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

Project Name & Number: Solid Waste Landfill Cells 18-19

Project Description: Solid Waste Landfill Cells 18-19 Design of Liner and Leachate Collection System

Consultant: FMG Engineering Inc.

Original Contract Amount: $289,746.00

Current Contract Amount: ______________________

Change Requested: ______________________

New Contract Amount: $0.00

Current Completion Date: ______________________

New Completion Date: ______________________

Addendum No:

Amendment Description:

Funding Source This Request:

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$289,746.00 Total

Agreement Review & Approvals

[Signatures and dates]

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

Financing Office Use Only
(Date of Agreement)
[Initials]
[Approval] (Y) (N)

City Attorney

Date

Rev. 6/2/06
Agreement Between City of Rapid City and FMG Engineering for Design and Bidding Professional Services for Rapid City Landfill Solid Waste Landfill Cells 18-19 Design of Liner and Leachate Collection System Project No. SW2016-003

AGREEMENT made November 21, 2016, between the City of Rapid City, SD (City) and FMG Engineering, (Engineer), located at 3700 Sturgis Road, Rapid City, SD 57702. City intends to obtain services for design and bidding for Rapid City Landfill Cell 17 Final Cover, Project No. SW2016-003 The scope of services is as described within this document and as further described in Exhibits A, B and C (attached).

The City and the Engineer agree as follows:

The Engineer shall provide professional engineering services for the City in all phases of the Project and as further defined in Exhibits A, B and C (attached), 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 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.

1.1.4 The contract will be based on an hourly rate and reimbursable fee schedule with a maximum not-to-exceed amount.
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 Exhibit A.)

1.2.3 Conduct a location survey of the Project to the extent deemed necessary to provide adequate site information.

1.2.4 Prepare a report presenting the results of the study as outlined in the scope of services.

**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 failure of the Engineer to fulfill its agreement obligations, the City may take over the work and complete it. In such
case, the Engineer shall be liable to the City for any additional cost to the extent directly resulting from Engineer’s action.

4.1.12 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 examinations will be performed at reasonable times, with proper notice. Engineer’s documentation will be in a format consistent with general accounting procedures.

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, excluding subcontractors and sub-consultants, 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, contaminant, 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 in 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 and reimbursable rate schedule described in Exhibit C.

5.2 Fee

The maximum amount of the fee for the services as detailed in Section 1.2 shall not exceed $289,746.00 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. Prime consultant may not mark up sub-consultant or subcontractor services.

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 per the hourly rates and allowable reimbursable as 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 on or before August, 2017 based on an award date of November 21, 2016.

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, of not less than $1,000,000 each occurrence and not less than $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.

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:  

__________________________________________________________
MAYOR

DATE:________________________________________
ATTEST:

__________________________________________________________
FINANCE OFFICER

Reviewed By:  

________________________________________
KARL MERBACH, PROJECT MANAGER

DATE:  11-8-2016

CITY’S DESIGNATED PROJECT REPRESENTATIVE  
NAME Karl Merbach  
PHONE 605-355-3496  
EMAIL karl.merbach@regos.org

ENGINEERING FIRM’S DESIGNATED PROJECT REPRESENTATIVE  
NAME ____________________________  
PHONE ____________________________  
EMAIL ____________________________
EXHIBIT A
SCOPE OF SERVICES

Solid Waste Landfill Cells 18-19
Design of Liner and Leachate Collection System
Project No. SW2016-003

The City of Rapid City Landfill sequence of fill has defined Cells 18 & 19 as the next in line for receiving waste materials. The present landfill cell is anticipated to be active through late Summer of 2018. The City of Rapid City wishes to obtain professional services to design, prepare plans and specifications, prepare bid documents, and oversee construction for a liner and leachate collection system for Cells 18 & 19 in accordance with the standards required by the South Dakota Department of Environment and Natural Resources (SD DENR).

This project shall consist of two phases. The Design and Bidding phase shall include all tasks necessary for development and design, including bid documents, for Cell 18-19 at City of Rapid City Landfill. The Construction Phase shall include all tasks necessary for the construction administration, oversight, and quality assurance for Cell 18-19 at the Rapid City Landfill.

Per the RFP the Cell 18-19 Design and Bidding Phase Tasks to be completed under the contract are restricted to the western 50% + of the Cell 18-19 area. Engineering tasks of the eastern 50% + of the Cell 18-19 area are limited to the preliminary grading and leachate collection design for future relationship to the western area grading and leachate collection designs.

It is anticipated the Design and Bidding Phase will include the following items.

- Review of the City’s current SDDENR Solid Waste Permit 14-19 and permit application to obtain the City’s permitted cell limits, boundaries, and specifications.
- Review of current SD DENR regulations to confirm requirements and restrictions for design of Cell 18-19 liner and leachate collection system.
- Review of City’s waste water discharge permit 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 limits for sewer lines.
- Survey of current topography of Cell 18-19 footprint to confirm existing boundaries, and elevations.
- Grading design to create Cell 18-19 solid waste disposal area.
- Evaluation of landfill liner systems.
- Design of landfill liner system, liner must comply with all federal, state, and local laws, ordinances, rules, and regulations. Liner system design shall include design of all components of the landfill liner system.
- Design of leachate collection system. Leachate collection system shall comply with all federal, state, and local laws, ordinances, rules, and regulations. Leachate collection system shall have
a design capacity sufficient to handle leachate volumes generated by precipitation before, during, and after landfill cell construction. Leachate collection system design shall include all components of the leachate collection system necessary for proper collection, transport, and disposal of leachate.

- Design of operational access roads to the new cell. Access roads to be coordinated with existing and future landfill operations.
- Design for reconstruction of existing stormwater ponds near the SE corner of the Cell 18-19 area. Reconstruction of the stormwater ponds will include grading to improve drainage in the areas adjacent to the ponds.
- During design of the project the City will conduct an initial review, an intermediate review, and a final review. The initial review shall have information on the proposed liner materials, and the proposed layout of the leachate collection system. The intermediate review shall include all aspects of the final design and shall be submitted to and reviewed by the City of Rapid City, and the SDDENR Waste Management Program (WMP). A final review shall be conducted on a bid document that incorporates all the City’s and the SD DENR’s previous comments and the consultant feels is ready for bidding. A final bid document will be developed based on the City’s final review comments. A copy of the final bid document shall also be submitted to the SDDENR WMP.
- Design shall include all maps, surveys, plans, drawings, specifications, quantities, and documents necessary for construction and permitting of the project.

Construction Phase

- Near the completion of the Design and Bidding Phase of the project the selected consultant will develop and submit a cost proposal to the City for Construction Phase services for the project. The City assumes it will contract with the Design and Bidding Phase consultant for the Construction Phase of the project. However, this assumption is based on the performance of the Design and Bidding Phase consultant. The City, at its discretion, may contract with the Design and Bidding Phase consultant for Construction Phase services or issue a new request for proposals based on the consultant’s Design and Bidding Phase performance.
- Provide all necessary construction administration, observation, and quality assurance activities.

FMG Inc., was selected through the City’s consultant selection process to provide Engineering Services for Task 1 through Task 5. Tasks 1, 2, and 3 are included in this agreement. A contract amendment will be negotiated prior to construction for the Task 4 Basic Construction Services and Task 5 Expanded Construction Services.

**TASK 1 - PRELIMINARY DESIGN SERVICES:**

This task consists of all services necessary to take the project from beginning through the Preliminary Design submittal stage, and may include the following itemized services.

1.1 Review background information listed in the RFP, and any other resources as necessary. Background information includes but is not limited to:

- City of Rapid City GIS maps,
1.2 Perform Initial Leachate System Planning:

- Contact Rapid City Water Reclamation for discussion of discharge limits and permitting required for additional leachate collection system.
- Contact Rapid City Engineering Services Department for sanitary sewer locations and flow capacities.
- Determination of pretreatment facilities required to meet discharge and flow limits.
- Analysis of existing leachate collection systems and ponds.
- Develop Plan for Dewatering and Adjustment of Existing Leachate Line near cell base.
- Prepare Interim Technical Memorandum to present findings of Initial Leachate System Planning Tasks.

1.3 Preliminary Recommendations for Leachate Collection System.

- Preliminary recommendations shall include arrangement and location of all applicable collection pipes, pumps or lift stations, valves, cleanouts, vaults, ponds, or other structures.
- Differentiate between pressurized flow and gravity flow pipes and include elevations of critical structures.
- Preliminary Recommendations shall include sizing and location for leachate pond(s). Include recommendations for relocation/reconstruction of existing leachate as necessary.
- Prepare Interim Technical Memorandum to present Recommendations for Leachate Collection System.
- Assumption - Scope of work assumes gravity system can be used for leachate collection and discharge. Scope does not include design of any mechanical system needed for pressurized leachate piping system. Contract Amendment will be necessary for design of mechanical and pressure systems if needed.
• Assumption - Scope of work for this project assumes pretreatment, other than existing leachate ponds, is not required. Contract amendment will be necessary if pretreatment facilities other than existing or reconstructed leachate pond(s) becomes necessary.

1.4 Prepare Recommendations for Landfill Liner

• Provide recommendations for landfill liner options. In accordance with Attachment D of the City’s Solid Waste Permit #14-19 “Liner Systems” the liner shall incorporate a composite liner system in the design. An alternate liner system may be approved by SDDENR if compliance with the current state approved liner design can be demonstrated.

• Provide recommendations for lining of the previously closed cell areas where the Cell 18-19 construction will overlap onto the final cover of the closed areas.

• Prepare Interim Technical Memorandum to present findings of Initial Landfill Liner Design Options analysis.

1.5 Perform site surveys sufficient for design plan preparation. The route and topography survey shall be tied to at least two City of Rapid City Monument Control system monuments utilizing State Plane coordinates. Survey will use NAD horizontal datum and NGVD 1929 vertical datum. One call locating service will be notified for marking of existing utilities. City of Rapid City to be responsible for costs if a Private Locating Service must be contracted with for additional locates.

1.6 Private Utilities Base Plan Verification Meeting: The consultant shall send base plans to the private utilities requesting verifications that their utilities are shown correctly per their records. A meeting with the private utilities shall be scheduled after submitting plans to verify that the utilities are shown correctly and to make plans revisions as necessary.

1.7 Perform Geotechnical Evaluation

A geotechnical evaluation will be performed to:

• Establish an understanding of the site geology and geotechnical conditions,

• Determine the suitability of the site soils for use as landfill liner materials,

• Establish an understanding of the site groundwater conditions,

• Delineate the historic C&D site near the existing compost facility,

• Develop an understanding of the excavation conditions which will be encountered at the site.

The geotechnical evaluation scope of work will include:

• Exploratory boreholes at various location within the project footprint to depths on the order of 50 to 60 feet below existing grades. We anticipate up to 20 boreholes.

• Installation of piezometers to facilitate longer term observation of groundwater conditions. We assume up to 6 piezometers will be installed to depths on the order of 50 to 60 feet.
- Monitoring and documentation of the groundwater levels and preparation of a potentiometric map.
- Laboratory testing, including permeability testing, standard classification testing, strength testing and other testing as necessary, will be performed to develop an understanding of the engineering characteristics of the site soils and bedrock.
- Exploratory boreholes to delineate the historic C&D site. We anticipate up to 10 boreholes in this area.

At this time, we assume a slope stability analysis is not necessary. We also assume offsite geotechnical evaluations not necessary. A significant volume of geotechnical data exists from past geotechnical work at the landfill, both performed by FMG and other consultants. This data will be reviewed and incorporated where appropriate into our specific geotechnical evaluation of the site. Although not anticipated at this time, test pits will be excavated by Landfill personnel should they become necessary in the course of the geotechnical evaluation.

The findings of the evaluation will be summarized in a written report. The report will include discussion of the evaluation methods, exploration and testing results, suitability of the materials, and recommendations.

1.8 Preliminary Design Submittal

The Preliminary Design Submittal shall be used for the Intermediate Review Submittal. The Preliminary Design Submittal shall generally consist of the following documents:

A. Preliminary Design Report

Prepare a Preliminary Design Report: The consultant shall establish and indicate project specific design criteria and standards within the Preliminary Design Report. The consultant shall submit all design assumptions for liner materials, clay material, drainage components, stormwater protection, existing water, sewer, and storm sewer locations, existing utility locations, etc. The Consultant shall include design life, design criteria, and reference of design resources.

Design criteria for the project shall include the current edition of the following items:
- City of Rapid City Design Criteria manuals,
- City of Rapid City Standard Specifications,
- City of Rapid City 2013 Solid Waste Permit Application,
- Solid Water Permit 14-19,
- Rapid City Wastewater Discharge Permit Number 40.1,
- Plans of existing facilities,
- SD DENR codified laws and administrative rules pertaining to landfill liner and leachate collection system design and construction.

If conflicts are identified between standards to be used or design criteria documents, they shall be resolved in favor of the more stringent requirement as determined by the Director of Public Works. Use of other documents or references may be proposed; however, this will require written concurrence from the City through the Project Manager and may require “Exceptions” per the City exception process.
The Preliminary Design Report shall include discussion related to:

- Suitability of onsite materials,
- Grading plans and cell volume,
- Landfill liner,
- Grading plans for on-site borrow areas if necessary,
- Leachate Collection System Layout,
- Relocation of the Variance Pit Leachate Collection Line,
- Preliminary Grading Analysis and Relationship of future east portion of Cells 18-19,
- Preliminary leachate system design for future east portion of Cells 18-19,
- Phasing and Sequencing,
- Access,
- Impacts, if any, landfill area leased to SD National Guard,
- Reroute of BHIPL powerline.

The Consultant shall elaborate on other project components as necessary.

A probable opinion of construction costs for the project(s) shall be included. The costs shall be itemized based on the City’s standard bid items and appropriate contingency item allowance.

The Preliminary Design Report shall include recommendations for review and comment by City staff.

Submit three (3) copies and a PDF version of the Preliminary Design Report and preliminary plans and specifications to City of Rapid City’s project manager for review and comment.

B. Preliminary Design Drawings

Provide three (3) copies and a PDF version of the conceptual drawings. It is anticipated the conceptual drawings shall contain the following sheets at a minimum:

- Cover Sheet
- Survey Control Sheet
- Property Layout and Land Ownership
- Overall Project Layout and Phasing Sheet
- Cell 18 - 19 West Area Layout and Grading
- Cell 18 - 19 Future Expansion East Area Preliminary Layout and Grading
- Liner Layout and Details
- Leachate Collection System
- Leachate Pond(s)
• Stormwater Pond(s) and adjacent area grading
• Site Cross Sections
• Access Roads
• Construction Period Access and Traffic Control Plans
• Anticipated Standard Details
• Special Details - Conceptual layouts for special/critical elements; for example, haul roads, roadway crossings, etc.

1.9 City Meetings during Preliminary Design

The Consultant shall schedule and participate in the following meetings with City Staff. The consultant shall prepare an agenda, take minutes, and distribute minutes.

• Kick-off Conference: Meet with City staff to detail project concept and scope.
• Meeting between City of Rapid City and SD National Guard (2 meetings assumed).
• Meeting between City of Rapid City and BHPL for Power Line Reroute (1 meeting assumed)
• Initial Liner and Leachate System Review (1 meeting assumed)
• Preliminary Design Report Presentation and Discussion. (1 meeting)
• Monthly progress meetings and Interim Technical Memorandum Reviews (Assumes 6 meetings)

1.10 SDDENR Coordination

The Consultant shall schedule and coordinate an Initial Kickoff Meeting with SD DERN staff... The Consultant shall prepare an agenda, take minutes, and distribute minutes.

The Consultant shall provide the Preliminary Submittal documents to SD DERN for review and comments.

The Consultant shall schedule and coordinate a formal review meeting to discuss the Preliminary Submittal. The consultant shall prepare an agenda, take minutes, and distribute minutes.

Assumes meetings with SDDENR will be held in Rapid City.

The consultant will prepare a response to SD DERN Preliminary submittal comments.

TASK 2 - FINAL DESIGN SERVICES:

This task consists of all services necessary to take project from Task 1 Preliminary Design Services through the Final Design Services.

2.1 Address City and SD DERN comments from Task 1 and Task 2 City and SD DERN review(s) and finalize Design Report. The Design Report will now be titled “Final Review Design Report.” Provide two (2) copies and a PDF version of the finalized Project Design Report with Final Review submittal. Update to “Final Project Design Report” after review of
the final review submittal by City and SD DENR.

2.2 Provide complete plans and specifications for a unit price construction contract. Scope of work assumes project is to be bid as one overall project.

The following plans sheets are anticipated:
- Cover Sheet
- General Note Sheets
- Survey Control Sheet
- Property Layout and Land Ownership
- Overall Project Layout Sheet
- Sequencing Plan
- Cell 18 - 19 West Area Layout and Grading
- Liner Layout and Details
- Leachate Collection System
- Leachate Pond(s) Layout
- Leachate Pond(s) Grading
- Stormwater Pond(s) Layout
- Stormwater Pond(s) Grading
- Site Cross Sections
- Access Roads Layout and Profiles
- Access Roads Grading
- Construction Period Access and Traffic Control Plans
- Anticipated Standard Details
- Special Details
- Erosion Control Plans – Temporary
- Erosion Control Plan – Permanent
- Erosion Control Details
- SWPPP

Plans are to be prepared using City of Rapid City drafting standards. Drawing scales shall be 1” = 20’ H and 1” = 5’ V for plan and profile sheets. Alternate scales may be used for overall sheets and cross sections.

Layout sheet shall include lot lines and address of all properties adjacent to the project.

Project Sequence plan shall include such items as phasing, traffic control, erosion and sediment control, restoration, and construction milestones.
Traffic control plan shall identify detour routes and signage for various stages of construction. Landfill operations and traffic to be maintained during construction and shall be considered to have right of way under all circumstances unless flaggers are provided.

Staking information shall include either of the following formats:

On the Plans:
- Station offsets for all items of work requiring field staking.
- In tabular form on a plan sheet (schedule)
- Coordinates and description of inter-visible control points.
- Coordinates of all items of work requiring field staking.

Benchmark information shall be provided on each sheet.

2.3 Provide complete quality assurance and quality control plan (QA/QC plan). QA/QC plan must be submitted to SD DENR WMP for review and approval. Consultant shall provide draft QA/QC plan and final QA/QC plan to address SD DENR comments.

2.4 Coordinate directly with utility companies’ engineering divisions to ensure that all existing utilities are completely and accurately identified and 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. Preliminary plans shall be provided to the pertinent utilities for comment at the time they are complete followed by a specific private utility coordination meeting in two to three weeks. Detailed coordination required with BHPL regarding power line reroute locations and sequencing.

2.5 Notify the City Project Manager if private utilities will need to be relocated so PM can formally notify the utilities to relocate.

2.6 Provide general sequence of construction requirements in order to ensure quality assurance and control testing is completely and adequately performed. Constructions specifications to include qualification required for Liner construction and shall specify quality control testing results that shall be submitted and approved by the SD DENR WMP prior to the construction of the leachate collection system. Coordinate with landfill operations so that construction of the cell liner and leachate collection systems are completed when necessary.

2.7 Prepare final review detailed specifications supplementing the City of Rapid City Standard Specifications, as necessary. City of Rapid City Standard Specifications and contract documents are to be used where applicable.

2.8 Obtain Design or Specification Exceptions.

2.9 Prepare a unit price cost probable opinion of construction cost for the final review drawings and specifications.

2.10 Submit Final Review Specifications, QA/QC Plan, Drawings, and Opinion of Probable Cost to City of Rapid City and SD DENR for review. The Final Design Services submittal will be made to the City when the consultant believes the plans, specifications, contract documents, and Opinion of probable construction cost are 100% complete.
Provide three (3) copies and a PDF version of the Final Design Services submittal to City. Provide two (2) copies and PDF of the Final Design Services submittal to DENR.

2.11 City Meetings during Final Design

The Consultant shall schedule and participate in the following meetings with City Staff. The consultant shall prepare an agenda, take minutes, and distribute minutes.

- Final Review Plans And Specifications Review Meeting (Approximately 95% Design)
- Monthly Progress Meetings and/or Interim Technical Memorandum Review Meetings (Assumes 6 meetings)

2.12 SD DENR Coordination

- Arrange and conduct a review meeting SD DENR to discuss Final Review Submittal. Assumes meeting to be held in Rapid City. The Consultant shall prepare an agenda, take minutes, and distribute minutes.
- Address SD DENR review comments regarding Final Review Submittal.

2.13 Address Final Review Comments by City of Rapid City and SD DENR.

2.14 Prepare any and all permits with exhibits the City will need to execute for the project.

2.15 Identify permits that will be required for the Contractor. Identify permit costs and indicate if any permit costs are paid for directly by the owner or if it is a Contractor cost. Typically all permit costs are the Contractor’s obligation.

2.16 Prepare final “Engineer’s Estimate” of probable construction cost for the project.

2.17 Provide Final Plans and Specifications

All submittals (drawings and specifications) believed by the Engineer of Record to be a final, shall contain a Certification Statement of Conformance with City Standards which shall read, “I (insert Engineer of Record’s name) Certify that I have read and understand the provisions contained in the City of Rapid City Standard Specifications for Public Works Construction, current edition and the City of Rapid City’s adopted Design Criteria Manuals. The drawings and specifications contained here within, to the best of my knowledge, were prepared in accordance with these documents or a properly executed exception to the Standard Specifications and/or Infrastructure Design Criteria Manual has been secured”. This statement shall appear on the title sheet of the drawings and on the first page of specifications after the cover sheet. The “Certification Statement of Conformance with City Specifications” shall be signed and dated by the Engineer of Record.

Deliver the following:

- Provide one (1) copy and a PDF version of bid documents including complete plans, specifications, and Engineer’s Estimate of probable construction cost to the City of Rapid City’s project manager for City distribution.
Provide one (1) copy and a PDF version of QA/QC plan.

- Provide complete plans on CD compatible with AutoCAD Release 2011 or newer format.
- Provide all topographic, control, and design points in the .dwg file and in tabular format, both on CD and on hard copy printout.
- Provide complete specifications and contract documents on CD in Microsoft Word XP or previous versions.
- Provide a unit price cost estimate on CD in Microsoft Excel XP or previous version on the City of Rapid City "Engineer's Estimate" form.
- Provide Engineer's Estimate of probable construction costs as a component of this submittal.
- Provide all final design documents in PDF format on a CD.

2.18 Print and distribute three (3) copies of the plans/drawings to the City of Rapid City at 11” x 17” scale for construction services personnel.

TASK 3 – BIDDING SERVICES:

This task consists of all services necessary for the administration of the Bidding Services of the project, and may include the following itemized services.

City to be responsible for bid document distribution. City to be responsible for printing costs.

3.1 Submit sufficient information to the City of Rapid City project manager for completion of City Advertising Authority form.

3.2 Consultant shall proof print quality at printers before full production of copies are made.

3.3 Arrange and conduct a Pre-bid Conference. Record attendance and minutes. Distribute minute copies to only Consultant and City.

3.4 Provide review of prequalification submittals if determined necessary.

3.5 Prepare and issue addenda to the bid documents as required.

3.6 Review Bidder's Proposals and review and sign the City Engineering Services prepared Bid Tab, prepare an award recommendation letter to the City of Rapid City project manager, and sign a City Engineering Services prepared Award Summary.
SCHEDULE MILESTONES

Following are possible schedule milestone dates. These dates are goals and subject to change as the project advances.

- Notice to Proceed with Tasks 1-3: October 31, 2016
- Preliminary Design Services Submittal: April 1, 2017
- Final Design Services Submittal: June 1, 2017
- Final Plans, Specifications, & Contract Documents Complete: July 1, 2017
- Project Bid Opening Date: August 1, 2017
- Project Construction Begins: September, 2017
- Project 100% Construction Complete: August 1, 2018

Schedule milestones assume weather and ground conditions allow for survey and geotechnical field activities in November 2016.

Assumes City will respond to all submittals within one week of receipt.

Assumes no delay in design related to reviews by SD DENR. Assumes design work can continue during SD DENR reviews.
## EXHIBIT B - TASK SCHEDULE FOR TASKS 1 - 3

**CITY OF RAPID CITY**

**SOLID WASTER LANDFILL CELLS 18 AND 19**

**DESIGN OF LINER AND LEACHATE COLLECTION SYSTEM**

*Project No. SW2016-003*

*FMG, INC. - October 11, 2016*

### TASK 1 - PRELIMINARY DESIGN SERVICES

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Collect and Review Background Information</td>
<td>$2,895.00</td>
</tr>
<tr>
<td>1.2</td>
<td>Initial Leachate System Planning</td>
<td>$5,728.00</td>
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<tr>
<td>1.3</td>
<td>Preliminary Recommendations for Leachate Collection System</td>
<td>$7,983.00</td>
</tr>
<tr>
<td>1.4</td>
<td>Preliminary Recommendations for Landfill Liner</td>
<td>$1,409.00</td>
</tr>
<tr>
<td>1.5</td>
<td>Site Survey</td>
<td>$22,438.00</td>
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<tr>
<td>1.6</td>
<td>Utility Company Notifications/Base Map Verification</td>
<td>$752.00</td>
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<tr>
<td>1.7</td>
<td>Geotechnical Evaluation</td>
<td>$35,000.00</td>
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<tr>
<td>1.8</td>
<td>Preliminary Design Submittal</td>
<td>$23,930.00</td>
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<td>1.8.A</td>
<td>Preliminary Design Report</td>
<td>$70,626.00</td>
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<td>1.8.B</td>
<td>Preliminary Design Drawings</td>
<td>$4,897.00</td>
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<td>1.9</td>
<td>City Meetings</td>
<td>$3,616.00</td>
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<td>1.10</td>
<td>SD DEQR Coordination</td>
<td>$1,200.00</td>
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</table>

**TOTAL FOR TASK 1-PRELIMINARY DESIGN** $180,474.00

### TASK 2 - FINAL DESIGN

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<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Fees</th>
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</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Final Project Report addressing City &amp; SD DEQR Comments</td>
<td>$5,308.00</td>
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<tr>
<td>2.2</td>
<td>Prepare Final Design Drawings For Review</td>
<td>$60,428.00</td>
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<td>2.3</td>
<td>Prepare QA/QC Plan per SD DEQR Requirement</td>
<td>$3,281.00</td>
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<tr>
<td>2.4</td>
<td>Coordinate With Utility Companies</td>
<td>$595.00</td>
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<tr>
<td>2.5</td>
<td>Notify City Project Manager If Private Utilities Require Relocation</td>
<td>$316.00</td>
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<td>2.6</td>
<td>Develop General Sequence of Construction Requirements</td>
<td>$2,880.00</td>
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<tr>
<td>2.7</td>
<td>Prepare Detailed Specifications for Review</td>
<td>$5,038.00</td>
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<td>2.8</td>
<td>Obtain Design or Specification Exceptions</td>
<td>$831.00</td>
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<tr>
<td>2.9</td>
<td>Final Review Opinion of Probable Construction Cost</td>
<td>$2,585.00</td>
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<td>2.10</td>
<td>Submit Final Design Documents for Review to City and DEQR</td>
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<td>2.11</td>
<td>City Meetings During Final Design</td>
<td>$3,667.00</td>
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<td>2.12</td>
<td>SD DEQR Coordination</td>
<td>$1,232.00</td>
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<td>2.13</td>
<td>Address City and SD DEQR Review Comments on Final Review Plans</td>
<td>$4,834.00</td>
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<td>2.14</td>
<td>Prepare Permits and Exhibits needed for Project</td>
<td>$772.00</td>
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<td>2.15</td>
<td>Identify Permits Required by Contractor</td>
<td>$565.00</td>
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<td>2.16</td>
<td>Final Opinion of Probable Construction Cost</td>
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<td>2.17</td>
<td>Submit Final Plans and Specifications Deliverables</td>
<td>$1,779.00</td>
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<td>2.18</td>
<td>Provide Reduced Plan Sets to Construction Services Personnel</td>
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<td>2.19</td>
<td>Reimbursables, Printing, Supplies, Mileage, Expendables for Final Design</td>
<td>$1,000.00</td>
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**TOTAL FOR TASK 2-FINAL DESIGN** $102,401.00

### TASK 3 - BIDDING SERVICES

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Information to City for Advertising Authority</td>
<td>$595.00</td>
</tr>
<tr>
<td>3.2</td>
<td>Proof Print Quality at Printers</td>
<td>$236.00</td>
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<tr>
<td>3.3</td>
<td>Prebid Meeting/Minutes</td>
<td>$1,355.00</td>
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<td>3.4</td>
<td>Prequalification Reviews</td>
<td>$1,456.00</td>
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<td>3.5</td>
<td>Prepare Addenda</td>
<td>$2,228.00</td>
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<td>3.6</td>
<td>Review Bids and Sign Bid Tab</td>
<td>$755.00</td>
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<tr>
<td>3.7</td>
<td>Prepare Bid Award Recommendation</td>
<td>$246.00</td>
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**TOTAL FOR TASK 3-BIDDING PHASE** $6,671.00

**TOTAL FEES ALL TASKS** $289,746.00

Although dollar values have been provided for each task, FMG retains the right to reallocate monies to other tasks subject to the maximum limiting fee shown above.
EXHIBIT C
FMG INC., RATE SCHEDULE
FOR
Solid Waste Landfill Cells 18-19
Design of Liner and Leachate Collection System
Project No. SW2016-003

TASK 1 – PRELIMINARY DESIGN SERVICES
TASK 2 – FINAL DESIGN SERVICES
TASK 3 – BIDDING SERVICES

<table>
<thead>
<tr>
<th>PERSONNEL</th>
<th>RATE</th>
</tr>
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<tbody>
<tr>
<td>FMG ENGINEERING</td>
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<tr>
<td>Principal Civil Engineer</td>
<td>$145.00/hr</td>
</tr>
<tr>
<td>Senior Geotechnical Engineer</td>
<td>$123.00/hr</td>
</tr>
<tr>
<td>Senior Civil Engineer</td>
<td>$118.00/hr</td>
</tr>
<tr>
<td>Senior Materials Specialist</td>
<td>$110.00/hr</td>
</tr>
<tr>
<td>Civil Engineer – PE</td>
<td>$85.00/hr</td>
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<tr>
<td>Civil Engineer – EIT</td>
<td>$75.00/hr</td>
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<tr>
<td>Environmental Scientist</td>
<td>$80.00/hr</td>
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<tr>
<td>CADD Technician</td>
<td>$70.00/hr</td>
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<tr>
<td>Registered Land Surveyor</td>
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<tr>
<td>Survey Crew Chief</td>
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<td>Survey Technician</td>
<td>$55.00/hr</td>
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<tr>
<td>Geologist</td>
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<tr>
<td>Materials Technician</td>
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<tr>
<td>Senior Administrative Assistant</td>
<td>$55.00/hr</td>
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</table>

<table>
<thead>
<tr>
<th>VEHICLES &amp; EXPENSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization (support vehicle)</td>
<td>$0.70/mile</td>
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<tr>
<td>Travel Costs - air, lodging, transport, meals, etc.</td>
<td>cost</td>
</tr>
<tr>
<td>Document/Plans Reproduction</td>
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</table>