



Meeting Agenda

Capital Investment Committee

Thursday, January 28, 2021

4:00 PM

Board Room

The Capital Investment Committee Meeting will limit physical access in the meeting room due to current limitations on public gatherings. Accommodations have been made to ensure that the public is able to participate in the meeting. The public may participate in the following ways: • Watch the meeting on FranklinTV or the City of Franklin website. • Watch the live stream through the City of Franklin Facebook and YouTube accounts. • Call in to the conference meeting 1-312-626-6799, Meeting ID: 946 5911 5508 Passcode: 466004 . Callers will be unmuted and given an opportunity to comment during the meeting at specific times. • Limited viewing will be available in the lobby of City Hall to watch the live video and make public comment. • The public may email comments and questions prior to 2:30 p.m. on the day of the meeting to recorder@franklinton.gov to be read aloud. • Live comments and those submitted by email will be limited to 2 minutes. • City YouTube: <https://www.youtube.com/user/CityOfFranklin> • City Facebook Live: <https://www.facebook.com/CityOfFranklin> • City website: <https://www.franklinton.gov/franklin-tv>

CALL TO ORDER

MEETING PROCEDURE CHANGES

1. Consideration Of Resolution 2020-283, A Resolution Declaring That The Capital Investment Committee Shall Meet On January 28, 2021 And Conduct Its Essential Business By Electronic Means Rather Than Being Required To Gather A Quorum Of The Members Physically Present In The Same Location Because It Is Necessary To Protect The Health, Safety, And Welfare Of Tennesseans In Light Of The COVID-19 Outbreak.

Sponsors: Shauna Billingsley

APPROVAL OF MINUTES

2. Consideration Of Approval Of Minutes Of The December 10, 2020 Capital Investment Committee Meeting.

NEW BUSINESS

3. Consideration Of Resolution 2020-227, A Resolution To Supply Sanitary Sewer Services To 0 Clovercroft Road.

Sponsors: Michelle Hatcher

4. Consideration Of Change Order No. 6 To COF Contract No. 2017-0264 With Kiewit Infrastructure South Co, For The Water Reclamation Facility Modifications & Expansion Project.

Sponsors: Michelle Hatcher

5. Consideration Of Draft Final Change Order To COF Contract No. 2019-0093 With Civil Constructors For The Henpeck Lane Sanitary Sewer Project At A Cost Decrease Of \$226,161.

Sponsors: Michelle Hatcher, Patricia McNeese

6. Consideration Of Change Order 1 To COF Contract 2019-0310 With Middle Tennessee Infrastructure For The Holiday Court Pump Station Project At A Cost Increase Of \$13,753 And Time Extension Of 38 Days.

Sponsors: Michelle Hatcher, Patricia McNeese

7. Consideration Of Resolution 2020-269, A Resolution Declaring An Existing Section Of Right-Of-Way Known As Wood Duck Court Generally Located South Of Highway 96 And East Of Carothers Parkway As Surplus And To Be Maintained On Its Current Configuration As A Public Access, Utility, And Drainage Easement.

Sponsors: Paul Holzen

8. Consideration Of Change Order 1 To COF Contract No. 2019-0057, A Construction Contract With Sessions Paving Paving Company For The East McEwen Drive Roundabout Improvements At A Cost Increase Of \$195,944.

Sponsors: Paul Holzen, Jonathan Marston, David Hodnett

9. Consideration Of Draft Amendment 1 To COF Contract No. 2019-0047, A Professional Services Agreement With C&T Engineering And Inspection, LLC Construction Administration Services For The East McEwen Drive Roundabout Improvements At A Cost Increase Of \$45,750.

Sponsors: Paul Holzen, Jonathan Marston, David Hodnett

10. Consideration Of Draft Amendment 2 To COF Contract No. 2019-0098, An Amendment To The Professional Services Agreement with Alfred Benesch & Company For The Design Of The Southeast Park Bridge And Carothers Parkway Intersection Improvements To Allow Construction Administration And Related Technical Services During Construction At A Cost Increase Not-To-Exceed \$196,007.

Sponsors:

11. Consideration Of Draft COF Contract No. 2021-0016, A Professional Services Agreement With Alfred Benesch & Company For Additional Design Services For The Aspen Grove Greenway Trail In An Amount Not-To-Exceed \$111,280.

Sponsors: Paul Holzen

12. Consideration Of COF Contract No. 2020-0313, With VSR Partners, LLC (TOB School), For A Road Impact Fee Reimbursement Agreement In The Amount \$108,094.

Sponsors: Paul Holzen, Jimmy Wiseman

13. Capital Projects Dashboard And Status Updates For January 2021.

Sponsors: Paul Holzen, Jonathan Marston

OTHER BUSINESS

ADJOURN

Anyone needing accommodations due to disabilities please contact the ADA Coordinator at 615-791-3277 at least 24 hours prior to the meeting.



File #: 20-01588

DATE: December 21, 2020
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Shauna Billingsley, City Attorney

SUBJECT:

Consideration Of Resolution 2020-283, A Resolution Declaring That The Capital Investment Committee Shall Meet On January 28, 2021 And Conduct Its Essential Business By Electronic Means Rather Than Being Required To Gather A Quorum Of The Members Physically Present In The Same Location Because It Is Necessary To Protect The Health, Safety, And Welfare Of Tennesseans In Light Of The COVID-19 Outbreak.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning conducting the Board of Mayor and Aldermen by electronic means to limit physical contact for the health and safety of all citizens.

BACKGROUND/STAFF COMMENTS:

Due to the COVID-19 Outbreak citizens need to limit potential exposure to the virus by limiting contact with others. To support this effort the City of Franklin boards and commissions will meet electronically rather than gathering a quorum physically in the same location to conduct their essential business.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends approval of Resolution 2020-283.

RESOLUTION 2020-283

A RESOLUTION DECLARING THAT THE CAPITAL INVESTMENT COMMITTEE SHALL MEET ON JANUARY 28, 2021, AND CONDUCT ITS ESSENTIAL BUSINESS BY ELECTRONIC MEANS RATHER THAN BEING REQUIRED TO GATHER A QUORUM OF THE MEMBERS PHYSICALLY PRESENT IN THE SAME LOCATION BECAUSE IT IS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF TENNESSEANS IN LIGHT OF THE COVID-19 OUTBREAK

WHEREAS, Coronavirus Disease 2019 (COVID-19) is a severe acute respiratory disease that appears to occur through respiratory transmission, presents with similar symptoms to those of influenza, and can lead to serious illness or death, particularly in the case of older adults and persons with serious chronic medical conditions; and

WHEREAS, the Centers for Disease Control and Prevention has recommended that all states and territories implement aggressive measures to slow and contain transmission of COVID-19 in the United States; and

WHEREAS, on March 12, 2020, pursuant to the authority granted by Tenn. Code Ann. § 58-2-107, the Governor of Tennessee, Bill Lee, issued Executive Order No. 14, declaring a state of emergency to facilitate the response to COVID-19; and

WHEREAS, on March 13, 2020, the President of the United States, Donald J. Trump, declared a national state of emergency with respect to COVID-19; and

WHEREAS, on March 20, 2020, Mayor Ken Moore issued Executive Order No. 2020-01 Declaring a State of Emergency and Civil Emergency; and

WHEREAS, on March 20, 2020, Governor Lee issued Executive Order No. 16, and later issued Executive Order No. 34, Executive Order No. 51, Executive Order No. 60, Executive Order No. 65, and Executive Order No. 71 allowing electronic meetings while continuing to function openly and transparently; and

WHEREAS, Mayor Moore issued Executive Orders No. 2020-03, No. 2020-05, and No. 2020-07, No. 2020-09, No. 2020-11, No. 2020-12, No. 2020-13, No. 2020-14, No. 2020-15, No. 2020-16, and No. 2020-17 continuing the Declaration of a State of Emergency and Civil Emergency; and

WHEREAS, the Board of Mayor and Aldermen Capital Investment Committee believe it is in the best interest of the City of Franklin to conduct the January 28, 2021, 4 p.m. Capital Investment Committee meeting by electronic means.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN CAPITAL INVESTMENT COMMITTEE OF THE CITY OF FRANKLIN, TENNESSEE, AS FOLLOWS:

The Capital Investment Committee meeting scheduled for January 28, 2021, at 4 p.m. shall be conducted by electronic means rather than requiring a quorum of the members of the Capital Investment Committee to attend in person to protect the health, safety, and welfare of Tennesseans in light of the COVID-19 outbreak. Physical access in the meeting room will be limited. The public can view and participate in the meetings by watching the meeting live or later as a recording on FranklinTV, the City of Franklin website, the City of Franklin's Facebook page, and the City of Franklin's YouTube account. Specific dial-in and website links can be found on the City's website at:

<https://www.franklin.tn.gov/Home/Components/Calendar/Event/10152/1092>

IT IS SO RESOLVED AND DONE on this 28th day of January, 2021.

ATTEST:

By: _____
Eric S. Stuckey
City Administrator

CAPITAL INVESTMENT COMMITTEE:

By: _____
Brandy Blanton
Chair

Approved as to Form By:
Shauna R. Billingsley, City Attorney



File #: 20-01341

DATE: December 17, 2020
TO: Capital Investment Committee
FROM: Michelle Hatcher, Director of Water Management
SUBJECT:

Consideration Of Resolution 2020-227, A Resolution To Supply Sanitary Sewer Services To 0 Clovercroft Road.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Resolution 2020-225, A Resolution To Supply Sanitary Sewer Services to 0 Clovercroft Road.

BACKGROUND/STAFF COMMENTS:

Date of Request: 9/2/20.
SFUE's Requested: 1.
Domestic Water Meter Size(s): $\frac{3}{4}$ ".

This property is located outside of, but contiguous to, the City limits. A single-family residence is planned for this currently undeveloped and unaddressed property in the Mayes Creek basin. The property owner has requested approval. The basin plan for the Mayes Creek basin shows this area being served by a future interceptor (shown in purple on the included map) that would extend south along Wilson Pike from E. McEwen to eventually discharge at a proposed new Water Reclamation Facility. As none of that infrastructure is currently in place, there is not a systematic way to expand the City sanitary sewer system to serve this property.

This availability was presented at the Worksession October 13, 2020 and was approved at BOMA October 27, 2020. Consistent with Board policy, a sanitary sewer service availability will be contingent upon the property owner entering into an Availability Agreement and an Annexation Agreement that states the property owner will annex into the City of Franklin in the future at the request of the City. The following conditions will be presented:

- Property owner will be required to sign an annexation agreement and a sewer availability agreement with the City of Franklin. When the interceptor is eventually connected, the availability agreement will reference that the property owner must connect to the main within a specified amount of time.
- Property owner will be required to have the annexation agreement and availability agreement recorded with the Williamson County Register of Deeds.
- Property owner will be required to secure all necessary easements for connection and have them recorded with the Williamson County Register of Deeds.

This Resolution will allow the City Administrator to enter into those Agreements.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that Resolution 2020-227 to provide sanitary sewer services to 0 Clovercroft Road be recommended for approval by the Board of Mayor and Aldermen.

RESOLUTION NO. 2020-227

A RESOLUTION AUTHORIZING THE CITY OF FRANKLIN TO PROVIDE SANITARY SEWER SERVICES TO A PARCEL ON CLOVERCROFT ROAD (MAP 080 PARCEL 01201) CONTINGENT UPON ALL CONDITIONS PRESENTED HEREIN.

WHEREAS, Joren Dunnavant and Mia Fieldes (hereinafter "Property Owners") currently own the property known as 4038 Clovercroft Road (Map 080 Parcel 001201) (hereinafter "Property"); and

WHEREAS, on September 2, 2020, the Property Owners submitted a Request for Sewer Availability for 1 SFUE (1 SFUE = 350 gallons per day); and

WHEREAS, the Property Owners will be responsible for all costs to connect the Property to the sewer to include, but not limited to, extending the public main, required permits, necessary public and private easements, right-of-way acquisition, pavement restoration, property restoration, and complying with all local, state, and federal requirements and all costs associated with the sewer connection and required fees; and

WHEREAS, the Property Owners will be responsible for all costs to connect the Property to the sewer to include, but not limited to, extending the public main, required permits, necessary public and private easements, right-of-way acquisition, pavement restoration, property restoration, and complying with all local, state, and federal requirements and all costs associated with the sewer connection and required fees; and

WHEREAS, the Property Owners, on behalf of themselves, their heirs and assigns, will agree to convey unto the City of Franklin (hereafter "the City") the irrevocable and perpetual right to file on their behalf a Petition of Annexation at any time after annexation becomes possible.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE, THAT:

Authority is granted to the City Administrator to enter into the appropriate agreements with the Property Owners to meet the contingencies listed herein as conditions by which the City will provide sanitary sewer services to the Property.

IT IS SO RESOLVED AND DONE on this ____ day of _____, 20__.

ATTEST:

By: _____

ERIC S. STUCKEY
City Administrator

CITY OF FRANKLIN, TENNESSEE:

By: _____

DR. KEN MOORE
Mayor

Approved as to Form:

By: _____

Shauna R. Billingsley, City Attorney



File #: 20-01379

DATE: December 17, 2020
TO: Capital Investment Committee
FROM: Michelle Hatcher, Director of Water Management

SUBJECT:

Consideration Of Change Order No. 6 To COF Contract No. 2017-0264 With Kiewit Infrastructure South Co, For The Water Reclamation Facility Modifications & Expansion Project.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the Change Order No. 6 for the Water Reclamation Facility Modifications Project.

BACKGROUND/STAFF COMMENTS:

The Board of Mayor and Alderman passed a resolution to award a contract on July 10, 2018 for the Water Reclamation Facility Modifications & Expansion Project to Kiewit Infrastructure South Co. (Kiewit). The amount of the contract entered in to by the City and Kiewit was for \$132,890,000.00 (which included an Owner's contingency amount of \$4,000,000.00). The project specifications have a substantial completion date of February 20, 2022 and a final completion date of May 26, 2022.

During the course of the project to date, the need for various changes to Kiewit's scope have become apparent to include work not captured in the original contract, changes due to alternative items of equipment, changes to the project based on existing conditions, or to realize savings to the City. Those changes are memorialized in Construction Change Authorizations (CCAs), Request For Proposals (RFPs), and Change Proposals (CPs) issued by CDM Smith and the City, and formalized in this Change Order No. 6.

The attached Change Order No. 6 reflects these changes that have been encountered to date.

FINANCIAL IMPACT:

This Change Order No. 6 provides for a net change order increase of \$767,976.00 to the contract terms and is covered within the Owner's contingency.

In total, there is \$2,543,075.75 remaining in the Owner's contingency.

RECOMMENDATION:

Staff recommends that Change Order No. 6 to the Kiewit Infrastructure South Co. contract be recommended for approval by the Board of Mayor and Aldermen.

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: October 28, 2019

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

**CCA
NUMBER:** 024

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: RAS/WAS Pump Station

CITY PROJECT NO.: 2017-0264

REFERENCE: (See Below)

DESCRIPTION: Furnish and install new position switches with conduits and conductors for existing check valves, conduits and conductors for temperature switches, new pressure switches with conduits and conductors for WAS Pumps 5, 6, 7 and 8 as shown on the attached.

CDM SMITH:

By: 

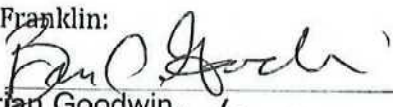
Date: 11/4/20

CONTRACTOR:

By: 

Date: 11/4/20

City of Franklin:

By: 

Date: 11/06/2020

City of Franklin:

BY: 

Date: 11/6/20



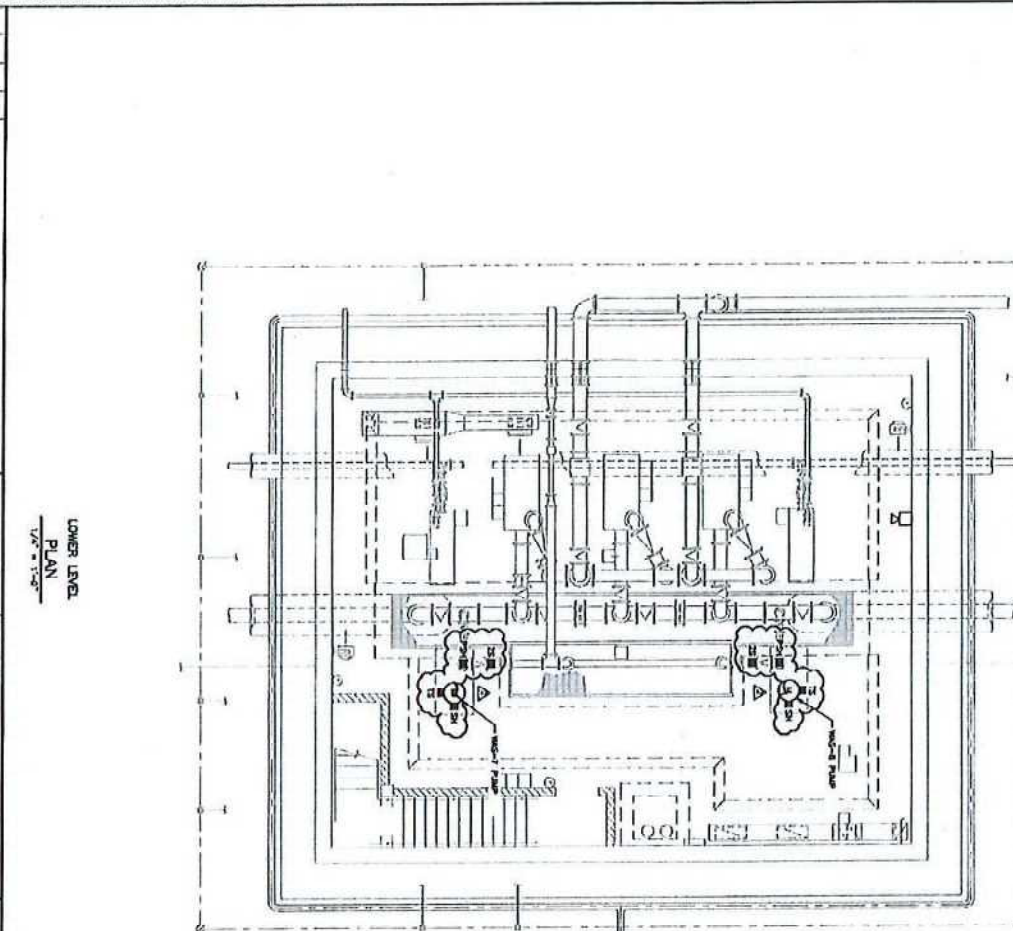
CITY OF FRANKLIN, TENNESSEE
FRANKLIN WRF
MODIFICATIONS AND EXPANSION PROJECT
CDE CONTRACT NO. 2017-0264

EXISTING RETURN SLUDGE BUILDING (MSB-RSB),
ONE LINE POWER DIAGRAM
MODIFICATIONS

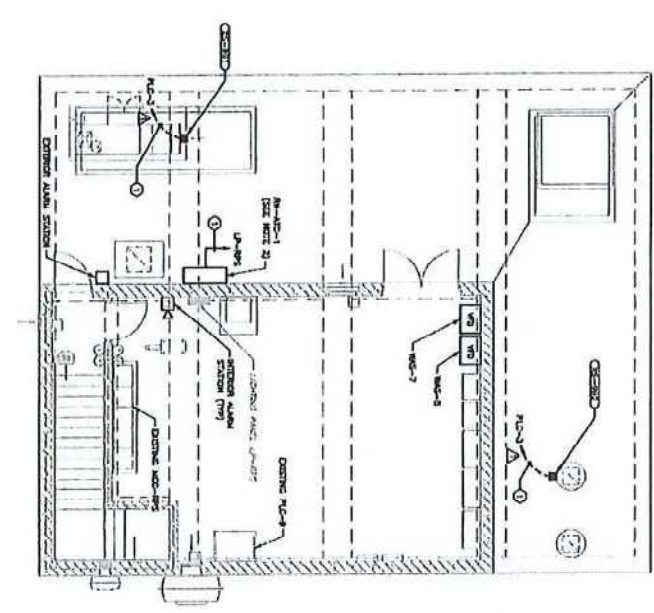
CONFIRMED DRAWING - AUGUST

[illegible]

DATE	11/11/2018	BY	J...	PROJECT	RASWAS PUMP STATION
DATE	11/11/2018	BY	J...	PROJECT	ELECTRICAL MODIFICATIONS PLANS
DATE	11/11/2018	BY	J...	PROJECT	E-83
DATE	11/11/2018	BY	J...	PROJECT	CONFORMED DRAWING - AUGUST 11

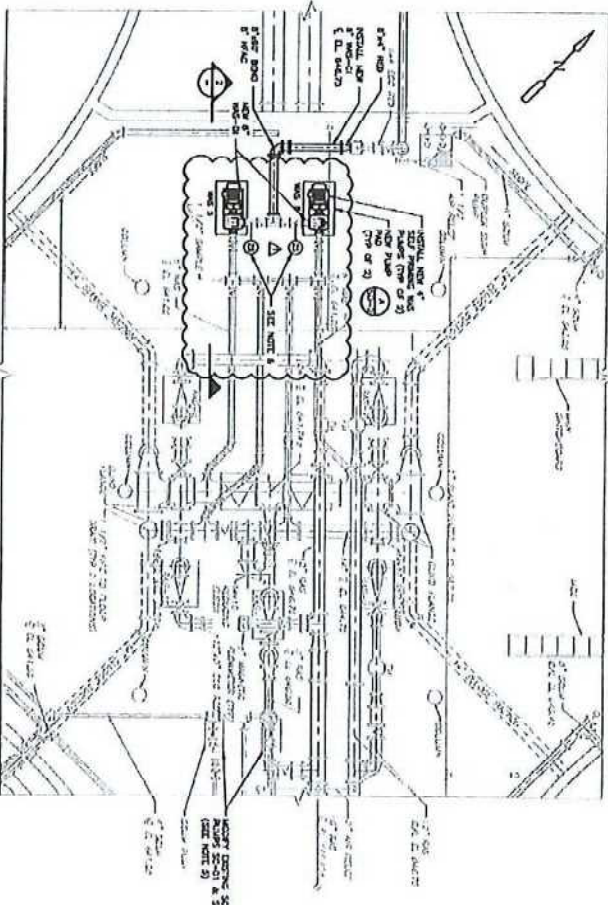
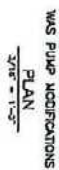


LOWER LEVEL
 PLAN
 1/8" = 1'-0"

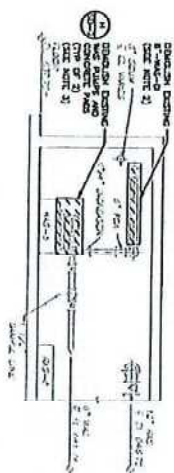


UPPER LEVEL
 PLAN
 1/8" = 1'-0"

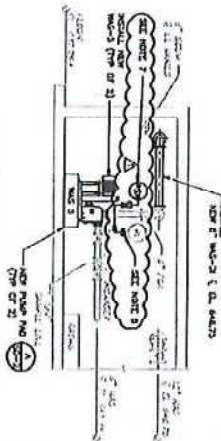
- NOTES:**
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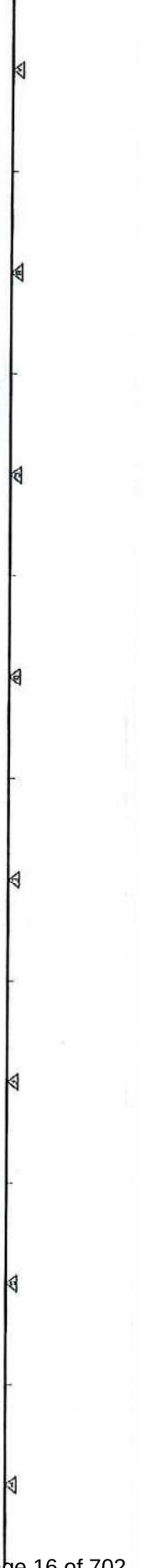
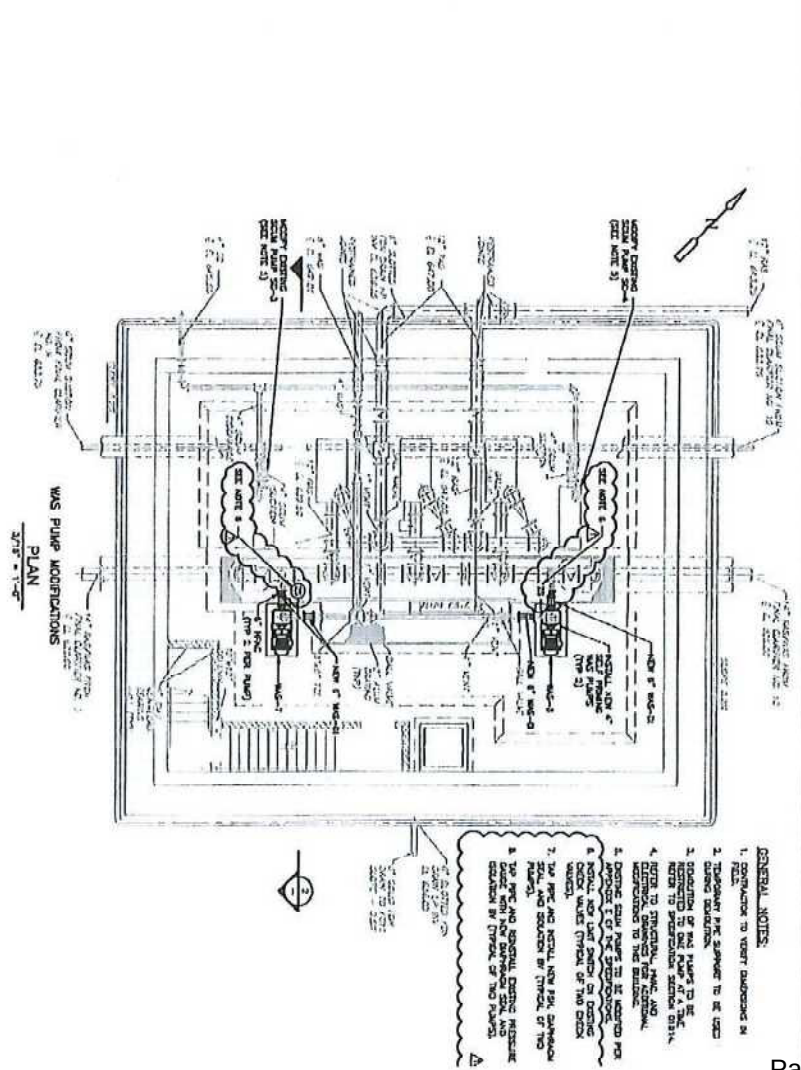
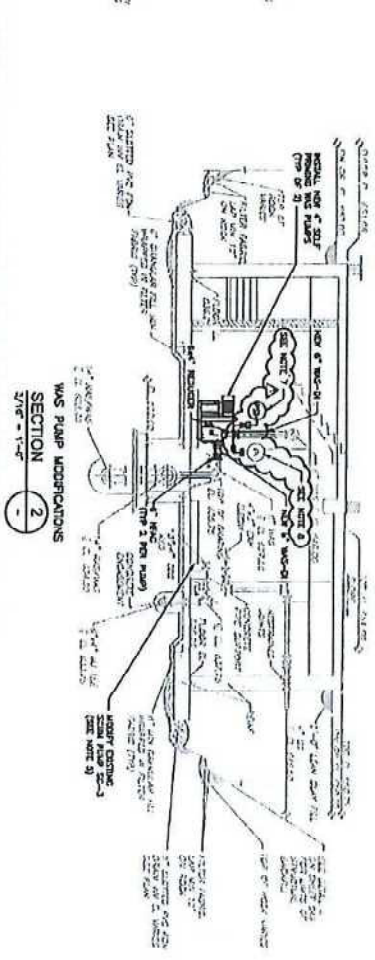
WAS PUMP DEMOLITION
SECTION
2/16" = 1'-0"



WAS PUMP MODIFICATIONS
SECTION
2/16 - 1-20



1. CONCENTRATES IN VAPOR & ARE DROPPED & FALLS
2. DROPPED PARTICLES FALLS IN THE CATCH
3. CONCENTRATES IN THE WATER & ARE EXPOSED TO THE AIR & FALLS IN THE CATCH
4. FROM THE CATCH, THE PARTICLES FALLS IN THE CATCH
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Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

Jul 08, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00049.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 024 - RAS/WAS PS CV and Pump Switches

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for **CCA 024 – RAS/WAS PS CV and Pump Switches in the amount of Thirty Three Thousand Three Hundred Twenty Seven Dollars (\$33,327).**

This proposal includes furnishing and installing new position (limit) switches with conduit and conductors for existing check vales, conduits and conductors for temperature switches, and new pressure switches with conduits and conductors for WAS Pumps 5,6,7, and 8. Instruments to be mounted with ½" instrumentation piping. Existing gauges and valves to be reused.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher

PREPARED BY: Kian Lawlor

Page 1 of 1

Rental Rate Blue Book®

June 1, 2020

Ford F-250

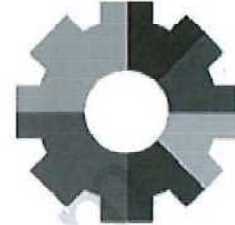
On-Highway Light Duty Trucks

Size Class:

300 HP & Over

Weight:

N/A


Configuration for F-250

Axle Configuration **4.0 X 4.0**
Horsepower **385.0 hp**
Ton Rating **3.0 / 4.0**

Cab Type
Power Mode

Crew
Gasoline

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

Hourly

Standby Rate

USD \$4.64

Idling Rate

USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



P.O. Box 458
2491 Wehrle Dr
Williamsville, NY 14221

Quotation

Quote #: 25901848

Quotation Number	Quotation Date	Customer Reference Number	Valid from:	Valid to:	Payment Terms	Currency
25901848	01/03/2020		01/03/2020	04/02/2020	10 days net	USD

Sold to Account#: 10R9382741

KIEWIT WATER FACILITIES SOUTH
135 CLAUDE YATES DR
FRANKLIN TN 37064

Attn: MICHAEL CALLISON
Phone#: 972-975-7931
FAX#:

Ship to:

KIEWIT WATER FACILITIES SOUTH
135 CLAUDE YATES DR
FRANKLIN TN 37064
USA

Your Local Sales Rep(s):

Anthony H

To Place Your Order Please Reference Quote and Line Number
Thank you for the opportunity to quote per your requirements.

LINE#	OUR INTERNAL PART NUMBER DESCRIPTION	QUANTITY	U/M	PRICE / PER	EXTENDED PRICE
0010	VALVE TAG CUSTOM QUOTED VALVE TAGS YOUR CUSTOM PART WILL BE MANUFACTURED PER: Quote quantity 1 71 Application (Indoor, INDOOR OUTDOOR Material ALUMINUM 18GAUGE Size 3WX1.25 Shape? (Square, Roun RECTANGLE Color NATURAL Black fill or Nat. NATURAL Copy 2 sides? NO Specify Copy Side 1 < LIST> Additional Informatl < SEE TEXT> Lead Time (Bus Days) 12 Setup Charge Setup Charge 75.00 Item Total 809.85	71	EA	10.35 /1	734.85
0020	79268 STAINLESS STEEL VALVE TAG WIRE 1800 FEET	1	ROL	98.10 /1	98.10
				Item Total	98.10
				Net Total	907.95
				Estimated Freight/Handling/Fuel Surcharge	41.45
	State Tax/GST/HST 66.46 County Tax/PST/HST 26.11			Total Tax	92.57
				Quote Total	1,041.97

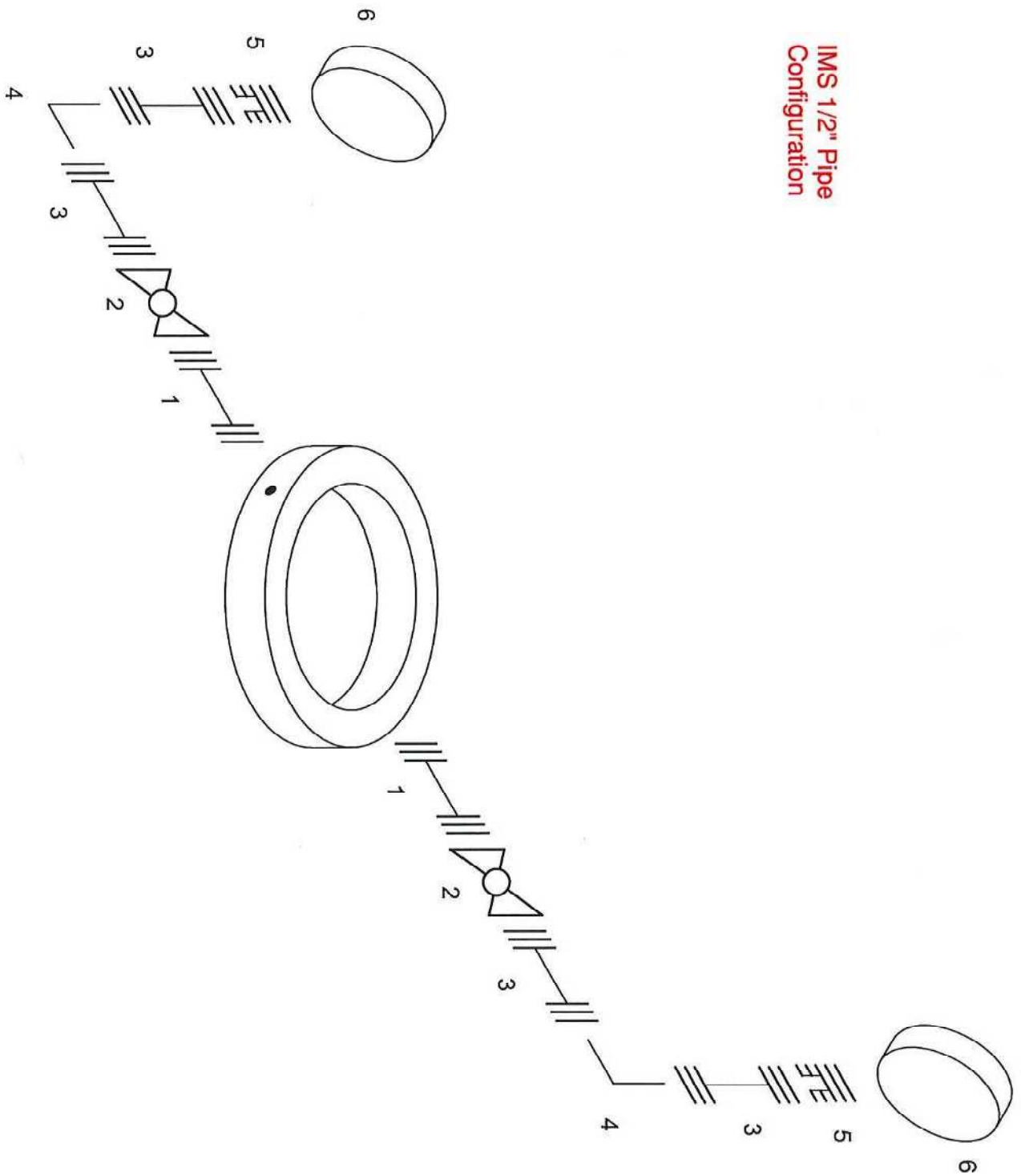
For questions, please call us toll free at 1-800-243-6624, e-mail us at setonusa@seton.com, or fax us at 1-800-345-7819. For order status, invoice reprint, or to place an order visit www.seton.com.

Make Seton Your Source for Safety, Labeling and Signage
Guaranteed Fast & Flawless Every Time.

A	B	C	D	E	F	G	H	I	J	K
1										
2			2020-S041 FRANKLIN WATER RECLAMATION FACILITY							
3			FRANKLIN, TN							
4			PRESSURE GAUGE FITTINGS							
5			BID DATE: 05/12/2020							
6										
7	NUMBER	QTY	UNIT	SIZE	MATERIAL	LENGTH	JOINT	FITTING	DESCRIPTION	UNIT SELL
8										TOTAL SELL
9			HEADING 1							
10			PRESSURE GAUGE FITTINGS							
11	1	8 EA	1/2"	GALVANIZED	0'-3"	TXT		DIELECTRIC NIPPLE	PPP 19100P	11.83 94.67
12	2	8 EA	1/2"	BRONZE	TOP ENTRY	THREAD		BALL VALVE	WATTS LFFBV-3C 2-PIECE 600 WOG	8.26 65.26
13	3	16 EA	1/2"	MALLEABLE IRON	0'-2"	THREAD		NIPPLE	SCHEDULE 40	0.40 6.36
14	4	8 EA	1/2"	MALLEABLE IRON		THREAD		90 BEND	150# CLASS	0.51 4.10
15	5	8 EA	3/4"x1/2"	MALLEABLE IRON		THREAD		BUSHING	150# CLASS	0.83 6.67
16	6	2							EXISTING PRESSURE GAUGE	
17									TOTAL	\$178.05

= \$111.79

IMS 1/2" Pipe Configuration





**WAYNE J.
GRIFFIN ELECTRIC
INC.**

July 8, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp, Franklin, TN
Proposal #34, Supersedes Proposal(s) #19

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This proposal is for new conduit and conductors to install new position switches on the existing check valves and new pressure switches being installed on the WAS Pumps 5, 6, 7, and 8, as detailed in CCA 0024. This price includes providing and installing the new WAS Pump Limit Switches shown in the CCA. The pressure switches are to be provided and installed by others.

Material	\$	4,020.54
Labor		8,537.80
Overhead & Profit		1,883.75
Subtotal	\$	14,442.09
Bond		73.65
 Total	 \$	 14,515.74

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis

July 8, 2020

Page 2

The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jav

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0034, CCA-24 RAS/WAS Pump Station
Date: 7/8/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is for new conduit and conductors to install new position switches on the existing check valves and new pressure switches being installed on the WAS Pumps 5, 6, 7, and 8, as detailed in CCA 0024. This price includes providing and installing the new WAS Pump Limit Switches shown in the CCA. The pressure switches are to be provided and installed by others.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Builts	0.00	0.0000	HRS	0.000	0.000	2.490
Cleanup	0.00	0.0000	HRS	0.000	0.000	2.490
Tools	0.00	0.0000	HRS	0.000	0.000	2.990
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	2.490
Supervision	0.00	0.0000	HRS	0.000	0.000	4.990
Project Controls	0.00	0.0000	HRS	0.000	0.000	4.990
LIMIT SWITCHES	1.00	497.2800	EA	497.280	24.000	24.000
3/4" ALUMINUM CONDUIT	310.00	2.7374	FT	848.590	0.055	17.050
3/4" ALUMINUM 90D ELBOW	16.00	30.0600	EA	480.960	0.300	4.800
3/4" 3-PIECE COUPLING	4.00	12.1875	EA	48.750	0.700	2.800
3/4" ALUM COUPLING	22.00	10.6500	EA	234.300	0.300	6.600
3/4" RIGID THREADED "LB" CONDULET (ALUM)	4.00	18.4400	EA	73.760	0.600	2.400
3/4" RIGID THREADED "T" CONDULET (ALUM)	6.00	23.4400	EA	140.640	1.000	6.000
3/4" MYERS HUBS W/GROUND DIE CAST	4.00	24.3200	EA	97.280	1.100	4.400
3/4 LIQUIDTITE CONDUIT	30.00	3.0800	FT	92.400	0.050	1.500
3/4" LIQUID TIGHT STEEL STRAIGHT CONNECTOR	16.00	7.3881	EA	118.210	0.180	2.880
#14 XHHW COPPER WIRE	1,482.00	0.2139	FT	317.000	0.006	8.892
3/8 x 3" WEDGE ANCHOR	40.00	1.7045	EA	68.180	0.220	8.800
3/8 X 1 1/4" FENDER WASHER (SS)	40.00	0.2633	EA	10.530	0.001	0.048
1/4-20 x 1" MACHINE SCREWS (SS)	8.00	0.0913	EA	0.730	0.070	0.560
3/8-16 x 1" MACHINE SCREWS (SS)	10.00	0.2050	EA	2.050	0.075	0.750
1/4-20 HEX NUTS (SS)	8.00	0.0463	EA	0.370	0.024	0.192
3/4" RIGID STRUT CLAMP (702 SERIES)	47.00	2.2857	EA	107.430	0.030	1.410
1 5/8" X 1 5/8" 12 GAUGE 1 5/8 X 1 5/8 SLOT 10' STRUT (SS)	30.00	9.8100	FT	294.300	0.123	3.675
P2072A-SS 10" H POST BASE	4.00	140.5000	EA	562.000	0.300	1.200
3/8 SPRING NUTS (SS)	10.00	1.6600	EA	16.600	0.072	0.720
PULL STRING - GREENLEE 430 (6500')	410.00	0.0224	FT	9.180	0.003	1.066
Totals				4,020.54		120.18
Tax				0.00		
Materials with				4,020.54		

Summary

	Itemized Breakdown Total	4,020.54
Elect. Journeyman	(120.1830 hrs @ \$71.04 / hr)	8,537.80
		8,537.80
Overhead & Profit	(\$12,558.34 @ 15.00%)	1,883.75
		1,883.75
Bond	(\$14,442.09 @ 0.51%)	73.65
		73.65
		1,957.40
Total		\$14,515.74



1040 LONDON DR
BIRMINGHAM AL 35211-4542
Phone: 205-244-2541
Fax: 205-326-3350

To: WAYNE J. GRIFFIN ELEC Inc.
296 CAHABA VALLEY PKWY N
PELHAM AL 35124
Attn: Nick Young
Phone: 508-429-8830
Fax: 205-733-8107
Email: JODY.ROBERTS@GRAYBAR.COM

Date: 06/24/2020
Proj Name:
GB Quote #: 0235656318
Release Nbr:
Purchase Order Nbr:
Additional Ref#
Valid From: 06/24/2020
Valid To: 07/24/2020
Contact: Jody Roberts
Email: jody.roberts@graybar.com

Proposal

We Appreciate Your Request and Take Pleasure in Responding As Follows

Item	Item/Type	Quantity	Supplier	Catalog Nbr	Description	Price	Unit	Ext.Price
100		4 EA	SQUARE D CO.	9007C52A2	LIMIT SWITCH 600V 10AMP C +OPTIONS	\$113.41	1	\$453.64
GB Part #: 88248870 UPC #: 78590178334								
200		4 EA	SQUARE D CO.	9007BA11	LIMIT SWITCH LEVER ARM C+OPTIONS	\$10.91	1	\$43.64
GB Part #: 88248820 UPC #: 78590187023								

Total in USD (Tax not Included): \$497.28

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

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.

To: WAYNE J. GRIFFIN ELEC Inc.
296 CAHABA VALLEY PKWY N
PELHAM AL 35124
Attn: Nick Young

Date: 06/24/2020
Proj Name:
GB Quote #: 0235656318

Proposal

We Appreciate Your Request and Take Pleasure in Responding As Follows

GRAYBAR ELECTRIC COMPANY, INC. TERMS AND CONDITIONS OF SALE

1. ACCEPTANCE OF ORDER; TERMINATION - Acceptance of any order is subject to credit approval and acceptance of order by Graybar Electric Company, Inc. ("Graybar") and, when applicable, Graybar's suppliers. If credit of the buyer of the goods or services ("Buyer") becomes unsatisfactory to Graybar, Graybar reserves the right to terminate upon notice to Buyer and without liability to Graybar.
2. PRICES AND SHIPMENTS - Unless otherwise quoted, prices for goods shall be those in effect at time of shipment, which shall be made F.O.B. shipping point, prepaid and bill. Unless otherwise indicated in the applicable quotation or statement of work, prices for services shall be those in effect at the time of completion. The contract price for goods and or services shall be increased by the amount of any applicable tariff, excise, fee, assessment, levy, charge or duty of any kind whatsoever, imposed, assessed or collected by any governmental body, whether or not reflected in the costs charged to Graybar, and Graybar may increase its cost for goods and or services appropriately to take into account such increases in Graybar's costs.
3. RETURN OF GOODS - Credit may be allowed for goods returned with prior approval. A deduction may be made from credits issued to cover cost of handling. Returns will not be accepted for services or any material which has been modified at the request of or by Buyer. In addition, no custom orders may be returned.
4. TAXES - Prices shown do not include sales or other taxes imposed on the sale of goods or services. Taxes now or hereafter imposed upon sales, shipments or services will be added to the purchase price. Buyer agrees to reimburse Graybar for any such tax or provide Graybar with acceptable tax exemption certificate.
5. DELAY IN DELIVERY - Graybar is not to be accountable for delays in delivery of goods or services occasioned by acts of God, failure of its suppliers to ship or deliver on time, or other circumstances beyond Graybar's reasonable control, including, but not limited to, sourcing, shipment or delivery issues caused by, related to or resulting from COVID-19 or other similar national or global health situations. Factory shipment or delivery dates are best estimates, and in no case shall Graybar be liable for any consequential or special damages arising from any delay in provision of services, shipment or delivery.
6. LIMITED WARRANTIES - Graybar warrants that all goods sold are free of any security interest and will make available to Buyer all transferable warranties (including without limitation warranties with respect to intellectual property infringement) made to Graybar by the manufacturer of the goods. Buyer acknowledges that the performance of any service which alters the manufacturer's provided goods as indicated in the statement of work may void the manufacturer's warranty. Graybar shall use the same care and skill a similarly situated provider of like services would exercise following commonly accepted industry practices in the performance of its duties under this agreement. GRAYBAR MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES, AND SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PURPOSE. UNLESS OTHERWISE AGREED IN WRITING BY AN AUTHORIZED REPRESENTATIVE OF GRAYBAR, PRODUCTS SOLD HEREUNDER ARE NOT INTENDED FOR USE IN OR IN CONNECTION WITH (1) ANY SAFETY APPLICATION OR THE CONTAINMENT AREA OF A NUCLEAR FACILITY, OR (2) IN A HEALTHCARE APPLICATION, WHERE THE GOODS HAVE POTENTIAL FOR DIRECT PATIENT CONTACT OR WHERE A SIX (6) FOOT CLEARANCE FROM A PATIENT CANNOT BE MAINTAINED AT ALL TIMES.
7. LIMITATION OF LIABILITY - Buyer's remedies under this agreement are subject to any limitations contained in manufacturer's terms and conditions to Graybar, a copy of which will be furnished upon written request. Furthermore, Graybar's liability shall be limited to either repair or replacement of the goods, re-performance of the services, or refund of the purchase price, all at Graybar's option, and IN NO CASE SHALL GRAYBAR BE LIABLE FOR INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES. In addition, claims for shortages, other than loss in transit, must be made in writing not more than five (5) days after receipt of shipment. Unless otherwise agreed in the applicable statement of work, acceptance of services will occur not more than five (5) days after completion of performance.
8. WAIVER - The failure of Graybar to insist upon the performance of any of the terms or conditions of this agreement or to exercise any right hereunder shall not be deemed to be a waiver of such terms, conditions, or rights in the future, nor shall it be deemed to be a waiver of any other term, condition, or right under this agreement.
9. MODIFICATION OF TERMS AND CONDITIONS - These terms and conditions, and any associated statement of work, supersede all other communications, negotiations, and prior oral or written statements regarding the subject matter of these terms and conditions. No change, modification, rescission, discharge, abandonment, or waiver of these terms and conditions shall be binding upon Graybar unless made in writing and signed on its behalf by a duly authorized representative of Graybar. No conditions, usage of trade, course of dealing or performance, understanding or agreement, purporting to modify, vary, explain, or supplement these terms and conditions shall be binding unless hereafter made in writing and signed by the party to be bound. Any proposed modifications or additional terms are specifically rejected and deemed a material alteration hereof. If this document shall be deemed an acceptance of a prior offer by Buyer, such acceptance is expressly conditional upon Buyer's assent to any additional or different terms set forth herein.
10. REELS - When Graybar ships returnable reels, a reel deposit may be included in the invoice. The Buyer should contact the nearest Graybar service location to return reels.
11. CERTIFICATION - Graybar hereby certifies that these goods were produced in compliance with all applicable requirements of Sections 6, 7, and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the United States Department of Labor issued under Section 14 thereof. This agreement is subject to Executive Order 11246, as amended, the Rehabilitation Act of 1973, as amended, the Vietnam Veterans Readjustment Assistance Act of 1974, as amended, E.O. 13496, 29 CFR Part 471, Appendix A to Subpart A, and the corresponding regulations, to the extent required by law. 41 CFR 60-1.4, 60-741.5, and 60-250.5 are incorporated herein by reference, to the extent legally required.
12. FOREIGN CORRUPT PRACTICES ACT - Buyer shall comply with applicable laws and regulations relating to anti-corruption, including, without limitation, (i) the United States Foreign Corrupt Practices Act (FCPA) (15 U.S.C. §§78dd-1, et. seq.) irrespective of the place of performance, and (ii) laws and regulations implementing the Organization for Economic Cooperation and Development's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the U.N. Convention Against Corruption, and the Inter-American Convention Against Corruption in Buyer's country or any country where performance of this agreement or delivery of goods will occur.
13. ASSIGNMENT - Buyer shall not assign its rights or delegate its duties hereunder or any interest herein without the prior written consent of Graybar, and any such assignment, without such consent, shall be void.
14. GENERAL PROVISIONS - All typographical or clerical errors made by Graybar in any quotation, acknowledgment or publication are subject to correction. This agreement shall be governed by the laws of the State of Missouri applicable to contracts to be formed and fully performed within the State of Missouri, without giving effect to the choice or conflicts of law provisions thereof. All suits arising from or concerning this agreement shall be filed in the Circuit Court of St. Louis County, Missouri, or the United States District Court for the Eastern District of Missouri, and no other place unless otherwise determined in Graybar's sole discretion. Buyer hereby irrevocably consents to the jurisdiction of such court or courts and agrees to appear in any such action upon written notice thereof.
15. PAYMENT TERMS - Payment terms shall be as stated on Graybar's invoice or as otherwise mutually agreed. As a condition of the sales agreement, a monthly service charge of the lesser of 1-1/2% or the maximum permitted by law may be added to all accounts not paid by net due date. Visa, MasterCard, American Express, and Discover credit cards are accepted at point of purchase only.
16. EXPORTING - Buyer acknowledges that this order and the performance thereof are subject to compliance with any and all applicable United States laws, regulations, or orders. Buyer agrees to comply with all such laws, regulations, and orders, including, if applicable, all requirements of the International Traffic in Arms Regulations and/or the Export Administration Act, as may be amended. Buyer further agrees that if the export laws are applicable, it will not disclose or re-export any technical data received under this order to any countries for which the United States government requires an export license or other supporting documentation at the time of export or transfer, unless Buyer has obtained prior written authorization from the United States Office of Export Control or other authority responsible for such matters.
17. CANCELLATION, CHANGES FOR SERVICES - Buyer may cancel or make changes to a statement of work up to five (5) business days prior to commencement of the work. All changes and cancellations after such date are subject to Graybar's prior written approval in Graybar's sole and absolute discretion. Buyer shall pay to Graybar amounts necessary to cover cancellation, restocking fees and other charges applicable to the cancelled goods or services including those incurred or committed to by Graybar.

Signed: _____

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

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.



NATIONWIDE SYSTEM INTEGRATION

Providing solutions since 1962



5253 OAKDALE ROAD • SMYRNA, GEORGIA 30082
MAILING ADDRESS: 4480H SOUTH COBB DRIVE • PMB 301 • SMYRNA, GA 30080-6984
PHONE: 404/351-1085 • FAX: 404/794-5784 • EMAIL: admin@c2iinc.com

FLORIDA OPERATIONS OFFICE:
23 S. DILLINGHAM AVENUE, STE. A
KISSIMMEE, FL 34741
PHONE: 404/351-1085

FIELD OFFICES: Georgia
Florida
Tennessee

June 04, 2020

Kiewit Water Facilities South
135 Claude Yates Drive
Franklin, TN 37064

Attn: Corbin Coker

PROJECT: FRANKLIN WRF MODIFICATIONS & EXPANSION PROJECT
OWNER: CITY OF FRANKLIN, TN
ENGINEER: CDM SMITH, INC.
CONTRACT: 103925-SC-004
KIEWIT JOB NO.: 103925
C2i JOB NO: 09181015

Reference: RAS/WAS Pump Station – CCA 024 Revised

Dear Corbin:

As requested, we are pleased to provide a proposal to add four (4) switches on annular seals with ball valves. The annular seal is 6-inch.

The price, per the attached Bid Summary Sheet, is \$8,865.12(no taxes).

If you have any questions, please let us know.

Sincerely,

Mark G. Healey
CONTROL INSTRUMENTS, INC./C2i
MGH/jw
Attachment

cc: Sue Adams / Jonathon Johnson – C2i

BID SUMMARY SHEET

REVISED

PROJECT: Franklin REFERENCE: CCA 024 RAS /WAS Switches on gaug JOB DURATION: _____
CONSULTANT: CDM Smith Bid Date: 5/12/2020 PENALTY: _____
ESTIMATOR: MGH

		PRICE
FIELD EQUIPMENT.....	\$	5,235.40
PANEL EQUIPMENT.....	\$	0.00
	\$	0.00
	\$	0.00
	\$	0.00
	\$	0.00
	\$	0.00
MATERIAL TOTALS:	\$	5,235.40

	PRICE			PRICE	SIGN-OFF
ADMINISTRATION	\$1,150.00	/Day x 0.25	Days = \$	287.50	
PURCHASING	\$1,150.00	/Day x 0.25	Days = \$	287.50	
ENGINEERING:	\$1,200.00	/Day x 0.13	Days = \$	156.00	
MANUFACTURING:	\$783.00	/Day x 0.00	Days = \$	0.00	
DOCUMENTATION:	\$684.00	/Day x 0.25	Days = \$	171.00	
PROGRAMMING (PLC):	\$1,200.00	/Day x 0.00	Days = \$	0.00	
PROGRAMMING (OIT):	\$1,200.00	/Day x 0.00	Days = \$	0.00	
SERVICE ESTIMATE:	\$1,200.00	/Day x 1.00	Days = \$	1,200.00	
SERVICE ESTIMATE:	\$1,043.00	/Day x 0.00	Days = \$	0.00	
FREIGHT/SHIPPING:			\$	200.00	
DOCUMENTATION MATERIALS:			\$	50.00	
TRAVEL COST			\$	0.00	
LABOR TOTALS:			\$	2,352.00	

	PRICE
MATERIAL AND LABOR TOTALS:	\$ 7,587.40
1.60%	\$ 121.40
Bond 1%	0
subtotal	7,708.80
	0.00
15% Markup	\$ 8,865.12
	\$
	\$
	\$
	\$

SELECTED JOB PRICE: \$ 8,865.12

Allowance Yes/No: NO
Bonds Yes/No: NO 0 0
Taxes Yes/No: NO 0% \$ -
TOTAL PRICE: \$ 8,865.12



QUOTATION

Rawson Inc.
305 SHAWNEE NORTH DRIVE
SUITE 400
SUWANEE, GA 30024
US
678-684-0290

Rawson Quote Number-Expiration Date	
5257434 - 7/4/2020	
Quote Date	Page
6/4/2020	1 of 2
Quoted By: MICHAEL ZAN	
251-800-6440	michael.zan@rawsonlp.com
Quotation Requested By MARK HEALEY	

Invoice To:

CONTROL INSTRUMENTS INC
RALPH HEALEY & ASSOC INC
4480-H SOU.COBB DR PMB301
SMYRNA, GA 30080
404-351-1085

Ship To:

CONTROL INSTRUMENTS, INC
5253 OAKDALE ROAD
SMYRNA, GA 30082
US

Customer ID:	Customer Reference Number	Notes
439129	Franklin 1015	

Payment Terms	Carrier/Freight Terms	Routing / Shipping Point
Net 45 days	U11 UPS Ground/PREPAY & ADD	/

Customer Line Number	Quantity Quoted	UOM	Item ID Item Description	Estimated Lead Time	Unit Price	Extended Price
----------------------	-----------------	-----	-----------------------------	---------------------	------------	----------------

Please Make Order To:
RAWSON INC

Orders accepted on basis of RAWSON INC
Terms and Conditions found at
<https://www.rawsonlp.com/terms-and-conditions>
FOB: SHIP PT
Freight: Pre-Paid & Added or collect
Ship via: BEST WAY
TERMS: NET 30 Days
ESTIMATED LEAD TIME: 6 - 7 Weeks ARO

Please send orders to:
ORDERS@RAWSONLP.COM
Please reference Rawson QT # on PO

001	4.00	EA	451279SSL04LXNH300PSIG ASHCROFT 1279 DURAGAUGE 45-1279SSL-04L-XNH-300PSIG 4-1/2" DIAL SIZE GLYCERIN LIQUID FILLED 316SS TUBE & SOCKET 1/2" NPT LOWER CONNECTION WITH SS TAG RANGE 0-300 PSIG		126.93	507.72
002	4.00	EA	B432VXFSNH30PSIG Ashcroft B4 Pressure Switch		267.96	1,071.84

Rawson Inc.
305 SHAWNEE NORTH DRIVE
SUITE 400
SUWANEE, GA 30024
US
678-684-0290

Rawson Quote Number-Expiration Date	
5257434 - 7/4/2020	
Quote Date	Page
6/4/2020	2 of 2
Quoted By: MICHAEL ZAN	
251-800-6440	michael.zan@rawsonlp.com
Quotation Requested By MARK HEALEY	

Customer Line Number	Quantity Quoted	UOM	Item ID Item Description	Estimated Lead Time	Unit Price	Extended Price
			NEMA 4X Enclosed Switch Single SPDT 1/4" MNPT Process Connection, Lower St St Wetted Parts Factory Set Set Point St St Tag			
003	4.00	EA	8006EBB04TV000XCKL4 ASHCROFT 6" ISO RING SEAL Wafer Style Isolation Ring, 6" Nominal size BUNA N Liner Carbon Steel End Plate and Hub Material 1/2" FNPT Inst connect Needle Valve 50 cST SiliconeFill L4 Attachment of Gauge and Switch		913.96	3,655.84

Total Lines: 3

SUB-TOTAL: 5,235.40

TAX: 0.00

TOTAL QUOTE VALUE: 5,235.40

U.S. Dollars

Except as expressly provided otherwise herein, payment for or acceptance of the products and/or services described herein constitutes customer's acceptance of seller's General Terms and Conditions for the Sale of Products or Services, as in effect from time to time and set forth on seller's website (<http://www.rawsonlp.com>) and incorporated herein by reference. Payment Terms are subject to credit approval.

CONSTRUCTION CHANGE AUTHORIZATION

TO:	Mr. Steve Davis Project Manager Kiewit Water Facilities South 4405 International Blvd., NW, Suite C-101 Norcross, Georgia 30093 (770) 940-8044	FROM:	CDM Smith 210 25 th Ave. N. Suite 1102 Nashville, TN 37203 (615) 320-3161
DATE:	December 31, 2019		
PROJECT:	City of Franklin, Tennessee Franklin WRF Modifications & Expansion Project		
CCA NUMBER:	28	CDM SMITH PROJ. NO.:	14915-231666
SUBJECT:	Alum System	CITY PROJECT NO.:	2017-0264
REFERENCE:	(See Below)		

DESCRIPTION: Section 13305, Paragraph 3.03.M, 2.c to be revised as follows:

c. Automatic Controls. With all equipment in Remote or Auto mode:

- 1) Pump Nos. 1 – 3. Operator enters a ratio based upon gallons of alum per million gallons of flow and starts the pump. Gallons of flow are determined by the sum of the plant influent flow and the equalization tank return flow. Alum feed is paced by this ratio.
- 2) Pump Nos. 4 & 5. Operator enters a ratio based upon gallons of alum per ten-thousand gallons of flow. The pumps are started, stopped, and flow paced, by their respective post-dewatering screw press control panels. Gallons of flow are determined by the flow rate of sludge from the post-dewatering screw press feed pump. Future Alum Pump No. 6 shall also operate this way.
- 3) If a pump fails to start or fails while running, an alarm is generated in SCADA.

Pump Nos. 1 – 3 feed the BNR basins, and Pump Nos. 4 – 6 feed the screw presses. See attached revisions to Sheets I-18, I-56 and M-43 for additional information.

CDM SMITH:

By: 

Date: 1/4/20

CONTRACTOR:

By: 

Date: 1/4/20

City of Franklin:

By: 

Date: 11/06/2020

Brian Goodwin

City of Franklin:

BY: 

Date: 11/6/20

Michelle Hatcher



A	9/11	US	a	CONSTRUCTION QUARTER AMERICAN POLICE
	9/11	in	CC	CONSTRUCTION QUARTER
B	9/11	US	CC	CONSTRUCTION QUARTER

CHOD BY _____ N. SOLARIS
 Date BY _____ N. BUCH
 CHOD BY _____ N. LEE
 CHOD BY _____ N. SOLARIS
 CHOD BY _____ N. BUCH
 CHOD BY _____ N. LEE

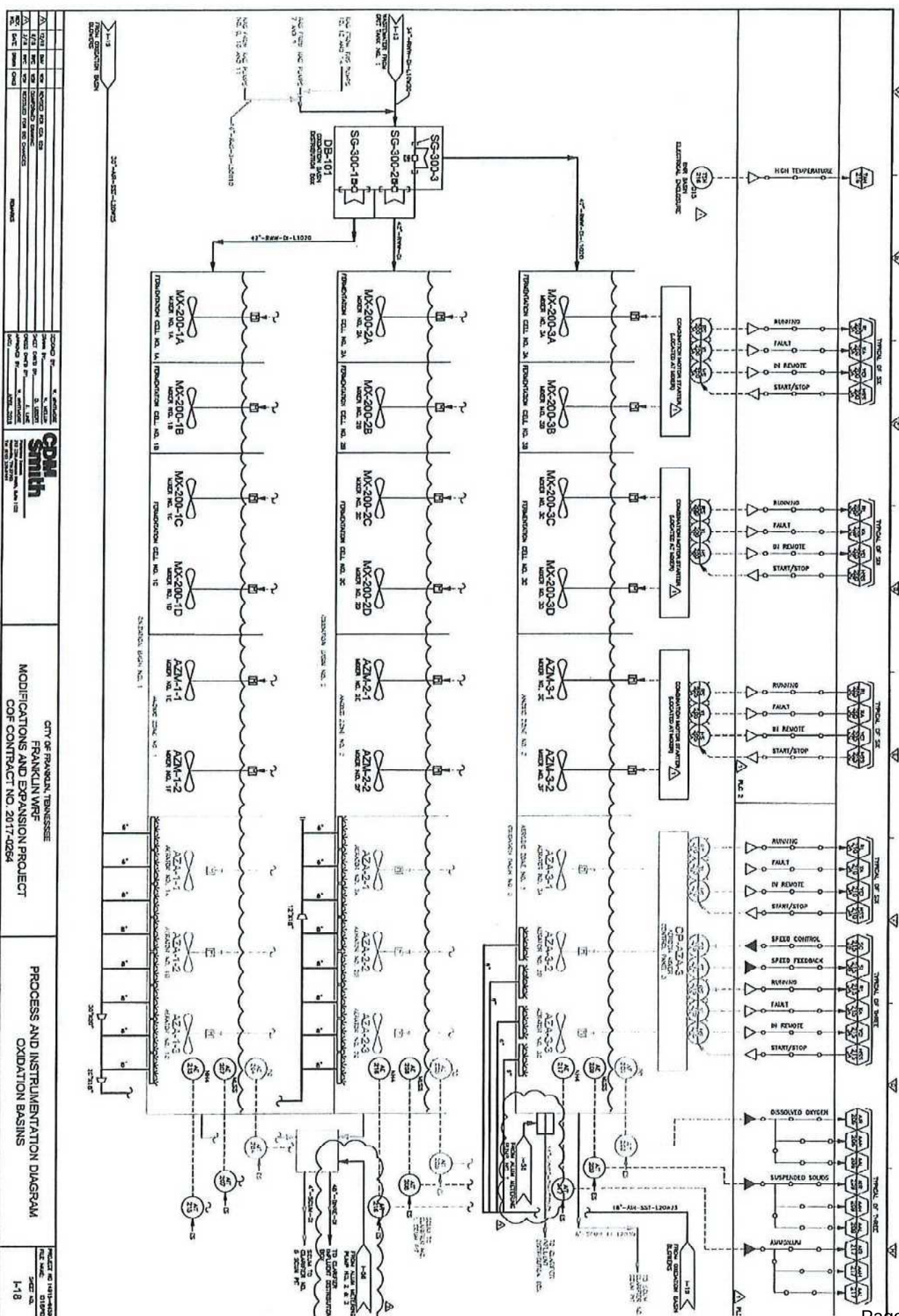
CDM Smith

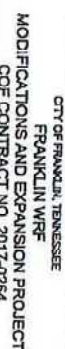
CITY OF FRANKLIN, TENNESSEE
FRANKLIN WRF
MODIFICATIONS AND EXPANSION PROJECT
COF CONTRACT NO. 2017-0264

ALUM STORAGE AND FEED SYSTEM ISOMETRIC DETAILS

三六

NOT TO SCALE
1" = 10' HORIZONTAL
1" = 10' VERTICAL
1" = 10' ELECTRICAL
1" = 10' PNEUMATIC
1" = 10' HYDRAULIC
1" = 10' THERMAL
1" = 10' MECHANICAL
1" = 10' CHEMICAL
1" = 10' BIOLOGICAL
1" = 10' ENVIRONMENTAL
1" = 10' ACOUSTICAL
1" = 10' OPTICAL
1" = 10' MAGNETIC
1" = 10' ELECTROMAGNETIC
1" = 10' GRAVITATIONAL
1" = 10' NUCLEAR
1" = 10' PARTICULATE
1" = 10' RADIATION
1" = 10' THERMAL
1" = 10' MECHANICAL
1" = 10' CHEMICAL
1" = 10' BIOLOGICAL
1" = 10' ENVIRONMENTAL
1" = 10' ACOUSTICAL
1" = 10' OPTICAL
1" = 10' MAGNETIC
1" = 10' ELECTROMAGNETIC
1" = 10' GRAVITATIONAL
1" = 10' NUCLEAR
1" = 10' PARTICULATE
1" = 10' RADIATION







Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

February 11, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00022.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 028 Alum Loop Descriptions

Dear Mr. Harris,

Attached you will find Kiewit's change proposal for **CCA 028 – Alum Loop Descriptions**. Kiewit offers a total cost of **Three Thousand Five Hundred Seven Dollars (\$3,507.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher

Kiewit Infrastructure South Co.
4406 International Blvd, Suite #C101
Norcross, Georgia 30093



DATE: 02-11-2020

CCA No. 028 Alum Loop Descriptions

PREPARED BY: Steve Davis

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Description					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CCA 028 Alum Loop Descriptions	1.00	LS			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,339.87	\$ 3,339.87	\$ -	\$ -	\$ 3,339.87
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
OTHER					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STS - small tools, consumables, safety equip, (5% of direct labor, plus 9.75% sales tax: Formula = Total Direct Labor Subtotal * .05 * 1.0925)		MHR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
BOND (2% of total)					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
SUBTOTALS					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,339.87	\$ 3,339.87	\$ -	\$ -	\$ 3,339.87
MARKUP %						15.00%		15.00%		15.00%		15.00%		5.00%		15.00%	\$ 166.99
SUBTOTALS WITH MARKUPS APPLIED													\$ 3,506.86				\$ 3,506.86
BOND																	
TOTAL																	\$3,507.00



CONTROL INSTRUMENTS, INC.

NATIONWIDE SYSTEM INTEGRATION

Providing solutions since 1962



5253 OAKDALE ROAD • SMYRNA, GEORGIA 30082
MAILING ADDRESS: 4480H SOUTH COBB DRIVE • PMB 301 • SMYRNA, GA 30080-6984
PHONE: 404/351-1085 • FAX: 404/794-5784 • EMAIL: admin@c2iinc.com

FLORIDA OPERATIONS OFFICE:
23 S. DILLINGHAM AVENUE, STE. A
KISSIMMEE, FL 34741
PHONE: 404/351-1085

FIELD OFFICES: Georgia
Florida
Tennessee

22 January, 2020

Kiewit Infrastructure South Co.
4405 International Blvd, NW
Suite C-101
Norcross, GA 30093
Attn: Steve Davis

PROJECT: FRANKLIN WRF MODIFICATIONS & EXPANSION PROJECT
OWNER: CITY OF FRANKLIN, TN
ENGINEER: CDM SMITH, INC.
CONTRACT: 103925-SC-004
KIEWIT JOB NO.: 103925
C2i JOB NO: 09181015

Reference: CCA 28 – Alum System

Dear Steve:

In accordance with Construction Change Authorization No. 28 we are pleased to provide the following services:

One (1) Lot Revised programming.

The cost for these changes, per the attached Bid Summary Sheet, is ~~\$2,506.86~~ **\$3,339.87**

If you have any questions, please let us know.

Sincerely,

Mark G. Healey
CONTROL INSTRUMENTS, INC./C2i
MGH/jw
Attachment

cc: Jonathon Johnson / Wes Wood / Sue Adams – C2i

BID SUMMARY SHEET

PROJECT: Franklin REFERENCE: CCA 28 Alum Programming
 CONSULTANT: CDM Smith Bid Date: 1/20/2020

JOB DURATION: _____
 PENALTY: _____
 ESTIMATOR: MGH

		PRICE
FIELD EQUIPMENT.....	\$	0.00
PANEL EQUIPMENT.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
MATERIAL TOTALS:	\$	0.00

	PRICE			PRICE	SIGN-OFF
ADMINISTRATION	\$1,150.00	/Day x 0.25	Days = \$	287.50	
PURCHASING	\$1,150.00	/Day x 0.00	Days = \$	0.00	
ENGINEERING:	\$1,200.00	/Day x 1.00	Days = \$	1,200.00	
MANUFACTURING:	\$783.00	/Day x 0.00	Days = \$	0.00	
DOCUMENTATION:	\$684.00	/Day x 0.25	Days = \$	171.00	
PROGRAMMING (PLC):	\$1,200.00	/Day x 0.50	Days = \$	600.00	
PROGRAMMING (OIT):	\$1,200.00	/Day x 0.50	Days = \$	600.00	
SERVICE ESTIMATE:	\$1,200.00	/Day x 0.00	Days = \$	0.00	
SERVICE ESTIMATE:	\$1,043.00	/Day x 0.00	Days = \$	0.00	
FREIGHT/SHIPPING:			\$	0.00	
DOCUMENTATION MATERIALS:			\$	0.00	
TRAVEL COST			\$	0.00	
LABOR TOTALS:			\$	2,858.50	

	PRICE
MATERIAL AND LABOR TOTALS:	\$ 2,858.50
1.60%	\$ 45.74
Bond 1%	0
subtotal	2,904.24
15% Markup	0.00
	\$ 3,339.87
	\$
	\$
	\$
	\$

SELECTED JOB PRICE: \$ 3,339.87

Allowance Yes/No: NO
 Bonds Yes/No: NO
 Taxes Yes/No: NO

0 0
~~5%~~ ~~\$ 166.99~~

TOTAL PRICE: \$ ~~3,506.86~~
\$3,339.87

CONSTRUCTION CHANGE AUTHORIZATION

TO:	Mr. Steve Davis Project Manager Kiewit Water Facilities South 4405 International Blvd., NW, Suite C-101 Norcross, Georgia 30093 (770) 940-8044	FROM:	CDM Smith 210 25 th Ave. N. Suite 1102 Nashville, TN 37203 (615) 320-3161
DATE:	December 31, 2019		
PROJECT:	City of Franklin, Tennessee Franklin WRF Modifications & Expansion Project		
CCA NUMBER:	28	CDM SMITH PROJ. NO.:	14915-231666
SUBJECT:	Alum System	CITY PROJECT NO.:	2017-0264
REFERENCE:	(See Below)		

DESCRIPTION: Section 13305, Paragraph 3.03.M, 2.c to be revised as follows:

c. Automatic Controls. With all equipment in Remote or Auto mode:

- 1) Pump Nos. 1 – 3. Operator enters a ratio based upon gallons of alum per million gallons of flow and starts the pump. Gallons of flow are determined by the sum of the plant influent flow and the equalization tank return flow. Alum feed is paced by this ratio.
- 2) Pump Nos. 4 & 5. Operator enters a ratio based upon gallons of alum per ten-thousand gallons of flow. The pumps are started, stopped, and flow paced, by their respective post-dewatering screw press control panels. Gallons of flow are determined by the flow rate of sludge from the post-dewatering screw press feed pump. Future Alum Pump No. 6 shall also operate this way.
- 3) If a pump fails to start or fails while running, an alarm is generated in SCADA.

Pump Nos. 1 – 3 feed the BNR basins, and Pump Nos. 4 – 6 feed the screw presses. See attached revisions to Sheets I-18, I-56 and M-43 for additional information.

CDM SMITH:

By: _____

Date: _____

CONTRACTOR:

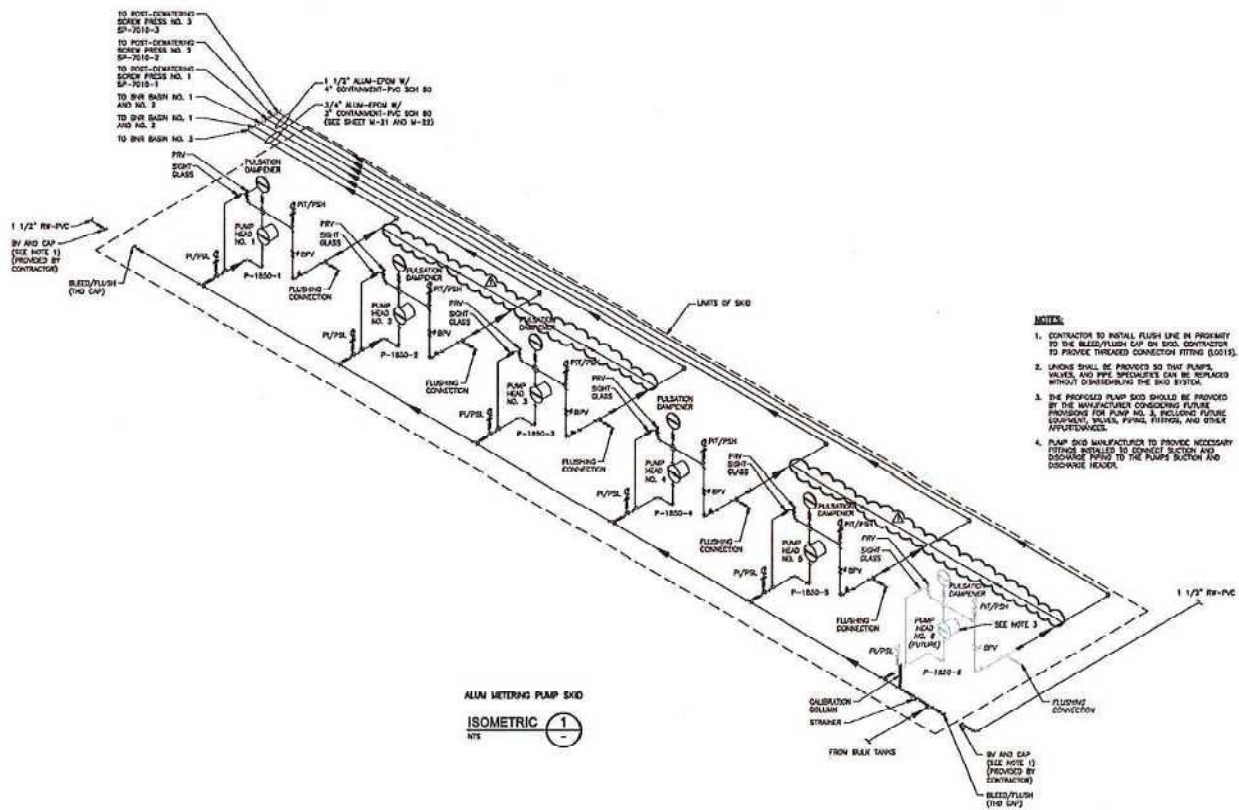
By: _____

Date: _____

City of Franklin:

By: _____

Date: _____



- NOTES**
1. CONTRACTOR TO INSTALL FLUSH LINE IN PROXIMITY TO THE BLEED/FLUSH CAP ON EACH CONNECTION TO PROVIDE THREADED CONNECTION FITTING (LOUIS).
 2. UNIONS SHALL BE PROVIDED SO THAT PUMP, VALVES, AND PIPE SPECIALISTS CAN BE REPLACED WITHOUT DISMANTLING THE SKID SYSTEM.
 3. THE PROPOSED PUMP SKID SHOULD BE PROVIDED BY THE MANUFACTURER CONSIDERING FUTURE PROVISIONS FOR PUMP NO. 5, INCLUDING FUTURE EQUIPMENT, VALVES, FITTINGS, AND OTHER APPURTENANCES.
 4. PUMP SKID MANUFACTURER TO PROVIDE NECESSARY FITTINGS, UNIONS, AND CONNECTIONS TO THE PUMP SUCTOR AND DISCHARGE HEADER.

ALUM METERING PUMP SKID
ISOMETRIC 1

DATE	BY	CHKD	APP'D	REVISION
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	1
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	2
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	3
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	4
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	5
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	6
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	7
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	8
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	9
08/01/18	W. S. SMITH	W. S. SMITH	W. S. SMITH	10

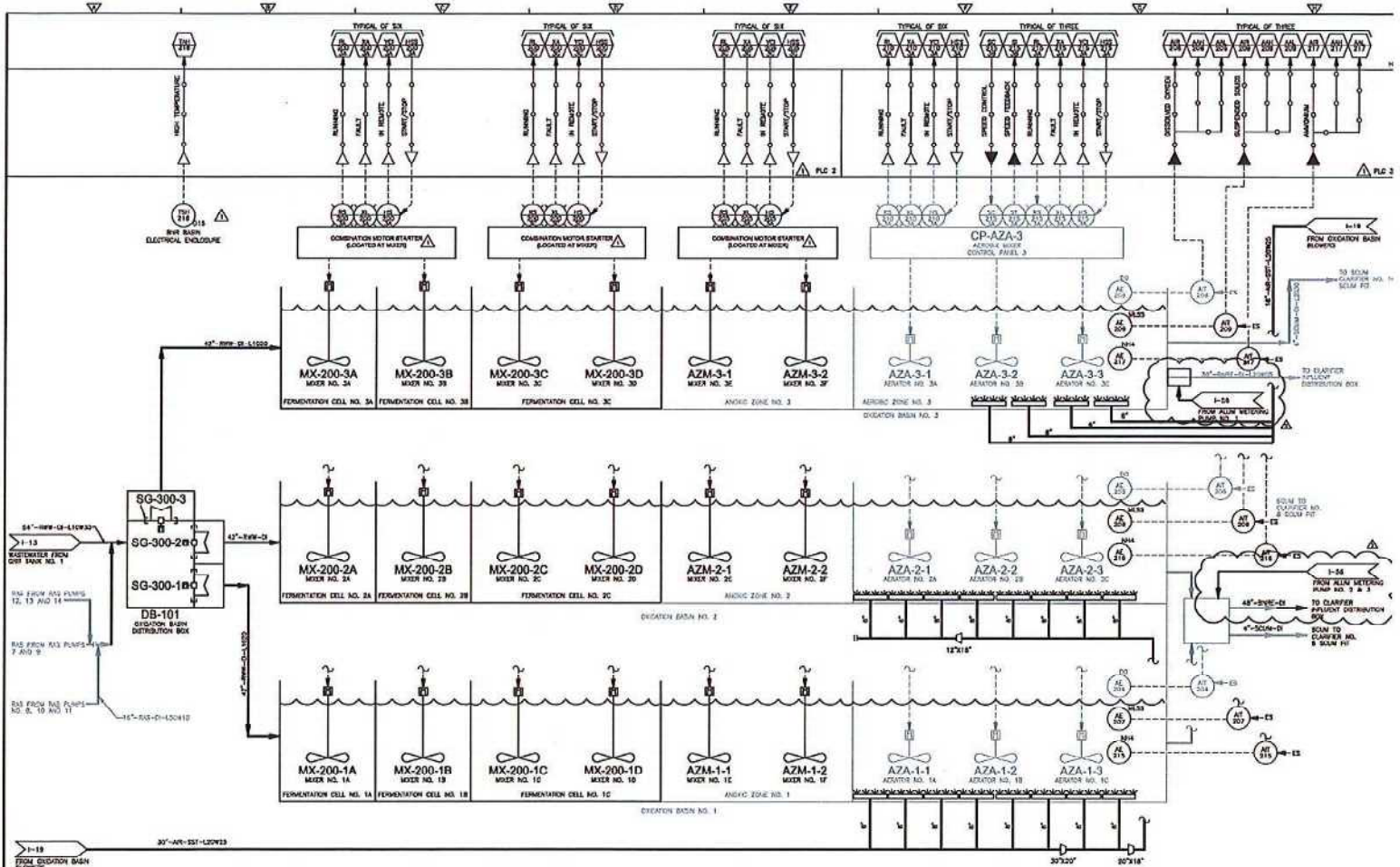
CDM Smith
CITY OF FRANKLIN, TENNESSEE
FRANKLIN WRF
MODIFICATIONS AND EXPANSION PROJECT
COF CONTRACT NO. 2017-0264

CITY OF FRANKLIN, TENNESSEE
FRANKLIN WRF
MODIFICATIONS AND EXPANSION PROJECT
COF CONTRACT NO. 2017-0264

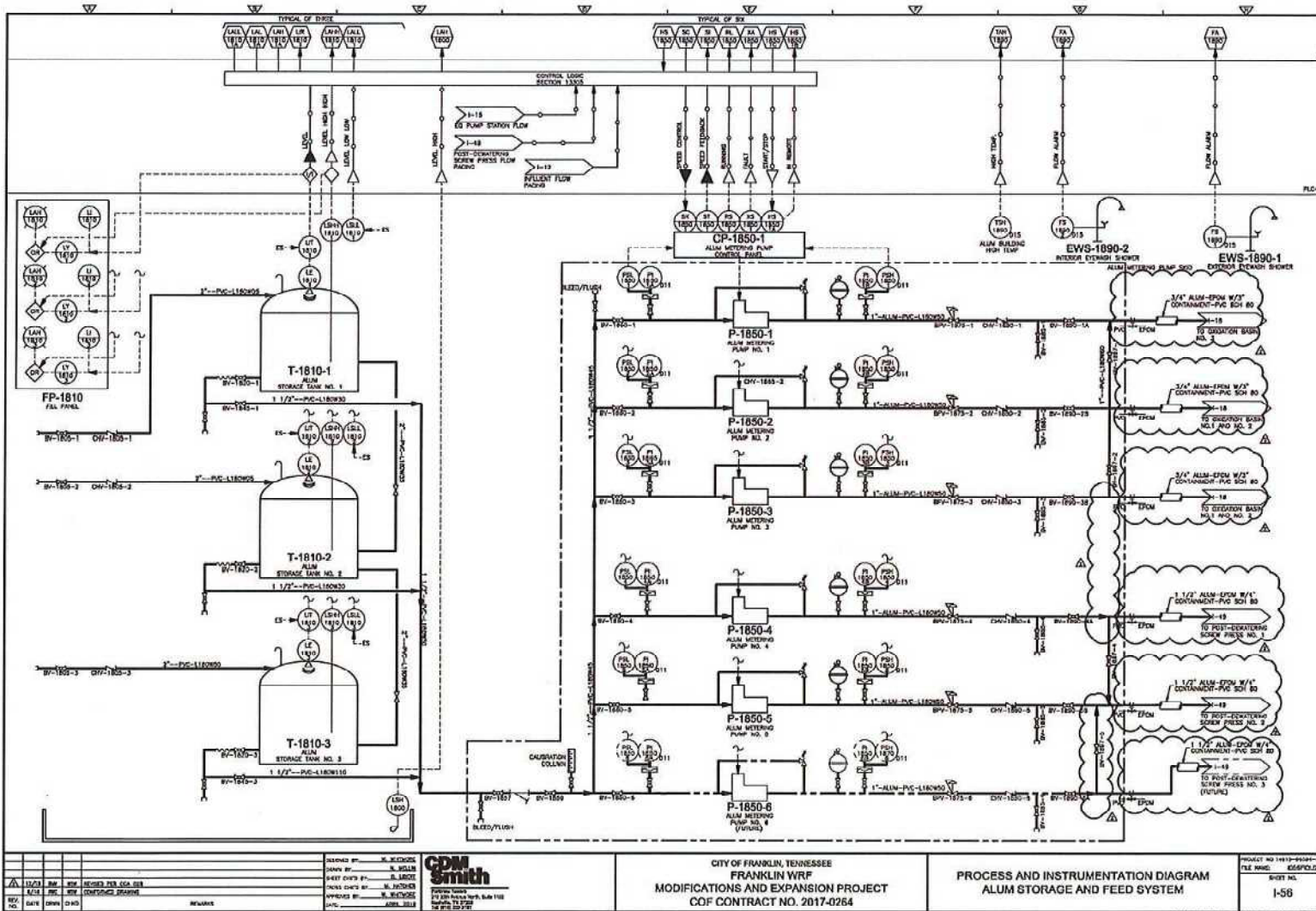
ALUM STORAGE AND FEED SYSTEM
ISOMETRIC DETAILS

PROJECT NO 14810-0004-4
FILE NAME: M-43
SHEET NO.
M-43

CONFORMED DRAWING - AUGUST 2018



				LICENSED BY: W. B. WILSON			CITY OF FRANKLIN, TENNESSEE		PROCESS AND INSTRUMENTATION DIAGRAM		PROJECT NO. 1015-0000-1		
				OWNER: W. B. WILSON			FRANKLIN WRF		OXIDATION BASINS		FILE NAME: 01-01-01-01		
				DESIGN: J. L. LAMB			MODIFICATIONS AND EXPANSION PROJECT				I-10		
				APPROVED BY: W. B. WILSON			COF CONTRACT NO. 2017-0264						
				DATE: APRIL 2018		Project Notes: 1) 2017 Initial Study, July 11/12 2) 2017 Final Study, July 11/12 3) 2017 Final Study, July 11/12							



CONFORMED DRAWING - AUGUST 20

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: December 20, 2019

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 032 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: Reclaimed Water PS **CITY PROJECT NO.:** 2017-0264

REFERENCE: M-46

DESCRIPTION: Remove existing pipe, fittings and 10" magnetic flow meter from the Reclaimed Water Pump Station Effluent Flow Meter Vault. Install new 18" magnetic flow meter (FE/FIT-850), pipe and fittings generally as shown on Fig. CCA 32-1 attached. Include all work necessary to incorporate the signal from the new flow meter to the new PLC at the Reclaimed Water Pump Station and SCADA, reuse existing analog I/O points. Field verify all dimensions. Submit a disruption plan for this work for Engineer review. All work to take place Monday through Friday, 7am - 5pm. Provide min. 48 hours' notice prior to beginning the work.

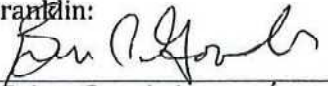
CDM SMITH:

By: 
Date: 11/4/20

CONTRACTOR:

By: 
Date: 11/4/20

City of Franklin:

By: 
Date: Brian Goodwin 11/06/2020

City of Franklin:

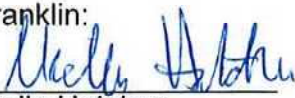
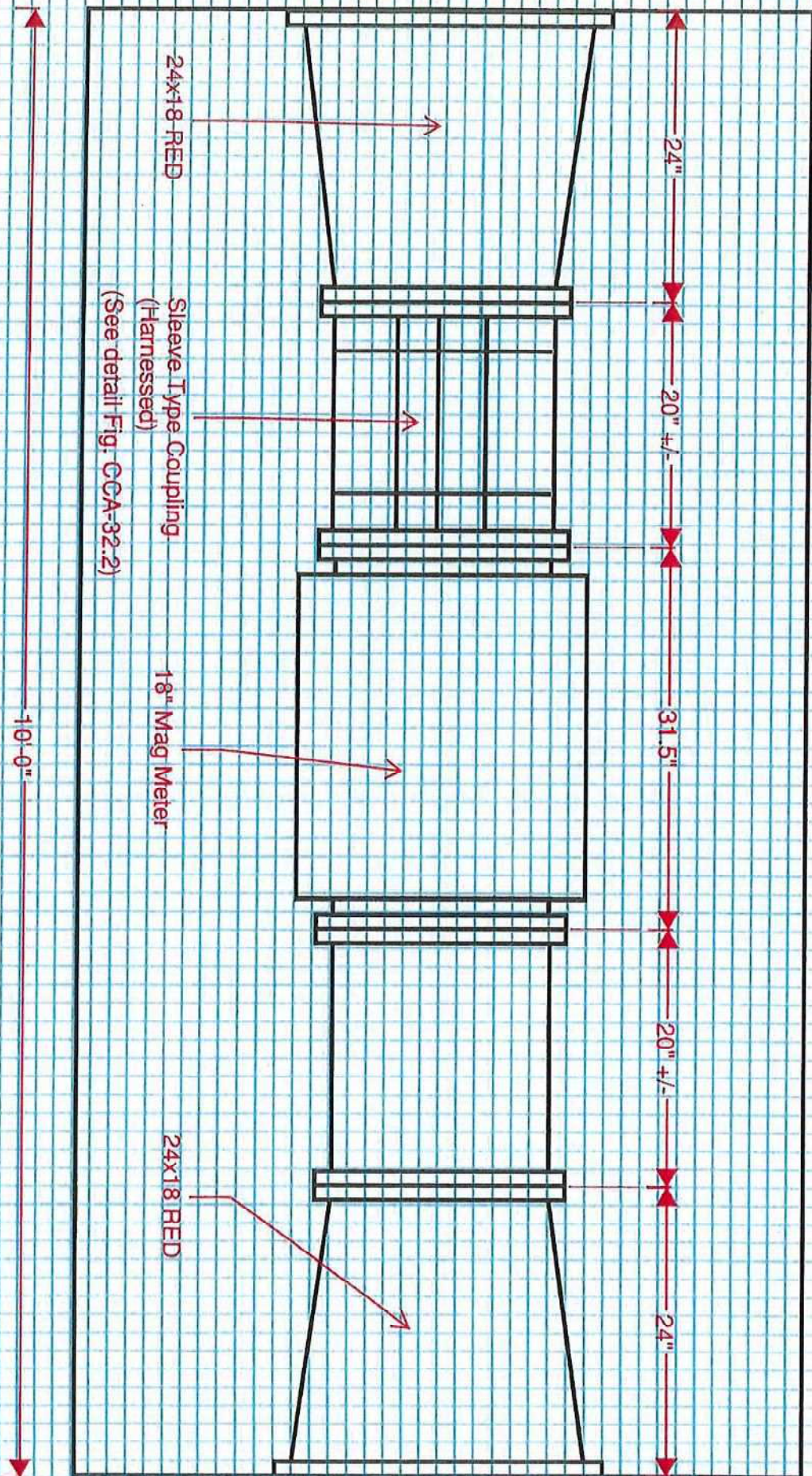
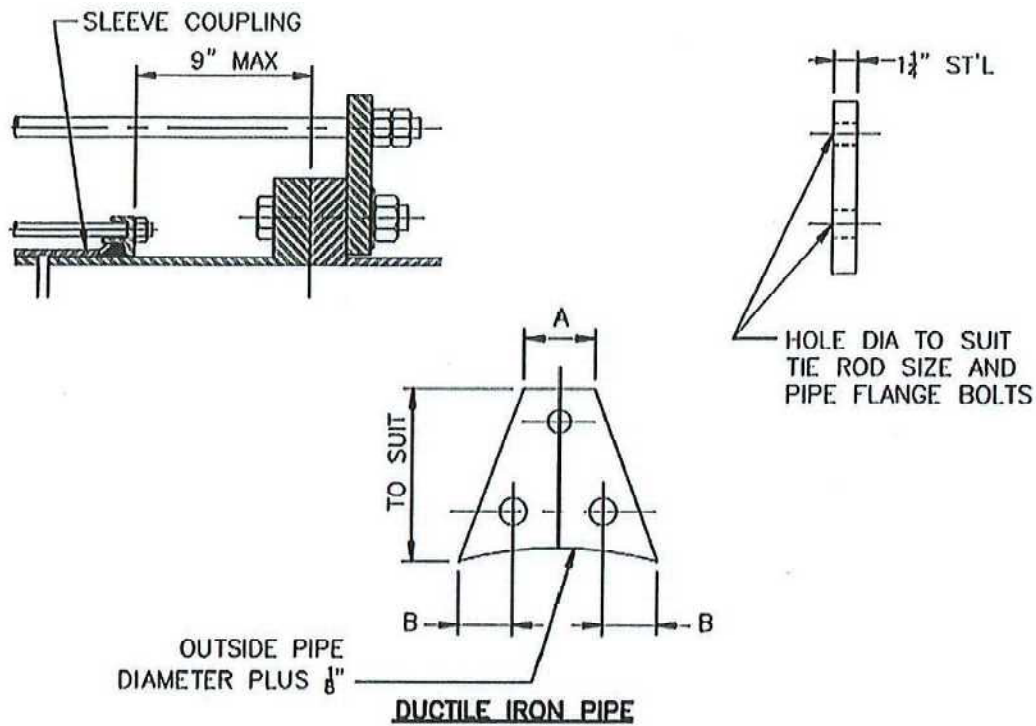
BY: 
Date: Michelle Hatcher 11/4/20

Figure CCA-32-1
(NTS)





JOINT HARNESS SCHEDULE				
PIPE SIZE (IN)	NO REQ'D PER CONN	TIE ROD DIA (IN)	A (IN)	B (IN)
3 THRU 10	2	5/8	2 1/16	1 1/2
12-14	2	7/8	3 1/2	1 3/16
16	2	1	3 1/2	1 3/16
18	2	1 1/8	4	2 1/8
20	4	1	3 1/2	2
24	4	1	3 1/2	2 1/16
30	4	1 1/4	3 1/2	2 1/16
36	4	1 3/8	4	2 3/32
42	4	1 3/8	4 1/16	2 3/32
48	6	1 3/8	4 1/16	2 3/32
54	6	1 5/8	5	2 1/2



NOTE:

1. FOR PRESSURE OVER 150 PSI, INCREASE DIMENSIONS AND ROD NUMBER/SIZE/STRENGTH PER AWWA M-11.

JOINT HARNESS

Figure CCA 32-2



Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

June 01, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00037.02

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Construction Change Authorization No. 032 – RWPS Magnetic Flowmeter

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for CCA No. 032 – RWPS Magmeter in the amount of **Forty Two Thousand Eighty Six Dollars (\$42,086.00)**

This proposal includes the removal of existing pipe, fittings, and 10" magnetic flow meter from the Reclaimed Water Pump Station Effluent Flow Meter Vault. As well as, the installation of a new 18" magnetic flow meter, pipe, and fittings generally as shown on **Fig. CCA 32-1** (attached).

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: CCA 032 Reclaimed Water Pump System

Estimator: Kian Lawlor

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR Unit Cost	DIRECT LABOR Total Cost	INDIRECT LABOR Unit Cost	INDIRECT LABOR Total Cost	MATERIAL Unit Cost	MATERIAL Total Cost	CONST. EQUIPMENT Unit Cost	CONST. EQUIPMENT Total Cost	SUBCONTRACT Unit Cost	SUBCONTRACT Total Cost	OTHER Unit Cost	OTHER Total Cost	TOTAL AMOUNT
Unbolt Pipe Flange	6.00	Ea	2.50	15.00	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Foreman	1.00	Ea	5.00	5.00	\$ 61.04	\$ 305.20	\$	-	\$	-	\$	-	\$	-	\$	-	305.20
Pipfitter	2.00	Ea	5.00	10.00	\$ 48.57	\$ 485.70	\$	-	\$	-	\$	-	\$	-	\$	-	485.70
Remove 10" Pipe	10	LF	0.65	6.50	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Foreman	1.00	Ea	1.50	1.50	\$ 61.04	\$ 91.56	\$	-	\$	-	\$	-	\$	-	\$	-	91.56
Pipfitter	2.00	Ea	1.50	3.00	\$ 48.57	\$ 145.71	\$	-	\$	-	\$	-	\$	-	\$	-	145.71
Crane Operator	1.00	Ea	1.50	1.50	\$ 45.45	\$ 68.18	\$	-	\$	-	\$	-	\$	-	\$	-	68.18
Offload/Handle	1	LS	6.00	6.00	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Foreman	1.00	Ea	2.00	2.00	\$ 61.04	\$ 122.08	\$	-	\$	-	\$	-	\$	-	\$	-	122.08
Pipfitter	2.00	Ea	2.00	4.00	\$ 48.57	\$ 194.28	\$	-	\$	-	\$	-	\$	-	\$	-	194.28
Foreman	1.00	Ea	2.00	2.00	\$ 45.45	\$ 92.90	\$	-	\$	-	\$	-	\$	-	\$	-	92.90
Install 18" Pipe and Sleeve Coupling	10	LF	3.60	36.00	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Foreman	1.00	Ea	9.00	9.00	\$ 61.04	\$ 549.36	\$	-	\$	-	\$	-	\$	-	\$	-	549.36
Pipfitter	2.00	Ea	9.00	18.00	\$ 48.57	\$ 874.26	\$	-	\$	-	\$	-	\$	-	\$	-	874.26
Crane Operator	1.00	Ea	9.00	9.00	\$ 45.45	\$ 418.05	\$	-	\$	-	\$	-	\$	-	\$	-	418.05
Drop/Set 18" Flow Meter	1	Ea	4.00	4.00	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Foreman	1.00	Ea	1.00	1.00	\$ 61.04	\$ 61.04	\$	-	\$	-	\$	-	\$	-	\$	-	61.04
Pipfitter	2.00	Ea	1.00	2.00	\$ 48.57	\$ 97.14	\$	-	\$	-	\$	-	\$	-	\$	-	97.14
Crane Operator	1.00	Ea	1.00	1.00	\$ 45.45	\$ 45.45	\$	-	\$	-	\$	-	\$	-	\$	-	45.45
Material (Kiewit)					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Pipe and fittings (Core and Main)	1.00	LS			\$	-	\$	-	\$ 16,455.18	\$ 16,455.18	\$	-	\$	-	\$	-	16,455.18
Equipment (Kiewit)					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
75 In Crane	1.00	HR	11.50	11.50	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Forklift	1.00	HR	2.00	2.00	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
F-250 Crew Pickup	1.00	HR	18.50	18.50	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Subcontract (Kiewit)					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Wayne J. Griffin	1.00	LS			\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Control Instruments Inc.	1.00	LS			\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
CIP Paint	1.00	LS			\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
OTHER					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
STS - small tools, consumables, safety equip, (5% of direct labor, plus 8.75% sales tax					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
Formula = Total Direct Labor Subtotal * \$5/MH * 1.0875)	69	MHR			\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
TAX: (9.75% of Material, Equipment, Other)					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
BOND (2% of Total)					\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	-
SUBTOTALS				69	\$ 3,551.91	\$ -	\$ -	\$ -	\$ 16,455.18	\$ -	\$ 298.09	\$ 26.48	\$ 17,377.01	\$ -	\$ 415.55	\$ -	38,107.74
MARKUP %					\$4,084.69	\$ -	\$ -	\$ -	\$18,534.96	\$ -	\$342.81	\$ -	\$18,245.86	\$ -	\$477.89	\$ -	\$42,086.20
SUBTOTALS WITH MARKUPS APPLIED																	\$42,086.20
TOTAL																	\$42,086.20

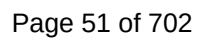
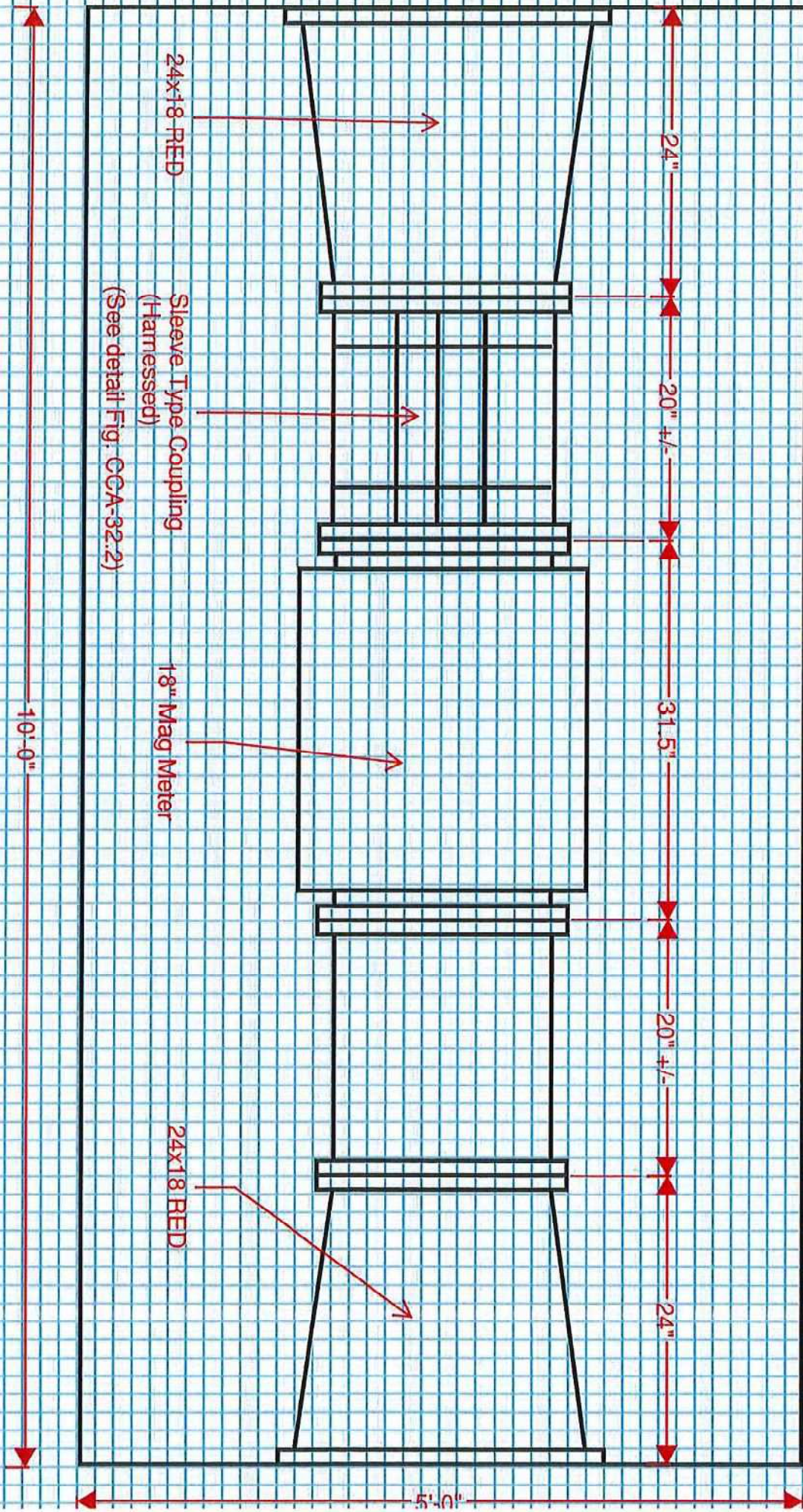


Figure CCA 32-1
(NTS)





SOUTHEAST REGION TREATMENT
PLANT DIVISION

- ALABAMA - FLORIDA - GEORGIA - KENTUCKY - NORTH CAROLINA - SOUTH CAROLINA - TENNESSEE -

6525 US HWY 301 NORTH
TAMPA, FL. 33610
OFFICE: 813.621.1971
FAX: 813.621.3280

Owner City of Franklin, Tennessee
Contractor Kiewit Water Facilities South
Ref CCA 32

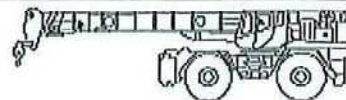
SEQ	Qty	Description	Unit Price	Total Price
10		<u>ALL ITEMS ARE AIS COMPLIANT</u>		
20		<u>Option A - Megaflange</u>		
30	2	24x18" DI C110 FLG CONCENTRIC REDUCER CL/PR	\$ 4,342.64	\$ 8,685.28
40	1	18"x01'-08" DI CL53 FLG X FLG CL/PR	\$ 2,027.60	\$ 2,027.60
50	1	18"x01'-08" DI CL53 FLG X PEMJ CL/PR	\$ 1,158.56	\$ 1,158.56
60	1	18" EBAA 2100 MEGAFLANGE	\$ 965.70	\$ 965.70
70	2	24" DI FLG KIT (A307B, FF RR GASKET)	\$ 307.53	\$ 615.07
80	3	18" DI FLG KIT (A307B, FF RR GASKET)	\$ 241.07	\$ 723.21
90		<u>Total Option A</u>		\$ 14,175.42
100				
110		<u>Option B - Harnessed FCA</u>		
120	2	24x18" DI C110 FLG CONCENTRIC REDUCER CL/PR	\$ 4,342.64	\$ 8,685.28
130	1	18"x01'-08" DI CL53 FLG X FLG CL/PR	\$ 2,027.60	\$ 2,027.60
140	1	18"x01'-08" DI CL53 FLG X PEMJ CL/PR	\$ 1,158.56	\$ 1,158.56
150	1	18" SB913 FCA w/Harnessed Rods and lugs	\$ 2,598.67	\$ 2,598.67
160	2	24" DI FLG KIT (A307B, FF RR GASKET)	\$ 307.53	\$ 615.07
170	4	18" DI FLG KIT (A307B, FF RR GASKET)	\$ 241.07	\$ 964.28
180				
190		<u>Total Option B</u>		\$ 16,049.46
200				
210		<u>Option C - Harnessed Sleeve Type Coupling</u>		
220	2	24x18" DI C110 FLG CONCENTRIC REDUCER CL/PR	\$ 4,342.64	\$ 8,685.28
230	1	18"x01'-08" DI CL53 FLG X FLG CL/PR	\$ 2,027.60	\$ 2,027.60
240	2	18"x00'-10" DI CL53 FLG X PEMJ CL/PR	\$ 1,019.81	\$ 2,039.62
250	1	18" SB411 Sleeve Type Coupling w/Harnessed Rods and lugs	\$ 2,133.33	\$ 2,133.33
260	2	24" DI FLG KIT (A307B, FF RR GASKET)	\$ 307.53	\$ 615.07
270	4	18" DI FLG KIT (A307B, FF RR GASKET)	\$ 241.07	\$ 964.28
280				
290		<u>Total Option C</u>		\$ 16,465.18
300				

Rental Rate Blue Book®

December 11, 2019

Tadano GR-800XL-1 (disc. 2010)

Rough Terrain Hydraulic Cranes



Size Class:
66.0 - 80.9 MTons
Weight:
107965 MT

Configuration for GR-800XL-1 (disc. 2010)

Axle Configuration	4 X 4 X 4	Maximum Boom Length	144.4 ft
Maximum Lift Capacity	72.6 mt	Net Horsepower	270.0 hp
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$15,580.00	USD \$4,365.00	USD \$1,090.00	USD \$165.00	USD \$98.38	USD \$186.90
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2010: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$15,580.00	USD \$4,365.00	USD \$1,090.00	USD \$165.00	USD \$98.38	USD \$186.90

Non-Active Use Rates

	Hourly
Standby Rate	USD \$47.80
Idling Rate	USD \$122.50

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$5,764.60/mo
Overhaul (ownership)	45%	USD \$7,011.00/mo
CFC (ownership)	10%	USD \$1,558.00/mo
Indirect (ownership)	7%	USD \$1,090.60/mo
Fuel (operating) @ USD 3.07	35%	USD \$33.98/hr

Revised Date: 2nd half 2019

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for HENRY ALVARADO
(Henry.Alvarado@kiewit.com)

Rental Rate Blue Book®

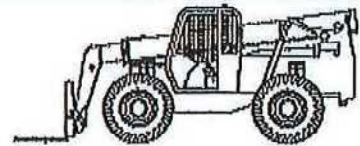
September 24, 2019

Xtreme XR630

Telescoping Boom Rough Terrain Lift Trucks

 Size Class:
 4.0 - 4.4 MTons
 Weight:
 MT

Kiewit has XR1055 w/10,000 lb capacity


Configuration for XR630

Base Capacity	6000 lbs	Horsepower	74 hp
Maximum Lift Height	30.5 ft	Maximum Reach	221.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$5,570.00	USD \$1,560.00	USD \$390.00	USD \$59.00	USD \$23.22	USD \$84.87
Adjustments						<i>\$60.00</i>
Region (100%)	-	-	-	-		
Model Year (2019; 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$5,570.00	USD \$1,560.00	USD \$390.00	USD \$59.00	USD \$23.22	USD \$54.87

Non-Active Use Rates

Standby Rate	Hourly	USD \$13.61
Idling Rate	Hourly	USD \$38.03

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	30%	USD \$1,671.00/mo
Overhaul (ownership)	57%	USD \$3,174.90/mo
CFC (ownership)	6%	USD \$334.20/mo
Indirect (ownership)	7%	USD \$369.90/mo
Fuel (operating) @ USD 3.07	27%	USD \$6.38/hr

Revised Date: 2nd half 2019

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

 The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
 (Michael.Sheston@kiewit.com)

** Equipment Watch does not have Xtreme XR1055 10k lb capacity. Used \$60/hr FHWA Rate*

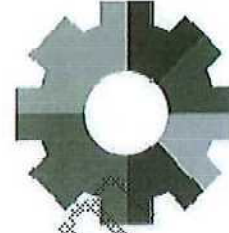
Rental Rate Blue Book®

April 29, 2019

Ford F-250 SD

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
HP


Configuration for F-250 SD

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	300.0	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	\$890.00	\$250.00	\$63.00	\$9.00	\$19.65	\$24.71
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2019: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	\$890.00	\$250.00	\$63.00	\$9.00	\$19.65	\$24.71

Non-Active Use Rates

	Hourly
Standby Rate	\$3.59
Idling Rate	\$20.74

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	\$480.60/mo
Overhaul (ownership)	29%	\$258.10/mo
CFC (ownership)	7%	\$62.30/mo
Indirect (ownership)	10%	\$89.00/mo
Fuel (operating) @ 2.75	80%	\$15.68/hr

Revised Date: 1st half 2019

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON (Michael.Sheston@klewit.com)



NATIONWIDE SYSTEM INTEGRATION
Providing solutions since 1962



5253 OAKDALE ROAD • SMYRNA, GEORGIA 30082
MAILING ADDRESS: 4480H SOUTH COBB DRIVE • PMB 301 • SMYRNA, GA 30080-6984
PHONE: 404/351-1085 • FAX: 404/794-5784 • EMAIL: admin@c2iinc.com

FLORIDA OPERATIONS OFFICE:
23 S. DILLINGHAM AVENUE, STE. A
KISSIMMEE, FL 34741
PHONE: 404/351-1085

FIELD OFFICES: Georgia
Florida
Tennessee

22 January, 2020

Kiewit Infrastructure South Co.
4405 International Blvd, NW
Suite C-101
Norcross, GA 30093
Attn: Steve Davis

PROJECT: FRANKLIN WRF MODIFICATIONS & EXPANSION PROJECT
OWNER: CITY OF FRANKLIN, TN
ENGINEER: CDM SMITH, INC.
CONTRACT: 103925-SC-004
KIEWIT JOB NO.: 103925
C2i JOB NO: 09181015

Reference: CCA #032, Reclaimed Water Pump Station

Dear Steve:

In accordance with Construction Change Authorization 032 we are pleased to provide a proposal for the following equipment and services:

One	(1)	18-inch magnetic flowmeter to match previously approved Krohne meter.
One	(1)	Field surge protector.
One	(1)	Lot panel drawing review.
One	(1)	Lot programming.
One	(1)	Lot startup.

Note: No additional panel hardware is proposed in that the proposal is based on utilizing a spare input.

The price, per the attached Bid Summary Sheet, is ~~\$9,610.29~~ **\$9,152.66**
(see next page)

If you have any questions, please let us know.

Sincerely,

Mark G. Healey
CONTROL INSTRUMENTS, INC./C2i
MGH/jw
Attachment

cc: Jonathon Johnson / Wes Wood / Sue Adams – C2i

BID SUMMARY SHEET

PROJECT: Franklin REFERENCE: CCA 032 Mag
 CONSULTANT: CDM Smith Bid Date: 1/20/2020

JOB DURATION: _____
 PENALTY: _____
 ESTIMATOR: MGH

		PRICE
FIELD EQUIPMENT.....	\$	4,116.00
PANEL EQUIPMENT.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
MATERIAL TOTALS:	\$	4,116.00

	PRICE		PRICE	SIGN-OFF
ADMINISTRATION	\$1,150.00	/Day x 0.25 Days = \$	287.50	
PURCHASING	\$1,150.00	/Day x 0.25 Days = \$	287.50	
ENGINEERING:	\$1,200.00	/Day x 0.25 Days = \$	300.00	
MANUFACTURING:	\$783.00	/Day x 0.00 Days = \$	0.00	
DOCUMENTATION:	\$684.00	/Day x 0.25 Days = \$	171.00	
PROGRAMMING (PLC):	\$1,200.00	/Day x 0.25 Days = \$	300.00	
PROGRAMMING (OIT):	\$1,200.00	/Day x 0.25 Days = \$	300.00	
SERVICE ESTIMATE:	\$1,200.00	/Day x 0.25 Days = \$	300.00	
SERVICE ESTIMATE:	\$1,043.00	/Day x 0.50 Days = \$	521.50	
FREIGHT/SHIPPING:			1,000.00	
DOCUMENTATION MATERIALS:			50.00	
TRAVEL COST			200.00	
LABOR TOTALS:			3,717.50	

	PRICE
MATERIAL AND LABOR TOTALS:	\$ 7,833.50
1.60%	\$ 125.34
Bond 1%	0
subtotal	7,958.84
15% Markup	0.00
	\$ 9,152.66
	\$
	\$
	\$
	\$

SELECTED JOB PRICE: \$

9,152.66

Subcontract Price

Allowance Yes/No: NO
 Bonds Yes/No: NO 0 0
 Taxes Yes/No: NO 5% \$ 457.63

TOTAL PRICE. \$ 9,610.29

BESTECH PROCESS EQUIPMENT, INC.

166 Plantation Lane
Acworth, GA 30101
770-975-0774
770-975-0813 FAX
email – tfos777@comcast.net

Mr. Mark Healey
Control Instruments, Inc.

January 17, 2020

Subject: Franklin, TN
Krohne Magnetic Flowmeter
Our Ref. No. 5611TSF20

Gentlemen:

We are furnishing our proposal on a Krohne Magnetic Flowmeter for your project.

Krohne Magnetic Flowmeter

Quantity:	One(1)
Model No.:	Optiflux 2000
Size:	18"
Connections:	ANSI Class 150 RF Flanges(C.S.)
Liner Material:	Hard Rubber
Electrodes:	Hastelloy C
Coil Protection Class:	E
Housing:	NEMA 6P(IP68) - Submergence
Grounding:	316 SS Grounding Rings
Conductivity:	(Min. 20 ms/cm)
Operating (Max) temp.:	176F
Operating (Max) pres.:	150psig

Krohne Model IFC100W Signal Converter (Remote Mounted)

To operate with above flowmeter –

Quantity:	One(1)
Power Supply:	120VAC
Output Analog:	4-20 ma - 750 Ohms
Enclosure:	NEMA 4X, FM Class 1, Div. 2
Standard Features:	Scaled pulse output, digital indicator, engineering units, (2) 8 digit totalizers, HART, Self-Diagnostics Empty Pipe Detection 30ft. DS signal cable ea. – add'l cable \$4.25/ft.

Pricing: \$3,916

F.O.B. Beverly, MA Estimated Freight \$970

TERMS: NET 30 days

DELIVERY: 10 – 12 weeks

Please let us know if you have any questions or require additional information. We appreciate your interest in Krohne products and look forward to working closely with you on this project. Please address any resultant order to Krohne Inc. c/o Bestech.

Very truly yours,
BESTECH PROCESS EQUIPMENT
Representing KROHNE INC.

Tom Foster
Sales Engineer



**WAYNE J.
GRIFFIN ELECTRIC
INC.**

March 3, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp., Franklin, TN
Proposal #21

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This proposal is to provide the raceways and conductors for the electrical scope outlined in CCA 032, for the installation of a new 18" flow meter (FIT-850) and route the signals to the new PLC at the Reclaimed Water Pump Station.

Material	\$	928.67
Labor		2,741.61
Overhead & Profit		550.54
Subtotal	\$	4,220.82
Bond		21.53
Total	\$	4,242.35

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis
March 3, 2020
Page 2

The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jav

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.
Sarah Moore, Project Engineer, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0021, CCA 32 RWPS Flow Meter
Date: 3/2/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is to provide the raceways and conductors for the electrical scope outlined in CCA 032, for the installation of a new 18" Flow Meter (FIT-850) and route the signals to the new PLC at the Reclaimed Water Pump Station.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Bulbs	0.00	0.0000	HRS	0.000	0.000	0.800
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.800
Tools	0.00	0.0000	HRS	0.000	0.000	0.960
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.800
Supervision	0.00	0.0000	HRS	0.000	0.000	1.600
Project Controls	0.00	0.0000	HRS	0.000	0.000	1.600
DEMO OLD/INSTALL NEW CBL IN CONFINED SP	1.00	0.0000		0.000	16.000	16.000
1" ALUMINUM CONDUIT	50.00	3.9620	FT	198.100	0.060	3.000
1" ALUMINUM 90D ELBOW	3.00	41.8900	EA	125.670	0.350	1.050
1" 3-PIECE COUPLING	1.00	15.3600	EA	15.360	0.800	0.800
1" ALUM COUPLING	6.00	14.0600	EA	84.360	0.400	2.400
1" RIGID THREADED "LB" CONDULET (ALUM)	1.00	27.9200	EA	27.920	0.750	0.750
1 MYERS THREADED GRD HUB	2.00	26.8400	EA	53.680	1.200	2.400
1/2 LIQUIDTITE CONDUIT	9.00	2.3300	FT	20.970	0.040	0.360
1/2" LIQUID TIGHT STEEL 90D CONNECTOR	3.00	8.8400	EA	26.520	0.180	0.540
1/2" LIQUID TIGHT STEEL STRAIGHT CONNECTOR	3.00	5.2233	EA	15.670	0.150	0.450
16/2PR CNTRL CBL SHLD TWSTD PR	115.00	1.2544	FT	144.260	0.012	1.380
1/4 X 1 1/4" FENDER WASHER (SS)	23.00	0.1326	EA	3.050	0.001	0.028
1/4-20 x 1" HEX BOLT (SS)	23.00	1.2300	EA	28.290	0.030	0.690
1 5/8" X 1 5/8" 12 GAUGE 1 5/8 X 1 5/8 SLOT 10' STRUT (SS)	10.00	15.2500	FT	152.500	0.123	1.225
1/4 SPRING NUTS (SS)	10.00	2.8800	EA	28.800	0.072	0.720
1 ALUM STRUT CLAMP	8.00	0.4400	EA	3.520	0.030	0.240
Totals				928.67		38.59
Tax				0.00		
Materials with				928.67		

Summary

	Itemized Breakdown Total	928.67
Elect. Journeyman	(38.5926 hrs @ \$71.04 / hr)	2,741.62
		2,741.62
Overhead & Profit	(\$3,670.28 @ 15.00%)	550.54
		550.54
Bond	(\$4,220.82 @ 0.51%)	21.53
		21.53
		572.07
Total		\$4,242.35



Proposal for Surface Preparation & Painting

Date: 6/1/2020
Job Name: Franklin WRF - Change Order - DIP CCA-032-RWPS Magnetic Flowmeter
From: Keith Mabry
keith@cipaint.com

We are pleased to submit the following bid:

Job Description: Painting services as described below.
Including all associated labor, materials, tools and equipment.
State of TN Contractors License No. 00021605, BC-11, 14, 23, S-C.
Unlimited. Bid based on information provided by Cody Prange.

Base Bid: \$3,982

1. Painting of approximately 10' of 18" DIP as described in information provided.

Bid assumes the following:

1. Pricing based on information provided.
2. Assume work to be performed in 2020.
3. All work to be performed Monday-Friday 7am-4pm.
4. Exclude weekends and overtime.

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: December 26, 2019

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA 33
NUMBER:

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: Plastic Pipe

CITY PROJECT NO.: 2017-0264

REFERENCE: (See Below)

DESCRIPTION: Delete the requirement for painting of interior, non-submerged plastic pipe described in 09902-2.03-H-1. Labels and flow arrows will remain a requirement. Painting on exterior plastic piping will remain a requirement.

CDM SMITH:

By: [Signature]
Date: 11/4/20

CONTRACTOR:

By: _____
Date: 11/4/20

City of Franklin:

By: Brian Goodwin
Date: 11/06/2020

City of Franklins:

BY: Michelle Hatcher
Michelle Hatcher
Date: 11/6/20



Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 29, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00074.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

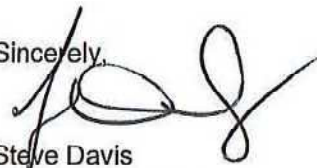
Subject: painting of interior, non-submerged plastic pipe

Dear Mr. Harris,

Kiewit is hereby submitting a credit the deletion of the requirement for **painting of interior, non-submerged plastic pipe described in 09902-2.03-H-1** in the amount of **Four Thousand Four Hundred Seven Dollars (\$4,407.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



Page 66 of 702

PREPARED BY: Michael Sheston

[illegible]

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages	3.73%	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



ACCOUNT # 4211-2162-5
Franklin WRF - PCV Coating
QUOTE # 5392924
VALID FROM: SEP 30, 2020 - NOV 30, 2020

Purchase Type: Single Purchase

TERMS OF THE SALE:

Terms: As Agreed

Description	Sales #	Prod # - Size	Qty	Price	Working Gallon Qty	Working Gallon Price	Extended Price
MACROPOXY 646 FAST CURE EPOXY MILL WHITE 2-GALLON KIT	620211508	158W00610- 2KT	2	\$118.78	4	\$59.39	\$237.56

Kit Components: 640125001 - MPXY 646 MIL WHT A | 640125027 - MAC 646 HARD B

Total Price: \$237.56

IMPORTANT NOTICE: This Price Quotation is not a contract and is subject to and conditioned upon final approval by Sherwin-Williams. In the event such final approval is not obtained from Sherwin-Williams, this Price Quotation shall become null and void. The purchase of any products set forth above will be made subject to The Sherwin-Williams Company's Standard Terms and Conditions of Sale, which are hereby incorporated in full by this reference and are available at <http://careers.sherwin-williams.com/corporatesocialresponsibility/policies>. Sherwin-Williams expressly limits acceptance of this Price Quotation to its Standard Terms and Conditions of Sale, and hereby rejects any additional or different terms and conditions which may be contained in any customer purchase order. The pricing and recommendations set forth in this Price Quotation represent confidential information of Sherwin-Williams.

Please see the net contents on the product labels to determine actual working gallons, order quantity and exact price per gallon prior to ordering. Container size and actual working gallons may not always be the same. Quantity, actual working gallons and product coverage rates are estimates and may vary based on product color (base and tint, if any), mix ratios, substrates and waste. Any estimated volumes, prices per gallon and product coverage rates used in this Price Quotation are based on typical product coverage rates, package sizes and the estimated size of project, all of which must be verified by customer. Sherwin-Williams assumes no responsibility for any actual job site conditions or estimates used in this quotation. Please see the product labels, product data sheets and your Sherwin-Williams representative for additional information. Thank you for choosing Sherwin-Williams.

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: March 3, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 035 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: Potable Water and Sewer
Service to Headworks **CITY PROJECT NO.:** 2017-0264

REFERENCE: Sheets C-19, C-21, M-2, & M-7

DESCRIPTION: The purpose of this Construction Change Authorization (CCA) is the addition of the following:

- A potable water supply line between the Headworks Facility and the Headworks Odor Control System.
- Drain lines from the Equalization Tank Odor Control System and the Headworks Odor Control System to nearby manholes.

Sheets C-19, C-21, M-2, & M-7 have been reissued as a part of this CCA to show the new connections and routing.

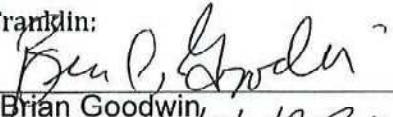
CDM SMITH:

By: 
Date: 11/4/20

CONTRACTOR:

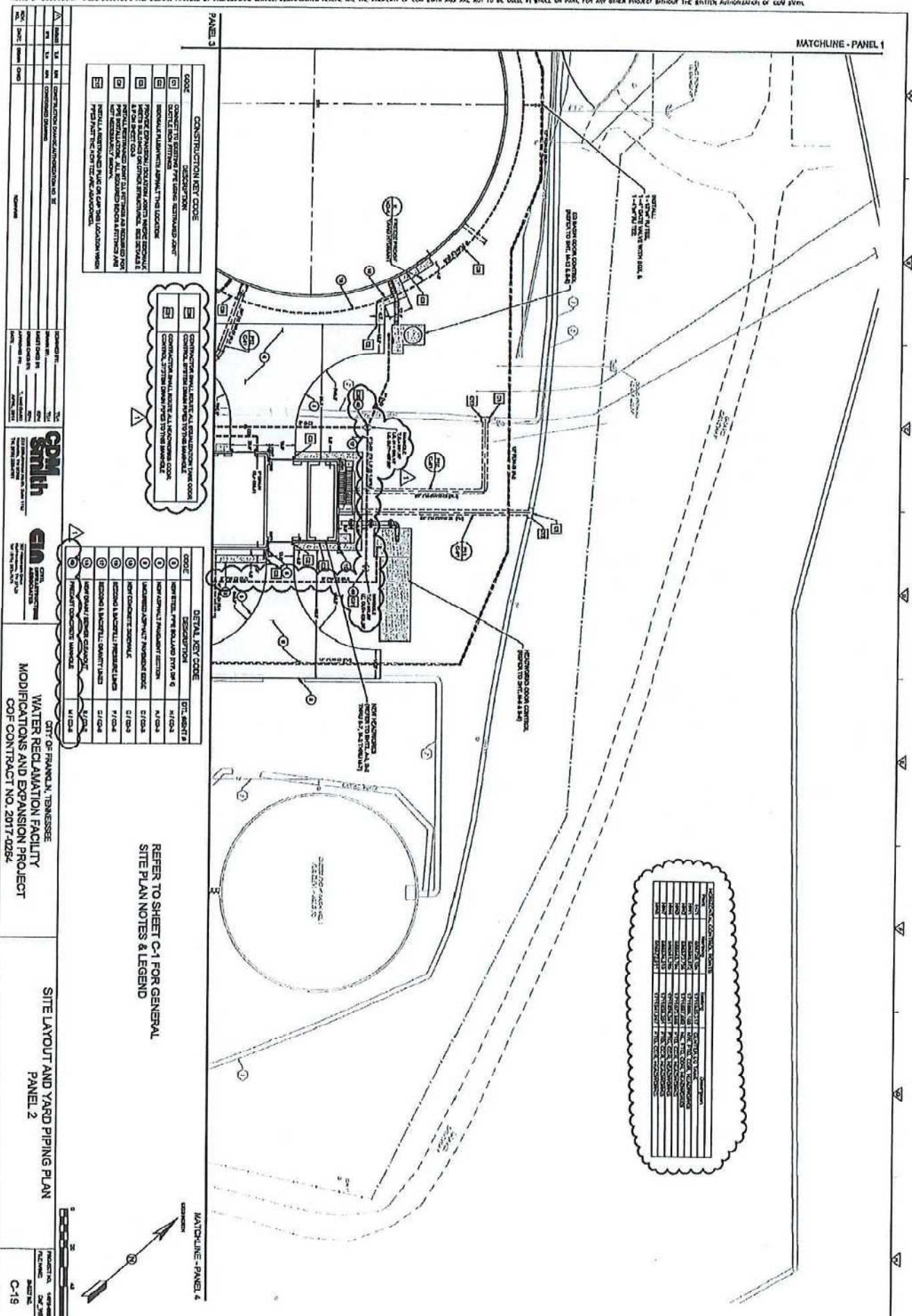
By: 
Date: 11/4/20

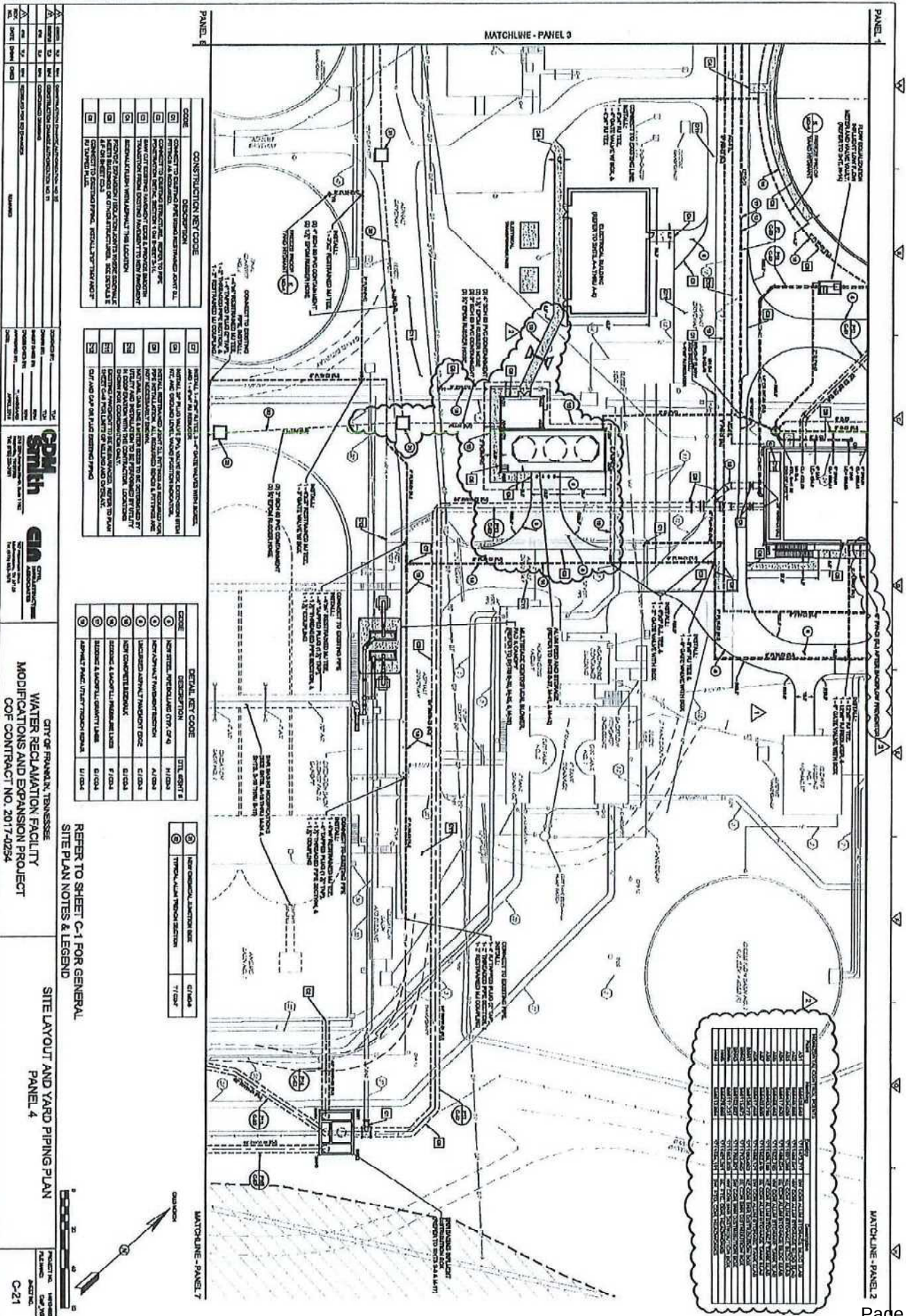
City of Franklin:

By: 
Date: 11/06/2020

City of Franklin:

BY: 
Date: 11/6/20





CONSTRUCTION KEY CODE		DETAIL KEY CODE	
CODE	DESCRIPTION	CODE	DESCRIPTION
1	CONNECT TO EXISTING PIPE, REMAIN EXPOSED UNTIL	1	NEW PIPE, 12\"/>

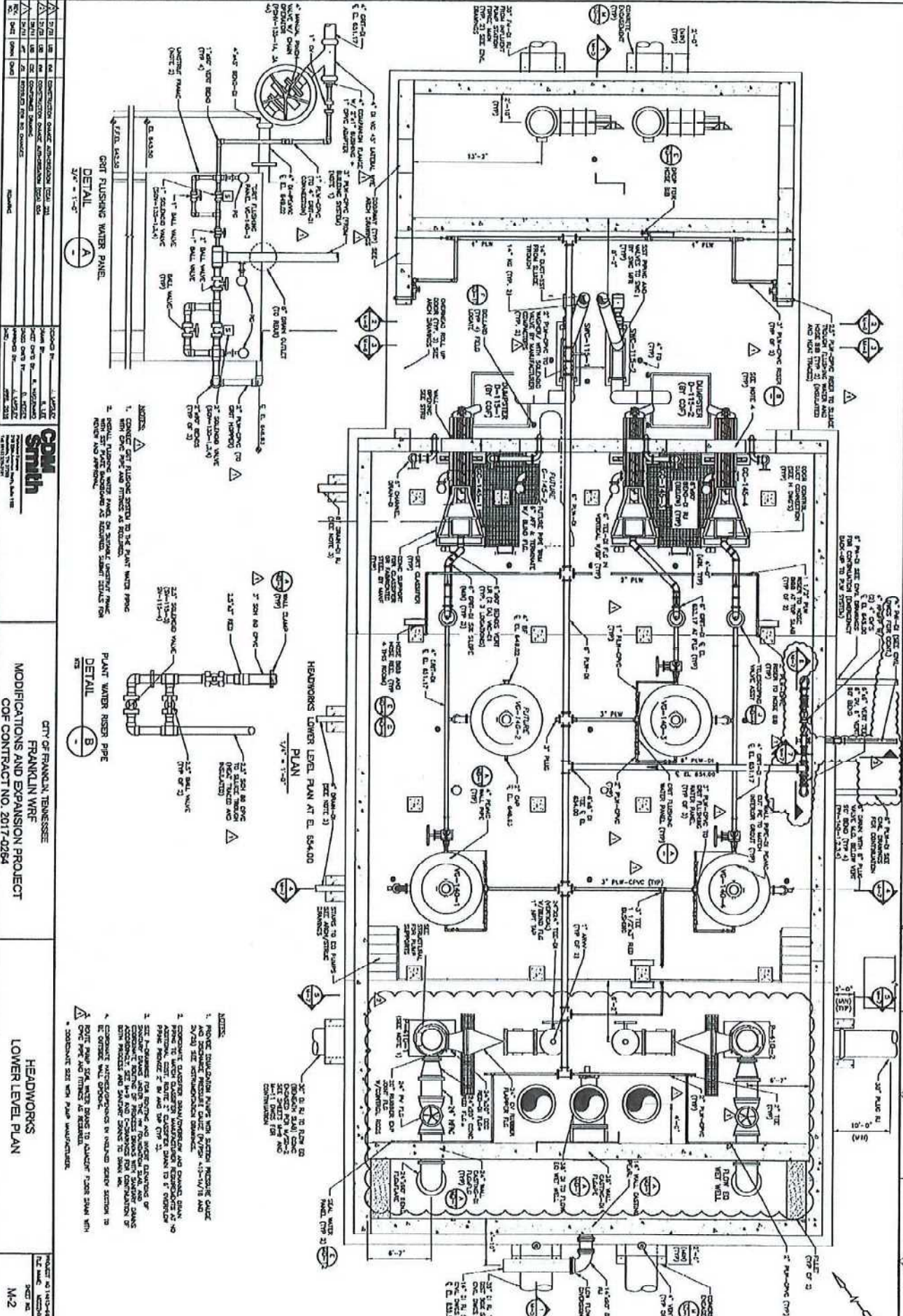
GCM Smith
 GCM CONSULTING
 1000 N. 10TH ST., SUITE 100
 DENVER, CO 80202
 TEL: 303.733.1100
 FAX: 303.733.1101
 WWW.GCMSMITH.COM

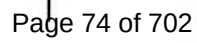
CITY OF FRANKLIN, TENNESSEE
 WATER RECLAMATION FACILITY
 MODIFICATIONS AND EXPANSION PROJECT
 CIP CONTRACT NO. 2017-0254

SITE LAYOUT AND YARD PIPING PLAN
 PANEL 4

CONFORMED DRAWING - AUGUST

THIS DRAWING IS THE PROPERTY OF EDWARDS & KELCEY, INC. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF EDWARDS & KELCEY, INC. ANY UNAUTHORIZED USE OF THIS DRAWING IS PROHIBITED AND WILL BE CONSIDERED A VIOLATION OF THE COPYRIGHT LAWS OF THE UNITED STATES OF AMERICA.







Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 21, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00051.01

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RE. CCA 035 – Potable Water and Sewer Service to Headworks

Dear Mr. Harris,

Attached you will find Kiewit's credit proposal for **CCA 035 – Potable Water and Sewer Service to Headworks** in the amount **Eighty-Six Thousand One Hundred Six Dollars (\$86,106.00)**.

This work includes the replacement of two original cleanouts with new manholes, as well as installing small bore underground pipe around the facilities. New mechanical piping at the headworks will be cored through the wall and concrete reinforced before transitioning to yard pipe.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
<u>Preparation</u>																	
Survey (As-Built)	15.00	HR	1.00	15.0	\$ 46.08	\$ 691.20											
<u>Offroad/Handle</u>																	
Foreman	6.00	HR															
Laborer	1.00	Ea	6.00	6.0	\$ 62.31	\$ 373.86											
Operator (Forklift)	2.00	Ea	12.00	24.0	\$ 47.67	\$ 1,144.08											
Unroot Existing Pipe/Remove Cleanouts	1.00	LS															
Foreman	1.00	Ea	15.00	25.0	\$ 62.31	\$ 1,557.75											
Pipeline	2.00	Ea	15.00	50.0	\$ 47.67	\$ 2,383.50											
Operator	1.00	Ea	15.00	25.0	\$ 36.42	\$ 910.50											
<u>Mt and Tie-In</u>																	
Install Precast Structures	2.00	Ea															
Foreman	1.00	Ea	32.50	32.5	\$ 62.31	\$ 2,025.08											
Pipeline	2.00	Ea	32.50	65.0	\$ 47.67	\$ 3,098.55											
Operator	1.00	Ea	32.50	32.5	\$ 36.42	\$ 1,183.65											
Manhole Tie In	5.00	Ea															
Foreman	1.00	Ea	36.00	36.0	\$ 62.31	\$ 2,243.16											
Pipeline	2.00	Ea	36.00	72.0	\$ 47.67	\$ 3,432.24											
Cost and P/F/C Manhole	6.18	CY															
Foreman	1.00	Ea	9.00	9.0	\$ 62.31	\$ 560.79											
Laborer	2.00	Ea	9.00	18.0	\$ 46.02	\$ 828.36											
<u>6" D-I Line (Eq Odor Control)</u>																	
<u>Excavate to Cap Pipe (Existing Y North of HW)</u>																	
Foreman	1.00	Ea	1.25	1.3	\$ 62.31	\$ 77.89											
Pipeline	1.00	Ea	2.50	5.0	\$ 47.67	\$ 238.35											
Laborer	1.00	Ea	1.25	1.3	\$ 36.42	\$ 45.53											
Operator	1.00	Ea	1.25	1.3	\$ 36.42	\$ 45.53											
Hydrotest	50.00	LF															
Foreman	1.00	Ea	2.75	2.8	\$ 62.31	\$ 171.35											
Pipeline	2.00	Ea	2.75	5.5	\$ 47.67	\$ 262.19											
Laborer	1.00	Ea	2.75	2.8	\$ 36.42	\$ 100.16											
<u>6" DI Around HW</u>																	
<u>ELB</u>																	
Foreman	20.00	LF															
Pipeline	1.00	Ea	5.50	5.5	\$ 62.31	\$ 342.71											
Operator	2.00	Ea	5.50	11.0	\$ 47.67	\$ 524.37											
Hydrotest	20.00	LF															
Foreman	1.00	Ea	1.00	1.0	\$ 62.31	\$ 62.31											
Pipeline	2.00	Ea	1.00	2.0	\$ 47.67	\$ 95.34											
Laborer	1.00	Ea	1.00	1.0	\$ 36.42	\$ 36.42											
<u>4" PW-DI Line</u>																	
<u>ELB</u>																	
Foreman	125.00	LF															
Pipeline	1.00	Ea	34.50	34.5	\$ 62.31	\$ 2,149.70											
Operator	2.00	Ea	34.50	69.0	\$ 47.67	\$ 3,289.23											

PREPARED BY: Kian Lawler



PCO NO.: CCA 035 Potable Water and Sewer Service to Headworks

PREPARED BY: Kian Lawlor

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Operator	1.00	Ea	34.50	34.5	\$ 46.02	\$ 1,587.69	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	1,587.69
Hydrotest	125.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	7.00	7.0	\$ 62.31	\$ 436.17	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	436.17
Pipelayer	2.00	Ea	7.00	14.0	\$ 47.87	\$ 671.38	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	671.38
Laborer	1.00	Ea	7.00	7.0	\$ 36.42	\$ 254.94	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	254.94
Pipe Encasement	10.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Fab Forms	75.00	SF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Erect/Strip Forms	75.00	SF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Install Rebar	136.111	LB			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
P/F/C	2.31	CY			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	20.00	20.0	\$ 62.31	\$ 1,246.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	1,246.20
Carpenter	2.00	Ea	20.00	40.0	\$ 42.99	\$ 1,719.60	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	1,719.60
Laborer	1.00	Ea	20.00	20.0	\$ 36.42	\$ 728.40	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	728.40
2" Drain-PVC Line					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
E/L/B	20.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	3.00	3.0	\$ 62.31	\$ 186.93	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	186.93
Pipelayer	2.00	Ea	3.00	6.0	\$ 47.87	\$ 286.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	286.02
Operator	1.00	Ea	3.00	3.0	\$ 46.02	\$ 138.06	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	138.06
Hydrotest	20.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	1.00	1.0	\$ 62.31	\$ 62.31	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	62.31
Pipelayer	2.00	Ea	1.00	2.0	\$ 47.87	\$ 95.34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	95.34
Laborer	1.00	Ea	1.00	1.0	\$ 36.42	\$ 36.42	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	36.42
Pipe Encasement	8.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Fab Forms	36.00	SF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Erect/Strip Forms	36.00	SF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Install Rebar	108.889	LB			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
P/F/C	1.50	CY			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	2.15	2.15	\$ 62.31	\$ 134.07	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	134.07
Carpenter	2.00	Ea	6.50	13.0	\$ 42.99	\$ 558.87	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	558.87
Laborer	1.00	Ea	6.50	6.5	\$ 36.42	\$ 236.73	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	236.73
Install AG Mechanical Piping	1.00	Ea			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	2.00	2.0	\$ 62.31	\$ 124.62	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	124.62
Pipelayer	2.00	Ea	2.00	4.0	\$ 47.87	\$ 190.88	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	190.88
Terminate Heat Tracing	3.00	Ea			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	3.00	3.0	\$ 62.31	\$ 186.93	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	186.93
Electrician	2.00	Ea	3.00	6.0	\$ 47.87	\$ 286.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	286.02
Install Instrumentation Stand for Heat Tracing	2.00	Ea			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Foreman	1.00	Ea	2.25	2.3	\$ 62.31	\$ 140.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	140.20
Pipelayer	1.00	Ea	2.25	2.3	\$ 47.87	\$ 107.26	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	107.26
AG Pipe Testing	9.90	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Pipelayer	2.00	Ea	3.50	7.0	\$ 66.96	\$ 468.72	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	468.72
Oidcaste Material Subcontract (2 Manholes)	1.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
New D/PVC Pipe (Core and Main)	108.00	LF			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Grout (1M Shotloc Non-Structural)	7.00	CY			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Pipe/Manhole Bedding (6" Stone)	34.00	CY			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Heat Tracing Materials (T/NVve)	1.00	LS			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Instrumentation Stand	2.00	Ea			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6" MU Pipe Cap	1.00	Ea			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Rebar (CMC)	366.77	FT			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Formwork Plywood and Lumber	1.00	PLS			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
300(FS) Concrete (1M)	3.80	CY			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	



PREPARED BY: Kian Lawlor

f

[illegible]

Kian.Lawlor

From: Jon.Stow
Sent: Thursday, June 11, 2020 1:22 PM
To: Kian.Lawlor; Corbin.Coker
Cc: Steven.Davis1
Subject: RE: CCA 035 MH Cut Sheets

Kian,
See below from OC. Need to add tax and freight

From: Van Nuck, Ryan <Ryan.VanNuck@oldcastle.com>
Sent: Tuesday, April 28, 2020 11:10 AM
To: Jon.Stow <Jon.Stow@kiewit.com>
Subject: [EXTERNAL] (2 ea) Manholes - Pricing - Franklin WRF

Pricing for 2 new manholes below...

1 ea MH 795 – 3.64' – 3 boots ...	\$829
1 ea MH 890 – 3.00' – 1 boot ...	\$829
1 ea Delivery Charge (light load) ...	\$376

Pricing does not include applicable tax.

We can probably avoid the delivery charge on this if we ship these manholes with other products we have in the works f



Ryan Van Nuck
Sales Representative
Water Management Division

5900 East Division St
Lebanon, TN 37090

P 615-453-6111 | C 615-425-6546
ryan.vannuck@oldcastle.com

oldcastleinfrastructure.com



Jon Stow
General Superintendent

Franklin WRF Modifications and Expansion Project
135 Claude Yates Dr, Franklin, TN 37064
(214) 738-0552 Cell
Jon.Stow@kiewit.com

From: Kian.Lawlor <Kian.Lawlor@kiewit.com>
Sent: Thursday, June 11, 2020 11:47 AM
To: Jon.Stow <Jon.Stow@kiewit.com>; Corbin.Coker <Corbin.Coker@Kiewit.com>
Cc: Steven.Davis1 <Steven.Davis1@kiewit.com>
Subject: RE: CCA 035 MH Cut Sheets

Jon,



SOUTHEAST REGION TREATMENT
PLANT DIVISION

- ALABAMA - FLORIDA - GEORGIA - KENTUCKY - NORTH CAROLINA - SOUTH CAROLINA - TENNESSEE -

6525 US HWY 301 NORTH
TAMPA, FL. 33610
OFFICE: 813.621.1971
FAX: 813.621.3280

Owner City of Franklin, Tennessee
Contractor Kiewit Water Facilities South
Ref 4" PW at Headworks

SEQ	Qty	Description	Unit Price	Total Price
10		<u>ALL ITEMS ARE AIS COMPLIANT</u>		
20				
30	108	04" DI CL350 TR FLEX PIPE CL-B/B	\$ 23.30	\$ 2,516.40
40	3	04" DI C153 MJ 90 CL-B/B	\$ 64.67	\$ 194.01
50	6	04" DI MJ RESTRAINT SET	\$ 30.87	\$ 185.22
60				
70		2" PVC DRAIN		
80	1	06X04" DI C153 MJ TEE P401-B	\$ 285.00	\$ 285.00
90	1	04" DI C153 MJ PLUG W/2" NPT P401-B	\$ 155.00	\$ 155.00
100	1	06" DI C153 MJ SLEEVE LP P401-B	\$ 225.33	\$ 225.33
110	4	06" DI MJ RESTRAINT SET	\$ 38.41	\$ 153.64
120	1	04" DI MJ ACC SET	\$ 19.50	\$ 19.50
130	1	02" PVC SCH80 MALE X SOCKET ADAPTER	\$ 13.23	\$ 13.23
140	20	02" PVC SCH80 PIPE	\$ 1.76	\$ 35.20
150				
160		TOTAL		\$ 3,782.53
170				



Date: Jun 04, 2020

Customer: KIEWIT INFRASTRUCTURE SOUTH CO
Attention: Kian Lawlor
kian.lawlor@kiewit.com

Project: Franklin- Grout WRF
Location: Mack Hatcher, Franklin, TN 37067
Total Yards: 50

Quote Number: MQ0040460_

Bid Date:

Mix #	Concrete Description	Gross Price/CY	*Discount	Net Price/CY
3031CC	3000-A-CF-STONE-CC	\$119.00	\$3.00/CY	\$116.00
9484TN	TDOT EARLY STRENGTH (NON EXCAVATABLE) FF	\$105.00	\$3.00/CY	\$102.00
4612SD	4500-N-CF-SSTONE-SD	\$129.50	\$3.00/CY	\$126.50

Prices good until Jun 04, 2021, add \$8.00 per yard annually thereafter.

Notes:

PRICING SUBJECT TO CHANGE PER SPECIFICATIONS AND DRAWINGS.

Fly ash mixes are subject to availability. If fly ash is not available, straight cement mixes will be used. Mixes will be priced as quoted. If straight cement mixes are not quoted, add \$5.00 to performance price.

Proper truck washout area must be provided on site.

Concrete and aggregate testing outlined in job specifications can be provided by IMI at the expense of the contractor (if applicable).

Additional Charges

Holidays and Sundays	TBD
Environmental Fee, per load	\$12.00
1% Calcium Chloride	\$3.50
Additional Bag of Type I Cement, add/cy	\$6.50
Excess unloading over 60 minutes charged per hour	\$90.00
High Range Water Reducer, add/cy	\$7.50
Ice, per lb	\$0.60
Late Delivery, After 5:00 PM, per load	\$75.00
Low Chloride Accelerator, Per Dose	\$4.50
Mid-Range Water Reducer, add/cy	\$5.00
Non-Chloride Accelerator, per dose	\$5.50
Reinforcing Fiber, add/cy	\$7.00
Retarding Admixture, per dose	\$3.50
Saturday Delivery, per load	\$50.00
Small Load Charge 2 yards or less	\$200.00
Small Load Charge 2.25 - 3.75 yards	\$100.00
Type III Replacement, when available add/cy	\$6.00
Winter Service (Nov 1 - March 31), add /CY	\$4.00

*Terms: Accounts paid by the 10th of the following month after date of delivery
The above prices do not reflect state sales tax. Quote valid until Sep 04, 2020.

Quoted By: Alex Jauregui alex.jauregui@irvmat.com 615-642-2523

Please sign and return this quote to the salesperson listed above to activate the pricing for this project.

Accepted By: _____

Date: _____

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.



QUOTATION

Please address your order to:
 TriNova Inc.
 PO Box 190849
 Mobile, AL 36619

Quote Number	
1076408	
Quote Date	Page
3/20/2020 09:41:11	1 of 2

Quote Expires On 4/19/2020

Days Quote Valid: 30

Bill To:

KIEWIT CORPORATION
 KBS.InvoicesAP@kiewit.com
 P O BOX 452500
 OMAHA, NE 68145-2500

Ship To:

FRANKLIN WRF C/O KIEWIT
 135 CLAUDE YATES DRIVE
 FRANKLIN, TN 37064

Requested By: MICHAEL CALLISON

Customer ID: 33358

Terms	F.O.B.	Customer Service Rep
Net 30		MALLORY.COOLICAN

Quantities			Item ID Item Description	Unit Price	Extended Price
Line	QTY	UOM Unit Size			
1	100.00	EA	5BTV1-CT nVent : 313747-000	12.0000	1,200.00
		1.0			

nVent Self-Regulating Heating Cable - BTV 120 Volt 5 W/ft at
 50°F/10°C, CT-Jacket

2	2.00	EA	E-100-L-A nVent : P000001582	293.5900	587.18
		1.0			

nVent Connections, Splices and Terminations High Profile End Seal Kits
 with Red Lights (100-277 Vac)

3	2.00	EA	JBS-100-A nVent : 085947-000	186.1900	372.38
		1.0			

nVent Connections, Splices and Terminations Power Connection Kit
 with Junction Box for One Heating Cable to 8 AWG

4	2.00	EA	AMC-1H nVent : 889067-000	656.8200	1,313.64
		1.0			



QUOTATION

Please address your order to:
 TriNova Inc.
 PO Box 190849
 Mobile, AL 36619

Quote Number	
1076408	
Quote Date	Page
3/20/2020 09:41:11	2 of 2

Quote Expires On 4/19/2020

Days Quote Valid: 30

Quantities			Item ID Item Description	Unit Price	Extended Price
Line	QTY	UOM Unit Size			
nVent Thermostats Ambient Sensing (15 to 140°F)					
5	1.00	EA	AT-180 ALUMINUM TAPE	108.2900	108.29
6	3.00	EA	ETL-ENGLISH nVent : C77203-000	2.0000	6.00
nVent Raychem XMI Components and Accessories Electric Traced label (use 1 label per 10 feet of pipe) English					
7	1.00	EA	GT-66 POLY FIBER TAPE	9.4000	9.40
8	2.00	EA	PS-10 nVent : C77213-000	10.8600	21.72
nVent Pipe Straps and Mounting Brackets Pipe straps for components on pipe diameters of 2 to 10					
9	2.00	EA	PS-03 1"-3" PIPE CLAMPS	4.9200	9.84

Total Lines: 9

SUB-TOTAL: 3,628.45
TAX: 0.00
AMOUNT DUE: \$ 3,628.45



Kiewit Infrastructure South Co.
135 Claude Yates Drive
Franklin, Tennessee 37064
ATTN: Michael Callison

Subject: 4' Additional Supports

Mr. Callison,

SAC submits the following proposal in the following amounts:

Custom H Strut Support - \$250.00/ea
Custom Single Strut Support - \$300.00/ea → = \$600/Ea

This proposal is in response to the request for additional supports received on July 07, 2020.

Scope

- Custom H Strut Supports by the each
- Custom Single Strut Supports by the each

Notes

- All material is 316SST and AIS Compliant
- Freight to be prepaid and added to invoice
- Excludes Engineering
- Excludes any local, state or federal taxes

Assumed \$100 Total Freight =
\$50 Ea

If Kiewit Infrastructure approves of the above proposal and would like SAC Incorporated to proceed with this scope of work, please provide written authorization to proceed.

Please contact me if additional information is required.

Thanks,

Hannah Griffin
Project Management Coordinator
hgriffin@sacincorporated.com
802-448-5471

ATTACHMENT A
SCOPE OF WORK

Job Number: 103925
Trucking Agreement No. 103925-TA-001

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Trucker: T&W Construction LLC
Trucking Agreement No.: 103925-TA-001
Contract ID Number: TXXXXXX-XXX
Trucking Agreement Date: 10/18/18

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Tri-Axle Dump Trucks	3,485	HR	\$ 90.00	\$ 313,650.00
				\$ -	\$ -
	<i>Approximate Agreement Total (including Taxes)</i>				\$ 313,650.00

1.0 General Description of the "Work": Hourly Truck Hauling

- 1 Trucking of on-site material to stockpile, waste site as well as on-site hauls as directed by Contractor. Off-site hauls will be as directed by Contractor and to Contractor approved locations for legal disposal of waste.

2.0 Inclusions:

- 1 All applicable taxes shall be included in Trucker's pricing.
- 2 Trucker is responsible for all fines and traffic related tickets.
- 3 Trucker shall attend Contractor daily coordination/schedule meetings as determined by the Contractor.
- 4 Necessary permits required for hauling are the responsibility of the Trucker.
- 5 Trucker will appoint a representative whom will supervise performance of Work on site and coordinate Work as directed by the Contractor.
- 6 Trucker's equipment, including trucking, must be checked for leaks as to avoid any spills on site. Environmental concerns are high and Trucker shall comply with all state and federal environmental regulations including but not limited to having spill kits for dealing with spills as a result of Trucker's operations.
- 7 Truck drivers to have reflective vests, shirts with sleeves, hard hat, safety glasses, gloves, leather work boots and pants while on site.
- 8 Trucks will be in safe working condition, with backup alarms and functioning lights.
- 9 All required permits and licenses required for completing the scope of Work.
- 10 Night and weekend work is included at no additional cost.
- 11 Trucker to provide hauling tickets daily for Contractor to verify and sign. Additionally, Trucker will utilize Five Cubits software for tracking, provided by Contractor.
- 12 Trucker to clean truck of loose materials prior exiting Project site.
- 13 Trucker to provide copies of any lease agreement for Contractor to review and approve prior to using any outside leased trucks on the Project.

3.0 Exclusions:

- 1 Traffic Control.

4.0 Clarifications:

ESTIMATOR'S GUIDE CORE DRILLING

Minimum Charge (1 1/2 hrs.) \$200.00

FLOORS			WALLS		
Diameter	Per Hole up to 6" deep	Per Inch over 6" depth	Diameter	Per Hole up to 8" deep	Per Inch over 8" depth
1" to 4"	\$ 21.00	\$ 3.50	1" to 4"	\$ 32.00	\$ 4.00
4 1/2"	24.00	4.00	4 1/2"	34.00	4.25
5"	27.00	4.50	5"	38.00	4.75
6"	31.50	5.25	6"	44.00	5.50
7"	33.00	5.50	7"	50.00	6.25
8"	39.00	6.50	8"	56.00	7.00
9"	45.00	7.50	9"	68.00	8.50
10"	51.00	8.50	10"	80.00	10.00
12"	66.00	11.00	12"	106.00	13.25
14"	90.00	15.00	14"	140.00	17.50

480 VOLT / HYDRAULIC CORE DRILLING

Minimum Charge \$250.00

16"	114.00	19.00	16"	180.00	22.50
18"	168.00	28.00	18"	256.00	32.00
20"	186.00	31.00	20"	292.00	36.50
22"	210.00	35.00	22"	316.00	39.50
24"	234.00	39.00	24"	344.00	43.00
26"	282.00	47.00	26"	428.00	53.50
28"	312.00	52.00	28"	520.00	65.00
30"	570.00	64.00	30"	608.00	76.00

SLAB SAWING - GAS, ELECTRIC

Minimum Charge (1 1/2 hrs.) \$250.00

Slab sawing with water clean up - \$.55 per inch foot

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.55	\$ 1.10	\$ 1.65	\$ 2.20	\$ 3.30	\$ 4.40	\$ 5.50	\$ 6.60	\$ 7.70

ASPHALT SLAB SAWING

Depth of cut	1-2"	3"	4"	6"	8"	10"	12"
Cost per foot	\$.50	\$.75	\$ 1.00	\$ 1.50	\$ 2.00	\$ 2.50	\$ 3.00

DIESEL SLAB SAWING

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.45	\$.90	\$ 1.35	\$ 1.80	\$ 2.70	\$ 3.60	\$ 4.50	\$ 5.40	\$ 6.30

WALL SAWING

Minimum Charge \$350.00

Wall Thickness	8"	10"	12"	14"	16"	18"
Concrete & Masonry - \$2.50/in. ft.	\$ 20.00	\$ 25.00	\$ 30.00	\$ 35.00	\$ 40.00	\$ 45.00
Flush Cut - \$2.80/in. ft.	\$ 22.40	\$ 28.00	\$ 33.60	\$ 39.20	\$ 44.80	\$ 50.40

REMOVAL ON GRADE

	up to 6"	7 to 8"	9 to 10"	
By Hand	\$ 4.25	\$ 4.75	\$ 5.25	per sq. ft.
By Machine	\$ 3.00	\$ 3.50	\$ 4.00	to customer's dumpster
Haul off \$ 250.00 per load - Call for dumpster pricing				

1 x31.5 +48 Miles @ \$1 ea + \$
for slurry barrel = \$786

A mileage charge of \$ 1.00 per mile round trip outside of metropolitan area.

Customer to mark out all holes and openings.

We do not assume responsibility for damage caused by mislabeled holes, cutting conduit, buried pipe, steel beams, etc. We reserve the right to adjust prices when there is excessive re-steel, very difficult set-ups, river rock concrete or scattered locations.

Our clean up consists of vacuuming up our slurry. Additional charge to mop floors and power wash walls. Price to take our slurry with us - \$ 50.00 per barrel.

Also distributors for professional diamond cutting products & equipment.

PLEASE CALL FOR QUOTES ON LARGE JOBS !!!



121 Old Nashville Hwy., Suite A
LaVergne, TN 37086
Phone: (615) 471-1960
Fax: (615) 471-1959
Cell: (615) 631-9494
www.kandhcutting.com

Warren Insulation, LLC
2096 Nashville Hwy Columbia, TN 38401
(615)351-0166



March 30, 2020

Kiewit
Franklin, TN

Subject: Franklin WRF Odor Control System Change Order

- Quote includes all material, labor & supervision

Heat Trace Install

Apprentice 4 hours @ \$ 52.00----- \$ 208.00

Labor for Piping Insulation

Mechanic 8 hours @ \$60.00 ----- \$ 480.00

Materials for Piping Insulation

- DI- 6' 4x1.5" fiberglass w/aluminum jacketing-----\$ 48.00
- 1 -4" aluminum fitting-----\$ 35.00
- PVC- 12' 2x1.5" fiberglass w/aluminum jacketing-----\$ 62.00
- 1 - 2" aluminum fitting-----\$ 25.00

Total Quote ----- \$ 858.00

Lance Warren

Warren Insulation, LLC





**WAYNE J.
GRIFFIN ELECTRIC
INC.**

June 24, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp., Franklin, TN
Proposal #33

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This proposal is for CCA 035, which is to provide a 20A electrical circuit to added Heat Trace at the Headworks and Headworks Odor Control. This price includes providing and installing the electrical raceways and conductors.

Exclusions include providing and installing the heat tape and thermostat control points.

Material	\$ 1,380.32
Labor	2,222.05
Overhead & Profit	540.36
Subtotal	\$ 4,142.73
Bond	21.13
Total	\$ 4,163.86

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis
June 24, 2020
Page 2

The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jmr

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0033, CCA 0035
Date: 6/23/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is for CCA 035, which is to provide a 20A electrical circuit to added Heat Trace at the Headworks and Headworks Odor Control. This price includes providing and installing the electrical raceways and conductors.

Exclusions include providing and installing the heat tape and thermostat control points.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Builts	0.00	0.0000	HRS	0.000	0.000	0.650
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.650
Tools	0.00	0.0000	HRS	0.000	0.000	0.780
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.650
Supervision	0.00	0.0000	HRS	0.000	0.000	1.300
Project Controls	0.00	0.0000	HRS	0.000	0.000	1.300
3/4" PVC SCHEDULE 40	50.00	0.4432	FT	22.160	0.045	2.250
3/4" ALUMINUM CONDUIT	160.00	2.7374	FT	437.980	0.055	8.800
3/4" ALUMINUM 90D ELBOW	7.00	30.0600	EA	210.420	0.300	2.100
3/4" ALUM COUPLING	23.00	10.6500	EA	244.950	0.300	6.900
3/4" RIGID THREADED "C" CONDULET (ALUM)	2.00	18.4400	EA	36.880	0.600	1.200
1 1/2" RIGID THREADED FORM 7 T CONDUIT BODY (ALUM)	1.00	84.6300	EA	84.630	0.000	0.000
3/4" DIE CAST CONDULET COVER	3.00	7.9500	EA	23.850	0.040	0.119
#12 THHN-CU-STRANDED-BLACK-500FT COIL	650.00	0.3872	FT	251.680	0.006	3.900
WIRENUTS 76B RED (CTN. 1000)	12.00	0.1725	EA	2.070	0.000	0.000
3/4" RIGID 1 HOLE STRAP STAINLESS STEEL	12.00	2.2300	EA	26.760	0.000	0.000
20/1 BOLT-ON BREAKER	2.00	19.4700	EA	38.940	0.340	0.680
Totals				1,380.32		31.28
Tax				0.00		
Materials with				1,380.32		

Summary

	Itemized Breakdown Total		1,380.32
Elect. Journeyman	(31.2788 hrs @ \$71.04 / hr)	2,222.05	
			2,222.05
Overhead & Profit	(\$3,602.37 @ 15.00%)	540.36	
		540.36	
Bond	(\$4,142.73 @ 0.51%)	21.13	
		21.13	
			561.49
Total			\$4,163.86

Rental Rate Blue Book®

June 1, 2020

Caterpillar 335F L CR

Crawler Mounted Hydraulic Excavators



Size Class:

40.1 - 50.0 MTons

Weight:

N/A

Configuration for 335F L CR

Bucket Capacity - Heaped	2.2 cu yd	Net Horsepower	199.8 hp
Operating Weight	84604.6 lbs	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

	Hourly
Standby Rate	USD \$53.35
Idling Rate	USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

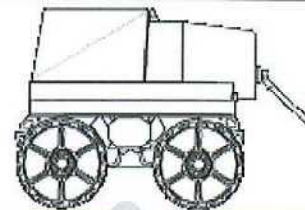
Rental Rate Blue Book®

June 1, 2020

Wacker RT820 (disc. 2011)

Trench Compactors

Size Class:
26 - 34 Inches
Weight:
3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

	Hourly
Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

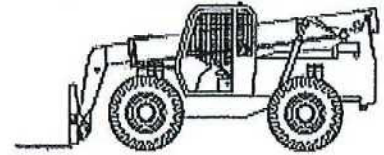
The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)
Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs



Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/HR

Do not have XTREME - Hourly

1055 on Equipment Holdg
USD \$16.88
USD \$50.69

Non-Active Use Rates

Standby Rate
Idling Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: March 31, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 44 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: 20" FEQ **CITY PROJECT NO.:** 2017-0264

REFERENCE: (See Below)

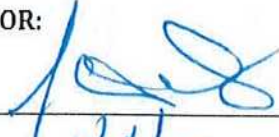
DESCRIPTION: Provide a cost proposal for relocation of the metering manhole and the valve manhole associated with the 20" FEQ pipeline as well as revision of the meter manhole for truck traffic rating as shown on the attached drawings.

CDM SMITH:

By: 

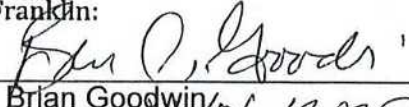
Date: 11/4/20

CONTRACTOR:

By: 

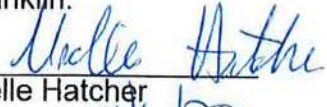
Date: 11/4/20

City of Franklin:

By: 

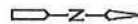
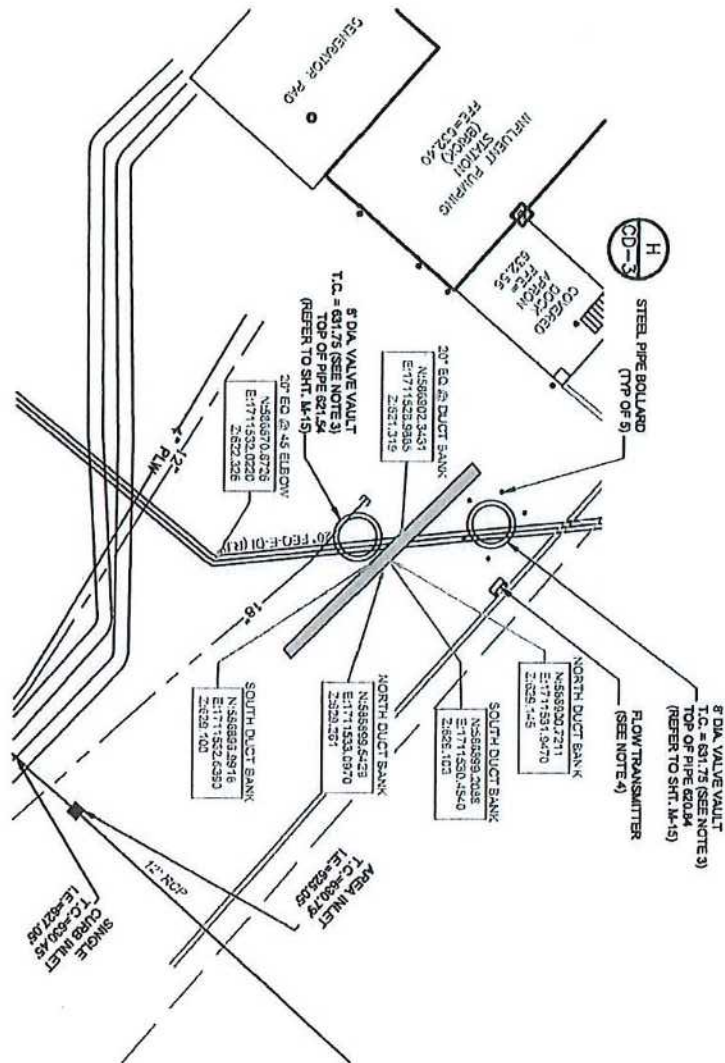
Date: 11/06/2020

City of Franklin:

BY: 

Date: 11/6/20

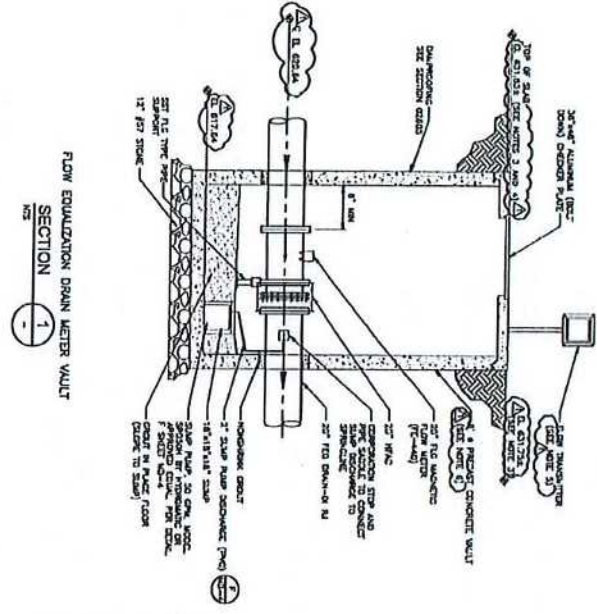
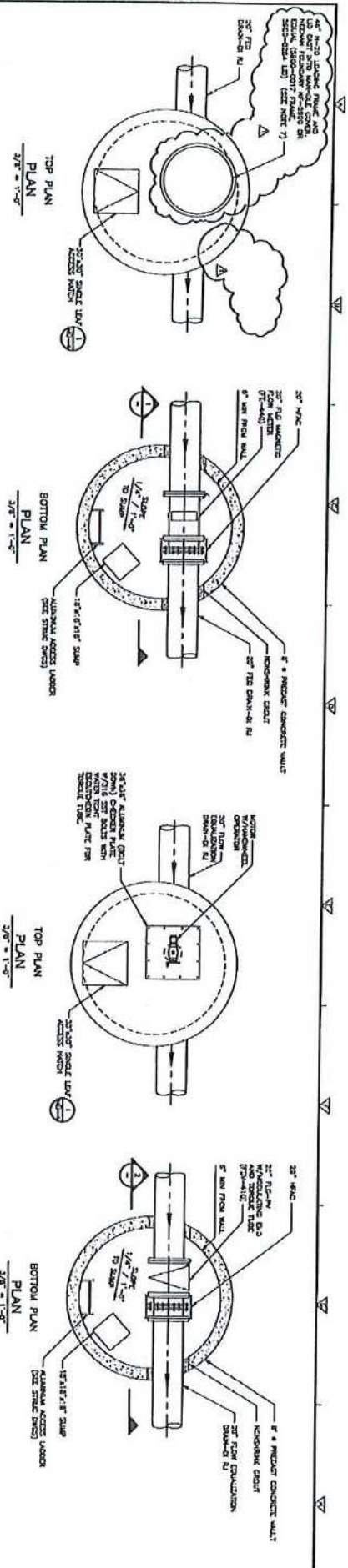
**CDM
Smith**



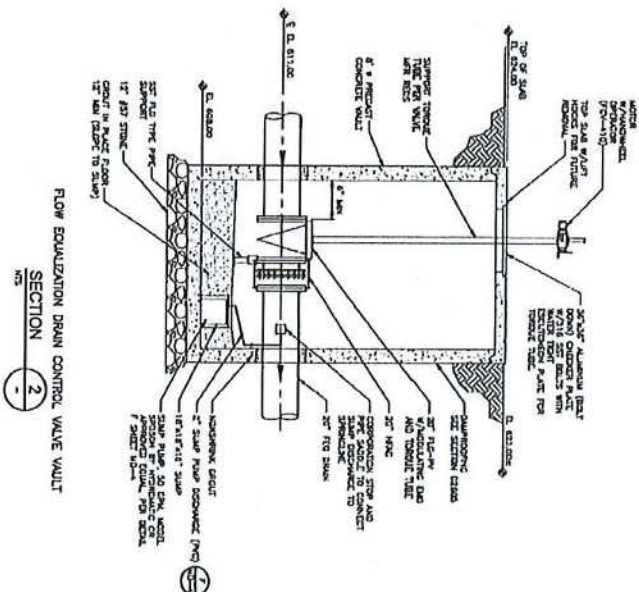
NOTES:

1. SURVEY PROVIDED BY KIEWIT ON 3/19/2020.
2. ALL SURVEYED 2 ELEVATIONS ARE TOP OF PIPE OR TOP OF DUCT BANK.
3. TOP OF CONCRETE ELEVATIONS FOR PROPOSED MANHOLES ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED BY CONTRACTOR.
4. MOUNT FLOW TRANSMITTER ASSOCIATED WITH THE METER VAULT AGAINST THE FENCE IN THIS LOCATION.
5. CONTRACTOR TO PLACE WATERING MANHOLE AS CLOSE TO THE DUCT BANK AS POSSIBLE.
6. ABANDONED 12\"/>

FRANKLIN WRF FIELD ORDER CCA-044
 EQ LINE MANHOLE RELOCATION
 MARCH 2020



- NOTE:**
1. FLOW EQUALIZATION DRAIN METER VAULT SHALL BE 30\"/>



NO.	DATE	BY	CHKD.	APP'D.	REVISION
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Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 8, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00060.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 044 – 20" FEQ Vault Relocation

Dear Mr. Harris,

We received your response to Kiewit's cost proposal for **CCA 044 – 20" FEQ Vault Relocation**. Below you find Kiewit's response to each comment from the original proposal:

1. *Under the Field Modify Vaults for Elevation Changes heading, the proposal indicates costs for Equipment Mobilization for CAT 349 Excavator. Assuming a CAT 349 excavator would be required to lift vaults of this size and given that the installation per the original plan did not occur, the only additional costs would be for the added time for the excavator itself and the operator, which we are in agreement with. Please remove the mobilization costs.*
 - a. *This Cost has been removed from the proposal.*
2. *Under the Field Modify Vaults for Elevation Changes heading, costs are included for Kiewit Foreman and Pipefitter. Please explain why Kiewit personnel are required for work being performed by a subcontractor or remove these costs.*
 - a. *Kiewit will be required to supply labor and construction equipment to layout, handle, and maneuver the 8' diameter vaults while K&H Cutting saw cuts the concrete to the required height. This crew will be onsite for the duration of the saw cutting operation.*
3. *Under the Cut & Reinstall 20" FEQ-DI for Installation of Vaults heading, costs are included for Purchase 8' Diameter Vault Tops w/ (1) H20 30x30 Hatch. Specifications paragraph 02605-2.02-D-3 require precast concrete structures to be designed for HS-20 loading and Note 4 on Sh. M-15 requires that hatches be HS-20 load rated. Oldcastle drawing 384-107643-8mh Drain MV in submittal D-02605-003-A notes that the top slab is designed to 300psf pedestrian loading, but the exception is not called out as such in the marked-up specification attached to the submittal, presenting at best an ambiguity to the reviewer. Since the deviation from the contract was not clearly identified in the annotated Specifications section, we propose to authorize the difference in cost between the HS20 top and the pedestrian-rated top.*
 - a. *The General Design Notes on the approved shop drawings for the Flow Equalization Drain Meter and Valve Vault both call out the 300 PSF pedestrian traffic rating. Additionally, the designer specifically called out the 300 PSF pedestrian traffic rating on the precast design calculations. Because the vault lids required the additional 46" frame cast into the manhole lid, a new slab was required, and the full price of the lid should be covered in this proposal. The full cost to procure and install the revised vault lids has been included in this revised proposal.*



Kiewit

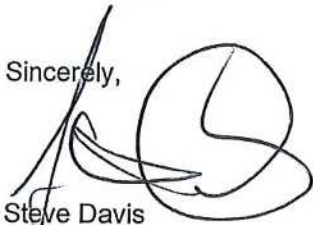
Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

4. *The breakdown identifies costs associated with installation and removal of temporary HDPE piping. This piping was installed at Kiewit's discretion and for Kiewit's convenience to allow water tightness testing of the EQ Tank to take place, and without any indication of additional cost to the City. Since startup of the Headworks is currently estimated to take place in October, water tightness testing of the EQ Tank could have been deferred to a later time when installation of the 20" FEQ piping and appurtenances was complete. Please remove these costs.*
 - a. *This cost has been removed from the proposal.*
5. *The proposal notes cutting the precast sections to accommodate the reduced height. Please clarify how this will be done while still maintaining the structural integrity between concrete components and leak control between components. Would cutting of the components leave flat mating ends rather than tongue in groove or lap joints? How would the flat mating end be sealed against tongue and groove or lap joints or another flat mating end? What would prevent lateral movement at the joints after key joints are cut away and how would a good seal be achieved?*
 - a. *The Top Slab of the Vaults is constructed with a ¾" drop key that mates into a smooth, flat concrete wall. Saw cutting the top riser barrel will provide the desired vault height per this change. The cut section will be determined in the field, but after preliminary survey, we anticipate removing approximately 3' off the top barrel. The ¾" drop key will prevent lateral movement at the joints after the top is cut away.*
6. *Please provide a credit for installation of the manholes at reduced depth including excavation and backfill, dewatering, shoring, etc.*
 - a. *See attachment for credit for installation of manholes at reduced depth. This credit includes excavation and backfill price. The dewatering and shoring cost is negligible.*

Kiewit proposes a revised price of **Sixty-Nine Thousand One Hundred Ninety-Nine Dollars (\$69,199)** for CCA 044.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



PREPARED BY: Michael Sheston

PREPARED BY: Michael Sheston																	
DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
CCA 044 - 20" FEQ Vault Relocation																	
Field Modify Vaults for Elevation Changes																	
Well Saw Vaults (K&H Cutting)	2.00	EA		24													\$1,281.00
Sawcut Subcontract Mobilization & Slurry Disposal	61.00	Intt											\$21.00	\$1,281.00			
Kiewit Foreman	1.00	PLS											\$97.60	\$97.60			\$97.60
Pipe Layer	6.00	MH	1.00	6	\$86.67	\$400.03											\$400.03
Laborer	6.00	MH	1.00	6	\$51.97	\$311.82											\$311.82
Excavator Operator	6.00	MH	1.00	6	\$38.66	\$231.95											\$231.95
CAT 349 Excavator	6.00	MH	1.00	6	\$43.78	\$262.71											\$262.71
Crew Pickup Truck (F-250)	6.00	HR									\$190.12	\$1,140.72					\$1,140.72
Chocks to brace vault during sawcutting	6.00	HR									\$30.28	\$181.68					\$181.68
Disposal Fee of Sawcut Concrete (T&W)	1.00	PLS											\$90.00	\$90.00			\$90.00
Field Modify Pipe Penetrations for revised Elevations																	
Kiewit Foreman	4.00	EA	7.50	30	\$66.67	\$666.72											\$666.72
Laborer	10.00	MH	1.00	10	\$38.97	\$779.39											\$779.39
Crew Pickup Truck (F-250)	20.00	MH	1.00	20							\$30.28	\$302.80					\$302.80
Purchase Chisel bits & Saw Blades	1	PLS															
Purchase additional gravel for patching (Sikatop 122 Plus)	4	BAG							\$45.99	\$183.96							\$183.96
Cut & Reinstall 20" FEQ-DI for installation of Vaults																	
Kiewit Foreman	60.00	LF	4.08	246	\$66.67	\$4,133.65											\$4,133.65
Pipefitter	62.00	HR	1.00	62	\$54.05	\$6,593.58											\$6,593.58
Excavator Operator	122.00	HR	1.00	122	\$43.78	\$2,714.63					\$30.28	\$1,877.36					\$2,714.63
Crew Pickup Truck (F-250)	62.00	HR									\$245.20	\$15,202.40					\$15,202.40
CAT 349 Excavator	62.00	HR															\$1,877.36
Purchase 8" Diameter Vault Tops w/ (1) H20 30x30 Hatch	1.00	EA							\$7,424.00	\$7,424.00							\$7,424.00
Precast Delivery	1.00	EA							\$500.00	\$500.00							\$500.00
Purchase 20" DI C1250 TR Flex Pipe P401AC	60.00	LF							\$93.67	\$5,632.20							\$5,632.20
Purchase 20" DI C153 MJ Sleeve LP P401AC	4.00	EA							\$1,676.67	\$6,706.68							\$6,706.68
Purchase 20" DI MJ Restraint Sets	8.00	EA							\$279.94	\$2,239.52							\$2,239.52
Install Bollards																	
Kiewit Foreman	5.00	EA	7.00	35	\$66.67	\$666.72											\$666.72
Carpenter Journeyman	10.00	HR	1.00	10	\$58.36	\$875.37											\$875.37
Excavator Operator	15.00	HR	1.00	15	\$43.78	\$437.84					\$30.28	\$302.80					\$437.84
Crew Pickup Truck (F-250)	10.00	HR	1.00	10							\$49.42	\$494.20					\$494.20
CAT 289 Skid steer	10.00	HR									\$30.00	\$300.00					\$300.00
Auger Attachment	10.00	HR															\$494.20
Purchase Steel Bollard	10.00	HR															\$300.00
Purchase Yellow Bollard Sleeve	5.00	EA							\$442.00	\$2,210.00							\$2,210.00
Purchase Concrete	5.00	EA							\$62.00	\$310.00							\$310.00
Short Load Fee	3.00	CY							\$105.00	\$315.00							\$315.00
	1.00	EA							\$65.00	\$65.00							\$65.00
Install Ductbank 32 & 33																	
Excavate/Place/Backfill Direct Buried Ductbank	7.00	CY	4.00	28													
Kiewit Foreman	7.00	CY	2.00	14	\$66.67	\$333.36											\$333.36
Laborer	5.00	MH	1.00	5	\$38.97	\$194.85											\$194.85
Excavator Operator	4.00	MH	1.00	4	\$43.78	\$175.14					\$69.25	\$277.00					\$175.14
CAT 315 Excavator	4.00	HR									\$30.28	\$151.40					\$151.40
Crew Pickup Truck (F-250)	5.00	HR															\$277.00
Purchase #57 Stone	14.00	TN							\$18.00	\$252.00							\$252.00
W/JG - Ductbank reduction	1.00	PLS															\$18.00
Excavate & Backfill to Reduced Depth																	
Kiewit Foreman	65.00	CY	0.39	25	\$66.67	\$333.36											\$333.36
Laborer	5.00	MH	1.00	5	\$38.97	\$194.85											\$194.85
Excavator Operator	10.00	MH	1.00	10	\$43.78	\$437.84					\$190.12	\$1,901.20					\$437.84
CAT 349 Excavator	10.00	HR									\$30.28	\$302.80					\$302.80
Crew Pickup Truck (F-250)	10.00	HR															\$1,901.20
Haul Spoils (T&W Trucking)	10.00	HR											\$90.00	\$900.00			\$900.00
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	



DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manours * \$5.00 * 1.0975)	282	MHR														\$5.00	\$1,410.00
TAX: (9.75% of Material, Equipment, Other)																	\$220.35
BOND (2% of total)																	\$436.48
SUBTOTALS						\$ 16,210.16		\$ -		\$ 27,804.46		\$ 18,843.59		\$ (5,657.06)		\$ 2,480.35	\$59,681.50
MARKUP %				#REF!		\$5,309.94		\$5,309.94		\$5,309.94		\$5,309.94		\$5,309.94		\$5,309.94	\$59,517.93
SUBTOTALS WITH MARKUPS APPLIED						\$18,641.68		\$10,619.88		\$33,195.13		\$24,153.53		\$-5,939.91		\$2,852.40	\$69,199.43
BOND																	
TOTAL																	\$69,199.00

PREPARED BY: Michael Sheston

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: March 31, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 44

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: 20" FEQ

CITY PROJECT NO.: 2017-0264

REFERENCE: (See Below)

DESCRIPTION: Provide a cost proposal for relocation of the metering manhole and the valve manhole associated with the 20" FEQ pipeline as well as revision of the meter manhole for truck traffic rating as shown on the attached drawings.

CDM SMITH:

CONTRACTOR:

By: _____

By: _____

Date: _____

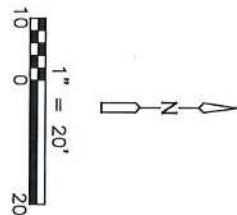
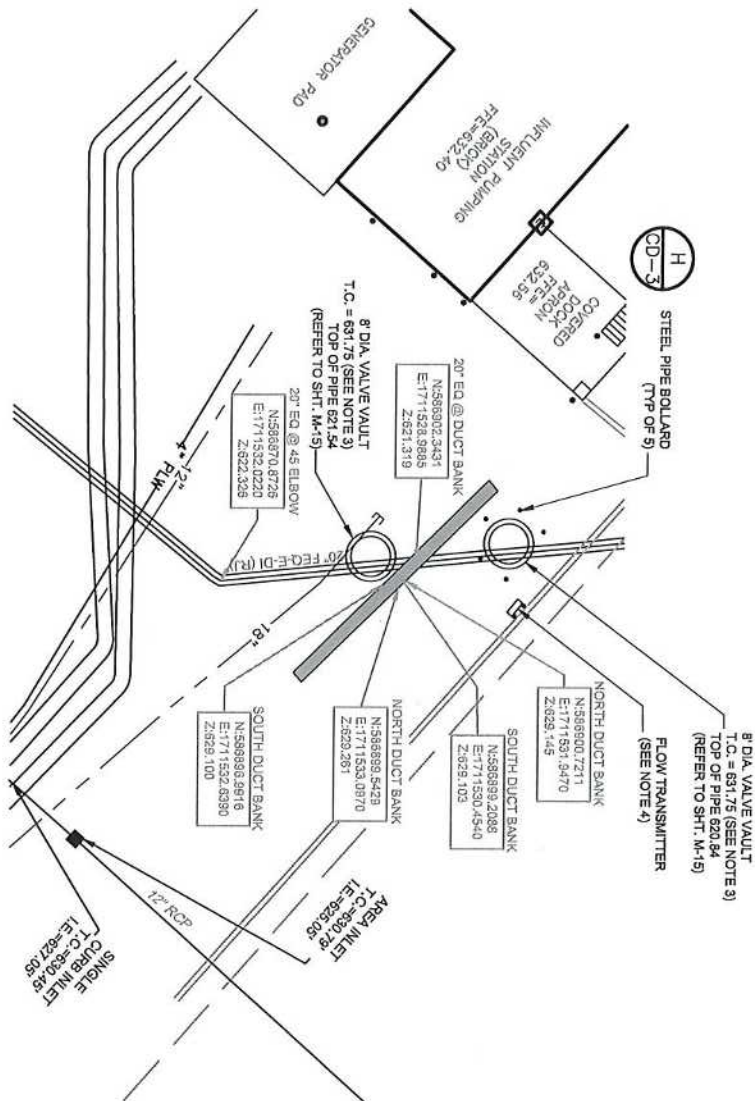
Date: _____

City of Franklin:

By: _____

Date: _____

**CDM
Smith**



NOTES:

1. SURVEY PROVIDED BY KIEWIT ON 3/19/2020.
2. ALL SURVEYED Z ELEVATIONS ARE TOP OF PIPE OR TOP OF DUCT BANK.
3. TOP OF CONCRETE ELEVATIONS FOR PROPOSED MANHOLES ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED BY CONTRACTOR.
4. MOUNT FLOW TRANSMITTER ASSOCIATED WITH THE METER VAULT AGAINST THE FENCE IN THIS LOCATION.
5. CONTRACTOR TO PLACE METERING MANHOLE AS CLOSE TO THE DUCT BANK AS POSSIBLE.
6. ABANDONED 18" PIPE SHALL BE REMOVED TO THE EXTENT NECESSARY AND RECAPPED OR PLUGGED.

FRANKLIN WRF FIELD ORDER CCA 044
 EQ LINE MANHOLE RELOCATION
 MARCH 2020



5900 E. Division St. • Lebanon, TN 37090

Phone (615) 965-3079

Fax (615) 453-6196

Toll Free (800) 408-1452

LETTER OF TRANSMITTAL

TO: Kiewit Power Constructors

DATE: 5/5/2020

ATTN: Kiewit Power Constructors

RE: Franklin WRF Modifications and Expansion Project

We are sending you the following items:

☒ Generic Product Drawings ☒ Detailed Submittal Drawings ☐ Plans
☐ Specifications ☐ Copy of Letter ☐ Changes

Copies	Number	Description
1	1	8' Round replacement top slabs
		Plans Dated N/A

☒ For Approval ☐ For File Copy

REMARKS:

Contractor to verify that all information shown on drawings has been thoroughly checked, complies with contractor documents, and is adequate to meet field conditions. Oldcastle Precast accepts no responsibility for installation errors by the contractor and errors or omissions resulting after receipt of approved shop drawings. **Oldcastle Infrastructure must have a signed set of approvals in our files before proceeding with any work on this project, unless noted otherwise.**

Thank you for the opportunity!

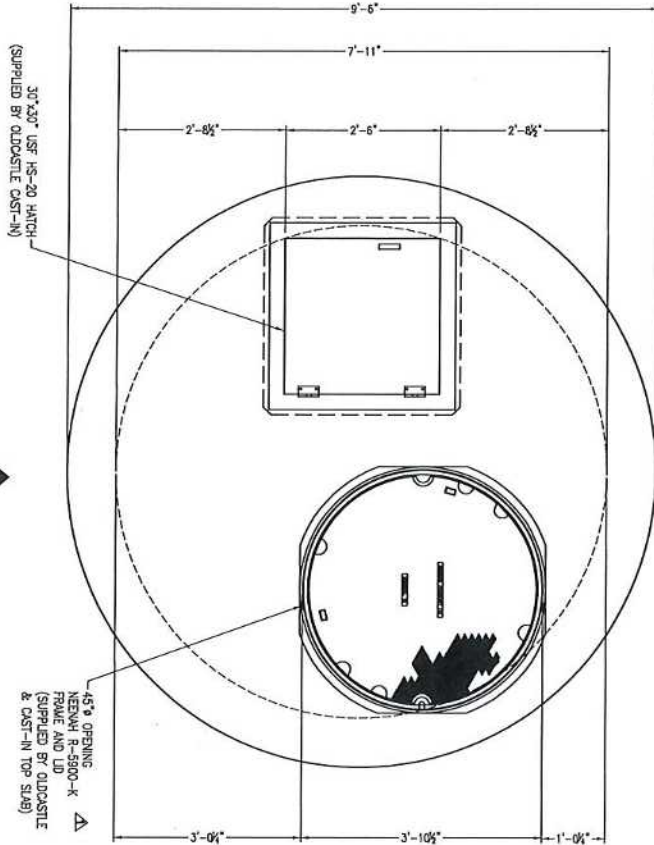
8' ROUND REPLACEMENT TOP SLABS

NOTES TO CONTRACTOR:

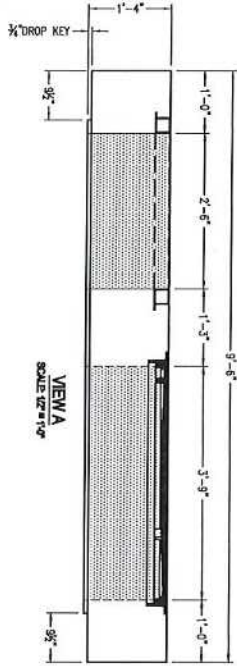
- PLEASE VERIFY ALL SIZES AND LOCATIONS OF OPENINGS.
- NOTE: NEEDHAM R-5900-K FRAME AND LID DO NOT REQUIRE ADDITIONAL ANCHORING TO ATTAIN HSD344 TRAFFIC RATING.
- PLEASE NOTE: COA & PROVIDED DRAWINGS DO NOT SHOW DIMENSIONS FOR CAST IN FRAME AND LID INTO SLAB. PLEASE VERIFY LOCATION.

GENERAL DESIGN NOTES:

- STRENGTH DESIGN METHOD IN ACCORDANCE WITH (A.W.), ACI 318.
- APPLICABLE DESIGN DOCUMENTS (CURRENT EDITIONS):
 - ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (MAIN DESIGN SPECIFICATION).
 - ASTM C880 STANDARD PRACTICE FOR MINIMUM STRUCTURAL DESIGN LOADING FOR MONOLITHIC OR SECTIONAL PRECAST CONCRETE WATER AND WASTEWATER LOADING SPECIFICATIONS.
 - ASTM C913 STANDARD SPECIFICATION FOR PRECAST CONCRETE WATER AND WASTEWATER STRUCTURES (PRODUCT SPECIFICATION).
- PRECAST RATED FOR HSD344 TRUCK LIVE LOAD W/ IMPACT (A.W., ASTM C880, NEEDHAM R-5900-K FRAME AND LID SHALL BE CAST INTO PRECAST CONCRETE AND DOES NOT REQUIRE ANY ADDITIONAL ANCHORING TO MAINTAIN HSD344 TRUCK RATING.
- DESIGN FILL RANGE: (TYPICAL).
- GROUND WATER TABLE FOR STRUCTURAL CALCULATIONS IS BASED UPON GROUND WATER TABLE AT GRADE. IF DESIGNER (OR ACTUAL) WATER TABLE IS LESS THAN ASSUMED, REVIEWING ENGINEER/AUTHORITY SHALL NOTIFY OLDCASTLE PRECAST, INC. UPON REVIEW OF THIS SUBMITTAL.
- LATERAL DESIGN PRESSURES (AS APPLICABLE TO DESIGN, SEE CALCULATIONS):
 - EQUIV DRY SOIL FLUID PRESSURE = 47 PCF.
 - EQUIV SATURATED SOIL FLUID PRESSURE = 65 PCF.
 - LIVE LOAD SURCHARGE PRESSURE = 80 PSF.
 - HYDROSTATIC WATER PRESSURE = 62.4 PCF.
- DESIGN CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS = 5,000 PSI (MIN).
- REINFORCEMENT:
 - CARBON STEEL, DEFORMED BARS, ASTM A615, ϕ = 60ksi (MIN).
 - JOINT SEALANT (AS DETAILED AND NOTED IN DRAWINGS HEREIN):
 - CS-102 CONSEAL BUTYL RUBBER SEALANT (OR EQUIV.) (A.W., ASTM C880 FED. SPEC. SS-5-210).
- PRECAST DESIGN DOES NOT INCLUDE ANY LATERAL OR SURCHARGE LOADS FROM OTHER BUILDINGS OR FOUNDATIONS ADJACENT TO THIS STRUCTURE. THIS STRUCTURE SHALL BE KEPT A MINIMUM OF 1:1 RATIO AWAY FROM OTHER FOOTINGS OR FOUNDATIONS.



PLAN VIEW
SCALE 1/2" = 1'-0"



VIEW A
SCALE 1/2" = 1'-0"

REVISIONS

REV.	DATE	BY	DESCRIPTION OF REVISION
1	07/20/20	JMC	VERIFY CAST-IN FRAME & LID INTO SLAB RATING

WEIGHTS

SECTION	WEIGHT
LID	14,100 LBS
TOTAL	14,100 LBS



THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF OLDCASTLE INFRASTRUCTURE, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF OLDCASTLE INFRASTRUCTURE, INC.

KIEWIT POWER				
SCALE	DATE	DESIGN	DRAWING	CHECKED
0.25"=1'	02/25/19	R/W	FP9	LS
DESIGNED BY: KIEWIT POWER				CHECKED BY: KIEWIT POWER
004-KIPW-001-001-001				0 OF 7

Michael.Sheston

From: Jon.Stow
Sent: Thursday, May 14, 2020 10:19 AM
To: Van Nuck, Ryan
Cc: Vantrease, Jeremy; Corbin.Coker; Michael.Sheston
Subject: RE: Vault log - Franklin WRF - Kiewit

Hi Ryan,

Thx for the pricing. We thought the latest drawing only required one H20 lid, did you see that both needed to be changed from the original plans?

One more question, are both the original lids made already?



Jon Stow
General Superintendent

Franklin WRF Modifications and Expansion Project
135 Claude Yates Dr, Franklin, TN 37064
(214) 738-0552 Cell
Jon.Stow@kiewit.com

From: Van Nuck, Ryan <Ryan.VanNuck@oldcastle.com>
Sent: Thursday, May 14, 2020 10:07 AM
To: Jon.Stow <Jon.Stow@kiewit.com>
Cc: Vantrease, Jeremy <Jeremy.Vantrease@oldcastle.com>; Corbin.Coker <Corbin.Coker@Kiewit.com>; Michael.Sheston <Michael.Sheston@kiewit.com>
Subject: [EXTERNAL] RE: Vault log - Franklin WRF - Kiewit

No price change. Prices still as follows for these items..

1 ea 8' Inside Diameter Tops w/ (1) H20 30x30 Hatch & Neenah R-5900-K frame & cover ... \$7424
1 ea 8' Inside Diameter Tops w/ (1) H20 30x30 Hatch & 34"x34" (w/ 1" recess) Opening ... \$5302



Ryan Van Nuck
Sales Representative
Water Management Division

5900 East Division St
Lebanon, TN 37090

P 615-453-6111 | C 615-425-6546
ryan.vannuck@oldcastle.com

oldcastleinfrastructure.com

To keep up with all the latest happenings at Oldcastle Infrastructure, follow us on Facebook / Twitter / LinkedIn / Instagram / Etc.

From: Jon.Stow <Jon.Stow@kiewit.com>
Sent: Thursday, May 14, 2020 10:00 AM
To: Van Nuck, Ryan <Ryan.VanNuck@oldcastle.com>
Cc: Vantrease, Jeremy <Jeremy.Vantrease@oldcastle.com>; Corbin.Coker <Corbin.Coker@Kiewit.com>; Michael.Sheston

Michael.Sheston

From: Cody.Prange
Sent: Thursday, May 28, 2020 8:44 AM
To: Michael.Sheston; Steven.Davis1
Cc: Jon.Stow; Tawanda.Charambira; Michael.Stiltner
Subject: FW: NEW H2O Drain MV Manhole



Kiewit
Infrastructure Group

Cody Prange
Field Engineer I

KIEWIT WATER FACILITIES SOUTH CO.
135 Claude Yates Drive
Franklin, TN 37064
(507) 461-2432
Cody.Prange@kiewit.com

From: Vantrease, Jeremy <Jeremy.Vantrease@oldcastle.com>
Sent: Thursday, May 28, 2020 8:35 AM
To: Cody.Prange <Cody.Prange@kiewit.com>; Jon.Stow <Jon.Stow@kiewit.com>
Cc: Crowley, Aaron <Aaron.Crowley@oldcastle.com>; Van Nuck, Ryan <Ryan.VanNuck@oldcastle.com>
Subject: [EXTERNAL] NEW H2O Drain MV Manhole

Cody,

Just following up after our phone conversation. This manhole is now traffic rated and the only thing that has to be re-poured, is the top slab. With this being a round structure, the riser sections are more than strong enough to meet traffic ratings. When you go from pedestrian rated to traffic rated on round structures, the 2 things that you have to watch, is the strength and steel designs of the base slabs and top slabs. My Engineer here at the plant had already checked the base slab, when this design change came through and the base slab meets the required traffic rating. So, all we have to do, is pour this new top slab that is 16" thick, with a traffic rated hatch and manhole cover cast into it, and everything will be good to go. The rest of the structure that you already have on site, is good to go.

I have copied my engineer in this email, just to keep him in the loop of our discussion. If you have anymore questions on this, feel free to ask, and either myself or Aaron, will get back to you.

Thanks,



Jeremy R. Vantrease
Project Manager- Wet Utilities Division

5900 East Division St
Lebanon, TN 37090

P 615-965-3055
jeremy.vantrease@oldcastle.com



**WAYNE J.
GRIFFIN ELECTRIC
INC.**

April 27, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp, Franklin, TN
Proposal #26

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This proposal is for relocating the Equalization Tank Meter Vault and Valve, as shown in CCA 44. The credit is for the shortening of the ductbank runs to the vaults, which shortened the amount of conduit and wire needed.

Material	\$ (1,639.66)
Labor	(4,289.54)
Overhead & Profit	(296.46)
Total	\$ (6,225.66)

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us. The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis

April 27, 2020

Page 2

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jmr

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0026, CCA - 044 Relocating EQ Valve and M
Date: 4/24/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is for relocating the Equalization Tank Meter Vault and Valve, as shown in CCA 44. The credit is for the shortening of the ductbank runs to the vaults, which shortened the amount of conduit and wire needed.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Bullets	0.00	0.0000	HRS	0.000	0.000	0.000
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.000
Tools	0.00	0.0000	HRS	0.000	0.000	0.000
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.000
Supervision	0.00	0.0000	HRS	0.000	0.000	0.000
Project Controls	0.00	0.0000	HRS	0.000	0.000	0.000
3/4" PVC SCHEDULE 40	-360.00	0.3103	FT	-111.710	0.045	-16.200
1" PVC SCHEDULE 40	-90.00	0.4933	FT	-44.400	0.053	-4.725
1-1/2" PVC SCHEDULE 40	-160.00	0.7995	FT	-127.920	0.070	-11.200
#14 XHHW COPPER WIRE	-672.00	0.1269	FT	-85.280	0.006	-4.032
#12 XHHW COPPER WIRE	-1,770.00	0.1723	FT	-304.970	0.007	-12.390
#2 USE-RHH-RHW STRANDED COPPER WIRE	-465.00	1.9019	FT	-884.380	0.019	-8.835
16/2PR CNTRL CBL SHLD TWSTD PR	-250.00	0.3240	FT	-81.000	0.012	-3.000
Totals				-1,639.66		-60.38
Tax				0.00		
Materials with				-1,639.66		

Summary

Itemized Breakdown Total		-1,639.66
Elect. Journeyman	(-60.3820 hrs @ \$71.04 / hr)	-4,289.54
		-4,289.54
Overhead & Profit	(\$-5,929.20 @ 5.00%)	-296.46
		-296.46
		-296.46
Total		-\$6,225.66



SOUTHEAST REGION TREATMENT
PLANT DIVISION

- ALABAMA - FLORIDA - GEORGIA - KENTUCKY - NORTH CAROLINA - SOUTH CAROLINA - TENNESSEE -

6525 US HWY 301 NORTH
TAMPA, FL. 33610
OFFICE: 813.621.1971
FAX: 813.621.3280

Owner City of Franklin, Tennessee
Contractor Kiewit Water Facilities South
Ref 20" EQ Change Quote

SEQ	Qty	Description	Unit Price	Total Price
10		<u>ALL ITEMS ARE AIS COMPLIANT</u>		
20				
30	60	20" DI CL250 TR FLEX PIPE P401/AC	\$ 93.87	\$ 5,632.20
40	4	20" DI C153 MJ SLEEVE LP P401/AC	\$ 1,676.67	\$ 6,706.68
50	8	20" DI MJ RESTRAINT SETS	\$ 279.94	\$ 2,239.52
60				
70		TOTAL		\$ 14,578.40
80				

ATTACHMENT A

Scope of Work

Item	Description	Quantity	Unit of Measure	Unit Price	Total
1	2500 PSI Concrete - 1/2" chip	1,826.00	CY	\$ 97.00	\$ 177,122.00
2	Color Utility Red 1/2 Dosage	1,826.00	CY	\$ 28.00	\$ 51,128.00
3	3000 PSI - 1/2" Chip (Sidewalk C&G)	165.00	CY	\$ 101.00	\$ 16,665.00
Escalation date 04-01-2020 \$4.00/CY					\$ -
Contract Total (without Taxes)					\$ 244,915.00

1.0 General Description of the "Work": The s

- .1 FURNISH SECTIONS: Section 02515 – Concrete Sidewalk, Section 03300 – Cast-In-Place Concrete, 16900 – Ductbank Encasement complete per plans, specifications, and Addenda [Addenda 1-6]

Also included in additional to the above, any other applicable and/or related specification sections. Including but not limited to: Division 00, Division 1 General Requirements.

2.0 Including But Not Limited to:

- .1 The Unit Prices in the Schedule of Values are firm for the durations of the Project including escalation.
.2 Seller will provide 0% of the Seller's total contract dollar value in DBE participation.
.3 Material is not exempt from sales or use taxes.
.4 Seller shall provide the furnishing concrete for duct bank encasement, sidewalk and curb details on Contract Drawing E-5 through E-15; Contract Drawing C-23 and CD-3.

3.0 Schedule of Work:

- .1 All Material and equipment delivery schedules shall be coordinated with the Contractor prior to shipment and Seller shall provide a minimum of 72 hours advance notice of all deliveries.
.2 Concrete for Duct bank shall be available for delivery to site as requested by Contractor.
.3 Concrete for Sidewalk shall be available for delivery to site as requested by Contractor.
.4 Concrete for Curbs shall be available for delivery to site as requested by Contractor.

4.0 Unit Prices, Options and Allowances:

	Description	Qty	UoM	Price	Price Validity
.1	Add MRWR, increase slump 4" to 6"	1	CY	\$3.00	
.2	Add MRWR, increase slump 4" to 8"	1	CY	\$5.00	
.3	Calcium Chloride, LQD, 1%	1	CY	\$3.00	
.4	Non-Chloride Accelerator, 1%	1	CY	\$4.50	
.5	Superplasticizer dose	1	CY	\$6.00	
.6	Hot/Chilled Water	1	CY	\$3.00	

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Job No.: 103925

Seller: Smyrna Ready Mix Concrete, LLC
Purchase Agreement No.: PA103925-001
Contract ID No. PXXXXXX-XXX

.7	All Cement Mixes, Additional	1	CY	\$6.00	
.8	Set Retarding Admixture	1	CY	\$2.00	
.9	Delivery Charge (Loads less than 6 CY)	1	EA	\$65.00	
.10	Delivery Charge (Loads less than 3 CY)	1	EA	\$85.00	
.11	Delivery Charge (Loads less than 2 CY)	1	EA	\$100.00	

5.0 Deliverables: In addition to any other provisions of this Contract, it is required that Seller make timely submission of the following to Contractor:

- .1 Furnish shop drawings and submittals for approval within 28 days of the Effective Date of Contract in strict accordance with specification section 01300. Material shall not be ordered or shipped until the shop drawings have been approved. No material shall be ordered or shop work started if shop drawings are marked "APPROVED AS NOTED - CONFIRM", "APPROVED AS NOTED - RESUBMIT" or "NOT APPROVED".

HME, INC.

HAAS METAL ENGINEERING

2828 NW Button Road
Topeka, KS 66618
Phone: 785-235-1524



Change Order Request

Owner: Kiewit Infrastructure South Co.
4405 International Blvd., NW, Suite C-101
Norcross, GA 30093

Project: 18.097 / FRANKLIN WRF
135 CLAUDE YATES DR.
FRANKLIN, TN 37064

COR# 8: ADDED PIPE BOLLARDS

\$2,210.00

ADDING (5) 6" DIA. SCHEDULE 40 x 8'-4" LONG WITH ZINC PRIMER. DETAILING, FABRICATION AND DELIVERY INCLUDED IN THE PRICE.

1: ADDED PIPE BOLLARDS

TOTAL, THIS CHANGE ORDER REQUEST

\$2,210.00

Approved By: Kiewit Infrastructure South Co.

Signed: _____

Date: _____

Submitted By: HME, Inc.

Signed: _____

Date: _____

ESTIMATOR'S GUIDE CORE DRILLING

March 1, 2016

Minimum Charge (1 1/2 hrs.) \$200.00

FLOORS			WALLS		
Diameter	Per Hole up to 6" deep	Per Inch over 6" depth	Diameter	Per Hole up to 8" deep	Per Inch over 8" depth
1" to 4"	\$ 17.70	\$ 2.95	1" to 4"	\$ 25.60	\$ 3.20
4 1/2"	19.50	3.25	4 1/2"	28.40	3.55
5"	21.90	3.65	5"	30.80	3.85
6"	26.10	4.35	6"	35.60	4.45
7"	27.90	4.65	7"	41.60	5.20
8"	32.40	5.40	8"	46.40	5.80
9"	36.70	6.45	9"	57.60	7.20
10"	45.00	7.50	10"	67.60	8.45
12"	58.50	9.75	12"	88.40	11.05
14"	79.50	13.25	14"	117.20	14.65

HYDRAULIC CORE DRILLING

Minimum Charge \$250.00

16"	108.00	18.00	16"	160.80	20.10
18"	157.50	26.25	18"	228.80	28.60
20"	174.00	29.00	20"	262.40	32.60
22"	196.00	32.50	22"	287.60	35.95
24"	216.00	36.00	24"	311.60	38.95
26"	252.00	42.00	26"	390.00	48.75
28"	285.00	47.50	28"	474.80	59.35
30"	354.00	59.00	30"	558.00	69.75

SLAB SAWING - GAS, DIESEL, ELECTRIC

Minimum Charge (1 1/2 hrs.) \$250.00

Slab sawing with water clean up - \$.45 per inch foot

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.45	\$.80	\$ 1.35	\$ 1.80	\$ 2.70	\$ 3.60	\$ 4.50	\$ 5.40	\$ 6.30

Slab sawing with no water clean up - \$.40 per inch foot

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.40	\$.80	\$ 1.20	\$ 1.60	\$ 2.40	\$ 3.20	\$ 4.00	\$ 4.80	\$ 5.60

ASPHALT SLAB SAWING

Depth of cut	1-2"	3"	4"	6"	8"	10"	12"
Cost per foot	\$.50	\$.75	\$ 1.00	\$ 1.50	\$ 2.00	\$ 2.50	\$ 3.00

ELECTRIC SAWING, SMALL PUSH SAW

Minimum Charge (1 1/2 hrs.) \$250.00

(For Small & Confined Areas) \$.50 per inch foot

Depth of cut	1"	2"	3"	4"	6"	8"
Cost per foot	\$.50	\$ 1.00	\$ 1.50	\$ 2.00	\$ 3.00	\$ 4.00

WALL SAWING

Minimum Charge \$350.00

Wall Thickness	8"	10"	12"	14"	16"	18"
Concrete & Masonry - \$2.10/in. ft.	\$ 18.80	\$ 21.00	\$ 25.20	\$ 29.40	\$ 33.60	\$ 37.80
Flush Cut - \$2.35/in. ft.	\$ 18.80	\$ 23.50	\$ 28.20	\$ 32.90	\$ 37.60	\$ 42.30

GRINDING & SHOT BLASTING

Please call for pricing.

A mileage charge of \$.05 per mile round trip outside of metropolitan area.

Customer to mark out all holes and openings.

We do not assume responsibility for damage caused by mismarked holes, cutting conduit, buried pipe, steel beams, etc. We reserve the right to adjust prices when there is excessive re-steel, very difficult set-ups, river rock concrete or scattered locations.

Our clean up consists of vacuuming up our slurry. Additional charge to mop floors and power wash walls.

Price to take our slurry with us - \$50.00 per barrel.

Also distributors for professional diamond cutting products & equipment.

PLEASE CALL FOR QUOTES ON LARGE JOBS !!!



121 Old Nashville Hwy., Suite A
LaVergne, TN 37086
Phone: (615) 471-1960
Fax: (615) 471-1959
Cell: (615) 631-9494
www.kandhcutting.com

Quotation

Bill-To-Party : 119957 KIEWIT CORPORATION 1000 KIEWIT PLAZA OMAHA NE 68131	Information Quotation Number 20760201 Quotation Created Date 06/02/2020 Customer Number 119957
Ship-To-Party : 5330737 KIEWIT WWTP 135 CLAUDE YATES DRIVE FRANKLIN TN 37064	Inside Salesman Jeff Ervin Outside Salesman Dave Brown Validity Start Date 06/02/2020 Validity End Date 07/02/2020

Notes from the Customer:

Item	Material	Quantity	Price Per	Unit	Amount
10	TRAFFIC CONTROL 6IN X 56IN SMOOTH BOLLARD SLEEVE	5 EA	62.00 \$	1 EA	310.00
Items total:					310.00
Sales Tax:					28.68
Sales Coupon:					0.00
Total Amount:					\$ 338.68

Signature _____ Date _____

Bill To:
1044 -103925
Kiewit Infrastructure South Co.

PO Box 452500
Omaha NE 68145-2500
US
Email: KBS.InvoicesAP@kiewit.com



Kiewit

PURCHASE ORDER
REVISION
PO Number: 4501811586



(PO Number and Goods Recipient must appear on all documents and packages)

Vendor # 10016084
HD Supply White Cap Constr Supply
4121 6th Ave NW
Seattle WA 98107-5020
US
Phone: 402-891-7314
Fax: 228-832-9609
Attn: HD SUPPLY WHITE CAP
402420-010
Email: cindy.pallas@hdsupply.com

Ship To:
103925
103925
135 Claude Yates Dr
FRANKLIN TN 37064
US
Tax Jurisdiction: 4318702800

Goods Recipient:
Drew Selsor

Project Number: 103925 Franklin WRF Modifications and Expansion
Plant/Spec: 0641 / 0007
Date Ordered: 08/11/2020
Revision Date: 08/12/2020
PO Total: 2,575.44
Payment Terms: VP15
IncoTerm Key/Location: DDP Delivery Duty Paid
Buyer: KMP-BUYER
Email:

Item	Product Number	Description	Qty	UOM	Price per Unit	Tax Code	Delivery Date	Amount
1	43818930 COMPLETE K 2100000235	.51 CUFT KIT SIKATOP 122 PLUS PLASTER OR MORTAR MIXERS	56.000	EA	45.99 USD/1 EA	Taxable	08/17/2020	2,575.44 USD
Manufacturer Part Number: SIKA CORP,91150								
2	Freight				USD/1	Taxable	Time Frame	304.45 USD

Total Value: 2,879.89 USD
Total Value excludes sales and use tax imposed on sale to Purchaser

Purchaser: _____ **Vendor:** _____ **Owner (if required):** _____
Legal Terms and Conditions : _____

Purchaser may be a federal contractor, and Seller may be a federal subcontractor. If seller is a federal subcontractor, then unless exempted, the Equal Opportunity clauses as set forth in 41 CFR §60-1.4(a), 41 CFR §60-1.4(b), 41 CFR §60-250.5(a), 41 CFR §60-300.5(a), and 41 CFR §60-741.5(a), as well as the specifications set forth in 41 CFR §60-4.3(a) and the provisions of 41 CFR §61-250.10, 41 CFR §61-300.10, and 29 CFR Part 471, Appendix A to Subpart A and, if applicable, requirements of Form FHWA-1273, are incorporated by reference and shall be binding on Seller.

Except for breaches of confidentiality and vendor's third party indemnity obligations, neither party (or its affiliates, employees, contractors or suppliers, when acting in such capacity with respect to this purchase order) will be liable to the other (or its affiliates, employees, contractors or suppliers, when acting in such capacity with respect to this purchase order) for any indirect, incidental, consequential, special or punitive damages, for loss of profits or revenue or loss of time, opportunity or value of data, whether in an action in contract, tort (including negligence), product liability, strict liability, statute, law, equity or otherwise.

PO Number: 4501811586

Page 1 of 702

Seller's quotation shall be referenced solely for purposes of price, quantity and delivery date. All other terms and conditions included in Seller's quotation or any other communication are hereby rejected. Purchaser's acceptance hereunder is expressly conditioned upon and limited to application of previously negotiated and mutually agreed terms. Seller will be deemed to have accepted the Purchase Order when it (i) sends Purchaser notice of acceptance in writing, (ii) starts to perform any services in accordance with the terms of the Purchase Order, and/or (iii) delivers any or all of the goods or materials covered by the Purchase Order, whichever occurs first. Purchaser may withdraw the Purchase Order at any time before it is accepted by Seller. No contract will exist except as herein provided.

Rental Rate Blue Book®

June 2, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

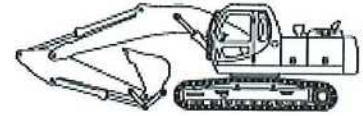
The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 2, 2020

Caterpillar 349F

Crawler Mounted Hydraulic Excavators



Size Class:

50.1 - 66.0 MTons

Weight:

N/A

Configuration for 349F

Bucket Capacity - Heaped	4.2 cu yd	Net Horsepower	417.0 hp
Operating Weight	117500.0 lbs	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$20,295.00	USD \$5,685.00	USD \$1,420.00	USD \$215.00	USD \$120.89	USD \$236.20
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,583.01	USD \$443.43	USD \$110.76	USD \$16.77		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$21,878.01	USD \$6,128.43	USD \$1,530.76	USD \$231.77	USD \$120.89	USD \$245.20

Non-Active Use Rates

Hourly

Standby Rate	USD \$65.88
Idling Rate	USD \$180.45

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$7,509.15/mo
Overhaul (ownership)	46%	USD \$9,335.70/mo
CFC (ownership)	10%	USD \$2,029.50/mo
Indirect (ownership)	6%	USD \$1,217.70/mo
Fuel (operating) @ USD 3.07	46%	USD \$56.14/hr

Revised Date: 1st half 2020

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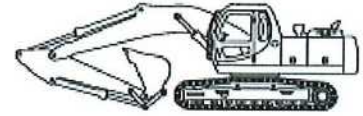
The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 2, 2020

Caterpillar 335F L CR

Crawler Mounted Hydraulic Excavators



Size Class:

40.1 - 50.0 MTons

Weight:

N/A

Configuration for 335F L CR

Bucket Capacity - Heaped

2.2 cu yd

Operating Weight

84604.6 lbs

Net Horsepower

199.8 hp

Power Mode

Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

Hourly

Standby Rate

USD \$53.35

Idling Rate

USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

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The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Caterpillar 315 (disc. 1997)

Crawler Mounted Hydraulic Excavators



Size Class:

14.1 - 16.0 MTons

Weight:

33730 lbs

Configuration for 315 (disc. 1997)

Bucket Capacity - Heaped	0.68 cu yd	Net Horsepower	99.0 hp
Operating Weight	15.3 mt	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$5,580.00	USD \$1,565.00	USD \$390.00	USD \$59.00	USD \$35.07	USD \$66.77
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$435.24	USD \$122.07	USD \$30.42	USD \$4.60		
Model Year (1997: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$6,015.24	USD \$1,687.07	USD \$420.42	USD \$63.60	USD \$35.07	USD \$69.25

Non-Active Use Rates

	Hourly
Standby Rate	USD \$18.11
Idling Rate	USD \$45.09

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$2,064.60/mo
Overhaul (ownership)	46%	USD \$2,566.80/mo
CFC (ownership)	10%	USD \$558.00/mo
Indirect (ownership)	6%	USD \$334.80/mo
Fuel (operating) @ USD 3.07	31%	USD \$10.91/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Caterpillar 289D

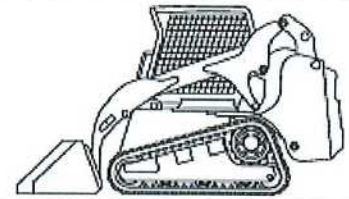
Compact Track Loaders

Size Class:

2501 - 2850 lbs

Weight:

N/A



Configuration for 289D

Net Horsepower	73.0 hp	Oper. Cap. (35% Of Tip Load)	2660.0 lbs
Operator Protection	ROPS	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$5,030.00	USD \$1,410.00	USD \$355.00	USD \$53.00	USD \$18.93	USD \$47.51
Adjustments						
Region (Franklin, Tennessee: 106.7%)	USD \$337.01	USD \$94.47	USD \$23.78	USD \$3.55		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$5,367.01	USD \$1,504.47	USD \$378.79	USD \$56.55	USD \$18.93	USD \$49.42

Non-Active Use Rates

	Hourly
Standby Rate	USD \$15.25
Idling Rate	USD \$38.76

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	34%	USD \$1,710.20/mo
Overhaul (ownership)	50%	USD \$2,515.00/mo
CFC (ownership)	7%	USD \$352.10/mo
Indirect (ownership)	9%	USD \$452.70/mo
Fuel (operating) @ USD 3.07	44%	USD \$8.27/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)



Kiewit

CP 36

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 5th, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00052.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 092 – RWPS Existing Piping and Proposed Anchor Bolts Cost Proposal

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for the material and labor pertaining to **RFI 092 – RWPS Existing Piping and Proposed Anchor Bolts** amounting to **Nineteen Thousand One Hundred Thirty-Six Dollars (\$19,136.00)**.

Labor for this RFI consisted of removing existing and installing new 12" pipe flanges. Installing a beveled flange on pump No.2 and No.5 due to conflict with existing wall pipe. All necessary deck saw cutting and respective forming, pouring, stripping. As well as the costs for the future installation of pump No. 1.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Joe Harding

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Material																	
12" Filler Flange for RWPS	2.00	EA				-				-							-
12" Flange DI Pipe	1.00	EA				-				-							-
12" VIC Flange Adapter	3.00	EA				-				-							-
12" Flange Gasket	1.00	EA				-				-							-
Remove and Install 12" DI Flange																	
Foreman	1.00	EA	3.00	3.00	\$ 61.04	\$ 183.12											183.12
Pipefitter	2.00	EA	3.00	6.00	\$ 50.70	\$ 304.20											304.20
Install Beveled Flange Pump No. 2																	
Foreman	1.00	EA	6.00	6.00	\$ 61.04	\$ 366.24											366.24
Pipefitter	2.00	EA	6.00	12.00	\$ 50.70	\$ 608.40											608.40
Install Beveled Flange Pump No. 5																	
Foreman	1.00	EA	6.00	6.00	\$ 61.04	\$ 366.24											366.24
Pipefitter	2.00	EA	6.00	12.00	\$ 50.70	\$ 608.40											608.40
Deck Modifications - Saw Cut Pump No. 2																	
Saw Cutting and Coring - K&H	1.00	EA				-				-							-
Spotter/Laborer	1.00	EA				-				-							-
Deck Modifications - F/P/S Pump No. 2																	
Foreman	1.00	EA	7.00	7.00	\$ 36.13	\$ 252.91											252.91
Carpenter	1.00	EA	10.00	10.00	\$ 61.04	\$ 610.40											610.40
Laborer	1.00	EA	10.00	10.00	\$ 52.51	\$ 525.10											525.10
Deck Modifications - Saw Cut Pump No. 5																	
Saw Cutting and Coring - K&H	1.00	EA				-				-							-
Spotter/Laborer	1.00	EA				-				-							-
Deck Modifications - F/P/S Pump No. 5																	
Foreman	1.00	EA	10.00	10.00	\$ 61.04	\$ 610.40											610.40
Carpenter	1.00	EA	10.00	10.00	\$ 52.51	\$ 525.10											525.10
Laborer	1.00	EA	10.00	10.00	\$ 36.13	\$ 361.30											361.30
Ford F-250																	
	35	HR									\$ 30.28	\$ 1,059.80					1,059.80
Install Beveled Flange Pump No. 1 (Future)																	
Foreman	1.00	EA	6.00	6.00	\$ 61.04	\$ 366.24											366.24
Pipefitter	2.00	EA	6.00	12.00	\$ 50.70	\$ 608.40											608.40
Deck Modifications - Saw Cut Pump No. 1 (Future)																	
Saw Cutting and Coring - K&H	1.00	EA				-				-							-
Spotter/Laborer	1.00	EA				-				-							-
Deck Modifications - F/P/S Pump No. 1 (Future)																	
Foreman	1.00	EA	10.00	10.00	\$ 61.04	\$ 610.40											610.40
Carpenter	1.00	EA	10.00	10.00	\$ 52.51	\$ 525.10											525.10
Laborer	1.00	EA	10.00	10.00	\$ 36.13	\$ 361.30											361.30
Ford F-250 (Future)																	
	16	HR									\$ 30.28	\$ 484.48					484.48

PREPARED BY: Joe Harding

RFI 92 - Excel Cost Proposal Sheet

[EXTERNAL] Re: Kiewit Franklin TN Beveled Filler Flange



Bonnie Ashworth <suwanmachine@yahoo.com>
To William.McMillen

With the overtime these are \$1510.00
Thanks
Bonnie

On Tuesday, April 7, 2020, 02:09:29 PM EDT, suwanmachine@yahoo.com <suwanmachine@yahoo.com> wrote:

4-7-2020
estimate

12 pipe flange
machined on a bevel as print
= \$575.00 each
2 pieces
Thanks
Bonnie

↩ Reply

↩ Reply All

→ Forward

...

Wed 4/8/2020 12:25 PM

Bill To:
 1044 -103925
 Kiewit Infrastructure South Co.
 PO Box 452500
 Omaha NE 68145-2500
 US
Email: KBS.InvoicesAP@kiewit.com



Kiewit

PURCHASE ORDER
PO Number: 4501708863

(PO Number and Goods Recipient must appear on all documents and packages)

Vendor # 10046622
 Suwanee Machine Shop Inc
 3640 A Highway 317
 Suwanee GA 30024-2798
 US
Phone: 770-945-6626
Fax: 770-945-5416
Attn: SUWANEE MACHINE SHOP
 490424-001
Email: suwanemachine@yahoo.com

Ship To:
 103925
 103925
 135 Claude Yates Dr
 FRANKLIN TN 37064
 US
Tax Jurisdiction: 4318702800

Goods Recipient:
 William McMillen

Project Number: 103925 Franklin WRF Modifications and Expansion
Plant/Sloc: 0641 / 0007
Date Ordered: 04/22/2020
Revision Date:
PO Total: 1,510.00
Payment Terms: NT30
Incoterm Key/Location: DDP Delivery Duty Paid
Buyer: Jeremy Gray
Email: Jeremy.Gray@kiewit.com

Item	Product Number	Description	Qty	UOM	Price per Unit	Tax Code	Delivery Date	Amount
1	RUSH 12"	12" Filler Flanges for RWPS	1.000	EA	1,510.00 USD/1 EA	Taxable	04/22/2020	1,510.00 USD
		Manufacturer Part Number:	Suwanee, 12"					

Total Value: 1,510.00 USD

Total Value excludes sales and use tax imposed on sale to Purchaser

Purchaser:


 Digitally signed by
 Jeremy Gray

Vendor: _____ **Owner(if required):** _____

Legal Terms and Conditions :

Purchaser may be a federal contractor, and Seller may be a federal subcontractor. If seller is a federal subcontractor, then unless exempted, the Equal Opportunity clauses as set forth in 41 CFR §60-1.4(a), 41 CFR §60-1.4(b), 41 CFR §60-250.5(a), 41 CFR §60-300.5(a), and 41 CFR §60-741.5(a), as well as the specifications set forth in 41 CFR §60-4.3(a) and the provisions of 41 CFR §61-250.10, 41 CFR §61-300.10, and 29 CFR Part 471, Appendix A to Subpart A and, if applicable, requirements of Form FHWA-1273, are incorporated by reference and shall be binding on Seller.

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Seller's quotation shall be referenced solely for purposes of price, quantity and delivery date. All other terms and conditions included in Seller's quotation or any other communication are hereby rejected. Purchaser's acceptance hereunder is expressly conditioned upon and limited to application of previously negotiated and mutually agreed terms. Seller will be deemed to have accepted the Purchase Order when it (i) sends Purchaser notice of acceptance in writing, (ii) starts to perform any services in accordance with the terms of the Purchase Order, and/or (iii) delivers any or all of the goods or materials covered by the Purchase Order, whichever occurs first. Purchaser may withdraw the Purchase Order at any time before it is accepted by Seller. No contract will exist except as herein provided.



DUPLICATE
INVOICE

1830 Craig Park Court
St. Louis, MO 63146

Invoice # M014532
Invoice Date 3/16/20
Account # 206322
Sales Rep JARED JONES
Phone # 615-893-0900
Branch #248 Murfreesboro, TN
Total Amount Due \$1,452.00

Remit To:
CORE & MAIN LP
PO BOX 28330
ST. LOUIS, MO 63146

WESTERN SUMMIT CONSTRUCTORS
4405 C INT BLVD
SUITE C-101
NORCROSS GA 30093

Shipped To:
FRANKLIN WRF
135 CLAUDE YATES DRIVE
ANDY MCMILLEN (615) 477-2969
FRANKLIN, TN

CUSTOMER JOB- FRANKLI FRANKLIN WRF

Thank you for the opportunity to serve you! We appreciate your prompt payment.

Date Ordered	Date Shipped	Customer PO #	Job Name	Job #	Bill of Lading	Shipped Via	Invoice#
3/04/20	3/12/20	FIELD PO	FRANKLIN WRF	FRANKLI		BEST WAY	M014532

Product Code	Description	Quantity		B/O	Price	UM	Extended Price
		Ordered	Shipped				

CORE & MAIN PO#- 9659678

CORE & MAIN PO#- 9665435

CORE & MAIN PO#- 9665438

/19216035826	12 FLGXGRV DI PIPE 0'9" CL/PR AIS	3	3	329.85000 EA	.00
26120F341	12 VIC FLG ADPT F/DI #341 DOMESTIC	3	3	484.00000 EA	1,452.00
/21016039963	12 316SS FLG ACC W/FF RR GSKT DOMESTIC	3	3	451.25000 EA	.00

Freight Delivery Handling Restock Misc

Terms: NET 30

Subtotal: 1,452.00
Other: .00
Tax: .00
Invoice Total: \$1,452.00

K&H CONCRETE CUTTING OF NASHVILLE

121 OLD NASHVILLE HWY.
SUITE A
LAVERGNE, TN 37086

Invoice

Date	Invoice #
3/23/2020	76102

Bill To

KIEWIT INFRASTRUCTURE SOUTH CO
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

Project

3/13/2020
135 Claude Yates
Franklin

P.O. or Job Number

103925-WO-011

Terms

Net 30

 $952.85 / 2 = \$476.43 \text{ per pump}$

Quantity	Item Code	Description	Price Each	Amount
19	CD MISC	4" core thru 17" slab	50.15	952.85
			Total	\$952.85

Phone #

800-270-4109

Fax #

615-471-1959

e-mail

amy@kandhcutting.com

1.5% which is an annual rate of 18% will be
added to past due accounts

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: April 7, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 041 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: Digester Building Protected Water **CITY PROJECT NO.:** 2017-0264

REFERENCE: Sheets M-78, M-79, M-81, M-82, I-30, I-31, I-33, I-34

DESCRIPTION: Clarifications issued for protected water lines in the Digester Building, per RFI-267. Updates are included on the referenced sheets to clarify the protected water piping sizes, materials, and elevations. Changes are based on preliminary dimensions of the steel storage tanks. Pipe routing is subject to change based on final approved shop drawing for storage tanks.

On Sheet P-11 and Diagram 1 on Sheet PD-2, remove the 3" CPVC protected water piping downstream of the backflow preventer. Refer to the process mechanical drawing revisions for the protected water piping downstream of the backflow preventer.

CDM SMITH:

By: _____

Date: _____


11/4/20

CONTRACTOR:

By: _____

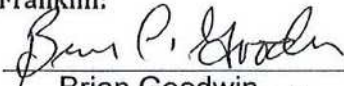
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11/4/20

City of Franklin:

By: _____

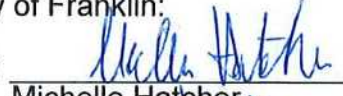
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Brian Goodwin
11/06/2020

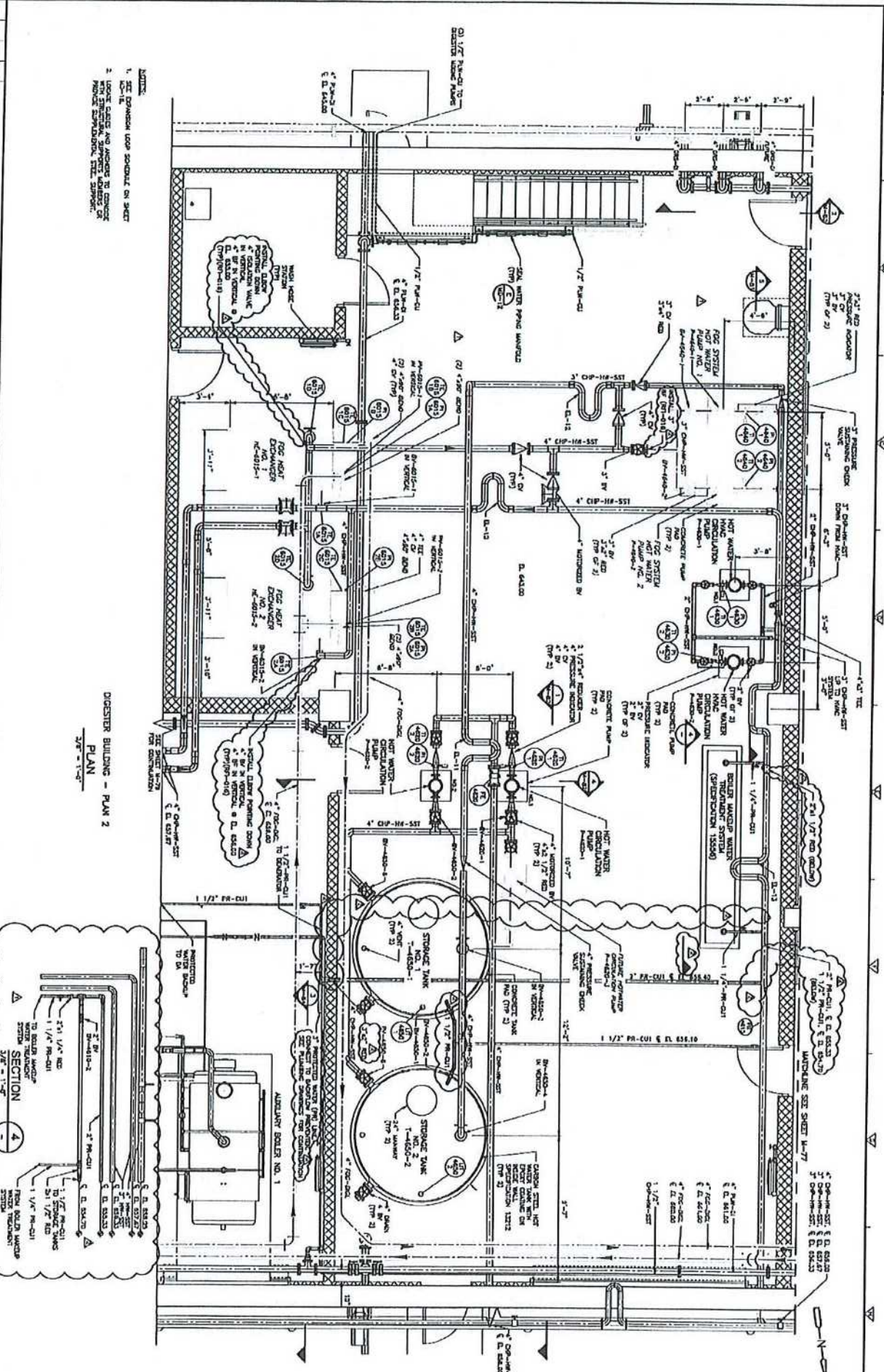
City of Franklin:

BY: _____

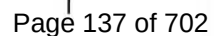
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Michelle Hatcher
11/6/20

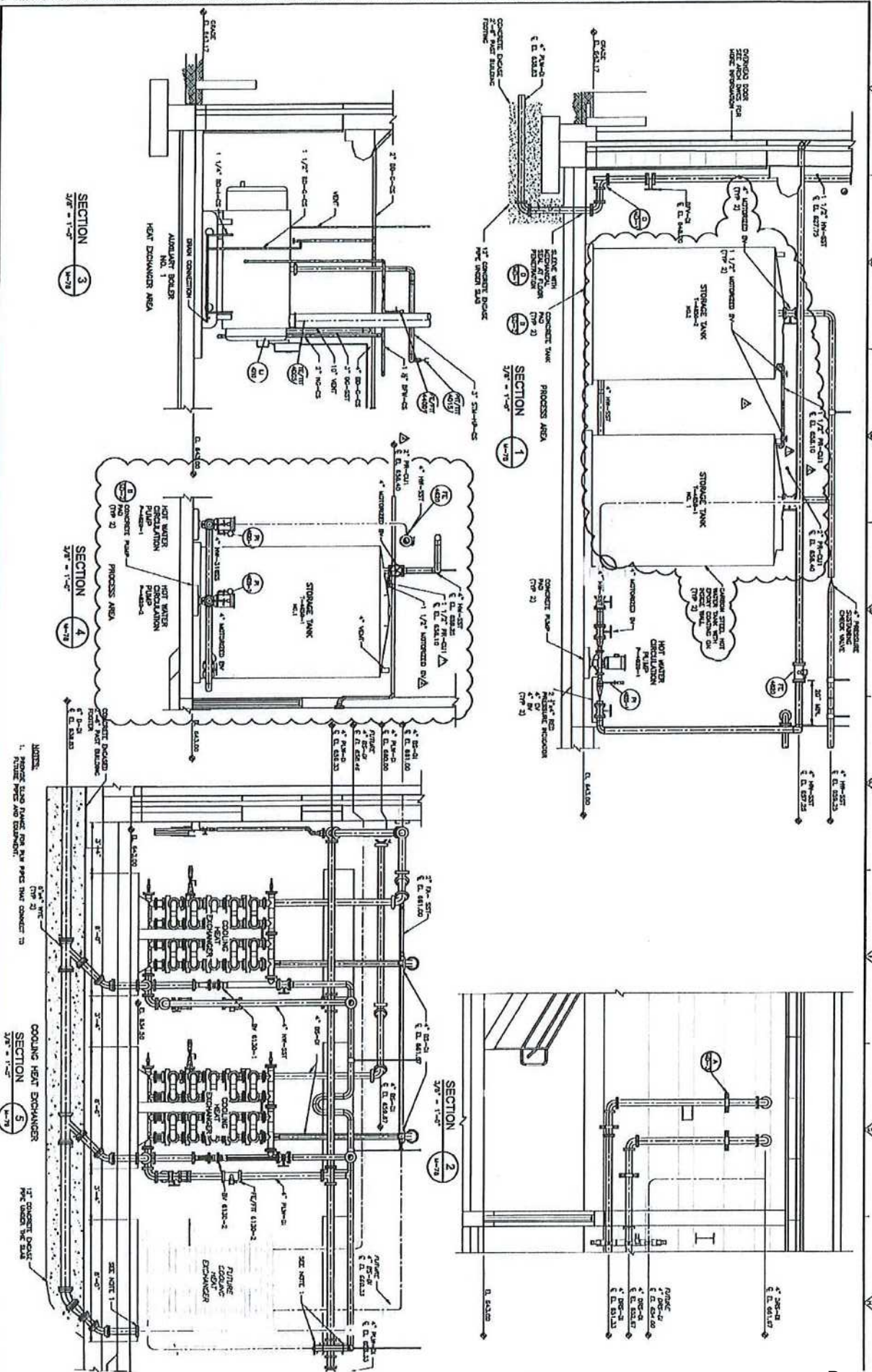
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3	08/15/2017	REVISED FOR PERMIT	J. SMITH		
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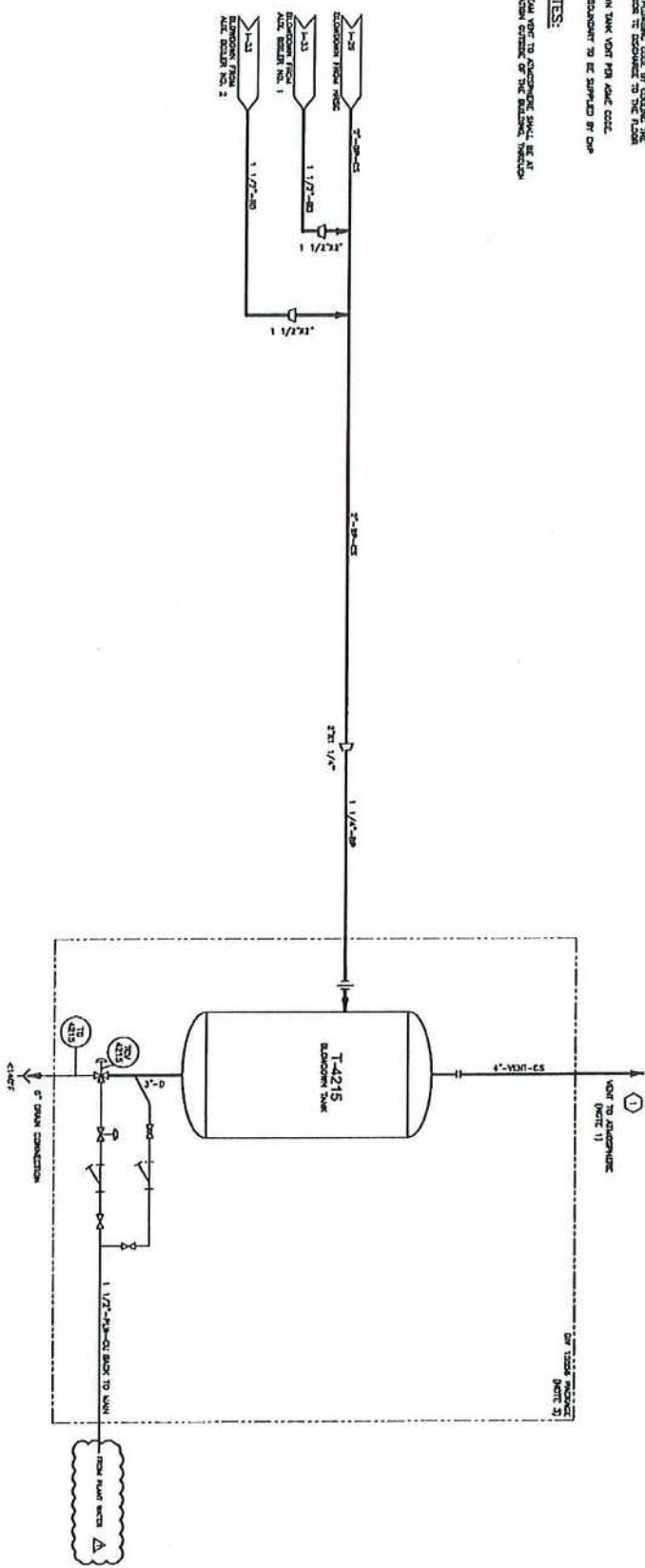




- NOTES:
1. EXISTING 12" WATER MAIN TO BE REMOVED AT LOCATION OF NEW 12" WATER MAIN.
 2. NEW 12" WATER MAIN TO BE SUPPLIED BY CHP.
 3. FLOOD VENTILATION TO BE SUPPLIED BY CHP.

CODED NOTES:

1. EXISTING 12" WATER MAIN TO BE REMOVED AT LOCATION OF NEW 12" WATER MAIN.



DATE: 7/11/2018 5:11:03 PM
LAST MODIFIED BY: C:\Users\j\Documents\Projects\2017\2017-04-26\2017-04-26.dwg
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REV	DATE	BY	CHKD	DESCRIPTION	REVISION
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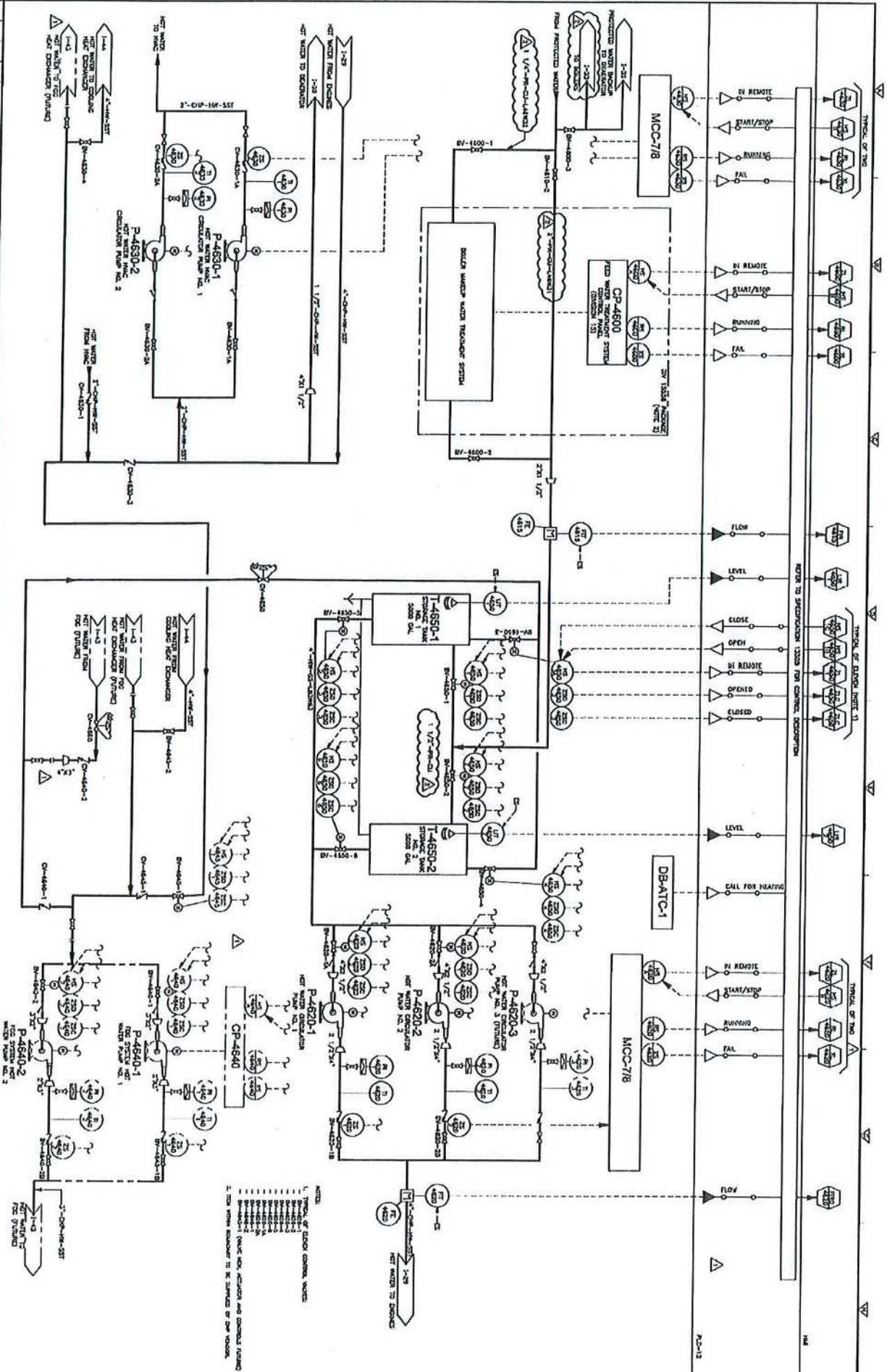
CITY OF FRANKLIN, TENNESSEE
FRANKLIN WRF
MODIFICATIONS AND EXPANSION PROJECT
COP CONTRACT NO. 2017-0264

PROCESS AND INSTRUMENTATION DIAGRAM
CHP SYSTEM - BLOWDOWN P&ID

PROJECT NO. 1413-002
SHEET NO. 1-31
CONFORMED DRAWING - AUGUST

Page 141 of 702

NO.	DATE	BY	REVISION
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3	1/2/2017	CDM	ISSUED FOR CONSTRUCTION
4	1/2/2017	CDM	ISSUED FOR CONSTRUCTION
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8	1/2/2017	CDM	ISSUED FOR CONSTRUCTION
9	1/2/2017	CDM	ISSUED FOR CONSTRUCTION
10	1/2/2017	CDM	ISSUED FOR CONSTRUCTION





Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

July 28, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00048.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

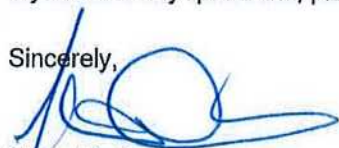
Subject: RE. CCA 041 Digester Protected Water

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **CCA 041 – Digester Protected Water** in the amount of **Five Thousand Four Hundred Twenty-Three Dollars (\$ 5,423)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager



CCA NO.: 041 Digester Building Protected Water

PREPARED BY: Abdul Albashtie

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	
Costs																	
Material																	
A																	
1 (1/2)" CU Elbow	3.0	ea				\$ 3.68		\$ 11.04									\$ 11.04
2" Ball Valve	1.0	ea				\$ 63.18		\$ 63.18									\$ 63.18
2" * 1 (1/4)" CU Reducer	2.0	ea				\$ 5.08		\$ 10.16									\$ 10.16
2" CU Tee	2.0	ea				\$ 3.28		\$ 6.56									\$ 6.56
2" * 1 (1/2)" CU Reducer	1.0	ea				\$ 5.08		\$ 5.08									\$ 5.08
2" CU Elbow	1.0	ea				\$ 6.69		\$ 6.69									\$ 6.69
2" CU Pipe	20.0	ft				\$ 8.05		\$ 161.00									\$ 161.00
2" C * MIP Adapter	2.0	ea				\$ 8.56		\$ 17.12									\$ 17.12
C																	
3" SST Blind Flange	1.0	ea				\$ 132.65		\$ 132.65									\$ 132.65
D																	
1 (1/2)" CU Elbow	2.0	ea				\$ 3.88		\$ 7.36									\$ 7.36
1 (1/2)" CU Ball Valve	1.0	ea				\$ 45.14		\$ 45.14									\$ 45.14
E																	
1 (1/2)" Motorized Ball Valve	2.0	ea				\$ 983.36		\$ 1,966.72									\$ 1,966.72
1 (1/2)" C * MIP Adapter	4.0	ea				\$ 4.36		\$ 17.44									\$ 17.44
F																	
4" SST Blind Flange	2.0	ea				\$ 183.00		\$ 366.00									\$ 366.00
G																	
4" DI Blind Flange	4.0	ea				\$ 39.55		\$ 158.20									\$ 158.20
4" DI Pipe 5' FLG	2.0	ea				\$ 202.39		\$ 404.78									\$ 404.78
J																	
3" * 1 (1/2)" CU Reducer	1.0	ea				\$ 16.18		\$ 16.18									\$ 16.18
K																	
1 (1/2)" * 1" CU Reducer	1.0	ea				\$ 3.28		\$ 3.28									\$ 3.28
1 (1/2)" * 1" CU Tee	1.0	ea				\$ 5.65		\$ 5.65									\$ 5.65
Labor																	
Forman (Valves & Fittings added)	1.00	Ea	10.0	10.0		\$ 62.31		\$ 623.10									\$ 623.10
2-Pipefitters (Valves & Fittings added)	2.0	Ea	10.0	20.0		\$ 66.96		\$ 1,339.20									\$ 1,339.20
Credit																	
Material																	
A																	
4" * 2" Reducer	-1.0	ea				\$ 67.24		\$ (67.24)									\$ (67.24)
D																	
1 (1/2)" CU Pipe	-20.0	ft				\$ 15.15		\$ (303.00)									\$ (303.00)
1 (1/2)" Ball Valve	-1.0	ea				\$ 45.14		\$ (45.14)									\$ (45.14)

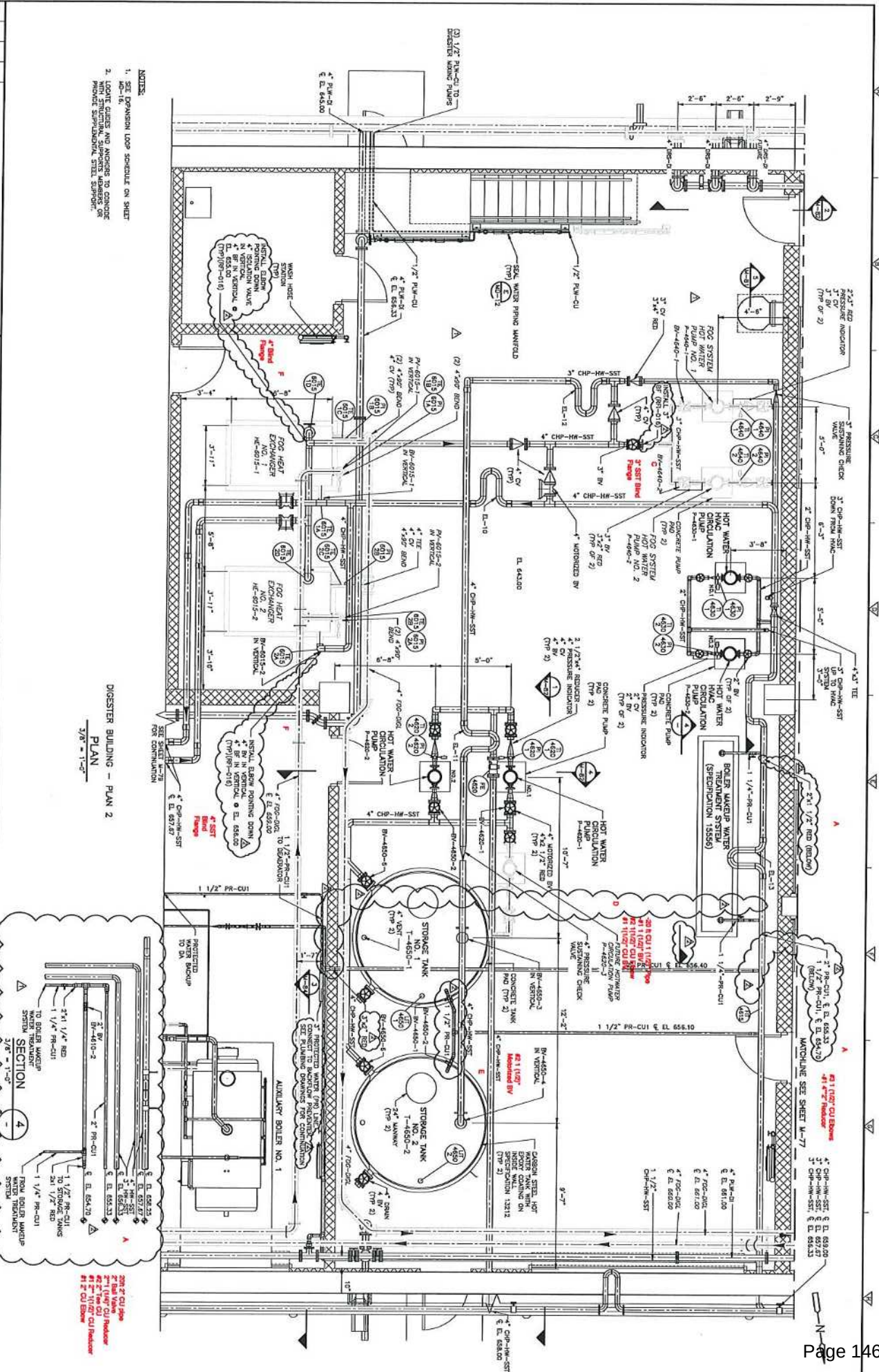


CCA NO.: 041 Digester Building Protected Water

PREPARED BY: Abdul Albashite

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Labor																	
Forman (30 LF removed)	1.00	Ea	(3.0)	(3.0)	\$ 62.31	\$ (186.93)											\$ (186.93)
2-Pipefitters (30 LF removed)	2.0	Ea	(3.0)	(6.0)	\$ 66.96	\$ (401.76)											\$ (401.76)
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR		21.0													\$ 105.00
TAX: (9.75% of Material, Equipment, Other)																	\$ 301.65
BOND (2% of total)				10						\$291.41							\$ -
SUBTOTALS						\$ 1,373.61		\$ -		\$ 2,988.85		\$ -		\$ -		\$ -	\$ 4,769.11
MARKUP %						\$ (5.00%)		\$ (5.00%)		\$ (5.00%)		\$ (5.00%)		\$ (5.00%)		\$ (5.00%)	\$ 654.37
SUBTOTALS WITH MARKUPS APPLIED																	\$5,423.48
BOND																	\$5,423.00
TOTAL																	\$5,423.00

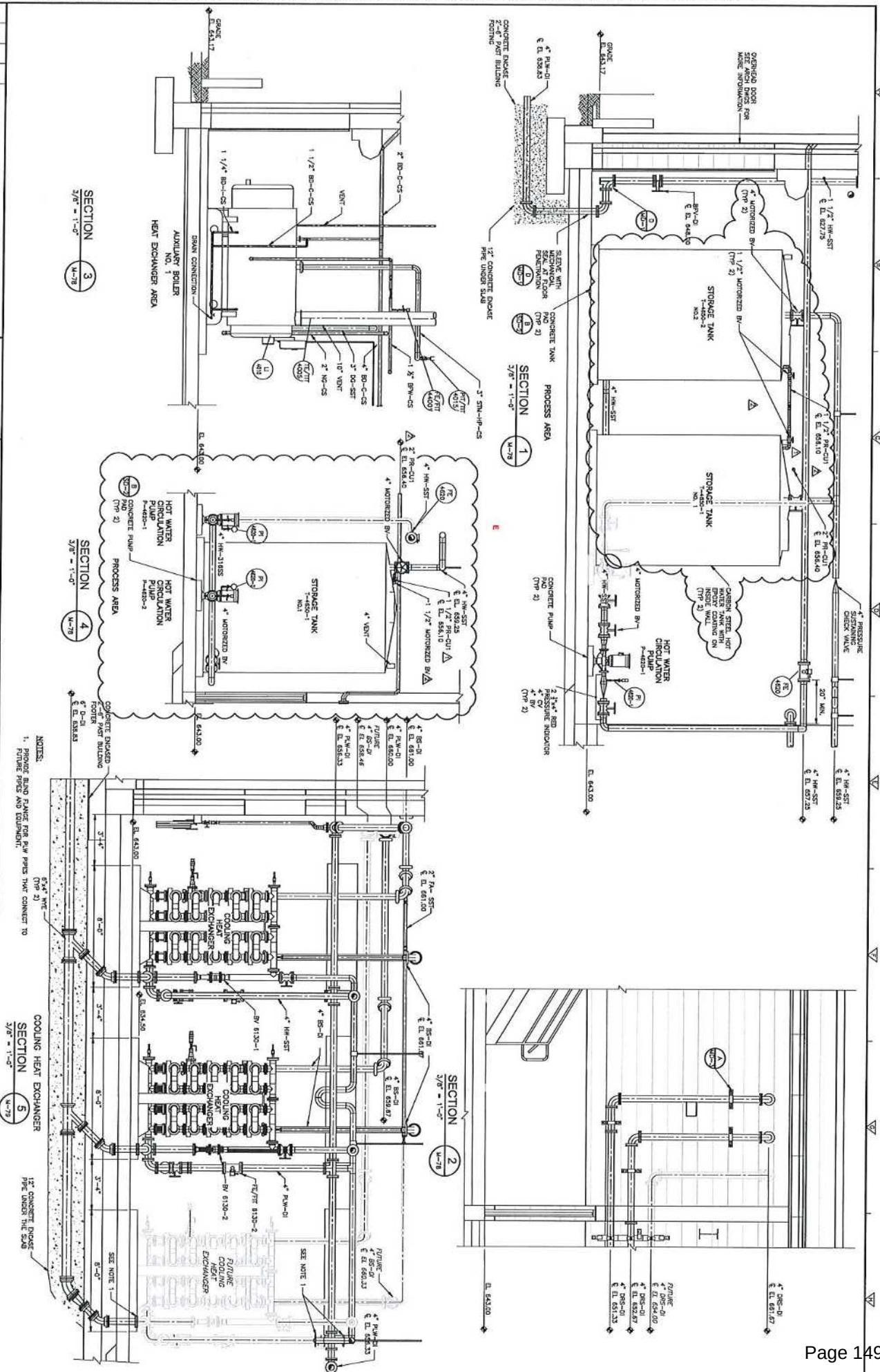
NO.	DATE	BY	CHKD	REVISION
1	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
2	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
3	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
4	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
5	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
6	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
7	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
8	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
9	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
10	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
11	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
12	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
13	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
14	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
15	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
16	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
17	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
18	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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21	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
22	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
23	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
24	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
25	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
26	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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32	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
33	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
34	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
35	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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44	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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64	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
65	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
66	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
67	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
68	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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70	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
71	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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74	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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84	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
85	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
86	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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88	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
89	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
90	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
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92	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
93	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
94	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
95	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
96	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
97	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
98	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
99	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING
100	07/18/18	J. DOWNS	J. DOWNS	ISSUED FOR BIDDING



CITY OF FRANKLIN, TENNESSEE
 FRANKLIN WRF
 MODIFICATIONS AND EXPANSION PROJECT
 COF CONTRACT NO. 2017-0264

DIGESTER BUILDING
 ENLARGED PLAN II

PROJECT NO. 14017-0004-WRF
 SHEET NO. M-78
 CONFORMED DRAWING - AUGUST 2017





2953/6/FRANKLIN WRF CCA-041

FRANKLIN, TN

SMALL PIPE

BID DATE: 00/00/2020

QTY	UNIT	SIZE	MATERIAL	JOINT	FITTING	DESCRIPTION	Sale
20	LF	2"	COPPER	PLAIN END	PIPE	TYPE L HARD DRAWN SPECIFICATIO	8.05
2	EA	2"	COPPER	CxC	90 ELL	WROT SPECIFICATION 15063	6.69
2	EA	2"	COPPER	CxMIP	ADAPTER	WROT SPECIFICATION 15063	8.56
1	EA	2"	BRONZE	THREAD	BALL VALVE	WITH LEVER HANDLE (NO SPECIFIC	63.18
2	EA	1 1/4"	COPPER	CxMIP	ADAPTER	WROT SPECIFICATION 15063	3.81
1	EA	1 1/4"	BRONZE	THREAD	BALL VALVE	WITH LEVER HANDLE (NO SPECIFIC	32.06
2	EA	1 1/2"	BRONZE	THREAD	BALL VALVE	WITH MOTOR OPERATOR BV-4650 NQ	
4	EA	1 1/2"	COPPER	CxMIP	ADAPTER	WROT SPECIFICATION 15063	4.36
1	EA	3" X 1-1/2"	COPPER	CxC	REDUCER	WROT SPECIFICATION 15063	16.18
20	LF	1-1/2"	COPPER	PLAIN END	PIPE	TYPE L HARD DRAWN SPECIFICATIO	5.15
3	EA	1-1/2"	COPPER	CxC	90 ELL	WROT SPECIFICATION 15063	3.68
2	EA	1-1/2"	COPPER	CxMIP	ADAPTER	WROT SPECIFICATION 15063	4.36
1	EA	1-1/2"	BRONZE	THREAD	BALL VALVE	WITH LEVER HANDLE (NO SPECIFIC	45.14
1	EA	1-1/2" X 1"	COPPER	CxCxC	TEE	WROT SPECIFICATION 15063	5.65
1	EA	1-1/2" X 1"	COPPER	CxC	REDUCER	WROT SPECIFICATION 15063	3.28
1	EA	2" x 1 1/2"	COPPER	CxC	REDUCER	WROT SPECIFICATION 15063	5.08
2	EA	2"x 1 1/4"	COPPER	CxC	REDUCER	WROT SPECIFICATION 15063	5.08
2	EA	2"	COPPER	CxCxC	TEE	WROT SPECIFICATION 15063	11.83

Sale Ext

161.03

13.38

17.13

63.18

7.62

32.06

NQ

17.44

16.18

103.08

11.04

8.72

45.14

5.65

3.28

5.08

10.15

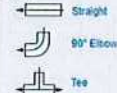
23.67

Class AB

Copper Tube Size

1/2	1 1/4
1	1 1/2
1 1/2	2
2	2 1/2
2 1/2	3
3	3 1/2
4	4

Shape



Type



Connection Style



Material

Copper

For Tube OD



1/4"	7/8"	2 5/8"
3/8"	1 1/8"	3 1/8"
1/2"	1 3/8"	3 5/8"
3/4"	1 5/8"	4 1/8"
1"	2 1/8"	

110 Products

Solder-Connect Fittings for Copper Tubing

Straight Reducers, Male Socket-Connect Tube

(A) Tube Size	(B) Tube Size	Material	Max. Pressure	Each
1/4"	1/2"	Copper	400 psi @ 72° F	5520K248 58.35
1/2"	3/4"	Copper	400 psi @ 72° F	5520K249 9.92
3/4"	1"	Copper	400 psi @ 72° F	5520K991 9.33
1"	1 1/4"	Copper	400 psi @ 72° F	5520K992 11.34
1 1/4"	1 3/8"	Copper	400 psi @ 72° F	5520K993 11.30
1 3/8"	1 1/2"	Copper	400 psi @ 72° F	5520K994 22.63
1 1/2"	1 3/4"	Copper	400 psi @ 72° F	5520K250 15.26
1 3/4"	2"	Copper	400 psi @ 72° F	5520K259 14.43
2"	2 1/2"	Copper	300 psi @ 72° F	5520K271 25.10

Offset Straight Reducers, Female Socket-Connect Tube

- For Use With: Drinking Water
- Specifications Met: ANSI/ASME B16.22, MSS-SP104, NSF/ANSI Standard 61 for Drinking Water

(A) Tube Size	(B) Tube Size	Material	Max. Pressure	Each
1/4"	1/2"	Copper	400 psi @ 72° F	5520K211 \$11.26
1/2"	3/4"	Copper	400 psi @ 72° F	5520K212 15.17
3/4"	1"	Copper	400 psi @ 72° F	5520K213 22.84
1"	1 1/4"	Copper	400 psi @ 72° F	5520K214 22.84

90° Elbow Reducers, Female Socket-Connect Tube

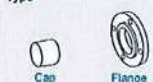
Straight Reducers with Center Stop, Female Socket-Connect Tube

Tube Connection (A) Tube Size	Tube Connection (B) Tube Size	Material	Max. Pressure	Each
1/4"	1/2"	Copper	400 psi @ 72° F	5520K143 52.97
1/2"	3/4"	Copper	400 psi @ 72° F	5520K143 1.03
3/4"	1"	Copper	400 psi @ 72° F	5520K99 9.9
1"	1 1/4"	Copper	400 psi @ 72° F	5520K301 1.03
1 1/4"	1 3/8"	Copper	400 psi @ 72° F	5520K29 9.9
1 3/8"	1 1/2"	Copper	400 psi @ 72° F	5520K99 9.4
1 1/2"	1 3/4"	Copper	400 psi @ 72° F	5520K145 2.52
1 3/4"	2"	Copper	400 psi @ 72° F	5520K146 2.61
2"	2 1/2"	Copper	400 psi @ 72° F	5520K147 2.92
2 1/2"	3"	Copper	400 psi @ 72° F	5520K144 1.75
3"	3 1/2"	Copper	400 psi @ 72° F	5520K307 1.71
3 1/2"	4"	Copper	400 psi @ 72° F	5520K37 1.62
4"	4 1/2"	Copper	400 psi @ 72° F	5520K302 1.75
4 1/2"	5"	Copper	400 psi @ 72° F	5520K281 3.23
5"	5 1/2"	Copper	400 psi @ 72° F	5520K303 3.01
5 1/2"	6"	Copper	400 psi @ 72° F	5520K148 3.23
6"	6 1/2"	Copper	400 psi @ 72° F	5520K30 3.01
6 1/2"	7"	Copper	400 psi @ 72° F	5520K312 5.42
7"	7 1/2"	Copper	400 psi @ 72° F	5520K113 5.21
7 1/2"	8"	Copper	400 psi @ 72° F	5520K99 4.53
8"	8 1/2"	Copper	400 psi @ 72° F	5520K30 3.01
8 1/2"	9"	Copper	400 psi @ 72° F	5520K304 7.37
9"	9 1/2"	Copper	400 psi @ 72° F	5520K304 7.64
9 1/2"	10"	Copper	400 psi @ 72° F	5520K41 7.64
10"	10 1/2"	Copper	300 psi @ 72° F	5520K318 13.09
10 1/2"	11"	Copper	300 psi @ 72° F	5520K308 9.77
11"	11 1/2"	Copper	300 psi @ 72° F	5520K308 9.77
11 1/2"	12"	Copper	300 psi @ 72° F	5520K308 9.77
12"	12 1/2"	Copper	300 psi @ 72° F	5520K321 29.07
12 1/2"	13"	Copper	300 psi @ 72° F	5520K322 28.89
13"	13 1/2"	Copper	300 psi @ 72° F	5520K323 28.56
13 1/2"	14"	Copper	300 psi @ 72° F	5520K326 52.43
14"	14 1/2"	Copper	300 psi @ 72° F	5520K324 33.87
14 1/2"	15"	Copper	300 psi @ 72° F	5520K149 25.92
15"	15 1/2"	Copper	300 psi @ 72° F	5520K325 39.95
15 1/2"	16"	Copper	300 psi @ 72° F	5520K326 52.43
16"	16 1/2"	Copper	200 psi @ 72° F	5520K327 67.24
16 1/2"	17"	Copper	200 psi @ 72° F	5520K328 69.95
17"	17 1/2"	Copper	200 psi @ 72° F	5520K329 61.47
17 1/2"	18"	Copper	200 psi @ 72° F	5520K331 69.95

Pipe Size

1/2	3
3/4	4
1	6
1 1/4	8
1 1/2	10
2	12

Type



Material

304 Stainless Steel
316 Stainless Steel

Class

150
300
600

Maximum Pressure

150 psi @ 72° F
2 1/2 inch @ 72° F

106 Products

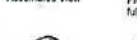
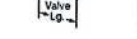
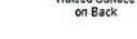
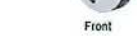
Low-Pressure Stainless Steel Unthreaded Pipe Flanges

Forged flanges have better strength than cast flanges. Cast flanges are also called knob flanges. Cast flanges are also known as blind flanges.

For technical drawings and 3-D models, click on a part number.

Inch Caps—Forged

- For Use With: Air, Water, Oil, Natural Gas
- Class: 150
- Specifications Met: ASTM A182, ANSI/ASME B16.5
- Certification: Material Certificate with Traceable Lot Number and Test Report
- Fittings: Use schedule 40 stainless steel
- Pipe Nipples and Pipe: Use Schedule 40 stainless steel



Pipe Size	Flange OD	For Bolt Dia.	Bolt Hole Dia.	No. of Bolt Holes	Bolt Circle Dia.	Max. Pressure	Each
1/2"	3 1/2"	1/2"	5/8"	4	2 1/8"	150 psi @ 72° F	4469SK162 \$30.00
3/4"	3 7/8"	1/2"	5/8"	4	2 3/4"	150 psi @ 72° F	4469SK163 32.95
1"	4 1/4"	1/2"	5/8"	4	3 1/8"	150 psi @ 72° F	4469SK164 34.93
1 1/4"	4 5/8"	1/2"	5/8"	4	3 1/2"	150 psi @ 72° F	4469SK165 48.06
1 1/2"	5"	1/2"	5/8"	4	3 7/8"	150 psi @ 72° F	4469SK166 50.35
2"	6"	1/2"	5/8"	4	4 1/4"	150 psi @ 72° F	4469SK167 61.04
2 1/2"	7"	1/2"	5/8"	4	5 1/2"	150 psi @ 72° F	4469SK168 91.31
3"	7 1/2"	3/4"	7/8"	6	6"	150 psi @ 72° F	4469SK169 100.15
4"	9"	3/4"	7/8"	6	7 1/2"	150 psi @ 72° F	4469SK171 139.22
6"	11"	3/4"	7/8"	6	9 1/2"	150 psi @ 72° F	4469SK172 203.22
8"	13 1/2"	3/4"	7/8"	6	11 3/4"	150 psi @ 72° F	4469SK177 368.17
10"	16"	7/8"	1"	12	14 1/4"	150 psi @ 72° F	4469SK326 458.94
12"	19"	7/8"	1"	12	17"	150 psi @ 72° F	4469SK329 579.48

Pipe Size

1/4	1 1/4
3/8	1 1/2
1/2	2
3/4	3
1	

Thread Type

NPT
NPTF

Actuation

Motor
Air

Body Material

Stainless Steel
Brass
Plastic
Steel

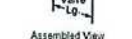
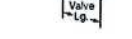
For Use With

Acetone
Air
Argon
Beverage
Butane
Carbon Dioxide
Citric Acid
Deionized Water

Connection Style



90 Products



Pipe Size	Thread	Flow Coefficient (Cv)	Max. Pressure	Pressure Drop	Actuation Time, sec.	Temp. Range, °F	Valve Lg.	Each
1/2"	Female NPTF Full	120	720 psi @ 150° F	150 psi @ 360° F	Zero Pressure Drop	-20° to 450°	4 9/16"	4609S 4709S
3/4"	Female NPTF Standard	60	720 psi @ 150° F	150 psi @ 360° F	Zero Pressure Drop	-20° to 400°	4 1/16"	4609S 4709S

316 Stainless Steel Body with Screw Terminals

Normally Open or Normally Closed—120V AC

Pipe Size	Thread	Flow Coefficient (Cv)	Max. Pressure	Pressure Drop	Actuation Time, sec.	Temp. Range, °F	Valve Lg.	Each
1/2"	Female NPTF Full	12	720 psi @ 150° F	150 psi @ 360° F	Zero Pressure Drop	-20° to 400°	2 15/16"	4609S 4709S
3/4"	Female NPTF Full	32	720 psi @ 150° F	150 psi @ 360° F	Zero Pressure Drop	-20° to 400°	3 1/16"	4609S 4709S
1"	Female NPTF Full	46	720 psi @ 150° F	150 psi @ 360° F	Zero Pressure Drop	-20° to 400°	3 11/16"	4609S 4709S
1 1/2"	Female NPTF Standard	60	720 psi @ 150° F	150 psi @ 360° F	Zero Pressure Drop	-20° to 400°	4 1/16"	4609S 4709S

Easy-Maintenance Motor-Driven On/Off Valves

- Valve Type: Ball
- For Use With: Water, Oil, Argon, Helium, Neon, Xenon, Krypton
- Seal Material: PTFE Plastic
- Specifications Met: NEMA 4

Maintain and repair these valves without unthreading pipe connections. They have a three-piece bolted body that disassembles inline for easy access to internal components. All operate on electricity to automatically start and stop flow. Valves require a minimum pressure drop between the inlet and the outlet for operation; the upstream pressure must be greater than the downstream pressure. All are normally closed unless actuated. They are full port, so they do not restrict flow.

Body is 316 stainless steel for excellent corrosion resistance. The actuator is directly mounted to the valve body to minimize movement and reduce wear. A visual flow indicator on the top of the actuator shows whether the valve is open or closed. The manual override allows you to operate the valve during power outages. Valves meet NEMA 4 for resistance to washdowns, splashing water, and dust.

Flow coefficient (Cv) is the amount of water (in gallons per minute) at 60° F that will flow through a fully open valve with a difference of 1 psi between the inlet and the outlet.

Pipe Size	Thread	Flow Coefficient (Cv)	Max. Pressure	Pressure Drop	Actuation Time, sec.	Temp. Range, °F	Valve Lg.	Each
1/2"	Female NPT	15	1500 psi @ 100° F	Pressure Drop Assisted	2.5	-20° to 450°	2 5/8"	5241T21 \$360.40
3/4"	Female NPT	35	1500 psi @ 100° F	Pressure Drop Assisted	2.5	-20° to 450°	3 1/8"	5241T22 307.92
1"	Female NPT	60	1500 psi @ 100° F	Pressure Drop Assisted	2.5	-20° to 450°	3 1/4"	5241T23 419.65
1 1/2"	Female NPT	135	1200 psi @ 150° F	Pressure Drop Assisted	10	-20° to 450°	4 11/16"	5241T24 993.30
2"	Female NPT	270	1050 psi @ 200° F	Pressure Drop Assisted	15	-20° to 450°	5 1/8"	5241T25 1,178.69

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: April 13, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 25.1 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: RWPS Controls **CITY PROJECT NO.:** 2017-0264

REFERENCE: (See Below)

DESCRIPTION: Controls for the existing Reclaimed Water Pumping Station (RWPS) currently residing in the RWPS local control panel are to be transferred to new PLC-4 as shown on revised Sheets E-56 and I-21 attached. The existing local control panel is to remain as a terminal cabinet. The attached schematic for the existing panel and hand sketch are provided for informational purposes only and the Engineer does not guarantee accuracy. Contractor to investigate the as-constructed panel and reuse existing components to the extent necessary to provide the desired functionality. Provide pricing for this work for Engineer review.

CDM SMITH:

By: 

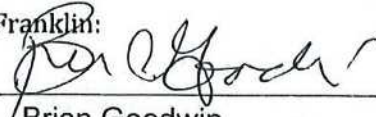
Date: 11/4/20

CONTRACTOR:

By: 

Date: 11/4/20

City of Franklin:

By: 

Brian Goodwin

11/06/2020

City of Franklin:

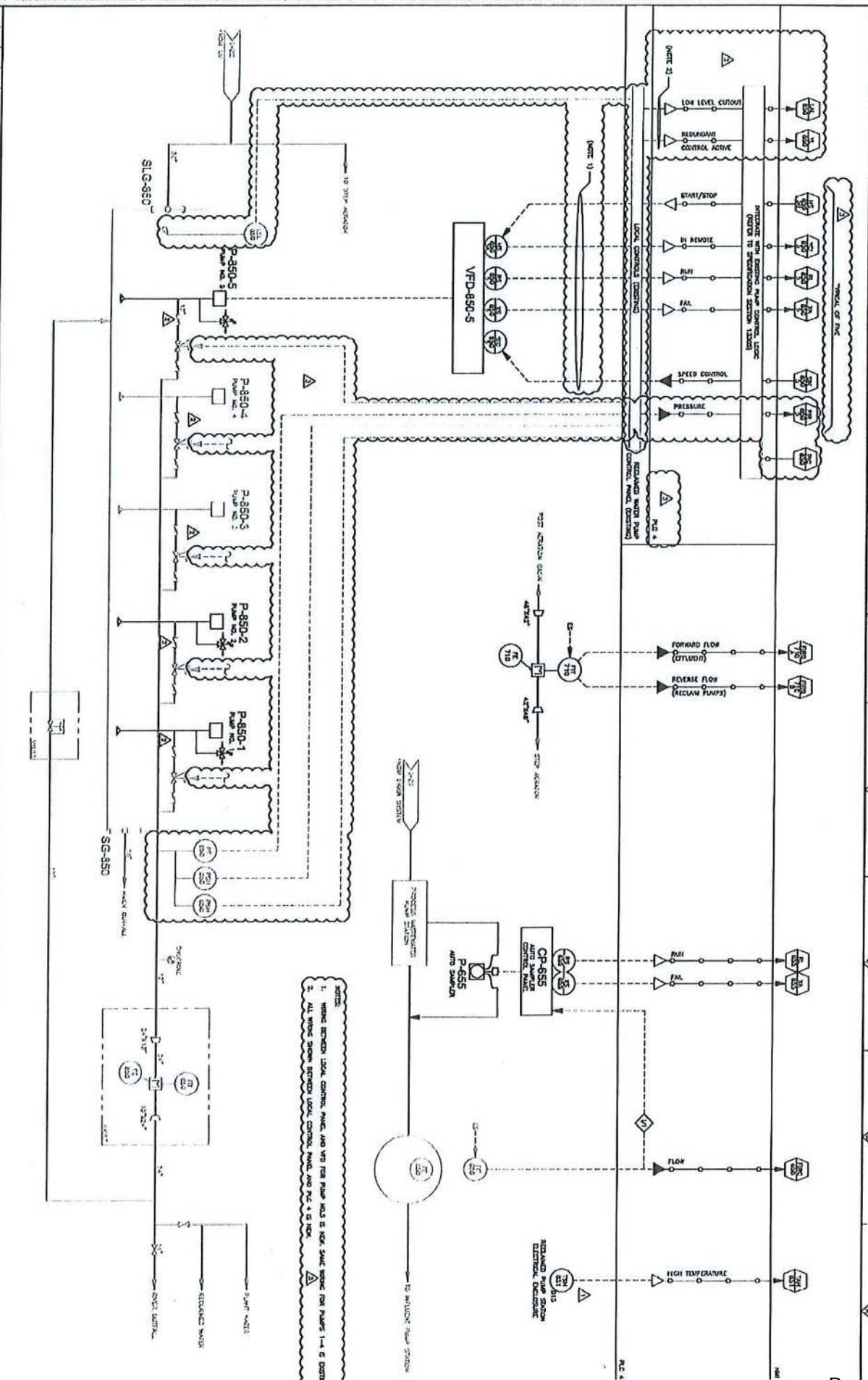
BY: 

Michelle Hatcher

Date: 11/4/20

Date:





Harris, Daniel A.

From: Townsend, James M.
Sent: Monday, March 9, 2020 8:36 AM
To: Harris, Daniel A.
Subject: Fwd: PLC

Dan

This is what Tim sent more to follow next day or two

Jim

Sent from my Jim's Iphone

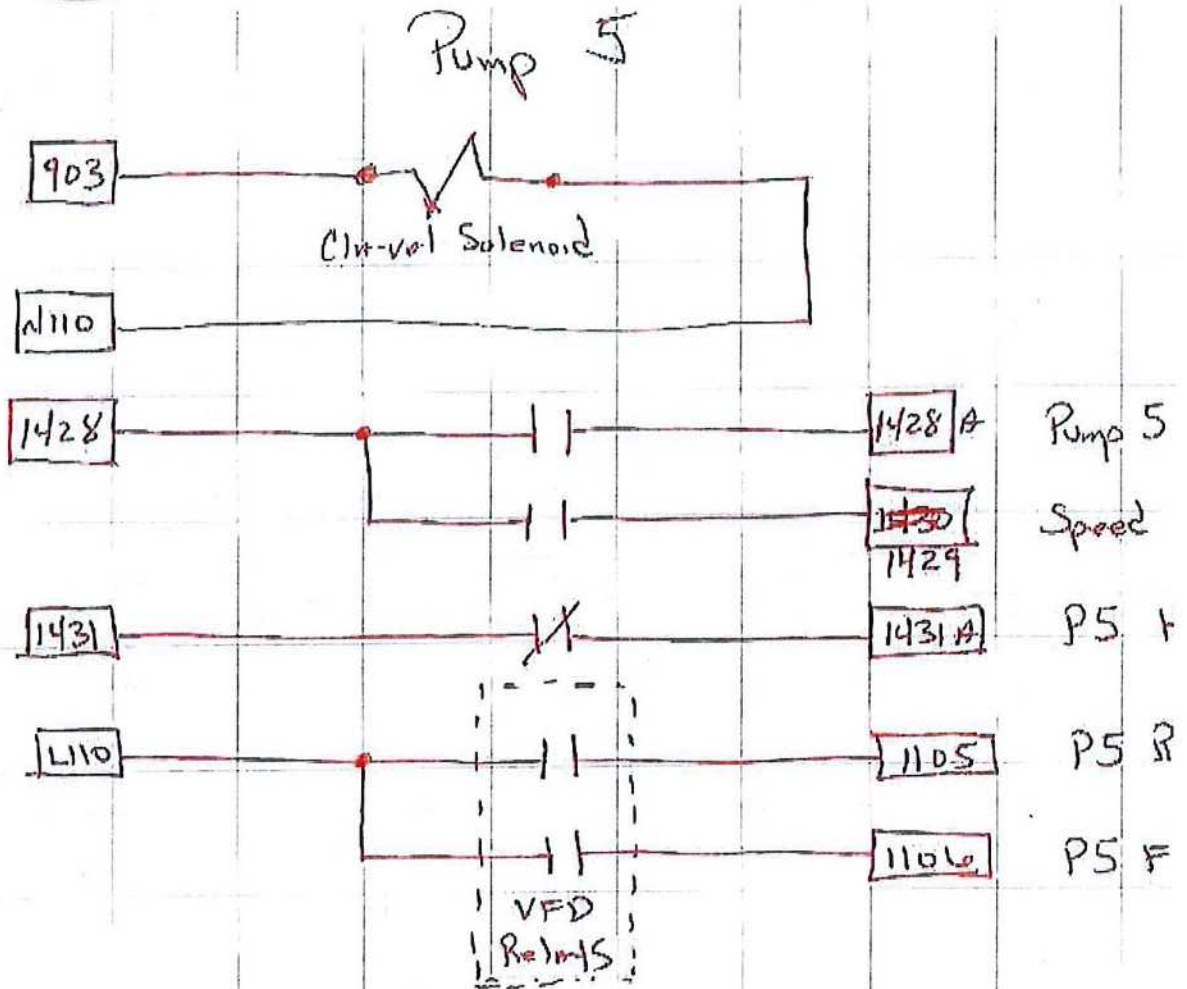
Begin forwarded message:

From: "Townsend, James M." <townsendjm@cdmsmith.com>
Date: March 9, 2020 at 8:18:51 AM CDT
To: "Townsend, James M." <townsendjm@cdmsmith.com>

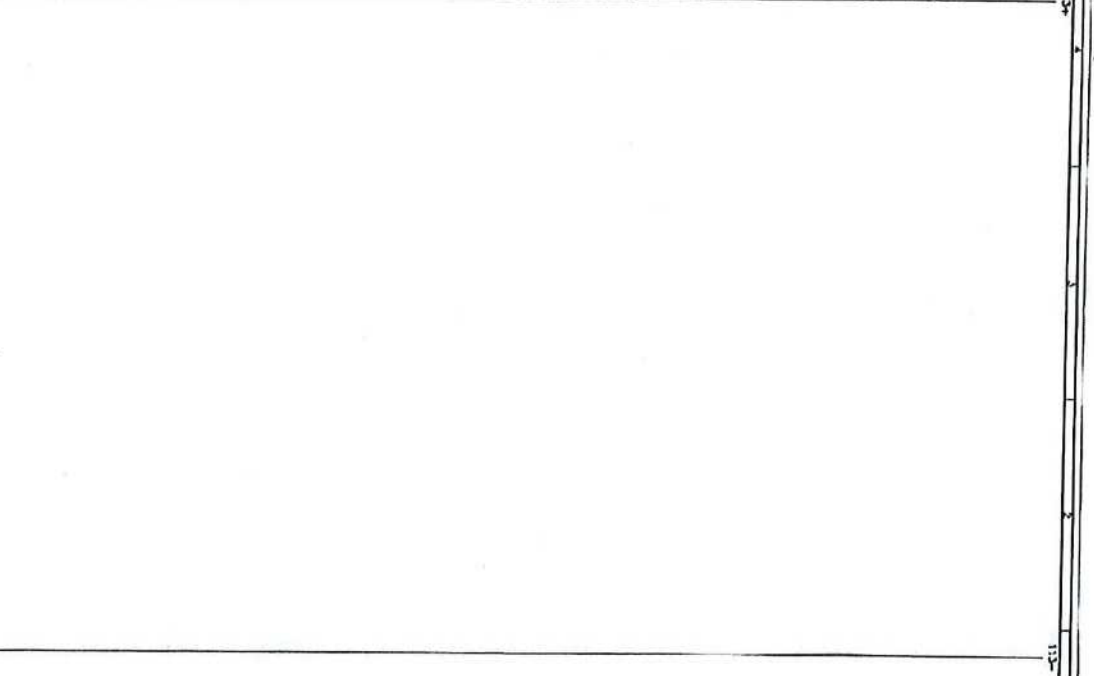


Independent Controls

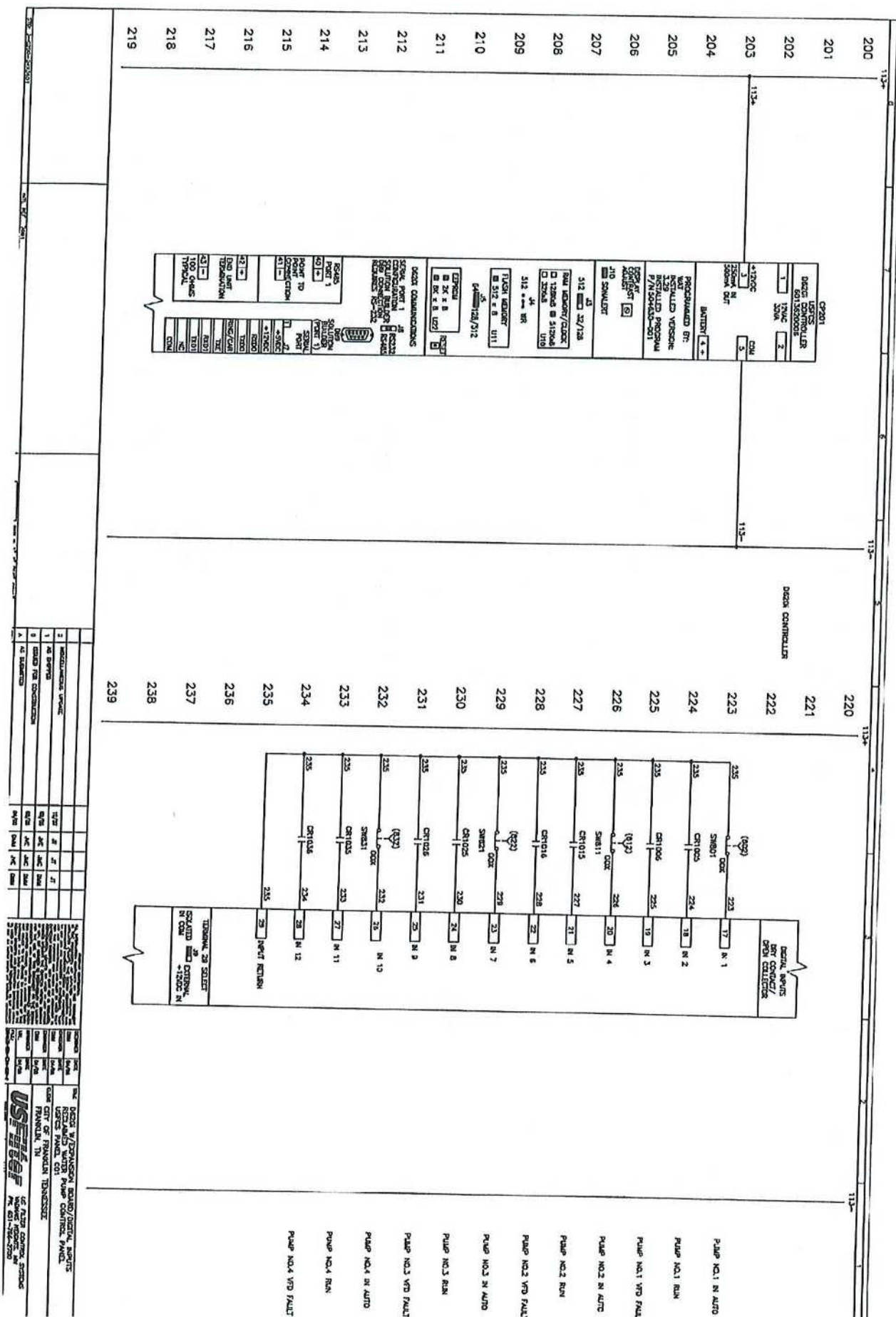
Independent Cont
PO Box 1721
White House, TN 37188
web: www.i-control.com
email: jimmyh@i-control.com
Phone: 615-879-1111

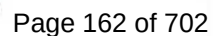


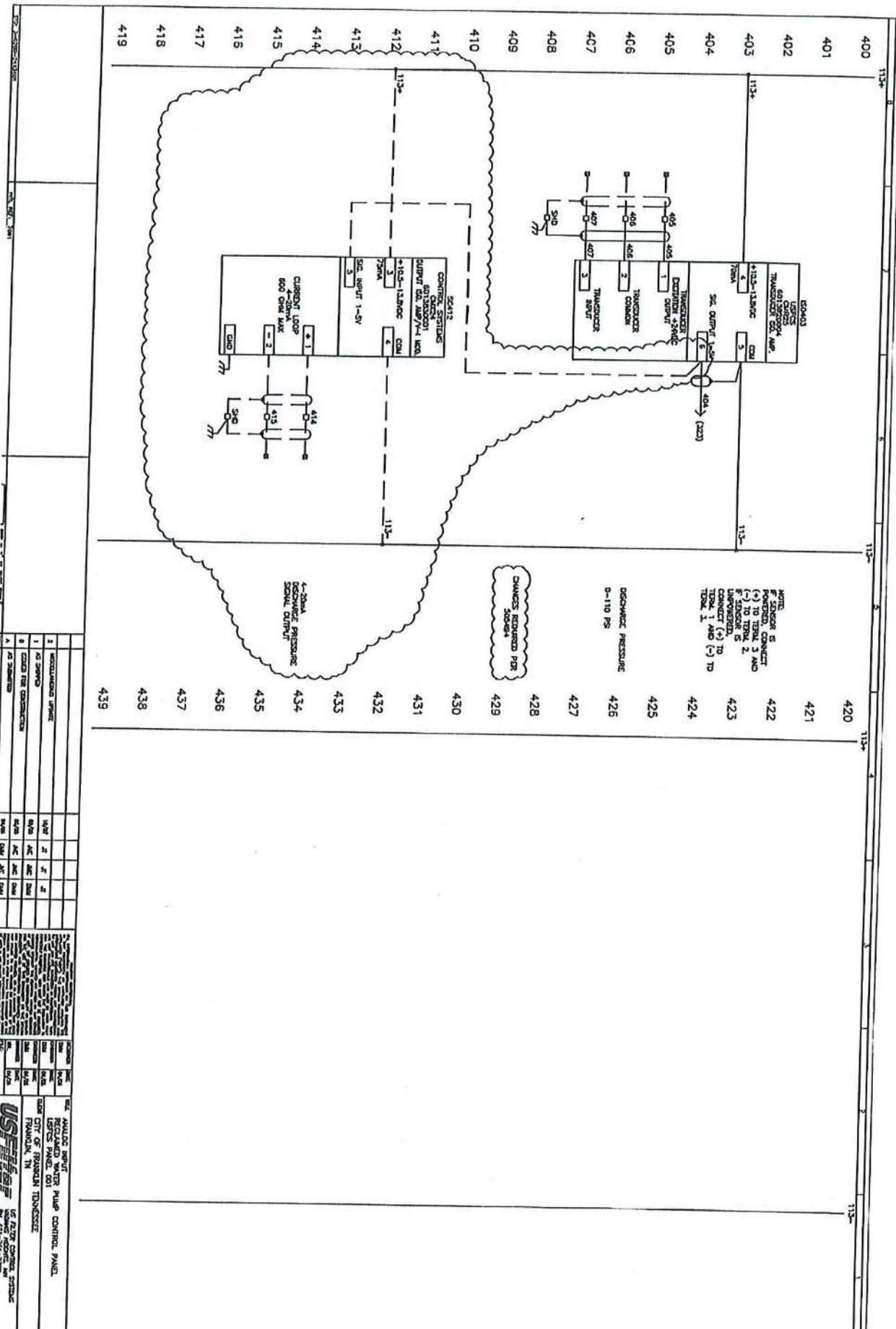
Sent from my Jim's Iphone

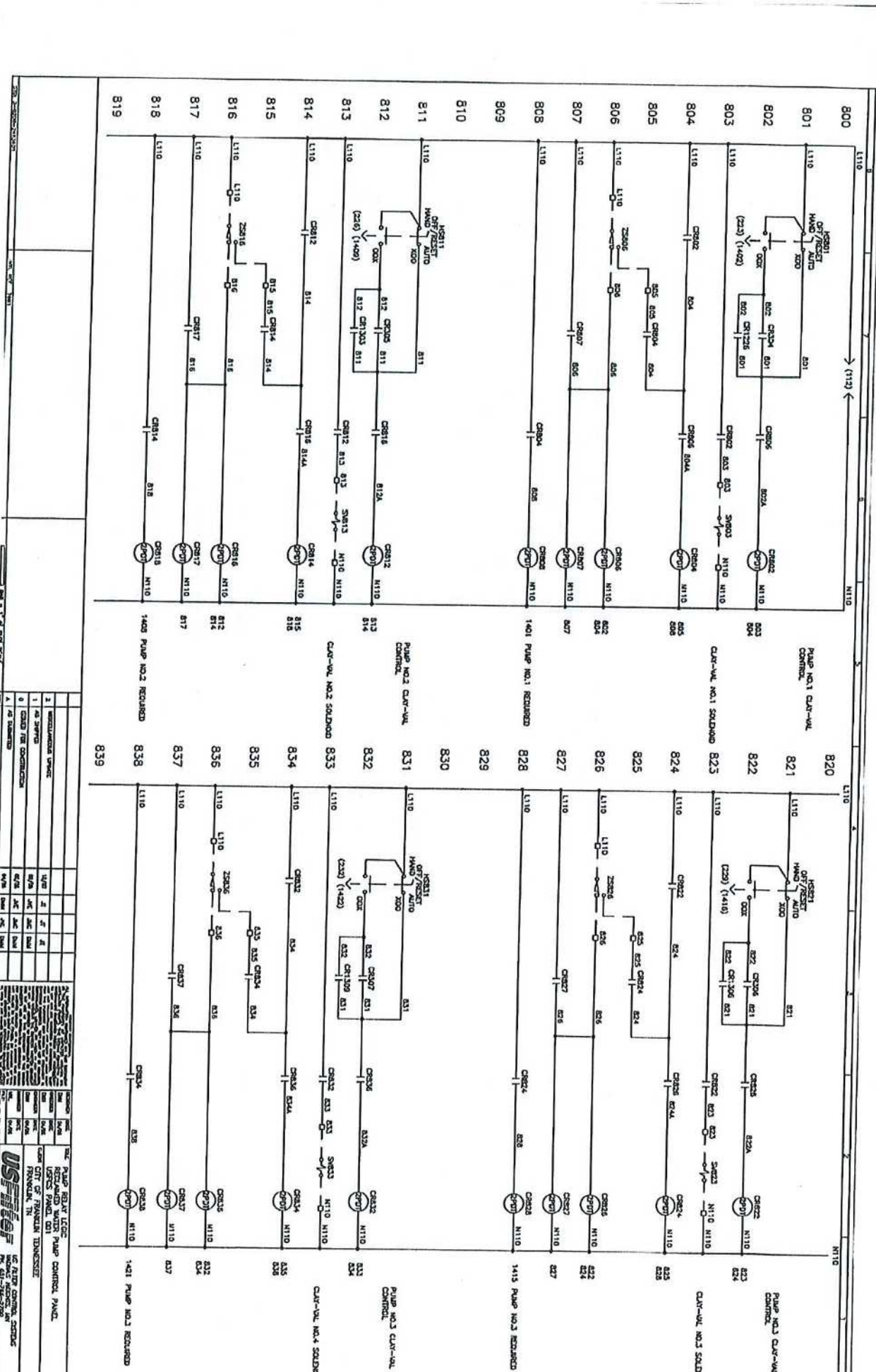


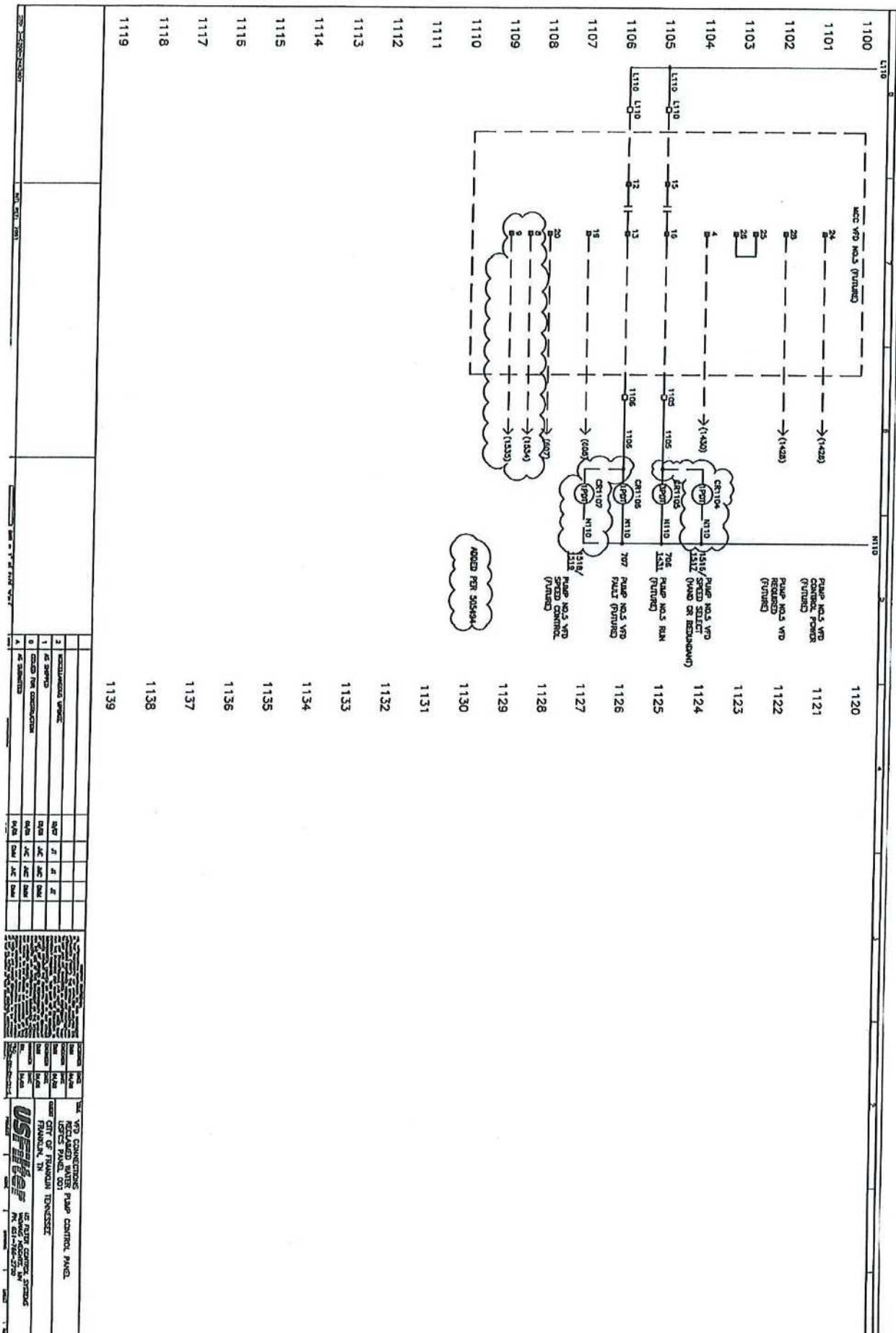
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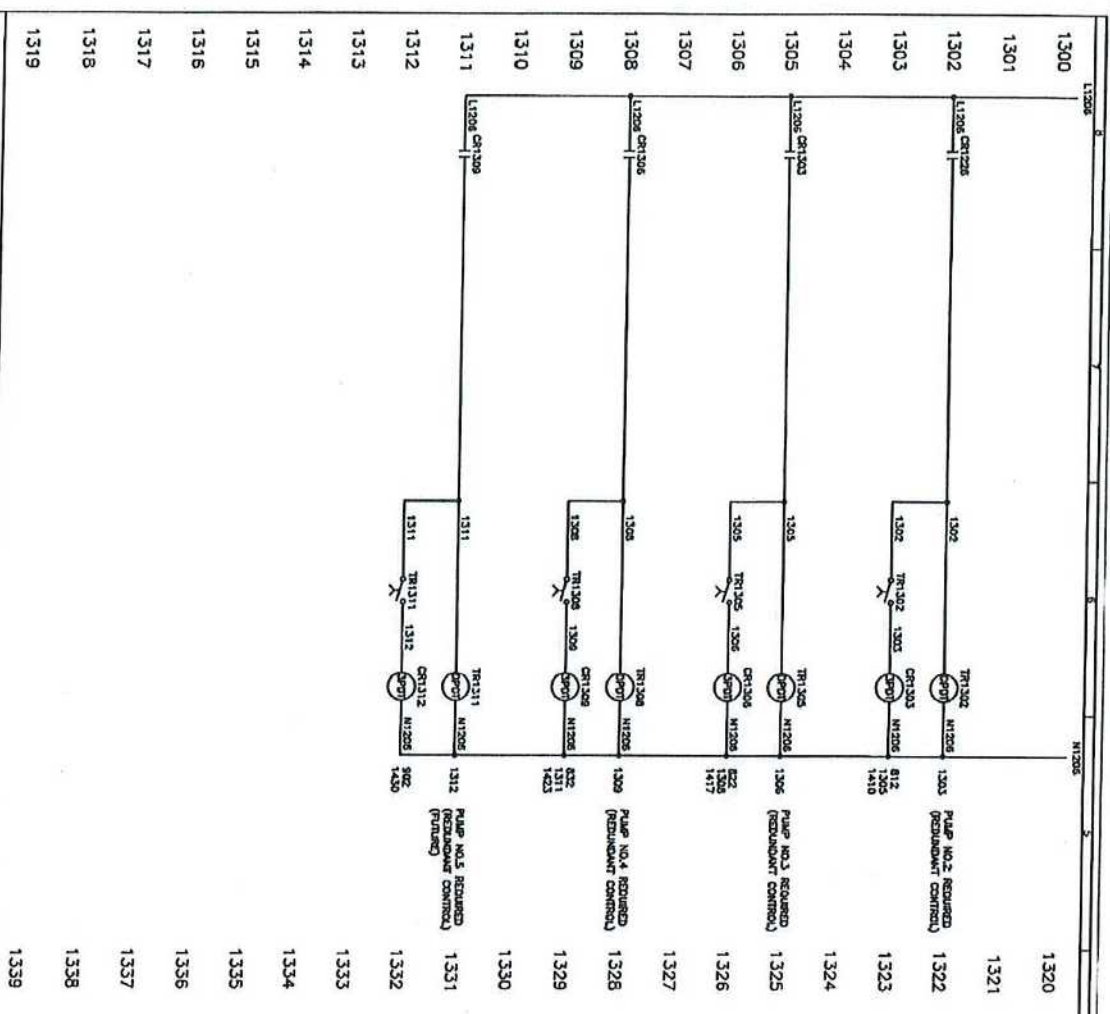






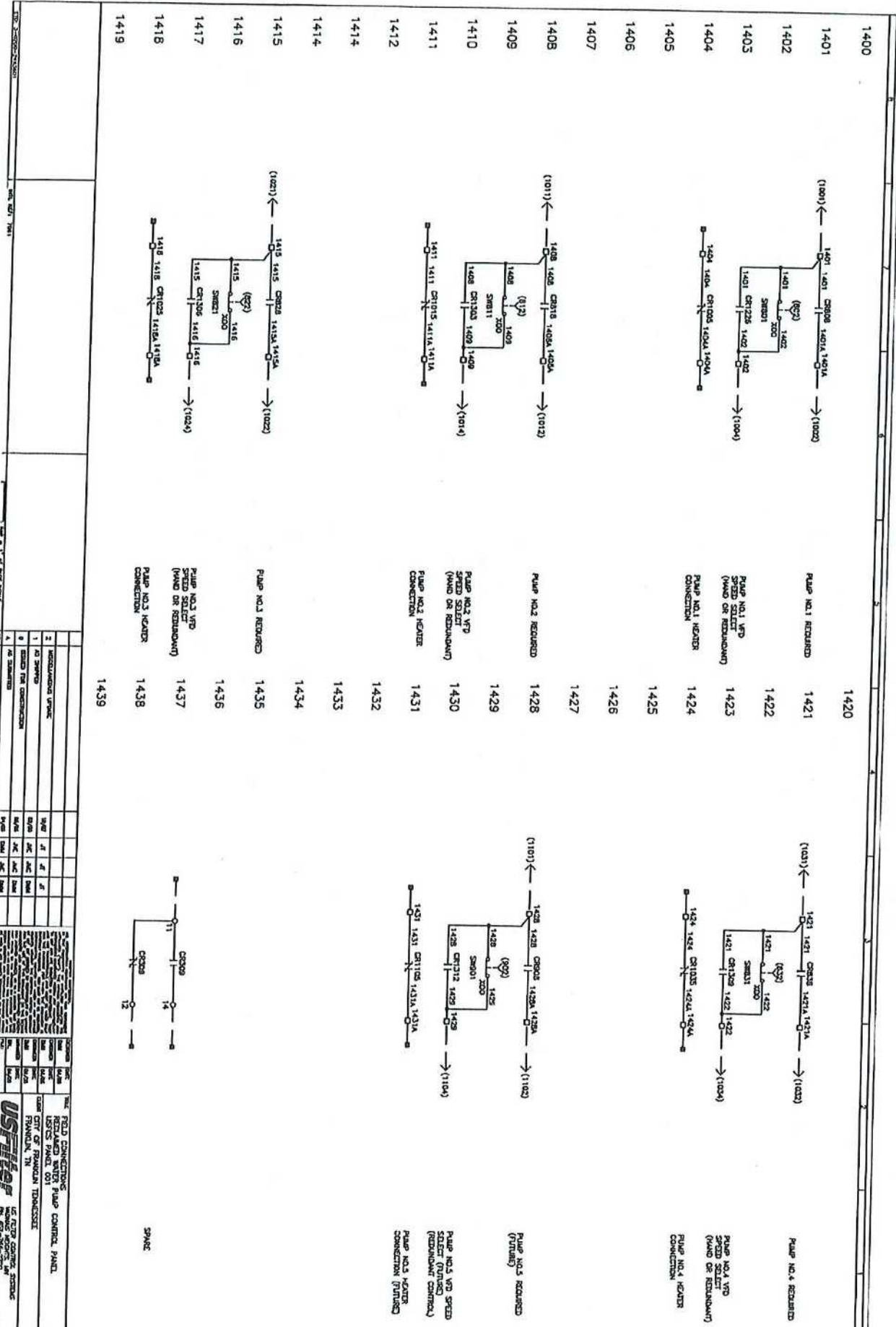


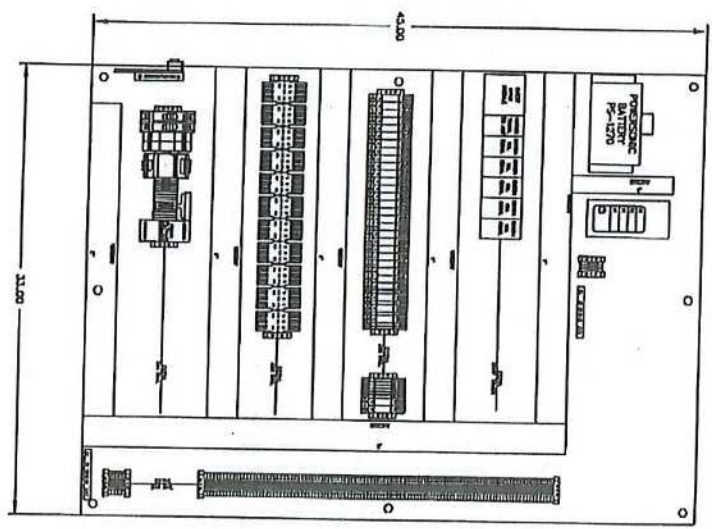
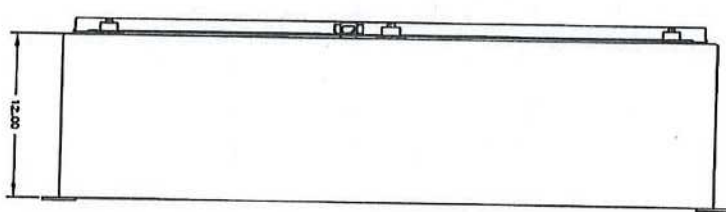
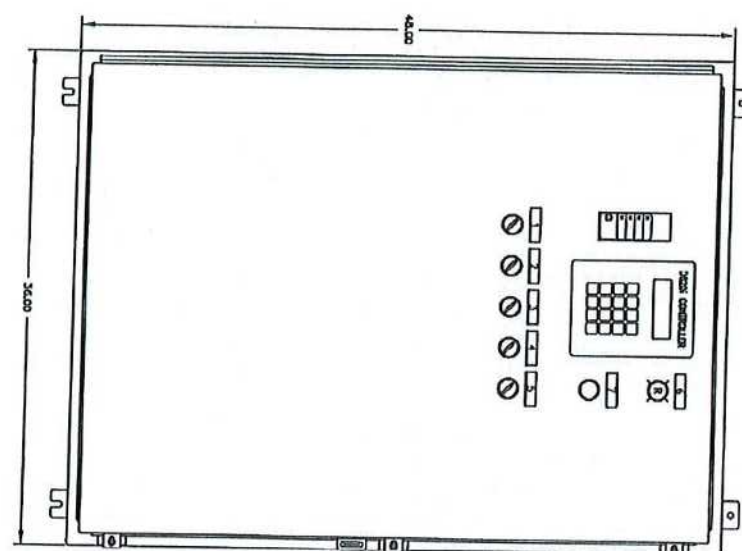
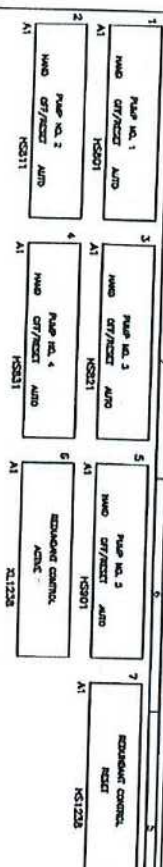




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RECYCLING CONTROL LOG	
CITY OF FRANKLIN, IN	
FRANKLIN, IN	
US Filter	
RECYCLING CONTROL LOG	
CITY OF FRANKLIN, IN	
FRANKLIN, IN	
US Filter	
RECYCLING CONTROL LOG	
CITY OF FRANKLIN, IN	
FRANKLIN, IN	
US Filter	





REMOTE WATER PUMP CONTROL PANEL
 5000 WATERSIDE PROLO CODE 0003
 200 WATERSIDE PROLO, TN
 VOLTS 120 HERTZ 60 PHASE 1 WIRE 2
 MAX. F.L.C. 10 LBS. WTS. N/A M.P. N/A F.L.C.
 DRAWING NO. 50400-001 PROLO, TN
 SHEET COUNT 000001
 120V WATERSIDE

BACK PANEL SPECIFICATIONS		ENCLOSURE SPECIFICATIONS	
MANUFACTURER	HOTYMAN	MANUFACTURER	HOTYMAN
PART NUMBER	A-48736	PART NUMBER	A-48736
SIZE	44.00 X 31.00	SIZE	44.00 X 36.00 X 12.00
FINISH	WHITE	CONSTRUCTION	1/4 GAUGE CARBON STEEL
		TYPE	NEMA 12
		WEIGHT	1.17
		FINISH	ANNEAL 61 GAUF

ENCLOSURE AND BACK PANEL LAYOUT		ENCLOSURE AND BACK PANEL LAYOUT	
1	ENCLOSURE	1	ENCLOSURE
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Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

June 10, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00028.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 25.1

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for moving **Reclaimed Water Pump Station controls to New PLC-4** in the amount of **Sixty-Four Thousand One Hundred Nineteen Dollars (\$64,119.00)**.

This proposal includes the extra work required to move controls for the existing Reclaimed Water Pumping Station (RWPS) currently residing in the RWPS local control panel and transferred to new PLC-4. The existing local control panel will remain as a terminal cabinet. Contractor will investigate the as-constructed panel and reuse existing components to the extent necessary to provide the desired functionality.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: 25.1

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Excavation of Ductbank	30.00	LF															
Foreman	1.00	EA	2.5	2.5	\$ 62.04	\$ 155.10											\$ 155.10
Operator	1.00	EA	2	2	\$ 39.86	\$ 79.72											\$ 79.72
Crew (2 Laborers)	2.00	EA	2	4	\$ 36.42	\$ 145.68											\$ 145.68
Bedding of Ductbank	30.00	LF															
Foreman	1.00	EA	0.5	0.5	\$ 62.04	\$ 31.02											\$ 31.02
Operator	1.00	EA	0.5	0.5	\$ 39.86	\$ 19.93											\$ 19.93
Crew (2 Laborers)	2.00	EA	0.5	1	\$ 36.42	\$ 36.42											\$ 36.42
Concrete for Ductbank	3.00	CY															
Foreman	1.00	EA	1	1	\$ 62.04	\$ 62.04											\$ 62.04
Operator (using Excavator bucket to reach ductbank)	1.00	EA	1	1	\$ 39.86	\$ 39.86											\$ 39.86
Crew (2 Carpenters)	2.00	EA	1	2	\$ 54.54	\$ 109.08											\$ 109.08
Concrete Pad for 12x12x6 SS N4X Box	2.00	EA															
Foreman	1.00	EA	1	2	\$ 62.04	\$ 124.08											\$ 124.08
Operator (using Excavator bucket to reach Pad)	1.00	EA	1	2	\$ 39.86	\$ 79.72											\$ 79.72
Crew (2 Carpenters)	2.00	EA	2	8	\$ 54.54	\$ 436.32											\$ 436.32
Backfill	27.00	CY															
Foreman	1.00	EA	2.5	2.5	\$ 62.04	\$ 155.10											\$ 155.10
Operator	1.00	EA	2	2	\$ 39.86	\$ 79.72											\$ 79.72
Crew (2 Laborers)	2.00	EA	2	4	\$ 36.42	\$ 145.68											\$ 145.68
Surveying/Layout/AsBulbs	2.00	HR	2	4	\$ 46.08	\$ 184.32											\$ 184.32
Trucking	2.50	HR															
Equipment																	
Cat 315 Excavator	6.50	HR															
Wacker RE820 Trench Compactor	2.50	HR															
Pick-up Truck	7.50	HR															
Kobota UTV	2.00	HR															
Materials																	
Stone - CR610	16.00	TN															
Stone - 57 Stone	19.00	TN															
Concrete - 2500PSI Utility Red	3.00	CY															
Concrete - 4500PSI with Environmental fee	1.00	CY															
Hydro Excavating around Existing Utilities	3.00	HR	1	3	\$ 36.42	\$ 109.26											
Crew (1 Laborer/Spotter)	3.00	HR	1	3	\$ 36.42	\$ 109.26											
Remote Pipe	75.00	FT															
Disposal	3.00	Load															
Subcontractors or Material Contractors																	
WJGEI - Cost Proposal	1.00	EA															
C21 - Cost Proposal	1.00	EA															
**Construction Equipment Ownership & Operating																	



PCO NO.: 25.1

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
					PREFERRED BY: COLUMB CORP												
Costs are based on Blue Book FHWA Rates.																	
OTHER						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR		42		\$ -										\$ 5.00	\$ 230.48
TAX: (9.75% of Material, Equipment, Other)																	\$ 230.48
BOND (2% of total)										\$100.77		\$87.72				\$22.47	\$210.95
SUBTOTALS				84		\$ 1,993.05		\$ -		\$ 1,134.27		\$ 987.37		\$ 56,281.77		\$ 252.95	\$ 60,649.40
MARKUP %						15.00%		15.00%		15.00%		15.00%		15.00%		15.00%	\$ 3,469.23
SUBTOTALS WITH MARKUPS APPLIED						\$2,292.01				\$1,304.41		\$1,135.48		\$59,095.86		\$290.89	\$64,118.64
BOND																	\$64,119.00
TOTAL																	\$64,119.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 34.00	\$ 51.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.98	\$ 4.47	\$ 2.10	\$ 3.15
Retirement Burden -		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.27	\$ 1.90	\$ 0.90	\$ 1.34
Additional Wages	3.73%	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.83	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 47.67	\$ 66.79	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 9.59	\$ 9.59	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 50.51	\$ 66.26	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



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FLORIDA OPERATIONS OFFICE:
23 S. DILLINGHAM AVENUE, STE. A
KISSIMMEE, FL 34741
PHONE: 404/351-1085

FIELD OFFICES: Georgia
Florida
Tennessee

19 May, 2020

Kiewit Water Facilities South
4800 North Point Parkway
Suite 100
Alpharetta, GA 30022

Kiewit Water Facilities South
135 Claude Yates Drive
Franklin, TN 37064

Attn: Steve Davis
Steven.Davis1@kiewit.com

Attn: Corbin Coker
Corbin.Coker@Kiewit.com

PROJECT: FRANKLIN WRF MODIFICATIONS & EXPANSION PROJECT
OWNER: CITY OF FRANKLIN, TN
ENGINEER: CDM SMITH, INC.
CONTRACT: 103925-SC-004
KIEWIT JOB NO.: 103925
C2i JOB NO: 09181015

Reference: Reclaimed Water Pump Station PLC Control Panel
Construction Change Authorization 25.1

Gentlemen:

This Construction Change Authorization (CCA 25.1) replaces the previous CCA 023. This proposal also replaces C2i's proposal dated October 2, 2019.

There has been a substantial amount of time incurred on the Reclaimed Water Pump Station (RWPS) issue.

As opposed to installing a new subpanel in the existing panel (CCA 023), this new request requires modification of the existing PLC-14.

C2i proposes the following:

- One (1) Lot of additional modules to include:
- (1) 16-point discrete input card
 - (1) 16-point discrete output card
 - (1) 8-point analog input card
 - (1) 8-point analog output card

Sixteen (16) Interposing relays.

- Eight (8) Dual surge protection modules.
- One (1) Lot of terminals.
- One (1) Lot of modifications to existing PLC program.
- One (1) Lot of installation and wiring of new components.

The price, per the attached Bid Summary Sheet, is ~~\$40,134.19~~ \$38,223.04 (Tax Removed)

If you have any questions, please let us know.

Sincerely,

Mark G. Healey
CONTROL INSTRUMENTS, INC./C2i
MGH/jw
Attachment

cc: Jonathon Johnson / Sue Adams – C2i

BID SUMMARY SHEET

PROJECT: Franklin REFERENCE: reclaimed Water PS CCA 25.1 JOB DURATION: _____
 CONSULTANT: CDM Smith Bid Date: 5/19/2020 PENALTY: _____
 ESTIMATOR: MGH

		PRICE
FIELD EQUIPMENT.....	\$	0.00
PANEL EQUIPMENT.....	\$	5,340.00
.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
.....	\$	0.00
MATERIAL TOTALS:	\$	5,340.00

	PRICE			PRICE	SIGN-OFF
ADMINISTRATION	\$1,150.00	/Day x 1.00	Days = \$	1,150.00	
PURCHASING	\$1,150.00	/Day x 0.50	Days = \$	575.00	
ENGINEERING:	\$1,200.00	/Day x 2.00	Days = \$	2,400.00	
MANUFACTURING:	\$783.00	/Day x 0.00	Days = \$	0.00	
DOCUMENTATION:	\$684.00	/Day x 1.00	Days = \$	684.00	
PROGRAMMING (PLC):	\$1,200.00	/Day x 10.00	Days = \$	12,000.00	
PROGRAMMING (OIT):	\$1,200.00	/Day x 0.00	Days = \$	0.00	
SERVICE ESTIMATE:	\$1,200.00	/Day x 3.00	Days = \$	3,600.00	
SERVICE ESTIMATE:	\$1,043.00	/Day x 5.00	Days = \$	5,215.00	
FREIGHT/SHIPPING:			\$	100.00	
DOCUMENTATION MATERIALS:			\$	50.00	
TRAVEL COST 8 days on \$			\$	1,600.00	
LABOR TOTALS:			\$	27,374.00	

	PRICE
MATERIAL AND LABOR TOTALS:	\$ 32,714.00
1.60% Bond	\$ 523.42
	0
subtotal	33,237.42
	0.00
15% Markup	\$ 38,223.04
	\$
	\$
	\$
	\$

SELECTED JOB PRICE: \$ 38,223.04

Allowance Yes/No: NO
 Bonds Yes/No: NO 0 0
 Taxes Yes/No: NO

TOTAL PRICE: \$ 38,223.04



**WAYNE J.
GRIFFIN ELECTRIC
INC.**

May 21, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp, Franklin, TN
Proposal #30

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This proposal is to provide and install the conduit and wire required by CCA 25.1, in order to transfer the controls residing in the RWPS Local Control Panel to the new PLC-4. This price does not include terminations in the PLC-4 panel or any panel modifications.

Material	\$	9,504.93
Labor		4,963.65
Overhead & Profit		2,170.29
Subtotal	\$	16,638.87
Bond		84.86
Total	\$	16,723.73

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis
May 21, 2020
Page 2

The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jmr

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0030, CCA 25.1 Transfer Controls from RWP
Date: 5/19/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is to provide and install the conduit and wire required by CCA 25.1, in order to transfer the controls residing in the RWPS Local Control Panel to the new PLC-4. This price does not include terminations in the PLC-4 panel or any panel modifications.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Builts	0.00	0.0000	HRS	0.000	0.000	1.450
Cleanup	0.00	0.0000	HRS	0.000	0.000	1.450
Tools	0.00	0.0000	HRS	0.000	0.000	1.740
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	1.450
Supervision	0.00	0.0000	HRS	0.000	0.000	2.900
Project Controls	0.00	0.0000	HRS	0.000	0.000	2.900
2" PVC SCHEDULE 80	60.00	2.3473	FT	140.840	0.084	5.040
2" ALUMINUM CONDUIT	80.00	8.5723	FT	685.780	0.080	6.400
2 PVC COATED ALUM RIGID CONDUIT	20.00	28.2030	FT	564.060	0.180	3.600
2" ALUMINUM 90D ELBOW	6.00	130.3900	EA	782.340	0.750	4.500
2 ALUM/PVC COATED 90-DEG ELBOW	4.00	77.5675	EA	310.270	1.200	4.800
2" 3-PIECE COUPLING	2.00	67.1150	EA	134.230	1.250	2.500
2" ALUM COUPLING	16.00	28.1900	EA	451.040	0.070	1.120
2 ALUM/PVC COATED COUPLING	4.00	32.4525	EA	129.810	0.700	2.800
2 MYERS THREADED GRD HUB	20.00	43.0715	EA	861.430	0.160	3.200
#14 XHHW COPPER WIRE	5,450.00	0.3060	FT	1,667.700	0.001	3.270
#12 XHHW COPPER WIRE	110.00	0.4154	FT	45.690	0.007	0.770
16/2PR CNTRL CBL SHLD TWSTD PR	910.00	1.4101	FT	1,283.190	0.002	2.184
3/8 x 3" WEDGE ANCHOR (SS)	6.00	2.6500	EA	15.900	0.220	1.320
3/8" LOCK WASHERS (SS)	12.00	0.2600	EA	3.120	0.001	0.014
1/4 X 1 1/4" FENDER WASHER (SS)	16.00	0.4400	EA	7.040	0.001	0.019
3/8 X 1 1/4" FENDER WASHER (SS)	24.00	0.4800	EA	11.520	0.000	0.000
1/4-20 x 1" MACHINE SCREWS (SS)	16.00	0.9500	EA	15.200	0.070	1.120
3/8-16 x 1" MACHINE SCREWS (SS)	18.00	1.0500	EA	18.900	0.075	1.350
3/8-16 HEX NUTS (SS)	20.00	0.5700	EA	11.400	0.036	0.720
3/8" HOLLOW WALL ANCHOR	18.00	0.8500	EA	15.300	0.000	0.000
3/8" THREADED ROD COUPLING	6.00	3.6983	EA	22.190	0.022	0.132
3/8-16 THREADED ROD (SS)	20.00	4.5300	FT	90.600	0.110	2.200
2" RIGID STRUT CLAMP (702 SERIES)	6.00	3.6900	EA	22.140	0.040	0.240
1 5/8" X 1 5/8" 12 GAUGE 1 5/8 X 1 5/8 PLAIN 10' STRUT (SS)	30.00	9.6800	FT	290.400	0.123	3.675
1/4 SPRING NUTS (SS)	16.00	2.6500	EA	42.400	0.072	1.152
3/8 SS U-STRUT NO-TWIST SQ WASHER	12.00	8.4000	EA	100.800	0.001	0.014
PULL STRING - GREENLEE 430 (6500")	400.00	0.0216	FT	8.640	0.003	1.040
12x12x6 T316 S-STL BOX HINGE CVR N4X	3.00	591.0000	EA	1,773.000	1.600	4.800
Totals				9,504.93		69.87
Tax				0.00		
Materials with				9,504.93		

Summary

Itemized Breakdown Total		9,504.93
Elect. Journeyman	(69.8710 hrs @ \$71.04 / hr)	4,963.64
		4,963.64



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0030, CCA 25.1 Transfer Controls from RWP
Date: 5/19/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 2

Overhead & Profit	(\$14,468.58 @ 15.00%)	2,170.29	
		<u>2,170.29</u>	
Bond	(\$16,638.87 @ 0.51%)	84.86	
		<u>84.86</u>	
			<u>2,255.15</u>
Total			<u>\$16,723.73</u>

Schedule of Values (SOV)

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Hydrovac Unit and Operator ST	57	HR	\$ 230.00	\$ 13,110.00
2	Hydrovac Unit and Operator OT	10	HR	\$ 265.00	\$ 2,650.00
3	Additional Labor if needed	0	HR	\$ 80.00	\$ -
4	Mobilization/Demobilization	0	HR	\$ -	\$ -
5	Disposal	0	Per Load	\$ 100.00	\$ -
6	Remote Pipe, if applicable	0	Per Foot	\$ 1.60	\$ -
7	Support Truck, if applicable	0	Per Day	\$ 95.00	\$ -
8	Overnight Stay, if needed	0	Per Day	\$ 120.00	\$ -
	Estimated Total			\$	\$ 15,760.00

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Tri-Axle Dump Trucks	3,485	HR	\$ 90.00	\$ 313,650.00
				\$ -	\$ -
	<i>Approximate Agreement Total (including Taxes)</i>			\$	\$ 313,650.00

- .3 Seller shall arrive onsite at the time scheduled and agreed upon by Contractor and Seller. If Seller arrives more than 60 minutes after its scheduled arrival time, Contractor may charge Seller its actual documented cost per hour for downtime of its crews until Seller arrives.

5.0 Unit Prices, Options and Allowances: The following items shall be provided by Seller as necessary, and will require a written fully executed change order.

Chilled Water per yard	\$3.00
E2 - With 1.5 LB Fibers - 4,500 psi, per cy (before March 1, 2021)	\$133.50
E3 - 4,500 psi, per cy (before March 1, 2021)	\$131.50
E3 - With 1.5 LB Fibers - 4,500 psi, per cy (before March 1, 2021)	\$137.50
Holidays and Sundays	TBD
Environmental Fee, per load	\$12.00
Excess unloading over 60 minutes charged per hour	\$90.00
High Range Water Reducer, add/cy	\$7.50
Ice, per lb	\$0.40
Late Delivery, After 5:00 PM, per load	\$75.00
Mid-Range Water Reducer, add/cy	\$5.00
Non-Chloride Accelerator, per dose	\$5.50
Reinforcing Fiber, add/cy	\$7.00
Retarding Admixture, per dose	\$3.50
Saturday Delivery, per load	\$50.00
Small Load Charge 2 yards or less	\$200.00
Small Load Charge 2.25 - 3.75 yards	\$100.00
Winter Service (Dec 1 - Feb 28), add /CY (includes hot water)	\$4.00

6.0 Deliverables: In addition to any other provisions of this Contract, it is required that Seller make timely submission of the following to Contractor:

- .1 Furnish shop drawings and submittals for approval within 28 days of the Effective Date of Contract in strict accordance with specification section 01300. Submittals shall be submitted timely to allow thirty (30) calendar days for Contractor and Owner review and not delay prosecution of the Work. Material shall not be ordered or shipped until the shop drawings have been approved. No material shall be ordered or shop work started if shop drawings are marked "APPROVED AS NOTED - CONFIRM", "APPROVED AS NOTED - RESUBMIT" or "NOT APPROVED".

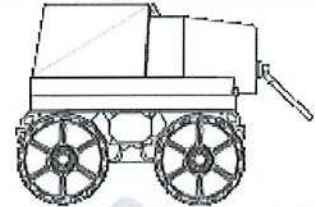
Rental Rate Blue Book®

June 1, 2020

Wacker RT820 (disc. 2011)

Trench Compactors

Size Class:
26 - 34 Inches
Weight:
3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

	Hourly
Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250 SD

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250 SD

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	300.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$900.00	USD \$255.00	USD \$64.00	USD \$10.00	USD \$19.00	USD \$24.11
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$72.00	USD \$20.40	USD \$5.12	USD \$0.80		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$972.00	USD \$275.40	USD \$69.12	USD \$10.80	USD \$19.00	USD \$24.52

Non-Active Use Rates

Hourly

Standby Rate	USD \$4.03
Idling Rate	USD \$20.57

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$486.00/mo
Overhaul (ownership)	27%	USD \$243.00/mo
CFC (ownership)	7%	USD \$63.00/mo
Indirect (ownership)	12%	USD \$108.00/mo
Fuel (operating) @ USD 2.51	79%	USD \$15.05/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

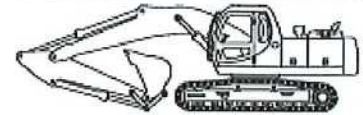
The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Caterpillar 315F L

Crawler Mounted Hydraulic Excavators



Size Class:

16.1 - 19.0 MTons

Weight:

N/A

Configuration for 315F L

Bucket Capacity - Heaped

1 cu yd

Operating Weight

36340 lbs

Net Horsepower

97 hp

Power Mode

Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$9,430.00	USD \$2,640.00	USD \$660.00	USD \$99.00	USD \$39.63	USD \$93.21
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$735.54	USD \$205.92	USD \$51.48	USD \$7.72		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$10,165.54	USD \$2,845.92	USD \$711.48	USD \$106.72	USD \$39.63	USD \$97.39

Non-Active Use Rates

Hourly

Standby Rate

USD \$30.61

Idling Rate

USD \$68.45

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$3,489.10/mo
Overhaul (ownership)	46%	USD \$4,337.80/mo
CFC (ownership)	10%	USD \$943.00/mo
Indirect (ownership)	6%	USD \$565.80/mo
Fuel (operating) @ USD 3.07	27%	USD \$10.69/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO:	Mr. Steve Davis Project Manager Kiewit Water Facilities South 4405 International Blvd., NW, Suite C-101 Norcross, Georgia 30093 (770) 940-8044	FROM:	CDM Smith 210 25 th Ave. N. Suite 1102 Nashville, TN 37203 (615) 320-3161
DATE:	April 13, 2020		
PROJECT:	City of Franklin, Tennessee Franklin WRF Modifications & Expansion Project		
CCA NUMBER:	25.1	CDM SMITH PROJ. NO.:	14915-231666
SUBJECT:	RWPS Controls	CITY PROJECT NO.:	2017-0264
REFERENCE:	(See Below)		

DESCRIPTION: Controls for the existing Reclaimed Water Pumping Station (RWPS) currently residing in the RWPS local control panel are to be transferred to new PLC-4 as shown on revised Sheets E-56 and I-21 attached. The existing local control panel is to remain as a terminal cabinet. The attached schematic for the existing panel and hand sketch are provided for informational purposes only and the Engineer does not guarantee accuracy. Contractor to investigate the as-constructed panel and reuse existing components to the extent necessary to provide the desired functionality. Provide pricing for this work for Engineer review.

CDM SMITH:

CONTRACTOR:

By: _____

By: _____

Date: _____

Date: _____

City of Franklin:

By: _____

Date:

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: August 17, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 53 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: Headworks **CITY PROJECT NO.:** 2017-0264

REFERENCE: (Att.)

DESCRIPTION: Furnish and install manual air vent valves for EQ Pumps P-410-1 and P-410-2 configured generally as shown on Fig. CCA53-1 attached.

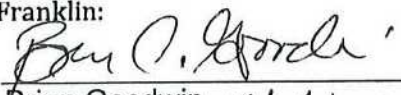
CDM SMITH:

By: 
Date: 11/4/20

CONTRACTOR:

By: 
Date: 11/4/20

City of Franklin:

By: 
Date: Brian Goodwin 11/06/2020

City of Franklin:

BY: 
Date: Michelle Hatcher 11/6/20

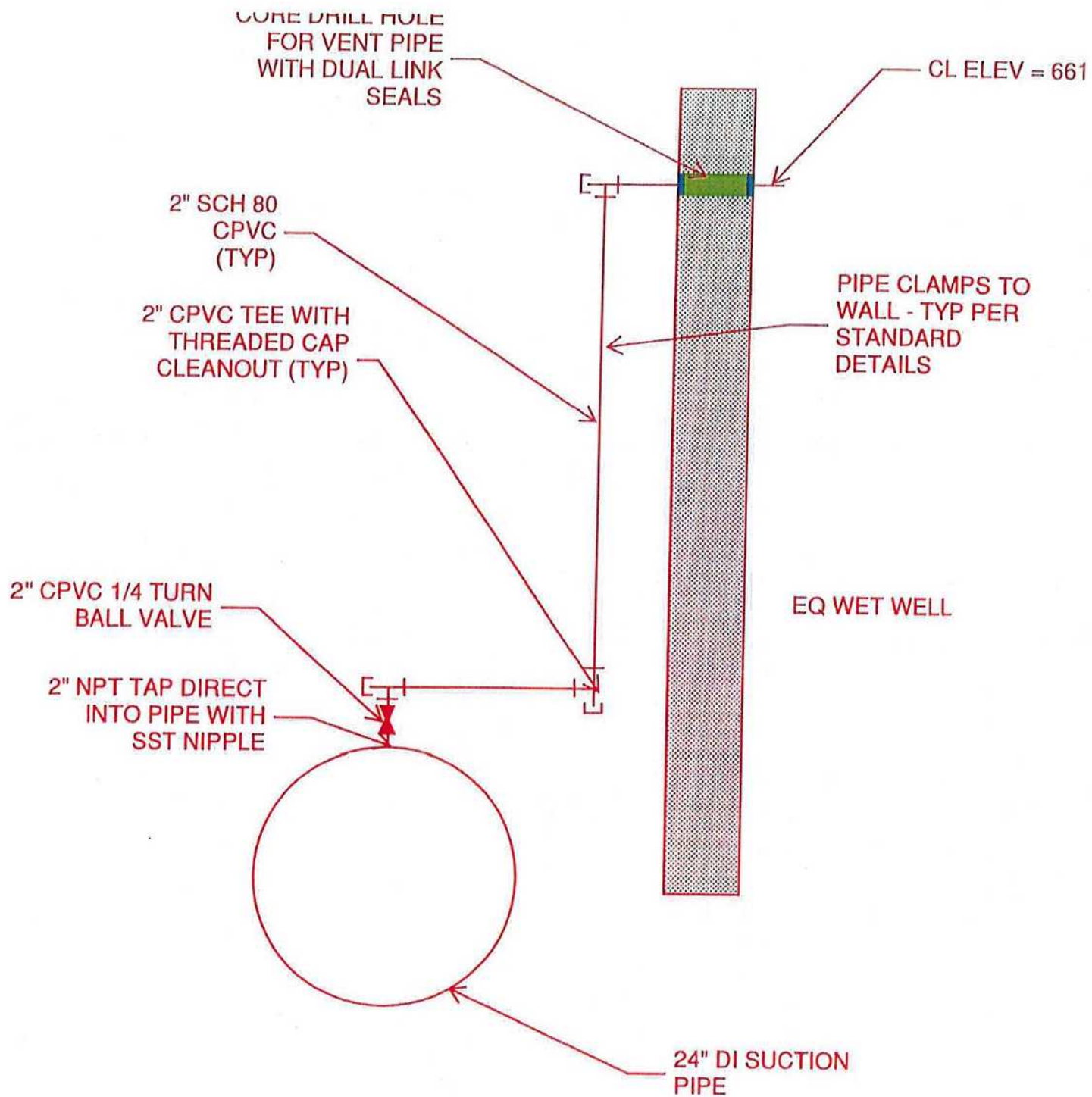


FIG. CCA53-1



Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 1, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00057.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 53 – Manual Air Vent Valves for EQ Pumps P-410-1 & 2

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for **CCA 53 – Manual Air Vent Valves for EQ Pumps P-410-1 & 2** amounting to **Five Thousand Seven Hundred and Three Dollars (\$5,703.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: CCA 53

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Labor Cost																	
Foreman	1.00	EA	11.00	11.00	\$ 62.31	\$ 685.41											\$ 685.41
Laborer(s)	2.00	EA	10.00	20.00	\$ 36.42	\$ 364.20											\$ 364.20
Pipefitter	1.00	EA	10.00	10.00	\$ 66.96	\$ 669.60											\$ 669.60
Survey - As Buils	1.00	EA	1.00	1.00	\$ 53.28	\$ 53.28											\$ 53.28
Material Handling																	
Spotter/Laborer	1.00	EA	1.00	1.00	\$ 36.42	\$ 36.42											\$ 36.42
Materials																	
2" Stainless Steel . Threaded Pipe Nipples Type 316	2.00	EA							\$ 22.44	\$ 44.88							\$ 44.88
2" CPVC Plain End - Schedule 80	40.00	LF							\$ 4.36	\$ 174.40							\$ 174.40
2" CPVC Tee - Schedule 80	6.00	EA							\$ 7.85	\$ 47.10							\$ 47.10
2" CPVC Cap - Schedule 80	6.00	EA							\$ 11.13	\$ 66.78							\$ 66.78
2" CPVC Male Adapter - Schedule 80	6.00	EA							\$ 7.56	\$ 45.36							\$ 45.36
1 Case of Gray Cement #724	1.00	EA							\$ 22.85	\$ 22.85							\$ 22.85
1 Quart Primer - #P-70 Clear	1.00	EA							\$ 18.85	\$ 18.85							\$ 18.85
LinkSeal #L.S-300-S with SS Hardware	24.00	EA							\$ 6.06	\$ 145.44							\$ 145.44
2" CPVC Ball Valve with O-Rings - Schedule 80	2.00	EA							\$ 117.17	\$ 234.34							\$ 234.34
12 Gauge with Slotted Holes SS Uni-Sint - 1 5/8" - Type 316	10.00	LF							\$ 10.32	\$ 103.20							\$ 103.20
Stainless Steel Pipe Clamps for 2"	4.00	EA							\$ 8.33	\$ 33.32							\$ 33.32
3/8" Stainless Steel Type 316 Anchor with Nut & Washer	8.00	EA							\$ 3.27	\$ 26.16							\$ 26.16
2 1/2" Hole Saw for Hard Metal - for 2.375"	1.00	EA							\$ 142.86	\$ 142.86							\$ 142.86
Anchor (Shank Size 1/2")	2.00	EA							\$ 18.29	\$ 36.58							\$ 36.58
Pilot Drill (Diameter 3/8")	2.00	EA							\$ 11.71	\$ 23.42							\$ 23.42
Pipe and Conduit Thread Taps	2.00	EA							\$ 414.05	\$ 828.10							\$ 828.10
Equipment Costs																	
Foreman Truck - Ford F-250	11.00	HR	1.00	11.00							\$ 30.28	\$ 333.08					\$ 333.08
Forlift	1.00	EA	1.00	1.00	\$ 46.34	\$ 46.34					\$ 60.00	\$ 60.00					\$ 106.34
Subcontractor K&H Concrete Cutting																	
Core Drill Hole 4" x 20' = \$32.00 + \$ 46.00 (\$200 Minimum)	2.00	EA											\$ 100.00	\$ 200.00			\$ 200.00
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
SIS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax. Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	55	MHR		55													\$ 275.00
TAX: (9.75% of Material, Equipment, Other)										\$ 194.38		\$ 336.33					\$ 266.81
BOND (2% of total)																	\$ 259.52
SUBTOTALS						\$ 1,855.25				\$ 2,188.02		\$ 431.41		\$ 200.00			\$ 4,976.49
MARKUP %						\$ 53.18				\$ 53.02		\$ 53.02		\$ 53.02			\$ 726.47
SUBTOTALS WITH MARKUPS APPLIED						\$ 2,133.54				\$ 2,516.22		\$ 496.12		\$ 210.00			\$ 5,702.96
BOND																	\$ 57,703.00
TOTAL																	\$ 57,703.00

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages	3.73%	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.39	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



Quote Summary

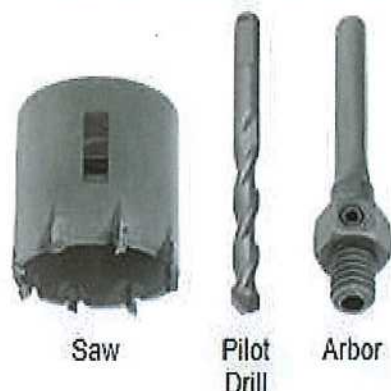
Quote #: 2019-5041-29

Quote Name: Franklin Water Reclamation Facility-29

Location: FRANKLIN, TN

Mark #	Seq #	Quantity	Unit	Size	Material	Length	Joint	Fitting	Description	Unit Sell	Total Sell
HEADING: 53											
DESCRIPTION: CCA #53											
53-1	1	2	EA	2"	STAINLESS STEEL	0'-6"	THREAD	NIPPLE	SCHEDULE 40 TYPE 316	\$22.44	\$44.88
53-2	2	40	FT	2"	CPVC	20'-0"	PLAIN END	PIPE	SCHEDULE 80 CPVC	\$4.36	\$174.40
53-3	3	40	FT	2"	PVC	20'-0"	PLAIN END	PIPE	SCHEDULE 80	\$1.40	\$56.00
53-4	4	6	EA	2"	CPVC		S&S	TEE	9801020 SCHEDULE 80 CPVC	\$7.85	\$47.10
53-5	5	6	EA	2"	CPVC		THREAD	CAP	9848020 SCHEDULE 80 CPVC	\$11.13	\$66.78
53-6	6	6	EA	2"	CPVC		SMIP	MALE	9836020 SCHEDULE 80 CPVC	\$7.56	\$45.36
53-7	7	1	EA				QUART	CEMENT	#724 (12 PER CASE) GRAY	\$22.85	\$22.85
53-8	8	1	EA				QUART	PRIMER	#P-70 (12 PER CASE) CLEAR OR PURPLE	\$18.85	\$18.85
53-9	9	24	EA		RUBBER		LINKSEAL	LINK	LINKSEAL #S-300-S WITH STAINLESS STEEL HARDWARE FOR 2" CPVC PIPE THRU 4" CORED OPENING 6 LINKS PER SEAL	\$6.06	\$145.44
53-10	10	2	EA	2"	CPVC		SW/THRD	BALL VALVE	ASAHI #1613-020 SCHEDULE 80 WITH VITON O-RINGS TRUE UNION	\$117.17	\$234.34
53-11	11	10	FT	1.5/8"	STNL STEEL	10'-0"	C&P	UNI-STRUT	#B22SHSS610, 12GAUGE, SLOTTED HOLES TYPE 316 "AIS" COMPLIANT	\$10.32	\$103.20
53-12	12	4	EA	2"	STNL STEEL		C&P	PIPE CLAMP	#B2013SS6 "AIS" COMPLIANT	\$8.33	\$33.32
53-13	13	8	EA	3/8"	STNL STEEL	0'-3-3/4"	THREAD	EXPANSION	ANCHOR TYPE 316 WITH WASHER & NUT "AIS" COMPLIANT	\$3.27	\$26.16

Hole Saws for Hard Metal



The carbide teeth on these steel saws cut hard metal such as steel, stainless steel, cast iron, and titanium. They can be sharpened, so they last longer than saws with carbide-tipped steel teeth. Use them on a drill or drill press. An arbor and pilot drill (sold separately) are required.

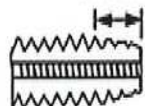
Saws				Arbors			Pilot Drills			
Dia.	For Arbor Thread Size	Each		Shank Size	Each		Pilot Drill Dia.	Pilot Drill Lg.		Each
1" Cutting Dp.										
2 1/2"	3/4"-10	4118A26	\$97.14	1/2"	4118A58	\$18.29	3/8"	2 3/4"	4118A62	\$11.71
2" Cutting Dp.										
2 1/2"	3/4"-10	4118A48	142.86	1/2"	4118A58	18.29	3/8"	3 3/4"	4118A84	11.71

Pipe and Conduit Thread Taps



Create threads sized for pipe and conduit. For use on most metal and plastic, these high-speed steel taps are durable enough for small-scale tapping jobs, but they're not recommended for production use. They have a square shank that's compatible with tap wrenches and tap holders for drill presses and milling machines.

3 to 5
Chamfered
Threads



Plug Chamfer

Uncoated taps are strong enough for most tapping jobs but have the shortest tool life. Titanium-nitride (TiN) coated taps resist heat and wear better than uncoated taps, letting them last up to twice as long.

Plug-chamfer taps are a versatile choice for most tapping applications. With 3-5 chamfered cutting threads, they require moderate torque and are often used for start-to-finish tapping of through holes and closed-end holes. When using them to tap closed-end holes, be sure to leave sufficient space at the bottom for chips to accumulate.

NPT and NPTF

Titanium Nitride (TiN) Coated High-Speed Steel

2	NPT	11 1/2	1 3/4"	4 1/2"	2 3/16"	2.1875"	7	2652A51	414.05
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Rental Rate Blue Book®

June 1, 2020

Ford F-250
On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)

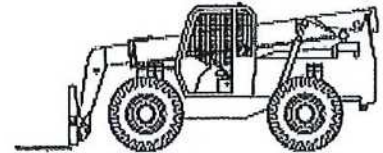
Telescoping Boom Rough Terrain Lift Trucks

Size Class:

5.0 MTons & Over

Weight:

32930 lbs


Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/Hr

Do not have XTREME--Hourly
1055 on Equipment Watch
USD \$16.88
USD \$50.69

Non-Active Use Rates

Standby Rate

Idling Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

ESTIMATOR'S GUIDE CORE DRILLING

Minimum Charge (1 1/2 hrs.) \$200.00

Subcontractor K&H Concrete Cutting
Core Drill Hole 4" x 20" = \$32.00 + \$ 48.00

Diameter	FLOORS		Diameter	WALLS	
	Per Hole up to 6" deep	Per Inch over 6" depth		Per Hole up to 8" deep	Per Inch over 8" depth
1" to 4"	\$ 21.00	\$ 3.50	1" to 4"	\$ 32.00	\$ 4.00
4 1/2"	24.00	4.00	4 1/2"	34.00	4.25
5"	27.00	4.50	5"	38.00	4.75
6"	31.50	5.25	6"	44.00	5.50
7"	33.00	5.50	7"	50.00	6.25
8"	39.00	6.50	8"	56.00	7.00
9"	45.00	7.50	9"	68.00	8.50
10"	51.00	8.50	10"	80.00	10.00
12"	66.00	11.00	12"	106.00	13.25
14"	90.00	15.00	14"	140.00	17.50

480 VOLT / HYDRAULIC CORE DRILLING

Minimum Charge \$250.00

16"	114.00	19.00	16"	180.00	22.50
18"	168.00	28.00	18"	256.00	32.00
20"	186.00	31.00	20"	292.00	36.50
22"	210.00	35.00	22"	316.00	39.50
24"	234.00	39.00	24"	344.00	43.00
26"	282.00	47.00	26"	428.00	53.50
28"	312.00	52.00	28"	520.00	65.00
30"	570.00	64.00	30"	608.00	76.00

SLAB SAWING - GAS, ELECTRIC

Minimum Charge (1 1/2 hrs.) \$250.00

Slab sawing with water clean up - \$.55 per inch foot

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.55	\$ 1.10	\$ 1.65	\$ 2.20	\$ 3.30	\$ 4.40	\$ 5.50	\$ 6.60	\$ 7.70

ASPHALT SLAB SAWING

Depth of cut	1-2"	3"	4"	6"	8"	10"	12"
Cost per foot	\$.50	\$.75	\$ 1.00	\$ 1.50	\$ 2.00	\$ 2.50	\$ 3.00

DIESEL SLAB SAWING

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.45	\$.90	\$ 1.35	\$ 1.80	\$ 2.70	\$ 3.60	\$ 4.50	\$ 5.40	\$ 6.30

WALL SAWING

Minimum Charge \$350.00

Wall Thickness	8"	10"	12"	14"	16"	18"
Concrete & Masonry - \$2.50/in. ft.	\$ 20.00	\$ 25.00	\$ 30.00	\$ 35.00	\$ 40.00	\$ 45.00
Flush Cut - \$2.80/in. ft.	\$ 22.40	\$ 28.00	\$ 33.60	\$ 39.20	\$ 44.80	\$ 50.40

REMOVAL ON GRADE

	up to 6"	7 to 8"	9 to 10"	
By Hand	\$ 4.25	\$ 4.75	\$ 5.25	per sq. ft.
By Machine	\$ 3.00	\$ 3.50	\$ 4.00	to customer's dumpster
Haul off \$ 250.00 per load - Call for dumpster pricing				

A mileage charge of \$ 1.00 per mile round trip outside of metropolitan area.

Customer to mark out all holes and openings.

We do not assume responsibility for damage caused by mismarked holes, cutting conduit, buried pipe, steel beams, etc. We reserve the right to adjust prices when there is excessive re-steel, very difficult set-ups, river rock concrete or scattered locations.

Our clean up consists of vacuuming up our slurry. Additional charge to mop floors and power wash walls.

Price to take our slurry with us - \$ 50.00 per barrel.

Also distributors for professional diamond cutting products & equipment.

PLEASE CALL FOR QUOTES ON LARGE JOBS !!!



121 Old Nashville Hwy., Suite A
LaVergne, TN 37086
Phone: (615) 471-1960
Fax: (615) 471-1959
Cell: (615) 631-9494
www.kandhcutting.com



Kiewit

CP 25

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

June 19, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00033.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Change Proposal – RFI 295 – WAS Tank Subgrade - REVISED

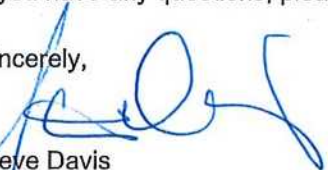
Dear Mr. Harris,

Please find the attached revised proposal for the additional #57 stone and geotextile fabric below the WAS Tank per the response to RFI 295. Kiewit proposes a price of **Seven Thousand Thirty-Six Dollars (\$7,036)**.

This proposal has been revised to include 6" of TDOT #57 stone per the requirements in submittal D-13205-002-A (Wire Wrapped Prestressed Concrete Tanks – WAS Tank) provided by Crom Corporation.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

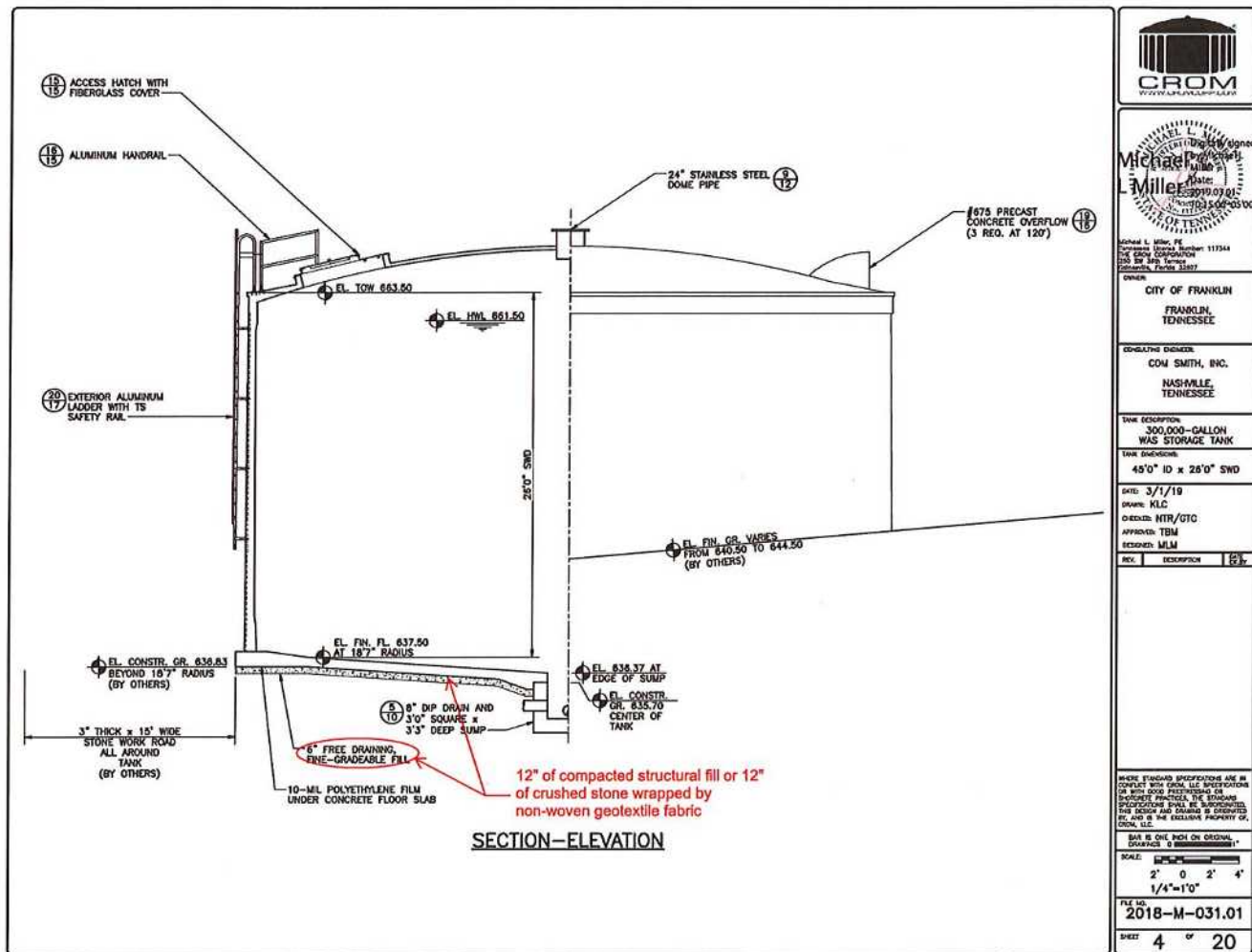
cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Michael Shaston

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
RFI 295 - WAS Tank Foundation Subgrade						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
WAS Tank - 49'-8" Diameter (1' outside foundation)(6" Thick)						\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Excavate additional 6" - Haul to Stockpile	35.88	CY	0.40	14.35		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Laborer Foreman	1.00	EA				\$ 66.67	\$ 239.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 239.18
Laborers	1.00	EA				\$ 38.97	\$ 139.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 139.80
Excavator Operator	1.00	EA				\$ 43.78	\$ 157.08	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157.08
Dozer Operator	1.00	EA				\$ 49.24	\$ 176.65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 176.65
Crew Truck - F250	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.28	\$ 108.63	\$ -	\$ -	\$ -	\$ -	\$ 108.63
CAT 336 Excavator	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180.60	\$ 647.90	\$ -	\$ -	\$ -	\$ -	\$ 647.90
CAT D5 Dozer	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 138.26	\$ 496.01	\$ -	\$ -	\$ -	\$ -	\$ 496.01
Legal Haul Truck	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90.00	\$ 322.88	\$ -	\$ -	\$ 322.88
Lay/Roll/Finish #57 Stone	71.75	TN	0.20	14.35		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Laborer Foreman	1.00	EA				\$ 66.67	\$ 239.18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 239.18
Laborers	1.00	EA				\$ 38.97	\$ 139.80	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 139.80
Dozer Operator	1.00	EA				\$ 49.24	\$ 176.65	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 176.65
Roller Operator	1.00	EA				\$ 43.80	\$ 157.11	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157.11
Crew Truck - F250	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.28	\$ 108.63	\$ -	\$ -	\$ -	\$ -	\$ 108.63
CAT D5 Dozer	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 138.26	\$ 496.01	\$ -	\$ -	\$ -	\$ -	\$ 496.01
Single Drum Roller	3.59	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66.54	\$ 238.71	\$ -	\$ -	\$ -	\$ -	\$ 238.71
Purchase #57 Stone	71.75	TN				\$ -	\$ -	\$ -	\$ 18.00	\$ 1,291.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,291.50
Install Geotextile Fabric	215.30	SY	0.03	6.46		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Laborer Foreman	1.00	EA				\$ 66.67	\$ 107.66	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 107.66
Laborers	3.00	EA				\$ 4.84	\$ 188.78	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 188.78
Crew Truck - F250	1.61	HR				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.28	\$ 48.89	\$ -	\$ -	\$ -	\$ -	\$ 48.89
Purchase Geotextile Fabric	215.30	SY				\$ -	\$ -	\$ -	\$ 0.58	\$ 124.87	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 124.87
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
ST's - small tools, consumables, safety equip, (5% of direct labor, plus 9.75% sales tax: Formula = Total Direct Labor Manhours * \$5.00 * 1.0975)																	
	35	DMH				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)										\$138.10		\$209.12				\$ 5.00	\$ 175.80
BOND (2% of total)																	\$ 364.35
SUBTOTALS					35	\$ 1,721.91	\$ 15,000.00	\$ -	\$ 1,554.47	\$ 15,000.00	\$ 2,353.90	\$ 322.88	\$ 192.94	\$ 6,146.09			\$ -
MARKUP %																	\$ 889.63
SUBTOTALS WITH MARKUPS APPLIED						\$1,980.20	\$15,000.00	\$ -	\$1,787.64	\$15,000.00	\$2,706.99	\$339.02	\$221.86	\$7,035.72			\$7,035.72
BOND																	\$7,035.72
TOTAL																	\$7,035.72



Michael L. Miller, P.E.
Professional Engineer
No. 117344
State of Tennessee
Exp. 03/03/2021
CROM, LLC
200 SW 8th Street
Gainesville, Florida 32601

CITY OF FRANKLIN
FRANKLIN,
TENNESSEE

CONSULTING ENGINEER
COW SMITH, INC.
NASHVILLE,
TENNESSEE

TANK DESCRIPTION
300,000-GALLON
WAS STORAGE TANK

TANK DIMENSIONS
45'0" ID x 28'0" SWD

DATE: 3/1/19

DRAWN: KLC

CHECKED: NTR/GTC

APPROVED: TBM

REVISION: MLM

REV. **DESCRIPTION** **DATE**

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Request For Information

For Action: Michael Sheston, Kiewit
Steve Davis, Kiewit
Jon Allen, CDM Smith
Dan Harris, CDM Smith
Laura Hernandez, Kiewit
Kian Lawlor, Kiewit
Alex Landry, CDM Smith

For Info: Chris Tennyson, Kiewit
Kyle Krajco, Kiewit
Cody Prange, Kiewit
Lauren Micallef, Kiewit
Keith Buchholtz, Kiewit
Neena Bilbo, City of Franklin
Brian Goodwin, City of Franklin
Michelle Hatcher, City of Franklin
Tom Lamb, CDM Smith
Jim Townsend, CDM Smith
Taylor Flippen, Kiewit
Ryan Riley, Kiewit
Jared Carr, Kiewit
Corbin Coker, Kiewit
Tim Roberson, Wayne J. Griffin
Sarah Moore, Wayne J. Griffin
Nick Young, Wayne J. Griffin
Andy McMillen, Kiewit
Michael Callison, Kiewit
Tate Atha, CDM Smith
Andrew McLain, Kiewit
Arturo Cruz, Kiewit
Mitch Hickey, Kiewit
Ewa PoplawskaPagan, Kiewit
Jonathan Johnson, Control Instruments, Inc.
Mason Millet, CDM Smith
Jude Philley, Kiewit
Andrew Hendrix, Kiewit
Jon Stow, Kiewit
Stephen Eubanks, Kiewit
Peter Sestak, Kiewit
Mark Renwick, Kiewit
Tawanda Charambra, Kiewit
Michael Hallworth, Kiewit
Abdul Albashit, Kiewit

Project: Franklin WRF Modification and Expansion Project

Subject: **HW Odor Control & WAS Tank Concrete Foundation Subgrade**

1) Drawing M-51 shows the WAS Storage Tanks section view but does not show #57 Stone with a layer of 8 oz. non-woven geotextile fabric underneath the concrete pad. Section views for other concrete structures called out either 12" or 24" of #57 Stone with 8 oz. non-woven geotextile fabric. Please confirm if #57 stone with 8 oz. non-woven geotextile fabric is required.

2) Drawings S-8 and M-8 respectively, show plan and sectional views of the Headworks Odor Control Slab structure, but neither show #57 Stone wrapped in 8 oz. non-woven geotextile fabric. Section views for other concrete structures called out either 12" or 24" of #57 Stone with 8 oz. non-woven geotextile fabric. Please confirm if #57 stone wrapped in 8 oz. non-woven geotextile fabric is required.

Attachments: WAS Tank & HW Odor Control Concrete Foundation Subgrade.htm
RFI 295 - WAS Tank & HW Odor Control Concrete Foundation Subgrade.pdf

Discipline: GRADING

Area: MULTI-AREA

Location: GEN

Proposed Solution:

Specification Reference: 02230 - Granular Materials

Drawing Reference: M-51
S-8
M-8

Related RFI No(s): RFI256

Schedule Impact:

Cost Impact:

Priority: M - Medium

Originator's Reference No :

Alt. Reference Number:

Response Required By:

RFI by: Kian Lawlor, Kiewit

On: 30 April 2020

Created By: Kian Lawlor, Kiewit

On: 30 April 2020, 11:33:21 AM -05:00

Last Edited By:

On:

01 - Engineer / Owner Comments

WAS Storage Tank concrete slab is detailed on Drawing S-42 and shown to have 12" TDOT #57 stone and filter fabric. Install stone and filter fabric as detailed.

HW and EQ Odor Control slab Section 1 references to Drawing S-77, where the section calls for 12" TDOT #57 stone and filter fabric. Install stone and filter fabric as detailed.

Engineer / Owner Comments Justin Boggs, CDM Smith
by:

On: 11 May 2020

Created By: Alex Landry, CDM Smith

On: 11 May 2020, 01:21:48 AM -05:00

Last Edited By: Alex Landry, CDM Smith

On: 11 May 2020, 01:21:48 AM -05:00

02 - Response Received / Closeout

Response Received / Closeout
by:

On:

Created By:

On:

Last Edited By:

On:

Links

Document Links:

Document No.	Title	Rev.	Sts	Disc.	From	From Company
M-08_103925	HEADWORKS ODOR CONTROL PLAN AND SECTIONS	00	IFC	WWEQP	Michael Sheston	Kiewit
M-08_103925	HEADWORKS ODOR CONTROL PLAN AND SECTIONS	00	IFC	WWEQP	Kian Lawlor	Kiewit
M-51_103925	WAS STORAGE TANK PLANS, SECTIONS AND DETAIL	00	IFC	WWEQP	Kian Lawlor	Kiewit
M-81_103925	DIGESTER BUILDING SECTIONS II	01	IFC	WWEQP	Kian Lawlor	Kiewit

RFI295	WAS Tank & HW Odor Control Concrete Foundation Subgrade	A	IFI	GRADING	Kian Lawlor	Kiewit
S-08_103925	ODOR CONTROL EQUIPMENT PADSPLANS AND DETAILS	00	IFC	CONC	Michael Sheston	Kiewit
S-08_103925	ODOR CONTROL EQUIPMENT PADSPLANS AND DETAILS	00	IFC	CONC	Kian Lawlor	Kiewit

Request for Information

Project Name: Franklin WRF Modifications & Expansion Project		
Owner's Project No.: 2017-0264	CDM Smith Project No.: 14915-96594-WRF	
Contractor: Kiewit Infrastructure South Co.	RFI No.: 295	
	Date: Thursday, April 20th, 2020	
Subject: Concrete Pad Subgrade Preparation		
Spec Section: 02230	Drawing: M-51, S-8, and M-8	Detail: N/A

QUESTION:

- 1) Drawing M-51 shows the WAS Storage Tanks section view but does not show #57 Stone with a layer of 8 oz. non-woven geotextile fabric underneath the concrete pad. Section views for other concrete structures called out either 12" or 24" of #57 Stone with 8 oz. non-woven geotextile fabric. Please confirm if #57 stone with 8 oz. non-woven geotextile fabric is required.
- 2) Drawings S-8 and M-8 respectively, show plan and sectional views of the Headworks Odor Control Slab structure, but neither show #57 Stone wrapped in 8 oz. non-woven geotextile fabric. Section views for other concrete structures called out either 12" or 24" of #57 Stone with 8 oz. non-woven geotextile fabric. Please confirm if #57 stone wrapped in 8 oz. non-woven geotextile fabric is required.

Please Respond by This Date: Friday, May 15th, 2020

Submitted by Contractor: Kian Lawlor, Kiewit

Date: 4/30/20

Received by (CDM Smith):

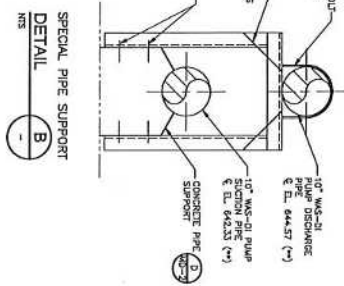
Date:

RESPONSE:

By:

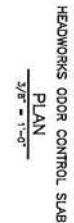
Date:

Distribution: Contractor, Owner, File, Field, RFI Notebook



PROJECT NO. 14015-S
FILE NAME: M051W
SHEET NO.
M-51

PRODUCT NO: 14915-8628 FILE NAME: 5086CCP	SHEET NO.
	S-8



NOTE:
HOLLOWCORE DOOR CONTROL SLAB IS PRELIMINARY AND BASED ON THE DIMENSIONS PROVIDED BY BORMA TECHNOLOGIES, INC. FOUNDATION SHALL NOT BE FABRICATED OR CONSTRUCTED UNTIL THE DOOR CONTROL SYSTEM SUBMITTAL HAS BEEN REVIEWED AND ADJUSTMENTS TO THE FOUNDATION HAVE BEEN COMPLETED. IF REQUIRED, BY THE ENGINEER, ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

PROJECT NO. 14915-960
FILE NAME: SP4258B
SHEET NO.:
S-42

Roger's Group - Aggregate Supply

Franklin WRF Modifications & Expansion Project
City of Franklin, TN

Job Number. 103925
Material Contract No. 103925-MC-001

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ --

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

ATTACHMENT A
SCOPE OF WORK

Job Number: 103925
Trucking Agreement No. 103925-TA-001

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Trucker: T&W Construction LLC
Trucking Agreement No.: 103925-TA-001
Contract ID Number: TXXXXXX-XXX
Trucking Agreement Date: 10/18/18

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Tri-Axle Dump Trucks	3,485	HR	\$ 90.00	\$ 313,650.00
				\$ -	\$ -
	<i>Approximate Agreement Total (including Taxes)</i>				\$ 313,650.00

1.0 General Description of the "Work": Hourly Truck Hauling

- .1 Trucking of on-site material to stockpile, waste site as well as on-site hauls as directed by Contractor. Off-site hauls will be as directed by Contractor and to Contractor approved locations for legal disposal of waste.

2.0 Inclusions:

- .1 All applicable taxes shall be included in Trucker's pricing.
- .2 Trucker is responsible for all fines and traffic related tickets.
- .3 Trucker shall attend Contractor daily coordination/schedule meetings as determined by the Contractor.
- .4 Necessary permits required for hauling are the responsibility of the Trucker.
- .5 Trucker will appoint a representative whom will supervise performance of Work on site and coordinate Work as directed by the Contractor.
- .6 Trucker's equipment, including trucking, must be checked for leaks as to avoid any spills on site. Environmental concerns are high and Trucker shall comply with all state and federal environmental regulations including but not limited to having spill kits for dealing with spills as a result of Trucker's operations.
- .7 Truck drivers to have reflective vests, shirts with sleeves, hard hat, safety glasses, gloves, leather work boots and pants while on site.
- .8 Trucks will be in safe working condition, with backup alarms and functioning lights.
- .9 All required permits and licenses required for completing the scope of Work.
- .10 Night and weekend work is included at no additional cost.
- .11 Trucker to provide hauling tickets daily for Contractor to verify and sign. Additionally, Trucker will utilize Five Cubits software for tracking, provided by Contractor.
- .12 Trucker to clean truck of loose materials prior exiting Project site.
- .13 Trucker to provide copies of any lease agreement for Contractor to review and approve prior to using any outside leased trucks on the Project.

3.0 Exclusions:

- .1 Traffic Control.

4.0 Clarifications:

INVOICE

CORPORATE OFFICE
500 N. McLean Creek Rd.
P.O. BOX 457
CONOVER, NC 28613-0457
PHONE (828) 464-4673
FAX (828) 464-0459



RELEASE REMIT TO
HANES GEO COMPONENTS
L&P FINANCIAL SERVICES CO.
P.O. BOX 60984
CHARLOTTE, NC 28260

SOLD TO

KIEWIT INFRASTRUCTURE SOUTH CO
ACCOUNTS PAYABLE
PO BOX 452500
OMAHA, NE 68145-2500

SHIP TO

KIEWIT INFRASTRUCTURE SOUTH CO
135 CLAUDE YATES DR.
CODY PRANGE 507-461-2432
FRANKLIN, TN 37027

INVOICE NUMBER		INVOICE DATE		TERMS		CARRIER		ROUTING				PPDCOL	
64-592112		1/30/2019		NET 30		OUR TRUCK TENNESSEE						P	
CUSTOMER NO.		CUSTOMER ORDER NO.		SLS. MGR		SLSMAN.		ORDER DATE		BILL OF LADING		RELEASE #	
44242				18		570		1/29/2019		GOODLETTSVILLE, TN DAY8		S/L 27704 056 28680 TPP	
PRODUCT NO	WIDTH	DIM-2	DESCRIPTION		PUTUP	PK	QC	CS	QUANTITY	UOM	PRICE	AMOUNT	AVG
32160			TERRAGRID RX1200 13'X164' 237 SY			EA			5	RL	260.7000	1,303.50 *	
38566			TERRATEX HD NTPEP 12.5'X350' 500 SY			EA			5	RL	290.0000	1,450.00 *	
95009	1.000		DELIVERY CHARGE		1	EA	EC		1	EA	65.0000	65.00 *	
99001			9.7500% TN WILLIAMSON COUNTY * DENOTES TAXABLE LINE ITEMS						1		274.8000	274.80	
CERTIFICATION: THE SELLER DOES NOT CERTIFY, EITHER IMPLICITLY OR EXPLICITLY, THESE PRODUCTS TO MEET THE REQUIREMENTS OF ANY REGULATORY AGENCY OR SPECIFICATION EXCEPT AS MAY BE CERTIFIED ABOVE OR UNDER SEPARATE WRITTEN CERTIFICATION. ALL TRANSACTIONS ARE SUBJECT TO THE CONDITIONS ON THE REVERSE SIDE OF THIS INVOICE.													
*****ALL RETURNS SUBJECT TO A 25% RESTOCKING FEE*****													

43715

293 THE LAWS OF THE STATE OF NORTH CAROLINA SHALL GOVERN THIS TRANSACTION. A LATE PAYMENT CHARGE AT A PER ANNUM RATE EQUAL TO THE PRIME RATE OF THE CHASE MANHATTAN BANK, N.A. IN EFFECT ON THE FIRST DAY OF EACH MONTH PLUS 2% OR 18% PER ANNUM WHICHEVER RATE IS HIGHER, WILL BE IMPOSED ON THE FIRST OF EACH MONTH ON ALL PAST DUE INVOICES PAID DURING THE MONTH.

TOTAL INVOICE
AMOUNT

3,093.30

ORIGINAL

Rental Rate Blue Book®

June 8, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:

300 HP & Over

Weight:

N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

Hourly

Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for **MICHAEL SHESTON**
(Michael.Sheston@kiewit.com)

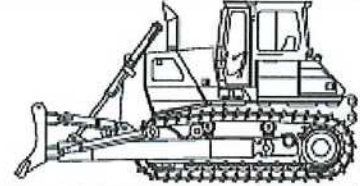
Rental Rate Blue Book®

June 8, 2020

Caterpillar D5

Standard Crawler Dozers

Size Class:
160 - 189 HP
Weight:
N/A


Configuration for D5

Dozer Type	LGP VPAT	Net Horsepower	170 hp
Operator Protection	IROPS	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$13,225.00	USD \$3,705.00	USD \$925.00	USD \$140.00	USD \$58.08	USD \$133.22
Adjustments						
Region (Franklin, Tennessee: 106.7%)	USD \$886.08	USD \$248.24	USD \$61.97	USD \$9.38		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$14,111.08	USD \$3,953.24	USD \$986.97	USD \$149.38	USD \$58.08	USD \$138.26

Non-Active Use Rates

Hourly

Standby Rate	USD \$37.68
Idling Rate	USD \$100.47

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	30%	USD \$3,967.50/mo
Overhaul (ownership)	52%	USD \$6,877.00/mo
CFC (ownership)	9%	USD \$1,190.25/mo
Indirect (ownership)	8%	USD \$1,058.00/mo
Fuel (operating) @ USD 3.07	35%	USD \$20.29/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 8, 2020

Caterpillar CS-56 (disc. 2012)

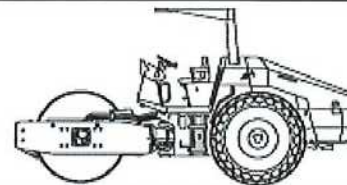
Single Drum Vibratory Compactors

Size Class:

8.0 - 11.9 MTons

Weight:

25164 lbs


Configuration for CS-56 (disc. 2012)

Drum Type	Smooth	Drum Width	84.0 in
Net Horsepower	143.0 hp	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,895.00	USD \$1,370.00	USD \$345.00	USD \$52.00	USD \$36.84	USD \$64.65
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$332.86	USD \$93.16	USD \$23.46	USD \$3.54		
Model Year (2012: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$5,227.86	USD \$1,463.16	USD \$368.46	USD \$55.54	USD \$36.84	USD \$66.54

Non-Active Use Rates

	Hourly
Standby Rate	USD \$21.68
Idling Rate	USD \$41.08

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	49%	USD \$2,398.55/mo
Overhaul (ownership)	26%	USD \$1,272.70/mo
CFC (ownership)	13%	USD \$636.35/mo
Indirect (ownership)	11%	USD \$538.45/mo
Fuel (operating) @ USD 3.07	31%	USD \$11.38/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 8, 2020

Caterpillar 336F

Crawler Mounted Hydraulic Excavators



Size Class:

33.1 - 40.0 MTons

Weight:

N/A

Configuration for 336F

Bucket Capacity - Heaped
Operating Weight

2.8 cu yd
8400.0 lbs

Net Horsepower
Power Mode

303.0 hp
Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$15,860.00	USD \$4,440.00	USD \$1,110.00	USD \$165.00	USD \$83.46	USD \$173.57
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,237.08	USD \$346.32	USD \$86.58	USD \$12.87		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,097.08	USD \$4,786.32	USD \$1,196.58	USD \$177.87	USD \$83.46	USD \$180.60

Non-Active Use Rates

Standby Rate

Hourly

USD \$51.49

Idling Rate

USD \$136.08

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$5,868.20/mo
Overhaul (ownership)	46%	USD \$7,295.60/mo
CFC (ownership)	10%	USD \$1,586.00/mo
Indirect (ownership)	6%	USD \$951.60/mo
Fuel (operating) @ USD 3.07	47%	USD \$38.94/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON (Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: May 6, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA NUMBER: 49 **CDM SMITH PROJ. NO.:** 14915-231666

SUBJECT: Telescoping Valve Supports **CITY PROJECT NO.:** 2017-0264

REFERENCE: (See Below)

DESCRIPTION: Revise supports for telescoping valves in accordance with Engineer's response to RFI No. 275 attached hereto.

CDM SMITH:

By: 

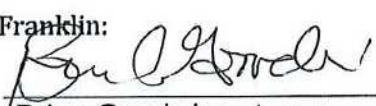
Date: 11/4/20

CONTRACTOR:

By: 

Date: 11/4/20

City of Franklin:

By: 

Date: 11/06/2020

Brian Goodwin

City of Franklin:

BY: 

Date: 11/6/20

Michelle Hatcher

Request for Information

Project Name: Franklin WRF Modifications & Expansion Project		
Owner's Project No.: 2017-0264	CDM Smith Project No.: 14915-96594-WRF	
Contractor: Kiewit Water Facilities South	RFI No.: 275	
	Date: 3/13/2020	
Subject: Grit Classifiers & Telescoping Valves		
Spec Section: 15072	Drawing: M-2, M-5, MD-4	Detail: J

QUESTION:

This RFI is issued to clarify the installation of the telescoping valve and its piping to the grit classifiers.

See attached pages for additional information.

If the above question concerns an interpretation of the Contract Documents, the Contractor's interpretation is:

Please Respond by This Date:

Submitted by Contractor: Kiewit Infrastructure South Co. **Date:** 3/13/2020

Received by (CDM Smith): **Date:**

RESPONSE:

1. Keep blockouts in the cantilevered slabs as constructed, support assembly per Sh. SK-1 attached, lateral support (shown as "Pipe Clamp/Bracket" on markup to C&M drawing att.) to be designed by Contractor's pipe support engineer.
2. Proposed SS assembly is acceptable, provide dielectric gasket between SS and DI flanges.
3. Use of wedged filler flanges is acceptable.

By: Dan Harris

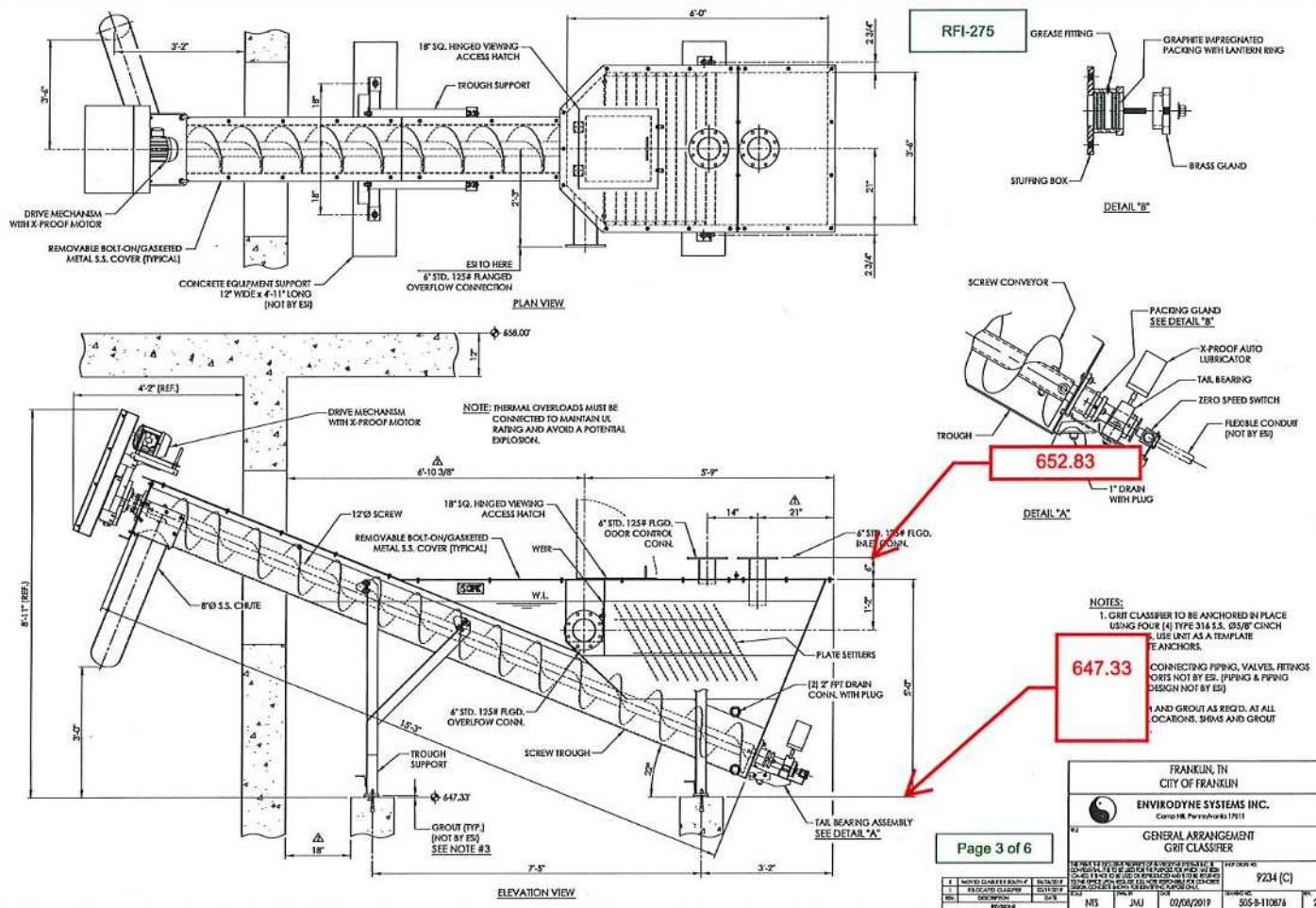
Date: 5/1/20

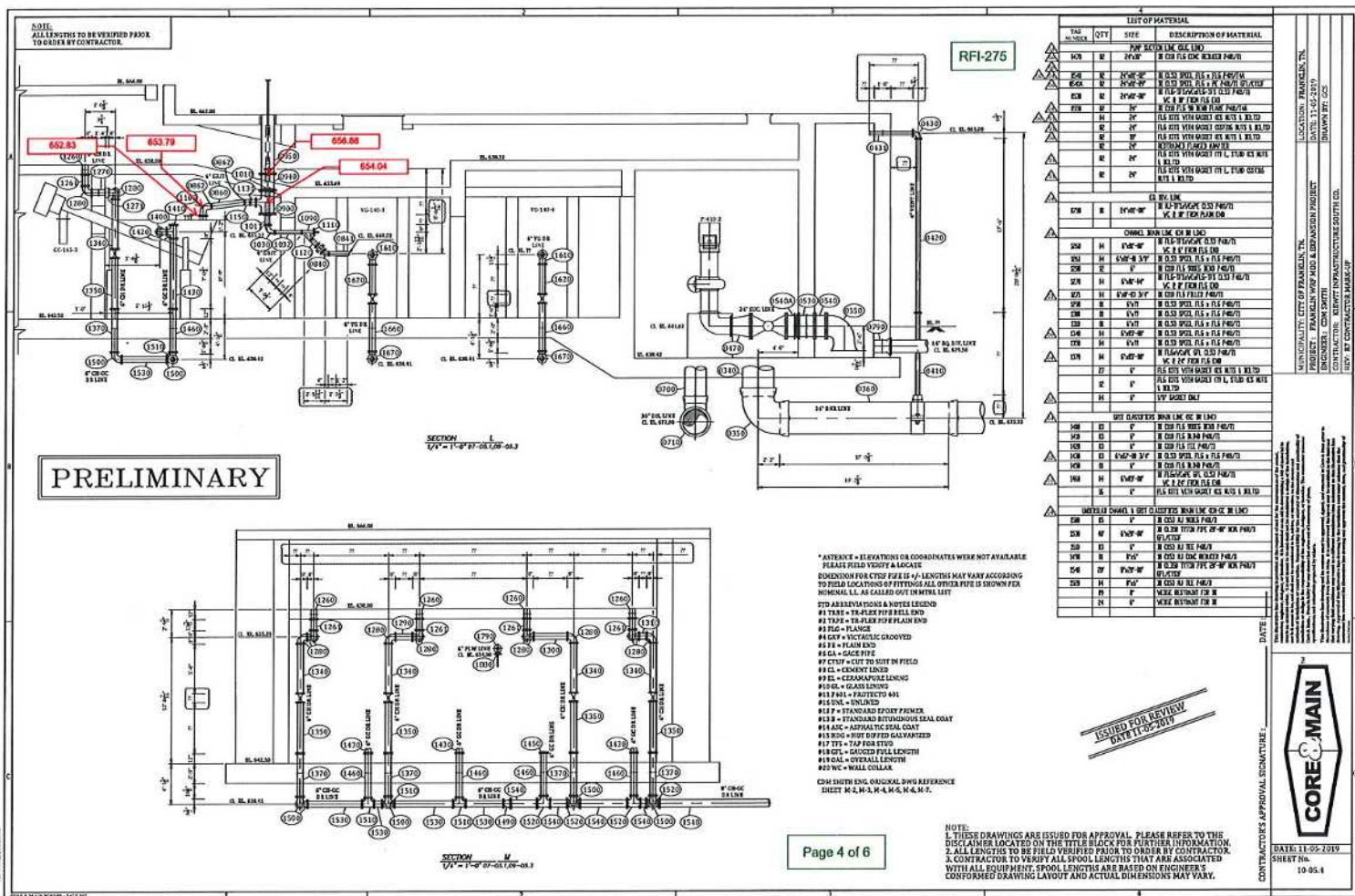
Distribution: Contractor, Owner, File, Field, RFI Notebook

RFI-082 and RFI-095 address the required location of the grit classifiers as they relate to the discharge waste bins and the wall openings. With the grit classifiers positioned as needed for those RFIs, the slope of the grit inlet pipe, from the telescoping valve, is impacted. The design drawings show a required minimum slope of 5% between the outlet of the telescoping valve and the inlet of the grit classifier.

As shown on the attached sketch, the elevation of the classifier inlet flange is elev. 652.83. Working back toward the telescoping valve, using 6" ductile iron pipe fitting dimensions, the centerline of the drain pipe becomes 653.79 at the 90 deg LR ell. Continuing to the telescoping valve, the highest achievable centerline elevation at the 14x14x6 Tee is 654.04. This yields a 5% slope in a horizontal pipe run of about 5 feet for classifier 3 (which has the longest pipe run).

1. If the connection point is raised to 654.04, the flange on the end of the 14x14x6 Tee will be embedded in the concrete deck. Will this be acceptable?
2. The inner 4" pipe at the telescoping valve has been re-designed with stainless steel pipe to eliminate the multiple flanged connections at the bottom of the 14" ductile iron tee (see attached sketch). Is the proposed design acceptable?
3. DI Wedges (i.e. beveled flange fillers) will be needed to achieve the slope coming out of the tee. Is this acceptable?





PRELIMINARY

RFI-275

SECTION L
1/4" = 1'-0" 07-08, 09-08.3

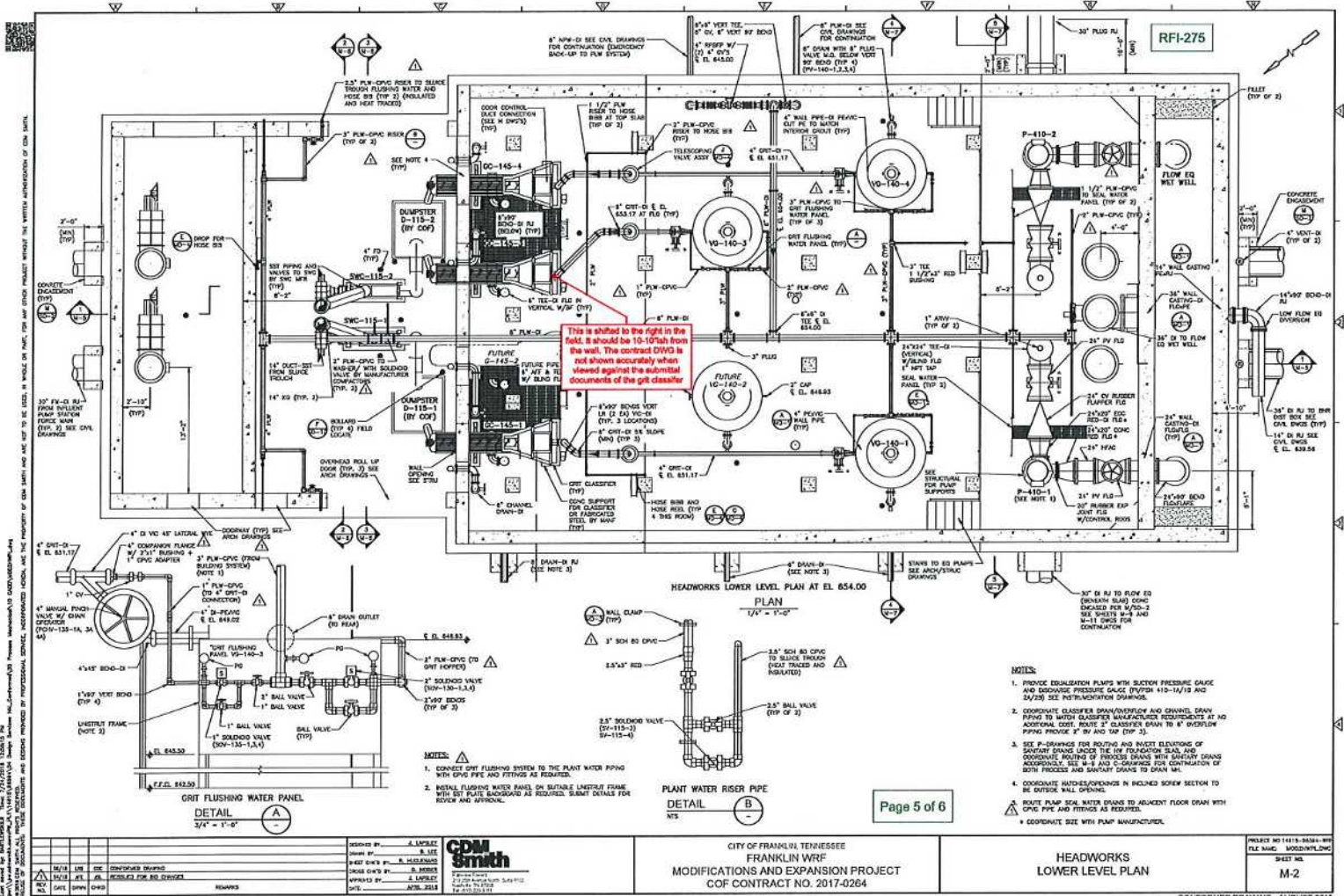
SECTION M
1/4" = 1'-0" 07-08, 09-08.3

Page 4 of 6

NOTE:
1. THESE DRAWINGS ARE ISSUED FOR APPROVAL. PLEASE REFER TO THE
DISCLAIMER LOCATED ON THE TITLE BLOCK FOR FURTHER INFORMATION.
2. ALL LENGTHS TO BE FIELD VERIFIED PRIOR TO ORDER BY CONTRACTOR.
3. CONTRACTOR TO VERIFY ALL SPOOL LENGTHS THAT ARE ASSOCIATED
WITH ALL EQUIPMENT. SPOOL LENGTHS ARE BASED ON ENGINEER'S
CONSTRUCTED DRAWING LAYOUT AND ACTUAL DIMENSIONS MAY VARY.

LIST OF MATERIAL			
NO.	QTY.	SIZE	DESCRIPTION OF MATERIAL
1	1	1/2"	1/2" SCH 40S BLACK PIPE
2	1	1/2"	1/2" SCH 40S BLACK PIPE
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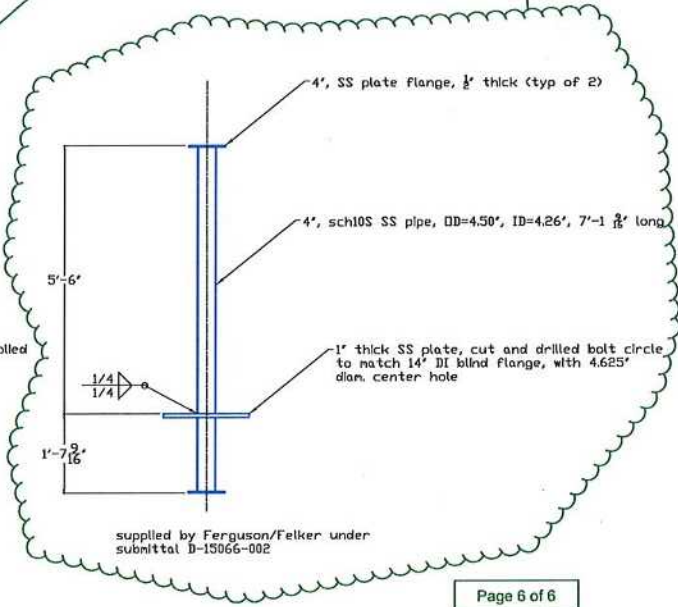
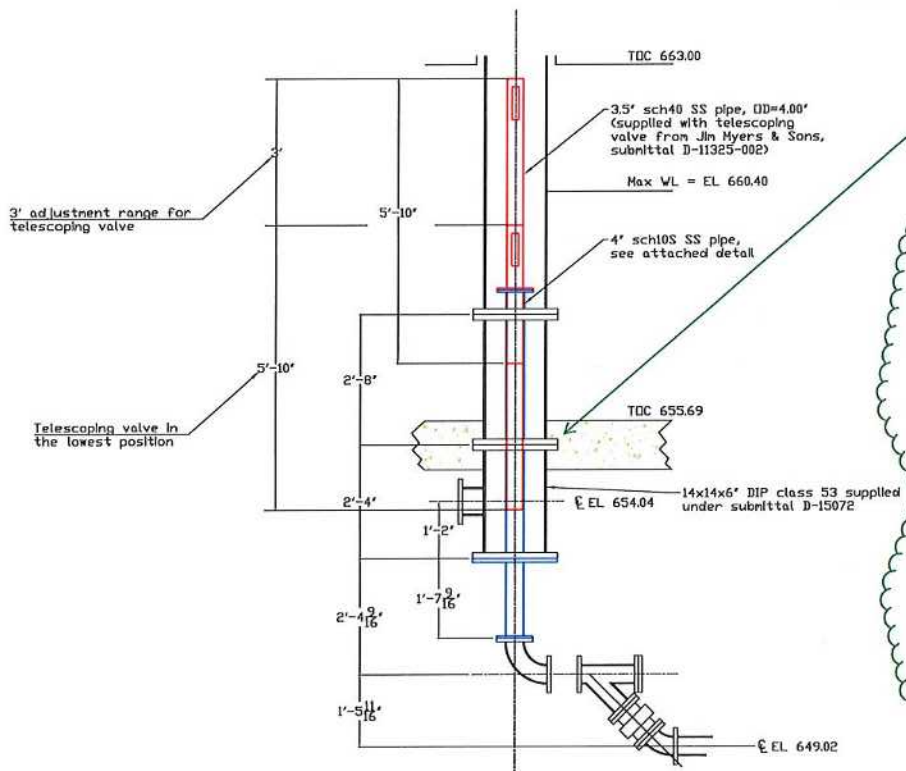
DATE: 11-05-2019
SHEET NO. 10 05.1



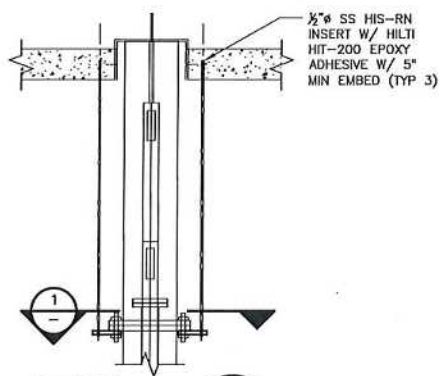
RFI-275

Is this acceptable for the center feed pipe?

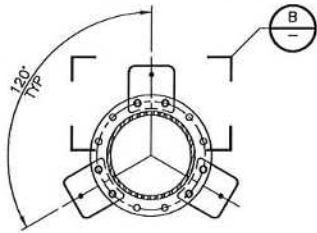
This flange is embedded in concrete



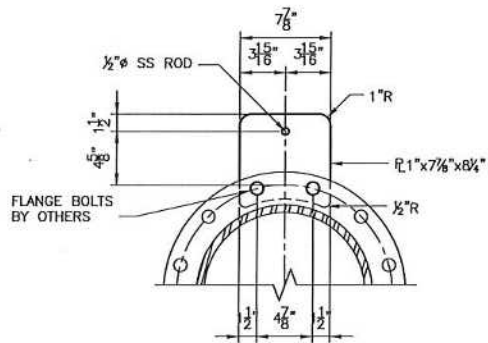
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DETAIL A
1/2" = 1'-0"



SECTION 1
3/4" = 1'-0"

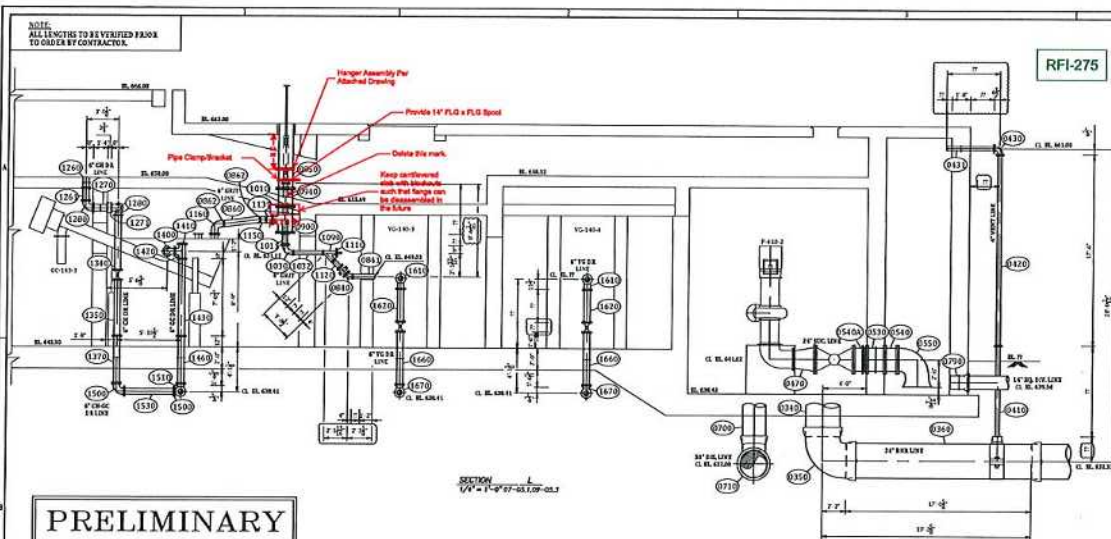


DETAIL B
1 1/2" = 1'-0"

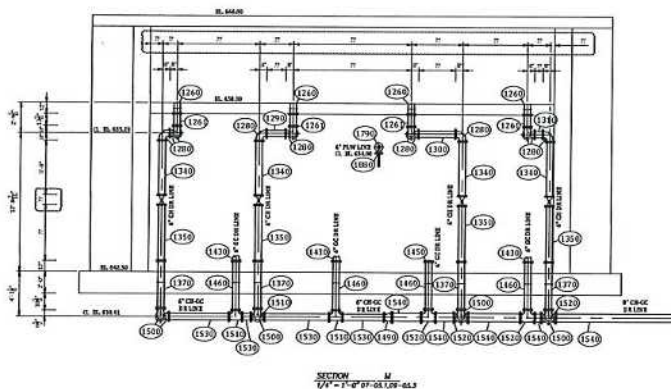
**CDM
Smith**

DATE	APRIL 2020			
		SHEET NO.	LOCATION	ADDENDUM NO.
		SD-3	E/3	CCA 46
				FIGURE NO.
				SK1

NOTE:
ALL LENGTHS TO BE VERIFIED PRIOR
TO ORDER BY CONTRACTOR.



PRELIMINARY

[illegible]

Page 4 of 6

LIST OF MATERIAL		
NO	QTY	DESCRIPTION OF MATERIAL
STEEL		
1	1	1000 LBS. STEEL LUG
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85	1	1000 LBS. STEEL LUG
86	1	1000 LBS. STEEL LUG
87	1	1000 LBS. STEEL LUG
88	1	1000 LBS. STEEL LUG
89	1	1000 LBS. STEEL LUG
90	1	1000 LBS. STEEL LUG
91	1	1000 LBS. STEEL LUG
92	1	1000 LBS. STEEL LUG
93	1	1000 LBS. STEEL LUG
94	1	1000 LBS. STEEL LUG
95	1	1000 LBS. STEEL LUG
96	1	1000 LBS. STEEL LUG
97	1	1000 LBS. STEEL LUG
98	1	1000 LBS. STEEL LUG
99	1	1000 LBS. STEEL LUG
100	1	1000 LBS. STEEL LUG

NOTE:
1. THESE DRAWINGS ARE ISSUED FOR APPROVAL. PLEASE REFER TO THE
DISCLAIMER LOCATED ON THE TITLE BLOCK FOR FURTHER INFORMATION.
2. ALL LENGTHS TO BE FIELD VERIFIED PRIOR TO ORDER BY CONTRACTOR.
3. CONTRACTOR TO VERIFY ALL SPOOL LENGTHS THAT ARE ASSOCIATED
WITH ALL EQUIPMENT. SPOOL LENGTHS ARE BASED ON ENGINEER'S
CONFORMED DRAWING LAYOUT AND ACTUAL DIMENSIONS MAY VARY.

CONTRACTOR'S APPROVAL SIGNATURE: _____



DATE: 11-05-2019
SHEET No. 10-05.4



Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 9, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00058.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 049 – Telescoping Valve Supports

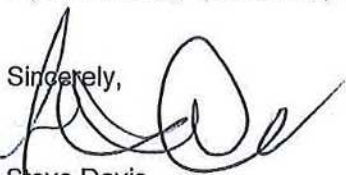
Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for the **CCA 049 – Telescoping Valve Supports** in the amount of **Thirteen Thousand Nine Hundred Thirty-Eight Dollars (\$13,938.00)**.

This proposal includes the material and installation cost of four new support systems with flanged connections, as the proposed, embedded flange, support system conflicted with the piping elevations. The revised support system was in accordance with Engineer's response to RFI No. 275.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: CCA 049 - Telescoping Valve Supports

PREPARED BY: Kian Lawlor

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Drill/Epoxy Anchor Rods	12.00	Ea	3.25	39	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Foreman	1.00	Ea	13.00	13	\$ 62.31	\$ 810.03	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 810.03
Laborer	2.00	Ea	13.00	26	\$ 36.42	\$ 946.92	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 946.92
Drop Pipe / Bolt Flanges	4.00	Ea	15.00	50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Foreman	1.00	Ea	12.50	13	\$ 62.31	\$ 778.88	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 778.88
Pipefitter	1.00	Ea	12.50	13	\$ 68.17	\$ 852.13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 852.13
Laborer	2.00	Ea	12.50	25	\$ 36.42	\$ 910.50	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 910.50
Pipe Supports	1.00	LS	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Material Cost (Angle and Anchor Bolts)	2.00	Ea	10.00	20	\$ 69.03	\$ 1,380.60	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,380.60
Kiewit Labor (Iron Worker/Welder)	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Cut/Move Rebar	4.00	Ea	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Foreman	1.00	Ea	4.00	4	\$ 62.31	\$ 249.24	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 249.24
Laborer	2.00	Ea	8.00	16	\$ 36.42	\$ 582.72	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 582.72
SST Telescoping Valve Supports	1.00	LS	-	-	\$ -	\$ -	\$ -	\$ -	\$ (525.00)	\$ (525.00)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (525.00)
Telescoping Valve Support Dog Ear Plates	12.00	Ea	-	-	\$ -	\$ -	\$ -	\$ -	\$ 175.00	\$ 2,100.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,100.00
New Flange Bolt Kit	4.00	Ea	-	-	\$ -	\$ -	\$ -	\$ -	\$ 100.00	\$ 400.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 400.00
Threaded Anchor Rods	1.00	LS	-	-	\$ -	\$ -	\$ -	\$ -	\$ 258.71	\$ 258.71	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 258.71
Dielectric Gasket	4.00	Ea	-	-	\$ -	\$ -	\$ -	\$ -	\$ 44.89	\$ 179.56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179.56
Foreman F-250 Pick Up	25.00	HR	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.28	\$ 757.00	\$ -	\$ -	\$ -	\$ -	\$ 757.00
Scissor Lift	37.00	HR	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23.26	\$ 860.62	\$ -	\$ -	\$ -	\$ -	\$ 860.62
Welding Machine - 2 Days	2.00	Day	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40.00	\$ 80.00	\$ -	\$ -	\$ -	\$ -	\$ 80.00
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
SIS - small tools, consumables, safety equip. (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)																	
	129	MHR	-	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)	-	-	-	-	\$ -	\$ -	\$ -	\$ -	\$ 332.79	\$ 332.79	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 332.79
SUBTOTALS																	
MARKUP %	-	-	-	-	\$ 6,511.01	\$ 6,511.01	\$ -	\$ -	\$ 3,746.06	\$ 3,746.06	\$ 1,863.14	\$ 1,863.14	\$ -	\$ -	\$ -	\$ -	\$ 12,833.10
SUBTOTALS WITH MARKUPS APPLIED																	
BOND	-	-	-	-	\$ 7,487.66	\$ 7,487.66	\$ -	\$ -	\$ 4,307.97	\$ 4,307.97	\$ 2,142.61	\$ 2,142.61	\$ -	\$ -	\$ -	\$ -	\$ 13,938.24
TOTAL	-	-	-	-	\$ 13,938.00	\$ 13,938.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,938.00

☐	Item Description	Need by Date	Lead Time	Quantity	UOM	Unit Price	Shipping	Sub Total
☐	Masonry Drill Bit for Rebar-Cutting SDS-Plus-Shank...	10/13/2020	-	2.00	Each	67.30 USD	0.00	134.60 USD
☐	SDS-Plus-Shank Masonry Drill Bit for Rotary Hamm...	10/13/2020	-	4.00	Each	30.12 USD	0.00	120.48 USD
☐	Hollow-Core Cutter for Magnetic-Base Drills High-S...	10/13/2020	-	4.00	Each	50.98 USD	0.00	203.92 USD
☐	Steel Stud Anchors for Concrete Zinc Yellow-Chro...	10/13/2020	-	2.00	Pack	63.94 USD	0.00	127.88 USD
☐	Low-Carbon Steel 90 Degree Angle 1/4" Wall ...	10/13/2020	-	8.00	Each	40.86 USD	0.00	326.88 USD



FEL-NASHVILLE WATERWORKS #1233
660-A MASSMAN DRIVE
NASHVILLE, TN 37210-0000

Phone: 615-986-5918
Fax: 615-823-1849

Deliver To:
From: Jason Daniel
Comments:

08:56:44 MAY 27 2020

Page 1 of 1

FERGUSON WATERWORKS #1233

Price Quotation
Phone: 615-986-5918
Fax: 615-823-1849

Bid No: B002311
Bid Date: 05/27/20
Quoted By: JDX

Cust Phone: 402-342-2052
Terms: NET 10TH PROX

Customer: KIEWIT INFRASTRUCTURE SOUT
FRANKLIN WRF MODS & EXPAN
4800 NORTH POINT PARKWAY
ALPHARETTA, GA 30022

Ship To: FRANKLIN WRF MODS & EXPANS
135 CLAUDE YARED DR
C/O KIEWIT INFRASTRUCTURE
FRANKLIN, TN 37064

Cust PO#:

Job Name: FRANKLIN WRF MODS & EXPAN

Item	Description	Quantity	Net Price	UM	Total
FLF	DEDUCT TELESCOPING PIPING LOT FABRICATION	1	-525.000	EA	-525.00
FLF	PROPOSED CHANGE LOT FABRICATION REVISED PIPING TO A403WP 18" X 18" AND 20" X 18" TEES. TO REPLACE NOZZLE WELDS LEAD TIME IS 10 WEEKS ARO FOR FITTINGS, 6-8 WEEKS FOR FABRICATION	1	19390.000	EA	19390.00

Net Total: \$18865.00
Tax: \$0.00
Freight: \$0.00
Total: \$18865.00

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. QUOTES FOR PRODUCTS SHIPPED FOR RESALE ARE NOT FIRM UNLESS NOTED OTHERWISE.

CONTACT YOUR SALES REPRESENTATIVE IMMEDIATELY FOR ASSISTANCE WITH DBE/MBE/WBE/SMALL BUSINESS REQUIREMENTS.

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 <https://www.ferguson.com/content/website-info/terms-of-sale>
Govt Buyers: All items are open market unless noted otherwise.

LEAD LAW WARNING: It is illegal to install products that are not "lead free" in accordance with US Federal or other applicable law in potable water systems anticipated for human consumption. Products with "NP" in the description are NOT lead free and can only be installed in non-potable applications. Buyer is solely responsible for product selection.

HOW ARE WE DOING? WE WANT YOUR FEEDBACK!

Scan the QR code or use the link below to
complete a survey about your bids:



<https://survey.modellia.com/2bidsorder&fc=1233&on=638>

Kian.Lawlor

From: suwaneemachine@yahoo.com
Sent: Monday, June 22, 2020 2:13 PM
To: Kian.Lawlor
Subject: [EXTERNAL] Re: CCA 049 - Telescoping Valve Supports
Attachments: Dog Ear Plate Image.PNG

\$2100.00 lot price

including freight

Thanks

Bonnie

On Monday, June 22, 2020, 01:29:52 PM EDT, Kian. Lawlor <kian.lawlor@kiewit.com> wrote:

Bonnie,

Here is the forwarded message I got from Peter, as well as an image attached of the 12x plates I need an invoice for. Our jobsite address is 135 Claude Yates Drive, Franklin, TN 37604, if that helps with tracking and confirming the prices.

Thank you very much,

Kian Lawlor

From: Peter.Sestak <Peter.Sestak@Kiewit.com>
Sent: Monday, June 22, 2020 10:09 AM
To: Kian.Lawlor <Kian.Lawlor@kiewit.com>
Subject: RE: CCA 049 - Telescoping Valve Supports

Kian,

Here is their phone number (770)-945-6626, perhaps you will have better luck. The man's name that runs the shop is Bonnie. He is whom I talked with when I ordered the material. There were 2 orders. The first was for 3 plates; and the cost including UPS cahrges was about \$525. The second order was for 9 plates and was trucked to the jobsite (freight), so the cost will be about \$1,800. Suwanee should have invoices for each order. If they haven't created the novice, perhaps they can email you the amount.

NEFCO CORPORATION - (CT)
 411 BURNHAM STREET
 EAST HARTFORD CT 06108
 860-289-0285 Fax 860-282-1487

Acknowledgement

ORDER DATE	ORDER NUMBER
05/18/20	S3452781
ORDER TO: NEFCO CORPORATION - (CT) 411 BURNHAM STREET EAST HARTFORD CT 06108 860-289-0285 Fax 860-282-1487	
PAGE NO 1	

SOLD TO:
 KIEWIT CONSTRUCTORS, INC.
 470 CHESTNUT RIDGE RD.
 2ND. FLOOR
 WOODCLIFF LAKE, NJ 07677

SHIP TO:
 KIEWIT CONST - FRANKLIN WRF MO
 FRANKLIN WRF MODS & EXP.
 135 CLAUDE YATES DRIVE
 FRANKLIN, TN 37064

CUSTOMER NUMBER	CUSTOMER ORDER NUMBER	RELEASE NUMBER	SALES PERSON	
127739	buyro			
WRITER	SHIP VIA	TERMS	SHIP DATE	FREIGHT
Dave Setsky	BEST WAY	1% 10TH NET 30 D	05/19/20	No
ORDER QTY	LINE NO	DESCRIPTION	UNIT PRICE	NET AMOUNT
		***** Shipping Instructions ***** * CERTS REQUIRED-TO BE EMAILED TO: * APPROPRIATE BUYER. * MICHEAL CALLISON 972-975-7931 *****		
72FT	397643	50C600THR3/DOM 1/2-13 X 6' THREADED ROD 316 S/S DOMESTIC (72 FT/BD)	267.66/CF	192.71
24EA	114646	50CHFN3/BDOM 1/2-13 HEX FIN NUT BULK 316 S/S DOMESTIC MFG *	275.00/C	66.00
1EA	106581	both items stock Nefco Ct FREIGHT TO FOLLOW OUT	0.00/EA	0.00
			Subtotal	258.71
			S&H CHGS	0.00
			Sales Tax	0.00
			Amount Due	258.71



DUPLICATE

INVOICE

1830 Craig Park Court
St. Louis, MO 63146

Invoice # M423146
Invoice Date 5/29/20
Account # 206322
Sales Rep JARED JONES
Phone # 615-893-0900
Branch #248 Murfreesboro, TN
Total Amount Due \$400.00

Remit To:
CORE & MAIN LP
PO BOX 28330
ST. LOUIS, MO 63146

WESTERN SUMMIT CONSTRUCTORS
4405 C INT BLVD
SUITE C-101
NORCROSS GA 30093

Shipped To:
FRANKLIN WRF
135 CLAUDE YATES DRIVE
ANDY MCMILLEN (615) 477-2969
FRANKLIN, TN

CUSTOMER JOB- FRANKLI FRANKLIN WRF

Thank you for the opportunity to serve you! We appreciate your prompt payment.

Date Ordered	Date Shipped	Customer PO #	Job Name	Job #	Bill of Lading	Shipped Via	Invoice#
5/28/20	5/29/20	FIELD PO	FRANKLIN WRF	FRANKLI		UPS	M423146

Product Code	Description	Quantity		B/O	Price	UM	Extended Price
		Ordered	Shipped				

CORE & MAIN PO#-

9788057

/21016134279

14 CS DOMESTIC BOLT/NUT KIT
W/5-1/2" BOLTS

4

4

100.00000 EA

400.00

Freight	Delivery	Handling	Restock	Misc
---------	----------	----------	---------	------

Terms: NET 30

Subtotal:	400.00
Other:	.00
Tax:	.00
Invoice Total:	\$400.00

;F6? E ;@KA GD 42DF

A	Q MUR	Ba^QdRc4^CR	5 FbPaWJ	CFK	@PcBaRR	F^dVZBaRR
1		CEBGDWP	Calpico 4 x 4 In. 150# Dielectric Flat Face Flange Insulation Kit	4	\$44.89	\$179.56

EG3FAF2> f Y

For help or to place your order, please call us at
H I y

f f f YBa d^] Y^\\

LEAD LAW WARNING: In accordance with the US Federal or other States laws It is illegal to install products that are not "lead free" certified in potable water systems anticipated for human consumption. Refer to your local plumbing inspector or manufacturer for more details.

)HGEDFN

Rental Rate Blue Book®

June 1, 2020

Skyjack SJ6826RT

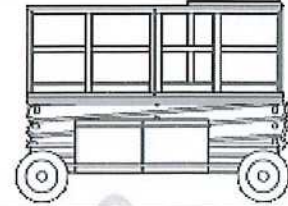
I.C. Self Propelled Scissor Lifts

Size Class:

21 - 30 ft

Weight:

6400 lbs


Configuration for SJ6826RT

Horsepower	31.0	Maximum Platform Capacity	1200.0 lbs
Maximum Platform Height	26.0 ft	Platform Size	56' X 96'
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$2,255.00	USD \$630.00	USD \$160.00	USD \$24.00	USD \$9.55	USD \$22.36
Adjustments						
Region (Franklin, Tennessee: 107%)	USD \$157.85	USD \$44.10	USD \$11.20	USD \$1.68		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$2,412.85	USD \$674.10	USD \$171.20	USD \$25.68	USD \$9.55	USD \$23.26

Non-Active Use Rates

	Hourly
Standby Rate	USD \$8.36
Idling Rate	USD \$16.21

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	43%	USD \$969.65/mo
Overhaul (ownership)	39%	USD \$879.45/mo
CFC (ownership)	10%	USD \$225.50/mo
Indirect (ownership)	8%	USD \$180.40/mo
Fuel (operating) @ USD 3.07	26%	USD \$2.50/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A

Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Kiewit

CP 18

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 14, 2020

To: Attn: Mr. Dan Harris
CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

CP-KIEWIT-00045.02

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: BNR #2 42in RWW Pipe Re-route Change Proposal

Dear Mr. Harris,

Kiewit is re-submitting a change proposal for the BNR #2 42in RWW pipeline re-route as requested in the response to CP-045. This change proposal includes actual elevation for maximum water level, clarification to the referenced discrepancy for the mat foundation and bearing pressure, confirmation to lateral deflection of the SOE, clarification to the embedment depth for the piles, confirmation the soring will remain in place.

This change proposal is being submitted for review and approval as a no cost change to the City of Franklin, TN.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

Cc: File
Michelle Hatcher

DATE: August 13, 2020

TO: Kyle Krajco; Kiewit Infrastructure Co.

FROM: Louis Dini, P.E.; Kiewit Engineering Group Inc. *THP for LD*
Thang Phan, Ph.D.; Kiewit Engineering Group Inc.

SUBJECT: Comment Response for RAS Box Support _ R2
Franklin WRF ReBid
Franklin, Tennessee

Per your request, Kiewit Engineering Group Inc. (Kiewit Engineering) has reviewed the comments provided by John McMahon of CDM Smith dated August 7, 2020 regarding our "RAS Box Support _ R2" memorandum (Memo). Below is our response to the comments:

- Bullet point #1: We changed the overall water elevation in the RAS box from El. 653.0' to El. 654.25' and found that the contact pressure at the bottom of the RAS box is less than the contact pressure originally used in our analysis for the Memo. The reason for this is explained in the next bullet point. Therefore, our design for the support of excavation accurately models the loading condition and is valid.
- Bullet point #2: In our initial analysis, we measured the foundation width by scaling it in the Record Drawing of the RAS Box, sheet 28 of 160 dated October 16, 2002. Our measurement showed a 13-foot wide foundation. We calculated the total weight of concrete and water based on this width and translated it into a contact pressure at the bottom of the foundation for our analysis. However, we later recognized that the horizontal scale of the RAS Box is slightly different from the vertical scale, resulting in a higher measured width than the actual width of the foundation as shown on the drawing which is 12.0 feet. As a result, we originally calculated a larger concrete volume for the box than the actual volume. Even with the increase of water level to El. 654.25', the actual contact pressure at the bottom of the foundation is still slightly less than the value we used in our original design calculations.
- Bullet point #3: The project team confirmed that they will conform to the recommendation of CDC Smith.
- Bullet point #4: The embedment depth for the piles as mentioned in the Geotechnical Risks and Concerns refers to the total embedment of the pile which is measured from the top of the SOE at El. 638.0'. This note serves the purpose of defining the minimum embedment from the top of the wall so that the minimum installation depth is met prior to performing the excavation.
- Bullet point #5: The project team confirmed that they will conform to the recommendation of CDC Smith.

If you have any questions regarding our recommendations or comments, please contact us.



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

August 10, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Change Proposal (CP) No. 18 (rev.)

Dear Mr. Davis;

We have received your letter dated July 28, 2020 regarding a proposed reroute of 42" RWW piping. Please see attached a memo from the geotechnical engineer with comments to the shoring design attached to that letter. This proposal will be approvable pending Kiewit's response to these comments.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Harris", with a stylized flourish at the end.

Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10





To: Bob Huguenard
Dan Harris

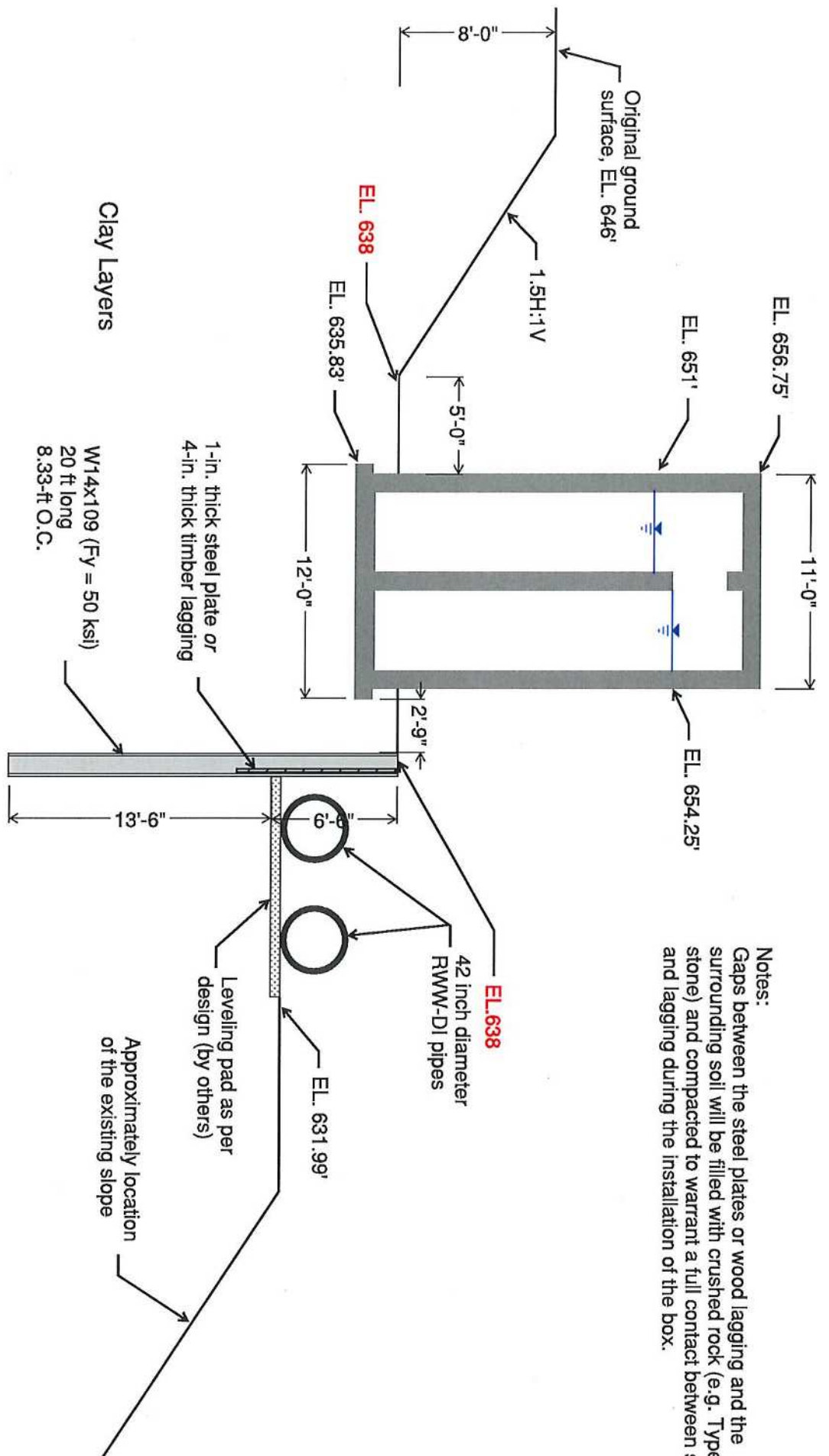
From: John McMahon
Rev'd By: Danielle Neamtu

Date: August 7, 2020

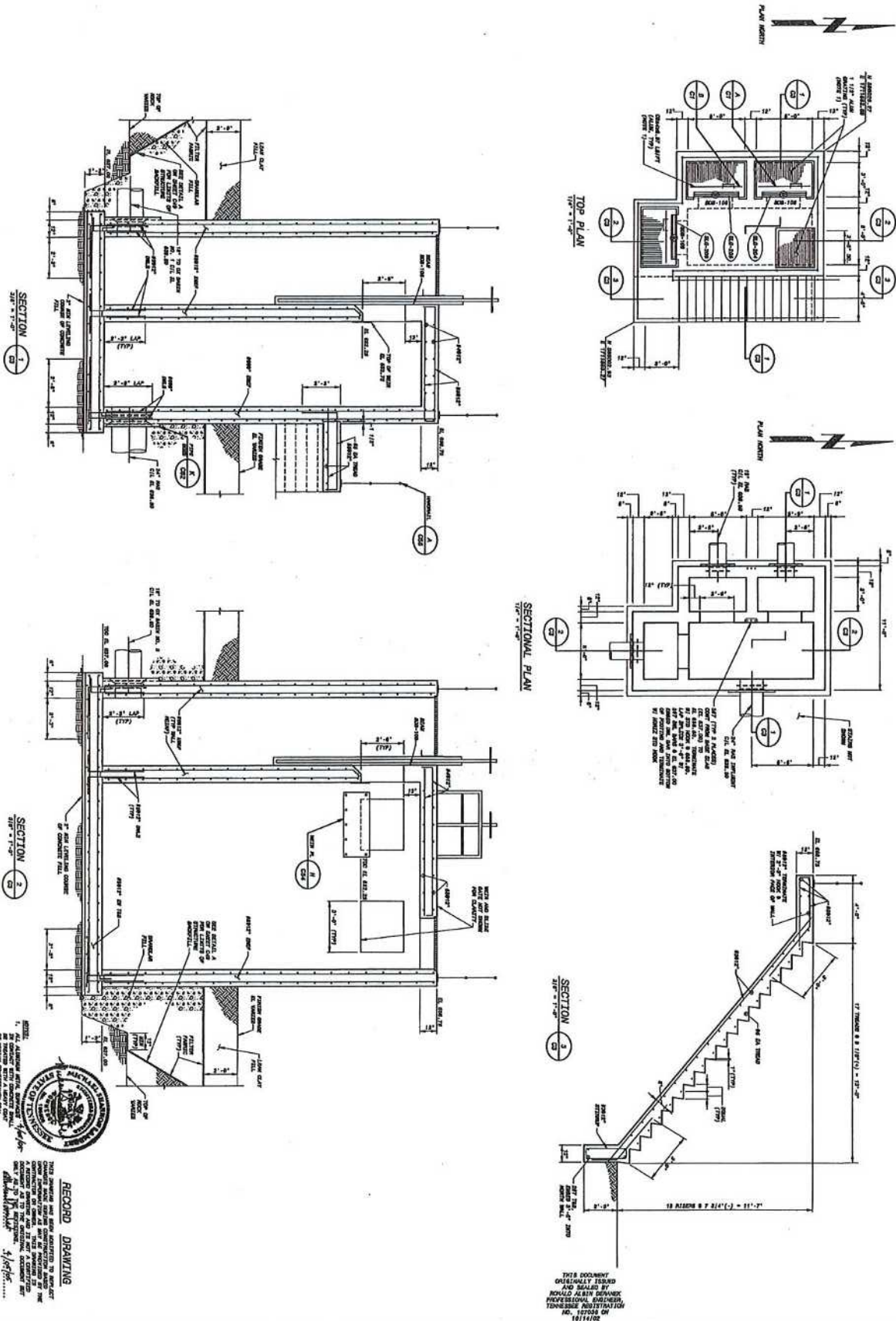
Subject: Comments to Kiewit Infrastructure South Co.
Franklin WRF ReBid – RAS Box Support
Franklin WRF Modifications & Expansion Project
Franklin, Tennessee
July 28, 2020
KIE Task #: 18-370-550.03.01

Comments for the RAS Box Support Revision 2:

- The assumed maximum water elevation in the RAS box has been assumed to El. 653. Actual elevation will be approximately El. 654.25.
- The mat foundation width of the RAS box is referenced as approximately 13 feet on page 4 and as approximately 12 feet on page 5. The bearing pressure appears to have been designed assuming a 13-foot foundation width while the shoring surcharge has been designed assuming a 12-foot foundation width. Please clarify this apparent discrepancy.
- The estimated lateral deflection of the excavation support system is 0.1" to 0.2" in most cases and 0.7" for the case where "SAND" is assumed as the soil type being retained. Please confirm that excavation support system will be monitored for movement during construction such that deflections that exceed the estimates are noted (and reported to Engineer). If lateral deflection exceeds 0.75", mitigation measures should be implemented to arrest movement. In no case should lateral deflections exceed 1". *We will conform to this*
- Embedment depth for the piles is defined differently on the Figures than in the Geotechnical Risks and Concerns notes. Calculations appear to match Figures. In addition, the elevations for the top of SOE (i.e. minimum embedment of existing foundation to remain) should be defined. Please see attached Figure mark-up. *Please respond*
- Shoring is to remain in place until demolition of the RAS box is complete. *We will conform to this*



Notes:
Gaps between the steel plates or wood lagging and the surrounding soil will be filled with crushed rock (e.g. Type 57 stone) and compacted to warrant a full contact between soil and lagging during the installation of the box.



10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74	10/15/74
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Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

August 10, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Change Proposal (CP) No. 18 (rev.)

Dear Mr. Davis;

We have received your letter dated July 28, 2020 regarding a proposed reroute of 42" RWW piping. Please see attached a memo from the geotechnical engineer with comments to the shoring design attached to that letter. This proposal will be approvable pending Kiewit's response to these comments.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Harris", with a stylized flourish at the end.

Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10





*To: Bob Huguenard
Dan Harris*

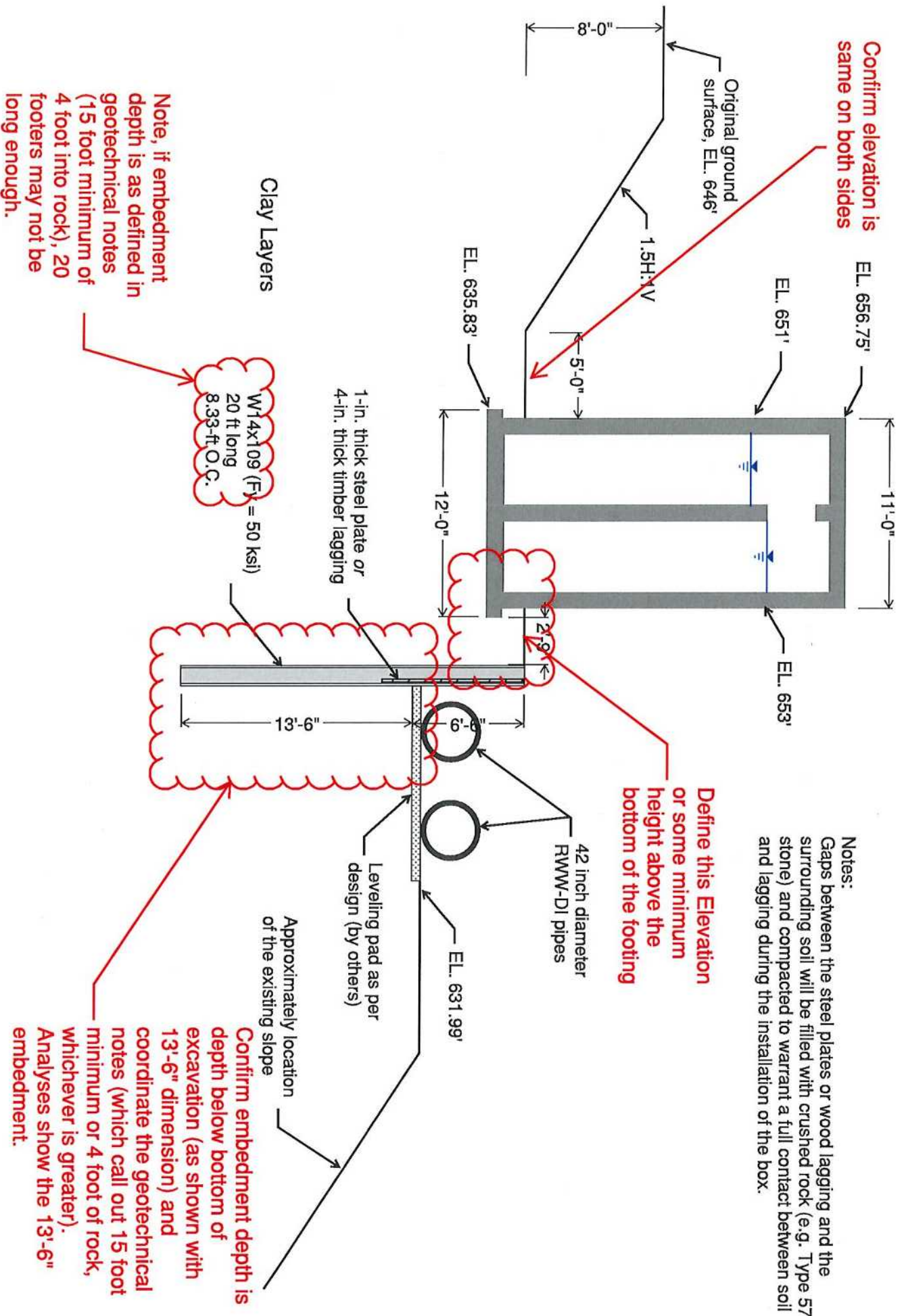
*From: John McMahon
Rev'd By: Danielle Neamtu*

Date: August 7, 2020

*Subject: Comments to Kiewit Infrastructure South Co.
Franklin WRF ReBid – RAS Box Support
Franklin WRF Modifications & Expansion Project
Franklin, Tennessee
July 28, 2020
KIE Task #: 18-370-550.03.01*

Comments for the RAS Box Support Revision 2:

- The assumed maximum water elevation in the RAS box has been assumed to El. 653. Actual elevation will be approximately El. 654.25.
- The mat foundation width of the RAS box is referenced as approximately 13 feet on page 4 and as approximately 12 feet on page 5. The bearing pressure appears to have been designed assuming a 13-foot foundation width while the shoring surcharge has been designed assuming a 12-foot foundation width. Please clarify this apparent discrepancy.
- The estimated lateral deflection of the excavation support system is 0.1" to 0.2" in most cases and 0.7" for the case where "SAND" is assumed as the soil type being retained. Please confirm that excavation support system will be monitored for movement during construction such that deflections that exceed the estimates are noted (and reported to Engineer). If lateral deflection exceeds 0.75", mitigation measures should be implemented to arrest movement. In no case should lateral deflections exceed 1".
- Embedment depth for the piles is defined differently on the Figures than in the Geotechnical Risks and Concerns notes. Calculations appear to match Figures. In addition, the elevations for the top of SOE (i.e. minimum embedment of existing foundation to remain) should be defined. Please see attached Figure mark-up.
- Shoring is to remain in place until demolition of the RAS box is complete.





Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

July 28, 2020

To: Attn: Mr. Dan Harris
CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

CP-KIEWIT-00045.00

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: BNR #2 42in RWW Pipe Re-route Change Proposal

Dear Mr. Harris,

Kiewit is re-submitting a change proposal for the BNR #2 42in RWW pipeline re-route as requested in the response to RFI #230 and the comments to the initial submittal of CP 18. This change proposal includes section, plan, and profile drawings of the pipe and routing for the 42in RWW from the BNR Distribution Box to BNR Basin #2, a signed and sealed memorandum including calculations from Kiewit Engineering Group, Inc. describing the support of excavation for the existing RAS Distribution Box where the proposed routing of the 42in RWW pipeline to BNR #2 runs adjacent to the existing RAS Distribution Box.

This change proposal is being submitted for review and approval as a no cost change to the City of Franklin, TN.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc:File
Michelle Hatcher

CDM Smith (CP) No. 18 Response



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

April 21, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
42" RWW Reroute
Change Proposal (CP) No. 18

Dear Mr. Davis;

We have received your May 7, 2020 proposal to reroute the 42" RWW line as discussed in RFI No. 230 and respond with the following comments;

1. Regarding the pipe sections, plans and profiles.
 - a. The proposed laying plan and profile is acceptable with the following minor exceptions
 - b. Tag number 16740 – The length is not designated and must be established.
 - c. The tag numbers for the eastern 42-inch line (Tag number 16870 through 16912) are not defined. However, we understand that these are not directly the subject of this request and it is OK if these will be submitted under separate cover. Please confirm that they will be submitted under separate cover for approval.
 - d. We don't understand all of the red box highlighted labels that were apparently added by Kiewit.
2. RAS Box Support Memorandum
 - a. The use of a trench box to protect the RAS structure against movement, undermining, and damage is not acceptable. Trench boxes are suitable for personnel protection, but they are not suitable for protection of structures. These are two very different things. Sheeting or shoring of some type will be necessary for protection of the structure. Please also heed the following requests in resubmittal of this plan.
 - b. Clearly show the elevation of the bottom of the RAS box slab.



- c. Clearly show the elevation of the proposed pipes
- d. Clearly show the distance of the nearest pipe from the edge of the RAS box footer.
- e. Show exactly where H piles or other shoring support are to be driven. It appears that the distance between the edge of the footer and the edge of the closest pipe may only be about 3 feet. Placement of the H piles or other supports will be critical. A completely engineered and specific shoring plan will be critical.
- f. Because of the proximity to the box shoring may have to be left in place. However, if Kiewit is planning on retrieving the shoring, they will need to provide specific detail on how and when that will be done to prevent damaging the pipe and RAS box.
- g. The support system will have to extend north and south of the RAS box far enough to protect the RAS box.
- h. If the RAS box were a permanent structure (i.e., not one that will be demolished before the project ends) we would require underpinning of the box. However, since the box is slated for demolition, we won't do that.
- i. The plan talks about lowering the water level in the RAS box for excavation. That won't be acceptable as the RAS box must stay in operation and continue splitting flows until the new splitter box is constructed, accepted and in operation.
- j. The submittal must include calculations proving the shoring design.



CP No. 18
May 15, 2020
Page 3

Please feel free to contact me if you have questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Harris".

Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10

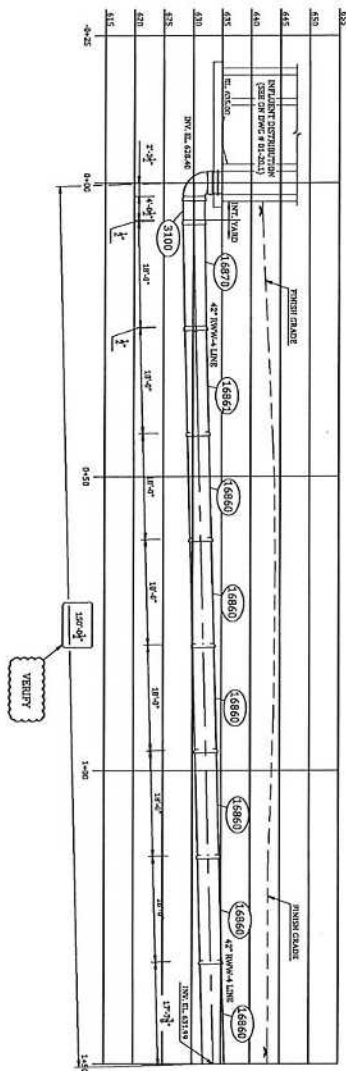
**CDM Smith Comment #1.b
Pipe Sections, Plans and Profiles
(Core & Main Drawings)**

THESE DRAWINGS ARE ISSUED FOR APPROVAL. PLEASE REFER TO THE DISCLAIMER LOCATED ON THE TITLE BLOCK FOR FURTHER INFORMATION. ALL LENGTHS TO BE FIELD VERIFIED PRIOR TO ORDER BY CONTRACTOR. CONTRACTOR TO VERIFY ALL SPOOL LENGTHS THAT ARE ASSOCIATED WITH ALL EQUIPMENT. SPOOL LENGTHS ARE BASED ON ENGINEER'S CONFORMED DRAWING LAYOUT AND ACTUAL DIMENSIONS MAY VARY.

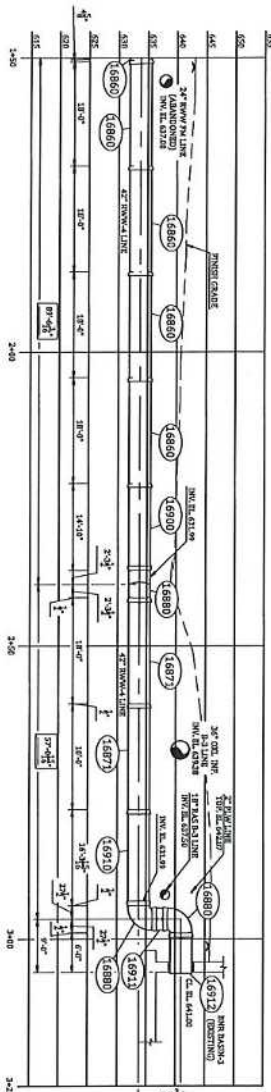
**CDM Smith Comment # 1.c
Pipe Sections, Plans and Profiles
(Core & Main Drawings)**

NOTE:
DRAWINGS TO BE VERIFIED PRIOR
TO ORDER BY CONTRACTOR

PRELIMINARY



42" RW-4 LINE PROFILE (STA. 0+00 TO 1+50)



42" RW-4 LINE PROFILE (STA. 0+00 TO 1+50)

ISSUED FOR REVIEW
DATE: 04-30-2020

LIST OF MATERIAL			
NO.	QTY	SIZE	DESCRIPTION OF MATERIAL
1	1	12" DIA	MANHOLE RING
2	1	12" DIA	MANHOLE RING
3	1	12" DIA	MANHOLE RING
4	1	12" DIA	MANHOLE RING
5	1	12" DIA	MANHOLE RING
6	1	12" DIA	MANHOLE RING
7	1	12" DIA	MANHOLE RING
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97	1	12" DIA	MANHOLE RING
98	1	12" DIA	MANHOLE RING
99	1	12" DIA	MANHOLE RING
100	1	12" DIA	MANHOLE RING

NOTE:
1. THESE DRAWINGS ARE ISSUED FOR APPROVAL. PLEASE REFER TO THE
2. ALL LENGTHS TO BE FIELD VERIFIED PRIOR TO ORDER BY CONTRACTOR.
3. CONTRACTOR TO VERIFY ALL SPOOL LENGTHS THAT ARE ASSOCIATED
WITH ALL EQUIPMENT. SPOOL LENGTHS ARE BASED ON ENGINEER'S
CONFORMED DRAWING LAYOUT AND ACTUAL DIMENSIONS MAY VARY.

CONTRACTOR'S APPROVAL SIGNATURE: _____

DATE: _____



DATE: 04-30-2020
SHEET NO. 61-19

MUNICIPALITY: CITY OF FRANKLIN, TN.
PROJECT: FRANKLIN WRF MOD & EXPANSION PROJECT
ENGINEER: CDM SMITH
CONTRACTOR: KIEWIT INFRASTRUCTURE SOUTH CO.
REV: R4 CONTRACTOR MARK-UP

LOCATION: FRANKLIN, TN.
DATE: 04-30-2020
DRAWN BY: GCS

CDM Smith Comment # 2. a - i
RAS Box Support Memorandum
(Kiewit Engineering Group)



MEMORANDUM

DATE: July 22, 2020

TO: Kyle Krajco; Kiewit Infrastructure Co.

FROM: Louis Dini, P.E.; Kiewit Engineering Group Inc. Lou.Dini
Thang Phan, Ph.D.; Kiewit Engineering Group Inc.

SUBJECT: RAS Box Support _ R2
Franklin WRF ReBid
Franklin, Tennessee



Per your request, Kiewit Engineering Group Inc. (Kiewit Engineering) has completed our engineering evaluation of the RAS Distribution Box foundation for the above reference project. This memorandum assesses geotechnical risks and provides recommendations associated with the support of excavation adjacent to the RAS Distribution Box for installation of two 42-inch diameter RWW-DI pipes.

Per our communication with the project team and based on the RAS Box as-built drawings, we developed a cross section of the RAS Box locating next to an approximately 1.5H:1V slope in the existing condition (Figure 1). We understand that the existing staircase of the RAS Box will be removed prior to the temporary excavation for installation of the RWW-DI pipes. The approximate locations of the pipes as shown in red dashed lines were determined based on the sketch provided by the project team.

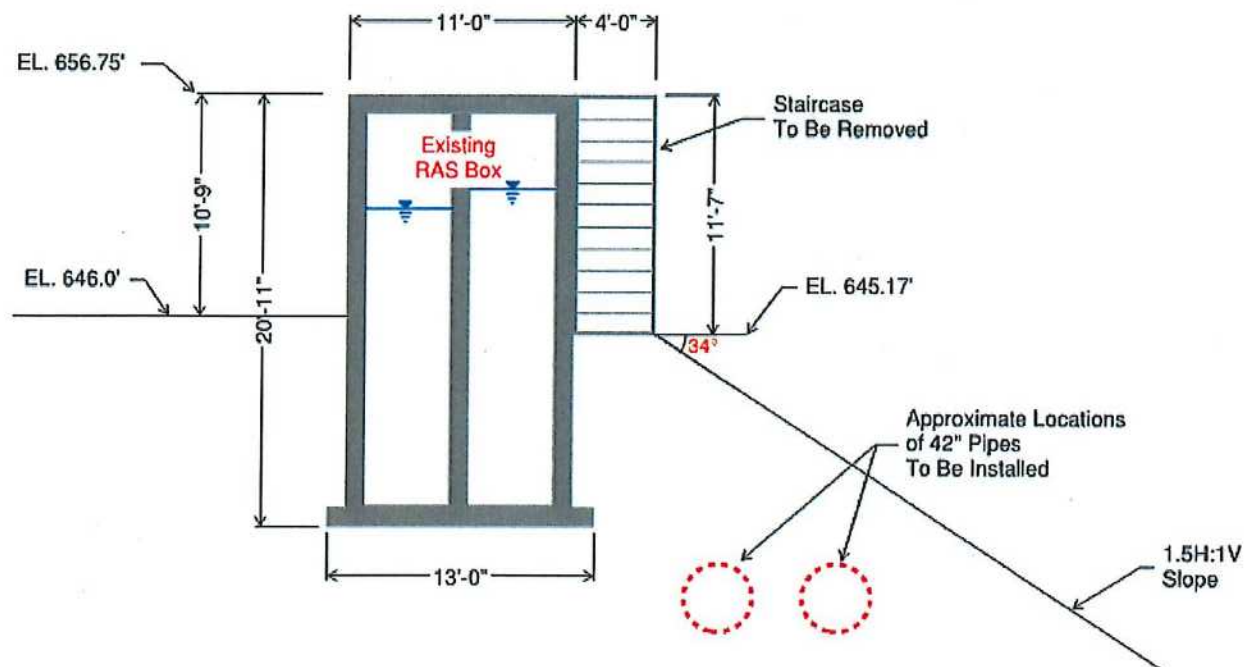


Figure 1 – Existing Conditions of RAS Box

The following information was provided by the project team for our evaluation of the RAS Distribution Box:

July 22, 2020

Franklin WRF ReBid – RAS Box Support _ R2

MEMORANDUM

- Franklin WRF ReBid Geotechnical Reports
- Email Correspondence with the project team, dated April 21, 2020
- "Dist Box Shoring" drawing
- "EX RAS Box Ariel" drawing
- "Existing RAS Distribution Box DWG" drawing
- "FRANKLIN WRF #104-Y.48 DT-04-18-2020" drawing
- "42IN BNR Profile_with Cross section" drawing

According to the provided documents and the phone conference call with the project team on Thursday, July 9, 2020, the following information was discussed, and the design approach was agreed upon with the project team:

- A shoring system using soldier pile and lagging (SOE) will be required to support the RAS Distribution Box for the planned excavation and installation of the 42-inch diameter RWW-DI pipes.
- Dirt road on the West side (left) of the RAS Distribution Box can be excavated to the designated depth, if necessary, to reduce active lateral earth pressure.
- Water inside the RAS Distribution Box will be partially filled, and the water elevation will be no higher than EL 653.
- No construction surcharge will be near the cut or the RAS Distribution Box.
- The excavation, installation of the 42-inch diameter RWW-DI pipes, and backfill will be performed in a short-term condition.

SUBSURFACE INFORMATION

Based on our review of the geotechnical investigation reports and boring log (B-12) in the area, the general subsurface conditions consist of predominantly medium stiff to very stiff silty clay. The boring was terminated at elevation 624.5 ft due to auger refusal (potential bedrock). Limestone bedrock was observed approximately within 20 feet below the existing ground surface in several other borings. Thus, a limestone layer may possibly be encountered 20 feet below the ground surface at the SOE. The groundwater table in this area was not encountered in the boring.

It is noted that boring B-12 is approximately 100 feet away from the SOE. The soil profile observed in boring B-12 may defer from the actual conditions at the SOE.

SUPPORT OF EXCAVATION RECOMMENDATIONS

Based on our communication with the project team, we developed an excavation plan with the use of a SOE soldier pile and lagging for installation of the RWW-DI pipes (Figure 2). We performed bearing capacity checks for the RAS Box. The plan view of the SOE is shown in Figure 3.

Any gap between the steel plates or timber lagging and the surrounding soil should be filled with crushed rock (e.g. Type 57 stone) and compacted to warrant full contact between soil and lagging. The excavation and shoring for support of excavation for the 42-inch diameter RSS alignment shall not be open more than two weeks.

MEMORANDUM

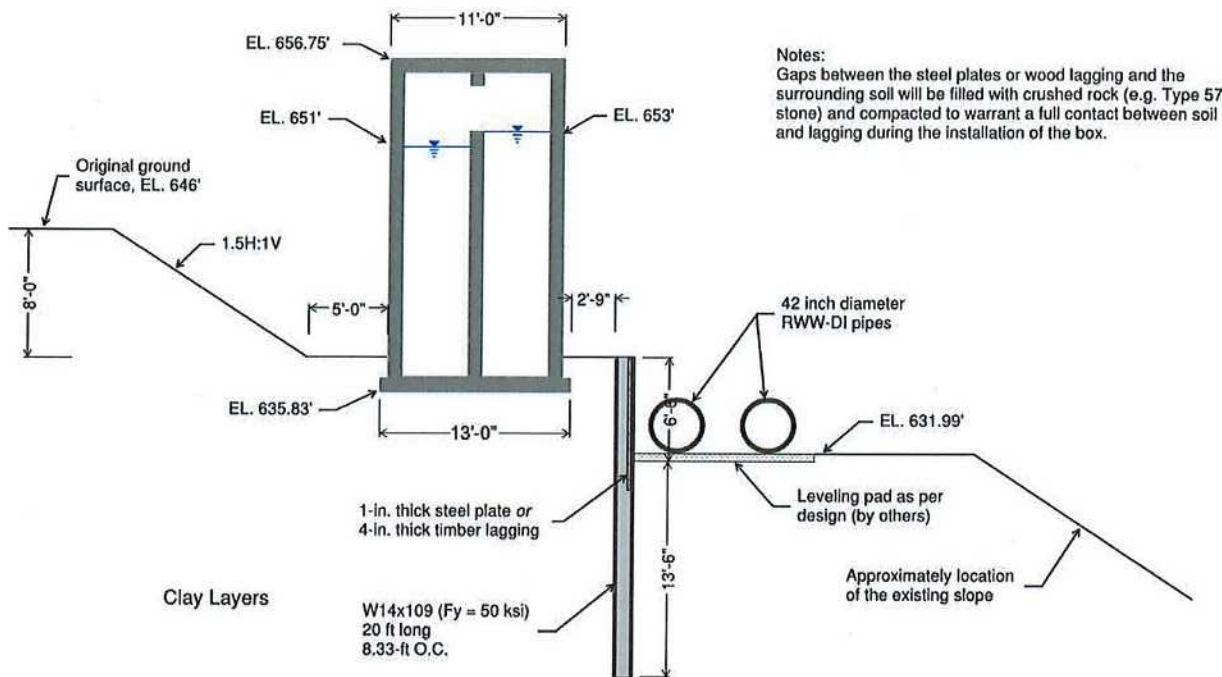


Figure 2 – Temporary Excavation and Soldier Pile and Lagging for Installation of 42-in RWW-DI Pipes

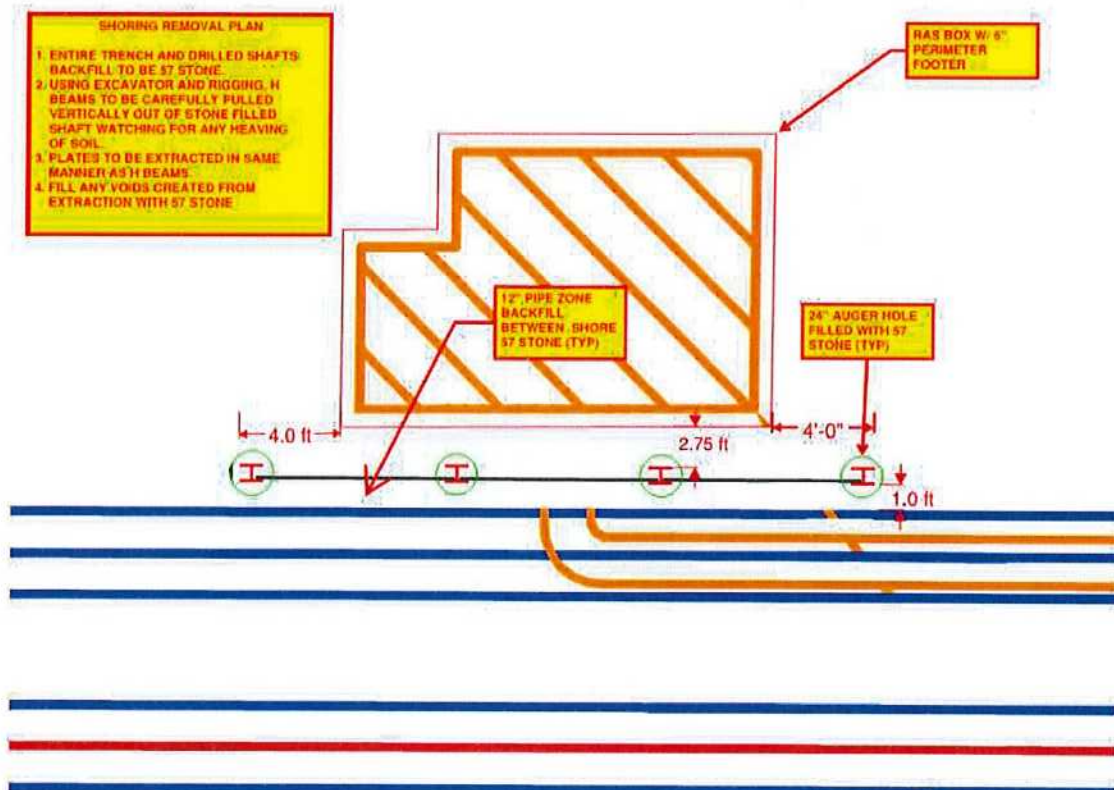


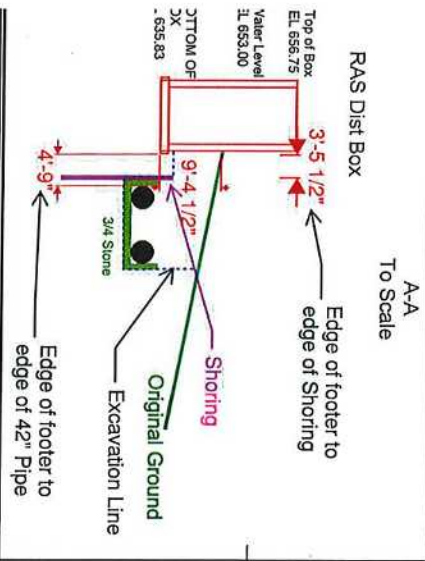
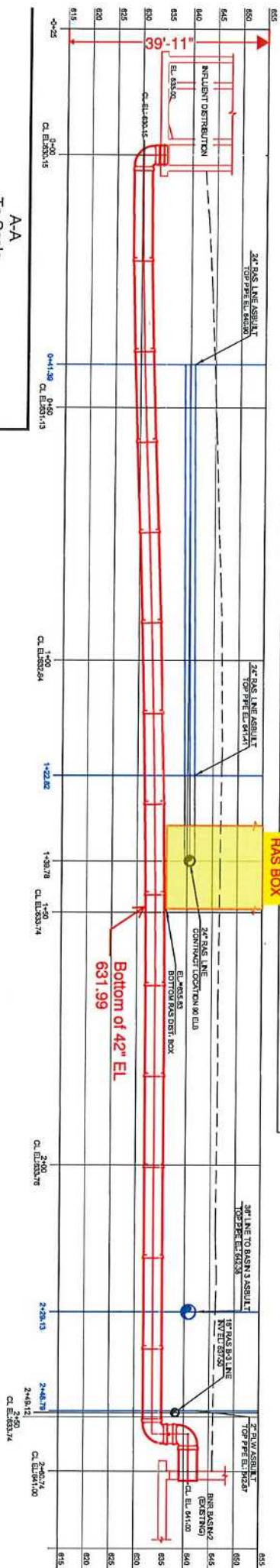
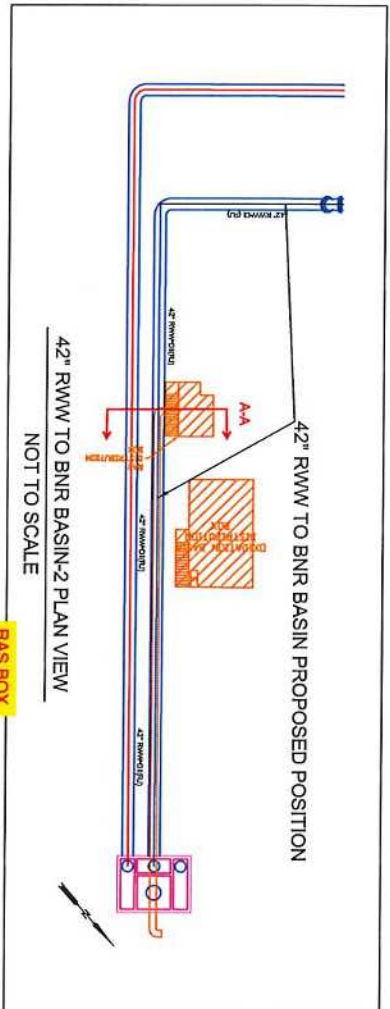
Figure 3 – Plan View of Soldier Pile & Lagging SOE

MEMORANDUM

GEOTECHNICAL RISKS AND COMMENTS

- We recommend a minimum equipment setback distance of $1.5H$ (H = slope height or trench depth) between the crest of the slope (or trench) and the edge of tire/track of the equipment.
- When operating under the wet condition (or after the heavy rain event), ground surface should be monitored for any deflection or rutting. Where deflection or rutting greater than 1 inch occurs, additional support will be needed. Please contact Kiewit Engineering should this issue arise.
- The cut slopes should be properly protected against erosion and periodically inspected for any sign of distress, especially during and/or after a precipitation event. No construction activities on top or within the toe of the slope is allowed in case distress is observed; the designer of the cut slope should be contacted immediately for further assessment.
- Positive drainage flowing away from the SOE and excavated areas must be provided to prevent ponding of water in the excavated areas to eliminate possible degradation of the bearing soils and settlement.
- Predrill will likely be required for installation the soldier piles, especially if shallow bedrock is encountered. The predrilled holes for the soldier piles will be backfilled with crushed rock (e.g. Type 57 stone).
- If shallow rock is encountered the soldier pile needs to be embedded a minimum of 4 feet into rock or a minimum installation depth of 15 feet, whichever results in a deeper embedment depth. For example, if rock is encountered at a depth of 12 feet from the proposed top of the SOE then the minimum installed length would need to be 16 feet (this meets the minimum 4 feet criteria).
- If the actual soil conditions encountered at the SOE are significantly weaker than or different from those described above, Kiewit Engineering should be contacted for further evaluation.

Please note that our recommendation is only valid for the assumptions and configurations. If you have any questions regarding our recommendations or comments, please contact us.



42" RWW TO BNR BASIN-2 (RWW-3 LINE) PROFILE

STA: -0+25 TO 2+60.74 NOT TO SCALE

BOTTOM OF BOX
EL 634.58

42" RWW PROFILE

DATE: 04/13/2020

PROJECT #: KIEWIT109925

DRAWING #: KK-004

DWG REF #: 42IN BNR PROFILE_040920.dwg

NOTE: 18" RAS LINE IS SHOWN IN CONTRACT DRAWING LOCATION

NOTE: 24" RAS LINE PORTION IN BLACK IS SHOWN IN CONTRACT LOCATION

Kiewit

CDM Smith Comment # 2. j
RAS Box Support Memorandum
Shoring Design Calculations
(Kiewit Engineering Group)



Kiewit

Franklin WRF ReBid – RAS Box Support

KIE Task #: 18-370-550.03.01

Revision 2

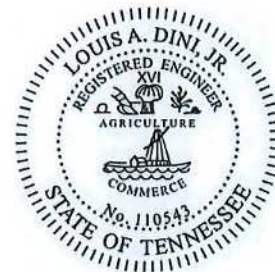
Date: 7/ 22/ 2020

Designer: Thang Phan

TQR/EOR: Louis Dini

Lou.Dini

Digitally signed by Lou.Dini
DN: CN=Lou.Dini,
OU=Employees, OU=Users,
OU=Kiewit, DC=KIEWITPLAZA,
DC=com
Date: 2020.07.22 18:24:20-07'00'



Kiewit Engineering Group Inc.

Omaha, NE
3555 Farnam Street
Omaha, NE 68131
(402) 342-2052

Denver, CO
9780 Pyramid Court, Ste 100
Englewood, CO 80112
(303) 325-0300

Oakville, ON
1425 North Service Rd E, Unit 1
Oakville, ON L6H 1A7
(905) 337-4102



Scope:

Design a soldier pile and lagging SOE to support the RAS Distribution Box for excavation to install the RWW-3 line (Figure 1). This is the second SOE option following the first SOE option of trench box issued on April 30, 2020.

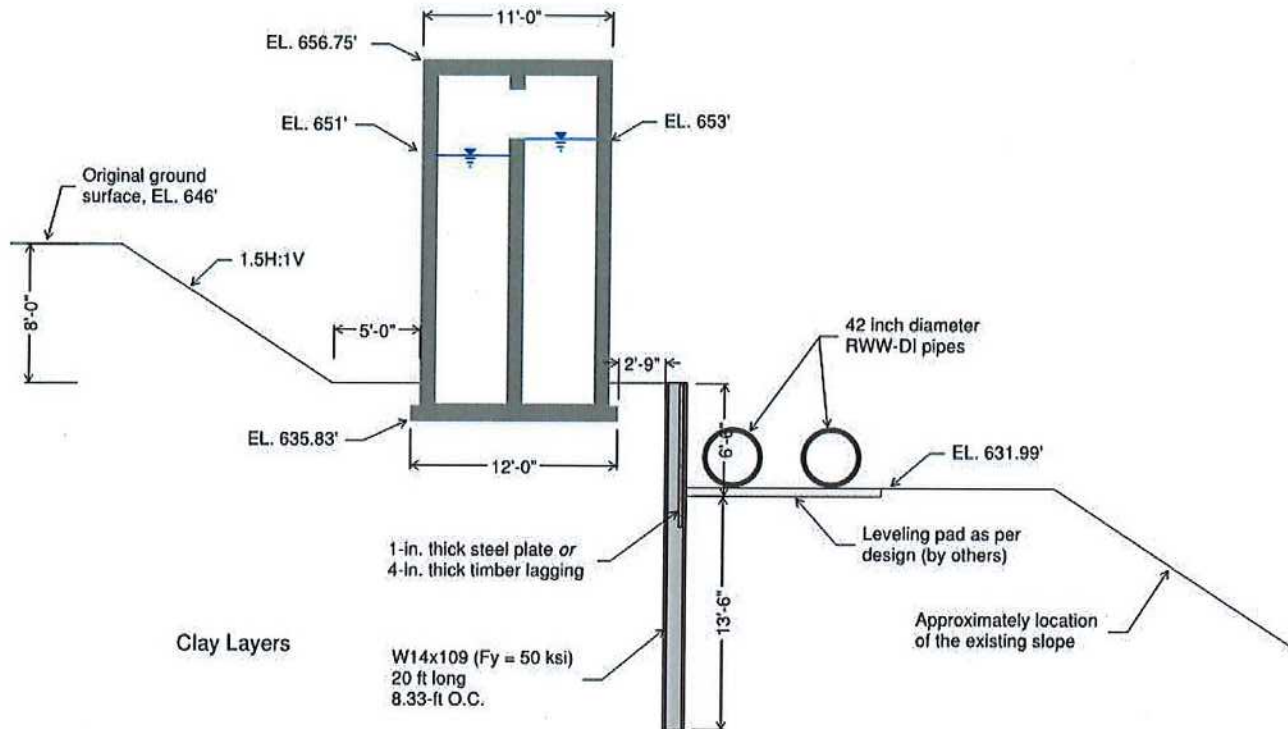


Figure 1 - Proposed Shoring and RAS Dist Box Cross-section

Inputs and Assumptions:

- The SOE will support the excavation for a period of 2 weeks maximum.
- Boring log B-12, which is approximately 100 ft away from the proposed shoring, is the nearest boring available to be used to develop soil profile for the SOE
- Groundwater table in this area is not encountered during subsurface exploration, thus considered to be very deep.
- This area consists of predominately stiff to very stiff clay
- Assumed shear strengths (undrained) of 1,200 psf and unit weight of 125 pcf for the analysis (see calculation on the boring log B-12).

Figures (continued...):

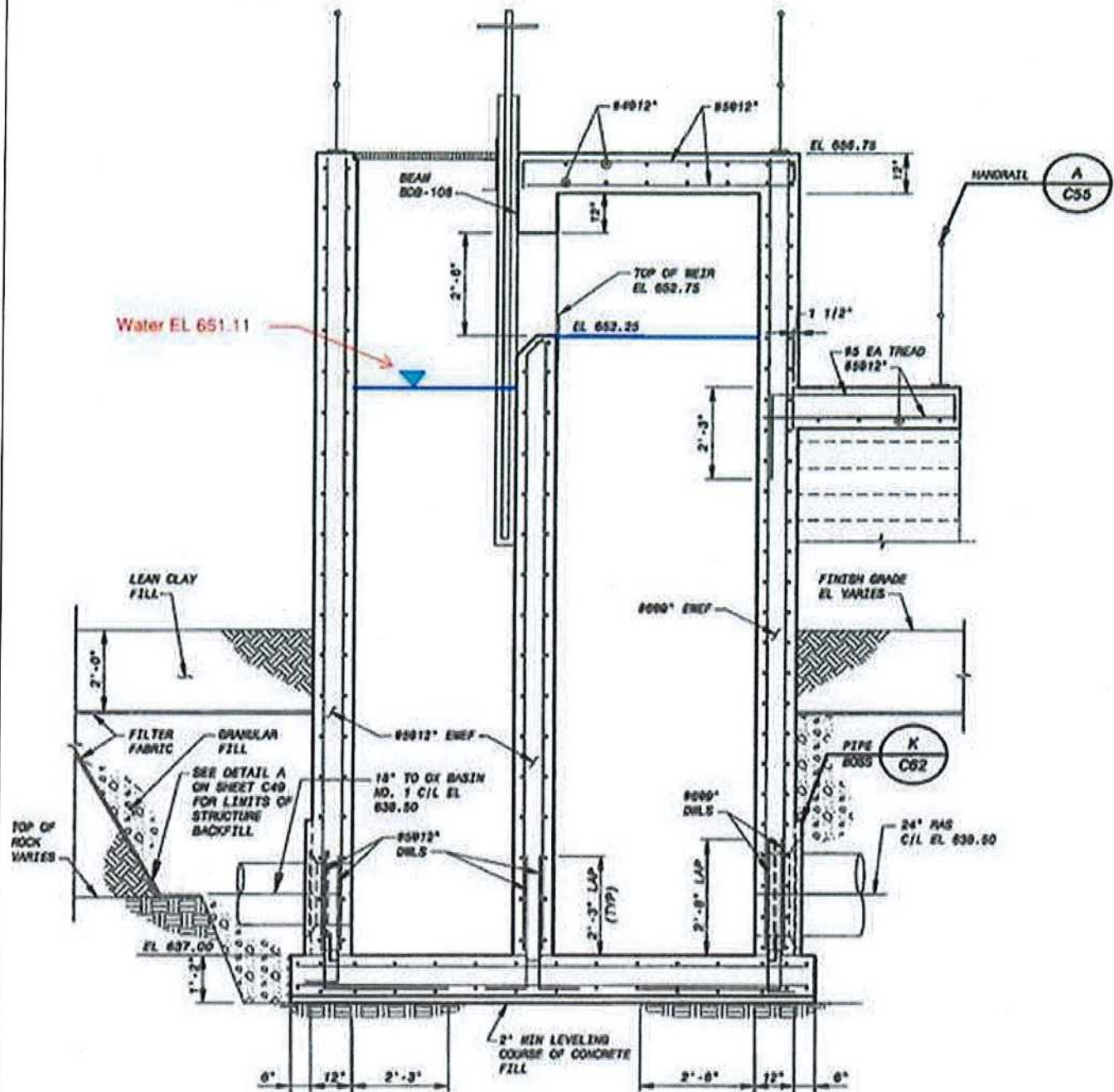


Figure 2 - RAS Dist Box Cross-section with Water Elevation

Software:

KIE - Terzaghi Bearing Capacity Spreadsheet

References:

Franklin WRF ReBid Geotechnical Reports.

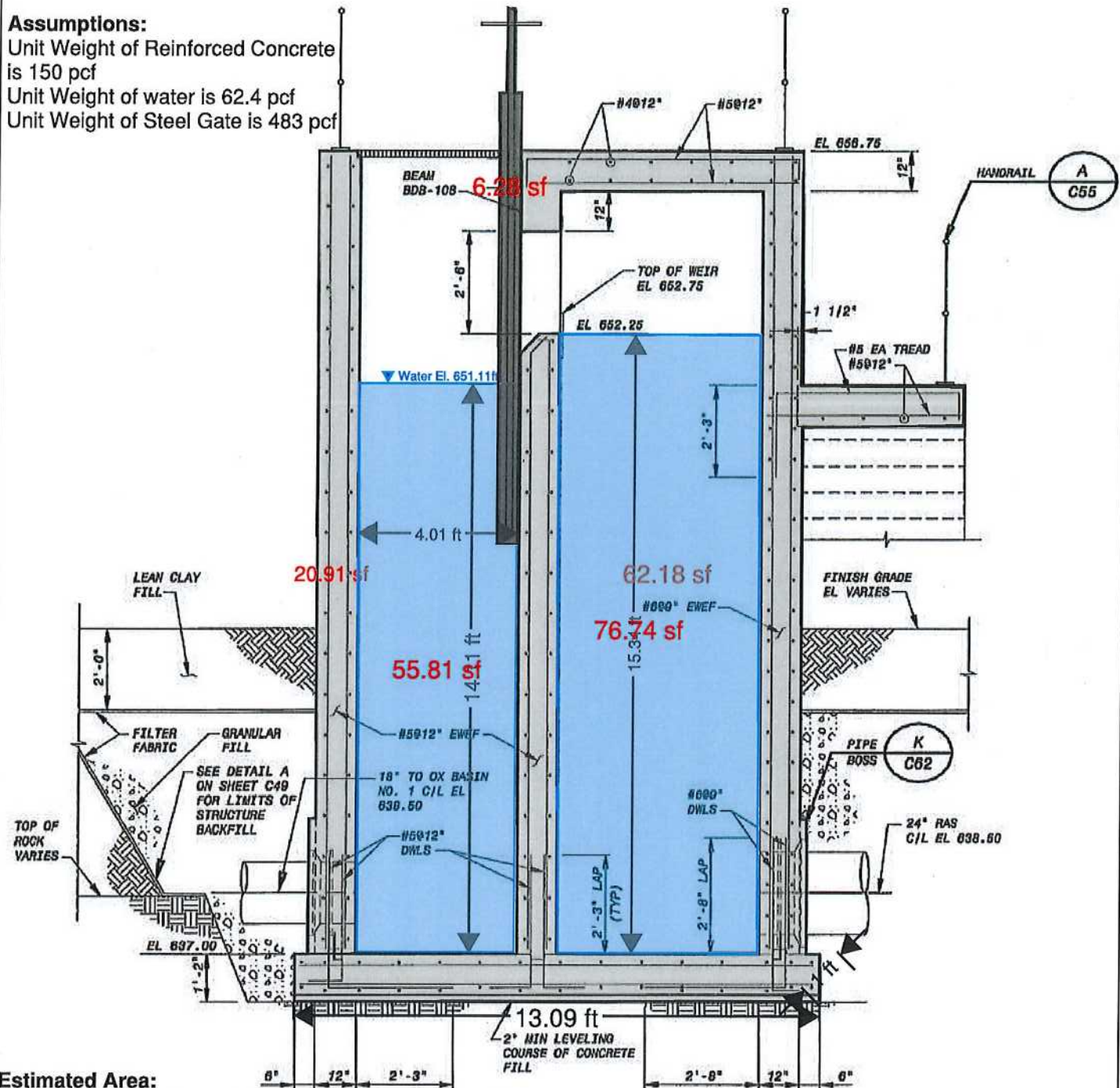
Email Correspondence between Thang Phan and the Project Team along with the attachments, dated 4/21/2020.

Principles of Foundation Engineering and Design, Das (7th Ed.)

Calculation of Demand Load from RAS Distribution Box:

Assumptions:

Unit Weight of Reinforced Concrete is 150 pcf
Unit Weight of water is 62.4 pcf
Unit Weight of Steel Gate is 483 pcf



Estimated Area:

Total Area of Reinforced Concrete is $20.91+62.18 = 83.09$ sf

Total Area of Water is $55.81 + 76.74 = 132.55$ sf

Total Area of Steel Gate is 6.28 sf

Estimated Demand Weight:

Reinforced Concrete: $83.09 \text{ sf} \times 150 \text{ pcf} = 12463.5 \text{ \#/ft}$

Water: $132.55 \text{ sf} \times 62.4 \text{ pcf} = 8271.12 \text{ \#/ft}$

Steel Gate is $6.28 \times 483 \text{ pcf} = 3033.24 \text{ \#/ft}$

Estimated Demand Bearing Pressure:

Total Weight = 23,787 #

Foundation Footprint = 13 sf

Estimated Bearing Pressure = 1830 psf (unfactored) or **5485 psf (F.S. of 3)**



KIE #: 18-370-550.03.01
Date: 7/ 22/ 2020
Sheet: of

[illegible]

Project: Franklin WRF ReBid
Subject: RAS Box Support _ R2

Designed By: THP
Checked By: LD

Date: 7/20/2020
Sheet:

Terzaghi's Ultimate Bearing Capacity Equation

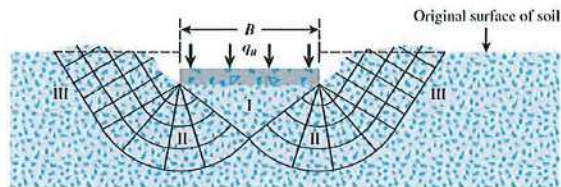
Das, Braja M. (2010). Principles of Geotechnical Engineering, 7th Edition, Cengage Learning, Connecticut

INPUT

$\gamma_{\text{Total}} =$ 125 pcf	Unit Weight of Soil	Factor of Safety:	3.0
$D_f =$ 0 ft	Depth of Footing (If Applicable)	Footing Type:	Square
$c' =$ 1,200 psf	Cohesion Based on Effective Stress	Failure Type:	General Shear Failure
$\phi =$ 0 degrees	Friction Angle Based on Effective Stress		
$B =$ 11.00 ft	Effective Loaded Width or Diameter		

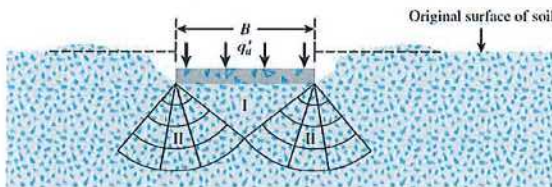
Computations are for a Drained Condition, Over Level
Ground and Not Adjacent to a Slope

$N_c =$ 5.7	Bearing Capacity Factors
$N_q =$ 1	
$N_\gamma =$ 0	



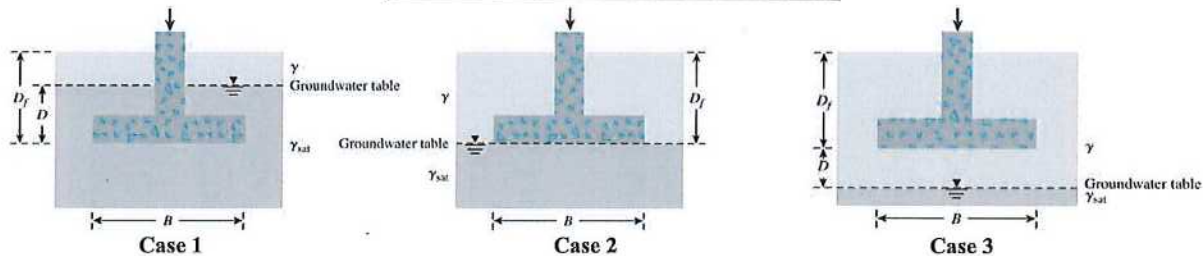
General Shear Failure

$N'_c =$ 5.7	Modified Bearing Capacity Factors
$N'_q =$ 1	
$N'_\gamma =$ 0	



Local Shear Failure (Loose-to-Medium Dense Sand)

GROUNDWATER CONDITIONS



Case 3B	Groundwater Conditions
$\gamma' =$ 58 pcf	Effective Unit Weight of Soil
$D =$ 15 ft	Base of Footing to Phreatic Surface

Use Case 3A for $D \leq B$
Use Case 3B for $D > B$

OUTPUT

General Shear Failure
 $q_{ult} =$ 8900 psf

$$q_{all} = q_{ult} / FS$$

$q_{all} =$ 3000 psf

Local Shear Failure
 $q_{ult} =$ 5900

$$q_{all} = q_{ult} / FS$$

$q_{all} =$ 2000

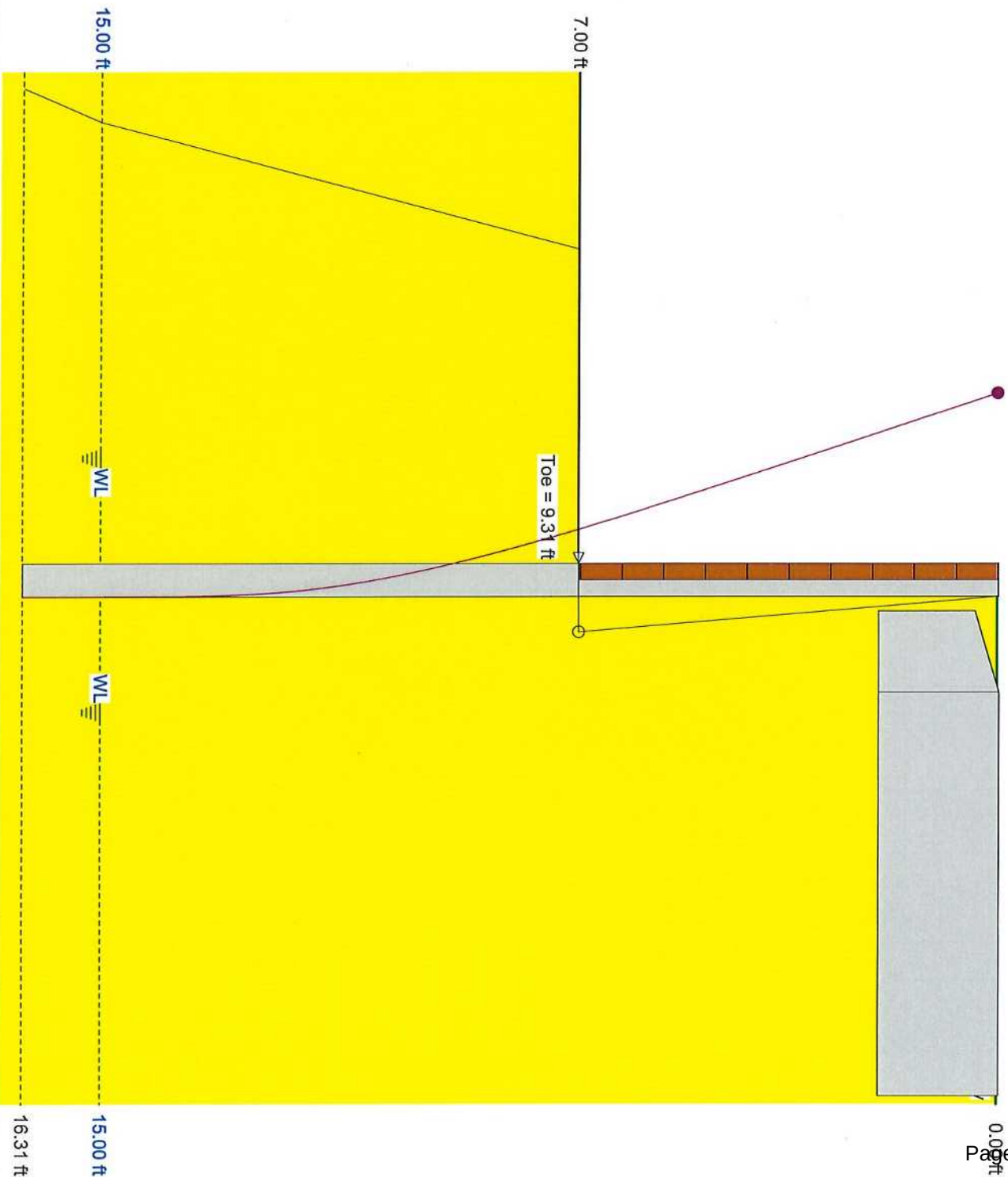
SupportIT Analyses

Piles Installed in Soils Only

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.52
Toe: Cantilever

Maximum	d (ft)
222.9 psf	7.00
0.2 in	0.00

Profile 1
Based on B12 which is about 100 ft away
from the SOE



Enter your name in SETUP page.

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.52
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away from the SOE

Input Data
Depth Of Excavation = 7.00ft
Surcharge = 0.0psf
Depth Of Active Water = 15.00ft
Depth Of Passive Water = 15.00ft
Water Density = 62.43pcf
Minimum Fluid Density = 31.82pcf

Depth (ft)	Soil Name	γ (pcf)	γ' (pcf)	C (psf)	C_a (psf)	ϕ (°)	δ (°)	K_a	K_{ac}	K_p	K_{pc}
0.00	Stiff Clay	131.10	68.73	1200.0	0.0	0.0	0.0	1.00	2.00	1.00	2.00
17.00	Very Stiff Clay	137.46	75.09	1500.0	0.0	0.0	0.0	1.00	2.00	1.00	2.00

Position (ft)	Width (ft)	Length (ft)	Depth (ft)	Magnitude	Type
2.60	11.00	12.00	2.00	241560.0lb	Area

Solution

Description	E (psi)	I (in ⁴)	f (psi)	Z (in ³)	Allowed M _{max} (ftlb)	b (ft)	t (ft)	w (ft)	s (ft)	Arching	n	Upstand (ft)	Toe (ft)	Length (ft)
W14x90 (50 ksi)	2.9E+07	999.00	32280.0	143.00	384670.0	1.207	1.168	2.000	8.33	2.56	1.80	0.00	9.31	16.31
	3.04E+07	5000.00				1.000	0.333							

Pressure Model: Coulomb; Passive pressure ignored for depth n.w (= 3.60ft)

	Maximum	Depth (ft)
Pressure	222.9 psf	7.00
Bending Moment	52544.9 ftlb	11.49
Deflection	0.2 in	0.00
Shear Force	11684.6 lb/ft	10.60

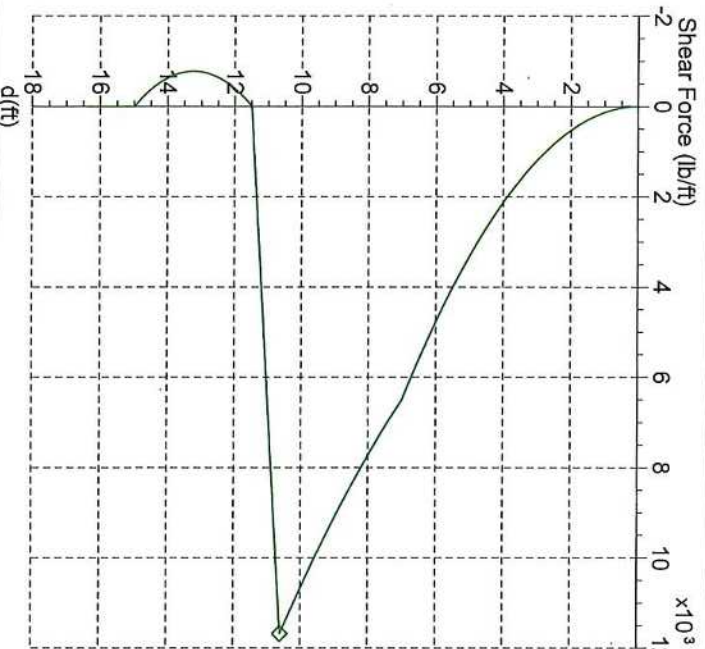
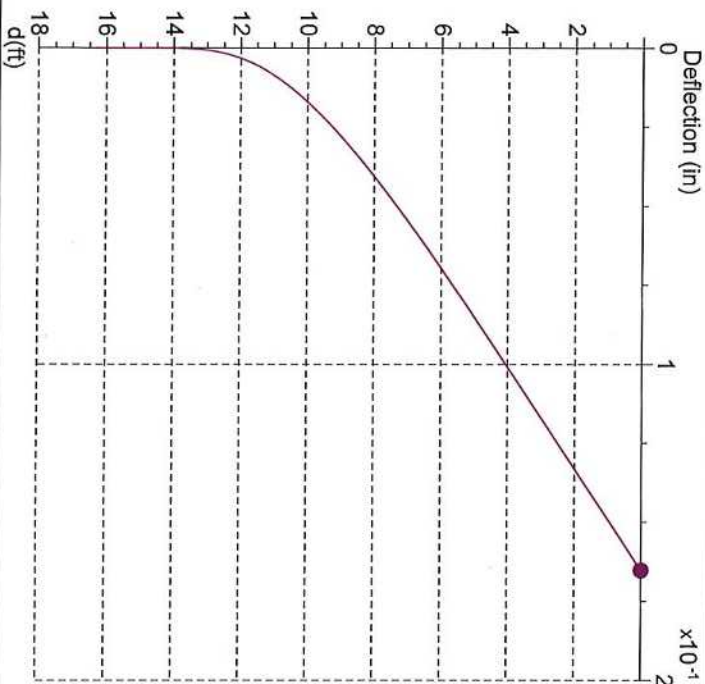
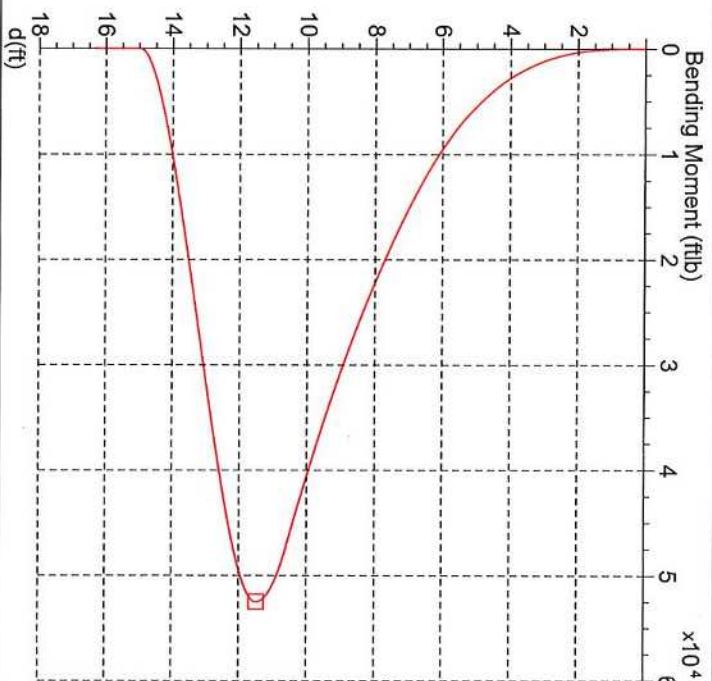
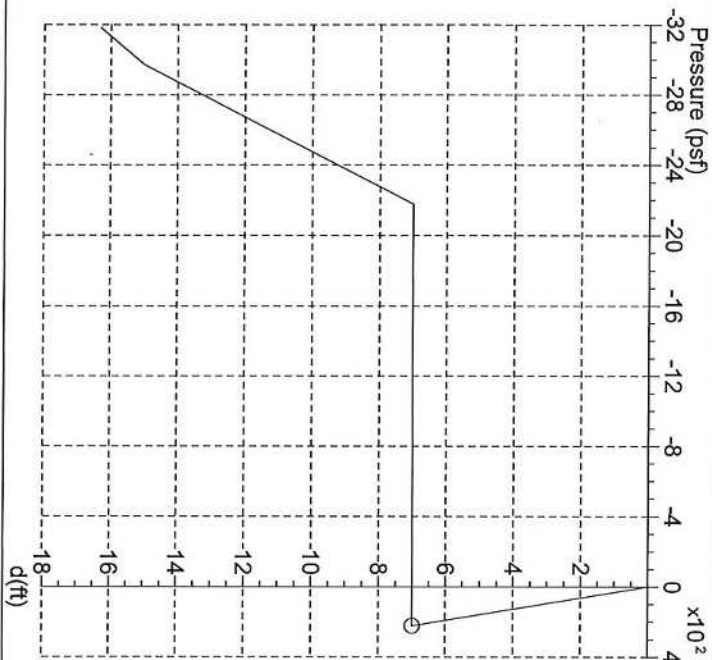


Enter your name in SETUP page.

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.52
Toe: Cantilever

	Maximum	d (ft)
○	222.9 psf	7.00
◇	52544.9 ftlb	11.49
◇	11684.6 lb/ft	10.60
●	0.2 in	0.00

Profile 1
Based on B12 which is about 100 ft away
from the SOE



Enter your name in SETUP page.

Pile: W14x90 (50 ksi)

Works: Temporary

Pressure: Coulomb

Analysis: Net Pressure

FOS: 1.52

Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE

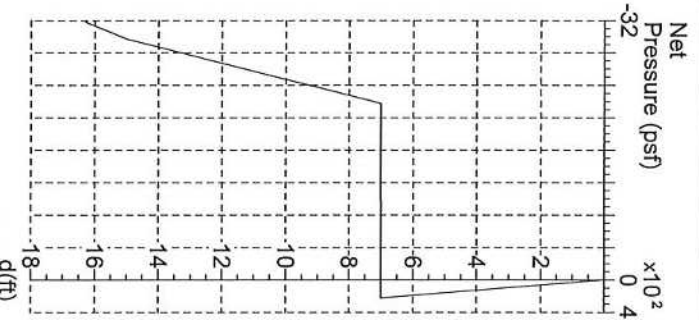
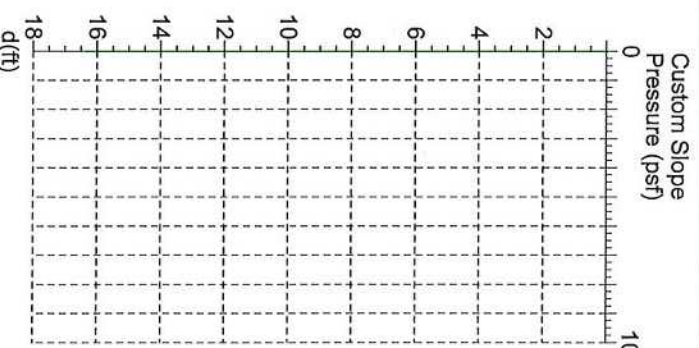
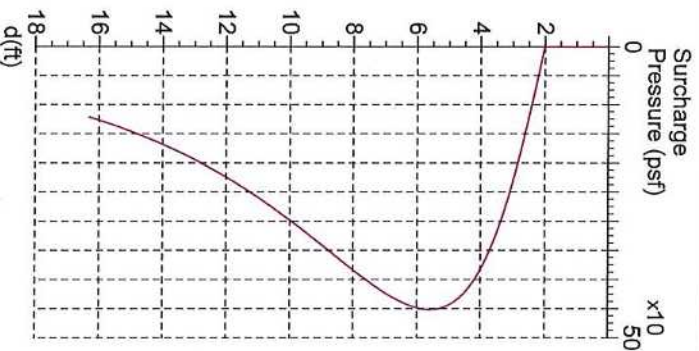
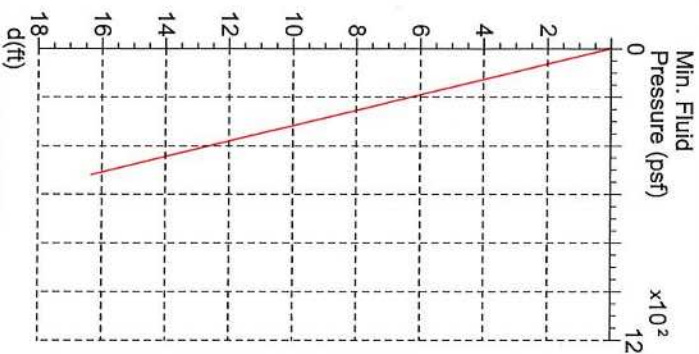
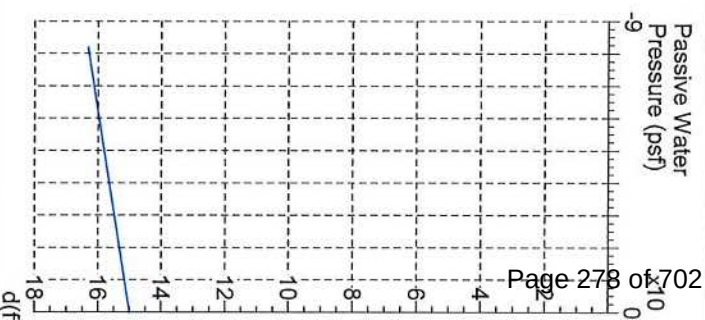
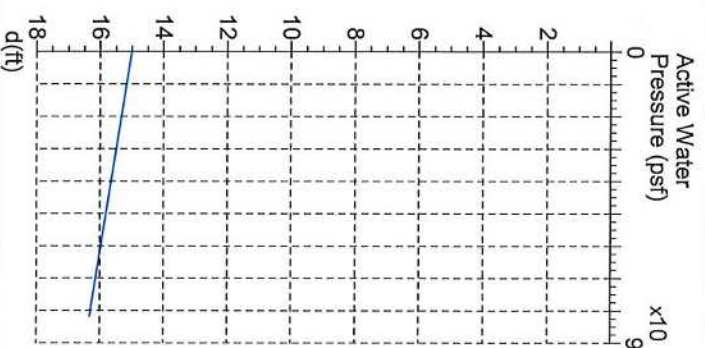
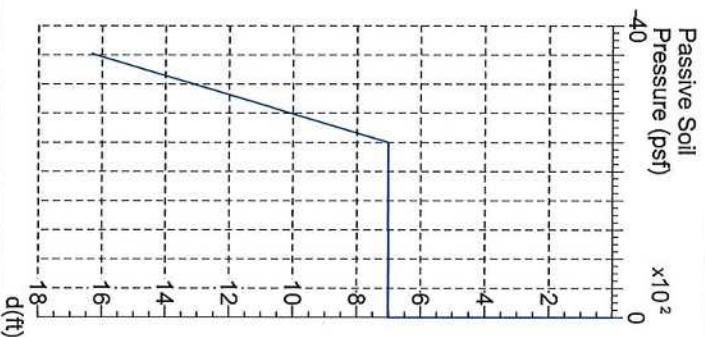
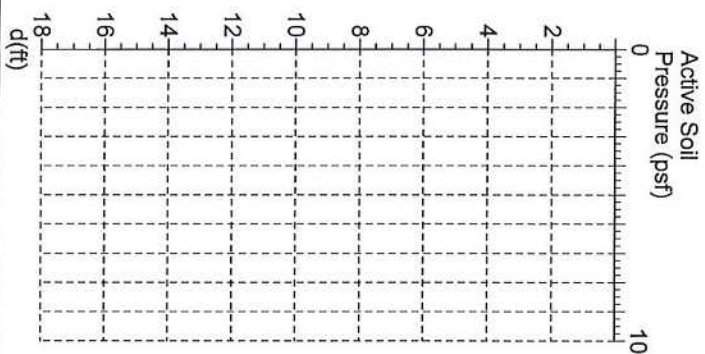
depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)
0.00	0.0	0.0	0.2	0.0	5.47	174.4	7266.4	0.1	3989.7	10.95	-2568.3	50512.6	0.0	7246.7	16.31	-3180.8	0.0	0.0	0.0
0.11	3.5	0.1	0.2	1.8	5.59	177.9	7707.7	0.1	4149.4	11.06	-2560.5	51311.5	0.0	5634.4	16.20	-3165.4	0.0	0.0	0.0
0.22	6.9	0.5	0.2	6.7	5.70	181.4	8166.7	0.1	4312.3	11.17	-2551.3	51855.8	0.0	4895.5	16.09	-3147.8	0.0	0.0	0.0
0.34	10.8	1.7	0.2	15.9	5.81	184.8	8643.4	0.1	4478.4	11.28	-2602.0	52243.3	0.0	2850.3	15.98	-3128.0	0.0	0.0	0.0
0.45	14.3	4.0	0.2	27.5	5.92	188.7	9201.6	0.1	4668.9	11.40	-2612.8	52473.4	0.0	1299.1	15.86	-3110.4	0.0	0.0	0.0
0.56	17.7	7.6	0.2	42.2	6.03	192.2	9717.4	0.1	4841.6	11.51	-2625.0	52540.2	0.0	-22.0	15.75	-3092.8	0.0	0.0	0.0
0.67	21.2	13.1	0.2	60.0	6.14	195.7	10252.2	0.1	5017.5	11.62	-2635.8	52335.4	0.0	-115.5	15.64	-3075.2	0.0	0.0	0.0
0.78	25.1	21.7	0.2	83.9	6.26	199.1	10806.3	0.1	5196.5	11.73	-2646.6	51847.8	0.0	-201.1	15.53	-3055.3	0.0	0.0	0.0
0.89	28.6	31.9	0.2	108.4	6.37	202.6	11379.9	0.1	5378.6	11.84	-2657.4	51096.2	0.0	-355.5	15.42	-3037.7	0.0	0.0	0.0
1.01	32.0	45.0	0.1	136.0	6.48	206.5	12049.2	0.1	5587.2	11.95	-2668.3	50099.8	0.0	-432.0	15.31	-3020.1	0.0	0.0	0.0
1.12	35.5	61.2	0.1	166.8	6.59	209.9	12665.6	0.1	5776.0	12.07	-2680.3	48709.8	0.0	-493.1	15.20	-3002.5	0.0	0.0	0.0
1.23	39.0	80.9	0.1	200.7	6.70	213.4	13302.8	0.1	5967.9	12.18	-2691.1	47256.2	0.0	-548.4	15.08	-2984.9	0.0	0.0	0.0
1.34	42.9	107.7	0.1	242.6	6.81	216.9	13961.0	0.1	6163.0	12.29	-2701.9	45617.2	0.0	-597.8	14.97	-2967.6	0.0	0.0	0.0
1.45	46.3	136.0	0.1	283.2	6.93	220.8	14726.9	0.1	6386.1	12.40	-2712.7	43811.7	0.0	-645.1	14.86	-2956.9	0.0	0.0	0.0
1.56	49.8	168.8	0.1	326.9	7.04	224.7	15430.5	0.1	6558.6	12.51	-2724.8	41605.3	0.0	-682.2	14.75	-2946.1	0.0	0.0	0.0
1.68	53.2	206.6	0.1	373.7	7.15	229.1	16149.6	0.1	6684.5	12.62	-2735.6	39509.4	0.0	-712.0	14.63	-2935.3	0.0	0.0	0.0
1.79	57.1	255.3	0.1	430.2	7.26	233.7	16882.5	0.1	6812.3	12.74	-2746.4	37306.4	0.0	-737.0	14.52	-2923.1	0.0	0.0	0.0
1.90	60.6	304.6	0.1	483.7	7.37	238.2	17629.4	0.0	6942.1	12.85	-2757.2	35015.5	0.0	-755.5	14.41	-2912.3	0.0	0.0	0.0
2.01	64.1	359.9	0.1	540.4	7.49	242.6	18486.7	0.0	7090.4	12.96	-2768.0	32655.7	0.0	-768.9	14.30	-2901.5	0.0	0.0	0.0
2.12	67.5	421.5	0.1	600.2	7.60	247.2	19264.0	0.0	7224.3	13.07	-2780.1	29942.1	0.0	-774.4	14.19	-2890.7	0.0	0.0	0.0
2.23	71.0	489.7	0.1	663.1	7.71	251.7	20055.9	0.0	7360.1	13.18	-2790.9	27498.9	0.0	-774.4	14.08	-2880.0	0.0	0.0	0.0
2.35	74.9	574.8	0.1	737.6	7.82	256.0	20862.8	0.0	7497.8	13.29	-2801.7	25046.2	0.0	-767.8	13.96	-2867.8	0.0	0.0	0.0
2.46	78.3	658.3	0.1	807.2	7.93	260.2	21788.5	0.0	7655.0	13.41	-2812.5	22603.0	0.0	-753.4	13.85	-2857.0	0.0	0.0	0.0
2.57	81.8	749.5	0.1	880.0	8.04	264.7	22627.6	0.0	7796.8	13.52	-2824.6	19889.4	0.0	-734.0	13.74	-2846.2	0.0	0.0	0.0
2.68	85.3	848.8	0.1	955.8	8.16	269.1	23482.2	0.0	7940.6	13.63	-2835.4	17529.5	0.0	-709.3	13.63	-2835.4	0.0	0.0	0.0
2.79	88.7	956.4	0.1	1034.8	8.27	273.5	24352.5	0.0	8086.3	13.74	-2846.2	15238.6	0.0	-677.8	13.52	-2824.6	0.0	0.0	0.0
2.90	92.6	1088.0	0.1	1127.5	8.38	277.8	25238.8	0.0	8233.9	13.85	-2857.0	13035.7	0.0	-640.0	13.41	-2812.5	0.0	0.0	0.0
3.02	96.1	1214.7	0.1	1213.1	8.49	282.5	26255.1	0.0	8402.2	13.96	-2867.8	10939.7	0.0	-591.8	13.30	-2801.5	0.0	0.0	0.0
3.13	99.6	1350.8	0.1	1301.9	8.60	287.1	27175.9	0.0	8553.9	14.08	-2880.0	8733.3	0.0	-541.8	13.20	-2790.9	0.0	0.0	0.0
3.24	103.0	1496.7	0.1	1393.9	8.71	291.6	28113.3	0.0	8707.6	14.19	-2890.7	6927.8	0.0	-485.5	13.09	-2880.0	0.0	0.0	0.0
3.35	106.9	1673.0	0.1	1501.1	8.83	295.9	29067.5	0.0	8863.1	14.30	-2901.5	5288.8	0.0	-423.9	13.00	-2867.8	0.0	0.0	0.0
3.46	110.4	1840.9	0.1	1599.7	8.94	300.6	30161.3	0.0	9040.4	14.41	-2912.3	3835.1	0.0	-355.5	12.90	-2857.0	0.0	0.0	0.0
3.57	113.8	2019.6	0.1	1701.4	9.05	305.1	31151.9	0.0	9200.1	14.52	-2923.1	2586.0	0.0	-272.2	12.80	-2846.2	0.0	0.0	0.0
3.69	117.3	2209.6	0.1	1806.3	9.16	309.6	32159.9	0.0	9361.6	14.63	-2935.3	1448.7	0.0	-191.8	12.70	-2835.4	0.0	0.0	0.0
3.80	120.8	2411.1	0.1	1914.3	9.27	314.2	33185.6	0.0	9525.2	14.75	-2946.1	697.2	0.0	-104.8	12.60	-2824.6	0.0	0.0	0.0
3.91	124.7	2652.0	0.1	2039.6	9.38	318.7	34229.2	0.0	9690.6	14.86	-2956.9	209.5	0.0	-12.0	12.50	-2812.5	0.0	0.0	0.0
4.02	128.1	2879.2	0.1	2154.3	9.50	323.2	35424.8	0.0	9879.0	14.97	-2967.6	4.8	0.0	0.0	12.40	-2801.5	0.0	0.0	0.0
4.13	131.6	3119.0	0.1	2272.1	9.61	327.7	36507.0	0.0	10048.5	15.08	-2984.9	0.0	0.0	0.0	12.30	-2790.9	0.0	0.0	0.0
4.25	135.1	3371.8	0.1	2393.0	9.72	332.2	37607.8	0.0	10220.0	15.19	-3002.5	0.0	0.0	0.0	12.20	-2780.1	0.0	0.0	0.0
4.36	138.9	3672.1	0.1	2532.9	9.83	336.7	38727.3	0.0	10393.4	15.31	-3020.1	0.0	0.0	0.0	12.10	-2770.9	0.0	0.0	0.0
4.47	142.4	3953.6	0.1	2660.5	9.94	341.2	39867.8	0.0	10569.8	15.42	-3037.7	0.0	0.0	0.0	12.00	-2768.0	0.0	0.0	0.0
4.58	145.9	4249.0	0.1	2791.2	10.05	345.7	41009.4	0.0	10768.2	15.53	-3055.3	0.0	0.0	0.0	11.90	-2757.2	0.0	0.0	0.0
4.69	149.3	4558.9	0.1	2925.1	10.17	349.4	42348.8	0.0	10947.7	15.64	-3075.2	0.0	0.0	0.0	11.80	-2746.4	0.0	0.0	0.0
4.80	152.8	4883.4	0.1	3062.2	10.28	354.7	43547.8	0.0	11129.0	15.75	-3092.8	0.0	0.0	0.0	11.70	-2735.6	0.0	0.0	0.0
4.92	156.7	5266.6	0.1	3220.1	10.39	359.2	44766.6	0.0	11312.3	15.86	-3110.4	0.0	0.0	0.0	11.60	-2724.8	0.0	0.0	0.0
5.03	160.2	5623.5	0.1	3363.8	10.50	363.7	45966.6	0.0	11520.7	15.98	-3128.0	0.0	0.0	0.0	11.50	-2712.7	0.0	0.0	0.0
5.14	163.6	5996.2	0.1	3510.6	10.61	368.2	47423.2	0.0	11508.1	16.09	-3147.8	0.0	0.0	0.0	11.40	-2701.9	0.0	0.0	0.0
5.25	167.1	6385.0	0.1	3660.6	10.72	372.7	48607.3	0.0	110093.7	16.20	-3165.4	0.0	0.0	0.0	11.30	-2691.1	0.0	0.0	0.0
5.36	171.0	6842.2	0.1	3833.0	10.84	377.2	49637.4	0.0	8673.3	16.31	-3180.8	0.0	0.0	0.0	11.20	-2680.3	0.0	0.0	0.0

Enter your name in SETUP page.



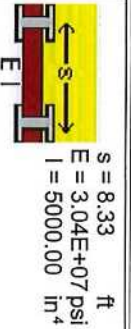
Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.52
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE



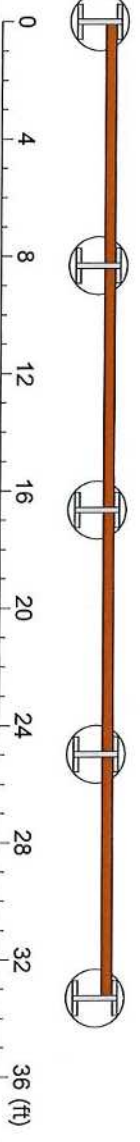
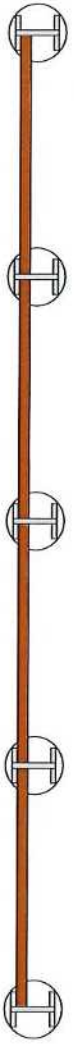
Enter your name in SETUP page.

Page: 6
 Date: 7.19.20
 Pile: W14x90 (50 ksi)
 Works: Temporary
 Pressure: Coulomb
 Analysis: Net Pressure
 Toe: Cantilever
 Profile 1
 Based on B12 which is about 100 ft away from the SOE



	Pressure (psf)	Maximum	x (ft)
Bending Moment (ftlb)	222.9	1933.5	7.00
Shear Force (lb)	928.5	0.00	4.16
Deflection (in)	0.0	4.16	

Specify lagging stress, f , for minimum section modulus



Enter your name in SETUP page.

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.52
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE

1. The standard surcharge is 0.0psf. The Piling Handbook recommends a minimum surcharge of 200.0psf. Other surcharges have been defined but ensure that this is sufficient.
2. Cohesive soil exists below the active water table. MEFD is being applied. Select 'Full Hydrostatic Head' in the 'Pressure' page to apply full hydrostatic pressure.
3. Hydrostatic pressure is switched ON in passive side cohesive soils below excavation depth. This can be switched OFF in the 'Pressure' page. A greater toe, or 'no solution' may result.
4. Total stress values are being used (i.e. $C > 0$). Note that the Piling Handbook and CIRIA SP95 recommend that effective stress values be used in 'long term' excavations.
5. Maximum bending moment = 52544.9ftlb and $f = 32280.0$ psi. MINIMUM required soldier section modulus is: $Z = 19.53\text{in}^3 (= M/f)$. Soldier pile section modulus in this design is $Z = 143.00\text{in}^3$, and is satisfactory.
6. Arching factor, $A = 2.56$. Are you sure this is correct? Minimum ϕ on passive side is 0° , and $A = 0.08\phi$ ($= 1.00$).
7. FOS = 1.52 (Net Pressure)
This is the factor of safety against rotation about the toe.
The FOS can be changed using 'Defined FOS' or 'Manual' in the 'Wall' page.



Enter your name in SETUP page.

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away from the SOE

Input Data

Depth Of Excavation = 7.00ft
Surcharge = 0.0psf

Depth Of Active Water = 15.00ft
Depth Of Passive Water = 15.00ft

Water Density = 62.43pcf
Minimum Fluid Density = 31.82pcf

Depth (ft)	Soil Name	γ (pcf)	γ' (pcf)	C (psf)	C_a (psf)	ϕ (°)	δ (°)	K_a	K_{ac}	K_p	K_{pc}
0.00	Dense Fine Sand	118.37	68.73	0.0	0.0	35.0	12.0	0.25	0.00	5.76	0.00
25.00	Very Stiff Clay	137.46	75.09	1500.0	0.0	0.0	0.0	1.00	2.00	1.00	2.00

Surcharges

Position (ft)	Width (ft)	Length (ft)	Depth (ft)	Magnitude	Type
2.60	11.00	12.00	2.00	241560.0lb	☐

Solution

Wall

Description	E (psi)	I (in ⁴)	f (psi)	Z (in ³)	Allowed M _{max} (ftlb)	b (ft)	t (ft)	w (ft)	s (ft)	Arching	n	Upstand (ft)	Toe (ft)	Length (ft)
W14x109 (50 ksi)	2.9E+07	1240.00	33333.0	173.00	480725.4	1.217	1.191	2.000	8.33	2.56	1.80	0.00	13.21	20.21
	3.04E+07	5000.00				1.000	0.333	—	—	—	—	—	—	—

Pressure Model: Coulomb; Passive pressure ignored for depth n.w (= 3.60ft)

Maxima

	Maximum	Depth (ft)
Pressure	631.1 psf	6.68
Bending Moment	179513.2 ftlb	12.95
Deflection	0.7 in	0.00
Shear Force	31867.9 lb/ft	10.61



Enter your name in SETUP page.

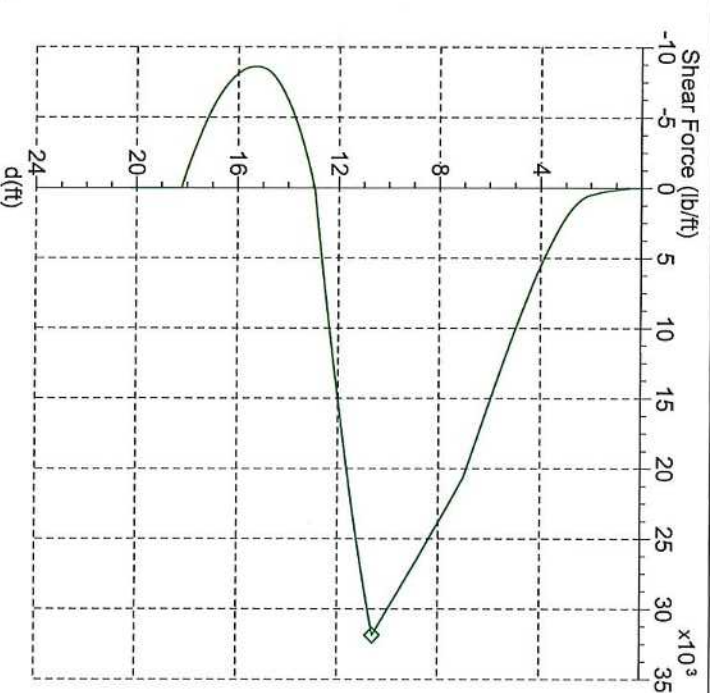
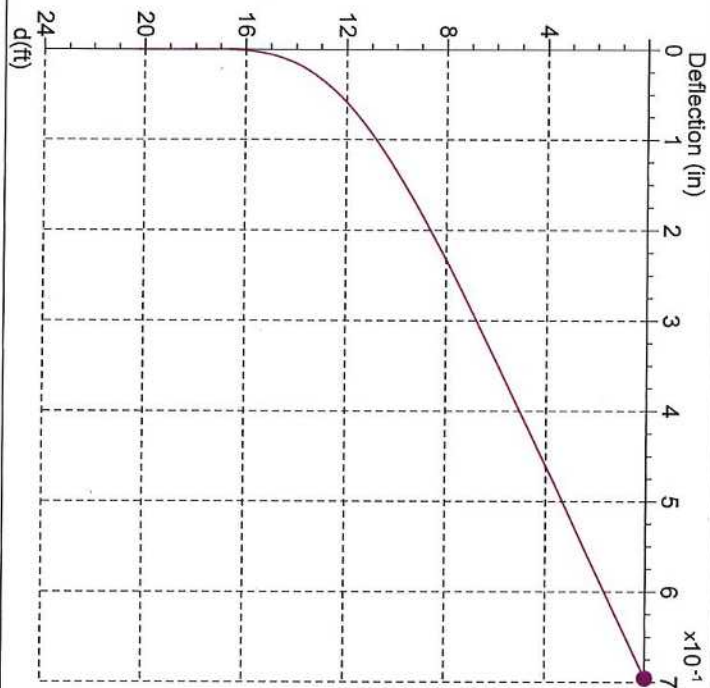
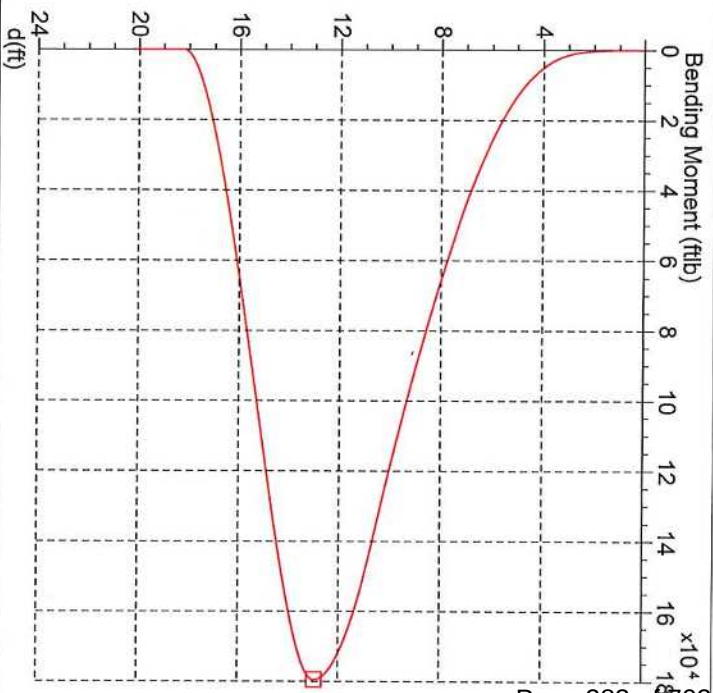
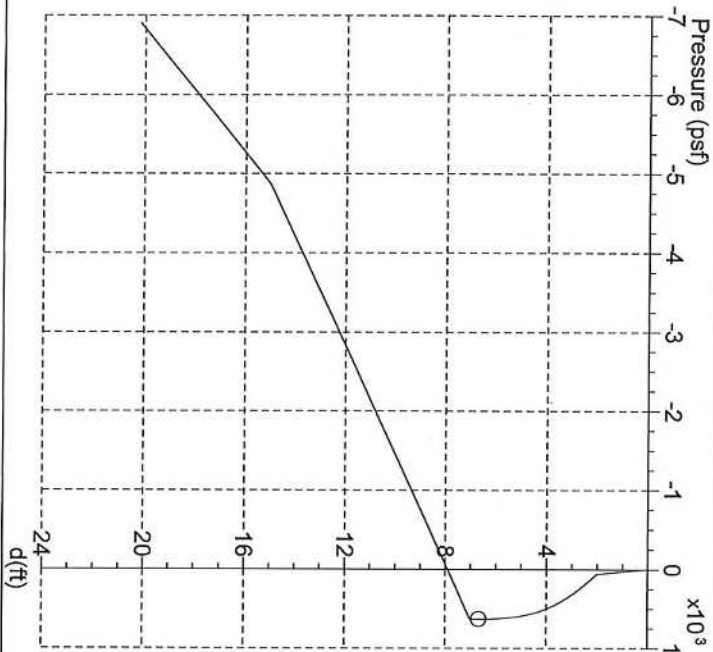


SupportIT, v2.3

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

	Maximum	d (ft)
○	631.1 psf	6.68
□	179513.2 tlb	12.95
◇	31867.9 lb/ft	10.61
●	0.7 in	0.00

Profile 1
Based on B12 which is about 100 ft away
from the SOE



Enter your name in SETUP page.

Pile: W14x109 (50 ksi)

Works: Temporary

Pressure: Coulomb

Analysis: Net Pressure

FOS: 1.51

Toe: Cantilever

Profile 1

Based on B12 which is about 100 ft away
from the SOE

depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)
0.00	0.0	0.0	0.7	0.0	6.78	631.0	39372.2	0.3	19474.7	13.56	-3888.6	172148.4	0.0	-4035.5
0.14	4.0	0.1	0.7	2.5	6.92	630.6	42034.9	0.3	20182.5	13.70	-3991.3	168229.5	0.0	-4284.4
0.28	8.0	0.8	0.7	9.5	7.06	592.5	44791.0	0.3	20787.5	13.84	-4082.6	164165.4	0.0	-4497.7
0.42	12.5	3.1	0.7	22.7	7.20	499.8	47614.3	0.3	21221.7	13.98	-4173.7	159606.7	0.0	-4699.7
0.56	16.4	7.1	0.7	39.2	7.33	395.3	50860.2	0.3	21709.3	14.12	-4264.8	154603.1	0.0	-4886.6
0.69	20.4	13.5	0.7	60.2	7.47	302.2	53807.4	0.3	22141.8	14.25	-4367.2	148504.1	0.0	-5061.3
0.83	24.4	23.1	0.6	85.6	7.61	209.0	56812.7	0.3	22573.5	14.39	-4458.1	142720.0	0.0	-5234.2
0.97	28.9	38.2	0.6	119.6	7.75	115.7	59876.1	0.2	23004.2	14.53	-4549.0	136646.3	0.0	-5417.7
1.11	32.9	56.3	0.6	154.5	7.89	22.2	62997.4	0.2	23433.7	14.67	-4639.8	130332.5	0.0	-5600.8
1.25	36.9	79.4	0.6	193.9	8.03	-83.0	66577.9	0.2	23915.6	14.81	-4730.6	123828.2	0.0	-5789.9
1.38	40.9	108.0	0.6	237.8	8.17	-176.7	69821.7	0.2	24342.7	14.95	-4832.8	116344.8	0.0	-5982.9
1.52	44.8	142.8	0.6	286.2	8.30	-270.3	73122.9	0.2	24768.5	15.08	-4899.6	109599.2	0.0	-6180.5
1.66	49.3	190.1	0.6	345.9	8.44	-364.0	76481.3	0.2	25193.1	15.22	-4953.3	102804.7	0.0	-6382.3
1.80	53.3	240.0	0.6	403.8	8.58	-469.5	80327.8	0.2	25669.1	15.36	-5006.9	95990.8	0.0	-6586.8
1.94	57.3	298.0	0.6	466.1	8.72	-563.2	83807.3	0.2	26090.9	15.50	-5067.2	88338.5	0.0	-6794.5
2.08	78.3	364.7	0.6	538.9	8.86	-666.9	87343.5	0.2	26511.4	15.64	-5120.8	81580.5	0.0	-6994.8
2.21	120.9	454.3	0.6	667.7	9.00	-750.7	90936.1	0.2	26930.6	15.78	-5174.3	74894.5	0.0	-7199.9
2.35	158.2	553.1	0.6	826.9	9.13	-844.4	94585.2	0.2	27348.5	15.91	-5227.7	68309.8	0.0	-7399.9
2.49	194.8	675.7	0.5	1027.7	9.27	-949.7	98575.5	0.2	27817.1	16.05	-5281.1	61855.4	0.0	-7599.9
2.63	230.3	827.8	0.5	1268.7	9.41	-1043.4	102525.6	0.2	28232.3	16.19	-5341.1	54786.3	0.0	-7799.9
2.77	264.6	1014.6	0.5	1548.9	9.55	-1137.0	106349.6	0.2	28646.2	16.33	-5394.4	48705.6	0.0	-7999.9
2.91	301.4	1272.8	0.5	1908.9	9.69	-1230.5	110229.3	0.1	29059.0	16.47	-5447.6	42846.3	0.0	-8199.9
3.04	332.3	1550.4	0.5	2266.7	9.83	-1335.7	114660.2	0.1	29522.1	16.61	-5500.8	37237.3	0.0	-8399.9
3.18	361.6	1878.2	0.5	2658.3	9.96	-1429.1	118657.5	0.1	29932.4	16.75	-5560.5	31262.7	0.0	-8599.9
3.32	389.1	2260.5	0.5	3081.5	10.10	-1522.5	122710.0	0.1	30341.8	16.88	-5613.6	26282.1	0.0	-8799.9
3.46	414.7	2701.5	0.5	3534.4	10.24	-1615.8	126817.6	0.1	30750.0	17.02	-5666.6	21642.5	0.0	-8999.9
3.60	441.4	3272.8	0.5	4076.9	10.38	-1709.0	130980.0	0.1	31157.4	17.16	-5719.6	17372.9	0.0	-9199.9
3.74	463.2	3851.2	0.5	4586.1	10.52	-1813.8	135728.2	0.1	31614.5	17.30	-5772.6	13502.1	0.0	-9399.9
3.87	483.2	4499.5	0.5	5118.7	10.66	-1906.9	139996.2	0.1	31380.8	17.44	-5832.1	9660.3	0.0	-9599.9
4.01	501.6	5220.8	0.5	5672.6	10.79	-1999.9	144141.1	0.1	30037.6	17.58	-5885.0	6733.0	0.0	-9799.9
4.15	520.3	6122.8	0.5	6319.1	10.93	-2092.8	148101.6	0.1	28630.4	17.71	-5937.8	4294.9	0.0	-9999.9
4.29	535.2	7008.1	0.4	6912.4	11.07	-2197.2	152325.7	0.1	26970.6	17.85	-5990.6	2374.7	0.0	-10199.9
4.43	548.8	7974.1	0.4	7521.7	11.21	-2290.0	155665.3	0.1	25427.3	17.99	-6043.3	1001.3	0.0	-10399.9
4.57	560.9	9022.9	0.4	8145.2	11.35	-2382.6	159193.5	0.1	23820.1	18.13	-6102.6	145.6	0.0	-10599.9
4.71	571.7	10156.5	0.4	8781.5	11.49	-2475.2	162301.6	0.1	22148.9	18.27	-6155.3	0.0	0.0	-10799.9
4.84	582.5	11535.0	0.4	9510.9	11.62	-2567.7	165181.0	0.1	20413.9	18.41	-6208.0	0.0	0.0	-10999.9
4.98	590.9	12853.7	0.4	10169.9	11.76	-2671.7	168136.4	0.1	18385.9	18.54	-6260.6	0.0	0.0	-11199.9
5.12	598.3	14261.6	0.4	10837.7	11.90	-2764.0	170501.4	0.1	16515.4	18.68	-6319.7	0.0	0.0	-11399.9
5.26	604.7	15759.9	0.4	11513.1	12.04	-2856.3	172610.9	0.1	14581.4	18.82	-6372.2	0.0	0.0	-11599.9
5.40	610.9	17554.6	0.4	12280.8	12.18	-2948.5	174456.4	0.1	12583.7	18.96	-6424.7	0.0	0.0	-11799.9
5.54	615.5	19247.9	0.4	12969.3	12.32	-3052.1	176206.3	0.0	10260.4	19.10	-6477.2	0.0	0.0	-11999.9
5.67	619.4	21034.1	0.4	13662.4	12.46	-3144.1	177462.3	0.0	8127.7	19.24	-6529.6	0.0	0.0	-12199.9
5.81	622.7	22913.9	0.4	14359.5	12.59	-3236.0	178427.6	0.0	5931.7	19.37	-6588.6	0.0	0.0	-12399.9
5.95	625.3	24887.6	0.3	15059.9	12.73	-3327.8	179093.5	0.0	3672.3	19.51	-6641.0	0.0	0.0	-12599.9
6.09	627.6	27221.0	0.3	15860.9	12.87	-3419.6	179451.7	0.0	1349.5	19.65	-6693.3	0.0	0.0	-12799.9
6.23	629.1	29395.8	0.3	16566.1	13.01	-3522.7	179436.8	0.0	-511.5	19.79	-6745.7	0.0	0.0	-12999.9
6.37	630.1	31665.6	0.3	17262.6	13.15	-3614.3	178690.1	0.0	-1487.1	19.93	-6804.5	0.0	0.0	-13199.9
6.50	630.8	34030.5	0.3	17970.1	13.29	-3705.8	177193.2	0.0	-2399.5	20.07	-6856.8	0.0	0.0	-13399.9
6.64	631.1	36804.9	0.3	18766.6	13.42	-3797.3	174996.0	0.0	-3248.9	20.21	-6902.2	0.0	0.0	-13599.9

Enter your name in SETUP page.



Pile: W14x109 (50 ksi)

Works: Temporary

Pressure: Coulomb

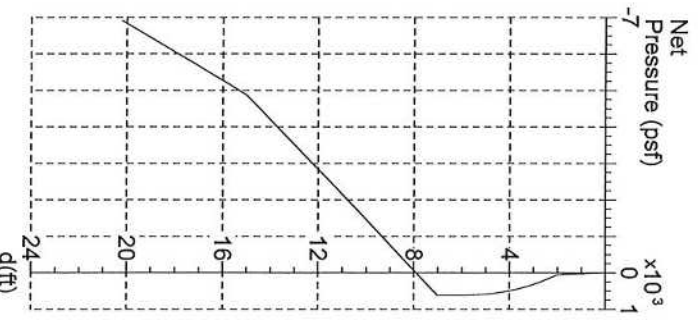
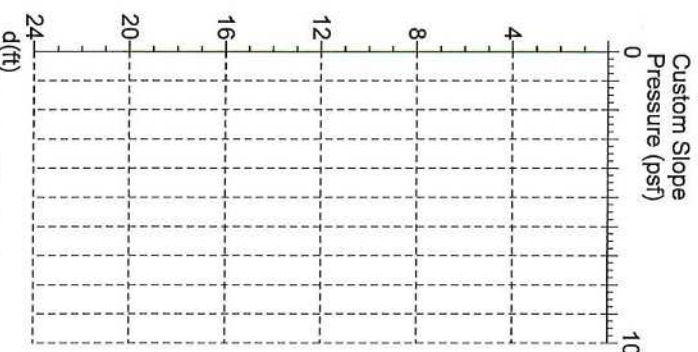
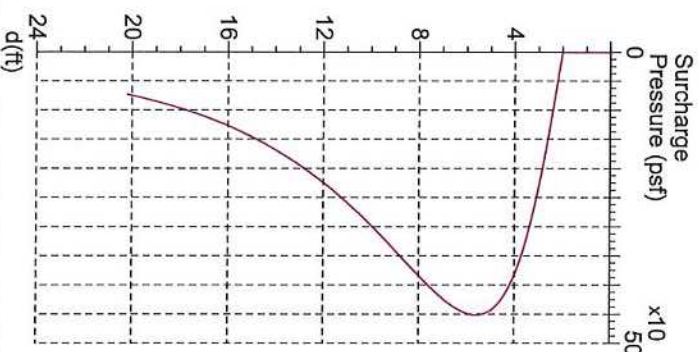
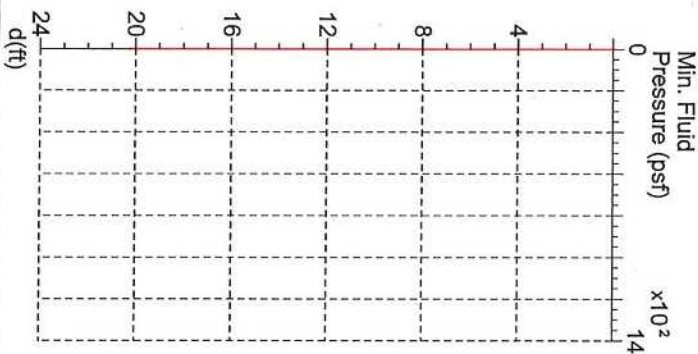
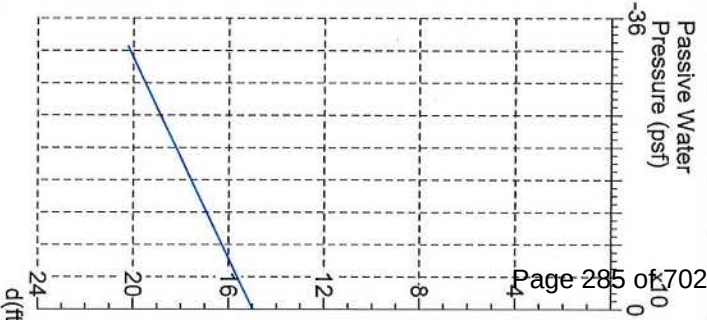
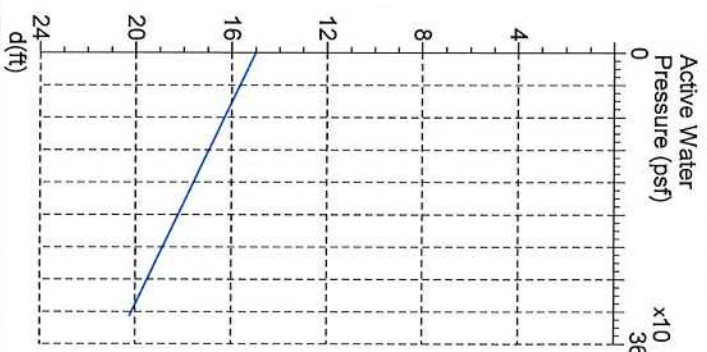
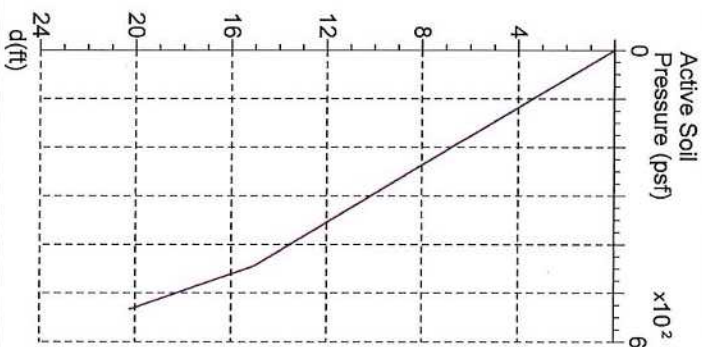
Analysis: Net Pressure

FOS: 1.51

Toe: Cantilever

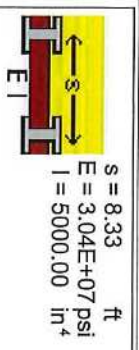
Profile 1

Based on B12 which is about 100 ft away from the SOE



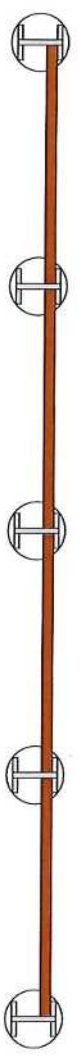
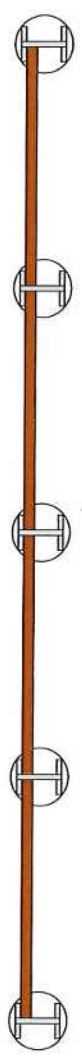
Enter your name in SETUP page.

Page: 6
 Date: 7.19.20
 Pile: W14x109 (50 ksi)
 Works: Temporary
 Pressure: Coulomb
 Analysis: Net Pressure
 Toe: Cantilever
 Profile 1
 Based on B12 which is about 100 ft away from the SOE



	Pressure (psf)	Maximum	x (ft)
Bending Moment (ftlb)	631.1	5473.7	6.68
Shear Force (lb)	2628.5	8.32	4.16
Deflection (in)	0.0		

Specify lagging stress, f_t , for minimum section modulus



0 4 8 12 16 20 24 28 32 36 (ft)

Enter your name in SETUP page.

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE

1. The standard surcharge is 0.0psf. The Piling Handbook recommends a minimum surcharge of 200.0psf. Other surcharges have been defined but ensure that this is sufficient.
2. Cohesive soil exists below the active water table. MEFD is being applied. Select 'Full Hydrostatic Head' in the 'Pressure' page to apply full hydrostatic pressure.
3. Hydrostatic pressure is switched ON in passive side cohesive soils below excavation depth. This can be switched OFF in the 'Pressure' page. A greater toe, or 'no solution' may result.
4. Total stress values are being used (i.e. $C > 0$). Note that the Piling Handbook and CIRIA SP95 recommend that effective stress values be used in 'long term' excavations.
5. Maximum bending moment = 179513.2ftlb and $f = 33333.0$ psi. MINIMUM required soldier section modulus is: $Z = 64.63in^3 (= M/f)$. Soldier pile section modulus in this design is $Z = 173.00in^3$, and is satisfactory.
6. Arching factor, $A = 2.56$. Are you sure this is correct? Minimum phi on passive side is 0° , and $A = 0.08phi (= 1.00)$.
7. FOS = 1.51 (Net Pressure)
This is the factor of safety against rotation about the toe.
The FOS can be changed using 'Defined FOS' or 'Manual' in the 'Wall' page.



Enter your name in SETUP page.

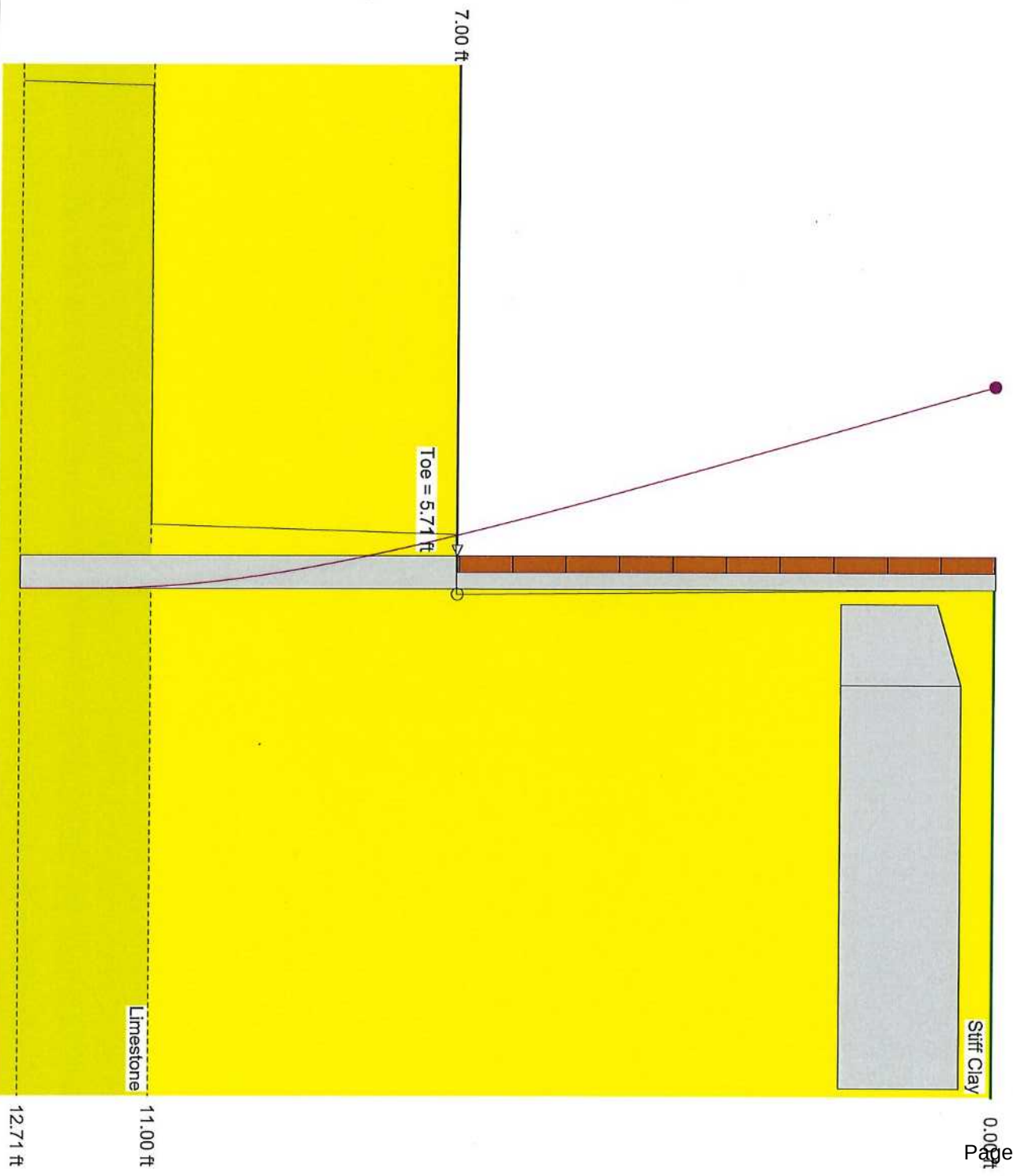
SupportIT Analyses

Piles Installed in Soils Overlying Weathered
Limestone

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Maximum	d (ft)
☐ 222.9 psf	7.00
☒ 0.1 in	0.00

Profile 1
Based on B12 which is about 100 ft away from the SOE



Enter your name in SETUP page.

Pile: W14x90 (50 ksi)

Works: Temporary

Pressure: Coulomb

Analysis: Net Pressure

FOS: 1.51

Toe: Cantilever

Profile 1

Based on B12 which is about 100 ft away from the SOE

Input Data

Depth Of Excavation = 7.00ft
Surcharge = 0.0psf

Depth Of Active Water = 15.00ft
Depth Of Passive Water = 15.00ft

Water Density = 62.43pcf
Minimum Fluid Density = 31.82pcf

Soil Profile

Depth (ft)	Soil Name	γ (pcf)	γ' (pcf)	C (psf)	C_a (psf)	ϕ (°)	δ (°)	K_a	K_{ac}	K_p	K_{pc}
0.00	Stiff Clay	131.10	68.73	1200.0	0.0	0.0	0.0	1.00	2.00	1.00	2.00
11.00	Limestone	137.46	75.09	10000.0	0.0	0.0	0.0	1.00	2.00	1.00	2.00

Surcharges

Position (ft)	Width (ft)	Length (ft)	Depth (ft)	Magnitude	Type
2.60	11.00	12.00	2.00	241560.0lb	Area

Solution

Wall

Description	E (psi)	I (in ⁴)	f (psi)	Z (in ³)	Allowed M _{max} (ftlb)	b (ft)	t (ft)	w (ft)	s (ft)	Arching	n	Upstand (ft)	Toe (ft)	Length (ft)
W14x90 (50 ksi)	2.9E+07	999.00	32280.0	143.00	384670.0	1.207	1.168	2.000	8.33	2.56	1.80	0.00	5.71	12.71
	3.04E+07	5000.00				1.000	0.333	—	—	—	—	—	—	—

Pressure Model: Coulomb; Passive pressure ignored for depth n.w (= 3.60ft)

Maxima

	Maximum	Depth (ft)
Pressure	222.9 psf	7.00
Bending Moment	51191.8 ftlb	11.07
Deflection	0.1 in	0.00
Shear Force	11691.8 lb/ft	10.61

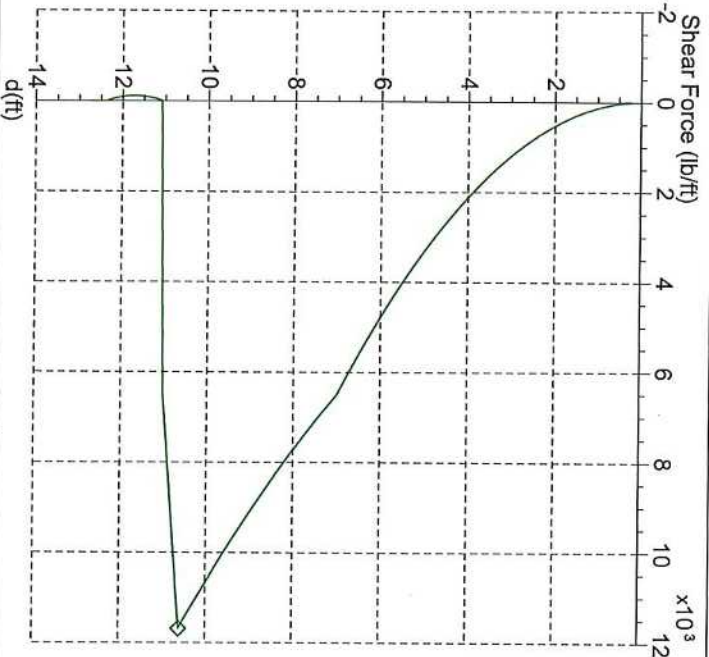
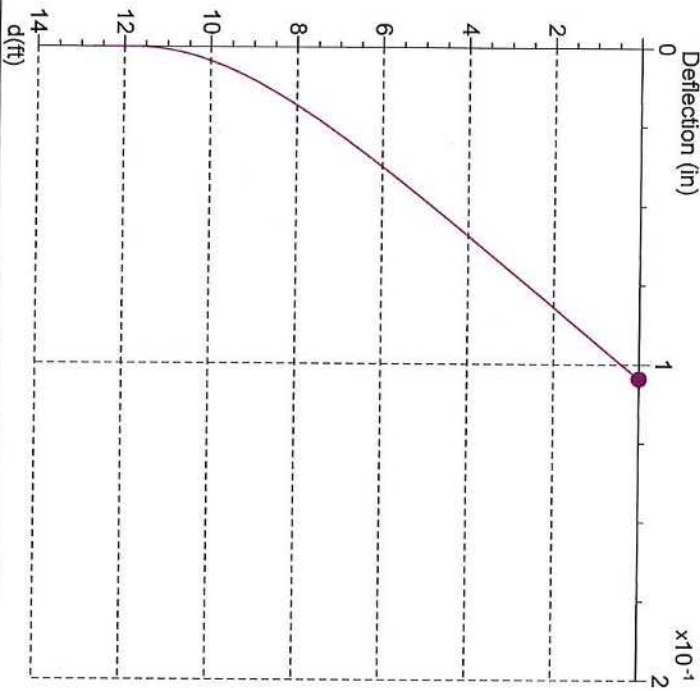
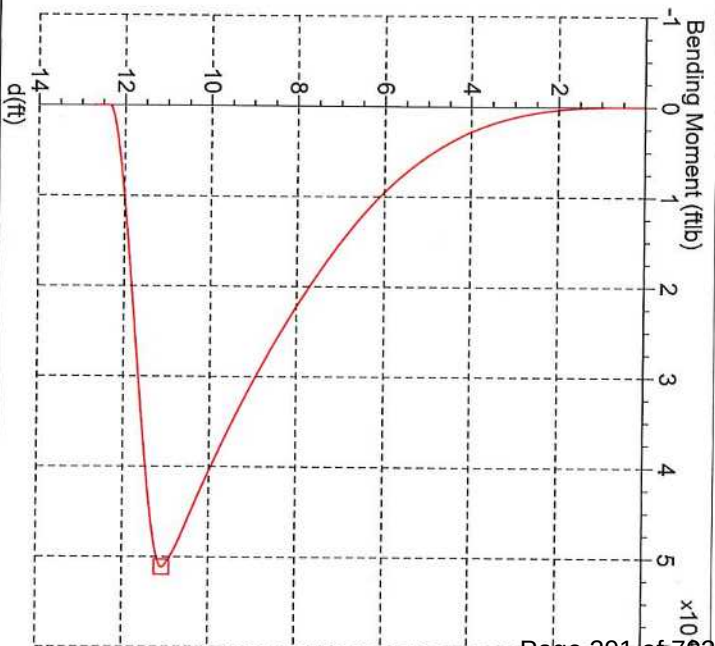
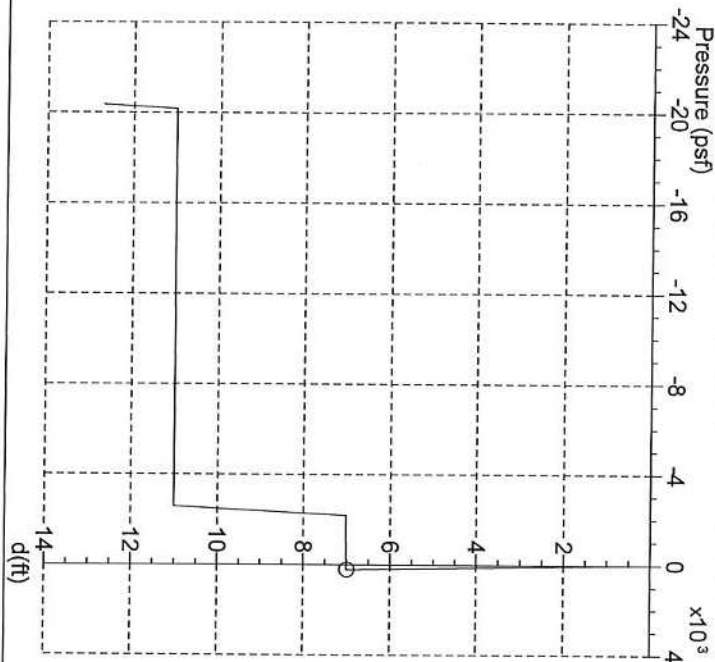


Enter your name in SETUP page.

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

	Maximum	d (ft)
○	222.9 psf	7.00
□	51191.8 ftlb	11.07
◇	11691.8 lb/ft	10.61
●	0.1 in	0.00

Profile 1
Based on B12 which is about 100 ft away
from the SOE



Enter your name in SETUP page.

Pile: W14x90 (50 ksi)

Works: Temporary

Pressure: Coulomb

Analysis: Net Pressure

FOS: 1.51

Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE

depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)
0.00	0.0	0.0	0.1	0.0
0.09	2.7	0.0	0.1	1.1
0.17	5.4	0.2	0.1	4.0
0.26	8.4	0.8	0.1	9.7
0.35	11.1	1.9	0.1	16.7
0.44	13.8	3.6	0.1	25.6
0.52	16.5	6.2	0.1	36.4
0.61	19.6	10.2	0.1	50.9
0.70	22.3	15.1	0.1	65.7
0.78	25.0	21.2	0.1	82.5
0.87	27.6	28.9	0.1	101.2
0.96	30.3	38.2	0.1	121.8
1.04	33.4	50.9	0.1	147.2
1.13	36.1	64.2	0.1	171.8
1.22	38.8	79.7	0.1	198.3
1.31	41.5	97.5	0.1	226.8
1.39	44.5	120.6	0.1	261.0
1.48	47.2	143.8	0.1	293.5
1.57	49.9	169.9	0.1	327.9
1.65	52.6	199.0	0.1	364.2
1.74	55.3	231.2	0.1	402.3
1.83	58.3	271.4	0.1	447.6
1.91	61.0	310.9	0.1	489.8
2.00	63.7	353.9	0.1	533.9
2.09	66.4	400.8	0.1	580.0
2.18	69.1	451.6	0.1	627.9
2.26	72.2	513.8	0.1	684.1
2.35	74.9	573.6	0.1	736.1
2.44	77.6	637.9	0.1	790.0
2.52	80.2	706.8	0.1	845.8
2.61	83.3	790.0	0.1	910.8
2.70	86.0	869.3	0.1	970.6
2.78	88.7	953.7	0.1	1032.4
2.87	91.4	1043.4	0.1	1096.0
2.96	94.1	1138.5	0.1	1161.5
3.05	97.1	1252.3	0.1	1237.5
3.13	99.8	1359.6	0.1	1307.1
3.22	102.5	1472.9	0.1	1378.6
3.31	105.2	1592.2	0.1	1452.0
3.39	108.2	1734.0	0.1	1536.8
3.48	110.9	1866.9	0.1	1614.3
3.57	113.6	2006.5	0.1	1693.6
3.65	116.3	2152.8	0.1	1774.9
3.74	119.0	2306.0	0.1	1858.0
3.83	122.1	2486.9	0.1	1953.8
3.92	124.8	2655.5	0.1	2041.0
4.00	127.5	2831.5	0.1	2130.1
4.09	130.2	3015.1	0.1	2221.7
4.18	133.2	3231.0	0.1	2325.7

depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)
4.26	135.9	3431.3	0.1	2420.8
4.35	138.6	3639.7	0.1	2517.7
4.44	141.3	3856.4	0.1	2616.6
4.53	144.0	4081.5	0.1	2717.3
4.61	147.0	4345.1	0.1	2832.9
4.70	149.7	4588.7	0.1	2937.7
4.79	152.4	4841.2	0.1	3044.4
4.87	155.1	5102.9	0.0	3153.0
4.96	157.8	5373.8	0.0	3263.5
5.05	160.8	5689.8	0.0	3390.1
5.13	163.5	5980.9	0.0	3504.7
5.22	166.2	6281.8	0.0	3621.1
5.31	168.9	6592.6	0.0	3739.5
5.40	172.0	6954.3	0.0	3874.9
5.48	174.7	7286.7	0.0	3997.3
5.57	177.4	7629.5	0.0	4121.6
5.66	180.1	7983.0	0.0	4247.8
5.74	182.8	8347.2	0.0	4375.9
5.83	185.8	8769.9	0.0	4522.3
5.92	188.5	9157.5	0.0	4654.5
6.00	191.2	9556.3	0.0	4788.5
6.09	193.9	9966.6	0.0	4924.5
6.18	196.9	10441.9	0.0	5079.7
6.27	199.6	10877.0	0.0	5219.7
6.35	202.3	11323.9	0.0	5361.6
6.44	205.0	11782.9	0.0	5505.4
6.53	207.7	12254.2	0.0	5651.2
6.61	210.4	12799.2	0.0	5817.4
6.70	213.4	13297.0	0.0	5967.1
6.79	216.1	13807.5	0.0	6118.8
6.87	218.8	14331.0	0.0	6272.3
6.96	221.9	14935.5	0.0	6427.4
7.05	224.2	15486.1	0.0	6566.9
7.14	226.9	16045.4	0.0	6665.0
7.22	229.0	16613.1	0.0	6764.2
7.31	231.4	17189.2	0.0	6864.2
7.40	233.7	17847.5	0.0	6978.9
7.48	235.3	18441.9	0.0	7081.7
7.57	237.0	19045.0	0.0	7185.8
7.66	238.7	19657.0	0.0	7291.0
7.74	240.4	20253.5	0.0	7397.3
7.83	242.1	20856.1	0.0	7510.7
7.92	243.8	21467.2	0.0	7627.3
8.01	245.5	22077.0	0.0	7737.3
8.09	247.2	22688.4	0.0	7848.5
8.18	248.9	23293.5	0.0	7975.0
8.27	250.6	23898.4	0.0	8088.7
8.35	252.3	24506.2	0.0	8203.6
8.44	254.0	25154.6	0.0	8319.6

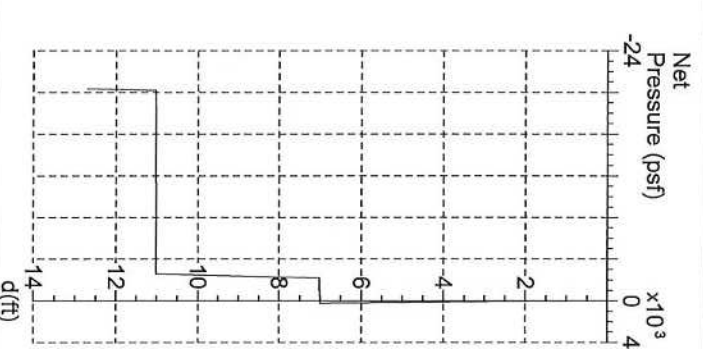
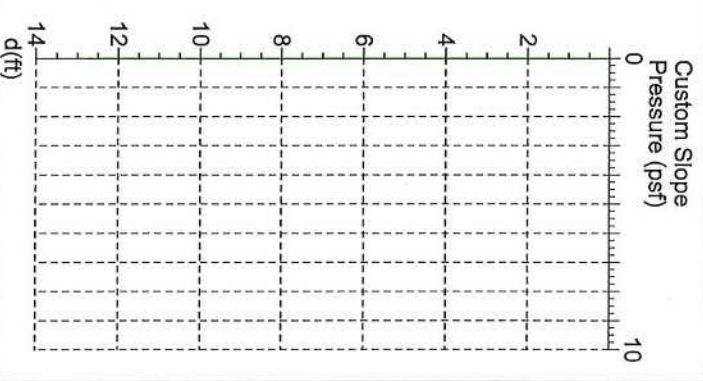
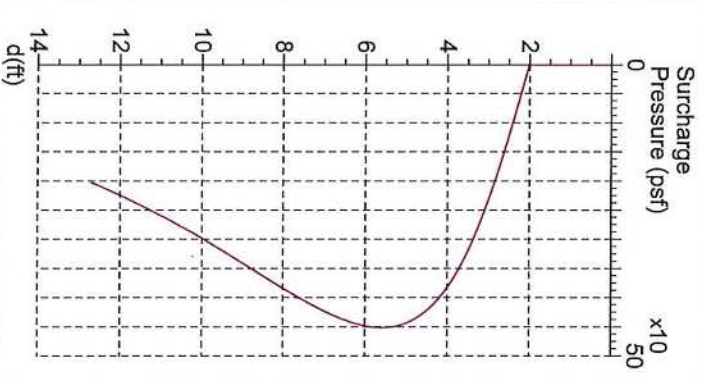
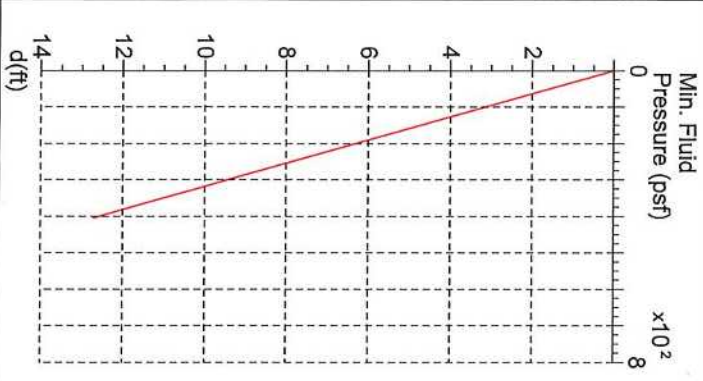
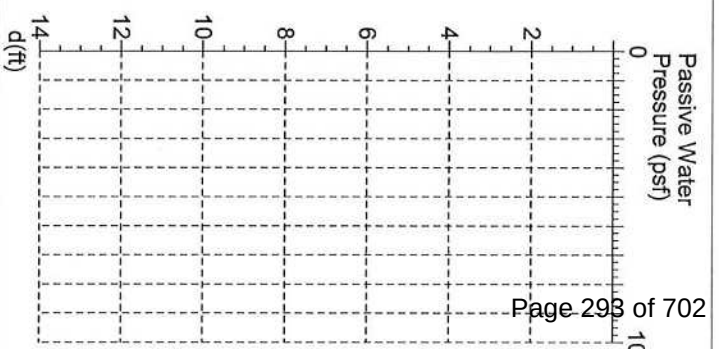
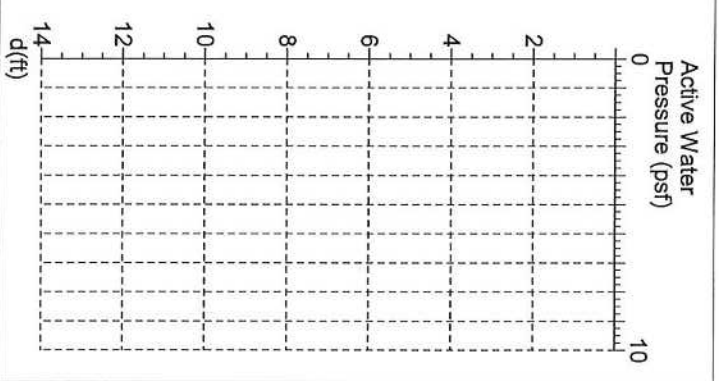
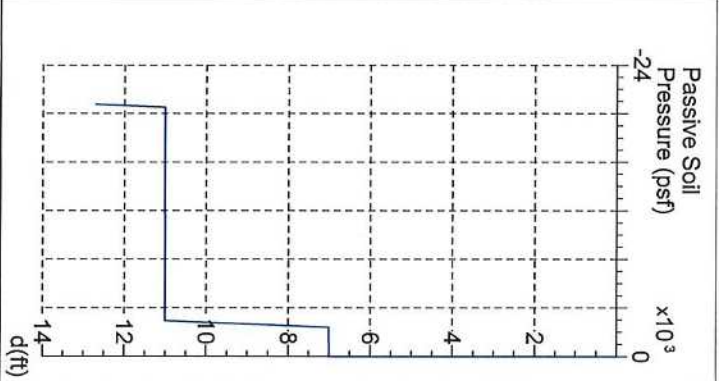
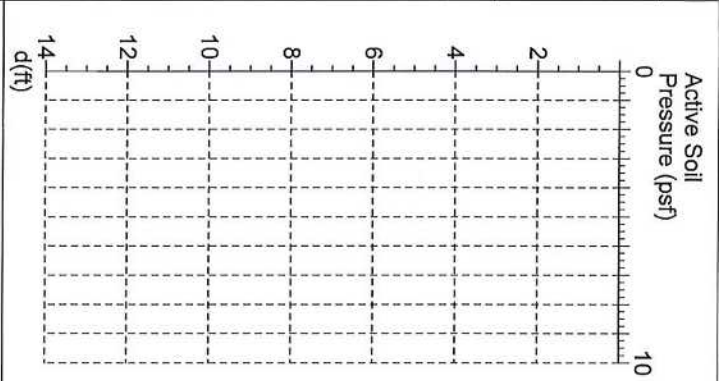
depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)
8.53	2328.3	26463.0	0.0	8336.0
8.62	2337.7	27271.8	0.0	8470.0
8.70	2346.1	28001.4	0.0	8589.0
8.79	2354.5	28741.3	0.0	8710.0
8.88	2362.9	29491.3	0.0	8832.0
8.96	2372.4	30347.6	0.0	8957.0
9.05	2380.8	31119.8	0.0	9195.0
9.14	2389.2	31902.6	0.0	9321.0
9.22	2397.6	32696.1	0.0	9448.0
9.31	2406.0	33500.4	0.0	9576.0
9.40	2415.5	34418.2	0.0	9721.0
9.49	2423.9	35245.7	0.0	9852.0
9.57	2432.3	36084.3	0.0	9983.0
9.66	2440.7	36934.0	0.0	10116.0
9.75	2450.2	37903.5	0.0	10267.0
9.83	2458.6	38777.4	0.0	10403.0
9.92	2467.0	39662.8	0.0	10539.0
10.01	2475.4	40559.7	0.0	10677.0
10.09	2483.8	41468.4	0.0	10816.0
10.18	2493.2	42504.7	0.0	10973.0
10.27	2501.6	43438.5	0.0	11114.0
10.36	2510.1	44384.4	0.0	11257.0
10.44	2518.5	45342.3	0.0	11401.0
10.53	2527.9	46343.6	0.0	11564.0
10.62	2534.9	47418.5	0.0	11654.0
10.70	2544.7	48355.5	0.0	11845.0
10.79	2553.1	49199.2	0.0	11947.0
10.88	2561.5	49949.2	0.0	12054.0
10.96	2571.0	50680.6	0.0	12167.0
11.05	2579.7	51170.0	0.0	12283.0
11.14	2588.6	50886.8	0.0	12399.0
11.23	2597.6	49424.2	0.0	12515.0
11.31	2606.5	46918.4	0.0	12631.0
11.40	2616.6	43074.4	0.0	12747.0
11.49	2622.5	38942.3	0.0	12863.0
11.57	2623.4	34321.2	0.0	12979.0
11.66	2624.4	29389.7	0.0	13095.0
11.75	2625.5	23692.0	0.0	13211.0
11.84	2626.5	18690.4	0.0	13327.0
11.92	2627.4	13932.9	0.0	13443.0
12.01	2628.4	9597.1	0.0	13559.0
12.10	2629.4	5860.3	0.0	13675.0
12.18	2629.4	2593.8	0.0	13791.0
12.27	2630.3	719.9	0.0	13907.0
12.36	2631.7	0.0	0.0	14023.0
12.44	2632.6	0.0	0.0	14139.0
12.53	2633.6	0.0	0.0	14255.0
12.62	2634.5	0.0	0.0	14371.0
12.71	2635.1	0.0	0.0	14487.0



Enter your name in SETUP page.

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away from the SOE



Enter your name in SETUP page.

Page: 6
Date: 7.22.20

Pile: W14x90 (50 ksi)

Works: Temporary

Pressure: Coulomb

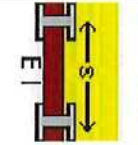
Analysis: Net Pressure

Toe: Cantilever

Profile 1

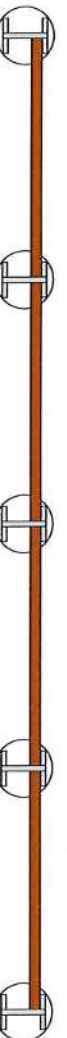
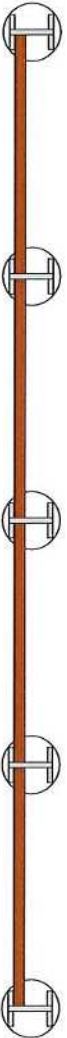
Based on B12 which is about 100 ft away from the SOE

$s = 8.33$ ft
 $E = 3.04E+07$ psi
 $I = 5000.00$ in⁴



	Maximum	x (ft)
Pressure (psf)	222.9	7.00
Bending Moment (ftlb)	1933.1	4.16
Shear Force (lb)	928.3	8.32
Deflection (in)	0.0	4.16

Specify lagging stress, f , for minimum section modulus



0 4 8 12 16 20 24 28 32 36 (ft)

Enter your name in SETUP page.



SupportIT, v2.3
© 1997 - 2014, GTSOFT Ltd.
Tel/Fax: +44 (0)1292 477777
Email: GTSOFT@gssoft.org
Web: www.GTSOFT.org

Pile: W14x90 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE

1. The standard surcharge is 0.0psf. The Piling Handbook recommends a minimum surcharge of 200.0psf. Other surcharges have been defined, but ensure that this is sufficient.
2. Total stress values are being used (i.e. $C > 0$). Note that the Piling Handbook and CIRIA SP95 recommend that effective stress values be used in 'long term' excavations.
3. Maximum bending moment = 51191.8ftlb and $f = 32280.0$ psi. MINIMUM required soldier section modulus is: $Z = 19.03\text{in}^3 (= M/f)$. Soldier pile section modulus in this design is $Z = 143.00\text{in}^3$, and is satisfactory.
4. Arching factor, $A = 2.56$. Are you sure this is correct? Minimum ϕ on passive side is 0° , and $A = 0.08\phi$ ($= 1.00$).
5. FOS = 1.51 (Net Pressure)
This is the factor of safety against rotation about the toe.
The FOS can be changed using 'Defined FOS' or 'Manual' in the 'Wall' page.



Enter your name in SETUP page.

Pile: W14x109 (50 ksi)

Works: Temporary

Pressure: Coulomb

Analysis: Net Pressure

FOS: 1.51

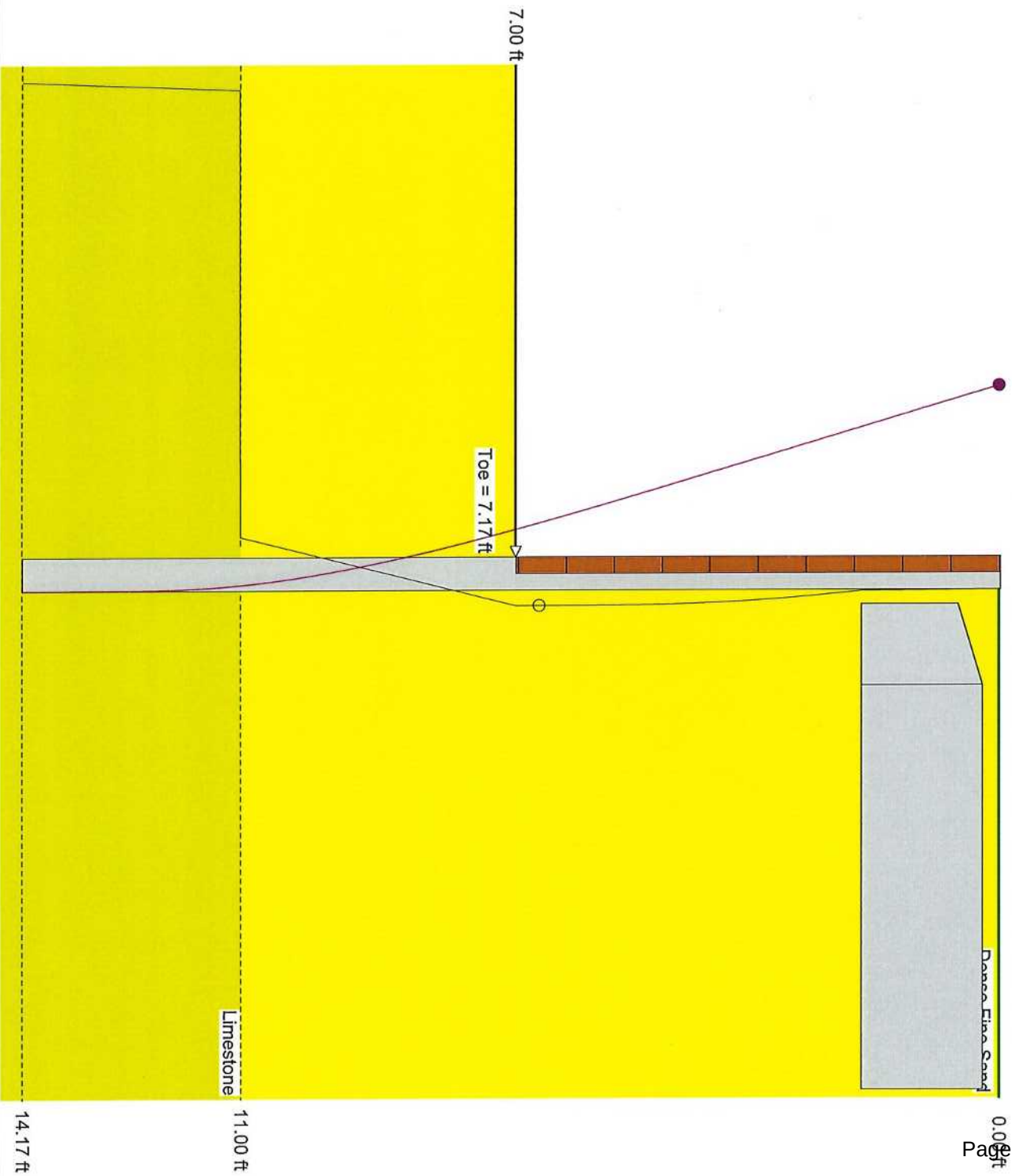
Toe: Cantilever

Maximum	d (ft)
☐ 630.8 psf	6.67
☒ 0.3 in	0.00

Profile 1

Based on B12 which is about 100 ft away from the SOE

Note: Sand model is for comparison purposes only



Enter your name in SETUP page.

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away from the SOE

Input Data
Depth Of Excavation = 7.00ft
Surcharge = 0.0psf
Depth Of Active Water = 15.00ft
Depth Of Passive Water = 15.00ft
Water Density = 62.43pcf
Minimum Fluid Density = 31.82pcf

Soil Profile	Depth (ft)	Soil Name	γ (pcf)	γ' (pcf)	C (psf)	C_a (psf)	ϕ (°)	δ (°)	K_a	K_{ac}	K_p	K_{pc}
	0.00	Dense Fine Sand	118.37	68.73	0.0	0.0	35.0	12.0	0.25	0.00	5.76	0.00
	11.00	Limestone	137.46	75.09	10000.0	0.0	0.0	0.0	1.00	2.00	1.00	2.00

Surcharges	Position (ft)	Width (ft)	Length (ft)	Depth (ft)	Magnitude	Type
	2.60	11.00	12.00	2.00	241560.0lb	Area

Solution

Wall	Description	E (psi)	I (in ⁴)	f (psi)	Z (in ³)	Allowed M _{max} (ftlb)	b (ft)	t (ft)	w (ft)	s (ft)	Arching	n	Upstand (ft)	Toe (ft)	Length (ft)
	W14x109 (50 ksi)	2.9E+07	1240.00	33333.0	173.00	480725.4	1.217	1.191	2.000	8.33	2.56	1.80	0.00	7.17	14.17
		3.04E+07	5000.00				1.000	0.333							

Pressure Model: Coulomb; Passive pressure ignored for depth n.w (= 3.60ft)

Maxima	Maximum	Depth (ft)
Pressure	630.8 psf	6.67
Bending Moment	154357.9 ftlb	11.27
Deflection	0.3 in	0.00
Shear Force	31849.2 lb/ft	10.60

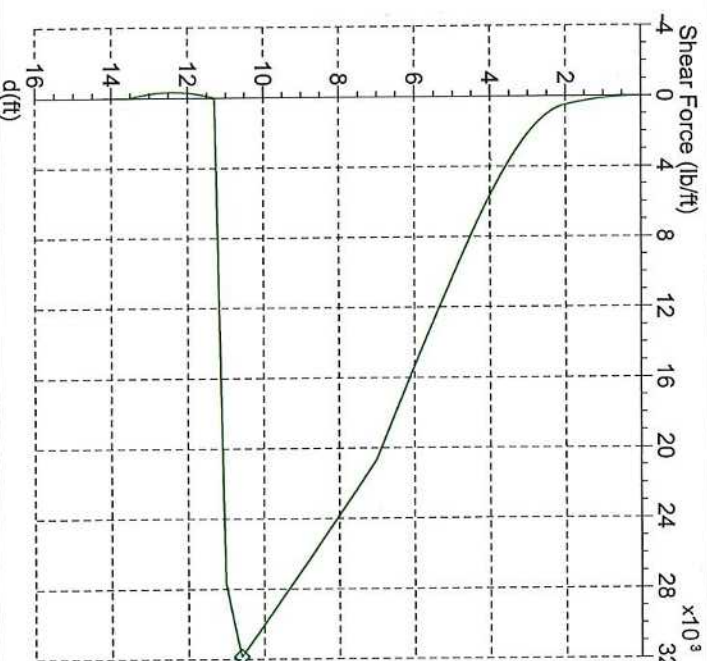
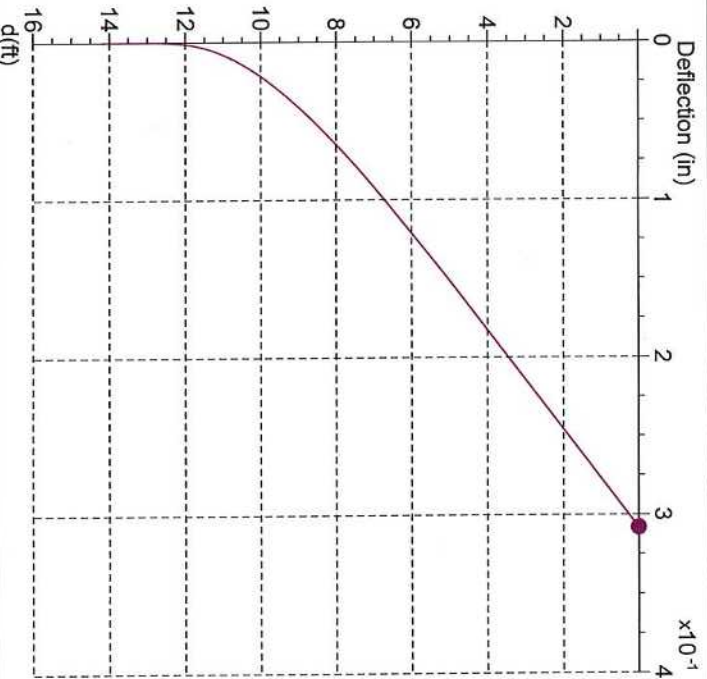
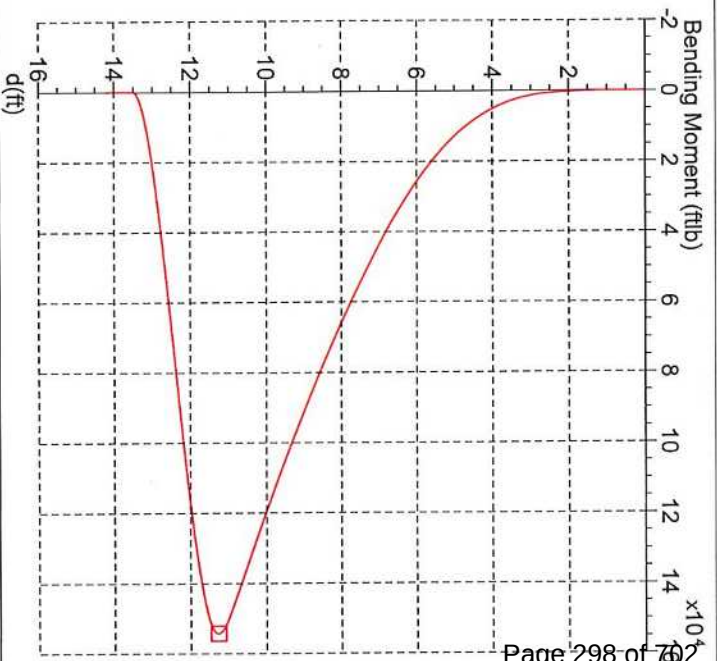
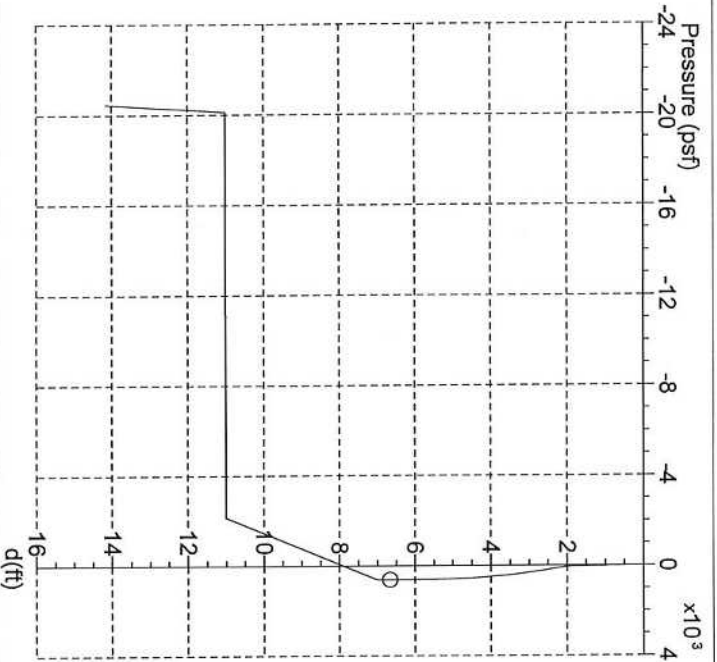


Enter your name in SETUP page.

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

	Maximum	d (ft)
○	630.8 psf	6.67
□	154357.9 ftlb	11.27
◇	31849.2 lb/ft	10.60
●	0.3 in	0.00

Profile 1
Based on B12 which is about 100 ft away
from the SOE



Enter your name in SETUP page.

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away
from the SOE

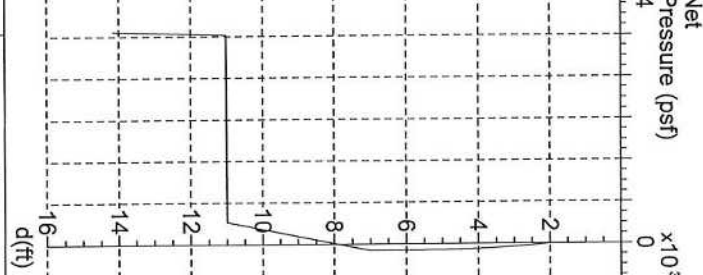
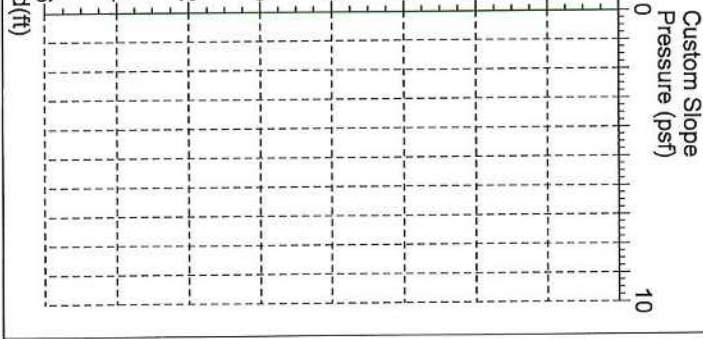
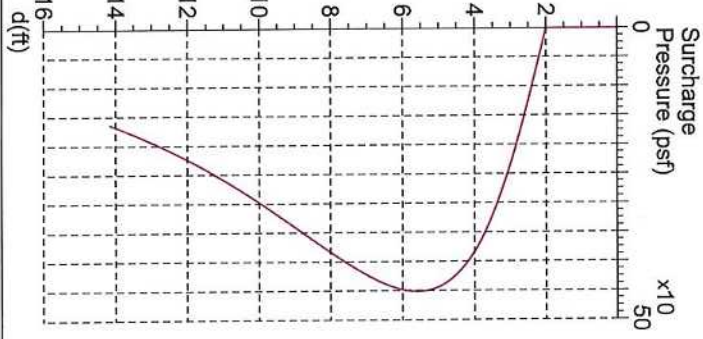
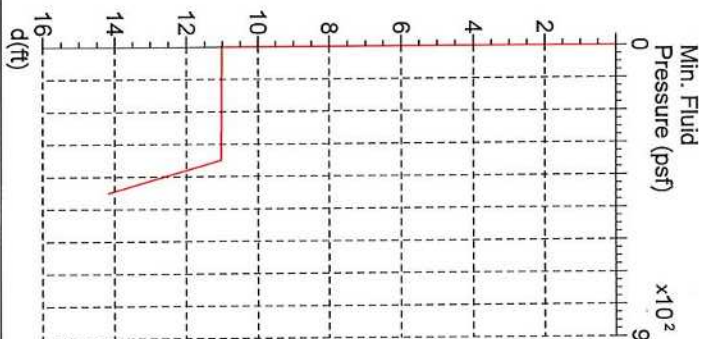
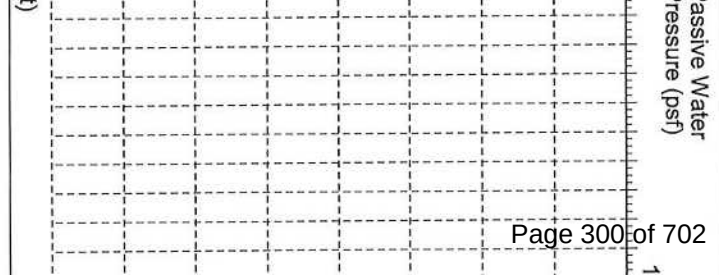
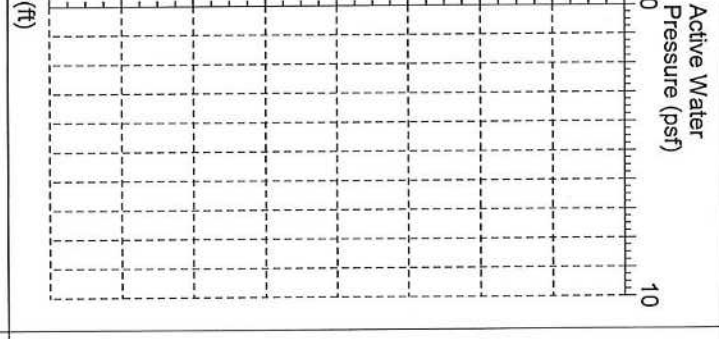
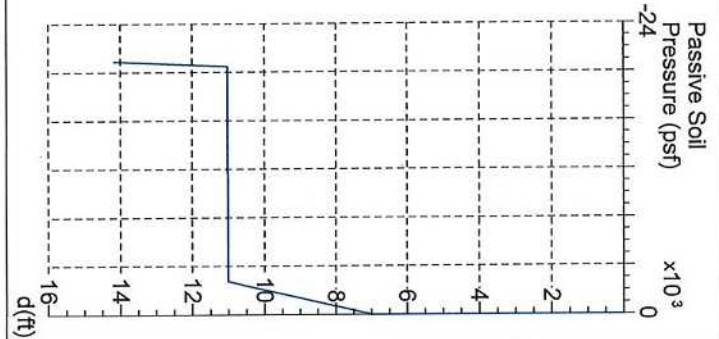
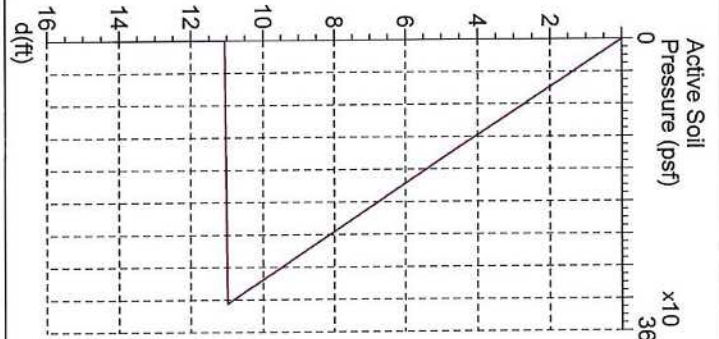
depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb)	D (in)	F (lb/ft)
0.00	0.0	0.0	0.3	0.0	4.75	576.5	10729.1	0.2	9086.1	9.51	-1106.6	105148.3	0.0	2515.5
0.10	2.8	0.0	0.3	1.2	4.85	583.0	11604.4	0.2	9542.6	9.61	-1180.4	108187.6	0.0	2584.0
0.19	5.6	0.3	0.3	4.7	4.95	588.9	12522.9	0.2	10003.8	9.70	-1246.0	110918.1	0.0	2612.9
0.29	8.7	1.1	0.3	11.2	5.05	594.3	13485.0	0.2	10469.5	9.80	-1311.6	113675.8	0.0	2641.8
0.39	11.5	2.4	0.3	19.3	5.14	599.9	14620.1	0.1	10998.3	9.90	-1377.1	116460.7	0.0	2670.6
0.49	14.3	4.7	0.3	29.6	5.24	604.3	15676.4	0.1	11472.2	9.99	-1450.7	119626.1	0.0	3002.2
0.58	17.1	8.0	0.3	42.1	5.34	608.3	16777.4	0.1	11949.3	10.09	-1516.2	122468.6	0.0	3031.6
0.68	20.3	13.2	0.3	58.8	5.43	611.9	17923.5	0.1	12429.4	10.18	-1567.0	125338.0	0.0	3060.2
0.78	23.1	19.4	0.3	75.9	5.53	615.2	19115.0	0.1	12912.2	10.28	-1647.0	128234.5	0.0	3088.8
0.87	25.9	27.4	0.3	95.3	5.63	618.2	20510.0	0.1	13458.1	10.38	-1712.3	131157.8	0.0	3117.7
0.97	28.6	37.2	0.3	116.9	5.72	620.7	21798.7	0.1	13945.5	10.48	-1785.8	134478.7	0.0	3148.3
1.07	31.4	49.2	0.3	140.7	5.82	622.8	23133.4	0.1	14434.7	10.58	-1851.1	137459.1	0.0	3177.8
1.16	34.6	65.5	0.3	170.0	5.92	624.7	24514.3	0.1	14925.5	10.67	-1916.3	140439.9	0.0	3202.2
1.26	37.4	82.6	0.3	198.5	6.02	626.4	26123.1	0.1	15479.2	10.77	-1981.5	143339.0	0.0	3222.4
1.36	40.2	102.6	0.3	229.1	6.11	627.7	27602.5	0.1	15972.5	10.87	-2054.8	146492.9	0.0	2912.2
1.46	43.0	125.5	0.3	262.0	6.21	628.7	29128.5	0.1	16466.8	10.96	-2119.9	149197.3	0.0	2812.2
1.55	46.1	155.2	0.3	301.5	6.31	629.5	30701.1	0.1	16961.7	11.06	-20129.4	151728.7	0.0	2274.0
1.65	48.9	185.1	0.3	339.0	6.40	630.1	32320.4	0.1	17457.2	11.16	-20139.3	153470.9	0.0	13006
1.75	51.7	218.7	0.3	378.7	6.50	630.6	34197.9	0.1	18015.1	11.25	-20149.3	154295.2	0.0	3266.3
1.84	54.5	256.1	0.3	420.6	6.60	630.8	35916.5	0.1	18511.3	11.35	-20160.5	155965.3	0.0	40
1.94	57.3	297.5	0.2	464.8	6.69	630.8	37681.9	0.1	19007.5	11.45	-20170.5	157200.7	0.0	-9
2.04	72.4	349.3	0.2	519.9	6.79	630.7	39494.0	0.1	19503.7	11.55	-20180.5	148705.5	0.0	-177
2.13	99.0	401.0	0.2	588.7	6.89	630.4	41588.6	0.1	20061.7	11.64	-20190.5	144044.8	0.0	-21
2.23	125.4	460.0	0.2	678.2	6.99	630.0	43500.1	0.1	20557.5	11.74	-20201.7	137421.6	0.0	-24
2.33	151.6	528.3	0.2	788.5	7.08	573.1	45452.4	0.1	20885.9	11.84	-20211.7	130468.5	0.0	-29
2.43	177.5	607.9	0.2	919.3	7.18	508.1	47433.7	0.1	21190.1	11.93	-20221.7	122663.4	0.0	-31
2.52	206.0	713.2	0.2	1090.4	7.28	443.0	49443.7	0.1	21835.4	12.03	-20231.7	114151.3	0.0	-32
2.62	230.7	823.0	0.2	1263.4	7.37	369.6	51739.1	0.1	22139.4	12.13	-20241.6	106077.4	0.0	-32
2.72	254.9	949.9	0.2	1455.7	7.47	304.4	53809.8	0.1	22441.0	12.23	-20251.9	94378.4	0.0	-32
2.81	278.3	1095.7	0.2	1666.6	7.57	239.0	55909.1	0.1	22441.0	12.32	-20262.9	84592.4	0.0	-32
2.91	303.8	1284.4	0.2	1925.5	7.66	173.6	58036.9	0.1	22743.1	12.42	-20272.8	74698.1	0.0	-32
3.01	325.6	1476.0	0.2	2174.2	7.76	99.9	60464.7	0.1	23082.4	12.52	-20282.8	64840.0	0.0	-32
3.10	346.6	1691.8	0.2	2439.7	7.86	34.4	62652.9	0.1	23683.8	12.61	-20292.8	55163.1	0.0	-31
3.20	366.7	1933.2	0.2	2721.3	7.96	-31.2	64869.5	0.1	23863.8	12.71	-20304.0	44673.7	0.0	-28
3.30	385.9	2201.9	0.2	3018.3	8.05	-96.8	67114.3	0.1	24282.9	12.81	-20314.0	35863.4	0.0	-25
3.40	406.4	2538.4	0.2	3370.0	8.15	-162.4	69387.4	0.1	24618.9	12.90	-20324.0	27687.6	0.0	-22
3.49	423.7	2869.4	0.2	3697.4	8.25	-236.3	71978.3	0.1	25016.8	13.00	-20334.0	20291.5	0.0	-19
3.59	440.2	3231.9	0.2	4038.1	8.34	-302.0	74311.2	0.1	25510.8	13.10	-20345.2	13083.0	0.0	-15
3.69	455.7	3627.0	0.2	4391.2	8.44	-367.7	76672.2	0.1	25510.8	13.20	-20355.2	7824.7	0.0	-10
3.78	472.1	4111.9	0.2	4802.7	8.54	-433.4	79061.2	0.0	25843.8	13.29	-20365.2	3799.2	0.0	-6
3.88	485.8	4580.1	0.2	5180.2	8.64	-507.3	81782.2	0.0	26139.1	13.39	-20375.2	1151.4	0.0	-
3.98	498.6	5084.3	0.2	5568.0	8.73	-573.0	84230.5	0.0	26433.8	13.49	-20385.1	26.3	0.0	-
4.08	510.7	5625.5	0.2	5965.7	8.83	-638.7	86706.5	0.0	26727.8	13.58	-20396.4	0.0	0.0	-
4.17	522.0	6204.6	0.2	6372.5	8.93	-704.4	89210.4	0.0	27021.2	13.68	-20406.3	0.0	0.0	-
4.27	533.8	6902.3	0.2	6840.3	9.02	-770.1	91741.9	0.0	27301.5	13.78	-20416.3	0.0	0.0	-
4.37	543.5	7564.5	0.2	7264.5	9.12	-844.1	94622.9	0.0	27642.6	13.87	-20426.3	0.0	0.0	-
4.46	552.8	8267.0	0.2	7696.0	9.22	-909.7	97213.0	0.0	27934.0	13.97	-20437.5	0.0	0.0	-
4.56	560.8	9010.5	0.2	8134.4	9.31	-975.4	99830.7	0.0	28224.8	14.07	-20447.5	0.0	0.0	-
4.66	569.5	9896.6	0.2	8635.0	9.41	-1041.0	102475.8	0.0		14.17	-20456.2	0.0	0.0	-

Enter your name in SETUP page.



Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
FOS: 1.51
Toe: Cantilever

Profile 1
Based on B12 which is about 100 ft away from the SOE

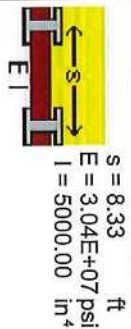


Enter your name in SETUP page.

Page: 6
Date: 7.22.20

Pile: W14x109 (50 ksi)
Works: Temporary
Pressure: Coulomb
Analysis: Net Pressure
Toe: Cantilever

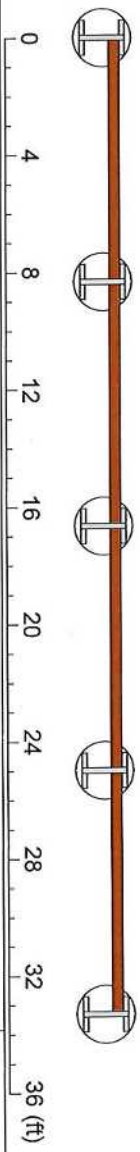
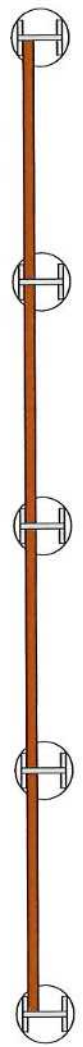
Profile 1
Based on B12 which is about 100 ft away
from the SOE



$s = 8.33$ ft
 $E = 3.04E+07$ psi
 $I = 5000.00$ in⁴

	Maximum	x (ft)
Pressure (psf)	630.8	6.67
Bending Moment (ftlb)	5471.5	4.16
Shear Force (lb)	2627.4	8.32
Deflection (in)	0.0	4.16

Specify lagging stress, f , for minimum section modulus



Enter your name in SETUP page.



Design Report

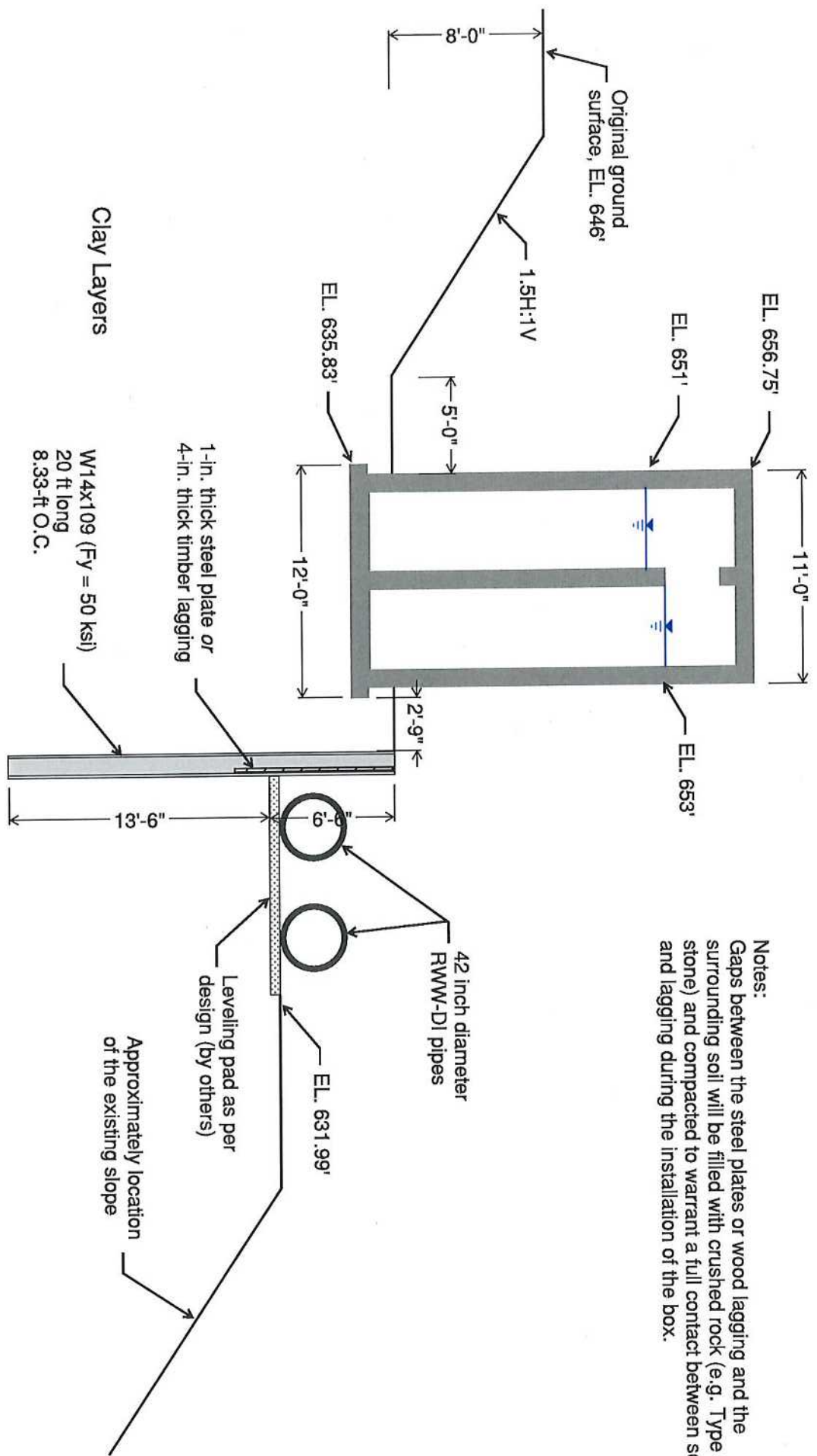
1. The standard surcharge is 0.0psf. The Piling Handbook recommends a minimum surcharge of 200.0psf. Other surcharges have been defined, but ensure that this is sufficient.
2. Total stress values are being used (i.e. $C > 0$). Note that the Piling Handbook and CIRIA SP95 recommend that effective stress values be used in 'long term' excavations.
3. Maximum bending moment = 154357.9ftlb and $f = 33333.0$ psi. MINIMUM required soldier section modulus is: $Z = 55.57\text{in}^3 (= M/f)$. Soldier pile section modulus in this design is $Z = 173.00\text{in}^3$, and is satisfactory.
4. Arching factor, $A = 2.56$. Are you sure this is correct? Minimum ϕ on passive side is 0° , and $A = 0.08\phi$ ($= 1.00$).
5. FOS = 1.51 (Net Pressure)
This is the factor of safety against rotation about the toe.
The FOS can be changed using 'Defined FOS' or 'Manual' in the 'Wall' page.



Enter your name in SETUP page.

Design of Lagging

Lagging Thickness Calculation			
Reference: CT Shoring Manual			
Location: RAS Box			
Input parameters			
Soldier Pile Spacing, S =	8.33	ft	
Maximum Earth Pressure, w =	631	psf	(from SupportIT output)
Mmax=	3283.8	lb-ft	
Steel			
Allowable Bending Stress, fb=	27000	psi	36 ksi steel
Thickness required =	0.85	in	
Timber			
Allowable Bending Stress, fb=	1500	psi	
Thickness required =	3.62	in	



Notes:
Gaps between the steel plates or wood lagging and the surrounding soil will be filled with crushed rock (e.g. Type 57 stone) and compacted to warrant a full contact between soil and lagging during the installation of the box.



Kiewit

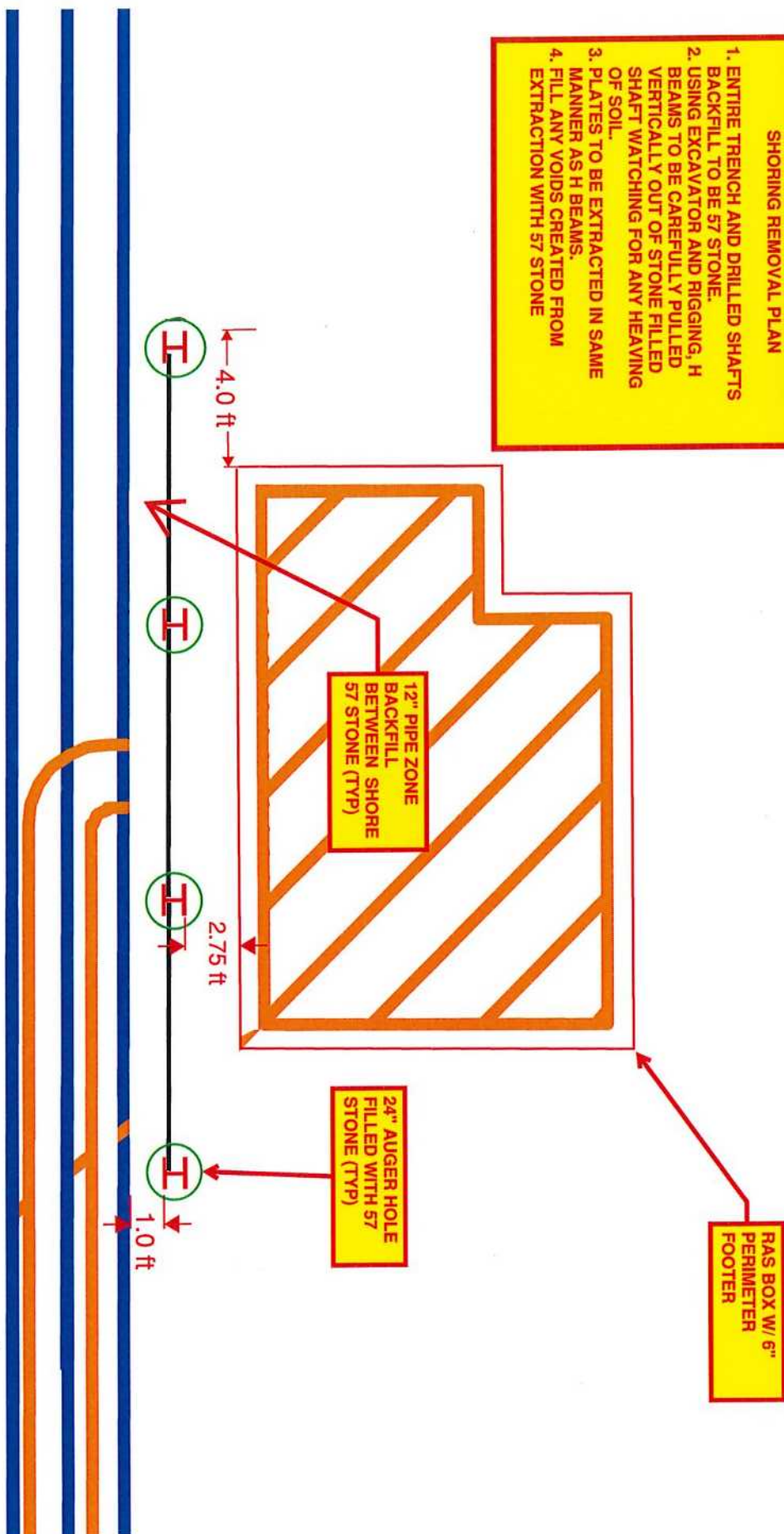
Project: Franklin WRF ReBid
Subject: RAS Box Support _ R2
Designer: THP Reviewer: LD

KIE #: 18-370-550.03.01
Date: 7/ 22/ 2020
Sheet: 12 of 17

References

SHORING REMOVAL PLAN

1. ENTIRE TRENCH AND DRILLED SHAFTS BACKFILL TO BE 57 STONE.
2. USING EXCAVATOR AND RIGGING, H BEAMS TO BE CAREFULLY PULLED VERTICALLY OUT OF STONE FILLED SHAFT WATCHING FOR ANY HEAVING OF SOIL.
3. PLATES TO BE EXTRACTED IN SAME MANNER AS H BEAMS.
4. FILL ANY VOIDS CREATED FROM EXTRACTION WITH 57 STONE





BOREHOLE LOG

B-12

Boring B-12

Client: City of Franklin
Project Location: Franklin, TN

Project Name: WRF Modifications and Expansion
Project Number: 14915-96594

Drilling Contractor: Total Depth Drilling, Inc.
Drilling Method/Rig: 3 1/4 I.D. HSA/CME-55
Drillers: Alan Waller, Jakob Justice
Drilling Date: Start: 3-19-14 **End:** 3-19-14

Surface Elevation (ft.): 644
Total Depth (ft.): 19.5
Depth to Initial Water Level (ft-bgs): Not Apparent
Abandonment Method: Backfilled with cuttings

Borehole Coordinates:
 See Boring Location Plan

Field Screening Instrument:
Logged By: JAC

Sample Type	Sample Number	Sample Adv/Rec (Inches)	Elev. Depth (ft.)	N-Value	Blows per 6-in	Graphic Log	USCS Designation	Material Description
			644.0					
			0		3		FILL	0 to 1 foot below ground surface: Moist, stiff, brown, Clayey SILT. -FILL-
SS	S-1	24/16		14	7		2'-0"	1 to 2 feet below ground surface: Dry, medium dense, gray, GRAVEL.
					7			
					4			
					2			Moist, stiff, brown, Silty CLAY. -RESIDUAL SOILS-
SS	S-2	24/24		9	3			
					6			
					6			
					2			Moist, stiff, brown, Silty CLAY. Excavation to EL 639'
			639.0	10	4			
SS	S-3	24/24	5		6			
					7			
					1			Moist, medium stiff to stiff, brown, Silty CLAY.
SS	S-4	24/23		8	3			
					5			
					6			
					1			Moist, medium stiff to stiff, brown, Silty CLAY.
SS	S-5	24/17		8	3			
					5			
					7			
			634.0					
			10					
					1			
					7			
			629.0					

Average N-values below EL 639
 $N = (10 + 8 + 8) / 3 = 9.3$
 $S_u = 9.3 \times 130 = 1209 \text{ psf}$
 This does not consider hammer efficient

Use $S_u = 1200 \text{ psf}$ for Clay

Moist, stiff to very stiff, brown, Silty CLAY, trace fine sand.

EXPLANATION OF ABBREVIATIONS

DRILLING METHODS:
 HSA - Hollow Stem Auger
 SSA - Solid Stem Auger
 HA - Hand Auger
 AR - Air Rotary
 DTR - Dual Tube Rotary
 FR - Foam Rotary
 MR - Mud Rotary
 RC - Reverse Circulation
 CT - Cable Tool
 JET - Jetting
 D - Driving
 DTC - Drill Through Casing

SAMPLING TYPES:
 AS - Auger/Grab Sample
 CS - California Sampler
 BX - 1.5" Rock Core
 NX - 2.1" Rock Core
 GP - Geoprobe
 HP - Hydro Punch
 SS - Split Spoon
 ST - Shelby Tube
 WS - Wash Sample
OTHER:
 AGS - Above Ground Surface

REMARKS

Hammer weight = 140 pounds, drop height = 30 inches
 Split spoon = 2 inches OD, 24 inches long
 Borings were located by measuring distance from adjacent existing structures. Surface elevations noted are approximate based upon survey contours.

Reviewed by: J.W.



BOREHOLE LOG

B-12

Client: City of Franklin

Project Name: WRF Modifications and Expansion

Project Location: Franklin, TN

Project Number: 14915-96594

Sample Type	Sample Number	Sample Adv/Rec (Inches)	Elev. Depth (ft.)	N-Value	Blows per 6-in	Graphic Log	USCS Designation	Material Description
SS	S-6	24/24	629.0 15	15	8 9			
SS	S-7	5/0		>50	50/5"			
			624.0 20					No sample recovery. Boring terminated upon auger refusal at depth of 19.5 feet below ground surface.
			619.0 25					
			614.0 30					
			609.0 35					

The test borings were drilled using an ATV drill rig and were typically advanced using 3¼ -inch inside diameter hollow stem augers to 30 feet below ground surface or to auger refusal, whichever occurred first. Test borings depths ranged from 14.5 to 31.0 feet below the existing ground surface.

Split-spoon sampling was typically conducted continuously for the first 10 feet and at five-foot intervals thereafter to the depth of boring or to the top of bedrock. Samples were collected in accordance with ASTM D1586 (2-inch diameter sampler driven 24 inches by blows from a 140-pound hammer falling freely for a 30-inch drop). The number of blows required to drive the sampler each 6-inch increment were recorded. The Standard Penetration Resistance (N-value) was calculated as the sum of the blows over the second and third of the 6-inch-increments of penetration. Representative soil samples from the test borings were collected and stored in jars for later review and laboratory testing.

Undisturbed (Shelby tube) samples were collected from borings B-4, B-7 and B-13 in accordance with ASTM D1452. These samples were collected by attaching an empty 30-inch-long, 3-inch-diameter galvanized steel thin-walled tube to the sampling rod, lowering it to the bottom of the hole, and hydraulically pushing the tube into the undisturbed, unconsolidated formation below the bottom of the borehole. After the tube was retrieved, the ends were sealed with paraffin wax and capped. The Shelby tube samples were maintained in an upright position and protected from shock and temperature extremes.

Water levels in the test borings were estimated from the moisture conditions of the samples obtained or by the water levels observed within the boring 24 hours after the drilling. Upon completion, borings B-3, B-4, B-5, and B-8 were grouted to ground surface with a cement-bentonite grout and all remaining borings were backfilled with cuttings.

2.3.2 Rock Coring

Upon encountering auger refusal, rock coring was conducted in general accordance with ASTM D2113 at boring locations B-3, B-4, B-5, and B-8. Rock coring equipment consisted of an NQ-size core barrel, having an outer diameter of approximately 3 inches and an inner diameter of approximately 2 inches. The recovered rock cores were logged in the field by CDM Smith and were stored at the CDM Smith Nashville office for later review and testing. A Rock Quality Designation (RQD) value was determined for each core run. The RQD is defined as the sum, in inches, of all pieces of sound rock core, 4 inches in length or longer, divided by the length in inches of the entire core run, expressed as a percentage.

Photos of the rock core are included in **Appendix B**.

2.3.3 Field Testing

Pocket Penetrometer and Torvane tests were conducted by the on-site CDM Smith geotechnical engineer in accordance with the manufacturer's directions on select split-spoon samples, in order to estimate the compressive strength of the soil. Field testing was conducted on samples collected from test borings B-3, B-5, B-8, B-12, B-15, B-24, B-25, and B-26.

2.4 Subsurface Conditions

2.4.1 General

Subsurface soil conditions were interpreted from the test borings conducted as part of the exploration program and our understanding of the local geology. Test borings generally encountered miscellaneous fill underlain by residual soils consisting of silty clay and sandy clay, underlain by limestone bedrock.

Groundwater levels, measured in the test borings at the time of drilling and 24 hours afterwards, ranged from 4 to 17.5 feet below the existing ground surface. A summary of soil, rock, and groundwater conditions encountered in the test borings is included in **Table 2-1**.

2.4.2 Subsurface Conditions

Miscellaneous fill and/or topsoil was encountered in all of the test borings and typically consisted of reddish brown to brown, soft to very stiff CLAY, with varying amounts of silt, fine to coarse gravel, fine to coarse sand, and organic material. N-values in the fill/topsoil layer ranged from 5 to 18 blows per foot (bl/ft) at the test boring locations. The thickness of the fill/topsoil layer ranged from 2 to 6 feet.

A residual silty clay layer was encountered in all test borings and typically consisted of brown, soft to stiff Silty CLAY, with trace amounts of sand. N-values in the silty clay layer ranged from 2 to 15 bl/ft at the test boring locations. The layer thickness ranged from 4 to 17.5 feet at the test boring locations.

A residual sand and clay layer was encountered in test borings B-1, B-2, B-3, B-4, B-7, and B-13 and typically consisted of brown, loose to very dense SAND, and silty clay. N-values in the sand layer ranged from 4 to 100 bl/ft at the test boring locations. Residual sand and clay layer thickness ranged from 3.2 to 7.5 feet at the test boring locations where present.

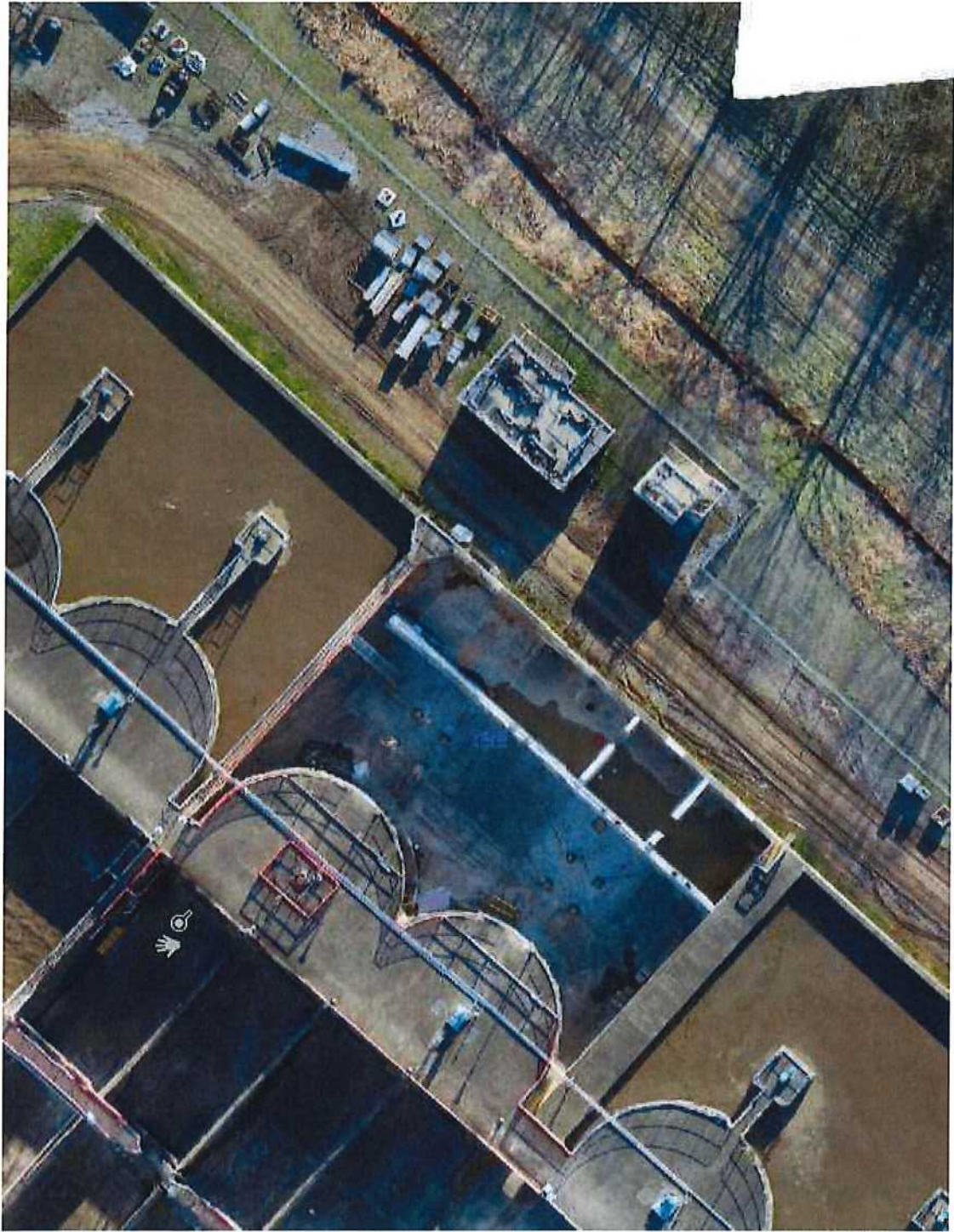
A residual clayey gravelly sand layer was encountered in test borings B-5, B-8, B-10, B-11, B-13, and B-14. Residual clayey gravelly sand at these boring locations typically consisted of brown loose to very dense fine to coarse SAND, with varying amounts of gravel and silty clay. N-values in the layer ranged from 2 to 53 bl/ft at test boring locations. Layer thickness ranged from 2 to 10.6 feet at the test boring locations where present.

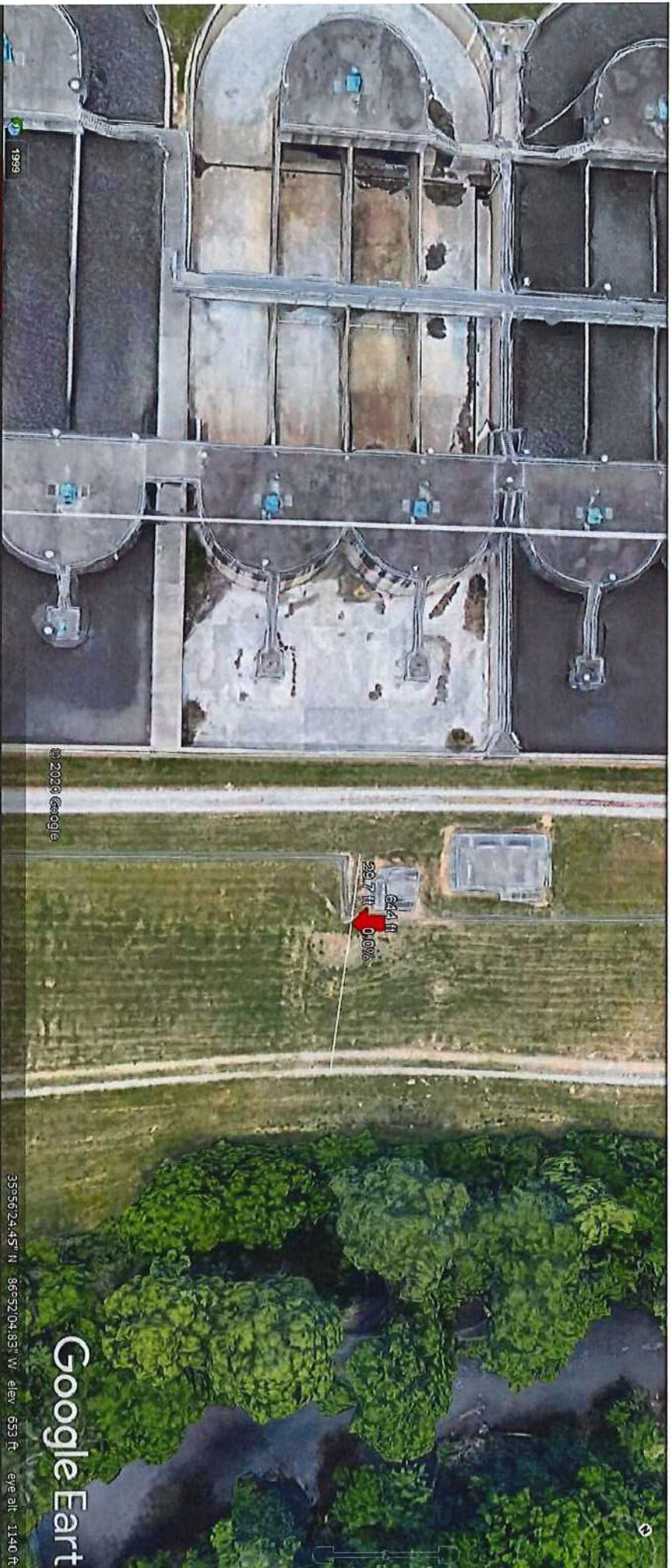
Bedrock, defined as auger refusal, was encountered at all locations except for B-13. Bedrock cores were recovered from test borings B-3, B-4, B-5, and B-8, and consisted of limestone. Rock core recoveries were 65 to 100 percent with RQD values ranging between 40 and 93 percent. The limestone exhibited some minor vugs, but no voids were noted during drilling.

2.4.3 Variation in Subsurface Conditions

The interpretation of general soil conditions presented herein is based on soil, rock, and groundwater conditions observed at the test boring locations. However, subsurface conditions may vary between test boring locations. If conditions are found to be different from those assumed, recommendations contained in this report should be reevaluated by CDM Smith and confirmed in writing.

Water levels measured in the test borings and groundwater observation wells should not necessarily be considered to represent stabilized groundwater levels. In addition, water levels are expected to fluctuate with season, temperature, climate, construction in the area, and other factors. Actual conditions during construction may be different from those observed at the time of the test borings.





Graph: Min, Avg, Max Elevation: 627, 637, 646 ft
Range: Totals: Distance: 54.8 ft Elev Gain/Loss: 0 ft -18.3 ft

Max Slope: -

Avg Slope: -

64.1 ft

0.00%

7.5 ft

15 ft

22.5 ft

29.7 ft

37.5 ft

45 ft

52.5 ft

60 ft

67.5 ft

75 ft

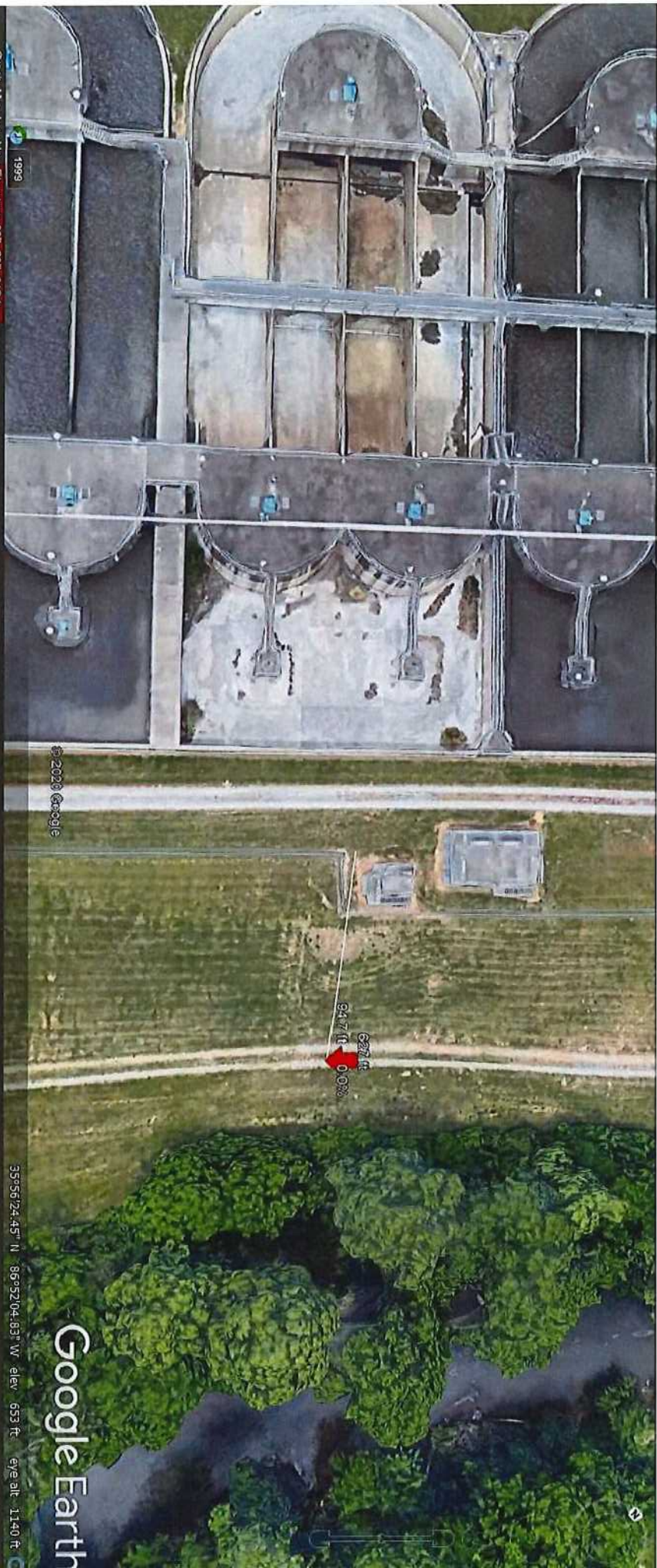
82.5 ft

90 ft

94.8 ft

Google Earth

35°56'24.45" N 86°52'04.83" W elev 653 ft eye alt 1140 ft



1993

Graph: Min, Avg, Max Elevation: 627, 637, 646 ft

Range Totals: Distance: 94.8 ft Elev Gain/Loss: 0 ft -19.5 ft

Max Slope: -

Avg Slope: -

© 2008 Google

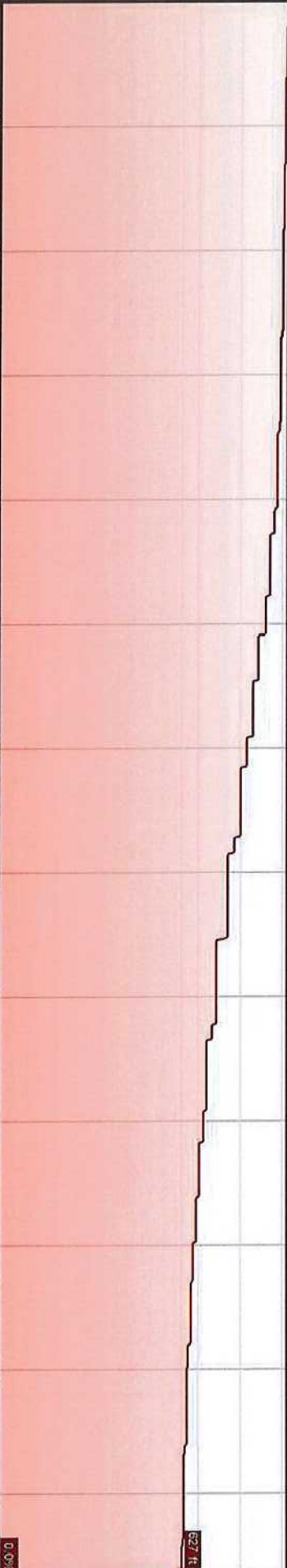
627 ft
94.7 ft - 0.0%

35°56'24.45" N 86°52'04.83" W elev: 653 ft eye alt: 1140 ft

Google Earth

45 ft
38 ft
27 ft

627 ft



0.0%

CDM Smith RFI #230 Response



Memorandum

To: Alexander Landry

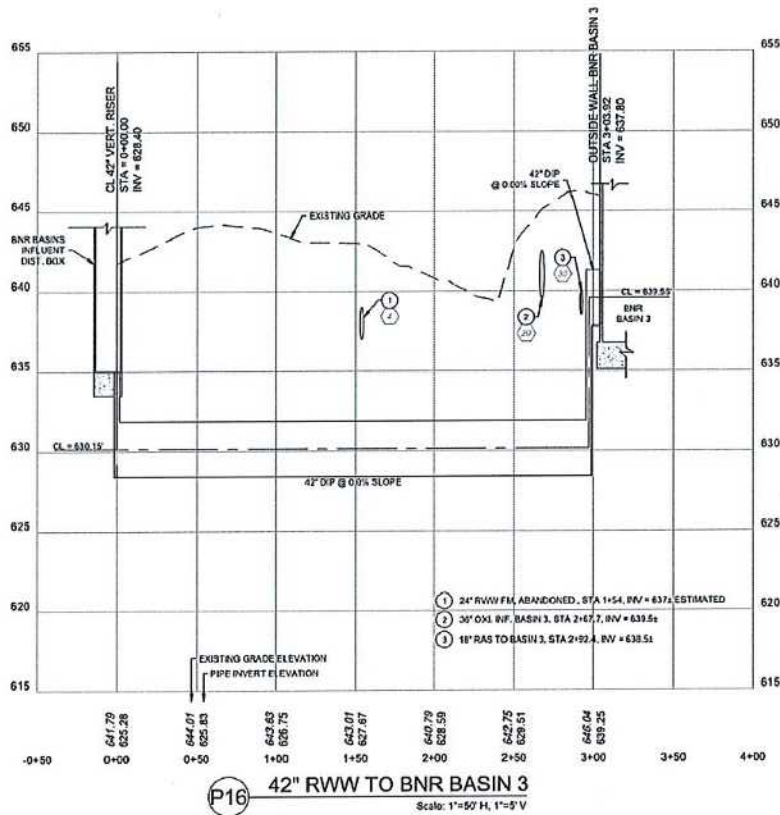
From: Robert Huguenard

Date: 01/29/2020

Subject: RFI 230 -BNR #2 pipeline Reroute- RESPONSE

As stated in RFI 058, the proposed rerouting of the 42" pipe is acceptable in concept, however additional information is needed to come to agreement on the details of this work. The additional information in RFI 230 fell short of what was requested in our response to RFI 058. Please see below for more specific information.

1. Comment 1 in CDM Smith's response to RFI 058 read as follows: "Please prepare an AutoCAD drafted profile similar to profile P15 on Drawing C-52 for the proposed pathway. Show proposed grade, all existing utilities, etc. in the same format as profile P15." Section P15 has been excerpted below. The pipeline in section P15 follows a very similar route to the route you are proposing for the other 42" pipe and crosses many of the same pipes as your proposed pipe has to cross. However, the section that you provided shows only one pipe. Please show the correct vertical and horizontal location of every pipe, duct bank or other utility that is in the path of your proposed pipe, similar to what is shown below, which is a clipping of profile P16. Please label each pipe/utility as shown below. Please show horizontal and vertical grids as shown below. Please label your proposed pipe inverts at key points and at stations represented by vertical grid lines. Please label critical stations and inverts as shown below. Please show the existing grade line along the proposed route as is done in section P16. All of this information is needed to confirm that the proposed vertical route is acceptable.



2. Comment number 2 in CDM Smith's response to RFI 058 reads as follows: "The 42" pipeline is at centerline 630.15 and the invert of the existing RAS box is at 637.0. So, the pipe invert will be about 8.6 feet below the RAS box invert, but it is only a few feet away from the RAS box. We need a plan and section at the RAS box showing how the box will be protected. Eventually a signed and sealed drawing showing the support design will be required." The concept presented is acceptable. Please provide a signed and sealed drawing. The drawing should also provide a plan view and other sections required to fully describe the plan and lay out the distances between the piles and the structure and the piles and the pipeline and show required earth slopes that go with the shoring plan (e.g., the ends of the shoring wall must be far enough from the structure that earth slopes behind the wall do not disturb the structure and that must be demonstrated.).
3. Comment number 3 in CDM Smith's response to RFI 058 reads as follows: "Since the proposed pipeline path has much fewer utilities the pipeline may be able to be raised up somewhat. The 42" pipe still must go under the 18" RAS line that runs parallel to the BNR basins, but it is acceptable to come within 1 foot of that line. The 42" line must still come out of the bottom of the BNR Distribution Box, but it is acceptable for it to be deflected upward and then flattened out near the connection point. However, deflection must be limited to 75% of the manufacturers maximum deflection amount." The drawing does nothing to show

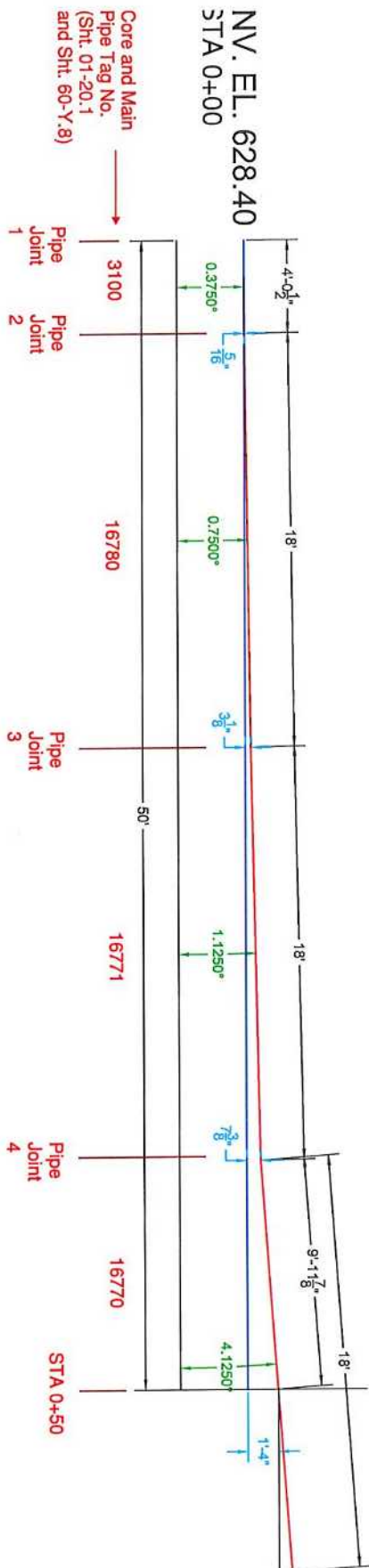
that the pipe deflection is within the range cited above. Please provide something to demonstrate that the pipe deflection is within acceptable range.

4. Comment number 4 in CDM Smith's response to RFI 058 reads as follows: "The proposed pipeline path goes through an existing abandoned 24" ductile iron pipe. That pipe must be removed to take this path." Once you show the 24" pipe on the profile, you will also need to add a note that indicates your intent to remove the 24" pipe and show where the extents of remaining pipe will be and where the plugs will be installed.
5. This question will not be reviewed further as an RFI. Please submit any future or follow-up discussion as a change proposal

CDM Smith Response No. 01
Proposed Pipe Section, Plan, and Profile
(Core and Main Drawings)

CDM Smith Response No. 3
Verification of Pipeline Deflection

42in RWW from BNR Distribution Box to BNR Basin #2 Pipe Deflection Verification



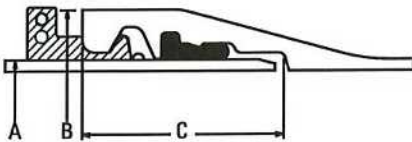
(Approximate theoretical invert elevation at Station 0+50 using 75% of the manufacturer's maximum allowable deflection at each pipe joint)

- Notes:
1. Pipe joints 1, 2, and 3 coming from the BNR Distribution Box are HP Lok. 75% of the manufacturer's maximum allowable deflection for HP Lok pipe is 0.375 degrees.
 2. Pipe joint 4 is Tyton Joint. 75% of the manufacturer's maximum allowable deflection for Tyton Joint pipe is 3.0 degrees.
 3. 75% of the maximum allowable deflection at each pipe joint would allow the following invert elevations at the locations shown below:
 Pipe Joint 2 INV. EL. - 628.40 + 5/16" = 628.43ft
 Pipe Joint 3 INV. EL. - 628.40 + 3 1/8" = 628.66ft
 Pipe Joint 4 INV. EL. - 628.40 + 7 3/8" = 629.01ft
 STA 0+50 INV. EL. - 628.40 + 1'-4" = 629.73ft
 4. 75% of the maximum allowable deflection at each joint would allow for an approximate INV. EL. of 629.73ft at STA 0+50. The planned INV. EL. of 629.38ft at STA 0+50 is less than 75% of the maximum allowable deflection of 629.73ft. Therefore, the plan invert elevations are within the allowable range for deflection of the pipe.
 5. Tyton Joint pipe is being utilized from pipe joint 4 to just beyond STA 2+00 and would allow approximately 1 1/4" of deflection in each 18ft joint of pipe. Therefore, the remaining elevations would fall well below the allowable deflection range.

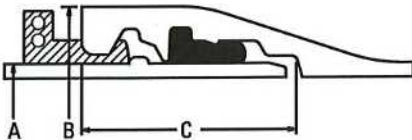
SPECIFICATIONS

Basic Dimensions

HP LOK® PIPE & FITTINGS



30" - 36" HP LOK Assembly Cross Section



42" - 64" HP LOK Assembly Cross Section

INCHES	PSI	INCHES					FEET
SIZE	WORKING PRESSURE ^a	A	B PIPE	B FITTINGS	C PIPE	C FITTINGS	PULLOUT
30	350	32.00	36.38	37.83	8.70	8.70	0.05
36	350	38.30	42.68	44.73	8.70	8.70	0.04
42	350	44.50	49.36	50.54	9.25	9.24	0.04
48	350	50.80	56.25	58.05	10.06	9.91	0.05
54	350	57.56	63.39	65.39	10.06	9.91	0.05
60	350	61.61	67.95	69.65	10.06	9.91	0.05
64	250	65.67	71.70	73.90	10.06	9.91	0.05

NOTE: Actual B and C Dimensions may be up to 0.50" greater than dimensions shown in this table. The maximum deflection for HP LOK joints is 0.5 degree.

^aThe HP LOK Restrained Joint has a working pressure equivalent to the working pressure rating of the parent pipe with a maximum working pressure rating of 350 psi. For higher pressure ratings, contact your U.S. Pipe Sales Representative.

Max Deflection is not to exceed 75% of manufacturer's max deflection per joint. 75% of 0.5 degrees is 0.375 degrees per joint is design constraint held throughout.

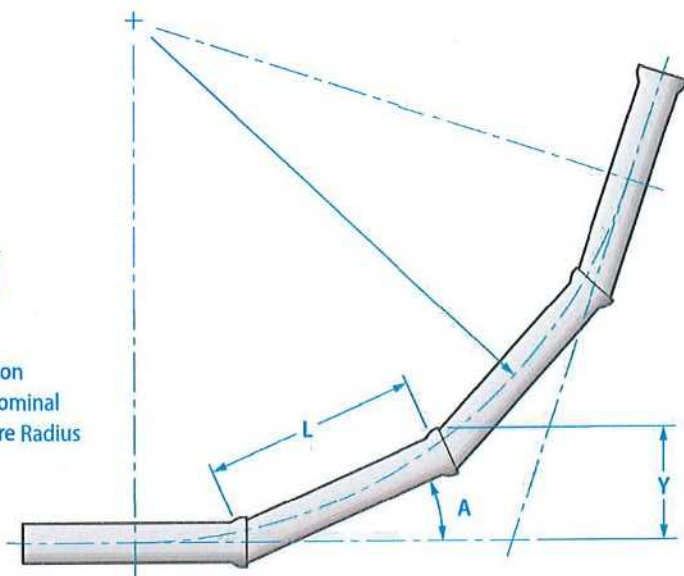
$$R = \frac{L}{2 \times \text{Tangent} \left(\frac{A}{2} \right)}$$

Where

A = Angle of Deflection

L = Laying Length Nominal

R = Pipeline Curvature Radius

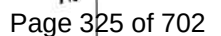


INCHES	DEGREES	INCHES		FEET		
SIZE	MAXIMUM JOINT DEFLECTION	DEFLECTION/OFFSET - "Y"	RADIUS PRODUCED BY SUCCESSION OF JOINTS			
		18 FT. LENGTH	20 FT. LENGTH	18 FT. LENGTH	20 FT. LENGTH	
3	5	19	21	206	229	
4	5	19	21	206	229	
6	5	19	21	206	229	
8	5	19	21	206	229	
10	5	19	21	206	229	
12	5	19	21	206	229	
14	5	19	21	206	229	
16	5	19	21	206	229	
18	5	19	21	206	229	
20	5	19	21	206	229	
24	5	19	21	206	229	
30	5	19	21	206	229	
36	5	19	—	206	—	
42	4	15	—	258	—	
48	4	—	17	—	287	
54	4	—	17	—	287	
60	4	—	17	—	287	
64	4	—	17	—	287	

NOTE: Illustration above not to scale. Angles have been exaggerated for display purposes.

Max Deflection is not to exceed 75% of manufacturer's max deflection per joint. 75% of 4 degrees is 3 degrees per joint is design constraint held throughout.

CDM Smith Response No. 04
Site Demolition Drawings
Removal and Capping of Existing 24in RAS Line





Kiewit

CP 30

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

July 10, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00040.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Existing 6" Ductile Iron Pipe at 12" PLW (T&M)

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for the **Existing 6" DI at 12" PLW T&M** in the amount of **Twelve Thousand Eight Hundred Ninety-Four. (\$12,894.00).**

This proposal includes the Time and Material related to the extra work to get separation between the 12" PLW line south of the influent pump station and an unknown 6" DI line. 160LF of the 12" PLW line had to be removed and replaced to begin its fall in elevation at that point to get the needed separation between the two lines.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Kian Lawlor

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMO
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Time and Material																	
5/4/2020																	
Foreman	1.00	Ea	1.00	8	\$ 61.04	\$ 488.32	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 488.32
Track Hoe Operator	1.00	Ea	1.00	8	\$ 43.56	\$ 348.48	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 348.48
Pipe Fitter	2.00	Ea	1.00	15	\$ 68.17	\$ 988.47	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 988.47
335 Excavator	1.00	Ea	1.00	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174.74	\$ 1,397.92	\$ -	\$ -	\$ -	\$ -	\$ 1,397.92
T&W Construction (Trucking)	4.00	Hr	1.00		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90.00	\$ 360.00	\$ -	\$ -	\$ 360.00
5/5/2020																	
Foreman	1.00	Ea	1.00	1	\$ 61.04	\$ 61.04	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 61.04
Track Hoe Operator	1.00	Ea	1.00	1	\$ 43.56	\$ 43.56	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43.56
Pipe Fitter	2.00	Ea	1.00	2	\$ 68.17	\$ 136.34	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 136.34
T&W Construction (Trucking)	1.00	Hr	1.00	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90.00	\$ 90.00	\$ -	\$ -	\$ 90.00
335 Excavator	1.00	Ea	1.00	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174.74	\$ 174.74	\$ -	\$ -	\$ -	\$ -	\$ 174.74
950 Loader	1.00	Ea	1.00	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 96.25	\$ 96.25	\$ -	\$ -	\$ -	\$ -	\$ 96.25
5/6/2020																	
Foreman	1.00	Ea	1.00	3	\$ 61.04	\$ 183.12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 183.12
Track Hoe Operator	1.00	Ea	1.00	3	\$ 43.56	\$ 130.68	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 130.68
Carpenter Journeyman	1.00	Ea	1.00	3	\$ 38.34	\$ 115.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115.02
Pipe Fitter	1.00	Ea	1.00	3	\$ 68.17	\$ 204.51	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 204.51
335 Excavator	1.00	Ea	1.00	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
T&W Construction (Trucking)	3.00	Hr	1.00		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174.74	\$ 524.22	\$ 90.00	\$ 270.00	\$ -	\$ -	\$ 524.22
5/11/2020																	
Foreman	1.00	Ea	1.00	7	\$ 61.04	\$ 427.28	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 427.28
Track Hoe Operator	1.00	Ea	1.00	7	\$ 43.56	\$ 304.92	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 304.92
Pipe Fitter	2.00	Ea	1.00	14	\$ 68.17	\$ 954.38	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 954.38
T&W Construction (Trucking)	4.00	Hr	1.00	4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90.00	\$ 360.00	\$ -	\$ -	\$ 360.00
335 Excavator	1.00	Ea	1.00	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174.74	\$ 1,223.18	\$ -	\$ -	\$ -	\$ -	\$ 1,223.18
5/12/2020																	
Foreman	1.00	Ea	1.00	3	\$ 61.04	\$ 183.12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 183.12
Track Hoe Operator	1.00	Ea	1.00	3	\$ 43.56	\$ 130.68	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 130.68
Pipe Fitter	2.00	Ea	1.00	6	\$ 68.17	\$ 409.02	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 409.02
T&W Construction (Trucking)	2	Hr	1.00		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90.00	\$ 180.00	\$ -	\$ -	\$ 180.00
335 Excavator	1.00	Ea	1.00	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174.74	\$ 524.22	\$ -	\$ -	\$ -	\$ -	\$ 524.22
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	

Kiewit Infrastructure South Co.
4405 International Blvd, Suite #C101
Norcross, Georgia 30093



DATE: 07/07/2020

PCO NO.:

PREPARED BY: Kian Lawlor

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
STS - small tools, consumables, safety equip. (\$5 per	115	MHR				\$ -									\$ 5.00	\$ 572.50	\$ 572.50
TAX: (9.75% of Material, Equipment, Other)																	\$ 440.00
BOND (2% of total)																	\$ -
SUBTOTALS				115		\$ 5,108.94		\$ -		\$ -		\$ 4,324.73		\$ 1,260.00		\$ 628.32	\$ 11,321.99
MARKUP %						\$5,875.28		\$5,875.28		\$5,875.28		\$4,973.44		\$1,323.00		\$722.57	\$12,894.00
SUBTOTALS WITH MARKUPS APPLIED						\$5,875.28		\$5,875.28		\$5,875.28		\$4,973.44		\$1,323.00		\$722.57	\$12,894.00
BOND																	\$ -
TOTAL						\$12,894.00		\$12,894.00		\$12,894.00		\$12,894.00		\$12,894.00		\$12,894.00	\$12,894.00

EXTRA WORK SHEET



Co. No. 1014 Job No. 103925 _____
(Issued By)

Date of Work 5/4/2020

Cont. No. _____
(Address)

PCO Number _____

To: _____
(Issued to)

(Address)

- ☒ Day Shift
- ☐ Night Shift
- ☐ Material or Subcontractor
- ☐ Force Account Work
- ☐ Outside Work
- ☐ Equipment Lease or
- ☐ Vendor Invoice

General Contractor: _____ Subcontractor: _____

Description of Work Done: While installing the 12" PLW line West of EQ tank crew encountered an unidentified 6" DIP. Team spent time waiting on instruction of how to proceed.

Employee No.	Detail of Labor (Including Foreman, Engineers, Superintendents, QA & QC)	Hours (Straight Time)	Hours (OverTime)	Hours (Double Time)
427470	Barry Payne (Foreman)	0		
431700	Albert Hall (Track Hoe Operator)	0		
444750	Brian Jump (Pipe Filter)	6.5		
420590	Forrest Powers (Pipe Filter)	0		
Labor Totals		30.5	0	0

Equipment No.	Detail of Equipment	Hours
	335 Excavator	0
	T & W Construction (Trucking)	4
Equipment Totals		12

Detail of Materials

Approval for Owner
By [Signature]
Signature, Title & Date

Approved for Kiewit
By [Signature] 5/20/20
Signature, Title & Date

EXTRA WORK SHEET



Co. No. 1014 Job No. 103925

Date of Work 5/5/2020

Cont. No. _____
(Address)

PCO Number _____

To: _____
(Issued to)

(Address)

- ☒ Day Shift
- ☐ Night Shift
- ☐ Material or Subcontractor
- ☐ Force Account Work
- ☐ Outside Work
- ☐ Equipment Lease or
- ☐ Vendor Invoice

General Contractor: _____ Subcontractor: _____

Crew backfilled and installed two street plates over the trench in-order to create access to the EQ Tank for other operations.

Description of Work _____
Done _____

Employee No.	Detail of Labor (Including Foreman, Engineers, Superintendents, QA & QC)	Hours (Straight Time)	Hours (Overtime)	Hours (Double Time)
427479	Barry Payne (Foreman)	1		
431700	Albert Hall (Track Hoe Operator)	1		
444756	Brian Jump (Pipe Fitter)	1		
420596	Forrest Powers (Pipe Fitter)	1		
Labor Totals		4	0	0

Equipment No.	Detail of Equipment	Hours
335	Excavator	1
050	Loader	1
Equipment Totals		2

Detail of Materials

Approval for Owner
By [Signature]
Signature, Title & Date

Approved for [Signature]
By [Signature] 5/20/20
Signature, Title & Date

Page 332 of 702

Date of Work 5/11/2020

PCO Number _____

☒ Day Shift
☐ Night Shift
☐ Material or Subcontractor
☐ Force Account Work
☐ Outside Work
☐ Equipment Lease or
☐ Vendor Invoice

Crew lowered the 12" approx 30' back from 45Deg bend to 12x6 tee.

Approved for Kiewit
By 5/20/20
Signature Title & Date

EXTRA WORK SHEET



Co. No. 1014 Job No. 103925 _____
(Issued By)

Date of Work 5/12/2020

Cont. No. _____
(Address)

PCO Number _____

To: _____
(Issued to)

(Address)

- ☒ Day Shift
- ☐ Night Shift
- ☐ Material or Subcontractor
- ☐ Force Account Work
- ☐ Outside Work
- ☐ Equipment Lease or
- ☐ Vendor Invoice

General Contractor: _____ Subcontractor: _____

Crew crossed under existing 6" DI line.

Description of Work _____
Done _____

Employee No.	Detail of Labor (Including Foreman, Engineers, Superintendents, QA & QC)	Hours (Straight Time)	Hours (Overtime)	Hours (Double Time)
427479	Barry Payne (Foreman)	3		
439043	Shawn Goforth (Track Hoe Operator)	3		
444756	Brian Jump (Pipe Fitter)	3		
420590	Forrest Powers (Pipe Fitter)	3		
Labor Totals		12	0	0

Equipment No.	Detail of Equipment	Hours
335	Excavator	3
Equipment Totals		3

Detail of Materials	

Approval for Owner
By [Signature]
Signature, Title & Date

Approved for Kiewit
By [Signature] 5/20/20
Signature, Title & Date

www.equipmentwatch.com

All prices shown in US dollars (\$)

Rental Rate Blue Book®

June 1, 2020

Caterpillar 335F L CR
Crawler Mounted Hydraulic Excavators



Size Class:
40.1 - 50.0 MTons
Weight:
N/A

Configuration for 335F L CR

Bucket Capacity - Heaped	2.2 cu yd	Net Horsepower	199.8 hp
Operating Weight	84604.6 lbs	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

	Hourly
Standby Rate	USD \$53.35
Idling Rate	USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Caterpillar 950M

4-Wd Articulated Wheel Loaders

Size Class:
225 - 249 HP
Weight:
N/A


Configuration for 950M

Bucket Capacity - Heaped	12.0 cu yd	Net Horsepower	230.0 hp
Operator Protection	ROPS/FOPS	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$8,485.00	USD \$2,375.00	USD \$595.00	USD \$89.00	USD \$44.81	USD \$93.02
Adjustments						
Region (Franklin, Tennessee: 106.7%)	USD \$568.49	USD \$159.13	USD \$39.87	USD \$5.96		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$9,053.50	USD \$2,534.13	USD \$634.86	USD \$94.96	USD \$44.81	USD \$96.25

Non-Active Use Rates

	Hourly
Standby Rate	USD \$32.41
Idling Rate	USD \$74.10

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	41%	USD \$3,478.85/mo
Overhaul (ownership)	37%	USD \$3,139.45/mo
CFC (ownership)	12%	USD \$1,018.20/mo
Indirect (ownership)	10%	USD \$848.50/mo
Fuel (operating) @ USD 3.07	51%	USD \$22.66/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Change Proposal Preparation Checklist

Project Name: Franklin WRF Orig. \$ Cont. Amt. \$ 132,890,000 Co. / Proj. #: 103925
812894
 Change Order / Claim Identification (Name/No) / \$ Amt. CP-40 - Existing 6" DI at 12" PLW TDM

Lead Preparer Initials	Mgr Review Initials

Intended Submittal Date: 07/10/20 Public/Private: Public

1. All major items have adequate supporting schedules and documentation.
2. G&A rate is correct; no other duplicative overhead is included in PCO.
3. Equipment rates used in PCO are in accordance with contract specifications.
 - Operating expenses are either separately stated or part of the rate.
 - Stand by rates used per contract or other acceptable method.
 - 3rd party equipment is billed in accordance with contract specifications.
4. Time Related Overhead calculations are per contract, and are properly supported by the cost report. Items in the TRO are time related expenses, and not lump sum type items. If applicable, contingency items in the TRO are separately identified for transparency.
5. Worksheets were reviewed for accurate formulas; all spreadsheets total and cross check properly.
6. All markups used are in accordance with contract specs.
7. Labor add-on rates were tested and reconciled to union agreements or other supporting documentation; taxes and insurance were verified for accuracy.
8. To the extent required by law or the contract with the owner, contingency items are separately identified and transparent to reader.
9. Subcontractor change proposal has been reviewed and is reasonably supported. (Complete Appendix 3 if Subcontract costs are include in the proposal.)
10. Previously submitted costs are not included in this request.

I have reviewed the Change Proposal and believe it is in compliance with the contract, and specifically the checklist above. To the extent required by Corporate Policy, this will be submitted to Internal Audit for review.

Lead Preparer		<u>07/10/20</u> Date
0 - \$100,000	 Approved by Project Manager	<u>7/10/20</u> Date
\$100,001 - \$500,000	_____ Approved by Sponsor	_____ Date
\$500,001 - \$2,000,000	_____ Approved by Area Manager	_____ Date
	_____ Approved by District Contract Administration Mgr	_____ Date
\$2,000,000+	_____ Approved by District Manager	_____ Date



Kiewit

CP 29

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 28, 2019

To: Attn: Mr. Dan Harris

CP-KIEWIT-000043.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: **Submittal D-13205-001-C Credit for SW Access Door and FRP Platform**

Dear Mr. Harris,

Attached you will find Kiewit's credit proposal for **Submittal D-13205-001-C Deletion of SW access door and its corresponding FRP platform**. Kiewit offers a credit of **Three Thousand Six Hundred Twenty-Three Dollars (\$3,623.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



Klewin

Page 339 of 702

PREPARED BY: Kian Lawlor

[illegible]

Joseph.Harding

From: Corbin.Coker
Sent: Friday, July 10, 2020 9:51 AM
To: Kian.Lawlor
Cc: Joseph.Harding
Subject: FW: EQ Tank Manhole Credit
Attachments: D-13205-KIEWIT-SUB-000001.02-02-D-13205-001-C Review Comments.pdf; RE: [EXTERNAL] Follow Ups

Let's put together a credit proposal for Submittal 13205-005-C with the email below as back up for the credit proposal from Crom.

This should be a quick one liner we can get out today.

Thanks,
Corbin

From: Jared.Carr
Sent: Friday, July 10, 2020 9:47 AM
To: Corbin.Coker <Corbin.Coker@Kiewit.com>
Cc: Cody.Prange <Cody.Prange@kiewit.com>
Subject: FW: EQ Tank Manhole Credit

All,

See CROM's response below for the credit.

Regards,



Kiewit
Infrastructure Group

Jared Carr
Structure Superintendent
Franklin WRF Mods & Expansion
City of Franklin Waste Water
135 Claude Yates Dr. Franklin, TN 37064
(m): 303-870-7031

From: Nicoleus Rainey <nrainey@CromCorp.com>
Sent: Thursday, July 9, 2020 12:43 PM
To: Jared.Carr <Jared.Carr@kiewit.com>
Cc: Talmadge B. Mincey <tbm@CromCorp.com>
Subject: [EXTERNAL] EQ Tank Manhole Credit

Jared,

Crom can offer a \$3,450 credit for the deletion of the SW manhole and fiberglass platform for the EQ Tank. In the previous e-mail attached is the timeline of the submittals and material ordered. This should satisfy the requirement for Question 6 of Submittal D-13205-001-C.

\$2,950 for the grab bar, platform, and ladder

\$500 for the manhole. This is due to the fact it has already been fabricated.

Thanks,

Nicoleus T. Rainey | Project Manager

CROM

PRESTRESSED
CONCRETE TANKS
DESIGN & CONSTRUCTION
EXCELLENCE

COATINGS AND
RESTORATIONS
INFRASTRUCTURE
REPAIR SPECIALISTS

1200 Mountain Creek Road Ste. 390 Chattanooga, TN

(C) 352.318.7910 (O) 352.372.3436 (F) 352.372.6209

nrainey@cromcorp.com | www.cromcorp.com

Follow us: [!\[\]\(870f5d5e9c0d57485634be3ecf52f3ca_img.jpg\)](#) [!\[\]\(66b14d8ba452f6f18b47935355b6120a_img.jpg\)](#) [!\[\]\(bcb9bfd69e5b89da3d817cb72bfcfd1e_img.jpg\)](#)

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CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: July 28, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA 52
NUMBER:

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: Digester Building

CITY PROJECT NO.: 2017-0264

REFERENCE: H-14

DESCRIPTION: Revise the layout of HVAC ductwork in the Digester Building electrical room as shown on the attached revision to Sh. H-14 to accommodate relocated panels RIOP-C and RIOP-D and to increase capacity for future equipment.

CDM SMITH:

By: [Signature]
Date: 11/4/20

CONTRACTOR:

By: [Signature]
Date: 11/4/20

City of Franklin:

By: Brian Goodwin
Date: 11/06/2020

City of Franklin:

BY: Michelle Hatcher
Date: 11/6/20

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: July 28, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA 52
NUMBER:

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: Digester Building

CITY PROJECT NO.: 2017-0264

REFERENCE: H-14

DESCRIPTION: Revise the layout of HVAC ductwork in the Digester Building electrical room as shown on the attached revision to Sh. H-14 to accommodate relocated panels RIOP-C and RIOP-D and to increase capacity for future equipment.

CDM SMITH:

By: [Signature]
Date: 11/4/20

CONTRACTOR:

By: [Signature]
Date: 11/4/20

City of Franklin:

By: Brian Goodwin
Date: 11/06/2020

City of Franklin:

BY: Michelle Hatcher
Date: 11/2/10

DB-AHU-1

PLC-12

11'-4"

3'-4"

19'-4"

4'-10"

3'-4"

CAMBI RIOP C

22x22

22x16

14x14

14x8

16x16

MCC-7 (front)

MCC-8 (front)

14x14

14x8

16x16

14x8

20x20

DB-AHU-2

22x22

46'-0"

24x24 SAD
1 1/2" ROUND NECK
450 CFM
TYPICAL OF 16

14x14

14x8

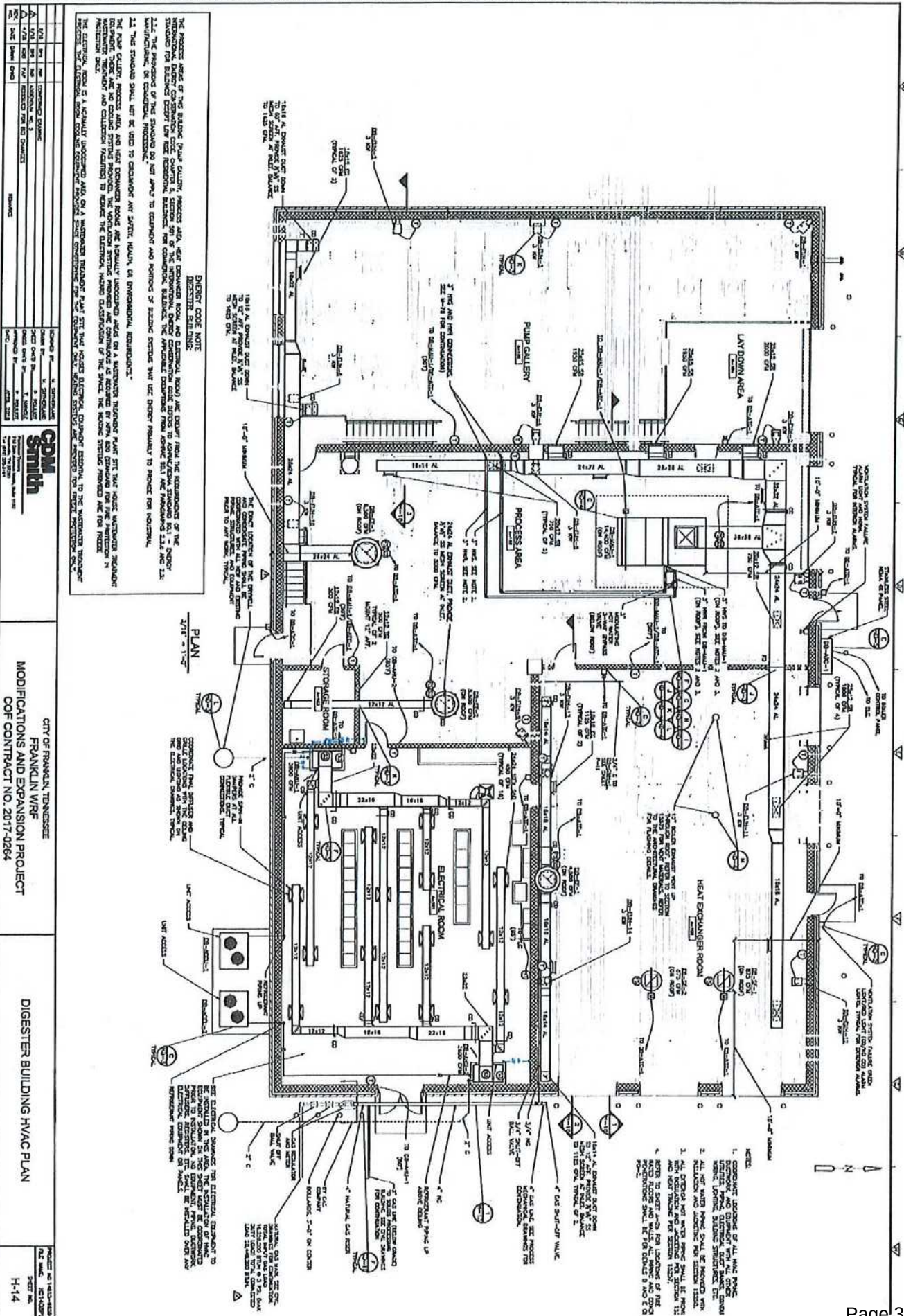
Future
Risers

COORDINATE DIFFUSER
LOCATIONS WITH
CEILING GRID AND LIGHT
LOCATIONS, TYPICAL.

14'-4"

6'-4"

NOTE: HEAT GAIN FROM RELOCATED CAMBI PANELS HAS BEEN REPLACED THE HEAT GAIN ALLOWANCE FOR FUTURE EQUIPMENT, DUCT SIZES, AND DIFFUSER NECKS HAVE BEEN INCREASED TO ALLOW DB-AHU-1 AND DB-AHU-2 CFM TO BE INCREASED FROM CURRENT 3600 CFM TO 4800 CFM IN THE FUTURE (600 CFM PER DIFFUSER).

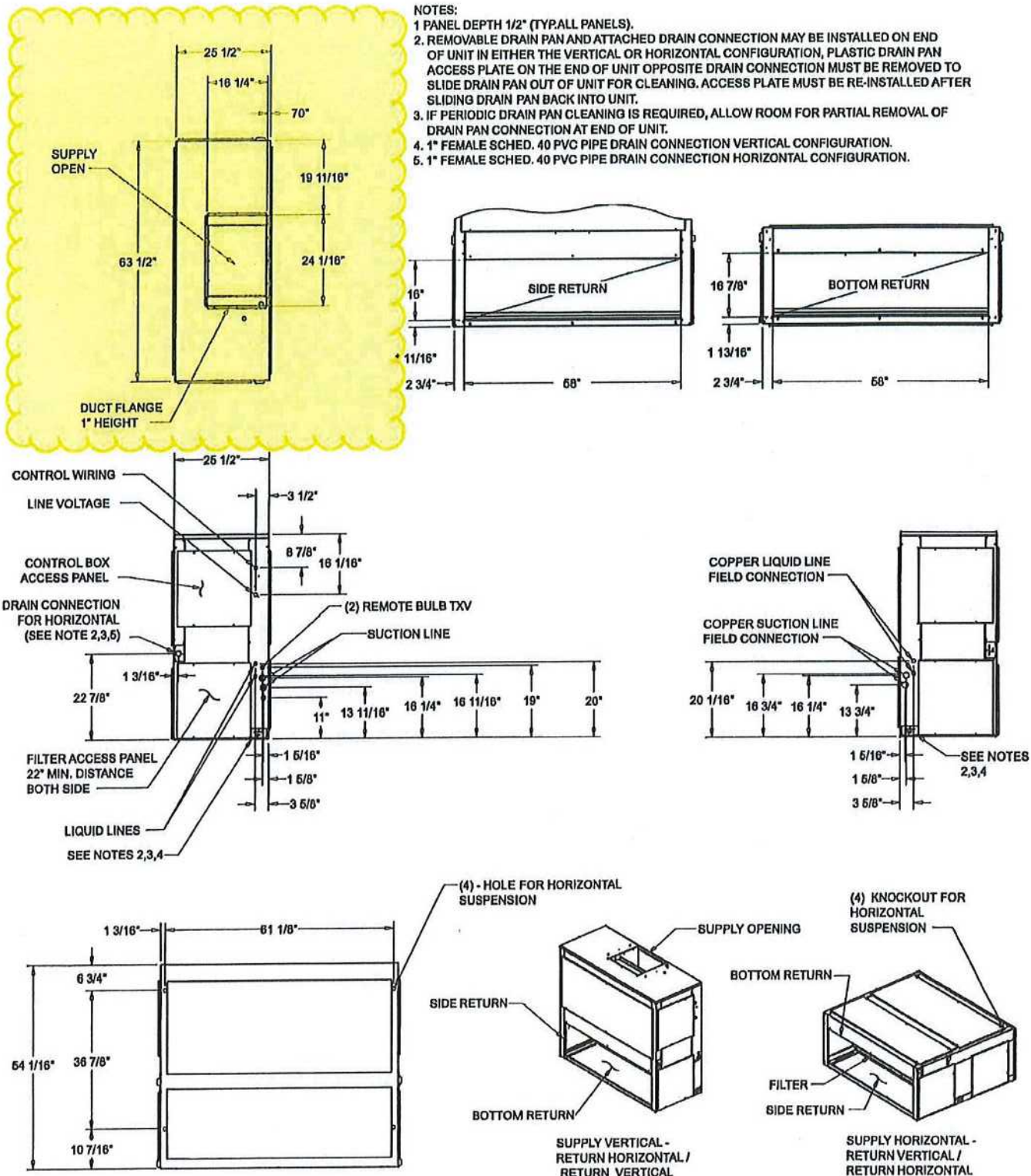


Unit Dimensions - Split System Air Conditioning Units (Large)

Item: B2, B3 Qty: 4 Tag(s): SP-AHU-1, SP-AHU-2, DB-AHU-1, DB-AHU-2

NOTES:

1. PANEL DEPTH 1/2" (TYP. ALL PANELS).
2. REMOVABLE DRAIN PAN AND ATTACHED DRAIN CONNECTION MAY BE INSTALLED ON END OF UNIT IN EITHER THE VERTICAL OR HORIZONTAL CONFIGURATION. PLASTIC DRAIN PAN ACCESS PLATE ON THE END OF UNIT OPPOSITE DRAIN CONNECTION MUST BE REMOVED TO SLIDE DRAIN PAN OUT OF UNIT FOR CLEANING. ACCESS PLATE MUST BE RE-INSTALLED AFTER SLIDING DRAIN PAN BACK INTO UNIT.
3. IF PERIODIC DRAIN PAN CLEANING IS REQUIRED, ALLOW ROOM FOR PARTIAL REMOVAL OF DRAIN PAN CONNECTION AT END OF UNIT.
4. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION VERTICAL CONFIGURATION.
5. 1" FEMALE SCHED. 40 PVC PIPE DRAIN CONNECTION HORIZONTAL CONFIGURATION.



10 TON AIR HANDLER (DUAL CIRCUIT)
DIMENSIONAL DRAWING



Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 14, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00057.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 52

Dear Mr. Harris,

Kiewit is hereby submitting notification of no cost change associated with CCA 52.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



Kiewit

CP 41

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 20, 2020

To: Attn: Mr. Dan Harris

CP-KIEIWIT-00059.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI – 348 Equalization Tank Effluent Sampling Port Credit

Dear Mr. Harris,

Attached you will find Kiewit's credit proposal for **RFI – 348 Equalization Tank Effluent Sampling Port Credit**. Kiewit offers a credit of **Nine Hundred Forty-Seven Dollars (\$947.00)**.

This work is for the labor, materials, and equipment cost associated with the deletion of the Equalization Tank Sampling Port.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



Page 349 of 702

PREPARED BY: Corbin Coker

[illegible]

HEADING 15
EQUALIZATION TANK
TANK EFFLUENT SAMPLING PORT
SHEET M-9, M-11

1 EA	20" x 1 1/2"	DUCTILE	JCM 404	DOUBLE STRAP	PIPE	STAINLESS STEEL	SCHEDULE 40S TYPE 316	20" DUCTILE 21.60" OD X 1 1/2" IRON PIPE THREAD *AST COMPLIANT (NO SPECIFICATION LOCATED) - Spec ISS120 2.10	-2936.26
21 LF	1 1/2"	STLN STEEL	21-30"	PLAIN END	NIPPLE	45 ELB	SCHEDULE 40S TYPE 316I		8.65
2 EA	1 1/2"	STLN STEEL	0-6"	THREAD	REDUCER	90 EL	SCHEDULE 40S TYPE 316I		10.58
1 EA	1 1/2" x 3/4"	STLN STEEL		THREAD	NIPPLE	PER VALVE HYDROWITH LEVER HANDLE	SCHEDULE 40S TYPE 316I		70.51
4 EA	3/4"	STLN STEEL		THREAD	HOSE ADAPTER	MALE IRON PIPE THREAD x MALE NST HOSE THREAD	SCHEDULE 40S TYPE 316I		83.33
1 EA	3/4"	STLN STEEL		THREAD			SCHEDULE 40S TYPE 316I		13.65
1 EA	3/4"	STLN STEEL		THREAD			SCHEDULE 40S TYPE 316I		21.60
1 EA	3/4"	STLN STEEL		THREAD			SCHEDULE 40S TYPE 316I		31.42
1 EA	3/4"	STLN STEEL		THREAD			SCHEDULE 40S TYPE 316I		27.41

20" x 1 1/2" Tapping Saddle already received - No credit offered - Return not available

Total Material Credit = \$580.08

Rental Rate Blue Book®

June 1, 2020

Ford F-250 SD

On-Highway Light Duty Trucks

Size Class:

300 HP & Over

Weight:

N/A


Configuration for F-250 SD

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	300.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$900.00	USD \$255.00	USD \$64.00	USD \$10.00	USD \$19.00	USD \$24.11
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$72.00	USD \$20.40	USD \$5.12	USD \$0.80		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$972.00	USD \$275.40	USD \$69.12	USD \$10.80	USD \$19.00	USD \$24.52

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.03
Idling Rate	USD \$20.57

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$486.00/mo
Overhaul (ownership)	27%	USD \$243.00/mo
CFC (ownership)	7%	USD \$63.00/mo
Indirect (ownership)	12%	USD \$108.00/mo
Fuel (operating) @ USD 2.51	79%	USD \$15.05/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

August 3, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Request for Proposal (RFP) No. 7

Dear Mr. Davis;

Please provide a cost proposal for the addition of a pushbutton station at floor level of operation of PV-170 in the Headworks.

The pushbutton station is to be housed in a NEMA 4X 316SS enclosure with a local/remote (L/R) selector switch and momentary contact open and close buttons and at a location determined in the field. When the L/R switch at the actuator is in the local position, the valve may be operated by the controls on the actuator. When the L/R switch on the actuator is in remote mode and the L/R switch at the pushbutton station is in local, the valve may be actuated locally by the pushbutton station. When both selector switches are in remote mode, the valve may be actuated by SCADA.

Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Harris".

Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith





RFP No. 7
August 3, 2020
Page 2

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10



Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 15, 2020

To: Attn: Mr. Dan Harris

RFP-CDM-00003.03

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

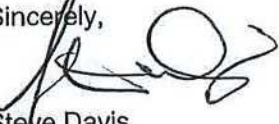
Subject: RE. RPF# 7 - Addition of a Pushbutton Station at PV-170 of Headworks

Dear Mr. Harris,

Attached you will find Kiewit's Cost Proposal for **RFP#7 – Addition of Pushbutton Station at PV-170 of the Headworks** amounting to **Three Thousand Two Hundred and Fifty-Three Dollars (\$3,253.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: RFP #7

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
RFP #7 Labor & Equipment to install a local pushbutton control station for the Valve PV-170					\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Subcontractor					\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Wayne J Griffin Electric, Inc.	1.00	LS			\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ 2,484.15	\$ 2,484.15	\$ -	-	\$ 2,484.15
Materials					\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Auma Push Button Station	1.00	EA			\$ -	-	\$ -	-	\$ 275.00	\$ 275.00	\$ -	-	\$ -	-	\$ -	-	\$ 275.00
Freight	1.00	EA			\$ -	-	\$ -	-	\$ 178.77	\$ 178.77	\$ -	-	\$ -	-	\$ -	-	\$ 178.77
Offloading/Handling					\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
Foreman - Warehouse Manager	1.00	HR			\$ 62.31	\$ 62.31	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ 62.31
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.					\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
OTHER					\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -
STS - small tools, consumables, safety equip. (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR			\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ -	-	\$ 5.00	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)									\$ 44.24								\$ 44.24
BOND (2% of total)																	\$ -
SUBTOTALS					\$ 62.31	\$ 62.31	\$ -	-	\$ 498.01	\$ 498.01	\$ -	-	\$ 2,484.15	\$ 2,484.15	\$ -	-	\$ 3,044.47
MARKUP %					15.00%	\$ 15.00%	15.00%	\$ 15.00%	15.00%	\$ 15.00%	15.00%	\$ 15.00%	5.00%	\$ 5.00%	15.00%	\$ 15.00%	\$ 208.26
SUBTOTALS WITH MARKUPS APPLIED						\$ 71.66			\$ 572.71				\$ 2,608.36				\$ 3,252.73
BOND																	\$ -
TOTAL																	\$ 3,253.00



**WAYNE J.
GRIFFIN ELECTRIC
INC.**

September 11, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp., Franklin, TN
Proposal #39, Supersedes Proposal(s) #36

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This proposal is to install a local Pushbutton Control Station for the Valve PV-170 in the Headworks Building at floor level, per RFP-007. The local control Station will be provided by others.

Material	\$	804.78
Labor		1,344.39
Overhead & Profit		322.38
Subtotal	\$	2,471.55
Bond		12.60
Total	\$	2,484.15

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis
September 11, 2020
Page 2

The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175, or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/kam

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0039, Local Control Station for PV-170
Date: 9/11/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is to install a local pushbutton control station for the valve PV-170 in the Headworks Building at floor level, per RFP-007.
The local control Station will be provided by others.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Builts	0.00	0.0000	HRS	0.000	0.000	0.390
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.390
Tools	0.00	0.0000	HRS	0.000	0.000	0.470
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.390
Supervision	0.00	0.0000	HRS	0.000	0.000	0.790
Project Controls	0.00	0.0000	HRS	0.000	0.000	0.790
QUOTE FOR CONTROL STATION	1.00	0.0000	LO	0.000	4.000	4.000
STAND FOR CONTROL STATION	1.00	215.0000	EA	215.000	3.000	3.000
3/4" ALUMINUM CONDUIT	20.00	5.4255	FT	108.510	0.055	1.100
3/4 CONDUIT CUT & THREAD	4.00	0.0000	EA	0.000	0.350	1.400
3/4 CONDUIT BODY GASKET	2.00	4.7600	EA	9.520	0.020	0.040
3/4" RIGID THREADED "LL" CONDULET (ALUM)	2.00	18.4400	EA	36.880	0.600	1.200
3/4" DIE CAST CONDULET COVER	2.00	7.9500	EA	15.900	0.040	0.079
3/4 LIQUIDTITE CONDUIT	6.00	3.0800	FT	18.480	0.050	0.300
3/4" LIQUID TIGHT STEEL STRAIGHT I.T. INSULATED CONN	4.00	8.5350	EA	34.140	0.180	0.720
#14 XHHW COPPER WIRE	180.00	0.4883	FT	87.890	0.006	1.080
1/2 x 5 1/2" WEDGE ANCHOR (SS)	6.00	2.9917	EA	17.950	0.240	1.440
3/4" RIGID STRUT CLAMP (702 SERIES)	4.00	6.4025	EA	25.610	0.030	0.120
1 5/8" X 1 5/8" 12 GAUGE 1 5/8 X 1 5/8 PLAIN 10' STRUT (SS)	10.00	23.4900	FT	234.900	0.123	1.225
Totals				804.78		18.92
Tax				0.00		
Materials with				804.78		

Summary

	Itemized Breakdown Total		804.78
Elect. Journeyman	(18.9242 hrs @ \$71.04 / hr)	1,344.38	
			1,344.38
Overhead & Profit	(\$2,149.17 @ 15.00%)	322.38	
		322.38	
Bond	(\$2,471.55 @ 0.51%)	12.60	
		12.60	
			334.98
Total			\$2,484.15

Quotation

Customer Reference: **Franklin WO# 651344 - PN 1443169**
Customer: **DeZurik**
Attention: **na**
Regional Manager: **Eric Charles**

AUMA Quote: **Q000087683** Rev: **0**
Quote Date: **08/19/20**
Project: **Franklin WO# 651344 - PN 1443169**

Item	Qty.	Description	Flange	Op. Time	Net Price	Extended Price
<u>1</u>	1	/RCS01.1 COM# A190548			\$275	\$275

Total USD: \$275
Quoted price includes all applicable discounts.

Shipment: **4 weeks after any required technical clarification, order acceptance and release to manufacturing.** Order acceptance is confirmed by the issuance of the formal Auma Order Acknowledgement to the purchaser.

Shipment dates are based on receipt of required and complete order documentation and on component availability and production load at the time of order acceptance. AUMA will make every effort possible to meet the quoted lead-time, but may need to adjust the shipment schedule based on current circumstances. Changes to existing purchase orders may impact price and delivery. Expedited delivery requests may impact pricing. Quoted price does not include final field adjustments which may be required.

If quoted Actuator(s) include an AUMA machined stem nut, it is recommended that a stem gauge be provided. If a stem gauge is not provided, AUMA will verify machining with our own gauges. If AUMA does not currently have the necessary gauge(s), any costs associated with procuring the required gauge(s) will be passed along to the purchaser.

Pricing and shipment are subject to change based on circumstances beyond AUMA's control, such as, but not limited to: embargoes, tariffs, shipment restrictions due to COVID-19.

Terms: Net 30 days (Subject to credit approval.) Minimum Order Value is \$125. F.O.B.: Canonsburg, PA. This quotation is valid for 90 days and subject to AUMA's standard terms and conditions (TC 3/19).

For Terms and Conditions: [Click Here](#)

For AUMA Policies: [Click Here](#)

For order placement, submit Purchase Order (PO) documents, with AUMA quotations number Q000087683 Rev 0 referenced, to OrderEntryUSA@auma-usa.com

PO documents greater than 10MB may be uploaded at: <https://www.hightail.com/u/AUMA>

Quotation

Customer Reference: Franklin WO# 651344 - PN 1443169

AUMA Quote: Q000087683 Rev: 0

Item: 1 - /RCS01.1

QUOTATION

AUMA product

Other

REMOTE ENCLOSURE

Enclosure protection
 Terminal plan version
 Interface
 Box material
 Conduit hole(s)
 Terminals
 Selector switch

CSA type 4X/IP66 - RCS 01.1
 Terminal plan TPA
 AUMA MATIC - Standard interface
 Aluminum
 2 x 3/4" NPT
 Screw type PCB mount terminal blocks
 LOCAL-OFF-REMOTE with 3 position padlockable
 selector switch
 English-Spanish-French text: Open-Stop-Close/
 Local-Off-Remote
 OPEN-red, CLOSE-green, FAULT-amber
 3 pushbuttons (OPEN-STOP-CLOSE)
 Lights illuminated in mid travel
 115 V

Face plate

Indication lights
 Local operation
 Lamp behavior
 Lamp voltage

DRAWINGS

REMOTE ENCLOSURE DWG
 REMOTE STATION USER INSTRUCTIONS

BXS22913A38A61700TPA00R1AH-001-A30
 SKI 00309

Additional Information:
 COM# A190548

[Quick Start](#)[Tracking](#)[Shipping](#)[Services](#)

Ground Service	Total	Days in Transit	
UPS Ground with Freight Pricing  Guaranteed By: End of Day, Wednesday 09/23/2020	178.77 USD Show Details 	2	
UPS Ground with Freight Pricing shipments are moved via the UPS Package system and must conform to the UPS Tariff  , including constraints on weight, dimensions, and packaging.			
Other Available Freight Services			
UPS Freight Urgent Trust UPS Freight for your time-critical shipments. Our seamless, multimodal transportation network gets your shipments where they need to be.		Learn about UPS Freight Urgent	
All UPS Freight Options			
UPS can help streamline your global supply chain through end-to-end transportation and freight solutions to reach customers worldwide.		View UPS Freight Portfolio	
Result estimates calculated by UPS: Monday, 09/14/2020 04:40 PM Eastern Daylight Time(USA) You must ship online using UPS Internet Freight Shipping in order to take advantage of the discounted rates above. *Pre-authorization may be required to complete pickup arrangements.			

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.36	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



Kiewit

CP 39

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 5th, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00051.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Heat Exchange Hardware

Dear Mr. Harris,

Kiewit is hereby submitting a credit proposal for the material pertaining to **Heat Exchange Hardware** amounting to **Six Hundred Thirty Dollars (\$630.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Joe Harding

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Galvanized Hardware	2.00	EA			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (300.00)	\$ (600.00)	\$ -	\$ -	\$ (600.00)
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHVIA Rates.																	
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
OTHER					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)																	
		MHR			\$ -	\$ -									\$ 5.00	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)																	\$ -
SUBTOTALS						\$ -											\$ -
MARKUP %						15.00%											\$ (30.00)
SUBTOTALS WITH MARKUPS APPLIED						15.00%											\$ (30.00)
BOND																	\$ -
TOTAL																	-\$630.00



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

August 3, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Heat Exchanger Hardware

Dear Mr. Davis;

As you are aware, Specifications paragraph 15754-2.05-A-7 requires that all hardware for the heat exchangers, inclusive of anchor bolts, is to be 316 stainless steel, and the heat exchangers were shipped with galvanized hardware. CDM Smith has reviewed Cambi's scope document in the Conformed Specifications, Volume 4 of 4, Appendix C, and determined that no exception was taken by Cambi to this requirement,

Changing the galvanized hardware to stainless steel at this point would risk damage to the galvanizing of the support frame and the possibility that replacement bolts may not be properly torqued or that elements of the heat exchanger could become misaligned during the replacement process. Instead of replacing the hardware, we will accept a credit for the difference in cost between galvanized and stainless hardware.

Please provide a proposal at your earliest convenience, and feel free to contact me with any questions.

Sincerely,

Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith





Heat Exchanger Hardware

August 3, 2020

Page 2

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10



August 4, 2020

via email: Steven.Davis1@kiewit.com
Steve Davis
Kiewit Water Facilities South
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

Re: Franklin WRF Modification & Expansion
Project #103925-MC-048 (Cambi #108700)
Galvanized hardware on the heat Exchanger's Structural Frame.

Dear Mr. Davis,

This change order proposal credits Kiewit Water Facilities South \$600.00 for the resolution of using Galvanized hardware on the (2) heat exchanger's structural frame.

Cambi can accept the resolution of leaving galvanized hardware on the (2) heat exchanger's structural frame in lieu of the cost difference between galvanized and 316 Stainless Steel hardware as a way of closing out this issue.

Cambi's position has been that the heat exchangers structural base was fitted with galvanized hardware in the Cambi UK facility. These bolts were torqued to specification, inspected, and marked at the Cambi manufacturing facility.

Contact me if you have any questions or need additional information.

Regards,

A handwritten signature in blue ink that reads "Timothy J. Dwyer".

Timothy J. Dwyer
Project Manager

cc: Robert Van Bramer, Cambi via email.
Peter Sestak, Kiewit via email.



Kiewit

CP 38

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 10, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00055.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Part 1 – Base Bid Item No. 7c & 7d Quantity overrun

Dear Mr. Harris,

Here in you will find Kiewit's change proposal for Unit Price Item Numbers 7c. and 7d. based upon the overrun of the quantity. Item number 7C. has a quantity overrun by 125.4% (22.54 SF JTD) currently with an estimated 23 SF remaining. Item number 7D. has a quantity overrun of 556.65% (262.66 SF JTD) currently with an estimated 263 SF remaining. Based off of additional expenses as a result thereof; Kiewit is requesting the Unit Price for Item Number 7C. be adjusted to \$172.5 per/SF and Item Number 7d. be adjusted to \$115 per/SF. Both Item numbers have exceeded 115% of the estimated quantity of such item indicated in the agreement and there are no other corresponding adjustments with respect to any other items of work. Job to date quantities are for work performed on BNR Basin No. 2. Remaining Estimated Quantity is for BNR Basin No. 1. Kiewit is hereby submitting a change proposal for the adjustment of Unit Price and estimated quantities to be billed against.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: CP - 055 - Part 1 - Base Bid Item No. 7c. &

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Item No. 7C. - Repairs to Cracked and Spalled Concrete at Beam Bearing Connection to Existing Wall (\$172.50 per/SF)	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Subcontract amount N&S	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Access & Egress	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Crane Support	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Formfit Support	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Clean up	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Environmental Fees	35.08	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Item No. 7D. - Repairs to Exposed Reinforcing (\$115.00 per/SF)	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Subcontract amount N&S	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Access & Egress	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Crane Support	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Formfit Support	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Clean up	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Environmental Fees	485.32	SF				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
Material cost						\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.						\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
OTHER						\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 8.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR				\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)																	\$ 5.00
BOND (2% of total)																	\$ 1,399.71
SUBTOTALS						\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
MARKUP %						\$ 15,005		\$ 15,005		\$ -		\$ -		\$ -		\$ -	\$ 4,446.41
SUBTOTALS WITH MARKUPS APPLIED										\$ 15,005		\$ 15,005		\$ 15,005		\$ 15,755.73	\$ 57,416.73
BOND																	\$ 4,446.41
TOTAL																	\$ 61,863.14
																	\$ 61,863.00

\$172.50 x 35.08SF = \$6,051.30
\$115.00 x 485.32SF = \$55,811.80
Rounded = \$61,863.00

EXHIBIT D

SUBCONTRACT CHANGE ORDER

Job Name: Franklin WRF Modifications & Expansion Project Job No. 103925
 Subcontract No. 103925-SC-022 Contract ID No. SXXXXXX-XXX
 Subcontract Change Order No. 1
 Company No. 1044

TO: (Seller's Name and Address) FROM: (Contractor's Name and Address)
N&S Waterproofing, LLC. Kiewit Infrastructure South Co.
4061 Powell Avenue 4800 North Point Parkway
Nashville, TN 37204 Alpharetta, GA 30022

Pursuant to the "Changes" clause of the Subcontract, the following changes are made:

This change order is being issued to increase the quantities of Line Item #4 – Repairs to Exposed Reinforcement by 222.66 SF, and Line Item #3 – Repairs to Cracked and Spalled Concrete at Beam Bearing Connection to Existing Wall by 12.54 SF resulting in a contract increase of \$18,580.50.

Item	Description	Original Quantity	New Quantity	Unit of Measure	Unit Price	Total Change
3	Repairs to Cracked and Spalled Concrete at Beam Bearing Connection to Existing Wall	10.00	22.54	SF	\$ 150.00	\$ 1,881.00
4	Repairs to Exposed Reinforcement	40.00	262.66	SF	\$ 75.00	\$ 16,699.50
Total this Change						\$ 18,580.50

Original Contract Amount:	\$ 117,170.00	USD
Change Order 01:	\$ 18,580.50	USD
New Contract Amount:	\$ 135,750.50	USD

New Contract Amount **\$135,750.50.**

Acceptance of the terms of this Change Order constitutes full and final settlement of all costs and time associated with this Change, and Seller agrees to waive all rights to make any further claim arising out of, or resulting from, this Change. Except as hereby modified, all terms and conditions of the Material Contract as heretofore modified remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Change Order by their proper officers or duly authorized agents this 20 day of January, 2020

Kiewit Infrastructure South Co.
 Contractor
 By [Signature]
 Title Project Manager

N&S Waterproofing, LLC.
 Seller
 By [Signature]
 Title PM

BNR 2 = 22.54SF on Item No. 3 - original 10SF + BNR 1 est. 22.54SF = New Estimated Quantity of 35.08SF
BNR 2 = 262.66SF on Item No. 4 - Original 40SF + BNR 1 est. 262.66SF = New Estimated Quantity 485.32SF



Kiewit

CP 46

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 16, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00068.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Sumitomo Gear Box for BNR # 2

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for a new Sumitomo Gear Box for BNR # 2 in the amount of **Seventy-Nine Thousand Two Hundred Twenty-Two Dollars (\$79,222)**.

This proposal includes the extra work required to expedite the new Sumitomo gear box, offload and handle, and install with the necessary DriveSMART Reliability Package.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: CP 068

PREPARED BY: Corbi Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Material cost																	
Sunloma Drive 1 (PVD9090P3Y-RLE-63)	1.00	EA							\$ 49,042.50	\$ 49,042.50							\$ 49,042.50
Gearbox Oil	26.50	GAL							\$ 11.15	\$ 295.48							\$ 295.48
Subcontract																	
Wayne J Griffin - Termination for motor (Plug)	1.00	EA											\$ 905.03	\$ 905.03			\$ 905.03
John Bouchard & Sons Co.	1.00	EA											\$ 15,238.00	\$ 15,238.00			\$ 15,238.00
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR															
TAX: (9.75% of Material, Equipment, Other)																	\$ 4,810.45
BOND (2% of total)																	
SUBTOTALS																	\$ 70,291.46
MARKUP %																	\$ 8,929.42
SUBTOTALS WITH MARKUPS APPLIED																	\$ 79,220.87
BOND																	
TOTAL																	\$ 79,221.00

Quoted By:

Name: Cadell Crisp

Phone:

Customer Information:

Account:

Kiewit Water Facilities South Co.

4800 North Point Parkway Suite 100
Alpharetta, GA 30022

Attention: Steven Davis

E-mail: steven.davis1@kiewit.com

1.	Drive 1	PVD9090P3Y-RLE-63		
If Replacement -> Serial Number			Net Price Each:	\$ 44,327.50
Qty Required:			Extended Net:	\$ 44,327.50
			Delivery:	See Expedite Line Item for Leadtime
Ratings:				
	Input Power:	100	HP	
	Input Speed:	1780	RPM	
	Mechanical Rating:	342	HP	
	Torque Rating:	761,645	in-lbs	
	Thermal Rating:	256	HP	@ 70 °F
	Exact Ratio:	64.889	:1	

Quotation Includes the Following Options:

Description	Code
Double Oil Seal (LSS)	XB68
Special INCH Low Speed Shaft	XF1J
Anti-Humidity Breather(desiccant type)	XE1D
INCH High Speed Shaft	
Drywell	
2 x Immersion Heaters	XB30
Outline Drawing (English)	XT0A
Need Approval Drawing	XT0W
Shaft Driven Pump Lubrication	XB15
Dip Stick	XE00
Drain Valve	XE20
Magnetic Drain Plug	XE85
HS Coupling	XF5N
Motor Adapter	XK20
Rust-Proof Paint (Epoxy)	XA22
Oil Pressure Switch	XB4H

Additional Notes: (Previous Order or Product Id / Engineering Notes)

Drop in replacement for existing PX8090P3YRLV / Serial Number F729954

Calculated Maximum Oil Temperature: 147 F based on 70 F ambient temperature

Calculated Minimum L-10 Bearing Life: 441,092 Hrs

Inventory, factory loading and design backlog are all subject to change. Lead time and/or drawing time for critical items should be verified at the time of order entry.

All Purchase Orders accepted subject to SMA standard Conditions of Sale 01.001.40.014 which can be viewed on us.sumitomodrive.com/en/terms-and-conditions. All deliveries are subject to prior sale and are shown in weeks, unless otherwise noted. Quotation is valid for 30 days and subject to SMA's terms and conditions. Page 373 of 702

Description	Code
Double Oil Seal (HSS)	XB69
2 x Thermostats	
Check Valve	
Stainless Steel Nameplate	

No.	Model Number	Description	Qty	Lead Time	Net Price	Total
2		Expedite Fee For Drive 1	1	Ex Works Sumitomo facility in Verona, Virginia, USA Incoterms 2020 • 10 weeks A.R.O.	\$ 3500.00	\$ 3,500.00
Fee required for listed expedited leadtime						
3	RMP1 (Level 1) Package	DriveSMART Reliability Package	1	w/ unit	\$ 1215.00	\$ 1,215.00
Accelerometer mounting pads (no hard mounted accelerometers or cabling provided)						
Includes Des-Case Gearbox Package (Vacuum Breaker, 3 micron filter Des-Case HG8 Breather, Drain and fill connections to allow for online filtration, standoff pipe), Oil Sampling Pitot Tube						

Quote Total: \$ 49,042.50

All prices shown in USD.

Technical Comments and Exceptions:**Miscellaneous:**

- Sumitomo is supplying a shaft-driven forced lubrication system based on the assumption that the VFD drive is utilized only for a soft start and not for continuously running the reducer at slow speeds. If the reducer is to be operated at continuously slow speeds, a motorized forced lubrication system may be required.

Scope of Supply:

- Motors are not included in this quotation. Sumitomo can install customer-supplied motors and accessories upon request for an additional cost.

Inventory, factory loading and design backlog are all subject to change. Lead time and/or drawing time for critical items should be verified at the time of order entry.

All Purchase Orders accepted subject to SMA standard Conditions of Sale 01.001.40.014 which can be viewed on us.sumitomodrive.com/en/terms-and-conditions. All deliveries are subject to prior sale and are shown in weeks, unless otherwise noted. Quotation is valid for 30 days and subject to SMA's terms and conditions. Page 374 of 702

Sumitomo Gearbox Condition Monitoring Package

Sumitomo Drive Technologies has partnered with PCB/IMI to provide Platinum level condition monitoring hardware to our customers as part of three Condition Monitoring Packages. Each package consists of a means of vibration data collection, online oil sampling, and Des Case GB package. All Sumitomo Paramax and Hansen come standard with a sealed oil dipstick.

Every Condition Monitoring Package includes:

- Oil sampling pitot tube: (allows for clean sampling directly from the load zone.)
- Des-Case gearbox package includes:
 - Vacuum Breaker
 - 3 micron particulate filter
 - Des Case HG8 Breather
 - Drain and fill connectors to allow for online filtration
 - Standoff pipe

As you progress through the packages, you achieve more reliable, repeatable and safe vibration route data collection.

- Package 1: Accelerometer mounting pads, (no hard mounted accelerometers or cabling provided)
- Package 2: Factory installed Accelerometers and cabling with centralized selector junction box
- Package 3: Factory installed Accelerometers and cabling providing 4-20ma vibration signals to the DCS or PLC through remote junction box using signal conditioners.

The junction boxes are shipped with the gearbox and ready for installation by user's maintenance group.

All cables are standard 10' in length, includes industry standard bnc for connection at the accelerometer. Longer lengths are available upon request.

Condition Monitoring Package Level 1

- A) Install accelerometer mounting pads at five locations on the gearbox:
- a. Input Horizontal
 - b. Input Vertical
 - c. Input Axial
 - d. Output Horizontal
 - e. Output Vertical



The application of the mounting pads shall be through spot facing, drilling and tapping the gearbox surface nearest the bearing cap on each shafted side. Each pad will be mounted using a ¼-20 stud.

- B) Install Des-Case Gearbox Adapter Kit

- C) Install oil sampling pitot tube above the split line through the housing with a straight or 90-degree downturn to terminate in the load zone. Common industry practice is to drill and tap the side of the gearbox above the split line, insert the pitot tube fitting and bend the tube to the proper depth.



Commercial Comments and Exceptions:

1. Sumitomo is a world class manufacturing organization with manufacturing and procurement capability. If country of origin or ship point are critical items, please advise so that these items can be addressed in a revised quote.
2. Certified Drawings are issued after the design is finished. The order is released to Production and buy-out items are placed on order. Any changes to the order after issuance of Certified Drawings will incur design time charges and possible cancellation charges.
3. (1) Certified Drawing and (1) Operation & Maintenance (O&M) Manual per drive are included in the price and are available after Sumitomo receives your PO. Electronic O&M manual can be downloaded from Sumitomo website free of charge. Charges may apply for additional or non-standard documentation. If such documentation is required, please advise the requirements for inclusion in a revised proposal.
4. Sumitomo's standard warranty for Paramax® reducers is 2 years from shipment.

Mr. Steven Davis
October 1, 2019
Page 2

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jmr

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.
Sarah Moore, Project Engineer, Wayne J. Griffin Electric, Inc.

Steven.Davis1

To: Kelsie Taylor
Subject: RE: Franklin WRF - Sumitomo Gear Reducer Lubricant Quote

From: Kelsie Taylor <ktaylor@kimbrooil.com>
Sent: Friday, October 11, 2019 3:28 PM
To: Steven.Davis1 <Steven.Davis1@kiewit.com>
Subject: [EXTERNAL] RE: Franklin WRF - Sumitomo Gear Reducer Lubricant Quote

Steve,
I'm sorry it took so long to get you a response on this. I have determined that our PCA Enduratex EP 320 is a good cross for you. We do stock this product in the 5.3gl pails or 54.2gl drums. Please see below for the pricing. If you have any questions please feel free to give me a call.

Enduratex EP320: 5.3gl Pail \$11.15gl (I currently only have 3 pails of this but if you would like the pails we can get more of them in)

Enduratex EP320: 54.2gl Drum \$10.43gl

Thank you,

Kelsie Taylor | Kimbro Oil Company
Cell: 615-487-5044 | KOC Office: 615 320-7484 ktaylor@kimbrooil.com
[Check out our Kimbro Oil Flipbook](#)





116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0013, CCA-018
Date: 9/19/2019
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This proposal is to re-term the wire on the BNR#2 Aerator Motor, according to CCA-018. This pricing provides for new lugs to be added at the motor termination. Existing wire is to remain.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Bulits	0.00	0.0000	HRS	0.000	0.000	0.150
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.150
Tools	0.00	0.0000	HRS	0.000	0.000	0.180
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.150
Supervision	0.00	0.0000	HRS	0.000	0.000	0.310
Project Controls	0.00	0.0000	HRS	0.000	0.000	0.310
WIRE TERMINATION	3.00	0.0000	EA	0.000	0.550	1.650
#2 - 600 INSULATED MECHANICAL LUG	3.00	85.7600	EA	257.280	1.500	4.500
Totals				257.28		7.40
Tax				0.00		
Materials with				257.28		

Summary

Itemized Breakdown Total		257.28
Elect. Journeyman	(7.4000 hrs @ \$71.04 / hr)	525.70
		525.70
Overhead & Profit	(\$782.99 @ 15.00%)	117.45
		117.45
Bond	(\$900.44 @ 0.51%)	4.59
		4.59
		122.04
Total		\$905.03

JOHN BOUCHARD & SONS Co.

CONSTRUCTION SERVICES DIVISION
MECHANICAL CONTRACTING
BOUCHARD FIRE PROTECTION
ELECTRICAL CONTRACTING



INDUSTRIAL DISTRIBUTION DIVISION
PUMPING SYSTEMS
AIR COMPRESSORS
INDUSTRIAL SALES

MACHINE SERVICES DIVISION
REPAIR / FABRICATION / SHOP SERVICES

FOUNDRY DIVISION
IRON CONSTRUCTION CASTINGS

QUOTATION

PAGE 1 OF 1

JBS DEPT.: MACHINE SERVICES

DATE September 15, 2020

Kiewit

JOB: Aerator Gear box

Attn: Steve Davis

Labor to install one customer supplied Sumitomo gear box. Crane service is included. Also included is installing the coupling on the new gearbox & delivering the original gearbox we have at our facility back on site to Franklin Waste Water Plant.

Budgetary \$15,238.00

Note: Customer will supply one new Sumitomo gearbox, oil, bolts, washers, nuts, & electrical, etc... John Bouchard will supply the crane, labor, hydraulic wrench and necessary tools to complete the install.

F.O.B.: _____

DELIVERY: _____

Payment Terms

Contracts: Progress Applications for Payment will be submitted on or about the 25th day of each month and will be due and payable by the 10th day of the following month. Final Payment will be due Net 10th Prox. All other work: Net 10th Prox.

NOTE: THIS PROPOSAL SUBJECT TO ACCEPTANCE WITHIN 30 DAYS

ACCEPTED ON _____ 2020

JOHN BOUCHARD & SONS CO.

BY: _____
SIGNATURE

Print Name _____

Title _____

BY: Michael Jackson
SIGNATURE

Print Name Michael Jackson
michael.jackson@jbouchard.com

Title Project Manager Machine Shop
Phone 615 406-6944



Kiewit

CP 48

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 30, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00075.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

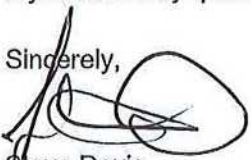
Subject: RE. RFI 354 – Headworks 6" PLW Design Changes

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **RFI 354 – Headworks 6" PLW Design Changes** amounting to **One Thousand Nine Hundred Eighty Seven Dollars (\$1,987.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: RFI 354

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
RFI #354 - Headworks 6" PLW to accommodate Structural Beams Utilizing 45 Degree Angles																	
Labor - Install DIP & Fittings						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
Foreman	1.00	EA	2.00	2	\$ 62.31	\$ 124.62	\$ -	-		\$ -	-		\$ -	-		\$ -	\$ 124.62
Pipefitters	2.00	EA	2.00	4	\$ 66.96	\$ 267.84	\$ -	-		\$ -	-		\$ -	-		\$ -	\$ 267.84
Materials						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
6" Flanged 45 Degree Fittings - Cement Lined	4.00	EA			\$ -	-		\$ -	\$ 152.64	\$ 610.56	\$ -	-		\$ -	-		\$ 610.56
6" Megaflanges	4.00	EA			\$ -	-		\$ -	\$ 144.00	\$ 576.00	\$ -	-		\$ -	-		\$ 576.00
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
OTHER						\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ -
SIS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)																	
	6	MHR				\$ -	-		\$ -	-		\$ -	-		\$ -	-	\$ 5.00
																	\$ 30.00
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)										\$115.69							\$ 2.93
SUBTOTALS				6		\$ 392.46		\$ -		\$ 1,302.25		\$ -		\$ -		\$ 32.93	\$ 1,727.63
MARKUP %						\$ 15,007		\$ 15,007		\$ 15,007		\$ 15,007		\$ 15,007		\$ 15,007	\$ 259.15
SUBTOTALS WITH MARKUPS APPLIED						\$451.33				\$1,497.59						\$37.86	\$1,986.78
BOND																	
TOTAL																	\$1,987.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



DUPLICATE

INVOICE

1830 Craig Park Court
St. Louis, MO 63146

Invoice # M932604
Invoice Date 9/03/20
Account # 206322
Sales Rep JARED JONES
Phone # 615-893-0900
Branch #248 Murfreesboro, TN
Total Amount Due \$576.00

Remit To:
CORE & MAIN LP
PO BOX 28330
ST. LOUIS, MO 63146

WESTERN SUMMIT CONSTRUCTORS
4405 C INT BLVD
SUITE C-101
NORCROSS GA 30093

Shipped To:
FRANKLIN WRF
135 CLAUDE YATES DRIVE
ANDY MCMILLEN (615) 477-2969
FRANKLIN, TN

CUSTOMER JOB- FRANKLI FRANKLIN WRF

Thank you for the opportunity to serve you! We appreciate your prompt payment.

Date Ordered	Date Shipped	Customer PO #	Job Name	Job #	Bill of Lading	Shipped Via	Invoice#
8/28/20	9/01/20	FIELD PO	FRANKLIN WRF	FRANKLI		BEST WAY	M932604

Product Code	Description	Quantity		B/O	Price	UM	Extended Price
		Ordered	Shipped				
	CORE & MAIN PO#-	9942682					152.64
	CORE & MAIN PO#-	9942676					x 4
							\$610.56
24T064FPR	6 FLG 45 C110 PR USA	4		4	152.64000 EA		.00
2406F2106	6 EBAA MEGAFLANGE 2106	4	4		144.00000 EA		576.00

Freight	Delivery	Handling	Restock	Misc
---------	----------	----------	---------	------

Terms: NET 30

Subtotal: 576.00
Other: .00
Tax: .00
Invoice Total: \$576.00

This transaction is governed by and subject to Core & Main's standard terms and conditions, which are incorporated by reference and accepted.
To review these terms and conditions, please visit: <http://tandc.coreandmain.com/>



Kiewit

CP43

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 26, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00062.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

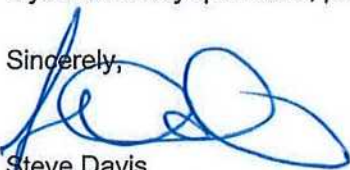
Subject: RFI 352 – Multi-Stage Centrifugal Blower Pad Modifications

Dear Mr. Harris,

Attached you will find Kiewit's proposal for **RFI 352 – Multi-Stage Centrifugal Blower Pad Modifications**, amounting to **Three Thousand Six Hundred & Twenty-Eight Dollars (\$3,628.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: RFI 352 Multi-Stage Centrifugal Blower Pad Modifications

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Labor Cost - Additional Structural Backfill																	
Foreman	1.00	EA	6.00	6	\$ 62.31	\$ 373.86	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 373.86
Laborer/Spotter	1.00	EA	6.00	6	\$ 36.42	\$ 218.52	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 218.52
Operator	1.00	EA	6.00	6	\$ 40.92	\$ 245.52	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 245.52
Material Cost																	
#57 TDOT Stone	50.00	TN							\$ 18.00	\$ 900.00							\$ 900.00
Equipment Cost																	
Caterpillar 315F L CR	6.00	HR	6.00	6	\$ 40.92	\$ 245.52	\$ -	\$ -	\$ -	\$ -	\$ 97.39	\$ 584.34	\$ -	\$ -	\$ -	\$ -	\$ 829.86
Walk Behind Compactor (Wacker RT820)	6.00	HR	1.00	1	\$ 40.93	\$ 40.93	\$ -	\$ -	\$ -	\$ -	\$ 37.93	\$ 227.58	\$ -	\$ -	\$ -	\$ -	\$ 268.51
Foreman Truck - Ford F-250	6.00	HR									\$ 30.28	\$ 181.68					\$ 181.68
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	25	MHR		25		\$ -											\$ 125.00
TAX: (9.75% of Material, Equipment, Other)																	\$ 12.19
BOND (2% of total)																	\$ -
SUBTOTALS						\$ 1,124.35		\$ -		\$ 900.00		\$ 993.60		\$ -		\$ 137.19	\$ 137.19
MARKUP %						\$ 15,000.00		\$ 15,000.00		\$ 1,035.00		\$ 1,142.64		\$ 5,000.00		\$ 5,000.00	\$ 473.27
SUBTOTALS WITH MARKUPS APPLIED						\$ 11,293.00		\$ 15,000.00		\$ 1,035.00		\$ 1,142.64		\$ 5,000.00		\$ 157.77	\$ 3,628.41
BOND																	\$ -
TOTAL																	\$ 3,628.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 34.00	\$ 51.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.98	\$ 4.47	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.27	\$ 1.90	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 47.67	\$ 66.79	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 9.59	\$ 9.59	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 50.51	\$ 66.26	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

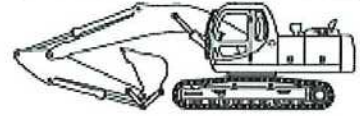
- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

Rental Rate Blue Book®

June 1, 2020

Caterpillar 315F L
Crawler Mounted Hydraulic Excavators


Size Class:
16.1 - 19.0 MTons
Weight:
N/A

Configuration for 315F L

Bucket Capacity - Heaped **1 cu yd** Net Horsepower **97 hp**
Operating Weight **36340 lbs** Power Mode **Diesel**

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$9,430.00	USD \$2,640.00	USD \$660.00	USD \$99.00	USD \$39.63	USD \$93.21
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$735.54	USD \$205.92	USD \$51.48	USD \$7.72		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$10,165.54	USD \$2,845.92	USD \$711.48	USD \$106.72	USD \$39.63	USD \$97.39

Non-Active Use Rates

Hourly

Standby Rate USD \$30.61
Idling Rate USD \$68.45

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$3,489.10/mo
Overhaul (ownership)	46%	USD \$4,337.80/mo
CFC (ownership)	10%	USD \$943.00/mo
Indirect (ownership)	6%	USD \$565.80/mo
Fuel (operating) @ USD 3.07	27%	USD \$10.69/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

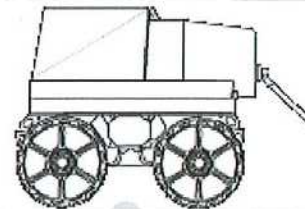
Wacker RT820 (disc. 2011)
Trench Compactors

Size Class:

26 - 34 Inches

Weight:

3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

Hourly

Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250
On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

August 30, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Request for Proposal (RFP) No. 8

Dear Mr. Davis;

The purpose of this RFP is to provide chemical injection points in the plant water system. These will be utilized to inject sodium bisulfite into the plant water for dechlorination on an as-needed basis.

There shall be installed a 6' diameter manhole at two locations as shown in the attached revision of Sheet C-18. Because the manhole will be in the pavement, it will need to be load rated for truck traffic. Each will contain a tap for insertion of a chemical injection quill. During chemical injection, the quill will be connected to a hose, and the hose will be run through the 3" containment piping. This containment piping leads to a concrete pad in the grass where it can be uncapped and accessed. This will keep any temporary chemical feed pumps out of the roadway during the injection process. When not in use, the isolation valve at the chemical injection point should be normally closed and capped.

The exact depth of the proposed manholes will be determined by as-built elevations of the new plant water piping. Note that the injection quills and carrier hose are not to be included in this proposal.

Feel free to contact me with any questions.

Sincerely,

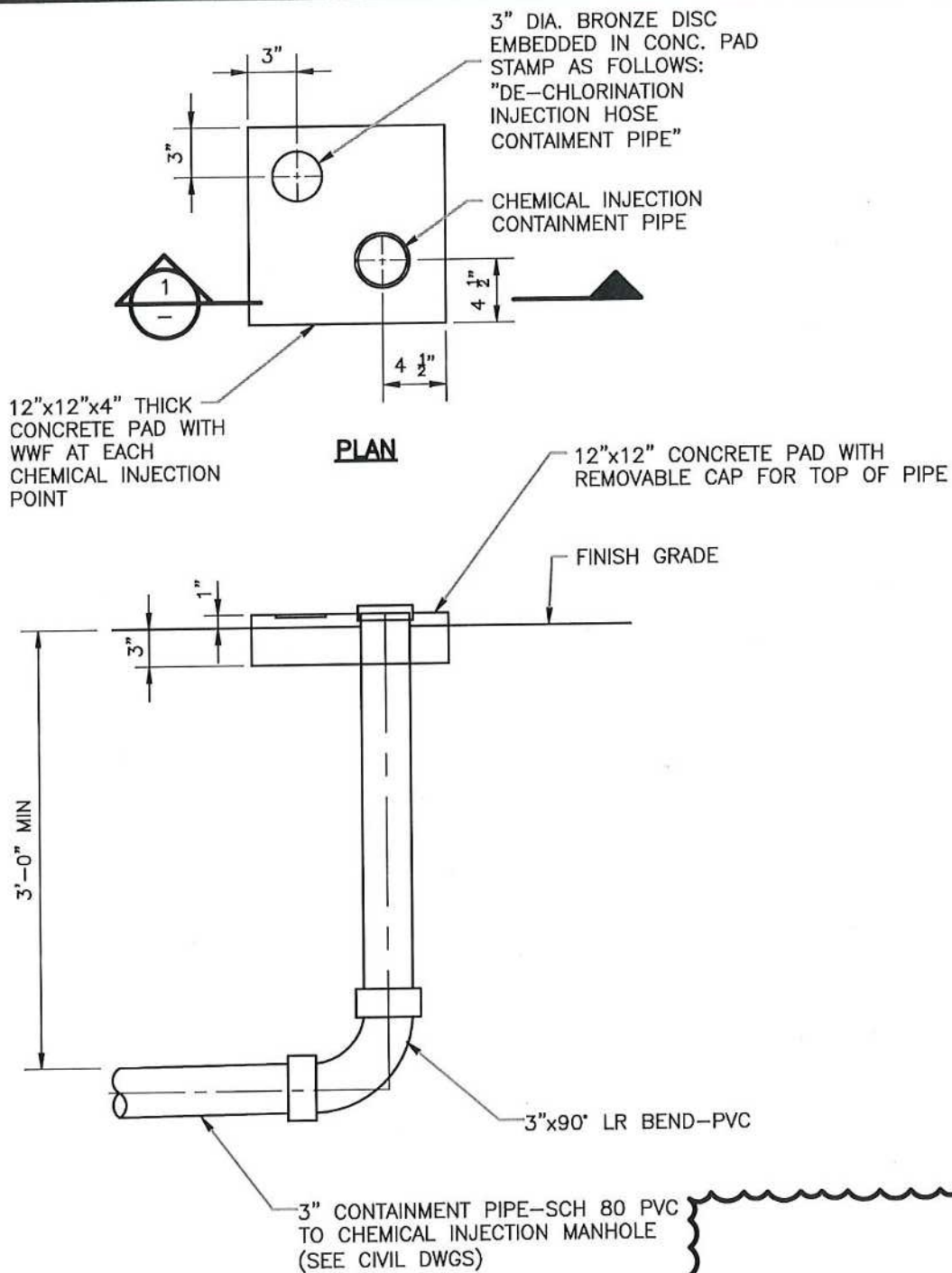
Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith



RFP No. 8
August 30, 2020
Page 2

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10

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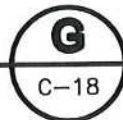


SECTION 1

CHEMICAL INJECTION

DETAIL

NOT TO SCALE



SEE (DETAIL O/CD-6) FOR
MANHOLE FRAME AND COVER

NON-SHRINK GROUT

8" MIN.

8" MIN.

PAVEMENT

3'-0" MIN.

GRADE ADJUSTMENT RINGS.
RINGS MAX. OF 6".
PROVIDE
TAPERED RINGS AT SLOPED
SURFACES, TYP.

3" CONTAINMENT PIPE-
SCH 80 PVC FOR
CHEMICAL INJECTION

PIPE PENETRATION WITH
MECHANICAL SEAL.
DETAIL F/MD-1

SEE MANHOLE STEP
DETAIL (TYP).

ALL JOINTS SHALL BE
GROUTED SMOOTH INSIDE
W/NON-SHRINK GROUT (TYP).

TONGUE AND GROOVE
JOINT (SEE DETAIL).

TONGUE AND GROOVE
JOINT (SEE DETAIL)

PLUG/CAP ON END
OF VALVE

THREADED 2" BALL
VALVE

2" TAP WITH TAPPING
SADDLE AROUND PIPE

PREFORMED INVERT
2,000 PSI CONCRETE

SUMP PIT 12"x12"x12" SUMP
ACCESSIBLE FROM MANHOLE.
GROUT ABOVE SLAB. SLOPE
GROUT TO SUMP PIT WITH 1%
SLOPE.

1:12

12" MIN. #67
STONE

NOTES:

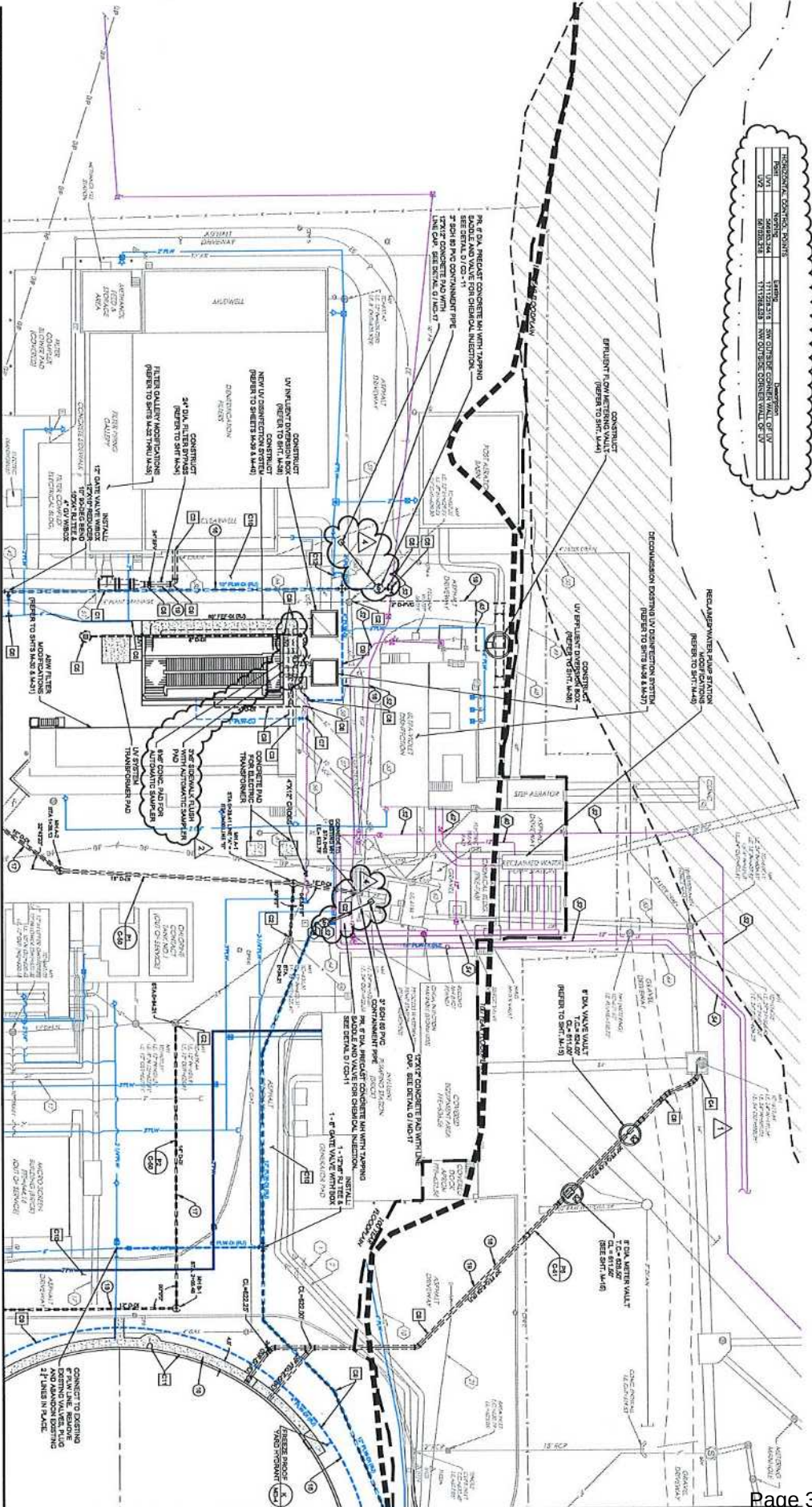
1. ALL PRECAST ELEMENTS SHALL CONFORM TO ASTM C478.
2. MANHOLE; MANHOLE FRAME AND COVER SHALL BE HS-20 LOAD RATED FOR TRUCK TRAFFIC.
3. ALL JOINTS SHALL BE GROUTED SMOOTH INSIDE W/NON-SHRINK GROUT.

6' DIA. PRECAST CONCRETE MH FOR CHEMICAL INJECTION

N.T.S.

D

Point	Noting	Listing	Description
UV1	56010.344	111128.516	3M OUTSIDE CORNER WALL OF LV
UV2	661020.316	111128.628	NW OUTSIDE CORNER WALL OF LV



CONSTRUCTION KEY CODE	
CODE	DESCRIPTION
C1	CONNECT TO EXISTING OPENING, REMOVE EXISTING FLOOR AND INSTALL 1"X4"X8" PLATE, 1-1/4"X4"X8" NAIL STUDS, & 1/4"X4"X8" NAILER. SEE SECTION 1 ON SHEET M-04.
B	CONNECT TO EXISTING WALL/CORE BY CODE A RESILIENT SEAL METHOD
B	CONNECT TO EXISTING STRUCTURE. REPAIR TO SHEETS M-04 AND B-23
D	CONNECT TO EXISTING WALL/CORE WITH INSIST DRIP CONNECTION. REFER TO DETAIL "C" ON SHEET D-11.

2. TURN LINE TO DRY SLAM. 4" UNWOUND WITH 25' ALLOWANCE. CHECK FOR KNOTS AND DAMAGE. IF ANY, NOTIFY SUPERVISOR IMMEDIATELY. IF NO KNOTS OR DAMAGE, PROCEED TO NEXT STEP.
3. CONNECT TO DOESTING PINE USING REBARRED JOINT OR FITTINGS AS REQUIRED.
4. CONNECT TO DOESTING PINE. INSTALL 4" X 4" TEE OR GATE VALVE WITH BOX AND 2" FLANGED PLUG.
5. INSTALL BUTTERFLY VALVE (P.O. OF SIZE INDICATED) VALVE BOX. EXTENSION STUD KIT, AND GROUND LINE. VALVE POSITION INDICATOR.
6. INSTALL REBARRED JOINT OR FITTINGS AS REQUIRED FOR PIPE INSTALLATION. ALL REQUIRED BENDS & FITTINGS ARE NOT NECESSARILY SHOWN.

210	EXISTING PAVEMENT TO BE RESURFACED. REFER TO PLAN SHEET C&D FOR LIMITS OF MILLING AND OVERLAY.
211	PROVIDE EXPANSION / ISOLATION JOINTS WHERE EXISTING WETTED BUILDINGS OR OTHER STRUCTURES. SEE DETAILS E & F ON SHEET C&D.
212	CUT AND CAP ON PLUS EXISTING PIPING

DETAIL KEY CODE		DTL #/SHT #
CODE	DESCRIPTION	
(5)	NEW CONCRETE SIDEWALK	G / CDS
(6)	REDOING A BACKFILL PRESSURE LINES	F / CDS
(7)	REDOING A BACKFILL GRAVITY LINES	G / CDS
(8)	ASPHALT PAVT. UTILITY TRENCH REPAIR	U / CDS

REFER TO SHEET C-1 FOR GENERAL
SITE PLAN NOTES & LEGEND

CITY OF FRANKLIN, TENNESSEE
WATER RECLAMATION FACILITY
SITE LAYOUT AND YARD PIPING PLAN
PANEL 1



Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 6, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00072.01

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFP 008

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for providing two **chemical injection points in the plant water system** in the amount of **Forty-Nine Thousand Nine Hundred Sixty-Six Dollars (\$49,966.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steve Davis', is written over the word 'Sincerely,'.

Steve Davis
Project Manager

cc: File
Michelle Hatcher

PCO NO.: RFP 008



PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
MH Install and Pipe Tap & Tie-In																	
Install Precast Structures	2.00	Ea															
Foreman	1.00	Ea	32.50	32.5	\$ 62.31	\$ 2,025.08											2,025.08
Laborer	2.00	Ea	32.50	65.0	\$ 36.42	\$ 2,367.30											2,367.30
Operator	1.00	Ea	32.50	32.5	\$ 40.92	\$ 1,329.90											1,329.90
OH-Powering Spotter-Laborer	1.00	Ea	7.50	7.5	\$ 36.42	\$ 273.15											273.15
Pipe Core & Tie In																	
Foreman	1.00	Ea	16.00	16.0	\$ 62.31	\$ 996.96											996.96
Pipefitter	1.00	Ea	16.00	16.0	\$ 52.47	\$ 839.52											839.52
Cost and P/F/C Manhole																	
Foreman	6.18	CY	2.00	2.0	\$ 62.31	\$ 124.62											124.62
Laborer	2.00	Ea	4.00	8.0	\$ 36.42	\$ 291.36											291.36
3" Containment - PVC Line																	
EL/B	50.00	LF															
Foreman	1.00	Ea	7.50	7.5	\$ 62.31	\$ 467.33											467.33
Pipelayer	2.00	Ea	7.50	15.0	\$ 40.92	\$ 613.80											613.80
Operator	1.00	Ea	7.50	7.5	\$ 40.92	\$ 306.90											306.90
OH-Powering Spotter-Laborer	1.00	Ea	3.50	3.5	\$ 36.42	\$ 127.47											127.47
Test PVC	50.00	LF															
Pipelayer	2.00	Ea	2.50	5.0	\$ 40.92	\$ 204.60											204.60
Concrete Pad F/P/S																	
Foreman	2.00	Ea	2.00	2.0	\$ 62.31	\$ 62.31											62.31
Laborer	2.00	Ea	4.00	8.0	\$ 36.42	\$ 72.84											72.84
Survey (As-Built)	12.00	HR	1.00	12.0	\$ 53.28	\$ 639.36											639.36
Offroad/Handle																	
Foreman	1.00	Ea	2.00	2.0	\$ 62.31	\$ 124.62											124.62
Laborer	2.00	Ea	2.00	4.0	\$ 36.42	\$ 145.68											145.68
Operator (Forklift)	1.00	Ea	2.00	2.0	\$ 40.92	\$ 81.84											81.84
Tennessee Hydrovac																	
Disposal	10.00	Hr	1.00	10.0	\$ 36.42	\$ 364.20											364.20
Material																	
Oldcastle Material (2 Manholes W/Lids and accessories)	1.00	LS															
New PVC Pipe, BV, Fittings (1MS)	1.00	LS															
Grout (1M Shotcrete Non-Structural)	7.00	CY															
Pipe/Manhole Bedding (3/7 Stone)	34.00	CY															
Bermsen Brass Utility Markers	2.00	Ea															



PCO NO.: RFP 008

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Equipment																	
F-250 (Foreman)	1.50	W/K			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 313.20	\$ 469.80	\$ -	\$ -	\$ -	\$ -	\$ 469.80
335E Excavator	40.00	HR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174.74	\$ 6,989.60	\$ -	\$ -	\$ -	\$ -	\$ 6,989.60
Forklift	4.00	HR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 60.00	\$ 240.00	\$ -	\$ -	\$ -	\$ -	\$ 240.00
Wacker RT 820 (Trench Compactor)	7.00	HR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37.93	\$ 265.51	\$ -	\$ -	\$ -	\$ -	\$ 265.51
Reed Tapping Machine W/700 PDT MPDA Power Drive Adapter	1.00	EA			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90.00	\$ 2,340.00	\$ -	\$ -	\$ 2,176.97
T&W Dump Trucks	26.00	HR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200.00	\$ 200.00	\$ -	\$ -	\$ 2,340.00
Core Through Wall (K&H) for 3" PVC	1.00	LS			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 200.00
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, \$5 per direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Subtotal * \$5 * 1.0925	258	MHR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,290.00
Environmental Fee	1	LS			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100.00
TAX: (9.75% of Material, Equipment, Other)									\$ 11,243.89	\$ 124,389		\$ 776.56					\$ 347.78
BOND (.004% of total)																	\$ 2.00
SUBTOTALS						\$ 11,458.83		\$ -		\$ 14,001.74		\$ 8,741.49		\$ 5,840.00		\$ 3,914.75	\$ 43,958.81
MARKUP %						\$ 13,095		\$ 15,005		\$ 15,005		\$ 15,005		\$ 15,005		\$ 15,005	\$ 6,009.52
SUBTOTALS WITH MARKUPS APPLIED						\$ 13,177.65		\$ -		\$ 16,102.00		\$ 10,052.71		\$ 6,132.00		\$ 4,501.96	\$ 49,966.33
BOND																	\$ 2.00
TOTAL																	\$ 49,968.33

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Klewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Schedule of Values (SOV)

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Hydrovac Unit and Operator ST	57	HR	\$ 230.00	\$ 13,110.00
2	Hydrovac Unit and Operator OT	10	HR	\$ 265.00	\$ 2,650.00
3	Additional Labor if needed	0	HR	\$ 80.00	\$ -
4	Mobilization/Demobilization	0	HR	\$ -	\$ -
5	Disposal	0	Per Load	\$ 100.00	\$ -
6	Remote Pipe, if applicable	0	Per Foot	\$ 1.60	\$ -
7	Support Truck, if applicable	0	Per Day	\$ 95.00	\$ -
8	Overnight Stay, if needed	0	Per Day	\$ 120.00	\$ -
	Estimated Total				\$ 15,760.00

From: Patterson, Denise <Denise.Patterson@oldcastle.com>
Sent: Tuesday, September 29, 2020 6:31 AM
To: Michael.Stiltner
Cc: Corbin.Coker
Subject: [EXTERNAL] RE: [EXT] RE: RFP 008

Steps are included. I'm guessing on the frame/cover, since you do not specify.

\$343 each – JBS 1152M Frame/Cover

\$430/Load – Freight to Franklin, TN (should be 2 loads)

Again, prices do not include tax.

Thanks,



Denise Patterson
Estimator – Water Management

5900 East Division Street
Lebanon, TN 37090

P 615.965.3024
E denise.patterson@oldcastle.com
oldcastleinfrastructure.com

From: Michael.Stiltner <Michael.Stiltner@kiewit.com>
Sent: Monday, September 28, 2020 8:40 AM
To: Patterson, Denise <Denise.Patterson@oldcastle.com>
Cc: Corbin.Coker <Corbin.Coker@Kiewit.com>
Subject: RE: [EXT] RE: RFP 008

We would like to include castings, steps, and road rated lids and freight.

Thanks,



Michael Stiltner
Pipe Superintendent

Franklin WRF Modifications and Expansion Project
135 Claude Yates Dr, Franklin, TN 37064
(469)-491-9673 Cell
Michael.Stiltner@kiewit.com

From: Patterson, Denise <Denise.Patterson@oldcastle.com>
Sent: Monday, September 28, 2020 6:28 AM
To: Michael.Stiltner <Michael.Stiltner@kiewit.com>

Cc: Davis, Hunter <Hunter.Davis@oldcastle.com>

Subject: [EXTERNAL] RE: [EXT] RE: RFP 008

\$2,462 each – 6' diameter open bottom @ 7' depth. (Approximate heaviest pick weight 12,000 lbs.)

Prices do NOT include tax, casting, hatch, boots, coatings, or additives.

Thanks,



Denise Patterson

Estimator – Water Management

5900 East Division Street
Lebanon, TN 37090

P 615.965.3024

E denise.patterson@oldcastle.com

oldcastleinfrastructure.com

From: Davis, Hunter

Sent: Friday, September 25, 2020 6:57 PM

To: Patterson, Denise <Denise.Patterson@oldcastle.com>

Subject: Fwd: [EXT] RE: RFP 008

Does this get you enough information?

Hunter Davis

Sales Department- Wet Utilities Division

[5900 E Division St](#)
[Lebanon, TN, 37090](#)

C [615-318-9594](tel:615-318-9594)

E hunter.davis@oldcastle.com

oldcastleinfrastructure.com

Begin forwarded message:

From: "Michael.Stiltner" <Michael.Stiltner@kiewit.com>

Date: September 25, 2020 at 6:04:08 PM CDT

To: "Davis, Hunter" <Hunter.Davis@oldcastle.com>

Subject: RE: [EXT] RE: RFP 008

Invert of the pipe will be at 630 EL and finish grade is 637. Can you price these as dog house manholes.

Thanks,



Michael Stiltner
Pipe Superintendent

Franklin WRF Modifications and Expansion Project
135 Claude Yates Dr, Franklin, TN 37064
(469)-491-9673 Cell
Michael.Stiltner@kiewit.com

From: Davis, Hunter <Hunter.Davis@oldcastle.com>
Sent: Thursday, September 24, 2020 2:57 PM
To: Michael.Stiltner <Michael.Stiltner@kiewit.com>
Subject: [EXTERNAL] Re: [EXT] RE: RFP 008

Please Provide the depths for the manholes.

Hunter Davis
Sales Department- Wet Utilities Division

[5900 E Division St](#)
[Lebanon, TN, 37090](#)

C [615-318-9594](tel:615-318-9594)
E hunter.davis@oldcastle.com

oldcastleinfrastructure.com

On Sep 24, 2020, at 2:52 PM, Michael.Stiltner
<Michael.Stiltner@kiewit.com> wrote:

Checking on the status of pricing for the 2 manholes

Thanks,

<image003.png>

Michael Stiltner
Pipe Superintendent

Franklin WRF Modifications and Expansion Project
135 Claude Yates Dr, Franklin, TN 37064
(469)-491-9673 Cell



INDUSTRIAL AND MUNICIPAL SUPPLY

P.O. BOX 573

WEST POINT, GA 31833

Phone: (706) 643-4214 ***** Fax (706) 643-5515

Quote Summary

Quote #: 2019-5041-33

Quote Name: Franklin Water Reclamation Facility-33 RFP NO. 8

Location: FRANKLIN, TN

Mark #	Seq #	Quantity	Unit	Size	Material	Length	Joint	Fitting	Description	Unit Sell	Total Sell
HEADING: 1											
DESCRIPTION: CONTAINMENT PIPE TO MANHOLE 2 LOCATIONS											
1-1	1	2	EA	3"	PVC		SMIP	ADAPTER	836030 SCHEDULE 80	\$7.53	\$15.06
1-2	2	2	EA	3"	PVC		THREAD	CAP	848030 SCHEDULE 80	\$11.97	\$23.94
1-3	3	2	EA	3"	PVC		SXS	LONG RADIUS	806-030.SF SCHEDULE 80	\$98.13	\$196.26
1-4	4	40	FT	3"	PVC	20'-0"	PLAIN END	PIPE	SCHEDULE 80	\$3.40	\$136.00
1-5	5	2	EA	6"	STAINLESS	0'-8"	PEXGYRE	WALL SLEEVE	LINKSEAL #MS-6-28 SS-6-8" TYPE 316 STAINLESS STEEL	\$210.00	\$420.00
1-6	6	28	EA		STEEL		LINKSEAL	LINK	LINKSEAL #S-360-S WITH STAINLESS STEEL HARDWARE (7	\$17.90	\$501.20
1-7	7	2	EA	3"	BRONZE		DISC	MARKER	LINKS PER SEAL DOUBLE SEAL PER DETAIL FMD-1)	\$0.00	\$0.00
HEADING: 2											
DESCRIPTION: CHEMICAL TAPS AT MANHOLES 2 LOCATIONS											
2-1	1	1	EA	12"	DUCTILE	x2" IPT	DBL STRAP	SADDLE	JCM# A404-1320X14	\$196.11	\$196.11
2-2	2	1	EA	10"	DUCTILE	x2" IPT	DBL STRAP	SADDLE	JCM# A404-1110X14	\$172.80	\$172.80
2-3	3	2	EA	2"	STAINLESS	0'-3"	THREAD	NIPPLE	SCHEDULE 40 TYPE 316 "DOMESTIC" NOT "AISI" COMPLIANT	\$11.40	\$22.80
2-4	4	2	EA	2"	STEEL		THREAD	BALL VALVE	APOLLO TEV, 300#, ISO BUNT, #M WITH LEVER HANDLE "AISI" COMPLIANT	\$1,433.93	\$2,867.86
2-5	5	2	EA	2"	STEEL		THREAD	PLUG	SCHEDULE 40 TYPE 316 "DOMESTIC" NOT "AISI" COMPLIANT	\$88.07	\$176.14
HEADING: 3											
DESCRIPTION: SHIPPING FREIGHT COST											
3-1	1	1	EA				DELIVERY	FREIGHT	CHARGE ESTIMATE	\$300.00	\$300.00
End of Quote Summary										Total	\$5,028.17

\$4,608.17



Date: Jun 04, 2020

Customer: KIEWIT INFRASTRUCTURE SOUTH CO
Attention: Kian Lawlor
kian.lawlor@kiewit.com

Project: Franklin- Grout WRF
Location: Mack Hatcher, Franklin, TN 37067
Total Yards: 50

Quote Number: MQ0040460_

Bid Date:

Mix #	Concrete Description	Gross Price/CY	*Discount	Net Price/CY
3031CC	3000-A-CF-STONE-CC	\$119.00	\$3.00/CY	\$116.00
9484TN	TDOT EARLY STRENGTH (NON EXCAVATABLE) FF	\$105.00	\$3.00/CY	\$102.00
4612SD	4500-N-CF-SSTONE-SD	\$129.50	\$3.00/CY	\$126.50

Prices good until Jun 04, 2021, add \$8.00 per yard annually thereafter.

Notes:

PRICING SUBJECT TO CHANGE PER SPECIFICATIONS AND DRAWINGS.

Fly ash mixes are subject to availability. If fly ash is not available, straight cement mixes will be used. Mixes will be priced as quoted. If straight cement mixes are not quoted, add \$5.00 to performance price.

Proper truck washout area must be provided on site.

Concrete and aggregate testing outlined in job specifications can be provided by IMI at the expense of the contractor (if applicable).

Additional Charges

Holidays and Sundays	TBD
Environmental Fee, per load	\$12.00
1% Calcium Chloride	\$3.50
Additional Bag of Type I Cement, add/cy	\$6.50
Excess unloading over 60 minutes charged per hour	\$90.00
High Range Water Reducer, add/cy	\$7.50
Ice, per lb	\$0.60
Late Delivery, After 5:00 PM, per load	\$75.00
Low Chloride Accelerator, Per Dose	\$4.50
Mid-Range Water Reducer, add/cy	\$5.00
Non-Chloride Accelerator, per dose	\$5.50
Reinforcing Fiber, add/cy	\$7.00
Retarding Admixture, per dose	\$3.50
Saturday Delivery, per load	\$50.00
Small Load Charge 2 yards or less	\$200.00
Small Load Charge 2.25 - 3.75 yards	\$100.00
Type III Replacement, when available add/cy	\$6.00
Winter Service (Nov 1 - March 31), add /CY	\$4.00

*Terms: Accounts paid by the 10th of the following month after date of delivery
The above prices do not reflect state sales tax. Quote valid until Sep 04, 2020.

Quoted By: Alex Jauregui alex.jauregui@irvmat.com 615-642-2523

Please sign and return this quote to the salesperson listed above to activate the pricing for this project.

Accepted By: _____

Date: _____

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
Approximate Contract Total (without Taxes)					\$ 597,922.50
Bond (0%)					\$ --

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

Please enter the text you would like printed in the text boxes provided below:

Outside Row

Total of 18 characters and spaces.

Centered at 12 o'clock:

DE-CHLORINATION

Total of 18 characters and spaces.

Centered at 6 o'clock:

CONTAINMENT PIPE

Inside Row

Total of 10 characters and spaces.

Centered at 12 o'clock:

INJECTION

Total of 10 characters and spaces.

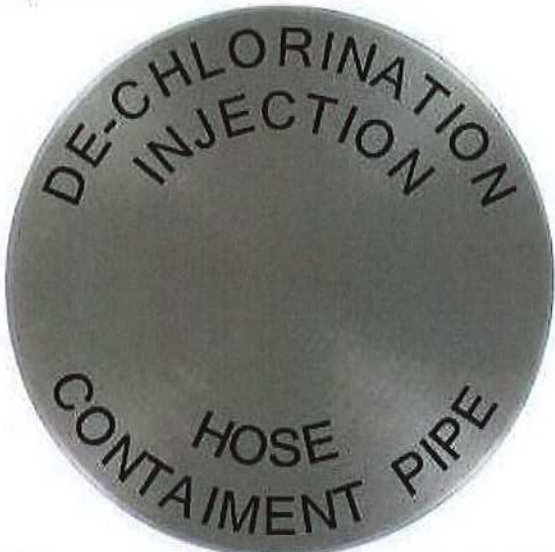
Centered at 6 o'clock:

HOSE

Across

Total of 10 characters and spaces.

Text



This preview is a computer generated representation of the layout. Actual character sizes, type and center mark may differ from this preview

Remove	Qty	Product	Description	Price	Total
☐	2		3½" Flat Concrete Utility Marker (Bronze)	\$58.83	\$152.66



C35FB-U

Outside Row centered at 12 o'clock: DE-CHLORINATION

Outside Row centered at 6 o'clock: CONTAINMENT PIPE

Inside Row centered at 12 o'clock: INJECTION

Inside Row centered at 6 o'clock: HOSE

Across:

\$5 added for setup charge.

Edit

Please select a shipping method:

UPS Ground.....\$19.02

Change Postal/Zip Code

Sub Total	\$152.66
Shipping	\$19.02
Total	\$171.68

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

Standby Rate	Hourly	USD \$4.64
Idling Rate		USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Caterpillar 335F L CR

Crawler Mounted Hydraulic Excavators



Size Class:

40.1 - 50.0 MTons

Weight:

N/A

Configuration for 335F L CR

Bucket Capacity - Heaped

2.2 cu yd

Operating Weight

84604.6 lbs

Net Horsepower

199.8 hp

Power Mode

Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

Standby Rate

Hourly

USD \$53.35

Idling Rate

USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)

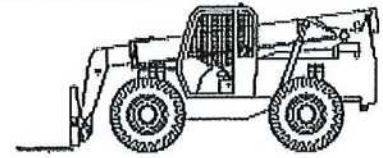
Telescoping Boom Rough Terrain Lift Trucks

Size Class:

5.0 MTons & Over

Weight:

32930 lbs


Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/Hr
Non-Active Use Rates

Standby Rate

Idling Rate

Do not have XTREME-Hourly
1055 on Equipment Watch
USD \$16.88
USD \$50.69

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	28%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

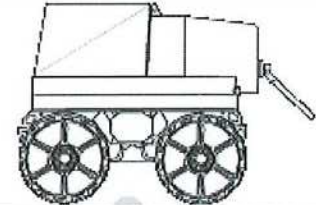
Rental Rate Blue Book®

June 1, 2020

Wacker RT820 (disc. 2011)

Trench Compactors

Size Class:
26 - 34 Inches
Weight:
3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

Hourly

Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

S NASHVILLE TN
 L Branch - 071
 D 120 Fernco Dr
 Y Nashville TN 37207 0000
 PHONE # 615 226 9632



REPRINT 09/22/2020 01:25 PM PAGE 1
 206322

PICK TICKET N057374

PROMISED: 9/22/20
 FILED BY:
 CHECKED BY:
 REVIEWED BY:
 ENTERED BY: STEVEN BUFINGTON - 071

S WESTERN SUMMIT CONSTRUCTORS
 L 4405 C INT BLVD
 D SUITE C-101
 T NORCROSS GA 30093
 Cus Ph# 770 564 8861

S WESTERN SUMMIT CONSTRUCTORS
 L FRANKLIN WRF
 D 135 CLAUDE YATES DRIVE
 T ANDY MCMLLEN (615) 477-2969
 FRANKLIN TN 37064

SPECIAL INSTRUCTIONS/COMMENTS:
 C/O # K196437
 WARNING-HEAVY ITEM-LIFT ASSISTANCE REQ'D

BRANCH NO.	DATE ORDERED	DATE SHIPPED	PURCHASE ORDER NO.	JOB NAME	JOB NUMBER	DELIVERY METHOD				BILL OF LADING NO.	SHIPPED VIA	SALESMAN					
071	9/22/20		103925	FRANKLIN WRF	FRANKLI	OUR TRUCK	CUSTOMER PICK UP	DIRECT	SHIPPED		CORE & MAIN LP	G70					
BIN LOCATION		PRODUCT CODE		DESCRIPTION		QTY ORDERED		QTY SHIPPED		BACK ORDERED		UNIT PRICE	PER	AMOUNT			
		65RE700PDTMPDA		REED 700PDTMPDA POWER DRIVE&ADAPTER 05276		1		1				1,992.65	EA	1,992.65			
		65REDM2100		REED DM2100 TAPPING MACHINE WEIGHT: 60.0000 lb TOTAL WEIGHT: 60.00		1		1				1,737.00	EA	1,737.00			
SIGN UP FOR ONLINE ADVANTAGE @ NO COST HTTPS://OA.COREANDMAIN.COM																	
MERCHANDISE SUBTOTAL		TAX		TAX AMOUNT		FREIGHT		DELIVERY		HANDLING		RESTOCKING		MISCELLANEOUS		TOTAL SALE	
3,729.65		9.250		.00		.00		.00		.00		.00		.00		3,729.65	
END OF ORDER																	

END OF ORDER

This transaction is governed by and subject to Core & Main's standard terms and conditions, which are incorporated by reference and accepted. To review these terms and conditions, please visit <http://landc.coreandmain.com/>.



RECEIVED BY
 SIGNATURE:
 PRINT NAME
 HERE:

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Tri-Axle Dump Trucks	3,485	HR	\$ 90.00	\$ 313,650.00
				\$ -	\$ -
	<i>Approximate Agreement Total (including Taxes)</i>			\$	\$ 313,650.00

ESTIMATOR'S GUIDE CORE DRILLING

Minimum Charge (1 1/2 hrs.) \$200.00

Diameter	FLOORS		Diameter	WALLS	
	Per Hole up to 6" deep	Per Inch over 6" depth		Per Hole up to 8" deep	Per Inch over 8" depth
1" to 4"	\$ 21.00	\$ 3.50	1" to 4"	\$ 32.00	\$ 4.00
4 1/2"	24.00	4.00	4 1/2"	34.00	4.25
5"	27.00	4.50	5"	38.00	4.75
6"	31.50	5.25	6"	44.00	5.50
7"	33.00	5.50	7"	50.00	6.25
8"	39.00	6.50	8"	56.00	7.00
9"	45.00	7.50	9"	68.00	8.50
10"	51.00	8.50	10"	80.00	10.00
12"	66.00	11.00	12"	106.00	13.25
14"	90.00	15.00	14"	140.00	17.50

480 VOLT / HYDRAULIC CORE DRILLING

Minimum Charge \$250.00

16"	114.00	19.00	16"	180.00	22.50
18"	168.00	28.00	18"	256.00	32.00
20"	186.00	31.00	20"	292.00	36.50
22"	210.00	35.00	22"	316.00	39.50
24"	234.00	39.00	24"	344.00	43.00
26"	282.00	47.00	26"	428.00	53.50
28"	312.00	52.00	28"	520.00	65.00
30"	570.00	64.00	30"	608.00	76.00

SLAB SAWING - GAS, ELECTRIC

Minimum Charge (1 1/2 hrs.) \$250.00

Slab sawing with water clean up - \$.55 per inch foot

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.55	\$ 1.10	\$1.65	\$2.20	\$3.30	\$ 4.40	\$5.50	\$6.60	\$7.70

ASPHALT SLAB SAWING

Depth of cut	1-2"	3"	4"	6"	8"	10"	12"
Cost per foot	\$.50	\$.75	\$1.00	\$1.50	\$2.00	\$ 2.50	\$3.00

DIESEL SLAB SAWING

Depth of cut	1"	2"	3"	4"	6"	8"	10"	12"	14"
Cost per foot	\$.45	\$.90	\$1.35	\$1.80	\$2.70	\$3.60	\$4.50	\$5.40	\$6.30

WALL SAWING

Minimum Charge \$350.00

Wall Thickness	8"	10"	12"	14"	16"	18"
Concrete & Masonry - \$2.50/in. ft.	\$ 20.00	\$25.00	\$30.00	\$35.00	\$40.00	\$45.00
Flush Cut - \$2.80/in. ft.	\$ 22.40	\$28.00	\$33.60	\$39.20	\$44.80	\$50.40

REMOVAL ON GRADE

	up to 6"	7 to 8"	9 to 10"	
By Hand	\$ 4.25	\$ 4.75	\$ 5.25	per sq. ft.
By Machine	\$ 3.00	\$ 3.50	\$ 4.00	to customer's dumpster
Haul off \$ 250.00 per load - Call for dumpster pricing				

A mileage charge of \$ 1.00 per mile round trip outside of metropolitan area.

Customer to mark out all holes and openings.

We do not assume responsibility for damage caused by mismarked holes, cutting conduit, buried pipe, steel beams, etc. We reserve the right to adjust prices when there is excessive re-steel, very difficult set-ups, river rock concrete or scattered locations.

Our clean up consists of vacuuming up our slurry. Additional charge to mop floors and power wash walls.

Price to take our slurry with us - \$ 50.00 per barrel.

Also distributors for professional diamond cutting products & equipment.

PLEASE CALL FOR QUOTES ON LARGE JOBS !!!



121 Old Nashville Hwy., Suite A
LaVergne, TN 37086
Phone: (615) 471-1960
Fax: (615) 471-1959
Cell: (615) 631-9494
www.kandhcutting.com



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

September 4, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Request for Proposal (RFP) No. 10

Dear Mr. Davis;

The purpose of this RFP is to obtain pricing for the restoration of brick masonry at the Influent Pump Station in accordance with the annotated photo attached hereto;

1. Remove brick veneer on the south wall of the Influent Pump Station along the lines of the failure from the west wall of the electrical room to the southwest corner of the building and from the elevation of the electrical room parapet up, replace with new brick veneer and mortar matching the existing. Reuse existing ties if possible; if not possible, provide repair/restoration anchors at maximum 36-in O.C. horizontal and 16-in O.C. vertical, staggering the anchors in alternate courses so that a minimum of one anchor is installed for each 4 square feet of wall area. Repair/restoration anchors shall be Type 304 stainless steel 3/8-in diameter with adequate length for a minimum embed depth of 3-in into the concrete wall. Repair/restoration anchors shall be Heli-Tie Helical Wall Tie by Simpson Strong Tie or equal.
2. Remove and replace existing cap flashing as necessary during the reconstruction. Provide temporary measures to prevent water from migrating beneath roofing system and into the cavity space,
3. Remove existing piping and reinstall at the conclusion of construction.
4. Provide safe and continuous access for plant staff through this door opening during construction.





RFP No. 10
September 4, 2020
Page 2

Please feel free to contact me if you have questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Harris", with a stylized flourish at the end.

Daniel A. Harris, PMP, CCM, LEED GA
Project Manager
CDM Smith

cc: Michelle Hatcher, City of Franklin
Brian Goodwin, City of Franklin
File 231666.05.02.10





Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 16, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00068.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Sumitomo Gear Box for BNR # 2

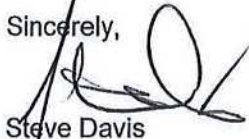
Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for the repair to the **exterior masonry of the influent pump station** in the amount of **Eighteen Thousand Eight Hundred Fifty-Two Dollars (\$18,852)**.

This proposal includes the extra work required to repair the exterior masonry for the influent pump station with the existing brick, there could be a small cost savings of \$2,999 if new bricks were used in the repair of the exterior masonry.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



Page 421 of 702

PREPARED BY: Corbin Coker

[illegible]

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

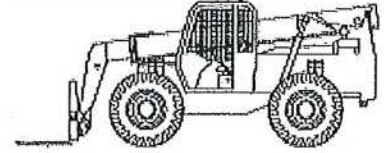
Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)
Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs

Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

Non-Active Use Rates

Standby Rate	
Idling Rate	

USE \$60/HR
Do not have XTREME-Hourly
1055 on Equipment-Watch
USD \$16.88
USD \$50.69

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



NN 959 McCURDY RD | WHITE HOUSE TN 37188
 PH:615-334-1253 | ramiroreyes46@gmail.com | FAX: 615 - 334-1057

RG Masonry Change Order

Job WRF MODS & expansion

Discription RFP 10 MASONRY REPAIR AT EXISTING PUMP NEW BRICK

Date 9/8/2020

		Hourly pay	Work Hours		
1 Foreman	@	\$64.00	35	Sub	\$2,240.00
2 Mason	@	\$48.00	32	Sub	\$3,072.00
2 Labors	@	\$37.00	35	Sub	\$2,590.00
1 Operator	@	\$43.00	35	Sub	\$1,505.00

Quantity	Cost per	Grand Total	\$9,407.00
----------	----------	-------------	------------

Materials		\$0.00
1800 Brick	\$0.65	\$1,170.00
Cmu	\$0.58	\$0.00
8 Sand	\$35.00	\$280.00
16 Mortar	\$17.00	\$272.00
2 Sant tons	\$34.00	\$68.00
0 Yards	\$110.00	\$0.00
Flashing		\$0.00
Mortar Net		\$0.00
Plaster		\$0.00
Infill Openings		

Subtotal	\$1,790.00
Tax 9.25%	\$165.58
Total for Material	\$1,955.58
Total for Material and Labor	\$11,362.58
Overhead and Profit 15%	\$2,272.52
Equipment	\$1,000.00
Total Price	\$14,635.09

Using New Brick for the repair



959 McCURDY RD WHITE HOUSE , TN 37188
 PH:615-334-1253 | ramiroreyes46@gmail.com | FAX: 615 - 334-1057

RG Masonry Change Order

Job WRF MODS & expansion

Discription RFP-10 MASONRY REPAIR USING SAME BRICK

Date 9/8/2020

		Hourly pay	Work Hours		
1 Foreman	@	\$64.00	50	Sub	\$3,200.00
2 Mason	@	\$48.00	32	Sub	\$3,072.00
2 Labors	@	\$37.00	50	Sub	\$3,700.00
1 Operator	@	\$43.00	50	Sub	\$2,150.00

Quantity	Cost per	Grand Total	\$12,122.00
----------	----------	-------------	-------------

Materials		\$0.00
0 Brick	\$0.65	\$0.00
Cmu	\$0.58	\$0.00
8 Sand	\$35.00	\$280.00
16 Mortar	\$17.00	\$272.00
2 Sant tons	\$34.00	\$68.00
0 Yards	\$110.00	\$0.00
Flashing		\$0.00
Mortar Net		\$0.00
Plaster		\$0.00
Infill Openings		

Subtotal	\$620.00
Tax 9.25%	\$57.35
Total for Material	\$677.35
Total for Material and Labor	\$12,799.35
Overhead and Profit 15%	\$2,559.87
Equipment	\$1,000.00
Total Price	\$16,359.22

Re-using Existing Brick for the repair



Kiewit

CP 50

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 8, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00073.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RWPS Exploratory Potholing Backfill

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for providing backfill of the Reclaimed Water Pump Station Plant Water-Tie in Exploratory Potholing in the amount of **Thirteen Thousand Seven Hundred Four Dollars (\$13,704.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Backfill RWPS Potholing																	
Foreman	20.00	MHr	1.00	20	\$ 62.31	\$ 1,246.20											\$ 1,246.20
Operator	20.00	MHr	1.00	20	\$ 40.93	\$ 818.60											\$ 818.60
Laborer (Trench Compactor operator, Full Time Equipment Spotter)	40.00	MHr	1.00	40	\$ 36.42	\$ 1,456.80											\$ 1,456.80
Material																	
#5/Stone	220.00	TN							\$ 18.00	\$ 3,960.00							\$ 3,960.00
Equipment																	
Cat 950 Loader	20.00	Hr									\$ 96.25	\$ 1,925.00					\$ 1,925.00
Trench Compactor	20.00	Hr									\$ 37.93	\$ 758.60					\$ 758.60
Ford F-250	20.00	Hr									\$ 30.28	\$ 605.60					\$ 605.60
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax. Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	80	MHR				\$ -											\$ 5.00
TAX: (9.75% of Material, Equipment, Other)										\$ 386.10		\$ 320.70					\$ 39.00
BOND (2% of total)				80		\$ 3,521.60		\$ -		\$ 4,346.10		\$ 3,609.90		\$ -			\$ 439.00
MARKUP %						\$ 45,000		\$ 45,000		\$ 45,000		\$ 45,000		\$ 5,000			\$ 1,787.49
SUBTOTALS WITH MARKUPS APPLIED						\$ 4,049.84				\$ 4,998.02		\$ 4,151.38					\$ 504.85
TOTAL																	\$ 13,704.00

\$13,704.00

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

Rental Rate Blue Book®

June 1, 2020

Caterpillar 950M

4-Wd Articulated Wheel Loaders

Size Class:
225 - 249 HP
Weight:
N/A


Configuration for 950M

Bucket Capacity - Heaped	12.0 cu yd	Net Horsepower	230.0 hp
Operator Protection	ROPS/FOPS	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$8,485.00	USD \$2,375.00	USD \$595.00	USD \$89.00	USD \$44.81	USD \$93.02
Adjustments						
Region (Franklin, Tennessee: 106.7%)	USD \$568.49	USD \$159.13	USD \$39.87	USD \$5.96		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$9,053.50	USD \$2,534.13	USD \$634.86	USD \$94.96	USD \$44.81	USD \$96.25

Non-Active Use Rates

	Hourly
Standby Rate	USD \$32.41
Idling Rate	USD \$74.10

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	41%	USD \$3,478.85/mo
Overhaul (ownership)	37%	USD \$3,139.45/mo
GFC (ownership)	12%	USD \$1,018.20/mo
Indirect (ownership)	10%	USD \$848.50/mo
Fuel (operating) @ USD 3.07	51%	USD \$22.66/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

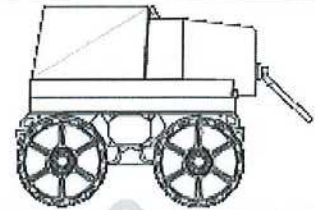
Rental Rate Blue Book®

June 1, 2020

Wacker RT820 (disc. 2011)

Trench Compactors

Size Class:
26 - 34 Inches
Weight:
3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

	Hourly
Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

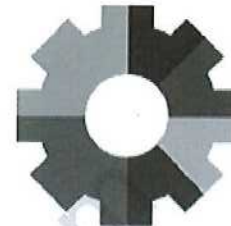
Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
 Weight:
 N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

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 (Michael.Sheston@kiewit.com)



Kiewit

CP 51

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 9, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00089.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: protective bollards for the sump discharge lines

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **adding protective bollards for the sump discharge lines** in the amount of **Two Thousand One Hundred Twenty-Five Dollars (\$2,125.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Installation of Protective Bollards	3.00	EA	6.00	2	\$ 62.31	\$ 140.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Foreman	1.00	EA	2.25	5	\$ 40.92	\$ 184.14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Operator	1.00	EA	4.50	5	\$ 40.92	\$ 184.14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Carpenter	1.00	EA	4.50	5	\$ 54.54	\$ 245.43	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Laborer	1.00	EA	4.50	5	\$ 36.42	\$ 163.89	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Materials																	
6" x 56" Smooth Bolland Sleeve	3.00	EA			\$ -	\$ -	\$ -	\$ -	\$ 62.00	\$ 186.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 186.00
Concrete	2.00	CY			\$ -	\$ -	\$ -	\$ -	\$ 116.00	\$ 232.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 232.00
Environmental Fee - Concrete	1	EA			\$ -	\$ -	\$ -	\$ -	\$ 12.00	\$ 12.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12.00
Equipment																	
Excavator 315	4.50	HR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 97.39	\$ 438.26	\$ -	\$ -	\$ -	\$ -	\$ 438.26
Ford F-250	2.25	HR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30.28	\$ 68.13	\$ -	\$ -	\$ -	\$ -	\$ 68.13
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	16	MHR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)																	
SUBTOTALS						\$ 733.66		\$ -		\$ 471.93		\$ 555.76		\$ -		\$ 86.43	\$ 1,847.77
MARKUP %						\$5.00%		\$5.00%		\$5.00%		\$5.00%		\$5.00%		\$5.00%	\$ 277.17
SUBTOTALS WITH MARKUPS APPLIED						\$843.71				\$542.71		\$639.12				\$99.39	\$2,124.93
TOTAL																	\$2,125.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.39	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Quotation

Bill-To-Party : 119957 KIEWIT CORPORATION 1000 KIEWIT PLAZA OMAHA NE 68131		Information Quotation Number 20760201 Quotation Created Date 06/02/2020 Customer Number 119957 Inside Salesman Jeff Ervin Outside Salesman Dave Brown Validity Start Date 06/02/2020 Validity End Date 07/02/2020			
Ship-To-Party : 5330737 KIEWIT WWTP 135 CLAUDE YATES DRIVE FRANKLIN TN 37064					
Notes from the Customer:					
Item	Material	Quantity	Price Per	Unit	Amount
10	TRAFFIC CONTROL 6IN X 56IN SMOOTH BOLLARD SLEEVE	5 EA	62.00 \$	1 EA	310.00

Items total:					310.00
Sales Tax:					28.68
Sales Coupon:					0.00
Total Amount:					\$ 338.68

Signature _____ Date _____



Date: Jun 04, 2020

Customer: KIEWIT INFRASTRUCTURE SOUTH CO
Attention: Kian Lawlor
kian.lawlor@kiewit.com

Project: Franklin- Grout WRF
Location: Mack Hatcher, Franklin, TN 37067
Total Yards: 50

Quote Number: MQ0040460_

Bid Date:

Mix #	Concrete Description	Gross Price/CY	*Discount	Net Price/CY
3031CC	3000-A-CF-STONE-CC	\$119.00	\$3.00/CY	\$116.00
9484TN	TDOT EARLY STRENGTH (NON EXCAVATABLE) FF	\$105.00	\$3.00/CY	\$102.00
4612SD	4500-N-CF-SSTONE-SD	\$129.50	\$3.00/CY	\$126.50

Prices good until Jun 04, 2021, add \$8.00 per yard annually thereafter.

Notes:

PRICING SUBJECT TO CHANGE PER SPECIFICATIONS AND DRAWINGS.

Fly ash mixes are subject to availability. If fly ash is not available, straight cement mixes will be used. Mixes will be priced as quoted. If straight cement mixes are not quoted, add \$5.00 to performance price.

Proper truck washout area must be provided on site.

Concrete and aggregate testing outlined in job specifications can be provided by IMI at the expense of the contractor (if applicable).

Additional Charges

Holidays and Sundays	TBD
Environmental Fee, per load	\$12.00
1% Calcium Chloride	\$3.50
Additional Bag of Type I Cement, add/cy	\$6.50
Excess unloading over 60 minutes charged per hour	\$90.00
High Range Water Reducer, add/cy	\$7.50
Ice, per lb	\$0.60
Late Delivery, After 5:00 PM, per load	\$75.00
Low Chloride Accelerator, Per Dose	\$4.50
Mid-Range Water Reducer, add/cy	\$5.00
Non-Chloride Accelerator, per dose	\$5.50
Reinforcing Fiber, add/cy	\$7.00
Retarding Admixture, per dose	\$3.50
Saturday Delivery, per load	\$50.00
Small Load Charge 2 yards or less	\$200.00
Small Load Charge 2.25 - 3.75 yards	\$100.00
Type III Replacement, when available add/cy	\$6.00
Winter Service (Nov 1 - March 31), add /CY	\$4.00

*Terms: Accounts paid by the 10th of the following month after date of delivery
The above prices do not reflect state sales tax. Quote valid until Sep 04, 2020.

Quoted By: Alex Jauregui alex.jauregui@irvmat.com 615-642-2523

Please sign and return this quote to the salesperson listed above to activate the pricing for this project.

Accepted By: _____

Date: _____

Rental Rate Blue Book®

June 1, 2020

Caterpillar 315F L
Crawler Mounted Hydraulic Excavators

Size Class:
16.1 - 19.0 MTons
Weight:
N/A
Configuration for 315F L

Bucket Capacity - Heaped	1 cu yd	Net Horsepower	97 hp
Operating Weight	36340 lbs	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$9,430.00	USD \$2,640.00	USD \$660.00	USD \$99.00	USD \$39.63	USD \$93.21
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$735.54	USD \$205.92	USD \$51.48	USD \$7.72		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$10,165.54	USD \$2,845.92	USD \$711.48	USD \$106.72	USD \$39.63	USD \$97.39

Non-Active Use Rates

	Hourly
Standby Rate	USD \$30.61
Idling Rate	USD \$68.45

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$3,489.10/mo
Overhaul (ownership)	46%	USD \$4,337.80/mo
CFC (ownership)	10%	USD \$943.00/mo
Indirect (ownership)	6%	USD \$565.80/mo
Fuel (operating) @ USD 3.07	27%	USD \$10.69/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: January 31, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA 011.1
NUMBER:

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: Alum Storage & Feed Facility

CITY PROJECT NO.: 2017-0264

REFERENCE: (See Below)

DESCRIPTION: CCA 11 is revised as follows;

Sh. C-31, delete the 12" RCP culvert. Replace with two (2) 8" Sch. 40 PVC drains as shown on the attached.

CDM SMITH:

By:

Date:

CONTRACTOR:

By:

Date:

City of Franklin:

By:

Date:

City of Franklin:

BY:

Date:

WITH COPY SHOWN ALL RIGHTS RESERVED. THESE DOCUMENTS AND DESIGNS PROVIDED BY PROFESSIONAL SERVICE, INCORPORATED HEREIN, ARE THE PROPERTY OF GDM SMITH AND ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF GDM SMITH.

NO.	DESCRIPTION	DATE
1	CONSTRUCTION DRAINAGE AUTOMATION NO. 11	
2	CONSTRUCTION DRAINAGE	
3	CONSTRUCTION DRAINAGE	
4	CONSTRUCTION DRAINAGE	
5	CONSTRUCTION DRAINAGE	
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100	CONSTRUCTION DRAINAGE	

DESIGNED BY: _____
 DRAWN BY: _____
 CHECKED BY: _____
 APPROVED BY: _____
 DATE: _____

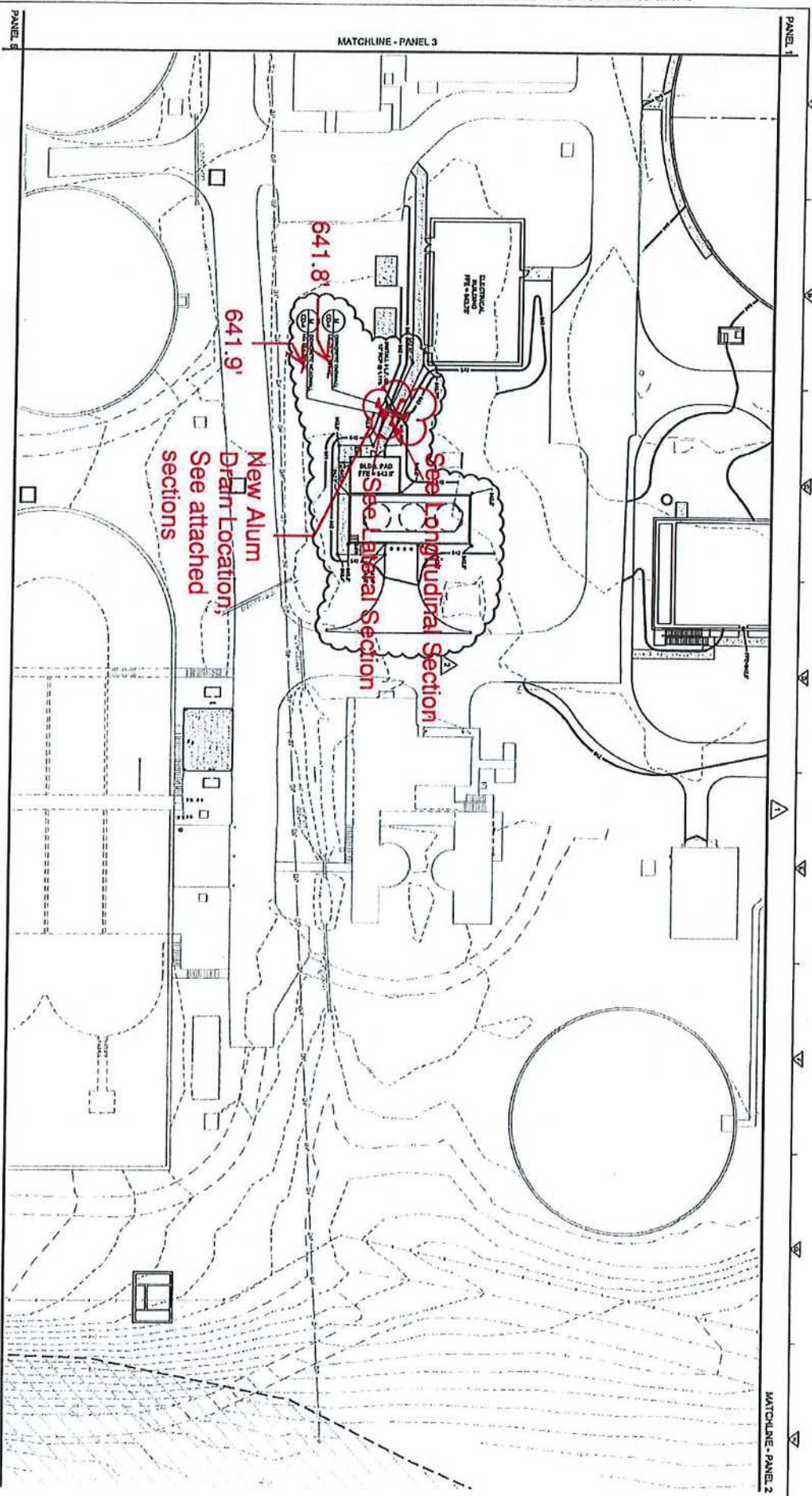
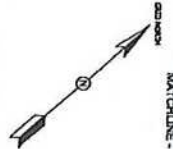


CITY OF FRANKLIN, TENNESSEE
 WATER RECLAMATION FACILITY
 MODIFICATIONS AND EXPANSION PROJECT
 COF CONTRACT NO. 2017-0284

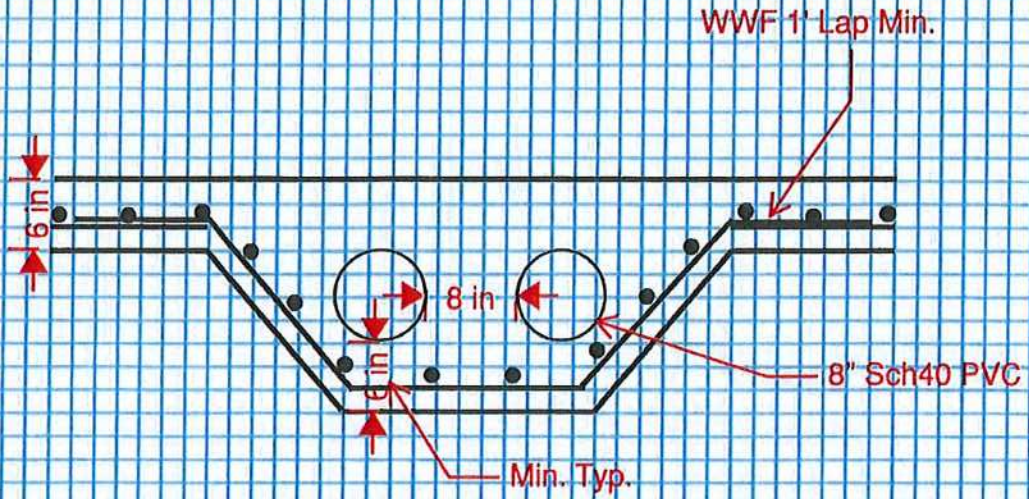
GRADING AND DRAINAGE PLAN
 PANEL 4

CONFORMED DRAWING - AUGUST 20
 C-31

REFER TO PLAN SHEET C-1 FOR
 GENERAL GRADING & DRAINAGE
 NOTES & LEGEND.

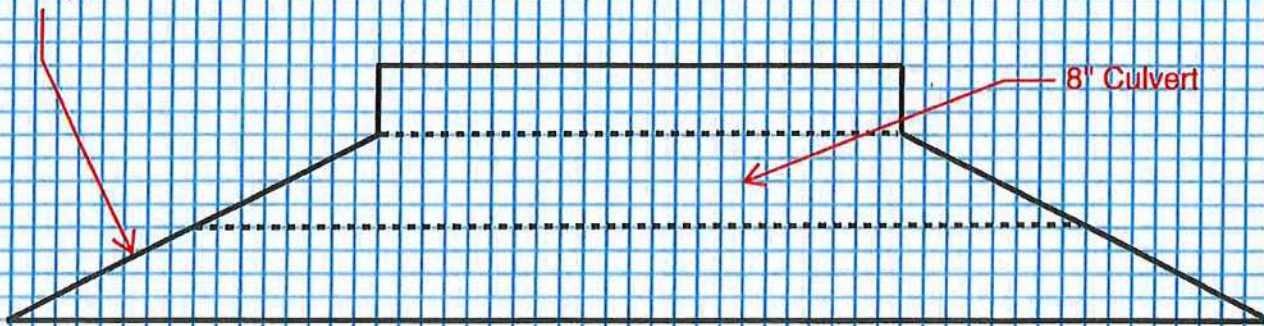


LONGITUDINAL SECTION



LATERAL SECTION

2H:1V Typ.





Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 24, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00058.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 11.1 – Alum Area RCP Change

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for **CCA 11.1 – Alum Area RCP Change** amounting to **Five Thousand Six Hundred and Twenty-Seven Dollars (\$5,627.00)**.

This proposal includes the labor of removing the existing headwall and installing the new headwall, as well as any material costs for the adjustment.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



CCA NO.: 011.1

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Labor Cost																	
Foreman	1.00	EA	11.00	11	\$ 62.31	\$ 685.41											\$ 685.41
Laborer	1.00	EA	10.00	10	\$ 36.42	\$ 364.20											\$ 364.20
Survey - As Buils	1.00	EA	1.00	1	\$53.28	\$ 53.28											\$ 53.28
Material Handling																	
Spotter/Laborer	1.00	EA	1.00	1	\$ 36.42	\$ 36.42											\$ 36.42
Materials																	
#67 Stone	2.00	TN							\$ 18.00	\$ 36.00							\$ 36.00
Schedule 40 8" PVC - 20 Ft.	20.00	LF							\$ 6.90	\$ 138.00							\$ 138.00
Headwalls - Toe and Dissipators not included in pricing	2.00	EA							\$ 669.00	\$ 1,338.00							\$ 1,338.00
Anchor Plates	4.00	EA							\$ 18.84	\$ 75.36							\$ 75.36
Equipment Cost																	
Caterpillar 319F L CR	8.00	HR	1.00	8	\$ 40.92	\$ 327.36					\$ 97.39	\$ 779.12					\$ 1,106.48
Foreman Truck - Ford F-250	11.00	HR									\$ 30.28	\$ 333.08					\$ 333.08
Extreme Forklift	1.00	HR	1.00	1	\$ 46.34	\$ 46.34					\$ 60.00	\$ 60.00					\$ 106.34
Walk Behind Compactor	2.00	HR	1.00	2	\$ 40.93	\$ 81.86					\$ 37.93	\$ 75.86					\$ 157.72
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 8.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	34	MHR		34		\$ -											\$ 170.00
TAX: (9.75% of Material, Equipment, Other)																	\$ 293.03
BOND (2% of total)																	\$ -
SUBTOTALS						\$ 1,594.87				\$ 1,742.13		\$ 1,369.75		\$ -			\$ 4,893.32
MARKUP %						\$ 5.00%				\$ 5.00%		\$ 5.00%		\$ 5.00%			\$ 734.00
SUBTOTALS WITH MARKUPS APPLIED						\$ 1,634.10				\$ 2,003.45		\$ 1,575.21		\$ 5.00%			\$ 5,627.32
BOND																	\$ -
TOTAL																	\$ 5,627.32

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 34.00	\$ 51.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.98	\$ 4.47	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.27	\$ 1.90	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 47.67	\$ 66.79	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 9.59	\$ 9.59	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 50.51	\$ 66.26	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.



101 Century Ct , Franklin, TN 37064

Phone: 615.794.1068

Fax: 615.794.8101

QUOTE

Quote Date:

8/18/2020

QUOTE NUMBER

368924

QUOTE TO

CASH

SHIP TO:

CASH

CASH

JOB:

PO:

kiewit

Cust #: 100241

Tel: (531) 232-7855

Fax:

Ln	Qty	Mfg	Part Number	Description	Price	Ext. Price
1	40	SANDER	8PVC20	8 X 20 PVC S-40 BELLED END	\$6.90 E	\$276.00

Comment:

SubTotal:	\$276.00
Tax:	\$26.91
TOTAL:	\$302.91
Deposit (-):	\$0.00
Discount (-):	\$0.00
Estimated Freight:	\$0.00
Misc Charge:	\$0.00

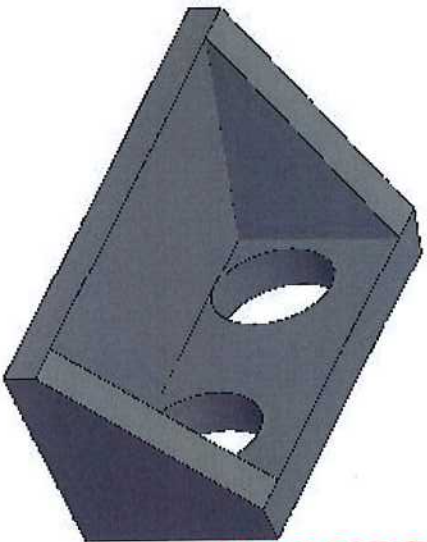
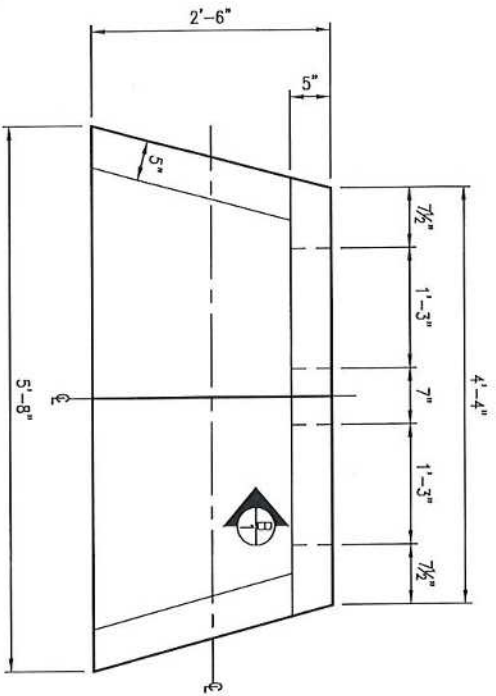
Amount Due:

\$302.91

Please do not hesitate to call with any questions.

Best Regards,

Bob Boals



The drawing shows (2) holes for 15" RCP pipe, but we would supply (2) holes for 8" pipe.

\$908 - Wingwall Dbl 8" * Arrives in (2) sections per end treatment with contractor to supply and apply connecting hardware if needed.

\$430 - Freight to Franklin, TN

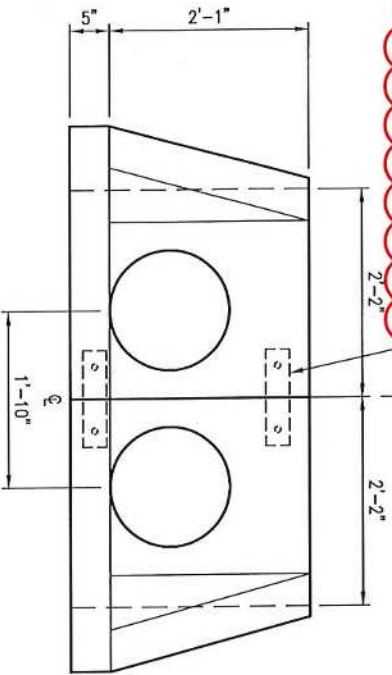
Prices are without tax, toe, or dissipators.

STRUCTURAL NOTES

1. CONCRETE: 28 DAY COMPRESSIVE STRENGTH $f'_c = 5000$ psi
2. REBAR: ASTM A-615 GRADE 60

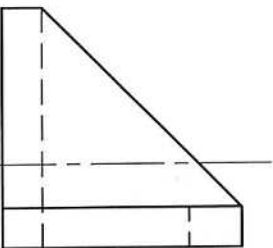
PLAN VIEW

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



ISO VIEW

NOT TO SCALE



VIEW B

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

Requested quote from Denise Patterson @ Oldcastle. If she does not have a lead for quote need to find one....

WEIGHTS

SECTION	WEIGHT
WINGWALL	900 LBS EACH SECTION

-- This Must be Filled Out Before Manufacturing Begins --

Approved w/ No Exceptions Taken: ☐

Approved as Noted: ☐

Revise and Resubmit: ☐

Signature: _____ Title: _____ Date: _____



Oldcastle Precast
5900 EAST DIVISION STREET, LEBANON, TN 37060
PHONE: 615-455-6111 FAX: 615-455-4000

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4' DOUBLE WINGWALL 15" RCP

CUSTOM

CUSTOM

DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
7/11/19	—	WJM	—	—	—
DRAWING NUMBER	384-116436 4' WW DOUBLE 15 RCP	REVISION	1	OF	1

Bryant.TiptonII

From: Matthew Anderson <manderson@alpsupply.com>
Sent: Monday, August 24, 2020 1:25 PM
To: Bryant.TiptonII
Subject: [EXTERNAL] RE: QUOTE REQUEST - Anchor Plates 12" x 3" connected by Concrete Wedge Anchors

Bryant,

The plates will be \$18.84 each with a plain finish.

Quote is good for 30 days.

Thanks,

Matt Anderson
Inside Sales
ALP Supply
Desk: 215-736-2030
Fax: 215-736-2652
ALPSupply.com

Rental Rate Blue Book®

Caterpillar 315F L

Crawler Mounted Hydraulic Excavators



Size Class:

16.1 - 19.0 MTons

Weight:

N/A

Configuration for 315F L

Bucket Capacity - Heaped

1 cu yd

Operating Weight

36340 lbs

Net Horsepower

Power Mode

97 hp

Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$9,430.00	USD \$2,640.00	USD \$660.00	USD \$99.00	USD \$39.63	USD \$93.21
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$735.54	USD \$205.92	USD \$51.48	USD \$7.72		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$10,165.54	USD \$2,845.92	USD \$711.48	USD \$106.72	USD \$39.63	USD \$97.39

Non-Active Use Rates

Standby Rate

Idling Rate

Hourly

USD \$30.61

USD \$68.45

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$3,489.10/mo
Overhaul (ownership)	46%	USD \$4,337.80/mo
CFC (ownership)	10%	USD \$943.00/mo
Indirect (ownership)	6%	USD \$565.80/mo
Fuel (operating) @ USD 3.07	27%	USD \$10.69/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

Ford F-250

On-Highway Light Duty Trucks

Size Class:

300 HP & Over

Weight:

N/A



Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

Standby Rate	Hourly USD \$4.64
Idling Rate	Hourly USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

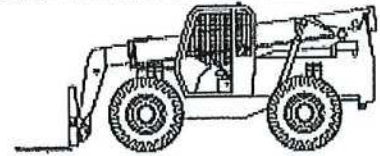
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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

Xtreme XRM1245 (disc. 2008)
Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs



Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					USD \$40.28	USD \$80.48
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/Hr

Non-Active Use Rates

Standby Rate
Idling Rate

Do not have XTREME--Hourly
1055 on EquipmentWatch
USD \$16.88
USD \$50.69

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

Wacker RT820 (disc. 2011)

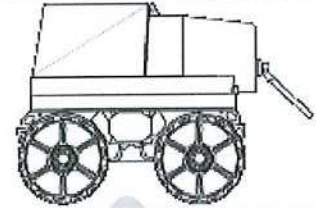
Trench Compactors

Size Class:

26 - 34 Inches

Weight:

3020 lbs



Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

	Hourly
Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Kiewit

CP 35

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 28, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00041.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 072 – Submersible Pump Modifications

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for **RFI 072–Submersible Pump Modifications** amounting to **Nine Thousand Five Hundred and Seventy Five Dollars (\$9,575.00)**.

This proposal includes the material cost for three new explosion proof submersible pumps, as well as enlarging the dimensions of the sumps. Credit was given for three original Hydromatic SPD50H submersible pumps and control panels.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: RFI 072

PREPARED BY: Joe Harding

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Sump Pump Modifications																	
Meyers Submersible Pumps w/ Control Panels	3.00	EA				-			\$ 9,296.70	\$ 27,890.10							\$ 27,890.10
Kiewit Credit	1.00	EA				-			\$ (5,245.00)	\$ (5,245.00)							\$ (5,245.00)
Submersible Pumps	(3.00)	EA				-			\$ 1,038.46	\$ (3,115.38)							\$ (3,115.38)
Control Panels	(3.00)	EA				-			\$ 3,981.00	\$ (11,943.00)							\$ (11,943.00)
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER						-				-							-
STS - small tools, consumables, safety equip, (\$5 per direct labor manhour, plus 9.75% sales tax. Formula = Total Direct Labor Subtotal Manhours * \$5.00 * 1.0975)		MHR				-				-							-
TAX: (9.75% of Material, Equipment, Other)										\$ 739.71							\$ 739.71
BOND (2% of total)						-				-							-
SUBTOTALS						-				-							-
MARKUP %						15.00%				15.00%							15.00%
SUBTOTALS WITH MARKUPS APPLIED										\$ 8,326.43							\$ 8,326.43
BOND										15.00%							15.00%
TOTAL										\$ 9,575.39							\$ 9,575.39



WASCON, Incorporated
910 East Main Street
Livingston, TN 38570
(931)823-1388
joshc@wasconinc.com
www.wasconinc.com

ADDRESS

Corbin Coker
Klewit

Estimate 5772

DATE 10/19/2020

EXPIRATION DATE 01/19/2021

ACTIVITY	QTY	RATE	AMOUNT
Myers Explosion Proof Sump Pump/Control Panel Package to Include the Following: CEX-01SWA832 Simplex Explosion Proof Rated Myers brand Control Panel W/2 mechanical float switches 10' SST Lifting Chain and SST Float Bracket	3	9,296.70	27,890.10T

Pricing above is freight allowed, plus any applicable taxes.

SUBTOTAL

27,890.10

TAX

2,649.56

TOTAL

\$30,539.66

Accepted By

Accepted Date

CEC
Controls
Company, Inc.

Monday, May 4, 2020

Kiewit Infrastructure South Co.
450 Dividend Drive
Peachtree City, GA 30269

14555 Barber Ave.
Warren, Michigan 48088
Phone: (586) 779-0222
FAX: (586) 779-0266

Attention: Taylor Flippen

Subject: Location: Franklin, TN
Description: Franklin WRF Modifications & Expansion Project - Quote for Control for Submersible Sump Pump
Base PO#: 4501691714
Job/Proposal#: 0639-2020-3

Thank you for the opportunity to quote this project!

1. **120VAC Sump pump panel.**

Wood Automation and Control will provide one NEMA 4X control panel for a 0.5HP submersible sump pump and all required documentation. One day of on-site startup support is included in the quote. Shipping of the panel to Franklin, TN is included. Tennessee state sales tax is not included and will be invoiced at 9.75% of the total price.

Total Initial on Acceptance _____ USD **\$3,981.88**

Total Quoted Amount in US Dollars: \$3,981.88

Terms: Net 30 days

Taxes: This price does not include any Federal, State, Provincial, Duty, Excise or Local taxes which are, or may hereafter be, applicable.

Terms and Conditions CEC Controls Co Inc. General Terms and Conditions (included within the CEC Controls Co Inc. Terms and Conditions dated October 12, 2017)
Upon request CEC Controls Co Inc. will supply a copy of the CEC Controls Co Inc. General Terms and Conditions.

If order not received within 30 days, price is subject to revision.

Accounts 30 days and older are subject to a finance charge of 1 ½% per month, which is an annual rate of 18% to be applied to the unpaid balance. Please contact our credit department if there are any problems that could delay your remittance.

If you need any additional information, or have any questions, please call me.

Sincerely,

Darren Pendley
CEC Controls Co., Inc.
DPENDLEY@CECCONTROLS.COM

Authorization from Kiewit Infrastructure South Co. to CEC Controls Co., Inc. to proceed with this Proposed Work as detailed above:

Signature

Title

Date

Printed Name

(please sign and return a copy for our records)



HYDROMATIC

SPD50MH1 20

★★★★★ 0 reviews

Hydromatic SPD50MH1 20 SPD Series Sump / Effluent Pump, 2" Discharge, 1/2 HP, 115 Volts, 1 Phase, 3450 RPM, 3/4" Solids Handling. Replaced by Identical Myers Pump Model MESPD50MH1 20, Engineering Number 28215D014. Manufactured by the same parent company, Pentair.

Image shown may not be actual product

\$890.40

 Best Price Guarantee!

 177 PumpPoints

Item: SPD50MH1 20 | Part #: 517480157

[Overview](#)

[Series Info](#)

[Reviews](#)

[Literature/Manuals](#)

SPD50MH1 20

Hydromatic SPD50MH1 20 SPD Series Sump / Effluent Pump, 2" Discharge, 1/2 HP, 115 Volts, 1 Phase, 3450 RPM, 3/4" Solids Handling. Replaced by Identical Myers Pump Model MESPD50MH1 20, Engineering Number 28215D014. Manufactured by the same parent company, Pentair.

Actual Weight	75
Built in Overload Protection	Yes
Connections / Discharge (Inches)	2"
Cord Length	20'
Float Switch Style	No
HP	1/2
Manufacturer	Pentair
Material	Cast Iron
Model Number	MESPD50MH1 20
Part Number	517480157

Phase	1
Plug-In	Yes
Solids (Inches)	3/4"
Speed (RPM)	3450
Switch Turn Off	Manual
Switch Turn On	Manual
Voltage	115
Wire/Cord Size	14/3



Image shown may not be actual product

HYDROMATIC

SPD50MH1 20

★★★★★ 0 reviews

Hydromatic SPD50MH1 20 SPD Series Sump / Effluent Pump, 2" Discharge, 1/2 HP, 115 Volts, 1 Phase, 3450 RPM, 3/4" Solids Handling. Replaced by Identical Myers Pump Model MESPD50MH1 20, Engineering Number 28215D014. Manufactured by the same parent company, Pentair.

\$890.40

Best Price Guarantee!

177 PumpPoints

Item: SPD50MH1 20 | Part #: 517480157

[Overview](#)

[Series Info](#)

[Reviews](#)

[Literature/Manuals](#)

SPD High Head Sump Effluent Pumps Information

Features & Benefits

SPD High Head Sump Effluent Pumps Key Features: Two (2) Carbon/Ceramic Type 21 Mechanical Seals Mounted in Tandem, Oil-Filled Motor with Automatic Reset Thermal Overload for Maximum Protection (single-phase models), Upper & Lower Ball Bearing Construction, Piggyback Plug Available for Easy Maintenance and Switch Replacement, Optional Seal Failure Probe Warns of Seal Leak, Capacitor Start for Increased Starting Torque (single-phase models)

General Description

SPD High Head Sump Effluent Pump General Specifications:

BODY CONSTRUCTION: Class 30 Cast Iron

HORSEPOWER: 1/2 HP

MAXIMUM HEAD: 50 ft. (15.2 m)

MAXIMUM CAPACITY: 112 GPM (7.1 LPS)

FLOW at 10' LIFT: 104 GPM

SWITCH TYPE: Diaphragm Pressure Switch

MINIMUM SUMP DIAMETER: Simplex: 24" / Duplex: 36"

DISCHARGE PIPE SIZE: 2" NPT (3" NPT optional)

MAXIMUM SOLIDS HANDLING SIZE: 3/4"

AMP DRAW (full load): 14 amps on 115v / 7 amps on 230v 1-phase / 3.6 amps on 208v / 3.5 amps on 230v 3-phase / 1.8 amps on 460v / 1.9 amps on 575v

CORD LENGTH: 10' SJTW (20' optional)

VOLTAGE: Available in 115v or 208v 1-phase, OR 230v, 460v, or 575v 3-phase 60 Hz

MAXIMUM LIQUID TEMPERATURE: 140°F (60°C)

Your Cart

[Edit Cart](#)

3 x SPD50MH1 20

\$2,671.20

[APPLY COUPON](#)

Subtotal (1)	\$2,671.20
Shipping	\$240.36
Tax	\$203.81
Total	\$3,115.37



Kiewit

CP 54

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 16, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00093.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 140 – Headworks Compactor Delete Second Washwater Lines and Solenoid Valve

Dear Mr. Harris,

Attached you will find Kiewit's credit proposal for **RFI 140 – Headworks Compactor Delete Second Washwater Lines and Solenoid Valve**. Kiewit offers a credit of **Two Thousand Eight Hundred and Five Dollars (\$2,805.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: RFI 140

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
RFI #140 - Credit for Deletion of Second Wash.																	
Water Line & Associated Wiring																	
Materials Credit																	
2" CPVC - Schedule 80 Plain End	10.00	LF	0.10	4	\$ (66.96)	\$ (267.84)			\$ (3.39)	\$ (33.90)							\$ (301.74)
2" CPVC Tee - Schedule 80	2.00	EA							\$ (7.85)	\$ (15.70)							\$ (15.70)
2" CPVC 90 Degree Elbow - Schedule 80	4.00	EA							\$ (5.89)	\$ (23.56)							\$ (23.56)
2" CPVC Adapter - Schedule 80	4.00	EA							\$ (7.57)	\$ (30.28)							\$ (30.28)
2" CPVC Union - Schedule 80	2.00	EA							\$ (19.38)	\$ (38.76)							\$ (38.76)
SV-115-2A & 2B	2.00	EA							\$ (759.99)	\$ (1,519.98)							\$ (1,519.98)
Wayne J. Griffin Electric Inc. Credit	1.00	LS											\$ (557.65)	\$ (557.65)			\$ (557.65)
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip. (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	4	MHR															
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)																	
SUBTOTALS				4		\$ (267.84)			\$ -	\$ (1,824.24)			\$ (557.65)			\$ (21.95)	\$ (2,671.68)
MARKUP %						\$ 5.00%			\$ 5.00%	\$ 5.00%			\$ 5.00%			\$ 5.00%	\$ (133.58)
SUBTOTALS WITH MARKUPS APPLIED						\$-281.23				\$-1,915.45						\$-585.53	\$-2,805.27
BOND																	
TOTAL																	\$-2,805.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



INDUSTRIAL AND MUNICIPAL SUPPLY
P.O. BOX 573

(706) 643-4214 ***** Fax (706) 643-5515

Phone:

Quote #: Deductive

Quote Name: Franklin Water Reclamation Facility-33 RFI 140

Location: FRANKLIN, TN

Quote Summary

Mark #	Seq #	Quantity	Unit	Size	Material	Length	Joint	Fitting	Description	Unit Sell	Total Sell
HEADNG: 1											
DESCRIPTION: CONTAINMENT PIPE TO MANHOLE 2 LOCATIONS											
1-1	1	10 LF	2"	CPVC	20'-0"	PLAN END	PIPE		SCHEDULE 80 SPECIFICATION 15064	3.39	33.90
1-2	2	2 EA	2"	CPVC		SXSXS	TEE		SCHEDULE 80 SPECIFICATION 15064	7.85	15.70
1-3	3	4 EA	2"	CPVC		SXS	90 ELL		SCHEDULE 80 SPECIFICATION 15064	5.89	23.56
1-4	4	4 EA	2"	CPVC		SMIP	ADAPTER		SCHEDULE 80 SPECIFICATION 15064	7.57	30.28
1-5	5	2 EA	2"	CPVC	PLW	SXS	UNION		SCHEDULE 80 SPECIFICATION 15064	19.38	38.76
HEADNG: 3											
DESCRIPTION: SHIPPING FREIGHT COST											
										0	0
End of Quote Summary										Total	\$142.20

Shopping Cart (2 Items)



2" NPT 2-Way Solenoid Valve 120VAC 1-3/4" Orifice

In Stock 

Zoro #: G3317806

Item ships from Zoro in 1 business day.

Unit Price: \$759.99

X

\$1,519.98

-	2	+
---	---	---

Order Totals

Subtotal (2 Items)	\$1,519.98
Shipping	\$0.00
Final Shipping & Tax calculated in checkout.	
Total	\$1,519.98



**WAYNE J.
GRIFFIN ELECTRIC
INC.**

July 8, 2020

VIA EMAIL ONLY: Steven.Davis1@kiewit.com

Mr. Steven Davis, Project Manager
Kiewit
135 Claude Yates Drive
Franklin, TN 37064

RE: Job #6198 - Franklin WRF Mods and Exp, Franklin, TN
Proposal #35

Dear Mr. Davis:

Wayne J. Griffin Electric, Inc. ("WJGEI") proposes to modify our contract to perform the following lump sum revisions to our work per our enclosed detailed backup:

DESCRIPTION OF WORK:

This credit proposal is to delete the second wash water line solenoid valves, SV-115-2A and SV-115-2B, at the Headworks Compactor, as detailed in RFI-140.

Material	\$	(193.33)
Labor		(364.32)

Total	\$	(557.65)
--------------	-----------	-----------------

This is a lump sum forward looking estimate of the above-noted change to our scope of work. This estimate represents a price we are willing to accept to assume the cost risk of this change to our ongoing work given the information provided to us. The labor and material prices contained in this proposal are based upon vendor/subcontractor quotes (if noted) and/or electrical industry pricing guides such as NECA, Trade Service, or R.S. Means, which guides are widely used and accepted in the construction industry to facilitate timely and consistent change order pricing. This estimate is offered for your review, approval and acceptance.

Corporate Headquarters:

116 Hopping Brook Road
Holliston, MA 01746
Phone: (508) 429-8830
Fax: (508) 429-7825

Regional Offices:

296 Cahaba Valley Parkway
Pelham, AL 35124
Phone: (205) 733-8848
Fax: (205) 733-8107

1950 Evergreen Boulevard
Suite 300
Duluth, GA 30096
Phone: (678) 417-9377
Fax: (678) 417-9373

2310 Presidential Drive
Suite 101
Durham, NC 27703
Phone: (919) 627-9724
Fax: (919) 627-9727

9801-C Southern Pine Boulevard
Charlotte, NC 28273
Phone: (704) 522-3851
Fax: (704) 522-3856

Mr. Steven Davis
July 8, 2020
Page 2

The value included in this proposal does not include any amounts for extended contract duration, overtime, changes in the sequence of work, acceleration, disruptions, interference and/or impacts, and the right is expressly reserved to recover any and all of these related items prior to any final settlement of this contract. The working relationship between your company and ours shall be in accordance with our mutually agreed to contract form.

Wayne J. Griffin Electric, Inc. reserves the right to void this proposal after thirty (30) days from the date above.

If you have any questions regarding the above, please do not hesitate to contact me at (205) 733-8848 ext. 6175 or troberson@wjgei.com.

Very truly yours,

WAYNE J. GRIFFIN ELECTRIC, INC.



Timothy R. Roberson
Project Manager

TRR/jav

ACKNOWLEDGMENT: The contract modifications stated for the above proposal are acceptable for the work to be performed. The value of the work completed to the date of the next requisition may be billed on that requisition.

Date: _____ Authorized Signature: _____

cc: Corbin Coker, Engineer, Kiewit, Corbin.Coker@Kiewit.com
Calvin Mize, Regional Manager, Wayne J. Griffin Electric, Inc.



116 Hopping Brook Road, Holliston, MA 01746
(508) 429-8830 FAX (508) 429-9251

CCN#: P-0035, RFI 140 - Credit for Headworks Second
Date: 7/8/2020
Project Name: Franklin WRF Mods and Exp
Project Number: 06198-00-18
Page Number: 1

Work Description

This credit proposal is to delete the second wash water line solenoid valves, SV- 115-2A and SV-115-2B, at the Headworks Compactor, as detailed in RFI-140.

Itemized Breakdown

Description	Qty	Net Price	UM	Materials (\$)	Labor	Total Hours
As Bulbs	0.00	0.0000	HRS	0.000	0.000	0.000
Cleanup	0.00	0.0000	HRS	0.000	0.000	0.000
Tools	0.00	0.0000	HRS	0.000	0.000	0.000
Field Safety/JHA	0.00	0.0000	HRS	0.000	0.000	0.000
Supervision	0.00	0.0000	HRS	0.000	0.000	0.000
Project Controls	0.00	0.0000	HRS	0.000	0.000	0.000
3/4" RIGID THREADED "C" CONDULET (ALUM)	-2.00	18.4400	EA	-36.880	0.600	-1.200
3/4" RIGID THREADED "T" CONDULET (ALUM)	-2.00	23.4400	EA	-46.880	1.000	-2.000
3/4" DIE CAST CONDULET COVER	-4.00	7.9500	EA	-31.800	0.040	-0.158
3/4 LIQUIDTITE CONDUIT	-6.00	3.0800	FT	-18.480	0.050	-0.300
3/4" LIQUID TIGHT STEEL STRAIGHT I.T. INSULATED CONN	-4.00	8.4100	EA	-33.640	0.180	-0.720
3/4 CLOSE NIPPLE ALUM	-2.00	8.2950	EA	-16.590	0.300	-0.600
#14 XHHW COPPER WIRE	-25.00	0.3348	FT	-8.370	0.006	-0.150
WIRENUTS 76B RED (CTN. 1000)	-4.00	0.1725	EA	-0.690	0.000	0.000
Totals				-193.33		-5.13
Tax				0.00		
Materials with				-193.33		

Summary

Itemized Breakdown Total		-193.33
Elect. Journeyman	(-5.1284 hrs @ \$71.04 / hr)	-364.32
		-364.32
Total		-\$557.65



Kiewit

CP 24

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

July 8, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00038.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 305 – OH Bridge Crane Vertical Reach Cost Proposal

Dear Mr. Harris,

We received your response requesting a cost breakdown for the changes outlined in RFI 305. We received a revised proposal from Schroeder Material Handling that reduced the total price of this change resulting from an error in their original change proposal estimate. Additionally, Schroeder has responded to Kiewit with an outline of the additional crane components that have to be modified as a result of this design change:

1. *25% increase in hp to account for the extra weight & speed*
2. *The hoist frame must be enlarged to account for the drum*
3. *The hoist drum must be enlarged to account for the extra 20ft of lift*
4. *True Vertical lift requires four (4) lines of cable*

For this revised proposal Kiewit offers a net contract increase of **Thirty-Four Thousand Eighty-Seven Dollars (\$34,087)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Michael Sheston

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
RFI 305 - OH Bridge Crane - Vertical Reach																	
<i>Schroeder Material Handling</i>																	
Increase the Post Dewatering Hoist from 20 ft lift to 40 ft lift	1.00	PLS											\$ 12,627.00	\$ 12,627.00			\$ 12,627.00
Increase the 10-Ton capacity Pre-Dewatering Hoist from 20 ft to 40 ft lift	1.00	PLS											\$ 19,837.00	\$ 19,837.00			\$ 19,837.00
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR															
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)																	
SUBTOTALS						\$ -				\$ -							\$ 32,464.00
MARKUP %						15.00%				15.00%							\$ 5,000.00
SUBTOTALS WITH MARKUPS APPLIED										\$ 45,000.00							\$ 34,087.20
BOND																	
TOTAL																	\$ 34,087.20



SCHRODER MATERIAL HANDLING, INC

P.O. Box 8142
Greenville, S.C. 29604

"Since 1956"

From: Schroder Material Handling, Inc.
2275 Perimeter Rd., SCTAC
Greenville, SC 29605

June 22, 2020

Mr. Steve Davis
Kiewit Infrastructure South Co.
4405 International Blvd., NW, Suite C-101
Norcross, GA 30093

Subject: Franklin WRF Expansion Project
Change Proposal (CP) No.24

We are in receipt of CDM Smith's letter from Daniel Harris, project manager and reply as follows:

We stand corrected. Please find "attached" our revised change orders # 2 & 3. Hopefully this is acceptable.

Truly,

William Schroder

SCHRODER MATERIAL HANDLING, INC.

2275 Perimeter Rd., SCTAC
Greenville, SC 29604

Change Order

Date: 06/16/2020
Owner: City of Franklin, TX
Contractor: Kiewit
Project Name: Franklin WRF
Modifications
PO #
Change Order # 3

The Following Changes are Requested

Increasing the 10 ton capacity Pre-Dewatering Hoist from 20ft lift to 40ft lift	\$19,837.00
The Original Contract Amount:	\$526,325.00
Previous Change Orders:	-\$3375.00
Total Amount of This Change Order:	\$12,627.00
	\$19,837.00
New Contract Amount:	\$555,414.00

Commented [WS1]:

Sub-Contractor:

Schroder Material Handling, Inc.

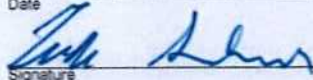
Company Name

2275 Perimeter Rd., SCTAC, Greenville, SC 29605

Address

06/16/2020

Date



Signature

WILLIAM SCHRODER

Print Name, Title

Contractor:

Kiewit Water Facilities

Company Name

4405 International Blvd., NW, Suite C-101, Norcross, GA

Address

06/16/2020

Date

Signature

Print Name, Title

SIEVERT

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DIVISION OF SIEVERT ELECTRIC

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1230 North Hannah Avenue
Forest Park IL 60130

708-405-5157

Fax 708-405-5157

www.SievertCrane.com

Proposal # 92235

Date of Proposal 06/12/2020

Distribution Department

TO:

Attention: Bill
Schroder Material Handling, Inc(EMAIL)
P.O. Box 8142
2275 Perimeter Rd
Greenville SC 29605

Phone: 864-277-9933

LOCATION:

Franklin WRF
c/o Kiewit Infrastructure South
135 Claude Yates Drive
Franklin TN 37064

Subject: Yale Cable King, DEW10X46TB15D4

We are pleased to offer the following for your consideration:

Yale Cable King Model DEW10X46TB15D4

- Rated Capacity: 10 ton Labeled Capacity: 10 ton CMAA Class: C
- Lift available: 46'-0" Lift required: 19'-0" True Vertical Lift: Yes
- Voltage - Line: 460-3-60 Control: 115V Location: Indoor
- Hoist speeds & motor HP: 15.0 / 5.0 FPM @ 10 hp
- Trolley speeds & motor HP: 2-step G+ Mini VFD 75 FPM 2 @ 0.75 hp
- Gage, Rail: 84" ASCE 40# Max.
- ****Required trolley gage and rail must be specified on order.****
- Hoist Limit Switches: Block Upper, Geared Upper/Lower
- Pendant: Six (6) PB, 2H 1H (Red Mushroom On/E-Stop), with 16' of pendant drop.
****Pendant drop must be specified prior to order.****
- Hoist Brakes: Disc type motor brake. Mechanical load brake.
- Paint: Standard enamel paint Factory load tested: Yes Electrification system by others.
- Documents: 1 AutoCAD clearance print and wiring diagram. Available upon request
3 manuals. (Electronic manuals in .pdf format. No Charge;
additional printed manuals are \$ 92.00 list each.)

List Price: \$57,722.00

Less: Original Quote (Dated 12-5-17) = \$37,885.00

Change Order #3 Amount = \$19,837.00

SCHRODER MATERIAL HANDLING, INC.

2275 Perimeter Rd., SCTAC
Greenville, SC 29604

Change Order

Date: 05/27/2020
Owner: City of Franklin, TX
Contractor: Kiewit
Project Name: Franklin WRF
Modifications
PO #
Change Order # 2

The Following Changes are Requested	
Increasing the 7.5 ton capacity Post Dewatering Hoist from 20ft lift to 40ft lift	\$12,627.00
The Original Contract Amount:	\$526,325.00
Previous Change Orders:	-\$3,375.00
Total Amount of This Change Order:	\$12,627.00
New Contract Amount:	\$535,577.00

Commented [WS1]:

Sub-Contractor:

Schroder Material Handling, Inc.

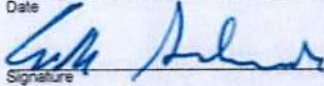
Company Name

2275 Perimeter Rd., SCTAC, Greenville, SC 29605

Address

05/27/2020

Date



Signature

WILLIAM SCHRODER

Print Name, Title

Contractor:

Kiewit Water Facilities

Company Name

4405 International Blvd., NW, Suite C-101, Norcross, GA

Address

05/27/2020

Date

Signature

Print Name, Title

SIEVERT

CRANE & HOIST

DIVISION OF SIEVERT ELECTRIC

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1230 South Hannah Avenue
Forest Park IL 60130

708-405-5157

Fax 708-405-5157

www.SievertCrane.com

Proposal # 92239

Date of Proposal 06/16/2020

1

Distribution Department

TO:

Attention: Bill
Schroder Material Handling, Inc(EMAIL)
P.O. Box 8142
2275 Perimeter Rd
Greenville SC 29605

Phone: 864-277-9933

LOCATION:

Franklin WRF
c/o Kiewit Infrastructure South
135 Claude Yates Drive
Franklin TN 37064

Subject: Yale Cable King, DEW7.5X42TB19D4

We are pleased to offer the following for your consideration:

- Yale Cable King Model **DEW7.5X42TB19D4** Made in the U.S.A.
- Rated Capacity: **7.5 ton** Labeled Capacity: 7.5 ton ASME Class: H4
 - Lift available: 42'-0" Lift required: 42'-0" True Vertical Lift: Yes
 - Voltage - Line: 460v-3-60 Control: 115V - Location: Indoor
 - Hoist speeds & motor HP: 19/6.3 fpm @ 10 hp
 - Trolley speeds & motor HP: 45 FPM @ 0.75 hp
 - Gage, Rail: 60", ASCE 40# Max. * Required trolley gage and rail must be specified on order.*
 - Hoist Limit Switches: Block Upper, Geared Upper/Lower
 - Pendant: Six (6) PB, 2H 1H (Red Mushroom On/E-Stop), with 38' of pendant drop.
**** Pendant drop must be specified prior to order.****
 - Hoist Brakes: Disc type motor brake. Mechanical load brake.
 - Paint: Standard enamel paint
 - Factory load tested: Yes - Electrification system by others.
 - Documents:
1 AutoCAD clearance print and wiring diagram. Available upon request
3 manuals. (Electronic manuals in .pdf format. No Charge;
additional printed manuals are \$ 92.00 list each.)

List Price: ~~\$45,827.00~~ less

Less: Original Quote (Dated 12-5-17) = \$33,200.00

Change Order #2 Amount = **\$12,627.00**

REV
6-22-20



Kiewit

CP 34

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

August 7, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00053.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: Addition of Type II mechanical rebar splices

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for Submittal Comment D-03200-032.01 Comment #2 a. **(Addition of Type II mechanical rebar splices)** Kiewit believe these are an addition to the deigned scope based upon Spec Section 03200-2.01 K stating the use of these were not to be used unless otherwise indicated. The type II mechanical splices were not indicated in the original contract drawings. This proposal is a revision to CP – 047. Kiewit is hereby submitting a cost proposal for **Nineteen Thousand Nine Hundred Eighty-Six Dollars (\$19,986.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: Coupler addition

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Labor																	
Coupler Additions to SPB Beams	289	EA	0.50														
Foreman	1.00	EA	24.00	24	\$ 62.31	\$ 1,495.44											\$ 1,495.44
Ironworker	2.00	EA	48.00	96	\$ 54.54	\$ 5,235.84											\$ 5,235.84
Material																	
Type 2 Couplers	289.00	EA							\$ 40.35	\$ 11,660.00							\$ 11,660.00
Equipment																	
Xtreme XR1055 Fork Lift	1.00	HR	1.00	1	\$ 36.42	\$ 36.42					\$ 60.00	\$ 60.00					\$ 96.42
Tadano GR-800XL-1	1.00	HR	1.00	1	\$ 36.42	\$ 36.42					\$ 189.96	\$ 189.96					\$ 226.38
Credit																	
Material	1,107	LF							(2.00)	\$ (2,214.00)							\$ (2,214.00)
Labor																	
Foreman	1	EA	(2.00)	(2)	\$ 62.31	\$ (124.62)											\$ (124.62)
Ironworker	2	EA	(5.00)	(10)	\$ 54.54	\$ (545.40)											\$ (545.40)
**Construction Equipment Ownership & Operating Costs are based on Blue Book Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	110	MHR															\$ 550.00
TAX: (9.75% of Material, Equipment, Other)																	\$ 998.98
BOND (2% of total)																	
SUBTOTALS				110		\$ 6,134.10				\$ 10,366.99		\$ 274.33					\$ 17,379.04
MARKUP %						\$ 15,000				\$ 15,000		\$ 15,000					\$ 2,606.86
SUBTOTALS WITH MARKUPS APPLIED						\$ 7,054.22				\$ 11,922.03		\$ 315.48					\$ 19,985.90
BOND																	
TOTAL																	\$ 19,986.00



SHOP DRAWING REVIEW COMMENTS

City of Franklin
Water Reclamation Facility Modifications & Expansion
COF Project No. 2017-0264

Submittal No: D-03200-032-B
Title: Concrete Reinforcement – Solids Processing Second Floor
Reviewer: Joshua Rosenthal

This submittal is being returned with a review code of: **NOT APPROVED**

Comments:

1. Do not fabricate any reinforcement in the red clouded areas on RS2S01 to RS2S04. This area is subject to change pending the review of the centrifuge and conveyor submittals.
2. For splicing of bottom beam bars, see Notes 1 on SD-5A. These lap splices shall not be located less than 2*'H' from the face of the support. Lap splices for top bars shall also not be located less than 2*'H' from the face of the support. Please revise beam reinforcement to reflect these requirements. Lap splices within 2*'H' from the supports are highlighted in red in the markups.
 - a. As an alternative, use Type II mechanical rebar splices
3. 4" stirrup spacing must be provided at lap splice locations for top and bottom bars.
4. Confirm that the requirements of Note 7 on SD-5A regarding the orientation of the crossties will be adhered to.
5. See additional comments in the attached markups.

SHOP DRAWING REVIEW

ENGINEER'S REVIEW	RESPONSE REQUIRED OF CONTRACTOR
☐ Approved ☐ Comments Attached ☐ Approved as Noted ☒ Not Approved	☐ Confirm ☒ Resubmit
☐ Receipt Acknowledged (Not subject to Engineer's Review or Approval)	

The Engineer's review of this shop drawing is limited to the review of dimensions, equipment and materials as presented in the Contract plans, specifications, and for design concept. This review does not relieve the Contractor from errors or omissions in the submittal or from the Contractor's responsibility of addressing any deviations from the Contract Documents. The Contractor is responsible for the details and dimensions of fabrication and manufacture, the means, methods, techniques, sequences or procedures of construction and performing its work in a safe manner.

CDM Smith By Alexander Landry Date 04/30/2020

- b. The ratio of the actual ultimate tensile strength to the actual tensile yield strength of the reinforcement is not less than 1.25.
 - c. The carbon equivalency (CE) is 0.55 percent or less.
- D. Spiral Reinforcement
 - 1. ASTM A615, Grade 60 for plain or deformed bars.
 - 2. ASTM A82 for cold-drawn wire.
- E. Welded Steel Wire Fabric: ASTM A185.
- F. Welded Deformed Steel Wire Fabric: ASTM A497.
- G. Welded Plain Bar Mats: ASTM A704 and ASTM A615 Grade 60 plain bars.
- H. Fabricated Deformed Steel Bar Mats: ASTM A184 and ASTM A615 Grade 60 deformed bars.
- I. Reinforcing Steel Accessories
 - 1. Plastic Protected Wire Bar Supports: CRSI Bar Supports, Class 1 - Maximum Protection.
 - 2. Stainless Steel Protected Wire Bar Supports: CRSI Bar Supports, Class 2 - Moderate Protection with legs made wholly from stainless steel wire.
 - 3. Precast Concrete Bar Supports: CRSI Bar Supports, Precast Concrete Bar Supports. Precast concrete blocks that have equal or greater strength than the surrounding concrete.
- J. Tie Wire
 - 1. Tie Wires for Reinforcement: 16-gauge or heavier black annealed wire.
- K. Mechanical Reinforcing Steel Coupling System
 - 1. **Use only where indicated.** Mechanical reinforcing steel coupling system shall be positive connecting taper threaded type employing a hexagonal coupler such as Lenton rebar splices as manufactured by Erico Products Inc., Solon, OH or equal. Coupling system shall meet all ACI 318 requirements. Bar ends must be taper threaded with coupler manufacturer's bar threader to ensure proper taper and thread engagement. Provide with cap on female end to exclude dirt, debris and wet concrete. Couplers shall be torqued to manufacturer's recommended value.
 - 2. Unless otherwise noted on the Drawings, mechanical reinforcing steel coupling system shall produce a splice strength in tension or compression of not less than 125 percent of the ASTM specified minimum yield strength of the reinforcing bar. Base yield strength on Grade 60 reinforcing unless otherwise indicated or specified.
 - 3. Compression type mechanical splices shall provide concentric bearing from one bar to the other bar.

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



CMC Rebar Nashville
852 Visco Dr, Suite 101
Nashville, TN 37210
Phone
Fax

CMC Change Order #: CO20
Change Order Date: 6/10/20

CHANGE ORDER REQUEST

Customer: Campbell & Ford Construction Inc
1592 Whitten Rd
Memphis, TN 38134-7550

Project: Franklin WWTP

CMC Job #: 1922800003

Subject: SPB Couplers

Description of Changes:

Adding the couplers below for the SPB 2nd Floor. Beam revisions and no way to lap the beams so couplers are now required.

86pcs - #7 Zap Type 2 Couplers
71pcs - #8 Zap Type 2 Couplers
46pcs - #9 Zap Type 2 Couplers
8pcs - #9/7 Zap Type 2 Couplers
8pcs - #9/8 Zap Type 2 Couplers

Amount of this Change Order (excluding taxes) \$ **11,660.00**

It is mutually agreed that for such change the contract price is changed by \$ **11,660.00** , terms of payment are net 30 days. No retainage of funds will be allowed. If you have any questions regarding our Change Order, immediately contact the below signed to schedule a meeting to discuss it.

Change Order pricing is subject to market increase change if not approved within 30 days.

Campbell & Ford Construction Inc
Signature: _____

CMC Rebar
Signature: _____
Salesman - John Boyuka

Date: _____

Date: _____

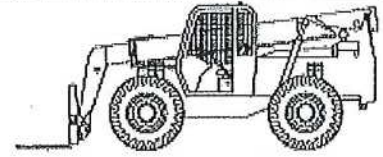
Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)

Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs


Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008; 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/Hr

Do not have XTREME--Hourly
1055 on Equipment-Watch

USD \$16.88
USD \$50.69

Non-Active Use Rates

Standby Rate
Idling Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

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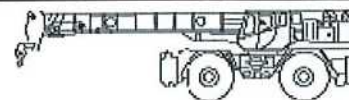
The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Tadano GR-800XL-1 (disc. 2010)

Rough Terrain Hydraulic Cranes



Size Class:

66.0 - 80.9 MTons

Weight:

107965 lbs

Configuration for GR-800XL-1 (disc. 2010)

Axle Configuration	4 X 4 X 4	Maximum Boom Length	144.4 ft
Maximum Lift Capacity	72.6 mt	Net Horsepower	270.0 hp
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$15,285.00	USD \$4,280.00	USD \$1,070.00	USD \$160.00	USD \$96.17	USD \$183.02
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$1,222.80	USD \$342.40	USD \$85.60	USD \$12.80		
Model Year (2010: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$16,507.80	USD \$4,622.40	USD \$1,155.60	USD \$172.80	USD \$96.17	USD \$189.96

Non-Active Use Rates

	Hourly
Standby Rate	USD \$51.59
Idling Rate	USD \$127.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	38%	USD \$5,808.30/mo
Overhaul (ownership)	45%	USD \$6,878.25/mo
CFC (ownership)	10%	USD \$1,528.50/mo
Indirect (ownership)	7%	USD \$1,069.95/mo
Fuel (operating) @ USD 3.07	35%	USD \$33.87/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)



Kiewit

CP 60

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

July 29, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00048.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 311 – 18" RCP Conflict

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for **RFI 311 – 18" RCP Conflict** amounting to **Twelve Thousand Sixty-Four Dollars (\$12,064)**.

This proposal includes the labor of removing the existing headwall and installing the new headwall, as well as all material costs for the adjustment.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.:

PREPARED BY: Joe Harding

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Offload and Handle																	
Foreman	1.00	EA	1.00	1	\$ 61.04	\$ 61.04											\$ 61.04
Laborer	1.00	EA	1.00	1	\$ 36.13	\$ 36.13											\$ 36.13
Operator	1.00	EA	1.00	1	\$ 46.45	\$ 46.45											\$ 46.45
Forklift	1.00	HR									\$ 60.00	\$ 60.00					\$ 60.00
Ford-F-250	1.00	HR									\$ 30.28	\$ 30.28					\$ 30.28
Remove Existing and Install Headwall																	
Foreman	1.00	EA	3.00	3	\$ 61.04	\$ 183.12											\$ 183.12
Laborer	1.00	EA	3.00	3	\$ 36.13	\$ 108.39											\$ 108.39
Operator	1.00	EA	3.00	3	\$ 39.86	\$ 119.58											\$ 119.58
Caterpillar 315F L	3.00	HR									\$ 97.39	\$ 292.17					\$ 292.17
Ford-F-250	3.00	HR									\$ 30.28	\$ 90.84					\$ 90.84
Form/Pour/Strip PVC Concrete Cap																	
Foreman	1.00	EA	3.00	3	\$ 61.04	\$ 183.12											\$ 183.12
Carpenter	1.00	EA	2.00	2	\$ 52.51	\$ 105.02											\$ 105.02
Laborer	1.00	EA	1.00	1	\$ 36.13	\$ 36.13											\$ 36.13
Hydro Excavating around Existing Utilities																	
Hydro Excavating Crew (1 Laborer/Spotter)	6.00	HR															
Disposal-Handling	6.00	Load	1.00	6	\$ 36.13	\$ 216.78											\$ 216.78
Material																	
2 PCS Headwall	1.00	EA							\$ 2,103.00	\$ 2,103.00							\$ 2,103.00
12" Ductile Iron	100.00	LF							\$ 39.29	\$ 3,929.00							\$ 3,929.00
PSI Red Dye	2	CY							\$ 122.00	\$ 244.00							\$ 244.00
Concrete Environmental Fee	1	EA							\$ 12.00	\$ 12.00							\$ 12.00
Slabform	2.00	EA							\$ 15.59	\$ 31.18							\$ 31.18
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	24	MHR				\$ -											\$ 5.00
TAX: (9.75% of Material, Equipment, Other)									\$ 616.12								\$ 616.12
BOND (2% of total)																	
SUBTOTALS				24		\$ 1,095.76		\$ -		\$ 6,935.30		\$ 519.44		\$ 1,980.00		\$ 131.70	\$ 10,662.20
MARKUP %						\$ 53.00%		\$ 53.00%		\$ 15.00%		\$ 15.00%		\$ 5.00%		\$ 5.00%	\$ 1,401.33
SUBTOTALS WITH MARKUPS APPLIED						\$ 1,260.12				\$ 7,975.60		\$ 597.35		\$ 2,079.00		\$ 151.46	\$ 12,065.53
TOTAL																	\$ 12,064.00

Request for Information

Project Name: Franklin WRF Modifications & Expansion Project		
Owner's Project No.: 2017-0264	CDM Smith Project No.: 14915-96594-WRF	
Contractor: Kiewit Water Facilities South	RFI No.: 311	
	Date: 05/29/2020	
Subject: 18" RCP Conflict		
Spec Section: 02630	Drawing: C-33	Detail:

QUESTION:

The 18" RCP adjacent to the Solar Field is in conflict with the existing 6" PVC conduits (shown in attached photo). Installation of the 18" RCP does not appear to be feasible without significantly changing proposed contour lines and other previously installed drainage piping and structures.

If the above question concerns an interpretation of the Contract Documents, the Contractor's interpretation is:

Kiewit proposes to replace the 18" RCP with (2) 10" PVC pipes and (2) new concrete headwalls (similar to what was used at the sidewalk between the new Alum Facility and new Electrical Building). Please see attached sketch for as-built elevation of the existing 6" PVC conduits in relation to the proposed 10" PVC drainage piping. Please confirm that this proposal is acceptable.

Please Respond by This Date: 06/22/2020

Submitted by Contractor: Kiewit Infrastructure South Co.	Date: 05/29/2020
---	-------------------------

Received by (CDM Smith):	Date:
---------------------------------	--------------

RESPONSE:

The proposed solution is not acceptable. Two 12" pipes are required at minimum to convey the same flow as an 18" pipe. Since this appears to be a shallow installation and large trucks will be driving on top of it, an RCP type 3 is recommended. PVC pipe shall not be accepted. It is also recommended that a concrete cap be installed over the 6" PVC pipe to prevent damage to it.

By: Linda Sullivan	Date:
---------------------------	--------------

Distribution: Contractor, Owner, File, Field, RFI Notebook



PROJECT NO.	104-200
FILE NAME	CONF. W/
SHEET NO.	C-33

Rental Rate Blue Book®

June 1, 2020

Caterpillar 315F L

Crawler Mounted Hydraulic Excavators



Size Class:

16.1 - 19.0 MTons

Weight:

N/A

Configuration for 315F L

Bucket Capacity - Heaped
Operating Weight

1 cu yd
36340 lbs

Net Horsepower
Power Mode

97 hp
Diesel
Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$9,430.00	USD \$2,640.00	USD \$660.00	USD \$99.00	USD \$39.63	USD \$93.21
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$735.54	USD \$205.92	USD \$51.48	USD \$7.72		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$10,165.54	USD \$2,845.92	USD \$711.48	USD \$106.72	USD \$39.63	USD \$97.39

Non-Active Use Rates

Hourly

Standby Rate

USD \$30.61

Idling Rate

USD \$68.45

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$3,489.10/mo
Overhaul (ownership)	46%	USD \$4,337.80/mo
CFC (ownership)	10%	USD \$943.00/mo
Indirect (ownership)	6%	USD \$565.80/mo
Fuel (operating) @ USD 3.07	27%	USD \$10.69/hr

Revised Date: 1st half 2020

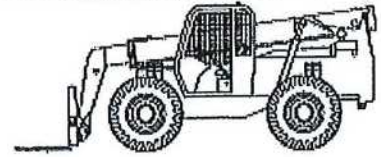
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The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

Xtreme XRM1245 (disc. 2008)
Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs



Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					USD \$40.28	USD \$80.48
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

Non-Active Use Rates

Standby Rate	USD \$16.88
Idling Rate	USD \$50.69

USE \$60/HR
Do not have XTREME - Hourly
1055 on Equipment Watch

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:

300 HP & Over

Weight:

N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

Standby Rate	Hourly	USD \$4.64
Idling Rate		USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Schedule of Values (SOV)

6hr @ \$230 = \$1,380
1 Load per hr = 6 @ \$100 ea = \$600.00

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Hydrovac Unit and Operator ST	57	HR	\$ 230.00	\$ 13,110.00
2	Hydrovac Unit and Operator OT	10	HR	\$ 265.00	\$ 2,650.00
3	Additional Labor if needed	0	HR	\$ 80.00	\$ -
4	Mobilization/Demobilization	0	HR	\$ -	\$ -
5	Disposal	0	Per Load	\$ 100.00	\$ -
6	Remote Pipe, if applicable	0	Per Foot	\$ 1.60	\$ -
7	Support Truck, if applicable	0	Per Day	\$ 95.00	\$ -
8	Overnight Stay, if needed	0	Per Day	\$ 120.00	\$ -
	Estimated Total				\$ 15,760.00

From: Davis, Hunter <Hunter.Davis@oldcastle.com>
Sent: Thursday, July 23, 2020 5:47 PM
To: Tawanda.Charambira <Tawanda.Charambira@Kiewit.com>
Subject: [EXTERNAL] RE: Endwall Detail

Do you need any special coatings, or requirements?

If not, it would be 2 pcs with 1 wing blocked out and you would need to bolt it down in the field.

Price would be \$ 1,753.00 plus another \$350 if you need it delivered.

Thanks and let me know if you want me to proceed and get you s submittal on it. Have a good night.



Hunter Davis
Sales Department- Water Management Solutions

5900 E Division St
Lebanon, TN, 37090

C 615-318-9594
E hunter.davis@oldcastle.com

oldcastleinfrastructure.com

From: Tawanda.Charambira [<mailto:Tawanda.Charambira@Kiewit.com>]
Sent: Wednesday, July 22, 2020 3:49 PM
To: Davis, Hunter <Hunter.Davis@oldcastle.com>
Subject: [EXT] Endwall Detail

CAUTION: this email originated from outside of the organization. Do not click links or open attachments unless you are expecting this email and know the contents are safe.

Hunter,

Would you be able to provide me with lead times and pricing for 2(ea) 12" Double barrel endwalls in a 6' wingwall frame?

Thanks T,



Engineer
Kiewit Infrastructure Co.
(615) 982-4451 Cell
Tawanda.Charambira@kiewit.com

Joseph.Harding

From: Michael.Sheston
Sent: Monday, July 20, 2020 10:13 AM
To: Kian.Lawlor
Subject: FW: [EXTERNAL] RE: Franklin 12" ductile pipe material



Michael Sheston
Project Engineer

Kiewit Infrastructure South Co.
Franklin WRF Modifications and Expansion Project
135 Claude Yates Drive
Franklin, TN 37067
C: 270-331-3764
Michael.Sheston@Kiewit.com



Confidentiality Notice: This email is intended for the use of the individual or entity to which it is addressed and contains information that is confidential. If the reader of this communication is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please immediately notify the sender and delete this communication and any attachments.

From: Michael.Stiltner <Michael.Stiltner@kiewit.com>
Sent: Wednesday, July 15, 2020 9:52 AM
To: Michael.Sheston <Michael.Sheston@kiewit.com>
Subject: FW: [EXTERNAL] RE: Franklin 12" ductile pipe material

Cost of 12" ductile for the RFI on 18" RCP is \$3,929 for the pipe.

Thanks,



Michael Stiltner
Pipe Superintendent

Franklin WRF Modifications and Expansion Project
135 Claude Yates Dr, Franklin, TN 37064
(469)-491-9673 Cell
Michael.Stiltner@kiewit.com

ATTACHMENT A
SCOPE OF WORK

Job Number: 103925
Material Contract No. 103925-MC-XXX

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Seller: Smyrna Ready Mix
Material Contract No.: 103295-MC-XXX
Material Contract Date: April 3, 2019

Schedule of Values

\$94/CY + \$28/CY = \$122/CY
\$122/CY @ 2 CY = \$244.00

Item	Description	Quantity	Unit of Measure	Unit Price	Total
1	2500 PSI Concrete - 1/2" chip	1,826.00	CY	\$ 94.00	\$ 171,644.00
2	Color Utility Red 1/2 Dosage	1,826.00	CY	\$ 28.00	\$ 51,128.00
3	3000 PSI - 1/2" Chip (Sidewalk C&G)	165.00	CY	\$ 97.00	\$ 16,005.00
					\$ -
	Contract Total (without Taxes)				\$ 238,777.00

1.0 General Description of the "Work": The s

- 1 FURNISH SECTIONS: Section 02515 – Concrete Sidewalk, Section 03300 – Cast-In-Place Concrete, 16900 – Ductbank Encasement complete per plans, specifications, and Addenda [Addenda 1-6]

Also included in additional to the above, any other applicable and/or related specification sections. Including but not limited to: Division 00, Division 1 General Requirements.

2.0 Including But Not Limited to:

- 1 The Unit Prices in the Schedule of Valves are firm for the durations of the Project including escalation.
- 2 Seller will provide 0% of the Seller's total contract dollar value in DBE participation.
- 3 Material is not exempt from sales or use taxes.
- 5 Seller shall provide the furnishing concrete for duct bank encasement, sidewalk and curb details on Contract Drawing E-5 through E-15; Contract Drawing C-23 and CD-3.

3.0 Schedule of Work:

- 1 All Material and equipment delivery schedules shall be coordinated with the Contractor prior to shipment and Seller shall provide a minimum of 72 hours advance notice of all deliveries.
- 2 Concrete for Duct bank shall be available for delivery to site as requested by Contractor.
- 3 Concrete for Sidewalk shall be available for delivery to site as requested by Contractor.
- 4 Concrete for Curbs shall be available for delivery to site as requested by Contractor.

4.0 Unit Prices, Options and Allowances:

	Description	Qty	UoM	Price	Price Validity
.1	Add MRWR, increase slump 4" to 6"	1	CY	\$3.00	
.2	Add MRWR, increase slump 4" to 8"	1	CY	\$5.00	
.3	Calcium Chloride, LQD, 1%	1	CY	\$2.00	
.4	Non-Chloride Accelerator, 1%	1	CY	\$5.50	
.5	Superplasticizer.dose	1	CY	\$5.00	
.6	Hot/Chilled Water	1	CY	\$2.00	
.7	All Cement Mixes, Additional	1	CY	\$6.00	
.8	Set Retarding Admixture	1	CY	\$2.00	

Quotation

Bill-To-Party : 119957 KIEWIT CORPORATION 1000 KIEWIT PLAZA OMAHA NE 68131	Information Quotation Number 20782776 Quotation Created Date 07/29/2020 Customer Number 119957 Inside Salesman Jeff Ervin Outside Salesman Dave Brown Validity Start Date 07/29/2020 Validity End Date 08/28/2020
Ship-To-Party : 5330737 KIEWIT WWTP 135 CLAUDE YATES DRIVE FRANKLIN TN 37064	
Notes from the Customer:	

Item	Material	Quantity	Price Per	Unit	Amount
10	VUL-STAFORM 27" X 96-1/2" STAFORM 26 GAUGE 18 SQ FT	10 EA	15.59 \$	1 EA	155.90
Items total:					155.90
Sales Tax:					14.42
Sales Coupon:					0.00
Total Amount:					\$ 170.32

Signature _____ Date _____



Kiewit

CP 55

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 14, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00091.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 346 – Solids Stair C Lower Level Landing Modifications

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **RFI 346 – Solids Stair C Lower Level Landing Modifications**, amounting to **Seven Thousand Five Hundred and Ninety Three Dollars (\$7,593.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: RFI 346

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
RFI 346 Solids Stair C Lower Level Landing						-		-		-		-		-		-	-
Labor Cost						-		-		-		-		-		-	-
Foreman	1.00	EA	5.00	5	\$ 62.31	\$ 311.55		-		-		-		-		-	\$ 311.55
Ironworker - Building	3.00	EA	10.00	30	\$ 69.03	\$ 2,070.90		-		-		-		-		-	\$ 2,070.90
Material Cost						-		-		-		-		-		-	-
Solids Stair C Lower Level Landing	1.00	EA				-		-	\$ 3,286.00	\$ 3,286.00		-		-		-	\$ 3,286.00
Equipment Cost						-		-		-		-		-		-	-
Foreman Truck Ford F-250	5.00	HR				-		-		-	\$ 30.28	\$ 151.40		-		-	\$ 151.40
20 Ft. Scissor Lift	10.00	HR				-		-		-	\$ 23.26	\$ 232.60		-		-	\$ 232.60
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER						-		-		-		-		-		-	-
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax. Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)		MHR		35		-		-		-		-		-		-	\$ 175.00
TAX: (9.75% of Material, Equipment, Other)										\$320.39		\$37.44					\$17.06
BOND (2% of total)																	\$ 374.89
SUBTOTALS				35		\$ 2,382.45		-		\$ 3,606.39		\$ 421.44		-		\$ 192.06	\$ 6,602.34
MARKUP %						15.00%		15.00%		15.00%		15.00%		5.00%		15.00%	\$ 990.35
SUBTOTALS WITH MARKUPS APPLIED						\$2,739.82				\$4,147.34		\$484.06				\$220.87	\$7,592.89
BOND																	
TOTAL																	\$7,593.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

HME, INC.

HAAS METAL ENGINEERING

2828 NW Button Road
Topeka, KS 66618
Phone: 785-235-1524



Change Order Request

Owner: Kiewit Infrastructure South Co.
4405 International Blvd., NW, Suite C-101
Norcross, GA 30093

Project: 18.097 / FRANKLIN WRF
135 CLAUDE YATES DR.
FRANKLIN, TN 37064

COR# 9: SOLIDS STAIR C LOWER LEVEL LANDING

\$3,286.00

Adding steel framed landing at elevation 639.50' at stair C in the solids processing building. Price includes detailing, material, fabrication and delivery.

1: SOLIDS STAIR C LOWER LEVEL LANDING

TOTAL, THIS CHANGE ORDER REQUEST

\$3,286.00

*This PCO impacts schedule duration, schedule impact to be mutually agreed upon between Contractor and HME prior to approval of any change order.
This PCO pricing is valid 14 calendars days from date of submittal.
This PCO excludes any items not specifically mentioned.
If this PCO is not approved prior to HME's execution of this scope of work interest shall be charged at 18% per annum until payment is made for change.
HME is not responsible or liable for any delays or damages for changes in the scope of work due to this PCO.*

Approved By: Kiewit Infrastructure South Co.

Submitted By: HME, Inc.

Signed: _____

Signed: _____

Date: _____

Date: _____

Rental Rate Blue Book®

June 1, 2020

Ford F-250
On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Skyjack SJ6826RT

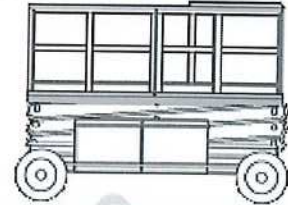
I.C. Self Propelled Scissor Lifts

Size Class:

21 - 30 ft

Weight:

6400 lbs


Configuration for SJ6826RT

Horsepower	31.0	Maximum Platform Capacity	1200.0 lbs
Maximum Platform Height	26.0 ft	Platform Size	56' X 96'
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$2,255.00	USD \$630.00	USD \$160.00	USD \$24.00	USD \$9.55	USD \$22.36
Adjustments						
Region (Franklin, Tennessee: 107%)	USD \$157.85	USD \$44.10	USD \$11.20	USD \$1.68		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$2,412.85	USD \$674.10	USD \$171.20	USD \$25.68	USD \$9.55	USD \$23.26

Non-Active Use Rates

	Hourly
Standby Rate	USD \$8.36
Idling Rate	USD \$16.21

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	43%	USD \$969.65/mo
Overhaul (ownership)	39%	USD \$879.45/mo
CFC (ownership)	10%	USD \$225.50/mo
Indirect (ownership)	8%	USD \$180.40/mo
Fuel (operating) @ USD 3.07	26%	USD \$2.50/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON (Michael.Sheston@kiewit.com)

CONSTRUCTION CHANGE AUTHORIZATION

TO: Mr. Steve Davis
Project Manager
Kiewit Water Facilities South
4405 International Blvd., NW,
Suite C-101
Norcross, Georgia 30093
(770) 940-8044

FROM: CDM Smith
210 25th Ave. N.
Suite 1102
Nashville, TN 37203
(615) 320-3161

DATE: August 24, 2020

PROJECT: City of Franklin, Tennessee
Franklin WRF Modifications & Expansion Project

CCA 55
NUMBER:

CDM SMITH PROJ. NO.: 14915-231666

SUBJECT: Existing Structure

CITY PROJECT NO.: 2017-0264

REFERENCE: CCA 44

DESCRIPTION: Perform additional demolition of the abandoned Influent Pump Station as necessary for installation of the valve manhole relocated by CCA No. 44. Work to be performed on a time and materials basis.

CDM SMITH:

By: [Signature]
Date: 11/5/20

CONTRACTOR:

By: _____
Date: 11/6/20

City of Franklin:

By: Brian Goodwin
Date: 11/06/2020

City of Franklin:

BY: Michelle Hatcher
Michelle Hatcher
Date: 11/6/20



Kiewit

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

September 16, 2020

To: Attn: Mr. Dan Harris

CCA-KIEWIT-00059.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: CCA 55 – Additional Demolition of the Influent Pump Station

Dear Mr. Harris,

Kiewit is hereby submitting a cost proposal for **CCA 55 – Additional Demolition of Influent Pump Station** amounting to **Twenty Five Thousand and Two Hundred and Seventeen (\$25,217.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO: CCA 55

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
T&M for Additional Demo of Influent Pump Station																	
Demo of Influent PS - 08/27/2020																	
Foreman	1.00	EA	8.00	8	\$ 62.31	\$ 498.48											\$ 498.48
Pipe Layer	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Operator - 335 Excavator	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Operator - 330 Excavator with Hammer	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Overtime - 08/27/2020																	
Foreman	1.00	EA	3.00	3	\$ 84.80	\$ 254.40											\$ 254.40
Pipe Layer	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34
Operator - 335 Excavator	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34
Operator - 330 Excavator with Hammer	1.00	EA	3.00	3	\$ 56.67	\$ 170.01											\$ 170.01
Equipment - 08/27/2020																	
Cat 330 Excavator with Hammer	11.00	HR									\$ 209.03	\$ 2,299.33					\$ 2,299.33
Cat 335 Excavator	10.00	HR									\$ 174.74	\$ 1,747.40					\$ 1,747.40
Ford F-250 Truck	10.00	HR									\$ 30.28	\$ 302.80					\$ 302.80
Trucking - 08/27/2020																	
Outside Tandem	6.00	HR											\$ 90.00	\$ 540.00			\$ 540.00
Demo of Influent PS - 08/26/2020																	
Foreman	1.00	EA	8.00	8	\$ 62.31	\$ 498.48											\$ 498.48
Pipe Layer	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Operator - 335 Excavator	1.00	EA	3.00	3	\$ 40.92	\$ 122.76											\$ 122.76
Operator - 330 Excavator with Hammer	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Overtime - 08/26/2020																	
Foreman	1.00	EA	3.00	3	\$ 84.80	\$ 254.40											\$ 254.40
Pipe Layer	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34
Operator - 330 Excavator with Hammer	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34
Equipment - 08/26/2020																	
Cat 330 Excavator with Hammer	10.00	HR									\$ 209.03	\$ 2,090.30					\$ 2,090.30
Cat 335 Excavator	3.00	HR									\$ 174.74	\$ 524.22					\$ 524.22
Ford F-250 Truck	10.00	HR									\$ 30.28	\$ 302.80					\$ 302.80
Trucking - 08/26/2020																	
Outside Tandem	9.00	HR											\$ 90.00	\$ 810.00			\$ 810.00
Demo of Influent PS - 08/25/2020																	
Foreman	1.00	EA	8.00	8	\$ 62.31	\$ 498.48											\$ 498.48
Pipe Layer	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Operator - 335 Excavator	1.00	EA	3.00	3	\$ 40.92	\$ 122.76											\$ 122.76
Operator - 330 Excavator with Hammer	1.00	EA	8.00	8	\$ 40.92	\$ 327.36											\$ 327.36
Overtime - 08/25/2020																	
Foreman	1.00	EA	3.00	3	\$ 84.80	\$ 254.40											\$ 254.40
Pipe Layer	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34
Operator - 335 Excavator	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34
Operator - 330 Excavator with Hammer	1.00	EA	2.00	2	\$ 56.67	\$ 113.34											\$ 113.34

Kiewit Infrastructure South Co.
4600 North Point Parkway, Suite 100
Alpharetta, GA 30022



DATE: 09/16/2020

PCO: CCA 55

PREPARED BY: Bryant Tipton

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Equipment - 08/25/2020																	\$ -
Cal 330 Excavator with Hammer	10.00	HR									\$ 209.03	\$ 2,090.30					\$ 2,090.30
Cal 335 Excavator	5.00	HR									\$ 174.74	\$ 873.70					\$ 873.70
Ford F-250	11.00	HR									\$ 30.28	\$ 333.08					\$ 333.08
Trucking - 08/25/2020																	\$ -
Outside Tandem	10.00	HR											\$ 90.00	\$ 900.00			\$ 900.00
OTHER																	\$ -
Excavation to waste	60.00	CY	0.15	9		\$ -		\$ -		\$ -		\$ -		\$ -		\$ -	\$ -
** Operator Excavation to Waste	9.00	HR	9.00	9	\$ 40.92	\$ 368.28		\$ -		\$ -		\$ -		\$ -		\$ -	\$ 368.28
** Equipment Excavation to Waste Cal 950	9.00	HR	9.00	9		\$ -		\$ -		\$ -	\$ 96.25	\$ 866.25		\$ -		\$ -	\$ 866.25
Freight																	\$ -
** Mobilization of 330 Excavator and Hammer	1.00	EA									\$ 400.00	\$ 400.00					\$ 400.00
STS - small tools, consumables, safety equip. (5% of direct labor, plus 9.75% sales tax; Formula = Total Direct Labor Subtotal * .05 * 1.0925)	139	MHR				\$ -									\$ 5.00	\$ 695.00	\$ 695.00
TAX: (9.75% of Material, Equipment, Other)												\$ 1,153.44				\$ 87.76	\$ 1,221.21
BOND (2% of total)																	\$ -
SUBTOTALS				139		\$ 6,127.35		\$ -		\$ -		\$ 12,983.62		\$ 2,250.00		\$ 762.76	\$ 22,123.74
MARKUP %						15.00%		15.00%		15.00%		15.00%		15.00%		15.00%	\$ 3,093.56
SUBTOTALS WITH MARKUPS APPLIED						\$ 7,046.45						\$ 14,931.17		\$ 2,562.50		\$ 877.18	\$ 25,217.30
BOND																	
TOTAL																	\$ 25,217.30

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Date of Work 8/26/2020

PCO Number CCA-055

☒ Day Shift
☐ Night Shift
☐ Material or Subcontractor
☐ Force Account Work
☐ Outside Work
☐ Equipment Lease or
☐ Vendor Invoice

Description of Work Done (Location, Issue, working condition)

Approved for Kievit

By [Signature] 8/27/2020

Signature, Title & Date

Date of Work 8/25/2020

PCO Number CCA-055

☒ Day Shift
☐ Night Shift
☐ Material or Subcontractor
☐ Force Account Work
☐ Outside Work
☐ Equipment Lease or
☐ Vendor Invoice

Description of Work Done (Location, Issue, working condition)

opened excavation and placed trench box.
hammer / demo pump station, load out concrete

330
335
TRUCK

Equipment Totals

Detail of Materials (Materials and their quantities, PO numbers, invoice attached)

Written Notice to proceed from, CDM Smith, Dan Harris must be attached prior to beginning work

Approved for Kiewit

By APM 8/26/2020

Signature, Title & Date

Date Aug 27 2020

Driver Danelle

Truck # 102

Company Kiewit

Location Franklin Wastewater Treatment Plant

PO BOX 3 LEBANON, TN 37088

615-598-5050

middletntrucking@gmail.com



Product _____ Loads Hauled _____

Hours Worked: IN 8:30 AM/PM OUT 4:30 AM/PM

LUNCH 30min Total Hours _____

Comments _____

Authorized Signature Bany Payne

	LOADED	UNLOADED
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Date Aug 26 2020

Driver Danelle

Truck # 102

Company Kiewit

Location Franklin Waste Water treatment plant

PO BOX 3 LEBANON, TN 37088

615-598-5050

middletntrucking@gmail.com



Product _____ Loads Hauled _____

Hours Worked: IN 7:30 AM/PM OUT 5:00 AM/PM

LUNCH 30min Total Hours 9

Comments _____

Authorized Signature [Signature]

	LOADED	UNLOADED
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Date Aug 25 2020

Driver Danelle

Truck # 102

Company Kiewit

Location Franklin waste water treatment

PO BOX 3 LEBANON, TN 37088

615-598-5050

middletntrucking@gmail.com



Product _____ Loads Hauled _____

Hours Worked: IN 7:30 AM/PM OUT 5:30 AM/PM

LUNCH 30min Total Hours 9.5

Comments _____

Authorized Signature Angel Pizarro P.

	LOADED	UNLOADED
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Thompson



Rental Quote

Quote N17808

1245 BRIDGESTONE BOULEVARD, LAVERGNE, TN 370863510
NASHVILLE HR Ph: (615)256-2424 Fax: (615)793-7617

Date Out: 08/21/2020 Fri 08:00 AM
Est. Date In: 09/04/2020 Fri 08:00 AM
Delivery Date: 08/21/2020 Fri 08:00 AM

Bill to: Customer: 668055
KIEWIT INFRASTRUCTURE SOUTH
PROJECT #103925 FRANKLIN WATER PLANT
PO BOX 452500
OMAHA NE 68145

Jobsite: FRANKLIN
Contact: JOHN CLEM
Phone: 615-879-5275
135 CLAUDE YATES DR
FRANKLIN TN,

Signed By:
Order By: JOHN CLEM

Written By: Wesley Ray
Sales Rep: KIRK HARRIS
PO #: TBD

QTY	DESCRIPTION	DAY	WEEK	4WEEK	TOTALS
Rental Items					
1	160-0550 HAMMER EXCAVATOR 330 W/H140 ENGINE SN 45V47378	\$2,592	\$6,480	\$15,000	12,960.00
_____ _____ _____ DATE		SIGNATURE PRINTED NAME Weekly Rate - \$6,480 Total Hours - 31 Hours = \$209.03 per hour			
THE EQUIPMENT LISTED HERE HAS BEEN RECEIVED IN GOOD CONDITION. THANK YOU FOR CHOOSING THE CAT RENTAL STORE THOMPSON MACHINERY APPRECIATES YOUR BUSINESS!! _____ NATIONAL ACCOUNT TERMS AND CONDITIONS APPLIED					
Miscellaneous Items					
1	FREIGHT FTC		400.00 each		400.00
State 7% City 2.75% Total Tax: 12.5%					1,034.20
Total:					14,394.20

1. Fire, Theft and Vandalism Waiver (FTV) equal to (14%) of gross rental charges will be charged absent proof of insurance -- see paragraphs 11 & 12 on reverse side of this page. If Customer accepts FTV, TMCC agrees to waive certain claims against Customer for loss or damage to the Equipment, in accordance with the terms and conditions set forth in paragraph 11 on the reverse side of this page and in the FTV Waiver Guide which Customer acknowledges receiving.
2. Fire, Theft and Vandalism Waiver is NOT INSURANCE and does not cover upset, overturned, tire or overhead damage or accessory items, regardless of fault.
3. Customer must call to release the Equipment and is responsible for the released Equipment until it is picked up by The Cat Rental Store.
4. Customer is fully responsible for items rented subject to terms and conditions on reverse side of this page.
5. There is no purchase option, expressed or implied.
6. There will be no adjustment due to non-productive time, weather conditions or any other conditions.
7. Lost key charge is \$10.00. Refueling charge is \$ 7.50 / gal.
8. The Equipment is being rented by Customer for business purposes and not for personal, family or household use.
9. Complete Terms and Conditions are on the reverse side of this page.

Fire, Theft, and Vandalism Waiver: Declines

Unless declined FTV will be deemed accepted.

I have had the opportunity to read the terms and conditions on both sides of this Agreement. I have received and understood the safety instructions on the operation of the equipment that I am renting. I have received a copy of this Agreement and agree to the terms and conditions on both sides. I have received a copy of the Fire, Theft and Vandalism Guide.

CUSTOMER SIGNATURE

DATE

NAME PRINTED

DELIVERED BY

DATE

Printed on Friday, August 21, 2020 2:26:36 PM by WRAY

N17808

Page 1 of 1

Page 515 of 702

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

www.equipmentwatch.com

All prices shown in US dollars (\$)

Rental Rate Blue Book®

June 1, 2020

Caterpillar 335F L CR

Crawler Mounted Hydraulic Excavators



Size Class:

40.1 - 50.0 MTons

Weight:

N/A

Configuration for 335F L CR

Bucket Capacity - Heaped

2.2 cu yd

Net Horsepower

199.8 hp

Operating Weight

84604.6 lbs

Power Mode

Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

Standby Rate

Hourly

USD \$53.35

Idling Rate

USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

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The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON (Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Caterpillar 950M

4-Wd Articulated Wheel Loaders

Size Class:
225 - 249 HP
Weight:
N/A


Configuration for 950M

Bucket Capacity - Heaped	12.0 cu yd	Net Horsepower	230.0 hp
Operator Protection	ROPS/FOPS	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$8,485.00	USD \$2,375.00	USD \$595.00	USD \$89.00	USD \$44.81	USD \$93.02
Adjustments						
Region (Franklin, Tennessee: 106.7%)	USD \$568.49	USD \$159.13	USD \$39.87	USD \$5.96		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$9,053.50	USD \$2,534.13	USD \$634.86	USD \$94.96	USD \$44.81	USD \$96.25

Non-Active Use Rates

	Hourly
Standby Rate	USD \$32.41
Idling Rate	USD \$74.10

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	41%	USD \$3,478.85/mo
Overhaul (ownership)	37%	USD \$3,139.45/mo
CFC (ownership)	12%	USD \$1,018.20/mo
Indirect (ownership)	10%	USD \$848.50/mo
Fuel (operating) @ USD 3.07	51%	USD \$22.66/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

ATTACHMENT A
SCOPE OF WORK

Job Number: 103925
Trucking Agreement No. 103925-TA-001

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Trucker: T&W Construction LLC
Trucking Agreement No.: 103925-TA-001
Contract ID Number: TXXXXXX-XXX
Trucking Agreement Date: 10/18/18

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Tri-Axle Dump Trucks	3,485	HR	\$ 90.00	\$ 313,650.00
				\$ -	\$ -
	<i>Approximate Agreement Total (including Taxes)</i>				\$ 313,650.00

1.0 General Description of the "Work": Hourly Truck Hauling

1. Trucking of on-site material to stockpile, waste site as well as on-site hauls as directed by Contractor. Off-site hauls will be as directed by Contractor and to Contractor approved locations for legal disposal of waste.

2.0 Inclusions:

1. All applicable taxes shall be included in Trucker's pricing.
2. Trucker is responsible for all fines and traffic related tickets.
3. Trucker shall attend Contractor daily coordination/schedule meetings as determined by the Contractor.
4. Necessary permits required for hauling are the responsibility of the Trucker.
5. Trucker will appoint a representative whom will supervise performance of Work on site and coordinate Work as directed by the Contractor.
6. Trucker's equipment, including trucking, must be checked for leaks as to avoid any spills on site. Environmental concerns are high and Trucker shall comply with all state and federal environmental regulations including but not limited to having spill kits for dealing with spills as a result of Trucker's operations.
7. Truck drivers to have reflective vests, shirts with sleeves, hard hat, safety glasses, gloves, leather work boots and pants while on site.
8. Trucks will be in safe working condition, with backup alarms and functioning lights.
9. All required permits and licenses required for completing the scope of Work.
10. Night and weekend work is included at no additional cost.
11. Trucker to provide hauling tickets daily for Contractor to verify and sign. Additionally, Trucker will utilize Five Cubits software for tracking, provided by Contractor.
12. Trucker to clean truck of loose materials prior exiting Project site.
13. Trucker to provide copies of any lease agreement for Contractor to review and approve prior to using any outside leased trucks on the Project.

3.0 Exclusions:

1. Traffic Control.

4.0 Clarifications:



Kiewit

CP 57

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 07, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00081.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RE. RFI-345 Sludge Screen Riser Location/Clearance Issues

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for RFI-345 – Sludge Screen Riser Location/Clearance Issues in the amount of **Eighteen Thousand One Hundred Three Dollars (\$ 18,103)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager



RFI 345 Sludge Screen Pedestals Cost Proposals

PREPARED BY: Abdul Alkhatib

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	Unit	Total Cost	
Material																	
Commercial Metals Company Proposal- modelling Rebar 2 hours of re-detailed	1.0	Ea															\$ 350.00
Concrete E3-4500psi	1.0	CY															\$ 127.50
Environmental Fee Per Load	1.0	Ea															\$ 12.00
#2 Casters & #2 Transition Chutes	1.0	PLS															\$ 10,945.58
Sludge Screen Installation Support from Vendor (Rubber)	1.0	Ea															\$ 2,800.00
#2 P&A	4.0	Ea															\$ 2,800.00
#2 Expansion Joints	4.0	Ea															\$ 2,800.00
Concrete	1.00	Ea	2.0	2.0		\$ 62.31		\$ 124.62									\$ 124.62
Rebar	2.0	Ea	2.0	4.0		\$ 36.42		\$ 145.68									\$ 145.68
Formwork																	
Formwork-Building	1.0	Ea	3.0	3.0		\$ 62.31		\$ 186.93									\$ 186.93
Formwork-Operator	2.0	Ea	3.0	6.0		\$ 69.03		\$ 414.18									\$ 414.18
Material offloading+Staging (concrete+rebar+forma)																	
Forklift Operator	1.0	Ea	1.0	1.0		\$ 46.34		\$ 46.34									\$ 46.34
Shooter	1.0	Ea	1.0	1.0		\$ 35.42		\$ 35.42									\$ 35.42
Equipment & Transportation																	
Equipment-Materials	1.0	Hrs															\$ 60.00
Equipment-Operator	5.0	Hrs															\$ 30.28
Formwork Truck-haul 1250																	\$ 151.40
*Construction Equipment Ownership & Operating Costs are based on Blue Book FHYA Rates.																	
OTHER																	
STS - small tools, consumables, safety equip. (\$5 per Direct Manhour, plus 9.75% sales tax:					MHR												
Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975																	
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)																	
SUBTOTALS						\$ 954.17		\$ -		\$ 14,494.36		\$ 211.40		\$ -		\$ 85.00	\$ 15,751.56
MARKUP %																	\$ 2,351.24
SUBTOTALS WITH MARKUPS APPLIED																	\$ 18,102.79
BOND																	
TOTAL																	\$ 18,102.79

Abdul.Albashitie

From: May, Linda <Linda.May@coreandmain.com>
Sent: Tuesday, October 6, 2020 3:37 PM
To: Abdul.Albashitie; Jones, Jared
Cc: Alpharetta Office Franklin Submittals
Subject: [EXTERNAL] RE: Quote Request

The cost for the FCA with restraint plates and rods \$725.00 4-5 day lead time

Thank you,

I will be on vacation 10/15 – 10/23. I will not have computer access and limited phone access.

****Attention** Due to current conditions it is best to reach me on my mobile number.**

Linda May
SE Plant Group
Project Manager
Mobile – 813-695-3305
Phone – 813-621-1971
Fax – 813-621-3280
linda.may@coreandmain.com

Respect is earned. Honesty is appreciated. Trust is gained. Loyalty is returned.



CONFIDENTIALITY NOTICE:

This message is for intended addressee(s) only and may contain confidential, proprietary or privileged information, exempt from disclosure, and subject to terms at: <http://emailterms.coreandmain.com>

From: Abdul.Albashitie [mailto:abdul.albashitie@kiewit.com]
Sent: Tuesday, October 6, 2020 12:27 PM
To: Jones, Jared <Jared.Jones@coreandmain.com>; May, Linda <Linda.May@coreandmain.com>
Cc: Alpharetta Office Franklin Submittals <AlpharettaOffice@KiewitCorp.onmicrosoft.com>
Subject: RE: Quote Request

CAUTION: External

Jared,
Any updates?

From: Jones, Jared <Jared.Jones@coreandmain.com>
Sent: Friday, October 2, 2020 2:30 PM
To: Abdul.Albashitie <abdul.albashitie@kiewit.com>; May, Linda <Linda.May@coreandmain.com>
Cc: Alpharetta Office Franklin Submittals <AlpharettaOffice@KiewitCorp.onmicrosoft.com>
Subject: [EXTERNAL] RE: Quote Request

Abdul,

Your cost for the Expansion joint is \$684.68/ea and the lead time is 5-6 weeks. I'm still working on the FCA and we'll have that to you asap.

Thanks,
Jared Jones, Assoc. DBIA
SE Region Treatment Plant Group
Sales Representative
Mobile 205-572-8976
jared.jones@coreandmain.com



This message is for intended addressee(s) only and may contain confidential, proprietary or privileged information, exempt from disclosure, and subject to terms at: <http://emailterms.coreandmain.com>.

From: Abdul.Albashitie [<mailto:abdul.albashitie@kiewit.com>]
Sent: Friday, October 2, 2020 10:11 AM
To: May, Linda <Linda.May@coreandmain.com>; Jones, Jared <Jared.Jones@coreandmain.com>
Cc: Alpharetta Office Franklin Submittals <AlpharettaOffice@KiewitCorp.onmicrosoft.com>
Subject: Quote Request

CAUTION: External

Linda, Jared,
Please send a quote for #4 4" flanged coupling adapters and #4 4" Flexible Joints as in attached.

Thank you



ABDUL ALBASHITIE
Engineer 2

KIEWIT WATER FACILITIES SOUTH CO.
4800 N Point Parkway., Suite 100, Alpharetta, GA 30022
808-227-8093 cell
Abdul.Albashitie@kiewit.com

Abdul.Albashitie

From: Boyuka, John M <John.Boyuka@cmc.com>
Sent: Friday, September 25, 2020 8:45 AM
To: Abdul.Albashitie; Jared.Carr
Cc: Alpharetta Office Franklin Submittals; Boyuka, John M
Subject: [EXTERNAL] RE: RFI345 Sludge Screen Pedestals

Would add approx. 300# and 2 hours of re-detailing. **\$350.00**

Let me know if I need to get my detailers to start on these revisions.

Thanks



John M. Boyuka | Project Manager | Commercial Metals Company
4280 Sidco Dr | Nashville, TN 37204
Mobile 901.361.4135 | John.Boyuka@cmc.com | www.cmc.com

From: Abdul.Albashitie <abdul.albashitie@kiewit.com>
Sent: Thursday, September 24, 2020 9:38 AM
To: Boyuka, John M <John.Boyuka@cmc.com>
Cc: Alpharetta Office Franklin Submittals <AlpharettaOffice@KiewitCorp.onmicrosoft.com>
Subject: RFI345 Sludge Screen Pedestals

CAUTION: This email originated from outside of CMC's network. Do not click on links or open attachments unless you trust the sender and know the content is safe.

John,
Please see attached, the engineer has requested to add two 12" pedestals to support the three sludge screens in the solids processing building, please send a quote for the costs associated with this change.

Thank you



ABDUL ALBASHITIE
Engineer 2

KIEWIT WATER FACILITIES SOUTH CO.
4800 N Point Parkway., Suite 100, Alpharetta, GA 30022
808-227-8093 cell
Abdul.Albashitie@kiewit.com

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Abdul.Albashitie

From: Peter.Sestak
Sent: Wednesday, September 30, 2020 8:14 PM
To: Abdul.Albashitie
Subject: FW: 11336 - Sludge Screens --- extension legs / chute
Attachments: Chute_51367962_Fraklin TN_9_28_2020.pdf; Skid_Assy_51520404_Franklin_TN_9_28_2020.pdf

Abdul,

Here is the price quote from Huber for the RFI 345 changes.

Thank you,

Peter

From: Henze, Wolrad <Wolrad@hhusa.net>
Sent: Tuesday, September 29, 2020 10:55 AM
To: Peter.Sestak <Peter.Sestak@Kiewit.com>
Cc: Laura.Hernandez <Laura.Hernandez@kiewit.com>; Michael.Sheston <Michael.Sheston@kiewit.com>; Mark.Renwick <Mark.Renwick@kiewit.com>
Subject: [EXTERNAL] RE: 11336 - Sludge Screens --- extension legs / chute

Hello Peter,

It took a while, please see attached the revised drawings for the transition chute and the caster. Our CAD department decided to keep the structure for the caster to make sure the structure will be strong enough.

I also got the quote for two (2) casters, two (2) transition chutes fully passivated and freight to site, the new price will be **\$10,943.58.**

If you need support from our service department, one (1) day on site will be \$2,830.00, this includes 8 hours on site, travel to site, per diem, rental car and hotel.

Please let me know if you like to proceed and we will finalize the drawings for manufacturing. Once we received your change order we get the parts on order.

If you have any questions, please let me know.

Thanks

Wolrad Henze
Project Manager

HUBER Technology, Inc.
1009 Airlie Parkway
Denver, NC 28037 USA

Direct: 704 949 1018
Office: 704 949 1010
Fax: 704 949 1020

E-Mail: wolrad@hhusa.net
Web: www.huber-technology.com

WE MOVED!

Forward all correspondence to our new address:
1009 Airie Parkway, Denver, NC 28037



From: Peter.Sestak <Peter.Sestak@Kiewit.com>

Sent: Friday, September 11, 2020 8:40 AM

To: Henze, Wolrad <Wolrad@hhusa.net>

Cc: Laura.Hernandez <Laura.Hernandez@kiewit.com>; Michael.Sheston <Michael.Sheston@kiewit.com>; Mark.Renwick <Mark.Renwick@kiewit.com>

Subject: RE: 11336 - Sludge Screens --- extension legs / chute

Wolrad,

CDM Smith has reviewed your designs and has decided that the Strainpress needs to be raised only 12 inches.

- Kiewit will build concrete piers for the stationary supports, so the stationary frame will not be needed.
- The rolling frame will need to be re-designed to provide the desired 12" height increase. Or is there enough adjustment in the wheels that the Strainpress can be raised without adding a rolling frame?
- The length of the discharge chute will need to be revised to accommodate only a 12" height increase.

Can you send me a quote for this revised scope of work?

Thank you,

Peter

From: Henze, Wolrad <Wolrad@hhusa.net>

Sent: Monday, August 31, 2020 2:19 PM

To: Peter.Sestak <Peter.Sestak@Kiewit.com>

Cc: Laura.Hernandez <Laura.Hernandez@kiewit.com>; Michael.Sheston <Michael.Sheston@kiewit.com>

Subject: [EXTERNAL] 11336 - Sludge Screens --- extension legs / chute

Hello Peter,

I have quotes for the extension legs and transition chute for the two(2) SP 4.

The price for the fixed support legs, roller support legs and extended chutes for the two (2) SP's will be \$17,259.73 this includes passivation and shipping. The rollers will need to be reused from the delivered SP's. Please see attached info on the parts.

I asked our service department for a quote for one (1) day on site to support the conversion as an option. The price will be \$2,830.00, this includes 8 hours on site, travel to site, per diem, rental car and hotel.

If you and the owner decide to go for it, I will create a more formal quote.

If you have any question please let me know.

Thanks

Wolrad Henze
Project Manager

HUBER Technology, Inc.
1009 Airlie Parkway
Denver, NC 28037 USA

Direct: 704 949 1018
Office: 704 949 1010
Fax: 704 949 1020

E-Mail: wolrad@hhusa.net
Web: www.huber-technology.com

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HUBER Technology is [C-TPAT Certified](#)

WE MOVED!

*Forward all correspondence to our new address:
1009 Airlie Parkway, Denver, NC 28037*



**Attachment A
Scope of Work**

Schedule of Values

Item	Description	Quantity	Unit of Measure	Unit Price	Total
1	E2 - 4,500 psi (after March 1st, 2020) subject to 3% discount as stated in Item 2.8 below	3,250	CY	\$ 127.50	\$ 414,375.00
	Total Contract Price (without tax)				\$ 414,375.00

1.0 General Description of the "Work": Seller shall provide all supervision, labor, material, tools and equipment to furnish and deliver all cast-in-place concrete material in accordance with the Contract Documents, and the following,

- .1 FURNISH SECTIONS: Specification Section 03300 – Cast-In-Place Concrete and Section 03600 – Grout.

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00, Division 1 General Requirements and other any applicable sections.
- .2 Quantities are approximate and may increase or decrease at Contractor's option. Seller shall be paid for actual quantities received and installed. Seller shall furnish all required certifications and submittals as defined in the specifications at no additional cost to Contractor.
- .3 Contractor shall not pay for material delivered on site that does not meet requirements stated in Specification Section 03300 – Cast-In-Place Concrete and Section 03600 – Grout.

2.0 Including But Not Limited to:

- .1 The unit prices in the Schedule of Values are firm through February 28, 2021, and shall increase \$9.00 per cubic yard annually thereafter. Quantities may increase or decrease at Contractor's option. Seller shall be paid only for actual quantities received and verified by Contractor.
- .2 BOND(s): Not Required
- .3 Seller will provide 0% of the Seller's total contract dollar value in DBE participation.
- .4 Material is not exempt from sales or use taxes.
- .5 Seller shall attend and participate in Contractor's daily and/or weekly scheduling and coordination meetings as determined by the Contractor.
- .6 Seller shall submit a quality plan to Contractor prior to start of Work.
- .7 Seller shall provide all required material certifications or tests prior to or upon delivery of materials to site.
- .8 Contractor shall receive a 3% discount on all proper invoices paid within 10 days after Contractor's receipt.

3.0 Exclusions:

- .1 None.

4.0 Schedule of Work:

- .1 Seller shall attend schedule meetings prior to major pours.
- .2 Seller shall provide material to meet the project schedule and production demands. Seller shall provide multiple crews for material to be delivered timely to different areas of the Project, at no additional cost to Contractor.

- .3 Seller shall arrive onsite at the time scheduled and agreed upon by Contractor and Seller. If Seller arrives more than 60 minutes after its scheduled arrival time, Contractor may charge Seller its actual documented cost per hour for downtime of its crews until Seller arrives.

5.0 Unit Prices, Options and Allowances: The following items shall be provided by Seller as necessary, and will require a written fully executed change order.

Chilled Water per yard	\$3.00
E2 - With 1.5 LB Fibers - 4,500 psi, per cy (before March 1, 2021)	\$133.50
E3 - 4,500 psi, per cy (before March 1, 2021)	\$131.50
E3 - With 1.5 LB Fibers - 4,500 psi, per cy (before March 1, 2021)	\$137.50
Holidays and Sundays	TBD
Environmental Fee, per load	\$12.00
Excess unloading over 60 minutes charged per hour	\$90.00
High Range Water Reducer, add/cy	\$7.50
Ice, per lb	\$0.40
Late Delivery, After 5:00 PM, per load	\$75.00
Mid-Range Water Reducer, add/cy	\$5.00
Non-Chloride Accelerator, per dose	\$5.50
Reinforcing Fiber, add/cy	\$7.00
Retarding Admixture, per dose	\$3.50
Saturday Delivery, per load	\$50.00
Small Load Charge 2 yards or less	\$200.00
Small Load Charge 2.25 - 3.75 yards	\$100.00
Winter Service (Dec 1 - Feb 28), add /CY (includes hot water)	\$4.00

6.0 Deliverables: In addition to any other provisions of this Contract, it is required that Seller make timely submission of the following to Contractor:

- .1 Furnish shop drawings and submittals for approval within 28 days of the Effective Date of Contract in strict accordance with specification section 01300. Submittals shall be submitted timely to allow thirty (30) calendar days for Contractor and Owner review and not delay prosecution of the Work. Material shall not be ordered or shipped until the shop drawings have been approved. No material shall be ordered or shop work started if shop drawings are marked "APPROVED AS NOTED - CONFIRM", "APPROVED AS NOTED - RESUBMIT" or "NOT APPROVED".

Rental Rate Blue Book®
Ford F-250

On-Highway Light Duty Trucks

Size Class:

300 HP & Over

Weight:

N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

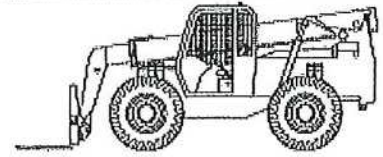
These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON (Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)
Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs

Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/HR

*Do not have XTREME-- Hourly
1055 on Equipment-Watch USD \$16.88
USD \$50.69*

Non-Active Use Rates

Standby Rate
Idling Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
GFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Kiewit

CP 58

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 28, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00097.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 371 – 30" Pipe Extension to Reduction Point

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **CP 097 – 30" pipe extension to reduction point** in the amount of **Thirty Eight Thousand and Forty Three Dollars (\$38,043.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: CP-00097 - RFI 371

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Excavate/Lay/Backfill 30" DIP																	
Foreman	1.00	EA	15.00	15	\$ 62.31	\$ 934.65											\$ -
Operator	1.00	EA	15.00	15	\$ 40.92	\$ 613.80											\$ 934.65
Pipelayer	2.00	EA	15.00	30	\$ 40.92	\$ 1,227.60											\$ 613.80
Material																	\$ 1,227.60
# 57 Stone	20.00	Ton															\$ -
30" DIP & Fittings (Core & Main)	1.00	LS							\$ 18.00	\$ 360.00							\$ 360.00
Delivery	1.00	LS							\$ 20,918.33	\$ 20,918.33							\$ 20,918.33
Tennessee Hydro Vac	8	HR	1.00	8	\$ 36.42	\$ 291.36											\$ 500.00
Over Time	1	HR									\$ 230.00	\$ 1,840.00					\$ 2,131.36
Additional Labor	5	HR	1.00	5	\$ 24.00	\$ 108.00					\$ 265.00	\$ 265.00					\$ 265.00
Remote Hose	100	LF									\$ 1.60	\$ 160.00					\$ 108.00
Dump Fee	8	EA									\$ 100.00	\$ 800.00					\$ 160.00
Equipment																	\$ 800.00
Excavator Cat 335	7.50	HR									\$ 174.74	\$ 1,310.55					\$ -
Trench Compactor	8	HR									\$ 37.93	\$ 284.48					\$ 1,310.55
Ford F-250	11	HR									\$ 30.28	\$ 340.65					\$ 284.48
Forklift - Extream 1055	1		1.00	1	\$ 46.34	\$ 46.34					\$ 60.00	\$ 60.00					\$ 340.65
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWV Rates.																	\$ 106.34
OTHER																	\$ -
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	74	MHR				\$ -											\$ -
TAX: (9.75% of Material, Equipment, Other)																	\$ -
BOND (2% of total)																	\$ -
SUBTOTALS				74		\$ 3,221.75		\$ -		\$ 23,901.72		\$ 5,554.09		\$ -		\$ 403.33	\$ 33,080.89
MARKUP %						\$ 75.00%		\$ 75.00%		\$ 27,486.97		\$ 6,387.20		\$ 5.00%		\$ 15.00%	\$ 4,962.13
SUBTOTALS WITH MARKUPS APPLIED						\$ 3,705.01				\$ 27,486.97		\$ 6,387.20				\$ 463.83	\$ 38,043.02
BOND																	\$ -
TOTAL																	\$ 38,043.00



Request For Information

RFI Reference No: KIEWIT-RFI-000371
Status: CLOSED-OUT

For Action: Michael Sheston, Kiewit
Steve Davis, Kiewit
Jon Allen, CDM Smith
Dan Harris, CDM Smith
Tate Atha, CDM Smith
Laura Hernandez, Kiewit
Alex Landry, CDM Smith
Alexandra Romero, Kiewit
Morgan Brewster, Kiewit

For Info: Kyle Krajco, Kiewit
Lauren Micallef, Kiewit
Neena Bilbo, City of Franklin
Brian Goodwin, City of Franklin
Michelle Hatcher, City of Franklin
Tom Lamb, CDM Smith
Jim Townsend, CDM Smith
Stephen Reid, Kiewit
Jared Carr, Kiewit
Corbin Coker, Kiewit
Tim Roberson, Wayne J. Griffin
Nick Young, Wayne J. Griffin
Andy McMillen, Kiewit
Michael Pachulko, Kiewit
Andrew McLain, Kiewit
Arturo Cruz, Kiewit
Mitch Hickey, Kiewit
Ewa Poplawska-Pagan, Kiewit
Jonathan Johnson, Control Instruments, Inc.
Mason Millet, CDM Smith
Stephen Eubanks, Kiewit
Peter Sestak, Kiewit
Mark Renwick, Kiewit
Kian Lawlor, Kiewit
Michael Halliworth, Kiewit
Abdul Albashit, Kiewit
William Ball, Kiewit
Michael Stiltner, Kiewit
Brad Coutu, Kiewit
Drew Selsor, Kiewit
Austin Tamson, Kiewit
Bryant Tipton, Kiewit
Margaret Anderson, Kiewit
Kaitlyn Speck, CDM Smith
Bristyl Baker, Kiewit
Luke Paulson, Kiewit
Sarah Amini, Kiewit
Thomas Mauro, Kiewit
Zach West, Kiewit
Silvio Detore, Kiewit
Alexander Story, Kiewit

Project: Franklin WRF Modification and Expansion Project

Subject: 30" CI-DI Lines between Clarifier 6 & 8

While performing exploratory excavation to locate the two 24" CI lines that are to be removed and replaced with 30" CI lines between Clarifiers 6 & 8 on Drawing C-24, it was found that these lines are not in the locations indicated in the contract drawings: These four existing lines (1-1/2" PLW, Two 12" RAS lines, and a 16" RAS Line) are currently located directly over the 24" CI lines that are to be removed and replaced. The existing utilities are live and are susceptible to damage being so close to the 24" lines. If these existing lines are to remain in service while replacing the 24" line then this operation will require a considerable amount of temporary utility support and temporary support of excavation that was not accounted for at time of bid.

Attachments: 30CI-DI Lines Between Clarifier 6 & 8.htm
RFI371.pdf

Discipline: PIPE **Area:** YARD PIPE **Location:** NEW

Proposed Solution:
Please provide direction on how Kiewit should proceed in this area. Please note that this work has been halted at this time and is causing impact to schedule and any additional work could cause increase in cost. Please see three attachments to this cover.

Specification Reference: 02311 - Excavation Support and Protection

Drawing Reference: C-24
C-09

Related RFI No(s): RFI 358

Schedule Impact:

Cost Impact:

Priority: M - Medium

Originator's Reference No :

Alt. Reference Number:

Response Required By: 30 September 2020

RFI by:	Michael Stiltner, Kiewit	On: 23 September 2020
Created By:	Michael Sheston, Kiewit	On: 23 September 2020, 04:09:58 PM -05:00
Last Edited By:	Michael Sheston, Kiewit	On: 23 September 2020, 04:11:52 PM -05:00

01 - Engineer / Owner Comments

While the existing piping isn't in the location shown on the existing piping drawing it is the same piping shown on the existing piping drawings and the piping seems to be in the same relative positions to each other. If the piping was located as depicted in the existing piping drawings, Kiewit would have had to support the piping during the removal and replacement of the deeper 24 inch pipe with 30 inch pipe. The situation has not changed. Kiewit will have to support the shallower smaller piping just as they would have.

However, there is one change that was brought up during our conference call on this subject that we believe is a changed condition. The location of the existing reduction from 30 inch to 24 inch for the middle of the three clarifier influent pipes actually occurs prior to the pipe turning west toward the clarifiers as opposed to after this turn as shown on the existing drawings (see sketch below). As such, the proposed 30 inch piping must extend to the actual reduction point such that the final piping is 30 inch the entire way. Please provide a proposal for extension of the piping to the actual reducer location. (See attached markup)

Attachments: RFI 371 Response.pdf

Engineer / Owner Comments by:	Bob Huguenard, CDM Smith	On: 25 September 2020
Created By:	Tate Atha, CDM Smith	On: 25 September 2020, 10:35:08 AM -05:00
Last Edited By:	Tate Atha, CDM Smith	On: 25 September 2020, 10:35:08 AM -05:00

02 - Response Received / Closeout

09/25/2020 MAB - Stamped Sheets C-09 & C-24 with one stamp listing RFI-0358/0371 Information.

Response Received / Closeout by: Morgan Brewster, Kiewit
Created By: Morgan Brewster, Kiewit
Last Edited By: Morgan Brewster, Kiewit

On: 25 September 2020
On: 25 September 2020, 12:30:22 PM -05:00
On: 25 September 2020, 12:30:22 PM -05:00

Links**Document Links:**

Document No.	Title	Rev.	Sts	Disc.	From	From Company
C-09_103925	EXISTING SITE SURVEY PANEL 7	00	JFC	GRADING	Michael Sheston	Kiewit
C-24_103925	SITE LAYOUT AND YARD PIPING PLAN PANEL 7	00	IFC	PIPE	Morgan Brewster	Kiewit
RFI371	30" CI-DI Lines Between Clarifier 6 & 8	A	JFR	PIPE	Michael Sheston	Kiewit

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

From: Corbin.Coker
Sent: Wednesday, October 21, 2020 7:38 AM
To: Corbin.Coker
Subject: FW: [EXTERNAL] RE: Material quote

From: "Jones, Jared" <Jared.Jones@coreandmain.com>
Date: October 20, 2020 at 12:56:24 PM CDT
To: "Michael.Stiltner" <Michael.Stiltner@kiewit.com>
Cc: "May, Linda" <Linda.May@coreandmain.com>
Subject: [EXTERNAL] RE: Material quote

See below price and lead time. Let me know if you want to proceed.

1 - 30" DI CL53 PETR X PETR 12' long 401/AC – \$4,479.33/ea 4 weeks

2-30" TR Flex 45 degree bend 401/AC – \$8,219.50/ea 6-8 weeks

1 - 30" DI C153 MJ Sleeve LP 401/AC - \$4,907.00/ea Stock

2 - 30" Megalugs - \$932.40/ea Stock

Thanks,
Jared Jones, Assoc. DBIA
SE Region Treatment Plant Group
Sales Representative
Mobile 205-572-8976
jared.jones@coreandmain.com

Schedule of Values (SOV)

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	Hydrovac Unit and Operator ST	57	HR	\$ 230.00	\$ 13,110.00
2	Hydrovac Unit and Operator OT	10	HR	\$ 265.00	\$ 2,650.00
3	Additional Labor if needed	0	HR	\$ 80.00	\$ -
4	Mobilization/Demobilization	0	HR	\$ -	\$ -
5	Disposal	0	Per Load	\$ 100.00	\$ -
6	Remote Pipe, if applicable	0	Per Foot	\$ 1.60	\$ -
7	Support Truck, if applicable	0	Per Day	\$ 95.00	\$ -
8	Overnight Stay, if needed	0	Per Day	\$ 120.00	\$ -
	Estimated Total				\$ 15,760.00

Tennessee Hydrovac Inc.

441 Park Ave
Suite A
Lebanon, TN 37087

Invoice

Date	Invoice #
9/25/2020	1646

Bill To
Kiewit 4405 International BLVD NW Suite C-101 Norcross, GA 30093

P.O. No.	Terms	Location
103295	Net 30	Franklin

Description	Quantity	Rate	Amount
9/16/2020 Hydro Excavation line locate Unit# 585 Operator: Justin Jones	8	230.00	1,840.00
9/17/20 Hydro Excavation trenches	8	230.00	1,840.00
9/17/20 Hydro Excavation Overtime	1	265.00	265.00
9/17/2020 Additional Laborer	8	24.00	192.00
9/17/20 Additional Laborer Overtime	1	36.00	36.00
9/17/20 Remote Hose Unit# 232 Operator: John Kaufman Laborer: Isaac Thomason	100	1.60	160.00

Thank you for your business.

Total

\$4,333.00

Rental Rate Blue Book®

June 1, 2020

Caterpillar 335F L CR

Crawler Mounted Hydraulic Excavators



Size Class:

40.1 - 50.0 MTons

Weight:

N/A

Configuration for 335F L CR

Bucket Capacity - Heaped	2.2 cu yd	Net Horsepower	199.8 hp
Operating Weight	84604.6 lbs	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

Hourly

Standby Rate	USD \$53.35
Idling Rate	USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

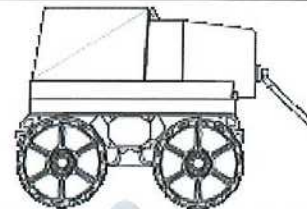
Rental Rate Blue Book®

June 1, 2020

Wacker RT820 (disc. 2011)

Trench Compactors

Size Class:
26 - 34 Inches
Weight:
3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

Hourly

Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A

Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)

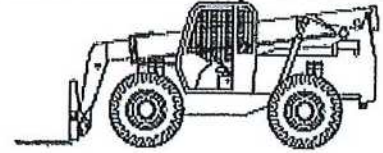
Telescoping Boom Rough Terrain Lift Trucks

Size Class:

5.0 MTons & Over

Weight:

32930 lbs



Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/Hr

Do not have XTREME-- Hourly

1055 on Equipment Watch USD \$16.88
USD \$50.69

Non-Active Use Rates

Standby Rate

Idling Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
CFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Kiewit

CP 49

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 6, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-0076.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

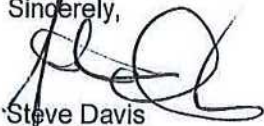
Subject: RFI 366 Deletion of 2" Stainless Steel Gate Valves

Dear Mr. Harris,

Attached you will find Kiewit's credit proposal for **RFI 366 – Deletion of 4 – 2" Stainless Steel Gate Valves**. Kiewit offers a credit of **One Thousand Three Hundred Twenty-Three Dollars (\$1,323.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,



Steve Davis
Project Manager

cc: File
Michelle Hatcher



Page 546 of 702

PREPARED BY: Corbin Coker

[illegible]

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Loader		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages	3.73%	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden		\$ 1.00	\$ 1.50
Additional Wages	3.73%	\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



INDUSTRIAL AND MUNICIPAL SUPPLY

P.O. BOX 573
WEST POINT, GA 31833
Phone: (706) 643-4214 ***** Fax (706) 643-5515

Quote Summary

Quote #: Deductive
Quote Name: Franklin Water Reclamation Facility-33 RFP NO. 8
Location: FRANKLIN, TN

Mark #	Seq #	Quantity	Unit	Size	Material	Length	Joint	Fitting	Description	Unit Sell	Total Sell
					HEADING: 120						
					(THP) THERMAL HYDROLYSIS PRETREATMENT						
					PLW PLANT WATER HEADER TO HOSE STATIONS, PULPER CONNECTION, PROCESS GAS UNIT SKID						
					SHEET M-68, M-69, L-40, L-36						
1-1	1	4 EA	2"		STNL STEEL	PLW		THREAD	GATE VALVE POWELL 249GTNOTXXX WITH HANDWHEEL SPECIFICATION 15120-2.04-W	235.77	943.08
					End of Quote Summary					Total	\$943.08



Kiewit

CP 59

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 21, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00098.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 379 30" RM-RWW-DI x Existing 36" FM Tie-In (P10)

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **RFI 379 – 30" RM-RWW-DI x Existing 36" FM Tie-In (P10)** in the amount of **Ten Thousand Eight Hundred Eighty Dollars (\$10,880.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher

PREPARED BY: Corbin Coker

[illegible]

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No.: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

From: Corbin.Coker
Sent: Wednesday, October 21, 2020 7:38 AM
To: Corbin.Coker
Subject: FW: [EXTERNAL] RE: Material quote

From: "Jones, Jared" <Jared.Jones@coreandmain.com>
Date: October 20, 2020 at 12:56:24 PM CDT
To: "Michael.Stiltner" <Michael.Stiltner@kiewit.com>
Cc: "May, Linda" <Linda.May@coreandmain.com>
Subject: [EXTERNAL] RE: Material quote

See below price and lead time. Let me know if you want to proceed.

1 - 30" DI CL53 PETR X PETR 12' long 401/AC – \$4,479.33/ea 4 weeks
2-30" TR Flex 45 degree bend 401/AC – \$8,219.50/ea 6-8 weeks
1 - 30" DI C153 MJ Sleeve LP 401/AC - \$4,907.00/ea Stock
2 - 30" Megalugs - \$932.40/ea Stock

Thanks,
Jared Jones, Assoc. DBIA
SE Region Treatment Plant Group
Sales Representative
Mobile 205-572-8976
jared.jones@coreandmain.com

Rental Rate Blue Book®

June 1, 2020

Caterpillar 335F L CR

Crawler Mounted Hydraulic Excavators



Size Class:

40.1 - 50.0 MTons

Weight:

N/A

Configuration for 335F L CR

Bucket Capacity - Heaped	2.2 cu yd	Net Horsepower	199.8 hp
Operating Weight	84604.6 lbs	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$16,435.00	USD \$4,600.00	USD \$1,150.00	USD \$175.00	USD \$74.08	USD \$167.46
Adjustments						
Region (Franklin, Tennessee: 107.8%)	USD \$1,281.93	USD \$358.80	USD \$89.70	USD \$13.65		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$17,716.93	USD \$4,958.80	USD \$1,239.70	USD \$188.65	USD \$74.08	USD \$174.74

Non-Active Use Rates

Standby Rate	Hourly	USD \$53.35
Idling Rate		USD \$126.34

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	37%	USD \$6,080.95/mo
Overhaul (ownership)	46%	USD \$7,560.10/mo
CFC (ownership)	10%	USD \$1,643.50/mo
Indirect (ownership)	6%	USD \$986.10/mo
Fuel (operating) @ USD 3.07	35%	USD \$25.68/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Wacker RT820 (disc. 2011)

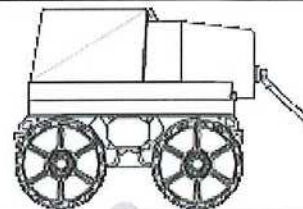
Trench Compactors

Size Class:

26 - 34 Inches

Weight:

3020 lbs


Configuration for RT820 (disc. 2011)

Drum Width	32.0 in	Net Horsepower	18.0 hp
Number Of Drums	4.0	Power Mode	Diesel

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$4,125.00	USD \$1,155.00	USD \$290.00	USD \$44.00	USD \$12.90	USD \$36.34
Adjustments						
Region (Franklin, Tennessee: 106.8%)	USD \$280.50	USD \$78.54	USD \$19.72	USD \$2.99		
Model Year (2011: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$4,405.50	USD \$1,233.54	USD \$309.72	USD \$46.99	USD \$12.90	USD \$37.93

Non-Active Use Rates

	Hourly
Standby Rate	USD \$11.51
Idling Rate	USD \$27.27

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	32%	USD \$1,320.00/mo
Overhaul (ownership)	54%	USD \$2,227.50/mo
CFC (ownership)	7%	USD \$288.75/mo
Indirect (ownership)	7%	USD \$288.75/mo
Fuel (operating) @ USD 3.07	17%	USD \$2.24/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A

Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

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(Michael.Sheston@kiewit.com)

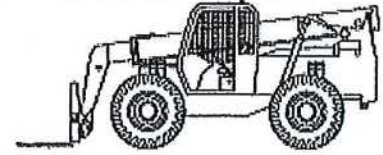
Rental Rate Blue Book®

June 3, 2020

Xtreme XRM1245 (disc. 2008)

Telescoping Boom Rough Terrain Lift Trucks

Size Class:
5.0 MTons & Over
Weight:
32930 lbs


Configuration for XRM1245 (disc. 2008)

Base Capacity	12000.0 lbs	Horsepower	122.0
Maximum Lift Height	536.0 in	Maximum Reach	364.0 in
Power Mode	Diesel		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48
Adjustments						
Region (100%)	-	-	-	-		
Model Year (2008: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)						
Total:	USD \$7,075.00	USD \$1,980.00	USD \$495.00	USD \$74.00	USD \$40.28	USD \$80.48

USE \$60/HR

Do not have XTREME-- Hourly
1055 on Equipment Watch USD \$16.88
USD \$50.69

Non-Active Use Rates

Standby Rate
Idling Rate

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	29%	USD \$2,051.75/mo
Overhaul (ownership)	57%	USD \$4,032.75/mo
GFC (ownership)	6%	USD \$424.50/mo
Indirect (ownership)	7%	USD \$495.25/mo
Fuel (operating) @ USD 3.07	26%	USD \$10.49/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



Kiewit

CP 52

Kiewit Infrastructure South Co.
4800 North Point Parkway, Suite 100
Alpharetta, GA 30022

October 12, 2020

To: Attn: Mr. Dan Harris

CP-KIEWIT-00080.00

CDM Smith, Inc.
210 25th Avenue North
Suite 1102
Nashville, TN 37203

Reference: Franklin WRF Modifications & Expansion Project
COF Contract No. 2017-0264

Subject: RFI 370 – 4" PLW Tie-in Exploratory Potholing and Tie in Material

Dear Mr. Harris,

Attached you will find Kiewit's cost proposal for **RFI 370 – Exploratory potholing to locate the 4" Plant water discussed in RFI 370 and Tie-in Material** in the amount of **Three Thousand Four Hundred Sixty-Two Dollars (\$3,462.00)**.

If you have any questions, please do not hesitate to contact me at (678) 794-2121.

Sincerely,

Steve Davis
Project Manager

cc: File
Michelle Hatcher



PCO NO.: 80 - RFI 370 4" PLW Tie-In Exploratory

Potholing and Tie-in

PREPARED BY: Corbin Coker

DESCRIPTION	QTY	UNIT	MH Per Unit	Total MH	DIRECT LABOR		INDIRECT LABOR		MATERIAL		CONST. EQUIPMENT		SUBCONTRACT		OTHER		TOTAL AMOUNT
					Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	
Labor					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Foreman	1.00	EA	8.00	8	\$ 62.31	\$ 498.48	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 498.48
Subcontractor					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Tennessee Hydro Vac - Potholing	8.00	Hr			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 230.00	\$ 1,840.00	\$ -	\$ -	\$ 1,840.00
Equipment					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Ford F-250	1.00	Day			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 78.84	\$ 78.84	\$ -	\$ -	\$ -	\$ -	\$ 78.84
Material					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
IMS - Tie in from 4" DIP to 1-1/2" Copper	1.00	LS			\$ -	\$ -	\$ -	\$ -	\$ 472.96	\$ 472.96	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 472.96
57 Stone	3.00	Ton			\$ -	\$ -	\$ -	\$ -	\$ 18.00	\$ 54.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54.00
Core and Main	1.00	LS			\$ -	\$ -	\$ -	\$ -	\$ 112.20	\$ 112.20	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 112.20
**Construction Equipment Ownership & Operating Costs are based on Blue Book FHWA Rates.																	
OTHER					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
STS - small tools, consumables, safety equip, (\$5 per Direct Manhour, plus 9.75% sales tax: Formula = Total Direct Labor Manhour Subtotal * \$5.00 * 1.0975)	8	MHR			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TAX: (9.75% of Material, Equipment, Other)																	
BOND (2% of total)																	
SUBTOTALS				8	\$ 498.48	\$ 498.48	\$ -	\$ -	\$ 701.48	\$ 701.48	\$ 86.53	\$ 86.53	\$ 1,840.00	\$ 1,840.00	\$ 43.90	\$ 43.90	\$ 3,170.39
MARKUP %					15.00%	\$ 74.77	15.00%	\$ 105.22	15.00%	\$ 155.22	15.00%	\$ 218.80	15.00%	\$ 306.00	15.00%	\$ 418.35	\$ 3,914.94
SUBTOTALS WITH MARKUPS APPLIED						\$ 573.25			\$ 806.70		\$ 99.51		\$ 1,992.00		\$ 50.49		\$ 3,461.94
BOND																	
TOTAL																	\$ 3,462.00

Franklin WRF Modifications & Expansion Project
City of Franklin, TN
Project No: 103925

Kiewit Infrastructure South Co
Hourly Rates (Confidential)
2020 Breakdown of Craft Wage Burden Rates

Wage Type	Burden %	Foreman		Dozer		Loader/Roller		Forklift/Crane		Excavator		Pipelayer		Laborer	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 40.00	\$ 60.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 30.00	\$ 45.00	\$ 28.00	\$ 42.00	\$ 28.00	\$ 42.00	\$ 24.00	\$ 36.00
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 3.50	\$ 5.26	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.63	\$ 3.94	\$ 2.45	\$ 3.68	\$ 2.45	\$ 3.68	\$ 2.10	\$ 3.15
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.49	\$ 2.24	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.12	\$ 1.68	\$ 1.04	\$ 1.57	\$ 1.04	\$ 1.57	\$ 0.90	\$ 1.34
Additional Wages		\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ 2.85	\$ 2.85	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subsistence		\$ 15.07	\$ 15.07	\$ 7.18	\$ 7.18	\$ 7.19	\$ 7.19	\$ 7.50	\$ 7.50	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18
Total		\$ 62.31	\$ 84.80	\$ 46.02	\$ 62.89	\$ 40.93	\$ 56.68	\$ 46.34	\$ 63.21	\$ 40.92	\$ 56.67	\$ 40.92	\$ 56.67	\$ 36.42	\$ 49.92

Wage Type	Burden %	Survey		Pipefitter (Building)		Pipefitter (Heavy)		Carpenter (Building)		Carpenter (Heavy)		Iron Worker (Building)		Iron Worker (Heavy)	
		Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT	Straight	OT
Labor - Base Wages		\$ 33.00	\$ 49.50	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16	\$ 28.00	\$ 42.00	\$ 26.77	\$ 40.16	\$ 36.55	\$ 54.83	\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.89	\$ 4.34	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52	\$ 2.45	\$ 3.68	\$ 2.35	\$ 3.52	\$ 3.20	\$ 4.80	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.23	\$ 1.85	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50	\$ 1.04	\$ 1.57	\$ 1.00	\$ 1.50	\$ 1.36	\$ 2.04	\$ 1.00	\$ 1.50
Additional Wages		\$ -	\$ -	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94	\$ -	\$ -	\$ 12.94	\$ 12.94	\$ 16.42	\$ 16.42	\$ 12.94	\$ 12.94
Subsistence		\$ 13.92	\$ 13.92	\$ 7.18	\$ 7.18	\$ 7.18	\$ 7.18	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25	\$ 9.25
Total		\$ 53.28	\$ 71.84	\$ 66.96	\$ 87.51	\$ 52.47	\$ 67.53	\$ 42.99	\$ 58.74	\$ 54.54	\$ 69.60	\$ 69.03	\$ 89.58	\$ 54.54	\$ 69.60

Wage Type	Burden %	Millwright	
		Straight	OT
Labor - Base Wages		\$ 26.77	\$ 40.16
PTO Burden		\$ 0.19	\$ 0.19
Tax Burden	8.76%	\$ 2.35	\$ 3.52
Retirement Burden		\$ 0.39	\$ 0.39
Health Burden		\$ 1.66	\$ 1.66
Insurance Burden	3.73%	\$ 1.00	\$ 1.50
Additional Wages		\$ 12.94	\$ 12.94
Subsistence		\$ 7.18	\$ 7.18
Total		\$ 52.47	\$ 67.53



Request For Information

RFI Reference No: KIEWIT-RFI-000370
Status: CLOSED-OUT

For Action:

Michael Sheston, Kiewit
Steve Davis, Kiewit
Jon Allen, CDM Smith
Dan Harris, CDM Smith
Tate Atha, CDM Smith
Laura Hernandez, Kiewit
Alex Landry, CDM Smith
Alexandra Romero, Kiewit
Morgan Brewster, Kiewit

For Info:

Kyle Krajco, Kiewit
Lauren Micallef, Kiewit
Neena Bilbo, City of Franklin
Brian Goodwin, City of Franklin
Michelle Hatcher, City of Franklin
Tom Lamb, CDM Smith
Jim Townsend, CDM Smith
Stephen Reid, Kiewit
Taylor Flippen, Kiewit
Jared Carr, Kiewit
Corbin Coker, Kiewit
Tim Roberson, Wayne J. Griffin
Nick Young, Wayne J. Griffin
Andy McMillen, Kiewit
Michael Pachulo, Kiewit
Andrew McLain, Kiewit
Arturo Cruz, Kiewit
Mitch Hickey, Kiewit
Ewa PoplawskaPagan, Kiewit
Jonathan Johnson, Control Instruments, Inc.
Mason Millet, CDM Smith
Stephen Eubanks, Kiewit
Peter Sestak, Kiewit
Mark Renwick, Kiewit
Klan Lawlor, Kiewit
Michael Hallworth, Kiewit
Abdul Albashit, Kiewit
William Ball, Kiewit
Michael Stiltner, Kiewit
Brad Couto, Kiewit
Drew Selsor, Kiewit
Austin Tamson, Kiewit
Bryant Tipton, Kiewit
Margaret Anderson, Kiewit
Kaitlyn Speck, CDM Smith
Bristyl Baker, Kiewit
Luke Paulson, Kiewit
Sarah Amini, Kiewit
Thomas Mauro, Kiewit
Zach West, Kiewit
Silvio Detore, Kiewit
Alexander Story, Kiewit

Project:

Franklin WRF Modification and Expansion Project

Subject:

4" PLW-DI Tie-In

While locating and attempting to tie in New 4" PLW line to existing 4"PLW line indicated on drawing C-23 (see attached markup) it was found that the existing 4" line is actually an 1-1/2" Copper Line that feeds the two adjacent yard hydrants. Please advise on how and where the new 4" PLW Line should be tied into existing system. This work is currently on hold until direction is received.

Attachments:

4DI-PLW Tie In.hbm
RFI370.pdf

Discipline: PIPE

Area: YARD PIPE

Location: EXIST

Proposed Solution:

Specification Reference:

01046 - Modifications to Existing Structures, Piping and Equipment

Drawing Reference:

C-23

Related RFI No(s):

Schedule Impact:

Cost Impact:

Priority:

M - Medium

Originator's Reference No :

Alt. Reference Number:

Response Required By:

30 September 2020

RFI by:

Michael Stiltner, Kiewit

On: 23 September 2020

Created By:

Michael Sheston, Kiewit

On: 23 September 2020, 04:01:59 PM -05:00

Last Edited By:

On:

01 - Engineer / Owner Comments

Please locate the existing line at the approximate locations shown on the attached markup to Sh. C-5. Engineer will provide direction upon receipt of this information.

Attachments:

RFI 370 Response.pdf

Engineer / Owner Comments by:

Bob Huguenard, CDM Smith

On: 25 September 2020

Created By:

Tate Atha, CDM Smith

On: 25 September 2020, 02:04:26 PM -05:00

Last Edited By:

Tate Atha, CDM Smith

On: 25 September 2020, 02:04:26 PM -05:00

02 - Response Received / Closeout

09/25/2020 MAB - Stamped C23 with RFI Information

Response Received / Closeout by:

Morgan Brewster, Kiewit

On: 25 September 2020

Created By:

Morgan Brewster, Kiewit

On: 25 September 2020, 05:06:21 PM -05:00

Links

Document Links:

Document No.	Title	Rev.	Sts	Disc.	From	From Company
C-23_103925	SITTE LAYOUT AND YARD PIPING PLAN PANEL 6	00	IFC	PIPE	Klan Lawlor	Kiewit
RFI370	4" DI- PLW Tie In	A	IFR	PIPE	Michael Sheston	Kiewit

EXTRA WORK SHEET



Co. No. 1014 Job No. 103925 _____
(Issued By)

Date of Work 10-1-2020

Cont. No. 2017-0264 _____
(Address)

PCO Number _____

To: _____
(Issued to)

(Address)

- ☒ Day Shift
- ☐ Night Shift
- ☐ Material or Subcontractor
- ☐ Force Account Work
- ☐ Outside Work
- ☐ Equipment Lease or
- ☐ Vendor Invoice

General Contractor: Kiewit Infrastructure Subcontractor: _____

Description of Work Done (Location, Issue, working condition) Potholing with backhoe for 4" ductile plant water tie in north of storm tanks
(RFI 370)

Employee No.	Detail of Labor (Including Foreman, Operator, Ironworker, Pipe Layer/Fitter/ Carpenter, Laborer, Millwright, Survey, Forklift)	Hours (Straight Time)	Hours (Overtime)	Hours (Double Time)
	foreman	8		
Labor Totals				

Equipment No.	Detail of Equipment (Excavator & Size, Forman's Pickup, Crane, Forklift, Model Numbers)	Hours
	Tennessee Hydrovac	8
Equipment Totals		

Detail of Materials (Materials and their quantities, PO numbers, invoice attached)	

Written Notice to proceed from, CDM Smith, Dan Harris must be attached prior to beginning work

Approval for Owner
By [Signature]
Signature, Title & Date

Approved for Kiewit
By _____
Signature, Title & Date

Rental Rate Blue Book®

June 1, 2020

Ford F-250

On-Highway Light Duty Trucks

Size Class:
300 HP & Over
Weight:
N/A


Configuration for F-250

Axle Configuration	4.0 X 4.0	Cab Type	Crew
Horsepower	385.0 hp	Power Mode	Gasoline
Ton Rating	3.0 / 4.0		

Blue Book Rates

** FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs	FHWA Rate**
	Monthly	Weekly	Daily	Hourly	Hourly	Hourly
Published Rates	USD \$1,035.00	USD \$290.00	USD \$73.00	USD \$11.00	USD \$23.93	USD \$29.81
Adjustments						
Region (Franklin, Tennessee: 108%)	USD \$82.80	USD \$23.20	USD \$5.84	USD \$0.88		
Model Year (2020: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					-	
Total:	USD \$1,117.80	USD \$313.20	USD \$78.84	USD \$11.88	USD \$23.93	USD \$30.28

Non-Active Use Rates

	Hourly
Standby Rate	USD \$4.64
Idling Rate	USD \$25.66

Rate Element Allocation

Element	Percentage	Value
Depreciation (ownership)	54%	USD \$558.90/mo
Overhaul (ownership)	27%	USD \$279.45/mo
CFC (ownership)	7%	USD \$72.45/mo
Indirect (ownership)	12%	USD \$124.20/mo
Fuel (operating) @ USD 2.51	81%	USD \$19.31/hr

Revised Date: 1st half 2020

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

The equipment represented in this report has been exclusively prepared for MICHAEL SHESTON
(Michael.Sheston@kiewit.com)



INDUSTRIAL AND MUNICIPAL SUPPLY

P.O. BOX 573

WEST POINT, GA 31833

Phone: (706) 643-4214 ***** Fax (706) 643-5515

Quote Summary

Quote #: 2019-5041-35

Quote Name: Franklin WRF Copper Probite Fittings

Location: FRANKLIN, TN

Mark #	Seq #	Quantity	Unit	Size	Material	Length	Joint	Fitting	Description	Unit Sell	Total Sell
HEADING: 01											
DESCRIPTION: PROBITE FITTINGS & MISC.											
01-1	1	1	EA	1 1/2"	BRASS	0'-6"	THREAD	NIPPLE		\$21.86	\$21.86
01-2	2	1	EA	1 1/2"	COPPER		PROBITE	TEE		\$127.87	\$127.87
01-3	3	1	EA	1 1/2"	COPPER		PROBITE	MALE		\$60.99	\$60.99
01-4	4	1	EA	1 1/2"	BRASS	0'-3"	THREAD	NIPPLE	ADAPTER	\$12.82	\$12.82
01-5	5	2	EA	1 1/2"	COPPER		PROBITE	COUPLING		\$67.88	\$135.76
01-6	6	1	EA	2X1 1/2"	BRASS		THREAD	BUSHING		\$24.74	\$24.74
01-7	7	1	EA	1 1/2"	GALVANIZED		THDXTHD	DIELECTRIC UNION		\$43.92	\$43.92
01-8	8	1	EA			ESTIMATED	FREIGHT	COST	UPS OR FEDEX GROUND	\$45.00	\$45.00
End of Quote Summary										Total	\$472.96

Attachment A

Schedule of Values

Item	Description	Approx. Quantity	Unit of Measure	Unit Price	Total
1	TDOT 57 Stone	26,620.00	TN	\$ 18.00	\$ 479,160.00
2	TDOT Grade D	4,980.00	TN	\$ 12.50	\$ 62,250.00
3	Class A3 Rip Rap	1,500.00	TN	\$ 21.00	\$ 31,500.00
4	Surge Stone	850.00	TN	\$ 13.00	\$ 11,050.00
5	Class A1 Rip Rap	200.00	TN	\$ 21.00	\$ 4,200.00
6	2" to 3" Stone	350.00	TN	\$ 17.75	\$ 6,212.50
7	TDOT #4 Stone	200.00	TN	\$ 17.75	\$ 3,550.00
	Approximate Contract Total (without Taxes)				\$ 597,922.50
	Bond (0%)				\$ -

1.0 General Description of the "Work": Provide all supervision, labor, material tools and equipment to furnish and deliver aggregates of the type, at the unit prices, and up to the qty shown on the Schedule of Values.

- .1 FURNISH SECTIONS: 02230 - Granular Materials complete per plans, specifications, and addenda [Addenda 1-6];

Also includes in addition to the above, any other applicable and/or related specification sections, including but not limited to: Division 00 and Division 1 General Requirements

2.0 Including But Not Limited to:

- .1 The Contract price(s) are firm through 12/31/19.
- .2 Seller will provide _0_% of the Seller's total contract dollar value in DBE participation.
- .3 Material is not exempt from sales or use taxes.
- .4 **Industrial Machinery Sales and Use Tax Exemption Certificate – Attachment C-3 (per Specification Section 00800 Supplementary Conditions Article SC-6.10A).** Sales and Use Tax Exemption Certificate will be provided for the Project by the Contractor.
- .5 All Deliveries must include a material ticket recognizing the material and quantity delivered. Delivery Tickets to be signed by Contractor for validation of receipt and acceptance to pay for actual quantities delivered.

3.0 Clarifications:

- .1 Effective 1/1/20 Seller will institute a 3% increase per ton on all remaining aggregate through 12/31/20. An additional 3% increase will be effective per ton starting 1/1/21 through 12/31/21.
- .2 Delivered prices are based on full loads (20 ton or more) a minimum haul may be applied for smaller loads.

un Date: 10/06/20

Preshipment Notification



Sold To:

WESTERN SUMMIT CONSTRUCTORS
4405 C INT BLVD
SUITE C-101
NORCROSS, GA 30093

Ship To:

WESTERN SUMMIT CONSTRUCTORS
FRANKLIN WRF
135 CLAUDE YATES DRIVE
ANDY MCMILLEN (615) 477-2969
FRANKLIN, TN 37064

Customer # 206322
Order # N135103
Date Ordered 10/06/20
Job # FRANKLIN
Job Name FRANKLIN WRF
Purchase Order # FIELD PO
Method of Shipment DIRECT
Contract Order # K380616
Ordered By
Ship Via UPS

Branch:
MURFREESBORO TN
Branch - 248
2353 South Church St
Murfreesboro, TN 37130 0000
Phone: 615-893-0900

Bid Seq#	Product Code	Description	Qty Ordered	Qty Shipped	Qty B/O	Net Price	UOM	Ext Price
	21T04C20T	4X2 MJ TAPT CAP C153 USA	1		1	77.20000	EA	.00

Terms in accordance with shipping manifest.

Special Instructions/Comments:

BID # 4744144 C/O # K380616

Total Shipped: 77.20 .00
Total Ordered: .00 .00
Tax Amount: .00 .00
Other Charges: 77.20 .00
Total: 77.20 .00

Freight: \$35
Total: \$112.2

REQUEST FOR CONSTRUCTION CONTRACT CHANGE CHANGE ORDER NO. 6

City of Franklin
Engineering Office
109 Third Avenue South
Franklin, Tn 37064

Contract Number: 2017-0264
Project Name: Water Reclamation Facility
Modifications & Expansion

Background

The Board of Mayor and Alderman passed a resolution to award a contract on July 10, 2018 for the Franklin Water Reclamation Facility Modifications and Expansion Project to Kiewit Infrastructure South Co., (Kiewit), contingent upon approval by the State Revolving Fund (SRF) Program, which was received on August 23, 2018. The amount of the contract entered into by the City of Franklin and Kiewit was for \$132,890,000.00 (which included an Owner contingency of \$4,000,000). A substantial completion date of February 20, 2022, and a final completion date of May 26, 2022 were requirements in the contract.

The Franklin Water Reclamation Facility Modifications and Expansion Project included, among other scope, construction of a new headworks facility, an equalization basin, odor control systems, two ultraviolet disinfection systems, an alum storage and feed system, an electrical building, modifications to the biological nutrient removal facilities, the reclaimed water pump station, return sludge pump station and RAS/WAS pump station, construction of a new solids treatment system, upgrades to the instrumentation and control system, installation of new yard piping and demolition.

Reason for Change Order:

During the course of the project to date, the need for various changes to Kiewit's scope became apparent to include work not captured in the original contract, changes due to alternate items of equipment proposed by Kiewit, unforeseen conflict with existing features or to realize savings to the City of Franklin. Those changes were memorialized in Construction Change Authorizations (CCAs), Contractor Change Proposals (CPs) or responses to Requests for Proposal (RFPs) as shown on Attachment A. The specific language of the scope changes is detailed in the CCA/CP/RFP documents.

Attachments (List documents supporting change):

Attachment A – CCA/RFP/CP Summary Sheet

CCA 24 with Contractor proposal
CCA 28 with Contractor proposal
CCA 32 with Contractor proposal
CCA 33 with Contractor proposal
CCA 35 with Contractor proposal
CCA 44 with Contractor proposal
CP No. 36
CCA 41 with Contractor proposal
CCA 25.1 with Contractor proposal
CCA 53 with Contractor proposal

CP No. 25
CCA 49 with Contractor proposal
CP No. 18
CP No. 30
CP No. 29
CCA 52 with Contractor proposal
CP No. 41
RFP 7 with Contractor proposal
CP No. 39
CP No. 38
CP No. 46
CP No 48
CP No. 43
RFP 8 with Contractor proposal
RFP 10 with Contractor proposal
CP No. 50
CP No. 51
CCA 11.1 with Contractor proposal
CP No. 35
CP No. 54
CP No. 24
CP No. 34
CP No. 60
CP No. 55
CCA 55 with Contractor proposal
CP No. 57
CP No. 58
CP No. 49
CP No. 59
CP No. 52

THE REMAINDER OF THIS PAGE IS INTENTIONALLY BLANK

CHANGE IN CONTRACT PRICE:	
Original Contract Price:	\$132,890,000.00
Net Increase in Contract Price From Previous Change Orders:	\$87,021.00
Contract Price Prior to This Change Order:	\$132,977,021.00
Net Increase or <Decrease> of This Change Order:	\$00.00
Contract Price with All Approved Change Orders:	\$132,977,021.00

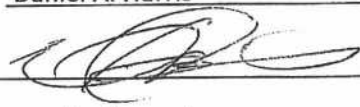
CHANGE IN CONTRACT TIMES	
Original Contract Times	
Substantial Completion Date	2/20/2022
Final Completion Date	5/26/2022
Net Change From Previous Change Orders	
Substantial Completion	0 Days
Final Completion	0 Days
Contract Times Prior to This Change	
Substantial Completion Date	2/20/2022
Final Completion Date	5/26/2022
Increase in Time This Change Order	
Substantial Completion	-0- Days
Final Completion	-0- Days
Contract Times with All Approved Change Orders	
Substantial Completion Date	2/20/2022
Final Completion Date	5/26/2022

Now, Therefore, Kiewit Infrastructure South Co., hereby agrees to this Change Order, consisting of the above mentioned schedule changes, and agrees that this Change Order is hereby made a part of the original contract and will be performed by this Contractor in accordance with specifications thereof, and that the original contract remains in full force and effect, except in so far as specifically modified by this Change Order.

RECOMMENDED FOR APPROVAL BY:

ENGINEER

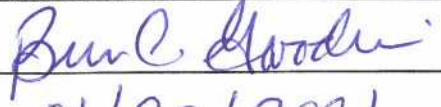
Name: Daniel A. Harris

Signature: 

Date: 11/10/20

CITY PROJECT MANAGER

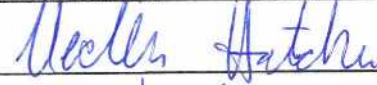
Name: Brian Goodwin

Signature: 

Date: 01/20/2021

CITY WATER MANAGEMENT DIRECTOR

Name: Michelle Hatcher

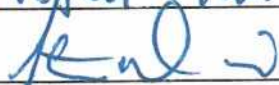
Signature: 

Date: 1/20/21

ACCEPTED BY CONTRACTOR:

Name: Steven Dales

Title: Project Manager

Signature: 

Date: November 10, 2020

APPROVED BY OWNER:

Name: _____

Title: _____

Signature: _____

Date: _____

Attachment A
CCA/RFP/CP Summary

CCA Number	RFP Number	CP Number	Description	Cost	Time Extension	Date Sent to SRF for Review	Date Approved by SRF
24			RAS/WAS PS Control Modifications	\$ 33,327.00	0	7/9/20	7/9/20
28			Alum Loop Descriptions	\$ 3,507.00	0	9/16/20	9/17/20
32			RWPS Effluent Mag Meter	\$ 42,086.00	0	6/15/20	6/15/20
33			Delete paint, PVC pipe	\$ (4,407.00)	0	10/6/20	10/6/20
35			Potable Water & Sanitary Service to Headworks	\$ 86,106.00	0	8/30/20	9/9/20
44			20" FEQ CV & Meter Vaults	\$ 69,199.00	0	10/9/20	10/14/20
		36	RWPS Ex. Pipe & Anchor Bolt Modifications	\$ 19,136.00	0	8/11/20	8/12/20
41			Digester Building Protected Water Modifications	\$ 5,423.00	0	8/11/20	8/12/20
25.1			RWPS Controls	\$ 64,119.00	0	7/7/20	7/10/20
53			Maunal ARVs, EQ Pumps	\$ 5,703.00	0	9/8/20	9/9/20
		25	Headworks & WAS Tank Undercuts	\$ 7,036.00	0	8/30/20	9/4/20
49			Telescoping Valve Supports	\$ 13,938.00	0	10/21/20	10/27/20
		18	42" RWW to BNR2 Reroute	\$ -	0	10/21/20	10/27/20
		30	12" PLW Modification/Conflict	\$ 12,894.00	0	7/30/20	7/30/20
		29	Delete Hatch & Platform @ EQ	\$ (3,623.00)	0	7/28/20	7/30/20
52			Digester Bldg Electrical Room HVAC Modifications	\$ -	0	8/3/20	
		41	Delete EQ Sampling Point	\$ (947.00)	0	8/11/20	8/12/20
	7		Pushbutton Station for PV-170	\$ 3,253.00	0	9/15/20	9/16/20
		39	Heat Exchanger Galvanized Hardware	\$ (630.00)	0	8/21/20	8/26/20
		38	Allowance Item 7C, 7D Overruns	\$ 61,863.00	0	8/26/20	8/28/20
		46	BNR2 Gearbox Rebuild	\$ 79,222.00	0	9/17/20	9/17/20
		48	Headworks PLW Routing Changes	\$ 1,987.00	0	10/1/20	10/5/20
		43	Blower Pad & Canopy Elevation Changes	\$ 3,628.00	0	9/8/20	9/9/20
	8		PLW Chemical Injection Points	\$ 49,966.00	0	10/8/20	10/8/20
	10		IPS Masonry Repairs	\$ 18,852.00	0	9/22/20	9/24/20
		50	RWPS Exploratory Potholing Backfill	\$ 13,704.00	0	10/9/20	10/14/20
		51	Sump Pump Discharge Bollards	\$ 2,125.00	0	10/21/20	10/23/20
11.1			Culvert revisions @ Alum	\$ 5,627.00	0	11/3/20	11/5/20
		35	Submersible sump Pump Model Revision	\$ 9,575.00	0	11/3/20	11/5/20
		54	Delete redundant Washwater Line	\$ (2,805.00)	0	10/30/20	10/30/20
		24	OH Bridge Crane Reach Revisions	\$ 34,087.00	0	11/3/20	11/4/20
		34	Solids Beam Design Revisions	\$ 19,986.00	0	11/3/20	11/4/20
		60	New Storm Drain/Ex. Duct Bank Conflict	\$ 12,064.00	0	11/3/20	11/4/20
		55	Stair C Landing Revision	\$ 7,593.00	0	11/3/20	11/4/20
55			Add'l Demo, Existing Original IPS	\$ 25,217.00	0	11/3/20	11/5/20
		57	Sludge Screen Clearance Conflict	\$ 18,103.00	0	10/26/20	10/27/20
		58	30" CI Unforeseen Condition	\$ 38,043.00	0	10/30/20	10/30/20
		49	2" GV Deletion	\$ (1,323.00)	0	10/21/20	10/27/20
		59	30" RWW Tie-In Revisions	\$ 10,880.00	0	10/29/20	10/29/20
		52	4" PLW Tie-In Revisions	\$ 3,462.00	0	10/21/20	10/23/20
Total This Change				\$ 767,976.00			
Total Previous Changes				\$ 688,948.25			
Owner's Contingency Amount				\$ 4,000,000.00			
Remaining Owner's Contingency				\$ 2,543,075.75			
Total Time Extension (Calendar Days)					0		



File #: 20-01458

DATE: December 17, 2020
TO: Capital Investment Committee
FROM: Michelle Hatcher, Director of Water Management
Patricia McNeese, Utilities Engineer

SUBJECT:

Consideration Of Draft Final Change Order To COF Contract No. 2019-0093 With Civil Constructors For The Henpeck Lane Sanitary Sewer Project At A Cost Decrease Of \$226,161.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the Draft Final Change Order to COF Contract No. 2019-0093 with Civil Constructors for the Henpeck Lane Sanitary Sewer Project.

BACKGROUND/STAFF COMMENTS:

The Henpeck Lane Sanitary Sewer Extension Project was approved by the BOMA on May 14, 2019, and awarded to Civil Constructors in the amount of \$3,203,238.00. During construction several issues occurred that required modifications to the approved plans. Work Change Directive (WCD) No. 5 was to relocate the service lateral for Tract B which decreased the project by \$2,500.50. A large pine tree had to be removed on one of the tracts which resulted in WCD No. 6 and an increase of \$1,380.00. In order to eliminate standing water around one of the manholes WCD No. 7 was approved for the installation of a French drain. This increased the contract by \$6,980.00. WCD No. 8 was approved for damages to the septic field lines at the Varnedoe Property in the amount of \$2,500.00. This change order is to finalize the project and show that overall there was a decrease of \$226,161.59 from the original amount of \$3,203,238.00.

FINANCIAL IMPACT:

The Henpeck Lane Sanitary Sewer Extension Project as funded from the Sewer Operation fund. The approved Resolution 2017-46 between the City and Williamson County schools to share the cost of this project has been calculated to be a total of \$1,302,270.59, with \$269,125.30 already being paid to date. The remainder of the Williamson County School's portion will be billed to them by the end of January 2021.

RECOMMENDATION:

Staff recommends that the Final Change Order to COF Contract No. 2019-0093 with Civil Constructors for the Henpeck Lane Sanitary Sewer Project be recommended for approval by the Board of Mayor and Aldermen.

December 3, 2020

Patricia McNeese, P. E.
City of Franklin
124 Lumber Drive
Franklin, TN 37064

Dear Ms. McNeese:

Subject: Henpeck Lane Interceptor Sewer
Change Order No. 2 – FINAL/Bonus
CEC Project 191-930

The contract Substantial Completion Date for the subject project was June 2, 2020. Sixteen days were added to the contract with the approval of Change Order No. 1. Work Change Directive No. 7 added an additional two days to the contract. The Approval of Change Order No. 2 will set the Substantial Completion Date as June 20, 2020. The contractor reached Substantial Completion on March 12, 2020.

The contract calls for a bonus to the contractor for early completion in the amount of \$1,000 for each day completed prior to the Substantial Completion date, with a maximum bonus value of \$50,000. Because Substantial Completion was achieved more than 50 days prior to the contract date, the contractor is eligible for the maximum \$50,000 early completion bonus.

A Final Completion Inspection was conducted for the subject project on June 3, 2020. Based on the inspection, the project reached Final Completion, as of June 3, 2020.

Included with this letter is Change Order No. 2 – FINAL for your review and recommendation to the Board of Mayor and Aldermen (BOMA). This will adjust the contract amount of \$3,203,238.00 by final balancing construction items and adding the early completion bonus downward to the **\$2,977,076.41 – final contract price**. The amount is based upon quantities verified by the Resident Project Representative (RPR) and the requested/approved changes by the City of Franklin as the project progressed. A contract value under-run of \$226,161.59 is reflected for the final balancing change order.

CEC recommends approval of Change Order No. 2 – FINAL.

Ms. McNeese – City of Franklin
CEC Project 191-930
Page 2
December 3, 2020

Should you have any questions or need additional information, please feel free to call me at 615-333-7797.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

A handwritten signature in blue ink, appearing to read 'S. Casey', is positioned above the printed name.

Steven E. Casey, P.E., CPESC
Vice President

Attachment: Change Order No. 2 - Final

CHANGE ORDER NO.: 2 -Final

Owner: **City of Franklin, TN** Date Issued: **12/3/2020**
 Engineer: **Civil & Environmental Consultants, Inc.**
 Contractor: **Civil Constructors**
 Project Name: **Henpeck Lane Interceptor Project**
 Owners Contract No.: **COF 2019-0093**
 Effective Date of Change Order: **6/29/2020**

The Contract is modified as follows upon execution of this Change Order:

Description:

Final Change Order to reflect the Final Approved Quantities required in completing the work and surplus funds remaining in the Contingency set up for the project.

Attachments:

- **Henpeck Sewer Final Quantities**
- **Work Change Directive #5**
- **Work Change Directive #6**
- **Work Change Directive #7**
- **Work Change Directive #8**

Change in Contract Price		Change in Contract Times [State Contract Times as number of days]	
Original Contract Price:		Original Contract Times:	
\$ 3,203,238.00		Substantial Completion:	June 2, 2020
		Ready for final payment:	July 2, 2020
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. 1		[Increase] [Decrease] from previously approved Change Orders No.1 to No. 1: 16 days	
\$ 0		Substantial Completion:	June 18, 2020
		Ready for final payment:	July 18, 2020
Contract Price prior to this Change Order:		Contract Times prior to this Change Order:	
\$ 3,203,238.00		Substantial Completion:	June 18, 2020
		Ready for final payment:	July 18, 2020
[Increase] [Decrease] this Change Order:		[Increase] [Decrease] this Change Order: 2 days	
\$ 226,161.59		Substantial Completion:	June 20, 2020
		Ready for final payment:	July 20, 2020
Contract Price incorporating this Change Order:		Contract Times with all approved Change Orders:	
\$ 2,977,076.41		Substantial Completion:	June 20, 2020
		Ready for final payment:	July 20, 2020

Recommended by Engineer

By: Steven Casey 
 Title: Vice President
 Date: 12/3/2020

Recommended by Department Director

By: Michelle Hatcher
 Title: Water Management Director
 Date: _____

Recommended by City Project Manager

By: Patricia McNeese 
 Title: Utilities Engineer II

Authorized by Owner

By: _____
 Title: Mayor, City of Franklin, TN

MODIFIED - EJCDC® C-941, Change Order.

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EJCDC - 00941

Page 1 of 2

Date: 12/3/2020

Date:

SCHEDULE A - UNIT PRICE BID TABULATION					Civil Constructors		Final Totals		Difference from Contract	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY		Unit Cost	Total	Quantity	Total	Quantity	Total
1	Construction Stakes, Lines and Grades (TDOT 105-01)	LS	1		\$51,260.00	\$51,260.00	1.00	\$51,260.00	0.00	\$0.00
2	Temporary Facilities and Controls (01-5000)	LS	1		\$21,360.00	\$21,360.00	1.00	\$21,360.00	0.00	\$0.00
3	Clearing and Grubbing (31 0000)	LS	1		\$78,770.00	\$78,770.00	1.00	\$78,770.00	0.00	\$0.00
4	Tract 1 and 2 - New 6 Bar Corral Panel / Fence (See TCP-4)	LF	568		\$21.50	\$12,212.00	0.00	\$0.00	-568.00	-\$12,212.00
5	Tract 1 and 2 - New 6 Bar Corral Panel / Fence Gate (See TCP-4)	LF	20		\$43.00	\$860.00	0.00	\$0.00	-20.00	-\$860.00
6	Tract 1 and 2 - Fence Removal and Replacement (See TCP-4)	LF	190		\$32.50	\$6,175.00	190.00	\$6,175.00	0.00	\$0.00
6A	Contingency	LS	1		\$250,000.00	\$250,000.00	0.289728	\$72,432.50	-0.710272	-\$177,567.50
	EPSC									
7	Erosion & Sediment Control	LS	1		\$66,850.00	\$66,850.00	1.00	\$66,850.00	0.00	\$0.00
8	Seeding (32-9219)	LF	7500		\$1.50	\$11,250.00	5,773.00	\$8,659.50	-1,727.00	-\$2,590.50
9	Temporary Silt Fence (With Backing) (TDOT 209-08.02)	LF	8200		\$5.50	\$45,100.00	10,746.00	\$59,103.00	2,546.00	\$14,003.00
10	Rock Check Dam (TDOT 209-08.07 per EC-STR-6)	EA	9		\$485.00	\$4,365.00	6.00	\$2,910.00	-3.00	-\$1,455.00
11	Catch Basin Protection (Type D) (TDOT 209-40.33 per EC-STR-19)	EACH	1		\$323.00	\$323.00	1.00	\$323.00	0.00	\$0.00
12	Construction Entrance #1 (Tract #1) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$8,540.00	\$8,540.00	1.00	\$8,540.00	0.00	\$0.00
13	Construction Entrance #2 (Tract #3) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$4,330.00	\$4,330.00	1.00	\$4,330.00	0.00	\$0.00
14	Construction Entrance #3 (Tract #4) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$4,330.00	\$4,330.00	1.00	\$4,330.00	0.00	\$0.00
15	Construction Entrance #4 (Tract #9) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$9,410.00	\$9,410.00	1.00	\$9,410.00	0.00	\$0.00
16	Construction Entrance #5 (Tract #13) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$23,420.00	\$23,420.00	1.00	\$23,420.00	0.00	\$0.00
17	Construction Entrance #6 (Tract #14) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$5,650.00	\$5,650.00	1.00	\$5,650.00	0.00	\$0.00
18	Construction Entrance #7 (Tract #17) (704-01.01 per MODIFIED EC-STR-25)	LS	1		\$1,180.00	\$1,180.00	1.00	\$1,180.00	0.00	\$0.00
19	Tree Protection Fencing - (See Detail sheet EC-7)	LF	220		\$2.00	\$440.00	220.00	\$440.00	0.00	\$0.00
	SANITARY SEWER									
20	8" PVC SDR 26 Gravity Sewer (33-3113)	LF	1375		\$115.00	\$158,125.00	1,370.50	\$157,607.50	-4.50	-\$517.50
21	12" DIP CL 350 w/Protecto 401 lining Gravity Sewer (33-3113)	LF	780		\$365.00	\$284,700.00	1,063.00	\$387,995.00	283.00	\$103,295.00
22	12" PVC SDR 26 Gravity Sewer (33-3113)	LF	4175		\$276.00	\$1,152,300.00	3,800.00	\$1,048,800.00	-375.00	-\$103,500.00
23	Bore and Jack 24-inch diameter Steel Casing Pipe beneath Lewisburg Pike including 12-inch DIP CL 350 Gravity Sewer (33-0523)	LF	150		\$773.00	\$115,950.00	150.00	\$115,950.00	0.00	\$0.00
24	4" diameter Precast Manhole, 0-6' depth (33-3913)	EA	26		\$4,680.00	\$121,680.00	26.00	\$121,680.00	0.00	\$0.00
25	4" diameter Precast Manhole Sidewall, greater than 6' depth (33-3913)	VF	110		\$276.00	\$30,360.00	118.21	\$32,625.96	8.21	\$2,265.96
26	Doghouse Manhole - Connection to Existing 30" Five Mile Creek Trunk Line (33-3913)	LS	1		\$15,700.00	\$15,700.00	1.00	\$15,700.00	0.00	\$0.00
27	Drop Manhole Assembly (Service Lateral) (33-3913)	EA	1		\$9,980.00	\$9,980.00	1.00	\$9,980.00	0.00	\$0.00
28	4" SCH 40 PVC Gravity Sewer Service Line (Private) (33-3113)	LF	750		\$69.00	\$51,750.00	543.00	\$37,467.00	-207.00	-\$14,283.00
29	6" PVC SDR 26 Gravity Sewer Service Line (Public) (33-3113)	LF	750		\$73.50	\$55,125.00	737.00	\$54,169.50	-13.00	-\$955.50
30	6" DIP CL 350 w/Protecto 401 lining Gravity Sewer Service Line (33-3113)	LF	350		\$113.00	\$39,550.00	363.50	\$41,075.50	13.50	\$1,525.50
31	4" SCH 40 PVC Clean-Out Assembly (Private) (33-3113)	EA	10		\$236.00	\$2,360.00	9.00	\$2,124.00	-1.00	-\$236.00
32	6" SDR 26 PVC Clean-Out Assembly (Public) (33-3113)	EA	21		\$600.00	\$12,600.00	22.00	\$13,200.00	1.00	\$600.00
33	6" DIP Clean-Out Assembly (Public) (33-3113)	EA	9		\$1,670.00	\$15,030.00	10.00	\$16,700.00	1.00	\$1,670.00
34	Lateral Service Connection (PVC) (33-3113)	EA	16		\$1,250.00	\$20,000.00	16.00	\$20,000.00	0.00	\$0.00
35	Lateral Service Connection (DIP) (33-3113)	EA	6		\$2,960.00	\$17,760.00	6.00	\$17,760.00	0.00	\$0.00
36	Manhole Vent Assembly (33-3913)	EA	4		\$2,150.00	\$8,600.00	4.00	\$8,600.00	0.00	\$0.00
37	Watertight Manhole Casting (Additional Payment) (33-3913)	EA	18		\$615.00	\$11,070.00	19.00	\$11,685.00	1.00	\$615.00
38	Main Line Pipe Check Dam (Sheet D-2, Detail 3) (03 3000)	EA	19		\$4,220.00	\$80,180.00	18.00	\$75,960.00	-1.00	-\$4,220.00
39	Main Line Stream Crossing (Sheet D-1, Detail G-13) (33 3113)	EA	3		\$20,080.00	\$60,240.00	3.00	\$60,240.00	0.00	\$0.00
40	Service Lateral Stream Crossing (Sheet D-2, Detail 2) (33 3113)	EA	7		\$10,200.00	\$71,400.00	6.75	\$68,899.50	-0.25	-\$2,500.50
41	Five Mile Creek Crossing (Sheet EC-9, Detail EC-STR-30) (33 3113)	LS	1		\$45,530.00	\$45,530.00	1.00	\$45,530.00	0.00	\$0.00
42	Patton Property Spring Line Crossing (Sheet D-2, Detail 4) (33 3113)	LS	1		\$21,590.00	\$21,590.00	1.00	\$21,590.00	0.00	\$0.00
43	Tract 15 - Wetland Crossing (33 3113)	LS	1		\$38,960.00	\$38,960.00	1.00	\$38,960.00	0.00	\$0.00
44	CCTV Inspection of New Gravity Sewer (33-3130)	LF	6500		\$2.25	\$14,625.00	6,446.00	\$14,503.50	-54.00	-\$121.50
45	Residential Septic Tank Abandonment & House Service Reconnection	EA	6		\$2,300.00	\$13,800.00	4.00	\$9,200.00	-2.00	-\$4,600.00
46	Overdepth Excavation and Backfill W/Crushed Stone (As Directed by the Engineer)	CY	50		\$100.00	\$5,000.00	30.00	\$3,000.00	-20.00	-\$2,000.00
47	Utility Record Drawings	LS	1		\$8,570.00	\$8,570.00	1.00	\$8,570.00	0.00	\$0.00
	ROADWAY									
48	Removal of Rigid Pavement (TDOT 202-03)	SY	350		\$11.00	\$3,850.00	276.90	\$3,045.90	-73.10	-\$804.10
49	Asphalt Pavement Trench Binder Repair (6" Binder TDOT 307 B-Modified) - Ellington Drive & Existing School Drives	SY	200		\$93.50	\$18,700.00	491.90	\$45,992.65	291.90	\$27,292.65
50	Asphalt Pavement Trench Surface Repair (2" Surface TDOT 411E) - Ellington Drive & Existing School Drives	SY	1400		\$18.00	\$25,200.00	862.10	\$15,517.80	-537.90	-\$9,682.20
51	Asphalt Pavement Trench Surface Repair (2" Surface TDOT 411E) - Existing School Trail	SY	537		\$19.00	\$10,203.00	61.00	\$1,159.00	-476.00	-\$9,044.00
52	Cold Planing Bituminous Pavement (TDOT 415-01.02)	SY	1400		\$9.00	\$12,600.00	424.22	\$3,817.98	-975.78	-\$8,782.02
53	6" Concrete Driveway (TDOT 701-02)	SY	350		\$66.50	\$23,275.00	366.33	\$24,360.95	16.33	\$1,085.95
54	6" Extruded Sloping Curb (TDOT 702-01.01)	LF	300		\$8.00	\$2,400.00	272.00	\$2,176.00	-28.00	-\$224.00
55	Traffic Control (TDOT 712-01)	LS	1		\$18,650.00	\$18,650.00	1.00	\$18,650.00	0.00	\$0.00
	WORK CHANGE DIRECTIVES									
56	Deduct to use Surge Stone at Construction Entrances 1, 2, 5, 6, 7 (RFI #1)	LS	1		-\$6,756.00	-\$6,756.00	1.0000	-\$6,756.00	1.00	-\$6,756.00
57	Deduct to use Non Wire Back Silt Fence (RFI #11)	LF	2777		-\$2.04	-\$5,665.08	2,777.00	-\$5,665.08	2,777.00	-\$5,665.08
58	Deduct to use Erosion Eels (RFI #11)	LF	997		-\$1.75		5,679.00	-\$9,938.25	5,679.00	-\$9,938.25
	STORED MATERIALS							\$0.00		\$0.00
	RETAINAGE							\$0.00	0.00	\$0.00
	CHANGE ORDERS									
	Change Order #1					\$0.00				
	Change Order #2 - Liquidated Damages/Bonus				\$1,000.00		50.00	\$50,000.00	50.00	\$50,000.00
	CHANGE ORDER SUBTOTAL					\$0.00				
	TOTAL					\$3,203,238.00		\$2,977,076.41		-\$226,161.59

WORK CHANGE DIRECTIVE NO.: 5

Owner: City of Franklin, TN
Engineer: Civil & Environmental Consultants, Inc.
Contractor: Civil Constructors
Project Name: Henpeck Lane Interceptor Project
Owners Contract No.: COF 2019-0093
Effective Date of Work Change Order: 1/3/2020

Date Issued: 1/3/2020

Contractor is directed to proceed promptly with the following change(s):

Description:

The contractor shall install the service lateral for Tract B approximately at Station 6+50. The service location was previously at Station 5+04.

Attachments:

Henpeck Sewer – Tract B Service Relocation

Purpose for the Work Change Directive:

Relocating the service location lessens the impact to the stream banks as the banks at the proposed location are shorter and has a smaller rock wall that will need to be restored.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☐ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

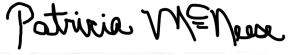
Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$2,500.50 **DECREASE**

Contract Time: 0 Days **DECREASE**

Basis of estimated change in Contract Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer		Authorized by Owner
By:	Eric Gardner 	
Title:	Senior Project Manager	
Date:	1/3/2020	

P.O. Box 685
Franklin, Tennessee 37065



Telephone (615) 236-9000
Fax (615) 236-9001

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Patricia McNeese

Utilities Engineer II

Date: 2/11/2020

2/12/2020

Patricia McNeese

Utilities Engineer II

Date: 2/24/2020

3/5/2020

P.O. Box 685
Franklin, Tennessee 37065



Telephone (615) 236-9000
Fax (615) 236-9001

CHANGE ORDER

PROJECT: Henpeck Sewer Interceptor CHANGE ORDER NUMBER 00004

CONTRACTOR: CIVIL CONSTRUCTORS LLC. DATE February 21, 2020
P. O. BOX 685
FRANKLIN, TN 37065

Addition / Deletion: Manhole #17 French Drain

Item	Amount	Unit	Cost	EXTENDED TOTAL
Foreman	16	HR	\$ 76.00	\$ 1,216.00
Pipe Layers	48	HR	\$ 40.00	\$ 1,920.00
Mini Excavator	16	HR	\$ 96.00	\$ 1,536.00
57 Stone	29	TON	\$ 24.00	\$ 696.00
6" Perforated Pipe w/Filter Sock	80	LF	\$ 3.50	\$ 280.00
Easement Restoration	1	LS	\$ 500.00	\$ 500.00
Dump Truck	8	HR	\$ 104.00	\$ 832.00
Total				\$ 6,980.00

OWNER:

The City of Franklin
109 Third Ave South
Franklin, TN 37064

SUB CONTRACTOR:

Civil Constructors LLC.
P. O. Box 685
Franklin, TN 37065

Signed by:

Date

Adam Charriere

Signed by:

February 21, 2020

Date

WORK CHANGE DIRECTIVE NO.: 8

Owner: City of Franklin, TN Date Issued: 11/2/2020
Engineer: Hethcoat & Davis
Contractor: Civil Constructors
ProjectName: Henpeck Lane Interceptor Project
Owners Contract No.: COF20190093
Effective Date of Work Change Order: 6/16/2020

Contractor is directed to proceed promptly with the following change(s):

Description:

Damages to septic lines at the Varnedoe property that the property owner claims the contractor, Civil Constructors, caused during construction of the Henpeck Lane Sanitary Sewer Project

Attachments:

- x Email dated June 16, 2020 from Vernon Gerth
- x Letter from Anglin Septic Service: timeline of the septic tank and line repair
- x Invoice dated 1/13/2020 from Anglin Septic Service

Purpose for the Work Change Directive:

This directive is to include the septic repair with the contract and have the City of Franklin and Civil Constructors pay \$2,500 each to help cover the cost to the property owner.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

Non-agreement on pricing of proposed change Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Time (indicating, preliminary):

Contract Price: \$2,500.00 [INCREASE] [T ONE]
Contract Time: N/A days [NOT YET DETERMINED]

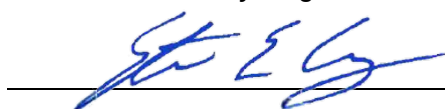
Basis of estimated change in Contract Price:

Lump Sum • Unit Price • Cost of the Work • Other

Recommended by Engineer

Authorized by Owner

By:



Title:

Senior Principal

Utilities Engineer II

MODIFIED EJCDC®-940, Work Change Directive.

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00940—Work Change Directive

Page1 of 2

Date:

November 18, 2020

November 16, 2020

From: [Vernon Gerth](#)
To: [Ben McNeil](#)
Cc: [Brian Goodwin](#); [Patricia McNeese](#); [Jimmy Wiseman](#)
Subject: RE: Henpeck Market sewer service issue
Date: Tuesday, June 16, 2020 2:30:24 PM
Attachments: [image001.png](#)

Thank you Ben for offering this solution. I agree and was able to run it past Eric too. Since Mr. Varnedoe is proceeding with annexation of the market the property and will complete the site improvements that are more costly than what the County had requested, this is an amicable resolution and we get the property on our public sewer system. Please proceed.

Vernon

From: Ben McNeil <ben.mcneil@franklintn.gov>
Sent: Tuesday, June 16, 2020 12:12 PM
To: Vernon Gerth <vernon.gerth@franklintn.gov>
Cc: Brian Goodwin <brian.goodwin@franklintn.gov>; Patricia McNeese <patricia.mcneese@franklintn.gov>; Jimmy Wiseman <jimmy.wiseman@franklintn.gov>
Subject: Henpeck Market sewer service issue

Vernon,

In discussions over the Henpeck market re-development, (Mr. Varnedoe) we had discussed the outstanding claim of 5,000.00 brought forth by the property owner, due to damages to the existing sewer service. In the discussions, we had discussed the situation the property owner is in and how much money he will be spending on ROW improvements and COF requirements needed to improve the Henpeck/ Lewisburg intersection. We had determined that the 5,000.00 claim was acceptable and should be paid to reimburse the owner for his cost.

I have discussed the cost with Civil constructors, the contractor on the contract, and they are in agreement to pay 2500.00 and Franklin Water pay 2500.00. This will settle the claim and establish a clean slate with the owner, allowing us to move forward with ROW negotiations and establish communications for future development of the site.

If you are in agreement to the solution outlined above, please let me know and we will proceed with closing the claim and move forward. Please let me know if you have any questions. Thanks

Ben McNeil [REDACTED]

Sr. Utility Inspector

City Of Franklin, Water Management Department

Contact info:

Office (615)794-4554 [REDACTED]

Fax [REDACTED] (615) 790-1340

124 Lumber Dr.

Franklin, Tennessee 37064



The information included in this email is not to be used for design or engineering purposes. An individual or organization must provide calculations and construction plans to the City and verify all information that is shared in this communication prior to construction. The City is not responsible for any errors or omissions contained herein.

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Anglin Septic Service

2065 Prescott Way Spring Hill, TN 37174

To:

Howard Varnedoe

1268 Lewisburg Pike Franklin, TN

SEPTIC
SERVICE
REPAIR BY
FRANKLIN
SEWER REPAIR

#0001268

Balance Due
\$6,100.00 USD

Date of Issue: 01/13/2020

Due

Date: 01/14/2020

Service or Product	Quantity	Price/Rate	Total
Excavated and repaired 120' of 3" sch 40 manifold broken during install of sewer. Line was broken by city in two places 80' apart but Wil Co made us replace all of their repair through to the other break and removed cleanout that was installed. Pump was needed onsite for 3 weeks to remove groundwater from their sewer manhole that was pushing water into the area needing repair. The repair is complete but the coverage is not smooth due to the heavy water flow. Once stopped we can smooth it out.	1.0	\$6,100.00 USD	\$6,100.00 USD
SUBTOTAL			\$6,100.00 USD
GRAND TOTAL			\$6,100.00 USD

Notes:

Thank you for choosing Anglin Septic Service!

Terms & Conditions:

Payment of invoices due on due date specified, or may be subject to late payment fees or interest charges.

Powered by
Thryv



File #: 20-01487

DATE: December 17, 2020
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management
Patricia McNeese, Utilities Engineer

SUBJECT:

Consideration Of Change Order 1 To COF Contract 2019-0310 With Middle Tennessee Infrastructure For The Holiday Court Pump Station Project At A Cost Increase Of \$13,753 And Time Extension Of 38 Days.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the Change Order No. 1 to COF Contract 2019-0310 with Middle Tennessee Infrastructure for the Holiday Court Pump Station Project at a Cost Increase of \$13,753.00 and Time Extension of 38 Days.

BACKGROUND/STAFF COMMENTS:

The Holiday Court Pump Station Improvements project was approved by the BOMA on March 10, 2020, and awarded to Middle Tennessee Infrastructure, Inc., of Murfreesboro, TN, in the amount of \$554,057.40. This pump station is located behind the office building at 133 Holiday Court. During construction of the improvements issues were encountered that required changes to the original contract. The first construction change authorization (CCA) was in regards to the location of a valve to the pump station wet well. CCA #2 was created but not signed as the issue was addressed. CCA #3 was to address the change from using valve boxes for the plug valves to doghouse manholes. This pump station is above ground and not located within an enclosure so in order to minimize the possibility of damage to the station it was recommended to install bollards between the station and the parking lot. A time extension was approved based on factors outside of the contractor's control in the amount of 38 calendar days.

FINANCIAL IMPACT:

CCA #1 did not change the contract amount or time. The doghouse manholes approved in CCA #3 increased the contract by \$12,053.00 and will come from the Sewer Operating Fund. The addition of bollards in CCA #4 increased the contract by \$1,700.00 and will also be funded from Sewer Operating.

RECOMMENDATION:

Staff recommends that Change Order No. 1 to COF Contract 2019-0310 be recommend favorably to the Board of Mayor and Alderman for approval.

CHANGE ORDER NO.: 1

Owner: **City of Franklin, TN** Date Issued: **1/20/2021**
 Engineer: **Hethcoat & Davis**
 Contractor: **Middle Tennessee Incorporated**
 Project Name: **Holiday Court Pump Station Improvements Project**
 Owners Contract No.: **COF 2019-0310**
 Effective Date of Change Order: **2/9/2021**

The Contract is modified as follows upon execution of this Change Order:

Description:

Change order to reflect the approved Construction Change Authorizations and Time extension request.

Attachments:

1. **CCA #1 (Location of plug valve)**
2. **CCA #3 (Increase of \$12,053.00)**
3. **CCA#4 (Increase of \$1,700.00)**
4. **Time Extension Approval Letter – 38 days**

Change in Contract Price		Change in Contract Times	
Original Contract Price:		Original Contract Times:	
\$ 554,057.40		Substantial Completion:	December 13, 2020
		Ready for final payment:	January 12, 2021
[Increase] [Decrease] from previously approved Change Order		[Increase] [Decrease] from previously approved Change Orders	
\$		Substantial Completion:	December 13, 2020
		Ready for final payment:	January 12, 2021
Contract Price prior to this Change Order:		Contract Times prior to this Change Order:	
\$ 554,057.40		Substantial Completion:	December 13, 2020
		Ready for final payment:	January 12, 2021
[Increase] [Decrease] this Change Order:		[Increase] [Decrease] this Change Order: 38 days	
\$ 13,753.00		Substantial Completion:	January 20, 2021
		Ready for final payment:	February 27, 2021
Contract Price incorporating this Change Order:		Contract Times with all approved Change Orders:	
\$ 567,810.40		Substantial Completion:	January 20, 2021
		Ready for final payment:	February 27, 2021

Recommended by Project Manager

By: Patricia McNee
 Title: Utilities Engineer II
 Date: 1/20/2021

Recommended by Department Director

By: _____
 Title: _____
 Date: _____

Authorized by Owner

By: _____
 Title: _____
 Date: _____

By: _____
 Title: _____
 Date: _____

FIELD ORDER AUTHORIZATION

TO: Tristan Carroll
Estimator/Project Manager
Middle TN Infrastructure, Inc.
105 Homewood Drive
Murfreesboro, TN 37127

FROM: City of Franklin
Water Management Dept.
124 Lumber Drive
Franklin, TN 37064

DATE: August 24, 2020

PROJECT: Holiday Court Pump Station Improvements

COF CONTRACT NO: 2019-0310

AUTHORIZATION NUMBER: 1

RE: Location of Plug Valve between the wet well and MH A-3

DESCRIPTION:

Upon review of the submittals for Holiday Court Pump Station Improvements project, WMD staff noticed that the plug valve in between the wet well and MH A-3 would be difficult to access due to the proximity to the electrical and telemetry panel at the proposed location on the bid plans.

The purpose of this order is to instruct the contractor to move the plug valve to 3' from MHA-3.

There will be no change in cost, time or materials with this authorization.

CITY OF FRANKLIN:

DocuSigned by:

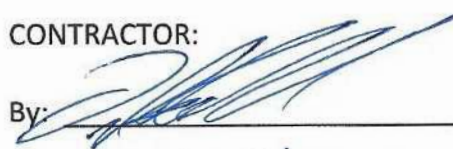
By: Michelle Hatcher

810D44906440401...

9/22/2020

Date: _____

CONTRACTOR:

By: 

Date: 9/23/2020

CONSTRUCTION CHANGE ORDER AUTHORIZATION

TO:

Tristan Carroll
Estimator/Project Manager
Middle TN Infrastructure, Inc.
105 Homewood Drive
Murfreesboro, TN 37127

FROM:

City of Franklin
Water Management Dept.
124 Lumber Drive
Franklin, TN 37064

DATE:

October 28, 2020

PROJECT:

Holiday Court Pump Station Improvements

COF CONTRACT NO: 2019-0310

AUTHORIZATION NUMBER: 3

RE:

Valve boxes to doghouse manholes for plug valves

DESCRIPTION:

Due to the depth of the 2 plug valves on the Holiday Court Pump Station project, City staff, the onsite resident project representative and the contractor agree that a manhole would provide better access to the plug valves than several valve boxes stacked on top of each other. Delete valve box requirements in line items 2 and 6 and provide doghouse manholes for each. All other requirements for line items 2 and 6 remain the same.

CONTRACT PRICE:

\$12,053.00

Increase (see attached for breakdown of cost)

CONTRACT TIME:

0 days

CITY OF FRANKLIN:

By:



Date: 11/13/2020

CONTRACTOR:

By:



Date: 11-13-20

6726 MANCHESTER HWY

MURFREESBORO, TN 37127

PHONE : (615) 893-9216

FAX : (615) 893-8955

Project: Holiday Court

Location: Franklin, TN.

Contractor:

Bid Date: 9/29/2020

Prices are F.O.B. Jobsite in truck load quantities unless otherwise noted. Taxes are not included.

6726 MANCHESTER HWY

MURFREESBORO, TN 37127

PHONE : (615) 893-9216

FAX : (615) 893-8955

Project: Holiday Court FM Tie in

Location: Franklin, TN.

Contractor:

Bid Date: 10/5/2020

Prices are F.O.B. Jobsite in truck load quantities unless otherwise noted. Taxes are not included.

CONSTRUCTION CHANGE ORDER AUTHORIZATION

TO: Tristan Carroll
Estimator/Project Manager
Middle TN Infrastructure, Inc.
105 Homewood Drive
Murfreesboro, TN 37127

FROM: City of Franklin
Water Management Dept.
124 Lumber Drive
Franklin, TN 37064

DATE: November 18, 2020

PROJECT: Holiday Court Pump Station Improvements

COF CONTRACT NO: 2019-0310

AUTHORIZATION NUMBER: 4

RE: Install bollards between the parking lot and the pump station

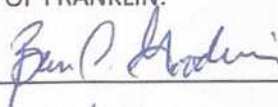
DESCRIPTION:

In order to prevent vehicles from damaging the pump station, City staff, the onsite resident project representative and the contractor agree that installing bollards between the parking lot and the pump station would provide a barrier to help prevent any damage.

CONTRACT PRICE: \$ 1,700.00 Increase (see attached for breakdown of cost)

CONTRACT TIME: 0 days

CITY OF FRANKLIN:

By: 

Date: 12/10/2020

CONTRACTOR:

By: 

Date: 12/11/20

Michelle Hatcher, P.E.
Director



Dr. Ken Moore
Mayor

Eric S. Stuckey
City Administrator

HISTORIC
FRANKLIN
TENNESSEE

December 11, 2020

Tristan Carroll
Mid Tennessee Infrastructure Inc.
105 Homewood Drive
Murfreesboro, TN 37127

RE: Time Extension Request for Holiday Court Pump Station Improvements Project

Dear Mr. Carroll,

City of Franklin Water Management Department (COFWMD) and the construction inspection consultant, C&T Engineering, have discussed your time extension request dated December 1, 2020, for the Holiday Court Pump Station Improvements Project. We have agreed to extend the Substantial and Final Completion dates by 38 calendar days, which makes Substantial Completion January 20, 2021, and Final Completion, February 27, 2021. This date was referenced as the Substantial Completion date in your most recent schedule submitted on December 8, 2020.

The factors that contributed to this decision are items that were out of the contractor's control, specifically the long lead time on the 10" port plug valve and the extended review time and delivery of the Primex control panel. The submittal of plans to MTEMC was referenced multiple times in the contract documents and drawings as Contractor coordinated, and therefore, was not considered in this time extension.

Please contact me if you have any questions or comments.

Sincerely,

Brian Goodwin, P.E.
Assistant Director of Water Management

CC: Michelle Hatcher, Director of Water Management
Patricia McNeese, Utilities Engineer II
Tom Lamb, C&T Engineering
Walter Swinford, C&T Engineering



File #: 20-01604

DATE: January 14, 2021
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Paul Holzen, Director of Engineering

SUBJECT:

Consideration Of Resolution 2020-269, A Resolution Declaring An Existing Section Of Right-Of-Way Known As Wood Duck Court Generally Located South Of Highway 96 And East Of Carothers Parkway As Surplus And To Be Maintained On Its Current Configuration As A Public Access, Utility, And Drainage Easement.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Resolution 2020-269.

BACKGROUND/STAFF COMMENTS:

Title 5, Chapter 8, § 5-802 of the City of Franklin Municipal Code allows the Board of Mayor and Aldermen (BOMA) to sell, lease, or dispose of real property owned by the City as surplus property when such property is determined to be of no further feasible use to the City.

The Board of Mayor and Aldermen approved the Wood Duck Court PUD Subdivision, Development Plan on September 16, 2019. During the site plan review process, Staff identified a portion of the Wood Duck Court right-of-way as surplus. The right-of-way is bordered completely by the Wood Duck Court Development.

If this resolution is adopted, staff will work with the Wood Duck Court Developer to quitclaim the property and establish the appropriate easements.

FINANCIAL IMPACT:

There is no financial impact associated with this resolution.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Resolution 2020-269.

RESOLUTION 2020-269

A RESOLUTION DECLARING AN EXISTING SECTION OF RIGHT-OF-WAY KNOWN AS WOOD DUCK COURT, GENERALLY LOCATED SOUTH OF HIGHWAY 96 AND EAST OF CAROTHERS PARKWAY, AS SURPLUS AND TO BE MAINTAINED IN ITS CURRENT CONFIGURATION AS A PUBLIC ACCESS, UTILITY, AND DRAINAGE EASEMENT

WHEREAS, the Board of Mayor and Aldermen (BOMA) by approving this resolution, is determining that the existing section of the Wood Duck Court right-of-way generally located south of Highway 96 and east of Carothers Parkway as shown on Exhibit A is no longer necessary, suitable, and desirable as public right-of-way; and

WHEREAS, this existing section of the Wood Duck Court right-of-way is considered a non-buildable parcel, and the City desires to declare this right-of-way as surplus in order to dedicate it equally to the adjacent properties, Map # 079 06502 00009079 and Map # 079 07705 00009079 ; and

WHEREAS, with the proposed Public Access, Utility, and Drainage Easement, City Staff has determined the value of the right-of-way to be less than \$25,000; and

WHEREAS, Franklin Municipal Code Chapter 8, Sec. 5-802 allows for the Board of Mayor and Aldermen to sell or dispose of right-of-way by negotiated contract or by other means that will adequately protect the public interest when the value does not exceed \$25,000.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE, AS FOLLOWS:

The right-of-way as shown in attached Exhibit A is hereby declared surplus property. The right-of-way shall, by quitclaim deed, be dedicated to the adjacent property owners.

IT IS SO RESOLVED AND DONE on this ____ day of _____, 20__.

ATTEST:

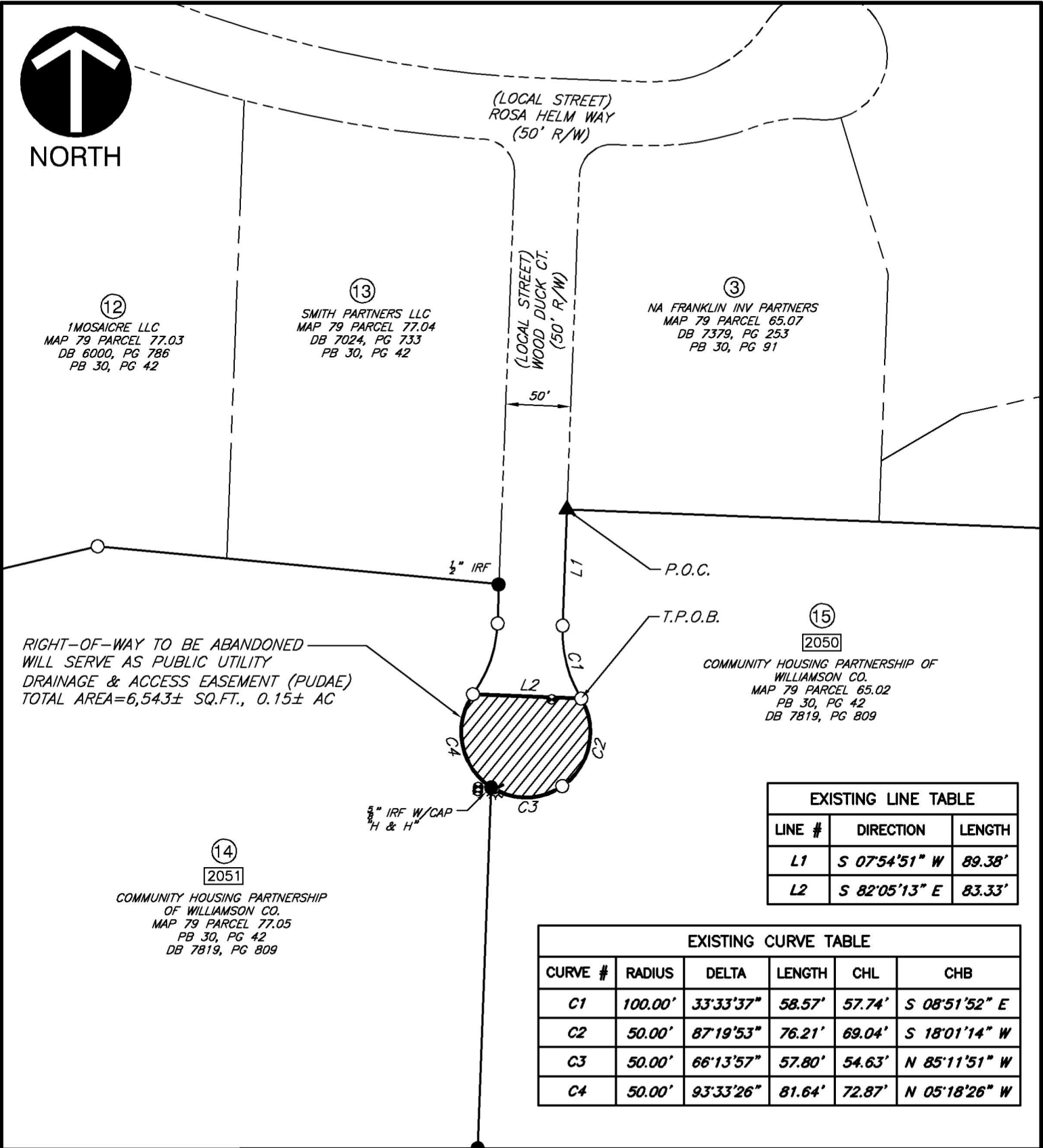
CITY OF FRANKLIN, TENNESSEE:

By: _____
Eric S. Stuckey
City Administrator

By: _____
Dr. Ken Moore
Mayor

Approved as to Form:

By: _____
Shauna R. Billingsley
City Attorney



EXISTING LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S 07°54'51" W	89.38'
L2	S 82°05'13" E	83.33'

EXISTING CURVE TABLE					
CURVE #	RADIUS	DELTA	LENGTH	CHL	CHB
C1	100.00'	33°33'37"	58.57'	57.74'	S 08°51'52" E
C2	50.00'	87°19'53"	76.21'	69.04'	S 18°01'14" W
C3	50.00'	66°13'57"	57.80'	54.63'	N 85°11'51" W
C4	50.00'	93°33'26"	81.64'	72.87'	N 05°18'26" W

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- PROPOSED PROPERTY LINE
- IRON REBAR FOUND (IRF)
- MAG / PK NAIL FOUND
- IRON REBAR SET W/CAP



*HAND SIGNATURE ON FILE
SCALE IN FEET





Civil & Environmental Consultants, Inc.
117 Seaboard Lane · Suite E-100 · Franklin, TN 37067
615-333-7797 · 800-763-2326
www.cecinc.com

WOOD DUCK COURT PUD SUBDIVISION,
FORMERLY WILD DUCK REALTY SUBD.,
LOT 5 AND FRANKLIN COMMONS SOUTH
SUBDIVISION, SECTION 4 LOTS 14 AND 15

RIGHT-OF-WAY ABANDONMENT EXHIBIT

DRAWN BY:	KLU	CHECKED BY:	RAM	APPROVED BY:	*SVH	EXHIBIT:
DATE:	NOVEMBER 17, 2020	DWG SCALE:	1"=100'	PROJECT NO:	183-027	1

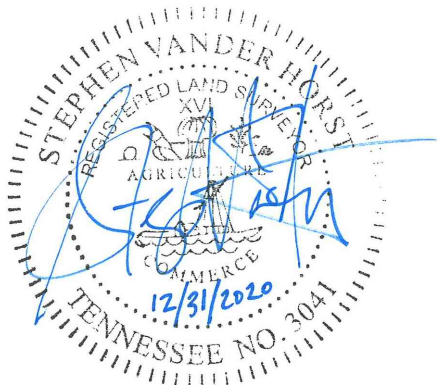


Civil & Environmental Consultants, Inc.

Right-of-Way Abandonment Description
0.15 Acres +/-
A Portion of Wood Duck Court
Franklin, Williamson County, Tennessee

Property situated in Franklin, Williamson County, Tennessee, being a portion of Wood Duck Court, a Public road, as shown in Plat Book 30, Page 42 and Plat Book 30, Page 91 as of record in the Register's Office for Williamson County, Tennessee, being more particularly described as follows;

Commencing at an PK Mag Nail (found), being the northwest corner of Lot 15, Plat Book 30, Page 42, the southwest corner of Lot 3, Plat Book 30, Page 91, and located in the easterly right-of-way for Wood Duck Court, as of record in the Register's office for Williamson County, Tennessee; thence with said right-of-way and the westerly boundary of said Lot 15 South 07°54'51" West, a distance of 89.38 feet to a ½" iron rebar (set), capped and stamped "CEC INC", hereinafter, iron rebar (set); thence with a curve to the left having a radius of 100.00 feet, and arc length of 58.57 feet, and a chord bearing and distance of South 08°51'52" East, 57.74 feet, to an iron rebar (set), the Point of Beginning; thence continuing with said right-of-way, and a curve to the right, having a radius of 50.00 feet, an arc length of 76.21 feet, and a chord bearing and distance of South 18°01'14" West, 69.04 feet to an iron rebar (set); thence with a curve to the right having a radius of 50.00 feet, an arc length of 57.80 feet, and a chord bearing and distance of North 85°11'51" West, a distance of 54.63 feet to a 5/8" iron pin (found), capped and stamped "H&H", being a common corner for Lot 14 and Lot 15, as of record in Plat Book 30, Page 42; thence continuing with a curve to the right having a radius of 50.00 feet, an arc length of 81.64 feet, and a chord bearing and distance of North 05°18'26" West, 72.87 feet to an iron rebar (set); thence leaving said right-of-way and crossing Wood Duck Court South 82°05'13" East, a distance of 83.33 feet to the Point of Beginning and containing 0.15 Acres, more or less.





File #: 20-0959

DATE: January 14, 2021
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering
David Hodnett, Staff Engineer

SUBJECT:

Consideration Of Change Order 1 To COF Contract No. 2019-0057, A Construction Contract With Sessions Paving Paving Company For The East McEwen Drive Roundabout Improvements At A Cost Increase Of \$195,944.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Change Order No. 1 to COF Contract No. 2019-0057 for the construction of the East McEwen Drive Roundabout Improvements.

BACKGROUND/STAFF COMMENTS:

On April 23, 2019, the BOMA approved Resolution 2019-27 to award the construction contract (COF Contract No. 2019-0057) for the East McEwen Drive Roundabout Improvements project to Sessions Paving Company. Following contract approval, the Notice to Proceed with work was issued with any effective date of June 18, 2019. Ultimately, substantial completion was not reached on this project until April 16, 2020. The project went over the contract time by 61 days and will be assessed Liquidated Damages, per the terms of the contract, of \$45,750.00 (61 days at \$750.00/day). These liquidated damages costs will be used to help offset additional administrative costs incurred by the City in the management of this delayed project.

FINANCIAL IMPACT:

The East McEwen Drive Roundabout Improvements construction contract bid amount was \$1,324,963.45. Change Order No. 1 is for a total cost increase of \$195,944.49. This gives a total construction cost of \$1,520,907.94 for this project. Project expenses have been paid from the 2017 (Fund 311) and 2019 (Fund 312) General Obligations (GO) bond proceeds. Staff anticipates the additional expenses associated with Change Order No. 1 to be paid from the same funding source(s).

RECOMMENDATION:

Staff recommends that Change Order 1 for COF Contract No. 2019-0057 for the construction of the East McEwen Drive Roundabout Improvements be recommended for approval by the Board of Mayor and Aldermen.

CHANGE ORDER NO.: 1

Owner: City of Franklin, TN Date Issued: 12/7/2020
 Engineer: [ENTER ENGINEER NAME]
 Contractor: Sessions Paving Company
 Project Name: East McEwen Roundabout Improvements
 Owners Contract No.: COF 2019-0057
 Effective Date of Change Order: 12/7/2020

The Contract is modified as follows upon execution of this Change Order:

Description:

Change Order No. 1: This Change Order reconciles quantities of the contract.
 This Change Order No. 1 includes 61 days of Liquidated Damages for \$45,750.00
 Total Change Order No. 1: \$195,944.49

Attachments:

COF 2019-0057 Change Order No. 1 Quantities and Cost Worksheet

Change in Contract Price	Change in Contract Times [State Contract Times as number of days]
Original Contract Price: \$ 1,324,963.45	Original Contract Times: 240 days Substantial Completion: February 13, 2020 Ready for final payment: March 14, 2020
[Increase] [Decrease] from previously approved Change Orders No. : \$ 0.00	[Increase] [Decrease] from previously approved Change Orders No. Substantial Completion: February 13, 2020 Ready for final payment: March 14, 2020
Contract Price prior to this Change Order: \$ 1,324,963.45	Contract Times prior to this Change Order: 240 days Substantial Completion: February 13, 2020 Ready for final payment: March 14, 2020
[Increase] [Decrease] this Change Order 1 Final: \$ 195,944.49	[Increase] [Decrease] this Change Order: 0 days Substantial Completion: February 13, 2020 Ready for final payment: March 14, 2020
Contract Price incorporating this Change Order: \$ 1,520,907.94	Contract Times with all approved Change Orders: 240 days Substantial Completion: February 13, 2020 Ready for final payment: March 14, 2020

Recommended by Contractor

By: Robert A. Hutchinson
Title: President
Date: 12/09/2020

Recommended by Department Director

By: Paul P. H.
Title: Director of Engineering
Date: 12/10/20

Recommended by City Project Manager

By: [Signature]
Title: Project Manager
Date: 12/8/20

Authorized by Owner

By: _____
Title: Mayor, City of Franklin, TN
Date: _____

MODIFIED - EJCDC® C-941, Change Order.

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EJCDC - 00941

Page 2 of 2

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
	105-01	CONSTRUCTION STAKES, LINES AND GRADES	LS	1	\$ 27,500.00	\$ 27,500.00	1	\$ 27,500.00
	108-07	LIQUIDATED DAMAGES	DAY		\$ (750.00)		61	\$ (45,750.00)
2	202-01	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1	\$ 12,000.00	\$ 12,000.00	1	\$ 12,000.00
	202-03	REMOVAL OF RIGID PAVEMENT, SIDEWALK, ETC.	S.Y.	850	\$ 15.00	\$ 12,750.00	850	\$ 12,750.00
	202-08.15	REMOVAL OF CURB AND GUTTER AND TYPE A CURB	L.F.	3,150	\$ 7.50	\$ 23,625.00	3150	\$ 23,625.00
	203-01	ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED)	C.Y.	2,000	\$ 27.50	\$ 55,000.00	2000	\$ 55,000.00
	203-06	WATER	M.G.	3	\$ 10.00	\$ 30.00	0	\$ -
	203-07	FURNISHING AND SPREADING TOPSOIL	C.Y.	780	\$ 30.00	\$ 23,400.00	624	\$ 18,720.00
	209-03.22	FILTER SOCK (18-INCH)	L.F.	3,100	\$ 12.50	\$ 38,750.00	2260	\$ 28,250.00
	209-05	SEDIMENT REMOVAL	C.Y.	10	\$ 10.00	\$ 100.00	0	\$ -
	209-09.43	CURB INLET PROTECTION (TYPE 4)	EACH	42	\$ 150.00	\$ 6,300.00	42	\$ 6,300.00
	209-40.33	CATCH BASIN PROTECTION (TYPE D)	EACH	1	\$ 750.00	\$ 750.00	1	\$ 750.00
	303-01	MINERAL AGGREGATE, TYPE A BASE, GRADING D	TON	1,649	\$ 38.00	\$ 62,662.00	1763.79	\$ 67,024.02
	307-01.22	ASP. CONC. MIX (PG76-22) (BPMB-HM) GR. A-S	TON	320	\$ 147.00	\$ 47,040.00	320	\$ 47,040.00
	307-03.01	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING A	TON	409	\$ 147.00	\$ 60,123.00	409	\$ 60,123.00
	307-03.08	ASPHALT CONCRETE MIX (PG76-22) (BPMB-HM) GRADING B-M2	TON	201	\$ 150.00	\$ 30,150.00	201	\$ 30,150.00
	402-01	BITUMINOUS MATERIAL FOR PRIME COAT (PC)	TON	3	\$ 900.00	\$ 2,700.00	0	\$ -

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
12	402-02	AGGREGATE FOR COVER MATERIAL (PC)	TON	9	\$ 45.00	\$ 405.00	0	\$ -
	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	4	\$ 1,400.00	\$ 5,600.00	0	\$ -
	411-03-10	ACS MIX (PG76-22) GRADING D	TON	483	\$ 165.00	\$ 79,695.00	580.66	\$ 95,808.90
	407-20.05	SAW CUTTING ASPHALT PAVEMENT	L.F.	200	\$ 3.50	\$ 700.00	0	\$ -
	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	7,000	\$ 3.60	\$ 25,200.00	4886.5	\$ 17,591.40
10	607-02.02	15" CONCRETE PIPE CULVERT (CLASS III)	L.F.	47	\$ 91.50	\$ 4,300.50	47	\$ 4,300.50
10	607-03.02	18" CONCRETE PIPE CULVERT (CLASS III)	L.F.	289	\$ 170.00	\$ 49,130.00	289	\$ 49,130.00
10	607-05.02	24" CONCRETE PIPE CULVERT (CLASS III)	L.F.	153	\$ 180.00	\$ 27,540.00	153	\$ 27,540.00
	611-01.03	MANHOLES, > 8' - 12' DEPTH	EACH	1	\$ 7,000.00	\$ 7,000.00	1	\$ 7,000.00
9	611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EACH	2	\$ 500.00	\$ 1,000.00	2	\$ 1,000.00
9	611-09.02	REWORK CATCHBASIN	EACH	4	\$ 1,500.00	\$ 6,000.00	4	\$ 6,000.00
9	611-09.03	CAPPING EXISTING CATCHBASIN	EACH	3	\$ 1,000.00	\$ 3,000.00	3	\$ 3,000.00
	611-12.01	CATCH BASIN, TYPE 12, 0' - 4' DEPTH	EACH	1	\$ 4,725.00	\$ 4,725.00	1	\$ 4,725.00
6	611-12.02	CATCH BASIN, TYPE 12, > 4' - 8' DEPTH	EACH	9	\$ 5,875.00	\$ 52,875.00	9	\$ 52,875.00
7	611-12.03	CATCH BASIN, TYPE 12, > 8' - 12' DEPTH	EACH	3	\$ 7,000.00	\$ 21,000.00	3	\$ 21,000.00
	611-14.01	CATCH BASIN, TYPE 14, 0' - 4' DEPTH	EACH	1	\$ 5,725.00	\$ 5,725.00	1	\$ 5,725.00
	611-14.02	CATCH BASIN, TYPE 14, > 4' - 8' DEPTH	EACH	1	\$ 6,725.00	\$ 6,725.00	1	\$ 6,725.00

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
7	611-14.03	CATCH BASIN, TYPE 14, > 8' - 12' DEPTH	EACH	2	\$ 8,500.00	\$ 17,000.00	1	\$ 8,500.00
	701-01.01	CONCRETE SIDEWALK (4")	S.F.	5,920	\$ 10.15	\$ 60,088.00	5920	\$ 60,088.00
	701-02.03	CONCRETE CURB RAMP	S.F.	1,037	\$ 18.00	\$ 18,666.00	1037	\$ 18,666.00
	702-01	CONCRETE CURB	C.Y.	19	\$ 586.00	\$ 11,134.00	15.94	\$ 9,340.84
	702-03	CONCRETE COMBINED CURB & GUTTER	C.Y.	238	\$ 278.00	\$ 66,164.00	250.11	\$ 69,530.58
11	708-02.02	MARKERS (R.O.W.)	EACH	26	\$ 500.00	\$ 13,000.00	27	\$ 13,500.00
	710-02	AGGREGATE UNDERDRAINS (WITH PIPE)	L.F.	1,400	\$ 9.00	\$ 12,600.00	1400	\$ 12,600.00
14	712-01	TRAFFIC CONTROL	LS	1	\$ 28,000.00	\$ 28,000.00	1	\$ 28,000.00
15	712-01.04	TRAFFIC CONTROL SUPERVISOR	LS	1	\$ 5,000.00	\$ 5,000.00	1	\$ 5,000.00
	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	147	\$ 48.00	\$ 7,056.00	147	\$ 7,056.00
	712-05.03	WARNING LIGHTS (TYPE C)	EACH	32	\$ 52.00	\$ 1,664.00	32	\$ 1,664.00
3	712-06	SIGNS (CONSTRUCTION)	S.F.	159	\$ 10.00	\$ 1,590.00	159	\$ 1,590.00
	713-02.21	SIGN POST DELINEATION ENHANCEMENT	L.F.	126	\$ 9.00	\$ 1,134.00	126	\$ 1,134.00
4	713-11.02	PERFORATED/KNOCKOUT SQUARE TUBE POST	LB.	1,218	\$ 4.60	\$ 5,602.80	1113.5	\$ 5,122.10
5	713-13.02	FLAT SHEET ALUMINUM SIGNS (0.080" THICK)	S.F.	107	\$ 14.60	\$ 1,562.20	72.28	\$ 1,055.29
5	713-13-03	FLAT SHEET ALUMINUM SIGNS (0.100" THICK)	S.F.	113	\$ 15.15	\$ 1,711.95	121	\$ 1,833.15
	713-15	REMOVAL OF SIGNS, POSTS AND FOOTINGS	LS	1	\$ 400.00	\$ 400.00	1	\$ 400.00

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
	714-03.01	DIRECT BURIAL CONDUIT (2" PVC, SCHEDULE 40)	L.F.	1,100	\$ 8.50	\$ 9,350.00	960	\$ 8,160.00
	714-03	JACKED OR BORED CONDUIT (2-3" PVC SCH80)	L.F.	300	\$ 31.00	\$ 9,300.00	300	\$ 9,300.00
	714-05.04	PULL BOX (TYPE C)	EACH	6	\$ 1,100.00	\$ 6,600.00	6	\$ 6,600.00
	714-06.03	CABLE (1/C #10 AWG)	L.F.	4,500	\$ 1.90	\$ 8,550.00	5985	\$ 11,371.50
8	714-08.10	LIGHT STANDARDS (30')	EACH	17	\$ 4,950.00	\$ 84,150.00	17	\$ 84,150.00
	714-09.09	LUMINAIRES (LED)	EACH	17	\$ 1,210.00	\$ 20,570.00	17	\$ 20,570.00
	714-25	ELECTRICAL SERVICE CONNECTION (MILBANK PEDESTAL)	EACH	1	\$ 7,435.00	\$ 7,435.00	1	\$ 7,435.00
	716-02.06	PLASTIC PAVEMENT MARKING (TURN LANE ARROW)	EACH	6	\$ 200.00	\$ 1,200.00	7	\$ 1,400.00
	716-02.09	PLASTIC PAVEMENT MARKING (LONGITUDINAL CROSS-WALK)	L.F.	251	\$ 35.00	\$ 8,785.00	321	\$ 11,235.00
	716-03.01	PLASTIC WORD PAVEMENT MARKING (ONLY)	EACH	3	\$ 500.00	\$ 1,500.00	3	\$ 1,500.00
	716-04.01	PLASTIC PAVEMENT MARKING (STRAIGHT-TURN ARROW)	EACH	16	\$ 400.00	\$ 6,400.00	16	\$ 6,400.00
	716-04.02	PLASTIC PAVEMENT MARKING (DOUBLE TURNING ARROW)	EACH	3	\$ 400.00	\$ 1,200.00	3	\$ 1,200.00
	716-04.05	PLASTIC PAVEMENT MARKING (STRAIGHT ARROW)	EACH	5	\$ 200.00	\$ 1,000.00	0	\$ -
	716-04.12	PLASTIC PAVEMENT MARKING (YIELD LINE)	S.F.	15	\$ 30.00	\$ 450.00	15	\$ 450.00
	716-08.32	HYDROBLAST REMOVAL OF PAVEMENT MARKING (8 IN LINE)	L.F.	330	\$ 2.00	\$ 660.00	660	\$ 1,320.00
13	716-08.33	HYDROBLAST REMOVAL OF PAVEMENT MARKING	EACH	13	\$ 200.00	\$ 2,600.00	10	\$ 2,000.00
	716-12.01	ENHANCED FLATLINE THERMO PVMT MRKNG (4IN LINE)	L.M.	1	\$ 7,500.00	\$ 7,500.00	1,211	\$ 9,082.50

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
	716-12.06	ENHANCED FLATLINE THERMO (8IN LINE)	L.F.	1,930	\$ 4.00	\$ 7,720.00	2901	\$ 11,604.00
	717-01	MOBILIZATION	LS	1	\$ 25,000.00	\$ 25,000.00	1	\$ 25,000.00
	801-01	SEEDING (WITH MULCH)	UNIT	42	\$ 55.00	\$ 2,310.00	52,954	\$ 2,912.47
	801-01.07	TEMPORARY SEEDING (WITH MULCH)	UNIT	42	\$ 55.00	\$ 2,310.00	0	\$ -
1	801-03	WATER (SEEDING & SODDING)	M.G.	10	\$ 50.00	\$ 500.00	0	\$ -
	W1	18" CL 52 DIP INCLUDE RESTRAINT DEVICES LESS MVUD FURNISH MATERIALS	L.F.	400	\$ 75.00	\$ 30,000.00	400	\$ 30,000.00
	W2	12" CL 52 CIP INCLUDE RESTRAINT DEVICES LESS MVUD FURNISH MATERIALS	L.F.	10	\$ 100.00	\$ 1,000.00	0	\$ -
	W3	6" CL 52 DIP INCLUDE RESTRAINT DEVICES LESS MVUD FURNISH MATERIALS	L.F.	10	\$ 80.00	\$ 800.00	10	\$ 800.00
	W4	DI FITTINGS LESS MVUD FURNISH MATERIALS	LB.	3,000	\$ 10.00	\$ 30,000.00	3000	\$ 30,000.00
	W5	18" GATE VALVE & VALVE BOX, HORIZONTAL MOUNTED, LESS MVUD FURNISH MATERIALS	EACH	2	\$ 18,750.00	\$ 37,500.00	2	\$ 37,500.00
	W6	12" GATE VALVE & VALVE BOX, LESS MVUD FURNISH MATERIALS	EACH	1	\$ 1,500.00	\$ 1,500.00	0	\$ -
	W7	6" GATE VALVE & VALVE BOX, LESS MVUD FURNISH MATERIALS	EACH	1	\$ 1,200.00	\$ 1,200.00	1	\$ 1,200.00
	W8	INSTALL FIRE HYDRANT LESS MVUD FURNISH MATERIALS	EACH	2	\$ 2,000.00	\$ 4,000.00	1	\$ 2,000.00
	W9	REVERSE KICKER, COMPLETE	EACH	2	\$ 3,500.00	\$ 7,000.00	2	\$ 7,000.00
	W10	CONNECT TO EXISTING 18" WATER LINE, LESS MVUD FURNISH MATERIALS	EACH	2	\$ 2,500.00	\$ 5,000.00	2	\$ 5,000.00
	W11	FILLING, TESTING & DISINFECTION OF ALL NEW LINES	LS	1	\$ 2,500.00	\$ 2,500.00	1	\$ 2,500.00
	G1	4" HDPE	L.F.	200	\$ 100.00	\$ 20,000.00	200	\$ 20,000.00

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
	G2	4" GAS VALVE ASSEMBLY	EACH	2	\$ 5,000.00	\$ 10,000.00	2	\$ 10,000.00
16	RD-1	RECORD DRAWINGS (AS-BUILTS)	LS	1	\$ 3,500.00	\$ 3,500.00	1	\$ 3,500.00
	CCA#1	TEMPORARY ASPHALT PATCH IN EXISTING MEDIAN	TON		\$ 155.00		61	\$ 9,455.00
	CCA#2	REMOVE AND DISPOSE TWO STREET LIGHT POLES AND FOUNDATIONS	LS		\$ 2,000.00		1	\$ 2,000.00
	CCA#3	ADDITIONAL CONSTRUCTION SIGNS	SF		\$ 10.00		118.5	\$ 1,185.00
	CCA#4	ADDITIONAL WARNING LIGHTS (TYPE C)	EACH		\$ 52.00		40	\$ 2,080.00
	CCA#5	ADDITIONAL #67 STONE FOR UTILITY TRENCH BACKFILL	TON		\$ 38.00		300	\$ 11,400.00
	CCA#6	IRRIGATION OF ROUNDABOUT FOR FUTURE LANDSCAPING	LS		\$ 3,304.09		1	\$ 3,304.09
	CCA#7	ADDITIONAL FIBER OPTIC 3" CONDUIT	LS		\$ 17,915.65		1	\$ 17,915.65
	CCA#8	OVERAGE ON CURB AND GUTTER	CY		\$ 7.50		170	\$ 1,275.00
	CCA#9	MCEWEN GROUT WARRENTY			\$ -		1	\$ -
	CCA#10	CIVIL PENALTY FOR STORMWATER	EACH		\$ (900.00)		1	\$ (900.00)
	CCA#11	OVERAGE ON SIDEWALK	SF		\$ 10.15		1550	\$ 15,732.50
	CCA#12	OVERAGE ON CURB RAMP	SF		\$ 15.23		2900	\$ 44,167.00
	CCA#13A	716-05.01 PAINTED PAVEMENT MARKING (4" LINE)	LM		\$ 1,650.00		0.68	\$ 1,122.00
	CCA#13B	716-05.02 PAINTED PAVEMENT MARKING (8" LINE)	LF		\$ 0.83		0	\$ -
	CCA#14	611-12.01 CATCH BASIN-TYPE 12 (0-4')	EACH		\$ 4,725.00		1	\$ 4,725.00

COF 2019-0057 McEwen Roundabout Final Quantities
FINAL PROJECT QUANTITIES

FOOTNOTE(S)	ITEM NO.	ITEM DESCRIPTION	UNIT	BID QTY.	UNIT PRICE (\$)	CONTRACT AMOUNT (\$)	FINAL QUANTITY	FINAL AMOUNT (\$)
	CCA#15	303.-01 MINERAL AGGREGATE TYPE A BASE GRADING D	TON		\$ 38.00		785.62	\$ 29,853.56
	CCA#16	712-04.01 FLEXIBLE DRUMS (CHANNELIZING)	EACH		\$ 48.00		25	\$ 1,200.00
	CCA#17	714-03 JACKED OR BORED CONDUIT 2-3" PVC SCH 80	LF		\$ 31.00		78	\$ 2,418.00
	CCA#18	MESSAGE BOARDS	EACH		\$ 720.00		0	\$ -
	CCA#19A	307-01.21 ASPHALT CONCRETE MIX (PG70-22) GRADING A-S	TON		\$ 145.00		30.9	\$ 4,480.50
	CCA#20	MTEMC VAULT CASTING ADJUSTMENT	LS		\$ 1,800.00		1	\$ 1,800.00
	CCA#21	307-01.22 ASPHALT CONCRETE MIX (PG76-22) GRADING A-S	TON		\$ 147.00		225.74	\$ 33,183.78
	CCA#22	307-03.01 ASPHALT CONCRETE MIX (PG76-22) GRADING A	TON		\$ 147.00		95.86	\$ 14,091.42
	CCA#23	307-03.08 ASPHALT CONCRETE MIX (PG76-22) GRADING B-M2	TON		\$ 150.00		266.46	\$ 39,969.00
		REMOVAL OF EXISTING WIRE	LS		\$ 2,200.00		1	\$ 2,200.00
		RE-INSTALL LIGHT POLE FOUNDATION ELEVATION CHANGE	EACH		\$ 1,311.20		2	\$ 2,622.40
		EXTRA JUNCTION BOX FIBER OPTIC	LS		\$ 1,077.97		1	\$ 1,077.97
		LOCATE EXISTING ELECTRICAL CONDUIT	LS		\$ 243.97		1	\$ 243.97
		RFP NO. 13 ROAD REPAIRS	LS		\$ 12,132.85		1	\$ 12,132.85
TOTAL						\$ 1,324,963.45		\$ 1,520,907.94



File #: 20-01640

DATE: January 19, 2021
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering
David Hodnett, Staff Engineer

SUBJECT:

Consideration Of Draft Amendment 1 To COF Contract No. 2019-0047, A Professional Services Agreement With C&T Engineering And Inspection, LLC Construction Administration Services For The East McEwen Drive Roundabout Improvements At A Cost Increase Of \$45,750.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Amendment No. 1 to COF Contract No. 2019-0047 for Construction Administration Services for the East McEwen Drive Roundabout Improvements.

BACKGROUND/STAFF COMMENTS:

On February 26, 2019, the BOMA approved COF Contract No. 2019-0057 with C&T Engineering & Inspection, LLC (C&T) for Construction Administration Services for the East McEwen Drive Roundabout Improvements at a cost of \$94,880.00. The construction project was originally scheduled for Substantial Completion on February 13, 2020. However, this deadline was not met, and liquidated damages totaling \$45,750.00 (61 days of delay) were assessed per the terms of the contract. This delay also required additional construction administration services. This Amendment covers the cost of these additional services.

FINANCIAL IMPACT:

Total cost of this Amendment No. 1 is \$47,750.00, which is equal to the amount of liquidated damages assessed to the contractor. Expenses for this project have been paid from a combination of 2017 (Fund 311) and 2019 (Fund 312) General Obligation (GO) bond proceeds. Staff anticipates this additional expense to be paid from the 2019 GO bond proceeds.

RECOMMENDATION:

Staff recommends that Amendment 1 To COF Contract No. 2019-0047 with C&T Engineering and Inspection, LLC at a cost increase of \$47,750 be recommended for approval by the Board of Mayor and Aldermen.

**AMENDMENT NO. 1 TO
PROFESSIONAL SERVICES AGREEMENT
FOR CONSTRUCTION ADMINISTRATION SERVICES FOR
EAST MCEWEN DRIVE ROUNDABOUT IMPROVEMENTS
COF Contract No. 2019-0047**

THIS AMENDMENT is made and entered into on this the ____ day of _____ 20____, by and between the **City of Franklin, Tennessee** ("City") and **C&T Engineering and Inspection** ("Consultant").

WITNESSETH:

WHEREAS, on February 29, 2019, the City and the Consultant entered into a Professional Services Agreement ("Agreement") entitled Construction Administration Services for the East McEwen Drive Roundabout Improvements ("Project"); and

WHEREAS, said Agreement stipulated that the Consultant would be paid a not-to-exceed fee of Ninety-Four Thousand Eight Hundred Eighty and No/100 Dollars (\$94,880.00), as authorized by the City Engineer and as detailed in the Fee Schedule; and

WHEREAS, delay in the construction of the Project, which is beyond the control of the Consultant, has caused the City to require additional Construction Administration Services from the Consultant; and

WHEREAS, the Consultant has provided a Proposal ("Exhibit A") for an increase in Construction Administration Services, as described in Exhibit A, in the amount of **Forty-Five Thousand Seven Hundred Fifty and No/100 Dollars (\$45,750.00)**; and

WHEREAS, the City has reviewed the Proposal and desires to enter into an Amendment to the Agreement for the Project as proposed.

NOW, THEREFORE, in consideration of these premises and the mutual promises contained herein, it is agreed by and between the parties as follows:

1. The foregoing recitals are incorporated by reference as if fully stated herein.
2. Consultant's Responsibilities and Duties. Consultant agrees to perform the work as shown in their Proposal, Exhibit A, which includes the Scope of Services for this Amendment, all of which shall be considered as an integral part hereof.
3. City's Responsibilities and Duties. City shall pay Consultant for the cost of the work as described in Exhibit A an amount not to exceed **Forty-Five Thousand Seven Hundred Fifty and No/100 (\$45,750.00)**.

The City reserves the right to issue any payments jointly to the Consultant and Sub-Consultant when the City receives information that the Consultant has not paid its Sub-Consultant.

4. Waiver. Neither party's failure nor delay to exercise any of its rights or powers under this Amendment will constitute or be deemed a waiver or forfeiture of those rights or powers. For a waiver of a right or power to be effective, it must be in writing signed by the waiving party.

An effective waiver of a right or power shall not be construed as either (a) a future or continuing waiver of that same right or power, or (b) the waiver of any other right or power.

5. Severability. If any term or provision of the Amendment is held to be illegal or unenforceable, the validity or enforceability of the remainder of the Amendment will not be affected.

6. Precedence. In the event of conflict between this Amendment and the provisions of the previous Agreement(s), or any other contract, agreement or other document to which this Amendment may accompany or incorporate by reference, the provisions of this Amendment will, to the extent of such conflict (or to the extent the Agreement is silent), take precedence unless such document expressly states that it is amending this Amendment.

7. Entire Agreement. The Amendment between the parties supersedes any prior or contemporaneous communications, representations or agreements between the parties, whether oral or written, regarding the subject matter of the entire Amendment. The terms and conditions of this Amendment may not be changed except by an amendment expressly referencing this Amendment by section number and signed by an authorized representative of each party.

8. Additions/Modifications. If seeking any addition or modification to the Amendment, the parties agree to reference the specific paragraph number sought to be changed on any future document or purchase order issued in furtherance of the Amendment, however, an omission of the reference to same shall not affect its applicability. In no event shall either party be bound by any terms contained in any purchase order, acknowledgement, or other writings unless: (a) such purchase order, acknowledgement, or other writings specifically refer to the Amendment or to the specific clause they are intended to modify; (b) clearly indicate the intention of both parties to override and modify the Amendment; and (c) such purchase order, acknowledgement, or other writings are signed, with specific material clauses separately initialed, by authorized representatives of both parties.

9. Breach. Upon deliberate breach of the Amendment by either party, the non-breaching party shall be entitled to terminate the Amendment without notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

10. Survival. This Amendment shall survive the completion of or any termination of the original contract, revised contract, or agreement or other document to which it may accompany or incorporate by reference.

All other provisions of the Agreement dated February 26, 2019, are unchanged and remain in full force and effect.

(Signatures on Following Page)

IN WITNESS WHEREOF, the parties have executed this Amendment.

THE CITY OF FRANKLIN, TENNESSEE

C&T Engineering and Inspection, LLC

By: _____
Dr. Ken Moore
Mayor
Date: _____

By: _____
Print: _____
Title: _____
Date: _____

Attest:

Eric S. Stuckey
City Administrator
Date:

Approved as to form:

Maricruz R. Fincher, Staff Attorney

Mr. Jonathan Marston, PE
Assistant Director Engineering
109 3rd Avenue South
Franklin, TN 37064

Delivered via electronic mail to jonathan.marston@franklin.tn.gov

Re: East McEwen Drive Roundabout Construction Administration Amendment-1

Dear Mr. Marston,

We appreciate the opportunity to submit this proposal scope for additional Construction Administration Services for the above mentioned project. The Prime Contractor for COF 2019-0057, East McEwen Roundabout Improvements did not complete the project within the designated contract time and circumstances beyond the control of C&T Engineering and Inspection warrant additional inspection services. The scope for this additional work will include the following tasks.

Task 1 – Construction Administration:

C&T will continue to supply a Senior Resident Project Representative (RPR) to perform daily inspection of the construction site. C&T will perform these additional services between February 14, 2020 through April 16, 2020 for an amount not to exceed Forty-Five Thousand Seven Hundred Fifty dollars.

Cost:

TASK	FEE BY TASK
Amendment 1: Construction Administration Services	\$45,750.00
TOTAL: \$45,750.00	

C&T will begin work immediately upon notice to proceed. No out-of-scope work will be performed without prior written approval by the City. If unforeseen conditions or consulting needs arise beyond what is specifically mentioned in the Scope of Services above, and upon written approval by the City, C&T will provide the additional services on an hourly basis based upon rates established between Franklin and C&T.

We appreciate the opportunity to continue to work with the City of Franklin to complete this important project. If you have questions or require additional information, please call me at (615) 567-3306.

Sincerely,



Carla S. Lamb
President

Attachment

Fee Schedule:

<u>Classification</u>	<u>Rate/Hour</u>
Senior Principal	\$220
Principal	\$185
Senior Project Manager	\$170
Project Manager	\$165
Assistant Project Manager	\$150
Engineer	\$135
CAD Designer	\$95
Construction Manager	\$145
Chief Resident Project Representative	\$125
Senior Resident Project representative	\$115
Resident Project Representative	\$105
Administrative Manager	\$85
Administrative Assistant	\$70

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No. 2019-0047**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **C&T ENGINEERING AND INSPECTION, LLC**, hereinafter referenced as Consultant, who mutually agree as follows:

DECLARATIONS. City desires to retain Consultant to provide engineering, related technical, and other services in connection with City's project hereinafter referenced as Project. The Project is described as follows:

**CONSTRUCTION ADMINISTRATION SERVICES
FOR EAST MCEWEN DRIVE ROUNDABOUT IMPROVEMENTS**

1. SCOPE OF SERVICES. Consultant shall provide construction administration, inspection, and related technical services for the Project in accordance with the Scope of Services ("Services") as found in Attachment A, which shall be considered as an integral part hereof.
2. Consultant shall submit as a part of Attachment A an individual Fee Schedule and a Completion Schedule for the Project based on the detailed Scope of Services.
3. In event of a conflict between this Agreement and the attached document(s), this Agreement shall supersede conflicting terms and conditions.
4. Consultant shall be paid on a monthly basis for work performed, based on the Fee Schedule as contained in Attachment A, in the Amount Not-to-Exceed **Ninety-Four Thousand Eight Hundred Eighty and No/100 Dollars (\$94,880.00)**.

The Board of Mayor and Aldermen Approved this Agreement on the 26th Day of February 2019.

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

ARTICLE 1. SERVICES. Consultant will:

- 1.1 Act for City in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with standards of competent consultants using the standards in the industry:
- 1.2 Consider all reports to be confidential and distribute copies of the same only to those persons specifically designated by the City.
- 1.3 Perform all services under the general direction of a senior professional employee, licensed and/or registered in the State of Tennessee, when appropriate.
- 1.4 Designate, in writing, the sole Project representative to coordinate with City the Services to be provided, including all contact information.
- 1.5 Unless provided for in the Project Scope of Services (Attachment A), Consultant shall perform all Services with his own forces (employees). Should sub-consultants be proposed to be used in the Project, a listing of said sub-consultants with Services to be performed shall be provided. After approval of this Agreement, no substitute for sub-consultants shall be allowed unless approved by City.
- 1.6 Retain pertinent records relating to the services performed for a period of seven (7) years following the completion of the work; during this period the records shall be available for review by City at all reasonable times.

ARTICLE 2. CITY'S RESPONSIBILITIES. City, or its authorized representative, will:

- 2.1 Provide Consultant with all information regarding the Project, which is available to, or reasonably obtainable by, the City.
- 2.2 Furnish right-of-entry onto the Project site for Consultant's necessary field studies and surveys. Consultant will endeavor to restore the site to its original condition and shall remain solely liable for all damages, costs and expenses, including reasonable attorneys' fees, for failure to make such restoration.
- 2.3 Designate, in writing, the sole Project representative to coordinate with and direct the Consultant, including all contact information.
- 2.4 Guarantee to Consultant that it has the legal capacity to enter into this contract and that sufficient monies are available to fund Consultant's compensation.

ARTICLE 3. GENERAL CONDITIONS.

- 3.1 Consultant, by the performance of services covered hereunder, does not in any way assume, abridge or abrogate any of those duties, responsibilities or authorities customarily vested in other professionals or agencies participating in the Project.
- 3.2 Consultant shall be responsible for the acts or omissions of any party involved in concurrent or subsequent phases of the Project acting upon written instruction issued by the Consultant.
- 3.3 Neither City nor Consultant may assign or transfer its duties or interest in this Agreement without written consent of the other party.
- 3.4 **ALLOCATION OF RISK AND LIABILITY; GENERAL.** Considering the potential liabilities that may exist during the performance of the services of this Agreement, the relative benefits and risks of the Project, and the Consultant's fee for the services rendered, and in consideration of the promises contained in this Agreement, the City and the Consultant agree to allocate and limit such liabilities in accordance with this Article.

- 3.5 INDEMNIFICATION. Consultant agrees to indemnify and hold City harmless from and against legal liability for all judgments, losses, damages, and expenses to the extent such judgments, losses, damages, or expenses are caused by Consultant's negligent act, error or omission in the performance of the services of this Agreement. In the event judgments, losses, damages, or expenses are caused by the joint or concurrent negligence of Consultant and City, they shall be borne by each party in proportion to its own negligence.
- 3.5.1 SURVIVAL. The terms and conditions of this paragraph shall survive completion of this services agreement.
- 3.6 LIMITATIONS OF RESPONSIBILITY. Consultant shall not be responsible for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project unless specifically undertaken in Attachment A, Scope of Services ; (b) the failure of any contractor, subcontractor, Consultant, or other Project participant, not under contract to Consultant, to fulfill contractual responsibilities to City or to comply with federal, state, or local laws, regulations, and codes; or (c) procuring permits, certificates, and licenses required for any construction unless such procurement responsibilities are specifically assigned to Consultant in Attachment A, Scope of Services.

ARTICLE 4. TERMINATION BY THE CITY. The City may terminate this Agreement in accordance with the following terms and conditions:

- 4.1 Termination for Convenience. The City may, when in the interests of the City, terminate performance under this Agreement with the Consultant, in whole or in part, for the convenience of the City. The City shall give written notice of such termination to the Consultant specifying when termination becomes effective. The Consultant shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the Consultant shall stop work when such termination becomes effective. The Consultant shall also terminate outstanding orders and subcontracts for the affected work. The Consultant shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Consultant to assign the Consultant's right, title and interest under termination orders or subcontracts to the City or its designee. The Consultant shall transfer title and deliver to the City such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Consultant has in its possession or control. When terminated for convenience, the Consultant shall be compensated as follows:
- (1) The Consultant shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Consultant fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Consultant the amount the City deems the Consultant is due.
 - (2) The City and the Consultant may agree to the compensation, if any, due to the Consultant hereunder.
 - (3) Absent agreement to the amount due to the Consultant, the City shall pay the Consultant the following amounts:
 - (a) Contract costs for labor, materials, equipment and other services accepted under this Agreement;

- (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Consultant's performance, plus a fair and reasonable allowance for direct job site overhead and earned profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it reasonably appears that the Consultant would have not profited or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

The total sum to be paid the Consultant under this Section shall not exceed the total Agreement Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

- 4.2 Termination for Cause. If the Consultant does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Agreement, then the City, in addition to any other rights it may have against the Consultant or others, may terminate the performance of the Consultant, in whole or in part at the City's sole option, and assume possession of the Project Plans and materials and may complete the work.

In such case, the Consultant shall not be paid further until the work is complete. After Completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the City of completing the work, including all costs and expenses of every nature incurred, has been deducted by the City, such remainder shall belong to the Consultant. Otherwise, the Consultant shall pay and make whole the City for such cost. This obligation for payment shall survive the termination of the Agreement.

In the event the employment of the Consultant is terminated by the City for cause pursuant to this Section and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Section and the provisions of Section 4.1 shall apply.

- 4.3 Termination for Non-Appropriation. The City may also terminate this Agreement, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project, regardless of the source of such funds, and such termination shall be on the terms of Section 4.1.
- 4.4 The City's rights under this Section shall be in addition to those contained elsewhere herein or provided by law.

ARTICLE 5. SCOPE OF SERVICES. Consultant shall provide the Services as described in Attachment A, Scope of Services.

5.1 By mutual agreement, this Agreement and scope can be amended by the parties. The scope and fee for any additional tasks or services under such amendment shall be mutually negotiated and agreed to in writing prior to beginning such additional tasks or services.

5.2 **ENVIRONMENTAL RESPONSIBILITY.**

Where drilling/sampling services are involved, the samples obtained from the Project site are the property of the City. Should any of these samples be recognized by the Consultant to be contaminated, the City shall remove them from the Consultant's custody and transport them to a disposal site, all in accordance with applicable government statutes, ordinances, and regulations. For all other samples, the Consultant shall retain them for a sixty (60)-day period following the submission of the drilling/sampling report unless the City directs otherwise; thereafter, the Consultant shall discard the samples in accordance with all federal, state and local laws.

ARTICLE 6. SCHEDULE.

6.1 **TIME OF THE ESSENCE.** The parties agree that time is of the essence with respect to the parties' performance of all provisions of the Agreement.

6.2 Before executing this Agreement, the Consultant shall have prepared and submitted for approval to the City a Completion Schedule for the Project with milestones for the various stages (tasks) of the Services as outlined in the Scope of Services. The Consultant shall submit and obtain the City's approval for any proposed changes to the logic, durations, sequences, or timing of tasks as approved in the Completion Schedule.

6.3 **FORCE MAJEURE.** Neither party will be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times will be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.4 Should City request changes in the scope, extent, or character of the Project, the fee and the time of performance of Consultant's Services as indicated in Attachment A shall be adjusted equitably.

ARTICLE 7. USE OF DOCUMENTS, DATA.

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. Consultant shall retain an ownership and property interest therein (including the right of reuse at the discretion of the Consultant) whether or not the Project is completed.

- 7.1.1 USE OF DATA SYSTEMS: Ownership, property interests and proprietary rights in data systems used by Consultant do not extend to the data created by or supplied to Consultant by the City; all rights to that data (including derivative or hidden data such as metadata) shall vest solely in City at the moment of creation.
- 7.1.2 DISCLOSURE OF DOCUMENTS/DATA. City may be required to disclose documents or data under state or federal law. City shall notify Consultant if a request for data or documents has been made and shall give Consultant a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. Consultant waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page as confidential or proprietary. In exchange, Consultant agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Consultant representation that materials supplied by Consultant (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Consultant and Consultant assumes control over that claim.
- 7.2 By execution of this Agreement, Consultant and his sub-consultant(s) grant the City a royalty-free, perpetual, irrevocable, and assignable license to use any and all intellectual property interest Consultant or his sub-consultant(s) possess to any drawings, details, specifications, documents, and other information created before each of their first involvement with the Project and subsequently incorporated into the Project's documents. City-furnished data that may be relied upon by Consultant is limited to the printed copies that are delivered to the Consultant pursuant to Article 2 of this Agreement. Any copyrighted electronic files furnished by City shall be used by Consultant only for the Project as described herein. City's posting or publication of such documents created by Consultant for City shall constitute fair use and shall not constitute an infringement of Consultant's copyright, if any.
- 7.3 Documents that may be relied upon by City are limited to the printed copies (also known as hard copies) that are signed or sealed by the Consultant. Files in electronic media format of text, data, graphics, or of other types that are furnished by Consultant to City are only for convenience of City, unless the delivery of the Project in electronic media format has been dictated in Attachment A, Scope of Services. Any conclusion or information obtained or derived from electronic files provided for convenience will be at the user's sole risk.
- 7.4 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Unless stated otherwise herein, Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by City.
- 7.5 When transferring documents in electronic media format, Consultant makes no representations as to long term compatibility, usability, or readability, of documents resulting from the use of software application packages, operating systems, or computer

hardware differing from that as required of, and used by, Consultant at the beginning of this Project.

- 7.6 City may make and retain copies of Documents for information and reference in connection with use on the Project by the City, or his authorized representative. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modifications without written verification or adaptation by Consultant, as appropriate for the specific purpose intended, will be at City's sole risk and without liability or legal exposure to the Consultant or to Consultant's sub-consultants.
- 7.7 If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 7.8 Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle Consultant to further compensation at rates to be agreed upon by City and Consultant.

ARTICLE 8. INSURANCE.

- 8.1 During the performance of the Services under this Agreement, Consultant shall maintain the following minimum insurance:
 - a) General Liability Insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
 - b) Automobile Liability Insurance with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.
 - c) Workers' Compensation Insurance Coverage A in accordance with statutory requirements and Coverage B, Employer's Liability Insurance, with a limit of \$500,000 for each occurrence.
 - d) Professional Liability Insurance with a limit of \$1,000,000 annual aggregate.
- 8.2 Consultant shall add the City an additional insured on all policies unless otherwise prohibited.
- 8.3 Consultant shall, upon execution of this Agreement, furnish City certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days' written notice to City.
- 8.4 No insurance, of whatever kind or type is to be considered as in any way limiting other parties' responsibility for damages resulting from their activities in the execution of the Project. City agrees to include, or cause to be included, in the Project's construction contract, such requirements for insurance coverage and performance bonds by the Project's construction contractor as City deems adequate to indemnify City, Consultant, and other concerned parties against claims for damages and to insure compliance of work performance and materials with Project requirements.

ARTICLE 9. PAYMENT.

- 9.1 City will pay Consultant for services and expenses in accordance with the Fee Schedule proposal submitted for the Project as part of the Scope of Services. Consultant's invoices will be presented at the completion of the work or monthly and will be payable upon receipt. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. City shall give prompt written notice of any disputed amount and shall pay the remaining amount.

- 9.2 Consultant shall be paid in full for all services under this Agreement, including City authorized overruns of the Project budget or unforeseen need for Consultant's services exceeding the original Scope of Services.
- 9.3 **TRAVEL; EXPENSES**
City shall reimburse reasonable expenses, including travel and meals, when specified in the Scope of Services, but only in accordance with the City's Travel and Expense Policy and Procedures Manual. The maximum amount will be applied as of the date of travel and as listed in the per diem reimbursement rates on the "CONUS" website developed by the United States General Services Administration, located at www.gsa.gov [click on 'per diem rates' under the 'etools' category].

ARTICLE 10. MISCELLANEOUS PROVISIONS

- 10.1 **EQUAL EMPLOYMENT OPPORTUNITY.** In connection with this Agreement and the Project, City and Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. City and Consultant will take affirmative action to ensure that the contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 10.1.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.2 **TITLE VI – CIVIL RIGHTS ACT OF 1964.** City and Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.
- 10.2.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.3 **NO THIRD PARTY RIGHTS CREATED.** City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Consultant.
- 10.4 **WARRANTIES/LIMITATION OF LIABILITY/WAIVER.** City reserves all rights afforded to local governments under law for all general and implied warranties. City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.

ARTICLE 11. EXTENT OF AGREEMENT:

- 11.1 **APPLICABLE LAW/CHOICE OF FORUM AND VENUE.** This Agreement is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to that state's choice of law rules. The parties' choice of forum and venue shall be exclusively in the courts of Williamson County, Tennessee. Any provision of this

Agreement held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.

- 11.2 ENTIRE AGREEMENT. This Agreement, including these terms and conditions, represent the entire Agreement between City and Consultant for this Project and supersedes all prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

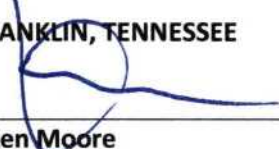
ARTICLE 12. DISPUTE RESOLUTION, BREACH.

- 12.1 If a dispute should arise relating to the performance of or payment for the Services under this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder. No arbitration or mediation shall be required as a condition precedent to filing any legal claim arising out of or relating to this Agreement. No arbitration or mediation shall be binding.
- 12.2 BREACH. Upon deliberate breach of the Agreement by either party, the non-breaching party shall be entitled to terminate the Agreement with notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

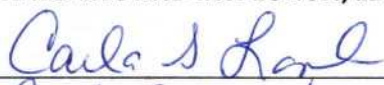
ARTICLE 13. SURVIVAL.

The provisions contained in this Professional Services Agreement shall survive the completion of or any termination of the Agreement, contract or other document to which it may accompany or incorporate by reference or which subsequently may be modified, unless expressly excepted from this Article upon consent of both parties.

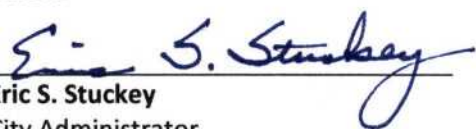
CITY OF FRANKLIN, TENNESSEE

By: 
Dr. Ken Moore
Mayor
Date: 3-04-19

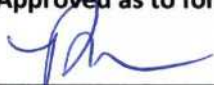
C&T ENGINEERING AND INSPECTION, LLC

By: 
Print: Carla S. Lamb
Title: President
Date: sep 7, 2019

Attest:


Eric S. Stuckey
City Administrator
Date: 3-04-19

Approved as to form:


Tiffani M. Pope, Staff Attorney



**Attachment A – Scope of Work
Construction Administration Services
East McEwen Drive Roundabout
For City of Franklin, TN**

12/3/2018

Mr. Jonathan Marston, PE
Assistant Director Engineering
109 3rd Avenue South
Franklin, TN 37064

Delivered via electronic mail to jonathan.marston@franklinton.gov

Re: East McEwen Drive Roundabout Construction Administration

Dear Mr. Marston,

We appreciate the opportunity to submit this proposal scope for Construction Administration Services for the above mentioned project. The scope of work will include the following tasks.

Task 1 – Construction Administration:

C&T will supply a Senior Resident Project Representative (RPR) to document stored material, perform daily inspection of the construction site including daily observation and coordination of contractor(s), document daily material quantities installed, complete a daily work report and assist the City with monthly payment application requests. C&T will communicate regularly with the City's designated Project Manager about site activities.

C&T will attend the pre-construction meeting, monthly status meetings and perform daily site visits. C&T will prepare a brief status report and issue to the City via email each month throughout the duration of the project. Each report will include the status of milestones, updates on project activities, follow up on action items and other information pertinent to the project.

Task 2 – Materials Testing:

C&T will perform soil, asphalt and concrete field-testing services including laboratory testing as directed by the City of Franklin Engineering Project Manager. Testing services will include but not be limited to proof rolling observations, in place field density testing, in place asphalt density testing, concrete air, slump, temperature and unit weight testing. Representative concrete cylinders will be cast for compressive strength testing including initial curing onsite and transported to the laboratory for final curing and compressive strength testing.

Exclusions:

- Bidding Assistance
- Shop Drawing and Submittal Review/RFI Response and Review
- Utility Coordination
- Survey/Construction Staking/Asbuilts
- Plan Revisions/Redesign of the Project
- Direct Development of Work Change Directives and Change Orders

Cost:

TASK	FEE BY TASK
TASK1: Construction Administration Services	\$89,880.00
TASK 2: Materials Testing Services	\$5,000.00
TOTAL:	\$94,880.00

The project schedule will encompass a maximum of 240 calendar days from the pre-construction meeting to Final Completion. Task 1 maximum of 856 manhours and Task 2 includes a \$5,000 testing contingency to be used as the City directs. We propose to provide the services described above for a guaranteed not to exceed fee of **\$94,880.00** to be invoiced monthly based on established hourly rates and time documented. Our hourly rate schedule is included as an attachment to this letter.

C&T will begin work immediately upon notice to proceed. No out-of-scope work will be performed without prior written approval by the City. If unforeseen conditions or consulting needs arise beyond what is specifically mentioned in the Scope of Services above, and upon written approval by the City, C&T will provide the additional services on an hourly basis based upon rates established between Franklin and C&T.

We appreciate the opportunity to continue to work with the City of Franklin to complete this important project. If you have questions or require additional information, please call me at (615) 567-3306.

Sincerely,



Carla S. Lamb
President

Attachment

Fee Schedule:

<u>Classification</u>	<u>Rate/Hour</u>
Senior Principal	\$220.00
Principal	\$185.00
Senior Project Manager	\$170.00
Project Manager	\$165.00
Assistant Project Manager	\$150.00
Engineer	\$135.00
CAD Designer	\$95.00
Construction Manager	\$145.00
Chief Resident Project Representative	\$125.00
Senior Resident Project representative	\$115.00
Resident Project Representative	\$105.00
Administrative Manager	\$85.00
Administrative Assistant	\$70.00



File #: 21-01644

DATE: January 20, 2021
TO: Capital Investment Committee
FROM:
SUBJECT:

Consideration Of Draft Amendment 2 To COF Contract No. 2019-0098, An Amendment To The Professional Services Agreement with Alfred Benesch & Company For The Design Of The Southeast Park Bridge And Carothers Parkway Intersection Improvements To Allow Construction Administration And Related Technical Services During Construction At A Cost Increase Not-To-Exceed \$196,007.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Amendment No. 2 to the Professional Services Agreement (PSA) with Alfred Benesch & Company (Benesch).

BACKGROUND/STAFF COMMENTS:

On April 23, 2019, the BOMA approved a PSA (COF Contract No. 2019-0098) with Benesch to design a bridge across the Harpeth River and improvements to Carothers Parkway to allow access to the future Southeast Municipal Complex/Park that is currently under design. On June 23, 2020, the BOMA approved Amendment No. 1 to the PSA to allow for additional design services. The design has since been completed, and the project has entered the construction phase.

On December 30, 2020, the BOMA approved Resolution 2020-238 to award the construction contract (COF Contract No. 2020-0261) for the Carothers Parkway Widening and Southeast Municipal Complex Entrance. Because this project includes the construction of a bridge and includes a significant amount of specialty geotechnical work, staff requested the designer to submit a proposal to assist with construction administration, materials testing, special geotechnical inspections, and to complete an as-built survey of the finished bridge. The additional services provided with this Amendment No. 2 are generally focused on the specialty items of this construction project, as staff, along with on-call inspectors, will handle the general management of this project.

FINANCIAL IMPACT:

The cost of Amendment No. 2 is \$196,006.83. This project has been generally funded through the Capital Project Fund (310), with the final source of funding to be determined by the Finance Department.

RECOMMENDATION:

Staff recommends that Amendment 2 to COF Contract No. 2019-0098 be recommended for approval by the Board of Mayor and Aldermen.

**AMENDMENT NO. 2 TO
PROFESSIONAL SERVICES AGREEMENT FOR THE
DESIGN OF SOUTHEAST PARK BRIDGE & CAROTHERS PARKWAY
INTERSECTION IMPROVEMENTS
COF Contract No. 2019-0098**

THIS AMENDMENT is made and entered into on this the ____ day of _____ 20____, by and between the **City of Franklin, Tennessee** ("City") and **Alfred Benesch & Company** ("Consultant").

WITNESSETH:

WHEREAS, on April 23, 2019, City and Consultant entered into a Professional Services Agreement ("Agreement") entitled **Design of Southeast Park Bridge & Carothers Parkway Intersection Improvements**; and

WHEREAS, said Agreement stipulated that the Consultant would be paid a lump sum fee of Three Hundred Fifty-Eight Thousand Six Hundred Fifty-Six and No/100 Dollars (\$358,656.00) for survey, engineering, and related technical services, as detailed in the Scope of Services; and

WHEREAS, on June 23, 2020, the Board of Mayor and Aldermen approved Amendment No. 1 to the Agreement to provide additional engineering services in the lump sum amount of Forty-Seven Thousand Forty and No/100 Dollars (\$47,040.00); and

WHEREAS, the Southeast Park Bridge & Carothers Parkway Intersection ("Project") has entered the construction phase; and

WHEREAS, the City requests additional services from the Consultant, including: Construction Administration, Material Testing, Special Geotechnical Inspection, and Survey to aid the City in management of Project construction; and

WHEREAS, the Consultant has provided a Proposal ("Attachment A"), dated January 20, 2021, to provide these aforementioned additional services for a cost increase not-to-exceed **One Hundred Ninety-Six Thousand Six and 83/100 Dollars (\$196,006.83)**; and

WHEREAS, the City has reviewed the Proposal and desires to enter into an Amendment to the Agreement for the Project as proposed.

NOW, THEREFORE, in consideration of these premises and the mutual promises contained herein, it is agreed by and between the parties as follows:

1. The foregoing recitals are incorporated by reference as if fully stated herein.
2. Consultant's Responsibilities and Duties. Consultant agrees to perform the work as proposed in Attachment A, dated January 20, 2021, which includes the Scope of Services for this Amendment, all of which shall be considered as an integral part hereof.
3. City's Responsibilities and Duties. City shall pay Consultant for the cost of the work as described in Attachment A in the lump sum amount of **One Hundred Ninety-Six Thousand Six and 83/100 Dollars (\$196,006.83)**.

The City reserves the right to issue any payments jointly to the Consultant and Sub-Consultant when the City receives information that the Consultant has not paid its Sub-Consultant.

4. Waiver. Neither party's failure nor delay to exercise any of its rights or powers under this Amendment will constitute or be deemed a waiver or forfeiture of those rights or powers. For a waiver of a right or power to be effective, it must be in writing signed by the waiving party. An effective waiver of a right or power shall not be construed as either (a) a future or continuing waiver of that same right or power, or (b) the waiver of any other right or power.

5. Severability. If any term or provision of the Amendment is held to be illegal or unenforceable, the validity or enforceability of the remainder of the Amendment will not be affected.

6. Precedence. In the event of conflict between this Amendment and the provisions of the previous Agreement(s), or any other contract, agreement or other document to which this Amendment may accompany or incorporate by reference, the provisions of this Amendment will, to the extent of such conflict (or to the extent the Agreement is silent), take precedence unless such document expressly states that it is amending this Amendment.

7. Entire Agreement. The Amendment between the parties supersedes any prior or contemporaneous communications, representations or agreements between the parties, whether oral or written, regarding the subject matter of the entire Amendment. The terms and conditions of this Amendment may not be changed except by an amendment expressly referencing this Amendment by section number and signed by an authorized representative of each party.

8. Additions/Modifications. If seeking any addition or modification to the Amendment, the parties agree to reference the specific paragraph number sought to be changed on any future document or purchase order issued in furtherance of the Amendment, however, an omission of the reference to same shall not affect its applicability. In no event shall either party be bound by any terms contained in any purchase order, acknowledgement, or other writings unless: (a) such purchase order, acknowledgement, or other writings specifically refer to the Amendment or to the specific clause they are intended to modify; (b) clearly indicate the intention of both parties to override and modify the Amendment; and (c) such purchase order, acknowledgement, or other writings are signed, with specific material clauses separately initialed, by authorized representatives of both parties.

9. Breach. Upon deliberate breach of the Amendment by either party, the non-breaching party shall be entitled to terminate the Amendment without notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

10. Survival. This Amendment shall survive the completion of or any termination of the original contract, revised contract, or agreement or other document to which it may accompany or incorporate by reference.

All other provisions of the Agreement, dated April 23, 2019, and Amendment No. 1, dated June 23, 2020 are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment.

CITY OF FRANKLIN, TENNESSEE:

ALFRED BENESCH & COMPANY:

By: _____
Dr. Ken Moore
Mayor
Date: _____

By: _____
Print: _____
Title: _____
Date: _____

Attest:

Eric S. Stuckey
City Administrator
Date: _____

Approved as to Form:

Maricruz R. Fincher, Staff Attorney



Alfred Benesch & Company
574 Franklin Road, Suite 300
Franklin, TN 37069
www.benesch.com
P 615-370-6079
F 615-627-4066

January 20, 2021

Mr. Paul Holzen, PE
City of Franklin
109 Third Avenue South, Suite 142
Franklin, TN 37064

RE: Supplemental Scope and Design Proposal
Southeast Park Entrance Road Construction Administration Services
Franklin, TN

Dear Mr. Holzen:

Per our previous discussions, we have amended the attached scope to specifically include observation of the rammed aggregate pier installation for the Southeast Park Entrance Road project. See the attached scope for additional details and subconsultants that are included.

If you have any questions or need additional information, please let me know. Thank you for the opportunity to serve the City of Franklin.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sammie McCoy".

Sammie McCoy, PE
Vice President
TN Division Manager



Southeast Park Entrance Road– City of Franklin

Supplemental Scope of Work: Construction Administration Tasks

Park Entrance Road and Bridge over the Harpeth River

During the construction of the project, Benesch will:

1. Receive and evaluate requests for information (RFI)'s from the contractor.
2. Prepare, attend, and review documentation of meetings held for the project throughout the anticipated duration (18 months).
3. Bridge Approvals/Submittals (as follows)
 - a. Process, review, and provide approval of shop drawing submissions for bridge elements.
 - b. Provide general construction observation and maintain observation reports for visits to the project sites including foundation for structure before placement of steel and reinforcing steel and prior to allowing concrete pours.
 - c. General observation will also include attendance of the pre-construction meeting, and a site visit upon completion of staking.
 - d. Other visits will also occur for the following items:
 - i. One per footing, substructure element, wing-wall, and bridge rail (as necessary)
 - ii. One for the bridge deck

Bridge As-Built Survey

1. See the attached scope and fee from HMB Professional Engineers, Inc. to provide an as-built survey of the proposed bridge over the Harpeth River for the purposes of assisting with the completion of a FEMA LOMR.

Material Testing and Special Geotechnical Inspection Services

1. See the attached scope and fee from Terracon to provide the necessary material testing and special geotechnical inspection services.
2. Each work item has a specific subtotal cost and each work item can be utilized as required by the City.

Items not included in the Benesch Scope

1. Full TDOT level Construction Engineering and Inspection (CEI)

Compensation:

The following is the compensation to be paid to Benesch for the scope items noted above. All incidental costs (i.e. printing, travel, etc.) are included in the cost-plus fees based on the attached rate table.

Fee Summary		
Item	Fee Type	Amount
Construction Admin. Services	Cost Plus	\$ 67,900.00
Bridge As-Built Survey (HMB)	Cost Plus	\$ 7,824.83
Materials Testing and Special Geotechnical Inspection Services (Terracon)	Cost Plus	\$ 120,282.00
Final Contract Not-To Exceed		\$ 196,006.83

2021 HOURLY RATE TABLE

<u>CLASSIFICATION</u>	<u>RATE</u>
Technologist I	\$56.00
Technologist II	\$76.00
Senior Technologist	\$92.00
Designer I	\$87.00
Designer II	\$95.00
Senior Designer	\$105.00
Project Engineer I	\$110.00
Project Engineer II	\$130.00
Senior Project Engineer	\$145.00
Project Manager I	\$138.00
Project Manager II	\$160.00
Senior Project Manager	\$175.00
Principal	\$200.00

DIRECT REIMBURSABLE EXPENSES

Travel	IRS Approved Rate
Overnight/Special Delivery Postage	At Cost
Special Equipment Rental	At Cost
Tolls/Parking	At Cost
Printing/Copies	At Cost
Permit Fees	At Cost

- Alfred Benesch & Company does not charge additional hourly rates for Accounting or Administrative functions.
- The above rates are all inclusive; there are no extra charges or fees.
- Rates are subject to change on a calendar year basis



January 19, 2021

Alfred Benesch & Company

8 Cadillac Drive, Suite 250
Brentwood, Tennessee 37027

Attn: **Mr. Jake Williams**
jwilliams@benesch.com

Re: **Proposal for Special Inspections and
Construction Material Testing Services - Revised
SE Municipal Complex Bridge and Park Entrance
Carothers Parkway, Franklin, Tennessee
Terracon Proposal No.: P18201111**

Dear Mr. Williams:

Terracon appreciates the opportunity to submit our proposal for Special Inspections and construction material testing services for the referenced project. This proposal describes our understanding of the project and the scope of services we are being asked to provide. It also includes our budget estimate and addresses the conditions under which services will be provided. This proposal has been revised to add rammed aggregate piers.

PROJECT INFORMATION

Project information was provided by Messrs. Jake Williams and Brian Ralstin with Alfred Benesch and Company in an email exchange with Mr. John McAlister with Terracon on June 24 through July 7, 2020. Included in the email was a link to the plan room to download the 95% drawings, dated 2020. Additionally, Terracon performed the geotechnical exploration for this project and issued a report dated February 8, 2020. Project specifications were not provided; however, the drawings indicate the specifications for this project will conform with TDOT Standard Road and Bridge Specifications, 2015 Edition.

Additional information was provided by Mr. Ralstin to Mr. McAlister during a phone call on January 18, 2021 and follow-up e-mails on the 19th. We understand that rammed aggregate piers have been added to the project. The aggregate pier design drawings and scheduled start date have not been supplied. However, we understand the expected duration of the rammed aggregate pier installation will be 4-6 weeks. Terracon is using a 6-week schedule for budgeting purposes.

The subject site is located on the southwest side of Carothers Parkway in Franklin, Tennessee. The new park complex will be bounded by I-65 to the west, vacant fields to the north and south, and Carothers Parkway to the east. The Harpeth River meanders along the north, east, and south sides of the planned park. We understand that the project construction will consist of:

**Proposal for Special Inspections and
Construction Materials Testing Services**

SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111



- Fill Placement along the abutments. Up to about 20 feet of soil fill;
- Rammed Aggregate Pier installation at deeper fills;
- Settlement plates for the newly placed fill;
- New bridge crossing over the Harpeth River consisting of two abutments and two interior piers;
- Driven pile deep foundations for the bridge abutments;
- Drilled shafts for the for the bridge interior piers;
- Concrete abutments and bents for the new bridge;
- ;
- Concrete slab and parapet walls for the bridge;
- Asphalt paved entrance road to the park complex;
- and reconstruction of Carothers Parkway in the areas of construction.

Based on the provided information, we understand that the new bridge will be approximately 580-feet long and 52-feet wide. The bridge will have a 24-foot two-way travel lane with a 5 ½ -foot shoulder on each side. A pedestrian path will be located on the south side of the bridge. Cast-in-place concrete walls will be located on each side of the road along the bridge crossing. The concrete abutments will be at Stations 49+42.00 and 54+70.00 and two interior piers will be located along the bridge span at Stations 51+06.00 and 53+06.00.

We understand the concrete abutments will require 18 driven H-piles each. The H-piles will be driven to refusal at bedrock surface, approximately 9 to 18 feet deep. The pile cap for the abutments will be approximately 3-feet thick. The concrete abutment end walls will be approximately 52-feet wide and 7-feet tall and the wingwalls will be approximately 27-feet long and up to 7-feet tall. Each interior pier will require three drilled caissons, 42-inch diameter in rock and 60-inch diameter in soil; each with a 15-foot rock socket and an allowable end bearing pressure of 50 kips per square foot. The caissons will extend to approximately 26 feet for Bent 1 and 45 feet for Bent 2. The bent caps will be approximately 52-feet long and 4-feet wide.

Based on the provided documents, we understand that the Harpeth River water level is at an average elevation of 626.05 feet. The drawings indicate that 100-year flood elevation is approximately 650.78 feet. The proposed bridge abutments top-of-wall will be designed at an elevation of approximately 654.0 feet. The provided documents indicate that up to approximately 18 feet of cut and 20 feet of fill will be required for the proposed bridge, see below geotechnical information for additional information. We understand a temporary bridge will be constructed north of the proposed bridge for access during construction.

The geotechnical report dated February 8, 2020, indicates that auger refusal was encountered in the southwest abutment from 9 ½ to 11 ½ feet and at 18 ½ feet for the northeast abutment. Auger refusal was encountered within the bent footprints at approximately 12 to 13 feet, with the exception of boring B-5, which encountered auger refusal at 20 feet below existing grade. The

**Proposal for Special Inspections and
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SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111



report states that the overburden materials at the site mainly consist of cultivated material underlain by alluvial soils. These soils are not considered suitable for bearing support. The report recommends driven piles and drilled shafts for the bridge construction. The report states that up to 8 feet of fill is anticipated for the southwest abutment and 20 feet for the northeast abutments. The approach roadway may require up to 6 feet of undercut and backfill. It is anticipated that fill settlement will occur during fill placement and that total settlements are expected to be within tolerable limits for the abutments within approximately 45 to 60 days. It is recommended that settlement plates be installed to monitor settlement during fill placement construction. Additionally, to control settlement, we understand rammed aggregate piers will be installed at the deeper fills near the abutments.

Terracon performed an additional geotechnical exploration for the Municipal Park and planned borrow pit area, dated February 10, 2020. The borings within the planned borrow pit area encountered up to two feet of cultivated material underlain by lean to fat clay extending to the boring termination depth of 10 feet. The lean and fat clay had an average consistency of stiff to very stiff. It is our understanding that this material is planned to be used for fill placement for the proposed bridge abutments. If shot rock fill is utilized in lieu of soil, it is recommended that the driven piles be installed prior, predrilling of pilot holes be performed, or sleeves installed at the pile locations during fill placement.

Additional project information was provided by Mr. Jake Williams with Alfred Benesch and Company in a phone conversation with Messrs. Tim Smith and Jackson Brown with Terracon on July 13, 2020. Terracon understands that down-hole inspections for the drilled shafts is not preferred for drilled shaft bearing evaluation. Terracon has been requested to include a budget estimate for pre-drilling the six drilled shafts to planned bearing depth (plus two times the diameter of the shaft). See the discussion section for more information. Terracon has included this scope in our attached budget estimate.

Terracon has not been provided a detailed construction schedule. We understand the project will start in spring to summer 2021. Based on our understanding of the project, Terracon has assumed our work schedule to be full time during fill placement and shaft drilling followed by on-call, part-time for other construction activities. We understand the rammed aggregate pier work will partially overlap the fill work. Terracon has assumed a dedicated staff member to be needed for monitoring of the rammed aggregate piers.

Terracon has been asked to provide a proposal for construction materials testing and Special Inspections for the SE Municipal Park Bridge project.

**Proposal for Special Inspections and
Construction Materials Testing Services**SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111**DISCUSSION**

Terracon has not been provided with a detailed construction schedule at this time. Our assumptions of the number of site visits and amount of time to complete the testing and Special Inspections are based on our experience with similar construction and our assumptions for the testing requested. **These items play heavily into our budget estimate; therefore, our time onsite and trips will be greatly influenced by the contractor's schedule and pace during construction activities. Terracon understands about a total 12-month schedule for the construction. If our assumptions are incorrect or if a detailed construction schedule becomes available, please contact us so that the proposal can be adjusted appropriately.**

To provide the engineering standard of care for the design allowable bearing capacity, the rock at each end bearing drilled shaft location should be evaluated. This evaluation is typically performed by a drilled test hole into the rock at the bearing elevation to a depth equal to two times the drilled shaft diameter or a minimum depth of 6 feet, whichever is greater, then a down-hole inspection. However, after a discussion with Mr. Williams, Terracon has been requested to include a budget estimate for pre-drilling of the drilled shaft, extraction of rock core samples and providing an estimated end bearing elevation at each shaft based on the rock core evaluation.

Evaluation of the end bearing capacity of drilled shafts will include pre-drilling each drilled shaft at the center line. For each shaft, we anticipate the center of shaft will be surveyed by the contractor or others. Additionally, we anticipate the area will be made suitable for a truck mounted or ATV drill rig by the contractor or others.

Terracon has been requested to provide a budget estimate for settlement monitoring during fill placement activities. Terracon expects the settlement monitoring plates will be installed by the contractor prior to placement of fill, surveyed by the contractor's surveyor and the data provided to Terracon. The number and location of monitoring plates will be determined at the time of preconstruction.

We understand that the driven piles are not requested to be monitored by Terracon; but will be monitored by the Alfred Benesch & Company or others. Because of the differing monitoring agencies between the different foundation types, Terracon requests a letter or statement from the inspecting entity that the driven piles have been installed in accordance with the project documents. Terracon will not issue letters of conformance for work not inspected or observed by Terracon.

We anticipate clearing is not required in order to access the requested boring locations. We assume that the area previously cleared for our geotechnical exploration is still accessible with the equipment as stated above. We will backfill borings with auger cuttings after completion. Our services do not include repair of the site beyond backfilling our boreholes. Excess auger cuttings are dispersed in the general vicinity of the borehole. Because backfill material often settles below

**Proposal for Special Inspections and
Construction Materials Testing Services**SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111

the surface after a period, we recommend boreholes are checked periodically and backfilled, if necessary. We can provide this service, or grout the boreholes for additional fees, at your request; however, this is not included in our budget at this time.

Initial concrete curing will be in unpowered (unregulated) curing boxes for laboratory specimens. If a controlled, powered curing box is required, Terracon can provide one at a monthly fee with advanced notice. Initial curing for field cures specimens will be cured in similar conditions as the element the cylinders represent.

We expect the contractor's representative to provide daily (the day before) scheduling for our services for typical on-call type services and two-day notice for nightwork. Terracon has not planned to be on site full time during fill placement and drilled shaft construction. We are not responsible for missed Special Inspections items that are not properly scheduled.

If deviations are noted during our field activities, the contractor along with the designers of record will be notified. The Special Inspector does not provide recommendations for corrective action beyond referral back to the design of the element in question. It is the responsibility of the contractor to act to remediate or correct the deviation and provide documentation to the Special Inspector or present to the designer of record for approval as is.

At this time Terracon is unaware of special safety or logistical requirements for the site (i.e. safety orientation, badging, etc.). Safety or logistical training can be performed at additional cost as needed.

SCOPE OF SERVICES**Item A - Geotechnical Pre-Drill for Drilled Shafts**

Our proposed scope of services consists of field exploration and engineering/project delivery. These services are described in the following sections. Our scope of services does not include services associated with site clearing, wet ground conditions, tree or shrub clearing, or repair of/damage to existing landscape or crops. If such services are desired by the owner/client, we should be notified so we can adjust our scope of services. If borings are performed when crops are planted, a crop damage agreement should be established between the Client and crop owner prior to subsurface exploration.

Field Exploration

The field exploration program consists of the following:

Number of Borings	Planned Boring Depth (feet) ¹	Planned Location
6	Auger refusal plus 25 feet of rock coring	Planned bridge supports

**Proposal for Special Inspections and
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Number of Borings	Planned Boring Depth (feet) ¹	Planned Location
1. Below ground surface		

Boring Layout and Elevations: Terracon expects that boring locations and surface elevations will be provided by others for each drilled shaft location. Please note that the boring depth is approximate and final termination depth may vary between borings.

Subsurface Exploration Procedures: We will advance soil borings with an ATV-mounted drill rig using continuous flight augers (solid stem and/or hollow stem, as necessary, depending on soil conditions). The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we will observe and record groundwater levels during drilling and sampling. Upon encountering bedrock or refusal-to-drilling conditions, rock coring (using NQ/NX rock core barrel) will be performed at select borings. We propose to extend six borings in each of the proposed drilled pier locations to 25 feet below refusal depths. A total of 150 feet of rock coring has been budgeted for this project. Water will be used as a drilling fluid for rock coring and the spent water will be discharged on site. Our compensation and budget considers water is available on-site.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials encountered during drilling, and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation, and include modifications based on observations and laboratory tests.

Property Disturbance: We will backfill borings with auger cuttings upon completion. Pavements will be patched with cold-mix asphalt and/or ready mixed concrete, as appropriate. Our services do not include repair of the site beyond backfilling our boreholes, and cold patching existing pavements. Excess auger cuttings will be dispersed in the general vicinity of the borehole. Because backfill material often settles below the surface after a period, we recommend boreholes to be periodically checked and backfilled, if necessary. We can provide this service, or grout the boreholes for additional fees, at your request.

Safety

Terracon is currently not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our scope of services does not include environmental site assessment services, but identification of unusual or unnatural materials encountered while drilling will be noted on our logs and discussed in our report.

Exploration efforts require borings (and possibly excavations) into the subsurface, therefore Terracon complies with local regulations to request a utility location service through Tennessee

**Proposal for Special Inspections and
Construction Materials Testing Services**SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111

811. We consult with the owner/client regarding potential utilities, or other unmarked underground hazards. Based upon the results of this consultation, we consider the need for alternative subsurface exploration methods, as the safety of our field crew is a priority.

Private utilities should be marked by the owner/client prior to commencement of field exploration. Terracon will not be responsible for damage to private utilities that are not made aware to us. If the owner/client is not able to accurately locate private utilities, Terracon can assist the owner/client by coordinating or subcontracting with a private utility locating services. Fees associated with the additional services are not included in our current scope of services and will be forwarded to our client for approval prior to initiating. The detection of underground utilities is dependent upon the composition and construction of the utility line; some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private utility locate service would not relieve the owner of their responsibilities in identifying private underground utilities.

Site Access: Terracon must be granted access to the site by the property owner. By acceptance of this proposal, without information to the contrary, we consider this as authorization to access the property for conducting field exploration in accordance with the scope of services.

Item B - Construction Materials Testing and Special Inspections

Based on our experience with similar projects, and review of the documents provided; we understand the items listed below are to be inspected and/or tested relative to construction of this project. Site grading and drilled shaft construction are anticipated to be observed **full time** by Terracon staff and other items and testing are anticipated to be observed and tested on an **on-call, part-time** basis. We anticipate these elements will compose our efforts:

- **Special Inspections** – Mr. Smith will act and the special inspector of record. Terracon's credentialed technicians will perform field activities associated with the Special Inspections required by the Statement of Special Inspections based on the IBC. This typically does not require additional visits to the site but an additional level of inspection that would be accomplished along with other activities listed below.
- **Earthwork** - Fill placement, field density tests for fine grained engineered fill, settlement monitoring by data supplied by contractor's surveyor, proof roll observations, shot rock fill placement observations, laboratory standard Proctor, gradation, sieve analysis, and Atterberg limits test.
- **Deep Foundations** – Pre-drilling of each drilled shaft to end bearing depth plus two times the diameter. Observe the drilled shaft drilling operations. Direct observation of bottom of shaft cleanliness and evaluation of bedrock bearing surface. See discussion section for more information.

**Proposal for Special Inspections and
Construction Materials Testing Services**

SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111



- **Rammed Aggregate Pier Installation Observation:** Observed the rammed aggregate pier installation. The rammed aggregate pier installation plans are typically contractor produced and Terracon has not been provided them yet. Based on our experience with similar work, we anticipate the observation to include: observations of the installation process for plumbness, diameter, depth, aggregate type (visual), observe a load test performed by the contractor, and document locations installed per day.
- **Cast-in-Place Concrete Reinforcement and Formwork** – Terracon credentialed technicians will observe the formwork and reinforcing for compliance with project plans and specifications. This typically includes formwork dimensions and cleanliness. This does not include formwork shoring. Reinforcement will be observed for size, count, spacing, clearance, cleanliness, orientation (bent bars), support for prevention of displacement during pours and splice length. Reinforcement mill certificates and pre-installation submittals can be reviewed by Terracon prior to installation.
- **Cast-in-Place Concrete** – Terracon credentialed technicians will observe the fresh concrete delivered to the project for compliance with the approved mix designs. This concrete will also be sampled for testing and casting of cylinders at a frequency in accordance with the project documents. Subsequent laboratory curing and compressive strength testing will be completed in our accredited laboratory at our Nashville office. Consideration for hot and cold weather concrete and high-strength concrete will be factored into site curing efforts. If a temperature-controlled field curing box is requested, Terracon can provide one at an additional cost with advanced notice at an additional cost. Additionally, Terracon can provide a cursory review of the mix designs for workability, strength and pumpability based on our experience with construction and local mixes. We do not anticipate temperature monitoring with maturity meters for mass placement events at this time.
- **Structural Steel** – Terracon's AWS credentialed staff or credentialed subcontractor will visually or ultrasonically inspect welded connections, anchor bolts (size, configuration, embedment and projection lengths) for compliance with the project documents and *AISC Code of Standard Practice*. Welder's certifications and welding procedures will be checked against AWS standards. Moment (CJP) welds will be observed for fit-up prior to welding and ultrasonic testing as needed.
- **Miscellaneous Structural Steel Fabrication Shop Submittal** – Terracon's AWS credentialed staff or credentialed subcontractor will review fabrication shop submittals for conformance with project plans. Fabrication shop on site observations are excluded at this time as we anticipate the EOR will review and accept the shop's industry certification;
- **Asphalt Pavements** - Stone base proctor, stone base densities via nuclear moisture density tests, proof roll observations.

**Proposal for Special Inspections and
Construction Materials Testing Services**

SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
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- **Reporting** – In the field, our staff can provide verbal reports and results at the time of the site visit. Field reports will be electronically delivered using Terracon's CMELMS system. Deviations and their resolution will be tracked using the CMELMS system as well.

While not an exhaustive list, certain aspects of the construction are not anticipated to be needed for this project therefore excluded. Terracon can perform these services upon written request and as additional scope of services:

- **Driven-pile observations.**
- Surveying of drilled shaft locations and center-lines.
- Surveying and onsite monitoring of settlement plate locations.
- Installation of settlement plates.
- Temporary bridge observations and testing.
- Bank repair observations and testing after removal of temporary bridge.
- On-site fabrication Shop Inspections.
- Curb, Gutter, and Sidewalk testing or similar civil related concrete testing or observations
- Water barrier or waterproofing observations or testing.
- Laboratory testing to confirm material properties such as fill friction angle, asphalt Marshall stability, flow, and density, maximum theoretical specific gravity, superpave specimens by gyratory.
- Asphalt coring and bulk specific gravity testing of asphalt cores.
- Environmental testing, sampling, or monitoring.
- Path access for a drill rig.

We would be pleased to discuss this portion of the project with you and provide a proposal for these services upon request.

We request a minimum of 24 hours' notice to schedule our services, although we will attempt to meet requests in a shorter time frame. However, we cannot be responsible for additional costs to the project when adequate notice is not given for us to meet the desired schedule.

When our staff is on-site, we ask that the Client's designated representative coordinate with our project manager to confirm when and where observation and testing services are needed. It will not be possible for us to comment on the suitability of materials we have not been directed to observe and test.

Whenever possible, our staff will report the results of tests performed in the field to the Client's designated agent before leaving the site. Terracon's innovative and proprietary software application called Construction Materials Engineering and Lab Management System (CMELMS) will be utilized to comprehensively manage the volumes of data that will be created. Technicians'

**Proposal for Special Inspections and
Construction Materials Testing Services**

SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111



schedules, costs, and budgets are tracked, and daily progress is communicated to keep owners and the design/construction team informed every step of the way.

If tests/inspections results are non-compliant with the contract documents or referenced specifications, we will promptly notify the on-site contractor personnel so corrective action can be taken and documented. Failing tests or non-conformance items (deviations) are immediately relayed to the designated parties, and draft reports are available at the end of each day. The test results and inspection information are quickly entered into the system and formal reports are produced. Failing tests and project deviations are easily tracked in a tabular Project Deviation Log which is distributed to all appropriate parties when deviations are reported.

The Client will be responsible for providing us a complete set of plans and specifications at the start of the project and providing copies of all subsequent revisions and approved submittals/structural steel shop drawings that relate to our services.

COMPENSATION

Services provided will be billed at the unit rates shown on the attached budget estimate. For the construction materials testing and Special Inspections scope, we estimate **fees of about \$106,300**. For the pre-drilling of drilled shafts scope, we estimate **fees of about \$14,000**. Each estimated fee is based on the above referenced project and the quantities shown. Please note that the quantity of the work performed and factors beyond our control, such as weather and the contractor's schedule/efficiency, will affect the actual cost for our services.

SCHEDULING

Our services should be scheduled through our dispatch office at **615.610.1225** at least 24 hours in advance. Cancellations shall also be through our dispatcher prior to 4:30 pm the day prior. Our dispatch office is available between the hours of 7:30 am - 4:30 pm, M-F. After hours calls are handled by our voice mail system. We recommend that you schedule services through our dispatch office during our regular working hours noted above. Voice mail is checked the following morning. Same day call-ins or after hour voice mail call-ins for work the following day are subject to the availability of personnel. We cannot guarantee service for same day call-ins.

**Proposal for Special Inspections and
Construction Materials Testing Services**

SE Municipal Complex Bridge/Entrance ■ Franklin, Tennessee
January 19, 2021 ■ Terracon Proposal No. P18201111

Terracon

CLOSING

If this proposal is acceptable to you, please sign and return a copy of the attached Agreement for Services as our formal authorization to proceed.

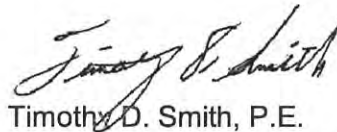
We appreciate the opportunity to be part of your team on this project. Please contact us if you have questions or comments regarding this proposal.

Sincerely,

Terracon Consultants, Inc.



Patrick J. O'Leary, P.E.
Materials Department Manager



Timothy D. Smith, P.E.
Senior Project Manager/Engineer

Attachments: Budget Estimate
Schedule of Fees
Agreement for Services.



5217 Linbar Drive, St 309
Nashville, TN 37211

Proposed Budget Estimate - Revised
COF Contract No. 2019-0058 - Amendment No. 2 - Attachment A
SE Municipal Park Bridge and Approach
Franklin, Tennessee

Terracon Proposal No. P18201111

The following assumptions were made in conjunction with the budget estimate. We have not been provided a construction schedule at this time.							
Terracon has assumed the work week is 5 days a week with 10 hour days (including travel time) for fill placement. No night work.							
Assume full time observations during fill placement							
Assume daily visits for fill placement, concrete testing, or cylinder pickup.							
Assume Terracon casting five 6x12 inch cylinders per set for all concrete types every 50 yards.							
Assume curing of site cylinders is by unheated/uncooled coolers. Temperature controlled initial curing devices available at extra charge.							
Assume up to six proctor samples for the borrow pit							
Assume generally one technician onsite per day performing simultaneous tasks.							
Budget Estimate							

Service	Days	Hours/Day	Total	Units	Rate	Extension
Initial Site Visit and Periodic/Milestone Visits						
Project Manager/Engineer	5	5	25	hours	\$ 145.00	\$ 3,625.00
Trip Charge (mileage only)			5	trips	\$ 30.00	\$ 150.00
					Subtotal	\$ 3,775.00
Pre-Drilling of Drilled Shafts						
ATV Mobilization			1	each	\$ 1,000.00	\$ 1,000.00
Auger Drilling			90	feet	\$ 9.00	\$ 810.00
Rock Coring Setup			6	each	\$ 150.00	\$ 900.00
Rock Coring			150	feet	\$ 45.00	\$ 6,750.00
Water Haul			3	days	\$ 250.00	\$ 750.00
Layout and Project Management			6	hours	\$ 125.00	\$ 750.00
Travel			60	each	\$ 0.65	\$ 39.00
Logging of Collected Samples			6	hours	\$ 115.00	\$ 690.00
Drafting/Administrative			6	hours	\$ 55.00	\$ 330.00
Project Manager/Engineer			8	hours	\$ 145.00	\$ 1,160.00
Principal Review			4	hours	\$ 200.00	\$ 800.00
					Subtotal	\$ 13,979.00
Fill Placement						
Senior Engineering Technician - 10 weeks, 5 days/wk. - Regular Time	50	8	400	hours	\$ 56.00	\$ 22,400.00
Overtime - Weekday	50	2	100	hours	\$ 84.00	\$ 8,400.00
Overtime (Weekend)	6	10	60	hours	\$ 84.00	\$ 5,040.00
Senior Engineer - Settlement Calculations			15	hours	\$ 180.00	\$ 2,700.00
Standard Proctor Testing - Est. 6			6	each	\$ 175.00	\$ 1,050.00
Atterberg Testing - Est. 6			6	each	\$ 85.00	\$ 510.00
Standard Aggregate Proctor - Est. 1			1	each	\$ 225.00	\$ 225.00
Nuclear Density Gauge			56	each	\$ 50.00	\$ 2,800.00
Laboratory Moisture Content Testing - Est. 10			10	each	\$ 10.00	\$ 100.00
Trip Charge (mileage only)			96	trips	\$ 30.00	\$ 2,880.00
					Subtotal	\$ 46,105.00
Rammed Aggregate Pier Observations						
Assumed 6 weeks, 5 days a week, 10 hrs. a day.						
Senior Engineering Technician - 6 weeks, 5 days/wk. - Regular Time	30	8	240	hours	\$ 56.00	\$ 13,440.00
Overtime - Weekday	30	2	60	hours	\$ 84.00	\$ 5,040.00
Trip Charge (mileage only)			30	trips	\$ 30.00	\$ 900.00
					Subtotal	\$ 19,380.00



5217 Linbar Drive, St 309
Nashville, TN 37211

Proposed Budget Estimate - Revised
COF Contract No. 2019-0058 - Amendment No. 2 - Attachment A
SE Municipal Park Bridge and Approach
Franklin, Tennessee

Terracon Proposal No. P18201111

Service	Days	Hours/Day	Total	Units	Rate	Extension
<u>Drilled Shaft Construction</u>						
Senior Engineering Technician - Estimate 1 visit per shaft (6 shafts) at 8 hrs	6	8	48	hours	\$ 56.00	\$ 2,688.00
Concrete Cylinders - Est. 6 sets of 5			30	each	\$ 20.00	\$ 600.00
Specimen Pick-up	3	2	6	hours	\$ 53.00	\$ 318.00
Trip Charge			9	trips	\$ 30.00	\$ 270.00
					Subtotal	\$ 3,876.00
<u>Concrete Bridge Construction</u>						
Senior Engineering Technician - Rebar (when not associated with other visits)	15	6	90	hours	\$ 56.00	\$ 5,040.00
Senior Engineering Technician - Concrete for Abutments and Bents	10	6	60	hours	\$ 56.00	\$ 3,360.00
Senior Engineering Technician - Concrete for Bridge Deck	5	6	30	hours	\$ 56.00	\$ 1,680.00
Senior Engineering Technician - Concrete for Bridge Walls	2	6	12	hours	\$ 56.00	\$ 672.00
Concrete Cylinders - Est. 45 sets of 5			225	each	\$ 20.00	\$ 4,500.00
Specimen Pick-up	15	2	30	hours	\$ 53.00	\$ 1,590.00
Trip Charge			32	trips	\$ 30.00	\$ 960.00
					Subtotal	\$ 12,762.00
<u>Asphalt Construction</u>						
Senior Engineering Technician - Regular Time	10	8	80	hours	\$ 56.00	\$ 4,480.00
Standard Aggregate Proctor - Est. 1			1	each	\$ 225.00	\$ 225.00
Nuclear Density Gauge			10	each	\$ 50.00	\$ 500.00
Trip Charge (mileage only)			10	trips	\$ 30.00	\$ 300.00
					Subtotal	\$ 5,505.00
<u>Project Management, Clerical & Engineer Review</u>						
Clerical			60	hours	\$ 55.00	\$ 3,300.00
Senior Project Manager			60	hours	\$ 180.00	\$ 10,800.00
Principal Review			4	hours	\$ 200.00	\$ 800.00
					Subtotal	\$ 14,900.00
Estimated Total for Construction Services and Special Inspections						\$106,303.00
Estimated Total for Pre-Drilling of Drilled Shafts						\$13,979.00
Estimated Project Total						\$120,282.00

Notes

1. This worksheet is a cost estimate based upon the above-listed hours, trips, and quantities and is not a guaranteed maximum price.
2. Time or testing has not been included for unsuitable soil if encountered.

SE Municipal Park Bridge
Terracon Proposal No.: P18201111
Unit Rate Fee Schedule

PERSONNEL

Principal Engineer	\$195.00/hour
Senior Project Manager.....	\$180.00/hour
Project Manager	\$145.00/hour
Field Engineer	\$125.00/hour
Administrative/Clerical.....	\$55.00/hour
Certified Welding Inspector (CWI).....	\$90.00/hour
Wood Frame/Floor Flatness/ SWPPP Technician.....	\$80.00/hour
*Senior Engineering Technician	\$56.00/hour
*Engineering Technician	\$53.00/hour

Increase hourly rate by 1.50 times for Saturdays/Sundays and time exceeding 8 hours per day Monday through Friday. Field services provided after 6:00 PM and prior to 7:00 AM are subject to overtime rates. Increase hourly rate by 2.0 times for Holidays. **\$1,000 minimum per project. Except for cylinder pickup visits, 4 four minimum field visit charge.*

Transportation

Vehicle Charge	\$45.00/trip
----------------------	--------------

Trip charge includes mileage only from portal to portal.

EQUIPMENT / MATERIAL

Nuclear Density and Moisture Measuring Equipment	\$50.00/day
--	-------------

SOILS / AGGREGATE LABORATORY

Atterberg Limits Determination (includes natural moisture content)	\$85.00/test
Soil Standard Proctor (ASTM D 698)	\$175.00/test
Grain Size Analysis (ASTM D 422).....	\$140.00/test
Aggregate Gradation (ASTM C 136).....	\$100.00/test
Moisture Content Testing (ASTM D 2216).....	\$10.00/test
Stone Standard Proctor (ASTM D 698)	\$225.00/test

CONCRETE / MASONRY LABORATORY

Compressive Strength (Includes specimens cast by Terracon)	
■ 4"x8" Cylinder	\$18.00/each
■ 6"x12" Cylinder	\$20.00/each
■ 3 ½"x7" Grout Prism.....	\$22.00/each
■ 2-inch Cube or 2-inch Diameter Cylinder	\$22.00/each
■ CMU Block.....	\$75.00/each
Compressive Strength (Cast by Others)	
■ Cylinder	\$30.00/each

ASPHALT LABORATORY

Extraction / Gradation (ASTM D 2172)	\$140.00/each
Marshall, Stability Flow and Density (ASTM D 1559)	\$100.00/3 plugs
Core Density & Thickness	\$50.00/each

Note: this fee schedule is based on the fee terms and assumptions listed in the proposal. Changes to those terms and assumptions may lead to changes to the unit fees.



2 International Plaza
Suite 205
Nashville, TN 37217

Office: (615) 361-4345
Fax: (615) 631-7737

Highway Engineering

Structural Engineering

Water & Wastewater

Site Development

Right-of-Way

Master Planning

Environmental Planning

Abandoned Mine Land

Surveying

Project Management

Cost Estimation

Stream Restoration

Construction Inspection

Aviation Services

Survey Scope of Work

Bridge As-Built Survey Work – S E Park Bridge – City of Franklin Williamson County, TN

August 27, 2020

Project Description

Alfred Benesch & Company and the City of Franklin desires to contract with HMB Professional Engineers, Inc. (HMB) on the survey of the S E Park Bridge As-Built Survey in the City of Franklin, TN.

Deliverables by the Consultant

HMB will be responsible for developing the following information.

Tasks:

1. Project Length: 700' centerline ft
2. Side Roads: None
3. HMB will not establish an alignment for this job.
4. Does not include survey updates.
5. Control traverses required for intermediate control. HMB will relate all As-Built information to the original plan control network.
6. No Aerial Control required.
7. Primary Bench Levels not included. HMB will digital level through secondary control.
8. Develop Digital Terrain Model
DTM Width:
Area = 70,000 sf
Length = 700 ft
Avg. DTM Width = 100 ft.
This Survey does not include floodplain sections and will only be the as-built of the construction area
9. R.O.W., Deed & Utility Research not included.
10. Property Owner Contact not included
11. Locate Property & Present R.O.W. lines not included
12. Obtain Topographic features within the DTM width.
13. Drainage Survey for culverts not included
14. Bridge Survey included. The topographic information around and below the bridge will be collected within the limits of construction of the new bridge. HMB will collect all visible improvements from the installation of the new bridge. Floodplain section are not included. Stream profile within the limits of construction. Bridge sketch included. As-Built PDF mark up of the bridge plans is included.
15. Railroad Survey not included.
16. Locate Utilities. Show all TN One Call utility locates within the project limits. HMB will collect all utilities marked by One Call and any visible utilities shown on the design drawings. This survey will be performed after the bridge construction is completed.
17. Stake R.O.W. & Easements not included.
18. Stake Sounding Holes not included.
19. Note Reduction & Calculations.

KENTUCKY ■ TENNESSEE ■ INDIANA ■ ALABAMA ■ WEST VIRGINIA



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Aviation Services

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

20. Plot Plan, Profiles, Property Map, Drainage Map, Bridge Survey, Control Point Table, etc.
21. Survey to be completed in late 2022 or early 2023.

KENTUCKY ■ TENNESSEE ■ INDIANA ■ ALABAMA ■ WEST VIRGINIA

TENNESSEE DEPARTMENT OF TRANSPORTATION
MANDAY ESTIMATE AND FEE PROPOSAL

For Survey Only

City of Franklin Bridge over Harpeth River

SE Park Bridge

Williamson County

Project Identification Number (PIN): <000000.00>

General Comments:

Final Survey AS-Built for Bridge Construction over the Harpeth River

HMB Professional Engineers, Inc.

Christopher Dietz

2 International Plaza, Suite 205

Nashville, TN 37217

615-361-4345

cdietz@hmbpe.com

Prepared By:

Christopher Dietz

Date prepared:

8/26/2020

Project No.:

<00000-0000-00>



Version 2.26

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

SURVEY SUMMARY



TDOT
Department of
Transportation

Route: City of Franklin Bridge c 8/26/2020

Description: SE Park Bridge

County: Williamson

Consultant: HMB Professional Engineers, Inc.

Prepared By: Christopher Dietz

Project No.: <00000-0000-00>

Mainline Project Length: 0.13 (miles)

Number of Sideroads: 0 Length: 0 (feet)

Office Travel Time per day (hrs): 0.00

Crew Travel Time per day (hrs): 1.00

Crew Work per day (hrs): 10

Number of Existing Lanes: 0

Proposed: 2

Number of Driveways/Ramps: 0

Location:

Existing Road: 0%

Rural: 50%

New Alignment: 100%

Urban: 50%

Business: 0%

Rural Land Character: Woods: 30%

Terrain: Flat: 100%

Pasture: 70%

Rolling: 0%

Cultivated: 0%

Hilly: 0%

Mountains: 0%

Distance to Nearest Benchmark: 0.0 miles

Number of Survey Updates: 0

R.O.W. Staking:

Iron Pins: 0

Aerial Mapping Available: ☐ YES

1 Stake Points: 0

☒ NO

2 Stake Points: 0

Approximate Obscured Area: 100%

Use 100% if no mapping is available.

Proposed DTM Width: 100 (ft)

Geotechnical Staking:

Points: 0

Drainage:

Approx. Number of Culvert Sites: 0

Number of Bridges: Small: 0

Medium: 0

Large: 1

Approx. Number of Property Tracts: 0

Number of Railroad Crossings: 0

Indicate Utilities Present: Elect: ☒

Telephone: ☐

Cable TV: ☐

Water: ☒

Sewer: ☐

Gas: ☒

Fiber Optic: ☐

Petroleum Pipeline: ☐

Comments on Difficulty, Conditions or Other Considerations:

INPUT SIDEROADS LT & RT OF CENTERLINE	
Sideroad Name	Length (feet)
Total Length	
0	

Version 2.26

SURVEY MANDAY ESTIMATE

ESTIMATE FOR FIELD SURVEYS

PROJECT DESCRIPTION:

Version 2.26

Route: City of Franklin Bridge over Harpeth River

Description: SE Park Bridge

County: Williamson

Prepared By: Christopher Dietz

Consultant: HMB Professional Engineers, Inc.

Date Prepared: 8/26/2020

Project No.: <00000-0000-00>

TOTAL LENGTH(miles): 0.13

OFFICE TRAVEL TIME PER DAY(hrs): 0.00

CREW TRAVEL TIME PER DAY(hrs): 1.00



ACTIVITY

	PROJECT MANAGER	OFFICE CADD TECH.	PARTY CHIEF	INSTRUMENT MAN	RODMAN	RODMAN	FLAGGER	FLAGGER	
	PM	O	P	I	R	R	F	F	Total
1.Establish & Stake Alignments									
2. Update Survey									
3. Control Traverses	0.1								0.1
4. Set Aerial Control									
5. Bench Levels			0.1	0.1	0.1				0.3
6. Develop Digital Terrain Model	0.1	0.1	0.3	0.3	0.3				1.1
7. R.O.W., Deed & Utility Research									
8. Property Owner Contact									
9. Locate Property & Pres. R.O.W. Lines									
10. Obtain Topo/Verify Aerial		0.1	0.6	0.6	0.6				1.9
11. Drainage Surveys (Culverts)									
12. Bridge Surveys (bridge details, stream alignment, topo, profile, flood plain sections, high water, etc.	0.4		1.6	1.6	1.6				5.2
13. Railroad Surveys									
14. Utilities		0.1	0.3	0.3	0.3				1.0
15. Stake R.O.W. & Easements									
16. Stake Sounding Holes									
17. Note Reduction & other Calculations	0.1								0.1
18. Plot Plan, Profiles, Property Map, Drainage Map, Bridge Survey, Control Point Table, etc.		0.2							0.2
19. Supervision	0.1								0.1
20. Travel Time (8 HOUR MAN-DAYS)			0.4	0.4	0.4				1.2
TOTALS (8 HOUR MAN-DAYS)	0.8	0.5	3.3	3.3	3.3				11.2
21. Travel Time (10 HOUR MAN-DAYS)			0.3	0.3	0.3				0.9
TOTALS (ADJ. TO 8 & 10 HR MAN-DAYS)			2.5	2.5	2.5				8.8
TOTAL CALENDAR DAYS SAVED			0.8	0.8	0.8				

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A
SURVEY MANDAY ESTIMATE

PROJECT DESCRIPTION:

Version 2.26

Route: City of Franklin Bridge over Harpeth River
 Description: SE Park Bridge
 County: Williamson
 Consultant: HMB Professional Engineers, Inc.
 Project No.: <00000-0000-00>
 TOTAL LENGTH(miles): 0.13
 Date Prepared: 8/26/2020 Prepared By: Christopher Dietz



	OFFICE DIFFICULTY	FIELD DIFFICULTY	REMARKS
Align.	0.0	0.0	
Update	0.0	0.0	0 Survey Updates
Control	1.0	0.5	
Aerial	0.0	0.0	0 0 NUMBER HORIZONTAL & NUMBER VERTICAL POINTS
Levels	1.0	1.0	ZERO IF NOT REQUIRED
DTM	1.0	1.0	100% PERCENT SKIPS 100 DTM WIDTH(feet)
Research	0.0	0.0	0 NUMBER OF TRACTS
Contacts	0.0	0.0	
Property	0.0	0.0	DO NOT EDIT THESE CELLS
Topo	1.0	1.0	
Culverts	0.0	0.0	
Bridges	0.8	0.8	0 0 1 NUMBER OF SMALL, MEDIUM, LARGE BRIDGES
RR	0.0	0.0	0 NUMBER OF RR CROSSINGS
Utilities	1.0	1.0	3 Number of Different Utilities Involved
R.O.W.	0.0	0.0	DO NOT EDIT THESE CELLS
Geotech.	0.0	0.0	
	1.0		0 0 0 Number of IP's, 1-stake, 2-stakes
Plotting	1.0		0 Number of Geotechnical Staking Points
	1.0		60.8 10 - Hr MD/MILE not including travel
	1.0	1.0	67.7 10 - Hr MD/MILE
			76.9 8 - Hr MD/MILE not including travel
			86.2 8 - Hr MD/MILE

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

SURVEY LABOR DIRECT EXPENSES

SURVEY DIRECT LABOR COST

PROJECT DESCRIPTION:

ROUTE: City of Franklin Bridge over Harpeth River
 DESCRIPTION: SE Park Bridge
 COUNTY: Williamson
 CONSULTANT: HMB Professional Engineers, Inc.
 TOTAL LENGTH(miles): 0.13

Prepared By: Christopher Dietz
 Date Prepared: 8/26/2020



	Abbrev.	Personnel Classification	8 - Hr Man-Days	10 - Hr Man-Days	Approved Hours	Rate Per Hr	Direct Labor	* Premium
1	PM	PROJECT MANAGER	0.8		8.0	\$ 64.90	\$ 415.36	
2	O	OFFICE CADD TECH.	0.5		8.0	\$ 30.48	\$ 121.92	
3	P	PARTY CHIEF	3.3	2.5	10.0	\$ 35.50	\$ 887.50	\$ 88.75
4	I	INSTR. MAN	3.3	2.5	10.0	\$ 30.70	\$ 767.50	\$ 76.75
5	R	RODMAN	3.3	2.5	10.0	\$ 22.00	\$ 550.00	\$ 55.00
6	R	RODMAN	0.0	0.0	10.0	\$ -	\$ -	\$ -
7	F	FLAGGER	0.0	0.0	10.0	\$ -	\$ -	\$ -
8	F	FLAGGER	0.0	0.0	10.0	\$ -	\$ -	\$ -
		TOTALS	11.2	7.5			\$ 2,742.28	\$ 220.50
		TOTALS (Combined 8 & 10 Hour Days)		8.8				

Average Direct Labor Cost Per (Combined 8 - Hour & 10 - Hour) Man-Day	\$ 311.62
Modified 8 - Hour Labor Cost Per Man-Day	\$ 256.89

* Premium Labor is only eligible if the survey crew works greater than a 40 hour work week.

Version 2.26

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

SURVEY LABOR DIRECT EXPENSES

Version 2.26

SURVEY DIRECT EXPENSES						
PROJECT DESCRIPTION: ROUTE: City of Franklin Bridge over Harpeth River DESCRIPTION: SE Park Bridge COUNTY: Williamson CONSULTANT: HMB Professional Engineers, Inc TOTAL LENGTH(miles): 0.13 Prepared By: Christopher Dietz Date Prepared: 8/26/2020 Project No.: <00000-0000-00> 						
Reproduction Costs					Item Subtotal	Item Total Cost
	Item Description	Number / Unit	Unit Price			
	Xerographic Bond	0	\$ -	\$ -		
	Blue-line Fullsize	0	\$ -	\$ -		
	Photo-Copies	0	\$ -	\$ -		
	Deeds	0	\$ -	\$ -		
Subtotal					\$ -	
Travel						
Survey Crew Travel Calculations						
From:	Nashville					
To:	Franklin					
	Number of Trips	No. of Miles/No. of People	* RATE			
Travel Day Per Diem	1.00 Man-Days	X 0.00 People X	\$ 0.00 Per Day	\$ -		
Non Travel Day Per Diem	2.00 Man-Days	X 0.00 People X	\$ 0.00 Per Day	\$ -		
Transportation	3.00 Man-Days	X 50.00 Miles X	\$ 0.47 Per Mile	\$ 70.50		
Lodging	2.00 Nights	X 0.00 People X	\$ 0.00 Per Person	\$ -		
Subtotal					= \$ 70.50	
Office Personnel Travel Calculations						
From:	Nashville					
To:	Franklin					
	Number of Trips	No. of Miles/No. of People	* RATE			
Travel Day Per Diem	0.00 Man-Days	X 0.00 People X	\$ 0.00 Per Day	\$ -		
Non Travel Day Per Diem	0.00 Man-Days	X 0.00 People X	\$ 0.00 Per Day	\$ -		
Transportation	0.00 Round Trips	X 50.00 Miles X	\$ 0.47 Per Mile	\$ -		
Lodging	0.00 Nights	X 0.00 People X	\$ 0.00 Per Person	\$ -		
Subtotal					\$ -	
Other Expenses						
	Item Description	Number / Unit	Unit Price			
		0	\$ -	\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
		0	\$ -	\$ -		
Subtotal					\$ -	
TOTAL DIRECT EXPENSES					\$ 70.50	

* Rate must agree with most current State of Tennessee travel regulations.
First and last day of travel must be at the 75% Per Diem Rate.

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

FEE PROPOSAL

FEE PROPOSAL									
ROUTE:	City of Franklin Bridge over Harpeth River				Project No.:	<00000-0000-00>			
DESCRIPTION:	SE Park Bridge				PIN No.:	<000000.00>			
COUNTY:	Williamson								
CONSULTANT:	HMB Professional Engineers, Inc.								
Prepared By:	Christopher Dietz								
Date Prepared:	8/26/2020								
COMPLETE SURVEY SHEETS FIRST IF SURVEY IS INCLUDED IN THE CONTRACT. PROCEED WITH FEE PROPOSAL IF SURVEY IS NOT INCLUDED.									
This sheet performs fee proposal calculations for each phase of the project and total project. Net Fee is computed by Net Fee Calculator									
Enter the appropriate overhead rate & fill in shaded boxes that apply for each phase.									
Version 2.26									
Data For Fee Calculations									
Overhead Rate =				146.65%	**				
** (State Project Maximum overhead rate = 145%)									
** (Federal Project Maximum overhead rate per External Audit Report)									
Design Direct Labor =				\$	-				
Survey Direct Labor =				\$	2,742.28				
Total Direct Labor =				\$	2,742.28				
Net Fee (Refer to "Net Fee Calculator")				12%	Use 12% Net Fee for supplements to contracts executed prior to 11/01/2016				
(Place X in adjacent box to remove instructions prior to printing.)									
SURVEYS									
							COST FOR	COST FOR	SAVINGS FOR
							10 - Hr Days	8-HR DAY	10 - Hr Days
1	Direct Labor				=	\$	2,742.28	\$ 2,865.76	\$ 123.48
2	Overhead	(Overhead Rate =	1.4665	)	=	\$	4,021.55	\$ 4,202.64	\$ 181.09
	(Overhead rate X direct labor)								
3	Subtotal 1 + 2				=	\$	6,763.83	\$ 7,068.40	\$ 304.57
4	Net Fee =	12%		(Rounded to nearest \$10.)	=	\$	770.00	\$ 808.14	\$ 38.14
	(Direct labor X 2.35 X 0.NF)								
5	Subtotal 3 + 4				=	\$	7,533.83	\$ 7,876.54	\$ 342.71
6	Direct Expense				=	\$	70.50	\$ 94.00	\$ 23.50
7	Premium Labor				=	\$	220.50	\$ -	\$ (220.50)
	(Premium Labor is only eligible if the survey crew works greater than a 40 hour work week.)								
8	Total Survey				=	\$	7,824.83	\$ 7,970.54	\$ 145.71
	(Total 5 + 6 + 7)								

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

FEE PROPOSAL

									Version 2.26		
Preliminary Design											
1	Direct Labor						=	\$	-		
2	Overhead		(Overhead Rate =	1.4665	)		=	\$	-		
	(Overhead rate X direct labor)										
3	Subtotal 1 + 2						=	\$	-		
4	Net Fee =	12.0%			(Rounded to nearest \$10.)		=	\$	-		
	(Direct labor X 2.35 X 0.NF)										
5	Subtotal 3 + 4						=	\$	-		
6	Direct Expense						=	\$	-		
7	Premium Labor						=	\$	-		
8	Total Preliminary Plans						=	\$	-		
	(Total 5 + 6 + 7)										
Right-of-Way Design											
1	Direct Labor						=	\$	-		
2	Overhead		(Overhead Rate =	1.4665	)		=	\$	-		
	(Overhead rate X direct labor)										
3	Subtotal 1 + 2						=	\$	-		
4	Net Fee =	12.0%			(Rounded to nearest \$10.)		=	\$	-		
	(Direct labor X 2.35 X 0.NF)										
5	Subtotal 3 + 4						=	\$	-		
6	Direct Expense						=	\$	-		
7	Premium Labor						=	\$	-		
8	Total Right-of-Way Plans						=	\$	-		
	(Total 5 + 6 + 7)										

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

FEE PROPOSAL

							Version 2.26
Construction Design							
1	Direct Labor				=	\$	-
2	Overhead (Overhead rate X direct labor)	(Overhead Rate = 1.4665)			=	\$	-
3	Subtotal 1 + 2				=	\$	-
4	Net Fee = 12.0% (Direct labor X 2.35 X 0.NF)		(Rounded to nearest \$10.)		=	\$	-
5	Subtotal 3 + 4				=	\$	-
6	Direct Expense				=	\$	-
7	Premium Labor				=	\$	-
8	Total Construction Plans (Total 5 + 6 + 7)				=	\$	-
Total Project							
1	Direct Labor (Sum of Survey, Prel., R.O.W., & Const. Direct Labor)				=	\$	2,742.28
2	Overhead (Overhead rate X direct labor)	(Overhead Rate = 1.4665)			=	\$	4,021.55
3	Subtotal 1 + 2				=	\$	6,763.83
4	Net Fee = 12.0% (Sum of Survey, Prel., R.O.W., & Const. Net Fee)		(Rounded to nearest \$10.)		=	\$	770.00
5	Subtotal 3 + 4				=	\$	7,533.83
6	Direct Expense (Sum of Survey, Prel., R.O.W., & Const. Direct Expenses)	(Itemize and attach)			=	\$	70.50
7	Premium Labor (Sum of Survey, Prel., R.O.W., & Const. Premium Labor)				=	\$	220.50
8	Total Project (Total 5 + 6 + 7)				=	\$	7,824.83
Total Contract						\$	7,824.83
DESIGN COST PER MILE							#DIV/0!
SURVEY COST PER MILE						\$	57,952.54
TOTAL COST PER MILE							#DIV/0!

COF Contract No. 2019-0098 - Amendment No. 2 - Attachment A

FEE PROPOSAL SUMMARY

FEE PROPOSAL SUMMARY

ROUTE:
DESCRIPTION:
COUNTY:
CONSULTANT:
Prepared By:

City of Franklin Bridge over Harpeth River Project No.:
SE Park Bridge
Williamson
HMB Professional Engineers, Inc.
Christopher Dietz

<00000-0000-00>
<000000.00>

Date Prepared: 8/26/2020
mark the appropriate box below an values for the initial ceiling will be calculated.



Version 2.26

Survey Fee Proposal Summary								
	Direct Labor	Overhead	Subtotal Direct Labor & Overhead	Net Fee	Subtotal Direct Labor, Overhead, & Net Fee	Direct Expense	Premium Labor	Total Phase
SURVEY	\$ 2,742.28	\$ 4,021.55	\$ 6,763.83	\$ 770.00	\$ 7,533.83	\$ 70.50	\$ 220.50	\$ 7,824.83

Design Fee Proposal Summary								
	Direct Labor	Overhead	Subtotal Direct Labor & Overhead	Net Fee	Subtotal Direct Labor, Overhead, & Net Fee	Direct Expense	Premium Labor	Total Phase
PRELIMINARY PLANS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
RIGHT-OF-WAY PLANS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Preliminary & Right-of-Way Plans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CONSTRUCTION PLANS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Subtotal Preliminary, R.O.W., & Construction Plans	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Survey & Design	\$ 2,742.28	\$ 4,021.55	\$ 6,763.83	\$ 770.00	\$ 7,533.83	\$ 70.50	\$ 220.50	\$ 7,824.83

(Place a X in appropriate box indicating the point of the initial contract ceiling. Only one (1) block should have an X placed.)
(Note: (Survey thru Const. Plans) can be checked if no initial contract ceiling is to be set.)

- ☐ Survey
- ☐ Survey thru Prel. Plans
- ☐ Survey thru R.O.W. Plans
- ☐ Survey thru Const. Plans
- ☐ Prel. Plans
- ☐ Prel & R.O.W. Plans
- ☐ Prel. Thru Const. Plans

INITIAL CONTRACT CEILING								
	Direct Labor	Overhead	Subtotal Direct Labor & Overhead	Net Fee	Subtotal Direct Labor, Overhead, & Net Fee	Direct Expense	Premium Labor	Total Ceiling
Contract will initially be authorized for:								

(Place X in adjacent box to remove instructions prior to printing.)



File #: 21-01645

DATE: January 20, 2021
TO: Capital Investment Committee
FROM: Paul Holzen, Director of Engineering
SUBJECT:

Consideration Of Draft COF Contract No. 2021-0016, A Professional Services Agreement With Alfred Benesch & Company For Additional Design Services For The Aspen Grove Greenway Trail In An Amount Not-To-Exceed \$111,280.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning COF Contract No. 2021-0016.

BACKGROUND/STAFF COMMENTS:

On October 24, 2019, the City Administrator approved, on behalf of the BOMA, a PSA (COF Contract No. 2019-0312) with Gamble Design Collaborative (GDC) to allow for the conceptual design and preliminary property acquisition services for the Aspen Grove Greenway Trail. The limits of this project are from the existing end of the Aspen Grove Greenway Trail, behind NHC Place Cool Springs, to the existing multi-use trail along Mack Hatcher Parkway. This project will provide the final link to connect Aspen Grove Park with the Mack Hatcher Parkway multi-use trail. On June 23, 2020, BOMA approved Amendment No. 1 to the Professional Services Agreement with Gamble Design Collaborative (GDC) for the preliminary design. During the design process, the team realized the need to evaluate retaining wall and constructability options. Alfred Benesch & Company has historically assisted with wall and structural designs for the City, and they are a current on-call consultant for the City. This proposed scope of services will include retaining wall design services, geotechnical services and hydraulic modeling associated with work in the flood way/plain.

FINANCIAL IMPACT:

The final contract is for an amount not to exceed \$111,280.00. To date, expenses for this project have been paid from the Parkland Dedication Quadrant 1 Fund, Which corresponds to a General Ledger (GL) code of 155-89460-44701. It is anticipated that project expenses will still be paid from this funding source or as determined by the Finance Department.

RECOMMENDATION:

Staff recommends that COF Contract No. 2021-0016 be recommended for approval by the Board of Mayor and Aldermen.

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No. 2021-0016**

THIS PROFESSIONAL SERVICES AGREEMENT is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **ALFRED BENESCH & COMPANY** hereinafter referenced as Consultant, who mutually agree as follows:

DECLARATIONS. City desires to retain Consultant to provide engineering, related technical, and other services in connection with City's project hereinafter referenced as Project. The Project is described as follows:

Additional Design Services for the Aspen Grove Greenway Trail

1. SCOPE OF SERVICES. Consultant shall provide engineering and related technical services for the Project in accordance with the Scope of Services ("Services") as found in Attachment A which shall be considered as an integral part hereof.
2. Consultant shall submit as a part of Attachment A an individual Fee Schedule and a Completion Schedule for the Project based on the detailed Scope of Services.
3. In event of a conflict between this Agreement and the attached document(s), this Agreement shall supersede conflicting terms and conditions.
4. Consultant shall be paid on a monthly basis for work performed based on the Fee Schedule as contained in Attachment A in the Not-to-Exceed Amount of One Hundred Eleven Thousand and Two Hundred and Eighty Dollars (\$111,280.00).
5. Payment of reimbursable items, at direct cost and as listed in the Scope of Services, shall be allowed to exceed the above listed contract ceiling.

The Board of Mayor and Aldermen Approved this Agreement on the _____ Day of _____ 201__.

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

ARTICLE 1. SERVICES. Consultant will:

- 1.1 Act for City in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with standards of competent consultants using the standards in the industry:
- 1.2 Consider all reports to be confidential and distribute copies of the same only to those persons specifically designated by the City.
- 1.3 Perform all services under the general direction of a senior professional employee, licensed and/or registered in the State of Tennessee, when appropriate.
- 1.4 Designate, in writing, the sole Project representative to coordinate with City the Services to be provided, including all contact information.
- 1.5 Unless provided for in the Project Scope of Services (Attachment A), Consultant shall perform all Services with his own forces (employees). Should sub-consultants be proposed to be used in the Project, a listing of said sub-consultants with Services to be performed shall be provided. After approval of this Agreement, no substitute for sub-consultants shall be allowed unless approved by City.
- 1.6 Retain pertinent records relating to the services performed for a period of seven (7) years following the completion of the work; during this period the records shall be available for review by City at all reasonable times.

ARTICLE 2. CITY'S RESPONSIBILITIES. City, or its authorized representative, will:

- 2.1 Provide Consultant with all information regarding the Project, which is available to, or reasonably obtainable by, the City.
- 2.2 Furnish right-of-entry onto the Project site for Consultant's necessary field studies and surveys. Consultant will endeavor to restore the site to its original condition and shall remain solely liable for all damages, costs and expenses, including reasonable attorneys' fees, for failure to make such restoration.
- 2.3 Designate, in writing, the sole Project representative to coordinate with and direct the Consultant, including all contact information.
- 2.4 Guarantee to Consultant that it has the legal capacity to enter into this contract and that sufficient monies are available to fund Consultant's compensation.

ARTICLE 3. GENERAL CONDITIONS.

- 3.1 Consultant, by the performance of services covered hereunder, does not in any way assume, abridge or abrogate any of those duties, responsibilities or authorities customarily vested in other professionals or agencies participating in the Project.
- 3.2 Consultant shall be responsible for the acts or omissions of any party involved in concurrent or subsequent phases of the Project acting upon written instruction issued by the Consultant.
- 3.3 Neither City nor Consultant may assign or transfer its duties or interest in this Agreement without written consent of the other party.
- 3.4 **ALLOCATION OF RISK AND LIABILITY; GENERAL.** Considering the potential liabilities that may exist during the performance of the services of this Agreement, the relative benefits and risks of the Project, and the Consultant's fee for the services rendered, and in consideration of the promises contained in this Agreement, the City and the Consultant agree to allocate and limit such liabilities in accordance with this Article.

- 3.5 INDEMNIFICATION. Consultant agrees to indemnify and hold City harmless from and against legal liability for all judgments, losses, damages, and expenses to the extent such judgments, losses, damages, or expenses are caused by Consultant's negligent act, error or omission in the performance of the services of this Agreement. In the event judgments, losses, damages, or expenses are caused by the joint or concurrent negligence of Consultant and City, they shall be borne by each party in proportion to its own negligence.
- 3.5.1 SURVIVAL. The terms and conditions of this paragraph shall survive completion of this services agreement.
- 3.6 LIMITATIONS OF RESPONSIBILITY. Consultant shall not be responsible for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project unless specifically undertaken in Attachment A, Scope of Services ; (b) the failure of any contractor, subcontractor, Consultant, or other Project participant, not under contract to Consultant, to fulfill contractual responsibilities to City or to comply with federal, state, or local laws, regulations, and codes; or (c) procuring permits, certificates, and licenses required for any construction unless such procurement responsibilities are specifically assigned to Consultant in Attachment A, Scope of Services.

ARTICLE 4. TERMINATION BY THE CITY. The City may terminate this Agreement in accordance with the following terms and conditions:

- 4.1 Termination for Convenience. The City may, when in the interests of the City, terminate performance under this Agreement with the Consultant, in whole or in part, for the convenience of the City. The City shall give written notice of such termination to the Consultant specifying when termination becomes effective. The Consultant shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the Consultant shall stop work when such termination becomes effective. The Consultant shall also terminate outstanding orders and subcontracts for the affected work. The Consultant shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Consultant to assign the Consultant's right, title and interest under termination orders or subcontracts to the City or its designee. The Consultant shall transfer title and deliver to the City such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Consultant has in its possession or control. When terminated for convenience, the Consultant shall be compensated as follows:
- (1) The Consultant shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Consultant fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Consultant the amount the City deems the Consultant is due.
 - (2) The City and the Consultant may agree to the compensation, if any, due to the Consultant hereunder.
 - (3) Absent agreement to the amount due to the Consultant, the City shall pay the Consultant the following amounts:
 - (a) Contract costs for labor, materials, equipment and other services accepted under this Agreement;

- (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Consultant's performance, plus a fair and reasonable allowance for direct job site overhead and earned profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it reasonably appears that the Consultant would have not profited or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

The total sum to be paid the Consultant under this Section shall not exceed the total Agreement Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

- 4.2 Termination for Cause. If the Consultant does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Agreement, then the City, in addition to any other rights it may have against the Consultant or others, may terminate the performance of the Consultant, in whole or in part at the City's sole option, and assume possession of the Project Plans and materials and may complete the work.

In such case, the Consultant shall not be paid further until the work is complete. After Completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the City of completing the work, including all costs and expenses of every nature incurred, has been deducted by the City, such remainder shall belong to the Consultant. Otherwise, the Consultant shall pay and make whole the City for such cost. This obligation for payment shall survive the termination of the Agreement.

In the event the employment of the Consultant is terminated by the City for cause pursuant to this Section and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Section and the provisions of Section 4.1 shall apply.

- 4.3 Termination for Non-Appropriation. The City may also terminate this Agreement, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project, regardless of the source of such funds, and such termination shall be on the terms of Section 4.1.
- 4.4 The City's rights under this Section shall be in addition to those contained elsewhere herein or provided by law.

ARTICLE 5. SCOPE OF SERVICES. Consultant shall provide the Services as described in Attachment A, Scope of Services.

5.1 By mutual agreement, this Agreement and scope can be amended by the parties. The scope and fee for any additional tasks or services under such amendment shall be mutually negotiated and agreed to in writing prior to beginning such additional tasks or services.

5.2 ENVIRONMENTAL RESPONSIBILITY.

Where drilling/sampling services are involved, the samples obtained from the Project site are the property of the City. Should any of these samples be recognized by the Consultant to be contaminated, the City shall remove them from the Consultant's custody and transport them to a disposal site, all in accordance with applicable government statutes, ordinances, and regulations. For all other samples, the Consultant shall retain them for a sixty (60)-day period following the submission of the drilling/sampling report unless the City directs otherwise; thereafter, the Consultant shall discard the samples in accordance with all federal, state and local laws.

ARTICLE 6. SCHEDULE.

6.1 TIME OF THE ESSENCE. The parties agree that time is of the essence with respect to the parties' performance of all provisions of the Agreement.

6.2 Before executing this Agreement, the Consultant shall have prepared and submitted for approval to the City a Completion Schedule for the Project with milestones for the various stages (tasks) of the Services as outlined in the Scope of Services. The Consultant shall submit and obtain the City's approval for any proposed changes to the logic, durations, sequences, or timing of tasks as approved in the Completion Schedule.

6.3 FORCE MAJEURE. Neither party will be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times will be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.4 Should City request changes in the scope, extent, or character of the Project, the fee and the time of performance of Consultant's Services as indicated in Attachment A shall be adjusted equitably.

ARTICLE 7. USE OF DOCUMENTS, DATA.

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. The City shall retain an ownership and property interest therein whether or not the Project is completed.

- 7.1.1 USE OF DATA SYSTEMS: The City maintains all rights to data systems and data (including derivative or hidden data such as metadata) created and used by Consultant through information supplied to the consultant to the City.
- 7.1.2 DISCLOSURE OF DOCUMENTS/DATA. City may be required to disclose documents or data under state or federal law. City shall notify Consultant if a request for data or documents has been made and shall give Consultant a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. Consultant waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page as confidential or proprietary. In exchange, Consultant agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Consultant representation that materials supplied by Consultant (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Consultant and Consultant assumes control over that claim.
- 7.2 By execution of this Agreement, Consultant and his sub-consultant(s) grant the City a royalty-free, perpetual, irrevocable, and assignable license to use any and all intellectual property interest Consultant or his sub-consultant(s) possess to any drawings, details, specifications, documents, and other information created before each of their first involvement with the Project and subsequently incorporated into the Project's documents. City-furnished data that may be relied upon by Consultant is limited to the printed copies that are delivered to the Consultant pursuant to Article 2 of this Agreement. Any copyrighted electronic files furnished by City shall be used by Consultant only for the Project as described herein. City's posting or publication of such documents created by Consultant for City shall constitute fair use and shall not constitute an infringement of Consultant's copyright, if any.
- 7.3 Documents that may be relied upon by City are limited to the printed copies (also known as hard copies) that are signed or sealed by the Consultant. Files in electronic media format of text, data, graphics, or of other types that are furnished by Consultant to City are only for convenience of City, unless the delivery of the Project in electronic media format has been dictated in Attachment A, Scope of Services. Any conclusion or information obtained or derived from electronic files provided for convenience will be at the user's sole risk.
- 7.4 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Unless stated otherwise herein, Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by City.
- 7.5 When transferring documents in electronic media format, Consultant makes no representations as to long term compatibility, usability, or readability, of documents resulting from the use of software application packages, operating systems, or computer

hardware differing from that as required of, and used by, Consultant at the beginning of this Project.

- 7.6 City may make and retain copies of Documents for information and reference in connection with use on the Project by the City, or his authorized representative. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modifications without written verification or adaptation by Consultant, as appropriate for the specific purpose intended, will be at City's sole risk and without liability or legal exposure to the Consultant or to Consultant's sub-consultants.
- 7.7 If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 7.8 Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle Consultant to further compensation at rates to be agreed upon by City and Consultant.

ARTICLE 8. INSURANCE.

- 8.1 During the performance of the Services under this Agreement, Consultant shall maintain the following minimum insurance:
 - a) General Liability Insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
 - b) Automobile Liability Insurance with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.
 - c) Workers' Compensation Insurance Coverage A in accordance with statutory requirements and Coverage B, Employer's Liability Insurance, with a limit of \$500,000 for each occurrence.
 - d) Professional Liability Insurance with a limit of \$1,000,000 annual aggregate.
- 8.2 Consultant shall add the City an additional insured on all policies unless otherwise prohibited.
- 8.3 Consultant shall, upon execution of this Agreement, furnish City certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days' written notice to City.
- 8.4 No insurance, of whatever kind or type is to be considered as in any way limiting other parties' responsibility for damages resulting from their activities in the execution of the Project. City agrees to include, or cause to be included, in the Project's construction contract, such requirements for insurance coverage and performance bonds by the Project's construction contractor as City deems adequate to indemnify City, Consultant, and other concerned parties against claims for damages and to insure compliance of work performance and materials with Project requirements.

ARTICLE 9. PAYMENT.

- 9.1 City will pay Consultant for services and expenses in accordance with the Fee Schedule proposal submitted for the Project as part of the Scope of Services. Consultant's invoices will be presented at the completion of the work or monthly and will be payable upon receipt. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. City shall give prompt written notice of any disputed amount and shall pay the remaining amount.

- 9.2 Consultant shall be paid in full for all services under this Agreement, including City authorized overruns of the Project budget or unforeseen need for Consultant's services exceeding the original Scope of Services.
- 9.3 TRAVEL; EXPENSES
City shall reimburse reasonable expenses, including travel and meals, when specified in the Scope of Services, but only in accordance with the City's Travel and Expense Policy and Procedures Manual. The maximum amount will be applied as of the date of travel and as listed in the per diem reimbursement rates on the "CONUS" website developed by the United States General Services Administration, located at www.gsa.gov [click on 'per diem rates' under the 'etools' category].

ARTICLE 10. MISCELLANEOUS PROVISIONS

- 10.1 EQUAL EMPLOYMENT OPPORTUNITY. In connection with this Agreement and the Project, City and Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. City and Consultant will take affirmative action to ensure that the contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 10.1.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.2 TITLE VI – CIVIL RIGHTS ACT OF 1964. City and Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.
- 10.2.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.3 NO THIRD PARTY RIGHTS CREATED. City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Consultant.
- 10.4 WARRANTIES/LIMITATION OF LIABILITY/WAIVER. City reserves all rights afforded to local governments under law for all general and implied warranties. City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.

ARTICLE 11. EXTENT OF AGREEMENT:

- 11.1 APPLICABLE LAW/CHOICE OF FORUM AND VENUE. This Agreement is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to that state's choice of law rules. The parties' choice of forum and venue shall be exclusively in the courts of Williamson County, Tennessee. Any provision of this

Agreement held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.

- 11.2 ENTIRE AGREEMENT. This Agreement, including these terms and conditions, represent the entire Agreement between City and Consultant for this Project and supersedes all prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

ARTICLE 12. DISPUTE RESOLUTION, BREACH.

- 12.1 If a dispute should arise relating to the performance of or payment for the Services under this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder. No arbitration or mediation shall be required as a condition precedent to filing any legal claim arising out of or relating to this Agreement. No arbitration or mediation shall be binding.
- 12.2 BREACH. Upon deliberate breach of the Agreement by either party, the non-breaching party shall be entitled to terminate the Agreement with notice, with all of the remedies it would have in the event of termination, and may also have such other remedies as it may be entitled to in law or in equity.

ARTICLE 13. SURVIVAL.

The provisions contained in this Professional Services Agreement shall survive the completion of or any termination of the Agreement, contract or other document to which it may accompany or incorporate by reference or which subsequently may be modified, unless expressly excepted from this Article upon consent of both parties.

CITY OF FRANKLIN, TENNESSEE:

ALFRED BENESCH & COMPANY

(Signature)

(Signature)

Name: _____

Name: Dr. Ken Moore

Title: _____

Title: Mayor

Date: _____

Date: _____

Attest:

(Signature)

Name: Eric S. Stuckey

Title: City Administrator

Date: _____

Law approved template 10.01.15

Approved as to Form:

Maricruz R. Fincher, Staff Attorney



Alfred Benesch & Company
574 Franklin Road, Suite 300
Franklin, TN 37069
www.benesch.com
P 615-370-6079
F 615-627-4066

January 18, 2021

Mr. Paul Holzen, PE
City of Franklin
109 Third Avenue South, Suite 142
Franklin, TN 37064

RE: Scope and Design Proposal
Aspen Grove Multi-Use Path and Wall
Franklin, TN

Dear Mr. Holzen:

Per our phone conversation, we have provided the requested information. See the attached scope for additional details and subconsultants that are included.

If you have any questions or need additional information, please let me know. Thanks for the opportunity to serve the City of Franklin.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sammie McCoy".

Sammie McCoy, PE
Vice President
TN Division Manager



Aspen Grove Multi-Use Path– City of Franklin

Proposed Scope and Estimate

Aspen Grove Multi-Use Path

Benesch will develop plans for a portion of the Aspen Grove multi-use path extension project. The path will begin near the intersection of Mack Hatcher Pkwy and Cool Springs Blvd. The overall project will begin along Mack Hatcher Pkwy on the south side of the bridge over Spencer Creek. Benesch will begin our portion of the design on the north side of Mack Hatcher Pkwy near the MTEMC substation. The project will likely follow the bank of Spencer Creek to lessen the impact on the existing utility facilities and nearby properties and will terminate approximately 1,000 feet to the east of the project beginning all within the City of Franklin, Tennessee. Our portion of the work will be coordinated with the consultant designing the other sections of the multi-use path, M2 Group, LLC, to ensure continuity of the overall path design.

The work will include the design of a 12' wide multi-use path along the previously noted alignment. Design of water quality units or other water quality items are not included for the proposed drainage design. Portions of the project lie within the floodplain of Spencer Creek, noted as FEMA Zone AE in FIRM 47187C0203G and 47187C0204F with an effective date of 12/22/2016 and 9/29/2006 respectively. CEC has provided the survey files which were completed on September 4, 2020.

A standard Preliminary 30% design will be developed to set the horizontal and vertical alignments of the proposed path and will be used for initial coordination. Following this, the development of 60% Right-of-Way/Utility design will occur. It is anticipated that Right of Way acquisition by the City will be required as part of the project. The 100% design documents will be produced for use in the formal bidding documents. The plans will be assembled for the project by M2 Group, LLC with design elements provided by Benesch. The multi-use path design parameters for the project will be based upon current versions of the following design guides; "Guide for the Development of Bicycle Facilities", American Association of State Highway and Transportation Officials; "TDOT Standards Specifications for Road and Bridge Construction"; City of Franklin Street Standards. These technical guidelines and specifications shall be followed unless superseded by the standard for the City of Franklin.

The scope also includes three coordination meetings with the City and M2 Group, LLC to ensure that all elements are appropriately included. This will include supplying all required documents in Portable Document Format (PDF) suitable for printing.

Retaining Wall Design Services

One retaining wall is expected for the proposed multi-use path. The wall is located approximately 350 ft from the beginning of our project limits. The wall is expected to be approximately 300 feet long with an average height of 15 feet. The majority of the wall is anticipated to be a non-anchored, soldier pile retaining wall due to tight site constraints however it may include sections of cast-in-place cantilever wall where constraints permit. Benesch proposes to provide structural design and plans development for the wall at the direction of the City of Franklin.

Services will include:

- Development of Preliminary wall drawings. This will include preliminary wall section designs, foundation designs, backfill requirements, foundation improvement needs, and a preliminary estimate of cost.
- Development of Final wall drawings. This will include final engineering design, development of wall layout drawings, wall section drawings, quantities and notes, bills of steel, tabulated quantities, and an estimate of cost.
- Submittal of all CADD files as required.

**Hydraulic Modeling (CLOMR/LOMR):**

Benesch will review and update the hydrologic and hydraulic analysis for the proposed improvements within the Spencer Creek Special Flood Hazard Area in accordance with standard engineering practice, “TN NFIP Guidance Document: No-Rise Submittals”, FEMA’s “Instructions for Completing the Application Forms for Conditional Letters of Map Revision and Letters of Map Revision” (rev. 08/20/2018), and “2012 TDOT Design Procedures for Hydraulic Structures”.

The proposed multi-use path is located within a FEMA designated Zone AE floodplain. Benesch will acquire the most current FEMA effective model. If necessary, Benesch will update the effective model with information from the topographic survey. Upon review of the updated model, and if the proposed improvements result in a rise of the WSEL as compared to the effective model, Benesch will prepare documents for a CLOMR in accordance with FEMA guidelines. If a CLOMR is required, upon completion of the project, Benesch will review the as-built documents and prepare the LOMR documents in accordance with FEMA guidelines.

Scope of Work - Hydraulics

1. Review existing hydrologic data/analysis of Spencer Creek
2. Coordinate with the City’s floodplain manager
 - a. Attend a maximum of two (2) electronic meetings
3. Coordinate with TEMA NFIP Coordinator
 - a. Attend a maximum of two (2) electronic meetings
4. Obtain and review the most up-to-date Effective model from FEMA
5. Compare the current model and the new Effective model
6. Provide revised hydraulic analysis for the proposed improvements.
7. Prepare Hydraulic Report which will contain:
 - a. Discussion of:
 - i. FEMA Effective Flood Insurance Study
 - ii. Duplicate Effective model
 - iii. Corrected Effective model
 - iv. Pre-Project model
 - v. Post-Project model
 - b. Appendices:
 - i. Maps
 - ii. Site photographs
 - iii. HEC-RAS model output data
8. Adherence of QC/QA standards

As needed scope for FEMA coordination/applications:

9. Complete CLOMR application in accordance with FEMA guidelines:
 - a. Prepare the MT-2 application
 - b. Prepare Property Owner Notification (as required)
 - c. Document Endangered Species Act Compliance
 - d. Prepare the Revised Work Map
 - e. Coordinate with the City’s floodplain manager
 - f. Coordinate with FEMA representatives



10. Complete LOMR application in accordance with FEMA guidelines:
 - a. Review the proposed plans with As-built data
 - b. Prepare the MT-2 application with supporting documentation
 - c. Coordinate with FEMA representatives

Geotechnical Services

1. See attached scope and fee from CIA as needed to provide the geotechnical exploration, global stability analysis, and report for the construction of potential retaining walls along the corridor.

Items not included in the Benesch Scope

1. Stormwater quality design
2. Traffic or Pedestrian signal design or traffic counts and studies
3. Landscape or Irrigation design
4. Three-dimensional and/or perspective view concept renderings
5. Final design of utility facilities
6. Utility Coordination
7. Design of pedestrian bridges should they be required for stream crossings
8. Right-of-Way Appraisal Services
9. Right-of-Way Acquisition Services
10. Lighting design
11. Mitigation design for impacted environmental features.
12. Construction phase services or full TDOT level Construction Engineering and Inspection (CEI)
13. Printing of full-size review or bid plans for contractors
14. Design of any other earth retention structure other than a non-anchored soldier pile wall or cast-in-place cantilever wall.

Attachments:

1. Scope by Civil Infrastructure Associates (CIA)

Compensation:

Design Phase Services		
Multi-Use Path Design	Lump Sum	\$ 19,000.00
Retaining Wall Design	Lump Sum	\$ 25,000.00
Hydraulic Modeling	Lump Sum	\$ 19,400.00
CLOMR/LOMR FEMA Application	Cost Plus	\$ 20,800.00
Geotechnical Services (By CIA)	Cost Plus	\$ 27,080.00
Final Contract Not-To-Exceed		\$ 111,280.00

The following is the compensation to be paid to Benesch for the scope items noted above. The only reimbursables that will be included on this project are permit fees, and third-part review fees which will be paid by Benesch and reimbursed at cost by the City. All other incidental costs (i.e. printing, travel, etc.) shall be included in the lump sum totals.

January 15, 2021

Brian A. Ralstin, PE
Project Manager
Alfred Benesch & Company
8 Cadillac Drive, Suite 250
Brentwood, TN 37027

**Re: *Proposal for Geotechnical Exploration Services
Greenway Path and Retaining Wall
Aspen Grove Site
Franklin, Tennessee
CIA Proposal No. 2021201***

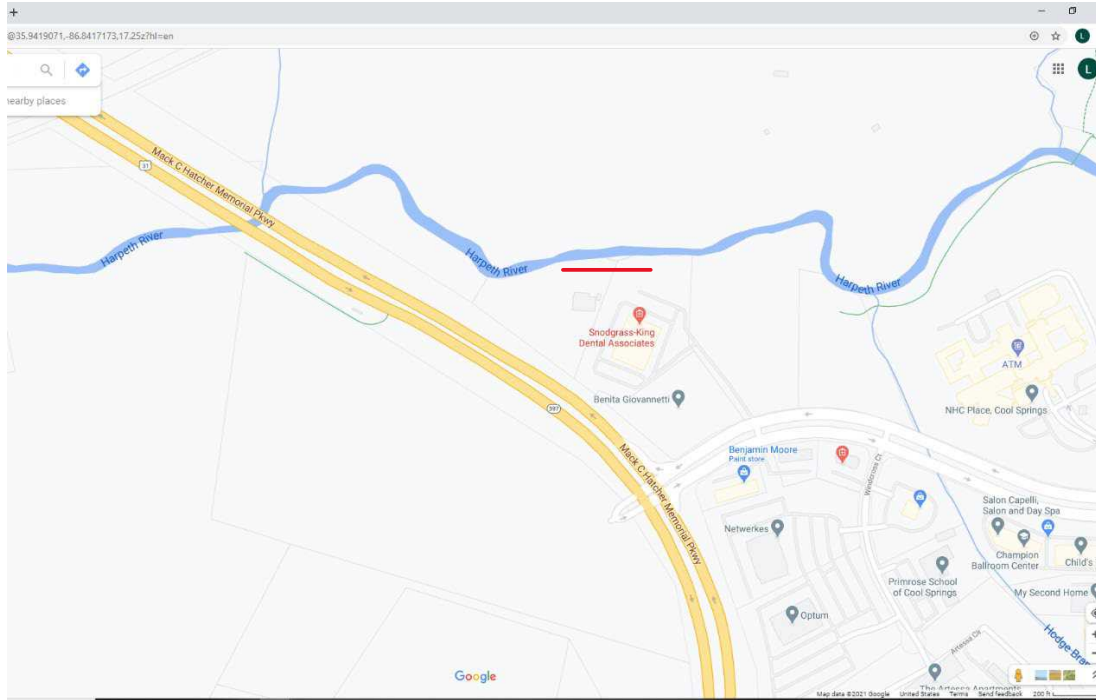
Dear Mr Ralstin:

CIA, LLC is pleased to submit this proposal to provide geotechnical exploration services for the referenced project. This proposal is based on project information provided to us and presents our scope of services, fee, and schedule information.

PROJECT AND BACKGROUND INFORMATION

Based on e-mail and telephone correspondence, CIA, Inc. understands that Alfred E. Benesch has been retained by the City of Franklin to design and prepare plans for completion of the Aspen Grove multi-use path project. This section of the proposed path is located between Mack Hatcher Parkway and Spenser Creek on the north side of Mack Hatcher Parkway near an existing MTEMC substation. The proposed path extension is approximately 300 feet long and will include a retaining wall. The retaining wall is required to the site topography and proximity of the proposed path to the substation. CIA, Inc. understands the retaining wall will be approximately 300 feet long with an approximate maximum height of 15 feet. A top down type retaining wall such as a soldier pile lagging wall (with no tie-backs) may be required due to site access constraints.

See site map of the following page shows general location of the proposed project.



SCOPE OF SERVICES

Alfred E. Benesch has requested CIA, Inc. to provide a geotechnical scope of services and fee for providing geotechnical recommendations for the proposed retaining wall. The goals of this exploration are to generally characterize site geologic conditions, determine lithology, evaluate soil foundation conditions at the proposed structure location, and foundation recommendations for the proposed construction. The assessment of environmental concerns is beyond the scope of the geotechnical exploration.

Based on a review of the proposed project, a total of 8 borings will be drilled at the project site. The borings will be drilled within the overburden soil and will include Standard Penetration Testing (SPT) until drilling tool refusal is encountered. Once refusal is encountered (assumed to be top of bedrock) rock coring will be conducted for a minimum depth of 10 feet. Both the soil and rock core recovered will be described, labeled and stored. The drilling data will be provided on a completed Boring Record. In addition, we plan to attempt to excavate into the existing toe of slope near the proposed retaining wall utilizing a mini-excavator to determine the properties of the retained materials. Alfred E. Benesch has provide copies of Boring Records developed in 2009 by TDOT as part of the Mack Hatcher Parkway construction project. Based on a review of these TDOT Boring Records and on site conditions, an average of 10 feet of soil overburden is expected to be encountered at the toe of the existing fill slope.

Following completion of the field exploration, laboratory testing will be assigned to selected samples to assess the engineering characteristics of the overburden. Laboratory index testing will be conducted to determine the natural moisture content, Atterberg limits, and grain size distribution of select soil samples recovered from the drilling operations. Unconfined compression tests of representative rock cores will be conducted to determine the strength characteristics of the rock. Other tests may be required depending upon the subsurface conditions encountered.

No excavation activities will take place without proper coordination with current property owners. CIA will contact the Tennessee One Call System (811), the state-wide utility clearance coordinator

for the State of Tennessee, to have the underground utilities marked prior to mobilization of the excavation equipment. The boring locations may be offset from the proposed locations to facilitate access and avoid marked utilities. CIA is not responsible for repair of utilities that are not properly identified by others at the time of our exploration.

A geotechnical report will be issued for the geotechnical exploration, outlining the scope of work performed as well as the results of the exploration and lab testing program. The report will address geotechnical aspects of project design and construction. The geotechnical report will present our findings and will address, at a minimum, the following:

- General information regarding the site and subsurface conditions, including soil stratigraphy and bedrock occurrences (if applicable), as well as groundwater measurements.
- Results of laboratory tests performed on selected samples.
- General comments regarding geology and geologic hazards, such as karst conditions.
- Recommendations for site preparation, including criteria for stripping, excavation, reuse of on-site materials as structural fill, undercutting of unsuitable materials and subgrade remedial treatments, and criteria for compacted fill.
- Recommendations for retaining wall foundation design and construction.
- Recommendations for temporary and permanent groundwater control, if needed.

Additional comments/conditions upon which this proposal is based are as follows:

- We anticipate that the proposed exploration will be conducted within existing right of way of Alfred Benesch and Company. If access to other property is required, we will make reasonable efforts to gain voluntary permissions for entry from private property owners, where appropriate. Alfred Benesch and Company will be notified, as necessary, of any properties where such entry might be denied.
- We will measure from existing landmarks to establish the boring locations during field exploration. Determination of the exact boring locations and ground surface elevations is beyond this scope of services. This proposal does not include provisions for surveying efforts to establish the boring locations.
- The subsurface exploration will be planned and conducted in accordance with the Tennessee Department of Environment and Conservation General Permit for Surveying and Geotechnical Exploration. As such, installation and monitoring of erosion protection/siltation control measures by both subcontracted and CIA personnel may be required as part of the drilling program.
- The unit prices submitted in this proposal were derived based on the anticipated scope of work assuming the subsurface exploration program will be performed in the 2021 calendar year.

- We will retain the soil samples for 30 calendar days following the submittal of the geotechnical engineering report. After this time, the soil samples may be discarded unless directed otherwise.

FEE SCHEDULE AND AUTHORIZATION

It is our understanding that the geotechnical work will be contracted under a lump sum contract. Based on our understanding of the project, our fees are outlined below. A detailed cost estimate is attached.

1.00 Field Exploration Service	\$13,445.00
2.00 Laboratory Services	\$2,985.00
3.00 Engineering Services	\$10,650.00
Total Not-to-Exceed Costs	\$27,080.00

We will discuss with you any expected modifications in scope of services and fee if necessary.

Closing

We appreciate the opportunity to support this design-build pursuit exploration and design efforts for this project and look forward to working with you in the future. If you have any questions, please feel free to contact our office.

Sincerely,
CIA, CIVIL INFRASTRUCTURE ASSOCIATES, LLC



Matt Bullard, PE
Vice President
Director of Geotechnical Services

Attached: Cost Estimate

Geotechnical Exploration and Engineering Professional Services
Aspen Grove Multi-Use Path and Retaining Wall
Franklin, Williamson County, Tennessee
Alfred E. Benesch



COST ESTIMATE
1/7/2021

1.0 DRILLING SERVICES

		Qty.		Rate	Cost
1.1	Equipment Mobilization	1	\$ 800.00	each	\$ 800.00
1.2	On-site Project Professional	24	\$ 125.00	per hour	\$ 3,000.00
1.3	Soil Auger Drilling	100	\$ 14.00	per vertical foot	\$ 1,400.00
1.4	Casing Advancer	25	\$ 21.00	per vertical foot	\$ 525.00
1.5	Rock Core Set-up	7	\$ 100.00	each	\$ 700.00
1.6	Rock Coring	90	\$ 42.00	per vertical foot	\$ 3,780.00
1.7	Water Hauling	2	\$ 250.00	per day	\$ 500.00
1.8	Shelby Tubes	4	\$ 60.00	each	\$ 240.00
1.9	Mini-Excavator Sub	1	\$2,500.00	per day	\$ 2,500.00
SUBTOTAL					\$ 13,445.00

2.0 LABORATORY TESTING SERVICES

		Qty.		Rate	Cost
2.1	Natural Moisture Content	40	\$ 9.00	each	\$ 360.00
2.2	Sieve Particle Size Analysis (ASTM D 422)	10	\$ 80.00	each	\$ 800.00
2.3	Atterberg Limits (ASTM D 4318)	10	\$ 55.00	each	\$ 550.00
2.4	Unconfined Compression Test (Rock)	7	\$ 125.00	each	\$ 875.00
2.5	Unconfined Compression Test (Soil)	4	\$ 100.00	each	\$ 400.00
2.6	Triaxial Compression Test (CU)	0	\$ 260.00	each	\$ -
2.7	Proctor Density Compaction Test	0	\$ 260.00	each	\$ -
2.8	California Bearing Ratio Test (CBR)	0	\$ 260.00	each	\$ -
SUBTOTAL					\$ 2,985.00

3.0 ENGINEERING SERVICES

		Qty.		Rate	Cost
3.1	Project Initiation, Coordination, and Utility Locates				
3.1.1	Project Professional	6	\$ 125.00	per hour	\$ 750.00
3.1.2	Senior Project Manager	2	\$ 185.00	per hour	\$ 370.00
3.2	Engineering Evaluations and Report Development				
3.2.1	Project Professional	42	\$ 125.00	per hour	\$ 5,250.00
3.2.2	Senior Project Manager	16	\$ 185.00	per hour	\$ 2,960.00
3.2.3	Principal Geotechnical Engineer	6	\$ 220.00	per hour	\$ 1,320.00
SUBTOTAL					\$ 10,650.00

	ESTIMATED TOTAL COST	\$ 27,080.00
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File #: 20-01394

DATE: January 21, 2021
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Paul Holzen, Director of Engineering
Jimmy Wiseman, Asst. Director of Engineering

SUBJECT:

Consideration Of COF Contract No. 2020-0313, With VSR Partners, LLC (TOB School), For A Road Impact Fee Reimbursement Agreement In The Amount \$108,094.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning COF Contract No. 2020-0313.

BACKGROUND/STAFF COMMENTS:

The TOB School Site Plan, approved in August 2020 is required to dedicate approximately 6,241 square feet of right-of-way for the future improvements on South Carothers Road. South Carothers Road is classified as a collector road and is identified for improvements by the Simmons Ridge PUD Subdivision. The Simmons Ridge PUD Subdivision is required to improve South Carothers Road and acquire this portion of right-of-way. The TOB School has been required to dedicate the ROW and would qualifies for a collector impact fee offset.

FINANCIAL IMPACT:

The total eligible cost of right-of-way acquisition is **Fifty Thousand Seven Hundred Thirty-Nine and No/100 Dollars (\$50,739.00)** for the Development Project. Staff is recommending that we pay full compensation to the property owner in the amount of **One Hundred Eight Thousand Ninety-Four and Twelve/100 Dollars (\$108,094.12)**. This amount is based on the actual cost of the property being acquired and exceeds the impact fees generated from the development. Funding will be paid from the appropriate Collector Impact Fee Fund.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve COF Contract No. 2020-0313.



Know what's below.
Call before you dig.

UNIFIED SITE PLAN NOTE

BULK REQUIREMENTS ARE CONSIDERED IN AGGREGATE AND INCLUDE BUFFERS, BUILDING SETBACKS, OPEN SPACE, LANDSCAPE SURFACE AREA, TREE PROTECTIONS, PARKING, AND STORMWATER REQUIREMENTS.

CITY OF FRANKLIN RETAINING WALL NOTES:

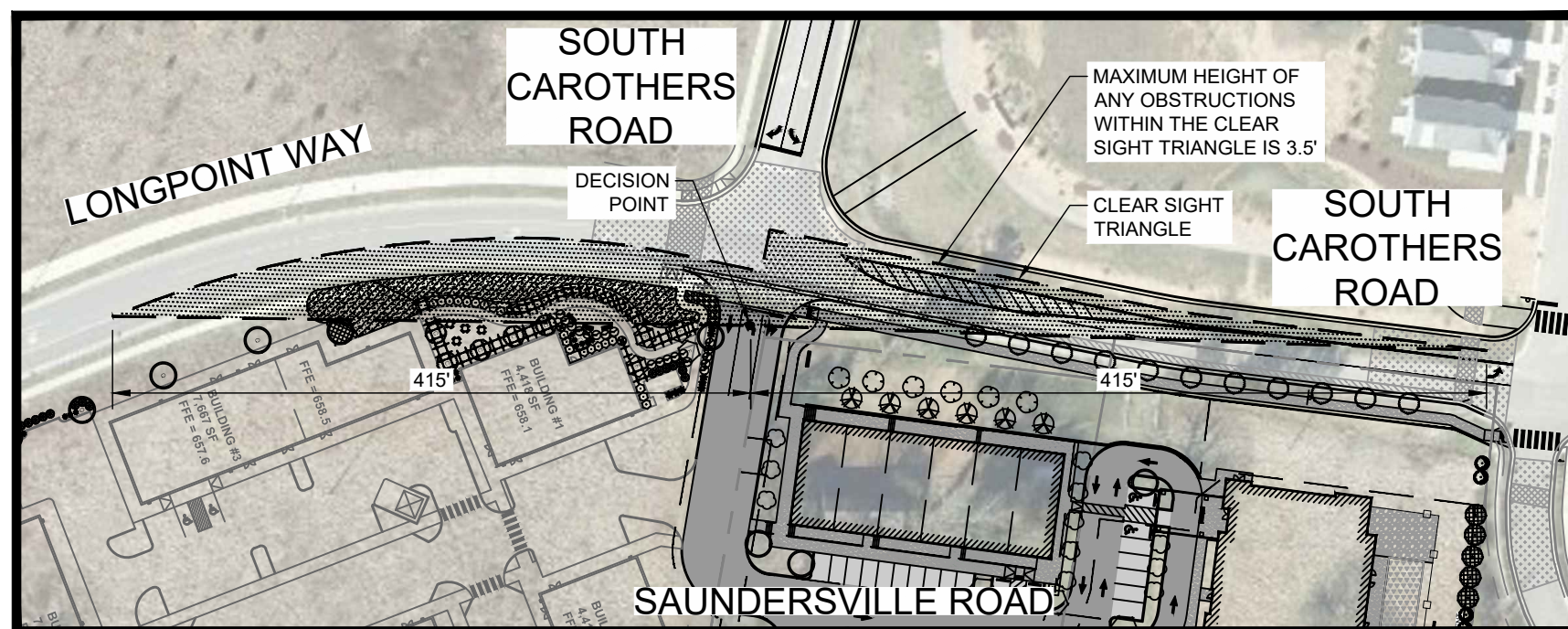
- DESIGN DRAWINGS, CALCULATIONS, AND FINISHES FOR RETAINING WALLS 4'-0" OR TALLER AS MEASURED FROM BOTTOM OF FOUNDATION TO TOP OF WALL SHALL BE SUBMITTED TO BUILDING & NEIGHBORHOOD SERVICES FOR RETAINING WALL REVIEW, APPROVAL, AND PERMITTING.
- WALLS SHALL BE CLAD IN BRICK, NATURAL STONE, OR CULTURED STONE. WHERE NOT VISIBLE FROM A STREET, DRIVE, OR OPEN SPACE, STAINED OR STAMPED CONCRETE AND SPILT-FACE BLOCK ARE ALSO PERMITTED.
- TIMBER WALLS SHALL NOT BE USED.
- WALLS ADJACENT TO BIORETENTION AREAS SHALL NOT RELY ON BIORETENTION MEDIA OR STONE DRAINAGE MEDIA FOR STABILITY OR LATERAL RESISTANCE. BOTTOM OF WALL (OR BLOCK) / TOP OF FOOTING ELEVATION SHALL BE LOCATED AT OR BELOW OF LOWERMOST STONE DRAINAGE MEDIA.

BASE TRIP GENERATION

LAND USE	SIZE	UNIT	WEEKDAY ADT	AM PEAK HOUR			MIDDAY PEAK HOUR			PM PEAK HOUR		
				TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL	ENTER	EXIT
DAY CARE CENTER (LUC 565)	10,250	SF	488	112	59	53	49	25	24	114	54	60
SHOPPING CENTER (LUC 820)	9,000	SF	695	34	21	13	63	32	31	60	29	31
TOTAL	19,250	SF	1,183	146	80	66	112	57	55	174	83	91

LEGEND

- | | | | | | |
|--|--------------------------------------|--|----|--|-----------------------------------|
| | PROPOSED HEAVY DUTY ASPHALT PAVEMENT | | OR | | PROPOSED UTILITY TRENCH REPAIR |
| | PROPOSED LIGHT DUTY ASPHALT PAVEMENT | | | | PROPOSED ASPHALT MILL AND OVERLAY |
| | PROPOSED CONCRETE PAVEMENT | | | | PROPOSED CRUSHED STONE AREA |
| | PROPOSED CONCRETE SIDEWALK | | | | PROPOSED SYNTHETIC GRASS |
| | | | | | PROPOSED CORK/POURED RUBBER MULCH |



INTERSECTION SIGHT DISTANCE EXHIBIT

SCALE: 1"=100'

SITE LAYOUT KEYNOTES:

- HEAVY DUTY ASPHALT PAVEMENT (SEE SHEET C5.1 FOR DETAIL)
- LIGHT DUTY ASPHALT PAVEMENT (SEE SHEET C5.1 FOR DETAIL)
- CONCRETE PAVEMENT (SEE SHEET C5.1 FOR DETAIL)
- CONCRETE SIDEWALK (SEE SHEET C5.1 FOR DETAIL)
- INTEGRAL CONCRETE CURB AND SIDEWALK (SEE SHEET C5.1 FOR DETAIL)
- CONCRETE MOUNTABLE CURB (SEE SHEET C5.1 FOR DETAIL)
- PARALLEL ACCESSIBLE RAMP (SEE SHEET C5.2 FOR DETAIL)
- TAPER CONCRETE CURB (SEE SHEET C5.2 FOR DETAIL)
- FLUSH CONCRETE SIDEWALK AT PAVEMENT FOR ACCESSIBILITY
- DETECTABLE WARNING SURFACE, BRICK RED, CAST-IN-PLACE (ADA SOLUTIONS, INC. OR APPROVED EQUAL)
- VAN ACCESSIBLE PARKING SIGN & SYMBOL (SEE SHEET C5.1 FOR DETAIL)
- CONCRETE WHEELSTOP (SEE SHEET C5.2 FOR DETAIL)
- STOP SIGN (SEE SHEET C5.2 FOR DETAIL)
- 4" WIDE PAINTED WHITE LINE
- 4" WIDE PAINTED WHITE STRIPES, 3" O.C. @ 45°
- WHITE PAINTED DIRECTIONAL ARROW
- 24" WIDE WHITE THERMOPLASTIC STOP BAR
- 4" WIDE THERMOPLASTIC WHITE LINE
- THERMOPLASTIC WHITE DIRECTIONAL ARROW
- CITY OF FRANKLIN DWG. NO. RP-6 (LOWERED CONCRETE DRIVEWAY APRON WITH GRASS STRIP) (SEE SHEET C5.2 FOR DETAIL)
- TWO (2) BIKE RACKS (SEE LANDSCAPE PLANS FOR MORE INFORMATION)
- INDICATES NUMBER OF PARKING SPACES PER BAY
- EXTERIOR STAIRS (SEE ARCHITECTURAL PLANS)
- CONCRETE LANDING WITH GALVANIZED PIPE HANDRAIL (SEE ARCHITECTURAL PLANS)
- TIE PROPOSED CONCRETE CURB AND GUTTER TO EXISTING
- DUMPSTER ENCLOSURE (SEE ARCHITECTURAL PLANS)
- 4'-2" TALL BLACK ALUMINUM FENCE (SEE ARCHITECTURAL PLANS)
- RETAINING WALL WITH RAILING. RAILING SHALL BE PROVIDED FOR RETAINING WALL HEIGHTS THAT ARE GREATER THAN OR EQUAL TO 30 INCHES. (DESIGN BY OTHERS). SEE RETAINING WALL NOTES ON THIS SHEET.
- PROPOSED SHARED ACCESS EASEMENT
- PROPOSED UTILITY AND DRAINAGE EASEMENT
- PROPOSED GREEN INFRASTRUCTURE EASEMENT
- PROPOSED PUBLIC ACCESS EASEMENT
- PROPOSED SANITARY SEWER EASEMENT
- CRUSHED STONE SEATING AREA (SEE SHEET L1.2 FOR DETAIL)
- MULCH TRAIL (SEE SHEET L1.2 FOR DETAIL)
- CITY OF FRANKLIN DWG. NO. RD-6 (ASPHALT PAVEMENT TRENCH REPAIR - LOCAL STREET) (SEE SHEET C5.3 FOR DETAIL)
- CITY OF FRANKLIN DWG. NO. RD-7 (ASPHALT PAVEMENT TRENCH REPAIR - COLLECTOR AND ARTERIAL STREET) (SEE SHEET C5.3 FOR DETAIL)
- REMOVE AND REPLACE CURB AND GUTTER AND SIDEWALK AS NEEDED FOR UTILITY PLACEMENT

SITE LAYOUT KEYNOTES:

- CITY OF FRANKLIN DWG. NO. RP-8 (CONCRETE SIDEWALK) (SEE SHEET C5.3 FOR DETAIL)
- INSTALL CITY OF FRANKLIN DWG. NO. RP-10 (SIDEWALK EXPANSION JOINT) AS NEEDED (SEE SHEET C5.3 FOR DETAIL)
- CITY OF FRANKLIN DWG. NO. RP-11 (PERPENDICULAR CURB RAMP) WITH DETECTABLE WARNING TILE (SEE SHEET C5.3 FOR DETAIL)
- INSTALL PERPENDICULAR CURB RAMP IN ACCORDANCE WITH CITY OF FRANKLIN DWG. NO. RP-16 (PERPENDICULAR RAMP LAYOUT) (SEE SHEET C5.3 FOR DETAIL)
- CITY OF FRANKLIN DWG. NO. RD-7 (ASPHALT PAVEMENT TRENCH REPAIR - COLLECTOR AND ARTERIAL STREET) (SEE SHEET C5.3 FOR DETAIL). REMOVE AND REPLACE CURB AND GUTTER AS NEEDED FOR UTILITY PLACEMENT IN AREAS WHERE CURB AND GUTTER IS EXISTING.
- CITY OF FRANKLIN DWG. NO. RP-1 (ARTERIAL AND COLLECTOR CURB AND GUTTER) (SEE SHEET C5.3 FOR DETAIL). (COORDINATE PAVEMENT TRENCH REPAIR IN THIS AREA WITH THE SOUTH CAROTHERS ROAD IMPROVEMENTS CONTRACTOR)
- MONUMENT SIGN (SEE ARCHITECTURAL PLANS)
- CRUSHED STONE AREA (SEE SHEET L1.2 FOR DETAIL)
- CORK/POURED RUBBER MULCH PLAYGROUND (PER MANUFACTURERS' SPECIFICATIONS)

REFERENCE:

- SEE SHEET C0.1 FOR GENERAL NOTES AND LAYOUT NOTES.
- BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN IS BASED ON A GENERAL PROPERTY SURVEY WITH FIELD-RUN TOPOGRAPHY CONDUCTED BY CESO, INC., DATED AUGUST 2018.
- THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE OF 500 YEAR FLOOD) ACCORDING TO F.I.R.M. "WILLIAMSON COUNTY, TENNESSEE AND INCORPORATED AREAS" PANEL 214 OF 485. MAP NUMBER 47187C0214G. MAP REVISED ON DECEMBER 22, 2016.

NOTE:

- SEE SHEET C0.0 FOR SITE DATA TABLE.



2097 BELSFORD DRIVE
NOLENSVILLE, TN 37135
JASON@MORELOCKENG.COM - (615) 300-6486



H. Michael Hindman
Architects, P.C.

1607 Westgate Circle - Suite 100
Brentwood, Tennessee 37027
615.370.3252
www.hmhaarchitects.com



VSR Partners Commercial Development

4401 & 4407 S. CAROTHERS ROAD, FRANKLIN, TENNESSEE
TAX MAP 89, PARCELS 50.00 & 50.02, WILLIAMSON COUNTY, TN

VSR PARTNERS, LLC

1643 VALLE VERDE DRIVE, BRENTWOOD, TENNESSEE 37027

Revision
08/03/2020 ADDENDUM 1

COF Project Number
7217

HMH Job Number
18044

Drawn By
JCM

Date
07.02.20

Drawing

SITE LAYOUT PLAN

C2.1

ROAD IMPACT FEE REIMBURSEMENT AGREEMENT
COF CONTRACT NO. 2020-0313

This agreement ("Agreement") is entered into between THE CITY OF FRANKLIN, TENNESSEE ("City") and , VSR Partners LLC, ("Developer"), on this the _____ day of _____, 20____, pursuant to Title 16, Chapter 4 of the Franklin Municipal Code ("FMC").

WHEREAS, the Developer has previously submitted to the Franklin Municipal Planning Commission TOB School, Site Plan COF Project #7217 for approval (the "Development Project"); and

WHEREAS, the City has required the Developer to design, acquire right-of-way, acquire easements, obtain permits, and construct certain roadway improvements (the "Improvements") as a requirement of the Development Project and as shown on Exhibit A; and

WHEREAS, the Improvements required as part of the Development Project are identified in the City's Major Thoroughfare Plan, Connect Franklin; and

WHEREAS, the Developer has made application to offset a portion of the costs of these improvements against any Road Impact Fees due from the Development Project.

NOW THEREFORE, the City and the Developer, their successors and assigns, do hereby agree as follows:

1. PURPOSE. The purpose of this Agreement is to define the obligations of the parties necessary to carry out the intent of this Agreement for the provision of reimbursement of collector and arterial road impact fees pursuant to the FMC.

2. TERM. This Agreement shall become effective on the date it is fully executed and shall continue until the parties have fully fulfilled their obligations provided hereunder or until the agreement is terminated as provided herein. Understanding the large financial investment each party is making, this Agreement shall only be terminated for convenience upon written agreement of the parties.

3. PROJECT. The Developer has submitted reliable information related to the costs of construction of the _____ following _____ Improvements: _____
dedication of right-of-way for the future improvements to South Carothers Road (collector road).

~~**4. ELIGIBLE ARTERIAL ROAD IMPACT FEE REIMBURSEMENT.** The total eligible costs of design, right-of-way acquisition, easement acquisition, permits, and construction of the above arterial roadway Improvements is XXXXXXXX and No/100 Dollars (\$X,XXX.00) for the Development Project and the total reimbursement to the Developer is estimated to be XXXXXXXX and No/100 Dollars (\$X,XXX.XX). At no time shall reimbursement exceed the arterial impact fees collected as part of the Development Project~~

5.4. ELIGIBLE COLLECTOR ROAD IMPACT FEE REIMBURSEMENT AND ADDITIONAL PAYMENT. The total eligible costs of ~~design, right-of-way acquisition, easements acquisition, permits, and construction of acquisition of~~ the above collector roadway Improvements is XXXXXXXX Fifty Thousand Seven Hundred Thirty Nine and No/100 Dollars (\$X,XXX50,739.00) for the Development Project and the total reimbursement to the Developer is Fifty Thousand Seven Hundred Thirty Nine One Hundred Eight

~~Thousand Ninety FourXXXXXXXX and NoTwelve/100 Dollars (\$X,XXX50,739108,094.12.00).~~ In approving this Agreement, the City of Franklin Board of Mayor and Aldermen authorize the additional Fifty Thousand, Seven Hundred Three Hundred Fifty-Five and No/100 Dollars to be paid to the Developer for the right-of-way acquisition as valued in section 8. Said reimbursement and payment totaling **One Hundred Eight Thousand Ninety Four and Twelve/100 Dollars (\$108,094.12.00)** shall be processed in accordance with Section 10.—At no time shall reimbursement exceed the collector impact fees collected as part of the Development Project

6.5. APPROVAL OF CONTRACTS AND AGREEMENTS. The City Engineer shall review and approve all professional services agreements, right-of-way and easement acquisition offers (that exceed the appraised value of the acquisition), and construction bids associated with the Improvements. The Developer shall obtain approval prior to the spending of any funding in which the Developer is seeking reimbursement from the City. The Developer agrees that failure to obtain contract approval from the City Engineer may result in loss of City reimbursement as determined by the City Engineer.

7.6. APPROVAL OF CONSTRUCTION DOCUMENTS. Prior to starting right-of-way acquisition, easement acquisition, and construction, the Developer shall submit construction documents to the City Engineer for review and approval. The Developer agrees that failure to obtain approval from the City Engineer may result in loss of City reimbursement as determined by the City Engineer.

8.7. PERMITS. The Developer shall be solely responsible for obtaining and complying with all necessary local, state, and federal permits associated with the Improvements.

9.8. ON-SITE RIGHT-OF-WAY AND EASEMENT DEDICATION. The reimbursement value of on-site right-of-way shall be based on the fair market value of the land at the date of application for the development approval for which the condition of dedication was imposed. The value of right-of-way is hereby established as **\$XX.XX17.32 per SF**, and all other necessary temporary slope, temporary construction, access easements, and utility easements shall be dedicated at no cost to the City.

10.9. OFF-SITE RIGHT-OF-WAY AND EASEMENT ACQUISITION.

- a. The Developer shall be responsible for obtaining all off-site right-of-way and easements associated with the off-site Improvements.
- b. At a minimum, the Developer shall offer fair market value for all right-of-way and or easements necessary as part of the Improvements. The value of right-of-way and easements shall be determined by a professional real estate appraiser or other means as approved by the City Engineer.
- c. Should negotiations fail, the City agrees to assist, to the maximum extent allowable by law, in the acquisition of the necessary off-site right-of-way and easements associated with the Improvements.

11.10. Reimbursement and Final Acceptance.

- a. The Developer may submit periodic invoices to the City during the course of design, right-of-way acquisition, easement acquisition, permitting and construction (not more frequently than every 90 days), which invoices shall be payable within 30 days after approval by the Road Impact Fee Administrator (City Engineer), subject to collected impact fees as specified within this Agreement.

- b. No reimbursement on Construction shall be allowed until all right-of-way and easements have been properly deeded to the City and/or State and recorded at the Williamson County Register of Deeds.
- c. Invoices shall include copies of approved contracts and invoices associated with the roadway Improvements, partial lien waivers for all contracts and copies of checks to show proof of payment. The Developer shall submit invoices based on the latest approved City forms as required by the Road Impact Fee Administrator (City Engineer).
- d. Prior to final reimbursement and City acceptance of off-site Improvements, the Developer shall coordinate final inspections with the City and obtain letters of acceptance from the Street Department or City Engineer.
- e. The following costs are specifically excluded from reimbursement: fiscal cost, including interest of money borrowed to finance the construction, cost for utility relocations, landscaping, turn lanes, internal management fees and turn lanes / signal improvements that benefit solely the development and not the arterial and/or collector roadway.

12.11. INDEMNIFICATION.

- a. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Developer under this Agreement or otherwise, Developer shall indemnify and hold harmless the City, and the officers, directors, members, partners, employees, agents, consultants and subcontractors, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Improvements, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the improvements itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Developer, and any contractor and any subcontractor, and any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Improvements, or anyone for whose acts any of them may be liable.
- b. In any and all claims against City, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Developer, and contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Improvements, or anyone for whose acts any of them may be liable, the indemnification obligation under the paragraph above will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Developer, or any contractor or any such subcontractor, supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

13. MISCELLANEOUS.

- a. Binding. This Agreement shall be binding upon the parties and shall take effect from and after its ratification and signing by all parties after obtaining appropriate approval pursuant to the requirements of applicable law.
- b. Severability. The parties agree that if any part, term, or provision of this Agreement is determined to be illegal or in conflict with any law of the State of Tennessee by any court with jurisdiction, the validity of the remaining portions or provisions shall not be affected. The rights and

obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provision held to be invalid.

- c. Specific Performance. The parties recognize that the rights afforded to each under this Agreement are unique and, accordingly, the individual parties shall, in addition to such other remedies as may be available to them in equity, have the right to enforce their respective rights hereunder by an action for injunctive relief and/or specific performance to the extent permitted by law.
- d. Cooperation. The parties agree to cooperate fully in order to successfully execute the terms and conditions of this Agreement, including obtaining all regulatory and governmental approvals required to carry out the terms of this Agreement, recognizing that the intent of each party to the other is to serve the individual interests of each party while respecting the conditions and obligations of this Agreement.
- e. Assignment. The rights and obligations of this Agreement are not assignable without prior written consent of the City.
- f. Law/Venue. This Agreement shall be exclusively governed by the laws of the State of Tennessee. In the event that any section and/or term of this Agreement, or any exhibits hereto, becomes subject to litigation, the venue for such action will be exclusively maintained in a court of competent jurisdiction sitting in Williamson County, Tennessee.
- g. Entire Agreement. This Agreement represents the entire agreement between the parties and supersedes all prior negotiations, representations, or agreements, either written or oral, with respect to the subject matter hereof. This Agreement may be amended only by written instrument signed by all parties.

IN WITNESS WHEREOF, each party has caused this Agreement to be executed by an authorized person effective as of the date and year written below.

Approved by the Franklin Board of Mayor and Aldermen on _____, 20__.

WITNESS our hands on the dates as indicated.

DEVELOPER

VSR_____ Partners _____ LLC

By: _____

Print Name: _____

Title: _____

STATE OF TENNESSEE)

)

COUNTY OF _____)

Before me, _____, a Notary Public of said County and State, personally appeared _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged _____ self to be _____ (or other officer authorized to execute

the instrument) of _____, the within named bargainor, a _____, and that _____ as such _____ executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal on this ____ day of _____, 20____.

Notary Public

My Commission Expires: _____

CITY

CITY OF FRANKLIN, TENNESSEE, a municipality

By: _____

DR. KEN MOORE

Mayor

Date: _____

By: _____

ERIC S. STUCKEY

City Administrator

Date: _____

STATE OF TENNESSEE)

)

COUNTY OF WILLIAMSON)

Before me, the undersigned Notary Public of said County and State, personally appeared DR. KEN MOORE and ERIC S. STUCKEY, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged themselves to be the Mayor and City Administrator, respectively, of the City of Franklin, Tennessee, the within named bargainor, a municipality, and that as such Mayor and City Administrator executed the foregoing instrument for the purposes therein contained, by signing the name of the municipality by themselves as Mayor and City Administrator.

Witness my hand and seal this ____ day of _____, 20____.

Notary Public

My Commission Expires: _____

Approved as to form by:

Shauna R. Billingsley, City Attorney



File #: 21-01646

DATE: January 20, 2021
TO: Capital Investment Committee
FROM: Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering

SUBJECT:

Capital Projects Dashboard And Status Updates For January 2021.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the status of some of the City's transportation, stormwater, and parks capital projects.

BACKGROUND/STAFF COMMENTS:

To access the live dashboard for the City of Franklin Capital Investment Projects, please go to the following City webpage:

[COF Dashboard Link](#)

Manually locate the dashboard following the instructions below:

1. Go to the City of Franklin's main website at: <https://www.franklinton.gov/>,
2. Hover your mouse over "Our City",
3. Click on "City Projects",
4. Click on "Capital Projects Dashboard".

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

None

City of Franklin Capital Improvement Projects



- Type
- ☒ All
 - ☐ Facilities
 - ☐ Parks
 - ☐ Stormwater
 - ☐ Transportation
 - ☐ Water Management

- Phase
- ☒ All
 - ☐ Design
 - ☐ ROW
 - ☐ Construction

- Project Status
- ☒ All
 - ☐ Active
 - ☐ Completed

Dollars Spent To Date
\$701,949

Project Budget
\$19,634,800

Design

ROW

Construction

Current Projects

 **30**

- 1 - East McEwen Drive Phase 5 Extension
- 2 - Fire Station No. 7 (Goose Creek Area)
- 3 - Municipal Services Complex Improvements
- 4 - Southeast Municipal Complex (Park)
- 5 - Lockwood Glen Park
- 6 - Bicentennial Park
- 7 - Harlinsdale Farm Bridge & Greenway
- 8 - East Flank Circle Resurfacing
- 9 - 100-Block Battle Avenue Drainage Improvements
- 10 - Watson Branch (Maplewood) Culvert Rehabilitation
- 11 - Liberty-Mallory Intersection Improvements
- 12 - East McEwen Drive Roundabout Improvements
- 13 - SR-96 West Multi-Use Trail
- 14 - Westhaven Boulevard Traffic Signal
- 15 - Jordan Road Improvements
- 16 - Old Peytonsville Road & Long Lane Bridge & Connector
- 17 - West Main Street Bridge Widening
- 18 - Columbia Avenue Widening & Improvements
- 19 - Franklin Road Improvements & Streetscape
- 20 - 5th Avenue Parking Lot
- 21 - McEwen Drive Interchange Improvements
- 22 - East McEwen Drive Phase 4 Improvements
- 23 - Henpeck Lane Sanitary Sewer Improvements
- 24 - Water Reclamation Facility Modifications

