

### GENERAL NOTES

1. The project includes excavating an existing pit to remove all contaminated soils (petroleum based), collecting and analyzing soil samples, disposal of contaminated soils, submitting a final report and possibly installing a monitoring well along with ground water sampling and analysis.
2. 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.
3. The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 107J3 - Public Convenience and Safety, Subsection 107.21 - Contractor's Responsibility for Utility Property.
4. The Contractor's attention is directed to the following Section of the Special Provisions: Requirements of Chapter 104, HRS Wages and Hours of Employees on Public Works Law. Especially as it relates to Wages, Overtime, Weekly Pay, Certified Weekly Payrolls and Payroll Records, etc. Working hours shall be from 7:00 a.m. to 3:30 p.m.
5. The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data, the accuracy of which 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.
6. Existing drainage system will be functional at all times during construction. Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. Drainage problems due to construction activity shall be corrected immediately by the Contractor at no cost to the State. This drainage system work shall be considered incidental to the various contract items.
7. Contractor shall provide for safe access to and from existing parking area for pedestrians and motorists at all times.
8. Work area shall be properly barricaded at all times. During non-working hours, excavation shall be barricaded with physical barriers to prevent vehicles and pedestrians from entering the excavated areas.

### CONSTRUCTION REQUIREMENTS

#### Excavation of Contaminated Soils

1. Retain an Environmental Consultant to examine the soil for visual and olfactory signs of contamination and monitor the organic vapor concentration in the soil headspace using a photoionization detector.
2. Excavate the paved area adjacent to Building B, beginning at the existing pit and excavating westward, to remove all contaminated soils. A HAZWOPER-trained contractor shall do the excavation.
3. An excavator with a hoe-ram attachment is required for this work.
4. Prepare stockpile area to receive excavated soil, haul excavated soil to the designated stockpile area (approximately 250 feet from excavation area), and protect the stockpile from weather.

#### Disposal of Contaminated Soil

1. The Contractor shall properly dispose of the excavated material. All work shall be conducted in accordance with applicable regulations and industry standards.

#### Soil Sampling & Analysis

Collect, preserve, label, and submit soil samples to a certified analytical laboratory for analysis. A maximum of five samples will be allowed for this contract. Four soil samples will be collected from the excavation pit and analyzed for total petroleum hydrocarbons (fuel scan) via EPA Method 8015 modified, volatile organic compounds via EPA Method No. 5035/8260B, semi-volatile organic compounds via EPA Method 8270C, polychlorinated biphenyls via EPA Method 8082, and total cadmium and lead via EPA Method 6010. One soil sample shall be a composite sample from the stockpile of excavated material and will be used for disposal purposes.

#### Monitoring Well Installation

1. Should groundwater or a significant amount of perched water be encountered during the excavation, that requires a monitoring well, and then this item will apply to the contract.
2. The State will backfill the excavated pit. After the soil sample test results are received and if a monitoring well is required, the State will begin backfilling within 5 working days.
3. Install one 4-inch diameter PVC monitoring well (maximum 20 feet deep) in the appropriate location using a HAZWOPER-trained contractor. Provide a trained person to coordinate the backfilling operations around the well area.
4. Following installation of the monitoring well, measure and purge the well.
5. A traffic bearing monitoring well cover shall be installed flush with the finish pavement elevation after the pit has been backfilled and paved.
6. Determine the groundwater quality (pH, conductivity and temperature) using a water quality meter.
7. Payment will be made for this work only if a monitoring well is required and installed.

#### Groundwater Sampling & Analysis

1. Should a monitoring well be required, the Contractor shall collect, preserve, label and submit groundwater samples to a certified analytical laboratory for analysis. Only one sample shall be taken and analyzed in accordance with the Technical Guidance Manual for the Implementation of the Hawaii State Contingency Plan 4. Analyze for total petroleum hydrocarbons (fuel scan) via EPA Method 8015 modified, volatile organic compounds via EPA Method 8260B, semi-volatile organic compounds via EPA Method 8270C, polychlorinated biphenyls via EPA Method 8022, and total cadmium and lead via EPA Method 6010.

STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAW.	HWY-H-04-06M	2006	3	8

2. Payment will be made for this work only if a monitoring well is required and installed.

#### Final Report

1. Complete a report including written and photographic documentation of the field activities, sample results, conclusions and recommendations. The report shall include all correspondence, notifications and clearances between the Contractor and State Department of Health. The report shall also include procedures and frequency for monitoring the well if applicable.

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
IN CHARGE	
NOTED BY	
DATE	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>GENERAL NOTES</b>
<b>HILO BASEYARD</b>
<b>REMOVE CONTAMINATED SOILS</b>
<b>VICINITY OF BUILDING 'B'</b>
<b>PROJECT NO. HWY-H-04-06M</b>
Scale: Noted Date: Feb., 2006
SHEET No. 1 OF 1 SHEETS