



Division of Public Works .
1000 South Houser St.
Muscatine, IA 52761

Recycling Center and Transfer Station

Phone (563) 263-9689
Fax: (563) 263-9689

MEMORANDUM

To: Mayor and City Council
Cc: Gregg Mandsager, City Administrator
From: David Popp, Solid Waste/Collection and Drainage Manager
Date: August 28, 2019
Re: Barker Lemar Airspace Analysis and Staking Proposal

Recycling Center
Transfer Station
Landfill Operations
Refuse Collection

Introduction:

The City of Muscatine and the Muscatine County Solid Waste Management Agency manage the operations at the Muscatine County Sanitary Landfill. Dick Doyle Excavating works under contract with the City to provide operations at the Landfill. Under contract, the City is required to provide an Airspace analysis annually, at its cost, to ensure proper compaction measures are being achieved by the contract operator.

Additionally as part of a proposed plan of Corrective Measures, mandated by the Department of Natural Resources, a survey to identify areas that need filling and grading in Ravines five and six is also needed.

Background:

The minimum compaction of waste deposited at the Muscatine County Sanitary Landfill is specified in the landfill operators contract. In order to verify that the minimum compaction rate is being met by Landfill contractor Dick Doyle Excavating, a survey needs to be performed annually. Additionally, remaining airspace in cells 1 thru 5 will be surveyed and included in the report. Barker Lemar Engineering has provided a proposal for this Airspace analysis survey along with a proposal to provide a topographic survey of Ravines 5 and 6. This survey is needed to identify areas that are low and not allowing water to run off the Ravines. Once areas are identified, fill will be added from soil available at the Landfill and Ravines 5 and 6 will be graded and seeded, not as part of this proposal, to improve storm water runoff and decrease leachate generation.

Recommendation/Rationale:

Staff recommends that the proposal from Barker Lemar Engineering in the amount of \$4,500.00 for the airspace/staking survey and the ravine survey in the amount of \$1,650.00 for a total of \$6,150.00 be approved. Funds are available in the Landfill Operations budget for this survey work.

Background Information:

Barker Lemar Engineering Proposal No. 195728

Thank You
David Popp
Solid Waste/Collection and Drainage Manager

"I remember Muscatine for its sunsets. I have never seen any
on either side of the ocean that equaled them" — Mark Twain

CONFIRMATION OF NOTICE TO PROCEED

Proposal No. 195728

The above proposal and attached Terms and Conditions are understood and accepted.

BARKER LEMAR agrees to perform and complete the following Services for the Client at its facility located at Muscatine, Iowa.

The scope of services are described as airspace analysis/staking and Ravines 5 and 6 topographic survey and will include other technical and/or administrative services as outlined in this proposal.

BARKER LEMAR agrees to perform the above scope of services for a total lump sum compensation of \$4,500 for Task 1 and \$1,650 for Task 2. The Client will be invoiced for the percent of each task completed at the time of the invoice. The compensation for the proposed scope of services is valid for 60 days following the date of this proposal.

If this proposal meets with your approval, sign two originals of this confirmation of notice to proceed, retain one original for Client files, and return one original or copy via email, fax to 515.256.0572, or U.S. mail to Barker Lemar Engineering Consultants, 1801 Industrial Circle, West Des Moines, IA 50265.

If you have questions regarding any of the information above, please contact one of the authorized signers below at 515.256.8814, or 800.707.4248.

BARKER LEMAR ENGINEERING CONSULTANTS

MUSCATINE COUNTY SOLID WASTE MANAGEMENT AGENCY



Adam Gehrts
Environmental Specialist
8/9/2019
agehrts@barkerlemar.com

Dave Popp

Solid Waste Manager

Date:

dpopp@muscatineiowa.gov


Brian L. Rath, P.E.
Director of Engineering Operations
8/9/19
brath@barkerlemar.com

Copies: Addressee (via email)
Electronic File

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Background Information:

Barker Lemar Engineering Proposal No. 195728

Thank You
David Popp
Solid Waste/Collection and Drainage Manager



August 9, 2019

Mr. Dave Popp, Solid Waste Manager
Muscatine Recycling Center and Transfer Station
1000 South Houser Street
Muscatine, Iowa 52761

Re: Proposal: 2019 Airspace Analysis and Staking
Muscatine County Sanitary Landfill
Permit No. 70-SDP-02-75P
Proposal No. 195728

Dear Dave:

BARKER LEMAR ENGINEERING CONSULTANTS (BARKER LEMAR) appreciates the opportunity to provide consulting services to the Muscatine County Solid Waste Management Agency (Client) described as 2019 Airspace analysis and staking and Ravines 5 and 6 topographic survey at the Muscatine County Sanitary Landfill.

1.0 PROJECT UNDERSTANDING

Based on recent conversations with the Client, a proposal for the completion of the 2019 Airspace survey, staking and airspace analysis per the operations contract between the Client and Dick Doyle Excavating (Landfill Contract Operator) is requested. Additionally, a topographic survey of the flatter areas of Ravines 5 and 6 will be performed in an effort to identify areas that do not drain surface water consistent with the general final cover surface. The scope of services for this work is included in section 2.0.

2.0 SCOPE OF SERVICES

Based on our understanding of the project, BARKER LEMAR proposes the following scope of services:

TASK 1-AIRSPACE ANALYSIS AND STAKING

This task includes mobilization to the landfill located west of Blue Grass, Iowa, conducting a topographic survey of the Phases 3, 4, and 5 of the landfill, calculation of the effective waste density, and calculation of the remaining life of the surveyed Cells 3, 4 and 5.

As part of the survey portion of this task, stakes will be placed highlighting the remaining airspace located in the Phase 5 cell, to aid the contract operator with the fill operations in those cells and placement of intermediate cover.

The airspace analysis will include a letter report, an analysis showing the airspace utilized, the remaining airspace in Phase 1-5 Cells, the estimated remaining life of the surveyed cell(s), and a memo and figure regarding overfill that has occurred. In addition, the airspace analysis will include the following figures:

1. Previous survey topography
2. Current survey topography
3. Revised interim top of waste contours of Phases 1-5 (for calculating remaining life)
4. Remaining fill contours for Phases 1-5 (for indicating areas where waste should be placed)

5. Remaining fill and overfill contours for Phases 1-5

Notes:

1. The Client shall provide the tonnage of waste placed in the landfilled cell(s) during the time between previous and current surveys.

TASK 2- DRAINAGE SURVEY

This task will include a survey of Ravines 5 and 6, up to 13.5 acres, in an effort to identify areas where drainage improvement through the placement of additional fill materials along with the proposed key tie in locations. The survey will be completed using ground-based GPS equipment. An updated topographic map of the surveyed area will be provided to the Client. Development of a proposed grading plan is not part of this scope of services.

3.0 LIMITATIONS

Services not set forth in section 2.0, scope of services, are excluded from this proposal. BARKER LEMAR assumes no responsibility to perform such excluded services and has no liability associated with the non-performance of such services.

4.0 SCHEDULE

BARKER LEMAR will begin these services subsequent to receiving the signed confirmation of notice to proceed, or the Client's verbal authorization followed by the signed notice to proceed. Barring circumstances beyond BARKER LEMAR's control, including but not limited to weather, Client review times, and Client/DNR availability for meetings, BARKER LEMAR anticipates completing the survey portion of this scope of services within 60 days of receipt of a signed notice to proceed.

5.0 COMPENSATION

BARKER LEMAR agrees to perform the above scope of services on a lump sum by task basis. The compensation for the proposed scope of services is \$4,500 for the airspace/staking and \$1,650 for the ravine survey. Although compensation is shown by task, the compensation for individual tasks are not independent of each other, and elimination of any task or part of a task shall justify a review and potential adjustment of the compensation for the remaining scope of services. BARKER LEMAR invoices will be submitted monthly and will reflect the percentage complete of each task as of the date of the invoice. The compensation for the proposed scope of services is valid for 60 days following the date of this proposal. Payment terms are as described in the attached terms and conditions. Should conditions be encountered that require a significant change in the scope of services, compensation, or schedule, BARKER LEMAR will contact Client and proceed only with Client authorization, followed by a signed change order.

6.0 HEALTH AND SAFETY

This proposal assumes that Level D safety precautions are adequate. Level D safety attire generally consists of a normal work uniform including safety shoes, hard-hat where required, and appropriate eye protection. The costs will be adjusted accordingly if site-specific conditions require more stringent health and safety procedures.



7.0 CONDITIONS

Items to be provided by the Client include the right-of-entry to conduct the topographic survey. The Client is responsible for making BARKER LEMAR aware of any restrictions or special requirements regarding the site and its required activities prior to the commencement of the fieldwork. We have enclosed our Terms and Conditions that should be considered part of this proposal.