

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-02-99	2000	2	32

STANDARD PLAN NO.	TITLE	DATE
B-01	Notes and Miscellaneous Details	07/01/86
B-02		
B-03	Typical Structure Excavation and Backfill Pay Limits	07/01/86
B-04		
B-05		
B-06	Concrete Box Girder	07/01/86
B-07	Concrete Box Girder	07/01/86
B-08	Concrete Box Girder	07/01/86
B-09		
B-10		
B-11		
B-12	Prestressed Concrete Piles	r07/16/90
B-13	Prestressed Concrete Piles	r07/16/90

D-01	Chain Link Fence With Toprail	r03/06/87
D-02	Chain Link Fence Without Toprail	r07/26/90
D-03	Wire Fence With Metal Posts	07/01/86
D-04	● Typical Details of Curbs and/or Gutters	07/01/86
D-05	Typical Details of Reinforced Concrete Drop Driveway	07/01/86
D-06	Centerline and Reference Survey Monument	07/01/86
D-07	Street Survey Monument	07/01/86
D-08	Landscaping Shrub and Tree Planting	07/01/86
D-09	Field Office	07/01/86
D-10	Field Office	07/01/86
D-11	Project Site Laboratory	07/01/86
D-12	Project Site Laboratory	07/01/86
D-13	Field Office & Project Site Laboratory	07/01/86

H-01	Type A, B, C and D Catch Basin	07/01/86
H-02	● Type A1, B1, C1 and D1 Catch Basin	07/01/86
H-03	Type A2, B2, C2 and D2 Catch Basin	07/01/86
H-04	● Typical Reinforcing Details for Catch Basins	07/01/86
H-05	● Type A, B and C Storm Drain Manhole	07/01/86
H-06	Type D and E Storm Drain Manhole	07/01/86
H-07	Type F Storm Drain Manhole	07/01/86
H-08	● Catch Basin and Manhole Casting	07/01/86
H-09	● Type A-9 and A-9P Frames and Grates	07/01/86
H-10	Type A-9B Frames and Grates	07/01/86
H-11	Type 61614 and 61214 Grated Drop Inlet	07/01/86
H-12	Type 61616 Grated Drop Inlet	07/01/86
H-13	61214, 61614 & 61616 Steel Frames and Grates	07/01/86
H-14	61214B Steel Frame and Grates	07/01/86
H-15	61614B Steel Frame and Grates	07/01/86
H-16	Concrete and Cement Rubble Masonry Structures	r10/16/90
H-17	Inlet Structures	r10/16/90
H-18	Flared End Section for Culverts	07/01/86
H-19	Outlet Structures	r02/15/91
H-20	Concrete Spillway Inlet	07/01/86
H-21	18" Slotted C.M.P. Drain	07/01/86
H-22	C.M.P. Coupling Details Standard Joint	r10/16/90
H-23	Hat Shaped Coupling Band	r10/16/90

STANDARD PLAN NO.	TITLE	DATE
TE-01	● Miscellaneous Sign Details	07/01/86
TE-02	● Galvanized Flanged Channel Sign Post Mounting	07/01/86
TE-03	● Galvanized Square Tube Sign Post Mounting	07/01/86
TE-04	● Regulatory Signs	r09/01/87
TE-05	● Warning Signs	07/01/86
TE-06	● Miscellaneous Signs	r11/03/89
TE-07	Reserved	07/01/86
TE-08	● Construction Signs	r09/01/87
TE-09	● Miscellaneous Intersection Signs	r03/06/87
TE-10	Reserved	07/01/86
TE-11	● Bike Route Sign and Supplementary Plates	07/01/86
TE-12	State Route Marker and Auxiliary Markers	07/01/86
TE-13	Interstate Route Marker	07/01/86
TE-14	State Route Marker and Border Detail for Guide Signs	07/01/86
TE-15	Route Marker Assemblies	07/01/86
TE-16	Miscellaneous Reflector Markers	07/01/86
TE-17	● Type II Object Markers	07/01/86
TE-18	Mileposts	07/01/86
TE-19	Reserved	07/01/86
TE-20	Overhead Sign Supports	07/01/86
TE-21	Overhead Sign Support, Box Truss Type, Aluminum	07/01/86
TE-22	Foundation Details and Schedules	07/01/86
TE-23	Supports for Ground Mounted Guide Sign	r11/03/89
TE-24	Breakaway Sign Supports for Ground Mounted Guide Signs	07/01/86
TE-25	Laminated Aluminum Sign Panels (Overhead)	07/01/86
TE-26	Laminated Aluminum Sign Panels (Ground Mounted)	07/01/86
TE-27	Solid Aluminum Extruded Sign Panel and Accessory Details	07/01/86
TE-28	Guide Signs Luminaire Mountings	07/01/86
TE-29	Reserved	07/01/86
TE-30	● Raised Pavement Markers and Striping	r05/09/90
TE-31	● Miscellaneous Pavement Markings	r05/09/90
TE-32	● Miscellaneous Pavement Markings	r05/09/90
TE-33	● Miscellaneous Pavement Markings	r11/03/89
TE-34	Reserved	07/01/86
TE-35	● Pavement Alphabets, Numbers & Symbols	07/01/86
TE-36	● Pavement Alphabets, Numbers & Symbols	07/01/86
TE-37	Reserved	07/01/86
TE-38	● Traffic Signal System, Miscellaneous Details	r11/03/89
TE-39	● Traffic Signal System, Miscellaneous Details	07/01/86
TE-40	● Loop Detectors	r11/03/89
TE-41	● Pullboxes	07/01/86
TE-42	Type III Traffic Signal Standard	07/01/86
TE-43	● Concrete Pullbox (2' x 3')	07/01/86
TE-44	Reserved	07/01/86

STANDARD PLAN NO.	TITLE	DATE
TE-45	Reserved	07/01/86
TE-46	Reserved	07/01/86
TE-47	Reserved	07/01/86
TE-48	Reserved	07/01/86
TE-49	Reserved	07/01/86
TE-50	Metal Guardrail	r03/06/87
TE-51	Metal Guardrail	r09/01/87
TE-52	Metal Guardrail with Rubrail	r11/03/89
TE-53	Metal Guardrail with Rubrail at Obstruction	r09/01/87
TE-54	Beam Type Guardrail with Rubrail at Obstruction (Shoulder Installation)	r11/03/89
TE-55	Metal Guardrail Connection to Concrete Barrier	r11/03/89
TE-56	Concrete Barrier Transition	07/01/86
TE-57	Guardrail Type 3, Thrie Beam	r11/03/89
TE-57A	Guardrail Type 3, Modified Thrie Beam	11/03/89
TE-58	Approach End Flare, One & Two Way Roadway	07/01/86
TE-59	Trailing End Flare, One & Two Way Roadway	r11/03/89
TE-60	Anchor Block Details	07/01/86
TE-61	Breakaway Cable Terminal (BCT)	r11/03/89
TE-62	Breakaway Cable Terminal (BCT)	r09/01/87
TE-63	Guardrail Type 4 (Rigid Barrier)	r09/01/87
TE-64	Portable Concrete Barrier	r11/03/89
TE-65	Guardrail Type 4, Miscellaneous	r09/01/87
TE-66	● Barricades	07/01/86
TE-67	Delineation & Pavement Markings at Bridges	07/01/86
TE-68	Wheelchair Ramps	r07/18/94
TE-69	Wheelchair Ramps	r07/18/94

DATE	REVISION
07/18/94	REVISED TE-68 & TE-69
02/15/91	REVISED H-19
10/16/90	REVISED H-16, H-17, H-22 & H-23
07/26/90	REVISED D-02
07/16/90	REVISED B-12, B-13
05/09/90	REVISED TE-30, TE-31 & TE-32
11/03/89	REVISED TE-06, TE-23, TE-30, TE-31, TE-32, TE-33, TE-38, TE-40, TE-52, TE-54, TE-55, TE-57, TE-59, TE-61, TE-64, TE-68 & TE-69, ADDED TE-57A
09/01/87	REVISED TE-04, TE-06, TE-08, TE-32, TE-51, TE-53, TE-54, TE-55, TE-57, TE-59, TE-62, TE-63, TE-65 & TE-69
03/06/87	REVISED D-01, TE-09, TE-40, TE-50, TE-51, TE-57, TE-59, TE-61, TE-63 & TE-64

NOTE:
STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A "●" NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07 ●)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

FARRINGTON HIGHWAY
Intersection Improvements at Leoku Street
Project No. 7101A-02-99

Date: Aug., 1999

SHEET No. 1 OF 1 SHEETS

SURVEY PLOTTED BY: DATE: 2/12/99
 DRAWN BY: E. T. Hui
 CHECKED BY: N. m. farrington
 NOTE BOOK: 0693/mi
 QUANTITIES BY:

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-02-99	2000	3	32

GENERAL NOTES

- The scope of work consists of widening the existing left turn lane to facilitate a second turn lane; installing catch basins, curb and gutters, curbs, curb ramps, concrete sidewalk, pavement markings and signs; replacing the traffic signal and highway lighting system and adjusting utilities. The Gas Company will be doing work in connection with this project.
- The Contractor is reminded of the requirements of Subsection 108.01 - Subletting of Contract, which requires him to perform work amounting to not less than 50 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
- The Contractor's attention is directed to the following Sections of the Special Provisions : Subsection 107.13 - Public Convenience and Safety; Subsection 107.21 - Contractor's Responsibility For Utility Property And Services; and Section 645 -Traffic Control.
- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (ph. #848-4571) seven (7) days prior to any paving operations.
- At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
- Smooth riding connections shall be constructed at all limits of construction as shown on the plans and/or as directed by the Engineer.
- The contractor shall provide for access to and from all existing side streets and driveways at all times.
- 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.
- Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
- The existence, location, and existing conditions of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles and conditions during the course of work is possible. The Contractor shall tone for the exact locations and depths of all underground facilities, either shown on or omitted from the plans, in areas where work such as excavation, the placement of sign posts, highway lighting, traffic signal conduits, etc., may effect these properties. Toning shall be considered incidental to the various contract items and will not be paid for separately. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.

- If the work changes the grade, the Contractor shall adjust (flush to finished grade) all manhole, pullbox and handhole frames and covers, including those not in contract. If not in contract this work will be considered incidental to the various contract items.
- The Contractor shall remove and dispose of all existing raised pavement markers, thermoplastic line markings, traffic tapes, and epoxy adhesives prior to the overlaying of Asphalt Concrete. This work shall be considered incidental to Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately.
- The exact pavement widening or areas shall be determined in the field by the Engineer.
- All saw cutting work shall be considered incidental to Roadway Excavation.
- The Contractor shall demolish and dispose all existing curb, curb & gutter, asphalt pavement and sidewalk as indicated on the plans. This work shall be considered incidental to their respective bid items.
- Dressing of shoulder and sidewalk shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
- Earth swale shall be graded to drain. This work shall be considered incidental to the various contract items.
- Prior to the placement of new aggregate subbase course, the existing subbase shall be compacted to a relative compaction greater than or equal to 95%.
- The Contractor shall exercise appropriate safety precautions when performing work in the vicinity of the abandoned 8-inch navy gasoline line between # sta. 48+80 and # sta. 58+00. The Contractor shall assume that the line contains leaded aviation gasoline. The Contractor shall perform work on or around the abandoned pipeline only under the guidance of an NFPA Certified Gas-Free Engineer or Marine Chemist. The employment of the Gas-Free Engineer or Marine Chemist shall be considered incidental to the various contract items.
- Provide smooth transition where new sidewalk construction meets the existing grade or sidewalk.
- Hydromulch graded or exposed areas within the median according to Special Provision Section 641 - Hydro-Mulch Seeding.

LEGEND

- | | |
|---|--|
| —e— Existing Electrical Line | —d-12— Existing Sewer Line |
| —e (ug)— Existing Electrical Line/underground | o _{dmh} Existing Sewer Manhole |
| o _{fp} Existing Electrical Pole | o _{SMH} Adjusted Sewer MH Frame/Cover |
| o _{fp} Existing Joint Pole | —ng-8— Existing 8" Natural Gas Line |
| o _{pp} Existing Power Pole | —g-6— Existing 6" Gas Line |
| o _{emh} Existing Electric Manhole | o _{gv} Existing Gas Valve Box |
| □ _{epb} Existing Electric Pullbox | o _{gmh} Existing Gas Manhole |
| □ _{heth} Existing Hawaiian Electric Handhole | ---d--24--- Existing 24" Drain Line |
| —t— Existing Telephone Line | ---24" RCP--- New 24 " RCP Drain Line |
| o _{tp} Existing Telephone Pole | o _{admh} Existing Storm Drain Manhole |
| o _{tmm} Existing Telephone Manhole | o _{SDMH} New Storm Drain Manhole |
| —sc— Existing Signal Corps Line | □ _{gdi} Existing Grated Drop Inlet |
| —w-12— Existing 12" Water Line | o _{cb} Existing Catch Basin |
| o _{wmh} Existing Water Manhole | p Existing Traffic Sign |
| o _{wm} Existing Water Meter | o _{ls} Existing Highway Lighting Standard |
| o _{tsp} Existing Traffic Signal Pole | ✕ Existing Tree |
| □ _{tspb} Existing Traffic Signal Pullbox | |
| □ _{tsld} Existing Traffic Signal Loop Detector | |
| o _{lp} Existing Light Pole | |

ABBREVIATION

- # Baseline
- ep Existing Edge of Pavement
- EP New Edge of Pavement
- R/W Existing Right-of-Way Line

OSHA NOTES

- The Contractor shall establish and maintain a safety and health program for the work site that provides adequate systematic policies, procedures, and practices to protect employees from, and allow them to recognize, job-related safety and health hazards.
- The Contractor shall be responsible for complying with all occupational Safety and Health Administration's (OSHA) revised rules and guidelines.
- All excavation work shall comply with the applicable health and safety guidelines as specified in OSHA 2226-Excavations (revised 1990).

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	2/5/99
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTIFIED BY	
CHECKED BY	
NO. OF SHEETS	
DATE	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES AND LEGEND

FARRINGTON HIGHWAY
Intersection Improvements at Leoku Street
Project No. 7101A-02-99

Scale: None Date: Aug., 1999

SHEET No. 1 OF 1 SHEETS

HAWAIIAN ELECTRIC COMPANY (HECO) NOTES

- 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.
- The Contractor shall comply with the State of Hawaii's Occupational safety and Health Law (DOSH).
- The Contractor shall obtain an excavation permit from HECO's Technical Division (543-5654) located at 820 Ward Avenue, 4th floor, two (2) weeks prior to starting construction. Please refer to our request number at this time
- For verification of underground lines or for assistance in supporting and protecting these lines, the Contractor shall call HECO's Underground Division at 543-7871 a minimum of 72 hours in advance.
- 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-pinnings.
- For pole bracing instructions, The Contractor shall call the HECO District Superintendent at 543-4223 a minimum of 72 hours in advance.
- Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for possible costs if applicable.
- Should it become necessary to temporarily relocate any of 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 borne by the Contractor.
- Any unforeseen conflict that would result in the redesign or relocation (either temporary or permanent) of HECO's electrical facilities may be cause for lengthy delays. To avoid such delays, the Contractor must notify HECO of the conflict a minimum of 30 days prior to the start of construction.
- Any damage to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 548-7961.
- All HECO overhead and underground facilities shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities shall be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO's supervision.
- The Contractor shall indemnify, defend and hold harmless HECO from and against all losses, damages, claims and actions, including but not limited to reasonable attorney's fees and costs based upon or arising out of damage to property or injuries to persons, or other tortious acts caused or contributed to by Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability based upon the sole negligence of HECO.

SEWER NOTES

- All sewer construction shall be performed in accordance with the City's Standard Specifications, September 1986, the Department of Public Works Standard Details, September 1984, Current City Practices and Revised Ordinances of Honolulu, 1990 as amended, and the Design Standards of the Department of Wastewater Management Vol. 1, July 1993

SEWER NOTES - Cont.

- The Contractor shall notify the Wastewater Branch, Department of Planning and Permitting, 523-4429 to arrange for inspection services and submit four sets of approved construction plans seven days prior to commencement of sewer work. The Contractor shall pay for all inspections costs.
- The underground pipes, cables or ductlines known to exist by the Engineer from his research of records are indicated on the as-built plans. The Contractor shall verify the location and depth of the facilities and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.
- The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notification and press releases.

THE GAS COMPANY (GASCO) NOTES

- The Gas Company gas pipelines in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.
- Written clearances must be obtained from The Gas Company, Maps and Records Department, 515 Kamakee Street, at least five (5) working days before starting excavation near these gas pipelines.
Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call USA North a minimum of two (2) working days before starting excavation to arrange for field location of the existing gas pipelines. The telephone number is 1-800-227-2600.
- The Contractor shall excavate and backfill around gas pipelines in the presence of The Gas Company representative. All backfill within six inches of any gas pipeline shall be select cushion material approved by The Gas Company.
- For relocation of any gas pipeline the Contractor shall notify The Gas Company five (5) working days before starting work. The Contractor shall provide the necessary excavation and backfill, obtain traffic permits and restore pavement, sidewalks, and other facilities. Any relocation of gas facilities shall be done by The Gas Company and paid for by the Contractor.
- The Contractor shall notify The Gas Company immediately after any damage has been caused to existing gas pipelines, coatings or their cathodic protection devices. Repair work on such damage shall be done by The Gas Company and paid for by the Contractor.
- Minimum vertical or horizontal clearance between gas pipelines and other pipelines, conduits, ductlines, or other facilities shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by The Gas Company.
- The Contractor shall work in an expeditious manner in order to keep the uncovered gas pipelines exposed for as short a period of time as possible.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	7101A-02-99	2000	4	32

BOARD OF WATER SUPPLY (BWS) NOTES

- Unless otherwise specified, all material and construction of water system facilities and appurtenances shall be in accordance with the City and County of Honolulu Board of Water Supply's "Water System Standards" Volume 1, dated 1985, the "Approved Material List and Standard Details for Water System Construction", Volume 2, dated 1985, The "Water System External Corrosion Control Standards", Volume 3, dated 1991, and all subsequent amendments and additions.
- All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system, such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.
- The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
- The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measures necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
- Re-approval shall be required if this project is not undertaken within a period of two years.
- At the electrical/signal ductlines water crossings, adjust all electrical/signal ductline elevations to maintain 6" vertical clear separation from all waterlines (12" clear for all electrical/signal ductline structures larger than 16") at no cost to the Board of Water Supply.
- Maintain 3'-0" min. horizontal clear separation between all waterline systems and nearest electrical/signal ductlines paralleling the water system at no cost to the Board of Water Supply.
- Maintain 3'-0" horizontal clear separation between street light/traffic signal, standards (including any modular units) and the nearest water system. Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the Contractor shall coordinate with the project engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the BWS.
- The Contractor shall notify BWS Planning and Engineering Division, Construction Section, one week prior to commencing work on the water system. Phone No. 527-5205.
- The Contractor shall verify all existing service lateral locations whether shown or not shown on plans prior to commencing with any of the work and shall not assume that where no services are shown none exist.
- Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY NOTES

FARRINGTON HIGHWAY
Intersection Improvements at Leoku Street
Project No. 7101A-02-99

Scale: None Date: Aug., 1999

SHEET No. 1 OF 2 SHEETS

ORIGINAL PLAN SURVEY PLOTTED BY DRAWN BY TRACED BY CHECKED BY DATE	DATE 2.3.99 BY K. TERASHUCHI CHECKED BY K. TERASHUCHI
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