### TOLL SYSTEM OPERATIONS AND MAINTENANCE AGREEMENT

This Toll System Operations and Maintenance Agreement (this "Agreement") is entered into on December 19, 2012 (the "Effective Date") by and between Fort Bend Grand Parkway Toll Road Authority, a local government corporation (the "Authority"), and TransCore, LP, a Delaware Limited Partnership (the "Contractor").

## **RECITALS**

WHEREAS, the Authority has determined it is in the Authority's best interest to engage a professional service provider for the services described herein; and

WHEREAS, the Parties have read and understood the terms and provisions set forth in this Agreement and have been afforded a reasonable opportunity to review this Agreement with their respective legal counsel; and

WHEREAS, the Authority issued a Request for Qualifications (the "RFQ") dated May 29, 2012, which contains requirements for the design, procurement, installation, and service of a toll collection system, including equipment, software and the necessary personnel, on the Fort Bend Grand Parkway; and

WHEREAS, the Contractor has reviewed available designs and documentation on the Fort Bend Grand Parkway and has submitted its proposal dated July 12, 2012, (the "Proposal") in response to the RFQ; and

WHEREAS, the Parties entered into that certain Toll System Implementation Agreement, of even date herewith (the "Implementation Agreement"), providing for the design, procurement, and installation of a toll collection system (the "Toll System") meeting certain design operating specifications (the "Implementation Specifications") described herein; and

WHEREAS, this Agreement provides for services related to the operation and maintenance of the Toll System and both Parties intend for Contractor to perform such services as are required to comply with the Implementation Specifications;

NOW, THEREFORE, in consideration of the premises, mutual promises, covenants, obligations and benefits herein contained, the Authority and Contractor agree as follows:

I. <u>SERVICES</u>

Section 1.01. Scope of Work.

- (a) Contractor shall perform the scope of work described in Exhibits A and A-1 (the "Services"). The scope of work set forth in Exhibits A and A-1 shall be referred to as the "Operational Specifications." The schedule for the Services is set forth in Exhibit B (the "Delivery Schedule"). Contractor may not deviate from approved Services without the prior written consent of the Board. Contractor agrees that the Services are to be provided at the level required to comply with the Implementation Specifications and Operational Specifications in order to operate the toll system designed, manufactured, and installed by Contractor pursuant to the Implementation Agreement. Contractor covenants with the Authority to furnish its best skill and judgment in performing the Services for the Authority to comply with the Implementation Specifications and Operational Specifications.
- (b) Contractor agrees to furnish efficient business administration and superintendence and to use its best reasonable efforts to furnish at all times an adequate supply of workmen, materials and equipment and to perform the Services in the most expeditious and economical manner. Contractor agrees to exercise reasonable diligence in performing the Services, using the degree of care and skill that a prudent person in the same or similar profession would use.
- (c) Contractor has been retained by the Authority for the sole purpose and to the extent set forth in this Agreement. It is understood and agreed that all work so done by Contractor shall meet with Authority approval, but that the detailed manner and method of performing the Services shall be under the control of Contractor. Contractor's relationship to the Authority during the term of this Agreement is that of an independent contractor. The relationship between the Authority and Contractor is not exclusive.

## Section 1.02. Additional Services.

- (a) During the term of this Agreement, Contractor or Authority may recommend certain additions or changes to the Services. In such case, the additions or changes shall be submitted to the Authority for approval in the form of an amendment to this Agreement. Approval of Additional Services shall be evidenced by a written proposal or service order, which shall include the service to be performed, the location and the fees.
- (b) The Contractor may, at any time by written notice to the Authority's Manager, request a change order to the Services. Upon receipt of such notice from the Contractor, the Authority will consider an equitable adjustment in the price, Delivery Schedule or both. The request for adjustment should include charges for redundant material, work in process and any other costs involved. If Contractor and the Authority agree in writing as to the price to be paid to Contractor for the work changes, this Agreement shall be deemed amended in accordance therewith.

## Section 1.03. Approval of Minor Changes.

- (a) Notwithstanding Section 1.02.(a) above, the Authority may, at any time by written notice and without notice to sureties or assignees, make minor changes within the Services, including in any one or more of the following: (i) drawings, designs, or specifications; (ii) method of shipping or packing; (iii) place of inspection, acceptance, or point of delivery; (iv) Delivery Schedule, (v) or other changes as may be agreed to by both parties in writing.
- (b) Should any such change increase or decrease the cost and/or the time required for performance of this Agreement, the Contractor must notify the Authority within five (5) days of receiving notice of the change from the Authority. Upon receipt of such notice from the Contractor, the Authority will negotiate an equitable adjustment in the price, Delivery Schedule or both. The request for adjustment should include charges for redundant material, work in process and any other costs involved.
- (c) Any claim for cost associated with a change in the Services shall be negotiated between Contractor and the Authority. Adjustments to price shall be computed by agreement of a fixed price. The Authority may request that Contractor submit a written proposal indicating the price at which Contractor would be willing to perform certain changes in the work as described by the Authority. Upon receipt of such a request, Contractor shall prepare and submit such proposal promptly, but no later than thirty (30) business days. If Contractor and the Authority agree in writing as to the price to be paid to Contractor for the work changes, this Agreement shall be deemed amended in accordance therewith.

## II. COMPENSATION

Section 2.01. Payment for Services. Contractor shall submit a detailed monthly invoice (together with any back-up documentation requested by the Authority) indicating the Services performed for that month under the terms of this Agreement. All fees described in **Exhibits A** and **A-1** shall include charges for labor, materials, insurance, equipment and any other items required to perform the work in the Services, and shall be the basis of payment for services. Contractor may present a fee adjustment for the Authority's consideration after forty-three (43) unit months have lapsed from the date of the Riverpark site acceptance test, provided any such adjustment must be presented six (6) months in advance of the Authority's fiscal year end. Contractor shall submit detailed invoices to the Authority's manager:

Mike Stone Associates, Inc. Attn: Mike Stone 19875 Southwest Freeway, Suite 270 Sugar Land, TX 77479

Contractor agrees that it will furnish the Authority with proof, satisfactory to the Authority, that all labor, material and equipment for which Contractor has been paid, have been satisfied and paid, unless the Authority waives such proof. Upon furnishing such proof, or waiver thereof, the Authority's Manager shall recommend payment (in whole or in part) or denial within (14) days of receipt of completed application, and provide written notice of same to Contractor, and all payments of all undisputed invoices shall be made within forty-five (45) days of the approval of Contractor's invoice by the Authority. Interest shall not be paid on service invoices.

## III. WARRANTIES, INSURANCE, INDEMNITY, AND LIMITS OF LIABILITY

Section 3.01. Warranty Claims on Toll Equipment/Software. Contractor is obligated to pursue on behalf of the Authority all warranty claims against any vendors of the toll system equipment provided pursuant to this Agreement or the Implementation Agreement. In addition to other common law and statutory warranties, whether implied or express, Contractor's warranty applies to materials, parts, labor and workmanship for one year from the date of completion of the Services. Contractor shall transfer all manufacturers' warranties to the Authority.

Section 3.02. Disclaimer of Implied Warranties. The express warranties contained in Section 1.01(b) and elsewhere in this Agreement, if any, are the sole and exclusive warranties provided by the Contractor. The Contractor specifically disclaims any other warranties, express or implied, including but not limited to warranties of merchantability, as well as any warranties alleged to have arisen from custom, usage, or past dealings between the parties.

Section 3.03. Limitation of Liability. The Contractor's total liability to the Authority for any and all liabilities arising out of or related to this contract, from any cause or causes, and regardless of the legal theory, including breach of contract, penalties, loss of revenue, loss of transaction data, warranty, negligence, strict liability, statutory liability, or any indemnification obligation, shall be limited to \$10 million. This limitation of liability shall only be valid if the Contractor has provided insurance coverage that is binding and enforceable by the Contractor or the Authority of the kind and type required by Section 3.04.

Section 3.04. Insurance. Before commencing any work hereunder, Contractor shall furnish certificates of its insurance and copies of any required endorsements to the Authority evidencing the following insurance coverage, which coverage shall be maintained throughout the term of this Agreement. Copies of each policy shall be furnished to the Authority upon the Authority's request. Contractor shall not violate or knowingly permit to be violated any condition of the insurance policies required by this Agreement. Nothing contained in this Section shall limit or waive Contractor's legal or contractual responsibilities to the Authority or others. Cancellation or expiration of any of said insurance policies shall not preclude the Authority from recovery thereunder for any liability arising under this Agreement.

Contractor shall obtain insurance from companies having a Best's rating of B+/VII or better and licensed to transact business in the State of Texas and that meet the requirements as shown in **Exhibit C**.

## Section 3.05. Indemnification.

AS PART OF THE CONSIDERATION FOR THIS AGREEMENT, THE CONTRACTOR, FOR ITSELF AND ITS SUCCESSORS AND ASSIGNS, AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE AUTHORITY AND ITS OFFICERS, DIRECTORS, REPRESENTATIVES, AND AGENTS, FROM LOSS, DAMAGE, INJURY, COST, EXPENSE, CLAIM, JUDGMENT, OR LIABILITY, INCURRED IN CONNECTION THEREWITH, INCLUDING REASONABLE ATTORNEY'S FEES AND COURT COSTS, WHETHER IN CONTRACT, TORT, OR OTHERWISE, BROUGHT BY ANY OF CONTRACTOR'S EMPLOYEES OR REPRESENTATIVES, OR BY ANY OTHER THIRD PARTY, BASED UPON, IN OR **ARISING** OUT **FROM** RESULTING CONNECTION WITH, CONTRACTOR'S WILLFUL, INTENTIONAL, RECKLESS, OR NEGLIGENT (WHETHER ACTIVE, PASSIVE, OR GROSS) ACTS OR OMISSIONS RELATED TO THIS INDEMNITY AND HOLD OR ARISING FROM THIS AGREEMENT. HARMLESS PROVISION WILL APPLY WHETHER SUCH ACTS OR OMISSIONS ARE CONDUCTED BY THE CONTRACTOR OR ANY SUBCONTRACTOR OR AGENT OF THE CONTRACTOR.

## IV. TERM AND TERMINATION; DEFAULT

Section 4.01. Termination Without Cause. Either party may terminate this Agreement without cause upon six (6) months written notice to the other party. After 30 days, the non-defaulting party may terminate this Agreement effective on such date specified in the written termination. Upon termination of the Agreement for cause, the Authority agrees to suspend damages pursuant to Exhibit A-1, resulting from non-performance from the date of the termination notice date to the date that the Contractor successfully transfers operations to the replacement contractor selected by the

Authority, provided the system performance never falls below the levels measured as of the termination notice date. If the level of service falls below the levels as of the termination notice date, or if the Contractor fails to assist with the transition to the new vendor, the Authority at its sole discretion may impose any portion or all of the damages during this period.

Contractor shall not be entitled to any payment or further payment other than for work performed or material, equipment, or supplies furnished prior to such termination, work in process and reasonable costs associated with the transition to the Authority's new service provider. The Authority does not waive any other remedy allowed under Texas law.

<u>Section 4.02</u>. <u>Termination for Cause</u>. If either party is in default of this Agreement, the non-defaulting party will give written notice of such default, specifically describing the nature of the default. The alleged defaulting party shall have 30 days to cure such default.

## V. GENERAL CONDITIONS

<u>Section 5.01</u>. <u>Agreement Controls</u>. To the extent that there is any inconsistency between the provisions of this Agreement and any attachments or exhibits hereto, the terms of this Agreement shall control.

Section 5.02. Regulatory Requirements. All work will be done in strict compliance with all applicable city, county, state and federal rules, regulations and laws and any codes which may apply to the Services being provided. Contractor will obtain all its permits and licenses required to perform the Services and will be responsible for securing inspections and approvals of its work from any authority having jurisdiction over Contractor's Services.

Section 5.03. Safety and Health Standards. Contractor shall observe and comply with all applicable federal, state and local health and safety laws and regulations.

Section 5.04. Inspection. The Authority and its duly authorized representatives shall have the right to inspect all Services being performed hereunder at any time. Contractor agrees to maintain adequate books, payrolls and records satisfactory to the Authority in connection with any and all Services performed hereunder and to maintain such books, payrolls and records for at least four years. The Authority and its duly authorized representatives shall have the right to audit such books, payrolls and records at any reasonable time or times.

Section 5.05. Assignability. Contractor shall not assign its rights or obligations or any sum that may accrue to it hereunder without the written consent of the Authority, which shall be granted or denied in the Authority's sole discretion.

<u>Section 5.06</u>. <u>Modifications</u>. This Agreement shall be subject to amendment, change or modification only with the prior mutual written consent of the Authority and Contractor.

Section 5.07. Force Majeure. In the event either party to this Agreement is rendered unable, wholly or in part, by force majeure including an act of God; strikes; lockouts, or other industrial disturbances; acts of the public enemy; orders of any kind of government of the United States or the State of Texas or any civil or military authority (other than a party to this Agreement); insurrections; riots; epidemics; landslides; lightning; earthquakes; fires; hurricanes; storms; floods; droughts; arrests; civil disturbances; explosions; or other inability similar to those enumerated including those by third parties that neither the Contractor or the Authority has control over; to carry out its obligations under this Agreement, it is agreed that party shall give written notice of such act to the other party as soon as possible after the occurrence of the cause relied on and shall, thereafter, be relieved of its obligations, so far as they are affected by such act, during the continuance of any inability so caused, but for no longer.

<u>Section 5.08</u>. <u>Agreement Subject to Applicable Law</u>. This Agreement and the obligations of the parties hereunder are subject to all rules, regulations and laws which may be applicable by the United States, the State of Texas or any other regulatory agency having jurisdiction.

Section 5.09. Governing Law. This Agreement is governed in accordance with the laws of the State of Texas and Fort Bend County shall be the exclusive venue for disputes arising out of this Agreement. Any controversy, claim or dispute arising out of, or related to this Agreement or any breach thereof may be settled amicably by the parties through good faith negotiations to reach a mutually agreeable resolution of such dispute within a reasonable period of time. If the good faith negotiations do not result in an acceptable settlement of the controversy, claim or dispute, then the matter may be resolved in a court of competent jurisdiction in the State of State of Texas.

Section 5.10. Waiver. No waiver or waivers of any breach or default by a party hereto of any term, covenant or condition or liability hereunder of performance by the other party of any duty or obligation hereunder will be deemed a waiver thereof in the future, nor will any such waiver or waivers be deemed or construed to be a waiver of subsequent breaches or defaults of any kind, character or description, under any circumstances.

Section 5.11. Intended Beneficiaries. This Agreement is for the sole and exclusive benefit of the Authority, Fort Bend County, and Contractor and will not be

construed to confer any benefit upon any other party. Further, it is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of the Agreement to create in the public or any member thereof, a third party Beneficiary hereunder, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage or other cause of action pursuant to the terms or provisions of this Agreement.

<u>Section 5.12</u>. <u>Severability</u>. The provisions of this Agreement are severable, and if any provision or part of this Agreement or the application thereof to any person or circumstance is ever held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances will not be affected hereby.

Section 5.13. Survival. Sections 3.01, 3.03, 3.04, and 3.05 shall survive the termination of this Agreement.

Section 5.14. Agreement Documents. This Agreement includes Exhibits A, A-1, B, and C, the Proposal, and all amendments thereto, all of which are incorporated herein by reference and are made a part hereof (together such documents, are referred to herein as the "Agreement Documents"). Any changes and/or additions made to the Agreement Documents as a result of negotiations with the Authority shall be included as part of this Agreement and attached hereto as an Exhibit. In the event of a conflict within the Agreement Documents, the order of prevailing precedence shall be as follows:

- 1. The Agreement, as amended;
- 2. Exhibits to the Agreement, Change Orders and amendments and all exhibits and attachments thereto;
- 3. Contractor proposal dated July 12, 2012;
- 4. Scope of Services described in the Request for Qualifications (RFQ) dated May 29, 2012;

Notwithstanding the order of precedence set forth above, in the event of a conflict within documents of the same priority (for instance, between Exhibits A and B), the Authority's Manager shall have the right, in its sole discretion, to determine which provision applies. If Contractor disagrees with the Authority's Manager's determination, the Contractor will provide the Authority's Manager with written notice of its protest, proceed with the steps necessary to comply with that determination under protest, and preserve any rights to seek additional compensation.

Section 5.15. Notice Provisions. Notices under this Agreement and the Agreement Documents shall be in writing and (a) delivered personally, (b) sent by certified mail, return receipt requested, (c) sent by a recognized overnight mail or courier service, with delivery receipt requested, or (d) sent by facsimile communication followed by a hard copy and with receipt confirmed by telephone, to those individuals designated by Contractor and the Authority from time to time in writing:

To Authority:

Mr. Bill Jameson

WJ Interests, LLC 2333 Town Center Drive, Suite 100

Sugar Land, TX 77478-4383

With a Copy to: Mr. Rich Muller

Allen Boone Humphries Robinson LLP 3200 Southwest Freeway, Suite 2600

Houston, TX 77027

In addition, copies of all notices to proceed and suspension, termination and default notices forwarded by either Party shall be delivered to the following Persons:

To TransCore:

Mr. Whitt Hall

Vice President

4903 West Sam Houston Pkwy North, Suite A-300

Houston, TX 77041

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in multiple copies, each of equal dignity, as of the date set forth on the first page hereof.

[EXECUTION PAGE FOLLOWS]

## FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY

President, Board of Directors

ATTEST:

Secretary, Board of Directors

(SEAL)



TRANS CORE, LP

By: <u>Unoffa</u> Name: What Hall

Title: Vice President Managing Director

## **EXHIBIT A**

Scope of Work and Compensation for Operations and Maintenance

## Scope of Work and Compensation for Operations and Maintenance

## **Project Description**

The Contractor(referred to herein as the Integrator) will operate and maintain the FBGPTRA toll system on Segment 'D' of the Grand Parkway, which will initially include seven tolling locations. The integrator will develop a detailed approach to contract administration and the implementation of an approved contract administration procedure and system. The Integrator will implement an integrated approach to project management and provide liaison with FBGPTRA, its consultants and other third parties.

Operations. Toll system operations shall include a fully functional host, file and transaction processing to the interoperable host and the Violation Processing Center (VPC) and the required reporting and contract management. At a minimum the file and transaction processing to and from the FBGPTRA Host and the IOP Hub and VPC include:

- Tag Validation List (TVL) File (Pushed from IOP Hub to the FBGPTRA Host)
- Tag / Plate Association Data File (Pushed from the IOP Hub to the FBGPTRA Host)
- Transaction Files (Pushed from the FBGPTRA Host to the IOP Hub)
- Image Files (Pulled from the FBGPTRA Host by the IOP Hub) Note: Image files shall be pulled from the IOP Hub as needed.
- Disposition Files (Pushed from the IOP Hub to the FBGPTRA Host)
- Violation Status Files (Pushed from the FBGPTRA Host to the IOP Hub)
- Acknowledgement Files

The Integrator shall provide overall management and oversight of toll operation services provided by the host computer established by the Integrator to provide the required toll services. Toll operation services shall include but not be limited to:

- Interoperability with other toll authorities
- Reporting
- Transaction processing and reconciliation
- System Performance

Maintenance. Maintenance shall include meeting the Maintenance requirements established in the scope of work, RFQ and described in the proposals and question response from TransCore for the Toll System Procurement including 24/7 maintenance monitoring. Monitoring Center (MMC) staffed 24/7 with technicians that monitor all lanes, in real-time, for all of our customers and have insight to hardware-specific components and their current state. All technicians planned for this project are located in Houston, and fully trained with all the tools and experience necessary to support FBGPTRA. The System Integrator shall include a comprehensive preventive maintenance program for the Grand Parkway Segment 'D' project. The program shall be based on component manufacturers' suggested procedures, performance intervals, and experience.

<u>Project Documentation.</u> Integrator shall plan, execute, and control all aspects of the toll system maintenance. Integrator shall coordinate and report to FBGPTRA or its duly authorized representative all activities and shall document and report all Work in accordance with the contract. The following documents/requirements shall be submitted within 30 days following system acceptance of the first tolling Segment. Each shall be reviewed and updated by the Integrator every 30 days following the issuance of the notice to proceed:

- Delivery of Preventative Maintenance Schedule
- Delivery of Maintenance Service Manual
- Delivery of the Detailed Maintenance Plan

## Compensation.

Task	Unit Price	Task Price	Total Price
Operations Cost (43 months, billed monthly beginning with site acceptance of Riverpark)	\$8482.01	\$364,726.43	
Maintenance Cost (34 months, billed monthly beginning with Operational Test completion)	\$21,406.77	\$727,830.18	
Project Documentation		\$160,601.50	
a. Delivery of Preventative Maintenance Schedule	\$32,120.34		
b. Delivery of the Maintenance Service Manual	\$32,120.34		

c. Delivery of the Detailed Maintenance Plan	\$32,120.34		
d. Business Continuity and Disaster Recovery Plan	\$32,120.29		
e. Quality Management Plan	\$32,120.29		
Software Escrow (5 year)		\$39,336.95	-
	YR 1 - \$7,867.39		
	YR 2 - \$7,867.39		
	YR 3 - \$7,867.39		
	YR 4 - \$7,867.39		
	YR 5 - \$7,867.39		
Annual Performance Audit (4 reports,	RPT 1 - 24,724.36	\$98,897.44	
billed annually)	RPT 2 - 24,724.36		
	RPT 3 - 24,724.36		
	RPT 4 - 24,724.36		
Decommissioning (One-time payment billed at completion)		\$122,198.80	
	\$122,198.80		
Compensation - TOTAL			\$1,513,591.39

Interoperability with other toll authorities. FBGPTRA will operate an all-electronic toll (ETC) facility interoperable with all Texas-toll facilities. The Integrator will transmit all-electronic toll collection transactions (ETC) to the TeamTX Interoperable HUB for processing to the appropriate back office based on the Transponder tag read. When a customer goes through a tolling point without a readable transponder, the Integrator will ensure that one of two processes will occur.

- The license plate read is compared to a list of license plates provided to the toll Integrator and an image (vToll) toll is processed.
- The vehicle is a violator and the transaction information is transmitted to FBGPTRA violation processing vendor. NOTE: Procurement of a violation

processing vendor is being procured concurrently with the toll system procurement and coordination/integration with the violation processing vendor is a required part of the requirements of this contract.

The FBGPTRA Violation Processing Center (VPC) shall be established to develop and process violation notices to motorists using the facility without a valid transponder issued from the Harris County Toll Road Authority (HCTRA), the Texas Department of Transportation (TxDOT) or the North Texas Tollway Authority (NTTA); to provide customers a place and format to communicate with FBGPTRA; to make payments on violation accounts; update account information; to handle disputes and/or appeals.

License plate images will first be sent thru the Integrators OCR process to Depending on the returned OCR value, the determine a license plate number. transaction will be handled in 1 of 2 two ways. If the OCR combined confidence value is greater than 98%, the transaction will be sent by the toll system directly to the interoperable HUB, including tag number, to try and be posted to an existing user account. Transactions with a confidence value of less than 98% will be processed for manual image review. If the image reviewed results in a tag number listed on the valid tag list it will be processed to the integrators host for transmittal to the Interoperable HUB. If after an unsuccessful first attempt to post, the transaction will be sent back to the Integrator's Host computer. After returning to Host computer, transactions will be given a three (3) day grace period in an attempt to allow the patron to fund his or her account. After the three days, the transactions will once again be sent by the toll system to the interoperable HUB in an attempt to be posted. If at this point the transaction is still unable to post to a user account, it will be sent back to the Integrators Host computer where it will then be processed to the Violation Processing Center (VPC).

<u>Reporting.</u> The Integrator will provide their standard toll system reports as identified in their proposal submitted for this procurement plus develop and provide an additional ten reports to be defined by FBGPTRA during the life of the contract. These reports will consist of any report information required to manage:

- System Maintenance
- Integrator Performance Reporting
- Transaction Processing (including classification and revenue by lane, plaza, or toll road)
- Transaction code offs
- Violation Processing
- Segment System Installation

Transaction Processing and Reconciliation. The toll system established at the tolling points on the Grand Parkway shall communicate with the toll system host to receive tag status, fare schedules, flagrant violation alert lists, and all other transaction related information required to process revenue transactions either to the interoperable HUB or for violation processing and revenue recovery. This information will be processed in the format required by either FBGPTRA or the Interoperable HUB. The system shall communicate with the toll system host to send all transaction data for both ORT and image transactions in the format required by either FBGPTRA or the Interoperability Business Rules.

The toll system host will be located at a site designated by the Integrator within Harris County and shall be capable of processing the data compiled by the toll system in the travel lanes, processing the data to and from the interoperable HUB (meeting the Interoperable Business Rules and ICD requirements), the VPC, and providing the system's standard reports and the reports required by FBGPTRA.

The system host shall communicate with the TeamTX Statewide Interoperable HUB to exchange transaction data between agencies, for the collection of revenue, and for revenue reconciliation in the format required by either FBGPTRA or Interoperability Business Rules.

The system shall generate a violation status file and transmit it to FBGPTRA violation processing center.

System Performance. In the event of a Priority 1 failure or major degradation in performance, FBGPTRA, will be notified immediately. The Integrator shall provide FBGPTRA with a system recovery plan within eight (8) hours of a Priority 1 occurrence. The recovery plan will be reviewed by FBGPTRA to assure compliance with the established performance requirements. 90 days after implementation of the recovery plan the Integrator will provide FBGPTRA a verifiable operational report on the cause of the Priority 1 failure showing that it has been repaired and to assure the collection of revenue and the health of the system and system availability.

<u>Performance Audit</u>. The Performance Audit shall define controlled test procedures for evaluating the System on an annual basis to ensure that system reliability and accuracy has not degraded over time and that the System continues to satisfy the functional and performance requirements. Procedures should be similar to those defined for the operational test. The System Integrator shall also incorporate selected FBGPTRA ad hoc tests into the Performance Audit Test procedures.

On an annual basis beginning within 30 days of the 11 month anniversary of Final Acceptance, the FBGPTRA shall conduct a third party performance audit for each operational Tolling Zone to verify that system reliability and accuracy has not degraded

over time, and the System continues to satisfy the functional and performance requirements that are presented in the RFQ documentation and all other Agreements.

The audit shall utilize System transaction data, reports, and MOMS data for at least the 30 Days preceding the performance audit for the analysis. In addition, controlled tests shall be conducted by utilizing test vehicles mixed with live traffic. FBGPTRA may choose to perform ad hoc operational testing as part of the Performance Audit. A Performance Audit will be deemed successful by FBGPTRA if it is determined that the audit shows that the system requirements presented herein are met.

Within 30 days after the Performance Audit has been completed, FBGPTRA will provide the System Integrator a report of the results from the test period. The report shall include, but not be limited to the following:

- A summary of the overall test results highlighting the general conclusions of the testing and any problems found and corrected.
- An appendix containing the test results and data used in evaluating the system's operational performance.

At any time during the life of the contract FBGPTRA may conduct a third party audit of the systems at its cost to determine if the system is performing as required. If the system fails to meet the established performance criteria FBGPTRA and the Integrator will agree on a date by which the system will meet the performance requirements. FBGPTRA has the ability to audit the system a second time at their cost and if the system still fails to meet the established performance requirements the penalties described in Exhibit B2 – Performance Matrix may be applied by FBGPTRA. If any audit results are proven by the Integrator to be inaccurate, FBGPTRA shall reimburse Integrator for any and all costs plus reasonable markup associated with the investigative effort.

#### Maintenance

<u>Preventive Maintenance</u>. FBGPTRA and the Integrator shall mutually develop a preventive maintenance schedule designed to ensure the System maintains the performance and availability requirements set forth in the request for qualifications. The Integrator shall schedule and perform preventative maintenance in accordance with manufacturers' suggested procedures and performance intervals, and experience accomplished specifically to prevent faults from occurring. Preventive maintenance shall include, but not be limited to, testing, measurement, adjustment, cleaning, and parts replacement.

The Integrator shall include a comprehensive preventive maintenance program for the Grand Parkway Segment 'D' project. The program shall be based on component

manufacturers' suggested procedures, performance intervals, and experience. The manufacturers' suggested procedures and specifications shall be provided to FBGPTRA as an attachment to the Maintenance Plan. The program shall contain a complete schedule of proposed preventive maintenance procedures and time frames. The program shall also include reporting methods and mechanism to be used to administer the program.

The Integrator shall submit a monthly Maintenance Report on all preventive maintenance activities. The monthly Maintenance Report shall include a comparison of scheduled versus actual preventive maintenance activities and any corresponding statistical analysis. The Integrator shall also provide a schedule for the upcoming preventive maintenance activities on a monthly basis.

As part of the preventive maintenance process, based on experience and analysis, the Integrator shall develop parameters to be used to identify, in the early stages, potential problems and actions to be taken to mitigate or prevent potential System issues.

<u>Predictive Maintenance</u>. During the life of the contract, the Integrator shall continually track and analyze equipment failure and degradation rates in order to predict and modify maintenance service schedules. This analysis shall be based on both the manufacturer's data and historical data accumulated during the maintenance period.

The monthly Maintenance Report shall describe any analyses performed and any subsequent changes or modifications in maintenance activities. End of life, as defined by the manufacturer, subsystem replacement past the initial Warranty Term, or past any extended

Corrective/Emergency Maintenance. The Integrator shall repair any Hardware or Software component after a failure has occurred, either as a whole or in part. The Integrator shall maintain a staff of trained personnel of sufficient quantity and quality to ensure that repairs can be performed 24 hours a day, every day of the year. Via the Integrator's MOMS and any existing MOMS, the Integrator shall maintain an around the clock dispatching operation to accommodate emergency maintenance service calls. Repairs that require a lane closure on Segment D of the Grand Parkway or a lane on to be taken out of service must be coordinated with either the FBGPTRA, or FBGPTRA's designated representative. The Integrator shall track all service calls and related maintenance tasks performed by their staff via the MOMS.

<u>Maintenance Service Manual</u>. The Integrator shall develop a Maintenance Service Manual for technical personnel assigned to the maintenance of the System. This manual shall include a general description, theory of operation, operator instructions, detailed electrical/electronic logic circuit analysis, mechanical functions, installation,

test and trouble-shooting procedures, preventive and corrective maintenance procedures.

The Maintenance Service Manual shall also contain diagrams, schematics, layouts, and parts lists required to service each component and circuit board utilized in the System. The Maintenance Service Manual will be used primarily by the Integrator's maintenance staff, but shall be provided to FBGPTRA in the event FBGPTRA should at some point decide to take over the maintenance responsibility for all or a portion of the system. This Maintenance Service Manual shall provide complete detailed technical descriptions of maintenance operations including, but not limited to, the following:

- Preventive maintenance schedule
- Troubleshooting techniques
- Corrective measures, both temporary and permanent
- Maintenance techniques
- Location and availability of support services for all major components
- Point-to-point component wiring schematics and logic signal flows
- · Assembly and disassembly drawings, including exploded view drawings

Standard service manuals for unmodified commercial products used in the System shall be acceptable to FBGPTRA if they contain details and accurate information in order to properly service the specific toll collection equipment supplied under this contract.

Maintenance (MOMS). The Integrator shall provide a Maintenance On-Line Management System (MOMS) for all Project Segments as part of the work under this contract. The MOMS shall allow for monitoring and reporting of equipment failures within the entire set of Tolling Zones that may be procured under the contract. The MOMS shall be the primary point for FBGPTRA staff to verify system performance compliance. MOMS shall contain all relevant data required to identify and track maintenance activities, parts usage, personnel, and time. MOMS shall be the mechanism to record all maintenance communications from FBGPTRA or FBGPTRA representative for maintenance related requests (i.e. maintenance calls for corrective maintenance, system failures, etc.) via Help Desk, e-mail, or phone. The MOMS shall be the focal point for all System maintenance activities including routine preventive and corrective maintenance, real-time monitoring, repair calls, report generation, etc.

The intent of MOMS is to provide a user-friendly "dashboard" of information that can be used with little to no training. At a minimum, the MOMS shall be capable of providing the following information:

- Current system status
- Current Tolling Zone operational status
- Failure and/or malfunction location
- Failure and/or malfunction description (with priority level)
- Spare parts inventory quantity and control
- Part and equipment description (including part number and serial number)
- Record of last maintenance activity for a part entered by maintenance staff
- Record of last preventive and corrective maintenance activity for a part as entered by maintenance staff
- Historical system information/report generation
- Initiation individual or party

The Integrator shall track all work orders in MOMS. The MOMS shall provide a status report of all work orders even if work is performed remotely. In addition, the MOMS system shall track staff times utilized for various tasks via the work orders. For corrective maintenance purposes, the MOMS shall track all response times and repair times.

The Integrator shall submit to FBGPTRA a detailed Maintenance Plan. The plan shall include maintenance staffing and administration, high level dispatch procedures, communication requirements, preventive maintenance techniques, schedules, and support from outside maintenance service (for example, computer manufacturers), final maintenance equipment list and other details as may be appropriate for inclusion in the Maintenance Plan. If maintenance procedures require any lane closures, these shall only be undertaken after FBGPTRA has approved the lane closure, and the Integrator shall be responsible for maintenance of traffic.

The Maintenance Plan shall include procedures to be used from the first use of the System through completion of the Maintenance Term and Warranty Term. The plan shall address, but not be limited to the following:

Standards and general procedures

- Equipment maintenance
- Software maintenance
- Tools
- Spare parts and inventory control
- Maintenance on-line maintenance system
- Corrective/predictive maintenance procedures
- Preventative maintenance and schedules
- Support services
- Personnel
- Staff location
- Staff qualifications
- Training
- Maintenance facilities/workshop(s)
- Maintenance records
- Failure tracking and corrective action
- Maintenance of traffic and lane closure procedures
- Reliability and maintainability analysis and calculation
- Spare parts inventory levels
- Maintenance activity reports

The Maintenance Plan shall include a sample report for each standard report provided and additional reports defined by FBGPTRA, with an explanation of what the report accomplishes. The Integrator may accommodate certain reporting requirements with a combined report on various components, as long as the report makes sense and provides the data and analysis that is required. FBGPTRA shall approve the combination of any reports.

The Integrator shall be responsible for managing all equipment warranties. The Integrator shall supply a list of all equipment covered by third party warranties, including the period of time covered by said warranties.

The Integrator shall develop a high-level Business Continuity and Disaster Recovery Plan for the scopes of work, included within this contract. The business continuity plan shall include providing emergency back-up for the host for the processing of toll transaction information in the event of a disaster at the primary host location. The Integrator shall prepare the draft Business Continuity and Disaster Recovery Plan and submit to FBGPTRA within 180 days of Notice to Proceed. The Business Continuity and Disaster Recovery Plan shall include procedures that shall be implemented to fulfill all requirements of the work in case of fire, theft, natural disaster, technical difficulty, workforce problems, or other disruption of business.

Failure Detection and Reporting. The MOMS shall be designed with the ability to generate work orders with no human intervention. Work order formats and specifications shall be developed during the design process and approved in writing by FBGPTRA, or FBGPTRA's designated representative. The MOMS shall provide for generating a minimum of four different types of work orders, including ad hoc, preventive, corrective, and emergency maintenance. The work order shall record the source of the work order, either as automatically triggered by MOMS monitoring, or the person reporting the failure (e.g., Integrator's maintenance technician or FBGPTRA staff member), or both. The MOMS shall also provide the capability to build ad hoc work orders for unusual maintenance activities. In addition, a work order shall include, but not be limited to, the following information:

- Date/Time of work order generation
- Date/Time/Location of repair or maintenance call
- Work order number (sequential)
- Failure or malfunction description
- Description of action taken to resolve malfunction
- Name or ID of the technician performing the work

The MOMS shall also provide the capability to generate blank work orders for repairs or malfunctions not directly reported by the MOMS. Blank work orders shall still be generated for the sequential list maintained in MOMS. During maintenance of Segment D of the Grand parkway, System event or failure notifications may be initiated through a phone answering service, 24 hours a day, 7 days a week, 365 days per year, which then contacts the appropriate technician or the maintenance integrator.

The MOMS shall allow both automatic and manually activated paging of technicians once a work order has been generated. The MOMS shall be designed to accommodate the assignment of priority levels for each failure type. MOMS shall assign an initial priority level to each failure, but shall provide for manual override by the Integrator or FBGPTRA personnel to account for aspects that impact severity level and MOMS cannot assess. The paging process shall check to determine the assigned active technician and update the dispatch grid to include the new service call. MOMS shall monitor the disposition of service calls and shall generate a page to the maintenance technician and/or the maintenance manager for any work order not responded to or repaired within the required time.

System Monitoring. The MOMS shall report the status and performance of all levels of the System equipment in real-time. The MOMS shall monitor all System equipment provided by the Integrator under the Project Segment. The performance monitoring shall be accessible from any workstation on the FBGPTRA network or via Virtual Private Network (VPN) access, provided the user has the proper access level. The performance monitoring function shall allow the user to select and observe the status and/or performance of several pre-defined portions of the System. The following is a breakdown of the various levels, and, at a minimum, the degree of information required to be displayed for each level:

- 1) Host server/plaza host computer
- 2) Tolling Zone level components
- 3) All equipment statuses for:
  - a) Status of all Tolling Zone applications;
  - i) Tolling Zone identification (ID)
- 4) Tolling Zone location (Tolling Zone ID)
  - a) Tolling Zone overall operation status (operational/degraded)
  - b) Current operational status of each major subsystem
  - c) Status of Tolling Zone communications link

System availability tracking. The MOMS shall track and calculate the availability of the Tolling Zone by function. The calculations shall be performed automatically whenever an availability report is run. The availability report shall take into account the number of installed Tolling Zones and the length of outages affecting the particular Tolling Zone function. The availability report shall be provided both for individual

Project Segments and for user-selectable groups of Project Segments. The availability report shall be provided for user selectable time intervals.

Remote Access. The MOMS shall be designed with the capability to allow technicians and other users to access the MOMS network over the Internet. Technicians or maintenance staff shall typically utilize this function while off-site or to login and close out a work order. Remote access shall be designed to utilize typical remote access connection tools typically found on laptop computers.

Inventory/Spare Parts Control. The Integrator shall provide a fully integrated spare parts inventory control subsystem or functionality as part of the MOMS. This function shall be integrated with the work order generation function, which shall automatically update and maintain the system and spare parts inventory based on Work Orders and technicians recording of parts used during work order closeout. The Integrator shall fully document the procedures, controls, Software applications, and facilities intended to be used to process and track the spare parts inventory. Spare parts control and monitoring shall be administered and reported through the MOMS only. As part of the Integrator's maintenance activities, inventory reports shall be provided to FBGPTRA on a monthly basis. Additionally FBGPTRA shall also have access to these reports via the MOMS.

The Integrator shall be responsible for providing fully assembled and tested spare parts and components to replenish those that are used in the maintenance process. The Integrator shall replace all parts and components used during the term of the purchase order at no cost to FBGPTRA, and shall turn over to FBGPTRA at the end of the purchase order a full spare parts inventory. Upgrades to and replacements of Hardware shall be the financial responsibility of the Integrator. The Integrator, based on experience and analysis, shall closely monitor the need for spare parts and components. This should include the identification of parts that are no longer available, those that are obsolete, etc. Purchasing, shipping, testing, and maintenance of spare parts are to be provided at no expense to FBGPTRA.

The MOMS shall be capable of tracking and calculating the Mean Time between Failure (MTBF) of the toll collection equipment. The calculation shall be performed automatically whenever the MTBF report is run. The MTBF shall take into account the number of installed pieces of equipment and the number of service calls on the equipment. Mean Time to Repair (MTTR) tracking shall also be performed automatically. It shall be recalculated every time a service call is closed on a particular piece of equipment for that equipment type.

<u>Quality Management</u>. The Integrator is required to develop a quality program covering toll system operations and maintenance.

The objective of the Quality Management Plan (QMP) is to place the responsibility for the quality of all services, and to allow FBGPTRA to fulfill its responsibilities of exercising due diligence in overseeing the Toll Systems Services processes and products.

The Integrator shall prepare a QMP for FBGPTRA's review and approval. Procedures shall be described for coordinating Toll Systems Services performed by different individuals in the same area, or in adjacent areas or related tasks to ensure that conflicts, omissions, or misalignments do not occur during operations and maintenance of the system. This shall also include the coordination of the review, approval, release, distribution, and revision of documents involving such parties.

## Procedures shall:

- Ensure that Integrator personnel are familiar with all the provisions of the contract concerning their respective responsibilities.
- Provide for the education, training, and certification, as appropriate, of personnel performing activities affecting or assessing the quality of the Work to assure that such personnel achieve and maintain reasonable proficiency.
- Ensure that the Work is performed according to the QMP, generally accepted practices for these types of services and the contract.

<u>Protocol for Emergencies</u>. In emergencies affecting the safety or protection of persons, the Work or property at the Project Site or adjacent thereto, Integrator shall immediately act to prevent and mitigate threatened damage, injury, or loss. Integrator shall give FBGPTRA prompt written notice if Integrator believes that any significant changes in the Work or variations from the contract have been caused by such emergencies or damage or are required as a result thereof.

<u>Decommissioning</u>. For a variety of reasons FBGPTRA may elect to decommission any portion or subcomponent of or the entire System. FBGPTRA will issue authorization to the Integrator to decommission. Under decommissioning efforts the Integrator shall be responsible for all necessary work to fully remove the physical System infrastructure, as well as any other System modification (i.e. MOMS, ICD updates, etc.) The Integrator shall ensure that any decommissioning efforts will not adversely affect revenue collection for any other Project Segment both current and future.

<u>End of Maintenance Term</u>. The Integrator shall be responsible to satisfy the following conditions in order for FBGPTRA to declare the end of any Maintenance Term on a Project Segment. Integrator shall not be released from their maintenance obligations until each of the below described conditions are met to the satisfaction of

FBGPTRA and these are documented in writing by the appropriate FBGPTRA representative.

<u>Inspection</u>. A detailed inspection will be performed by FBGPTRA staff or a designated representative, and the Integrator shall provide reasonable staff support for the inspection.

End of Maintenance Term Transition Plan. In preparation of completing the Maintenance Term, the Integrator shall prepare and submit an End of Maintenance Term Transition Plan. The End of Maintenance Term Transition Plan shall detail the required efforts, processes, resources, and timeframe for transitioning maintenance services. The End of Maintenance Term Transition Plan shall be submitted six months prior to completion of the Maintenance Term.

<u>Transitioning Support</u>. In accordance with the Transition Plan, the Integrator shall provide the necessary training, coordination, and transfer of maintenance responsibility to FBGPTRA and or its representative(s).

<u>Maintenance Records</u>. The Integrator shall provide to FBGPTRA all current and historical maintenance records, equipment, and Software support contact information, outstanding equipment, and second source Software warranty paperwork, service records, and other relevant documentation to the satisfaction of FBGPTRA.

<u>Spares Parts, Components, Tools</u>. Integrator shall transfer to FBGPTRA all spare parts, components, boards, tools, and other spare parts to FBGPTRA. The spare parts and components will be cross-referenced with MOMS to ensure that all parts and components are transferred to FBGPTRA.

<u>Passwords</u>. Integrator shall provide all system passwords, user names, and other access and system security information to FBGPTRA.

<u>Training</u>. The Integrator shall provide maintenance training to designated FBGPTRA staff or representative to the satisfaction of FBGPTRA.

<u>Manuals and Drawings</u>. The Integrator shall provide revised, fully updated versions of all maintenance manuals, current Maintenance Plan, installation drawings, as-built drawings, and other relevant documentation to the satisfaction of FBGPTRA.

<u>Spare Equipment Repair</u>. Integrator shall repair all spare equipment, to the satisfaction of FBGPTRA.

<u>Utilities and Communications Costs</u>. FBGPTRA shall maintain responsibility for the billing and payment of all recurring communications and utilities costs during the course of the Agreement.

<u>TeamTx Interoperability Costs</u>. FBGPTRA shall maintain responsibility for the billing and payment of all recurring costs for membership and data exchange with the TeamTx Interoperability Hub during the course of the Agreement

## **EXHIBIT A-1**

## **Performance Matrix**

Performance Objective	Service (task or deliverable)	Standard	Surveillanc	Penalties for NOT meeting the Performance Standard
This is the desired outcome  (What do we want to accomplish as the end result of this contract?)	,	Accuracy Rates,		
Vehicle detection and reporting	Success rate of detection of vehicles passing through the tolling zone and producing resulting toll transactions or violation toll transaction records		Monthly Lane audits	Lost revenue
ETC Read Accuracy	Tag read success rate = the percentage of vehicles carrying a properly mounted tag passing beneath an antennae producing a correct read -		Annual audit	Lost revenue – calculated on the % of tags below 99.5% not read and not producing a plate image using a control group of vehicles passing through each tolling zone.
Vehicle Classification	Correctly classifying the vehicle's class based on the		Monthly Lane Audits	Lost revenue

	classification scheme established by FBGPTRA  Avoid reading a single vehicle as two or more vehicles	>99.5%		
Performance Objective	Required Service (task or deliverable)	Performance Standard	Method of Surveillanc e	Penalties for NOT meeting the Performance Standard
Image	Success rate for	98%	Annual	\$20,000
Capture -	capturing an		audit	
color	unobstructed			
photographs	readable plate	· §		
**************************************	image (both		50 D D D D D D D D D D D D D D D D D D D	φ <b>ο</b> ο οοο
	state and			\$20,000
	number		Annual	
	discernible)	0=0/	audit	
***************************************		>97%		
- Constitution of the Cons	Success rate of		Congression	¢20 000
***************************************	correlating the		-	\$20,000
The desired and the second and the s	image to the		Annual	www.co.co.co.co.co.co.co.co.co.co.co.co.co.
	correct transaction for		audit	000000000000000000000000000000000000000
- The state of the	transaction for both front and		audit	000000000000000000000000000000000000000
**************************************	1	85%	44	\$10,000
Colombia	rear plates	00 /0	an analysis to the control of the co	
Terrorian Control	OCR success		Management of the control of the con	
*Account of the Control of the Contr	rate in obtaining	1	Annual	
* And	a plate		audit	
	extraction that	5 4	nagora pada pada	
***	matches one		MAZORIANA NA PARA NA P	
	plate per		and of the control of	
	transaction that	<5%		

	are readable and unobstructed  Success rate for capturing percent of incorrectly reported OCR results			
ETC Read Accuracy Minimus Standard	Tag read success rate = the percentage of vehicles carrying a properly mounted tag passing beneath an antennae producing a correct read -	> 99.5%	audit	If the result of the annual audit indicates a success rate of 97% or less, the monthly system maintenance cost will be withheld until the system achieves a 99% rate or greater.
Performance Objective	Required Service (task or deliverable)	Performance Standard	Method of Surveillanc e	
Image Capture Minimus	Success rate for capturing a unobstructed readable plate image (both state and number discernible		Annual Audit	If the result of the annual audit indicates a success rate of 96.5% or less, the monthly system maintenance cost will be withheld until the system achieves a 98% rate or greater.
L		7 1		

•	transactions to		report	
receiving and processing	transactions to Interoperable HUB; images, MOMs messages, equipment diagnostics messages, to the Project Host; tag status files to the lanes; all data required to collect, operate, and monitor the		report	
•	and monitor the tolling system and all other data that is required by the contract to the required location.			
System Availability	Amount of time in a year the system is functioning to ensure revenue can be collected and or violations processed	99.7%	System report	\$1000 per day plus Lost Revenue
Performance Objective	Required Service (task or deliverable)	Performance Standard	Method of Surveillanc e	Penalties for NOT meeting the Performance Standard
Mean time to respond		an average response time of	System report	Lost Revenue

, , , , , , , , , , , , , , , , , , , ,	1	no longer than		
	problem within	two (2) hours including weekends and holidays upon issuance by		
	the specified response time 24 hours per day, 7 days a week, 365 days per year.			
Mean time to Repair	Repair times shall be assigned based on priority level. Priority levels are based upon impact to revenue. The		System report	Lost Revenue
	following are the defined of priority levels per equipment type.  Priority 1			
	Equipment failures that directly affect the accurate collection and reconciliation of tolls	24 hours		
	Priority 2 Equipment failures that indirectly affect the accurate collection and reconciliation of tolls	t 48 hours I		

Priority 3 -		
Equipment		1970 - 19
failures that do		000000. Acc 2.
not affect the		
accurate		
collection and		2 Constitution of the Cons
reconciliation of		a a constant of the constant o
tolls		

# EXHIBIT B OPERATIONS AND MAINTENANCE SCHEDULE

**Task** 

**Schedule** 

Notice To Proceed:

April 1, 2013, or 2 months prior to beginning the Riverpark site installation, whichever is sooner.

Delivery of Documents and Plans:

April 1, 2013- May 31, 2013 (this accounts for review times)

**System Operations:** 

Begins after Riverpark site acceptance test continuing 43 unit months thereafter

System Maintenance:

Begins at completion of Operations Test continuing 34 unit months thereafter

# EXHIBIT C INSURANCE REQUIREMENTS

### **Insurance Provisions**

The Contractor shall furnish certificates of insurance to the Authority evidencing compliance with the insurance requirements hereof. Certificates shall indicate name of the Authority, name of insurance company, policy number, term of coverage and limits of coverage.

All required insurance shall not be canceled or modified without at least seven days prior written notice to the Authority. Renewal certificates shall be provided within 10 days of the expiration date of the current certificates of insurance during the term of this Agreement.

The Contractor shall obtain such insurance from such companies having a Bests rating of B+/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:

- (a) Workers' Compensation insurance in accordance with the laws of the State of Texas, or state of hire/location of Services, and Employers' Liability coverage with a limit of not less than \$500,000 each employee for Occupational Disease, \$500,000 policy limit for Occupational Disease; and Employer's Liability of \$500,000 each accident.
- (b) Commercial General Liability insurance including coverage for Products/Completed Operations, Blanket Contractual, Contractors' Protective Liability Broad Form Property Damage, Personal Injury/Advertising Liability, and Bodily Injury and Property Damage with limits of not less than:

\$3,000,000	general aggregate limit
\$2,000,000	each occurrence, combined single limit
\$2,000,000	aggregate Products, combined single limit
\$2,000,000	aggregate Personal Injury/Advertising Liability
\$50,000	Fire Legal Liability
\$5,000	Premises Medical

- (c) Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
- (d) Umbrella Excess Liability insurance written as excess of Employer's Liability, with limits not less than \$3,000,000 each occurrence combined single limit.
- (e) Professional Liability Errors and Omissions insurance with limits not less than \$15,000,000 each claim/annual aggregate.

The Authority and the Authority's Directors shall be named as additional insureds to all coverages required above, except for those requirements in paragraphs "a" and "e." All

policies written on behalf of the Contractor s favor of the Authority and the Authority's Dire	shall contain a waiver of subrogation in ectors.
	·
Final Operations and Maintenance.docx -39-	