Mayor Clay Koplin Council Members James Burton Tim Joyce Tom Bailer Robert Beedle Josh Hallquist David Allison James Wiese City Manager Randy Robertson City Clerk Susan Bourgeois Deputy Clerk Tina Hammer	Special City Council Meeting August 11, 2016 @ 6:00 pm Cordova Center Community Rooms A & B <u>Agenda</u> A. Call to order B. Roll call Mayor Clay Koplin, Council members James Burton, Tim Joyce, Tom Bailer, Robert Beedle, Josh Hallquist, David Allison and James Wiese
<u>Student Council</u> John Appleton August Jewell	C. Approval of agenda (voice vote)

### D. Disclosures of conflicts of interest

### E. Communications by and petitions from visitors

1. Audience Comments regarding agenda items

### F. New Business

- 4. Update on City Manager search
- G. Audience participation
- H. Council comments

### I. Adjournment

**Executive Sessions:** Subjects which may be discussed are: (1) Matters the immediate knowledge of which would clearly have an adverse effect upon the finances of the government; (2) Subjects that tend to prejudice the reputation and character of any person; provided that the person may request a public discussion; (3) Matters which by law, municipal charter or code are required to be confidential; (4) Matters involving consideration of governmental records that by law are not subject to public disclosure.

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### CITY OF CORDOVA, ALASKA RESOLUTION 08-16-30

### A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORDOVA, ALASKA, AUTHORIZING A TRANSFER OF \$266,000.00 FROM THE GENERAL FUND RESERVA TO CORDOVA COMMUNITY MEDICAL CENTER IN ORDER TO FUND SHORT TERM EXPENSES

**WHEREAS,** the City of Cordova (City) and Cordova Community Medical Center (CCMC) are partners in providing healthcare services in Cordova; and

WHEREAS, CCMC has needs to pay for ongoing operational expenses; and

WHEREAS, the City has supported CCMC with loans in the past to support these needs; and

**WHEREAS**, the City and CCMC have agreed that these funds are intended to be repaid to the City.

**NOW, THEREFORE BE IT RESOLVED** by the City Council of the City of Cordova, Alaska, that by this resolution, it does authorize the transfer of \$266,000.00 from the General Fund Reserve to Cordova Community Medical Center in order to fund short term operational expenses.

### PASSED AND APPROVED THIS 11th DAY OF AUGUST, 2016.

Clay R. Koplin, Mayor

ATTEST:

Susan Bourgeois, CMC, City Clerk



# **CITY OF CORDOVA** Office of City Manager

City of Cordova P.O. Box 1210 Cordova, Alaska 99574 Phone: (907) 424-6200 Fax: (907) 424-6000 Email: citymanager@cityofcordova.net Web: www.cityofcordova.net

August 10, 2016

Memo to City Council

Re: Post LT2 Contract with GVJones & Associates - Approval for Sole Source Award

The contract approval and procurement method for GV Jones & Associates Inc. is being presented as a sole source contract per council direction from the August 3 regular meeting. Proposals from GV Jones are also attached.

The City must expend \$2.3 million of the \$3.825 million of previously attained grant and loan monies for our highest-priority Post LT2 water upgrades prior to 01Jun17, in order to take advantage of the "free money" available from the grant and loan subsidy. Of this amount, approximately \$835,000 is for engineering services and SCADA technical upgrades while the remaining \$2,990,000 will be for general contracting work listed above (steel tanks, SCADA mechanical upgrades, and hypochlorite generators) to be bid by the City at a later date once plans, specifications, and the bid package is complete. Of the \$835,000 engineering portion, \$650,000 will be covered by the remaining unobligated funds in the original GV Jones LT2 2014 contract, which covers this scope of work. This leaves \$185,000 to be paid under this new sole source contract.

The expenditure plan is as follows:

		Sole Source Contract
Coat Steel Tanks, 4 ea		\$120,000
SCADA Upgrades		642,000
Hypochlorite Systems, 3 ea		73,000
	Total	\$835,000

The steel tank work involves new exterior coatings at 4 tanks (Morpac, 1.5, Mews, Ski Hill) and interior work at Morpac (new circulator, freeze protection) and 1.5 tank. Interior tank video inspections and reports from 2011 document these needed repairs. Portions of our water system will be worked on without service interruptions as individual tanks are taken off-line for coating. GVJones understands Cordova's networked water infrastructure and has successfully planned and managed work on our system without service interruptions in the recent past.

The flood in 2009 damaged the Eyak Filter Plant's SCADA. The filters at Eyak are the backup water source for water shortages due to weather and emergencies such as loss of water sources, fires, or some other unforeseen circumstance. The filter plant is currently operated in manual operation and personnel must monitor it 24/7 when the pumps are running, which adds

significantly to operational costs. SCADA will provide automated 24/7 monitoring of the filter plant that has been lacking for years. Plant demands are likely to increase due to Cordova's historical 4% per year growth in water consumption.

During LT2 Compliance Upgrades, GVJones and subcontractor Boreal Controls, Inc. provided the engineering and computer control upgrades to the SCADA equipment for Meals, Murchison and Orca Plants. SCADA software supervises many of the crucial variables associated with processing potable water including sounding alarms, notifying water department personnel, turning off or switching pumps, and transmitting systems monitoring data. SCADA is a very technical specialty service, which involves writing computer code and integrating older SCADA hardware and software to newer versions.

SCADA mechanical upgrades have been pending since 2010 and primarily include new pump VFDs (variable frequency drive), check valves, raceways, process control cabling, filter valves and actuators, and genset transfer switching.

Our three aging and unreliable chlorine-generating units (one at each water plant) will be replaced by three new state-of-the-art OSHGs supplying chlorine at 40 pounds per day. This work will be competitively bid/subcontracted out by the successful bidder from among the three leading manufacturers that service Alaska and the Northwest region, using OSHG specifications developed by the design engineer.

Other lower-priority Post LT2 Tasks may be pursued should funding allow to adequately cover engineering and contracting expenses and should the State approve them as "eligible for reimbursement" under the \$3M loan program. These tasks were presented to the voters in February 2016 and are as follow:

- Piping network analysis
- Eyak Plant relocate main power supply panel
- Eyak Plant metal siding South side
- Eyak Plant concrete repairs at Chlorine room and basement leaks
- Repair leaking gabions/dam at 3 catchments
- Heney pipe extension to Meals Dam intake
- New excavator for Water Department

GV Jones provides profession services as described in 5.12.150 Sole Source Procurements (5). Staff have prepared a resolution supporting the need for a sole source procurement, and approval of the memorandum contract per 5.12.150 Sole Source Procurements (B).

### CMC 5.12.150 "Sole source procurements":

- A. The city may procure supplies, services or construction without competition where the city manager determines in writing that one of the following circumstances applies:
  - 1. Supplies, services or construction that reasonably meet the city's requirements are available from only one vendor;
  - 2. The supplies, services or construction have a uniform price wherever purchased;

- 3. The supplies, services or construction may be purchased from or through another governmental unit at a price lower than that obtainable from private vendors;
- 4. The price of the supplies, services or construction is fixed by a regulatory authority; or
- 5. The contract is for professional services that the council by resolution determines to procure without formal competition.
- B. The award of any contract under this section shall be subject to prior council approval in accordance with Section 5.12.040.

The City should proceed with sole-source award to GVJones for the following reasons:

- firm has over 15 years of successful project experience working on City's water system
- firm is a well-established Alaska water process specialty engineering firm
- firm's performance under City's LT2 project has been exemplary
- firm possesses subject matter expertise in design & oversight of this contract work
- GV Jones has an established working relation with State of Alaska municipal water project plan submittal, review and approval processes
- time is of the essence to bid out and supervise the successful Contractor's work execution
- No other firm has as intimate knowledge of the City's water system

I hereby determine that this contract is for professional services that should be procured without formal competition and I recommend that Council award this as a sole source procurement per CMC para 5.12.150.a.5, and per the attached Fiscal Note.

Recommended action: Voice Vote. I move to approve resolution 08-16-31

Mike Hicks Interim City Manager

Ric Ren

Rich Rogers U Public Works Director/City Engineer

#### CITY OF CORDOVA, ALASKA RESOLUTION 08-16-31

### A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CORDOVA, ALASKA, AUTHORIZING THE CITY MANAGER TO ENTER INTO A SOLE SOURCE CONTRACT WITH GV JONES & ASSOCIATES, INC. TO PROVIDE ENGINEERING SERVICES FOR EYAK WATER TREATMENT PLANT SCADA UPGRADES, HYPOCHLORITE GENERATORS AND WATER TANK COATINGS AS DESCRIBED IN THE ATTACHED PROPOSALS

**WHEREAS**, GV Jones & Associates, Inc. has provided engineering services for the City's water system in a variety of capacities for over 15 years; and

**WHEREAS**, GV Jones & Associates, Inc. supplied the engineering services, plan review submittal to the ADEC, and the SCADA upgrades during LT2 compliance work for Meals, Murcheson and Orca; and

WHEREAS, GV Jones & Associates, Inc. is the only engineering firm that has an in-depth and comprehensive understanding of the City's water distribution systems and infrastructure; and

**WHEREAS**, continuing with GV Jones & Associates, Inc. will provide continuity in the design of the water distribution systems and SCADA upgrades which will expedite the design and construction; and

**WHEREAS**, having a sole source contract with GV Jones & Associates, Inc. provides the city the best opportunity to use the remaining grant funds and loan subsidy prior to the June 2017 expiration date dictated by the state; and

**WHEREAS**, City Council does hereby approve the following as required in Cordova Municipal Code Section 5.12.040 Council approval of contracts:

A. Contractor: GV Jones & Associates, Inc., of Anchorage, AK

**B**. Contract price: *\$185,000.00* 

**C**. Nature and quantity of the performance that the City shall receive, engineer will: prepare plans, technical specifications and contractual documents; obtain ADEC construction approvals; provide construction inspection services for: application of new tank coatings, installation of SCADA (supervisory and control and data acquisition) and other process control upgrades at Eyak Water Treatment Plant, installation of 3 new OSHG (on-site hypochlorite generation) systems and other prioritized tasks that funding may allow for

D. Time for performance: start on/about 12Aug16 and complete by 31Dec17

**WHEREAS**, pursuant to Cordova Municipal Code Section 5.12.150A, the City Manager has determined in writing that, due to GV Jones & Associates, Inc. long history with the city and specific knowledge of the city's water distribution and SCADA systems the City Council agrees in approving this resolution that the professional services contract with GV Jones & Associates, Inc. should be procured without formal competition.

**NOW, THEREFORE BE IT RESOLVED THAT** the City Council of the City of Cordova, Alaska, hereby authorizes the City Manager to enter into a sole source contract with GV Jones & Associates, Inc. to provide engineering services for Eyak Water Treatment Plant SCADA upgrades, hypochlorite generators, water tank coatings as described in the attached proposals.

### PASSED AND APPROVED THIS 11<sup>th</sup> DAY OF AUGUST, 2016.

Clay R. Koplin, Mayor
ATTEST:
Susan Bourgeois, CMC, City Clerk



1200 E. 76<sup>th</sup> Avenue, Suite 1207 Anchorage, AK 99518 Phone: (907) 346-4123 FAX: (907) 346-4124 Email: greg@gvjones.com

July 27, 2016

Mr. Rich Rogers, P.E. City Engineer and Public Works Director City of Cordova 601 First Street Cordova, Alaska 99574

Dear Rich:

Subject: Post LT2 Project SCADA Upgrades Proposal to Provide Engineering Services

### Background

The City of Cordova (City) has secured funding and community support for completing upgrades to the automated monitoring and control of the municipal water utility system. These improvements are intended to (1) upgrade existing infrastructure which is out of date, non-functional, and/or no longer supported by its original equipment manufacturer, (2) improve operational efficiencies, and (3) restore full operational capacity of the Eyak Water Treatment Plant (EWTP).

The City has requested GV Jones & Associates, Inc. (GVJ&A), and its subcontractor Boreal Controls, Inc. (BCI) to provide a proposal for services related to these upgrades. This letter is our proposal to perform this work.

### Proposed Scope of Work

We propose to undertake the work outlined in the following series of Tasks.

### Task 1: New Lake Water Pump Controls

The existing raw water pumps include four each 60 horsepower vertical turbine multi-stage centrifugal motor-driven pumps which currently are energized with across the line motor staring equipment.

We will select and furnish new variable frequency drive (VFD) controls for the EWTP lake water pumps. Upon completion of the installation, we will configure each of the VFD's to operate with Plant SCADA.

We will prepare construction documents addressing the following construction services:

- 1. Demolition of existing pump motor starting equipment
- 2. Demolition of existing pump discharge valves and valve controls
- 3. Demolition/abandonment of existing pump power and control cabling and raceways
- 4. Install pump VFD equipment
- 5. Furnish and install new pump discharge check valves
- 6. Retain/reconfigure control of pump discharge pressure relief Cla-Val valves

- 7. Furnish and install new power and control cabling and raceways.
- 8. Commissioning support of VFD controls for lake water pumps

Contractors' costs for construction services are not included in this proposal.

### Task 2: New Plant Process Control Panel

The existing water filtration process is controlled by an outdated control system housed in the panel in the lower level of the building which was damaged during flooding in 2009. This panel controls the raw water supply to the filters, each filter's wash process, chemical coagulation, and post treatment processes.

We will design fabricate, program, and furnish a new water treatment process control panel (PCP) to replace this damaged existing control panel. Features to be included in this new panel will include:

- 1. PLC-based process automation monitoring, control, and alarm annunciation for entire lake water treatment process including
  - A. Lake water pump operation
  - B. Coagulant dosing control
  - C. Filter washing operations
  - D. Post treatment dosing control
- 2. Manual switches for alternative manual (HOA) plant operational control
- 3. Reversing motor starters or VFDs to control new valve actuators
- 4. LED pilot lights for valve status
- 5. Touchscreen SCADA graphical panel display
- 6. Alarm annunciation for:
  - A. Water treatment process operations
  - B. EWTP lower level flooding
- 7. Remote monitoring of EWTP plant by Main SCADA Terminal at WWTP

We will prepare record drawings for the completed plant process control panel modified to reflect changes made during commissioning.

We will provide commissioning services for the new plant process control panel. These will include verification of functional performance of the fabricated panel with the programming installed to monitor, control and annunciate alarm conditions for the entire filtration process and flood sensors at EWTP.

We will provide operator training for the installed new plant process control panel.

We will select and prepare installation drawings for flood sensors in the lower level of the EWTP. These sensors will be monitored by the new plant process control system.

Design services will include preparation of construction documents for the following construction services:

- 1. Demolition of the existing control panel
- 2. Demolition/abandonment of existing power and control cabling and raceways
- 3. Installation of a new filter process control panel furnished by BCI
- 4. Furnish and install conduits and conductor needed to integrate the new control panel into the existing treatment plant.
- 5. Installation of flood sensors in the lower EWTP
- 6. Commissioning support for new plant process control panel

Contractors' costs for construction services are not included in this proposal.

### Task 3: New Filter Motor-Operated Valve and Actuator Assemblies

Each of the existing four filters has a total of six motor-operated filter valve and actuator assemblies.

The actuators for these valves were inspected by the AUMA actuator technical representative upon his visits to Cordova during the recently completed UV equipment installation project for the upland water treatment sites. He concluded that most of the actuators were malfunctioning, and some could be repaired. However, they all were over 30 years old, had reached the end of their respective service life and the prudent thing to do would be to replace them.

We will design and prepare construction documents addressing the following construction services:

- 1. Demolition of the existing filter valve and actuator assemblies
- 2. Furnish and install new valve and actuator assemblies
- 3. Furnish and install new valve actuator power and control cabling and raceways as needed for correct operation of new valve actuators
- 4. Actuator manufacturer technical support to include
  - A. Verification of correct installation of valve and actuator assemblies
  - B. Commissioning support including
    - i. Adjustment of installed valve actuators
    - ii. Confirmation of operational performance/automated operation
    - iii. Operator training

Contractors' costs for construction services are not included in this proposal.

We will provide new valve and actuator commissioning services. This will include support of the valve actuator's technical personnel when on site to verify communication between valve actuators and new plant process control panel.

### Task 4: Replace BIF Filtrate Flow Metering Devices

We will design and prepare bidding documents for construction services to replace the existing filtrate BIF flow tubes with new Sparling TigerMag magnetic flow meters. These flow meters will be monitored by the new EWTP plant process control panel.

Construction services addressed in the bidding documents will include:

- 1. Procurement of specified magnetic flow meter equipment
- 2. Demolition of existing BIF flow tubes
- 3. Furnish and install new magnetic flow meters
- 4. Installation of cabling and raceways needed to support the operation of the new magnetic flow meters.
- 5. Manufacturer's startup services for the new magnetic flow meter equipment

Contractors' costs for construction services are not included in this proposal.

### Task 5: New Filtration Process Magnetic Flow Meters

We will design and prepare bidding documents for construction services to install new filter process magnetic flow meters. The new meters will be Sparling TigerMag magnetic flow meters including

- 1. A single filter wash water supply flow meter
- 2. A pair of filter-to-waste flow meters, one for each of the two parallel filter trains
- 3. A single raw water feed flow meter

These flow meters will be monitored by the new EWTP plant process control panel.

Construction services addressed in the bidding documents will include:

- 1. Demolition of existing piping systems as needed to accommodate installation of the new flow tubes.
- 2. Furnish and installation of new magnetic flow meters
- 3. Installation of cabling and raceways needed to support the operation of the new magnetic flow meters
- 4. Manufacturer's startup services for the new magnetic flow meter equipment

Contractors' costs for construction services are not included in this proposal.

### Task 6: New Utility-Wide SCADA Terminal at EWTP

While Task 2 of this proposal addresses replacement of the existing 30 year old lake water treatment control panel with a new plant process control panel, the scope of this task would expand the capability of the plant SCADA system at EWTP to include monitoring, control, and alarm annunciation for the following:

- 1. Potable water processing operations at the EWTP (per Task 2 herein)
- 2. Potable water processing operations at the three upland water treatment plants
  - A. Meals
  - B. Murcheson
  - C. Orca
- 3. City potable water storage tank operations
  - A. Meals
  - B. Murcheson
  - C. Mews
  - D. Morpac
  - E. Ski Hill
  - F. 1.5 MG Tank
- 4. Booster pump station operations for the Mews Pump Station which draws out of Mews Tank and delivers to the Ski Hill Tank
- 5. Wastewater collection system lift stations
- 6. Wastewater treatment plant

We will expand the programming and communications capability for the EWTP plant process control panel to accommodate this additional monitoring, control and alarm annunciation capacity.

We will design and prepare bidding documents for construction services to address expanding power and communications cabling and raceways needed to address this utility-wide SCADA upgrade program.

Contractors' costs for construction services are not included in this proposal.

### Task 7: Upgrade Main SCADA Terminal

Currently the City's ability to remotely monitor and control its water and sewer infrastructure is limited to the main SCADA terminal located at the wastewater treatment plant (WWTP). The existing panel is able to monitor and provide limited control of operations at the three upland water treatment plants, the potable water storage tank liquid levels, and operations at the WWTP.

For this task we would upgrade the SCADA system at the WWTP with the following:

- 1. Installation of software and programming upgrades enabling
  - A. SCADA communications between the WWTP and the city-wide utility infrastructure listed in Task 6. Since the City's utility operations personnel are based out of the WWTP, this capability would enable more efficient response to operational and maintenance issues reported by SCADA
  - B. Compatibility with current and future versions of MS Windows operating system
- 2. Furnish and installation of new PC for desktop access to city-wide SCADA system
- 3. Programming and installation of report generation software addressing ADEC reporting for all three UV Disinfection Systems
- 4. Additional alarm configuration for automated dial up notification of alarm conditions within the system

No construction services are required for completion of the work in this task.

### Task 8: Monitoring CCTV System for EWTP

We will design and prepare construction documents addressing the integration of closed circuit television (CCTV) equipment at the EWTP into the utility SCADA system at the EWTP. The City wishes to procure and install a total of four cameras, two indoors and two out doors at the treatment plant.

We will design and prepare construction documents addressing the installation of CCTV equipment at the EWTP.

Construction services addressed in the bidding documents will include:

- 1. Furnish and install CCTV equipment
- 2. Furnish and install cabling and raceways needed to support the CCTV equipment operation and monitoring by plant SCADA.
- 3. Commissioning services to confirm performance of the installed equipment.

We would be available to support commissioning efforts as applies to integration of the CCTV data into the SCADA system.

The Contractors' costs for construction services are not included in this proposal.

### Task 9: EWTP Emergency Genset Transfer Switch

We will design and prepare construction documents addressing the replacement of the existing emergency generator transfer switch at the EWTP. The existing switch has been reported to be faulty and is to be replaced.

Construction services addressed in the bidding documents will include:

1. Demolition of the existing transfer switch.

- 2. Procurement and installation of a new automatic transfer switch
- 3. Manufacturers' services to verify correct installation and performance of the new installed transfer switch.
- 4. Coordination with CEC to witness the operation of the new transfer switch.

The Contractors' costs for construction services are not included in this proposal.

### Task 10: Mews Booster Pump Station Upgrade

The Mews Booster Pump Station draws water from the Mews Tank and delivers it to the Ski Hill Tank and Cabin Ridge Subdivision.

We will design and prepare construction documents addressing replacement of the two booster pumps and motor starting equipment with VFD motor starters. Per Task 6, we will integrate monitoring of these pumps into the Utility-wide SCADA system. We will furnish new RTU and VFD equipment.

Design services will address:

- 1. Demolition of existing equipment.
- 2. Installation of new pumps and VFD motor starting equipment for these pumps
- 3. Commissioning services for the new pumps

Construction services addressed in the bidding documents will include:

- 1. Demolition of existing booster pumps and motor starting equipment.
- 2. Furnish and install new pumping equipment
- 3. Install new VFD motor starting equipment and RTU
- 4. Furnish and install cabling and raceways for power and communications

The Contractors' costs for construction services are not included in this proposal.

### Task 11: ADEC Plan Review Submittals

We will prepare submittals for the Alaska Department of Environmental Conservation (ADEC). These submittals will include:

- 1. Plan review with request for approval to construct the project upgrades
- 2. Request for interim approval to operate the constructed upgrades
- 3. Request for final approval to operate the constructed upgrades.

### Task 12: Coordinate with City and Construction Contractor

We will coordinate with the City and construction contractor during the execution of the construction efforts by reviewing submittal information, addressing construction contractor inquiries, reviewing pay requests, and participating in weekly construction progress meetings.

### **Cost Proposal**

We propose to undertake the forgoing tasks on a time and materials basis for a not-to-exceed amount of \$642,000. Labor will be invoiced at our published hourly rates. Hardware and software will be invoiced as quoted or at cost plus 15%. Other direct expenses will be invoiced at cost plus a markup of 5% with receipts.

Mr. Rich Rogers July 27, 2016 Page 7

### Assumptions

The following assumptions have been made in the preparation of this proposal:

- 1. As indicated in the text of the tasks, Contractors' costs for execution of services outlined in bidding documents are not included as part of this proposal.
- 2. Full time construction inspection is not included as part of this proposal. Inspection of construction progress will be limited to milestone inspections scheduled on a frequency of approximately once per month while construction is in progress.
- 3. The plan review submittal fee for ADEC is an approximation based on previous project experience elsewhere.

### Closure

Thanks for the opportunity to submit this for your review. If you have questions or suggestions regarding the information contained in this correspondence, please contact me.

Sincerely,

Greg Jones, P.E., BCEE President GV Jones & Associates, Inc.

### Post LT2 Project SCADA Upgrades Cost Proposal to Provide Engineering Services July 25, 2016

Task	Hours	Staff	Hourly	Total	Total
Task	Tiours	Jtan	Rate	Total	Total
Task 1: New Lake Water Pump Controls			Nate		
BCI Design Services		BCI		\$19,872	
BCI Fab/Ship	-	BCI		\$39,652	
BCI Construction Services		BCI		\$7,452	
BCI Training and RDs	-	BCI		\$1,242	
Pump Discharge Valve Replace Bid Docs		GVJ Engr	\$160	\$1,242	
Pump Discharge Valve Replace Bid Docs		GVJ Graph	\$100	\$4,000	
Total Task 1		GVJ Gruph	J100	Ş-,000	\$79,898
	-				<i>,,,,,,</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Task 2: New Plant Process Control System					
BCI Design Services		BCI		\$44,712	
BCI Fab/Ship	-	BCI		\$136,160	
BCI Construction Services	-	BCI		\$21,114	
BCI Training and RDs		BCI		\$3,105	
GVJ Functional Control Narrative Prep	80	GVJ Engr	\$160	\$12,800	
Total Task 2	00	GVJ Lligi	<b>J100</b>	J12,000	\$217,891
	-				J217,091
Task 3: New Valve and Actuator Assemblies					
BCI Design Services		BCI		\$6,831	
		BCI		\$6,831 \$0	
BCI Fab/Ship		-			
BCI Construction Services	-	BCI		\$11,799	
BCI Training and RDs	-	BCI	64.00	\$1,242	
Proces Drawings and Specs		GVJ Engr	\$160	\$12,160	
Proces Drawings and Specs		GVJ Graph	\$100	\$6,800	4
Total Task 3					\$38,832
Task 4: Replace BIF Flow Devices					
BCI Design Services		BCI		\$4,968	
BCI Fab/Ship		BCI		\$0	
BCI Construction Services		BCI		\$3,726	
BCI Training and RDs		BCI		\$0	
Proces Drawings and Specs		GVJ Engr	\$160	\$7,680	
Proces Drawings and Specs		GVJ Graph	\$100	\$4,600	
Total Task 4					\$20,974
Task 5: New Process Mag Meters					
BCI Design Services		BCI		inculded Ta	ask 4
BCI Fab/Ship		BCI		inculded Ta	ask 4
BCI Construction Services		BCI		inculded Ta	ask 4
BCI Training and RDs		BCI		inculded Ta	ask 4
Proces Drawings and Specs		GVJ Engr	\$160	\$7,680	
Proces Drawings and Specs		GVJ Graph	\$100	\$4,700	
Total Task 5					\$12,380
Task 6: Utility-Wide EWTP SCADA Terminal					
BCI Design Services		BCI		\$12,420	
BCI Fab/Ship		BCI		\$11,500	
BCI Construction Services	1	BCI		\$12,420	
BCI Training and RDs		BCI		\$621	
Total Task 6	-			7021	\$36,961
	+				
Task 7: Upgrade Main SCADA Terminal					
		BCI		\$31,050	
BCI Design Services	1	DUI			
BCI Design Services		DCI		622.000	
BCI Fab/Ship		BCI		\$23,000	
-		BCI BCI BCI		\$23,000 \$18,630 \$1,242	

## Post LT2 Project SCADA Upgrades Cost Proposal to Provide Engineering Services July 25, 2016

	1				
Task 8: CCTV Equipment					
BCI Design Services		BCI		\$6,831	
BCI Fab/Ship		BCI		\$0	
BCI Construction Services		BCI		\$3,726	
BCI Training and RDs		BCI		\$1,242	
Total Task 9					\$11,79
Task 9: GenSet Transfer Switch					
BCI Design Services		BCI		\$5,589	
BCI Fab/Ship		BCI		\$0	
BCI Construction Services		BCI		\$6,210	
BCI Training and RDs		BCI		\$621	
Total Task 9					\$12,42
Task 10: Mews Booster Pump Station Upgrade					
BCI Design Services		BCI		\$13,041	
BCI Fab/Ship		BCI		\$44,850	
BCI Construction Services		BCI		\$3,726	
BCI Training and RDs		BCI		\$1,242	
Proces Drawings and Specs		GVJ Engr	\$160	\$7,680	
Proces Drawings and Specs		GVJ Graph	\$100	\$4,900	
Total Task 10					\$75,43
Task 11: ADEC Plan Review Submittals					
Prepare/Submit ADEC ATC Submittal	20	GVJ Engr	\$160	\$3,200	
Prepare/Submit ADEC IATO Submittal	4	GVJ Engr	\$160	\$640	
Prepare/Submit ADEC FATO Submittal	6	GVJ Engr	\$160	\$960	
Total Task 11					\$4,80
Task 12: Coord with City and Const Contractor					
Weekly Progress Meetings	60	GVJ Engr	\$160	\$9,600	
Meetings with City on Budget/Schedules	8	GVJ Engr	\$160	\$1,280	
Periodic Construction Site Inspections	40	GVJ Engr	\$160	\$6,400	
Commissioning Site Visits	40	GVJ Engr	\$160	\$6,400	
Total Task 12		010 2.18.	<i>\</i> 200	<i>ç</i> ,	\$23,68
Total Labor					\$608,99
Expenses					
ltem	Quantity	Units	Unit	Total	Total
			Cost		
Tasks 1 - 10			4	4	
BCI Air Travel	All Req'd	Lump Sum	\$8,223	\$8,223	
BCI Per Diem for Time in CDV		Lump Sum	\$13,800	\$13,800	
BCI Car Rental	All Req'd		\$1,035	\$1,035	
Postage and Shipping	All Req'd	-	\$100	\$100	
Reproductions and Copies Total Tasks 1 thru 9	All Req'd	Lump Sum	\$261	\$261	\$23,41
					-
Task 11: ADEC Plan Review Submittals ADEC Plan Review Fee	All Reg'd	Lump Sum	\$1,000	\$1,000	
Total Task 11			- <u>-</u> ,	+_,000	\$1,00
Task 12: Coord with City and Const Contractor					
GVJ&A Air Fare Milestone Inspections	6	Per Seat	\$310	\$1,860	
	3	Per Seat	\$310	\$1,880 \$930	
		Per Seat	\$90	\$930 \$1,440	
GVJ&A Air Fare Commissioning Support	16	I CI Day	υCĻ		
GVJ&A Air Fare Commissioning Support GVJ&A Vehicle Rental	16 16		\$160	¢2 560	
GVJ&A Air Fare Commissioning Support GVJ&A Vehicle Rental GVJ&A Room and Board	16	Per Day	\$160 \$14	\$2,560 \$224	
GVJ&A Air Fare Commissioning Support GVJ&A Vehicle Rental			\$160 \$14	\$2,560 \$224	\$7,014
GVJ&A Air Fare Commissioning Support GVJ&A Vehicle Rental GVJ&A Room and Board GVJ&A Airport Parking	16	Per Day	· · ·		\$7,014 \$33,004



1200 E. 76<sup>th</sup> Avenue, Suite 1207 Anchorage, AK 99518 Phone: (907) 346-4123 FAX: (907) 346-4124 Email: greg@gvjones.com

August 10, 2016

Mr. Rich Rogers, P.E. City Engineer and Public Works Director City of Cordova 601 First Street Cordova, Alaska 99574

Dear Rich:

Subject: Post LT2 Projects Upgrade Hypochlorite Generation and Dosing Equipment Proposal to Provide Engineering Services

### Background

The City of Cordova (City) has received funding for capital improvements to its water utility infrastructure approved by the community in the March election of 2016 as Post LT2 Upgrade Projects. Three priority upgrades to be undertaken as part of the Post LT2 Projects include the following:

- 1. Improvements to the utility Supervisory Control and Data Acquisition (SCADA) system.
- 2. Upgrades to onsite hypochlorite generation and dosing equipment by replacing existing with new at the Meals, Murcheson/Eyak, and Orca Treatment facilities
- 3. Coatings upgrades at four existing potable water storage tanks including Morpac, Mews, 1.5 Million Gallon (MG), and Ski Hill. Based on dive survey inspections of these tanks, the 1.5 MG tank and the Morpac tank are recommended to receive preparation and coating on both their interior and exterior, whereas the Mews and Ski Hill tanks are to be prepared and coated only on their exteriors.

The City's funding is available only until June of 2017. The City has asked GV Jones & Associates, Inc. (GVJ&A) to provide a proposal for expedited engineering services in support of upgrades to onsite hypochlorite generation and dosing equipment. This letter is our proposal to provide these services.

### Proposed Scope of Services

We propose to provide the services outlined in the following series of tasks.

### Task 1: Review Candidate Equipment Suppliers with City

We will furnish the City with information on up to three alternative hypochlorite generation systems and review individual system advantages and disadvantages using email and teleconference meetings.

### Task 2: Prepare Equipment Proposal Solicitation and Review Proposals

We will prepare equipment proposal solicitations for suppliers of onsite hypochlorite generation systems. The solicitation will request a scope of service that includes fabrication, furnishing/shipping new replacement onsite hypochlorite generation to Cordova, demolition of the old hypochlorite generation equipment, and installation/commissioning the new equipment upon its arrival in Cordova.

Elements of this solicitation will include the following:

- 1. Schedule for completion of services
- 2. Existing Conditions/Requirements
  - A. Required capacity of replacement hypochlorite generation equipment expressed as pounds per day chlorine generated
  - B. Electrical power supply voltage and amperage available at each of the three hypochlorite generation equipment installation sites
  - C. Water Quality Data for Feed Water to Hypochlorite Generation Equipment
  - D. Physical space available for:
    - i. Staging and Installation of Equipment
    - ii. Doorway dimensions for passing equipment into treatment facilities
- 3. List of Information to be Provided by Bidders
  - A. Equipment Information
    - i. Equipment Components to be Included in Scope of Supply
    - ii. Capacities of Equipment Components
    - iii. Required Utility Service Connections, Consumption Rates
      - (a) Power
      - (b) Water
      - (c) Salt Brine
    - iv. Operational Characteristics of Equipment
    - v. Equipment Certifications
    - vi. Materials of Construction
    - vii. Instrumentation and Automation Features
  - B. Equipment Supplier Qualifications and Experience
    - i. Years of Experience Fabricating and Installing Equipment
    - ii. Number of Similar Sized Units Installed Elsewhere
    - iii. Contacts for Operations Personnel Currently Using Supplier Equipment
  - C. Installation Resources
    - i. Identification of Installation Contractor
      - (a) Name
      - (b) Current License
      - (c) Bonding, Insurance
    - ii. Schedule for Installation, Start up, Commissioning
  - D. Cost Proposal
- 4. Installation Drawings and Specifications
  - A. Process Mechanical Design Drawings and Specifications
  - B. Electrical/SCADA Design Drawings and Specifications

Drawings will be prepared as AutoCAD drawing files. Specifications will be prepared as Microsoft Word text documents. Submittals will be provided to the City as Adobe pdf files. The document set will be provided to the bidders in electronic .pdf format.

To expedite the execution of the Project, we will provide the City a draft set of bidding documents at approximately a level of 90% design completion and a final set of bidding documents for review and comment.

We will review proposals received and make a recommendation for award to the City.

### *Task 3: Prepare Bidding Documents for Hypochlorite Generation System Installation*

We will prepare bidding documents for a contractor to install the new replacement onsite hypochlorite generation systems. The bidding documents will include the following elements:

- 1. Drawings prepared in Task 2
- 2. Specifications
  - A. Bid Documents
  - B. Agreement Documents
  - C. General Conditions
  - D. Supplemental General Conditions
  - E. Technical Specifications
  - F. Appendices/Reference Documents

### Task 4: Bid Phase Services

We will provide the following bid phase services for this Project.

- 1. Receive and respond to bidders' questions
- 2. Review bids received
- 3. Prepare recommendation of bid award

### Task 5: Construction Phase Services

We will provide the following construction phase services for the selected Hypochlorite Generation and Dosing Equipment project.

- 1. Review of Contractor Submittals
- 2. Host and Participation in Weekly Conference Call Contractor Progress Meetings
- 3. On site inspector services while Contractor is actively engaged in work on site
- 4. On site observation of equipment performance verification activities
- 5. Project close out inspections
- 6. Prepare record drawings for new hypochlorite equipment as installed.

### Task 6: Project Approvals

ADEC indicated to GVJ&A that they require plan review for the upgraded hypochlorite generation system. We will prepare and deliver the following submittals to the ADEC requesting approval to construct and operate the water treatment systems upgraded with new hypochlorite generation equipment.

- 1. Approval to Construct the Project
- 2. Interim Approval to Operate the Upgraded Systems
- 3. Final Approval to Operate the Upgraded Systems

### Assumptions

The following assumptions have been made in the preparation of this proposal.

Mr. Rich Rogers, P.E. August 10, 2016 Page 4

- 1. The project will only be bid once. No representation is made herein that suggests bids received will include responsive bids and/or that bid amounts will be below budget allocations set aside by the City for execution of fabrication and construction services by the bidders.
- 2. The work undertaken under this proposed scope of services does not include any of the following design services: Site/Civil, Architectural/Landscape, Structural, Mechanical, Controls
- 3. The City will pay costs of advertisement for proposals and/or bid solicitations.
- 4. The City will pay ADEC plan review fees directly to ADEC.

### Cost Proposal

We propose to undertake the foregoing scope of services on a time and materials basis for a not to exceed amount of \$73,000. Labor will be invoiced at our current published hourly rates. Direct expenses will be invoiced at cost plus a markup of 5%.

### Closure

Thank you for inviting us to submit this for your review. If you have questions or suggestions regarding the information contained in this correspondence, please contact me.

Sincerely,

Greg Jones, P.E., BCEE President GV Jones & Associates, Inc.

City of Cordova - Upgrade Hypochlorite Generation and Dosing Equipment Cost Proposal to Provide Engineering Services August 10, 2016						
Labor	Haura	Ctoff	Heurby	Cubtotol	Total	
Description	Hours	Staff	Hourly Rate	Subtotal	Total	
Task 1: Review Candidate Equipment Suppl	iers with City		nale			
Data Collection	8	GVJ&A	\$120	\$960		
Coordinate with City	12	GVJ&A	\$160	\$1,920		
Total Task 1		Groan	<b></b>	<i><i><i></i></i></i>	\$2,880	
					<i> </i>	
Task 2: Prepare Equipment Proposal Solicit	ation and Doc	uments				
Solicitation Preparation	8	GVJ&A	\$160	\$1,280		
Process	46	GVJ&A	\$160	\$7,360		
Electrical	36	RSA	\$179	\$6,426		
SCADA	22	BCI	\$158	\$3,465		
Mapping, Graphics	12	Graphics	\$120	\$1,440		
Answer Proposer Questions	8	GVJ&A	\$160	\$1,280		
Review Proposals	6	GVJ&A	\$160	\$960		
Coordinate with City/Recommendation	6	GVJ&A	\$160	\$960		
Total Task 2					\$23,171	
Task 3: Prepare Bidding Documents Bid Documents		C)/ 18 A	¢100	¢0.000		
Total Task 3	20	GVJ&A	\$160	\$3,200	¢2 200	
TOTAL LASK S					\$3,200	
Task 4: Bid Phase Services						
Bid Phase Services	8	GVJ&A	\$160	\$1,280		
Bid Phase Services	2	RSA	\$179	\$357		
Bid Phase Services	2	BCI	\$158	\$315		
Total Task 4		20.	<b> </b>	<i>\</i> <b>\</b> 010	\$1,952	
					<i><b></b></i>	
Task 5: Construction Phase Services						
Engineering Submittal Reviews	12	GVJ&A	\$160	\$1,920		
Engineering Submittal Reviews	6	RSA	\$179	\$1,071		
Engineering Submittal Reviews	2	BCI	\$158	\$315		
Construction Contract Admin	24	GVJ&A	\$160	\$3,840		
Construction Observation	90	R&M Engr	\$184	\$16,538		
Engineering Milestone Inspections	34	GVJ&A	\$160	\$5,440		
Contract Closeout/Record Drawings	27	GVJ&A	\$120	\$3,240		
Total Task 5					\$32,364	
Task 6: Project Approval						
ADEC Plan Review Submittal	20	GVJ&A	\$120	\$2,400		
Interim and Final Approvals	4	GVJ&A	\$160	\$640		
Record Drawings for ADEC Approval	4	GVJ&A	\$120	\$480		
Total Task 6					\$3,520	
Total Labor					¢c7 00-	
Total Labor				+	\$67,087	

City of Cordova - Upgrade Hypochlorite Generation and Dosing Equipment Cost Proposal to Provide Engineering Services						
	August 10, 201	6				
Expenses						
Description	Quantity	Units	Unit	Subtotal	Total	
			Cost			
Task 1, 2 and 3						
Postage and Shipping	All Req'd	Lump Sum	\$200	\$200		
Reproduction and Copying	All Req'd	Lump Sum	\$800	\$800		
Total Task 1, 2 and 3					\$1,000	
Task 4 and 5						
Air Fare ANC CDV RT	2	Seats	\$360	\$720		
Air Fare KTN CDV RT	2	Seats	\$500	\$1,000		
Room and Board	12	Days	\$120	\$1,440		
Rental Cars	12	Days	\$100	\$1,200		
Airport Parking	All Req'd	Lump Sum	\$120	\$120		
Postage and Shipping	All Req'd	Lump Sum	\$40	\$40		
Reproduction and Copying	All Req'd	Lump Sum	\$40	\$40		
Total Task 4 and 5					\$4,560	
Task 6: Project Approvals						
Postage and Shipping	All Reg'd	Lump Sum	\$20	\$20		
Reproduction and Copying		Lump Sum	\$52	\$52		
Total Task 6					\$72	
Total Expenses with 5% Markup					\$5,914	
Total Labor and Expenses					\$73,000	

# 



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August 10, 2016

Mr. Rich Rogers, P.E. City Engineer and Public Works Director City of Cordova 601 First Street Cordova, Alaska 99574

Dear Rich:

Subject: Post LT2 Projects Water Storage Tanks Coatings Upgrades Proposal to Provide Engineering Services

### Background

The City of Cordova (City) has received funding for capital improvements to its water utility infrastructure approved by the community in the March election of 2016 as Post LT2 Upgrade Projects. Three priority upgrades to be undertaken as part of the Post LT2 Projects include the following:

- 1. Improvements to the utility Supervisory Control and Data Acquisition (SCADA) system.
- 2. Upgrades to onsite hypochlorite generation and dosing equipment by replacing existing with new at the Meals, Murcheson/Eyak, and Orca Treatment facilities
- 3. Coatings upgrades at four existing potable water storage tanks including Morpac, Mews, 1.5 Million Gallon (MG), and Ski Hill. Based on dive survey inspections of these tanks, the 1.5 MG tank and the Morpac tank are recommended to receive preparation and coating on both their interior and exterior, whereas the Mews and Ski Hill tanks are to be prepared and coated only on their exteriors.

The City's funding is available only until June of 2017. The City has asked GV Jones &Associates, Inc. (GVJ&A) to provide a proposal for expedited engineering services in support of the tank coatings upgrades effort. This letter is our proposal to provide these services.

### Proposed Scope of Services

We propose to provide the services outlined in the following series of tasks.

### Task 1: Data Collection on Existing Storage Tanks

We will review archived data provided by the City on the status and/or configuration of the four existing tanks to receive preparation and coating. Archived data may include:

- 1. Dive survey inspection reports for these tanks
- 2. Lead sample testing results
- 3. State ADEC Sanitary Survey reports addressing these tanks
- 4. Site plans and/or as built tank construction documents

5. Aerial photomap images of existing tanks from City GIS file data

We will visit the City and collect additional data on the configurations of these four tanks to supplement and verify archived data.

### Task 2: Prepare Bidding Documents for Tank Preparation and Coating

We will prepare bidding documents for recoating these four tanks. The bidding documents will include the following elements:

- 1. Drawings
  - A. Cover Title Page, Drawing Index
  - B. Legend, Symbols, Abbreviations
  - C. Site Plans
  - D. Details
- 2. Specifications
  - A. Bid Documents
  - B. Agreement Documents
  - C. General Conditions
  - D. Supplemental General Conditions
  - E. Technical Specifications
  - F. Appendices/Reference Documents

Technical drawings and specifications will include a mixer for Morpac Tank to ease freezing issues, and include any structural repairs that may be needed. We've included efforts for our electrical, structural, and controls engineer in this scope to address power to the mixer, required structural repairs, and coordinating tank coating with SCADA equipment which may be mounted to the tanks and require removal and reinstallation.

Drawings will be prepared as AutoCAD drawing files. Specifications will be prepared as Microsoft Word text documents. Submittals will be provided to the City as Adobe pdf files. The document set will be provided to the bidders in electronic .pdf format.

To expedite the execution of the Project, we will provide the City a draft set of bidding documents at approximately a level of 90% design completion and a final set of bidding documents for review and comment.

### Task 3: Bid Phase Services

We will provide the following bid phase services for this Project.

- 1. Receive and respond to bidders' questions
- 2. Review bids received
- 3. Prepare recommendation of bid award

### Task 4: Construction Phase Services

We will provide the following construction phase services for this Project.

- 1. Review of Contractor Submittals
- 2. Host and Participation in weekly Conference Call Contractor Progress Meetings
- 3. On site inspector services while Contractor is actively engaged in work on site
- 4. On site testing services for coating systems applied to tanks
- 5. Project close out inspections

Mr. Rich Rogers, P.E. August 10, 2016 Page 3

6. Prepare record drawings of upgraded tanks

### Task 5: Project Approvals

ADEC indicated to GVJ&A that they do not require plan review for the preparation and coating of the existing storage tanks, but do require a plan review submittal for the Morpac Tank mixer. ADEC requests a report be submitted to them documenting the tank coating work. GVJ&A will prepare that report and submit it to ADEC upon completion of the work.

We will prepare and deliver the following submittals to the ADEC requesting approval to construct and operate the water treatment systems upgraded a new mixer at the Morpac Tank.

- 1. Approval to Construct the Project
- 2. Interim Approval to Operate the Upgraded Systems
- 3. Final Approval to Operate the Upgraded Systems

### Assumptions

The following assumptions have been made in the preparation of this proposal.

- 1. The project will only be bid once. No representation is made herein that suggests bids received will include responsive bids and/or that bid amounts will be below budget allocations set aside by the City for execution of construction services by the bidders.
- 2. The work undertaken under this proposed scope of services does not include any of the following design services: Site/Civil, Architectural/Landscape, Mechanical, Controls
- 3. The City will pay costs of advertisement for bid solicitations.
- 4. The City will pay ADEC plan review fees directly to ADEC.

### Cost Proposal

We propose to undertake the foregoing scope of services on a time and materials basis for a not to exceed amount of \$120,000. Labor will be invoiced at our current published hourly rates. Direct expenses will be invoiced at cost plus a markup of 5%.

### Closure

Thank you for inviting us to submit this for your review. If you have questions or suggestions regarding the information contained in this correspondence, please contact me.

Sincerely,

Greg Jones, P.E., BCEE President GV Jones & Associates, Inc.

Task 3: Bid Phase Services8GVJ&A\$160\$1,280Bid Phase Services4RMI\$210\$840Bid Phase Services4RSA\$179\$714Bid Phase Services4BCI\$158\$630Total Task 333\$3,46Task 4: Construction Phase ServicesEngineering Submittal Reviews16GVJ&A\$160\$2,560Engineering Submittal Reviews8RMI\$210\$1,680Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 444\$34,00ADEC Tank Coating Report4GVJ&A\$120\$480						
Task 1: Data Collection on Existing Storage Tanks         Rate           Review Existing Archived Data         8         GVJ&A         \$160         \$1.280           Site Visit         8         GVJ&A         \$160         \$1.280           Data Verification         4         GVJ&A         \$160         \$640           Total Task 1          \$3.20           Process         66         GVJ&A         \$160         \$10.560           Structural         88         RMI         \$210         \$18,480           Electrical         96         RSA         \$179         \$17,136           SCADA         24         BCI         \$18,480         \$1600         \$62,83           Mapping, Graphics         94         Graphics         \$1,280         \$62,83           Bid Documents         10         GVJ&A         \$160         \$1,280           Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         4         RMI         \$210         \$840           Bid Phase Services         4         BCI         \$158         \$630           Total Task 3           \$3,46           Task 4: Construction						
Task 1: Data Collection on Existing Storage Tanks         8         GVJ&A         \$160         \$1,280           Site Visit         8         GVJ&A         \$160         \$1,280           Data Verification         4         GVJ&A         \$160         \$640           Total Task 1          \$3,20         \$3,20           Task 2: Prepare Bidding Documents for Tank Preparation and Coating         \$3,20           Process         66         GVJ&A         \$16.0         \$10,560           Structural         88         RIMI         \$210         \$18,480           Electrical         96         RSA         \$17,136         \$3,780           SCADA         24         BCI         \$158         \$3,780           Mapping, Graphics         94         Graphics         \$120         \$11,280           Bid Documents         10         GVJ&A         \$160         \$100           Total Task 2          \$10         \$120         \$11,280           Bid Phase Services         8         GVJ&A         \$160         \$1,600           Total Task 2          \$10         \$10         \$120         \$41           Bid Phase Services         8         GVJ&A         \$160 </th <th>Description</th> <th>Hours</th> <th>Staff</th> <th></th> <th>Subtotal</th> <th>Total</th>	Description	Hours	Staff		Subtotal	Total
Review Existing Archived Data         8         GVJ&A         \$160         \$1,280           Site Visit         8         GVJ&A         \$160         \$1,280           Data Verification         4         GVJ&A         \$160         \$1,280           Task 1	Taale 1. Data Oallastian on Evision a Otona	na Tanka		Rate		
Site Visit         8         GVJ&A         \$160         \$1,280           Data Verification         4         GVJ&A         \$160         \$640           Total Task 1		-	0)/18.4	¢100	¢1.000	
Data Verification         4         GVJ&A         \$160         \$640           Total Task 1					1 7	
Total Task 1         \$3,20           Task 2: Prepare Bidding Documents for Tank Preparation and Coating         \$3,20           Process         66         GVJ&A         \$160         \$10,560           Structural         88         RMI         \$210         \$18,480           Electrical         96         RSA         \$179         \$17,136           SCADA         24         BCI         \$188         \$3,780           Mapping, Graphics         94         Graphics         \$1120         \$111,280           Bid Documents         10         GVJ&A         \$160         \$1,600           Total Task 2          \$160         \$1,600         \$62,83           Task 3: Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         4         RMI         \$210         \$840           Bid Phase Services         4         RSA         \$179         \$714           Bid Phase Services         4         BCI         \$188         \$6630           Total Task 3           \$3,46           Task 4: Construction Phase Services         4         BCI         \$184         \$160         \$2,560           Engineerin		-		+	+ ,	
Task 2: Prepare Bidding Documents for Tank Preparation and Coating         Process       66       GVJ&A       \$160       \$10,560         Structural       88       RMI       \$210       \$18,480         Electrical       96       RSA       \$179       \$17,136         SCADA       24       BCI       \$158       \$3,780         Mapping, Graphics       94       Graphics       \$11,280         Bid Documents       10       GVJ&A       \$1600       \$1600         Total Task 2        \$62,83       \$160       \$1,280         Bid Phase Services       8       GVJ&A       \$160       \$1,280         Bid Phase Services       4       RMI       \$210       \$840         Bid Phase Services       4       RMI       \$210       \$840         Bid Phase Services       4       BCI       \$158       \$630         Total Task 3         \$3,460         Total Task 3         \$3,460         Engineering Submittal Reviews       16       GVJ&A       \$1,071         Engineering Submittal Reviews       8       RMI       \$210       \$1,680         Engineering Submittal Reviews       6       <		4	GVJ&A	\$160	\$640	<b>\$0.00</b>
Process         66         GVJ&A         \$160         \$10,560           Structural         88         RMI         \$210         \$18,480           Electrical         96         RSA         \$17,36           SCADA         24         BCI         \$158         \$3,780           Mapping, Graphics         94         Graphics         \$11,280           Bid Documents         10         GVJ&A         \$160         \$11,280           Total Task 2           \$62,83           Task 3: Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         4         RMI         \$210         \$840           Bid Phase Services         4         RSA         \$179         \$714           Bid Phase Services         4         RSA         \$179         \$1,680           Engineeri	Total Task 1					\$3,20
Process         66         GVJ&A         \$160         \$10,560           Structural         88         RMI         \$210         \$18,480           Electrical         96         RSA         \$17,9         \$17,136           SCADA         24         BCI         \$158         \$3,780           Mapping, Graphics         94         Graphics         \$11,280           Bid Documents         10         GVJ&A         \$160         \$11,280           Total Task 2           \$62,83           Task 3: Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         4         RMI         \$210         \$840           Bid Phase Services         4         RSA         \$179         \$714           Bid Phase Services         4         BCI         \$158         \$630           Total Task 3           \$3,46           Engineering Submittal Reviews         16         GVJ&A         \$160         \$2,560           Engineering Submittal Reviews         8         RMI         \$210         \$1,680	Task 2: Prepare Bidding Documents for T	ank Preparation	and Coatin	a		
Structural         88         RMI         \$210         \$18,480           Electrical         96         RSA         \$179         \$17,136           SCADA         24         BCI         \$158         \$3,780           Mapping, Graphics         94         Graphics         \$120         \$11,280           Bid Documents         10         GVJ&A         \$160         \$1,600           Total Task 2         10         GVJ&A         \$160         \$1,600           Task 3: Bid Phase Services         8         GVJ&A         \$160         \$1,280           Bid Phase Services         4         RMI         \$210         \$840           Bid Phase Services         4         RSA         \$179         \$714           Bid Phase Services         4         RSA         \$179         \$714           Bid Phase Services         4         BCI         \$158         \$630           Total Task 3          \$3,460         \$3,460           Engineering Submittal Reviews         6         RSA         \$179         \$1,071           Engineering Submittal Reviews         6         RSA         \$179         \$1,071           Engineering Submittal Reviews         6         RSA					\$10,560	
Electrical       96       RSA       \$179       \$17,136         SCADA       24       BCI       \$158       \$3,780         Mapping, Graphics       94       Graphics       \$120       \$11,280         Bid Documents       10       GVJ&A       \$160       \$1,600         Total Task 2					. ,	
SCADA         24         BCI         \$158         \$3,780           Mapping, Graphics         94         Graphics         \$120         \$11,280           Bid Documents         10         GVJ&A         \$160         \$1,600           Total Task 2	Electrical	96	RSA		. ,	
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Total Task 2\$62,83Task 3: Bid Phase Services8GVJ&A\$160\$1,280Bid Phase Services4RMI\$210\$840Bid Phase Services4RSA\$179\$714Bid Phase Services4BCI\$158\$630Total Task 34BCI\$158\$630Total Task 355\$3,46Task 4: Construction Phase Services6RSA\$160\$2,560Engineering Submittal Reviews16GVJ&A\$160\$2,560Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 444\$34,00\$34,00Contract Closeout/Record Drawings24GVJ&A\$120\$480Task 5: Project Approval4GVJ&A\$120\$480		10			. ,	
Bid Phase Services8GVJ&A\$160\$1,280Bid Phase Services4RMI\$210\$840Bid Phase Services4RSA\$179\$714Bid Phase Services4BCI\$158\$630Total Task 3	Total Task 2				+ )	\$62,83
Bid Phase Services8GVJ&A\$160\$1,280Bid Phase Services4RMI\$210\$840Bid Phase Services4RSA\$179\$714Bid Phase Services4BCI\$158\$630Total Task 3						
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Bid Phase Services4RSA\$179\$714Bid Phase Services4BCI\$158\$630Total Task 3\$3,46Task 4: Construction Phase ServicesEngineering Submittal Reviews16GVJ&A\$160\$2,560Engineering Submittal Reviews8RMI\$210\$1,680Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4\$34,00ADEC Tank Coating Report4GVJ&A\$120\$480		-		+	. ,	
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Total Task 3S3,46Task 4: Construction Phase ServicesImage: Submittal ReviewsEngineering Submittal Reviews16GVJ&A\$160\$2,560Engineering Submittal Reviews8RMI\$210\$1,680Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4\$34,00ADEC Tank Coating Report4GVJ&A\$120\$480			-		-	
Task 4: Construction Phase ServicesImage: Construction Phase ServicesEngineering Submittal Reviews16GVJ&A\$160\$2,560Engineering Submittal Reviews8RMI\$210\$1,680Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 44GVJ&A\$120\$480		4	BCI	\$158	\$630	
Engineering Submittal Reviews16GVJ&A\$160\$2,560Engineering Submittal Reviews8RMI\$210\$1,680Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 432GVJ&A\$120\$34,00ADEC Tank Coating Report4GVJ&A\$120\$480	Total Task 3					\$3,46
Engineering Submittal Reviews8RMI\$210\$1,680Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 45555ADEC Tank Coating Report4GVJ&A\$120\$480	Task 4: Construction Phase Services					
Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4Task 5: Project ApprovalADEC Tank Coating Report4GVJ&A\$120\$480	Engineering Submittal Reviews	16	GVJ&A	\$160	\$2,560	
Engineering Submittal Reviews6RSA\$179\$1,071Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4Task 5: Project ApprovalADEC Tank Coating Report4GVJ&A\$120\$480	Engineering Submittal Reviews	8	RMI	\$210	\$1,680	
Engineering Submittal Reviews2BCI\$158\$315Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4Task 5: Project ApprovalADEC Tank Coating Report4GVJ&A\$120\$480	Engineering Submittal Reviews	6	RSA	\$179	\$1,071	
Construction Contract Admin32GVJ&A\$160\$5,120Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4\$34,00Task 5: Project ApprovalADEC Tank Coating Report4GVJ&A\$120\$480	Engineering Submittal Reviews	2	BCI		\$315	
Construction Observation90R&M Engr\$184\$16,538Engineering Milestone Inspections24GVJ&A\$160\$3,840Contract Closeout/Record Drawings24GVJ&A\$120\$2,880Total Task 4Start Strenge Colspan="2">Start Start Strenge Colspan="2">Start Strenge Colspa			GVJ&A			
Engineering Milestone Inspections       24       GVJ&A       \$160       \$3,840         Contract Closeout/Record Drawings       24       GVJ&A       \$120       \$2,880         Total Task 4         \$34,00         Task 5: Project Approval         ADEC Tank Coating Report       4       GVJ&A       \$120       \$480						
Contract Closeout/Record Drawings         24         GVJ&A         \$120         \$2,880           Total Task 4            \$34,00           Task 5: Project Approval           ADEC Tank Coating Report         4         GVJ&A         \$120         \$480	Engineering Milestone Inspections	24	•	\$160		
Task 5: Project Approval     4     GVJ&A     \$120     \$480		24	GVJ&A	\$120	\$2,880	
ADEC Tank Coating Report 4 GVJ&A \$120 \$480	Total Task 4			•		\$34,00
ADEC Tank Coating Report 4 GVJ&A \$120 \$480	Task 5: Project Approval					
		1	GV/ I& A	\$120	\$480	
	Total Task 4	4	GVJAA	φιζυ	φτου	\$48
	Total Labor		1			\$103,98

	Water Storage Ta sal to Provide Eng August 10, 20	gineering Se		des	
	August 10, 20				
Expenses					
Description	Quantity	Units	Unit	Subtotal	Total
			Cost		
Task 1: Data Collection on Existing Sto	rage Tanks				
Reproduction and Copying	All Req'd	Lump Sum	\$100	\$100	
Air Fare	3	Each	\$360	\$1,080	
Room and Board	3	Each	\$150	\$450	
Rental Car	6	Each	\$110	\$660	
Parking/Taxi	6	Each	\$14	\$84	
Total Task 1					\$2,374
Task 2 and 3					
Postage and Shipping	All Reg'd	Lump Sum	\$0	\$0	
Reproduction and Copying		Lump Sum	\$0	\$0	
Total Task 2 and 3	1 -		• -		\$0
Task 4: Construction Phase Services					
Air Fare ANC CDV RT	4	Seats	\$360	\$1,440	
Air Fare KTN CDV RT	4	Seats	\$500	\$2,000	
Room and Board	32	Days	\$150	\$4,800	
Rental Cars	32	Days	\$120	\$3,840	
Airport Parking	All Reg'd	Lump Sum	\$200	\$200	
Postage and Shipping		Lump Sum	\$40	\$40	
Reproduction and Copying		Lump Sum	\$0	\$0	
Water Quality Testing		Lump Sum	\$0	\$0	
Coatings Test Equipment		Lump Sum	\$200	\$200	
Total Task 4			+		\$12,520
Task 5: Project Approvals					
no expense					
Total Expenses					\$15,639
Total Labor and Expenses					\$119,622
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