



Meeting Agenda

Work Session

Tuesday, November 14, 2023

5:00 PM

Board Room

CALL TO ORDER

CITIZEN COMMENTS

Comments on agenda items may be made in person at City Hall or by emailing recorder@franklinton.gov before noon on the day of the meeting. Comments will be submitted for the record.

WORK SESSION DISCUSSION ITEMS

1. Discussion Of Hamlet Drive Sanitary Sewer Special Assessment

Sponsors: Mark Hilty

2. Development Activity Report

Sponsors: Vernon Gerth, Katherine Harelson

3. *Consideration Of Resolution 2023-76, A Resolution Authorizing The Use Of A Competitively Sealed Proposal Procurement Method For The Franklin Transit Authority's Operation and Maintenance Of Transportation Services

Sponsors: Eric Stuckey, Vernon Gerth

4. *Consideration Of Certificate Of Compliance For Wine In Grocery Store For Circle K #4703914, Mac's Convenience Stores LLC. Located At 1501 New Hwy 96 West, Franklin, TN, 37064 Managing Agent Stephen Stem And Angela Wells; Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary]

Sponsors: Angie Skarp

5. *Consideration Of Certificate Of Compliance For Wine In Grocery Store For Circle K #4703910, Mac's Convenience Stores LLC. Located At 1501 Murfreesboro Rd, Franklin, TN, 37067 Managing Agent Sandra Marsh; Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary]

Sponsors: Angie Skarp

6. *Consideration Of Certificate Of Compliance For Wine In Grocery Store For Circle K #4703907, Mac's Convenience Stores LLC. Located At 1100 Hillsboro Rd, Franklin, TN, 37064 Managing Agent Sandra Marsh; Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary]

Sponsors: Angie Skarp

7. *Consideration Of Executive Order 2023-01 Regarding The Declaration By The Mayor Of The City Of Franklin For An Emergency Water Shortage Status 1

Sponsors: Michelle Hatcher

8. *Consideration To Deny Sewer Availability For 4180 Columbia Pike (Map 105, Parcel 01602)

Sponsors: Michelle Hatcher, Scott Andrews

9. *Consideration Of Resolution 2023-08, A Resolution Adopting Revised General Requirements And Technical Specifications, Water Management Department, City Of Franklin, Tennessee, As Adopted By Reference In Title 18 Of The Franklin Municipal Code
CIC 10/26/23

Sponsors: Michelle Hatcher, Brian Goodwin, Patricia McNeese

10. *Consideration Of Amendment 1 To COF Contract No. 2022-0289, With CDM Smith For A Professional Services Agreement For The Franklin Water Reclamation Facility Post Expansion Upgrades Being Funded Under The Non-Competitive TDEC ARPA Grant Program

Sponsors: Michelle Hatcher, Chris Franklin

11. Consideration Of Change Order 3 To COF Contract No. 2022-0182, With Haren Construction For WTP Valve Access Improvements Project

Sponsors: Michelle Hatcher, Brian Goodwin, Patricia McNeese

12. Consideration Of COF Contract No. 2023-0318, With C&T Engineering And Inspection, LLC For Harpeth River Stream Monitoring And Data Management
CIC 10/26/23

Sponsors: Michelle Hatcher

13. *Consideration Of Ordinance 2023-36, An Ordinance To Establish A No-Parking-Anytime Zone Along The Southerly Extents Of Westwind And Eastwind Court
CIC 10/26/23

Sponsors: Paul Holzen, Adam Moser

14. *Consideration Of Resolution 2023-69, A Resolution Declaring A Portion Of Right-Of-Way On Cherokee Place As Surplus Property
CIC 10/26/23

Sponsors: Paul Holzen, Jimmy Wiseman

15. Consideration Of Amendment 1 To COF Contract No. 2019-0221, With Southbrooke, LLC For Road Impact Fee Reimbursement Agreement

Sponsors: Vernon Gerth, Jimmy Wiseman

16. Consideration of Resolution 2023- 71, A Resolution Initiating The Annexation Process And Draft Plan Of Services, For The Annexation Of 32.36 Acres, Located North Of Murfreesboro Road And West Of John Williams Road, Located At 4038 And 4040 Clovercroft Road. Establishing A Public Hearing For December 12, 2023

Sponsors: Emily Wright, Amy Diaz-Barriga, Chelsea Randolph

17. Consideration Of Resolution 2023-72, A Resolution Initiating The Annexation Process And Draft Plan Of Services, For The Annexation Of 35.95 Acres, Located South Of South Berrys Chapel Road And East Of Echo Lane, Located At 2247 South Berrys Chapel Road. Establishing A Public Hearing For December 12, 2023

Sponsors: Emily Wright, Amy Diaz-Barriga, Joseph Bryan

18. Consideration Of Amendment 2 To Contract No. 2019-0258, With Franklin Housing Authority For Payment In Lieu Of Taxes (PILOT) To Add Additional Properties To The Current Agreement Including The Addition Of Low Income Housing Tax Credit Developments Developed And Operated By The Local Authority

Sponsors: Tom Marsh, Kathleen Sauseda

19. Consideration Of COF Contract No. 2023-0248, With Stryker Sales, LLC For The Purchase Of Five Lifepak 15 Cardiac Monitors To Replace The Oldest Five Monitors Due For Replacement

Sponsors: Glenn Johnson

20. Report On A Grant Agreement Between The United States Department Of The Interior, National Park Service And The City of Franklin, Tennessee, Pursuant To The Battlefield Acquisition Grant Program Of The American Battlefield Protection Program In The Amount Of \$1,980,050 To Fund The Acquisition, In Part, Of 1224 Columbia Avenue

Sponsors: Kristine Brock, Mike Lowe

21. Williamson County Growth Plan Update

Sponsors: Eric Stuckey, Emily Wright, Andrew Orr

OTHER BUSINESS

ADJOURN

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



File #: 21-05616

DATE: November 1, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Mark Hilty, Asst. City Administrator Public Works

SUBJECT:

Discussion Of Hamlet Drive Sanitary Sewer Special Assessment

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the development of a sanitary sewer special assessment district for six homes located on Hamlet Drive.

BACKGROUND/STAFF COMMENTS:

Staff has been working with six property owners in the Westfield Subdivision on Hamlet Drive that are interested in connecting to the City's sanitary sewer system. On October 20, 2023, staff met with representatives from each of the six properties and described the process and estimated costs related to establishing a special assessment district to provide sanitary sewer to the properties. Staff has been made aware of one property at which the septic system is failing, creating a sense of urgency to provide service to these properties. A representative from all six properties have agreed to request the City to move forward with the project.

Should the BOMA be interested in moving forward, staff will draft a resolution for consideration by the BOMA. Other actions include holding a public hearing, development of design drawings and specifications, state approval, selection of a contractor, and construction.

The project concept includes a low pressure sanitary sewer collection system with an estimated cost of just over \$30,000. As required by state law, special assessment district costs would be divided among the property owners based on a ratio of the total assessed value of their property relative to the total assessed value of all six properties combined. Additional private costs include abandonment of individual septic systems and plumbing work when the individual property owners choose to connect to the system. These costs, not associated with the special assessment, are estimated to be \$13,000 but will be based on a site by site basis negotiated by the property owner and contractor.

The final cost would be payment of impact fees. Since these properties are already improved, the owners are eligible to pay the impact fee at any time. Should the property owner choose to pay the

impact fee prior to January 1, 2024, the fee would be \$3,544.00 with an increase to \$5,964.00 after that date.

FINANCIAL IMPACT:

At this time, there is no financial impact on the City. The City does anticipate providing design services and construction of the improvements directly. The construction costs will be reimbursed through the project. It is the City's expectation that providing for the design and construction in-house will be the most cost-effective approach to implementing these improvements.

RECOMMENDATION:

Due to the conditions of at least one of the property owners' septic systems, staff recommends that the Board of Mayor and Aldermen direct staff to move forward with developing a special assessment district for the six properties on Hamlet Drive.



File #: 21-05551

DATE: October 25, 2023

TO: Board of Mayor and Aldermen

FROM: Eric Stuckey, City Administrator
Vernon Gerth, Asst. City Administrator Community Development
Katherine Harelson, Development Services Analyst

SUBJECT:

Development Activity Report

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning an update on development activity for the 3rd quarter of 2023.

BACKGROUND/STAFF COMMENTS:

At the end of each quarter, the BOMA is presented with a development activity report. This report will be a shorter snap shot of development activity in Franklin from July to September of 2023 and provide an update on the development activity to date in 2023.

FINANCIAL IMPACT:

There is no financial impact.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen acknowledge this presentation.



3rd Quarter Development Activity Report

BOMA Work Session – November
14th, 2023



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FRANKLIN
TENNESSEE

Development Activity Snapshot



Third Quarter of 2023:
July – September 2023



Year to Date: January –
September 2023

BOMA Work Session – November 12th, 2023



3rd Quarter Activity

Year	# of Permits	Permit Fees	Construction Valuation
2019	1,638	\$528,019	\$106,975,089
2020	1,538	\$611,972	\$132,292,874
2021	1,375	\$595,832	\$161,765,566
2022	1,447	\$603,897	\$239,215,689
2023	1,597	\$499,588	\$127,601,882

BOMA Work Session – November 14th, 2023



3rd Quarter Impact Fee Collections

Year	Roads	Water and Sewer	Facilities
2019	\$798,215	\$507,719	\$491,509
2020	\$1,105,937	\$930,186	\$759,994
2021	\$2,717,302	\$1,276,345	\$953,460
2022	\$1,408,727	\$795,745	\$502,887
2023	\$822,426	\$642,382	\$256,528



2023 Year to Date

Year	# of Permits	Permit Fees	Construction Valuation
2019	4,697	\$1,553,525	\$307,704,956
2020	4,538	\$1,588,921	\$352,513,296
2021	4,544	\$1,654,770	\$352,427,382
2022	4,471	\$1,660,108	\$542,873,510
2023	4,213	\$1,363,881	\$297,007,543



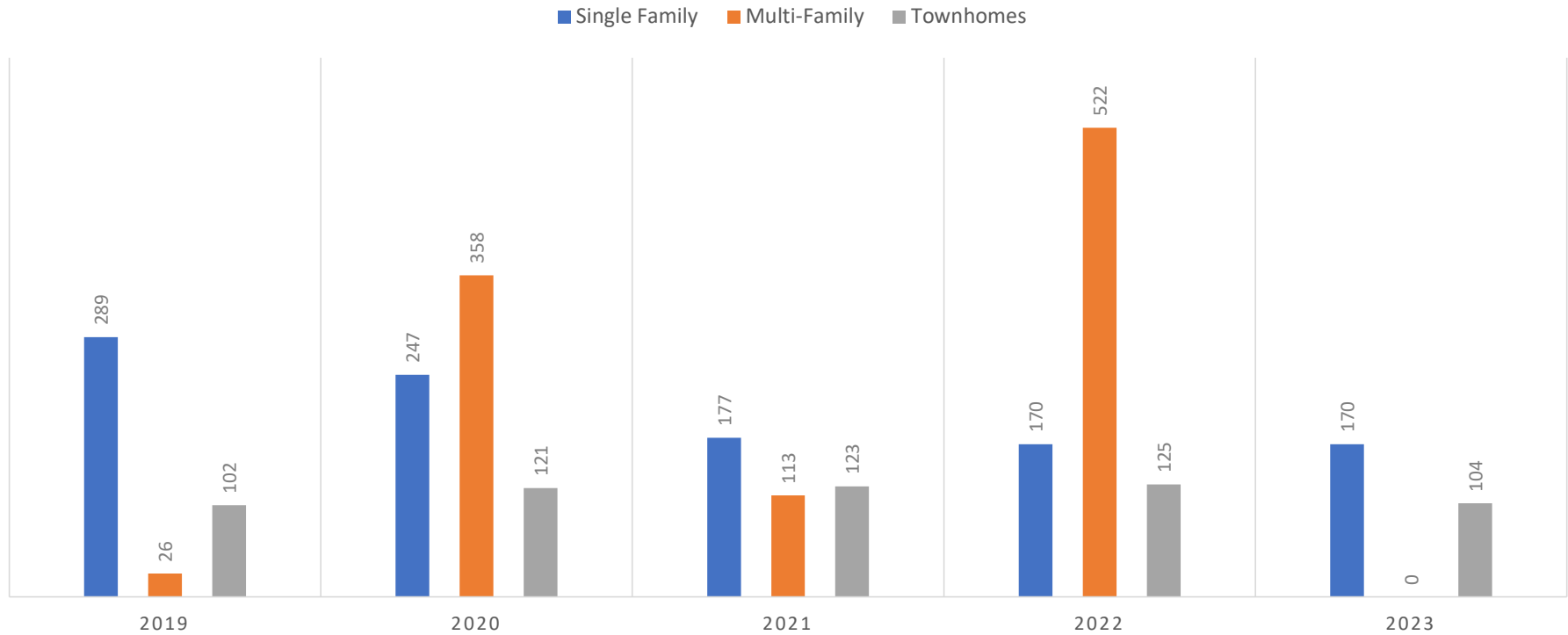
2023 YTD Impact Fee Collections

Year	Roads	Water and Sewer	Facilities
2019	\$2,650,530	\$1,739,643	\$1,636,626
2020	\$3,907,104	\$3,391,399	\$2,045,716
2021	\$4,334,633	\$3,184,516	\$2,012,228
2022	\$3,101,777	\$2,142,577	\$1,436,830
2023	\$2,239,899	\$1,519,424	\$834,076

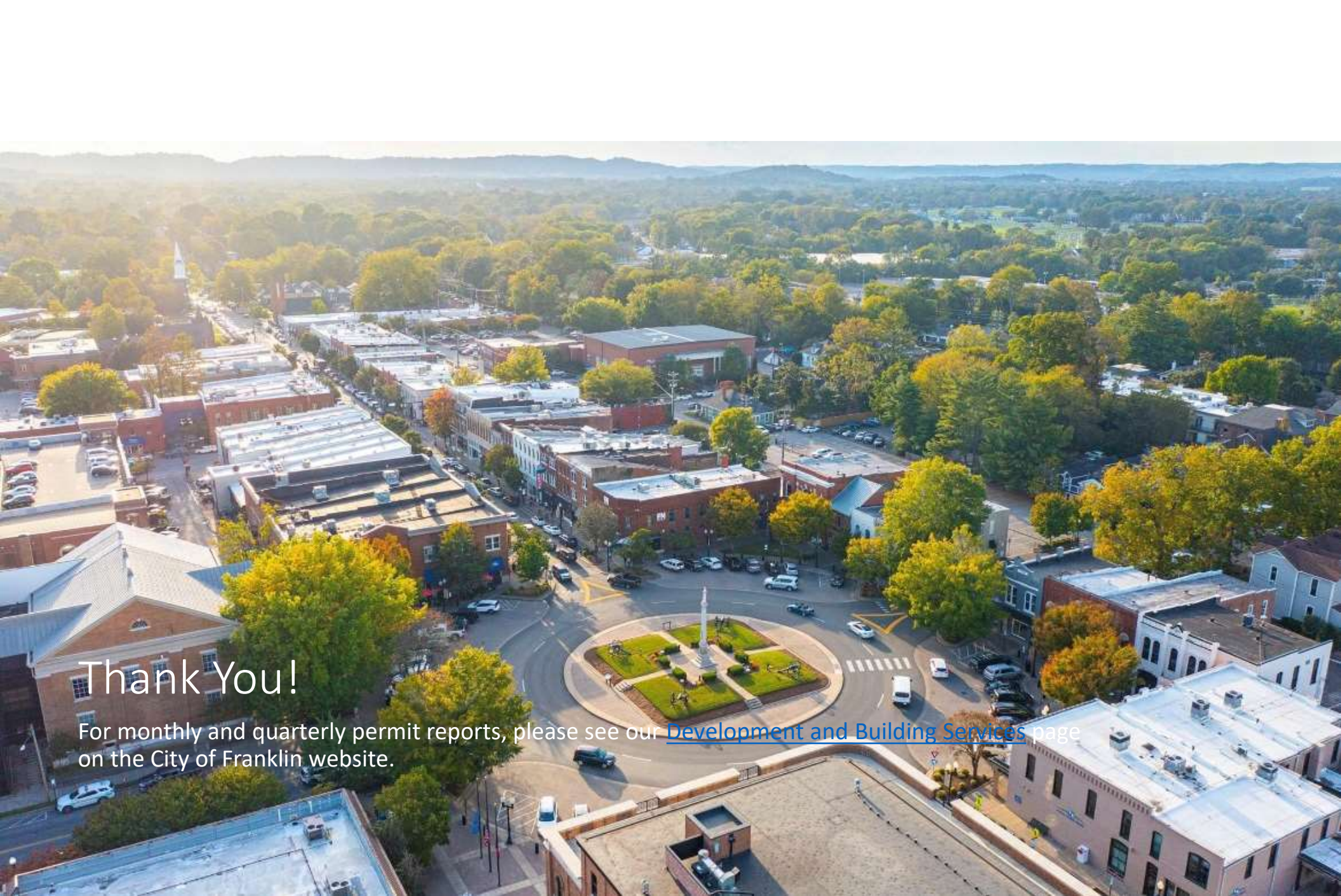
BOMA Work Session – November 14th, 2023



2023 YTD New Dwelling Units



BOMA Work Session – November 14th, 2023



Thank You!

For monthly and quarterly permit reports, please see our [Development and Building Services](#) page on the City of Franklin website.



File #: 21-05618

DATE: November 2, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Vernon Gerth, Asst. City Administrator Community Development

SUBJECT:

*Consideration Of Resolution 2023-76, A Resolution Authorizing The Use Of A Competitively Sealed Proposal Procurement Method For The Franklin Transit Authority's Operation And Maintenance Of Transportation Services

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the use of a competitive sealed proposal procurement method for the Franklin Transit Authority's operation and maintenance of transportation services for a term award.

BACKGROUND/STAFF COMMENTS:

Tennessee law and City ordinance both require the Board of Mayor and Aldermen to authorize use of the competitive sealed proposal procurement method for choosing suppliers and/or service providers whenever the Board determines that the use of competitive sealed bidding is either not practicable or not advantageous for the City.

For the planned procurement of a contractor for transit services, there is more than one solution to this purchasing issue and the competitive sealed proposal procurement method will assist in choosing the best solution and service provider based on cost of services, experience, and qualifications.

Other procurement methods, including a solicitation for bids or a request for qualifications, would not be best suited for this procurement.

The Franklin Transit Authority contracts with a third party to operate the public transit system. Outside contracted services are reviewed and put out for a competitive proposal process on a regular basis. The contract for operations of the Franklin public transit system was last reviewed and awarded in 2019.

FINANCIAL IMPACT:

The financial impact of the procurement remains to be determined.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Resolution No. 2023-76, a resolution authorizing the use of a competitive sealed proposal procurement method for the Franklin Transit Authority's operation and maintenance of transportation services.

RESOLUTION 2023-76

**A RESOLUTION AUTHORIZING THE USE OF A COMPETITIVELY SEALED PROPOSAL
PROCUREMENT METHOD FOR THE FRANKLIN TRANSIT AUTHORITY'S OPERATION AND
MAINTAIN OF TRANSPORTATION SERVICES.**

WHEREAS, pursuant to Tenn. Code Ann. § 12-3-1207 the City may use competitive sealed proposals rather than competitive sealed bids when the City adopts a process for the use of competitive sealed proposals and determines that the use of competitive sealed bidding is either not practicable or not advantageous to the City; and

WHEREAS, the City passed Ordinance 2019-24 on August 13, 2019, authorizing the use of the competitive sealed proposal procurement method; and

WHEREAS, should the City choose to pursue conducting its own competitive process for establishing the basis of pricing pursuant to sealed submittals and published legal notice, then City staff requests authority to use the competitive sealed proposal procurement method for determining which service provider to recommend for award of debt collection services for a term of award; and

WHEREAS, on May 5, 2003, the City Board of Mayor and Aldermen ("BOMA") approved a resolution authorizing the creation of a municipal transit authority ("Franklin Transit Authority") pursuant to T.C.A. § 7-56-101 et seq., as amended, and granted full power and authority to acquire, purchase, construct, extend, improve, maintain, own and operate a system of suitable vehicles primarily for the transportation for hire of passengers and incidental activities; and

WHEREAS, on June 6, 2019, the Franklin Transit Authority entered into an agreement for the purchase of transit services with The TMA Group ("2019 Agreement"); and

WHEREAS, the parties acknowledge that the existing 2019 Agreement is set to expire on June 6, 2024, therefore, it is prudent and in the best interest of the Franklin Transit Authority to commence the solicitation process to re-affirm the current contractor or select a new contractor upon expiration of the 2019 Agreement; and

WHEREAS, the Board of Mayor and Aldermen find that the use of the competitive sealed proposal procurement method is advantageous to the City because qualifications, experience, and competence are more important than price in making the purchase, and because there is more than one solution to this purchasing issue and the competitive sealed proposal procurement method will assist in choosing the best solution and service provider.

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

BOMA authorize the use of a competitively sealed proposal procurement related to the selection of a contractor for the Franklin Transit Authority operation and maintenance of transportation services.

IT IS SO RESOLVED AND DONE on this ____ day of _____, 2023.

ATTEST:

By: _____
Eric S. Stuckey
City Administrator

CITY OF FRANKLIN, TENNESSEE:

By: _____
Dr. Ken Moore
Mayor

Approved as to Form:

By: _____
Shauna R. Billingsley
City Attorney



City of Franklin

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

File #: 21-05613

DATE: November 1, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Angie Skarp, City Recorder

SUBJECT:

*Consideration Of Certificate Of Compliance For Wine In Grocery Store For Circle K #4703914, Mac's Convenience Stores LLC. Located At 1501 New Hwy 96 West, Franklin, TN, 37064 Managing Agent Stephen Stem And Angela Wells; Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary]

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a Wine in Grocery Store Retail Certificate.

BACKGROUND/STAFF COMMENTS:

This certificate is for Circle K #4703914, Mac's Convenience Stores LLC. Located At 1501 New Hwy 96 West, Franklin, TN. Mac's Convenience Stores LLC has made an application to sell wine at this location. The application meets all requirements.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve the Wine in Grocery Store Certificate for Circle K #4703914, Mac's Convenience Stores LLC. Located At 1501 New Hwy 96 West, Franklin, TN.



HISTORIC
FRANKLIN
TENNESSEE

CERTIFICATE OF COMPLIANCE
RETAIL FOOD STORE WINE

Circle K #4703914, 1501 New Hwy 96 West, Franklin, TN, 37064

The City of Franklin hereby certifies the following facts concerning application in the name of Stephen Stem and Angela Wells, managing agents and Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary] with Mac's Convenience Stores LLC at PO Box 347 Columbus, IN 47202 who has made application for a Certificate of Compliance to sell retail food store wine at 1501 New Hwy 96 West, Franklin, TN which is within the corporate limits of the City of Franklin, Williamson, County, Tennessee:

1. An investigation has been undertaken of the applicant's felony criminal record and of the location of said business, and from said investigation the undersigned certify that the applicant or applicants who are to be in actual charge of the business have not been convicted of a felony within a ten-year period immediately preceding the date of application and, if a corporation, that the executive officers or those in control have not been convicted of a felony within a ten-year period immediately preceding the date of the application;

2. The applicant or applicants have secured a location which lies within the city limits of the City of Franklin which complies with all applicable zoning laws adopted therein by the City.

This the 14th day of November 2023

Dr. Ken Moore, Mayor
City of Franklin

ATTEST: _____
Eric Stuckey, City Administrator



City of Franklin

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

File #: 21-05614

DATE: November 1, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Angie Skarp, City Recorder

SUBJECT:

*Consideration Of Certificate Of Compliance For Wine In Grocery Store For Circle K #4703910, Mac's Convenience Stores LLC. Located At 1501 Murfreesboro Rd, Franklin, TN, 37067 Managing Agent Sandra Marsh; Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary]

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a Wine in Grocery Store Retail Certificate.

BACKGROUND/STAFF COMMENTS:

This certificate is for Circle K #4703910, Mac's Convenience Stores LLC. Located At 1501 Murfreesboro Rd, Franklin, TN. Mac's Convenience Stores LLC has made an application to sell wine at this location. The application meets all requirements.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve the Wine in Grocery Store Certificate for Circle K #4703910, Mac's Convenience Stores LLC. Located At 1501 Murfreesboro Rd, Franklin, TN.



HISTORIC
FRANKLIN
TENNESSEE

CERTIFICATE OF COMPLIANCE
RETAIL FOOD STORE WINE

Circle K #4703910, 1501 Murfreesboro Rd, Franklin, TN, 37067

The City of Franklin hereby certifies the following facts concerning application in the name of Sandra Marsh, managing agent/marketing manager and Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary] with Mac's Convenience Stores LLC at PO Box 347 Columbus, IN 47202 who has made application for a Certificate of Compliance to sell retail food store wine at 1501 Murfreesboro Rd, Franklin, TN which is within the corporate limits of the City of Franklin, Williamson, County, Tennessee:

1. An investigation has been undertaken of the applicant's felony criminal record and of the location of said business, and from said investigation the undersigned certify that the applicant or applicants who are to be in actual charge of the business have not been convicted of a felony within a ten-year period immediately preceding the date of application and, if a corporation, that the executive officers or those in control have not been convicted of a felony within a ten-year period immediately preceding the date of the application;

2. The applicant or applicants have secured a location which lies within the city limits of the City of Franklin which complies with all applicable zoning laws adopted therein by the City.

This the 14th day of November 2023

Dr. Ken Moore, Mayor
City of Franklin

ATTEST: _____
Eric Stuckey, City Administrator



City of Franklin

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

File #: 21-05615

DATE: November 1, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Angie Skarp, City Recorder

SUBJECT:

*Consideration Of Certificate Of Compliance For Wine In Grocery Store For Circle K #4703907, Mac's Convenience Stores LLC. Located At 1100 Hillsboro Rd, Franklin, TN, 37064 Managing Agent Sandra Marsh; Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary]

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a Wine in Grocery Store Retail Certificate.

BACKGROUND/STAFF COMMENTS:

This certificate is for Circle K #4703907, Mac's Convenience Stores LLC. Located At 1100 Hillsboro Rd, Franklin, TN. Mac's Convenience Stores LLC has made an application to sell wine at this location. The application meets all requirements.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve the Wine in Grocery Store Certificate for Circle K #4703907, Mac's Convenience Stores LLC. Located At 1100 Hillsboro Rd, Franklin, TN.

HISTORIC
FRANKLIN
TENNESSEECERTIFICATE OF COMPLIANCE
RETAIL FOOD STORE WINE

Circle K #4703907, 1100 Hillsboro Rd, Franklin, TN, 37064

The City of Franklin hereby certifies the following facts concerning application in the name of Sandra Marsh, managing agent/marketing manager and Executive Officers Kathleen K. Cunningham [President], Melissa A. Duncan [Assistant Secretary], Debra A. Gooldy [Assistant Secretary] with Mac's Convenience Stores LLC at PO Box 347 Columbus, IN 47202 who has made application for a Certificate of Compliance to sell retail food store wine at 1100 Hillsboro Rd, Franklin, TN which is within the corporate limits of the City of Franklin, Williamson, County, Tennessee:

1. An investigation has been undertaken of the applicant's felony criminal record and of the location of said business, and from said investigation the undersigned certify that the applicant or applicants who are to be in actual charge of the business have not been convicted of a felony within a ten-year period immediately preceding the date of application and, if a corporation, that the executive officers or those in control have not been convicted of a felony within a ten-year period immediately preceding the date of the application;

2. The applicant or applicants have secured a location which lies within the city limits of the City of Franklin which complies with all applicable zoning laws adopted therein by the City.

This the 14th day of November 2023

Dr. Ken Moore, Mayor
City of Franklin

ATTEST:
Eric Stuckey, City Administrator



File #: 21-05572

DATE: October 30, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management

SUBJECT:

*Consideration Of Executive Order 2023-01 Regarding The Declaration By The Mayor Of The City Of Franklin For An Emergency Water Shortage Status 1

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the declaration by the Mayor for Emergency Status 1 water conditions.

BACKGROUND/STAFF COMMENTS:

The City has not experienced significant rainfall since early August, where the WRF recorded 2.12 inches on August 9, 2023. Since then, minor rainfall amounts were observed the remainder of August, no rainfall was observed in September, and minimal rainfall observed in October.

In the most recent approved version of the Drought Management Plan (March 2021), drought conditions are alerted when the Harpeth River withdrawals are limited by the ARAPs (Aquatic Resource Alteration Permits) permitted rates and the reservoir cannot be maintained at 60% capacity. The WTP stopped pumping water from the Harpeth River on September 21, 2023, with minor amounts during short periods of time during October 2023. As per the Drought Management Plan, the WMD alerted HVUD about the increased reliance on purchased water, in addition to letting TDEC know of the situation.

Voluntary conservation measures were enacted Wednesday, October 25, 2023. The volume of water in the reservoir had dropped to below a 40-day supply (at typical design capacity). These restrictions were posted to the City's social media accounts and on the City's webpage.

Friday, October 27, 2023, the Mayor signed the Executive Order enacting Emergency Water Shortage Status 1 conditions. The volume of water in the reservoir has dropped below the 30-day supply level and the WMD was having operational difficulties in bringing two storage tanks above the 2/3 full mark for more than 48 hours. A press release, in addition to posting on all social media accounts and the City's webpage has been initiated and HVUD has been notified of our continued reliance on purchased water.

In a Emergency Status 1 condition, all non-essential Category 1 water use is prohibited from being used, unless reclaimed water is used:

- Washing sidewalks, driveways, and other exterior paved areas except by the City in the interest of public safety.
- Filling or refilling of swimming pools.
- Noncommercial washing of vehicles and boats.
- Any use from a fire hydrant other than to fight fires and ensure adequate water quality in the distribution system.
- Watering landscaped or grass areas, with the exception of non-grassed gardens, trees, or shrubs, between 8:00pm and 6:00am using handheld devices.
- Watering golf courses.
- Dust control or compaction during construction.

According to the U.S. Drought Monitor (site produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, US Department of Agriculture, and National Oceanic and Atmospheric Administration), Williamson County is currently at a D2 status which indicates a severe drought and is consistent with many other Tennessee counties in the southern portion of the state.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen allow for Executive Order 2023-01 regarding Emergency Water Shortage Status 1 to remain in effect.

**AN EXECUTIVE ORDER DECLARING
A WATER SHORTAGE EMERGENCY STATUS 1
DATED October 27, 2023
Executive Order 2023-01**

WHEREAS, the Director of Water Management, the Assistant City Administrator of Public Works, and the City Administrator of the City of Franklin, Tennessee, finds that water shortage conditions exist; and

WHEREAS, pursuant to Franklin Municipal Code Section 18-130 (1)(d) the mayor is authorized to declare a water shortage emergency to exist, and in doing so shall declare either a Status 1 or Status 2 emergency; and

WHEREAS, after consulting with staff, the mayor has determined that a Status 1 emergency exists, specifically, the total volume of water in the city raw water reservoir drops to less than that required to supply the water treatment plant for 30 days with the plant operating at its design capacity of 2.0 MGD (million gallons per day), and the water level in two or more of the distribution system reservoirs cannot be brought above the two-thirds full mark in a 48-hour period; and

WHEREAS, when the water supply reaches Water Shortage Emergency Status 1, the mayor, upon the recommendation of the appropriate committee of the City of Franklin, may declare any or all the uses of water identified as nonessential use Category 1 provided for in this resolution as being prohibited and said prohibition shall remain in full and effect until the next meeting of the Franklin Board of Mayor and Aldermen. The list of nonessential uses may be increased or decreased pending the next meeting of the Franklin Board of Mayor and Aldermen; and

WHEREAS, after consulting with staff, the mayor declares uses of water identified as nonessential in Category 1 of the Franklin Municipal Code Section 18-130(4)(2) are prohibited until such time as this executive order is lifted; and

WHEREAS, the Franklin Municipal Code Section 18-130(2) provides that under such water shortage conditions certain non-essential uses of water may be prohibited.

NOW THEREFORE, I, DR. KEN MOORE, MAYOR OF THE CITY OF FRANKLIN, TENNESSEE, pursuant to authority in Franklin Municipal Code Section 18-130(3), declare that a Water Shortage Emergency Status 1 exists and find that Status 1 emergency exists, specifically, the total volume of water in the city raw water reservoir drops to less than that required to supply the water treatment plant for 30 days with the plant operating at its design capacity of 2.0 MGD (million gallons per day), and the water level in two or more of the distribution system reservoirs cannot be brought above the two-thirds full mark in a 48-hour period; and

FURTHER that during this water shortage emergency, the following uses are hereby declared to be nonessential uses as defined in Franklin Municipal Code Section 18-130(4)(a) and prohibited unless reclaimed water is used:

- (i) Washing sidewalks, driveways, parking areas, tennis courts, patios, or other exterior paved areas, except by the City of Franklin for the public safety.
- (ii) Filling or refilling swimming pool.
- (iii) Non-commercial washing of privately owned motor vehicles trailers and boats.
- (iv) Any use of water from a fire hydrant except for fighting fires or use by the City of Franklin.
- (v) Watering of lawns, landscaped areas, or ball fields, except that gardens, trees, shrubs or other plants may be watered to sustain the life of the plant material from 8:00 P.M. to 6:00 A.M., using only handheld mechanisms, buckets, or other similar devices.

- (vi) Water any portion of a golf course.
- (vii) Use of water for dust control or compaction during construction.

This prohibition shall remain in full force and effect until the next meeting of the City of Franklin Board of Mayor and Aldermen on November 14, 2023. If the Board does not take action to terminate the shortage emergency, the same shall continue in full force and effect.

IT IS SO RECOMMENDED on this the 27th day of October, 2023.

By: Eric S. Stuckey

Eric Stuckey
City Administrator

IT IS SO DECLARED on this the 27th day of October, 2023.

ATTEST:

By: Eric S. Stuckey
Eric Stuckey
City Administrator/Recorder

CITY OF FRANKLIN, TENNESSEE

By: Dr. Ken Moore
Dr. Ken Moore
Mayor

Approved as to form:

By: Shauna R. Billingsley
Shauna R. Billingsley
City Attorney



File #: 21-05412

DATE: October 23, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management
Scott Andrews, Utilities Engineer II

SUBJECT:

*Consideration To Deny Sewer Availability For 4180 Columbia Pike (Map 105, Parcel 01602)

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Alderman (BOMA) concerning a recommendation for denial of a request for sewer availability for the above referenced property.

BACKGROUND/STAFF COMMENTS:

Date of Request: 8/28/23.
SFUE's Requested: 2.
Domestic Water Meter Size(s): $\frac{3}{4}$ ".

This property is located outside of the City limits, south of the City, on Columbia Pike north of Henpeck Road. The property currently contains the Rooster Tails furniture store and two living units above the store. Sewering this property today would consist of a gravity sewer extension of nearly two miles. The property is experiencing septic failure resulting, according to the applicant, above ground sewage in the area of the field lines. Given the health and safety implications and lack of availability of City sanitary sewer for the property, the Water Management Department issued a letter of denial to the applicant in order to allow them to repair the septic system and reduce the immediate public health and safety concerns.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen deny availability for 4180 Columbia Pike.



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 #		Rooster Tail	
Map & Parcel(s) #		Dist 10, Map 105, Parcel 01602	
Property Address:		4108 Columbia Pike	
City Project # (If Applicable)			
# of Dwelling Units (If Residential)		2 units above retail space	
Applicant's Name & Company		Ron Shuff Family Partnership, Mark Albert	
Applicant's Address		127 2nd Ave N. Franklin, TN 37064	
Applicant's Email & Phone #		marlaeshuffproperties.com (615) 473 7995	
Anticipated Water Meter Size(s) (see chart on pg. 3).		3/4"	
Water District:		Franklin City	
Sewage Flow Calculations: Use the City of Franklin projected flow examples sheet -pg.4 550 GPD based on 1 ^{Single} bedroom unit and one 2 bedroom unit. Spoke to applicant 9/28/23 and mentioned there is no sewer or water available unless they extend it...they just want to fix septic so they changed the request to denial...see email in folder with this application Scott Andrews, 9/28/2023 <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@franklinton.gov

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

Date Submitted: 8/28/2023

LOCATOR MAP



LOCATOR MAP (Aerial view)



Neighborhood View





City of Franklin

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

File #: 21-05264

DATE: October 26, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management
Brian Goodwin, Asst. Director of Water Management
Patricia McNeese, Utilities Engineer

SUBJECT:

*Consideration Of Resolution 2023-08, A Resolution Adopting Revised General Requirements And Technical Specifications, Water Management Department, City Of Franklin, Tennessee, As Adopted By Reference In Title 18 Of The Franklin Municipal Code
CIC 10/26/23

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the Resolution to adopt the revised General Requirements And Specifications, Water Management Department, City of Franklin, Tennessee, as adopted by reference in Title 18 of the Franklin Municipal Code.

BACKGROUND/STAFF COMMENTS:

The General Requirements and Technical Specifications for Utility Installation, Water Management Department, City of Franklin, Tennessee, were revised and approved by Resolution 2020-162 on October 13, 2020. The Tennessee Department of Environment (TDEC) approved these specifications for three years and expired on February 14, 2023. The specifications were resubmitted and reviewed by TDEC in January 2023. TDEC had comments which WMD addressed and submitted back to TDEC. TDEC reapproved the revised specifications on February 9, 2023 and the approval will remain in effect until February 9, 2028.

As you can see from the attached letter from TDEC, the changes were minor and mostly included updating of professional standards.

FINANCIAL IMPACT:

There is no financial impact with the approval of this resolution.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Resolution 2023-08.

RESOLUTION 2023-08

A RESOLUTION ADOPTING REVISED *GENERAL REQUIREMENTS AND TECHNICAL SPECIFICATIONS, WATER MANAGEMENT DEPARTMENT, CITY OF FRANKLIN, TENNESSEE*, AS ADOPTED BY REFERENCE IN TITLE 18 OF THE FRANKLIN MUNICIPAL CODE

WHEREAS, the Board of Mayor and Aldermen of the City of Franklin, Tennessee adopted the “General Requirements And Technical Specifications, Water Management Department, City of Franklin, Tennessee”, into Title 18, Chapter 1, Section 18-110, Chapter 2, Section 18-209, and Chapter 4, Section 18-411, to provide uniform engineering and technical standards for water, sanitary sewer, and reclaimed water main line design and construction projects respectively within the City; and

WHEREAS, City Staff has recognized the need to revise the Specifications to better reflect the intent of what the City desires as to completed water, sanitary sewer and reclaimed water projects as well as to correct any incomplete information concerning some of the Specifications; and

WHEREAS, the Board of Mayor and Aldermen believe adopting the Technical Specifications For Utility Installation, Water Management Department, City of Franklin, Tennessee is in the best interest of the City.

NOW THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the Technical Specifications For Utility Installation, Water Management Department, City of Franklin, Tennessee, (Exhibit A) shall be approved and take effect from and after its passage, the health, safety and welfare of the citizens of Franklin requiring it.

ATTEST

CITY OF FRANKLIN, TENNESSEE

By: _____
Eric Stuckey
City Administrator

By: _____
Dr. Ken Moore
Mayor

Approved as to Form:

By: _____
Shauna R. Billingsley
City Attorney

TECHNICAL SPECIFICATIONS FOR UTILITY INSTALLATION

Water Management Department

City of Franklin, Tennessee



HISTORIC
FRANKLIN
TENNESSEE

DW20230040

APPROVED FOR CONSTRUCTION

THE DOCUMENT BEARING THIS STAMP HAS BEEN RECEIVED AND REVIEWED BY THE

TENNESSEE DEPT. OF ENVIRONMENT & CONSERVATION
DIVISION OF WATER RESOURCES

AND IS HEREBY APPROVED FOR CONSTRUCTION BY THE COMMISSIONER

02/09/2023

THIS APPROVAL SHALL NOT BE CONSTRUED AS CREATING A PRESUMPTION
OF CORRECT OPERATION OR AS WARRANTING BY THE COMMISSIONER THAT
THE APPROVED FACILITIES WILL REACH THE DESIGNED GOALS.

APPROVAL EXPIRES ONE YEAR FROM ABOVE DATE



Approved:

Brian Goodwin, P.E.

Assistant Director Water Management



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PART 1 – GENERAL

1.1 PURPOSE STATEMENT

- A. These Specifications are guidelines for Engineers, Contractors, and Developers for the planning, design, and construction of water distribution systems, sanitary sewer collection systems, reclaimed water systems and associated appurtenances within the City of Franklin, Tennessee Water Management Department service area. The Specifications identify standards, criteria, submittal requirements, and approval procedures to be used for projects within the City of Franklin.
- B. These Specifications shall govern the construction materials and installation of water, sanitary sewer, and reclaimed water systems that are, or will become, the responsibility of the City of Franklin to operate and maintain as part of their system.
- C. These Specifications are intended to meet or exceed the requirements of the State of Tennessee's Department of Environment and Conservation (TDEC).
- D. These Specifications are not intended to serve as a step-by-step design and construction method nor can this manual address every situation that may arise. The application of sound engineering/surveying principles combined with the information contained herein is necessary to complete the planning, design, and construction of water, sanitary sewer, and reclaimed water systems.

1.2 DEFINITIONS

- A. Contractor: The person, firm, or corporation with whom Developer has executed an agreement and is responsible for the work.
- B. Developer: One who owns a proposed development where water, sanitary sewer or reclaimed water infrastructure is to be installed.
- C. Engineer: One who prepared the construction plans for the installation of water, sanitary sewer or reclaimed water and is the Engineer of Record. The Engineer must be licensed in the State of Tennessee.
- D. Owner: City of Franklin, Tennessee
- E. Project: The organized process to construct infrastructure within the City of Franklin, Tennessee.



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- F. Resident Project Representative: City of Franklin Water Management Department Inspector or its designee.
- G. Subcontractor: An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the site.
- H. Surveyor: One who measures and records locations for the installation of water, sanitary sewer or reclaimed water. The Surveyor must be licensed in the State of Tennessee.
- I. Work: Any and all obligations, duties and responsibilities necessary to the successful completion of the Project assigned to or undertaken by Contractor.

1.3 SUMMARY

- A. The following are acronyms used throughout this document:
 - 1. AWWA: American Water Works Association
 - 2. COF: City of Franklin
 - 3. TDEC: Tennessee Department of Environment and Conservation
 - 4. WMD: Water Management Department
 - 5. RPR: Resident Project Representative

1.4 CONTACT INFORMATION

- A. City of Franklin Water Management Department
124 Lumber Drive
Franklin, TN 37064
(615) 794-4554
- B. City of Franklin Fire Department Administration
109 3rd Avenue South, Suite 130
Franklin, TN 37064
(615) 791-3270
- C. City of Franklin Engineering Department
109 3rd Avenue South, Suite 133
Franklin, TN 37064
(615) 791-3218
- D. Tennessee Department of Environment and Conservation (TDEC)
Division of Water Pollution Control (DWPC)
L & C Tower Annex, 6th Floor



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- 401 Church Street
Nashville, TN 37243
(615) 532-0625
- E. Tennessee Department of Environment and Conservation (TDEC)
Division of Water Supply (DWS)
L & C Tower Annex, 6th Floor
401 Church Street
Nashville, TN 37243
(615) 532-0191
- F. City of Franklin Streets Department
124 Lumber Drive
Franklin, TN 37064
(615) 791-3254
- G. Williamson County Highway Department
302 Beasley Drive
Franklin, TN 37064
(615) 790-5596
- H. City of Franklin Police Department
Communications Division
900 Columbia Avenue
Franklin, TN 37064
(615) 794-2513
- I. Williamson County Office of Public Safety
304 Beasley Drive
Franklin, TN 37064
(615) 790-5752
- J. City of Franklin Traffic Operations Center City Hall
109 3rd Avenue South
Franklin, TN 37064
(615) 791-3218

1.5 GENERAL REQUIREMENTS

- A. General: The Contractor shall have full use of premises and dedicated easements for



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construction operations, including use of project site, during construction. Contractor's use of premises is limited only by Owner's right to perform Work or to retain other contractors on portions of project and conditions of any easement or right-of-way occupancy permits.

- B. Prior to commencement of Work, the Contractor shall review the construction site with the Resident Project Representative to make permanent record of such existing damage as cracks, malfunctioning utility equipment and fixtures, or other similar damage. This record shall serve as a basis for determination of subsequent damage to the structures and adjacent areas due to Contractor's operations. Any damage to these structures and adjacent areas not noted in original review record shall be reported immediately to Owner. Permanent record shall include photographs and/or video graphic recording.
- C. Erosion Control: Erosion prevention and sediment control measures must be in place prior to commencement of Work. All erosion control shall be in compliance with the City of Franklin's Best Management Practices Stormwater Management Manual.
- D. Fire Precautions: Fire or use of any fire- or explosion- producing tools or equipment will be permitted on the premises only when review has been completed by the City of Franklin and the required jurisdictional permits have been obtained.
- E. Manufacturers Qualifications: The manufacturers of all materials and equipment used must be approved by the Owner and regularly engaged in the manufacture of the particular material or equipment for the use and service to which it will be subjected.
- F. Compliance with state and local laws: Comply with all applicable requirements of state and local laws and ordinances to the extent that such requirements do not conflict with federal laws or regulations.
- G. Protection of public and private property: The Contractor shall be responsible for preservation of and shall take special care in working areas to protect public and private property. The Contractor shall replace or repair at his own expense any damaged water pipes, power and communication lines, or other public utilities, roads, curbs, gutters, sidewalks, drain pipes, drainage ditches, all properties and fixtures (both permanent and temporary), and all plantings, including grass or sod on the site of the Work. Leave the site in original or better condition after all cleanup has been done.
- H. Markers: Preserve all surveyed and privately owned markers and monuments; do not remove or disturb any such markers without prior approval from the owner of the marker. Any removal and replacement of such markers shall be at the expense of the Contractor.
- I. Pavement repair and/or replacement: Whenever existing asphalt is removed, restore traffic over the disturbed area as quickly as possible by backfilling with at least 12 inches of



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- compacted Class A, Grade D crushed stone to within 2 inches of the existing surface and then applying a 2 inch layer of cold mix. Add material and otherwise maintain such surface until the permanent pavement is restored by the Contractor or until acceptance by the Owner. All roadway construction shall be in compliance with the Franklin Transportation and Street Technical Standards.
- J. Department of Transportation Permits: The Contractor must obtain a street cutting permit and bore permit from the Owner, if applicable. All such Work shall be coordinated with and be subject to the approval of said transportation department and Owner. The Contractor shall be responsible for permits and bonding for Work not provided for on the Drawings.
- K. Approved Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. The use of all such chemicals and the disposal of residues shall be in strict conformance with manufacturer's instructions. Material Safety Data Sheets (MSDS) must be available on site for inspection. All chemicals shall be transported and stored in original containers.
- L. Catalog Data for Owners: Provide duplicate complete, bound sets of a compilation of catalog data of each manufactured item of mechanical and electrical equipment used in the Work, for transmittal to the Owner prior to acceptance. Include descriptive data and printed installation, operating, and maintenance instructions (including a parts list for each item of equipment). Provide a complete double index as follows:
1. List the products alphabetically by name.
 2. List alphabetically the names of manufacturers whose products have been incorporated in the Work, together with their addresses and the names and addresses of the local sales representative.
- M. Installation, Testing and Guarantee: Install all materials and equipment exactly in accordance with the manufacturer's recommendations. The completely installed system shall be guaranteed against any and all defects of manufacture, materials, workmanship, or installation for a minimum period of one year from the date of acceptance by the Owner.
- N. Operation and Maintenance of the Systems and Instruction to Owner: Where the specifications for equipment require that a factory service representative provide operation and maintenance instruction to the Owner for that equipment, this service shall be performed by prior arrangement with the Owner after and in addition to the manufacturer's instructions to the Contractor for installation and start-up. The individual performing the instructions to the Owner is to be trained and/or certified by the manufacturer as its authorized operation, maintenance, and service specialist. If the said specialist is not a regular, full-time employee of the manufacturer, the specialist's qualifications shall be



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submitted to the Owner for review and approval prior to scheduling the site visit for instructions to the Owner.

- O. Drawings of Record: Provide and keep up-to-date a complete record set of drawings, which shall be corrected daily to show every change. Keep this set of prints at the job site and use only as a record set. This shall not be construed as authorization for the Contractor to make changes in the approved layout without definite instructions in each case. Turn the set over to the Owner upon Final Completion of the project. Record drawings must be submitted to and approved by the Owner prior to acceptance of the project. Refer to Division 01 Section "Project Record Documents" for additional information.
- P. Preservation of Existing Vegetation: Take reasonable care during construction to avoid damage to vegetation. Where the area to be excavated is occupied by trees, brush, or other uncultivated vegetable growth, clear such growth from the area, and dispose of it in a manner satisfactory to the Owner. Leave undisturbed any trees, cultivated shrubs, flowers, etc., situated within public right-of-ways and/or easements through private property but not located directly within excavation limits. Take special precautions (including the provision of barricades and the temporary tying back of shrubbery and tree branches) for the protection and preservation of such objects throughout all stages of construction; the Contractor will be held liable for any damage that may result to said objects from excavation or construction operations. Refer to the COF Zoning Ordinance for Tree Protection Standards and Tree Removal Permit requirements.
- Q. Existing Utilities: The Contractor shall notify Tennessee One-Call and the owner of all other underground utilities no less than 3 business days or 72 hours in advance of excavation and/or proposed utility interruption. The Contractor is responsible for locating all existing utilities prior to construction and shall carefully protect from damage all utilities in the vicinity of the Work at all times. The Contractor shall be responsible for repairing any utilities that were properly located and marked. If it is necessary to repair, remove, and/or replace any such utility in order to complete the Work properly, do so in compliance with the rules, regulations, and approval of the particular utility involved.

Existing utilities shall remain in service at all times during construction. Contractor shall provide any temporary piping necessary to maintain utility service to existing customers.

- R. Contractor shall comply with the requirements of the Manual on Uniform Traffic Control Devices published by the U.S. Department of Transportation Federal Highway Administration in supplying adequate signage, flagging, personnel, etc. for the entire project. The Contractor shall be responsible for the placement and removal of all signage. Submit a traffic control plan to the authority having jurisdiction.
- S. The Contractor shall maintain an acceptable flow of traffic through construction areas. If a roadway must be closed in order to construct the Work, the Contractor shall notify, at a



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- minimum, the Franklin Police Emergency Communications, Williamson County Emergency Operations Center, City of Franklin Traffic Operations Center, local school superintendent(s), and local U.S. Postal Service office(s) at least two days prior to roadway closure. If lanes must be closed in order to construct the Work, the Contractor shall notify the City of Franklin Traffic Operations Center at least two days prior to lane closure.
- T. Work in Rights-of-Way:
1. The Contractor shall notify the authorities having jurisdiction prior to entering and working in rights-of-way and shall be responsible for all damages resulting from said Work and for satisfying the requirements of said authorities.
 2. The Contractor shall maintain a suitable and safe condition throughout the right-of-way affected by the Work and provide detours as necessary for public and private traffic.
 3. Materials excavated in rights-of-way shall be hauled to a disposal site immediately and shall not be stockpiled in right-of-way.
- U. Inspection of Work: The Contractor shall provide full access to the project site at all times for inspection and observation of Work by the Owner, Engineer, and agents of any local, state, or federal agency having jurisdiction.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 OPERATION OF EXISTING UTILITIES

- A. The Work shall be performed so as to cause minimum interference or interruption with the normal operation of the existing utilities. The Contractor shall plan and conduct construction sequencing operations to avoid disturbing existing utilities and equipment, except as may be provided or approved by the Owner.

END OF SECTION



PART 1 – GENERAL

1.1 INDUSTRY STANDARDS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web site addresses are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The) www.aluminum.org	(703) 358-2960
AASHTO	American Association of State Highway and Transportation Officials www.transportation.org	(202) 624-5800
ACI	ACI International (American Concrete Institute) www.aci-int.org	(248) 848-3700
ACPA	American Concrete Pipe Association www.concrete-pipe.org	(972) 506-7216
AGA	American Gas Association www.aga.org	(202) 824-7000
AI	Asphalt Institute www.asphaltinstitute.org	(859) 288-4960
AISC	American Institute of Steel Construction www.aisc.org	(800) 644-2400 (312) 670-2400
AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100
ANSI	American National Standards Institute www.ansi.org	(202) 293-8020
AOSA	Association of Official Seed Analysts www.aosaseed.com	(202) 870-2412
APA	Architectural Precast Association www.archprecast.org	(850) 205-5637
ASCE	American Society of Civil Engineers www.asce.org	(800) 548-2723 (703) 295-6300



REFERENCES
Section 01 4200

ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers www.ashrae.org	(800) 527-4723 (404) 636-8400
ASME	ASME International (The American Society of Mechanical Engineers International) www.asme.org	(800) 843-2763
ASSE	American Society of Sanitary Engineering www.asse-plumbing.org	(708) 995-3019
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832-9500
AWS	American Welding Society www.aws.org	(800) 443-9353
AWWA	American Water Works Association www.awwa.org	(800) 926-7337 (303) 794-7711
CDA	Copper Development Association Inc. www.copper.org	(800) 232-3282 (212) 251-7200
CGA	Compressed Gas Association www.cganet.com	(703) 788-2700
CLFMI	Chain Link Fence Manufacturers Institute www.chainlinkinfo.org	(301) 596-2583
CRSI	Concrete Reinforcing Steel Institute www.crsi.org	(847) 517-1200
CSI	Construction Specifications Institute (The) www.csiresources.org	(800) 689-2900 (703) 684-0300
EJCDC	Engineers Joint Contract Documents Committee www.ejcdc.org	(608) 798-0698
FCI	Fluid Controls Institute www.fluidcontrolsintstitute.org	(216) 241-7333
FMG	FM Global (Formerly: FM - Factory Mutual System) www.fmglobal.com	(401) 275-3000
FSA	Fluid Sealing Association www.fluidsealing.com	(610) 971-4850



REFERENCES
Section 01 4200

GSI	Geosynthetic Institute www.geosynthetic-institute.org	(610) 522-8440
HI	Hydraulic Institute www.pumps.org	(888) 786-7744 (973) 267-9700
IEEE	Institute of Electrical and Electronics Engineers, Inc. (The) www.ieee.org	(212) 419-7900
LPI	Lightning Protection Institute www.lightning.org	(800) 488-6864
MBMA	Metal Building Manufacturers Association www.mbma.com	(216) 241-7333
MSS	Manufacturers Standardization Society of The Valve and Fittings Industry Inc. www.mss-hq.com	(703) 281-6613
NACE	NACE International (National Association of Corrosion Engineers International) www.nace.org	(281) 228-6200
NCMA	National Concrete Masonry Association www.ncma.org	(703) 713-1900
NCPI	National Clay Pipe Institute www.ncpi.org	(262) 742-2904
NEMA	National Electrical Manufacturers Association www.nema.org	(703) 841-3200
NFPA	NFPA www.nfpa.org	(800) 344-3555 (617) 770-3000
NRMCA	National Ready Mixed Concrete Association www.nrmca.org	(888) 846-7622 (301) 587-1400
NSF	NSF International (National Sanitation Foundation International) www.nsf.org	(800) 673-6275 (734) 769-8010
NSSGA	National Stone, Sand & Gravel Association www.nssga.org	(800) 342-1415 (703) 525-8788
PPI	Plastic Pipe Institute www.plasticpipe.org	(469) 499-1044



REFERENCES
Section 01 4200

PCI	Precast/Prestressed Concrete Institute www.pci.org	(312) 786-0300
SAE	SAE International www.sae.org	(724) 776-4841 (877) 606-7323
SSPC	The Society for Protective Coatings www.sspc.org	(877) 281-7772 (412) 281-2331
STI	Steel Tank Institute www.steeltank.com	(847) 438-8265
SWRI	Sealant, Waterproofing, & Restoration Institute www.swrionline.org	(816) 472-7974
TMS	The Masonry Society www.masonrysociety.org	(303) 939-9700
UL	Underwriters Laboratories Inc. www.ul.com	(847) 272-8800
UNI	Uni-Bell PVC Pipe Association www.uni-bell.org	(972) 243-3902

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION



PART 1 – GENERAL

1.1 CLOSEOUT SUBMITTALS

- A. Record Drawings:
 - 1. Submit two paper copy sets of marked up record prints.
 - 2. Submit *.dwg, *.dgn and *.pdf electronic files.

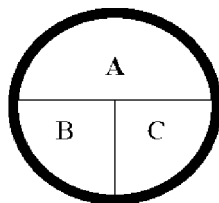
PART 2 – PRODUCTS

2.1 RECORD DRAWINGS

- A. Record drawings must be stamped and signed by licensed surveyor or engineer within the State of Tennessee.
- B. Record drawings shall be submitted after final grading of a Project has been completed, including but not limited to curb and gutter, roadway binder, storm drainage and utility installation.
- C. Record Prints: Maintain one set of marked-up paper copies of the drawings, incorporating new and revised drawings as modifications are issued.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Provide an inventory chart of all items.
 - a. Give particular attention to information on buried elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it.
 - c. Record and check the markup before enclosing concealed installations.
 - d. Cross-reference record prints to corresponding archive photographic documentation.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Include inventory of installed infrastructure:
 - 1. Length and type of pipe (include size, material, pressure class, etc.).
 - 2. Number of manholes (include depth, invert, etc.).
 - 3. Number of valves, hydrants, meters, valve sizes, manufacturer, material, right hand/left hand open/close, etc.
 - b. Dimensional changes to drawings.
 - c. Revisions to details shown on drawings.
 - d. Locations and depths of underground utilities.
 - e. Datum used.
 - f. Provide profile.
 - g. Details not on the original drawings.



- h. For Water Booster Stations, Sanitary sewer pump Stations and Water Storage Facilities:
 - 1. All revisions in pipe sizes
 - 2. All revisions to electrical controls
 - 3. All revisions to ventilation systems
 - 4. Pump modifications
 - 5. Include motor and pump info: manufacturer, model, serial #, HP, pump curve, etc.
 - 6. Changes in elevation for level controls
 - 7. Equipment layout modifications
 - 8. Building modifications
 - 9. Location and elevation of existing utilities
 - 10. Revisions to electrical circuitry and conduit (where applicable).
- i. For Sanitary sewer Lines:
 - 1. All revisions in pipe sizes, lengths, slopes and angles
 - 2. Mainline and lateral invert elevations (to the nearest hundredth)
 - 3. Manhole covers
 - 4. Flow lines
 - 5. Changes in offset distances of structures
 - 6. Location and elevation of existing utilities
- j. Property service connections for sanitary sewer laterals shall be shown as follows:



Whereas:

A = The horizontal distance from the center of the wye or tee to the center of the downstream manhole.

B = The horizontal distance from the center of the wye or tee to the end of the lateral.

C = The vertical distance from the top of the ground to the top of the lateral at the plug or property line.

- 3. Mark the drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
- 4. Mark important additional information that was either shown schematically or omitted from original drawings.



- D. Record Digital Data Files: Immediately or before releasing performance bond to maintenance, review marked-up record prints with Owner. Prepare a full set of corrected digital data files of the Contract Drawings, as follows:
 - 1. Format: *.dwg, *.dgn or *.pdf.
 - 2. Incorporate changes and additional information previously marked on record prints. Delete, redraw, and add details and notations where applicable.
 - 3. Refer instances of uncertainty to Owner for resolution.
- E. Format: Identify and date each record drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 - 1. Record Prints: Organize record prints and newly prepared record drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the drawings. Name each file with the sheet identification. Include identification in each digital data file.
 - 3. Identification: As follows:
 - a. Project name
 - b. Date
 - c. Designation "PROJECT RECORD DRAWINGS"
 - d. City of Franklin Project number

2.2 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as one paper-copy set and *.pdf electronic file.
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.
- C. To be submitted with the Record Drawings: Where water, reclaimed water or sanitary sewers are installed in new fill, a compaction letter sealed by a Geotechnical Engineer registered in the State of Tennessee shall be submitted to the Owner prior to installation of said utilities. An acceptable compaction letter shall state that field density testing indicates the fill has been compacted to at least 95% of the maximum dry density according to the Standard Proctor.



PART 3 – EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for reference during normal working hours.

END OF SECTION



PART 1 – GENERAL

1.1 APPLICATION

- A. Where cast-in-place concrete is allowed by the WMD the following section shall apply.

1.2 SUBMITTALS

- A. General: In addition to the following, comply with submittal requirements in ACI 301.
- B. Product Data: For each type of manufactured material and product indicated.
- C. Design Mixes: For each concrete mix.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed concrete work similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment.
- C. Source Limitations: Obtain each type of cement of the same brand from the same manufacturer's plant, each aggregate from one source, and each admixture from the same manufacturer.
- D. Comply with ACI 301, "Specification for Structural Concrete," including the following.
 - 1. General requirements, including submittals, quality assurance, acceptance of structure, and protection of in-place concrete.
 - 2. Formwork and form accessories.
 - 3. Steel reinforcement and supports.
 - 4. Concrete mixtures.
 - 5. Handling, placing, and constructing concrete.
 - 6. Lightweight concrete.



PART 2 – PRODUCTS

2.1 FORMWORK

- A. Furnish formwork and form accessories according to ACI 301.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- B. Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.

2.3 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I.
- B. Normal-Weight Aggregate: ASTM C 33, uniformly graded, not exceeding 1 1/2-inch (38 millimeters) nominal size.
- C. Lightweight Aggregate: ASTM C 330.
- D. Water: Potable and complying with ASTM C 94.

2.4 ADMIXTURES

- A. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cement and to be compatible with other admixtures. Do not use admixtures containing calcium chloride.
- B. Air-Entraining Admixture: ASTM C 260.

2.5 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz. /sq. yd. (305 g/sq. m) dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.



- D. Water: Potable.

2.6 CONCRETE MIXES

- A. Comply with ACI 301 requirements for concrete mixtures.
- B. Prepare design mixes, proportioned according to ACI 301, for normal-weight concrete determined by either laboratory trial mix or field test data bases, as follows:
1. Compressive Strength (28 Days): 4000 psi (27.6 MPa) vaults, water tank foundations.
 2. Compressive Strength (28 Days): 3500 psi (24.1 MPa) pump station slabs.
 3. Compressive Strength (28 Days): 3000 psi (20.7 MPa) concrete encasement, concrete caps, and concrete anchors for water lines. Slump: 4 inches (100 millimeters).
- C. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 2.5 to 4.5 percent.

2.7 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with ASTM C 94.
1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 – EXECUTION

3.1 FORMWORK

- A. Design, construct, erect, shore, brace, and maintain formwork according to ACI 301.

3.2 STEEL REINFORCEMENT

- A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.
1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.3 TESTING AND INSPECTION

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Locate and install so as not to impair strength or appearance of concrete,



at locations indicated or as approved by Owner.

- C. Isolation Joints: Install joint-filler strips at junctions with slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
 - 1. Extend joint fillers full width and depth of joint, terminating flush with finished concrete surface, unless otherwise indicated.
- D. Contraction (Control) Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:
 - 1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with groover tool to a radius of 1/8 inch (3 millimeters). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces.

3.4 CONCRETE PLACEMENT

- A. Comply with recommendations in ACI 304R for measuring, mixing, transporting, and placing concrete.
- B. Do not add water to concrete during delivery, at Project site, or during placement.
- C. Consolidate concrete with mechanical vibrating equipment.

3.5 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defective areas repaired and patched, and fins and other projections exceeding 1/4 inch (6 millimeters) in height rubbed down or chipped off.
 - 1. Apply to concrete surfaces not exposed to public view.
- B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defective areas. Completely remove fins and other projections.
 - 1. Apply to concrete surfaces exposed to public view or to be covered with a coating or covering material applied directly to concrete, such as waterproofing, damp proofing, veneer plaster, or painting.
 - 2. Apply the following rubbed finish, defined in ACI 301, to smooth-formed finished concrete.
 - a. Grout-cleaned finish (for tank foundations).



- C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.6 FINISHING UNFORMED SURFACES

- A. General: Comply with ACI 302.1R for screening, restraighening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or derbies to form a uniform and open-textured surface plane before excess moisture or bleed water appears on the surface.
 - 1. Do not further disturb surfaces before starting finishing operations.
- C. Float Finish: Apply float finish to surfaces of slabs that are to be beneath prefabricated pumping stations.

3.7 TOLERANCES

- A. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

3.8 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and follow recommendations in ACI 305R for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screening, and bull floating or darbying concrete, but before float finishing.
- C. Begin curing after finishing concrete, but not before free water has disappeared from concrete surface.
- D. Curing Methods: Cure formed and unformed concrete for at least seven days by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
 - 1. Moisture Curing: Keep surfaces continuously moist for no less than seven days.
 - 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least



12 inches (300 millimeters), and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.9 FIELD QUALITY CONTROL

- A. Testing Agency: Engage a qualified independent testing and inspecting agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified in this Section. Perform tests according to ACI 301.
 1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. (76 cu. m) or fraction thereof of each concrete mix placed each day.
 2. Testing not required on concrete for utility line anchors or encasement.

3.10 REPAIRS

- A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION



PART 1 – GENERAL

1.1 DEFINITIONS

- A. Backfill: Materials used to fill an excavation.
 - 1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
 - 2. Final Backfill: Backfill placed over initial backfill to fill a trench.
- B. Base Course: Layer placed between the subbase course and asphalt paving.
- C. Bedding Course: Layer placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow: Satisfactory soil as defined in Section 2.1A, approved by the Engineer and imported from off-site for use as fill or backfill.
- E. Excavation: Removal of material encountered above subgrade elevations.
- F. Fill: Materials used to raise existing grades.
- G. Rock: Rock material in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material $\frac{3}{4}$ yd³ (0.57 m³) or more in volume that cannot be removed by an excavator.
- H. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- I. Subbase Course: Layer placed between the subgrade and base course for asphalt paving, or layer placed between the subgrade and a concrete pavement or walk.
- J. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

1.2 SUBMITTALS

- A. Blasting plan approved by authorities having jurisdiction, for record purposes.

1.3 QUALITY ASSURANCE

- A. Comply with applicable requirements of NFPA 495, "Explosive Materials Code."



- B. Comply with the "Underground Utilities Damage Prevention Act" (TCA Section 65-31-101, et.seq., as amended).

1.4 EXISTING UTILITIES

- A. Utilities include above ground and underground pipes, conduits, ducts, and cables.
- B. Existing Utilities: Do not interrupt utilities unless permitted in writing by the utility provider and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify the utility provider not less than 72 hours in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without the utility provider's written permission.
 - 3. Contact utility-locator service for area where Project is located before excavating.

PART 2 – PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory Soils: ASTM D 2487 soil classification groups GW, GP, GM, SW, SP, and SM, or a combination of these group symbols; free of rock or gravel larger than 3 inches (75 millimeters) in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- B. Unsatisfactory Soils: ASTM D 2487 soil classification groups GC, SC, ML, MH, CL, CH, OL, OH, and PT, or a combination of these group symbols.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- C. Backfill and Fill: Backfill material for new water lines shall be satisfactory, sifted soil; if none available, must haul from offsite. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
- D. Subbase: Naturally or artificially graded mixture of natural or crushed gravel and crushed stone; ASTM D 2940; with at least 90 percent passing a 1 1/2-inch (38 millimeter) sieve and not more than 12 percent passing a No. 200 (0.075 millimeter) sieve.
- E. Base: Naturally or artificially graded mixture of natural or crushed gravel and crushed stone; ASTM D 2940; with at least 95 percent passing a 1 1/2-inch (38 millimeter) sieve and not more than 8 percent passing a No. 200 (0.075 millimeter) sieve.



- F. Bedding: Class B, Natural sandy soil, all of which passes a 3/8-inch (9.5 millimeter) sieve and not more than 10% passes a No. 200 (0.075 millimeter) sieve.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.
- C. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways per the Stormwater Management Ordinance.

3.2 DEWATERING

- A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.
- B. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.
 - 1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.
 - 2. Install a dewatering system to keep subgrades dry and convey ground water away from excavations. Maintain until dewatering is no longer required.
 - 3. Meet the requirements of the Tennessee Department of Environment and Conservation (TDEC) and the City of Franklin Stormwater Management Ordinance for stormwater discharge from construction-related activities.

3.3 EXPLOSIVES

- A. Explosives: Obtain written permission and required permits from authorities having jurisdiction before bringing explosives to Project site or using explosives on Project site.
 - 1. Do not damage adjacent structures, property, or site improvements or weaken the bearing capacity of rock subgrade when using explosives.



3.4 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 millimeters). Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.

3.5 EXCAVATION FOR UTILITY TRENCHES

- A. Prior to installation of utility the site shall be within 1 foot of final subgrade elevation along the utility alignment. A grade cut sheet indicating proposed final grade, proposed subgrade, and actual grade elevations shall be submitted and sealed by Engineer or Surveyor.
- B. Excavate trenches to indicated gradients, lines, depths, and elevations.
- C. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Trench walls shall be vertical from trench bottom to 12 inches (300 millimeters) higher than top of pipe or conduit, unless otherwise indicated.
 - 1. Clearance: See Detail titled Bedding and Backfilling for Pressure Lines.
- D. Trench Bottoms: In soil excavate trenches to required elevation. Hand excavate for bell of pipe.
 - 1. Excavate trenches 6 inches (150 millimeters) deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

3.6 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow materials and satisfactory excavated soil materials. Comply with the City of Franklin Stormwater Management Ordinance requirements for stockpiles.
 - 1. Use proper erosion control measures. Temporarily seed if left undisturbed for fifteen (15) days.
 - 2. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
 - 3. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.7 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
 - 1. Surveying locations of underground utilities for record documents.
 - 2. Inspecting underground utilities.



3. Removing concrete formwork.
 4. Removing trash and debris.
 5. Removing temporary shoring and bracing, and sheeting.
- B. Crushed Stone Refill
1. This item shall include furnishing, placing and installing refill at the locations as directed by the Engineer during construction. This shall also include the removing and disposing of all unsuitable unclassified material necessary to establish satisfactory foundations and install refill.
 2. Work to be performed shall include all work necessary for the furnishing and replacing of refill. Crushed Stone refill furnished shall be as specified in Article 2.1 of this Section or other size approved by Engineer.

3.8 UTILITY TRENCH BACKFILL

- A. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- B. Provide a complete stone backfill for piping within driveways, roadways, and parking areas. If in roadway or paved area, backfill entire trench with No. 67 stone to a height 12 inches below road surface. Final 12 inches shall be filled with compacted road base stone.
1. Backfill within TDOT right-of-way shall be in accordance with TDOT requirements.
- C. Place and compact initial backfill of material, free of particles larger than 2 inches (51 millimeters), to a height of 12 inches (300 millimeters) over the utility pipe.
1. Carefully compact material under pipe haunches and bring backfill evenly up on both sides and along the full length of utility piping to avoid damage or displacement of utility system.
- D. Coordinate backfilling with utilities testing.
- E. Fill voids with approved backfill materials while shoring and bracing, and as sheeting is removed. Maximum dimension of individual rock in backfill from 12 inches above pipe to top of ground shall not exceed 6 inches.
- F. Place and compact final backfill of satisfactory soil material to final subgrade.



- G. Whenever excavation has been made within easements on private property, the top one (1) inch of backfill material shall be topsoil material consisting of fine, loose earth, free from large clods, vegetable matter, debris, stone, or other objectionable material.

Whenever existing asphalt is removed, restore traffic over the disturbed area as quickly as possible by backfilling with at least 12 inches of compacted Class A, Grade D crushed stone to within 2 inches of the existing surface and then applying a 2 inch layer of cold mix. Add material and otherwise maintain such surface until the permanent pavement is restored by the Contractor or until acceptance by the Owner.

3.9 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.
1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
 2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.10 COMPACTION OF BACKFILLS AND FILLS

- A. Place backfill and fill materials in layers not more than 8 inches (200 millimeters) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 millimeters) in loose depth for material compacted by hand-operated tampers.
- B. Compact soil to not less than the following percentages of 95 percent density according to ASTM D 698:
1. Under pavements, compact each layer of backfill or fill material at 95 percent.
 2. Under walkways, scarify and recompact top 6 inches (150 millimeters) below subgrade and compact each layer of backfill or fill material at 92 percent.
 3. Under lawn or unpaved areas, scarify and recompact top 6 inches (150 millimeters) below subgrade and compact each layer of backfill or fill material at 85 percent.
 4. For gravel backfill, vibratory compaction is required.

3.11 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
1. Provide a smooth transition between adjacent existing grades and new grades.



2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

3.12 SUBBASE AND BASE COURSES

- A. Under pavements and walks, place subbase course on prepared subgrade and as follows:
 1. Place base course material over subbase.
 2. Compact subbase and base courses at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.
 3. For gravel backfill, vibratory compaction is required.
 4. Shape subbase and base to required crown elevations and cross-slope grades.
 5. When thickness of compacted subbase or base course is 6 inches (150 millimeters) or less, place materials in a single layer.
 6. When thickness of compacted subbase or base course exceeds 6 inches (150 millimeters), place materials in equal layers, with no layer more than 6 inches (150 millimeters) thick or less than 3 inches (75 millimeters) thick when compacted.

3.13 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing. Contractor to pay for testing services. One copy of the test reports shall be sent to the Owner.
- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work comply with requirements.
- C. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 1. Trench Backfill: At each compacted initial and final backfill layer, at least one test for each 150 feet (46 meters) or less of trench length, but no fewer than two tests.
- D. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.



3.14 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by Owner; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

3.15 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Promptly remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris from site unless written permission from property owner allows otherwise.
- B. Obtain permission from applicable regulatory agency for disposal of debris to waste disposal site.

END OF SECTION



PART 1 – GENERAL

1.1 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control ground-water flow into excavations and permit construction to proceed on dry, stable subgrades.

1.2 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with water disposal requirements of authorities having jurisdiction.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations.
 - 1. Prevent surface water and subsurface or ground water from entering excavations, from ponding on prepared subgrades, and from flooding site and surrounding area.
 - 2. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

3.2 INSTALLATION

- A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
- B. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until structures such as drains and sewers have been constructed and fill materials have been placed, or until dewatering is no longer required.
- C. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient



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dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.

- D. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
- E. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.
- F. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water in a manner that avoids inconvenience to others. Provide sumps, sedimentation tanks, and other flow- control devices as required by authorities having jurisdiction.
- G. Provide standby equipment on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to Owner.
 - 1. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches (900 millimeters) below overlying construction.
- H. Damages: Promptly repair damages to adjacent facilities caused by dewatering operations.

END OF SECTION



EXCAVATION SUPPORT AND PROTECTION Section 31 5000

PART 1 – GENERAL

1.1 PERFORMANCE REQUIREMENTS

- A. Design, furnish, install, monitor, and maintain excavation support and protection system in compliance with current OSHA standards that are capable of: supporting excavation sidewalls, resisting soil and hydrostatic pressure, and supporting superimposed and construction loads.
 - 1. Provide professional engineering services to assume engineering responsibility, including preparation of Shop Drawings and a comprehensive engineering analysis by a qualified professional engineer.

1.2 SUBMITTALS

- A. Shop Drawings for Information: Prepared by or under the supervision of a qualified professional engineer for excavation support and protection systems.

1.3 PROJECT CONDITIONS

- A. Survey adjacent structures and improvements within 50 feet of project limits, employing a qualified professional engineer or land surveyor; establish exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
 - 1. During installation of excavation support and protection systems, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations and positions for comparison with original elevations and positions. Promptly notify Owner if changes in elevations or positions occur or if cracks, sags, or other damage is evident in adjacent construction.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards that could develop during excavation support and protection system operations.



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- B. Install excavation support and protection systems to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
- C. Monitor excavation support and protection systems daily during excavation progress and for as long as excavation remains open. Promptly correct bulges, breakage, or other evidence of movement to ensure that excavation support and protection systems remain stable.
- D. Promptly repair damages to adjacent facilities caused by installing excavation support and protection systems.

3.2 REMOVAL AND REPAIRS

- A. Remove excavation support and protection systems when construction has progressed sufficiently to support excavation and bear soil and hydrostatic pressures. Remove in stages to avoid disturbing underlying soils or damaging structures, pavements, facilities, and utilities.

END OF SECTION



PART 1 – GENERAL

1.1 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Shop Drawings: Show locations, components, materials, dimensions, sizes, weights, finishes of components, installation and operational clearances, gate swings, and details of post anchorage and attachment and bracing.

1.2 QUALITY ASSURANCE

- A. Fencing and all accessories shall be produced by a single manufacturer.

1.3 DELIVERY, STORAGE, AND HANDLING

- A. Each length of fabric shall be tightly rolled and firmly tied.
- B. Each shipment of fabric shall be identified as to the material, color (as applicable), mesh size, height and length of fabric in each roll, ASTM designation, and name or mark of the manufacturer.
- C. Store materials in a clean, dry area.
- D. Handle materials in accordance with the manufacturer's instructions.

PART 2 – PRODUCTS

2.1 CHAIN LINK FENCE FABRIC

- A. The fabric shall consist of one-piece fabric widths for fences up to 8'-0" in height.
- B. Steel Chain-Link Fence Fabric: Comply with Chain Link Fence Manufacturers Institute's "Product Manual."
 - 1. Diamond Mesh and Wire Size: 2-inch (50 millimeters) mesh, 0.192-inch (4.88 millimeters) diameter (6 gage).
 - 2. Zinc-Coated Fabric: ASTM A 392, with zinc coating applied to steel wire mesh fabric after weaving with Class 1, 1.2-oz./sq. ft. (366-g/sq. m) minimum coating weight.
- C. Fabric Selvage: Twisted at top selvage and knuckled at bottom.



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- D. Fabric Height: 8 feet.

2.2 HEAVY DUTY FENCE FRAMING

- A. Round Steel Pipe: Standard weight, Schedule 40, galvanized steel pipe complying with ASTM F 1083. ASTM F 1043, Material Design Group IA, external and internal coating Type A, consisting of not less than 1.8-oz./sq. ft. (0.55-kg/sq. m) zinc; and line, end, corner, and pull posts and rails and braces as required for heavy duty fence.
- B. Rails and Braces: Top, Intermediate, and Bottom Rails shall be not less than 18 feet in length with swaged end or fitted with couplings for connecting the lengths into a continuous run. Couplings shall allow for expansion and contraction, be not less than 6 inches long, and have minimum wall thickness of 0.070 inches. Open seam outside sleeves shall be permitted only with a minimum wall thickness of 0.100 inches.
1. Post Brace Rails: Provide brace rail with truss rod assembly for each gate, end, and pull post. Provide two brace rails extending in opposing directions, each with truss rod assembly, for each corner post and for pull posts. Provide rail ends and clamps for attaching rails to posts.
 2. Means shall be provided for attaching rails to each gate, corner, pull, and end post.
 3. Tension wire is required at top of fence if top rail is omitted.
- C. Barbed Wire Supporting Arms: Shall be at an angle of approximately 45 degrees or vertical, as required, and shall be fitted with clips or other means for attaching 3 strands of barbed wire. With 45 degree arms, the top wire shall be approximately 12 inches horizontally from the fence line and the other wires spaced uniformly between the top of the fence fabric and the outside strand. Arms shall be capable of supporting a weight of 250 pounds applied at the outer strand of barbed wire.
- D. Barbed Wire: Commercial quality steel, 12-1/2 gage line wire, two strand twisted line wire with 4 point, 14 gage barbs at 5 inch spacing. Coating shall consist of a minimum of 0.80 ounces of zinc per square foot of wire surface conforming to ASTM A121 or a minimum of 0.30 ounces of aluminum per square foot of wire surface conforming to ASTM A585.
- E. Components Dimensions and Weights:
1. Pipe Weight:

Nominal Pipe O.D.	Pipe Weight (lbs/ft)
	Group IA
1-5/8 inch	2.27
2 inches	2.72
2-1/2 inch	3.65



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3 inches	5.79
3-1/2 inch	7.58
4 inches	9.11

2. Fence Post Size:

	Group IA	
Fabric Height	Line Post Nominal O.D.	Terminal Post Nominal
3 to 5 feet	2 inches	2-1/2 inches
6 to 8 feet	2-1/2 inches	3 inches
10 to 12 feet	3 inches	4 inches

3. Gate Post:

Group IA and IC Post O.D.	Single Gate Width	Double Gate Width
3 inches	Up to 6 feet	Up to 12 feet
4 inches	7 feet to 12 feet	13 feet to 25 feet

2.3 TIES AND CLIPS

- A. Ties and/or clips of adequate strength shall be provided for attaching the fence fabric securely to all line posts at intervals not exceeding 15 inches; and not exceeding 24 inches when attaching fabric to rails or tension wire.
1. Stretcher Bar Bands: Heavy pressed steel spaced not over 15 inches on center to secure stretcher bars to tubular end, corner pull, and gate post.
 2. Wire Ties: For tying fabric to line posts, use 11 gauge steel wire clips for C-section posts and a minimum 9 gauge aluminum wire ties for tubular posts, spaced 14 inches on center. For tying fabric to rails and braces, use 9 gauge aluminum wire ties spaced 24 inches on center. For tying fabric to tension wire, use 11 gauge hog rings spaced 24 inches on center.

2.4 TENSION BARS

- A. Not less than 3/16 inch by 3/4 inch and not less than 2 inches shorter than the normal height of the fence fabric with which they are to be used. One tension bar shall be provided for each end and gate post, and two for each corner and pull post.

2.5 TERMINAL POST BANDS OR CLIPS

- A. Provided for attaching the fence fabric and stretcher bars to all terminal posts at intervals not exceeding 15 inches.



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1. Galvanized steel or aluminum alloy per ASTM F-626.
2. Formed From Flat or Beveled Steel:
 - a. Minimum thickness of 0.078 inch after galvanizing and minimum width of 3/4 inch for 4 inch O.D. or less posts.
 - b. Minimum thickness of 0.108 inch after galvanizing and minimum width of 7/8 inch for posts larger than 4 inches O.D.
3. Attachment bolts shall be 5/16 inch galvanized carriage bolts.

2.6 TENSION WIRE AND FITTINGS

- A. Metallic-Coated Steel Tension Wire: 7 gage, 0.177-inch-(4.5-mm-) diameter, Marcellled tension wire complying with ASTM A824. Coating shall conform to ASTM A824 Type I, aluminum coated, 0.40 oz/ft² or Type II zinc coated Class 2, 1.20 oz/ft².
- B. Fittings: Provide fittings for a complete fence installation, including special fittings for corners. Comply with ASTM F 626.

2.7 POST TOPS

- A. Post Tops: Pressed steel or malleable iron (designed as a weather tight closure cap for tubular posts). Where top rail is used, provide tops to permit the passage of the top rail.

2.8 GATES

- A. Swing gates shall conform to ASTM F900.
 1. Materials: The base materials of the gate frame shall be round tubular members welded at all corners or assembled with corner fittings. Gates assembled with corner fittings shall have adjustable truss rods 5/16 inch minimum diameter on panels 5 feet wide or wider. Truss rods shall be the same base metal and finish as the gate frames.
 - a. The interior bracing, when needed shall be the same metal and shape tubular material and finish as the gate frame, but need not be the same size. Gates leaves shall have vertical interior bracing at maximum intervals of 8 feet and shall have a horizontal interior member if the fabric height is 8 feet or more.
 - b. Zinc-coated steel frames shall be in accordance with ASTM Specifications F1043 or F1083, or a combination thereof, and shall match that selected for any adjoining fence framework. Welded joints shall be coated in accordance with Practice A780, employing a zinc-rich paint.
 - c. Gate fabric shall be the same type as used in fence construction. The fabric shall be attached securely to the gate frame at intervals not exceeding 15 inches.



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- d. Barbed Wire Top: The end members of the gate frame shall be extended 1 foot in height to accommodate three strands of barbed wire. Clips necessary for securing wire shall be provided.
2. Dimensions, Mass, and Permissible Variations:
 - a. Size of the gate opening shall be measured from the inside face to inside face of gate posts.
 - b. Gate frame shall be designed for the width and built so that the outer members shall not sag in excess of the lesser of 1 percent of the gate leaf width or 2 inches.
3. Gate Accessories: All gate accessories shall be of the materials as specified for the fence.
 - a. Gate Hinges: Hinges shall be structurally capable of supporting the gate leaf and allow the gate to open and close without binding. The hinges shall be so designed to permit the gate to swing a full 180 degrees.
 - b. Single Gate Latch: Gate latch shall be capable of retaining the gate in a closed position and shall have provision for a padlock.
 - c. Double Gate Latch: Gate latch shall be a drop rod or plunger bar arranged to engage the gate stop. Locking devices shall be constructed so that the center drop rod or plunger bar cannot be raised when the gate is locked. The latching devices shall have provision for a padlock.
 - d. Gate Stops: Gate stops shall be provided for all double gates.
 - e. Keepers shall be provided for each gate leaf over 5 feet.
 - f. Gates 5 feet and under shall have a self-closing mechanism.

2.9 CAST-IN-PLACE CONCRETE

- A. General: Comply with ACI 301 for cast-in-place concrete; materials consisting of portland cement complying with ASTM C 150, aggregates complying with ASTM C 33, and potable water.
 1. Concrete Mixes: Normal-weight concrete air entrained with not less than 3000-psi (20.7-MPa) compressive strength (28 days), 3-inch(75-mm) slump, and 1-inch (25- mm) maximum size aggregate.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. General: Install chain-link fencing to comply with ASTM F 567 and more stringent requirements indicated. Do not begin installation before final grading is completed, unless otherwise permitted by the Owner. Install all fencing to the limits shown on the drawings.
- B. Post Excavation: Drill or hand-excavate holes for posts to diameters, depths, and spacings indicated, in firm, undisturbed or compacted soil.



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- C. Post Setting:
 - 1. Concrete Footings: Place concrete around posts and vibrate or tamp for consolidation. Trowel smooth the top of each footing at a 20 degrees angle from the post to the surrounding ground to shed water away from the post. The post shall extend to the full depth of the footing. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during placement and finishing operations until concrete is sufficiently cured. Set the following post types in concrete footings and protect portion of posts aboveground from concrete splatter:
 - a. Terminal.
 - b. Line.
 - c. Gate.
 - 2. Set all posts with a vertical tolerance of less than 1 inches in 10 feet as measured with a plumb bob.
- D. Terminal Posts: Locate terminal end, corner, and gate posts per ASTM F 567 and terminal pull posts at changes in horizontal or vertical alignment greater than 20 degrees.
 - 1. Only one end or corner post shall be installed at the junction of different heights of fence and shall be consistent with the largest post required at the junction.
- E. Line Posts: Space line posts uniformly at 10 feet (3.05 meters) on center.
- F. Intermediate Rails: Install in one piece at post-height center span, spanning between posts, using fittings, special offset fittings, and accessories.
- G. Top Rails: Install, spanning between posts, using fittings and accessories.
- H. All fences shall have a bottom tension wire attached to the fabric and posts.
- I. Chain-Link Fabric: Apply fabric to outside of enclosing framework.
- J. Tie Wires: Attach wire to chain-link fabric per ASTM F 626. Tie fabric to line posts at maximum interval of 12 inches (304 mm) o.c. and to braces at maximum interval of 24 inches (609 mm) o.c.
- K. Assemble gate frames by welding or fittings and rivets for rigid connections. Install fabric with stretcher bars at vertical edges, and tie at top and bottom edges. Attach stretcher bars to gate frame at not more than 15 inches on center. Attach hardware with rivets or by other means that will provide security against removal or breakage.



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- L. Gate Installation: Install gates level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust gate to operate smoothly, easily, and quietly throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.
- M. All corner, terminal and gate posts for fence 6 feet and higher shall have a mid-rail and 3/8 round adjustable truss rod to the next post.

END OF SECTION



PART 1 – GENERAL

1.1 SUMMARY

- A. This work shall be performed in all disturbed areas not receiving such site improvements as buildings, roads, walks, sod, planting, etc., and shall include, but not necessarily be limited to, all seed bed preparation; the supplying and placing of soil additives, seed, and mulch wherever directed by the Owner; and maintenance.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Grass Seed: Contractor's blend (including Kentucky 31 Fescue and annual rye) furnished in new bags or bags that are sound and not mended; no "below standard" seed accepted.
- B. Fertilizer: Commercially manufactured; Grade 10-10-10; furnished in standard containers that are clearly marked with the name, weight, and guaranteed analysis of the contents and that ensure proper protection in transportation and handling; and in compliance with all local, state, and federal fertilizer laws.
- C. Agricultural Limestone: Containing a minimum of 85 percent calcium carbonate and magnesium carbonate combined, 85 percent of which passes a No. 10 mesh sieve.
- D. Mulch: Stalks of rye, oats, wheat, or other approved grain crops properly cured prior to baling, air dried, and reasonably free of noxious weeds and weed seeds or other material detrimental to plant growth.

PART 3 – EXECUTION

3.1 SEEDING

- A. Perform all seeding and related work as a continuous operation. Sow seed as soon as the seed bed has been prepared and perform subsequent work in a continuous manner.
- B. Before beginning seeding operations in any area, complete the placing of topsoil and final grading, and have the work approved by the Owner.
- C. Scarify, disk, harrow, rake, or otherwise work each area to be seeded until the soil has been loosened and pulverized to a depth of not less than 2 inches. Perform this work only when the soil is in a tillable and workable condition.



- D. Apply fertilizer and agricultural limestone uniformly over the seed bed, and lightly harrow, rake, or otherwise incorporate them into the soil for a depth of approximately 1 inch at the following rates:
 - 1. Fertilizer: 40 pounds per 1,000 square feet
 - 2. Agricultural Limestone: 80 pounds per 1,000 square feet
- E. Sow seed uniformly with a rotary seeder, wheelbarrow seeder, or hydraulic equipment or by other satisfactory means.
- F. The seeding rate shall be 5 pounds per 1,000 square feet for Kentucky 31 Fescue (*Festuca Elatior*).
- G. Perform no seeding during windy weather or when the ground surface is frozen, wet, or otherwise un-tillable.
- H. When seeding with mulch is specified, spread the mulch material evenly over the seeded areas immediately following the seeding operation.
- I. Mulch Rate: 2 bales (100 pound minimum) per 1,000 square feet, depth = 2 inches min.
- J. The mulch rate may be varied by the Owner, depending on the texture and condition of the mulch material and the characteristics of the area seeded. Cover all portions of the seeded areas with a uniform layer of mulch so that approximately 25 percent of the ground is visible.
- K. Mulch shall be anchored by a tackifier or crimping.
- L. No equipment, material storage, construction traffic, etc., will be permitted on newly seeded ground.
- M. Dispose of all surplus materials as directed by the Owner.

3.2 INSPECTIONS

- A. The Owner shall inspect the seeding within 14 days after planting and determine if the seeds are germinating and 60 days to determine if the coverage is acceptable.

3.3 HIGH-VELOCITY CLEANING

- A. Secure an acceptable growth of grass in all areas designated for seeding.



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- B. An area is considered acceptable if it is represented by a minimum of 100 seedlings per square foot of the permanent species of grass representative of the seed mixture. If an acceptable growth is not obtained on the first planting, reseeding and re-mulching will be required.
- C. If the planting is less than 50 percent successful, rework the ground, re-fertilize, reseed and re- mulch.

END OF SECTION



GENERAL DESIGN REQUIREMENTS

Section 33 0000

PART 1 – GENERAL

1.1 EASEMENTS

- A. Water, Wastewater and/or Reclaimed Water Mains: When required, permanent exclusive easements must be provided with a minimum width of 20 feet. Easement width requirements are as follow:
1. 0'-12' depth requires 20' easement.
 2. 13'-20' depth requires 30' easement.
 3. Depths greater than 20' require wider easements; these widths to be approved by the WMD.

A minimum 10-foot wide temporary construction easement on each side of the permanent easement must also be provided. No trees shall be planted within the permanent easements. No permanent structures shall be constructed within the permanent easement. Structures immediately adjacent to proposed or existing easements must be designed and signed by a licensed structural Engineer.

- B. Easements for water, wastewater and/or reclaimed water line extensions may be provided in either of two ways.
1. Easement Document on forms provided by the City of Franklin Engineering Department, which must include legal description of the easement(s), legal Owners name, map and parcel, and must be signed by the Owner; and then notarized and recorded.
 2. Record with Subdivision Plat - If this method of recording easements is chosen, a preliminary plat of the subdivision must be provided at the time of plans submittal, which clearly defines the easements to be recorded.
- C. All easements for work on property not owned by the Developer or Owner must be obtained and recorded before construction can begin. In new subdivisions, the letter of intent and preliminary plat showing the easements will be sufficient to start construction. However, the Final Plat must be recorded and delivered prior to final inspection of the new facilities by the WMD.
- D. For developments which require either a water booster station or a sanitary sewer pump station, a parcel of land shall be deeded to the City of Franklin. Plats with descriptions and deeds shall be provided for all pumping stations and access roads to pumping stations.

1.2 ABANDONING UNACCEPTED INFRASTRUTURE

- A. In the event that water, wastewater or reclaimed water infrastructure is constructed but is never accepted by the WMD for a period of twelve (12) months or more, the infrastructure shall be considered abandoned and require re-televising, re-testing, development of a



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punchlist of any deficiencies and correction of all deficiencies prior to final acceptance, release of performance bonds and allowing any service connections.

END OF SECTION



TRENCHLESS INSTALLATION OF UTILITIES
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PART 1 – GENERAL

1.1 DEFINITIONS

A. Methods of trenchless installation:

1. Bore and Jack (auger boring): A trenchless method that utilizes a rotating cutting head and augers to excavate material along a predetermined alignment. The excavation, generally 6 inches ahead of the casing pipe being jacked simultaneously, occurs by an auger placed within the encasement. The spoil material is removed through the open end of the casing pipe. Pipe diameter range: 12 inches through 48 inches; maximum distance: 300 feet.
2. Directional Drilling: A trenchless method that consists of a multi-stage process to excavate and install a pipeline. A pilot bore is drilled along the predetermined alignment. Drilling fluid is usually injected to minimize friction and prevent collapse of the bore hole. Typically, a radio signal from a transmitter located in the drill bit head indicates depth and alignment. The initial pilot bore can be adjusted by means of hydraulics until it reaches the termination point. The pilot bore is then replaced by a reaming device and pulled back through the initial bore alignment. The pipe material is attached to the reaming device and is pulled into the ground during the back reaming process. Pipe diameter range: 4 inches through 72 inches; maximum distance: 2,000 feet.
3. Microtunneling: A trenchless method similar to the bore and jack method with the exception that it is remotely controlled. The guidance system provides control of the steering head. Stability to the excavation face is provided by applying mechanical or fluid pressure to counterbalance earth and hydrostatic pressures. Pipe diameter range: 12 inches through 180 inches; maximum distance: unlimited.
4. Pipe Ramming: A trenchless method using a pneumatic ramming tool to push a casing pipe through subsurface material, usually soil. The process effectively swallows the subsurface material into the interior of an open-ended casing pipe and is later removed by pneumatic or auger means. Pipe diameter range: 4 inches through 80 inches; maximum distance: 200 feet.
5. Tunneling: A trenchless method requiring hand mining or drilling equipment, such as a tunnel boring machine (TBM), to excavate a predetermined alignment. Liner plates are installed as support for the open area. Tunnel diameter range: 48 inches through 192 inches, maximum distance: unlimited.
6. Pipe Bursting: A trenchless method used to replace and upsize existing utilities. The method requires that the utility be temporarily abandoned to conduct work. A cutting



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head is pulled through the existing pipeline effectively displacing the fragments of the pipeline into the surrounding soil while simultaneously pulling a new pipeline into place behind it. Pipe diameter range: 4 inches through 54 inches, maximum distance: pressure pipe – fitting to fitting, gravity pipe – structure to structure.

- B. Carrier Pipe: utility pipe in excess of 2 inch in diameter.
- C. Service Pipes: utility pipe ranging in diameter from ¾-inch to 2 inches.

1.3 SUBMITTALS

- A. Product Data:
 - 1. Carrier pipe
 - 2. Casing pipe
 - 3. Casing spacers
 - 4. End seals
 - 5. Liner plates
 - 6. Tunnel liner grout
 - 7. Casing and tunnel pipe filler material
 - 8. Backfill for abandoned casings and tunnels
 - 9. Utility identification sign
- B. The Contractor shall prepare a schedule for the Work and submit it to the Owner for approval. The schedule shall include all major tasks to be performed including the following:
 - 1. Equipment mobilization and setup
 - 2. Pipe assembly
 - 3. Pilot hole drilling (directional drilling)
 - 4. Pre-reaming (directional drilling)
 - 5. Pre-testing and pigging pipe before installation
 - 6. Pipe pulling (directional drilling)
 - 7. Testing and pigging pipe after reinstallation
 - 8. Restoration and demobilization

1.4 QUALITY ASSURANCE

- A. The Contractor shall have a representative who is thoroughly knowledgeable of the equipment, boring, and jurisdictional Agency procedures present at the job site during the entire installation and available to address immediate concerns and emergency operations.
- B. Provide a record of the advancement of the casing or carrier pipe. The log shall indicate the distance traveled and depth below existing grade over the entire length at 5-foot intervals.



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- C. Conduct survey of finished work to ensure alignment of casing or carrier pipe is within specified tolerances.
- D. Provide compaction testing of backfills and embankment, if required, as part of the field quality control for the carrier pipe being constructed. Assure that at least one compaction test site occurs at each pit.
- E. Do not remove failed casing, liner plate, or carrier pipe from bore or tunnel alignment. Upon unsuccessful installation of casing or carrier pipe, backfill pipe or tunnel per the requirements of Part 2.
- F. Provide three copies of complete record drawings for each utility pipeline crossing. Drawings shall include plan view and profile view.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver pipe, casing, and accessories to jobsite in accordance with manufacturer's recommendations.
- B. Accessory items shall be in manufacturer's original, unopened packaging. Store and protect materials in accordance with manufacturer's recommendations.

PART 2 – PRODUCTS

2.1 CARRIER PIPE

- A. The carrier pipe within the casing pipe shall be restrained joint and used to convey water, sewage, or other medium.
- B. Refer to Division 33 Section Sanitary Sewer (Gravity) and Sewage Force Main for acceptable materials. Refer to project Drawings for material type and identification.

2.2 SERVICE PIPE

- A. The service pipe within the casing pipe shall be used to convey water, sewage, or other medium.
- B. Refer to Division 33 Section "Sanitary Sewer (Gravity)" for service pipe materials. Refer to the Drawings for material type identification.



TRENCHLESS INSTALLATION OF UTILITIES
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2.3 CASING PIPE FOR UTILITY PIPELINES

- A. The casing pipe or encasement shall be used for structural integrity of the installation and protection of the carrier pipe. In all instances the casing pipe shall have a minimum nominal diameter 4 inches larger than the greatest outside diameter of the carrier pipe, including the pipe bells. Casing pipe is required under local roadways, state roadways, and railways and meet the requirements of TDOT's Design Guidance and the American Railway Engineering and Maintenance of Way Association's Specifications for Pipelines Conveying Flammable and Non-Flammable Substances, current edition.
- B. The casing pipe material shall be as noted on the Drawings and as approved by the Agency having jurisdiction over the area being crossed.
- C. The casing pipe shall be new, welded or seamless steel pipe per ASTM A139, Grade B; ASTM A252, Grade 2; or ASTM A53, Grade B. The steel casing pipe shall have a minimum yield strength of 35,000 psi and shall have a minimum wall thickness as shown in the following table:

TABLE OF MINIMUM THICKNESS FOR STEEL CASING		
Casing Pipe Nominal Diameter (in)	Under Highway Wall Thickness (in)	Under Railroad Wall Thickness (in)
6 through 12	0.250	0.250
14	0.250	0.281
16	0.250	0.281
18	0.250	0.312
20	0.312	0.344
24	0.312	0.406
30	0.375	0.469
36	0.500	0.532
42	0.500	0.625
48	0.625	0.688
54	0.625	0.781
60	0.625	0.844
66	0.625	0.938
72	0.750	1.000

- D. When the steel casing pipe is installed without the benefit of a protective coating, the wall thickness should be increased to the nearest standard size, which is a minimum of 0.063 inches greater than the thickness indicated in the Table.



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- E. For directional drilling applications, and as approved by WMD, the casing pipe may utilize new, welded, or seamless high density polyethylene (HDPE) type DR 11 per ASTM D3350-02.

2.4 CASING PIPE FOR UTILITY SERVICES

- A. The casing pipe shall be used for structural integrity of the installation and protection of the service pipe.
- B. Utility service casing pipe material shall be new Schedule 40 PVC unless otherwise indicated on the Drawings.

2.5 CASING SPACERS

- A. Casing spacers/isolators shall be installed on any carrier pipe passing through a casing pipe or tunnel. They are designed to support and protect the carrier pipe, and electrically isolate the carrier pipe from the casing pipe. Casing spacers are not required when HDPE carrier pipe is used in directional drilling applications that utilize HDPE casing pipe. Casing spacers are not required for service pipe installations.
- B. Spacing: Number of spacers and distance between spacers are determined by type of pipe used. Recommended spacing for steel carrier pipe is 6 feet to 8 feet, recommended spacing for PVC pipe is 3 spacers per joint.
- C. Band: shall be constructed of minimum 14 gauge 304 stainless, two segment. For carrier pipes 42 inch diameter and larger, bands shall be three or more segments and 12 gauge carbon steel.
- D. Risers: shall be constructed of minimum 10 gauge high grade 304 stainless steel. Risers shall be sized to position the carrier pipe in the casing, support all loads and provide proper contact for the isolation function.
- E. Liner: the casing spacers/isolators shall have a flexible PVC liner of 0.09 inch thickness with a durometer "A" 85-90 hardness and a minimum 58,000 volt dielectric strength.
- F. Runners: the runners shall be of high pressure molded glass reinforced polymer with a minimum compressive strength of 18,000 psi, 2 inch in width and a minimum of 7 inches long. Polyethylene runners are not acceptable. The runners shall be attached to the band or riser by welded stainless steel studs and lock nuts which shall be recessed far below the wearing surface on the runner. The recess shall be filled with a corrosion inhibiting filler.
- G. Hardware: the band sections shall be bolted together with 304 stainless steel studs, nuts and washers. Hardware shall be 5/16-inch for pipes up to 42-inch diameter and 3/8-inch for



TRENCHLESS INSTALLATION OF UTILITIES
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carrier pipes 42-inch and larger.

2.6 END SEALS

- A. End seals shall be used to effectively seal the casing pipe to the carrier pipe at each end of the casing pipe prior to backfilling.
- B. Material: shall be made of 1/8-inch thick synthetic rubber and use stainless steel bands and clamps to secure each end to the casing and carrier pipes.

2.7 LINER PLATES

- A. The tunnel liner plate shall be of structural quality, hot-rolled, carbon-steel sheets or plates in conformance with ASTM A1011. The steel liner plate shall have a minimum thickness of 12 gage.
- B. The tunnel liner plate submittal should specify either smooth or corrugated, number of flanges, exterior coating, and width of plate.

2.8 TUNNEL LINER GROUT

- A. Cement grout shall consist of a uniform mixture of 1:6 (cement:sand). Completely fill all voids using a pumping system. The compressive strength at 28 days shall be 100 psi, minimum.

2.9 CASING AND TUNNEL PIPE FILLER

- A. The space between the casing pipe and the carrier pipe should not be filled completely to avoid transfer of earth and live loads from the casing to the carrier pipe.
- B. Material: fill sand, flowable mortar, or controlled low strength material. Refer to tables for approximate quantities.
- C. Compressive strength of flowable mortar at 28 days: 100 psi to 200 psi.

TABLE OF QUANTITIES FOR FLOWABLE MORTAR	
Material Type	Quantity per Cubic Yard
Cement	100 lbs
Fly ash	300 lbs
Fine aggregate	2,600 lbs

- D. Compressive strength of controlled low strength material at 28 days: 50 psi.



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TABLE OF QUANTITIES FOR CONTROLLED LOW STRENGTH	
Material Type	Quantity per Cubic Yard
Cement	50 lbs
Fly ash	250 lbs
Fine aggregate	2,910 lbs

2.10 BACKFILL FOR ABANDONED CASINGS AND TUNNELS

- A. The space between the casing pipe and carrier pipe should be filled completely to avoid settlement of casing due to earth and live loads.
- B. Material: 3,000 psi minimum Portland cement concrete, flowable mortar, or controlled low strength material. Refer to tables above for approximately quantities.
- C. Compressive strength at 28 days: 100 psi to 200 psi – refer to the above tables.
- D. Compressive strength at 28 days: 50 psi – refer to the above tables.

2.11 UTILITY IDENTIFICATION SIGN

- A. Provide a utility identification sign for each end of a casing pipe or tunnel. Provide additional signs as shown on the Drawings.
- B. Post: The post shall be constructed of composite material and have dimensions of 66-inches high by 4 inches wide. The marker post shall be pigmented throughout based upon the utility type.
 - 1. Water – blue
 - 2. Sanitary sewer – green
 - 3. Reclaimed – purple
- C. Sign: The post shall have a sign affixed to it. The sign shall be constructed of powder coated steel. The overall dimensions of the sign shall be 6-inches by 6-inches. The following information shall be engraved upon the sign:

Warning: Utility Water/Sanitary sewer/Reclaimed Crossing
Contact: City of Franklin Water Management Department
Phone: 615-794-4554



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- D. The marker and sign shall be guaranteed in quality for 15 years against deterioration and discoloring.

PART 3 – EXECUTION

3.1 SCOPE OF WORK

- A. The Contractor shall select a method of trenchless installation which is appropriate for anticipated subsurface conditions; will allow the pipe to be installed to the desired line and grade as specified; and will prevent heaving or settlement of the ground surface or damage to nearby facilities.
- B. All borings and tunnels shall be accomplished by one of the specified and approved trenchless installation methods; and shall meet the size, line, and grade shown on the Drawings.
- C. All trenchless installation work shall be done in accordance with Agencies having jurisdictional authority over the utility being crossed. Contractor shall notify the jurisdictional agency a minimum of three business days prior to the start of trenchless activities.
- D. Contractor shall protect all existing utilities and facilities in the work area.
- E. Upon successful installation of casing or carrier pipe based on tolerances stated herein, backfill said pipe or tunnel per the requirements of Part 2 of this Section.
- F. Verify suitability of excavated materials for reuse as backfill per Section 31 0000. Remove and stockpile topsoil for subsequent reuse. Do not mix topsoil with other excavated materials. Remove rock, rubbish, debris, and unsuitable materials. Excavate the minimum size pits necessary to safely and properly perform the work.
- G. Comply with requirements of Division 31 Sections “Dewatering” and “Excavation Support and Protection” as necessary.
- H. Clean up all affected sites and restore all areas to pre-construction or better condition.

3.2 ACCEPTABLE TRENCHLESS INSTALLATION METHODS

- A. Bore and Jack (Auger Boring):
 - 1. Excavate a suitable sized pit to accommodate the equipment. Provide adequate walkway and workspace on each side of the auger and jacking equipment. The Contractor shall furnish and install trench shoring or bracing in compliance with OSHA standards.



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2. Provide continuous pressure to the face of the excavation to balance groundwater and earth pressures.
 3. The carrier pipe shall be furnished by the Contractor. Jack the steel casing pipe into place as the boring proceeds. Ensure that the end of casing is true. Completely weld sections of pipe to provide watertight joints.
 4. Upon acceptance of the casing, install the carrier pipe in the casing by jacking it through the casing. If necessary to achieve proper line and grade on the carrier pipe, use blocking material to offset any minor variations in the alignment of the casing. Otherwise, casing spacers shall be used for all pressure main installations. Spacers shall be installed 1 foot from each end of each pipe joint and at the midpoint of each pipe joint. The carrier pipe shall be restrained by the spacer within the casing.
 5. Both ends of casing pipe shall be sealed with synthetic rubber end seals with stainless steel band and clamps.
 6. Tolerances:
 - a. Bore accuracy shall be within $\pm 1\%$ (both horizontally and vertically) of the total borehole length.
 - b. The borehole shall follow the design centerline of the pipe profile and alignment described on the Drawings. At no point in the bore will the combined radii in the plan and profile exceed the allowable minimum radius of the pipeline manufacturer.
- B. Directional Drilling:
1. Drilling until shall be equipped with an electrical strike safety package and shall be tested upon setup of the job.
 2. Drill a pilot bore with the designed tolerances for radius requirements. The pilot bore shall be monitored using instrumentation which will accurately locate the pilot bore positions in the X, Y, and Z axes relative to the ground surface.
 3. The enlargement of the hole to accommodate the carrier pipe shall be accomplished by the ream and pull back method:
 - a. Prereaming: Prereaming operating shall be conducted at the discretion of horizontal drilling Contractor. All provisions of this specification relating to simultaneous reaming and pulling back operations shall also pertain to prereaming operations.
 - b. Pulling Loads: Contractor shall be responsible for determining safe pulling loads required for proper installation. Such loads shall be minimized as required to prevent failure of the pipeline during installation.
 - c. Torsional Stress: A properly sized and fully operational swivel will be installed between the reaming assembly at the end of the drill pipe, and the pipeline to restrict torsional stress from being transmitted to the pipeline.
 - d. Pull Section Support: The pull section shall be supported as it proceeds during pull back so that it moves freely, and the pipe material is not damaged.
 4. Tolerances:
 - a. A smoothly drilled pilot hole shall follow the design centerline of the pipe profile and alignment described on the Drawings. At no point in the bore will the combined radii in the plan and profile exceed the allowable minimum radius of the pipeline manufacturer.



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- b. The course of the pilot hole must stay within the given right-of-way at all points along the drilled route. Contractor shall provide and use a separate steering system employing a ground survey grid system, such as "Tru-Tracker".
 - c. The Contractor shall have accurate working gauges which register the tensile force being used to pull the pipeline back through the reamed borehole. It is the Contractor's responsibility to prepare the reamed out hole such that pulling back operations do not exceed the tensile strength of the pipe. The Contractor shall provide estimated calculations for the pulling loads and allowable loads before pull back operations begin. If during the pipeline pulling process this force exceeds 75 percent of this allowable load for the pipeline, the project inspector must be notified immediately. Logs must be kept intact referencing all forces exerted on the pipeline during pullback.
 - d. The Contractor shall provide adequate supports along the stringing area to protect the pipe and allow free movement of the pipeline during pullback.
 - e. During pullback operations, Contractor shall monitor roller operation and use sidebooms, if required, to assist movement of the pipe. Situations which could cause damage to the pipe material shall be corrected immediately. Damaged pipe shall be repaired to the satisfaction of the Owner or replaced by the Contractor before pulling operations resume.
- C. Microtunneling:
- 1. Excavate suitable sized pits to accommodate the tunneling equipment at entrance and exit of proposed microtunnel bore. The Contractor shall furnish and install trench shoring or bracing in compliance with OSHA standards.
 - 2. Excavate the tunnel using a steerable, laser guided tunnel boring machine remotely controlled and monitored from the surface by the operator at all times. Functions of the system to be monitored at the remote console shall include rate of advance, length of conduit installed, thrust force, deviation from line and grade, roll, inclination, and valve positions.
 - 3. Excavation of tunnel shall take place within the tunneling shield. Personnel should not enter the excavation. The tunnel shield shall be full faced with the capability of supporting the face both during excavation and during shutdown. When soil conditions dictate, the tunnel shield must be capable of removing cobbles and boulders. The excavation system shall be fully capable of excavating all material that it will encounter.
 - 4. The jacking system, including any intermediate jacks used, shall be capable of continuously monitoring the jacking pressure, the rate of advancement and the distance jacked. The equipment shall have the capability of limiting the jacking force applied to the pipe/tunnel shield so as not to exceed the maximum compressive loads allowed for the pipe. A lubrication system shall be provided that injects an approved lubricant at the rear of the tunneling shield to lower the friction developed on the exterior of the pipe during jacking.
 - 5. The spoil can be removed from inside the pipe or casing by auger, compressed air, or water jetting.
 - 6. Tolerances:
 - a. Microtunnel accuracy should be within ± 1 inch (both horizontally and vertically).
 - b. The borehole shall follow the design centerline of the pipe profile and alignment



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described on the Drawings. At no point in the bore will the combined radii in the plan and profile exceed the allowable minimum radius of the pipeline manufacturer.

D. Pipe Ramming:

1. Excavate suitable sized pits to accommodate equipment at entrance and exit of proposed tunnel bore. The Contractor shall furnish and install trench shoring or bracing in compliance with OSHA standards.
2. Set guide rails to line and grade of proposed bore. The first section of pipe or casing shall be equipped with a steel band around the leading edge to over excavate the bore and reduce friction on successive sections.
3. Install steel pipe casing using a pneumatic tool hammer to push the pipe or casing into the ground. The leading edge of the pipe shall be left open for most applications, allowing the soil to enter the pipe or casing. The leading edge can be closed for pipe casing diameters of 4 inches or less.
4. Remove spoil from inside of pipe casing by auger, compressed air, or water jetting.
5. Tolerances:
 - a. Pipe ramming bore accuracy should be within $\pm 5\%$ (both horizontally and vertically) of total bore length.
 - b. The bore shall follow the design centerline of the pipe profile and alignment described on the Drawings. At no point in the bore will the combined radii in the plan and profile exceed the allowable minimum radius of the pipeline manufacturer.

E. Tunneling:

1. Excavate suitable sized pits/shafts to accommodate the equipment at entrance and exit of proposed tunnel bore. The Contractor shall furnish and install trench shoring or bracing in compliance with OSHA standards.
2. Excavate a utility tunnel using a tunnel boring machine (TBM) and conventional methods. Excavation of tunnel shall take place within tunneling shield. Tunneling shield shall be of steel construction and sufficient length to install one complete ring of liner plates before it is advanced for the installation of the next ring of liner plates.
3. Liner plate must be constructed in-place in the tail section of the tunneling shield. Liner plate shall have tapped grout holes of minimum 2 inch diameter, spaced at approximately 3 feet along the circumference of the tunnel. The grout holes shall be spaced 4 feet longitudinally along the tunnel course.
4. Inject grout through liner plate grout holes. Grout holes shall be plugged when grouting is completed.
5. Install utility carrier pipeline after tunnel is complete and fill remaining annular space completely with filler. Carrier pipe must be able to withstand potential earth loads transferred to the pipe after the annular space is filled with filler.
6. Tolerances:
 - a. Tunnel accuracy shall be within ± 1.0 feet horizontally and ± 0.1 feet vertically.
 - b. The borehole shall follow the design centerline of the pipe profile and alignment described on the Drawings. At no point in the bore will the combined radii in the plan and profile exceed the allowable minimum radius of the pipeline manufacturer.

F. Pipe Bursting:



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1. Pipe Bursting shall be conducted using Horizontal Directional Drill (HDD)/Impactor, pneumatic, hydraulic or static pipe bursting systems. The pipe bursting unit shall be designed and manufactured to force its way through the existing line by fragmenting the pipe and compressing the broken pieces into the surrounding soil as its progresses. The bursting unit shall generate sufficient force to burst and compact the existing pipeline. See manufacturer specifications for what size unit should be used in what diameter of pipe, as well as parameters of what size unit for percentage of upsize allowed.
2. The HDD or winch should be fitted with a direct reading load gauge to measure the pullback force or winching load. The Contractor shall provide a system of guide pulleys and bracing at the exit pit to minimize cable contact with the existing line between launch and exit pits. The winch cable, burst head, and polyethylene pipe cannot come into contact with the supports of the trench shoring in the insertion pit.
3. All buried utilities adjacent to the pipe bursting operation shall be reviewed and where necessary be excavated to relieve transient loading during the insertion operation. If any utilities are within 24 inches of the pipe to be burst, the Contractor shall excavate a pit at the location to check clearance. The amount of clearance will be affected by the soil type, the amount of up-sizing and the location of the existing utility in relation to the line being burst. If adequate separation does not exist between the existing line and the subject utility, the Contractor shall employ substitute means to rehabilitate the existing line.
4. Any concrete encasements and/or PVC point repairs shall be excavated and broken out prior to the bursting operation to allow the steady and free passage of the pipe bursting head. All in-line valves and fittings shall be removed prior to the bursting operation.
5. The new polyethylene pipe shall be inserted immediately behind the bursting head in accordance with the manufacturer's recommended procedures. The bursting equipment shall be specifically designed and manufactured for the type of insertion process being used. The insertion pit shall be long enough to avoid imposing a bending radius of less than 35 times the outside diameter of the pipe liner during installation.
6. The polyethylene pipe shall be assembled and joined at the site using the butt-fusion method to provide a leak proof joint. Threaded or solvent-cement joints and connections are not permitted. All equipment and procedures used shall be in strict compliance with the manufacturer's recommendations. Fusing shall be accomplished by personnel certified as fusion technicians by a manufacturer of polyethylene pipe and/or fusing equipment. In cases where the insertion pit is not a manhole, the liner pipe may be joined by use of a stainless steel full encirclement clamp or the installation of a new manhole. Details of the recommended lengths of such clamps to afford adequate pullout protection are summarized as follows:

Inner Diameter of Liner Pipe (inches)	Minimum Width of Clamp (inches)
8.0	15
12.0	20
15.0	30



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18.0	30
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7. Any annular space between the existing pipe and the liner shall be filled with cement grout in accordance with Paragraph 2.6. Precautions shall be taken to prevent collapse of the liner with grouting pressure. Either place the grout under very low pressure, or hydrostatically pressurize the liner pipe during the grouting process to resist collapse.
8. At all points where the polyethylene pipe is exposed (such as at insertion shafts, at service connection fittings, or other points where the existing pipe must be removed), the polyethylene pipe shall be encased in a cement-stabilized sand or high density material to prevent deflection due to earth loading or subsidence. Material should be in accordance with the cement grout described in Paragraph 2.6.
9. After installation of the polyethylene liner pipe, a minimum of 6-inches of the liner pipe shall be left to protrude from the wall of the entrance and exit pits prior to relaxation. A minimum 48 hour relaxation period (longer if recommended by the manufacturer) shall be required to allow the pipe to stabilize. After the relaxation period, the protruding ends of the pipe shall be neatly trimmed back to fit the structure or match up to other equipment and materials. Allow a slight flaring of the material so that the liner will not pull away from the opening and retract into the original pipe.
10. Pressure test the polyethylene pipe in accordance with the contract document Section applicable for the pipeline intent.
11. Service connections to the polyethylene pipe shall be accomplished by the sidewall fusion method in accordance with the manufacturer's instructions. Refer to Division 33 Section "Sanitary sewer (Gravity)" for service connection materials.
12. Dimension Ratios: The minimum wall thickness of the polyethylene pipe shall meet the following:

Depth of Cover (feet)	Minimum SDR
0 – 16	21
> 16	17

3.3 MANAGEMENT OF CUTTINGS AND FLUIDS

- A. The approved methods of trenchless installation are to be conducted in a manner to eliminate the discharge of water, drilling mud, and cuttings to the creeks or land areas involved during the construction process. Contractor shall immediately contain and clean-up any inadvertent returns. Contractor shall also provide equipment and procedures to maximize the recirculation or reuse of drilling mud to minimize waste disposal.
- B. Disposal of drilling and cutting fluids shall be responsibility of the Contractor and shall be conducted in compliance with all relative environmental regulations, easement and work space agreements, and permit requirements.
- C. Water supply is the Contractor's responsibility, whether purchased locally, or hauled in.



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- D. Drilling and cutting fluids must be free of all additives that will adversely affect the environment.
- E. Adequate dewatering of all excavations and tunnels is the Contractor's responsibility unless otherwise stated.
 - 1. Take measures to prevent surface water from entering excavation.
 - 2. Pump surface water and groundwater from excavation or tunnel, of necessary.
 - 3. Discharge water may not be discharged to adjacent property without written permission from the property owner.
 - 4. Excavation discharge water should not interfere with vehicular traffic and must be directed away from adjacent electrical facilities.
 - 5. Sanitary sewers are not an acceptable option for disposal of discharge water.
 - 6. Erosion control measures should be taken to protect the discharge location(s), if applicable.
 - 7. Adjacent structures should be monitored for subsidence as a result of dewatering, if applicable.

3.4 CLEANUP, REPAIRS, AND RESTORATION

- A. The Contractor is responsible for leaving all areas affected by his construction activities in a condition equal to or better than the condition before construction.
- B. All carrier pipe beyond the end of casing pipe as well as in entry and exit pits shall be bedded and backfilled in accordance with Division 31 Section "Earthwork".
- C. The Contractor shall restore area around entry and exit pits within 1 day of work completion. Fill to previous existing ground elevation and grade any areas where settlement occurs due to subsidence.
- D. Install a utility identification sign above ground at each end of the casing or tunnel. If the utility has been installed without a casing or tunnel, install utility identification signs as shown on the Drawings.

END OF SECTION



WATER UTILITY DISTRIBUTION PIPING
Section 33 1100

PART 1 – GENERAL

1.1 STANDARDS

- A. Buried piping shall be of the bell and spigot type.
- B. Non-buried piping shall have flanged ends, unless otherwise noted on the Drawings.
- C. Use Mechanical Joint Fitting Restraining Device for plain end piping connections to fittings, hydrants, valves, etc.

1.2 GENERAL REQUIREMENTS

- A. The minimum size water main shall be 8" unless otherwise approved in writing or required by the WMD. The minimum size water line in commercial areas shall be 10" unless otherwise approved or required by the WMD.
- B. Water main sizes shall be justified by hydraulic analysis based on flow demands and pressure requirements. Minimum pressure in system under all conditions of flow is 20 psi. Pressures no greater than 100 psi shall be delivered to the customer. Customers or customer's representative shall be responsible for installation of a pressure reducing valve (PRV) on water line services with pressures greater than 100 psi.
- C. Water mains shall be ductile iron pipe unless otherwise approved by the WMD.
- D. Generally, the following locations should be utilized for location of new water lines unless field conditions such as other utilities, etc., make it impractical to do so:
 - 1. New Subdivisions - New water mains shall be in the right-of-way near the edge of pavement parallel to the property line, unless otherwise approved by the WMD and shall not be located under sidewalks or curbs.
 - 2. Along older roads in existing subdivisions which have open ditches, the water main shall be located in easements unless otherwise approved by the WMD.
 - 3. Where underground electrical service exists or is proposed, the water line must be located on the opposite side of the road.
- E. Water mains and sanitary sewer mains or storm sewers shall not be laid in the same trench.
- F. Water mains shall be laid at least 10 feet horizontally from any sanitary sewer main, storm sewer or sewer manhole, whenever possible; the distance shall be measured edge-to-edge.
- G. Water mains crossing over sanitary sewer mains or storm sewers shall be laid to provide a separation of at least 18 inches between the bottom of the water main and top of the sanitary sewer main or storm sewer.



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- H. When conditions prevent a horizontal separation of 10 feet, a water main may be laid closer to a sanitary sewer main or a storm sewer as long as the bottom of the water main is at least 18 inches above the top of the sanitary sewer main or storm sewer.
- I. If the 18-inch vertical separation cannot be provided as described above, the water main and sanitary sewer main shall both be constructed of ductile iron pipe. Water mains also passing under sanitary sewer mains shall have a vertical separation of at least 18 inches between the bottom of the sanitary sewer and the top of the water main; a flowable fill cap shall be installed on the water line; a full joint of water line pipe shall be used and centered at the point of crossing so that the joints will be equidistant and as far as possible from the sanitary sewer main. Requires prior approval by the WMD.
- J. Where gas lines, telecommunication lines or any other public utilities exist or are proposed there must be at least 10' horizontal separation between the water line and utility line and a minimum 18" vertical separation between the two lines.
- K. No water main shall pass through or come into contact with any part of a sanitary sewer main or manhole.
- L. Dead ends shall be minimized in order to provide better water service by looping the system.
- M. Water service from another adjacent feed source shall be required for all new subdivisions unless otherwise approved by the WMD. The dual feed shall be used to improve water quality for residents and shall be looped with another, separate, feeding water line to provide appropriate circulation.
- N. Fire hydrants shall be installed at the end of dead end water mains.
- O. The minimum size water line to serve a fire hydrant is 6 inches.

1.5 SUBMITTALS

- A. Product Data
 - 1. Ductile iron pipe.
 - 2. Ductile iron fittings.
 - 3. Ductile iron flanged pipe.
 - 4. Pipe insulation and accessories.
 - 5. High Density polyethylene pipe.
 - 6. High Density polyethylene fittings.
 - 7. Mechanical joint restraint devices.
 - 8. Flanged coupling adapters.
 - 9. Flexible expansion joint.



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10. Concrete vaults and accessories.
 11. Line markers.
 12. Utility warning tape.
 13. Detection wire.
- B. Shop Drawings:
1. Concrete vaults, including aluminum hatches, ladders, and drains.
- C. Operation and Maintenance Data: For specialties to include in emergency, operation, and maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Product Options: Drawings indicate size, profiles, and dimensional requirements of piping and specialties and are based on the specific system indicated.
- B. Comply with the regulatory requirements of local, state and federal agencies having jurisdiction.
- C. Piping material shall bear label, stamp, or other markings of specified testing agency.
- D. Water line depths shall not exceed 6 feet. Variances shall be discussed and approved by the WMD.
- E. Comply with NSF 61 for materials for water service piping and specialties for domestic water.
- F. The pipe manufacturer must furnish the Owner a notarized certificate stating that the pipe furnished has been manufactured and tested in accordance with the applicable standards.
- G. The length of each individual piece of ductile iron pipe shipped must be plainly marked on each piece of pipe. Each piece of pipe shall bear the manufacturer's name or trademark, the year in which it was produced, and the letters "DI" or the word "DUCTILE".
- H. All ductile iron pipe shall be the product of a single American based manufacturer with a minimum of five (5) years of experience in manufacturing the size, class, and quantity of pipe specified herein. The manufacturer must have a successful performance record on projects of comparable scope and magnitude.



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1.7 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.
- B. Storage:
 - 1. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.
 - 2. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.
- C. Handling: Protect flanges, fittings, and specialties from moisture and dirt.
- D. Any pipes strung out along the route of the proposed lines before the actual installation of water lines is due to take place shall be capped on both ends and shall not be lowered into the trench until they have been swabbed to remove any mud, debris, etc., that may have accumulated within them. Only string out what can be laid in a day. Remove all unnecessary material from the bell and spigot end of each pipe. Before any pipe is laid, brush and wipe clean the outside of its spigot end and the inside of its bell and leave dry and oil-free.

PART 2 – PRODUCTS

2.1 DUCTILE IRON PIPE

- A. Ductile iron pipe shall conform to the requirements of ANSI A21.51/AWWA C151 latest revision for ductile iron pipe centrifugally cast in metal or sand-lined molds. It shall be made and tested in accordance with ASTM A536, latest revision. The pipe shall be able to withstand a hydrostatic pressure of 500 psi.
- B. The design thickness shall be that specified by ANSI A21.50/AWWA C150 latest revision except that all pipe with a diameter of 12 inches or less shall be Pressure Class 350 and all pipe with a diameter 14 inches or greater shall be Pressure Class 300 unless determined otherwise by the WMD.
- C. Coatings and Lining: Pipe shall be lined with thin cement as specified in ANSI A21.4/AWWA C104. In addition, an asphaltic coat approximately 1 mil thick shall be applied to the cement lining in accordance with the pipe manufacturer's standard practices. The outside coating shall be an asphaltic coating approximately 1 mil thick in accordance with ANSI A21.51/AWWA C151.



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- D. The bell of each pipe shall have a tapered annular opening and a cast or machined retaining groove for the gasket. The gasket shall have a flared design so that maximum deflection will be provided. The plain spigot end of the pipe shall be beveled to simplify its entry into and centering within the bell and compression of the gasket.
- E. Gaskets:
1. Gaskets shall be Styrene Butadiene Copolymer (SBR) or Ethylene Propylene Diene Monomer (EPDM) in accordance with ANSI A21.11/AWWA C111, latest revision made in the form of a solid ring to exact dimensions.
 - a. Push-on Joint Gaskets: The design of the gasket groove in the bell of the pipe and the design, hardness, and other properties of the gasket itself shall be such that the joint is liquid tight for all pressures from a vacuum to a maximum rating of 350 psi of internal liquid pressures. Gaskets for pipe with an operating pressure greater than 160 psi shall be restrained joint gaskets.
 - 1) Manufacturer/Model
 - a) American Ductile Iron Pipe "Fastite,"
 - b) U.S. Pipe "Tyton," or
 - c) Approved equal.
 - b. Push-on Restrained Joint Gaskets: Restrained pipe and fittings are as shown on the Drawings. Retainer glands and similar devices will not be allowed unless otherwise noted or shown on the Drawings or approved by the Owner. Push-on joint restraint shall be incorporated in the design of the pipe bell and gasket. The restraint shall be provided by the wedging action developed between pairs of hardened high-strength, stainless steel elements spaced around the gasket. The push-on restrained joint shall be rated for 250 psi working pressure.
 - 1) Manufacturer/Model:
 - a) American Ductile Iron Pipe "Fast-Grip" (for pipe sizes 24-inch and less),
 - b) U.S. Pipe "Field Lok" Gaskets (for pipe sizes 24-inch and less),
 - c) American Ductile Iron Pipe "Flex-Ring" (for pipe sizes 30 and 36 inch),
 - d) American Ductile Iron Pipe "Lok-Ring" (for pipe sizes greater than 46 inches),
 - e) U.S. Pipe "TR Flex" (for pipe sizes 24-inch and larger), or
 - f) Approved equal.
 2. Lubricant: Lubricant shall be furnished with each order to provide for the proper installation of the pipe supplied with said order. This lubricant shall be nontoxic, impart no taste or smell to the water, and have no harmful effect on the rubber gasket. It shall have a consistency that will allow it to be easily applied to the pipe in either hot or cold weather and that will enable it to adhere to either wet or dry pipe.

F. Welded-on Outlets:

 1. Welded-on outlets shall be limited to branch outlets having a nominal diameter less than 70 percent of the nominal diameter of the main line pipe or 30-inch whichever is smaller as shown in the following table.



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<u>Main Line Nominal Diameter</u>	<u>Branch Outlet Nominal Diameter</u>
10 inch	6 inch
12 inch	8 inch
14 inch	8 inch
16 inch	10 inch
18 inch	12 inch
20 inch	14 inch
24 inch	16 inch
30 inch	20 inch
36 inch	24 inch

2. Parent pipe and branch outlet candidate pipe shall be centrifugally cast ductile iron designed in accordance with ANSI A21.50/AWWA C150 and manufactured in accordance with ANSI A21.51/AWWA C151. Minimum classes shall be: for sizes 4- inch through 54-inch, Special thickness Class 53; for sizes 60-inch through 64-inch, Pressure Class 350.
3. Welded-on outlets may be provided as a radial tee outlet, tangential outlet, or lateral outlet fabricated at a specific angle to the main line pipe in 1 degree increments between 45 degrees and 90 degrees from the axis of the main line pipe as shown on the Drawings.
4. All welded-on outlets shall be rated for a working pressure of 250 psi and must have a minimum safety factor of 2.0 based on proof of design hydrostatic test results.
5. The joints on welded-on branch shall meet, where applicable, the requirements of ANSI A21.11/AWWA C111 and/or ANSI A21.15/AWWA C115. The joint materials (glands, gaskets, and studs) shall be furnished where applicable.
6. Weldment for welded-on outlets shall be based on the method described in Section VIII of the ASME Unfired Pressure Vessel Code. Reinforcing welds shall be placed using Ni-Rod 55 cored wire or Ni-Rod 55 electrodes manufactured by INCO Alloys (or an electrode with equivalent performance properties). Carbon Steel electrodes are not acceptable.
7. Prior to the application of any coating or lining in the outlet area all weldments for branch outlets to be supplied on this project shall be subjected to an air pressure test of at least 15 psi. Air leakage is not acceptable. Any leakage shall be detected by applying an appropriate soapy water solution to the entire exterior surface of the weldment and adjoining pipe edges or by immersing the entire area in a vessel of water and visually inspecting the weld surface for the presence of air bubbles. Any weldment that shows signs of visible leakage shall be repaired and retested in accordance with the manufacturer's written procedures.
8. Welded-on outlets shall be fabricated by the pipe manufacturer at the same facility where the pipe is produced. The pipe manufacturer shall have a minimum of 5 years of experience in the fabrication and testing of outlets of similar size and configuration.
9. The manufacturer shall have a fully documented welding quality assurance system and



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maintain resident quality assurance records based on ANSI/AWS D11.2, the Guide for Welding Iron Castings. The manufacturer shall maintain appropriate welding procedure specifications (WPS), procedure qualification (PQR), and welder performance qualification test (WPQR) records as well as appropriate air test logs documenting air leakage tests.

- G. Manufacturer:
1. American Cast Iron Pipe Company,
 2. Griffin Pipe Products,
 3. McWane,
 4. U.S. Pipe, or
 5. Approved equal.

2.2 DUCTILE IRON FITTINGS

- A. Standard and special fittings shall be Pressure Class 350 ductile iron. Use standard mechanical joint fittings or anchoring tees at hydrant locations. All fittings shall conform to the specifications of ANSI A21.10/AWWA C110 (Full Body) or ANSI A21.53/AWWA C153 (Compact), latest revisions.
- B. All buried fittings shall be push-on or mechanical joint. Non-buried fittings shall be flanged unless otherwise shown on Drawings or directed by the Owner. Where flanged pipe is shown, no substitution of a Uni-Flange type joint will be used without prior approval of the Owner. Where push-on joint fittings are used, the fittings must be rodded to an anchor (i.e. dead-man, valve, etc.), have a mechanical joint fitting restraining device, or push-on restrained joint gasket. Use anchor tees or joint restraint device at hydrant locations.
- C. Coatings and Lining: Fittings shall be lined with cement as specified in ANSI A21.4/AWWA C104. In addition, an asphaltic coat approximately 1 mil thick shall be applied to the cement lining in accordance with the pipe manufacturer's standard practices. The outside coating shall be an asphaltic coating approximately 1 mil thick in accordance with ANSI A21.51/AWWA C151.
- D. Manufacturer:
1. Tyler/Union
 2. American Cast Iron Pipe Company
 3. U.S. Pipe and Foundry

2.3 DUCTILE IRON FLANGED PIPE

- A. Flanged pipe shall meet the requirements of ductile iron pipe, as specified herein, unless



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otherwise specified.

- B. All ductile iron flanged pipe shall comply with ANSI A21.15/AWWA C115, latest revision. The pipe barrel shall be manufactured in accordance with ANSI A21.51/AWWA C151, latest revision. All flanges shall be ductile iron and rated for 250 psi working pressure. To insure accountability, all flanged pipe shall be fabricated at the factory by the barrel manufacturer. All flanges (unless otherwise indicated or required) shall be faced and drilled ANSI B16.1 125-pound for ductile iron and ANSI B16.5 150-pound for steel.
- C. Provide a flanged pipe gasket for each joint made of Styrene Butadiene Copolymer (SBR) or Ethylene Propylene Diene Monomer (EPDM) which meet all the material requirements of ANSI A21.11/AWWA C111.
- D. Gaskets for flanged pipe with an operating pressure greater than 160 psi shall be Toruseal Flange Gasket as manufactured by American Cast Iron Pipe Company, American Ductile Iron Pipe Division, or approved equal.
- E. Manufacturer:
 - 1. U.S. Pipe
 - 2. American Cast Iron Pipe Company
 - 3. Approved equal

2.4 PIPE INSULATION AND ACCESSORIES

- A. Pipe Insulation:
 - 1. Pipe insulation shall be polyisocyanurate foam insulation and meet the requirements of ASTM-C591. Insulation shall have a maximum thermal conductivity of $0.19 \text{ BTU-in/hr-ft}^2\text{-}^\circ\text{F}$ at a mean temperature of 75°F and 180 days aging.
 - 2. Manufacturer / Model:
 - a. Pittsburg-Corning,
 - b. Trymer 2000, or
 - c. Approved equal.
- B. Aluminum Roll Jacketing:
 - 1. Jacketing is to be manufactured from aluminum alloy conforming to ASTM B209 designation with 3/16 inch corrugated surface. Minimum thickness shall be 0.010 inch. All jacketing shall have an integrally bonded moisture barrier over the entire surface in contact with the insulation. Overlap jacketing 2 inch minimum at butt joints.
 - 2. Manufacturer / Model:
 - a. Childers, or
 - b. Approved equal.
- C. Fastening Devices:



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1. All insulation and jacketing shall be secured using a 1/2 inch wide aluminum strapping conforming to ASTM-B209. Strapping shall be 0.020 inch thick and installed on 12 inch centers.
2. Manufacturer / Model:
 - a. Childers, or
 - b. Approved equal.

2.5 HIGH DENSITY POLYETHYLENE (HDPE) PIPE

- A. Pipe shall be manufactured from a PE4710 resin listed with the Plastic Pipe Institute (PPI) as TR-4. The resin material will meet the specifications of ASTM D3350 with a cell classification of PE345464C. Pipe shall have a manufacturing standard of ASTM F714. Pipe O.D. size shall be ductile iron pipe sizes (DIPS). Pipe shall be DR 11 (160 psi WPR). The pipe shall contain no recycled compounds except that generated in the manufacturer's own plant from resin of the same specification from the same raw material. All pipes shall be suitable for use as pressure conduits, listed as NSF 61, and per AWWA C906, have nominal burst values of three and one-half times the Working Pressure Rating (WPR) of the pipe. Peak flow water velocity of 5 ft./sec. shall be used in the hydraulic engineering design.
- B. Manufacturer:
 1. ISCO Industries, or
 2. Approved equal.

2.6 HIGH DENSITY POLYETHYLENE (HDPE) FITTINGS

- A. Butt Fusion Fittings: Shall be PE4710 HDPE, Cell Classification of 345464C as determined by ASTM D3350-02 and approved for AWWA use. Butt Fusion Fittings shall have a manufacturing standard of ASTM D3261. Molded and fabricated fittings shall have a pressure rating equal to the pipe unless otherwise specified in the drawings. Fabricated fittings are to be manufactured using Data Loggers. Temperature, fusion pressure, and a graphic representation of the fusion cycle shall be part of the quality control records. All fittings shall be suitable for use as pressure conduits, and per AWWA C906, have nominal burst values of three and one-half times the Working Pressure Rating (WPR) of the fitting.
- B. Electrofusion Fittings: Shall be PE4710 HDPE, Cell Classification of 345464C as determined by ASTM 3350-02. Electrofusion fittings shall have a manufacturing standard of ASTM F1055. Fittings shall have a pressure rating equal to the pipe unless otherwise specified on the plans. All electrofusion fittings shall be suitable for use as pressure conduits, and per AWWA C906 have nominal burst values of three and one-half times the Working Pressure Rating (WPR) of the fitting. All electrofusion couplings and fittings must use a 3- pin fusion system.
- C. Flanged and Mechanical Joint Adapters: Shall be PE4710 HDPE, Cell Classification of



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345464C as determined by ASTM D3350-02. Flanged and mechanical joint adapters shall have a manufacturing standard of ASTM D3261. Fittings shall have a pressure rating equal to the pipe.

2.7 MECHANICAL JOINT FITTING RESTRAINT DEVICES

A. Ductile Iron Pipe Restraint Devices:

1. Restraint devices for nominal pipe sizes 3 inch through 48 inch shall consist of multiple gripping wedges incorporated into a follower gland meeting the applicable requirements of ANSI A21.10/AWWA C110. Restraint device shall have torque limiting twist-off nuts.
2. Restraint devices shall have a working pressure rating of 350 psi for 4 through 16 inch and 250 psi for 18 through 48 inch. Ratings are for water pressure and must include a minimum safety factor of 2 to 1 in all sizes.
3. Gland body, wedges and wedge actuating components shall be cast from grade 65-45-12 ductile iron material in accordance with ASTM A536.
4. Manufacturer / Model:
 - a. EBAA Iron Inc. Megalug Series 1100, or
 - b. Approved equal.

B. Plain End to Plain End Pipe Restraint Device:

1. Joint restraint to prevent axial separation shall be incorporated into the design of the sleeve or coupling used to connect two plain ends of same or dissimilar materials, such as ductile iron pipe, steel pipe and or high density polyethylene (HDPE) pipe.
2. To prevent movement causing fitting to slide or rotate, internal pipe wall stiffeners must be used. The stiffeners must be sized to encompass the entire bearing length of the restraint devices.
3. Restraint devices shall consist of multiple gripping wedges incorporated into a follower gland. Restraint device shall have torque limiting twist-off nuts.
4. The coupling sleeve shall be coated internally with a minimum of 15mils of fusion bonded epoxy conforming to the applicable requirements of AWWA C213.
5. Ductile Iron components shall meet or exceed the requirements of ASTM A536.
6. The restrained joining system shall meet the applicable requirements of AWWA C219, ANSI A21.11/AWWA C111, and ASTM D2000.
7. Manufacturer / Model:
 - a. EBAA Iron, Inc. Series 3800, or
 - b. Approved equal.

2.8 FLANGED COUPLING ADAPTERS

- ### A. Flanged coupling adapters shall be used to connect plain end pipe to flanged fittings, meters, valves, or equipment as shown on the Drawings shall be rated for 200 psi working pressure unless indicated otherwise.



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1. EBAA Iron, Inc. FLEX-TEND, or
2. Approved equal

2.10 CONCRETE VAULTS AND ACCESSORIES

- A. Concrete vaults shall be rectangular or circular, precast reinforced concrete, of the dimensions and specifications noted on the Drawings. Concrete shall have a 28-day compressive strength of 4000 psi. Circular precast concrete barrel sections for valve vaults shall conform to ASTM C478 except sections deeper than 12 feet shall have reinforcing equal to that ASTM C76 Class III reinforced concrete pipe unless otherwise noted on the Drawings.
- B. Precast section joints shall be mortared or grouted; joined with AASHTO M-198-75 preformed flexible butyl type joint sealant. Joints should be water tight.
 1. Manufacturer / Model:
 - a. Hamilton-Kent "Kent-Seal No. 2",
 - b. K.T. Snyder Company "rub 'r-Nek",
 - c. Press Seal Gasket "E-Z Stik", or
 - d. Approved equal.
- C. Concrete Vault Hatch
 1. Channel frame shall be 1/4 inch (7 mm) thick extruded aluminum with a mill finish, incorporating a continuous concrete anchor. A 1-1/2 inch (38 mm) drainage coupling shall be located in the front left corner of the channel frame. A bituminous coating shall be applied to the frame exterior where it will come into contact with concrete. The entire frame must be supported by a full bed of Class A concrete (H-20 load rating).
 2. The door panel(s) shall be 1/4 inch (7 mm) aluminum diamond plate, reinforced to withstand a live load of 300 psf or H-20 uniform live load with a maximum allowable deflection of 1/150 of the span and shall not protrude into the channel frame when in the open position. In grassed or landscaped (non-traffic) areas the access door shall be designed for 300 psf loading. In areas that may receive light vehicle traffic, such as sidewalks or edges of parking lots, the access door shall be designed for H-20 wheel loading.
 3. Doors shall open to 90 degrees and automatically lock with a T-316 stainless steel hold open arm with an aluminum release handle. For ease of operation, the door hold open arm shall incorporate an enclosed stainless steel compression spring assist.
 4. Doors shall close flush with the frame and rest on a built-in neoprene cushion/gasket (300 psf load rating).
 5. Hinges and all fastening hardware shall be T-316 stainless steel.
 6. Unit shall lock with a T-316 stainless steel slam lock with removable key and have a non-corrosive handle.
 7. Unit shall carry a lifetime guarantee against defects in material and/or workmanship.



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8. Manufacturer / Model:
 - a. Halliday Products, Inc., Orlando, Florida, Series H2W (double leaf), or
 - b. Approved equal.
- D. Ladder/Steps:
 1. Ladder/steps shall be steel encased in copolymer polypropylene plastic (or equal), "Press Fit" type, have an overall width of 12 inches, and spaced at 12 inches.
 2. Manufacturer:
 - a. M.A. Industries, or
 - b. Approved equal.
- E. A vent shall be provided in the top of the vault. The vent shall be constructed of PVC, a minimum of 3 feet tall, and a minimum of 4-inches in diameter with a 24 mesh stainless steel screen. The vent shall be located such that it does not interfere with the opening/closing of the hatch or impede access to the vault interior. The vault penetration shall be a thrust collar wall pipe cast integrally into the vault top. The vent shall be flanged and bolt to the wall sleeve.
- F. Pipe Penetrations shall be water tight and sealed in the vault wall opening with flexible and/or rigid connections. At least one pipe penetration shall be a rigid connection.
 1. Flexible connections shall be provided using resilient connectors meeting the requirements of ASTM C-923. Resilient connectors shall be compression type cast integrally into the vault wall.
 - a. Manufacturer:
 - 1) A-Lok Products, Inc., Tullytown, PA, or
 - 2) Approved equal.
 2. Rigid Connections shall be provided using a thrust collar wall pipe. Thrust collar wall pipes shall be cast integrally into the vault wall. Thrust collar wall pipes shall meet the requirements of ductile iron flanged piping, as specified herein, unless otherwise specified.
 - a. Manufacturer:
 - 1) U.S. Pipe,
 - 2) American Ductile Iron Pipe, or
 - 3) Approved equal.
- G. Vault Drainage:
 1. Vault drainage shall be as noted on the Drawings and according to the following.
 - a. Drain pipe shall be schedule 80 PVC and penetrate the wall at floor level. Slope of drain line shall be in accordance with local plumbing codes. A varmint screen shall be



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installed on the drain line inside the vault for ease of maintenance. A flap valve shall be installed on the drain line discharge.

- b. The vault floor shall have a sump with a minimum depth of 12-inches and a minimum inside diameter of 14-inches. The sump is not required to be cast integrally in the floor of precast vaults. However, the seal between the vault and the sump shall be watertight and no part of the sump will be allowed to extend above the floor thereby inhibiting drainage. The sump shall be concrete or HDPE.
 - 1) The sump pump shall be automatic with level operation. It shall operate on 115 volt, single phase, 60 hz power. The pump shall be 1/3 horsepower and pump a maximum flow of 30 gpm at 10-feet of head with a 1-1/2 inch discharge.
 - 2) Continuous feed power shall be extended to the vault by the Contractor for operation of the sump pump.
 - 3) Manufacturer / Model:
 - a) Water Ace Model R3V, or
 - b) Approved equal.

H. Vault Piping:

1. Piping shall be supported with column type pipe saddle supports, concrete block, or other Owner-approved method.
 - a. Column type pipe saddle supports shall be stanchion type with vertical adjustability and U-bolt attachment to pipe. The stanchion shall be properly sized to carry the pipe load. The saddle assembly and base shall be cast iron or carbon steel.
 - 1) Manufacturer:
 - a) Grinnell Corporation, Providence, RI, or
 - b) Approved equal.
 - b. Concrete pipe supports shall be full or half-size, solid CMU placed under pipe, valves, meters, etc. flanges or under flanged base bends. Flanged base bends shall be bolted to the concrete pipe support.
 2. Piping shall be insulated in accordance with Paragraph 2.8 subparagraphs a and c and/or have heat tape.

I. Valves shall be in accordance with Division 33 Section "Valves"

J. Meters shall be in accordance with Division 33 Section "Water Service Assemblies."

K. Manufacturer:

1. Barger Precast, or
2. Old Castle, or
3. Approved equal.



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2.11 LINE MARKERS

- A. Markers shall be single piece design, constructed of durable, UV resistant, composite material, and have a pointed end for ease of installation. The marker shall have a constant flat "T" cross-sectional design and be 3.75 inch in width and of such length to provide a minimum height above the ground surface of 44 inches and a minimum embedment depth of 18 inches. The marker shall resist displacement from wind and vehicle impact forces. The marker shall be free of burns, discoloration, cracks, bulges, or other objectionable marks. A line shall be stamped horizontally across the front of the marker to indicate proper burial depth.
- B. The marker shall be pigmented throughout the entire cross-section so as to produce a uniform color which is an integral part of the material. The marker shall be colored blue.
- C. Line markers shall be labeled with the lettering "CAUTION WATER LINE" with the Owner's name and telephone number written below the lettering.
- D. Manufacturer / Model:
 - 1. Carsonite International, Early Branch, SC Model CUM 375 or
 - 2. Approved equal.

2.12 UTILITY WARNING TAPE

- A. Detectable underground utility warning tape, which can be located from the surface by a pipe detector, shall have of a minimum thickness of 0.35 mils solid aluminum foil encased in a protective inert plastic jacket that is impervious to all known alkalis, acid, chemical reagents and solvents found in the soil. The tape shall have a minimum overall thickness of 5.0 mils and a minimum width of 6 inch (metallic piping) with a minimum unit weight of 2-1/2 pounds/ 1 inch x 1,000 foot. The tape shall be color coded blue in accordance with APWA National Color Code and permanently imprinted "Caution Buried Water Line Below".
- B. Non-detectable underground utility warning tape shall be installed directly above all utility lines. The tape shall be polyethylene and have a minimum thickness of 4 mils and a minimum width of 3 inches. The tape shall be color coded blue in accordance with APWA National Color Code and permanently imprinted "Caution Buried Water Line Below".
- C. Manufacturer / Model:
 - 1. Allen Systems, "Detect Tape",
 - 2. Empire Level Mfg. Corp., "Magnetee", or
 - 3. Approved equal.



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2.13 DETECTION WIRE

- A. Detection wire shall be UL approved, 14 AWG, type THHN solid copper. The wire shall be color coded blue in accordance with APWA National Color Code.
- B. Manufacturer:
 - 1. Copperhead High Strength 1430 Tracer Wire, or
 - 2. Approved equal.

PART 3 – EXECUTION

3.1 EARTHWORK

- A. Refer to Division 31 Section “Earthwork” for excavating, trenching, and backfilling.
- B. Do not excavate pipe trenches more than 200 feet ahead of the pipe laying, and not more than two hundred (200) feet of open ditch shall be left behind the pipe laying and perform all Work so as to cause the least possible inconvenience to the public. Construct temporary bridges or crossings when and where the Owner deems necessary to maintain vehicular or pedestrian traffic.
- C. In all cases where materials are deposited along open trenches, place them so that in the event of rain no damage will result to the Work and/or to adjacent property.

3.2 PIPING APPLICATIONS

- A. Use pipe, fittings, and joining methods for piping systems according to the following applications.
 - 1. Transition couplings and special fittings with pressure ratings at least equal to piping pressure rating maybe used in applications below, unless otherwise indicated.
 - 2. Do not use flanges, unions, or keyed couplings for underground piping.
 - 3. Flanges, unions, keyed couplings, and special fittings shall be used, instead of joints indicated, on aboveground piping and piping in vaults.

3.3 JOINT CONSTRUCTION

- A. Clean and assemble pipe joints and fittings according to the following:
 - 1. Ductile-Iron Piping, Gasketed Joints for Water-Service Piping: AWWA C600 and AWWA M41.



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2. Ductile-Iron Piping, Grooved Joints: Cut-groove pipe. Assemble joints with keyed couplings, gaskets, lubricant, and bolts according to coupling manufacturer's written instructions.
3. Dissimilar Materials Piping Joints: Use adapters compatible with both piping materials, with OD, and with system working pressure.

3.4 PIPING INSTALLATION

- A. No connection to an existing water line shall be made until all lines have been pressure tested, microbiological sampling completed and approved for service by the Resident Project Representative.
- B. Water Main Connections: Tap water main according to requirements below.
 1. Make connections larger than 2 inch nominal diameter with tapping machine according to the following:
 - a. Install tapping sleeve and tapping valve according to MSS SP-60.
 - b. Install tapping sleeve on pipe to be tapped. Position flanged outlet for gate valve.
 - c. Install gate valve onto tapping sleeve. Comply with MSS SP-60. Install valve with stem pointing up and with valve box.
 - d. Use tapping machine compatible with valve and tapping sleeve; cut hole in main. Remove tapping machine and connect water-service piping.
- C. Install ductile iron pipe and fittings according to AWWA C600 and AWWA M41.
- D. Bury piping with a depth of cover of at least 36 inches, with top of pipe at least 12 inches below level of maximum frost penetration, and according to the following:
 1. Under Driveways: With at least 36 inches cover over top of pipe.
 2. Under Roadways: With at least 42 inches cover over top of pipe.
 3. Under Railroad Tracks: With at least 48 inches cover over top of pipe.
- E. Install piping by trenchless methods, where indicated on the Drawings, in accordance with Division 33 Section "Trenchless Installation of Utilities".
- F. Install underground piping with restrained joints at horizontal and vertical changes in direction. Use restrained joint piping, thrust blocks, anchors, mechanical joint restraint, tie-rods and clamps, and other supports.
- G. Contractor shall adhere to the requirements of Division 31 Section "Earthwork" for installation and backfilling.



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- H. For all underground piping installations, install continuous underground detectable warning tape during backfilling of trench.
 - 1. Installation of detectable tape shall be per manufacturer's recommendations and shall be as close to the grade as is practical for optimum protection and detectability. Allow a minimum of 18 inches between the tape and the utility line. Allow a minimum of 6 inches between the tape and the ground surface.
- I. Install line markers directly above pipeline alignment at intervals of 1,000 feet where indicated on the Drawings. Line markers shall be installed after final clean-up is completed.

3.5 CONCRETE VAULT INSTALLATION

- A. Dewater sufficiently to maintain the ground water level at or below the bottom of the vault foundation prior to and during placement of the foundation.
- B. Obtain an adequate foundation for the structure by removing and replacing unsuitable material with well graded granular material, by tightening with coarse rock, or by such other means as provided for foundation preparation of the connected lines or as directed by the Owner. Wherever water is encountered at the site, place all cast-in-place bases or monolithic structures on a one-piece waterproof membrane to prevent any movement of water into the fresh concrete.
- C. When the foundation subgrade has been prepared and is approved by the Owner, carefully construct the foundation for precast and monolithic structures to the line and grade required by the Drawings. The foundation shall be well graded granular material. In no case shall the vault be supported directly on rock.
- D. Vault foundation shall be constructed such that the vault is fully and uniformly supported in true alignment according to the Drawings and as site conditions allow. Make sure that all entering pipe can be installed at proper grade.
- E. Thoroughly wet and the completely fill all lift holes and all interior joints between precast elements with non-shrink grout. Smooth them inside to ensure water tightness.
- F. Carefully set the vault top at the required elevation, and properly bond it to the vault with cement grout or rubber sealant. Wherever vaults are constructed in paved areas, tilt the vault top so as to conform to the exact slope and grade of the existing adjacent pavement.
- G. Place backfill by hand around the vault and to a distance of at least one pipe length into each trench, and tamp with selected material up to an elevation of 12 inches above the crown of



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all entering pipes. Continue backfilling in accordance with the requirements for trench backfilling.

- H. Install pipe supports in accordance with the manufacturer's recommendations. Supports shall be installed in the locations shown on the Drawings. In cases where supports are not shown, supports shall be furnished and installed at appropriate locations to ensure adequate support of piping, valves, etc. Supports shall be installed in locations that ease removal and re-alignment of valves, meters, etc.
- I. After the vault had been adjusted to the proper grade, it shall be visually inspected by the Contractor in the presence of the Resident Project Representative. Any defects noted shall be corrected by the Contractor until the work is found satisfactory to the Resident Project Representative. In addition, at the Owner's request, the Contractor may be required within one year to visually inspect any vault(s) that were adjusted. Any work that has become defective shall be redone by the Contractor at no additional expense to the Owner.
- J. Vault shall have positive drainage when site conditions allow. When positive drainage is not available, a sump pump approved by the WMD shall be installed.

3.6 FIELD QUALITY CONTROL

- A. Cleanup: Contractor is required to grade and clean all areas affected by the installation and backfilling of the pipe trench. The Contractor shall do this work within the following constraints:
 - 1. At a minimum:
 - a. No earlier than 2 weeks of pipe trench backfilling; and,
 - b. No later than 10,000 feet of additional pipe installation.
 - 2. At a maximum:
 - a. No later than 3 weeks of pipe trench backfilling.
- B. Piping Tests: Conduct piping tests after thrust blocks have hardened sufficiently. Fill pipeline 24 hours before testing and apply test pressure to stabilize system. Use only potable water. Conduct tests in accordance with AWWA C600 for ductile iron and AWWA C900 for PVC. The pipes must hold a pressure of 200 psi for a duration of 2 hours.
 - 1. Pressure Tests:
 - a. Slowly fill each valved section of pipe with water, and apply the specified test pressure (based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge) with a pump and piping arrangement satisfactory to the Owner. Furnish the pump, pipe, connections, gauges, and all necessary apparatus.
 - b. Generally, the newly laid line is to be filled using a 1 inch line between an existing water line and the new line. A 1 inch corporation cock is to be installed on each line



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- and a 1 inch meter and 1 inch check valve installed in this line. Insert reduced pressure zone backflow preventer during testing. Remove reduced pressure zone backflow preventer and insert plugs in these taps after all tests are completed.
- c. Before applying the specified test pressure, expel all air from the pipe. If hydrants or blow offs are not available at high points, make the necessary taps at the point of highest elevation before testing, and insert plugs after the test has been completed.
 2. Carefully examine all exposed pipe, fittings, valves, and hydrants during the test. Remove any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test, and replace with sound material in the manner specified. Repeat the test until the results are satisfactory to the Owner.
 3. Prepare reports of all pressure test activities.

3.7 FLUSHING AND DISINFECTION

- A. Preliminary Flushing: Before chlorination, fill lines to remove all air pockets and flush to remove particulates. Flushing velocity shall not be less than 3.0 feet per second.
- B. Disinfection Tests: Conduct disinfection tests in accordance with AWWA C651.
 1. During construction, take precautions to protect pipe interiors, fittings, and valves against contamination. When pipe laying is not in progress (e.g., at end of the day's work), place watertight plugs in the ends of all pipe already in the trench; if water accumulates in the trench, leave the plugs in place until the trench is dry. Complete the joints of all pipes in the trench before stopping work for any reason.
 2. If dirt or other foreign material that has gotten into a pipe will not, in the opinion of the Owner, be removed by flushing, clean the interior of the pipe, and swab with a disinfecting solution of 5 percent hypochlorite.
 3. Make water flow from the existing distribution system or some other source approved by the Owner into the newly laid piping, and add chlorine to it. Feed water into the pipe, and chlorine into the water, at constant, measured rates so proportioned that that chlorine concentration in the water in the pipe is kept at a minimum of 25 mg/l available chlorine. To ensure that this concentration is maintained, measure the chlorine residual at regular intervals. Tablet method may also be used.
 4. Table I shows how much chlorine is needed for each 100 feet of line for pipes of various diameters. A 1 percent chlorine solution may be prepared either with 1 pound of calcium hypochlorite for each 8.5 gallons of water or sodium hypochlorite.



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TABLE 1		
CHLORINE REQUIRED TO PRODUCE A 25 MG/L CONCENTRATION IN 100 FEET OF PIPE, BY DIAMETER		
Pipe Size Inches	100% Chlorine Pounds	1% Chlorine Solutions Gallons
4	0.014	0.163
6	0.031	0.367
8	0.054	0.653
10	0.085	1.02
12	0.123	1.47
14	0.167	2.00
16	0.218	2.61
18	0.276	3.31
20	0.340	4.08
24	0.490	5.88

5. While chlorine is being applied, use an approved backflow device so that the treatment dosage will not flow back into the line that is supplying the water. Continue application of chlorine until the entire line being treated is filled with the chlorine solution. Then retain the chlorinated water in the line for at least 24 hours, during which time all valves and hydrants in the line being treated shall be operated so that appurtenances can also be disinfected. After 24 hours, the treated water shall have a chlorine concentration of at least 10 mg/l throughout the line. Once the line has completed the Bac-T test, line should be dechlorinated prior to being placed in to service.
- C. Final Flushing: Conduct final flushing in accordance with AWWA C651.
1. After applicable retention period, flush heavily chlorinated water from the line until chlorine concentration in water leaving the main is no higher than that generally prevailing in the system, or less than 1 mg/l. Perform such flushing only at sites where Owner has approved. If no approved point of discharge is available, neutralizing chemicals must be applied to the water in order to neutralize the chlorine residual. The amount of chemicals required to neutralize various residual chlorine concentrations in 100,000 gallons of water are shown in Table II.



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TABLE II REQUIRED CHEMICALS TO NEUTRALIZE CHLORINE CONCENTRATIONS								
Residual Chlorine Concentration	Sulfur Dioxide (SO ₂)		Sodium Bisulfite (NaHSO ₃)		Chemical Required Sodium Sulfite (Na ₂ SO ₃)		Sodium Thiosulfate (Na ₂ S ₂ O ₃ ·5H ₂ O)	
mg/l	lb	kg	lb	kg	lb	kg	lb	kg
1	0.8	(.36)	1.2	(.54)	1.4	(.64)	1.2	(.54)
2	1.7	(.77)	2.5	(1.13)	2.9	(1.32)	2.4	(1.09)
10	8.3	(3.76)	12.5	(5.67)	14.6	(6.62)	12.0	(5.44)
25	20.9	(9.46)	31.3	(14.20)	36.5	(16.56)	30.0	(13.61)
50	41.7	(18.91)	62.6	(28.39)	73.0	(33.11)	60.0	(27.22)

2. The velocity of water used to flush a line shall be at least 3.0 fps. The flow rates required to produce this velocity in various sizes of pipe are shown in Table III.

TABLE III						
REQUIRED OPENINGS TO FLUSH PIPELINES (40 PSI RESIDUAL PRESSURE)*						
Pipe Size (Inches)	Flow Required to Produce 3.0 fps Velocity (gpm)	Size of Tap Used (Inches)			Number of Hydrant Outlets	
		1	1 ½	2	2 ½ in	4 ½ in
		Number of Taps Required on Pipe				
4	120	1	---	---	1	1
6	260	---	1	---	1	1
8	470	---	2	---	1	1
10	730	---	3	2	1	1
12	1,060	---	---	3	2	1
16	1,880	---	---	5	2	1

*For pipe diameters larger than 16 inches, WMD will calculate flow required to produce 3.0 fps velocity, size and number of taps used and number of hydrant outlets dependent on size.



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3. Once a line has been flushed, test to make certain that the residual chlorine in the water is within acceptable limits.
 4. It must be noted that flushing is no substitute for taking preventative measures before and during the laying of water lines. Certain contaminants-especially those in caked deposits-are difficult or even impossible to remove by flushing, no matter how high the velocity. Furthermore, in pipes with diameters of 16 inches or more, it can be difficult to achieve even the minimum recommended flushing velocity of 3.0 fps.
- D. Bacteriological Tests: Conduct bacteriological tests in accordance with AWWA C651.
1. After a water line has undergone final flushing but before it is placed into service, collect a sample for bacteriological testing from the beginning and end and all spur lines. If greater than 2500 feet in length, or branches off the main line, more samples will be required.
 2. Collect these samples in sterile bottle treated with sodium thiosulfate. Do not use a hose or fire hydrant to collect samples. One suggested sampling method is to install a standard corporation cock in the line with a copper tube gooseneck assembly; after the samples have been taken, the gooseneck assembly can be removed and retained for later use.
 3. Take the samples collected to an approved laboratory to be tested for bacteriological quality in order to determine if they contain any coliform organisms. If the initial disinfection fails to produce satisfactory samples, repeat disinfection until satisfactory samples are obtained.
 4. When the samples tested are found to be satisfactory, the water line may be placed in service.
 5. Never place a water main in service without the Resident Project Representative on site.
- E. Disinfection Procedure After Cutting Into or Repairing Existing Lines:
1. The procedures outlined above apply primarily to cases in which the lines are wholly or partially dewatered.
 2. However, leaks or breaks that are repaired with clamping devices while the lines remain full of water under the pressure present little danger of contamination and require no bacteriological sampling.
 3. When an existing line is opened, whether by accident or design, the excavated area could be wet and contaminated because of the presence of sewers nearby. The danger of contamination from such pollution can be lessened if liberal quantities of hypochlorite are applied to the open trenches. It is better to use tablets for disinfection in such cases because they dissolve slowly and continue to release hypochlorite as water is pumped from the excavation site.
 4. Where practical, treat the lines by the slug method in accordance with AWWA C651.
 5. The following disinfection procedure is considered the minimum that may be used when existing lines are repaired:



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- a) Swab the interior of all pipes and fittings (particularly couplings and tapping sleeves) that rare to be used in repairing an existing line with a solution of 5 percent hypochlorite before installing them.
- b) The most practical means of removing contamination introduced into a line during repairs is to give the line a thorough flushing. If the locations of valves and hydrants make it possible, flushing in both directions is recommended. Start flushing as soon as repairs are completed and continue until all discolored water is eliminated.

END OF SECTION



PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes the following general-duty valves: (All water valves shall be left turn open)
 - 1. Gate valves.
 - 2. Plug valves.
 - 3. Butterfly valves.
 - 4. Globe valves.
 - 5. Heavy-duty lever and weight swing check valves.
 - 6. Air/vacuum valves.
 - 7. Combination air valves.
 - 8. Tapping sleeve and valve.
 - 9. Hose bibbs.
 - 10. Valve boxes and accessories.
 - 11. Operators.
 - 12. Blow off valve assemblies.
- B. The following are standard abbreviations for metal and plastic materials:
 - 1. PVC: Polyvinyl chloride.
 - 2. DIP: Ductile iron pipe.
 - 3. HDPE: High-density polyethylene.
- C. Buried valves shall have mechanical joint ends.
- D. Valves in structures or above ground shall have threaded or flanged ends, unless otherwise noted on the Drawings.
- E. Use mechanical joint fitting restraining device for plain end piping connections to fittings, valves, etc.

1.2 REFERENCES

- A. ANSI A.21.10 - Standard for Cast Iron Fittings 3 in. through 48 in., for water and other liquids.
- B. ANSI A.21.50 - Standard for the Thickness Design of Ductile-Iron Pipe.
- C. ANSI B.16.1 - Standard for Cast Iron Pipe Flanges and Flanged Fittings.
- D. C115/A21.15 - Standard for Flanged Ductile Iron.
- E. ANSI/AWWA C606 - Standard for Joints, Grooved and shouldered Type Fittings.
- F. AWWA C208 - Hydrostatic Testing of Steel Pipe.



G. ANSI B.31 - Pressure Piping.

1.3 SUBMITTALS

- A. Product Data: For each type of valve indicated, include body, seating, and trim materials; valve design; pressure and temperature classifications; end connections; arrangement; dimensions; and required clearances. Include list indicating valve and its application. Include rated capacities; shipping, installed, and operating weights; furnished specialties; and accessories.
- B. Action Submittals:
 - 1. Shop Drawings:
 - a. Product data sheets for each make and model. Indicate valve Type Number, applicable Tag Number, and facility name/number or service where used.
 - b. Complete catalog information, descriptive literature, specifications and identification of materials of construction.
 - c. Sizing calculations for open-close/throttle and modulating valves.
- C. Informational Submittals:
 - 1. Manufacturer's Certificate of Compliance for:
 - a. Electric operators; full compliance with AWWA C540.
 - b. Butterfly valves; full compliance with AWWA C504.
 - 2. Tests and inspection data.
 - 3. Operation and maintenance data.
 - 4. Manufacturer's Certificate of Proper Installation

1.4 QUALITY ASSURANCE

- A. Product Options: Drawings indicate size, profiles, and dimensional requirements of piping and specialties and are based on the specific system indicated.
- B. Comply with regulatory requirements of local, state, and federal agencies having jurisdiction.
- C. Piping material shall bear label, stamp, or other markings of specified testing agency.
- D. Comply with ASTM F645 for selection, design, and installation of thermoplastic water piping.
- E. Comply with NSF 61 for materials for water service piping and specialties for domestic water.



1.5 DELIVERY, STORAGE AND HANDLING

A. Delivery:

1. Prepare valves according to the following:
 - a. Ensure that valves are dry and internally protected against rust and corrosion.
 - b. Protect valves against damage to threaded ends and flange faces.
 - c. Set valves in best position for handling. Set valves to closed to prevent rattling.
2. Deliver valves with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent valve-end damage and to prevent entrance of dirt, debris, and moisture.

B. Storage:

1. Use precautions for valves according to the following:
 - a. Do not remove end protectors unless necessary for inspection. Following inspection, reinstall for storage.
 - b. Protect from weather. Store indoors and maintain temperature higher than ambient dew-point temperature. When outdoor storage is necessary, support valves off the ground or pavement in watertight enclosures.

C. Handling:

1. Use sling to handle valves and fire hydrants if size requires handling by crane or lift. Rig valves to avoid damage to exposed parts. Do not use hand wheels or stems as lifting or rigging points.
2. Protect flanges, fittings, and specialties from moisture and dirt.

1.6 GENERAL REQUIREMENTS

- A. Water valves should generally be spaced a maximum of 1,000' along a water main and on all lines at each intersection and should be located on the right- of-way line extended. In commercial districts valves should be located at not more than 500 foot intervals.
- B. Air release valves or combination air relief valves must be provided at high points in proposed transmission mains.
- C. Sanitary sewer valves should be located at agreed upon locations between the Engineer and the WMD.

PART 2 – PRODUCTS

2.1 VALVES, GENERAL

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following



- requirements apply for product selection:
- B. Refer to Part 3 "Valve Applications" Article for applications of valves.
 - C. All valves to include operator, actuator, handwheel, chainwheel, extension stem, floor stand, worm and gear operator, operating nut, chain, wrench, and accessories for complete operation.
 - D. Valve to be suitable for intended service. Renewable parts not to be of a lower quality than specified.
 - E. Valve Sizes: Same as upstream pipe, unless otherwise indicated.
 - F. Valve ends to suit adjacent piping.
 - G. Size operator to operate valve for the full range of pressures and velocities.
 - H. Factory mount operator, actuator, and accessories.
 - I. Valve Actuators:
 - 1. Chainwheel: For attachment to valves, of size and mounting height, as indicated in the "Valve Installation" Article in Part 3.
 - 2. Gear Drive: For quarter-turn valves NPS 8 (DN 200) and larger.
 - 3. Handwheel: For valves other than quarter-turn types.
 - 4. Lever Handle: For quarter-turn valves NPS 6 (DN 150) and smaller, except plug valves.
 - 5. Wrench: For plug valves with square heads. Furnish Owner with one wrench for every ten plug valves, for each size square plug head.
 - J. Factory Finishing
 - 1. Exposed Valves:
 - a. Safety isolation valves and lockout valves with handles, handwheels, or chainwheels shall be "Safety Yellow."
 - b. Paint color shall be the same as the pipe.

2.2 GATE VALVES

- A. Resilient Seated – 2-inch through 10-inch
 - 1. Valves shall conform to the latest revision of AWWA Standard C-509 or C-515 covering resilient seated gate valves. Valves shall have a design working pressure of 200 psi.
 - 2. The valves shall have a cast or ductile iron body, bonnet, and O-ring plate. The wedge shall be totally encapsulated with rubber.
 - 3. The sealing rubber shall be permanently bonded to the wedge to meet the requirements of ASTM D429.
 - 4. Valves shall be supplied with O-ring seals at all pressure retaining joints. No flat gaskets shall be allowed. Blind bolts shall not be allowed.



5. The valves shall be non-rising stem, open by turning left, and provided with a 2-inch square operating nut for buried valves or handwheel for above-ground valves with the word "Open" and an arrow to indicate the direction to open.
6. Buried valves shall have mechanical joint connections and shall have all exterior surfaces shop painted with two coats of Fed. Spec. TT-V-51F asphaltic varnish. Any valve over 6 feet deep shall have an extension stem projecting within 2 feet of the ground surface and the stem extension shall be centered in the valve box and anchored to prevent horizontal movement and pinned to the valve nut below. The valve manufacturer shall provide all glands, gaskets, and all the accessories necessary to install the valve.
7. Stems for NRS assemblies shall be cast bronze or 316 stainless steel with integral collars in full compliance with AWWA. OS&Y (rising stems) shall be bronze or 316 stainless steel. All stems shall operate with bronze stem nuts independent of wedge and of stem (in NRS valves). NRS stems shall have two O-rings located above thrust collar and one O-ring below. Stem O-rings shall be replaceable with valve fully opened and subject to pressure. The NRS stems on 4-inch through 12-inch valves shall also have two low torque thrust bearings located above and below the stem collar to reduce friction during operation.
8. The waterway shall be smooth, unobstructed, and free of all pockets, cavities, and depressions in the seat area. Tapping valves 4-inch and larger shall accept a full size tapping cutter.
9. The body, bonnet, and O-ring plate shall be fusion-bonded epoxy coated. For the body and bonnet, both interior and exterior shall be coated. Epoxy coating shall be NSF approved and applied in accordance with ANSI/AWWAC-550.
10. Valves operating at a pressure of 160 psi or greater shall be faced and drilled ANSI B16.1 250-pound. Valves operating at less than 160 psi shall be faced and drilled ANSI B16.1 125-pound.
11. Each valve shall have the manufacturer's name, pressure rating, and year in which it was manufactured cast in the body. Prior to shipment from the factory, each valve shall be tested by hydrostatic pressure equal to the requirements of AWWA C-509 for cast iron bodies and C-515 for ductile iron bodies (and UL/FM where applicable).
12. Valves shall have all component parts cast and assembled in the USA.
13. Model/Manufacturer:
 - a. Mueller 2360 Series Resilient Wedge/Mueller; Decatur, IL
 - b. American Flow Control Series 2500 Resilient Wedge/ American Flow Control; Birmingham, AL
 - c. M&H Valve Company; Anniston, AL
 - d. Approved equal.

2.3 PLUG VALVES

A. Eccentric

1. Valves shall be of the 90 degree turn, non-lubricated eccentric type with resilient faced plugs and shall be furnished with end connections as shown on the drawings. Flanged valves shall be faced and drilled to the ANSI 125/150 lb. standard. Mechanical Joint ends



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shall be to the AWWA Standard C111-64, grooved ends per AWWA C-606-87. Screwed ends shall be to the NPT standard.

2. Valve bodies shall be of ASTM A126 Class B cast iron. Bodies in 4" and larger valves shall be furnished with a 1/8" welded overlay seat of not less than 90% pure nickel, machined to mate with the resilient faced plug. Valves that do not provide positive mating of the resilient faced plug with the nickel seat shall not be acceptable. Seat area shall be raised, with raised surface completely covered with weld to ensure that the plug face contacts only nickel. Screwed-in seats shall not be acceptable.
3. True eccentric action shall be required. Design of the valve shall provide for a rectangular port that allows contact between the welded nickel seat and the plug to occur only in the final 3 degrees of the plug movement. Round ported valves as well as other non-eccentric action valves shall not be acceptable. If requested, the manufacturer shall provide a complete site visit to the manufacturing facility for the owner, engineer and contractor to witness the eccentric action of partially assembled valves and to verify the size and shape of the port area as well as the welded nickel seat.
4. Plugs shall be of ASTM A126 Class B cast iron. The plug shall have a cylindrical seating surface eccentrically offset from the center of the plug shaft. The interference between the plug face and the body seat, with the plug in the closed position, shall be externally adjustable in the field with the valve in line under pressure. The plug shall be completely coated with a chloroprene compound suitable for use with sewage. The plug coating shall be applied at the factory to ensure that the plug is completely coated and then heat-treated to insure a positive bond.
5. Valves shall have sleeve type metal bearings and shall be of sintered, oil impregnated permanently lubricated type 316 ASTM A743 Grade CF-8M in 1/2"-36" sizes. In valves larger than 36", the upper and lower plug journals shall be fitted with ASTM A-240 type 316 stainless sleeves with bearings of ASTM B30, Alloy C95400 aluminum bronze. Non-metallic bearings shall not be acceptable.
6. Valves shaft seals shall be of the multiple V-ring type and shall be externally adjustable and repackable without removing the bonnet or actuator from the valve under pressure. Valves utilizing O-ring seals or non-adjustable packing shall not be acceptable.
7. Valve pressure ratings shall be 175 psi through 12" and 150 psi for 14" through 72". Valves shall provide drip-tight shutoff up to the full pressure rating with pressure in either direction. Each valve shall be given a hydrostatic and seat test with the test results being certified in accordance with ANSI B16.1. If requested, the manufacturer shall provide a complete site visit to the manufacturing facility for the owner, engineer and contractor to witness the testing process.
8. Full Port Plug Valves shall be rectangular port design with minimum 100% open port area as defined as the geometric open port area of the plug valve that is greater than or equal to the open area of the connecting pipe. Manufacturers using Cv values to determine port opening area shall not be considered.
9. Valve actuators for manual valves shall have lever or gear actuators and tee wrenches, extension stems, floorstand, extended bonnet, etc. as indicated on the plans. All



extended bonnets must have gear located at the operator – stem extensions with handwheel operators are not an acceptable equivalent. All valves 6" and larger shall be equipped with gear actuators. All gearing shall be enclosed in a semi-steel housing and be suitable for running in a lubricant with seals provided on all shafts to prevent entry of dirt and water into the actuator. The actuator shaft and the quadrant shall be supported on permanently lubricated bronze bearings. Actuators shall clearly indicate valve position and an adjustable stop shall be provided to set closing torque and to provide seat adjustment to compensate for change in pressure differential or flow direction change. All exposed nuts, bolts and washers shall be zinc plated.

10. Valve and gear actuators for buried or submerged service shall have seals on all shafts and gaskets on the valve and actuator covers to prevent the entry of water. Actuator mounting brackets for buried or submerged service shall be totally enclosed and shall have gasket seals. All exposed nuts, bolts and washers shall be stainless steel.
11. All eccentric plug valves and actuators shall be as manufactured by DeZURIK, Sartell, MN, Pratt, Aurora, IL, or Engineer approved equal.

2.4 BUTTERFLY VALVES

- A. Butterfly valves are used for water lines 12 inches and larger. Valves shall meet or exceed the latest revision of AWWA Standard C504 for Class 150B butterfly valves and shall meet or exceed the requirements of this specification. All valves shall be tested at and shall be capable of withstanding bi-directional line hydrostatic test pressures up to 150 psi without leaking. All valve components shall conform to Underwriters Laboratories classification in accordance with ANSI/NSF Standard 61.
- B. Valve bodies shall be of cast iron per ASTM A126 Class B. Flanged end valves shall be of the short body design with 125 lb. flanged ends faced and drilled per ANSI B16.1 standard for cast iron flanges. Mechanical joint end valves shall meet the requirements of AWWA C111/ANSI 21.11. All accessories (bolts, glands, and gaskets) shall be provided by the same manufacturer.
- C. Disc shall be offset to provide an uninterrupted 360-degree seating edge and shall be cast iron per ASTM A48, Class 40C. The disc seating edge shall be solid 316 stainless steel. Sprayed mating seating surfaces are not acceptable. The disc shall be securely attached to the valve shaft utilizing a field removable/replaceable 304 stainless steel torque screw on sizes 3-inch through 12-inch, a tangential pin locked in place with a set screw on sizes 4-inch through 20-inch, or 304 stainless steel taper pins on valves 24-inch and larger.
- D. Valve shaft shall be 304 stainless steel. Valve shaft seals shall be self-compensating V-type packing with a minimum of four (4) sealing rings. One-piece molded shaft seal and O-ring shaft seals are not acceptable.



- E. Seat shall be of Buna-N for water, or as required for other services, and shall be molded in and vulcanized to the valve body. The seat shall contain an integral shaft seal protecting the valve bearings and packing from any line debris. For valves 24-inch and larger, the seat shall be retained within a dovetail groove in the valve body and locked in place by an epoxy compound wedge. Compression between the seat and disc edge shall be adjustable from both the upstream and downstream side of the valve disc. The seat shall be field replaceable without disassembly of the disc and shaft. Seats vulcanized to cartridge inserts in the valve body and seats on the disc are not acceptable.
- F. Valve shaft bearings shall be non-metallic and permanently lubricated.
- G. Interior and exterior metallic surfaces shall be shop painted per the latest revision of AWWA C504 unless otherwise indicated. The interior of the body shall have a full rubber lining vulcanized to the valve body. Mechanical joint valves shall be fully rubber lined to the point of pipe insertion. Rubber lining on the flange face and boot style seats is not acceptable.
- H. Valve actuator shall be sized to operate the valve at the rated working conditions of the valve and shall be as shown on the Drawings. Ten position locking levers shall be available for 3-inch through 6-inch valves. Provisions must be made for locking in any of the ten positions using a standard padlock.
- I. Model/Manufacturer:
 - 1. Model BAW Butterfly Valves/DeZURIK; Sartell, MN
 - 2. Groundhog Buried Service Butterfly Valve/Henry Pratt Co.; Aurora, IL
 - 3. Lineal III/Mueller Co. Water Products Division
 - 4. Approved equal

2.5 GLOBE VALVES

- A. The valve shall regulate flow in a pipeline. Its most frequent use is as a sampling valve where it is normally shut except when samples are taken.
- B. Bronze globe valves, general: MSS SP-80, with ferrous-alloy handwheel.
- C. Type 2, Class 150, bronze globe valves: bronze body with PTFE or TFE disc and union-ring bonnet.

2.6 HEAVY-DUTY LEVER AND WEIGHT SWING CHECK VALVES

- A. The valve shall smoothly swing open and close quickly to prevent flow reversal. When closed, the valve shall seat drop tight.



- B. The valve shall exceed the minimum requirements of AWWA C508 with a heavy duty body of high-strength cast iron conforming to ASTM A126 Class B with integral flanges. The valve shall be suitable for horizontal or vertical installation. Valves operating at pressures less than 150 psi shall be faced and drilled per ANSI B16.1 Class 125. Valves operating at pressures of 150 psi or greater shall be faced and drilled per ANSI B16.1 Class 250.
- C. The valve body shall be the full waterway type, designed to provide a net flow area not less than the nominal inlet pipe size when swung open no more than 25 degrees. The valve shall have a replaceable stainless steel body seat and a cast iron disc faced with a renewable resilient seat ring of rubber or other suitable material. The seat ring shall be held in place by stainless steel screws.
- D. The disc arm shall be ductile iron or steel. The disc arm shall be suspended from and keyed to an austenitic stainless steel shaft that is completely above the waterway. The shaft shall be supported at each end by heavy bronze bushings. The shaft shall rotate freely without the need for external lubrication. The shaft shall be sealed where it passes through the body by means of a stuffing box and adjustable packing. Simple O-ring shaft seals are not acceptable.
- E. The valve shaft shall have the following size for the given valve sizes:

Valve Size (Inches)	Shaft Diameter (Inches)
3	3/4
4	7/8
6	1
8, 10	1-1/4
12	1-1/2
14, 16, 18, 20	2
24	2-3/4

- F. Model/Manufacturer:
- Figure 220, 221, or 222 Lever and Weight/GA Industries, Inc.; Mars, PA
 - Approved equal.

2.7 AUTOMATIC AIR RELEASE VALVES

- A. Manufacturer / Model
- APCO / 200A



2. Crispin / A.R. Series
3. Approved Equal

2.8 AIR VACUUM VALVES

- A. The Air/Vacuum valve shall be capable of exhausting air at up to sonic velocity without blowing shut during the filling of the pipeline or system. The valve shall automatically close when water fills the valve and remain closed while the system is pressurized but open automatically to admit air during draining or a negative pressure condition. The Air/Vacuum valve shall fully conform to AWWA C512 (latest revision).
- B. The valve shall be of the size shown on the Drawings with a venting orifice no smaller than the nominal valve size. Valves 3-inch and smaller shall have an NPT inlet connection; valves 4-inch and larger shall have a flanged inlet. Valves 4-inch and smaller shall have NPT outlet connection, and unless specified otherwise, larger valves shall be supplied with a protective cowl on the outlet. Additional plugged NPT connections shall be provided near the top and bottom for testing and draining.
- C. ANSI Class 125 flanged valves shall have a minimum 150 psi pressure rating, and NPT or ANSI Class 250 flanged valves shall have a minimum 300 psi pressure rating.
- D. Materials of Construction:
 1. The valve body and cover shall be made from cast iron conforming to ASTM A126 Class B. The cover shall be bolted to the body, and all internal components shall be replaceable through the cover.
 2. The float ball shall be spherical and made from Type 316 stainless steel. Non-metallic float balls are not acceptable.
 3. The seat shall be replaceable and made from Buna-N rubber or other suitable elastomer compounds.
 4. The exterior of the valve shall be shop coated with enamel primer.
- E. When shown on the Drawings, the valve shall have a flanged outlet connection.
- F. Model/Manufacturer:
 1. Figure 930/GA Industries, LLC, Cranberry Township, PA
 2. Approved equal

2.9 COMBINATION AIR VALVES

- A. Combination air valves shall be designed such that they allow large volumes of air to escape out of a large orifice when filling a pipeline and close when liquid enters the valve. In addition, they shall be designed such that a small orifice allows the release of small pockets of air.



- B. The valves shall allow large volumes of air to enter the pipeline during drainage to break the vacuum and prevent water column separation.
- C. The valves shall be designed such that premature valve shut-off due to rushing air and water forces is prevented.
- D. Valve operation shall be automatic.
- E. The valves shall be constructed of corrosion resistant materials, be capable of operating with a working pressure of 200 psi and provide drop-tight shut-off.
- F. Model/Manufacturer:
 - 1. ARI Model D-040/ARI Flow Control Accessories – water
 - 2. ARI Model D-020, S020, S022 for sewer and reclaimed water
 - 3. Approved equal

2.10 TAPPING SLEEVES AND VALVES

- A. General:
 - 1. On water mains 12" and smaller, tapping sleeve shall be stainless steel type or mechanical joint type.
 - 2. On water mains 12" and larger, tapping sleeve shall be ductile iron type.
 - 3. Valves shall conform with "Gate Valves" listed herein.
- B. Stainless Steel Type:
 - 1. Sleeve shall be Type 304 Stainless Steel with test plug. "Waffle" 360° gasket with integral gap bridge. Outlet flange with dimensions and drilling that comply with ANSI B16.1, class 125 and with MSSSP-60.
 - 2. Manufacturers:
 - a. Mueller Co., Water Products Division
 - b. Approved equal.
- C. Ductile iron type:
 - 1. Sleeve shall be type shall be full sleeve mechanical joint manufactured from ductile iron meeting ASTM A536, Grade 65-45-12. Outlet flange with dimensions and drilling that comply with ANSI B16.1, class 125 and with MSSSP-60.
 - 2. Manufacturers:
 - a. Mueller Co., Water Products Division
 - b. American Cast Iron Pipe Co., American Flow Control Division
 - c. Approved equal.



D. Tapping Valve:

1. Resilient wedge type with non rising stem. Conforms to all applicable parts of ANSI/AWWA C500 and C509 Standards. One end flanged with alignment lip to attach to tapping sleeve.
2. Manufacturers/Model:
 - a. Mueller Co., Water Products Division, Model T2360
 - b. Approved equal.

2.11 HOSE BIBBS

- A. Hose bibb shall be rough bronze body, with wheel handle, renewable composition disc, 1/2- or 3/4-inch threaded or solder-joint inlet. Provide ASME B1.20.7 garden-hose threads on outlet and integral or field-installed, nonremovable, drainable, hose connection vacuum breaker.

2.12 VALVE BOXES AND ACCESSORIES

- A. Valve boxes shall consist of precast concrete risers with cast iron frames and covers. Valve box risers shall be pre-cast concrete made accurately to the required dimensions, and shall be sound, smooth, clean and free from blisters and other defects. Defective castings which have been plugged or otherwise treated to remedy defects shall be rejected. Contact surfaces of frames and covers shall be machined so that the covers rest securely in the frames with no rocking and with the cover in contact with the frames for the entire perimeter of the contact surface.
1. Manufacturers:
 - a. Hula Concrete Products, Hickman TN
 - b. Approved equal.
- B. Install valve boxes on each proposed valve in accordance with the details shown on the standard drawings.
- C. Frames for reclaimed water valves are round.
- D. Cast iron frame and cover shall be roadway type for other applications. Unless otherwise instructed by Resident Project Representative, furnish frame and covers specified below.
1. Manufacturers:
 - a. John Bouchard No. 8006
 - b. Vulcan No. V-8455



2.13 MANUAL OPERATORS

A. General:

1. Valves for water and wastewater service shall open to the left.
2. Valves for reclaimed water service shall open to the right.
3. Operator force not to exceed 40 pounds under any operating condition, including initial breakaway. Gear reduction operator when force exceeds 40 pounds.
4. Operator self-locking type or equipped with self-locking device.
5. Position indicator on quarter-turn valves.
6. Worm and gear operators one-piece design worm-gears of gear bronze material. Worm hardened alloy steel with thread ground and polished. Traveling nut type operators threader steel reach rods with internally threaded bronze or ductile iron nut.

B. Exposed Operator:

1. Galvanized and painted handwheels.
2. Lever operators allowed on quarter-turn valves 8 inches and smaller.
3. Cranks on gear type operators.
4. Chain wheel operator with tiebacks, extension stem, floor stands, and other accessories to permit operation from normal operation level.
5. Valve handles shall be designed to be locked.

C. Buried Operator:

1. Buried service operators on valves larger than 2-1/2 inches shall have a 2-inch AWWA operating nut. Buried operators on valves 2 inches and smaller shall have cross handle for operation by forked key. Enclose moving parts of valve and operator in housing to prevent contact with the soil.

2.14 BLOW OFF VALVE ASSEMBLIES

- A. Blow off valve assemblies shall be required for dead end mains, or as otherwise required by the WMD, and shall be equal to the main size.
- B. The blow off shall be installed in a concrete valve box with the ball valve located 1 foot from the top of the box. The tracer wire shall be extended into the concrete valve box.
- C. The blow off assembly shall consist of a 2" threaded brass 90 degree bend, a 2" threaded brass pipe, ball valve, and a 2 1/2" diameter brass nipple 5" long with standard thread on one end and hose thread on the other end.



PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine piping system for compliance with requirements for installation tolerances and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.
- C. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
- D. Examine threads on valve and mating pipe for form and cleanliness.
- E. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, its material composition is suitable for service, and it is free from defects and damage.
- F. Do not attempt to repair defective valves; replace with new valves.

3.2 VALVE INSTALLATION

- A. Piping installation requirements are specified in other Division 33 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. All valves and appurtenances shall be installed in strict conformance with the Drawings and manufacturer's instructions.
- C. Location of Valves:
 - 1. In water mains, valves shall be located on the street right-of-way(R.O.W.) where possible.
 - 2. Valves should installed be no more than 1,000 feet apart.
 - 3. Need to place a valve at each T of an intersection. For example: if at a 3 way intersection you need 3 valves and at a 4 way intersection you need to have 4 valves.
- D. Locate valves for easy access and for routine operation and maintenance. Provide separate support where necessary.



- E. Install valves so handles operate from fully opened to fully closed without encountering obstructions.
- F. Valves shall be installed in such a way that operators and packing are easily accessible. Valves with field replaceable seats shall be installed with sufficient clearance to permit removal of the valve bonnet and stem without removing the valve from the line.
- G. Install valves in horizontal piping with stem at or above the center of pipe. Operators shall be positioned so that they do not interfere with pedestrian traffic. In passageways or above platforms, the minimum clearance between the floor and the lowest protruding point on the valve or operator shall be six feet, eight inches (6'-8"). All valves shall be accessible for operation, maintenance, or removal.
- H. Positioners or actuators shall be provided special support where they overhang from the valve or where the total valve, actuator, and position weight is excessive for the size of the pipeline.
- I. Install valves with unions, dismantling joints, or flanged coupling adapters at each piece of equipment arranged to allow service, maintenance, and equipment removal without system shutdown.
- J. Install valves in position to allow full stem movement.
- K. Install check valves for proper direction of flow and as follows:
 - 1. Swing Check Valves: In horizontal position with hinge pin level.
 - 2. Single-Plate Check Valves: In horizontal or vertical position, between flanges.
 - 3. Lift Check Valves: With stem upright and plumb.
- L. Install chainwheel operators on valves 4-inches and larger and more than 7 feet above the floor. Extend chains to 5 feet above finished floor elevation.
- M. Extension Stem for Operator: Where the depth of the valve is such that its centerline is more than 5 feet below grade, furnish an operating extension stem with 2-inch operating nut to bring the operating nut to a point 12 inches below the surface of the ground and/or box cover.

3.3 TESTING AND INSPECTION

- A. Valve may either be tested while testing pipelines or as a separate step.
- B. Following installation, the Contractor shall test that all valves open and close smoothly under anticipated operating conditions. The ability of the valves to operate properly without



leakage, binding, sticking, fluttering, or excessive operating torque shall be demonstrated to the satisfaction of the Resident Project Representative. The Contractor shall at his own expense adjust and/or replace any valve as necessary to ensure satisfactory operation.

- C. Count and record the number of turns to open and close the valve. Account for any discrepancies with the manufacturer's data.
- D. Automatic valves to be tested in conjunction with control system testing.

3.4 MANUFACTURER'S SERVICES

- A. Manufacturer's authorized representative shall be present at the jobsite for a minimum of one day (excluding travel time) for installation assistance and inspection.
- B. Manufacturer's authorized representative shall be present at the jobsite for a minimum of one day (excluding travel time) for equipment start-up, functional and performance testing, and to train Owner's personnel in the operation, maintenance, and troubleshooting of the equipment provided.

3.5 ADJUSTING

- A. Adjust or replace valve packing after piping systems have been tested and put into service but before final adjusting and balancing. Replace valves if persistent leaking occurs.

END OF SECTION



PART 1 – GENERAL

1.1 SCOPE

- A. Work covered by this section includes furnishing all materials, labor, and equipment required to furnish, install, and test fire hydrants and yard hydrants and accessories as specified herein and/or shown on the Drawings.

1.2 SHOP DRAWINGS AND ENGINEERING DATA

- A. Complete shop drawings and engineering data shall be submitted to the Owner.

1.3 STORAGE AND PROTECTION

- A. Hydrants shall be stored and protected in accordance with manufacturer's requirements.

1.4 SHOP PAINTING

- A. Hydrants and accessories shall be cleaned, shop primed, and shop painted as specified herein.

1.5 OPERATION AND MAINTENANCE DATA

- A. Submit complete operation and maintenance data on the hydrants to the Owner.

1.6 GUARANTEE

- A. Provide a guarantee against defective or deficient equipment and workmanship.

1.7 QUALITY ASSURANCE

- A. The manufacturer of the fire hydrants shall furnish a written certification to the Owner that all hydrants furnished comply with all applicable requirements of AWWA C502, latest edition.

1.8 GENERAL REQUIREMENTS

- A. A fire hydrant shall be installed at the end of 6" and larger dead end water mains for flushing purposes.
- B. Public hydrants are those owned by the WMD.
- C. The number and spacing of hydrants shall be in accordance with the International Fire Code as adopted.



- D. All public fire hydrants shall be installed at street intersections where possible.
- E. Public hydrant spacing shall be measured along vehicle access routes.
- F. The fire department will review all hydrant locations.

PART 2 – PRODUCTS

2.1 FIRE HYDRANTS

- A. Manufacturers
 - 1. American Darling 5-1/4", B-84-B-5
 - 2. Mueller, "Super Centurion" No. A423
 - 3. Approved equal
- B. Fire hydrants shall be of the dry-barrel, compression type and shall conform to applicable requirements of AWWA C502, latest edition. Fire hydrants shall be cast iron, bronze mounted, suitable for a working pressure of 200 psi. Name of the manufacturer and size of the main valve shall be cast upon the hydrant in raised letters.
- C. Hydrants shall be constructed in a manner that will permit withdrawal of internal working parts without disturbing the barrel or casing. Valve shall be compression type, opening against pressure and so constructed that the main valve will remain closed should the hydrant be broken off by traffic accident. Valve opening shall be at least 5-1/4 inches in diameter and shall have a net area of waterway at the smallest part of not less than 120 percent of the valve opening when the valve is wide open. There shall be no chattering or water hammer under any conditions of operation.
- D. Barrel shall be made in two pieces with flanged joint above the finished grade or ground line. Lower barrel shall be fluted for strength and tapered to prevent frost heave. Ground line flange shall be of the break-away type. Two positive acting, bronze fitted drain valves shall be provided in the hydrant shoe automatically to open and provide rapid and complete drainage of the hydrant barrel when the main valve is closed.
- E. Hydrant bonnet shall be designed to protect the operating head against rust, corrosion, and dirt. The stuffing box shall have bronze glands and O-ring seal. Suitable means shall be provided for lubricating the stem threads, O-ring, and bearing surfaces in the bonnet.



- F. The main valve rod shall be of steel and shall be bronze sheathed where it passes through the stuffing box. Stem shall be equipped with a two-piece safety or breakable stem coupling to prevent damage to the stem when hydrant is hit by a vehicle. A positive stop shall be provided to permit full opening of the valve and prevent over-travel of the stem.
- G. Direction of opening shall be counterclockwise and shall be cast on the head. Operating nut shall be National Standard, 1-1/2-inch, pentagon shaped.
- H. Two 2-1/2-inch hose nozzles and one 4-1/2-inch pumper nozzle shall be provided on each hydrant. Hose and pumper nipples shall be of bronze or non-corrosive metal, and threads shall be National Standard in accordance with NFPA Standard No. 194. Nipple caps shall be securely chained to the barrel with galvanized, non-kinking chains.
- I. Hydrants that are to be connected to ductile iron pipe shall be equipped with mechanical joint inlet with restrained joint gland, gaskets, bolts, and nuts. Suitable ring-tight or fluid-tight inlets shall be provided on hydrants that are to be connected to cement asbestos pipe. Inlet bell shall have two lugs for harness restraint.
- J. After fabrication, all exterior aboveground ferrous surfaces shall be blast-cleaned and painted at the shop with one coat of zinc chromate primer conforming to Federal Specification TT-P-636 and one coat of compatible alkyd enamel. Color shall be fire hydrant yellow. All interior and belowground, non-machined ferrous surfaces shall be blast-cleaned and painted at the shop with two coats of asphaltic varnish conforming to Federal Specification TT-V-51c.

2.2 YARD HYDRANTS

- A. Yard Hydrants shall only be installed at a pump station, lift station, water tank, or a booster station.
- B. Yard hydrants shall be of the nonfreezing, compression, post type hydrant with self-draining barrel as manufactured by Zurn Industries, Model Z1390 or approved equal. Yard hydrants shall be suitable for 125 psi static pressure.
- C. Yard hydrants shall have a brass casing and base, bronze seats, resilient-faced disc, O-ring stem seal, bronze or stainless steel stem, and galvanized steel barrel.
- D. Yard hydrants shall be furnished with 2-inch threaded female inlet connection per ANSI B2.1 and threaded 1-1/2-inch male outlet hose connection. A "T" or wheel handle shall be furnished to operate the valve.



- E. All internal working parts shall be readily accessible and removable through the top for ease of maintenance.
- F. Contractor shall provide 10 1-inch by 3/4-inch brass adapters for use on yard hydrants.

2.3 SPARE PARTS

- A. The following spare parts shall be furnished for hydrants furnished under this section, where applicable:

PART	NUMBER REQUIRED
Packing, O-rings, and Gaskets	One set each hydrant
Main Valve Disc	One each hydrant
Drain Valve Facing	One each hydrant
Break-away Flange Repair Kit	One set with Stem Coupling
Seat Wrench	One each type required
Lubricants	One year supply

- B. Spare parts shall be suitably protected against corrosion and impact to withstand long-term storage. Parts shall be clearly identified with the manufacturer's name and number and the equipment to which they belong.

PART 3 – EXECUTION

3.1 FACTORY TESTING

- A. Each hydrant shall be tested at the factory at a hydrostatic pressure of 300 psig in accordance with AWWA C502, Section 5. Hydrants shall be tested in both the open and closed positions. Hydrants shall be completely drained and closed before shipment.

3.2 INSTALLATION

- A. Hydrants shall be installed at the locations and in the manner shown on the Drawings. Hydrants shall be inspected, cleaned, and tested for operation prior to installation.
- B. Fire hydrants shall be installed 3 feet to 7 feet from the sidewalk.
- C. Fire hydrants shall be isolated from the water supply main with a buried gate valve not less than 6 inches in size. Hydrants shall be installed in a suitable rock drain and anchored against thrust according to the Specifications. Upper barrel joint shall be located approximately 2



- inches above ground level. Barrel extensions shall be furnished as necessary.
- D. Each yard hydrant shall be isolated from the water supply by a 1-inch curb stop as shown on the Drawings.
 - E. After installation, each valve shall be tested in the presence of the Owner for proper operation and leak-tightness. Any leaks shall be corrected.
 - F. Following installation and testing, exposed ferrous surfaces of hydrants shall be field painted with alkyd system ferrous metal finish.

END OF SECTION



PART 1 - GENERAL

1.1 SUBMITTALS

- A. Product Data:
 - 1. Tapping Saddles
 - 2. Corporation Stops
 - 3. Service Pipes
 - 4. Curb Stops
 - 5. Water Meters
 - 6. Meter Boxes
 - 7. Water Pressure Regulators
 - 8. Reduced Pressure Backflow Preventers (RPBP)
 - 9. Double Check Valve Assemblies (DCA)
 - 10. Linesetters

PART 2 - PRODUCTS

2.1 TAPPING SADDLE

- A. Tapping saddles shall have double straps or a double wide band and shall be suitable for use with the various pipes at the installation point (i.e. will not cause electrolysis). For ¾-inch and 1-inch services, use a direct tap. For 1 ½-inch and 2-inch, use a tapping saddle.
 - 1. Manufacturer / Model:
 - a. Smith-Blair Double Bale Model 313,
 - b. Mueller BR2B,
 - c. Ford Meter Box Style 202B,
 - d. Approved equal.

2.2 CORPORATION VALVE

- A. Corporation valve shall be designed and manufactured to conform to AWWA C800-84 and ASTM B-62 which cover thread dimensions, metal alloy (red brass: 85-5-5-5), and pressure rating. Inlet threads shall be AWWA Taper Thread CC. The outlet shall be suitable for the service piping required. Corporation valve shall be directly tapped into the water line/main using a tapping saddle. Insulators shall be used on dissimilar pipes as necessary for protection against electrolysis. Corporation valve shall be ball valve type suitable for pressures up to 300 psi.
 - 1. Manufacturer / Model:
 - a. Ford Meter Box F1000 for ¾-inch and 1-inch
 - b. Ford Meter Box FB1000 for 1 ½-inch and 2-inch
 - c. Mueller B-20046N
 - d. Approved equal.



2.3 SERVICE PIPE

- A. Residential service pipe shall be 3/4-inch. Service pipe, sizes 3/4-inch through 2- inch, shall be one solid continuous run and of the following material(s):
 - 1. Copper:
 - a. Below Grade: Type K, annealed temper, hard or soft copper tubing in accordance with ASTM B88.
 - b. Above Grade: Type M, drawn temper, hard or soft copper tubing in accordance with ASTM B88.
 - 2. Any alteration of service shall result in replacement from tap to meter in one continuous run.

2.4 LINESETTER

- A. Meters shall be installed with a linesetter manufactured in compliance with ANSI/AWWA C800 (latest revision). The linesetter shall have lead free solder joints and factory air tested under water at 85 PSIG. The line setter shall include a check valve locking ball style meter valve.
- B. Manufacturer / Model:
 - 1. McDonald 720 Series
 - 2. Approved equal

2.5 WATER METER

- A. Water meters 3/4-inch to 2-inch shall be provided by the WMD. Meters larger than 2 inches may be installed by the WMD but at the Contractor's expense.
- B. Water meters 3-inch and larger shall be cold water turbine type meeting all requirements of ANSI/AWWA C701 or C702 as determined by the WMD. Meter registers shall be straight reading in U.S. gallons and be equipped with a device to afford capability for accurately testing the meter in accordance with AWWA Standards. The meters shall be equipped with a removable corrosion resistant strainer screen between the outer case and measuring chamber. The body case shall have the manufacturer's serial number imprinted thereon and have raised markings to indicate the direction of flow. At a minimum, meters shall be rated to withstand a pressure of 150 psi. All meters shall be equipped with Radio Read Technology (SmartPoint 520M).
- C. Manufacturer / Model:
 - 1. Sensus Omni C² or T²



2.6 METER BOX

- A. Meter boxes shall be high density polyethylene straight wall style. Wall thickness shall be such that when buried the box will support an incidental traffic load. Top cover shall be removable with ductile iron traffic rated meter reading lid per ASTM A536. Reading lid shall have lettering "WATER METER". Meter boxes shall be sized based on the meter size and other appurtenances to be included within the box.

- B. Manufacturer / Model:

Meter Size	Meter Box	Meter Lid
¾"	Sigma-Raven RMB132418-SW*	Sigma LC 1324T-D*
1"	Sigma-Raven RMB132418-SW*	Sigma LC 1324T-D*
1 ½"	Sigma-Raven RMB173018-SW*	Sigma LC 1730T-D*
2"	Sigma-Raven RMB173018-SW*	Sigma LC 1730T-D*

*Or approved equal

2.7 REDUCED PRESSURE BACKFLOW PREVENTER

- A. Reduced pressure zone assembly shall be installed at each possible cross-connection to prevent backsiphonage and backpressure backflow of hazardous materials into the potable water supply. If the assembly is installed in a location with more than its rated working pressure, a water pressure regulator shall be installed upstream of the assembly.
- B. The assembly shall consist of a pressure differential relief valve located in a zone between two positive seating check valves.
- C. Backsiphonage protection shall include provision to admit air directly into the reduced pressure zone via a separate channel from the water discharge channel, or directly into the supply pipe via a separate vent.
- D. The assembly shall include two quarter-turn ball valves before and after the check valves, test cock, and air gap.
- E. The assembly shall meet the requirements of ASSE Standard 1013; AWWA C-511-92 CSA B64.4 and national plumbing codes.
- F. Materials:
1. Check Valve Body: Bronze
 2. Check Valve Seat: 909 Celcon
 3. Relief Valve Body: Bronze or FDA Epoxy Coated Cast Iron
 4. Relief Valve Trim: Stainless Steel
 5. Strainer: Bronze or FDA Epoxy Coated Cast Iron



- G. Drain lines shall be provided for assembly discharge.
- H. Contractor to see approved Cross Connection Control plan at the Water Management Department office or the City of Franklin website (franklintn.gov).
- I. Manufacturer / Model:
 - 1. Watts Industries, Inc. Series 909 with Series 909AG Air Gap
 - 2. Approved equal

2.8 DOUBLE-CHECK ASSEMBLY

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Watts Industries, Inc.; Water Products Div.
 - 2. Approved equal
- B. Standard: ASSE 1048 and FMG approved or UL listed
- C. Operation: Continuous-pressure applications
- D. Pressure Loss: 5 psig (35 kPa) maximum, through middle 1/3 of flow range
- E. Size: As scheduled on drawings
- F. Design Flow Rate: As scheduled on drawings
- G. Body: Cast iron with interior lining complying with AWWA C550 or that is FDA approved
- H. End Connections: Flanged

PART 3 - EXECUTION

3.1 PREPARATION

- A. Make no service assembly connections without approval from the WMD.
- B. No taps shall be made in any size pipe without approval of the WMD.
- C. All service pipe shall be renewed from the new water line to existing meter location unless otherwise directed by the Drawings or WMD. Where encountered, existing galvanized iron service piping shall be replaced up to a point 10 feet beyond the meter box.
- D. Existing service assemblies and meter boxes shall be replaced by new equipment unless otherwise directed by the Drawings or WMD.



- E. Service pipe shall be installed and connected to house/building service (at right-of-way or easement) in accordance with national and local plumbing codes, the details shown on the Drawings, and as specified for customer service connections/re-connections.

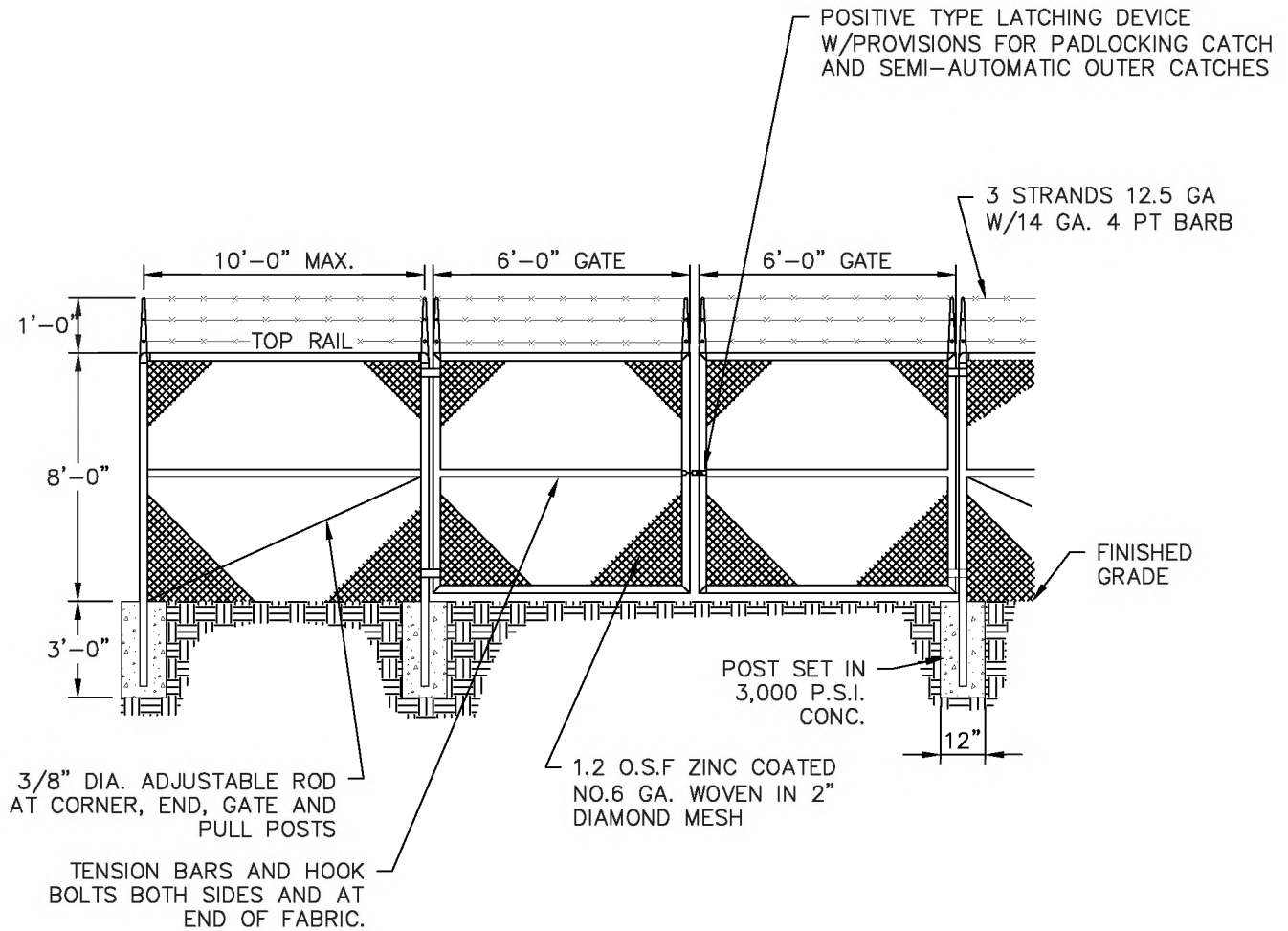
3.2 INSTALLATION

- A. In general, install the meter box as near the property line as possible within the public right-of-way, in the center of the building lot and out of the way of driveways, landscaping, headwalls, etc. Set plumb approximately 1 inch above the existing or proposed grade and so that the surface drainage will not enter it. Fill from the existing or proposed grade to the top of the meter box at a slope of 1:12. When the cut or fill slopes extend beyond the public right-of-way, install the meter box at the top or toe of slope, as applicable, or as directed by the Owner. Place a minimum of 2 cubic feet of clean dirt (free of rocks and bricks) under each meter box.
- B. Set the line setter plumb and level at the bottom of the meter box.
- C. For connecting the service lines to line setter and corporation cocks, use compression type connections.
- D. All residential meters shall be installed by the WMD. No meter shall be removed, tampered with, relocated, etc., unless approved by the WMD.
- E. Where existing water service is proposed to be interrupted by the abandonment/ retirement of an existing water line, Contractor shall reconnect service pipe to the new water line unless otherwise directed by the Drawings or WMD. Service assembly renewal shall be done after successful leakage and bacteriological testing of the new water line has been completed.
- F. Service pipe proposed to be installed under paved roads shall be done utilizing trenchless installation methods, unless otherwise directed by the Drawings or WMD. If rock is encountered, the governing roadway Agency should be contacted regarding open cutting the road to install the service pipe. Backfill and pavement repair requirements of the governing roadway Agency shall be followed. In some cases, the proposed service pipe crossing may need to be relocated. Minimum service pipe cover shall be the 36 inches under roadways.
- G. Service pipe proposed to be installed parallel to a roadway shall have a minimum pipe cover of 30 inches.
- H. Service pipe shall be installed at a minimum depth of 24 inches from the corporation valve to the meter box.
- I. After the service pipe and line setter is installed, turn water on service pipe between meter setter and main, blowing any accumulated trash out of the service pipe. A single piece of



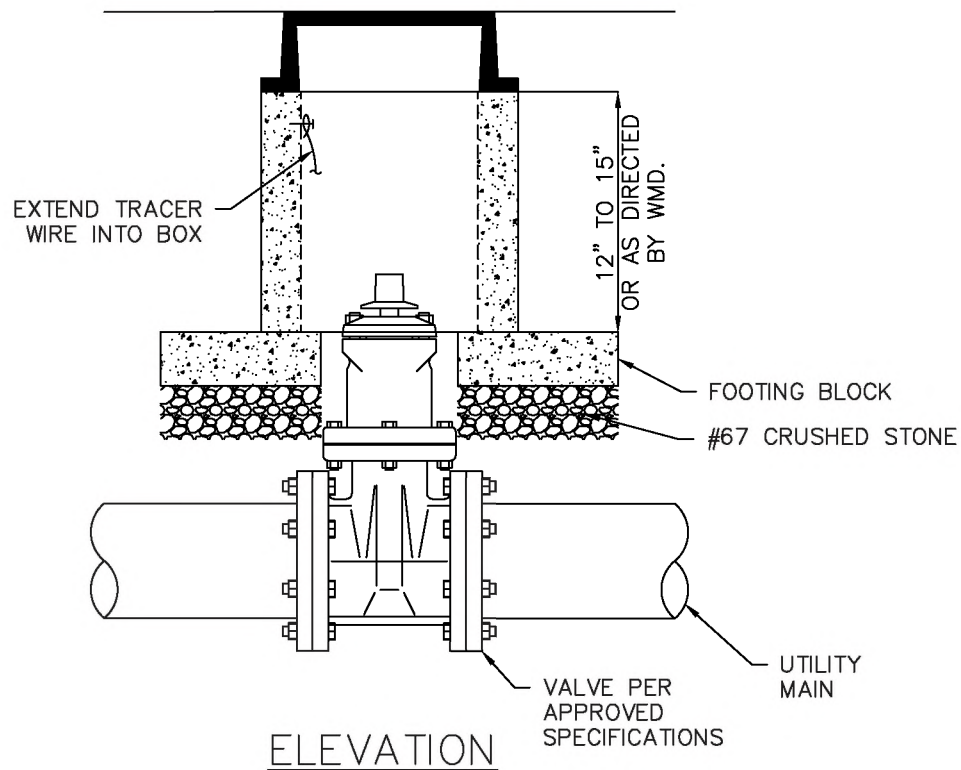
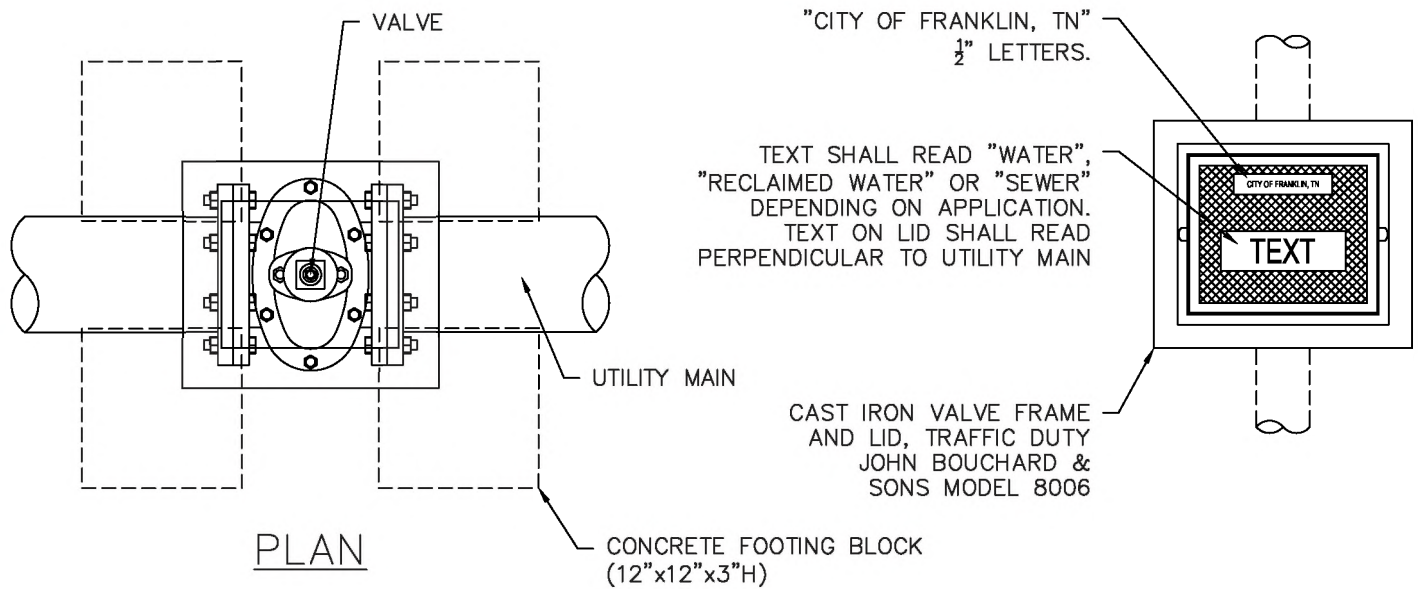
- copper pipe shall be used from the main to the meter unless the meter is over 100 feet from the main.
- J. Reduced pressure backflow preventers and double check valve backflow assemblies shall be installed in locations that facilitate testing and servicing, protects against freezing and vandalism, and allows for proper drainage.
 - K. The meter box is to be installed at a location such that it will not be in a driveway, sidewalk, or under shrubs and trees. If, during construction of homes, the meter location conflicts with the location of the driveway, then the meter shall be moved at the expense of the builder or developer. A marker pole shall be installed at the meter box with a minimum of 3 feet in the ground and 2 feet above ground. The above ground portion of the pipe shall be painted blue.

END OF SECTION



NOTES:

- 1) ALL POSTS AND OTHER APPURTENANCES SHALL BE HOT DIP GALVANIZED W/ MIN. 1.8 O.S.F. ZINC. ALL FITTINGS SHALL BE MALLEABLE OR DUCTILE IRON OR STEEL.



NOTES:

- 1) FOUR (4) CONCRETE BLOCKS ARE TO BE PLACED UNDER EACH CORNER OF THE VALVE BOX AS SHOWN.
- 2) CONCRETE SHALL BE 4,000 PSI @ 28 DAYS REINFORCED WITH WELDED WIRE MESH.
- 3) STRUCTURE SHALL CONFORM TO ASTM C858.

CONCRETE VALVE BOX

DWG. NO.

G-2

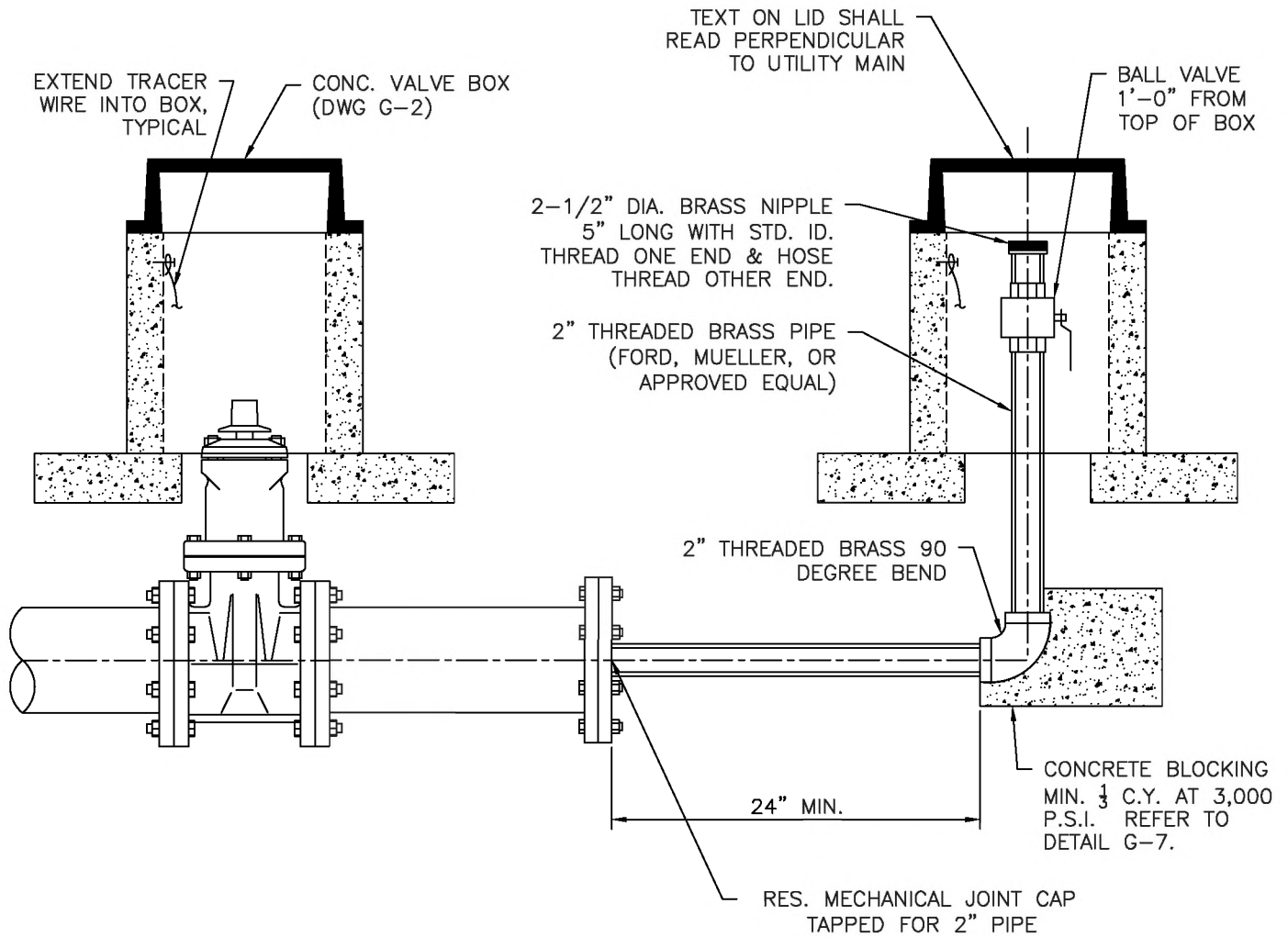


CITY OF FRANKLIN

NOT TO SCALE

WATER
MANAGEMENT
DIRECTOR:

DATE:
10/16/2019



MAIN SIZE	END PIPE SIZE
4" - 12"	2" BLOW-OFF

NOTES:

- 1) FOR MAINS THAT ARE TO BE EXTENDED USE A VALVE EQUAL TO THE MAIN SIZE AS THE BLOW-OFF CONTROL VALVE AND THEN REDUCE TO 2" PIPE.

RECLAIMED WATER MARKER LABEL:

CAUTION – RECLAIMED WATER PIPELINE
NON-POTABLE WATER
DO NOT DRINK

CITY OF FRANKLIN WATER MANAGEMENT
DEPARTMENT (615) 794-4554

MARKER COLOR: PURPLE

SANITARY SEWER MARKER LABEL:

CAUTION – SANITARY SEWER PIPELINE
DO NOT DRINK

CITY OF FRANKLIN WATER MANAGEMENT
DEPARTMENT (615) 794-4554

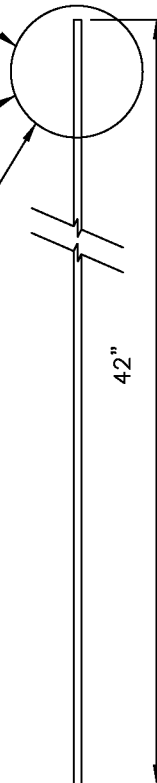
MARKER COLOR: GREEN

DRINKING WATER LABEL:

CAUTION – WATER PIPELINE

CITY OF FRANKLIN WATER MANAGEMENT
DEPARTMENT (615) 794-4554

MARKER COLOR: BLUE



NOTES:

- 1) MARKER SHALL BE INSTALLED DIRECTLY BEHIND STRUCTURE WITH LABEL FACING ROADWAY.
- 2) MARKERS TO BE INSTALLED AS INDICATED ON PLANS OR WHERE DIRECTED BY OWNER.
- 3) MARKER SHALL BE CONSTRUCTED OF DURABLE, UV RESISTANT, COMPOSITE MATERIAL.



HISTORIC
FRANKLIN
TENNESSEE

UTILITY IDENTIFICATION MARKER

CITY OF FRANKLIN

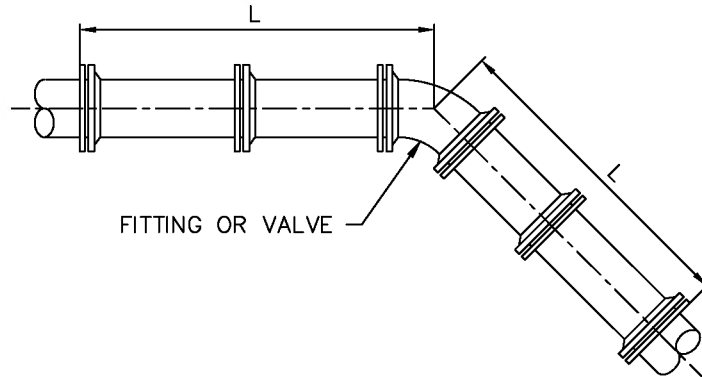
NOT TO SCALE

WATER
MANAGEMENT
DIRECTOR:

DATE: 10/16/2019

DWG. NO.

G-4



NOTES:

- 1) RESTRAINED JOINTS SHALL BE PROVIDED ON EACH SIDE OF ALL VERTICAL OR HORIZONTAL BENDS, TEES, DEAD ENDS, REDUCERS, AND VALVES.
- 2) MAXIMUM LENGTHS OF PIPE SHALL BE USED WITHIN RESTRAINED SECTIONS.
- 3) LENGTH OF RESTRAINED PIPE IS BASED ON THE FOLLOWING ASSUMPTIONS USING THE EBAA IRON CALCULATOR. IF OTHER CONDITIONS ARE ENCOUNTERED, THE LENGTH OF RESTRAINED PIPE SHALL BE ADJUSTED ACCORDINGLY. ENGINEER SHALL SUPPLY CALCULATIONS TO THE CITY OF FRANKLIN FOR REVIEW.
 - A. DESIGN SOIL TYPE: ML (WORST CASE)
 - B. SAFETY FACTOR: 1.5
 - C. TRENCH TYPE: 3
 - D. DEPTH OF BURY: 3 FEET
 - E. TEST PRESSURE: 200 PSI
 - F. REDUCERS BASED ON A REDUCTION OF ONE PIPE SIZE SMALLER

PVC PIPE									
LENGTH (L) OF PIPE TO BE RESTRAINED ON EACH SIDE OF FITTING OR VALVE (FT)									
	HORIZONTAL ELBOWS				VERTICAL ELBOWS			REDUCERS	TEES, DEAD ENDS, VALVES
PIPE DIAMETER	11 ¼	22 ½	45	90	11 ¼	22 ½	45		
4"	3	6	12	29	7	14	29	23	70
6"	4	8	17	41	10	20	41	51	99
8"	6	11	22	53	13	26	54	54	129
12"	8	15	31	73	18	37	76	97	182
16"	10	19	39	93	23	47	97	99	233
20"	11	22	46	111	28	56	118	99	282
24"	13	26	53	127	33	66	136	98	328

RESTRAINED JOINT TABLE - PVC

DWG. NO.

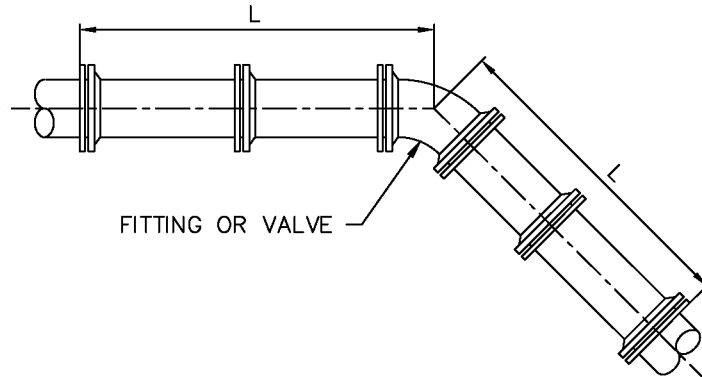
G-5

CITY OF FRANKLIN

NOT TO SCALE

WATER
MANAGEMENT
DIRECTOR:

DATE: 10/16/2019



NOTES:

- 1) RESTRAINED JOINTS SHALL BE PROVIDED ON EACH SIDE OF ALL VERTICAL OR HORIZONTAL BENDS, TEES, DEAD ENDS, REDUCERS, AND VALVES.
- 2) MAXIMUM LENGTHS OF PIPE SHALL BE USED WITHIN RESTRAINED SECTIONS.
- 3) LENGTH OF RESTRAINED PIPE IS BASED ON THE FOLLOWING ASSUMPTIONS USING DIPRA THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE. IF OTHER CONDITIONS ARE ENCOUNTERED, THE LENGTH OF RESTRAINED PIPE SHALL BE ADJUSTED ACCORDINGLY. ENGINEER SHALL SUPPLY CALCULATIONS TO THE CITY OF FRANKLIN FOR REVIEW.
 - A. DESIGN SOIL TYPE: SILT 1 (WORST CASE)
 - B. SAFETY FACTOR: 1.5
 - C. TRENCH TYPE: 3 WITH 4-INCH MINIMUM BEDDING (EXCEPT WHERE NOTED)
 - D. DEPTH OF BURY: 3 FEET
 - E. TEST PRESSURE: 200 PSI
 - F. REDUCERS BASED ON A REDUCTION OF ONE PIPE SIZE SMALLER
 - G. NON-POLY WRAPPED

DIP PIPE									
LENGTH (L) OF PIPE TO BE RESTRAINED ON EACH SIDE OF FITTING OR VALVE (FT)									
PIPE DIAMETER	HORIZONTAL ELBOWS				VERTICAL ELBOWS			REDUCERS	TEES, DEAD ENDS, VALVES
	11 ¼	22 ½	45	90	11 ¼	22 ½	45		
4"	3(6)	7(12)	14(24)	34(58)	6(9)	12(18)	24(37)	19(29)	58(90)
6"	5(8)	9(16)	20(33)	47(81)	8(12)	16(25)	34(52)	42(65)	81(126)
8"	6(10)	12(21)	26(44)	62(106)	11(16)	21(33)	44(68)	45(69)	107(165)
12"	8(15)	17(29)	36(61)	86(147)	15(23)	30(46)	62(96)	79(123)	150(231)
16"	11(18)	22(37)	45(77)	109(187)	19(29)	38(59)	79(122)	81(125)	191(295)
20"	13(22)	26(44)	54(93)	131(224)	23(35)	46(71)	95(147)	81(125)	230(355)
24"	15(25)	30(51)	63(107)	151(259)	26(41)	53(82)	111(171)	80(124)	268(414)

LENGTHS IN PARENTHESES () REPRESENT LINEAL FEET TO BE RESTRAINED WHEN PIPE IS PLACED DIRECTLY ON UNDISTURBED SUBGRADE WITHOUT BEDDING (FLAT BOTTOM TRENCH TYPE 2)

RESTRAINED JOINT TABLE - DIP

DWG. NO.

G-6

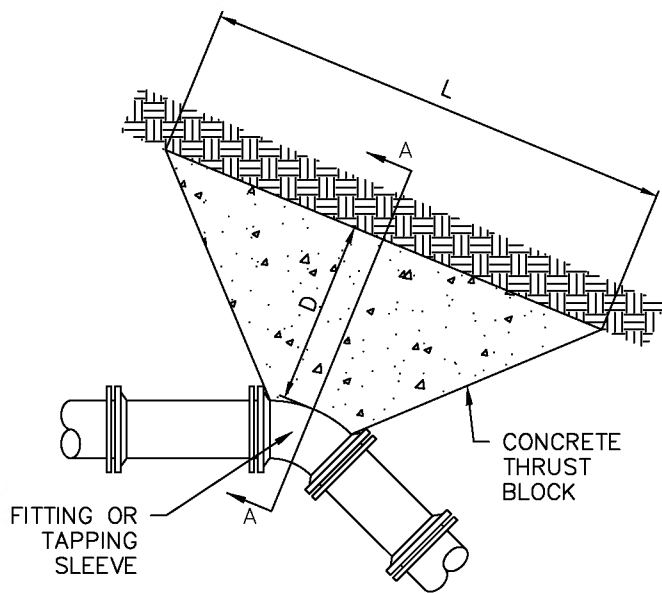


CITY OF FRANKLIN

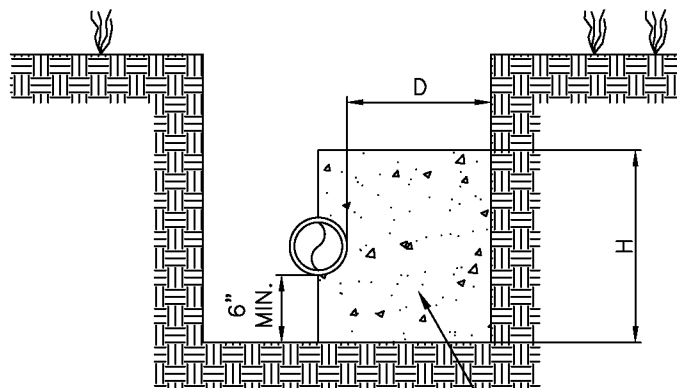
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WATER
MANAGEMENT
DIRECTOR:

DATE: 10/16/2019



PLAN



SECTION A-A

NOTES:

- 1) THRUST BLOCKS TO BE PLACED AGAINST SUITABLE, UNDISTURBED EARTH, AS APPROVED BY THE WATER MANAGEMENT DEPARTMENT.
- 2) CONCRETE STRENGTH $f'_c = 3,000$ PSI AT 28 DAYS.
- 3) ALL DIMENSIONS ARE MINIMUMS EXCEPT WHERE LARGER DIMENSION WILL INTERFERE WITH PIPE JOINTS OR BOLT REMOVAL ON FITTINGS. IN THESE CASES, SUBMIT REVISED DRAWINGS TO THE WATER MANAGEMENT DEPARTMENT.
- 4) VERTICAL BENDS REQUIRE SEPARATE DESIGN AND DETAIL BY ENGINEER.
- 5) THRUST BLOCKING SHOWN IS BASED ON THE FOLLOWING ASSUMPTIONS. IF OTHER CONDITIONS ARE ENCOUNTERED, SPECIAL DESIGN IS REQUIRED. ENGINEER SHALL SUPPLY CALCULATIONS TO THE CITY OF FRANKLIN FOR REVIEW.
 - A. BEARING AGAINST SOFT CLAY, SILT, OR ORGANIC SOILS NOT PERMITTED.
 - B. GROUNDWATER TABLE ELEVATION LOCATED BELOW BOTTOM OF BLOCK.
 - C. SAFETY FACTOR: 1.5
 - D. DEPTH OF BURY: 3 FEET
 - E. TEST PRESSURE: 200 PSI
 - F. HORIZ. SOIL BEARING: 2,000 PSF

THRUST BLOCK DIMENSIONS									
PIPE DIAMETER	D	HORIZONTAL ELBOWS						TEES, DEAD ENDS, TAPPING SLEEVES	
		22 ½		45		90			
		L	H	L	H	L	H	L	H
4"	1'-6"	1'-6"	1'-6"	1'-6"	1'-6"	2'-0"	1'-6"	1'-6"	1'-6"
6"	1'-6"	2'-0"	1'-6"	2'-6"	1'-6"	3'-0"	2'-0"	3'-0"	1'-6"
8"	1'-6"	2'-0"	1'-6"	3'-0"	2'-0"	4'-6"	2'-6"	4'-0"	2'-0"
12"	2'-0"	4'-0"	2'-0"	5'-0"	2'-6"	7'-0"	3'-6"	6'-0"	3'-0"
16"	2'-0"	5'-0"	2'-6"	7'-0"	3'-6"	10'-0"	4'-6"	8'-0"	4'-0"



HISTORIC
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TENNESSEE

THRUST BLOCK TABLE (NON-RESTRAINED JOINTS)

CITY OF FRANKLIN

NOT TO SCALE

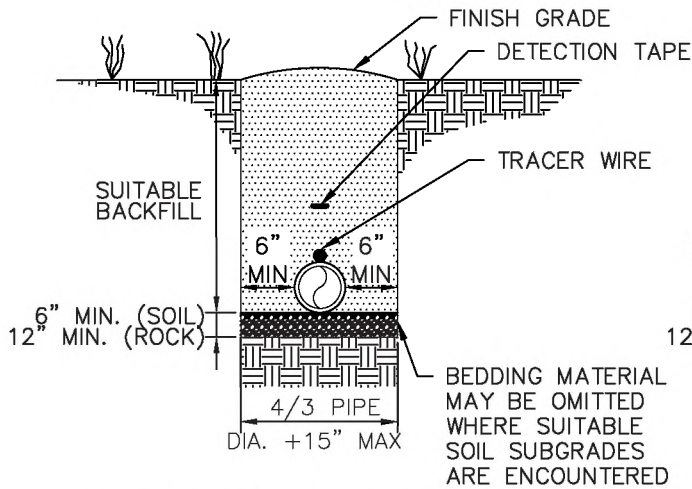
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10/16/2019

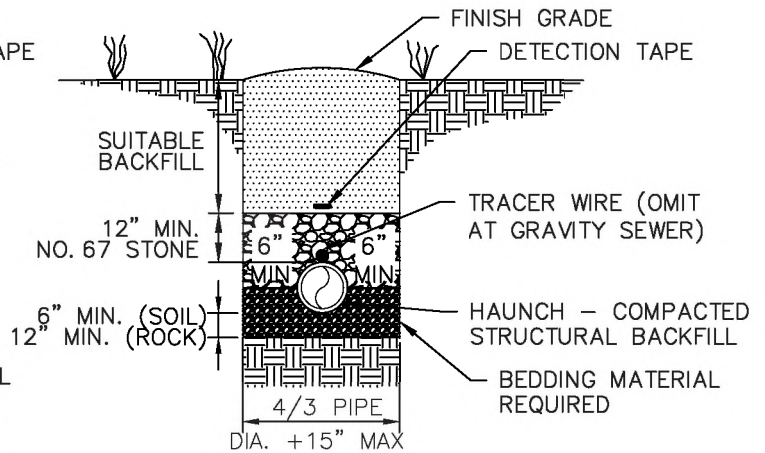
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G-7

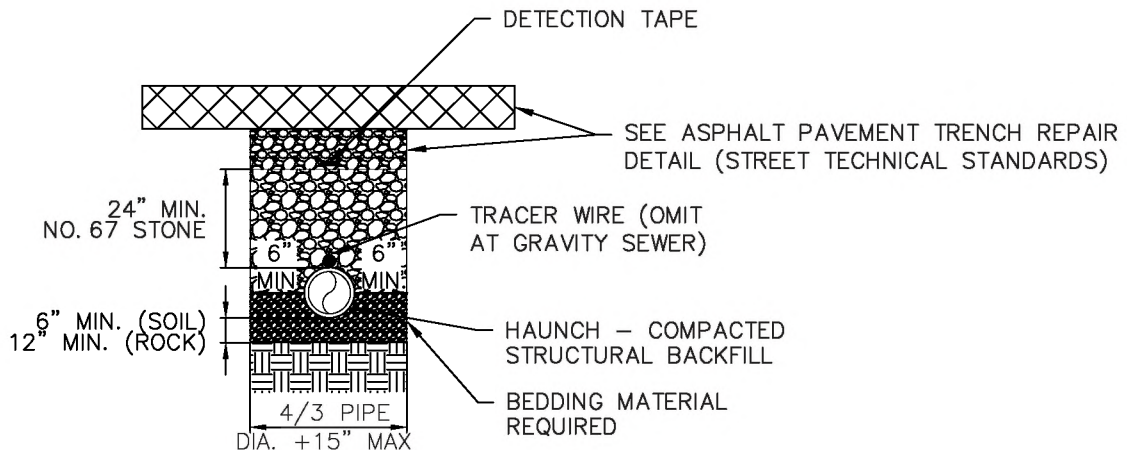
NOTE: 36" MIN. COVER
FOR ALL UTILITIES UNLESS
OTHERWISE APPROVED



DIP PRESSURE PIPE



OTHER PIPE



ALL PIPE UNDER PAVEMENT

NOTES:

- 1) ALL SUITABLE BACKFILL MATERIAL AND SUBGRADES SHALL BE APPROVED BY THE WATER MANAGEMENT DEPT.
- 2) ALL ROCK LOOSENEED SHALL BE REMOVED; VOIDS CREATED BY SUCH REMOVAL SHALL BE FILLED WITH CRUSHED STONE.
- 3) REMOVE STONE FOR PIPE BELLS TO PROVIDE FULL CONTACT OF BEDDING.
- 4) BACKFILL SHALL BE TAMPED IN 6" LIFTS.
- 5) ACHIEVE 95% COMPACTION ON ALL BACKFILL.
- 6) NO ROCKS 6" IN DIAMETER OR GREATER ALLOWED IN SUITABLE BACKFILL.
- 7) PROVIDE STONE BACKFILL FOR PIPING WITHIN DRIVEWAYS, ROADWAYS AND PARKING AREAS UNLESS OTHERWISE APPROVED. SEE ASPHALT PAVEMENT TRENCH REPAIR DETAIL WHEN IN PAVED AREAS.
- 8) TRENCH DEWATERING SHALL BE DONE IN ACCORDANCE WITH TDOT STD DRAWING EC-STR-1 AND EC-STR-2
- 9) TRACER WIRE SHALL BE COPPER CLAD, 12 GA. MIN., WITH COLOR-CODED 30 MIL. HDPE INSULATED JACKET. PROVIDE WATERPROOF GREASE FILLED CONNECTIONS AT JUNCTIONS. TRACER WIRE SYSTEM SHALL BE TESTED FOR FUNCTIONALITY PRIOR TO ACCEPTANCE. TRACER WIRE SHALL NOT BE USED FOR GRAVITY SEWER LINES.
- 10) PROVIDE CHECK DAMS AT 50'-0" O.C. MINIMUM, UNLESS OTHERWISE DIRECTED BY WMD.



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UTILITY BEDDING AND BACKFILL DETAIL

CITY OF FRANKLIN

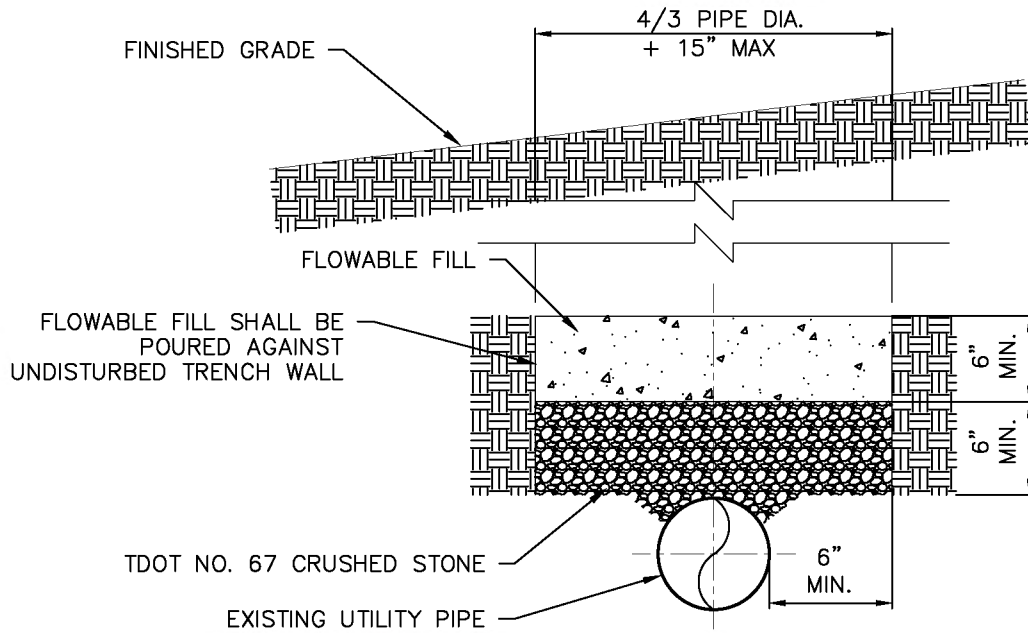
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MANAGEMENT
DIRECTOR:

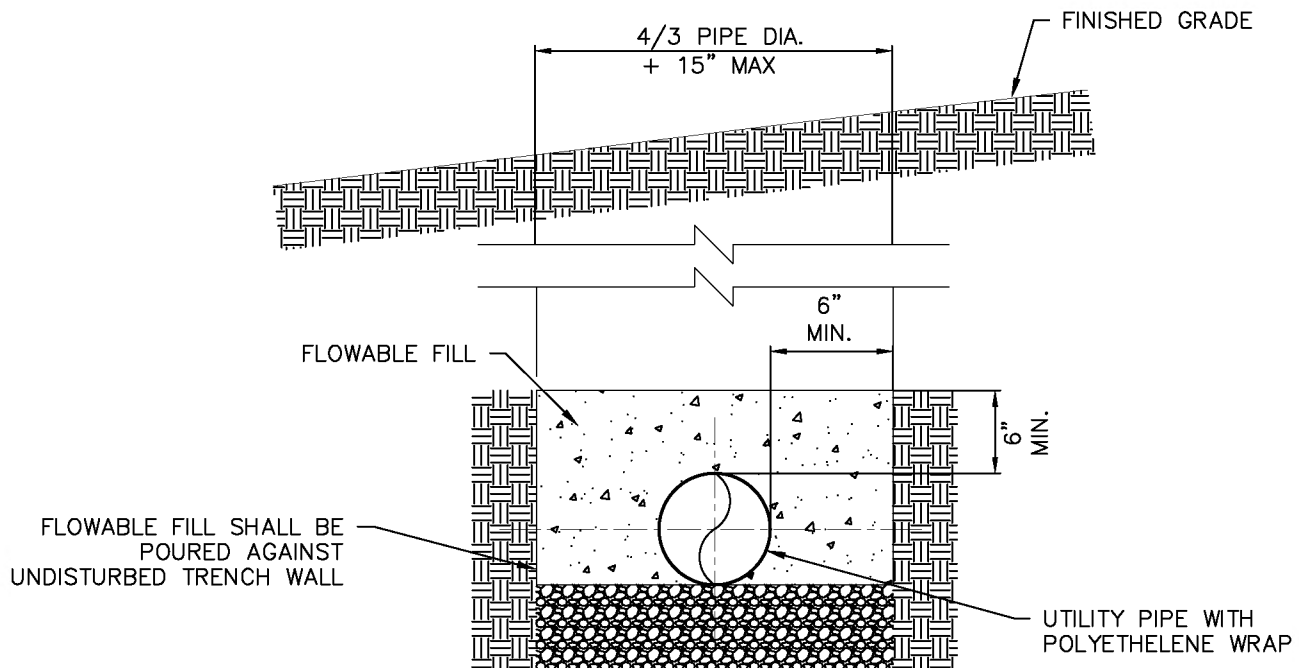
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DWG. NO.

G-8



CONCRETE PROTECTION FOR EXISTING UTILITY LINES



CONCRETE ENCASEMENT FOR NEW UTILITY LINES

NOTES:

- 1) FLOWABLE FILL (CLSM) COMPRESSION STRENGTH = 200 PSI MAX.
- 2) FLOWABLE FILL TO BE PLACED 16 HOURS BEFORE BACKFILLING TRENCH
- 3) PRIOR TO ENCASING DUCTILE IRON PIPE IN FLOWABLE FILL, WRAP PIPE WITH 4-MIL HDCL (HIGH-DENSITY, CROSS LAMINATED) POLYETHYLENE OR 8-MIL LLD (LINEAR LOW-DENSITY) POLYETHYLENE.



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CONCRETE PROTECTION FOR BURIED UTILITIES

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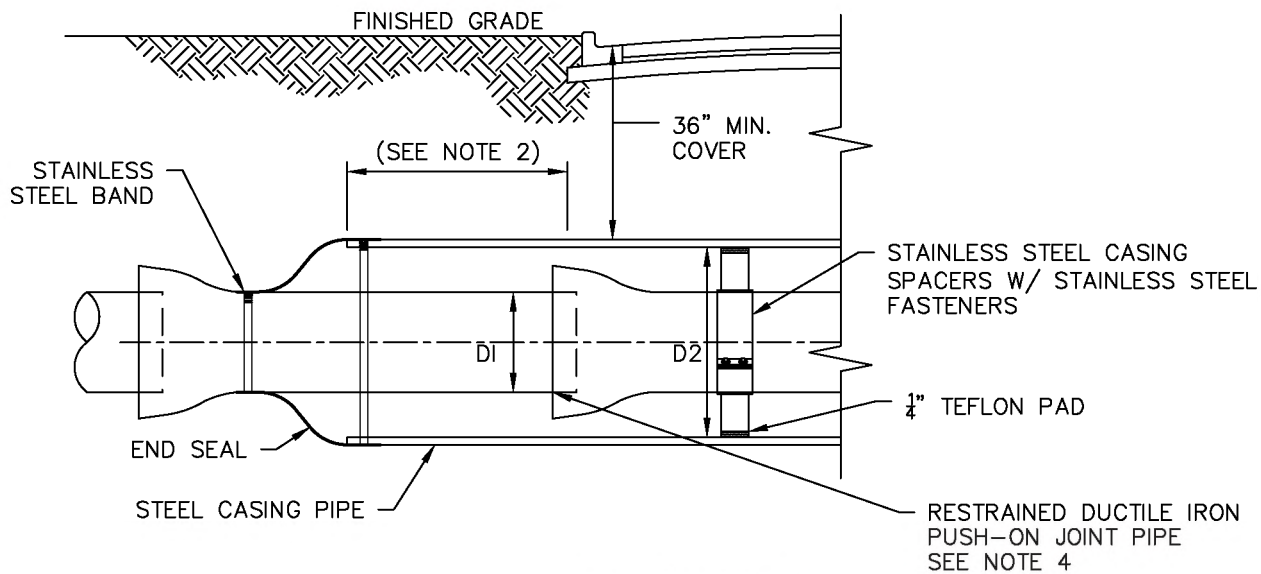
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MANAGEMENT
DIRECTOR:

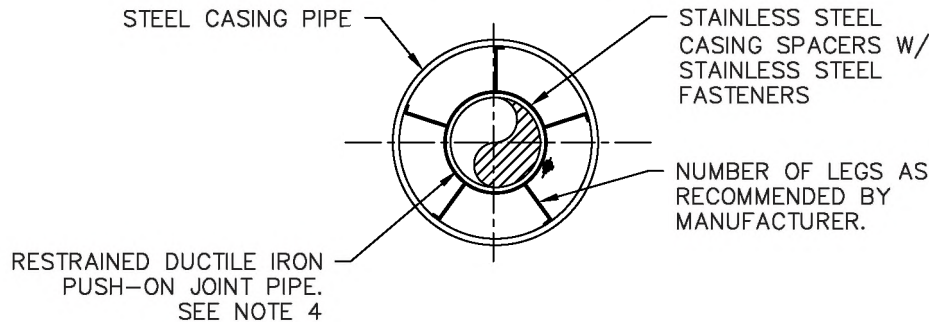
DATE: 10/16/2019

DWG. NO.

G-9



ELEVATION



SECTION

NOTES:

1. WHEN CONSTRUCTION IS WITHIN TDOT OR RAILROAD JURISDICTION, ADDITIONAL REQUIREMENTS OF EACH AGENCY SHALL BE MET.
2. CASING SHALL EXTEND A MIN. OF 10' BEYOND EDGE OF PAVEMENT OR R.O.W., WHICHEVER IS FURTHER.
3. A MINIMUM OF 3 CASING SPACERS PER 20 LINEAR FEET OF INSTALLED CARRIER PIPE SHALL BE PROVIDED.
4. CARRIER PIPE SHALL BE RESTRAINED JOINT.

CARRIER PIPE AND CASING PIPE SIZES (MIN.)

CARRIER PIPE NOM. DIA (DI)	2	4	6	8	10	12	14	16	20	24
CASING PIPE NOM. DIA. (D2)	6	14	16	18	22	24	30	30	36	48
WALL THICKNESS (IN.) R.O.W.	0.250	0.250	0.250	0.250	0.250	0.250	0.312	0.312	0.375	0.500
WALL THICKNESS (IN.) RAILROAD	0.250	0.250	0.250	0.312	0.375	0.375	0.500	0.500	0.563	0.625



HISTORIC
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TENNESSEE

BORE AND JACK CASING

CITY OF FRANKLIN

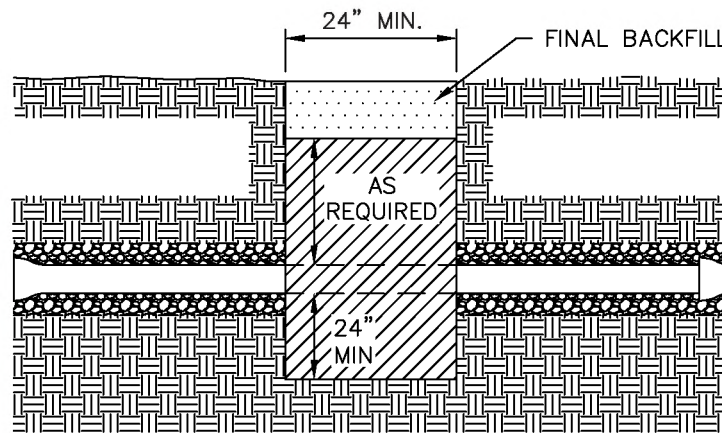
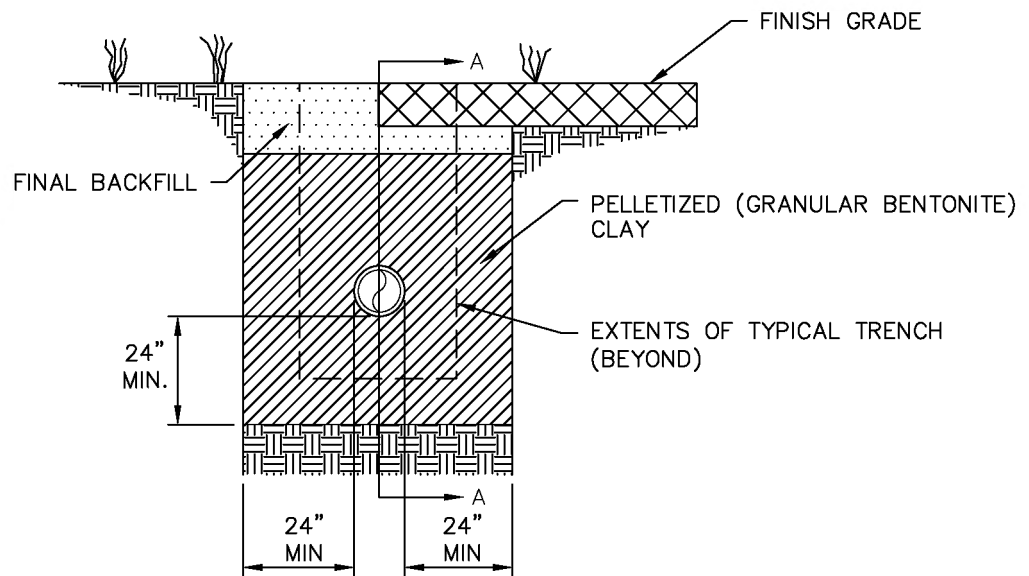
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DIRECTOR:

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10/16/2019

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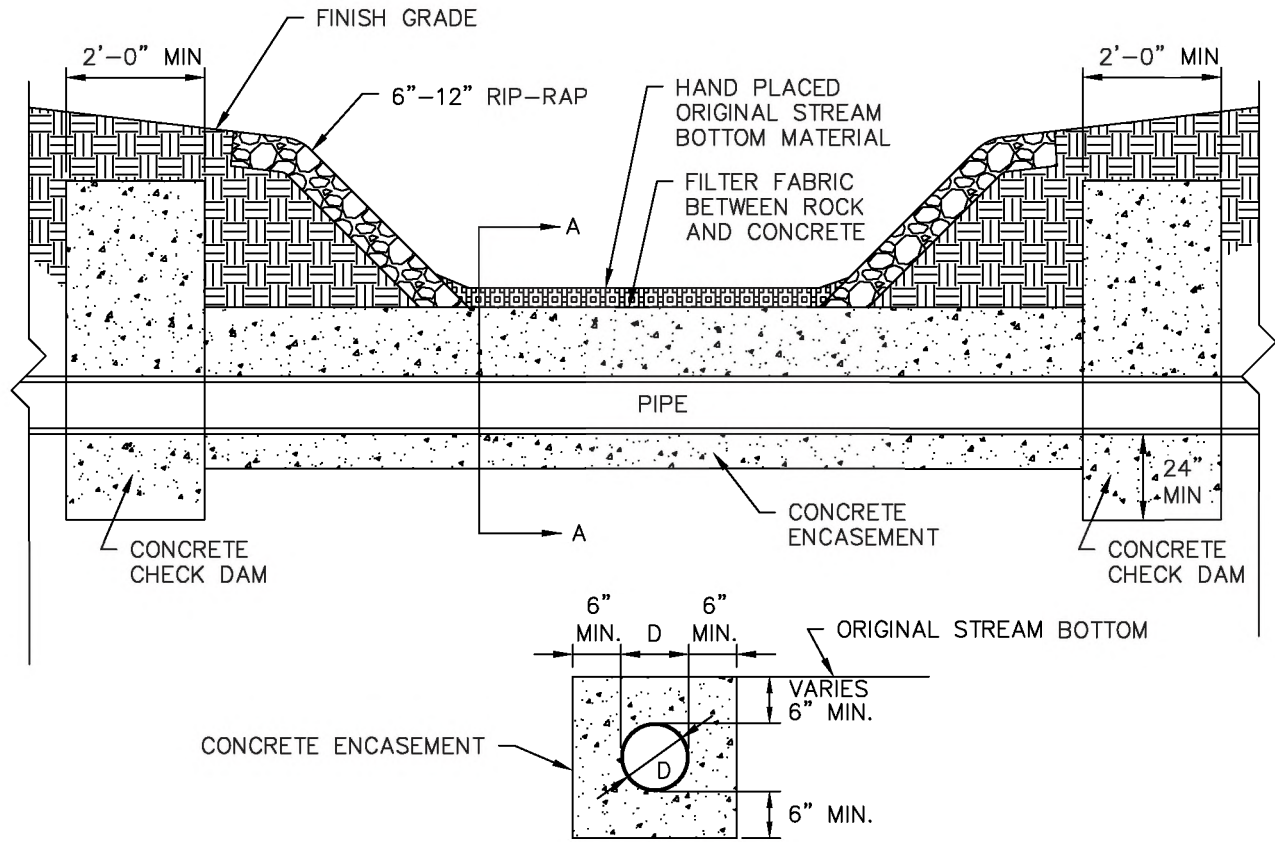
G-10



SECTION A-A

NOTES:

- 1) 24" KEYWAY TO BE CUT IN DIRT EXCAVATION (BOTTOM AND SIDES). IN ROCK EXCAVATION, REMOVE FRACTURED AND SHOT ROCK IN ROCK TRENCH, AND EXTEND PELLETIZED BENTONITE CLAY TO CLEAN, SOLID ROCK SURFACE (BOTTOM AND SIDES).



SECTION A-A

NOTES:

- 1) NO BLASTING IS PERMITTED IN THE EXCAVATION OF TRENCHES THAT LIE WITHIN 50 FEET OF A STREAM OR WETLAND, INCLUDING ALL STREAM CROSSINGS.
- 2) CROSSINGS SHALL INTERSECT THE STREAM CHANNEL AS CLOSE TO 90 DEGREES (PERPENDICULAR) TO THE STREAM AS POSSIBLE.
- 3) CONCRETE STRENGTH $f'_c = 3,000$ PSI AT 28 DAYS.
- 4) ENCASEMENT WIDTH TO BE POURED THE WIDTH OF TRENCH WITH A MINIMUM OF 6" ON EACH SIDE OF PIPE. PROVIDE STAINLESS STEEL HOLD-DOWNS TO PREVENT PIPE FROM FLOATING DURING CONCRETE PLACEMENT.
- 5) CHECK DAMS TO HAVE A 24" POURED KEYWAY IN DIRT EXCAVATION (BOTTOM AND SIDES). IN ROCK EXCAVATION, REMOVE FRACTURED AND SHOT ROCK IN TRENCH, AND EXTEND CHECK DAM TO CLEAN, SOLID ROCK SURFACE (BOTTOM AND SIDES).
- 6) CROSSINGS THAT UTILIZE HORIZONTAL DIRECTIONAL DRILLING MAY BE USED INSTEAD OF OPEN CUT WITH WMD APPROVAL.
 - A. BORE ENTRY/EXIT LOCATIONS ARE TO BE AT LEAST 50 FEET FROM THE STREAM BANK.
 - B. BORE DEPTH BELOW STREAM BED TO BE SUFFICIENT TO PREVENT RELEASE OF DRILLING FLUID.
 - C. A SITE-SPECIFIC CONTINGENCY AND CONTAINMENT PLAN FOR INADVERTENT RELEASE OF DRILLING FLUID MUST BE ESTABLISHED PRIOR TO COMMENCEMENT OF WORK.



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UTILITY STREAM CROSSINGS

CITY OF FRANKLIN

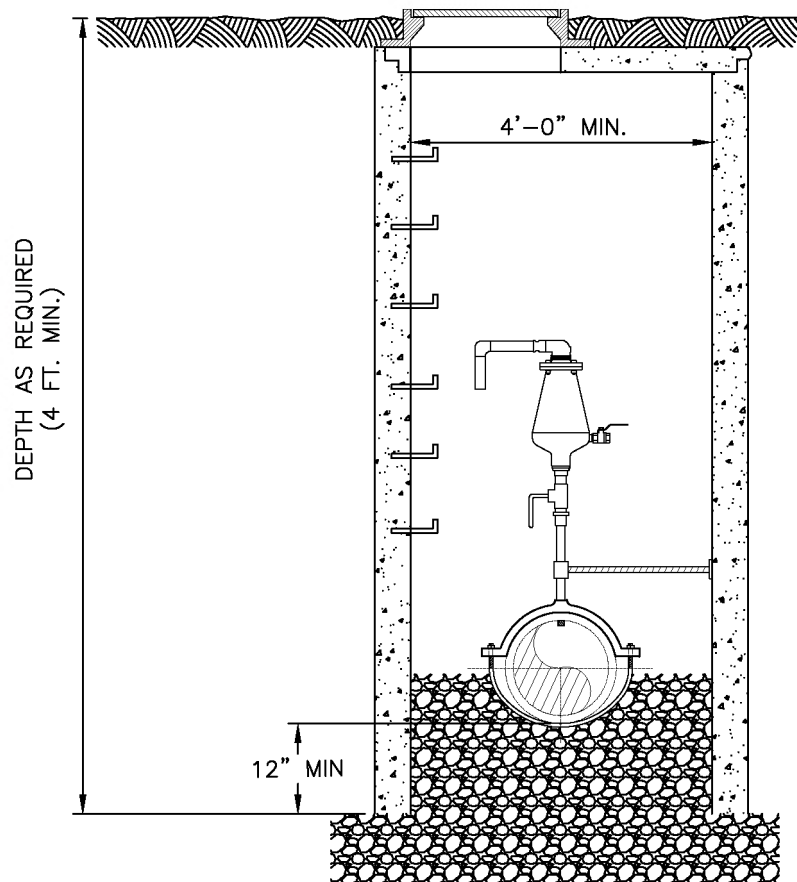
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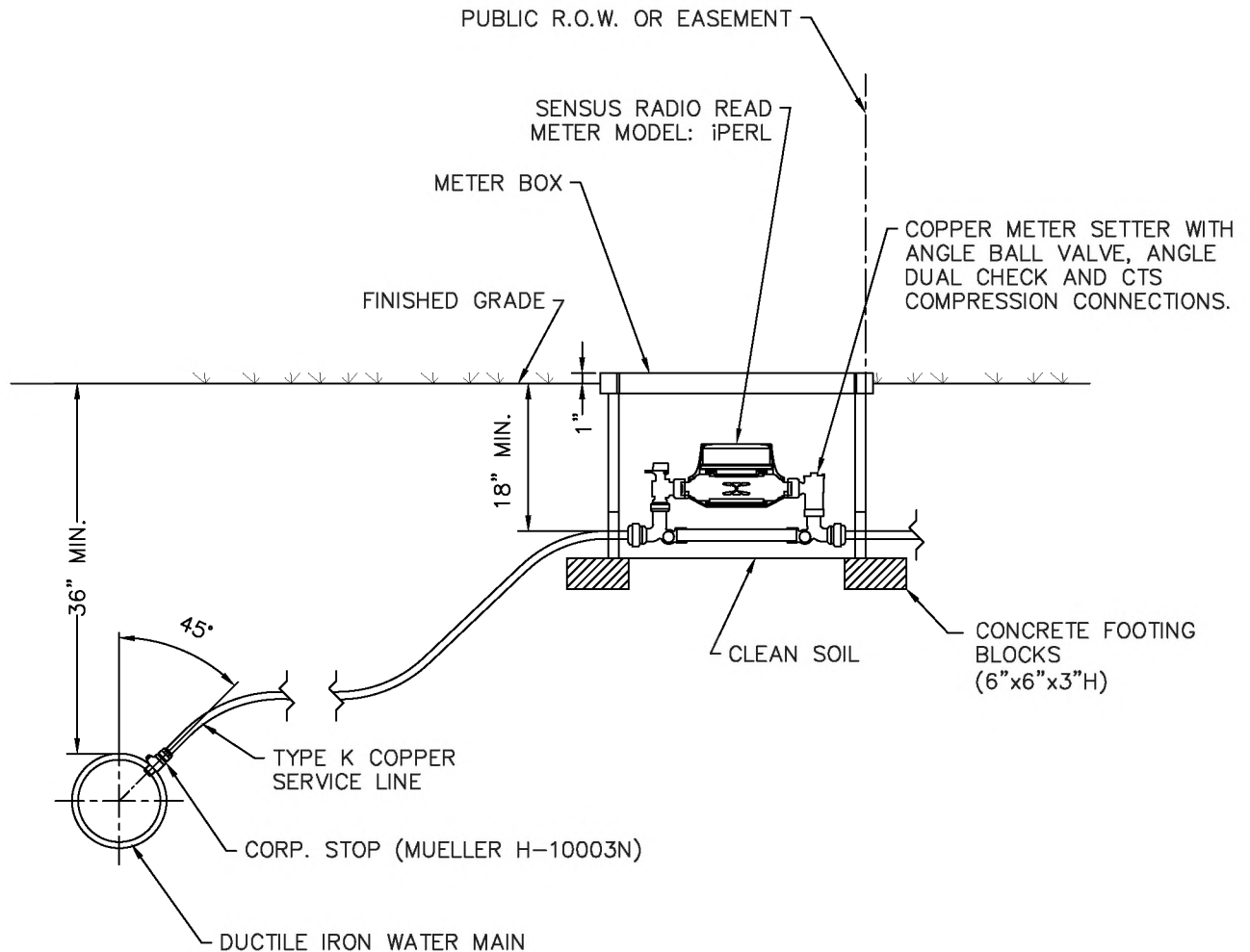
G-12



NOTES:

- 1) VALVE IS TO BE SIZED FOR CONDITIONS.
- 2) VALVE SHALL BE A.R.I. USA INC. D-040 OR APPROVED EQUAL FOR WATER MAINS.
- 3) VALVE SHALL BE A.R.I. USA INC. D-020, S-020, S-022 OR APPROVED EQUAL FOR SEWAGE FORCE MAINS AND RECLAIMED WATER MAINS.
- 4) IF ASSEMBLY IS TO BE INSTALLED IN TRAFFIC AREA, BOX AND COVER TO BE TRAFFIC BEARING AS APPROVED BY THE CITY OF FRANKLIN.

NOTES: HDPE METER BOX IS NOT TRAFFIC RATED. BOXES IN DRIVEWAYS, PARKING LOTS, AND OFF-ROADWAY APPLICATIONS SUBJECT TO OCCASIONAL TRAFFIC SHALL BE QUAZITE BOX (PG1324BB18) AND COVER (PG1324HH0050). BOXES IN DIRECT ROADWAY APPLICATIONS SHALL BE AASHTO H-20 LOAD RATED WITH 30% IMPACT AND APPROVED BY THE WATER MANAGEMENT DEPARTMENT. PROFESSIONAL ENGINEER SEAL SHALL BE REQUIRED.



METER SIZE	SIGMA HDPE RAVEN METER BOX	McDONALD COPPER METER SETTER
3/4"	RMB132418-SW-W 13"x24"x18"	770-2-WDQQ 33
1"	RMB132418-SW-W 13"x24"x18"	770-4-WDQQ 4

NOTES:

- 1) MINIMUM TRENCH WIDTH ON SERVICE SHALL BE 2 FEET.
- 2) INSTALL THE METER BOX AS NEAR THE PROPERTY LINE AS POSSIBLE WITHIN THE PUBLIC RIGHT-OF-WAY OR PUBLIC EASEMENT. METER BOX SHALL BE SET PLUMB APPROXIMATELY 1" ABOVE PROPOSED GRADE AND SUCH THAT SURFACE DRAINAGE WILL NOT ENTER IT.
- 3) METER BOX AND SETTER TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
- 4) METER TO BE FURNISHED AND INSTALLED BY THE CITY OF FRANKLIN.
- 5) MINIMUM SERVICE LINE COVER SHALL BE 36" BELOW FINISHED GRADE UNDER ROADWAYS, 30" IN UNPAVED AREAS, AND 18" AT SERVICE BOX.



3/4" AND 1" WATER SERVICE ASSEMBLIES

CITY OF FRANKLIN

NOT TO SCALE

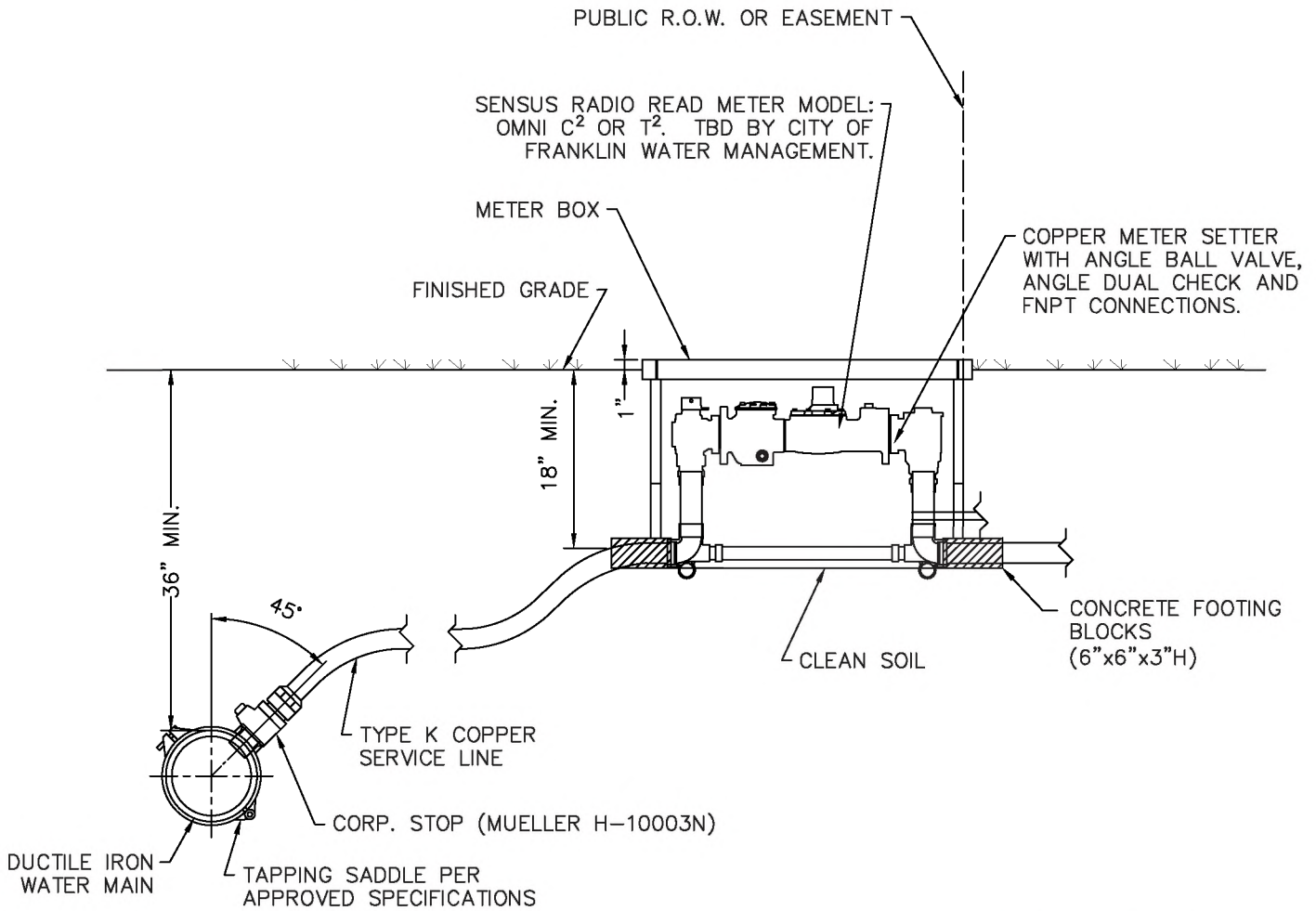
WATER
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DIRECTOR:

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DWG. NO.

W-1

NOTES: HDPE METER BOX IS NOT TRAFFIC RATED. BOXES IN DRIVEWAYS, PARKING LOTS, AND OFF-ROADWAY APPLICATIONS SUBJECT TO OCCASIONAL TRAFFIC SHALL BE QUAZITE BOX (PG1730BB18) AND COVER (PG1730HH0050). BOXES IN DIRECT ROADWAY APPLICATIONS SHALL BE AASHTO H-20 LOAD RATED WITH 30% IMPACT AND APPROVED BY THE WATER MANAGEMENT DEPARTMENT. PROFESSIONAL ENGINEER SEAL SHALL BE REQUIRED.



METER SIZE	SIGMA HDPE RAVEN METER BOX	McDONALD COPPER METER SETTER
1.5"	RMB173018-SW-W 17"x30"x18"	720-609-WDFF-660 (NOTE 1)
2"	RMB173018-SW-W 17"x30"x18"	720-710-KDFF-770 (NOTE 1)

NOTES:

- 1) MINIMUM TRENCH WIDTH ON SERVICE SHALL BE 2 FEET.
- 2) INSTALL THE METER BOX AS NEAR THE PROPERTY LINE AS POSSIBLE WITHIN THE PUBLIC RIGHT-OF-WAY OR PUBLIC EASEMENT. METER BOX SHALL BE SET PLUMB APPROXIMATELY 1" ABOVE PROPOSED GRADE AND SUCH THAT SURFACE DRAINAGE WILL NOT ENTER IT.
- 3) METER BOX AND SETTER TO BE FURNISHED AND INSTALLED BY CONTRACTOR.
- 4) METER TO BE FURNISHED AND INSTALLED BY THE CITY OF FRANKLIN.
- 5) MINIMUM SERVICE LINE COVER SHALL BE 36" BELOW FINISHED GRADE UNDER ROADWAYS, 30" IN UNPAVED AREAS, AND 18" AT SERVICE BOX.
- 6) BALL VALVE BYPASS SHALL ONLY BE USED AT APPROVED FACILITIES.



1-1/2" AND 2" WATER SERVICE ASSEMBLIES

CITY OF FRANKLIN

NOT TO SCALE

WATER
MANAGEMENT
DIRECTOR:

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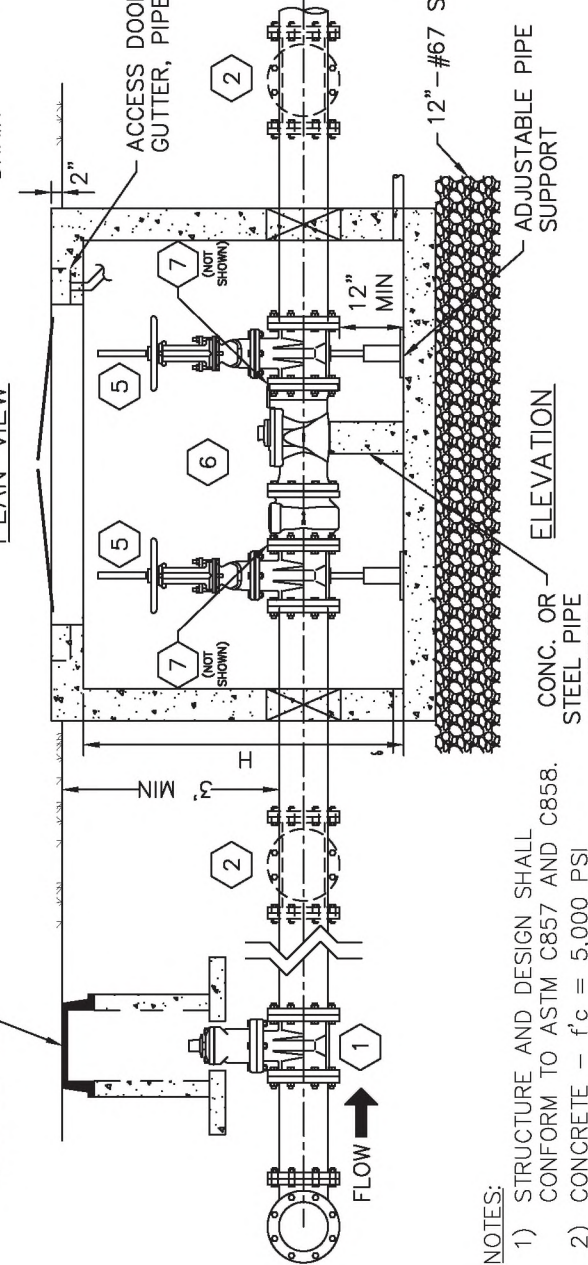
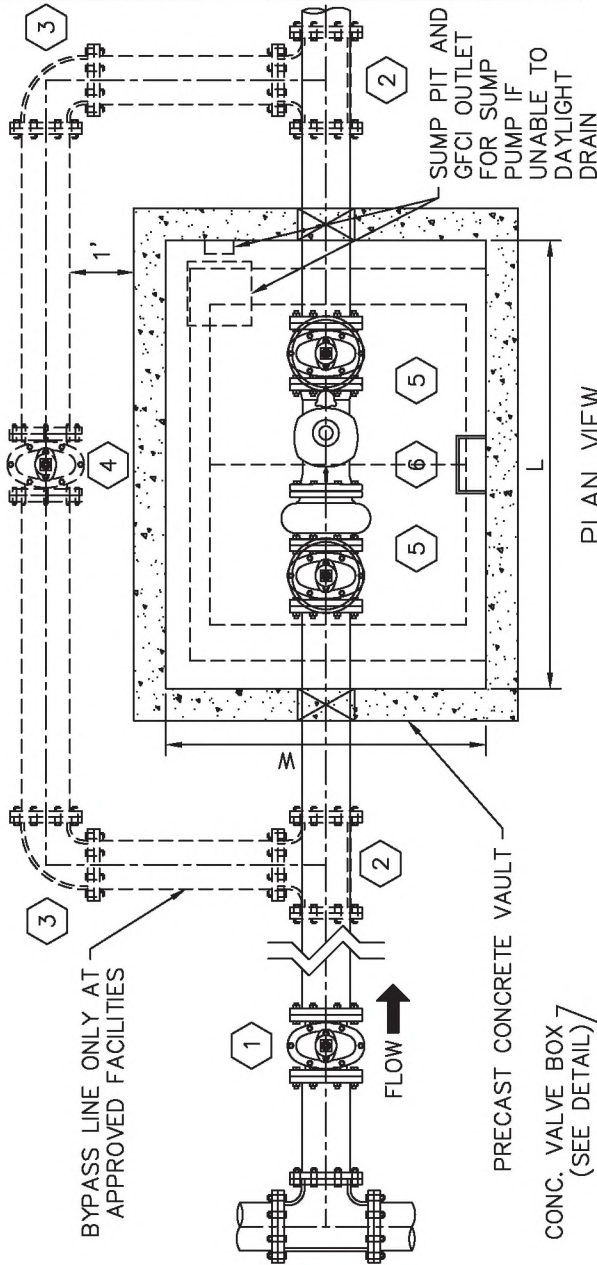
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W-2

METER SIZE	PRECAST VAULT (INSIDE DIMENSION)		HALLIDAY PRODUCTS ACCESS DOOR	"X" HOLE FOR FLANGED DIP	"Y" HOLE FOR FLANGED DIP
	L	W			
3" & 4"	6'	4'	H2W5442	4"	10"
6"	6'	5'	H2W5442	6"	12"
8"	7'	5'	H2W6048	8"	14"

FITTING AND DEVICE LIST

1	X" MJ GATE VALVE WITH VALVE BOX AT WATER MAIN CONNECTION.
2	X" x X" DI MJ TEE
3	X" DI 90° MJ BEND
4	X" MJ GATE VALVE WITH VALVE BOX AT BYPASS
5	X" OS&Y FLANGED GATE VALVE
6	SENSUS METER OMNI C ² OR T ² (TO BE APPROVED CITY OF FRANKLIN WATER MANAGEMENT)
7	4"x3" DI FLANGED REDUCER (AT 3" METER ONLY)



- NOTES:
- 1) STRUCTURE AND DESIGN SHALL CONFORM TO ASTM C857 AND C858.
 - 2) CONCRETE - $f'_c = 5,000$ PSI
 - 3) REBAR - ASTM A615 GRADE 60
 - 4) LOADS - AASHTO H-20 LOAD RATED WITH 30% IMPACT



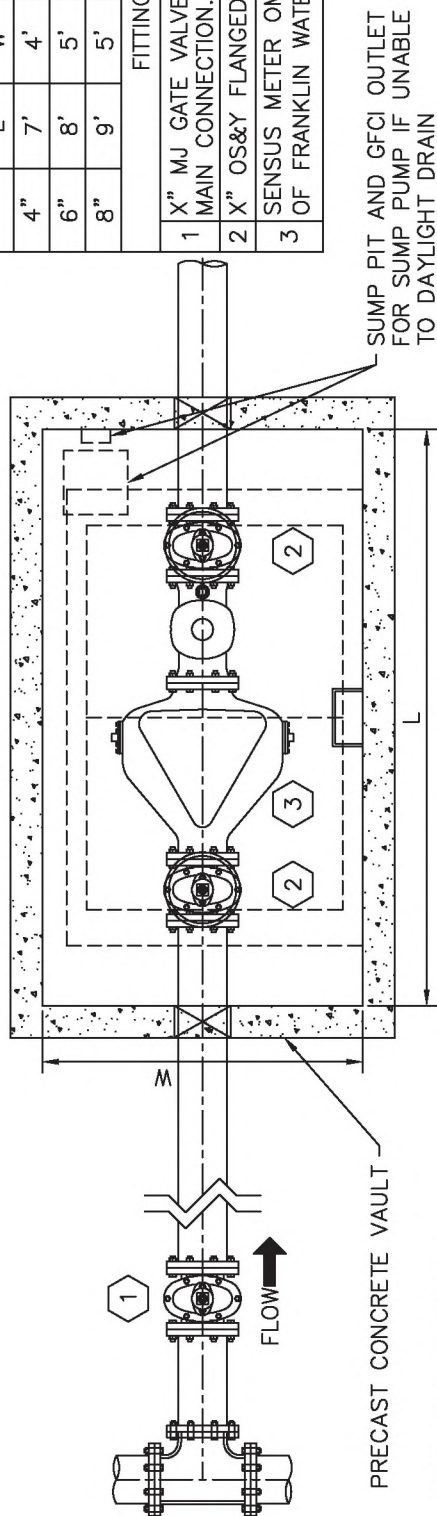
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WATER MANAGEMENT DIRECTOR:

DATE: 10/16/2019

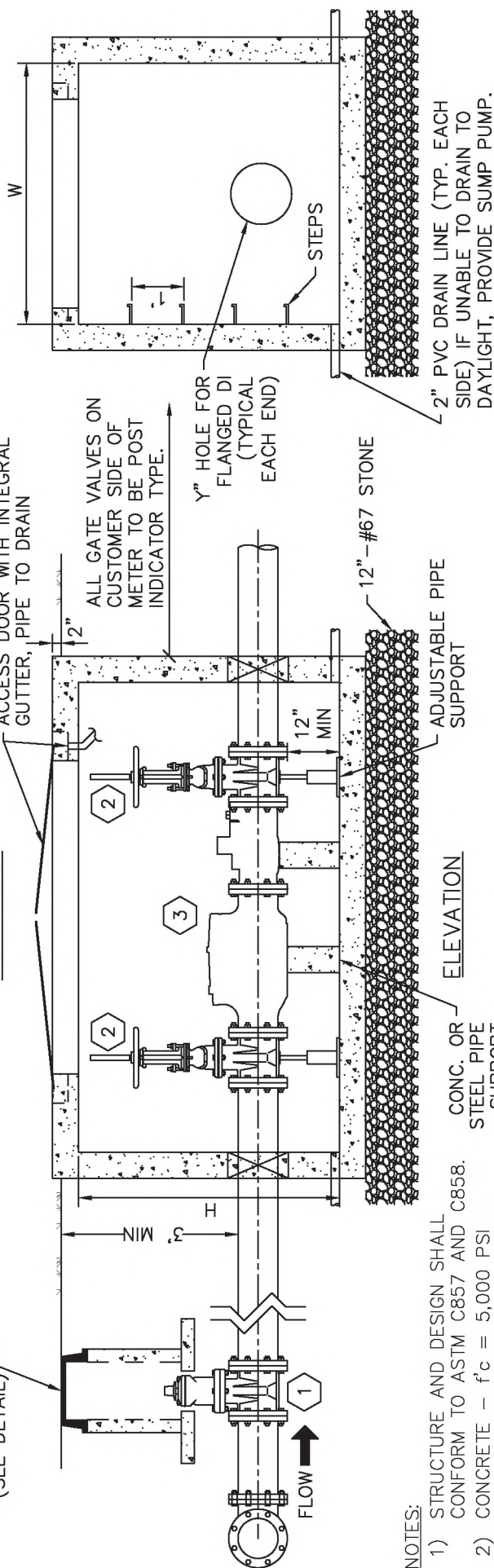
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METER SIZE	PRECAST VAULT (INSIDE DIMENSION)			HALLIDAY PRODUCTS ACCESS DOOR	"X" HOLE FOR FLANGED DIP
	L	W	H		
4"	7'	4'	5'	H2W5442	4"
6"	8'	5'	5'	H2W7248	6"
8"	9'	5'	5'	H2W7248	8"
FITTING AND DEVICE LIST					
1	X" MJ GATE VALVE WITH VALVE BOX AT WATER MAIN CONNECTION.				
2	X" OS&Y FLANGED GATE VALVE				
3	SENSUS METER OMNI F ² (TO BE APPROVED CITY OF FRANKLIN WATER MANAGEMENT)				



CONC. VALVE BOX (SEE DETAIL)

ACCESS DOOR WITH INTEGRAL GUTTER, PIPE TO DRAIN



NOTES:

- 1) STRUCTURE AND DESIGN SHALL CONFORM TO ASTM C857 AND C858.
- 2) CONCRETE - $f'_c = 5,000$ PSI
- 3) REBAR - ASTM A615 GRADE 60
- 4) LOADS - AASHTO H-20 LOAD RATED WITH 30% IMPACT



4"-8" FIRE METER

CITY OF FRANKLIN

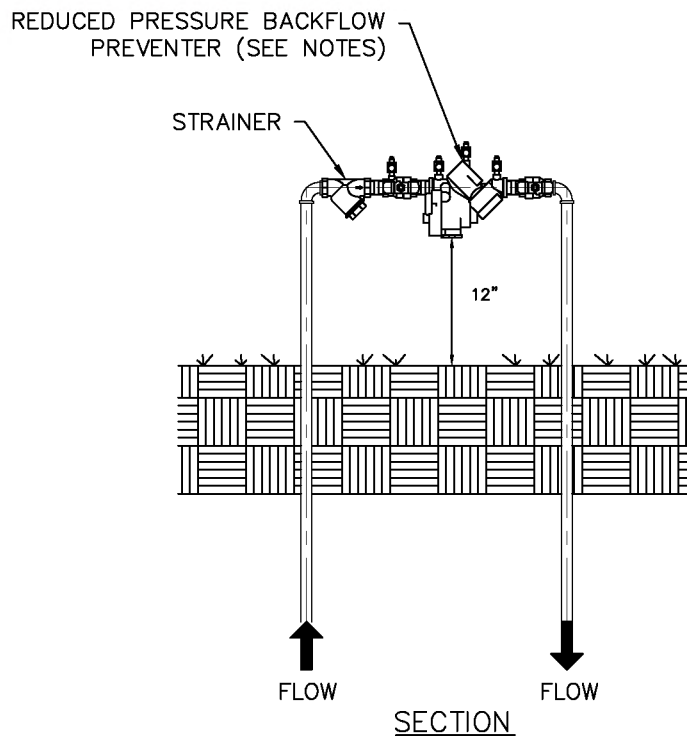
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DIRECTOR:

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DATE: 10/16/2019

DWG. NO.

W-4



NOTES:

- 1) BACKFLOW PREVENTER MODELS SHALL BE PER THE APPROVED COF WATER MANAGEMENT LIST.
- 2) MAINTAIN 5' CLEARANCE FROM TREES, WALLS, DRIVEWAYS, POLES, ETC.
- 3) BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
- 4) STRAINER REQUIRED ON ALL DOMESTIC BACKFLOW DEVICES.
- 5) BACKFLOW ASSEMBLY SHALL BE DRAINED DURING FREEZING WEATHER OR ENCLOSED IN INSULATED ENCLOSURE.



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REDUCED PRESSURE BACKFLOW PREVENTER FOR 3/4" AND 1" IRRIGATION LINES

CITY OF FRANKLIN

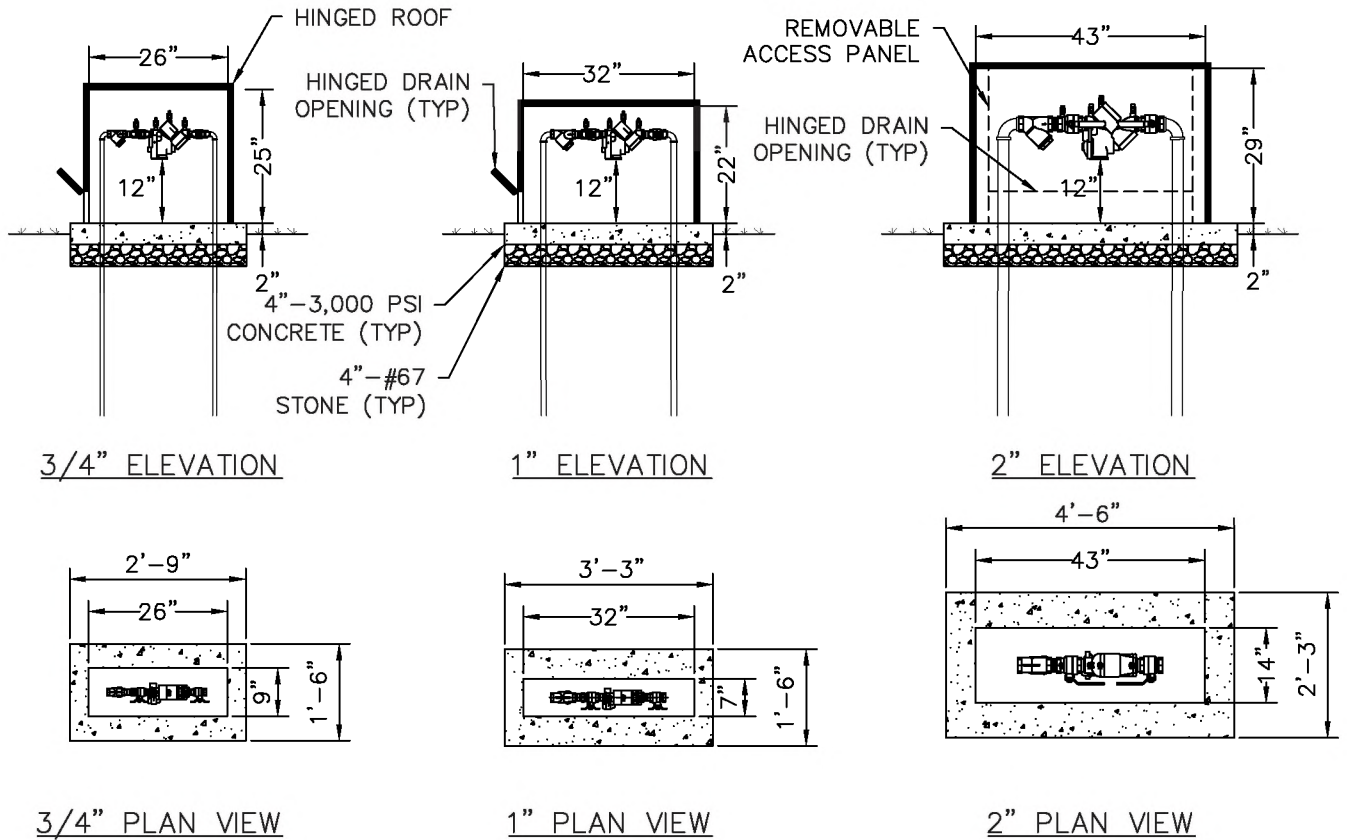
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DIRECTOR:

DATE:
10/16/2019

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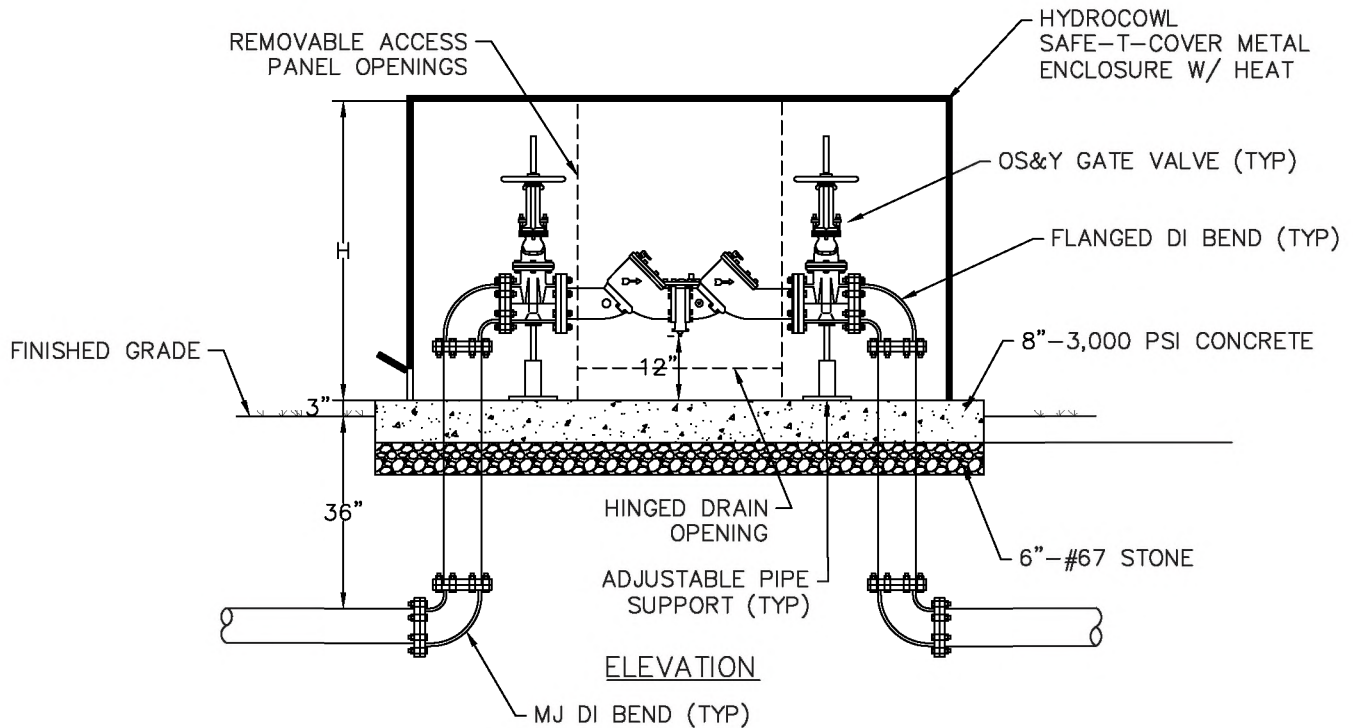
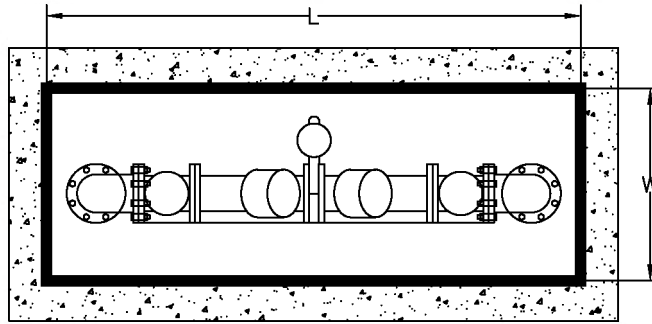
W-5



BACKFLOW PREVENTER SIZE	SAFE-T-COVER ENCLOSURE MODEL	ENCLOSURE SIZE			CONC. PAD
		W(IN)	L (IN)	H (IN)	
3/4"	75SN-AL	9"	26"	25"	1'-6"X2'-9"
1"	100S-AL	7"	32"	22"	1'-6"X3'-3"
1.5" AND 2"	200S-AL	14"	43"	29"	2'-3"X4'-6"

NOTES:

- 1) BACKFLOW PREVENTER MODELS SHALL BE PER THE APPROVED COF WATER MANAGEMENT LIST.
- 2) MAINTAIN 5' CLEARANCE FROM TREES, WALLS, DRIVEWAYS, POLES, ETC.
- 3) BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
- 4) BACKFLOW ASSEMBLY SHOULD BE DRAINED DURING FREEZING WEATHER OR ENCLOSED IN INSULATED ENCLOSURE.



BACKFLOW PREVENTER SIZE	SAFE-T-COVER ENCLOSURE MODEL	ENCLOSURE SIZE			CONC PAD
		W(IN)	L (IN)	H (IN)	
3"	300-AL	22"	72"	38"	3'-0"X7'-3"
4"	400-AL	26"	86"	44"	3'-4"X8'-4"
6"	600-AL	36"	100"	56"	4'-3"X9'-6"
8"	800T-AL	38"	120"	80"	4'-4"X11'-3"

NOTES:

- 1) BACKFLOW PREVENTER MODELS SHALL BE PER THE APPROVED COF WATER MANAGEMENT LIST.
- 2) MAINTAIN 5' CLEARANCE FROM TREES, WALLS, DRIVEWAYS, POLES, ETC.
- 3) BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
- 4) BACKFLOW ASSEMBLY SHOULD BE DRAINED DURING FREEZING WEATHER OR ENCLOSED IN INSULATED ENCLOSURE.



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TENNESSEE

REDUCED PRESSURE BACKFLOW PREVENTER FOR 3"-8" LINES (ABOVE GROUND)

CITY OF FRANKLIN

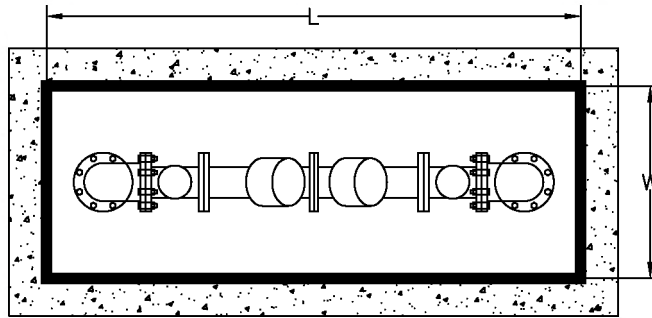
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DIRECTOR:

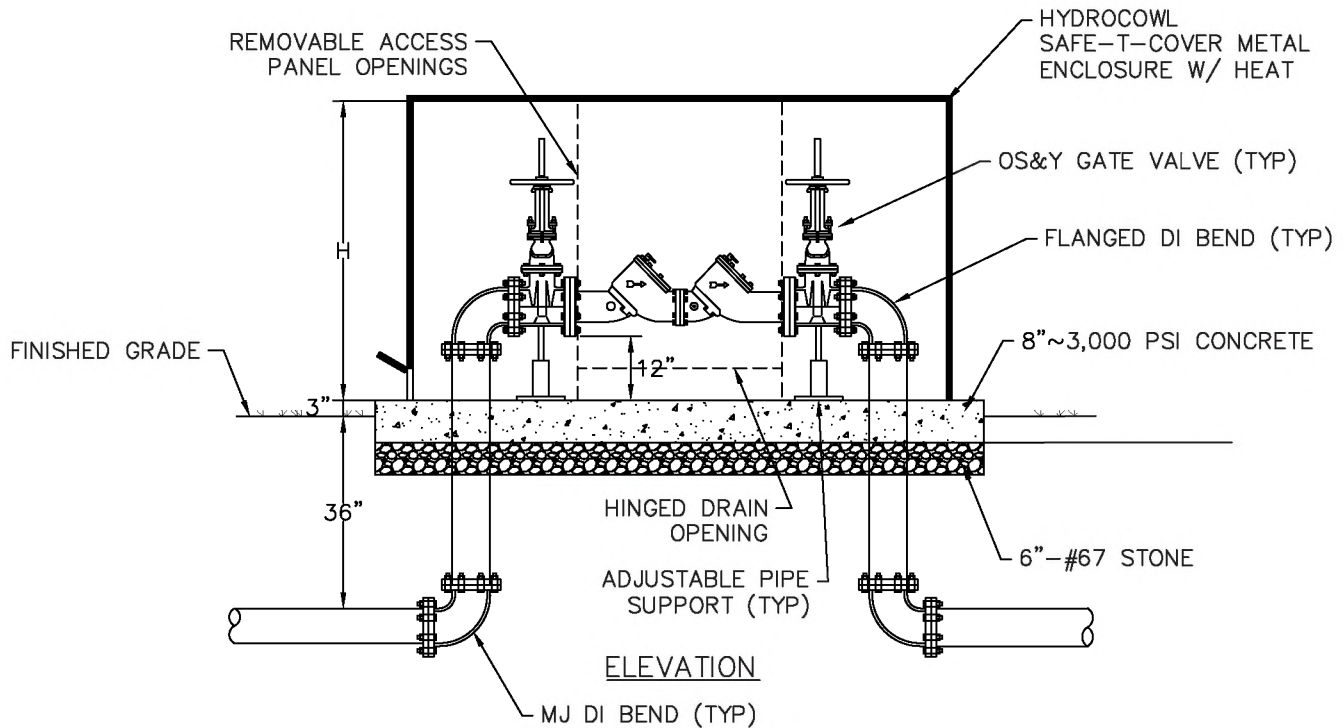
DATE:
10/16/2019

DWG. NO.

W-7



PLAN VIEW



BACKFLOW PREVENTER SIZE	SAFE-T-COVER ENCLOSURE MODEL	ENCLOSURE SIZE			CONC PAD (W"XL")
		W(IN)	L (IN)	H (IN)	
4"	400-AL	26"	86"	44"	3'-4"X8'-4"
6"	600-AL	36"	100"	56"	4'-3"X9'-6"
8"	800T-AL	38"	120"	80"	4'-4"X11'-3"

NOTES:

- 1) BACKFLOW PREVENTER MODELS SHALL BE PER THE APPROVED COF WATER MANAGEMENT LIST.
- 2) MAINTAIN 5' CLEARANCE FROM TREES, WALLS, DRIVEWAYS, POLES, ETC.
- 3) BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
- 4) BACKFLOW ASSEMBLY SHOULD BE DRAINED DURING FREEZING WEATHER OR ENCLOSED IN INSULATED ENCLOSURE.



HISTORIC
FRANKLIN
TENNESSEE

BACKFLOW PREVENTER FOR 4"-8" LINES

CITY OF FRANKLIN

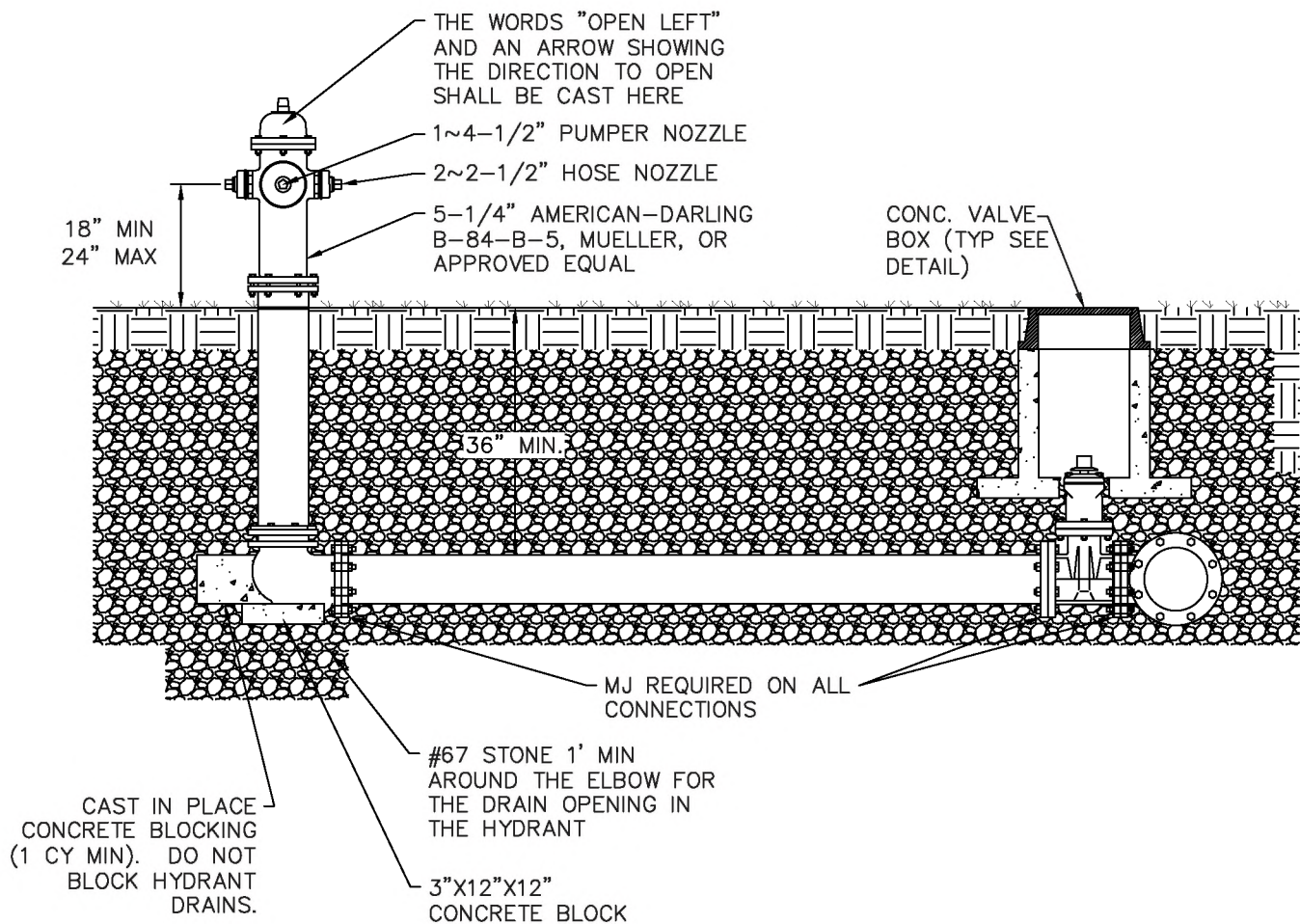
NOT TO SCALE

WATER
MANAGEMENT
DIRECTOR:

DATE:
10/16/2019

DWG. NO.

W-8



NOTES:

- 1) MAINTAIN 5' CLEARANCE FROM TREES, WALLS, DRIVEWAYS, POLES, ETC.

FIRE HYDRANT SETTING

CITY OF FRANKLIN

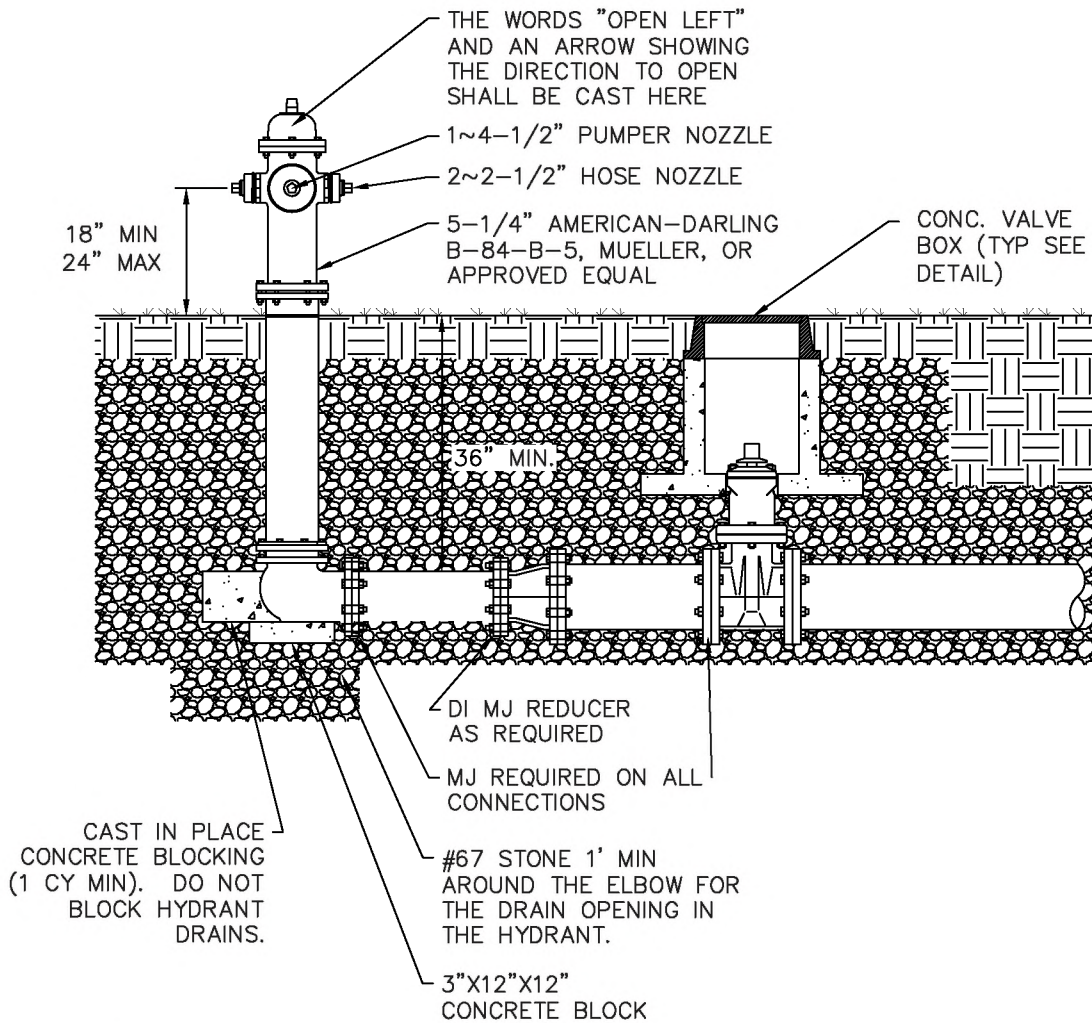
NOT TO SCALE

WATER
MANAGEMENT
DIRECTOR:

DATE: 10/16/2019

DWG. NO.

W-9



MAIN SIZE	END PIPE SIZE
6" - 18"	6" BLOW-OFF
18" & GREATER	AS APPROVED BY CITY ENGINEER

NOTES:

- 1) MAINTAIN 5' CLEARANCE FROM TREES, WALLS, DRIVEWAYS, POLES, ETC.
- 2) FOR MAINS THAT ARE TO BE EXTENDED USE A VALVE EQUAL TO THE MAIN SIZE AS THE BLOW-OFF CONTROL VALVE AND THEN REDUCE.

From: [MyTDEC Forms \(no reply\)](#)
To: [Patricia McNeese](#)
Subject: Review Complete for Submission HPQ-MNMN-KZHQ9 in the MyTDEC Forms System
Date: Wednesday, February 1, 2023 8:20:05 AM

ATTENTION COF staff: This email originated from outside the City of Franklin. Please use discretion when clicking on attachments & links from unknown senders or suspicious emails.

Patricia,

Engineering Services has completed its review of the contents of your Drinking Water Engineering Plans Submittal submission [HPQ-MNMN-KZHQ9](#) in the Tennessee Department of Environment and Conservation MyTDEC Forms System.

Correction Requests were identified and must be addressed in order for the agency to continue processing. Please use the link shown above to open, revise, and resubmit.

Open correction requests include:

- **Standard Specifications**

• Ensure that the attached resolution is the most recent adopted copy. • Please remove our old approval letter from the final standard specification document. • Remove the cover page of the specifications (old stamps & project #) and attach an updated cover page with a most recent P.E. seal. • Please remove any "sewer" references from the Table of Contents. The body of the specifications doesn't include sewer works. • Section 33 1100, 2.1.A: Reference of ANSI 21.151/AWWA C151 needs to be corrected to read ANSI A21.51/AWWA C151. • Section 33 1100, 2.5.A and 2.6 A, B & C: If HDPE is being used for water mains ensure compliance with AWWA C906. AWWA Specification C906 was revised in February 2022. To ensure compliance with the new standard, the HDPE material is PE4710. (Previously 3408 or 3608). Otherwise specify if it is only for service lines. • Section 33 1100, 2.7.A.1: Reference of ANSI/AWWA C110/A21.10 needs to be corrected to read ANSI A21.10/AWWA C110. • Section 33 1100, 2.7.B: Ensure all references of AWWA & ANSI are in the correct form accordingly. • Section 33 1100, 3.7: Ensure compliance with the latest AWWA Specification C651 Disinfection of Water Mains. This specification includes disinfection instruction and bacteriological testing frequency. • Section 33 1100, 3.6.B: AWWA Specifications C905 has been revoked. PVC pipe diameters previously listed in that specifications are now included in AWWA C900.

Thank you,
Tennessee Department of Environment and Conservation
Engineering Services
DWR.Engineering@tn.gov



File #: 21-05411

DATE: October 20, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management
Chris Franklin, Public Works Operations Analyst

SUBJECT:

*Consideration Of Amendment 1 To COF Contract No. 2022-0289, With CDM Smith For A Professional Services Agreement For The Franklin Water Reclamation Facility Post Expansion Upgrades Being Funded Under The Non-Competitive TDEC ARPA Grant Program

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a contract amendment with CDM Smith for a professional services agreement for the Franklin Water Reclamation Facility Post Expansion Upgrades.

BACKGROUND/STAFF COMMENTS:

The Franklin Board of Mayor and Aldermen originally approved contract No. 2022-0289 on February 14th, 2023, which was a professional services agreement with CDM Smith in the amount of \$1,737,669.00 for engineering services related to Post Expansion Upgrades at the Water Reclamation Facility. On June 13th 2023, this project was awarded federal funding under the TDEC American Rescue Plan Act (ARPA) non-competitive grant program, which means that any actions taken regarding this project now must meet federal grant guidelines. One such guideline is that any entity that contracts to do work related to a project funded by TDEC ARPA dollars must be contracted to do so using federal procurement guidelines. COF contract No. 2022-0289 Amendment 1 amends the original contract to satisfy federal procurement guidelines by adding language that the federal government requires but was not in the original contract with CDM Smith.

FINANCIAL IMPACT:

There is no additional cost associated with this amendment beyond the amount agreed upon in the original contract.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Amendment 1 to COF Contract No. 2022-0289.

**AMENDMENT NO. 1 TO PROFESSIONAL SERVICES AGREEMENT FOR FRANKLIN
WATER RECLAMATION FACILITY POST EXPANSION UPGRADES**

COF Contract No. 2022-0289

ENTERED INTO by and between the CITY OF FRANKLIN, TENNESSEE (the “City”) and CDM SMITH (“Consultant”), Inc. as of this ____ day of _____, 2023.

WHEREAS, City and Consultant entered into a Professional Services Agreement (“Agreement”) entitled City of Franklin, Tennessee Professional Services Agreement, Franklin Water Reclamation Facility Post Expansion Upgrades, COF Contract No. 2022-0289, dated February 14th, 2023.

WHEREAS, being that this project will be partially funded by TDEC ARP monies, it is required by federal procurement standards that certain language be included in the contract related to federal law, regulations, executive orders, Treasury policies, procedures, and directives.

WHEREAS, the parties desire to amend Article 3 of the Agreement’s terms and conditions to add an additional subsection with the language herein relating to Treasury ARP SLFRF financial assistance in order to meet federal procurement standards.

WHEREAS, the City and Consultant desire to amend the Agreement as set forth herein.

NOW, THEREFORE, in consideration of these premises and the mutual promises contained herein, it is agreed by and between the parties as follows:

1. Addition of Section 3.7. Article 3 of the terms and conditions of the Agreement shall be amended to include subsection 7 which shall state the following:

“3.7 ACKNOWLEDGEMENT. This is an acknowledgement that Treasury ARP SLFRF financial assistance will be used to fund all or a portion of the contract. Consultant will comply with all applicable Federal law, regulations, executive orders, Treasury policies, procedures, and directives.”

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. All other provisions of the Agreement, dated February 14th, 2023, are unchanged and remain in full force and effect.

CITY:

CITY OF FRANKLIN, TENNESSEE

By: _____
Dr. Ken Moore, Mayor

Date: _____

By: _____
Eric Stuckey, City Administrator

Date: _____

Approved as to Form:

J. Blake Harper, Staff Attorney

CONSULTANT:

CDM SMITH

By: Zack A. Daniel
Name & Title: Zack A. Daniel, Vice President

Date: 26 October 2023

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No. 2022-0289**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **CDM SMITH** 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:

FRANKLIN WATER RECLAMATION FACILITY POST EXPANSION UPGRADES

1. SCOPE OF SERVICES. Consultant shall provide survey, engineering, and related technical services for the Project in accordance with the Scope of Services ("Services") as found in Attachment A, which shall be considered as an integral part hereof.
2. Consultant shall submit as a part of Attachment A an individual Fee Schedule and a Completion Schedule for the Project based on the detailed Scope of Services.
3. In event of a conflict between this Agreement and the attached document(s), this Agreement shall supersede conflicting terms and conditions.
4. Consultant shall be paid on a monthly basis for work performed, based on the Fee Schedule as contained in Attachment A, in the Amount of **ONE MILLION, SEVEN HUNDRED AND THIRTY-SEVEN THOUSAND, SIX HUNDRED AND SIXTY-NINE DOLLARS and No/100 Dollars (\$1,737,669.00)**.

The Board of Mayor and Aldermen Approved this Agreement on the 14th Day of February 2023.

TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

ARTICLE 1. SERVICES. Consultant will:

- 1.1 Act for City in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with standards of competent consultants using the standards in the industry:
- 1.2 Consider all reports to be confidential and distribute copies of the same only to those persons specifically designated by the City.
- 1.3 Perform all services under the general direction of a senior professional employee, licensed and/or registered in the State of Tennessee, when appropriate.
- 1.4 Designate, in writing, the sole Project representative to coordinate with City the Services to be provided, including all contact information.
- 1.5 Unless provided for in the Project Scope of Services (Attachment A), Consultant shall perform all Services with his own forces (employees). Should sub-consultants be proposed to be used in the Project, a listing of said sub-consultants with Services to be performed shall be provided. After approval of this Agreement, no substitute for sub-consultants shall be allowed unless approved by City.
- 1.6 Retain pertinent records relating to the services performed for a period of seven (7) years following the completion of the work; during this period the records shall be available for review by City at all reasonable times.

ARTICLE 2. CITY'S RESPONSIBILITIES. City, or its authorized representative, will:

- 2.1 Provide Consultant with all information regarding the Project, which is available to, or reasonably obtainable by, the City.
- 2.2 Furnish right-of-entry onto the Project site for Consultant's necessary field studies and surveys. Consultant will endeavor to restore the site to its original condition and shall remain solely liable for all damages, costs and expenses, including reasonable attorneys' fees, for failure to make such restoration.
- 2.3 Designate, in writing, the sole Project representative to coordinate with and direct the Consultant, including all contact information.
- 2.4 Guarantee to Consultant that it has the legal capacity to enter into this contract and that sufficient monies are available to fund Consultant's compensation.

ARTICLE 3. GENERAL CONDITIONS.

- 3.1 Consultant, by the performance of services covered hereunder, does not in any way assume, abridge or abrogate any of those duties, responsibilities or authorities customarily vested in other professionals or agencies participating in the Project.
- 3.2 Consultant shall be responsible for the acts or omissions of any party involved in concurrent or subsequent phases of the Project acting upon written instruction issued by the Consultant.
- 3.3 Neither City nor Consultant may assign or transfer its duties or interest in this Agreement without written consent of the other party.
- 3.4 **ALLOCATION OF RISK AND LIABILITY; GENERAL.** Considering the potential liabilities that may exist during the performance of the services of this Agreement, the relative benefits and risks of the Project, and the Consultant's fee for the services rendered, and in consideration of the promises contained in this Agreement, the City and the Consultant agree to allocate and limit such liabilities in accordance with this Article.

- 3.5 INDEMNIFICATION. Consultant agrees to indemnify and hold City harmless from and against legal liability for all judgments, losses, damages, and expenses to the extent such judgments, losses, damages, or expenses are caused by Consultant's negligent act, error or omission in the performance of the services of this Agreement. In the event judgments, losses, damages, or expenses are caused by the joint or concurrent negligence of Consultant and City, they shall be borne by each party in proportion to its own negligence.
- 3.5.1 SURVIVAL. The terms and conditions of this paragraph shall survive completion of this services agreement.
- 3.6 LIMITATIONS OF RESPONSIBILITY. Consultant shall not be responsible for (a) construction means, methods, techniques, sequences, procedures, or safety precautions and programs in connection with the Project unless specifically undertaken in Attachment A, Scope of Services ; (b) the failure of any contractor, subcontractor, Consultant, or other Project participant, not under contract to Consultant, to fulfill contractual responsibilities to City or to comply with federal, state, or local laws, regulations, and codes; or (c) procuring permits, certificates, and licenses required for any construction unless such procurement responsibilities are specifically assigned to Consultant in Attachment A, Scope of Services.

ARTICLE 4. TERMINATION BY THE CITY. The City may terminate this Agreement in accordance with the following terms and conditions:

- 4.1 Termination for Convenience. The City may, when in the interests of the City, terminate performance under this Agreement with the Consultant, in whole or in part, for the convenience of the City. The City shall give written notice of such termination to the Consultant specifying when termination becomes effective. The Consultant shall incur no further obligations in connection with the work so terminated, other than warranties and guarantees for completed work and installed equipment, and the Consultant shall stop work when such termination becomes effective. The Consultant shall also terminate outstanding orders and subcontracts for the affected work. The Consultant shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Consultant to assign the Consultant's right, title and interest under termination orders or subcontracts to the City or its designee. The Consultant shall transfer title and deliver to the City such completed or partially completed work and materials, equipment, parts, fixtures, information and Contract rights as the Consultant has in its possession or control. When terminated for convenience, the Consultant shall be compensated as follows:
- (1) The Consultant shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Consultant fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Consultant the amount the City deems the Consultant is due.
 - (2) The City and the Consultant may agree to the compensation, if any, due to the Consultant hereunder.
 - (3) Absent agreement to the amount due to the Consultant, the City shall pay the Consultant the following amounts:
 - (a) Contract costs for labor, materials, equipment and other services accepted under this Agreement;

- (b) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the work, and in terminating the Consultant's performance, plus a fair and reasonable allowance for direct job site overhead and earned profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it reasonably appears that the Consultant would have not profited or would have sustained a loss if the entire Agreement would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;

The total sum to be paid the Consultant under this Section shall not exceed the total Agreement Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

- 4.2 Termination for Cause. If the Consultant does not perform the work, or any part thereof, in a timely manner, supply adequate labor, supervisory personnel or proper equipment or materials, or if it fails to timely discharge its obligations for labor, equipment and materials, or proceeds to disobey applicable law, or otherwise commits a violation of a material provision of this Agreement, then the City, in addition to any other rights it may have against the Consultant or others, may terminate the performance of the Consultant, in whole or in part at the City's sole option, and assume possession of the Project Plans and materials and may complete the work.

In such case, the Consultant shall not be paid further until the work is complete. After Completion has been achieved, if any portion of the Contract Price, as it may be modified hereunder, remains after the cost to the City of completing the work, including all costs and expenses of every nature incurred, has been deducted by the City, such remainder shall belong to the Consultant. Otherwise, the Consultant shall pay and make whole the City for such cost. This obligation for payment shall survive the termination of the Agreement.

In the event the employment of the Consultant is terminated by the City for cause pursuant to this Section and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a Termination for Convenience under this Section and the provisions of Section 4.1 shall apply.

- 4.3 Termination for Non-Appropriation. The City may also terminate this Agreement, in whole or in part, for non-appropriation of sufficient funds to complete or partially complete the Project, regardless of the source of such funds, and such termination shall be on the terms of Section 4.1.
- 4.4 The City's rights under this Section shall be in addition to those contained elsewhere herein or provided by law.

ARTICLE 5. SCOPE OF SERVICES. Consultant shall provide the Services as described in Attachment A, Scope of Services.

5.1 By mutual agreement, this Agreement and scope can be amended by the parties. The scope and fee for any additional tasks or services under such amendment shall be mutually negotiated and agreed to in writing prior to beginning such additional tasks or services.

5.2 **ENVIRONMENTAL RESPONSIBILITY.**

Where drilling/sampling services are involved, the samples obtained from the Project site are the property of the City. Should any of these samples be recognized by the Consultant to be contaminated, the City shall remove them from the Consultant's custody and transport them to a disposal site, all in accordance with applicable government statutes, ordinances, and regulations. For all other samples, the Consultant shall retain them for a sixty (60)-day period following the submission of the drilling/sampling report unless the City directs otherwise; thereafter, the Consultant shall discard the samples in accordance with all federal, state and local laws.

ARTICLE 6. SCHEDULE.

6.1 **TIME OF THE ESSENCE.** The parties agree that time is of the essence with respect to the parties' performance of all provisions of the Agreement.

6.2 Before executing this Agreement, the Consultant shall have prepared and submitted for approval to the City a Completion Schedule for the Project with milestones for the various stages (tasks) of the Services as outlined in the Scope of Services. The Consultant shall submit and obtain the City's approval for any proposed changes to the logic, durations, sequences, or timing of tasks as approved in the Completion Schedule.

6.3 **FORCE MAJEURE.** Neither party will be liable to the other for any delay or failure to perform any of the services or obligations set forth in this Agreement due to causes beyond its reasonable control, and performance times will be considered extended for a period of time equivalent to the time lost because of such delay plus a reasonable period of time to allow the parties to recommence performance of their respective obligations hereunder. Should a circumstance of force majeure last more than ninety (90) days, either party may by written notice to the other terminate this Agreement. The term "force majeure" as used herein shall mean the following: acts of God; strikes, lockouts or other industrial disturbances; acts of public enemies; orders or restraints of any kind of the government of the United States or of the State or any of their departments, agencies or officials, or any civil or military authority; insurrections, riots, landslides, earthquakes, fires, storms, tornadoes, droughts, floods, explosions, breakage or accident to machinery, transmission pipes or canals; or any other cause or event not reasonably within the control of either party.

6.4 Should City request changes in the scope, extent, or character of the Project, the fee and the time of performance of Consultant's Services as indicated in Attachment A shall be adjusted equitably.

ARTICLE 7. USE OF DOCUMENTS, DATA.

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. The City shall retain an ownership and property interest therein whether or not the Project is completed.

- 7.1.1 USE OF DATA SYSTEMS: The City maintains all rights to data systems and data (including derivative or hidden data such as metadata) created and used by Consultant through information supplied to the consultant by the City.
- 7.1.2 DISCLOSURE OF DOCUMENTS/DATA. City may be required to disclose documents or data under state or federal law. City shall notify Consultant if a request for data or documents has been made and shall give Consultant a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. Consultant waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page as confidential or proprietary. In exchange, Consultant agrees to indemnify, defend, and hold harmless City for any claims by third parties relating thereto or arising out of (i) the City's failure to disclose such documents or information required to be disclosed by law, or (ii) the City's release of documents as a result of City's reliance upon Consultant representation that materials supplied by Consultant (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Consultant and Consultant assumes control over that claim.
- 7.2 By execution of this Agreement, Consultant and his sub-consultant(s) grant the City a royalty-free, perpetual, irrevocable, and assignable license to use any and all intellectual property interest Consultant or his sub-consultant(s) possess to any drawings, details, specifications, documents, and other information created before each of their first involvement with the Project and subsequently incorporated into the Project's documents. City-furnished data that may be relied upon by Consultant is limited to the printed copies that are delivered to the Consultant pursuant to Article 2 of this Agreement. Any copyrighted electronic files furnished by City shall be used by Consultant only for the Project as described herein. City's posting or publication of such documents created by Consultant for City shall constitute fair use and shall not constitute an infringement of Consultant's copyright, if any.
- 7.3 Documents that may be relied upon by City are limited to the printed copies (also known as hard copies) that are signed or sealed by the Consultant. Files in electronic media format of text, data, graphics, or of other types that are furnished by Consultant to City are only for convenience of City, unless the delivery of the Project in electronic media format has been dictated in Attachment A, Scope of Services. Any conclusion or information obtained or derived from electronic files provided for convenience will be at the user's sole risk.
- 7.4 Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the party delivering the electronic files. Unless stated otherwise herein, Consultant shall not be responsible to maintain documents stored in electronic media format after acceptance by City.
- 7.5 When transferring documents in electronic media format, Consultant makes no representations as to long term compatibility, usability, or readability, of documents resulting from the use of software application packages, operating systems, or computer hardware differing from that as required of, and used by, Consultant at the beginning of this Project.

- 7.6 City may make and retain copies of Documents for information and reference in connection with use on the Project by the City, or his authorized representative. Such Documents are not intended or represented to be suitable for reuse by City or others on extensions of the Project or on any other project. Any such reuse or modifications without written verification or adaptation by Consultant, as appropriate for the specific purpose intended, will be at City's sole risk and without liability or legal exposure to the Consultant or to Consultant's sub-consultants.
- 7.7 If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- 7.8 Any verification or adaptation of the Documents for extensions of the Project or for any other project will entitle Consultant to further compensation at rates to be agreed upon by City and Consultant.

ARTICLE 8. INSURANCE.

- 8.1 During the performance of the Services under this Agreement, Consultant shall maintain the following minimum insurance:
 - a) General Liability Insurance with a combined single limit of \$1,000,000 per occurrence and \$2,000,000 annual aggregate.
 - b) Automobile Liability Insurance with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.
 - c) Workers' Compensation Insurance Coverage A in accordance with statutory requirements and Coverage B, Employer's Liability Insurance, with a limit of \$500,000 for each occurrence.
 - d) Professional Liability Insurance with a limit of \$1,000,000 annual aggregate.
- 8.2 Consultant shall add the City an additional insured on all policies unless otherwise prohibited.
- 8.3 Consultant shall, upon execution of this Agreement, furnish City certificates of insurance, which shall include a provision that such insurance shall not be canceled without at least thirty (30) days' written notice to City.
- 8.4 No insurance, of whatever kind or type is to be considered as in any way limiting other parties' responsibility for damages resulting from their activities in the execution of the Project. City agrees to include, or cause to be included, in the Project's construction contract, such requirements for insurance coverage and performance bonds by the Project's construction contractor as City deems adequate to indemnify City, Consultant, and other concerned parties against claims for damages and to insure compliance of work performance and materials with Project requirements.

ARTICLE 9. PAYMENT.

- 9.1 City will pay Consultant for services and expenses in accordance with the Fee Schedule proposal submitted for the Project as part of the Scope of Services. Consultant's invoices will be presented at the completion of the work or monthly and will be payable upon receipt. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. City shall give prompt written notice of any disputed amount and shall pay the remaining amount.
- 9.2 Consultant shall be paid in full for all services under this Agreement, including City authorized overruns of the Project budget or unforeseen need for Consultant's services exceeding the original Scope of Services.
- 9.3 TRAVEL; EXPENSES

City shall reimburse reasonable expenses, including travel and meals, when specified in the Scope of Services, but only in accordance with the City's Travel and Expense Policy and Procedures Manual. The maximum amount will be applied as of the date of travel and as listed in the per diem reimbursement rates on the "CONUS" website developed by the United States General Services Administration, located at www.gsa.gov [click on 'per diem rates' under the 'etools' category].

ARTICLE 10. MISCELLANEOUS PROVISIONS

- 10.1 **EQUAL EMPLOYMENT OPPORTUNITY.** In connection with this Agreement and the Project, City and Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. City and Consultant will take affirmative action to ensure that the contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment; upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.
 - 10.1.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.2 **TITLE VI – CIVIL RIGHTS ACT OF 1964.** City and Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.
 - 10.2.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.3 **NO THIRD PARTY RIGHTS CREATED.** City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Consultant.
- 10.4 **WARRANTIES/LIMITATION OF LIABILITY/WAIVER.** City reserves all rights afforded to local governments under law for all general and implied warranties. City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.
- 10.5 **IRAN DIVESTMENT ACT.** By 1) entering into this Agreement and/or by 2) submission of a bid or proposal to the City of Franklin, the Consultant and each person signing on behalf of any Consultant, certifies, and in the case of a joint bid or proposal each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that neither they, nor any assignee of the resulting contract, is on the list created pursuant to T.C.A. § 12-12-106. The Consultant further certifies that it shall not utilize any subcontractor/subconsultant identified on the list created pursuant to T.C.A. § 12-12-106.
- 10.6 **NON-BOYCOTT OF ISRAEL.** Except for any contract with a total potential value of less than \$250,000, each consultant, except those with fewer than ten employees, and each person signing on behalf of any such consultant, by entering into this agreement certifies, under

penalty of perjury, that, to the best of its knowledge and belief, such consultant is not currently engaged in, and will not, for the duration of any such contract, engage in, a boycott of Israel, as that term is defined in Tenn. Code Ann. § 12-4-119.

ARTICLE 11. EXTENT OF AGREEMENT:

- 11.1 APPLICABLE LAW/CHOICE OF FORUM AND VENUE. This Agreement is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to that state's choice of law rules. The parties' choice of forum and venue shall be exclusively in the courts of Williamson County, Tennessee. Any provision of this Agreement held to violate a law or regulation shall be deemed void, and all remaining provisions shall continue in force.
- 11.2 ENTIRE AGREEMENT. This Agreement, including these terms and conditions, represent the entire Agreement between City and Consultant for this Project and supersedes all prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

ARTICLE 12. DISPUTE RESOLUTION, BREACH.

- 12.1 If a dispute should arise relating to the performance of or payment for the Services under this Agreement, the aggrieved party shall notify the other party of the dispute within a reasonable time after such dispute arises. During the pendency of any dispute, the parties shall continue diligently to fulfill their respective obligations hereunder. No arbitration or mediation shall be required as a condition precedent to filing any legal claim arising out of or relating to this Agreement. No arbitration or mediation shall be binding.
- 12.2 BREACH. Upon deliberate breach of the Agreement by either party, the non-breaching party shall be entitled to terminate the Agreement with notice, with all of the remedies it would have in the event of termination and may also have such other remedies as it may be entitled to in law or in equity.

ARTICLE 13. SURVIVAL.

The provisions contained in this Professional Services Agreement shall survive the completion of or any termination of the Agreement, contract or other document to which it may accompany or incorporate by reference or which subsequently may be modified, unless expressly excepted from this Article upon consent of both parties.

CITY OF FRANKLIN, TENNESSEE:

By: Ken Moore
DocuSigned by:
Dr. Ken Moore
PROFEC7457F46C...
Mayor
Date: 2/15/2023

CDM SMITH:

By: Zach A. Daniel
Print: Zach A. Daniel
Title: Vice President
Date: 24 January 2022

Attest:

DocuSigned by:

Eric S. Stuckey

CD3688F4049D49E...

Eric S. Stuckey

City Administrator

Date: 2/15/2023

Approved as to form:

DocuSigned by:

Shauna Billingsley

589148B1891FC...

Shauna R. Billingsley, City Attorney

COF CONTRACT NO. 2022-0289



Parkview Towers
210 25th Avenue North, Suite 1102
Nashville, Tennessee 37203
tel: 615-771-2466
fax: 615-778-9733

October 7, 2022

Ms. Michelle Hatcher, P.E.
City of Franklin
Water Management Department
124 Lumber Drive
Franklin, TN 37064

Subject: Water Reclamation Facility Rehabilitation and Resiliency Improvements

Dear Ms. Hatcher;

Please see attached our proposal for engineering services for the Franklin WRF Post-Expansion Upgrades project. Please feel free to contact Zack or me if you have questions or concerns, and we appreciate the opportunity to continue our work with the City of Franklin.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Harris".

Daniel A. Harris, PMP, CCM, LEED GA
Principal, Senior Project Manager
CDM Smith

cc: Brian Goodwin, City of Franklin
Zack Daniel, CDM Smith Jennifer
Osgood, CDM Smith Laurin
Kennedy, CDM Smith File
231666.01.02

ATTACHMENT A

City of Franklin, Tennessee Proposal for CDM Smith Services for Water Reclamation Facility Rehabilitation and Resiliency Improvements Project

CDM Smith proposes to provide CDM Smith services as described in the attached scope of work for the Franklin Water Reclamation Facility Rehabilitation and Resiliency Improvements including rehabilitation of the wet well and influent manhole for the Spencer Creek (Influent) Pump Station, rehabilitation of the remaining traveling bridge Automatic Backwash (ABW) Filter, replacement of the existing sodium hypochlorite storage and feed system and replacement of motor control centers and related equipment in the Return Sludge Pump Station. The proposed scope of services for this project is detailed below.

Project Background and Description

The Spencer Creek Pump Station was designed and constructed in 2000. The station receives flows from several gravity sewer interceptors and force mains which converge in a junction box to the north of the station along the Harpeth River. Water is then pumped to the Franklin Water Reclamation Facility (WRF) and flows by gravity through the treatment processes. In the years since it was placed into service, the concrete walls in the pump station wet well as well as the interior of the junction box have been damaged by hydrogen sulfide. In addition, the junction box shows significant inflow of groundwater during and after wet weather events. This project will provide for repairs and the application of a protective lining in the pump station wet well and junction box to help extend the lifespan of the concrete walls and to prevent groundwater infiltration.

The 1997 upgrades to the Franklin WRF included construction of three Tertiary Automatic Backwash (ABW) Filters. Under the 2018 Franklin WRF Modifications & Expansion project, two of these filters were demolished to make room for the new UV Treatment Facility. The media for the remaining filter was removed and replaced and the filter was put back into service to be used for additional reserve filtration capacity for flows in excess of 25 million gallons per day (mgd). Within a year of being returned to service, the filter failed. An inspection by the manufacturer's representative determined that the failure was possibly due to latent damage in the underdrain decking or other portions of the filter which allowed media to migrate to the plenum space beneath the decking. This project will provide additional detailed evaluation by the manufacturer and repairs and upgrades as necessary to restore the filter for redundant capacity. Repairs and

upgrades are expected to include, at a minimum, removal and replacement of existing filter media, replacement of underdrain nozzles, repairs to the underdrain deck, replacement of the existing control panel and integration of the filter into the plant's SCADA system.

In 2006, a sodium hypochlorite storage and feed system was installed at the Franklin WRF to provide disinfection as required for reclaimed water used for irrigation by offsite customers. The system included a bulk storage tank location on the loading dock at the Spencer Creek Pump Station, three feed pumps with residual chlorine analyzers and local control panels installed in a fiberglass enclosure near the Reclaimed Water Pump Station at the WRF. The pumps and storage tank are now nearing the end of their useful lifespan and the instrumentation and control components are outdated. This project will allow for a new storage tank, modern and efficient pumps, new analytical instrumentation and automated controls for the new system.

The Franklin WRF Modifications & Expansion project included decommissioning of the existing plant water pumps located at the original UV Facility and modifications to the existing plant water system which would be served by the improved reclaimed water pumping system. Two of the five pumps at the reclaimed water pump station were existing at project inception. These pumps have recently undergone repairs but are over 16 years old and approaching the latter stages of their lifespans. The City also foresees increased demand for reclaimed water. Certain portions of new processes installed under the Franklin WRF Modifications & Expansion project require a continuous flow of plant, and any interruption to that flow would present a serious disruption to plant operations. This project will provide for replacement of the decommissioned plant water pumps with a new redundant pumping system and piping of sufficient capacity to serve the facility's plant water needs in their entirety if necessary.

The Return Sludge Pump Station was part of the 1997 upgrades to the Franklin Water Reclamation Facility. The work included installation of motor control centers (MCCs) to distribute electrical power to equipment in that building and equipment serving the biological nutrient removal (BNR) basins. This electrical equipment is obsolete, no longer supported by the manufacturer and near the end of its expected lifespan. An unexpected failure would have catastrophic consequences to the treatment processes. This project will provide for replacement of the existing MCCs, switchboard and ancillary equipment.

Task 1 – Project Management

This task includes all management activities and coordination of the project team, establishing and monitoring consulting schedules and budgets, invoicing, reporting and documentation, and general coordination of the project, and will consist of the following subtasks;

1. Project Management: CDM Smith will provide a Project Manager (PM) who will be the primary point of contact for the City of Franklin (COF). The PM will have ultimate responsibility for cost, quality and schedule control for the duration of the project and will provide support for all CDM Smith and subconsultant staff involved in the project. The PM will be responsible for

coordination with COF, monitoring progress, preparation of monthly reports for submission to COF, preparation of invoices and submission of closeout documentation. CDM Smith will provide a Project Technical Lead (PTL) who will be responsible for coordinating and supervising the architectural and CDM Smithing ("design") team throughout the lifecycle of the project. The PTL's role under the Project Management subtask will be to assist the PM in communicating budgetary constraints to the design team and to advise the PM of any potential impacts to the budget. A Project Accountant and Administrative Assistants will support the PM in invoicing and financial matters.

2. Meetings: CDM Smith will allow for introductory or milestone meetings under Task 1 as follows:
 - A. CDM Smith will hold an internal project kickoff meeting for initial planning and coordination with the team. This meeting will establish roles, responsibilities, expectations, communication protocol, processes and procedures, scope, schedule, budgets, and other required coordination and construction activities.
 - B. CDM Smith will host a Project Quality Management (PQM) meeting with attendees including key COF staff, the Project Officer, PM, PTL and key members of the design and construction management teams. The purpose of the PQM will be to establish the project team, to clarify and align on project purpose, to determine critical success factors and to identify priority actions that support achieving the critical success factors. CDM Smith will prepare an agenda for the PQM, and minutes will be distributed within ten business days of the meeting date.
 - C. CDM Smith will hold a Pre-Bid Meeting with the City and plan holders to discuss the bidding and construction schedules and questions that arise during plan holder review of the design documents. Attendees will include the Project Officer, Project Technical Lead, Project Manager, key members of the design team and administrative support. CDM Smith will prepare an agenda for the Pre-Bid Meeting, and minutes will be distributed within five business days of the meeting date.
 - D. CDM Smith will host monthly Progress Meetings with the City during the design phase and with the City and Contractor during the construction phase. Attendees will include the Project Officer, Project Technical Lead, Project Manager, key members of the design team and administrative support. CDM Smith will prepare an agenda for each meeting and will prepare meeting minutes after each meeting and distribute to all attendees within five business days following the meeting. CDM Smith has budgeted for a total of 20 monthly progress meetings.

Task 2 – Design Phase Services

CDM Smith will provide design phase services consisting of the following:

1. Preliminary Design. CDM Smith will meet with the City at the 30-percent design milestone to gather project team members together to discuss the project overview, objectives, brainstorm project options and implementation, summarize specific design concepts and develop a plan for

the continuing design. Specific tasks to be performed as part of the preliminary design phase will include evaluation of data collected as part of the assessment of the existing systems, finalization of design criteria requirements and evaluation of City-supplied front-end documents; as applicable, for construction contracts and development of a preliminary table of technical specifications. Attendees at the Preliminary Design Workshop will include City staff, CDM Smith's Project Officer, Project Manager, Project Technical Lead and key staff for our site-civil subconsultant, Civil Infrastructure Associates (CIA). CDM Smith will produce and distribute minutes from the workshop to all attendees. The 30% design is anticipated to be completed within 60 days of Notice to Proceed.

2. Design Development. At the 60-percent completion stage of the drawings and specifications, CDM Smith will perform an internal Technical and Constructability Review and submit and review the Contract Documents with the City of Franklin staff. Upon receipt of comments from the City, CDM Smith will make the requested changes and updates to produce a complete design for submittal of 90-percent contract documents. As part of the document reviews, CDM Smith will discuss COF's comments and identify elements of the design that will be "frozen" and elements that are still under review by the COF. In addition, as part of the 60-percent design, CDM Smith will:

- A. Update and complete equipment data sheets.
- B. Compile preliminary versions of technical specifications and update the table of contents for the Project Manual and technical specifications.
- C. Perform reviews for biddability and constructability.
- D. Prepare an updated contract documents package that present the work and represent a 60 percent design completion deliverable.

The 60 % design is anticipated to be completed within 60 days of the 30% design review workshop.

3. Pre-Final Design. At the 90- percent completion stage, CDM Smith will perform a final review of drawings and specifications with the COF. At this stage, all Contract Documents shall be complete for the COF's review. After receipt of final comments from the City, CDM Smith will bring the documents to completion for bidding.

As part of the process for completion of the 90-percent design process, CDM Smith shall:

- A. Finalize equipment data sheets.
- B. Prepare a pre-final project manual with complete technical specifications and bid forms.
- C. Perform internal back-checking and cross-checking between design disciplines for all drawings and specifications.
- D. Perform a constructability review.

The 90% design is anticipated to be complete within 60 days of the 60% design review workshop.

4. Final Design. CDM Smith will prepare Issued for Construction (IFC) Contract Documents to include final drawings and specifications showing the scope, extent, and character of the work to be performed and furnished by Contractor. One set of Contract Documents shall be developed for bidding of all scoped improvements. Drawings shall include civil/site work requirements (including erosion control), structural requirements, architectural requirements, mechanical requirements, instrumentation (including plant SCADA), electrical requirements, HVAC and plumbing requirements as applicable. One (1) signed and sealed hard copy and electronic copy in pdf format including an anticipated 42 drawings will be included as deliverables for this work.

CDM Smith will provide an opinion of probable construction cost (OPCC) at the 60-percent and 100-percent milestones. CDM Smith will also review scheduling constraints with respect to time, funding availability, and project completion. Each OPCC update will be submitted within one week after submittal of the corresponding drawing and specifications submittal. The 100-percent OPCC will be the final OPCC prepared for this task.

In conjunction with, and parallel to the preliminary and pre-final design, CDM Smith will evaluate and perform structural, mechanical and electrical evaluations of the out-of-service structures, equipment, conduits and piping affected by this work. Any potentially reusable components will be evaluated for potential reuse as part of the design process. All components deemed to be unusable or not cost effective for rehabilitation based on needed modifications will be included as part of a demolition set of plans for the contract documents, at the City's discretion. The IFC design is anticipated to be completed within 242 calendar days of Notice to Proceed. Up to five (5) site visits and twenty (20) days of onsite time have been budgeted for members of the design team under Task 2.

Task 3 – Bidding Services

CDM Smith assumes that City will execute project construction via Design-Bid-Build delivery method. One bidding phase for a single construction contract is included. This assumes that a pre-qualification process for bidders will not be required.

After acceptance by COF of the CDM Smith's Drawings, Specifications and other Design Phase documentation (including the most recent OPCC), and upon written authorization to proceed, CDM Smith shall:

1. Assist the City in obtaining building permits and permitting with the funding authority as applicable.
2. Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.

3. Consult with COF as to the acceptability of subcontractors, suppliers and other persons and entities proposed by Contractor for those portions of the work as to which such acceptability is required by the Bidding Documents.
4. Attend the bid opening, prepare bid tabulation sheets and assist COF in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment and services.

The Bidding Phase will terminate and the Services to be performed or furnished thereunder will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective Contractors.

Task 4 – Construction Services

CDM Smith shall provide construction phase services consisting of the following subtasks:

1. Construction Administration & Resident Services: CDM Smith shall consult with and advise COF and act as COF's representative as provided in the Standard General Conditions. The extent and limitations of the duties, responsibilities and authority of CDM Smith as assigned in said Standard General Conditions shall not be modified, except to the extent provided herein. All of COF's instructions to Contractor will be issued through CDM Smith who shall have authority to act on behalf of COF in dealings with Contractor to the extent provided in this Agreement and said Standard General Conditions except as otherwise provided in writing.
2. Provide site visits by the design team in addition to the day-to-day observation of the work by Resident Project Representative (RPR). The design team shall make visits to the site at intervals appropriate to the various stages of construction as CDM Smith deems necessary in order to observe as an experienced and qualified design professional the progress and quality of the various aspects of the Contractor's work. In addition, CDM Smith shall provide the services of an RPR at the site to assist and provide more continuous observations of such work as outlined in the description of services herein. The furnishing of such Resident Project Representative services will not extend CDM Smith's responsibilities or authority beyond the specific limits set forth elsewhere in this paragraph. Visits and observations by the CDM Smith team are not intended to be exhaustive or to extend to every aspect of the work in progress, or to involve detailed inspections of the work beyond the responsibilities specifically assigned, but rather are to be limited to spot checking, selective sampling and similar methods of general observation of the work based on CDM Smith's exercise of professional judgment as assisted by the RPR. Based on information obtained during such visits and such observations, CDM Smith shall endeavor to determine in general if such work is proceeding in accordance with the Contract Documents and keep COF informed of the progress of the work. The responsibilities of CDM Smith contained in this paragraph are expressly subject to the limitations set forth in the following paragraph and other expressed and/or general limitations in this Agreement and elsewhere in the construction documents.

The purpose of CDM Smith's visits to and representation by the Resident Project Representative at the site will be to enable CDM Smith to better carry out the duties and responsibilities assigned to and undertaken by our team during the Construction Phase, and, in addition, by the exercise of CDM Smith's efforts as an experienced and qualified design professional, to provide COF a greater degree of confidence that the completed work of Contractor will conform in general to the Contract Documents and that the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents has been implemented and preserved by Contractor. On the other hand, CDM Smith shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct or have control over Contractor's work nor have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by Contractor, for safety precautions and programs incident to the work of Contractor or for any failure of Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to Contractor's furnishing and performing the work. Accordingly, CDM Smith neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents. Duties, responsibilities and authority of the Resident Project Representative are set forth in Exhibit B.

The RPR is budgeted at 40 hours per week for 92 weeks and 20 hours per week for 12 weeks. Task 4 also allows budget for twenty 8-hour days of onsite observation by a local electrical CDM Smith and 10 days of onsite time by a discipline CDM Smith.

As part of the services provided under the Construction Administration & Resident Services subtask and following notice from the Contractor that all Work (i.e., the entire project) is ready for its intended use, CDM Smith and COF, accompanied by the Contractor, will conduct an inspection to determine if the Work is Substantially Complete. If COF and CDM Smith consider the work Substantially Complete, CDM Smith will deliver a Certificate of Substantial Completion to the Contractor along with a checklist of items that must be complete for the work to be considered fully complete. CDM Smith's PM and RPR will be in attendance for the Substantial Completion inspection, and we have assumed that only one inspection will be required.

As part of the services provided under the Construction Administration & Resident Services subtask, CDM Smith will conduct one project wide final inspection to determine if the Contractor's work is acceptable in order that CDM Smith may recommend acceptance and final payment to the Contractors. Accompanying the recommendation for final payment, CDM Smith will indicate that the Work is acceptable to the best of CDM Smith's knowledge, information and belief and based on the extent of the services performed and furnished by CDM Smith under this Agreement. CDM Smith's PM and RPR will be in attendance for the Substantial Completion inspection, and we have assumed that only one inspection will be required.

3. CDM Smith Reviews: This task includes review of shop drawings and other construction submittals, review of contractor payment applications, review of substitution requests, review of schedule submittals, review and response to RFIs, and review and acceptance of final/closeout submittals. CDM Smith's design team, in coordination with the RPR, will be

responsible for providing the Contractor with responses on these items. CDM Smith office technical staff will be responsible for providing the primary input on most of these submittal items; however, the RPR will provide the primary input for the pay requests and certain other items with support from the design.

CDM Smith will process and track the Contractor's shop drawing and product data submittals on equipment and methods. Each submittal will be reviewed to determine conformance with the design concept and compliance with the contract documents. CDM Smith will maintain an electronic document-management system for processing all submittals to indicate material received, dates of receipt and return to the Contractor, and action taken on the submittal. Average submittal review time is expected to be twenty business days after receipt from the Contractor. The budget for this task assumes review of up to 100 total submittals and resubmittals. The budget also assumes that any third submittals will be considered additional services that will be paid for by the Contractor per the Contract Documents.

CDM Smith will review and assist COF with negotiation of the schedule of values. In addition, CDM Smith will review 24 monthly applications for payment from the Contractor for compliance with the established procedure for their submission, noting particularly the relationship of the payment requested to the schedule of values, work completed, and materials and equipment delivered at the site but not incorporated in the Work. The reviewed and approved payment application will be forwarded to the COF with recommendation for action. Accurate project cost records will be maintained, including monthly payments and proposed, pending, or approved changes in the work.

CDM Smith will review the Contractor's initial construction schedule to ensure that the activities are comprehensive, the workflow is logical, the relationships between tasks is logical, and the schedule appropriately considers maintenance of plant operation constraints. Once the initial project schedule is agreed upon, CDM Smith will continuously monitor the Contractor's actual progress and compare it to the approved schedule. CDM Smith will interface with the COF staff on issues involving scheduled shut-downs, tie-ins, start-ups, commissioning, and other required operational coordination to ensure adequate lead time is provided for proper coordination and preparation for these activities. We have budgeted for review of a total of 24 schedule submittals, as an updated schedule is required with each monthly pay request; however, the CDM Smith RPR will monitor and track the overall and task schedules on a regular basis. Updates and feedback will be provided to both the City staff and contractor at regular meetings.

CDM Smith will accept, review and respond to Requests for Information (RFIs) and any required interpretation or clarification of the drawings and specifications. When required, sketches or other documentation will be prepared to accompany responses. CDM Smith will maintain a log of Requests for Information, indicating subject of request, date of request, originator of request, person responsible for response and date of response. The budget for this task assumes that responses will be prepared for up to a total of 200 RFIs.

This task includes review of Contractor claims and proposals, preparation of requests for

proposal, assistance to the COF in negotiating change order scope, schedule and cost, work change directives, and preparation of change orders, including an overall project final reconciliation change order.

4. Record Drawings. CDM Smith will review the final Record Drawing information submitted by the Contractor and will revise the construction drawings to reflect the actual final conditions based on the Contractor's Record Drawing information, supplemented with any additional information gathered by our RPR team during inspection activities. It is assumed that 42 drawings will be included in the final record drawing set. Final Record Drawings will be provided to COF electronically in AutoCAD and pdf.

Exclusions

The following items are not included in the scope of this Proposal;

1. Submission of a Notice of Intent (NOI) or Stormwater Pollution Prevention Plan (SWPPP).
2. Permitting fees.
3. Witnessing of factory testing.
4. Special inspections per International Building Code (IBC) Chapter 17 and Special Inspections Guide for Tennessee and materials testing.
5. Startup assistance, training and update of the electronic operations and maintenance manual (EO&M) provided under previous projects.
6. Davis-Bacon Act and American Iron & Steel compliance.
7. Dissemination of bid document.
8. Disbursement preparation guidance and review and closeout documentation required by the funding agency.
9. Conformed drawings.

Schedule

This scope of services is based upon assumed durations of 36 weeks for the design phase, 22 weeks for the bidding phase and 104 weeks for the construction phase for a total of 1,001 calendar days.

Budget

CDM Smith proposes to perform the above work on a time and materials billing rate basis at an upper limit of \$1,737,669.00 as detailed on Table A attached. The proposed billing rates are shown on Table B attached. Subconsultant services will be invoiced at direct cost plus 10-percent markup. Invoices shall be submitted monthly with progress report based on hours spent

by each team member over the previous month. Payment shall be made monthly and shall be due within 30 days from receipt of an approved invoice. In no case shall the upper limit be exceeded without previous approval from City. Budget estimates by task are not intended to be upper limits and budgets may be shifted between tasks as long as the overall upper limit is not exceeded without a signed contract amendment.

Table 1
Summary of Budget by Task
Franklin WRF Post-Expansion Upgrades

LAHOR	Task No.	Task 1 - Project Management		Task 2 - Design Services				Task 3 - Bidding Services			Task 4 - Construction Services			Totals
	Rate	Project Management	Meetings	30% Design	60% Design	90% Design	IFB Design	Permitting	Prebid RFIs	Addenda	Construction Administration & Resident Services	Engineering Reviews	Record Drawings	
Officer	\$250	4	78								24			100
Project Manager	\$200	656	120					8			416			1200
Senior Technical Director	\$295	6		30	30	20	19							101
Senior Technical Specialist	\$260	8	60	116	95	54	54			14	10	80	76	567
Technical Specialist	\$250											80		80
Senior Engineer/Scientist	\$220	88	254	146	124	41	31			19	18	135	322	1178
Engineer/Scientist VII	\$200			38	28	26	25					94	8	219
Engineer/Scientist VI	\$180		23									220		243
Engineer/Scientist V	\$170			139	56	16	15			4	4	8		286
Engineer/Scientist IV	\$160			156	180	96	88			16	16	133	44	729
Engineer/Scientist III	\$145			100	126	54	42			4	4	100		430
Engineer/Scientist II	\$130			100	94	38	38			3	3	118		394
Engineer/Scientist I	\$120			138	91	70	5			2	2	8		316
Junior Engineer	\$110			212	154	127	71				80	44		688
Resident Engineer	\$120									8	8		168	3684
Project Accounting	\$120	79												79
Administrative	\$105	180	148	5	3	2	1	8						347
														0
TOTAL HOURS		1021	683	1180	981	544	389	16			4673	0		9487
TOTAL DOLLARS		\$183,790	\$134,660	\$195,225	\$163,415	\$87,590	\$67,640	\$2,440	13230	\$11,970	\$654,380	\$150,480	\$27,200	\$1,692,020
OTHER DIRECT COSTS														
Car Mileage	\$0.625	\$0	\$0	\$625	\$0	\$0	\$0	\$0	\$0	\$0	\$1,920	\$0	\$0	\$2,545
Rental Car	\$70	\$0	\$0	\$1,400	\$0	\$0	\$0	\$0	\$0	\$0	\$1,400	\$0	\$0	\$2,800
Air Fare	\$700	\$0	\$0	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000	\$0	\$0	\$10,500
Meals & Incidentals Expenses	\$69	\$0	\$0	\$1,380	\$0	\$0	\$0	\$0	\$0	\$0	\$609	\$0	\$0	\$1,989
Hotel	\$125	\$0	\$0	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0	\$1,250	\$0	\$0	\$3,750
Document Reproduction	\$400	\$0	\$0	\$163	\$0	\$0	\$0	\$949	\$0	\$0	\$400	\$0	\$0	\$1,912
Shipping	\$0	\$0	\$0	\$432	\$0	\$0	\$0	\$192	\$0	\$0	\$380	\$0	\$0	\$1,004
Miscellaneous Equipment/Supplies	\$110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,339	\$0	\$0	\$2,449
TOTAL ODCs Plus 0% Markup	\$510	\$0	\$0	\$10,000	\$0	\$0	\$0	\$1,141	0	\$0	\$15,298	\$0	\$0	\$26,949
OUTSIDE PROFESSIONALS														
Civil Infrastructure Associates		\$0	\$0	\$5,000	\$5,000	\$5,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$17,000
Subtotal OPs		\$0	\$0	\$5,000	\$5,000	\$5,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$17,000
Total OPs Plus 10% Markup	10%	\$0	\$0	\$5,500	\$5,500	\$5,500	\$2,200	\$0	\$0	\$0	\$0	\$0	\$0	\$18,700
TOTALS		\$184,300	\$134,660	\$210,725	\$168,915	\$93,090	\$69,840	\$3,581	\$13,230	\$11,970	\$669,678	\$150,480	\$27,200	\$1,737,669

Table 2

PROJECT BILLING RATES	
Category	Rate
Senior Technical Director	\$ 295
Officer	\$ 250
Project Manager	\$ 200
Senior Technical Specialist	\$ 260
Senior Engineer/Scientist	\$ 220
Engineer/Scientist VII	\$ 200
Engineer/Scientist VI	\$ 180
Engineer/Scientist V	\$ 170
Engineer/Scientist IV	\$ 160
Engineer/Scientist III	\$ 145
Engineer/Scientist II	\$ 130
Engineer/Scientist I	\$ 120
Junior Engineer	\$ 110
Resident Engineer	\$ 120
Project Accounting	\$ 120
Administrative	\$ 105

**EXHIBIT B TO AGREEMENT
BETWEEN
OWNER AND ENGINEER**

**DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY
OF THE RESIDENT PROJECT REPRESENTATIVE**

This is an Exhibit attached to, made a part of and incorporated by reference with the Agreement made on _____, 2022 between City of Franklin (OWNER) and CDM Smith (ENGINEER) for providing professional services.

ENGINEER shall furnish a Resident Project Representative ("RPR"), assistants and other field staff to assist ENGINEER in observing progress and quality of the work of Contractor.

Through more extensive on-site observations of the work in progress and field checks of materials and equipment by the RPR and assistants, ENGINEER shall endeavor to provide further protection for OWNER against defects and deficiencies in the work of Contractor. However, ENGINEER shall not, as a result of such observations of Contractor's work, supervise, direct, or have control over any Contractor's work nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences or procedures selected by any Contractor, for safety precautions and programs incident to the work of any Contractor, for any failure of any Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to performing and furnishing the work, or responsibility of construction for Contractor's failure to furnish and perform the Work in accordance with the Construction Contract Documents.

The duties and responsibilities of the RPR are limited to those of ENGINEER in ENGINEER's Agreement with the OWNER and in the construction Contract Documents, and are further limited and described as follows:

A. General

RPR is ENGINEER's agent at the site, will act as directed by and under the supervision of ENGINEER, and will confer with ENGINEER regarding RPR's actions. RPR's dealings in matters pertaining to the on-site work shall in general be with ENGINEER and Contractor, keeping OWNER advised as necessary. RPR's dealings with subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with OWNER with the knowledge of and under the direction of ENGINEER.

B. Duties and Responsibilities of RPR

1. *Schedules:* Review the progress schedule, schedule of Shop Drawing submittals schedule of values, and other schedules prepared by Contractor and consult with ENGINEER concerning their acceptability.
2. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings (but not Contractor's safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
3. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.

4. *Liaison:*

- a. Serve as ENGINEER's liaison with Contractor, working principally through Contractor's superintendent and assist in understanding the intent of the Construction Contract Documents; and assist ENGINEER in serving as OWNER's liaison with Contractor when Contractor's operations affect OWNER's on-site operations.
- b. Assist in obtaining from OWNER additional details or information, when required for proper execution of the Work.

5. *Shop Drawings and Samples:*

- a. Record date of receipt of Shop Drawings and Samples.
- b. Receive Samples that are furnished at the site by Contractor, and notify ENGINEER of availability of Samples for examination.
- c. Advise ENGINEER and Contractor of the commencement of any Work requiring a Shop Drawing or Sample if the submittal has not been approved by ENGINEER.

6. *Review of Work, Defective Work, Inspections, Tests and Start-ups:*

- a. Report to ENGINEER whenever RPR believes that any part of the Work is defective under the terms and standards set forth in the Construction Contract Documents; and provide recommendations as to whether such Work should be corrected, removed and replaced, or accepted as provided in the Construction Contract Documents.
- b. Inform ENGINEER of any Work that RPR believes is not defective under the terms and standards set forth in the Construction Contract Documents, but is nonetheless not compatible with the design concept of the completed Project as a functioning whole, and provide recommendations to Engineer for addressing such Work.
- c. Advise Engineer of that part of the Work that RPR believes should be uncovered for observation, or requires special testing, inspection, or approval.
- d. Consult with Engineer in advance of scheduled inspections, tests, and systems start-ups.
- e. Verify that tests, equipment and systems start-ups and operating and maintenance training are conducted in the presence of appropriate personnel, and that Contractor maintains adequate records thereof; and observe, record and report to ENGINEER appropriate details relative to the test procedures and start-ups.
- f. Accompany visiting inspectors representing public or other agencies having jurisdiction over the work, record the results of these inspections and report to ENGINEER.

7. *Interpretation of Contract Documents:* Report to ENGINEER when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by ENGINEER.

8. *Modifications:* Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to ENGINEER. Transmit to Contractor in writing decisions as issued by ENGINEER.

9. *Records:*

- a. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and Samples, copies of Construction Contract Documents including all Work Change, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Construction Contract, RFIs, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, approved Shop Drawing submittals and other Project-related documents.
- b. Prepare a daily report or keep a diary or log book, recording Contractor's hours on the job site, Subcontractors present at the Site weather conditions, data relative to questions of Work Change Directives, Change Orders or changed conditions, list of job site visitors, deliveries of equipment or materials, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to ENGINEER.
- c. Record names, addresses, e-mail addresses, websites and telephone numbers of all Contractors, Subcontractors and major suppliers of materials and equipment.

10. *Reports:*

- a. Furnish to ENGINEER periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Consult with ENGINEER in advance of scheduled major tests, inspections or start of important phases of the Work.
- c. Draft proposed Change Orders and Work Change Directives, obtaining backup material from Contractor and recommend to ENGINEER Change Orders, Work Change Directives, and Field Orders.
- d. Report immediately to ENGINEER and OWNER the occurrence of any accident.

11. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.

12. *Certificates, Maintenance and Operation Manuals:* During the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to ENGINEER for review and forwarding to OWNER prior to final payment for the Work.

13. *Completion:*

- a. Before ENGINEER issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- b. Observe whether Contractor has had performed inspections required by laws, rules, regulations, ordinances, codes, or orders applicable to the work, including but not limited to those to be performed by public agencies having jurisdiction over the work.
- c. Conduct a final inspection in the company of ENGINEER, OWNER and Contractor and prepare a final list of items to be completed or corrected.

- d. Observe whether all items on final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance and issuance of the Notice of Acceptability of the Work.

C. Limitations of Authority by RPR

Resident Project Representative:

1. Shall not authorize any deviation from the Construction Contract Documents or substitution of materials or equipment (including "or-equal" items).
2. Shall not exceed limitations of ENGINEER's authority as set forth in the Agreement or the Contract Documents.
3. Shall not undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or any Constructor.
4. Shall not advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
5. Shall not advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.
6. Shall not accept Shop Drawing or Sample submittals from anyone other than Contractor.
7. Shall not authorize OWNER to occupy the Project in whole or in part.
8. Shall not participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by ENGINEER.



File #: 21-05398

DATE: October 16, 2023
TO: Board of Mayor and Aldermen
FROM: Michelle Hatcher, Director of Water Management
Brian Goodwin, Asst. Director of Water Management
Patricia McNeese, Utilities Engineer

SUBJECT:

Consideration Of Change Order 3 To COF Contract No. 2022-0182, With Haren Construction For WTP Valve Access Improvements Project

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the change order No. 3 for the WTP Valve Access Improvements project.

BACKGROUND/STAFF COMMENTS:

The Water Treatment Plant Valve Access project was bid on December 8, 2022, and the contract approved by the Board of Mayor and Aldermen (BOMA) on January 24, 2022. The project was awarded to Haren Construction Company, Inc. out of Etowah, TN. Change Order No. 3 is the combination of Work Change Directives 3 through 7 and 10 through 12 that are the items charged to the contingency line item of the contract.

WCD #3 is for the new roof access ladder deduct and has an effective date of 3/28/2023. The existing cage and ladder for the roof access were to be removed and replaced with a new galvanized steel ladder and an integral safety climb system. Haren removed the existing cage, modified the existing base, and re-anchored to the concrete deck and provided a vertical safety system. The cost for this was a credit of \$3,581 to the contingency allowance.

WCD #4 is for actuator repair at GAC #1 with an effective date of 3/28/2023. Flowserve inspected the valve actuators for GAC #1 and discovered that one of the valves had a faulty power supply. White Electrical replaced the wiring and Flowserve inspected the work. The cost for this work change directive was \$1,276 to be deducted from the contingency allowance.

WCD #5 is for the telescoping poles for the walkway light fixtures deduct and has an effective date of 5/24/2023. The requirement for a spring-loaded telescoping pole for the walkway light fixtures was deleted and Haren provided a 1 1/2" rigid conduit pole mounted to the handrail in the same manner as the telescoping pole with the light fixture at the height noted in detail on sheet E001 of the

construction drawings. The credit to the contingency allowance for this work change directive was \$4,200.

WCD #6 is to purchase and install a new jib crane and hoist with an effective date of 6/8/2023. The cost of this work change directive is a deduct from the contingency allowance in the amount of \$26,104.

WCD #7 is for the relocation of three sets of disconnect boxes from the GAC floor level to the proposed concrete deck level – approximately 19 feet from their current position. The effective date of this work change directive is 7/20/2023 and the cost is a deduct from the contingency allowance in the amount of \$11,299.

WCD #10 is to refinish the exterior of the existing barn door and sliding rail to match the new ones. The cost of this work change directive is a deduct to the contingency allowance in the amount of \$945. The effective date of the work change directive is 7/20/2023.

WCD #11 is to relocate an existing water line that runs along elevation 649.00 in front of the proposed new overhead door. The effective date of this work change directive is 7/23/2023 and the cost to deduct to the contingency allowance is \$1,628.

WCD #12 is to modify the south stair stringer attachment due to the staircases originally installed not per code by the previous contractor. The effective date of this work change directive is 7/23/2023 and the cost is a deduct to the contingency allowance of \$2,529.

Summary of WCD costs:

WCD #1 = \$1,248
WCD #2 = \$61,898
WCD #3 = -\$3,581
WCD #4 = \$1,276
WCD #5 = -\$4,200
WCD #6 = \$26,104
WCD #7 = \$11,299
WCD #10 = \$945
WCD #11 = \$1,628
WCD #12 = \$2,529
Total WCD: \$96,435

The total contingency line item is \$100,000.

FINANCIAL IMPACT:

There is no total increase to the contract with this change order. There are no grants or loans involved and the item is included in the current budget.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve change order No. 3 to COF Contract No. 2022-0182.

CHANGE ORDER NO.: 3

Owner: City of Franklin, TN Date Issued: 10/19/2023
Engineer: AECOM
Contractor: Haren Construction
Project Name: Water Treatment Plant Valve Access Improvements Project
Owners Contract No.: COF Contract No. 2022-0182
Effective Date of Change Order: N/A

The Contract is modified as follows upon execution of this Change Order:

Attachment(s):

- WCD #3 – New roof access ladder deduct
- WCD #4 – Actuator repair
- WCD #5 – Deduct for telescoping poles
- WCD #6 – Jib Crane
- WCD #7 – Relocate actuator disconnects
- WCD #10 – Barn Door finish
- WCD #11 – Relocated city water line
- WCD #12 – Stair Code Compliance

Description:

- WCD #3 is for the new roof access ladder deduct and has an effective date of 3/28/2023. The existing cage and ladder for the roof access were to be removed and replaced with a new galvanized steel ladder and an integral safety climb system. Haren removed the existing cage, modified the existing base, and re-anchored to the concrete deck and provided a vertical safety system. The cost for this was a credit of \$3,581 to the contingency allowance.
- WCD #4 is for actuator repair at GAC #1 with an effective date of 3/28/2023. Flowserve inspected the valve actuators for GAC #1 and discovered that one of the valves had a faulty power supply. White Electrical replaced the wiring and Flowserve inspected the work. The cost for this work change directive was \$1,276 to be deducted from the contingency allowance.
- WCD #5 is for the telescoping poles for the walkway light fixtures deduct and has an effective date of 5/24/2023. The requirement for a spring-loaded telescoping pole for the walkway light fixtures was deleted and Haren provided a 1 ½" rigid conduit pole mounted to the handrail in the same manner as the telescoping pole with the light fixture at the height noted in detail on sheet E001 of the construction drawings. The credit to the contingency allowance for this work change directive was \$4,200.
- WCD #6 is to purchase and install a new jib crane and hoist with an effective date of 6/8/2023. The cost of this work change directive is a deduct from the contingency allowance in the amount of \$26,104.
- WCD #7 is for the relocation of three sets of disconnect boxes from the GAC floor level to the proposed concrete deck level – approximately 19 feet from their current position. The effective date of this work change directive is 7/20/2023 and the cost is a deduct from the contingency allowance in the amount of \$11,299.

- WCD #10 is to refinish the exterior of the existing barn door and sliding rail to match the new ones. The cost of this work change directive is a deduct to the contingency allowance in the amount of \$945. The effective date of the work change directive is 7/20/2023.
- WCD #11 is to relocate an existing water line that runs along elevation 649.00 in front of the proposed new overhead door. The effective date of this work change directive is 7/23/2023 and the cost to deduct to the contingency allowance is \$1,628.
- WCD #12 is to modify the south stair stringer attachment due to the staircases originally installed not per code by the previous contractor. The effective date of this work change directive is 7/23/2023 and the cost is a deduct to the contingency allowance of \$2,529.
- Summary of WCD costs:
 WCD #1 = \$1,248
 WCD #2 = \$61,898
 WCD #3 = -\$3,581
 WCD #4 = \$1,276
 WCD #5 = -\$4,200
 WCD #6 = \$26,104
 WCD #9 = \$13,545
 WCD #10 = \$945
 WCD #11 = \$1,628
 WCD #12 = \$2,529
 Total WCD: \$96,435

Change in Contract Price		Change in Contract Times	
Original Contract Price:		Original Contract Times:	
\$ 997,000		Substantial Completion:	August 19, 2023
		Ready for final payment:	September 18, 2023
[Increase] [Decrease] from previously approved Change Orders		[Increase] [Decrease] from previously approved Change Orders:	
\$ 0		Substantial Completion:	August 19, 2023
		Ready for final payment:	September 18, 2023
Contract Price prior to this Change Order:		Contract Times prior to this Change Order:	
\$ 997,000		Substantial Completion:	August 19, 2023
		Ready for final payment:	September 18, 2023
[Increase] [Decrease] this Change Order:		[Increase] [Decrease] this Change Order:	
\$		Substantial Completion:	September 6, 2023
		Ready for final payment:	October 6, 2023
Contract Price incorporating this Change Order:		Contract Times with all approved Change Orders:	
\$ 997,000		Substantial Completion:	September 6, 2023
		Ready for final payment:	October 6, 2023

Recommended by Project Manager	Recommended by Department Director
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

Authorized by Owner

By: _____

Title: _____

Date: _____

C940 - WORK CHANGE DIRECTIVE NO.: 3

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 3/28/2023

Effective Date of Work Change
Directive: 3/28/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

New roof access ladder deduct

Attachments:

- **Haren's Change of Request #3**

Purpose for the Work Change Directive:

As shown on the construction plans, the existing cage and ladder for the roof access were to be removed and replaced with a new galvanized steel ladder and an integral safety climb system. Haren proposes to remove the existing cage, modify the existing base, re-anchor to the new concrete deck and still provide a vertical safety system as specified in contract documents.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

Estimated Price and Contract Times (non-binding, preliminary):

Price: -\$3,581.00 **[credit to Contingency Allowance]**

Contract Time: 0 Days

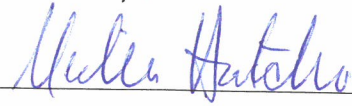
Basis of Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

EJCDC® C-940, Work Change Directive.

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	Recommended by Engineer	Authorized by Owner
By:	<u></u>	<u></u>
Title:	AECOM	City of Franklin
	Associate Vice President, Water, East	Director of Water Management
Date:	<u>3/28/2023</u>	<u>3/28/23</u>



3
n/a
Brennan Nielsen
3/16/2023

Project	Location	Arch/Eng.	Desc.
---------	----------	-----------	-------

Franklin WTP Valve Access Improvements
Franklin, TN
AECOMM
New Ladder Deduct

Additional Comments / Notes:	Total
Per discussions with Owner/Engineer, HCCI offers the following deduct change order to delete replacing the existing ladder with new. HCCI can remove the existing cage, modify the existing base and re-anchor the new composite concrete deck with 1/2" x 3 1/2" SS Threaded Rod W/N&W installed with Epoxy Adhesive. Vertical Safety System will still be provided and installed as specified in contract documents.	

C940 - WORK CHANGE DIRECTIVE NO.: 4

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access
Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 3/28/2023

Effective Date of Work Change
Directive: 3/28/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

Actuator repair

Attachments:

- **Haren's Change of Request #4**

Purpose for the Work Change Directive:

Flowserve and Haren's subcontractor, White Electrical, were onsite at the same time. Flowserve inspected the valve actuators for GAC #1 and discovered that one of the valves had a faulty power supply. White Electrical replaced the wiring and Flowserve inspected the work. This work change directive reflects the costs incurred.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

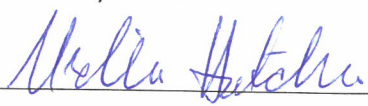
Estimated Price and Contract Times (non-binding, preliminary):

Price: \$1,276.00 **[deduct to Contingency Allowance]**

Contract Time: 0 Days

Basis of Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

	Recommended by Engineer	Authorized by Owner
By:	<u></u>	<u></u>
Title:	AECOM	City of Franklin
	Associate Vice President, Water, East	Director of Water Management
Date:	<u>3/28/2023</u>	<u>3/28/23</u>



COR #
Unit Cost
Price By
Date

4
n/a
Brennan Nielsen
3/27/2023

Project
Location
Arch/Eng.
Desc.

Franklin WTP Valve Access Improvements
Franklin, TN
AECOMM
Actuator Repair

ITEM	DESCRIPTION	LABOR			MATERIAL / EQUIPMENT			Totals
		QTY / Unit	Rate	OT	QTY / Unit	Unit Cost	Total	
1			\$ 35.00				\$ -	
2			\$ 35.00				\$ -	
3			\$ 35.00				\$ -	
4			\$ 35.00				\$ -	
5							\$ -	
6							\$ -	
7							\$ -	
Break-Out Totals					Subtotal	Sales Tax	\$0.00	
					Total			
SUBCONTRACT & EQUIPMENT								
					QTY / Unit	Unit Cost	Total	
1	Back Hoe				0.00 WK	\$ 598.15	\$ -	
2	Pick UP Truck				0.00 WK	\$ 250.00	\$ -	
3	Pick UP Truck				0.00 WK	\$ 250.00	\$ -	
4	Bull Dozer				0.00 WK	\$ 1,419.17	\$ -	
5	Loader - IT-38F				0.00 WK	\$ 1,131.64	\$ -	
6	Excavator - EX-09				0.00 WK	\$ 1,979.21	\$ -	
7	Excavator EX-07				0.00 WK	\$ 2,623.56	\$ -	
8	Off Road Truck				0.00 WK	\$ 1,506.93	\$ -	
9	Off Road Truck				0.00 WK	\$ 2,003.46	\$ -	
10	Compactor				0.00 WK	\$ 1,622.40	\$ -	
					0.00 WK	\$ 801.39	\$ -	
11	Electrical				1.0	\$ 1,215.00	\$ 1,215.00	
12					1.0		\$ -	
13	Construction Trailer				0.0 WK	\$ 112.24	\$ -	
14	Temp Toilet Rental				0.0 WK	\$ 82.07	\$ -	
15	HCC Travel				0.0 WK	\$ 375.00	\$ -	
Additional Comments / Notes:					Total		\$ 1,215.00	
The above change order request is pricing for work performed as part of a group effort to repair/correct the two inoperable valve actuators while we had a Flowsave (Limiterque) Service Technician on site to perform and inspection. One of the actuators was found to have a faulty power supply. Our electrician was able to replace the wire on the spot so the actuator could be checked out by the Flowsave Tech before he left. This is the only repair costs incurred for either of the two inoperable actuators and both are now in good working order.								
TOTAL THIS CHANGE								\$ 1,276

C940 - WORK CHANGE DIRECTIVE NO.: 5

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access
Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 05/24/2023

Effective Date of Work Change
Directive: 5/24/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

Delete the requirement for a spring-loaded telescoping pole for the walkway light fixtures and provide a 1 ½" rigid conduit pole mounted to the handrail in the same manner as the telescoping pole with the light fixture at the height noted in detail on sheet E001.

Attachments:

- Haren's Change of Request #5
- White's Electric proposal

Purpose for the Work Change Directive:

Delete the requirement for a spring-loaded telescoping pole for the walkway light fixtures and provide a 1 ½" rigid conduit pole mounted to the handrail in the same manner as the telescoping pole with the light fixture at the height noted in detail on sheet E001.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price:	\$4,200	{increase} {decrease} {not yet estimated} .
Contract Time:	0 days	{increase} {decrease} {not yet estimated} .

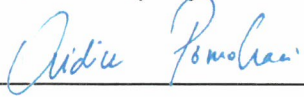
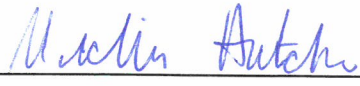
Basis of estimated change in Contract Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

EJCDC® C-940, Work Change Directive.

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	Recommended by Engineer	Authorized by Owner
By:	<u></u>	<u></u>
Title:	<u>Associate Vice President</u>	<u>Director WMP</u>
Date:	<u>5/24/2023</u>	<u>7/6/23</u>



Haren Construction Company, Inc.

April 28, 2023

Patricia McNeese, PE
City of Franklin Water Management
124 Lumber Drive
Franklin, TN 37064
Office: (615) 550-6674
patricia.mcneese@franklintn.gov

Re: HCCI COR 06 Walkway Telescoping Light Poles
Franklin WTP Valve Access Improvements
838 Lewisburg Pike
Franklin, TN 37064

Mrs. McNeese,

Please consider this letter as HCCI's final pricing for the previously discussed change in contract scope to delete the requirement for a spring-loaded telescoping pole for the walkway light fixtures. We will in return provide a 1 ½" rigid conduit pole mounted to the handrail in the same manner as the telescoping pole with the light fixture at the height noted in detail on sheet E001. For this change we will provide the following credit to be applied back to the Owner's Allowance for the contract. Please see the attached explanation and cost breakdown for the change from our electrical subcontractor, White Electric.

COST:
Credit - \$4,200.00

Please provide in writing acceptance of this change and associated costs including where the funds will be provided from at your earliest convenience.

Sincerely,

A handwritten signature in black ink, appearing to read "Brennan Nielsen".

Brennan Nielsen
Project Manager
Haren Construction Company, Inc.
bnielsen@harenconstruction.com

CC: HCCI Project File

From: Garrett Owen <GOWEN@white-electrical.com>
Sent: Friday, April 21, 2023 3:58 PM
To: Brennan Nielsen
Subject: Franklin WTP Valve Access Improvements Deductive Change Order
Attachments: Franklin WTP Valve Access Improvements - Pole Mount Fixture Deduct Proposal.pdf

Brennan,

Please see the attached deductive change order proposal for the WF fixture poles.

A couple notes:

- We had originally priced a 2" pole that converts to a 1 ½" pole with a locking collar. We are now suggesting using just a 1 ½" because that is what the fixture is equipped for.
- We did not include originally include the telescoping pole that was included in the addendum 2 that came out before the bid date.
- There are (3) fixtures where the telescoping pole would not be necessary. These fixtures are against the wall and do not possess a potential safety hazard for ladder work.

We are losing money on every telescoping pole we have to purchase because our original estimate did not include that pole. We are offering this deduct to reduce the amount of loss on this project by a small portion. Anything we can get back will help. Please let me know if you have any questions or need anything further.

Thanks,



Garrett Owen | Assistant Project Manager
White Electrical Construction Co.
Main (423) 629-1418 | Mobile (423) 847-5963 | Fax (423) 629-2169
Address 1801 E 23rd Street, Chattanooga, TN 37404
Email GOwen@white-electrical.com Website www.white-electrical.com



ALABAMA
FLORIDA
GEORGIA
NORTH CAROLINA
TENNESSEE

Attn: Haren Construction

April 21th, 2023
Electrical License # 00004376
Classification CE: Unlimited

RE: Franklin WTP Valve Access Project – Deduct for Changing Pole for Fixture

We are pleased to provide you with a price credit of \$4,000.00 for the electrical installation of the above-referenced project. Our price is based on the following:

1. Changing the pole for the WF fixtures from the telescoping pole to a standard 1 ½” rigid pole.

Price Breakdown:

- Material Total: \$4,000.00
 - Includes \$400.00 per pole – total of 10 poles.

If you have any questions or need further information, please contact the undersigned at 423-629-1418, or e-mail me at gowen@white-electrical.com

Sincerely,
WHITE ELECTRICAL CONSTRUCTION COMPANY

Garrett Owen

Assistant Project Manager

C940 - WORK CHANGE DIRECTIVE NO.: 6

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access
Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 06/09/2023

Effective Date of Work Change
Directive: 06/08/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

Contractor to provide and install a 1/2 Ton Wall (Column) Mounted Jib Crane and Hoist. Includes 1/2 Ton wall cantilever jib crane, Manual articulation, Motorized Trolley and 1/2 Ton hoist with 32 ft of lift. Cantilever Jib Crane will be welded to mounting plates already provided under HCCI base contract.

Attachments:

- Haren's Change of Request #6
- Hoist & Crane proposal

Purpose for the Work Change Directive:

Contractor to provide and install a 1/2 Ton Wall (Column) Mounted Jib Crane and Hoist. Includes 1/2 Ton wall cantilever jib crane, Manual articulation, Motorized Trolley and 1/2 Ton hoist with 32 ft of lift. Cantilever Jib Crane will be welded to mounting plates already provided under HCCI base contract.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price:	\$26,104	[increase] [decrease] [not yet estimated] .
Contract Time:	0 days	[increase] [decrease] [not yet estimated] .

Basis of estimated change in Contract Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

EJCDC® C-940, Work Change Directive.

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Page 1 of 2

Recommended by Engineer

Authorized by Owner

By:

Audie Pomonis

Title: Associate Vice President

Date: 6/9/2023

Walter Hatcher

Director WUD

6/22/23



COR #
Unit Cost
Price By
Date

SB
n/a
Brennan Nielsen
5/10/2023

Project
Location
Arch/Eng.
Desc.

Franklin WTP Valve Access Improvements
Franklin, TN
AECOMM
Jib Crane - Option B - Motorized Trolley

DESCRIPTION				LABOR			MATERIAL / EQUIPMENT			Totals	
ITEM	QTY / Unit	Rate	QTY / Unit	OT	Total	QTY / Unit	Unit Cost	Total			
1	Site Management and Safety	1	\$ 2,500.00		\$ 2,500.00			\$ -			
2			\$ 35.00		\$ -			\$ -			
3			\$ 35.00		\$ -			\$ -			
4			\$ 35.00		\$ -			\$ -			
5			\$ 35.00		\$ -			\$ -			
6					\$ -			\$ -			
7					\$ -			\$ -			
Break-Out Totals					→	\$ 2,500.00		\$ -			
					→	\$ 1,375.00	Sales Tax	\$ -			
						\$ 3,875.00	Total	\$ -			
SUBCONTRACT & EQUIPMENT											
SUB / EQUIPMENT	QTY / Unit	Unit Cost	Total			QTY / Unit	Unit Cost	Total			
1	Back Hoe	0.00	WK \$ 598.15					\$ -	Material Subtotal	\$ -	
2	Pick UP Truck	0.00	WK \$ 250.00					\$ -	Labor Subtotal	\$ 2,500.00	
3	Pick UP Truck	0.00	WK \$ 250.00					\$ -	Subcontract Subtotal	\$ 20,617.00	
4	Bull Dozer	0.00	WK \$ 1,419.17					\$ -	Subtotal	\$ 23,117.00	
5	Excavator - EX-09	0.00	WK \$ 1,131.64					\$ -			
6	Excavator EX-07	0.00	WK \$ 1,979.21					\$ -			
7	Excavator EX-43	0.00	WK \$ 2,623.56					\$ -	Sales Tax (if applicable)	\$ 9.76%	
8	Off Road Truck	0.00	WK \$ 1,506.93					\$ -	Payroll Taxes & Ins.	\$ 86.00%	
9	Off Road Truck	0.00	WK \$ 2,003.46					\$ -	Safety Allocation	\$ 0.00%	
10	Compactor	0.00	WK \$ 1,622.40					\$ -			
11	Hoist Subcontractor	1.0	\$ 20,617.00					\$ -	P&P Bond	\$ 0.00%	
12								\$ -	DIC Insurance	\$ 0.00	
13	Construction Trailer	0.0	WK \$ 112.24					\$ -	Gen Liability	\$ 0.000%	
14	Temp Toilet Rental	0.0	WK \$ 82.07					\$ -			
15	HCC Travel	0.0	WK \$ 375.00					\$ -			
								\$ -	Subtotal	\$ 24,492.00	
								\$ -	General Conditions	\$ 0%	
								\$ -	Fee - Subcontractor	\$ 5.00%	
								\$ -	Fee - HCC	\$ 15.00%	
								\$ -		\$ 1,930.85	
								\$ -		\$ 881.26	
										TOTAL THIS CHANGE	\$ 26,104

Additional Comments / Notes:

Includes provision and complete installation of 1/2 Ton Wall (Column) Mounted Jib Crane and Hoist. Includes 1/2 Ton wall cantilever jib crane. Manual articulation. 230V Motorized Trolley and 230V 1/2 Ton hoist with 32 ft of lift, speed is 180/minute. Cantilever Jib Crane will be welded to mounting plates already provided under HCCI base contract. This quote assumes 230V power is available. No additional electrical installation costs have been included as we are assuming the existing power design is adequate. Engineer of record is responsible for confirming that power source listed in base contract design will work for this specific hoist. Please see attached quote and scope of supply from The Hoist & Crane Company as requested. This hoist and trolley comes with a potential 8 week lead time, therefore, HCCI will have to request an additional 3 weeks of contract time based on the current lead time for COR approval and Submittal process. Approval for this change order request is required by 5/24/23 to avoid additional time requests above and beyond what is included above.

Equipment



May 10, 2023

TO: Haren Construction
838 Lewisburg Pike
Franklin, TN 37064

Reference: Wall Mounted Jib Crane

Contact: Jessica Siniard
423-604-3047
jsiniard@harenconstruction.com

The Hoist & Crane Company would like to thank you for the opportunity to earn your business and partner with you and your team. We value your team's safety and time and will honor that by diligently working through your request to ensure a quote that is complete and thorough the first time. As you review the offer and have questions, please feel free to call your representative or any of our team members at 888-464-7811. Thank you again for this opportunity.

Summary & Scope:

½ Ton Wall Cantilever Jib Crane, Manual Articulation. SNER1M-1033312 ½ ton hoist with motorized trolley, 32' lift, nickel plated load chain, 230v-1ph-60hz power supply, lifting speed- 15 fpm, trolley speed- 40fpm, standard bottom hook, standard pendant w/standard-to-lift pendant length- 29.5ft, 30ft power supply cable, 110 VAC control voltage

Description	Total
1/2 Ton Wall Mounted Jib Crane 230V Hoist, motorized trolley	\$8,830.00
Installation	\$4,000.00
Miscellaneous(lift, hardware, welder, etc.)	\$1,500.00
Estimated Freight	\$583.00
Scaffolding	\$5,704.00
Total Investment:	\$20,617.00

Pricing & Options:

Disclaimer: Welding of wall plate does not include third party NDT inspection if applicable. Subject to further charge if required.

Travel: travel is included. Certain services may require additional travel charges; however, those will be noted in the offer. **ANY** deviation from the pricing summary shall be brought to your attention before invoicing at the time it is known.

Man lifts: Hoist & Crane can provide man lifts and aerial work platforms to be charged at cost plus 10% unless otherwise noted in the price summary.

Concealed Damages: All concealed damages and/or items found necessary to be repaired or replaced upon start of the above items, and not readily apparent prior to the beginning of the work, and not otherwise covered by the purchase order, shall be brought to your immediate attention and a price for said work agreed upon prior to proceeding with the repairs. This will be followed with a root cause diagnosis from our offices to prevent residual nuanced breakdowns to complete the repair. This is the difference between replacing parts and making repairs.

Free and Clear Access and other delays: At any point work is stop due to circumstances beyond our control Hoist & Crane Technician will inform the site contact of the stoppage. Once informed, additional charges may apply. Consultation with the contact is required before any additional charges are incurred so this will not be a surprise.

Terms and conditions apply. Does not include taxes or shipping/handling unless indicated above. Please ask your representative for more details.

Validity of Offer: 30 Days

Payment Terms: Net 30 from completion of each event.

Lee McNeil

www.HOISTANDCRANE.com
Industrial Solutions



Lee McNiel

Sales Engineer

The Hoist & Crane Difference

YOUR SERVICE TEAM

Lee McNiel
Sales Engineer
615-767-0260 (mobile)
tterry@hoistandcrane.com

Travis Keagle
National Sales Manager
615-626-7177 (Mobile)
tkeagle@tmhmidssouth.com

Ken Huffman
Sr. Director of Operations
615-499-9620 (mobile)
khuffman@hoistandcrane.com

Troy Cummings
Regional Service Supervisor
865-227-8954
tcummings@hoistandcrane.com

Features

Break Down Coverage Two (2) hour guaranteed response time 24/7/365

Technical Presence The largest Crane Technician Team in Tennessee

Expertise We have the best technicians. Experience gives insight, training provides knowledge, together they afford an efficient and tactical approach to any repair, breakdown, or diagnostic issue you may experience. We only hire qualified Crane Professionals with customer & professional references.

Advanced Services We provide a suite of services to meet the most challenging issues facing your team and the equipment supporting your production.

Expert Consultation By employing crane professionals in the field & in the office, our team provides insight that only time, experience, and collaboration can provide.

Custom Inspections Our Safety, Maintenance, and Inspections Programs are custom tailored not only for your equipment, but for the application. This is of critical importance.

PM Program Hoist & Crane employs a program specifically designed for your equipment, the duty cycle, environment, and age/condition of your equipment.

Forecasting/Budgeting After a series of criteria are met (dependent on equipment, transparency (internal), and history), Hoist & Crane will coordinate with your team, and we will evaluate age, condition,

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Industrial Solutions



and usage to look for possible replacement/modernization opportunities that will work in concert with your growth and production strategies.



HARRINGTON

A KITO GROUP COMPANY



Electric Chain Hoists

Working Harder For You

In 1876, Edwin Harrington dramatically improved the self-sustaining hoist by introducing the worm-gear design. Since then, the company he founded has earned a proud reputation for product innovations and consistent quality that our customers count on to meet their diverse requirements.

Over the years we have developed and grown by recognizing the value of our customers and responding to your needs. The daily mission of our organization is to provide you, the customer, with the highest quality in our products, service and support.

In addition to our superior products and expanded facilities, we offer a Sales and Customer Service team that is dedicated to serving you, a well qualified Engineering Department to support your technical needs and a full support staff who all know the importance of working together to provide solutions for your material handling projects.

We are working harder to be the supplier-of-choice for all of your hoist and crane applications.

SNER Electric Chain Hoists with Hook and Lug Suspensions and Motorized, Push or Geared Trolleys



SNER005L

Our SNER Series of electric chain hoists furnishes single-phase operation in a heavy-duty, low-headroom design. Available in hook mount or coupled with a trolley, it easily transports any load. Look to this model when high quality and convenience are important for the job.

Features and Benefits

Extreme Duty Motor

Higher horsepower and top duty ratings provide increased performance.

Pull-Rotor Motor Brake

Extremely durable and reliable, this advanced design has no brake coil to fail.

Unique Chain Guide

Provides quiet and smooth guiding of chain. Easily removed without disassembly of hoist. Heavy cast iron construction for improved wear.

Load Sheave

Deep-groove pockets fully support the load chain, reduces vibration and chain wear and provides a true vertical lift.

Long Life Friction Clutch

Protects hoist from damage and prevents overwinding.

Heat Treated Helical and Spur Gears

Precision machined for long life. Oil bath lubrication results in a quiet, smooth, cool operation.

Completely Sealed Body

Suitable for indoor, outdoor and harsh environments.

Compact Aluminum Body

Die-cast body is lightweight and offers low headroom.

Easy Maintenance Control Panel

Fast on-site access with hinged cover, single swing-out panel and simple layout of controls.

Superior Quality Chain

Grade 80 nickel-plated load chain is heat treated for wear resistance and extended life.

Forged Carbon Steel Hooks

Under excessive loads will open gradually and not fracture. Bottom hook swivels 360 degrees.

Motorized Trolley Side Guide Rollers

Provide smooth trolley motion and reduced wear on wheels and beam.

Motorized Trolley Drop Stops and Rubber Bumpers

Built-in security for the operator and added protection for the equipment and load.

Standard Hoist/Trolley Specifications

Capacity Range

1/4 Ton—3 Ton

Reconnectable Voltage

115/230-1-60

Control Voltage

110V

Duty Cycle*

Hoist—60 Min., Trolley—30 Min.

Classification*

ASME H4, ISO M5 or M4, FEM 2m or 1Am

Ratings

Hoist/Trolley—IP55
Pendant—IP65

Limit Switch

Prevents overwinding/overlifting
Standard upper

Chain Falls

Single fall through 2 Ton

Standard Lengths

Lift—10'
Pendant Drop—4' less than lift
Power Supply—Hoist—15'
Power Supply—Motorized Trolley—30'
(longer lengths available)

Standard Pendants

Hoist—2 Button,
Hoist/Trolley—4 Button
Momentary contacts

Chain Containers

Optional
Canvas, plastic or steel

Geared Trolley Standard Hand Chain Drop

Standard geared trolley hand chain hangs approximately 2' less than hoist's fully extended bottom hook
(longer drops available)

Trolley Shafts

Standard shafts fit wide flange range
Longer shafts for wider beams
Spacers for easy adjustments

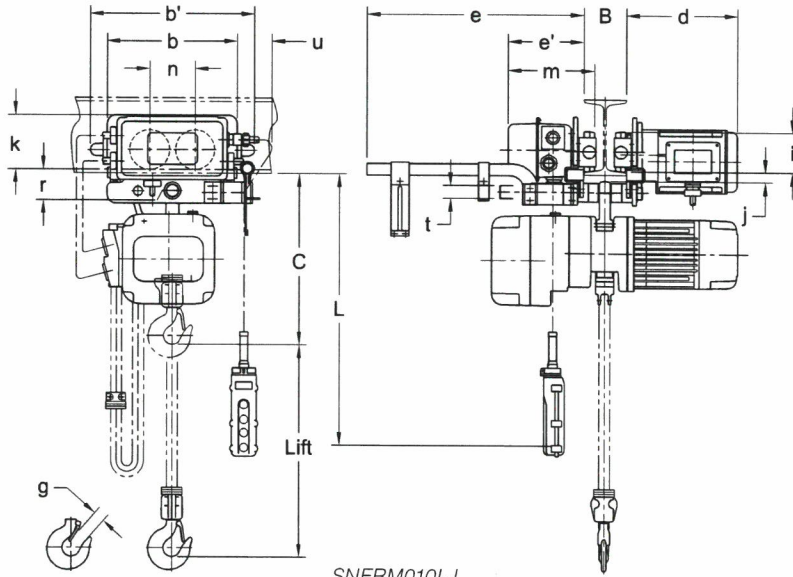
Trolley Wheels

All steel
Shielded ball bearings
Fit flat or tapered beam flange

*See page 79-81 for additional information.



SNERM005L



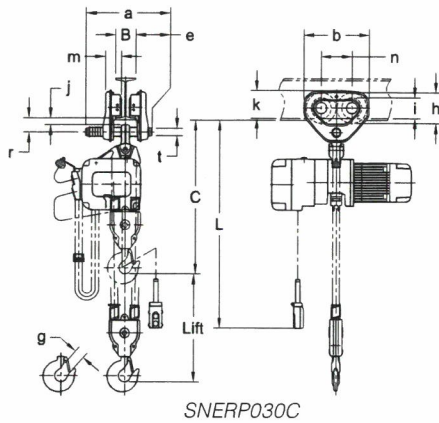
SNERM010L-L

SINGLE SPEED HOIST WITH SINGLE SPEED TROLLEY—SPECIFICATIONS

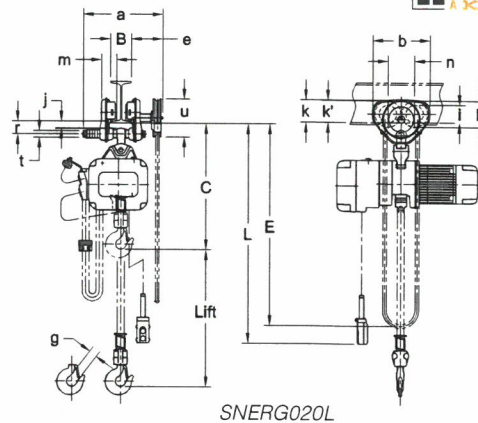
Cap. (Tons)	Product Code	Std. Lift (ft)	Push Button Cord L (ft)	Lifting Speed (ft/min)	Traversing Speed (ft/min)	Lifting Motor Single Phase 60 Hz			Traversing Motor Single Phase 60 Hz			Flange Width Adjustability B (in)		Min. Allow. Radius for curve (in)	Load Chain Dia. (mm) x Chain Fall Lines	Net Weight (lbs)	Weight for Additional One Foot of Lift (lbs)
						Output (Hp)	Rated Current (amps)		Output (Hp)	Rated Current (amps)		Standard	Optional				
							@ 115V	@ 230V		@ 115V	@ 230V						
1/4	SNERM003S-L/S	10	7.5	14	L = 40 S = 80	0.34	7.7	3.9	0.54	MPIA	MPIA	2.28 to 5.00	5.01 to 6.02 OR 6.03 to 12.00	31.5	5.0 x 1	168	0.37
1/2	SNERM005L-L/S			7											6.3 x 1	170	0.57
1/2	SNERM005S-L/S			15		6.3 x 1	190	0.57									
1	SNERM010L-L/S			7		8.0 x 1	196	0.93									
1	SNERM010S-L/S			14		8.0 x 1	245	0.93									
2	SNERM020L-L/S			7		10.0 x 1	276	1.5									
3	SNERM030C-L/S			8.2						10.0 x 2	322				3.1		
Included Custom 32' Lift per quote																	

SINGLE SPEED HOIST WITH SINGLE SPEED TROLLEY—DIMENSIONS

Cap. (Tons)	Product Code	Headroom C (in)	b (in)	b' (in)	d (in)	e (in)	e' (in)	g (in)	i (in)	j (in)	k (in)	m (in)	n (in)	r (in)	t (in)	u (in)
1/4	SNERM003S-L/S	14.6	12.4	15.6	10.6	20.3	7.0	0.9	3.74	0.9	5.1	8.0	4.3	2.0	1.22	3.2
1/2	SNERM005L-L/S	14.6	12.4	15.6	10.6	20.3	7.0	0.9	3.74	0.9	5.1	8.0	4.3	2.0	1.22	3.2
1/2	SNERM005S-L/S	15.4	12.4	15.6	10.6	20.3	7.0	0.9	3.74	0.9	5.1	8.0	4.3	2.0	1.22	3.2
1	SNERM010L-L/S	16.5	12.4	15.6	10.6	20.3	7.0	1.2	3.74	0.9	5.1	8.0	4.3	2.0	1.22	3.2
1	SNERM010S-L/S	17.7	12.4	15.6	10.6	20.3	7.0	1.2	3.74	0.9	5.1	8.0	4.3	2.0	1.22	3.2
2	SNERM020L-L/S	22.2	12.8	16.4	10.7	20.5	7.2	1.5	4.33	1.1	4.9	8.3	4.6	2.4	1.42	3.0
3	SNERM030C-L/S	28.9	13.4	17.4	10.8	20.5	7.3	1.7	4.92	1.1	5.2	8.5	5.2	2.7	1.69	2.7



SNERP030C



SNERG020L

SINGLE SPEED HOIST WITH PUSH OR GEARED TROLLEY—SPECIFICATIONS

Cap. (Tons)	Product Code	Std Lift (ft)	Push Button Cord L (ft)	Lifting Speed (ft/min)	Lifting Motor Single Phase 60 Hz			Flange Width Adjustability B (in)		Min.* Allow. Radius for curve (in)	Load Chain Dia. (mm) x Chain Fall Lines	Net Weight (lbs)	Weight for Additional One Foot of Lift (lbs)
					Output (Hp)	Rated Current (amps)		Standard	Optional				
1/4	SNERP(SNERG)003S	10	7.5	14	0.34	7.7	3.9	2.28 to 4.00 (2.28 to 5.00)	4.01 to 8.00 (5.01 to 8.00) OR 8.01 to 12.00	43.3 (51.2)	5.0 x 1	93 (110)	0.37 (1.0)
1/2	SNERP(SNERG)005L			7							6.3 x 1	95 (112)	0.57 (1.2)
1/2	SNERP(SNERG)005S			15	0.6	16.9	8.5	2.28 to 5.00	5.01 to 8.00 OR 8.01 to 12.00	51.2	6.3 x 1	115 (135)	0.57 (1.2)
1	SNERP(SNERG)010L			7							8.0 x 1	130 (141)	0.93 (1.5)
1	SNERP(SNERG)010S			14	1.2	23.9	12.0	3.23 to 6.02	6.03 to 12.00	51.2	8.0 x 1	179 (190)	0.93 (1.5)
2	SNERP(SNERG)020L			7							10.0 x 1	209 (220)	1.5 (2.2)
3	SNERP(SNERG)030C	8.2	3.5	3.5							10.0 x 2	251 (262)	3.1 (3.7)

Figures in parentheses are data for geared trolley.

*Minimum flange width for curved beam: 1 Ton Push and 1/4 to 1 Ton Geared = 2.87 in.; 3 Ton Push or Geared = 3.50 in.

SINGLE SPEED HOIST WITH PUSH TROLLEY—DIMENSIONS

Cap. (Tons)	Product Code	Headroom C (in)	a (in)	b (in)	e (in)	g (in)	h (in)	i (in)	j (in)	k (in)	m (in)	n (in)	r (in)	t (in)
1/4	SNERP003S	15.4	8.0	7.2	1.8	0.9	3.2	2.36	0.7	3.0	1.9	3.3	1.5	0.87
1/2	SNERP005L	15.4	8.0	7.2	1.8	0.9	3.2	2.36	0.7	3.0	1.9	3.3	1.5	0.87
1/2	SNERP005S	16.1	8.0	7.2	1.8	0.9	3.2	2.36	0.7	3.0	1.9	3.3	1.5	0.87
1	SNERP010L	18.1	9.8	9.3	2.2	1.2	4.2	2.80	1.1	3.7	2.2	4.4	2.0	0.98
1	SNERP010S	19.5	9.8	9.3	2.2	1.2	4.2	2.80	1.1	3.7	2.2	4.4	2.0	0.98
2	SNERP020L	24.6	11.8	11.0	2.7	1.5	5.0	3.35	1.3	4.4	2.8	5.2	2.4	1.26
3	SNERP030C	29.3	12.6	12.8	3.1	1.7	5.8	3.94	1.4	5.3	3.1	6.0	2.7	1.42

SINGLE SPEED HOIST WITH GEARED TROLLEY—DIMENSIONS

Cap. (Tons)	Product Code	Headroom C (in)	E (ft)	a (in)	b (in)	e (in)	g (in)	h (in)	i (in)	j (in)	k (in)	k' (in)	m (in)	n (in)	r (in)	t (in)	u (in)
1/4	SNERG003S	16.1	10.5	13.6	9.3	6.0	0.9	4.2	2.80	1.1	3.7	4.2	2.2	4.4	2.0	0.98	7.2
1/2	SNERG005L	16.1	10.5	13.6	9.3	6.0	0.9	4.2	2.80	1.1	3.7	4.2	2.2	4.4	2.0	0.98	7.2
1/2	SNERG005S	16.9	10.5	13.6	9.3	6.0	0.9	4.2	2.80	1.1	3.7	4.2	2.2	4.4	2.0	0.98	7.2
1	SNERG010L	18.1	10.5	13.6	9.3	6.0	1.2	4.2	2.80	1.1	3.7	4.2	2.2	4.4	2.0	0.98	7.2
1	SNERG010S	19.5	10.5	13.6	9.3	6.0	1.2	4.2	2.80	1.1	3.7	4.2	2.2	4.4	2.0	0.98	7.2
2	SNERG020L	24.6	10.5	15.2	11.0	6.1	1.5	5.0	3.35	1.3	4.4	4.3	2.7	5.2	2.4	1.26	7.2
3	SNERG030C	29.3	11.0	15.7	12.8	6.2	1.7	5.8	3.94	1.4	5.3	4.5	3.1	6.0	2.7	1.42	7.2

C940 - WORK CHANGE DIRECTIVE NO.: 7

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access
Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 07/20/2023

Effective Date of Work Change
Directive: 07/20/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

Contractor to relocate three sets of disconnect boxes (six total) that control the power to the valve actuators above the GAC tanks to a location approximately 19 feet above their current position(s). The plant wants to leave the existing boxes in place as junction boxes. The mezzanine slab will need to be penetrated at three locations to accommodate the conduit running from the junction boxes to the new disconnect boxes.

Attachments:

- Haren's Change of Request #7
- White Electrical Proposal

Purpose for the Work Change Directive:

Contractor to relocate the existing Actuator Disconnects for the overhead valves on the 630.00 level to above the new 649.00 level. Existing disconnects will be reused. A junction box will be installed in its place, new conduit and wire spliced in new junction box to new disconnect location above 649.00 level at equal height from finish floor as they are currently installed on 630.00 floor level.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price:	\$11,299	[increase] [decrease] [not yet estimated].
Contract Time:	0 days	[increase] [decrease] [not yet estimated].

Basis of estimated change in Contract Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer

Authorized by Owner

By:

Julie Ponder

Title: Associate Vice President

Date: 7/20/2023

Michael Hatcher

Director WWD

8/11/23



COR #
Unit Cost
Price By
Date

7
n/a
Brennan Nielsen
6/25/2023

Franklin WTP Valve Access Improvements
Franklin, TN
AECOMM
Relocate Actuator Disconnects

Project
Location
Arch/Eng.
Desc.

DESCRIPTION				LABOR		MATERIAL / EQUIPMENT		Totals	
ITEM	QTY / Unit	Rate	QTY / Unit	OT	Total	QTY / Unit	Unit Cost	Total	
1	10	\$ 35.00			\$ 350.00	6	\$ 50.00	\$ 300.00	
2		\$ 35.00			\$ -		\$ -	\$ -	
3		\$ 35.00			\$ -		\$ -	\$ -	
4		\$ 35.00			\$ -		\$ -	\$ -	
5					\$ -		\$ -	\$ -	
6					\$ -		\$ -	\$ -	
7					\$ -		\$ -	\$ -	
Break-Out Totals →					\$ 350.00	Subtotal	Sales Tax	\$ 300.00	
					\$ 192.50			\$ 29.25	
					\$ 542.50	Total		\$ 329.25	
SUBCONTRACT & EQUIPMENT									
SUB / EQUIPMENT	QTY / Unit					QTY / Unit	Unit Cost	Total	
								\$ -	Material Subtotal
1	Back Hoe	Weekly Cost for BH - CAT 416 (Month = 2590) so \$598.15 / WK (no charge)				0.00	WK \$ 598.15	\$ -	Labor Subtotal
2	Pick UP Truck	Weekly Cost for Pick UP Truck - Supr				0.00	WK \$ 250.00	\$ -	Subcontract Subtotal
3	Pick UP Truck	Weekly Cost for Pick UP Truck - Foreman				0.00	WK \$ 250.00	\$ -	Subtotal
4	Bull Dozer	Weekly Cost for Bull Dozer (Month = 6145) so \$1419.17 / WK				0.00	WK \$ 1419.17	\$ -	
5	Loader - 1T-38F	Weekly Cost for Loader (Month = 4900) so \$1131.64 / WK				0.00	WK \$ 1131.64	\$ -	Sales Tax (if applicable)
6	Excavator - EX-09	Weekly Cost for 320 FL Excavator (Month = 8570) so \$1979.21 / WK				0.00	WK \$ 1979.21	\$ -	Payroll Taxes & Ins.
7	Excavator EX-07	Weekly Cost for 336 FL Excavator (Month = 11360) so \$2623.56 / WK (no charge for hammer)				0.00	WK \$ 2623.56	\$ -	Safety Allocation
8	Excavator EX-43	Weekly Cost for EX-43 315 BL w/ Hammer (Month = 8525) so \$1506.93 / WK (no charge for hammer)				0.00	WK \$ 1,506.93	\$ -	
9	Off Road Truck	Weekly Cost for Off Road Truck (Month = 8672 so \$2003.46 /WK)				0.00	WK \$ 2,003.46	\$ -	
10	Off Road Truck	Weekly Cost for Off Road Truck (Month = 7925 so \$1622.40 /WK)				0.00	WK \$ 1,622.40	\$ -	
11	Compactor	Weekly Cost for Ride on Sheepfoot Compactor (Month = \$3,470 so \$801.39 /WK)				0.00	WK \$ 801.39	\$ -	
12	Electrical	Relocate Six (6) Actuator Disconnects				1.0	\$ 9,810.00	\$ -	P&P Bond
13	Construction Trailer	Trailer Rental (Monthly = 445.99)				1.0		\$ 9,810.00	DIC Insurance
14	Temp Toilet Rental	Temp Toilets (Monthly = 355.35)						\$ -	Gen Liability
15	HCC Travel	Out of Town Living Costs for HCC Supr (weekly Cost)				0.0	WK \$ 112.24	\$ -	
						0.0	WK \$ 82.07	\$ -	
						0.0	WK \$ 375.00	\$ -	
Subtotal								\$ -	\$ 10,891.75
General Conditions								0%	\$ 490.50
Fee - Subcontractor								5.00%	\$ 126.38
Fee - HCC								15.00%	
TOTAL THIS CHANGE								\$	11,299

Additional Comments / Notes:
As Requested, please see above pricing to relocate the existing Actuator Disconnects for the overhead valves on the 630.00 level to above the new 649.00 level. Existing disconnects will be reused. A junction box will be installed in its place, new conduit and wire spliced in new junction box to new disconnect location above 649.00 level at equal height from finish floor as they are currently installed on 630.00 floor level.



ALABAMA
FLORIDA
GEORGIA
NORTH CAROLINA
TENNESSEE

Attn: Haren Construction

May 16th, 2023
Electrical License # 00004376
Classification CE: Unlimited

RE: Franklin WTP Valve Access Project – Relocate Disconnects CO

We are pleased to provide you with a price of **\$9,810.00** for the electrical installation of the above-referenced project. Our price is based on time and materials that it took to complete this work.

1. Relocating a total of (6) disconnects.
 - a. We include installing a NEMA 1 junction box at the current disconnect location, then running aluminum conduit up the wall to the desired height at the new mezzanine. We assume a maximum of 25' away from the current disconnect location.

Price Breakdown:

- Material Total: \$2,610.00
 - Includes conduit, wire, junction boxes, and fittings.
- Labor Total: \$7,200.00
 - Labor: \$5,200.00
 - Includes 40 hours each for two men.
 - Travel and sustenance: \$2,000.00
 - Includes four days of per diem with hotel expenses, and drive time for two men.

If you have any questions or need further information, please contact the undersigned at 423-629-1418, or e-mail me at gowen@white-electrical.com

Sincerely,
WHITE ELECTRICAL CONSTRUCTION COMPANY

Assistant Project Manager

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access Improvements

Effective Date of Work Change Directive: 07/20/2023

Page 236 of 477

Basis of estimated change in Contract Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer

Authorized by Owner

By:

Julia Pomales

Andie Hatcher

Title: Associate Vice President

Director WMD

Date: 7/20/2023

9/19/23



COR #
Unit Cost
Price By
Date

9
n/a
Brennan Nielsen
6/8/2023

Franklin WTP Valve Access Improvements
Franklin, TN
AECOMM
Refinish Exterior of Existing Barn Doors

Project
Location
Arch/Eng.
Desc.

ITEM	DESCRIPTION	LABOR			MATERIAL / EQUIPMENT			Totals
		QTY / Unit	Rate	QTY / Unit	QTY / Unit	Unit Cost	Total	
1	Back Hoe							
2	Pick UP Truck							
3	Pick UP Truck							
4	Bull Dozer							
5	Excavator - EX-06							
6	Excavator EX-07							
7	Excavator EX-43							
8	Off Road Truck							
9	Off Road Truck							
10	Compactor							
11	Painting							
12	Commercial Painting Inc							
13	Construction Trailer							
14	Temp Toilet Rental							
15	HCC Travel							
Break-Out Totals		Subtotal			Subtotal			
		Payroll			Sales Tax			
		Total			Unit Cost			
SUB / EQUIPMENT		SUBCONTRACT & EQUIPMENT						
		QTY / Unit	Rate	QTY / Unit	QTY / Unit	Unit Cost	Total	
1	Weekly Cost for BH - CAT 416 (Month = 2590) so \$598.15 / WK (no charge)				0.00	WK \$ 598.15		
2	Weekly Cost for Pick UP Truck - Supt				0.00	WK \$ 250.00		
3	Weekly Cost for Pick UP Truck - Foreman				0.00	WK \$ 250.00		
4	Weekly Cost for Bull Dozer (Month = 6145) so \$1419.17 / WK				0.00	WK \$ 1419.17		
5	Weekly Cost for Loader (Month = 4900) so \$1131.64 / WK				0.00	WK \$ 1131.64		
6	Weekly Cost for 320 FL Excavator (Month = 8570) so \$1979.21 / WK -				0.00	WK \$ 1979.21		
7	Weekly Cost for EX-43 315 BL w/ Hammer (Month = 11360) so \$2623.56 / WK (no charge for hammer)				0.00	WK \$ 2623.56		
8	Weekly Cost for Off Road Truck (Month = 6525) so \$1506.93 / WK (No charge for hammer)				0.00	WK \$ 1506.93		
9	Weekly Cost for Off Road Truck (Month = \$875 so \$2003.46 / WK)				0.00	WK \$ 2003.46		
10	Weekly Cost for Off Road Truck (Month = \$7025 so \$1622.40 / WK)				0.00	WK \$ 1622.40		
11	Weekly Cost for Ride on Sheepfoot Compactor (Month = \$3,470 so \$801.39 / WK)				0.00	WK \$ 801.39		
12	Commercial Painting Inc				1.0	\$ 900.00		
13	Trailer Rental (Monthly = 485.99)				0.0	WK \$ 112.24		
14	Temp Toilets (Monthly = 355.35)				0.0	WK \$ 82.07		
15	Out of Town Living Costs for HCC Supt (weekly cost)				0.0	WK \$ 375.00		
Subtotal								
General Conditions								
Fee - Subcontractor								
Fee - HCC								
TOTAL THIS CHANGE								

Additional Comments / Notes:
Please see attached quote from HCCI Painting/Coating Subcontractor to refinish the exterior of the existing two 4'x8' barn doors and the sliding rail so the new barn doors and rail included in this project can match. This is due to the existing barn doors being in separate need of refinishing as the existing sealer is wearing off leaving several spots on the doors exposed to UV and natural elements and making it impossible for us to make the new doors match.

Commercial Painting, Inc.

350 Herron Drive, Nashville, TN. 37210
Tel.: 615.242.8212 / www.cpinash.com

EXISTING BARN DOOR PROPOSAL

DATE: 6/7/2023
SUBMITTED TO: Haren Constuction
PROJECT: Franklin WTP Valve Access
ARCHITECT/ENGINEER: AECOM
DATE OF PLANS: 12/1/2022
ADDENDA: Addendum #1 & #2 Acknowledged
WAGE RATES: No Wage Rate Acknowledged

SCOPE OF WORK:

New Sliding Barn Door and Door Rail

- Included

Existing Sliding Barn Door and Door Rail

- Surface Prep: SSPC-SP2 Hand Tool Cleaning
 - Wood Substrates & Ext. Ferrous Metals:
 - Pigmented Polyurethane Gloss Coating System:
 - Sherwin-Williams: 5-9 mils.
 - Prime Coat: Macropoxy 646-100, 2-4 mils.
 - Topcoat: Hi-Solids Polyurethane 100, 3-5 mils.

COST: \$900.00

Bobby K. Tate

Bobby K. Tate
Commercial Painting, Inc
629-202-7866
btate@cpinash.com

C940 - WORK CHANGE DIRECTIVE NO.: 11

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access
Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 07/23/2023

Effective Date of Work Change
Directive: 07/23/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

Contractor to relocate City Water line that runs along the elevation 649.00 in front of the new Overhead door. Contractor to cut city water line off 1-2ft to the North of the new overhead door, offset horizontally over new composite deck and through a cored holed in the new composite deck, route line under the deck along the column line 7 wall and back up in the stairway opening to reconnect to existing.

Attachments:

- Haren's Change of Request #10

Purpose for the Work Change Directive:

Contractor to relocate City Water line that runs along the elevation 649.00 in front of the new Overhead door. Contractor to cut city water line off 1-2ft to the North of the new overhead door, offset horizontally over new composite deck and through a cored holed in the new composite deck, route line under the deck along the column line 7 wall and back up in the stairway opening to reconnect to existing.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$1,628 [increase] ~~[decrease]~~ ~~[not yet estimated]~~.

Contract Time: 0 days ~~[increase]~~ ~~[decrease]~~ ~~[not yet estimated]~~.

Basis of estimated change in Contract Price:

EJCDC® C-940, Work Change Directive.

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and American Society of Civil Engineers. All rights reserved.

Page 1 of 2

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer

Authorized by Owner

By:

Julia Pomales

Title: Project Manager

Date: 7/23/2023

Charles Hatch

Director WMD

9/19/23



lielsen
23

Non-Rev1

Additional Comments / Notes: We intend to cut into line on column line G, route line under the new mezzanine deck around the corner at column G7 along column line 7 wall where we will route back up in the stairway opening near column E7 to reconnect to existing piping.

C940 - WORK CHANGE DIRECTIVE NO.: 12

Owner: City of Franklin
Engineer: AECOM Technical Services
Contractor: Haren Construction Company, Inc.
Project: Water Treatment Plant Valve Access Improvements
Contract Name: Water Treatment Plant Valve Access
Improvements

Owner's Contract No.: 2022-0182
Engineer's Project No.: 60652018
Contractor's Project No.:

Date Issued: 07/23/2023

Effective Date of Work Change
Directive: 07/23/2023

Contractor is directed to proceed promptly with the following change(s):

Description:

Contractor to modify The South Stair Stringer Attachment due to staircases originally being installed by previous contractor not per code.

Attachments:

- Haren's Change of Request #12
- A&L Invoice

Purpose for the Work Change Directive:

Contractor to modify The South Stair Stringer Attachment due to staircases originally being installed by previous contractor not per code.

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☒ Non-agreement on pricing of proposed change. ☒ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price:	\$2,529	[increase] [decrease] [not yet estimated] .
Contract Time:	18 days	[increase] [decrease] [not yet estimated] .

Basis of estimated change in Contract Price:

☒ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer

Authorized by Owner

By:

Audie Panchera

Heidi Hulse

Title: Project Manager

Director WMD

Date: 7/23/2023

9/19/23



Additional Comments / Notes:
 HCCI Costs to modify The South Stair Stringer Attachment due to staircases originally being installed by previous contractor not per code. PLEASE NOTE: HCCI requests a contract time extension in the amount of 22 Calendar Days in addition to the added cost. This issue create a schedule delay.

A & L SERVICES INC.
dba WILSON STEELE CO.INC.
5131 LINWOOD RD.
WATERTOWN, TN 37184

*
* I N V O I C E *
*

Document Number: 006250

Document Date: 07/25/23

Sold HAEEN CONSTRUCTION CO.
To: P.O. BOX 350
HIGHWAY 411 NORTH
ETOWAH, TN 37331

Page: 1
Ship HAEEN CONSTRUCTION CO.
To: P.O. BOX 350
HIGHWAY 411 NORTH
ETOWAH, TN 37331

Ship Via.:
Ship Date: 07/25/23
Due Date.: 08/24/23
Terms.....: NET 30 DAYS

Cust I.D.....: WATER
P.O. Number...: FRANKLIN WATER
P.O. Date.....: 07/25/23
Job/Order No.:
Salesperson...:

Item I.D./Desc.	Ordered	Shipped	Unit	Price	Net	TX
CO#1 DECK SUPPORT DECK SUPPORT ANGLES	1.00	1.00		2280.0000	2280.00	E
T & M STAIR REWORK	1.00	1.00		7460.0000	7460.00	E

JOB: FRANKLIN WATER TREATMENT
THANK YOU FOR YOUR BUSINESS

INCLUDES 4 SEPARATE SETS/MOBILIZATIONS OF STAIR
REWORK. FIRST TWO (ONE EACH STAIR) WERE CONTRACT
STRINGER MODIFICATIONS. LAST TWO (ONE EACH STAIR)
WERE TO CORRECT THE CODE COMPLIANCE. HCCI ATE
ONE OF THOSE BECASUE WE WOULD HAVE HAD TO HAVE
THEM MAKE A CORRECTION TO THE ORIGINAL
MODIFICATION ON THE NORTH STAIR AS PREVIOUSLY
DISCUSSED. HCCI COR 12 INCLUDES 25% OF \$7460 = \$1865



File #: 21-05266

DATE: October 26, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Michelle Hatcher, Director of Water Management

SUBJECT:

Consideration Of COF Contract No. 2023-0318, With C&T Engineering And Inspection, LLC For Harpeth River Stream Monitoring And Data Management
CIC 10/26/23

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a contract with C&T Engineering for professional services related to the Harpeth River water quality monitors.

BACKGROUND/STAFF COMMENTS:

As indicated in the 2017 National Pollutant Discharge Elimination System (NPDES) permit, the City is required to monitor the water quality in the Harpeth River at three locations upstream and downstream of our facilities. This monitoring data is then submitted to the Tennessee Department of Environment and Conservation (TDEC) as part of the diurnal investigations that monitor the seasonal variations of the river. Water Management Department (WMD) staff was performing this work in-house. However, access to these sites has become more difficult over the past five years and WMD has evaluated the option of getting assistance on this as a long-term, feasible option.

The monitoring consists of three total locations collecting a variety of water quality parameters. Equipment is deployed annually at the Cotton Lane Bridge site, which is typically maintained weekly. The upstream site at Trinity Road and the downstream site at Moran Road are both seasonal and deployed from May to October, when flows are typically at their lowest. While maintenance needs may vary, they typically are greatest after a large storm event. This contract will also provide for professional services to review data and detect any abnormalities immediately rather than at the end of the month, which will help for calibrations or other equipment maintenance to ensure quality data is obtained.

FINANCIAL IMPACT:

The total amount of this contract is sixty thousand, six hundred and zero dollars (\$60,600.00) and will not be exceeded without an amendment to the initial contract and is funded out of the WRF

operations (431-82560-52213) fund. WMD does anticipate incurring this cost annually for the foreseeable future as this requirement was added into the 2022 NPDES permit.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve COF Contract No. 2023-0318.

**CITY OF FRANKLIN, TENNESSEE
PROFESSIONAL SERVICES AGREEMENT
COF Contract No. 2023-0318**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **C&T ENGINEERING AND INSPECTION, LLC**, hereinafter referenced as Consultant, who mutually agree as follows:

DECLARATIONS. City desires to retain Consultant to provide engineering, related technical, and other services in connection with City's project hereinafter referenced as Project. The Project is described as follows:

HARPETH RIVER STREAM MONITORING AND DATA MANAGEMENT

1. SCOPE OF SERVICES. Consultant shall provide engineering related technical services and/or inspection 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 Sixty Thousand Six Hundred and No/100 Dollars (\$60,600.00).

**The Board of Mayor and Aldermen Approved this Agreement on the
_____ Day of _____ 202__.**

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.
- 10.5 **IRAN DIVESTMENT ACT** By 1) entering into this Agreement and/or by 2) submission of a bid or proposal to the City of Franklin, the Consultant and each person signing on behalf of any Consultant, certifies, and in the case of a joint bid or proposal each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that neither they, nor any assignee of the resulting contract, is on the list created pursuant to T.C.A. § 12-12-106. The Consultant further certifies that it shall not utilize any

subcontractor/subconsultant identified on the list created pursuant to T.C.A. § 12-12-106.

- 10.6 **NON-BOYCOTT OF ISRAEL** Except for any contract with a total potential value of less than \$250,000, each consultant, except those with fewer than ten employees, and each person signing on behalf of any such consultant, by entering into this agreement certifies, under penalty of perjury, that, to the best of its knowledge and belief, such consultant is not currently engaged in, and will not, for the duration of any such contract, engage in, a boycott of Israel, as that term is defined in Tenn. Code Ann. § 12-4-119.

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: C. Brandon Garrett
Consultant's Signature
TITLE: Project Manager
Date: 10/17/2023

BY: _____
Dr. Ken Moore
Mayor
Date: _____

Approved as to Form:

J. Blake Harper, Staff Attorney



1113 Murfreesboro Rd Ste 106-102
Franklin, TN 3706

615.567.3306
www.ctengineering.net

September 20, 2023

Ms. Michelle Hatcher, P.E.
Water Management Director
City of Franklin
124 Lumber Drive Franklin, TN 37064

Dear Ms. Hatcher,

Subject: Proposal for Professional Environmental Services
Harpeth River Stream Monitoring and Data Management

Dear Ms. Hatcher:

C&T Engineering and Inspection, LLC (C&T) is pleased to submit this proposal to the City of Franklin Water Management Department as requested. Our preparation of this proposal is based upon our previous meeting at the project site including email correspondence sent to us by Mr. Jeff Giles containing site-specific information of mandated instream monitoring requirements complying with NPDES Permit No. TN0028827 (Attachment-A).

This proposal provides a general description of our proposed scope of services, the associated costs, and the proposed schedule.

1.0 BACKGROUND

The City of Franklin in accordance with the provisions of the Tennessee Water Quality Control Act, Tennessee Code Annotated (T.C.A.), Sections 69-3-101 through 69-3-120, was issued an NPDES Permit No. TN0028827 by the Department of Environment and Conservation Division of Water Resources. NPDES Permit No. TN0028827 requires the City of Franklin Water Management Department to perform annual instream chemical, biological and diurnal dissolved oxygen monitoring in the Harpeth River as written in the monitoring and sampling schedule detailed in the approved NPDES permit.

2.0 PURPOSE

C&T Engineering and Inspection, LLC will assist the City of Franklin Water Management Department with required stream river diurnal monitoring of the Harpeth River using three individual sonde river monitors located at Moran Road 36.017195, -86.899823, Cotton Lane 35.967995, -86.900665, and Trinity Road 35.862051, -86.763107 bridges in Franklin TN.

NPDES Permit No. TN0028827 specific diurnal river monitoring requirements are as follows:

Diurnal River Monitoring Locations:

- Cotton Lane Bridge (DS4, 52 consecutive weeks river monitor Attachment-B)
- Moran Road Bridge (DS5, seasonal monitor from May 1st -Oct 31st Attachment-C)
- Trinity Road Bridge (US2, seasonal monitor from May 1st -Oct 31st Attachment-D)

The NPDES permit issued to the City of Franklin and the three river monitoring locations with their corresponding GPS coordinates have been supplied to C&T by the City of Franklin Water Management Department.

3.0 SCOPE OF SERVICES

RIVER MONITORING AND DATA COLLECTION

C&T Engineering and Inspection staff scientists and biologists will provide professional environmental services associated with the Harpeth River stream monitoring and data collection requirements described within NPDES Permit No. TN0028827. The river stream monitoring locations are presented in a graphical format in the NPDES permit and additionally listed under bullet 2.0 in this document.

The environmental work associated with this Scope of Services will be completed once weekly throughout the diurnal monitoring periods including the following deliverables:

- 3.1 Stream location DS4 will be monitored on a weekly basis. The type of monitoring will be continuous using an instream sonde provided by the City of Franklin Water Management Department. Appropriate calibration and crosschecks will be performed via grab samples at each of the river monitoring locations and

documented in a calibration log. The sondes shall be able to monitor the instream temperature, pH, dissolved oxygen, and conductivity at 15-minute intervals. C&T staff scientist will capture the recorded data from each sonde at each river monitoring location using the VuSitu Mobile App. Concurrent climatological data and stream flow estimates at each river monitoring station during the diurnal investigation will also be recorded. Once the data from each river monitoring location is captured it will be downloaded to a PC and the .csv files created from the sondes will be added to the river monitoring Excel file. The Excel file will then be reviewed by C&T scientist for completeness and accuracy before being sent to the City of Franklin.

- 3.2 Stream locations DS5 and US2 will be monitored during seasonal time periods between May 1st and Oct 31st as directed by the NPDES permit. The type of monitoring will be continuous using instream sondes provided by the City of Franklin Water Management Department. Appropriate calibration and crosschecks will be performed via grab samples at each of the river monitoring locations and documented in a calibration log to validate data and provide guidance on additional water quality needs. The sondes shall be able to monitor the instream temperature, pH, dissolved oxygen, and conductivity at 15-minute intervals. The recorded data from DS5 and US2 will be processed the same as DS4 above in bullet 3.1
- 3.3 In the event the sondes are damaged, vandalized or producing readings that may be inaccurate C&T Engineering staff scientist will survey alternate stream locations and propose an alternate stream monitoring location be submitted for approval and an amendment made to the Diurnal Investigations Plan and for TDEC concurrence with the new location.
- 3.4 Once the seasonal river monitoring is complete for Moran Rd Bridge and Trinity Rd) Bridge (DS5 and US2) the instream sondes will be pulled from the Harpeth River and the recommended long-term storage procedure for each will be executed and followed by delivery to the City of Franklin Water Management Department for seasonal storage.

- 3.5 Annual processing of diurnal river monitoring data in connection with required regulatory submission and compliance. Data will be quantified, reviewed and provided in a comparable usable format as part of regulatory compliance reporting.

C&T will coordinate with the COF concerning the scheduling of data collection activities, the results of the data collection and any problems associated with the data collection process including data collection equipment, environmental factors which would impede the collection of data or other problems associated with the data collection process.

4.0 FEES

Our not-to-exceed fees are based on the scope of professional services described above and will be billed on a Time & Materials (T&M) basis for each hour worked plus the cost of any materials needed as a pass-through cost. If C&T Engineering and Inspection encounters any conditions that require additional services and costs beyond what is presented in this proposal, C&T will contact Ms. Michelle Hatcher with our recommendations prior to proceeding with any services beyond the scope of this proposal. We will not exceed this proposal amount without written authorization from you. The estimated fee to perform the scope of services outlined above is provided below.

Task	Not-to-Exceed Cost
3.1 Once Weekly River Monitoring DS4	\$37,375
3.2 Once Weekly River Monitoring DS5, US2	\$15,125
3.3 Survey Alternate Monitoring Locations	\$2,500
3.4 Long-Term Storage DS5, US2 Sondes	\$1,000
3.5 Annual Diurnal River Monitoring Reporting	\$4,600

Based on the scope of services described above, the not to exceed lump sum cost to perform the above referenced services will be sixty thousand six hundred dollars **\$60,600**. Invoicing for professional services will be in accordance with the attached fee schedule.



1113 Murfreesboro Rd Ste 106-102
Franklin, TN 3706

615.567.3306
www.ctengineering.net

5.0 CLOSING

C&T is prepared to begin the Harpeth River Stream Monitoring and Data Collection professional services as soon as the City of Franklin Water Management Department authorizes the work. We sincerely appreciate the opportunity to provide you with this proposal. If you have any questions, please contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Brandon Garrett'.

C&T Engineering and Inspection, LLC

C. Brandon Garrett, CPESC, TN-QHP

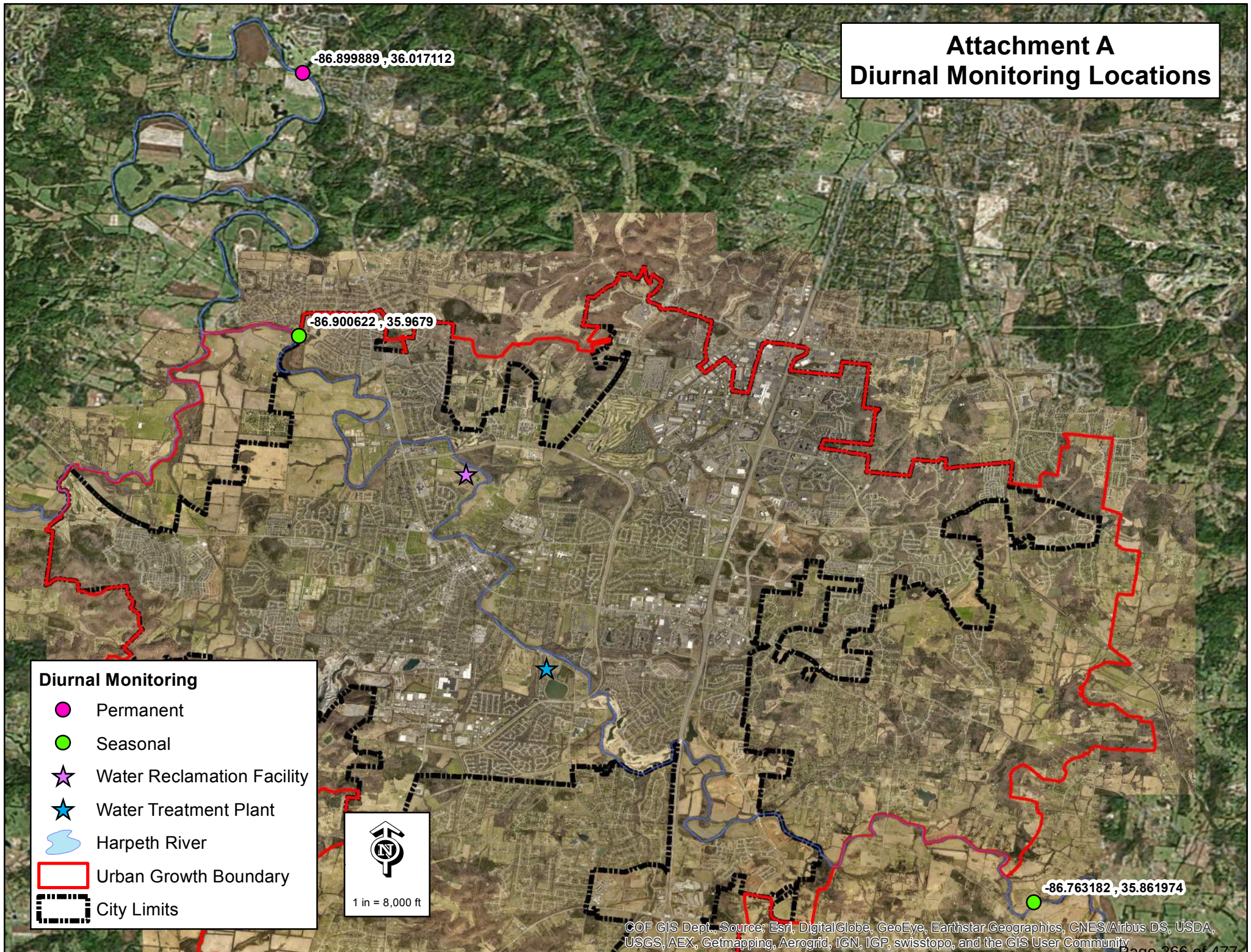
Senior Environmental Scientist/Project Manager

Attachments:

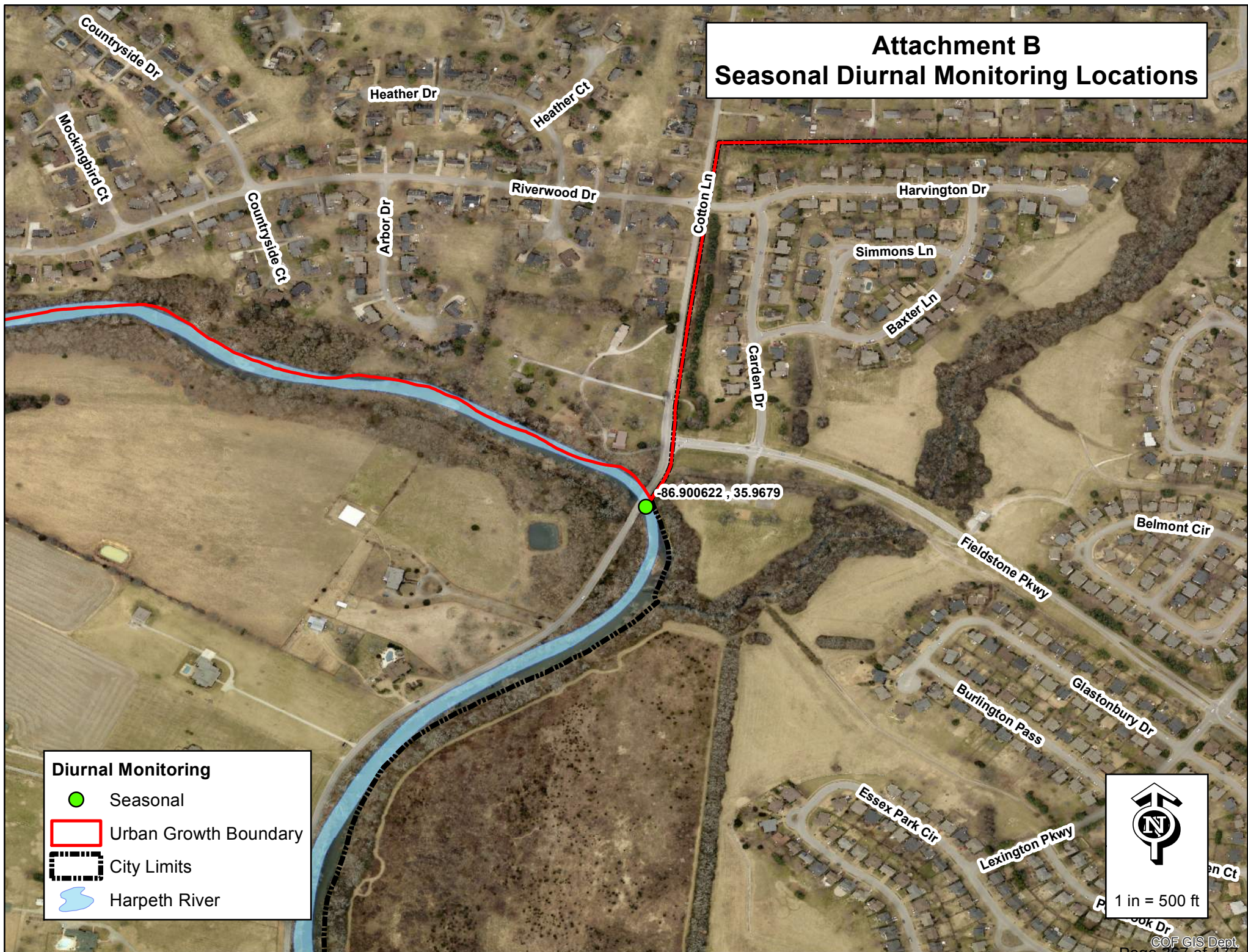
Attachments -Monitoring Locations

C.c. Tom Lamb Client Service Leader

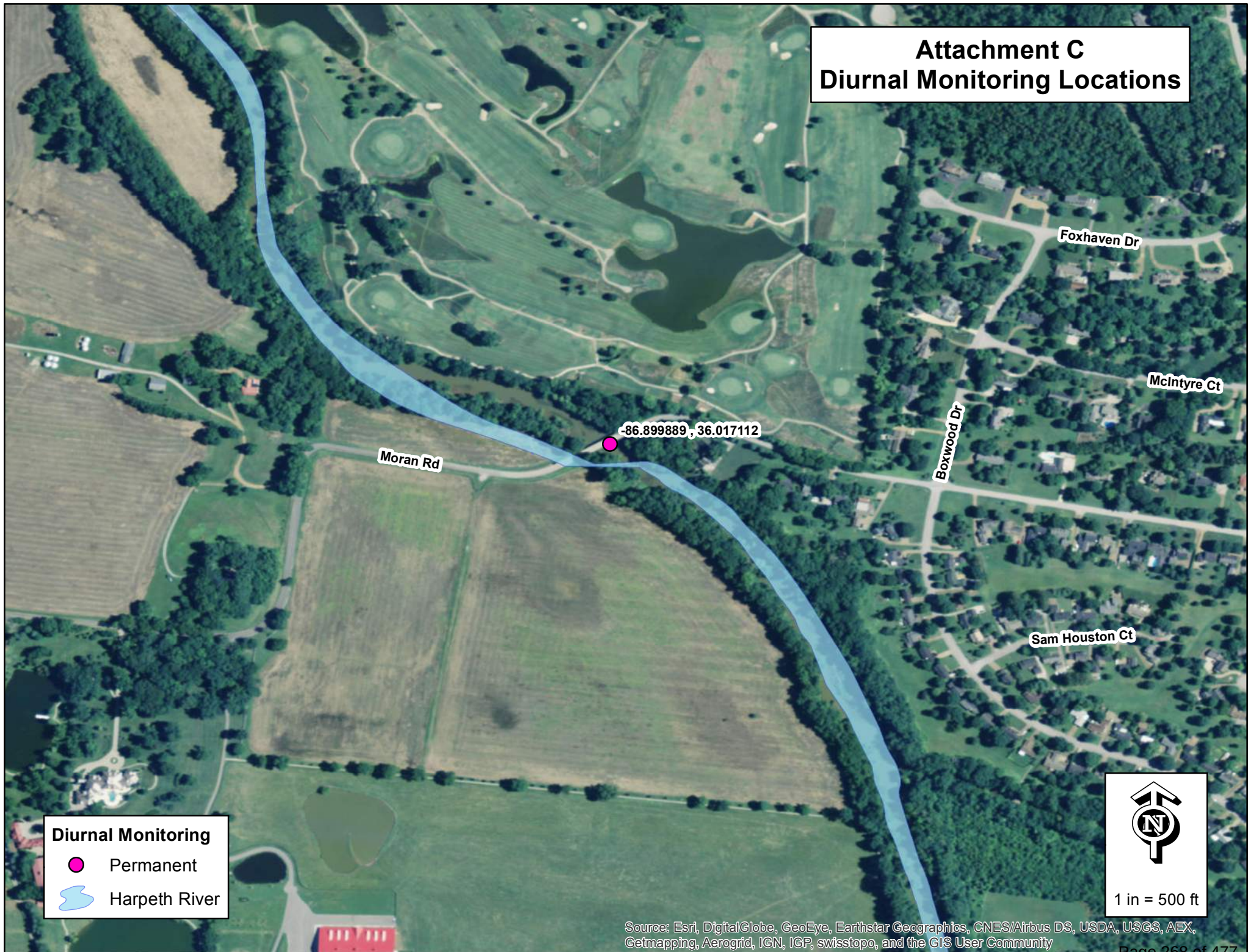
Attachment A Diurnal Monitoring Locations



Attachment B Seasonal Diurnal Monitoring Locations



Attachment C Diurnal Monitoring Locations



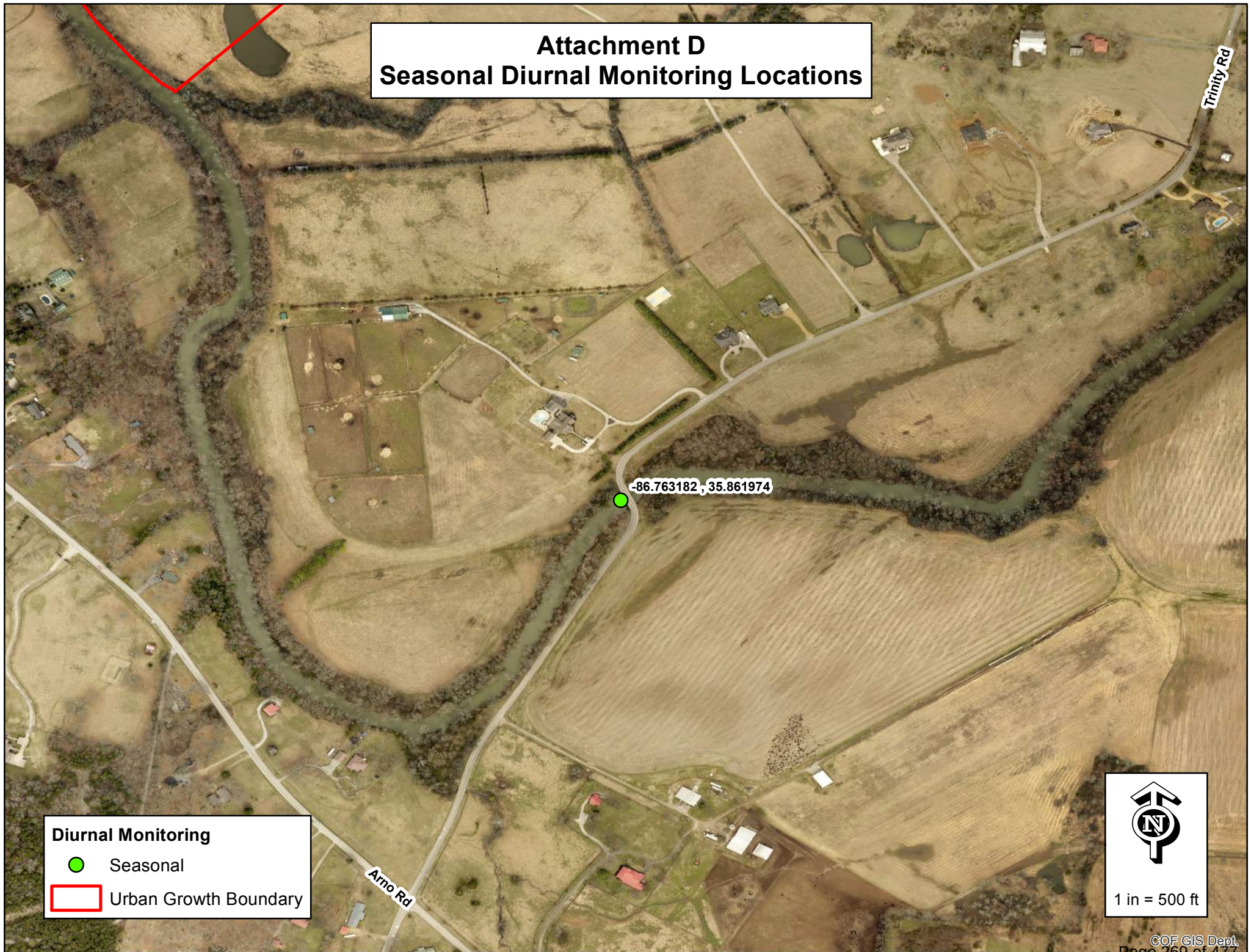
Diurnal Monitoring

- Permanent
- Harpeth River


1 in = 500 ft

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Attachment D Seasonal Diurnal Monitoring Locations



Diurnal Monitoring

● Seasonal

▭ Urban Growth Boundary



1 in = 500 ft



File #: 21-05594

DATE: October 31, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Paul Holzen, Director of Engineering
Adam Moser, Traffic Engineer

SUBJECT:

*Consideration Of Ordinance 2023-36, An Ordinance To Establish A No-Parking-Anytime Zone Along The Southerly Extents Of Westwind And Eastwind Court
CIC 10/26/23

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a no parking zone to be established for Westwind and Eastwind Court cul-de-sacs and along the southern part of the roadway. This is to preserve the turnaround portion of the cul-de-sac and for preserving the emergency access to the business located along that southern right-of-way, as well as to preserve ease of access to the business for its customers, by request of the property owner.

BACKGROUND/STAFF COMMENTS:

The property owner and management of the storage facility asked for the no parking zone to be established due to vehicles parking and blocking access and turnaround capabilities around the perimeter of the cul-de-sac and along the roadway.

FINANCIAL IMPACT:

Funding for signs and posts is covered in the annual budget for the Streets Department.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Ordinance 2023-36 on First Reading.

ORDINANCE NO. 2023-36

AN ORDINANCE TO ESTABLISH A NO-PARKING-ANYTIME ZONE ALONG THE SOUTHERLY EXTENTS OF WESTWIND AND EASTWIND COURT

WHEREAS, the Business and Property Owner adjacent to the Westwind and Eastwind Courts cul-de-sac desires to improve the safety and security of travel on Westwind and Eastwind Court, and

WHEREAS, the alignments of driveway connections to the cul-de-sac make it difficult for passenger vehicles and emergency vehicles to enter and exit the property when vehicles are parked in the cul-de-sac, and

WHEREAS, the property owner located at 101 Westwind Court and 102 Eastwind Court requests a NO PARKING ANYTIME zone within the cul-de-sac and along the southerly extents of the street adjacent to their property.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMEN OF THE CITY OF FRANKLIN, TENNESSEE, AS FOLLOWS:

SECTION I: That a NO PARKING ANYTIME zone be created for the southerly extents of the roadway and cul-de-sac on Westwind and Eastwind Court.

SECTION II: Said NO PARKING ANYTIME zone is created in order to prohibit vehicles from parking in such a manner as to create traffic hazard or obstruct vehicle flow, and is more specifically described as follows:

1. From the property corner of Woodlands Subdivision Lots 5 and 6 located along Westwind Court cul-de-sac running southerly and easterly counterclockwise around the cul-de-sac and to the east to the intersection of Southwinds Drive
2. From the property corner of Woodlands Subdivision Lot 10 located along Eastwind Court cul-de-sac running southerly and westerly clockwise around the cul-de-sac and to the west to the intersection of Southwinds Drive

SECTION III: That the Streets Department Director or his designee shall obtain and install all necessary signs to carry out the intention of this Ordinance.

SECTION IV: That the penalty for failure to obey the provisions of this Ordinance shall be as indicated in the Franklin Municipal Code and/or the Tennessee Code Annotated.

SECTION V: BE IT FINALLY ORDAINED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Ordinance shall take effect from and after its passage on second and final reading, the health, safety and welfare of the citizens of Franklin requiring it.

ATTEST:

CITY OF FRANKLIN, TENNESSEE

By: _____
Eric S. Stuckey
City Administrator

By: _____
Dr. Ken Moore
Mayor

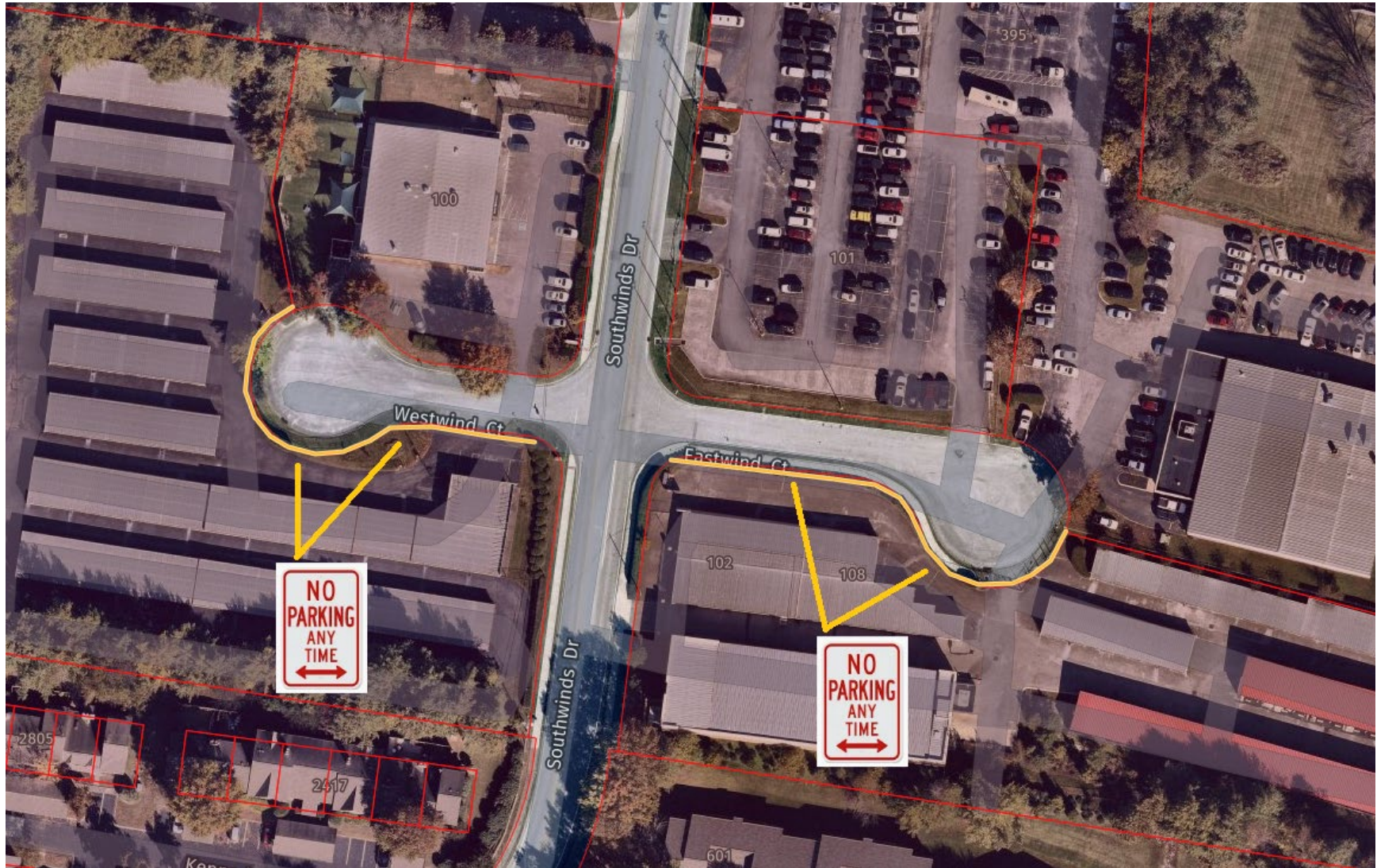
Approved as to form by:

William E. Squires
Assistant City Attorney

Passed First Reading: _____

Passed Second Reading: _____

EXHIBIT A



From: [Ed Freeman](#)
To: [Adam Moser](#); [StorPlace of Franklin](#)
Cc: [Nadine](#)
Subject: RE: StorPlace of Franklin 101 Westwind Ct Parking Issues
Date: Wednesday, September 20, 2023 2:11:23 PM
Attachments: [image001.jpg](#)

ATTENTION COF staff: This email originated from outside the City of Franklin. Please use discretion when clicking on attachments & links from unknown senders or suspicious emails.

Mr. Moser:

I am the managing Partner of StorPlace-Self Storage of Franklin.

Yes, please designate those cul-de-sacs as a no parking zones.

Thank-you

Ed Freeman

J. Edmond Freeman, Jr.

Managing Partner



615-383-3111

615-397-6981

From: Adam Moser <adam.moser@franklintn.gov>
Sent: Wednesday, September 20, 2023 10:49 AM
To: StorPlace of Franklin <fk@storplace.com>
Cc: Nadine <nadinem@storplace.com>; Ed Freeman <ed@storplace.com>
Subject: RE: StorPlace of Franklin 101 Westwind Ct Parking Issues

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Thank you

All that would be needed is the property owner's acceptance of this email as to requesting the no parking zone for the ordinance to be written (no parking for cul-de-sacs on Westwind and Eastwind Cts.)

Adam Moser, P.E.
City Traffic Engineer
City of Franklin

From: StorPlace of Franklin <fk@storplace.com>
Sent: Wednesday, September 20, 2023 10:24 AM
To: Adam Moser <adam.moser@franklintn.gov>
Cc: Nadine <nadinem@storplace.com>; Ed Freeman <ed@storplace.com>
Subject: StorPlace of Franklin 101 Westwind Ct Parking Issues

ATTENTION COF staff: This email originated from outside the City of Franklin. Please use discretion when clicking on attachments & links from unknown senders or suspicious emails.

Good morning Mr. Moser

I am reaching out to you seeking help with an issue we are having with parking in the cul-de-sacs at 101 Westwind Ct and 102 Eastwind Ct.

There is a large semi that has been sitting in the cul-de-sac on Westwind Ct for nearly 3 weeks now. It just sits there.

Also, on Eastwind Ct, we have been having an issue with vehicles parked along the street as well. I have worked with the Fire Department and the Franklin PD trying to remedy these issues, but to no avail.

We are a storage facility and sometimes our customers / tenants, can't even get to the gates due to vehicles parked all along the street there.

I get phone calls from angry customers because of this, and there is nothing I can do and we're very frustrated.

I am sending some pics of the semi on Westwind Ct. to possibly help you see where we are coming from.

I understand that you need a request from the owner, and I have copied him on this email as well and will give him a call, in efforts to get this ball rolling.

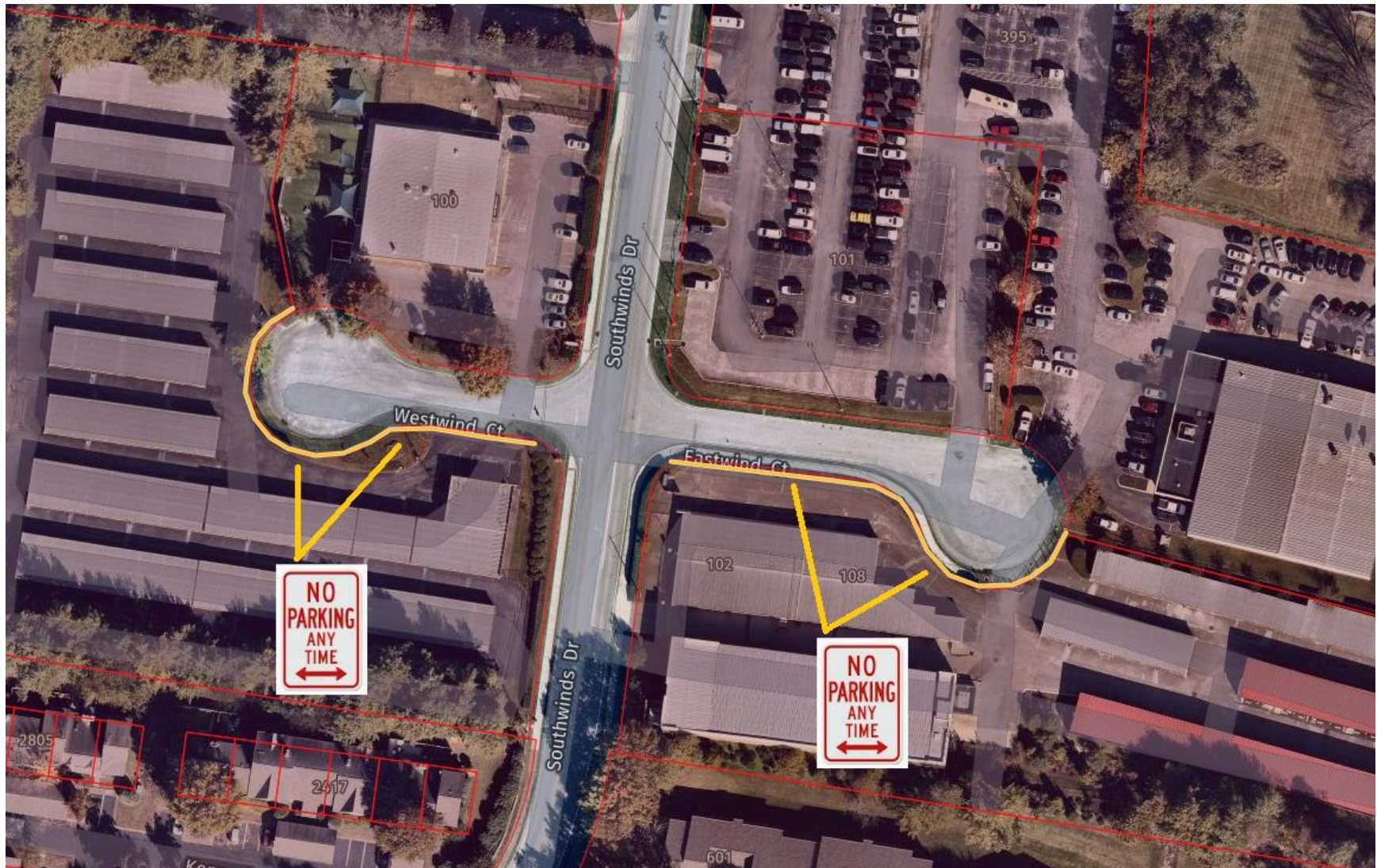
We would like to have no parking signs along our fence on Westwind Ct and Eastwind Ct, if possible.

Thanks, in advance, for your help with this issue.

Sincerely,
Mike Young

***Mike Young
Property Manager
615 591 9008
1138 Murfreesboro Road
Franklin, TN 37064***

EXHIBIT A





City of Franklin

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

File #: 21-05600

DATE: October 31, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Paul Holzen, Director of Engineering
Jimmy Wiseman, Asst. Director of Engineering
SUBJECT:

*Consideration Of Resolution 2023-69, A Resolution Declaring A Portion Of Right-Of-Way On Cherokee Place As Surplus Property
CIC 10/26/23

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Resolution 2023-69.

BACKGROUND/STAFF COMMENTS:

The Franklin Housing Authority is currently constructing the Cherokee Place PUD Subdivision. During construction of several of the homes, the structures were extended onto the public right-of-way of Cherokee Place. This is the only section of Cherokee Place that is in the public right-of-way. The remainder is privately owned and maintained by the Cherokee Place Homeowner's Association. This section of right-of-way only serves the Cherokee Place PUD Subdivision and the existing Chickasaw Senior Community.

The Developer and City Staff agree that abandoning this portion of right-of-way is the appropriate step to allow the homes to be left as constructed.

FINANCIAL IMPACT:

There is no financial impact to the City of Franklin.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Resolution 2023-69.

RESOLUTION 2023-69

A RESOLUTION DECLARING A PORTION OF RIGHT-OF-WAY ON CHEROKEE PLACE AS SURPLUS PROPERTY

WHEREAS, the Board of Mayor and Aldermen (BOMA) determined that a portion of right-of-way on Cherokee Place as shown on Exhibits A and B is no longer necessary, suitable and desirable for the public welfare; and

WHEREAS, the City now desires to declare the right-of-way as depicted in Exhibits A and B as surplus property and desires to sell or dispose of the property to the adjoining property owner of Map 078H, Parcel No. 04.00, Franklin Housing Authority; and

WHEREAS, the surplus property as depicted in Exhibits A and B shall be disposed of equally to the Franklin Housing Authority as owner adjacent to the City right-of-way as shown in Exhibits A and B; and

WHEREAS, the City will realize additional tax benefits from this property being returned to the tax roll with such transfer of ownership of the property; and

WHEREAS, City staff has determined the value to be under \$25,000.00 because the property depicted in Exhibit A creates non-buildable lots; and

WHEREAS, Municipal Code, Title 5, Chapter 8; Sec. 5-802, allows the BOMA to sell or dispose of right-of-way by negotiated contract or by other means that will adequately protect the public interest when the value does not exceed \$25,000.00.

NOW THEREFORE, BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that the right-of-way as shown in attached Exhibits A and B is hereby declared surplus property.

BE IT FURTHER RESOLVED by the Board of Mayor and Aldermen that the right-of-way so declared as surplus shall be disposed equally to the property owners of Map 078H, Parcel No. 04.00, Franklin Housing Authority, as negotiated by the City Engineer and approved by the City Administrator, with the following conditions:

- 1) Require a Public Utility and Drainage Easement on the property being vacated as determined by the City Engineer.
- 2) Require the property owner(s) to complete a survey of the surplus right-of-way and pay all closing costs associated with the transfer of the property. Said survey shall include the location of all utilities and drainage facilities within or along the subject right-of-way.
- 3) Franklin Housing Authority shall assume all maintenance and liability of the right-of-way as shown in Exhibit A immediately following the transfer of the abandoned right-of-way.

IT IS SO RESOLVED AND DONE on this the ____ day of _____, 2023.

ATTEST:

CITY OF FRANKLIN, TENNESSEE

By: _____
ERIC S. STUCKEY
City Administrator/Recorder

By: _____
DR. KEN MOORE
Mayor

Approved As To Form By:

William E. Squires
Assistant City Attorney

PARKING REQUIRED PER MOS #1

1 BEDROOM - 16 @ 1.5 PER UNIT = 24

2 BEDROOM - 40 @ 2.25 PER UNIT = 90

3 BEDROOM - 38 @ 2.75 PER UNIT = 105

4 BEDROOM - 4 @ 3.0 PER UNIT = 12

5 BEDROOM - 2 @ 3.0 PER UNIT = 6

TOTAL REQUIRED = 237

TOTAL PROVIDED = 238

HANDICAP PROVIDED = 13

BICYCLE PARKING REQUIRED ZONING ORDINANCE 10.2.1

236 BEDROOMS x 0.05 PER BEDROOM

TOTAL REQUIRED = 12

TOTAL PROVIDED = 12

POCKET PARK 1
SIZE PROVIDED: 22,311 SF / 0.512 ACRES
AMENITIES: WALKING TRAIL; BENCHES

POCKET PARK 2
SIZE PROVIDED: 3,409 SF / 0.078 ACRES
AMENITIES: PLAYGROUND EQUIPMENT; SEATING AREA

POCKET PARK 3
SIZE PROVIDED: 1,793 SF / 0.041 ACRES
AMENITIES: BENCHES

POCKET PARK 4
SIZE PROVIDED: 2,506 SF / 0.058 ACRES
AMENITIES: GAZEBO; BENCHES

SITE KEY NOTES:

1. CONCRETE SIDEWALK, SEE SHEET C2.2 FOR DETAIL.

2. BIKE RACK W/ CONCRETE PAD, SEE SHEET C2.3 FOR DETAILS.

3. MAIL KIOSK W/ CONCRETE PAD, SEE ARCHITECTURAL SHEET FOR DETAILS. RFP-01R 03-24-22

4. DUMPSTER ENCLOSURE WITH PEDESTRIAN ACCESS DOOR, SEE ARCHITECTURAL SHEET FOR DETAILS.

5. HANDICAP PARKING, SEE SHEET C2.2 FOR DETAILS.

6. EXISTING ROADWAY, SEE SHEET C2.2 FOR DETAIL & SHEET C4.0 FOR TYPICAL SECTION.

7. DETECTABLE WARNING STRIPS, SEE SHEET C2.2 FOR DETAIL.

8. RETAINING WALL, SEE SHEET C2.3 FOR DETAILS & SHEET C3.1 FOR T.W. & B.W. ELEVATIONS.

9. BIORETENTION AREA, SEE SHEETS C3.0 - C3.4 FOR ELEVATIONS & DETAILS.

10. STORM WATER OPEN DETENTION POND, SEE SHEETS C3.0 - C3.4 FOR ELEVATIONS & DETAILS.

11. POCKET PARK AREA, SEE ARCHITECTURAL SHEET FOR DETAILS.

12. ASPHALT PARKING AREAS, SEE SHEET C2.2 FOR DETAILS.

13. CONCRETE POST CURB, SEE SHEET C2.2 FOR DETAIL.

14. EXTRUDED CONCRETE CURB (TYPICAL FOR LANDSCAPING ISLANDS), SEE SHEET C2.2 FOR DETAIL.

15. EXISTING TRANSIT STOP TO REMAIN.

16. CROSS PER CITY OF FRANKLIN STREET DEPARTMENT REQUIREMENTS.

17. ADA ACCESSIBLE CONCRETE RAMP W/ DETECTABLE WARNING, SEE SHEET C2.2 FOR DETAIL.

18. VAN ACCESSIBLE HANDICAP PARKING, SEE SHEET C2.2 FOR DETAILS.

19. HANDICAP PARKING, SEE DETAILS 8, 10 AND 11 ON SHEET C2.2.

20. SOLID WOOD FENCE ON THREE SIDES OF HVAC UNITS TO SCREEN FROM VIEW. SEE DETAIL OF TYPICAL HVAC SCREEN ON SHEET L3.0 AND SOLID WOOD FENCE DETAIL ON SHEET L4.0. RFP-01R 03-24-22

TWIN OAKS SUBDIVISION
P.B. 12, PG. 93, R.O.W.C.
ZONED R-3

LEGEND

--- PUBLIC ACCESS EASEMENT

--- DRAINAGE EASEMENT

--- UTILITY EASEMENT

--- TRANSITION ZONE 1

--- TRANSITION ZONE 2

--- TRANSITION ZONE 3

NOTES

1. UNCONTROLLED PEDESTRIAN CROSSING LOCATIONS WILL BE DETERMINED BY CITY OF FRANKLIN ENGINEERING STAFF ON A CASE-BY-CASE BASIS WITH THE REVIEW OF SUBSEQUENT SITE PLANS.

2. CHICKASAW PLACE AND CHEROKEE PLACE ROADWAYS TO BE RE-PAVED IN THEIR ENTIRETY WITHIN THE DEVELOPMENT BOUNDARY.

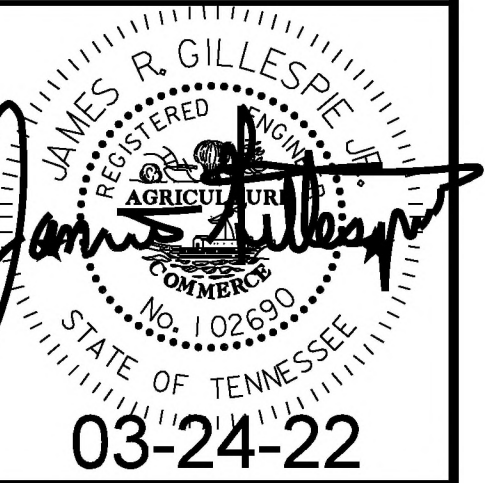
3. THE CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL EQUIPMENT IS COMPLETELY SCREENED FROM ALL DIRECTIONS AND OFF SITE VIEWS.

4. THE CHANGE OUT OF ANY EQUIPMENT TO A LARGER DIMENSIONAL HEIGHT OR MOUNTING HEIGHT WILL REQUIRE THAT ADDITIONAL MEASURES BE TAKEN TO MEET CITY OF FRANKLIN SCREENING REQUIREMENTS.

WEST MEADE - SECTION 2
P.B. 3, PG. 11, R.O.W.C.
ZONED R-4



One Vantage Way, Suite E-220 • Knoxville, Tennessee 37228-0505 • (615) 726-4468



ENLARGED SITE PLAN

SITE PLAN
CHEROKEE PLACE PLANNED UNIT DEVELOPMENT
CHEROKEE PLACE @ SHAWNEE DRIVE
FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

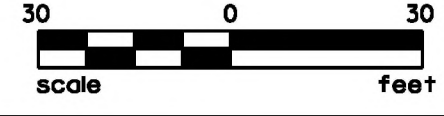
DR	CHK	DATE	REVISION
TEAM	JRG	02-19-21	SITE PLAN RESUBMITTAL
TEAM	JRG	03-08-21	SITE PLAN RESUBMITTAL
TEAM	JRG	04-01-21	SITE PLAN RESUBMITTAL
TEAM	JRG	05-06-21	ONE STOP SUBMITTAL
TEAM	JRG	05-19-21	ONE STOP SUBMITTAL
TEAM	JRG	11-01-21	BLDG PERMIT REVIEW SUBMITTAL
TEAM	JRG	03-24-22	BLDG PERMIT COMMENTS SUBMITTAL

C2.1

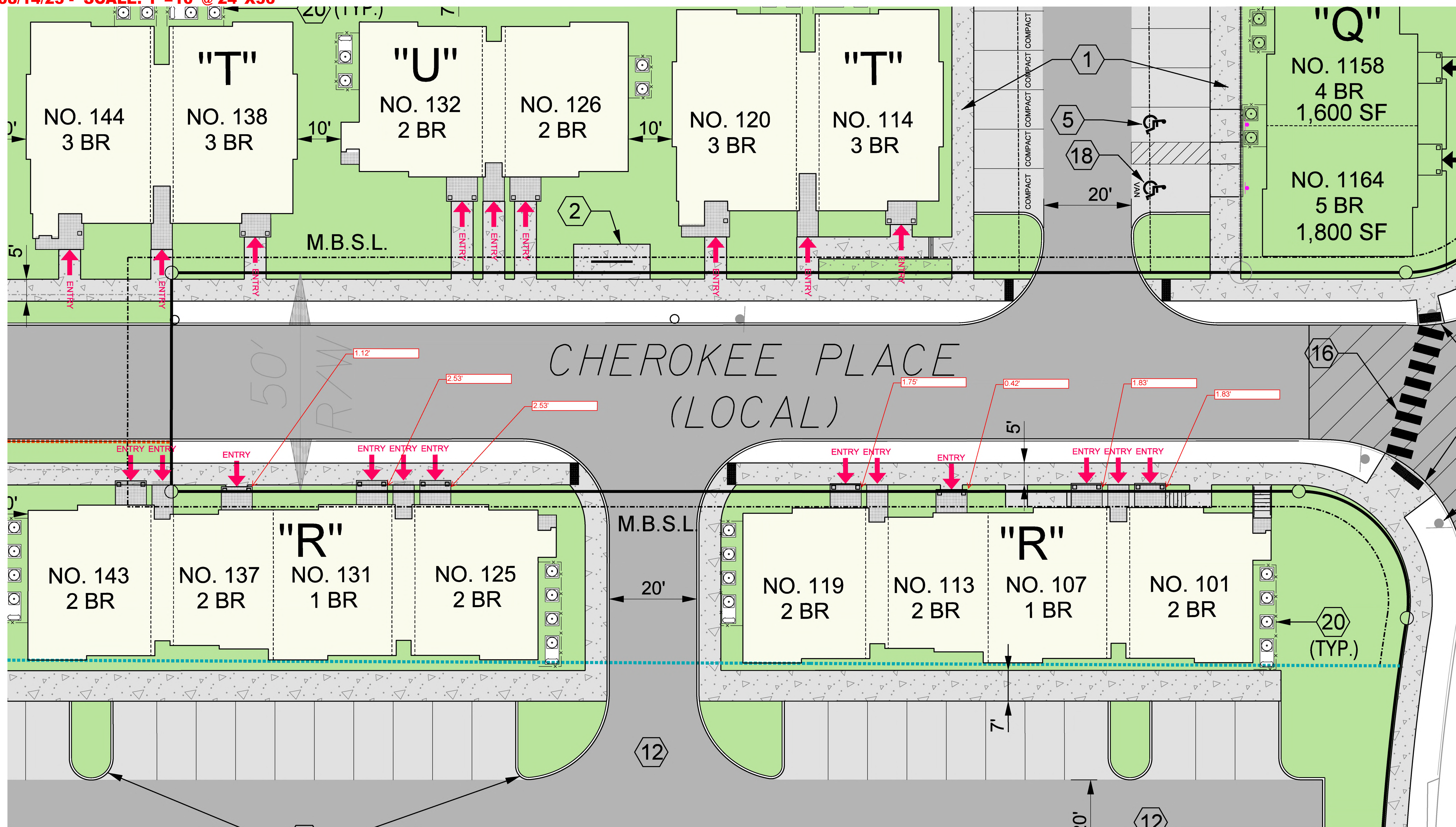
FILE NO. 1716-20

COF PROJECT NO. 7492

Proposed abandonment of ROW



08/14/23 - SCALE: 1"=10' @ 24"X36"





File #: 21-05552

DATE: October 25, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Vernon Gerth, Asst. City Administrator Community Development
Jimmy Wiseman, Asst. Director of Engineering

SUBJECT:

Consideration Of Amendment 1 To COF Contract No. 2019-0221, With Southbrooke, LLC For Road Impact Fee Reimbursement Agreement

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Amendment No. 1 to COF Contract No. 2019-0221.

BACKGROUND/STAFF COMMENTS:

The City of Franklin and Southbrooke, LLC entered into a Road Impact Fee Reimbursement agreement on March 17, 2020, as part of the Southbrooke Development. As a part of the initial agreement, the Developer agreed to make arterial roadway improvements to Lewisburg Pike and would be eligible for a reimbursement from the City for the costs of design, right-of-way acquisition, and construction. Since then, the cost of construction has risen significantly, and the Developer has asked that the City increase its proportionate share of the reimbursement to help offset rising costs. Amending this Road Impact Fee Reimbursement agreement would continue the intention of the original agreement by raising the City's contribution to remain proportionate to the total costs of the improvements.

FINANCIAL IMPACT:

The total eligible reimbursement to the Developer would increase from Two Million Nine Hundred Seventy-Four Thousand Nine Hundred Thirty and 00/100 Dollars (\$2,974,930.00) to Three Million Seven Hundred Twenty-Five Thousand One Hundred Fifty-Seven and 00/100 Dollars (\$3,725,157.00). Depending upon when the proposed new road impact fees are implemented, the new fees may help offset some of the increased costs.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Amendment 1 to COF Contract No. 2019-0221.

**AMENDMENT NO. 1 TO COF CONTRACT 2019-0221, ROAD IMPACT FEE
REIMBURSEMENT AGREEMENT**

COF Contract No. 2019-0221

ENTERED INTO by and between the CITY OF FRANKLIN, TENNESSEE (the “City”) and SOUTHBROOKE, LLC (the “Developer”) as of this the ____ day of _____, 20__.

RECITALS:

WHEREAS, the City and the Developer entered into a Road Impact Fee Reimbursement Agreement (“Agreement”) entitled City of Franklin, Tennessee Road Impact Fee Reimbursement Agreement {COF Contract No. 2019-0221}, dated March 17, 2020; and

WHEREAS, the City has required the Developer to design, acquire right-of-way, acquire easements, obtain permits, and construct certain arterial roadway improvements (the “Improvements”) as a requirement of the Development Project; and

WHEREAS, the costs of the required arterial roadway Improvements have risen, and the City and the Developer would like to amend the Agreement raise the total eligible costs of design, right-of-way acquisition, easement acquisition, permits, and construction of the Improvements along with the total reimbursement to the Developer; and

WHEREAS, the City and the Developer desire to amend the Agreement to increase the eligible costs and eligible reimbursement from Two Million Nine Hundred Seventy-Four Thousand Nine Hundred Thirty and 00/100 Dollars (\$2,974,930.00) to Three Million Seven Hundred Twenty-Five Thousand One Hundred Fifty-Seven and 00/100 Dollars (\$3,725,157.00) as set forth herein.

NOW, THEREFORE, in consideration of these premises and the mutual promises contained herein, it is agreed by and between the parties as follows:

1. Section 4 of the Agreement shall be amended in stating the new eligible cost for Improvements and reimbursement to the Developer from Two Million Nine Hundred Seventy-Four Thousand Nine Hundred Thirty and 00/100 Dollars (\$2,974,930.00) to Three Million Seven Hundred Twenty-Five Thousand One Hundred Fifty-Seven and 00/100 Dollars (\$3,725,157.00).

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

9. All other provisions of the Agreement, dated March 17, 2020, are unchanged and remain in full force and effect.

(SIGNATURE PAGE TO FOLLOW)

CITY:

CITY OF FRANKLIN, TENNESSEE

DEVELOPER

SOUTHBROOKE, LLC

By: _____
Dr. Ken Moore, Mayor

Date: _____

By: _____

Title: _____

Date: _____

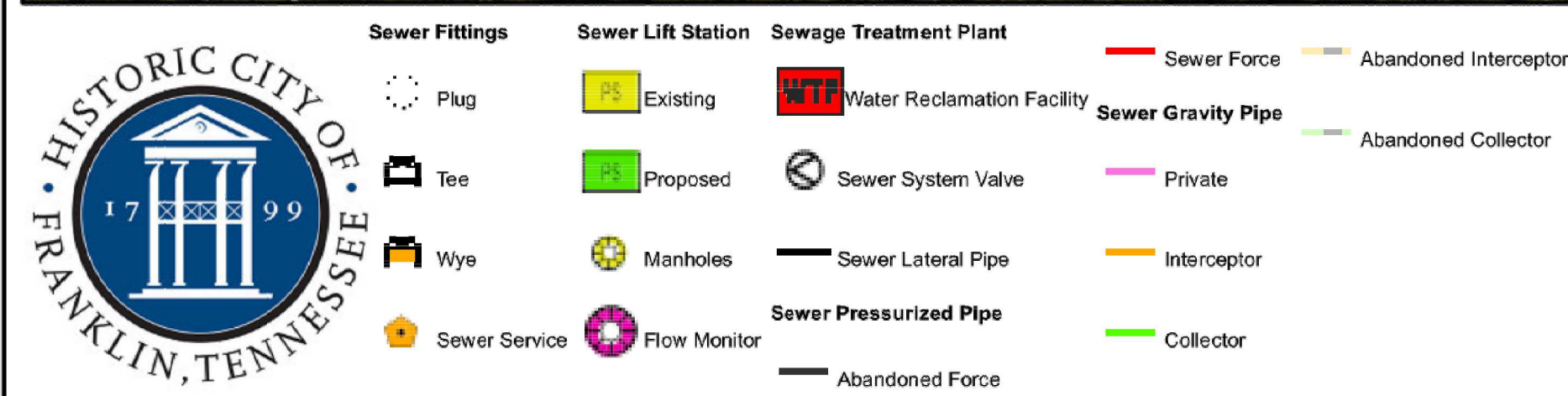
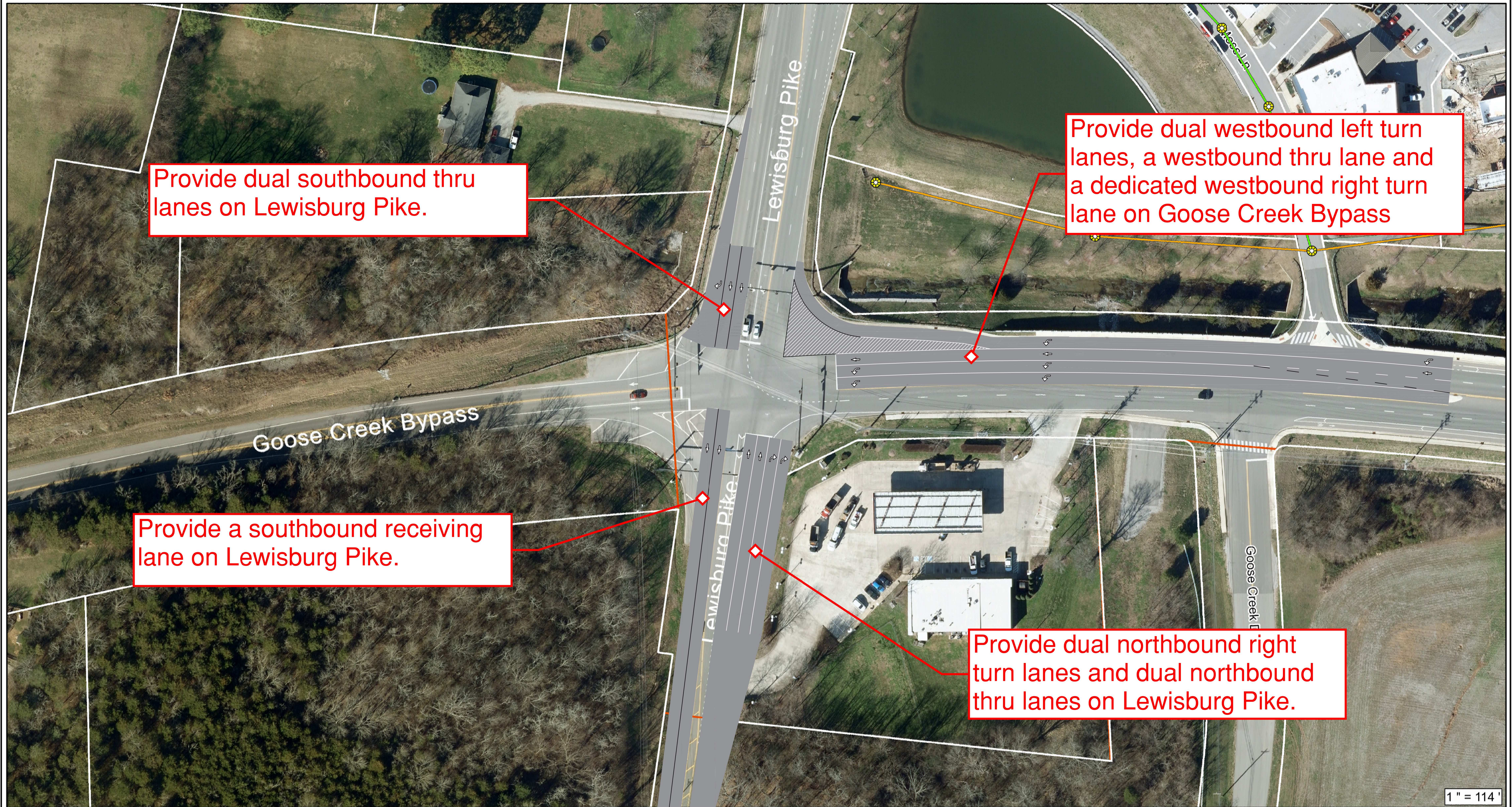
By: _____
Eric Stuckey, City Administrator

Date: _____

Approved as to Form:

J. Blake Harper, Staff Attorney

June 17, 2019



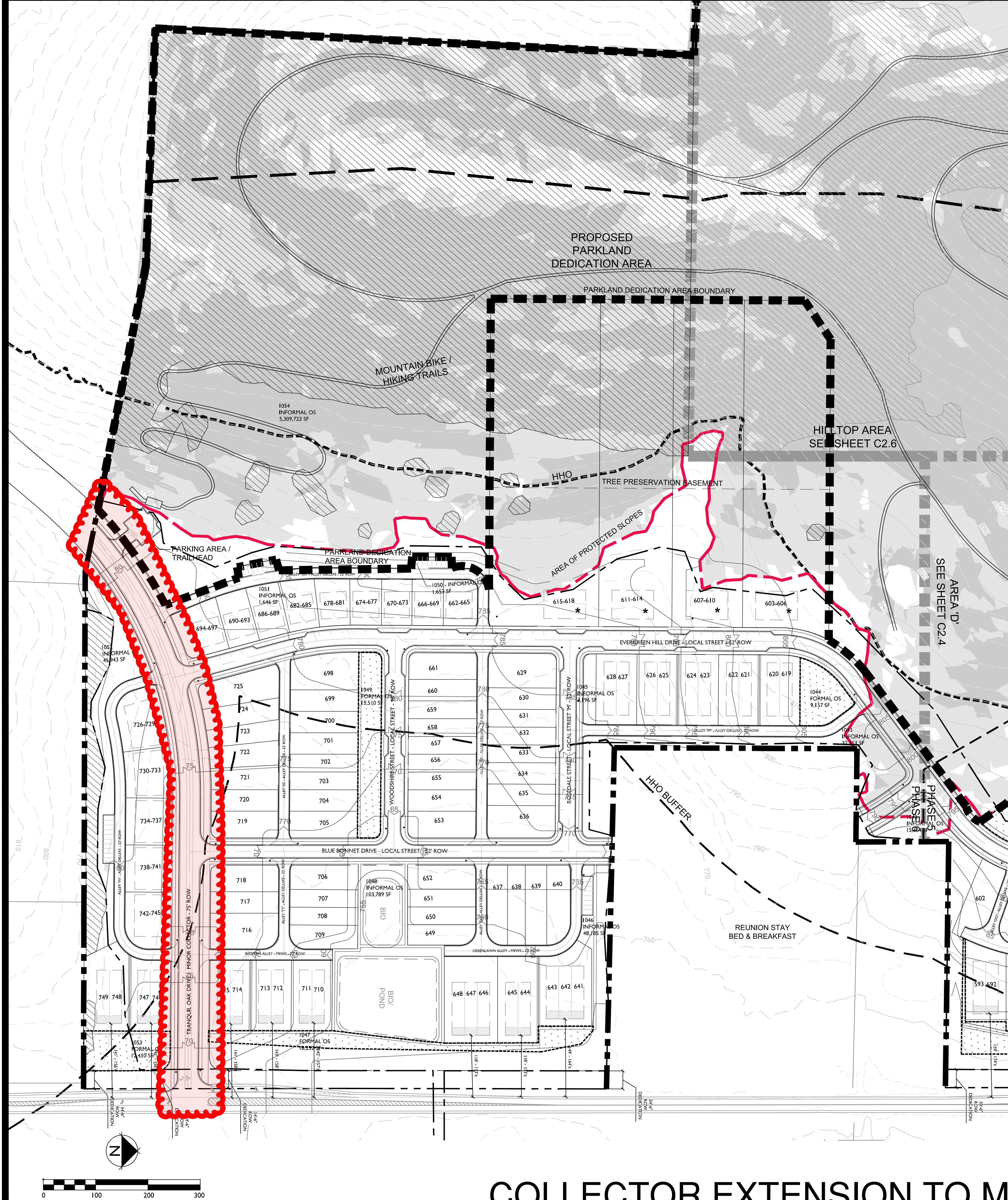
FRANKLIN, TENNESSEE
1799

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License Agreement
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NEW TRAFFIC SIGNAL AT LEWISBURG PIKE AND STREAM VALLEY BLVD



NOTE: CRITICAL LOTS- IF, AT SITE PLAN, FIELD-RUN TOPOGRAPHY SHOWS SLOPES OVER 14% WHERE SLOPES ARE PROTECTED, THEN LOTS MAY BE NON-BUILDABLE OR RECONFIGURED.

*'AREA OF PROTECTED SLOPES' REFERS TO AREAS WITHIN THE HHO BUFFER THAT HAVE NATURALLY OCCURRING SLOPES GREATER THAN 14%. THESE AREAS WILL NOT BE DISTURBED. SLOPES GREATER THAN 14% THAT ARE LOCATED OUTSIDE OF THE 'AREA OF PROTECTED SLOPES' HAVE BEEN DETERMINED TO BE MAN-MADE OR INSIGNIFICANT, THEREFORE ALLOWING DEVELOPMENT TO OCCUR.

KEY

- PRESEVED CANOPY
- SLOPES - 14 - 20%
- SLOPES - 20% +
- FORMAL OPEN SPACE
- STREET LIGHT; TYP
- CRITICAL LOT

TYPICAL LOT

ALLEY

137

34'

STREET

- NOTES:
1. THERE ARE NO FLOODPLAINS EXISTING ON THE SITE BASED ON FEMA MAPS
 2. AERIAL PHOTO, PARCEL LINES AND TOPOGRAPHIC INFORMATION PROVIDED BY CITY OF FRANKLIN G.I.S.
 3. SITE BOUNDARY CALLS PROVIDED BY WILSON & ASSOCIATES.
 4. NO THIRD PARTY MINERAL RIGHTS ARE ASSOCIATED WITH THIS PROPERTY.

AREA 'E' SITE DATA CHART

AREA:	2,406,118 SF (55.23 AC)
EXISTING TREE CANOPY:	925,028 SF (21.23 AC)
PRESERVED TREE CANOPY:	816,201 SF (18.74 AC)
LOT BREAKDOWN:	
ATTACHED:	
24' (3BR):	28
60' (4 UNIT/LOT, 2BR):	36
90' (4 UNIT/LOT, 3BR):	36
TOTAL:	100
DETACHED:	
61'+:	4
46' - 55':	10
41' - 44':	17
34' - 40':	16
TOTAL:	47
AREA TOTAL:	147
PARKING:	
REQUIRED SPACES:	
2 / DETACHED UNIT:	94
3 / 24' UNIT & 90' UNIT (3-BR):	192
2.5 / 60' UNIT (2-BR):	90
TOTAL REQUIRED:	376
PROVIDED:	
4 / DETACHED LOT:	188
4 / 24' UNIT & 90' UNIT (2 GARAGE, 2 TANDEM):	256
2 / 60' UNIT (1 GARAGE, 1 TANDEM)	72
ON-STREET:	73
OFF-STREET:	34
TOTAL SPACES:	623



Revision Date	
△	
△	
△	
△	



File #: 21-05400

DATE: October 16, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Emily Wright, Director of Planning and Sustainability
Amy Diaz-Barriga, Asst Director of Planning Development
Chelsea Randolph, Principal Planner

SUBJECT:

Consideration of Resolution 2023- 71, A Resolution Initiating The Annexation Process And Draft Plan Of Services, For The Annexation Of 32.36 Acres, Located North Of Murfreesboro Road And West Of John Williams Road, Located At 4038 And 4040 Clovercroft Road. Establishing A Public Hearing For December 12, 2023

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Resolution 2023-71, initiating The Annexation Process And Draft Plan Of Services for two properties located on Clovercroft Road, north of Murfreesboro Road and west of John Williams Road, At 4038 And 4040 Clovercroft Road and establishing a Public Hearing for December 12, 2023.

Project Information

Applicant: Henry Robson, Robson Property Group
Owner: John Clark, Franklin Christian Church and Brandon Hafner, Thales Academy

BACKGROUND/STAFF COMMENTS:

The properties being considered are on the north side of Clovercroft Road and west of John Williams Road. The properties are not contiguous to the City limits but they are well within the City's Urban Growth Boundary (UGB) and are proximate to other City neighborhoods.

The property is within the Mixed Residential Design Concept as defined by the Envision Franklin Land Use Plan. Envision Franklin states that the Mixed Residential Design Concept, "contains residential neighborhoods with a combination of single-family dwellings, big houses, duplexes, and townhouses. The defined character across this design concept may vary by neighborhood, but new development should transition from existing development patterns in adjacent neighborhoods." It is the intention of the applicant to develop single-family residential homes using the land at the 4038 Clovercroft Road property as well as a portion of the land at the 4040 Clovercroft Property. It is the intention for the remainder of the 4040 Clovercroft Property to remain a church. 4040 Clovercroft

Road was granted sewer availability for 13 single family unit equivalents (SFUE) in 2020, contingent on a signed and recorded annexation agreement.

A draft Plan of Services is included as an attachment. The Plan of Services outlines how the City will serve the properties requesting annexation and any additional infrastructure that would be required for new development. The City's Annexation Study did not assign a priority to these properties when it was being conducted, but it is within the Watson Branch Drainage Basin, which consists of properties predominantly within the City limits. The properties lie within the Milcrofton Utility District and sanitary sewer will need to be extended across Clovercroft. These properties include future roadways listed on the Major Thoroughfare Plan, and annexing these properties would continue to complete an area of UGB that is surrounded by existing City limits.

FINANCIAL IMPACT:

Unknown.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Resolution 2023-71.

RESOLUTION 2023-71

CONSIDERATION OF INITIATING THE ANNEXATION PROCESS AND DRAFT PLAN OF SERVICES, FOR THE ANNEXATION OF 32.36 ACRES, LOCATED NORTH OF CLOVERCROFT ROAD AND SOUTH OF LIBERTY PIKE, AT 4038 AND 4040 CLOVERCROFT ROAD.

WHEREAS, Franklin Christian Church, (“Owner”) of 4038 Clovercroft Road (“Property”) and Thales Academy (“Owner”) of 4040 Clovercroft Road (“Property”) petitioned the Board of Mayor and Aldermen (“BOMA”) of the City of Franklin, Tennessee (“City”), to annex the Properties near the City limits and located within the Franklin Urban Growth Boundary (“UGB”); and

WHEREAS, it is believed it is in the best interest of the City to further investigate the area petitioned to be annexed in order to consider the area for future development in accordance with City standards;

WHEREAS, this resolution shall not bind the City to later annex the Property; and

WHEREAS, Tennessee Code Annotated (T.C.A.) § 6-51-102, as amended, requires that a Plan of Services be adopted by a municipal governing body prior to the passage of an annexation resolution.

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

SECTION I. That the Property to be further considered by the Franklin Municipal Planning Commission and the Board of Mayor and Alderman is located North of Clovercroft Road and South of Liberty Pike, as described herein and as depicted on the Map attached hereto as Exhibit A:

Map-Parcel	Acres
79-05500	7.06
79-05505	25.3
Total	32.36

SECTION II: That the attached Draft Plan of Services hereto as Exhibit B shall provide guidance to the Board of Mayor and Alderman on how the Property would be served by City resources but is not binding on final annexation.

SECTION III: That the Draft Plan of Services shall be studied by City staff and amended as needed during the study before final presentation to the Franklin Municipal Planning Commission and BOMA.

SECTION IV. BE IT RESOLVED by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Resolution shall take effect from and after its passage.

IT IS SO RESOLVED AND DONE on this ____ day of _____, 2023.

ATTEST:

CITY OF FRANKLIN, TENNESSEE:

By: _____
Eric Stuckey
City Administrator

By: _____
Dr. Ken Moore
Mayor

Approved as to form by:

Shauna R. Billingsley
City Attorney

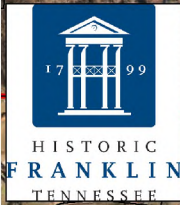
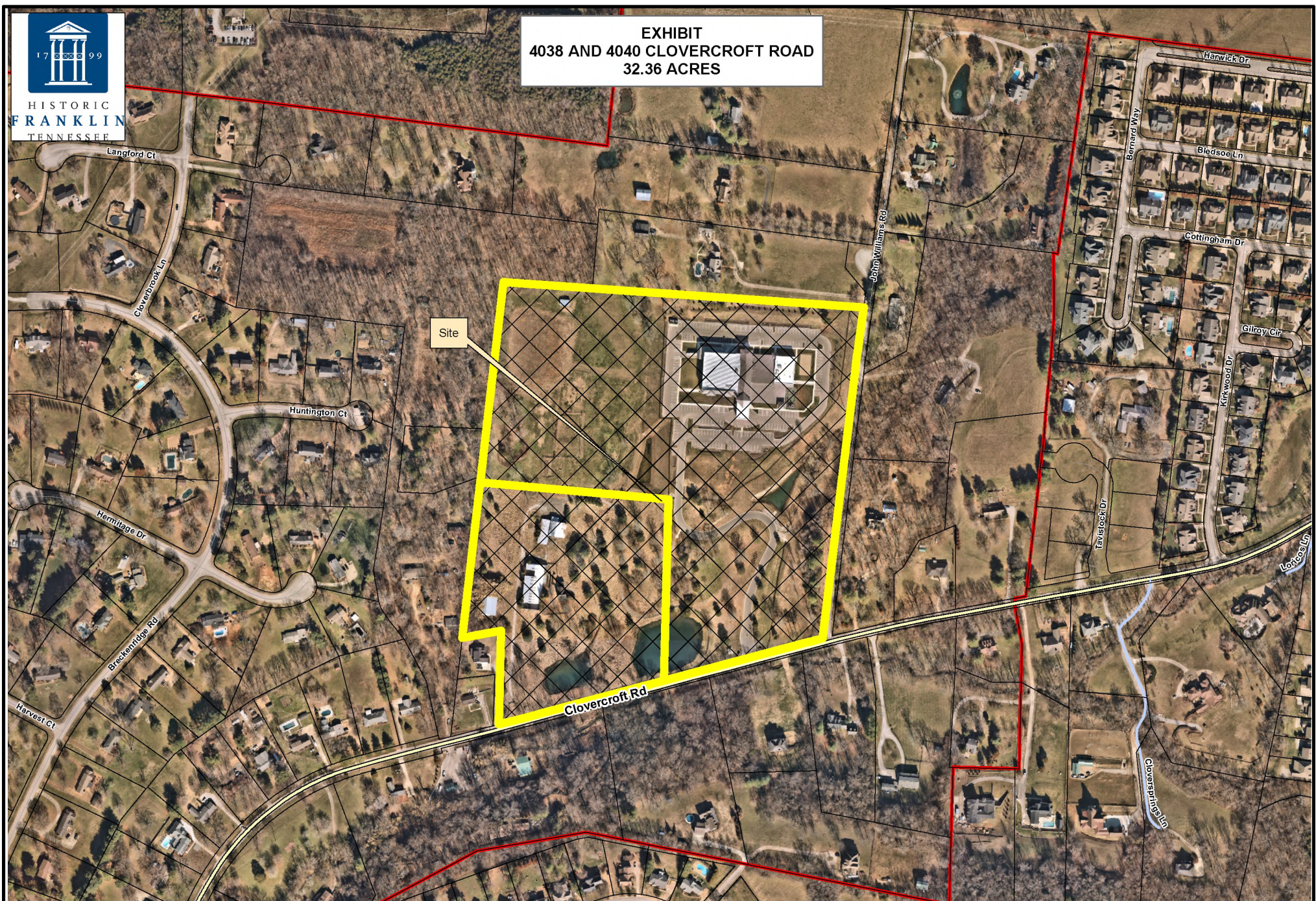
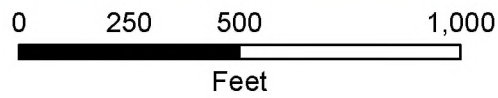


EXHIBIT
4038 AND 4040 CLOVERCROFT ROAD
32.36 ACRES



Legend

 Subject Properties  Limits



This map was created by the Franklin Planning Department.
It was compiled from the most authentic information available.
The City is not responsible for any errors or omissions contained hereon.
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DRAFT Plan of Services Exhibit B

The Property is located North of Clovercroft Road and South of Liberty Pike, noncontiguous to the City limits, within the Urban Growth Boundary, and as described herein and as depicted on the Map attached hereto as Exhibit A:

Map-Parcel	Acres
79-05500	7.06
79-05505	25.3
Total	32.36

A. Water

1. The Property is located within the Milcrofton service area.
2. Water availability shall be approved and provided through the Milcrofton Utility District prior to annexation.
3. The Owner shall be required to provide adequate fire flow and pressure to the Property.

ISSUES TO CONSIDER:

- N/A

B. Reclaimed Water

1. According to the City of Franklin's Municipal Code, reclaimed water systems shall be extended to a development if the development is located within 1,000 feet of an existing reclaimed water line.
2. In the case of this Property, an extension of approximately 2 miles would be required to serve the Property. For this reason, reclaimed water will not be required to be extended to the Property.

ISSUES TO CONSIDER:

- N/A

C. Wastewater

1. The Property lies within the Watson Branch Basin as defined in the City of Franklin Sanitary Sewer Basin Study.
2. The proposed development of the Property is anticipated to construct single family lots and additions to an existing church.
3. The Owner shall be required to extend the sanitary sewer main from across Clovercroft into the property to provide service to the Property.
4. The Owner shall be required to submit engineering calculations to determine final sizing requirements.
5. The Owner shall be required to provide Engineering design, construction, easements, rights-of-way and the costs associated with the on-site sanitary sewer infrastructure required to serve the development of this Property.
6. The Owner shall be responsible for the payment of fees per the policies and procedures outlined in Franklin Municipal Code.

ISSUES TO CONSIDER:

- 4040 Clovercroft Road was granted availability for 13 single family unit equivalents (SFUE) in 2020, contingent on a signed and recorded annexation agreement. Any additional sewer demand for the 4040 Clovercroft Road property would require an additional availability request.

DRAFT Plan of Services
Exhibit B

D. Stormwater

1. The Owner shall be responsible for the engineering, design and construction of the necessary stormwater infrastructure for the development of the Property and shall comply with the requirements as outlined in the Franklin Municipal Code.
2. As the Property develops, the City will charge prevailing stormwater user fees per policies and procedures as outlined in the Franklin Municipal Code.

ISSUES TO CONSIDER:

- N/A

E. Streets

1. Emergency maintenance of streets will begin on the effective date of annexation.
2. Reconstruction and resurfacing of streets, routine maintenance, and installation of storm drainage will be accomplished under existing City policies.
3. Access to the Property shall be provided from Clovercroft Road.
4. Unless waived by the Franklin Engineering Department, the Owner of the Property shall be required to submit a traffic impact study prior to submitting a development plan for review and approval. The exact scope associated with this traffic impact study shall be determined prior to submittal of the development plan. Required street improvements shall be determined as part of the plan. The roadways constructed as part of this development shall comply with City Street Standards.

ISSUES TO CONSIDER:

- This property includes future roadways listed on the Major Thoroughfare Plan. It includes Clovercroft Road.

F. Traffic Control

1. Traffic signals, traffic signs, street markings, and other traffic control devices shall be installed as the need is established by appropriate study and traffic standards. No needs have been identified for the area at this time.
2. New development after the effective date of annexation shall comply with City regulations governing traffic control devices and markings.

ISSUES TO CONSIDER:

- N/A

G. Street Lighting

1. No off-site street lighting is proposed at this time.
2. Street lighting within new developments shall be funded and installed by the Owner per City policy, which includes the installation of electric meters to allow for future ownership and maintenance by the City or homeowners association. The installation and operation of street lights shall coincide with the phasing of development and issuance of Certificates of Occupancy.

ISSUES TO CONSIDER:

- N/A

H. Street Name Signs

1. No additional street name signs in the area have been deemed necessary.

DRAFT Plan of Services
Exhibit B

2. New development shall install street name signs per City policy.

ISSUES TO CONSIDER:

- N/A

I. Fire Protection

1. Fire protection by the present personnel and equipment of the Franklin Fire Department will be provided on and after the effective date of annexation.
2. No additional manpower or equipment will be necessary to serve the annexation area at this time.

ISSUES TO CONSIDER:

- N/A

J. Planning and Zoning

1. The planning and zoning jurisdiction of the City will extend to the annexed area on and after the effective date of annexation.
2. The proposed development is set to follow the Mixed Residential design concept. The Mixed Residential design concept contains residential neighborhoods with a combination of single-family dwellings, big houses, duplexes, and townhouses. The defined character across this design concept may vary by neighborhood, but new development should transition from existing development patterns in adjacent neighborhoods.
3. Upon annexation, the Property will be zoned by the Board of Mayor and Aldermen to a Zoning District and any applicable Overlay Zoning District(s), pursuant to the requirements of the Franklin Zoning Ordinance. If the Owner has requested the Planned District, they shall be required to submit a Development Plan, pursuant to the Franklin Zoning Ordinance.

ISSUES TO CONSIDER:

- *This property was not included in the growth area study from 2016 as it is within the Watson Branch Drainage Basin. The Watson Branch Drainage Basin is almost entirely composed of existing City properties, and this is one of the few remaining to be annexed.*
- *The property is located within the Urban Growth Boundary.*
- *Should the property be annexed, it would continue some odd city boundaries that would leave this property surrounded by a fragment of county land which is in turn surrounded by City limits.*

K. Parks and Recreation

1. The benefit and use of the recreational facilities and programs provided by the Parks Department will be available on and after the effective date of the annexation. Recreational facilities and programs will be provided with existing personnel, facilities and resources.
2. New development in the annexed area shall comply with the City of Franklin Parkland Impact Fees and Parkland Dedication Ordinance 2016-25. The Ordinance can be found at https://library.municode.com/tn/franklin/codes/code_of_ordinances
3. The Parks Master Plan is due to be updated to include amendments that have been added over the past few years. As the plan is updated, the Parks Department will look at the outer boundaries of the UGB for potential areas to build new City parks. Neighborhood parks and trails will be a part of future planning, as well.

ISSUES TO CONSIDER:

- N/A

DRAFT Plan of Services
Exhibit B

L. Police Protection

1. Police patrol and response to calls by the Franklin Police Department will be provided on and after the effective date of annexation.
2. Police services will be provided with existing personnel and equipment.

ISSUES TO CONSIDER:

- N/A

M. Building and Code Inspection Services

1. Building and code inspection services will begin in the annexed area on and after the effective date of the annexation.
2. New development in the annexed area shall comply with adopted City Building Codes, pay the applicable fees, and obtain the required permits for inspection services.

ISSUES TO CONSIDER:

- N/A

N. Garbage and Recycling Pickup and Environmental

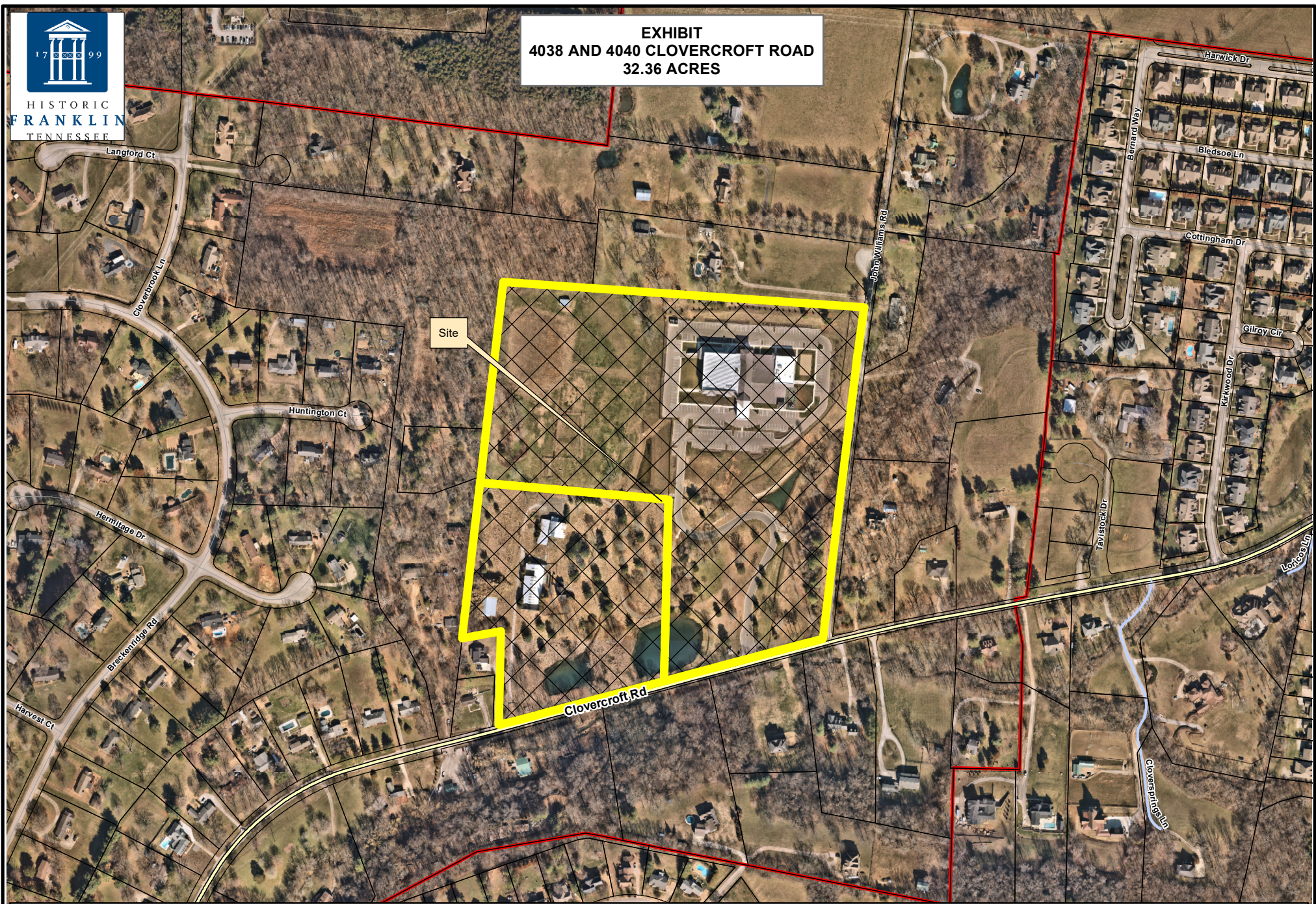
1. The Sanitation and Environmental Services Department will begin providing services in the annexed area on and after the effective date of the annexation in accordance with adopted City requirements.
2. No additional manpower or equipment will be necessary to serve the annexation area at this time.

ISSUES TO CONSIDER:

- Service will be provided once the owner has established an account with the City, if applicable.



EXHIBIT
4038 AND 4040 CLOVERCROFT ROAD
32.36 ACRES



Legend

 Subject Properties  Limits

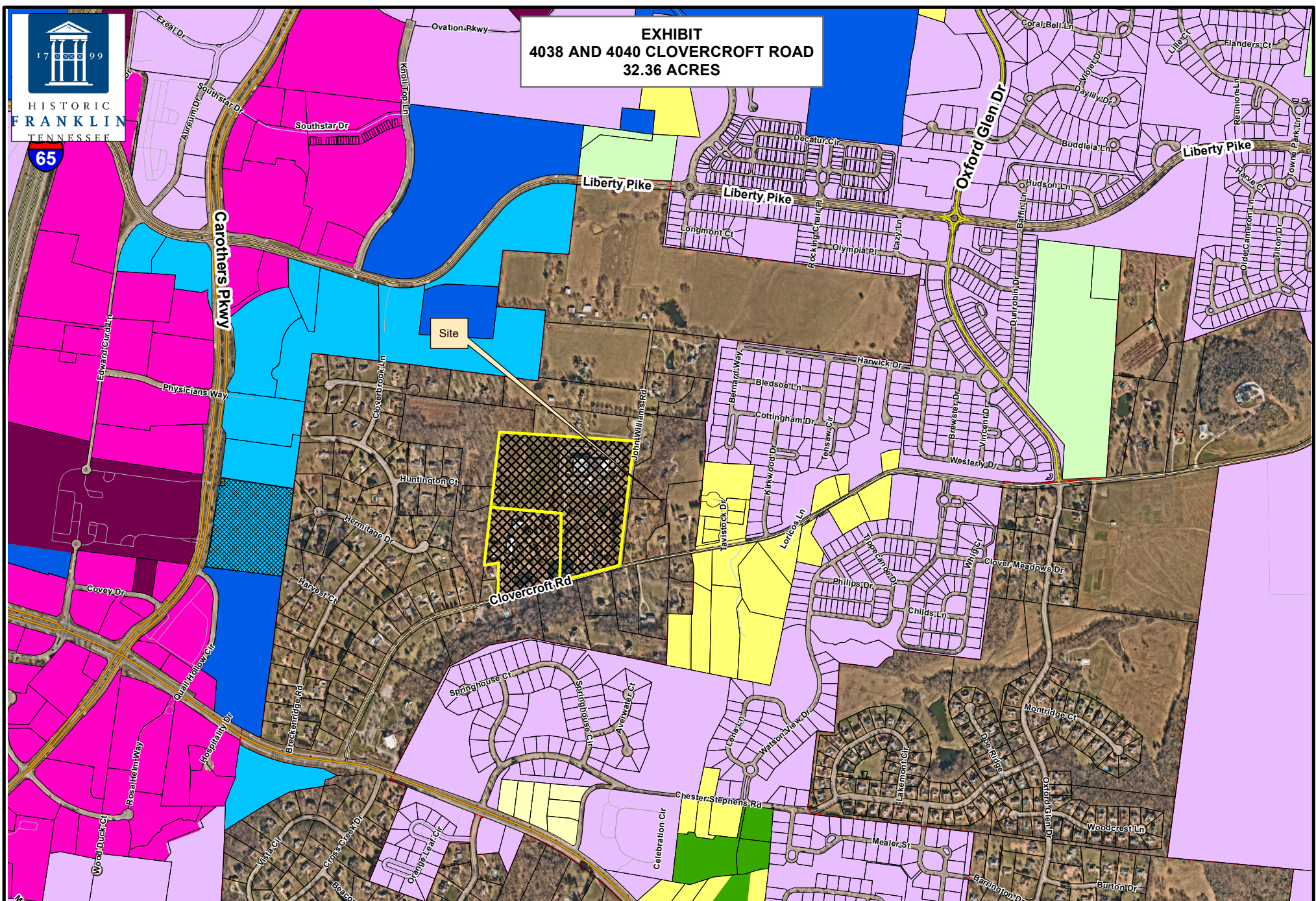


0 250 500 1,000
Feet

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EXHIBIT
4038 AND 4040 CLOVERCROFT ROAD
32.36 ACRES



Legend

 Subject Properties

 Limits

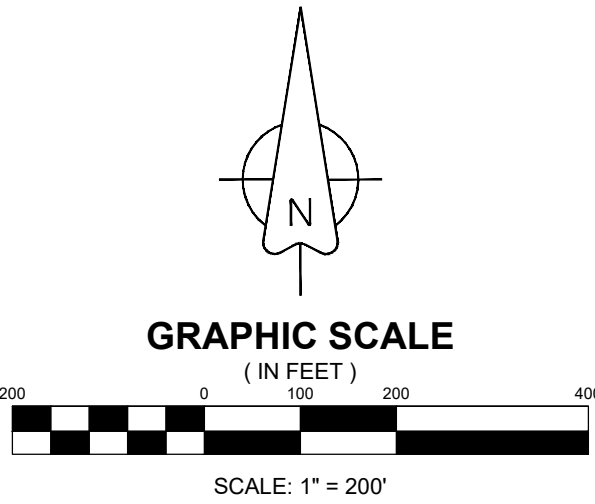
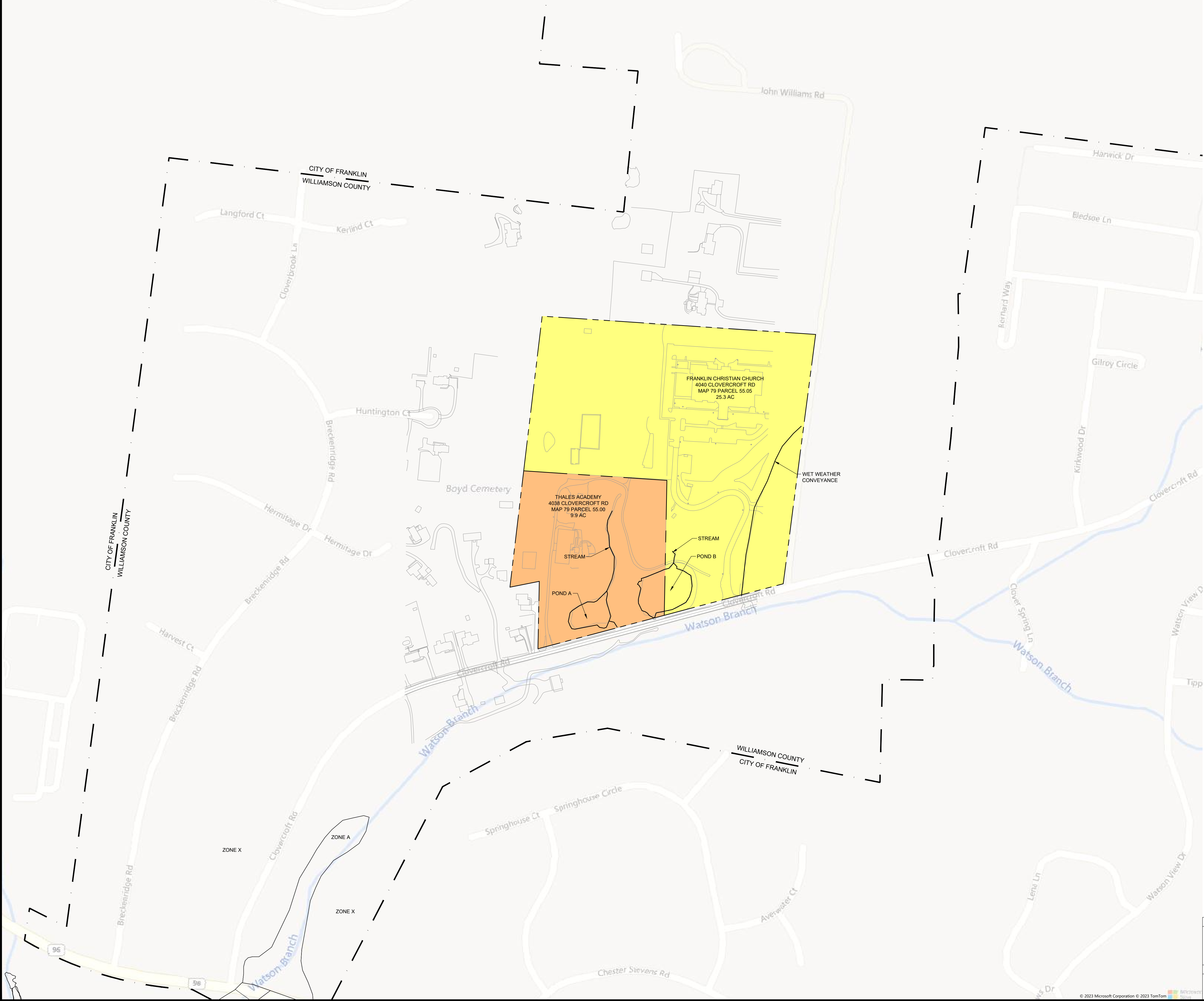


0 250 500 1,000



Feet

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- NOTES:
1. PROPERTIES ARE NOT IMMEDIATELY ADJACENT TO CITY LIMITS.
 2. PROPERTIES ARE LOCATED WITHIN THE URBAN GROWTH BOUNDARY. CLOSEST URBAN GROWTH BOUNDARY LIMIT IS 9,200+ FEET TO THE NORTH.
 3. PROPERTIES ARE LOCATED OUTSIDE OF THE HILLSIDE/HILLCREST OVERLAY DISTRICT. CLOSEST OVERLAY IS 9,000+ FEET TO THE NORTH.
 4. THERE ARE NO NATIONAL REGISTER PROPERTIES WITHIN 500 FEET OF THE PROPERTIES.

FLOOD NOTE THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS "ZONE X" AS EVIDENCED ON MAP NUMBER 4716702229F, DATED SEPTEMBER 29, 2006.	
OWNERS OF RECORD	
THALES ACADEMY 4841 PARAGON PARK RD RALEIGH, NC 27616 MAP 79, PARCEL 55.00 DEED BOOK 8700, PAGE 171	FRANKLIN CHRISTIAN CHURCH PO BOX 660815 FRANKLIN, TN 37068 MAP 79, PARCEL 55.05 DEED BOOK 6667, PAGE 902
APPLICANT ROBSON PROPERTY GROUP LLC 1600 DIVISION ST. SUITE 700 NASHVILLE, TN 408.316.3137	



REVISIONS	
NO.	DATE

ANNEXATION INITIATION
EXISTING CONDITIONS
MAP 79, PARCELS 55.00 & 55.05
FRANKLIN, TENNESSEE

PROJECT
23-0359

SHEET
EX-1

4038 & 4040 CLOVERCROFT ROAD



File #: 21-05342

DATE: October 5, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Emily Wright, Director of Planning and Sustainability
Amy Diaz-Barriga, Asst Director of Planning Development
Joseph Bryan, Principal Planner

SUBJECT:

Consideration Of Resolution 2023-72, A Resolution Initiating The Annexation Process And Draft Plan Of Services, For The Annexation Of 35.95 Acres, Located South Of South Berrys Chapel Road And East Of Echo Lane, Located At 2247 South Berrys Chapel Road. Establishing A Public Hearing For December 12, 2023

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning Resolution 2023-72, A Resolution Initiating The Annexation Process And Draft Plan Of Services, For The Annexation Of 35.95 Acres, Located South Of South Berrys Chapel Road And East Of Echo Lane, Located At 2247 South Berrys Chapel Road. Establishing A Public Hearing For December 12, 2023.

PROJECT INFORMATION

Applicant: Troy Gardner, Ragan Smith Associates
Owner: David Blackburn, DRB Preservation Trust

BACKGROUND/STAFF COMMENTS:

The property being considered is located south of South Berrys Chapel Road and east of Echo Lane and measures 35.95 acres in size. It is contiguous to the City limits and is within the City's Urban Growth Boundary (UGB). The parcel is within the Large -Lot Residential Design Concept as defined by Envision Franklin. Envision Franklin states that development in the Large-Lot Residential Design Concept, "reflects the established character of existing neighborhoods and often provides a transition between City and County subdivisions. New development should have a minimum lot size of one acre or more to fit contextually with surrounding neighborhoods. Neighborhoods should be designed around natural features to highlight forested areas, hillsides and hilltops, streams, and tree rows."

A draft Plan of Services is included as an attachment. The Plan of Services outlines how the City will serve the properties requesting annexation and any additional infrastructure that would be required for new development. The property lies within the Spencer Creek Basin as defined in the City of

Franklin Sanitary Sewer Basin Study, identified as a long-term annexation capability area due to the limited developable area remaining, the topography, and the large-lot development pattern that is expected to remain. The Draft Plan of Services details no major concerns in providing infrastructure and services to the property. However, connectivity to the parcels to the southeast of the annexation request is vitally important to the future development of property in the City of Franklin's Urban Growth Boundary.

FINANCIAL IMPACT:

Unknown.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve Resolution 2023-72.

RESOLUTION 2023-72

CONSIDERATION OF INITIATING THE ANNEXATION PROCESS AND DRAFT PLAN OF SERVICES, FOR THE ANNEXATION OF 35.95 ACRES, LOCATED SOUTH OF SOUTH BERRYS CHAPEL ROAD AND EAST OF ECHO LANE, LOCATED AT 2247 SOUTH BERRYS CHAPEL ROAD.

WHEREAS, David Blackburn, DRB Preservation Trust, (“Owner”) of property located South of South Berrys Chapel Road and East of Echo Lane at 2247 South Berrys Chapel Road (“Property”) petitioned the Board of Mayor and Aldermen (BOMA) of the City of Franklin, Tennessee (“City”), to annex the Property adjoining the City limits and located within the Franklin Urban Growth Boundary (“UGB”); and

WHEREAS, it is believed it is in the best interest of the City to further investigate the area petitioned to be annexed in order to consider the area for future development in accordance with City standards;

WHEREAS, this resolution shall not bind the City to later annex the Property; and

WHEREAS, *Tennessee Code Annotated* (T.C.A.) § 6-51-102, as amended, requires that a Plan of Services be adopted by a municipal governing body prior to the passage of an annexation resolution.

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

SECTION I. That the Property to be further considered by the Franklin Municipal Planning Commission and the Board of Mayor and Alderman is located South of South Berrys Chapel Road and East of Echo Lane, as described herein and as depicted on the Map attached hereto as Exhibit A:

Map-Parcel	Acres
52—81.00	30.29
52—84.11	5.66
Total	35.95

SECTION II: That the attached Draft Plan of Services hereto as Exhibit B shall provide guidance to the Board of Mayor and Alderman on how the Property would be served by City resources but is not binding on final annexation.

SECTION III: That the Draft Plan of Services shall be studied by City staff and amended as needed during the study before final presentation to the Franklin Municipal Planning Commission and BOMA.

SECTION IV. **BE IT RESOLVED** by the Board of Mayor and Aldermen of the City of Franklin, Tennessee, that this Resolution shall take effect from and after its passage.

IT IS SO RESOLVED AND DONE on this ____ day of _____, 2023.

ATTEST:

CITY OF FRANKLIN, TENNESSEE:

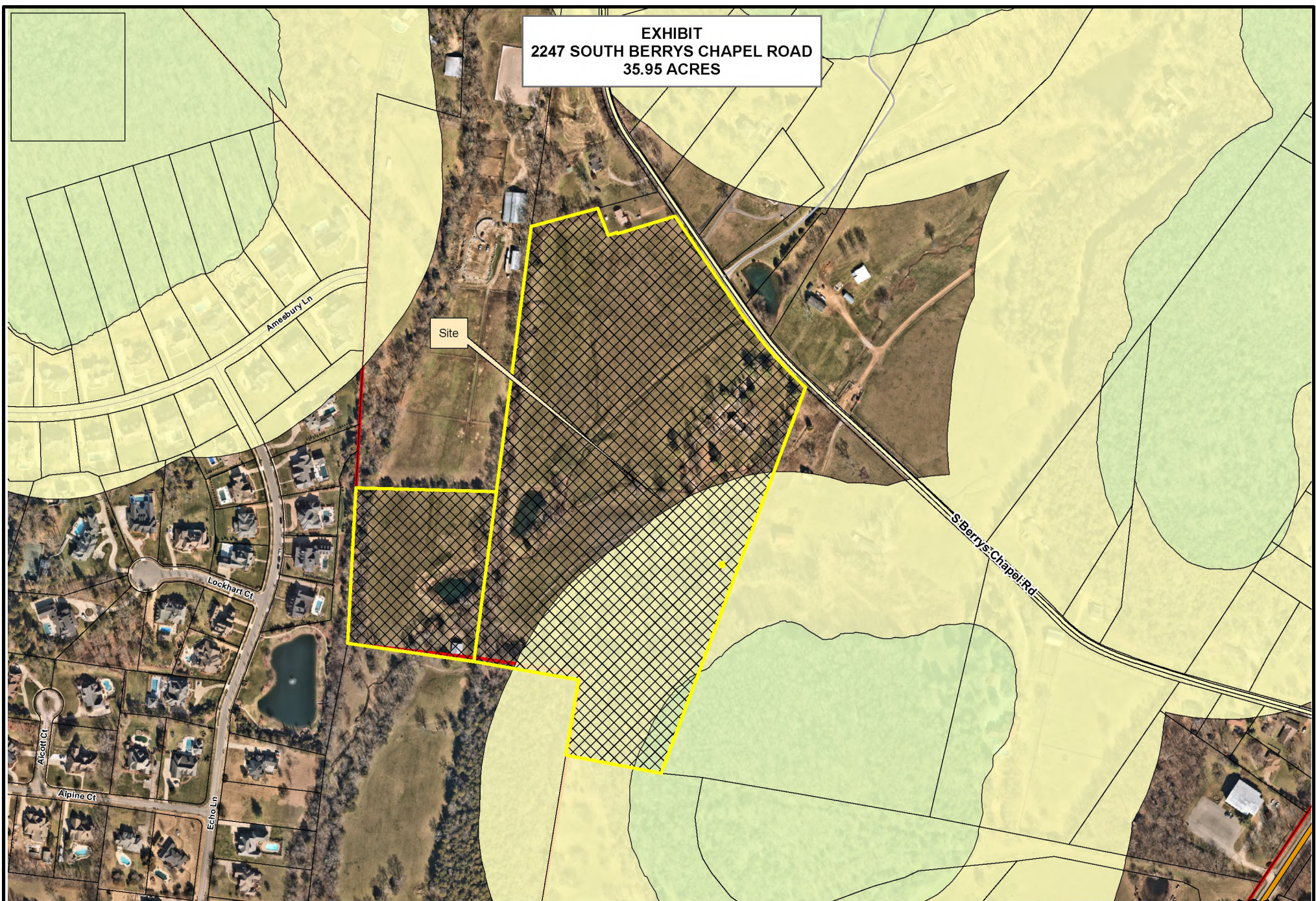
By: _____
Eric Stuckey
City Administrator

By: _____
Dr. Ken Moore
Mayor

Approved as to form by:

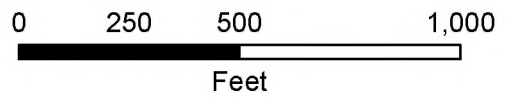
Shauna R. Billingsley
City Attorney

EXHIBIT
2247 SOUTH BERRYS CHAPEL ROAD
35.95 ACRES



Legend

-  2247 S Berrys Chapel Rd
-  Limits



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ANNEXATION PLAN

FOR

THE PRESERVE AT SHERIDAN

DRB PRESERVATION TRUST

CONTACTS

OWNER/DEVELOPER

DAVID BLACKBURN
DRB PRESERVATION TRUST
381 MALLORY LANE, SUITE 207
FRANKLIN, TN, 37067
(615) 202-5040
david@blackburntn.com

LANDSCAPE ARCHITECTURE

TROY GARDNER, PLA
RAGANSMITH
315 WOODLAND STREET
NASHVILLE, TN 37206
(615) 244-8591
tgardner@ragansmith.com

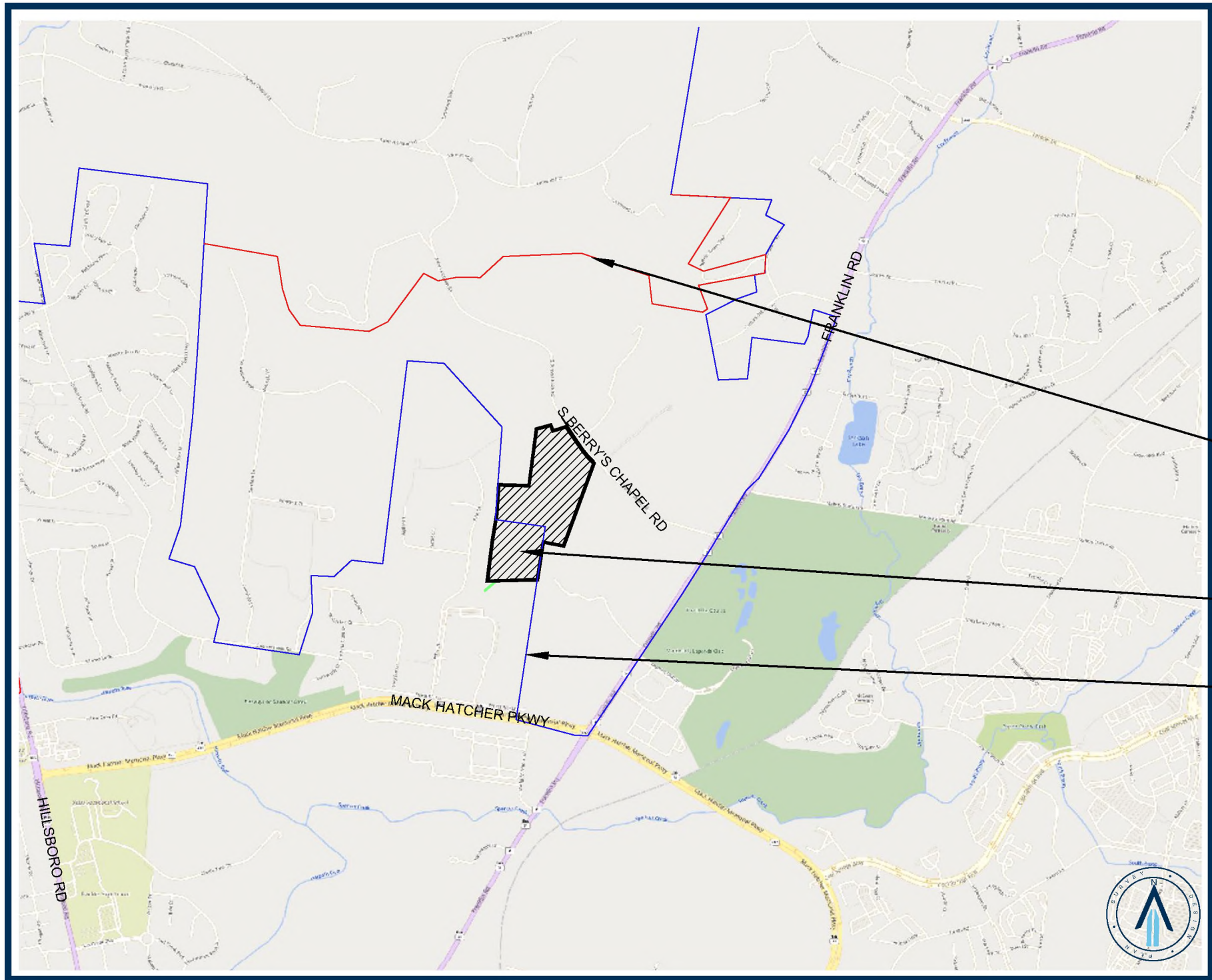
INDEX OF SHEETS

SHEET DESCRIPTION

CVR COVER SHEET

CIVIL PLANS

C1.0 ANNEXATION PLAN



LOCATION MAP
SCALE: 1"=1000'

2247 S Berry's Chapel Road
Franklin, TN 37069

Map 52 | Parcels 81, 84.09, & 84.11

CITY OF FRANKLIN,
WILLIAMSON COUNTY,
TENNESSEE



RaganSmith

Nashville - Murfreesboro - Chattanooga
ragansmith.com



THE PRESERVE AT SHERIDAN

FOR
DRB PRESERVATION TRUST

CITY OF FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

Scale: 1"=1000'

Date: 09/22/2023

Approved By: TPG

Revisions:

-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Drawing Title:

COVER

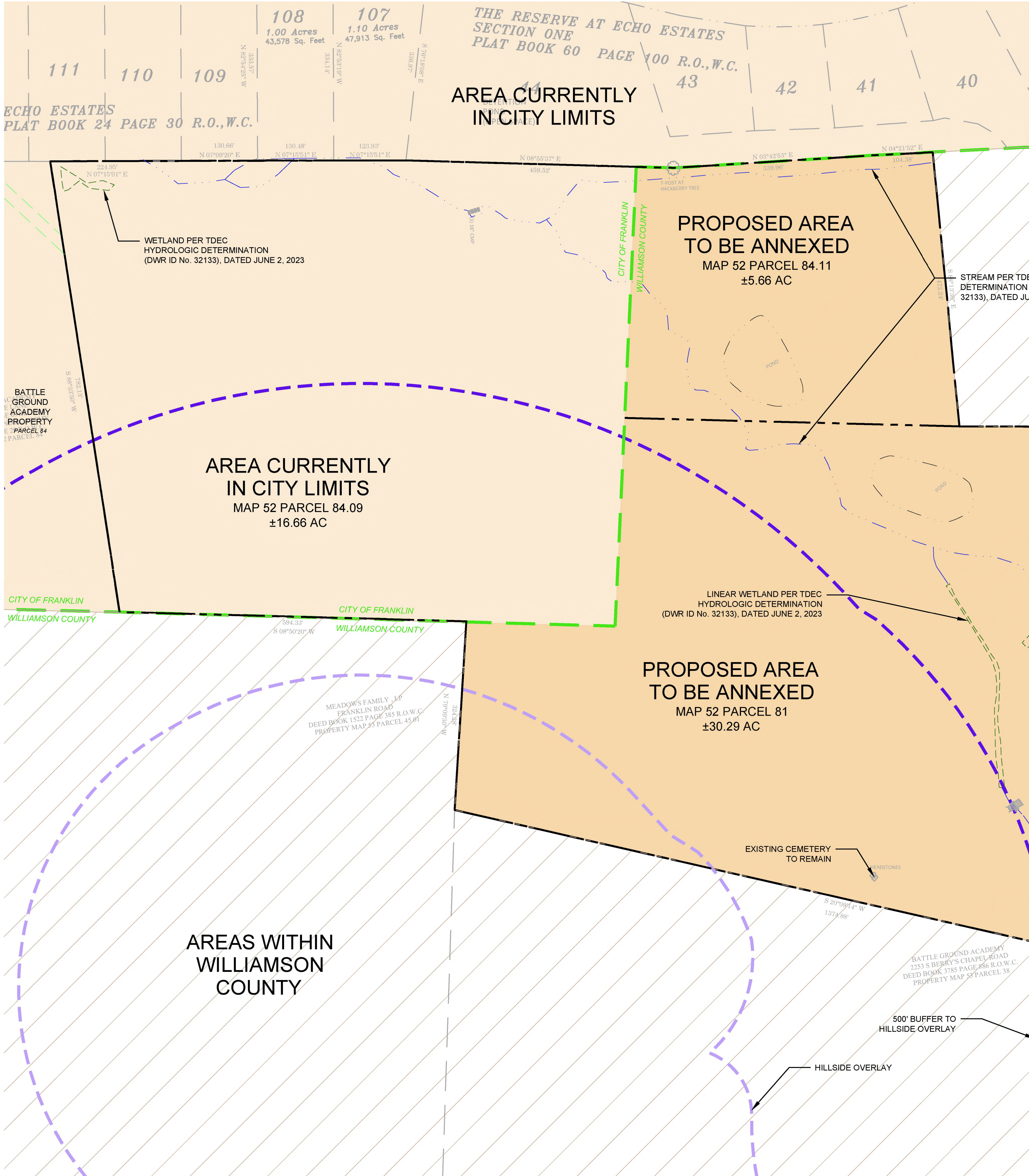
Drawing No.

CVR

Project No.
22-0131



02/23/2023 10:00 AM: RAGANSMITH.COM\PROJECTS\ANNEXATION\ANNEXATION PLAN.DWG
PLOTTER: PLOTTER NAME ON 02/23/2023 10:00 AM LAST UPDATED BY: PLOTTER ON 02/23/2023 10:00 AM



SITE DATA	
SITE INFORMATION	
Project Name:	The Preserve at Sheridan
Project #:	TBD
Subdivision:	TBD
Lot:	N/A
Civil District:	Eighth
Address:	2247 S Berry's Chapel Road, Franklin, TN 37096
Map / Parcel:	052 / 81, 84.09, 84.11
Total Acreage / S.F. of Site:	52.61 Ac. / 2,291,691 ± S.F.
• Parcel 81	30.29 ac.
• Parcel 84.09	5.66 ac.
• Parcel 84.11	16.66 ac.
Total Acreage / City:	16.66 Ac. / 725,709 ± S.F.
Total Acreage / County:	35.95 Ac. / 1,565,982 ± S.F.
ZONING INFORMATION	
Existing Zoning:	R-1, MGA-1 (County)
Proposed Zoning:	PD
Overlay Zoning:	HHO, 500-HHO
Design Concept:	Large Lot Residential
Function Street Classification:	Low Volume Local Street

SURVEY INFORMATION	
Boundary survey information taken from a survey prepared by Chapdelaine & Associates dated October 18, 2021.	
FLOOD INFORMATION	
By Scaled Map location and graphic plotting only, this property does not lie within any flood zones, as designated on current Federal Emergency Management Agency Map No. 47187C0203G, with a revised date of December 22, 2016, which makes up a part of the National Flood Insurance Administration Report, Community No. 470206, Panel No. 0203, Suffix G, which is the current flood insurance rate map for the community in which said premises is situated.	
MINERAL RIGHTS INFORMATION	
At the present time, property title reference does not reflect any mineral rights on the subject property.	
COMPLIANCE WITH ENVISION FRANKLIN	
Envision Franklin - Figure 4.1 (Design Concepts Map), identifies the design concept for this site as Large Lot Residential. This design concept reflects the established character of existing neighborhoods and often provides a transition between City and County subdivisions.	
In keeping with the Large Lot Residential Design Concept this neighborhood proposes a typical minimum lot size of one acre, with lots located in the 500' Hillside Overlay Buffer having a minimum lot size of two acres. These lot sizes fit contextually with surrounding neighborhoods.	
The natural features on this site include: streams, wetlands, farm ponds, wooded areas and tree rows. The proposed layout is sensitive to these features and proposes their preservation to the extent possible. Zone 1 & Zone 2 buffers are shown along all streams and wetlands with crossings only proposed to allow practical development of the site. Existing trees within the buffers and tree rows along the perimeter of the site are proposed to remain largely unaffected. Lots within the wooded areas will have modest clearing to allow for the development of the home sites, however the intent is to preserve the natural wooded feel to the extent possible.	

LEGEND	
	PROPERTY BOUNDARY
	CITY / COUNTY BOUNDARY
	HILLSIDE OVERLAY
	500' BUFFER TO THE HILLSIDE OVERLAY
	STREAM
	WETLAND
	AREAS CURRENTLY IN WILLIAMSON COUNTY
	AREAS PROPOSED TO BE ANNEXED INTO THE CITY OF FRANKLIN
	AREAS CURRENTLY IN CITY OF FRANKLIN

Scale: 1"=100'

Date: 09/22/2023

Approved By: TPG

Revisions:

-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Drawing Title: ANNEXATION PLAN

Drawing No. C1.0

Project No. 22-0131

Nashville - Murfreesboro - Chattanooga
ragansmith.com

9/22/23

THE PRESERVE AT SHERIDAN

FOR

DRB PRESERVATION TRUST

CITY OF FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

DRAFT Plan of Services Exhibit B

The Property is located South of South Berrys Chapel Road and East of Echo Lane, contiguous to the City limits, within the Urban Growth Boundary, and as described herein and as depicted on the Map attached hereto as Exhibit A:

Map-Parcel	Acres
52—81.00	30.29
52—84.11	5.66
Total	35.95

A. Water

1. The Property is located within the Mallory Valley Utility District service area.
2. Water availability shall be approved and provided through the Mallory Valley Utility District prior to annexation.
3. The Owner shall be required to provide adequate fire flow and pressure to the Property.

ISSUES TO CONSIDER:

- N/A

B. Reclaimed Water

1. According to the City of Franklin's Municipal Code, reclaimed water systems shall be extended to a development if the development is located within 1,000 feet of an existing reclaimed water line.
2. In the case of this Property, a 2,000 foot extension would be required to serve the Property. For this reason, reclaimed water will not be required to be extended to the Property.

ISSUES TO CONSIDER:

- N/A

C. Wastewater

1. The Property lies within the Spencer Creek Basin as defined in the City of Franklin Sanitary Sewer Basin Study.
2. The Owner shall be required to extend the sanitary sewer infrastructure approximately 3,300 feet to provide service to the Property.
3. The Owner shall be required to submit engineering calculations to determine final sizing requirements.
4. The Owner shall be required to provide Engineering design, construction, easements, rights-of-way and the costs associated with the on-site sanitary sewer infrastructure required to serve the development of this Property.
5. The Owner shall be responsible for the payment of fees per the policies and procedures outlined in Franklin Municipal Code.

ISSUES TO CONSIDER:

- *The Water Management Department is working through the routing of sanitary sewer to serve the property. The footage specified above is likely more conservative than what will actually be required.*

DRAFT Plan of Services
Exhibit B

D. Stormwater

1. The Owner shall be responsible for the engineering, design and construction of the necessary stormwater infrastructure for the development of the Property and shall comply with the requirements as outlined in the Franklin Municipal Code.
2. As the Property develops, the City will charge prevailing stormwater user fees per policies and procedures as outlined in the Franklin Municipal Code.

ISSUES TO CONSIDER:

- N/A

E. Streets

1. Emergency maintenance of streets will begin on the effective date of annexation.
2. Reconstruction and resurfacing of streets, routine maintenance, and installation of storm drainage will be accomplished under existing City policies.
3. Access to the Property shall be provided from South Berrys Chapel Road.
4. Unless waived by the Franklin Engineering Department, the Owner of the Property shall be required to submit a traffic impact study prior to submitting a development plan for review and approval. The exact scope associated with this traffic impact study shall be determined prior to submittal of the development plan. Required street improvements shall be determined as part of the plan. The roadways constructed as part of this development shall comply with City Street Standards.

ISSUES TO CONSIDER:

- *This property includes future roadways listed on the Major Thoroughfare Plan. It includes South Berry's Chapel Road.*
- *General connectivity shall be addressed with the submittal of a development application for the property, however, connectivity to the parcel to the southeast of the annexation request is vitally important to the future development of property in the City of Franklin's Urban Growth Boundary*

F. Traffic Control

1. Traffic signals, traffic signs, street markings, and other traffic control devices shall be installed as the need is established by appropriate study and traffic standards. No needs have been identified for the area at this time.
2. New development after the effective date of annexation shall comply with City regulations governing traffic control devices and markings.

ISSUES TO CONSIDER:

- N/A

G. Street Lighting

1. No off-site street lighting is proposed at this time.
2. Street lighting within new developments shall be funded and installed by the Owner per City policy, which includes the installation of electric meters to allow for future ownership and maintenance by the City or homeowners association. The installation and operation of street lights shall coincide with the phasing of development and issuance of Certificates of Occupancy.

ISSUES TO CONSIDER:

- N/A

DRAFT Plan of Services Exhibit B

H. Street Name Signs

1. No additional street name signs in the area have been deemed necessary.
2. New development shall install street name signs per City policy.

ISSUES TO CONSIDER:

- N/A

I. Fire Protection

1. Fire protection by the present personnel and equipment of the Franklin Fire Department will be provided on and after the effective date of annexation.
2. No additional manpower or equipment will be necessary to serve the annexation area at this time.

ISSUES TO CONSIDER:

- N/A

J. Planning and Zoning

1. The planning and zoning jurisdiction of the City will extend to the annexed area on and after the effective date of annexation.
2. Envision Franklin places this property in the Large-Lot Residential Design Concept, which recommends that new development should have a minimum lot size of one acre or more to fit contextually with surrounding neighborhoods.
3. Upon annexation, the Property will be zoned by the Board of Mayor and Aldermen to a Zoning District and any applicable Overlay Zoning District(s), pursuant to the requirements of the Franklin Zoning Ordinance. If the Owner has requested the Planned District, they shall be required to submit a Development Plan, pursuant to the Franklin Zoning Ordinance.

ISSUES TO CONSIDER:

- *This property was identified as a long-term annexation capability area due to the limited developable area remaining, the topography, and the large-lot development pattern that is expected to remain based on a study done in 2018 and presented to the Board of Mayor and Aldermen*
- *Currently the following Overlay Districts have been identified for this property, and will affect future development: Hillside Hillcrest Overlay District*

K. Parks and Recreation

1. The benefit and use of the recreational facilities and programs provided by the Parks Department will be available on and after the effective date of the annexation. Recreational facilities and programs will be provided with existing personnel, facilities and resources.
2. New development in the annexed area shall comply with the City of Franklin Parkland Impact Fees and Parkland Dedication Ordinance 2016-25. The Ordinance can be found at https://library.municode.com/tn/franklin/codes/code_of_ordinances
3. The Parks Master Plan is due to be updated to include amendments that have been added over the past few years. As the plan is updated, the Parks Department will look at the outer boundaries of the UGB for potential areas to build new City parks. Neighborhood parks and trails will be a part of future planning, as well.

ISSUES TO CONSIDER:

- N/A

L. Police Protection

DRAFT Plan of Services
Exhibit B

1. Police patrol and response to calls by the Franklin Police Department will be provided on and after the effective date of annexation.
2. Police services will be provided with existing personnel and equipment.

ISSUES TO CONSIDER:

- N/A

M. Building and Code Inspection Services

1. Building and code inspection services will begin in the annexed area on and after the effective date of the annexation.
2. New development in the annexed area shall comply with adopted City Building Codes, pay the applicable fees, and obtain the required permits for inspection services.

ISSUES TO CONSIDER:

- N/A

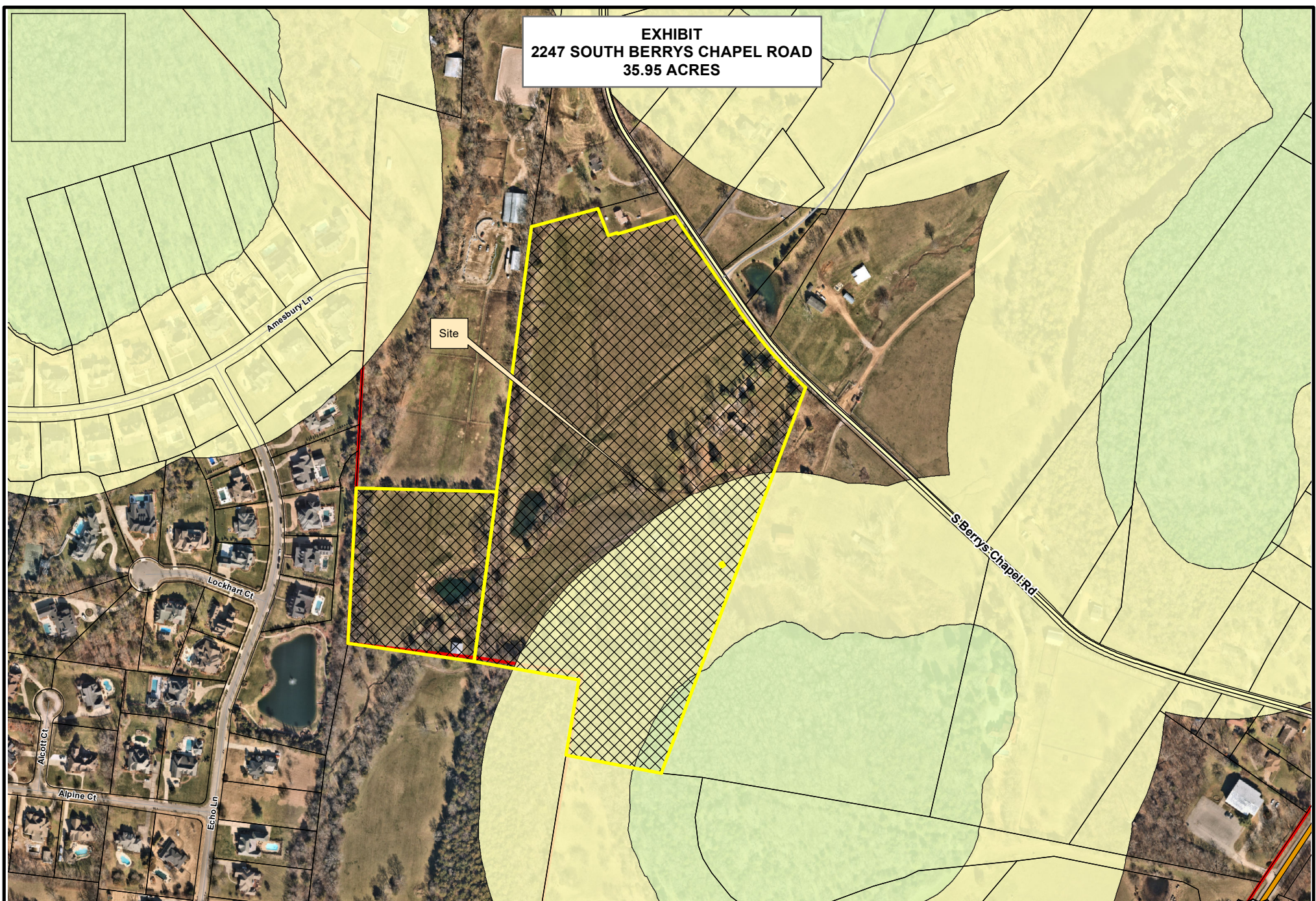
N. Garbage and Recycling Pickup and Environmental

1. The Sanitation and Environmental Services Department will begin providing services in the annexed area on and after the effective date of the annexation in accordance with adopted City requirements.
2. No additional manpower or equipment will be necessary to serve the annexation area at this time.

ISSUES TO CONSIDER:

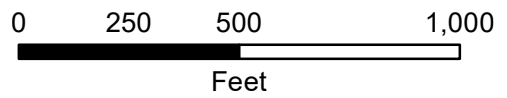
- N/A

EXHIBIT
2247 SOUTH BERRYS CHAPEL ROAD
35.95 ACRES



Legend

-  2247 S Berrys Chapel Rd
-  Limits



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DRAFT Plan of Services
Exhibit B

The Property is located South of South Berrys Chapel Road and East of Echo Lane, contiguous to the City limits, within the Urban Growth Boundary, and as described herein and as depicted on the Map attached hereto as Exhibit A:

Map-Parcel	Acres
52—81.00	30.29
52—84.11	5.66
Total	35.95

A. Water

1. The Property is located within the Mallory Valley Utility District service area.
2. Water availability shall be approved and provided through the Mallory Valley Utility District prior to annexation.
3. The Owner shall be required to provide adequate fire flow and pressure to the Property.

ISSUES TO CONSIDER:

- N/A

B. Reclaimed Water

1. According to the City of Franklin's Municipal Code, reclaimed water systems shall be extended to a development if the development is located within 1,000 feet of an existing reclaimed water line.
2. In the case of this Property, a 2,000 foot extension would be required to serve the Property. For this reason, reclaimed water will not be required to be extended to the Property.

ISSUES TO CONSIDER:

- N/A

C. Wastewater

1. The Property lies within the Spencer Creek Basin as defined in the City of Franklin Sanitary Sewer Basin Study.
2. The Owner shall be required to extend the sanitary sewer infrastructure approximately 3,300 feet to provide service to the Property.
3. The Owner shall be required to submit engineering calculations to determine final sizing requirements.
4. The Owner shall be required to provide Engineering design, construction, easements, rights-of-way and the costs associated with the on-site sanitary sewer infrastructure required to serve the development of this Property.
5. The Owner shall be responsible for the payment of fees per the policies and procedures outlined in Franklin Municipal Code.

ISSUES TO CONSIDER:

- *The Water Management Department is working through the routing of sanitary sewer to serve the property. The footage specified above is likely more conservative than what will actually be required.*

DRAFT Plan of Services
Exhibit B

D. Stormwater

1. The Owner shall be responsible for the engineering, design and construction of the necessary stormwater infrastructure for the development of the Property and shall comply with the requirements as outlined in the Franklin Municipal Code.
2. As the Property develops, the City will charge prevailing stormwater user fees per policies and procedures as outlined in the Franklin Municipal Code.

ISSUES TO CONSIDER:

- N/A

E. Streets

1. Emergency maintenance of streets will begin on the effective date of annexation.
2. Reconstruction and resurfacing of streets, routine maintenance, and installation of storm drainage will be accomplished under existing City policies.
3. Access to the Property shall be provided from South Berrys Chapel Road.
4. Unless waived by the Franklin Engineering Department, the Owner of the Property shall be required to submit a traffic impact study prior to submitting a development plan for review and approval. The exact scope associated with this traffic impact study shall be determined prior to submittal of the development plan. Required street improvements shall be determined as part of the plan. The roadways constructed as part of this development shall comply with City Street Standards.

ISSUES TO CONSIDER:

- *This property includes future roadways listed on the Major Thoroughfare Plan. It includes South Berry's Chapel Road.*
- *General connectivity shall be addressed with the submittal of a development application for the property, however, connectivity to the parcel to the southeast of the annexation request is vitally important to the future development of property in the City of Franklin's Urban Growth Boundary*

F. Traffic Control

1. Traffic signals, traffic signs, street markings, and other traffic control devices shall be installed as the need is established by appropriate study and traffic standards. No needs have been identified for the area at this time.
2. New development after the effective date of annexation shall comply with City regulations governing traffic control devices and markings.

ISSUES TO CONSIDER:

- N/A

G. Street Lighting

1. No off-site street lighting is proposed at this time.
2. Street lighting within new developments shall be funded and installed by the Owner per City policy, which includes the installation of electric meters to allow for future ownership and maintenance by the City or homeowners association. The installation and operation of street lights shall coincide with the phasing of development and issuance of Certificates of Occupancy.

ISSUES TO CONSIDER:

- N/A

DRAFT Plan of Services
Exhibit B

H. Street Name Signs

1. No additional street name signs in the area have been deemed necessary.
2. New development shall install street name signs per City policy.

ISSUES TO CONSIDER:

- N/A

I. Fire Protection

1. Fire protection by the present personnel and equipment of the Franklin Fire Department will be provided on and after the effective date of annexation.
2. No additional manpower or equipment will be necessary to serve the annexation area at this time.

ISSUES TO CONSIDER:

- N/A

J. Planning and Zoning

1. The planning and zoning jurisdiction of the City will extend to the annexed area on and after the effective date of annexation.
2. Envision Franklin places this property in the Large-Lot Residential Design Concept, which recommends that new development should have a minimum lot size of one acre or more to fit contextually with surrounding neighborhoods.
3. Upon annexation, the Property will be zoned by the Board of Mayor and Aldermen to a Zoning District and any applicable Overlay Zoning District(s), pursuant to the requirements of the Franklin Zoning Ordinance. If the Owner has requested the Planned District, they shall be required to submit a Development Plan, pursuant to the Franklin Zoning Ordinance.

ISSUES TO CONSIDER:

- *This property was identified as a long-term annexation capability area due to the limited developable area remaining, the topography, and the large-lot development pattern that is expected to remain based on a study done in 2018 and presented to the Board of Mayor and Aldermen*
- *Currently the following Overlay Districts have been identified for this property, and will affect future development: Hillside Hillcrest Overlay District*

K. Parks and Recreation

1. The benefit and use of the recreational facilities and programs provided by the Parks Department will be available on and after the effective date of the annexation. Recreational facilities and programs will be provided with existing personnel, facilities and resources.
2. New development in the annexed area shall comply with the City of Franklin Parkland Impact Fees and Parkland Dedication Ordinance 2016-25. The Ordinance can be found at https://library.municode.com/tn/franklin/codes/code_of_ordinances
3. The Parks Master Plan is due to be updated to include amendments that have been added over the past few years. As the plan is updated, the Parks Department will look at the outer boundaries of the UGB for potential areas to build new City parks. Neighborhood parks and trails will be a part of future planning, as well.

ISSUES TO CONSIDER:

- N/A

L. Police Protection

DRAFT Plan of Services
Exhibit B

1. Police patrol and response to calls by the Franklin Police Department will be provided on and after the effective date of annexation.
2. Police services will be provided with existing personnel and equipment.

ISSUES TO CONSIDER:

- N/A

M. Building and Code Inspection Services

1. Building and code inspection services will begin in the annexed area on and after the effective date of the annexation.
2. New development in the annexed area shall comply with adopted City Building Codes, pay the applicable fees, and obtain the required permits for inspection services.

ISSUES TO CONSIDER:

- N/A

N. Garbage and Recycling Pickup and Environmental

1. The Sanitation and Environmental Services Department will begin providing services in the annexed area on and after the effective date of the annexation in accordance with adopted City requirements.
2. No additional manpower or equipment will be necessary to serve the annexation area at this time.

ISSUES TO CONSIDER:

- N/A

ANNEXATION PLAN FOR THE PRESERVE AT SHERIDAN DRB PRESERVATION TRUST

CONTACTS

OWNER/DEVELOPER

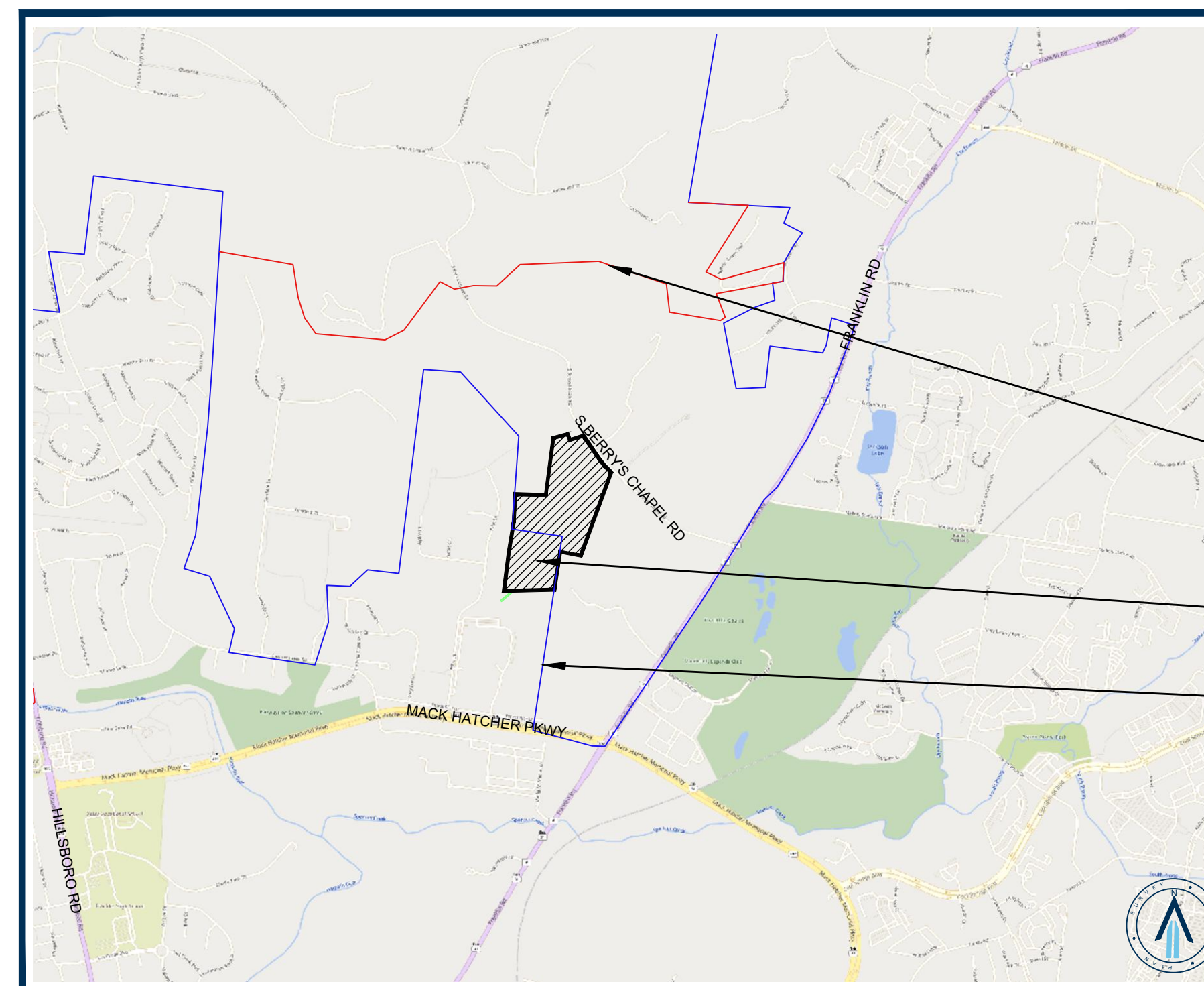
DAVID BLACKBURN
DRB PRESERVATION TRUST
381 MALLORY LANE, SUITE 207
FRANKLIN, TN, 37067
(615) 202-5040
david@blackburntn.com

LANDSCAPE ARCHITECTURE

TROY GARDNER, PLA
RAGANSMITH
315 WOODLAND STREET
NASHVILLE, TN 37206
(615) 244-8591
tgardner@ragansmith.com

INDEX OF SHEETS

<u>SHEET</u>	<u>DESCRIPTION</u>
CVR	COVER SHEET
<u>CIVIL PLANS</u>	
C1.0	ANNEXATION PLAN



LOCATION MAP
SCALE: 1"=1000'

2247 S Berry's Chapel Road
Franklin, TN 37069

Map 52 | Parcels 81, 84.09, & 84.11

CITY OF FRANKLIN,
WILLIAMSON COUNTY,
TENNESSEE



RaganSmith

Nashville - Murfreesboro - Chattanooga
ragansmith.com



THE PRESERVE AT SHERIDAN

FOR
DRB PRESERVATION TRUST

CITY OF FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

Scale: 1"=1000'

Date: 09/22/2023

Approved By: TPG

Revisions:

Drawing Title:

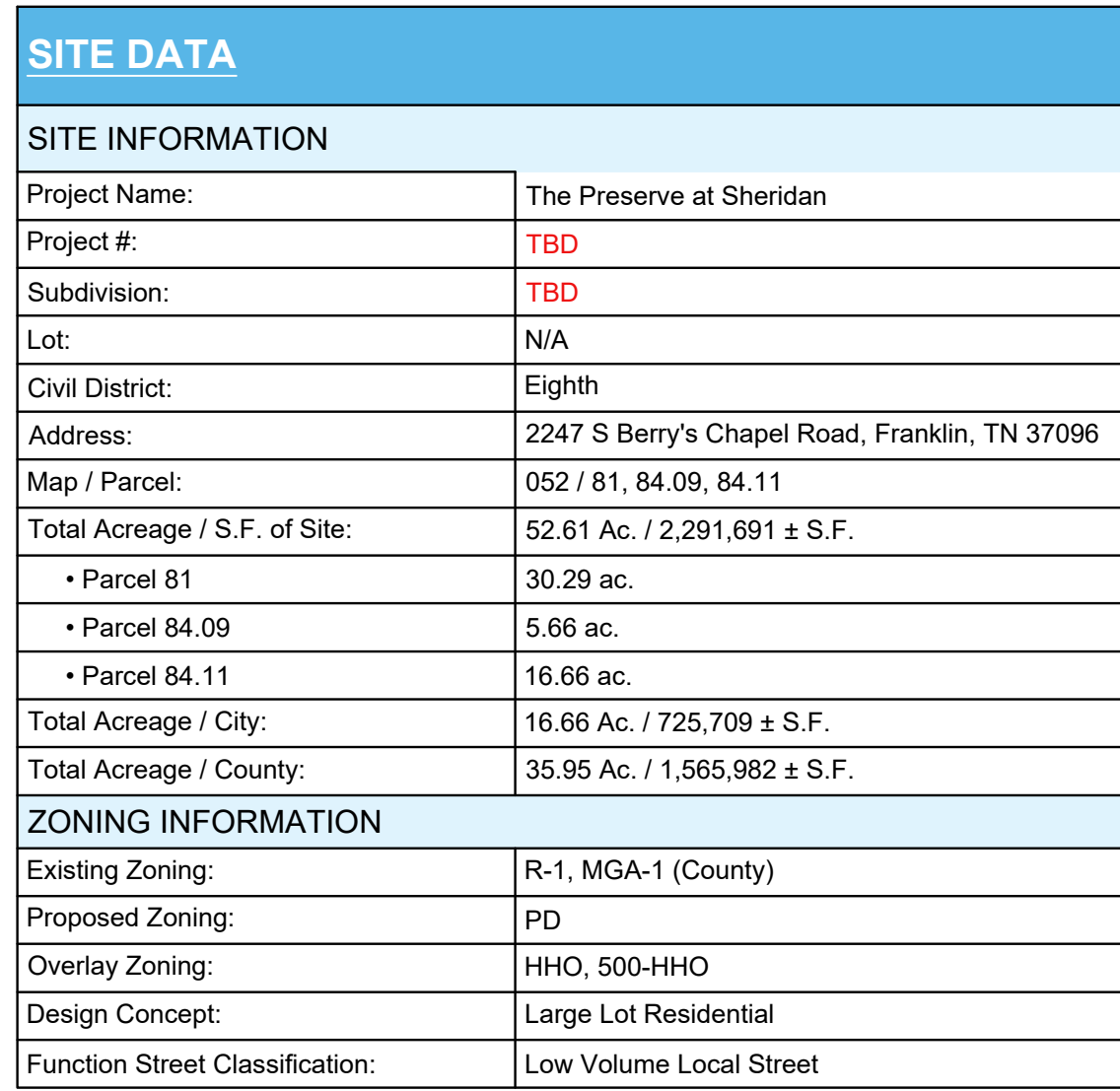
COVER

Drawing No.

CVR

Project No.
22-0131





SURVEY INFORMATION
Boundary survey information taken from a survey prepared by Chapdelaine & Associates dated October 18, 2021.
FLOOD INFORMATION
By Scaled Map location and graphic plotting only, this property does not lie within any flood zones, as designated on current Federal Emergency Management Agency Map No. 47187C0203G, with a revised date of December 22, 2016, which makes up a part of the National Flood Insurance Administration Report; Community No. 470206, Panel No. 0203, Suffix G, which is the current flood insurance rate map for the community in which said premises is situated.
MINERAL RIGHTS INFORMATION
At the present time, property title reference does not reflect any mineral rights on the subject property.
COMPLIANCE WITH ENVISION FRANKLIN
Envision Franklin - Figure 4.1 (Design Concepts Map), identifies the design concept for this site as Large Lot Residential. This design concept reflects the established character of existing neighborhoods and often provides a transition between City and County subdivisions.
In keeping with the Large Lot Residential Design Concept this neighborhood proposes a typical minimum lot size of one acre, with lots located in the 500' Hillside Overlay Buffer having a minimum lot size of two acres. These lot sizes fit contextually with surrounding neighborhoods.
The natural features on this site include: streams, wetlands, farm ponds, wooded areas and tree rows. The proposed layout is sensitive to these features and proposes their preservation to the extent possible. Zone 1 & Zone 2 buffers are shown along all streams and wetlands with crossings only proposed to allow practical development of the site. Existing trees within the buffers and tree rows along the perimeter of the site are proposed to remain largely unaffected. Lots within the wooded areas will have modest clearing to allow for the development of the home sites, however the intent is to preserve the natural wooded feel to the extent possible.



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THE PRESERVE AT SHERIDAN

FOR

DRB PRESERVATION TRUST

CITY OF FRANKLIN, WILLIAMSON COUNTY, TENNESSEE

Scale: 1"=100'

Date: 09/22/2023

Approved By: TPG

Revisions:

Drawing Title:

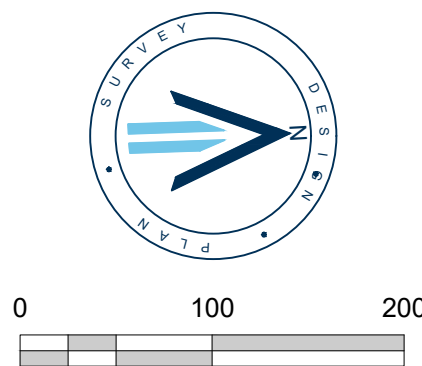
ANNEXATION PLAN

Drawing No.

C1.0

Project No.

22-0131





File #: 21-05343

DATE: October 5, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Tom Marsh, Building and Neighborhood Services Director
Kathleen Sauseda, Housing Development Coordinator

SUBJECT:

Consideration Of Amendment 2 To Contract No. 2019-0258, With Franklin Housing Authority For Payment In Lieu Of Taxes (PILOT) To Add Additional Properties To The Current Agreement Including The Addition Of Low Income Housing Tax Credit Developments Developed And Operated By The Local Authority

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning a second amendment to Contract No 2019-0258.

BACKGROUND/STAFF COMMENTS:

City of Franklin Contract 2019-0258 approved in November 2019 is the cooperation agreement that governs the Payments in Lieu of Taxes (PILOT) for sites owned or developed by the Franklin Housing Authority (FHA). Per that agreement, additional sites would be incorporated into the agreement as they're developed or redeveloped. The purpose of Amendment 2 to contract 2019-0258 is to bring additional sites under the umbrella of the agreement. The additional sites to be incorporated are:

- Wood Duck CT - 223 units
- Natchez Apartments - 16 units
- Short Court - 100 units
- Harpeth Homes - 100 units
- Natchez 8 - 8 units (not part of the redevelopment of the Natchez/Short CT area)

FINANCIAL IMPACT:

Per the agreement, the amount of the payment shall be the lesser of:

- i. ten percent (10%) of the shelter rent actually collected; and
- ii. fifty dollars (\$50.00) per unit per year.

A copy of the HUD certified audit shall be submitted with the PILOT submittal.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve the second amendment for Payments in Lieu of Taxes for the additional units referenced in Exhibit A.

SECOND AMENDMENT TO COOPERATION AGREEMENT

Governing Payments In Lieu of Taxes for

Franklin Housing Authority Low Income Housing Tax Credit Sites Completed after January 1, 2019

COF Contract 2019-0258

THIS SECOND AMENDMENT TO COOPERATION AGREEMENT (“**Second Amendment**”) made and entered into as of the _____ day of _____, 2023 (the “**Effective Date**”), by and between the FRANKLIN HOUSING AUTHORITY, a public body corporate and politic, organized and existing under the laws of the State of Tennessee (the “**Local Authority**”) and the CITY OF FRANKLIN, TENNESSEE, on behalf of itself and on behalf of Williamson County, Tennessee (the “**Municipality**”) in connection with Payments in Lieu of Taxes for the Low Income Housing Tax Credit (LIHTC) Projects described below.

RECITALS

WHEREAS, the Local Authority and the Municipality previously entered into a Cooperation Agreement dated November 12, 2019 (the “**Agreement**”), (i) to retain previously entered into Cooperation Agreements governing payments in lieu of taxes and services provided in consideration thereof, for both public housing and LIHTC developments developed and operated by the Local Authority and its partners, including the Cooperation Agreement covering all Local-owned sites and those Cooperation Agreements covering Senior Residence at Reddick Street, Reddick Street Apartments, and Chickasaw Senior Community; and (ii) to govern payments in lieu of taxes and services provided in consideration thereof, for the Spring Street and Johnson Circle LIHTC Project site to be redeveloped in accordance with LIHTC requirements, including the LIHTC Income and Rent Restrictions (as defined in the Agreement); and

WHEREAS, pursuant to the Agreement, the Local Authority anticipates the development an additional LIHTC Project site to be properties known as the Natchez Street Apartments, the Reddick Street Apartments, and the Reddick Sr. Residences will be incorporated into this Agreement.

NOW THEREFORE, in consideration of the mutual covenants hereinafter set forth, the parties hereto do agree as follows:

1. **Exhibit A** attached to the original Cooperation Agreement, COF Contract No. 2019-0258, is hereby removed and replaced with the **Exhibit A** attached to this Second Amendment. Any reference to “Exhibit A” appearing in the original Cooperation Agreement, COF Contract No. 2019-0258, shall mean and refer to **Exhibit A** to this Second Amendment.
2. **Miscellaneous**. Except as specifically set forth in this Second Amendment the Agreement remains unchanged and in full force and effect. Capitalized terms used but not defined in this Second Amendment shall have the meanings set forth in the Agreement. This Second Amendment may be executed in one or more counterparts, all of which when taken together shall constitute a single instrument; provided however, that this Second Amendment shall not be effective until signed by both the Local Authority and the Municipality.

[Remainder of Page Left Blank]

IN WITNESS WHEREOF, the Municipality and the Local Authority have respectively signed this Agreement and caused their seals to be affixed and attested as of the day and year first above written.

MUNICIPALITY:
CITY OF FRANKLIN, TENNESSEE

By: _____
Dr. Ken Moore, Mayor

Attest:

By: _____
Eric Stuckey, City Administrator

LOCAL AUTHORITY:
FRANKLIN HOUSING AUTHORITY,
a Tennessee public body corporate and politic

By: Derwin Jackson
Name: Derwin Jackson
Title: President/CEO

Approved as to Form:

William E. Squires
Assistant City Attorney



Franklin Housing Authority Tax Credit Units

Reddick Senior Residences	48 units
Reddick Street Apartments	64 units
Park Street	22 units
Spring Street/Johnson Circle	64 units
Chickasaw Senior Community	48 units
Cherokee Place	76 units
Shawnee	36 units
Wood Duck Court	223 units

Natchez Apartments	16 units
Short Court	100 units
Harpeth Homes	100 units
Natchez 8	8 units

Our nonprofit is the GP as with all our deals

To be developed

To be developed

This is 8 units on Natchez that will not be part of the redevelopment of the Natchez/Short Court area

200 Spring Street, Franklin, TN 37064
615-794-1247



City of Franklin

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

File #: 21-05390

DATE: October 12, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Glenn Johnson, Fire Chief

SUBJECT:

Consideration Of COF Contract No. 2023-0248, With Stryker Sales, LLC For The Purchase Of Five Lifepak 15 Cardiac Monitors To Replace The Oldest Five Monitors Due For Replacement

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the purchase of five Lifepak 15 monitors to replace five monitors due for replacement.

BACKGROUND/STAFF COMMENTS:

Lifepak 15 monitors have a manufacturer's recommended eight-year useable life. The proposed contract would provide for the replacement of the five oldest monitors.

FINANCIAL IMPACT:

The financial impact of COF 2023-0248 is \$217,018.56 and has been accounted for as part of the Franklin Fire Department's approved FY 2024 Budget as follows: \$163,494.06 will be allocated to 110-83530-42200 and \$53,524.50 will be allocated to 110-82620-42200. There are no grants or loans associated with this item.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen approve COF Contract No. 2023-0248.

Franklin Fire - LP15 quote w trade in 8-2-2023

Quote Number: 10753078

Version: 1

Prepared For: FRANKLIN FIRE DEPT

Attn:

Rep: Jeff Masten

Email: jeff.masten@stryker.com

Phone Number: (615) 969-3617

Service Rep: Robert Williams

Email: robert.williams@stryker.com

Quote Date: 08/02/2023

Expiration Date: 09/01/2023

Contract Start: 08/02/2023

Contract End: 08/01/2024

Equipment Products:

#	Product	Description	U/M	Qty	Sell Price	Total
1.0	99577-001957	LIFEPAK 15 V4 Monitor/Defib - Manual & AED, Trending, Noninvasive Pacing, SpO2, SpCO, NIBP, 12-Lead ECG, EtCO2, BT. Incl at N/C: 2 pr QC Electrodes (11996-000091) & 1 Test Load (21330-001365) per device, 1 Svc Manual CD (26500-003612) per order	PCE	5	\$33,012.80	\$165,064.00
2.0	41577-000288	Ship Kit -QUIK-COMBO Therapy Cable; 2 rolls100mm Paper; RC-4, Patient Cable, 4ft.; NIBP Hose, Coiled; NIBP Cuff, Reusable, adult; 12-Lead ECG Cable, 4-Wire Limb Leads, 5ft; 12-Lead ECG Cable, 6-Wire Precordial attachment	PCE	5	\$0.00	\$0.05
3.0	11140-000098	LP15 AC Power Adapter (power cord not included)	PCE	5	\$1,604.80	\$8,024.00
4.0	11140-000015	AC power cord	PCE	5	\$77.60	\$388.00
5.0	21330-001176	LP 15 Lithium-ion Battery 5.7 amp hrs	PCE	6	\$461.60	\$2,769.60
6.0	11140-000080	Extension Cable (5ft 3 in)	PCE	5	\$298.40	\$1,492.00
7.0	11140-000081	Right angle cable (10in) included with ACPA & DCPA	PCE	5	\$298.40	\$1,492.00
8.0	11171-000049	Masimo Rainbow DCI Adult Reusable SpO2, SpCO, SpMet Sensor, 3 FT. For use with RC Patient Cable.	PCE	5	\$597.60	\$2,988.00
9.0	11171-000050	Masimo Rainbow DCIP Pediatric Reusable SpO2, SpCO, SpMet Sensor, 3 FT. For use with RC Patient Cable.	PCE	5	\$657.60	\$3,288.00
10.0	11160-000011	NIBP Cuff-Reusable, Infant	PCE	5	\$21.60	\$108.00
11.0	11160-000013	NIBP Cuff-Reusable, Child	PCE	5	\$24.80	\$124.00
12.0	11160-000017	NIBP Cuff -Reusable, Large Adult	PCE	5	\$34.40	\$172.00
13.0	11160-000019	NIBP Cuff-Reusable, Adult X Large	PCE	5	\$48.00	\$240.00
14.0	11577-000002	LIFEPAK 15 Basic carry case w/right & left pouches; shoulder strap (11577-000001) included at no additional charge when case ordered with a LIFEPAK 15 device	PCE	5	\$314.40	\$1,572.00
15.0	11220-000028	LIFEPAK 15 Carry case top pouch	PCE	5	\$56.80	\$284.00
16.0	11260-000039	LIFEPAK 15 Carry case back pouch	PCE	5	\$80.80	\$404.00
Equipment Total:						\$188,409.65



Franklin Fire - LP15 quote w trade in 8-2-2023

Quote Number: 10753078
Version: 1
Prepared For: FRANKLIN FIRE DEPT
Attn:

Rep: Jeff Masten
Email: jeff.masten@stryker.com
Phone Number: (615) 969-3617

Service Rep: Robert Williams
Email: robert.williams@stryker.com

Quote Date: 08/02/2023
Expiration Date: 09/01/2023
Contract Start: 08/02/2023
Contract End: 08/01/2024

Trade In Credit:

Product	Description	Qty	Credit Ea.	Total Credit
TR-15V1V2-LP15	TRADE-IN-STRYKER LP15V1/V2 TOWARDS PURCHASE OF LIFEPAK 15	5	-\$6,800.00	-\$34,000.00

ProCare Products:

#	Product	Description	Qty	Sell Price	Total
19.1	LIFEPAK-DEP-PROCARE	Lifepak 15 for LIFEPAK 15 V4 Monitor/Defib - Manual & AED, Trending, Noninvasive Pacing, SpO2, SpCO, NIBP, 12-Lead ECG, EtCO2, BT. Incl at N/C: 2 pr QC Electrodes (11996-000091) & 1 Test Load (21330-001365) per device, 1 Svc Manual CD (26500-003612) per order 08/02/2023 - 08/01/2029 √Parts, Labor, Travel √Preventative Maintenance √Batteries Service	5	\$10,704.90	\$53,524.50
ProCare Total:					\$53,524.50

Data Solutions:

#	Product	Description	Qty	Sell Price	Total
17.0	21996-000109	Titan III WiFi Gateway	5	\$1,261.60	\$6,308.00
Data Solutions Total:					\$6,308.00

Price Totals:

Estimated Sales Tax (0.000%):	\$0.00
Freight/Shipping:	\$2,776.41
Grand Total:	\$217,018.56

Prices: In effect for 30 days
Terms: Net 30 Days



Franklin Fire - LP15 quote w trade in 8-2-2023

Quote Number:	10753078	Rep:	Jeff Masten
Version:	1	Email:	jeff.masten@stryker.com
Prepared For:	FRANKLIN FIRE DEPT	Phone Number:	(615) 969-3617
Attn:		Service Rep:	Robert Williams
		Email:	robert.williams@stryker.com
Quote Date:	08/02/2023		
Expiration Date:	09/01/2023		
Contract Start:	08/02/2023		
Contract End:	08/01/2024		

Terms and Conditions:
Deal Consummation: This is a quote and not a commitment. This quote is subject to final credit, pricing, and documentation approval. Legal documentation must be signed before your equipment can be delivered. Documentation will be provided upon completion of our review process and your selection of a payment schedule.

EMERGENCY CARE – CAPITAL PURCHASE TERMS
AND CONDITIONS (& Other Terms)

General Terms for all Products, Services and Software Subscriptions.

Stryker Sales, LLC, acting through its Medical Division (“Seller”) accepts Buyer's order expressly conditioned on Buyer's assent to the terms set forth in this document. Buyer's order and acceptance of any portion of the goods, services or subscriptions shall confirm Buyer's acceptance of these terms. Unless specified otherwise herein, these terms constitute the complete agreement between the parties. Amendments to this document shall be in writing and no prior or subsequent acceptance by Seller of any purchase order, acknowledgment, or other document from Buyer specifying different and/or additional terms shall be effective unless signed by both parties.

Pricing. Pricing for the products and/or services is as set forth in Seller's quote. Unless otherwise indicated on Seller's invoice, prices do not include, and Buyer is responsible to pay, freight insurance, freight forwarding fees, taxes, duties, import or export permit fees, or any other similar charge of any kind applicable to the goods and services. Discounts may not be combined with other special terms, discounts, and/or promotions.

Payment. Payment for goods and services shall be subject to approval of credit by Seller. Unless otherwise specified by Seller in writing, the entire payment of an invoice is due thirty (30) days after the invoice date for deliveries in the USA, and sight draft or acceptable (confirmed) irrevocable letter of credit is required for sales outside the USA.

Limitation of Interest. Through the purchase of Seller products, services, or subscriptions, Buyer does not acquire any interest in any tooling, drawings, design information, computer programming, patents or copyrighted or confidential information related to said products or services, and Buyer expressly agrees not to reverse engineer or decompile such products or related software and information.

Delays. Seller will not be liable for any loss or damage of any kind due to its failure to perform or delays in its performance resulting from an event beyond its reasonable control, including but not limited to, acts of God, labor disputes, the requirements of any governmental authority, war, civil unrest, terrorist acts, delays in manufacture, obtaining any required license or permit, or Seller's inability to obtain goods from its usual sources.

Compliance with Law. The parties agree to comply with any and all laws, rules, regulations, licensing requirements or standards that are now or hereafter promulgated by any local, state, and federal governmental authority/agency or accrediting/administrative body that governs or applies to their respective duties and obligations hereunder.

Regulatory Requirement for Access to Information. In the event 42 USC § 1395x(v)(1)(I) is applicable, Seller shall make available to the Secretary of the United States Department of Health and Human Services, the Comptroller General of the United States General Accounting Office, or any of their duly authorized representatives, a copy of these terms, together with such books, documents and records as are necessary to certify the nature and extent of the costs of the products and services provided by Seller.

No Debarment. Each party represents and warrants that neither it nor any of its directors, officers, and applicable employees: (a) are currently excluded, debarred, or otherwise ineligible to participate

in the Federal health care programs as defined in 42 USC § 1320a-7b(f); (b) have not been convicted of a criminal offense related to the provision of healthcare items or services; and (c) are not under investigation which may result in such party being excluded from participation in such programs.

Choice of Law. The rights and obligations of Seller and Buyer related to the purchase and sale of products and services described in this document shall be governed by the laws of the state where Buyer is located.

Proper Reporting.

Buyer will comply with all applicable laws and regulations relating to the accounting and application of discounts, including but not limited to all Federal and State laws and regulations regarding reimbursement and proper reporting of discounting and pricing, such as the requirements of the discount “safe harbor” located at 42

C.F.R. 1001.952(h). Pricing under this Agreement may constitute discounts on the purchase of Products, and must be properly reported and appropriately reflected as required by law or contract, including on all applicable Medicare, Medicaid and state agency cost reports.

Insurance.

Seller will maintain adequate general liability insurance, including coverage for Products and completed operations, and workers compensation and employer's liability insurance against any claim or claims, which might arise out of Seller's performance of its obligations hereunder. Seller has the right to self-insure to comply with this requirement. When requested by Buyer, Seller will furnish an insurance certificate signed by an authorized agent evidencing such insurance coverages.

Additional Terms for Purchase and Sale of Products.

In addition to the General Terms above, the following terms apply to all purchases of products from Seller:

Delivery.. Partial deliveries may be made and partial invoices shall be permitted and shall become due in accordance with the payment terms. In the absence of shipping instructions from Buyer, Seller will obtain transportation on Buyer's behalf and for Buyer's account. Delivery dates are approximate. Freight is pre-paid and added to Buyer's invoice. Products are subject to availability.

Inspections and Returns. Within 30 days of receipt of a shipment, Buyer shall notify Seller of any claim for product damage or nonconformity. Seller may repair or replace a product to bring it into conformity. Buyer agrees that 30 days following receipt of shipment is a reasonable time frame within which to diligently inspect the products received and provide notice to Seller, and Buyer waives any right to reject the shipment or revoke acceptance thereafter.

No Resale. Buyer agrees that products purchased hereunder will not be resold to third parties and will not be reshipped to any persons or places prohibited by the laws of the United States of America.

Additional Terms for Purchase and Sale of ProCare Services.

Service Plans. Seller shall provide services according to the applicable Service Plan purchased by Buyer and described at <https://www.strykeremergencycare.com/service--support-overview/service-hospitals-ems/> for the length of the subscription purchased and for the devices

specified as covered by the Service Plan.

Additional Terms Regarding Wireless-Enabled Devices.

In addition to the General Terms above, the data services provided by a third party are pursuant to the following terms: **Payments.** Payments to Seller are non-refundable as they are incorporating into the pricing of the connected devices. **Geolocation.** Buyer is responsible for maintaining the actual location of the devices within their facilities, property or buildings.

Not Wireless Provider. Seller has contracted with an outside data services provider for the provision of services on behalf of Buyer. Seller is not a telecommunications services company nor does it possess any telecommunications personal property.

Security. Buyer has the sole responsibility for ensuring the security of its network and data. Buyer will take reasonable measures to protect against unauthorized access.

No Guarantee. SELLER DOES NOT GUARANTEE SECURITY, UNINTERRUPTED DATA SERVICES, THE ACCURACY OF GEOLOCATION SERVICES, NETWORK TRANSMISSION CAPACITY, COVERAGE OR THE INTEGRITY OF THE DATA TRANSMITTED. Seller is not responsible for any consequential damages caused in any way by Buyer's hardware, software, network or other Buyer responsibilities.

Additional Terms for Purchase and Sale of LIFELINKcentralSM.

In addition to the General Terms above, the following terms apply to purchases of Seller's LIFELINKcentral AED Program Manager:

LIFELINKcentral Services. Seller shall provide services according to the applicable LIFELINKcentral AED Program Manager purchased by Buyer and described at <http://www.strykeremergencycare.com/service--support-overview/lifelink-central/> for the length of the subscription purchased.

Buyer's Duties. Buyer shall:

- Take reasonable steps to notify building occupants and guests of its emergency response program and how to access it including initial and periodic email reminders, signage and visible placement of AED devices in facilities.
- Use AEDs and/or other medical equipment in accordance with the standing orders, protocols or other instructions as may be provided by Seller whether in written form or otherwise (e.g. instructions from a licensed physician) and assure that AEDs are used and maintained according to the applicable manufacturer's labeling and instructions.
- Notify Seller within 24 hours after an AED is connected to a person— even if a shock is not delivered (an "Event") and keep records of the Event for one year.

Buyer shall assist Seller in its review of all Events, and provide Seller with information it reasonably

- requests regarding such Event.
- Notify Seller immediately when an AED is in need of service.
- Provide Seller with all information that Seller reasonably requests in connection with Seller's performance of medical authorization and direction services for Buyer.
- Notify Seller as soon as possible after a material change in the information submitted to Seller as part of this Agreement.

Training Requirements. Buyer understands that Seller recommends potential users of AEDs participate in a nationally recognized AED training session. Buyer understands that such training may be required by the state in which the AED is located in order to receive limited immunity from civil liability under Good Samaritan laws. Seller can provide names of nationally recognized training organizations.

Good Samaritan Laws. Good Samaritan protection varies from state to state. Under certain situations, Good Samaritan Laws protect individuals from liability where they render first aid in good faith to persons in need without compensation. Seller makes no representation or warranty that Good Samaritan Laws will protect Buyer and/or its employees or agents. It is up to Buyer to make this assessment.

Additional Terms for Purchase and Sale of Software Licenses and Software-as-Service.

In addition to the General Terms above, software and software-as-service is licensed (not sold) pursuant to the following terms:

Licenses. Upon full payment, Seller will grant to Buyer the licenses to the software and/or software-as-service ordered by Buyer according to the Software and Hosting Terms & Conditions and applicable Product Addendums located at <https://www.strykeremergencycare.com/software-hosting>. The duration of each license is the term of the subscription purchased by Buyer.

Term. Customer's subscription shall commence on the date that Stryker accepts Customer's order ("Commencement Date") and remains in effect for term of the subscription that is specified in the applicable Ordering Document. Customer may terminate this Agreement at any time after the one-year anniversary of the Commencement Date by providing ninety (90) days' prior written notice. In the event of such early termination by Customer, Stryker shall refund the remaining portion of the subscription fee, less an administration fee of 10% of such remaining portion. The remaining portion shall be determined by allocating the subscription fee based on the number of full calendar months remaining until expiration of the term specified in the Ordering Document.

Automatic Renewal. This Agreement will automatically renew upon its expiration for a period equal to the Term set forth in the applicable Ordering Document [not to exceed five (5) years] unless it is terminated in writing thirty (30) days prior to the end of the Term. Pricing for automatic renewals shall be based on current list price, less any percentage discount Customer received on its initial order.

Availability of Stryker Software. Stryker will take commercially reasonable steps to ensure that the Stryker Software is available twenty-four (24) hours a day except for scheduled maintenance and backups. Backups will be scheduled at times to provide minimal impact to Customer's business activity. Stryker will take commercially reasonable steps to maintain data integrity in any backup. However, Stryker will not be responsible for loss of data or data integrity so long as Stryker has performed the backup in a commercially reasonable manner.

Additional Terms for Purchase and Sale of HealthEMS Patient Management System Extensions.

In addition to the General Terms above and the Additional Terms for Purchase and Sale of Software Licenses and Software-as-Service, software and HealthEMS Patient Management System Extensions are licensed (not sold) pursuant to the following terms:

EXTENSIONS. Stryker may make available optional Extensions designed to extend the functionality of Stryker Software. Extensions may include, but not be limited to, RevNet, HealthEMS Fire, myPatientEncounters, XchangeER, SanFax, Data Xport and ConnectX for integration with third parties. Third parties may include, but not be limited to, billing vendors, payers, clearinghouses, CAD (Computer-Aided Dispatch) vendors, medical devices (such as ECG), HIEs, state reporting systems, and hospitals. Customer is responsible for acquiring licenses and paying fees to applicable third parties as required. Extension descriptions are set forth at

<https://www.strykeremergencycare.com/products/data-solutions/>

RevNet Extension. RevNet is an optional extension of HealthEMS designed to provide secure, integrated, web-based revenue cycle management functionality for the automated billing and processing of Claims, ERA, Eligibility, Statements and other transactions between HealthEMS and designated payers.

- **Activation Fee.** The RevNet Activation Fee is the one-time fee to allow Customer access and set-up of RevNet.
- **Subscription Fee.** RevNet Subscription Fees are for the use of RevNet Extension functionality and associated customer support. RevNet Subscription Fees are based on Customer projections of Estimated Annual Net Revenue. Customer will be invoiced on the first day of each service month, synchronized to Customer's HealthEMS Subscription. In the event Customer's Actual Annual Net Revenue varies from Estimated Annual Net Revenue, by more than +/- 10%, Stryker reserves the right to make adjustments to the RevNet Subscription Fees provided the Customer is given 45 days prior written notice of such adjustment.
- **Clearinghouse Transaction Fees.** Clearinghouse Transaction Fees are for paper-based transaction services provided as a service by the Clearinghouse. Stryker will invoice Clearinghouse Transaction Fees monthly based on the prior month's actual usage. Stryker has no control over certain government-imposed fees and tariffs (e.g. postal increases or interchange fees) or changes in the rules, regulations or operating procedures of any service supplier or any federal, state or local governmental agency or regulatory authority. Any increase in fees due to these changes are Customer's responsibility. Any such increase shall become effective for Customer on the same day as the increase becomes effective to Stryker, or is otherwise incurred by Stryker.
- The RevNet Extension Term shall coincide with HealthEMS Subscription Agreement Term. Once the Term has commenced, Stryker will invoice Customer RevNet Subscription Fees and Clearinghouse Transaction Fees. Customer may discontinue RevNet Extension service by providing written notification to Stryker at least forty-five (45) days before the desired Termination date.

HealthEMS Fire Extension. The HealthEMS Fire Extension is an optional extension of HealthEMS designed to provide a cloud-based, NFIRS-5 compatible Record Management System (RMS) for capturing incidents and managing Customer's fire department.

- **Activation Fee.** The Activation Fee is the one-time fee to allow Customer access and set-up of the HealthEMS Fire Extension.
- **Subscription Fee.** HealthEMS Fire Subscription Fees are for the use of the HealthEMS Fire Extension functionality and associated customer support. Subscription Fees are based on

Customer projections of Estimated Annual Run Volume. Customer will be invoiced on the first day of each service month, synchronized to Customer's HealthEMS Subscription. In the event Customer's Actual Annual Run Volume varies from Estimated Annual Run Volume, by more than +/- 10%, Stryker reserves the right to make adjustments to the Fire Subscription Fees provided the Customer is given 45 days prior written notice of such adjustment.

- The HealthEMS Fire Extension Addendum Term shall coincide with HealthEMS Subscription Agreement Term. Once the Term has commenced, Stryker will begin invoicing Customer HealthEMS Fire Subscription Fees. Customer may discontinue Fire Extension service by providing written notification to Stryker at least forty-five (45) days before the desired Termination date.

This Addendum shall modify and supersede the attached document COF Contract No. 2023-0248 (the "Agreement") and entered into on the ____ day of _____, 2023, by the City of Franklin, Tennessee ("City") and Stryker Sales, LLC ("Contractor"). The Agreement together with this Addendum and the attached document(s) constitute the entire agreement for the Products and Services set forth on Contractor Quote no. 10753078 ("Agreement"). Acceptance of payment as stated in the Agreement constitutes Contractor's acceptance of all terms and conditions stated herein.

Standard Terms and Conditions

1. Maximum Liability. The pricing as described in Stryker Quote No. 10753078 dated 08/02/2023 as attached shall constitute the entire compensation due the Contractor for all travel, professional services, and software regardless of the difficulty, materials, or equipment required, unless amended. The payment rates include, but are not limited to, all applicable taxes, fees, overheads, and all other direct and indirect costs incurred or to be incurred by the Contractor.
2. Indemnification and Limitations of Liability. The City, being a Tennessee governmental entity, is governed by the provisions of the Tennessee Governmental Tort Liability Act, Tenn. Code Ann. § 29-20-101 et. seq. for causes of action sounding in tort. Further, no contract provision requiring a Tennessee political entity to indemnify or hold harmless the Contractor beyond the liability imposed by law is enforceable because it appropriates public money and nullifies governmental immunity without the authorization of the General Assembly. Stryker will hold Customer harmless from and will indemnify Customer for any and all liability (including reasonable attorneys' fees) incurred resulting directly from a defect in workmanship or design of the Products. This indemnification applies only if the instructions outlined in the labeling, manual, and/or instructions for use are followed. This indemnification will not apply to any liability arising from: (a) an injury due to the negligence of any person other than an employee, agent, or assignee of Stryker; (b) the failure of any person other than an employee, agent, or assignee of Stryker to follow any instructions for use or maintenance of the Product; or (c) the use of any product not purchased from Stryker or a Product that has been modified, altered or repaired by any person other than an employee, agent, or assignee of Stryker or a Technician.
3. Conflicts of Interest. The Contractor warrants that no part of the total Agreement amount shall be paid directly or indirectly to an employee or official of the GNRC or the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Contractor in connection with any work contemplated or performed relative to this Contract.
4. Nondiscrimination. The Contractor hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Agreement or in the employment practices of the Contractor on the grounds of handicap or disability, age, race, color, religion, sex, sexual orientation, gender or gender identity, national origin, or any other classification protected by Federal, Tennessee State constitutional, or statutory law. If required by law, the Contractor shall, upon request, show proof of such nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.
5. Iran Divestment Act. By 1) entering into this Agreement and/or by 2) submission of a bid or proposal to the City of Franklin, the Consultant and each person signing on behalf of any consultant, certifies, and in the case of a joint bid or proposal each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that neither they, nor any assignee of the resulting contract, is on the list created pursuant to T.C.A. § 12-12-106. The Consultant further certifies that it shall not utilize any subcontractor/subconsultant identified on the list created pursuant to T.C.A. § 12-12-106.

6. Non-Boycott of Israel. Except for any contract with a total potential value of less than \$250,000, each consultant, except those with fewer than ten employees, and each person signing on behalf of any such consultant, by entering into this agreement certifies, under penalty of perjury, that, to the best of its knowledge and belief, such consultant is not currently engaged in, and will not, for the duration of any such contract, engage in, a boycott of Israel, as that term is defined in Tenn. Code Ann. § 12-4-119.
7. Lobbying. The Contractor certifies, to the best of its knowledge and belief, that:
 - a. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, grant, loan, or cooperative agreement, the Contractor shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
 - c. The Contractor shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into and is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, *U.S. Code*.

8. Public Accountability. If the Contractor is subject to Tenn. Code Ann. § 8-4-401, *et seq.*, or if this Agreement involves the provision of services to citizens by the Contractor on behalf of the State, the Contractor agrees to establish a system through which recipients of services may present grievances about Contractor's operation of the service program. The Contractor shall also display in a prominent place, located near the passageway through which the public enters in order to receive contract-supported services, a sign at least eleven inches (11") in height and seventeen inches (17") in width stating the following:

NOTICE: THIS AGENCY IS A RECIPIENT OF TAXPAYER FUNDING. IF YOU OBSERVE AN AGENCY DIRECTOR OR EMPLOYEE ENGAGING IN ANY ACTIVITY THAT YOU CONSIDER TO BE ILLEGAL, IMPROPER, OR WASTEFUL, PLEASE CALL THE STATE COMPTROLLER'S TOLL-FREE HOTLINE: 1-800-232-5454

The sign shall be of the form prescribed by the Comptroller of the Treasury. The GNRC shall request copies of the sign from the Comptroller of the Treasury and provide signs to contractors..

9. Records. The Contractor shall maintain documentation for all charges under this Agreement. The books, records, and documents of the Contractor, for work performed or money received under this Contract, shall be maintained for a period of seven (7) full years from the date of the final payment and shall be subject to audit at any reasonable time and upon reasonable notice by the City. The financial statements shall be prepared in accordance with generally accepted accounting principles.
10. 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.

11. Confidentiality and Proprietary rights. Contractor waives any right to confidentiality of any document, e-mail or file it fails to clearly mark on each page (or section as the case may be) as confidential or proprietary. City may be required to disclose documents under state or federal law. City shall notify Contractor if a request for documents has been made and shall give Contractor a reasonable opportunity under the circumstances to respond to the request by redacting proprietary or other confidential information. In exchange, Contractor 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 Contractor's representation that materials supplied by Contractor (in full or redacted form) do not contain trade secrets or proprietary information, provided that the City impleads Contractor and Contractor assumes control over that claim.
12. Derivative Works.
13. 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 .
14. Arbitration/Mediation. No arbitration shall be required as a condition precedent to filing any legal claim arising out of or relating to the Contract. No arbitration or mediation shall be binding.
15. No Taxes, No Interest Payments. As a tax-exempt entity, the City shall not be responsible for sales or use taxes incurred for products or services. The City shall supply Contractor with its Sales and Use Tax Exemption Certificate upon Contractor's request. Contractor shall bear the burden of providing its suppliers with a copy of the City's tax exemption certificate and shall assume all liability for such taxes, if any, that should be incurred. The City does not agree to pay any interest for late payments, having agreed to pay in a timely manner.
16. Licensed users/"seats".
17. Notices. Any notice provided pursuant to the Contract, if specified to be in writing, will be in writing and will be deemed given: (a) if by hand delivery, then upon receipt thereof; (b) if mailed, then three (3) days after deposit in the mail where sender is located, postage prepaid, certified mail return receipt requested; (c) if by next day delivery service, then upon such delivery; or (d) if by facsimile transmission or electronic mail, then upon confirmation of receipt. All notices will be addressed to the parties at the addresses set forth below (or set forth in such other document which the Agreement or this Addendum may accompany, or such other address as either party may in the future specify in writing to the other):
- 18.
- | | |
|---|---|
| <p style="text-align: center;"><u>In the case of the City:</u></p> <p>City of Franklin
 Attn: _____
 109 Third Ave. South
 P.O. Box 305
 Franklin, TN 37065-0305
 FAX: 615/_____
 E-mail: _____</p> | <p style="text-align: center;"><u>In the case of Contractor:</u></p> <p>Stryker Sales, LLC _____
 11811 Willows Rd NE _____
 Redmond, WA 98052 _____
 Attn: Contracts Manager _____

 uscontracts@stryker.com _____</p> |
|---|---|
19. Waiver. Neither party's failure or delay to exercise any of its rights or powers under the Agreement 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.
20. Severability. If any term or provision of the Agreement is held to be illegal or unenforceable, the validity or enforceability of the remainder of the Agreement will not be affected.
21. Precedence. In the event of conflict between this Addendum and the provisions of the Agreement, or any other contract, agreement or other document to which the Agreement or this Addendum may accompany or incorporate by reference, the provisions of this Addendum 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 Addendum.

22. Entire Agreement. The Agreement 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 Agreement. The terms and conditions of this Addendum may not be changed except by an amendment expressly referencing this Addendum by section number and signed by an authorized representative of each party.
23. Additions/Modifications. If seeking any addition or modification to the Agreement, 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 Contract, 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 Agreement or to the specific clause they are intended to modify; (b) clearly indicate the intention of both parties to override and modify the Contract; and (c) such purchase order, acknowledgement, or other writings are signed, with specific material clauses separately initialed, by authorized representatives of both parties.
24. Applicable Law; Choice of Forum/Venue. The Agreement constitutes the entire agreement and is made under and will be construed in accordance with the laws of the State of Tennessee without giving effect to any state's choice-of-law rules. The choice of forum and venue shall be exclusively in the Courts of Williamson County, Tennessee. The Contractor acknowledges and agrees that any rights or claims against the City of Franklin or its employees, or elected or appointed officials hereunder, and any remedies arising there from, shall be subject to and limited to those rights and remedies, if any, available under Tenn. Code Ann. §§ 9-8-101 through 9-8-407.
25. Breach. Upon deliberate breach of the Agreement by either party, the non-breaching party shall be entitled to terminate the Agreement 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.
26. Survival. This Addendum shall survive the completion of or any termination of the Contract, agreement or other document to which it may accompany or incorporate by reference.
27. Modification and Amendment. This Agreement may be modified only by a written amendment signed by all Parties.

CITY OF FRANKLIN, TENNESSEE

STRYKER SALES, LLC

Signature

Jennifer N. Collins

Signature

Dr. Ken Moore, Mayor
Print Name and Title

Jennifer N. Collins, Manager, Pricing and Contracts
Print Name and Title

Date

9/18/23
Date

Approved as to form:

J. Blake Harper, Staff Attorney



City of Franklin

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

File #: 21-05376

DATE: October 10, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Kristine Brock, Asst. City Administrator/CFO
Mike Lowe, Comptroller

SUBJECT:

Report On A Grant Agreement Between The United States Department Of The Interior, National Park Service And The City of Franklin, Tennessee, Pursuant To The Battlefield Acquisition Grant Program Of The American Battlefield Protection Program In The Amount Of \$1,980,050 To Fund The Acquisition, In Part, Of 1224 Columbia Avenue

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the City of Franklin serving as a pass-through entity between the federal government and Franklin's Charge for Battlefiled Acquisition funds used toward acquisition of the 0.87 Williams Tract, which is part of the Franklin Battlefield on October 6, 2023. A recorded easement, to be held by the Tennessee Historical Commission, must provide for the permanent preservation and protection of the property by restricting the use, development, and conversion of the property, and by requiring public access to the property. The property is located at 1224 Columbia Avenue.

BACKGROUND/STAFF COMMENTS:

The Battlefield Land Acquisition Grant Program assists state and local governments in protecting sites where historic battles were fought on American soil during the armed conflicts that shaped the growth and development of the United States, in order that present and future generations may learn and gain inspiration from the ground where Americans made their ultimate sacrifice.

FINANCIAL IMPACT:

As the pass-through entity, the City would amend its General Fund budget to show \$1,980,050 in federal grant revenues received from the National Park Service and the same amount of \$1,980,050 in federal grant expenditures provided to Franklin's Charge for the acquisition.

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen acknowledge this report.

Grant Agreement P23AP02309
Between
THE UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
AND
CITY OF FRANKLIN, TENNESSEE

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I. LEGAL AUTHORITY

NPS enters into this Agreement pursuant to the Battlefield Acquisition Grant Program of the American Battlefield Protection Program within the National Park Service and Related Programs (54 U.S.C. §308103).

II. PERFORMANCE GOALS AND PROJECT OBJECTIVES

NPS provides Federal financial assistance to State and local governments for the acquisition of fee-simple or less-than-fee interests in sites for preservation and protection through the Battlefield Acquisition Grant Program. Conversion to any other uses without express written consent of the Secretary of the Interior is prohibited.

This Agreement provides for the fee-simple acquisition of the 0.87-acre Williams Tract, Williamson County, Tennessee (Property) which is part of the Franklin Battlefield. As a sub-recipient, Franklin's Charge is in the process of acquiring the Williams Tract. A recorded easement, to be held by the Tennessee Historical Commission, must provide for the permanent preservation and protection of the Property by restricting the use, development, and conversion of the Property, and by requiring public access to the Property.

These provisions represent a perpetual Federal interest in the Property. A breach of these provisions can only be remedied by the specific performance of the statement of work in this Agreement. Funds awarded under this Agreement cannot be repaid to negate these provisions.

III. PUBLIC PURPOSE

The Battlefield Land Acquisition Grant Program assists state and local governments in protecting sites where historic battles were fought on American soil during the armed conflicts that shaped the growth and development of the United States, in order that present and future generations may learn and gain inspiration from the ground where Americans made their ultimate sacrifice.

IV. STATEMENT OF WORK

This Agreement provides for the following detailed project statement of work, including the activities to be undertaken, descriptions of major tasks, and project milestones.

- A. **Obtain a Property Appraisal:** The Recipient must acquire and submit an acceptable appraisal and appraisal review of the Property. Real property that will be purchased with funds from Federal financial assistance actions must be appraised in accordance with the Uniform Appraisal Standards for Federal Land Acquisitions (UASFLA or the "Yellow Book") by an independent real property appraiser licensed or certified by the state in which the property is located. The appraisal must be reviewed by a qualified review appraiser that meets qualifications established by the Department of the Interior Appraisal and Valuation Services (AVSO). No Federal funds may be used for the purchase of the Property without an acceptable appraisal accompanied by a written

appraisal review report that complies with standards approved by AVSO.

- B. **Submit an Updated Property Request to NPS:** Prior to the drawdown of funds, the Recipient must submit a SF-429 Real Property Status Report Cover Page and an SF-429B Request to Acquire, Improve, or Furnish. The SF-429B must include the appraised value of the Property obtained in Task A above. Federal funds withdrawn for the purchase of the Property prior to submitting a complete and accurate SF-429B may be subject to repayment. The Recipient must also certify to NPS any changes to information about the Property by annually completing and submitting an updated SF-429 Cover Page Real Property Status Report and an SF-429A General Reporting. The SF-429A must be included with the annual interim Project Progress Report (PPR) throughout the Period of Performance. (See Article IX.C.)
- C. **Submit a Draft Easement:** The Recipient must submit a draft of the easement to NPS and the Tennessee Historic Preservation Office (TN SHPO) for review and approval. The easement must identify the **Tennessee Historical Commission** as the easement holder. Any change to the easement holder requires a modification of this Agreement. The easement must:
- include NPS ABPP's legal authorization to award the grant and acknowledgement of the grant;
 - acknowledge the LWCF Act of 1965 and Section 200305(f)(3) non-conversion clause as well as the process should a conversion be proposed;
 - state the historic significance of the property as it relates to the historic war (Revolutionary War, War of 1812, Civil War) including the following information from the relevant Survey Report: battlefield name, survey number, and priority ranking;
 - state the conservation and preservation purposes advanced by the easement including the preservation of the battlefield for curation, interpretation, public benefit, and any additional natural features or resources;
 - identify perpetual duration binding all successors in interest to the terms of the deed of easement;
 - include a baseline documentation report on the current condition of the property and resources known at the effective date of the easement incorporated by reference into the deed of easement and recorded with the deed of easement;
 - express and define limitations on subdivision;
 - restrict new construction not directly related to the property as an historic battlefield or that alters the setting and/or scale of improvements on the property at time of closing;
 - include limiting permitted activities to those occurring at time of closing that do not harm the preservation/conservation purposes. Activities that would alter the physical and cultural landscape must be reviewed and approved in writing by the SHPO, even in cases where the SHPO is not the easement holder. Examples include residential housing, agriculture, and other commercial activity;
 - include provisions sufficient to protect the historic property, such as no grading, no filling, no building roads, no timbering or clear cutting (without a pre-approved forestry plan and SHPO pre-approval), and no sub soiling;
 - state that demolition of existing structure or buildings will only occur after

consultation with the grantee and SHPO on its National Register eligibility, approval of a demolition plan by the SHPO, and approval of the demolition by the easement holder;

- include provision requiring the SHPO and easement holder's consent prior to placing any utility or utility easement on the property, and the landowner to promptly notify the easement holder and SHPO when a utility or utility easement is proposed on the property;
- Allow some form of public access to the property;
- include statements guiding any archeological activities on the property and future curation of any recovered artifacts/resources. This includes any intentional archeological survey, planned and approved non-archeological ground-disturbing activities, inadvertent or unexpected archeological discoveries, and the notice and oversight of emergency ground disturbing activities;
- establish a monitoring system by easement holder to ensure landowner is following agreed upon restrictions and activities, a process to review and approve proposed activities requiring consent from the easement holder, guidelines providing an opportunity to cure violations of the terms of the easement, and remedies available to the holder should enforcement of the terms of the easement be necessary;
- state that any activity will adhere to the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and Guidelines for the Treatment of Cultural Landscapes*;
- include provisions allowing for amendment of the easement, with consent of the easement holder and NPS ABPP, that does not interfere with its perpetual duration, is not contrary to or inconsistent with its conservation purpose, does not affect relevant tax requirements (if applicable), and ensures proper recordation of the amendment;
- specify the permitted uses of the Property;
- restrict conversion of the Property to any other uses;
- require the express written consent of the Secretary of the Interior in order to extinguish the Federal interest in the Property.

- D. **Consult with the State Historic Preservation Officer:** The Recipient must complete the consultation process with the TN SHPO under the National Historic Preservation Act (54 U.S.C. 306108, or Section 106) and its implementing regulations, 36 CFR Part 800, on any historic properties that are listed in or may be eligible for listing in the National Register of Historic Places. The Recipient must carry out the requirements of 36 CFR 800.4 through 800.6 with the SHPO. The Recipient must provide NPS with copies of all information submitted to or received from the SHPO.

The Recipient must ensure that there is no activity on the Property with the potential to affect historic properties, including activity to any extant buildings or structures, until the NPS makes a determination in the consultation process. Should it be discovered that a Recipient has deliberately damaged a property (e.g., pre-emptive demolition) to avoid requirements, or having legal power to prevent it, has allowed a significant adverse effect to occur to the property, the NPS must be notified to determine, in consultation with the ACHP, if the project can proceed. Pre-emptive demolition may

include a Recipient's failure to take reasonable steps to protect a property from vandalism or destruction by third parties.

The Recipient must notify NPS if, after routine consultation or coordination with the SHPO, disputes remain regarding the identification, evaluation, or treatment of historic properties. This task must be completed by the expiration Date of this Agreement, or this Agreement may be terminated and Federal funds subject to repayment.

- E. **Erect a Project Sign:** The Recipient must place a sign readable from each public right-of-way on the Property. The sign must briefly identify the historical significance of the Property and that the Property is being preserved with Federal funds from the American Battlefield Protection Program administered by the National Park Service. The sign must be erected 90 days prior to the Expiration Date of this Agreement and must remain in place for at least 24 months. A photograph of the erected sign must be provided to the NPS with the Final Report (see Article IX.B.).
- F. **Record the Easement:** The Recipient must record the easement in the relevant Property records to ensure the recordation of Federal interest in the Property. All recipients must agree to record with or in the deed and record in the easement (as applicable) the following:
- That the property was acquired with assistance from Federal Land and Water Conservation Act finds pursuant to the American Battlefield Protection Act (16 USC 469.k.);
 - That the property is subject to provisions of Section 200305(f)(3) of the Land and Water Conservation Act;
 - That the property, therefore, may never be converted to other than preservation uses without the written approval of the Secretary of the Interior;
 - That in the event of a breach of the requirements of Section 200305(f)(3) (unauthorized conversion), the only remedy is immediate compliance with Section 6(f)(3); and
 - That grant funds cannot be repaid to the NPS to nullify the requirements of Section 200305(f)(3).

The easement must be recorded before the Expiration Date of this Agreement, or this Agreement may be terminated and Federal funds subject to repayment. The Recipient must submit a copy of the recorded deed for the property 90 days prior to the Expiration Date of this Agreement. The Recipient must maintain documentation of the recordation of the easement and report regularly to NPS on the status of the Federal interest in the Property (see Article IX).

V. RESPONSIBILITIES OF THE PARTIES

- A. The Recipient agrees to:

1. The Recipient shall carry out the Statement of Work in accordance with the terms and conditions stated herein. The Recipient shall adhere to Federal, state, and local laws, regulations, and codes, as applicable.
 2. Recipients that issue subawards/subgrants (entities that function in whole or in part as pass-through entities) are responsible for ensuring subrecipients understand they are subject to the requirements of 2 CFR § 200.92 Subaward; 200.101 Applicability; 200.331 Requirements for pass-through entities. The Recipient must provide a list of selected subawardees/subgrantees and associated budgets to the NPS for review prior to making subawards/subgrants.
 3. Recipients that issue subawards/subgrants must report all subaward and executive compensation data pursuant to the Federal Funding Accountability and Transparency Act (FFATA) of 2006 and associate amendments (P.L. 109-282, as amended by section 6202(a) of P.L. 110-252 (see 31 U.S.C. 6101 note)). Refer to <https://www.fsrs.gov/> for more information.
 4. Recipients must hire qualified consultants and submit documentation to the NPS showing competitive selection or justification for single source procurement for contracted amounts greater than \$10,000, in accordance with 2 CFR 200.318 – 200.327.
 5. Recipients shall ensure the following conditions of the NPS ABPP Programmatic Agreement are met:
 - Recipient, or their designees, shall make all reasonable efforts to avoid disturbing gravesites, including those containing Native American human remains and associated funerary artifacts. All human remains shall be treated in a manner consistent with the ACHP's Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects.
 - All human remains encountered during the course of actions taken as a result of activities arising from this award shall be treated in accordance with NAGPRA, its regulations, and the laws and regulations of the state in which the project is located. The Recipient shall be responsible for all reasonable costs associated with treatment of human remains and associated funerary objects.
- B. Substantial involvement is defined as significant NPS participation prior to and during the performance of a financial assistance agreement. For grants, substantial involvement is neither expected nor required. No substantial involvement on the part of the NPS is anticipated for the successful completion of the statement of work detailed in this award. It is anticipated that involvement will be limited to actions related to monitoring project performance, technical assistance at the request of the recipient.

VI. COST-SHARE REQUIREMENT

At least 50% non-Federal cost-share is required for costs incurred under this Agreement. If pre-award costs are authorized, reimbursement of these costs is limited to Federal cost share percentage identified in this agreement.

VII. PRE-AWARD COSTS

The Recipient is authorized to incur pre-award costs on or after **10/14/2022**. Pre-award costs must be allowable, allocable, and reasonable under the terms and conditions of this Agreement and in accordance with the approved project budget. These costs must be charged to the initial budget period of the award as either Federal reimbursement or Non-Federal cost-share (in accordance with the cost-share ratio).

VIII. AWARD AND PAYMENT

- A. NPS will provide funding to the Recipient in an amount not to exceed **\$1,980,050.00** in accordance with the NPS approved budget. The approved budget detail is incorporated herein. Any award beyond the current fiscal year is subject to availability of funds. Acceptance of a Federal financial assistance award from the Department of the Interior carries with it the responsibility to be aware of, and comply with, the terms and conditions within this award document. Acceptance is defined as the start of work, drawing down funds, or accepting the award via electronic means.
- B. Recipient shall request payment as applicable in accordance with the following:
 - 1. **Method of Payment.** Payment will be made by advance and/or reimbursement through the Department of Treasury's Automated Standard Application for Payments (ASAP) system.
 - 2. **Requesting Advances.** Requests for advances must be submitted via the ASAP system. Requests may be submitted as frequently as required to meet the needs of the Financial Assistance (FA) Recipient to disburse funds for the Federal share of project costs. If feasible, each request should be timed so that payment is received on the same day that the funds are dispersed for direct project costs and/or the proportionate share of any allowable indirect costs. If same-day transfers are not feasible, advance payments must be as close to actual disbursements as administratively feasible.
 - 3. **Requesting Reimbursement.** Requests for reimbursements must be submitted via the ASAP system. Requests for reimbursement should coincide with normal billing patterns. Each request must be limited to the amount of disbursements made for the Federal share of direct project costs and the proportionate share of allowable indirect costs incurred during that billing period.
 - 4. **Adjusting Payment Requests for Available Cash.** Funds that are available from repayments to, and interest earned on, a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds must be disbursed before requesting additional cash payments.

5. **Bank Accounts.** All payments are made through electronic funds transfer to the bank account identified in the ASAP system by the FA Recipient.
 6. **Supporting Documents and Agency Approval of Payments.** Additional supporting documentation and prior NPS approval of payments may be required when/if a FA Recipient is determined to be “high risk” or has performance issues. If prior Agency payment approval is in effect for an award, the ASAP system will notify the FA Recipient when they submit a request for payment. The Recipient must then notify the NPS Financial Assistance Awarding Officer that a payment request has been submitted. The NPS AO may request additional information from the Recipient to support the payment request prior to approving the release of funds, as deemed necessary. The FA Recipient is required to comply with these requests. Supporting documents may include invoices, copies of contracts, vendor quotes, and other expenditure explanations that justify the reimbursement requests.
- C. Any award beyond the current fiscal year is subject to availability of funds; funds may be provided in subsequent fiscal years if project work is satisfactory, and funding is available.
 - D. Expenses charged against awards under the Agreement may not be incurred prior to the beginning of the Agreement and may be incurred only as necessary to carry out the approved objectives, scope of work and budget with prior approval from the NPS AO. The Recipient shall not incur costs or obligate funds for any purpose pertaining to the operation of the project, program, or activities beyond the expiration date stipulated in the award.
 - E. Any non–Federal share, whether in cash or in–kind, is expected to be paid out at the same general rate as the Federal share. Exceptions to this requirement may be granted by the AO based on sufficient documentation demonstrating previously determined plans for or later commitment of cash or in–kind contributions. In any case, the Recipient must meet their cost share commitment over the life of the award.

IX. REPORTS AND/OR OUTPUTS/OUTCOMES

- A. Refer to the second page of the Notice of Award document for FFR (Federal Financial Report or SF-425) frequency and due dates. Performance reports are also required at the same reporting frequency and due dates as the FFR. Reports must be submitted through the Grant Solutions “Manage Reports” functionality.
- B. A final Project Performance Report (PPR) and a final FFR will be due 120 days after the end-date of the Term of Agreement. If the recipient does not submit the final report before the required due date, NPS is required to submit a finding of non-compliance to the Federal Awardee Performance and Integrity Information System (FAPIIS). Each report shall be submitted as described above.

- C. The Real Property Report SF-429 Cover Page and SF-429A is required to be submitted annually with the Project Progress Report throughout the award Period of Performance in accordance with 2 CFR 200.330. In addition, the Real Property Report SF-429 Cover Page and SF-429A are required to be submitted once every five years for the duration of the Federal interest in accordance with 2 CFR 1402.329(d)(2).
- D. The Secretary of the Interior and the Comptroller General of the United States, or their duly authorized representatives, will have access, for the purpose of financial or programmatic review and examination, to any books, documents, papers, and records that are pertinent to the Agreement at all reasonable times during the period of retention in accordance with 2 CFR 200.334 *Retention Requirements for Records*.

X. AWARD SPECIFIC TERMS AND CONDITIONS

- A. Insurance and Liability:
 - 1. Indemnification. The Recipient hereby agrees to indemnify the Federal government, and NPS from any act or omission of the Recipient, its officers, employees, or (members, participants, agents, representatives, agents as appropriate), (1) against third party claims for damages arising from one or more identified activities carried out in connection with this financial assistance agreement and (2) for damage or loss to government property resulting from such an activity. This obligation shall survive the termination of this Agreement.
 - 2. The Recipient agrees to cooperate with NPS in the investigation and defense of any claims that may be filed with NPS arising out of the activities of the Recipient, its agents, and employees.
 - 3. Flow-down: For the purposes of this clause, "recipient" includes such sub-recipients, contractors, or subcontractors as, in the judgment of the recipient and subject to the Government's determination of sufficiency, have sufficient resources and/or maintain adequate and appropriate insurance to achieve the purposes of this clause.

XI. STANDARD TERMS AND CONDITIONS

- 1. DEPARTMENT OF INTERIOR STANDARD TERMS AND CONDITIONS, 2 CFR 200, 2 CFR 1402

Recipients must comply with all applicable federal statutes, regulations, executive orders (EOs), Office of Management and Budget (OMB) circulars. Any inconsistency or conflict in Standard Terms and Conditions, Program-Specific Terms and Conditions, and any Special Award Conditions of this Award will be resolved according to the following order of precedence: federal laws, Executive Orders, federal regulations, applicable notices published in the Federal Register, OMB circulars, Interior's Standard Terms and Conditions, Program-Specific Terms and Conditions, and any Special Award Conditions.

DOI terms and regulatory requirements located at:

- <https://www.doi.gov/grants/doi-standard-terms-and-conditions>
- [eCFR :: 2 CFR Part 200 -- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards](#)
- [eCFR :: 2 CFR Part 1402 -- Financial Assistance Interior Regulation, Supplementing the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards](#)

2. APPROVED INDIRECT RATE

Indirect costs must be charged consistently in accordance with the approved project budget, which is incorporated into this award as an attachment. In the case of a Master Cooperative agreement, indirect costs will be incorporated at the Task Agreement level. If the recipient has a Federally approved indirect rate, it is the responsibility of the Recipient to work with their cognizant agency in a timely manner to avoid the expiration of the Federally negotiated rate. If the Recipient has never had a Federally approved negotiated indirect rate, they may utilize a 10% de minimis rate per 2 CFR 200.414.

3. RESERVED

4. KEY OFFICIALS

- A. Communications - The recipient shall address any communication regarding this Agreement to the ATR/Program Officer with a copy to the Awarding/Grants Management Officer. Communications that relate solely to technical matters may be sent only to the ATR/Program Officer.
- B. Changes in Key Officials - Recipient may not make any permanent change in a key official without written notice to the other party reasonably in advance of the proposed change. The notice will include a justification with sufficient detail to permit evaluation of the impact of such a change on the scope of work specified within this Agreement. Any permanent change in key officials will be made only by Agency Approval.

5. PRIOR APPROVAL

The Recipient shall obtain prior approval for budget and program revisions, in accordance with 2 CFR 200.308.

6. PROPERTY UTILIZATION

All tools, equipment, and facilities furnished by NPS will be on a loan basis. Tools, equipment, and facilities will be returned in the same condition received except for normal wear and tear in project use. Property management standards set forth in 2 CFR 200.310 through 200.316 apply to this Agreement. All provided items must be

consistently tracked and accounted for by the recipient and NPS both when provided to the recipient and upon return.

7. MODIFICATION, REMEDIES FOR NONCOMPLIANCE, TERMINATION

- A. This Agreement may be modified at any time, prior to the expiration date, only by agreement executed by both parties. Modifications will be in writing and approved by the Financial Assistance Awarding Officer and the authorized representative of Recipient.
- B. Additional conditions may be imposed by NPS if it is determined that the Recipient is non-compliant to the terms and conditions of this agreement. Remedies for Noncompliance can be found in 2 CFR 200.339.
- C. This Agreement may be terminated consistent with applicable termination provisions for Agreements found in 2 CFR 200.340 through 200.343.

8. REPORTING OF MATTERS RELATED TO RECIPIENT INTEGRITY AND PERFORMANCE

A. General Reporting Requirement

- i. If the total value of your currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of this Federal award, then you, as the recipient, during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

B. Proceedings You Must Report

- i. Submit the information required about each proceeding that:
- ii. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government.
- iii. Reached its final disposition during the most recent five-year period; and
- iv. Is one of the following:
 - a) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and condition; or
 - b) A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more; or

- c) An administrative proceeding, as defined in paragraph 5 of this award term and condition, that resulted in a finding of fault and liability and payment of either a monetary fine or penalty of \$5,000 or more; or reimbursement, restitution, or damages more than \$100,000; or
- d) Any other criminal, civil, or administrative proceeding if:
 - 1. It could have led to an outcome described the award terms and conditions.
 - 2. It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and
 - 3. The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.

C. Reporting Procedures

Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in the award terms and conditions. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

D. Reporting Frequency

During any period when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five-year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.

E. Definitions

- i. For purposes of this award term and condition:
 - a) Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (*e.g.*, Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.
 - b) Conviction means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of *nolo contendere*.
 - c) Total value of currently active grants, cooperative agreements, and procurement contracts includes—
 - 1. Only the Federal share of the funding under any Federal award with a recipient cost share or match; and

2.The value of all expected funding increments under a Federal award and options, even if not yet exercised.

9. FUNDING USED FOR THE PURCHASE AND OPERATION OF UNMANNED AIRCRAFT SYSTEMS (UAS)

If Federal funding is provided to a State, local, tribal, or territorial government for the purchase or use of UAS for their operations, the recipient must have in place policies and procedures to safeguard individuals' privacy, civil rights, and civil liberties prior to expending such funds.

Per the policy memorandum issued by National Park Service Director, dated June 19, 2014, the launching, landing, and operating of unmanned aircraft, that is not under the control of the Federal government, on lands and waters administered by the National Park Service is prohibited unless approval is received from the Associate Director for such purposes as:

Scientific study, search and rescue operations, fire operations, and law enforcement. Administrative use includes the use of unmanned aircraft by:

- (i) NPS personnel as operators or crew;
- (ii) cooperators such as government agencies and universities that conduct unmanned aircraft operations for the NPS pursuant to a written agreement; and
- (iii) other entities, including commercial entities, conducting unmanned aircraft operations for the NPS, provided such entities are in compliance with all applicable FAA and Department of the Interior requirements.

10. PATENTS AND INVENTIONS (37 CFR 401)

Recipients of agreements which support experimental, developmental, or research work shall be subject to applicable regulations governing patents and inventions, including the government-wide regulations issued by the Department of Commerce at 37 CFR 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements. These regulations do not apply to any agreement made primarily for educational purposes.

In accordance with 37 CFR 401.3(a), the provision at 37 CFR 401.14(a), with authorized modifications for the National Park Service, is hereby included in this agreement:

(a) Definitions

- (1) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

(2) *Subject invention* means any invention of the recipient conceived or first actually reduced to practice in the performance of work under this agreement, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of agreement performance.

(3) *Practical Application* means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) *Made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) *Small Business Firm* means a small business concern as defined at section 2 of Public Law. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this provision, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) *Nonprofit Organization* means a university or other institution of higher education, or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) Allocation of Principal Rights.

The Recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to this provision and 35 U.S.C. 203. With respect to any subject invention in which the Recipient retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Application by Recipient

(1) The Recipient will disclose each subject invention to the National Park Service within two months after the inventor discloses it in writing to Recipient personnel responsible for patent matters. The disclosure to the National Park Service shall be in the form of a written report and shall identify the agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical,

chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the National Park Service, the Recipient will promptly notify the National Park Service of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Recipient.

(2) The Recipient will elect in writing whether or not to retain title to any such invention by notifying the National Park Service within two years of disclosure to the National Park Service. However, in any case where publication, on sale or public use has initiated the one-year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the National Park Service to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Recipient will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Recipient will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the National Park Service, be granted.

(d) Conditions When the Government May Obtain Title.

The Recipient will convey to the National Park Service, upon written request, title to any subject inventions

(1) If the Recipient fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that the National Park Service may only request title within 60 days after learning of the failure of the Recipient to disclose or elect within the specified times.

(2) In those countries in which the Recipient fails to file patent applications within the times specified in (c) above; provided, however, that if the Recipient has filed a patent application in a country after the times specified in (c) above, but prior to its receipt of the written request of the National Park Service, the Recipient shall continue to retain title in that country.

(3) In any country in which the Recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to Recipient and Protection of the Recipient Right to File

(1) The Recipient will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Recipient fails to disclose the invention within the times specified in (c), above. The Recipient's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Recipient is a party and includes the right to grant sublicenses of the same scope to the extent the Recipient was legally obligated to do so at the time the agreement was awarded. The license is transferable only with the approval of the National Park Service except when transferred to the successor of that party of the Recipient's business to which the invention pertains.

(2) The Recipient's domestic license may be revoked or modified by the National Park Service to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and the National Park Service licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the Recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the National Park Service to the extent the Recipient, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the National Park Service will furnish the Recipient a written notice of its intention to revoke or modify the license, and the Recipient will be allowed thirty days (or such other time as may be authorized by the National Park Service for good cause shown by the Recipient) after the notice to show cause why the license should not be revoked or modified. The Recipient has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and National Park Service regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) Recipient Action to Protect the Government's Interest

(1) The Recipient agrees to execute or to have executed and promptly deliver to the National Park Service all instruments necessary to

(i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Recipient elects to retain title, and

(ii) convey title to the National Park Service when requested under paragraph (d) above and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Recipient agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Recipient each subject invention made under agreement in order that the Recipient can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The Recipient shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Recipient will notify the National Park Service of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The Recipient agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with government support under (identify the agreement) awarded by (identify the Federal agency). The government has certain rights in the invention."

(g) Subcontracts. The Recipient will include this provision, suitably modified to identify the parties, in all sub-agreements or subcontracts, regardless of tier, for experimental, developmental or research work. The sub-recipient or subcontractor will retain all rights provided for the Recipient in this provision, and the Recipient will not, as part of the consideration for awarding the sub-agreement or subcontract, obtain rights in the sub-recipient's or subcontractor's subject inventions.

(h) Reporting on Utilization of Subject Inventions. The Recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Recipient, and such other data and information as the National Park Service may reasonably specify. The Recipient also agrees to provide additional reports as may be

requested by the National Park Service in connection with any march-in proceeding undertaken by the National Park Service in accordance with paragraph (j) of this provision. As required by 35 U.S.C. 202(c)(5), the National Park Service agrees it will not disclose such information to persons outside the government without permission of the Recipient.

(i) Preference for United States Industry. Notwithstanding any other part of this provision, the Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the National Park Service upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in Rights. The Recipient agrees that with respect to any subject invention in which it has acquired title, the National Park Service has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the National Park Service to require the Recipient, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Recipient, assignee, or exclusive licensee refuses such a request the National Park Service has the right to grant such a license itself if the National Park Service determines that:

(1) Such action is necessary because the Recipient or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.

(2) Such action is necessary to alleviate health or safety needs, which are not reasonably satisfied by the Recipient, assignee, or their licensees.

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this provision has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for Agreements with Nonprofit Organizations.

If the Recipient is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the National Park Service, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the Recipient;

(2) The Recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the National Park Service deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the Recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the Recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Recipient is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Recipient. However, the Recipient agrees that the National Park Service may review the Recipient's licensing program and decisions regarding small business applicants, and the Recipient will negotiate changes to its licensing policies, procedures, or practices with the National Park Service when this review discloses that the Recipient could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communication. Communications regarding matters relating to this provision shall be directed to the Deputy Associate Solicitor, Branch of Procurements and Patents, Office of the Solicitor, U.S. Department of the Interior, 1849 C Street NW, Washington, D.C. 20240.

11. ENSURING THE FUTURE IS MADE IN ALL OF AMERICA BY ALL OF AMERICA'S WORKERS PER E.O. 14005 (dated January 25, 2021)

Per Executive Order 14005, entitled "Ensuring the Future Is Made in All of America by All of America's Workers" the Recipient shall maximize the use of goods, products, and materials produced in, and services offered in, the United States, and whenever possible, procure goods, products, materials, and services from sources that will help American businesses compete in strategic industries and help America's workers thrive.

12. SECTION 508 OF THE REHABILITATION ACT OF 1973 (29 U.S.C. §794 (d))

While the requirements of Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794d), do not apply to financial assistance agreements, the NPS is subject to the Act's requirements that all documents posted on an NPS, or NPS-hosted website comply with the accessibility standards of the Act. Accordingly, final deliverable reports prepared under this agreement and submitted in electronic format must be submitted in a format whereby NPS can easily meet the requirements of Section 508 of the Rehabilitation Act of 1973, as amended. *NOTE: Progress Reports and financial reports are not considered final deliverables and therefore the following requirements do not apply.*

All electronic documents prepared under this Agreement must meet the requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The Act requires that all electronic products prepared for the Federal Government be accessible to persons with disabilities, including those with vision, hearing, cognitive, and mobility impairments. View [Section 508 of the Rehabilitation Act, Standards and Guidelines](#) for detailed information.

The following summarizes some of the requirements for preparing NPS reports in conformance with Section 508 for eventual posting by NPS to an NPS-sponsored website. For specific detailed guidance and checklists for creating accessible digital content, please go to [Section 508.gov, Create Accessible Digital Products](#). All accessible digital content must conform to the requirements and techniques of the [Web Content Accessibility Guidelines \(WCAG\) 2.0 or later, Level AA Success Criteria](#).

a. Electronic documents with images

Provide a text equivalent for every non-text element (including photographs, charts, and equations) in all publications prepared in electronic format. Use descriptions such as "alt" and "longdesc" for all non-text images or place them in element content. For all documents prepared, vendors must prepare one standard HTML format as described in this statement of work AND one text format that includes descriptions for all non-text images. "Text equivalent" means text sufficient to reasonably describe the image. Images that are merely decorative require only a very brief "text equivalent" description. However, images that convey information that is important to the content of the report require text sufficient to reasonably describe that image and its purpose within the context of the report.

b. Electronic documents with complex charts or data tables

When preparing tables that are heavily designed, prepare adequate alternate information so that assistive technologies can read them out. Identify row and column headers for data tables. Provide the information in a non-linear form. Markups will be used to associate data cells and header cells for data tables that have two or more logical levels of row and column headers.

c. Electronic documents with forms

When electronic forms are designed to be completed on-line, the form will allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

13. LOBBYING PROHIBITION

18 U.S.C. §1913, Lobbying with Appropriated Moneys, as amended by Public Law 107–273, Nov. 2, 2002, Violations of this section shall constitute violations of section 1352(a) of title 31. In addition, the related restrictions on the use of appropriated funds found in Div. F, § 402 of the Omnibus Appropriations Act of 2008 (P.L. 110–161) also apply.

14. ANTI-DEFICIENCY ACT

Pursuant to 31 U.S.C. §1341 nothing contained in this Agreement shall be construed as binding the NPS to expend in any one fiscal year any sum in excess of appropriations made by Congress, for the purposes of this Agreement for that fiscal year, or other obligation for the further expenditure of money in excess of such appropriations.

15. ASSIGNMENT

No part of this Agreement shall be assigned to any other party without prior written approval of the NPS and the Assignee.

16. MEMBER OF CONGRESS

Pursuant to 41 U.S.C. § 22, no Member of Congress shall be admitted to any share or part of any contract or agreement made, entered into, or adopted by or on behalf of the United States, or to any benefit to arise thereupon.

17. AGENCY

The Recipient is not an agent or representative of the United States, the Department of the Interior, NPS, or the Park, nor will the Recipient represent itself as such to third parties. NPS employees are not agents of the Recipient and will not act on behalf of the Recipient.

18. NON-EXCLUSIVE AGREEMENT

This Agreement in no way restricts the Recipient or NPS from entering into similar agreements, or participating in similar activities or arrangements, with other public or private agencies, organizations, or individuals.

19. PARTIAL INVALIDITY

If any provision of this Agreement or the application thereof to any party or circumstance shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement or the application of such provision to the parties or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby and each provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

20. NO EMPLOYMENT RELATIONSHIP

This Agreement is not intended to and shall not be construed to create an employment relationship between NPS and Recipient or its representatives. No representative of Recipient shall perform any function or make any decision properly reserved by law or policy to the Federal government.

21. NO THIRD-PARTY RIGHTS

This Agreement creates enforceable obligations between only NPS and Recipient. Except as expressly provided herein, it is not intended, nor shall it be construed to create any right of enforcement by or any duties or obligation in favor of persons or entities not a party to this Agreement.

22. PROGRAM INCOME

If the Recipient earns program income, as defined in 2 CFR §200.1, during the period of performance of this agreement, to the extent available the Recipient must disburse funds available from program income, and interest earned on such funds, before requesting additional cash payments (2 CFR §200.305 (5)). As allowed under 2 CFR §200.307, program income may be added to the Federal award by the Federal agency and the non-Federal entity. The program income must be used for the purposes, and under the conditions of, the Federal award. Disposition of program income remaining after the end of the period of performance shall be negotiated as part of the agreement closeout process.

23. RIGHTS IN DATA

The Recipient must grant the United States of America a royalty-free, non-exclusive and irrevocable license to publish, reproduce and use, and dispose of in any manner and for any purpose without limitation, and to authorize or ratify publication, reproduction or use by others, of all copyrightable material first produced or composed under this Agreement by the Recipient, its employees or any individual or concern specifically employed or assigned to originate and prepare such material.

24. CONFLICT OF INTEREST

(a) Applicability.

1. This section intends to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under or with respect to Federal financial assistance agreements.
2. In the procurement of supplies, equipment, construction, and services by recipients and by subrecipients, the conflict-of-interest provisions in 2 CFR 200.318 apply.

(b) Requirements.

1. Non-Federal entities must avoid prohibited conflicts of interest, including any significant financial interests that could cause a reasonable person to question the recipient's ability to provide impartial, technically sound, and objective performance under or with respect to a Federal financial assistance agreement.
2. In addition to any other prohibitions that may apply with respect to conflicts of interest, no key official of an actual or proposed recipient or subrecipient, who is substantially involved in the proposal or project, may have been a former Federal employee who, within the last one (1) year, participated personally and substantially in the evaluation, award, or administration of an award with respect to that recipient or subrecipient or in development of the requirement leading to the funding announcement.
3. No actual or prospective recipient or subrecipient may solicit, obtain, or use non-public information regarding the evaluation, award, or administration of an award to that recipient or subrecipient or the development of a Federal financial assistance opportunity that may be of competitive interest to that recipient or subrecipient.

(c) Notification.

1. Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass-through entity in accordance with 2 CFR 200.112, Conflicts of interest.

(d) Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The recipient is responsible for notifying the Financial Assistance Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by subrecipients. Restrictions on Lobbying. Non-Federal entities are strictly prohibited from using funds under this grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR Part 18 and 31 USC 1352.

- (e) Review Procedures. The Financial Assistance Officer will examine each conflict-of-interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement and will determine whether a significant potential conflict exists and, if it does, develop an appropriate means for resolving it.
- (f) Enforcement. Failure to resolve conflicts of interest in a manner that satisfies the Government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR 200.338, Remedies for Noncompliance, including suspension or debarment (see also 2 CFR Part 180).

25. BUILD AMERICA, BUY AMERICA

(a) Standard Buy America Preference Award Term

The following terms apply for financial assistance agreements for infrastructure that currently or are anticipated to exceed the Simplified Acquisition Threshold (SAT), currently \$250,000.00. This threshold applies for the duration of the award and obligations made for infrastructure projects when additional funds are obligated through modification or renewal.

Required Use of American Iron, Steel, Manufactured Products, and Construction Materials

As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a federal award that are part of Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless subject to an approved waiver. The requirements of this section must be included in all subawards, including all contracts and purchase orders for work or products under this program.

Recipients of an award of Federal financial assistance are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

1. All iron and steel used in the project are produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;
2. All manufactured products used in the project are produced in the United States -this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic

content of the manufactured product has been established under applicable law or regulation; and,

3. All construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

For further information on the Buy America preference, please visit [“Buy America” Domestic Sourcing Guidance and Waiver Process for DOI Financial Assistance Agreements | U.S. Department of the Interior](#). Additional information can also be found at the White House Made in America Office website: [Made In America | OMB | The White House](#).

Waivers

When necessary, recipients may apply for, and the Department of the Interior (DOI) may grant, a waiver from these requirements, subject to review by the Made in America Office. The DOI may waive the application of the domestic content procurement preference in any case in which it is determined that one of the below circumstances applies:

1. Non-availability Waiver: the types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality;
2. Unreasonable Cost Waiver: the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent; or
3. Public Interest Waiver: applying the domestic content procurement reference would be inconsistent with the public interest.

There may be instances where an award qualifies, in whole or in part, for an existing DOI general applicability waiver as described at: [Approved DOI General Applicability Waivers | U.S. Department of the Interior](#).

If the specific financial assistance agreement, infrastructure project, or non-domestic materials meets the criteria of an existing general applicability waiver within the limitations defined within the waiver, the recipient is not required to request a separate waiver for non-domestic materials.

If a general applicability waiver does not already apply, and a recipient believes that one of the above circumstances applies to an award, a request to waive the application of the domestic content procurement preference may be submitted to the Financial Assistance Awarding Officer in writing. Waiver requests shall include the below information. The waiver shall not include any Privacy Act information, sensitive data, or proprietary information within their waiver request. Waiver requests will be posted to [“Buy America” Domestic Sourcing Guidance and Waiver Process for DOI Financial Assistance Agreements | U.S. Department of the Interior](#) and are subject to public comment periods of no less than 15 days. Waiver requests will also be reviewed by the Made in America Office.

1. Type of waiver requested (non-availability, unreasonable cost, or public interest).
2. Requesting entity and Unique Entity Identifier (UEI) submitting the request.
3. Department of Interior Bureau or Office who issued the award.
4. Federal financial assistance listing name and number (reference block 2 on DOI Notice of Award)
5. Financial assistance title of project (reference block 8 on DOI Notice of Award).
6. Federal Award Identification Number (FAIN).
7. Federal funding amount (reference block 11.m. on DO Notice of Award).
8. Total cost of Infrastructure expenditures (includes federal and non-federal funds to the extent known).
9. Infrastructure project description(s) and location(s) (to the extent known).
10. List of iron or steel item(s), manufactured goods, and construction material(s) the recipient seeks to waive from Buy America requirements. Include the name, cost, countries of origin (if known), and relevant PSC or NAICS code for each.
11. A certification that the recipient made a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, and nonproprietary communications with the prime contractor.
12. A statement of waiver justification, including a description of efforts made (e.g., market research, industry outreach) by the recipient, in an attempt to avoid the need for a waiver. Such a justification may cite, if applicable, the

absence of any Buy America-compliant bids received in response to a solicitation.

13. Anticipated impact if no waiver is issued. Approved waivers will be posted at [Approved DOI General Applicability Waivers | U.S. Department of the Interior](#); recipients requesting a waiver will be notified of their waiver request determination by an Financial Assistance Awarding Officer.

Questions pertaining to waivers should be directed to the Financial Assistance Awarding Officer.

Definitions

“Construction materials” includes an article, material, or supply that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

“Construction Materials” does not include cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.

“Domestic content procurement preference” means all iron and steel used in the project are produced in the United States; the manufactured products used in the project are produced in the United States; or the construction materials used in the project are produced in the United States.

“Infrastructure” includes, at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure includes facilities that generate, transport, and distribute energy.

“Project” means the construction, alteration, maintenance, or repair of infrastructure in the United States.

(b) Buy America Preference Alternate Small Award Term

The followings terms apply for financial assistance agreements for infrastructure that do not currently and are not anticipated to exceed the Simplified Acquisition Threshold (SAT), currently \$250,000.00.

Required Use of American Iron, Steel, Manufactured Products, and Construction Materials

As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a federal award that are part of Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless subject to an approved waiver. The requirements of this section must be included in all subawards, including all contracts and purchase orders for work or products under this program.

This award currently qualifies for the existing DOI general applicability small grant waiver as described at: www.doi.gov/grants/BuyAmerica/Generalapplicabilitywaivers on the basis that the total award amount does not exceed the Simplified Acquisition Threshold (SAT), currently \$250,000.00. While this waiver permits the use of non-domestic materials for DOI financial assistance awards that do not exceed the SAT, recipients shall still maximize the use of domestic materials to the maximum extent possible. In the event the total award amount is increased to an amount above the SAT, recipients under this award are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

1. All iron and steel used in the project are produced in the United States--this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;
2. All manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and
3. All construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the

infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

For further information on the Buy America preference, please visit www.doi.gov/grants/BuyAmerica. Additional information can also be found at the White House Made in America Office website: www.whitehouse.gov/omb/management/made-in-america/.

In the event the total amount of this award increases to an amount that exceeds the SAT, recipients shall notify their financial assistance awarding officer of any non-domestic iron, steel, manufactured products, or construction materials already incorporated into the project as early as possible. Recipients may then apply for a DOI waiver, subject to review and approval by DOI and the Made in America Office, for non-compliant materials if it is determined that one of the below circumstances applies:

1. Non-availability Waiver: the types of iron, steel, manufactured products, or construction materials used are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality;
2. Unreasonable Cost Waiver: the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent; or
3. Public Interest Waiver: applying the domestic content procurement preference would be inconsistent with the public interest.

Instructions for requesting a waiver can be found on www.doi.gov/grants/buyamerica. Recipients requesting a waiver will be notified of their waiver request determination by an awarding officer. Questions pertaining to waivers should be directed to the financial assistance awarding officer.

Recipients shall consult [OMB Memorandum M-22-11, Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure](#), for additional information, inclusive of definitions for Construction Materials, Domestic Content Procurement Preference, and Infrastructure.

The DOI Small Grant General Applicability waiver expires on February 20, 2028. For awards that extend beyond the expiration date of the waiver, recipients shall ensure all iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless an approved waiver is obtained.

26. GEOSPATIAL DATA

Geospatial Data Act of 2018, Pub. L. 115-254, Subtitle F – Geospatial Data, §§ 751-759C, codified at 43 U.S.C. §§ 2801–2811 - Federal recipient collection of geospatial data through the use of the Department of the Interior financial assistance funds requires a due diligence search at the GeoPlatform.gov list of datasets to discover whether the needed geospatial-related data, products, or services already exist. If the required data set already exists, the recipient must use it. If the required data is not already available, the recipient must produce the proposed geospatial data, products, or services in compliance with applicable proposed guidance and standards established by the Federal Geospatial Data Committee (FGDC) posted at www.fgdc.gov.

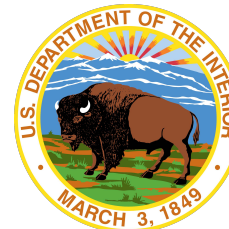
Recipients must submit a digital copy of all GIS data produced or collected as part of the award funds to the bureau or office via email or data transfer. All GIS data files shall be in open format. All delineated GIS data (points, lines, or polygons) should be established in compliance with the approved open data standards with complete feature level metadata.

27. SIGNATURES

Recipients are NOT required to sign the Notice of Financial Assistance Award letter or any other award document. As per DOI standard award terms and conditions, the recipient's acceptance of a financial assistance award is defined as the start of work, drawing down funds, or accepting the award via electronic means.

1. DATE ISSUED MM/DD/YYYY 09/21/2023		1a. SUPERSEDES AWARD NOTICE dated except that any additions or restrictions previously imposed remain in effect unless specifically rescinded	
2. CFDA NO. 15.928 - Battlefield Land Acquisition Grants			
3. ASSISTANCE TYPE Project Grant			
4. GRANT NO. P23AP02309-00 Originating MCA #		5. TYPE OF AWARD Other	
4a. FAIN P23AP02309		5a. ACTION TYPE New	
6. PROJECT PERIOD MM/DD/YYYY From 09/21/2023		Through MM/DD/YYYY 10/30/2026	
7. BUDGET PERIOD MM/DD/YYYY From 09/21/2023		Through MM/DD/YYYY 10/30/2026	

NOTICE OF AWARD



AUTHORIZATION (Legislation/Regulations)

54 U.S.C. § 308103 Battlefield Land Acquisition Grant Program

8. TITLE OF PROJECT (OR PROGRAM) Battlefield Land Acquisition Grant: Fee acquisition of 0.85-acre Williams Tract at Franklin	
9a. GRANTEE NAME AND ADDRESS CITY OF FRANKLIN 109 THIRD AVE S STE111 FRANKLIN, TN, 37064-2519	9b. GRANTEE PROJECT DIRECTOR ERIC STUCKEY
10a. GRANTEE AUTHORIZING OFFICIAL ERIC STUCKEY	10b. FEDERAL PROJECT OFFICER Dr. Nancy Marksby 1849 C St NW Main Interior Building National Park Service Washington, DC, 20240-0001 Phone: 202.354.2037

ALL AMOUNTS ARE SHOWN IN USD

11. APPROVED BUDGET (Excludes Direct Assistance)		12. AWARD COMPUTATION	
I Financial Assistance from the Federal Awarding Agency Only		a. Amount of Federal Financial Assistance (from item 11m) \$ 1,980,050.00	
II Total project costs including grant funds and all other financial participation		b. Less Unobligated Balance From Prior Budget Periods \$ 0.00	
		c. Less Cumulative Prior Award(s) This Budget Period \$ 0.00	
		d. AMOUNT OF FINANCIAL ASSISTANCE THIS ACTION \$ 1,980,050.00	
		13. Total Federal Funds Awarded to Date for Project Period \$ 1,980,050.00	
		14. RECOMMENDED FUTURE SUPPORT (Subject to the availability of funds and satisfactory progress of the project):	
		YEAR TOTAL DIRECT COSTS YEAR TOTAL DIRECT COSTS	
		a. 2 \$ d. 5 \$	
		b. 3 \$ e. 6 \$	
		c. 4 \$ f. 7 \$	
		15. PROGRAM INCOME SHALL BE USED IN ACCORD WITH ONE OF THE FOLLOWING ALTERNATIVES:	
		a. DEDUCTION b. ADDITIONAL COSTS c. MATCHING d. OTHER RESEARCH (Add / Deduct Option) e. OTHER (See REMARKS)	
		b	
		16. THIS AWARD IS BASED ON AN APPLICATION SUBMITTED TO, AND AS APPROVED BY, THE FEDERAL AWARDING AGENCY ON THE ABOVE TITLED PROJECT AND IS SUBJECT TO THE TERMS AND CONDITIONS INCORPORATED EITHER DIRECTLY OR BY REFERENCE IN THE FOLLOWING:	
		a. The grant program legislation b. The grant program regulations. c. This award notice including terms and conditions, if any, noted below under REMARKS. d. Federal administrative requirements, cost principles and audit requirements applicable to this grant.	
		In the event there are conflicting or otherwise inconsistent policies applicable to the grant, the above order of precedence shall prevail. Acceptance of the grant terms and conditions is acknowledged by the grantee when funds are drawn or otherwise obtained from the grant payment system.	

REMARKS (Other Terms and Conditions Attached - ☒ Yes ☐ No)

GRANTS MANAGEMENT OFFICIAL:

James Modrick, Lead Grants Management Specialist and Awarding Officer
1849 C Street NW
MS 7228
Washington, DC, 20240-1000
Phone: 202-354-2037

17. VENDOR CODE 0071305695			18a. UEI E91GFR3AMMD5		18b. DUNS 081460768		19. CONG. DIST. 07	
LINE#	FINANCIAL ACCT	AMT OF FIN ASST	START DATE	END DATE	TAS ACCT	PO LINE DESCRIPTION		
1	0051041812-00010	\$1,980,050.00	09/21/2023	10/30/2026	5035	FY21X LWCF TN Franklin Battlefield		

NOTICE OF AWARD (Continuation Sheet)

PAGE 2 of 2	DATE ISSUED 09/21/2023
GRANT NO. P23AP02309-00	

Federal Financial Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
10/01/2023	09/30/2024	Annual	12/29/2024
10/01/2024	09/30/2025	Annual	12/29/2025
10/01/2025	09/30/2026	Annual	12/29/2026
10/01/2026	10/30/2026	Final	02/27/2027

Performance Progress Report Cycle			
Reporting Period Start Date	Reporting Period End Date	Reporting Type	Reporting Period Due Date
10/01/2023	09/30/2024	Annual	12/29/2024
10/01/2024	09/30/2025	Annual	12/29/2025
10/01/2025	09/30/2026	Annual	12/29/2026
10/01/2026	10/30/2026	Final	02/27/2027

AWARD ATTACHMENTS

CITY OF FRANKLIN

P23AP02309-00

1. P23AP02309_Grant Agreement
2. P23AP02309_Budget Narrative

Grant Agreement P23AP02309
Between
THE UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
AND
CITY OF FRANKLIN, TENNESSEE

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I. LEGAL AUTHORITY

NPS enters into this Agreement pursuant to the Battlefield Acquisition Grant Program of the American Battlefield Protection Program within the National Park Service and Related Programs (54 U.S.C. §308103).

II. PERFORMANCE GOALS AND PROJECT OBJECTIVES

NPS provides Federal financial assistance to State and local governments for the acquisition of fee-simple or less-than-fee interests in sites for preservation and protection through the Battlefield Acquisition Grant Program. Conversion to any other uses without express written consent of the Secretary of the Interior is prohibited.

This Agreement provides for the fee-simple acquisition of the 0.87-acre Williams Tract, Williamson County, Tennessee (Property) which is part of the Franklin Battlefield. As a sub-recipient, Franklin's Charge is in the process of acquiring the Williams Tract. A recorded easement, to be held by the Tennessee Historical Commission, must provide for the permanent preservation and protection of the Property by restricting the use, development, and conversion of the Property, and by requiring public access to the Property.

These provisions represent a perpetual Federal interest in the Property. A breach of these provisions can only be remedied by the specific performance of the statement of work in this Agreement. Funds awarded under this Agreement cannot be repaid to negate these provisions.

III. PUBLIC PURPOSE

The Battlefield Land Acquisition Grant Program assists state and local governments in protecting sites where historic battles were fought on American soil during the armed conflicts that shaped the growth and development of the United States, in order that present and future generations may learn and gain inspiration from the ground where Americans made their ultimate sacrifice.

IV. STATEMENT OF WORK

This Agreement provides for the following detailed project statement of work, including the activities to be undertaken, descriptions of major tasks, and project milestones.

- A. **Obtain a Property Appraisal:** The Recipient must acquire and submit an acceptable appraisal and appraisal review of the Property. Real property that will be purchased with funds from Federal financial assistance actions must be appraised in accordance with the Uniform Appraisal Standards for Federal Land Acquisitions (UASFLA or the "Yellow Book") by an independent real property appraiser licensed or certified by the state in which the property is located. The appraisal must be reviewed by a qualified review appraiser that meets qualifications established by the Department of the Interior Appraisal and Valuation Services (AVSO). No Federal funds may be used for the purchase of the Property without an acceptable appraisal accompanied by a written

appraisal review report that complies with standards approved by AVSO.

- B. **Submit an Updated Property Request to NPS:** Prior to the drawdown of funds, the Recipient must submit a SF-429 Real Property Status Report Cover Page and an SF-429B Request to Acquire, Improve, or Furnish. The SF-429B must include the appraised value of the Property obtained in Task A above. Federal funds withdrawn for the purchase of the Property prior to submitting a complete and accurate SF-429B may be subject to repayment. The Recipient must also certify to NPS any changes to information about the Property by annually completing and submitting an updated SF-429 Cover Page Real Property Status Report and an SF-429A General Reporting. The SF-429A must be included with the annual interim Project Progress Report (PPR) throughout the Period of Performance. (See Article IX.C.)
- C. **Submit a Draft Easement:** The Recipient must submit a draft of the easement to NPS and the Tennessee Historic Preservation Office (TN SHPO) for review and approval. The easement must identify the **Tennessee Historical Commission** as the easement holder. Any change to the easement holder requires a modification of this Agreement. The easement must:
- include NPS ABPP's legal authorization to award the grant and acknowledgement of the grant;
 - acknowledge the LWCF Act of 1965 and Section 200305(f)(3) non-conversion clause as well as the process should a conversion be proposed;
 - state the historic significance of the property as it relates to the historic war (Revolutionary War, War of 1812, Civil War) including the following information from the relevant Survey Report: battlefield name, survey number, and priority ranking;
 - state the conservation and preservation purposes advanced by the easement including the preservation of the battlefield for curation, interpretation, public benefit, and any additional natural features or resources;
 - identify perpetual duration binding all successors in interest to the terms of the deed of easement;
 - include a baseline documentation report on the current condition of the property and resources known at the effective date of the easement incorporated by reference into the deed of easement and recorded with the deed of easement;
 - express and define limitations on subdivision;
 - restrict new construction not directly related to the property as an historic battlefield or that alters the setting and/or scale of improvements on the property at time of closing;
 - include limiting permitted activities to those occurring at time of closing that do not harm the preservation/conservation purposes. Activities that would alter the physical and cultural landscape must be reviewed and approved in writing by the SHPO, even in cases where the SHPO is not the easement holder. Examples include residential housing, agriculture, and other commercial activity;
 - include provisions sufficient to protect the historic property, such as no grading, no filling, no building roads, no timbering or clear cutting (without a pre-approved forestry plan and SHPO pre-approval), and no sub soiling;
 - state that demolition of existing structure or buildings will only occur after

consultation with the grantee and SHPO on its National Register eligibility, approval of a demolition plan by the SHPO, and approval of the demolition by the easement holder;

- include provision requiring the SHPO and easement holder's consent prior to placing any utility or utility easement on the property, and the landowner to promptly notify the easement holder and SHPO when a utility or utility easement is proposed on the property;
- Allow some form of public access to the property;
- include statements guiding any archeological activities on the property and future curation of any recovered artifacts/resources. This includes any intentional archeological survey, planned and approved non-archeological ground-disturbing activities, inadvertent or unexpected archeological discoveries, and the notice and oversight of emergency ground disturbing activities;
- establish a monitoring system by easement holder to ensure landowner is following agreed upon restrictions and activities, a process to review and approve proposed activities requiring consent from the easement holder, guidelines providing an opportunity to cure violations of the terms of the easement, and remedies available to the holder should enforcement of the terms of the easement be necessary;
- state that any activity will adhere to the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation and Guidelines for the Treatment of Cultural Landscapes*;
- include provisions allowing for amendment of the easement, with consent of the easement holder and NPS ABPP, that does not interfere with its perpetual duration, is not contrary to or inconsistent with its conservation purpose, does not affect relevant tax requirements (if applicable), and ensures proper recordation of the amendment;
- specify the permitted uses of the Property;
- restrict conversion of the Property to any other uses;
- require the express written consent of the Secretary of the Interior in order to extinguish the Federal interest in the Property.

- D. **Consult with the State Historic Preservation Officer:** The Recipient must complete the consultation process with the TN SHPO under the National Historic Preservation Act (54 U.S.C. 306108, or Section 106) and its implementing regulations, 36 CFR Part 800, on any historic properties that are listed in or may be eligible for listing in the National Register of Historic Places. The Recipient must carry out the requirements of 36 CFR 800.4 through 800.6 with the SHPO. The Recipient must provide NPS with copies of all information submitted to or received from the SHPO.

The Recipient must ensure that there is no activity on the Property with the potential to affect historic properties, including activity to any extant buildings or structures, until the NPS makes a determination in the consultation process. Should it be discovered that a Recipient has deliberately damaged a property (e.g., pre-emptive demolition) to avoid requirements, or having legal power to prevent it, has allowed a significant adverse effect to occur to the property, the NPS must be notified to determine, in consultation with the ACHP, if the project can proceed. Pre-emptive demolition may

include a Recipient's failure to take reasonable steps to protect a property from vandalism or destruction by third parties.

The Recipient must notify NPS if, after routine consultation or coordination with the SHPO, disputes remain regarding the identification, evaluation, or treatment of historic properties. This task must be completed by the expiration Date of this Agreement, or this Agreement may be terminated and Federal funds subject to repayment.

- E. **Erect a Project Sign:** The Recipient must place a sign readable from each public right-of-way on the Property. The sign must briefly identify the historical significance of the Property and that the Property is being preserved with Federal funds from the American Battlefield Protection Program administered by the National Park Service. The sign must be erected 90 days prior to the Expiration Date of this Agreement and must remain in place for at least 24 months. A photograph of the erected sign must be provided to the NPS with the Final Report (see Article IX.B.).
- F. **Record the Easement:** The Recipient must record the easement in the relevant Property records to ensure the recordation of Federal interest in the Property. All recipients must agree to record with or in the deed and record in the easement (as applicable) the following:
- That the property was acquired with assistance from Federal Land and Water Conservation Act funds pursuant to the American Battlefield Protection Act (16 USC 469.k.);
 - That the property is subject to provisions of Section 200305(f)(3) of the Land and Water Conservation Act;
 - That the property, therefore, may never be converted to other than preservation uses without the written approval of the Secretary of the Interior;
 - That in the event of a breach of the requirements of Section 200305(f)(3) (unauthorized conversion), the only remedy is immediate compliance with Section 6(f)(3); and
 - That grant funds cannot be repaid to the NPS to nullify the requirements of Section 200305(f)(3).

The easement must be recorded before the Expiration Date of this Agreement, or this Agreement may be terminated and Federal funds subject to repayment. The Recipient must submit a copy of the recorded deed for the property 90 days prior to the Expiration Date of this Agreement. The Recipient must maintain documentation of the recordation of the easement and report regularly to NPS on the status of the Federal interest in the Property (see Article IX).

V. RESPONSIBILITIES OF THE PARTIES

- A. The Recipient agrees to:

1. The Recipient shall carry out the Statement of Work in accordance with the terms and conditions stated herein. The Recipient shall adhere to Federal, state, and local laws, regulations, and codes, as applicable.
 2. Recipients that issue subawards/subgrants (entities that function in whole or in part as pass-through entities) are responsible for ensuring subrecipients understand they are subject to the requirements of 2 CFR § 200.92 Subaward; 200.101 Applicability; 200.331 Requirements for pass-through entities. The Recipient must provide a list of selected subawardees/subgrantees and associated budgets to the NPS for review prior to making subawards/subgrants.
 3. Recipients that issue subawards/subgrants must report all subaward and executive compensation data pursuant to the Federal Funding Accountability and Transparency Act (FFATA) of 2006 and associate amendments (P.L. 109-282, as amended by section 6202(a) of P.L. 110-252 (see 31 U.S.C. 6101 note)). Refer to <https://www.fsrs.gov/> for more information.
 4. Recipients must hire qualified consultants and submit documentation to the NPS showing competitive selection or justification for single source procurement for contracted amounts greater than \$10,000, in accordance with 2 CFR 200.318 – 200.327.
 5. Recipients shall ensure the following conditions of the NPS ABPP Programmatic Agreement are met:
 - Recipient, or their designees, shall make all reasonable efforts to avoid disturbing gravesites, including those containing Native American human remains and associated funerary artifacts. All human remains shall be treated in a manner consistent with the ACHP's Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects.
 - All human remains encountered during the course of actions taken as a result of activities arising from this award shall be treated in accordance with NAGPRA, its regulations, and the laws and regulations of the state in which the project is located. The Recipient shall be responsible for all reasonable costs associated with treatment of human remains and associated funerary objects.
- B. Substantial involvement is defined as significant NPS participation prior to and during the performance of a financial assistance agreement. For grants, substantial involvement is neither expected nor required. No substantial involvement on the part of the NPS is anticipated for the successful completion of the statement of work detailed in this award. It is anticipated that involvement will be limited to actions related to monitoring project performance, technical assistance at the request of the recipient.

VI. COST-SHARE REQUIREMENT

At least 50% non-Federal cost-share is required for costs incurred under this Agreement. If pre-award costs are authorized, reimbursement of these costs is limited to Federal cost share percentage identified in this agreement.

VII. PRE-AWARD COSTS

The Recipient is authorized to incur pre-award costs on or after **10/14/2022**. Pre-award costs must be allowable, allocable, and reasonable under the terms and conditions of this Agreement and in accordance with the approved project budget. These costs must be charged to the initial budget period of the award as either Federal reimbursement or Non-Federal cost-share (in accordance with the cost-share ratio).

VIII. AWARD AND PAYMENT

- A. NPS will provide funding to the Recipient in an amount not to exceed **\$1,980,050.00** in accordance with the NPS approved budget. The approved budget detail is incorporated herein. Any award beyond the current fiscal year is subject to availability of funds. Acceptance of a Federal financial assistance award from the Department of the Interior carries with it the responsibility to be aware of, and comply with, the terms and conditions within this award document. Acceptance is defined as the start of work, drawing down funds, or accepting the award via electronic means.
- B. Recipient shall request payment as applicable in accordance with the following:
 - 1. **Method of Payment.** Payment will be made by advance and/or reimbursement through the Department of Treasury's Automated Standard Application for Payments (ASAP) system.
 - 2. **Requesting Advances.** Requests for advances must be submitted via the ASAP system. Requests may be submitted as frequently as required to meet the needs of the Financial Assistance (FA) Recipient to disburse funds for the Federal share of project costs. If feasible, each request should be timed so that payment is received on the same day that the funds are dispersed for direct project costs and/or the proportionate share of any allowable indirect costs. If same-day transfers are not feasible, advance payments must be as close to actual disbursements as administratively feasible.
 - 3. **Requesting Reimbursement.** Requests for reimbursements must be submitted via the ASAP system. Requests for reimbursement should coincide with normal billing patterns. Each request must be limited to the amount of disbursements made for the Federal share of direct project costs and the proportionate share of allowable indirect costs incurred during that billing period.
 - 4. **Adjusting Payment Requests for Available Cash.** Funds that are available from repayments to, and interest earned on, a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds must be disbursed before requesting additional cash payments.

5. **Bank Accounts.** All payments are made through electronic funds transfer to the bank account identified in the ASAP system by the FA Recipient.
 6. **Supporting Documents and Agency Approval of Payments.** Additional supporting documentation and prior NPS approval of payments may be required when/if a FA Recipient is determined to be “high risk” or has performance issues. If prior Agency payment approval is in effect for an award, the ASAP system will notify the FA Recipient when they submit a request for payment. The Recipient must then notify the NPS Financial Assistance Awarding Officer that a payment request has been submitted. The NPS AO may request additional information from the Recipient to support the payment request prior to approving the release of funds, as deemed necessary. The FA Recipient is required to comply with these requests. Supporting documents may include invoices, copies of contracts, vendor quotes, and other expenditure explanations that justify the reimbursement requests.
- C. Any award beyond the current fiscal year is subject to availability of funds; funds may be provided in subsequent fiscal years if project work is satisfactory, and funding is available.
 - D. Expenses charged against awards under the Agreement may not be incurred prior to the beginning of the Agreement and may be incurred only as necessary to carry out the approved objectives, scope of work and budget with prior approval from the NPS AO. The Recipient shall not incur costs or obligate funds for any purpose pertaining to the operation of the project, program, or activities beyond the expiration date stipulated in the award.
 - E. Any non–Federal share, whether in cash or in–kind, is expected to be paid out at the same general rate as the Federal share. Exceptions to this requirement may be granted by the AO based on sufficient documentation demonstrating previously determined plans for or later commitment of cash or in–kind contributions. In any case, the Recipient must meet their cost share commitment over the life of the award.

IX. REPORTS AND/OR OUTPUTS/OUTCOMES

- A. Refer to the second page of the Notice of Award document for FFR (Federal Financial Report or SF-425) frequency and due dates. Performance reports are also required at the same reporting frequency and due dates as the FFR. Reports must be submitted through the Grant Solutions “Manage Reports” functionality.
- B. A final Project Performance Report (PPR) and a final FFR will be due 120 days after the end-date of the Term of Agreement. If the recipient does not submit the final report before the required due date, NPS is required to submit a finding of non-compliance to the Federal Awardee Performance and Integrity Information System (FAPIIS). Each report shall be submitted as described above.

- C. The Real Property Report SF-429 Cover Page and SF-429A is required to be submitted annually with the Project Progress Report throughout the award Period of Performance in accordance with 2 CFR 200.330. In addition, the Real Property Report SF-429 Cover Page and SF-429A are required to be submitted once every five years for the duration of the Federal interest in accordance with 2 CFR 1402.329(d)(2).
- D. The Secretary of the Interior and the Comptroller General of the United States, or their duly authorized representatives, will have access, for the purpose of financial or programmatic review and examination, to any books, documents, papers, and records that are pertinent to the Agreement at all reasonable times during the period of retention in accordance with 2 CFR 200.334 *Retention Requirements for Records*.

X. AWARD SPECIFIC TERMS AND CONDITIONS

- A. Insurance and Liability:
 - 1. Indemnification. The Recipient hereby agrees to indemnify the Federal government, and NPS from any act or omission of the Recipient, its officers, employees, or (members, participants, agents, representatives, agents as appropriate), (1) against third party claims for damages arising from one or more identified activities carried out in connection with this financial assistance agreement and (2) for damage or loss to government property resulting from such an activity. This obligation shall survive the termination of this Agreement.
 - 2. The Recipient agrees to cooperate with NPS in the investigation and defense of any claims that may be filed with NPS arising out of the activities of the Recipient, its agents, and employees.
 - 3. Flow-down: For the purposes of this clause, "recipient" includes such sub-recipients, contractors, or subcontractors as, in the judgment of the recipient and subject to the Government's determination of sufficiency, have sufficient resources and/or maintain adequate and appropriate insurance to achieve the purposes of this clause.

XI. STANDARD TERMS AND CONDITIONS

- 1. DEPARTMENT OF INTERIOR STANDARD TERMS AND CONDITIONS, 2 CFR 200, 2 CFR 1402

Recipients must comply with all applicable federal statutes, regulations, executive orders (EOs), Office of Management and Budget (OMB) circulars. Any inconsistency or conflict in Standard Terms and Conditions, Program-Specific Terms and Conditions, and any Special Award Conditions of this Award will be resolved according to the following order of precedence: federal laws, Executive Orders, federal regulations, applicable notices published in the Federal Register, OMB circulars, Interior's Standard Terms and Conditions, Program-Specific Terms and Conditions, and any Special Award Conditions.

DOI terms and regulatory requirements located at:

- <https://www.doi.gov/grants/doi-standard-terms-and-conditions>
- [eCFR :: 2 CFR Part 200 -- Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards](#)
- [eCFR :: 2 CFR Part 1402 -- Financial Assistance Interior Regulation, Supplementing the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards](#)

2. APPROVED INDIRECT RATE

Indirect costs must be charged consistently in accordance with the approved project budget, which is incorporated into this award as an attachment. In the case of a Master Cooperative agreement, indirect costs will be incorporated at the Task Agreement level. If the recipient has a Federally approved indirect rate, it is the responsibility of the Recipient to work with their cognizant agency in a timely manner to avoid the expiration of the Federally negotiated rate. If the Recipient has never had a Federally approved negotiated indirect rate, they may utilize a 10% de minimis rate per 2 CFR 200.414.

3. RESERVED

4. KEY OFFICIALS

- A. Communications - The recipient shall address any communication regarding this Agreement to the ATR/Program Officer with a copy to the Awarding/Grants Management Officer. Communications that relate solely to technical matters may be sent only to the ATR/Program Officer.
- B. Changes in Key Officials - Recipient may not make any permanent change in a key official without written notice to the other party reasonably in advance of the proposed change. The notice will include a justification with sufficient detail to permit evaluation of the impact of such a change on the scope of work specified within this Agreement. Any permanent change in key officials will be made only by Agency Approval.

5. PRIOR APPROVAL

The Recipient shall obtain prior approval for budget and program revisions, in accordance with 2 CFR 200.308.

6. PROPERTY UTILIZATION

All tools, equipment, and facilities furnished by NPS will be on a loan basis. Tools, equipment, and facilities will be returned in the same condition received except for normal wear and tear in project use. Property management standards set forth in 2 CFR 200.310 through 200.316 apply to this Agreement. All provided items must be

consistently tracked and accounted for by the recipient and NPS both when provided to the recipient and upon return.

7. MODIFICATION, REMEDIES FOR NONCOMPLIANCE, TERMINATION

- A. This Agreement may be modified at any time, prior to the expiration date, only by agreement executed by both parties. Modifications will be in writing and approved by the Financial Assistance Awarding Officer and the authorized representative of Recipient.
- B. Additional conditions may be imposed by NPS if it is determined that the Recipient is non-compliant to the terms and conditions of this agreement. Remedies for Noncompliance can be found in 2 CFR 200.339.
- C. This Agreement may be terminated consistent with applicable termination provisions for Agreements found in 2 CFR 200.340 through 200.343.

8. REPORTING OF MATTERS RELATED TO RECIPIENT INTEGRITY AND PERFORMANCE

A. General Reporting Requirement

- i. If the total value of your currently active grants, cooperative agreements, and procurement contracts from all Federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of this Federal award, then you, as the recipient, during that period of time must maintain the currency of information reported to the System for Award Management (SAM) that is made available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) about civil, criminal, or administrative proceedings described in paragraph 2 of this award term and condition. This is a statutory requirement under section 872 of Public Law 110-417, as amended (41 U.S.C. 2313). As required by section 3010 of Public Law 111-212, all information posted in the designated integrity and performance system on or after April 15, 2011, except past performance reviews required for Federal procurement contracts, will be publicly available.

B. Proceedings You Must Report

- i. Submit the information required about each proceeding that:
- ii. Is in connection with the award or performance of a grant, cooperative agreement, or procurement contract from the Federal Government.
- iii. Reached its final disposition during the most recent five-year period; and
- iv. Is one of the following:
 - a) A criminal proceeding that resulted in a conviction, as defined in paragraph 5 of this award term and condition; or
 - b) A civil proceeding that resulted in a finding of fault and liability and payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more; or

- c) An administrative proceeding, as defined in paragraph 5 of this award term and condition, that resulted in a finding of fault and liability and payment of either a monetary fine or penalty of \$5,000 or more; or reimbursement, restitution, or damages more than \$100,000; or
- d) Any other criminal, civil, or administrative proceeding if:
 - 1. It could have led to an outcome described the award terms and conditions.
 - 2. It had a different disposition arrived at by consent or compromise with an acknowledgment of fault on your part; and
 - 3. The requirement in this award term and condition to disclose information about the proceeding does not conflict with applicable laws and regulations.

C. Reporting Procedures

Enter in the SAM Entity Management area the information that SAM requires about each proceeding described in the award terms and conditions. You do not need to submit the information a second time under assistance awards that you received if you already provided the information through SAM because you were required to do so under Federal procurement contracts that you were awarded.

D. Reporting Frequency

During any period when you are subject to the requirement in paragraph 1 of this award term and condition, you must report proceedings information through SAM for the most recent five-year period, either to report new information about any proceeding(s) that you have not reported previously or affirm that there is no new information to report. Recipients that have Federal contract, grant, and cooperative agreement awards with a cumulative total value greater than \$10,000,000 must disclose semiannually any information about the criminal, civil, and administrative proceedings.

E. Definitions

- i. For purposes of this award term and condition:
 - a) Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (*e.g.*, Securities and Exchange Commission Administrative proceedings, Civilian Board of Contract Appeals proceedings, and Armed Services Board of Contract Appeals proceedings). This includes proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include audits, site visits, corrective plans, or inspection of deliverables.
 - b) Conviction means a judgment or conviction of a criminal offense by any court of competent jurisdiction, whether entered upon a verdict or a plea, and includes a conviction entered upon a plea of *nolo contendere*.
 - c) Total value of currently active grants, cooperative agreements, and procurement contracts includes—
 - 1. Only the Federal share of the funding under any Federal award with a recipient cost share or match; and

2.The value of all expected funding increments under a Federal award and options, even if not yet exercised.

9. FUNDING USED FOR THE PURCHASE AND OPERATION OF UNMANNED AIRCRAFT SYSTEMS (UAS)

If Federal funding is provided to a State, local, tribal, or territorial government for the purchase or use of UAS for their operations, the recipient must have in place policies and procedures to safeguard individuals' privacy, civil rights, and civil liberties prior to expending such funds.

Per the policy memorandum issued by National Park Service Director, dated June 19, 2014, the launching, landing, and operating of unmanned aircraft, that is not under the control of the Federal government, on lands and waters administered by the National Park Service is prohibited unless approval is received from the Associate Director for such purposes as:

Scientific study, search and rescue operations, fire operations, and law enforcement. Administrative use includes the use of unmanned aircraft by:

- (i) NPS personnel as operators or crew;
- (ii) cooperators such as government agencies and universities that conduct unmanned aircraft operations for the NPS pursuant to a written agreement; and
- (iii) other entities, including commercial entities, conducting unmanned aircraft operations for the NPS, provided such entities are in compliance with all applicable FAA and Department of the Interior requirements.

10. PATENTS AND INVENTIONS (37 CFR 401)

Recipients of agreements which support experimental, developmental, or research work shall be subject to applicable regulations governing patents and inventions, including the government-wide regulations issued by the Department of Commerce at 37 CFR 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements. These regulations do not apply to any agreement made primarily for educational purposes.

In accordance with 37 CFR 401.3(a), the provision at 37 CFR 401.14(a), with authorized modifications for the National Park Service, is hereby included in this agreement:

(a) Definitions

- (1) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

(2) *Subject invention* means any invention of the recipient conceived or first actually reduced to practice in the performance of work under this agreement, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of agreement performance.

(3) *Practical Application* means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or government regulations, available to the public on reasonable terms.

(4) *Made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) *Small Business Firm* means a small business concern as defined at section 2 of Public Law. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this provision, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) *Nonprofit Organization* means a university or other institution of higher education, or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c) and exempt from taxation under section 501(a) of the Internal Revenue Code (25 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(b) Allocation of Principal Rights.

The Recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to this provision and 35 U.S.C. 203. With respect to any subject invention in which the Recipient retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Application by Recipient

(1) The Recipient will disclose each subject invention to the National Park Service within two months after the inventor discloses it in writing to Recipient personnel responsible for patent matters. The disclosure to the National Park Service shall be in the form of a written report and shall identify the agreement under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical,

chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the National Park Service, the Recipient will promptly notify the National Park Service of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Recipient.

(2) The Recipient will elect in writing whether or not to retain title to any such invention by notifying the National Park Service within two years of disclosure to the National Park Service. However, in any case where publication, on sale or public use has initiated the one-year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the National Park Service to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Recipient will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Recipient will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (1), (2), and (3) may, at the discretion of the National Park Service, be granted.

(d) Conditions When the Government May Obtain Title.

The Recipient will convey to the National Park Service, upon written request, title to any subject inventions

(1) If the Recipient fails to disclose or elect title to the subject invention within the times specified in (c), above, or elects not to retain title; provided that the National Park Service may only request title within 60 days after learning of the failure of the Recipient to disclose or elect within the specified times.

(2) In those countries in which the Recipient fails to file patent applications within the times specified in (c) above; provided, however, that if the Recipient has filed a patent application in a country after the times specified in (c) above, but prior to its receipt of the written request of the National Park Service, the Recipient shall continue to retain title in that country.

(3) In any country in which the Recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to Recipient and Protection of the Recipient Right to File

(1) The Recipient will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Recipient fails to disclose the invention within the times specified in (c), above. The Recipient's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Recipient is a party and includes the right to grant sublicenses of the same scope to the extent the Recipient was legally obligated to do so at the time the agreement was awarded. The license is transferable only with the approval of the National Park Service except when transferred to the successor of that party of the Recipient's business to which the invention pertains.

(2) The Recipient's domestic license may be revoked or modified by the National Park Service to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and the National Park Service licensing regulations (if any). This license will not be revoked in that field of use or the geographical areas in which the Recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of the National Park Service to the extent the Recipient, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the National Park Service will furnish the Recipient a written notice of its intention to revoke or modify the license, and the Recipient will be allowed thirty days (or such other time as may be authorized by the National Park Service for good cause shown by the Recipient) after the notice to show cause why the license should not be revoked or modified. The Recipient has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and National Park Service regulations (if any) concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(f) Recipient Action to Protect the Government's Interest

(1) The Recipient agrees to execute or to have executed and promptly deliver to the National Park Service all instruments necessary to

- (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Recipient elects to retain title, and
- (ii) convey title to the National Park Service when requested under paragraph (d) above and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Recipient agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Recipient each subject invention made under agreement in order that the Recipient can comply with the disclosure provisions of paragraph (c), above, and to execute all papers necessary to file patent applications on subject inventions and to establish the government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by (c)(1), above. The Recipient shall instruct such employees through employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Recipient will notify the National Park Service of any decisions not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The Recipient agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with government support under (identify the agreement) awarded by (identify the Federal agency). The government has certain rights in the invention."

(g) Subcontracts. The Recipient will include this provision, suitably modified to identify the parties, in all sub-agreements or subcontracts, regardless of tier, for experimental, developmental or research work. The sub-recipient or subcontractor will retain all rights provided for the Recipient in this provision, and the Recipient will not, as part of the consideration for awarding the sub-agreement or subcontract, obtain rights in the sub-recipient's or subcontractor's subject inventions.

(h) Reporting on Utilization of Subject Inventions. The Recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Recipient, and such other data and information as the National Park Service may reasonably specify. The Recipient also agrees to provide additional reports as may be

requested by the National Park Service in connection with any march-in proceeding undertaken by the National Park Service in accordance with paragraph (j) of this provision. As required by 35 U.S.C. 202(c)(5), the National Park Service agrees it will not disclose such information to persons outside the government without permission of the Recipient.

(i) Preference for United States Industry. Notwithstanding any other part of this provision, the Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the National Park Service upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in Rights. The Recipient agrees that with respect to any subject invention in which it has acquired title, the National Park Service has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the National Park Service to require the Recipient, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Recipient, assignee, or exclusive licensee refuses such a request the National Park Service has the right to grant such a license itself if the National Park Service determines that:

(1) Such action is necessary because the Recipient or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use.

(2) Such action is necessary to alleviate health or safety needs, which are not reasonably satisfied by the Recipient, assignee, or their licensees.

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this provision has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for Agreements with Nonprofit Organizations.

If the Recipient is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of the National Park Service, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the Recipient;

(2) The Recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when the National Park Service deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the Recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject invention that are small business firms and that it will give a preference to a small business firm when licensing a subject invention if the Recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Recipient is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Recipient. However, the Recipient agrees that the National Park Service may review the Recipient's licensing program and decisions regarding small business applicants, and the Recipient will negotiate changes to its licensing policies, procedures, or practices with the National Park Service when this review discloses that the Recipient could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communication. Communications regarding matters relating to this provision shall be directed to the Deputy Associate Solicitor, Branch of Procurements and Patents, Office of the Solicitor, U.S. Department of the Interior, 1849 C Street NW, Washington, D.C. 20240.

11. ENSURING THE FUTURE IS MADE IN ALL OF AMERICA BY ALL OF AMERICA'S WORKERS PER E.O. 14005 (dated January 25, 2021)

Per Executive Order 14005, entitled "Ensuring the Future Is Made in All of America by All of America's Workers" the Recipient shall maximize the use of goods, products, and materials produced in, and services offered in, the United States, and whenever possible, procure goods, products, materials, and services from sources that will help American businesses compete in strategic industries and help America's workers thrive.

12. SECTION 508 OF THE REHABILITATION ACT OF 1973 (29 U.S.C. §794 (d))

While the requirements of Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794d), do not apply to financial assistance agreements, the NPS is subject to the Act's requirements that all documents posted on an NPS, or NPS-hosted website comply with the accessibility standards of the Act. Accordingly, final deliverable reports prepared under this agreement and submitted in electronic format must be submitted in a format whereby NPS can easily meet the requirements of Section 508 of the Rehabilitation Act of 1973, as amended. *NOTE: Progress Reports and financial reports are not considered final deliverables and therefore the following requirements do not apply.*

All electronic documents prepared under this Agreement must meet the requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The Act requires that all electronic products prepared for the Federal Government be accessible to persons with disabilities, including those with vision, hearing, cognitive, and mobility impairments. View [Section 508 of the Rehabilitation Act, Standards and Guidelines](#) for detailed information.

The following summarizes some of the requirements for preparing NPS reports in conformance with Section 508 for eventual posting by NPS to an NPS-sponsored website. For specific detailed guidance and checklists for creating accessible digital content, please go to [Section 508.gov, Create Accessible Digital Products](#). All accessible digital content must conform to the requirements and techniques of the [Web Content Accessibility Guidelines \(WCAG\) 2.0 or later, Level AA Success Criteria](#).

a. Electronic documents with images

Provide a text equivalent for every non-text element (including photographs, charts, and equations) in all publications prepared in electronic format. Use descriptions such as "alt" and "longdesc" for all non-text images or place them in element content. For all documents prepared, vendors must prepare one standard HTML format as described in this statement of work AND one text format that includes descriptions for all non-text images. "Text equivalent" means text sufficient to reasonably describe the image. Images that are merely decorative require only a very brief "text equivalent" description. However, images that convey information that is important to the content of the report require text sufficient to reasonably describe that image and its purpose within the context of the report.

b. Electronic documents with complex charts or data tables

When preparing tables that are heavily designed, prepare adequate alternate information so that assistive technologies can read them out. Identify row and column headers for data tables. Provide the information in a non-linear form. Markups will be used to associate data cells and header cells for data tables that have two or more logical levels of row and column headers.

c. Electronic documents with forms

When electronic forms are designed to be completed on-line, the form will allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

13. LOBBYING PROHIBITION

18 U.S.C. §1913, Lobbying with Appropriated Moneys, as amended by Public Law 107–273, Nov. 2, 2002, Violations of this section shall constitute violations of section 1352(a) of title 31. In addition, the related restrictions on the use of appropriated funds found in Div. F, § 402 of the Omnibus Appropriations Act of 2008 (P.L. 110–161) also apply.

14. ANTI-DEFICIENCY ACT

Pursuant to 31 U.S.C. §1341 nothing contained in this Agreement shall be construed as binding the NPS to expend in any one fiscal year any sum in excess of appropriations made by Congress, for the purposes of this Agreement for that fiscal year, or other obligation for the further expenditure of money in excess of such appropriations.

15. ASSIGNMENT

No part of this Agreement shall be assigned to any other party without prior written approval of the NPS and the Assignee.

16. MEMBER OF CONGRESS

Pursuant to 41 U.S.C. § 22, no Member of Congress shall be admitted to any share or part of any contract or agreement made, entered into, or adopted by or on behalf of the United States, or to any benefit to arise thereupon.

17. AGENCY

The Recipient is not an agent or representative of the United States, the Department of the Interior, NPS, or the Park, nor will the Recipient represent itself as such to third parties. NPS employees are not agents of the Recipient and will not act on behalf of the Recipient.

18. NON-EXCLUSIVE AGREEMENT

This Agreement in no way restricts the Recipient or NPS from entering into similar agreements, or participating in similar activities or arrangements, with other public or private agencies, organizations, or individuals.

19. PARTIAL INVALIDITY

If any provision of this Agreement or the application thereof to any party or circumstance shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement or the application of such provision to the parties or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby and each provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

20. NO EMPLOYMENT RELATIONSHIP

This Agreement is not intended to and shall not be construed to create an employment relationship between NPS and Recipient or its representatives. No representative of Recipient shall perform any function or make any decision properly reserved by law or policy to the Federal government.

21. NO THIRD-PARTY RIGHTS

This Agreement creates enforceable obligations between only NPS and Recipient. Except as expressly provided herein, it is not intended, nor shall it be construed to create any right of enforcement by or any duties or obligation in favor of persons or entities not a party to this Agreement.

22. PROGRAM INCOME

If the Recipient earns program income, as defined in 2 CFR §200.1, during the period of performance of this agreement, to the extent available the Recipient must disburse funds available from program income, and interest earned on such funds, before requesting additional cash payments (2 CFR §200.305 (5)). As allowed under 2 CFR §200.307, program income may be added to the Federal award by the Federal agency and the non-Federal entity. The program income must be used for the purposes, and under the conditions of, the Federal award. Disposition of program income remaining after the end of the period of performance shall be negotiated as part of the agreement closeout process.

23. RIGHTS IN DATA

The Recipient must grant the United States of America a royalty-free, non-exclusive and irrevocable license to publish, reproduce and use, and dispose of in any manner and for any purpose without limitation, and to authorize or ratify publication, reproduction or use by others, of all copyrightable material first produced or composed under this Agreement by the Recipient, its employees or any individual or concern specifically employed or assigned to originate and prepare such material.

24. CONFLICT OF INTEREST

(a) Applicability.

1. This section intends to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under or with respect to Federal financial assistance agreements.
2. In the procurement of supplies, equipment, construction, and services by recipients and by subrecipients, the conflict-of-interest provisions in 2 CFR 200.318 apply.

(b) Requirements.

1. Non-Federal entities must avoid prohibited conflicts of interest, including any significant financial interests that could cause a reasonable person to question the recipient's ability to provide impartial, technically sound, and objective performance under or with respect to a Federal financial assistance agreement.
2. In addition to any other prohibitions that may apply with respect to conflicts of interest, no key official of an actual or proposed recipient or subrecipient, who is substantially involved in the proposal or project, may have been a former Federal employee who, within the last one (1) year, participated personally and substantially in the evaluation, award, or administration of an award with respect to that recipient or subrecipient or in development of the requirement leading to the funding announcement.
3. No actual or prospective recipient or subrecipient may solicit, obtain, or use non-public information regarding the evaluation, award, or administration of an award to that recipient or subrecipient or the development of a Federal financial assistance opportunity that may be of competitive interest to that recipient or subrecipient.

(c) Notification.

1. Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass-through entity in accordance with 2 CFR 200.112, Conflicts of interest.

- (d) Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The recipient is responsible for notifying the Financial Assistance Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by subrecipients. Restrictions on Lobbying. Non-Federal entities are strictly prohibited from using funds under this grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR Part 18 and 31 USC 1352.

- (e) Review Procedures. The Financial Assistance Officer will examine each conflict-of-interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement and will determine whether a significant potential conflict exists and, if it does, develop an appropriate means for resolving it.
- (f) Enforcement. Failure to resolve conflicts of interest in a manner that satisfies the Government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR 200.338, Remedies for Noncompliance, including suspension or debarment (see also 2 CFR Part 180).

25. BUILD AMERICA, BUY AMERICA

(a) Standard Buy America Preference Award Term

The following terms apply for financial assistance agreements for infrastructure that currently or are anticipated to exceed the Simplified Acquisition Threshold (SAT), currently \$250,000.00. This threshold applies for the duration of the award and obligations made for infrastructure projects when additional funds are obligated through modification or renewal.

Required Use of American Iron, Steel, Manufactured Products, and Construction Materials

As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a federal award that are part of Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless subject to an approved waiver. The requirements of this section must be included in all subawards, including all contracts and purchase orders for work or products under this program.

Recipients of an award of Federal financial assistance are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

1. All iron and steel used in the project are produced in the United States—this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;
2. All manufactured products used in the project are produced in the United States -this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic

content of the manufactured product has been established under applicable law or regulation; and,

3. All construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

For further information on the Buy America preference, please visit [“Buy America” Domestic Sourcing Guidance and Waiver Process for DOI Financial Assistance Agreements | U.S. Department of the Interior](#). Additional information can also be found at the White House Made in America Office website: [Made In America | OMB | The White House](#).

Waivers

When necessary, recipients may apply for, and the Department of the Interior (DOI) may grant, a waiver from these requirements, subject to review by the Made in America Office. The DOI may waive the application of the domestic content procurement preference in any case in which it is determined that one of the below circumstances applies:

1. Non-availability Waiver: the types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality;
2. Unreasonable Cost Waiver: the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent; or
3. Public Interest Waiver: applying the domestic content procurement reference would be inconsistent with the public interest.

There may be instances where an award qualifies, in whole or in part, for an existing DOI general applicability waiver as described at: [Approved DOI General Applicability Waivers | U.S. Department of the Interior](#).

If the specific financial assistance agreement, infrastructure project, or non-domestic materials meets the criteria of an existing general applicability waiver within the limitations defined within the waiver, the recipient is not required to request a separate waiver for non-domestic materials.

If a general applicability waiver does not already apply, and a recipient believes that one of the above circumstances applies to an award, a request to waive the application of the domestic content procurement preference may be submitted to the Financial Assistance Awarding Officer in writing. Waiver requests shall include the below information. The waiver shall not include any Privacy Act information, sensitive data, or proprietary information within their waiver request. Waiver requests will be posted to [“Buy America” Domestic Sourcing Guidance and Waiver Process for DOI Financial Assistance Agreements | U.S. Department of the Interior](#) and are subject to public comment periods of no less than 15 days. Waiver requests will also be reviewed by the Made in America Office.

1. Type of waiver requested (non-availability, unreasonable cost, or public interest).
2. Requesting entity and Unique Entity Identifier (UEI) submitting the request.
3. Department of Interior Bureau or Office who issued the award.
4. Federal financial assistance listing name and number (reference block 2 on DOI Notice of Award)
5. Financial assistance title of project (reference block 8 on DOI Notice of Award).
6. Federal Award Identification Number (FAIN).
7. Federal funding amount (reference block 11.m. on DO Notice of Award).
8. Total cost of Infrastructure expenditures (includes federal and non-federal funds to the extent known).
9. Infrastructure project description(s) and location(s) (to the extent known).
10. List of iron or steel item(s), manufactured goods, and construction material(s) the recipient seeks to waive from Buy America requirements. Include the name, cost, countries of origin (if known), and relevant PSC or NAICS code for each.
11. A certification that the recipient made a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, and nonproprietary communications with the prime contractor.
12. A statement of waiver justification, including a description of efforts made (e.g., market research, industry outreach) by the recipient, in an attempt to avoid the need for a waiver. Such a justification may cite, if applicable, the

absence of any Buy America-compliant bids received in response to a solicitation.

13. Anticipated impact if no waiver is issued. Approved waivers will be posted at [Approved DOI General Applicability Waivers | U.S. Department of the Interior](#); recipients requesting a waiver will be notified of their waiver request determination by an Financial Assistance Awarding Officer.

Questions pertaining to waivers should be directed to the Financial Assistance Awarding Officer.

Definitions

“Construction materials” includes an article, material, or supply that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

“Construction Materials” does not include cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.

“Domestic content procurement preference” means all iron and steel used in the project are produced in the United States; the manufactured products used in the project are produced in the United States; or the construction materials used in the project are produced in the United States.

“Infrastructure” includes, at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors, and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure includes facilities that generate, transport, and distribute energy.

“Project” means the construction, alteration, maintenance, or repair of infrastructure in the United States.

(b) Buy America Preference Alternate Small Award Term

The followings terms apply for financial assistance agreements for infrastructure that do not currently and are not anticipated to exceed the Simplified Acquisition Threshold (SAT), currently \$250,000.00.

Required Use of American Iron, Steel, Manufactured Products, and Construction Materials

As required by Section 70914 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, on or after May 14, 2022, none of the funds under a federal award that are part of Federal financial assistance program for infrastructure may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless subject to an approved waiver. The requirements of this section must be included in all subawards, including all contracts and purchase orders for work or products under this program.

This award currently qualifies for the existing DOI general applicability small grant waiver as described at: www.doi.gov/grants/BuyAmerica/Generalapplicabilitywaivers on the basis that the total award amount does not exceed the Simplified Acquisition Threshold (SAT), currently \$250,000.00. While this waiver permits the use of non-domestic materials for DOI financial assistance awards that do not exceed the SAT, recipients shall still maximize the use of domestic materials to the maximum extent possible. In the event the total award amount is increased to an amount above the SAT, recipients under this award are hereby notified that none of the funds provided under this award may be used for a project for infrastructure unless:

1. All iron and steel used in the project are produced in the United States--this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;
2. All manufactured products used in the project are produced in the United States—this means the manufactured product was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation; and
3. All construction materials are manufactured in the United States—this means that all manufacturing processes for the construction material occurred in the United States.

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the

infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project, but are not an integral part of the structure or permanently affixed to the infrastructure project.

For further information on the Buy America preference, please visit www.doi.gov/grants/BuyAmerica. Additional information can also be found at the White House Made in America Office website: www.whitehouse.gov/omb/management/made-in-america/.

In the event the total amount of this award increases to an amount that exceeds the SAT, recipients shall notify their financial assistance awarding officer of any non-domestic iron, steel, manufactured products, or construction materials already incorporated into the project as early as possible. Recipients may then apply for a DOI waiver, subject to review and approval by DOI and the Made in America Office, for non-compliant materials if it is determined that one of the below circumstances applies:

1. Non-availability Waiver: the types of iron, steel, manufactured products, or construction materials used are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality;
2. Unreasonable Cost Waiver: the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent; or
3. Public Interest Waiver: applying the domestic content procurement preference would be inconsistent with the public interest.

Instructions for requesting a waiver can be found on www.doi.gov/grants/buyamerica. Recipients requesting a waiver will be notified of their waiver request determination by an awarding officer. Questions pertaining to waivers should be directed to the financial assistance awarding officer.

Recipients shall consult [OMB Memorandum M-22-11, Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure](#), for additional information, inclusive of definitions for Construction Materials, Domestic Content Procurement Preference, and Infrastructure.

The DOI Small Grant General Applicability waiver expires on February 20, 2028. For awards that extend beyond the expiration date of the waiver, recipients shall ensure all iron, steel, manufactured products, and construction materials used in the project are produced in the United States, unless an approved waiver is obtained.

26. GEOSPATIAL DATA

Geospatial Data Act of 2018, Pub. L. 115-254, Subtitle F – Geospatial Data, §§ 751-759C, codified at 43 U.S.C. §§ 2801–2811 - Federal recipient collection of geospatial data through the use of the Department of the Interior financial assistance funds requires a due diligence search at the GeoPlatform.gov list of datasets to discover whether the needed geospatial-related data, products, or services already exist. If the required data set already exists, the recipient must use it. If the required data is not already available, the recipient must produce the proposed geospatial data, products, or services in compliance with applicable proposed guidance and standards established by the Federal Geospatial Data Committee (FGDC) posted at www.fgdc.gov.

Recipients must submit a digital copy of all GIS data produced or collected as part of the award funds to the bureau or office via email or data transfer. All GIS data files shall be in open format. All delineated GIS data (points, lines, or polygons) should be established in compliance with the approved open data standards with complete feature level metadata.

27. SIGNATURES

Recipients are NOT required to sign the Notice of Financial Assistance Award letter or any other award document. As per DOI standard award terms and conditions, the recipient's acceptance of a financial assistance award is defined as the start of work, drawing down funds, or accepting the award via electronic means.

**American Battlefield Trust
Williams Tract at Franklin Battlefield, TN
ABPP Battlefield Land Acquisition Grant Budget Narrative**

Sources	American Battlefield Trust	Franklin's Charge, Inc., and Battle of Franklin Trust, Inc.	Tennessee Civil War Sites Preservation Fund	ABPP BLAG Request	Total Sources	Description
American Battlefield Trust	\$ 300,000.00	\$ -	\$ -	\$ -	\$ 300,000.00	The Trust will provide funding per the attached letter expressing its commitment of these funds.
Franklin's Charge, Inc., and Battle of Franklin Trust, Inc.	\$ -	\$ 55,050.00	\$ -	\$ -	\$ 55,050.00	Franklin's Charge and BOFT will provide funding. Please see attached a letter from Franklin's Charge and BOFT expressing this commitment of funds.
Tennessee Civil War Sites Preservation Fund	\$ -	\$ -	\$ 1,725,000.00	\$ -	\$ 1,725,000.00	Franklin's Charge submitted an application to the TN CWSPF fall 2022 grant round. The award was announced in February 2023; please see attached a copy of the grant agreement.
ABPP BLAG Request	\$ -	\$ -	\$ -	\$ 1,980,050.00	\$ 1,980,050.00	The BLAG request is based on approximately 50% of the project costs.
Total Sources	\$ 300,000.00	\$ 55,050.00	\$ 1,725,000.00	\$ 1,980,050.00	\$ 4,060,100.00	

Uses	American Battlefield Trust	Franklin's Charge, Inc., and Battle of Franklin Trust, Inc.	Tennessee Civil War Sites Preservation Fund	ABPP BLAG Request	Total Expenses	Description
Purchase Price/Appraised Value	\$ 300,000.00	\$ 25,000.00	\$ 1,725,000.00	\$ 1,950,000.00	\$ 4,000,000.00	The Purchase and Sale Agreement, dated 10/24/2022, set the purchase price at \$4 million. An appraisal, effective 3/8/2023, set the appraised value at \$3.9 million.
Appraisal	\$ -	\$ 1,750.00	\$ -	\$ 1,750.00	\$ 3,500.00	McArthur Sanders Real Estate completed a yellow book appraisal, effective 3/8/2023; the invoice is pending to be paid.
Appraisal Review	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00	\$ 2,000.00	The cost of the appraisal review is an estimate provided by the appraisal reviewer.
Phase I Environmental Site Assessment	\$ -	\$ 5,000.00	\$ -	\$ 5,000.00	\$ 10,000.00	The cost of the Phase I ESA is estimated based on the cost for similar transactions in Tennessee, including asbestos and lead paint testing.
Boundary Survey	\$ -	\$ 1,750.00	\$ -	\$ 1,750.00	\$ 3,500.00	The cost of the survey is an estimate provided by Cherry Land Surveying.
Title Search and Insurance	\$ -	\$ 6,000.00	\$ -	\$ 6,000.00	\$ 12,000.00	Title expenses will be included in the closing settlement statement and is an estimate provided by the title attorney, Matt Roberts of Stites & Harbison, PLLC.
Recording Fees and Taxes	\$ -	\$ 7,450.00	\$ -	\$ 7,450.00	\$ 14,900.00	Recording fees and taxes will be included in the closing settlement statement and is an estimate provided by the title attorney, Matt Roberts of Stites & Harbison, PLLC.
Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	Legal fees are not anticipated for this transaction.
Settlement Fee	\$ -	\$ 500.00	\$ -	\$ 500.00	\$ 1,000.00	The settlement fee will be included in the closing settlement statement and is an estimate provided by the title attorney, Matt Roberts of Stites & Harbison, PLLC.
Section 106	\$ -	\$ 5,000.00	\$ -	\$ 5,000.00	\$ 10,000.00	The Section 106 costs include archaeology that may be required by THC prior to demolition and are estimated based on the cost for similar transactions in Tennessee.
Baseline Documentation Report	\$ -	\$ 1,500.00	\$ -	\$ 1,500.00	\$ 3,000.00	The cost of the BDR is estimated based on the cost for similar transactions in Tennessee.
Signage	\$ -	\$ 100.00	\$ -	\$ 100.00	\$ 200.00	The cost of grant signage is estimated based on the cost of similar signage for BLAG grants.
Total Uses	\$ 300,000.00	\$ 55,050.00	\$ 1,725,000.00	\$ 1,980,050.00	\$ 4,060,100.00	

**American Battlefield Trust
Williams Tract at Franklin Battlefield, TN**

**Grant # 23AP2309
Funding Request #1**

Sources	American Battlefield Trust	Franklin's Charge, Inc., and Battle of Franklin Trust, Inc.	Tennessee Civil War Sites Preservation Fund	ABPP BLAG Request	Total Sources	Description
American Battlefield Trust	\$ 300,000.00	\$ -	\$ -	\$ -	\$ 300,000.00	
Franklin's Charge, Inc., and Battle of Franklin Trust, Inc.	\$ -	\$ 42,494.25	\$ -	\$ -	\$ 42,494.25	
Tennessee Civil War Sites Preservation Fund	\$ -	\$ -	\$ 1,725,000.00	\$ -	\$ 1,725,000.00	
ABPP BLAG Request	\$ -	\$ -	\$ -	\$ 1,967,494.25	\$ 1,967,494.25	
Total Sources	\$ 300,000.00	\$ 42,494.25	\$ 1,725,000.00	\$ 1,967,494.25	\$ 4,034,988.50	

Uses	American Battlefield Trust	Franklin's Charge, Inc., and Battle of Franklin Trust, Inc.	Tennessee Civil War Sites Preservation Fund	ABPP BLAG Request	Total Expenses	Description
Purchase Price/Appraised Value	\$ 300,000.00	\$ 25,000.00	\$ 1,725,000.00	\$ 1,950,000.00	\$ 4,000,000.00	The Purchase and Sale Agreement, dated 10/24/2022, set the purchase price at \$4 million. An appraisal, effective 3/8/2023, set the appraised value at \$3.9 million.
Appraisal	\$ -	\$ 1,750.00	\$ -	\$ 1,750.00	\$ 3,500.00	McArthur Sanders Real Estate completed a yellow book appraisal, effective 3/8/2023.
Appraisal Review	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00	\$ 2,000.00	Pipkin & Associates completed an appraisal review, effective 7/20/2023.
Phase I Environmental Site Assessment	\$ -	\$ -	\$ -	\$ -		N/A
Boundary Survey	\$ -	\$ 1,750.00	\$ -	\$ 1,750.00	\$ 3,500.00	Per Invoice #23056 Cherry Land Surveying
Title Search and Insurance	\$ -	\$ 5,569.25	\$ -	\$ 5,569.25	\$ 11,138.50	Title expenses per te closing settlement statement.
Recording Fees and Taxes	\$ -	\$ 7,425.00	\$ -	\$ 7,425.00	\$ 14,850.00	Recording fees and taxes per the closing settlement statement.
Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	Legal fees are not anticipated for this transaction.
Settlement Fee	\$ -	\$ -	\$ -	\$ -	\$ -	The settlement fee will be included in the closing settlement statement.
Section 106	\$ -	\$ -	\$ -	\$ -	\$ -	Section 106 costs are pending.
Baseline Documentation Report	\$ -	\$ -	\$ -	\$ -	\$ -	The BDR is pending.
Signage	\$ -	\$ -	\$ -	\$ -	\$ -	The grant signage is pending.
Total Uses	\$ 300,000.00	\$ 42,494.25	\$ 1,725,000.00	\$ 1,967,494.25	\$ 4,034,988.50	

FRANKLIN, TN

NOVEMBER 30, 1864

Presented by the American Battlefield Trust

LEGEND

TROOP MOVEMENTS

Confederate	Union
	
	
	
Represents 2 Guns	

LAND FEATURES & PRESERVATION

	19th-Century Woodline
	19th-Century Structures
	19th-Century Roads
	19th-Century Roads no longer in existence
	19th-Century Fences
	Modern Roads
	Preserved by the American Battlefield Trust & other Partner Organizations
	Preserved by other Organizations
	Target Property

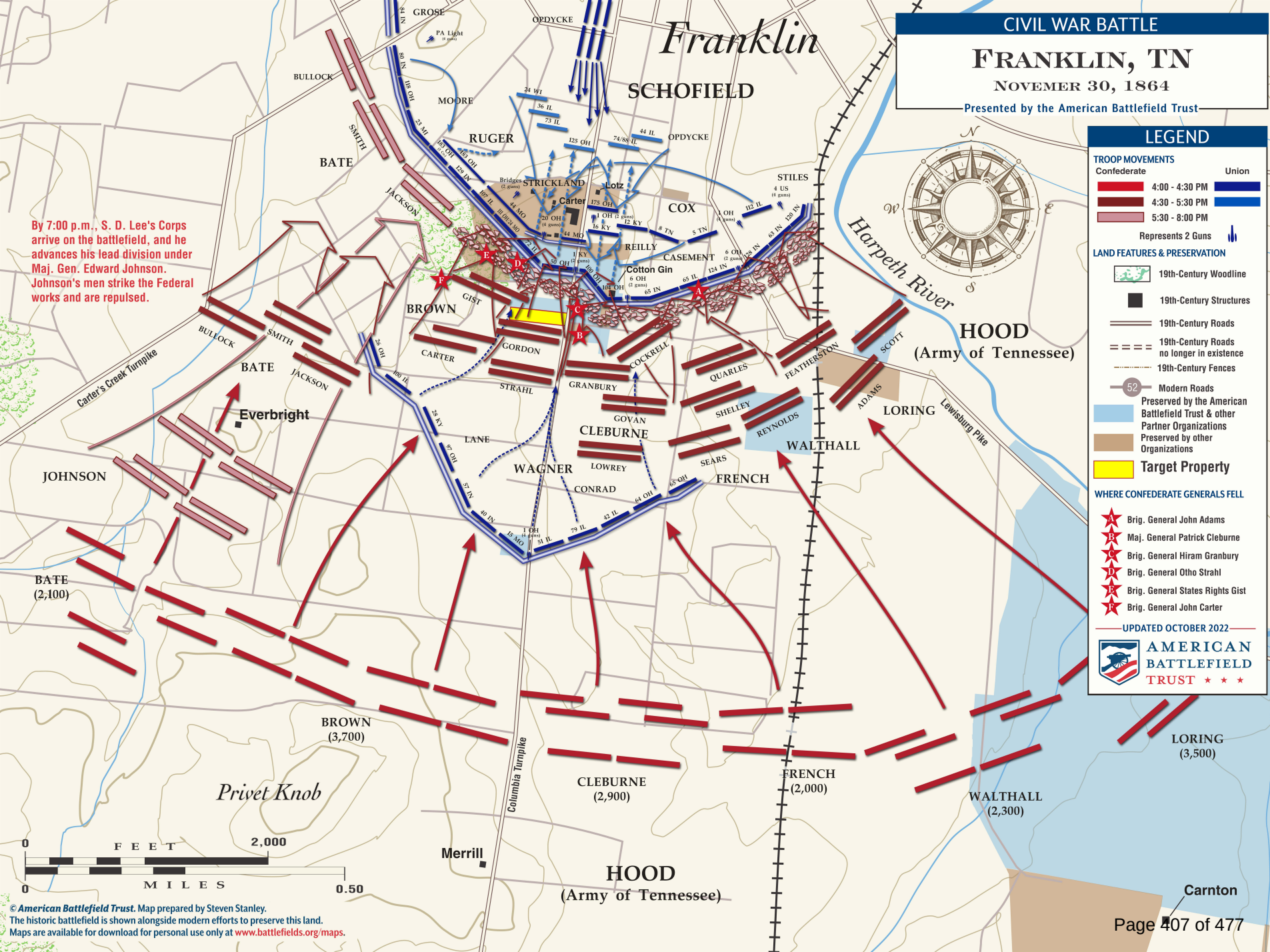
WHERE CONFEDERATE GENERALS FELL

-  Brig. General John Adams
-  Maj. General Patrick Cleburne
-  Brig. General Hiram Granbury
-  Brig. General Otho Strahl
-  Brig. General States Rights Gist
-  Brig. General John Carter

UPDATED OCTOBER 2022

AMERICAN
BATTLEFIELD
TRUST ***

By 7:00 p.m., S. D. Lee's Corps arrive on the battlefield, and he advances his lead division under Maj. Gen. Edward Johnson. Johnson's men strike the Federal works and are repulsed.



From: [Kathy Robertson](#)
To: [Kristine Brock](#); [Dawn Wildrick](#); [Eric Stuckey](#); [Margaret Wilson](#); [Mike Lowe](#); [ABPP BLAG, NPS](#)
Cc: [Heather Groves](#); [Joseph Abel](#)
Subject: FW: [EXTERNAL]Williams Property Update 10/6/23
Date: Friday, October 6, 2023 4:26:52 PM

ATTENTION COF staff: This email originated from outside the City of Franklin. Please use discretion when clicking on attachments & links from unknown senders or suspicious emails.

Happy Friday! Great news in Franklin, thanks for all your help!

Have a nice weekend.

Kathy

From: Julian Bibb <Julian.Bibb@firstbankonline.com>
Sent: Friday, October 6, 2023 5:21 PM
To: Angela Calhoun (anpcalhoun@mindspring.com) <anpcalhoun@mindspring.com>; Bob Ravener <bobravener@gmail.com>; Carroll Van West - MTSU (Carroll.West@mtsu.edu) <Carroll.West@mtsu.edu>; Clay Perry <clayperry903@gmail.com>; Colbi Layne Hogan <clw.hogan@gmail.com>; Ernie Bacon (ebacon224@gmail.com) <ebacon224@gmail.com>; Greg Wade (gregwade55@yahoo.com) <gregwade55@yahoo.com>; Jack Richards <jbr1863@gmail.com>; Joe Smyth <jmysyth@vol.com>; Justin Stelter (justinstelter@aol.com) <justinstelter@aol.com>; Lamont Turner (mauricelt@gmail.com) <mauricelt@gmail.com>; Laura Holder (Laura.Holder@mtsu.edu) <Laura.Holder@mtsu.edu>; Liz Edsall McLaurin <LMcLaurin@landtrusttn.org>; Mary Pearce <mphistoric@gmail.com>; Nancy Conway - Williamson Chamber (nancy@williamsonchamber.com) <nancy@williamsonchamber.com>; Nelson Eddy <nelson.eddy@finnpartners.com>; Patrick Baggett (patrick@boxwoodins.com) <patrick@boxwoodins.com>; Sam Huffman (sam@capp.org) <sam@capp.org>; Sam Whitson (fairstreet@comcast.net) <fairstreet@comcast.net>; Tom Powell <tom.powell@hubinternational.com>; Tony McAlister (tony@mcalistier.com) <tony@mcalistier.com>; Winder Heller (winderheller@verizon.net) <winderheller@verizon.net>; Matt Roberts - Stites & Harbison, PLLC (mroberts@stites.com) <mroberts@stites.com>; Christina Willow - Stites & Harbison (christina.willow@stites.com) <christina.willow@stites.com>
Cc: Kathy Robertson <krobertson@battlefields.org>; Tom Gilmore <tgilmore@battlefields.org>; Julian Bibb <Julian.Bibb@firstbankonline.com>; David Duncan <dduncan@battlefields.org>; John Nau <John.Nau@SilverEagleBev.com>; Nina Scall (Nina.Scall@tn.gov) <Nina.Scall@tn.gov>
Subject: [EXTERNAL]Williams Property Update 10/6/23

Hi to All,
Great news! The Williams property has just closed and the Deed has changed hands.
Congratulations to everyone for their hard work.
I have copied members of ABT and Nina Scall with the State of Tennessee. We are very grateful

for their help as well.
Best regards,
Julian

Julian L. Bibb, III
Middle Tennessee Region Legal Counsel
722 Columbia Avenue
Franklin, TN 37064
Direct: (615)236.8314
Ext. 60015
julian.bibb@firstbankonline.com



CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



File #: 21-05409

DATE: October 19, 2023
TO: Board of Mayor and Aldermen
FROM: Eric Stuckey, City Administrator
Emily Wright, Director of Planning and Sustainability
Andrew Orr, Long Range Planning Supervisor

SUBJECT:

Williamson County Growth Plan Update

PURPOSE:

The purpose of this memorandum is to provide information to the Franklin Board of Mayor and Aldermen (BOMA) concerning the Williamson County Growth Plan Update process.

BACKGROUND/STAFF COMMENTS:

The Williamson County Growth Plan is a state-mandated plan that establishes Urban Growth Boundaries (UGBs) for each of the six municipalities in Williamson County as well as Planned Growth Areas and Rural Areas in the unincorporated County. The current Growth Plan was adopted in 2001 and has not been updated since that time.

The Coordinating Committee has been established, per state statute, to oversee the process and consists of representatives from each jurisdiction, the Chamber of Commerce, Williamson County Schools, and other utility entities. The Committee was formally established on June 13, 2023 and has also met on August 29th, September 19th, and October 16th. The public hearings have been scheduled for November 7, 2023 and November 15, 2023. Both public hearings will be held at 6:00 PM in the auditorium of the Williamson County Administrative Complex, located at 1320 West Main Street in Franklin. The Coordinating Committee must vote on a recommended Growth Plan to send back to the jurisdictions for ratification by December 13, 2023. Then, each jurisdiction will have 120 days to take legislative action on the recommended plan. If all of the jurisdictions ratify the Growth Plan, it will then be certified by the Local Government Planning Advisory Council. If a jurisdiction votes against ratification, the Coordinating Committee can reconvene and vote to make changes to the Growth Plan.

The Town of Thompson's Station still seeks to include the Ozzad Property (A-1 Homebuilders) located off West Harpeth Road, into their UGB. The attached staff report from the Town of Thompson's Station contains additional stipulations for the development of that specific property, if annexed into Thompsons's Station.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

Staff recommends that the Board of Mayor and Aldermen acknowledge the Williamson County Growth Plan Update.



WILLIAMSON COUNTY GROWTH PLAN

Adopted xx/xx/xxxx

ACKNOWLEDGEMENTS

COORDINATING COMMITTEE

Rogers C. Anderson, *Williamson County Mayor*
– *Chair*

Mark Gorman, *Brentwood Mayor*
– *Vice Chair*

Lisa Anderson, *Fairview Mayor*

Ken Moore, *Franklin Mayor*

Halie Gallik, *Nolensville Mayor*

Jim Hagaman, *Spring Hill Mayor*

Brian Stover, *Thompson's Station Mayor*

Judy Herbert, *County Mayor appointee*

Chas Morton, *County Mayor appointee*

Roger Lindsey, *Franklin Mayor appointee*

John Schroer, *Franklin Mayor appointee*

Robert Ring, *Soil Conservation District*

Eric Stuckey, *Franklin Water Department*
appointee

Erik Hale, *Middle Tennessee Electric*
appointee

Jason Golden, *Williamson County*
School District appointee

Kel McDowell, *Williamson Inc. appointee*

MANAGERS/ADMINISTRATORS

Kirk Bednar, *City of Brentwood*

Tom Daugherty, *City of Fairview*

Eric Stuckey, *City of Franklin*

Victor Lay, *Town of Nolensville*

Pam Caskie, *City of Spring Hill*

Ken McLawhon, *Town of Thompson's Station*

PLANNERS GROUP

Bob Leeman, *AICP, City of Brentwood*

Ethan Greer, *Town of Fairview*

Emily Wright, *AICP*, and **Andrew Orr**, *AICP*,
City of Franklin

Brent Shultz, *Town of Nolensville*

Pete Hughes, *City of Spring Hill*

Micah Wood, *AICP, Town of Thompson's Station*

Mike Matteson, *AICP, Williamson County*

ATTORNEY GROUP

Kristen Corn, *City of Brentwood*

Patrick M. Carter, *City of Fairview*
and *City of Spring Hill*

Sauna R. Billingsley, *City of Franklin*

Charles S. Michels, *Town of Nolensville*

Andrew E. Mills, *Town of Thompson's Station*

Jeffrey D. Moseley, *Williamson County*

Kristi D. Ransom, *Williamson County*

CONSULTANT/FACILITATOR

C. Gregory Dale, *FAICP, McBride Dale Clarion*

Kyle Gibbs, *McBride Dale Clarion*

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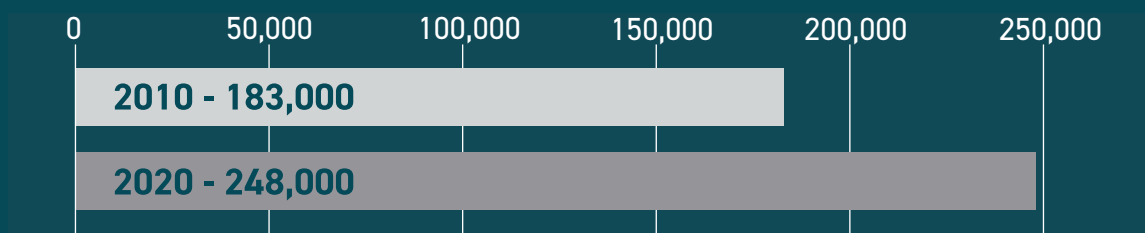
CHAPTER 01: BACKGROUND

INTRODUCTION

With a population increase of approximately 35% between 2010 and 2020 (according to the US Census) Williamson County ranks among the fastest growing counties in the State of Tennessee and the entire southeastern United States.

Additionally, population projections prepared by the University of Tennessee, Woods & Poole, and the Nashville Area MPO suggest that this rapid pace of growth will continue, and even accelerate, in future years.

FIGURE 1: WILLIAMSON COUNTY POPULATION GROWTH 2010-2020 (U.S. CENSUS BUREAU)



These population figures underscore the need for all of the jurisdictions within the County to plan collaboratively, so that future growth can be accommodated in a way that is:

- Fiscally responsible;
- Reflective of the current and future provision of infrastructure; and
- Consistent with community values.

To that end, each of the seven jurisdictions within Williamson County (Brentwood, Fairview, Franklin, Nolensville, Spring Hill, Thompson's Station and Williamson County), and the Growth Plan Coordinating Committee, are proposing this amendment to the Williamson County Growth Plan (Growth Plan), originally adopted in April of 2001 pursuant to Tennessee Code Annotated Section 6-58-101, et seq.

EXISTING GROWTH PLAN

The Williamson County Growth Plan, which was adopted in 2001, depicts the following:

Urban Growth Boundaries (UGB's) – These are areas outside of and surrounding the incorporated boundaries of the municipalities that are projected to accommodate future growth and which are envisioned as becoming part of the municipality in the future;

Rural Areas – These are areas in the unincorporated County and outside of UGB's that are intended to remain rural in nature; and

Planned Growth Areas (PGA's) – These are areas in the unincorporated County and outside of UGB's where a higher level of growth is anticipated than in the surrounding Rural Areas.

THE NEED TO UPDATE THE GROWTH PLAN

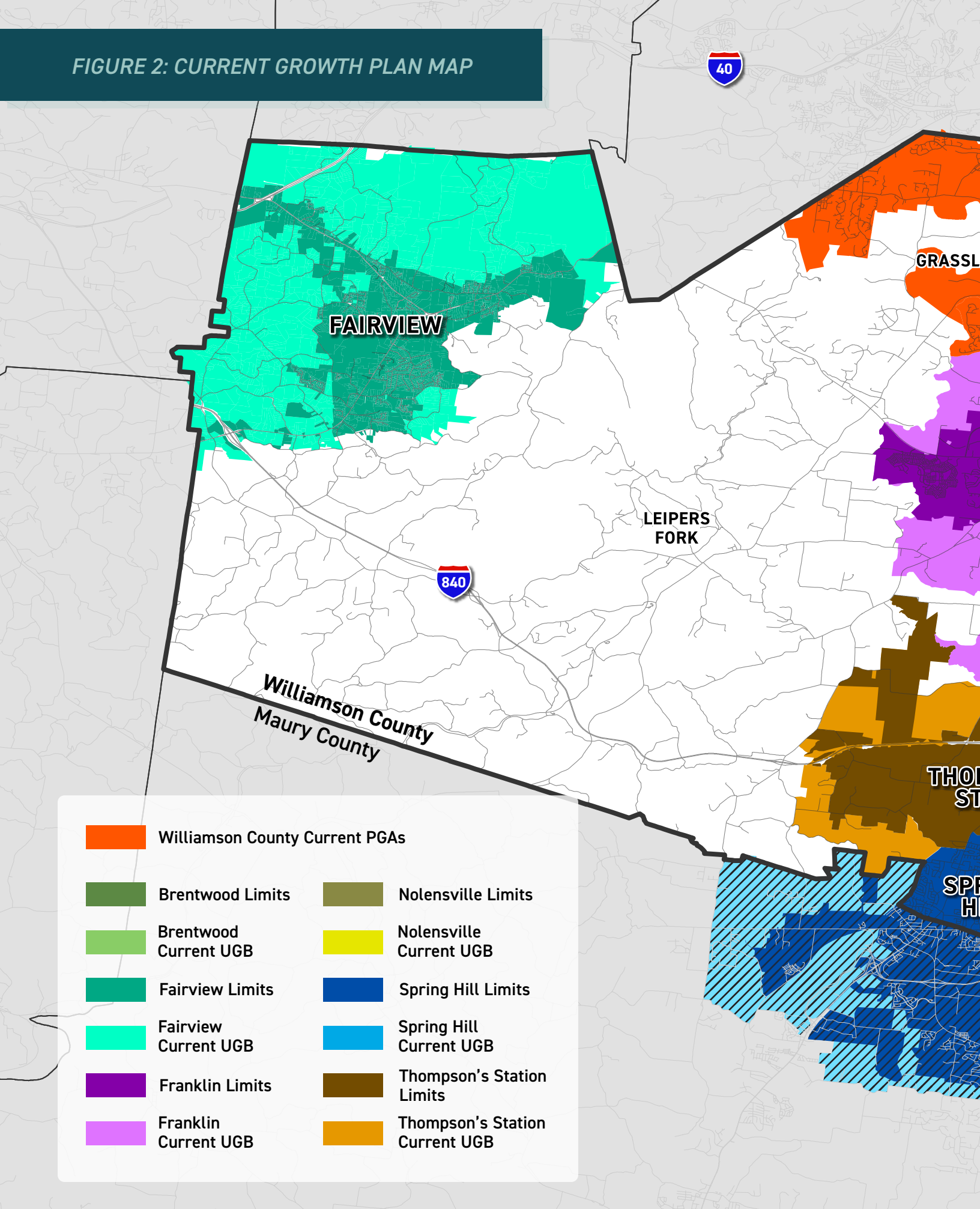
As mentioned previously, the existing Williamson County Growth Plan was adopted in 2001 and has not been updated since that time. In the intervening years, the County has experienced significant population and employment growth, and in the case of several of the jurisdictions, land use policies have continued to evolve.

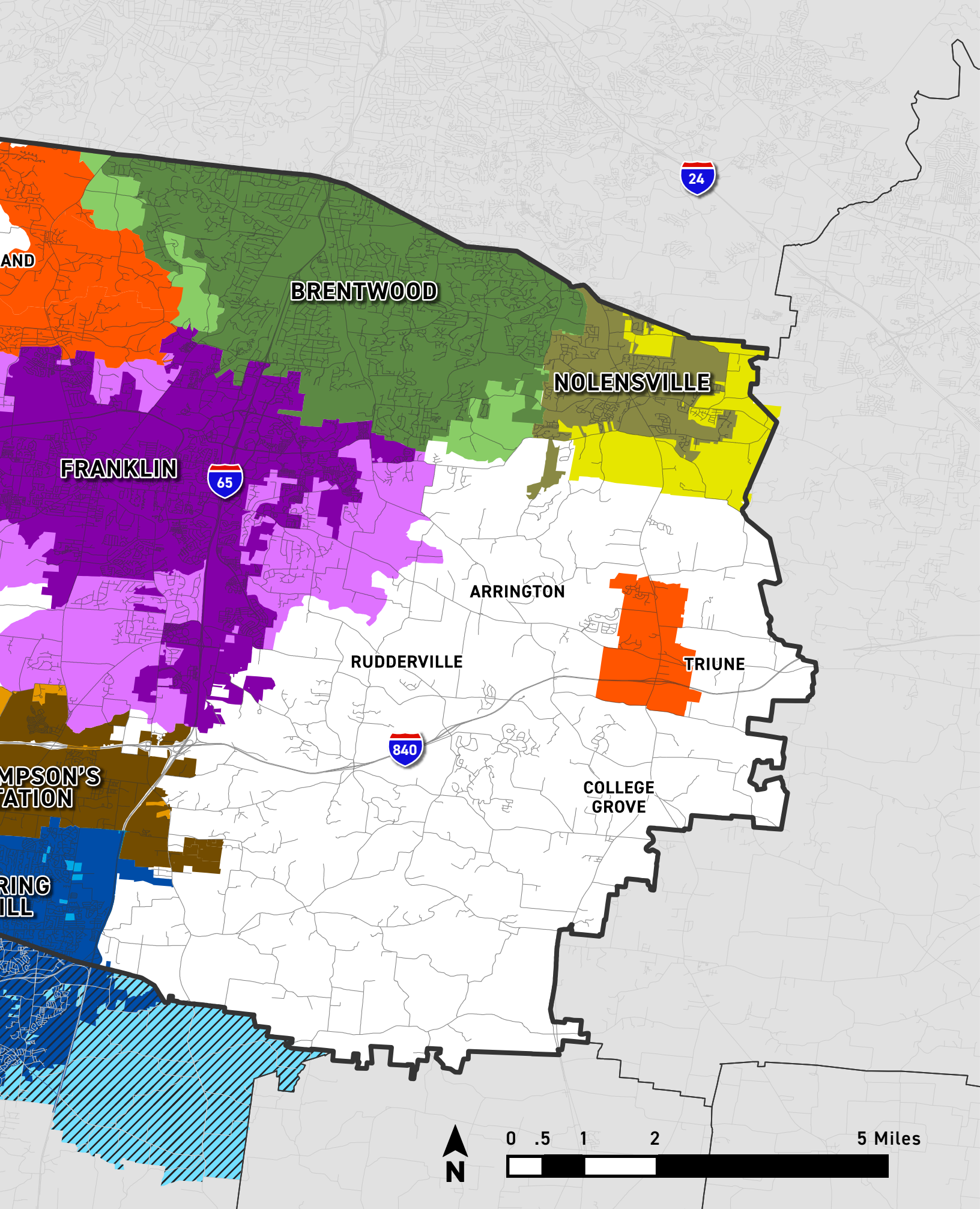
Additionally, there have been a number of changes to long-range infrastructure plans, the location of future sewer extensions being the most prominent, which will dictate the location of future growth to a large extent.

Furthermore, Williamson County's Comprehensive Land Use plan calls for the County and each municipality to engage in collaborative growth planning to ensure that the system of Urban Growth Boundaries (UGB's), Planned Growth Areas (PGA's) and Rural Areas work as effectively as possible.

For these reasons, the seven jurisdictions within Williamson County are proposing to amend the Growth Plan.

FIGURE 2: CURRENT GROWTH PLAN MAP





Section 02: PROCESS

ADVISORY GROUP GROWTH EVALUATION

Prior to embarking upon an update to the Growth Plan, an Advisory Group, with representatives of each jurisdiction and other community stakeholders, was formed for the purpose of evaluating appropriate locations for future growth based upon:

- Population projections;
- The need for, and availability of, additional land to accommodate projected growth;
- The cost of providing infrastructure and services;
- The potential impact of future growth areas on agricultural land, forests, recreational areas and wildlife management; and
- Public comment received regarding locations for future growth.

GUIDING PRINCIPLES

Additionally, the Advisory Group established the following set of “**Guiding Principles**” to serve as a framework for approaching its work:

1. COORDINATED GROWTH PLANNING: Williamson County, the City of Brentwood, the City of Fairview, the City of Franklin, the Town of Nolensville, the City of Spring Hill, and the Town of Thompson’s Station (the County and Municipalities) will work together on future growth planning.

2. PLANNING HORIZON: The horizon time for growth planning is twenty (20) years, however the County and Municipalities will work together to identify phased growth areas in shorter time increments.

3. FUTURE GROWTH: Each of the jurisdictions will utilize its own growth forecasts for its respective community in conjunction with other forecasts, including the University of Tennessee, in conducting its growth planning.

4. PUBLIC FACILITIES AND FISCAL SUSTAINABILITY: Each of the jurisdictions will plan for future growth that it can serve with adequate and timely infrastructure and public facilities in a fiscally sustainable manner.

5. REGIONAL FORM: The County and Municipalities will work together to maintain and create a distinct form of compact urban and suburban development surrounded by rural development for the purpose of reinforcing the unique sense of place and high-quality development within the County.

6. RESOURCE PROTECTION: The County and Municipalities will work together to maintain and protect critical open spaces, farmland, forests, recreation areas, wildlife management areas, and critical environmentally sensitive areas.

7. LOCAL AUTONOMY: The Growth Plan process will focus on growth boundary issues and coordination, while respecting the autonomy of each jurisdiction to meet the planning and community development needs within its community.

8. LOCAL PLANNING: The Growth Plan will build on the long and successful traditions of planning conducted by the County and Municipalities, relying on existing plans and reports in conducting its growth planning where appropriate.

9. INTERGOVERNMENTAL AGREEMENTS: The County and Municipalities may supplement growth planning with consideration of cooperative approaches and agreements to assist in managing growth.

Based upon the preliminary evaluation of future growth areas described above, the Advisory Group determined that it was appropriate to formally update the Williamson County Growth Plan.



FORMAL GROWTH PLAN UPDATE PROCESS

The process of developing this update to the Growth Plan included the following steps:

1. ESTABLISHMENT OF THE GROWTH PLAN COORDINATING COMMITTEE:

The membership of the Coordinating Committee was established consistent with Tennessee Code Annotated Section 6-58-104, and the initial meeting of the Coordinating Committee took place on June 13, 2023. Please see the Acknowledgments page for a listing of the Committee members.

2. INDIVIDUAL JURISDICTION PUBLIC HEARINGS: Each jurisdiction held two Public Hearings regarding the proposed amendments to their UGB's and, in the case of the County, the proposed amendments to its PGA's and Rural Areas. These Public Hearings took place in July and August of 2023.

3. INDIVIDUAL JURISDICTION PRESENTATIONS TO COORDINATING COMMITTEE:

Following the individual Public Hearings described above, each jurisdiction presented its recommended amendments to the Coordinating Committee.

4. PREPARATION OF DRAFT REVISED GROWTH PLAN: Based upon the proposals from the various jurisdictions and the public comment that had been received, the Coordinating Committee prepared a consolidated draft revised Growth Plan.

5. COORDINATING COMMITTEE PUBLIC HEARINGS: The Coordinating Committee held Public Hearings on Nov. 7th, 2023 and Nov. 8th, 2023 to solicit comments from the public regarding the draft revised Growth Plan.

6. REFINEMENT AND APPROVAL OF RECOMMENDED GROWTH PLAN: Based upon the public comments received at the Coordinating Committee Public Hearings and upon discussion among the Committee, a recommended Growth Plan was finalized and approved by the Committee. This approval took place on _____, 2023.

7. TRANSMITTAL OF RECOMMENDED GROWTH PLAN TO INDIVIDUAL JURISDICTIONS:

The recommended Growth Plan was transmitted to each of the seven jurisdictions by the Coordinating Committee on _____, 2023.

8. RATIFICATION BY INDIVIDUAL JURISDICTIONS: To be written at a later date.

9. APPROVED GROWTH PLAN TRANSMITTED TO TENNESSEE LOCAL GOVERNMENT PLANNING ADVISORY COMMITTEE FOR APPROVAL:

To be written at a later date.

Section 03:

PROPOSED GROWTH PLAN

This amended Growth Plan consists of the following two key elements:

1. The **Growth Plan Map**, which depicts the revised boundaries for the UGB's, PGA's and Rural Areas; and
2. A set of **Goals and Strategies** designed to make the system of UGB's, PGA's and Rural Areas work more effectively.

PROPOSED GROWTH PLAN MAP

The Proposed Growth Plan Map (See *Figure 3* on pages 11-12) is the result of a collaborated growth planning effort, involving each of the seven jurisdictions within the County, geared toward identifying appropriate areas for future growth. This effort has resulted in revised UGB's, PGA's and Rural Areas, based on a 20-year planning horizon, and taking into account population projections and the costs of providing infrastructure and other services, among other factors.

PROPOSED GOALS AND STRATEGIES

GOAL 1: ENSURE THAT THE SYSTEM OF URBAN GROWTH BOUNDARIES (UGB'S), PLANNED GROWTH AREAS (PGA'S) AND RURAL AREAS FUNCTION AS OPTIMALLY AS POSSIBLE.

Strategy 1A: The County and each municipality will work together to create and implement interim policies related to development within UGB's that occurs prior to the municipality's annexation of the property. These policies may differ from jurisdiction to jurisdiction and may, among other things, relate to:

- County zoning policies within UGB's;
- The use or prohibition of alternative wastewater systems within UGB's; and
- The use of interlocal agreements to address specific challenges or opportunities.

Strategy 1B: Municipalities will not annex outside of UGB's, as the UGB's were established based upon a thorough evaluation of population projections, infrastructure capabilities, land capacities and other factors.

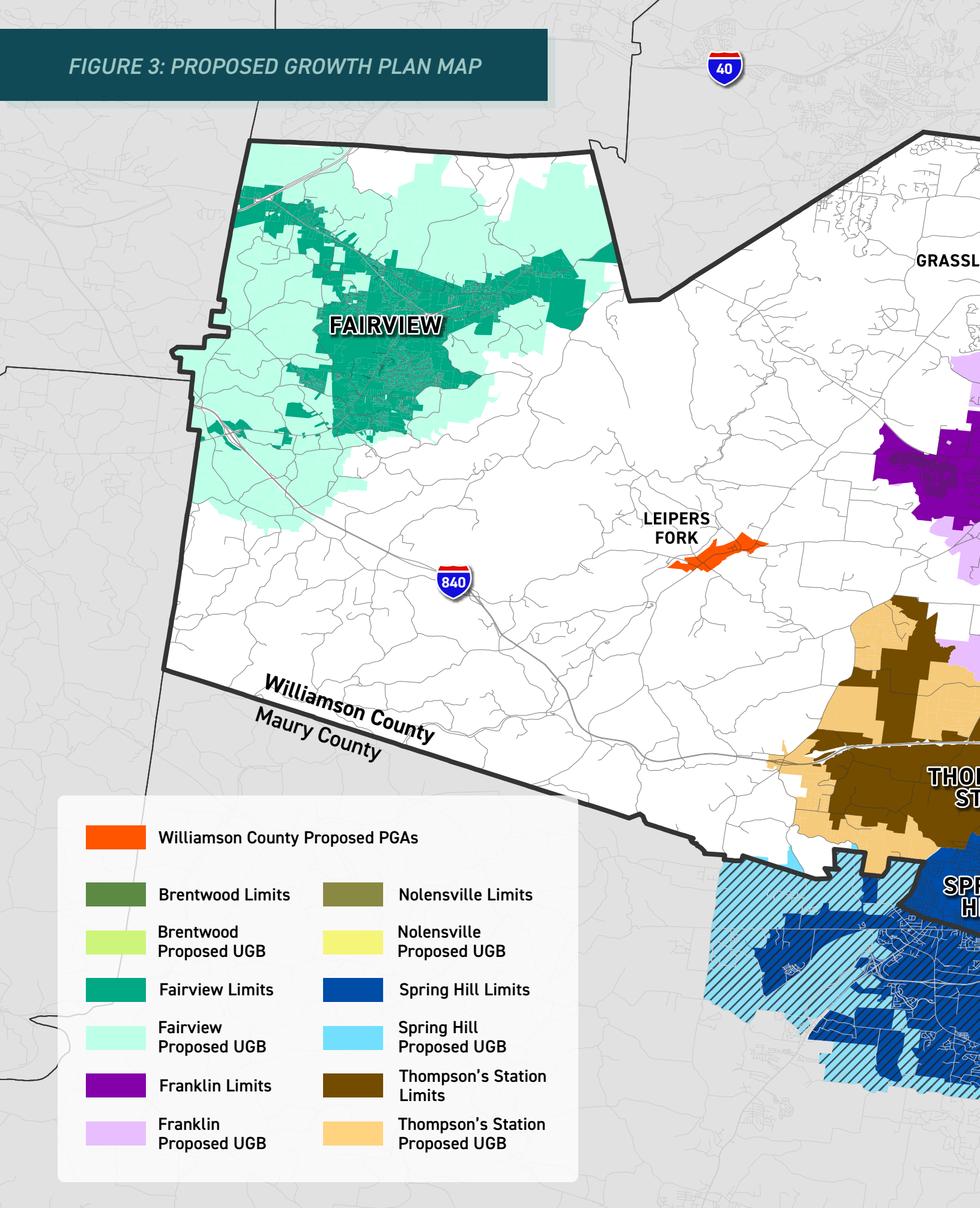
GOAL 2: CONTINUE THE PRACTICE OF COLLABORATIVE, MULTI-JURISDICTIONAL PLANNING ON AN ONGOING BASIS.

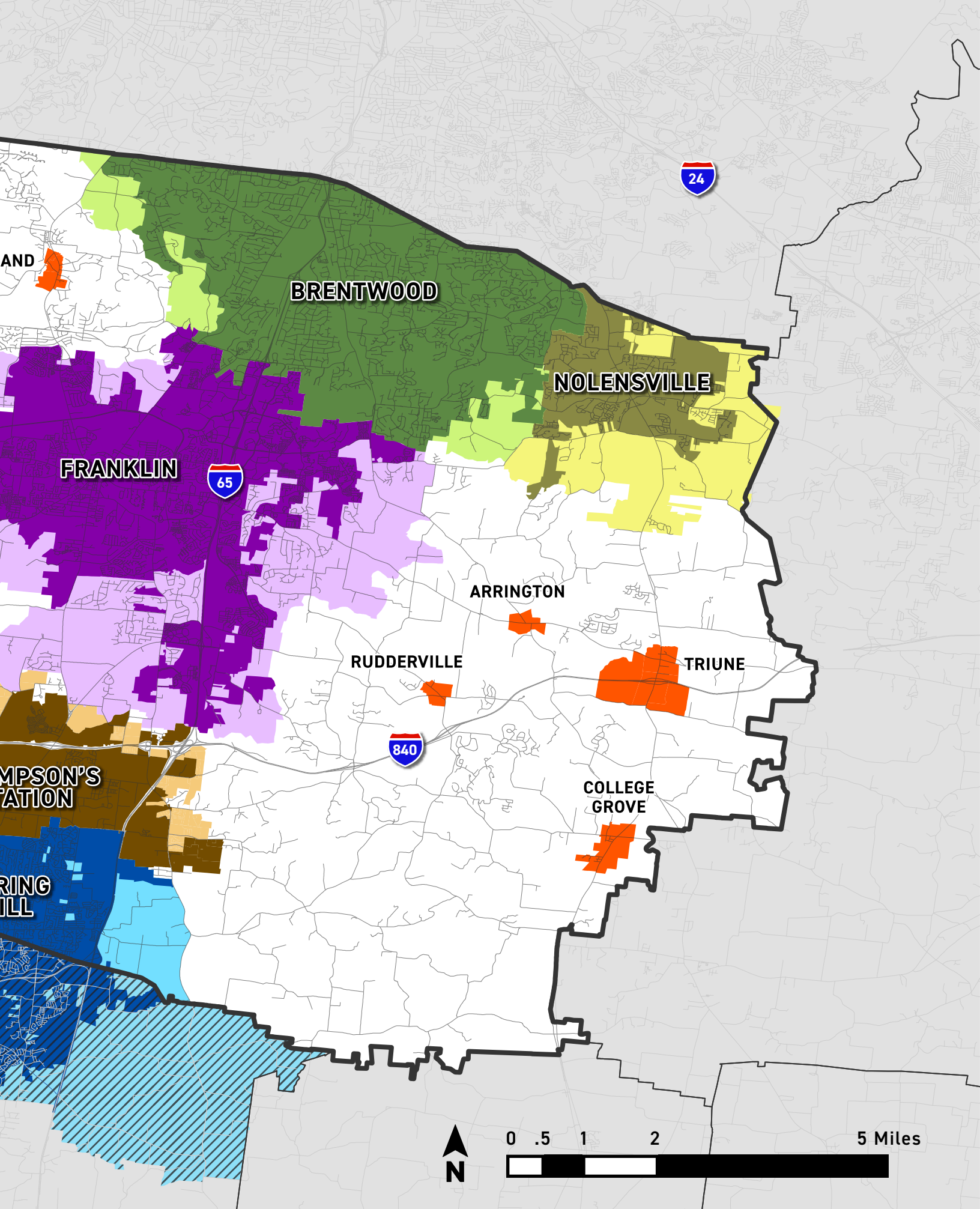
Strategy 2A: Revisit the Growth Plan at least every five (5) years to evaluate its effectiveness and whether or not revisions are necessary.

Strategy 2B: Convene a Growth Plan implementation committee, with representation that is similar to the Advisory Group, which will meet on a regular basis (e.g. quarterly) to evaluate Plan implementation, discuss regional issues, such as transportation and school siting, share information, etc.

Strategy 2C: Consider forming a multi-jurisdictional entity to focus on transportation planning within Williamson County.

FIGURE 3: PROPOSED GROWTH PLAN MAP





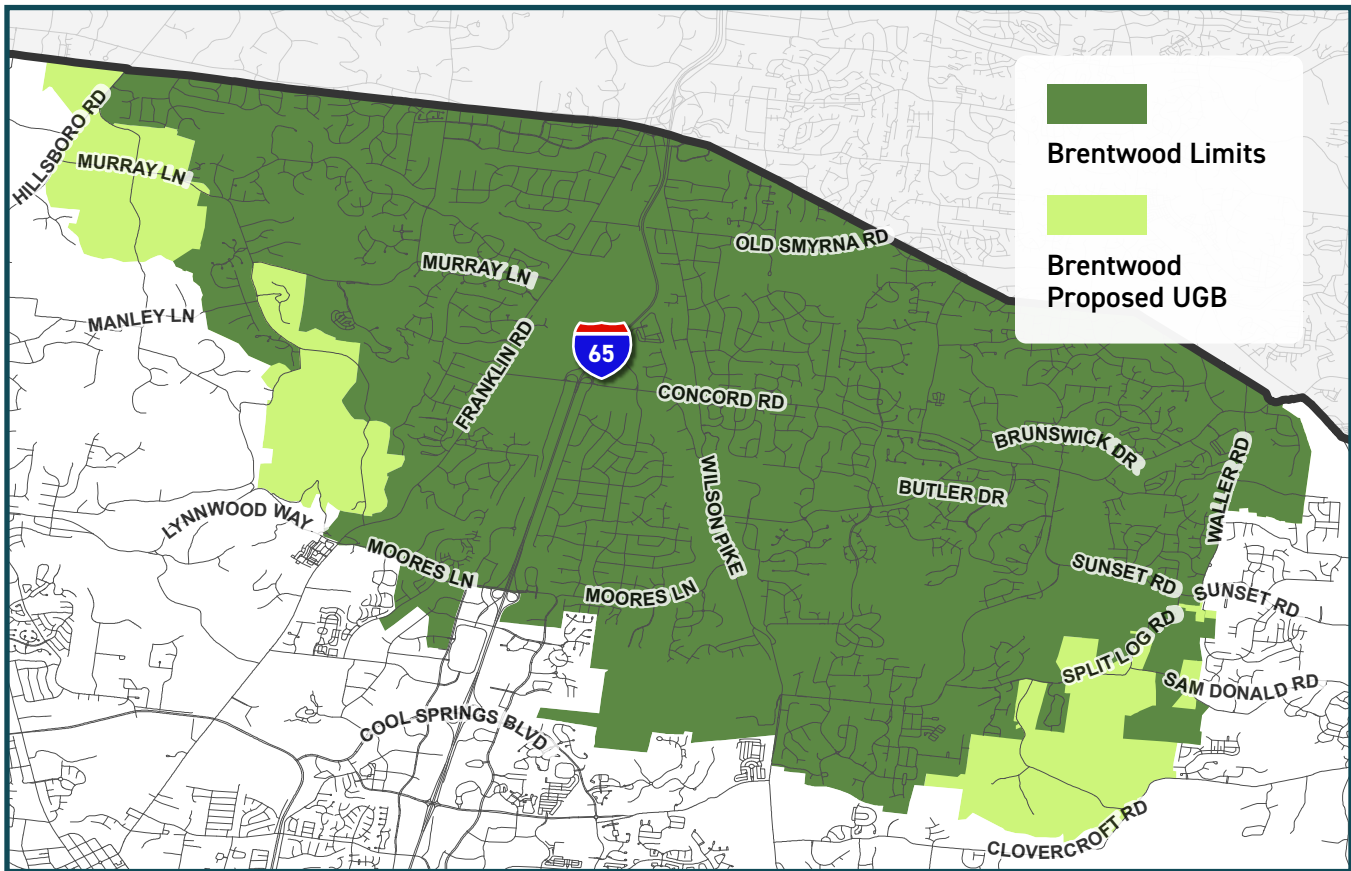


FIGURE 4: BRENTWOOD GROWTH BOUNDARY MAP

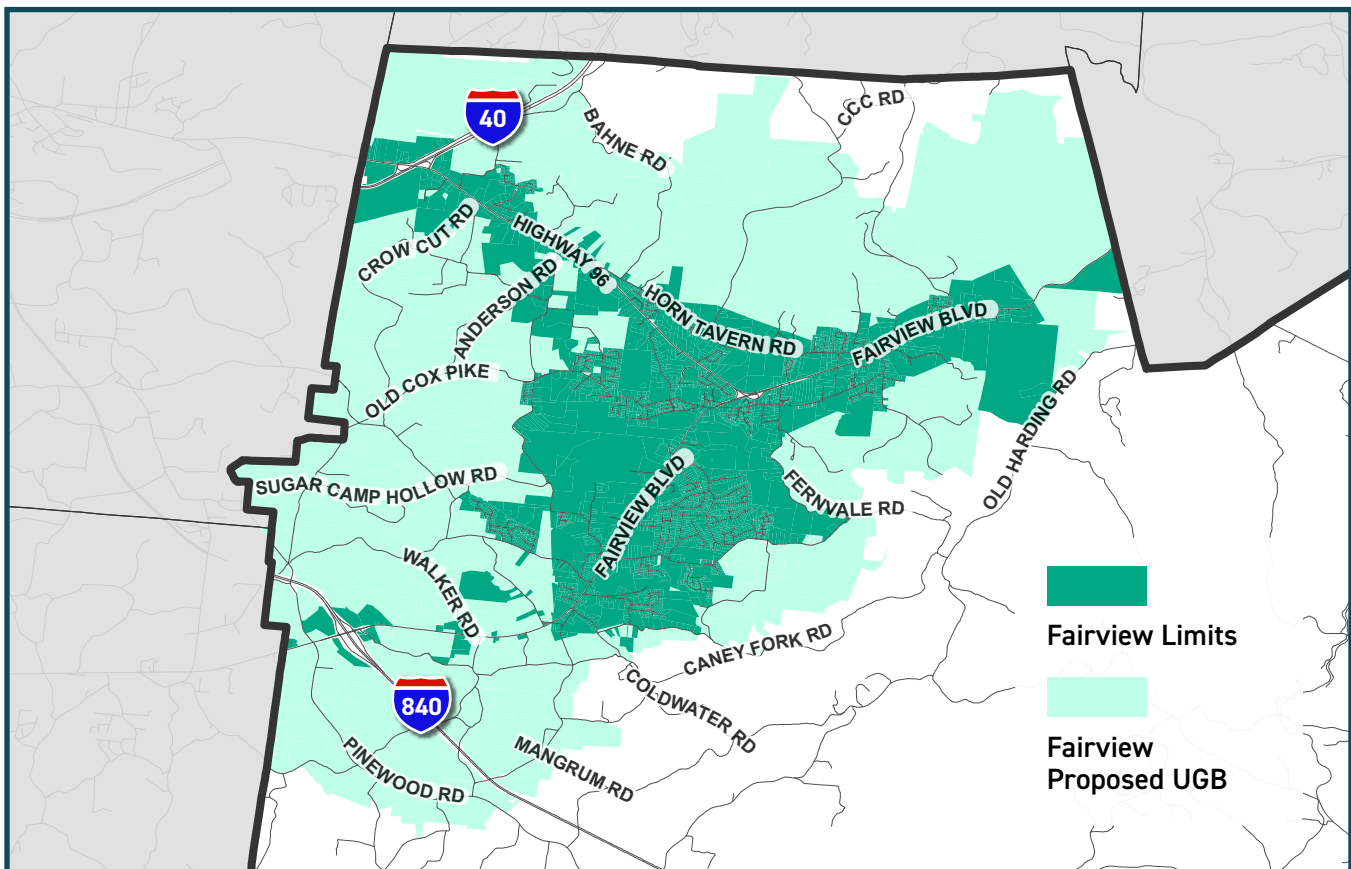


FIGURE 5: FAIRVIEW GROWTH BOUNDARY MAP

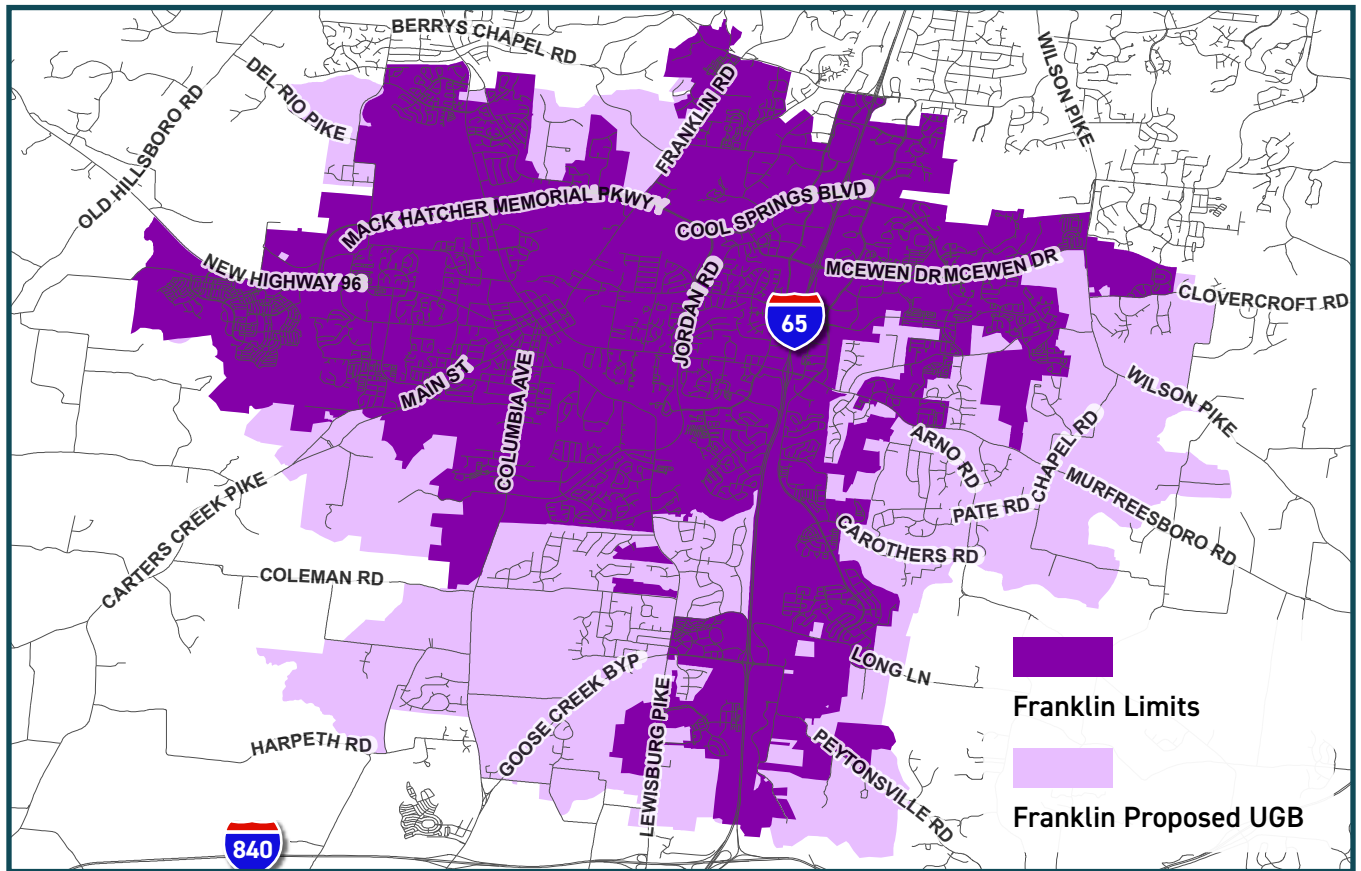


FIGURE 6: FRANKLIN GROWTH BOUNDARY MAP

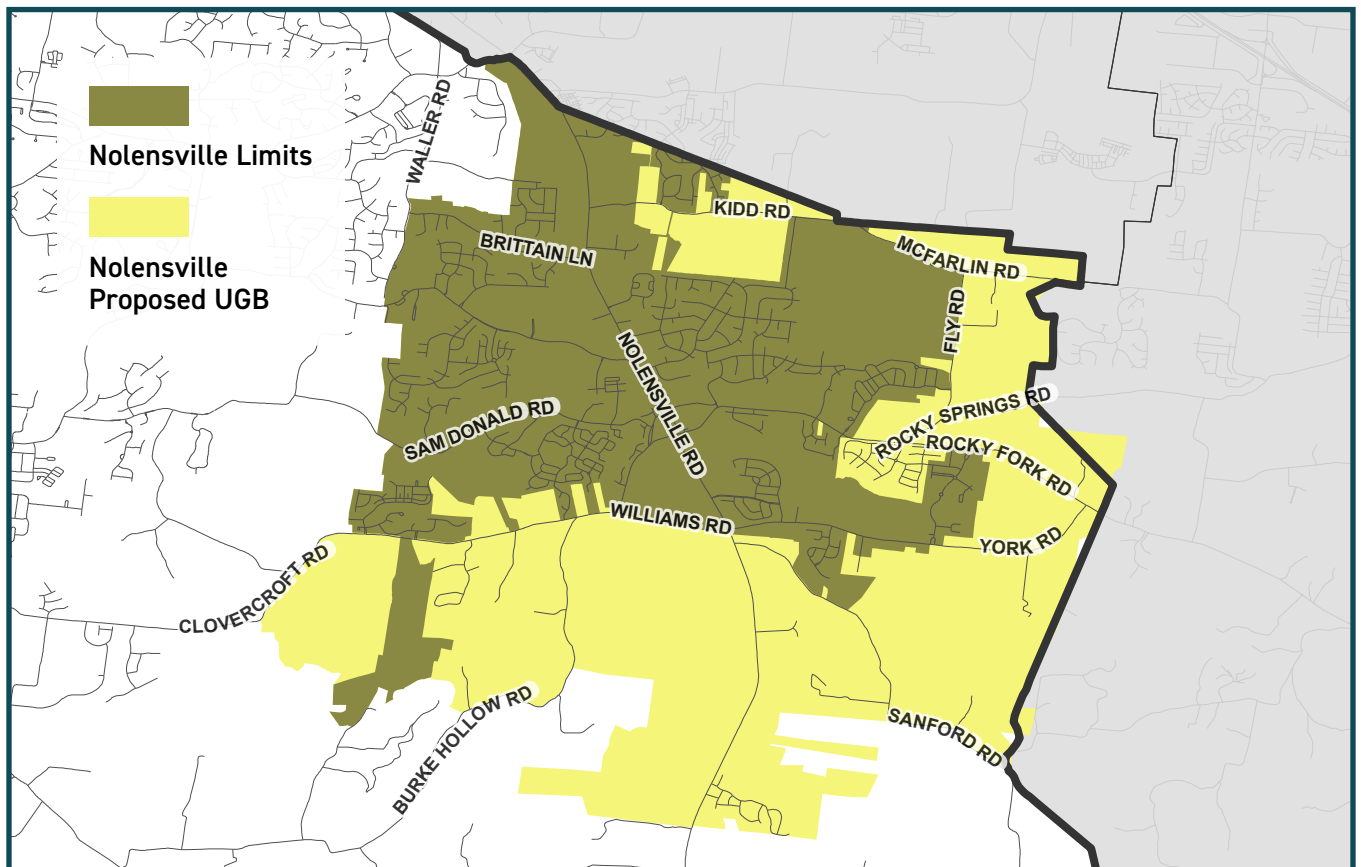


FIGURE 7: NOLENSVILLE GROWTH BOUNDARY MAP

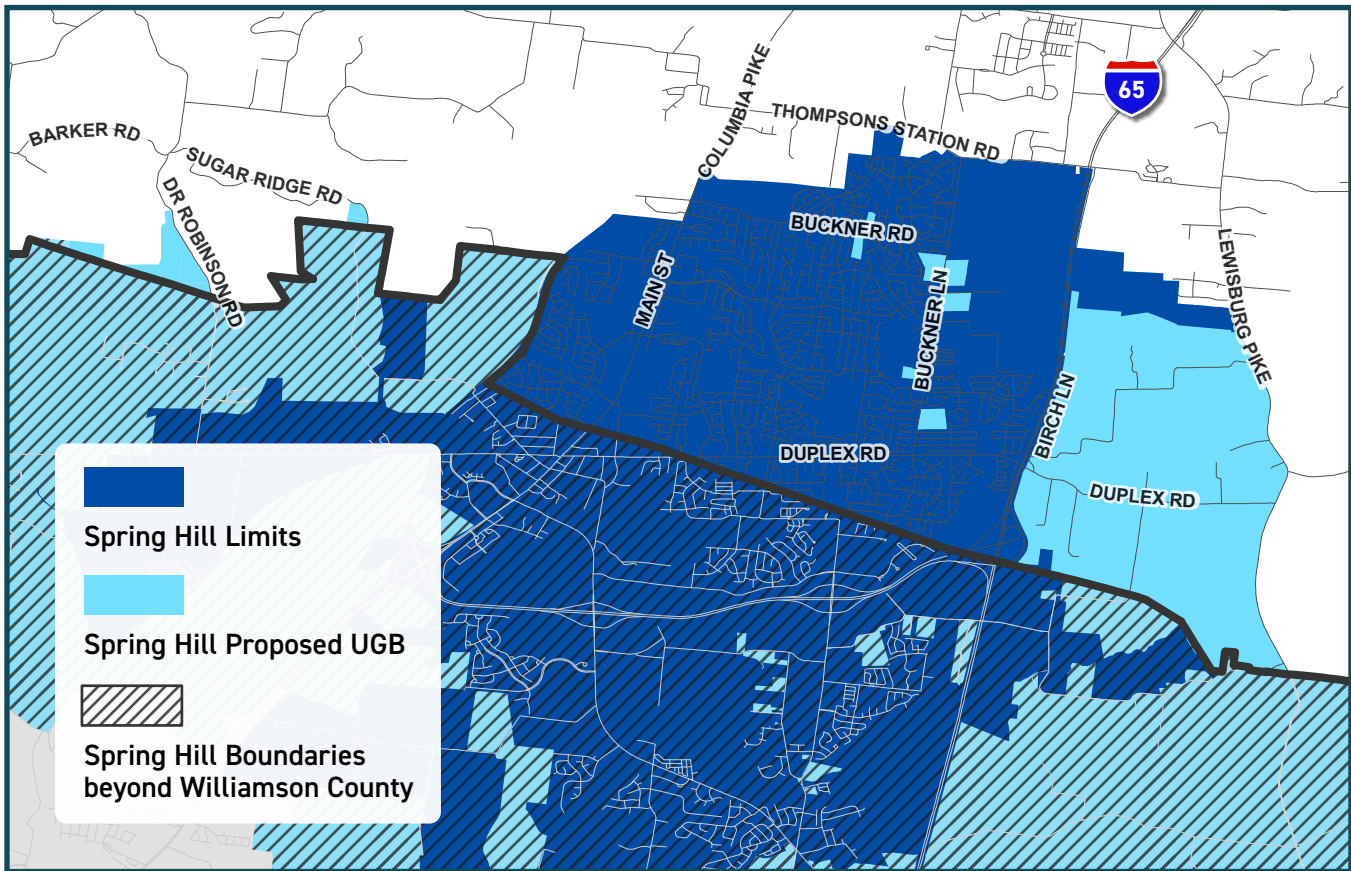


FIGURE 8: SPRING HILL GROWTH BOUNDARY MAP

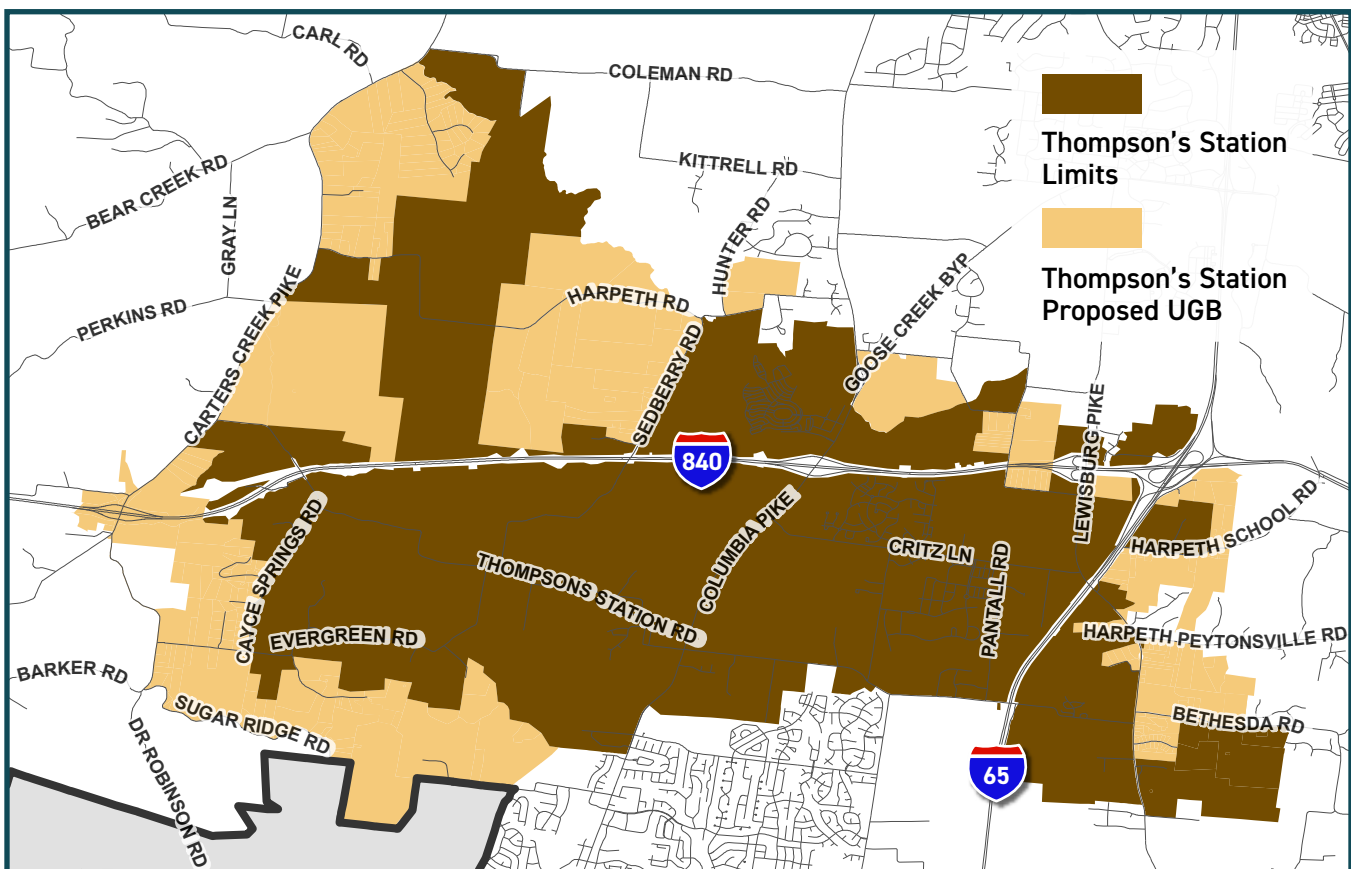
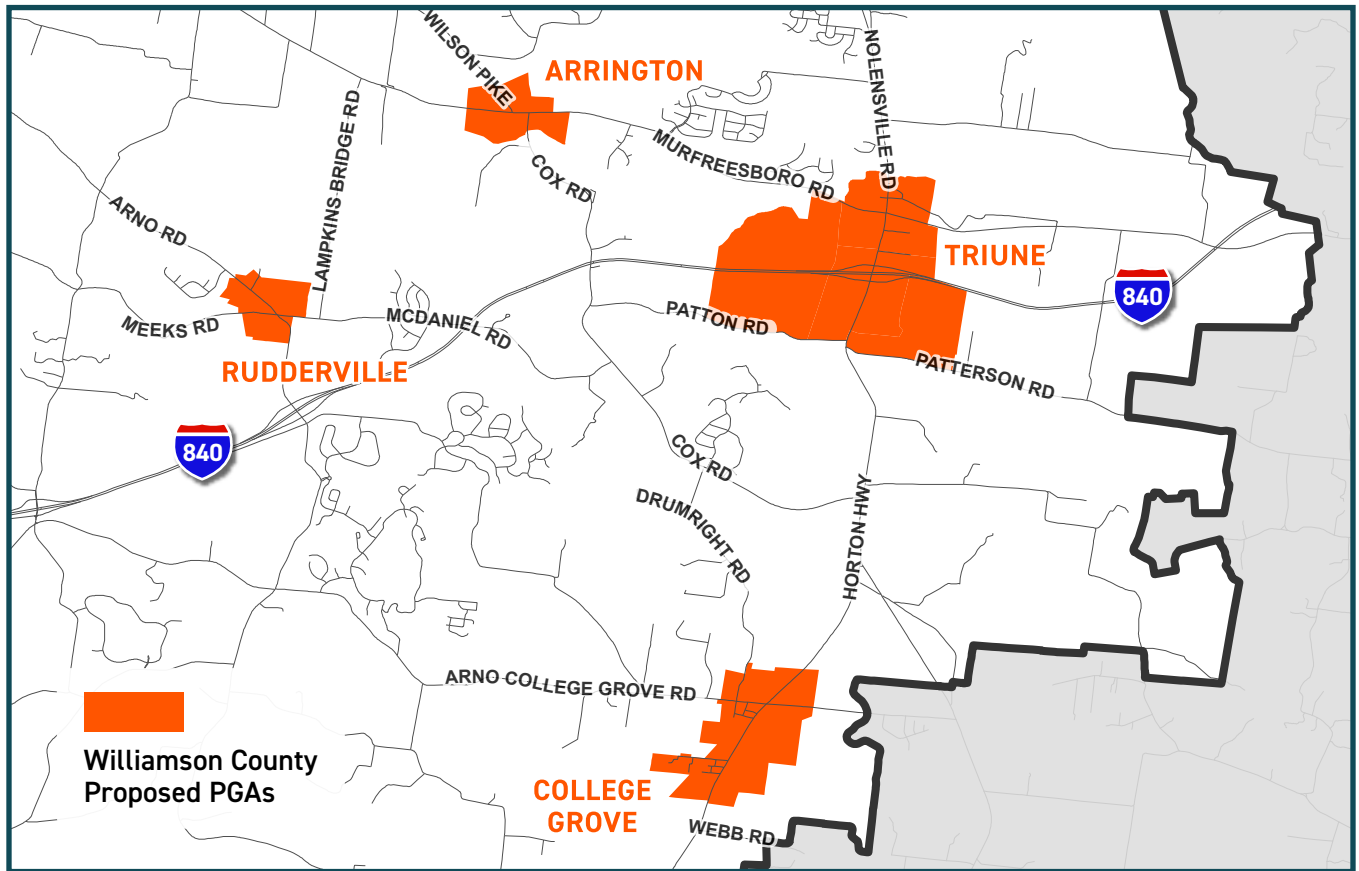
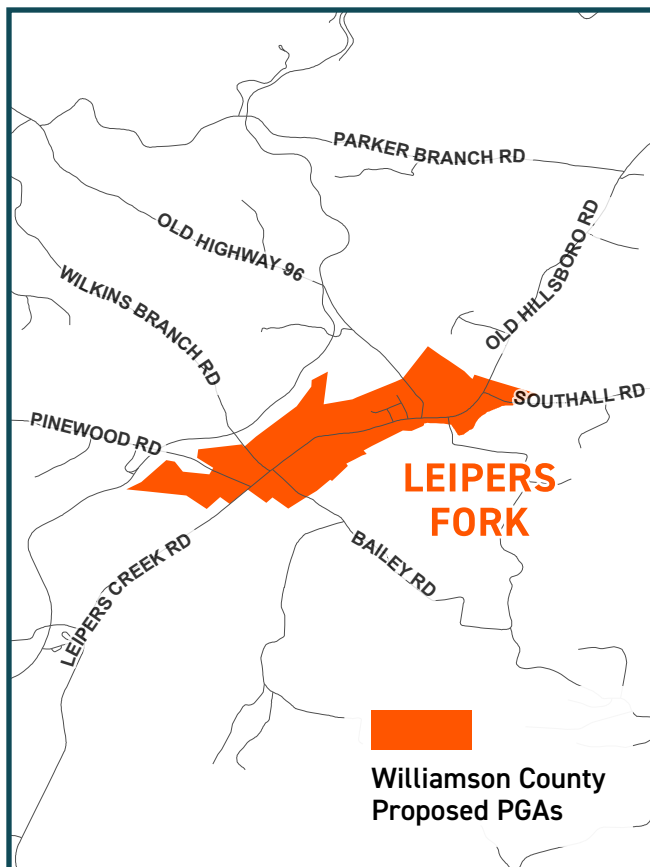


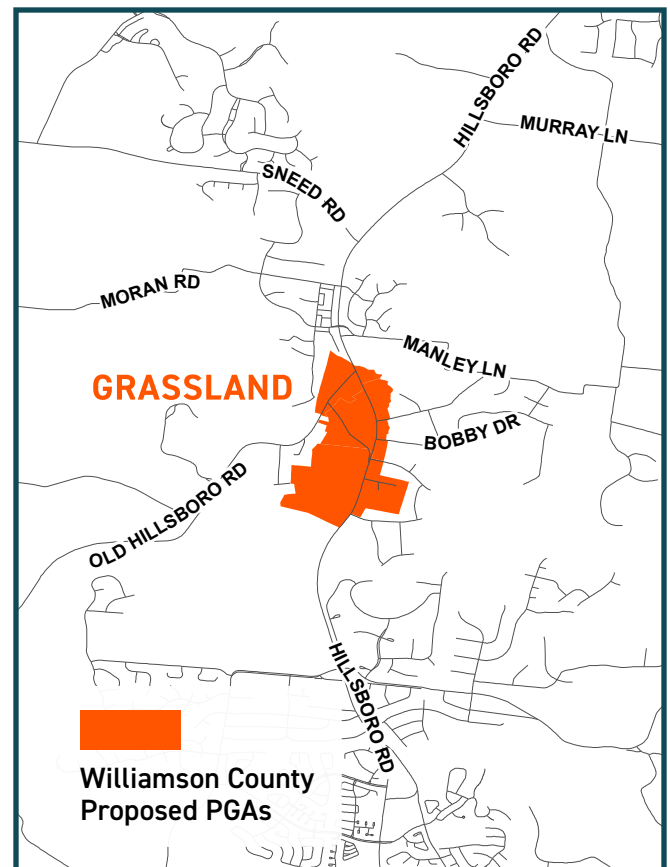
FIGURE 9: THOMPSON'S STATION GROWTH BOUNDARY MAP



10.1-3: WILLIAMSON COUNTY GROWTH AREAS MAP



10.2



10.3

Section 04:

CONCLUSION

This Plan represents a collaborative vision for the location of future growth within Williamson County that can be served by adequate and timely infrastructure, thereby helping to preserve rural character in outlying areas. In addition to the Growth Plan Map, which defines these areas, the Plan contains Goals and Strategies geared toward helping the system of Urban Growth Boundaries (UGBs), Planned Growth Areas (PGAs), and Rural Areas work as effectively as possible.

The Plan is intended to be a fluid document and should be examined at least every five years to determine whether changing conditions warrant amendments to the Plan.



Section 05: APPENDIX

This Appendix consists of summaries from each jurisdiction that outline important factors that helped influence their modified Urban Growth Boundaries (UGB's) and, in the case of the County, its modified Planned Growth Areas (PGA's) and Rural Areas.

CITY OF BRENTWOOD

When the original Williamson County Urban Growth Boundary (UGB) plan was approved in 2001, the City of Brentwood intentionally planned to identify areas where the City could reasonably provide essential services, including utility services. Population projection and a cost-of-service analysis were completed based on Brentwood's then-existing zoning ordinance and long-range service plans.

Since then, the City's long-term infrastructure planning efforts have been based on the eventual build-out of this original Brentwood UGB area under the City's existing low-density land development standards. In addition, Brentwood is unique in Williamson County, given that it is essentially landlocked on three of its borders, with Metro Nashville to the north, Franklin to the south, and Nolensville to the east. To the west, topography limits the extent to which the City could reasonably provide services. The Brentwood Planning Commission adopted an updated Comprehensive Plan in October 2016, after numerous public meetings and surveys to gather information regarding the future plan. The proposed UGB boundaries are consistent with the Brentwood 2030 Comprehensive Plan.

In 2020, the Census certified Brentwood's total population at 45,373 persons, up from 37,060 persons in 2010---a decade increase of 22.4%. Compared to the 1980s and 1990s, the growth rate has slowed. Brentwood is a mature community and one of the older suburbs of Nashville, with most growth occurring early in the City's establishment (1969). Moving forward, the geographical constraints and low-density design standards limit Brentwood's potential population growth.

Given these factors and the desire not to promote further development in areas where the City controls utility services, Brentwood has elected not to propose any significant alteration of its remaining UGB area as part of this update to the Williamson County Growth Plan. The only proposed changes are housekeeping in nature. Two small portions of property north of Maxwell Lane, currently in the Town of Nolensville, are proposed to be removed from the Brentwood UGB. The second proposed update is to correct a gap where there appears to have been a mapping error in the past to include a small portion of a parcel along the north side of Sam Donald Road into Brentwood's UGB. A Public Hearing regarding the proposed Brentwood UGB was held on July 5, 2023, at the Brentwood Planning Commission and a second Public Hearing was held on July 10, 2023, at the Brentwood Board of Commissioners meeting. There were no public comments received at either meeting.

CITY OF FAIRVIEW

In 2021, the City of Fairview's planning staff and elected officials began studying the community's growth trends to identify an updated urban growth boundary. Understanding the terrain and environmental constraints of the region, in addition to the desire to retain a rural character within the City, the urban growth boundaries, as shown, will allow Fairview to grow while being mindful of agricultural lands, environmentally sensitive areas, and the abundance of forested parcels throughout the northwestern corner of Williamson County.

Concentrating on past, current, and projected growth trends, the City of Fairview is growing at a rate just shy of the growth of Williamson County as a whole. Fairview's growth rate in the last seven years has been 2.4% compared to Williamson County's growth rate of 2.85%. Using these recent figures, Fairview's twenty (20) year population projection estimates adding 7,399 residents, a roughly 84% increase to Fairview's current population of 8,763.

The City of Fairview identified reasonably compact territories yet sufficiently large to accommodate residential and nonresidential growth projected to occur during the next twenty (20) years. A common goal was to focus on parcels of property that are contiguous to the existing boundaries of the municipality and that a reasonable and prudent person would project as the likely site of high-density commercial, industrial, and/or residential growth over the next twenty (20) years based on historical experience, economic trends, population growth patterns, and topographical characteristics.

Every city has an identity, and for many years Fairview has been known as a rural community. With a pocket of industrial uses and a small but spread out "main street," the City has had little commercial and industrial growth. The proposed urban growth boundary, along with the Fairview Forward Plan, has identified and will make available several parcels near the interstate interchanges for high-density growth and industrial development. Utilizing current properties within the City and annexing additionally needed parcels, adequate land is available for new and reused commercial and industrial space.

CITY OF FRANKLIN

Franklin has consistently experienced fast-paced growth over the last 30 years, a trend projected to continue. Between 2010 and 2020, the City's population grew from 62,487 to 83,452, a 33.6% increase. In 2013, the US Census Bureau named Franklin the 14th fastest-growing City in the nation for cities with a population over 50,000. Then in 2017, the US Census Bureau identified Franklin as the fastest-growing City in Tennessee and the 8th in the nation. Overall, the City anticipates adding 43,000 residents by 2040.

Throughout the summer of 2021, an interdepartmental team of City staff began meeting weekly to analyze the Franklin Urban Growth Boundary (UGB). During these meetings, City of Franklin staff discussed reasonable infrastructure availability, extensions, needs, and costs associated with providing efficient and effective public services to territory within the UGB and for the territory proposed to be added. Environmental features such as floodplains, steep slopes, and agricultural lands wishing to remain working farms were all considered during the discussions and analysis. Development suitability, the cost to extend municipal services, population projections, and the study of necessary land uses to accommodate managed and strategic growth all factored into the preliminary staff recommendations for the updated UGB.

From a series of community meetings and a public survey, the City of Franklin staff engaged with citizens to raise awareness of the UGB study and provide feedback on the preliminary recommendations. Several property owners made specific requests to be removed from the UGB and were allowed to present their unique circumstances publicly. Based on these presentations and feedback from the elected officials, adjustments to the boundary were made accordingly. The staff engaged the Franklin Board of Mayor and Aldermen at six public work session meetings for their input and guidance throughout the fall of 2021 and the spring of 2022. Additionally, the staff engaged the Franklin Municipal Planning Commission and Franklin Board of Mayor and Aldermen at two joint public workshops during the fall of 2021. The City also held two required public hearings in 2023 with accompanying Resolution 2023-44 to recommend approval for the proposed UGB. The first public hearing was held by the Franklin Municipal Planning Commission on July 27, 2023 and the second was held on August 8, 2023 by the Franklin Board of Mayor and Aldermen. The result was an amendment to Resolution 2023-44 to advocate that a defined area proposed for removal from Franklin's UGB along West Harpeth Road remain outside of any jurisdiction's UGB.

The City of Franklin is proposing changes to its UGB to accommodate additional land suitable for projected commercial, industrial, and residential growth over the next twenty years. Due to continued growth and development along the I-65 corridor, the City proposes a compact and contiguous expansion of the UGB south of Long Lane and east of I-65. Through the referendum process, the City has annexed properties outside of the UGB in this area, and city services and infrastructure can be extended to support additional growth. A coordinated study of land uses and infrastructure is ongoing for the territory recommended to be added. The City is also proposing a reduction of the UGB north of New Highway 96 West, along US 31 Columbia Pike, and also along Carters Creek Pike and Southall Road. Minor adjustments along the fringes of the UGB have been made so the proposed boundary follows parcel lines. In total, the City of Franklin proposes adding approximately 2,173 acres to the UGB and removing approximately 2,534 for a net loss of 361.

TOWN OF NOLENSVILLE

The Town of Nolensville has taken a reasonable, measured, and sustainable approach when considering where to expand our Urban Growth Boundary (UGB). The Town's goal while developing new UGB boundaries is to retain its small-town character, scenic value, and ecological quality, while accommodating carefully controlled growth. We have received community input and requested the advice of our Planning Commission and Board of Commissioners on our proposed UGB boundaries. A community workshop and public hearings were conducted as follows:

- Community Workshop – Thursday, June 29, 2023 at 6:30pm in the Nolensville Townhall Chambers
- Planning Commission Public Hearing – Tuesday, July 11, 2023 at 6:30pm in the Nolensville Townhall Chambers
- Board of Commissioners Public Hearing – Thursday, August 3, 2023 at 6:30pm in the Nolensville Townhall Chambers

In our study of the practical options, two approaches resulted as prime candidates for compact and contiguous UGB expansion and future annexation. The first is the expansion to the southwest, which is bisected by a property that has already been annexed, and this will serve to simplify the boundaries of our Town. The second expansion to the south will extend the current UGB along US 41A, the major arterial road that serves our community. Both choices are the most logical next steps in expanding the Town of Nolensville.

Our community has recently adopted a new zoning ordinance and zoning strategy map, which will increase our population and the ability to supply improved public safety services and an enhanced transportation system. According to our current data, our population grew 110% from 2000-2010 and 135% from 2010-2020, to a total population of 13,829. With this population growth in mind, the expansion of the UGB, coupled with our new zoning ordinance and map, these factors will allow us to manage and control growth well into the future and ensure we can provide a high-quality and safe environment for future generations.

Our current UGB expansion proposal is the most efficient and cohesive approach we can implement that will ensure additional land suitable for projected commercial, industrial, and residential growth over the next twenty years while allowing us to expand efficiently and effectively. Not just growth to create economic sustainability but growth that allows us to expand our greenway system, create more active and passive open space areas, preserve existing trees and creeks, improve our transportation system and address stormwater impacts. As we expand our Urban Growth Boundaries in the future, we will adhere to the values, goals, and objectives established by the Board of Commissioners. Regardless of where expansion occurs, it will be done in a sustainable manner that benefits the entire Town and respects our surroundings.

As part of the Five-year Growth Plan Update, the Town of Nolensville will review and consider the growth pressures in the areas shown on the map below.

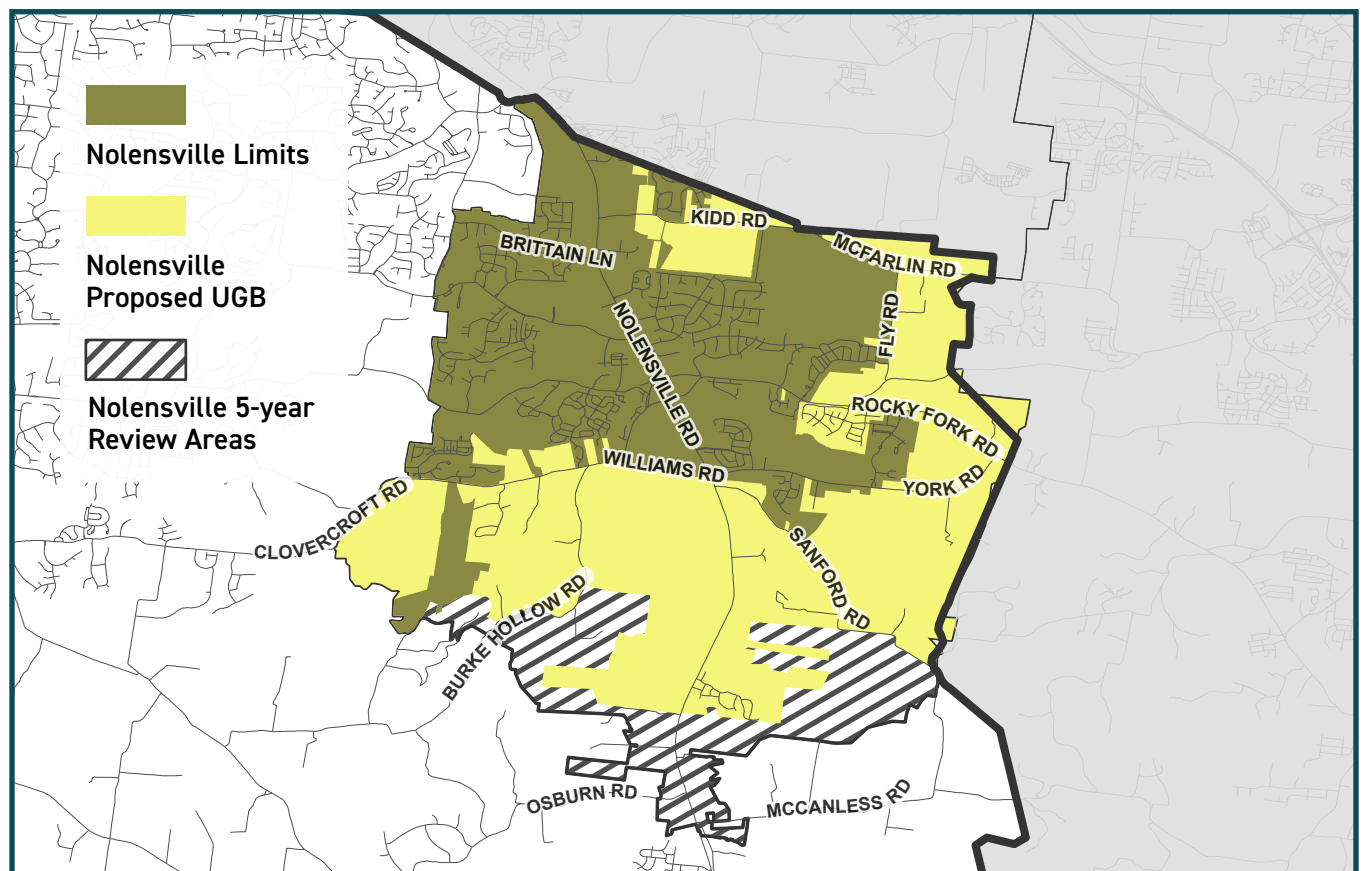


FIGURE 11: NOLENSVILLE 5-YEAR REVIEW AREA MAP

CITY OF SPRING HILL

The City of Spring Hill began planning for an update to the Williamson County Urban Growth Boundary (UGB) Plan in the Summer of 2021. To determine the proposed boundary of the Williamson County, Spring Hill UGB, city staff utilized current development trends, development requirements for water-sewer capacity, analyzed existing drainage basins based on topography, the development of the I-65 interchange at June Lake Blvd., consideration of adopted planning documents (such as but not limited to the 2040 Spring Hill Rising Comp Plan), and the continuity of the currently adopted Maury County UGB with any additional UGB established within Williamson County. The UGB update is crucial to managing Spring Hill's future growth as the city transitions from a bedroom community to a self-supported city.

Spring Hill has grown by 64.9% from 2011 to 2020, with an average annual growth of 7.2%. The City's UGB Update utilized assumed growth rate projections of 3.6% and 7.2%. The ten-year growth projections show a city of 79,194 persons in 2030 at a 3.6% growth rate and 123,620 persons at a 7.2% growth rate. This growth range forms the basis for the City's Growth Plan Report and the proposed expansion of the UGB.

The City of Spring Hill hosted a series of stakeholder meetings for UGB public input. Two in-person meetings were held at City Hall in October 2021. The public input resulted in collaborative discussion between the City, City residents, and unincorporated County residents. Following the public engagement meetings, findings were summarized and presented to both the City of Spring Hill Planning Commission and the Board of Mayor and Aldermen for consideration and further input. The initial Spring Hill Williamson County UGB was submitted to the coordinating committee in August of 2023. After review by the coordinating committee and after input from county stakeholders, the City of Spring Hill held additional public hearings that would afford the opportunity of additional collaboration in September and October of 2023. The outcome of these public hearings in 2023 resulted in a revised UGB map that was considerate of the county stakeholder needs as well as the city's vested interest in responsible growth.

The final version of the City of Spring Hill's expanded Williamson County Urban Growth Boundary Map offers the City's intention for reasonable and smart growth over the next 5-20 years. The boundary was defined based on growth projections, existing drainage basins, the consistency with the existing boundaries of the City of Spring Hill's Maury County UGB, and a Williamson County Urban Growth Boundary expansion that can accommodate and manage the future growth of the City efficiently and effectively while ensuring that the proposed Urban Growth Boundary is sufficiently compact so as to not contribute to leapfrog and noncontiguous development patterns and to protect rural and agricultural lands.

TOWN OF THOMPSON'S STATION

The Town of Thompson's Station began planning for the Williamson County Growth Plan update in the Spring of 2021. The Growth Plan Update is part of several parallel planning efforts currently underway in the Town, which have informed and underpinned the Town's overall planning and analysis related to the study of the Town's Urban Growth Boundary (UGB). The Growth Plan Update process was a timely addition to the Town's overall growth, development, and preservation planning process and was embraced as such by the elected and appointed officials, as well as Town Staff.

The Town of Thompson's Station has experienced tremendous growth over the past twenty years since the adoption of the current Williamson County Growth Plan in 2001. The 2020 Census certified a total population of 7,485 persons, up from 1,946 persons in 2010---resulting in a staggering 241% increase. This triple-digit, historic growth rate makes population forecasting and projections difficult. Therefore, the Town's Growth Report Update uses a series of linear growth projections across a more conservative 3.5% growth rate and an earnest 8% growth rate to create a growth projection range for the Town's growth through 2040. The 2040 growth projections show a Town of 14,893 persons in 2040 at a 3.5% growth rate and 24,887 persons at an 8% growth rate. This growth range forms the basis for the Town's Growth Plan Report and the areas studied to expand the UGB.

The Town's first action in the planning process was public outreach and engagement. At the very beginning of the planning process, the Town hosted a series of in-person and virtual meetings over the Summer and Fall of 2021. Two in-person meetings were held at Thompson's Station Community Center in July 2021 and August 2021. The third public meeting was planned to be held in person, but the delta surge of the coronavirus forced the Town to shift that meeting to a virtual meeting in September 2021. As the planning process concluded, the Planning Commission held the first of the Town's required Public Hearings on the Town's revised UGB map on July 25, 2023, and the Board of Mayor and Aldermen held the second and final Public Hearing on August 8, 2023. The public input garnered throughout the planning process resulted in a robust discussion between the Town and our neighbors in the unincorporated County and led to direct changes and revisions to the Town's overall growth plan and UGB based on this feedback.

The final version of the Town of Thompson's Station expanded Urban Growth Boundary Map offers the Town's intention for balanced and additional land suitable for projected commercial, industrial, and residential growth over the next twenty years. Based on growth projections, it includes the extent of the Town's Urban Growth Boundary expansion to accommodate and manage growth efficiently and effectively, while ensuring that the proposed Urban Growth Boundary is sufficiently compact and contiguous to promote reasonable and logical development patterns and protection of rural and agricultural lands.

WILLIAMSON COUNTY

The current Planned Growth Areas (PGAs) were created at a time when the Grassland area (PGA's 1, 2, and 3) and the Triune area (PGA-5) were projected to accommodate a suburban level of development.

The Williamson County Comprehensive Land Use Plan (Comp Plan), the County's chief policy document related to growth and development matters, was amended in 2020. The Comp Plan makes specific land use recommendations for the unincorporated County and specifies where growth should and should not occur. Based upon significant public involvement, the Comp Plan calls for a reduction in density outside of Urban Growth Boundaries, except within designated Villages and Hamlet areas. The County intends that the proposed PGA's and Rural Areas mirror the Land Use Plan recommendations of the Comp Plan.

As such, the County is proposing the following six PGAs:

- **Triune** (coinciding with the TCA-2, TCA-3 and TCA-4 Zoning Districts);
- **Grassland** (coinciding with the GV-1, GV-2, GV-3 and GV-4 Zoning Districts);
- **Leiper's Fork** (coinciding with the LFV Zoning District);
- **College Grove** (coinciding with the CGV Zoning District);
- **Arrington** (coinciding with the Hamlet Zoning District that exists surrounding the intersections of HWY 96 and Wilson Pike/Cox Road); and
- **Rudderville** (coinciding with the Hamlet Zoning District surrounding the Arno Road/McDaniel Road intersection).

Based on economic trends, population growth projections/patterns, and topographical considerations, the County believes that the proposed PGAs are necessary and reasonable to accommodate additional development and are the logical and likely locations for efficient and effective higher density (relative to the Rural Areas) residential, commercial, and limited industrial uses, provided such development occurs in a way that is consistent with adopted Special Area Plans. The County is projecting a population increase of approximately 23,000 (from 54,871 to 78,331) in the unincorporated area by 2040. The proposed PGAs are reasonably compact yet sufficiently large to accommodate this additional development over the next 20 years.

The County also believes that the proposed Rural Areas will allow for the improved management and preservation of natural resources and agricultural uses and are necessary to manage urban growth within the County. Based on their size and location, it is unlikely that any PGAs will become municipalities or be annexed by an existing municipality over the next 20 years. Public hearings regarding the County's proposed PGAs and Rural Areas were held on July 13, 2023 and August 14, 2023.



AGENDA

WILLIAMSON COUNTY GROWTH PLAN UPDATE COORDINATING COMMITTEE

**October 16, 2023 - 9:00 a.m.
Williamson County Enrichment Center**

- 1. Welcome and Announcements**
- 2. Public Comments (sign-up required, limited to 30 minutes)**
- 3. Approval of Minutes from the September 19, 2023 Meeting**
- 4. Individual Jurisdiction Updates Regarding Proposed Boundaries**
- 5. Discussion/Action Regarding Draft Plan Document**
- 6. Public Hearing Dates**
- 7. Next Steps**



October 11, 2023

TO: Williamson County Growth Plan Coordinating Committee

FROM: Brian Stover, Mayor
Ken McLawhon, Town Administrator
Micah Wood, Community and Economic Development Director
Andrew Mills, Town Attorney

SUBJECT: Thompson's Station Urban Growth Boundary Revisions

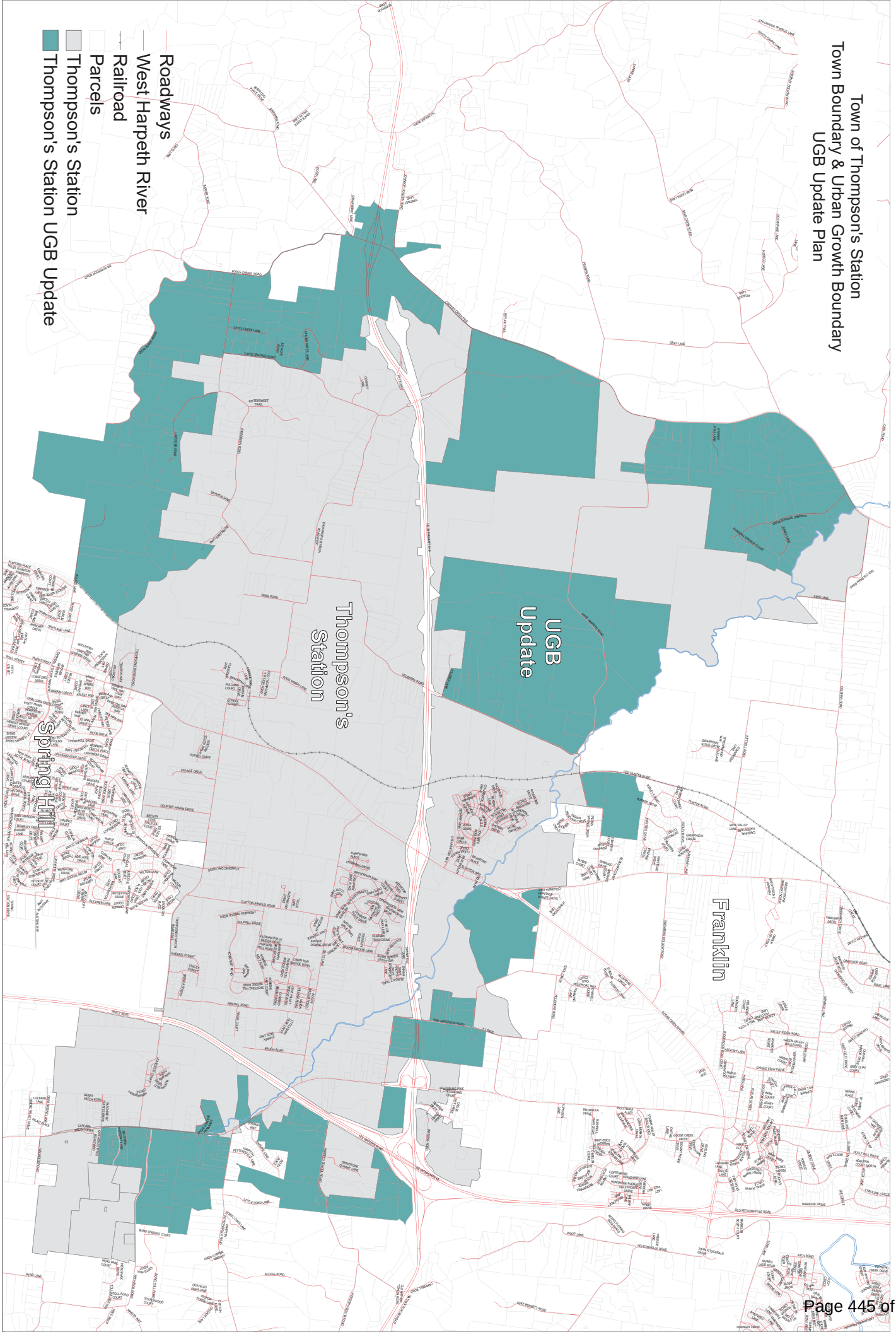
Based on feedback from the Coordinating Committee, the Town of Thompson's Station has revised the proposed Urban Growth Boundary to remove existing subdivisions along the south side of West Harpeth Road, the Harpeth Woods Subdivision on Hwy 431, along with parcels along the north side of Harpeth-Peytonsville Road. This revised map was presented to the BOMA at their 10-10-23 meeting as a non-voting item. The Town continues to propose an interlocal agreement to address other issues raised by community members to prohibit connections between existing subdivisions and any new development within the Town.

Additionally, at the 10-10-23 BOMA meeting, an update to the existing Ozzad Agreement was approved which:

- Caps the total lots in the property north of West Harpeth Road at 150, which is equivalent to the current county zoning for this property.
- Limit all development to single family homes.
- Require a minimum 25-foot buffer along the eastern, western, and northern property.
- Require a minimum 70-foot buffer along West Harpeth Road.
- Provide for a realignment of West Harpeth Road, to the Town's standards, to allow for a safer roadway by removing the existing S curves and improving the road.
- Provide extensive open space (minimum of 57 acres), including dripfields and a possible Town Park.

The Town requests that the Coordinating Committee proceed with adoption of the Town's revised UGB map, as presented.

Town of Thompson's Station
Town Boundary & Urban Growth Boundary
UGB Update Plan



A-1 Homebuilders Inc.
2020 Fieldstone Parkway, Suite 900-220
Franklin, TN 37069

October 9, 2023

Board of Mayor and Aldermen
Town of Thompson's Station
1550 Thompson's Station Road West
Post Office Box 100
Thompson's Station, TN 37179

Re:
Williamson County Map 119; Parcels 7.03, 7.04, 7.05, 7.07, 7.08 and 7.09
Williamson County Map 118; Parcel 7.00

Dear Board of Mayor and Aldermen:

A-1 Homebuilders, Inc. owns the real property above (consisting of approximately 149.21 acres) in Williamson County which has been denied services twice by the City of Franklin even though it has been in the City of Franklin's UGB for over twenty years. The City of Franklin has released the property above from its UGB and has directed its representatives to the Williamson County Coordinating Committee to state it wishes to release the property to Williamson County.

As the property owner, I believe it is my property right to have already been provided services by the City of Franklin and I do not understand why the City of Franklin would continue to interfere with my property rights by opposing the property being included in Thompson's Station's UGB. It is my understanding that a property owner may request inclusion in an UGB if the municipality plans on extending services to the area within the next twenty years.

As the property owner I request inclusion in Thompson's Station's UGB as well as annexation into the Town of Thompson's Station as soon as the UGB is adopted and ratified by the State of Tennessee. Please provide me with the application and an outline of when this could be accomplished.

Sincerely,

Brandon Robertson

Brandon Robertson, President
A-1 Homebuilders, Inc.

MEMORANDUM



DATE: October 16, 2023

TO: Board of Mayor and Aldermen (BOMA)
UGB Coordinating Committee

FROM: Pete Hughes, Development Director
Pam Caskie, City Administrator

SUBJECT: City of Spring Hill East of I-65 UGB Expansion Explanation

Executive Summary:

Responsible growth planning is the cornerstone of thriving communities, and the City of Spring Hill is poised to take a significant step forward in this regard by expanding its Urban Growth Boundary (UGB) to include an eastern expansion from I-65 to Lewisburg Pike (431) within Williamson County, Tennessee. This expansion, is based on thoughtful management of Middle Tennessee growth. Included within this memo is a summary the City of Spring Hill UGB engagement process, key decision factors influencing the eastern expansion, and if annexation were to occur in this area what would be the process.

UGB engagement process:

The City of Spring Hill entered the planning process for an update to the Williamson County Urban Growth Boundary Plan in the Summer of 2021. To determine the proposed boundary of the Spring Hill UGB (within Williamson) city staff utilized current development trends, water sewer capacity development requirements, consideration of adopted planning documents (such as but not limited to the 2040 Spring Hill Rising Comp Plan), and the continuity of the currently adopted Maury County UGB with any additional UGB established within Williamson County.

The City of Spring Hill hosted a series of stakeholder meetings for UGB public input. Two in-person meetings were held at the City of Spring Hill City Hall in October of 2021. These meetings were led by the Development Director and Assistant City Administrator at the time. The public input resulted in collaborative discussion between the city, city residents, and unincorporated county residents. Following the public engagement meetings, findings of the public engagement were presented to both the City of Spring Hill Planning Commission and BOMA for consideration and further input which resulted in the originally proposed Spring UGB Boundary.

In July of 2023 the city initiated the public approval process of the UGB by the City of Spring Hill BOMA. The city followed notice requirements and went further to ensure those impacted by the UGB expansion were notified by mail based on the latest property information from the Williamson County parcel data. The city also updated the city website to include all generated UGB material for the public to review. Both the Planning Commission and BOMA approved the proposed UGB for consideration by the coordinating committee. Following input from the coordinating committee process a resolution was passed by BOMA in September 2023 to remove portions of the UGB based on the residents that attended the July meeting and expressed apprehension of their inclusion within the UGB.

Infrastructure Investment:

One of the primary drivers for expanding the UGB is the city's substantial investment in an I-65 interchange. This crucial infrastructure project enhances regional connectivity and accessibility, reducing traffic congestion and facilitating more efficient transportation. It serves as a catalyst for responsible growth, making the expansion of the UGB a logical step forward. The total financial investment the city will make in the I-65 interchange will be a minimum of 52 million dollars.

With the city's forward-thinking investment into critical infrastructure, identifying the areas east of I-65 ensures that sustainable growth principles can be utilized to manage growth. Sustainable growth principles will encourage higher quality of development, foster development that is compatible with the existing land uses, and ensure that all developments meet City standards.

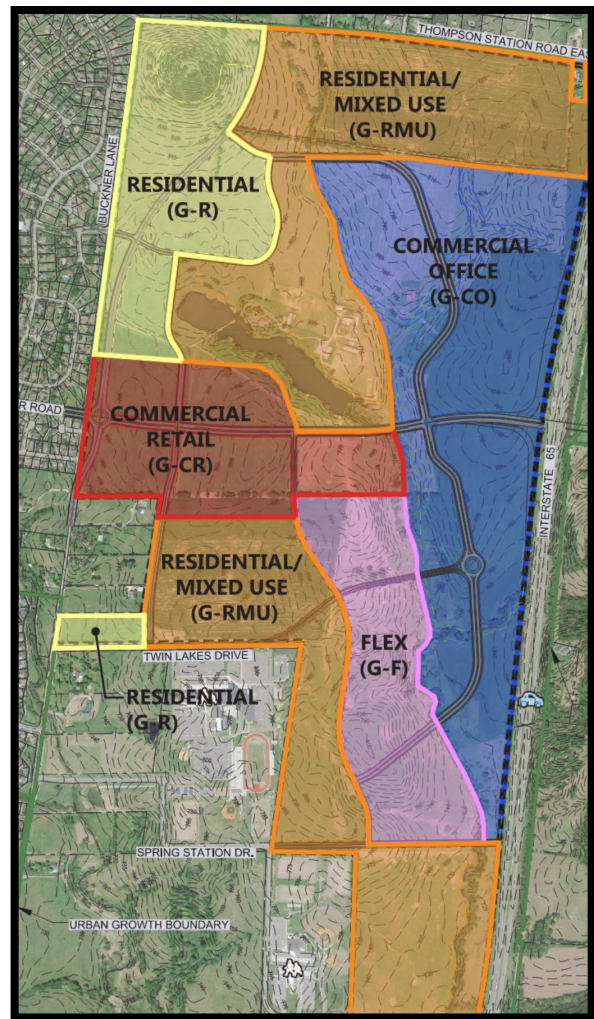
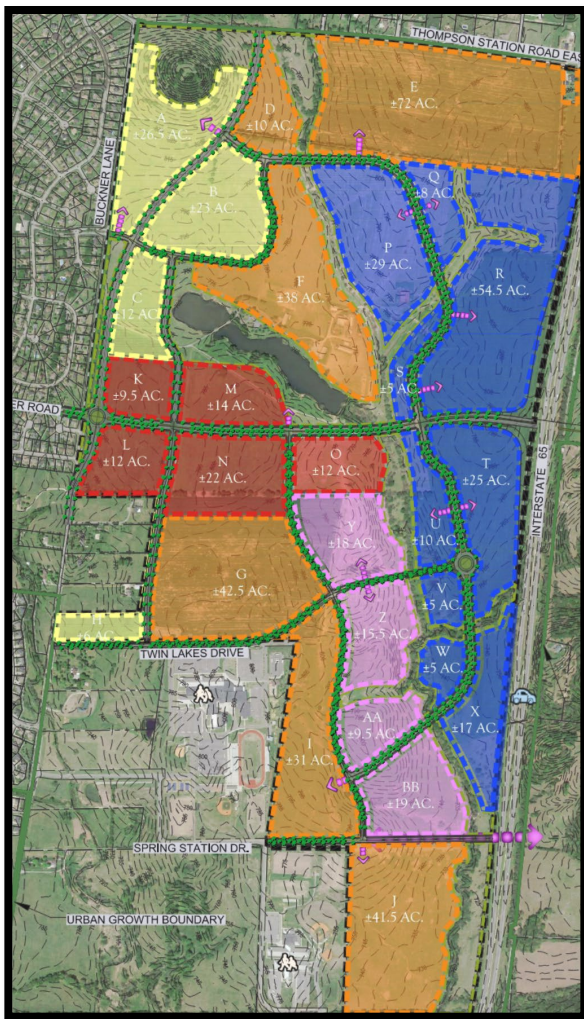
From a more practical perspective, once I-65 interchange is complete development will occur on the east side of I-65. There is not an interchange between Franklin and Nashville that is not fully developed. The city wants to be a partner with the community, the county, and the existing residents to ensure character defining development occurs that helps create a sense of place, that feels and looks like an enhanced Williamson County and Spring Hill.

Community Development and Economic Impact:

The approval of the June Lake Master Plan community is a testament to Spring Hill's commitment to planned development. The vision for the project is to develop a mixed-use community that brings together residential, commercial, office, institutional and recreational uses into a healthy and pedestrian friendly environment where people can live, work, shop and play. Key elements of the vision include the following:

- Create a walkable, live, work, shop and play community
- Be an inviting 'front door' for Spring Hill from the Interstate
- Become a Class A employment center for Spring Hill
- Add neighborhood and regional scale retail options
- Provide varied housing choices in a design-controlled environment
- Preserve and enhance natural site features
- Be a part of the regional traffic solution

June Lake Development enhances mobility but also promotes thoughtful community growth. Responsible urban development involves designing communities that are sustainable, accessible, and conducive to a high quality of life.



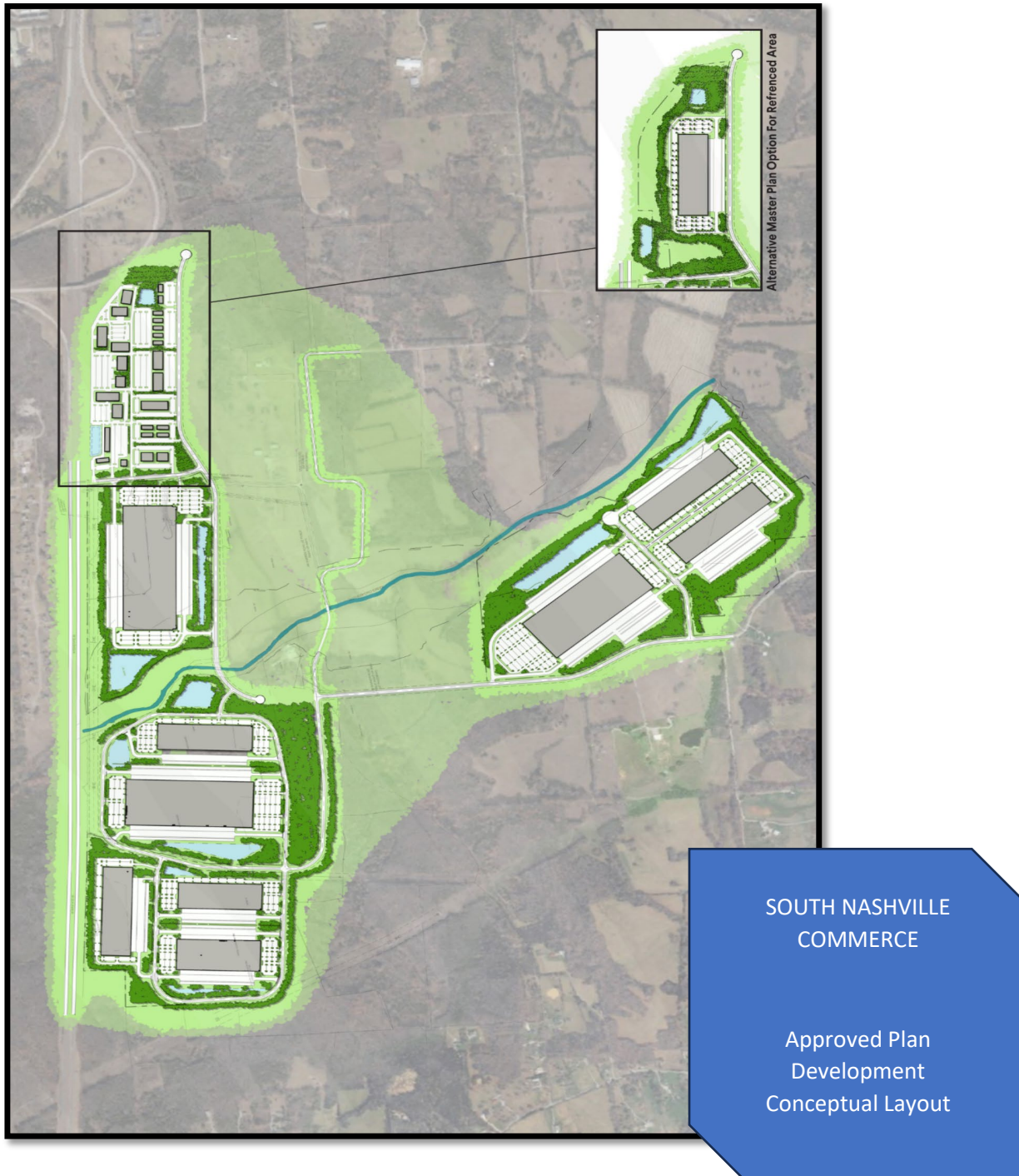
On the Left is June Lake PZD plan with designated acreage and on the right is June Lake PZD plan with intended future land use.

Perhaps one of the most significant opportunities for responsible growth lies in the approval of a large 5.7 million square foot industrial development in neighboring Maury County. While this development is outside Williamson County, its impact will be region-wide. The economic benefits, job opportunities, and increased regional competitiveness that result from this project highlight the importance of UGB benefits and aligning the Williamson County UGB with the Maury County UGB. In approving an economically, smart growth development such as this, the City of Spring Hill traded 1600 dwelling units vested under the previous TND zoning for 5.7 million square feet of industry that will reduce demands on City services while being an economic driver and diversifying the City of Spring Hill's tax base.

The South Nashville Commerce Center has the potential to benefit the City of Spring Hill, both Maury and Williamson Counties, the local residents of the before mentioned communities, along with the region by potentially providing 10,000 or more new jobs spanning all income ranges. Over time the project will facilitate critical infrastructure improvements, like transportation connectivity, roads, bridges, water distribution systems and sanitary sewer systems. The project also seeks to continue the City's vision of greenways and bike paths by extending their existing systems thru the project along Rutherford Creek.

PROJECT IMPACTS LONG TERM / ANNUAL

• Direct Employment	5,867	• Total Output	\$1,350,450,093
• Total Employment	9,041	• Local Taxes	\$15,148,916
• Direct Income	\$423,141,472	• State Taxes	\$27,369,589
• Total Income	\$550,874,480		



Infrastructure Preparedness

Efficient infrastructure is a cornerstone of responsible urban growth. The presence of sewer lines on the east side of I-65, ready to accommodate growth, streamlines the development process. It ensures that growth occurs in areas where infrastructure is already in place, reducing the environmental footprint and ensuring efficient resource use. Additionally, with the approved projects listed above the City of Spring Hill will be accepting public improvements that increases the connectivity of the utility network.

The City of Spring Hill is also able to require development impact fees which further ensures that when development occurs the city is able to plan and invest in infrastructure to continue providing high level of public services. The city also requires developments as they received approval and are granted construction permits to improve public infrastructure to accommodate the impact of the proposed development. These improvements include ROW dedication based on direct nexus, construction of road improvements, construction of stormwater infrastructure, construction of sewer and water infrastructure, and appropriate buffering between uses to ensure compatibility with adjacent existing uses.

Long-term Vision for Public Safety and Service Expansion

The City of Spring Hill is committed like all of our Williamson County partners to ensure and provide for Public Safety for our residents and for our community.

The City has approved fire station number four and is making a concerted effort to fund the 12.5-million-dollar construction cost within the next fiscal budget. The addition of station four will expand the city coverage area and reduce response times. The city is also planning to locate a fire station within the expansion area service area co-located with the South Nashville Commerce development demonstrates the city's continued commitment to public safety and expand the fire response network to the east side of I-65. By providing essential services to the industrial development and the east side of I-65, Spring Hill ensures the well-being of its residents and neighboring communities as the Williamson County UGB expands east of I-65. As of September 2023, the city has been awarded the SAFFER grant which provide the financial support to hire and train 13 new firefighters. The city is prepared to continue providing fire services as Spring Hill, like the rest of Middle Tennessee continues to grow.

The city has also made a significant investment in expanding the City's Police series. The ongoing construction of a \$37.5 million headquarters reflects this commitment, ensuring that the city's services can expand and evolve over the next two decades. The facility will include a 55,000 square foot headquarters and a 6,427 square foot rolling assets axillary structure (accessory building). The primary structure will house general office facilities, a court room, training work stations, defensive tactics facility, physical agility facility, one loading dock, and two drive up garage bays. The axillary structure will feature two maintenance bays, the K-9-unit, equipment/storage, additional office space, and large evidence items.

Respecting Property Rights

It is essential to clarify that inclusion within the UGB does not result in any individual property being added to Spring Hill's jurisdictional boundary, the city limits. Property owners within the UGB will retain their property rights, allowing them to enhance and enjoy their land as they see fit. The primary benefit of the UGB expansion for the city is the ability to have a say in the development of the land if a property

owner chooses to execute their rights. ever occur. Tennessee state law requires annexation with property owner consent. A UGB designated property cannot be annexed without the property owner's consent.

Designation or inclusion of a property within the UGB also allows for the annexation to occur without need for a referendum. Annexation by referendum is a process where residents in the proposed area of the annexation vote to determine if they want to become part of a neighboring city or municipality. If a property is included in the UGB annexation by ordinance occurs, which is a public process with public input meetings that provide a smoother and more collaborative path for growth.

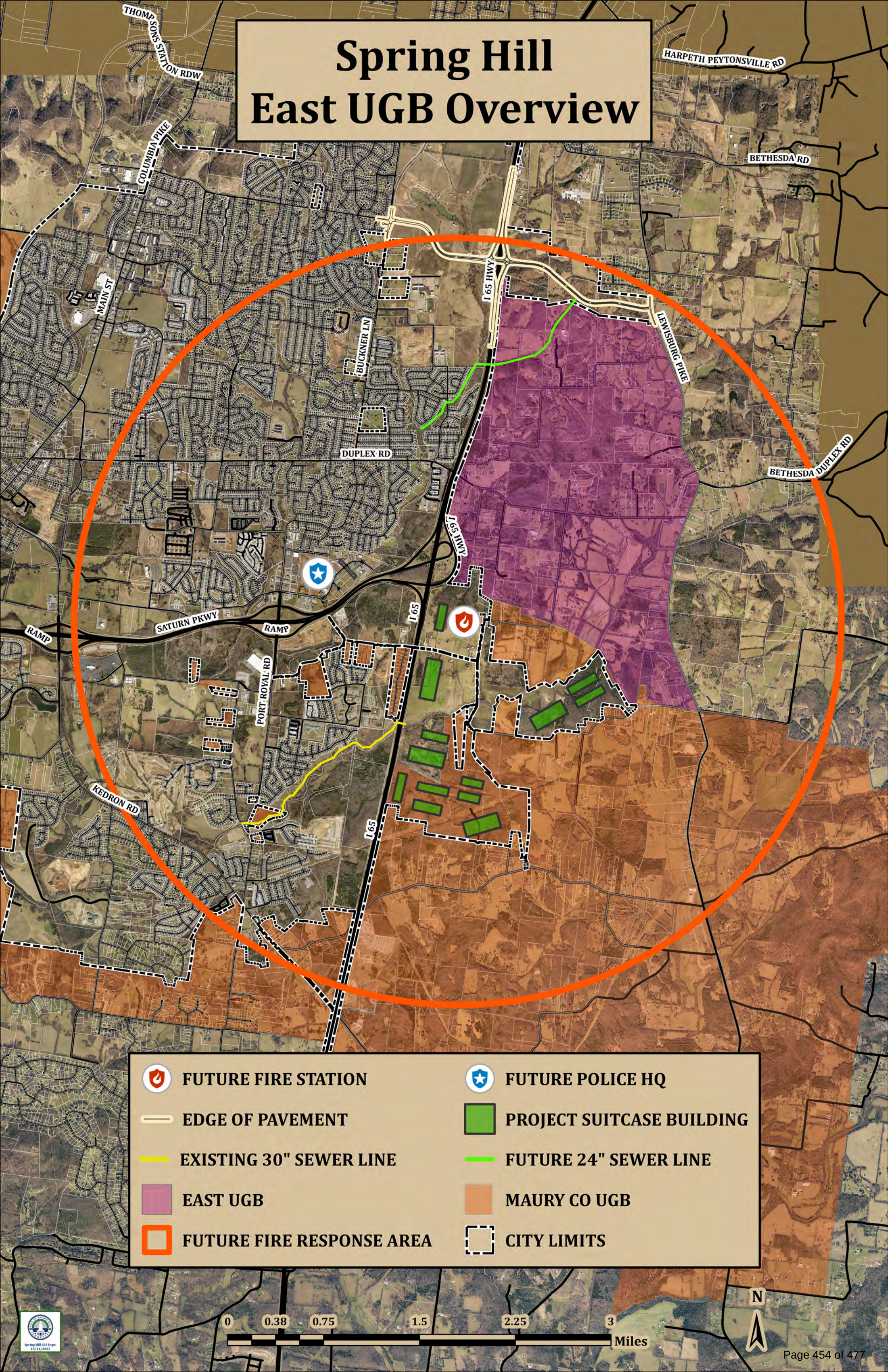
Conclusion:

In conclusion, the expansion of the City of Spring Hill's Urban Growth Boundary east of I-65 to Lewisburg Pike (431) and aligning to the existing Maury County UGB is a critical step forward in responsible growth planning. It leverages significant infrastructure investments, promotes community development, facilitates economic growth and job creation, utilizes existing infrastructure efficiently, enhances public safety, and aligns with a long-term vision of prosperity. Moreover, it respects the property rights of landowners while allowing for a coordinated and sustainable approach to development. This expansion is a testament to Spring Hill's commitment to responsible growth that benefits not only its residents but the entire region, setting the stage for a bright and prosperous future.

APPENDIX: MAP EXHIBITS

1. Overview Map
2. I-65 Interchange Map
3. Future Sewer Line Map
4. Project Suit Case Building Footprint Map

Spring Hill East UGB Overview



FUTURE FIRE STATION



FUTURE POLICE HQ



EDGE OF PAVEMENT



PROJECT SUITCASE BUILDING



EXISTING 30" SEWER LINE



FUTURE 24" SEWER LINE



EAST UGB



MAURY CO UGB

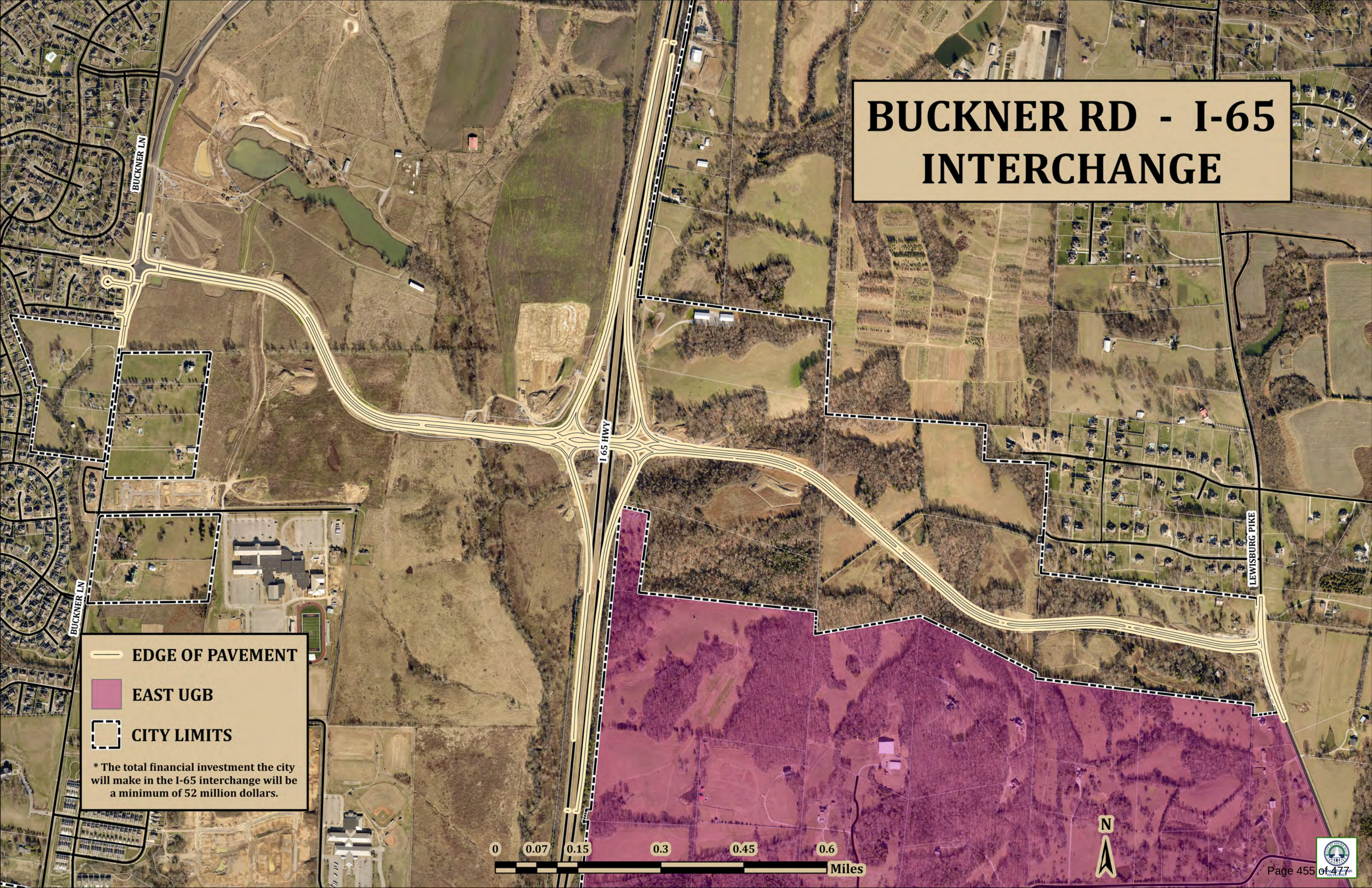


FUTURE FIRE RESPONSE AREA



CITY LIMITS

BUCKNER RD - I-65 INTERCHANGE



— EDGE OF PAVEMENT

■ EAST UGB

□ CITY LIMITS

* The total financial investment the city will make in the I-65 interchange will be a minimum of 52 million dollars.

Future 24" Sewer Line

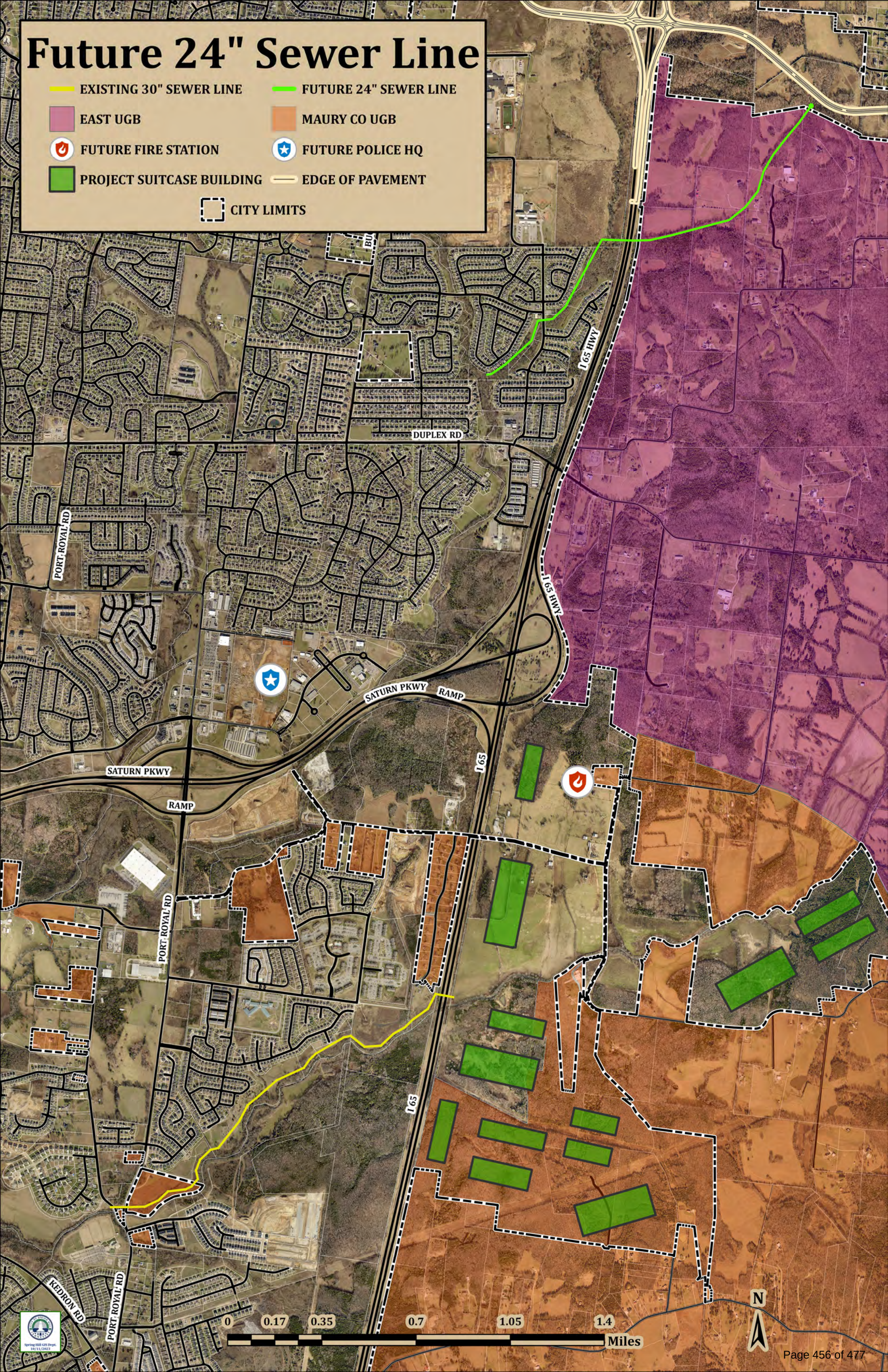
- EXISTING 30" SEWER LINE

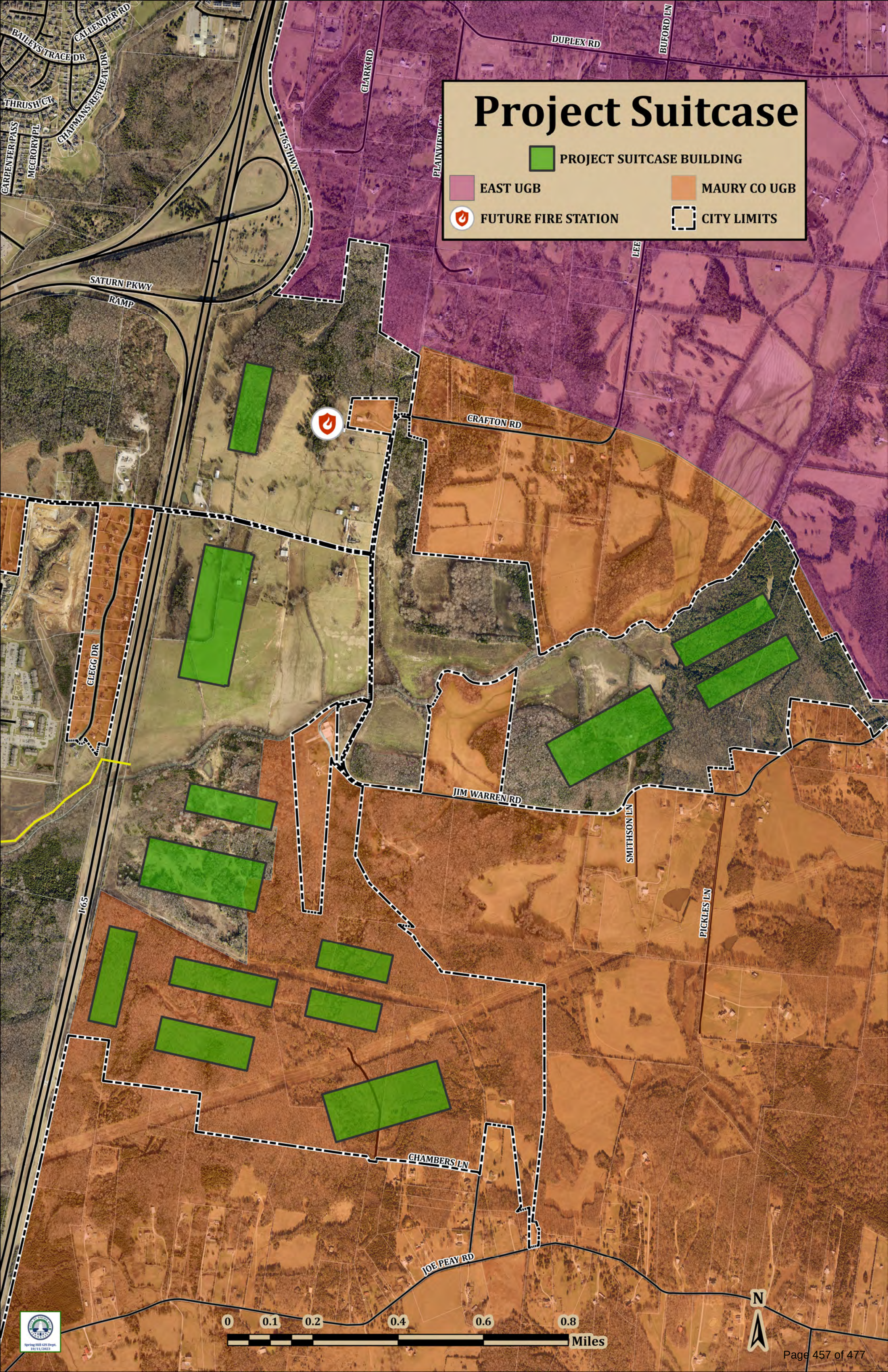
FUTURE 24" SEWER LINE
- EAST UGB

MAURY CO UGB
- FUTURE FIRE STATION

FUTURE POLICE HQ
- PROJECT SUITCASE BUILDING

EDGE OF PAVEMENT
- CITY LIMITS





Project Suitcase



PROJECT SUITCASE BUILDING



EAST UGB



MAURY CO UGB



FUTURE FIRE STATION



CITY LIMITS

RESOLUTION 23-201-A

**A RESOLUTION TO REQUEST THE COORDINATING COMMITTEE TO
CONSIDER REMOVAL OF ALL OF SPRING HILL'S EAST OF I-65 UGB FROM THE
WILLIAMSON COUNTY GROWTH PLAN**

WHEREAS, the City of Spring Hill has worked collaboratively with all of the Williamson County municipalities to propose new Urban Growth Boundaries for municipal jurisdictions; and

WHEREAS, an active public engagement process has taken place and public comment has been received; and

WHEREAS, the Board of Mayor and Aldermen have heard the concerns of the residents currently residing in the "Owl Hollow" neighborhood that is currently being considered for the City of Spring Hill's northwest Urban Growth Boundary; and

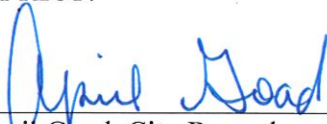
NOW, THEREFORE BE IT RESOLVED, that the City of Spring Hill Board of Mayor and Aldermen request that the Coordinating Committee consider adopting the proposed area East of I-65, as shown in the attached exhibit, to be included within the City of Spring Hill's Urban Growth Boundary.

Passed and Adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 2nd day of October 2023.



Jim Hagaman, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney



REQUEST: *Approval of Resolution 23-201*
SUBMITTED BY: Dan Allen, Assistant City Administrator
Peter Hughes, Development Services Director
DATE: October 2, 2023
RE: To consider and approve an East of I-65 UGB to forward on to the Williamson County UGB Coordinating Committee.
ATTACHMENTS: Resolutions, Maps, and Staff Summary Report

PURPOSE:

Staff has prepared three resolutions for the East of I-65 UGB with the purpose of passing a resolution and forwarding the approved UGB on to the Williamson County UGB coordinating Committee.

BACKGROUND:

The City of Spring Hill initiated an Urban Growth Boundary process in October of 2021 with public engagement meetings. After the Public Engagement process, the city continued to participate in the Williamson County UGB coordination meetings, and in July of 2023 initiated the approval and recommendation process for the Spring Hill UGB expansion within Williamson County.

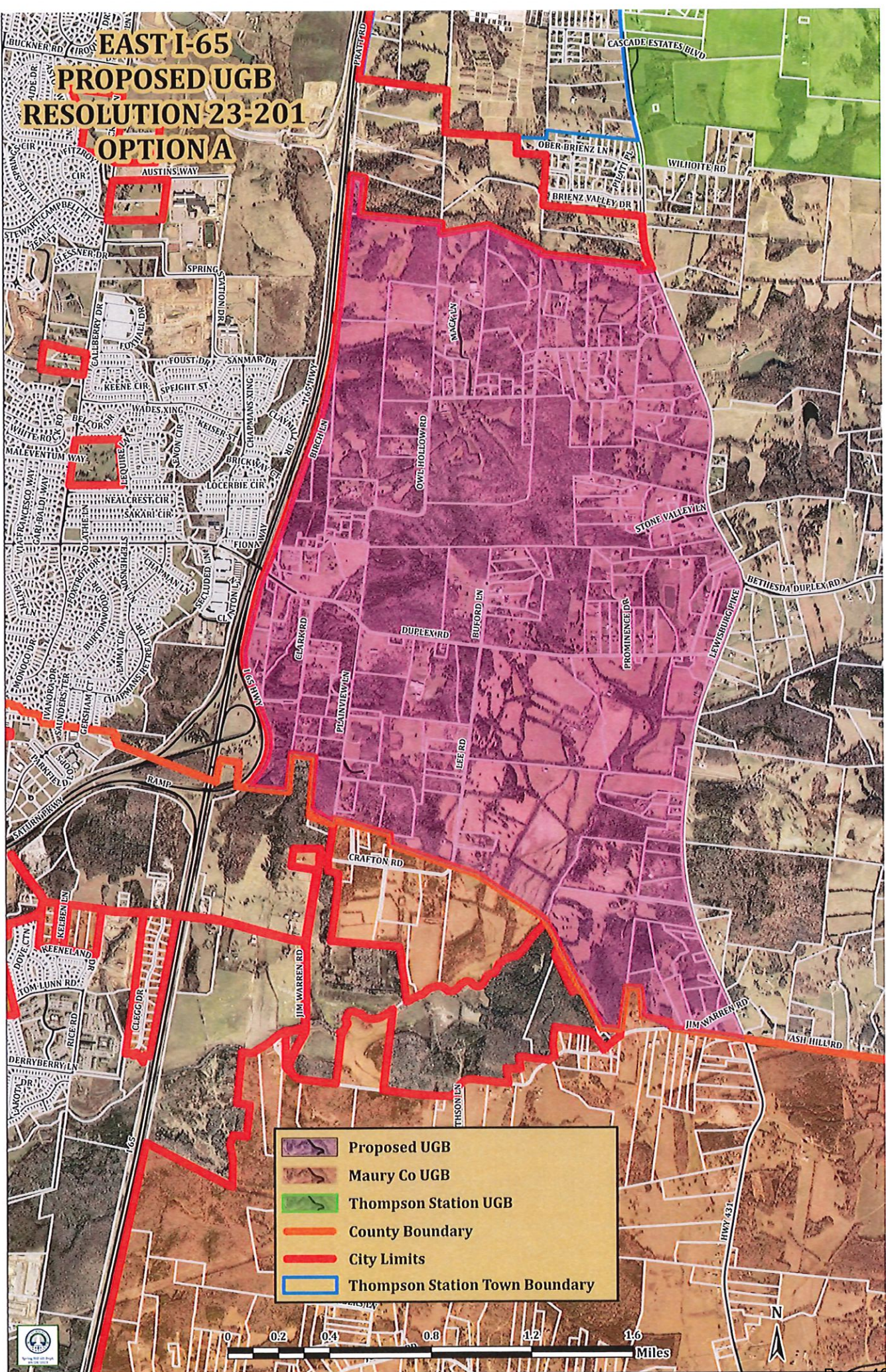
As a result, and in an effort to work with our partner communities and concerned citizens, staff has prepared four options that will allow for for further discussion regarding the City of Spring UGB adoption as follows:

- Option 1 (A): Keep the UGB as initially proposed
- Option 2 (B): Reduce the UGB to future commercial corridors and west of Lee Street.
- Option 3 (C): Reduce the UGB to match the citizen map presented to city staff on 9/19/2023

STAFF RECOMMENDATION:

Staff recommends the BOMA review the resolution packet, allow for public comments, and discuss each option. If further information or discussion is needed from staff, please reach out to Dan Allen. Once a decision is made, it will be forwarded on to the Williamson County UGB coordination committee for review.

EAST I-65 PROPOSED UGB RESOLUTION 23-201 OPTION A



MEMORANDUM



DATE: October 16, 2023

TO: Board of Mayor and Aldermen (BOMA)
UGB Coordinating Committee

FROM: Pete Hughes, Development Director
Pam Caskie, City Administrator

SUBJECT: City of Spring Hill Northwest UGB Expansion Explanation

Executive Summary:

Responsible growth planning is the cornerstone of thriving communities, and the City of Spring Hill is poised to take a significant step forward in this regard by expanding its Urban Growth Boundary (UGB) to include a north west expansion of the Boundary within Williamson County, Tennessee. This expansion, is based on intentional and thoughtful management of Middle Tennessee growth. Included within this memo is a summary the City of Spring Hill UGB engagement process, how preservation of the duck river basin is critical, and if annexation were to occur in this area what would be the process.

UGB engagement process:

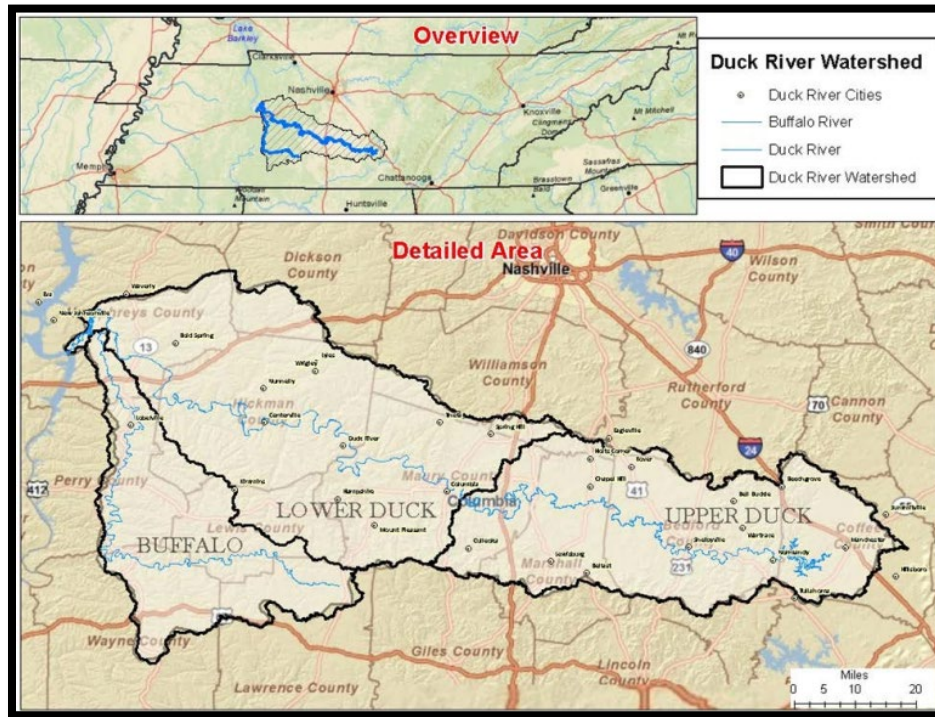
The City of Spring Hill entered the planning process for an update to the Williamson County Urban Growth Boundary Plan in the Summer of 2021. To determine the proposed boundary of the Spring Hill UGB (within Williamson) city staff utilized current development trends, water sewer capacity development requirements, consideration of adopted planning documents (such as but not limited to the 2040 Spring Hill Rising Comp Plan), and the continuity of the currently adopted Maury County UGB with any additional UGB established within Williamson County.

The City of Spring Hill hosted a series of stakeholder meetings for UGB public input. Two in-person meetings were held at the City of Spring Hill City Hall in October of 2021. These meetings were led by the Development Director and Assistant City Administrator at the time. The public input resulted in collaborative discussion between the city, city residents, and unincorporated county residents. Following the public engagement meetings, findings of the public engagement were presented to both the City of Spring Hill Planning Commission and BOMA for consideration and further input which resulted in the originally proposed Spring UGB Boundary.

In July of 2023 the city initiated the public approval process of the UGB by the City of Spring Hill BOMA. The city followed notice requirements and went further to ensure those impacted by the UGB expansion were notified by mail based on the latest property information from the Williamson County parcel data. The city also updated the city website to include all generated UGB material for the public to review. Both the Planning Commission and BOMA approved the proposed UGB for consideration by the coordinating committee. Following input from the coordinating committee process a resolution was passed by BOMA in September 2023 to remove portions of the UGB based on the residents that attended the July meeting and expressed apprehension of their inclusion within the UGB.

Duck River Basin:

The Duck River watershed spans approximately 3,500 square miles, encompassing portions of twelve Tennessee counties, one of which is Williamson. The Duck originates near the City of Manchester in and empties into Kentucky Lake on the Tennessee River. The Duck River is considered one of the most biologically diverse rivers in North America. More than 250,000 middle Tennessee residents rely on the Duck River as their primary and sole source of water.



The primary reason the UGB was proposed to expand its Northwest Boundary was to consolidate all of Williamson County's Duck River Watershed within one city's growth plan. Expanding the Williamson County Urban Growth Boundary (UGB) within the City of Spring Hill, Tennessee, to manage development within the Duck River Basin and Watershed can offer several significant benefits. Here are some key advantages of such an expansion:

1. Expanding the UGB allows Spring Hill to protect the natural environment and ecological diversity within the Duck River Basin and Watershed. By preventing unplanned urban sprawl, sensitive ecosystems, critical wildlife habitats, and the overall biodiversity of the area can be conserved. This preservation can also enhance water quality and support endangered or threatened species.
2. Regulatory Compliance: By taking proactive steps to protect the Duck River Basin and Watershed, Spring Hill can remain in compliance with state and federal environmental regulations. Avoiding legal challenges, fines, and negative publicity associated with environmental violations contributes to the city's long-term sustainability and fiscal responsibility.

Expanding the Williamson County UGB to manage development within the Duck River Basin and Watershed is a strategic and environmentally responsible decision for Spring Hill and Williamson County. It not only safeguards the city's natural resources but also supports economic growth, community health, and long-term sustainability.

Long-term Vision for Public Safety and Service Expansion

The City of Spring Hill is committed, like all of our Williamson County partner communities, to ensure and provide for Public Safety for our residents and for our community.

The City has approved fire station number four and is making a concerted effort to fund the 12.5-million-dollar construction cost within the next fiscal budget. The addition of station four will expand the city coverage area and reduce response times. As of September 2023, the city has been awarded the SAFER grant which provide the financial support to hire and train 13 new firefighters. The city is prepared to continue providing fire services as Spring Hill, like the rest of Middle Tennessee continues to grow.

The city has also made a significant investment in expanding the City's Police services. The ongoing construction of a \$37.5 million headquarters reflects this commitment, ensuring that the city's services can expand and evolve over the next two decades.

Consistency with Maury County UGB:

When developing the proposed NW UGB, the City of Spring Hill sought to establish consistency with the Maury Couty UGB that follows Sugar Ridge Road. The proposed western boundary line of the NW UGB is Sugar Ridge Road which is consistent with the already established Maury County UGB.

Respecting Property Rights

It is essential to clarify that inclusion within the UGB does not result in any individual property being added to Spring Hill's jurisdictional boundary, the city limits. Property owners within the UGB will retain their property rights, allowing them to enhance and enjoy their land as they see fit. The primary benefit of the UGB expansion for the city is the ability to have a say in the development of the land if a property owner chooses to execute their rights. ever occur. Tennessee state law requires annexation with property owner consent. A UGB designated property cannot be annexed without the property owner's consent.

Designation or inclusion of a property within the UGB also allows for the annexation to occur without need for a referendum. Annexation by referendum is a process where residents in the proposed area of the annexation vote to determine if they want to become part of a neighboring city or municipality. If a property is included in the UGB annexation by ordinance occurs, which is a public process with public input meetings that provide a smoother and more collaborative path for growth.

Conclusion:

In conclusion, the expansion of the City of Spring Hill's Urban Growth Boundary into the Northwest was carefully considered. The proposed expansion accounts for future emergency services, environmental stewardship, intentional growth management, and consistency with the established Maury County UGB.

RESOLUTION 23-202-D

**A RESOLUTION TO REQUEST THE COORDINATING COMMITTEE TO
CONSIDER REMOVAL OF A PORTION OF SPRING HILL'S NORTHWEST UGB
FROM THE WILLIAMSON COUNTY GROWTH PLAN**

WHEREAS, the City of Spring Hill has worked collaboratively with all of the Williamson County municipalities to propose new Urban Growth Boundaries for municipal jurisdictions; and

WHEREAS, an active public engagement process has taken place and public comment has been received ;and

WHEREAS, the Board of Mayor and Alderman have heard the concerns of the residents currently residing in the "Burwood" neighborhood that is currently being considered for the City of Spring Hill's northwest Urban Growth Boundary ; and

WHEREAS, the area known as Burwood has a drainage basin that flows south towards the Duck River which is the drainage basin of the City and all of the remaining area of Williamson County flows north towards the Harpeth River Basin,

WHEREAS, the Board of Mayor Alderman would be ratifying the same UGB resolution passed September 18, 2023; and

NOW, THEREFORE BE IT RESOLVED, that the City of Spring Hill Board of Mayor and Aldermen request that the Coordinating Committee consider removing a portion of the northwest area of the City of Spring Hill's UGB, as depicted in Exhibit A attached herein;

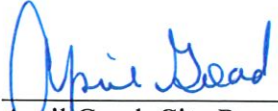
FURTHER BE IT RESOLVED that this area remain in rural Williamson County, and

FURTHER BE IT RESOLVED that should this area need to become a part of an Urban Growth Boundary; it shall become part of the Spring Hill area due to the drainage basin alignment.

Passed and Adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 2nd day of October 2023.


Jim Hagaman, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney



REQUEST: **Approval of Resolution 23-202**

SUBMITTED BY: Dan Allen, Assistant City Administrator
Peter Hughes, Development Services Director

DATE: October 2, 2023

RE: To consider and approve a Northwest UGB to forward on to the Williamson County UGB Coordinating Committee.

ATTACHMENTS: Resolutions, Maps, and Staff Summary Report

PURPOSE:

Staff has prepared four resolutions for the Northwest UGB with the purpose of passing a resolution and forwarding the approved UGB on to the Williamson County UGB coordinating Committee.

BACKGROUND:

The City of Spring Hill initiated an Urban Growth Boundary process in October of 2021 with public engagement meetings. After the Public Engagement process, the city continued to participate in the Williamson County UGB coordination meetings, and in July of 2023 initiated the approval and recommendation process for the Spring Hill UGB expansion within Williamson County.

As a result, and in an effort to work with our partner communities and concerned citizens, staff has prepared four options that will allow for further discussion regarding the City of Spring UGB adoption. The options are prepared as follows:

Option 1 (A): Maintain the September 18, 2023 Proposed NW UGB

Option 2 (B): Eliminate the Proposed Northwest UGB in its entirety

Option 3 (C): Include all of the Northwest UGB as previously approved August 2023 (keep everything)

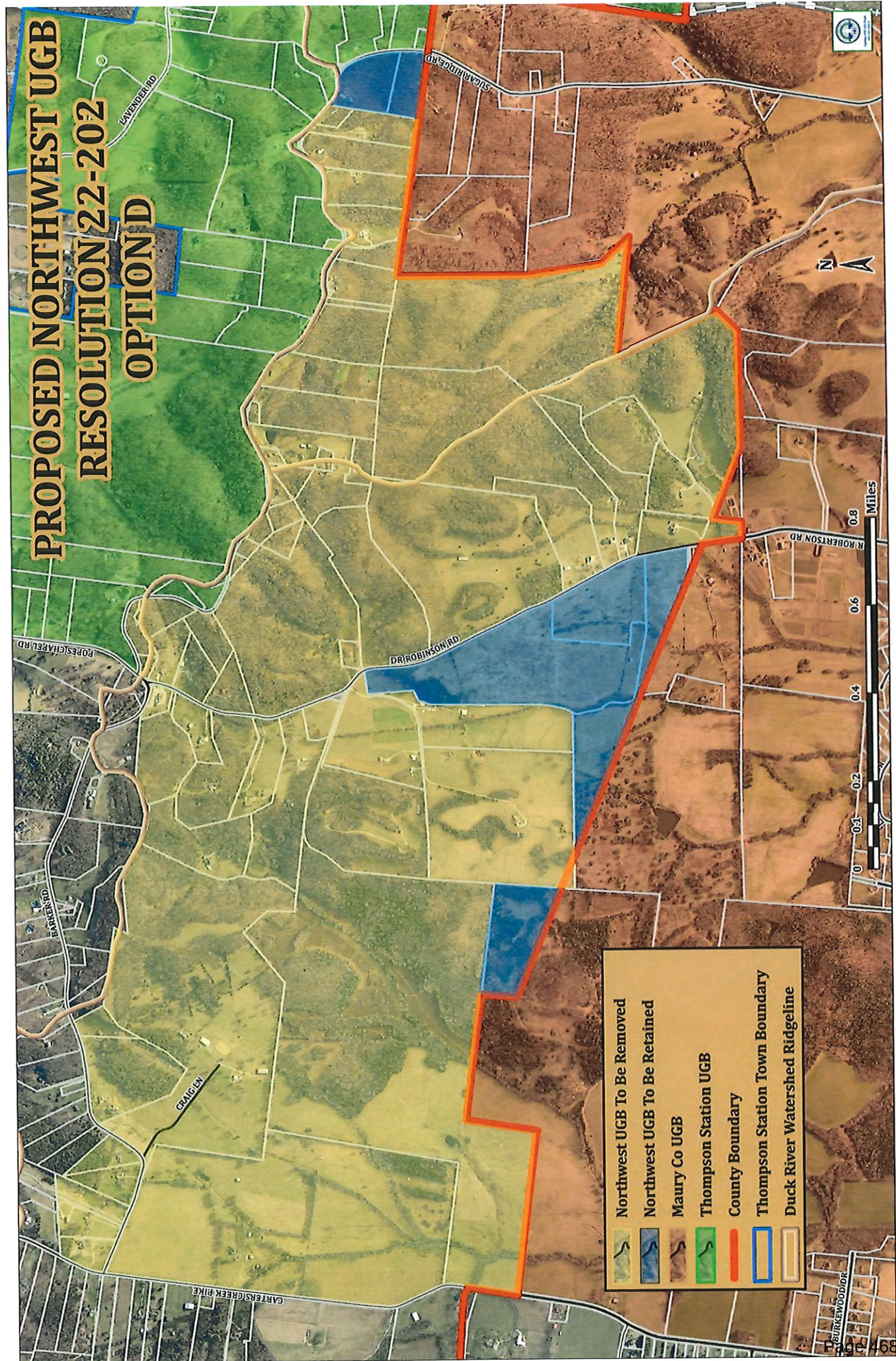
Option 4 (D): Reduce the NW UGB to include a new specified area shown in the attached exhibit



STAFF RECOMMENDATION:

Staff recommends the BOMA review the resolution packet, allow for public comments, and discuss each option. If further information or discussion is needed from staff, please reach out to Dan Allen. Once a decision is made, it will be forwarded on to the Williamson County UGB coordination committee for review.

PROPOSED NORTHWEST UGB RESOLUTION 22-202 OPTION D





WILLIAMSON COUNTY GOVERNMENT

MEMORANDUM

TO: Growth Plan Coordinating Committee

FROM: Mike Matteson, AICP, Planning Director 

DATE: October 4, 2023

SUBJECT: County Planned Growth Area's

As you are aware, the County has proposed an amended set of Planned Growth Areas (PGAs), which have been shown to the Committee on multiple occasions. These proposed PGAs are based upon the recommendations of the County's Comprehensive Land Use Plan, and the cumulative acreage of land within the proposed PGAs has been significantly reduced from that of the current PGAs.

As we discussed with the Committee previously, the County has been asked to add some additional properties to the Triune and Arrington PGAs (See Figures 1 and 2 below). These requests were made after the County held its two Public Hearings, and as a result, there has not been public comment regarding the potential inclusion of these properties in the respective PGAs. Additionally, the County will be conducting a Special Area Plan for Arrington in the near future, and the study area that has been identified for that plan is slightly larger than the currently-proposed PGA. As a result, staff will be seeking public comment regarding expanding this PGA to coincide with the study area of the Special Area Plan.

At this time, the County is not proposing a change in its PGAs. However, the County would like these potential changes to be subject to public comment during the two upcoming Coordinating Committee Public Hearings. Following the Public Hearings, the County will determine whether or not to modify its proposed PGA's.

Figure 1: Triune PGA

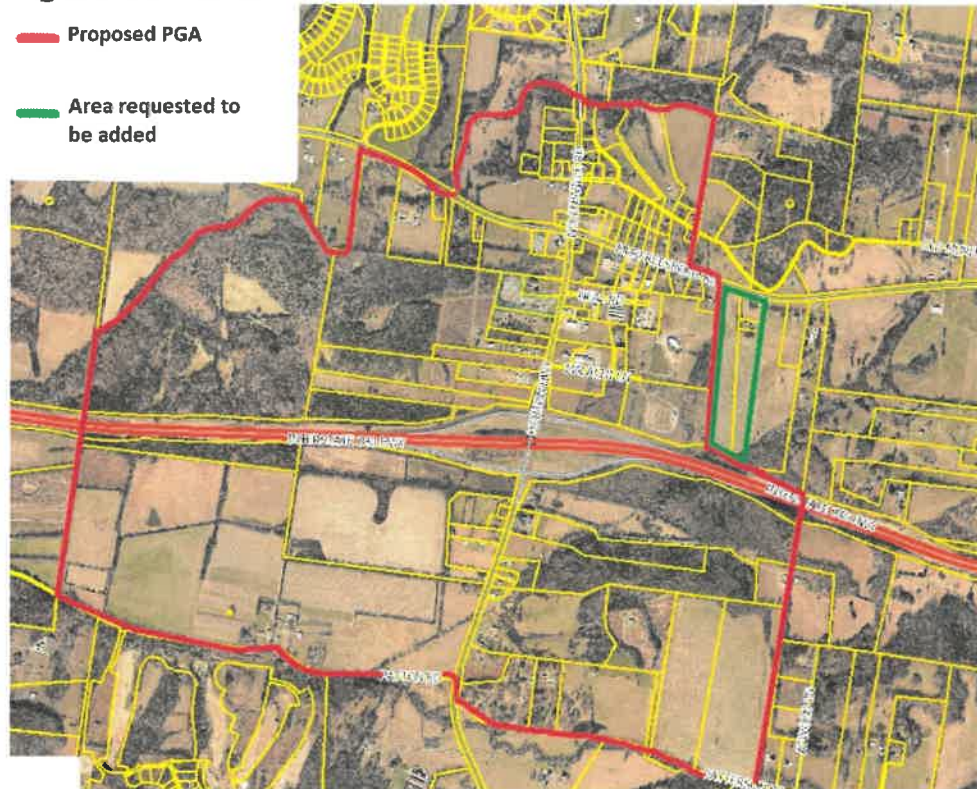
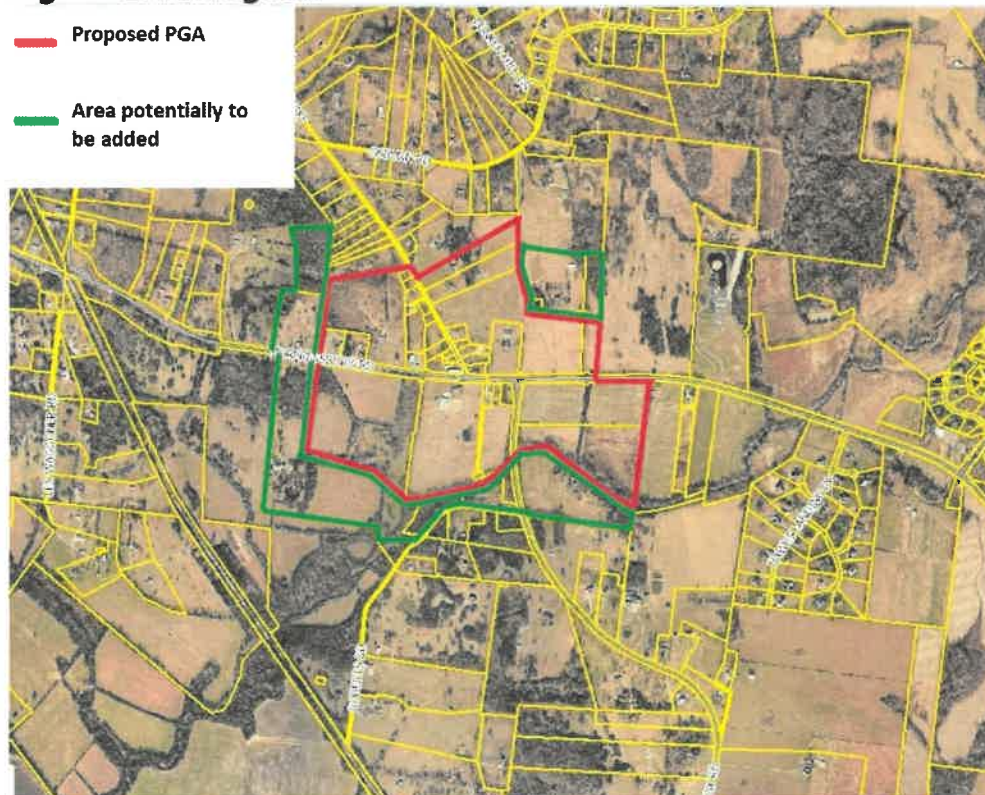


Figure 2: Arrington PGA





September 15, 2023

TO: Williamson County Growth Plan Coordinating Committee

FROM: Brian Stover, Mayor
Ken McLawhon, Town Administrator
Micah Wood, Community and Economic Development Director
Andrew Mills, Town Attorney

SUBJECT: Thompson's Station Urban Growth Boundary Inclusion of the Ozzad Property

At the August 29th meeting of the Coordinating Committee, additional information was requested from the Town related to the inclusion of the northern portion of the Ozzad property (Map 118 Parcel 7 at 1546 West Harpeth Road, Map 119 Parcels 7.03, 7.04, 7.05, 7.07, and 7.08 all at unnumbered West Harpeth Road) located along the north side of West Harpeth Road west of Columbia Pike and east of the CSX railroad. These parcels in total are referred to as the Ozzad throughout this memo. The purpose of this memo is to provide information related to the Ozzad property and the Town's Board of Mayor and Aldermen (BOMA) consideration of the Franklin BOMA's request that the property be held within the county rather than added to the Town's Urban Growth Boundary (UGB).



Vicinity Map



The Town BOMA considered the issue of whether to remove the Ozzad property at their meeting on September 12, 2023. The meeting is available to view at this link (discussion begins at 26:32 for Item 3 on the Agenda): <https://play.champds.com/thompsonsstationtn/event/85>

The Town has an existing agreement, from 2013, to provide sewer service to a portion of the Ozzad property. When the property owner approached the Town about being included in the Town's UGB earlier this year, the Town Staff indicated that this property would only be included if, and when, Franklin removed the Ozzad property from their UGB. Since the property is immediately adjacent to the Town's existing corporate limits and sewer is present, the Town is able to provide services to the Ozzad property efficiently and at a low cost of service extensions. When Franklin City Staff provided Town Staff with a map confirming the removal of the Ozzad property from the Franklin UGB, Town Staff added the property to the Town's UGB at the property owner's request. Town Staff also began working with the property owner to revise the existing agreement to incorporate development controls in excess of the Town's already high development standards in order to address the surrounding neighborhoods.

The updated Terms for Consideration, reviewed by the Town BOMA on September 12, 2023, are included as an attachment to this memo and provide for a balanced approach to development of the Ozzad property, while also providing for upgrades to West Harpeth Roadway and the inclusion of extensive open space, including a possible Town Park. These Terms for Consideration are to be placed in an updated agreement to be reviewed by the Town's BOMA on October 10, 2023.

The updated agreement includes the following, relative to development controls:

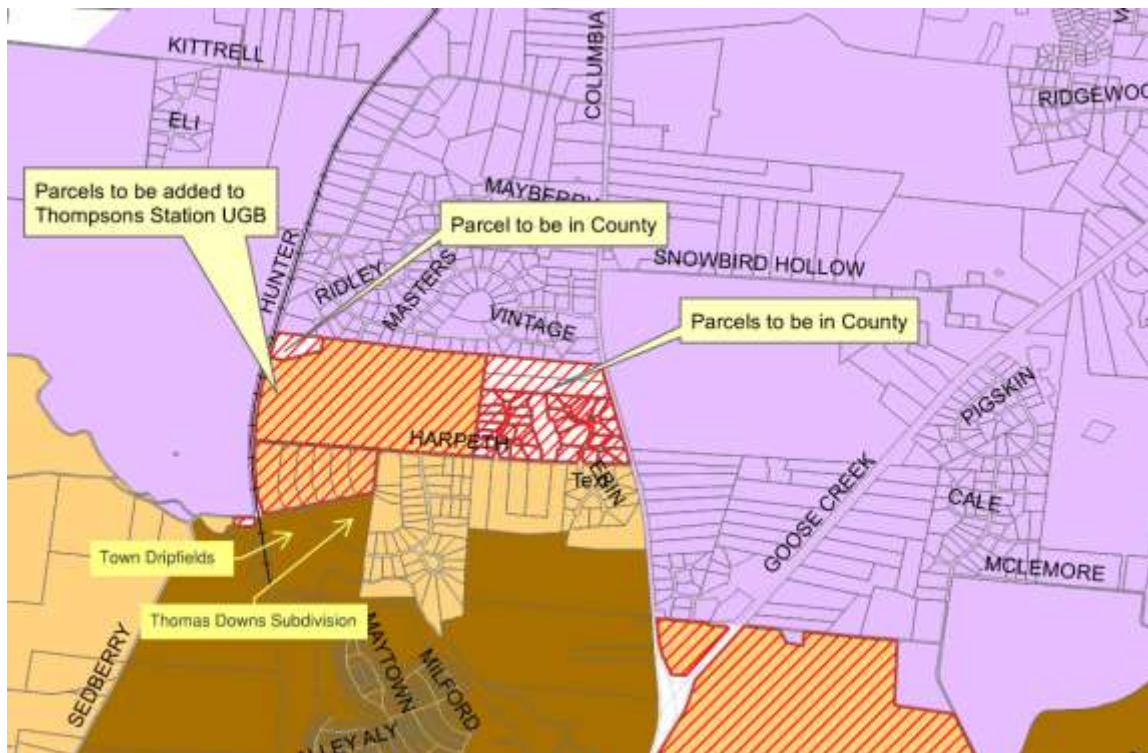
- Zone the property D2, which per the Town's [Land Development Ordinance](#) is an exclusive residential zoning district intended for only "low density residential development," with a maximum density of 1.5 units per acre.
- Cap the total lots in the property north of West Harpeth Road at 150, which is below the allowable density of the D2 low density zoning.
- Limit all development to single family homes.
- Require a minimum 25-foot buffer along the eastern, western, and northern property.
- Require a minimum 70-foot buffer along West Harpeth Road.
- Provide for a realignment of West Harpeth Road, to the Town's standards, to allow for a safer roadway by removing the existing S curves.
- Provide extensive open space (minimum of 50 acres), including dripfields and a possible Town Park.

There have been concerns raised about "high density development" under the Town's standards. The updated agreement will preclude any high density development through the D2 zoning, coupled with a limitation to only permit single family homes and a cap of 150 total residential lots north of West Harpeth Road. The proposed development will also be appropriately transitioned to existing neighborhoods through a 25-foot buffer on the western, northern, and eastern property



lines, as well as a 70-foot buffer along West Harpeth Road. Additionally, realignment of West Harpeth Road, at the developer's expense, will result in safer conditions for drivers in this area. Approximately 50+ acres of the overall property shall be dedicated over to the Town as part of this agreement, allowing for extensive open space. The Town will also be able to utilize some portion of this property for dripfields, which are a component part of the Town's sewer system. Dripfields allow treated water to be naturally discharged into ground water. The Town has an existing dripfield immediately south of this property on the south side of West Harpeth Road.

There have also been concerns raised related to the rural character of this property and the surrounding environs. The Ozzad property is currently bordered on three sides by existing residential neighborhoods. The west side of the property abuts the CSX railroad. Any development permitted under the Town's standards and the updated agreement will result in a suburban development pattern that is consistent and compatible with the existing residential neighborhoods in this area.



Map courtesy City of Franklin Planning Department, with TS additions

As part of the Town's All Aboard Comprehensive Planning process, areas within the UGB were studied, as good planning practice. Under the Town's [General Plan](#), adopted March 2023, this area is placed within the Country Context Area of the Town's Context Map. The Country Context Area sets forth a policy for these locations to have a rural or suburban character in which buildings have

Phone: (615) 794-4333
Fax: (615) 794-3313
www.thompsons-station.com



1550 Thompson's Station Road W.
P.O. Box 100
Thompson's Station, TN 37179

landscape and natural buffers. This property is within the *General Plan's* Neighborhood Residential Character Area, which supports up to 1.5 dwelling units per acre of residential subdivision development. Any proposed development on the Ozzad property will be designed to achieve these *General Plan* policy objectives.

The Town's BOMA respectfully noted the Franklin BOMA request relative to this property, but, based on the terms of the updated Ozzad agreement, determined to continue to include the property within the Thompson's Station UGB, since the resulting development would achieve the best balance between open space and low density residential development that respects the character of the area.

The Town believes that concerns about existing subdivisions within the Town's current and proposed UGB (including prohibiting connections to existing stub roads) can be resolved through the full inter-local agreement or through an inter-local agreement between the Town and the County which would specifically limit annexation of individual parcels within an existing neighborhood and prohibit the connection of roadways between new subdivisions and existing neighborhoods. Therefore, these items were not discussed by the Town BOMA at their September meeting.

Ozzad Property Agreement Amendment
Terms for Consideration

The following are proposed terms of a potential amendment to the Ozzad Property Agreement.

The proposal concerns approximately 150 acres North of the current location of West Harpeth Road (Map: 119 / Parcel: 7.03; Map: 118 / Parcel: 7.00) ("West Harpeth Property") with the following conditions, self-imposed or otherwise:

- Amendment contingent upon the following occurrences, otherwise the amendment shall lapse:
 - A) West Harpeth Property to be incorporated into the Town's Urban Growth Boundary; and
 - B) A minimum of 50% of the dedicated land (discussed in more detail below) must be deemed suitable for effluent disposal.
- Town to annex West Harpeth Property with a D-2 zoning designation;
- Ozzad to realign and improve, to Town standards, West Harpeth Road, as conceptually detailed in Exhibit "A";
- Residential lot count of 150 for the area North of West Harpeth Road;
- Ozzad to dedicate and convey a minimum of 55 acres (+/- 10%) of West Harpeth Property to the Town ("Dedicated Property");
- Town may conduct mapping of the Dedicated Property; if less than 50% of Dedicated Property is deemed suitable for effluent disposal, the amendment shall lapse and Ozzad shall reimburse Town up to \$100,000.00 of the cost;
- Ozzad to maintain 70-foot buffer along West Harpeth Road, and 25-foot buffer along Eastern, Western, and Northern property lines which may be provided in open space or easements;
- Single family detached homes only;
- Monumental entryway (similar to other subdivisions in the Town);
- 1000-foot cul-de-sac requirement waived;
- A centrally located amenity of at least seven (7) acres.
- Eastern open space of the Thomas Down Subdivision to be dedicated and conveyed to the Town (~2 acres);
- Off-site sewer connection to be reviewed and approved with construction documents, and all required connections to paid for by Ozzad;
- Ozzad to apply for a reservation for additional 29,000 gpd of capacity (8,500 gpd of capacity are already vested to the Map: 119 / Parcel: 007.03 and shall be confirmed); and
- Original Ozzad Property to be quitclaimed to the Town free and clear of any restrictions or reservations.

EXHIBIT A

- 45 MPI SOILS @0-5% SLOPE
- 60 MPI SOILS @0-5% SLOPE
- 75 MPI SOILS @0-5% SLOPE
- 45 MPI SOILS @5-15% SLOPE
- 60 MPI SOILS @5-15% SLOPE
- 75 MPI SOILS @5-15% SLOPE



200' 0 200' 400'
SCALE: 1" = 200'



West Harpeth Ranch

Williamson County, TN

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The site as shown on these construction drawings is intended to achieve specific engineering design criteria and objectives. It is the sole responsibility of the owner/developer to ensure that the construction of the site shown on these construction drawings is in total accordance with the design as noted, described, and illustrated. The engineer assumes no administrative liability or responsibility for the construction of the site as shown on these construction drawings.