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Public Contract Application for Contractual Changes

Engineering and Construction Department
485 N. Poplar, Broken Arrow, OK. 74012
Fax: 918-259-8453 - Office: 918-259-7000

Contract Change Order   # 5

Project Name:	City Wide SCADA System	Project Number:	155425
Project Location:	City Wide - Various Locations	Date of Application:	Tuesday, July 30, 2019
Contractor:	Prime Controls	Submitted By:	Ricky Ellis

Summary of Change in Scope of Work

The following scope of work consisting of work location, work description, established quantities, and timeline for completion has been reviewed and agreed upon by the contractor, the origin funding department, and the Engineering and Construction Department.

Change of Work Items Included in this Change Order:

1) Per the request of the Utilities department, the contractor shall make approperiate changes to the SCADA programming at the Lynn Lane Waste Water Treatment Plant such to change the Thickener WAS pumps programming to match the current operation of the WAS pumps. This request is summerized in the attached request for infomation documents. The below costs summarize a complete in place product for the prior noted work.

Change in Contractual Project Time:
    No requested additional time

Plan Sheets or Additional Documents Attached: ☑ Yes   ☐ No   ☑ Other: Prime Controls Cost Proposals & RFI's

Work Order Quantities

Item#	(Spec)	Item Description	Units	Price	Quantity	Total Amount
CO5-1	NA	Thickener WAS Pump Programming	LS	$ 3,931.45	1	$ 3,931.45

Total Change Cost: $ 3,931.45

Summary of Project Costs

Total Previous Change Orders:	$ 67,658.45	Original Contract Amount:	$ 1,559,028.00
Current Change Order:	$ 3,931.45	Amended Contract Amount:	$ 1,630,617.90
Total Cost of Change Orders:	$ 71,589.90	Percent Change in Contract:	4.59%
Total Cost Applicable to CBA:	$ 71,589.90	Percent Change Applicable to CBA:	4.59%

Change Order Authorization

Change Order #   5   in the sum of: $ 3,931.45   has been reviewed by all parties and is recommended for approval by:

Contractor Submitting Change Order:
                                                    Name   Signature   Date

Construction Division Manager: Timothy S Robins, PE
                                                    Name   Signature   Date

Director of Engineering & Construction: Alex Mills, PE
                                                    Name   Signature   Date

Assistant City Manager - Operations: Kenneth D Schwab, PE
                                                    Name   Signature   Date

City Manager: Michael Spurgeon
                                                    Name   Signature   Date

This Change is Executed Through:

☐ This change to the contract documents is authorized by the City Manager's authority in accordance with the applicable state statutes and COBA Code of Ordinances.

or

☑ This change to the contract documents was approved at the City Council/BAMA meeting held on :   Tuesday, August 6, 2019

PRIME CONTROLS

Change Order Request

Date: July 25, 2019

To:	City of Broken Arrow
Attn:	Tim Robins
Project Name:	City of Broken Arrow SCADA Replacement
Contract No.:	155425
Subject:	SCADA Additional Programming
Change Order Request No.:	1851009-10
Source:	BAMA Request

Tim,

Prime Controls is pleased to offer our cost proposal for additioanl programming for the Thickener WAS pumps to be set up the same as the WAS pumps. This was a request from BAMA via an email dated 7/22.

Scope of Work

1. Provide programming as requested, verify programming during the FDT.

Sub-Total Cost Breakdown

Labor	$	3,418.65
Markup (15%)	$	512.80
Total		**$3,931.45**

Clarifications

1. Prior to commencement of work, Prime Controls requests an executed copy of this change order request. We expect this change will be accepted in a timely manner. Prime Controls is not liable for schedule delays associated with this change in the scope of work.

Schedule

Number of additional calendar days requested for this change proposal from the date of notice to proceed.   _____

Proposal Approval

Approved By: _____   Date: _____

Should you have any questions regarding this change order request please feel free to contact us.

Sincerely,
Prime Controls, LP

Project Manager

Timothy S. Robins, PE. CFM CWI | Construction Division Manager
Engineering and Construction Department
485 N. Poplar Avenue, Broken Arrow, OK 74012
Office: 918.259.7000 ext.7631 | Cell: 918.644.6494
Fax: 918.259.8453
Email: Trobins@Brokenarrowok.gov
facebook | twitter | youtube

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From: Ricky Ellis <r.ellis@prime-controls.com>
Sent: Monday, July 22, 2019 2:23 PM
To: Robins, Timothy <trobins@brokenarrowok.gov>; Moseley, Patrick <pmoseley@apaienv.com>
Cc: Westfall, Jeff <JWestfall@BrokenArrowOK.Gov>; Hughes, Roger <RHughes@brokenarrowok.gov>; Myers, David <DMyers@BrokenArrowOK.Gov>; Christopher Steele <c.steele@prime-controls.com>; Kyle Jones <k.jones@prime-controls.com>
Subject: RE: Programming and SCADA questions

CAUTION! This email originated from outside of the City of Broken Arrow network. Do not click links or open attachments unless you recognize the sender and know the content is safe. code rgiad

Tim,

Not what I was expecting, these do not appear to be programming changes except for item # 1&2, however a few comments:

- Nothing on Digesters naming scheme.
- Operation of WAS pumps need to be set up as the following: One pump will run at each cycle and alternate pump each cycle. If the pump that is called for fails the other pump will come on and take its place - Acknowledged
- Thickener WAS pumps need to be set up the same as the WAS pumps This requires change order & added programming
- Placing a switch in the Off position or turning it into Hand shouldn't put the equipment into a fail mode and need to be reset on the computer. Will look into next time onsite
- Would like to know what all the color of alarms? Red, green, turquoise, amber, yellow etc. Red=Critical, Amber=Alarm, Green=Running, Yellow=Warning
- Appears to be sending a lot of phantom alarms or gathering a lot of data and alarms that I don't understand. Maybe training will help Will look into next time onsite
- Influent (headworks effluent), plant effluent and WAS pumps need a totalizer on the SCADA not just hour meter. Will look into next time onsite
- Don't see anything about generators on the screen. Are they monitored? Need to callout not only for power loss, transfer of power to emergency backup and generator failure if it fails while main power is off. Gen comms were down last visit, need Gen vendor to correct
- Noticed a lot of fail to start and fail to stop on the WAS pumps, T-WAS pumps and RAW Sewage Pumps Will look into next time onsite
- Sludge feed pump will not start from the Belt press Working on Prime Controls last visit, please verify pump is in AUTO
- Polymer feed system will not start from the Belt Press. Will look into next time onsite

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- Remote access capabilities from a laptop. Our I.T. or Prime? BAMA City IT is working on a solution
- More reliable callout equipment. VT SCADA recommendations, they should know the most reliable Already using most reliable from VTSCADA, when remote access is working will be able to use VOIP Base Callout System
- What alarms is the system going to callout for? The ones BAMA requested are being alarmed, if this needs to change please send excel sheet explaining each alarm.

One of the level indicators is here on site. The other ship on the 5th of August and will be installed along with the HOA switches for the force pumps. If parts are not functioning on next scheduled FDT date of 8-5-2019 these items will be listed as not working.

United Engines looked at the comm boards on the generator and didn't see an issue so they will need more information from Prime on exactly what they are needing. Generator was not reporting data to SCADA 100 days before Prime Controls last site visit per the historian. Modbus connected directly to board and returned only errors.

Does BAMA want to keep the 8/5/2019 FDT date?
Do we need to have a conference call to discuss any of thee items?

Thanks,

Prime Controls Project Manager
Cell: 214.842.9191

From: Robins, Timothy <trobins@brokenarrowok.gov>
Sent: Monday, July 22, 2019 1:32 PM
To: Moseley, Patrick <pmoseley@apaienv.com>; Ricky Ellis <r.ellis@prime-controls.com>
Cc: Westfall, Jeff <JWestfall@BrokenArrowOK.Gov>; Hughes, Roger <RHughes@brokenarrowok.gov>; Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: FW: Programming and SCADA questions

Patrick,

In the process of installing the SCADA system at LLWWTP, the plant staff has some programming requests/questions. Can you please take a look at below and see if you have any concerns in the below programming change requests as well as if you can clarify the questions below as well. I have copied Ricky with Prime such to have him looking at the same thing at the same time to make sure we are all on the same page.

Thanks,

Timothy S. Robins, PE. CFM CWI | Construction Division Manager
Engineering and Construction Department
485 N. Poplar Avenue, Broken Arrow, OK 74012
Office: 918.259.7000 ext.7631 | Cell: 918.644.6494

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From: McKee, Shannon <SMcKee@brokenarrowok.gov>
Sent: Monday, July 22, 2019 1:13 PM
To: Robins, Timothy <trobins@brokenarrowok.gov>
Cc: Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: Programming and SCADA questions

1. Operation of WAS pumps need to be set up as the following: One pump will run at each cycle and alternate pump each cycle. If the pump that is called for fails the other pump will come on and take its place
2. Thickener WAS pumps need to be set up the same as the WAS pumps
3. Placing a switch in the Off position or turning it into Hand shouldn't put the equipment into a fail mode and need to be reset on the computer.
4. Would like to know what all the color of alarms? Red, green, turquoise, amber, yellow etc.
5. Appears to be sending a lot of phantom alarms or gathering a lot of data and alarms that I don't understand. Maybe training will help
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8. Noticed a lot of fail to start and fail to stop on the WAS pumps, T-WAS pumps and RAW Sewage Pumps
9. Sludge feed pump will not start from the Belt press
10. Polymer feed system will not start from the Belt Press
11. Remote access capabilities from a laptop. Our I.T. or Prime?
12. More reliable callout equipment. VT SCADA recommendations, they should know the most reliable
13. What alarms is the system going to callout for?

One of the level indicators is here on site. The other ship on the 5th of August and will be installed along with the HOA switches for the force pumps. United Engines looked at the comm boards on the generator and didn't see an issue so they will need more information from Prime on exactly what they are needing.

Shannon McKee | Lynn Lane WWTP Assistant Plant Manager
13874 S. 177th East Ave | Broken Arrow, OK. 74011
Office: 918-455-4762 |
Fax: 918-455-4172
Email: smckee@brokenarrowok.gov

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From:	Moseley, Patrick <pmoseley@plummer.com>
Sent:	Thursday, July 25, 2019 7:35 AM
To:	Robins, Timothy
Cc:	Westfall, Jeff; Hughes, Roger; Myers, David
Subject:	RE: Programming and SCADA questions

I will give you a call in the afternoon, when I return to the office.

PLUMMER

Patrick Moseley, PE, CEM
Associate

1320 S. University Drive, Suite 300
Fort Worth, Texas 76107
P: 817.806.1700
D: 972.996.5683

pmoseley@plummer.com
www.plummer.com

From: Robins, Timothy <trobins@brokenarrowok.gov>
Sent: Wednesday, July 24, 2019 4:20 PM
To: Moseley, Patrick <pmoseley@plummer.com>
Cc: Westfall, Jeff <JWestfall@BrokenArrowOK.Gov>; Hughes, Roger <RHughes@brokenarrowok.gov>; Myers, David <DMyers@BrokenArrowOK.Gov>
Subject: RE: Programming and SCADA questions

Patrick,

Do you have any thoughts on this? Can you give me a shout tomorrow.

Thanks,

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