

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-M-02-05M	2005	34	44

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXST. HPS STREET LIGHT		NEW TYPE "A" METRIC TRAFFIC SIGNAL PULLBOX (APPROX. 22" X 28"), SEE DETAIL A/E-20
	EXST. TRAFFIC SIGNAL HEAD TO REMAIN		
	EXST. RYG TRAFFIC SIGNAL HEAD TO REMAIN		
	EXST. OPTICON DETECTOR TO REMAIN		NEW TYPE "B" METRIC TRAFFIC SIGNAL PULLBOX (APPROX. 28" X 40"), SEE DETAIL B/E-20
	EXST. PEDESTRIAN TRAFFIC SIGNAL HEAD TO REMAIN		NEW TYPE "C" METRIC TRAFFIC SIGNAL PULLBOX (APPROX. 28" X 57"), SEE DETAIL C/E-20
	NEW PEDESTRIAN PUSHBUTTON SHALL MEET CURRENT AMERICAN WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND WILL BE SUBJECT TO ENGINEER'S APPROVAL SEE SHEET E-23		
	EXST. CCTV SYSTEM CAMERA TO REMAIN		RELOCATED TYPE 1 TRAFFIC SIGNAL STANDARD, PROVIDE NEW MOUNTING BRACKETS AND CONC. BASE PER STATE STANDARDS & DET. A/E-24, AND SHEETS E-23, E-25, E-26, E-27
	REMOVE EXST PEDESTRIAN PUSHBUTTON		
	EXST. PEDESTRIAN PUSHBUTTON		
	ADJUST EXISTING PULLBOX TO BE FLUSH WITH NEW FINISH		EXST. UNDERGROUND ELEC./SIGNAL CONDUITS & CABLES
	EXST. PULLBOX OR HANDHOLE, SEE PLAN FOR SIZE		NEW ELEC./SIGNAL WIRING
	EXST. TRAFFIC SIGNAL CONTROLLER		ELECTRIC/SIGNAL DUCTLINE WITH DESIGNATORS; INDICATES TYPE "A" DUCT SECTION WITH "1-2" ELEC DUCTS. SEE SHEET E-19 FOR DUCT ENCASEMENT AND TRENCH RESTORATION DETAILS
	EXST. TRAFFIC SIGNAL DUCTLINE & WIRING TO REMAIN		
	EXST. TRAFFIC SIGNAL CONDUIT & WIRING, WIRING TO BE REMOVED AND CONDUIT ABANDONED IN PLACE.		EXST. TYPE 1 TRAFFIC SIGNAL STANDARD TO REMAIN
	NEW TRAFFIC SIGNAL CONDUIT & WIRING		
	NEW TRAFFIC SIGNAL CONDUIT & WIRING. SAWCUT AND PATCH EXST. AC PAVEMENT, SIDEWALK, CURB & GUTTER		

GENERAL CONSTRUCTION NOTES

- A. Trenching to be by hand when digging near and across existing utility lines.
- B. Unless otherwise requested by the Board of Water Supply, minimum clearance between water lines and conduits shall be:
Horizontal = 3 feet
Vertical = 6 inches
- C. Adjust new conduit alignment, if required to provide clearances. If conduit cannot be realigned, adjustments to existing water system shall be performed in accordance with standards of the Board of Water Supply.
- D. Underground utilities shown hereon are for information only. No guarantee is made on the accuracy or completeness of said information.
- E. Where necessary, reconstruction of sidewalk, gutter and driveway areas shall conform to the standard details of the governmental agency having jurisdiction over the work.
- F. The Contractor shall be responsible for removal of all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The cost for any necessary remedial action by the Chief Engineer shall be payable by the Contractor.
- G. The Contractor, at his own expense, shall keep the project area free from dust nuisance. The work shall be in conformance with the air pollution control standards and regulations of the State Department of Health.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	2/05
me/lay	DESIGNED BY	
me/lay	QUANTITIES BY	
me/lay	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**ELECTRICAL SYMBOLS AND
GENERAL CONSTRUCTION NOTES**
CURB RAMP REPAIRS AT
VARIOUS LOCATIONS, MAUI
Project No. HWY-M-02-05M
Date: February, 2005
SHEET No. E-1 OF 11 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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GENERAL CONSTRUCTION NOTES:

- Plans do not indicate complete existing electrical conditions. Contractor shall visit jobsite to become familiar with all existing conditions and extent of demolition and new work prior to the start of work.
- Prior to the start of work, Contractor shall visit jobsite and report any discrepancies and/or difference in drawings, in respect to existing condition, to Engineer and/or Owner.
- Contractor shall resolve all discrepancies and questions prior to start of work. No extra payment shall be allowed on account of work made necessary by Contractor's failure to visit the site and/or failure to resolve discrepancies and questions.
- Return all salvable apparatus, as determined by the State or his representatives, to a site designated by the State or his representatives, at no additional cost to the State. Dispose of all unwanted materials.
- The Contractor is to comply with the directions of the State of Hawaii Occupational Safety and Health Law (DOSH).
- Contractor shall coordinate all work with Maui Electric Co. (MECO) and Verizon Hawaii, Inc.. (HTCO).
- Contractor shall notify HTCO's inspectors 72 hours prior to start of his excavation work.
- Prior to start of construction 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 in excavation areas.
- 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.
- The Contractor shall notify all affected utility companies and government agencies of their intent to begin construction on any intersection or street at least two (2) weeks prior to the start of such construction.
- The Contractor may close only one lane of traffic at a time for any reason. During the peak traffic periods from 6:00 to 9:00 a.m. and from 3:00 to 6:00 p.m., Monday thru Friday, all lanes shall be kept open and maintained at all times.

- Type "A" Backfill - Earth and gravel, rock size to be 1" and the mixture to contain not more than 50% by volume of rock particles. 95% compaction.
- Type "B" Backfill - Earth and gravel, mixture must pass a 1/2" mesh screen and contain not more than 20% by volume of rock particles. 95% compaction.
- If normal material at bottom of trench is not Type "B", an additional 3" shall be excavated and Type "B" Backfill provided.
- Contractor shall completely restore all sidewalks, roadways, curbs and gutter disturbed by the construction. All restoration work shall conform to County Design and Construction standards.
- The Contractor shall coordinate with the County, all splices and connections in pullboxes, handholes and cabinet locations pertaining to traffic signal; signal heads, ped signals, ped pushbuttons, vehicular detectors, preemption detectors and intertie circuits shall be performed by the Contractor.
- The street lighting system shall be kept operational during construction. Any relocation required shall be approved by the State and paid for by the Contractor.
- The locations of the existing underground street light facilities shown on the plans are from existing plans and are approximate only. The Contractor shall exercise caution when construction crosses or is in close proximity to the existing street light facilities. The Contractor shall be responsible for any damages to the existing street lighting facilities, any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the State.

TRAFFIC SIGNALS & TECHNOLOGY NOTES:

- The Contractor shall notify the State Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system.
- The traffic signal system shall be kept operational during construction. Any relocation required shall be approved by the State Department of Transportation Services, and paid for by the Contractor.
- The Contractor shall be responsible for any damages to the existing traffic signal facilities, including the traffic signal interconnect system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the State.
- The Contractor shall be responsible for any damages to the existing traffic signal fiber optic cable system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the State.
- The Contractor shall provide microwave detector system for all existing signalized intersections where existing loop detector system will be out of service for more than one (1) week. All work shall be coordinated with the State Department of Transportation Services, and paid for by the Contractor.

ORIGINAL PLAN	SERIAL PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	1/05
QUANTITIES BY	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES

CURB RAMP REPAIRS AT
VARIOUS LOCATIONS, MAUI
Project No. HWY-M-02-05M

Date: February, 2005

SHEET No. E-2 OF 11 SHEETS