Village of Salado

WORKSHOP AND REGULAR MEETING OF THE SALADO BOARD OF ALDERMEN

WORKSHOP AND REGULAR AGENDA

6:30 P.M., THURSDAY, JULY 14, 2016
MUNICIPAL BUILDING
301 NORTH STAGECOACH, SALADO, TX
BOARD OF ALDERMEN CHAMBERS

I. *CALL TO ORDER*

II. *REGULAR AGENDA*

1. Presentation, discussion, and possible action on the Master Development Agreement (and associated Exhibit D – Tourism Marketing Agreement) with Stagecoach 1943, Limited Partnership, for redevelopment to the Stagecoach Inn and Restaurant.

III. *WORKSHOP AGENDA*

2. Keep Salado Beautiful and Village of Salado long-range planning -- Susan Terry, Keep Salado Beautiful.

3. Update on Wastewater Capital Projects -- Rick Kasberg, Kasberg Patrick and Associates
   a. Project schedule
   b. Timing of bids
   c. Other project issues

4. Discuss a proposal for geophysical survey using the electrical resistivity tomography (ERT) method for characterizing the proposed Salado Creek crossing location.

IV. *REGULAR AGENDA*

5. Consider approval of a contract with Collier Consulting Inc. for a geophysical survey using the electrical resistivity tomography (ERT) method for characterizing the proposed Salado Creek wastewater line crossing location in an amount not to exceed $18,590.

V. *EXECUTIVE SESSION*

6. Conduct an executive session as authorized by Texas Government Code Section 551.072, Deliberations about Real Property, for the purchase of a site on the west side for a Wastewater Treatment Plant.

VI. *ADJOURN*

The Village of Salado reserves the right to adjourn into executive session at any time during the course of this meeting to discuss any of the matters listed above, as authorized by Texas Government Code Sections 551.071 (Consultation with Attorney), 551.072 (Deliberations about Real Property), 551.073 (Deliberations about Gifts and Donations), 551.074 (Personnel Matters), 551.076 (Deliberations about Security Devices) and 551.087 (Economic Development).

This facility is wheelchair accessible and accessible parking spaces are available. Requests for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact the Village Secretary's office at (254) 947-5060 for further assistance.

I hereby certify that a true and correct copy of this Notice of Meeting was posted in a public place at 5:00 p.m. on **Monday, July 11, 2016**.

Mary Ann Ray, Village Secretary

Removed from display: _____

COLLIER
CONSULTING

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F-8170

June 16, 2016

To: Dirk Aaron
General Manager
Clearwater Underground Water Conservation District
PO Box 1989
Belton, TX 76513

VIA Email: Dirk.Aaron@clearwaterdistrict.org

Re: Proposal/Cost Estimate – Geophysical survey using the electrical resistivity tomography (ERT) method for characterizing the proposed Salado Creek crossing location

Dear Dirk:

Collier Consulting, Inc. (Collier) is pleased to provide Clearwater Underground Water Conservation District (Clearwater) with this proposal to conduct a geophysical survey for a proposed pipeline site located in Salado, Texas (the Site). Collier understands that the objective of this survey is to assess the subsurface characteristics of the bedrock for the presence and location of karst features at the Site.

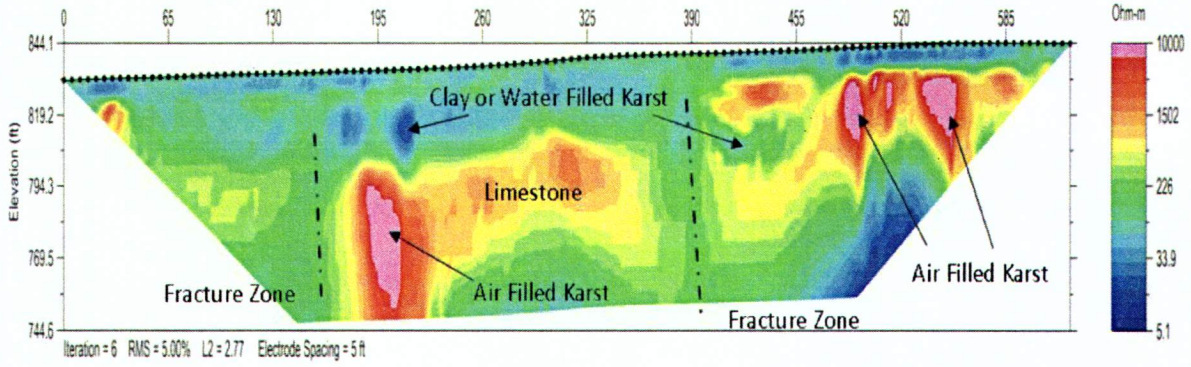
Collier understands that Clearwater has recommended to the Village of Salado and their engineer (KPA Engineers) that Enhanced Best Management Practices (BMPs) for the protection of water quality and habitat in karstic areas, as defined by the Texas Commission on Environmental Quality (TCEQ), be applied as a "gold standard" to this project. Of particular concern is that the artesian head in the area and related spring flow is protected, ultimately protecting water quality and threatened species in the area. Therefore identifying if karst features are present under the Salado Creek portion of the proposed pipeline project prior to construction is important to meeting this recommendation.

The area of investigation is the location of a proposed underground waste water pipeline crossing of Salado Creek. This area is located just on the western side of Main Street in Salado. The subsurface geology in the area consists of the Edwards and Comanche Peak Limestone which is approximately 130 feet thick in this area. Karst features are a common characteristic of these formations and are known to be present in this region. Artesian spring flow is present in the creek within 300 feet west of the proposed crossing. We understand that the proposed top of the pipeline will be approximately 3 to 4 feet below ground surface (bgs) and the bottom approximately 8 to 10 feet bgs. We also understand that the primary area of concern is the 200 foot section to be constructed directly under Salado Creek and will be the primary focus of this investigation.

Collier proposes to conduct a geophysical investigation consisting of a high resolution electrical resistivity tomography (ERT) survey (resistivity). The resistivity survey will assist in imaging the subsurface and be used to further identify the presence and extent of potential karst features. Collier proposes to collect resistivity data across the area of interest described above. The geophysical data will be digitally recorded for processing and interpretation.

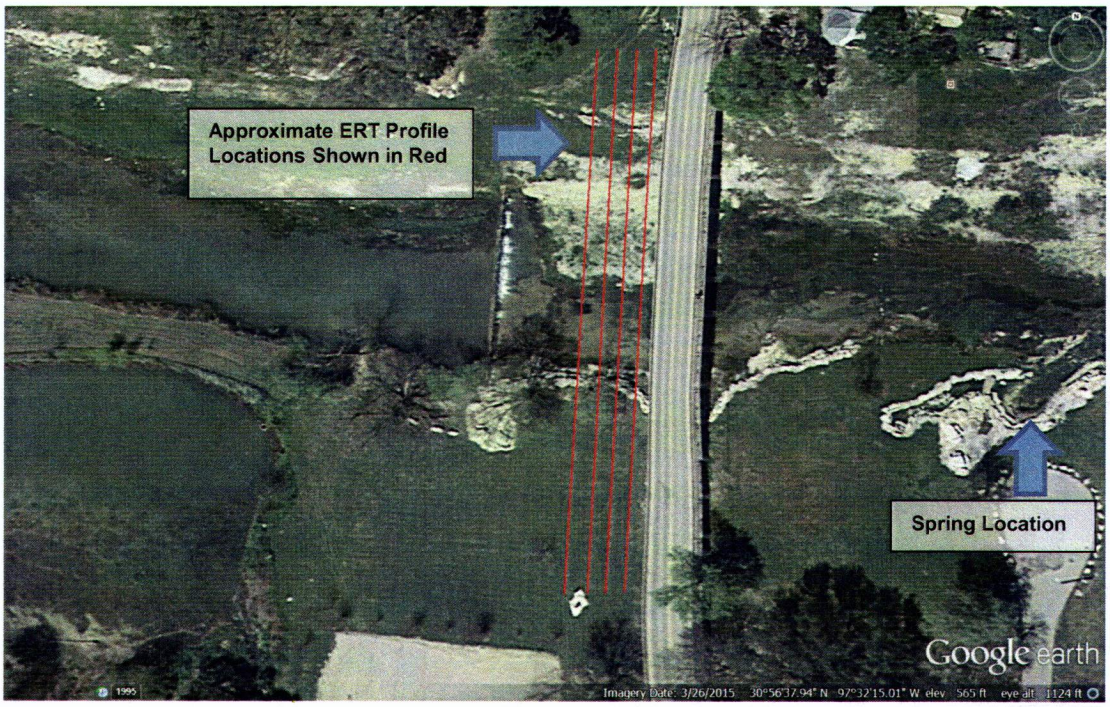
Electrical resistivity is a physical property, which can be diagnostic of the type of geologic material present. Unsaturated soils or rock have higher resistivity than saturated soils or rock in which case the resistivity is lowered by the presence of water. Carbonates and sand and gravels with minimal silt/clay content have higher resistivity than shale's or soils with high silt/clay content. The contrast in electrical properties in the subsurface can be used by the resistivity methods to characterize the subsurface features and lithology and identify potential air and/or water filled voids related to karst. Figure 1 is an example of an interpreted ERT profile over a karst area located in the Edwards Formation near Austin, Texas.

Figure 1: Example Interpretation of an ERT profile



Resistivity data will be collected along 3 to 4 resistivity profiles at the Site as shown in Figure 2. The resistivity data will be collected with an 8-channel multi electrode (84) resistivity system. Each resistivity profile will consist of 84 evenly spaced stainless steel electrodes placed in the ground at 4 foot intervals, creating a single array length of 336 feet. The maximum investigation depth is determined by array length, signal strength, and subsurface material composition. The resistivity data will be modeled and presented in two-dimensional (2-D) cross sections of electrical properties (resistivity) of the subsurface to at least a depth of 30 feet bgs under the proposed Salado Creek crossing. The resistivity data will be cross checked with accepted geologic resistivity values and information from area and known hydrogeology.

Figure 2 Proposed ERT profile locations at the Site.



Actual field parameters may be altered on-site by the field geophysicist to optimize the investigation. The interpreted data will be presented in 2-dimensional (2-D) plan view maps and profile plots, interpreted for the presence of anomalies representative of potential subsurface conditions related to the karst features that may be present at the site. The results from this geophysical survey will be presented in a written report. The report for this project will include a brief description of the field investigation, methodologies, maps, and recommendations.

We propose to conduct this ERT survey for a time and materials basis, not to exceed a fee of $18,590. A summary of the estimate is attached with key assumptions. This estimate assumes the work will be completed over a period of two days of field work. This cost includes mobilization of staff and equipment, completion of the field work, data processing, and preparation of a report summarizing methodology and findings. We assume Clearwater will provide access to the site and assistance in the field if needed. Work will not be performed during inclement weather. Additional time in the field to complete the work, if needed, will be charged at our standard hourly rates and fees for other indirect charges only if approved by Clearwater. We are able to start this work after receiving the attached notice to proceed.

Collier will also prepare a Job Safety Analysis (JSA) for the proposed work. The JSA will be completed in accordance with our company Safety Management Plan and take into consideration any site specific requirements.

The Collier geophysical team offers a broad range of shallow geophysical exploration techniques to assist in the assessment of various problems. Our geophysical staff is experienced on a wide variety of marine and land environments, and has a broad spectrum of geophysical survey, data processing, interpretation, and project experience that we will apply to this investigation. Thank you for the opportunity to provide you with this cost proposal for geophysical work. If you have additional questions or need further clarification please do not hesitate to call me at (512) 995-6995.

Sincerely,
Collier Consulting, Inc.

Douglas E. Laymon, P.G.
Geophysical Services Manager

Attachments

COST ESTIMATE

Summary Table for Cost Estimate

Line Item	Estimated Cost	
Mobilization	$	1,386
Equipment	$	2,284
Per Diem	$	300
Data Acquisition	$	7,659
Processing/Reporting	$	6,962
Total	$	18,590

The following is a list of key assumptions for our cost estimate.

1. Standby time due to weather or any project delay beyond the control of Collier will be billed at $310 per hour. Our work days in the field are 10 hours and we will use a 3-person field crew.
2. Additional hotel nights beyond that which is stated in the mobilization fee will be charged at $150 per night per person.
3. Clearwater is responsible for making sure the work area is clear of any vehicles and other obstructions prior to the agreed upon start time for the project.
4. This quote does not include labor for any site clearing, traffic control, or any additional services not specifically mentioned in the Scope or Methods. We assumed the proposed testing location is an open area without obstructive brush and a field vehicle can access the proposed testing location when developing the pricing for this project.
5. Clearwater may incur additional equipment charges at the rate of the daily equipment charge if the project is delayed beyond the agreed upon start date, as stated in the written notice to proceed, for reasons beyond the control of Collier. Equipment fees are applicable to holidays and weekends in addition to regular business days.
6. Personal protective equipment is assumed to be hardhat, leather boots, safety vest, and eye protection as needed.
7. Unless otherwise agreed upon beforehand, original manuscripts, field notes, and other such materials will remain the property of Collier. Information specifically related to work done for Clearwater will be considered confidential.

Notice to Proceed

This notice to proceed must be completed and signed prior to Collier Consulting, Inc. preparing for mobilization or agreeing to perform work on a specified date.

Description of Work to Perform:

The ERT Survey at the Salado Creek crossing site to identify potential karst features, if present.

Clearwater UWCD Authorization

Accepted by: _____
(Authorized Name and Title)

Signature: _____

Date: _____

Collier Consulting, Inc. Authorization

Accepted by: _____
(Authorized Name and Title)

Signature: _____

Date: _____