

**CITY OF FRANKLIN, TENNESSEE  
PROFESSIONAL SERVICES AGREEMENT  
COF Contract No. 2019-0321**

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is by and between the City of Franklin, Tennessee, hereinafter referenced as City, and **KCI TECHNOLOGIES, INC.** hereinafter referenced as Consultant, who mutually agree as follows:

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

**COOL SPRINGS AREA TRANSPORTATION NETWORK STUDY**

1. SCOPE OF SERVICES. Consultant shall provide data collection, 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 **Two Hundred Ninety Thousand One Hundred and No/100 Dollars (\$290,100.00)**.

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 claims, 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: \_\_\_\_\_

**KCI TECHNOLOGIES, INC.:**

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

**Attest:**

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

**Approved as to form:**

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



ISO 9001:2015 CERTIFIED

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

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September 23, 2019

Mr. Adam Moser, P.E.  
Office of the City Engineer  
109 3<sup>rd</sup> Avenue South  
Suite 133  
Franklin, Tennessee 37064

Client's Authorized Representative(s): Adam Moser, P.E.

**Subject: Proposed Scope of Work & Fee Estimate – The City of Franklin’s Cool Springs Area Transportation Network Study**

KCI Technologies, Inc. (KCI) is pleased to submit this proposed scope and fee estimate (the "Proposal") to City of Franklin ("Client") for the work (the "Work") described in detail in the Scope of Services section of this Proposal. The Work will be performed for the following:

Location: Franklin, Tennessee

Project: Cool Springs Area Transportation Network Study

**SCOPE OF SERVICES:**

KCI’s understanding is that the purpose of the work to be performed is to examine existing and future transportation needs in the Cool Springs area. The study will identify and prioritize needs to improve safety and mobility for all users on major transportation corridors within this area. The study is to include all existing and potential corridors in the area, generally from Moores Lane to Murfreesboro Road.

This Proposal is limited exclusively to the Work as described in this Scope of Services section and anything not expressly described shall be considered excluded from the Work. KCI proposes to perform the Work which is described as follows:

**Task 1 – Information Gathering and Existing Conditions**

The purpose of this task is to establish a firm foundation, rooted in data, from which the modeling and analysis process will take place. All data points and analyses of existing conditions for the corridors within the Cool Springs area will consider and incorporate travel within, to, and from the area. Our approach to this task includes:

- **1A. Review Available Data**

Relevant previous models, plans, programs, and other data provided by the City of Franklin and TDOT will be reviewed including, but not limited to, turning movement counts, traffic impact studies, ADT data, crash records, GIS data, land use plans, transportation plans, design plans and other planning studies, subdivision regulations and zoning ordinances, and all planned roadway improvement programs. The purpose of these evaluations will be to identify the status of previously-recommended projects, coordinate previously completed efforts, and build upon the recommendations presented in existing plans. The information reviewed will be used to identify and evaluate existing conditions and develop the recommended improvements program.

- **1B. Roadway & Traffic Data Collection**

Roadway and traffic conditions will be inventoried in order to understand the current transportation system and its related system performance. Points of data include, but are not limited to, existing rights-of-way, roadway cross-sections and laneage, transit routes and stops, speed limits, traffic volumes, presence of on-street parking, presence of sidewalk and bikeway facilities, and traffic signal timings. KCI will observe existing queueing and note existing operational and safety issues at the inventoried intersections.

During the field inventory process KCI field staff will visit new or recently opened developments in order to gather data regarding the percent occupancy in these developments. This process will allow future trips to be added for existing developments that are not yet fully occupied.

The study area will include the following intersections:

1. Bakers Bridge Avenue and Market Exchange Ct
2. Carothers Parkway and Bakers Bridge Avenue
3. Carothers Parkway and Corporate Centre Drive
4. Carothers Parkway and Crescent Centre Drive N (unsignalized)
5. Carothers Parkway and Crescent Centre Drive S
6. Carothers Parkway and Gillespie Drive/Meridian Boulevard
7. Carothers Parkway and Liberty Pike
8. Carothers Parkway and Mayfield Way
9. Carothers Parkway and Nissan Way (Primary)
10. Carothers Parkway and Nissan Way N (unsignalized)
11. Carothers Parkway and Nissan Way S (unsignalized)
12. Carothers Parkway and Ovation Parkway
13. Carothers Parkway and Physicians Way
14. Carothers Parkway and Private Road north of Mayfield Drive (unsignalized)
15. Carothers Parkway and Private Road south of Mayfield Drive (unsignalized)
16. Carothers Parkway and Resource Parkway (unsignalized)
17. Carothers Parkway and Southstar Drive
18. Carothers Parkway and Tower Circle
19. Cool Springs Boulevard and Aspen Grove Drive
20. Cool Springs Boulevard and Carothers Parkway
21. Cool Springs Boulevard and E McEwen Drive
22. Cool Springs Boulevard and Frazier Drive
23. Cool Springs Boulevard and Highwoods
24. Cool Springs Boulevard and I-65 Northbound Ramps

25. Cool Springs Boulevard and I-65 Southbound Ramps
26. Cool Springs Boulevard and W McEwen Drive
27. Cool Springs Boulevard and Windcross Court
28. Galleria Boulevard and Bakers Bridge Avenue
29. Galleria Boulevard and Cool Springs Crossings
30. Galleria Boulevard and I-65 Southbound
31. Liberty Pike and Mallory Lane/N Royal Oaks Boulevard
32. Mallory Lane and Bakers Bridge Avenue
33. Mallory Lane and Cool Springs Boulevard
34. Mallory Lane and Crossroads Boulevard
35. Mallory Lane and Frazier Drive
36. Mallory Lane and Jordan Road
37. Mallory Lane and Kroger Center
38. Mallory Lane and Mallory Station Road /South Springs
39. Mallory Lane and Nichol Mill Lane
40. Mallory Lane and Seaboard Lane
41. Mallory Lane and Spring Creek Drive
42. Mallory Station Road and Duke Drive (shared controlled w Gen George Patton Drive)
43. Mallory Station Road and Gen George Patton Drive
44. Mallory Station Road and Seaboard Lane
45. McEwen Drive and Carothers Parkway
46. McEwen Drive and I-65 Interchange
47. McEwen Drive and Mallory Lane
48. McEwen Drive and Ovation Parkway
49. McEwen Drive and Spring Creek Drive
50. McEwen Drive and Tower Circle
51. McEwen Drive and Turning Wheel Lane (unsignalized)
52. *Moore's Lane and Carothers Parkway (City of Brentwood)*
53. *Moore's Lane and Galleria Boulevard (City of Brentwood)*
54. *Moore's Lane and I-65 Northbound (City of Brentwood)*
55. *Moore's Lane and I-65 Southbound (City of Brentwood)*
56. *Moore's Lane and Mallory Lane (City of Brentwood)*
57. *Moore's Lane and Westgate Circle (City of Brentwood)*
58. Murfreesboro Road (SR 96) and Carothers Parkway
59. Murfreesboro Road (SR 96) and Edward Curd Lane
60. Murfreesboro Road (SR 96) and I-65 Northbound Ramp
61. Murfreesboro Road (SR 96) and I-65 Southbound Ramp
62. Murfreesboro Road (SR 96) and Royal Oaks Boulevard
63. Royal Oaks Boulevard and Lakeview Drive

KCI will collect turning movement counts at up to 50 study intersections as determined by the City and identified above. Turning movement counts will be collected for AM (7:00-9:00AM), Midday (11:00AM-1:00PM), and PM (4:00-6:00PM) peak periods. Pedestrians and bicycles will be included in the traffic counts. The results of these counts will be used to conduct traffic analyses of each intersection as well as to provide data to better understand travel patterns through the study area.

- **1C. Drone Footage**

KCI will collect drone footage of the study area in order to observe high level traffic flows, extended queues, and lane utilization. This effort will provide input into the Vistro model calibration and may also be useful for presentations to project stakeholders. Drone footage will be collected on two days and will include one hour of footage for three peaks (AM, Midday, and PM) during each day. The drone footage will attempt to capture each study area, focusing first on the more central, and higher volume study intersections. A total of six hours of drone footage will be captured and provided.

- **1D. Existing Conditions Analysis and Modeling**

KCI will evaluate the existing conditions at the 63 study intersections, 57 within the City of Franklin and 6 within the City of Brentwood and will conduct capacity analyses using Vistro based on the roadway inventory data and traffic count data. Vistro produces the capacity analysis outputs required for this project (level of service, delay, queues, v/c ratio, etc.), but has added functionality in the areas of traffic impact analysis. Specifically, Vistro allows for the creation of multiple development scenarios within a single file, each of which can contain multiple site-specific developments and their respective access points on the network, trip generations, distributions, and assignments.

Existing scenario Vistro models will be created for the AM, Midday, and PM peak hours and will be initially based on conversion of the City's existing Synchro traffic model into Vistro. Once converted and modified to add the additional intersections within the study area, KCI will check all inputs to the model to verify its accuracy (laneage, signal timings, etc.). Models will then be calibrated and validated to duplicate the bottlenecks and queues within the study area. Calibration may include updating specific aspects of the Vistro model, including the following design parameters:

- Saturation flow rate
- Lane utilization
- Lane widths
- Signal operations

- **1E. Existing Policy Review**

To understand the existing development climate as well as the potential for future growth within the Cool Springs study area, KCI will review the City's land use plans, growth policies, and transportation plans. This will include, but is not limited to:

- Envision Franklin
- Franklin Zoning Ordinance
- Franklin Traffic Impact Study Guidelines
- Transportation and Street Standards
- Connect Franklin
- Integrated Growth Plan
- Greenways and Open Space Master Plan
- Cool Springs Multimodal Transportation Study

Review of Envision Franklin and the newly drafted zoning ordinance will first allow KCI to determine allowable densities within the study area, which will help calculate the growth potential for both vacant land as well as those parcels poised for redevelopment. Ultimately, this

review will feed the creation of a full-build out scenario, laying the foundation for an analysis of future traffic conditions. Once future conditions are established, a review of the Connect Franklin document, the Integrated Growth Plan, the Greenways and Open Space Master Plan, and the Cool Springs Multimodal Transportation Study will be used to produce a comprehensive list of previously-identified multimodal improvements in the study area. This list will be supplemented and modified based on results of the future conditions analysis as well as input from the City.

An important component of this task will be the review of Franklin's Traffic Impact Study Guidelines and Transportation Street Standards. While not directly impacting the technical analyses included in this project, this review will seek to objectively evaluate whether the existing processes are adequate in enabling the City to accomplish infrastructure investments that are necessitated by growth. Within this review and discussion will be ideas related to performance metrics for measuring congestion (v/c ratios, level-of-service, travel time, Vehicle Miles Traveled (VMT), etc.), what constitutes acceptable traffic operations, and the types of improvements required with development including non-motorized modes, transit, and other transportation technology solutions. The research and discussion surrounding this element will be focused in areas with similar character to and built environments as Franklin.

- **1F. Existing Conditions Summary**

KCI will summarize the data collected and analyzed for Task 1 in an Existing Conditions Memorandum. The memo will summarize sub-tasks 1A through 1D and will identify any recommendations for immediate needs regarding safety or operations.

#### **Task 1 Deliverables:**

- **Existing Conditions Summary**
  - **Roadway and Traffic Data**
  - **Capacity Analysis**
  - **Operational Issues and Improvements**
  - **Noted Safety Issues**
  - **Policy Review**

#### **Task 2 – Project Growth and Future Conditions**

- **2A. Background Growth**

Utilizing historic TMC and AADT data, KCI will establish a background growth rate for each study corridor. Major corridors may be broken into multiple segments based on roadway context and connectivity. KCI will populate a figure or table with proposed annual growth rates by corridor for City of Franklin approval.

- **2B. Future Scenarios: Approved Developments**

Using information provided by the City of Franklin, KCI will assemble information for all planned and approved developments in the study area. For developments with traffic impact studies, distributions will be extended through the study area by the creation of paths in the Vistro model. It is anticipated that this task will involve not more than 25 developments.

Further, KCI will work with the City to identify committed roadway improvements as included in the City's Capital Improvement Plan (CIP).



Committed roadway improvements will be incorporated into future Vistro model scenarios. Two approved development future model scenarios are proposed:

1. Future 50%: 10 Year Growth, including approved roadway improvements and 50% of all approved developments,
2. Future 100%: 10 Year Growth, including approved roadway improvements and 100% of all approved developments.

Both scenarios will assess AM, Midday, and PM peak operations. Both scenarios will be analyzed first with the current, committed roadway improvements and second, with additional improvements needed to achieve an acceptable level of service, delay, and queuing. Outputs presented will include level-of-service, delay, v/c ratio, and 95th percentile queues. In addition, a component of this task will be exploring additional performance metrics that may be useful in conveying the difference in existing and future congestion levels to the public and stakeholders. Results from this task will be presented in tabular format and/or via intersection diagrams and will be also included in the future conditions summary.

The results of this effort will be a preliminary list of project recommendations and their associated impact on performance.

- **2C. Future Scenarios: Maximized Development Potential**

KCI will work with the City to determine development potential for undeveloped or underdeveloped parcels of land within the study area. Development potential will be determined using the City's Draft Zoning Ordinance. Once identified, these will be included in the future condition models at the City's discretion.

Building on future scenarios 1 and 2, KCI will incorporate maximized development potential into the future Vistro model scenarios. Two maximized development future model scenarios are proposed:

3. Future 50%: 10 Year Growth, including approved roadway improvements and 50% of all approved and potential developments,
4. Future 100%: 10 Year Growth, including approved roadway improvements and 100% of all approved and potential developments.

Both scenarios will assess AM, Midday, and PM peak operations. Both scenarios will be analyzed first with the current, committed roadway improvements and second, with additional improvements needed to achieve an acceptable level of service, delay, and queuing. Outputs presented will include level-of-service, delay, v/c ratio, and 95th percentile queues. Results from this task will be presented in tabular format and/or via intersection diagrams and will be also included in the future conditions summary.

The results of this effort will be a preliminary list of project recommendations and their associated impact on performance.

## **Task 2 Deliverables:**

- **Future Conditions Summary**
  - **Capacity analysis results for each scenario**
  - **Preliminary list of project recommendations**

**Task 3 –Project Recommendations and Preliminary Opinion of Probable Cost**

Utilizing the analysis completed in Tasks 1 and 2 and the preliminary list of recommendations determined via Vistro modeling, KCI will develop a list of phased and actionable recommendations. Recommendations will include a prioritized list of projects for the study area. The recommendations will further comprise innovative solutions identified during the project development process, including changes to policy and planning strategies that support the vision for the study area, as called for in Envision Franklin. Such recommendations may include sidewalk, bikeway, transit, traffic demand management strategies, access management strategies, transportation technology solutions, etc. Each transportation improvement will be coupled with an associated planning-level opinion of probable cost and will be phased and identified as either short- or long-term, based on the expected timeframe for implementation, relationship to expected development timelines, model outputs, and overall feasibility.

A draft report will be prepared and submitted to the client for review. The report will address in detail the inventory and data collected, project assumptions, analyses conducted, the output of said analysis, and recommendations and conclusions. The report will include the graphics, maps, and data to support and adequately illustrate the recommendations of this study. KCI anticipates the project documentation process to be coupled with an engaging review process, with input from the City and identified stakeholders. Up to two rounds of review and revision are included for the final report.

**Task 3 Deliverables:**

- **Prioritized List of Recommended Projects, Policies, and Strategies**
  - **Opinion of Probable Cost**
  - **Implementation Timeline**
- **Draft and Final Report**

**Task 4 – Functional Plans**

Each infrastructure project identified in the prioritized list of recommended projects will be translated into functional plans. It is anticipated that functional plans will be designed on top of aerial imagery. Imagery is to be provided by the city. Necessary field visits will be made to explore existing roadway conditions, existing utilities and a general review of existing grades and cross slopes. This information will be used in the functional design. The functional plans will include distinguishable color coding to identify existing vs. proposed infrastructure. Anticipated proposed infrastructure will include turn lanes with appropriate bay length and taper length, lane widening, bike lanes, concept level roundabouts and mini roundabouts. It is not anticipated that functional plans will include storm sewer work, cross-sections, or proposed roadway grades. Up to one round of review and revision are included for the functional plans.

**Task 5 – Vistro Model Software Support and Materials**

KCI will develop and administer support to City of Franklin staff for PTV America's Vistro software. This will focus on the required data inputs and features of the Vistro software. City staff will learn how to complete a simple analysis from start to finish, including understanding the results provided by the Vistro software.

Support activities will consist of a one-day (or two half-day) session with up to six attendees from the City of Franklin. KCI will provide all required materials. The session will showcase examples of how the City may utilize the existing model scenarios in the future; including the addition of intersections,



the addition of developments, and, editing paths. Participants are anticipated to leave with a wide-ranging understanding of the Vistro software and will have a binder of pertinent resource materials to reference after completion.

### **Task 6 – Project Management and Coordination**

At the beginning of the project KCI will prepare for and attend a kick-off meeting with representatives responsible for the oversight of this project. The purpose of this initial meeting will be to discuss and review the proposed scope of services and study schedule, define study area intersections, and acquire existing data relevant to the study.

Beyond the kick-off meeting, project management meetings will be held monthly between the City of Franklin and KCI. The project timeframe is 12 months; therefore 12 project management meetings are anticipated.

KCI further anticipates the need to present project findings to the Board of Mayor and Alderman (BOMA) during multiple stages of the project. A total of four BOMA presentations are included at the anticipated project stages:

- During Task 1: KCI will present the first stage of the project to BOMA, discuss the use and capabilities of Vistro software, and gather input on project assumptions
- During Task 2: KCI will present the outcome of the Phase 1 analysis and will provide an update on progress for Task 2. This may include preliminary findings.
- During Task 3: KCI will present the prioritized list of project recommendations, including policy changes.
- At project completion: KCI will present final project findings and next steps.

Project management and coordination will be provided for the duration of the project. This includes phone calls and e-mails necessary to accomplish the project objectives, as well as general administration and accounting activities.

### **Task 7 – Adjustment to TAZs**

Knowing that the City has previously invested in a refined component of the Nashville Area MPO's travel demand model, KCI will be able to build on the development analysis conducted as part of this effort to support the continued use of this model if so desired by the City. This process would involve taking all planned and future growth in the study area and converting the development densities into forecasted population and employment growth, which serve as the primary inputs for the model. Future development would initially be calculated at a parcel level and then aggregated to the Traffic Analysis Zones (TAZ) structure currently used in the model. If desired, KCI would also identify modifications to the TAZ geographies and the transportation network needed to account for anticipated changes in connectivity between zones and within the network due to future development.

## **PROJECT SCHEDULE**

Given notice to proceed and contract execution, KCI is prepared to provide these services based upon a twelve-month project schedule.

**FEES AND PAYMENTS**

The following fees are for the performance of the Work listed in the Scope of Services above, at the location described above. The fees listed in this FEES AND PAYMENTS section do not cover any Additional Work, or any other services which are not specifically described as part of the Work listed in the Scope of Services above.

KCI will invoice for the Work completed monthly on the basis of percentage of work performed. A progress report with an itemized account of project activity will be submitted with each invoice.

<b>Task</b>	<b>Description of Work</b>	<b>Fee</b>
1	Information Gathering and Existing Conditions	\$85,800
2	Project Growth and Future Conditions	\$67,200
3	Project Recommendations and Preliminary Opinion of Probable Cost	\$50,600
4	Functional Plans	\$33,500
5	Vistro Model Software Support and Materials	\$9,200
6	Project Management and Coordination	\$26,600
7	Adjustment to TAZs	\$6,200
	Estimated Expenses	\$11,000
<b>Project Total (Labor Fee and Expenses)</b>		<b>\$290,100</b>

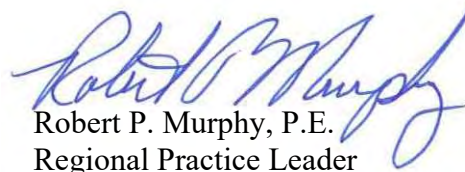
Thank you for this opportunity. We look forward to working with you on this project.

Please contact us if you have any questions regarding this scope of work.

Sincerely,



Beth Ostrowski, P.E.  
Senior Project Manager



Robert P. Murphy, P.E.  
Regional Practice Leader