

GENERAL NOTES

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| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
| HAWAII | HAW. | CMAQ-076-1(6) | 2001 | 3 | 33 |

1. The scope of work for this project consists of installing an interconnect cable system with appurtenances and modifying existing traffic signal systems.
2. The Contractor is reminded of the requirements of Subsection 108.01-Subletting of Contract, which requires him to perform work amounting to more than 50 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
3. 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
Section 645 - Traffic Control Devices
4. 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 vehicles and pedestrian traffic.
5. Locations of existing underground structures and utilities such as pipelines, conduits, cables, manholes, monuments, and structures shown on the 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 expense.
6. A minimum of 36 inches clear width and 96 inches headroom clearance height shall be provided along walkways.
7. Smooth riding connections shall be constructed at all limits of paving, including the beginning and end of project, connecting approaches, side streets, walkways and driveways as shown on the plans and/or as directed by the Engineer.
8. The Contractor shall provide for access to and from all existing side streets at all times.
9. All construction work shall be done in accordance with these plans, all applicable sections of the Standard Specifications for Road, Bridge and Public Works Construction, dated 1994 as amended, of the State Highways Division, Dept. of Transportation and the project's Special Provisions, unless otherwise specified.
10. The Contractor shall provide, install and maintain all necessary signs, lights, flares, temporary concrete guardrails, barricades, markers, cones and other protective facilities and shall take all necessary precautions for the protection and for the convenience and safety of public traffic. All such protective facilities and 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 and 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 and all revisions.

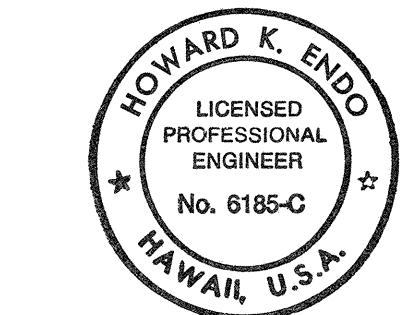
11. The underground pipes, cables or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities and exercise proper care in excavating in the area. Wherever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing utility lines at the proposed connections to verify their locations and depths prior to excavation for the new lines.
12. When directed by the Engineer, the Contractor shall remove all silt and debris resulting from his work and deposited in drainage facilities, roadways and other areas. The costs incurred for any necessary remedial action by the Engineer shall be payable by the Contractor.
13. The Contractor, at his own expense, shall keep the project area and surrounding area from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards and Regulations of the State Department of Health.
14. No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way, except at locations designated in writing and approved by the District Engineer.
15. The Contractor shall provide an adequate and safe non-skid bridging material, including shoring, over trenches in pavement areas. The bridging shall be able to support all types of vehicular traffic.
16. Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or ductline.
17. 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 overhead lines.
18. The overhead and underground lines and facilities shall be protected at all times by the Contractor during construction. Costs for any damage repairs to lines and facilities shall be borne by the Contractor.
19. All saw cutting work shall be considered incidental to other items of work in the Proposal.
20. The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the Engineer.
21. Driveways shall be kept open unless the owners of the properties using these right-of-ways are otherwise provided for satisfactorily.
22. Where pedestrian walkways exist, they shall be maintained in a safe and passable condition, or other facilities for pedestrians shall be provided. Passages between walkways for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided.
23. The Contractor shall take extra care of not disturbing the existing street monuments. The Contractor shall be responsible for any repair to the monuments if damaged during the Contractor's operations.

24. Existing drainage system will be functional at all times.
25. The Contractor shall notify Oahu Transit Services, Inc., Ed Sniffen (848-4571) or Lowell Tom (843-4578), two (2) weeks prior to construction informing them of location, scope of work, proposal closure of any streets of lanes and the need to relocate any bus stops.
26. Pavement markings disturbed by the Contractor's operation shall be restriped and/or installed at his own expense.
27. The Contractor shall submit a Site-specific Best Management Practice Plan (BMPs) to the Engineer at least 14 days prior to the start of construction. The Contractor shall not begin construction until the BMPs are accepted by the Engineer. The cost of the BMP submittals shall not be paid for separately, but shall be considered incidental to the various contract items.

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 Gas Company representative. All backfill within six inches of any gas pipeline shall be select cushion material approved by the Gas Company.
5. The Contractor shall notify the Gas Company immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. Repair work on such damage shall be done by the Gas Company and paid for by the Contractor.
6. 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.
7. The Contractor shall work in an expeditious manner in order to keep the uncovered gas pipeline exposed for as short a period of time as possible.

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| CHECKED BY | |
| ORIGINAL PLAN | |
| NOTE BOOK | |
| No. | |



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION GENERAL NOTES <i>Fort Weaver Road Traffic Signal Modernization Federal-Aid Project No. CMAQ-076-1(6)</i> Date: Sept., 2000 SHEET No. 1 OF 3 SHEETS |
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| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
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WATER NOTES

1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, dated 1994, as amended, of the Hawaii Highways Division, Department of Transportation, and 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, and the "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, dated 1991, and all subsequent amendments and additions.
2. 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.
3. The Contractor shall notify BWS Planning and Engineering Division, Construction Section, one week prior to commencing work on the water system.
4. 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 of 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.
5. Re-approval shall be required if this project is not under construction within a period of two years.
6. 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.
7. For water lines crossing existing or new ductlines:
 - a. At the electrical/signal ductline water crossings, adjust all electrical/signal ductline elevations to maintain 6" vertical clear separation from all water lines (12" clear for all electrical/signal ductline structures larger than 16") at no cost to the Board of Water Supply.
 - b. Maintain 3'-0" minimum horizontal clear separation between water line systems and nearest electrical/signal ductlines paralleling the water system at no cost to the Board of Water Supply.
 - c. Maintain 3'-0" minimum 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 Engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the BWS.
8. The Contractor shall notify BWS Construction Section (527-5205 or 5206) 60 days prior to construction at or near areas in conflict with BWS projects (00-19J Fort Weaver Road: 16-Inch Main Non-Potable Conversion) to avoid delays and conflict during construction.

HECO NOTES

1. 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.
2. The Contractor shall comply with the State of Hawaii's Occupational Safety and Health Law (DOSH).
3. 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 our HECO request number at that time: HECO Request No. CE 018069.
4. 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.
5. When trench excavation is adjacent to or beneath our existing structures or facilities, the Contractor is responsible for:
(1) Sheet piling and bracing the excavation to prevent slides, cave-ins, and settlements; (2) Protecting existing structures or facilities with beams, struts, or underpinnings.
6. For pole bracing instructions, the Contractor shall call the HECO District Superintendent at (Koolau/261-6084, Wai'anae/543-4223, Ward/543-7745) a minimum of 72 hours in advance.
7. 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.
8. 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.
9. Any damage to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 548-7961.
10. 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.
11. 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.
12. 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 the 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

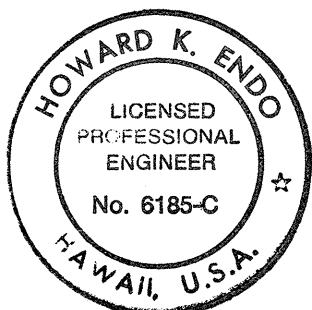
1. All sewer construction shall be performed in accordance with the City's "Standard Specifications for Public Works Construction" dated September 1986, the Department of Public Works, "Standard Details for Public Works Construction" dated September 1984, current City practices and Revised Ordinances of Honolulu, 1990, as amended, and the Design Standards of the Department of Wastewater Management, Volume 1, July 1993.
2. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
3. 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.
4. The Contractor shall notify the Inspection Section, Wastewater Branch, DDC, at 527-5842 or 523-4345, to arrange for inspection services and submit four (4) sets of approved construction plans seven (7) days prior to commencement of work. The Contractor shall pay for all inspection costs.
5. The underground pipes, cables or ductlines known to exist by the Engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities, including and affecting sewer lines, in the presence of the Wastewater Inspector and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.

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| ORIGINAL PLAN | _____ |
| NOTE BOOK | _____ |
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APPROVED:

Catherine R. Dunnea 9/28/00
for Chief, Planning & Engineering, BWS

Dennis M. Nishimura 10/19/00
Chief, Wastewater Branch, DPP



THIS WORK WAS PREPARED BY ME
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| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION |
| GENERAL NOTES |
| Fort Weaver Road Traffic Signal Modernization Federal-Aid Project No. CMAQ-076-1(6) |
| Date: Sept., 2000 |
| SHEET No. 2 OF 3 SHEETS |