



November 30, 2005

The Honorable Doug Formon  
Mayor  
City of Jonesboro  
PO Box 1845  
Jonesboro, AR 72403

RE: Proposal for Landfill Gas (LFG) Collection and Control System Design and Permitting for  
the City of Jonesboro Class I and Class IV Landfills  
FTN No. P4470-05-04

Dear Mayor Formon:

FTN Associates, Ltd. (FTN) appreciates the opportunity to submit the following proposal to provide professional engineering and environmental consulting services related to the City of Jonesboro Class I and Class IV Landfills located in Jonesboro, AR (the Project).

Our Basic Services will generally consist of preparation of construction documents, and provision of permitting and bidding assistance to the City of Jonesboro, all as set forth in the printed Scope of Work for Basic Services (Exhibit A) and subject to the Standard Terms and Conditions (Exhibit B) which are attached to this letter. We will also furnish such Additional Services as you may request.

You are expected to furnish us with full information as to your requirements including any special or extraordinary considerations for the Project or special services needed and also to make available all pertinent existing data. In addition, we request that you provide information concerning the potential health and/or physical hazards present at the facility to which FTN employees could be exposed. This information (i.e., Material Safety Data Sheets, etc ) is needed to ensure FTN's compliance with the OSHA Hazard Communication Standard.

Our fee for Basic Services will be based on time and materials using the Client Rates in Exhibit C for services rendered by our principals and employees engaged directly on the Project. The total fee for Basic Services will not exceed \$62,300 without prior approval from you. Any Additional Services will be charged on the basis of time and materials (Exhibit C).

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We will bill you monthly for Services and Reimbursable Expenses with invoices to be paid within 30 days. The above financial arrangements are on the basis of prompt payment of our bills and the orderly and continuous progress of the Project.

We expect to start our services immediately upon ADEQ approval of the LFG Migration Remediation Plan and after receipt of your acceptance of this proposal. Additional information regarding the project schedule and deliverables is discussed in Exhibit A.

If there are protracted delays for reasons beyond our control, we would expect to negotiate with you an equitable adjustment of our compensation taking into consideration the impact of such delays including but not limited to changes in price indices and pay scales applicable to the period when services are in fact being rendered.

This proposal, which includes Exhibits A, B, and C consisting of \_\_\_ pages, represents the entire understanding between you and us in respect of the Project and may only be modified in writing signed by both of us. If it satisfactorily sets forth your understanding of our agreement, we would appreciate your signing the enclosed copy of this letter in the space provided below and returning it to us. This proposal will be open for acceptance until December 31, 2005 unless changed by us in writing.

Thank you very much for the opportunity to present this proposal. Please do not hesitate to call me or Mark S. Koch, REM if you have any questions relating to this proposal or additional services offered by FTN.

Respectfully submitted,  
FTN ASSOCIATES, LTD.

Paul W. Crawford, PE, PG  
Project Manager

PWC/bls

## **EXHIBIT A**

### **Scope of Work for Basic Services Engineering and Environmental Consulting Services Landfill Gas Collection and Control System Design and Permitting City of Jonesboro Class I and Class IV Landfills**

Attached to and made a part of the Letter Agreement dated November 30, 2005 between FTN Associates, Ltd. (FTN) and City of Jonesboro (the Client) in respect to the project described therein. The project objective, specific tasks, project schedule, and project assumptions are summarized below.

#### **PROJECT OBJECTIVE**

The objective of the Project is to:

1. Prepare construction documents (plans, specifications, and bidding information) for the LFG collection and control system.
2. Prepare permit application documents for ADEQ solid waste and air permits for the LFG system.
3. Provide bidding assistance to the Client.

#### **PROJECT TASKS**

The specific tasks for the Project are described below:

##### **TASK 1 – PREPARATION OF CONSTRUCTION DOCUMENTS**

This task includes preparation of the construction documents (drawings, specifications, and bidding information) for the LFG collection and control system to be used for bidding and construction of the project for the proposed construction project. The design of the LFG collection and control system will be based upon information gathered during the LFG migration assessment conducted by FTN in 2005 (FTN Technical Memoranda to Mayor Forman dated August 11 and October 14, 2005), and the additional information provided by the Client or Northstar Engineering

The LFG collection system will consist of extraction wells drilled into the existing waste mass, header piping to transfer the collected LFG from the wells, a utility flare station to combust unused LFG, and sumps and piping for condensate and liquids management. Based upon a preliminary conceptual design for the landfill facility, approximately 50 LFG extraction wells will be drilled into the waste mass and connected to a dual loop header system. The header system will be connected to a blower station, which will provide enough vacuum to move the LFG from the wells to the compressor unit or the flaring station.

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The LFG collection system will be designed to capture approximately 60% (areas with no geomembrane cover system) to 80% (Class 4 area) of the LFG generated by the waste mass for use by the end user or to be destroyed by the utility flare.

The anticipated drawings to be prepared include:

1. Cover sheet,
2. General information sheet,
3. Site plan identifying existing conditions and general layout of proposed improvements,
4. LFG collection system plan including well field table,
5. Blower and flare station plan,
6. LFG collection system details,
7. Blower and flare station details, and
8. Miscellaneous details.

The work for this task will be performed in the following subtasks:

**Subtask 1A – Development of Construction Drawings**

FTN will prepare construction documents including the final construction drawings, specifications and bidding information required to obtain detailed construction bids. The construction drawings will include detailed information for the construction of the LFG collection and control system, including the extraction wells and conveyance piping, the condensate collection system, and the blower/flare station.

FTN will provide a draft set (90% complete) of the construction drawings to the Client for review. The drawings will be finalized after receiving comments from the Client and will be sealed by an Arkansas-Registered Professional Engineer.

**Subtask 1B – Preparation of Construction Specifications**

FTN will prepare construction specifications, a project quantity sheet (bid schedule), and an estimate of the probable construction costs for the project. The specifications will comply with the facility permit, the facility CQA plan, and appropriate environmental regulations.

Unless otherwise indicated by the Client, the bidding and technical specifications will be developed in Construction Specification Institute (CSI) standards.

A project quantity sheet detailing the items and their quantities to be used on the construction of the LFG collection and control system will be prepared. The sheet will be used to develop the estimate of the probable construction cost of the project and will be included in the bidding documents as the bid schedule.

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FTN will submit a draft (90% complete) of the construction specifications to the Client for review along with the draft construction drawings. The specifications will be finalized after receiving comments from the Client and sealed by an Arkansas-Registered Professional Engineer.

## **TASK 2 – PERMITTING ASSISTANCE**

There are several environmental permits that are required for this project. FTN will prepare the necessary documents for the permit applications and submit them to the various agencies. The permits that will be required include an air permit, a revised solid waste permit, and a construction stormwater water permit.

### ***Air Permit***

In order for the flare system to be constructed and operated, the facility will require an air permit. FTN will prepare the air permit application for the facility and will submit it to the Air Division of ADEQ. The permit application will consist of information concerning the design of the collection and control system, and emissions inventory of actual emissions from the combustion of LFG at the facility, and information concerning other air emission sources at the site. FTN will use the services of Trinity Consultants, an air-permitting company, to assist with the air permit application.

### ***Solid Waste Permit***

FTN will prepare an application for submittal for review by the Solid Waste Division of the ADEQ to obtain modified permit(s) for the landfill facility. The application will include information on the results of the field testing performed by FTN in 2005 (FTN Technical Memorandum, September 3, 2005), and detailed plans (i.e., drawings and operation and maintenance procedures) of the proposed LFG collection and control system.

### ***Construction Stormwater Permit***

In accordance with ADEQ Division regulations, a construction stormwater pollution prevention plan (SWPPP) will be required for the construction project. FTN will prepare the SWPPP for the project, which will include information on the project, best management practices, and a proposed stormwater and erosion control plan. FTN will also prepare the notice of intent form for the Client to submit to the ADEQ prior to commencement of the project.

FTN will also provide assistance during public hearings and meetings with ADEQ related to the various ADEQ permit applications for this project.

## **TASK 3 – BIDDING ASSISTANCE**

FTN will provide bidding assistance to the Client such as attendance at a pre-bid meeting with potential bidders, responding to any questions from the bidders, providing revised bidding documents (as necessary), and reviewing bids. Attendance at more than one meeting with potential contractors will be provided as an Additional Service.

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#### **TASK 4 – PROJECT COORDINATION**

FTN will provide general project management including coordination with the Client and the ADEQ under this task. Preparation of progress reports and invoicing will also be completed under this task.

#### **SCHEDULE**

Task 1, which includes preparation of the construction documents is estimated to take 8 to 10 weeks to complete.

Task 2, which includes the permitting process, is estimated to take approximately six to 18 months. The permitting process to obtain an Air Permit from ADEQ, which includes the 30-day public notice period and public hearings, typically requires about six months, but may take up to 18 months. The Solid Waste and Construction Stormwater permits should take less than six months to be issued. The permitting process will occur simultaneously with the development of the construction documents when possible.

Task 3, which includes bidding assistance, is expected to take approximately 4 to 5 weeks to complete.

#### **ASSUMPTIONS**

1. All drawings will be prepared using AutoCAD Release 2004 and Land Desktop Design (LDD) software. Drawings will be prepared on standard "D" size FTN title sheets.
  2. The LFG collection and control system will be designed to handle the range of 100 scfm to 400 scfm as developed in LFG modeling during the project.
  3. The LFG collection and control system will be designed to minimize LFG migration offsite. The system may not be able to collect 100 percent of LFG produced from the landfill, and therefore, additional measures may be required by the Client to minimize migration after the system is operated for a period of time.
  4. The LFG collection system will be designed to collect condensate onsite. The collected condensate will be piped to the nearest City of Jonesboro sanitary sewer connection and will be disposed of offsite.
  5. Attendance at more than one meeting with potential LFG construction contractors will be provided as an Additional Service.
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6. The project budget assumes attendance at one public hearing for the solid waste permit, one public hearing for the air permit, and three meetings with the ADEQ.
  7. The preliminary project schedule is based upon a 6-month review period by ADEQ for the various permits required for the project. The actual time may extend up to 18 months.
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September 30, 1993

## EXHIBIT B

### Standard Terms and Conditions For FTN Contracts

1. Standard of Care The services provided by FTN shall be performed in accordance with generally accepted professional practice at the time when and the place where the services are rendered.
  2. Independent Contractor FTN is an independent contractor and not an employee or agent of CLIENT. CLIENT is not responsible for any of its activities. Any taxes, licenses, permits, required filing of forms or any other conditions imposed upon or required to render FTN Services shall be satisfied by FTN at FTN's expense.
  3. Insurance FTN shall procure and maintain insurance for protection from claims under workers' compensation acts. FTN shall procure and maintain liability insurance against claims based on FTN's negligence for damages because of bodily injury including personal injury, sickness or disease or death of any and all employees or of any person other than such employees, and from claims or damages based on FTN's negligence because of injury to or destruction of property including loss of use resulting therefrom.
  4. Indemnification
    - a. FTN does hereby indemnify and save harmless CLIENT from and against any and all liability and claims of liability of any and every kind and nature, including without limitation bodily injury, death and property damage, arising out of any negligent act by FTN, and FTN, at FTN's sole expense, shall handle all such claims, defend all lawsuits filed against CLIENT therein, and reimburse CLIENT in cash for all reasonable expense incurred by CLIENT on account thereof, provided, that if CLIENT elects to retain independent counsel, FTN shall reimburse CLIENT for all costs reasonably incurred by CLIENT to defend itself through attorneys of CLIENT's choice. There is hereby excepted from the foregoing any and all liability and claims of liability solely attributable to acts of CLIENT's direct payroll employees, and there is hereby further excepted from the foregoing any and all liability and claims of liability for environmental pollution which are not the result of negligence on the part of FTN in FTN's performance of this contract.
    - b. CLIENT does hereby indemnify and save harmless FTN from and against any and all liability and claims of liability of any and every kind and nature including without limitation bodily injury, death, property damage and claims for environmental pollution which are not the result of negligence on the part of FTN in FTN's performance of this contract, and CLIENT, at CLIENT's sole expense, shall handle all such claims, defend all lawsuits filed against FTN on account thereof, pay all judgments rendered against FTN therein, and reimburse FTN in cash for all reasonable expense incurred by FTN on account thereof, provided, that if FTN elects to retain independent counsel, CLIENT
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shall reimburse FTN for all costs reasonably incurred by FTN to defend itself through attorneys of FTN's choice.

5. Electronic Deliverables Any use or reuse of original or altered computer files by CLIENT or others without written verification by FTN for purposes other than for the specific purpose intended will be at CLIENT's risk and full legal responsibility. Furthermore, CLIENT will, to the fullest extent permitted by law, indemnify and hold FTN harmless from any and all claims, suits, liability, demands, or costs arising out of or resulting therefrom. Any verification of such adaptation by CLIENT will entitle FTN to additional compensation at the then current rate.

The submitted data files are intended to work only as described. The files are compatible only with the software and operating platform described. FTN makes no warranty as to the compatibility of these files for versions of the software other than for those stated. FTN is not responsible for uses of the data outside of or beyond the scope of the Agreement.

Because data stored on electronic media can deteriorate undetected or can be modified without FTN's knowledge, CLIENT agrees that FTN will not be held liable for the completeness or correctness of the electronic media, with respect to its originally intended use as defined in the agreement, after an acceptance period of 30 days after delivery of the electronic files. FTN stands by the accuracy of sealed drawings that accompany submittals.

The electronic files are submitted to CLIENT for a 30-day Acceptance Period. During this period, CLIENT may review and examine these files; any errors, relative to the intended use of the files, detected during this time will be corrected by FTN as part of the basic agreement. Any changes requested after the Acceptance Period will be considered additional services to be performed on a time and materials basis, at the then current rates plus terms and conditions.

6. Termination This agreement may be terminated at any time, for any cause by either party upon thirty days written notice to the other party. In such event, CLIENT shall forthwith pay FTN in full for all work previously authorized and performed prior to effective date of termination. If no notice of termination is given, relationships and obligations created by this Agreement shall be terminated upon completion of all applicable requirements of this Agreement.
  7. Assignment This Agreement shall not be assigned by FTN to any other party unless prior written approval is obtained from CLIENT. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.
  8. Limit of Liability It is understood that any and all professional liabilities incurred by FTN throughout the course of rendering professional services on this Project shall be limited to a maximum of the net fee received by FTN, not including reimbursable expenses and subconsultants, for all services rendered on the Project.
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9. Confidentiality of Information No information concerning this Project shall be released by FTN.
  10. Precedence These Standard Terms and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition notice to proceed, or like document regarding FTN's services.
  11. Severability If any of these Standard Terms and Conditions shall be finally determined to be invalid or unenforceable in whole or part, the remaining provisions hereof shall remain in full force and effect, and be binding upon the parties hereto. The parties agree to reform this Agreement to replace any such invalid or unenforceable provision with a valid and enforceable provision that comes as close as possible to the intention of the stricken provision.
  12. Survival These Standard Terms and Conditions shall survive the completion of the services under this Agreement and the termination of this Agreement for any cause.
  13. Controlling Law This Agreement is to be governed by and construed in accordance with the laws of the State of Arkansas.
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## EXHIBIT C

### 2005 Fee Schedule<sup>1</sup> FTN Associates, Ltd.

<u>Labor Category</u>	<u>Hourly Rate</u>
Professional 7	\$ 140.00
Professional 6	125.00
Professional 5	112.00
Professional 4	102.00
Professional 3	92.00
Professional 2	82.00
Professional 1	72.00
Technician 4	74.00
Technician 3	61.00
Technician 2	54.00
Technician 1	40.00
Word Processing	48.00

#### Direct Expenses

All direct project expenses will be invoiced at cost plus 10 percent. Direct project expenses include such items as travel, meals, lodging, shipping, supplies, consultants, subcontractors, etc. Vehicle mileage will be charged at standard IRS rates.

A charge of 2 percent is applied to the total labor amount to cover communication charges and computer expenses associated with computer applications, data storage and backup.

Should back-up data be requested for reimbursable expenses, it will be provided for an administrative fee.

#### Payment Terms

Unless other arrangements are made in writing invoicing will be monthly for services completed. Payment is due in full within 30 days of invoice. A service charge of 1 1/2 percent per month will be charged on all balances over 30 days.

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<sup>1</sup>Effective January 1, 2005 - December 31, 2005