Consultant:	S2L, Incorporated
Contract Number:	CM2096
Contact Name:	Omar E. Smith, P.E., V.P.
Contact Number:	407-475-9163
Email:	osmith@s2Li.com

	CURREN	NT WORK AUTHORIZATION								
Project Short Title:	Inward Gradient	Measurements and Evaluation for West N	lassau Landfill							
CONTRACT OVERVIEW										
		Total of Previous Authorizations	\$1,347,106.55							
Date Submitted	1-22-18	Adjustments/Change Orders	(\$13,403.63)							
Amount	\$22,482.96	This Work Authorization	\$22,482.96							
Scheduled	09/30/18	Current Contract Total	\$1,356,185.88							
Completion										

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:

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ARTICLE 1. Services Described as:

S2Li Team will assist the County by measuring, recording, and evaluating the monthly inward gradient conditions at the slurry wall surrounding the West Nassau Landfill. S2L, Incorporated (S2Li) shall perform the work in accordance with the scope of services, attached hereto as Attachment "A".

ARTICLE 2. Time Schedule

The services under this Work Authorization would be conducted through and be completed by September 30, 2018.

ARTICLE 3. Budget

3.17-154

The cost estimate to conduct the Work as described in the Scope of Services is \$22,482.96. Costs incurred shall be on a time and material basis. Detailed breakdown of estimated cost attached as Exhibit 1.

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

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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:	S2L, INCORPORATED	
	BY: AUM.	
	Print Name: <u>Samuel B. Levin</u>	_
	Title: <u>President</u>	
	Date: January 23, 2018	_

RECOMMENDED AND APPROVED BY NASSAU COUNTY:

Public Works Director:

Contract Management:

Office of Management & Budget

County Manager:

APPROVED by the County Manager, designee for the BOARD OF COUNTY COMMISSIONERS, the 15thay of February , 2018.

ACCOUNT NO.: 01362534-531000

Inward Gradient Measurements and Evaluation for the West Nassau Landfill

County Contract Number: CM2096-WA25 S2Li Project Number: 18-773 January 22, 2018

This Work Authorization (WA) tasks S2L, Incorporated (S2Li) to assist the County by measuring, recording, and evaluating the monthly inward gradient conditions at the slurry wall surrounding the West Nassau Landfill (Landfill). Under the scope of services for this Work Authorization, S2Li will perform the following:

SCOPE OF SERVICES

Task 1 – Monthly Monitoring of Well Water Elevation by taking Field Measurements (February through September 2018)

S2Li will measure and record the water level elevations within wells at 50 locations (two wells per sampling location) surrounding the Landfill. These measurements will be conducted monthly, while S2Li is on site for purposes of monitoring and testing the landfill gas extraction wells. Note: For the first monthly field measurement activity under this Work Authorization, County personal are to accompany S2Li's personnel (project manager, project engineer, and technician) to demonstrate historical sampling procedures and locations. S2Li's technician will input the monthly slurry wall monitoring well water elevations into the County provided spreadsheet template.

Task 2 – Monthly Monitoring Data Evaluation (February through September 2018)

S2Li will graphically compare the water elevations inside and outside of the West Nassau Landfills' slurry wall and will note trending results. A summary discussion of the monthly data results compared to the previous data trends will be submitted monthly to the County in conjunction with the monthly data results. Results that show any exceedances (inward gradient less than 12 inches) will be highlighted. Costs associated with addressing any compliance and regulatory issues with the Florida Department of Environmental Protection (FDEP) are not included in this scope of services and will need to be addressed as an additional service.

Task 3 – Initial Monitoring Data Evaluation Setup

S2Li will update, enhance and expand the current spreadsheet by including a graphical comparison to assist in the evaluation of the water elevations inside and outside the Landfill slurry wall. Monthly data collected during the last 16 months (from October 2016) will be entered into the updated spreadsheets, to serve as a baseline moving forward.

SCHEDULE

The services under this Work Authorization would be conducted through and be completed by September 30, 2018.

SCOPE OF SERVICES - COUNTY ASSUMPTIONS

It has been assumed that the County will perform, provide or make available the following:

- Access to the entrance into the Site;
- Key(s) to the well casing covers;
- Previous 16 months of data collected by the County; and
- For Task 1, use of County equipment to measure the water level elevations within the wells.

COST ESTIMATE

The cost estimate to conduct the Work as described in the above listed Scope of Services is \$22,482.96. 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. 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.

D:\CloudStation\Projects\Wassua County\West Nassau(Inward Gradient Data\Proposa)\S2LLNC West Nassau LF_Inward Gradient Collection and Documentation Serices_WA25_FINAL_01-22-18.docc

Engineering Services Inward Gradient Measurements and Evaluation West Nassau Class I Landfill Nassau County, Florida ULBOR CATEGORY AND RATE Project Dic/ Regional Manager/ Principal Senior Project Associate

Principal Engineer ABOR Project Engineer Diffe TOTAL SUBTOTAL Associate CAD/ Principal QCOfficer Engineer Engineer Technician Manager HOURS LABOR TASK DESCRIPTION \$225.00 \$208.88 \$171.38 \$122.51 \$81.81 \$47.47 \$47.47 \$68.46 lonthly Monitoring Well Water Elevation Field leasurements (February through September 2018) 1 2 28 0 0 8 56 0 10 104 \$10,296.04 lonthly Monitoring Data Evaluation (February through eptember 2018) 2 2 24 0 0 32 0 0 0 58 \$8,081.04 3 Initial Monitoring Data Evaluation Setup 2 4 0 0 24 0 0 2 32 \$3,385,88 SUBTOTALS: 6 56 0 0 64 56 0 12 194 \$21,762.95 Field Vehide (\$90/day) Lab Testing (est.) Equipment Rental (est.) Parts (est.) EXPENSES SUBTOTAL EXPENSES DESCRIPTION Monthly Monitoring Well Water Elevation Field Measurements (February through September 2018) TASK \$ 720.00 \$ 1 \$ --\$ • \$0.00 \$ 720.00 Monthly Monitoring Data Evaluation (February through September 2018) \$ \$ \$ -\$ • \$0.00 2 ---\$ s . \$ 3 -\$ -\$ 1 \$ • \$0.00 \$. initial Monitoring Data Evaluation Setup SUBTOTALS: \$ \$ \$0 720.00 \$. -\$ \$. \$0.00 \$0 \$ 720.00 -

TASK	DESCRIPTION	SUBTOTAL S2U LABOR	SUBTOTAL EXPENSES Including Subconsultants	TASK TOTAL
1	Monthly Monitoring Well Water Elevation Field Measurements (February through September 2018)	\$ 10,295.04	\$ 720.00	\$ 11,015.04
2	Monthly Monitoring Data Evaluation (February through September 2018)	\$ 8,081.04	\$ -	\$ 8,081.04
з	Initia) Monitoring Data Evaluation Setup	\$ 3,385.88	s -	\$ 3,385.88
т	DTALS	\$ 21,762.96	\$ 720.00	\$ 22,482.96

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52U No.

18-773

County No. CM2095-WA25

EXHIBIT 1

January 22, 2018 Total Project Costs S2Li Fee Estimate

Report Print Date: 1/23/2018

NASSAU COUNTY CONTRACT MANAGEMENT

Report Date: 01/23/18

CONTINUTING CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES - SOLID WASTE LANDFILLS AND OTHER RELATED ANCILARY FACILITIES S2L, INCORPORATED CONTRACT NO. CM2096

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WA#	PROJECT NAME	APPROVAL DATE	OR	GINAL FEE	CHANG	E ORDERS	CO	NTRACT FEE	STATUS	AC	TUAL COST	DIF	FERENTIAL
	Operation, Monitoring, Maintenance and									T			
	Reporting for the Landfill Gas Collection												
	and Control System at the West Nassau				1.000								
01	Class I Landfill		\$	101,250.04	5	-	\$	101,250.04	Completed	\$	100,922.38	\$	(327.66)
	Preparation of a Title V Air Permit												
	Renewal Application for the West Nassau			~~ ~~ ~~	-								(100.05)
	Class Landfil		S	20,399.06	5	-	\$	20,399,06	Completed	\$	19,916.71	\$	(482.35)
	Preparation of a 2014 Landfill Financial		-	16 000 00			s	15,906.20	Completed	s	15 500 00		(316.14)
	Assurance Report Preparation of an Inward Gradint Analysis		\$	15,906.20	\$		3	15,900.20	Completed	13	15,590.06	\$	(310.14)
	and Meeting with FDEP for the West												
	Nassau Class I Landfill		s	24,329,98	s	14.009.84	s	38.339.82	Completed	s	37,446.13	\$	(893.69)
04	Operation, Monitoring, Maintenance and			24,020.00	Ŷ	14,000.04		00,000.01	Completed	Ť	01,110.10	-	(000.00)
	Reporting for the Landfill Gas Collection						[
	and Control System at the West Nassau												
	Class I Landfill		\$	174,387.83	\$	-	\$	174,387.83	Completed	\$	166,317.75	\$	(8.070.08)
	Preparation of Technical Bidding									1.7.2	AND STREET		
	Documents for a Flare Station Blower									- And			
	Replacement Landfill Gas Collection and						ł			No.			
	Control System West Nassau Class I				-					1.12	A CARLENS		
	Landfill		\$	25,925.39	\$	3,362.12	\$	29,287.51	In progress	\$	29,287.51	\$	-
	Well No. 2i Investigation at the Bryceville											-	
	Landfill	02/05/15	\$	6,499.93	\$		\$	6,499.93	Completed	\$	5,900.88	\$	(599.05)
	Preparation of a Permit Application for									1			
	Long-Term Care Renewal for the West Nassau Class 1 Landfill		s	77,546.42	e		s	77.546.42	Completed	s	77,156.79	c	(389.63)
	Preparation of a 2015 Landfill Financial		3	11,040.42	3		3	11,340.42	Completed	3	11,150.19	3	(369.63)
	Assurance Report for Landfills		s	13,206.88	\$	-	s	13,206.88	Completed	s	11,756.61	8	(1,450,27)
	Leachate Storage Tank System Repairs	tion and the second second	-	10,200.00	4		, v	10,200.00	oompicted	1953	11,100.01	1 ×	(1,400.21)
	& Maintenance		s	23,064,21	S	-	s	23.064.21	In progress	S	23,064,21	s	-
	Operation, Monitoring, Maintenance and		-				+			a		-	
	Reporting for the Landfill Gas Collection												
	and Control System at the West Nassau							1		1			
	Class I Landfill; FY15/16		\$	176,237.83	5		\$	176,237.83	Completed	\$	161,008.57	\$	(15,229.26)
	Preparation of a 2016 Landfill Financial												
12	Assurance Report for submittal to FDEP		\$	13,686.56	\$	-	\$	13,686.56	Completed	S	12,458.85	\$	(1,227.71)

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Report Print Date: 1/23/2018

Report Date: 01/23/18

NASSAU COUNTY CONTRACT MANAGEMENT

CONTINUTING CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES - SOLID WASTE LANDFILLS AND OTHER RELATED ANCILARY FACILITIES S2L, INCORPORATED CONTRACT NO. CM2096

WA#	PROJECT NAME	APPROVAL DATE	OR	GINAL FEE	CHAN	IGE ORDERS	CO	NTRACT FEE	STATUS	ACT	UAL COST	DIF	ERENTIAL
10	Preparation of Technical Documents for Groundwater and Surface Water			0.555.00				9 555 60	Or malada d		7.005.04		(4 050 00)
13	Monitoring at Nassau County's Landfills Prepare a draft air construction permit application using the FDEP's (EPSAP) with attachments for one (1) newly installed emergency generator and one (1) newly installed landfill flare		\$	8,555.66	5		\$	8,555.66	Completed	5	7,295.84	5	(1,259.82)
14	replacement blower.		\$	10,326.34	\$	-	\$	10,326.34	Completed	\$	9,173.65	\$	(1,152.69)
15	Preparation of a Water Quality Technical Report Landfill Stabilization Report for the Bryceville Landfill		\$	32,864.76	\$	-	\$	32,864.76	In progress	\$	32,864.76	\$	-
16	Preparation of a Landfill Stabilization Report for the Lofton Creek Landfill		s	45,924.72	\$	-	s	45,924.72	In progress	\$ 1.1	45,924.72	s	-
	Operation, Monitoring, Maintenance, and Reporting for the Landfill Gas Collection and Control System at the West Nassau Class I Landfill		\$	176,868.55		-	\$	176,868.55			176,868.55		-
18	Preparation of a 2017 Landfill Financial Assurance Report for submittal to FDEP		\$	11,291.68	\$	-	\$	11,291.68	In progress	500 \$	11,291.68	ş	-
19	Groundwater Monitoring Well Abandonment Services for the Bryceville Landfill		\$	13,594.00	\$	2,000.00	\$	15,594.00	Completed	s	14,216.76	ş	(1,377.24)
20	Preparation of an Intermediate Permit Modification for the Lofton Creek landfill		s	35,460,12			s	35,460,12	In progress	s	35,460.12	s	-
	Preparation of Revisions to the Storm Water Pollution Prevention Plan and Spill Prevention Control and Countermeasures Plan		\$	22,913.00			\$		In progress		22.913.00		-
22	Operation, Monitoring, Maintenance, and Reporting for the Landfill Gas Collection and Control System at the West Nassau Class I Landfill; FY2017/2018		s	176,868.55			\$	176,868.55	In progress	\$	176,868.55	s	· .
	Miscellaneous On-call Services' FY2017/2018		\$	15,000.00			\$		In progress	252	15,000.00		-

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Report Print Date: 1/23/2018

Report Date: 01/23/18

NASSAU COUNTY CONTRACT MANAGEMENT

CONTINUTING CONTRACT FOR PROFESSIONAL ENGINEERING SERVICES - SOLID WASTE LANDFILLS AND OTHER RELATED ANCILARY FACILITIES S2L, INCORPORATED CONTRACT NO, CM2096

WA#	PROJECT NAME	APPROVAL DATE	ORIGINAL FE	E CHANGE ORDE	RS CONTRACT FE	E STATUS	ACTUAL COST	DIF	FERENTIAL
24	Installation of Five Landfill Gas Replacement Wells at West Nassau Landfill		\$ 124,998.8	34	\$ 124,998.	84 In progress	\$ 124,998.84	s	-
	Inward Gradient Measurements and Evaluation for the West Nassau Landfill		\$ 22,482.9	16	\$ 22,482.	96 Pending	\$ 22,482.96	s	
			\$ 1,369,589.5	51 \$ 19,37	1.96 \$ 1,388,961.4	47	\$ 1,356,185.88	\$	(32,775.59)

CURRENT CONTRACT VALUE:

\$ 1,356,185.88

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