

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	11A-01-02	2003	3	30

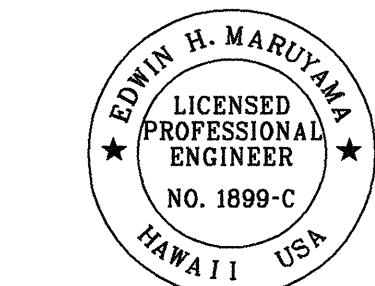
GENERAL NOTES

- The project is at the intersection of Hawaii Belt Road and Hualalai Road and at the intersection of Queen Kaahumanu Highway and the Police Station Access Road. The scope of the work for this project consists of, but is not limited to constructing additional lanes; paving; and installing traffic signals, lighting, traffic signs, guardrail, and pavement markings.
- All work within the State Right-of Way shall be constructed in accordance with the current Hawaii Standard Specifications for Road, Bridge and Public Works Construction.
- The Contractor's attention is directed to Subsection 107.13-Public Convenience and Safety and Section 645-Traffic Control Devices of the Special Provisions and Section 107.21-Contractor's Responsibility for Utility Property and Service of the Standard Specifications.
- 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.
- 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 the 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.
- All existing utility boxes to remain whether or not shown on the plans shall be adjusted to the final grade.
- The Contractor shall notify the State in writing two (2) weeks prior to starting paving operations.
- The Contractor shall remove and dispose of all existing pavement markings and raised pavement markers prior to installing new work. This work shall be considered incidental to the various contract items.
- Unprotected dropoffs greater than 2" shall not be permitted during non-working hours, except when approved by the Engineer in writing.
- Smooth riding connections shall be constructed at all limits of the work including the beginning and end of project, connecting approaches, side streets and driveways, as shown on the plans, and/or directed by the Engineer.
- Existing drainage system shall be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow, which shall be considered incidental to the various contract items.
- Contractor shall provide for access to and from all existing driveways and streets at all times.
- All saw cutting work shall be considered incidental to roadway excavation.
- All signs shall be installed with square tube posts.
- All lanes shall be opened to traffic during the morning peak hours from 6:30 AM to 8:30 AM, during afternoon peak hours from 3:30 PM to 5:30 PM and off peak hours or as directed by the Engineer. Two lanes for thru traffic shall be maintained on Hawaii Belt Road and Queen Kaahumanu Highway at all times.
- Utility poles relocation shall be by others (Hawaii Electric Light Company and Verizon Hawaii).

GRADING NOTES

- Contractor shall obtain a grading permit from the County of Hawaii. Grading work shall not commence until a grading permit is approved.
- The Contractor shall remove all silt and debris resulting from His work and deposited in drainage facilities, roadway and any other areas. The cost incurred for any necessary remedial action by the 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 and Regulations of the State Department of Health.
- All grading operations shall be performed in conformance with the applicable Provisions of the Water Pollution Control and Water Quality Standards contained in the Public Health Regulations, State Department of Health, on Water Pollution Control and Water Quality Standards, and to the Erosion and Sedimentation Control Standards and Guideline of the Department of Public works, County of Hawaii.
- All slopes and exposed areas other than in unweathered rock shall be sodded or planted immediately after the grading work has been completed.
- The County shall be informed of the location of the disposal site for the excess material from the project when the application for a grading permit is made. The disposal site must also fulfill the requirements of the grading ordinance.
- The County shall be informed of the location of the borrow site for the borrow, when the application for a grading permit is made. The borrow site must also fulfill the requirements of the grading ordinance.
- No grading work shall be done on Saturdays, Sundays and Holidays at any time without prior notice to the Chief Engineer.
- All vegetation shall be removed prior to placing fill on natural ground surface.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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Edwin H. Maruyama
FUJITA & ASSOCIATES INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES
*Hawaii Belt Road
Intersection Improvements
At Police Station Road and Hualalai Road
Project No. 11A-01-02*

Scale: No Scale Date: Dec., 2002

SHEET No. CNI OF 3 SHEETS

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PUBLIC HEALTH, SAFETY AND CONVENIENCE

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 shall be responsible for the cleaning and removal of all silt debris generated by His work deposited and accumulated within downstream waterways, ditches and drainpipes and on public and private roadways. The Contractor shall agree to reimburse the State of Hawaii for all costs expended in performance of the above work if required for Public Health and Safety, or made necessary by non-performance by the Contractor.
3.

The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones and other protective facilities and shall take all necessary precautions for the protection, convenience and safety of the public.
4.

The Contractor shall submit a noise pollution plan when applying for a construction permit.

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 requirement; 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 \$25,000 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.

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.
- 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 manufacturer's 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 recommendation.

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.

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WATER POLLUTION AND EROSION CONTROL NOTES-cont.

- 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 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.

E. PERMIT REQUIREMENTS:

1. If an NPDES Permit for Construction Dewatering and/or hydrotesting activities is required, the Contractor shall be responsible to obtain the Permit from the Department of Health, Clean Water Branch.

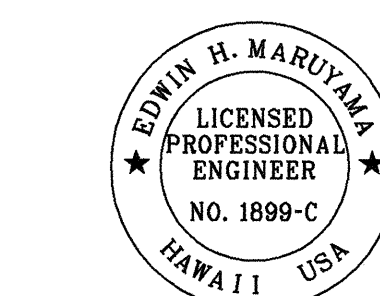
GUARDRAIL NOTES

1. All hardware, posts and fasteners shall be hot-dip zinc coated galvanized after fabrication. No punching, drilling or cutting will be permitted after galvanizing.
2. Where conditions require, special post lengths in increments of 6 inches may be specified.
3. All fasteners, posts, and rail elements (i.e. FBB03, PWE01, RWM02b, etc.) shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware", a report prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee, Subcommittee of fasteners, posts and rail elements have been converted from metric units into their present form.
4. The Recycled Plastic Block or Offset Block shall be approved by the State.
5. All new guardrail systems (system consists of total length of guardrail including both end treatments) shall include the Additional Paved Area.
6. After the guardrail posts are installed in the paved area, the Contractor shall fill/seal around each guardrail post and all cracks in the paved area caused during the guardrail post installation. If required by the inspector/engineer, the Contractor shall tamper the paved area around the guardrail post prior to filling/sealing. All costs associated with this work shall not be paid for separately, but shall be considered incidental to the various guardrail items.
7. When standards for the fill slope area cannot be met, a site specific, engineer approved design may be used.
8. New A.C. pavement at guardrails shall extend 6 feet longitudinally beyond terminal ends.
9. Reflector Markers (RM-5) mounted on guardrails shall be spaced every 25 feet. RM-5's shall not be installed on Terminal Sections. Furnishing and installing of each RM-5 shall be considered incidental to the adjacent guardrail system.
10. The locations and limits of guardrails shown on the plans are approximate. The Contractor shall stake-out guardrail locations in the field for acceptance by the Engineer
11. Unless otherwise noted, all guardrail elements shall be 12' - 6" nominal length.
12. For all Modified Type 'G' end treatments:
- a. Provide a curve radius to extend the flare away from the travelway.
- b. Use the 'Rounded End Section' in lieu of the 'Flared End Section' (Refer to Plan Sheet 12).
13. Placement of Asphalt Concrete Mix V from edge of shoulder to 1' - 0" minimum beyond the guardrail post applied to the entire length of guardrail, including flared segments and treatments unless noted.
14. All existing posts and guardrails for removal shall be disposed of by the Contractor at no cost to the State. This work shall be considered incidental to the contract Item No. 606.5000 -Guardrail Type Strong Post W-Beam.
15. Removal and reinstallation or relocation of existing signs for the purpose of guardrail removal and installation shall be incidental to Item No. 606.5000 - Guardrail Type Strong Post W-Beam. Signs damaged by the Contractor's operations shall be repaired or replaced at no cost to the State.

16. All end treatments (Terminal, modified "A-1", "G", Fleet 350, etc.) not completed by day's end shall be properly delineated with Triton Barriers as directed by the Engineer. Payment for use of the Triton Barriers shall be considered incidental to guardrail installation.
17. Replacement of existing guardrails shall be completed within the same day. No unshielded areas shall be permitted at the end of the work day.
18. Grading and leveling for paving under guardrails shall not be paid for separately, but shall be considered incidental to Contract Item No. 401 - Asphalt Concrete Pavements Mix IV.

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