

Summary Chart for Change Order #1

Project:		Town Branch Thickening Process Upgrades Lexington, Kentucky Contract # 305-2018		Key Ow = Owner Om = Omission A/E = Architect/Engineer C = Contractor						
		No.	Date	Brief Description	Price	Ow	A/E	C	Om	CO No.
1	3/26/2019	Centrifuge Control Panel Changes Control Panel to be relocated to existing concrete equipment pad and existing spare conduit to be utilized. Control Panel to be single NEMA 4x with AC unit. Changes to circuit sizing.		\$10,670.00		X				1
2	5/7/2019	Addition of three plug valves and one check valve Addition of check valve to the chopper pump in Primary Sludge Pump Station No. 2 and 3 plug valves in the Gravity Thickener Building.		\$9,538.00				X		1
3	5/22/2019	Changes to Primary Sludge PS MCC Changes to motor control center configurations to prevent paralleling of 2 sources. MCCs to be configured to allow replacement of 3 VFDs; one at a time.		\$43,924.00	X				X	1
4	10/21/2016	Gravity Thickener Tanks Handrail & Grating Credit Replacement of handrails & grating to be removed from contract. Handrails and grating to instead be power washed and loose or missing fasteners to be replaced.		-\$25,100.00				X		1
Page TOTAL				\$39,032.00						

PCO # 1



John Martin, PE
GRW Engineers
801 Corporate Drive
Lexington, KY 40503

3/26/19

Re: Town Branch Thickening Process Upgrades
Project No. 4649
PCO #01-r – Centrifuge Control Panel Changes per RFI 09

Dear Mr. Martin,

Attached is the Dugan & Meyers change order proposal #01-r for your review compiled in accordance with the change order pricing procedures.

In follow up to RFI 09, FO #1 & FO #3, Dugan & Meyers proposes to provide the Centrifuge Power & Control Changes for the lump sum amount of \$10,670.00.

This proposal includes changes only to the extent detailed in the attached detailed pricing proposal. The coordination of the above referenced changes has delayed the delivery of the Centrifuge Control Panel and as such there may be a need to extend the Contract Times depending on the actual delivery date of the panel.

Please issue the appropriate contract modifications. Dugan & Meyers can be available to further discuss the above detailed items with you.

Sincerely:

DUGAN & MEYERS LLC

CHANGE ORDER PRICING

Date: 5/21/2019

Project No.: 12030
 Project Name: Town Branch Thickening Process Upgrades
 Contractor: Dugan & Meyers
 Engineer: GRW Engineering

Change Order No.: PCO #01-r
 Description: Centrifuge Power & Control Changes

TOTALS

A.	LABOR	<u>See Attached</u>	_____	\$	-
B.	EQUIPMENT	<u>See Attached</u>	_____	\$	-
C.	FUEL	<u>See Attached</u>	_____	\$	-
D.	SERVICE	<u>See Attached</u>	_____	\$	-
E.	MATERIALS	<u>See Attached</u>	_____	\$	9,467.00
		Subtotal (A,B,C,D,E):			<u>\$9,467</u>
F.	OVERHEAD & PROFIT:	<u>15%</u> (on items A,B,C,D,E).....			<u>\$1,420</u>
G.	SALES TAX ON MATERIALS	<u>6%</u> (No Markup)			<u>\$568</u>
			Subtotal (A thru G):		<u>\$11,455</u>
H.	SUBCONTRACTOR	<u>See Attached</u>		\$	<u>(952.90)</u>
I.	SUBCONTRACTOR MARKUP	<u>5%</u> (markup is = 5%)			<u>(\$48)</u>
			Subtotal (H and I):		<u>(\$1,001)</u>
J.	Small Tools	<u>3.00%</u> (% of Labor)			<u>\$0</u>
K.	Insurance, Bond	<u>2.06%</u> (No Markup)			<u>\$215</u>
		TOTAL (A thru G) + (H and I) + J + K			<u>\$10,670</u>
		GRAND TOTAL THIS CHANGE		TOTALS	<u>\$10,670</u>

Proposal Line Item Breakdown				
Description	Quantity	Unit	Rate	Totals
Materials				
Flottweg Panel Change	1	LS	\$ 9,467.00	\$ 9,467.00
				\$ -
			Subtotal	\$ 9,467.00
Labor				
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
			Subtotal	\$ -
Equipment				
				\$ -
				\$ -
				\$ -
			Subtotal	\$ -
Fuel				
			\$ -	\$ -
			Subtotal	\$ -
Service				
				\$ -
				\$ -
			Subtotal	\$ -
Subcontractors				
TEM CO #1 (see attached)	1	ls	\$769.62	\$ 769.62
TEM CO #3 (see attached)	1	ls	\$ (1,722.52)	\$ (1,722.52)
			Subtotal	\$ (952.90)



RFI Transmittal

engineering | architecture | geospatial

GRW | 801 Corporate Drive Lexington, KY 40503

PROJECT **4649 Town Branch Thickening
Process Upgrade
4649**

DATE SENT **3/29/2019**

SUBJECT **009 - Centrifuge Control Panel
Quantity & Location**

RFI ID **RFI 09**

TYPE **RFI**

TRANSMITTAL ID **00069**

PURPOSE **Answered**

VIA **Info Exchange**

QUESTION: **See attached.**

SUGGESTION:

ANSWER:

1. The centrifuge control panel shall be provided in a single panel configuration. The panel shall be NEMA 12 enclosed with fan kit for cooling internal components.

2. The centrifuge control panel location will be addressed in Field Order No. 1.

Per 5/2/19 onsite coordination meeting with LFUCG, GRW, D&M and Flottweg, it was decided to proceed with a single NEMA 4x panel with AC system.

FROM

NAME	COMPANY	EMAIL	PHONE
Brittany Goodwin	GRW	BGoodwin@grwinc.com	859-223-3999

TO

NAME	COMPANY	EMAIL	PHONE
Addison Wheatley	Dugan & Meyers LLC	awheatley@dugan-meyers.com	502-894-4481

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NUMBER	SCALE	SIZE	NOTES
1	3/7/2019	RFI - 009 - Centrifuge Control Panel Quantity & Location.pdf				



engineering | architecture | geospatial

Field Order

Field Order No.:	01	Project No.:	4649
Date:	2019-03-38	Owner:	Lexington-Fayette Urban County Government
Project:	Thickening Process Upgrades	Contractor:	Dugan and Meyers

The **Contractor** is directed to execute this **Field Order** which interprets the **Contract Documents** or which orders minor revisions in the **Work**. By executing this **Field Order** the **Contractor** waives all subsequent claims for additional time and/or compensation for extra work related to this **Field Order**.

In the event that the execution of this **Field Order** entitles the **Contractor** to claim additional time and/or compensation, the **Contractor** must submit a proposal for review by the **Engineer**. No compensable work is to be performed until a **Change Order** has been executed by the **Owner** and by the **Contractor**.

See attached revised drawing, E-04-403. The centrifuge control panel shall be located on an existing concrete equipment pad as shown on the attached drawing. Existing spare 2" conduits shall be utilized for the centrifuge and sludge pump feeder circuits back to motor control center MCC-M. A drip pan shall be installed on the existing blue potable water line which runs above the centrifuge control panel location. The drip pan shall be installed over the full length of the control panel and shall slope to move water away from panel.

Drip Pan is not included per follow up email dated 5/8/19 from GRW.

ARCHITECT-ENGINEER:

CONTRACTOR:

DATE

DATE

CC: _____

ATTACHMENTS: _____

Tiffany Rank, LFUCG

Sheets E-04-403



engineering | architecture | geospatial

Field Order

Field Order No.: 03	Project No.: 4649
Date: 2019-05-08	Owner: Lexington-Fayette Urban County Government
Project: Thickening Process Upgrades	Contractor: Dugan and Meyers

The **Contractor** is directed to execute this **Field Order** which interprets the **Contract Documents** or which orders minor revisions in the **Work**. By executing this **Field Order** the **Contractor** waives all subsequent claims for additional time and/or compensation for extra work related to this **Field Order**.

In the event that the execution of this **Field Order** entitles the **Contractor** to claim additional time and/or compensation, the **Contractor** must submit a proposal for review by the **Engineer**. No compensable work is to be performed until a **Change Order** has been executed by the **Owner** and by the Contractor.

See keynote 23 on contract drawing E-04-403. The centrifuge control panel main power circuit shall be (3)#3 and (1)#8 GND in 1-1/4" C in lieu of (3)#3/0 and (1)#6 GND in 2" C.

See keynote 8 on contract drawing E-00-602. Install 90A/3P circuit breaker in existing motor control center MCC-M for main power feed to new centrifuge #4 in lieu of 200A/3P circuit breaker.

ARCHITECT-ENGINEER:

CONTRACTOR:

DATE

DATE

CC: _____

ATTACHMENTS: _____

Tiffany Rank, LFUCG

CHANGE ORDER REQUEST

Change Order Request # 1

Date: 04/26/19

TEM Project # 19-02



Project Name: **LFUCG - Town Branch WWTP Thickening Process Upgrades Project**

Description: **C.O. #1 - Field Order #1 - Pricing includes TEM Group, Inc. furnishing and installing additional conduits, fittings, supports and wiring required for the conduits and wiring in Key Notes #12, #13, #14, #17, #21, #22 per the new location of the Centrifuge panel. Additional wiring was required for not #23 and a credit was given for the conduit back to the MCC. The reduction of conduit and wire in key note #16 is also included.**

LABOR

LABOR TYPE	MAN HOURS	\$/HR	BURDEN	FRINGE	TOTAL
ELECTRICIAN	1	\$ 32.00	\$ 7.04	\$ 6.00	\$ 45.04
PM	4	\$ 45.00	\$ 15.00		\$ 240.00
					\$ -
SUB TOTAL "L"					\$ 285.04

DJE	MAN HOURS	RATE	TOTAL
ELECTRICIAN	1	\$ 5.32	\$ 5.32
SUB TOTAL "DJE"			\$ 5.32

EQUIPMENT

DESCRIPTION	MAN HOURS	RATE	TOTAL
Jobsite pick up	1	\$ 13.50 HR	\$ 13.50
PM pick up	4	\$ 13.50 HR	\$ 54.00
SUB TOTAL "E"			\$ 67.50

SUBCONTRACTOR

NAME	TOTAL	
	0 \$ - \$ -	
	0 \$ - \$ -	
SUB TOTAL "S"		\$ -

MATERIALS

MATERIALS AND INVOICES	QUANTITY	COST	KY TAX	TOTAL
Miscellaneous Materials (See attached extension)	1	\$ 291.02	\$ 17.46	\$ 308.48
				\$ -
				\$ -
				\$ -

SUB TOTAL "M"	\$ 308.48
TOTAL "L,DJE E,S,M"	\$ 666.34
OVERHEAD 5%	\$ 33.32
SUBTOTAL	\$ 699.65
PROFIT 10%	\$ 69.97
TOTAL	\$ 769.62

Job Name: E-18-041 - LFUCG - Town Branch Thickener Process

Column 1	Column 2	Column 3	Column 4	Column 5
Combined	Additional Material	Combined	Combined	Combined

Items+ByProducts

Item #	Item Name	Quantity	Price 2	Ext Price 2	CO Lbr 1	CO Lbr 1 Ext	CCode
Category: CCode = <none>							
100,121	#16 TSP Cable	30.00	\$385.00 M	\$11.55	4.40 M	0.13	
100,122	3/C #16 Shielded Cable	30.00	\$643.50 M	\$19.31	4.40 M	0.13	
100,123	4/C #16 Shielded Cable	30.00	\$797.50 M	\$23.93	5.02 M	0.15	
100,124	6/C #16 Shielded Cable	30.00	\$1,045.00 M	\$31.35	6.28 M	0.19	
100,129	Cat 6 Ethernet Cable	30.00	\$297.00 M	\$8.91	5.02 M	0.15	
100,133	3/C #8 With #10 Ground VFD C	30.00	\$2,095.50 M	\$62.87	17.58 M	0.53	
100,134	3/C #1 With #8 Ground VFD Ca	30.00	\$2,571.75 M	\$77.15	17.58 M	0.53	
Totals for CCode				<u>\$235.06</u>		<u>1.81</u>	
Category: CCode = Branch Rough							
4,054	3/4 ALUM CONDUIT	170.00	\$144.85 C	\$246.25	3.77 C	6.41	cb
4,055	1 ALUM CONDUIT	90.00	\$211.09 C	\$189.98	5.02 C	4.52	cb
4,242	3/4 AL LB BODY	4.00	\$13.69 E	\$54.75	0.38 E	1.51	cb
4,476	3/4 AL FLAT COVER	4.00	\$4.23 E	\$16.93	0.00 X	0.00	cb
4,485	3/4 AL GASKET	4.00	\$3.48 E	\$13.92	0.00 X	0.00	cb
4,736	1 ALUM GND MEYERS HUB	3.00	\$1,068.99 C	\$32.07	0.38 E	1.13	cb
5,245	3/4 SS316 RIGID CONDUIT CL	22.00	\$2.41 E	\$53.00	1.88 C	0.41	cb
5,246	1 SS316 RIGID CONDUIT CLA	12.00	\$2.71 E	\$32.47	1.88 C	0.23	cb
Totals for CCode				<u>\$639.37</u>		<u>14.21</u>	
Category: CCode = Feeder Rough							
4,056	1 1/4 ALUM CONDUIT	30.00	\$265.26 C	\$79.58	6.28 C	1.88	cf
4,058	2 ALUM CONDUIT	30.00	\$441.45 C	\$132.44	8.79 C	2.64	cf
4,244	1 1/4 AL LB BODY	1.00	\$29.64 E	\$29.64	0.50 E	0.50	cf
4,246	2 AL LB BODY	1.00	\$64.13 E	\$64.13	0.69 E	0.69	cf
4,478	1 1/4 - 1 1/2 AL FLAT COVER	1.00	\$6.47 E	\$6.47	0.00 X	0.00	cf
4,479	2 AL FLAT COVER	1.00	\$11.40 E	\$11.40	0.00 X	0.00	cf
4,487	1 1/4 - 1 1/2 AL GASKET	1.00	\$5.94 E	\$5.94	0.00 X	0.00	cf
4,488	2 AL GASKET	1.00	\$7.08 E	\$7.08	0.00 X	0.00	cf
5,247	1 1/4 SS316 RIGID CONDUIT C	4.00	\$2.99 E	\$11.97	2.51 C	0.10	cf
5,249	2 SS316 RIGID CONDUIT CLA	4.00	\$4.81 E	\$19.23	2.51 C	0.10	cf
Totals for CCode				<u>\$367.87</u>		<u>5.92</u>	
Category: CCode = Hangers/Anchors							
6,659	1 1/2 SS KINDORF	20.00	\$8.25 E	\$165.00	6.28 C	1.26	ch
Totals for CCode				<u>\$165.00</u>		<u>1.26</u>	
Category: CCode = Branch Wire							
100,101	12 XHHW CU STRANDED	460.00	\$153.02 M	\$70.39	5.00 M	2.30	wb
100,102	10 XHHW CU STRANDED	200.00	\$222.27 M	\$44.45	6.20 M	1.24	wb
Totals for CCode				<u>\$114.84</u>		<u>3.54</u>	

Job Name: E-18-041 - LFUCG - Town Branch Thickener Process

Category: CCode = Feeder Wire

100,104	6 XHHW CU STRANDED	30.00	\$510.16 M	\$15.30	8.75 M	0.26 wf
100,111	3/0 XHHW CU STRANDED	90.00	\$2,920.74 M	\$262.87	25.00 M	2.25 wf
Totals for CCode				<u>\$278.17</u>		<u>2.51</u>

Totals:

\$1,800.30 29.24

Column 1	Column 2	Column 3	Column 4	Column 5
Combined	Credit Materials	Combined	Combined	Combined

Items+ByProducts

Item #	Item Name	Quantity	Price 2	Ext Price 2	CO Lbr 1	CO Lbr 1 Ext	CCode
Category: CCode = Branch Rough							
4,054	3/4 ALUM CONDUIT	-220.00	\$144.85 C	-\$318.68	3.77 C	-8.29	cb
4,242	3/4 AL LB BODY	-8.00	\$13.69 E	-\$109.50	0.38 E	-3.01	cb
4,476	3/4 AL FLAT COVER	-8.00	\$4.23 E	-\$33.86	0.00 X	0.00	cb
4,485	3/4 AL GASKET	-8.00	\$3.48 E	-\$27.84	0.00 X	0.00	cb
4,735	3/4 ALUM GND MEYERS HUB	-12.00	\$991.34 C	-\$118.96	0.38 E	-4.52	cb
5,245	3/4 SS316 RIGID CONDUIT CL	-28.00	\$2.41 E	-\$67.45	1.88 C	-0.53	cb
Totals for CCode				<u>-\$676.29</u>		<u>-16.35</u>	

Category: CCode = Feeder Rough

4,058	2 ALUM CONDUIT	-80.00	\$441.45 C	-\$353.16	8.79 C	-7.03	cf
4,246	2 AL LB BODY	-3.00	\$64.13 E	-\$192.38	0.69 E	-2.07	cf
4,479	2 AL FLAT COVER	-3.00	\$11.40 E	-\$34.20	0.00 X	0.00	cf
4,488	2 AL GASKET	-3.00	\$7.08 E	-\$21.24	0.00 X	0.00	cf
4,739	2 ALUM GND MEYERS HUB	-1.00	\$1,434.65 C	-\$14.35	0.94 E	-0.94	cf
5,249	2 SS316 RIGID CONDUIT CLA	-10.00	\$4.81 E	-\$48.07	2.51 C	-0.25	cf
Totals for CCode				<u>-\$663.40</u>		<u>-10.30</u>	

Category: CCode = Hangers/Anchors

6,659	1 1/2 SS KINDORF	-20.00	\$8.25 E	-\$165.00	6.28 C	-1.26	ch
Totals for CCode				<u>-\$165.00</u>		<u>-1.26</u>	

Category: CCode = Branch Wire

100,101	12 XHHW CU STRANDED	-30.00	\$153.02 M	-\$4.59	5.00 M	-0.15	wb
Totals for CCode				<u>-\$4.59</u>		<u>-0.15</u>	

Totals:

-\$1,509.28 -28.06

Job Name: E-18-041 - LFUCG - Town Branch Thickener Process

Report Totals:

Items+ByProducts

Ext Price 2	CO Lbr 1 Ext
\$291.02	1.18

CHANGE ORDER REQUEST

Change Order Request # 3 - Revised

Date: 05/08/19

TEM Project # 19-02



Project Name: LFUCG - Town Branch WWTP Thickening Process Upgrades Project

Description: C.O. #3 - Change Centrifuge Panel Feeder Size - Pricing includes TEM Group, Inc. furnishing and installing wiring changes the feeder size of cable from, (3) 3/0 Cables with #6G to (3) #3 Cables with #8G. Also included is the credit for changing breaker setting from 200Amp to 90Amp for bucket section 12B in MCC-M. Credit for the 2" conduit where the feeder cable is to be installed in an existing conduit was included in C.O #1 Field Order #1.

LABOR

LABOR TYPE	MAN HOURS	\$/HR	BURDEN	FRINGE	TOTAL
Delete Electrician	-11	\$ 32.00	\$ 7.04	\$ 6.00	(495.44)
Add Electrician	7	\$ 32.00	\$ 7.04	\$ 6.00	315.28
				\$	-

SUB TOTAL "L" \$ (180.16)

DJE	MAN HOURS	RATE	TOTAL
Delete Electrician	-11	\$ 5.32	(58.47)
Add Electrician	7	\$ 5.32	37.21

SUB TOTAL "DJE" \$ (21.26)

EQUIPMENT

DESCRIPTION	MAN HOURS	RATE	TOTAL
Jobsite pick up	-2	\$ 13.50 HR	(27.00)
PM pick up		\$ 13.50 HR	-
			\$ -

SUB TOTAL "E" \$ (27.00)

SUBCONTRACTOR

NAME	TOTAL
	0 \$ -
	0 \$ -

SUB TOTAL "S" \$ -

MATERIALS

MATERIALS AND INVOICES	QUANTITY	COST	KY TAX	TOTAL
Add Miscellaneous Materials (See attached bid extension)	1	\$ 522.21	\$ 31.33	\$ 553.54
Delete Miscellaneous Materials (See attached bid extension)	1	\$ (1,504.66)	\$ (90.28)	(1,594.94)
Change Breaker Setting from 200Amp to 90Amp(See attached)	1	\$ (209.00)	\$ (12.54)	(221.54)
		\$ -	\$ -	\$ -

SUB TOTAL "M" \$ (1,262.94)

TOTAL "L,DJE,E,S,M" \$ (1,491.36)

OVERHEAD 5% \$ (74.57)

SUBTOTAL \$ (1,565.93)

PROFIT 10% \$ (156.59)

TOTAL \$ (1,722.52)

Job Name: E-18-041 - LFUCG - Town Branch Thickener Process

Items+ByProducts

Item #	Item Name	Quantity	Price 1	Ext Price 1	Bid Lbr	Bid Lbr Ext	CCode
Category: CCode = Feeder Wire							
100,104	6 XHHW CU STRANDED	-170.00	\$486.97 M	-\$82.78	7.00 M	-1.19 wf	
100,111	3/0 XHHW CU STRANDED	-510.00	\$2,787.98 M	-\$1,421.87	20.00 M	-10.20 wf	
Totals for CCode				<u>-\$1,504.66</u>		<u>-11.39</u>	

Totals:

-\$1,504.66

-11.39

Report Totals:

Items+ByProducts

Ext Price 1	Bid Lbr Ext
-\$1,504.66	-11.39

Job Name: E-18-041 - LFUCG - Town Branch Thickener Process

Items+ByProducts

Item #	Item Name	Quantity	Price 2	Ext Price 2	CO Lbr 1	CO Lbr 1 Ext	CCode
Category: CCode = Feeder Wire							
100,103	8 XHHW CU STRANDED	170.00	\$359.91 M	\$61.18	7.50 M	1.27 wf	
100,106	3 XHHW CU STRANDED	510.00	\$903.97 M	\$461.02	11.25 M	5.74 wf	
Totals for CCode				<hr/>		<hr/>	
				\$522.21		7.01	

Totals:

\$522.21

7.01

Report Totals:

Items+ByProducts

Ext Price 2	CO Lbr 1 Ext
\$522.21	7.01



Date: April 22, 2019

Company: Dugan & Meyers LLC
Town Branch WWTP
301 Jimmie Campbell Dr
Lexington, KY 40504

Attention: Mr. Dan Haney

Reference: Change order for addition of air conditioner to panel for project 102065 Town Branch WWTP

Dear Mr. Haney:

We are pleased to submit for your consideration our above referenced firm proposal subject to the enclosed *Conditions of Sale*.

Qty. Item Description

(1) **Upgrade of Control Panel**
Addition of air conditioner to control panel to increase rating of panel from NEMA 12 to NEMA 4 as required for new control panel installation location.

**Previous Price: USD \$13,254.00 Each Total: \$13,254.00 D.D.U. Delivered Duty Unpaid
Plant Site Lexington, Kentucky**

This cost was reduced to **\$9,467.00**. This reduced cost was calculated from the following:

HMI Panel Enclosure Credit	-\$700.00
Engineering cost associated with Air Conditioner redesign	-\$3,087.00

The final cost covers the Manufacturer's cost of adding an air conditioner, upgrading the entire panel to stainless steel, and base engineering costs.

**Firm Price: USD \$9,467.00 Each Total: \$9,467.00 D.D.U. Delivered Duty Unpaid
Plant Site Lexington, Kentucky**

Due to the current volatility surrounding surcharges on stainless steels and other alloys as well as a constantly changing USD to EURO exchange rate, we reserve the right to adjust our pricing after the proposal validity has expired.

Respectfully submitted by:
Flottweg Separation Technology, Inc.

Brittany Jump
Project Engineer
bjump@flottweg.net
(859) 283-6282

PCO #2



John Martin, PE
GRW Engineers
801 Corporate Drive
Lexington, KY 40503

5/7/19

Re: Town Branch Thickening Process Upgrades
Project No. 4649
PCO #02 – Added Valves at Thickener Building & Pump Station #2

Dear Mr. Martin,

Attached is the Dugan & Meyers change order proposal #02 for your review compiled in accordance with the change order pricing procedures.

In follow up to RFI 07 & 08 responses, Dugan & Meyers proposes to provide the additional Plug Valves and Check Valve detailed in the RFIs for the lump sum amount of \$9,538.00.

This proposal includes changes only to the extent detailed in the attached detailed pricing proposal.

Please issue the appropriate contract modifications. Dugan & Meyers can be available to further discuss the above detailed items with you.

Sincerely:

DUGAN & MEYERS LLC

CHANGE ORDER PRICING

Date: 5/7/2019

Project No.: 12030
 Project Name: Town Branch Thickening Process Upgrades
 Contractor: Dugan & Meyers
 Engineer: GRW Engineering

Change Order No.: PCO #02
 Description: RFI 7 & 8 Added Valves

TOTALS

A.	LABOR	<u>See Attached</u>	_____	\$	2,840.00
B.	EQUIPMENT	<u>See Attached</u>	_____	\$	-
C.	FUEL	<u>See Attached</u>	_____	\$	-
D.	SERVICE	<u>See Attached</u>	_____	\$	-
E.	MATERIALS	<u>See Attached</u>	_____	\$	4,955.76
		Subtotal (A,B,C,D,E):			<u>\$7,796</u>
F.	OVERHEAD & PROFIT:	<u>15% (on items A,B,C,D,E).....</u>			<u>\$1,169</u>
G.	SALES TAX ON MATERIALS	<u>6%</u>			<u>\$297</u>
	(No Markup)				
			Subtotal (A thru G):		<u>\$9,262</u>
H.	SUBCONTRACTOR	<u>See Attached</u>		\$	-
I.	SUBCONTRACTOR MARKUP	<u>5%</u>		\$0	
	(markup is = 5%)		Subtotal (H and I):		<u>\$0</u>
J.	Small Tools	<u>3.00%</u>			<u>\$85</u>
	(% of Labor)				
K.	Insurance, Bond	<u>2.06%</u>			<u>\$191</u>
	(No Markup)				
			TOTAL (A thru G) + (H and I) + J + K		<u>\$9,538</u>
			GRAND TOTAL THIS CHANGE	TOTALS	<u>\$9,538</u>

Proposal Line Item Breakdown				
Description	Quantity	Unit	Rate	Totals
Materials				
Added Valves Per RFIs #7 & #8 (see Hydro Control Pricing)	1	LS	\$4,360.00	\$ 4,360.00
6" Flang Pipe Spool under 12" (to install added check valve)	2	EA	\$157.73	\$ 315.46
6" Bolt Packs and Gaskets (at added Valves & Spools)	10	EA	\$20.56	\$ 205.60
8" Bolt Packs and Gaskets (at added Valve & Fitting to allow install)	3	EA	\$24.90	\$ 74.70
			Subtotal	\$ 4,955.76
Labor				
				\$ -
Project Engineer	6	mhrs	\$65.00	\$ 390.00
Remove, Replace & Add Valves in Thickener Builidng				
				\$ -
Pipefitter	24	mhrs	\$43.75	\$ 1,050.00
Carpenter	12	mhrs	\$43.75	\$ 525.00
				\$ -
Modify Piping & Intall New Valve in Sludge Pump Station #2				
				\$ -
Pipefitter	14	mhrs	\$43.75	\$ 612.50
Carpenter	6	mhrs	\$43.75	\$ 262.50
				\$ -
			Subtotal	\$ 2,840.00
Equipment				
				\$ -
				\$ -
				\$ -
			Subtotal	\$ -
Fuel				
			\$ -	\$ -
			Subtotal	\$ -
Service				
				\$ -
				\$ -
				\$ -
			Subtotal	\$ -
Subcontractors				
				\$ -
				\$ -
			Subtotal	\$ -



RFI Transmittal

engineering | architecture | geospatial

GRW | 801 Corporate Drive Lexington, KY 40503

PROJECT	4649 Town Branch Thickening Process Upgrade 4649	DATE SENT	3/20/2019
SUBJECT	007 - Thickener Building Pipe & Valves	RFI ID	RFI 07
TYPE	RFI	TRANSMITTAL ID	00029
PURPOSE	Answered	VIA	Info Exchange

QUESTION:
SUGGESTION:

ANSWER:

1. The valves in section 4 on M-03-301 are 8".
2. There are 21 6" plug valves to be replaced in the Gravity Thickener Building. The attached drawing is correct.
3. There are 6 8" plug valves to be replaced in the Gravity Thickener Building. The attached drawing is correct.
4. Regarding the concern that the centerline of the pipe will be affected by replacement of the eccentric reducers at the tee in the Gravity Thickener Building, D&M previously requested a different piping arrangement at the tee which should align with the existing pipe. D&M requested to install a 8x8" true wye with reducers as opposed to the 8x6" reducing true wye called out in the plans. Use eccentric reducers to match the existing centerline.

FROM

NAME	COMPANY	EMAIL	PHONE
Brittany Goodwin	GRW	BGoodwin@grwinc.com	859-223-3999

TO

NAME	COMPANY	EMAIL	PHONE
Addison Wheatley	Dugan & Meyers LLC	awheatley@dugan-meyers.com	502-894-4481

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NUMBER	SCALE	SIZE	NOTES
1	2/26/2019	RFI - 007 - Thickener Building Pipe & Valves.pdf				

COPIES:

Request for Information

007

Detailed, RFI's Grouped by RFI Number

Town Branch Thickening Process Upgrades
301 Jimmie Campbell Drive
Lexington KY, 40504

Project # 12030
Tel:
Fax:

RFI # 007

Date Created: 2/26/2019

Answer Company	Answered By	Transmitted By:	Authored By
GRW Engineers, Inc. 801 Corporate Drive Lexington KY, 40503 Tel: 859-223-3999	Brittany Goodwin	Dugan & Meyers LLC 2700 River Green Circle Louisville, KY 40206 Tel: 502-779-0725	Addison Wheatley

Co-Respondent	Author RFI Number	Status
1	007	2/26/2019 Submitted

Subject	Discipline	Category
Thickener Building Pipe & Valves	Sanitary	

Cc: Company Name	Contact Name	Copies	Notes	Delivery Method
LFUCG	Tiffany Rank			New Forma

Question: GRW Engineers, **Date Required:** 3/12/2019

Section 4 on sheet M-03-301 indicates that the filtrate line coming out of the distribution box is a 10" line. Based on this section cut D&M became concerned regarding the size of two (2) valves in the Gravity Thickener Building which tie to this line but are labeled 8". During our 2/20/19 site visit D&M field measured the valves in place and confirmed that they are 8" valves as scheduled, however we noticed a few discrepancies from the drawings of which we were not previously aware, see attached markup of sheet M-03-101 and photos.

Thanks,
DM Management Team

Suggestion

Answer

Date Answered:

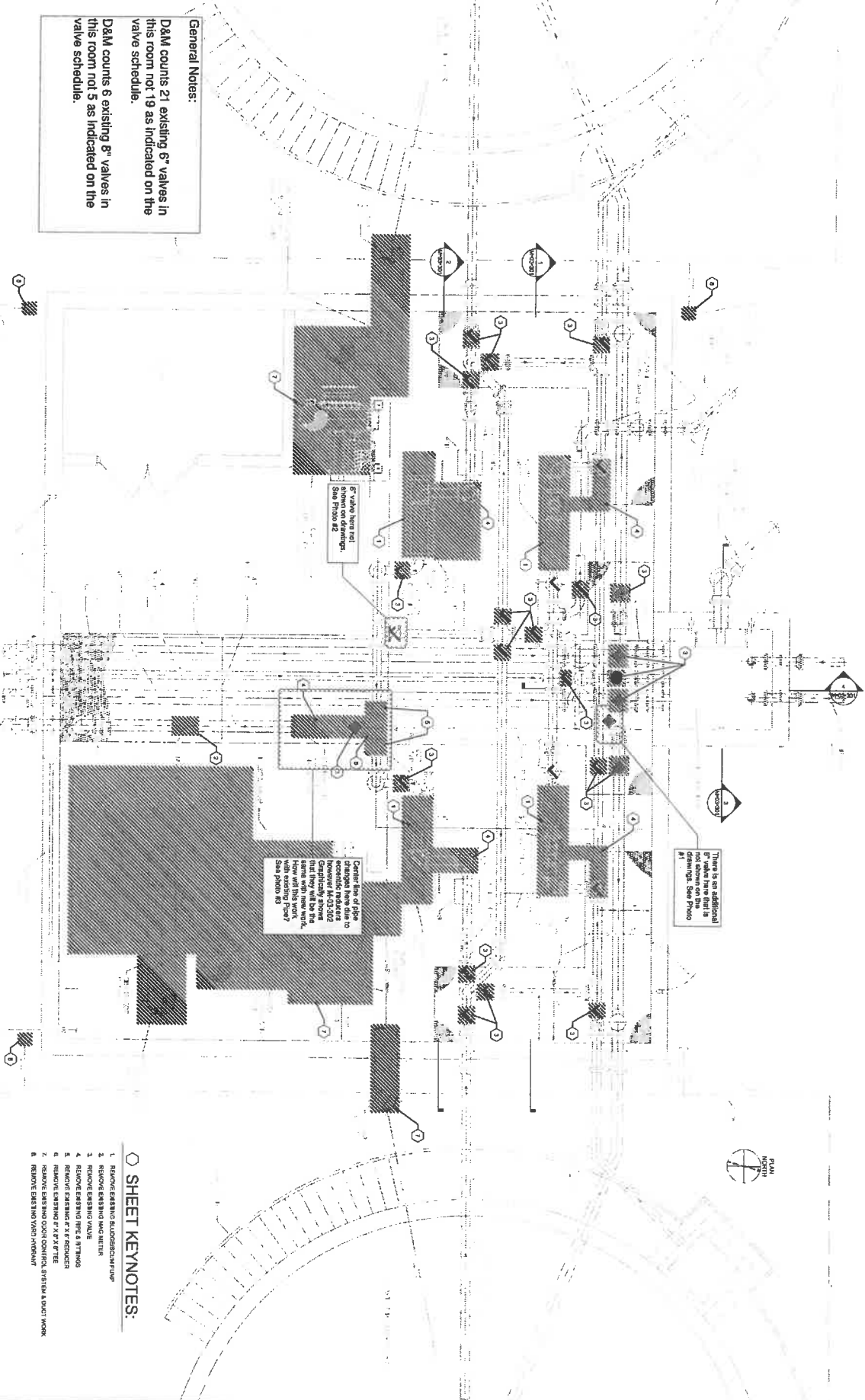
Signature

Signed Date

Page 1

General Notes:
 D&M counts 21 existing 6" valves in this room not 19 as indicated on the valve schedule.
 D&M counts 6 existing 8" valves in this room not 5 as indicated on the valve schedule.

PLAN
 SCALE: 3/8"=1'-0"



6" VALVE HERE NOT SHOWN AS PER PHOTO

Compare this to other drawings from date to electrical inducers however M&D 302 that they will be the same with new work with existing floor. See photo #1

There is an additional 6" valve here that is shown on drawing. See photo #1

- SHEET KEYNOTES:**
- 1. REMOVE EXISTING SUBSTATIONARY PUMP
 - 2. REMOVE EXISTING INDUCER
 - 3. REMOVE EXISTING VALVE
 - 4. REMOVE EXISTING TRUSS & BRACING
 - 5. REMOVE EXISTING F.P.V. & F.P. TRUSS
 - 6. REMOVE EXISTING OVERHEAD CONDUIT, STEEL & BRACKET WORK
 - 7. REMOVE EXISTING VERTICAL PIPING

NO.	DATE	BY	DESCRIPTION

GRAVITY THICKENERS BUILDING PLAN DEMOLITION
 TOWN BRANCH WWTP THICKENING PROCESS UPGRADES
 LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT

DESIGNED BY: BMG
 DRAWN BY: RLT
 REVIEWED BY: JEM
 APPROVED BY: JLH

engineering | architecture | geospatial
 www.grwbc.com

GRW PROJECT NO. 4668
 CLIENT PROJECT NO. _____

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M-03-101
 DATE: OCTOBER 2019
 SCALE: 3/8" = 1'-0"

Photo #1

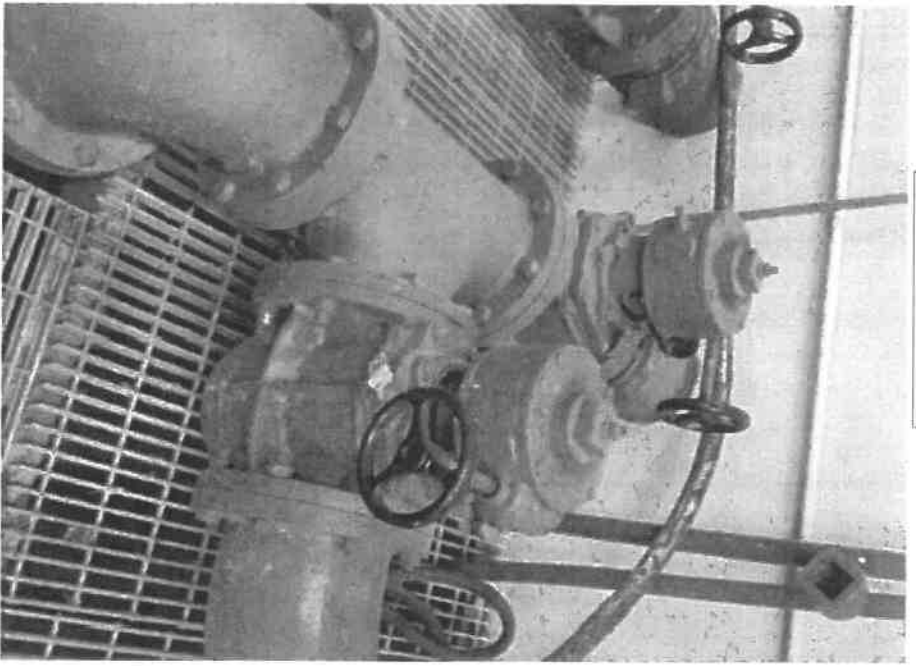


Photo #2

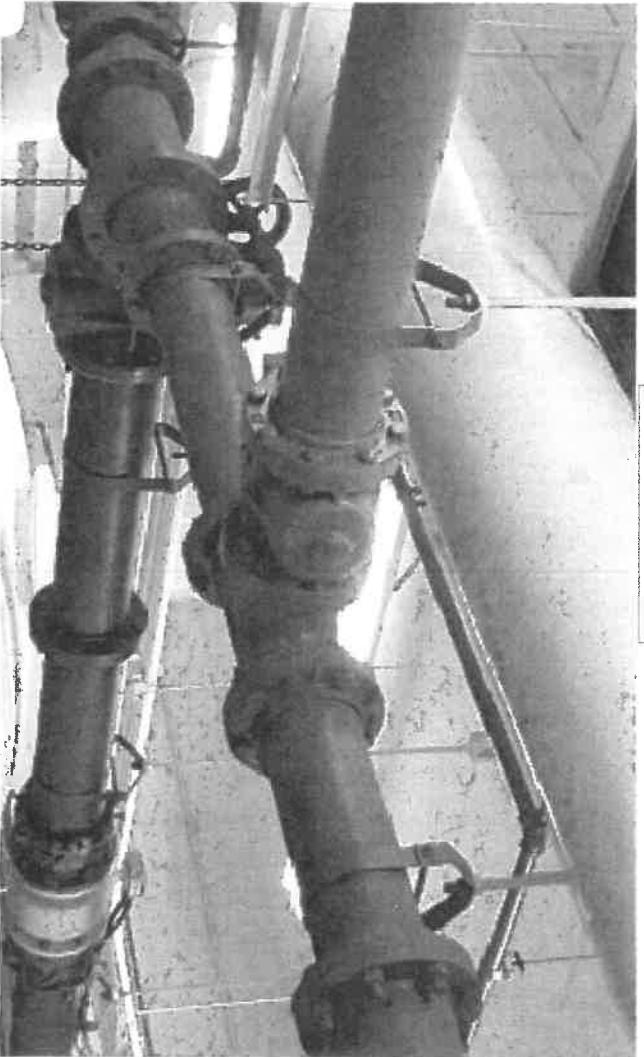


Photo #3





RFI Transmittal

engineering | architecture | geospatial

GRW | 801 Corporate Drive Lexington, KY 40503

PROJECT	4649 Town Branch Thickening Process Upgrade 4649	DATE SENT	3/18/2019
---------	---	-----------	------------------

SUBJECT	008 - Chopper Pump Check Valve	RFI ID	RFI 08
---------	---------------------------------------	--------	---------------

TYPE	RFI	TRANSMITTAL ID	00026
------	------------	----------------	--------------

PURPOSE	Answered	VIA	Info Exchange
---------	-----------------	-----	----------------------

QUESTION:

SUGGESTION:

ANSWER: **Please provide one (1) 6-inch check valve between the chopper pump and the new 6-inch discharge plug valve.**

FROM

NAME	COMPANY	EMAIL	PHONE
Brittany Goodwin	GRW	BGoodwin@grwinc.com	859-223-3999

TO

NAME	COMPANY	EMAIL	PHONE
Addison Wheatley	Dugan & Meyers LLC	awheatley@dugan-meyers.com	502-894-4481
Rick Bowman	Lexington-Fayette Urban County Government	rbowman@lexingtonky.gov	
Tiffany Rank	Lexington-Fayette Urban County Government	tiffanyr@lexingtonky.gov	859-425-2406

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NUMBER	SCALE	SIZE	NOTES
1	3/1/2019	RFI - 008 - Chopper Pump Check Valve.pdf				

Addison Wheatley

From: Adam McCarthy <amccarthy@hydrocontrols.net>
Sent: Thursday, March 21, 2019 5:09 PM
To: Addison Wheatley
Subject: RE: Town Brach Project

Addison,

Please see the below prices for the additional valves below. If you have any questions or concerns do not hesitate to give me a call.

1 – 6" Flanged plug valve with chain wheel operator: \$928.00

Note: Includes chain for 10ft. of height

1 – 6" Flanged plug valve with handwheel operator: \$622.00

1 – 8" Flanged plug valve with handwheel operator: \$902.00

1 – 6" Swing check valve: \$1,908.00

Total = \$4,360

Thank you,

Adam McCarthy

Hydro Controls, Inc.

473 Cincinnati-Batavia Pike, Suite 2

Cincinnati, OH 45244

amccarthy@hydrocontrols.net

(270) 313-4873 - mobile

(513) 474-7400 - office

(513) 474-7401 - fax

www.hydrocontrols.net

From: Addison Wheatley [mailto:awheatley@dugan-meyers.com]

Sent: Wednesday, March 20, 2019 3:13 PM

To: Adam McCarthy

Cc: Dan Haney

Subject: Town Brach Project

Adam,

D&M has received responses on Two RFI's which affect the valve scope on the Town Branch WWTP Project.

RFI 007:

- Increased the scheduled 6" Plug valves in the Thickener Building from 19 to 21
- Increased the scheduled 8" Plug valves in the Thickener Building from 5 to 6

RFI 008:

- Increased the scheduled 6" Swing Check valves in Pump Station #2 from 6 to 7

See attached RFI responses and provide D&M with a price to include these added valves in Hydro Controls Scope of supply.

Thanks,

PL0 #3



John Martin, PE
GRW Engineers
801 Corporate Drive
Lexington, KY 40503

5/22/19

Re: Town Branch Thickening Process Upgrades
Project No. 4649
PCO #03-r – MCC-D2 & MCC-E2 Changes per Field Order #2

Dear Mr. Martin,

Attached is the Dugan & Meyers change order proposal #03 for your review compiled in accordance with the change order pricing procedures.

In follow up to Field Order #2, Dugan & Meyers proposes to provide the changes to MCC -D2 & MCC-E2 detailed in Field Order #2 for the lump sum amount of \$43,924.00.

This proposal includes changes only to the extent detailed in the attached detailed pricing proposal. The coordination of the above referenced changes has delayed the delivery of the Pump Station #1 & #2 electrical gear and as such there may be a need to extend the Contract Times depending on the actual delivery date of the materials.

Please issue the appropriate contract modifications. Dugan & Meyers can be available to further discuss the above detailed items with you.

Sincerely:

DUGAN & MEYERS LLC

CHANGE ORDER PRICING

Date: 5/22/2019

Project No.: 12030
 Project Name: Town Branch Thickening Process Upgrades
 Contractor: Dugan & Meyers
 Engineer: GRW Engineering

Change Order No.: PCO #03-r
 Description: MCC-D2 & MCC-E2 Changes per FO #2

				TOTALS	
A.	LABOR	<u>See Attached</u>	_____	\$	-
B.	EQUIPMENT	<u>See Attached</u>	_____	\$	-
C.	FUEL	<u>See Attached</u>	_____	\$	-
D.	SERVICE	<u>See Attached</u>	_____	\$	-
E.	MATERIALS	<u>See Attached</u>	_____	\$	-
Subtotal (A,B,C,D,E):					<u>\$0</u>
F.	OVERHEAD & PROFIT:	<u>15%</u> (on items A,B,C,D,E).....			<u>\$0</u>
G.	SALES TAX ON MATERIALS	<u>6%</u> (No Markup)			<u>\$0</u>
				Subtotal (A thru G):	<u>\$0</u>
H.	SUBCONTRACTOR	<u>See Attached</u>		\$	<u>40,988.06</u>
I.	SUBCONTRACTOR MARKUP	<u>5%</u> (markup is = 5%)			<u>\$2,049</u>
				Subtotal (H and I):	<u>\$43,037</u>
J.	Small Tools	<u>3.00%</u> (% of Labor)			<u>\$0</u>
K.	Insurance, Bond	<u>2.06%</u> (No Markup)			<u>\$887</u>
TOTAL (A thru G) + (H and I) + J + K					<u>\$43,924</u>
GRAND TOTAL THIS CHANGE				TOTALS	<u>\$43,924</u>

Proposal Line Item Breakdown				
Description	Quantity	Unit	Rate	Totals
Materials				
				\$ -
				\$ -
			Subtotal	\$ -
Labor				
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
			Subtotal	\$ -
Equipment				
				\$ -
				\$ -
			Subtotal	\$ -
Fuel				
			\$ -	\$ -
			Subtotal	\$ -
Service				
				\$ -
				\$ -
			Subtotal	\$ -
Subcontractors				
TEM Group - see attached proposal	1	LS	\$40,988.06	\$ 40,988.06
				\$ -
			Subtotal	\$ 40,988.06

CHANGE ORDER REQUEST



Change Order Request # 2 - Revision #1

Date: 05/22/19

TEM Project # 19-02

Project Name: LFUCG - Town Branch WWTP Thickening Process Upgrades Project

Description: C.O. #2 - Field Order #2 - Pricing includes TEM Group, Inc. furnishing and installing additional conduits, fittings, supports and wiring required for additional feeder conduits from existing MCC's to the two new MCC's per revised drawing E-00-603. Also included in pricing are the additional cost for revised Square D Motor Control Centers and two additional 200Amp Feeder Breakers added to the existing Eaton Motor Control Centers per the revised Field Order #2 Drawings dated 04/25/19.

LABOR

LABOR TYPE	MAN HOURS	\$/HR	BURDEN	FRINGE	TOTAL
ELECTRICIAN	36	\$ 32.00	\$ 7.04	\$ 6.00	\$ 1,621.44
PM	4	\$ 45.00	\$ 15.00		\$ 240.00
					\$ -

SUB TOTAL "L" \$ 1,861.44

DJE	MAN HOURS	RATE	TOTAL
ELECTRICIAN	36	\$ 5.32	\$ 191.34

SUB TOTAL "DJE" \$ 191.34

EQUIPMENT

DESCRIPTION	MAN HOURS	RATE	TOTAL
Jobsite pick up	18	\$ 13.50 HR	\$ 243.00
PM pick up	4	\$ 13.50 HR	\$ 54.00
			\$ -

SUB TOTAL "E" \$ 297.00

SUBCONTRACTOR

NAME	TOTAL
	\$ 0
	\$ 0

SUB TOTAL "S" \$ -

MATERIALS

MATERIALS AND INVOICES	QUANTITY	COST	KY TAX	TOTAL
Miscellaneous Materials (See attached extension)	1	\$ 2,477.00	\$ 148.62	\$ 2,625.62
Additional Eaton Breaker Quote (See attached)	1	\$ 5,400.00	\$ 324.00	\$ 5,724.00
New Revised Square D Bom Quote	1	\$ 142,260.00	\$ 8,535.60	\$ 150,795.60
Original Square D BOM Quote	1	\$ (118,875.00)	\$ (7,132.50)	\$ (126,007.50)

SUB TOTAL "M" \$ 33,137.72

TOTAL "L,DJE E,S,M" \$ 35,487.50

OVERHEAD 5% \$ 1,774.38

SUBTOTAL \$ 37,261.88

PROFIT 10% \$ 3,726.19

TOTAL \$ 40,988.06



B&S Electric Supply

Expiration Date: 12/19/18

Quotation

TO:

T.E.M. GROUP, INC
3560 BASHFORD AVE.
SUITE 100
LOUISVILLE, KY 40218

Project Info:

Project: *Town Branch Thickener
Job #: #BR-111618-11583
Bid Date: 11/19/18
Bid Time: 02:00 PM EST
Quoter: Keene Jones

Type	Quantity	Vendor	Description	Unit or Lot#	Unit Price	Ext Price
Gear	1	SCHNEIDE	SqD Lot Q-595406	SCHNEID	142,260.870	142,260.87
MCC-E2	1	SCHNEIDE	Model 6 LVMCC-Model 6 MCC - Standard Package System Voltage: 480V 3PH 3W 60Hz Max Available Fault Current (RMS) - 65kA Control Power - 120Vac Class 2 Type B Wiring 1/4" x 2" Horizontal Ground Bus, Tin Plated Copper 20" Deep Construction General Purpose Type 1 Enclosure 65kA Bus Withstand Rating 600A Tin Plated Copper Horizontal Bus Vertical Ground Bus, Tin Plated Copper White Interior Unit Nameplate Gray Surface / White Letters Wire Tie Retainers in Vertical Wireway Standard Exterior Paint ANSI 49 Equipment Mounting Height 72" Manual Vertical Bus Shutters Rodent Barriers Engineered To Order (ETO) 5 - Section(s) with 600A Tin Plated Copper	SCHNEID		

From:

B&S ELECTRIC SUPPLY CO.
Phone 502-261-0442
11000 Plantside Dr.
LOUISVILLE, KY 40299
Printed By: Corey Seymour
Corey Seymour

Notes

Price does not include freight charges for orders that do not meet pre-paid minimums or for expedited freight.



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
			Vertical Bus DIMENSIONS AND WEIGHT ----- Dimensions: 100.00"W X 20"D X 94.5"H Approximate Weight: 3750.00 lbs / 1701.00 kgs INCOMING ----- Incoming Connection: Cable MAIN ----- 65kA Interrupting Rating Main Breaker Top Entry 200A Fishtape Unit Plugs Key Interlock (Single Cylinder) (1) Door Padlock (TAG#: T-911) FEEDERS ----- 1 - Circuit Breaker Branch Feeder 200A 65kA Interrupting Rating 12" Extra Mounting Height (1) TIE BREAKER (TAG#: 4610104) 1 - Circuit Breaker Branch Feeder 200A 65kA Interrupting Rating Key Interlock (Single Cylinder) (1) Door Padlock (TAG#: T-911) (1) convert to main breaker (TAG#: 468061) COMMON FEEDER FEATURES ----- Fishtape Unit Plugs ADJUSTABLE SPEED DRIVES ----- 6 - Altivar 630 Process AC Drive 15 HP w/Circuit Breaker Rated for Normal Duty (Overcurrent 110% (60 sec)) CAT# ATV630D11 COMMON ADJUSTABLE SPEED DRIVE FEATURES ----- #16 AWG MTW Control Wire Includes Class 2 Interwiring Stop/Start Push Buttons with Manual Speed Potentiometer Factory Assigned Plastic Sleeve Wire Markers Fishtape Unit Plugs ASD 30mm Type K Pilot Devices			



B&S Electric Supply

Project: *Town Branch Thickener
Expiration 12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
			Motor On Push-to-Test LED Pilot Light (Red) 3" Extra Mounting Height System Impedance (3%) Fault Push-to-Test LED Pilot Light (Yellow) (1) Prep for controller by others (TAG#: 299969) MISCELLANEOUS DEVICES ----- 2 - 27" Configured Space 1 - 18" Configured Space 1 - 15" Configured Space 1 - 36" Configured Space 1 - 9" Configured Space			
MCC-D2	1	SCHNEIDE	Model 6 LVMCC-Model 6 MCC - Standard Package System Voltage: 480V 3PH 3W 60Hz Max Available Fault Current (RMS) - 65kA Control Power - 120Vac Class 2 Type B Wiring 1/4" x 2" Horizontal Ground Bus, Tin Plated Copper 20" Deep Construction General Purpose Type 1 Enclosure 65kA Bus Withstand Rating 600A Tin Plated Copper Horizontal Bus Vertical Ground Bus, Tin Plated Copper White Interior Wire Tie Retainers in Vertical Wireway Standard Exterior Paint ANSI 49 Equipment Mounting Height 72" Manual Vertical Bus Shutters Unit Nameplate Engraved with Gray Surface / White Letters Rodent Barriers Engineered To Order (ETO) 3 - Section(s) with 600A Tin Plated Copper Vertical Bus DIMENSIONS AND WEIGHT ----- Dimensions: 60.00"W X 20"D X 94.5"H Approximate Weight: 2250.00 lbs / 1020.60 kgs INCOMING ----- Incoming Connection: Cable MAIN	SCHNEID		



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
------	----------	--------	-------------	-------	------------	-----------

 Main Lugs Top Entry 600A
 (1) Door Padlock (TAG#: T-911)
 ADJUSTABLE SPEED DRIVES

6 - Altivar 630 Process AC Drive 15 HP
 w/Circuit Breaker
 Rated for Normal Duty (Overcurrent 110%
 (60 sec))
 CAT# ATV630D11
 COMMON ADJUSTABLE SPEED DRIVE
 FEATURES

#16 AWG MTW Control Wire
 Includes Class 2 Interwiring
 Stop/Start Push Buttons with Manual Speed
 Potentiometer
 Factory Assigned Plastic Sleeve Wire Markers
 Fishtape Unit Plugs
 ASD 30mm Type K Pilot Devices
 Motor On Push-to-Test LED Pilot Light (Red)
 3" Extra Mounting Height
 System Impedance (3%)
 Fault Push-to-Test LED Pilot Light (Yellow)
 (1) Prep for controller by others (TAG#:
 299969)
 MISCELLANEOUS DEVICES

1 - 12" Configured Space
 2 - 18" Configured Space
 System Voltage: 480V 3PH 3W 60Hz
 Max Available Fault Current (RMS) - 65kA
 Control Power - 120Vac
 Class 2 Type B Wiring
 1/4" x 2" Horizontal Ground Bus, Tin Plated
 Copper
 20" Deep Construction
 General Purpose Type 1 Enclosure
 65kA Bus Withstand Rating
 600A Tin Plated Copper Horizontal Bus
 Vertical Ground Bus, Tin Plated Copper
 White Interior
 Wire Tie Retainers in Vertical Wireway
 Standard Exterior Paint ANSI 49
 Equipment Mounting Height 72"
 Manual Vertical Bus Shutters



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
------	----------	--------	-------------	-------	------------	-----------

Unit Nameplate Engraved with Gray Surface /
 White Letters
 Rodent Barriers
 Engineered To Order (ETO)
 6 - Section(s) with 600A Tin Plated Copper
 Vertical Bus
 DIMENSIONS AND WEIGHT

 Dimensions: 120.00"W X 20"D X 94.5"H
 Approximate Weight: 4500.00 lbs / 2041.20 kgs
 INCOMING

 Incoming Connection: Cable
 MAIN

 65kA Interrupting Rating
 Main Breaker Top Entry 200A
 Fishtape Unit Plugs
 Key Interlock (Single Cylinder)
 (1) Door Padlock (TAG#: T-911)
 FEEDERS

 1 - Circuit Breaker Branch Feeder 200A
 65kA Interrupting Rating
 (1) Make feeder a TIE (TAG#: 4610104)
 1 - Circuit Breaker Branch Feeder 200A
 65kA Interrupting Rating
 Key Interlock (Single Cylinder)
 (1) Make feeder Main breaker #2 (TAG#: 468061)

COMMON FEEDER FEATURES

 Fishtape Unit Plugs
 ADJUSTABLE SPEED DRIVES

 6 - Altivar 630 Process AC Drive 15 HP
 w/Circuit Breaker
 Rated for Normal Duty (Overcurrent 110%
 (60 sec))
 CAT# ATV630D11
 COMMON ADJUSTABLE SPEED DRIVE
 FEATURES

 #16 AWG MTW Control Wire
 Includes Class 2 Interwiring
 Stop/Start Push Buttons with Manual Speed



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
------	----------	--------	-------------	-------	------------	-----------

Potentiometer
 Factory Assigned Plastic Sleeve Wire Markers
 Fishtape Unit Plugs
 ASD 30mm Type K Pilot Devices
 Motor On Push-to-Test LED Pilot Light (Red)
 3" Extra Mounting Height
 System Impedance (3%)
 Fault Push-to-Test LED Pilot Light (Yellow)
 (1) Prep for controller by others (TAG#: 299969)

MISCELLANEOUS DEVICES

 2 - 12" Configured Space
 6 - 15" Configured Space
 3 - 30" Configured Space
 System Voltage: 480V 3PH 3W 60Hz
 Max Available Fault Current (RMS) - 65kA
 Control Power - 120Vac
 Class 2 Type B Wiring
 1/4" x 2" Horizontal Ground Bus, Tin Plated
 Copper
 20" Deep Construction
 General Purpose Type 1 Enclosure
 65kA Bus Withstand Rating
 600A Tin Plated Copper Horizontal Bus
 Vertical Ground Bus, Tin Plated Copper
 White Interior
 Unit Nameplate Gray Surface / White Letters
 Wire Tie Retainers in Vertical Wireway
 Standard Exterior Paint ANSI 49
 Equipment Mounting Height 72"
 Manual Vertical Bus Shutters
 Rodent Barriers

Engineered To Order (ETO)
 5 - Section(s) with 600A Tin Plated Copper
 Vertical Bus

DIMENSIONS AND WEIGHT

 Dimensions: 100.00"W X 20"D X 94.5"H
 Approximate Weight: 3750.00 lbs / 1701.00 kgs

INCOMING

 Incoming Connection: Cable
 MAIN

 65kA Interrupting Rating



B&S Electric Supply

Project:	*Town Branch Thickener
Expiration	12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
------	----------	--------	-------------	-------	------------	-----------

Main Breaker Top Entry 200A
 Fishtape Unit Plugs
 Key Interlock (Single Cylinder)
 (1) Door Padlock (TAG#: T-911)
FEEDERS

 1 - Circuit Breaker Branch Feeder 200A
 65kA Interrupting Rating
 (1) Make feeder a TIE (TAG#: 4610104)
 1 - Circuit Breaker Branch Feeder 200A
 65kA Interrupting Rating
 Key Interlock (Single Cylinder)
 (1) Make feeder Main breaker #2 (TAG#: 468061)

COMMON FEEDER FEATURES

 Fishtape Unit Plugs
ADJUSTABLE SPEED DRIVES

 6 - Altivar 630 Process AC Drive 15 HP
 w/Circuit Breaker
 Rated for Normal Duty (Overcurrent 110%
 (60 sec))
 CAT# ATV630D11
**COMMON ADJUSTABLE SPEED DRIVE
 FEATURES**

 #16 AWG MTW Control Wire
 Includes Class 2 Interwiring
 Stop/Start Push Buttons with Manual Speed
 Potentiometer
 Factory Assigned Plastic Sleeve Wire Markers
 Fishtape Unit Plugs
 ASD 30mm Type K Pilot Devices
 Motor On Push-to-Test LED Pilot Light (Red)
 3" Extra Mounting Height
 System Impedance (3%)
 Fault Push-to-Test LED Pilot Light (Yellow)
 (1) Prep for controller by others (TAG#: 299969)

MISCELLANEOUS DEVICES

 2 - 27" Configured Space
 1 - 18" Configured Space
 1 - 15" Configured Space
 1 - 36" Configured Space



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
			1 - 9" Configured Space			
DISCONNECT	22	SCHNEIDE	HU361NDS-SW UNFUSED HD 30A 3P STAINLESS/NEUTRAL - Enclosure Type: Type 4/4X/5 Stainless Steel Options: Standard (304) Interrupting Rating (AIR): 10kA Fuse Capability: Non Fusible Max System Voltage: 600 VAC Switch Current Rating: 30 Amp Number of Switching Poles: 3 Pole w/ Neutral Neutral Kit: Field or Factory Installed: Factory Electrical Interlock Kits: 1 NO/1 NC - EIK031 Electrical Interlock Field or Factory Installed: Field Processed by ACE 2.0 - 04172018	SCHNEID		
DISCONNECT	22	SCHNEIDE	EIK031-ELECTRIC INTERLOCK KIT FOR SWITCHES	SCHNEID		
DISCONNECT	6	SCHNEIDE	HU361NDS-SW UNFUSED HD 30A 3P STAINLESS/NEUTRAL	SCHNEID		
DISCONNECT	2	SCHNEIDE	H60XFA1212-SWITCH NOT FUSIBLE HD 60A 3P /AUXILIARY	SCHNEID		
CONTROL STATION	18	SCHNEIDE	9001KYSK201 CONTROL STATION + OPERATORS	SCHNEID		
CONTROL STATION	3	SCHNEIDE	9001KYSK110 CONTROL STATION + OPERATORS	SCHNEID		
CONTROL STATION	2	SCHNEIDE	9001BR216 CONTROL STATION 600VAC 5A T-B	SCHNEID		
HARMONIC STUDY	1	SCHNEIDE	ES201054	SCHNEID		
STARTUP SERVICES	1	SCHNEIDE	SRVSQDSER-Startup Services - Straight Time Schneider Electric will perform the Scope of Work per Schneider Electric document 1910DB1302-120213 "Scopes of Work for Electrical Acceptance Testing." Work will be performed during Straight Time (any scheduled 8 hour period between 06:00	SCHNEID		



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
------	----------	--------	-------------	-------	------------	-----------

and 18:00 hours Monday thru Friday).
 It is estimated that the service will be performed using one technician with all equipment and tests performed in immediate succession, unless otherwise specified. If equipment is not available or prepared to be tested in the number of days specified, additional travel and expense charges may apply.
 For each hour that SE Services is delayed at the job site due to the unavailability of the equipment for any reason, a charge at the applicable T&M rates will be added to the invoice.
 Startup scope of work includes Schneider Electric technician supervision during energization of equipment. Quote price is based on energization during final day of inspection and testing.
 If additional trips are required in order to provide energization supervision, additional travel, expense and labor charges will apply. To schedule date for start of work, call: 1-888-SQUARED (1-888-778-2733).
 Schneider Electric services must be contacted prior to 2 weeks from the required date of service to avoid additional charges.
 Reference SE Terms and Conditions of Sale for Proposal Based Projects 0100PL0043R12/12 dated 12/2012.
 Formal test report(s) will be provided upon completion of the startup service.
 Trip summary:
 Round Trip Distance: Up to 150 Miles
 Technician will make 1 trip to the job site per day of service (total of trips)
 1 Day Informal Training
 Equipment to be started up and included in this complimentary warranty is listed below.
 Sel Rev: (20160224/20160224)
 Tra Rev: 11/19/2018 2:48:23 PM/ 11/19/2018

 Following user entered devices included in startup:
 None



B&S Electric Supply

Project: *Town Branch Thickener

Expiration

12/19/18

Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
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12 month complimentary extended warranty.
 Schneider Electric Services is pleased to offer a complimentary 12 month warranty extension above and beyond our standard warranty and any purchased extended warranties.

Std equipment warranty is 18 months from date of shipment or 12 months from issuance of a substantial completion letter by the customer subject to Schneider Electric Terms and Conditions of Sale for Proposal Based Projects 0100PL0043R12/12 dated 12/2012.

The 12 month warranty extension only applies to equipment that is successfully started up, invoiced by SE, and paid in full by the customer.

If startup with SE Services is not completed and paid in full, the bonus 12 month warranty will be invalid, but the standard warranty and any purchased extended warranties will still be in effect.

Drives are not included in this complimentary warranty upgrade and are covered by a 30 month warranty extension with startup completion.

Serviced item - Line Item 15070758

Qty 1 - Model 6 Standard

Designation: MCC-E2

Warning!!! TAG exists on one or more equipment items selected for startup, and pricing may be impacted. If devices (breakers, relays, mcc's, drives, etc) have been added in TAG pricing, please contact SIBS or the local Service Sales Engineer for support.

Serviced item - Line Item 15070832

Qty 1 - Model 6 Standard

Designation: MCC-D2

Warning!!! TAG exists on one or more equipment items selected for startup, and pricing may be impacted. If devices (breakers, relays, mcc's, drives, etc) have been added in TAG pricing, please contact



B&S Electric Supply

Project: *Town Branch Thickener
Expiration 12/19/18

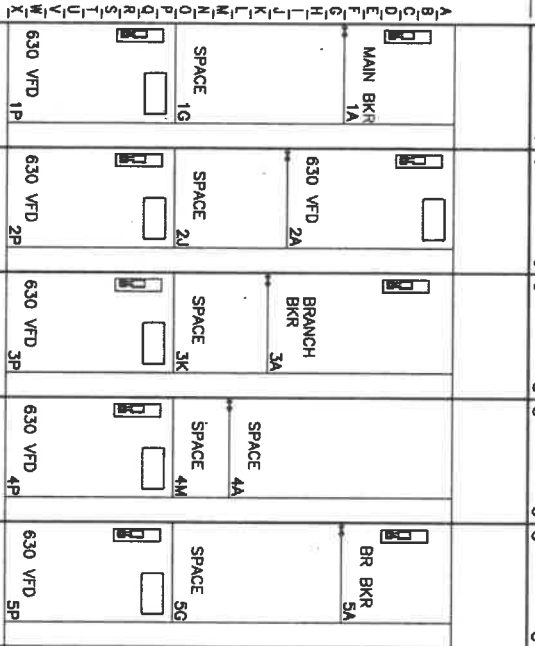
Quotation

Type	Quantity	Vendor	Description	LOT #	Unit Price	Ext Price
			<p>SIBS or the local Service Sales Engineer for support.</p> <p>1-SIBS12MONTHEXTWARRWSTARTUP-SIBS 12 MO EXTENDED WARRANTY W/ STARTUP</p> <p>Schneider Electric Services is pleased to offer a complimentary 12 month warranty extension above and beyond our standard warranty and any purchased extended warranties.</p> <p>Std equipment warranty is 18 months from date of shipment or 12 months from issuance of a substantial completion letter by the customer subject to Schneider Electric Terms and Conditions of Sale for Proposal Based Projects 0100PL0043R12/12 dated 12/2012.</p> <p>The 12 month warranty extension only applies to equipment that is successfully started up, invoiced by SE, and paid in full by the customer.</p> <p>If startup with SE Services is not completed and paid in full, the bonus 12 month warranty will be invalid, but the standard warranty and any purchased extended warranties will still be in effect.</p> <p>Drives are not included in this complimentary warranty upgrade and are covered by a 30 month warranty extension with startup completion.</p>			
TRAINING	1	SCHNEIDE	SRVTTRFUNSIBS-2 days of Product Training - Without Video Taping Maximum Number of Participants 10	SCHNEID		
SPARE PARTS	1	SCHNEIDE	Low Voltage Spare Parts	SCHNEID		
CONTROL STATION	4	SCHNEIDE	9001KYSS300-9001KYSS Stainless Steel Encl - 3 holes Revision - 2/28/2019 - (1707.000/1707.000) 2/28/2019 2:29:49 PM Location - Row 1 - Col 1 Operator - 9001KR1BH36 Black Full Guard Push Button Attachment/Protective Cap - None Legend - 9001KN209SP - Open	SCHNEID		

REV	DESCRIPTION	BY	DATE

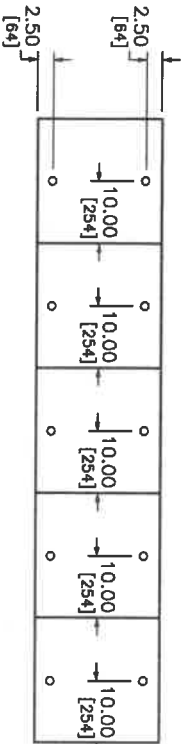
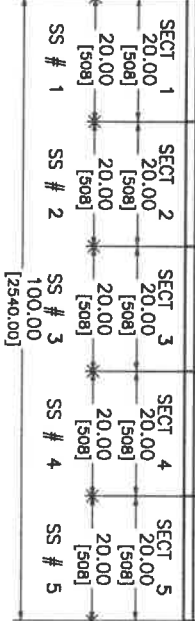
REMOVABLE LIFTING ANGLE

3.00
[76]



EACH LETTER EQUALS 300 MILLIMETERS SPACE

** CONFIGURED SPACE



ANCHOR DETAIL

JOB NAME:	town branch WWTP Thickening Process	EQUIPMENT DESIGNATION:	MCG-E2
JOB LOCATION:	421	EQUIPMENT TYPE:	MODEL 6 MOTOR CONTROL CENTER
DRAWN BY:	(D/C)	DRAWING TYPE:	ELEVATION
ENGINEER:		DATE:	May 21 2019
DRAWING STATUS:	QUOTE	DWG#	F11967520-01

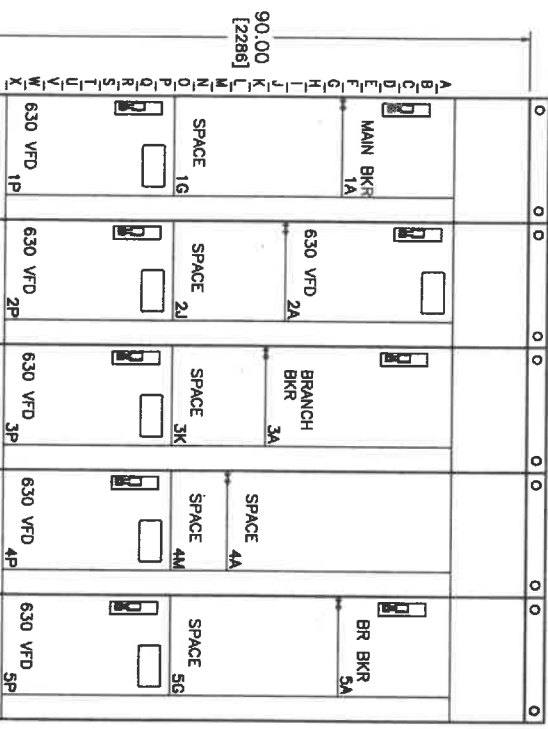
DUAL DIMENSIONS: INCHES
MILLIMETERS

REV	DESCRIPTION	BY	DATE																	

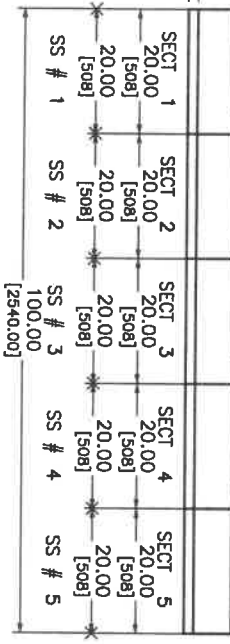
REMOVABLE LIFTING ANGLE

3.00 [76]

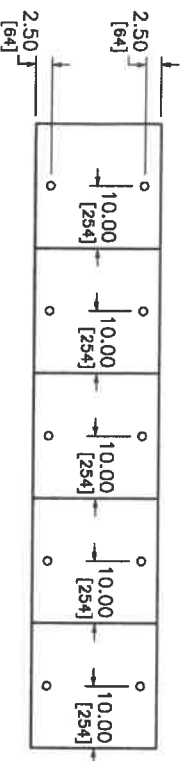
EACH LETTER 3.00/76 MODULING SPACE



** CONFIGURED SPACE



ANCHOR DETAIL



DUAL DIMENSIONS: INCHES MILLIMETERS

JOB NAME:	Tomn Branch WWTP Thickening Process	EQUIPMENT DESIGNATION:	MCC-02
JOB LOCATION:	421	EQUIPMENT TYPE:	MODEL 6 MOTOR CONTROL CENTER
DRAWN BY:	(22)	DRAWING TYPE:	ELEVATION
ENGR:		DATE:	May 21 2019
DRAWING STATUS:	QUOTE	DWG#	FA1987620-01
		PG	1 OF 3

Time Extension



John Martin, PE
GRW Engineers
801 Corporate Drive
Lexington, KY 40503

6/28/19

Re: Town Branch Thickening Process Upgrades
Project No. 4649
Request for Additional Contract Times in the Forthcoming OCO #1

Dear Mr. Martin,

In follow up to recent discussions regarding the forthcoming Owner Change Order #1, Dugan & Meyer is requesting that (47) calendar days be added to the Contract Times to manage the changes detailed in Field Order #2 and the subsequent PCO #03.

The updated progress schedule dated 6/25/19 was reviewed at the 6/26/19 progress meeting and outlines the schedule impacts due to the changes.

Please issue the appropriate contract modifications. Dugan & Meyers can be available to further discuss the above detailed items with you.

Sincerely:

DUGAN & MEYERS LLC

PCO #4



John Martin, PE
GRW Engineers
801 Corporate Drive
Lexington, KY 40503

6/19/19

Re: Town Branch Thickening Process Upgrades
Project No. 4649
PCO #04 – Handrail and Grating Credit at Thickener Tanks

Dear Mr. Martin,

Attached is the Dugan & Meyers change order proposal #04 for your review compiled in accordance with the change order pricing procedures.

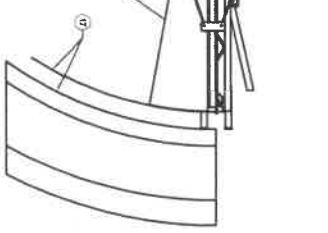
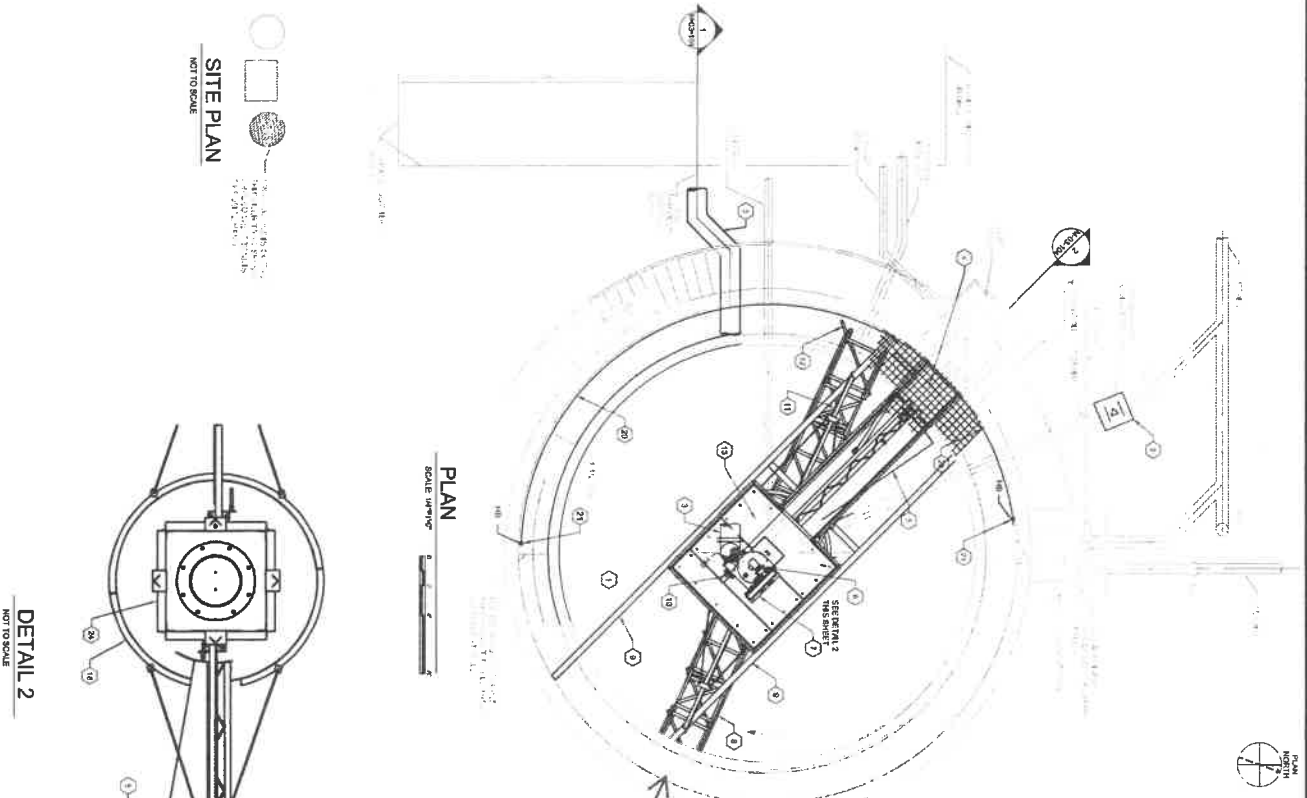
In follow up to onsite discussions with LFUCG on 5/2/19, Dugan & Meyers proposes to remove the handrail & grating at the (2) two Thickener Tanks from the scope-of-work for the lump sum credit amount of <\$25,100.00>.

This proposal includes changes only to the extent detailed in the attached mark-up of M-03-104. D&M will power-wash the existing handrail and grating in-place and check the mounting anchors & fasteners of these systems and make corrections as necessary.

Please issue the appropriate contract modifications. Dugan & Meyers can be available to further discuss the above detailed items with you.

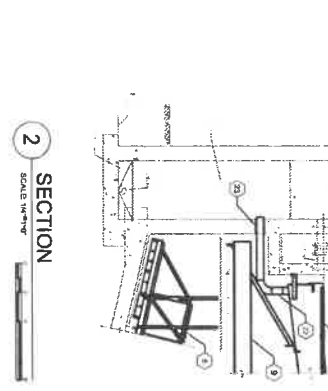
Sincerely:

DUGAN & MEYERS LLC

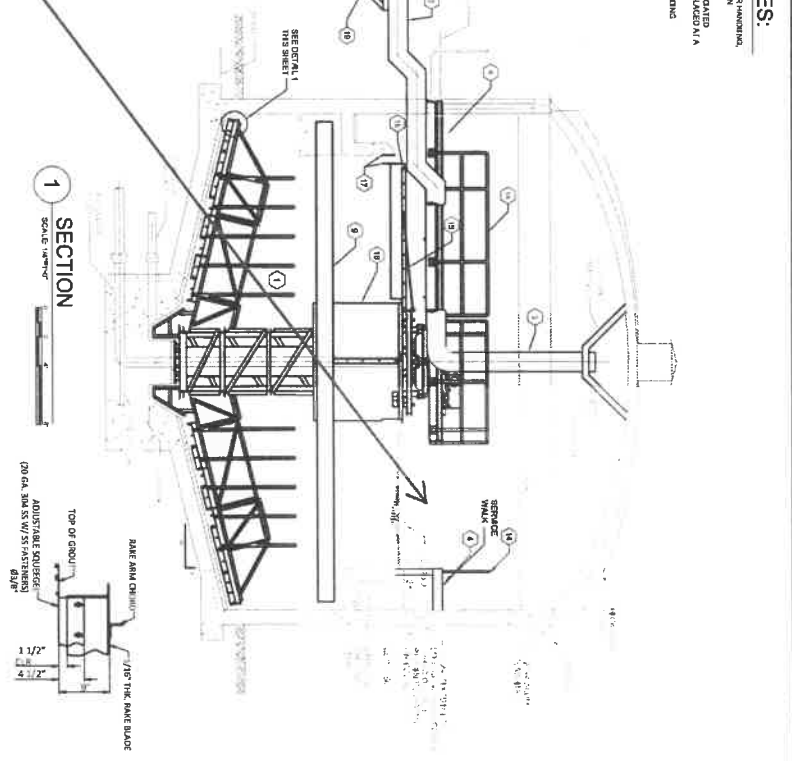


Existing Handrail and Grating to Remain. Both Tanks. New Handrail and Grating will be provided on the new Vendor furnished bridge.

- GENERAL NOTES:**
1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.
 2. ALL WORK SHALL BE ACCORDANCE WITH LOCAL ORDINANCES AND ALL APPLICABLE CODES.
 3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.



SECTION 1
SCALE: 1/4"=1'-0"



SECTION 2
SCALE: 1/4"=1'-0"

SHEET KEYNOTES:

1. INSTALL ALL NEW EQUIPMENT EXCEPT RAILS AND CONCRETE
2. INSTALL NEW 12" WIDE WALKWAY
3. INSTALL NEW 12" WIDE WALKWAY
4. INSTALL NEW 12" WIDE WALKWAY
5. INSTALL NEW SCUM TROUGH
6. INSTALL NEW CHAIN DRIVE
7. INSTALL NEW CHAIN DRIVE W/PROTECTIVE RAIL CHAIN GUARD
8. INSTALL NEW SUPPORT STRUCTURE FOR CHAIN DRIVE
9. INSTALL NEW SUPPORT STRUCTURE FOR CHAIN DRIVE
10. INSTALL NEW SUPPORT STRUCTURE FOR CHAIN DRIVE
11. INSTALL NEW SUPPORT STRUCTURE FOR CHAIN DRIVE
12. INSTALL NEW SUPPORT STRUCTURE FOR CHAIN DRIVE
13. INSTALL NEW SUPPORT STRUCTURE FOR CHAIN DRIVE
14. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
15. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
16. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
17. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
18. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
19. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
20. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
21. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS
22. INSTALL NEW 2" DIA. 1/2" DIA. ALUMINUM HANGERS

NO.	DATE	BY	CHKD.	DESCRIPTION
1	03/15/2019	RLT	JEM	ISSUE FOR PERMITTING
2	03/15/2019	RLT	JEM	ISSUE FOR CONSTRUCTION

**GRAVITY THICKENERS TANK PLAN & SECTION
NEW EQUIPMENT**

TOWN BRANCH WWTP THICKENING PROCESS UPGRADES
LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT

engineering | architecture | geospatial

www.gwinc.com

GRW PROJECT NO. 6643

CLIENT PROJECT NO.

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M-03-104