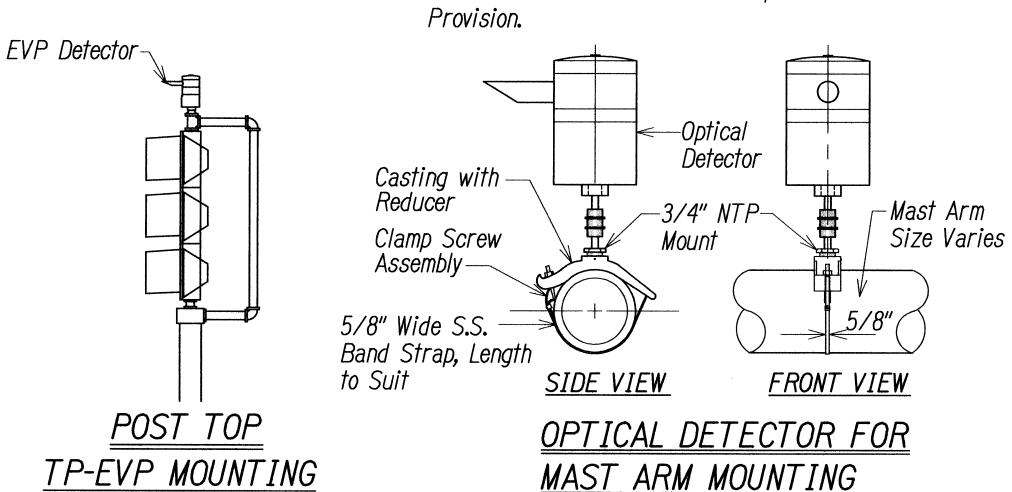


1. Optical Detector shall be "Model 711
Preemption Detector" or Approved Equal, Unless
Noted Otherwise in the Special Provision.
2. Support Saddle Assembly shall be "ASTRO MINIBRAC, AB-0132-29", or Approved Equal,
Unless Noted Otherwise in the Special
Provision.

NOT TO SCALE



NOT TO SCALE

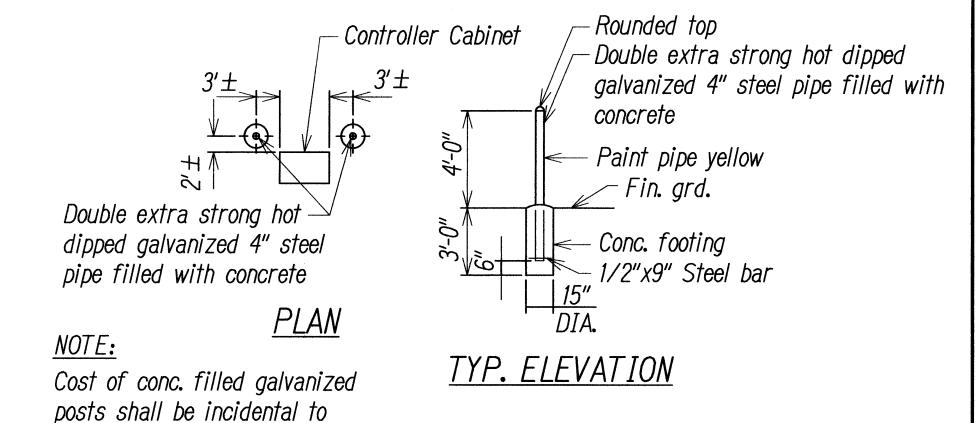
TRAFFIC SIGNAL NOTES

- 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 $\stackrel{<}{\leftarrow}G$ and will remain G or $\stackrel{<}{\leftarrow}G$ during the next phase, it shall be G or $\stackrel{<}{\leftarrow}G$ during the clearance interval.
 - B. If a signal is G or CG and will become R or extinguished during the next phase, it shall be Y or CG 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. 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.
- 4. 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.
- 5. Conduits and pullbox locations as shown on the plans are schematic. They may be modified by the contractor with the approval of the engineer.
- 6. The contractor shall install the controller and cabinet in the indicated location.
- 7. All work for the installation or modification of the traffic signal system shall conform to the latest revisions of the "Hawaii Standard Specifications for Road and Bridge Construction", 2005, the "Standard Plans", 2008 of the Department of Transportation, Highways Division, and as shown on these drawings.
- 8. All splicing shall be done in the pullboxes.
- 9. 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.
- 10. All cable and elements for grounding shall be new.
- 11. Cables between signal faces, pedestrian heads, and EVP detectors and the nearest pullbox are not called out on the plan, but shall be furnished and installed in sufficient numbers and lengths as required. Cost shall be incidental to various traffic signal contract items.
- 12. Conduits between the traffic signal standard and the pullbox shall be in sufficient number as required. Cost shall be incidental to the installation of the traffic signal standard foundation.
- 13. Unless otherwise specified, all conduits shall be concrete encased PVC schedule 80.
- 14. The contractor shall notify the Traffic Control Branch, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (Phone: 768-8388).
- 15. While modifying the existing traffic signal systems, the contract shall keep the existing system operational until the new traffic signal system can be put into service.
- 16. The contractor shall salvage all existing heads, standards, and cables not used in the new system. Cost shall be incidental to the various contract items. Put into service.
- 17. All traffic signal hardware removed from the intersection shall be stockpiled and delivered to a location determined by the Engineer.
- 18. Traffic signal standards and appurtenances shall conform to the latest version of AASHTO publication, Standard Specifications for Structural Support for Highway Signs, Luminaires and Traffic Signals.

FED.ROAD DIST.NO.	STATE	PROJ. NO.	FISCAL YEAR		TOTAL SHEETS
OAHU	HAW.	83G-01-10	2011	37	38

CONSTRUCTION NOTES

- 1. Locations of existing underground structures and utilities such as pipe-lines, 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 contractor shall verify and check all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the engineer for clarification.
- 3. The contractor shall notify all agencies to verify, tone and locate their existing utilities within the project area prior to excavating. The contractor shall coordinate all work.
- 4. The locations of the new 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.
- 5. All traffic signal work shall conform to the requirements of the "Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 Edition", Federal Highway Administration (2009) as amended.
- 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, 2009 Edition", Federal Highway Administration (2009) as amended 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. At the end of each day's work, the contractor shall remove all equipment and other obstruction to permit free and safe passage of public traffic.



PIPE GUARD DETAIL
NOT TO SCALE



other items of work.

This work was prepared by me or under my supervision and construction of this project will be under my observation. (Observation of construction as defined in Chapter 16-115 Subchapter 1 Definitions of the Hawaii Administrative Rules "Professional Engineers, Architects, Surveyors, and Landscape Architects.")

TRAFFIC SIGNAL NOTES & LEGEND

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

TRAFFIC OPERATIONAL IMPROVEMENTS

AT VARIOUS LOCATIONS

VICINITY OF KAMEHAMEHA HIGHWAY AND MOKULELE DRIVE

Project No. 83G-01-10

Scale: As Noted Date: April 2011

SHEET No. 1 OF 2 SHEETS

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