

STATE OF TEXAS §

COUNTY OF TRAVIS §

**LOCAL TRANSPORTATION PROJECT  
NON-CONSTRUCTION ADVANCE FUNDING AGREEMENT  
for a  
SH 99 - Market Valuation Traffic & Revenue Study and Peer Review**

**THIS AGREEMENT** (Agreement) is made by and between the State of Texas, acting by and through the Texas Department of Transportation (State), and Harris County Toll Road Authority (Local Government).

**BACKGROUND**

Federal law establishes federally funded programs for transportation improvements to implement its public purposes, including the process for establishing the terms and conditions for the development, construction, and operation of Toll Roads **[INSERT PROGRAM NAME]**. Federal and state laws require local governments to meet certain contract standards relating to the management and administration of State and federal funds. The Texas Transportation Commission passed Minute Order 110974 **[INSERT MINUTE ORDER NUMBER]**, which provides for development of and funding for the Project identified in this Agreement. The Governing Body of the Local Government has approved entering into this Agreement by resolution or ordinance dated \_\_\_\_\_ **[INSERT DATE OF LOCAL GOVERNMENT RESOLUTION OR ORDINANCE]**, which is attached and is made part of the Agreement as Attachment A.

**THEREFORE**, in consideration of the mutual promises contained in this Agreement, the parties agree to the following.

**AGREEMENT**

**1. Period of the Agreement**

This Agreement becomes effective when signed by the last party whose signing makes the Agreement fully executed. This Agreement shall remain in effect until the close of ordinary business on December 1, 2008.

**2. Scope of Work**

The scope of work is the Project as detailed in Attachment B, which is attached and made part of this Agreement.

**3. Local Project Sources and Uses of Funds**

a. The total estimated cost of the Project is shown in Attachment C, which is attached and made part of this Agreement. The State will pay for only those Project costs that have been approved by the Texas Transportation Commission. Any work done prior to federal authorization will not be eligible for reimbursement. It is the Local

Government's responsibility to verify with the State that the Federal Letter of Authority has been issued for the work covered by this Agreement.

- b. The State ~~will be~~ shall be responsible for securing the Federal and State share of the funding required for the Project. If the Local Government is due funds for expenses incurred, these funds ~~will be~~ shall be reimbursed to the Local Government on a cost basis. The Local Government ~~will be~~ shall be responsible for all non-federal and non-State participation costs associated with the Project, including any overruns in excess of the approved local Project budget. If the State determines that additional funding by the Local Government is required at any time during the Project, the State will notify the Local Government in writing. The Local Government shall make payment to the State within thirty (30) days from receipt of the State's written notification. The State will not pay interest on any funds provided by the Local Government.
- c. The Local Government shall request payment by submitting the original of an itemized invoice in a form acceptable to the State. The Local Government may submit an invoice no more frequently than monthly and no later than ninety days after incurring a cost. Each invoice shall itemize charges and shall attach documentation showing the name, hourly rate, and number of hours worked for all labor charges, the basis for allocation of any indirect costs, and copies of invoices for any direct costs over \$1,000.
- d. Whenever funds are paid by the Local Government to the State under this Agreement, the Local Government shall remit a check or warrant made payable to the "Texas Department of Transportation Trust Fund." The check or warrant shall be deposited by the State in an escrow account to be managed by the State. These funds may only be applied to the Project. Upon completion of the Project, the State will perform an audit of the Project costs. Any funds due by the Local Government, the State, or the Federal government ~~will be~~ shall be promptly paid by the owing party. After final Project accounting, if excess funds remain in the escrow account, those funds may be applied by the State to the Local Government's contractual obligations to the State under another advance funding agreement.
- e. If the Project has been approved for a fixed price or incremental payments under 43 TAC §15.52, Attachment C will clearly state the amount of the fixed price or the incremental payment schedule. If the Local government is an Economically Disadvantaged County and if the State has approved adjustments to the standard financing arrangement, Attachment C will reflect those adjustments.
- f. The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the Agreement or indirectly through a subcontract under the Agreement. Acceptance of funds directly under the Agreement or indirectly through a subcontract under this Agreement acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. An entity that is the subject of an audit or investigation must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

#### 4. Termination

This Agreement may be terminated:

- a. by mutual consent of the parties;
- b. by one party because of a material breach by the other party, in which case the breaching party shall pay any costs incurred because of the breach; or

c. by the State if the Local Government elects not to provide its share of funding, in which case the Local Government shall pay for the State's reasonable actual costs during the Project.

**5. Amendments**

Amendments to this Agreement shall be in writing and shall be executed by both parties.

**6. Remedies**

This Agreement shall not be considered as specifying the exclusive remedy for any default. All legal remedies may be pursued by either party and shall be cumulative.

**7. Notices**

All notices to either party by the other under this Agreement shall be delivered personally or sent by certified or U.S. mail, postage prepaid, addressed to such party at the following addresses:

**Local Government:**

Executive Director  
Harris County  
1001 Preston, 7th Floor  
Houston, Texas 77002

**State:**

District Engineer  
Texas Department of Transportation  
P. O. Box 1386  
Houston, Texas 77251-1386

All notices shall be deemed given on the date delivered or deposited in the mail. Either party may change the above address by sending written notice of the change to the other party. Either party may request in writing that notices shall be delivered personally or by certified U.S. mail, and the request shall be carried out by the other party.

**8. Legal Construction**

If any provision in this Agreement is for any reason held to be invalid, illegal, or unenforceable in any respect, that invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement. In that case, this Agreement shall be construed as if the invalid, illegal, or unenforceable provision had never been contained in it.

**9. Responsibilities of the Parties**

Each party acknowledges that it is not an agent, servant, or employee of the other party. Each party is responsible for its own acts and deeds and for those of its agents, servants, or employees.

**10. Ownership of Documents**

Upon completion or termination of this Agreement, all documents prepared by the State shall remain the property of the State. All data prepared under this Agreement shall be made available to the State without restriction or limitation on further use. All documents produced or approved or otherwise created by the Local Government shall be transmitted to the State in the form of photocopy reproduction on a monthly basis as required by the State. The originals shall remain the property of the Local Government.

**11. Compliance with Laws**

The parties shall comply with all federal, state, and local laws, statutes, ordinances, rules, and regulations and with the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this agreement. After receiving a written request from the State, the Local Government shall furnish the State with satisfactory proof of its compliance with this Article.

**12. Sole Agreement**

This Agreement supersedes any prior understandings or written or oral agreements respecting the Agreement's subject matter.

**13. Cost Principles**

To be reimbursed with federal funds, the parties shall comply with the Cost Principles established in OMB Circular A-87.

**14. Procurement and Property Management Standards**

The parties shall comply with the procurement standards established in 49 CFR §18.36, the property management standard established in 49 CFR §18.32, and the supply standard established in 49 CFR § 18.33.

**15. Inspection of Books and Records**

The parties shall maintain all books, documents, papers, accounting records, and other documentation relating to costs incurred under this Agreement and shall make those materials available to the State and the Local Government. If the Agreement involves federal funds, the same materials shall be made available to the Federal Highway Administration (FHWA), the U.S. Office of the Inspector General, and their authorized representatives for review and inspection. Records shall be maintained for four (4) years from the termination of this Agreement or until any related litigation or claims are resolved, whichever is later. Additionally, the State, the Local Government, the FHWA, and their duly authorized representatives shall have access to all the governmental records that are directly applicable to this Agreement for the purpose of making audits, examinations, excerpts, and transcriptions.

**16. Office of Management and Budget (OMB) Audit Requirements**

The parties shall comply with the requirements of the Single Audit Act of 1984, 31 USC §7501 et seq., and with the coverage stipulated in OMB Circular A-133.

**17. Civil Rights Compliance**

The Local Government shall comply with the regulations of the Department of Transportation as they relate to nondiscrimination, 49 CFR Chapter 21 and 23 CFR §710.405(B), and with Executive Order 11246, as amended by Executive Order 11375 and supplemented in 41 CFR Part 60.

**18. Disadvantaged Business Enterprise Program Requirements**

The parties shall comply with the Disadvantaged/Minority Business Enterprise Program requirements established in 49 CFR Part 26.

## 19. Debarment Certifications

The parties are prohibited from making any award at any tier to any party that is debarred or suspended or otherwise excluded from or ineligible for participation in Federal Assistance Programs under Executive Order 12549. The parties to this Agreement shall require any party to a subcontract or purchase order awarded under this Agreement to certify its eligibility to receive Federal funds and, when requested by the State, to furnish a copy of the certification in accordance with 49 CFR Part 29.

## 20. Lobbying Certification

In executing this Agreement, the signatories certify to the best of their knowledge and belief, that:

- a. No federal appropriated funds have been paid or ~~will be~~ shall be paid by or on behalf of the parties to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- b. If any funds other than federal appropriated funds have been paid or ~~will be~~ shall be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with federal contracts, grants, loans, or cooperative agreements, the signatory for the Local Government shall complete and submit the federal Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- c. The parties shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

By executing this Agreement, the parties affirm this lobbying certification with respect to the individual projects and affirm this certification of the material representation of facts upon which reliance ~~will be~~ shall be made. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Title 31 U.S.C. §1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

**21. Signatory Warranty**

Each signatory warrants that the signatory has necessary authority to execute this agreement on behalf of the entity represented.

**THEREFORE**, the parties have executed this Agreement in duplicate originals.

**THE LOCAL GOVERNMENT**

\_\_\_\_\_  
Name

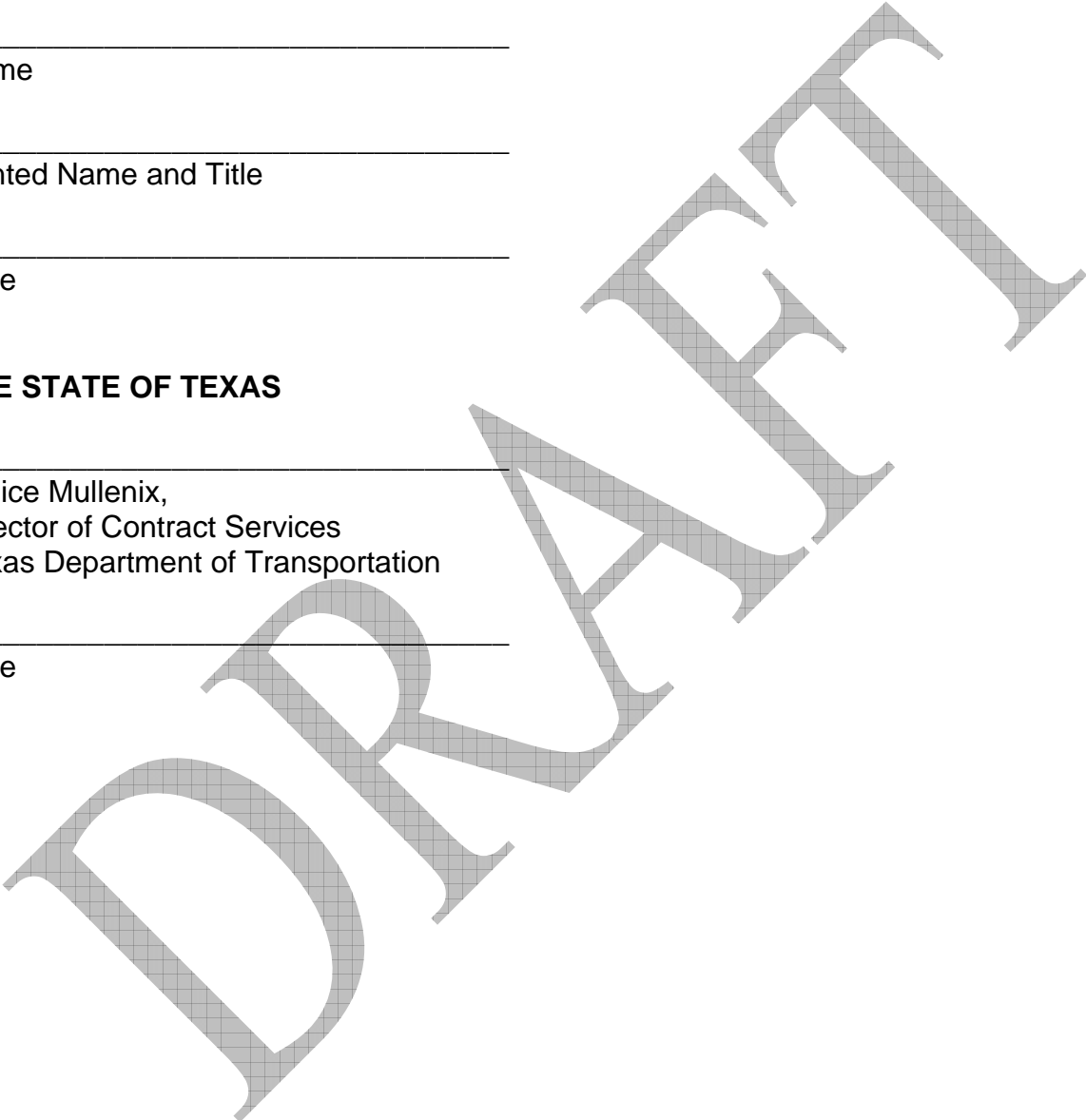
\_\_\_\_\_  
Printed Name and Title

\_\_\_\_\_  
Date

**THE STATE OF TEXAS**

\_\_\_\_\_  
Janice Mullenix,  
Director of Contract Services  
Texas Department of Transportation

\_\_\_\_\_  
Date



**ATTACHMENT A**

**Resolution or Ordinance**

**DRAFT**

## **ATTACHMENT B SCOPE OF WORK**

The State and the Local Government agree that the scope of this project is to conduct a traffic and revenue study for the SH 99 Project, as required by Senate Bill (SB) 792. The State and the Local Government agree that Wilbur Smith Associates (WSA) will perform the traffic and revenue study and URS Corporation (URS) will perform the peer review of the traffic and revenue study.

The traffic and revenue study to be performed by WSA shall be comprised the tasks identified in Exhibit 1 to Attachment B. The peer review of the traffic and revenue study shall be comprised of the tasks identified in Exhibit 2 to Attachment B.

The State and the Local Government agree that the proposed traffic and revenue study with peer review ~~will be~~ shall be completed by August 31, 2008.

DRAFT

## EXHIBIT 1

### WILBUR SMITH SCOPE OF WORK

A comprehensive work program has been developed to meet each of the specific objectives of the study, and designed specifically to yield a more detailed analytical result. As defined in more detail below, the study ~~will~~ ~~be~~ shall be comprised of a total of 8 tasks, including:

- Task 1: Mobilization;
- Task 2: Data Collection;
- Task 3: Economic Growth Analysis;
- Task 4: Regional Model Update;
- Task 5: Traffic and Revenue Analysis;
- Task 6: Documentation and Meetings;
- Task 7: Interface with Independent Traffic Advisor, and
- Task 8: Risk Analysis and Equity Adjustments

Following completion of the basic study, as noted above, the WSA team ~~would~~ shall remain available to provide additional services as needed during the actual valuation process. This might include additional scenario testing, providing clarifications on basic study findings or other activities. ~~It is assumed that such a~~ Additional information shall ~~would~~ be provided to both of the agencies for which the study is being performed. Since it is not possible to know the precise level of effort, if any, which ~~would be~~ may be required following completion of the basic study, compensation for these supplemental services ~~would be~~ shall be based on a “time and materials” basis.

#### TASK 1: MOBILIZATION

The study will commence immediately upon receipt of notice-to-proceed. It ~~will be~~ shall begin with a refinement of the study approach and an early kick-off meeting in Houston to officially begin the work.

At that kick-off meeting, it ~~will be~~ shall be important to discuss with the Stakeholders details and physical limitations of the project as currently envisioned as well as exploring the various possible dimensions of the project’s configurations and operations plans which will need to be considered and the possible institutional and regulatory issues associated with them.

In addition, it ~~would be~~ is important to discuss the potential project segments, and combinations of the segments, to be analyzed in the study. It is clear that at least one of the scenarios to be tested ~~would~~ shall include the entire 200-mile Grand Parkway facility. However, it is not unlikely that additional, partial project, scenarios ~~would be~~ shall be requested. ~~The budget proposed for this study assumes that a~~ Up to six scenarios ~~will be~~ shall be analyzed within the study time frame and budget. It is hoped at least four of these project scenarios ~~can be~~ shall be identified at the outset of the study, namely at the kick-off meeting. If necessary, WSA could proceed with the first four basic scenarios, with two additional scenarios to be potentially added after initial study findings are developed.

Finally, it will also be important to discuss toll collection concepts at the kick-off meeting. It is understood that TxDOT is moving toward full Open Road Tolling concepts; HCTRA typically utilizes a combination of electronic and cash collection. It ~~will be~~ shall be useful to establish mutually agreeable guidelines regarding toll collection assumptions at the outset of the study. Harris County recently enacted a long term toll rate policy for its system. It is understood that revenue estimates for Grand Parkway ~~will be~~ shall be based on the current HCTRA policy, including future toll adjustments for one case; one alternative forecast ~~would~~ shall also be developed using an alternative set of rate assumptions following the toll sensitivity analysis, if requested by the study parties.

In addition, staffing, lines of communication and other items regarding project administration ~~will~~ shall be discussed and agreed.

## **TASK 2: DATA COLLECTION**

An extensive data collection program ~~will~~ shall be undertaken in this task. All available prior studies on the Grand Parkway corridor ~~will~~ shall be obtained and reviewed. This includes any available reports or other documentation regarding the planned construction of the Grand Parkway.

This task will also include assembly of complete updated information on the regional transportation improvement program. This shall ~~will~~ include, ~~of course~~, details about the planned expansion of U.S. 290 and any other improvements. WSA ~~will~~ shall review in detail other future projects that could significantly impact the Grand Parkway, e.g. Katy Tollway, Beltway 8 Northeast, I-69, etc. In addition, any competing planned capacity improvements to the highway system ~~will~~ shall be obtained. Information on any planned transit initiatives ~~will~~ shall be inventoried, reviewed and incorporated into the network of facilities and services.

WSA staff ~~will~~ shall perform a field review of the entire project corridor, including driving existing competing and complimentary routes. This ~~will~~ shall primarily be to allow staff to become familiar with the corridor, as it now exists; WSA recognizes in many area the corridor ~~will~~ shall be much more developed by the time Grand Parkway is implemented.

All available traffic count information in the corridor, as obtained by TxDOT, HCTRA, H-GAC, or others ~~will~~ shall be assembled and reviewed. WSA understands that H-GAC has a large number of recent traffic counts around the region which ~~will~~ shall be made available to WSA for use in the study. This ~~will~~ shall be supplemented by a comprehensive program of machine traffic counts conducted by WSA and its sub consultants. For budget purposes, ~~WSA assumes~~ 48-hour counts ~~will~~ shall be obtained at up to 60 locations in the region.

It ~~will~~ is also ~~be~~ important to get as much information as possible regarding future development and thoroughfare plans for the various communities to be served by Grand Parkway. These ~~will~~ shall then be compared with the network architecture in the latest available H-GAC regional model for possible updating in the project corridor.

## **TASK 3: ECONOMIC GROWTH ANALYSIS**

Socioeconomic growth forecasts are important in developing traffic and revenue forecasts for any facility. They are particularly critical on a new “green field” project such as the proposed Grand Parkway. WSA ~~would~~ shall obtain the latest official socioeconomic forecast for the greater H-GAC region. These ~~would~~ shall be thoroughly reviewed and analyzed by major project segment.

Given the location of the proposed Grand Parkway, it is likely that the presence, or absence, of the Grand Parkway ~~will~~ shall significantly influence development patterns. H-GAC has advised that it ~~will~~ shall be able to provide alternative demographic forecasts for the project corridor, with and without Grand Parkway. This ~~will~~ shall be extremely valuable to the modeling efforts and the estimation of traffic and revenue on Grand Parkway.

WSA ~~would~~ shall prepare tabulations and graphics depicting growth estimates incorporated in the latest H-GAC model process. WSA ~~would~~ shall also obtain information regarding income and other demographics characteristics in each project segment of the overall Grand Parkway corridor.

#### **TASK 4: REGIONAL MODEL UPDATE**

As part of this task, WSA ~~will~~ shall obtain the latest H-GAC regional model. We are already in possession of a fairly recent version but understand that H-GAC have been working on updates to plans and models; discussions ~~will~~ ~~be~~ shall be held with H-GAC to determine if any later information is available, including any later socioeconomic forecasts, trip tables, or network.

As part of this task, adjustments ~~will~~ shall also be made to trip tables to reflect any socioeconomic changes which arise from implementation of Grand Parkway, as estimated by HGAC land use models. If possible, WSA ~~will~~ shall solicit the assistance of H-GAC in the trip table adjustment process, or possibly provide staff in the H-GAC offices to assist in the trip table development.

The model ~~will be~~ shall be calibrated in the Grand Parkway corridor, by comparing “no build” traffic assignment results with traffic counts obtained from TxDOT count locations and new counts obtained by the WSA team. After achieving a reasonable level of calibration, the various project segments ~~would be~~ shall be coded into the model. Segments ~~would be~~ shall be coded in a manner to allow inclusion or exclusion depending on particular project scenario.

As needed, WSA ~~will~~ shall also add additional elements of the major planned thoroughfares in the project vicinity that may not yet be in the HGAC future year networks.

An evaluation of alternative toll collection concepts ~~would be~~ shall be undertaken, using guidance provided by the agencies during the kick-off meeting. Toll collection locations ~~would be~~ shall be identified, and coded into the model. In addition, potential pricing differentials between electronic toll collection and, either cash or video alternatives, ~~would be~~ shall be programmed into the assignment process.

#### **TASK 5: TRAFFIC AND REVENUE ANALYSIS**

With the toll collection concept and the refined regional travel demand model developed in Task 4, Task 5 ~~will~~ shall include the overall traffic and revenue analysis for Grand Parkway. Traffic assignments ~~will be~~ shall be made at the proposed opening year and at least two additional future years, probably 2025 and 2035.

~~For budget purposes,~~ WSA shall evaluate ~~assumes~~ up to six project scenarios ~~will be evaluated~~. This ~~will~~ shall include the full 200-mile project, as well as five partial projects, or phased project alternatives. To the maximum extent possible, these alternative scenarios ~~will be~~ shall be identified at the kick-off meeting. However, it ~~will be~~ shall be possible to defer to retain two alternatives for identification after preliminary study findings have been developed on four other options.

The toll sensitivity assignments discussed below ~~will be~~ shall be conducted for the full project alternative, and possibly one or two other scenarios. Three or four of the subproject options ~~will be~~ shall be analyzed at “optimum” toll rates only. Up to two revenue forecasts ~~will be~~ shall be provided for each option; one using the recently adopted Harris County toll rate setting policy and one possible additional alternative to be identified later.

For each analysis year, traffic assignments ~~will be~~ shall be run under a “no-build,” toll free and alternative toll rate level conditions. It is anticipated that a range of three to five alternative toll rates ~~will be~~ shall be tested to determine optimum levels. This series of assignments ~~will be~~ shall be performed in each analysis year, allowing development of toll sensitivity curves at opening and future-year levels.

Traffic assignments ~~will be~~ shall be made at A.M. peak, P.M. peak and off-peak conditions separately. Results of the traffic assignments ~~will be~~ shall be carefully reviewed for reasonableness, using corridor share, select link and

capture rate analyses. Post-model adjustments ~~will be~~ shall be made to reflect any changes due to calibration errors, and a review ~~will be~~ shall be made of capacity constraints on the facility, and adjacent roads, if necessary.

Based on the traffic and revenue estimates in the assignment years, annual traffic and revenue forecasts ~~will be~~ shall be developed by interpolating intermediate years. Revenue estimates ~~will be~~ shall be adjusted in the early years to reflect an ~~assumed~~ estimated “ramp-up.” Revenues ~~will be~~ shall be based on average toll assumptions, which ~~will~~ shall recognize the anticipated proportion of traffic between passenger cars and commercial vehicles as well as the specific characteristics of the selected toll collection system.

This task ~~will~~ shall conclude with the development of “base case” traffic and revenue estimates for each alternative configuration of Grand Parkway.

#### **TASK 6: DOCUMENTATION AND MEETINGS**

This task ~~will~~ shall extend from the beginning of the work throughout the course of the study and ~~will~~ shall include most of the efforts related to development of documentation and various meetings during the course of the study.

This ~~will~~ shall include a series of technical memoranda to be submitted by WSA at intervals when the information regarding the development of documentation is utilized to include the following, but not limited to, traffic count information used in case studies, any collected 48-hour counts as part this study, graphics depicting growth estimates, demographic characteristic of each project segment, socio-economic forecasts, trip tables in a clearly understood format, toll collection locations, pricing differentials, assumptions in traffic assignments, post model adjustments, capacity constraints / criteria, annual traffic, annual gross revenue, annual operations cost, annual maintenance cost, annual net operating revenue, and a summary at the conclusions of Tasks 3, 4 5,7 and 8 that incorporates and substantiates data in technical memoranda presented at an earlier interval. If, at the conclusion of any task, any earlier documentation is not substantiated then an additional technical memoranda ~~will be~~ shall be submitted at the conclusion of the task.

Documentation ~~will~~ shall also, ~~of course,~~ include a detailed traffic and revenue report, which could be refined later for actual financing. The traffic and revenue report ~~will~~ shall initially be submitted in draft form. After receipt of comments, 25 final copies of the report ~~will be~~ shall be provided, together with originals in hard copy and electronic form.

This task ~~will~~ shall also include various project meetings and coordination efforts throughout the course of the work. In addition to the kick-off meeting under Task 1, there ~~will be~~ shall be monthly meetings, which ~~will~~ shall also be used for coordination and communication with TxDOT and HCTRA and their consultants during the course of the work.

A major presentation of the results ~~will be~~ shall be held at the end of Task 5, and a final presentation of study findings and the draft report ~~can be~~ shall be conducted at the conclusion of the work. In total, our budget estimates ~~assumes~~ up to six meetings including the kick-off meeting, final presentation of findings and all the various intermediate meetings as part of the study.

#### **TASK 7: INTERFACE WITH INDEPENDENT TRAFFIC ADVISOR**

It is understood that ~~WSA should anticipate that~~ a separate Independent Traffic Advisor ~~will be~~ shall be established, representing TxDOT and HCTRA to undertake a peer review of the T&R Forecasts of WSA.

WSA ~~will be~~ shall be available to answer all questions and provide necessary clarifications regarding our study findings and study approach. This excludes providing specific copies of our proprietary software, which is only a small sub-element of the overall modeling process. The basic modeling platform, trip tables, networks, underlying socioeconomic data and all other information collected in the study, ~~will be~~ shall be made available to the Independent Peer Review Advisor and as a deliverable under Task 6.

It is also anticipated that WSA ~~will be~~ shall be requested to perform further sensitivity tests to aide in the development of a Alternative case developed by the Independent Traffic Advisor. Again, WSA has been through this process on numerous occasions and is well aware of this activity. Information collected to develop an Alternative case ~~will be~~ shall be made available as a deliverable under Task 6.

~~The budget assumes~~ ~~T up to~~ three meetings with the Independent Traffic Advisor are included in this scope of work. These meetings shall take place in ~~are assumed to occur in~~ Houston concurrent with study meetings previously referred to.

#### **TASK 8: RISK ANALYSIS AND EQUITY ADJUSTMENTS**

WSA ~~will~~ shall perform a limited number of “Risk Analysis Tests” to show the potential range of revenue impacts which could result from changes in basic assumptions, such as total global demand for the corridor. The ~~It is assumed that the~~ risk analysis ~~sh~~ will be performed for up to 2 of the project configuration alternatives. The risk analysis ~~will~~ shall incorporate Monte Carlo procedures to test the likelihood of key variables affecting the demand and behavioral characteristics of travelers in the corridor. As such, it is envisioned that a socio-economic and value of time risk analysis ~~will be~~ shall be performed to determine the likely range of toll revenue forecast that the toll facilities could potential capture under differing scenarios. It is envisioned that a risk analysis ~~will be~~ shall be performed in two intermediate years, the opening year and a future year. This analysis ~~will~~ shall provide revenue range estimates that ~~will be~~ shall be included as part of the deliverable. The key variables to be tested ~~will~~ shall include:

- Demographic Growth: This ~~will~~ shall look at the population and employment growth scenarios within the region to evaluate the historical trends and existing trends to determine the likelihood of achieving the official demographic forecasts. This probabilistic distribution ~~will be~~ shall be used to determine the joint likelihood of the forecasted occurrences. Interim technical memoranda on Demographic Growth Forecast ~~will be~~ shall be made available as a deliverable under Task 6.
- Willingness to Pay Trends: This will look at the changes in income characteristics within the region for historical and existing trends as a proxy to the travelers’ willingness to pay characteristics. Interim technical memoranda on Willingness to Pay Trends ~~will be~~ shall be made available as a deliverable under Task 6.
- Influential Factors: WSA ~~will~~ shall look at additional quantifiable variables and their respective distribution potential to evaluate their effects on the overall distribution. These variables may include additional sensitivity testing of the variables on the model to determine their overall effect on the revenues for the project. Interim technical memoranda on Influential Factors ~~will be~~ shall be made available as a deliverable under Task 6.

## EXHIBIT 2

### URS CORPORATION SCOPE OF WORK

The ENGINEER (URS) ~~will~~shall conduct a peer review of Wilbur Smith Associates' (WSA) Traffic and Toll Revenue Analysis that ~~will be~~shall be done to support the Market Valuation analysis of The Grand Parkway Toll Road. This work effort ~~will be~~shall be accomplished by completion of the following five (5) tasks:

- Task 1: Project Management / Overall Coordination;
- Task 2: Field Studies Peer Review;
- Task 3: Calibration Peer Review;
- Task 4: Traffic and Toll Revenue Analysis Peer Review; and
- Task 5: Risk Analysis Peer Review.

It is understood that TxDOT ~~will be~~shall be "co-owners" of this contract with Harris County Toll Road Authority (HCTRA) and therefore, client meetings to steer the direction of the Peer Review ~~will~~shall ~~most likely~~ be attended by both TxDOT and HCTRA officials as well as others possibly. Under this assumption, the ENGINEER ~~will~~shall provide updates, analysis and documentation to both TxDOT and HCTRA.

#### **TASK 1: Project Management / Overall Coordination**

The ENGINEER ~~will be~~shall be responsible for complete, concurrent, monitoring of all work progress during the SH 99 Traffic and Toll Revenue Study including the provision of weekly status updates. The ENGINEER ~~will~~shall also compile all intermediate tasks into one consistent and coherent Peer Review document for use in the Market Valuation Process. All meetings and related activities ~~will be~~shall be conducted under this task. It is anticipated that there ~~will be~~shall be up to three meetings with WSA that will occur in Houston to more clearly understand analysis through presentations provided by WSA. These meetings ~~will~~shall help enable URS to advise both HCTRA and TxDOT of possible alternative scenarios to be conducted by WSA that ~~will~~shall aid in the development of the Market Value of the Grand Parkway Toll Road.

The ENGINEER ~~will~~shall review all existing documentation regarding traffic and revenue potential on the Grand Parkway Toll Road. This will provide the foundation to compare the assumptions used by WSA in the analysis.

Deliverable: Weekly status updates until task is complete, Draft and Final Peer Review Technical Memorandum

#### **Task 2: Field Studies Peer Review**

The ENGINEER ~~will~~shall conduct a comprehensive peer review of all Field Studies efforts including, but not limited to, a review of the traffic count screenlines obtained against both existing data and for appropriateness in relation to the study corridor as well as all the speed and delay or travel time runs conducted as part of this effort. All this material ~~will be~~shall be reviewed in order to develop a specific understanding of the reasonableness of such changes to the road network in the travel demand model and the impact that these changes could have on the resultant model runs developed for the project. Finally, the review of all changes to the socioeconomic data imbedded in the model at each of the traffic analysis zone (TAZ) levels ~~will~~shall receive a comprehensive review of assumptions and the resultant datasets to aid in the determination of overall reasonableness in support of traffic generation achieved during the model runs.

Deliverable: Weekly status updates until task is complete, Draft and Final Peer Review Technical Memorandum

### **Task 3: Calibration Peer Review**

Aided by the information reviewed and approved during the above mentioned tasks, The ENGINEER ~~will~~shall review the calibration report prepared by WSA. This ~~will~~shall include a review of the final loaded network results achieved from the validation year analysis. Since this is a Preliminary Traffic and Toll Revenue analysis, it does not demand a detailed calibration effort, but an opinion of possible post model adjustments based on variations of model results vis-à-vis traffic counts and vehicle miles traveled, ~~will be~~shall be presented.

Deliverable: Weekly status updates until task is complete, Draft and Final Peer Review Technical Memorandum

### **Task 4: Traffic and Toll Revenue Analysis Peer Review**

The ENGINEER ~~will~~shall review the traffic and toll revenue estimates for up to six different scenarios. The review ~~will~~shall determine that appropriate assumptions were used in the analysis based upon both any preliminary Terms and Conditions agreed to by TxDOT and HCTRA as well as professional judgment with regard to traffic and toll revenue analysis. The methodology, as well as the estimates of traffic and toll revenue, ~~will~~shall ~~also be~~ reviewed for reasonableness. It is generally the case, that after the assumptions and methodology are accepted, that the estimates of traffic and toll revenue are also accepted, under the assumption that all analysis was conducted as described in the supporting documentation. This ~~will~~shall not be ~~assumed~~ included in this peer review and further analysis into the outlying estimates of traffic and toll revenue by segment ~~will be~~shall be identified.

It is understood that WSA's proprietary toll diversion software ~~will~~shall not be available for Peer Review. Therefore, high level documentation by WSA of such methodology is anticipated, to understand overall affects of the diversion methodology.

Deliverable: Weekly status updates until task is complete, Draft and Final Peer Review Technical Memorandum

### **Task 5: Risk Analysis Peer Review**

The ENGINEER, as the final task, ~~will~~shall review the risk analysis that ~~will be~~shall be the basis for the probability ranges around and deviation from the base case traffic and toll revenue estimates for each scenario. This ~~will~~shall include a review of the methodology and basic assumptions used to develop the probability envelopes. In addition to reviewing the inputs to the risk analysis, an overall review of the results of the risk analysis, i.e. the corresponding deviations in traffic and toll revenue, ~~will be~~shall be undertaken to ensure ranges correspond to historical experience of risk ranges exhibited by transportation infrastructure deals. Additionally, ~~should they be~~if required, additional tests of sensitivity ~~will be~~shall be suggested to WSA for inclusion in the review process.

Deliverable: Weekly status updates until task is complete, Draft and Final Peer Review Technical Memorandum. Additional Peer Review Technical Memorandum ~~will be~~shall be based on additional tests of sensitivity. ~~should they be required.~~

The overall schedule and work efforts ~~will be~~shall be a function of the completion of analysis by WSA for its various tasks. The ENGINEER ~~will~~shall coordinate with WSA to ensure that, to the extent possible, limited time is lost between the completion of the analysis and the Peer Review of that analysis.

CSJ #: 3510-01-001  
District #: 12  
Code Chart 64 #: 61210  
Project: HP ( )

The ENGINEER is capable and willing to provide services outside the scope outlined above and ~~will~~shall conduct such analysis and review on a “time and materials” basis. Due to the uncertainty regarding the Market Valuation process it is anticipated that such services ~~will be~~shall be required. This scope of services presented ~~will~~shall allow both TxDOT and HCTRA to reach a high level of understanding of the revenue potential to proceed with the evaluation of the market value for the Grand Parkway Toll Road.

DRAFT

## ATTACHMENT C PROJECT BUDGET

The following are estimated Project costs and their allocation between the parties.

Description	State Participation		Local Participation		Total Project Cost	
	%	Cost	%	Cost	%	
Project	50	\$425,094.00	50	\$425,094.00	100	\$850,188.00
Direct State Costs	0	\$0.00	0	\$0.00	100	\$0.00
<b>TOTAL</b>	<b>50</b>	<b>\$425,094.00</b>	<b>50</b>	<b>\$425,094.00</b>	<b>100</b>	<b>\$850,188.00</b>

Description	Fee
Exhibit 1: WSA	\$675,188.00
Exhibit 2: URS	\$175,000.00
<b>TOTAL Fee</b>	<b>\$850,188.00</b>

**Local Government's Participation = \$425,094.00**

This is an estimate only. Final participation amounts, including State direct costs, ~~will be~~ shall be based on actual charges to the Project.