

ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT is made and entered by and between COLLIN COUNTY TOLL ROAD AUTHORITY, a political subdivision of the State of Texas, hereinafter referred to as "CCTRA", and, Brown and Gay Engineers, Inc., a _____ Corporation, hereinafter referred to as "Engineer", to be effective from and after the date as provided herein.

WITNESSETH:

WHEREAS, the CCTRA desires to engage the services of the Engineer to perform a traffic and revenue study in connection with the Collin County Outer Loop in Collin County, hereinafter referred to as the "Project"; and

WHEREAS, the Engineer desires to render such engineering services for the CCTRA upon the terms and conditions provided herein.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That for and in consideration of the covenants contained herein, and for the mutual benefits to be obtained hereby, the parties hereto agree as follows:

I. Employment of the Engineer

The CCTRA hereby agrees to retain the Engineer to perform professional engineering services in connection with the Project; Engineer agrees to perform such services in accordance with the terms and conditions of this Agreement, exercising the same degree of care, skill, and diligence as is ordinarily possessed and exercised by a member of the same profession, currently practicing, under similar circumstances.

II. Scope of Services

2.1 The parties agree that Engineer shall perform such services as are set forth herein and described in Exhibit "A", which is attached hereto and thereby made a part of this Agreement. Work for each phase shall be preceded by a Notice to Proceed issued by CCTRA. The parties understand and agree that deviations or modifications in the form of written change orders may be authorized from time to time by the CCTRA.

2.2 The Engineer will serve as the CCTRA's professional engineering representative under this Agreement, providing professional engineering, consultation, advice and furnishing customary services incidental thereto. The Engineer agrees to cooperate and coordinate with other design professionals, the CCTRA and its contractors to help facilitate efficient construction of the Project and maintain the Project schedule.

2.3 The Engineer shall advise the CCTRA with regard to the necessity for subcontract work such as special surveys, tests, test borings, or other subsurface investigations in connection with the work to be performed hereunder. The Engineer shall also advise the CCTRA concerning the results of same. Such survey, test, and investigations shall be furnished to the CCTRA.

2.4 The Engineer shall assist the CCTRA in the preparation and filing of documents required for the approval of governmental authorities having jurisdiction over the Project.

III. Schedule of Services

3.1 The Engineer agrees to commence its services immediately upon execution of this Agreement, or as otherwise directed in writing by the CCTRA, and to proceed diligently with said services to completion as described in the Completion Schedule attached hereto as Exhibit "B" and thereby made a part of this Agreement. Engineer shall not be considered in default of this Agreement for delays in performance caused by circumstances beyond its reasonable control. Should such circumstances occur, the Engineer shall, within a reasonable time of being prevented from performing, give written notice to the CCTRA describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

3.2 In the event that the Engineer is delayed in the progress of the work on the Project by an act or neglect of the CCTRA, CCTRA's employees, or separate contractors employed by the CCTRA, or by changes ordered in the Project, fire, adverse weather conditions not reasonably anticipated, unavoidable casualties or other causes beyond the Engineer's control, or delay authorized by the CCTRA pending arbitration, or by other causes which the CCTRA and Engineer agree may justify delay, then the Contract Time shall be reasonably extended by Change Order. The CCTRA shall have the right at any time to delay or suspend the work or any part thereof for any reasonable time and if this happens, the Engineer's sole remedy for any delays or suspension shall be any extension of time. However, should the delay continue for more than one year past the original completion date in the completion schedule, the Engineer may request to renegotiate their professional fee provided that the fee is reasonable and substantiated by documents showing the need for the requested increase. Any request for a fee increase shall be submitted to Collin County Toll Road Authority for final approval. The CCTRA shall not be independently liable to the Engineer for any delay or interference caused by circumstances beyond the CCTRA's control or any delay caused by any other person or entity.

IV. Compensation and Method of Payment

The parties agree that Engineer shall be compensated for all services provided pursuant to this Agreement in the amount and manner described and set forth in the Payment Schedule attached hereto as Exhibit "C" and thereby made a part of this Agreement. Engineer further agrees that it will prepare and present such monthly progress reports and itemized statements as are described in said Exhibit "C". Payment will be made in accordance with The Texas Government Code, Title 10, Subtitle F, Chapter 2251. Engineer further agrees to the following terms prior to payment being due by CCTRA:

A. Invoice and Payment

- (1) The Engineer shall provide the CCTRA sufficient documentation to reasonably substantiate the invoices.
- (2) The Engineer will issue monthly invoices for all work performed under the Agreement.
- (3) In the event of disputed or contested billing, only that portion so contested will be withheld from payment, and the undisputed portion will be paid. The CCTRA will exercise reasonableness in contesting any portion thereof. NO interest will accrue on any contested portion of the billing until mutually resolved.

- (4) In the event of any conflict between Paragraph IV and Chapter 2251 of the Texas Government Code, The Texas Government Code shall prevail.

V. Information to be provided by the CCTRA

5.1 The CCTRA agrees to furnish to Engineer, prior to the Engineer's commencement of its services, all that information set forth and described on Exhibit "D", which is attached hereto and thereby made a part of this Agreement.

5.2 The CCTRA will make its facilities accessible to the Engineer as required for the Engineer's performance of its services. The Engineer represents that it understands the scope of this Agreement and has reviewed and inspected the Project sites, and can fully perform its obligations pursuant to this Agreement. Any failure of the Engineer to acquaint itself with the available information will not relieve the Engineer from its responsibilities pursuant to this Agreement.

5.3 The CCTRA shall disclose, to the extent known to the CCTRA, the results of prior tests, inspections or investigations conducted for the Project upon request by the Engineer.

VI. Progress Meetings

In addition to providing the monthly progress reports as required under Paragraph IV herein above, Engineer agrees to attend all monthly progress meetings scheduled by CCTRA, and at such meetings to outline work accomplished and special problem or delays encountered in connection with the Project during the previous report period, as well as planned work activities and special problems and delays anticipated for the next report period. The Engineer agrees to cooperate and coordinate with other design professionals, the CCTRA and its contractors to help facilitate efficient construction of the Project and maintain the Project schedule.

VII. Insurance

Engineer agrees to meet all insurance requirements as set forth on Exhibit "E" which is attached hereto and thereby made a part of this Agreement.

VIII. Indemnity

8.1 The Engineer agrees to the fullest extent permitted by law, to indemnify and hold harmless the CCTRA and its officers, agents and employees of and from damages, injuries (including death), claims, property damages (including loss of use), losses, demands, suits, judgments and costs, including reasonable attorney's fees and expenses, arising out of or occasioned by Engineer's breach of any of the terms or provisions of this Agreement, or by any other negligent act, error or omission of the Engineer, its agents, servants, employees, subcontractors, licensees, invitees, or any other persons or entities for whose acts the Engineer is legally liable.

8.2 In claims against any person or entity indemnified under this Section 8.1 by an employee of the Engineer, anyone directly or indirectly employed by the Engineer or anyone for whose acts the Engineer may be liable, the indemnification obligation under this Section 8.1 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for the Engineer under workers' compensation acts, disability benefit acts or other employee benefit acts.

IX. Independent Contractor

In the performance of services hereunder, the Engineer shall be deemed an independent contractor and shall not, with respect to its acts or omissions, be deemed an agent, subcontractor or employee of the CCTRA.

X. Assignment and Subletting

The Engineer agrees that neither this Agreement nor the services to be performed hereunder will be assigned or sublet without the prior written consent of the CCTRA. The Engineer further agrees that the assignment or subletting or any portion or feature of the services required in the performance of this Agreement shall not relieve the Engineer from its full obligations to the CCTRA as provided by this Agreement.

XI. Audits and Records/Prohibited Interest

11.1 The Engineer agrees that at any time during normal business hours, and as often as CCTRA may deem necessary, Engineer shall make available to representatives of the CCTRA for examination all of its records with respect to all matters covered by this Agreement, and will permit such representatives of the CCTRA to audit, examine, copy and make excerpts or transcripts from such records, and to make audits of all contracts, invoices, materials, payrolls, records of personnel, conditions of employment and other data relating to all matters covered by this Agreement, all for a period of one (1) year from the date of final settlement of this Agreement or of such other or longer period, if any, as may be required by applicable statute or other lawful requirements.

11.2 The Engineer agrees that it is aware of the prohibited interest requirements of the state law which are applicable to persons entering into contracts with the CCTRA and will abide by the same. Further, a lawful representative of Engineer shall execute the Affidavit shown in Exhibit "F". Engineer understands and agrees that the existence of a prohibited interest during the term of this Agreement will render the agreement voidable.

11.3 The Engineer acknowledges to the CCTRA that it has made full disclosure in writing of any existing conflicts of interest or potential conflicts of interest, including personal financial interest, direct or indirect, in property abutting the proposed Project and business relationships with persons or entities with interest in abutting properties.

XII. Contract Termination

The parties agree that CCTRA shall have the right to terminate this Agreement without cause upon thirty (30) days written notice to Engineer. In the event of such termination without cause, Engineer shall deliver to CCTRA all finished or unfinished documents, data, studies, surveys, drawings, maps, models, reports, photographs or other items prepared by Engineer in connection with this Agreement. Engineer shall have the right to terminate this Agreement upon thirty (30) days written notice to CCTRA in the event of the CCTRA's breach of any material term of this Agreement, including but not limited to compensation and method of payment. Regardless of which party initiates termination, Engineer shall be entitled to compensation for any and all services completed to the satisfaction of CCTRA in accordance with the provisions of this Agreement prior to termination.

XIII. Cost Estimates

The parties recognize and agree that any and all Engineer's estimates of probable construction costs (estimates) prepared by Engineer in connection with the Project represent the best judgment of Engineer as a design professional familiar with the construction industry, but that the Engineer has no control over costs or the price of labor, equipment or materials or over the Contractor's methods of pricing and does not guarantee that any bids solicited or received in connection with the Project will not vary from estimates prepared by Engineer.

XIV. Ownership of Documents

Original drawings and specifications (Instruments of Service) created by Engineer are the property of the Engineer; however, the Project is the property of the CCTRA, and Engineer may not use the drawings and specifications for any purpose not relating to the Project without CCTRA's consent. CCTRA shall be furnished with such reproductions of drawings and specifications as CCTRA may reasonably require. Upon completion of the services or any earlier termination of this Agreement under Article XII, and payment in full of all monies due Engineer, Engineer will revise drawings to reflect significant changes made during construction as per the marked-up prints, drawings, and other data furnished to the Engineer by or through the CCTRA or Contractor. Engineer will promptly furnish the CCTRA with one (1) complete set of reproducible record prints. All such reproductions shall be the property of the CCTRA who may use them without the Engineer's permission for any proper purpose relating to the Project, including but not limited to, maintenance of the Project, additions to the Project, or completion of the Project. The aforementioned revisions will be based upon information supplied by the CCTRA's construction contractor and will be assumed by Engineer to be complete and accurate. As such, Engineer shall not be responsible for errors or omissions resulting therefrom. Prints shall be furnished, as an additional service, at any other time requested by CCTRA. The CCTRA may use such drawings in any manner it desires; provided, however, that the Engineer shall not be liable for the use of such drawings for any project other than the Project described herein.

XV. Complete Contract

15.1 This Agreement, including the exhibits hereto numbered "A" through "F", constitute the entire agreement by and between the parties regarding the subject matter hereof and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified or canceled by a duly executed written instrument, signed by the CCTRA and the Engineer.

15.2 Warranties contained in this Agreement are in addition to and not in lieu of, any and all other liability imposed upon the Engineer by law with respect to the Engineer's duties, obligations, and performance hereunder. The Engineer's liability hereunder shall survive the CCTRA's final acceptance and payment for the Project. All representations and warranties set forth in this Agreement, including without limitation, this paragraph, shall survive the final completion of the Work or earlier termination of this Agreement. The Engineer acknowledges that the CCTRA is relying upon the Engineer's skill and experience in performing the services pursuant to this Agreement.

XVI. Mailing of Notices

Unless instructed otherwise in writing, Engineer agrees that all notices or communications to the CCTRA permitted or required under this Agreement shall be addressed to the CCTRA at the following address:

Mr. Ruben Delgado, P.E., Director
Collin County Engineering Department
825 N. McDonald, Suite 160
McKinney, Texas 75069

County agrees that all notices or communications to Engineer permitted or required under this Agreement shall be addressed to Engineer at the following address:

All notices or communications required to be given in writing by one party or the other shall be considered as having been given to the date such notice or communication is posted by the sending party.

XVII. Miscellaneous

A. Paragraph Headings

The paragraph headings contained herein are for convenience only and are not intended to define or limit the scope of any provision in this Agreement.

B. Interpret Contract Fairly

Although this Agreement is drafted by CCTRA, should any part be in dispute, the parties agree that the Agreement shall not be construed more favorable for either party.

C. Venue/Governing Law

The parties agree that the laws of the State of Texas shall govern this Agreement, and that it is performable in Collin County, Texas. The venue for any litigation related to this Agreement shall be in Collin County, Texas.

D. Parties Bound

CCTRA and Engineer, and their partners, successors, subcontractors, executors, legal representatives, and administrators are hereby bound to the terms and conditions of this Agreement.

E. Severability

In the event a term, condition, or provision of this Agreement is determined to be void, unenforceable, or unlawful by a court of competent jurisdiction, then that term, condition, or provision shall be deleted and the remainder of the Agreement shall remain in full force and effect.

F. Effective Date

This Agreement shall be effective from and after execution by both parties hereto.

G. Term of Agreement

The term of Agreement shall conform to the schedule as stipulated in Exhibit "B" attached herein. No other extension shall be authorized unless granted by written agreement between the CCTRA and Engineer.

H. Observe and Comply

Engineer shall at all times observe and comply with all federal and State laws and regulations and with all City ordinances and regulations which in any way affect this Agreement and the work hereunder, and shall observe and comply with all orders, laws, ordinances and regulations which may exist or may be enacted later by governing bodies having jurisdiction or authority for such enactment. No plea of misunderstanding or ignorance thereof shall be considered. Engineer agrees to defend, indemnify and hold harmless CCTRA and all of its officers, agents, and employees from and against all claims or liability arising out of the violation or any such order, law, ordinance, or regulation, whether it be by itself or its employees.

WITNESS OUR HANDS AND SEALS on the date indicated below.

COLLIN COUNTY, TEXAS

Date: _____

By: _____

Keith Self
Collin County Toll Road Authority Board President
Court Order No. _____

Date: _____

By: _____

Title: _____

ACKNOWLEDGMENT

STATE OF TEXAS }
 }
COUNTY OF _____ }

BEFORE ME, _____ on this day personally appeared _____, of _____, a _____ Corporation, known to me (or proved to me on the oath of _____ or through _____ (description of identity card or other document) to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same as the act and deed of the corporation, for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, 2010.

Notary Public, State of Texas

Printed Name

My Commission expires on the _____ day of _____, _____.

STATE OF TEXAS }
 }
COUNTY OF COLLIN }

BEFORE ME, _____ on this day personally appeared Keith Self, **Board President** of the **COLLIN COUNTY TOLL ROAD AUTHORITY**, a political subdivision of the State of Texas, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same as the act and deed of the **COLLIN COUNTY TOLL ROAD AUTHORITY**, for the purposes and consideration therein expressed and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the day of _____, 2009.

Notary Public, State of Texas

Printed Name

My Commission expires on the _____ day of _____, _____.

Agreement No. 08742-09

EXHIBIT "A"

SCOPE OF SERVICES

See attached document

**Collin County Toll Road Authority
Phase 1 Traffic and Revenue Study
Collin County Outer Loop
Scope of Work**

The work to be performed by the Engineer shall consist of traffic data collection/analysis, regional travel demand model update, travel demand modeling, and traffic and toll revenue forecasting for the adopted technically preferred alignment of the Collin County Outer Loop (CCOL). As directed, the study will include the evaluation of a tolled 3-lane section traversing the county from IH 35 (in Denton County) to IH 30 (in Rockwall County). Consideration will be made for the staged construction of the facility (i.e., proposed open-to-traffic dates). Engineer may provide additional traffic and toll revenue consulting services on an as-needed basis (not part of this first task order).

The scope of services will be divided into tasks as follows:

1. DATA COLLECTION, ANALYSIS, and ASSUMPTIONS DEVELOPMENT

1.1. Collect and Analyze Existing Data

- 1.1.1. Collect Historical and Forecasted Population, Demographic, and Thoroughfare data from readily-available sources. These may include the Collin County Mobility Plan (2007 Update), North Central Texas Council of Governments (NCTCOG), Texoma Region Regional Public Coordination Transportation Plan, Sherman-Dennison MPO, the North Texas Tollway Authority (NTTA), the Texas Department of Transportation (TxDOT), and other local resources. Forecasted data will most likely extend through the year 2030 (20 year projection).
- 1.1.2. Coordinate with NCTCOG Travel Model Development Group and secure Dallas-Fort Worth Regional Travel Model (DFWRM). Analyze existing network coding versus transportation thoroughfare data collected previously. Determine areas to be updated to cover proposed study limits (IH 35 to IH 30)

1.2. Develop Assumptions and Report Exhibits

- 1.2.1. Develop tolling assumptions, payment type variation, toll escalation rate strategy, and assumptions for competing facilities. This will include consideration of toll variances between commuter and commercial traffic.
- 1.2.2. Develop 3-lane Typical Section exhibit for inclusion into T&R report (8½x11)
- 1.2.3. Develop overall Project Layout exhibit depicting limits of study (11x17)
- 1.2.4. Develop Project Configuration “Stick Figure” for toll analysis (11x17)
- 1.2.5. Develop assumed Project Implementation Timeline depicting the opening year for each segment of the CCOL (8½x11)
- 1.2.6. Coordinate with the County to discuss assumptions and make any necessary revisions

2. DFW REGIONAL TRAVEL DEMAND MODEL UPDATE

2.1. Forecast Demographics and Update Regional Travel Demand Model

- 2.1.1. Forecast demographic data collected in previous step to a 50-year horizon (accounting for potential 52-year P3 Concession Agreement).
- 2.1.2. Coordinate with the County and NCTCOG to review process and obtain consensus regarding forecasted demographic data.
- 2.1.3. Update current regional travel demand model with newly forecasted demographic data, additional zonal disaggregation (where required), as well as planned roadway and transit projects from mobility and thoroughfare plans (obtained in a previous step).

3. TRAFFIC AND TOLL REVENUE ANALYSIS

3.1. No Toll Scenario Traffic Forecast (i.e., maximum usage)

- 3.1.1. Determine projected traffic under toll-free operation to establish the maximum demand in the corridor under the recently approved socioeconomic forecasts.

3.2. Scenario Development

- 3.2.1. Develop baseline scenario with most probable phasing plan for individual CCOL segments with approved toll plan established in Tasks 1.2.4 and 1.2.5. Prepare model year datasets for horizon years consistent with phasing plan.
- 3.2.2. Develop two alternative scenarios with variation in phasing of the CCOL segments and/or major connecting roadways, such as the extension of the Dallas North Tollway.
- 3.2.3. Using Baseline Scenario, perform toll optimization analysis to indicate variation in revenue by toll rate (considering the corridor will be heavily influenced by commercial rather than commuter traffic). This sensitivity analysis will determine the relationship of traffic volumes and potential revenues to various toll rates.

3.3. Traffic and Toll Revenue Forecasting

- 3.3.1. Determine traffic and toll revenue forecasts for a 50-year period considering phased-implementation of the various CCOL segments and connections to IH 35, the Dallas North Tollway, US 75, SH 121, US 380, and IH 30. Three series of model runs by horizon year will be performed using the scenarios developed in Task 3.2. Gross Revenue estimates will be provided including adjustments for ramp-up and evasion. All assumptions will be documented as part of the T&R report prepared in separate task.

4. T&R REPORT DEVELOPMENT

4.1. Presentation of Findings

- 4.1.1. Prepare Executive Summary
- 4.1.2. Prepare table of Historical Population and Employment Growth for political divisions along the CCOL
- 4.1.3. Prepare table of Forecasted Population and Employment Growth for 50-year outlook

- 4.1.4. Prepare exhibits of Toll Sensitivity Curves
- 4.1.5. Prepare Tables (up to three (3) implementation scenarios) for Traffic and Toll Revenue Forecasts (50-year outlook)
- 4.1.6. Prepare PowerPoint presentation of T&R Analysis and present briefing at scheduled CCTRA meeting/workshop. For this scope of services, up to two (2) briefings have been estimated.

5. PROJECT MANAGEMENT/PROJECT ADMINISTRATION

The Engineer's project manager, in coordination with the County's Director of Engineering, will be responsible for directing and coordinating all activities and personnel associated with this project.

5.1. Schedule, Progress Reports, and Invoices

- 5.1.1. The Engineer will prepare a simple graphic milestone schedule indicating completion dates of major work items, deliverables, and reviews.
- 5.1.2. The Engineer will submit monthly progress reports to the CCTRA. Invoices for all work completed during the period will be submitted monthly to the CCTRA. Monthly progress reports will include written description of all activities ongoing or completed during the reporting period, activities planned for the following month, problems encountered and action required to remedy them. The progress report will include a tabulation of percent complete by task.

5.2. Progress Meetings

- 5.2.1. The Engineer will attend up to four (4) project team meetings with Collin County. The purpose of these meetings is to discuss project status, plan upcoming events, and discuss and resolve any key project issues. Meeting minutes will be prepared and distributed for all meetings.

5.3. Miscellaneous Coordination Meetings

- 5.3.1. Attend miscellaneous coordination meetings with NCTCOG and CH2MHill to coordinate data and findings. This has been estimated to include up to four (4) meetings. Meeting minutes will be prepared and distributed for all meetings.

5.4. Subconsultant Management

- 5.4.1. The Engineer will prepare subcontracts for subconsultants, direct and monitor subconsultant activities, and review and recommend approval of subconsultant work and invoices.

5.5. Quality Assurance/Quality Control

- 5.5.1. The Engineer will perform independent reviews prior to each submittal and periodic reviews throughout the project. Quality Assurance reviews will also be provided by the assigned Quality Assurance Manager on a regular basis.

DELIVERABLES FOR PHASE 1 T&R STUDY

The following deliverables will be produced under this scope of work:

- 1. Traffic & Revenue Report
- 2. PowerPoint Briefing of Traffic & Revenue Analysis

EXHIBIT "B"

COMPLETION SCHEDULE

See attached

EXHIBIT "C"

PAYMENT SCHEDULE

Invoices will be transmitted to the County on a monthly basis based on a percentage of completion up to that time, and payments to the Engineer will be made as follows:

A derivation of the total contract fee amount is attached.

FEE PROPOSAL
BROWN & GAY ENGINEERS, INC.
Collin County Outer Loop Phase 1 T&R Study

| | Fee | Expenses | Total |
|--------------------------|----------------------|--------------------|----------------------|
| Task 1 | \$ 46,988.88 | \$ 475.00 | \$ 47,463.88 |
| Task 2 | \$ 32,857.28 | \$ 450.00 | \$ 33,307.28 |
| Task 3 | \$ 56,178.52 | \$ 500.00 | \$ 56,678.52 |
| Task 4 | \$ 30,038.68 | \$ 700.00 | \$ 30,738.68 |
| Task 5 | \$ 15,236.00 | \$ 200.00 | \$ 15,436.00 |
| Lump Sum Total | \$ 181,299.36 | \$ 2,325.00 | \$ 183,624.36 |
| Reimbursable Mtgs | \$ 33,772.64 | \$ 3,800.00 | \$ 37,572.64 |
| Total Budget | \$ 215,072.00 | \$ 6,125.00 | \$ 221,197.00 |

FEE PROPOSAL
Brown & Gay Engineers, Inc.
Collin County Outer Loop Phase 1 T&R Study

Collin County Outer Loop - IH 35 (Denton Co.) to IH 30 (Rockwall Co.)

| MANHOUR COST SUMMARY - Brown & Gay Engineers, Inc. | | | | | | | | | | |
|---|-------------|--------------|---------------------|--------------|----------|--------------------|--------------------|-------------|--------------|--|
| | SR. Tech | SR. | SENIOR | | | | GIC | CADD | PROJ | |
| | ADVISOR | PROJ MGR | ENGR | ENGINEER | EIT | Tech | TECH | ADMIN | TOTAL | |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | 8 | 32 | 12 | 48 | 0 | 0 | 24 | 16 | 140 | |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | 1 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 15 | |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | 3 | 16 | 0 | 34 | 0 | 0 | 0 | 0 | 53 | |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | 12 | 34 | 16 | 0 | 0 | 0 | 0 | 12 | 74 | |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL | 2 | 20 | 32 | 0 | 0 | 0 | 0 | 4 | 58 | |
| Meetings (Max Amount not to Exceed) | 6 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | |
| TOTAL HOURS | 32 | 120 | 60 | 94 | 0 | 0 | 24 | 32 | 362 | |
| MANHOUR RATES | \$ 288.00 | \$ 201.00 | \$ 143.00 | \$ 118.00 | \$ 91.00 | \$ 70.00 | \$ 75.00 | \$ 66.00 | \$ 157.24 | |
| TOTAL DIRECT LABOR COSTS | \$ 9,216.00 | \$ 24,120.00 | \$ 8,580.00 | \$ 11,092.00 | \$ - | \$ - | \$ 1,800.00 | \$ 2,112.00 | \$ 56,920.00 | |
| EXPENSE COST SUMMARY - Brown & Gay Engineers, Inc. | | | | | | | | | | |
| | | | TRAVEL | COLOR | BOND | COPIES | COPIES | MYLAR | EXPENSE | |
| | | | Mileage (\$0.55/mi) | PLOTS | PLOTS | (LETTER) (at cost) | (LEDGER) (at cost) | PLOT | TOTAL | |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | | | \$ 200.00 | \$ 200.00 | | \$ 75.00 | | \$ - | \$ 475.00 | |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | | | \$ 400.00 | | | \$ 50.00 | | \$ - | \$ 450.00 | |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | | | \$ 500.00 | | | | | \$ - | \$ 500.00 | |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | | | \$ 400.00 | \$ 200.00 | | \$ 100.00 | | \$ - | \$ 700.00 | |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL (MAX NOT TO EXCEED) | | | \$ 200.00 | | | \$ 200.00 | | \$ - | \$ 400.00 | |
| TOTALS | | | \$ 1,700.00 | \$ 400.00 | \$ - | \$ 425.00 | \$ - | \$ - | \$ 2,525.00 | |
| FEE SUMMARY - Brown & Gay Engineers, Inc. | | | | | | | | | | |
| | | | | | | HOURS | TOTAL | EXPENSES | TOTAL | |
| | | | | | | | LABOR | | | |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | | | | | | 140 | \$ 18,972.00 | \$ 475.00 | \$ 19,447.00 | |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | | | | | | 15 | \$ 2,106.00 | \$ 450.00 | \$ 2,556.00 | |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | | | | | | 53 | \$ 8,092.00 | \$ 500.00 | \$ 8,592.00 | |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | | | | | | 74 | \$ 13,370.00 | \$ 700.00 | \$ 14,070.00 | |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL | | | | | | 80 | \$ 14,380.00 | \$ 400.00 | \$ 14,780.00 | |
| TOTALS | | | | | | 362 | \$ 56,920.00 | \$ 2,525.00 | \$ 59,445.00 | |

FEE PROPOSAL
Brown & Gay Engineers, Inc.
Collin County Outer Loop Phase 1 T&R Study

| MANHOUR ESTIMATE PER SHEET - SYSTRA Mobility (SYSTRA) | | | | | | | | | | | |
|---|---|------------|-----------|-----------|-----------|-----------|----------|----------|-----------|-----------|------------|
| TASK | DESCRIPTION | FIRM | SR. Tech | SR. | SENIOR | | | GIC | CADD | PROJ | TOTAL |
| | | | ADVISOR | PROJ MGR | ENGR | ENGINEER | EIT | Tech | TECH | ADMIN | |
| 1 | DATA COLLECTION & ASSUMPTIONS DEVELOPMENT | | | | | | | | | | |
| 1.1 | COLLECT AND ANALYZE EXISTING DATA | | | | | | | | | | |
| 1.1.1 | COLLECT HIST & FORECASTED DEMOGRAPHIC AND THOROUGHFARE DATA | BGE | | 4 | | 24 | | | | 12 | 40 |
| 1.1.2 | SECURE NCTCOG DFWRTM MODEL AND DETERMINE AREAS TO EXPAND (BENCHMARK) | BGE/SYSTRA | | 8 | | 16 | | | | | 24 |
| 1.2 | DEVELOP ASSUMPTIONS AND REPORT EXHIBITS | | | | | | | | | | |
| 1.2.1 | DEVELOP TOLLING ASSUMPTION, PAYMENT VARIATION, ESCALATION, TRUCK/PASS | BGE/SYSTRA | 2 | 2 | | 8 | | | | 2 | 14 |
| 1.2.2 | DEVELOP 3-LANE TYPICAL SECTION EXHIBIT (8.5X11) | BGE | 1 | 1 | 4 | | | | 8 | | 14 |
| 1.2.3 | DEVELOP OVERALL PROJECT LAYOUT EXHIBIT (11X17) | BGE | | 1 | | | | | 6 | | 7 |
| 1.2.4 | DEVELOP PROJECT CONFIGURATION STICK FIGURE (11X17) | BGE | 1 | 4 | 8 | | | | 10 | | 23 |
| 1.2.5 | DEVELOP PROJECT IMPLEMENTATION TIMELINE (8.5X11) | BGE/SYSTRA | 2 | 8 | | | | | | | 10 |
| 1.2.6 | COORDINATE WITH COUNTY REGARDING ASSUMPTIONS | BGE/SYSTRA | 2 | 4 | | | | | | 2 | 8 |
| | SUBTOTAL | | 8 | 32 | 12 | 48 | 0 | 0 | 24 | 16 | 140 |
| 2 | DFW REGIONAL TRAVEL DEMAND MODEL UPDATE | | | | | | | | | | |
| 2.1 | FORECAST DEMOGRAPHICS & UPDATE REGIONAL TRAVEL DEMAND MODEL | | | | | | | | | | |
| 2.1.1 | FORECAST DEMOGRAPHIC DATA FOR 50-YEAR HORIZON | SYSTRA | | 1 | | | | | | | 1 |
| 2.1.2 | COORDINATE WITH COUNTY AND NCTCOG FOR DEMOGRAPHIC RESULTS | BGE/SYSTRA | 1 | 1 | | | | | | | 2 |
| 2.1.3 | UPDATE REGIONAL TDM WITH DEMOGRAPHIC AND THOROUGHFARE DATA | BGE/SYSTRA | | | | 12 | | | | | 12 |
| | SUBTOTAL | | 1 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 15 |
| 3 | TRAFFIC AND TOLL REVENUE ANALYSIS | | | | | | | | | | |
| 3.1 | DEVELOP TRAFFIC FORECAST FOR NO-TOLL SCENARIO | | | | | | | | | | |
| 3.1.1 | DETERMINE PROJECTED TRAFFIC FOR NON-TOLLED FACILITY | SYSTRA | 0 | 2 | | 8 | | | | | 10 |
| 3.2 | DEVELOP AND ANALYZE PROJECT PHASING SCENARIOS | | | | | | | | | | |
| 3.2.1 | BASELINE SCENARIO WITH ASSUMED PHASING OF SEGMENTS/INTERCHANGES | SYSTRA | | 2 | | 12 | | | | | 14 |
| 3.2.2 | TWO ALTERNATIVES WITH VARIATION IN PROJECT IMPLEMENTATION | SYSTRA | | 4 | | 8 | | | | | 12 |
| 3.2.3 | PERFORM TOLL OPTIMIZATION ANALYSIS USING BASELINE SCENARIOS | SYSTRA | 2 | 4 | | 2 | | | | | 8 |
| 3.3 | TRAFFIC AND TOLL REVENUE FORECASTING | | | | | | | | | | |
| 3.3.1 | PERFORM THREE SERIES OF T&R RUNS INCLUDING RAMP UP AND EVASION | SYSTRA | 1 | 4 | | 4 | | | | | 9 |
| | SUBTOTAL | | 3 | 16 | 0 | 34 | 0 | 0 | 0 | 0 | 53 |
| 4 | T&R REPORT DEVELOPMENT | | | | | | | | | | |
| 4.1 | PRESENTATION OF FINDINGS | | | | | | | | | | |
| 4.1.1 | PREPARE EXECUTIVE SUMMARY | BGE/SYSTRA | 2 | 10 | | | | | | 2 | 14 |
| 4.1.2 | PREPARE TABLE OF HISTORICAL POPULATION ANDN EMPLOYMENT GROWTH | BGE/SYSTRA | | | 4 | | | | | 2 | 6 |
| 4.1.3 | PREPARE TABLE OF FORECASTED POPULATION AND EMPLOYMENT GROWTH | BGE/SYSTRA | | | 4 | | | | | 2 | 6 |
| 4.1.4 | PREPARE TOLL SENSITIVITY CURVE EXHIBITS | SYSTRA | 2 | | | | | | | 2 | 4 |
| 4.1.5 | PREPARE TABLES FOR UP TO 3 T&R REVENUE FORECASTS | SYSTRA | | | | | | | | 2 | 2 |
| 4.1.6 | PREPARE POWERPOINT PRESENTATION AND PRESENT UP TO 2 UPDATES | BGE/SYSTRA | 8 | 24 | 8 | | | | | 2 | 42 |
| | SUBTOTAL | | 12 | 34 | 16 | 0 | 0 | 0 | 0 | 12 | 74 |

FEE PROPOSAL
Brown & Gay Engineers, Inc.
Collin County Outer Loop Phase 1 T&R Study

| TASK | DESCRIPTION | FIRM | SR. Tech | SR. | SENIOR | | | GIC | CADD | PROJ | TOTAL |
|--|---|-----------|----------|-----------|-----------|----------|----------|----------|----------|----------|-----------|
| MANHOUR ESTIMATE PER SHEET - Brown & Gay Engineers, Inc. | | | ADVISOR | PROJ MGR | ENGR | ENGINEER | EIT | Tech | TECH | ADMIN | |
| 5 | PROJECT MANAGEMENT/ADMINISTRATION | | | | | | | | | | |
| 5.1 | SCHEDULE, PROGRESS REPORTS, AND INVOICES | | | | | | | | | | |
| 5.1.1 | PREPARE AND MAINTAIN MILESTONE SCHEDULE | BGE | | 4 | | | | | | 2 | 6 |
| 5.1.2 | PREPARE AND SUBMIT MONTHLY PROGRESS REPORTS | BGE | | 4 | | | | | | 2 | 6 |
| 5.2 | PROGRESS MEETINGS | | | | | | | | | | |
| 5.2.1 | PREPARE FOR AND ATTEND UP TO 4 MEETINGS WITH COLLIN COUNTY STAFF | BGE/SYSTR | 4 | 8 | | | | | | | 12 |
| 5.3 | MISCELLANEOUS COORDINATION MEETINGS | | | | | | | | | | |
| 5.3.1 | PREPARE FOR AND ATTEND UP TO 4 MEETINGS WITH CONSULTANTS & AGENCIES | BGE/SYSTR | 2 | 8 | | | | | | | 10 |
| 5.4 | SUBCONSULTANT MANAGEMENT | | | | | | | | | | |
| 5.4.1 | PREPARE SUBCONTRACTS, DIRECT AND MONITOR ACTIVITES AND REVIEW WORK | BGE | 2 | 12 | | | | | | | 14 |
| 5.5 | QUALITY ASSURANCE/QUALITY CONTROL | | | | | | | | | | |
| 5.5.1 | PERFORM INDEPENDENT QA/QC REVIEW PERIODICALLY & PRIOR TO EACH SUBMITTAL | BGE/SYSTR | | | 32 | | | | | | 32 |
| | SUBTOTAL | | 8 | 36 | 32 | 0 | 0 | 0 | 0 | 4 | 80 |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | | | | | | | | | | | |
| | | | 8 | 32 | 12 | 48 | 0 | 0 | 24 | 16 | 140 |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | | | | | | | | | | | |
| | | | 1 | 2 | 0 | 12 | 0 | 0 | 0 | 0 | 15 |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | | | | | | | | | | | |
| | | | 3 | 16 | 0 | 34 | 0 | 0 | 0 | 0 | 53 |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | | | | | | | | | | | |
| | | | 12 | 34 | 16 | 0 | 0 | 0 | 0 | 12 | 74 |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL | | | | | | | | | | | |
| | | | 2 | 20 | 32 | 0 | 0 | 0 | 0 | 4 | 58 |
| | MEETINGS (MAX AMOUNT NOT TO EXCEED) | | 6 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| TOTAL HOURS | | | | | | | | | | | |
| | | | 32 | 120 | 60 | 94 | 0 | 0 | 24 | 32 | 362 |

FEE PROPOSAL
 SYSTRA Mobility, Inc.
 Collin County Outer Loop Phase 1 T&R Study

Collin County Outer Loop - IH 35 (Denton Co.) to IH 30 (Rockwall Co.)

| MANHOUR COST SUMMARY - SYSTRA Mobility (SYSTRA) | SR. T&R | SR. | SENIOR | | TRAFFIC | TRAFFIC | | PROJ | |
|---|--------------|-------------|----------------------------------|-----------|--------------|-----------------------|-----------------------|-------------|---------------|
| | ADVISOR | PROJ MGR | ENGR | ENGINEER | MODELER II | MODELER I | TECH | ADMIN | TOTAL |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | 24 | 0 | 52 | 0 | 32 | 104 | 0 | 0 | 212 |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | 0 | 0 | 56 | 0 | 80 | 136 | 0 | 0 | 272 |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | 28 | 0 | 56 | 0 | 120 | 180 | 0 | 0 | 384 |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | 20 | 0 | 16 | 0 | 48 | 20 | 0 | 0 | 104 |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| Meetings (Max Amount not to Exceed) | 64 | 0 | 24 | 0 | 0 | 0 | 0 | 80 | 168 |
| TOTAL HOURS | 136 | 40 | 204 | 0 | 280 | 440 | 0 | 80 | 1180 |
| MANHOUR RATES | \$ 295.68 | \$ 145.00 | \$ 157.08 | \$ 118.00 | \$ 138.35 | \$ 80.05 | \$ 71.00 | \$ 76.69 | |
| TOTAL DIRECT LABOR COSTS | \$ 40,212.48 | \$ 5,800.00 | \$ 32,044.32 | \$ - | \$ 38,738.00 | \$ 35,222.00 | \$ - | \$ 6,135.20 | \$ 158,152.00 |
| EXPENSE COST SUMMARY - SYSTRA Mobility (SYSTRA) | | | TRAVEL | COLOR | BOND | COPIES | COPIES | MYLAR | EXPENSE |
| | | | AIRFARE/ HOTEL/ RENTAL CAR | PLOTS | PLOTS | (LETTER) (at cost) | (LEDGER) (at cost) | PLOT | TOTAL |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | | | | | | | | \$ - | \$ - |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | | | | | | | | \$ - | \$ - |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | | | | | | | | \$ - | \$ - |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | | | | | | | | \$ - | \$ - |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL (MAX NOT TO EXCEED) | | | \$ 3,600.00 | | | | | \$ - | \$ 3,600.00 |
| TOTALS | | | \$ 3,600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 3,600.00 |
| FEE SUMMARY - SYSTRA Mobility (SYSTRA) | | | | | | HOURS | TOTAL | EXPENSES | TOTAL |
| | | | | | | | LABOR | | |
| TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | | | | | | 212 | \$ 28,016.88 | \$ - | \$ 28,016.88 |
| TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | | | | | | 272 | \$ 30,751.28 | \$ - | \$ 30,751.28 |
| TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | | | | | | 384 | \$ 48,086.52 | \$ - | \$ 48,086.52 |
| TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | | | | | | 104 | \$ 16,668.68 | \$ - | \$ 16,668.68 |
| TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL | | | | | | 208 | \$ 34,628.64 | \$ 3,600.00 | \$ 38,228.64 |
| TOTALS | | | | | | 1,180 | \$ 158,152.00 | \$ 3,600.00 | \$ 161,752.00 |

FEE PROPOSAL
 SYSTRA Mobility, Inc.
 Collin County Outer Loop Phase 1 T&R Study

| MANHOUR ESTIMATE PER SHEET - SYSTRA Mobility (SYSTRA) | | | | | | | | | | | |
|---|---|------------|-----------|----------|-----------|----------|------------|------------|----------|----------|------------|
| TASK | DESCRIPTION | FIRM | SR. T&R | SR. | SENIOR | | TRAFFIC | TRAFFIC | | PROJ | TOTAL |
| | | | ADVISOR | PROJ MGR | ENGR | ENGINEER | MODELER II | MODELER I | TECH | ADMIN | |
| 1 | DATA COLLECTION & ASSUMPTIONS DEVELOPMENT | | | | | | | | | | |
| 1.1 | COLLECT AND ANALYZE EXISTING DATA | | | | | | | | | | |
| 1.1.1 | COLLECT HIST & FORECASTED DEMOGRAPHIC AND THOROUGHFARE DATA | BGE | | | | | | | | | 0 |
| 1.1.2 | SECURE NCTCOG DFWRTM MODEL AND DETERMINE AREAS TO EXPAND (BENCHMARK) | BGE/SYSTRA | 8 | | 32 | | 24 | 100 | | | 164 |
| 1.2 | DEVELOP ASSUMPTIONS AND REPORT EXHIBITS | | | | | | | | | | |
| 1.2.1 | DEVELOP TOLLING ASSUMPTION, PAYMENT VARIATION, ESCALATION, TRUCK/PASS | BGE/SYSTRA | 8 | | 20 | | 8 | 4 | | | 40 |
| 1.2.2 | DEVELOP 3-LANE TYPICAL SECTION EXHIBIT (8.5X11) | BGE | | | | | | | | | 0 |
| 1.2.3 | DEVELOP OVERALL PROJECT LAYOUT EXHIBIT (11X17) | BGE | | | | | | | | | 0 |
| 1.2.4 | DEVELOP PROJECT CONFIGURATION STICK FIGURE (11X17) | BGE | | | | | | | | | 0 |
| 1.2.5 | DEVELOP PROJECT IMPLEMENTATION TIMELINE (8.5X11) | BGE/SYSTRA | 4 | | | | | | | | 4 |
| 1.2.6 | COORDINATE WITH COUNTY REGARDING ASSUMPTIONS | BGE/SYSTRA | 4 | | | | | | | | 4 |
| | SUBTOTAL | | 24 | 0 | 52 | 0 | 32 | 104 | 0 | 0 | 212 |
| 2 | DFW REGIONAL TRAVEL DEMAND MODEL UPDATE | | | | | | | | | | |
| 2.1 | FORECAST DEMOGRAPHICS & UPDATE REGIONAL TRAVEL DEMAND MODEL | | | | | | | | | | |
| 2.1.1 | FORECAST DEMOGRAPHIC DATA FOR 50-YEAR HORIZON | SYSTRA | | | 16 | | 24 | 40 | | | 80 |
| 2.1.2 | COORDINATE WITH COUNTY AND NCTCOG FOR DEMOGRAPHIC RESULTS | BGE/SYSTRA | | | 8 | | 16 | 16 | | | 40 |
| 2.1.3 | UPDATE REGIONAL TDM WITH DEMOGRAPHIC AND THOROUGHFARE DATA | BGE/SYSTRA | | | 32 | | 40 | 80 | | | 152 |
| | SUBTOTAL | | 0 | 0 | 56 | 0 | 80 | 136 | 0 | 0 | 272 |
| 3 | TRAFFIC AND TOLL REVENUE ANALYSIS | | | | | | | | | | |
| 3.1 | DEVELOP TRAFFIC FORECAST FOR NO-TOLL SCENARIO | | | | | | | | | | |
| 3.1.1 | DETERMINE PROJECTED TRAFFIC FOR NON-TOLLED FACILITY | SYSTRA | 4 | | 8 | | 24 | 40 | | | 76 |
| 3.2 | DEVELOP AND ANALYZE PROJECT PHASING SCENARIOS | | | | | | | | | | |
| 3.2.1 | BASELINE SCENARIO WITH ASSUMED PHASING OF SEGMENTS/INTERCHANGES | SYSTRA | 8 | | 16 | | 16 | 16 | | | 56 |
| 3.2.2 | TWO ALTERNATIVES WITH VARIATION IN PROJECT IMPLEMENTATION | SYSTRA | 4 | | 8 | | 24 | 32 | | | 68 |
| 3.2.3 | PERFORM TOLL OPTIMIZATION ANALYSIS USING BASELINE SCENARIOS | SYSTRA | 4 | | 8 | | 16 | 32 | | | 60 |
| 3.3 | TRAFFIC AND TOLL REVENUE FORECASTING | | | | | | | | | | |
| 3.3.1 | PERFORM THREE SERIES OF T&R RUNS INCLUDING RAMP UP AND EVASION | SYSTRA | 8 | | 16 | | 40 | 60 | | | 124 |
| | SUBTOTAL | | 28 | 0 | 56 | 0 | 120 | 180 | 0 | 0 | 384 |
| 4 | T&R REPORT DEVELOPMENT | | | | | | | | | | |
| 4.1 | PRESENTATION OF FINDINGS | | | | | | | | | | |
| 4.1.1 | PREPARE EXECUTIVE SUMMARY | BGE/SYSTRA | 4 | | | | | | | | 4 |
| 4.1.2 | PREPARE TABLE OF HISTORICAL POPULATION ANDN EMPLOYMENT GROWTH | BGE/SYSTRA | 2 | | | | | | | | 2 |
| 4.1.3 | PREPARE TABLE OF FORECASTED POPULATION AND EMPLOYMENT GROWTH | BGE/SYSTRA | 2 | | | | | | | | 2 |
| 4.1.4 | PREPARE TOLL SENSITIVITY CURVE EXHIBITS | SYSTRA | 4 | | 8 | | 16 | 4 | | | 32 |
| 4.1.5 | PREPARE TABLES FOR UP TO 3 T&R REVENUE FORECASTS | SYSTRA | 4 | | 8 | | 32 | 16 | | | 60 |
| 4.1.6 | PREPARE POWERPOINT PRESENTATION AND PRESENT UP TO 2 UPDATES | BGE/SYSTRA | 4 | | | | | | | | 4 |
| | SUBTOTAL | | 20 | 0 | 16 | 0 | 48 | 20 | 0 | 0 | 104 |

FEE PROPOSAL
 SYSTRA Mobility, Inc.
 Collin County Outer Loop Phase 1 T&R Study

| TASK | DESCRIPTION | FIRM | SR. T&R | SR. | SENIOR | | TRAFFIC | TRAFFIC | | PROJ | TOTAL |
|-------|---|------------|------------|-----------|------------|----------|------------|------------|----------|-----------|-------------|
| | MANHOUR ESTIMATE PER SHEET - SYSTRA Mobility (SYSTRA) | | ADVISOR | PROJ MGR | ENGR | ENGINEER | MODELER II | MODELER I | TECH | ADMIN | |
| 5 | PROJECT MANAGEMENT/ADMINISTRATION | | | | | | | | | | |
| 5.1 | SCHEDULE, PROGRESS REPORTS, AND INVOICES | | | | | | | | | | |
| 5.1.1 | PREPARE AND MAINTAIN MILESTONE SCHEDULE | BGE | | | | | | | | | 0 |
| 5.1.2 | PREPARE AND SUBMIT MONTHLY PROGRESS REPORTS | BGE | | | | | | | | | 0 |
| 5.2 | PROGRESS MEETINGS | | | | | | | | | | |
| 5.2.1 | PREPARE FOR AND ATTEND UP TO 4 MEETINGS WITH COLLIN COUNTY STAFF | BGE/SYSTRA | 40 | | 8 | | | | | 40 | 88 |
| 5.3 | MISCELLANEOUS COORDINATION MEETINGS | | | | | | | | | | |
| 5.3.1 | PREPARE FOR AND ATTEND UP TO 4 MEETINGS WITH CONSULTANTS & AGENCIES | BGE/SYSTRA | 24 | | 16 | | | | | 40 | 80 |
| 5.4 | SUBCONSULTANT MANAGEMENT | | | | | | | | | | |
| 5.4.1 | PREPARE SUBCONTRACTS, DIRECT AND MONITOR ACTIVITES AND REVIEW WORK | BGE | | | | | | | | | 0 |
| 5.5 | QUALITY ASSURANCE/QUALITY CONTROL | | | | | | | | | | |
| 5.5.1 | PERFORM INDEPENDENT QA/QC REVIEW PERIODICALLY & PRIOR TO EACH SUBMITTAL | BGE/SYSTRA | | 40 | | | | | | | 40 |
| | SUBTOTAL | | 64 | 40 | 24 | 0 | 0 | 0 | 0 | 80 | 208 |
| | TASK 1 (DATA COLLECTION & ASSUMPTIONS DEVELOPMENT) TOTAL | | 24 | 0 | 52 | 0 | 32 | 104 | 0 | 0 | 212 |
| | TASK 2 (TRAVEL DEMAND MODEL DEVELOPMENT)TOTAL | | 0 | 0 | 56 | 0 | 80 | 136 | 0 | 0 | 272 |
| | TASK 3 (TRAFFIC AND TOLL REVENUE ANALYSIS) TOTAL | | 28 | 0 | 56 | 0 | 120 | 180 | 0 | 0 | 384 |
| | TASK 4 (T&R REPORT DEVELOPMENT)TOTAL | | 20 | 0 | 16 | 0 | 48 | 20 | 0 | 0 | 104 |
| | TASK 5 (PROJECT MANAGEMENT/ADMINISTRATION)TOTAL | | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| | Meetings (Max Amount not to Exceed) | | 64 | 0 | 24 | 0 | 0 | 0 | 0 | 80 | 168 |
| | TOTAL HOURS | | 136 | 40 | 204 | 0 | 280 | 440 | 0 | 80 | 1180 |

EXHIBIT “D”

INFORMATION TO BE PROVIDED BY THE COUNTY

The CCTRA will make available to Engineer any and all information, data, etc. as it may have in its possession relating to the project described herein.

EXHIBIT "E"

INSURANCE REQUIREMENTS

1.0 Before commencing work, the vendor shall be required, at its own expense, to furnish the Collin County Purchasing Agent with certified copies of all insurance certificate(s) required by Texas Law indicating the coverage is to remain in force throughout the term of this contract. In addition to any coverage required by Texas Law, the vendor shall provide the following coverages.

1.1 Broad Form Commercial General Liability insurance at minimum combined single limits of (\$1,000,000 per-occurrence and \$2,000,000 general aggregate) for bodily injury and property damage, which coverage shall include products/completed operations, independent contractors, and contractual liability each at \$1,000,000 per occurrence. Coverage must be written on an occurrence form.

1.2 Workers Compensation insurance at statutory limits, including employers liability coverage at minimum limits. In addition to these, the contractor must meet each stipulation below as required by the Texas Department of Insurance, Division of Workers' Compensation; (Note: If you have questions concerning these requirements, you are instructed to contact the DWC.

1.2.1 Definitions: Certificate of coverage ("certificate"). A copy of a certificate of authority to self-insure issued by the commission, or a coverage agreement in a form approved by the DWC (i.e. DWC-81, DWC-82, DWC-83, OR DWC-84), showing statutory workers compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project. Duration of the project includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

Persons providing services on the project includes, but is not limited to, all persons or entities performing all or part of the services the contractor has undertaken to perform on the project, regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project.

1.2.2 The contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Title 5 of the Texas Labor Code, for all employees of the contractor providing services on the project, for the duration of the project.

1.2.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract.

1.2.4 If the coverage period shown on the contractor's current certificate of coverage ends during the duration of the project, the contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

1.2.5 The contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

1.2.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

1.2.5.2 no later than seven (7) days after receipt by the contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

1.2.6 The contractor shall retain all required certificates of coverage for the duration of the project and for one year thereafter.

1.2.7 The contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

1.2.8 The contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Workers Compensation Commission, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

1.2.9 The contractor shall contractually require each person with whom it contracts to provide services on a project, to:

1.2.9.1 provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Title 5 of the Texas Labor Code, for all of its employees providing services on the project, for the duration of the project;

1.2.9.2 provide to the contractor, prior to that person beginning work on the project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project;

1.2.9.3 provide the contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

1.2.9.4 obtain from each other person with whom it contracts, and provide to the contractor:

1.2.9.4.1 a certificate of coverage, prior to the other person beginning work on the project; and

1.2.9.4.2 a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the project;

1.2.9.5 retain all required certificates of coverage on file for the duration of the project and for one year thereafter;

1.2.9.6 notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

1.2.9.7 contractually require each person with whom it contracts, to perform as required by paragraphs 1.2.1 through 1.2.7, with the certificates of coverage to be provided to the person for whom they are providing services.

1.2.10 By signing this contract or providing or causing to be provided a certificate of coverage, the contractor is representing to the governmental entity that all employees of the contractor who will provide services on the project will be covered by workers compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

1.2.11 The contractor's failure to comply with any of these provisions is a breach of contract by the contractor which entitles the governmental entity to declare the contract void if the contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

1.3 Commercial Automobile Liability insurance shall be no less than \$500,000 combined single limits per accident for bodily injury and property damage, including owned, non-owned, and hired vehicle coverage.

1.4 Professional Liability Insurance at minimum limits of \$1,000,000. This policy must have a two (2) year extended period of coverage, (i.e. tail coverage). If you choose to have project coverage endorsed onto your base policy, this would be acceptable.

2.0 The required limits may be satisfied by any combination of primary, excess or umbrella liability insurances, provided the primary policy complies with the above requirements and the excess umbrella is following form. The vendor may maintain reasonable and customary deductibles, subject to approval by the Collin County Toll Road Authority.

3.0 With reference to the foregoing insurance requirement, the vendor shall endorse applicable insurance policies as follows:

3.1 A waiver of subrogation in favor of the Collin County Toll Road Authority, its officials, employees, volunteers and officers shall be contained in the workers compensation coverage.

3.2 The vendor's insurance coverage shall name the Collin County Toll Road Authority as additional insured under the General Liability policy.

3.3 All insurance policies shall be endorsed to require the insurer to immediately notify the Collin County Toll Road Authority of any decrease in the insurance coverage limits.

3.4 All insurance policies shall be endorsed to the effect that the Collin County Toll Road Authority will receive at least thirty (30) days notice prior to cancellation, non-renewal or termination of the policy.

3.5 All copies of Certificates of Insurance shall reference the project/contract number.

4.0 All insurance shall be purchased from an insurance company that meets the following requirements:

4.1 A financial rating of B+VII or better as assigned by the BEST Rating Company or equivalent.

5.0 Certificates of Insurance shall be prepared and executed by the insurance company or its authorized agent, and shall contain provisions representing and warranting the following:

5.1 Sets forth all endorsements and insurance coverages according to requirements and instructions contained herein.

5.2 Sets forth the notice of cancellation or termination to the Collin County Toll Road Authority.

EXHIBIT "F"

AFFIDAVIT OF NO PROHIBITED INTEREST

I, the undersigned, declare and affirm that no person or officer in this sole proprietorship, partnership, or corporation, whatever the case, has or will have during the term of this contract a prohibited interest as that term is defined in Vernon's Texas Codes Annotated, Local Government Code Title 5, Section C, Chapter 171.

I further understand and acknowledge that the existence of a prohibited interest at any time during the term of this contract will render the contract voidable.

Name of Engineer _____

Title of Officer _____

Signature of Officer _____

Date: _____

ACKNOWLEDGMENT

STATE OF TEXAS }

}

COUNTY OF _____ }

BEFORE ME, on this day personally appeared _____, known to me (or proved to me on the oath of _____ or through _____ (description of identity card or other document) to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the _____ day of _____, 2010.

Notary Public, State of Texas

Printed Name

My Commission expires on the _____ day of _____, _____.