AMENDMENT NO. 9
TO CONTRACT FOR
PROFESSIONAL SERVICES

The City of Corpus Christi, Texas hereinafter called "CITY", and **Freese and Nichols, Inc.** agree to the following amendment to the Contract for Professional Services for **Garwood Water Supply Project (Project No. 8424)**, as authorized and amended by:

Original A/E Agreement	October 28, 2003	Motion No. M2003-394	$116,100.00
Amendment No. 1	October 19, 2004	Motion No. M2004-387	$285,490.00
Amendment No. 2	December 18, 2007	Motion No. M2007-334	$911,997.00
Amendment No. 3	March 11, 2009	Administrative Approval	$0.00
Amendment No. 4	March 9, 2010	Motion No. M2010-051	$9,676,590.00
Amendment No. 5	November 30, 2011	Administrative Approval	$0.00
Amendment No. 6	January 14, 2012	Administrative Approval	$49,940.00
Amendment No. 7	April 24, 2013	Administrative Approval	$49,822.00
Amendment No. 8	May 29, 2013	Administrative Approval	$49,900.00

Amendment No. 9 revises the project scope for **Mary Rhodes Pipeline Phase 2 (Project No. E10008)** to the Garwood Water Supply Project as follows:

Exhibit "A", Section 1. Scope of Services, Part A. Basic Services, shall be modified to include additional Design and Construction Phase services as specified in Amendment No. 9 Exhibit "A".

- **ITEM NO. 3 Design Phase** in the amount of $88,476.00
- **ITEM NO. 5 Construction Phase** in the amount of $107,188.00

Exhibit "A", Section 2. Schedule, shall be modified as specified in the attached Amendment No. 9 Exhibit "A", Schedule.

Exhibit "A", Section 3. Fees, shall be modified as specified in Amendment No. 9 Exhibit "A" for a revised fee not to exceed **$195,664.00 (One Hundred Ninety-Five Thousand Six Hundred Sixty-Four Dollars and Zero Cents)**, for a total restated fee not to exceed **$11,335,503.00 (Eleven Million Three Hundred Thirty-Five Thousand Five Hundred Three Dollars and Zero Cents)**. Monthly invoices shall be submitted in accordance with Amendment No. 9 Exhibit "B".

All other terms and conditions of October 28, 2003 contract and amendments between the City and Freese and Nichols, Inc. will remain in full force and effect.

CITY OF CORPUS CHRISTI

Oscar R. Martinez, (Date)
Assistant City Manager

RECOMMENDED

7/16/13
Daniel Biles, P.E., (Date)
Director of Engineering Services

7.12.13
Operating Department (Date)

APPROVED AS TO FORM:

Office of Management and Budget (Date)

ATTEST

Armando Chapa, City Secretary

Project No: E10008
Fund Source No: 550950-4091-00000-E10008
Fund Name: Water 2012B CIP Fd (RvBd)
Encumbrance No: _____

FREESE AND NICHOLS, INC.

7.8.13
Ron Guzman, P.E., (Date)
Principal
800 North Shoreline Blvd., Suite 1600N
Corpus Christi, TX 78401
(361) 561-6500 Office
(361) 561-6501 Fax

ENTERED
JUN 25 2013
CONTRACT MANAGER

MEMORANDUM

FREESE AND NICHOLS

Innovative approaches
Practical results
Outstanding service

800 N. Shoreline Blvd., Suite 1600N • Corpus Christi, Texas 78401 • 361-561-6500 • fax 361-561-6501 www.freese.com

TO: Bill Green, P.E.

CC: Ron Guzman, P.E., Dan Biles, P.E., Daniel Deng, P.E.

FROM: Anne Carrel, P.E.

SUBJECT: Mary Rhodes Phase 2 SCADA Services

DATE: May 7, 2013

PROJECT: Mary Rhodes Phase 2

Freese and Nichols, Inc. (FNI) proposes to add the following services to the Mary Rhodes Phase 2 contract for SCADA design and construction phase services. SCADA services were removed from the contract by Amendment No. 5 related to the addition of an additional pump station and sedimentation basin.

If the proposed services are acceptable, FNI will put together a design fee based on this scope of work.

Mary Rhodes Phase 2 SCADA Services

Design

Monthly SCADA meetings – 3 meetings
60% and 90% Review Meetings/Workshops – 2 workshops
Develop Sequence of Operations/Control Narratives
Integration, Verification, and Validations (IVV) Specs
Incorporate Mary Rhodes Phase 1 SCADA into proposed Mary Rhodes Phase 2 HMI at Lake Texana

Construction

Answer RFI's related to SCADA
Construction Meetings/Site Visits – 8 meetings/site visits
Review SCADA shop drawings
Control meetings with System Integrator – 3 meetings
Factory acceptance testing
Start-up/Checkout of controls
Site Acceptance Testing

FNI coordinated with the City of Corpus Christi's (City's) Water Department on the proposed services. The Water Department prepared the SCADA requirements below for the Mary Rhodes Phase 2 project. FNI compiled the simplified proposed list of services using these SCADA requirements. These SCADA requirements will be incorporated into FNI's design.

SCADA Requirements Provided by the City's Water Department

COMMUNICATION

- Reliable communication link between River PS, Booster PS, GST, LNRA Control Room, and ONSWTP Control Room
- LNRA Control Room located in LNRA headquarters ~1 mi north of West Delivery Point
- Proposed comm technologies are owner fiber, VSAT, GSM/cellular, DSL
- Modular architecture to allow future addition of Bloomington, Woodsboro booster pump stations and other existing raw water supply systems such as Wesley Seale Dam
- Reliability through redundant communication channel; automatic failover to redundant channel if link loss in the primary channel is detected
- Prefer one third-party subscription-based and one owner-provided communication channel

LOCAL CONTROL

- Each pump station and GST shall have local controls and instrumentation that will enable an operator to operate the pump station without a central process controller (PLC)
- Each pump station shall have a PLC capable of automatically controlling the operation, emergency shutdown, and remote restart of all major functions. Loss of PLC shall not incapacitate any of the major functions.
- Each pump station shall have a graphical user interface to the control system that will allow operator full control of the pump station. The user interface shall not require network link to the supervisory system located at LNRA headquarters.
- The City of Corpus Christi has standardized on the Allen Bradley Logix family of PLCs. The controllers currently in use at ONSWTP are CompactLogix –series.
- The following process and diagnostic information shall be collected by PLC and communicated to the supervisory system:

SUPERVISORY SYSTEM

- The City of Corpus has standardized on the Allen Bradley FactoryTalk supervisory software suite. Currently, the ONSWTP system consists of a dual redundant tag servers, historical server, domain controller, and a number of PC client workstations. The supervisory system delivered under E10008 shall meet the Department standard.
- The supervisory system shall collect, display, and historize process and maintenance information as shown in attachment (Sec. 20.6 in "Pumping Station Design," by Garr M. Jones, Butterworth Heinemann, 2008)

INTEGRATION, VERIFICATION, AND VALIDATION (IVV)

- A/E contract language for quality assurance tasks to be performed by Engineer during design, construction, commissioning, and operational acceptance of the control system
- Specifications language for quality assurance of Contractor-provided parts, systems, and services
- Testing and verification plan. The plan shall spell out each project participant's responsibility with respect to testing and verification. Testing and verification shall be performed throughout system construction and integration. At the end, a series of acceptance tests shall be conducted: Unwitnessed Factory Acceptance Test (FAT), Witnessed FAT, Operational Readiness Test, Functional Demonstration test, Site Acceptance Test, and Operational Acceptance Test. Sample of FAT plan will be provided by the City

- FAT scenarios. On a previous project, we developed an Excel database with various normal and adverse process condition scenarios and expected vs. actual response of the control system. Shall be provided by the City.
- Acceptance checklists, commissioning checklists, and sign-off sheets to be submitted by Contractor/Integrator at each milestone in the IVV process

DOCUMENTATION

- Schedule of all documents required to design, build, test, and deploy the SCADA system. Indicate on the schedule responsible party and phase of the project
- Formal SCADA system requirements document. At the minimum, the document shall list SCADA system requirements by category (similar to this document), means of testing and verifying each requirement, responsible party, and
- System-wide communication architecture
- Site-specific detailed network architectures
- Supervisory system software architecture. Shall include specifications for each each machine's operating system, supervisory system software, interface and driver software (such as Kepware for Modbus/EhternetIP interface), communication software (RSLinx), and such
- Required development environments (RSLogix 5000 for PLC coding, FactoryTalk HMI development suite, etc.)
- System-wide PFD and site-specific P&IDs
- Loop sheets
- Instrument Specification Sheets (ISA-TR20.00.01-2006 Specification Forms for Process Measurement and Control Instruments)
- Control Logic Specification—Sequences of Operation, Interlock matricies, shutdown and alarm matricies, etc. (ISA has standard for control logic documentation, ANSI/ISA-5.06.01-2007 Functional Requirements Documentation for Control Software Applications)
- Process alarm configuration parameters such as time filters, deadbands, severity, and recommended appropriate response
- Control system administrator manual and HMI user manual. On a previous project, we asked the control system vendor to build HMI user manual features into the HMI itself: standard help screens, pop-up tool tips, context and auxiliary information description, and such
- Issue tracking spreadsheet or database. The issue tracking tool shall be visible to, or communicated often, to the system Owner throughout the IVV process

SUPPORT

- Anticipated support effort required during the first year of operation (when majority of bugs reveal themselves)
- Proposed support agreement language with control system engineer, integrator, and vendors
- Proposed support agreement with operator (if LNRA is the operator of the system)

OTHER

- SCADA system development effort shall follow recognized and generally accepted good system engineering practices.
- SCADA development team shall have expertise similar to what is required under ISA's Certified Automation Professional (CAP) certification (attached; also available at www.isa.org/cap)

- SCADA development process for this project shall be well documented, as it is intended to become a standard and a template for future development efforts of this sort
- End user shall receive manuals and training prior to putting the control system into service.

EXHIBIT "A"
CITY OF CORPUS CHRISTI, TEXAS

Mary Rhodes Pipeline Phase 2 (Project No. E10008)
Parent Project: Garwood Water Supply Project (Project No. 8424)
Amendment No. 9

1. SCOPE OF SERVICES

Scope Revision: Add the following task as shown below:

A. Basic Services

3. Design Phase

Provide electrical SCADA design drawings and specifications for the intake and pump station. Complete project scope is attached as Mary Rhodes Phase 2 SCADA Services memorandum dated May 7, 2013.

5. Construction Phase

Perform construction phase electrical SCADA services as described in the complete project scope attached as Mary Rhodes Phase 2 SCADA Services memorandum dated May 7, 2013.

2. SCHEDULE

Final Design Phase	October 9, 2013

3. FEES

The total authorized fee for all services added to the contract with this Amendment will be $195,664.00. Fees for individual additional tasks are shown in the Summary of Fees table. The table Summary of Fees set forth on the following page will be used by the Engineer to determine the amount to be invoiced for each task. The fee shown for each task is inclusive of all expenses as set forth by the original contract.

Summary of Fees

TASK	Description	Fee
Original Contract - Phase 1		
I.A.1	Screening Study of Delivery Options	$ 116,100.00
I.A.2	Detailed Study of Delivery Options	TBN
I.A.3	Pipeline Route Study	TBN
I.A.4	Pipeline Surveying, Easement Acquisition, and Permitting	TBN
I.A.5	Pipeline Topographic Survey and Preliminary Design	TBN
I.A.6	Final Design Phase	TBN
I.A.7	Bid, Award, and Construction	TBN
	Original Contract Fee	**$ 116,100.00**
Amendment No. 1 - Phase 2		
2.A	Detailed Study of Delivery Option 5	$ 152,532
2.B	Detailed Study of Delivery Option 1	$ 64,328
2.C	Detailed Study of Delivery Option 6	$ 68,630
	Amendment No. 1 Fee	**$ 285,490**
Amendment No. 2 - Phase 2A		
2A-0001	**Field Studies**	
2A.1.A	–Ownership Mapping	$ 20,631
2A.1.B	–Risk Analysis	$ -
	Prepare Risk Analysis	$ 5,853
	Risk Analysis Workshop (in CC)	$ 4,533
2A.1.C	Field survey of West Mustang Creek	$ 46,922
2A.1.D	–West Mustang Creek Habitat Assessment	$ 34,272
2A.1.E	–Coordination Re-Calib. Of Gannado Gauging Station	$ 6,168
2A.1.F	–Summary	$ -
	Prepare Task Summary	$ 11,650
	Task Summary Workshop (in CC)	$ 8,383
	Total Fee by Classification	$ 138,411
2A-0002	**LCRA Agreement**	
2A.2.A	–Agreement Framework	$ -
	Prepare Framework	$ 12,695
	Submit Framework	$ 431
	Schedule Framework Meeting	$ 451
2A.2.B	–Framework Meeting (Garwood)	$ 7,235
2A.2.C	–Prepare Draft LCRA Agreement	$ 10,525
2A.2.D	–Draft LCRA Agreement Workshop (Garwood)	$ 6,366
2A.2.E	Prepare Final Agreement	$ 8,740
2A.2.F	Task – Execute Agreement (1 meeting Austin, 1 meeting Corpus Christi)	$ 8,151

2A.2.G	–Task 2 Summary	$	14,675
	Total Fee by Classification	$	69,268
2A-0003	**LNRA Agreement**		
2A.3.A	–Agreement Framework	$	-
	Prepare Framework	$	13,025
	Submit Framework	$	431
	Schedule Framework Meeting	$	451
2A.3.B	–Framework Meeting (Edna)	$	7,191
2A.3.C	–Prepare Draft Agreement	$	10,525
2A.3.D	–Draft LNRA Agreement Review Workshop (Edna)	$	7,191
2A.3.E	–Regulatory Coordination (2 meetings Austin)	$	10,137
2A.3.F	–Prepare Final LNRA Agreement	$	6,815
2A.3.G	–Execute Agreement (1 meeting Edna, 1 meeting Austin)	$	11,360
2A.3.H	–Task 3 Summary	$	14,125
	Total Fee by Classification	$	81,250
2A-0004	**Permitting and Agency Coordination**		
2A.4.A	–Coord w/ TPWD re: GSM Permit (2 meetings Austin)	$	3,737
2A.4.B	–Coord w/ TPWD re: LNRA Inflow/Release Agreement (3 meetings Austin)	$	5,156
2A.4.C	–Coord w/ TCEQ re: Bed and Banks Permit (3 meetings Austin)	$	7,104
2A.4.D	–Coord w/ TGLO re: Bed and Banks Permit (3 meetings Austin)	$	7,104
2A.4.E	–Coordination with TCEQ and TWDB re: Regional Water Planning (2 meetings Austin)	$	1,437
2A.4.F	–Regional Water Planning Group Coordination (1 meeting Austin, 1 meeting Corpus Christi)	$	2,979
2A.4.G	–Monitor LCRA/SAWS Project (2 meetings Garwood)	$	6,437
2A.4.H	–USACE Coord (1 meeting Galveston)	$	8,253
2A.4.I	–TPDES Coordination (1 meeting Austin)	$	6,566
2A.4.J	–Landowner Issues and Communications (3 meetings Edna)	$	20,785
2A.4.K	–Meet w/ Environmental Groups	$	-
	Prepare Exhibits	$	13,093
	Meeting 1	$	-
	Plan	$	501
	Schedule	$	471
	Prepare for Meeting	$	3,745
	Attend Meeting (Austin)	$	2,376
	Meeting 2	$	-
	Plan	$	501
	Schedule	$	471
	Prepare for Meeting	$	3,745
	Attend Meeting (Austin)	$	2,376

	Meeting 3	$	-
	Plan	$	501
	Schedule	$	471
	Prepare for Meeting	$	3,745
	Attend Meeting (Edna)	$	3,591
2A.4.L	–Task 4 Summary	$	16,070
	Total Fee by Classification	$	121,216
2A-0005	**Permitting Activities**		
2A.5.A	–Bed and Banks Permit Application	$	-
	Prepare Permit	$	20,655
	Submit Permit	$	6,360
	Agency Review	$	8,115
	Permit Approval	$	5,203
2A.5.B	–Prepare Amendment to TPWD/LNRA Inflow & Release Agreement	$	-
	Develop Amendment Framework	$	3,815
	Meet with LNRA and TPWD to develop amendment outline (1 mtg Edna)	$	4,441
	Develop Draft Amendment	$	4,075
	Meet with LNRA and TPWD to review Draft Amendment (1 mtg Edna)	$	4,441
	Prepare Final Amendment	$	3,735
	Obtain Written Approval (1 mtg Austin, 1 mtg Edna)	$	6,540
2A.5.C	–Water Right Amendment Application	$	-
	Prepare Permit	$	10,815
	Submit Permit	$	961
	Agency Review	$	4,210
	Permit Approval	$	1,023
2A.5.D	–Monitor Permit Application Status	$	2,045
2A.5.E	–Regulatory Agency Coord During Permit App Process	$	2,945
2A.5.F	–Develop Supporting Info for Region N Amendment	$	5,130
2A.5.G	–Coordinate Region N Amendment (2 meetings CC)	$	11,475
2A.5.H	–Amend Water Conservation/Drought Management Plan	$	-
	Prepare Draft Amendment	$	3,408
	Plan Workshop (CC)	$	4,533
	Submit Draft Amendment	$	1,120
	City Review of Draft Amendment	$	-
	Review Workshop (CC)	$	4,533
	City Review Complete	$	-
	Incorporate City Comments/Prepare Final Amendment	$	3,535
	City Council Approval of Final Amendment (CC)	$	4,533
2A.5.I	–Task 5 Summary	$	15,227

	Total Fee by Classification	$	142,870
2A-0006	**Conceptual Facility Design**		
2A.6.A	–GIC Facility Requirement Workshop	$	330
	Schedule Workshop	$	681
	Conduct Workshop (Garwood)	$	6,393
2A.6.B	–Concept Design of GIC Canal System Improvements	$	4,800
2A.6.C	–Concept Design of West Mustang Creek Div. Structure	$	4,800
2A.6.D	–Design Review Workshop	$	-
	Schedule Workshop	$	681
	Conduct Workshop (Garwood)	$	6,393
2A.6.E	–W. Mustang Creek Gauging Facility Workshop	$	6,900
	Schedule Workshop	$	681
	Conduct Workshop (Edna)	$	4,193
2A.6.F	–Concept Design, W. Mustang Creek Gauging Facility	$	3,960
2A.6.G	–W. Mustang Creek Gauging Facility Workshop	$	-
	Schedule Workshop	$	681
	Conduct Workshop (Edna)	$	6,393
2A.6.H	–Task Summary	$	10,275
	Total Fee by Classification	$	57,164
2A-0007	**Mary Rhodes Pipeline Assessment**		
2A.7.A	–Data Collection and Review	$	8,648
2A.7.B	–Facilities Site Visit	$	23,266
2A.7.C	–Task Kickoff Workshop (Corpus Christi)	$	8,605
2A.7.D	–Pump Station Assessment	$	17,008
2A.7.E	–SCADA System Assessment	$	11,840
2A.7.F	–Operational Integration of Garwood Water	$	6,200
2A.7.G	–Alternatives Identification and Screening	$	27,613
2A.7.H	–Alternative Control Strategies	$	11,335
2A.7.I	–Recommended Mary Rhodes Pipeline Improvements	$	6,205
2A.7.J	–Task 7 Summary	$	-
	Prepare Summary	$	16,200
	Attend Workshop	$	5,768
	Total Fee by Classification	$	142,686
2A-0008	**Task 8 - Phase 2A Report**		
2A.8.A	–Prepare Draft Report	$	-
	Prepare Report	$	25,656
	Submit Draft Report to City for Review	$	1,292
	City Review of Draft Report	$	-
	City Review Complete	$	-
2A.8.B	–Prepare Draft Report Presentation	$	7,112

2A.8.C	–Draft Report Workshop (Corpus Christi)	$	9,169
2A.8.D	–Draft Report Comments Meeting (Corpus Christi)	$	9,169
2A.8.E	–Prepare Final Report	$	10,321
2A.8.F	–Final Report Presentation (up to 3 meetings in Corpus Christi)	$	34,669
	Total Fee by Classification	$	97,388
2A-0009	**Project Management**		
2A.9.A0BC1	Task 9.A–Project Schedule	$	10,060
2A.9.B0BC2	Task 9.B–Progress Reports and Invoices	$	23,342
2A.9.C0BC3	Task 9.C–Phase 3 Scoping	$	28,343
	Total Fee by Classification	$	61,744
	Amendment No. 2 Fee	**$**	**911,997**
Amendment No. 3			
2A-0005	Task 5 - Permitting Activities (Deleted in its Entirety)	$	-142,870
2A-0008	Task 8 - Phase 2A Report (Deleted in its Entirety)	$	-97,388
3-00010	**Task 10 - Garwood Alignment Study Scope of Work**		
3-0010.1	Data Collection	$	49,709
3-0010.2	Preliminary Hydraulic Study	$	21,975
3-0010.3	Preliminary Environmental Review	$	60,294
3-0010.4	Preliminary Route Analysis	$	45,364
3-0010.5	Final Route Analysis	$	62,916
	Amendment No. 3 Fee	**$**	**0**
Amendment No. 4			
1	Study Phase	$	0
2	Preliminary Phase	$	1,514,814
3	Design Phase	$	3,068,522
4	Bid Phase	$	102,000
5	Construction Phase	$	1,200,000
A - 1	Permitting	$	267,414
A - 2	ROW Acquisition Survey	$	350,000
A - 3	Topographic Survey	$	891,165
A - 4	Subsurface Utility Exploration	$	286,000
A - 5	Aerial Photography	$	23,750
A - 6	Corrosion Engineering	$	122,768
A - 7	Surge Analysis	$	104,181
A - 8	Geotechnical Investigation	$	312,737
A - 9	Archeological Investigation	$	184,650
A - 10	Hydraulic Modeling	$	37,398
A - 11	ROW Acquisition	$	1,060,601
A - 12	Construction Observation Services	$	TBD
A - 13	Start-Up Services	$	TBD

A - 14	O&M Services	$	150,590
A - 15	Warranty Phase	$	TBD
A - 16	Provide SCADA Documentation	$	TBD
	Amendment No. 4 Fee	$	**9,676,590**
Amendment No. 5			
2	Preliminary Phase	$	0
3	Design Phase	$	183,179
4	Bid Phase	$	82,814
A - 1	Permitting	$	53,696
A - 3	Topographic Survey	$	37,035
A - 4	Subsurface Utility Exploration	$	-121,045
A - 8	Geotechnical Investigation	$	18,749
A - 9	Archeological Investigation	$	-87,808
A - 10	Hydraulic Modeling	$	36,102
A - 11	ROW Acquisition	$	-202,722
	Amendment No. 5 Fee	$	**0**
	Total Fee	$	**10,990,177**
Amendment No. 6			
2	Preliminary Phase	$	2,340
A - 11	ROW Acquisition	$	47,600
	Amendment No. 6 Fee	$	**49,940**
	Total Fee	$	**11,040,117**
Amendment No. 7 – Joint City of Corpus Christi and LCRA Feasibility Study			
	Study Phase	$	49,822
	Amendment No. 7 Fee	$	**49,822**
	Total Fee	$	**11,089,939**
Amendment No. 8			
A - 4	Subsurface Utility Exploration	$	49,900
	Amendment No. 8 Fee	$	**49,900**
	Total Fee	$	**11,139,839**
Amendment No. 9			
3	Design Phase		
	Monthly Meetings	$	14,554
	60% and 90% Review Meetings/Workshops	$	10,943
	Develop Sequence of Operations/Control Narratives	$	22,080
	Integration, Verification, and Validation (IVV) Specs	$	20,315
	Coordination with Electrical Subcontractor	$	5,378
	Integration of Mary Rhodes Phase 1 with Phase 2	$	15,206
5	Construction Phase		
	Answer RFI's	$	2,588

	Construction Meetings/Site Visits	$	30,708
	Review Shop Drawings	$	10,876
	Control Meetings with Contractor (System Integrator)	$	12,911
	Factory Acceptance Testing (FAT)	$	17,271
	Start-up/Checkout of Controls	$	20,315
	Site Acceptance Testing	$	12,519
	Amendment No. 9 Fee	**$**	**195,664**
	Total Fee	**$**	**11,335,503**

Freese and Nichols, Inc.

Corpus Christi
Mary Rhodes Phase 2 SCADA Services Amendment
5/30/2013
Detailed Cost Breakdown

Project Fee Summary	
Basic	$ 195,664
Special	$ -
Total Project	$ 195,664

Basic Services

Phase	Task	Employee	Jeff Hensley	John Manning	Rebecca Sandoval										Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort
		Project Role																	
		Design Phase														$ -	$ -	$ -	$ -
		Monthly Meetings	30	30	10										70	$ 13,114	$ 1,440	$ -	$ 14,554
		60% & 90% Review Meetings/Workshops	25	25											50	$ 9,630	$ 1,313	$ -	$ 10,943
		Develop Sequence of Operations/Control Narratives	10	60	50										120	$ 20,045	$ 2,035	$ -	$ 22,080
		Integration, Verification, and Validation (IVV) Specs	10	50	50										110	$ 18,365	$ 1,950	$ -	$ 20,315
		Coordination withElectrical Subcontractor	5	15	10										30	$ 5,165	$ 213	$ -	$ 5,378
		Integration of Mary Rhodes Phase I with Phase II	5	80											85	$ 14,526	$ 680	$ -	$ 15,206
																$ -		$ -	$ -
		Construciton Phase														$ -	$ -	$ -	$ -
		Answer RFI's		10	5										15	$ 2,460	$ 128	$ -	$ 2,588
		Construction Meetings/Site Visits	80	60	10										150	$ 29,013	$ 1,695	$ -	$ 30,708
		Review Shop Drawings	10	40	10										60	$ 10,451	$ 425	$ -	$ 10,876
		Control Meetings with Contractor (System Integrator)	30	30											60	$ 11,556	$ 1,355	$ -	$ 12,911
		Factory Acceptance Testing (FAT)	10	70	10										90	$ 15,491	$ 1,780	$ -	$ 17,271
		Start-up/Checkout of Controls	10	50	50										110	$ 18,365	$ 1,950	$ -	$ 20,315
		Site Acceptance Testing	10	40	20										70	$ 12,009	$ 510	$ -	$ 12,519
																$ -	$ -	$ -	$ -
																$ -	$ -	$ -	$ -
																$ -	$ -	$ -	$ -
																$ -	$ -	$ -	$ -
																$ -	$ -	$ -	$ -
																$ -	$ -	$ -	$ -
		Total Basic Services Hours	235	560	225										1,020	$ 180,190	$ 15,474	$ -	$ 195,664
		Total Basic Services Labor Effort	$ 51,036	$ 94,080	$ 35,067	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -					

Phase	Task	Expenses	Tech Charge	Print Shop - Binding	Print Shop - B&W	Print Shop - Color	Print Shop - Plotter - Bond	Print Shop - Plotter - Color	Print Shop - Plotter - Other	Miles	Other					Total Exp Effort
		Design Phase														$ -
		Monthly Meetings	40								1000					$ 1,440
		60% & 90% Review Meetings/Workshops	25								1000					$ 1,313
		Develop Sequence of Operations/Control Narratives	110								1000					$ 2,035
		Integration, Verification, and Validation (IVV) Specs	100								1000					$ 1,950
		Coordination withElectrical Subcontractor	25													$ 213
		Integration of Mary Rhodes Phase I with Phase II	80													$ 680
		Construciton Phase														$ -
		Answer RFI's	15													$ 128
		Construction Meetings/Site Visits	70								1000					$ 1,695
		Review Shop Drawings	50													$ 425
		Control Meetings with Contractor (System Integrator)	30								1000					$ 1,355
		Factory Acceptance Testing (FAT)	80								1000					$ 1,780
		Start-up/Checkout of Controls	100								1000					$ 1,950
		Site Acceptance Testing	60													$ 510
		Total Basic Services Items	785	-	-	-	-	-	-	-	8,000	-	-	-	-	
		Total Basic Services Expenses Effort	$ 6,673	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,800	$ -	$ -	$ -	$ -	$ 15,474

Phase	Task	Subconsultants	[Name 1]	[Name 2]	[Name 3]	[Name 4]									Total Sub Effort
		Design Phase													$ -
		Monthly Meetings													$ -
		60% & 90% Review Meetings/Workshops													$ -
		Develop Sequence of Operations/Control Narratives													$ -
		Integration, Verification, and Validation (IVV) Specs													$ -
		Coordination withElectrical Subcontractor													$ -
															$ -
		Construciton Phase													$ -
		Answer RFI's													$ -
		Total Basic Services Subconsultants Cost	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
		Total Basic Services Subconsultants Effort	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

K:\Engineering DataExchange\JENNIFERW\ATERIE10008 MARY RHODES PIPELINE, PHASE 2\AMENDMENT NO. 9\CONTRACT\Exhibit A.doc

AMEND. NO. 9
EXHIBIT "A"
Page 13 of 13

Sample form for:
Payment Request
Revised 07/27/00

COMPLETE PROJECT NAME
Project No. XXXX
Invoice No. 12345
Invoice Date:

Basic Services:	**Contract**	**Amd No. 1**	**Amd No. 2**	**Total Contract**	**Amount Invoiced**	**Previous Invoice**	**Total Invoice**	**Percent Complete**
Preliminary Phase	$1,000	$0	$0	**$1,000**	$0	$1,000	$1,000	100%
Design Phase	2,000	1,000	0	**3,000**	1,000	500	1,500	50%
Bid Phase	500	0	250	**750**	0	0	0	0%
Construction Phase	2,500	0	1,000	**3,500**	0	0	0	0%
Subtotal Basic Services	$6,000	$1,000	$1,250	**$8,250**	$750	$1,500	$2,500	30%
Additional Services:								
Permitting	$2,000	$0	$0	**$2,000**	$500	$0	$500	25%
Warranty Phase	0	1,120	0	**1,120**	0	0	0	0%
Inspection	0	0	1,627	**1,627**	0	0	0	0%
Platting Survey	TBD	TBD	TBD	**TBD**	TBD	TBD	TBD	0%
O & M Manuals	TBD	TBD	TBD	**TBD**	TBD	TBD	TBD	0%
SCADA	TBD	TBD	TBD	**TBD**	TBD	TBD	TBD	0%
Subtotal Additional Services	$2,000	$1,120	$1,627	**$4,747**	$500	$0	$500	11%
Summary of Fees								
Basic Services Fees	$6,000	$1,000	$1,250	**$8,250**	$750	$1,500	$2,500	30%
Additional Services Fees	2,000	1,120	1,627	**4,747**	500	0	500	11%
Total of Fees	$8,000	$2,120	$2,877	**$12,997**	$1,250	$1,500	$3,000	23%

AMEND. NO. 9
EXHIBIT "B"
Page 1 of 1

SUPPLIER NUMBER
TO BE ASSIGNED BY CITY
PURCHASING DIVISION

City of Corpus Christi

CITY OF CORPUS CHRISTI
DISCLOSURE OF INTEREST

City of Corpus Christi Ordinance 17112, as amended, requires all persons or firms seeking to do business with the City to provide the following information. Every question must be answered. If the question is not applicable, answer with "NA". See reverse side for Filing Requirements, Certifications and definitions.

COMPANY NAME: Freese and Nichols, Inc.

P. O. BOX:

STREET ADDRESS: 800 N. Shoreline Blvd., Suite 1600N **CITY:** Corpus Christi **ZIP:** 78401

FIRM IS: 1. Corporation ☒ 2. Partnership ☐ 3. Sole Owner ☐
4. Association ☐ 5. Other ☐

DISCLOSURE QUESTIONS

If additional space is necessary, please use the reverse side of this page or attach separate sheet.

1. State the names of each "employee" of the City of Corpus Christi having an "ownership interest" constituting 3% or more of the ownership in the above named "firm."

Name	Job Title and City Department (if known)
N/A	N/A

2. State the names of each "official" of the City of Corpus Christi having an "ownership interest" constituting 3% or more of the ownership in the above named "firm."

Name	Title
N/A	N/A

3. State the names of each "board member" of the City of Corpus Christi having an "ownership interest" constituting 3% or more of the ownership in the above named "firm."

Name	Board, Commission or Committee
N/A	N/A

4. State the names of each employee or officer of a "consultant" for the City of Corpus Christi who worked on any matter related to the subject of this contract and has an "ownership interest" constituting 3% or more of the ownership in the above named "firm."

Name	Consultant
N/A	N/A

FILING REQUIREMENTS

If a person who requests official action on a matter knows that the requested action will confer an economic benefit on any City official or employee that is distinguishable from the effect that the action will have on members of the public in general or a substantial segment thereof, you shall disclose that fact in a signed writing to the City official, employee or body that has been requested to act in the matter, unless the interest of the City official or employee in the matter is apparent. The disclosure shall also be made in a signed writing filed with the City Secretary. [Ethics Ordinance Section 2-349 (d)]

CERTIFICATION

I certify that all information provided is true and correct as of the date of this statement, that I have not knowingly withheld disclosure of any information requested; and that supplemental statements will be promptly submitted to the City of Corpus Christi, Texas as changes occur.

Certifying Person: Ron Guzman, P.E. **Title:** Principal
(Type or Print)

Signature of Certifying Person: R Guz **Date:** 1·23·13

DEFINITIONS

a. "Board member." A member of any board, commission, or committee appointed by the City Council of the City of Corpus Christi, Texas.

b. "Economic benefit". An action that is likely to affect an economic interest if it is likely to have an effect on that interest that is distinguishable from its effect on members of the public in general or a substantial segment thereof.

c. "Employee." Any person employed by the City of Corpus Christi, Texas either on a full or part-time basis, but not as an independent contractor.

d. "Firm." Any entity operated for economic gain, whether professional, industrial or commercial, and whether established to produce or deal with a product or service, including but not limited to, entities operated in the form of sole proprietorship, as self-employed person, partnership, corporation, joint stock company, joint venture, receivership or trust, and entities which for purposes of taxation are treated as non-profit organizations.

e. "Official." The Mayor, members of the City Council, City Manager, Deputy City Manager, Assistant City Managers, Department and Division Heads, and Municipal Court Judges of the City of Corpus Christi, Texas.

f. "Ownership Interest." Legal or equitable interest, whether actually or constructively held, in a firm, including when such interest is held through an agent, trust, estate, or holding entity. "Constructively held" refers to holdings or control established through voting trusts, proxies, or special terms of venture or partnership agreements."

g. "Consultant." Any person or firm, such as engineers and architects, hired by the City of Corpus Christi for the purpose of professional consultation and recommendation.