

Contract No. CM2685-WA35

**WORK AUTHORIZATION # 35
NASSAU COUNTY
BOARD OF COUNTY COMMISSIONERS**

CS-22-099

Consultant/Vendor:	S2L, Incorporated
Contract Number:	CM2685
Contact Name:	Omar Smith, P.E., V.P.
Contact Number:	407-475-9163
Email:	osmith@s2li.com

CURRENT WORK AUTHORIZATION			
Project Short Title: Installation of a new landfill gas recovery well WNLF			
		CONTRACT OVERVIEW	
Date Submitted	12/9/2022	Total of Previous Authorizations	\$1,643,310.03
Amount	\$75,753.11	This Work Authorization	\$75,753.11
Scheduled Completion	March 3, 2023	New Contract Amount including this work authorization	\$1,719,063.14

This Work Authorization is to the AGREEMENT between Nassau County and S2L, Incorporated (“Vendor”) for the Continuing Contract for Professional Engineering Services-Solid Waste Landfills and Other Related Ancillary Facilities for Nassau County, Florida, dated July 26, 2019. The services to be provided under this Work Authorization are as follows:

ARTICLE 1. Services Described as:

Vendor shall provide installation of a new landfill gas recovery well to replace an existing well that has failed and is not functioning as originally designed as required by the West Nassau Landfills’ Title V permit and the Florida Department of Environmental Protection (FDEP), a copy of which is attached hereto as **Exhibit “A”**.

ARTICLE 2. Time Schedule

Vendor anticipates their earliest starting date to be upon execution of this Work Authorization with a completion of Scope of Work on March 3, 2023.

ARTICLE 3. Budget

Vendor will perform the services outlined herein for the lump sum amount of **\$75,753.11**. Vendor’s fee amounts are detailed further in **Exhibit “B”**. Vendor will be using rates previously established under Contract CM2685.

ARTICLE 4. Other Provisions

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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.

Any Work Authorization entered into prior to expiration or termination set forth in the AGREEMENT shall continue in effect through the earlier of: (i) the date all of the Services thereunder have been fully completed and accepted by Nassau County, or (ii) until such time as such Work Authorization expires or is terminated in accordance with its terms or is terminated pursuant to Article 2 hereof.

In presenting this Work Authorization, Vendor agrees that:

Unless detailed herein, all drawings, data, electronic files and other information required for this Work Authorization has been accepted by Vendor. 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: Sam Levin
Print Name: Sam Levin
Title: President
Date: 12/19/2022

RECOMMENDED AND APPROVED BY NASSAU COUNTY:

Department Head/Managing Agent: Doug Podiak 12/16/2022

Procurement: Sanan Almodi 12/19/2022

Office of Management & Budget: Chris Lacambra 12/16/2022

County Manager: Taco E. Pope, AICP 12/19/2022

Ex-Officio Clerk: Taco E. Pope, AICP
ATTESTATION: Only to Authenticity of the Chairman's Signature. John A. Crawford

County Attorney: Denise C. May 12/19/2022

DJ 12/19/2022

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APPROVED by the BOARD OF COUNTY COMMISSIONERS, this 18th day of January, 2023.

BOARD OF COUNTY COMMISSIONERS
NASSAU COUNTY, FLORIDA



~~Jeff Gray~~ Klynt Farmer
Chairman

ACCOUNT NO.: 01362534-531000

Exhibit "A"
Installation of a Landfill Gas Replacement Well
at the
West Nassau Landfill
Landfill Gas Collection and Control System
Fiscal Year 2023

County Contract and Work Authorization Number: CM2685-WA35
S2Li Project Number: 22-997

This Work includes the installation of a new landfill gas recovery well to replace an existing well that has failed and is not functioning as originally designed as required by the West Nassau Landfills' Title V permit and the Florida Department of Environmental Protection (FDEP).

Background

Under the County's Federal Title V Operating Permit No. 0890428-014-AV for the West Nassau Landfill, the County is required to operate and maintain a Landfill Gas Collection and Control System (LFGCCS) in accordance with Federal Rule No. 40 CFR 60, Subpart WWW, New Source Performance Standards (NSPS). The LFGCCS is comprised of a blower and flare station and 50 landfill gas recovery wells operating under a vacuum system. As part of this operation, NSPS rules require the County to monitor each well monthly for temperature, oxygen, and pressure and to maintain these parameters within NSPS operating limits to ensure that the LFGCCS is operating properly. If any well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within five calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded (or repaired) to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure is not to cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance is to be submitted to FDEP for approval.

Gas well GW-20 was observed to be failing to meet the NSPS operating parameters (e.g., O₂ less than 5%), so a below-ground investigation was conducted to check the condition of the well. It was determined that the well had broken below the landfill surface and had filled up with rock and soil. As a result, landfill gas extraction is significantly inhibited, and the well is not operating as designed, therefore, not meeting NSPS operating parameters.

It is believed that this well failed due to a combination of reasons: 1) after installation, ongoing landfilling operations which included waste placement in proximity to existing wells caused pressure on and movement of the vertical piping, 2) closure construction activities placing a final cover around the existing well resulted in the movement of waste underneath the cap, causing pressure on the vertical piping, 3) differential (uneven) landfill settlement as a result of waste degradation, and 4) landfill core temperatures above 130 degrees F distorted PVC wells and weakened the pipe strength.

FDEP was notified of the well failure. In conjunction with this notification, an inquiry was made concerning the possibility of developing an alternate operating procedure for GW-20 and other nearby wells instead of full replacement. FDEP did not agree to the use of an alternative procedure, stating that the wells needed to be operating as designed. Since GW-20 is not operating within NSPS parameters, it needs to be

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replaced and returned to compliance by March 3, 2023, which is the last day of the 120-day time limit for achieving compliance.

Scope of Services

Under the scope of work for this Work Authorization, S2L, Incorporated (S2Li) and its Contractor (Sullivan Environmental) will perform the following:

- FDEP will be notified of the schedule and protocol to replace well GW-20. The new well will be designated as GW-20R.
- An experienced well driller and installer will install the new well. The location of the new well will be approximately 10 to 15 feet from the existing well depending on access. The drilling borehole will be up to 36 inches in diameter. The gas well material will be made up of 8-inch, schedule 80 PVC solid and slotted pipe. Since this is a closed, older area of the landfill, the slotted pipe is expected to start 10 to 15 feet below the surface. The backfill to be placed in the annular space between the pipe and borehole will consist of selected granite stone, pea gravel, bentonite, and fill dirt. Upon drilling operations, care will be taken to minimize the penetration of the liner cap to minimize the repair and re-sealing of the liner cap after the well is installed. Also, the driller and well installer will attempt to minimize damage to the vegetative cover.
- The 4-inch diameter HDPE lateral piping connected to the existing well will be extended or rerouted to connect to the new well. The gas well head on the existing well will be reused at the corresponding new well. It should be noted that exposed waste and gas leakage will temporarily emit odor into the surrounding area. Care will be taken to minimize landfill gas and odors from the well by covering up waste and placing temporary caps over the open penetration.
- Waste and material cuttings removed from the drilling process will be placed into drop boxes and covered overnight for subsequent transportation off-site for disposal at a permitted Class I-type disposal facility.
- The existing well will be cut off just below the surrounding grade level and will be permanently capped and covered with soil. This existing well will no longer be connected to the LFGCCS and no longer be used for landfill gas extraction.
- The final location of the new well will be determined based on the distance and orientation between the new well and the old (replaced) well. The landfill database information system will be updated to reflect the location of the new well, the elimination of the old well, and ready to accept new test results.
- The disturbed area within the limits of construction will be regraded and sodded back to pre-installation conditions to the satisfaction of the County.
- After installation, the well will be tuned to the collection system and measured for NSPS operating parameters.
- After completion, FDEP will be notified of the work completed, and a construction certification document prepared and submitted to FDEP along with documentation showing that the new well is functioning within NSPS operating parameters.
- Additional detail and services provided by Sullivan are listed in Attachment 1 and the sodding contractor Belcorp, Inc. are listed in Attachment 2.

Schedule

The installation, connection, and operations of the new well is expected to be completed by March 3, 2023, which is the final day within the FDEP deadline to bring the new well within NSPS operating parameters. Any remaining services such as placing of vegetative cover and certification documentation

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to FDEP are to be completed by April 15, 2023. This schedule assumes that a Notice to Proceed from the County is received by January 27, 2023.

Due to current supply chain shortages brought on by the pandemic, workforce shortages, and other challenges that are out of S2Li's control, the schedule outlined herein is being provided for reference only. The schedule proposed herein is based on long lead deliveries from our vendors at the time that this Work Authorization request was prepared. However, new challenges that may impact the schedule are brought on weekly, if not daily. S2Li understands the importance of meeting schedules and will do its best to hold true to these schedules. Should a supply issue occur, S2Li will diligently communicate the issue and work to find and offer alternatives to meet the needs of the project.

Cost Estimate

The estimated cost to conduct the Work as described in the above-listed Scope of Services is not to exceed **\$75,753.11**. A detailed breakdown of the estimated labor hours and expenses is included in the attached Exhibit 1, but actual labor hours, labor categories, and type of expenses incurred may vary. Fees for services shall be invoiced on a time and material basis according to the hourly labor rates and schedule of reimbursable expenses identified in Contract No. CM2685 as amended. The County will be notified when the overall project budget is nearing its limit.

Work Authorization Assumptions

- Additional drilling due to waste refusal, rental equipment, supplier/fabricator price change, sales taxes, and any other additional costs that could occur during the performance of the Work will be deducted from the Contingency amount provided in Exhibit 1 - Cost Estimate.
- Should S2Li personnel need to be mobilized to the Site due for any additional testing and inspection, these services will be provided under its County Contract Number: CM2685-WA30 Operation, Monitoring, Maintenance, and Reporting of the West Nassau Landfill - LFGCCS.
- The Flare system may be shut down periodically during installation. However, placing the flare back into operation will be attempted at the end of each day.

December 8, 2022

Total Project Costs

\$2Li Fee Estimate

EXHIBIT "B"

Installation of New Landfill Gas Replacement Well

Nassau County, Florida

S2Li No. 22-997

County No. CM2685-WA35

LABOR	LABOR CATEGORY AND RATE										TOTAL HOURS	SUBTOTAL LABOR			
	Project Dir./ Principal \$250.00	Regional Manager/ QC Officer \$232.25	Principal Engineer \$190.26	Senior Engineer \$137.09	Project Engineer \$97.92	Associate Engr./ CADD \$74.21	Office Manager \$76.24	Field Vehicle (\$110/day)	Lab Testing (est.)	Equipment Rental (est.)			Parts (est.)	Contingency Misc. & Unknowns (est.)	Sullivan Environmental (Attachment 1)
Total	4	0	0	0	0	0	20	0	32	0	0	0	2	4	1,000.00
-- FDEP Notification	8	0	16	0	0	0								24	5,044.16
-- Well Drilling and Installation	4	0	16	0	0	0								22	4,196.64
-- Record Drawing Documents	4	0	0	0	0	0								4	1,000.00
-- FDEP Notification of Completion															
SUBTOTALS:														54	\$ 11,240.80
EXPENSES															
TASK	DESCRIPTION														
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Survey	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- FDEP Notification	\$ 220.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,500.00	\$ 51,792.31	\$ 5,000.00	\$ -	\$ 64,512.31
-- Well Drilling and Installation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- Record Drawing Documents	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-- FDEP Notification of Completion	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTALS:	\$ 220.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,500.00	\$ 51,792.31	\$ 5,000.00	\$ -	\$ 64,512.31

COST SUMMARY		
TASK	DESCRIPTION	SUBTOTAL
Total		\$ 11,240.80
		\$ 75,753.11
TOTALS		\$ 86,993.91

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4448 13th LN NE
St. Petersburg, FL 33703

Estimate

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Date	Estimate #
12/6/2022	850

Name / Address
S2L, Incorporated 531 Versailles Drive, Suite 202 Maitland, Florida 32751

Description	Qty	Unit Cost	Total
West Nassau County Landfill 46026 Landfill Rd, Callahan, FL 32011			
Install one new well to replace GW-20. Estimate is for a 90 foot well.			
This is a time and materials estimate. Cost is not to exceed this amount without prior approval from Nassau County. Actual time and unit costs will be billed.			
Sod replacement is not included in this quote.			
Refusal will be billed at \$97.75 per foot.			
Hourly Bill Rate - Sr Superintendent	20	164.25	3,285.00
Hourly Bill Rate - Sr Technician	20	152.80	3,056.00
Hourly Bill Rate - Sr Technician	20	152.80	3,056.00
Hourly Bill Rate - Secretarial	4	85.00	340.00
Drill Rig Mob	1	14,375.00	14,375.00
Drilling - 36" Bore Hole - 80 foot minimum	90	97.75	8,797.50
8" SCH 80 PVC Slot Pipe	80	24.92	1,993.60
8" SCH 80 PVC Solid Pipe	20	23.69	473.80
8" SCH 40 PVC Slip Cap	2	137.51	275.02
4" HDPE SDR17 Pipe	20	4.69	93.80
4" HDPE SDR17 4" Elbow	1	19.86	19.86
Geocomposite Ring	1	31.00	31.00
Expanding Foam	4	158.00	632.00
Granite - Ton	25	85.00	2,125.00
Fill Dirt - Truck Load	1	200.00	200.00
		Total	

"EXHIBIT B"



4448 13th LN NE
St. Petersburg, FL 33703

Estimate

Contract No. CM2685-WA35

Date	Estimate #
12/6/2022	850

Name / Address
S2L, Incorporated 531 Versailles Drive, Suite 202 Maitland, Florida 32751

Description	Qty	Unit Cost	Total
Excavator - 13 Ton - 2 days	1	2,080.00	2,080.00
Hydrema Truck - 1 week	1	3,100.00	3,100.00
Skid Steer Track Loader - 2 days	1	1,666.00	1,666.00
Excavated Material Disposal	1	2,500.00	2,500.00
Fuel for Equipment	100	6.50	650.00
Extrusion Gun- Daily Rental	1	295.00	295.00
Portable Generator 5KW - Daily Rental	1	110.00	110.00
1"-4" Fusion Machine - Daily Rental	1	110.00	110.00
Liner Materials	1	1,000.00	1,000.00
Materials - 10" x 8" Fernco	1	50.00	50.00
Materials - Screw Activated Clamp	1	7.73	7.73
Shipping for Materials	1	1,000.00	1,000.00
Materials - PVC Glue	1	240.00	240.00
Materials - PVC Primer	1	230.00	230.00
		Total	\$51,792.31

"EXHIBIT B"



BELCORP, INC.

Belcorp, Inc
11530 Philips Highway
Jacksonville, FL

Attachment 2

Estimate

Contract No. CM2685-WA35

Date	Estimate #
12/7/2022	West Nas...

Name / Address
S2Li Gregory Brunson 531 Versailles Dr Maitland, FL 32751

				Project
Description	Qty	U/M	Rate	Total
West Nassau County Landfill				
Install 300 SY of Rolled Bahia	300	SY	5.00	1,500.00
Seed and Mulch/Hydroseeding Minimum	1	LS	3,000.00	3,000.00
Cost per trip to water using access to water on site	1	EA	500.00	500.00
Price Includes all material, labor and equip to install above		LS		0.00

The above quote is good for 30 Days. If you have any questions please contact Josh Bell 904-710-5490	Total	\$5,000.00
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Phone #
(904) 268-1236

