KICKOFF MEETING MINUTES CONSTRUCT SCADA SYSTEM AT CAMP STANLEY STORAGE ACTIVITY, TEXAS FA8903-04-D-8675/DELIVERY ORDER 0011 PARSONS 744225.01000

Date:

Wednesday, 20 October 2004

Time:

9:00 P.M. - 3:00 P.M.

Place:

Camp Stanley Storage Activity (CSSA)

Subject:

Project Kickoff

Attendees:

Attendee	Organization	Phone
Brian K. Murphy	CSSA ENV	(210) 698-5208 (210) 336-1166
Jeff Aston	USACE	(210) 336-1270
Eli Wright	CSSA-Facilities Eng	(210) 336-0077
Chris Beal	Portage	(210) 336-1171
BrianVanderglas	Parsons	(512) 719-6059
John Diedrich	Parsons	(678) 969-2340
Mike Stimets	Parsons	(512) 719-6802
Garner Peterson	Parsons	(512) 719-6817
Tim Saldana	Parsons	(512) 719-6068
Scott Pearson	Parsons	(512) 719-6087

Minutes prepared by Scott Pearson, Parsons.

The agenda and sign-in sheet for this meeting is presented in Attachment 1.

INTRODUCTIONS AND TO 0011 REQUIREMENTS

The meeting was opened with brief introductions. The purpose of the meeting, kickoff for the installation of a Supervisory Control and Data Acquisition (SCADA) system at CSSA, was stated.

PROJECT OVERVIEW

Brian Vanderglas provided a brief project overview of the schedule of anticipated field work and workplan/report deliveries for the 5 tasks planned under this DO. The requirements for specific tasks under this delivery order were discussed with the schedule. The following overviews are broken down by task.

WBS 01000: Meetings

There are currently four technical interchange meetings (TIMs) planned for this DO. The tentative dates for these meetings were assigned to coincide with completion of key field activities (such as the Implementation Work Plan), or for planning future activities.

WBS 02000: Work Plans, Site Survey, and Design

This task is to plan and design the progression of work. As given in the RFP, gas and water metering will occur at approximately 61 buildings, and electrical metering will occur at approximately 56 buildings. Remote operation of 3 water production wells and the chlorination was also specified as well as remote monitoring the WWTP for TPDES-mandated parameters. Finally, remote monitoring of two weather stations was specified.

Short work and safety plans will be generated to outline and guide the effort. It was determined by the group that work plans do not need to be included into the CSSA Environmental Encyclopedia since this pertains more to infrastructure rather that environmental monitoring. A site survey will be conducted to identify and physically map the locations of pending SCADA components. Finally, the results of the site survey will culminate with an Implementation Work Plan (IWP). The IWP will provide final network design and component locations for installation.

WBS 03000: SCADA Installation

This task provides for the actual SCADA installation in two phases. The first phase will be the installation and construction of SCADA components and monitoring sites. This work will most likely be conducted by an "integration subcontractor" that is capable of all facets of installation, including electrical, mechanical, and construction aspects of the task. Parsons will provide the construction oversight and inspections of all subcontracted work. The second phase consists of setting up the master station and programming the software. This phase will likely be conducted by Parsons engineers, but may be also part of the integration subcontract if a significant cost realization can be achieved.

WBS 04000: O&M Manual/Training

Upon completion of the SCADA installation, Parsons in concert with the integration subcontractor will submit an O&M manual to CSSA. The manual will include as-built diagrams for each SCADA component as well as manufacturer specification sheets, owner's manuals, and any warranty information. All product documentation from individual components to software licensing will be included. Parsons will also provide two types of training to CSSA employees. The general user will receive a general training for the acquisition and viewing of remote data nodes. A more intensive training program will be offered to those users who will be operating, maintaining, and troubleshooting the SCADA system on a routine basis. That will include operation of the human-machine interface (HMI), remote terminal units (RTU), and networking mode (wireless, fiber optic, etc.).

WBS 90000: Task Order Management

The project organization was discussed by Brian Vanderglas. Mr. Vanderglas has appointed Scott Pearson as the Task Manager for the project, and will be responsible for the daily operation of the work. John Diedrich is the technical manager, and his expertise will be used to scope and guide the project to completion. Henry Dress will be the principal engineer, and Kyle Caskey was identified as the construction oversight manager.

A list of deliverables for the SCADA project was presented (Attachment 2), listing the CDRL deliverable items stated in the SOW. All monthly reporting and invoicing will be conducted under this task as required by the AFCEE WERC prime contract. CPMSR and FMER reports will be submitted to AFCEE by the 20th of each month.

PROJECT BUDGET AND SCHEDULE

The project budget and schedule (Attachments 3 and 4) were presented for discussion. The project budget of \$981,188 was based on the workscope presented in the RFP. The project costs submitted by Parsons were developed by a combination of available vendor quotes and pricing provided by Montgomery-Watson to CSSA as a separate deliverable. Approximately 80 percent of the project is associated with the procurement and installation of SCADA components under WBS 03000. Nearly 65 percent of the total project cost is realized by the vendors of SCADA equipment and the construction and integrating subcontractors.

The duration of the project is scheduled for 12 months through October 31, 2005. Brian Murphy requested that the site survey begin as soon as possible to speed along the progress of the project. It was his wish that the development of work plans and site survey are performed concurrently before the close of December 2004. If possible, the IWP should be delivered before the close of 2004, which is approximately 45 days earlier than the proposed schedule. Parsons will attempt to submit a draft version of the IWP for CSSA review before the end of the year. An accelerated schedule will facilitate the time necessary to procure and provide specifications to an integration contractor for construction of the SCADA components.

UNDERSTANDING OF END-USER EXPECTATIONS

This topic was short since it quickly morphed into the locations of monitoring equipment described below. In summary, CSSA would like to implement a system that can assist in the daily operations of the facility, and help monitoring the monthly usage of resources and utilities. The system needs to be graphically intuitive and readily configurable to meet CSSA needs. Alarm notifications to the appropriate personnel will need to be incorporated to alert personnel of potential system trouble or failures. CSSA would prefer to have web-based O&M Manual that is located on the HMI workstation. Finally, CSSA would like the SCADA monitoring data to be available for use within the CSSA GIS. That will be a programming issue between Mike Stimets, Ryan Lynn (Parsons-Atlanta), and Garner Peterson. It is likely that the SCADA data will be written to a SQL server than can be accessed through the CSSA LAN. John Diedrich

emphasized that the SCADA server needs to autonomous and independent from any other computer system or resources.

LOCATIONS OF MONITORING EQUIPMENT

The CSSA staff offered there expectations of what they would like to SCADA system to be capable of offering. Brian Murphy offered a prioritized list of sites that should be considered for monitoring.

- 1. Parameter monitoring of Outfalls 001 (WWTP) and 002 (GWTP). This would assist CSSA with preparation of monthly reporting requirements to the TCEQ as mandated by the TPDES permit.
- 2. Automated operation of the water production and chlorination systems.
- 3. Wastewater sewer monitoring from buildings and intermediate locations between the point sources and the WWTP. The sanitary sewer system is known to be subjected to high rates of stormwater infiltration which can overwhelm the WWTP. CSSA is looking at the SCADA system as a tool for evaluating which segments of the sewer system are prone to stormwater infiltration.
- 4. Potable water distribution system to include intermediate monitoring along the supply system in addition to the point-of-use endpoints (e.g., buildings). As with the sanitary sewer, CSSA would hope that the SCADA system can assist in pinpointing leaks within the distribution system.
- 5. In lieu of just monitoring building endpoints, CSSA would like full monitoring of all gas and electric usage throughout the facility. Since CSSA only has one power meter and one gas meter each for utility billing, a SCADA system would help quantify usage throughout the facility and allow for a check of billing by the respective utility companies.
- 6. Remote monitoring of weather stations.
- 7. Remote monitoring of environmental wells
- 8. Remote monitoring of remediation systems.
- 9. Ancillary sites. Such sites would include the lead dust filter at Building 90 and the lead accumulation drum at the test facility in the East Pasture.

CSSA requested the site survey consider all of the sites listed in the prioritization list for eventual SCADA incorporation. Upon the completion of the IWP, economies may be realized which may allow some of the requested items to fall within the budget. Other items would be added in the future by CSSA as the need arises.

John Diedrich indicated that sanitary sewer monitoring can be very difficult because it is not a pressurized system, and functions by gravity under typically very low flow conditions. Based on an average of 4,000 gallons per day discharge at the WWTP, it would be quite unlikely that flow within the sewer (or from individual buildings) could be accurately measured. Jeff Aston asked if movable metering would be an option for monitoring portions of the either the water or sewer system. John Diedrich stated that they are not good for precision measurements, but could be qualitative in showing major disruptions in flow. Scott Pearson suggested that the times that the sewer system is charged with stormwater infiltration may be better suited to an infiltration study rather than SCADA monitoring.

CSSA noted that new fiber optic wire is present at all buildings and may be available for use by the SCADA system at a significant cost savings. It is assumed that several pairs of fiber optic cable is unused and could be implemented into the system. Additionally, an empty buried conduit is available for pulling additional wire. Serious consideration will be given to the use of the existing fiber optic such that significant cost savings can be realized by not exclusively using a wireless radio system. As an action item, CSSA will pursue the authorization for use of fiber optic as a communication option.

COMPUTER EQUIPMENT, TRAINING, AND O&M MANUAL

CSSA has a fully licensed radio frequency that is currently unused and is available for SCADA use as needed. The FCC license allows for the use of 5-watt radios which can eliminate many "line-of-sight" issues with lower-powered radio transmitters. A repeater station can be added to the Fire Watch tower east of Building 1. It is anticipated that the Master Station will be co-located with the Environmental Office. It is unclear at this time if the Environmental Office will relocate to Building 1 during the course of this project. A redundant radio pair would be included with the Master Station. John Diedrich noted that lightning suppression is a worthwhile expense for expensive electronic equipment.

The existing CSSA LAN server and the new SCADA server will be independent, but will provide for limited GIS connectivity to the SCADA database. At this time, CSSA does not see the need for internet access to the SCADA server. Any connectivity that Parsons-Austin staff may require will be made through data dumps to the existing FTP website. The SCADA server will require a phone line for dial-up access by Parsons or the integrator, and for outgoing critical alarms and paging. Alarm notifications to the appropriate personnel will need to be incorporated to alert personnel of potential system trouble or failures. E-mail notifications will not be possible if the system will not be connected to the internet.

CSSA will desire monthly facility reporting of usage of gas, water, and electric. Furthermore, the SCADA database to readily provide the data necessary for creating monthly TPDES reports for Outfalls 001 and 002. Finally, animation and 3-D graphics are preferable to a system that provides only text output.

Hard copies of the O&M Manual will be prepared for CSSA. CSSA would prefer to have web-based O&M Manual that is located on the HMI workstation. An example of such a layout would be similar the HTML nature of the CSSA Environmental Encyclopedia. CSSA would like to have facility diagram that shows all the monitoring nodes with a capability of "clicking" on that node to pull up all available information (serial number, part number, instruction manual, etc.). Finally, CSSA would like to the SCADA monitoring data to be available for use within the CSSA GIS. That will be a programming issue between Mike Stimets, Ryan Lynn (Parsons-Atlanta), and Garner Peterson. It is likely that the SCADA data will be written to a SQL server than can be accessed through the CSSA LAN. John Diedrich emphasized that the SCADA server needs to autonomous and independent from any other computer system or resources.

The level of training required is somewhat difficult to ascertain until the users are defined. It is anticipated that two levels of training will occur. A short course for the general user will be provided to familiarize those persons with the system and its capabilities. It will focus primarily how to read and extract recorded data. A second course will be designed for the operators and will include an intensive hands-on training. It is anticipated that four hours of training will be required for each instrument. This training will include operation and use of both the RTUs and the SCADA Master Station.



DEPARTMENT OF THE ARMY

CAMP STANLEY STORAGE ACTIVITY, RRAD 25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800 $Page\ 1\ of\ 1$

ATTACHMENT 1

Agenda for Kick-off Meeting Construction of Supervisory Control and Data Acquisition (SCADA) System

at Camp Stanley Storage Activity – Boerne, Texas AFCEE WERC, Task Order 0011

Time: Wednesday, October 20, 2004; 9:00 am to 2:00 pm

Place: Camp Stanley Storage Activity, Boerne, Texas, Environmental Office

Proposed Order of Discussion

	1 toposed Order of Discussion					
Date & Time	Торіс					
9:00 am- 9:30 am	Overview of Project Tasks (Vanderglas)					
	WBS 01000: Meetings					
	WBS 02000: Project Plans, Site Survey, and Design (IWP)					
	WBS 03000: SCADA Installation and Programming					
	WBS 04000: O&M Manual/Training					
	WBS 90000: Delivery Order Management					
9:30 am - 10:00	Project Schedule and Budget (Pearson)					
10:00 am - 11:00	Understanding of End-User Expectations (Murphy/CSSA)					
11:00am - 12:00	Locations and Monitoring Equipment (Pearson/Diedrich)					
pm	Component Locations					
	o Water/Gas					
	Wells and Chlorination					
	O WWTP O Weather Stations					
	 Weather Stations Remote Terminal Units (RTUs) 					
	Construction Phase (Contractors and CSSA Support)					
12:00 pm -1:00	Lunch Break					
1:00 pm - 2:00 pm	Computer Equipment, Training, and O&M Manual (Diedrich/Stimets)					
	 SCADA Server location, requirements, and LAN connection 					
	Security and Internet Access					
	 Graphical Interface, Alarms, and Notifications 					
	 O&M Manual Content and Format 					
	Training Program					
2:00 pm - 5:00 pm	Site Tour (as warranted)					

SCADA KICK-OFF

Chris Beal

EliWright

TEFF ASTON

JOHN DIEDRICH

Scott Pearson

Bran Vanderglas

Brian Marghay

Mke Struct

Gainer Peterson

Tim Saldana

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ATTACHMENT 2

PROJECT DELIVERABLES

All hard copy deliverables will be printed double sided unless otherwise specified by the Air Force. All deliverables will be provided to the CSSA POC and AFCEE according to format, content, and schedule as described below. The project deliverables will be prepared and submitted as follows:

Item	Number	AFCEE/	AFCEE/	HSW/	Post	
	of Pages	IWA	MSCD	PKVW	POC	
OSHA Report	5	Draft: 0	Draft: 0	Draft: 0	Draft: 0	
(CDRL A001A)		Final: 1	Final: LT	Final: 1	Final: 1	
		Repro: 1	Repro: 0	Repro: 0	Repro: 1	
Pre-Final Inspection Report	5	Draft: 0	Draft: 0	Draft: 0	Draft: 0	
(CDRL A001B)		Final: 1	Final: LT	Final: LT	Final: 2	
		Repro: 1	Repro: 0	Repro: 0	Repro: 1	
Final Inspection Report	5	Draft: 0	Draft: 0	Draft: 0	Draft: 0	
(CDRL A001C)		Final: 1	Final: LT	Final: LT	Final: 2	
		Repro: 1	Repro: 0	Repro: 0	Repro: 1	
Rep, Prod, or Delivery	1	Draft: 0	Draft: 0	Draft: 0	Draft: 0	
Problem		Final: 1	Final: LT	Final: 1	Final: 1	
(CDRL A002)		Repro: 1	Repro: 0	Repro: 1	Repro: 1	
Environmental Permits	30	Draft: 2	Draft: LT	Draft: LT	Draft: 2	
(CDRL A003)		Final: 1	Final: LT	Final: LT	Final: 1	
		Repro: 1	Repro: 0	Repro: 0	Repro: 1	
Project Activities Work Plan	20	Draft: 2	Draft: LT	Draft: LT	Draft: 2	
Addenda		Final: 1	Final: LT	Final: LT	Final: 1	
(CDRL A004)		Repro: 1	Repro: 0	Repro: 0	Repro:1	
Environmental HSP Addenda	10	Draft: 2	Draft: LT	Draft: LT	Draft: 2	
(CDRL A005)		Final: 1	Final: LT	Final: LT	Final: 1	
		Repro: 1	Repro: 0	Repro: 0	Repro: 1	
Construction Quality Plan	10	Draft: 2	Draft: LT	Draft: LT	Draft: 2	
(CDRL A007)		Final: 1	Final: LT	Final: LT	Final: 1	
90		Repro:1	Repro: 0	Repro: 0	Repro:1	
Implementation Work Plan	100	Draft: 2	Draft: LT	Draft: LT	Draft: 2	
(CDRL A009)		Final: 1	Final: LT	Final: LT	Final: 1	
		Repro:1	Repro: 0	Repro: 0	Repro:1	
O&M Manual	300	Draft: 2	Draft: LT	Draft: LT	Draft: 2	
(CDRL A010)		Final: 1	Final: LT	Final: LT	Final: 20	
		Repro:1	Repro: 0	Repro: 0	Repro:20	
IMS	5	Draft: 0	Draft: 0	Draft: 0	Draft: 0	
(CDRL B003)		Final: 1	Final: LT	Final: 1	Final: 1	
		Repro: 0	Repro: 0	Repro: 0	Repro: 0	
CPSMR	10	Draft: 0	Draft: 0	Draft: 0	Draft: 0	
(CDRL B004)		Final: 1	Final: LT	Final: 1	Final: 1	
		Repro: 0	Repro: 0	Repro: 0	Repro: 0	
Presentation Materials	15	Draft: 1	Draft: LT	Draft: 0	Draft: 1	
(CDRL B005)		Final: 1	Final: LT	Final: LT	Final: 1	
955		Repro:1	Repro: 0	Repro: 0	Repro:1	

Item	Number of Pages	AFCEE/ IWA	AFCEE/ MSCD	HSW/ PKVW	Post POC
Conference Agenda	1	Draft: 1	Draft: LT	Draft: 0	Draft: 1
(CDRL B006)		Final: 1	Final: LT	Final: LT	Final: 1
		Repro:1	Repro: 0	Repro: 0	Repro:1
Conference Minutes	10	Draft: 1	Draft: 0	Draft: 0	Draft: 2
(CDRL B007)	1	Final: 1	Final: LT	Final: LT	Final: 1
200		Repro:1	Repro: 0	Repro: 0	Repro:1
Master Document List	5	Draft: 0	Draft: 0	Draft: 0	Draft: 0
(CDRL B008)		Final: 1	Final: LT	Final: LT	Final: 1
		Repro:1	Repro: 0	Repro: 0	Repro:1
FMER	5	Draft: 0	Draft: 0	Draft: 0	Draft: 0
(CDRL C001)		Final: 1	Final: LT	Final: 1	Final: 1
		Repro: 0	Repro: 0	Repro: 0	Repro: 0

Attachment 3

Breakdown of Project Costs SCADA Installation at Camp Stanley T00011 Kick-off Meeting October 20, 2004

Project Totals

	% of Total Cost		Labor Cost	% Labor		ODCs	% ODCs	Fix	ed Fee (5.5%)
01000 - Meetings	2.8%	S	23,107.97	8.4%	S	3,356.98	0.5%	S	1,455.57
02000- Work Plans	5.5%	S	45,520.63	16.5%	S	5,267.14	0.8%	S	2,793.33
03000 - SCADA Install	80.2%	S	105,153.57	38.2%	S	640,786.87	97.9%	S	41,026.72
04000 - O&M and Training	6.2%	S	53,358.69	19.4%	\$	4,619.14	0.7%	\$	3,188.78
90000 - TO Management	5.3%	S	48,351.97	17.6%	S	513.03	0.1%	s	2,687.58
Subtotals	100%	\$	275,492.84	100%	\$	654,543.16	100%	\$	51,151.98

981,187.98

\$

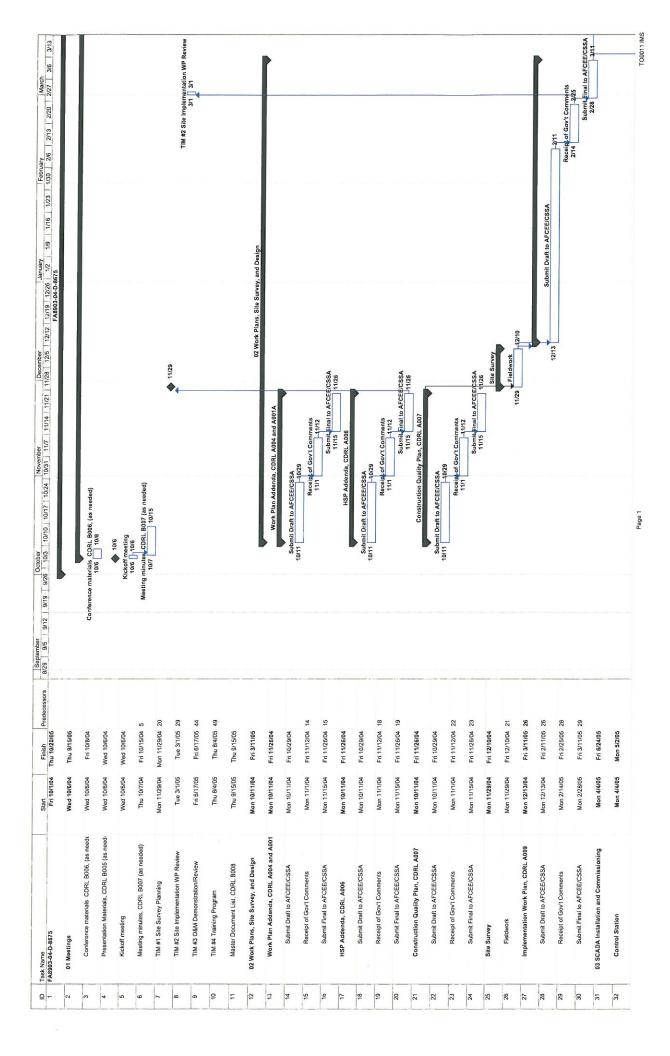
SCADA Equipment and Subcontracting Costs

Project Total (CPFF)

WBS 03000 Installation Breakdown		% ODC	
SCADA Equipment	S	381,894.79	61.6%
Equipment Installation Contractor Costs	S	168,224.47	27.1%
Master Station Setup and Programming	S	69,700.00	11.2%
	S	619,819.25	100.0%

ATTACHMENT 4

PROJECT SCHEDULE



T00011 IMS

