$  DURING THE CLEARANCE INTERVAL.
  - IF A SIGNAL IS G OR  $\leftarrow$  AND WILL BECOME R OR EXTINGUISHED DURING THE NEXT PHASE, IT SHALL BE Y OR  $\leftarrow$  DURING THE CLEARANCE INTERVAL.
  - IF A SIGNAL IS R AND WILL REMAIN R OR BECOMES G DURING THE NEXT PHASE, IT SHALL REMAIN R DURING THE CLEARANCE INTERVAL.
- 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.

## LEGEND

- 12" RYG STANDARD TRAFFIC SIGNAL HEAD
- 12" RY↑ TRAFFIC SIGNAL HEAD
- STANDARD TRAFFIC SIGNAL HEAD MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 10'
- STANDARD TRAFFIC AND PEDESTRIAN SIGNAL HEADS MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 10'
- 12" RY← TRAFFIC SIGNAL HEAD
- PROGRAMMED VISIBILITY HEAD
- TRAFFIC SIGNAL HEAD MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN IS 24'
- TRAFFIC SIGNAL HEADS MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN IS 24' AND DISTANCE BETWEEN SIGNAL HEADS IS 12'
- TYPE "A" PULLBOX
- TYPE "B" PULLBOX
- TYPE "B" PULLBOX WITH MODIFIED COVER
- LOOP DETECTOR, SERIES - PARALLEL CONNECTED
- LOOP DETECTOR, SERIES CONNECTED

## CONSTRUCTION NOTES

- 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.
- THE LOCATIONS OF THE TRAFFIC SIGNAL STANDARDS, TRAFFIC SIGNAL STANDARDS WITH MAST-ARM, TRAFFIC CONTROLLER CABINET, 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.
- 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.
- LOCATIONS OF TRAFFIC MARKINGS AND MARKERS (LANE LINES, STOP LINES, ETC.) SHOWN ON THE PLANS SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO THE INSTALLATION OF THE TRAFFIC SIGNAL SYSTEM.
- 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.
- DEPARTMENT OF TRANSPORTATION SERVICES, CITY AND COUNTY OF HONOLULU, WILL ASSIST THE ENGINEER IN CONSTRUCTION INSPECTION FOR THE TRAFFIC SIGNAL SYSTEM.



THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION  
*Theodore S. Kawahigashi*  
Signature

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL PLAN**  
H-2 N. BOUND RAMPS AT KA UKA BLVD.  
INTERSTATE ROUTE H-2  
WAIPIO INTERCHANGE  
FAI PROJ. NO. 1R-H2-1(21)

SCALE: 1" = 20'  
OCTOBER 1987  
SHEET No. 1 OF 2 SHEETS

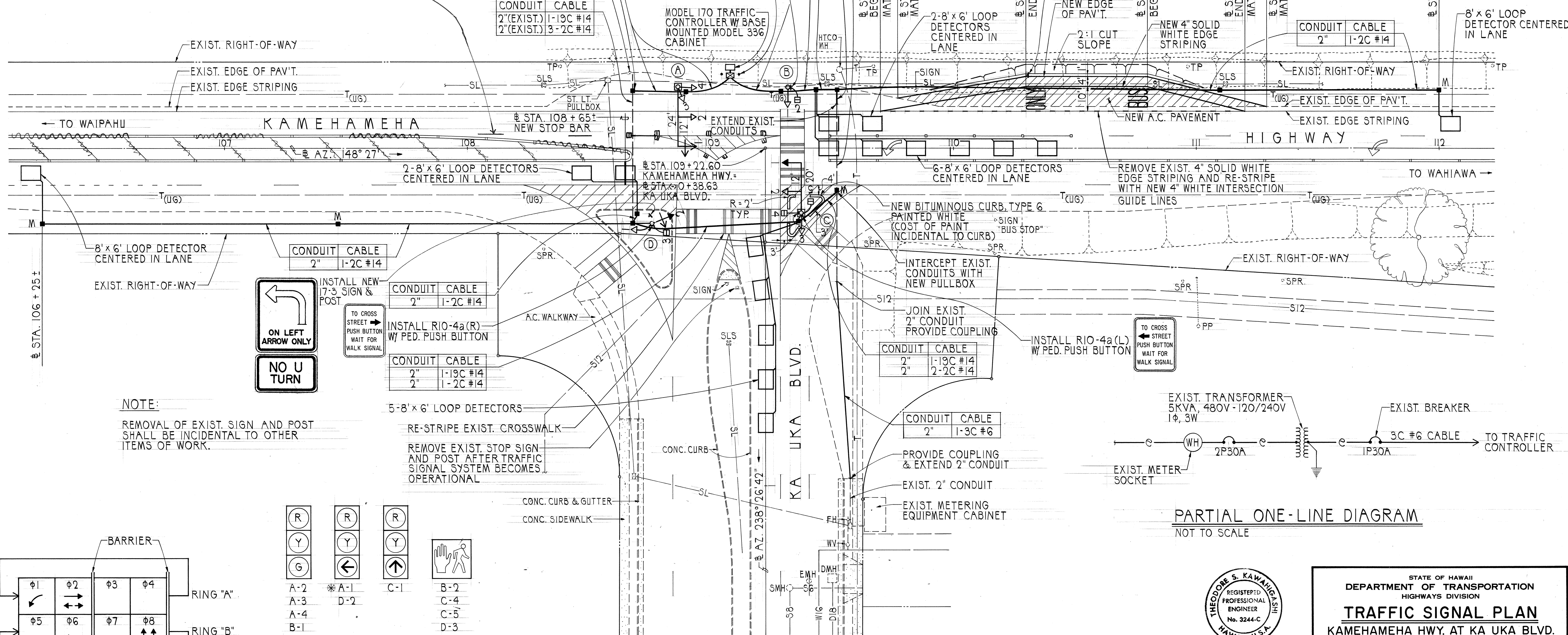
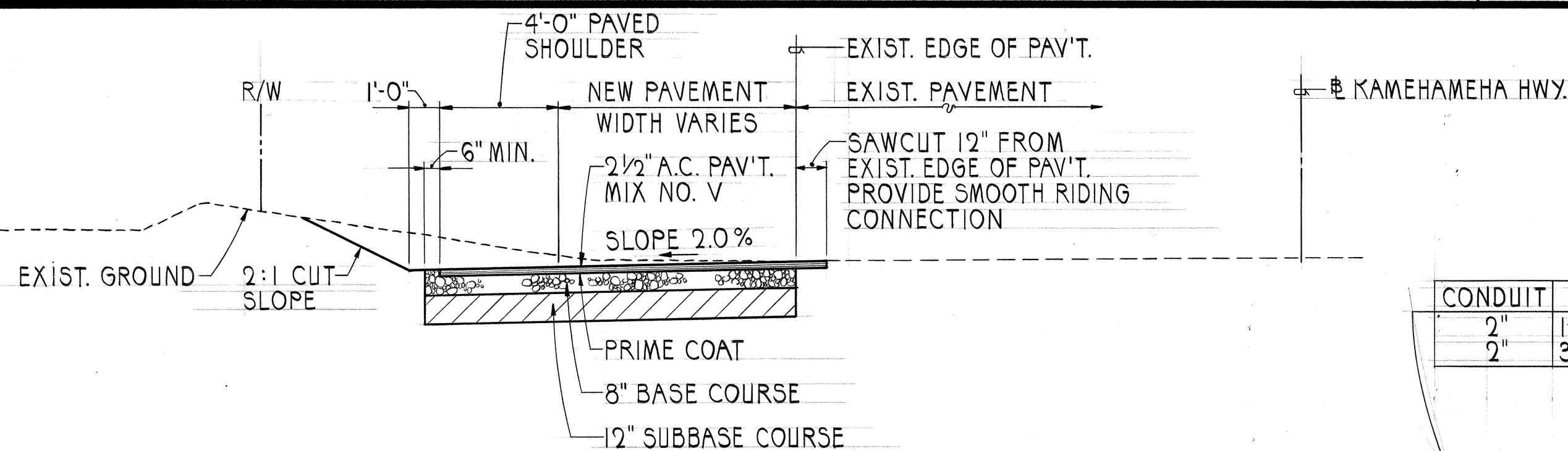
"AS-BUILT"



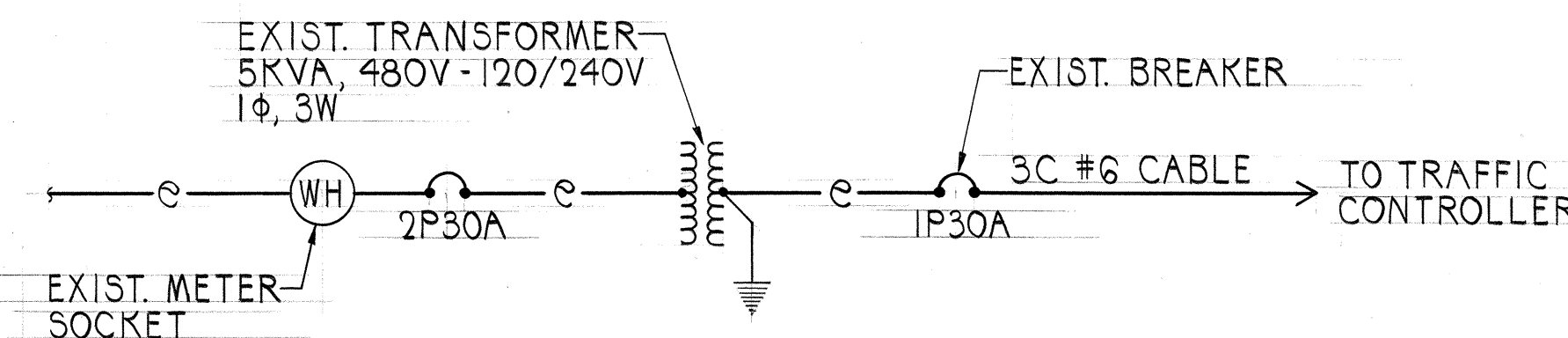
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-H2-1 (21)	1987	107	138

# TYPICAL PAVEMENT SECTION ~ BUS TURNOUT SCALE: 1/4" = 1'-0"

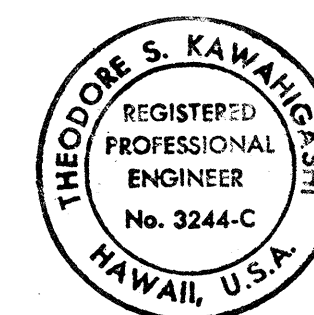
ERADICATED TRANSVERSE MEDIAN MARKINGS AND INSTALLED PAVEMENT MARKINGS FOR AN ACCELERATION LANE.



NOTE:  
REMOVAL OF EXIST. SIGN AND POST SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.



PARTIAL ONE-LINE DIAGRAM  
NOT TO SCALE

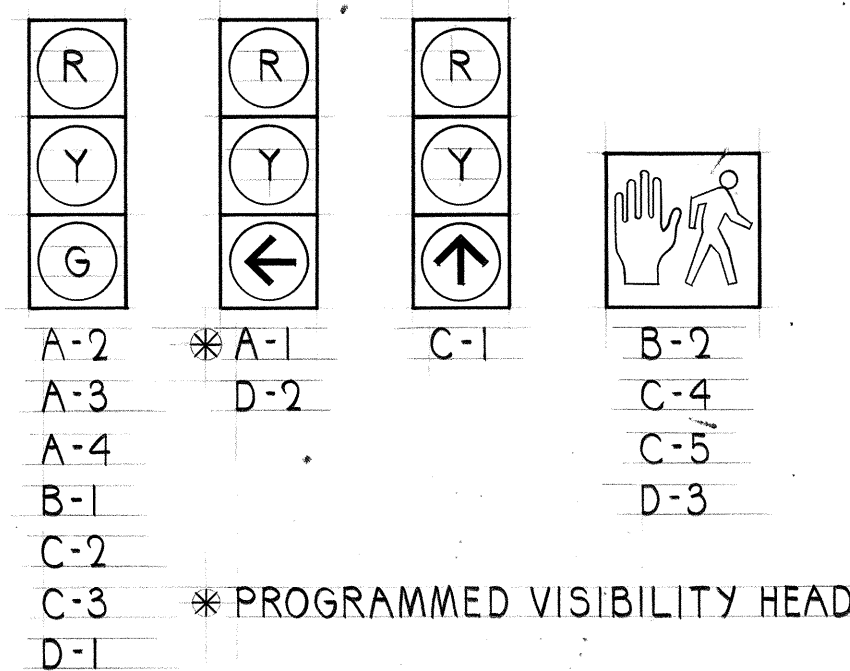
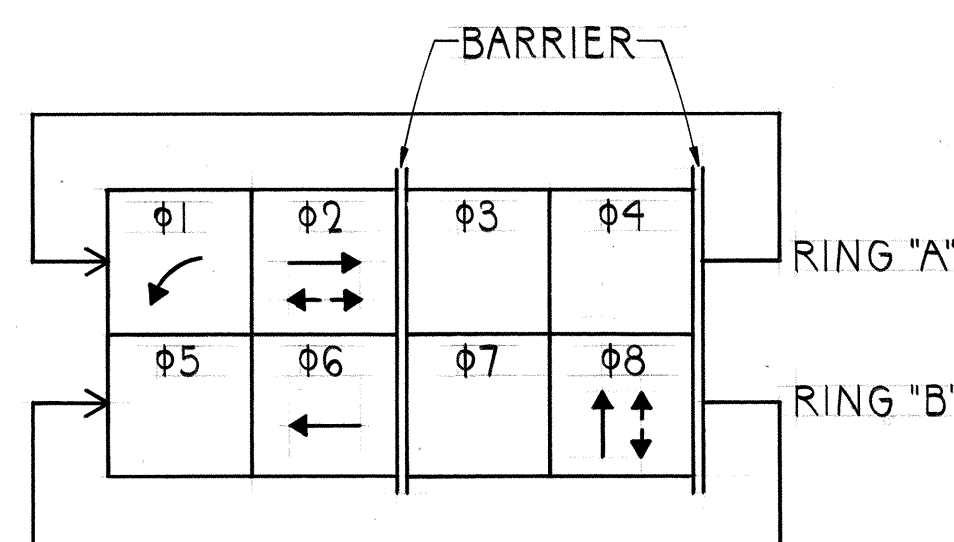


THIS WORK WAS PREPARED BY ME  
OR UNDER MY SUPERVISION  
*Theodore S. Kawahigashi*  
Signature

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**TRAFFIC SIGNAL PLAN**  
KAMEHAMEHA HWY. AT KA UKA BLVD.  
INTERSTATE ROUTE H-2  
WAIPIO INTERCHANGE  
FAI PROJ. NO. IR-H2-1(21)  
SCALE: AS NOTED  
OCTOBER 1987  
SHEET No. 2 OF 2 SHEETS

PHASE DIAGRAM

SIGNAL INDICATIONS



"AS-BUILT"