

HECO NOTES

- Location of HECO Facilities.** The location of HECO's overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.
- Compliance with DOSH.** The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).
- Excavation Permit.** The Contractor shall obtain an excavation permit from HECO's Mapping and Records Division located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction. Please refer to our HECO request number P172434 at that time.
- Underground Lines.** For verification of underground lines or for assistance in supporting and protecting the lines, the Contractor shall call HECO's Underground Division at 543-7345 a minimum of 72 hours in advance.
- Excavations.** When trench excavation is adjacent to or beneath our existing structures or facilities, the Contractor is responsible for:
 - Sheeting and bracing the excavation to prevent slides, cave-ins and settlements.
 - Protecting existing structures or facilities with beams, struts, or under-pinning.
- Relocation of HECO Facilities.** Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for all costs if applicable.
- Temporary Relocation of HECO Facilities.** Should it become necessary to temporarily relocate any HECO facilities to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations, these temporary relocations will be done by HECO, or by the Contractor under HECO's supervision, with all costs being borne by the Contractor.
- Damage to HECO Facilities.** Any damage to HECO facilities will be reported immediately to HECO's Trouble Dispatcher at Ph. 543-7874.
- Liability for Damages.** All HECO overhead and underground facilities shown on these plans or whose approximate locations within the project boundaries have been made known by any reasonable means at any time to the Contractor shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities may be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO supervision.

FOR B.W.S. NOTES, SEE SHEET NO. 4

COORDINATION NOTES

- Pavement striping and marking will be done by the Contractor for "Kamehameha Highway Resurfacing, Wapio Uka Street to Waikalani Drive, Project No. 99C-01-90M."
- Contractor shall coordinate his work with the resurfacing Contractor and the Contractor for "Kamehameha Highway Sidewalk, Kuahelani Avenue to Kipapa Street, Project No. 99C-04-89."

LEGEND

	New Traffic Signal Controller		New Pedestrian Signal Head
	Traffic Signal Conduits & Cables		New Type "A" Pullbox
	New 12" Traffic Signal Head		New Type "B" Pullbox
	Exist Traffic Signal Head		New Type "B" Pullbox w/Modified Cover
	New 12" Traffic Signal Head (Programmed Visibility)		Exist Pullbox
	New Type II Traffic Signal Standard (Most Arm Length & Signal Head spacing as specified). Signal Heads as specified.		
	New Type I Traffic Signal Standard. Signal Heads as specified.		
	New Loop Detector		
	New Regulatory, Warning or Guide Sign		
	Exist. Loop Detector		Exist Traffic Signal Controller
	Exist. Loop Detector		Exist Traffic Signal Cond & New Cable
	New Pavement Line		Exist Type II Traffic Signal Std. Signal Head as Specified
	Exist. Pavement Line		Exist Type I Traffic Signal Std. Signal Head as Specified
	w-8" Existing Water Line & Size		
	s-8" Existing Sewer Line & Size		
	d-18" Existing Drain Line & Size		
	g-4" Existing Gas Line & Size		
	eu Existing Underground Electrical Conduit & Energized High Voltage Cables		
	tu Existing Underground Telephone Conduit		
	e/t Existing Overhead Electrical Power Line or Telephone Line		

GENERAL NOTES

- All construction work shall be done in accordance with these plans, all applicable sections of the Standard Specifications for Road and Bridge Construction, dated 1976, as amended, of the State Highways Division, Dept. of Transportation & the project's Special Provisions, unless otherwise specified.
- All lanes shall be opened to traffic during the morning peak hours from 6:00 a.m. to 8:30 a.m. and during the afternoon peak hours from 3:00 p.m. to 5:30 p.m. and during off-work hours.
- The Contractor shall provide, install & maintain all necessary signs, lights, flares, barricades, markers, cones & other protective facilities and shall take all necessary precautions for the protection & for the convenience & safety of public traffic. All such protective facilities & precautions to be taken shall conform with the "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways" adopted by the Highway Safety Coordinator & the U.S. Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Traffic Controls for Highway Construction and Maintenance Operations", dated 1988.
- Full compensation for all additional materials & labor, not specifically shown or called for which are necessary to complete the construction of the project, shall be considered incidental to the various contract items in the proposal & no additional compensation will be allowed therefor.
- The Contractor shall remove all silt & debris resulting from his work and deposited in drainage facilities, roadways & other areas. The costs incurred for any necessary remedial action by the Chief Engineer shall be payable by the Contractor.
- The Contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards & Regulations of the State Department of Health.
- All exposed areas shall be sodded or planted immediately after the grading work has been completed.

HTCO NOTES

- Existing telephone facilities shown on these plans are approximate only. The Contractor shall verify their actual locations, dimensions & details and shall make adjustments as directed by HTCo.
- Any damage to existing HTCo facilities shall be repaired by HTCo & paid for by the Contractor.
- Contractor to contact HTCo Outside Plant Records Section at 3239 Ualena St. a minimum of 72 hours prior to start of excavation.

GAS NOTES (GASCO, INC.)

- The Gasco, Inc. gas pipe lines in the project area are plastic coated & cathodically protected. The Contractor shall be extremely careful when working near these gas pipe lines.
- Contractor to contact Gasco, Inc. five (5) working days prior to any excavation, for written clearance. (Ph. 547-3575)
- The Contractor shall verify the exact locations & depths of existing gas lines prior to start of construction operations. The Contractor shall call Gasco, Inc. a minimum of 48 hours before starting excavation to arrange for field location of all existing gas pipe lines. The telephone number is 547-3575 during business hours & 547-3555 after hours.
- The Contractor shall excavate & backfill around gas pipe lines in the presence of a Gasco, Inc. representative. All backfill within six inches of gas line shall be select crusher screening cushion material approved by Gasco, Inc.
- The Contractor shall notify Gasco, Inc. immediately after any damage has been caused to existing gas pipe lines, their coatings or their cathodic protection devices. Repair work on this damage will be done by Gasco, Inc. with payment for this work to be borne by the Contractor.
- Minimum vertical or horizontal clearance between gas pipe lines & other pipe lines, conduits or duct lines shall be 12 inches. Adequate support & protection for gas pipe lines exposed in the trench shall be provided. Such support & protection will be approved by Gasco, Inc. If this clearance cannot be attained, the gas line shall be protected with a Gasco, Inc. approved insulation material furnished & installed by the Contractor and the work must be approved by Gasco, Inc.
- The Contractor shall work in an expeditious manner in order to keep uncovered gas pipe lines exposed for as short a period of time as possible.
- All maps, toning and site indication furnished by Gasco, Inc. are approximations only of the gas line locations.

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.
- The Contractor shall install each meter socket & 50 Amp. breaker on power pole as shown on the plans in accordance with HECO requirements. Meter shall be mounted between 5' & 7' above ground. Meter socket shall be 4-prong, complete with a manual circuit closing device.

CONSTRUCTION NOTES

- Locations of existing underground structures & 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 & 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, pedestrian push buttons, traffic controller, pullboxes, conduits, barriers & loop detectors shall be staked out in the field by Contractor & approval of the locations obtained from the Engineer prior to construction & installation.
- Department of Transportation Services, City & County of Honolulu will assist the Engineer in construction inspection for the traffic signal system.
- Work by the Dept. of Transportation Services, C & C of Honolulu:
 - Test controller & auxiliary equipment in cabinet.
 - Make all electrical equipment connections in the field for signal system after the system has been installed in place by the Contractor.
 - Final adjustment of traffic signal control equipment.
- Removal of existing signs shall also include the removal of posts & foundations unless otherwise noted. All such materials shall be the property of the Contractor. Cost shall be incidental to other items of work.
- Locations of traffic markings & markers (lane lines, stop lines, pavement arrows, etc.) shown on the plans shall be verified by the Contractor with the Engineer prior to installation of the traffic signal system.
- Removal of pavement markings & stripings shall be done by the Contractor.
- 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.
- Stop signs indicated to be removed shall be removed after the traffic signal system is operational.
- Restoration of existing pavements & improvements unavoidably damaged shall be incidental to the various contract items. Restoration shall be to original or better condition.
- 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.
- 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 (1988) 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.

NOTES FOR CONSTRUCTION WITHIN CITY RIGHT-OF-WAY

- All construction work within the City Right-of-Way shall be performed in accordance with the "Standard Details for Public Works Construction", dated Sept. 1984, as amended & the "Standard Specifications for Public Works Construction", dated Sept. 1986 of the Department of Public Works, City & County of Honolulu and the Revised Ordinances of Honolulu, 1978.
- The underground pipes, cables or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the location & depth 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.
- The Contractor shall notify the DPW Division of Engineering Construction Branch 7 days prior to commencement of construction.

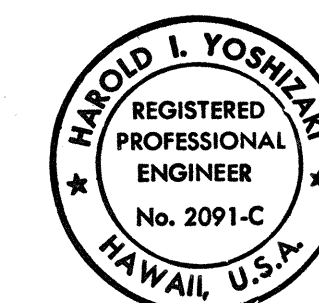
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99C-02-90	1990	3	8

DATE	_____
SURVEY PLATTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
NO.	_____

APPROVED:

C. Michael Steer 4/3/90
DIRECTOR & CHIEF ENGINEER, DPW
(APPROVED FOR CONSTRUCTION W/IN CITY R/W ONLY)

M. Fuhgauer 4/2/90
CHIEF DIVISION OF ENGINEERING, DPW
(APPROVED FOR CONSTRUCTION W/IN CITY R/W ONLY)



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Harold I. Yoshizaki

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES & LEGEND

KAMEHAMEHA HIGHWAY TRAFFIC SIGNALS

PROJECT NO. 99C-02-90

DATE: MARCH 1990

SHEET NO. 1 OF 1 SHEETS