



Meeting Agenda

Capital Investment Committee

Thursday, April 23, 2020

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 1-615-550-8420. Callers will be unmuted and given an opportunity to ask questions during the meeting at specific times. • Limited viewing will be available in the lobby of City Hall to watch the live video. • The public may email questions to recorder@franklintn.gov to be read aloud during the meeting. City YouTube:

<https://www.youtube.com/user/CityOfFranklin> City Facebook Live:

<https://www.facebook.com/CityOfFranklin> City website: <https://www.franklintn.gov/franklin-tv>

CALL TO ORDER

MEETING PROCEDURE CHANGES

1. Consideration Of Resolution 2020-48, A Resolution Declaring That The Capital Investment Committee Shall Meet On April 23, 2020 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 For The March 26, 2020 Capital Investment Committee Meeting.

NEW BUSINESS

3. Consideration To Grant Water Availability For 684 Legends Crest (Map 037G, Parcel 01000).

Sponsors: Michelle Hatcher, Scott Andrews

4. Consideration To Grant Water Availability For 641 Legends Crest (Map 037B, Parcel 01000).

Sponsors: Michelle Hatcher, Scott Andrews

5. Consideration Of COF Contract No. 2019-0296, Annexation Agreement (Tax Map 105, Parcel 03100) Between The City Of Franklin And Joshua Steven Souder And Meghan Allison Souder.

Sponsors: Michelle Hatcher

6. Consideration Of COF Contract No. 2019-0297 Sanitary Sewer Availability Agreement for 2369 Henpeck Lane (Map 105, Parcel 31) Between The City Of Franklin And Joshua Steven Souder And Meghan Allison Souder.
Sponsors: Michelle Hatcher
7. Consideration Of DRAFT Amendment 1 To COF Contract No. 2018-0236 With Revere Control Systems To Extend The Contract Until All Funds Are Depleted For The Water Management Department Telemetry System Maintenance Contract.
Sponsors: Michelle Hatcher
8. Consideration Of COF Contract No. 2020-0006 With The C.I. Thornburg Company, Incorporated For The Installation Of The Flex Net System For The Automatic Metering Infrastructure For An Amount of \$220,998.50
Sponsors: Michelle Hatcher
9. Consideration Of DRAFT Amendment No. 1 To COF Contract No. 2018-0213, A Professional Services Agreement With The Corradino Group, Inc. For The Intersection Design - Highway 96 West At Westhaven Boulevard/Old Charlotte Pike At A Cost Increase Of \$3,700.00.
Sponsors: Paul Holzen, Jonathan Marston
10. Consideration Of DRAFT COF Contract No. 2020-0110, A Professional Services Agreement With CT Consultants, Inc. For Limited Construction Engineering And Administration Services On The Franklin Road Corridor Improvements (Streetscape) Project In A Not-to-Exceed Amount Of \$233,675.00
Sponsors: Paul Holzen
11. Consideration Of DRAFT Change Order No. 2 To COF Contract No. 2014-0259, A Construction Contract With Jarrett Builders, Inc. For The Hunters Bend Elementary Safe Routes To School Project (TDOT PIN 118151.00) For A Cost Decrease of \$31,382.27
Sponsors: Paul Holzen, Jonathan Marston
12. Consideration Of DRAFT Amendment No. 4 To COF Contract No. 2017-0007, A Professional Services Agreement With Barge Design Solutions, Inc. For The Design Of Intersection Improvements At East Mcewen Drive And Cool Springs Boulevard For A Cost Increase Of \$10,255.11
Sponsors: Paul Holzen, Jonathan Marston, David Hodnett
13. Capital Projects Dashboard & Status Updates
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.



City of Franklin

109 3rd Ave S.
Franklin, TN 37064
(615) 791-3217

File #: 20-0618

DATE: April 17, 2020

TO: Capital Investment Committee

FROM: Eric Stuckey, City Administrator
Shauna Billingsley, City Attorney

SUBJECT:

Consideration Of Resolution 2020-48, A Resolution Declaring That The Capital Investment Committee Shall Meet On April 23, 2020 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 2020-48.

RESOLUTION 2020-48

A RESOLUTION DECLARING THAT THE CAPITAL INVESTMENT COMMITTEE SHALL MEET ON APRIL 23, 2020, 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 allowing electronic meetings while continuing to function openly and transparently; and

WHEREAS, Mayor Moore issued Executive Orders No. 2020-03, No. 2020-05, No. 2020-07, No. 2020-09 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 April 23, 2020, 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 April 23, 2020, 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.franklintn.gov/Home/Components/Calendar/Event/10159/1092>

IT IS SO RESOLVED AND DONE on this 23th day of April, 2020.

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 #: 20-0454

DATE: March 13, 2020

TO: Board of Mayor and Aldermen

FROM: Michelle Hatcher, Director of Water Management
Scott Andrews

SUBJECT:

Consideration To Grant Water Availability For 684 Legends Crest (Map 037G, Parcel 01000).

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a recommendation for approval of a request for Water Availability for 684 Legends Crest (Map 037G, Parcel 01000).

BACKGROUND/STAFF COMMENTS:

Date of Request: 3/10/20.

SFUE's Requested: 1.

Irrigation Water Meter Size(s): $\frac{3}{4}$ ".

The applicant has requested approval for an irrigation meter. This private residence is located north of the City limits, in Legends Ridge Subdivision which is within the City of Franklin water service area.

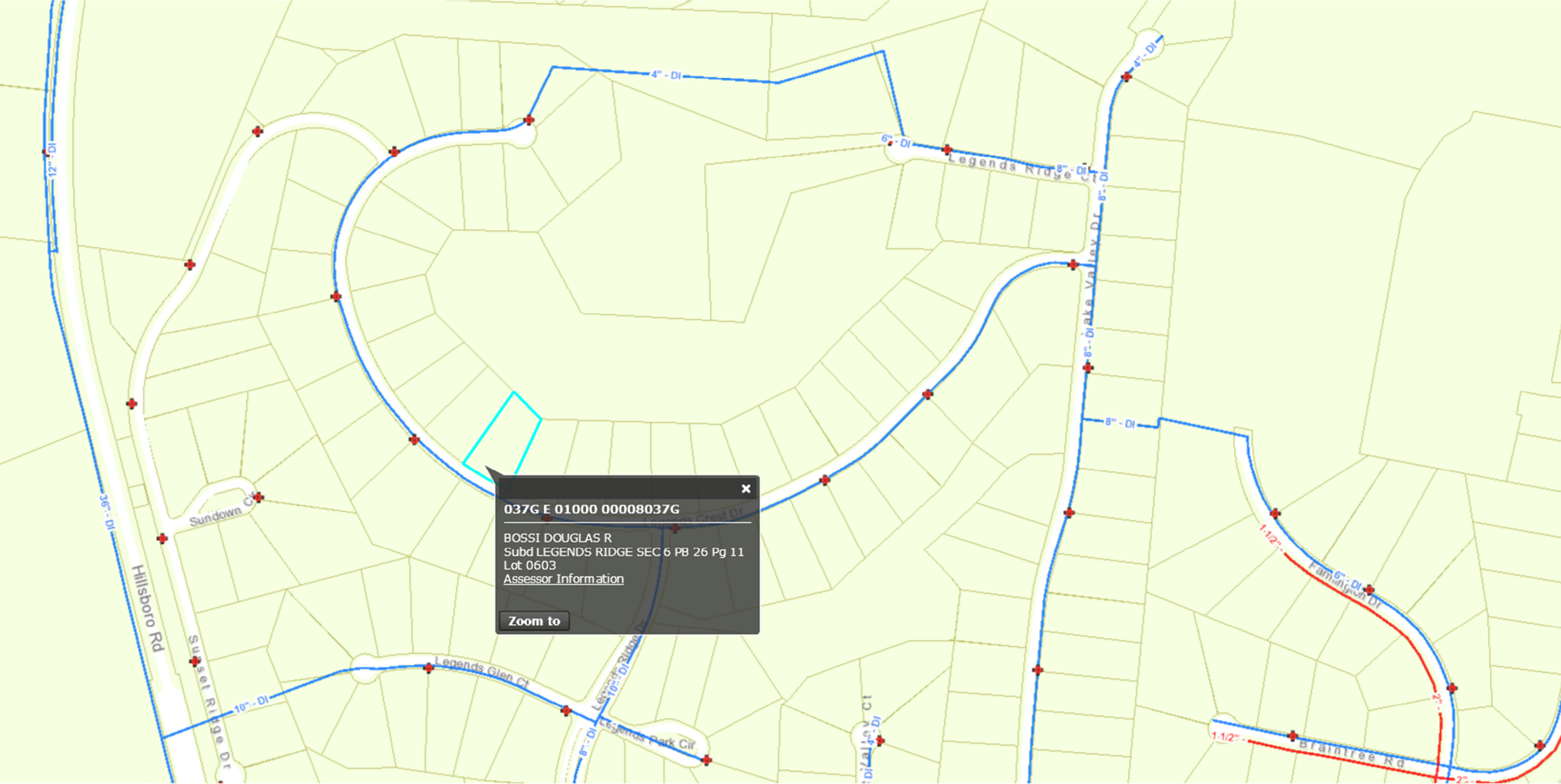
In light of the winter averaging ordinance being considered by the BOMA, staff will discuss this potential alternative and projected effective date with the customer prior to moving forward with the installation of an irrigation meter.

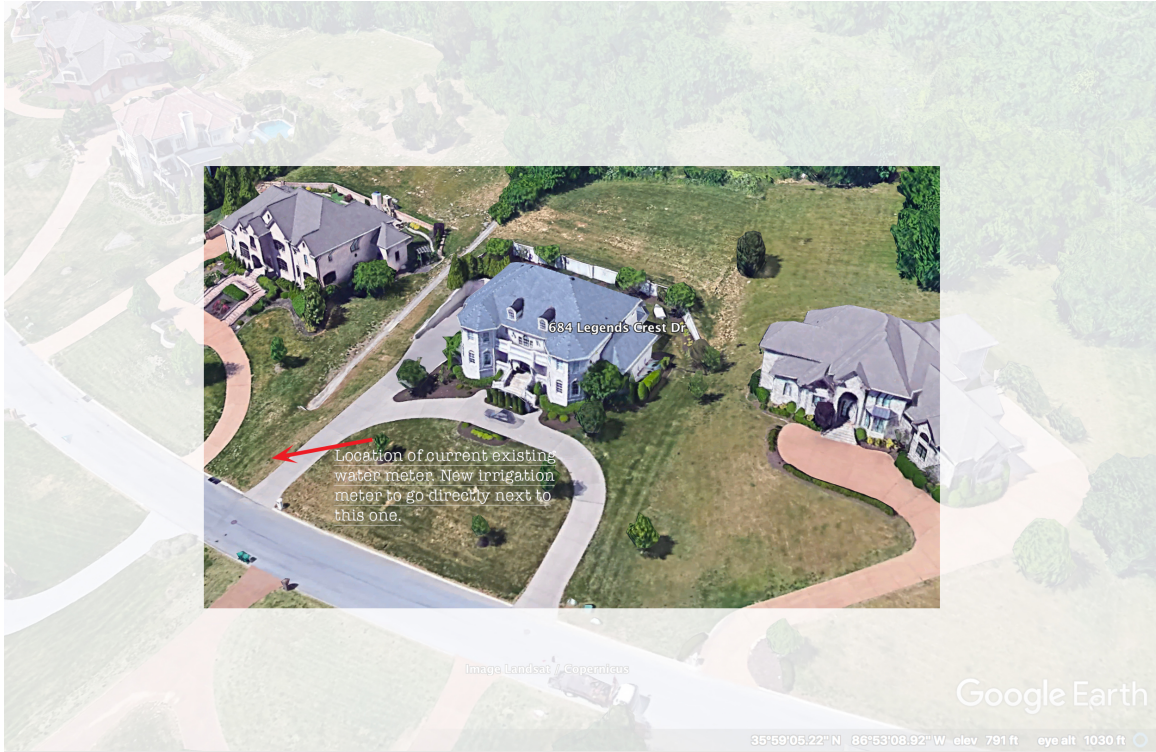
FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that this availability request be approved.







Request for Water and/or Sewer Availability & Associated Costs

Please fill in the following information & return this form with the site plan per directions below. Incomplete forms will result in the request being returned until all of the information is included. Refer to the attached memo for fees and additional information.

Type of Availability Requested:		CHECK ALL THAT APPLY: ☒ Water ☐ Sewer	
Project Name & Subdivision, Section, Lot #	Doug & Caroline Bossi - Legends Ridge - Lot#603		
Map & Parcel(s) #	N/A		
Property Address:	684 Legends Crest Drive - Franklin, TN 37069		
City Project # (If Applicable)	N/A		
# of Dwelling Units (If Residential)	Single Family Dwelling (exisiting)		
Applicant's Name & Company	Doug & Caroline Bossi		
Applicant's Address	684 Legends Crest Drive - Franklin, TN 37069		
Applicant's Email & Phone #	doughbossi@gmail.com - 818-620-8835		
Anticipated Water Meter Size(s) (see chart on pg. 3).	3/4"		
Water District:	City of Franklin		
Sewage Flow Calculations: Use the City of Franklin projected flow examples sheet –pg.4 N/A - this is an existing single family home & we are only requesting an additional meter.			
<i>use additional sheets as necessary</i>			
Anticipated sewage flows: Information Required for Sewer Service			
If County is requiring this request please indicate if you are requesting an approval or denial:	☐ DENY my Request ☐ APPROVE my request <i>*approval or denial is approved by BOMA, indication here is not a guarantee for approval or denial*</i>		

MUST SUBMIT A LOCATION MAP (FOR EX: GOOGLE MAP)

Email Application to: availability@franklintn.gov

For additional information or questions please call: 615-794-4554

Date Submitted: 03/10/2020



City of Franklin

109 3rd Ave S.
Franklin, TN 37064
(615) 791-3217

File #: 20-0523

DATE: March 27, 2020

TO: Board of Mayor and Aldermen

FROM: Michelle Hatcher, Director of Water Management
Scott Andrews

SUBJECT:

Consideration To Grant Water Availability For 641 Legends Crest (Map 037B, Parcel 01000).

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a recommendation for approval of a request for Water Availability for 641 Legends Crest (Map 037B, Parcel 01000).

BACKGROUND/STAFF COMMENTS:

Date of Request: 3/26/20.

SFUE's Requested: 1.

Irrigation Water Meter Size(s): $\frac{3}{4}$ ".

The applicant has requested approval for an irrigation meter. This private residence is located north of the City limits, in Legends Ridge Subdivision which is within the City of Franklin water service area.

In light of the winter averaging ordinance being considered by the BOMA, staff will discuss this potential alternative and projected effective date with the customer prior to moving forward with the installation of an irrigation meter.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that this availability be approved.



Request for Water and/or Sewer Availability & Associated Costs

Please fill in the following information & return this form with the site plan per directions below. Incomplete forms will result in the request being returned until all of the information is included. Refer to the attached memo for fees and additional information.

Type of Availability Requested:		CHECK ALL THAT APPLY: ☒ Water ☐ Sewer	
Project Name & Subdivision, Section, Lot #	Legends Ridge Lot 810		
Map & Parcel(s) #	037B and 01000		
Property Address:	641 Legends Crest Dr		
City Project # (If Applicable)			
# of Dwelling Units (If Residential)	1		
Applicant's Name & Company	Jeremy Freckleton		
Applicant's Address	641 Legends Crest Dr 37069		
Applicant's Email & Phone #	Jeremy.freckleton@yahoo.com 615-585-7892		
Anticipated Water Meter Size(s) (see chart on pg. 3).	3/4" for irrigation		
Water District:			
Sewage Flow Calculations: Use the City of Franklin projected flow examples sheet –pg.4 350 gpd, single family dwelling			
<i>use additional sheets as necessary</i>			
Anticipated sewage flows: Information Required for Sewer Service			
If County is requiring this request please indicate if you are requesting an approval or denial:	☐ DENY my Request ☐ APPROVE my request <i>*approval or denial is approved by BOMA, indication here is not a guarantee for approval or denial*</i>		

MUST SUBMIT A LOCATION MAP (FOR EX: GOOGLE MAP)

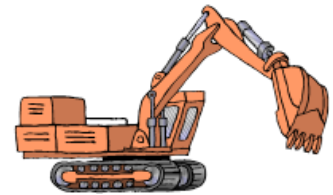
Email Application to: availability@franklintn.gov

For additional information or questions please call: 615-794-4554

Date Submitted: 3/26/2020

MEMO

TO: Applicant
FROM: Water Management Department
DATE: May 2018
RE: Request for Water and/or Sewer Availability & Associated Costs



When considering development of a tract of land, one of the first steps a developer (or their design professional) should complete is the application for water and sewer availability. **Planned Unit Developments MUST have approved availability to be approved.**

The following items **SHALL** be included with a water and/or sewer availability request:

- Completed Application (ALL sections must be filled in)
- Project location map & Utility Plan (if available)
- Sewage Calculations (For Development projects only; Individual Single Family Homes are not required to submit these calculations).

Email Application to: availability@franklin.tn.gov

For additional information or questions please call: 615-794-4554

There is a 30 day maximum turnaround time for the requests. Unless your request requires Board of Mayor & Aldermen (BOMA) approval then applicant will be notified of the date of the BOMA meeting at which your request will be brought up.

THE AVAILABILITY IS GRANTED BASED ON THE FOLLOWING TIME PERIODS:

- Construction plans are to be prepared and **submitted within one year from the granting of availability.**
- Construction of the water and sanitary sewer **improvements shall begin within one and one-half (1 ½) years from the granting of availability.**

OTHER RELATED INFORMATION:

- Pump stations and force mains are not allowed if the development can be served by extension of gravity sewer.
 - Any necessary Pump Station or Force Main shall be subject to approval by Water Dept. Director.
- **No customer shall supply water service to more than one dwelling or premise from a single service line.**

PROPERTIES OUTSIDE OF CITY LIMITS:

Per **Resolution 2015-32**: Annexation shall be required as a condition of approval for all properties outside the City Limits whether within the City's Urban Growth Boundary, or not, in order to be granted sanitary sewer availability. Annexation shall occur at such time the property becomes contiguous to the City's corporate limits or as determined by the Board of Mayor and Alderman.

- Applicant shall be required to sign the Annexation Agreement **after** Availability Request is approved by BOMA, and **before** the approved letter is issued.

SINGLE FAMILY APPLICANTS:

- Not all portions of the application will apply, please mark NA to those sections.
- If a main line extension is necessary you will be required to submit a plan & profile set for review and approval.

MAIN LINE EXTENSION REQUIRED FOR SERVICE:

Plans shall be submitted for approval:

- Plans shall include: Site Layout & Location, Existing Utilities, Grading & EPSC, Plan & Profile, and Applicable Details.
- Include Final hydraulic analysis of the line/s. Use the City's standards for flow calculations.
- Water and Sewer Specifications are available on-line (in pdf form) for the convenience of the developer's engineer:
<http://www.franklin.tn.gov/government/engineering/development>

CURRENT SEPTIC SYSTEMS/APPLICANTS WITHIN THE COUNTY:

- Williamson County requires residents wishing to modify the septic system to first request availability with the City. You are required to complete the application and indicate whether you are requesting a denial or approval. (Indication does not guarantee final decision. BOMA must approve or deny your request).
- Septic System must be decommissioned per County standards:
<http://www.williamsoncounty-tn.gov/index.aspx?NID=126>

If you have any questions concerning this request, contact the City of Franklin Water Department at (615) 794-4554.

Tap Related Fees* *Does not include \$25 New Account Set up Fee*

Fee Description:	Applicable Utility	Fee Amount:
System Development Fee (SDF)	Water & Sewer	See Charts Below (based on meter size)
Access Fee	Water & Sewer	See Charts Below (based on meter size)
Effluent Disposal Fee (EDF)	Sewer	See Charts Below (based on meter size)
Tap Fee	Water & Sewer	See Charts Below (based on meter size)
Irrigation Fee	Water & Reclaim Water	See Charts Below (based on meter size)
Fire Sprinkler Fee (SDF)	Water (fire)	\$500 per diameter inch of connection line

Effective March 1, 2008, the fees and installation costs are as follows and are paid to the Building & Neighborhood Services Dept. 615-794-7012

WATER * City of Franklin Wat							
Meter Size	SFUE	GPM	SDF	Access Fees	Irrigation Meter ¹	Tap Existing ²	City making Tap ³
¾"	1	12.5	\$903	\$1,186	\$3,150	\$315	\$756
1"	13	50	\$3,612	\$4,746	\$4,725	\$374	\$897
1 ½"	30	120	\$8,619	\$11,390	\$6,300	\$656	\$1,444
2"	40	160	\$11,558	\$15,187	\$7,875	\$1,362	\$2,223
3"	88	350	\$25,284	\$33,222	\$9,450	\$1,581	\$3,654
4"	125	500	\$36,120	\$47,460	\$11,025	\$2,668	\$5,492
6"	300	1200	\$86,688	\$113,904	\$12,600	\$4,723	\$7,387
8"	375	1500	\$108,360	\$142,380	\$14,175	\$10,293	\$14,110

SEWER (Fees are based on water meter size regardless of water district)							
Meter Size	SFUE	GPM	SDF	Access Fee	Effluent Disposal ⁴	Tap Existing ²	City Making Tap ³
¾"	1	12.5	\$1,444	\$2,100	\$450	\$263	\$1,240
1"	13	50	\$5,775	\$8,400	\$1,800	\$263	\$1,240
1 ½"	30	120	\$13,860	\$20,160	\$4,320	\$263	\$1,240
2"	40	160	\$18,480	\$26,880	\$5,760	\$263	\$1,240
3"	88	350	\$40,425	\$58,800	\$12,600	\$263	\$1,240
4"	125	500	\$57,750	\$84,000	\$18,000	\$263	\$1,240
6"	300	1200	\$138,600	\$201,600	\$43,200	\$263	\$1,240
8"	375	1500	\$173,250	\$252,000	\$54,000	\$263	\$1,240

1- Irrigation Fees Include Meter Fee & \$25 Application Fee Only

3- City Installs Tap & Meter

2- Contractor Installs Tap & Meter – Subject to Addnl' Inspections

4- Fee Goes to Establishing Effluent Water System; paid with all Sewer Services

*** All Fees shall be paid prior to the issuance of a Building Permit or Utility Inspection, whichever occurs first. ***

Private Fire Hydrant and Sprinkler Systems – The SDF for connection of private fire hydrants and sprinkler system lines to the City of Franklin's (COF) lines shall be **\$500 per inch diameter of connection** to the City's lines. Radio-read meters will be required on all private fire hydrant and sprinkler systems.

UTILITY PERMIT RELATED FEES: PAID WITH PERMIT, NOT WITH AVAILABILITY REQUEST:

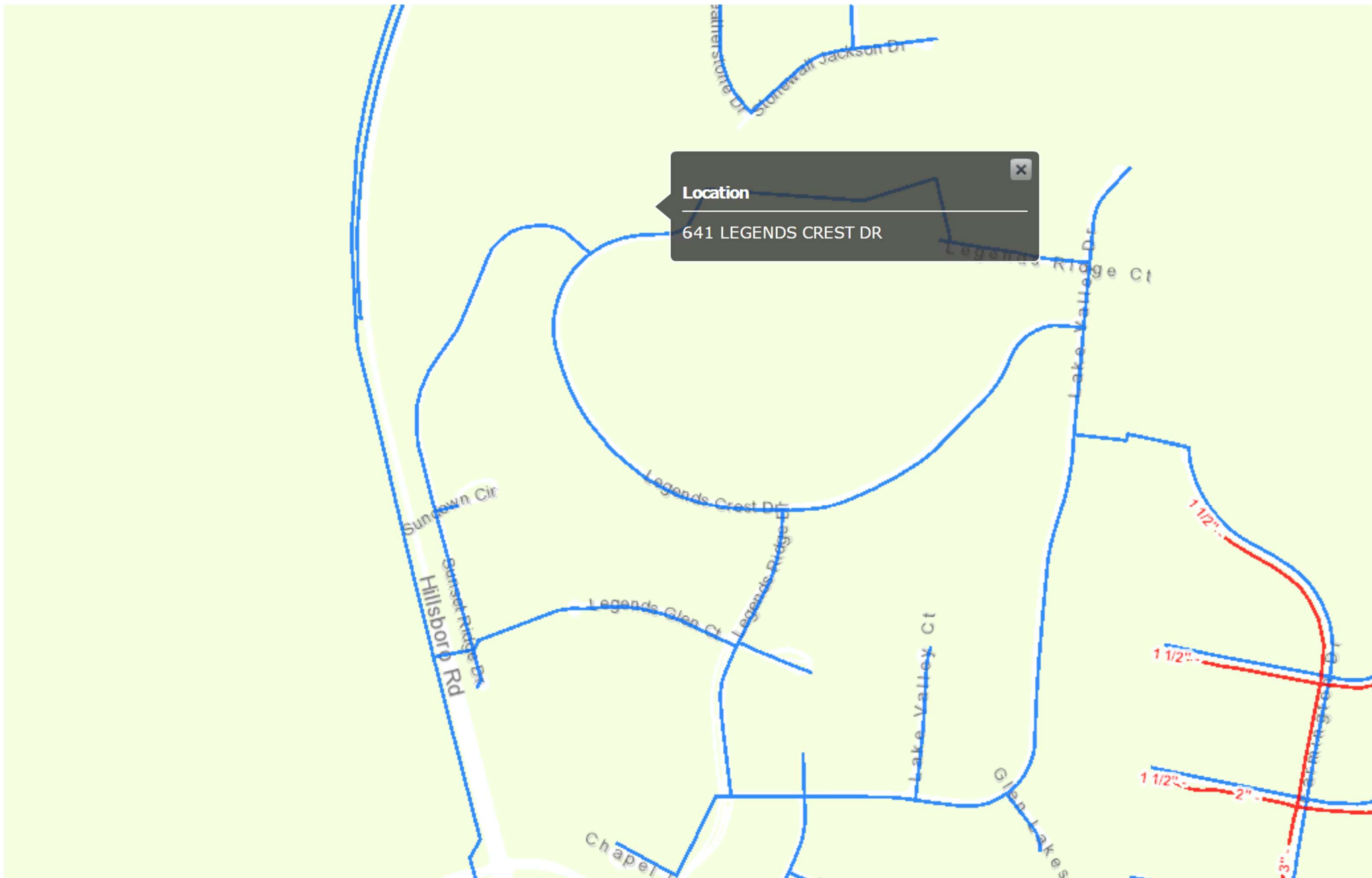
Only applicable if extending the water, sewer or reclaim water main lines.

Fee Description	Applicable Utility	Fee Amount
Plan Review Fee	Water, Sewer & Reclaim Water	\$300 Water; \$300 Sewer & \$300 reclaim Water
Inspection fees:	Fee Rate	
Water Main Line	\$1.25/LF Water (minimum \$ 1,000)	
Sewer Gravity Main Line	\$2.00/LF (minimum \$1,000)	
Sewer Force Main Line	\$1.50/LF (minimum \$1,000)	
Reclaim Water	\$1.25/LF (minimum \$1,000)	

Checks are made payable to the City of Franklin. Please indicate what the payment is for on the check.

3 Projected Flow Examples

Drainage Facility	Flow in GPD	Design Units
Apartments -One Bedroom	250	per unit
Apartment -Two Bedroom	300	per unit
Apartment -Three Bedroom	350	per unit
Mobile Home Parks	300	per mobile home space
Single Family Dwelling	350	per unit
Assembly Hall (No Food Service)	2	per seat
Beauty Shop, Styling Salon	200	per station
Bowling Alleys (no food service)	75	per lane
Car Wash -(stand alone)	500	Per bay
Child Care Center	10	Per child and adult
Churches (small)	5	per sanctuary seat
Churches (large with kitchen)	7	per sanctuary seat
Country Clubs	50	per member
Dance Halls (No Food Service)	2	per person
Doctors/Dentists	75	per doctor
	20	per employee
	10	per patient
Drive-In Theaters	5	per car space
Factories (no showers)	25	per employee per 8-hour shift
Factories (with showers)	35	per employee -per 8-hour shift
Hospitals (no residents) (with food service)	300	per bed
Hotels	130	per unit
Institutions (residents) (with food service)	100	per person
Laundries (coin-operated)	400	per standard size machine
Nursing and Rest Homes (with food service)	200	per patient
	100	per resident employee
	50	per non-resident employee
Office Buildings	25	per employee
Office/warehouse space	0.1	per square foot
Retail Store	20	per employee
Restaurant -Ordinary (not 24-hour)	35	per seat
Restaurant -24-Hour	50	per seat
Restaurant -Banquet Rooms	5	per seat
Restaurant -Along Freeway	100	per seat
Restaurant -Tavern (very little food service)	35	per seat
Restaurant -Curb Service (drive-in)	50	per car space
Service Stations	1000	Per fuel island
Schools -Elementary (with food service)	15	per pupil
Schools -High and Junior High (with food service)	20	per pupil
Shopping Centers (no food service or laundries)	0.2	per sq. ft of floor space
Swimming Pool	10	per swimmer
Theaters, auditorium type	5	per seat
Youth and Recreation Camps (w/food service)	50	per person





File #: 20-0445

DATE: April 16, 2020
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management

SUBJECT:

Consideration Of COF Contract No. 2019-0296, Annexation Agreement (Tax Map 105, Parcel 03100) Between The City Of Franklin And Joshua Steven Souder And Meghan Allison Souder.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the annexation agreement between the City and the Souder's.

BACKGROUND/STAFF COMMENTS:

A sewer availability request was received September 13, 2019 from the owners at 2369 Henpeck Lane, a property located in Williamson County. The following timeline of events occurred regarding this sewer availability request:

1. September 13, 2019 - availability application received for 2369 Henpeck Lane
2. CIC September 26, 2019; Referred to October 8, 2019 Work Session
3. Resolution 2019-106 presented at Work Session October 8, 2019
4. Resolution 2019-106 Approved by BOMA October 8, 2019

The BOMA approved Resolution 2019-106 indicating approval contingent based upon four items:

1. Property owners desire to annex into the City only when the City deems it appropriate.
2. Property owner agrees to participate in any future special assessment district within the drainage basin.
3. Property owner is responsible for all costs to connect to the public sanitary sewer system.
4. The conditions of the Agreement shall be recorded at the Williamson County Register of Deeds.

The attached Annexation Agreement is presented based upon these four requirements.

FINANCIAL IMPACT:

None.

RECOMMENDATION:

Staff recommends approval of the attached Annexation Agreement to provide sanitary sewer service to 2369 Henpeck Lane based upon the contingencies outlined above and presented in Resolution

2019-106.

**ANNEXATION AGREEMENT
COF CONTRACT NO 2019-0296**

This Agreement is between THE CITY OF FRANKLIN, TENNESSEE (“City”) and Joshua Steven Souder and Meghan Allison Souder (“Owners”), and is entered into on this the _____ day of _____, 2020.

WHEREAS, the Owners have submitted an availability request for sanitary sewer service to the City of Franklin, TN; and

WHEREAS, the Board of Mayor and Aldermen have adopted Conditions and Requirements to Obtain Sanitary Sewer Availability; and

WHEREAS, the Conditions and requirements to Obtain Sanitary Sewer Availability require annexation at such time the property becomes contiguous to the City’s corporate limits or as determined by the Board of Mayor and Aldermen.

NOW THEREFORE, the City and the Owners, their successors and assigns, do hereby agree as follows:

1. Owners represent that they are the sole Owners of Tax Map 105 Parcel 03100 recorded in Deed Book 33 Page 106 located in Williamson County TN.
2. In Exchange for the City’s agreement to allow Owners to connect their property to one or more of the City’s Utility Systems, the Owners, on behalf of themselves, their heirs and assigns, and future owners do hereby convey unto the City the irrevocable and perpetual right to file on their behalf a Petition of Annexation at any time after annexation becomes possible.
3. City shall allow Owners to connect utilities serving Owners property to the City’s systems. Owners shall make this connection at their expense, obtain all necessary permits for the connection and pay all fees required to connect to the City’s systems.
4. All utilities serving Owners’ property shall be located within standard easements dedicated to the City of Franklin and construed in compliance with all applicable City, State and Federal regulations and standards.
5. To the extent allowed by law, City may annex Owners’ property into the City, without further action of the Owners, after owners’ property becomes contiguous to the corporate limits of the City or when deemed appropriate by the Board of Mayor and Alderman.
6. Owners irrevocably appoint the City Administrator of Franklin, TN, as their attorney-in-fact for the sole purpose of presenting a verified petition requesting annexation of Owners’ property to the City of Franklin, Tn. The City Administrator may exercise this power of attorney at any time. Owners on their behalf, and on behalf of their heirs successors and assigns do hereby waive any notice of the filing of the petition, do hereby consent to the granting of the petition, and do hereby waive any objections, statutory or otherwise, to the annexation of the property into the City of Franklin, TN. Owners do hereby authorize the City to take whatever action necessary to complete the annexation of this property.

7. If requested by the City Administrator, Owners shall, within such time as specified by the City Administrator, submit a verified petition requesting annexation of Owners' property to the **Director of Planning and Sustainability** for presentation to the City Board of Mayor and Aldermen of Franklin, TN. The City Administrator may request Owners to present an annexation petition at any.
8. Owners further agree that they shall not consent to voluntary annexation by any other municipality without the consent of the City.
9. Owners shall give a copy of this agreement to each and every person who buys all or a portion of Owners' property.
10. If Owners fail to comply with any of the provisions of this agreement, or repudiate the terms of this Agreement, City may terminate utility service to Owners' property and disconnect the utility lines serving Owners' property from the City's systems. City shall give Owners six months prior written notice of its intent to terminate service.
11. The City reserves the right to terminate this Agreement upon written notice to the Owners'. Said termination shall not be deemed a "breach of contract" by the City.
12. The City shall have no liability except as specifically provided in this Agreement.
13. This Agreement may be modified only by a written amendment executed by the parties hereto.
14. The parties agree that the terms and conditions contained herein shall be binding on and shall inure to their representatives, successors and assigns and that there are no understandings or agreements between them except as contained in this instrument.
14. 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 for forum and venue shall be exclusively in the courts of Williamson County, Tennessee.
15. Entire Agreement. This Agreement together with its exhibit(s) constitutes the entire agreement between the parties and may not be modified except as by a written agreement by both parties.

Approved by the Franklin Board of Mayor and Aldermen on _____, 2020.

(Signatures on following pages)

WITNESS our hands on the dates as indicated.

Owner

By: _____

Print Name: _____

Title: _____

Date: _____

STATE OF TENNESSEE)
)
COUNTY OF _____)

Before me, _____, a Notary Public of said County and State, personally appeared _____ and _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged themselves to be _____ and _____ and that as such _____ and _____ executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal this _____ day of _____, 20____.

Notary Public
My Commission Expires: _____

Owner

By: _____

Print Name: _____

Title: _____

Date: _____

STATE OF TENNESSEE)
)
COUNTY OF _____)

Before me, _____, a Notary Public of said County and State, personally appeared _____ and _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged themselves to be _____ and _____ and that as such _____ and _____ executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal this _____ day of _____, 20____.

Notary Public
My Commission Expires: _____

Date: _____

Date: _____

STATE OF TENNESSEE)
)ss:
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 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 #: 20-0443

DATE: April 16, 2020
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management

SUBJECT:

Consideration Of COF Contract No. 2019-0297 Sanitary Sewer Availability Agreement for 2369 Henpeck Lane (Map 105, Parcel 31) Between The City Of Franklin And Joshua Steven Souder And Meghan Allison Souder.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning

BACKGROUND/STAFF COMMENTS:

A sewer availability request was received September 13, 2019 from the owners at 2369 Henpeck Lane, a property located in Williamson County. The following timeline of events occurred regarding this sewer availability request:

1. September 13, 2019 - availability application received for 2369 Henpeck Lane
2. CIC September 26, 2019; Referred to October 8, 2019 Work Session
3. Resolution 2019-106 presented at Work Session October 8, 2019
4. Resolution 2019-106 Approved by BOMA October 8, 2019

The BOMA approved Resolution 2019-106 indicating approval contingent based upon four items:

1. Property owners desire to annex into the City only when the City deems it appropriate.
2. Property owner agrees to participate in any future special assessment district within the drainage basin.
3. Property owner is responsible for all costs to connect to the public sanitary sewer system.
4. The conditions of the Agreement shall be recorded at the Williamson County Register of Deeds.

The attached Agreement and Annexation Agreement are presented based upon these four requirements.

FINANCIAL IMPACT:

The recommended agreement will allow for a full cost recapture of the City of Franklin Water Management Department installation costs in addition to the payment of all required impact fees.

RECOMMENDATION:

Staff recommends approval of the attached Agreement to provide sanitary sewer service to 2369 Henpeck Lane. The conditions in the Agreement fulfill all contingencies presented in Resolution 2019-106.

**AGREEMENT BETWEEN THE CITY OF FRANKLIN
AND JOSHUA SOUDER AND MEGHAN SOUDER
COF CONTRACT NO. 2019-0297**

This Agreement is entered into between THE CITY OF FRANKLIN, TENNESSEE ("City") and **Joshua Steven Souder and Meghan Allison Souder**, ("Property Owners"), on this the _____ day of _____, 2020, pursuant to Title 18, Chapter 2 of the Franklin Municipal Code ("FMC").

WHEREAS, the Property Owners currently own the property known as 2369 Henpeck Lane (MAP 105 PARCEL 31) (hereinafter "Property"); and

WHEREAS, on September 13, 2019, the Property Owners submitted a Request for Sewer Availability for 1 SFUE (1 SFUE = 350 gallons per day); and

WHEREAS, the Board of Mayor and Aldermen approved this availability at the September 26, 2019, Board of Mayor and Aldermen Meeting Contingent on the Property Owners and all future owners of the Property to participate in any potential future special assessment district located in the Goose Creek Basin that requires sewer to be extended through or adjacent to the property; and

WHEREAS, the Property Owners shall be required to sign an annexation agreement allowing the City to annex the Property at whatever time the City deems desirable; and

WHEREAS, prior to applying for a Sewer Infrastructure Installation Permit, the Property Owners shall be responsible for having this Agreement recorded at the Williamson County Register of Deeds; and

WHEREAS, the Property Owners shall 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.

NOW THEREFORE, in consideration of the terms, conditions and mutual agreements by and between the parties as hereinafter set forth in detail, the parties do hereby mutually agree as follows:

I. AGREEMENT OF SEWER AVAILABILITY

1. The foregoing recitals are incorporated into this Agreement and made a part thereof.
2. The Property Owners shall be responsible for having this Agreement recorded with the Williamson County Register of Deeds with a copy maintained in the City's Recorder's office in City Hall, Franklin, TN.
3. The Board of Mayor and Aldermen approved the sewer availability at the September 27, 2019, Capitol Investment Committee Meeting (Resolution No. 2019-106), contingent on the Property Owners and all future owners to participate in any future potential special assessment district located in the Goose Creek Basin that requires sewer to be extended through or adjacent to the property.
4. Prior to construction activities, Property Owners are responsible for all fees as listed in Municipal Code Title 18 and Appendix A – Comprehensive Fees and Penalties.
5. Property Owners shall be responsible for all costs 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.

6. Property Owners shall be responsible for reimbursing the City for all aforementioned fees and all construction costs within sixty (60) days of completion of construction.
7. Property Owners shall be responsible for dedicating an easement, the width of which will be determined by COF, across the front (north side) of the property and extending to the east and west property boundaries. This easement shall be recorded with the Williamson County Register of Deeds.
8. Property Owners shall be responsible for dedicating an easement, the width of which will be determined by COF, across the back (south side) of the property and extending to the east and west property boundaries. This easement shall be recorded with the Williamson County Register of Deeds.
9. Property Owners shall participate in a special assessment district in the event one is instituted for the sanitary sewer drainage basin within which the Property is located.
10. The Property Owners hereby covenant with said COF, that we are lawfully seized and possessed of said land in fee simple and have a good right to sign this Agreement.
11. This Agreement constitutes the entire agreement between parties. There are no further or other agreements or understandings, written or oral, in effect between the parties, relating to the subject matter hereof. This Agreement may be amended or modified only by an instrument of equal formality signed by the respective parties.
12. In the event the Property Owners sell the Property, all terms within this Agreement shall be transferred onto the new owners of the Property.

II. GENERAL TERMS AND CONDITIONS

1. Personal Liability.

No member, Mayor, Aldermen, official or employee of the City shall be personally liable to Property Owners, or any successor in interest, in the event of any default or breach by the City, or for any amount which may become due to Property Owners or successor or on any obligations hereunder.

2. Warranties/Limitation of Liability/Waiver.

The City reserves all rights afforded to local governments under law for all general and implied warranties. The City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Property Owners to limit its liability shall be void and unenforceable.

3. Severability.

If any term or provision of the Contract is held to be illegal or unenforceable, the validity of enforceability of the remainder of the Contract will not be affected.

Approved by the Franklin Board of Mayor and Aldermen on _____, 2020.

(Signatures on following pages)

WITNESS our hands on the dates as indicated.

PROPERTY OWNER:

Joshua Steven Souder

By: _____

Print Name: _____

Title:

PROPERTY OWNER:

Meghan Allison Souder

By: _____

Print Name: _____

Title:

STATE OF TENNESSEE)
)
COUNTY OF)

Before me, _____, a Notary Public of said County and State, personally appeared _____ and _____, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who, upon oath, acknowledged themselves to be _____ and _____ and that as such, _____ and _____ executed the foregoing instrument for the purposes therein contained.

Witness my hand and seal on this _____ day of _____, 2020.

Notary Public
My Commission Expires: _____

CITY OF FRANKLIN, TENNESSEE:

By: _____
DR. KEN MOORE
Mayor

Date: _____

ATTEST:

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 _____, 2020.

Notary Public
My Commission Expires: _____

Approved as to form by:

Shauna R. Billingsley, City Attorney



File #: 20-0517

DATE: April 16, 2020
TO: Capital Investment Committee
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management

SUBJECT:

Consideration Of DRAFT Amendment 1 To COF Contract No. 2018-0236 With Revere Control Systems To Extend The Contract Until All Funds Are Depleted For The Water Management Department Telemetry System Maintenance Contract.

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning existing contract in place for the maintenance of the SCADA system for the distribution and collection system.

BACKGROUND/STAFF COMMENTS:

The City entered into a maintenance contract with Revere Control Systems for the on-call maintenance of the SCADA system for the distribution and collection system. That contract listed an end date for services of December 2019 in anticipation of creating a new contract. Because WMD staff has been able to self-perform maintenance on most of the issues, or work with Revere over the phone, we've not expended all of the monies in the original contract. This Amendment will extend the maintenance contract to cover any additional items that come up until the funds are depleted.

FINANCIAL IMPACT:

There is no financial impact for this amendment.

RECOMMENDATION:

Staff recommends approval and acceptance of Amendment No. 1 to COF Contract No. 2018-0236 with Revere Control Systems.

Attachment "A"
SCOPE OF WORK

Revere Control Systems, Inc. ("Contractor") will provide complete, comprehensive turnkey services including but not limited to configuration, maintenance, repair and replacements, diagnostics, administration, programming, upgrades, documentation and training for all Included systems and software to City of Franklin ("Owner") as defined herein.

Time, system reliability, and functionality are of the essence. The purpose of this contract is to ensure continuous and reliable operation of the system and all components and to meet all regulatory requirements.

Visits to the sites to correct deficiencies under warranty shall not be Included in this preventive maintenance service contract.

1. SYSTEM COVERAGE

- A. System coverage will include but will not be limited to the Water Distribution and Collection System SCADA Improvements furnished under COF Contract No. 2016-66
- B. Facilities will be included as they are identified.
Master Station at the Public Works facility
Site RTU and repeater Sites
- C. Technology components related to the Owner's facilities include, but are not limited to the following:
PLC Hardware Systems
HMI and/or OIT Applications
Routers and Switches
Radio Telemetry Systems and Diagnostic Software
Trihedral SCADA Software and Application
RTU Control Panel
- D. Note that the Owner has "SupportPlus" services for VTSCADA software with Trihedral. Contractors services shall not overlap or duplicate any Trihedral services.

2. SYSTEM ADMINISTRATION SERVICES

- A. The Contractor will provide complete, comprehensive, turnkey service; including (but not limited to) configuration, maintenance, repair and replacements, diagnostics, administration, programming, upgrades, documentation, and training for all Included systems and software.
- B. The Contractor will provide support services via remote Internet connection to troubleshoot and/or resolve issues if possible. The Owner will provide and maintain an Internet connection for this purpose. It is understood that the equipment for this connection may be provided by Revere as part of the Preventive Maintenance Contract.
- C. The Contractor will provide software support and programming that may be required. This will include (but will not be limited to) software installation and support, database creation and configuration, programming of any required data entry screens, any required reports, and any other required work.
- D. Documentation of the service visit will be provided to the Owner in the format of a Revere Service Report. The Service Report will accompany the pay application and/or invoice to reflect the services provided.
- E. The Contractor will maintain comprehensive documentation of all work done during each scheduled monthly visit. This will include (but will not be limited to) problem logs, system error logs, system performance logs, and change management logs. The format of

this documentation will be determined in conjunction with the Owner's Representative. The Contractor will develop, in conjunction with Utilities personnel, and provide any reports the Owner deems necessary to adequately monitor the status of the systems and the work performed.

- F. The Contractor will be required to coordinate and provide any training necessary for Owner personnel to understand and operate any aspect of all included systems and software.

3. SYSTEMS AND SOFTWARE MAINTENANCE, UPDATES, AND MODIFICATION

- A. The Contractor shall work to ensure reliability, functionality, and timeliness. The Contractor shall ensure all systems are properly functioning before leaving the site. The Contractor will be responsible for making any required changes and/or modifications to (but not limited to) the following systems noted under Item 1, above.
- B. The Contractor will provide any necessary assistance to provide for system additions such as (but not limited to) adding systems to SCADA.
- C. The Contractor will provide all necessary installation, configuration, diagnostics, troubleshooting, programming, modification, and any other necessary work whether online or offline, for all systems and software including PLC software.
- D. The Contractor will coordinate and document all warranty work for all included systems.
- E. The Contractor will provide any necessary licenses for all software furnished by the Contractor under this Contract. The Contractor shall maintain at a designated Owner location a complete inventory of all licenses.
- F. The Owner's Representative shall authorize the acquisition of all commodities, hardware and software additions, replacements, and upgrades.
- G. The Contractor will establish and maintain the capability for remote system support. This support will include VPN access to the system(s). This support will also include (but will not be limited to) telephone and email support by qualified Contractor personnel charges at the same rates as onsite service.

4. PREVENTIVE MAINTENANCE SUPPORT

- A. The contractor shall schedule 2 preventative maintenance visits by qualified service personnel.
- B. Each preventive maintenance visit shall include the following:
 - 1) Visual inspection and cleaning of Revere panels
 - 2) Replace corrosion inhibitors
 - 3) Check antenna, cabling and connectors. Coordinate needed repairs with the City
 - 4) Verify correct operation (e.g., verify cellular Is working, verify radio connection and proper operation, trip alarms to verify they are working, etc.)
 - 5) Verify current versions of application software backups

5. EMERGENCY SUPPORT

Timely and comprehensive emergency response to failures in the SCADA system is critical. Failure of the Contractor to respond shall be grounds for termination.

- A. The Contractor shall establish a communication response procedure to ensure a response and acknowledgement of an Emergency within two (2) hours of being contacted by the Owner. The Contractor shall actively be working to resolve/fix any Emergency (as declared by the Owner's Representative) within 24 hours of Declaration of Emergency. The Owner's Representative or designated representative shall have sole authority to declare an Emergency. Upon Declaration of Emergency the Contractor shall provide the following:
 - i. Telephone assistance services from the technical support hotline with qualified personnel shall be available to assist Owner personnel 24 hours a day, 7 days per week. The technical support hotline is manned by technical specialists that will make assessment of the telephone request and determine appropriate action. Examples of appropriate actions are as follows:
 - Assist owner personnel to resolve problem.
 - Dispatch Systems Technician or Engineer to perform on site repair.
 - Procure parts as required.
 - Initiate contact with the Systems Engineer to provide engineering level assistance.
 - II. Communication via e-mail shall be available
 - III. Professional emergency support shall be available on site within twenty-four (24) hours of notice.
 - IV. Control Systems Technician shall be on site within eight (8) hours of notice with necessary troubleshooting and calibration equipment to accomplish the emergency repairs or identify necessary actions and procurements required to resolve the emergency.
- B. As noted under item 1.D. above, the Owner has "supportPlus" services with Trihedral. These services include 24hr Emergency Support. Contractors Services shall not overlap or duplicate Trihedral emergency services.

6. PERSONNEL QUALIFICATION

Contractor personnel shall **possess** the following minimum qualifications.

A. SYSTEM ENGINEER

The System Engineer shall be proficient in developing and implementing water and wastewater solutions with the HMI Software and its core modules. Ability to configure PLC drivers and set up the HMI Software for client-server applications.

B. FIELD SERVICE TECHNICIAN

The Field Service Technician shall be proficient with process control equipment including control panel devices, radio equipment. The Technician shall be sufficiently skilled so as to provide support in the field to troubleshoot electrical panels and to help fix problems.

C. PERSONNEL ASSIGNED

The Owner is sensitive to continuity of experiences and changes in Contractor personnel described above must be approved by the Owner's Representative prior to working on this contract. Failure to maintain personnel capable of performing the required duties shall be grounds for termination.

7. GENERAL

- A. The Owner shall pay only one contractual rate per individual per visit.
- B. The Contractor shall maintain and store any and all required reports, drawings, records, backups, and any other documentation required by this contract at a location designated by the Owner. The Contractor shall maintain working copies at the Contractor's location as required supplying remote support on the system.
- C. All Emergency Support work shall be coordinated with and authorized by the Owner's Representative or a designated representative. The Owner's Representative or designated representative will determine what constitutes "Emergency Support" and shall make that differentiation when contact is made with Contractor.
- D. All non-Emergency Support must be authorized in writing by the Owner's Representative prior to performance of the work to be eligible for reimbursement.

8. PROCUREMENT

- A. The Contractor shall provide all required parts, supplies, materials, software, licenses, hardware, third party service, and any other materials, as per written estimate, to accomplish all work. The cost of these items shall be paid on a cost plus 15% as outlined in Attachment "B", Section 3. A copy of the Contractor's Invoice(s) from his supplier for such parts, supplies, and materials shall be submitted with the Contractor's invoice for payment. Revere Control System proprietary parts will be provided at published prices with no markup. Parts, supplies, materials, and any other items shall comply with the manufacturer's specifications and standards.
- B. If requested by the Owner, the Contractor shall provide fixed price quotations for materials, engineering, plant services, or on-site services. This does not relieve the Contractor of the requirement to provide the required backup.
- C. All items procured and incorporated in the work or accepted as spare parts by the Owner will become the property of the Owner.

9. ADDITIONAL LABOR AND OTHER EXPENSES

Any and all labor or other costs required in excess of those itemized herein will be at standard rates and must be pre-approved by the Owner in writing.

10. OTHER VENDORS

The Contractor intends to provide the services requested by the Owner. However, the Contractor reserves the right to utilize other vendors in such cases that specific technical expertise is required. Subcontractors and vendors must be pre-approved by the Owner. Markup shall not exceed 10%.

ATTACHMENT "B"
PRICING
REVERE CONTROL SYSTEMS RATES

The following hourly rates will be charged for services provided including onsite support as well as telephone/remote support.

LaborCategory	Regular Working Hours	After-Hours, Weekends, and Holidays
Project Manager	\$ 160.00 / Hour	NIA
Project Engineer/Specialist	\$130.00 / Hour	NIA
Senior Project Engineer/Specialist	\$ 145.00 / Hour	NIA
Field Service Technician	\$105.00 / Hour	\$ 155.00 / Hour
CAD Designer/Operator	\$ 75.00 / Hour	NIA

Materials/Equipment Markup: 15% Including Freight

Per Hour cost starts when contractor Initiates travel to customer location. Travel expenses and meals shall be paid at cost. The GSA Standard rate for mileage will apply. Hotel and meal costs shall not exceed GSA standard rates. All travel expenses shall be paid pursuant to the City of Franklin Travel Policy. Travel expenses are included in the lump sum fee.

Materials/ Equipment purchases shall be proposed to the Owner for review prior to purchase. The Owner reserves the right to procure and provide the materials to the contractor when it is cost effective for the Owner and does not Interfere with work progress.

The Owner will be charged monthly for labor utilized and for business expenses related to the labor. Labor and expenses to be Included in the billable hourly services include, but are not limited to:

- Revere Personnel including Systems Engineer(s), Field Service Technicians, etc.
- Scheduled on-site service trips
- Remote support services
- Emergency on-site service trips
- Owner will be billed for on-site time and expenses
- Equipment, Software, Repairs, Subcontractors

Work will only be performed and invoiced as authorized by the Owner's designated representatives against the contract budget

Budget and Schedule

This contract is valid until the depletion of funds for the specific work beginning at the signing date of the contract. Preventative maintenance events shall be performed for a lump sum fee of \$6,000.00 per event plus cost for any replacement materials or parts, and an allowance of \$25,000.00 is established for all other services, which will be Invoiced on a time and material basis. The total budget for this contract will be THIRTY-ONE THOUSAND and 00/100 Dollars \$31,000.00.

ATTACHMENT "C"
PROJECT MANAGER RESPONSIBILITIES

The following responsibilities are assigned to Revere's Project Manager to provide support for the Owner.

1. A single point of contact for emergency service and support requests. Revere's main telephone number provides access to a receptionist during regular working hours and an automated attendant after hours. With the automated attendant, a message can be left, and the system will locate a resource that will contact the customer for further Information. We will acknowledge an emergency support call within two (2) hours of receiving the call. The Project Manager can also be contacted via their direct cell phone number at any time (regular working or after hours) if so desired.
2. 8:00 AM to 5:00 PM Central Time Single point of contact for all routine service and support requests as well as for all business aspects pertaining to the maintenance Contract.
3. Ensure availability of Field Service Technician for onsite response within 24 hours from Identification of the need to dispatch.
4. Ensure availability of the Systems Engineer for onsite response within 24 hours from Identification of the need to dispatch.
5. Schedule backup technical resources as required.
6. Coordinate third parties and sub-contractors as necessary, to include reporting and filing requirements of the Owner, and purchasing.



File #: 20-0574

DATE: April 8, 2020

TO: Board of Mayor and Aldermen

FROM: Michelle Hatcher, Director of Water Management

SUBJECT:

Consideration Of COF Contract No. 2020-0006 With The C.I. Thornburg Company, Incorporated For The Installation Of The Flex Net System For The Automatic Metering Infrastructure For An Amount of \$220,998.50

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Professional Services Agreement with C.I. Thornburg Company, Incorporated for the installation of the Flex Net System for the Automatic Metering Infrastructure.

BACKGROUND/STAFF COMMENTS:

CIC 1/23/20, 3-0

BOMA 2/11/20

The Water Management Department is working through the installation and initiation of automatic metering infrastructure that will provide real time data for water usage for WMD personnel and customers to better identify leaks and improve billing accuracy.

As part of this agreement, towers will need to be installed throughout the City to transmit data from residential meters to the main system, in addition to the integration of the data into the City's billing methodology. Another part of this project is the changing of all meters within the City, which is WMD working through with current staffing levels to reduce overall project costs.

This agreement is for the hosted software solution that was previously selected by WMD staff and inadvertently left out from the initial presented scope from C.I. Thornburg Company.

FINANCIAL IMPACT:

This total project cost of \$280,998.50 has been budgeted over two years in both the Water General (421-89320-52109) and Wastewater General fund (431-89320-52219), as an equal split, for FY 20 and FY 21, however, the cost for this agreement is included in the overall project cost and will not be billed individually.

RECOMMENDATION:

Staff recommends approval of this contract with C.I. Thornburg Company, Incorporated for the software installation of the Flex Net System.



Leading the World Through Clean Water

April 8, 2020

**Michelle Hatcher
Director, Water Management Department
Franklin Water and Wastewater
124 Lumber Drive
Franklin, TN 37064**

Dear Ms. Hatcher:

I am writing in response to your request for more detailed information about the Sensus Software as a Service (SaaS) Agreement. This agreement details three items that are not passed through distribution:

1. Sensus primary licensed frequency
2. Terms of use for SaaS
3. Outline of the technical support process

Sensus and Franklin previously entered into a spectrum manager lease on 6/10/15 as part of

As briefly mentioned in our proposal, SaaS is a managed service in which Sensus will be responsible for maintaining day-to-day monitoring, maintenance, management, and supporting Franklin's software applications. In a SaaS solution, Sensus owns the all components of the solution (server hardware, storage, data center, network equipment, Sensus software, and all third-party software) required to run and operate the application. These software applications consist of the following:

- Regional Network Interface (RNI)
- Sensus Analytics – Enhanced Package

Each application will have a production and disaster recovery environment (detailed description in the SaaS Agreement). Sensus will manage the applications by providing 24x7x365 monitoring of the availability and performance of these applications.

Sensus Technical Services provides utility customers with a single point of contact for Tier 1 support of technical issues as well as any coordination of additional resources required to resolve the issue. Requests that require specialized skills are to be forwarded to a senior support engineer or Technical Advisor within the team for further analysis. If Technical

Services has exhausted all troubleshooting efforts for the product type, the issue will escalate to the Engineering Support Team. Occasionally, on-site troubleshooting/analysis may be required.

No money is paid to Sensus under the SaaS Agreement – all money flows through the distributor (CI Thornburg), which sells the AMI system. The annual hosting fees will continue to flow through CI Thornburg as reflected in our proposal.

We greatly appreciate the opportunity to move Franklin Water & Wastewater to the most advanced AMI system in the industry! Please let me know if you have any questions or if I can be of any further assistance.

Thanks,

Cody Trimble

Smart Infrastructure Manager

(859) 285-0847

cody.trimble@cithornburg.com

Software as a Service Agreement

between

City of Franklin
("Customer")

and
Sensus USA Inc.
("Sensus")

IN WITNESS WHEREOF, the parties have caused this Software as a Service ("Agreement") to be executed by their duly authorized representatives as of the day and year written below. The date of the last party to sign is the "Effective Date."

This Agreement shall commence on the Effective Date and continue for/until: 5 Years ("Initial Term"). At the end of the Initial Term, this Agreement shall automatically renew for an additional term of 5 years ("Renewal Term"). The "Term" shall refer to both the Initial Term and the Renewal Term.

Sensus USA Inc.

Customer: City of Franklin

By: _____
 Name: _____
 Title: _____
 Date: _____

By: _____
 Name: _____
 Title: _____
 Date: _____

Contents of this Agreement:

Agreement
 Exhibit A Software
 Exhibit B Technical Support

Agreement

1. General

- A. **Agreement Generally.** The scope of this Agreement includes usage terms for Sensus' hosted Software solution, technical support, and supporting terms and conditions for an advanced metering infrastructure solution that Customer will purchase from Sensus' authorized distributor. Customer is not paying Sensus directly for the services provided by Sensus under the Agreement; rather, Customer shall pay Sensus' authorized distributor pursuant to a separate agreement between Customer and such authorized distributor.

2. Software.

- A. **Software as a Service (SaaS).** Sensus shall provide Customer with Software as a Service, as defined in Exhibit A, only so long as Customer is current in its payments for such services.
- B. **UCITA.** To the maximum extent permitted by law, the Parties agree that the Uniform Computer Information Transaction Act as enacted by any state shall not apply, in whole or in part, to this Agreement.

3. Spectrum

- A. **Spectrum Lease.** The parties previously entered into a spectrum manager lease on 6/10/2015 (the "Spectrum Lease"), which is hereby specifically incorporated by reference.

4. Equipment.

- A. **Purchase of Equipment.** Customer shall purchase all Field Devices, RF Field Equipment, and other goods (collectively, "Equipment") from Sensus' authorized distributor pursuant to the terms and conditions (including any warranties on such Equipment) agreed by Customer and Sensus' authorized distributor. This Agreement shall not affect any terms and conditions, including any warranty terms, agreed by Customer and Sensus' authorized distributor. If Customer elects to purchase any equipment or services directly from Sensus, or if Customer pays any fees or other costs to Sensus, then Sensus' Terms of Sale shall apply. The "Terms of Sale" are available at: <https://www.sensus.com/tc>, or 1-800-METER-IT
- B. **THERE ARE NO WARRANTIES IN THIS AGREEMENT, EXPRESS OR IMPLIED. SENSUS EXPRESSLY DISCLAIMS ANY AND ALL REPRESENTATIONS, WARRANTIES AND/OR CONDITIONS, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, REGARDING ANY MATTER IN CONNECTION WITH THIS AGREEMENT, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, NON-INFRINGEMENT AND TITLE.**

5. Services.

- A. **Installation of Equipment.** Installation services for Field Devices, other goods, and RF Field Equipment will be as agreed between the Customer and Sensus' authorized distributor. Sensus will not provide installation services pursuant to this Agreement
- B. **Technical Support.** Sensus shall provide Customer the technical support set forth in Exhibit B.
- C. **Project Management.** Sensus' authorized distributor will provide project management services to Customer. Any project management of the FlexNet System provided by Sensus shall be subject to a separate agreement which describes the scope and pricing for such work.
- D. **Training.** Sensus' authorized distributor will provide Customer with training on the use of the FlexNet System. Any training provided by Sensus shall be subject to a separate agreement which describes the scope and pricing for such work.
- E. **IT Systems Integration Services.** Except as may otherwise be provided herein, integration of the Software into Customer's new or existing internal IT systems is not included in this Agreement. Any integration work shall be subject to a separate agreement which describes the scope and pricing for such work.

6. General Terms and Conditions.

- A. **Infringement Indemnity.** Sensus shall indemnify and hold harmless Customer from and against any judgment by a court of competent jurisdiction or settlement reached from any litigation instituted against Customer in the United States by a third party which alleges that the FlexNet System provided hereunder infringes upon the patents or copyrights of such third party, provided that Sensus shall have the right to select counsel in such proceedings and control such proceedings. Notwithstanding the foregoing, Sensus shall have no liability under this indemnity unless Customer cooperates with and assists Sensus in any such proceedings and gives Sensus written notice of any claim hereunder within fourteen (14) days of receiving it. Further, Sensus shall have no liability hereunder if such claim is related to; (i) any change, modification or alteration made to the FlexNet System by Customer or a third party, (ii) use of the FlexNet System in combination with any goods or services not provided by Sensus hereunder, (iii) Customer's failure to use the most recent version of the Software or to otherwise take any corrective action as reasonably directed by Sensus, (iv) compliance by Sensus with any designs, specifications or instructions provided by Customer or compliance by Sensus with an industry standard, or (v) any use of the FlexNet System other than for the Permitted Use. In the event the FlexNet System is adjudicated to infringe a patent or copyright of a third party and its use is enjoined, or, if in the reasonable opinion of Sensus, the FlexNet System is likely to become the subject of an infringement claim, Sensus, at its sole discretion and expense, may; (i) procure for Customer the right to continue using the FlexNet System or (ii) modify or replace the FlexNet System so that it becomes non-infringing. THIS SECTION STATES CUSTOMER'S SOLE AND EXCLUSIVE REMEDY AND SENSUS' ENTIRE LIABILITY FOR ANY CLAIM OF INFRINGEMENT.
- B. **Limitation of Liability.** Sensus' aggregate liability in any and all causes of action arising under, out of or in relation to this Agreement, its negotiation, performance, breach or termination (collectively "Causes of Action") shall not exceed the greater of; (a) the total amount paid by Customer directly to Sensus under this Agreement; or (b) ten thousand US dollars (USD 10,000.00). This is so whether the Causes of Action are in tort, including, without limitation, negligence or strict liability, in contract, under statute or otherwise. As separate and independent limitations on liability, Sensus' liability shall be limited to direct damages. Sensus shall not be liable for; (i) any indirect, incidental, special or consequential damages; nor (ii) any revenue or profits lost by Customer or its Affiliates from any End User(s), irrespective whether such lost revenue or profits is categorized as direct damages or otherwise; nor (iii) any In/Out Costs; nor (v) damages arising from maincase or bottom plate breakage caused by freezing temperatures, water hammer conditions, or excessive water pressure. The limitations on liability set forth in this Agreement are fundamental inducements to Sensus entering into this Agreement. They apply unconditionally and in all respects. They are to be interpreted broadly so as to

give Sensus the maximum protection permitted under law.

- C. **Termination.** Either party may terminate this Agreement earlier if the other party commits a material breach of this Agreement and such material breach is not cured within forty-five (45) days of written notice by the other party. Upon any expiration or termination of this Agreement, Sensus' and Customer's obligations hereunder shall cease and the software as a service and Spectrum Lease shall immediately cease.
- D. **Force Majeure.** If either party becomes unable, either wholly or in part, by an event of Force Majeure, to fulfill its obligations under this Agreement, the obligations affected by the event of Force Majeure will be suspended during the continuance of that inability. The party affected by the force majeure will take reasonable steps to mitigate the Force Majeure.
- E. **Intellectual Property Rights.**
- i. **Software and Materials.** No Intellectual Property is assigned to Customer hereunder. Excluding Customer Data, Sensus shall own or continue to own all right, title, and interest in and to the Intellectual Property associated with the Software and related documentation, including any derivations and/or derivative works (the "Sensus IP"). To the extent, if any, that any ownership interest in and to such Sensus IP does not automatically vest in Sensus by virtue of this Agreement or otherwise, and instead vests in Customer, Customer agrees to grant and assign and hereby does grant and assign to Sensus all right, title, and interest that Customer may have in and to such Sensus IP. Customer agrees not to reverse engineer any Sensus Products purchased or provided hereunder.
 - ii. **Customer Data.** Notwithstanding the prior paragraph, as between Customer and Sensus, Customer remains the owner of all right, title or interest in or to any Customer Data. "Customer Data" means solely usage data collected by the Field Devices. To avoid doubt, Customer Data does not include non-End User usage data collected by the Field Devices, Software, or FlexNet System, such as network and equipment status information or the like.
 - iii. **Consent to Use of Customer Data.** Customer hereby irrevocably grants to Sensus a royalty-free, non-exclusive, irrevocable right and license to access, store, and use such Customer Data and any other data or information provided to Sensus, to (1) provide the Service; (2) analyze and improve the Service; (3) analyze and improve any Sensus equipment or software; or (4) for any other internal use. As used herein, "Service" means Sensus' obligations under this Agreement.
 - iv. **Access to Customer Data.** Within 45 days of Customer's written request, Sensus will provide Customer a copy of the previous 24 months CMEP interval file and deliver the file to a drop location specified by Customer.
- F. **Data Privacy.** Customer acknowledges that Sensus and its Affiliates (collectively, "Xylem") will collect and process personal data for the purposes outlined in this Agreement. Xylem's data privacy policy is available at <https://www.xylem.com/en-us/support/privacy/>. Customer acknowledges that it has read and understood Xylem's privacy policy and agrees to the use of personal data outlined therein. The collection and use of personal data by Customer is Customer's responsibility.
- G. **Confidentiality.** Except as may be required under applicable law, court order, or regulation, or to the extent required to perform and enforce this Agreement, both parties shall (and shall cause their employees and contractors to) keep all Confidential Information strictly confidential and shall not disclose it to any third party. The Confidential Information may be transmitted orally, in writing, electronically or otherwise observed by either party. Notwithstanding the foregoing, "Confidential Information" shall not include; (i) any information that is in the public domain other than due to Recipient's breach of this Agreement; (ii) any information in the possession of the Recipient without restriction prior to disclosure by the Discloser; or (iii) any information independently developed by the Recipient without reliance on the information disclosed hereunder by the Discloser. "Discloser" means either party that discloses Confidential Information, and "Recipient" means either party that receives it.
- H. **Compliance with Laws.** Customer shall comply with all applicable country, federal, state, and local laws and regulations, as set forth at the time of acceptance and as may be amended, changed, or supplemented. Customer shall not take any action, or permit the taking of any action by a third party, which may render Sensus liable for a violation of applicable laws.
- i. **Export Control Laws.** Customer shall; (i) comply with all applicable U.S. and local laws and regulations governing the use, export, import, re-export, and transfer of products, technology, and services; and (ii) obtain all required authorizations, permits, and licenses. Customer shall immediately notify Sensus, and immediately cease all activities with regards to the applicable transaction, if the Customer knows or has a reasonable suspicion that the equipment, software, or services provided hereunder may be directed to countries in violation of any export control laws. By ordering equipment, software or services, Customer certifies that it is not on any U.S. government export exclusion list.
 - ii. **Anti-Corruption Laws.** Customer shall comply with the United States Foreign Corrupt Practices Act (FCPA), 15 U.S.C. §§ 78dd-1, et seq.; laws and regulations implementing the OECD's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions; the U.N. Convention Against Corruption; the Inter-American Convention Against Corruption; and any other applicable laws and regulations relating to anti-corruption in the Customer's country or any country where performance of this Agreement, or delivery or use of equipment, software or services will occur.
- I. **Non-Waiver of Rights.** A waiver by either party of any breach of this Agreement or the failure or delay of either party to enforce any of the articles or other provisions of this Agreement will not in any way affect, limit or waive that party's right to enforce and compel strict compliance with the same or other articles or provisions.
- J. **Assignment and Sub-contracting.** Either party may assign, transfer or delegate this Agreement without requiring the other party's consent; (i) to an Affiliate; (ii) as part of a merger; or (iii) to a purchaser of all or substantially all of its assets. Apart from the foregoing, neither party may assign, transfer or delegate this Agreement without the prior written consent of the other, which consent shall not be unreasonably withheld. Furthermore, Customer acknowledges Sensus may use subcontractors to perform RF Field Equipment installation, the systems integration work (if applicable), or project management (if applicable), without requiring Customer's consent.
- K. **Amendments.** No alteration, amendment, or other modification shall be binding unless in writing and signed by both Customer and by a vice president (or higher) of Sensus.
- L. **Governing Law and Dispute Resolution.** This Agreement shall be governed by, construed and enforced in accordance with the laws of the State of Delaware. Any and all disputes arising under, out of, or in relation to this Agreement, its negotiation, performance or termination ("Disputes") shall first be resolved by mediation between the Parties. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE PARTIES AGREE TO A BENCH TRIAL AND THAT THERE SHALL BE NO JURY IN ANY DISPUTES.
- M. **Survival.** The provisions of this Agreement that are applicable to circumstances arising after its termination or expiration shall survive such termination or expiration.
- N. **Severability.** In the event any provision of this Agreement is held to be void, unlawful or otherwise unenforceable, that provision

will be severed from the remainder of the Agreement and replaced automatically by a provision containing terms as nearly like the void, unlawful, or unenforceable provision as possible; and the Agreement, as so modified, will continue to be in full force and effect.

- O. **Four Corners.** This written Agreement, including all of its exhibits and the Spectrum Lease, represents the entire understanding between and obligations of the parties and supersedes all prior understandings, agreements, negotiations, and proposals, whether written or oral, formal or informal between the parties. Any additional writings shall not modify any limitations or remedies provided in the Agreement. There are no other terms or conditions, oral, written, electronic or otherwise. There are no implied obligations. All obligations are specifically set forth in this Agreement. Further, there are no representations that induced this Agreement that are not included in it. The ONLY operative provisions are set forth in writing in this Agreement. Without limiting the generality of the foregoing, no purchase order placed by or on behalf of Customer shall alter any of the terms of this Agreement. The parties agree that such documents are for administrative purposes only, even if they have terms and conditions printed on them and even if and when they are accepted and/or processed by Sensus. Any goods, software or services delivered or provided in anticipation of this Agreement (for e.g., as part of a pilot or because this Agreement has not yet been signed but the parties have begun the deployment) under purchase orders placed prior to the execution of this Agreement are governed by this Agreement upon its execution and it replaces and supersedes any such purchase orders.
- P. **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Additionally, this Agreement may be executed by facsimile or electronic copies, all of which shall be considered an original for all purposes.

7. **Definitions. As used in this Agreement, the following terms shall have the following meanings:**

- A. **"Affiliate"** of a party means any other entity controlling, controlled by, or under common control with such party, where "control" of an entity means the ownership, directly or indirectly, of 50% or more of either; (i) the shares or other equity in such entity; or (ii) the voting rights in such entity.
- B. **"Confidential Information"** means any and all non-public information of either party, including all technical information about either party's products or services, pricing information, marketing and marketing plans, Customer's End Users' data, FlexNet System performance, FlexNet System architecture and design, FlexNet System software, other business and financial information of either party, and all trade secrets of either party.
- C. **"End User"** means any end user of electricity, water, and/or gas (as applicable) that pays Customer for the consumption of electricity, water, and/or gas, as applicable.
- D. **"Field Devices"** means the SmartPoint Modules.
- E. **"FlexNet Base Station"** identifies the Sensus manufactured device consisting of one transceiver, to be located on a tower that receives readings from the SmartPoint Modules (either directly or via an R100 unit) by radio frequency and passes those readings to the RNI by TCP/IP backhaul communication. For clarity, FlexNet Base Stations include Metro Base Stations.
- F. **"FlexNet System"** is comprised of the SmartPoint Modules, RF Field Equipment, Server Hardware, software licenses, Spectrum Lease, and other equipment provided to Customer hereunder. The FlexNet System only includes the foregoing, as provided by Sensus. The FlexNet System does not include goods, equipment, software, licenses or rights provided by a third party or parties to this Agreement.
- G. **"Force Majeure"** means an event beyond a party's reasonable control, including, without limitation, acts of God, hurricane, flood, volcano, tsunami, tornado, storm, tempest, mudslide, vandalism, illegal or unauthorized radio frequency interference, strikes, lockouts, or other industrial disturbances, unavailability of component parts of any goods provided hereunder, acts of public enemies, wars, blockades, insurrections, riots, epidemics, earthquakes, fires, restraints or prohibitions by any court, board, department, commission or agency of the United States or any States, any arrests and restraints, civil disturbances and explosion.
- H. **"Hosted Software"** means those items listed as an Application in Exhibit A.
- I. **"In/Out Costs"** means any costs and expenses incurred by Customer in transporting goods between its warehouse and its End User's premises and any costs and expenses incurred by Customer in installing, uninstalling and removing goods.
- J. **"Intellectual Property"** means patents and patent applications, inventions (whether patentable or not), trademarks, service marks, trade dress, copyrights, trade secrets, know-how, data rights, specifications, drawings, designs, maskwork rights, moral rights, author's rights, and other intellectual property rights, including any derivations and/or derivative works, as may exist now or hereafter come into existence, and all renewals and extensions thereof, regardless of whether any of such rights arise under the laws of the United States or of any other state, country or jurisdiction, any registrations or applications thereof, and all goodwill pertinent thereto.
- K. **"LCM"** identifies the load control modules.
- L. **"Ongoing Fee"** means the annual or monthly fees, as applicable, to be paid by Customer to Sensus' authorized distributor during the Term of this Agreement.
- M. **"Patches"** means patches or other maintenance releases of the Software that correct processing errors and other faults and defects found previous versions of the Software. For clarity, Patches are not Updates or Upgrades.
- N. **"Permitted Use"** means only for reading and analyzing data from Customer's Field Devices in the Service Territory. The Permitted Use does not include reading third devices not provided by Sensus or reading Field Devices outside the Service Territory.
- O. **"R100 Unit"** identifies the Sensus standalone, mounted transceiver that takes the radio frequency readings from the SmartPoint Modules and relays them by radio frequency to the relevant FlexNet Base Station or directly to the RNI by TCP/IP backhaul communication, as the case may be.
- P. **"Release"** means both Updates and Upgrades.
- Q. **"Remote Transceiver"** identifies the Sensus standalone, mounted relay device that takes the radio frequency readings from the SmartPoint Modules and relays them directly to the RNI by TCP/IP backhaul communication.
- R. **"RF Field Equipment"** means, collectively, FlexNet Base Stations, R100 units (if any) and Remote Transceivers (if any).
- S. **"RNI"** identifies the regional network interfaces consisting of hardware and software used to gather, store, and report data collected by the FlexNet Base Stations from the SmartPoint Modules. The RNI hardware specifications will be provided by Sensus upon written request from Customer.
- T. **"RNI Software"** identifies the Sensus proprietary software used in the RNI and any Patches, Updates, and Upgrades that are provided to Customer pursuant to the terms of this Agreement.
- U. **"Service Territory"** identifies the geographic area where Customer utilizes Sensus equipment to provide services to End Users as of the Effective Date. This area will be described on the propagation study in the parties' Spectrum Lease filing with the FCC.
- V. **"Server Hardware"** means the RNI hardware.
- W. **"SmartPoint™ Modules"** identifies the Sensus transmission devices installed on devices such as meters, distribution automation equipment and demand/response devices located at Customer's End Users' premises that communicate with the relevant devices and transmit those

communications by radio frequency to the relevant piece of RF Field Equipment.

- X. **"Software"** means all the Sensus proprietary software provided pursuant to this Agreement, and any Patches, Updates, and Upgrades that are provided to Customer pursuant to the terms of this Agreement. The Software does not include any third party software.
- Y. **"Updates"** means releases of the Software that constitute a minor improvement in functionality.
- Z. **"Upgrades"** means releases of the Software which constitute a significant improvement in functionality or architecture of the Software.
- AA. **"WAN Backhaul"** means the communication link between FlexNet Base Stations and Remote Transceivers and RNI.

Exhibit A Software

Software as a Service

1. Description of Services.

This exhibit contains the details of the Software as a Service that Sensus shall provide to Customer if both; (i) pricing for the application of Software as a Service has been provided to the Customer; and (ii) the Customer is current in its payments to Sensus' authorized distributor for such application of Software as a Service.

A. Software as a Service Generally.

Software as a Service is a managed service in which Sensus will be responsible for the day-to-day monitoring, maintenance, management, and supporting of Customer's software applications. In a Software as a Service solution, Sensus owns all components of the solution (server hardware, storage, data center, network equipment, Sensus software, and all third-party software) required to run and operate the application. These software applications consist of the following (each an "Application"):

- Regional Network Interface (RNI) Software
- Sensus Analytics
 - Enhanced Package

The managed application systems consist of the hardware, Sensus Software, and other third-party software that is required to operate the software applications. Each Application will have a production, and Disaster Recovery (as described below) environment. Test environments are not provided unless otherwise specifically agreed by Sensus in writing. Sensus will manage the Applications by providing 24 x 7 x 365 monitoring of the availability and performance of the Applications.

B. Use of Software as a Service.

Subject to the terms of this Agreement, Sensus shall make Software as a Service available to Customer to access and use solely for the Permitted Use and solely for so long as Customer is current in its payments to Sensus or its authorized distributor for Software as a Service. The Software as a Service term commences on the date that Sensus first makes Software as a Service available to Customer for use, and ends upon the earlier of: (i) the expiration or termination of the Agreement; (ii) breach by Customer of this exhibit or the Agreement; or (iii) Customer's termination of Software as a Service as set forth in paragraph (C) below.

C. Termination of an Application.

Customer shall have the option at any time before the end of the Term to terminate any Application by giving Sensus one hundred twenty (120) days prior written notice. Such notice, once delivered to Sensus, is irrevocable. Should Customer elect to terminate any Application, Customer acknowledges that: (a) Customer shall pay all applicable fees, including any unpaid Software as a Service fees due in the current calendar year plus a ten percent (10%) early termination fee, where such fee is calculated based on the annual Software as a Service fee due in the current calendar year; and (b) Software as a Service for such Application shall immediately cease. If Customer elects to terminate the RNI Application in the Software as a Service environment but does not terminate the Agreement generally, then upon delivery of the notice to Sensus, Customer shall purchase the necessary (a) RNI hardware from a third party and (b) RNI software license at Sensus' then-current pricing. No portion of the Software as a Service fees shall be applied to the purchase of the RNI hardware or software license.

D. Software as a Service means only the following services:

- i. Sensus will provide the use of required hardware, located at Sensus' or a third-party's data center facility (as determined by Sensus), that is necessary to operate the Application.
- ii. Sensus will provide production and disaster recovery environments for Application.
- iii. Sensus will provide patches, updates, and upgrades to latest Sensus Hosted Software release.
- iv. Sensus will configure and manage the equipment (server hardware, routers, switches, firewalls, etc.) in the data centers:
 - (a) Network addresses and virtual private networks (VPN)
 - (b) Standard time source (NTP or GPS)
 - (c) Security access points
 - (d) Respond to relevant alarms and notifications
- v. Capacity and performance management. Sensus will:
 - (a) Monitor capacity and performance of the Application server and software applications 24x7x365 using KPI metrics, thresholds, and alerts to proactively identify any potential issues related to system capacity and/or performance (i.e. database, backpool, logs, message broker storage, etc.)
 - (b) If an issue is identified to have a potential impact to the system, Sensus will open an incident ticket and manage the ticket through resolution per Exhibit B, Technical Support.
 - (c) Manage and maintain the performance of the server and perform any change or configuration to the server, in accordance to standard configuration and change management policies and procedures.
 - (d) Manage and maintain the server storage capacity and performance of the Storage Area Network (SAN), in accordance to standard configuration and change management policies and procedures.
 - (e) Exceptions may occur to the system that require Sensus to take immediate action to maintain the system capacity and performance levels, and Sensus has authority to make changes without Customer approval as needed, in accordance to standard configuration and change management policies and procedures.
- vi. Database management. Sensus will:
 - (a) Implement the data retention plan and policy, and will provide the policy upon request.
 - (b) Monitor space and capacity requirements.
 - (c) Respond to database alarms and notifications.
 - (d) Install database software upgrades and patches.
 - (e) Perform routine database maintenance and cleanup of database to improve capacity and performance, such as rebuilding indexes, updating indexes, consistency checks, run SQL query/agent jobs, etc.
- vii. Incident and Problem Management. Sensus will:
 - (a) Proactively monitor managed systems (24x7x365) for key events and thresholds to proactively detect and identify

- incidents.
- (b) Respond to incidents and problems that may occur to the Application(s).
- (c) Maintain policies and procedures for responding to incidents and performing root cause analysis for ongoing problems.
- (d) Correlate incidents and problems where applicable.
- (e) Sensus personnel will use the self-service portal to document and track incidents.
- (f) In the event that Sensus personnel is unable to resolve an issue, the issue will be escalated to the appropriate Subject Matter Expert (SME).
- (g) Maintain responsibility for managing incident and problems through resolution and will coordinate with Customer's personnel and/or any required third-party vendor to resolve the issue.
- (h) Provide telephone support consistent with Exhibit B, Technical Support in the case of undetected events.
- viii. Security Management. Sensus will:
 - (a) Monitor the physical and cyber security of the server and Application(s) 24x7x365 to ensure system is highly secure in accordance with NIST Security Standards.
 - (b) Perform active intrusion prevention and detection of the data center network and firewalls, and monitor logs and alerts.
 - (c) Conduct period penetration testing of the network and data center facilities.
 - (d) Conduct monthly vulnerability scanning by both internal staff and external vendors.
 - (e) Perform anti-virus and Malware patch management on all systems.
 - (f) Install updates to virus protection software and related files (including virus signature files and similar files) on all servers from the update being generally available from the anti-virus software provider.
 - (g) Respond to any potential threat found on the system and work to eliminate any virus or malware found.
 - (h) Adhere to and submit certification to NERC/CIP Cyber Security standards.
 - (i) Monitors industry regulation/standards regarding security – NERC, FERC, NIST, OpenSG, etc. through the dedicated Sensus security team.
 - (j) Provide secure web portal access (SSL) to the Application(s).
- ix. Backup and Disaster Recovery Management. Sensus will:
 - (a) Perform daily backups of data providing one (1) year of history for auditing and restoration purposes.
 - (b) Back-up and store data (on tapes or other storage media as appropriate) off-site to provide protection against disasters and to meet file recovery needs.
 - (c) Conduct incremental and full back-ups to capture data, and changes to data, on the Application(s).
 - (d) Replicate the Application(s) environments to a geographically separated data center location to provide a full disaster recovery environment for the Application production system.
 - (e) Provide disaster recovery environment and perform fail-over to Disaster Recovery environment within forty-eight (48) hours of declared event.
 - (f) Generate a report following each and any disaster measuring performance against the disaster recovery plan and identification of problem areas and plans for resolution.
 - (g) Maintain a disaster recovery plan. In the event of a disaster, Sensus shall provide the services in accordance with the disaster recovery plan.
 - (h) In the case of a disaster and loss of access to or use of the Application, Sensus would use commercially reasonable efforts per the Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO) specified herein to restore operations at the same location or at a backup location within forty-eight (48) hours.
 - (i) The Application shall have a RTO of forty-eight (48) hours.
 - (j) The RPO shall be a full recovery of the Application(s), with an RPO of one (1) hours, using no more than a twenty-four (24) hour old backup. All meter-related data shall be pushed from each Base Station/TGB restoring the database to real-time minus external interfaced systems from the day prior.
 - (k) Data from external interfaced systems shall be recreated within a forty-eight (48) hour period with the assistance of Customer personnel and staff, as needed.

E. Customer Responsibilities:

- i. Coordinate and schedule any changes submitted by Sensus to the system in accordance with standard configuration and change management procedures.
- ii. Participate in all required configuration and change management procedures.
- iii. Customer will log incidents related to the managed Application with Sensus personnel via email, web portal ticket entry, or phone call.
- iv. Responsible for periodic processing of accounts or readings (i.e., billing files) for Customer's billing system for billing or other analysis purposes.
- v. Responsible for any field labor to troubleshoot any SmartPoint modules or smart meters in the field in populations that have been previously deployed and accepted.
- vi. First response labor to troubleshoot FlexNet Base Station, R100s, Remote Transceivers or other field network equipment.
- vii. Responsible for local area network configuration, management, and support.
- viii. Identify and research problems with meter reads and meter read performance.
- ix. Create and manage user accounts.
- x. Customize application configurations.
- xi. Support application users.
- xii. Investigate application operational issues (e.g., meter reads, reports, alarms, etc.).
- xiii. Respond to alarms and notifications.
- xiv. Perform firmware upgrades over-the-air, or delegate and monitor field personnel for on-site upgrades.

F. Software as a Service does not include any of the following services:

- i. Parts or labor required to repair damage to any field network equipment that is the result of a Force Majeure event.
- ii. Any integration between applications, such as Harris MeterSense, would require a Professional Services contract agreement

to be scoped, submitted, and agreed in a signed writing between Sensus and all the applicable parties.

If an item is not listed in subparagraphs in item (D) above, such item is excluded from the Software as a Service and is subject to additional pricing.

2. Further Agreements

A. System Uptime Rate.

- i. Sensus (or its contractor) shall manage and maintain the Application(s) on computers owned or controlled by Sensus (or its contractors) and shall provide Customer access to the managed Application(s) via internet or point to point connection (i.e., Managed-Access use), according to the terms below. Sensus endeavors to maintain an average System Uptime Rate equal to ninety-nine (99.0) per Month (as defined below). The System Uptime Rate, cumulative across all Applications, shall be calculated as follows:

$$\text{System Uptime Rate} = 100 \times \frac{(\text{TMO} - \text{Total Non-Scheduled Downtime minutes in the Month})}{\text{TMO}}$$

ii. Calculations

- a. **Targeted Minutes of Operation** or **TMO** means total minutes cumulative across all Applications in the applicable month minus the Scheduled Downtime in the Month.
- b. **Scheduled Downtime** means the number of minutes during the Month, as measured by Sensus, in which access to any Application is scheduled to be unavailable for use by Customer due to planned system maintenance. Sensus shall provide Customer notice (via email or otherwise) at least seven (7) days in advance of commencement of the Scheduled Downtime.
- c. **Non-Scheduled Downtime** means the number of minutes during the Month, as measured by Sensus, in which access to any Application is unavailable for use by Customer due to reasons other than Scheduled Downtime or the Exceptions, as defined below (e.g., due to a need for unplanned maintenance or repair).

iii. Exceptions. Exceptions mean the following events:

- Force Majeure
- Emergency Work, as defined below; and
- Lack of Internet Availability, as described below.

- a. **Emergency Work.** In the event that Force Majeure, emergencies, dangerous conditions or other exceptional circumstances arise or continue during TMO, Sensus shall be entitled to take any actions that Sensus, in good faith, determines is necessary or advisable to prevent, remedy, mitigate, or otherwise address actual or potential harm, interruption, loss, threat, security or like concern to any of the Application(s) ("Emergency Work"). Such Emergency Work may include, but is not limited to: analysis, testing, repair, maintenance, re-setting and other servicing of the hardware, cabling, networks, software and other devices, materials and systems through which access to and/or use of the Application(s) by the Customer is made available (the "Managed Systems"). Sensus shall endeavor to provide advance notice of such Emergency Work to Customer when practicable and possible.
- b. **Lack of Internet Availability.** Sensus shall not be responsible for any deterioration of performance attributable to latencies in the public internet or point-to-point network connection operated by a third party. Customer expressly acknowledges and agrees that Sensus does not and cannot control the flow of data to or from Sensus' networks and other portions of the Internet, and that such flow depends in part on the performance of Internet services provided or controlled by third parties, and that at times, actions or inactions of such third parties can impair or disrupt data transmitted through, and/or Customer's connections to, the Internet or point-to-point data connection (or portions thereof). Although Sensus will use commercially reasonable efforts to take actions Sensus may deem appropriate to mitigate the effects of any such events, Sensus cannot guarantee that such events will not occur. Accordingly, Sensus disclaims any and all liability resulting from or relating to such events.

- iv. **System Availability.** For each month that the System Uptime Rates for the production RNI falls below 99.0%, Sensus will issue Customer the following Service Level Credits:

System Uptime Rate per calendar month	Service Level Credit
Less than 99.0% but at least 97.5%	5% of the monthly RNI SaaS Fees in which the service level default occurred (Note: SaaS fees are pre-paid annually and for purposes of SLA Credits are computed on a monthly basis.)
Less than 97.5% but at least 95.0%	10% of the monthly RNI SaaS Fees in which the service level default occurred
Less than 95.0%	20% of the monthly RNI SaaS Fees in which the service level default occurred

Service Level Credits for any single month shall not exceed 20% of the RNI SaaS Fee associated with the month in which the service level default occurred. Sensus records and data will be the sole basis for all Service Level Credit calculations and determinations, provided that such records and data must be made available to Customer for review and agreement by Customer. To receive a Service Level Credit, Customer must issue a written request no later than ten (10) days after the Service Level Credit has accrued. Sensus will apply each valid Service Level Credit to the Customer's invoice within 2 billing cycles after Sensus' receipt of Customer's request and confirmation of the failure to meet the applicable Service Level Credit. Service Level Credits will not be payable for failures to meet the System Uptime Rate caused by any Exceptions. No Service Level Credit will apply if Customer is not current in its undisputed payment obligations under the Agreement. Service Level Credits are exclusive of any applicable taxes charged to Customer or collected by Sensus. Sensus shall not refund an unused Service Level Credits or pay cash to Customer for any unused Service Level Credits. Any unused Service Level Credits at the time the Agreement terminates will be forever forfeited. THE SERVICE LEVEL CREDITS DESCRIBED IN THIS SECTION ARE THE SOLE AND EXCLUSIVE REMEDY FOR SENSUS' FAILURE TO MEET THE SYSTEM UPTIME REQUIREMENT OR ANY DEFECTIVE SAAS PERFORMANCE. IN NO EVENT SHALL THE AGGREGATE AMOUNT OF SERVICE LEVEL

CREDITS IN ANY ANNUAL PERIOD EXCEED 20% OF THE ANNUAL RNI SAAS FEE.

- B. Data Center Site-Security.** Although Sensus may modify such security arrangements without consent or notice to Customer, Customer acknowledges the following are the current arrangements regarding physical access to and support of the primary hardware components of the Managed Systems:
- i. The computer room(s) in which the hardware is installed is accessible only to authorized individuals.
 - ii. Power infrastructure includes one or more uninterruptible power supply (UPS) devices and diesel generators or other alternative power for back-up electrical power.
 - iii. Air-conditioning facilities (for humidity and temperature controls) are provided in or for such computer room(s) and can be monitored and adjusted for humidity and temperature settings and control. Such air systems are supported by redundant, back-up and/or switch-over environmental units.
 - iv. Such electrical and A/C systems are monitored on an ongoing basis and personnel are available to respond to system emergencies (if any) in real time.
 - v. Dry pipe pre-action fire detection and suppression systems are provided.
 - vi. Data circuits are available via multiple providers and diverse paths, giving access redundancy.
- C. Responsibilities of Customer.**
- i. Customer shall promptly pay all Software as a Service fees.
 - ii. Customer may not (i) carelessly, knowingly, intentionally or maliciously threaten, disrupt, harm, abuse or interfere with the Application(s), Managed Systems or any of their functionality, performance, security or integrity, nor attempt to do so; (ii) impersonate any person or entity, including, but not limited to, Sensus, a Sensus employee or another user; or (iii) forge, falsify, disguise or otherwise manipulate any identification information associated with Customer's access to or use of the Application(s).
 - iii. The provisioning, compatibility, operation, security, support, and maintenance of Customer's hardware and software ("Customer's Systems") is exclusively the responsibility of Customer. Customer is also responsible, in particular, for correctly configuring and maintaining (i) the desktop environment used by Customer to access the Application(s) managed by Sensus; and (ii) Customer's network router and firewall, if applicable, to allow data to flow between the Customer's Systems and Sensus' Managed Systems in a secure manner via the public Internet.
 - iv. Upon receiving the system administrator account from Sensus, Customer shall create username and passwords for each of Customer's authorized users and complete the applicable Sensus registration process (Authorized Users). Such usernames and passwords will allow Authorized Users to access the Application(s). Customer shall be solely responsible for maintaining the security and confidentiality of each user ID and password pair associated with Customer's account, and Sensus will not be liable for any loss, damage or liability arising from Customer's account or any user ID and password pairs associated with Customer. Customer is fully responsible for all acts and omissions that occur through the use of Customer's account and any user ID and password pairs. Customer agrees (i) not to allow anyone other than the Authorized Users to have any access to, or use of Customer's account or any user ID and password pairs at any time; (ii) to notify Sensus immediately of any actual or suspected unauthorized use of Customer's account or any of such user ID and password pairs, or any other breach or suspected breach of security, restricted use or confidentiality; and (iii) to take the Sensus-recommended steps to log out from and otherwise exit the Application(s) and Managed Systems at the end of each session. Customer agrees that Sensus shall be entitled to rely, without inquiry, on the validity of the user accessing the Application(s) application through Customer's account, account ID, usernames or passwords.
 - v. Customer shall be responsible for the day-to-day operations of the Application(s) and FlexNet System. This includes, without limitation, (i) researching problems with meter reads and system performance, (ii) creating and managing user accounts, (iii) customizing application configurations, (iv) supporting application users, (v) investigating application operational issues, (vi) responding to alarms and notifications, and (vii) performing over-the-air commands (such as firmware updates or configuration changes).
- D. Software Solution Components.**
- i. **Description of Software Solutions.** Sensus software consists of a core communication module and a set of applications. Some applications are required to perform basic solution capabilities, other applications are optional and add additional capabilities and function to the overall solution. As Customer's business process expands and/or new Sensus offerings are made available, additional applications and functionality can dynamically be added to the solution, provided Customer purchases such additional applications.
 - ii. **Regional Network Interface.** The Regional Network Interface (RNI) or Sensus head-end is the centralized intelligence of the FlexNet network; the RNI's primary objective is to transfer endpoint (such as meters) data to the Customer and the advanced feature applications. The RNI is adaptable to Customer configurations by simultaneously supporting a wide range of FlexNet enabled endpoints; including but not limited to meters (electric, water, gas), street lighting, and Home Area Network devices.
 - a. Core Package
 - (i) Communication
 1. Manages all inbound and outbound traffic to and from endpoints
 2. Outbound routing optimization
 3. Route analyzer
 4. AES256 bit encryption of radio messages
 5. Reports and metric details of network performance and troubleshooting aids
 6. Management of RF equipment (base stations and endpoint radios)
 - (ii) Data Collection
 1. Missing read management
 2. Management of duplicate reads
 3. 60 day temporary storage
 - (iii) Application integration
 1. To Sensus Analytics applications
 2. Enable 3rd party application integration
 3. Batch CMEP file export

4. Real-time access through MultiSpeak
- (iv) Endpoint Management
 1. Gas, water, electric, lighting concurrent support
 2. Remote configuration
 3. Remote firmware updates
 4. Reports, metrics and Troubleshooting
- (v) User Management
 1. Secure access
 2. Password management
 3. Definable user roles
 4. User permissions to manage access to capabilities
- b. Integration of RNI. Sensus shall provide RNI integration support services to Customer only to the extent specifically provided below:
 - (i) Sensus shall meet with the representative from the Customer's system(s) targeted for integration to determine which integration method is appropriate (e.g., Multispeak, CMEP, etc.).
 1. In scope and included integration efforts: Provide the gateway URLs to the integrating system as needed, provide Customer with standard integration API documentation, validate and test that the correct Customer information is flowing into and/or out of the RNI.
 2. Out of scope and subject to additional charges: Modifications or extensions to the standard API provided by Sensus and any integration efforts not outlined above as in scope and included.
 - (ii) Customer Responsibilities:
 1. Provide Sensus with information about the relevant information Customer wishes to transfer and integrate with the RNI.
 2. Establish the network and security required for the two systems to reasonably communicate.
 3. Verify integration to third party system functionality is working as intended.
 - (iii) If an item is not listed in subparagraph (i) above, such item is excluded from the integration of Sensus RNI Support and is subject to additional pricing.

3. Sensus Analytics

Sensus Analytics is a cloud-based solution and data platform that allows storage and retrieval of raw reads and data from other sources for analysis, exportation, and inquiry or reporting. The platform provides applications and reporting capabilities.

A. Essential Package. The Essential Package of the Sensus Analytics Application shall consist of the following modules:

- i. Device Access
 - a. Allows search for meter details by using data imported from the billing system or the Sensus Device ID or AMI ID.
 - b. Allows a view of the meter interval or register reads.
 - c. Meter data is available to be copied, printed, or saved to certain user programs or file formats, specifically CSV, PDF, and Spreadsheet.
 - d. Allows the current and historical data to be viewed.
 - e. Allows the current usage to be compared to historical distribution averages.
 - f. Allows the user to see the meter location on a map view.
 - g. Allows notifications for an event on a single meter to be forwarded to a Customer employee.
 - h. Allows details to be viewed about a meter – (dependent on the data integrated from other systems).
- ii. Meter Insight (provides the following)
 - a. # of active meters.
 - b. # of orphaned meters with drill down to the list of meters.
 - c. # of inactive meters with usage drill down to the list of meters.
 - d. # of stale meters with drill down to the list of meters.
 - e. # of almost stale meters with drill down to the list of meters.
 - f. # of meters where no read is available with drill down to the list of meters.
 - g. # of meters with maximum threshold exceptions with drill down to the list of meters.
 - h. # of meters with minimum threshold exceptions with drill down to the list of meters.
 - i. # of unknown radios with drill down to the list of meters.
- iii. Report Access
 - a. Allows the user to see meter alarms and choose a report from a list of standard reports.
 - b. Master Route Register Reads: Shows the latest reads for all meters within specified time window.
 - c. Meter Route Intervals Reads: Allows users to inspect intervals of a single meter over a period of time.
 - d. Master Route No Readings: List all meters that are active in the system, but have not been sending reads within the specified time window.
 - e. Consumption Report: List meters' consumption based on meter readings within the specified time window.
 - f. Zero Consumption for Period: List meters whose readings do not change over a period of time.
 - g. Negative Consumption: Shows the number of occurrences and readings of negative consumption for the last 24hr, 48hr and 72hr from the entered roll up date.
 - h. High Low Exception Report: Displays meters whose reads exceed minimum or/and maximum threshold, within a time range.
 - i. Consumption vs Previous Reported Read: Compares latest reading (from RNI) with last known read received from CIS.
 - j. Consumption Exception 24 hour Report: This report shows meters that satisfy these two conditions: (1) The daily average consumptions exceed entered daily consumption threshold; (2) The number of days when daily thresholds are exceeded

- are greater than the entered exception per day threshold.
 - k. Endpoint Details: Shows the current state of meters that are created within the specified time range.
 - l. Orphaned Meters: List meters that are marked as 'orphaned', which are created as of entered Created as of parameter.
 - m. Billing Request Mismatch: Displays meters in a billing request that have different AMR id with the ones sent by RNI. It also shows AMR id in billing request that have different meter Id in the RNI. Users must enter which billing request file prior to running the report.
 - n. All Alarms Report: List all alarms occurred during a time window. Users can select which alarm to show.
 - iv. Billing Access
 - a. Initiate the creation of billing export files formatted to the import needs of the billing system.
 - b. Receive billing request files from the billing system to identify what meters to include in the billing export file in the case where billing request file option is used.
 - c. Provides a repository of past billing files that were either used for billing preparation or actually sent to the billing system.
 - d. Will store created billing files for a period of three years unless otherwise denoted.
 - e. The system will allow creation of test files before export to the billing system.
 - v. Billing Adaptor
 - a. The underlying configurator and tools mapping the extraction of billing data to enable integration to the utility's billing system.
 - vi. Data Store
 - a. Allows storage of meter reading data including Intervals, Registers, and Alarms to be stored.
 - b. Stored data is available online for reports and analysis.
 - c. Data will be retained for 3 years. Additional duration can be purchased.
- B. Enhanced Package.** The Enhanced Package shall consist of the modules listed above in the Essential Package, as well as the following additional modules:
- i. Alarm Insight
 - a. Allows the user to summarize and filter alarms by a date range.
 - b. Allows the user to review all alarm types on a single screen.
 - c. The user can filter out the alarms not wanted on the screen.
 - d. Alarm totals can be visualized.
 - e. Adds a view of trending alarms over time.
 - f. Click to drill down on an alarm to gain more information on specific events.
 - g. Click to analyze a specific event on a particular device.
 - ii. Alert Manager
 - a. Allows creation of alert groups who will be notified when an alarm occurs.
 - b. Users can manage alert groups by adding and removing group members.
 - c. Allows selection of notification method for how end users in the group will be notified; email or SMS (text message).
 - d. Allows creation of an alert from the available system events from smart points and assign to a group.
 - e. Monitors the systems meters for events. When an event is triggered, all users in the group will be notified.
- C. Integration of Sensus Analytics.** Sensus shall provide integration support services to Customer only to the extent specifically provided below:
- i. Sensus shall provide Customer with a simple flat file specification known as VFlex for the integration of the Customer's back office system to the Sensus Analytics modules. The VFlex shall contain the following types of information: Device ids, end users in the system, end user status, end user account information, end user name, and other end user details. This flat file may be delimited or fixed width. Customer shall produce this file and transmit it to the FTP location designated by Sensus. When sent to the Sensus FTP servers, this file exchange will enable the system to become operational with the Customer's systems. Customer shall produce this file and transmit it to the FTP location designated by Sensus. Sensus will provide reasonable support to explain to Customer the required vs. optional fields that are in the specification, testing and validation of the file format and content.
 - ii. In scope and included integration efforts: kick-off meeting to engage all required parties, mapping the Customer's fields to the VFlex specification, validation of expected output, and a two (2) hour system review of Sensus Analytics application and integration with the Customer's system (conducted remotely).
 - iii. Out of scope and subject to additional charges will be the transformation of data where business logic including code must be written to modify the field content or format of the data to meet the VFlex specification.
 - iv. Sensus' integration services consist of four (4) hours of assistance (remote or on-site, as determined by Sensus). If additional time is needed to complete the integration efforts, Sensus shall invoice Customer for additional fees on an actual time and materials basis.
 - v. **If an item is not listed in subparagraphs (i) or (ii) above, such item is excluded from the integration of Sensus Analytics Support and is subject to additional pricing.**
 - vi. **Data Import.** The Sensus Analytics Application contains adapters for the import of data from; (a) Customer's FlexNet System; and/or (b) AutoRead application for handheld and drive by systems, as applicable.
 - vii. **Customer Acknowledgements.**
 - a. Customer acknowledges that the Sensus Analytics Application provides up to fifty (50) user logins for Customer's use.
 - b. Customer acknowledges and agrees the Sensus Analytics Application is based upon the actual number of End Users within Customer's Service Territory. Pricing may increase if Customer's Service Territory or actual number of End Users expands.
 - c. Customer acknowledges that all data related to the Sensus Analytics Applications is geographically hosted within the United States of America. Customer accepts the geographic location of such hosting, and indemnifies Sensus for any

claims resulting therefrom.

- d. Customer acknowledges and agrees that the Intellectual Property provisions of this Agreement apply in all respects to Customer's access to and use of the Sensus Analytics Applications.
- e. Customer is responsible for validating the data analyzed by the Sensus Analytics Applications. Sensus makes no promises of improving Customer's operations or saving Customer money, nor is Sensus liable for any damages resulting from decisions made by Customer related to Customer's use of Sensus Analytics.

4. **Third Party Software.**

- A. RedHat Linux.** If Sensus is providing Customer with a license to use RedHat Linux Software, Customer agrees to the following: By entering into this Agreement, Customer agrees to abide by and to be legally bound by the terms and conditions of the Red Hat End User License Agreements identified below, each of which are incorporated into this Agreement by reference and are available at the websites identified below. Please read the Red Hat End User License Agreements and incorporated references carefully.

Subscription:

Red Hat Enterprise Linux

JBoss Enterprise Middleware

End User License Agreement:

http://www.redhat.com/licenses/rhel_rha_eula.html

http://www.redhat.com/licenses/jboss_eula.html

Exhibit B Technical Support

1. Introduction

Sensus Technical Services provides utility customers with a single point of contact for Tier 1 support of technical issues as well as any coordination of additional resources required to resolve the issue. Requests that require specialized skills are to be forwarded to a senior support engineer or Technical Advisor within the team for further analysis. If Technical Services has exhausted all troubleshooting efforts for the product type, the issue will escalate to the Engineering Support Team. Occasionally, on-site troubleshooting/analysis may be required. The preferred order of on-site support is:

- a) The Customer (for assistance with the easiest and lowest time-consuming activities such as power on/power off).
- b) The local distributor.
- c) Sensus employees or contracted personnel, if required to fulfill a contract commitment.

2. Support Categories

- 2.1. General questions regarding functionality, use of product, how-to, and requests for assistance on Sensus AMR, AMI, RF Network Equipment, Metering Products, Sensus Lighting Control, and Demand Response Management System (FlexNet Home).
- 2.2. Proactive reporting and resolution of problems.
- 2.3. Reactive reporting to isolate, document, and solve reported hardware/software defects.
- 2.4. Responding to service requests and product changes.
- 2.5. Addressing customer inquiries with printed or electronic documentation, examples, or additional explanation/clarification.

3. Support Hours

- 3.1. Standard Support Hours: Toll-free telephone support (1-800-638-3748 option #2) is available Monday thru Friday from 8:00 a.m. EST to 8:00 p.m. EST. After-hours, holiday and weekend support for Severity 1 and Severity 2 issues is available by calling 1-800-638-3748, option #8.

4. Support Procedures

- 4.1. Customer identifies an issue or potential problem and calls Technical Services at 1-800-638-3748 Option #2. The Customer Service Associate or Technical Support Engineer will submit a Salesforce ticket.
- 4.2. The Customer Service Associate or Technical Support Engineer will identify the caller name and utility by the assigned software serial number, city, and state based on where the call originated. The Customer Service Associate or Technical Support Engineer will require a brief description of the problem symptoms, or error messages depending on nature of the incident. The nature of the problem and severity levels will be mutually agreed upon by both parties (either at the time the issue is entered or prior to upgrading or downgrading an existing issue) using the severity definitions below as a guideline. The severity level is then captured into Salesforce for ticket creation and resolution processing. Any time during the processing of this ticket, if the severity level is changed by Sensus, the customer will be updated.

A. Severity Levels Description:

Sev1 Customer's production system is down. The system is unusable resulting in total disruption of work. No workaround is available and requires immediate attention.

Example: Network mass outage, all reading collection devices inoperable, inoperable head end software (e.g., FlexWare, Sensus MDM). Not able to generate billing files.

Sev2 Major system feature/function failure. Operations are severely restricted; there is a major disruption of work, no acceptable work-around is available, and failure requires immediate attention.

Examples: Examples: Network equipment failure (e.g., FlexNet Echo, FlexNet Remote, Base Station transceiver, or VGB); inoperable reading devices (e.g., AR5500, VXU, VGB, or CommandLink); head end software application has important functionality not working and cannot create export file for billing system operations.

Sev3 The system is usable and the issue doesn't affect critical overall operation.

Example: Minor network equipment failure (e.g., Echo/Remote false alarms or Base Station transceiver false alarms); head end software application operable but reports are not running properly, modification of view or some non-critical function of the software is not running.

- 4.3. The Customer Service Associate or Technical Support Engineer identifies whether or not the customer is on support. If the customer is not on support, the customer is advised of the service options as well as any applicable charges that may be billed.
- 4.4. Calls are placed in a queue from which they are accessible to Technical Support Engineers on a first-come-first-served basis. A 1st level Customer Service Associate may assist the customer, depending on the difficulty of the call and the representative's technical knowledge. Technical Support Engineers (Tier 1 support) typically respond/resolve the majority of calls based on their product knowledge and experience. A call history for the particular account is researched to note any existing pattern or if the call is a new report. This research provides the representative a basis and understanding of the account as well as any associated problems and/or resolutions that have been communicated.
 - a. Technical Services confirms that there is an issue or problem that needs further analysis to determine its cause. The following information must be collected: a detailed description of the issue's symptoms, details on the software/hardware product and version, a description of the environment in which the issue arises, and a list of any corrective action already taken.
 - b. Technical Services will check the internal database and product defect tracking system, to see if reports of a similar problem exist, and if any working solutions were provided. If an existing resolution is found that will address the reported issue, it shall be communicated to the customer. Once it is confirmed that the issue has been resolved, the ticket is closed.
 - c. If there is no known defect or support that defines the behavior, Technical Services will work with the customer to reproduce the issue. If the issue can be reproduced, either at the customer site or within support center test lab, Technical Services will escalate the ticket for further investigation / resolution.

If the issue involves units that are considered to be defective with no known reason, the representative will open a Special Investigation RMA through the Salesforce system. If it is determined that a sample is required for further analysis, the customer will be provided with instructions that detail where to send the product sample(s) for a root cause analysis. Once it is determined that the issue cannot be resolved by Tier 1 resources, the ticket will be escalated to Tier 2 support for confirmation/workarounds to resolve immediate issue. Technical Services will immediately contact the customer to advise of the escalation. The response and escalation times are listed in Section 5. At this time, screen shots, log files, configuration files, and database backups will be created and attached to the ticket.

5. **Response and Resolution Targets.**

Sensus Technical Support will make every reasonable effort to meet the following response and resolution targets:

Severity	Standard Target Response	Standard Target Resolution	Resolution (one or more of the following)
1	30 Minutes	Immediately assign trained and qualified Services Staff to correct the error on an expedited basis. Provide ongoing communication on the status of a correction (24 hours).	- Satisfactory workaround is provided. - Program patch is provided. - Fix incorporated into future release. - Fix or workaround incorporated into Salesforce Knowledge Base.
2	4 hours	Assign trained and qualified Services Staff to correct the error. Provide communication as updates occur (48 hours).	- Satisfactory workaround is provided. - Program patch is provided. - Fix incorporated into future release. - Fix or workaround incorporated into Salesforce Knowledge Base.
3	1 Business Day	30 business days	- Answer to question is provided. - Satisfactory workaround is provided. - Fix or workaround incorporated into Salesforce Knowledge Base. - Fix incorporated into future release.

6. **Problem Escalation Process.**

- 6.1. If the normal support process does not produce the desired results, or if the severity has changed, the issue may be escalated as follows to a higher level of authority.
- 6.1.1.1. Severity 1 issues are escalated by Sales or Technical Services to a Supervisor if not resolved within 2 hours; to the Manager level if not resolved within 4 hours; to the Director level if not resolved within the same business day; and to the VP level if not resolved within 24 hours.
- 6.1.1.2. A customer may escalate an issue by calling 1-800-638-3748, Option 2. Please specify the Salesforce ticket number and the reason why the issue is being escalated.
- 6.1.1.3. In the event that a customer is not satisfied with the level of support or continual problem with their products, they may escalate a given Salesforce ticket to Manager of Technical Services (1-800-638-3748, Option 2).

7. **General Support Provisions and Exclusions.**

- 7.1. Sensus provides online documentation for Sensus products, and all Sensus customers are provided access to this online database, which includes operation, configuration and technical manuals. The customer shall provide names and email accounts to Sensus so Sensus may provide access to the product documentation.
- 7.2. Specialized support from Sensus is available on a fee basis to address support issues outside the scope of this support plan or if not covered under another specific contract or statement of work. For example: specialized systems integration services or out of warranty network equipment repair.



File #: 20-0548

DATE: March 31, 2020

TO: Board of Mayor and Aldermen

FROM: Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering

SUBJECT:

Consideration Of DRAFT Amendment No. 1 To COF Contract No. 2018-0213, A Professional Services Agreement With The Corradino Group, Inc. For The Intersection Design - Highway 96 West At Westhaven Boulevard/Old Charlotte Pike At A Cost Increase Of \$3,700.00.

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. 2018-0213, a Professional Services Agreement (PSA) with The Corradino Group, Inc. (Corradino).

BACKGROUND/STAFF COMMENTS:

On October 9, 2018, the BOMA approved a PSA (COF Contract No. 2018-0213) with Corradino for the design of intersection improvements, including a traffic signal, at Highway 96 West and Westhaven Boulevard/Old Charlotte Pike. Toward the end of the design process, and at the request of the Westhaven developer, the proposed location of the traffic signal cabinet was changed to a different quadrant of the intersection. This late change required work not originally planned in the PSA. This Amendment, at a cost of \$3,700.00 covers the additional design required to change the location of the traffic signal cabinet.

FINANCIAL IMPACT:

Expenses to date have been paid from the Arterial Road Impact Fee Fund. Staff anticipates using the same funding source for this minor design amendment. This corresponds to a General Ledger (GL) code of 128-89470-43100.

RECOMMENDATION:

Staff recommends approval of Amendment No. 1 to COF Contract No. 2018-0213 with The Corradino Group, Inc. at a cost increase of \$3,700.00

**AMENDMENT NO. 1 TO
PROFESSIONAL SERVICES AGREEMENT FOR
INTERSECTION DESIGN – HIGHWAY 96 WEST AT
WESTHAVEN BOULEVARD/OLD CHARLOTTE PIKE
COF Contract No. 2018-0213**

THIS AMENDMENT is made and entered into on this the ____ day of _____ 20____, by and between the **City of Franklin, Tennessee** ("City") and **The Corradino Group, Inc.** ("Consultant").

WITNESSETH:

WHEREAS, on October 9, 2018 City and Consultant entered into a Professional Services Agreement ("Agreement") entitled **Intersection Design – Highway 96 West at Westhaven Boulevard/Old Charlotte Pike**; and

WHEREAS, said Agreement stipulated that the Consultant would be paid a fee of Forty-Nine Thousand Eight Hundred and No/100 Dollars (\$49,800.00) for engineering, related technical services, and survey services as detailed in the Scope of Services; and

WHEREAS, the City and Consultant realize the need for additional design work for the Project due to circumstances beyond the control of the Consultant; and

WHEREAS, the Consultant has provided a Proposal ("Attachment A"), dated August 8, 2019 for an increase in engineering services in the amount of **Three Thousand Seven Hundred and No/100 Dollars (\$3,700.00)**; and

WHEREAS, the City has reviewed the Proposal and desires to enter into an 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 August 8, 2019, 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 an amount not-to-exceed **Three Thousand Seven Hundred and No/100 Dollars (\$3,700.00)**.

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 March 20, 2018 are unchanged and remain in full force and effect.

(Signatures on Following Page)

IN WITNESS WHEREOF, the parties have executed this Amendment.

CITY OF FRANKLIN, TENNESSEE:

THE CORRADINO GROUP, INC:

By: _____
Dr. Ken Moore
Mayor
Date: _____

By: _____
Print: _____
Title: _____
Date: _____

Attest:

Eric S. Stuckey
City Administrator
Date: _____

Approved as to Form:

Shauna R. Billingsley, City Attorney

August 8, 2019

Mr. Paul Holzen, PE
Director of Engineering
City of Franklin
109 3rd Avenue South
Franklin, TN 37064

RE: INTERSECTION DESIGN – HIGHWAY 96 WEST AT WESTHAVEN BOULEVARD/OLD CHARLOTTE PIKE

Dear Mr. Holzen:

As requested, The Corradino Group, Inc. (Corradino) is writing this letter to outline the additional scope of services and compensation for providing professional engineering services related to the completion of the intersection design, including northbound right turn lane and traffic signal, at the intersection of Highway 96 West and Westhaven Boulevard/Old Charlotte Pike in Franklin, Tennessee.

Corradino has completed the intersection design as defined in the original scope of services. However, during coordination meetings with Westhaven representatives and utility owners, additional revisions to the plans (traffic signal, roadway and lighting) were requested and subsequently completed by Corradino. This includes the addition of roadway and intersection lighting in the plan set.

Based on the coordination meeting with Westhaven representatives on August 6th, a new traffic signal layout was requested to accommodate the location of the traffic signal cabinet on the opposite side of Highway 96 West from the Westhaven entrance.

Based on the additional work completed and the requested design modification, Corradino proposes to provide a final set of construction plans ready for bidding for an additional fee of **\$3,700.00**.

Thank you for the opportunity to provide these services. If you have any questions or comments or require additional information, please contact me at 615.406.8707.

Sincerely,

THE CORRADINO GROUP, INC.



Gerald G. Bolden, PE, PTOE
Vice President



File #: 20-0603

DATE: April 14, 2020

TO: Board of Mayor and Aldermen

FROM: Paul Holzen, Director of Engineering

SUBJECT:

Consideration Of DRAFT COF Contract No. 2020-0110, A Professional Services Agreement With CT Consultants, Inc. For Limited Construction Engineering And Administration Services On The Franklin Road Corridor Improvements (Streetscape) Project In A Not-to-Exceed Amount Of \$233,675.00

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a Professional Services Agreement (PSA) with CT Consultants, Inc. for limited Construction Engineering and Administration (CEA) Services on the Franklin Road Corridor Improvements (Streetscape) Project.

BACKGROUND/STAFF COMMENTS:

The construction bid opening for the Franklin Road Corridor Improvements Project is scheduled for Tuesday, April 21, 2020. If a responsive and responsible bidder is awarded the construction contract in May 2020, construction should begin in June/July 2020.

With the recent addition of a Capital Projects Inspector in the Engineering Department, City staff will perform the majority of what is considered normal project inspection for the project. This PSA with CT Consultants is for limited construction engineering and administration (CEA), allowing the project designer to help with plan clarifications, utility coordination, plan revisions, contract change orders, and construction closeout.

See Attachment A for the full proposal detailing the limited construction engineering and administration.

FINANCIAL IMPACT:

The total amount of this PSA is a not-to-exceed cost of \$233,675.00. Staff will perform as many tasks in-house as possible to minimize the actual PSA expenditures. Project was approved within Phase I of the FY 2017-2026 Capital Investment Program (CIP).

The General Ledger (GL) code for project expenses is anticipated to be 312-84952-43100.

RECOMMENDATION:

Staff recommends approval of this PSA (COF Contract No. 2020-0110) with CT Consultants, Inc. in an amount not-to-exceed \$233,675.00

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No. 2020-0110**

THIS PROFESSIONAL SERVICES AGREEMENT (“Agreement”) is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **CT CONSULTANTS, INC.** 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:

**LIMITED CONSTRUCTION ENGINEERING AND ADMINISTRATION
SERVICES FOR THE FRANKLIN ROAD CORRIDOR IMPROVEMENTS
PROJECT**

1. **SCOPE OF SERVICES.** Consultant shall provide limited construction engineering and administration 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 of Two Hundred Thirty-Three Thousand Six Hundred Seventy-Five and NO/100 Dollars (\$233,675.00).

**The Board of Mayor and Aldermen Approved this Agreement on the
_____ Day of _____ 2020.**

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.

BY: _____
Consultant's Signature
TITLE: _____
Date: _____

BY: _____
Dr. Ken Moore
Mayor
Date: _____

Approved as to Form;

Shauna R. Billingsley, City Attorney



April 15, 2020

Mr. William Banks, PE
City of Franklin, TN
109 3rd Avenue South
Franklin, TN 37064

Re: Proposal for Construction Engineering &
Administration
Franklin Road Corridor Improvements, Harpeth
Bridge to Harpeth Industrial Court

Dear William:

CT Consultants, Inc. is pleased to submit a cost proposal to provide construction engineering and administration for the Franklin Road Corridor Improvement Project from the Harpeth Bridge to Harpeth Industrial Court. It is our understanding that the City of Franklin will be providing a full-time on-site Resident Project Representation (RPR) for this project. This letter includes the Scope of Services and Estimated Cost to provide the required services.

As project manager, I am intimately familiar with the challenges presented by this project, including utility coordination and maintenance of traffic. We have a history of completing successful projects for the City of Franklin and will continue to ensure that your project goals are met. Our team is immediately available to begin working on this project and look forward to your favorable consideration.

PROFESSIONAL SERVICES

See attached Scope of Services for Typical Construction Administration anticipated for this project.

SCHEDULE

We understand that the City is currently acquiring needed easements for this project and anticipates construction to begin in the Spring of 2020. We further understand that a twenty-four (24) month construction period is anticipated for this project and as such, we have include a budget for twenty-six (26) months for said twenty-four (24) month construction period and project closeout. If construction extensions are granted and/or if additional time is needed by our staff, an amendment will be needed for the additonal scope of work.

FEE SUMMARY

See attached Budget Summary for a breakdown of estimated time anticipated for this project. Services will be performed and a Time and Expense basis based upon the actual work performed. As indicated on the Budget Summary attachment, **we are suggesting a budget of \$233,675.00 for this project** for a twenty-six (26) month period.



April 15, 2020
Mr. William Banks, P.E.
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Again, CT is very pleased to continue our working relationship with the City of Franklin on the Franklin Road Corridor Improvement Project. Please review the proposal and call me at 615-349-4025 or by email at jgolias@ctconsultants.com to discuss any questions you may have.

Respectfully,

CT Consultants, Inc.

James G. Golias II, P.E.
Regional Manager

Attachments: Scope of Services
Budget Summary
2020 Hourly Fee Schedule



April 15, 2020
Mr. William Banks, P.E.
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SCOPE OF SERVICES: TYPICAL CONSTRUCTION ADMINISTRATION ACTIVITY OVERVIEW

The following is an overview of the activities, which are anticipated to be performed when administering the project on behalf of the City. The actual work performed will be as per the scope and cost document. Construction observation activities are to be provided by the City of Franklin RPR. The anticipated Construction observation activities are listed separately

ADMINISTRATION

- Assist City RPR with preparing correspondence in the form of letters, emails, and requests for information (RFI's) regarding plan clarifications, utility coordination, plan changes, and extra work.
- Attend pre-construction and progress meetings and prepare meeting minutes.
- Compile Shop Drawings reviewed by the City.
- Review Contractor submitted pay estimates and quantities (if needed) to provide clarification for measurement and payment.
- Review claims for legitimacy and accuracy.
- Review change orders prepared by City RPR.
- Assist City RPR to develop, negotiate and implement contract work changes as required and approved by the client.
- Assist City RPP (as needed) to monitor utility coordination between the Contractor and power, telephone, cable, fuel supply utilities to see that potential schedule impacts and field conflicts are avoided.
- Assist City RPR to address access issues relative to the work and maintenance of traffic with the client, their safety forces, local businesses and residents.
- Provide periodic site checks to stay apprised of project progress and to address problems.
- Address Resident and City concerns about the project for the client within our limit of authority.

Testing

- Testing and material certification services to be performed by the City RPR and/or City Consultant. No testing and/or material certification is included in CT's scope of work.

Project Closeout and Completion

- Assist City RPR to develop project punch list for completion of the work
- Assist City RPR with providing clarification with documentation of final quantities, overruns/underruns, etc.
- Assist City RPR with local governing agency closeout documentation, final change orders, forms, updating overall construction costs, final completion document, etc.
- Assist City with any final settlements and/or claims
- Provide City with records, documentation, etc. that was collected over the duration of the project.



April 15, 2020
Mr. William Banks, P.E.
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SCOPE OF SERVICES: TYPICAL CONSTRUCTION OBSERVATION ACTIVITY OVERVIEW (BY CITY)

The following is an overview of the activities, which will be performed by the City's RPR, and as such, are NOT included in our scope of work.

Observation

- Prepare correspondence in the form of letters, emails, and requests for information (RFI's) regarding plan clarifications, utility coordination, plan changes, and extra work.
- Conduct or attend pre-construction and progress meetings.
- Review Contractor submitted pay estimates and quantities.
- Process pay estimates.
- Prepare change orders.
- Develop, negotiate and implement contract work changes as required and approved by the client.
- Monitor utility coordination between the Contractor and power, telephone, cable, fuel supply utilities to see that potential schedule impacts and field conflicts are avoided.
- Address access issues relative to the work and maintenance of traffic with the client, their safety forces, local businesses and residents.
- Provide a full time on site presence
- Provide daily reports on each day's work activities including:
 - Labor, material and equipment utilized
 - Location and nature of work
 - Photo's
 - Significant work activities
 - Visitors to the work site
 - Instructions given by the owner or City Project Manager
 - Condition of the work site
 - Traffic control in place
- Provide report of extra work (as required) including:
 - All information noted above
 - Idle and active equipment
 - Nature of the extra work
- Communicate from the field to the City Project Manager (as they occur)
 - Any perceived change of conditions
 - Any perceived change in the scope of work
 - Any resident issues
 - Any deviations in the work from that specified or shown
- Perform acceptance testing and certify materials according to approved standards
- Review concrete and asphalt mix designs



April 15, 2020
Mr. William Banks, P.E.
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- Additional testing and material certification services are to be provided by another City consultant to supplement the services performed by the City RPR

Project Closeout and Completion

- Develop project punch list and verify completion of the work
- Furnish observation and extra work reports, delivery tickets, and other data furnished in the field from the Contractor, to the City
- Finalize contract quantities
- Coordinate with Contractor on preparation of as-built records drawing

BUDGET SUMMARY

Franklin Road Corridor Improvements
City of Franklin
Williamson County, TN
Construction Engineering & Inspections Services
4/15/2020

Schedule and Construction Value Estimate		
Begin Const.	5/1/2020	
End Const.	5/1/2022	
Begin Const.	5/1/2022	
End Const.	5/1/2022	
Work Days	522.0	
Work Weeks	105.0	
Construction Estimate		\$13,500,000.00

Task Frequency		
Task	#	Unit
Plan/Design Revisions/TDOT Coordination/Laison	24	Months
Meetings & Site Visits	61	Each
Plan Revisions/Shop Drawings/Matls. Mgmt/RFI's	45	Each
Additional tasks to be approved by City Engineering Team to Assist RPR with Pay Estimates, Change Orders, Claims, etc.	50	Hours
Field Survey Collection	40	Days
Post Construction	80	Hours

Staff and Hour Allocation	
Principal	32
Project Engineer	16
Engineer 2	96
Senior Engineer	820
LA 2	30
Electrical Engineer	161
Project LA	180
Survey Crew	160
Total Hours	1495

Labor Costs	
Task	Sub Total
Plan/Design Revisions/TDOT Coordination/Laison	\$56,790
Meetings & Site Visits	\$58,870
Plan Revisions/Shop Drawings/Matls. Mgmt/RFI's	\$32,330
Additional tasks to be approved by City Engineering Team to Assist RPR with Pay Estimates, Change Orders, Claims, etc.	\$36,125
Field Survey Collection	\$24,480
Post Construction	\$25,080
Labor Cost	\$233,675

Vehicle Per Day @ \$49.00		
Assignment	Days	Sub Total

Est. Mileage @ 0.60/Mi		
Assignment	Miles	Sub Total

Est Per Diem/Overnight @ \$250/N		
Assignment	Days	Sub Total
Est. Vehicle/Mileage/PD Costs		

Total Cost	\$233,675.00
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Notes

1. The Fee Total shown is approximate.
2. Costs are estimated based upon preliminary and incomplete project information and are subject to change.
3. Tasks with no costs shown are not included in the proposed scope of work.
4. A place holder for testing is not included.
5. Mileage @ \$0.60/mile P-P
6. The proposed fee is based upon the anticipated duration of the work. Actual work durations, directives by owner and contractor means and methods which substantially alter the anticipated work durations will impact the fee.
7. Tasks and hours are approximate and reflect the estimated time anticipated for given tasks. Tasks and hours will be adjusted as needed to meet project needs however, work beyond the Fee Total will not be done without additional authorization.

Scope of Services

Franklin Road Corridor Improvements

Construction Engineering &
Inspections Services

4/15/2020
Project Duration

Work Days
521

Months
24.1

Calendar Days
730

Description

Participant Number of Staff

Participant's Hours

Plan/Design Revisions/TDOT Coordination/Liaison

Months	Hrs/Mo
24	16

Principal Engineer	Project Engineer	Senior Engineer	LA 2	Electrical Engineer	Project LA	Survey Crew
0.05	0.04	0.15	0.52	0.03	0.06	0.11

Principal Engineer	Project Engineer	Senior Engineer	LA 2	Electrical Engineer	Project LA	Survey Crew
19.2	15.36	57.6	199.68	11.52	23.04	42.24

Meetings & Site Visits

Number	Hrs/ Mtg
1	4
36	5
24	4
61	13

			1			
			1		0.1	0.1
			1		0.25	0.25

			4			
			180		18	18
			96		24	24
			280		42	42

Plan Revisions/Shop Drawings/Matls. Mgmt/RFI's

# Shops	Hrs/review
25	2
#	Hrs/RFI
20	4
45	6

		0.5	0.5	0.2	0.5	0.5
			0.75	0.1	0.25	0.25

		25	25	10	25	25
		25	60	8	20	20
		25	85	18	45	45

Additional Tasks to be Approved by City Engineering Team to Assist RPR with Pav Estimates, Change Orders, Claims, etc

Hours
50

0.25	0.25	3.5	0.2	0.2
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12.5	12.5	175	10	10	10
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Field Survey Collection

Days	Hrs/Day
40	4

						1
--	--	--	--	--	--	---

						160
--	--	--	--	--	--	-----

Post Construction

Hours
80

		1	0.5	0.5
--	--	---	-----	-----

			80	40	40
--	--	--	----	----	----

Totals 31.7 15.36 95.1 819.68 29.52 160.04 179.24 160

Totals Rounded 32 16 95 820 30 161 180 160



April 15, 2020
Mr. William Banks, P.E.
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2020 HOURLY FEE SCHEDULE

Principal	\$ 215.00
Senior Electrical Engineer (PTA)	\$ 180.00
Senior Project Engineer/Architect	\$ 166.00
Electrical Engineer (PTA)	\$ 157.00
Project Engineer/Architect	\$ 138.00
Engineer 3/Architect 3	\$ 132.00
Engineer 2/Architect 2	\$ 115.00
Engineer 1/Architect 1	\$ 100.00
Designer 3	\$ 105.00
Designer 2	\$ 86.50
Engineer Intern	\$ 55.00
Survey Crew	\$ 153.00
Word Processing & Office Support	\$ 55.00



File #: 20-0614

DATE: April 15, 2020
TO: Board of Mayor and Aldermen
FROM: Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering

SUBJECT:

Consideration Of DRAFT Change Order No. 2 To COF Contract No. 2014-0259, A Construction Contract With Jarrett Builders, Inc. For The Hunters Bend Elementary Safe Routes To School Project (TDOT PIN 118151.00) For A Cost Decrease of \$31,382.27

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Change Order #2 for the final closeout of the construction contract (COF Contract No. 2014-0259) for the Hunters Bend Elementary Safe Routes to School (SRTS) project.

BACKGROUND/STAFF COMMENTS:

In 2013, the City of Franklin received a Safe Routes to School (SRTS) grant to renovate 2 pedestrian tunnels in the Fieldstone Farms subdivision. One tunnel runs north-south beneath Fieldstone Farms Parkway, and the other tunnel runs east-west beneath Hillsboro Road. This project began construction in Spring 2017, with an effective Notice to Proceed date of April 24, 2017. The original contract had a contract time of 90 calendar days, which represented a completion date of July 22, 2017.

In August 2017, while the originally planned project was still under construction, the project team halted construction to discuss concerns about potential damage to or the undermining of an existing retaining wall on site. Ultimately, the BOMA approved Change Order No. 1 in an amount of \$352,076.00 on November 14, 2017. That change order authorized the construction of an additional retaining wall, along with the complete reconstruction of the recently finished smaller walls as much larger structures. With this change in the scope of work, the contract deadline was extended to January 31, 2018. This project reached substantial completion on May 9, 2018. The final ADA-compliant inlet grates were delivered to the site and installed in mid-March 2019. Also, Pay Application #7, which is the most recent invoice for this project, was received in March 2019 and paid in April 2019.

Since that time, the project team has been unable to come to an agreement on the final closeout of this project, specifically in regards to the amount of liquidated damages to be assessed. The attached Change Order #2 takes into account all monies owed to the contractor and provides an attempt at addressing liquidated damages. The contractor still disputes liquidated damages.

However, in an effort to closeout this project, staff has prepared this Change Order for consideration by the Committee and the BOMA.

FINANCIAL IMPACT:

The current approved ceiling for this construction contract (COF Contract No. 2014-0259) is \$673,076.00. With the approval of Change Order No. 2, the contract ceiling would become \$641,693.73, which is a decrease of \$31,382.27.

RECOMMENDATION:

Staff recommends approval of Change Order No. 2 to COF Contract No. 2014-0259.

Supplemental Agreement and/or Request for Construction Change Change Order Request #2

Project Title/Termini:	<u>Hunters Bend Elementary Safe Routes to School (SRTS)</u>		
Owner:	<u>City of Franklin, TN</u>	PIN:	<u>118151.00</u>
Address:	<u>109 3rd Avenue South, Suite 133</u>	State Project No.:	<u>94LPFM-F3-062</u>
	<u>Franklin, TN 37064</u>	Federal Project No.:	<u>SRTS-9305(29)</u>
		Contract No.:	<u>2014-0259</u>
County:	<u>04/09/2020</u>		

Whereas, we Jarrett Builders, Inc. with Westfield Insurance Company, as a Surety, entered into a contract with the City of Franklin, TN, on February 14, 2017, for the construction by said Contractor of the above designated contract; and *Whereas*, certain items of construction encountered, are not covered by the original contract, we desire to submit the following additional items of construction to be performed by the Contractor and paid by the Owner at the price(s) scheduled therefore below:

The purpose of this Change Order is to:

A. Provide final closeout of this project. The bulk of the line items, as approved in the original contract and thru Change Order #1, are shown in the accompanying TABLE 1 as simple overrun/underrun balancing of items. The total net change from items listed in TABLE 1 is \$(-32,815.17).

B. TABLE 2 lists non-participating line items to be added with this Change Order #2. These line items are: 104-04.31 "Additional Work (Lower Conduit)", 108-08-10 "Liquidated Damages", 604-04.01 "Applied Texture Finish (New Structures) (Anti-Graffiti Coating)", and 805-12.02 "Erosion Control Blanket Matting". The total net change from the additional, but also non-participating, lines items is \$2,020.00. A letter detailing the methodology used in the calculation of Liquidated Damages is included as ATTACHMENT A.

C. When reviewing previous project documentation to prepare this change order, an error in Change Order #1 was discovered. Item 303-01 was originally bid as 139 cubic yards (C.Y.) at \$19.30 per C.Y. for an extended value of \$2,682.70. Change Order #1 increased the estimated quantity for this line item to 242 C.Y., a net change of +103 C.Y. However, the unit price of \$25.00 per C.Y. listed for this line item in Change Order #1 was incorrect and should have remained at \$19.30 per C.Y. Therefore, the total amount of Change Order #1 should have been REDUCED by \$587.10. The calculation for this error is as follows: (1) 103 C.Y. x \$25.00/C.Y. = \$2,575.00; (2) 103 C.Y. x \$19.30/C.Y. = \$1,987.90; and (3) \$2,575.00 - \$1,987.90 = \$587.10.

A summary of the above information, which was used to determine the total net change created to the contract by this Change Order #2 is shown in TABLE 3.

As a result of this Change Order, contract time shall:

☒ Not Change, ☐ Increase by _____ days, ☐ Decrease by _____ days

Original Construction Completion Time: 90days (Date:07/22/2017)

Original Contract Amount:	<u>\$321,000.00</u>
Approved Change Orders:	<u>\$352,076.00</u>
Current Change Order:	<u>\$(-31,382.27)</u>
Pending Change Orders:	<u>\$N/A</u>
Total Change Orders::	<u>\$320,693.73</u>

Contract Completion Time with Change Orders: 283 days (Date: 01/31/2018)

Supplemental Agreement and/or Request for Construction Change Change Order Request # 2

Unit prices listed below include labor, materials, profit, overhead, and incidentals necessary to complete this work. A separate attached spreadsheet with the same information may be used in lieu of the table below.

[illegible]

Now, Therefore, We, Jarrett Builders, Inc. Contractors, and Westfield Insurance Company, Surety, hereby agree to the Supplemental Agreement consisting of the above mentioned items and prices, and agree that this Supplemental Agreement 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 remain in full force and effect, except insofar as specifically modified by this Supplemental Agreement.

**Recommended for
Approval**

Approved	By:	Engineer/CEI (Signature)	Date
	By:	Contractor (Signature)	Date
	By:	Surety (Signature)	Date
	By:	Owner (Signature)	Date

Approved for Eligibility

By: _____ Date _____
Local Programs (Signature)

TABLE 1 - Final Over/Under Balance of Existing Line Items (as approved thru Change Order #1)							
Item No.	Description	Unit	Current/ Pending Quantities	Revised Quantities	QTY Over + QTY Under -	Contract Price	Net Amount Due Change
104-04.30	Additional Work (Detwatering Catch Basin Trench)	LS	1.00	1.00	0	\$3,800.00	\$0.00
105-01	Construction Stakes, Lines and Grades	LS	1.00	1.00	0	\$8,825.00	\$0.00
202-01	Removal of Structures and Obstructions	LS	1.00	1.00	0	\$8,450.00	\$0.00
202-01.56	Removal of Structures and Obstructions (Boulder Removal/Relocation)	LS	1.00	1.00	0	\$8,450.00	\$0.00
202-04.01	Removal of Structures (Retaining Walls)	LS	1.00	1.00	0	\$14,600.00	\$0.00
202-03	Removal of Rigid Pavement, Sidewalk, Etc.	S.Y.	1605.00	188.88	-1,416.12	\$5.25	-\$7,434.63
202-03.01	Removal of Asphalt Pavement	S.Y.	545.00	277.00	-268.00	\$9.00	-\$2,412.00
203-07	Furnishing & Spreading Topsoil	C.Y.	115.00	167.45	+52.45	\$34.25	\$1,796.41
209-01.11	Construction Access	LS	1.00	1.00	0	\$2,700.00	\$0.00
209-40.33	Catch Basin Protection (Type D)	EACH	9.00	6.00	-3.00	\$190.60	-\$571.80
303-01	Mineral Aggregate, Type A Base, Grading D	TON	242.00	135.96	-106.04	\$19.30	-\$2,046.57
303-10.01	Mineral Aggregate (Size 57)	TON	740.00	779.49	+39.49	\$35.00	\$1,382.15
303-10.04	Mineral Aggregate (Size 1, Washed Gravel)	TON	25.00	23.13	-1.87	\$30.75	-\$57.50
407-20.05	Saw Cutting Asphalt Pavement	L.F.	60.00	110.00	+50.00	\$3.00	\$150.00
604-01.04	1-1/2" Steel Pipe Handrail	L.F.	210.00	126.00	-84.00	\$141.25	-\$11,865.00
604-07.30	Retaining Wall (Per Detail)	L.F.	65.00	58.00	-7.00	\$487.10	-\$3,409.70
604-07.31	Class A Concrete (Retaining Walls)	C.Y.	203.00	193.83	-9.17	\$650.00	-\$5,960.50
604-07.32	Steel Bar Reinforcement (Roadway)	LB.	15000.00	25729.03	+10,729.03	\$1.00	\$10,729.03
604-07.33	Stone Veneer	S.F.	2041.00	1825.84	-215.16	\$75.00	-\$16,137.00
607-57.01	Reinforced Concrete Pipe Arch (22" x 13")	L.F.	56.00	56.00	0	\$108.60	\$0.00
611-02.10	Junction Box, Type 1	EACH	1.00	1.00	0	\$3,940.00	\$0.00
611-42.01	Catch Basins, Type 42, 0' - 4' Depth	EACH	1.00	1.00	0	\$5,600.00	\$0.00
611-43.01	Catch Basins, Type 43, 0' - 4' Depth	EACH	1.00	1.00	0	\$8,200.00	\$0.00
701-01.01	Concrete Sidewalk (4")	S.F.	5523.00	6450.35	+927.35	\$5.25	\$4,868.59

TABLE 1 - Final Over/Under Balance of Existing Line Items (as approved thru Change Order #1)							
Item No.	Description	Unit	Current/ Pending Quantities	Revised Quantities	QTY Over + QTY Under -	Contract Price	Net Amount Due Change
701-01.10	Concrete Sidewalk (Tunnel A Slab)	S.F.	1225.00	1219.00	-6.00	\$5.90	-\$35.40
701-02.03	Concrete Curb Ramp	S.F.	225.00	274.80	+49.80	\$29.00	\$1,444.20
707-08.11	High-Visibility Construction Fence	L.F.	250.00	290.00	+40.00	\$2.80	\$112.00
710-04	Filter Cloth Underdrain (With Pipe)	L.F.	300.00	388.00	+88.00	\$5.00	\$440.00
710-04.01	4" Perforated Pipe	L.F.	300.00	356.00	+56.00	\$5.00	\$280.00
710-04.02	Geotextile (Type III)	S.Y.	230.00	254.10	+24.10	\$1.20	\$28.92
712-01	Traffic Control	LS	1.00	1.00	0	\$8,775.00	\$0.00
713-16.20	Signs (D3-1 (Mod.), 30" x 12")	EACH	3.00	3.00	0	\$200.00	\$0.00
713-16.21	Signs (R5-10c, 24" x 12")	EACH	6.00	3.00	-3.00	\$188.25	-\$564.75
713-16.22	Signs (R14-2 (Mod.), 24" x 12")	EACH	6.00	4.00	-2.00	\$225.00	-\$450.00
713-16.23	Signs (W4-4p (Mod.), 24" x 12")	EACH	6.00	3.00	-3.00	\$188.25	-\$564.75
714-01.31	Structural Lighting (Tunnel A)	LS	1.00	1.00	0	\$14,500.00	\$0.00
714-01.32	Structural Lighting (Tunnel B)	LS	1.00	1.00	0	\$13,100.00	\$0.00
714-04.01	Conduit 1" Diameter (RGS)	L.F.	230.00	236.00	+6.00	\$27.00	\$162.00
714-04.03	Conduit 3/4" Diameter (RGS)	L.F.	285.00	226.00	-59.00	\$31.75	-\$1,873.25
714-05.01	Weatherproof Junction Box/Pull Box	EACH	2.00	2.00	0	\$1,650.00	\$0.00
714-06.08	Cable (#10 w/7 Conductors)	L.F.	831.00	831.00	0	\$9.45	\$0.00
714-06.09	Cable (#12 w/5 Conductors)	L.F.	556.00	556.00	0	\$6.00	\$0.00
714-06.23	Call Box & Pedestal	EACH	1.00	1.00	0	\$12,700.00	\$0.00
714-08.05	4" x 12' Round Fluted Pole w/Decorative Ribbed Base, Black Finish	EACH	2.00	2.00	0	\$2,670.00	\$0.00
714-08.20	Foundation (Only) (For Fluted Pole Support)	EACH	2.00	2.00	0	\$1,975.00	\$0.00
714-09.09	60 Watt LED 4000K, Glass/Acrylic Globe, Type 5 Distribution (Includes Luminaire)	EACH	2.00	2.00	0	\$1,225.00	\$0.00
714-25.01	Electrical Connection	EACH	1.00	1.00	0	\$5,800.00	\$0.00
716-02.09	Plastive Pavement Marking (Longitudinal Cross-Walk)	L.F.	83.00	83.50	+0.50	\$47.00	\$23.50

TABLE 1 - Final Over/Under Balance of Existing Line Items (as approved thru Change Order #1)							
Item No.	Description	Unit	Current/ Pending Quantities	Revised Quantities	QTY Over + QTY Under -	Contract Price	Net Amount Due Change
717-01	Mobilization	LS	1.00	1.00	0	\$19,185.35	\$0.00
801-01	Seeding (With Mulch)	UNIT	25.00	15.90	-9.10	\$28.75	-\$261.62
801-01.07	Temporary Seeding (With Mulch)	UNIT	25.00	0.00	-25.00	\$23.50	-\$587.50
920-10.05	Tunnel A Façade	LS	1.00	1.00	0	\$18,300.00	\$0.00
SUB-TOTAL (for Balance of Existing Line Items thru Change Order No. 1)							-\$32,815.17

TABLE 2 - New Line Items to be Added Via Change Order #2 (FINAL) (ALL ITEMS IN THIS LISTING SHALL BE CONSIDERED NON-PARTICIPATING WITH REGARD TO FEDERAL/STATE FUNDS)							
Item No.	Description	Unit	Current/ Pending Quantities	Revised Quantities	QTY Over + QTY Under -	Contract Price	Net Amount Due Change
104-04.31	Additional Work (Lower Conduit)	LS	0	1.00	+1.00	\$2,800.00	\$2,800.00
108-08.10	Liquidated Damages	DAY	0	58.00	+58.00	-\$250.00	-\$14,500.00
604-04.01	Applied Texture Finish (New Structures) (Anti-Graffiti Coating)	S.Y.	0	470.00	+470.00	\$26.00	\$12,220.00
805-12.02	Erosion Control Blanket Matting	S.Y.	0	100.00	+100.00	\$15.00	\$1,500.00
SUB-TOTAL (for Additional <u>Non-Participating</u> Line Items):							\$2,020.00

TABLE 3 - Final Calculation of Change Order #2	
Item Description	Amount
Original Contract Value	\$321,000.00
Change Order #1	\$352,076.00
<i>Change Order #2 Elements</i>	
Over/Under Balancing (TABLE 1)	-\$32,815.17
Additional Non-Participating Items (TABLE 2)	\$2,020.00
Change Order #1 Stone Price Error	-\$587.10
<i>Change Order #2 Sub-Total:</i>	-\$31,382.27
Final Contract Value (After Change Order #2):	\$641,693.73



MEMORANDUM

April 9, 2020

TO: Project File for Hunters Bend Elementary Safe Routes to School (SRTS) Project
(TDOT PIN 118151.00 / COF Contract No. 2014-0259)

FROM: Jonathan Marston, Assistant Director of Engineering

SUBJECT: Methodology for the Calculation of Weather Days & Liquidated Damages
(ATTACHMENT A)

Weather Days:

This project, because it utilizes federal funds, was required to use the Tennessee Department of Transportation (TDOT) Local Programs Development Office (LPDO) Proposal Contract template. This contract is set-up to directly reference the TDOT Standard Specifications for Road and Bridge Construction. These specifications give general guidance on weather delays, but it does not provide a specific methodology for the calculation of weather days.

Because of the short timeline of 90 calendar days to complete the project as originally, no methodology for calculating weather days was initially developed by the project team. Since this project, the City has implemented a very specific method for calculating weather days. That method is as follows:

Weather-Related Delays

- a. If “abnormal weather conditions” as set forth in Paragraph 4.05.C.2 are the basis for a request for an adjustment in the Contract Times, such request shall be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Critical Path.
- b. The existence of abnormal weather conditions shall be determined on a month-by-month basis in accordance with the following:
 - 1) Every week day (excluding legal holidays) in a given month that exceeds the number of Foreseeable Bad Weather Days set forth in the table in Paragraph 4.05.C.5.b.3, and on which the following conditions exist, shall be considered a “bad weather day”:
 - A) Total precipitation (as rain equivalent) occurring between 7:00 p.m. on the preceding day through 7:00 p.m. on the day in question equals or exceeds 0.10-inch of precipitation as rain equivalent.
 - B) Dry-out or mud days, at a rate no greater than 1 make-up for each day or consecutive days of rain that total 1.0 inch or more, liquid measure.
 - 2) Determination of actual bad weather days during performance of the Work shall be based on the weather records measured and recorded by the National Oceanic and

Atmospheric Administration's National Centers for Environmental Information weather monitoring station located at the Franklin Sewage Plant, Franklin, TN, or another method approved in advance by Owner if specifically stated elsewhere in the Contract Documents.

- 3) The Contract Times include the number of Foreseeable Bad Weather Days per month indicated in the following table:

Foreseeable Bad Weather Days	
Month	Days
January	8
February	9
March	9
April	9
May	9
June	8
July	9
August	7
September	7
October	6
November	7
December	9

- 4) The existence of abnormal weather conditions shall not relieve Contractor of the obligation to demonstrate and document that delays caused by abnormal weather are specific to the planned work activities and that such activities thus delayed were on the Critical Path. Saturdays, Sundays, and legal holidays shall not constitute lost work days unless the Contract Documents specifically require it or Owner directs Contractor to work those days.

With this information in mind, the following methodology was developed by the City of Franklin Engineering Department to calculate the weather days associated with the current project:

Types of Weather Days:

- *Heavy Rain Day:* Any day receiving greater than or equal to ($\geq$) 0.50-inch of rain.
- *Rain Day:* Any day receiving greater than or equal to ($\geq$) 0.25-inch of rain.
- **Dry-Out Day:* The next day with less than ($<$) 0.25-inch rain following a *Heavy Rain Day*.
(Additional days were granted based upon photographs provided by Jarrett Builders.)

Because there was no specific and consistent information for the project site, weather data was obtained from the National Oceanic & Atmospheric Administration (NOAA) National Centers for Environmental Information for the Franklin Sewage Plant, TN US USC00403280.

No weather days were granted for Sundays or City Holidays. Per City of Franklin Municipal Code, no work is to be performed on Sundays or City Holidays without prior approval from the City Administrator. Within the timeframe covered by approved Change Order No. 1, no

exceptions were requested by Jarrett Builders. However, if a *Heavy Rain Day* occurred on a Sunday or City Holiday, the next work day was still counted as a *Dry-Out Day*.

Also, no weather days were counted prior to November 15, 2017, as Change Order #1 was approved by the City of Franklin Board of Mayor and Aldermen (BOMA) the night of November 14, 2017. Any weather days prior to this date should have been included for consideration with Change Order #1.

With the above information in mind, a total of 39 weather days (9 *Heavy Rain Days*, 6 *Rain Days*, and 24 *Dry-Out Days*) were calculated.

Liquidated Damages:

While the contract does not make direct reference to liquidated damages. The contract does state “The proposed construction shall be performed in accordance with the most current version of the Standard Specifications for Road and Bridge Construction of the Tennessee Department of Transportation...” With this mind, Section 108.09 “Failure to Complete the Work on Time” clearly lays out the basis for liquidated damages on this project. The value of liquidated damages is based on “original contract amount(s)”, which in this case was \$321,000.00. This corresponds to a daily liquidated damages assessment of \$250.

With the approval of Change Order #1, the substantial completion date was extended to January 31, 2018. The actual date of substantial completion was May 9, 2018. These dates result in a total of 97 days of liquidated damages [28 Days (2/18) + 31 Days (3/18) + 30 Days (4/18) + 8 Days (5/18) = 97 Days]. These 97 Days past the contractual deadline for substantial completion results in a total liquidated damages value of \$18,000.00 (raw total).

After account for allow weather days, a total of 58 days (*i.e.* 97 Raw Total Days – 39 Allowable Weather Days = 58 Days of Damages) of liquidated damages is proposed to be assessed with this project. With a monetary value of \$250 per day of liquidated damages, the total amount of liquidated damages to be assessed with this closeout Change Order #2 is \$14,500.

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth		8 in. Depth		
			Max.	Min.	Rain, Melted Snow, Etc. (in)	Falling	Snow, Ice Pellets, Hail (in)	Falling				Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.
2017	11	01														
2017	11	02														
2017	11	03														
2017	11	04														
2017	11	05														
2017	11	06														
2017	11	07														
2017	11	08														
2017	11	09														
2017	11	10														
2017	11	11														
2017	11	12														
2017	11	13														
2017	11	14														
2017	11	15	60	35	0.00		0.0									
2017	11	16	57	40	0.07		0.0									
2017	11	17	61	30	0.00		0.0									
2017	11	18	65	30	0.00		0.0									
2017	11	19	68	40	0.49		0.0									
2017	11	20	48	24	0.00		0.0									
2017	11	21	55	24	0.00		0.0									
2017	11	22	60	33	0.00		0.0									
2017	11	23	47	25	0.00		0.0									
2017	11	24	55	24	0.00		0.0									
2017	11	25	64	28	0.00		0.0									
2017	11	26	65	32	0.00		0.0									
2017	11	27	65	29	0.00		0.0									
2017	11	28	66	29	0.00		0.0									
2017	11	29	67	31	0.00		0.0									
2017	11	30	70	33	0.00		0.0									
Summary			61	30	0.56		0.0									

If empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

† This data value failed one of NCDC's quality control tests.

‡ values in the Precipitation or Snow category above indicate a "trace" value was recorded.

§ values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

¶ Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time			At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth		8 in. Depth			
			Max.	Min.	Rain, Melted Snow, Etc. (in)	F I a g	Snow, Ice Pellets, Hail (in)	F I a g			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2017	12	01	70	33	0.22											
2017	12	02	61	35	0.00											
2017	12	03	67	34	0.00	SUNDAY										
2017	12	04	67	33	0.00											
2017	12	05	69	45	0.43	RAIN DAY (>= 0.25")										
2017	12	06	58	32	0.31	RAIN DAY (>= 0.25")										
2017	12	07	49	32	0.00											
2017	12	08	45	28	0.00											
2017	12	09	35	19	0.00											
2017	12	10	40	19	0.00	SUNDAY										
2017	12	11	50	19	0.00											
2017	12	12	62	26	0.00											
2017	12	13	44	21	0.00											
2017	12	14	50	21	0.00											
2017	12	15	42	29	0.00											
2017	12	16	42	25	0.00											
2017	12	17	53	27	0.01	SUNDAY										
2017	12	18	49	39	0.16											
2017	12	19	54	37	0.01											
2017	12	20	58	42	1.11	HEAVY RAIN DAY (>= 0.50")										
2017	12	21				DRY-OUT DAY (After >=0.50")										
2017	12	22	57	43	0.01											
2017	12	23	69	57	2.71	HEAVY RAIN DAY (>= 0.50")										
2017	12	24	58	38	0.19	SUNDAY										
2017	12	25	41	24	0.04	CITY HOLIDAY (Christmas Day)										
2017	12	26	41	24	0.00	CITY HOLIDAY (Bonus Christmas Day)										
2017	12	27	41	23	0.00											
2017	12	28	41	15	0.00											
2017	12	29	35	15	0.00											
2017	12	30	42	17	0.00											
2017	12	31	42	13	0.00	SUNDAY										
Summary			51	29	5.20	0.0										

Empty, or blank, cells indicate that a data observation was not reported.

Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

Q: This data value failed one of NCDC's quality control tests.

H: values in the Precipitation or Snow category above indicate a "trace" value was recorded.

U: values in the Precipitation Flag or the Snow Flag column indicate a multiday total. accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time				24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth		8 in. Depth			
			Max.	Min.	Rain, Melted Snow, Etc. (in)	Falling	Snow, Ice Pellets, Hail (in)	Falling			Snow, Ice Pellets, Hail, Ice on Ground (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.
2018	01	01	24	7	0.00	CITY HOLIDAY (New Years Day)										
2018	01	02	25	5	0.00											
2018	01	03	27	4	0.00											
2018	01	04	36	13	0.00											
2018	01	05	22	11	0.00											
2018	01	06	30	13	0.00											
2018	01	07	32	10	0.00	SUNDAY										
2018	01	08	45	17	0.01											
2018	01	09	43	36	0.19											
2018	01	10	49	37	0.00											
2018	01	11	65	37	0.03											
2018	01	12	67	34	0.14											
2018	01	13														
2018	01	14	67	13	0.00	SUNDAY										
2018	01	15	33	13	0.00	CITY HOLIDAY (MLK Day)										
2018	01	16	48	15	0.01											
2018	01	17	17	4	0.16	0.2			2.0	RAIN DAY (Snow)						
2018	01	18	22	6	0.00				T	DRY-OUT DAY (Snow still on ground))						
2018	01	19	37	7	0.00				T							
2018	01	20	48	15	0.00				0.0							
2018	01	21	64	42	0.00	SUNDAY										
2018	01	22	67	48	0.00											
2018	01	23	64	43	0.17											
2018	01	24	47	33	0.00											
2018	01	25	49	24	0.00											
2018	01	26	58	24	0.00											
2018	01	27	60	29	0.00											
2018	01	28	61	50	0.54	SUNDAY										
2018	01	29	57	30	0.00	DRY-OUT DAY (After' >= 0.50")										
2018	01	30	49	28	0.00											
2018	01	31	40	26	0.00											
Summary			45	22	1.25											
						0.2										

Empty, or blank, cells indicate that a data observation was not reported.

Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome Grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

Q: This data value failed one of NCDC's quality control tests.

H: values in the Precipitation or Snow category above indicate a "trace" value was recorded.

U: values in the Precipitation Flag or the Snow Flag column indicate a multiday total. accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

These data are quality controlled and may not be identical to the original observations.

Generated on 06/07/2019

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)							
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time				24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth		8 in. Depth					
			Max.	Min.	Rain, Melted Snow, Etc. (in)	F I a g	Snow, Ice Pellets, Hail (in)	F I a g			At Obs. Time	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.	
2018	02	01	57	31	50	0.00	START LIQUIDATED DAMAGES											
2018	02	02	54	19	19	0.12												
2018	02	03	31	18	24	0.00												
2018	02	04	51	24	39	0.52	SUNDAY											
2018	02	05	52	23	23	0.11	DRY-OUT DAY (After >= 0.50")											
2018	02	06	41	22	40	0.00												
2018	02	07	52	36	36	1.38	19! ±, w!lb 5! , 05! Γ ληρηλδ											
2018	02	08	38	24	24	0.09	DRY-OUT 5! , 0After 5! Γ ληρηλδ											
2018	02	09	46	23	27	0.00												
2018	02	10	65	27	57	0.11												
2018	02	11	62	56	59	2.53	SUNDAY											
2018	02	12	64	28	30	0.22	DRY-OUT DAY (After >= 0.50")											
2018	02	13																
2018	02	14	59	38	56	0.12												
2018	02	15	66	48	65	0.30	RAIN DAY (>= 0.25")											
2018	02	16	76	64	68	0.00												
2018	02	17	71	40	41	0.10												
2018	02	18	49	33	36	1.15	SUNDAY											
2018	02	19	60	35	56	0.00	DRY-OUT DAY (After >= 0.50")											
2018	02	20	74	56	62	0.00												
2018	02	21	78	61	69	0.00												
2018	02	22	75	49	52	1.33	19! ±, w!lb 5! , 05! Γ ληρηλδ											
2018	02	23	64	52	56	0.20	DRY-OUT DAY (After >= 0.50")											
2018	02	24	80	56	62	0.07												
2018	02	25	77	54	54	1.53	SUNDAY											
2018	02	26	56	45	45	0.11	DRY-OUT DAY (After >= 0.50")											
2018	02	27	65	35	35	0.01												
2018	02	28	67	35	52	0.44	RAIN DAY (>= 0.25")											
		Summary	60	38		10.44	0.0											

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

93" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

6th 6th values in the Precipitation E_{lag} or the Snow E_{lag} column indicate a multiday total accumulated since last measurement is being used

data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units

These data are quality controlled and may not be identical to the original observations.

Generated on 06/07/2019

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)					
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time		At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth		8 in. Depth				
			Max.	Min.	Rain, Melted Snow, Etc. (in)	F i a g				Snow, Ice Pellets, Hail (in)	F i a g	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.
2018	03	01	59	52	57	1.09	HEAVY RAIN DAY (>= 0.50")									
2018	03	02	61	38	38	0.19	DRY-OUT DAY (After >= 0.50")									
2018	03	03	55	34	34	0.00	ADD'L DRY-OUT DAY (Based on Photos)									
2018	03	04	57	33	37	0.00	SUNDAY									
2018	03	05	64	35	46	0.00										
2018	03	06	56	44	46	0.44	RAIN DAY (>= 0.25")									
2018	03	07	65	33	34	0.00										
2018	03	08	43	30	32	0.00										
2018	03	09	42	25	27	0.00										
2018	03	10	62	27	50	0.00										
2018	03	11	67	50	50	0.00	SUNDAY									
2018	03	12	52	31	32	0.73	HEAVY RAIN DAY (>= 0.50")									
2018	03	13	48	29	30	0.06	DRY-OUT DAY (After >= 0.50")									
2018	03	14	51	30	30	0.00										
2018	03	15	49	29	41	0.00										
2018	03	16	71	40	41	0.00										
2018	03	17	70	39	59	0.02										
2018	03	18	78	45	45	0.01	SUNDAY									
2018	03	19	63	44	50	0.04										
2018	03	20	67	50	52	0.01										
2018	03	21	53	33	35	0.10										
2018	03	22	51	28	28	0.00										
2018	03	23	56	28	42	0.00										
2018	03	24	60	42	49	0.04										
2018	03	25	63	45	45	0.04	SUNDAY									
2018	03	26														
2018	03	27														
2018	03	28	71	44	63	0.00										
2018	03	29	71	58	58	1.87	HEAVY RAIN DAY (>= 0.50")									
2018	03	30	64	47	48	0.26	CITY HOLIDAY (Good Friday)									
2018	03	31	58	36	36	0.00	DRY-OUT DAY (After >= 0.50")									
Summary			60	38		4.90	0.0				Total Allowable Weather Days - 8					

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass: 2=Fallow: 3=Bare Ground: 4=Brome grass: 5=Sod: 6=Straw mulch: 7=Grass muck: 8=Bare muck: 0=Unknown

Q⁵ This data value failed one of NCDC's quality control tests.

†† values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"0" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Observation Time Temperature: 0600 Observation Time Precipitation: 0600

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)			
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	4 in. Depth		8 in. Depth	
			Max.	Min.	Rain, Melted Snow, Etc. (in)	Fall	Snow, Ice Pellets, Hail (in)	Fall			Ground Cover (see *)	Max.	Ground Cover (see *)	Min.
2018	04	01	70	36	0.00	SUNDAY								
2018	04	02	62	45	0.02	ADD'L DRY-OUT DAY (Based on Photo)								
2018	04	03	65	44	0.00	ADD'L DRY-OUT DAY (Based on Photo)								
2018	04	04	82	40	1.05	HEAVY RAIN DAY (>= 0.50")								
2018	04	05	53	32	0.00	DRY-OUT DAY (After >= 0.50")								
2018	04	06	58	32	0.00									
2018	04	07	57	37	0.14									
2018	04	08	37	27	0.00	SUNDAY								
2018	04	09	48	29	0.00									
2018	04	10	61	37	0.00									
2018	04	11	61	32	0.00									
2018	04	12	68	32	0.00									
2018	04	13	80	42	0.00									
2018	04	14	79	60	0.00									
2018	04	15	69	47	1.71	SUNDAY								
2018	04	16	49	35	0.22	DRY-OUT DAY (After >= 0.50")								
2018	04	17	46	31	0.00									
2018	04	18	79	31	0.00									
2018	04	19	73	44	0.04									
2018	04	20	53	33	0.00									
2018	04	21	67	32	0.00									
2018	04	22	74	40	0.00	SUNDAY								
2018	04	23	62	56	2.66	HEAVY RAIN DAY (>= 0.50")								
2018	04	24	71	51	0.04	DRY-OUT DAY (After >= 0.50")								
2018	04	25	66	48	0.11	ADD'L DRY-OUT DAY (Based on Photo)								
2018	04	26	71	54	0.02	ADD'L DRY-OUT DAY (Based on Photo)								
2018	04	27	59	43	0.18	ADD'L DRY-OUT DAY (Based on Photo)								
2018	04	28	74	43	0.00									
2018	04	29	72	44	0.00	SUNDAY								
2018	04	30	65	35	0.00									
Summary			64	40	6.19		0.0							

If empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome Grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

† This data value failed one of NCDC's quality control tests.

‡ values in the Precipitation or Snow category above indicate a "trace" value was recorded.

§ values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

¶ Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

Year	Month	Day	Temperature (F)		Precipitation				Evaporation		Soil Temperature (F)						
			24 Hrs. Ending at Observation Time		24 Hour Amounts Ending at Observation Time				24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth		8 in. Depth				
			Max.	Min.	Rain, Melted Snow, Etc. (in)	F I a g	Snow, Ice Pellets, Hail (in)	F I a g			Snow, Ice Pellets, Hail, Ice on Ground (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.
2018	05	01	77	36	0.00												
2018	05	02	83	45	0.00												
2018	05	03	83	60	0.00												
2018	05	04	86	62	0.00												
2018	05	05	79	51	0.03												
2018	05	06	66	46	1.13	SUNDAY											
2018	05	07	83	51	0.23	DRY-OUT DAY (After >= 0.50")											
2018	05	08	84	51	0.00												
2018	05	09	83	51	0.00	END LIQUIDATED DAMAGES											
2018	05	10															
2018	05	11															
2018	05	12															
2018	05	13															
2018	05	14															
2018	05	15															
2018	05	16															
2018	05	17															
2018	05	18															
2018	05	19															
2018	05	20															
2018	05	21															
2018	05	22															
2018	05	23															
2018	05	24															
2018	05	25															
2018	05	26															
2018	05	27															
2018	05	28															
2018	05	29															
2018	05	30															
2018	05	31															
Summary			80	50	1.39		0.0										

Empty, or blank, cells indicate that a data observation was not reported.

Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome Grass; 5=Sod; 6=Straw mulch; 7=Grass mulch; 8=Bare muck; 0=Unknown

Q: This data value failed one of NCDC's quality control tests.

H: values in the Precipitation or Snow category above indicate a "trace" value was recorded.

U: values in the Precipitation Flag or the Snow Flag column indicate a multiday total. accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

GHCN (Global Historical Climatology Network) – Daily Documentation

NOTE: English units are displayed on pdf output format; Either Metric or standard English units on csv or txt output formats depending on user specification.

I. Description

GHCN (Global Historical Climatology Network)-Daily is a database that addresses the critical need for historical daily temperature, precipitation, and snow records over global land areas. GHCN-Daily is a composite of climate records from numerous sources that were merged and then subjected to a suite of quality assurance reviews. The archive includes over 40 meteorological elements (see Table 4 below for complete list) including temperature daily maximum/minimum, temperature at observation time, precipitation, snowfall, snow depth, evaporation, wind movement, wind maximums, soil temperature, cloudiness, and more.

GHCN-Daily will serve as a replacement product for older NCDC-maintained data sets that are designated for daily temporal resolution (i.e. DSI 3200, DSI 3201, DSI 3202, DSI 3205, DSI 3206, DSI 3208, DSI 3210, etc.). It will function as the official archive for daily data from the Global Climate Observing System (GCOS) Surface Network (GSN) and is particularly well suited for monitoring and assessment activities related to the frequency and magnitude of extremes. Containing observations of one or more of the above elements at more than 100,000 stations that are distributed across all continents, the dataset is the world's largest collection of daily climatological data. The total of 1.4 billion data values includes 250 million values each for maximum and minimum temperatures, 500 million precipitation totals, and 200 million observations each for snowfall and snow depth. Station records, some of which extend back to the 19th century, are updated daily where possible and are usually available one to two days after the date and time of the observation.

Some of the data provided here are based on data exchanged under the World Meteorological Organization (WMO) World Weather Watch Program according to WMO Resolution 40 (Cg-XII). This allows WMO member countries to place restrictions on the use or re-export of their data for commercial purposes outside of the receiving country. Those countries' data summaries and products which are available here are intended for free and unrestricted use in research, education, and other non-commercial activities. For non-U.S. locations data, the data or any derived product shall not be provided to other users or be used for the re-export of commercial services.

II. Format/Observation Definitions

(note: the term 'element' or 'value' is used throughout this documentation and refers to an individual meteorological/climatological measurement or statistical value such as temperature, precipitation (amount), etc.)

Users are given the choice between the following two delivery formats:

- 1) GHCN-Daily Form- Portable Document Format (PDF) output giving 5 core values (see Table 4) and, if available, the following additional values: TOBS (temperature at the time of observation), EVAP (evaporation of water from evaporation pan), WDMV (24-hour wind movement), SN*# (minimum soil temperature) and SX*# (maximum soil temperature). More details about these values are in Table 4 (below). There are no flags (attributes) given with the GHCN- Daily Form pdf file other than measurement flag "T" (trace value for precipitation, snowfall or snow depth, as per table 3 below). Units for data values can be in metric or standard depending on user preference for both CSV and text output. Empty, or blank, cells indicate that a data observation was not reported.
- 2) Custom GHCN-Daily CSV- Output files contain .csv extension and optimized for spreadsheet usage (i.e. delimited file). Besides unit preference, user is also given the choice whether to include flags, station name or geographic location in data request. The user can define which of the elements listed in Table 4 (below) to include in the data request.
- 3) Custom GHCN-Daily ASCII Form-Output is ASCII text file and the user is given the choice whether to include flags, station name or geographic location in data request. The user can define which of the elements listed in Table 4 (below) to include in the data request.

A. Data observations (values)

Each record represents all selected observations (values) available for a given station-day. The initial section of each record is ordered as follows with the following definitions:

STATION (17 characters) is the station identification code. Please see

<http://www1.ncdc.noaa.gov/pub/data/ghcn/daily/ghcnd-stations.txt>

for a complete list of stations and their metadata.

STATION_NAME (max 50 characters) is the name of the station (usually city/airport name). Optional output field.

GEOGRAPHIC_LOCATION (31 characters) is the latitude (decimated degrees w/northern hemisphere values > 0, southern hemisphere values < 0), longitude (decimated degrees w/western hemisphere values < 0, eastern hemisphere values > 0) and elevation above mean sea level (tenths of meters). This is an optional output field.

DATE is the year of the record (4 digits) followed by month (2 digits) and day (2 digits).

B. Observations (values) and flags (attributes)

Following this initial section of the record, all selected observations and flags are given in the following order:

Observation(s) | Measurement Flag | Quality Flag | Source Flag | Time of Observation | repeat for next element (when more than one element is selected), where:

Observation(s) is/are defined in Table 4 below. 9's in a field (e.g.9999) indicate missing data or data that has not been received.

Measurement Flag (attribute) is defined in **Table 1** below

Quality Flag (attribute) is defined in **Table 2** below

Source Flag (attribute) is defined in **Table 3** below

Time of Observation is the (2 digit hour, 2 digit minute) 24 hour clock time of the observation given as the local time at the station of record.

Note: The 4 flags listed above are optional on the Custom GHCN-Daily ASCII Form.

Table 1 (Measurement Flag/Attribute)

Blank = no measurement information applicable

- A = value in precipitation or snow is a multi-day total, accumulated since last measurement
(used on Daily Form pdf file)
- B = precipitation total formed from two twelve-hour totals
- D = precipitation total formed from four six-hour totals
- H = represents highest or lowest hourly temperature (TMAX or TMIN)
or average of hourly values (TAVG)
- K = converted from knots
- L = temperature appears to be lagged with respect to reported
hour of observation
- O = converted from oktas
- P = identified as "missing presumed zero" in DSI 3200 and 3206
- T = trace of precipitation, snowfall, or snow depth
- W = converted from 16-point WBAN code (for wind direction)

Table 2 (Quality Flag/Attribute)

Blank = did not fail any quality assurance check

- D = failed duplicate check
- G = failed gap check
- I = failed internal consistency check
- K = failed streak/frequent-value check
- L = failed check on length of multiday period
- M = failed mega-consistency check
- N = failed naught check
- O = failed climatological outlier check
- R = failed lagged range check

- S = failed spatial consistency check
- T = failed temporal consistency check
- W = temperature too warm for snow
- X = failed bounds check
- Z = flagged as a result of an official Datzilla investigation

Table 3 (Source Flag/Attribute)

Blank = No source (i.e., data value missing)

- 0 = U.S. Cooperative Summary of the Day (NCDC DSI-3200)
- 6 = CDMP Cooperative Summary of the Day (NCDC DSI-3206)
- 7 = U.S. Cooperative Summary of the Day -- Transmitted via WxCoder3 (NCDC DSI-3207)
- A = U.S. Automated Surface Observing System (ASOS) real-time data (since January 1, 2006)
- a = Australian data from the Australian Bureau of Meteorology
- B = U.S. ASOS data for October 2000-December 2005 (NCDC DSI-3211)
- b = Belarus update
- C = Environment Canada
- E = European Climate Assessment and Dataset (Klein Tank et al., 2002)
- F = U.S. Fort data
- G = Official Global Climate Observing System (GCOS) or other government-supplied data
- H = High Plains Regional Climate Center real-time data
- I = International collection (non U.S. data received through personal contacts)
- K = U.S. Cooperative Summary of the Day data digitized from paper observer forms (from 2011 to present)
- M = Monthly METAR Extract (additional ASOS data)
- N = Community Collaborative Rain, Hail, and Snow (CoCoRaHS)
- Q = Data from several African countries that had been "quarantined", that is, withheld from public release until permission was granted from the respective meteorological services
- R = NCDC Reference Network Database (Climate Reference Network and Historical Climatology Network-Modernized)
- r = All-Russian Research Institute of Hydrometeorological Information-World Data Center
- S = Global Summary of the Day (NCDC DSI-9618)
NOTE: "S" values are derived from hourly synoptic reports exchanged on the Global Telecommunications System (GTS).
Daily values derived in this fashion may differ significantly from "true" daily data, particularly for precipitation(i.e., use with caution).
- s = China Meteorological Administration/National Meteorological Information Center/Climate Data Center (<http://cdc.cma.gov.cn>)
- T = SNOwpack TELeMtry (SNOTEL) data obtained from the Western Regional Climate Center
- U = Remote Automatic Weather Station (RAWS) data obtained from the Western Regional Climate Center
- u = Ukraine update
- W = WBAN/ASOS Summary of the Day from NCDC's Integrated Surface Data (ISD).
- X = U.S. First-Order Summary of the Day (NCDC DSI-3210)
- Z = Datzilla official additions or replacements
- z = Uzbekistan update

Table 4 (observation/value)

Note: 9's in a field (e.g.9999) indicate missing data or data that has not been received.

The five core values are:

PRCP = Precipitation (mm or inches as per user preference, inches to hundredths on Daily Form pdf file)
SNOW = Snowfall (mm or inches as per user preference, inches to tenths on Daily Form pdf file)
SNWD = Snow depth (mm or inches as per user preference, inches on Daily Form pdf file)
TMAX = Maximum temperature (Fahrenheit or Celsius as per user preference, Fahrenheit to tenths on Daily Form pdf file)
TMIN = Minimum temperature (Fahrenheit or Celsius as per user preference, Fahrenheit to tenths on Daily Form pdf file)

The other values are:

ACMC = Average cloudiness midnight to midnight from 30-second ceilometer data (percent)
ACMH = Average cloudiness midnight to midnight from manual observations (percent)
ACSC = Average cloudiness sunrise to sunset from 30-second ceilometer data (percent)
ACSH = Average cloudiness sunrise to sunset from manual observations (percent)
AWND = Average daily wind speed (meters per second or miles per hour as per user preference)
DAEV = Number of days included in the multiday evaporation total (MDEV)
DAPR = Number of days included in the multiday precipitation total (MDPR)
DASF = Number of days included in the multiday snowfall total (MDSF)
DATN = Number of days included in the multiday minimum temperature (MDTN)
DATX = Number of days included in the multiday maximum temperature (MDTX)
DAWM = Number of days included in the multiday wind movement (MDWM)
DWPR = Number of days with non-zero precipitation included in multiday precipitation total (MDPR)
EVAP = Evaporation of water from evaporation pan (mm or inches as per user preference, or hundredths of inches on Daily Form pdf file)
FMTM = Time of fastest mile or fastest 1-minute wind (hours and minutes, i.e., HHMM)
FRGB = Base of frozen ground layer (cm or inches as per user preference)
FRGT = Top of frozen ground layer (cm or inches as per user preference)
FRTH = Thickness of frozen ground layer (cm or inches as per user preference)
GAHT = Difference between river and gauge height (cm or inches as per user preference)
MDEV = Multiday evaporation total (mm or inches as per user preference; use with DAEV)
MDPR = Multiday precipitation total (mm or inches as per user preference; use with DAPR and DWPR, if available)
MDSF = Multiday snowfall total (mm or inches as per user preference)
MDTN = Multiday minimum temperature (Fahrenheit or Celsius as per user preference ; use with DATN)
MDTX = Multiday maximum temperature (Fahrenheit or Celsius as per user preference ; use with DATX)
MDWM = Multiday wind movement (miles or km as per user preference)
MNPV = Daily minimum temperature of water in an evaporation pan (Fahrenheit or Celsius as per user preference)
MXPV = Daily maximum temperature of water in an evaporation pan (Fahrenheit or Celsius as per user preference)

PGTM = Peak gust time (hours and minutes, i.e., HHMM)

PSUN = Daily percent of possible sunshine (percent)

SN*# = Minimum soil temperature where * corresponds to a code
for ground cover and # corresponds to a code for soil depth (Fahrenheit or Celsius as per user
preference)

Ground cover codes include the following:

- 0 = unknown
- 1 = grass
- 2 = fallow
- 3 = bare ground
- 4 = brome grass
- 5 = sod
- 6 = straw mulch
- 7 = grass muck
- 8 = bare muck

Depth codes include the following:

- 1 = 5 cm
- 2 = 10 cm
- 3 = 20 cm
- 4 = 50 cm
- 5 = 100 cm
- 6 = 150 cm
- 7 = 180 cm

SX*# = Maximum soil temperature where * corresponds to a code for ground
cover and # corresponds to a code for soil depth. See SN*# for depth codes. (Fahrenheit or
Celsius as per user preference)

THIC = Thickness of ice on water (inches or mm as per user preference)

TOBS = Temperature at the time of observation (Fahrenheit or Celsius as per user preference)

TSUN = Daily total sunshine (minutes)

WDF1 = Direction of fastest 1-minute wind (degrees)

WDF2 = Direction of fastest 2-minute wind (degrees)

WDF5 = Direction of fastest 5-second wind (degrees)

WDFG = Direction of peak wind gust (degrees)

WDFI = Direction of highest instantaneous wind (degrees)

WDFM = Fastest mile wind direction (degrees)

WDMV = 24-hour wind movement (km or miles as per user preference, miles on Daily Form pdf file)

WESD = Water equivalent of snow on the ground (inches or mm as per user preference)

WESF = Water equivalent of snowfall (inches or mm as per user preference)

WSF1 = Fastest 1-minute wind speed (miles per hour or meters per second as per user preference)

WSF2 = Fastest 2-minute wind speed (miles per hour or meters per second as per user preference)

WSF5 = Fastest 5-second wind speed (miles per hour or meters per second as per user preference)

WSFG = Peak guest wind speed (miles per hour or meters per second as per user preference)

WSFI = Highest instantaneous wind speed (miles per hour or meters per second as per user preference)

WSFM = Fastest mile wind speed (miles per hour or meters per second as per user preference)

WT** = Weather Type where ** has one of the following values:

- 01 = Fog, ice fog, or freezing fog (may include heavy fog)
- 02 = Heavy fog or heaving freezing fog (not always distinguished from fog)
- 03 = Thunder
- 04 = Ice pellets, sleet, snow pellets, or small hail
- 05 = Hail (may include small hail)
- 06 = Glaze or rime
- 07 = Dust, volcanic ash, blowing dust, blowing sand, or blowing obstruction
- 08 = Smoke or haze
- 09 = Blowing or drifting snow
- 10 = Tornado, waterspout, or funnel cloud
- 11 = High or damaging winds
- 12 = Blowing spray
- 13 = Mist
- 14 = Drizzle
- 15 = Freezing drizzle
- 16 = Rain (may include freezing rain, drizzle, and freezing drizzle)
- 17 = Freezing rain
- 18 = Snow, snow pellets, snow grains, or ice crystals
- 19 = Unknown source of precipitation
- 21 = Ground fog
- 22 = Ice fog or freezing fog

WVxx = Weather in the Vicinity where “xx” has one of the following values

- 01 = Fog, ice fog, or freezing fog (may include heavy fog)
- 03 = Thunder
- 07 = Ash, dust, sand, or other blowing obstruction
- 18 = Snow or ice crystals
- 20 = Rain or snow shower

Additional details are available online at <http://www1.ncdc.noaa.gov/pub/data/ghcn/daily/readme.txt> (note the readme file does not apply to the Daily Form pdf file or CSV outputs, however values are the same, other than a few differences in units noted in table 4 above).



File #: 20-0617

DATE: April 16, 2020
TO: Board of Mayor and Aldermen
FROM: Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering
David Hodnett, Staff Engineer

SUBJECT:

Consideration Of DRAFT Amendment No. 4 To COF Contract No. 2017-0007, A Professional Services Agreement With Barge Design Solutions, Inc. For The Design Of Intersection Improvements At East McEwen Drive And Cool Springs Boulevard For A Cost Increase Of \$10,255.11

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Amendment No. 4 to the Professional Services Agreement (PSA) for the design of intersection improvements at East McEwen Drive and Cool Springs Boulevard.

BACKGROUND/STAFF COMMENTS:

One of the projects approved with the fiscal year (FY) 2017-2026 Capital Investment Program (CIP) was the East McEwen Drive Phase 4 Improvements. A subset of this project was upgrades to the roundabout intersection at Cool Springs Boulevard/Oxford Glen Drive. On February 14, 2017, the BOMA approved a PSA (COF Contract No. 2017-0007) with Barge Design Solutions, Inc. (f/k/a Barge Waggoner Sumner & Cannon, Inc.) to design the improvements at the roundabout. The purpose of these improvements is to address unforeseen operational issues that have occurred since its full opening in 2014. Since the approval of that original PSA, three (3) amendments have been approved. Those amendments are summarized below:

1. Amendment No. 1 (approved 2/13/2018) - Design of modifications to the street lighting at the roundabout,
2. Amendment No. 2 (approved 8/13/2018) - Coordination and design of required utility relocations, and
3. Amendment No. 3 (approved 2/12/2019) - Additional Design on Oxford Glen Drive approach to accommodate the future Avalon Square development.

During the course of construction, the project team discovered a conflict with an existing underground electrical vault. The size of this electrical vault and its concrete encased conduit connections make it very cost prohibitive to relocate. Therefore, staff asked the designer to modify the design to accommodate this existing utility infrastructure. Amendment No. 4 allows for this additional design effort, which has already been completed in an effort to keep the project moving forward.

FINANCIAL IMPACT:

With the approval of Amendment No. 4, the total contract ceiling for this PSA (COF Contract No. 2017-0007) will become \$164,305.11. Project costs will continue to be billed to the existing General Ledger (GL) code of 311-89420-43100, which is funds from the 2017 General Obligations Bond issuance.

RECOMMENDATION:

Staff recommends approval of Amendment No. 4 to the PSA (COF Contract No. 2017-0007) with Barge Design Solutions, Inc. for a cost increase of \$10,255.11.

**AMENDMENT NO. 4 TO
PROFESSIONAL SERVICES AGREEMENT
FOR DESIGN OF INTERSECTION IMPROVEMENTS
AT EAST MCEWEN DRIVE AND COOL SPRINGS BOULEVARD
COF Contract No. 2017-0007**

THIS AMENDMENT is made and entered into on this the ____ day of _____, 2019, by and between the **City of Franklin, Tennessee** ("City") and **Barge Design Solutions, Inc.** ("Consultant").

WITNESSETH:

WHEREAS, the City and Barge Waggoner Sumner & Cannon, Inc. entered into a Professional Services Agreement ("Agreement"), dated February 14, 2017, for the Design of Intersection Improvements at East McEwen Drive and Cool Springs Boulevard ("Project"); and

WHEREAS, said Agreement stipulated that Barge Waggoner Sumner & Cannon, Inc. would be paid a not-to-exceed fee of Seventy-Four Thousand Nine Hundred Fifty-Five and No/100 Dollars (\$74,955.00), as detailed in the Scope of Service and Fee Schedule; and

WHEREAS, the Consultant, in early 2018, changed its company name from Barge Waggoner Sumner & Cannon, Inc. to Barge Design Solutions, Inc.; and

WHEREAS, on February 13, 2018, the Board of Mayor and Aldermen ("BOMA") approved Amendment No. 1 to the Agreement with the Consultant for additional engineering services in the amount not-to-exceed Eleven Thousand Two Hundred and No/100 Dollars (\$11,200.00); and

WHEREAS, on August 14, 2018, the BOMA approved Amendment No. 2 to the Agreement with the Consultant for additional engineering services in the amount not-to-exceed Fifty-Two Thousand Three Hundred and No/100 Dollars (\$52,300.00); and

WHEREAS, on February 12, 2019, the BOMA approved Amendment No. 3 for additional engineering services in the amount not-to-exceed Fifteen Thousand Nine Hundred Fifty and No/100 Dollars (\$15,595.00); and

WHEREAS, the City and Consultant realize the need for additional work to design utility relocations, which was not included in the Agreement or Amendment Nos. 1 thru 3; and

WHEREAS, the Consultant has provided the attached Proposal ("Attachment A for an increase in engineering services, in the not-to-exceed amount of **Ten Thousand Two Hundred Fifty-Five and 11/100 Dollars (\$10,255.11)**); 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 stated in Attachment 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 Attachment A an amount not-to-exceed **Fifteen Thousand Nine Hundred Fifty and No/100 Dollars (\$15,950.00).**

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 14, 2017, Amendment No. 1, dated February 13, 2018, Amendment No. 2, dated August 14, 2018, and Amendment No. 3, dated February 12, 2019, are unchanged and remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment.

THE CITY OF FRANKLIN, TENNESSEE

BARGE DESIGN SOLUTIONS, INC.

By: _____
Dr. Ken Moore
Mayor
Date: _____

By: _____
Print: _____
Title: _____
Date: _____

Attest:

Eric S. Stuckey
City Administrator
Date:

Approved as to form:

Shauna R. Billingsley, City Attorney

Barge Design Solutions, Inc.

ADDITIONAL SERVICES ADDENDUM NUMBER 4

(COF Contract No. 2017-0007 and Barge Project 3656600)

This addendum to the Professional Services Agreement dated February 14, 2017, between the City of Franklin (**Client**) and Barge Design Solutions, Inc. (**Barge**) is for additional services described as follows:

Project: East McEwen Drive and Cool Springs Blvd Roundabout Improvements

Project Description: Additional Services to provide design adjustments on the eastbound approach, design/construction verification at all islands, survey verification and additional survey.

I. PROFESSIONAL SERVICES: **Barge** agrees to perform the following additional services under this Addendum:

Roadway Design Updates

- Adjust the bypass lane on the eastbound approach to accommodate the shallow electrical vault uncovered during construction.
- Design changes:
 1. Update the horizontal alignment
 2. Resulting vertical alignment updates
 3. Adjust curbs and islands
- Plan updates included:
 1. Updates to the horizontal and vertical alignments
 2. Updated project grading
 3. Geometric Layout
 4. Updates to plan sheets (Proposed, Profiles, Traffic Control, Signing and Striping)
 5. Storm Drainage Updates
- Survey Verification:
 1. Verify survey discrepancies between the construction surveyor and Barge survey
 - a. Original Barge survey found to be accurate within acceptable survey tolerances
 2. Survey curbs placed by the contractor
- Additional Survey:
 1. Survey services for the electrical vault uncovered during construction

II. COMPENSATION: The compensation to be paid to **Barge** for providing the requested additional services shall be:

☒	Cost Plus Max in accordance with the rate schedule attached as Attachment "A" to the original contract including applicable reimbursables.			
☒	Estimated Fee	\$	or Maximum Fee	\$ <u>10,255.11</u>
☐	Lump Sum	\$		
☐	Percentage of Construction Cost	%	Estimated Fee	\$
☐	Other (specify)			

Barge Design Solutions, Inc.

- III. TERMS AND CONDITIONS:** Services performed under this addendum are subject to the same terms and conditions described in Items III through XII of the Professional Services Agreement dated February 14, 2017.

the City of Franklin		Barge Design Solutions, Inc.	
By:		By:	
Printed Name:	Paul Holzen, PE	Printed Name:	Chris Provost, PE
Title:	Director of Engineering	Title:	Executive Vice President
Address:	109 Third Ave South Franklin TN, 37064	Address:	615 3rd Ave South Suite 700 Nashville TN, 37210



City of Franklin

109 3rd Ave S.
Franklin, TN 37064
(615) 791-3217

File #: 20-0610

DATE: April 15, 2020

TO: Board of Mayor and Aldermen

FROM: Paul Holzen, Director of Engineering
Jonathan Marston, Asst. Director of Engineering

SUBJECT:

Capital Projects Dashboard & Status Updates

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:

<https://maps.franklintn.gov/portal/apps/opsdashboard/index.html#/97488be2a12447f3bdbbc622fbebfa188>

Manually locate the dashboard following the instructions below:

1. Go to the City of Franklin's main website at: <https://www.franklintn.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.

