

# Change Order

No. 9 REV. 1a

Date of Issuance: February 25, 2015 Effective Date: \_\_\_\_\_

Project: NBWWTP	Owner: City of Corpus Christi	Owner's Contract No.: 7293
Contract: New Broadway Wastewater Treatment Plant Construction		Date of Contract: January 25, 2010
Contractor: Graham Construction		Engineer's Project No.: 7648C.20

**The Contract Documents are modified as follows upon execution of this Change Order:**

Description: This Change Order is issued to include various changes made to the work during the original contract and to be performed by Graham. The Change Order includes the contractor's Change Directives and PCOs as listed in the attached spreadsheet.

Attachments: (List documents supporting change): See attached Spreadsheet for contractor's Change Directives 12 and 15, PCOs 61, 84, 85, 86, 88, 89, 90A, 90B, 91, 92, X1, X2, X3, X4, X5, X6, X7, X9, X10, X11, and X12 including descriptions and amounts.

Also attached are contractor's supporting documents.

<p><b>CHANGE IN CONTRACT PRICE:</b></p> <p>Original Contract Price:</p> <p>\$ 50,456,230.00 ✓</p>	<p><b>CHANGE IN CONTRACT TIMES:</b></p> <p>Original Contract Times: <input type="checkbox"/> Working days X Calendar days</p> <p>Substantial completion (days or date): Ph 1: 840 Ph 2: 200</p> <p>Ready for final payment (days or date): Ph 1: 900 Ph 2: 260</p>
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<p>[Increase] [Decrease] from previously approved Change Orders No. <u>1</u> to No. <u>8</u>:</p> <p>\$ 279,191.21 ✓</p>	<p>[Increase] [Decrease] from previously approved Change Orders No. <u>1</u> to No. <u>8</u>:</p> <p>Substantial completion (days): Ph 1: 159 Ph 2: -14</p> <p>Ready for final payment (days): Ph 1: 159 Ph 2: -14</p>
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<p>Contract Price prior to this Change Order:</p> <p>\$ 50,735,421.21 ✓ <i>SH/15</i></p>	<p>Contract Times prior to this Change Order:</p> <p>Substantial completion (days or date): Ph 1: 999 Ph 2: 186</p> <p>Ready for final payment (days or date): Ph 1: 1059 Ph 2: 246</p>
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<p>[Increase] [Decrease] of this Change Order:</p> <p>\$ 668,515.36 ✓</p>	<p>[Increase] [Decrease] of this Change Order:</p> <p>Substantial completion (days or date): Ph 1: NA Ph 2: NA</p> <p>Ready for final payment (days or date): Ph 1: NA Ph 2: NA</p>
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*286 JK*

<p>Contract Price incorporating this Change Order:</p> <p>\$ 51,403,936.57 ✓</p>	<p>Contract Times with all approved Change Orders:</p> <p>Substantial completion (days or date): Ph 1: 999 Ph 2: 186</p> <p>Ready for final payment (days or date): Ph 1: 1059 Ph 2: 246</p>
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<p>RECOMMENDED:</p> <p>By: <i>Steve Eckhardt</i> Engineer (Authorized Signature)</p> <p>Date: <u>2/25/15</u></p>	<p>ACCEPTED:</p> <p>By: <i>J.A. Whinnery</i> Owner (Authorized Signature) Director, Capital Programs</p> <p>Date: _____</p>	<p>ACCEPTED:</p> <p>By: <i>Patrick Phelps</i> Contractor (Authorized Signature)</p> <p>Date: <u>3-3-15</u></p>
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Approved by Funding Agency (if applicable): *Elizabeth Houston* 5-22-15 Date: *Luigi L. Beckle* 5/1/15

EJCDC No. C-941 (2002 Edition)  
Prepared by the Engineers' Joint Contract Documents Committee and endorsed by the Associated General Contractors of America and the Construction Specifications Institute.

*B. Beckle* (Operating Dept.)  
5-7-15

(Legal) *Janet Kellogg* 5-12-15  
(Legal)

4249-042  
550910  
190130014249EXP  
50910

**RECEIVED**  
MAY 01 2015  
BY: *MF*

## Attachment to Change Order 9 Rev 1 Listing Applicable PCOs and Descriptions 02-24-15.xlsx

Change Order Status	Description	Amount	Paid to Date	Remaining	Status
Change Directive 12	Area 55 (SDB)- Add light fixture, relocate additional light fixture.	\$6,788.82	\$0.00	\$6,788.82	Carollo requested a Cost Proposal to add the following work to the contract in Area 55 (SDB). 1- Relocate one light in the area of the jib crane (Sheet 55-M-04, Section D). 2- Provide an additional wall mounted light. PCM 44.
Change Directive 15	Areas 22 and 56-Seal top of filter room walls.	\$7,004.38	\$0.00	\$7,004.38	Carollo requested a Cost Proposal to add the following work to the contract in Areas 22 (ECR-1) and 56 (ECR-2). Provide 3M Brand Fire Barrier Sealant FireDam 150+ Caulk at the top of the filter room walls to close the air gap. PCM 45.
PCO 81	Admin Bldg Steel Panels	\$16,021.65	\$0.00	\$16,021.65	This is regarding the steel panels for the Administration Building northeast stairway tower. Drawing 61-S-07 Section 19 calls for 20 GA. Galvalume R-Panel at the Admin Stair Tower roof. Specification 07411, 2.06 Metal Roof Panels specifies 22GA. Standing Seam panels. Carollo sub LNV advised Graham to use 22GA standing seam panels with a new screw pattern and addition of wall studs for attachment. RFI 246.
PCO 84	Relocate ECR-1 Blower Disconnects	\$4,582.16	\$0.00	\$4,582.16	The CM team, contractor, and City Operations personnel met on site at ECR-1 to discuss the placement of the blower disconnects and equipment stands at ECR-1. The group agreed to relocate disconnects and equipment stands to the opposite side of each blower. PCM 84.
PCO 85	UT Level Xdcr Analog Signal	\$6,063.57	\$0.00	\$6,063.57	The ultrasonic level sensors in the UV structure require a 24VDC power source to send an analog signal back to the controller. The 24 volt power was included on the conduit schedule but the analog signal was not. A two-wire shielded cable was added to the power supply for correct operation.
PCO 86	Add Coating at SDB Polymer Containment	\$11,387.85	\$0.00	\$11,387.85	The drawings did not detail all locations for the protective coating in the polymer handling areas. The intent was for the coating to be under locations with possibility of polymer spills. Unistrut containment bars were also added to keep the polymer from getting to areas outside of the collection trench.
PCO 88	PCM 48 (PCO 88) Fire Suppression Coring @ Admin	\$29,361.20	\$0.00	\$29,361.20	Carollo requested a cost proposal to install a dry pipe fire suppression system in the garage area and identify impacts to the fire suppression system. The objective was to reduce ongoing maintenance issues for a wet pipe system in that environment. RFI 312.
PCO 89	ECR 1 30 Inch Spool Pieces	\$9,906.94	\$0.00	\$9,906.94	Purchase of spool pieces to install in the 30 inch air pipe at ECR 1 in lieu of expansions joints.
PCO 90A	Electrical reroute @ Admin Bldg	\$103,771.60	\$0.00	\$103,771.60	Move the electrical conduits in the parking area due to height restrictions. All identified alternatives to this relocation have been eliminated as possibilities.

Attachment to Change Order 9 Rev 1 Listing Applicable PCOs and Descriptions 02-24-15.xlsx

PCO 90B	Drain Line reroute and cores @ Admin Bldg	\$17,882.07	\$0.00	\$17,882.07	Drain line reroute to avoid conflict with fire suppression system. Carollo sub LNV requested a cost proposal for coring and rerouting of pipes to avoid conflict with the fire suppression system. RFI 301.
PCO 91	42" Tie In	\$125,000.01	\$0.00	\$125,000.01	Graham started work but was requested to not complete it. Includes sunk costs to date for pipe fab and fittings, shoring and trench box rental, rental of excavator, excavation, rental of crane, etc. Change Directive 21.
PCO 92	Motorized Overhead Doors SDB/HW	\$27,717.69	\$0.00	\$27,717.69	Power to the roll up doors at the SDB and the headworks was not included in the drawings. Carollo sub Mike Colwell reply gave routing and circuit connection instructions. RFI 385.
PCO X1	ATS Mods in ECR-1 for Generator	\$55,000.23	\$0.00	\$55,000.23	This is for additional programming and modifications to the automatic transfer switch in ECR-1 to provide greater exercising functionality. These changes were provided by Carollo sub Mike Colwell in the March/April 2014 time frame.
PCO X2	Generator Switchgear Communications	\$15,000.14	\$0.00	\$15,000.14	This is to add additional communications in the generator/switchgear interface regarding parameters for auto switch over. In the March/April 2014 meetings on the generator changes related to PCO-X1, including Carollo sub Mike Colwell, it was determined this additional connection was required.
PCO X3	ECR-1 Stair Landing Design	\$5,000.67	\$0.00	\$5,000.67	There was a mismatch between the NW stair final landing and the achievable drive elevation to meet drainage requirements. Carollo advised via email that a step be constructed using standard details.
PCO X4	SCADA Programming Changes	\$55,000.28	\$0.00	\$55,000.28	Changes to the SCADA programming beyond those originally identified during the configuration meetings and witnessed FAT testing in December 2012 and January 2013.
PCO X5	SCADA Relocation	\$15,000.50	\$0.00	\$15,000.50	Relocation of SCADA from the temporary location in the old plant to the Administration Building.
PCO X6	Plant Power Cost during Construction	\$40,000.43	\$0.00	\$40,000.43	This is to cover energy costs during the operating phase of the construction. The owner is responsible for power costs for the start up and commissioning phases. Specification 01110 Section 1.08E.
PCO X7	Admin Bldg Parking Fire Alarm	\$30,000.57	\$0.00	\$30,000.57	The RFI requested CAD drawings for the parking garage area as it was beyond the original scope and the fire marshal was requiring annunciators in the garage. Carollo said the system needed to conform to code requirements and was the responsibility of the fire system engineer. RFI 393.

Attachment to Change Order 9 Rev 1 Listing Applicable PCOs and Descriptions 02-24-15.xlsx

PCO X9	RAS Spool Mods	\$7,475.11	\$0.00	\$7,475.11	There was a bust in the coordinates of the pipe going from the Ameron to the pump station. This resulted in about a 6' change to the connecting pipe. Field discussions took place between Graham and Carollo at time of occurrence.
PCO X10	SS Pole Brackets	\$6,844.15	\$0.00	\$6,844.15	This is regarding the attachment of light standards on gratings. Carollo stated it would be covered in a change directive. RFI 372.
PCO X11	ECR-1 Deck Drains	\$14,968.27	\$0.00	\$14,968.27	In response to standing rain water on the west deck of ECR-1, Carollo requested installation of deck drains with detailed instructions on how to install the drains. RFI 370.
PCO X12	Baker Pump Rental	\$58,737.07	\$0.00	\$58,737.07	This is for the temporary pumping of the effluent from the UV in the new plant to the inlet for the headworks at the old plant during initial startup.
<b>Totals</b>		<b>\$668,515.36</b>	<b>\$0.00</b>	<b>\$668,515.36</b>	



**Change Directive 12**  
**Area 55 (SDB)- Add light fixture, relocate light fixture.**

Carollo requested a Cost Proposal to add the following work to the contract in Area 55 (SDB). 1- Relocate one light in the area of the jib crane (Sheet 55-M-04, Section D). 2- Provide an additional wall mounted light. PCM 44.

**PROPOSED  
CONTRACT  
MODIFICATION**



**FREESE  
AND  
NICHOLS**

Industry Approaches  
Practical Results  
Outstanding Service

4055 International Plaza, Suite 200 • Fort Worth, Texas 76109 • 817-735-7300 • fax 817-735-7491

Owner: City of Corpus Christi  
Contractor: Graham Construction  
Project Name: New Broadway WWTP Project  
Engineer/CM: Carollo / Freese and Nichols  
PCM Title: Add and relocate light fixture in area 55

Date: 9/9/13  
PCM No: 44  
Ref: CD-12

**PCM Description:**

On January 17, 2013, Carollo Engineers requested that Graham Construction provide a Cost Proposal to add the following work to the contract in Area 55 (Sludge Dewatering Building):

1. Relocate the currently installed light in the location of the jib crane (Sheet 55-M-04, Section D) to allow for future installation of the crane. The light should be moved to the left of the column (mounted on the wall) in line and same height with the column mounted light directly to the north.
2. Provide an additional wall mounted light to the right of the column (mounted on the wall) in line and same height with the column mounted light directly to the north.

The Contractor's cost proposal has been reviewed by the CM Team and Owner. Reference the cost summary below and attached change directive for the details of the proposed change to the contract.

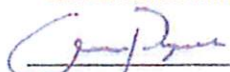
**Construction Manager's Request:**

- Provide a cost/time proposal for the work described in change directive number 12.
- By: Rene Aguilar
- Date: 1/17/13

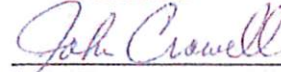
**Contractor's Response:**

- Reference attached change directive number 12 pricing breakdown.
- Change in Contract Cost: **ADD \$6788.82**
- Change in Contract Time: **NO CHANGE IN CONTRACT TIME**

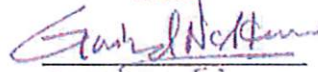
RECOMMENDED BY  
Adam Payne, CCM  
Construction Manager

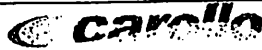
  
Signature Date 9/4/13

APPROVED BY  
John Crowell, P.E.  
Contractor

  
Signature Date 9/9/13

APPROVED BY  
Govind Nadkarni, P.E.  
Owner

  
Signature Date 9/10/13

<b>Change Directive # 12</b>	Carollo Program Corpus Christi New Broadway WWTP	
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<b>Area 55: Relocate &amp; Add Light Fixture (Intermediate Level)</b>	Submitted : 02/19/2013
	Submitted To: Carollo Engineers, City of Corpus Christi, Colwell & Associates, Graham Construction, LNV
	Revision Date:
	Status: Pending
	Priority: High
	Pending On Org: Graham Construction
Created By: Carollo Engineers, Rene Aguilar	
Created: 01/17/2013	

**Design Clarification:**

Submitted By Rene Aguilar, Carollo Engineers (01/17/2013):

The Contractor is directed to provide the following adjustments to the lighting fixtures within Area 55 Sludge Dewatering Building at the intermediate level only:

1. Currently have a light installed in the location of the jib crane (Sheet 55-M-04, Section D) that will need to be relocated to for the installation of the jib crane. See revised installation location attached.
2. Relocate the above light to the left of the column (mounted on the wall) in line and same height with the column mounted light directly to the north. See revised installation location attached.
3. Provide an additional wall mounted light to the right of the column (mounted on the wall) in line and same height with the column mounted light directly to the north. See revised installation location attached.

The Contractor is requested to provide a Cost Proposal for the above to the CM Team for review.

**Locations**

17-Sludge Dewatering Building

**References**

Specification # 16500	Lighting	Published
Drawing # 245-55-M-04		Published

**Files**

CD No 12- Area 55 Lights.pdf	1.2 MB	Revised Sheet 55-E-05, locations of wall mounted lights in Area 55.
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August 22, 2013

Freese and Nichols.  
945 Resaca Street  
Corpus Christi, TX 78401  
Attention: Steve Eckersley, P.E.

RE: New Broadway WWTP; Graham New Broadway response to Change Directive No. 12  
Area 55 SDB Relocate and Add Light Fixture SDB intermediate level

Mr. Steve Eckersley P.E.

Graham has been requested to provide an estimated cost to relocate one light fixture and to provide an additional light circuit and fixture on the intermediate level of the Sludge Dewatering Building.

Attached you will find the Graham CD-12 Area 55 Relocate and Add Light Fixture SDB Intermediate level estimate along with the details of the Electrical Subcontractor estimate. The estimated cost for this change is \$6,788.82.

Please contact me if you have any questions on this matter. Thank you.

Sincerely,  
GRAHAM CONSTRUCTION SERVICES, INC.

A handwritten signature in black ink that reads "John Crowell". The signature is written in a cursive, flowing style.

John Crowell P.E.  
Sr. Project Manager

Site Office: 361-881-1279  
Cell: 361-446-6430

CC: Greg Rilke, Graham Construction Services, Inc.  
Patrick Phelps, Graham Construction Services, Inc.







## Change Order Request



C.O.R. # 180018-0019

G.C. #

Date: 6/27/2013

Project Name: 180018 Broadway WWTP

Project #: 180018

To: Graham Construction Services, Inc.  
Attn: Kevin Riley  
2995 Lone Oak Circle, Suite 1  
  
Eagan, Mn 55121

From: KST Electric  
KST User  
2411 Rand Morgan Road  
Corpus Christi, TX 78410

Phone: (651) 687-0648 Fax: (651) 687-0947

Phone: (361) 248-4901 Fax: (361) 248-4906

We hereby propose to make the following changes:

Change Directive #12

This price is for change directive #12. Please note the 4 to 5 week lead time for additional fixture.

Exclusions: overtime, paint, taxes, existing conditions of work area, concrete & CMU cut/core/patch.

Change Order Price	\$5,346.00
Original Contract Amount	\$6,480,000.00

This price is good for 5 days. If conditions change, this price is void.

We are requesting a time extension of 42 days in conjunction with this change.

KST User \_\_\_\_\_ 6/27/2013

Author \_\_\_\_\_ Date Sent

Accepted

The above prices and specifications of this Change Order request are satisfactory and are hereby accepted. All work to be performed under same terms and conditions as specified in original contract unless otherwise specified.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date of Acceptance



**KST ELECTRIC** a subsidiary of Rosendin Electric  
**CHANGE ORDER SUMMARY SHEET**

Project Name: Broadway WWTP  
 Change Description: Change Directive #12  
 KST Change No.:

Date:  
 Taxable: No

MATERIAL/QUOTES:	Amount	Op	Rate	Extension	Subtotals & Totals
Material Total:	\$1,628.18	X	1.0	\$1,628.18	
Material From T&M Recap Sheet:	\$0.00	X	1.0	\$0.00	
Total Quotes:	\$0.00	X	1.0	\$0.00	
Total Freight:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL:</b>					<b>\$1,628.18</b>
<b>LABOR:</b>					
Straight-time Labor:	63.00	X	\$35.02	\$2,206.26	
Overtime Labor @ time & one half:	0.00	X	\$57.31	\$0.00	
Double Time Labor:	0.00	X	\$74.50	\$0.00	
Instrumentation Straight Time Labor:	0.00	X	\$75.00	\$0.00	
Total Manhours:	63.00				
Labor from Time and Material Sheets:			# of Hrs & Labor Ext from Attachment	0.00	\$0.00
General Foreman Straight-time Labor (10% of Man Hrs):	63.00	6.30			
General Foreman Straight-time Labor:	6.30	X	\$57.44	\$361.87	
General Foreman Overtime Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Overtime Labor @ time & one half:	0.00	X	\$79.78	\$0.00	
General Foreman Double Time Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Double Time Labor:	0.00	X	\$102.12	\$0.00	
Estimating Time:	0.00	X	\$71.87	\$0.00	
Mat. Proc. & Handle (5% of Labor Cost):	2,568.13	X	5.00%	\$128.41	
Update As-Built Dwg's:	1.00	X	\$59.86	\$59.86	
<b>SUBTOTAL:</b>				<b>\$2,756.40</b>	<b>\$2,756.40</b>
<b>DIRECT JOB EXP:</b>					
Consumables/Expendable Tools (6% of Mat.):	\$1,628.18	X	3.00%	\$48.85	
Drawing Reproduction and or BIM :	\$0.00	X	1.0	\$0.00	
Safety @ \$0.50/MH:	69.30	X	\$0.50	\$34.65	
Equipment:	\$0.00	X	1.0	\$0.00	
Project Mngmt: 5% of Labor:	2,756.40	X	0%	\$0.00	
Total Subcontractors Quotes:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL Direct Job Exp:</b>				<b>\$83.50</b>	<b>\$83.50</b>
Credit:	\$0.00	X	1.0	\$0.00	\$0.00
<b>Material/Labor/DJE/Credit SUBTOTAL:</b>					<b>\$4,468.07</b>
Warranty:	\$4,468.07	X	0%	\$0.00	\$0.00
<b>SUBTOTAL:</b>					<b>\$4,468.07</b>
Material Sales Tax @ 8.25% if Project is Taxable:	\$1,628.18	X	0.00%	\$0.00	\$0.00
Liability/Builders Risk:	\$4,468.07	X	2%	\$89.36	\$89.36
<b>SUBTOTAL:</b>					<b>\$4,557.44</b>
<b>MARK-UPS:</b>					
Overhead/Profit @ 15%	\$4,557.44	X	15%	\$683.62	\$683.62
<b>SUBTOTAL:</b>					<b>\$5,241.05</b>
Total Subcontract Values:	\$0.00	X	1	\$0.00	\$0.00
Overhead/Profit for Subcontract @ %		X	15%	\$0.00	\$0.00
					<b>\$5,241.05</b>
<b>SUBTOTAL:</b>					<b>\$0.00</b>
Bond Premium:	\$5,241.05	X	2.0%	\$104.82	\$104.82
<b>CHANGE ORDER TOTAL:</b>					<b>\$5,345.87</b>

	Description	Quant	Trade Price	U	Net Price	Labor	Unit	Total Material	Total Hours
1	6"x4"x4" HINGED COVER NEMA 1	1	22.07	E	22.07	1.5	E	22.07	2.63
2	3/4" FORM 9 ALUMINUM LB CONDULET	2	13.44	E	13.44	0.95	E	26.88	3.32
3	3/4" FORM 9 ALUMINUM T CONDULET	1	17.08	E	17.08	1.5	E	17.08	2.63
4	3/4" CLAMP BACK	10	138.52	C	138.52	45	C	13.85	7.88
5	3/4" GRC 1-H STEEL STRAP	10	31.34	C	31.34	6	C	3.13	1.05
6	3/4" MALE UNION	2	19.74	E	19.74	0.75	E	39.48	2.63
7	3/4" ARC (AL)	70	277.27	C	277.27	8.2	C	194.09	10.05
8	3/4" ARC MYERS HUB	2	575.24	C	575.24	30	C	11.5	1.05
9	1/4" SS HEX NUT	25	39	C	39	0	C	9.75	0
10	1/4" SS FLAT WASHER	25	35	C	35	0	C	8.75	0
11	1/4"x2-1/4" SS WEDGE ANCHOR	25	306.81	C	306.81	24	C	76.7	10.5
12	#12 THHN/THWN SOLID (30' EA RED, WHITE, GREEN)	90	261.48	M	261.48	9	M	23.5332	0.81
13	#12/3C THHN TRAY CABLE	50	1.041	E	1.041	31.5	M	52.05	1.575
14	B1-1 YELLOW WIRE CONN	10	13.93	C	13.93	0	C	1.39	0
15	#14/12C TRAY CABLE	30	2.884	E	2.884	21	M	86.52	0.63
16	U2 FIXTURE "CROUSE-HINDS" [VMV7L2TW7OF/UNV]	1	1041.41	E	1041.41	3.13	E	1041.41	3.13
17	RELOCATE LIGHT	2	0	E	0	3.13	E	0	3.13
18	Misc. Rework	2	0	E	0	6	E	0	12
<b>TOTAL:</b>								<b>1628.1832</b>	<b>63.015</b>



1402 LAREDO STREET  
 CORPUS CHRISTI TX 78401-3138  
 Phone: 361-886-4123  
 Fax: 361-886-4189

To: KST ELECTRIC/CCTX-ELE  
 CCTX/ELE  
 P.O. BOX 49055  
 SAN JOSE CA 95161  
 Attn: DEREK DOYLE  
 Phone:  
 Fax:  
 Email:

Date: 08/12/2013  
 Proj Name: "U2" FIXTURE  
 GB Quote #: 218017650  
 Valld From: 08/12/2013  
 Valid To: 07/12/2013  
 Contact: WILLIAM NAUGLE  
 Email: william.naugle@graybar.com

**Proposal**

We Appreciate Your Request and Take Pleasure In Responding As Follows

Item	Quantity	Supplier	Catalog Nbr	Description	Price	Unit	Ext.Price
100	1 EA	CROUSE-HINDS	VMV6L2TWDM2/JUN V1	LT LED VMV6L 3/4 IN WALL VAC	\$1,041.41	1	\$1,041.41
GB Part #: 25403993		UPC #: 66227623746					

Total in USD (Tax not included): \$1,041.41

F O B: 4 WORKING WEEK LEAD TIME

This equipment and associated installation charges may be financed for a low monthly payment through Graybar Financial Services (subject to credit approval). For more information call 1-800-241-7408 to speak with a leasing specialist.

To learn more about Graybar, visit our website at [www.graybar.com](http://www.graybar.com)

24-Hour Emergency Phone#: 1-800-GRAYBAR

Subject to the standard terms and conditions set forth in this document. Unless otherwise noted, freight terms are F.O.B. shipping point prepaid and bill. Unless noted the estimated ship date will be determined at the time of order placement.

**Change Directive 15**  
**Areas 22 and 56-Seal top of filter room walls.**

Carollo requested a Cost Proposal to add the following work to the contract in Areas 22 (ECR-1) and 56 (ECR-2). Provide 3M Brand Fire Barrier Sealant FireDam 150+ Caulk at the top of the filter room walls to close the air gap. PCM 45.



**PROPOSED  
CONTRACT  
MODIFICATION**



Innovative approaches  
Proven results  
Outstanding service

4055 International Plaza, Suite 200 • Fort Worth, Texas 76109 • 817-735-7300 • fax 817-735-7491

Owner: City of Corpus Christi Date: 9/9/13  
Contractor: Graham Construction PCM No: 45  
Project Name: New Broadway WWTP Project Ref: CD-15  
Engineer/CM: Carollo / Freese and Nichols  
PCM Title: Seal voids between the top of the filter walls and the roof deck in areas 22 and 56

**PCM Description:**

On June 11, 2013, Carollo Engineers requested that Graham Construction provide a Cost Proposal to add the following work to the contract in Areas 22 and 56:

1. Provide 3M Brand Fire Barrier Sealant FireDam 150+ Caulk at the top of the filter walls between the underside of the roof decking and the top of the CMU walls to close the open gap and prevent air from passing through and bypassing the wall filters. Provide sealant as needed to seal the gaps (seal one side or both sides as needed).
2. Use other 3M Brand Fire Barrier Sealant FireDam 150+ products to seal the gaps if larger voids are present as needed to prevent air leaks as intended.
3. Install 3M Brand Fire Barrier Sealant FireDam 150+ Caulk in accordance with the provided Specification No. 07840.

The Contractor's cost proposal has been reviewed by the CM Team and Owner. Reference the cost summary below and attached change directive for the details of the proposed change to the contract.

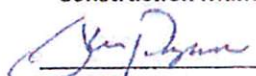
**Construction Manager's Request:**

- Provide a cost/time proposal for the work described in change directive number 15.
- By: Rene Aguilar
- Date: 6/11/13

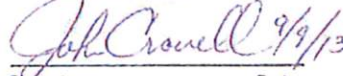
**Contractor's Response:**

- Reference attached change directive number 15 pricing breakdown.
- Change in Contract Cost: **ADD \$7,004.38**
- Change in Contract Time: **NO CHANGE IN CONTRACT TIME**

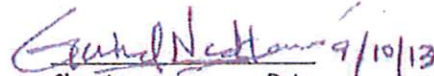
RECOMMENDED BY  
Adam Payne, CCM  
Construction Manager

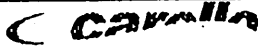
  
Signature Date 9/1/13

APPROVED BY  
John Crowell, P.E.  
Contractor

  
Signature Date 9/9/13

APPROVED BY  
Govind Nadkarni, P.E.  
Owner

  
Signature Date 9/10/13

<b>Change Directive # 15</b>	Carollo Program Corpus Christi New Broadway WWTP	
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<b>Seal Top of Filter Walls in Area 22 and Area 56</b>	Submitted : 06/11/2013
	Submitted To: Adam Payne, Carollo Engineers, Freese & Nichols
	Revision Date:
	Status: Pending
	Priority: Low
Created By: Carollo Engineers, Rene Aguilar	
Created: 06/10/2013	

**Design Clarification:**

Submitted by Rene Aguilar, Carollo Engineers (06/10/2013):

The Contractor is requested to provide the following installation of sealing material at the tops of the filter walls of Area 22 and Area 56 Filter Rooms as noted:

1. Provide 3M Brand Fire Barrier Sealant FireDam 150+ Caulk at the top of the filter walls between the underside of the roof decking and the top of the cmu walls as shown in the attachments to close the open gap and prevent air from passing through and bypassing the wall filters. Provide sealant as needed to seal the gaps (seal one side or both sides as needed).
2. Use other 3M Brand Fire Barrier Sealant FireDam 150+ products to seal the gaps if larger voids are present as needed to prevent air leaks as intended.
3. Install 3M Brand Fire Barrier Sealant FireDam 150+ Caulk in accordance with the provided Specification No. 07840 as attached.
4. Contractor to provide cost and time impacts to the CM Team for review and discussion prior to proceeding with the installation.

**Locations**

- 10-Switchgear/ECR-1/Aeration Basin/Blower Building
- 18-ECR-2/Aerated Sludge Basin/Blower Building

**References**

Specification # 07920	Interior Joint Sealants (Reference Only)	Published
Drawing # 170-22-S-01	See revised attachment	Published
Drawing # 260-56-S-01	See revised attachment	Published

**Files**

07840 - Firestopping rev 1.pdf	20.00 KB	Caulking material Specification No. 07840.
CD 16 Area 22.pdf	593.93 KB	Area 22 Filter Wall Seal Locations.
CD 16 Area 56.pdf	413.26 KB	Area 56 Filter Wall Seal Locations.

## SECTION 07840

### FIRESTOPPING

#### PART 1 - GENERAL

##### 1.01 SECTION INCLUDES

- A. Fireproof firestopping and firesafing materials and accessories.

##### 1.02 RELATED SECTIONS

- A. See construction drawings
- B. Section 07816 – Sprayed-on Fireproofing

##### 1.03 REFERENCES STANDARDS (Latest Edition)

- A. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- B. ASTM E119 - Method for Fire Tests of Building Construction and Materials.
- C. ASTM E814 - Test Method of Fire Tests of Through-Penetration Firestops.

##### 1.04 PERFORMANCE REQUIREMENTS

- A. Fireproofing Materials: ASTM E119 and ASTM E814 to achieve a fire rating as noted.

##### 1.05 DEFINITIONS

- A. Firestopping: A material, or combination of materials, to retain the integrity of time-rated construction by maintaining an effective barrier against the spread of flame, smoke, and gases. It shall be used in specific locations as follows:
  1. Duct, cable, conduit, and piping penetrations through floor slab and through time-rated partitions or fire walls.
  2. Openings between floor slabs and curtain walls, including inside hollow curtain walls at the floor slab.
  3. Penetrations of vertical service shafts.
  4. Openings and penetrations in time-rated partitions or fire walls containing fire doors.
  5. Locations where specifically shown on the Drawings or where specified in Schedule of this Section.

##### 1.06 SUBMITTALS

- A. Product Data: Provide data on product characteristics, performance and limitation criteria.
- B. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

##### 1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with minimum three years experience.
- B. Installer Qualifications: Company specializing in performing the work of this Section with minimum 3 years experience and approved by manufacturer.

**1.08 REGULATORY REQUIREMENTS**

- A. Conform to applicable code for fire resistance ratings and surface burning characteristics.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of combustibility.

**1.09 ENVIRONMENTAL REQUIREMENTS**

- A. Do not apply materials when temperature of substrate material and ambient air is below 60 degrees F.
- B. Maintain this minimum temperature before, during, and for 3 days after installation of materials.
- C. Provide ventilation in areas to receive solvent cured materials.

**1.10 SEQUENCING**

- A. Sequence Work to permit firestopping materials to be installed after adjacent and surrounding work is complete.

**1.11 WARRANTY**

- A. Correct defective Work within a two-year period after Date of Substantial Completion.
  - 1. Include coverage for fireproofing to remain free from cracking, checking, dusting, flaking, spalling, separation, and blistering.
  - 2. Reinstall or repair failures that occur within warranty period.

**PART 2 - PRODUCTS**

**2.01 MANUFACTURERS**

- A. 3M Contractor Products, Product: Firestopping Materials.
- B. Substitutions: Under Special Provisions requirements.

**2.02 MATERIALS**

- A. Firestopping Material shall constitute on or more of the following products, or equal:
  - 1. 3M Brand Fire Barrier Sealant FD 150+ Caulk.
- B. Other Requirements
  - 1. Durability and Longevity: Permanent.
  - 2. Side Effects During Installation: Non-toxic.
  - 3. Long Term Side Effects: None.
- C. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces.

**2.03 ACCESSORIES**

- A. Dam Material: As instructed by manufacturer.
- B. Retainers: As instructed by manufacturer.

**PART 3 - EXECUTION**

**3.01 EXAMINATION**

- A. Verify site conditions.

- B. Verify that openings are ready to receive the Work of this Section.

**3.02 PREPARATION**

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material, or other matter which may affect bond of firestopping material.
- B. Remove incompatible materials which affect bond.
- C. Install backing materials to arrest liquid material leakage.

**3.03 APPLICATION**

- A. Apply primer and materials in accordance with manufacturer's instructions.
- B. Apply firestopping material in sufficient thickness to achieve rating to uniform density and texture.
- C. Install material at walls or partition openings which contain penetrating sleeves, piping, ductwork, conduit and other items requiring firestopping.
  - 1. Remove dam material after firestopping material has cured.

**3.04 CLEANING**

- A. Clean Work under Special Provisions requirements.
- B. Clean adjacent surfaces of firestopping materials.

**3.05 PROTECTION OF FINISHED WORK**

- A. Protect finished work.
- B. Protect adjacent surfaces from damage by material installation.

**3.06 FIELD QUALITY CONTROL**

- A. Examine firestopped areas to ensure proper installation prior to concealing or enclosing firestopped areas.
- B. Areas of work shall remain accessible until inspection (and approval) by the applicable code authorities.

**3.07 SCHEDULES**

- A. Location: All – 2 hours

**END OF SECTION**





August 21, 2013

Freese and Nichols.  
945 Resaca Street  
Corpus Christi, TX 78401  
Attention: Steve Eckersley, P.E.

RE: New Broadway WWTP; Graham New Broadway response to Change Directive No. 15  
Seal Top of Filter Walls in Area 22 and Area 56

Mr. Steve Eckersley P.E.

Graham has been requested to provide an estimated cost to Seal Top of Filter Walls in Area 22  
ECR1 and Area 56 ECR2.

Attached you will find the Graham CD-15 Seal Top of Filter Walls in Area 22 and Area 56  
estimate. The estimated cost for this change is \$7,004.38.

Please contact me if you have any questions on this matter. Thank you.

Sincerely,  
GRAHAM CONSTRUCTION SERVICES, INC.

A handwritten signature in cursive script that reads "John Crowell". The signature is written in black ink and is located below the typed name.

John Crowell P.E.  
Sr. Project Manager

Site Office: 361-881-1279  
Cell: 361-446-6430

CC: Greg Ritke, Graham Construction Services, Inc.  
Patrick Phelps, Graham Construction Services, Inc.

New Broadway WWTP, Corpus Christi, TX  
 CD-15 Seal Top of Filter Walls in Area 22 and Area 55 Estimate  
 PCMA#:  
 RFP#:

Tax Rate: 3.25%

Change Description: Seal Top of Filter Walls in Area 22 and Area 55

Description	Task = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipment Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	0	HR	75.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Forman		0104130	30	HR	37.50	30.00	1.0000	\$0.00	\$0.00	\$0.00	\$1,125.00	\$450.00	\$1,575.00	\$0.00	\$0.00	\$0.00	\$1,575.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Area 22 ECR1 3 man crew			3		29.10	30.00					\$873.00	\$349.20	\$1,222.20	\$0.00	\$0.00	\$0.00	\$1,222.20
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Area 56 ECR2 3 man crew			3		29.10	30.00					\$873.00	\$349.20	\$1,222.20	\$0.00	\$0.00	\$0.00	\$1,222.20
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3M FireStop 150+ / filler matl			1		29.10	0.00		\$1,000.00			\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$1,000.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00				\$128.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Freight:		0197100	1	ea	29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						91.00							\$4,061.40	\$1,000.00	\$0.00	\$0.00	\$5,061.40
																	\$0.00
Safety		0151801												\$101.54			\$101.54
Small tools		0152990												\$253.84			\$253.84
Consumables		0152903												\$507.68			\$507.68
																	\$0.00
Subtotal:													\$4,061.40	\$1,863.05	\$0.00	\$0.00	\$5,924.45
Subtrade Bond		0174400												\$0.00			\$0.00
Performance & Payment Bond		0174350												\$38.51			\$38.51
Builders Risk		0175100												\$49.77			\$49.77
General Liability Insurance		0175220												\$17.74			\$17.74
Subtotal:													\$4,061.40	\$1,969.06	\$0.00	\$0.00	\$6,030.46
Overhead & Profit		0192310												\$904.57			\$904.57
Texas Franchise Tax		0176000												\$69.35			\$69.35
TOTAL:													\$4,061.40	\$2,942.98	\$0.00	\$0.00	\$7,004.38

**PCO 81**  
**Administration Building Steel Panels**

This is regarding the steel panels for the Administration Building northeast stairway tower. Drawing 61-S-07 Section 19 calls for 20 GA. Galvalume R-Panel at the Admin Stair Tower roof. Specification 07411, 2.06 Metal Roof Panels specifies 22GA. Standing Seam panels. Carollo sub LNV advised Graham to use 22GA standing seam panels with a new screw pattern and addition of wall studs for attachment. RFI 246.



New Broadway WWTP, Corpus Christi, TX

PCO#

PCM#:

RFP#:

Change Description:

Tax Rate: 8.25%  
Consumables

Description	Transit = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	2	HR	30.00	2.00	1.0000	\$0.00	\$0.00	\$0.00	\$60.00	\$24.00	\$84.00	\$0.00	\$0.00	\$0.00	\$84.00
Budget Revisions		0104620	2	HR	75.00	2.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Forman		0104130	2	HR	37.50	2.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Site Scheduler		0105130	1	HR	40.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$40.00	\$16.00	\$56.00	\$0.00	\$0.00	\$0.00	\$56.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Stair Tower-Porch Roof structural steel mods			1		29.10	0.00				\$6,555.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,555.00	\$6,555.00
16in vs 36in Panel install			1		29.10	0.00				\$3,656.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,656.25	\$3,656.25
Re-engineering and redesign mods to shop dwgs			1		29.10	0.00				\$2,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,000.00	\$2,000.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Freight:		0197100	1	ea	29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
						29.10	0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											\$0.00
Subtotal:						7.00							\$455.00	\$0.00	\$0.00	\$12,211.25	\$12,666.25
																	\$0.00
Safety		0151801												\$11.38			\$11.38
Small tools		0152990												\$28.44			\$28.44
Consumables		0152903												\$56.88			\$56.88
																	\$0.00
Subtotal:													\$455.00	\$96.69	\$0.00	\$12,211.25	\$12,762.94
Subtrade Bond		0174400												\$1,831.69			\$1,831.69
Performance & Payment Bond		0174350												\$94.87			\$94.87
Builders Risk		0175100												\$122.59			\$122.59
General Liability Insurance		0175220												\$43.70			\$43.70
Subtotal:													\$455.00	\$2,189.53	\$0.00	\$12,211.25	\$14,855.78
Overhead & Profit		0192310												\$1,007.24			\$1,007.24
Texas Franchise Tax		0176000												\$158.63			\$158.63
TOTAL:													\$455.00	\$3,355.40	\$0.00	\$12,211.25	\$16,021.65

McNiel Roofing & Sheet metal, Inc. dba  
McStill Construction  
P.O. Box 33313  
San Antonio, Texas 78265  
210-653-4636 fax 210-653-4087

July 2, 2013

Graham Construction Services, Inc.  
2995 Lone Oak Circle, Suite 1  
Eagan, MN 55121

Ref: NBWWTP  
945 Resaca Street  
Corpus Christi, Texas 78401

**ADDITION TO CONTRACT**

Redesign for modification to support structure on the Stair Tower and Porch Roof on side of building.

Quantity	Description	Amount
1180 ft	Hat Channel	\$1,950.00
Labor	36 Crew Hours	\$2,340.00
80 ft	2x12 and fasten	\$304.00
Labor	10 Crew Hours	\$650.00

<b>SUBTOTAL</b>	\$5,244.00
<b>OVERHEAD (15%)</b>	\$786.60
<b>PROFIT (10%)</b>	\$524.40
<b>TOTAL</b>	\$6,555.00



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McStill Construction  
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San Antonio, Texas 78265  
210-653-4636 fax 210-653-4087

July 2, 2013

Graham Construction Services, Inc.  
2995 Lone Oak Circle, Suite 1  
Eagan, MN 55121

Ref: NBWWTP  
945 Resaca Street  
Corpus Christi, Texas 78401

**ADDITION TO CONTRACT**

Additional labor to install 16" Panel in lieu of 36" Panel.

Quantity	Description	Amount
Labor	45 Crew Hours	\$2,925.00
	<b>SUBTOTAL</b>	<b>\$2,925.00</b>
	<b>OVERHEAD (15%)</b>	<b>\$438.75</b>
	<b>PROFIT (10%)</b>	<b>\$292.50</b>
	<b>TOTAL</b>	<b>\$3,656.25</b>

McNiel Roofing & Sheet metal, Inc. dba  
McStill Construction  
P.O. Box 33313  
San Antonio, Texas 78265  
210-653-4636 fax 210-653-4087

July 2, 2013

Graham Construction Services, Inc.  
2995 Lone Oak Circle, Suite 1  
Eagan, MN 55121

Ref: NBWWTP  
945 Resaca Street  
Corpus Christi, Texas 78401

**ADDITION TO CONTRACT**

Re-Engineering and Shop Drawings for the redesign for modifications to support structure.

<b>SUBTOTAL</b>	<b>\$2,000.00</b>
<b>TOTAL</b>	<b>\$2,000.00</b>

**PCO 84**  
**Relocate ECR-1 Blower Disconnects**

The CM team, contractor, and City Operations personnel met on site at ECR-1 to discuss the placement of the blower disconnects and equipment stands at ECR-1. The group agreed to relocate disconnects and equipment stands to the opposite side of each blower. PCM 84.

**PROPOSED  
CONTRACT  
MODIFICATION**



4055 International Plaza Suite 200 • Fort Worth, Texas 76109 • 817 735 7300 • fax 817 735 7491

Owner: City of Corpus Christi  
Contractor: Graham Construction  
Project Name: New Broadway WWTP Project  
Engineer/CM: Carollo / Freese and Nichols  
PCM Title: Purchase of two air piping restrained couplings

Date: 9/9/13  
PCM No: 47  
Ref: PCO-84

**PCM Description:**

The CM team, Contractor and City Operations personnel met onsite in ECR1 to discuss the planned placement of the blower disconnects and equipment stands. As a result of the discussion, the group agreed to relocate the disconnects and equipment stands to the opposite side of each blower.

The Contractor's cost proposal for the work described above has been reviewed by the CM Team and Owner. Reference the cost summary below and attached PCO-84 detailing the additional cost.

**Construction Manager's Request:**

- Provide a cost time proposal for the work detailed above.
- By: Adam Payne
- Date: 10/10/13

**Contractor's Response:**

- Reference attached PCO-84.
- Change in Contract Cost: ADD \$4,582.16
- Change in Contract Time: NO CHANGE IN CONTRACT TIME

**RECOMMENDED BY**

for Adam Payne, CCM  
Construction Manager

Adam Eckerd 10/31/13  
Signature Date

**APPROVED BY**

John Crowell, P.E.  
Contractor

John Crowell 10/31/13  
Signature Date

**APPROVED BY**

Govind Nadkarni, P.E.  
Owner's RGR

Govind Nadkarni  
Signature Date 10/31/13

New Broadway WWTP, Corpus Christi, TX  
 PCO# S4 Relocate Disconnects and Equipment Stands Blower in ECR-1  
 PCM#:  
 RFP#:  
 Change Description:

Tax Rate: 8.25%

Description	Quantity	Function Code	UoF	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1 HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1 HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman		0104130	4 HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler		0105130	0 HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Relocate Disconnects& Equip Stands			1 lot	29.10	0.00				\$3,234.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,234.00	\$3,234.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		0197100	ea	29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0				0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					0.00								\$0.00			\$0.00
Subtotal:					6.00											
											\$357.00		\$0.00	\$0.00	\$3,234.00	\$3,591.00
Safety		0151801														\$0.00
Small tools		0152990											\$8.93			\$8.93
Consumables		0152903											\$22.31			\$22.31
													\$44.63			\$44.63
Subtotal:																\$0.00
											\$357.00		\$75.86	\$0.00	\$3,234.00	\$3,666.86
Subtrade Bond		0174400														
Performance & Payment Bond		0174350											\$485.10			\$485.10
Builders Risk		0175100											\$26.99			\$26.99
General Liability Insurance		0175220											\$34.88			\$34.88
													\$12.43			\$12.43
Subtotal:																
											\$357.00		\$635.26	\$0.00	\$3,234.00	\$4,226.26
Overhead & Profit		0192310														\$310.54
Texas Franchise Tax		0176000														\$45.37
TOTAL:											\$357.00		\$991.16	\$0.00	\$3,234.00	\$4,582.16

**PCO 85**  
**UT Level Transducer Analog Signal**

The ultrasonic level sensors in the UV structure require a 24VDC power source to send an analog signal back to the controller. The 24 volt power was included on the conduit schedule but the analog signal was not. A two-wire shielded cable was added to the power supply for correct operation.





October 30, 2013

Freese and Nichols.  
945 Resaca Street  
Corpus Christi, TX 78401  
Attention: Steve Eckersley, P.E.

RE: New Broadway WWTP; Graham New Broadway request for Direct/Indirect Costs

Mr. Steve Eckersley P.E.

In accordance with the requirements of General Conditions Article 10, Graham Construction Services is providing written notification of a cost and time impact associated with the requirement for additional electrical wiring not shown on the engineering drawings. The ultrasonic level sensors in the UV structure (BRD-SEF-LIT13, 23, 33) require a 24VDC power source and send an analog signal back to the controller proportional to the water level in the channel. The 24 volt power was included on the conduit schedule (Conduits I3101, I3102, I3103), but the analog signal was not. A two-wire shielded cable is needed in addition to the power supply in order for correct operation.

The initial GC/Subcontractor estimate for this work is approximately \$6,063.57 for this additional work. We will advise Freese and Nichols, regarding the actual impact costs once they are known. Graham will request to be reimbursed for all direct cost due to this change. Please contact me if you have any questions on this matter. Thank you.

Sincerely,  
GRAHAM CONSTRUCTION SERVICES, INC.

John Crowell P.E.  
Sr. Project Manager

Site Office: 361-881-1279  
Cell: 361-446-6430

CC: Greg Ritke, Graham Construction Services, Inc.  
Patrick Phelps, Graham Construction Services, Inc.

Graham Construction Services, Inc.  
2995 Lone Oak Circle, Suite 1, Eagan, MN 55121



New Broadway WWTP, Corpus Christi, TX  
 PCO# 85 UT Transducers level sensors-analog signal cable  
 PCM#:  
 RFP#:  
 Change Description:

Tax Rate: 8.25%

Description	Trade = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1	HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman		0104150	4	HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Install signal cable for three UT level sensors in UV			1	lot	29.10	0.00				\$4,411.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,411.00	\$4,411.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		0197100		ea	29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						6.00							\$357.00	\$0.00	\$0.00	\$4,411.00	\$4,768.00
																	\$0.00
Safetv		0151801												\$8.93			\$8.93
Small tools		0152990												\$22.31			\$22.31
Consumables		0152903												\$44.63			\$44.63
																	\$0.00
Subtotal:													\$357.00	\$75.86	\$0.00	\$4,411.00	\$4,843.86
Subtrade Bond		0174400												\$661.65			\$661.65
Performance & Payment Bond		0174350												\$35.79			\$35.79
Builders Risk		0175100												\$46.25			\$46.25
General Liability Insurance		0175220												\$16.48			\$16.48
Subtotal:													\$357.00	\$836.03	\$0.00	\$4,411.00	\$5,604.03
Overhead & Profit		0192310												\$399.50			\$399.50
Texas Franchise Tax		0176000												\$60.04			\$60.04
TOTAL:													\$357.00	\$1,295.57	\$0.00	\$4,411.00	\$6,063.57

## Change Order Request



C.O.R. # 180018-0023

G.C. #

Date: 10/28/2013

Project Name: 180018 Broadway WWTP

Project #: 180018

To: Graham Construction Services, Inc.  
Attn: John Crowell  
2995 Lone Oak Circle, Suite 1  
  
Eagan, Mn 55121

From: KST Electric  
Dustin Doyle  
2411 Rand Morgan Road  
Corpus Christi, TX 78410

Phone: (651) 687-0648 Fax: (651) 687-0947

Phone: (361) 248-4901 Fax: (361) 248-4906

We hereby propose to make the following changes:

UV Ultrasonic Transducer

This price is for adding Shielded Cable to each of the three Vendor Furnished Transducers at the UV Channels back to the UV Controller in ECR-3.

Exclusions: patching of any concrete, paint, existing conditions of work areas, overtime.

Please send written Notice to Proceed and Approval of Price for work to begin.

Change Order Price	\$4,411.00
Original Contract Amount	\$6,480,000.00

This price is good for 5 days. If conditions change, this price is void.

We are requesting a time extension of 5 days in conjunction with this change.

Dustin Doyle	10/28/2013
_____ Author	_____ Date Sent

Accepted The above prices and specifications of this Change Order request are satisfactory and are hereby accepted. All work to be performed under same terms and conditions as specified in original contract unless otherwise specified.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date of Acceptance





**KST ELECTRIC** a subsidiary of Rosendin Electric  
**CHANGE ORDER SUMMARY SHEET**

Project Name: Broadway WWTP  
 Change Description: UV Ultrasonic Transducers  
 KST Change No.: 180018-0023

Date: 28-Oct-13  
 Taxable: No

MATERIAL/QUOTES:	Amount	Op	Rate	Extension	Subtotals & Totals
Material Total:	\$883.58	X	1.0	\$883.58	
Material From T&M Recap Sheet:	\$0.00	X	1.0	\$0.00	
Total Quotes:	\$0.00	X	1.0	\$0.00	
Total Freight:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL:</b>					<b>\$883.58</b>
<b>LABOR:</b>					
Straight-time Labor:	65.58	X	\$36.26	\$2,377.93	
Overtime Labor @ time & one half:	0.00	X	\$57.31	\$0.00	
Double Time Labor:	0.00	X	\$74.50	\$0.00	
Instrumentation Straight Time Labor:	0.00	X	\$75.00	\$0.00	
Total Manhours:	65.58				
Labor from Time and Material Sheets:	# of Hrs & Labor Ext from Attachment		0.00	\$0.00	
General Foreman Straight-time Labor (10% of Man Hrs):	65.58	6.56			
General Foreman Straight-time Labor:	6.56	X	\$57.44	\$376.69	
General Foreman Overtime Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Overtime Labor @ time & one half:	0.00	X	\$79.78	\$0.00	
General Foreman Double Time Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Double Time Labor:	0.00	X	\$102.12	\$0.00	
Estimating Time:	0.00	X	\$71.87	\$0.00	
Mat. Proc. & Handle (5% of Labor Cost):	0.00	X	5.00%	\$0.00	
Update As-Built Dwg's:	1.00	X	\$59.86	\$59.86	
<b>SUBTOTAL:</b>				<b>\$2,814.48</b>	<b>\$2,814.48</b>
<b>DIRECT JOB EXP:</b>					
Consumables/Expendable Tools (6% of Mat.):	\$883.58	X	3.00%	\$26.51	
Drawing Reproduction and or BIM :	\$0.00	X	1.0	\$0.00	
Safety @ \$0.50/MH:	72.14	X	\$0.50	\$36.07	
Equipment:	\$0.00	X	1.0	\$0.00	
Project Mngmt: 5% of Labor:	2,814.48	X	0%	\$0.00	
Total Subcontractors Quotes:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL Direct Job Exp:</b>				<b>\$62.58</b>	<b>\$62.58</b>
Credit:	\$0.00	X	1.0	\$0.00	\$0.00
<b>Material/Labor/DJE/Credit SUBTOTAL:</b>					<b>\$3,760.64</b>
Warranty:	\$3,760.64	X	0%	\$0.00	\$0.00
<b>SUBTOTAL:</b>					<b>\$3,760.64</b>
Material Sales Tax @ 8.25% if Project is Taxable:	\$883.58	X	0.00%	\$0.00	\$0.00
Liability/Builders Risk:	\$3,760.64	X	2%	\$75.21	\$75.21
<b>SUBTOTAL:</b>					<b>\$3,835.85</b>
<b>MARK-UPS:</b>					
Overhead/Profit @ 15%	\$3,835.85	X	15%	\$575.38	\$575.38
<b>SUBTOTAL:</b>					<b>\$4,411.23</b>
Total Subcontract Values:	\$0.00	X	1	\$0.00	\$0.00
Overhead/Profit for Subcontract @ %		X	15%	\$0.00	\$0.00
<b>SUBTOTAL:</b>					<b>\$0.00</b>
Bond Premium:	\$4,411.23	X	1.0%	\$44.11	\$44.11
<b>CHANGE ORDER TOTAL:</b>					<b>\$4,455.34</b>

Description	Quantity	Trade Price	Price Unit	Net Price	Labor	Labor Unit	Total Material	Total Hours
GRS 1/2" 1"/# 6 CW GRD CLAMP	3	850.88	C	850.88	1.4	E	25.53	4.2
3/4" ARC (AL)	60	277.27	C	277.27	0.096	E	166.36	5.77
1" ARC (AL)	10	401.31	C	401.31	0.105	E	40.13	1.05
1" AL LOCKNUT	2	159	C	159	0.07	E	3.18	0.14
1" AL GRD BUSHING	1	650	C	650	0.875	E	6.5	0.88
3/4" AL STRUT CLAMP	12	497	C	497	0.053	E	59.64	0.63
1/2" LT FLEX	15	297	C	297	0.07	E	44.55	1.05
#12 XHHW 2 STRANDED	15	394.88	M	394.88	0.012	E	5.92	0.18
#14/2C THHN TRAY CABLE	600	527.64	M	527.64	0.019	E	316.56	11.42
#2 MECH LUG	6	136.29	C	136.29	0.875	E	8.18	5.25
HS 40 400 HEAT SHRINK	3	1599.53	C	1599.53	0.613	E	47.99	1.84
HS 500 1000 HEAT SHRINK	1	2344.18	C	2344.18	0.875	E	23.44	0.88
12.4" SUPER GRIP CABLE TIE (SGS)	100	30.99	C	30.99	0.088	E	30.99	5
3/4" FORM 7 ALUM T UNILET	3	6.29	E	6.29	1.75	E	18.87	5.25
3/4" FORM 7 ALUM LB UNILET	3	12.06	E	12.06	1.138	E	36.18	3.41
3/4" 1/2" ALUM REDUCING BUSHING	3	1.65	E	1.65	0.298	E	4.95	0.89
1/2" LT ARC (AL) STR CONNECTOR	3	5.78	E	5.78	0.263	E	17.34	0.79
EXISTING CONDITIONS	2	0	E	0	8	E	0	16
1/2" LT ARC (AL) 90EL CONNECTOR	3	9.09	E	9.09	0.315	E	27.27	0.95
<b>Totals</b>							<b>883.58</b>	<b>65.58</b>

**PCO 86**

**Add Coating at SDB Polymer Containment**

**The drawings did not detail all locations for the protective coating in the polymer handling areas. The intent was for the coating to be under locations with possibility of polymer spills. Unistrut containment bars were also added to keep the polymer from getting to areas outside of the collection trench.**



January 7, 2014

Freese and Nichols.  
945 Resaca Street  
Corpus Christi, TX 78401  
Attention: Steve Eckersley, P.E.

RE: New Broadway WWTP; Graham New Broadway PCO-86 Added Coating SDB Containment Area

Mr. Steve Eckersley P.E.

In accordance with the requirements of General Conditions Article 10, Graham Construction Services is providing written notification of a cost and time impact associated with the Added Coating SDB Containment Area.

The initial GC/Subcontractor estimate for this price increase is approximately \$11,387.85 for this additional work. We will advise Freese and Nichols, regarding the actual impact costs once they are known. Graham will request to be reimbursed for all increased cost due to this change. Please contact me if you have any questions on this matter. Thank you.

Sincerely,  
GRAHAM CONSTRUCTION SERVICES, INC.

John Crowell P.E.  
Sr. Project Manager

Site Office: 361-881-1279  
Cell: 361-446-6430

CC: Greg Ritke, Graham Construction Services, Inc.  
Patrick Phelps, Graham Construction Services, Inc.



New Broadway WWTP, Corpus Christi, TX  
 PCO# 86 Added Coating SDB Containment Area  
 PCM#:  
 RFP#:  
 Change Description:

Tax Rate: 8.25%

Description	Transfer = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1	HR	75.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Forman		0104130	4	HR	37.50	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Added Coating SDB Containment Area			1	lot	29.10	0.00				\$9,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,000.00	\$9,000.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						1.00							\$42.00	\$0.00	\$0.00	\$9,000.00	\$9,042.00
																	\$0.00
Safety		0151801												\$1.05			\$1.05
Small tools		0152990												\$2.63			\$2.63
Consumables		0152903												\$5.25			\$5.25
																	\$0.00
Subtotal:													\$42.00	\$8.93	\$0.00	\$9,000.00	\$9,050.93
Subtrade Bond		0174400												\$1,350.00			\$1,350.00
Performance & Payment Bond		0174550												\$67.61			\$67.61
Builders Risk		0175100												\$87.37			\$87.37
General Liability Insurance		0175220												\$31.14			\$31.14
Subtotal:													\$42.00	\$1,545.04	\$0.00	\$9,000.00	\$10,587.04
Overhead & Profit		0192310												\$688.06			\$688.06
Texas Franchise Tax		0176000												\$112.75			\$112.75
TOTAL:													\$42.00	\$2,345.85	\$0.00	\$9,000.00	\$11,387.85



**PCO 88**

**PCM 48 (PCO 88) Fire Suppression @ Administration Building**

**Carollo requested a cost proposal to install a dry pipe fire suppression system in the garage area and identify impacts to the fire suppression system. The objective was to reduce ongoing maintenance issues for a wet pipe system in that environment. RFI 312.**

**PROPOSED  
CONTRACT  
MODIFICATION**



4055 International Plaza, Suite 200 • Fort Worth, Texas 76109 • 817-735-7300 • fax 817-735-7491

Owner: City of Corpus Christi  
Contractor: Graham Construction  
Project Name: New Broadway WWTP Project  
Engineer/CM: Carollo / Freese and Nichols  
PCM Title: Dry Pipe Fire Protection System

Date: 9/15/14  
PCM No: 48  
Ref: PCO-88

**PCM Description:**

Per direction from Carollo's RFI 312.1 response and Change Directive 22, Graham was requested to provide a cost proposal for a dry fire extinguishing system.

The Contractor's cost proposal for the work described above has been reviewed by the CM Team and Owner. Reference the cost summary below and attached PCO-88 detailing the additional cost.

**Construction Manager's Request:**

- Provide a cost ~~time~~ proposal for the work detailed above.
- By: Adam Payne *JC 9/18/14*
- Date: 6/27/14

**Contractor's Response:**

- Reference attached PCO-88.
- Change in Contract Cost: **ADD \$29,361.20** *COST ESTIMATED JC 9/18/14*
- Change in Contract Time: **NO CHANGE IN CONTRACT TIME** *JC 9/18/14*

RECOMMENDED BY  
Steve Eckersley, P.E.  
Construction Manager

*Steve Eckersley* 9/18/14  
Signature Date

APPROVED BY  
John Crowell, P.E.  
Contractor

*John Crowell* 9/19/14  
Signature Date

APPROVED BY  
Valerie Gray  
Owner

\_\_\_\_\_  
Signature Date

# Change Directive # 22

Corpus Christi New Broadway WWTP  
Carollo Program



Printed 09/18/2014, Page 1 of 1

## Dry Pipe Fire Extinguishing System

Submitted : 06/27/2014  
Submitted To: Carollo Engineers, City of  
Corpus Christi, Freese &  
Nichols, Graham  
Construction, John  
Crowell, Jong Pak  
Revision Date:  
Status: Pending  
Priority: Low

Created By: Freese & Nichols, Adam Payne  
Created: 06/27/2014

### Design Clarification:

In Carollo's RFI 312.1 response, item 1 asked Graham to provide a cost proposal for a dry fire extinguishing system.

Contractor to provide cost proposal if additional cost and/or time impacts to the CPM are incurred by this Change Directive.

### Locations

19-Administration/Operations/Maintenance Building

### References

RFI # 312.1	Admin Bldg-Water lines -Garage		Closed
Specification # 13930		Change to Dry Pipe	Published
Drawing # 275-61-A-19			Published

## Steve Eckersley

---

**From:** John Crowell <johncro@grahamus.com>  
**Sent:** Tuesday, September 16, 2014 3:47 PM  
**To:** Steve Eckersley  
**Cc:** Greg Ritke; Patrick Phelps; Clay Howard  
**Subject:** RE: PCO 088 rev1 Dry Pipe Fire Protection System  
**Attachments:** PCO 88 rev1a- Dry Pipe Fire Protection System-Total Fire Prot only.pdf; Holes of SA Coring T-M Rates Admin Bldg.pdf; RFI\_301.4\_Dry\_System\_Core\_Layout.pdf; Total Fire Dry Pipe Quote RFI 312 1-PCO 088 piping Mat-Lab.pdf; Total Fire-pricing Coord-Engr-Inspect.pdf

Steve,

Graham has provided an additional rate sheet for coring of the holes for the Dry Fire Protection System (coring by Holes of San Antonio). These coring costs are not available on a lump sum basis, but shown on a time and material basis, due to the large degree of risk related to the amount of rebar encountered in the coring operation.

Graham is providing this estimated costs in a good faith effort to keep this project moving forward without further impacts to this work. Ideally Holes of San Antonio will be able to accomplish this work over a two week period, which would include fourteen 5inX24in deep cores and six 6inX24in deep cores. The amount of rebar encountered cannot be estimated, therefore the number of holes per day, duration and overtime are indeterminate.

Time is of the essence in this Dry Fire Protection work, since the Dry Fire Protection Contractor is now on site and the coring must begin immediately to stay on track. Please proceed with securing approval to allow Graham to minimize any impacts to this Dry Fire Protection work. Please let me know if you have any questions. Thank you.

Please note that Electrical interferences in this area of the project shall be submitted under a separate PCO.

**John Crowell P.E.**  
Sr. Project Manager

**GRAHAM**

Your Construction Solutions Partner

9709 Third Avenue NE, Suite 300 | Seattle, WA 98115  
Office: 361.881.1279 | Direct: 361.446.6430 | Fax: 206.729.8845  
[johncro@grahamus.com](mailto:johncro@grahamus.com) | [www.grahamus.com](http://www.grahamus.com)

COMMITMENT | INTEGRITY | RELIABILITY

**From:** John Crowell  
**Sent:** Thursday, September 11, 2014 1:49 PM  
**To:** 'swe@freese.com'  
**Cc:** Greg Ritke; Patrick Phelps; Clay Howard  
**Subject:** PCO 088 rev1 Dry Pipe Fire Protection System

Steve,

Attached you will find the revised pricing for PCO 088 rev1 for the Dry Fire Protection System. This revision now includes the updated Coring layout approved by the Engineer's site visit and field report on the core locations. As stated in RFI # 301.4 a total of 6 cores have been added on the East side. Core diameters shown on the drawing markup are to be 5in diameter.



Please be advised that this represents costs for Total Fire Protection scope of work only. Some Electrical work will be required to energize the Air Compressor for this system. Since this work involves piping interferences and conflicts with the structural beams in the lower level of the Admin Building, Graham is submitting this as a proposed change request. Prior to moving forward with this work, Graham will require an acknowledgement of entitlement for payment to commence coring operations. Please expedite this request if possible. Please let me know if you have any questions. Thank you.

Please note that Electrical interferences in this area of the project shall be submitted under a separate PCO.

**John Crowell P.E.**  
Sr. Project Manager

**GRAHAM**  
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9709 Third Avenue NE, Suite 300 | Seattle, WA 98115  
Office: 361.881.1279 | Direct: 361.446.6430 | Fax: 206.729.8845  
[johncro@grahamus.com](mailto:johncro@grahamus.com) | [www.grahamus.com](http://www.grahamus.com)

COMMITMENT | INTEGRITY | RELIABILITY

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New Broadway WWTP, Corpus Christi, TX  
 PCO# 88 Revia Dry Pipe Fire Protection System- Total Fire Prot only  
 PCM#:  
 RFP#:  
 Change Description: RFI 301.4 and RFI 312.1

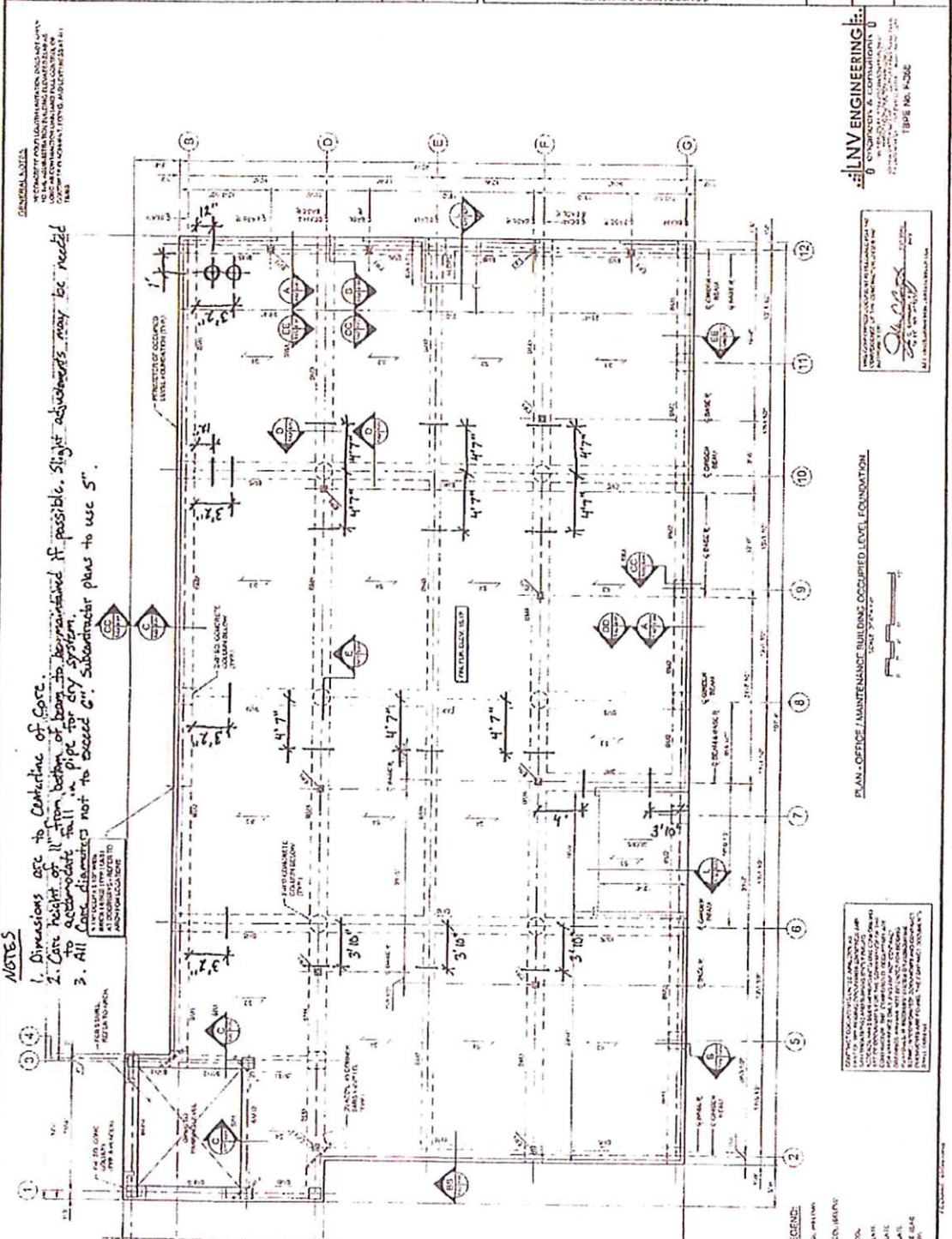
Tax Rate: 8.25%

Description	Trade = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1	HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman		0104130	4	HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Dry Pipe Fire Protection Syst- Total Fire Protection only			1	lot	29.10	0.00				\$9,066.36	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,066.36	\$9,066.36
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Coord-Engineering-Inspection - Total Fire Prot			1	lot	29.10	0.00				\$2,155.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,155.00	\$2,155.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Core Beams-Total Fire Prot only-see T&M Rates Holes			1	lot	29.10	0.00				#####	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,700.00	\$11,700.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											\$0.00
Subtotal:						6.00							\$357.00	\$0.00	\$0.00	\$22,921.36	\$23,278.36
																	\$0.00
Safety		0151801												\$8.93			\$8.93
Small tools		0152990												\$22.31			\$22.31
Consumables		0152903												\$44.63			\$44.63
																	\$0.00
Subtotal:													\$357.00	\$75.86	\$0.00	\$22,921.36	\$23,354.22
Subtrade Bond		0174400												\$3,438.20			\$3,438.20
Performanee & Payment Bond		0174350												\$174.15			\$174.15
Builders Risk		0175100												\$225.06			\$225.06
General Liability Insurance		0175220												\$80.22			\$80.22
Subtotal:													\$357.00	\$3,993.49	\$0.00	\$22,921.36	\$27,271.85
Overhead & Profit		0192310												\$1,798.64			\$1,798.64
Texas Franchise Tax		0176000												\$290.70			\$290.70
TOTAL:													\$357.00	\$6,082.84	\$0.00	\$22,921.36	\$29,361.20



REF: 301.4 DRY SYSTEM CORE LAYOUT

<p><b>Carollo</b> ENGINEERS ARCHITECTS INTERIORS 12000 WEST 10TH AVENUE, SUITE 100 DENVER, CO 80202 TEL: 303.751.1717 WWW.CAROLLO.COM</p>	<p>Department of Engineering Services <b>WASTEWATER DEPARTMENT</b> CITY OF CORPUS CHRISTI, TEXAS</p>	<p><b>NEW BROADWAY PLANT</b> WASTEWATER TREATMENT ADMINISTRATION/OCCUPIED LEVEL FOUNDATION PLAN</p>	<p>PROJECT NO. 171</p>
			<p>DATE: 11/27/10</p>



- NOTES**
1. Dimensions are to centerline of core.
  2. Core height of 11' from bottom of beam to top of pipe to be maintained if possible. Slight adjustments may be needed to accommodate all 1" pipe by dry contractor plans to use 5".
  3. All core diameters not to exceed 6". Subcontractor plans to use 5".

**GENERAL NOTES**

1. ALL DIMENSIONS ARE TO CENTERLINE UNLESS NOTED OTHERWISE.

2. ALL DIMENSIONS ARE TO CENTERLINE UNLESS NOTED OTHERWISE.

3. ALL DIMENSIONS ARE TO CENTERLINE UNLESS NOTED OTHERWISE.

- NOTES & LEGEND:**
- 1" = 1/4" AS SHOWN
  - 2" = 1/2" AS SHOWN
  - 3" = 3/4" AS SHOWN
  - 4" = 1" AS SHOWN
  - 5" = 1 1/4" AS SHOWN
  - 6" = 1 1/2" AS SHOWN
  - 8" = 2" AS SHOWN
  - 10" = 2 1/2" AS SHOWN
  - 12" = 3" AS SHOWN
  - 14" = 3 1/2" AS SHOWN
  - 16" = 4" AS SHOWN
  - 18" = 4 1/2" AS SHOWN
  - 20" = 5" AS SHOWN
  - 24" = 6" AS SHOWN
  - 30" = 7 1/2" AS SHOWN
  - 36" = 9" AS SHOWN
  - 42" = 10 1/2" AS SHOWN
  - 48" = 12" AS SHOWN
  - 60" = 15" AS SHOWN
  - 72" = 18" AS SHOWN
  - 84" = 21" AS SHOWN
  - 96" = 24" AS SHOWN
  - 108" = 27" AS SHOWN
  - 120" = 30" AS SHOWN

**LN ENGINEERING**  
INCORPORATED  
10000 WEST 10TH AVENUE, SUITE 100  
DENVER, CO 80202  
TEL: 303.751.1717  
WWW.LNENGINEERING.COM

DATE: 11/27/10  
PROJECT NO. 171

PLAN - OFFICE / MAINTENANCE BUILDING OCCUPIED LEVEL FOUNDATION  
SCALE: 3/8" = 1'-0"

DATE: 11/27/10  
PROJECT NO. 171

DATE: 11/27/10  
PROJECT NO. 171



July 17, 2014

Graham Construction  
9709 Third Ave. NE. Suite 300  
Seattle Wa. 98115

Attention: Jong Pak

Project: Broadway WTP  
Corpus Christi Tx

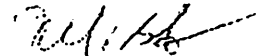
Description: Additional Cost

The following is a breakdown of additional cost.

1. Coordinate lower level piping changes	16 man hours @ \$ 55.00	\$ 880.00
2. Engineering changes	12 hours @ \$ 75.00	\$ 900.00
3. Inspection fee for the dry pipe system		\$ 375.00
<b>Total additional work</b>		<b>\$ 2,155.00</b>

Any questions please contact myself.

Total Fire Protection

  
Richard C. Brandt

24 Hour Service  
• Commercial  
• Industrial  
• Residential

*Total Fire Protection*  
1004 7th Avenue North  
Brandon, SD 57005

Phone: (605) 582-2400  
Fax: (605) 582-7360



April 2, 2014

Graham Construction  
9709 Third Ave. N.E. Suite 300  
Seattle Wa. 98115

Attention: Jong Pak

Project: New Broadway WWTP  
Corpus Christi Tx.

Description: Change Order to RFI # 312.1

Add one dry pipe valve and trim complete with air Compressor, the following is a breakdown of this change request.

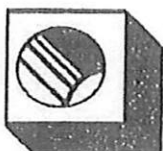
1. One 4" grooved Tee	\$44.85
2. One 4" grooved cap	\$16.65
3. Ten 4" grooved couplings	\$153.80
4. Two 4" grooved 90's	\$28.96
5. One 4" grooved Butterfly/ tamper switch	\$347.90
6. One 4" Dry Pipe Valve	\$1675.75
7. One dry Pipe Trim Kit	\$607.58
8. One Air Maintenance Devise	\$476.63
9. One PS-10 pressure sw.	\$134.78
10. One PS-40 pressure sw.	\$134.78
11. One 1 1/4 brass check valve	\$47.38
12. One 1hp compressor 120 volt single phase	\$1630.23
13. Airline material	\$86.78
14. Drain line material	\$112.45

Total Material	\$5498.52
Sales Tax	\$384.89
Total Labor 25 man hour @ 78.65	\$1966.25

Total Material and Labor	\$7849.66
--------------------------	-----------

10% profit	\$784.96
5 % overhead	\$431.73
Total change order	\$9066.36

Total Fire Protection  
  
Richard C. Brandt



# HOLES OF SAN ANTONIO, INC

118 BRANIFF - SAN ANTONIO, TEXAS 78216  
(210) 349-5256 - (800) 758-5208  
FAX (210) 349-0727

## QUOTE

QUOTE #: 072613

CUSTOMER INFORMATION	JOB SITE INFORMATION
GRAHAM CONSTRUCTION 2995 LONE OAK CIRCLE SUITE 1 EAGAN, MN 55121 (651) 687-0648 Fax: (651) 687-0947 Quoted To: CLAY Salesman: GEORGE MAJOR JR.	WASTE WATER TREATMENT PLANT 945 RESACA ST.  CORPUS CHRISTI, TX  County: MapCode: Project ID: None Needed At Site <input type="checkbox"/> SEE INSTRUCTIONS Elevation: 0 Distance To Site: 0
JOB INFORMATION	
PO #: Job Request #: Quote Entered: 09/16/14 Time: 10:05 am General Contractor: Owner: Contact on Site:	

Quantity	Details	Description	Unit	Price
1.00		5" X 24" DEEP CORES IN A BEAM \$250.00 EACH	0.00	0.00
		6" X 24" DEEP CORES IN A BEAM \$325.00 EACH		
		MINIMUM CALL OUT \$1000.00		
		TRVEL CHARGE ROUND TRIP \$500.00		
		PERDIEM PER MAN \$125.00 PER DAY		
		OVER TIME IS \$25.00 PER HOUR PER MAN		
		<b>TOTAL:</b>		<b>0.00</b>

### Site/Job Considerations & Condition

This quote is based on the following unless otherwise stated:

1. Work to be laid out prior to our arrival on the job.
2. #4 rebar 12" on center each way.
3. Stand-by time is charged at \$95.00 per hour per operator and \$35.00 per hour per helper.
4. Our current insurance, ANY additional insurance requirements are not included.
5. Send resale exemption certificate if tax is not applicable, otherwise tax will be added to this quote.
6. Normal working hours Monday through Friday 8:00 am to 4:30 pm.
7. No grade beams.
8. Quote is good for 6 months.

THE UNDERSIGNED PURCHASER ASSUMES ALL LIABILITY FOR THE LAYOUT OF THE REQUESTED WORK AND FURTHER ASSUMES ALL LIABILITY FOR THE CUTTING OF TELEPHONE CABLES, ELECTRICAL WIRES, CONDUITS, PLUMBING OR OTHER UTILITIES, AND STRUCTURAL STEEL OR CABLE BURIED IN OR NEAR THE MATERIAL BEING CUT.

THE PURCHASER AGREES TO COVER AND MAKE SAFE ANY OPENING MADE BY HOLES OF SAN ANTONIO, INC. THE PURCHASER AGREES TO INDEMNIFY HOLES OF SAN ANTONIO, INC. FOR ANY DAMAGES ARISING OUT OF ANY SUCH OCCURANCE, AND FURTHER ACKNOWLEDGES THAT THIS INDEMNITY PROVISION HAS BEEN BROUGHT TO ITS ATTENTION.

. F.

Quote Accepted by \_\_\_\_\_

MOBILE NUMBER \_\_\_\_\_

NEXTEL DIRECT CONNECT NUMBER \_\_\_\_\_

**PCO 89**  
**ECR 1 30 Inch Spool Pieces**

**Purchase of spool pieces to install in the 30 inch air pipe at ECR 1 in lieu of expansions joints.**



New Broadway WWTP, Corpus Christi, TX  
 PCO# 89 Area 22 Blower Pipe 30ni SS Spool Pieces Material Only  
 PCM#:  
 RFP#:  
 Change Description:

Tax Rate: 8.25%

Description	Trade = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	0	HR	75.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Forman		0104130	0	HR	37.50	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Four 30in SS Spool Pieces			4		29.10	0.00		\$2,082.14			\$0.00	\$0.00	\$0.00	\$8,328.57	\$0.00	\$0.00	\$8,328.57
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
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					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
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					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						1.00							\$42.00	\$8,328.57	\$0.00	\$0.00	\$8,370.57
																	\$0.00
Safety		0151801												\$1.05			\$1.05
Small tools		0152990												\$2.63			\$2.63
Consumables		0152903												\$5.25			\$5.25
																	\$0.00
Subtotal:													\$42.00	\$8,337.50	\$0.00	\$0.00	\$8,379.50
Subtrade Bond		0174400												\$0.00			\$0.00
Performance & Payment Bond		0174350												\$54.47			\$54.47
Builders Risk		0175100												\$70.39			\$70.39
General Liability Insurance		0175220												\$25.09			\$25.09
Subtotal:													\$42.00	\$8,487.44	\$0.00	\$0.00	\$8,529.44
Overhead & Profit		0192310												\$1,279.42			\$1,279.42
Texas Franchise Tax		0176000												\$98.09			\$98.09
TOTAL:													\$42.00	\$9,864.94	\$0.00	\$0.00	\$9,906.94



**From:** [Bruce.Terrell@Ferguson.com](mailto:Bruce.Terrell@Ferguson.com)  
**To:** [John.Crowell](mailto:John.Crowell)  
**Subject:** RE: Email Bid# B236396  
**Date:** Friday, September 27, 2013 9:52:59 AM  
**Attachments:** [image001.gif](#)

---

John, they can make these spools in a week. The expansion joints have been passivated which means they will be ready to ship in the next couple of days. In other words to late to cancel.

**From:** John Crowell [<mailto:johncro@grahamus.com>]  
**Sent:** Friday, September 27, 2013 9:14 AM  
**To:** Terrell, Bruce [Ferguson] - 1107 Plant  
**Subject:** RE: Email Bid# B236396

Bruce,

Thanks for the rapid response.

Did the bidder give a lead time for the spool pieces?

Also 'Ship to address' to change to Graham Construction – New Broadway Wastewater Treatment Plant  
945 Resaca Street, Corpus Christi, TX 78401

I will pass this info along to the Construction manager and City this morning and get back to you as soon as I hear anything.

The City is evaluating whether or not to cancel the three 30in Omniflex EJs previously released to fab. I asked if you would check on the status or fabrication and to see what (if any) credit the city could get back, if they decide to cancel those four Omniflex EJs. I will pass that info to them as soon you let me know. Thanks.

Thanks again for your quick response.

**John Crowell P.E.**  
Sr. Project Manager

Your Construction Solutions Partner

9709 Third Avenue NE, Suite 300 | Seattle, WA 98115  
Office: 361.881.1279 | Direct: 361.446.6430 | Fax: 206.729.8845  
[johncro@grahamus.com](mailto:johncro@grahamus.com) | [www.grahamus.com](http://www.grahamus.com)

COMMITMENT | INTEGRITY | RELIABILITY

**From:** Bruce Terrell - 1107 HOUSTONWW [<mailto:bruce.terrell@ferguson.com>]  
**Sent:** Thursday, September 26, 2013 4:59 PM  
**To:** John Crowell  
**Subject:** Email Bid# B236396

### Price Quotation # B236396

#### FERGUSON ENTERPRISES, INC.

6825 WALLISVILLE ROAD  
FERGUSON WATERWORKS # 1105  
HOUSTON, TX 77020-3258  
Phone : 713-675-2211  
Fax : 713-676-0803

Bid No.....: B236396

Bid Date...: 09/26/13

Quoted By: AA

Customer.: GRAHAM CONSTRUCTION SVCS INC  
NEW BROADWAY WWTP  
2995 LONE OAK CIRCLE STE 1  
EAGAN, MN 55121

Cust Phone: 651-687-0648

Terms.....: NET 10TH PROX

Ship To.....: GRAHAM CONSTRUCTION SVCS INC  
NEW BROADWAY WWTP  
2995 LONE OAK CIRCLE STE 1  
EAGAN, MN 55121

Cust PO#.: CHANGE ORDER

Job Name.: NEW BROADWAY WWTP

Item	Description	Quantity	Net Price	UM	Total
SP-30X24DOLRNG	30 X 24.8 DOL RING X DOL RING	4	2082.143	EA	8328.57
	PIPE: SCH 10 304L SS				

Subtotal: \$8328.57

Inbound Freight: \$0.00

Tax: \$0.00

Order Total: \$8328.57

Quoted prices are based upon receipt of the total quantity for immediate shipment (48 hours). SHIPMENTS BEYOND 48 HOURS SHALL BE AT THE PRICE IN EFFECT AT TIME OF SHIPMENT UNLESS NOTED OTHERWISE. Seller not responsible for delays, lack of product or increase of pricing due to causes beyond our control, and/or based upon Local, State and Federal laws governing type of products that can be sold or put into commerce. This Quote is offered contingent upon the Buyer's acceptance of Seller's terms and conditions, which are incorporated by reference and found either following this document, or on the web at [http://wolsleyyna.com/terms\\_conditionsSale.html](http://wolsleyyna.com/terms_conditionsSale.html). Govt Buyers: All items quoted are open market unless noted otherwise.

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**PCO 90A**  
**PCO 90A-Electrical reroute @ Administration Building**

**Move the electrical conduits in the parking area due to height restrictions. All identified alternatives to this relocation have been eliminated as possibilities.**

# Change Order Request



C.O.R. # 180018-024

G.C. #

Date: /2014

Project Name: 180018 Broadway WWTP

Project #: 180018

To: Graham Construction Services, Inc.  
Attn: John Crowell  
2995 Lone Oak Circle, Suite 1  
Eagan, Mn 55121

From: Electric  
Corpus Christi, TX 7841

Phone: (651) 687-0648 Fax: (651) 687-0947

Phone: (361) 248-4901 Fax: (361) 248-4906

We hereby propose to make the following changes:

Core Beams & Raise Conduit

Exclude:

- Overtime Labor Costs
- Structural Integrity of Building after Core Drilling

Change Order Price  
Original Contract Amount \$6,480,000.00

This price is good for 20 days. If conditions change, this price is void.

We are requesting a time extension of \_\_\_\_\_ days in conjunction with this change. \_\_\_\_\_ /2014

Author \_\_\_\_\_ Date Sent \_\_\_\_\_

Accepted The above prices and specifications of this Change Order request are satisfactory and are hereby accepted. All work to be performed under same terms and conditions as specified in original contract unless otherwise specified.

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date of Acceptance

## Rosendin Electric

### CHANGE ORDER SUMMARY SHEET

Project Name: Broadway WWTP  
 Change Description: Admin Building Conduit Core & Raise  
 REI Change No.:

Date: 7-Nov-14  
 Taxable: No

MATERIAL/QUOTES:	Amount	Op	Rate	Extension	Subtotals & Totals
Material Total:	\$22,570.12	X	1.0	\$22,570.12	
Material From T&M Recap Sheet:	\$0.00	X	1.0	\$0.00	
Total Quotes:	\$0.00	X	1.0	\$0.00	
Total Freight:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL:</b>					\$22,570.12
<b>LABOR:</b>					
Straight-time Labor:	494.42	X	\$39.76	\$19,658.14	
Overtime Labor @ time & one half:	0.00	X	\$57.31	\$0.00	
Double Time Labor:	0.00	X	\$74.50	\$0.00	
Instrumentation Straight Time Labor:	0.00	X	\$75.00	\$0.00	
Total Manhours:	494.42				
Labor from Time and Material Sheets:	# of Hrs & Labor Ext from Attachment		0.00	\$0.00	
General Foreman Straight-time Labor (10% of Man Hrs):	494.42	49.44			
General Foreman Straight-time Labor:	49.44	X	\$57.44	\$2,839.95	
General Foreman Overtime Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Overtime Labor @ time & one half:	0.00	X	\$79.78	\$0.00	
General Foreman Double Time Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Double Time Labor:	0.00	X	\$102.12	\$0.00	
Estimating Time:	0.00	X	\$71.87	\$0.00	
Mat. Proc. & Handle (5% of Labor Cost):	19,658.14	X	5.00%	\$982.91	
Update As-Built Dwg's:	0.00	X	\$59.86	\$0.00	
<b>SUBTOTAL:</b>				\$23,480.99	\$23,480.99
<b>DIRECT JOB EXP:</b>					
Consumables/Expendable Tools (6% of Mat.):	\$22,570.12	X	3.00%	\$677.10	
Drawing Reproduction and or BIM :	\$0.00	X	1.0	\$0.00	
Safety @ \$0.50/MH:	543.86	X	\$0.50	\$271.93	
Equipment:	\$2,600.00	X	1.0	\$2,600.00	
Project Mngmt: 5% of Labor:	23,480.99	X	5%	\$1,174.05	
Total Subcontractors Quotes:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL Direct Job Exp:</b>				\$4,723.08	\$4,723.08
Credit:	\$0.00	X	1.0	\$0.00	\$0.00
<b>Material/Labor/DJE/Credit SUBTOTAL:</b>					\$50,774.20
Warranty:	\$50,774.20	X	0%	\$0.00	\$0.00
<b>SUBTOTAL:</b>					\$50,774.20
Material Sales Tax @ 8.25% if Project is Taxable:	\$22,570.12	X	0.00%	\$0.00	\$0.00
Liability/Builders Risk:	\$50,774.20	X	2%	\$1,015.48	\$1,015.48
<b>SUBTOTAL:</b>					\$51,789.68
<b>MARK-UPS:</b>					
Overhead/Profit @ 15%	\$51,789.68	X	15%	\$7,768.45	\$7,768.45
<b>SUBTOTAL:</b>					\$59,558.14
Total Subcontract Values:	\$17,738.00	X	1	\$17,738.00	\$17,738.00
Overhead/Profit for Subcontract @ %		X	15%	\$0.00	\$0.00
					\$77,296.14
<b>SUBTOTAL:</b>					\$0.00
Bond Premium:	\$77,296.14	X	1.0%	\$772.96	\$772.96
<b>CHANGE ORDER TOTAL:</b>					\$78,069.10



Description	Quantity	Trade Price	Unit	Labor Unit	Total Material	Total Hours	Material Condition
1 SHORTEN EXISTING TRAPEZE	6	0 E	0 E	0 E	0	0	Normal
2 2" EMT CONDUIT	408	791.79 C	12 C	12 C	3,230.50	48.96	Normal
3 2 1/2" EMT CONDUIT	286	1,172.84 C	14.2 C	14.2 C	3,354.32	40.61	Normal
4 2" EMT 90 DEG ELBOW	15	1,121.00 C	75 C	75 C	168.15	11.25	Normal
5 2 1/2" EMT 90 DEG ELBOW	11	2,582.00 C	90 C	90 C	284.02	9.9	Normal
6 2" EMT INS STL COMP CONNECTOR	12	4,855.00 C	75 C	75 C	582.6	9	Normal
7 2 1/2" EMT INS STL COMP CONNECTOR	8	4,048.25 C	90 C	90 C	323.86	7.2	Normal
8 2" EMT STL COMP COUPLING	45	3,660.66 C	45 C	45 C	1,647.30	20.25	Normal
9 2 1/2" EMT STL COMP COUPLING	31	3,048.53 C	60 C	60 C	945.04	18.6	Normal
10 2" EMT 1-H STEEL STRAP	18	1,542.23 C	6.35 C	6.35 C	277.6	1.14	Normal
11 2 1/2" EMT 1-H STEEL STRAP	12	417.31 C	6.75 C	6.75 C	50.08	0.81	Normal
12 2" EMT STRUT CLAMP	18	882.13 C	6 C	6 C	158.78	1.08	Normal
13 2 1/2" EMT STRUT CLAMP	10	539.81 C	7.5 C	7.5 C	53.98	0.75	Normal
14 2" GRC (GALV)	66	2,023.21 C	16.5 C	16.5 C	1,335.32	10.89	Normal
15 2 1/2" GRC (GALV)	42	3,790.42 C	22.5 C	22.5 C	1,591.98	9.45	Normal
16 2" GRC 90 DEG ELBOW	3	2,918.71 C	150 C	150 C	87.56	4.5	Normal
17 2 1/2" GRC 90 DEG ELBOW	3	5,108.00 C	225 C	225 C	153.24	6.75	Normal
18 2" GRC COUPLING	9	821.51 C	0 C	0 C	73.94	0	Normal
19 2 1/2" GRC COUPLING	7	2,034.64 C	0 C	0 C	142.42	0	Normal
20 2" GRC MYERS HUB	6	1,115.95 C	75 C	75 C	66.96	4.5	Normal
21 2 1/2" GRC MYERS HUB	4	4,547.53 C	90 C	90 C	181.9	3.6	Normal
22 3"> 2" REDUCING BUSHING	6	2,685.07 C	60 C	60 C	161.1	3.6	Normal
23 3 1/2">2 1/2" REDUCING BUSHING	6	4,664.75 C	67 C	67 C	279.88	4.02	Normal
24 2" GRC CUT & THREAD	9	0 C	120 C	120 C	0	10.8	No Cost
25 2 1/2" GRC CUT & THREAD	7	0 C	150 C	150 C	0	10.5	No Cost
26 2" GRC STRUT CLAMP	24	514.98 C	6 C	6 C	123.6	1.44	Normal
27 2 1/2" GRC STRUT CLAMP	10	583.81 C	7.5 C	7.5 C	58.38	0.75	Normal
28 2" PVC END CAP (UG/EMBEDED)	3	935.91 C	30 C	30 C	28.08	0.9	Normal
29 2 1/2" PVC END CAP (UG/EMBEDED)	2	2,290.16 C	34 C	34 C	45.8	0.68	Normal
30 3"x7" NON ADJUSTABLE FLOOR SLEEVE	3	4.32 E	0.55 E	0.55 E	12.96	1.65	Normal
31 4"x7" NON ADJUSTABLE FLOOR SLEEVE	1	5.15 E	0.61 E	0.61 E	5.15	0.61	Normal
32 2" CONDUIT SEAL	3	213.16 E	0.84 E	0.84 E	639.48	2.52	Normal
33 2 1/2"-3" CONDUIT SEAL	1	282.62 E	1.12 E	1.12 E	282.62	1.12	Normal
34 1 5/8" SLOTTED GALVANIZED CHANNEL	174	510.98 C	22.5 C	22.5 C	889.11	39.15	Normal
35 THRD-ROD-3/8-16-10FT-PLTD	105	123.16 C	16.5 C	16.5 C	129.32	17.32	Normal
36 THRD-ROD-1/2-13-10FT-PLTD	18	274.99 C	16.5 C	16.5 C	49.5	2.97	Normal
37 3/8" PLATED ROD COUPLING	10	376.65 C	15.63 C	15.63 C	37.66	1.56	Normal
38 1/2" PLATED ROD COUPLING	12	572.31 C	15.63 C	15.63 C	68.68	1.88	Normal
39 3/8" STEEL HEX NUT	20	13.77 C	11.25 C	11.25 C	2.75	2.25	Normal
40 1/2" STEEL HEX NUT	36	23.6 C	12 C	12 C	8.5	4.32	Normal
41 3/8" FLAT STEEL WASHER	20	8.1 C	0 C	0 C	1.62	0	Normal
42 1/2" FLAT STEEL WASHER	24	18.07 C	0 C	0 C	4.34	0	Normal
43 3/8"x3 3/4" KB-TZ CRACKED CONCRETE ANCHOR	10	50.12 C	27 C	27 C	5.01	2.7	Normal
44 #10 XHHW-2 STRANDED	140	601.56 M	12 M	12 M	84.22	1.68	Normal
45 #2 XHHW-2 STRANDED	35	3,673.04 M	28.5 M	28.5 M	128.56	1	Normal
46 #4/0 XHHW-2 STRANDED	140	12,266.80 M	49.5 M	49.5 M	1,717.35	6.93	Normal
47 #18 - 12 TWISTED PAIRS CABLE - #9741	35	3,853.00 M	42.19 M	42.19 M	134.85	1.48	Normal
48 POLYTWINE	376	12.11 M	5.86 M	5.86 M	4.55	2.2	Normal
49 4" CORE 6" WALL	12	0 E	3 E	3 E	0	36	Quoted
50 DEMO 1 1/4"-2" GRC CONDUIT	314	0 E	8.79 C	8.79 C	0	27.6	No Cost
51 DEMO 2 1/2"-3" GRC CONDUIT	170	0 E	10.74 C	10.74 C	0	18.26	No Cost
52 DEMO #14-#10 WIRE	1,204	0 M	5.86 M	5.86 M	0	7.06	No Cost
53 DEMO SURFACE MOUNTED STRUT	5	0 E	0.25 E	0.25 E	0	1.25	No Cost
54 DEMO TRAPEZE MOUNTED STRUT	6	0 E	0.33 E	0.33 E	0	1.98	No Cost
55 CUT ALLTHREAD	12	0.00 E	0.25 E	0.25 E	0.00	3	No Cost
56 REMOVE & RE-INSTALL CONDUIT TO FLR ABOVE	9	0 E	1 E	1 E	0	9	No Cost
57 18" X 30" J-BOX NEMA 4X	2	1,150.00 E	1.1 E	1.1 E	2,300.00	2.2	Normal
58 2P #22 RS-485	70	225 C	4 C	4 C	157.5	2.8	Normal
59 DEMO/REWORK UNDERGROUND CONDUITS	1	0 E	48 E	48 E	0	48	Normal
60 WATERPROOFING NEW EXISTING CORE	1	500 E	4 E	4 E	500	4	Normal
					\$ 22,570.12	494.42	TOTAL

New Broadway WWTP, Corpus Christi, TX

PCO# 90A rev2 Admin Bldg Elevation Conflict Electrical Utilities-Rosendin

PCM#:

RFP#:

Change Description: Core and Reroute Admin Conduit Overhead from West side

Tax Rate: 8.25%

Description	Trade = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1	HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman		0104130	4	HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Graham Labor-Layout			1	HR	29.10	27.25	27.2500				\$792.98	\$317.19	\$1,110.17	\$0.00	\$0.00	\$0.00	\$1,110.17
Graham Labor-Inspection			1	HR	29.10	28.36	28.3642				\$825.40	\$330.16	\$1,155.56	\$0.00	\$0.00	\$0.00	\$1,155.56
Graham Labor-Coring			1	HR	29.10	30.00	30.0000				\$873.00	\$349.20	\$1,222.20	\$0.00	\$0.00	\$0.00	\$1,222.20
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Core Admin Bldg-Reroute Conduit Overhead from West - Rosendin Elect			1	lot	29.10	0.00				\$78,069.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$78,069.10	\$78,069.10
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											\$0.00
Subtotal:						91.61							\$3,844.92	\$0.00	\$0.00	\$78,069.10	\$81,914.02
																	\$0.00
Safety		0151801												\$96.12			\$96.12
Small tools		0152990												\$240.31			\$240.31
Consumables		0152903												\$480.62			\$480.62
																	\$0.00
Subtotal:														\$3,844.92	\$817.05	\$0.00	\$78,069.10
																	\$0.00
Subtrade Bond		0174400												\$11,710.37			\$11,710.37
Performance & Payment Bond		0174550												\$613.87			\$613.87
Builders Risk		0175100												\$793.31			\$793.31
General Liability Insurance		0175220												\$282.75			\$282.75
																	\$0.00
Subtotal:														\$3,844.92	\$14,217.34	\$0.00	\$78,069.10
																	\$0.00
Overhead & Profit		0192310												\$6,612.79			\$6,612.79
																	\$0.00
Texas Franchise Tax		0176000												\$1,027.44			\$1,027.44
																	\$0.00
TOTAL:														\$3,844.92	\$21,857.58	\$0.00	\$78,069.10

**PCO 90B**

**PCO 90B-Drain Line reroute and cores @ Administration Building**

**Drain line reroute to avoid conflict with fire suppression system. Carollo sub LNV requested a cost proposal for coring and rerouting of pipes to avoid conflict with the fire suppression system. RFI 301.**

**From:** [John Crowell](#)  
**To:** [John Crowell](#)  
**Subject:** FW: 180018-024 Change Order - Updated  
**Date:** Wednesday, February 18, 2015 10:46:28 AM  
**Attachments:** [image002.png](#)  
[image005.png](#)

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**From:** Dustin Doyle [mailto:[ddoyle@rosendin.com](mailto:ddoyle@rosendin.com)]  
**Sent:** Tuesday, September 23, 2014 5:50 PM  
**To:** John Crowell  
**Cc:** Brandon Wilson; Patrick Phelps; Clay Howard  
**Subject:** RE: 180018-024 Change Order - Updated

John,  
See below.

~~Total Price was \$64,363.00~~  
~~-Plumbing Total: \$13,801.00 (includes OHP)~~  
~~Includes(4 Cores)~~  
  
~~-Electrical Total: \$50,562.00 (includes OHP)~~  
~~-Includes(22 Cores)~~

~~The \$17,738 subcontract value was the plumbing subcontractor quote and coring quote.~~  
~~-Plumbing: \$10,730.00~~  
~~-Total Coring (electrical and plumbing): \$7,008.00~~

The locations for the plumbing cores are marked on the beams (on site). The locations for the electrical coring will be the same route that the current conduits are located (just located in the beams above the conduit). I'll get you the coring sizes/diameters, but I cannot imagine how that would play a role in determining if the price is good?

Currently, we are looking at a 47 working day extension if the work can be done simultaneously. Within the working 40 days, we are estimating 7 working days of coring. We do not have overtime bid into this change order. We do not have multiple mobilizations bid into this change order.

If the owner elects to perform only the plumbing work, we will have a small adder to the Plumbing Total (\$13,801.00) to cover additional general conditions/supervision for monitoring subs. I will also have to confirm with the subcontractor on quantity of extended working days.

Please call me if further discussion is needed.

Sincerely,

Dustin Doyle  
South Texas Division Manager

Rosendin Electric  
Direct: 361-248-4901 ext 701  
Fax: 361-248-4906  
Cell: 512-844-9033



**From:** John Crowell [<mailto:johncro@grahamus.com>]  
**Sent:** Monday, September 22, 2014 9:50 AM  
**To:** Dustin Doyle  
**Cc:** Brandon Wilson; Patrick Phelps; Clay Howard  
**Subject:** RE: 180018-024 Change Order - Updated

Dustin,

We just went through the approval for Admin Bldg – lower level - Total Fire Protection coring, it generated a large amount of questions on coring pricing between the Engineer and the CM. They wanted to confirm the locations, the number of cored holes, diameter, roughly how long it would take (# cores/day, # days), any sources of extra costs like overtime, crew size, etc.

To cut to the chase, can you please have the team break costs into Plumbing work (if we must core holes to run gravity drains) and Electrical work separately. I saw the \$17K Subcontract cost, if that is the coring costs please confirm the locations, the number of cored holes, diameter, roughly how long it would take (# cores/day, # days), any sources of extra costs like overtime, crew size, etc. since they will have to be approved by the Engineer. Then please separately group the costs for any electrical conduit relocation. I saw the \$17K Subcontract cost, if that is the coring costs

This way the Engineer or CM may elect to do all the work or only core for the plumbing. Please let me know if you have any questions. Thank you.

**John Crowell P.E.**  
Sr. Project Manager

Your Construction Solutions Partner

9709 Third Avenue NE, Suite 300 | Seattle, WA 98115  
Office: 361.881.1279 | Direct: 361.446.6430 | Fax: 206.729.8845  
[johncro@grahamus.com](mailto:johncro@grahamus.com) | [www.grahamus.com](http://www.grahamus.com)

COMMITMENT | INTEGRITY | RELIABILITY

**From:** Dustin Doyle [<mailto:ddoyle@rosendin.com>]  
**Sent:** Friday, September 05, 2014 9:02 AM  
**To:** John Crowell; Patrick Phelps  
**Cc:** Brandon Wilson



**Subject: FW: 180018-024 Change Order - Updated**

John/Patrick,

Please see the attached costs for the repiping/coring below the admin building. We will require and executed change order prior to proceeding. Please call with any questions or concerns.

Sincerely,

Dustin Doyle  
South Texas Division Manager  
Rosendin Electric  
Direct: 361-248-4901 ext 701  
Fax: 361-248-4906  
Cell: 512-844-9033



**From:** Brandon Wilson  
**Sent:** Friday, September 05, 2014 8:50 AM  
**To:** Dustin Doyle  
**Subject:** 180018-024 Change Order - Updated

Attached -

**Thank you,**

**Brandon Wilson**

Assistant Project Manager  
Rosendin Electric  
2050 Saratoga Blvd.  
Corpus Christi, TX 78417  
direct: 361-248-4901 EXT. 714  
cell: 361-737-5907



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Thank You.

New Broadway WWTP, Corpus Christi, TX  
 PCO# 90 Admin Bldg Elevation Conflict Utilities-Rosendin B  
 PCM#:  
 RFP#:  
 Change Description: Core and Reroute Plumbing Only

Tax Rate: 8.25%

Description	Quantity	Function Code	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation	1	0104165	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions	1	0104620	HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman	4	0104130	HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler	0	0105130	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Core Beams-Reroute Plumbing-Rosendin Elect	1		lot	29.10	0.00				\$13,801.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$13,801.00	\$13,801.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0				0.00								\$0.00			\$0.00
					0.00											
Subtotal:					6.00							\$357.00	\$0.00	\$0.00	\$13,801.00	\$14,158.00
																\$0.00
Safety		0151801											\$8.93			\$8.93
Small tools		0152990											\$22.31			\$22.31
Consumables		0152903											\$44.63			\$44.63
																\$0.00
Subtotal:												\$357.00	\$75.86	\$0.00	\$13,801.00	\$14,233.86
Subtrade Bond		0174400											\$2,070.15			\$2,070.15
Performance & Payment Bond		0174350											\$105.98			\$105.98
Builders Risk		0175100											\$136.95			\$136.95
General Liability Insurance		0175220											\$48.81			\$48.81
Subtotal:												\$357.00	\$2,437.76	\$0.00	\$13,801.00	\$16,595.76
Overhead & Profit		0192310											\$1,109.26			\$1,109.26
Texas Franchise Tax		0176000											\$177.05			\$177.05
TOTAL:												\$357.00	\$3,724.07	\$0.00	\$13,801.00	\$17,882.07

**PCO 91  
42" Tie In**

**Graham started work but was requested to not complete it. Includes sunk costs to date for pipe fab and fittings, shoring and trench box rental, rental of excavator, excavation, rental of crane, etc. Change Directive 21.**



New Broadway WWTP, Corpus Christi, TX  
 PCO 91 - 42in Tie-in MH Rehab - Out of Scope Work  
 PCM#:   
 RFP#:   
 Clance Description: PCO 91 - 42in Tie-in MH Rehab - Out of Scope Work

Tax Rate: 8.25%

Description	Transit to T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payroll Taxes & Insurance	Labor w/PTI	Material Cost	Equipment Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	4	HR	30.00	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$120.00	\$48.00	\$168.00	\$0.00	\$0.00	\$0.00	\$168.00
Budget Revisions		0104620	4	HR	75.00	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$300.00	\$120.00	\$420.00	\$0.00	\$0.00	\$0.00	\$420.00
Site Scheduler		0105150	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Superintendent		0123110	40	HR	75.00	40.00	1.0000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$1,200.00	\$4,200.00	\$0.00	\$0.00	\$0.00	\$4,200.00
Foreman		0104130	40	HR	37.50	40.00	1.0000	\$0.00	\$0.00	\$0.00	\$1,500.00	\$600.00	\$2,100.00	\$0.00	\$0.00	\$0.00	\$2,100.00
Operator-Trackhoe			40	HR	30.00	40.00	1.0000	\$0.00	\$0.00	\$0.00	\$1,200.00	\$480.00	\$1,680.00	\$0.00	\$0.00	\$0.00	\$1,680.00
Operator-Loader			2	HR	30.00	2.00	1.0000	\$0.00	\$0.00	\$0.00	\$60.00	\$24.00	\$84.00	\$0.00	\$0.00	\$0.00	\$84.00
Operator-Forklift			1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Pipelitter			40	HR	31.20	40.00	1.0000	\$0.00	\$0.00	\$0.00	\$1,248.00	\$499.20	\$1,747.20	\$0.00	\$0.00	\$0.00	\$1,747.20
							1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
BC Equip Excavator Rental			1	EA			1.0000	\$0.00	\$11,179.24	\$0.00	\$0.00	\$0.00	\$0.00	\$11,179.24	\$0.00	\$0.00	\$11,179.24
Gulf Coast Crane Rental			1	EA			1.0000	\$0.00	\$3,379.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,379.00	\$0.00	\$0.00	\$3,379.00
							1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
							1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
							1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Titan Pipe 42X48in Fab'd Fitting			1	EA			1.0000	\$0.00	\$0.00	\$15,300.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,300.00	\$15,300.00
Titan Pipe two epoxy coated Couplings			1	EA			1.0000	\$0.00	\$0.00	\$6,639.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,639.25	\$6,639.25
							1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Baker Pump Equip-Hoses-Fits			1	EA	29.10	0.00				\$10,794.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$10,794.00	\$10,794.00
Shoring-Trench Box			1	EA	29.10	0.00				\$27,672.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$27,672.39	\$27,672.39
UG Craftsmen travel expense			3	EA	29.10	0.00		\$1,000.00		\$0.00	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$3,000.00
Portable Water Buffalo			2	EA	29.10	0.00		\$50.00		\$0.00	\$0.00	\$0.00	\$0.00	\$100.00	\$0.00	\$0.00	\$100.00
Pressure Washer rental			1	EA	29.10	0.00		\$50.00		\$0.00	\$0.00	\$0.00	\$0.00	\$50.00	\$0.00	\$0.00	\$50.00
Titan Misc Matl gaskets,bolts			1	EA		0.00		\$487.85		\$0.00	\$0.00	\$0.00	\$487.85	\$0.00	\$0.00	\$0.00	\$487.85
BC Equip-Loader			1	EA		0.00			\$4,888.60	\$0.00	\$0.00	\$0.00	\$0.00	\$4,888.60	\$0.00	\$0.00	\$4,888.60
			1	EA		0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Import Bedding Matl			1	EA		0.00		\$1,725.00		\$0.00	\$0.00	\$0.00	\$1,725.00	\$0.00	\$0.00	\$0.00	\$1,725.00
Graham Labor survey, layout, install, test, backfill			1	EA	29.10	\$0.00	80.0000			\$2,328.00	\$931.20	\$3,259.20	\$0.00	\$0.00	\$0.00	\$0.00	\$3,259.20
						0.00				\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00							\$0.00				\$0.00
						0.00											\$0.00
Subtotal:						251.00							\$13,700.40	\$2,212.85	\$22,596.84	\$60,405.64	\$98,915.73
																	\$0.00
Safety		0151801											\$342.51				\$342.51
Small tools		0152990											\$856.28				\$856.28
Consumables		0152903											\$1,712.55				\$1,712.55
																	\$0.00
Subtotal:													\$13,700.40	\$5,124.19	\$22,596.84	\$60,405.64	\$101,827.07
Subtrade Bond		0174400											\$9,060.85				\$9,060.85
Performance & Payment Bond		0174350											\$720.77				\$720.77
Builders Risk		0175100											\$931.46				\$931.46
General Liability Insurance		0175220											\$331.99				\$331.99
																	\$0.00
Subtotal:													\$13,700.40	\$16,169.25	\$22,596.84	\$60,405.64	\$112,872.13
Overhead & Profit		0192310											\$10,890.26				\$10,890.26
Texas Franchise Tax		0176000											\$1,237.62				\$1,237.62
																	\$0.00
TOTAL:													\$13,700.40	\$28,297.13	\$22,596.84	\$60,405.64	\$125,000.01



# Change Directive # 21

Corpus Christi New Broadway WWTP  
Carollo Program



Printed 02/19/2015, Page 1 of 1

## 42" Effluent Tie-In

**Submitted :** 02/03/2014  
**Submitted To:** Carollo Engineers, City of  
Corpus Christi, Freese &  
Nichols, Graham  
Construction, John Crowell  
**Revision Date:**  
**Status:** Pending  
**Priority:** Low

**Created By:** Freese & Nichols, Adam Payne  
**Created:** 02/03/2014

### Design Clarification:

See attached pdf for 42in Effluent Line Tie-In Plan and Detail sheets.

The Contractor is directed to tie-in the 42inch effluent line per the attached sheets and project specifications.

Provide cost and time impacts to the CM team for the proposed work included in this Change Directive.

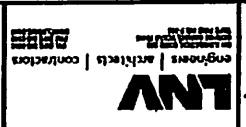
### References

Specification # 02084	Published
Drawing # 083-01-Y-08	Published

### Files

42in Effluent Line Tie-In Plan and Detail S&S 1.31.14.pdf	187.86 KB
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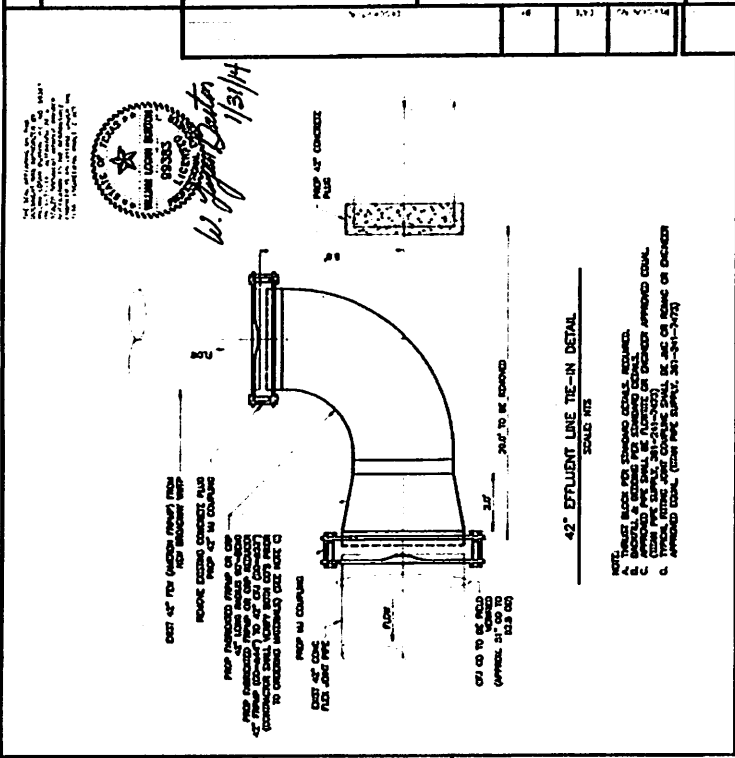
100036.001.02



Department of Engineering Services  
**CITY OF CORPUS CHRISTI**  
**WASTEWATER DEPARTMENT**  
**TEXAS**

**BROADWAY WHRTP**  
**EFFLUENT LINE REHABILITATION**  
**42" EFFLUENT LINE TIE-IN PLAN AND DETAIL**

SHEET 1 OF 1  
 RECORD DRAWING NO. **SAN 556**  
 CITY PAULET 7, 200003

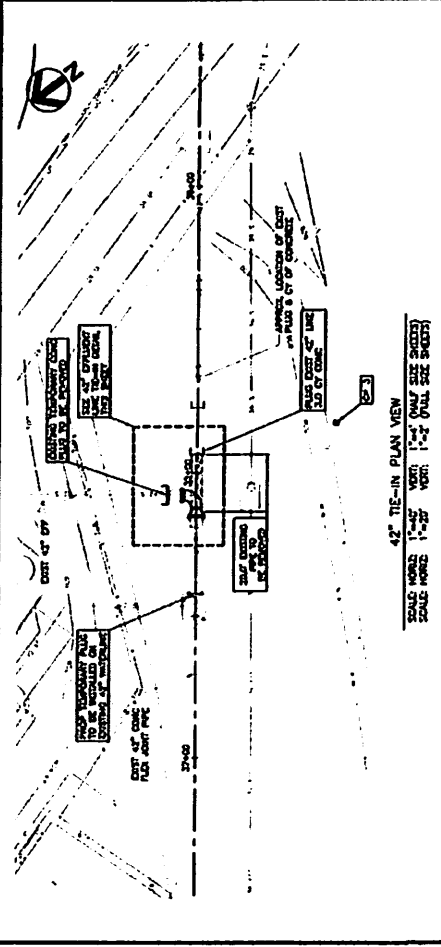


**42" EFFLUENT LINE TIE-IN DETAIL**  
 SCALE: NTS

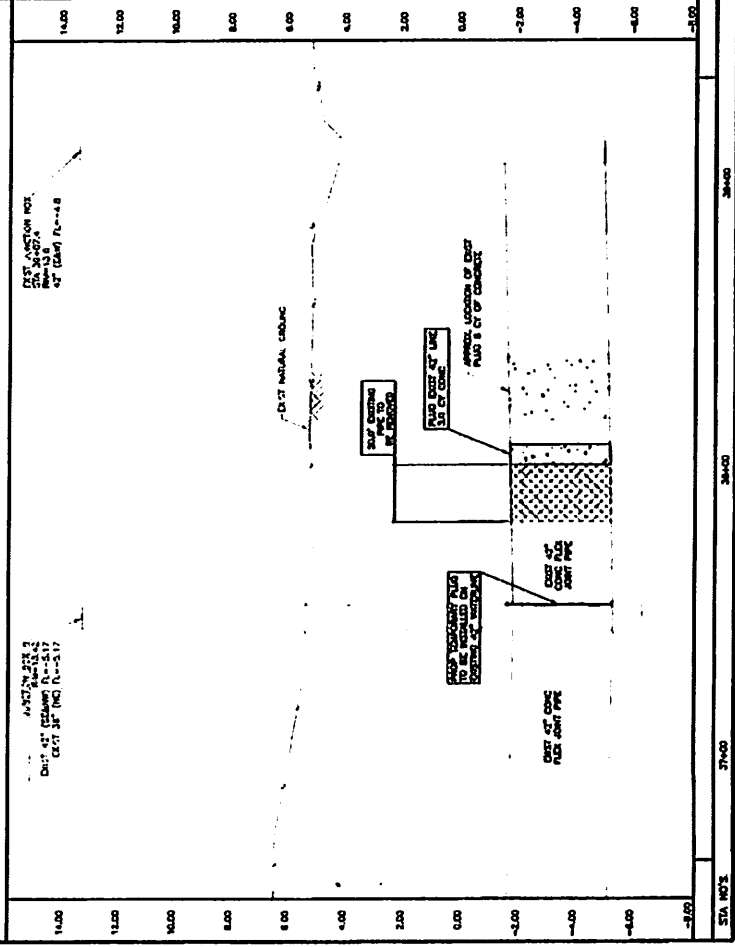
- NOTE: TYPICAL BLOCK FOR STANDARD DETAILS INDICATED.
- A. MATERIALS & METHODS FOR STANDARD DETAILS.
- B. SPECIALTY CONTRACTORS FOR SPECIAL DETAILS.
- C. (SEE PLAN SHEET 100036.001.02) FOR STANDARD APPROVED DETAIL.
- D. APPROVED DETAIL FOR SPECIAL DETAILS SHALL BE AS OF RECORD OR CHECKED APPROVED DETAIL. (SEE PLAN SHEET 100036.001.02)
- E. APPROVED DETAIL FOR SPECIAL DETAILS SHALL BE AS OF RECORD OR CHECKED APPROVED DETAIL. (SEE PLAN SHEET 100036.001.02)

BASELINE INFORMATION	
STA.	37400
CONTRACT NO.	171034613
CONTRACT DATE	12/03/13

BENCHMARK & CONTROL POINT INFORMATION	
BM	171034613
CP	171034613



**42" TIE-IN PLAN VIEW**  
 SCALE: HORIZ. 1"=25' VERT. 1"=2' (FULL SIZE SHEET)



STA. NO'S 37400 38400

**PCO 92**  
**Motorized Overhead Doors SDB/HW**

Power to the roll up doors at the SDB and the headworks was not included in the drawings. Carollo sub Mike Colwell reply gave routing and circuit connection instructions. RFI 385.

# Change Order Request



C.O.R. # 180018-02

G.C. #

Date: /2014

Project Name: 180018 Broadway WWTP

Project #: 180018

To: Graham Construction Services, Inc.  
Attn: John Crowell  
2995 Lone Oak Circle, Suite 1  
Eagan, Mn 55121

From: Electric  
Corpus Christi, TX 7841

Phone: (651) 687-0648 Fax: (651) 687-0947

Phone: (361) 248-4901 Fax: (361) 248-4906

We hereby propose to make the following changes:

Exclude:

- Overtime Labor Costs
- Structural Integrity of Building after Core Drilling

Change Order Price  
Original Contract Amount \$6,480,000.00

This price is good for 20 days. If conditions change, this price is void.

We are requesting a time extension of \_\_\_\_\_ days in conjunction with this change.

/2014

Author \_\_\_\_\_

Date Sent \_\_\_\_\_



Accepted

The above prices and specifications of this Change Order request are satisfactory and are hereby accepted. All work to be performed under same terms and conditions as specified in original contract unless otherwise specified.

Authorized Signature

Date of Acceptance



## Rosendin Electric

### CHANGE ORDER SUMMARY SHEET

Project Name: Broadway WWTP  
 Change Description: Motorized Doors  
 REI Change No.: 025

Date: 14-Nov-14  
 Taxable: No

MATERIAL/QUOTES:	Amount	Op	Rate	Extension	Subtotals & Totals
Material Total:	\$9,129.19	X	1.0	\$9,129.19	
Material From T&M Recap Sheet:	\$0.00	X	1.0	\$0.00	
Total Quotes:	\$0.00	X	1.0	\$0.00	
Total Freight:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL:</b>					<b>\$9,129.19</b>
<b>LABOR:</b>					
Straight-time Labor:	123.81	X	\$39.76	\$4,922.69	
Overtime Labor @ time & one half:	0.00	X	\$57.31	\$0.00	
Double Time Labor:	0.00	X	\$74.50	\$0.00	
Instrumentation Straight Time Labor:	0.00	X	\$75.00	\$0.00	
Total Manhours:	123.81				
Labor from Time and Material Sheets:	# of Hrs & Labor Ext from Attachment		0.00	\$0.00	
General Foreman Straight-time Labor (10% of Man Hrs):	123.81	12.38			
General Foreman Straight-time Labor:	12.38	X	\$57.44	\$711.16	
General Foreman Overtime Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Overtime Labor @ time & one half:	0.00	X	\$79.78	\$0.00	
General Foreman Double Time Labor (10% of Man Hrs):	0.00	0.00			
General Foreman Double Time Labor:	0.00	X	\$102.12	\$0.00	
Estimating Time:	0.00	X	\$71.87	\$0.00	
Mat. Proc. & Handle (5% of Labor Cost):	4,922.69	X	5.00%	\$246.13	
Update As-Built Dwg's:	0.00	X	\$59.86	\$0.00	
<b>SUBTOTAL:</b>				<b>\$5,879.98</b>	<b>\$5,879.98</b>
<b>DIRECT JOB EXP:</b>					
Consumables/Expendable Tools (6% of Mat.):	\$9,129.19	X	3.00%	\$273.88	
Drawing Reproduction and or BIM :	\$0.00	X	1.0	\$0.00	
Safety @ \$0.50/MH:	136.19	X	\$0.50	\$68.10	
Equipment:	\$2,600.00	X	1.0	\$2,600.00	
Project Mngmt: 5% of Labor:	5,879.98	X	5%	\$294.00	
Total Subcontractors Quotes:	\$0.00	X	1.0	\$0.00	
<b>SUBTOTAL Direct Job Exp:</b>				<b>\$3,235.97</b>	<b>\$3,235.97</b>
Credit:	\$0.00	X	1.0	\$0.00	\$0.00
<b>Material/Labor/DJE/Credit SUBTOTAL:</b>					<b>\$18,245.14</b>
Warranty:	\$18,245.14	X	0%	\$0.00	\$0.00
<b>SUBTOTAL:</b>					<b>\$18,245.14</b>
Material Sales Tax @ 8.25% if Project is Taxable:	\$9,129.19	X	0.00%	\$0.00	\$0.00
Liability/Builders Risk:	\$18,245.14	X	2%	\$364.90	\$364.90
<b>SUBTOTAL:</b>					<b>\$18,610.05</b>
<b>MARK-UPS:</b>					
Overhead/Profit @ 15%:	\$18,610.05	X	15%	\$2,791.51	\$2,791.51
<b>SUBTOTAL:</b>					<b>\$21,401.56</b>
Total Subcontract Values:	\$0.00	X	1	\$0.00	\$0.00
Overhead/Profit for Subcontract @ %:		X	15%	\$0.00	\$0.00
					<b>\$21,401.56</b>
<b>SUBTOTAL:</b>					<b>\$0.00</b>
Bond Premium:	\$21,401.56	X	1.0%	\$214.02	\$214.02
<b>CHANGE ORDER TOTAL:</b>					<b>\$21,615.57</b>

Description	Quantity	Trade Price	Unit	Labor	Unit	Total Material	Total Hours	Material Condition
1 8"x6"x4" HINGED COVER NEMA 4	1	147.9 E		1.65 E		\$ 147.90	1.65	Normal
2 3/4" FORM 7 FELAROY T CONDULET	4	15.56 E		1.5 E		\$ 62.24	6	Normal
3 2" FORM 7 FELAROY T CONDULET	1	70.47 E		4.1 E		\$ 70.47	4.1	Normal
4 2" FORM 7 STEEL CONDULET GASKET	1	6.27 E		0.7 E		\$ 6.27	0.7	Normal
5 3/4" ARC (AL)	400	277.27 C		8.2 C		\$ 1,109.08	32.8	Normal
6 3/4" ARC MYERS HUB	5	604.58 C		30 C		\$ 30.23	1.5	Normal
7 3/4" AL GRD BUSHING	10	948.02 C		67 C		\$ 94.80	6.7	Quoted
8 3/4" ARC STRAP	21	127.7 C		6 C		\$ 26.82	1.26	Quoted
9 3/4" LT FLEX	12	417 C		7.5 C		\$ 50.04	0.9	Normal
10 3/4" LT STRAIGHT CONNECTOR	8	603.36 C		27 C		\$ 48.27	2.16	Normal
11 1 5/8" SLOTTED GALVANIZED CHANNEL	20	510.98 C		22.5 C		\$ 102.20	4.5	Normal
12 3/4" SS STRUT CLAMP	1	338 C		4.5 C		\$ 3.38	0.04	Normal
13 #12 THHN/THWN STRANDED	800	278.6 M		9 M		\$ 222.88	7.2	Normal
14 #12/3C THHN TRAY CABLE	800	553.02 M		27 M		\$ 442.42	21.6	Quoted
15 15.3" SUPER-GRIP CABLE TIE (SGS)	200	34.92 C		0.05 E		\$ 69.84	10	Normal
16 3/4" Korn Clamps	11	1.71 E		0.7 E		\$ 18.81	7.7	Normal
17 NEMA 4 SS SIZE (1) COMBO STARTER	4	1,070.59 E		2 E		\$ 4,282.36	8	Normal
18 SQD MODEL 6 MCC 20A BREAKER	2	1,170.59 E		2 E		\$ 2,341.18	4	Normal
19 2" CORE 12" WALL	1	0 E		3 E		\$ 0	3	Normal
						\$ 9,129.19	123.81	TOTAL

New Broadway WWTP, Corpus Christi, TX  
 PCO# 92 Motorized Overhead Doors Electrical Utilities-Rosendin  
 PCM#:  
 RFP#:

Tax Rate: 8.25%

Change Description: Provide a dedicated 20A Circuit from DP55A in SDB for motorized electric overhead doors

Description	Trans = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1	HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman		0104130	4	HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Provide dedicated 20A Circuit from DP55A for motorized electric overhead doors SDB			1	lot	29.10	0.00				\$21,615.57	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21,615.57	\$21,615.57
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						6.00							\$357.00	\$0.00	\$0.00	\$21,615.57	\$21,972.57
Safety		0151801												\$8.93			\$8.93
Small tools		0152990												\$22.31			\$22.31
Consumables		0152903												\$44.63			\$44.63
																	\$0.00
Subtotal:												\$357.00	\$75.86	\$0.00	\$21,615.57	\$22,048.43	
Subtrade Bond		0174400												\$3,242.34			\$3,242.34
Performance & Payment Bond		0174350												\$164.39			\$164.39
Builders Risk		0175100												\$212.44			\$212.44
General Liability Insurance		0175220												\$75.72			\$75.72
Subtotal:												\$357.00	\$3,770.75	\$0.00	\$21,615.57	\$25,743.32	
Overhead & Profit		0192310												\$1,699.94			\$1,699.94
Texas Franchise Tax		0176000												\$274.43			\$274.43
TOTAL:												\$357.00	\$5,745.12	\$0.00	\$21,615.57	\$27,717.69	

**PCO X1  
ATS Mods in ECR-1 for Generator**

**This is for additional programming and modifications to the automatic transfer switch in ECR-1 to provide greater exercising functionality. These changes were provided by Carollo sub Mike Colwell in the March/April 2014 time frame.**



New Broadway WWTP, Corpus Christi, TX  
 FCO: XI:ATIS Mod: UCL:1 for Generation-Sch D  
 RFP#:

Tax Rate: 4.25%

Change Description: ATIS Control Logic Mod: UCL:1 for Generation-Sch D

Description	Item #	Quantity	Unit	Rate	Total Hours	Total Labor Unit	Material Unit Price	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payroll Taxes & Insurance w/PT	Labor w/PT	Material Cost	Equipment Cost	Sub Cost	Total Cost
Finance Administration	0101053	1 HR		30.00	1.00	1.0000	50.00	50.00	50.00	50.00	30.00	30.00	50.00	50.00	50.00	50.00	50.00
Finance Administration	0101053	1 HR		30.00	1.00	1.0000	50.00	50.00	50.00	50.00	30.00	30.00	50.00	50.00	50.00	50.00	50.00
Finance Administration	0101150	2 HR		33.50	2.00	2.0000	50.00	50.00	50.00	50.00	67.00	67.00	50.00	50.00	50.00	50.00	5105.00
Finance Administration	0101150	2 HR		33.50	2.00	2.0000	50.00	50.00	50.00	50.00	67.00	67.00	50.00	50.00	50.00	50.00	5105.00
Site Scheduler	0101150	0 HR		40.00	0.00	1.0000	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
				29.10	0.00												
				29.10	0.00												
				29.10	0.00												
				29.10	0.00												
				29.10	0.00												
Utility Support Labor		1 HR		29.10	1.00	1.0000					29.10	29.10	50.00	50.00	50.00	50.00	50.00
				29.10	0.00												
				29.10	0.00												
ATIS Mod: UCL:1 for Generation-Sch D		1.84		29.10	0.00					542,500.00	50.00	50.00	50.00	542,500.00	50.00	50.00	542,500.00
Generation-Sch D				29.10	0.00					50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Salary Tax on Consumption	50			29.10	0.00					50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Subtotal:					29.65					51,025.38	50.00	50.00	50.00	542,500.00	50.00	50.00	542,500.00
Survey	0151861									526.31				526.31			526.31
Small Tools	0152940									563.77				563.77			563.77
Consumables	0152903									5131.55				5131.55			5131.55
										51,025.38				51,025.38			51,025.38
Subtotal:										56,379.60				56,379.60			56,379.60
Performance & Payment Bond	0172450									522,000				522,000			522,000
Builder's Risk	0175100									5421.27				5421.27			5421.27
Employer Liability Insurance	0175220									5150.15				5150.15			5150.15
Subtotal:										57,496.02				57,496.02			57,496.02
Overhead & Profit	0192110									53,407.26				53,407.26			53,407.26
Local License Fee	0176000									5544.56				5544.56			5544.56
TOTAL:										511,447.85				542,500.00			553,000.23

**PCO X2  
Generator Switchgear Communications**

**This is to add additional communications in the generator/switchgear interface regarding parameters for auto switch over. In the March/April 2014 meetings on the generator changes related to PCO-X1, including Carollo sub Mike Colwell, it was determined this additional connection was required.**



**PCO X3  
ECR-1 Stair Landing Design**

**There was a mismatch between the NW stair final landing and the achievable drive elevation to meet drainage requirements. Carollo advised via email that a step be constructed using standard details.**





**PCO X4  
SCADA Programming Changes**

**Changes to the SCADA programming beyond those originally identified during the configuration meetings and witnessed FAT testing in December 2012 and January 2013.**



**PCO X5  
SCADA Relocation**

**Relocation of SCADA from the temporary location in the old plant to the Administration Building.**



**PCO X6  
Plant Power Cost during Construction**

**This is to cover energy costs during the operating phase of the construction. The owner is responsible for power costs for the start up and commissioning phases. Specification 01110 Section 1.08E.**





**PCO X7**  
**Administration Building Parking Fire Alarm**

The RFI requested CAD drawings for the parking garage area as it was beyond the original scope and the fire marshal was requiring annunciators in the garage. Carollo said the system needed to conform to code requirements and was the responsibility of the fire system engineer. RFI 393.

New Homeless WWTP, Corpus Christi, TX  
 CO# 17 Admin Bldg Parking Garage Fire Alarm  
 PC# 1  
 RFP#

Tax Rate: 8.25%

Change Description: Admin Bldg Parking Garage Fire Alarm

Description	Item Code	Quantity	Unit	Avg Price	Total Price	Material Unit Price	Equip Unit Price	Total Labor	Payroll Taxes & Insurance	Material Cost	Equipment Cost	Sub Cost	Total Cost
Automatic Fire Alarm	0114125	1	HR	25.00	25.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Manual Fire Alarm	0114126	4	HR	37.50	150.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Fire Alarm	0114126	4	HR	37.50	150.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Non-Schedule	0110136	0	HR	40.00	0.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
				29.10	0.00								
				29.10	0.00								
				29.10	0.00								
				29.10	0.00								
Grain Support Labor		1	HR	29.10	29.10			51,497.07	543,999	50.00	50.00	50.00	51,697.00
				29.10	0.00			50.00	50.00	50.00	50.00	50.00	50.00
				29.10	0.00			50.00	50.00	50.00	50.00	50.00	50.00
Admin Bldg Parking Garage Fire Alarm		1	Lot		50.00			50.00	50.00	50.00	50.00	50.00	50.00
				29.10	0.00			50.00	50.00	50.00	50.00	50.00	50.00
				29.10	0.00			50.00	50.00	50.00	50.00	50.00	50.00
Sales Tax on Consumables		50			0.00								
					0.00								
Subtotal:					47.26			52,050.07	50.00	50.00	50.00	50.00	52,150.07
Safety	0113841									51,277			51,277
Small Tools	0115228									5,128.19			5,128.19
Consumables	0115229									526.37			526.37
Subtotal:								52,931.63	50.00	52,500.00			53,081.63
Subtotal Bond	0112440									53,253.00			53,253.00
Performance & Payment Bond	0112456									5,176.88			5,176.88
Builders Risk	0115100									5226.58			5,226.58
General Liability Insurance	0115226									51.47			51.47
Subtotal:								52,931.63	54,147.76	50.00	52,500.00		52,698.73
Overhead & Profit	0110210									52,048.81			52,048.81
Texas Franchise Tax	0119414									5273.04			5273.04
Subtotal:								52,050.07	56,497.60	50.00	52,500.00		53,081.57

# RFI # 393

Corpus Christi New Broadway WWTP  
Carollo Program



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## Admin building fire alarm

Submitted : 06/10/2014  
Submitted To: Freese & Nichols, Graham  
Construction, Steve Eckersley  
Status: Closed  
Priority: High  
Due Date: 06/24/2014

Created By: Graham Construction, Jong Pak  
Created: 06/10/2014

### Request:

\*\*\*6/10/14\*\*\*

Please see attached for request.

### Locations

19-Administration/Operations/Maintenance Building

### References

Drawing # 400-61-E-01

Published

### Files

Fire Alarm - RFI.pdf

381.79 KB



## Request for Information



RFI # 180018-0052  
 GC RFI #  
 Date: 6/10/2014  
 Phone: (361) 248-4901  
 Fax: (361) 248-4906

**KST Electric**  
 2411 Rand Morgan Road  
 Corpus Christi, TX 78410

**Project Name:** 180018 Broadway WWTP

**Project #:** 180018

<b>To:</b> Graham Construction Services, Inc. <b>Attn:</b> John Crowell 2995 Lone Oak Circle, Suite 1 Eagan, Mn 55121  <b>Phone:</b> (651) 687-0648 <b>Fax:</b> (651) 687-0947 <b>From:</b> Dustin Doyle	<b>REASON FOR REQUEST</b> <input checked="" type="checkbox"/> Insufficient Information <input type="checkbox"/> Engineering Conflict <input type="checkbox"/> Alternate Proposal <input type="checkbox"/>	<b>ACTION REQUESTED</b> <input checked="" type="checkbox"/> Clarification <input type="checkbox"/> Direction <input type="checkbox"/> Approval	<b>PROBABLE EFFECT</b> <input type="checkbox"/> Increase Cost <input type="checkbox"/> Decrease Cost <input checked="" type="checkbox"/> Unknown Cost <input type="checkbox"/> Increase Time <input type="checkbox"/> Decrease Time <input checked="" type="checkbox"/> Unknown Time
<b>RESPONSE REQUIRED BY:</b> 06/17/2014			

**REFERENCE: DRAWING NO.:** FA Submittal  
**SUBJECT:** Admin Building Fire Alarm

**SPECIFICATION NO.:**

**INFORMATION NEEDED:**

Due to standard Fire Marshall requirements, the already approved Fire Alarm drawings for the Administration Building at Broadway WWTP will have to be resubmitted for approval due to lapsed time between approval and inspection. In reviewing the resubmitted drawings (and incorporating contractual changes since 2011) the following RFIs will need to be answered:

1. Please advise if the Fire Alarm Control Panel can be relocated to replace the Remote Annunciator Panel (please note that the annunciator will be mounted in the electrical room originally designated for the FACP panel).
2. Please confirm that the KNOX BOX will be located at the entrance of the stairwell.

In conjunction with the above RFI's, please provide the following:

1. Please provide approved submittal drawings indicating location of the sprinkler riser, including dry pipe system, for the garage.
  2. Please provide CAD files for the parking garage (was not part of the scope during the original submittal time frame).
- The Fire Marshall will require notification appliances throughout the garage area.

**RECOMMENDATION:**

Attached is the drawing recommending the code approved location changes for the FACP and Annunciator.

**RESPONSE:**

\_\_\_\_\_  
 AUTHORIZED SIGNATURE

\_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 DATE





## RFI Response # 2

Corpus Christi New Broadway WWTP  
Carollo Program



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**Subject:** Carollo Engineers Response to RFI # 393  
**Submitted :** 06/30/2014  
**Created By:** Carollo Engineers, Rene Aguilar  
**Type:** Official

### Response:

Submitted by Rene Aguilar, Carollo Engineers (06/27/2014):

The Fire Suppression System is based upon Specification 13930 of the Contract Documents. This specification is performance based and requires design and installation to be in accordance with the City of Corpus Christ Building Department, City of Corpus Christi Fire Marshal, and the most recent applicable fire codes. The Fire Systems Engineer is responsible for the equipment and locations of all the required equipment for a complete system. Therefore, the questions about the fire alarm control panel, remote annunciator panel, and knox box should be directed to the Fire Systems Engineer.

In addition, the questions regarding the approved submittal drawings for the Fire Suppression System and the Project CAD files should be directed to Graham as they have the information requested.

**PCO X9  
RAS Spool Mods**

**There was a bust in the coordinates of the pipe going from the Ameron to the pump station. This resulted in about a 6' change to the connecting pipe. Field discussions took place between Graham and Carollo at time of occurrence.**



New Broadway WWTP, Corpus Christi, TX

PCO# X9 RAS Spool Mods Cost Backup

PCM#:

RFP#:

Tax Rate: 8.25%

Change Description: Layout discrepancy on Contract Drawings Ameron Pipe-RAS

Description	Table # T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$30.00	\$12.00	\$42.00	\$0.00	\$0.00	\$0.00	\$42.00
Budget Revisions		0104620	1	HR	75.00	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$75.00	\$30.00	\$105.00	\$0.00	\$0.00	\$0.00	\$105.00
Forman		0104130	4	HR	37.50	4.00	1.0000	\$0.00	\$0.00	\$0.00	\$150.00	\$60.00	\$210.00	\$0.00	\$0.00	\$0.00	\$210.00
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Layout discrepancy on Contract Drawings Ameron Pipe-RAS			1	lot	29.10	32.79		\$4,000.00	\$270.00		\$954.19	\$381.68	\$1,335.86	\$4,000.00	\$270.00	\$0.00	\$5,605.86
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						38.79							\$1,692.86	\$4,000.00	\$270.00	\$0.00	\$5,962.86
																	\$0.00
Safety		0151801												\$42.32			\$42.32
Small tools		0152990												\$105.80			\$105.80
Consumables		0152903												\$211.61			\$211.61
																	\$0.00
Subtotal:													\$1,692.86	\$4,359.73	\$270.00	\$0.00	\$6,322.60
Subtrade Bond		0174400												\$0.00			\$0.00
Performance & Payment Bond		0174350												\$41.10			\$41.10
Builders Risk		0175100												\$53.11			\$53.11
General Liability Insurance		0175220												\$18.93			\$18.93
Subtotal:													\$1,692.86	\$4,472.87	\$270.00	\$0.00	\$6,435.73
Overhead & Profit		0192310												\$965.36			\$965.36
Texas Franchise Tax		0176000												\$74.01			\$74.01
TOTAL:													\$1,692.86	\$5,512.24	\$270.00	\$0.00	\$7,475.11



**PCO X10  
SS Pole Brackets**

**This is regarding the attachment of light standards on gratings. Carollo stated it would be covered in a change directive. RFI 372.**

New Broadway WWTP, Corpus Christi, TX

PCO# X10 SS Light Pole Brackets

PCM#:

RFP#:

Tax Rate: 8.25%

Change Description: Light Bracket Support Detail missing on Contract Drawings-HW

Description	Taxable = T	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipment Cost	Sub Cost	Total Cost
Estimate Preparation		0104165	1	HR	30.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Budget Revisions		0104620	1	HR	75.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Forman		0104130	4	HR	37.50	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$37.50	\$15.00	\$52.50	\$0.00	\$0.00	\$0.00	\$52.50
Site Scheduler		0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Light Bracket Support Detail missing on Contract Drawings-HW			1 lot		29.10	2.13		\$5,561.00	\$59.30		\$61.84	\$24.74	\$86.57	\$5,561.00	\$59.30	\$0.00	\$5,706.87
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0					0.00								\$0.00			\$0.00
						0.00											
Subtotal:						3.13							\$139.07	\$5,561.00	\$59.30	\$0.00	\$5,759.37
																	\$0.00
Safety		0151801												\$3.48			\$3.48
Small tools		0152990												\$8.69			\$8.69
Consumables		0152903												\$17.38			\$17.38
																	\$0.00
Subtotal:													\$139.07	\$5,590.55	\$59.30	\$0.00	\$5,788.93
Subtrade Bond		0174400												\$0.00			\$0.00
Performance & Payment Bond		0174350												\$37.63			\$37.63
Builders Risk		0175100												\$48.63			\$48.63
General Liability Insurance		0175220												\$17.33			\$17.33
Subtotal:													\$139.07	\$5,694.14	\$59.30	\$0.00	\$5,892.51
Overhead & Profit		0192510												\$883.88			\$883.88
Texas Franchise Tax		0176000												\$67.76			\$67.76
TOTAL:													\$139.07	\$6,645.78	\$59.30	\$0.00	\$6,844.15

# RFI # 372

Corpus Christi New Broadway WWTP  
Carollo Program



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## Mounting of Light Poles - Steel Grate

Submitted : 05/17/2013  
Submitted To: Adam Payne, Freese & Nichols, Graham Construction, Richard Provolt, Steve Eckersley  
Status: Closed  
Priority: High  
Due Date: 05/28/2013  
Pending On User: Richard Provolt, Steve Eckersley  
Pending On Org: Freese & Nichols

Created By: Graham Construction, John Crowell  
Created: 05/14/2013

### Request:

5/14/13

Multiple locations require pole lights to be mounted on steel grates (see attached for quick reference). KST Electric is concerned that mounting R&S light poles to the steel grate may affect wind rating requirements and/or the structural integrity of the steel grate. Please provide details for mounting R and S light poles to the removable steel grate(s) or provide new location(s) for light poles.

### References

Drawing # 333-11-E-02	Published
Drawing # 344-21-E-06	Published
Drawing # 360-24-E-01	Published
Drawing # 361-24-E-02	Published

### Files

RFI 180018-0049 Mounting Light Poles.pdf	585.44 KB
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## Request for Information



RFI # 180018-0049  
 GC RFI #  
 Date: 5/14/2013  
 Phone: (361) 248-4901  
 Fax: (361) 248-4906

**KST Electric**  
 2411 Rand Morgan Road  
 Corpus Christi, TX 78410

**Project Name:** 180018 Broadway WWTP

**Project #:** 180018

<p><b>To:</b> Graham Construction Services, Inc.  <b>Attn:</b> John Crowell                  2995 Lone Oak Circle, Suite 1                  Eagan, Mn 55121</p> <p><b>Phone:</b> (651) 687-0648    <b>Fax:</b> (651) 687-0947  <b>From:</b> Dustin Doyle</p>	<p><b>REASON FOR REQUEST</b></p> <p><input checked="" type="checkbox"/> Insufficient Information  <input type="checkbox"/> Engineering Conflict  <input type="checkbox"/> Alternate Proposal  <input type="checkbox"/></p> <p><b>RESPONSE REQUIRED BY:</b> 05/21/2013</p>	<p><b>ACTION REQUESTED</b></p> <p><input checked="" type="checkbox"/> Clarification  <input type="checkbox"/> Direction  <input type="checkbox"/> Approval</p>	<p><b>PROBABLE EFFECT</b></p> <p><input type="checkbox"/> Increase Cost  <input type="checkbox"/> Decrease Cost  <input checked="" type="checkbox"/> Unknown Cost  <input type="checkbox"/> Increase Time  <input type="checkbox"/> Decrease Time  <input checked="" type="checkbox"/> Unknown Time</p>
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**REFERENCE: DRAWING NO.:** 11-E-02, 21-E-06, 24-E-01,    **SPECIFICATION NO.:**  
 24-E-02

**SUBJECT:** Mounting of Light Poles - Steel Grate

**INFORMATION NEEDED:**

Multiple locations require pole lights to be mounted on steel grate (see attached for quick reference). KST Electric is concerned that mounting R & S light poles to the steel grate may affect wind rating requirements and/or the structural integrity of the steel grate. Please provide detail for mounting R and S light poles to the removable steel grate(s) or provide new location(s) for light poles.

**RECOMMENDATION:**

**RESPONSE:**

\_\_\_\_\_  
 AUTHORIZED SIGNATURE

\_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 DATE



## RFI Response # 2

Corpus Christi New Broadway WWTP  
Carollo Program





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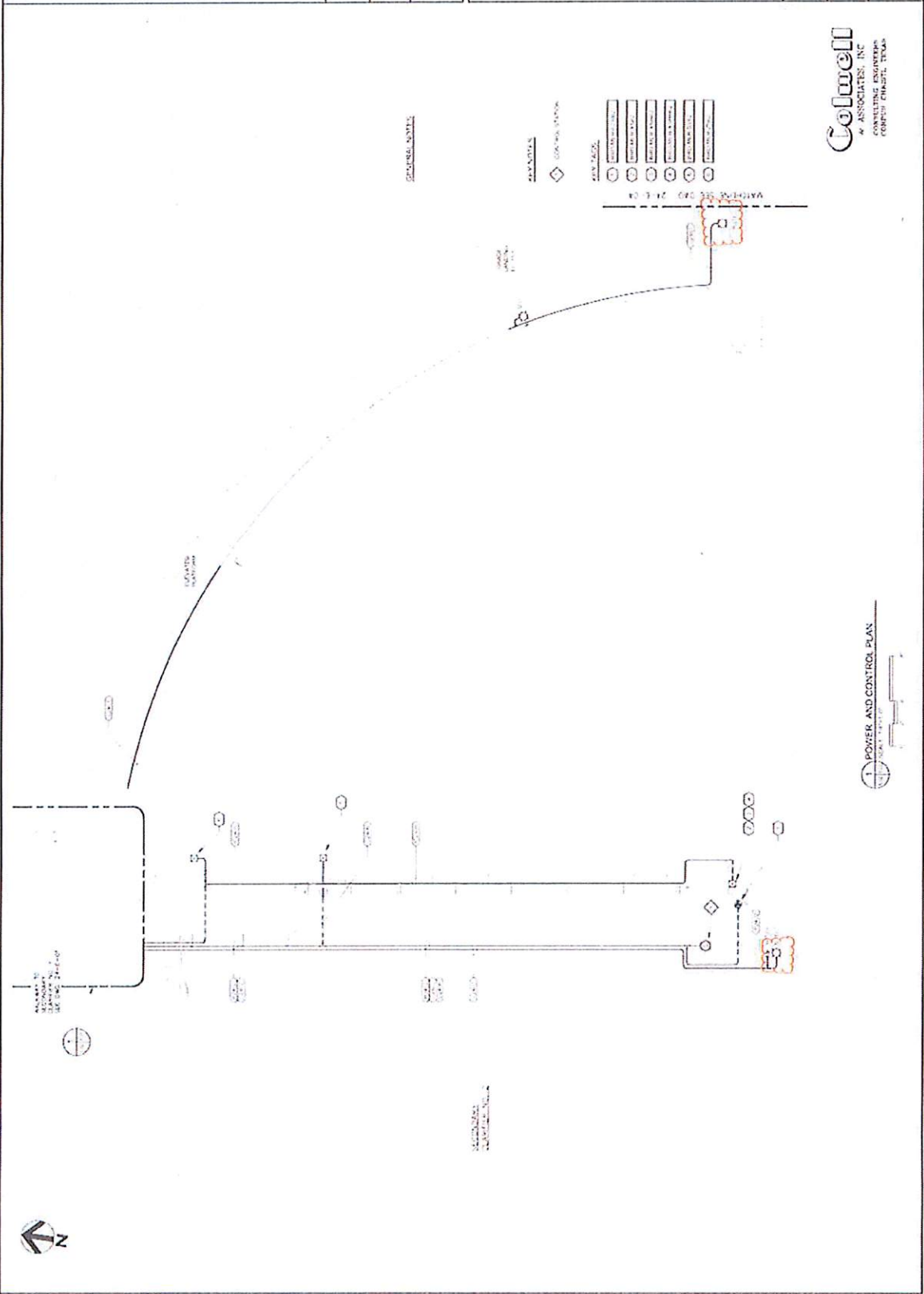
**Subject:** Carollo Engineers Response to RFI # 372  
**Submitted :** 06/13/2013  
**Created By:** Carollo Engineers, Rene Aguilar  
**Type:** Official

### Response:

Submitted by Rene Aguilar, Carollo Engineers (06/13/2013):

A response to RFI No. 372 will be addressed in a Change Directive to the Contractor via FNI and EADOC.

 <p><b>Carollo</b> Engineers, Architects, Planners 20170 Central Expressway, Suite 200 Fremont, CA 94538 Tel: 415.871.1000 Fax: 415.871.1001 www.carollo.com</p>	 <p><b>CITY OF</b> <b>CORPUS CHRISTI</b> <b>TEXAS</b> <b>DEPARTMENT</b> <b>OF WASTEWATER</b></p>	<p>SECONDARY CLARIFICATION WASTEWATER TREATMENT PLANT</p>	<p>DATE: 02/11/11 DRAWN BY: [Redacted] SCALE: 1" = 100'</p>
		<p>Department of Engineering Services</p>	<p>CLIENT: CITY OF CORPUS CHRISTI PROJECT: NEW BROADWAY WASTEWATER TREATMENT PLANT DRAWING NO.: 2011-02</p>





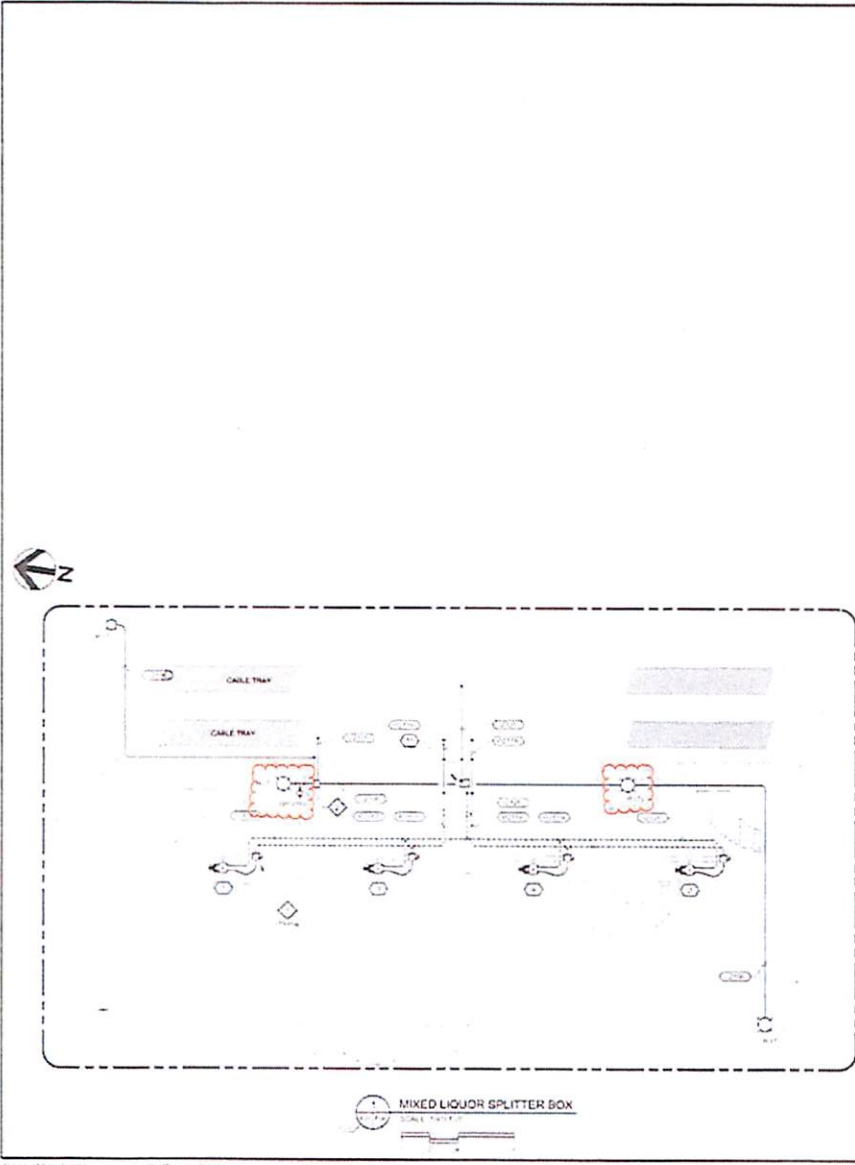
GENERAL NOTES

KEY NOTES

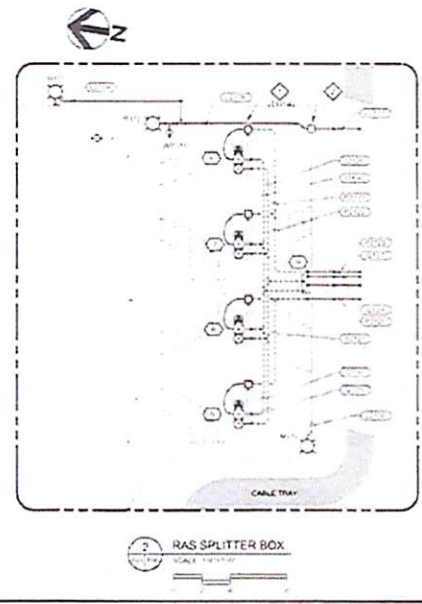
KEY TAGS

- ◇ 200 - 20 AMPERE RE-MAKER
- ◇ 200 - 20 AMPERE 200/250V/100/125V/150/175V
- ◇ 200 - 20 AMPERE 200/250V/100/125V/150/175V/200

- ① CONTROL W/ 200V
- ② CONTROL W/ 120V
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MIXED LIQUOR SPLITTER BOX  
SCALE: 1/8" = 1'-0"



RAS SPLITTER BOX  
SCALE: 1/8" = 1'-0"



**carollo**  
Engineers, Architects, Planners & Scientists  
1000 West 11th Street, Suite 1000  
Austin, Texas 78703  
Phone: 512.452.5500  
Fax: 512.452.5501  
www.carollo.com

**CITY OF CORPUS CHRISTI TEXAS WASTEWATER DEPARTMENT**  
Department of Engineering Services

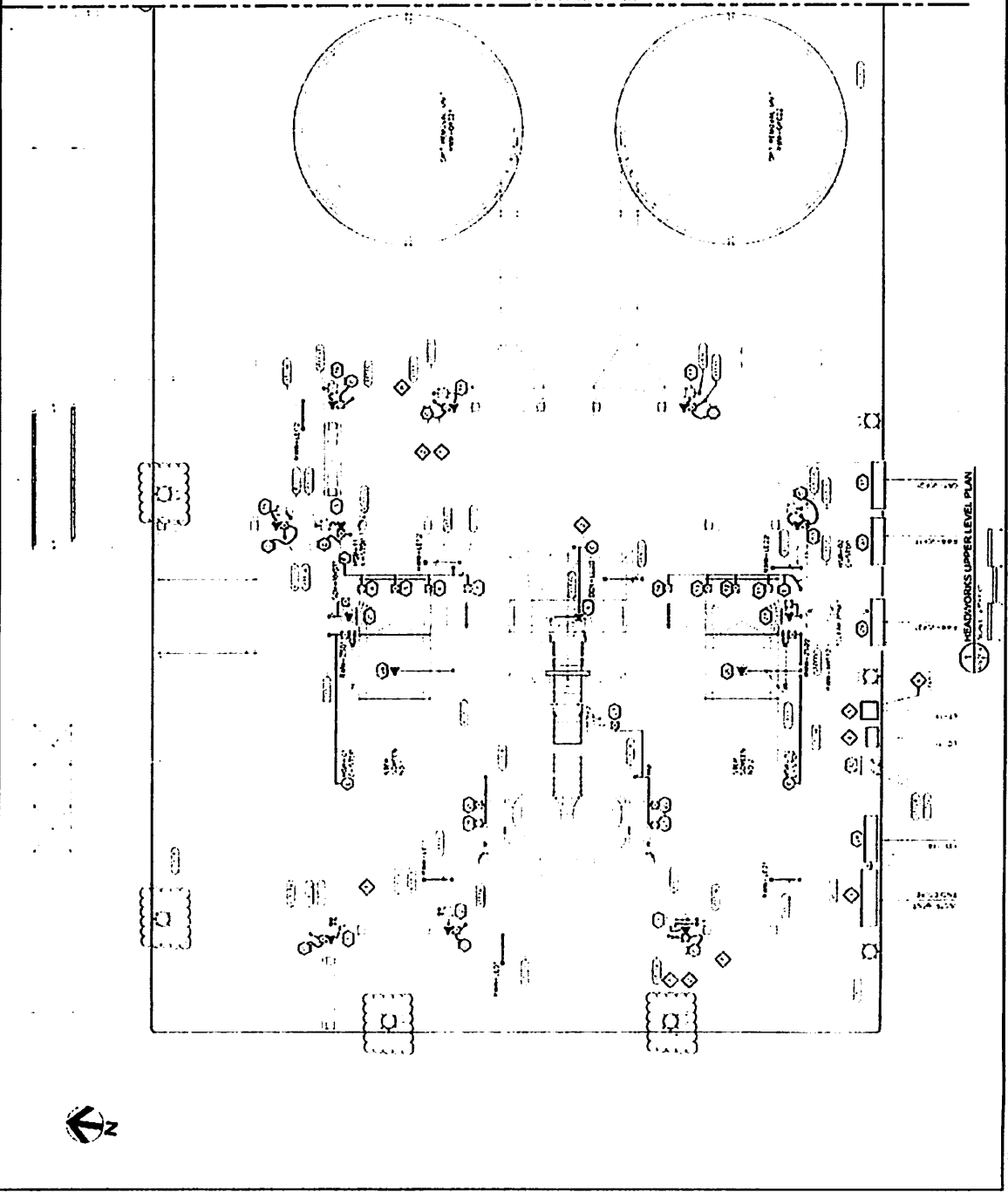
**NEW BROADWAY WASTEWATER TREATMENT PLANT**  
AERATION BASINS ELECTRICAL PLANS SHEET 2

DATE: 11-17-11  
DRAWN BY: JZS



**Colwell**  
 & ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 CORPUS CHRISTI, TEXAS

GENERAL NOTES:  
 1. SEE SHEET 1 FOR HEADWORKS HOLES AND CONTROL PANS.  
 2. SEE SHEET 2 FOR HEADWORKS HOLES AND CONTROL PANS.  
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**PCO X11  
ECR-1 Deck Drains**

**In response to standing rain water on the west deck of ECR-1, Carollo requested installation of deck drains with detailed instructions on how to install the drains. RFI 370.**

New Broadway WWTP, Corpus Christi, TX

PCO# X11 ECR-1 Deck Drains

PCM#:

RFP#:

Change Description: ECR-1 Deck designed w Zero slope

Tax Rate: 8.25%

Description	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation	0104165	1	HR	30.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Budget Revisions	0104620	1	HR	75.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Forman	0104130	4	HR	37.50	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$37.50	\$15.00	\$52.50	\$0.00	\$0.00	\$0.00	\$52.50
Site Scheduler	0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
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				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
ECR-1 Deck designed w Zero slope-Drains Installed		1	lot	29.10	237.05		\$887.20			\$6,898.16	\$2,759.26	\$9,657.42	\$887.20	\$0.00	\$0.00	\$10,544.62
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0				0.00								\$0.00	\$0.00	\$0.00	\$0.00
					0.00								\$0.00	\$0.00	\$0.00	\$0.00
Subtotal:					238.05							\$9,709.92	\$887.20	\$0.00	\$0.00	\$10,597.12
Safety	0151801												\$242.75			\$242.75
Small tools	0152990												\$606.87			\$606.87
Consumables	0152903												\$1,213.74			\$1,213.74
																\$0.00
Subtotal:												\$9,709.92	\$2,950.56	\$0.00	\$0.00	\$12,660.47
Subtrade Bond	0174400												\$0.00			\$0.00
Performance & Payment Bond	0174350												\$82.29			\$82.29
Builders Risk	0175100												\$106.35			\$106.35
General Liability Insurance	0175220												\$37.90			\$37.90
Subtotal:												\$9,709.92	\$3,177.10	\$0.00	\$0.00	\$12,887.02
Overhead & Profit	0192310												\$1,933.05			\$1,933.05
Texas Franchise Tax	0176000												\$148.20			\$148.20
TOTAL:												\$9,709.92	\$5,258.36	\$0.00	\$0.00	\$14,968.27

## RFI # 370

Corpus Christi New Broadway WWTP  
Carollo Program



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### ECR-1 Upper Deck Drainage and Proposed Trench Drains

Submitted : 05/13/2013  
Submitted To: Adam Payne, Freese & Nichols, Graham Construction, Steve Eckersley  
Status: Closed  
Priority: Critical  
Due Date: 05/22/2013  
Pending On User: Steve Eckersley  
Pending On Org: Freese & Nichols

Created By: Graham Construction, Clay Howard  
Created: 05/08/2013

#### Request:

\*\*\*5/8/13\*\*\*

RFI 370 – ECR-1 Upper Deck Drainage and Proposed Trench Drains

Reference: Carollo Drawing 22-S-01 (Floor Plan at EL. 13.00) and attached Zurn Cut Sheets

Carollo Drawing 22-S-01 Section B does not note any slope or fall to the concrete deck outside of the Switchgear Room and Electrical Control RM-1. Graham believes that this may cause inadequate drainage away from the doors during a heavy rain event. In order to prevent rainwater from moving into the Switchgear and Electrical Rooms under the doors, Graham proposes to install trench drains in front of doors #02, #04, and #05. See attached 22-S-01 for locations. A few trench drain suggestions by Zurn are also attached.

If the above proposal is required, please provide type of drain, installation details, and drain pipe routing. Cost impacts will occur. Cost impacts will include labor and material to install a trench drain system in existing concrete.

#### Locations

10-Switchgear/ECR-1/Aeration Basin/Blower Building



# RFI # 370

Corpus Christi New Broadway WWTP  
Carollo Program

Printed 02/19/2015, Page 2 of 2

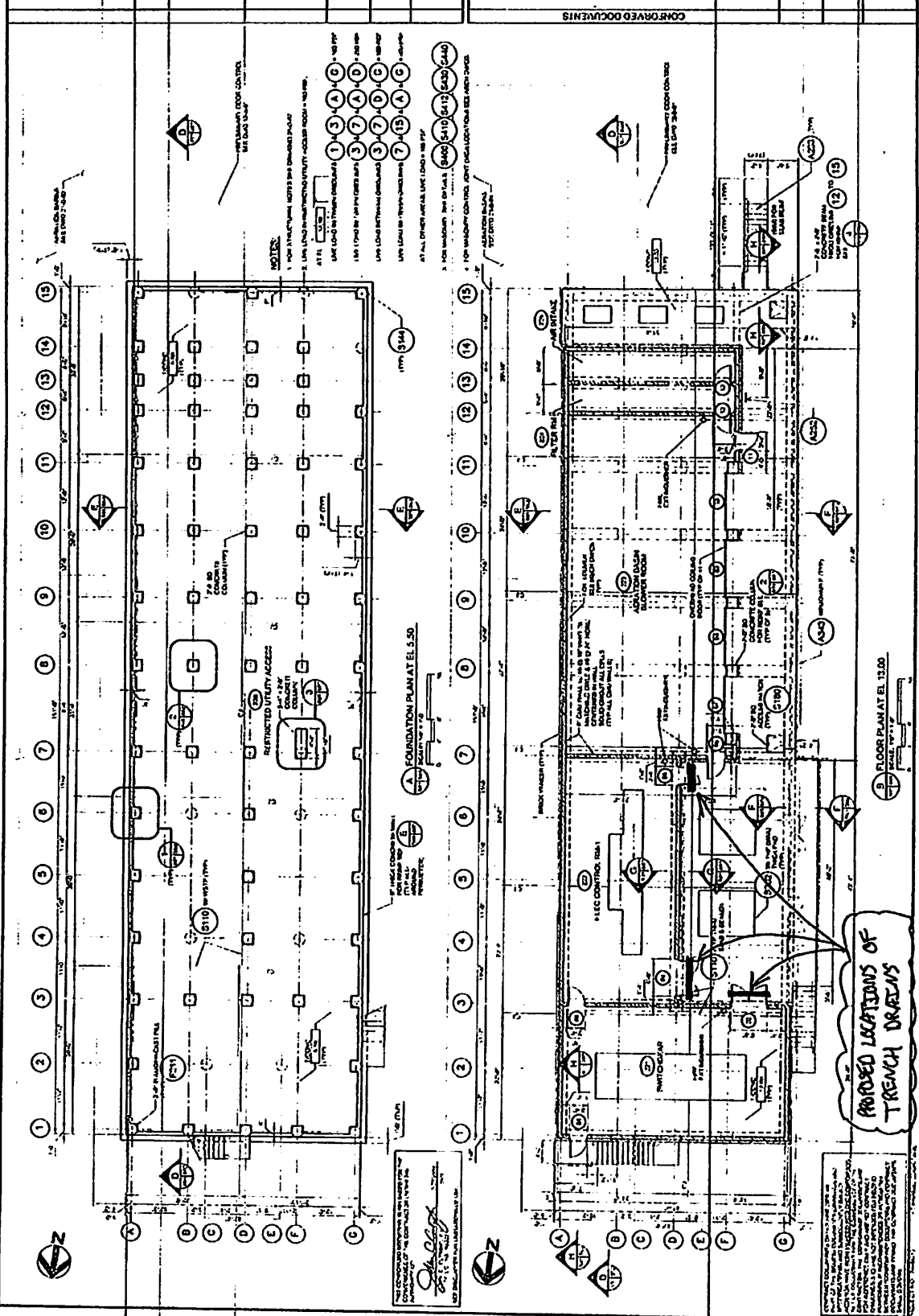
## References

Drawing # 170-22-S-01

Published

## Files

Clarification_370 for clayh.pdf	24.17 KB
RFI 370 Locations.pdf	218.37 KB
RFI 370 Zurn Products.pdf	240.04 KB



# RFI Response # 1

Corpus Christi New Broadway WWTP  
Carollo Program



Printed 02/19/2015, Page 1 of 1

**Subject:** Carollo Engineers Response to RFI # 370.1  
**Submitted :** 07/10/2013  
**Created By:** Carollo Engineers, Rene Aguilar  
**Type:** Official

## Response:

Submitted by Rene Aguilar, Carollo Engineers (07/10/2013):

The Contractor shall coordinate the actual installation locations with the CM Team prior to beginning the work. The Contractor and CM Team shall review existing site conditions and the feasibility of coring thru the top decking for the drain piping and utilizing a screen drain cover in lieu of the Zurn drain assembly to minimize the installation time and impact to the rebar of the concrete decking.

In addition, please note the following requirements:

1. Core hole size shall be a minimum of 8 inch diameter, sleeve the drain piping for attachment of the screen 1/2" below the top of decking elevation to allow for drainage.
2. Drain piping shall be Schedule 80 PVC material, 4 inch diameter, solvent weld, minimum slope of 0.5%.
3. Provide hanging pipe supports per Specification No. 15061, use Typical Detail P630 for hanging pipe supports, spacing every 10 ft minimum. Provide wall pipe supports per Specification No. 15061, use Typical Detail No. P662 for vertical riser piping, spacing every 5 ft minimum.
4. Apply Duralprep 3020 in accordance with manufacturer's instructions for all coring locations. Grout around PVC drain piping in accordance with Contract Documents.
5. Route drain piping on the inside of the restricted access area and core another hole through the bottom of the wall just above the bottom decking elevation of 5.50.
6. Route drain piping and fittings over the foundation footing to just above finished grade elevation.
7. Test all piping once installed according to Specification No. 15956 to 15 feet/GR test method.
8. Apply paint to all exterior exposed piping according to Contract Documents and approved schedules.

**PCO X12**  
**Baker Pump Rental**

**This is for the temporary pumping of the effluent from the UV in the new plant to the inlet for the headworks at the old plant during initial startup.**



New Broadway WWTP, Corpus Christi, TX

PCO# X12 Baker Pump Rental

PCM#:

RFP#:

Tax Rate: 8.25%

Change Description: Baker Pump Rental Parallel Pumping UV Wetwell to Trickling Filters

Description	Function Code	Qty	Uof M	Avg crew Rate	Total Hours	Labor Unit Hours	Material Unit Price	Equip Unit Price	Sub Unit Price	Total Labor	Payrol Taxes & Insurance	Labor w/PTI	Material Cost	Equipmen t Cost	Sub Cost	Total Cost
Estimate Preparation	0104165	1	HR	30.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Budget Revisions	0104620	1	HR	75.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Forman	0104130	4	HR	37.50	1.00	1.0000	\$0.00	\$0.00	\$0.00	\$37.50	\$15.00	\$52.50	\$0.00	\$0.00	\$0.00	\$52.50
Site Scheduler	0105130	0	HR	40.00	0.00	1.0000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
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				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Baker Pump Rental Pumping UV Wetwell to Trickling Filters		1 lot		29.10	0.00		\$0.00		\$46,607.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$46,607.80	\$46,607.80
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
				29.10	0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Sales Tax on Consumables:	\$0				0.00					\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					0.00								\$0.00			\$0.00
Subtotal:					1.00							\$52.50	\$0.00	\$0.00	\$46,607.80	\$46,660.30
Safety	0151801															\$0.00
Small tools	0152990												\$1.31			\$1.31
Consumables	0152903												\$3.28			\$3.28
													\$6.56			\$6.56
Subtotal:												\$52.50	\$11.16	\$0.00	\$46,607.80	\$46,671.46
Subtrade Bond	0174400															\$6,991.17
Performance & Payment Bond	0174350															\$348.81
Builders Risk	0175100															\$450.77
General Liability Insurance	0175220															\$160.66
Subtotal:												\$52.50	\$7,962.56	\$0.00	\$46,607.80	\$54,622.86
Overhead & Profit	0192310												\$3,532.65			\$3,532.65
Texas Franchise Tax	0176000												\$581.56			\$581.56
TOTAL:												\$52.50	\$12,076.77	\$0.00	\$46,607.80	\$58,737.07