

GENERAL NOTES:

1. The scope of work for this project includes the design and construction to widen the existing four-lane highway to a six-lane highway. In general, the widening work includes:
- a. Remove existing paved shoulder, widen roadway to accommodate 3 11-foot travel lanes, 5-foot shoulder and concrete curb & gutter for each direction of travel.
  - b. Installing a new 6-foot wide concrete sidewalk on the west side.
  - c. Reconstruct the existing 8-foot wide asphaltic concrete shared-use pathway to 10-foot wide.
  - d. Installing deceleration lanes.
  - e. Installing concrete curbing along the existing median.
  - f. Installing bus turnouts.
  - g. Construct a 6-feet wide concrete pedestrian bridges, one next to Cane Haul Road Overpass Bridge and one next to Honouliuli Bridge.
  - h. Construct retaining walls.
  - i. Upgrade and/or install new drainage systems to accommodate the widening.
  - j. Upgrade the traffic signal system to accommodate the new lanes.
  - k. Upgrade the street lighting system.
  - l. Install cabling for the City's traffic camera system.
  - m. Remove and dispose of the existing Navy AVGAS line.
  - n. As necessary, relocate the US Army Signal cable, the Honolulu Board of Water Supply mains, Verizon's underground systems, the Honolulu Gas Company line and any other utilities to accommodate the widening.
  - o. Relocate existing irrigation mains and heads.
  - p. Obtain construction easements to accommodate the widening and ancillary work.
  - q. Perform design, coordination and permitting, and obtain approval to complete the project in conformance with appropriate federal, state and local standards.
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. 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.
6. 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.
7. 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.
8. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
9. 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.
10. 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.
11. 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.
12. 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.
13. All saw cutting work including vacuum of slurry shall be considered incidental to Asphalt Concrete Pavement, Mix. No. IV.
14. 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.
15. All azimuths and coordinates are referred to "Kapuai New". Bench Mark: Fort Weaver Road Baseline Station 124+67, Elev. 14.06.
16. The plans are based on a topographic survey, dated March 2003, and may not reflect changes that occurred after the survey was completed. The Contractor may use the data shown on the plan for the design of the project; however, the Contractor assumes risks and the Contractor shall not be entitled to any claims related to changed features or missing features in the HDOT furnished topographic survey.

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.
18. The Contractor shall comply with the directives of the State of Hawaii Occupational Safety and Health Law (DOSH). Any citation (fine) received by the State for noncompliance by the Contractor shall be deducted from the progress payment.
19. For verifying the location of underground ductlines and for assistance in providing proper support and protection of the underground ductlines, the Contractor is to contact Hawaiian Electric Co. Underground Division at 548-7395 a minimum of 72 hours in advance.
20. The Contractor shall exercise extreme caution when the excavation and construction crosses or is in close proximity of underground telephone and signal cable facilities and shall maintain adequate clearance for his equipment while working close to and/or under overhead facilities. Any damages to the existing underground facilities shall be repaired and paid for by the Contractor.
21. For field location of Verizon facilities, contact Verizon Outside Plant Engineering Section, a minimum of 72 hours in advance, prior to start of excavation.
22. Should field conditions and construction procedures require that utility poles be braced, the Contractor shall contact the following person for pole bracing instructions a minimum of 72 hours in advance of actual required bracing – Verizon – Calvin Choy – Area Construction Supervisor at 546-3381.
23. When trench excavation is adjacent to existing structures or facilities, the Contractor is responsible for properly sheeting and bracing the excavation and stabilizing the existing ground to render it safe and secure from possible slides, cave-ins, and settlement, and facilities with beams, struts, or underpinning to fully protect it from damage. This work shall be considered incidental to various contract items.
24. The Contractor shall survey and stake out the State Highway right-of-way and install all appurtenances associated with the project within the State right-of-way or construction parcels as shown in the plans.

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ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
	NOTED BY	
NOTE BOOK	QUANTITY BY	
	CHECKED BY	
No.		

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GENERAL NOTES

FORT WEAVER ROAD WIDENING  
VICINITY OF AAWA DRIVE TO GEIGER ROAD

FEDERAL AID PROJECT NO. CMAQ-076-1(9)

SCALE: AS NOTED      DATE: April 1, 2005

SHEET No. 1 OF 6 SHEETS

GENERAL NOTES (CONTINUED):

25. The term "Engineer for the Utility Companies" shall also mean his delegated Representative and/or the Utilities Inspectors of Record.
26. The Contractor shall stake out all facilities for verification by the utility involved and/or affected.
27. When excavating near utility poles, 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 costs associated to repair and/or straighten pole.
28. 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 at intersections shall likewise be provided at all times.
29. Drainage design of the pavement is to be in accordance with the Pavement Design Manual published by the Materials Testing and Research Branch, Highways Division, March 2002.
30. The Contractor is responsible for hiring a State of Hawaii licensed electrical engineer to provide stamped electrical shop drawings of the proposed electrical work prior to the physical start of construction. The plan shall include but not be limited to street lighting and other utilities details that conform to the latest requirements of the National Electrical Code "NEC," General Order Nos. 6 and 10 of the Hawaii Public Utilities Commission, the standards of the ASTM and ANSI, local power company rules, and local ordinances that may apply. Only upon written approval by the State shall the Contractor proceed with accepted portions of the proposed construction work. Any delays incurred during this process shall be borne by the Contractor at no additional cost and/or time to the State.
31. The Contractor is responsible for hiring State of Hawaii licensed civil, structural, environmental, and electrical engineers to provide stamped shop drawings of a traffic control plan; NPDES plans and erosion control plan; shop drawing details of the roadway, road drainage, bridge and retaining wall structures, and all other permanent improvements required to complete the work. Only upon written approval by the State shall the Contractor proceed with accepted portions of the proposed construction work.
32. HDOT performed an Environmental Assessment (EA) in August 23, 2003 for the project. The Contractor shall design and construct the project such that no revisions to the EA will be required and shall comply with the EA provisions. A copy of the EA will be made available for viewing by the State.
33. The Contractor shall prepare the plans and detailed cost proposal for any utility relocation necessary to accommodate the widening and ancillary work and shall obtain plan and cost proposal acceptance from the affected utility or government agency; and from the Department. All utility agreements will be prepared by the State based on complete and accurate information provided by the Contractor.

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 inspection 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

GENERAL NOTES

FORT WEAVER ROAD WIDENING  
VICINITY OF AAWA DRIVE TO GEIGER ROAD

FEDERAL AID PROJECT NO. CMAQ-076-1(9)

SCALE: AS NOTED      DATE: April 1, 2005

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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,
8. 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	
<u>GENERAL NOTES</u>	
<u>FORT WEAVER ROAD WIDENING</u> <u>VICINITY OF AAWA DRIVE TO GEIGER ROAD</u>	
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WATER POLLUTION AND EROSION CONTROL NOTES  
(CONTINUED):

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.

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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.

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<u>GENERAL NOTES</u>	
<u>FORT WEAVER ROAD WIDENING</u> <u>VICINITY OF AAWA DRIVE TO GEIGER ROAD</u>	
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CURB RAMP AND SIDEWALK NOTES:

- These typical details are intended as curb ramp guidelines for design and construction.
- A 2% maximum cross slope shall be maintained in the direction of pedestrian traffic.
- Subject to field conditions, the Engineer shall determine the final location of curb ramps.
- All pullboxes shall be installed away from the curb ramp and within the sidewalk/unpaved area to the maximum extent feasible.
- Where necessary, existing pullboxes, handholes, manholes, etc. shall be adjusted to match curb ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various curb ramp items unless indicated otherwise.
- Transitions from curb ramps to gutters and roadways shall be flush.
- Curb ramps and sidewalks shall be constructed to eliminate ponding to the maximum extent feasible.
- The pedestrian push button shall meet operational and reach requirements of the American with Disabilities Act Accessibility Guidelines (ADAAG):
  - Forward Reach. The maximum height for forward reach shall be 48".
  - Side Reach. The maximum height for side reach shall be 54".
  - Operation controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf.
- The maximum slopes of adjoining gutters or road surface immediately fronting the curb ramp shall not exceed 5% for Type A and D ramps and 8.33% for Type B, C, and E ramps. The counterslope may be exceeded when the change of grade does not exceed 13% (11% preferred) over a distance of 2 ft. Exceeding the 13% (11% preferred) change in grade will cause a person in a wheelchair to tip forward and/or fall backward.
- There shall be a 30"x48" level ground surface (2% max. cross slope, both directions) for a forward or side approach, as appropriate, to a pedestrian push button.
- Construction joints are required to join curb ramps with sidewalks.
- Unless otherwise noted, new gutters are required as shown.
- All curb ramps shall be reinforced with 6x6 W1.4/W1.4 welded wire fabric.

- Surface of sidewalks and curb ramps shall be firm, stable, and slip-resistant. This includes the surfaces of pullboxes, valve covers, manhole covers, etc.
- Bed course material is required for curb ramps, sidewalks, and gutters.
- All sidewalks shall provide clear width of 3'-0" (excluding curb) for pedestrian circulation. If this cannot be met, a minimum 32-inch clear width is allowed for a distance of 24-inches.
- Passing spaces along new sidewalks with 5' clear width or less shall be provided at maximum 200' intervals as required by ADA guidelines. The passing area shall be a minimum 5' wide by 5' long as feasible.
- If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of-way.
- Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles, etc.) shall be mounted to meet the current American with Disabilities Act Accessibility Guidelines (ADAAG Section 4.4) and will be subject to Engineer's approval.
- If a curb ramp is not constructed according to the plans, the Contractor shall reconstruct the curb ramp at no cost to the State. Construction tolerance for Portland Cement Concrete shall be based on 1/4 inch per 10 ft. (±0.2%). Remedial measures will not be accepted.
- Additional information is available from:
  - American with Disabilities Act Accessibility Guidelines (ADAAG), Jan. 1998, The Access Board.
  - Accessible Rights-of-Way: Guide, Nov. 1999 The Access Board.
  - Designing Sidewalks and Trails for Access, Part 1 July 1999, FHWA
  - Designing Sidewalks and Trails for Access, Part 2 Sept 2001, FHWA

FORMER OR&L RAILROAD NOTES:

- The former OR&L railroad that crosses Fort Weaver Road Widening at approximate baseline station 197+50 is listed on the State and National Register of Historic Places and is protected under Section 4(f) of the Department of Transportation Act (49 USC 303 and 23.) The Contractor shall consult with the Hawaiian Railroad Society and State Historic Preservation Division regarding the design for re-setting of the existing tracks to accommodate the road widening and ancillary facilities including warning devices and associated signing and striping.

- The re-construction work will consist of temporarily removing the existing rail tracks to accommodate the highway work and reconstructing these tracks in accordance with the applicable details schematically shown on sheet 18.
  - Construction method and materials shall conform to the current edition of the American Railway Engineering Association (A.R.E.A.) manual for Railway Engineering and the State of Hawaii Highway Division "Standard Specifications for Road and Bridge Construction.
  - One week prior to the start of construction on the railroad, the Contractor shall contact the Hawaiian Railway Society (HRS) (phone number: 808-681-5461.)
  - The Contractor shall expose the existing wooden ties and rail by hand excavation for field review by the HRS.
    - The existing track rails and splices shall be reused. The Contractor shall take extreme care while removing, storing and re-installing the rails and splices. Any damages to the rails and splices shall be the sole responsibility of the Contractor and the Contractor shall replace the damaged rails and splices at his expense.
    - The existing cross ties shall be removed and, at the sole discretion of the HRS, be salvaged for re-installation or demolished and removed from the site.
  - Ballast shall be crushed rock No. 4.
  - Wooden cross ties shall be 8"x 6" by 8 feet. All ties shall be free from any defects that may impair their strength or durability as cross ties, such as decay, large splits, large shakes, large or numerous holes or knots, grain with slant greater than 1:15. Cross ties shall be treated with a Creosote-Coal Tar solution conforming to A.R.E.A. manual.
  - Re-install existing rails and splices. Use new bolts, nuts and washers for the splices which shall be the same size as the existing and shall conform to the A.R.E.A. manual. Length of rail between splices shall not exceed 33 feet.
  - Steel cut track spikes shall be 9/16" reinforced throat track spike 5-1/2 inch underhead. There shall be four (4) spikes per tie placed inside and outside of the rail, staggered.
- Tracks between the edge of the shared pathway or sidewalk and the right-of-way shall be re-constructed.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2005	7	64

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

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GENERAL NOTES	
FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD	
FEDERAL AID PROJECT NO. CMAQ-076-1(9)	
SCALE: AS NOTED	DATE: April 1, 2005
SHEET No. 5 OF 6 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2005	8	64

LEGEND:

—E—	Existing Electrical Line
-O/H-	New Electrical Line
○	Existing Utility Pole
⊗	Existing Electric Manhole
—T—	Existing Telephone Line
○	Existing Telephone Pole
⊗	Existing Telephone Manhole
—SC—	Existing Signal Corps Line
-CATV-	Existing TV Cable
-W12-	Existing 12" Water Line
●WMH	Existing Water Manhole
•ARV	Existing Water Air Valve
•WV	Existing Water Valve Box
⊗WM	Existing Water Meter
◆FH	Existing Fire Hydrant
-S12-	Existing 12" Sewer Line
⊗SMH	Existing Sewer Manhole
-G6-	Existing 6" Gas Line
⊗MON.	Existing Monument
-D24-	Existing 24" Drain Line
⊗SDMH	Existing Storm Drain Manhole
▢	Existing Drain Inlet
▢	Existing Catch Basin
p	Existing Traffic Sign
—+—	Existing Highway Lighting Standard
⊙	Existing Irrigation Control Valve
⊗	Existing Irrigation Control Valve Box
es	Existing Edge of Shoulder
ep	Existing Edge of Pavement
ES	New Edge of Shoulder
EP	New Edge of Pavement

ABBREVIATIONS:

A.C.	ASPHALT CONCRETE	INV.	INVERT
A/C	AIR CONDITIONING	JTS	JOINT TRUNKING SYSTEM
APPROX.	APPROXIMATE	L.P.	LAMP POLE
ARV	AIR RELEASE VALVE	M.B.	MAIL BOX
⊗	BASELINE	MH	MANHOLE
BC	BOTTOM CURB	O/H	OVERHEAD
BFP	BACK FLOW PREVENTER	PAV'T.	PAVEMENT
BOT.	BOTTOM	P.M.	PARKING METER
BW	BOTTOM WALL	P.P.	POWER POLE
CATV	CABLE TELEVISION	PSL	PEDESTRIAN SIGNAL LIGHT
C.B.	CATCH BASIN	REF.	REFLECTOR
C.L.	CHAIN LINK	S	SEWER OR SPREAD
CMU	CONCRETE MASONRY UNIT	SC	SIGNAL CORPS
C.O.	CLEAN OUT	SCMH	SIGNAL CORPS MANHOLE
COL.	COLUMN	SDMH	STORM DRAIN MANHOLE
COMM.	COMMUNICATION	S.L.	STREET LIGHT
CONC.	CONCRETE	SLB	STREET LIGHT BOX
CRM	CONCRETE RUBBLE MASONRY	SMH	SEWER MANHOLE
D	DIAMETER OR DRAIN	SPR.	SPRINKLER
D.I.	DRAIN INLET	ST. NAME	STREET NAME
D.S.	DOWN SPOUT	STA.	STATION
DSP	DRY STAND PIPE	TC	TOP CURB
DWY.	DRIVEWAY	TDC	TOP DROP CURB
E/ELEC.	ELECTRIC	T/TEL.	TELEPHONE
ELEV./EL.	ELEVATION	TP	TOP PIPE
F.A.	FIRE ALARM	TRC	TOP ROLLED CURB
F.H.	FIRE HYDRANT	TS	TOP STEM
FL	FLOW LINE	TSL	TRAFFIC SIGNAL LIGHT
FM	FORCE MAIN	TSLB	TRAFFIC SIGNAL LIGHT BOX
FWR	FORT WEAVER ROAD	TV	TOP VALVE
G	GAS	TW	TOP WALL
G.I.	GRATED INLET	U.P.	UTILITY POLE
GMH	GAS MANHOLE	U.P./S.L.	UTILITY POLE W/STREET LIGHT
GND.	GROUND	W	WATER
G.P.	GUARD POST/GUY POLE/GATE POST	WM	WATER METER
GV	GAS VALVE	WMH	WATER MANHOLE
G.W.	GUY WIRE	WV	WATER VALVE BOX
H	HEIGHT	X-WALK	CROSS WALK
H.B.	HOSE BIB		
ICV	IRRIGATION CONTROL VALVE		

	DENOTES ACCESS PERMITTED AND RIGHT OF WAY
	DENOTES NO ACCESS PERMITTED AND RIGHT OF WAY
	DENOTES NO ACCESS PERMITTED AND NEW RIGHT OF WAY
	FLOW LINE
	NEW GUARD RAIL
	EXIST GUARD RAIL
	NEW CHAIN LINK FENCE
	EXIST CHAIN LINK FENCE
	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
	BORING LOG

	EXIST ARMY CORPS SIGNAL CABLE LINE
	EXIST 8" NAVY FUEL LINE
	EXIST CHEVRON LINE
	REMOVED AND DISPOSE EXIST. 8" NAVY FUEL LINE
	EXIST. 16" RECYCLED WATER LINE
	DRAINAGE BOUNDARY
	DRAINAGE CUT-OFF CHANNEL

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	CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

LEGEND AND ABBREVIATIONS

FORT WEAVER ROAD WIDENING  
VICINITY OF AAWA DRIVE TO GEIGER ROAD

FEDERAL AID PROJECT NO. CMAQ-076-1(9)

SCALE: AS NOTED

DATE: April 1, 2005

**SHEET No. 6 OF 6 SHEETS**