

**CITY OF FRANKLIN, TENNESSEE  
PROFESSIONAL SERVICES AGREEMENT  
COF Contract No. 2019-0233**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **ALFRED BENESCH & COMPANY** hereinafter referenced as Consultant, who mutually agree as follows:

**DECLARATIONS.** City desires to retain Consultant to provide engineering, related technical, and other services in connection with City's project hereinafter referenced as Project. The Project is described as follows:

**FINAL DESIGN OF OLD PEYTONSVILLE ROAD & LONG LANE  
BRIDGE & CONNECTOR PROJECT**

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 Not-to-Exceed Five Hundred Eighty-Five Thousand Three Hundred Ten and 50/100 Dollars (\$585,310.50).
5. Payment of reimbursable items, at direct cost and as listed in the Scope of Services, shall be allowed to exceed the above listed non-to-exceed contract ceiling.

**The Board of Mayor and Aldermen Approved this Agreement on the \_\_\_\_\_ Day of \_\_\_\_\_ 201\_\_.**

## **TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES**

### **ARTICLE 1. SERVICES.** Consultant will:

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

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

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

### **ARTICLE 3. GENERAL CONDITIONS.**

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

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

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

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

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

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

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

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

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

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

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

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

5.2 **ENVIRONMENTAL RESPONSIBILITY.**

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

**ARTICLE 6. SCHEDULE.**

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

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

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

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

**ARTICLE 7. USE OF DOCUMENTS, DATA.**

7.1 All Documents, including, but not limited to, reports, drawings, specifications, and computer software prepared by Consultant pursuant to this Agreement are instruments of service in respect to the Project. 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](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 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.

**CONSULTANT:**

**CITY OF FRANKLIN, TENNESSEE:**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

Name: \_\_\_\_\_

Name: Dr. Ken Moore

Title: \_\_\_\_\_

Title: Mayor

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Approved as to Form:**

\_\_\_\_\_  
Shauna R. Billingsley, City Attorney



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July 10, 2019

Mr. Paul Holzen, PE  
City of Franklin  
109 Third Avenue South, Suite 142  
Franklin, TN 37064

RE: Scope and Design Proposal  
Long Lane over I-65  
Including Improvements to Long Lane and Old Peytonsville Road  
Franklin, TN

Dear Mr. Holzen:

Based on your review comments I have attached a revised design scope and estimate for completing the roadway and bridge construction documents for Long Lane over I-65. This will include improvements to Long Lane on the east side of I-65 and continue improvements on Old Peytonsville Road over to Lewisburg Pike on the west side of I-65. See the attached scope for additional details and subconsultants that are included.

If you have any questions or need additional information, please let me know. Thanks for the opportunity to serve the City of Franklin.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sammie McCoy".

Sammie McCoy, PE  
Vice President  
TN Division Manager

## **Long Lane over I-65 – City of Franklin**

### **Proposed Scope of Work: Roadway and Structural Design Tasks**

Benesch completed Phase one of the project to develop the roadway plans up to right-of-way (ROW) and completed structural design for new bridge over I-65 and a bridge preliminary for the bridge over Five Mile Creek. The footprint of the phase one work is depicted in the Proposed layout shown on the following page. The ROW plans were never officially issued by the City to begin acquisition. For the bridge over I-65, TDOT completed the construction of 3 piers within the footprint of the interstate. This will greatly benefit the project to reduce the traffic control impacts to I-65. A hydraulic model was completed for the bridge over Five Mile Creek. In July 2017 a new LOMR along Five Mile Creek became effective based on the changes by the Berry Farms Project. Therefore, this will require the hydraulic model be updated for the new model information.

### **Phase Two Scope of Work:**

- The original survey and plans will be updated based on current property owners.
- The survey will be updated for the new construction by TDOT along I-65 and Old Peytonsville Road
- Existing utilities will be confirmed within the original survey limits.
- The 3 piers constructed by TDOT will be surveyed and incorporated into the bridge plans for the structure over I-65. The vertical clearances over I-65 will be confirmed based on As-Built conditions. The design will be updated to include safety fence along the parapets of the bridge over I-65. Final plans will be updated for this bridge.
- The proposed bridge over Five Mile Creek will be updated based on the hydraulic modeling. Final bridge plans will be developed for the bridge. Based on the original modal a CLOMR and LOMR will be required.
- On Long Lane adjacent to the Williamson Ag Center the limits of the original 3 lane widening design will be extended south 1300' to connect with the new 3 lane section constructed by TDOT near Franklin South Court. This will include connection to several business entrances and 1 sideroad. The intersection of these two roads will be analyzed, but it is anticipated that the northbound lanes in the current plans will need to be widened to accommodate a left turn, a future through lane and a right turn.
- For Long Lane headed east behind the Ag Center the limits of work are not anticipated to change from the original design plans.
- On the west side of I-65 the original plans tied in to Old Peytonsville Road east of Ellington Drive. The limits of the widening will be extended west approximately 2950' to the intersection with Lewisburg Pike. This portion of Old Peytonsville Road will be widened to a 3-lane section with a 4' bike lane and curb and gutter on both sides. A grass strip will be constructed on the north side and a grass strip with a 6' sidewalk on the south side. This will include connection to 6 sideroads.
- Lewisburg Pike has been improved south of the intersection with Old Peytonsville road. The design project will include improving 200' north of the intersection to widen the intersection to the future typical section and then taper back down to the existing 2 lanes section. Overall length of this improvement is expected to be approximately 500' along Lewisburg Pike.
- Street level lighting will be designed for the entire project footprint where sidewalks are present. This will include lighting on the bridge over I-65.

July 10, 2019

- Utility coordination will occur throughout the project. This will include working with all utilities to define the acceptable location of their existing or new facilities. Utility design is not included in the Benesch scope at this time.
- Traffic Control plans along I-65 will be required for accessing pier caps, setting beams and pouring concrete. Lane closures will be short duration. These plans will require coordination with TDOT.

**Sub Consultant Phase Two Scope:**

- Survey updates will be completed by HMB Professional Engineers, Inc. (formerly Adams Survey) who was the original surveyor on the project. See the attached scope.
- CEC, Inc. will provide an ecology assessment to define any streams or wetlands that will be impacted by the project. See the attached scope
- TTL, Inc. will provide a geotechnical report for the extended roadway limits and signal pole locations. See the attached scope.
- The Corradino Group will provide signal design for the intersection of Lewisburg Pike and Old Peytonsville Road. A second signal will be designed for the new intersection of Long Lane near the east end of the new overpass of I-65. See the attached scope.

**Scope Details:**

**Roadway Design:**

For the new portions of the project the roadway plans will be developed as a standard Preliminary 40% set of plans that will be coordinated with the City Staff. Initial utility coordination will be completed to determine any ROW impacts to accommodate relocations. ROW plans will then be completed for the entire project. Deeds and exhibits will be provided to the City for their use in ROW acquisition. Following the ROW plans completion utility coordination will be finalized and environmental permitting will be completed. When directed the Construction phase documents for the entire project will be produced for bidding. Probable construction costs will be estimated at the 60% and 100% stages of plans production. The roadway design parameters for the project will be based upon current versions of the following design guides; "A Policy on Geometric Design of Highways and Streets", American Association of State Highway and Transportation Officials; "TDOT Standards Specifications for Road and Bridge Construction"; City of Franklin Street Standards. These technical guidelines and specifications shall be followed unless superseded by the standard for the City of Franklin.

The scope includes plans to attend a Public Meeting should this be deemed necessary to inform the public about the project. Benesch will assist city staff through-out the bidding phase of the project. This will include supplying all required documents in Portable Document Format (PDF) suitable for printing. Benesch will assist the city in producing the bid book. Benesch can organize and lead the pre-bid meeting and assist the city as necessary with opening and evaluating the bids once received.

The roadway design scope includes production of erosion control plans and a SWPPP for the roadway and bridge construction. This will be used to apply for NPDES Permit coverage. ARAP and USACE permits will be applied for by Benesch to impacts to jurisdictional features. Any permit fees or third-party review fees shall be billed to the City as a reimbursable item. (See the attached scope from CEC for Jurisdictional Determination)

July 10, 2019

**Lighting Design**

Benesch will provide street lighting design along Long Lane in accordance with IESNA's illuminance (intersection lighting) and luminance (roadway lighting) values stated in the "Recommended Practice for Design and Maintenance of Roadway and Parking Facility Lighting" (RP-8-18). The project will involve the installation of decorative street lighting along the south side of Long Lane (Old Peytonsville Road) from the intersection with Lewisburg Pike east to the intersection with Warrior Drive. From the intersection with Warrior Drive to the project termini, the street lights will be located on both the north and south sides of the roadway. This will include lighting on both proposed bridges. The dual-sided street lighting layout will extend south along the roadway leading to the Williamson County Agriculture Center. Lighting will also be designed at two intersections. The poles and luminaires will be selected from MTEMC's Approved Decorative Street Lighting Catalogue dated 4-22-19.

**Utility Coordination**

Benesch will provide utility coordination services for the project. Below is a general example of items to be completed:

1. Notify in writing all utility companies
2. Issue Preliminary Plans and solicit comments
3. Issue ROW plans and timeline for relocation plans submittals (2 possible utility meetings)
4. Review and approve relocation plans
5. Coordinate any contracts between the City and Utility

Benesch will also provide coordination services to develop a proposed utility corridor to adequately accommodate the City's utility stakeholders and TDOT. Specifically, the planned corridor will be established along the proposed alignment of Long Lane from approximately the bridge over Five Mile Creek to the eastern project termini. The corridor will be developed at a functional-level (horizontal alignment only). Benesch will develop a Memorandum of Understanding to be reviewed and agreed upon by the City and all utilities regarding the future use of said corridor. The final deliverable will be an overall plan layout which will depict the proposed location of each existing utility, their respective easements, and also identify areas where future utilities could be accommodated. Below is an outline of the anticipated items to be completed:

1. Preparation for and attendance of an Initial Stakeholder Meeting
2. Creation of Initial Functional-Level Layout, and Memorandum of Understanding for Corridor
3. Preparation for and attendance of a Second Stakeholder Meeting
4. Finalize the Layout and Memorandum of Understanding

The final design of the facilities for each utility will not be completed as part of this task, but shall be designated as an additional service. If required, Benesch can provide an amendment to this proposal or execute a separate agreement for these services.

**Hydraulic Modeling (CLOMR/LOMR):**

Benesch will review and update the hydrologic and hydraulic analysis for the proposed structure over Five Mile Creek in accordance with standard engineering practice, "TN NFIP Guidance Document: No-Rise Submittals", FEMA's "Instructions for Completing the Application Forms for Conditional Letters of Map Revision and Letters of Map Revision" (rev. 08/20/2018), and "2012 TDOT Design Procedures for Hydraulic Structures".

July 10, 2019

The proposed structure is a 2-span, 110' concrete box beam bridge as developed in the preliminary plans dated 2013. The bridge is located within a FEMA designated Zone AE floodplain. Benesch will review the previous analysis and update the model with the most recent available data from FEMA. Upon review of the updated model, and if the proposed structure still results in a rise in WSEL as compared to the effective model, Benesch will prepare documents for a CLOMR in accordance with FEMA guidelines. Upon completion of the project, Benesch will review the as-built documents and prepare the LOMR documents in accordance with FEMA guidelines.

#### Scope of Work - Hydraulics

1. Review existing hydrologic data/analysis of Five Mile Creek
2. Coordinate with the City's floodplain manager
  - a. Attend a maximum of two (2) electronic meetings
  - b. Attend a maximum of one (1) in-person meetings
3. Obtain and review the most up-to-date Effective model from FEMA
4. Compare the current model and the new Effective model
5. Provide revised hydraulic analysis for the proposed structure 2-span 110' structure.
6. Re-analyze Scour potential of the proposed structure utilizing TDOT's Drainage Manual and FHWA's HEC-18.
7. Design scour countermeasures for each of the substructure elements (if necessary).
8. Complete CLOMR application in accordance with FEMA guidelines:
  - a. Prepare the MT-2 application
  - b. Prepare Property Owner Notification (as required)
  - c. Document Endangered Species Act Compliance
  - d. Prepare the Revised Work Map
  - e. Coordinate with the City's floodplain manager
  - f. Coordinate with FEMA representatives
9. Complete LOMR application in accordance with FEMA guidelines:
  - a. Review the proposed plans with As-built data
  - b. Prepare the MT-2 application with supporting documentation
  - c. Coordinate with FEMA representatives
10. Prepare Hydraulic Report which will contain:
  - a. Discussion of:
    - i. FEMA Effective Flood Insurance Study
    - ii. Duplicate Effective model
    - iii. Corrected Effective model
    - iv. Pre-Project model
    - v. Post-Project model
    - vi. Scour Analysis
  - b. Appendices:
    - i. Maps
    - ii. Site photographs
    - iii. HEC-RAS model output data
    - iv. Scour Analysis
11. Adherence of QC/QA standards

July 10, 2019

12. Prepare and submit permit applications to the U.S. Army Corps of Engineers and State Department of Environment and Conservation

- a. USACOE Section 404 Permit
- b. TDEC ARAP Permit
- c. TDEC NOI for CGP

Client shall provide

Any drainage studies completed in the area (if available).

Items not included in Hydraulic Modeling Scope

1. Design of channel realignment
2. Subsurface Utility Exploration
3. Creation of 3D models or renderings
4. Preparation of a 2D hydraulic model

**Proposed New Bridges**

Scope of Work - Long Lane over I-65

Benesch previously completed design and 90% plans for this bridge. The proposed structure is a four span, 420-foot-long, concrete bulb tee beam bridge with a 48-foot total out-to-out width. Three new piers for this bridge were previously constructed as part of the widening of Interstate 65 project recently completed by TDOT. Benesch will complete the design plans for this bridge and update aspects of the design as needed. The following scope items will be required:

1. Review of As Built survey data for the constructed piers and elevations of pavement on I-65. This information will be compared to the previous design to confirm that a 16'-6" minimum vertical clearance above I-65 will be achieved and that beam bearings at piers match the design geometry of the structure and roadway profile of Long Lane.
2. Safety fencing will be added to the bridge rails. Plans will be updated to reflect this change.
3. Bridge quantities and pay items will be finalized.
4. Bills of steel will be updated as required.
5. Bridge plans will be updated and completed to match current TDOT design standards.
6. Estimates of construction cost will be developed for all bridge items
7. Submittal packages containing plans and calculations will be developed for review by the City and TDOT as required for approvals. Benesch will respond to comments as necessary to grant approvals for construction.

Scope of Work – Old Peytonsville Road over Five Mile Creek

A bridge preliminary and hydraulic analysis was previously completed by Benesch during past efforts on this project. The previous bridge preliminary plan depicts a two span, 110-foot total length bridge having an out-to-out width of 48 feet. This width includes two 12' travel lanes, two 6' bike lanes, two 5' foot sidewalks and TDOT standard STD-11-1 pedestrian bridge rails. Because the hydraulic design boundary conditions have changed, Benesch will review the current bridge design and provide updates to this preliminary design as required.

July 10, 2019

Benesch will also update this preliminary design to reflect any changes due to roadway width, alignment, and profile as necessary. The preliminary bridge plans will be submitted with the hydraulic analysis to gain approvals from City, County, and TDOT agencies as necessary prior to commencing with final design and plans development. Once preliminary approvals have been obtained, Benesch will develop final design and plans for the new structure. To complete these tasks, Benesch proposes the following Scope of Work:

1. General Bridge Design: Approximate 110' total length, maximum two span, prestressed concrete girder bridge, concrete deck, concrete substructures with H-Pile, drilled shaft, or spread footing foundations on sound bedrock.
2. Preliminary bridge design
  - a. Coordination with hydraulic design to update the structure opening for the Five Mile Creek.
  - b. Coordination with roadway design to update centerline, profile, bridge width, and approach limits. As noted in the section above the proposed width for the bridge will be 48' wide.
  - c. Coordination with environmental requirements regarding stream impact and substructure locations.
  - d. Develop a preliminary structural design for:
    - i. Substructures: Abutments, piers, and foundation types
    - ii. Superstructure: Prestressed concrete girder size and configuration, location of deck drains
  - e. Coordination with utility requirements to avoid conflicts and incorporate conveyance with the structure.
  - f. Coordination with Geotechnical Engineer for foundation recommendations
  - g. Development of updated preliminary plans including:
    - i. Preliminary Layout of Bridge
    - ii. Preliminary Bridge Cross Section
    - iii. Accommodations for the utilities noted above
    - iv. Accommodations for lighting conduits as needed
3. Final bridge design
  - a. Develop final design for all structural elements as required
  - b. Develop final plans for the structure in accordance with TDOT standards
  - c. Incorporation of utility conveyance loads in design
  - d. Tabulation of required quantities and assistance with cost estimates
  - e. Submit all CAD files as required

#### **Items not included in the Benesch Scope**

1. Stormwater quality design
2. Traffic counts or studies
3. Landscape or irrigation design
4. Utility design
5. Mitigation design for impacted environmental features
6. Construction phase services or full TDOT level Construction Engineering and Inspection (CEI)
7. Printing of review or bid plans

July 10, 2019



| Fee Summary                                         |                            |                      |
|-----------------------------------------------------|----------------------------|----------------------|
| Item                                                | Fee Type                   | Amount               |
| <i>Original Plans ROW Update</i>                    | Lump Sum                   | \$ 3,660.00          |
| <i>Original Roadway Construction Plan</i>           | Lump Sum                   | \$ 59,400.00         |
| <i>Finalization of Five Mile Creek Bridge Plans</i> | Lump Sum                   | \$ 40,320.00         |
| <i>Update to I-65 Bridge Plans</i>                  | Lump Sum                   | \$ 9,210.00          |
|                                                     |                            |                      |
| Survey update and extension                         | Lump Sum                   | \$ 87,386.00         |
|                                                     |                            |                      |
| Extended Limits Preliminary and ROW Plans           | Lump Sum                   | \$ 163,900.00        |
| Extended Limits Construction Plans                  | Lump Sum                   | \$ 70,311.00         |
| Jurisdictional Waters Determination                 | Lump Sum                   | \$ 4,600.00          |
| Signal Design                                       | Lump Sum                   | \$ 41,700.00         |
| Hydraulic Modeling                                  | Lump Sum                   | \$ 19,400.00         |
| CLOMR Application                                   | Lump Sum                   | \$ 14,400.00         |
| LOMR Application                                    | Lump Sum                   | \$ 6,400.00          |
| Utility Coordination and Corridor Creation          | Lump Sum                   | \$ 19,500.00         |
| Lighting Design                                     | Lump Sum                   | \$ 25,400.00         |
|                                                     |                            |                      |
| <i>Bid Documents and Administration</i>             | Lump Sum                   | \$ 9,840.00          |
| Geotechnical                                        | Lump Sum                   | \$ 9,883.50          |
|                                                     | <b>Total Not to Exceed</b> | <b>\$ 585,310.50</b> |

**Compensation:**

The following is the compensation to be paid to Benesch for the scope items noted above. The only reimbursables that will be included on this project are permit fees, and third-part review fees which will be paid by Benesch and reimbursed at cost by the City. All other incidental costs (i.e. printing, travel, etc.) shall be included in the lump sum totals.

July 10, 2019

June 19, 2019

Mr. Sammie McCoy  
Alfred Benesch & Company  
8 Cadillac Dr., Ste. 250,  
Brentwood, TN 37027

Dear Mr. McCoy:

Subject: Proposal for Professional Services  
Jurisdictional Waters Determination  
Long Lane Extension  
Williamson County, Tennessee  
CEC Project 193-291

Civil & Environmental Consultants, Inc. (CEC) is pleased to present this proposal to perform a Jurisdictional Waters Determination on the proposed Long Lane Extension west of I-65 terminating at Old Peytonsville Road in Williamson County, Tennessee as detailed in your June 18, 2019 email. The purpose of the project is to determine the jurisdictional status of hydrologic features present along the proposed alignment.

## **1.0 SCOPE OF SERVICES**

The scope of this proposal is to provide a Waters of the U.S. Determination (i.e., streams and wetlands) within the project area described above. In performing the jurisdictional determinations, the 1987 *Corps of Engineers Wetlands Delineation Manual* and the 2012 *Regional Supplement: Eastern Mountains and Piedmont Region*, Version 2.0, will be closely followed to establish a description of the soils, plants and hydrologic conditions of the site. CEC will perform the following tasks:

1. Using the 1987 *Corps of Engineers Wetland Delineation Manual* and the 2012 *Regional Supplement: Eastern Mountains and Piedmont Region*, Version 2.0, delineate potential wetlands located along the proposed alignment.
2. Complete the Corps of Engineers Wetland Data Forms for each wetland/upland sampling site.
3. Using a Trimble® GeoXT GPS Unit, map the wetland boundaries (if present) to determine area, and log lat/long of each soil pit along with hue, value and chroma of the soil using a standard Munsell® Color Chart.

4. Complete the *Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers* forms, which the Corps currently uses to determine mitigation ratios.
5. Prepare a summary report describing the findings that includes the routine wetland determination data forms, a photo summary, and delineation map.
6. Submit wet weather conveyance and stream determinations to TDEC as a Qualified Hydrologic Professional.
7. Coordinate with TDEC and the Nashville Corps of Engineers office to schedule a concurrence site visit at the direction of Alfred Benesch & Company.

## **2.0 AGREEMENT**

Invoicing of professional services for the wetland and stream determination will be on a Time and Materials basis for an estimated fee of **\$4,600**. Our Schedule of Terms and Conditions, which apply to the proposed work, is attached. Any changes to our Terms and Conditions must be agreed to in writing by both parties prior to authorization to proceed. Your oral or written authorization to proceed will form a binding contract and indicates your acceptance of our Terms and Conditions.

## **3.0 CLOSING**

CEC appreciates the opportunity to provide this proposal and to assist Alfred Benesch & Company with this project. Should you have any questions, please do not hesitate to call us at (615) 333-7797.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Matthew Skelton, QHP  
Project Manager



Jeff Duke  
Senior Principal

July 8, 2019



5010 Linbar Drive, #153  
Nashville, TN 37211  
615.331.7770

[www.TTLUSA.com](http://www.TTLUSA.com)

Mr. Sammie McCoy, PE  
Vice President  
Alfred Benesch & Company  
8 Cadillac Drive, Suite 250  
Brentwood, Tennessee 37027

**Re:    *Proposal for Geotechnical Services  
Long Lane Extension to Lewisburg Pike  
Franklin, Williamson County, Tennessee  
TTL Proposal No. P00190801794.00***

Dear Sammie:

As requested, we are pleased to submit this scope of work and cost estimate to provide geotechnical services in support of the proposed extension of Long Lane across I-65 to Lewisburg Pike in Franklin, Tennessee. Specifically, the scope of work requested is to provide geotechnical drilling, laboratory testing, and engineering services in support of the roadway improvements associated with the project. The scope of work outlined herein is based on review of the following:

- Project areal maps provided to TTL by Benesch on June 26, 2019;
- Geotechnical Report from 2012 Long Lane Bridges and Roadway Extension Project provided to TTL by Benesch June 26, 2019; and
- Available aerial and Geologic mapping of the project site.

## **SCOPE OF WORK**

The planned improvements consist of extending Long Lane across I-65 to Lewisburg Pike near Goose Creek Interchange, designing and constructing two (2) bridges and installing two (2) light signal poles.

The scope of work requested by Benesch includes performing a subsurface exploration program, including drilling, sampling, and laboratory testing to support engineering analyses and development of geotechnical recommendations pertinent to the design and construction of the Long Lane Extension. We will conduct a field exploration and laboratory testing program to provide the data necessary to reasonably establish recommendations for the proposed roadway improvements. Per your request, we propose to drill eleven (11) borings as shown on the provided drawing. No drilling activities will take place without proper coordination with current property owners.

We will contact the Tennessee One Call System (811), the state-wide utility clearance coordinator for the State of Tennessee, to have the underground utilities marked prior to mobilization of the drilling equipment. The boring locations will be offset from the proposed locations to facilitate access and avoid marked utilities. Additionally, we will also coordinate traffic control, as required, for borings located within active roadways. We are not responsible for repair of utilities that are not properly identified by others.

The drilling program will include standard penetration testing of the soil overburden to a depth of 15 feet or auger refusal, whichever occurs first. At two (2) locations, the underlying bedrock will be cored for a length of 10 feet. The laboratory testing program will include index testing (natural moisture content and Atterberg Limits testing) to determine USCS and AASHTO classifications, and shear strength testing of soil and/or rock, as applicable, to support engineering analysis and development of design and construction recommendations. The boring will be backfilled with soil cuttings upon completion, where applicable.

Upon completion of the subsurface exploration and engineering analyses, we will develop a report that presents the results of the exploration and provides geotechnical recommendations pertinent to the design and construction of the roadway improvements. The report will include boring logs, results of the laboratory testing, and a boring location plan delivered in a PDF format. Our requested work scope did not include evaluating long-term slope stability for either existing or proposed slopes.

Additional comments/conditions upon which this proposal is based are as follows:

- We will make reasonable efforts to gain voluntary permissions for entry from private property owners, where appropriate. Benesch will be notified, as necessary, of any properties where such entry might be denied.
- We will measure from existing landmarks to establish the boring locations during field exploration. Determination of the exact boring locations and ground surface elevations is beyond the scope of services. This proposal does not include provisions for surveying efforts to establish the boring locations.
- Water for drilling purposes will be obtained from adjacent ponds, creeks, or rivers, if required.
- Because of traffic conditions and related concern for the safety of personnel working adjacent to and within existing roadways, TTL will coordinate activities with Benesch, The City of Franklin, or county personnel as applicable. A TTL engineer will be dedicated to the field work on a full-time basis to coordinate safety procedures and drilling efforts.
- The subsurface exploration will be planned and conducted in accordance with the Tennessee Department of Environment and Conservation General Permit for Surveying and Geotechnical Exploration. As such, installation and monitoring of erosion protection/siltation control measures by both subcontracted and TTL personnel may be required as part of the drilling program.
- Benesch will provide TTL electronic drawing files (plans, profiles, and cross-sections) which TTL may use to develop the subsurface exploration program, geotechnical recommendations, and drawings.
- The unit prices submitted in this proposal were derived based on the anticipated scope of work, assuming the subsurface exploration program would be performed in the 2019 calendar year.

- We will retain the soil samples for 60 calendar days following the submittal of the geotechnical engineering report. After this time, the soil samples may be discarded unless directed otherwise.

## COST

Estimated costs associated with our scope-of-services are summarized below:

|                            |            |
|----------------------------|------------|
| 1.00 Drilling Services     | \$4,496.50 |
| 2.00 Laboratory Services   | \$667.00   |
| 3.00 Manpower Requirements | \$4,520.00 |
| 4.00 Other Expenses        | \$200.00   |
|                            |            |
| Total Not-to-Exceed Costs  | \$9,883.50 |

## SCHEDULE

TTL, Inc. can begin work on the project within 1 week of receipt of written authorization. It is expected to take 2 days to complete field operations, 2 weeks for laboratory work, and 2 weeks for report completion for a total estimated timeframe of 4 weeks. TTL, Inc. can provide general results of drilling as soon as drilling is complete.

## AUTHORIZATION

To formerly authorize our services, please sign the attached Client Project Services Agreement and return a copy of the entire proposal to us. This proposal will remain valid for a period of 90 days from the date of this letter.

## CLOSING

We appreciate the opportunity to propose our services for this project and look forward to working with you in the future. If you have any questions, please feel free to contact our office.

Sincerely,  
TTL, Inc.



Michael Peck  
Project Professional



Matt Bullard, P.E.  
Transportation Group Leader

Attachment: Client Project Services Agreement

June 28, 2019

Brian A. Ralstin, PE  
Alfred Benesch & Company  
8 Cadillac Drive, Suite 250  
Brentwood, TN 37027

**RE: TRAFFIC SIGNAL DESIGN FOR LONG LANE INTERSECTIONS:  
LONG LANE @ LEWISBURG PIKE AND LONG LANE @ FAIRGROUNDS ACCESS ROAD**

Dear Mr. Ralstin:

I am writing this letter to outline the scope of services and compensation associated with The Corradino Group (Corradino) preparing traffic signal design plans for the intersections of Long Lane at Lewisburg Pike and Long Lane at Fairgrounds Access Road in Franklin, Williamson County, Tennessee. This proposal is based on the information provided in your email on June 19, 2019 and additional information obtained via phone conversations.

## SCOPE OF SERVICES

Our role will be to serve as the traffic consultant for the project team for the traffic signal design including any fiber optic communication. Our proposed scope of services is attached hereto.

## COMPENSATION

Contract price for the work specified above is as follows:

| TASK NO.     | DESCRIPTION OF WORK                     | FEE                |
|--------------|-----------------------------------------|--------------------|
| 1            | Project Management                      | \$1,750.00         |
| 2            | Traffic Signal Design (2 intersections) | \$29,850.00        |
| 3            | Fiber Optic Communication Layout        | \$5,100.00         |
|              | Design Contingency                      | \$5,000.00         |
| <b>TOTAL</b> |                                         | <b>\$41,700.00</b> |

All work performed will be billed on a lump sum basis based on percent complete. Payment for work specified above will be required within 30 days of receipt of the invoice for the work.

Long Lane Signal Designs @ Lewisburg Pike & Fairgrounds Access Road

June 28, 2019

Page 2 of 2

I look forward to the opportunity to work with you on this project. If you have any questions, or if you need any additional information, please contact me.

Sincerely,

**THE CORRADINO GROUP, INC.**

A handwritten signature in blue ink, appearing to read "Gerald Bolden", with a long horizontal flourish extending to the right.

Gerald G. Bolden, PE, PTOE

Vice President



## **SCOPE OF SERVICES**

Long Lane Traffic Signal Design  
Long Lane @ Lewisburg Pike  
Long Lane @ Fairground Access Road

### **Task 1 – Project Management**

Project management is a continuous task that will be performed for the duration of this contract. Each month during the contract, Corradino will prepare and submit a monthly invoice and status report covering work progress and contract fulfillment.

Once the project is underway, Corradino will provide monthly status reports to Alfred Benesch & Company (Benesch) Project Manager (PM) and conduct progress meetings, as necessary.

Additionally, Corradino will attend a project kick-off meeting with the design team and the City and periodic progress meetings throughout the development of the project.

### **Task 2 – Traffic Signal Design**

Benesch shall provide the base survey and base roadway design plan files to be used for the traffic signal design. Corradino will coordinate with the City Traffic Engineering staff to verify the specifics for type of traffic signal equipment desired for the intersections.

The scope of services includes the design of a new traffic signals at the intersection of Long Lane at Lewisburg Pike and at the intersection of Long Lane at the Fairgrounds Access Road. A goal of the traffic signal layout is to have all foundations, poles, and cabinets located such that the future widening and construction at the intersections will not impact the traffic signal components and require relocation. The layouts will include traffic signal controller cabinet; mast arm poles; pedestal poles (as needed to meet ADA requirements); traffic signal heads; pedestrian signal heads; pedestrian push buttons; detection; conduit; and wiring.

The traffic signal design and preparation of the plans shall be in accordance with City of Franklin Standards; TDOT Design Guidelines and Standard Specifications; AASHTO Green Book; and latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). Corradino will complete the following traffic signal design components and necessary plan sheets to be included with the overall design package prepared by Benesch:

- General and special notes for traffic signals and fiber optic communications;
- Estimated quantities for traffic signal design and fiber optic layout;
- Proposed Layout for traffic signal design at two intersections;
- Wiring diagram;
- Traffic signal phasing and timings, including clearance interval calculations;
- Pavement marking and signing layouts in relation to the signalized intersections.

Also, Corradino will prepare an Engineer's Opinion of Probable Cost based on the finalized traffic signal design.

### **Task 3 – Fiber Optic Communication Layout**

As noted in the City's ITS Master Plan, Lewisburg Pike is proposed to have fiber optic communications from Goose Creek Bypass to the north to Mack Hatcher. Also, the City is currently working on a fiber optic communications link along I-65 via TDOT conduit from Highway 96 to the Goose Creek Bypass interchange. As part of this project, the necessary communications equipment and layout will be included in the design of the Long Lane and Lewisburg Pike traffic signal.

Also, this scope includes an evaluation of the fiber optic routing alternatives (overhead or underground) between Goose Creek Bypass at Lewisburg Pike and Long Lane at Lewisburg Pike intersections. Once a preferred alternative is chosen a preliminary layout will be provided utilizing the City's GIS as the base file. If underground routing is preferred, the fiber, conduit and pull box layout will be designed and included in the traffic signal design package.

If overhead routing is preferred, then additional survey will be required in order to develop make-ready utility plans for the existing utility poles along the route. This would also require additional design fee to complete the make-ready plans for inclusion in the traffic signal design package.

**NOTE:** *This scope of services does not include geotechnical investigation; structural design; roadway lighting design; utility make-ready plans for fiber optic routing; and construction engineering and inspection (CEI). If desired, Corradino can provide scope of services and proposed fee for any of these services.*

### **SCHEDULE**

We understand time is of the essence, therefore, Corradino will begin work immediately upon receipt of a signed agreement and coordinate with Benesch PM and develop a project delivery schedule.

### **ADDITIONAL SERVICES**

Any work, other than the scope of services outlined herein, shall be designated "Additional Services." At such time that it is determined that these additional services are required, Corradino reserves the right to amend this proposal or execute a separate agreement that will provide such services. Services desired by the client, but not specifically outlined herein, can be provided on an hourly basis in accordance with Corradino's standard hourly rates.



## Survey Scope of Work City of Franklin Long Lane Williamson County

July 1, 2019

2 International Plaza  
Suite 205  
Nashville, TN 37217

Office: (615) 361-4345  
Fax: (615) 631-7737

### Project Description

Benesch desires to contract with HMB Professional Engineers, Inc. (HMB) for survey services on the Long Lane project in Williamson County, Tennessee.

### Deliverables by the Consultant

HMB will be responsible for developing the following information.

### Tasks:

1. Request with TN One Call and the City of Franklin to mark their utilities and locate them within project limits.
2. Topographic survey of Lewisburg Pike for 700' and 50' on either side of the centerline south of the Old Peytons ville Road intersection.
3. Topographic survey of Lewisburg Pike for 1270' and 100' on either side of the centerline north of the Old Peytons ville Road intersection.
4. Topographic survey of Old Peytons ville Road from Lewisburg Pike intersection for 2500' and 75' on either side of the centerline.
5. Topographic survey of Old Peytons ville Road an additional 560' and 62.5' on either side of the centerline.
6. Topographic survey of Long Lane for 500' and 100' on either side of the centerline.
7. Topographic survey of the Williamson County Board Pavilion.
8. Update topographic survey on east and west side of I-65 at proposed bridge over I-65.
9. Topographic survey on 10-lanes of I-65 around proposed bridge including striping and median barriers.
10. Survey the 3 piers by locating the outer corners of the caps and each beam seat with 4 shots.
11. Project length is 1.10 miles.
12. Benesch will provide Control Points for the project.
13. Have TDOT locate their ITS Fiber at proposed bridge over I-65.
14. Get Low wire crossings for proposed alignments within project limits.
15. Deed research for 28 properties.
16. Verify property owners and acquisition table is up to date.
17. Locate Property and Pres. R.O.W. Lines
18. Locate culverts within the survey limits.
19. Small bridge Item was set up to for floodway and floodplain survey. Floodplain width is 640 ft on Five Mile Creek, 500 ft downstream and 1500' ft upstream. (Min. 2 ft contour interval)

Highway Engineering

Structural Engineering

Water & Wastewater

Site Development

Right-of-Way

Master Planning

Environmental Planning

Abandoned Mine Land

Surveying

Project Management

Cost Estimation

Stream Restoration

Construction Inspection

Aviation Services

KENTUCKY ■ TENNESSEE ■ INDIANA ■ ALABAMA ■ WEST VIRGINIA



2 International Plaza  
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Nashville, TN 37217

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Highway Engineering

Structural Engineering

Water & Wastewater

Site Development

Right-of-Way

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Abandoned Mine Land

Surveying

Project Management

Cost Estimation

Stream Restoration

Construction Inspection

Aviation Services

20. We estimate the DTM width to be 179 feet wide. This is based on the total area of the survey outlined in red divided by the length of the project.

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