

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	92A-01-03	2003	29	69

GENERAL TRAFFIC SIGNAL NOTES:

- All Traffic Signal work shall conform to the requirements of the Manual on Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, Federal Highways Administration, Latest Edition, and Amendments.
- The locations of the traffic signal standards, traffic signal standards with mast arm, pedestrian push buttons, traffic controller, transformer, pullboxes, conduits, & loop detectors shall be staked out in the field by the Contractor and locations accepted by the Engineer prior to construction and installation. Locations shown on plans shall be adjusted as necessary to prevent conflict with existing or new facilities.
- All conduits shall be PVC Schedule 80.
- Loop detectors shall be installed according to Loop Detector Details shown on the Plans.
- Lead-in wires in pullbox near loops shall be tagged with Loop Number(s).
- Existing pavement shall be restored according to Restoration of Existing Pavement due to Trench Excavation detail shown on the Plans.
- Steel plates for covering trenches shall have skid resistant surface.
- All structures, pavements, utilities, landscaping, and other topographical features shown on the Plans are existing and shall remain unless noted or indicated otherwise. All grassed areas damaged by construction activities shall be top soiled and grassed.
- A solid #8 bare copper wire shall be pulled in all conduits with the traffic control cable for equipment ground.
- All splicing shall be done in the pullboxes.
- All traffic signal controller equipment shall be completely wired in the cabinet and shall control the traffic signal as called for in the Plans.
- The loop amplifier units furnished for this project shall be capable of operating the loop detector configurations shown on the Plans.
- A 3'x5' level area shall be provided along side pedestrian push button assemblies at a distance not to exceed 10'-0".
- The Contractor shall verify with the respective utility companies and government agencies, the locations of all electric, telephone, traffic signal, street light, cable television, fire alarm, gas, water, sewer, drain and other lines crossing the excavation path or in excavation areas.
- All work and materials for the traffic signal system shall conform to Special Provisions Section 623 - Traffic Signal System, except as otherwise provided on the Plans.
- Provide ground rod in all pullboxes, pullboxes adjacent to signal standards, pedestals, controller cabinets, and other locations ordered by the Engineer. Ground rod connectors shall be copper welded and shall meet ground to earth resistance as specified by the National Electric Code or local inspecting agency.

- Underground pipes, cables, or ductlines known to exist are indicated on the Plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the Plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.
- During non-working hours, all trenches shall be covered with a safe, non-skid, traffic-bearing bridging material and all lanes shall be open to traffic.
- Where pedestrian walkways exist, they shall be maintained in passable condition or other facilities for pedestrians shall be provided. Passage between walkways at intersections shall likewise be provided.
- Driveways shall be kept open unless the owners of the property using these rights-of-way are otherwise provided for satisfactorily.
- No material and/or equipment shall be stockpiled or otherwise stored within street rights-of-way except at locations designated in writing and accepted by the Engineer.
- Traffic Signal Supports and Foundations shall meet the requirements of "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 4th Edition 2001."
- 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 various contract items.
- 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.
- The Contractor shall notify the Traffic Control Branch, Department of Transportation Services, City & County of Honolulu, (Phone No. 523-4589) three (3) working days prior to commencing any work on the traffic signal system.
- The traffic signal system shall be kept operational during construction. Any relocation required shall be approved by the Traffic Control Branch, Department of Transportation Services, and paid for by the Contractor.
- Existing traffic signal pullboxes in sidewalks shall be removed by demolishing the top 6" of box, filling with #3 rock, and patching with 4" concrete to match existing.

TRAFFIC SIGNAL LEGEND AND ABBREVIATIONS:

	Conduits and Cables, Conduit Run X
	State Furnished 12" R-Y-↑ Traffic Signal Head
	State Furnished 12" ←-←-← Traffic Signal Head
	State Furnished 12" R-Y-← Traffic Signal Head
	Existing Traffic Signal Head
	Pedestrian Signal Head
	Emergency Vehicle Preempt Receiver (Opticom Receiver)
	Relocated Traffic Camera
	Signal Standard with Mast Arm Type II, L=Length of Mastarm, Pole X, Footing Type C
	Signal Standard Type I, Pole X, H=7' or 10', Footing Type A
	Loop Detectors
	Pullbox Type A (Old Type "B")
	Pullbox Type B (Old Type "C")
	Pullbox Type C (Old Type "D")
	Existing Pullbox
	Traffic Controller Model 170E and 332A Cabinet with Type D Concrete Base for Controller Cabinet
	Street Sign Mounted to Mast Arm
	Existing Traffic Signal Conduit to be removed or abandoned
PB	Pullbox
PPB	Pedestrian Push Button
PSH	Pedestrian Signal Head
TS	Traffic Signal
TSH	Traffic Signal Head

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL

NOTES, LEGEND & ABBREVIATIONS

NIMITZ HIGHWAY IMPROVEMENTS
KEEHI INTERCHANGE TO PACIFIC STREET
PROJECT NO. 92A-01-03

Scale: None Date: March 2, 2003

SHEET No. TS1 OF 14 SHEETS