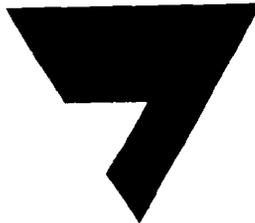


LAW PROPOSAL NO. 94-3965E

NASSAU COUNTY DETENTION CENTER
50 BOBBY MORE CIRCLE
YULEE, FLORIDA

PROPOSAL FOR ADDITIONAL ENVIRONMENTAL SERVICES

LAW ENGINEERING





LAW

ENGINEERING AND ENVIRONMENTAL SERVICES

February 25, 1993

Board of County Commissioners
c/o T. J. Greeson
Ex-Officio Clerk
Nassau County Courthouse
416 Centre Street, Room 9
Fernandina Beach, Florida 32034

Subject: **Proposal for Additional Environmental Services**
Nassau County Detention Center
50 Bobby More Circle
Yulee, Florida
FDEP Facility No. 458841517
LAW Proposal No. 94-3965E

Dear Mr. Greeson:

Law Engineering, Inc. (LAW) is pleased to submit this proposal to conduct Additional Environmental Services for the subject site located at 50 Bobby More Circle in Yulee, Florida. This proposal was requested by Mr. William P. Lecher, P.E. and includes our understanding of the project information and requirements as well as our proposed scope and schedule of activities, our estimated fee for performing these services and our Fee Schedule.

PROJECT INFORMATION

LAW conducted the Contamination Assessment at the Nassau County Detention Center in August 1993 and prepared a Contamination Assessment Report (CAR) under LAW Project No. 444-06900.01.

After review of the CAR the Florida Department of Environmental Protection (FDEP) requested additional environmental services be conducted at this site in their letter dated October 20, 1993. On December 17, 1993, LAW faxed Ms. Michelle Dean, FDEP, Tallahassee information regarding the proposed location of additional monitoring wells and proposed an alternate plan to determine the hydrocarbons in the soil. This request from LAW was forwarded by Ms. Dean to Mr. Brian Kelley at the FDEP in Jacksonville. In Mr. Kelly's letter dated February 10, 1994, the exact locations of the wells and proposed alternate plan were not endorsed, however, further investigation on the soil in the vicinity of the retention ponds and the groundwater were requested. He also requested clarification on the 10,000-gallon gasoline tank located on the property and requested that a more refined site plan be provided with the next report.

After discussions with Mr. Lecher on February 21, 1993, LAW proposes to conduct the following additional services to further define gasoline contaminated soil and groundwater at the subject property. This proposal also includes clarifications on the CAR requested by the FDEP in their letter dated October 20, 1993 letter and clarification of the suspected 10,000 gallon tank on-site. If no or minimal levels of gasoline contaminated soil and groundwater are detected from these services, the findings will be

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ONE OF THE LAW COMPANIES 

presented to the FDEP, and a meeting will be arranged with the FDEP to determine further action. If excessive levels of gasoline contamination are detected in the soil, an Initial Remedial Action (IRA) may be required to cleanup the soil and further assessment may be required to define the groundwater contamination detected from these additional services.

Regarding another tank, Mr. Lecher informed LAW that Nassau County and its personnel were not aware of any 10,000-gallon gasoline tank on the property. LAW recommends that a letter be provided to the FDEP informing them that no other underground storage tank (UST) was located on the property other than the tank removed and that their records are in error. Please provide LAW a copy of that letter to attach with the report to be prepared for these additional services. Please provide LAW a copy of the survey map for detention center to improve the site plan for the report (to be generated) for these additional services. The balance of the proposal contains our scope of services and a fee estimate.

SCOPE OF SERVICES

The purpose of this scope is to conduct the additional environmental services to further define gasoline contaminated soil and groundwater at the subject property.

Task 1 - OVA Soil Screening

A LAW representative will visit the site to better determine the extent of excessively hydrocarbon contaminated soil in an approximately 210 feet x 150 feet area based upon a 30 foot grid spacing in the vicinity of the former UST (other than locations sampled in the CAR) and the retention ponds. LAW anticipates based on the site plan generated for the CAR, forty-five samples may be collected. An Organic Vapor Analyzer (OVA) will be used to detect hydrocarbon contaminated soil and approximate the vertical and horizontal extent of potentially contaminated soils.

The OVA Soil Screening Survey will be performed using a Foxboro 128 organic vapor analyzer calibrated to 95 parts per million of methane. Soil samples will be placed in clean, one-pint Mason jars (approximately half full). A drill rig will be used to obtain the OVA soil samples. We understand that Nassau County shall provide access to the areas where OVA sampling shall be conducted. At each boring location, OVA reading shall be taken at 2 foot intervals until the water table is reached. This sample jar will then be sealed using aluminum foil and the metal band provided with the jar. Potential organic compounds in the sample will be allowed to volatilize in the jar and reach equilibrium in the head space above the sample for a period of at least five minutes. The OVA probe will then be inserted through the aluminum foil into the head space above the soil in the jar. The instrument response to the head space air sample will be recorded in parts per million. This procedures will then be repeated using a charcoal filter assembly to quantify the non-petroleum volatile organic fraction of the sample. The holes in asphalt shall be patched.

Task 2 - Soil Sampling

The OVA soil screening conducted for the CAR indicated readings of greater than 1000 parts per million (ppm) for both filtered and unfiltered responses for the OVA soil samples collected in the vicinity of the

UST. Due to instrument limitations, LAW could not determine the exact hydrocarbon content in the soil (difference of the unfiltered and filtered response). LAW concluded in the CAR that the soils in the vicinity of the UST contained high natural organics and therefore no further action was recommended. To support this statement, LAW recommends that soil samples be collected and analyzed in the laboratory for gasoline constituents.

Based on the soil contamination detected during Task 1, up to two soil samples will be collected for analysis of their gasoline content and the organic content. The samples will be packed in ice and shipped by over-night courier to our laboratory in Kennesaw, Georgia. The gasoline content will be determined using the EPA Method 8015 (Modified) for San Francisco Bay Volatile Organics and the organic content through the EPA Method 9060 for Total Organic Content. The costs provided in the fee estimate include two samples on a one-week turnaround (same cost as a three-week turnaround).

Task 3 - Monitoring Well Installation and Elevation Survey

Two shallow permanent Type II wells will be installed, one approximately 50 feet southeast of MW-2B and the other approximately 25 feet north of MW-2B. For the purposes of the fee estimate the depth of the shallow wells is approximated at 15 feet below ground surface. One well will be located in the highest OVA location (Soil location S-1, upgradient from the UST location) determined during soil screening for the CAR and will help identify any groundwater contamination at the high OVA locations. The wells will be constructed of 2-inch I.D., Schedule 40 PVC. The lower ten-foot long screened section of the wells will have a 0.010-inch wide slotted openings. The wells shall be installed by hollow stem auger. A 20/30 gradation of silica sand will be used as a filter pack and this will be filled between the outside of the well screen and the inside of the 10-inch diameter borehole annulus. Approximately a half foot of bentonite clay pellets will be provided above the sand and cement grout will be provided up to the surface. The wells will be flush-mount with a permanent cover at the surface.

Drilling equipment in contact with the soil and groundwater will be steam-cleaned prior to the commencement of drilling and construction of each monitoring well. Upon completion of the installation, the well will be developed by surface pumping until the discharge water becomes relatively clear. Since the surface material is soil, the drill cuttings and development water from the wells will be placed on the ground.

Following installation of the monitoring wells and stabilization of the groundwater, the elevation of all wells will be reestablished and the corresponding groundwater elevation will be measured. The groundwater elevation data will be used to compile a potentiometric contour map of the area and help establish the groundwater gradient.

Task 4: Groundwater Sampling and Laboratory Analysis

Following installation and development of the groundwater monitoring wells, groundwater samples will be collected from the wells to be installed in Task 3. The sample shall be analyzed for the gasoline analytical group by the EPA Methods 601, 602 and 7421. The fee estimate is based on a standard three week turnaround.

Groundwater field sampling activities will be performed in general accordance with the provisions of the United States Environmental Protection Agency (USEPA) - Region IV Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, the guidelines set forth in the Florida Administrative Code (FAC) Chapter 17-160 - Quality Assurance Rule and the Health and Safety Plan in the CAR. Groundwater samples will be obtained using disposable teflon bailers. Prior to obtaining the groundwater samples for laboratory analysis, three to five well volumes of groundwater will be removed from the well and the pH and conductivity of the water shall be determined before sampling. Groundwater samples will be placed in appropriate containers supplied by the testing laboratory. The samples will then be packed in ice and shipped by over-night courier to Law Environmental National Laboratories in Pensacola, Florida.

Task 5: Assessment Report

The data and conclusions of the aforementioned tasks shall be included in a Additional Environmental Services Report for the Detention Center. Included in this report will be the clarification to the initial CAR and the 10,000-gallon gasoline tank as requested in the FDEP comments. All drawings shall be refined based on the survey map to be provided for Detention Center by Nassau County.

Throughout the project, LAW will act as a technical resource and to the extent requested assist with regulatory compliance. Our fee allows for one meeting and telephone conversations (approximately five hours of professional time) with the regulatory agencies (in Jacksonville) or Nassau County, but no additional addendum services or reports. The time spent on conversations and gathering information for Ms. Michelle Dean and Mr. Brain Kelly has also been included in this proposal.

ESTIMATED FEES

Task 1: OVA Soil Screening	\$2500
Task 2: Soil Sampling	\$400
Task 3: Monitoring Well Installation and Elevation Survey	\$2300
Task 4: Groundwater Sampling and Analysis	\$500
Task 5: Assessment Report	<u>\$2700</u>
TOTAL ESTIMATED FEES	\$8400

The actual fee for our services will be determined by the services expended in general accordance with the attached Unit Fee Schedule. We will monitor the services so as to reduce the scope from that noted above where warranted. To keep you informed of services performed, an invoice for completed services will be issued every four weeks. Invoices are due upon receipt. We will not exceed an amount of \$8400 for these additional services without written authorization from your office.

SCHEDULE

We understand that it is necessary to complete this study as soon as possible. Based on our present schedule and laboratory turnaround time requirements a written report of our findings will be submitted in approximately six weeks from the date of authorization to proceed. LAW will also keep Mr. Lecher informed on the progress of the study. If this schedule does not meet your approval, please notify our office so that a mutually agreeable schedule can be arranged to meet your requirements.

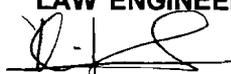
AUTHORIZATION

We assume these additional environmental services will be authorized by an extension of our existing contract with the Nassau County Board of Commissioners. Therefore, we have included below notation similar to that used in the past.

If you have any questions, please contact us at your convenience.

Sincerely,

LAW ENGINEERING, INC.


Srinivas Kuchibotla, E.I.
Project Environmental Engineer

SK/JAH:ph

Distribution: Nassau County Engineer (2)

BY Ko WITH PERMISSION


James A. Horton, P.E.
Principal Engineer
VP/Branch Manager

FOR NASSAU COUNTY USE ONLY:

Approved this 28th day of February 1994 by the Board of County Commissioners, Nassau County, Florida.

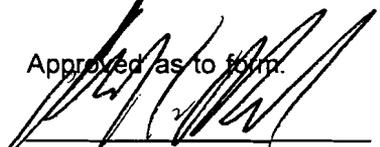
ATTEST:


T. J. Greeson, Ex-Officio Clerk

BOARD OF COUNTY COMMISSIONERS


John A. Crawford, Chairman

Approved as to form.


Michael S. Mullin
County Attorney

**LAW ENGINEERING, INC.
SCHEDULE OF FEES**

Nassau County Detention Center
50 Bobby More Circle
Yulee, Florida

LAW Proposal No. 94-3965E

ENGINEERING SERVICES

Environmental Technician, per hour	\$	45.00
Staff Environmental Scientist/Geologist/Engineer, per hour	\$	75.00
Project Environmental Scientist/Geologist/Engineer, per hour	\$	80.00
Senior Environmental Scientist/Geologist/Engineer, per hour	\$	85.00
Principal Environmental Scientist/Geologist/Engineer, per hour	\$	95.00
Chief Engineer, P.E., per hour	\$	105.00
Corporate Environmental Consultant, per hour	\$	110.00
Clerical Support, per hour	\$	30.00
Draftsman, per hour	\$	30.00
CADD Operator, per hour	\$	40.00
Mileage, per mile	\$	0.40
Reimbursable Expenses, Cost divided by 0.8		
Subcontract Services, Cost divided by 0.8		

FIELD EQUIPMENT CHARGES

Organic Vapor Analyzer (OVA), rental per day	\$	150.00
Mileage, per mile	\$	0.40
Reimbursable Expenses, Cost divided by 0.8		
Subcontract Services, Cost divided by 0.8		

FEE SCHEDULE
PAGE - TWO -

DRILLING SERVICES

Mobilization and Transportation of Drilling Equipment, lump sum	\$	475.00
Drill and Install Monitor Wells (10-foot screen)		
2-inch PVC, per foot	\$	22.00
4-inch PVC, per foot	\$	26.00
Split-Spoon Samples, in conjunction with well installation, each	\$	22.00
Decontamination of Drilling Equipment, per hour	\$	140.00
Well Cover (Steel)		
Above Ground, each	\$	175.00
Flush Mount, each	\$	225.00
Well Development, per hour	\$	135.00
55-Gallon Drums, each	\$	65.00
Time Rate, per hour	\$	130.00
Stand-by, per hour	\$	100.00
Grouting of Borings or Wells, per foot	\$	5.00
Piezometer Installation, per foot	\$	12.00