

**CITY OF FRANKLIN, TENNESSEE  
PROFESSIONAL SERVICES AGREEMENT  
COF Contract No. 2019-0318**

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:

**FINAL DESIGN OF JORDAN ROAD IMPROVEMENTS**

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 Lump Sum Amount of **One Hundred Twenty Thousand and No/100 Dollars (\$120,000.00)**.

The Board of Mayor and Aldermen Approved this Agreement on the \_\_\_\_ Day of \_\_\_\_\_ 20 \_\_\_\_.

## **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 claims, judgments, losses, damages, and expenses to the extent such claim, 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](http://www.gsa.gov) [click on 'per diem rates' under the 'etools' category].

#### **ARTICLE 10. MISCELLANEOUS PROVISIONS**

- 10.1 **EQUAL EMPLOYMENT OPPORTUNITY.** In connection with this Agreement and the Project, City and Consultant shall not discriminate against any employee or applicant for employment because of race, color, sex, national origin, disability or marital status. City and Consultant will take affirmative action to ensure that the contractor used for the Project does not discriminate against any employee and employees are treated during employment without regard to their race, age, religion, color, gender, national origin, disability or marital status. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 10.1.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.2 **TITLE VI – CIVIL RIGHTS ACT OF 1964.** City and Consultant shall comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d), 49 C.F.R., Part 21, and related statutes and regulations.
- 10.2.1 Consultant shall insert the foregoing provision in all contracts relating to this Project.
- 10.3 **NO THIRD PARTY RIGHTS CREATED.** City and Consultant each binds itself and its successors, executors, administrators, permitted assigns, legal representatives and, in the case of a partnership, its partners, to the other party to this Agreement and to their successors, executors, administrators, permitted assigns, legal representatives and partners of such other party in respect to all provisions of this Agreement. The Services provided for in this Agreement are for the sole use and benefit of City and Consultant. Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than City and Consultant.
- 10.4 **WARRANTIES/LIMITATION OF LIABILITY/WAIVER.** City reserves all rights afforded to local governments under law for all general and implied warranties. City does not waive any rights it may have to all remedies provided by law and therefore any attempt by Consultant to limit its liability shall be void and unenforceable.

#### **ARTICLE 11. EXTENT OF AGREEMENT:**

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



prior negotiations, representations or agreements, written or oral. This Agreement may be amended only by written instrument signed by City and Consultant.

**ARTICLE 12. DISPUTE RESOLUTION, BREACH.**

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

**ARTICLE 13. SURVIVAL.**

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

**CITY OF FRANKLIN, TENNESSEE:**

By: \_\_\_\_\_  
**Dr. Ken Moore**  
Mayor  
Date: \_\_\_\_\_

**CDM SMITH:**

By: \_\_\_\_\_  
Print: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_

**Attest:**

\_\_\_\_\_  
**Eric S. Stuckey**  
City Administrator  
Date: \_\_\_\_\_

**Approved as to form:**

\_\_\_\_\_  
Maricruz R. Fincher, Staff Attorney



210 25<sup>th</sup> Avenue N. Suite 1102  
Nashville, Tennessee 37203  
tel: 615-320-3161

October 14, 2019

Mr. Paul Holzen, Director  
Franklin Engineering Department  
109 3<sup>rd</sup> Avenue South  
Franklin, TN 37064

Re: Proposal for Jordan Road Reconstruction Design

Dear Mr. Holzen:

We are pleased to respond to your request for professional engineering services for the Jordan Road project. This project will provide for the total reconstruction of the existing Jordan Road from the intersection with Mallory Lane to the intersection with Aspen Grove Road. Work on the project shall include complete design for the roadway improvements including drainage upgrades, modifications to the existing horizontal and vertical alignments, replacement of the bridge over the South Prong of Spencer Creek, intersection improvements at Jordan Road and Aspen Grove Road, and all required signage and pavement markings.

Following is a detailed scope of services for the requested work which is based on our past design work and project understanding and September 30, 2019 scoping meeting. All work shall conform to the current version of the City of Franklin and TDOT roadway standards and specifications.

## **1. Field Survey**

CDM Smith will perform an updated survey of the entire project corridor due to the elapsed timing and potential changes since the original design was completed in August 2009. The following detailed tasks will be provided to ensure it is suitable for the final redesign of the project:

- Establish project control tied to State Plane Grid. We will utilize Trimble R8 GPS receiver for the base project control and utilize Trimble S6 Robotic Total Station surveying equipment for additional traverse control throughout the project.
- We will utilize the GPS and Robotic Total Station to provide detailed field survey of existing pavement, curbs, driveways, sidewalks, and adjacent buildings, and locate existing utility and drainage facilities and features within 100' each side of the centerline of Jordan Road.
- We will obtain cross section data of South Prong of Spencer Creek for the Hydraulic Analysis, 2 sections upstream and downstream of the existing drainage structure.
- Research property ownership and deeds for the estimated 9 tracts to establish existing property lines and right of way. This will also be used for the final right of way acquisition table for the required property acquisition for construction.
- Field survey existing property corners along the project corridor. If sufficient monumentation along the right-of-way cannot be recovered, we will search for additional property corners along the rear property lines.



- Calculate existing property lines and right-of-way lines utilizing the property corners and right-of-way monuments found in the field and develop property maps that identify ownership with bearing and distance labels.
- Utilize available GIS utility information and contact Tennessee One Call to assist with locating underground utilities. The underground utilities will be surveyed based on above ground evidence, Tennessee One Call markings, and GIS information. This proposal does not include subsurface utility investigation or utility line potholing.
- Prepare survey base mapping utilizing Microstation CADD software and Geopak Surveying software. This mapping will include 2D planimetrics and a 3D digital terrain model.

## 2. **Hydraulic Analysis**

The current effective FIRM and FIS profile show the existing culvert does not contain the 100-year or 500-year storm event. In addition, the effective FIS shows this tributary (South Prong of Spencer Creek) to be a studied stream with a Zone AE classification and an established floodway. The FIS states there was hydraulic and hydrologic analysis performed on the stream section in 1995 and the floodplain boundaries were updated with new topography in 2006. A HEC-RAS model is assumed to be available as stated within the effective FIS section "Countywide Analysis".

The analysis to be provided as part of the scope of work will involve a two-step process. First, our team will complete an analysis for a No-Rise Certification. Jordan Road appears to be a local road within the City of Franklin limits. Therefore, the assumption is the City of Franklin's floodplain manager will be the only approving authority for this task. However, if a No-Rise is not attainable, then a Conditional Letter of Map Revision (CLOMR) application must be developed and submitted to FEMA for approval. A CLOMR application will require a supplement and is not included in this proposal.

The analysis for a "no-rise" certification will follow FEMA and City of Franklin guidelines. The hydraulic design analysis for roadway bridges or culverts will be based on TDOT's Design Procedures for Hydraulic Structures, 2004.

### 2.1. **Obtain current model from FEMA**

CDM Smith will research and obtain the current effective model (or available data) from FEMA that will serve as the basis for the proposed modeling effort. It is assumed the obtained model will match the effective FIS and FIRM with minimal updates. The vertical datum will be verified from field survey and compared with the obtained hydraulic model. If a significant difference in elevation is observed, a correction factor will be applied to the results.

### 2.2. **Update Hydraulics of FEMA Effective Model**

Task 1 of this proposal includes the capture of new cross sections via field survey. The FEMA effective model will be updated using the new cross sections. In addition, CDM Smith will perform a comparison of the hydrology of the effective model (i.e. flows from 2006) with current stream flow estimates acceptable by FEMA, such as StreamStats. If a significant difference is found, then CDM Smith will discuss with the City of Franklin to determine if a CLOMR approach should be performed. If such an effort is required, CDM Smith will present an amendment to the City for consideration.

Existing Conditions Models (ECM) will be created to use as a basis for comparison to the proposed roadway improvements. The ECMs will incorporate additional surveyed cross-sections located at and around the project site, as well as any adjustments necessary to Manning's n values to duplicate existing conditions. A Proposed Conditions Model (PCM) will be developed to represent the proposed roadway improvements (including a proposed bridge or culvert) and to determine a "no-rise" to the base flood elevations from the effective FIRM.

### **2.3. Produce report discussing methods used and changes to the models**

Upon completion of tasks 1 and 2, CDM Smith will prepare a report for submittal to the City of Franklin describing the methods used and changes performed to produce hydraulic models representing the existing and proposed conditions for the project. The report will document any changes to the existing conditions to establish a "No-Rise" to the FEMA base flood elevations, floodway elevations and floodway top widths resulting from the proposed roadway improvements. A No-Rise Certification form will be signed and submitted with the final report.

### **3. Update 2010 Design**

Design plans were developed for the City of Franklin in 2010; and with the passage of time, several design standards have changed or been updated. Additionally, the surrounding area has been undergone additional site development after the plans were completed. This scope of this work includes the effort required to bring the design into compliance with current City of Franklin and TDOT standards and complete the 30% Preliminary Roadway Plans, the Final Right-of-Way Plans and the Final Construction Plans, detailed. The details of the work are as follows:

#### **Update Design**

The typical section for the extension of Jordan Road will consist of one 12-foot travel lane in each direction, curb and gutter, a 6-foot sidewalk on the north and south sides, a 4' bike lane on the north and south sides, and a turn lane at the intersection with Aspen Grove.

CDM Smith will update the design for Jordan Road to meet the current City of Franklin and TDOT standards and design guidelines. Plans will be at a scale of 1"=50' in English units, and CDM Smith will utilize the current Microstation V8i and Geopak software in preparation of the design plans. Updates to the design plans will consist of the following tasks:

- Review drainage design to be in concurrence with current City of Franklin standards, including catch basin types and minimum depths, and update pipe outlet location.
- Revise slab bridge design using TDOT standard LRFD designs and drawings.
- Update design based on any changes required based on the new survey data.
- Update erosion control design to meet current TDEC standards, including multi-phase design, outfall tables and current erosion control measures. Update acquisition table to include table for Disturbed Areas.
- Revise curb ramps to meet current TDOT and ADA standards.
- Revise proposed sidewalk to the minimum 6-foot width outside of the curb width.
- Update guardrail to meet current TDOT standards and offsets.
- Revise striping at the intersection of Aspen Grove.
- Update pavement schedule to current TDOT items and standard drawings

#### Update Final Right-of-Way Plans

CDM Smith will update the Final Right-of-Way Plans to current City of Franklin and TDOT standards and Design Guidelines, consisting of the following tasks:

- Incorporate Utility design comments
- Incorporate comments from the City of Franklin
- Update survey for current property information and recent development and revise the acquisition table, utility owners and utility notes, ROW notes, Property Maps, Present Layout Sheets and ROW Detail sheets.
- Update title sheet, plan sheet borders, project labels, and sheet titles as needed.
- Submittal of Plans for Final Right-of-Way.

Final Right-of-Way Plans will consist of the following sheets:

*Title Sheet, Index and Legend, Typical Sections and Pavement Schedule, Right-of-Way Notes, Utility Notes and Utility Owners sheet, Property Maps and Right-of-Way Acquisition Tables, Present Layout Sheets, Right-of-Way Detail Sheets, Proposed Layout Sheets, Proposed Profile Sheets, Drainage Maps, Culvert sections, Erosion Prevention & Sediment Control Plans, Roadway Cross-sections.*

These changes will be incorporated into the plans, and Final Right-of-Way Plans will be issued along with a preliminary construction cost estimate.

#### Update Final Construction Plans

CDM Smith will update the Final Construction Plans to current Franklin and TDOT standards and Design Guidelines, consisting of the following tasks:

- Incorporate comments from the City of Franklin
- Update item numbers to meet current TDOT standards
- Update the General Notes
- Update the Index and Standard Drawing sheet
- Revise Tabulated Quantities Tables

Final construction plans will consist of the following sheets:

*Title Sheet, Roadway Index and Standard Drawings, Roadway Quantities, Bridge Quantities, Typical Sections and Pavement Schedule, General Notes, Tabulated Quantities, Detail Sheets, Right-of-Way Notes, Utility Notes and Utility Owners sheet, Property Maps and Right-of-Way Acquisition Tables, Present Layout Sheets, Proposed Layout Sheets, Proposed Profile Sheets, Drainage Map, Culvert section, Erosion Prevention & Sediment Control Plans, Traffic Control Plans, Signing and Pavement Marking plan, Sign Schedule Sheet, and Roadway Cross-sections.*

#### **4. Permitting**

CDM Smith shall prepare, follow-up with, and submit on behalf of the City of Franklin for the following related construction permits required as part of the project. The City of Franklin will be

responsible for obtaining the appropriate checks, or other methods, of payment for all required application fees as necessary. The anticipated permits are as follows based on the previous work:

- Tennessee Department of Environment and Conservation (TDEC) Aquatic Resource Alteration Permit (ARAP) for one stream crossing
- Tennessee Department of Environment and Conservation Notice of Intent (NOI) for Construction Activity and a site-specific Storm Water Pollution Prevention Plan (SWPPP)
- US Army Corps of Engineers Section 404 permit

## **5. Coordination and Meetings**

With any roadway improvement project, there is the anticipation of multiple review meetings to resolve issues that need to be coordinated. This proposal includes time to provide the following coordination and meetings:

- Meetings with City of Franklin staff related to roadway design, utilities coordination and property acquisition. This proposal assumes up to four meetings with the City staff with the following meetings currently being anticipated:
  - Two (2) progress meetings to review the roadway design and other project related issues. These will be coordinated with the City of Franklin staff.
  - A utility coordination meeting with all affected parties along the corridor. The anticipated utilities will be identified by the CDM Smith team and the City of Franklin will coordinate with and invite all utility attendees. CDM Smith will provide impacted utility companies up-to-date plan sets and electronic data to assist with the design of relocations.
  - Final project documents and pre-bid review meeting.

## **6. Contract Documents and Transmittal**

CDM Smith will prepare a complete Final Design package consisting of Plans, Specifications and cost estimate for the work. This will also include all special notes for bidders and other applicable background documents that may be beneficial to the bidders (i.e. geotechnical investigation report, etc.) Upon completion of the contract documents, CDM Smith will transmit to the City of Franklin all project information, including electronic files in PDF format.

The electronic information shall include:

- Survey baseline and data (all applicable files)
- Contract documents (drawings and specifications)
- Quantity information and cost estimate

### **Assumptions:**

- City of Franklin will close the roadway during construction so traffic control will not be necessary. If needed, the City will provide temporary traffic control during the field survey phase when working in travel lanes.
- City of Franklin will provide all known utility data to CDM Smith via GIS data download or applicable as-built documents. In addition, the City will provide approved plans for the planned development on the adjacent site by Boyle. CDM Smith will not be providing any subsurface scanning or potholing to locate utilities.

- The bridge design assumes a “no-rise” finding for the hydraulic analysis
- Existing geotechnical study from previous project shall be used for all geotechnical basis of design. No additional geotechnical investigation or subsurface borings are included in this scope of work.
- Property negotiation and acquisition will be conducted entirely by the City of Franklin.

**Items not included in the current Scope of Services:**

The following items are not included in the current scope of services for this proposal. Should these tasks be required; a scope and fee will be determined at that time. These items include:

- As this project is being developed without Federal funding, an environmental review and NEPA document is not required.
- Subsurface scanning or potholing of existing utilities.
- Realignment of bridge based on hydraulic analysis.
- Structural Design of retaining walls.
- Utility Relocation Design plans for any utilities besides Mallory Valley Utility District (water) and City of Franklin (sewer).
- Landscaping Design Plans.
- As-built Plans upon completion of the construction. If required, this would be part of a construction services amendment.
- Noise Barrier Study and Design.
- Traffic Signal Design.
- Roadway Lighting Design. All roadway lighting will be installed on the relocated power poles and coordinated with MTEMC directly by City of Franklin.

**Schedule**

CDM Smith anticipates completing the project according to the following schedule.

- We anticipate commencing with the field survey in December 2019. It will take approximately 8 weeks to complete all required field work and processing of data for base files.
- We anticipate that the hydraulic studies and report will require 3 weeks after receipt of all data.
- We anticipate completing Right-of-Way plans in early 2020. Assuming a reasonable timeframe for property acquisition, we expect the project can be advertised in Spring 2020.

**Contractual**

CDM Smith proposes to complete the defined plan updates and associated scope of work for the following lump sum fee:

<b>TOTAL</b>	<b>\$120,000.00</b>
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**(Including all Field Survey, Hydraulic Analysis for No-Rise Certification, Utility Coordination and Layout and Design Updates required for a complete set of biddable Construction Documents.)**

Monthly invoicing will be based on percent completion and shall include a project update. Should you find this proposal acceptable, please include this Exhibit as part of your standard contract for execution.

We truly appreciate the opportunity to present this proposal and trust that it meets your expectations. Please advise if additional information or clarification is needed. We are available as might be needed for in-person discussion as well.

Sincerely,  
CDM Smith

A handwritten signature in blue ink, reading "Liza M. Joffrion". The signature is fluid and cursive, with the first name "Liza" being the most prominent part.

Liza Joffrion  
Client Service Leader