

REQUEST AUTHORIZATION FOR MAYOR AND FINANCE OFFICER TO SIGN PROFESSIONAL SERVICES AGREEMENT OR AMENDMENT

Date: January 17, 2012

Project Name & Number: Rapid City Landfill Cells 15 & 16 Landfill Liner and Leachate Collection System Design Project
Project No. LF11-1974 **CIP #:** 50888

Project Description: To provide professional engineering services.

Consultant: Burns and McDonnell Engineering Co.

Original Contract Amount: \$229,467.00 **Original Contract Date:** January 17, 2012 **Original Completion Date:**

Addendum No:

Amendment Description:

Current Contract Amount: _____ **Current Completion Date:** _____
Change Requested: _____
New Contract Amount: _____ \$0.00 **New Completion Date:** _____

Funding Source This Request:

Amount	Dept.	Line Item	Fund	Comments
\$229,467.00	7102	4223	612	
Total				

Agreement Review & Approvals

 _____ Project Manager	1/5/12 _____ Date	 _____ Division Manager	1-5-12 _____ Date
 _____ Compliance Specialist	1/5/12 _____ Date	 _____ Department Director	1-6-12 _____ Date
_____ City Attorney	_____ Date		

ROUTING INSTRUCTIONS

Route two originals of the Agreement for review and signatures.
 Finance Office - Retain one original
 Project Manager - Retain second original for delivery to Consultant
 cc: Public Works
 Engineering
 Project Manager

FINANCE OFFICE USE ONLY

(Note to Finance: Please write date of Agreement in appropriate space in the Agreement document)

	Date	Initials	Approved
Appropriation			Y N
Cash Flow			Y N

**Agreement Between City of Rapid City and Burns & McDonnell Engineering Co.
for Professional Services for the Rapid City Landfill Cells 15 & 16 Landfill Liner
and Leachate Collection System Design Project
Project No. LF11-1974**

AGREEMENT made January ____, 2012, between the City of Rapid City, SD (City) and Burns & McDonnell Engineering Co., (Engineer), located at 9785 Maroon Circle, Suite 400, Centennial, CO 80112. City intends to obtain services for the Rapid City Landfill Cells 15 & 16 Landfill Liner and Leachate Collection System Design, Project No. LF11-1974. The scope of services and associated professional engineering services fee estimate are as described in Exhibits A, B, and C.

The City and the Engineer agree as follows:

The Engineer shall provide professional engineering services for the City in all phases of the Project as defined in Exhibits A, B, and C, serve as the City's professional engineering representative for the Project, and give professional engineering consultation and advice to the City while performing its services.

Section 1—Basic Services of Engineer

1.1 General

- 1.1.1 The Engineer shall perform professional services described in this agreement, which include customary design phase engineering services. Engineer intends to serve as the City's professional representative for those services as defined in this agreement and to provide advice and consultation to the City as a professional. Any opinions of probable project cost, approvals, and other decisions provided by Engineer for the City are rendered on the basis of experience and qualifications and represent Engineer's professional judgment.
- 1.1.2 All work shall be performed by or under the direct supervision of a professional Engineer licensed to practice in South Dakota.
- 1.1.3 All documents including Drawings and Specifications provided or furnished by Engineer pursuant to this Agreement are instruments of service in respect of the Project and Engineer shall retain an ownership therein. Reuse of any documents pertaining to this project by the City on extensions of this project or on any other project shall be at the City's risk. The City agrees to defend, indemnify, and hold harmless Engineer from all claims, damages, and expenses including attorney's fees arising out of such reuse of the documents by the City or by others acting through the City.



1.2 Scope of Work

The Engineer shall:

- 1.2.1 Consult with the City, other agencies, groups, consultants, and/or individuals to clarify and define requirements for the Project and review available data.
- 1.2.2 Perform the tasks described in the Scope of Services. (See Exhibits A, B, and C.)

Section 2—Information Provided by City

The City will provide any information in its possession for the project at no cost to the Engineer.

Section 3—Notice to Proceed

The City will issue a written notification to the Engineer to proceed with the work. The Engineer shall not start work prior to receipt of the written notice. The Engineer shall not be paid for any work performed prior to receiving the Notice to Proceed.

Section 4—Mutual Covenants

4.1 General

- 4.1.1 The Engineer shall not sublet or assign any part of the work under this Agreement without written authority from the City.
- 4.1.2 The City and the Engineer each binds itself and partners, successors, executors, administrators, assigns, and legal representatives to the other party to this agreement and to the partners, successors, executors, administrators, assigns, and legal representatives of such other party, regarding all covenants, agreements, and obligations of this agreement.
- 4.1.3 Nothing in this agreement shall give any rights or benefits to anyone other than the City and the Engineer.
- 4.1.4 This agreement constitutes the entire agreement between the City and the Engineer and supersedes all prior written or oral understandings. This agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.



- 4.1.5 The Engineer shall make such revisions in plans which may already have been completed, approved, and accepted by the City, as are necessary to correct Engineer's errors or omissions in the plans, when requested to do so by the City, without extra compensation therefore.
- 4.1.6 If the City requests that previously satisfactorily completed and accepted plans or parts thereof be revised, the Engineer shall make the revisions requested by the City. This work shall be paid for as extra work.
- 4.1.7 If the City changes the location from the one furnished to the Engineer, or changes the basic design requiring a new survey for the portions so changed, the redesign will be paid for as extra work.
- 4.1.8 The City may at any time by written order make changes within the general scope of this Agreement in the work and services to be performed by the Engineer. Any changes which materially increase or reduce the cost of or the time required for the performance of the Agreement shall be deemed a change in the scope of work for which an adjustment shall be made in the Agreement price or of the time for performance, or both, and the Agreement shall be modified in writing accordingly. Additional work necessary due to the extension of project limits shall be paid for as extra work.
- 4.1.9 Extra work, as authorized by the City, will be paid for separately and be in addition to the consideration of this Section.
- 4.1.10 For those projects involving conceptual or process development services, activities often cannot be fully defined during the initial planning. As the project does progress, facts and conditions uncovered may reveal a change in direction that may alter the scope of services. Engineer will promptly inform the City in writing of such situations so that changes in this agreement can be renegotiated.
- 4.1.11 This Agreement may be terminated (a) by the City with or without cause upon seven days' written notice to the Engineer and (b) by the Engineer for cause upon seven days' written notice to the City. If the City terminates the agreement without cause, the Engineer will be paid for all services rendered and all reimbursable expenses incurred prior to the date of termination.

If termination is due to the continued and material failure of the Engineer to fulfill its agreement obligations, the City may take over the work and complete it by agreement or otherwise after providing Engineer a reasonable opportunity to cure the deficiencies. In such



case, the Engineer shall be liable to the City for any additional cost to the extent directly resulting from Engineer's actions.

- 4.1.12 Excluding lump sum agreements, the City or its duly authorized representatives may examine any books, documents, papers, and records of the Engineer involving transactions related to this agreement for three years after final payment. All examination will be performed at reasonable times, with proper notice, and at City's cost.
- 4.1.13 The City shall designate a representative authorized to act on the City's behalf with respect to the Project. The City or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Engineer in order to avoid unreasonable delay in the orderly and sequential progress of the Engineer's services.
- 4.1.14 Costs and schedule commitments shall be subject to renegotiation for delays caused by the City's failure to provide specified facilities or information or for delays caused by other parties, unpredictable occurrences including without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults by suppliers of materials or services, process shutdowns, acts of God, or the public enemy, or acts of regulations of any governmental agency, or any other conditions or circumstances beyond the control of the City or Engineer. Temporary delays of services caused by any of the above which results in additional costs beyond those outlined may require renegotiation of this agreement.
- 4.1.15 The City will give prompt written notice to the Engineer if the City becomes aware of any fault or defect in the Project or nonconformance with the Project Documents.
- 4.1.16 Unless otherwise provided in this Agreement, the Engineer and the Engineer's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to hazardous materials in any form at the project site, including but not limited to asbestos products, polychlorinated biphenyl (PCB), or other toxic substances.
- 4.1.17 In the event asbestos or toxic materials are encountered at the jobsite, or should it become known in any way that such materials may be present at the jobsite or any adjacent areas that may affect the performance of Engineer's services, Engineer may, at their option and without liability for consequential or any other damages, suspend performance of services on the project until the City retains



appropriate specialist CONSULTANT(S) or contractor(s) to identify, abate, and/or remove the asbestos or hazardous or toxic materials.

- 4.1.18 This agreement, unless explicitly indicated in writing, shall not be construed as giving Engineer the responsibility or authority to direct or supervise construction means, methods, techniques, sequences, or procedures of construction selected by any contractors or subcontractors or the safety precautions and programs incident to the work of any contractors or subcontractors.
- 4.1.19 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or in any way involving the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids, or gases, waste materials, or other irritants, contaminants, or pollutants.
- 4.1.20 Neither the City nor the Engineer, nor its Consultants, shall hold the other liable for any claim based upon, arising out of, or any way involving the specification or recommendation of asbestos, in any form, or any claims based upon use of a product containing asbestos.
- 4.1.21 Engineer hereby represents and warrants that it does not fail or refuse to collect or remit South Dakota or City sales or use tax for transactions which are taxable under the laws of the State of South Dakota.

4.2 **City of Rapid City NonDiscrimination Policy Statement**

In compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination act of 1975, the Americans with Disabilities Act of 1990, and other nondiscrimination authorities it is the policy of the City of Rapid City, 300 Sixth Street, Rapid City, SD 57701-5035, to provide benefits, services, and employment to all persons without regard to race, color, national origin, sex, disabilities/handicaps, age, or income status. No distinction is made among any persons in eligibility for the reception of benefits and services provided by or through the auspices of the City of Rapid City.

Engineer will permit access to any and all records pertaining to hiring and employment and to other pertinent data and records for the purpose of enabling the Commission, its agencies or representatives, to ascertain compliance with the above provisions.

This section shall be binding on all subcontractors or suppliers.



Section 5—Payments to the Engineer

5.1 Schedule of Pay Rates

The City will pay the Engineer for services rendered or authorized extra work according to the Engineer's hourly rate schedule (See Exhibits B and C).

5.2 Fee

The maximum amount of the fee for the services as detailed in Section 1.2 shall not exceed Two Hundred Twenty Nine Thousand Four Hundred Sixty Seven Dollars (\$229,467.00) unless the scope of the project is changed as outlined in Section 4. If expenses exceed the maximum amount, the Engineer shall complete the design as agreed upon here without any additional compensation. Sub task dollar amounts may be reallocated to other tasks as long as the total fee is not exceeded.

5.3 Progress Payments

Monthly progress payments shall be processed by the City upon receipt of the claim as computed by the Engineer based on work completed during the month at the rates established in Section 5.1 and approved by the City.

Net payment to the Engineer shall be due within forty-five (45) days of receipt by the City.

Section 6—Completion of Services

The Engineer shall complete services within 180 days following the Notice to Proceed. The completion of services is dependent on timely approval of the permit amendment by SD DENR, thus the Engineering Services contract completion date may be revised as needed. Completion of services is also dependent upon City review time. Engineer has assumed 1 week of City review for all submittals.

Section 7—Insurance Requirements

7.1 Insurance Required

The Engineer shall secure the insurance specified below. The insurance shall be issued by insurance company(s) acceptable to the City and may be in a policy or policies of insurance, primary or excess. Certificates of all required insurance including any policy endorsements shall be provided to the City prior to or upon the execution of this Agreement.



7.2 Cancellation

The Engineer will provide the City with at least 30 days' written notice of an insurer's intent to cancel or not renew any of the insurance coverage. The Contractor agrees to hold the City harmless from any liability, including additional premium due because of the Contractor's failure to maintain the coverage limits required.

7.3 City Acceptance of Proof

The City's approval or acceptance of certificates of insurance does not constitute City assumption of responsibility for the validity of any insurance policies nor does the City represent that the coverages and limits described in this agreement are adequate to protect the Engineer, its consultants or subcontractors interests, and assumes no liability therefore. The Engineer will hold the City harmless from any liability, including additional premium due, because of the Engineer's failure to maintain the coverage limits required.

7.4 Specific Requirements

- 7.4.1 Workers' compensation insurance with statutory limits required by South Dakota law. Coverage B-Employer's Liability coverage of not less than \$500,000 each accident, \$500,000 disease-policy limit, and \$500,000 disease-each employee.
- 7.4.2 Commercial general liability insurance providing occurrence form contractual, personal injury, bodily injury and property damage liability coverage with limits of not less than \$1,000,000 per occurrence, \$2,000,000 general aggregate, and \$2,000,000 aggregate products and completed operations. If the occurrence form is not available, claims-made coverage shall be maintained for three years after completion of the terms of this agreement. The policy shall name the City and its representatives as an additional insured.
- 7.4.3 Automobile liability insurance covering all owned, nonowned, and hired automobiles, trucks, and trailers. The coverage shall be at least as broad as that found in the standard comprehensive automobile liability policy with limits of not less than \$1,000,000 combined single limit each occurrence. The required limit may include excess liability (umbrella) coverage.
- 7.4.4 Professional liability insurance providing claims-made coverage for claims arising from the negligent acts, errors or omissions of the Engineer or its consultants, in the amount of \$1,000,000 each occurrence and \$1,000,000 annual aggregate. Coverage shall be



maintained for at least three years after final completion of the services.

Section 8—Hold Harmless

The Engineer hereby agrees to hold the City harmless from any and all claims or liability including attorneys' fees arising out of the professional services furnished under this Agreement, and for bodily injury or property damage arising out of services furnished under this Agreement, providing that such claims or liability are the result of a negligent act, error or omission of the Engineer and/or its employees/agents arising out of the professional services described in the Agreement.

Mutual Waiver of Consequential Damages: Both parties agree that neither shall be liable to the other, or anyone claiming on their behalf, for any special, indirect or consequential damages of any type, whether arising in tort (including negligence), contract, warranty (express or implied), strict liability, statutory liability or any other cause of action, including but not limited to loss of profit, loss of use, loss of business, reputation or financing.

Limitation of Liability: To the fullest extent permitted by law, the total liability in the aggregate, of Engineer and Engineer's officers, directors, employees, agents and consultants to City and anyone claiming by, through or under City, for any and all liabilities, claims, losses, expenses or damages whatsoever arising out of or in any way related to Engineer's services, including but not limited to tort (including negligence), contract, warranty (express or implied), strict liability, statutory liability or any other cause or causes shall not exceed the greater of One Million Dollars (\$1,000,000.00) or Burns & McDonnell's insurance limit as stated in Section 7.4

Section 9—Independent Business

The parties agree that the Engineer operates an independent business and is contracting to do work according to his own methods, without being subject to the control of the City, except as to the product or the result of the work. The relationship between the City and the Engineer shall be that as between an independent contractor and the City and not as an employer-employee relationship. The payment to the Engineer is inclusive of any use, excise, income or any other tax arising out of this agreement.

Section 10—Indemnification

If this project involves construction and Engineer does not provide consulting services during construction including, but not limited to, onsite monitoring, site visits, site observation, shop drawing review and/or design clarifications, City agrees to indemnify and hold harmless Engineer from any liability arising from the construction activities undertaken for this project, except to the extent such liability is caused by Engineer's negligence.



Section 11—Controlling Law and Venue

This Agreement shall be subject to, interpreted and enforced according to the laws of the State of South Dakota, without regard to any conflicts of law provisions. Parties agree to submit to the exclusive venue and jurisdiction of the State of South Dakota, 7th Judicial Circuit, Pennington County.

Section 12—Severability

Any unenforceable provision herein shall be amended to the extent necessary to make it enforceable; if not possible, it shall be deleted and all other provisions shall remain in full force and effect.

Section 13—Funds Appropriation

If funds are not budgeted or appropriated for any fiscal year for services provided by the terms of this agreement, this agreement shall impose no obligation on the City for payment. This agreement is null and void except as to annual payments herein agreed upon for which funds have been budgeted or appropriated, and no right of action or damage shall accrue to the benefit of the Engineer, its successors or assignees, for any further payments. For future phases of this or any project, project components not identified within this contract shall not constitute an obligation by the City until funding for that component has been appropriated.



IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement as of the day and year first above written.

City of Rapid City:

Engineer:

MAYOR

Mark A. Leltwerdt

BURNS & MCDONNELL

DATE: _____

DATE: January 5, 2012

ATTEST:

FINANCE OFFICER

Reviewed By:

[Signature]

JOHN LEAHY, P.E., PROJECT MANAGER

DATE: 1/05/12



Exhibit A

Scope

**Exhibit A -- Scope of Services
Rapid City Landfill Cell 15 & 16
Landfill Liner and Leachate Collection System Design Project
Project No. LF11-1974**

Burns & McDonnell Engineering Company (hereinafter referred to as Engineer) will furnish the necessary labor, supervision, equipment, and material to complete the scope items as outlined in this document.

1. Preliminary Design Phase

- 1.1 Engineer will review:
- a. City's Solid Waste Permit number 08-09, and the City's 2006 Solid Waste Permit Application to obtain the permitted cell limits, boundaries, and specifications. Review of the SD DENR codified laws and administrative rules pertaining to landfill liner and leachate collection system design and construction. Review of the Rapid City Landfill's Waste Water Discharge Permit Number 40.1 issued by the Rapid City, Water Reclamation Division for discharge restrictions and effluent limits. Review of existing sanitary sewer locations on and near the Rapid City Landfill property and review of maximum available flow limitations for sewer lines.
 - b. Flow limitations for the existing aeration pond if applicable. Engineer assumes no significant difficulties with leachate discharge, and it is assumed that pretreatment alternatives other than the existing aeration pond (if necessary) will not be required. It is also assumed that flow capacities of existing sanitary sewer lines are adequate. Additionally, it is assumed that once the leachate is pumped from the cell, leachate will be gravity drained to an existing sanitary sewer line.
 - c. Rapid City Engineering Services Standard Specifications and Details.
- 1.2. Engineer will perform the following planning tasks:
- a. Contact Rapid City Water Reclamation Division for discussion of discharge limits and permitting required for the additional leachate collection system. Determination of pretreatment facilities required to meet discharge and flow limits – see scope above for pretreatment scope limitations.
 - b. Contact the Rapid City Engineering Services Department for off-site sanitary sewer locations and flow capacities.
 - c. Develop plan for dewatering of the cell base prior to construction. It is assumed dewatering will be performed by contractor. Surveying (see Task 1.5) will occur without dewatering the base of Cell 16.
- 1.3. Engineer will provide the following recommendations:
- a. Landfill liner design
 - b. Leachate collection, pretreatment (see notes above), and disposal
- 1.4. Surveying:
- a. Engineer's subcontractor, CETEC Engineering, will perform a topographical survey of the Cell 15/16 footprint to determine existing contours, boundaries and elevations. Survey will use NAD 83 horizontal datum and NGVD 29 vertical datum, and shall provide all information required to develop plans for the cell liner system construction.
 - b. Coordinate South Dakota One Call to locate subsurface utilities within the proposed project
 - c. limits as defined by the City of Rapid City and Engineer. Landfill Cells 13 and 14 are included in the survey scope of work, per the City's request. The surveying proposal from CETEC is included in Exhibit D. The Red Outline on Figure 1 denotes the survey area.

- d. Complete courthouse plat research as needed for subject property and adjacent properties.
- e. Create local bench marks/control and tie to existing City of Rapid City Control Monuments utilizing NAD 83 horizontal datum and NGVD 29 vertical datum. A total of 4 control points will be set as requested by the RFP. CETEC will coordinate the location of the control points with City of Rapid City through Engineer.
- f. Field locate, as possible, property pins/monuments to define south and west edge of City of Rapid City property adjacent to proposed work limits. This does not include a complete boundary survey of all City property located at the solid waste facility.
- g. Complete topographic survey of area proposed for cells 15, 16, & 1. Proposal is based on completing survey work utilizing a UTV/ATV and GPS to collect topographic survey ground data when possible.
- h. Complete topographic survey of existing cells 13 & 14 as requested. Proposal is based on completing work utilizing an UTV/ATV and GPS to collect topographic survey ground data when possible.
- i. Complete route and topographic survey data for leachate sewer outfall connection to Catron Boulevard. Approximate limits are shown by the red outline on Figure 1 in Exhibit C.
- j. Create Base Map for design use. All base mapping will be set at a 20-scale drawing unless otherwise directed.
- k. Contact & coordinate with utility companies' engineering divisions to ensure that all existing utilities were completely and accurately located in the field and are shown on the base map.

1.5. Field Investigation

Engineer will perform a geotechnical investigation to determine suitability of on-site materials for use as a landfill liner and to further establish site stratigraphy and hydrogeology present at the site. A review of the existing information made available by the Owner for the Site will be performed by Engineer prior to field investigation. The field investigation includes drilling boreholes, installing piezometers, excavating test pits, and sampling and testing materials. Engineer's subcontractor, American Engineering Testing (AET) will perform drilling and testing services. Alpha-Omega Geotech, Inc. (Alpha-Omega) will perform additional testing services not supported in-house by AET.

The assumptions made for the field investigation are as follows:

- A geotechnical stability analysis will not be required.
- Bedrock at the Site is anticipated to be encountered at approximately 20-25 ft below ground surface (bgs).
- Groundwater at the Site is anticipated to be encountered at approximately 10-15 ft bgs.
- Scheduled activities will not be delayed as a result of significant meteorological events.
- Subsurface activities will be performed in undisturbed media.
- Field effort will consist of six days to install borings and piezometers and one day to excavate test pits.
- City will excavate all test pits using City equipment. Test pits will be excavated concurrent with drilling work.
- Rotary core drilling is not anticipated at this Site.
- Groundwater monitoring is not included in this proposal.
- If a Shelby tube is unable to be pushed, then a California sampler will be used.
- Engineer's field personnel will obtain all samples from test pits.

- Engineer's field personnel will deliver all samples to Alpha-Omega.
- 1.5.1. Installation of Cell 15-16 Borings and Piezometers
Eleven borings will be installed in the future cells 15 and 16. It is assumed Piezometers will be installed in four of the eleven boreholes. The remaining seven borings will be properly plugged and abandoned. It is assumed Piezometers will be Slope Indicator Vibrating Wire (VW) piezometers installed at 10 and 15 foot intervals in each borehole. The piezometers will be grouted to the surface and finished with a stick-up protective casing. Piezometers will be established to determine the direction of and flow characteristics of the groundwater.
- Six of the boreholes will extend below the assumed base of the new landfill cell. Total linear feet for these six borings is 280 ft, combined. The remaining five boreholes will be placed at a depth of 30 ft bgs in the potential borrow area for the Cell 16 liner.
- A total of 430 linear feet is assumed for all eleven borings, combined.
- 1.5.2. Sampling and Laboratory Testing of Cell 15-16 Borings
During drilling of each borehole, split spoon samples or California samplers will be obtained every five feet. From these samples, natural moisture (ASTM D2216) tests will be taken every five feet. In addition, four Atterberg limits (ASTM D4318) and one sieve analysis and hydrometer (ASTM D422) will be taken per boring. One Shelby tube will be pushed in four of the boreholes for strength testing of the material. Testing on the Shelby tube samples will include one triaxial shear unconsolidated – undrained test (ASTM D2850) per boring.
- 1.5.3. Installation of Leachate Collection Line Borings
A total of five borings will be installed along the future leachate collection line route to the existing sewer outfall connection. Borings will be conducted every 500 feet. Drill cuttings will be examined by the Engineer. Borings will be advanced to a depth of 25 feet. Rock is not anticipated.
- 1.5.4. Sampling and Laboratory Testing of Test Pits
It is assumed eight test pits will be excavated in the future cell 15 area. In order to establish a moisture density to permeability relationship for materials to be used for landfill liner construction, two composite samples collected from the eight test pits will be evaluated. A standard (ASTM D698), reduced, and 200% proctor will be performed on each sample including twelve falling head permeabilities (ASTM D5084) per sample. Three dry bulk density (ASTM D2937), specific gravity (ASTM D854), Atterberg limits (ASTM D4318), natural moisture (ASTM D2216), and classification tests (ASTM D2487/2488) will be performed on each composite sample. In addition, four natural moisture (ASTM D2216), classification (ASTM D2487/2488), and Atterberg limits (ASTM D4318) tests will be conducted per test pit. One sieve analysis and hydrometer analysis (ASTM D422) will be conducted per test pit.
- 1.5.5. Data Evaluation
Data collected during field investigation activities will be reviewed and evaluated. All available data will be used for cell design and to develop a placement range for the landfill liner.
- 1.6. Prepare preliminary system layout for leachate collection system. Layout will include arrangement and location of all applicable collection pipes, pumps or lift stations, valves, cleanouts, vaults, or other structures. Layout will differentiate pressurized flow and gravity flow pipes and shall include elevations of all critical structures. It is assumed that leachate will be pumped from the base of the cell via a sideslope riser pipe, and will gravity drain to the sanitary sewer on Catron Boulevard.

- 1.7. Prepare Preliminary Design Report, including suitability of onsite materials, soil liner placement range, grading plans and specifications for the landfill liner. Final grading plans for the borrow area including project quantities. Report will include leachate collection system layout, including pretreatment facilities (if applicable, see above), connection to sanitary sewer, lift station, and plans to integrate future expansions where applicable. Preliminary design report will include recommendations for review and comment by City staff. Engineer will conduct a review meeting with City staff following the preliminary design report submittal. The preliminary design report will also be submitted the SD DENR WMP for review.

2. Final Design

- 2.1. Provide complete plans and specifications for a unit price construction contract. Plan sheets will be prepared utilizing the latest City of Rapid City Drafting Standards. The following 13 plan sheets are anticipated:
- Cover – Index
 - G001 Legend & Abbreviations
 - G002 General Notes
 - C001 Site Layout
 - C002 Base Grading Plan
 - C003 Erosion & Sediment Control Plan
 - C004 Leachate Collection System Plan
 - C005 Leachate Piping System Plan
 - C006 Traffic Control Plan
 - C007 Cross Sections
 - C008 Details – 1
 - C009 Details – 2
 - E001 Electrical Plan
- 2.2. Provide complete quality assurance and quality control plan (*QA/QC* plan). *QA/QC* plan will be submitted the SD DENR WMP for review and approval.
- 2.3. Provide route and topo survey, [establish land ties and bench marks, locate property corners, and field locate all existing utilities]. At least two control points at each end of the project shall be tied vertically and horizontally to the existing City of Rapid City Area Monuments Control utilizing the state plane coordinate system. Topographic survey and design layout shall utilize a local datum tied to at least one of the Rapid City Area Monuments tied control points. Scale of plan & profile sheets, 1" = 20' Horiz., 1" = 5' Vert. Construction staking information shall include either of the following formats:
- a. The following will be included on the plans:
 - Station, offset and coordinates of all piping and related infrastructure.
 - Station, offsets and coordinates for all items of work requiring field staking.
 - Coordinates and description of intervisible control points.
 - b. The following will be included in tabular format on a plan sheet:
 - Coordinates and description of intervisible control points.
 - Coordinates of all items of work requiring field staking.
- Benchmark information will be provided on each sheet.
- 2.4. Provide project layout plan to include lot lines (front and side) and addresses of all properties [adjacent to construction, or alternatively, in service area].
- 2.5. Coordinate directly with utility companies' engineering divisions to ensure that all existing utilities are completely and accurately located in the field; that pertinent information regarding depth, material, size, etc. are noted on the plans; and that conflicts requiring relocation of utilities or special construction techniques are fully

- specified in the contract documents.
- 2.6. Provide general sequence of construction requirements in order to ensure quality assurance and control testing is completely and adequately performed. Construction Specifications will include Liner construction qualifications and specify quality control testing results that shall be submitted to and approved by the SD DENR WMP prior to construction of the leachate collection system. Coordinate with landfill operations so that construction of the cell liner and leachate collection system are completed when necessary.
 - 2.7. Provide Detailed Specifications supplementing the current *City of Rapid City Standard Specifications* as necessary. City of Rapid city Standard Specification and contract documents shall be used where applicable. It is anticipated the following technical specifications will be developed:
 - 017213 Construction Layout and Surveying
 - 026611 Compacted Soil Liner
 - 026613 Geotextile
 - 026615 Geocomposite
 - 026617 Geomembrane Liner (FML)
 - 026619 Geosynthetic Clay Liner
 - 026625 High Density Polyethylene (HDPE) Drain Pipe
 - 312050 Site Preparation and Earthwork
 - 312313 Subgrade Preparation
 - 329200 Seeding and Sodding
 - 2.8. Provide Traffic Control Plans identifying detour routes and signage for various stages of construction.
 - 2.9. Prepare opinion of probable construction cost (engineer's estimate) for the project. Opinion of probable cost will be prepared at approximately 90% design.
 - 2.10. Engineer will identify and either prepare or include in construction plans for contractor to prepare required permits.
 - 2.11. Deliver the following:
 - a. Construction plans on 22"x34" mylar for printing by the City.
 - b. Construction plans on CD in AutoCAD Release 14 format or newer.
 - c. All topographic, control, and design points in the .dwg file and in tabular format, both on disk and on a hard copy print-out.
 - d. Quality control and assurance plan in compliance with SD DENR requirements.
 - e. Complete specifications on disk in Word 97 format for printing by the City.
 - f. A unit price cost estimate on disk in Excel 97 format.

3. **Bidding Phase**

Engineer will provide the following standard bidding phase services:

- a. Bid document distribution.
- b. Attend Prebid Conference.
- c. Issue addenda to the bid documents if required.
- d. Review prequalification submittals if required.
- e. Assist City in evaluating bids.
- f. Prepare bid tabulation and recommendation for the City

Meetings

Engineer will conduct the following meetings:

- Project kick-off (with City at City offices)

- Initial plans and specifications review (30% completion)/preliminary design review (1 meeting with City at City offices, 1 meeting with City and SD DENR in either Rapid City or Pierre) – assumes meetings will occur on adjacent days)
- Intermediate plans and specifications review (90% completion) (1 meeting with City at City offices, 1 meeting with City and SD DENR in either Rapid City or Pierre) – assumes meetings will occur on back-to-back days)
- Pre-bid meeting

Two formal meetings are assumed with SD DENR. Meetings are shown at 30% and 60% completion above, however, one meeting may occur in conjunction with the project kick-off, at discretion of the Engineer and approval of the City.

Schedule/Submittals

Engineer will perform the following tasks on or before the deliverable dates shown below:

- Project Kickoff Meeting – within 3 weeks of Notice to Proceed
- 30% Design – 60 days from NTP
- Preliminary Design Report/30% Specifications – 120 days from NTP
- 60% Design and Specifications – 140 days from NTP
- 100% Design and Bidding – 180 days from NTP

Schedule Assumptions:

- The City will review and provide a response to Engineer on all submittals from Engineer within one week of receipt.
- It is assumed that design work will be performed in conjunction with SD DENR's review of the permit modification. It is assumed there will be no delay in the design schedule related to SD DENR's review time.
- It is assumed field work will occur the week of December 12. If driller availability or inclement weather impacts field mobilization, the preliminary design report will be lengthened by the same amount of days.

General Assumptions:

- The 2011 rates between Burns & McDonnell and the City of Rapid City were used to estimate this project. The 2012 rate sheet will be used starting January 1, 2012.

Exhibit B
Cost Estimate

**Rapid City, South Dakota
Design of Landfill Cells 15 & 16
Rapid City Landfill**

**Cost Estimate
on a per Task Basis**

(fill in green boxes)

Task No.	Task Description	EXPENSES				Item	Quantity	Unit	Cost per Unit	Bare Cost	Percent Markup	Total Cost
		Category	Hourly Rate	Hours	Cost							
1.0	Surveying	Associate (15)	\$193.00									
		Associate (14)	\$181.00									
		Senior (13)	\$171.00	2	\$318.00							
	Ground survey of Cell 13, 14, 15, 16, as well as to Catron Blvd for leachate piping	Senior (12)	\$159.00	4	\$592.00							
		Staff (11)	\$148.00									
		Staff (10)	\$132.00									
		Assistant (9)	\$120.00	4	\$480.00	Surveying -	1	Lump	\$16,456.00	0	\$16,456.00	
	Surveying will be performed in a small boat in center of cell where water is currently ponded.	Assistant (8)	\$108.00			CETEC Engineering						
		Assistant (7)	\$77.00									
		Technician (6)	\$65.00									
		General Office	\$59.00									
Task Subtotals				10	\$1,390.00				\$16,456.00		\$16,456.00	
Task Total											\$17,846.00	
2.0	Geotechnical Services	Associate (15)	\$193.00	54	\$10,422.00	Meals & Lodging	10	day each	\$1,500.00	0	\$1,500.00	
		Associate (14)	\$181.00	24	\$4,344.00	Airfare	1	Week	\$500.00	0	\$500.00	
	Provide geotechnical services and testing for design and preliminary design report for Cell 15 & 16	Senior (13)	\$171.00	44	\$6,996.00	Truck	2	Miles	\$400.00	0	\$800.00	
		Staff (11)	\$159.00			Mileage	1400	Miles	\$0.35	0	\$490.00	
		Staff (10)	\$148.00			Laboratory (AET)	1	Lump	\$5,640.00	0	\$5,640.00	
		Assistant (9)	\$132.00	164	\$19,680.00	Drilling (AET)	1	Lump	\$18,805.00	0	\$18,805.00	
	Assumes 9 Field Days for BMcD Geologist - 6 days for drilling and piezometer installation (AET), 1 day for logging test pits, and 2 days for mob and demob.	Assistant (8)	\$120.00			Laboratory (Alpha-Omega)	1	Lump	\$12,162.00	0	\$12,162.00	
		Assistant (7)	\$77.00			Surveying Borings (CETEC)	1	Lump	\$609.00	0	\$609.00	
		Technician (6)	\$65.00									
		General Office	\$59.00									
Task Subtotals				286	\$41,442.00				\$40,506.00		\$40,506.00	
Task Total											\$81,948.00	

Rapid City, South Dakota
Design of Landfill Cells 15 & 16
Rapid City Landfill

Cost Estimate
on a per Task Basis
 (fill in green boxes)

EXPENSES												
Task No.	Task Description	Category	Hourly Rate	Hours	Cost	Item	Quantity	Unit	Cost per Unit	Bare Cost	Percent Markup	Total Cost
3.0	Cell 16 Construction Plans & Specs -Assumes 13 Drawings -Preliminary Design Report -Assumes Stability Analysis will not be required -30% Design Deliverable -60% Design Deliverable -Final Design Deliverable -2 Meetings with SD DENR (cl City mtgs) -3 Meetings with the City -Obtain Permits -Logistics with existing LF operations -Bidding (includes pre-bid meeting)	Associate (15) Associate (14) Senior (13) Senior (12) Staff (11) Staff (10) Assistant (9) Assistant (8) Assistant (7) Technician (6) General Office	\$193.00 \$181.00 \$171.00 \$159.00 \$148.00 \$132.00 \$120.00 \$108.00 \$77.00 \$65.00 \$59.00	28 94 440 138 12	\$5,404.00 \$17,014.00 \$69,960.00 \$18,216.00 \$924.00	Meals & Lodging Airfare Car Mileage Reprographics	8 2 8 2500 1	day each day Miles Lump	\$150.00 \$500.00 \$65.00 \$0.35 \$500.00	\$1,200.00 \$1,000.00 \$520.00 \$875.00 \$500.00	0 0 0 0	\$1,200.00 \$1,000.00 \$520.00 \$875.00 \$500.00
Task Subtotals				712	\$111,518.00					\$4,095.00		\$4,095.00
Task Total												\$115,613.00
4.0	Construction Cost Estimating Excavation volumes (overburden, rock) for bid quantities. Task 2 Geotechnical (above) includes drilling characterization for overburden, rock, etc.	Associate (15) Associate (14) Senior (13) Senior (12) Staff (11) Staff (10) Assistant (9) Assistant (8) Assistant (7) Technician (6) General Office	\$193.00 \$181.00 \$171.00 \$159.00 \$148.00 \$132.00 \$120.00 \$108.00 \$77.00 \$65.00 \$59.00	40 4	\$6,360.00 \$528.00							
Task Subtotals				44	\$6,888.00					\$0.00		\$0.00
Task Total												\$6,888.00

**Cost Estimate
on a per Task Basis**
(fill in green boxes)

**Rapid City, South Dakota
Design of Landfill Cells 15 & 16
Rapid City Landfill**

EXPENSES												
Task No.	Task Description	Category	Hourly Rate	Hours	Cost	Item	Quantity	Unit	Cost per Unit	Bare Cost	Percent Markup	Total Cost
5.0	Permit Modification	Associate (15)	\$193.00	4	\$724.00							
		Associate (14)	\$181.00									
		Senior (13)	\$171.00									
		Senior (12)	\$159.00	20	\$3,180.00							
		Staff (11)	\$148.00									
		Staff (10)	\$132.00	24	\$3,168.00							
		Assistant (9)	\$120.00									
		Assistant (8)	\$108.00									
		Assistant (7)	\$77.00									
		Technician (6)	\$65.00									
		General Office	\$59.00									
						Reprographics	1	Lump	\$100.00	\$100.00		\$100.00
Task Subtotals				48	\$7,072.00					\$100.00		\$7,172.00
Task Total												
Project Total												\$229,467.00

Exhibit C
Subcontractors

SURVEYING PROPOSAL



1560 Concourse Drive
 Rapid City, SD 57703
 Ph: (605) 341-7800

www.CETECENGINEERING.com

**Surveying Services Proposal
 For
 LANDFILL CELL 15-16 LANDFILL LINER
 AND LEACHATE COLLECTION SYSTEM
 PROJECT No. LF11-1974**

**City of Rapid City, Public Works Department, Solid Waste Division
 Rapid City, South Dakota**

To: Mrs. Brandy Kean, P.E., LEED AP, Project Manager
 Burns & McDonnell Engineering Company
 9785 Maroon Circle, Suite 400
 Centennial, CO 80112

From: Rich Marsh, P.E.
 CETEC Engineering Services, Inc.
 1560 Concourse Drive
 Rapid City, SD 57703

Date: October 20, 2011

Description:

Burns & McDonnell Engineering Company has requested professional surveying services to provide boundary and topographic survey for the City of Rapid City's proposed Landfill Cell 15-16 Landfill Liner and Leachate Collection System Project. It is our understanding that the City has also requested current topographic survey of Cells 13 & 14 to fulfill annual landfill progression reporting requirements.

We appreciate the opportunity to submit the following scope of services, fee, and schedule for the Landfill Cell 15-16 Landfill Liner and Leachate Collection System Project:

Scope of Services:

Survey Phase (Preliminary & Final Design)

1. Coordinate South Dakota One Call to locate subsurface utilities within the proposed project limits as defined by the City of Rapid City and Burns & McDonnell.
2. Complete courthouse plat research as needed for subject property and adjacent properties.
3. Create local bench marks/control and tie to existing City of Rapid City Control Monuments utilizing NAD 83 horizontal datum and NGVD 29 vertical datum. A total of 4 control points

will be set as requested by the RFP. CETEC will coordinate the location of the control points with City of Rapid City through Burns & McDonnell.

4. Field locate, as possible, property pins/monuments to define south and west edge of City of Rapid City property adjacent to proposed work limits. This does not include a complete boundary survey of all City property located at the solid waste facility.
5. Complete topographic survey of area proposed for cells 15, 16, & 1. Proposal is based on completing survey work utilizing a UTV/ATV and GPS to collect topographic survey ground data when possible.
6. Complete topographic survey of existing cells 13 & 14 as requested. Proposal is based on completing work utilizing an UTV/ATV and GPS to collect topographic survey ground data when possible.
7. Complete route and topographic survey data for leachate sewer outfall connection to Catron Boulevard. Approximate limits are shown on the attached Figure 1 provided by Burns & McDonnell. Note that we propose to survey from the City of Rapid City west property boundary east & north to the approximate limits shown instead of the additional 100' swath on private property shown on the attached redline-figure.
8. Create Base Map for design use. All base mapping will be set at a 20-scale drawing unless otherwise directed.
9. Contact & coordinate with utility companies' engineering divisions to ensure that all existing utilities were completely and accurately located in the field and are shown on the base map.

Deliverables

1. Electronic AutoCAD files (.dwg format) containing base map and survey points.
2. Topographic and Control point's in tabular format.
3. 2 Hard copy prints of survey base map.
4. Electronic PDF file of survey base map.

Services Not Included:

Work which is not included in the work scope or fee proposal include the following:

1. Property re-zoning, platting, easement documents or any other legal survey work.
3. Construction Staking is not included in the proposal. Per the RFP, we anticipate submitting a cost proposal based on final plans for the Construction Phase of the project.
4. Construction administration & observation of any kind is not included.
5. Geotechnical investigation and reporting is not included in the proposal.
6. Geotechnical compaction and/or quality control testing of any kind is not included in the proposal.
7. Environmental evaluation/reporting, archeological investigation, historical preservation coordination, and related work.

8. Engineering services are not included in the proposal.
9. Private utility designs for relocation are not included. CETEC will field locate the utilities and confirm location with Utility Owner.
10. Offsite Utilities outside designated survey limits

Fee:

CETEC Engineering proposes to work on an hourly basis plus reimbursable expenses with an estimated survey budget of **\$16,456.00** (Excludes Sales Tax, a sales tax resale certificate is requested). A detailed fee proposal is attached that further illustrates the effort anticipated for project required tasks. Please note that this is a budgetary amount and services can be added or removed as requested.

Schedule:

CETEC can begin survey work on the project within 1 to 2 weeks of notice to proceed and can complete the survey, pending weather(snow etc.) within 15 working days of notice to proceed.

We look forward to working on this project and appreciate the opportunity to be of service.

Please review this proposal and contact me with any questions.

Sincerely,
CETEC Engineering Services, Inc.

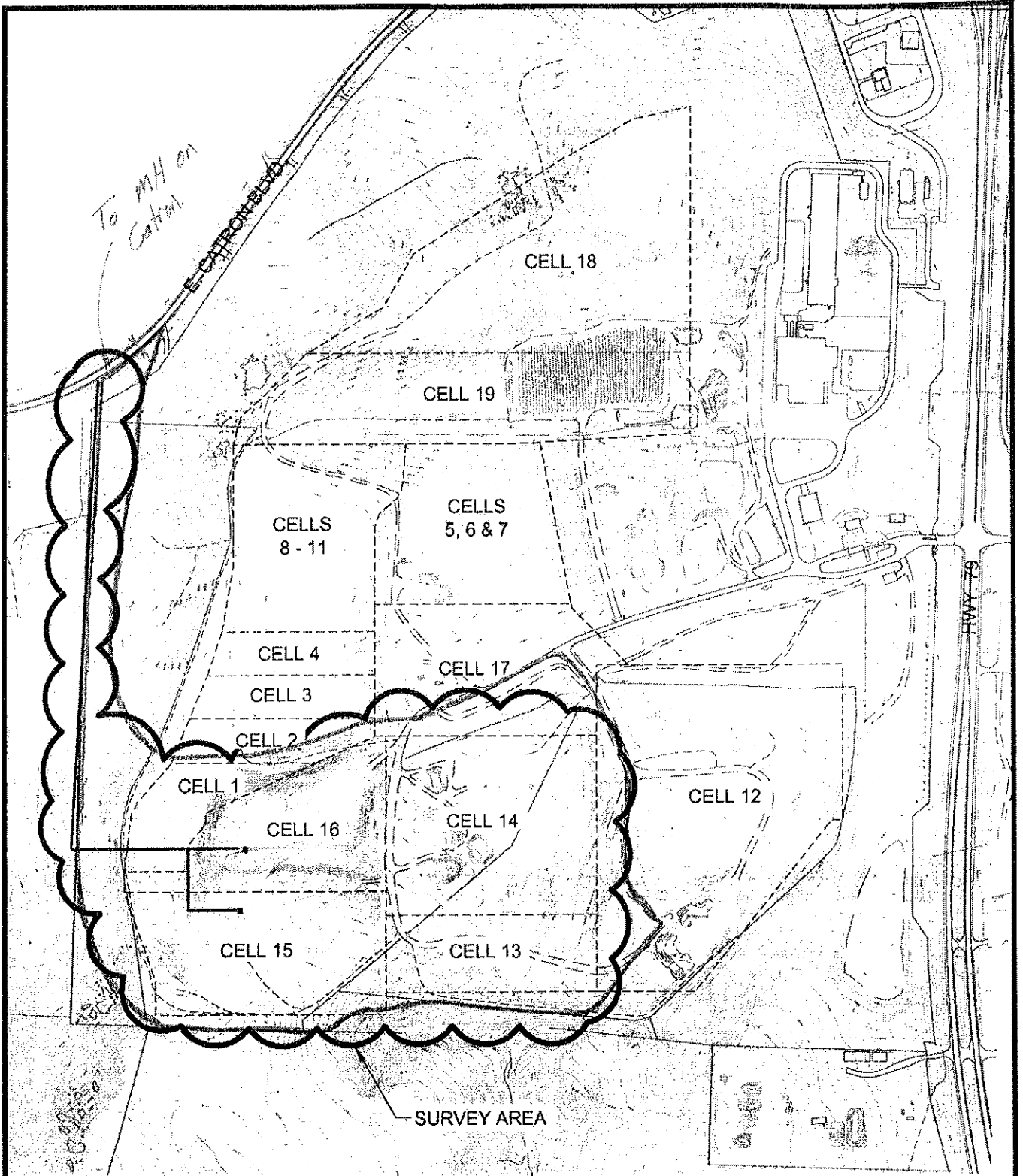


Rich Marsh, P.E.
Project Manager

Fee Proposal
CETEC Engineering Services, Inc.
Landfill Cell 15-16 Landfill Liner and Leachate Collection System (LF11-1974)

PHASE AND TASK	Principal Engineer	Project Engineer	Field Manager	CAD Technician	Survey Chief	Survey Asst.	Clerical	UTV/ATV Ranger
DESCRIPTION								
PRELIMINARY & FINAL DESIGN - TOPOGRAPHIC SURVEY								
RFP(1.5)								
-SD One Call (utility locates) & Coordination					4			
-Courthouse Plat Research					4			
-Horizontal and Vertical Control to CORC BM					4	4		
-Boundary Survey adjacent to Proposed Cells only					8	8		22
-Topographic survey of cell 15 & 16		1	1		22	22		
---Topographic survey of underwater surface		1	1		8	8		
-Topographic survey of cell 13 & 14			1		24	24		24
-Base map preparation (20 Scale), Survey Check, & Submittal	1	4	1	8	8		2	
RFP(2.3)								
-Route & Topographic Survey for Leachate Sewer System					16	16		16
-set two(2) control points at each end (4 total) & Tie to City Control					4	4		
-Include lot lines adjacent to proposed construction w/property addresses			1		6	6		
-Base map preparation (20 Scale), Survey Check, & Submittal	1			6	4	4	2	
RFP(2.4)								
-Coordination with Utility Companies' Engineering Divisions to confirm locate (does not include engineering for potential relocation or conflict resolution)		3	1					
TOTALS	2	9	6	14	112	96	4	62
Total Hours	\$118.00	\$106.00	\$74.00	\$72.00	\$68.00	\$48.00	\$45.00	\$15.00
Labor/Equip. Rate (\$/hr.)	\$236.00	\$ 954.00	\$444.00	\$1,008.00	\$7,616.00	\$4,608.00	\$ 180.00	\$ 930.00
Total Labor/Equipment		20			180			
Mileage	\$0.00	\$13.00	\$0.00	\$0.00	\$117.00	\$0.00	\$0.00	\$0.00
Travel Expenses								

SUBTOTAL: \$ 16,106.00
 Excludes TAX:
 Equipment/Supplies: \$ 350.00
TOTAL: \$ 16,456.00



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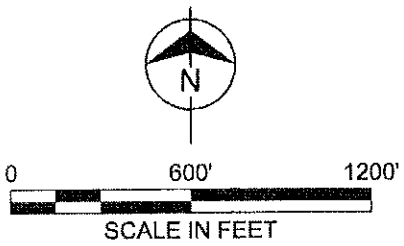


Figure 1
 SURVEY AREA
 CELLS LAYOUT
 RAPID CITY, SD



CERTIFICATE OF LIABILITY INSURANCE

PW011012-23

DATE (MM/DD/YYYY)
10/17/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER TRJ Professional Group, Inc. P.O. Box 9067 Rapid City, SD, 57709	CONTACT NAME: Tom Johnson	FAX (A/C, No): (605)-716-6534	
	PHONE (A/C, No, Ext): (605)-716-6547	E-MAIL ADDRESS: tom@trjprofessional.com	
INSURED CETEC ENGINEERING SERVICES INC. 1560 Concourse Drive Rapid City, SD 57703 (605) 341-7800	INSURER(S) AFFORDING COVERAGE		NAIC#
	INSURER A: Travelers		
	INSURER B: Beazley Insurance Co.		
	INSURER C:		
	INSURER D:		
	INSURER E:		
INSURER F:			


COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	Y	Y	680-2087M650	03/27/2011	03/27/2012	EACH OCCURRENCE \$ 1,000,000
	DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000						
	MED EXP (Any one person) \$ 5,000						
	PERSONAL & ADV INJURY \$ 1,000,000						
GENL AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE \$ 2,000,000
<input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC							PRODUCTS - COM/OP AGG \$ 2,000,000
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANYAUTO ALLOWED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS	Y	Y	BA-2088M124	03/27/2011	03/27/2012	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	BODILY INJURY (Per person) \$						
	BODILY INJURY (Per accident) \$						
	PROPERTY DAMAGE (Per accident) \$						
A	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE	Y	Y	CUP-004078R647	03/27/2011	03/27/2012	EACH OCCURRENCE \$ 1,000,000
	DED <input checked="" type="checkbox"/> RETENTION \$ 10,000						AGGREGATE \$ 1,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	Y	UB-9698Y470	03/27/2011	03/27/2012	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	E.L. EACH ACCIDENT \$ 1,000,000						
	E.L. DISEASE - EA EMPLOYEE \$ 1,000,000						
	E.L. DISEASE - POLICY LIMIT \$ 1,000,000						
B	Professional Liab.	N	Y	V15QWU110301	01/30/2011	01/30/2012	Per Claim \$1,000,000 Pol Yr Agg. \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Burns & McDonnell Engineering Company and the City of Rapid City 300 Sixth St. Rapid City, SD, 57701 are additional insureds per the contract. Project: Rapid City Landfill Cell 15-16

CERTIFICATE HOLDER Burns & McDonnell Engineering Company 9785 Maroon Circle, Suite 400 Centennial, CO, 80112	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE 
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Fee Proposal
CETEC Engineering Services, Inc.
Landfill Cell 15-16 Landfill Liner (Supplemental for Bore Holes)

PHASE AND TASK	Principal Engineer	Project Engineer	Field Manager	CAD Technician	Survey Chief	Survey Asst.	Clerical	UTV/ATV Ranger
DESCRIPTION								
Burns & McDonnell Request for Bore Hole Survey (12-30 Holes)								
-Topo survey holes		1	1		3	3		
-download data, prepare supplemental .dwg & email file to B&M		1			1			
Total Hours	-	1	1	-	4	3	-	-
Labor/Equip. Rate (\$/hr.)	\$118.00	\$106.00	\$74.00	\$72.00	\$68.00	\$48.00	\$45.00	\$15.00
Total Labor/Equipment	\$ -	\$ 106.00	\$ 74.00	\$ -	\$ 272.00	\$ 144.00	\$ -	\$ -
Mileage					20			
Travel Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$13.00	\$0.00	\$0.00	\$0.00
								SUBTOTAL: \$ 609.00
								Excludes TAX:
								TOTAL: \$ 609.00

DRILLING AND LABORATORY TESTING PROPOSALS

**Rapid City, SD Landfill Cell 15-16 Landfill Liner and Leachate Collection System
Drilling, Piezometer Installation, and Laboratory Testing Costs**

AET Drilling and Sampling	Quantity	Units	Rate/Unit	Cost
HSA Drilling (ie. Cost of split spoon or california sampler at 5 ft intervals)	430	ft	\$ 18.00	\$ 7,740.00
Continuous Drilling - sample auger cuttings	125	ft	\$ 15.00	\$ 1,875.00
Mobilization	10	hrs	\$ 125.00	\$ 1,250.00
Piezometer Installation	8	hrs	\$ 125.00	\$ 1,000.00
Grout Pump	2	days	\$ 90.00	\$ 180.00
Utility Trailer	2	days	\$ 65.00	\$ 130.00
Bentonite Grout	40	bags	\$ 33.00	\$ 1,320.00
Stick-up Protective Casing	4	each	\$ 100.00	\$ 400.00
VW Piezometers	11	each	\$ 410.00	\$ 4,510.00
Piezometer Wire	400	ft	\$ 1.00	\$ 400.00
Rotary Core Drilling		ft	\$ 30.00	\$ -
Shelby Tube Sampling	4	samples	\$ 25.00	\$ 100.00
AET Drilling and Sampling Total				\$ 18,905.00
AET Laboratory Testing				
Moisture Content	75	sample	\$ 18.00	\$ 1,350.00
Atterberg Limits	44	sample	\$ 65.00	\$ 2,860.00
Sieve Analysis + Hydrometer	11	sample	\$ 130.00	\$ 1,430.00
AET Laboratory Testing Total				\$ 5,640.00
AET TOTAL				\$ 24,545.00
Alpha-Omega Laboratory Testing				
Falling Head Permeability (ASTM D5084)	24	samples	\$ 250.00	\$ 6,000.00
Sample remold	30	samples	\$ 50.00	\$ 1,500.00
Specific Gravity (ASTM D854)	6	samples	\$ 50.00	\$ 300.00
Limits (ASTM D4318)	40	samples	\$ 55.00	\$ 2,200.00
Hydrometer Analysis (ASTM 422)	8	samples	\$ 75.00	\$ 600.00
Std. Proctor (ASTM D698)	6	samples	\$ 120.00	\$ 720.00
Natural Moisture Content (ASTM D2216)	40	samples	\$ 5.00	\$ 200.00
Dry Bulk Density (ASTM D2937)	6	samples	\$ 7.00	\$ 42.00
Classification (ASTM D2487/S488)	40	samples	\$ 5.00	\$ 200.00
Triaxial Shear Uncosolidated – undrained (ASTM D2850)	4	samples	\$ 100.00	\$ 400.00
ALPHA-OMEGA TOTAL				\$ 12,162.00
TOTAL				\$ 36,707.00

Cost Proposal - Rapid City Regional Landfill
11 Borings, 4 Borings w/ Piezometer Installation, 5 additional borings

*AET assumes 5 days of drilling and 1 day for piezometer installation; however it is likely the drilling and installation of the piezometers will be conducted concurrently in 2 days.

**HSA drilling includes the cost of split spoon or california sampler at 5 ft intervals. Based on our knowledge of the geology in the site vicinity it is unlikely rock coring or rotary core drilling will be necessary at this site.

Drilling & Piezometer Installation

HSA Drilling	430 feet @	\$18.00 =	\$7,740.00
Continuous Drilling - sample auger cuttings	125 feet @	\$15.00 =	\$1,875.00
Mobilization	10 hours @	\$125.00 =	\$1,250.00
Piezometer Installation	8 hours @	\$125.00 =	\$1,000.00

Equipment & Materials

Grout Pump	2 days @	\$90.00 =	\$180.00
Utility Trailer	2 days @	\$65.00 =	\$130.00
Bentonite Grout	40 bags @	\$33.00 =	\$1,320.00
Stick-up protective casing	4 each @	\$100.00 =	\$400.00
VW Piezometers	11 each @	\$410.00 =	\$4,510.00
Piezometer Wire	400 feet @	\$1.00 =	\$400.00

Estimated Total Cost for Drilling, Installation, Equipment & Materials only* = **\$18,805.00**

* No laboratory testing, rock coring or shelly tube sampling included

Other Drilling/Sampling

Rotary Core Drilling	\$30/ foot
Shelby Tube Sampling	\$25/ sample

Laboratory Testing

Moisture Content	\$18/ sample
Atterberg Limits	\$65/ sample
Sieve Analysis + Hydrometer	\$130/ sample