

CS-13-216

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CONTRACT MANAGEMENT

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WORK AUTHORIZATION # CM2096-WA04
NASSAU COUNTY
BOARD OF COUNTY COMMISSIONERS
RFQ/BID NO. NC13-033

2014 JUL 25 PM 2: 29

Consultant:	S2L, Incorporated
Contract Number:	CM2096
Contact Name:	Sam Levin, P.E.
Contact Number:	407-475-9163
Email:	Slevin@s2Li.com

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COUNTY COMMISSIONERS
OFFICE

CURRENT WORK AUTHORIZATION			
Project Short Title: Preparation of an Inward Gradient Analysis and Meeting with FDEP for the West Nassau Class 1 Landfill			
		CONTRACT OVERVIEW	
Date Submitted	7-14-14	Total of Previous Authorizations	\$137,555.30
Amount	\$24,329.98	This Work Authorization	\$24,329.98
Scheduled Completion	60 days from NTP	Current Contract Total	\$161,885.28

This Work Authorization is to the AGREEMENT between Nassau County and the Consultant known as the Continuing Contract for Professional Engineering Services – Solid Waste Landfills and Other Related Ancillary Facilities for Nassau County, Florida, dated April 16, 2014. The services to be provided under this Work Authorization are as follows:

ARTICLE 1. Services Described as:

S2Li will provide professional services to provide engineering and hydrogeological consulting services to conduct an analysis of the inward gradient system, and to assist the County in technical representations to the FDEP, further described in the Scope of Services attached hereto as Attachment "A".

ARTICLE 2. Time Schedule

Work under this Work Authorization is expected to be completed within 60 days of a written Notice to Proceed, assuming that the County can review and offer any comments on the Technical Memorandum within a two week period from the receipt of the draft report.

ARTICLE 3. Budget

The cost estimate to conduct the Work as described in the Scope of Services is \$24,329.98. A detailed breakdown for each tasks with the estimated labor hours and expenses are included in the Exhibit 1 of Attachment "A".

Article 4. Other Provisions


The Services covered by this Work Authorization will be performed in accordance with the provisions set forth in the AGREEMENT referenced above and any of its attachments or schedules. Additional terms or contract provisions whether submitted purposely or

inadvertently, shall have no force or effect. This Work Authorization will become a part of the referenced AGREEMENT when executed by both parties.

In presenting this Work Authorization, Consultant agrees that:

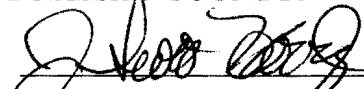
Unless detailed herein, all drawings, data, electronic files and other information required for this Work Authorization has been accepted by Consultant. Specifically, all electronic files have been reviewed and accepted for the purposes of this Work assignment. Any additional information, including detailed scope of services are attached.

AGREED TO BY:

BY: 
Print Name: Samuel B. Levin
Title: President
Date: 7-23-14

RECOMMENDED AND APPROVED BY NASSAU COUNTY:

Director of Engineering Services:



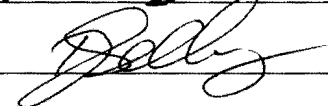
Contract Management:

Charlotte Zydney

Office of Management & Budget:


CW

County Manager:



APPROVED by the BOARD OF COUNTY COMMISSIONERS, the 6th day of August, 2014

ACCOUNT NO.: 70362534-531000
5/24/14

Scope of Services

**Preparation
of an
Inward Gradient Analysis and Meeting with FDEP
for the
West Nassau Class I Landfill**

**County Contract Number: CM2096-WA04
S2Li Project Number: 14-552**

Over 20 years ago, a slurry wall was installed for groundwater dewatering at the West Nassau Class I Landfill to allow below ground soil excavation and subsequent construction/installation of lined waste disposal cells in the southern portion of the landfill. Since then, synthetically-lined disposal cells were installed, filled to capacity, and closed above ground. However, over time through permit renewal and construction permitting, the function of the slurry wall appears to have been redefined from its original purpose as a "construction dewatering control operation" to a "water quality control operation" by requiring by regulatory permit, continuation of an inward gradient requirement after closure of the landfill. This includes maintaining groundwater elevation inside of the slurry wall at least 12 inches below outside groundwater elevations; manual water elevation measurement at 48 locations on a weekly basis, and notification to the Florida Department of Environmental Protection (FDEP) within 24 hours of any groundwater elevation exceedances. Continuing to meet FDEP permit requirements associated with the slurry wall has placed a significant burden on Nassau County (County) for manpower, liquid disposal, and facility operation/maintenance costs.

County has asked S2L, Incorporated (S2Li) and its team of subconsultants (collectively known as the S2Li Team) to approach FDEP to discuss the operational need of the inward hydraulic gradient control system (a.k.a. groundwater recovery system) and the continuing manual groundwater elevation measurements on each side of the slurry wall. In addition, the County would like to take this opportunity with FDEP to discuss the elimination or modification of other existing permit conditions or requirements. The goal of this discussion would be to facilitate a reduction in operational and maintenance costs in conjunction with next years' permit renewal process. Any request for permit modification or application for a permit modification is not included in this Work Authorization.

The County's objectives to be discussed with FDEP are as follow:

1. Suspension (turning off) of the automatic pumping of groundwater (groundwater recovery system) in the southeastern corner of the landfill;

2. Modification of the manual measuring requirements by reducing the number of measuring locations, the frequency of measurement, and expansion of the notification time limit for any measurement exceedances;
3. Possible modification of the groundwater monitoring network by abandonment of the existing detection monitoring wells located inside the perimeter landfill slurry wall, and conversion of the existing compliance monitoring wells located outside the slurry wall to detection monitoring wells, and;
4. Any other existing specific condition requirements of the permit that could possibly be modified or eliminated to reduce operational and maintenance costs of the landfill.

This Work Authorization will provide engineering and hydrogeological consulting services to conduct an analysis of the inward gradient system, and to assist the County in technical representations to the FDEP. Under the scope of services for this Work Authorization, S2Li Team will perform the following:

Scope of Services

Task 1 – Review of Data, Records, and Existing Permit Requirements

1. General Site and Facility Review – Preliminary review of the FDEP's Oculus website indicates that a wealth of information is available regarding physical characteristics, hydrogeology and history of landfill development and operation at the West Nassau Landfill. Routine semi-annual and quarterly water quality monitoring reports are available to describe groundwater flow and water quality characteristics over time.

S2Li Team will compile and review Oculus files to confirm site hydrogeological conditions and factors affecting groundwater flow and water quality characteristics. Information regarding landfill design and operation will be gathered from Oculus and Nassau County files. Particular attention will be given to design and construction records for the landfill perimeter slurry wall surrounding the lined and closed Class I landfill.

2. Monitoring Records Review – S2Li Team will compile groundwater and quality monitoring records for the facility dating back to 1999 when volatile organic compounds (VOCs) were first detected in groundwater detection wells in the southwestern area of the lined and closed Class I landfill. VOC and other key landfill indicator parameter concentrations will be compiled to describe water quality characteristics of groundwater within and outside the landfill's perimeter slurry wall structure, and to identify apparent parameter concentration trends. Groundwater elevations reported for wells and piezometers located outside the landfill will be compiled from available monitoring reports. This data will provide a basis for evaluating groundwater flow directions within the discrete monitoring zone penetrated by landfill monitoring wells and piezometers.

3. Landfill Operating Permit Review – S2Li Team will review the FDEP closure permit issued for the West Nassau Class I Landfill (Permit No. 0002870-014-SF) in 2010 for comparison to the currently effective groundwater monitoring and control requirements of Chapter 62-701, Florida Administrative Code (F.A.C.) for lined Class I solid waste facilities. Variance from, and/or exceedance of, rule requirements will be identified considering facility design and results from groundwater control and monitoring systems. In addition, the S2Li Team will review other existing specific condition requirements of the permit that could possibly be modified or eliminated to reduce operational and maintenance costs of the landfill.

Task 2 – Monitoring Data Evaluation

S2Li Team will prepare a graphical evaluation of water quality and groundwater elevation and flow data based on historical landfill monitoring records. Graphical methods will be used to compare groundwater quality characteristics between individual monitoring wells and between wells installed inside and outside the facility slurry wall along the boundary of the lined Class I landfill cell. Characteristics to be considered will include the VOCs detected in wells installed inside the slurry wall and key parameters indicative of impacts from landfill leachate.

Long-period hydrographs of groundwater elevations reported in monitoring wells will be developed to describe historical fluctuations and trends in water levels around the landfill to evaluate and confirm potential for groundwater movement within the formation (Golder's Stratum III) screened and sampled by facility monitoring wells.

Task 3 – Preparation of a Technical Memorandum

S2Li Team will prepare a Technical Memorandum for the County that discusses the County objectives and presents the information to be provided to FDEP. The memorandum will present a review of hydrogeologic and historical water quality monitoring results to determine if continued groundwater withdrawal from within the slurry wall surrounding the lined and closed Class I landfill is warranted to protect the public health, safety and welfare and the environment. S2Li Team will also provide recommendations for alteration or abeyance of operation of the facility groundwater control system based on indications of leachate release to groundwater and the potential for violation of water quality regulatory standards at the facility zone of discharge boundary. Recommendations will consider the requirements of Chapter 62-701, F.A.C. and the feasibility of modification of the closure permit, and may include:

1. Permanent suspension of operation of the groundwater recovery system installed in the southeast corner of the lined Class I landfill between the landfill bottom liners and perimeter slurry wall;
2. Temporary suspension of groundwater recovery system operation for completion of testing and evaluation of impacts on groundwater levels within the lined landfill:

3. Reduction of routine water level monitoring frequency, and reduction in water level monitoring locations around the landfill should the FDEP consider that continued operation of the groundwater recovery system and compliance with the inward hydraulic gradient permit requirement necessary for environmental protection purposes;
4. Modification of the groundwater monitoring network around the lined Class I landfill to delete detection monitoring wells located inside the perimeter landfill slurry wall, and conversion of compliance wells located outside the slurry wall to detection monitoring wells. Minor modification of the landfill zone of discharge boundary may be necessary depending on distance of existing compliance wells from the edge of solid waste; and
5. Other existing specific condition requirements of the permit that could possibly be modified to reduce operational and maintenance costs of the landfill.

A draft of the Technical Memorandum will be submitted to County staff for review and comment. After receipt and incorporating comments from the County, the memorandum will be finalized.

Task 4 – Meeting with FDEP

1. Prior to a meeting with FDEP, S2Li Team will submit the final Technical Memorandum to FDEP for meeting background purposes.
2. S2Li Team representatives will coordinate, prepare for, and attend one meeting with FDEP and Nassau County representatives to present the results of the evaluation discussed in the Technical Memorandum, and discuss County's objectives.

Schedule

Work Authorization under the Scope of Services provided above is expected to be completed within 60 days of a written Notice-to-Proceed assuming that the County can review and offer any comments on the Technical Memorandum within a two week period from the receipt of the draft report.

Cost Estimate

The cost estimate to conduct the Work as described in the above listed Scope of Services is \$24,329.98. A detailed breakdown for each task in conjunction with the estimated labor hours, contract labor rates, and expenses are included in the attached Exhibit 1 for the S2Li Team. Costs incurred will be invoiced on a time and material basis. The County will be notified when the overall project budget is nearing its limit.

July 14, 2014

EXHIBIT 1

S2Li No. 14-552
County No. CM2096-WA04

Total Project Costs
S2Li Fee Estimate

Preparation of an
Inward Gradient Analysis and Meeting With FDEP
West Nassau Class I Landfill
Nassau County, Florida

LABOR		LABOR CATEGORY AND RATE							TOTAL HOURS	SUBTOTAL LABOR
		Project Dir./ Principal	Regional Manager/ QC Officer	Principal Engineer	Senior Engineer	Associate Engineer	CAD Technician	Office Manager		
TASK	DESCRIPTION	\$225.00	\$208.88	\$171.38	\$122.51	\$47.47	\$47.47	\$68.46		
1	Review of Data, Records and Existing Permit Requirements	1	8	0	0	0	0	2	11	\$2,032.96
2	Monitoring Data Evaluation	0	0	0	0	0	0	0	0	\$0.00
3	Preparation of a Technical Memorandum	2	12	0	2	0	12	2	30	\$3,908.14
4	Meeting with FDEP	1	12	0	0	0	0	2	15	\$2,868.48
SUBTOTALS:		4	32	0	2	0	12	6	56	\$8,809.58

EXPENSES		Field Vehicle (\$90/day)	Lab Testing (est.)	Equipment Rental (est.)	Parts (est.)		The Colinas Group (see attached)			SUBTOTAL EXPENSES
TASK	DESCRIPTION									
1	Review of Data, Records and Existing Permit Requirements	\$ -	\$ -	\$ -	\$ -	\$ -	\$3,052.40			\$ 3,052.40
2	Monitoring Data Evaluation	\$ -	\$ -	\$ -	\$ -	\$ -	\$4,784.00			\$ 4,784.00
3	Preparation of a Technical Memorandum	\$ -	\$ -	\$ -	\$ -	\$ -	\$5,936.80			\$ 5,936.80
4	Meeting with FDEP	\$ -	\$ -	\$ -	\$ -	\$ -	\$1,747.20			\$ 1,747.20
SUBTOTALS:		\$ -	\$ -	\$ -	\$ -	\$ -	\$15,520.40	\$0	\$0	\$ 15,520.40

COST SUMMARY				
TASK	DESCRIPTION	SUBTOTAL S2LI LABOR	SUBTOTAL EXPENSES Including Subconsultants	TASK TOTAL
1	Review of Data, Records and Existing Permit Requirements	\$ 2,032.96	\$ 3,052.40	\$ 5,085.36
2	Monitoring Data Evaluation	\$ -	\$ 4,784.00	\$ 4,784.00
3	Preparation of a Technical Memorandum	\$ 3,908.14	\$ 5,936.80	\$ 9,844.94
4	Meeting with FDEP	\$ 2,868.48	\$ 1,747.20	\$ 4,615.68
TOTALS		\$ 8,809.58	\$ 15,520.40	\$ 24,329.98

July 14, 2014

Attachment: The Collins Group Fee Estimate - Subcontractors

**Preparation of an
Inward Gradient Analysis and Meeting With FDEP
West Nassau Class I Landfill
Nassau County, Florida**

S2Li No. 14-552

County No. CM2096-WA04

LABOR		LABOR CATEGORY AND RATE								TOTAL HOURS	SUBTOTAL LABOR	
		Principal Consultant \$145.60	Senior Hydrogeologist \$117.60	Staff Hydrologist \$86.20	Env. Field Technician \$84.15	Draftperson/ CAD \$60.00	Clerk/ Word Process. \$37.50					
TASK	DESCRIPTION											
1	Review of Data, Records and Existing Permit Requirements	4	8	16	0	0	4				32	\$3,052.40
2	Monitoring Data Evaluation	4	24	16	0	0	0				44	\$4,784.00
3	Preparation of a Technical Memorandum	8	24	8	0	16	8				64	\$5,936.80
4	Meeting with FDEP	12	0	0	0	0	0				12	\$1,747.20
SUBTOTALS:		28	56	40	0	16	12				152	\$15,520.40

EXPENSES		Field Vehicle (\$90/day)	Lab Testing (est.)	Equipment Rental (est.)	Parts (est.)	Landtec Web Data Base (\$500/m)	Subcontractors (est.)						SUBTOTAL EXPENSES
TASK	DESCRIPTION												
1	Review of Data, Records and Existing Permit Requirements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Monitoring Data Evaluation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Preparation of a Technical Memorandum	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Meeting with FDEP	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTALS:		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL											\$15,520.40		