

TRAFFIC SIGNAL NOTES

1. The locations of the Traffic Signal Standards, Traffic Signal Standards w/Mast Arms, 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.
2. All splicing shall be done in the pullboxes.
3. Furnishing and installing the conduit stubouts (pullboxes to edge of pavement) will not be paid for separately but shall be considered incidental to the various contract items.
4. A solid #8 bare copper wire shall be pulled with the traffic signal control cable for equipment ground. Cost shall be incidental to the installation of the control cable.
5. All Traffic signal controller equipment shall be completely wired in the cabinet and shall control the traffic signals as called for in the plans.
6. The loop amplifier units furnished for this project shall be capable of operating the loop detector configurations shown on the plans. Cost for the loop amplifier shall be incidental to the installation of the loop detector.
7. Should any defect be encountered during the warranty period, the manufacturer will be notified and he shall promptly correct such defect. Service call (by factory qualified representative) during the warranty period for repairs or other maintenance shall be answered within 24 hours and shall be done at no expense to the State. All repairs shall be done as soon as possible.
8. All traffic signal work shall conform to the requirements of the "Manual On Uniform Traffic Control Devices For Streets And Highways", Federal Highway Administration (1988) and Amendments.
9. 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.
10. All Conduits between pullboxes and Traffic Signal/Highway Lighting Standards shall not be paid for separately but shall be considered incidental to the various contract items.
11. All Signal-Drop Cables (Type 5 Cables) from the various Types of Traffic Signal Head on the traffic signal standards and mast arms to the pullboxes shall not be paid for separately but considered incidental to the Traffic Signal Head.
12. After installing all the traffic signal cables, the Contractor shall duct seal all conduits in the pullboxes, traffic signal standards and traffic signal controller cabinet concrete base. The duct seal material shall be approved by the Traffic Signal Inspector/Engineer and shall not be paid for separately but considered incidental to the direct buried and/or concrete encased conduits.
13. After installing the Traffic Signal System, the Contractor shall apply grease to all parts of the Traffic Signal System (i.e. fittings, brackets, nipples, elbows, screws, signal head assemblies, bolts, hinges, etc.) as directed by the Traffic Signal Inspector, to prevent rust and corrosion. The grease material shall be approved by the Signal Inspector.
14. Connecting into existing traffic signal system and making all necessary adjustments shall not be paid for separately, but considered incidental to the various traffic signal contract items.
15. The Contractor shall notify the Traffic Signal Branch, Department of Transportation Services, City & County of Honolulu, (phone no. 527-5007) two weeks prior to commencing any work on the traffic signal system.

TRAFFIC SIGNAL NOTES (CONTINUED)

16. The Department of Transportation Services, City & County of Honolulu, will assist the Engineer in construction inspection for the traffic signal system. The Contractor shall notify the Electrical and Maintenance Services Division, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (phone no. 527-5007).

TRAFFIC SIGNAL LEGEND

NEW	EXISTING	
—	----	Traffic Signal Conduit
△ 1 △ 2 △ 3	△ 1 △ 2 △ 3	Conduit Run Numbers
Ⓐ Ⓑ Ⓒ	Ⓐ Ⓑ Ⓒ	Equipment description, installation or item no.
Ⓜ	Ⓜ	Traffic Signal Master Controller Door Indicates Front of Cabinet
Ⓢ	Ⓢ	Traffic Signal Controller Door Indicates Front of Cabinet
Ⓜ	Ⓜ	Meter Pedestal
←	←	12" RYG Traffic Signal Head
←↑	←↑	12" RY↑ Traffic Signal Head
←↑	←↑	12" RY← Traffic Signal Head
←↑	←↑	12" RY← Traffic Signal Head (Programmed Visibility)
←↑	←↑	12" RYG ← <sub>Y</sub> Fiber Optic Traffic Signal Head
△	△	Type I Standard and Attached Signals
△ 24' 12'	△ 24' 12'	Type II Standard with Signal Mast Arm and Attached Signals (Nos. indicates mast arm length & distance between signal heads as specified on plans)
△ 24' 12'	△ 24' 12'	Type III Standard with Luminaire and Signal Mast Arm and Attached Signals (Nos. indicates mast arm lengths & distance between signal heads as specified on plans)
Ⓜ	Ⓜ	Flashing Beacon, One Signal Section, "Y" indicates 12" Yellow Lens
Ⓜ	Ⓜ	Opticom Receiver (Arrow indicates direction detector faces)
•	•	Pipe Guard
Ⓜ	Ⓜ	Pedestrian Signal Head
Ⓜ	Ⓜ	Type A Pullbox
Ⓜ	Ⓜ	Type B Pullbox
Ⓜ	Ⓜ	Type C Pullbox
Ⓜ	Ⓜ	Loop Detectors

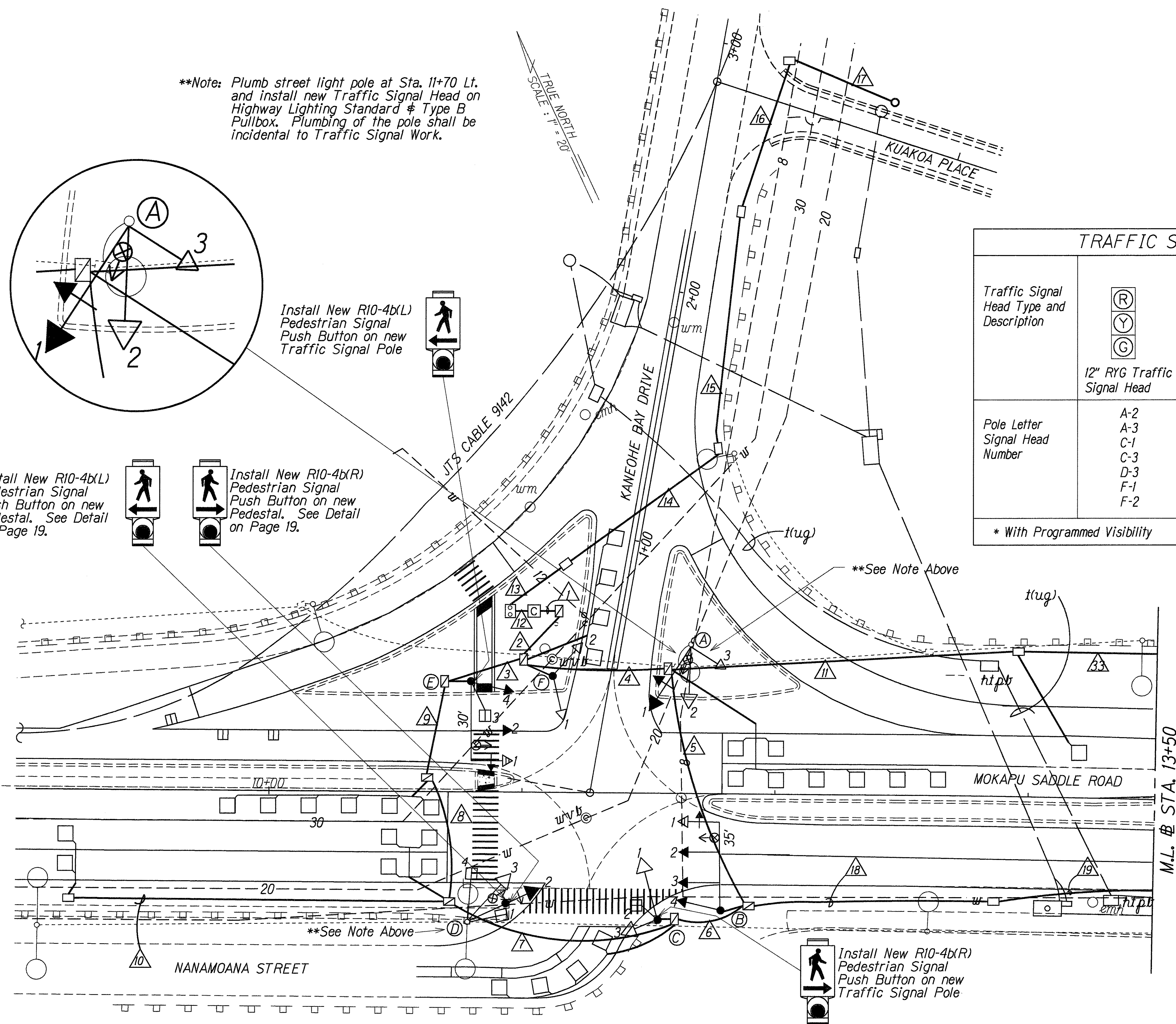
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-065-1(7)	2000	13	22





HIGHWAY LIGHTING LEGEND

NEW	EXISTING	
— HL —	---- HL ----	Highway Lighting Conduit
Ⓜ	Ⓜ	Type A Pullbox (Hwy. Ltg.)
•	•	Highway Lighting Standard

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**TRAFFIC SIGNAL LEGEND  
AND NOTES**  
MOKAPU SADDLE ROAD  
Traffic Signals at Kaneohe Bay Drive  
Fed. Aid Project No. STP-065-1(7)  
Date: June, 1999  
SHEET No. 1 OF 1 SHEETS

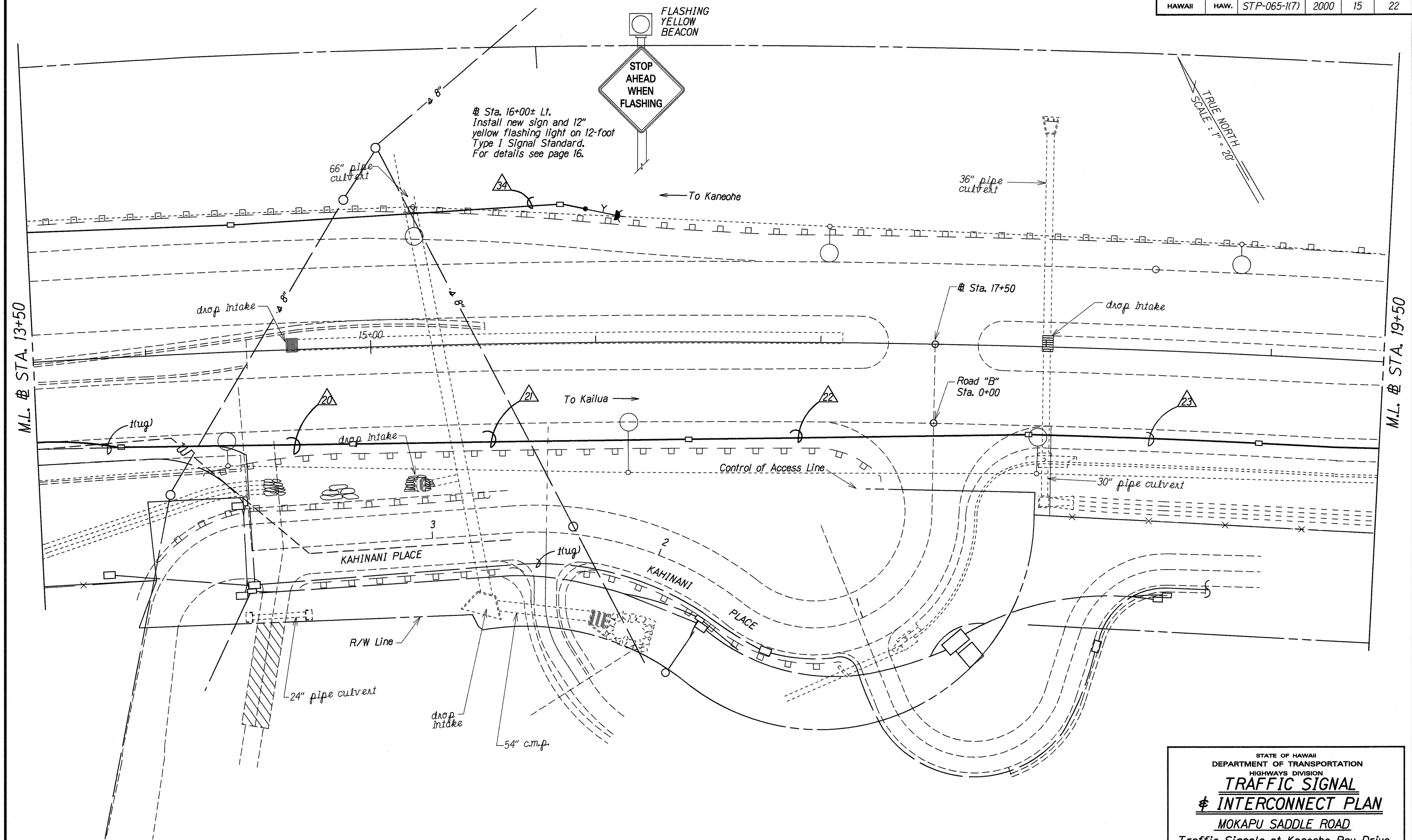
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-065-1(7)	2000	14	22



TRAFFIC SIGNAL HEAD SCHEDULE				
Traffic Signal Head Type and Description				
	12" RY <sup>G</sup> Traffic Signal Head	12" RY <sup>G</sup> Traffic Signal Head	12" RY <sup>G</sup> Traffic Signal Head	Pedestrian Signal Head
Pole Letter Signal Head Number	A-2 A-3 C-1 C-3 D-3 F-1 F-2	B-2 B-3 B-4 E-2 E-4	A-1 B-1* D-2 E-1*	C-2 D-1 D-4 E-3
* With Programmed Visibility				



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-065-K(7)	2000	15	22



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY M. Takahashi	X
DESIGNED BY Richard Alana		
CHECKED BY		
IN		

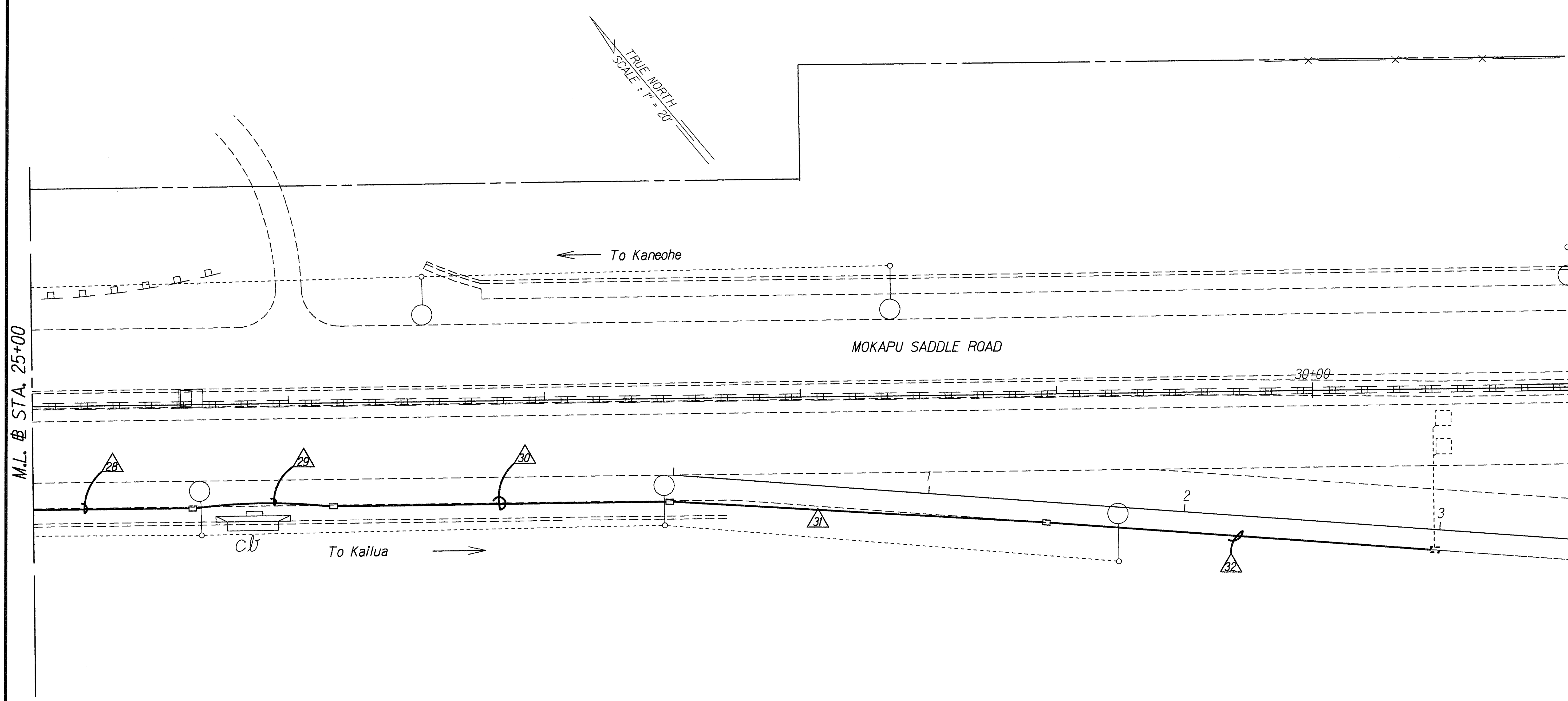
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL**  
**INTERCONNECT PLAN**  
MOKAPU SADDLE ROAD  
Traffic Signals at Kaneohe Bay Drive  
Fed. Aid Project No. STP-065-K(7)  
Scale: 1"=20'      Date: June, 1999

SHEET No. 2 OF 4 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-065-1(7)	2000	17	22



M.L. & STA. 25+00

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
102/may	DESIGNED BY	
NO. 3mstfsg4	CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL  
AND INTERCONNECT PLAN**

**MOKAPU SADDLE ROAD**  
Traffic Signals at Kaneohe Bay Drive  
Fed. Aid Project No. STP-065-1(7)  
Scale: 1"=20' Date: June, 1999

SHEET No. 4 OF 4 SHEETS