
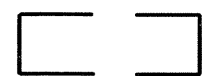

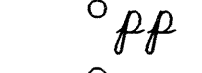
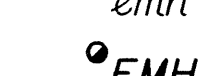
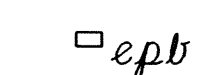
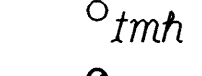
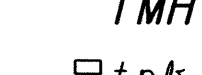
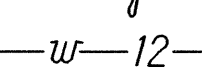
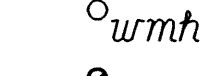
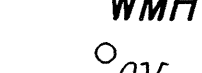
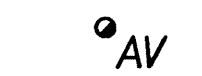
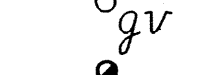
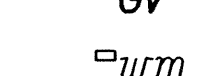



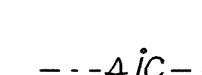





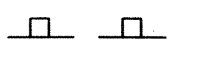

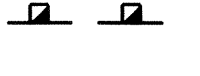
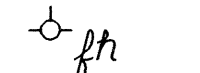
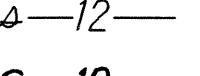
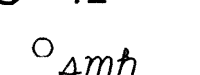





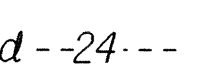
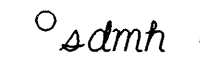


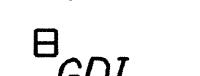




GENERAL NOTES

1. The scope of work for this project includes reconstructing weakened pavement areas; constructing drainage systems; hydro-mulch seeding; and dressing of shoulders.
2. The Contractor is reminded of the requirements of Subsection 105.16 - Subcontracts.
3. The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 107.06 - Contractor Duty Regarding Public Convenience; Subsection 104.11 - Utilities and Services; and Section 645 - Work Zone Traffic Control.
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 traffic.
5. 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.
6. The Contractor shall notify One Call (Ph. 811) for utility toning a minimum of 3 weeks prior to starting work.
7. The exact locations and limits or areas to be pulverized, excavated, and reconstructed shall be determined in the field by the Engineer.
8. All lanes shall be open to traffic during peak hours from 6:30 A.M. to 8:30 A.M., during afternoon peak hours from 3:30 P.M. to 6:00 P.M., and during off work hours. Only one lane of highway shall be closed at any other time. Failure of the Contractor to open all lanes of traffic during the times specified above shall result in assessment of liquidated damages as specified in Section 108.09 of the Special Provision.
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 pulverizing existing asphalt concrete pavement. This work shall be considered incidental to Cement-Treated Granular Subgrade (Recycled) and will not be paid for separately.
11. Smooth riding connections shall be constructed at all limits of new Asphalt concrete pavement, including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans.
12. Trimming and dressing of shoulder, sidewalk and bus turnout shall consist of clearing, grubbing, grading, reshaping, and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. Suitable materials shall include materials from Excavation for Drainage System, including topsoil and base material therefrom, and if necessary, additional materials from borrow outside the limits of the right of way. Concrete chunks, and Asphalt concrete removed from reconstruction shall not be used for dressing of shoulder, sidewalk or bus turnout. This work shall be considered incidental to the various contract items.
13. Earth swale shall be graded to drain. This work shall be considered incidental to the various contract items.
14. Existing drainage system will be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
15. The Contractor shall provide for access to and from all existing driveways, sidewalks and ADA access routes, and side streets and cross streets at all times. This work shall be considered incidental to the various contract items, and will not be paid for separately.

16. Prior to beginning pavement pulverizing, the Contractor shall be responsible for locating, preserving and marking all utility & highway facilities and ensure all facilities match new finished pavement grade.
17. After completion of pavement reconstruction, the Contractor and the Engineer will test for, and determine ponding areas (i.e. low spots within the reconstructed areas). It shall be the responsibility of the Contractor to correct and resurface and/or repair all such ponding areas.
18. Contractor shall exercise extreme caution to preserve BENCHMARKS (Survey Monuments). Whenever the center of a Survey Monument is less than three (3) feet from the edge of construction, the Contractor shall retain a Licensed Land Surveyor to reference the location of said Survey Monument.
- Benchmarks that are disturbed or destroyed shall be restored under a Licensed Land Surveyor's direction. Copies of field notes, descriptions and new values of the new benchmark shall be sent to the Department of Transportation, Highways Division, Cadastral Engineering Section, for review and approval prior to construction.
19. All existing pavement striping and raised pavement markers (i.e. double 4-inch yellow stripe, 4-inch white edge stripe, 8-inch white edge stripe near bridges, Type C marker, Type D marker etc.) in the vicinity of areas to be reconstructed, shall be carefully noted and a list provided to the Engineer prior to beginning pavement pulverizing operations. (See also Note No. 10.) All pavement markings damaged or obliterated by the Contractor's operations shall be replaced in kind with new striping and markers. For this project, thermoplastic extrusion only shall be acceptable for use. Temporary and permanent striping and raised pavement markers shall be installed in accordance with Section 629 of the "Hawaii Standard Specifications for Road and Bridge Construction, 2005". This work shall be considered incidental to Hot Mix Asphalt Pavement, Mix No. IV and will not be paid for separately.
20. All workers within the State right-of-way who are exposed to either vehicles using the roadway or to construction equipment shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of ANSI/ISEA 107-2004. "Workers" is defined as people on foot whose duties place them with the State right-of-way, such as, but not limited to construction and maintenance forces, equipment operators, survey crews, utility crews, responders to incidents (e.g., EMT and firemen), and law enforcement personnel directing traffic, investigating accidents, handling lane closures and obstructed roadways.
21. Any work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.
22. 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 Engineer. If use of location is approved by the Engineer, the Contractor shall obtain a permit to use the property within the highway right-of-way from the State Highways Division at telephone no. 241-3000.

LEGEND

-  Reconstruction Areas
-  Drainage Improvement Limits
-  Concrete Pavement Areas
-  Existing Power Pole
-  Existing Electric Manhole
-  Adjusted Elec. MH Frame/Cover
-  Existing Electric Pullbox
-  Existing Telephone Manhole
-  Adjusted Tel. MH Frame/Cover
-  Existing Telephone Pullbox
-  Existing 12" Water Line
-  Existing Water Manhole
-  Adjusted Water MH Frame/Cover
-  Existing Water Air Valve
-  Adjusted Water Air Valve
-  Existing Water Valve Box
-  Adjusted Water Valve Box
-  Existing Water Meter Box
-  Adjusted Water Meter Box
-  New Type "X" Water Meter Box
-  Existing Traffic Sign
-  New Traffic Sign
-  Existing Sandwich Isles Communications (SIC) Fiber Optic Duct Line
-  Existing Metal Guardrail
-  New Metal Guardrail
-  Adjusted and/or Relocated Metal Guardrail
-  Existing Fire Hydrant
-  Existing Sewer Line
-  New 12" Sewer Line
-  Existing Sewer Manhole
-  Adjusted Sewer Manhole
-  New Sewer Manhole
-  Existing Monument
-  Adjusted Monument
-  New Monument
-  Existing 24" Drain Line
-  Existing Storm Drain Manhole
-  Adjusted Storm Drain Manhole
-  Existing Grated Drop Inlet
-  New Grated Drop Inlet
-  Adjusted/Reconstructed Drain Inlet or Replaced Steel Grate

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES AND LEGEND

KUHIO HIGHWAY RESURFACING
PAVEMENT RECONSTRUCTION & DRAINAGE IMPROVEMENTS

Haena to Princeville
Project No. 560A-02-09M

Date: May 2009

WATER POLLUTION AND EROSION CONTROL NOTES:

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-09M	2009	4	18

A. GENERAL:

- See Section 209 - Water Pollution and Erosion Control, and Section 620 - Dust Control in contract documents. 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.
- Effective October 1, 2008, follow the guidelines in the "Construction Best Management Practices Field Manual", dated January 2008 in developing, installing and maintaining the Best Management Practices (BMP) for the project.
- Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- 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.
- 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.
- For projects that require an NPDES Permit from the Department of Health, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place. Take rain gage reading every day at approximately the same time of day. Submit report to the Engineer every week. Report shall have the day, date, time and rain gage reading. Include any action taken when reading exceeds 0.5 inch.

B. WASTE DISPOSAL:

- Waste Materials
Collect and store all waste materials in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster a minimum of twice per week or as often as is deemed necessary. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.
- Hazardous Waste
Dispose all hazardous waste materials in the manner specified by local or State regulations and 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.
- Sanitary Waste
Collect all sanitary waste from the portable units a minimum of once per week, or as required.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

- Inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.5 inches or greater within a 24 hour period.
- Maintain all measures in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- Remove built-up sediment from silt fence when it has reached one-third the height of the fence.

- Inspect silt screen or fence 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. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
- Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
- Make a maintenance inspection report promptly after each inspection. Submit a copy to the Engineer no later than one week from the date of the inspection.
- Provide a stabilized construction entrance to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 6 inches and underlain with geo-textile fabric. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Cover dump trucks hauling material from the construction site with a tarpaulin.
- Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
- Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- 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.
- Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Payment for confinement, removal, and disposal of slurry shall be considered incidental to the various contract items.

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

- Materials Pollution Prevention Plan
 - 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
 - Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.
 - Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
 - Keep products in their original containers with the original manufacturer's label.
 - Do not mix substances with one another unless recommended by the manufacturer.
 - Whenever possible, use a product up completely before disposing of the container.
 - Follow manufacturer's recommendations for proper use and disposal.
 - Conduct a daily inspection to ensure proper use and disposal of materials onsite.
- Hazardous Material Pollution Prevention Plan
 - Keep products in original containers unless they are not resealable.
 - Retain original labels and material safety data sheets (MSDS).
 - Dispose of surplus products according to manufacturers' instructions and local and State regulations.

SURVEY PLOTTED BY	DATE
DRAWN BY	9/3/08
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
KEY	
REVISIONS	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
WATER POLLUTION & EROSION CONTROL NOTES
KUHIO HIGHWAY
PAVEMENT RECONSTRUCTION & DRAINAGE IMPROVEMENTS
Haena to Princeville
Project No. 560A-02-09M
Date: May 2009
SHEET No. 1 OF 2 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES: -Cont.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-02-09M	2009	5	18

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES: -Cont.

3. Onsite and Offsite Product Specific Plan

The following product specific practices shall be followed onsite:

- a. **Petroleum Based Products:**
Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.
- b. **Fertilizers:**
Apply fertilizers used only in the minimum amounts recommended by the manufacturer. Once applied, work fertilizer into the soil to limit exposure to storm water. Storage shall be in a covered shed. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.
- c. **Paints:**
Seal and store all containers when not required for use. Do not discharge excess paint to the highway drainage system. Dispose properly according to manufacturers' instructions or State and local regulations.
- d. **Concrete Trucks:**
Wash out or discharge concrete truck drum wash water only at a designated site. Do not discharge water in the highway drainage system or waters of the United States. Contact Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. Clean disposal site as required or as requested by the Owner's representative.

4. Spill Control Plan

- a. Post a spill prevention plan to include measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. 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. Post the names of responsible spill personnel in the material storage area and in the office trailer onsite.
- c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.
- d. Keep materials and equipment necessary for spill cleanup in the material storage area onsite.
- e. Clean up all spills immediately after discovery.
- f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size.

E. PERMIT REQUIREMENTS:

1. If a National Pollutant Discharge Elimination System (NPDES) Permit is required for Construction Activities of one acre or more, submit to the Engineer six sets of the Water Pollution and Erosion Control Submittals as detailed in Subsection 209.03 of the specifications.
2. If an NPDES Permit for Construction Dewatering is required, the Contractor shall be responsible to obtain the Permit from the Department of Health, Clean Water Branch.
3. Comply with all applicable State and Federal Permit conditions.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	9/3/08
KE2	TRACED BY	
5/20/09/02/09	CHECKED BY	
	QUANTITIES BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WATER POLLUTION & EROSION CONTROL NOTES
<u>KUHIO HIGHWAY</u>
<u>PAVEMENT RECONSTRUCTION & DRAINAGE IMPROVEMENTS</u>
<u>Haena to Princeville</u>
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