ATTACHMENT VI – AMENDMENT TO AGREEMENTS FOR ENGINEERING SERVICES
Amendment No. 4

1. As set forth in the AGREEMENT FOR ENGINEERING SERVICES dated the 19th day of July, 2019 (effective date of Agreement) by and between the Incorporated County of Los Alamos, the OWNER, and Bohannan Huston, Inc., the ENGINEER, the OWNER and ENGINEER agree this11th day of April, 2024 (effective date of Amendment) that ENGINEER shall modify the Agreement and furnish ENGINEERING SERVICES in accordance with the GENERAL PROVISIONS of the Agreement and OWNER shall compensate the ENGINEER for services described as set forth below:

A. Description of Modifications:
This amendment has been prepared as an additional services request to provide SCADA Integration services as new Task 12.

B. Perform or provide the following tasks and/or deliverables:

See attached proposal letter dated April 2, 2024.

C. Cost Proposal – Include hourly breakdown for each task
See April 2, 2024 proposal, Attachment A.

D. Reimbursable Expense Schedule

See April 2, 2024 proposal, Attachment A

E. Agreement Summary:

Original agreement amount:	$2,049,289.00
Net change for prior amendments:	$ 499,715.16
This amendment amount:	$ 72,275.00
Adjusted Agreement amount:	$2,621,279.16

F. Contract Time shall be 730 calendar days from the date of the OWNERS signature on Attachment VI. The services described in this amendment shall be completed and accepted by the OWNER by 07/30/2025 (DATE). If these services have not been completed and accepted by 07/30/2025 the ENGINEER shall pay the OWNER liquidated damages as outlined in the contract.

Attachment A

2. Signatures

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date of the signature by the required approval authorities below.

By: _____ Date: _____
OWNER
Type Name Philo Shelton III
Title Manager, Department of Public Utilities, Incorporated County of Los Alamos

By: _____ Date: April 2, 2024
ENGINEER
Type Name Todd Burt
Title Senior Vice President
Address 7500 Jefferson Street NE
Albuquerque, NM 87109

REVIEWED AND APPROVED: FUNDING AGENCY
AGENCY NAME: _____
By _____
Type Name _____
Date _____

Stephanie Dubois
Digitally signed by Stephanie Dubois
Date: 2024.04.15 12:05:02 -06'00'

Bohannan Huston
great people supporting great communities

New Mexico:
Albuquerque | Las Cruces
Colorado:
Denver | Grand Junction
800.877.5332
bhinc.com

April 2, 2024

Philo S. Shelton
Manager, Department of Public Utilities
Incorporated County of Los Alamos
1000 Central Ave., Suite 130
Los Alamos, NM 87544

Re: Amendment No. 4 for AGR19-47 Los Alamos County White Rock Wastewater Facility Project

Dear Mr. Shelton:

Bohannan Huston, Inc. (BHI) is currently assisting the Incorporated County of Los Alamos (County) with engineering support during the construction phase for the White Rock Water Resource Reclamation Facility (WRRF). As part of this scope of work, the BHI team completed SCADA Integration at the White Rock Facility. During the construction phase, it was identified that the two (2) Los Alamos County facilities (White Rock and the LA WWTP) should have consistent SCADA equipment and software to provide to allow the operations to be consistent at these two facilities. The following scope of services has been prepared as contract Amendment No. 4 to integrate the two (2) facilities with each other. The following goals are included with this scope of work:

- Update the existing main PLC program to be structured and modernized based on programming standards developed at White Rock.
- Develop the SCADA software in Ignition by building a tag database for the updated PLC as well as new HMI screens for the LA WWTP. Provide an updated alarm system that includes voice and text notification functionality.
- Provide historian functionality by recording tag data for key process tags to the SCADA SQL server. Develop trending functionality and provide standard and custom reports that allow the operator to export information to Excel or to PDF.
- Provide recommendations to the County for future control system needs to aid in developing a long-term maintenance plan.

This work shall be completed by SKM as a subconsultant to BHI. Their proposal is attached (see Attachment A). The amount requested for Amendment No. 4 is a lump sum fee of $72,275.00 (excluding NMGRT). With the approval of Amendment No. 4, the total contract would be increased to $2,621,279.16 (excluding NMGRT).

We have very much enjoyed working with you and the Los Alamos County team and appreciate the opportunity to continue supporting the County through the construction of the White Rock Wastewater Facility project.

Please feel free to contact me at tburt@bhinc.com with any questions.

Sincerely,

Todd Burt, PE
Senior Vice President
Water and Wastewater Systems

TAB/ab
Enclosure

cc: Clay Moseley, Los Alamos County (w/encl.)
James Alarid, Los Alamos County (w/encl.)
James Martinez, Los Alamos County (w/encl.)

SAVE TIME • SAVE ENERGY • SAVE MONEY
533 W 2600 S, Suite 25, Bountiful, UT 84010
(801)677-0011 www.skmeng.com

Los Alamos County
Los Alamos Wastewater Treatment Plant
SCADA Upgrade Project
April 2024

System Integration Scope of Work

Revision 0

1. Introduction

Los Alamos County (LAC) requires System Integration Services to modernize its existing PLC and SCADA infrastructure at the Los Alamos Wastewater Treatment Plant (LAWWTP). These improvements will replace the outdated Supervisory Control and Data Acquisition (SCADA) system with Inductive Automation's Ignition software which has been centralized at the Pajaritos Cliff Site (PCS) and is being implemented at the White Rock Wastewater Treatment Plant (WRWWTP). The existing control room at LAWWTP requires a new computer with keyboard, mouse, and 27" monitor. In addition, the existing wall mounted monitor should be updated with a modern 60" screen. These hardware components have been included in the project costs; however, LAC may choose to supply these items.

2. Project Goals

This Scope of Work has been developed to achieve the following goals:

- Update the existing main PLC program to be structured and modernized based on programming standards developed at White Rock.
- Develop the SCADA software in Ignition by building a tag database for the updated PLC as well as new HMI screens for the LAWWTP. Provide an updated alarm system that includes voice and text notification functionality.
- Provide historian functionality by recording tag data for key process tags to the SCADA SQL server. Develop trending functionality and provide standard and custom reports that allow the operator to export information to Excel or to PDF.
- Provide recommendations to LAC for future control system needs to aid in developing a long-term maintenance plan.

3. Responsibilities of Others

The following work will be required by others and will not be performed by SKM:

- IT services such as updating firewall rules, setting up VPN connections and any other IT related services required for the project.
- It is assumed that LAC staff will assist SKM in the installation of the new 60" monitor at the plant.

4. Scope of Services

The Scope of Services has been divided into the following tasks (each task is further described below):

1. Task 1 – Project Management
2. Task 2 – Hardware
3. Task 3 – Labor

4.1. Task 1 – Project Management

This task includes our internal Project Management Plan (PMP) to guide the project team through its work. The PMP will identify format and schedules for progress meetings, project deliverables, and quality control. This task includes coordinating team responsibilities, project communications, Quality Management procedures, budget tracking, project schedule, and accountability reporting.

4.2. Task 2 – Hardware

Provide the following equipment for the project:

- New Dell Optiplex Workstation with the following:
  - Intel i7 Processor
  - 16GB RAM
  - 500GB Hard Drive
  - Video Card to handle up to two 4K displays
  - Wireless Keyboard/Mouse
  - 27" HD Monitor
- New Samsung 60" Wall Mounted Display and Wall Mount Bracket

4.3. Task 3 – Labor

Provide system integration services for the project as follows:

- Update the existing PLC program to modern standards utilizing Allen-Bradley Add-On Instructions. The existing program has some good tagging standards but is fairly messy and antiquated. There are roughly 400 I/O points in this PLC and roughly 2000 rungs of logic. We anticipate this effort will require 60 hours of work.

- Develop the SCADA tag database for the LAWWTP based upon the new PLC program. The tag database will be divided into individual folders for each system and each control loop in each system. We estimate the tag database development to require 40 hours of work. The tag database will include tag security so that only authorized users may manipulate any settings. Program alarm tags and historical tags.
- Develop the SCADA screens for the LAWWTP. This includes a main overview screen and main process screens. Each piece of equipment (or each control loop) will have a popup screen for additional information, monitoring, and control. Develop the alarm screen, alarm notification screen, communications screen, trending screen, and reporting screen. We estimate the SCADA software development to require 120 hours of work.
- Decommission the existing PLC code and deploy the new code. Deploy the new SCADA software at the LAWWTP. Work with LAC staff to install the computer and wall mounted screen. Thoroughly test the software functionality and eliminate any bugs. Work with plant staff to develop a punch list and to customize the screens to their liking. Remove the existing SCADA computer and decommission the old PLC code. We anticipate one week on site for the final cutover. We estimate the implementation of the cutover to require 80 hours.

5. Cost Breakdown

See the next page for a cost breakdown.

ATTACHMENT A

skm

Save Time. Save Energy. Save Money.

Los Alamos County - Los Alamos Wastewater Treatment Plant - SCADA Upgrade

Date

	TASKS AND SUBTASKS		LEVEL OF EFFORT (hours)													Total SKM Hours	Total SKM Labor $	Subconsultants and/or Equipment Cost	Direct Expenses	SKM Expenses and Subs Markup	Total AQUA Fee
			Principal Engineer	Electrical Engineer III	Electrical Engineer II	Electrical Engineer I	Electrical Project Manager	CAD Designer III	CAD Designer II	CAD Designer I	Sr. Controls Engineer	Controls Engineer	Jr Controls Engineer	Electrical Transmission Engineer	Clerical						
			$225/hr	$205/hr	$185/hr	$165/hr	$195/hr	$145/hr	$135/hr	$115/hr	$185/hr	$170/hr	$150/hr	$215/hr	$95/hr					10%	
1	**Equipment**																		$2,250	$225	$2,475
1.1	Dell Optiplex Computer System																		$1,750	$175	$1,925
1.2	Samsung 60" Monitor																		$500	$50	$550
2	**Labor**		20								330				10	360	$66,500		$3,000	$300	$69,800
			$4,500								*$61,050*				*$950*						
2.1	Project Management		20												10	30	$5,450				$5,450
2.2	PLC Programming										60					60	$11,100				$11,100
2.3	SCADA Tag Database										50					50	$9,250				$9,250
2.4	SCADA Screen Development										120					120	$22,200				$22,200
2.5	System Cutover and Training										100					100	$18,500		$3,000	$300	$21,800
	Project Fee Summary		Task Hours																		
			20								330				10	360	66,500		5,250	525	$72,275
			Task Fees																		
			$4,500								$56,100										