

GENERAL NOTES

1. The scope of this project consists of adding a 12-foot lane to the outbound and inbound lanes of Fort Weaver Road; reconstructing the channelized right turning lanes, shoulders, gutters, a widened pedestrian/bike path, and the traffic signals system; constructing retaining walls; and improving the highway drainage and street lighting systems.
2. The Contractor shall reference the "Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, 1994."
3. 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 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
4. The Contractor's attention is directed to the following Sections of the Special Provisions : Subsection 104.04 – Maintenance of Traffic; Subsection 105.06 – Cooperation Between Contractors; Subsection 107.13 – Public Convenience and Safety; Subsection 107.21 – Contractor's Responsibility For Utility Property And Services; and Section 645 –Traffic Control.
5. The Contractor shall provide ingress and egress for Laulaunui Street at all times.
6. 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.
7. The existence and location 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 during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
8. The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (Phone: 848-4571) seven (7) days prior to any paving operations.
9. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
10. The Contractor shall remove and dispose of all existing raised pavement markers and traffic tapes 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.
11. All holes, depressions and wheel ruts shall be filled and compacted with Asphalt Concrete Pavement, Mix No. V prior to resurfacing. This work will not be paid for separately; it will be considered incidental to the various contract items.
12. Smooth riding connections shall be constructed at all limits of resurfacing, including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans and/or as directed by the Engineer.

13. The 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.
14. All saw cutting work including vacuum of slurry shall be considered incidental to Asphalt Concrete Pavement, Mix. No. IV.
15. At the location where the new pavements tie into the existing pavement, the Contractor shall check the existing and design grades to ensure a smooth riding connection. The Contractor shall saw cut the existing pavement in the transverse direction to provide a neat connection.
16. All azimuths and coordinates are referred to "Kapuai New". Bench Mark: Street Monument intersection of Fort Weaver Road and Laulaunui Street, Elev. 53.58, see Sheet 21.
17. Work required to complete the project but not itemized specifically in the proposal shall be considered incidental to the various contract items and shall not be paid for separately.

CONSTRUCTION NOTES (WITHIN CITY RIGHT-OF-WAY)

1. All applicable construction work shall be done in accordance with the Standard Specifications for Public Works Construction, September 1986 and Standard Details for Public Works Construction, September 1984, as amended, of the Department of Public Works, City and County of Honolulu and the Counties of Kauai, Maui, and Hawaii.
2. The underground pipes, cables or ductlines known to exist by the engineer from his search of his records 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.
3. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing City drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
4. The Contractor shall be responsible for conformance with the applicable provisions of the water quality and water pollution control standards contained in Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards" and Title 11, Chapter 55, "Water Pollution Control", as well as Chapter 14 of the Revised Ordinances of Honolulu, as amended. Best Management Practices shall be employed at all times during construction.

5. The Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting, at 523-4881 to arrange for inspectional services and submit four (4) sets of approved Construction Plans seven (7) days prior to commencement of construction work.
6. Confined Space
For entry by City personnel, including inspectors, into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:

- All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
- a. Full body harnesses for up to two personnel.
 - b. Lifeline and associated clips.
 - c. Ingress/egress and fall protection equipment.
 - d. Two-way radios (walkie-talkies) if out of line-of-sight.
 - e. Emergency (escape) respirator (10 minute duration).
 - f. Cellular telephone to call for emergency assistance.
 - g. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20-feet away).
 - h. Personal multi-gas detector to be carried by inspector.

Continuous forced air ventilation adequate to provide safe entry contitions.
One attendant/rescue personnel topside (two, if conditions warrant it).

7. In the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, the State Department of Land and Natural Resources-Historic Preservation Division (692-8015). In addition, for non-City projects, the Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting (523-4881); and for City projects, notify the responsible City agency.
8. For projects abutting State Highways' rights-of-way, the owner or his authorized representative shall notify the State Department of Transportation, Highways Division, Oahu District, Drainage Discharge Unit at 831-6793 for an assessment of State Highways permit requirements.

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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION | |
| <u>GENERAL NOTES</u> | |
| <u>FORT WEAVER ROAD WIDENING</u> <u>NEAR LAULAUNUI STREET</u> | |
| <u>FEDERAL AID PROJECT NO. CMAQ-076-1(8)</u> | |
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TRAFFIC NOTES (WITHIN CITY RIGHT-OF-WAY)

- 1. A permit shall be obtained from the Department of Transportation Services before work on any portion of a public street or highway may begin. Construction traffic control plans approved by the Dept. of Transportation Services and/or the Dept. of Planning and Permitting must be provided when applying for the permit.
- 2. The Contractor shall provide, install and maintain all necessary signs and other protective facilities, which shall conform with the "Hawaii Administration Rules Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways" adopted by the Director of Transportation, and the current U.S. Federal Highways Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations".
- 3. Work on any city street area may be performed only between the hours of 8:30 a.m. to 3:30 p.m., Monday through Friday, unless otherwise permitted by the Department of Transportation Services.
- 4. During working hours, the Contractor shall provide for through traffic. During non-working hours, all trenches shall be covered with a safe non-skid bridging material and all lanes shall be open to traffic.
- 5. As required by the Department of Transportation Services, the Contractor shall provide off-duty police officers to control the flow of traffic.
- 6. 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.
- 7. Driveways shall be kept open unless the owners of the property using these right-of-ways are otherwise provided for satisfactorily. Access to and from public streets shall be provided at all times. The Contractor shall reference to the approval of the Dept. of Transportation Services and the Dept. of Planning and Permitting, all existing traffic signs, posts and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts, and pavement markings disturbed by his activities.
- 9. The Contractor shall notify the Department of Planning and Permitting at 523-4881 one (1) week prior to any work to be done on signs, posts and pavement markings.
- 10. No material and/or equipment shall be stockpiled or otherwise stored within street right-of-ways except at locations designated in writing and approved by the Department of Transportation Services.

TRAFFIC SIGNALS AND TECHNOLOGY DIVISION NOTES

- 1. The Contractor shall notify the Traffic Signals and Technology Division, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (Phone: 523-4589).
- 2. The traffic signal system shall be kept operational during construction. Any relocation required shall be approved by the Traffic Signals and Technology Division, Department of Transportation Services, and paid for by the Contractor.
- 3. The Contractor shall be responsible for any damages to the existing traffic signal facilities, including but not limited to the traffic signal fiber optic cable system, and 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 Traffic Signals and Technology Division.

PUBLIC HEALTH, SAFETY AND CONVENIENCE NOTES

- 1. The Contractor shall observe and comply with all Federal, State, and Local laws required for the protection of public health and safety and environmental quality.
- 2. The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in conformance with the air pollution standards and regulations of the State Department of Health. The City may require supplementary measures as necessary.
- 3. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing city drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
- 4. The Contractor's attention is directed to Chapter 448, Public Health Regulations, Department of Health, State of Hawaii, "Community Noise Control for Oahu" in which maximum allowable noise levels have been set. If the construction activities for this project will exceed the allowable noise levels, the Contractor will be required to obtain a permit from the Director of the Department of Health. The Contractor shall obtain a copy of Chapter 448 and become familiar with the noise level restrictions and the procedures for obtaining a Permit for construction activities.
- 5. The Contractor is to comply with the directions of the State of Hawaii Occupation Safety and Health Law (DOSH).

WATER POLLUTION AND EROSION CONTROL NOTES

- A. General:
 - (1) The Contractor is reminded of the requirements of Section 209 - Water Pollution and Erosion Control, in the Special Provisions. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment.
 - (2) The Contractor shall follow the guidelines in the "Best Management Practices Manual for Construction Sites in Honolulu", dated May 1999 in developing, installing and maintaining the Best Management Practices (BMP) for the project.
 - (3) The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
 - (4) The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.

B. Waste Disposal:

(1) Waste Materials

All waste materials shall be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied a minimum of twice per week or as often as is deemed necessary. No construction waste materials shall be buried onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.

(2) Hazardous Waste

All hazardous waste materials shall be disposed of in the manner specified by local or State regulations or by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

(3) Sanitary Waste

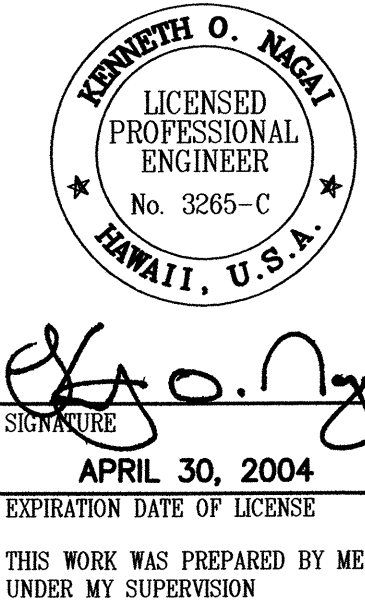
All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

C. Erosion and Sediment Control Inspection and Maintenance Practices:

- (1) All control measures shall be inspected at least once each week and following any rainfall event of 0.5 inches or greater.
- (2) All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- (3) Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- (4) Silt screen or fence shall be inspected for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. The bottom of the silt screen shall be inspected and verified that it is buried a minimum of 6 inches below the existing ground.
- (5) Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- (6) A maintenance inspection report shall be made promptly after each inspection by the Contractor.
- (7) The Contractor shall select a minimum of three personnel who shall be responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- (8) Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

FORT WEAVER ROAD WIDENING
NEAR LAULAUNUI STREET

FEDERAL AID PROJECT NO. CMAQ-076-1(8)

SCALE: AS NOTED DATE: October 2003

SHEET No. 2 OF 5 SHEETS

D. Good Housekeeping Best Management Practices:

(1) Materials Pollution Prevention Plan

- a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.
- Concrete
Fertilizers
Detergents
Petroleum Based Products
Paints (enamel and latex)
Cleaning Solvents
Metal Studs
Wood
Tar
Masonry Block
- b. Material Management Practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort shall be made to store only enough product as is required to do the job.
- c. All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Products shall be kept in their original containers with the original manufacturer's label.
- e. Substances shall not be mixed with one another unless recommended by the manufacturer.
- f. Whenever possible, a product shall be used up completely before disposing of the container.
- g. Manufacturer's recommendations for proper use and disposal shall be followed.
- h. The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

(2) Hazardous Material Pollution Prevention Plan

- a. Products shall be kept in original containers unless they are not resealable.
- b. Original labels and material safety data sheets (MSDS) shall be retained.
- c. Surplus products shall be disposed of according to manufacturers' instructions or local and State recommended methods.

(3) Onsite and Offsite Product Specific Plan

- a. The following product specific practices shall be followed onsite:
- 1) Petroleum Based Products:
- All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite shall be applied according to the manufacturer's recommendations.

2) Fertilizers:

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to storm water. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.

3) Paints:

All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturers' instructions or State and local regulations.

4) Concrete Trucks:

Concrete trucks shall be allowed to wash out or discharge drum wash water only at a designated site. Water shall not be discharged in the highway drainage system or waters of the United States. The Contractor shall contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.

b. Offsite Vehicle Tracking:

A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.

(4) Spill Control Plan

- a. A spill prevention plan shall be posted to include measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.
- c. Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.
- d. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.
- e. All spills shall be cleaned up immediately after discovery.
- f. The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL NOTES

A. Erosion and Sediment Control Inspection and Maintenance Practices.

- (1) The Contractor shall inspect the erosion and sediment control measures at least once a week or after 0.5 inches of rainfall.
- (2) The Contractor shall maintain the erosion and sediment control measures according to the contract. If a repair is necessary, the Contractor shall initiate the repairs within twenty-four (24) hours after the inspection such as:
- a. When sediment build-up reaches one-third (1/3) the height of the silt fence, the Contractor shall remove and dispose of the sediment build-up.
- b. When the depth of the sediment basin reaches ten percent (10%) of the design capacity, the Contractor shall remove and dispose of the sediment build-up.
- c. When tears are found on the silt fence, the Contractor shall replace the fabric.
- d. The Contractor shall check to see if the fabric is securely attached to the fence posts and to see that the fence posts are firmly in the ground.
- e. The Contractor shall inspect the diversion dike and repair the breaches.
- f. The Contractor shall inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth.
- (3) The Contractor shall have its personnel make a maintenance inspection report promptly after each inspection. The Contractor shall select a minimum of three (3) personnel who will be responsible for inspection, maintenance, repair activities, and filling out the inspection and maintenance report. Personnel selected for the inspection and maintenance responsibilities will receive training from the Contractor. The Contractor shall train these personnel in the inspection and maintenance practices necessary for keeping the erosion and sediment used onsite according to the contract.

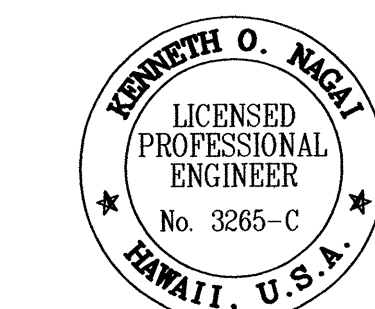
B. Submittal Requirements:

Construction activities of five (5) acres or more. (Effective March 10, 2003, one (1) acre or more).

Storm water discharged into State waters due to construction activities will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the Engineer four (4) sets of Site-Specific Best Management Practices Plans (BMP). The Plans shall be submitted no later than thirty (30) calendar days after the award of contract.

VERIZON HAWAII NOTES

1. The Contractor shall obtain an excavation permit and toning request from Verizon Hawaii's excavation permit section, located at 3239 Ualena Street, third floor, two weeks prior to the start of construction. Hours of business are 7:00 am to 10:45 a.m. and 11:30 a.m. To 2:45 p.m. Monday through Friday, except holidays.
2. Prior to the excavation of the ductline, the contractor shall request Verizon Hawaii to locate existing ductline wherever required. For underground cable locating and marking, five (5) working days advance notice is required. Three (3) working days advance notice is required for any inspection by a designated representative.



SIGNATURE
APRIL 30, 2004
EXPIRATION DATE OF LICENSE
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION | |
| <u>GENERAL NOTES</u> | |
| <u>FORT WEAVER ROAD WIDENING</u> <u>NEAR LAULAUNUI STREET</u> | |
| <u>FEDERAL AID PROJECT NO. CMAQ-076-1(8)</u> | |
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3. The locations of existing utilities are approximate only. The contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of Verizon Hawaii facilities. The Contractor shall verify their locations and shall be liable for any damages to Verizon Hawaii facilities. Any damages shall be reported immediately to Verizon Hawaii's repair section at #611 (24 hours) or to the excavation permit section at 840-1444 (normal working hours, Monday through Friday, except holidays). As a result of his operations, adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.
4. The Contractor shall take necessary precaution not to damage existing cables or ducts. A Verizon Hawaii inspector or designated representative is required to be at the job site whenever there will be a breakage into or entry into any structure that contains Verizon Hawaii facilities. Temporary cable and duct supports shall be provided wherever necessary.
5. The Contractor shall notify Verizon Hawaii's inspector or designated representative a minimum of 72 hours prior to excavation, bracing, or backfilling of Verizon Hawaii's structures or facilities.
6. All applicable construction work shall be done in accordance with the "Verizon Hawaii standard specifications for placing underground telephone systems" dated march 1999, all subsequent amendments and additions, and all other pertinent standards for telephone construction. Contractor shall familiarize his personnel by obtaining applicable specifications.
7. When excavation is adjacent to or beneath Verizon Hawaii's existing structures or facilities, the contractor shall:
- Sheet and/or brace the excavation to prevent slides, cave-ins, or settlements to ensure no movement to Verizon Hawaii's structures or facilities.
 - Protect existing structures and/or facilities with beams, struts, or underpinning while excavating beneath them to ensure no movement to Verizon Hawaii's structures or facilities.

HECO NOTES

1. 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 verify in the field the locations of the facilities and shall exercise proper care in excavating and working in the area. The Contractor shall be responsible for any damages to HECO's facilities whether shown or not shown on the plans.

2. Compliance with Hawaii Occupational Safety and Health Laws:

The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Laws and Regulations, including without limitation, those related to working on or near exposed or energized electrical lines and equipment.

3. Excavation Permit:

The Contractor shall obtain an excavation permit from HECO's Technical Division (543-5654) located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction. Please refer to HECO work order number CE044911 at that time.

4. Overhead lines:

State law requires that a worker and the longest object he or she may contact cannot come closer than a minimum radial clearance of 10 feet when working close to or under any overhead lines rated 50kv and below. For each additional 1kv above 50kv, an additional 0.4 inch shall be added to the 10-foot clearance requirement. The preceding information on line clearance requirements is provided as a convenience and it is the Contractor's responsibility to be informed of and comply with any revisions or amendments to the law.

Should the Contractor anticipate that his work will result in the need to encroach within the minimum required clearance at any time, the Contractor shall notify HECO at least four (4) weeks prior to the planned encroachment so that, if feasible, the necessary protections (e.g. relocate, de-energize, or blanket HECO lines) can be put in place. HECO's cost of safeguarding its lines will be charged to the Contractor.

Contact HECO's Customer Installations Department at 543-7846 for assistance in identifying and safeguarding overhead power lines.

Refer to Section X of HECO's Electric Service Installation Manual for additional guidelines when working around HECO's facilities. A copy may be obtained from HECO's Customer Installations Department.

5. Pole Bracing:

A minimum clearance of 10 feet must be maintained when excavating around utility poles and/or their anchor system to prevent weakening or pole support failure. Should work require excavating within 10 feet of a pole and/or its anchor system, the Contractor shall protect, support, secure, and take all other precautions to prevent damage to or leaning of these poles. The Contractor is responsible for all associated costs to brace, repair, or straighten poles. All means of structural support for the pole proposed by the Contractor shall first be reviewed by HECO before implementation. For pole bracing instructions, the Contractor shall call the HECO Construction and Maintenance Dept., Customer & System Superintendent at 543-4223 a minimum of two (2) weeks in advance.

6. Underground lines:

The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines. HECO's existing electrical cables in the area are energized and will remain energized during construction. Only HECO personnel are to handle these cables and erect temporary guards to protect these cables from damage. The cost of HECO's assistance in providing proper support and protection of its underground lines will be charged to the Contractor. The Contractor shall exercise due care and precautions to avoid disturbing any energized cables and temporary guards and shall work cautiously at all times to avoid accidents.

For verification of underground lines or for assistance in providing proper support and protection of these lines, the contractor shall call HECO's Construction & Maintenance Dept., Customer & System Superintendent, at 543-4223, a minimum of two (2) weeks in advance.

7. Excavations:

When trench excavation is adjacent to or beneath HECO's 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.
- Backfilling with proper backfill material including special thermal backfill where existing (refer to Engineering Department for thermal backfill specifications).

8. Relocation of HECO Facilities:

Any work required to relocate or modify HECO facilities shall be done by HECO, or by the Contractor under HECO's supervision. The Contractor shall be responsible for all coordination, and shall provide necessary support for HECO's work, which may include, but not be limited to, excavation and backfill, permits and traffic control, and restoration of pavement, sidewalks, and other facilities.

All costs associated with any relocation or modification (either temporary or permanent) for the convenience of the Contractor, or to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations shall be borne by the Contractor.

9. Conflicts:

The Contractor acknowledges that HECO is not responsible for any delay or damage that may arise as a result of any conflicts discovered or identified with respect to the location or construction of HECO's electrical facilities in the field, regardless of whether the Contractor has met the requested minimum advance notices. In order to minimize any delay or impact arising from such conflicts, the Contractor shall notify HECO immediately upon discovery or identification of such conflict.

10. Damage to HECO Facilities:

The Contractor shall be responsible for the protection of all HECO surface and subsurface utilities and shall be responsible for any damages to HECO's facilities as a result of his operations. The Contractor shall immediately report such damages to HECO's Trouble Dispatcher at 548-7961. Repair work shall be done by HECO or by the Contractor under HECO's supervision. Costs for damages to HECO's facilities shall be borne by the Contractor.

11. HECO Stand-by Personnel:

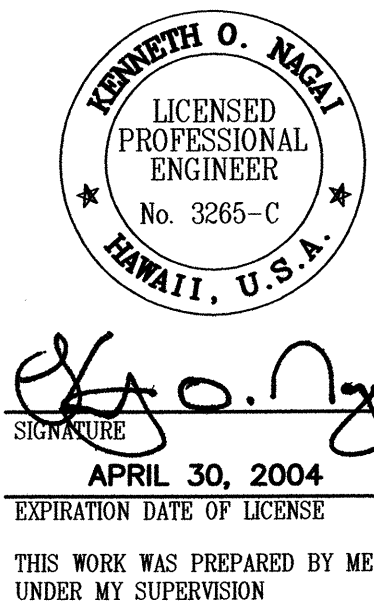
The Contractor may request HECO to provide an inspector to stand-by during construction near HECO's facilities. The cost of such inspection will be charged to the Contractor.

The Contractor shall call the HECO Construction and Maintenance Dept., Customer & System Superintendent at 543-4223 a minimum of 5 working days in advance to arrange for HECO stand-by personnel.

12. Indemnity:

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.

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|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK | DRAWN BY | |
| | DESIGNED BY | |
| | CHECKED BY | |
| No. | | |



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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION | |
| <u>GENERAL NOTES</u> | |
| <u>FORT WEAVER ROAD WIDENING NEAR LAULAUNUI STREET</u> | |
| <u>FEDERAL AID PROJECT NO. CMAQ-076-1(8)</u> | |
| SCALE: AS NOTED | DATE: October 2003 |
| SHEET No. 4 OF 5 SHEETS | |

CONSTRUCTION NOTES FOR GAS FACILITIES

1. 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.
2. Written clearances must be obtained from The Gas Company, Maps and Records Department, 515 Kamakee Street, at least five (5) working days prior to starting excavation near these gas pipelines.
3. 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.
4. The Contractor shall excavate and backfill around gas pipelines in the presence of a representative of The Gas Company. All backfill within six inches of any gas pipeline shall be select cushion material approved by The Gas Company.
5. For relocation of any gas pipeline, the Contractor shall notify The Gas Company five (5) working days before starting work. The telephone number is 594-5574. 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.
6. The Contractor shall notify The Gas Company immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. The telephone number is 535-5933, 24 hours a day. The Contractor shall be liable for any damage to The Gas Company facilities. Repair work on such damage shall be done by The Gas Company with payment for this work to be borne by the Contractor.
7. Minimum vertical and horizontal clearance between the 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.

8. 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.
9. Remove existing gas lines after new lines are installed and operational.

LEGEND

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| | Reconstruction Areas |
| | Leveling Areas |
| | Cold Planing Areas |
| | Resurfacing Limits |
| | Adjusted Communications MH Frame/Cover |
| | Existing Electrical Line |
| | New Electrical Line |
| | Existing Joint Pole |
| | Existing Power Pole |
| | Existing Electric Manhole |
| | Adjusted Elec. MH Frame/Cover |
| | New Electric Manhole |
| | Existing Telephone Line |
| | New Telephone Line |
| | Existing Telephone Pole |
| | Existing Telephone Manhole |
| | Adjusted Tele. MH Frame/Cover |
| | New Telephone Manhole |
| | Existing Signal Corps Line |
| | New Signal Corps Line |
| | Existing TV Cable |
| | New TV Cable |
| | Existing 12" Water Line |
| | New 12" Water Line |
| | Existing Water Manhole |
| | Adjusted Water MH Frame/Cover |
| | New Water Manhole |
| | Existing Water Air Valve |
| | Adjusted Water Air Valve |
| | New Water Air Valve |
| | Existing Water Valve Box |
| | Adjusted Water Valve Box |
| | New Water Valve Box |
| | Existing Water Meter |
| | Adjusted Water Meter |
| | New Water Meter |
| | Existing Fire Hydrant |
| | New Fire Hydrant |

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| | Existing 12" Sewer Line |
| | New 12" Sewer Line |
| | Existing Sewer Manhole |
| | Adjusted Sewer MH Frame/Cover |
| | New Sewer Manhole |
| | Existing 6" Gas Line |
| | New 6" Gas Line |
| | Existing Gas Valve Box |
| | Adjusted Gas Valve Box |
| | New Gas Valve Box |
| | Existing Gas Manhole |
| | Adjusted Gas MH Frame/Cover |
| | New Gas Manhole |
| | Existing Monument |
| | Adjusted Monument |
| | New Monument |
| | Existing 24" Drain Line |
| | New 24" Rcp Drain Linew |
| | Existing Storm Drain Manhole |
| | Adjusted Storm Drain MH Frame/Cover |
| | New Storm Drain Manhole |
| | Existing Grated Drop Inlet |
| | Existing Catch Basin |
| | Existing Traffic Sign |
| | Existing Highway Lighting Standard |
| | Existing Irrigation Control Valve |
| | Existing Irrigation Control Valve Box |

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| | DENOTES ACCESS PERMITTED AND RIGHT OF WAY |
| | DENOTES NO ACCESS PERMITTED AND RIGHT OF WAY |
| | FLOW LINE |
| | NEW GUARD RAIL |
| | EXIST GUARD RAIL |
| | NEW CHAIN LINK FENCE |
| | EXIST CHAIN LINK FENCE |
| | NEW DRAIN LINE |
| | EXIST DRAIN LINE |
| | EXIST GAS LINE |
| | EXIST ELECTRICAL LINE |
| | EXIST TELEPHONE LINE |
| | EXIST CABLE LINE |
| | ROOT BARRIER |
| | SAW CUT LINE BETWEEN EXIST. AND NEW PAVEMENT |

ABBREVIATIONS

| | | | |
|-----------|-------------------------------|-----------|--------------------------|
| A.C. | ASPHALT CONCRETE | O/H | OVERHEAD |
| APPROX. | APPROXIMATE | O/S | OFFSET |
| BC | BOTTOM CURB | PAV'T. | PAVEMENT |
| BOT. | BOTTOM | P.M. | PARKING METER |
| BW | BOTTOM WALL | REFL. | REFLECTOR |
| CATV | CABLE TELEVISION | S | SEWER OR SPREAD |
| C.B. | CATCH BASIN | SDMH | STORM DRAIN MANHOLE |
| C.L. | CHAIN LINK | SL | STREET LIGHT |
| CMU | CONCRETE MASONRY UNIT | SLB | STREET LIGHT BOX |
| C.O. | CLEAN OUT | SMH | SEWER MANHOLE |
| COMM. | COMMUNICATION | ST. NAME | STREET NAME |
| CONC. | CONCRETE | STA. | STATION |
| CRM | CONCRETE RUBBLE MASONRY | TC | TOP CURB |
| D | DIAMETER OR DRAIN | TDC | TOP DROP CURB |
| D.I. | DRAIN INLET | T OR TEL. | TELEPHONE |
| E/ELEC. | ELECTRIC | TP | TOP PIPE |
| ELEV./EL. | ELEVATION | TRC | TOP ROLLED CURB |
| F.H. | FIRE HYDRANT | TS | TOP STEM |
| G | GAS | TSL | TRAFFIC SIGNAL LIGHT |
| GND. | GROUND | TSLB | TRAFFIC SIGNAL LIGHT BOX |
| G.P. | GUARD POST/GUY POLE/GATE POST | TV | TOP VALVE |
| G.W. | GUY WIRE | TW | TOP WALL |
| H | HEIGHT | U.P. | UTILITY POLE |
| ICV | IRRIGATION CONTROL VALVE | W | WATER |
| INV. | INVERT | WM | WATER METER |
| L.P. | LAMP POLE | WMH | WATER MANHOLE |
| MH | MANHOLE | WV | WATER VALVE BOX |
| MON. | MONUMENT | X-WALK | CROSS WALK |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | CMAQ-076-1(8) | 2004 | 7 | 127 |

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|-------------|-------------|
| DATE | DATE |
| DESIGNED BY | DESIGNED BY |
| DRAWN BY | DRAWN BY |
| CHECKED BY | CHECKED BY |
| NO. | NO. |



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES,
LEGEND AND ABBREVIATIONS

FORT WEAVER ROAD WIDENING
NEAR LAULAUNUI STREET

FEDERAL AID PROJECT NO. CMAQ-076-1(8)

SCALE: AS NOTED DATE: October 2003

SHEET No. 5 OF 5 SHEETS