

ENGINEERING SERVICES AGREEMENT

THE STATE OF TEXAS §
 §
COUNTY OF HARRIS §

THIS AGREEMENT is between **Harris County**, a body corporate and politic under the laws of the State of Texas, hereinafter called "County", acting herein for the **Harris County Toll Road Authority (HCTRA)**, a division of the County, and **KCI Technologies, Inc.**, hereinafter called the "Engineer" or "Company".

W I T N E S S E T H:

WHEREAS, the County proposes to hire the Engineer for provide engineering services for tolling engineering services and inspection services in Harris County, Texas, hereinafter called the "Project";

WHEREAS, the Engineer has represented to the County that it is qualified and prepared to perform all of the services described in the Scope of Services, Appendix A, attached hereto and incorporated herein by reference as if copied herein verbatim (Scope of Services), and has submitted a proposal to provide professional engineering services for the Project;

WHEREAS, the County is satisfied that the Engineer is capable of performing the necessary services required for the Project and desires to contract with the Engineer to perform the services described in the Scope of Services;

WHEREAS, the provisions of Chapter 262, Texas Local Government Code, Competitive Bidding Law do not apply to the proposed agreement because the contract is for professional engineering services;

WHEREAS, the County has determined and found that it would be in the best interest of the County to delegate to the Executive Director of HCTRA supervisory and management authority over the Engineer; and

WHEREAS, the Engineer will control the methods and means in performing the work set out in the Scope of Services;

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

1. General

- a. In performing professional engineering services under this Agreement, the Engineer will function solely and exclusively for the benefit of the County and not for the benefit of the contractors for the Project or any other party. All

services rendered by the Engineer under this Agreement shall be performed under the supervision of HCTRA. The Engineer shall render services in accordance with generally accepted professional standards and use the degree of care and skill reasonably necessary to ensure compliance with all applicable laws and regulations.

- b. The Engineer shall be responsible for the professional quality, technical accuracy and the coordination of all deliverable documents and services furnished by the Engineer under this Agreement. The Engineer shall, without additional compensation, correct or revise all errors and deficiencies in its documents.
- c. The Engineer will collaborate with the County's personnel to facilitate the implementation of a Project Database within the County's Electronic Document Management System known as "CAPTRAC". The Electronic Document Management System will provide electronic management that shall govern the distribution and file copies of all Project related correspondence, reports, plans, and technical data. The County and the Engineer will use "CAPTRAC" to facilitate the effective electronic exchange of Project information and documents with members of the design team and other interested stakeholders.
- d. The Engineer will collaborate with the County's personnel to facilitate the maintenance of the Project Database. Project files shall be entered into the database by the Engineer on a timely basis and made available by the County on "CAPTRAC" at all times for performance of daily Project activities. Other documents, including those used for legal review, audit requests/requirements, and open records request purposes, shall be entered by the County staff assisting the Engineer team. The Engineer shall also ensure that all Project files are appropriately entered into the database:
 1. At all critical milestones;
 2. At established periodic intervals; and
 3. Following completion of the work as a final Project record, including applicable record drawings.

2. Scope of Services

The services to be provided herein in regard to the Project are defined in Appendix A ("Scope of Services").

3. Compensation and Payment

- a. The Engineer shall be entitled to payments based on hourly rates and reimbursement as set forth in this section, and the Engineer agrees that such payment will constitute full compensation for the performance of services

under this Agreement. The County shall not be obligated to pay in excess of **\$925,000.00** and the Engineer shall not be obligated to perform further services hereunder once such sum has been earned, except to the extent that HCTRA has given prior written authorization to perform additional services and receive compensation therefore from funds in excess of such figure and within the maximum sum available under 3.c.

- (1) The Engineer shall be entitled to payments based upon hourly billing for defined services and any additional services not included in the Scope of Services under this Agreement, including changes in the contractual scope of work and revision of work satisfactorily performed, provided that such additional services will be performed only when approved in advance and authorized by the County, and will be reimbursed at the raw salary rates in effect at that time, times a multiplier as set forth below, to the extent that such direct salary costs and subcontracts are reasonable and necessary for the performance of such services. The reimbursable hourly raw salary rates cannot exceed those set forth in Appendix B. The Engineer shall also be entitled to expense reimbursement as set forth in Appendix B, provided that miscellaneous expenses, if any, may be reimbursed hereunder only when HCTRA determines that incurring such expenses is not required as part of the original Scope of Services and provides written approval of such expense in advance of it being incurred. Payment will be made on the basis of certified time and expense records and in accordance with those payment procedures set forth in subparagraph b., below. Billing rates will have a 3.0 multiplier on raw salary rates.
 - (2) Where subcontractors are employed by the Engineer to perform services specified in this Agreement, the Engineer will be reimbursed for subcontractors' salaries and hourly rates, including overtime rates, on the same basis as described for the Engineer's own personnel in subparagraph a. (1), of this Paragraph. Reimbursement to the Subcontractor for non-salary costs incurred by subcontractors will be on the same basis as if the costs were incurred by the Engineer. The Engineer will be paid a subcontract administrative fee equal to ten percent (10%) of all subcontractor invoiced amounts. Total contract amounts shall include subcontractor fees.
- b. It is understood and agreed that monthly payments will be made to the Engineer by the County based on the following procedures: On or about the fifteenth day of each month during the performance of services hereunder and on or about the fifteenth day of the month following completion of all services hereunder, the Engineer shall submit to the County two (2) copies of invoices showing the amounts due for services performed during the previous month, set forth separately for work under this Agreement and for additional

services (accompanied by supporting certified time and expense records of such charges in a form acceptable to the County Auditor). It is specifically understood that any requests for travel reimbursements shall comply with those procedures for travel reimbursement to County employees established by the Harris County Auditor. HCTRA shall review such invoices and approve them within ten (10) calendar days with such modifications as are consistent with this Agreement and forward same to the County Auditor. The County shall pay each such invoice as approved by the County Auditor within twenty (20) calendar days after the County Auditor's approval of same. Invoices are due and payable net 30 days from receipt.

- c. It is expressly understood and agreed that the County has available the total maximum sum of **\$1,000,000.00** as hereinafter certified available for the purpose of satisfying the County's obligations under the terms and provisions of this Agreement. The County shall not be liable under any circumstances or any interpretations hereof for any costs under the Agreement except for those certified available for this Agreement by the Harris County Auditor, as evidenced by the issuance of a purchase order by the Harris County Purchasing Agent for the certified amount. Once the funds are expended for satisfying the County's obligations under the terms and provisions of this Agreement, the County shall have no further obligations nor shall the Engineer be required to perform further services hereunder.

4. Time of Performance

It is understood and agreed that the time for performance of the Engineer's services under this Agreement shall begin with receipt of the Notice to Proceed and end **600** calendar days from that date, except to the extent continued performance after that date is authorized in writing by the Executive Director of HCTRA or his designee. The Engineer is responsible for notifying HCTRA thirty days prior to the end of the contract.

5. The County's Option to Terminate

- a. The County has the right to terminate this Agreement at its sole option at any time, with or without cause, by providing written notice of such intention to terminate and by stating in said notice the "Termination Date." Upon such termination, the County shall compensate the Engineer in accordance with Paragraph 3., above, for those services that were provided under this Agreement prior to its termination and that have not been previously invoiced to the County. The Engineer's final invoice for said services will be presented to and paid by the County in the same manner set forth in Paragraph 3. b., above.

- b. Termination of this Agreement and payment in settlement as described in subparagraph a. of this Paragraph shall extinguish all rights, duties, obligations, and liabilities of the County and the Engineer under this Agreement and this Agreement shall be of no further force and effect; provided, however, such termination shall not act to release the Engineer from liability for any previous default either under this Agreement or under any standard of conduct set by law. No termination of this Agreement shall have the effect of terminating the Engineer's obligations under Sections 7 (Delays and Damages), 8 (Inspection of the Engineer's Books and Records), 12 (Appearance as Witness), or 15 (Indemnification).
- c. If the County shall terminate this Agreement as provided in this Paragraph, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to the Engineer.
- d. The County's rights and options to terminate this Agreement, as provided in any provision of this Agreement shall be in addition to, and not in lieu of, any and all rights, actions and privileges otherwise available under law or equity to the County by virtue of this Agreement or otherwise. Failure of the County to exercise any of its rights, actions, options or privileges to terminate this Agreement as provided in any provision of this Agreement shall not be deemed a waiver of any rights, actions or privileges otherwise available under the law or equity with respect to any continuing or subsequent breaches of this Agreement or of any other standard of conduct set by law.
- e. Copies of all completed and partially completed documents prepared under this Agreement shall be delivered to the County upon the Engineer's receipt of termination payment when and if this Agreement is terminated.

6. Source of Fee Payments

The County intends to pay for design and construction with the proceeds from the sale and issuance of bonds and a yearly revenue fund account. It is expressly acknowledged that all payments owing for Engineering services performed under this Agreement shall be made solely from these sources of funds for financing design and construction of the Project. The County shall be under no liability under this Agreement to make payment to the Engineer from any other source. In addition, the County reserves the right, at its sole discretion, at any time prior to issuance by the County of the written notice to proceed as provided in Paragraph 4., above, to cancel this Agreement and in the event of such cancellation, the Engineer shall not be entitled to any payment, nor have any claim for compensation or damages resulting from such cancellation. In no event shall the liability of the County under this Agreement exceed the amount hereunder certified as available by the County Auditor.

7. Delays and Damages

Except as otherwise provided herein, the Engineer agrees that no other charges or claims for damage shall be made by it against the County for any delays or hindrances occurring during the progress of the Engineer in providing to the County the services specified in this Agreement.

8. Inspection of the Engineer's Books and Records

The Engineer will permit the County, or any duly authorized agent of HCTRA, to inspect and examine the pertinent books and records of the Engineer, but only for the purpose of verifying the direct salary costs, overtime work, and out-of-pocket expenses for additional services charged to the Project described in and contemplated by Paragraph 3. a., above.

9. Personnel, Equipment, and Material

- a. The Engineer represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for performance of the services required under this Agreement and that the Engineer shall furnish and maintain, at its own expense, adequate and sufficient personnel and equipment, in the opinion of HCTRA, to perform the services when and as required and without delays. It is understood that HCTRA will approve assignment and release of all key engineering personnel and that the Engineer shall submit written notification of all key engineering personnel changes monthly for HCTRA's approval prior to the implementation of such changes. Services described in this Agreement shall be performed under the direction of an engineer licensed to practice professional engineering in the State of Texas.
- b. All employees of the Engineer or a subcontractor of the Engineer shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of the Engineer or a subcontractor of the Engineer who, in the opinion of HCTRA, is incompetent or by his conduct becomes detrimental to the Project shall, upon request of HCTRA, immediately be removed from association with the Project.
- c. Except as otherwise specified, the Engineer shall furnish all equipment, transportation, supplies, and materials required for its operations under this Agreement.

10. Subletting

The Engineer shall not sublet, assign, or transfer all or any part of the services in this Agreement without the prior written approval of HCTRA. Responsibility to HCTRA for sublet work shall remain with the Engineer.

11. Conferences

At the request of HCTRA, the Engineer shall provide appropriate personnel for conferences at its offices, or attend conferences at the various offices of HCTRA, or at the site of the Project, and shall permit inspections of its offices by HCTRA, or others when requested by HCTRA.

12. Appearance as Witness

If requested by the County, or on its behalf, the Engineer shall prepare such engineering exhibits and plats as may be requested for all hearings and trials related to the Project and, further, it shall prepare for and appear at conferences and shall furnish competent expert engineering witnesses to provide such oral testimony and to introduce such demonstrative evidence as may be needed throughout all trials and hearings with reference to any litigation relating to the Project. Compensation for trial preparation and appearance by the Engineer in courts regarding litigation matters will be made in accordance with the provisions of Paragraph 3. a. (1), above.

13. Compliance with Laws

The Engineer shall comply with all federal, state, and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations. When required, the Engineer shall furnish the County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees specified above.

The Engineer shall strictly comply with Section 2251.022 Texas Government Code, and shall require that its subcontractors fully comply with Section 2251.023 Texas Government Code.

14. Insurance

The Engineer shall obtain, keep and maintain any and all insurance that may be required by law or that may be required by any agreement the County has with any other party concerning the Project.

15. Indemnification

TO THE EXTENT ALLOWED BY LAW, THE ENGINEER AGREES TO INDEMNIFY AND HOLD HARMLESS THE COUNTY, ITS OFFICERS, EMPLOYEES, AND AGENTS FROM LIABILITY, LOSSES, EXPENSES,

DEMANDS, REASONABLE ATTORNEYS' FEES, AND CLAIMS FOR BODILY INJURY (INCLUDING DEATH) AND PROPERTY DAMAGE TO THE EXTENT CAUSED BY THE NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT OF THE ENGINEER (INCLUDING THE ENGINEER'S AGENTS, EMPLOYEES, VOLUNTEERS, AND SUBCONTRACTORS/CONSULTANTS UNDER CONTRACT, OR ANY OTHER ENTITY OVER WHICH THE ENGINEER EXERCISES CONTROL) IN THE PERFORMANCE OF THE SERVICES DEFINED IN THIS AGREEMENT. THE ENGINEER SHALL ALSO SAVE THE COUNTY HARMLESS FROM AND AGAINST ANY AND ALL EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, IN PROPORTION TO THE ENGINEER'S LIABILITY, THAT MIGHT BE INCURRED BY THE COUNTY, IN LITIGATION OR OTHERWISE RESISTING SUCH CLAIMS OR LIABILITIES.

16. Delivery of Notices, Etc.

- a. All routine written notices, invoices, change orders, etc. are to be delivered to the Deputy Director, Engineering at the Harris County Toll Road Authority, 7701 Wilshire Place Drive, Houston, Texas 77040, or at such other place or places as the County may designate by written notice delivered to the Engineer.

All formal notices and demands under this Agreement shall be delivered to the Harris County Commissioners Court, 1001 Preston, 9th Floor, Houston, Texas 77002, Attention: Clerk of Commissioners Court, with a copy forwarded to the Harris County Toll Road Authority, 7701 Wilshire Place Drive, Houston, Texas 77040, Attention: Executive Director.

- b. All written notices, demands, and other papers or documents to be delivered to the Engineer under this Agreement shall be delivered to KCI Technologies, Inc., 15021 Katy Freeway, Suite 200, Houston, Texas 77094, Attention: Lee Shelton, PE, or at such other place or places as the Engineer may designate by written notice delivered to the County.

17. Reports of Accidents, Etc.

Within 24 hours after the occurrence of any accident or other event which results in, or might result in, injury to the person or property of any third person (other than an employee of the Engineer), whether or not it results from or involves any action or failure to act by the Engineer or any employee or agent of the Engineer and which arises in any manner from the performance of this Agreement, the Engineer shall send a written report of such accident or other event to the County, setting forth a full and concise statement of the facts pertaining thereto. The Engineer shall also immediately send the County a copy of any summons, subpoena, notice, or other documents served upon the Engineer, its agents, employees, or representatives, or received by it or them, in connection with any

matter before any court arising in any manner from the Engineer's performance of work under this Agreement.

18. The County's Acts

Anything to be done under this Agreement by the County may be done by such persons, corporations, or firms as the County may designate.

19. Limitations

Notwithstanding anything herein to the contrary, all covenants and obligations of the County under this Agreement shall be deemed to be valid covenants and obligations only to the extent authorized by the Act creating the County and permitted by the laws and the Constitution of the State of Texas.

20. Captions Not a Part Hereof

The captions or subtitles of the several sections and divisions of this Agreement constitute no part of the content hereof, but are only labels to assist in locating and reading the provisions hereof.

21. Controlling Law, Venue

This Agreement shall be governed and construed in accordance with the laws of the State of Texas. This Agreement shall be performed entirely in Harris County, Texas and the parties hereto acknowledge that venue is proper in Harris County, Texas, for all disputes arising hereunder and waive the right to sue or be sued elsewhere.

22. Successors and Assigns

The County and the Engineer bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

23. Independent Contractor

Notwithstanding any provision of this Agreement, the Engineer shall at all times act as an independent contractor, and not as an employee of the County, and the Engineer shall be responsible for the means and methods employed in performing services hereunder.

24. Certificate of Interested Parties (Form 1295)

Texas law requires all parties who enter into any contract with the County that must be approved by Commissioners Court to disclose all Interested Parties. Texas Ethics Commission Form 1295 must be completed in its entirety. If changes to this Form are necessary during this Agreement, the Engineer will notify and send the County an updated and complete version.

25. Additional Statutory Requirements

Company represents and certifies that, at the time of execution of this Agreement, Company (including any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same) is not listed by the Texas Comptroller of Public Accounts pursuant to Chapters 2252 or 2270 of the Texas Government Code, nor will Company engage in scrutinized business operations or other business practices that would cause it to be listed during the term of this Agreement.

26. Historically Underutilized Business Requirements

In accordance with Section 284.007 of the Texas Transportation Code, the County shall make a good faith effort to meet or exceed goals provided under Section 284.007(b) for awarding contracts and subcontracts associated with a project it operates, maintains, or constructs to historically underutilized businesses. For purposes of this section, the term "historically underutilized business" has the meaning given to such term in subsection (d) of Section 284.007, Transportation Code. The Engineer agrees to reasonably assist the County in its efforts to meet or exceed the goals provided under Section 284.007(b) for awarding contracts or subcontracts to historically underutilized businesses.

APPROVED AS TO FORM:

CHRISTIAN D. MENELEE
County Attorney

HARRIS COUNTY

DocuSigned by:
By: Marcy Linebarger
Name: Marcy Linebarger
Assistant County Attorney

By: _____
LINA HIDALGO
County Judge

Date: _____

KCI TECHNOLOGIES, INC.

DocuSigned by:
By: Erick Fry
Name: Erick Fry
Title: Vice President
Date: 5/26/2021

APPENDIX A

SCOPE OF SERVICES

Tolling Engineering and Inspection Services

GENERAL DESCRIPTION

SERVICES TO BE PROVIDED BY THE HARRIS COUNTY TOLL ROAD AUTHORITY (HCTRA)

HCTRA shall provide the following items, if available, to the Engineer:

- A. Copies of as-built or existing plans for the roadway, toll plazas, etc.
- B. Contact information for each Project Consultant.
- C. Illumination lamp (LED or other lighting type) manufacturer name and model number used at each tolling plaza.
- D. The latest version of electronic MicroStation V8i files for each of the above-mentioned plans, including topographic mapping, proposed planimetrics, profiles, drainage, signing and markings, traffic control plans, cross-sections and utilities.
- E. All available survey information including survey control information, mapping, point files, and field notes.
- F. All available geotechnical information and reports.
- G. All available utility information and coordination status.

ENGINEER GENERAL REQUIREMENTS

The work to be performed by the Engineer under this scope of work consists of providing roadway illumination, civil, structural, electrical, and traffic engineering design services for the Project. The Engineer shall include all computations of lighting intensities, uniformity selection of luminaire (truss light), type of luminaire distribution, and mounting heights at each tolling facility as part of the design. Lighting calculations depicting the illuminance along the tolling zone shall be submitted for review at the 30% submittal milestone. Lighting calculations shall be made in accordance with methods established by the Illuminating Engineering Society of North America (IESNA).

The Engineer shall prepare all work in accordance with the latest version of applicable HCTRA and/or TxDOT procedures, specifications, manuals, guidelines, standard drawings, tolling vendor guidelines and standards, standard specifications or previously approved special provisions and special specifications to include *HCTRA Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, May 2017*. The Engineer shall provide the design in accordance with the current standards and/or recommendations of the American Association of State Highway and Transportation Officials (AASHTO), IESNA, and National Electrical Manufacturers Association (NEMA). The electrical design shall comply with applicable national and local codes and ordinances to include the National Electrical Code (NEC), National Electrical Safety Code (NESC).

The Engineer shall provide the engineering required for the preparation of plans, specifications, and estimates (PS&E), bid letting, and contract award assistance for the PS&E design package. The deliverables for the PS&E design package shall include electronic design drawings in pdf and CADD format and technical specifications. The Engineer shall provide submittals for interim progress reviews by HCTRA at 30%, 60%, 90%, and final completion milestones.

QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

The Engineer shall provide HCTRA with its own QA/QC plan for approval. The Engineer shall resolve or make the revisions to the contract documents during each of the submittal reviews, 30%, 60%, 90%, and final. The Engineer shall provide evidence that all comments provided have been addressed. This evidence will be in the form of a written response (e.g., Excel spreadsheet with comment and response) and, if applicable, corrected plan sheets with indications where comments were addressed.

SERVICES TO BE PROVIDED BY THE ENGINEER:

I. TOLLING ENGINEERING AND INSPECTION SERVICES

The Engineer shall conduct illumination studies for designated locations or sections of roadways for improving camera operations and improving supplemental lighting. The Engineer shall obtain available data from HCTRA and review the data needed to support the design of the Project. The Engineer shall coordinate with HCTRA for additional information not provided but necessary to complete the task(s).

The studies will contain the following:

- Conduct a site inspection at the study location and record camera / lighting characteristics observed in the field. The field work may include but not limited to taking measurements, locating utilities, locating existing tolling / camera / lighting equipment, identifying existing conditions including pavement and pavement markings, measuring lighting intensity with a light meter and taking digital

photographs. This will be provided for all mainlane toll plazas and tolled entrance / exit ramps for the following roadways:

- Sam Houston Tollway
 - Tomball Tollway
 - Westpark Tollway
 - Katy Managed Lanes
 - Fort Bend Parkway
 - Hardy Toll Road
- All field work data will be logged into a GIS database linking photographs and existing equipment to location on a map.
- An existing and proposed computer lighting software model shall be produced using AGi32 analytical software for each location in order to determine how to achieve a minimum of 25 ft-candles for the camera license plate reading / tolling zones.
- A photogrammetric “heat map” will be generated for each existing and proposed location that shows lighting coverage in the tolling area.
- The Engineer shall prepare and submit a preliminary report to HCTRA for the roadways noted above.

These will summarize the findings of the field inventories for each location. The reports shall include existing condition diagrams, field photographs, light meter results, and any recommended improvements along with preliminary cost estimate. The Engineer shall address all of HCTRA’s review comments.

II. GEOTECHNICAL ENGINEERING

If geotechnical engineering is required for this project, a subconsultant (approved by HCTRA) will be added to the contract.

III. TOPOGRAPHIC SURVEY

Aerial photography / field measurements will be the first source to utilize in plan layouts. If more detailed information is required, topographic surveys will be utilized to note building outlines, power sources and other utilities.

All surveys shall meet or exceed the standards set in the Professional Land Surveying Practices Act, the General Rules of Procedures and Practices promulgated by the Texas Board of Professional Land Surveying (TBPLS) and shall be accomplished in an organized and workman-like manner, subject to the approval of HCTRA.

IV. SUBSURFACE UTILITY ENGINEERING (SUE)

To supplement topographic survey information, SUE may be required for this project at the written request of the HCTRA Project Manager. The written request must include a description of the work requested, a mutually agreed upon time limit, and any special instructions for coordination and submittal.

V. FINAL DESIGN

DIGITAL VIDEO AUDIT SYSTEM

The design for the relocation of DVAS cameras shall include the underground conduit infrastructure from the relocated DVAS camera to the toll equipment enclosures such as equipment buildings and/or toll equipment cabinets.

The Designer shall evaluate the existing conditions and provide an underground conduit design that connects the relocated DVAS cameras to the toll equipment enclosures. The type of pole to support the DVAS cameras and specific location requirements will be provided by HCTRA.

The design shall include provisions to repair pavement, landscaping, etc. to return the locations back to the original conditions. The electrical conductor and communication cable required to integrate the DVAS cameras will be provided by others.

This will be provided for all mainlane toll plazas and tolled entrance / exit ramps for the following roadways:

- Sam Houston Tollway
- Tomball Tollway
- Westpark Tollway
- Katy Managed Lanes
- Fort Bend Parkway
- Hardy Toll Road

The major components of construction include: structural support for DVAS cameras additional toll plaza-mounted illumination fixtures, underground conduit, concrete removal/replacement, and other incidentals.

SUPPLEMENTAL LIGHTING

The design for the supplemental lighting shall include the structural supports to mount the luminaire to the various structures along the toll road such as cantilever and overhead sign bridge trusses as well as tubular structures. The Designer shall evaluate the structure and provide luminaire mounting details specific to the structure type. The design shall also include electrical modifications necessary to integrate the luminaires at each existing tolling facility. The type of luminaire and lighting levels will be provided by HCTRA but shall be analyzed by the Designer.

This will be provided for all mainlane toll plazas and tolled entrance / exit ramps for the following roadways:

- Sam Houston Tollway
- Tomball Tollway
- Westpark Tollway
- Katy Managed Lanes
- Fort Bend Parkway
- Hardy Toll Road

The major components of construction include: structural mounts for truss lights, truss lights, electrical conductors, electrical modifications, and other incidentals. Focus will be on the tolling zones and it will be determined if any approach / departure lighting is required.

Overhead and rigid metal (RM) conduit is to be utilized unless infeasible. TxDOT conduit / illumination standards to be used.

STRUCTURAL PAVEMENT REPAIR

The design plans for the structural repair of the concrete pavement within the tolling zones shall be prepared in accordance with HCTRA standards and shall include typical sections. The Designer shall evaluate each location to determine the limits of repair, impacts to the loop stub-ups and underground loop conduits, thickness of pavement, and provide design plans that contain sufficient information to accurately execute the proposed repairs. This includes pavement marking adjustments.

The Designer shall also prepare design plans for the loop stub-ups and underground loop conduits impacted by the proposed structural repair. Profile views shall be

developed as necessary for the individual structural repairs. The Designer shall develop any details necessary for the execution of the proposed structural repairs and shall include standard details that are applicable. Currently, there is one (1) location requiring concrete pavement repair which are as follows:

1. Alameda Entrance Toll Ramp (24'x100')

Includes an additional 10 locations, to be determined.

The major components of construction include: removal of concrete pavement, epoxy coated reinforcing steel, concrete, and other incidentals.

TRAFFIC CONTROL PLANS (TCP) / DETOUR PLANS

The Engineer shall be responsible for preparing traffic control plans (TCPs) / detour plans for each location requiring improvements or as directed by HCTRA. Traffic control standards shall be utilized when applicable or a detailed TCP / detour plans shall be developed in accordance with the latest edition of the Texas Manual of Uniform Traffic Control Devices (TMUTCD). The Engineer shall provide written narratives of the construction sequencing and work activities for the Project.

DELIVERABLES

Digital Video Audit System / Supplemental Lighting

- PDF of study for each roadway (preliminary seal).
- PDF of standard drawing for each mainlane plaza and tolled entrance / exit ramps for each roadway noted above. The intent is to have a standard that applies to each roadway.
- For unique situations, PDF of signed and sealed drawings will be developed for the contractor to utilize.

Structural Pavement Repair

- PDF of signed and sealed drawings will be developed for the contractor to utilize in construction.

Traffic Control Plans (TCP) / Detour Plans

- PDF of signed and sealed drawings will be developed for the contractor to utilize in construction.

Include electronic design drawings in PDF format and technical specifications, and are detailed as follows:

- A. Preparation of quantities and construction cost estimates for the Project.
- B. Preparation of General Notes and Specification Data Sheets.
- C. Provide submittals for interim progress reviews by HCTRA including the 30%, 60%, 90% and final drawings for the PS&E package. The Milestone submittals shall follow the guidelines used by HCTRA for plan submittal and percent of completion for each milestone. The submittals shall include:
 - 1. The 30% Milestone. The Engineer shall submit to HCTRA.
 - 2. The 60% Milestone. The Engineer shall submit to HCTRA. The Engineer shall provide written responses to the 30% comments and return any redlined sheets to HCTRA.
 - 3. The 90% Milestone. The Engineer shall submit to HCTRA. The Engineer shall provide written responses to the 60% comments and return any redlined sheets to HCTRA.
 - 4. The 100% Milestone. The Engineer shall submit to HCTRA. The Engineer shall provide written responses to the 90% comments and return any redlined sheets to HCTRA.

VI. BID PHASE SERVICES

The Engineer shall provide Bid Phase Services at the written request of the HCTRA Project Manager. The written request must include a description of the work requested, a mutually agreed upon time limit, and any special instructions for coordination and submittal. These services shall include, but are not limited to the following:

- 1. Assist with proposal / bid documentation
- 2. Attend prebid meeting, review of bids
- 3. Assist in selection and recommendation of contractor
- 4. Attend Commissioners Court for contractor award

VII. CONSTRUCTION PHASE SERVICES

The Engineer shall provide Construction Phase Services at the written request of the HCTRA Project Manager. The written request must include a description of the work requested, a mutually agreed upon time limit, and any special instructions for coordination and submittal. These services shall include, but are not limited to the following:

1. Attend preconstruction meeting
2. Attend partnering meeting
3. Attend field meetings and make visits to site
4. Calculate quantities and assist in preparing change orders
5. Review and approval of shop drawings
6. Review and approval of forming details
7. Responding to requests for information (RFIs)
8. Providing minor plan revisions
9. Answering general questions
10. Providing clarification
11. Inspection of completed work
12. Review of Contractor daily reports / invoices
13. Other project related tasks in support of HCTRA during construction

VIII. PROJECT MANAGEMENT

The Engineer shall provide the overall management of the contract and coordination of activities with HCTRA necessary to complete the associated task(s).

A. Project Management.

1. Provide general management and administration of contract work, including internal staffing and assignments.

B. Project Administration.

1. Prepare correspondence and progress reports, and update contract cost and budgets on a monthly basis.
2. Maintain routine Project record keeping.

C. Progress/Coordination Meetings.

1. Prepare a schedule for the work to be performed, including which staff will be on the design team. The schedule must satisfy the

requirements of the Project and must be approved by HCTRA prior to commencing work.

2. Participate in a kick-off meeting and present any recommended project revisions before beginning work. Also discuss the schedule and obtain input to refine the work plan to best meet Project needs. Discuss the availability of applicable baseline data from HCTRA and other agencies. Define preference regarding notification for meetings and Project communication methods.
3. Attend up to twenty-four (24) status meetings (assume 1 coordination meeting per month) with HCTRA and contractors as required to monitor the development of the Project and discuss and resolve design concerns and review comments. The meetings will be held to facilitate coordination with all the Project Tolling Managers, other affected cities and counties, and other Project stakeholders during the development of the Project.
4. The Engineer shall take minutes of each progress/coordination meeting related to the design and submit draft meeting minutes to meeting attendees within five working days after the meeting date. Submit final minutes within three working days of the receipt of the comments.

D. Invoice and Progress Reporting.

1. By the end of the first week of each month, the Engineer shall submit a monthly written progress report to HCTRA. The Engineer's written progress report shall describe activities performed during the reporting period by scope task; activities planned for the following period; problems encountered and actions taken to remedy them; a list of meetings attended; a list of deliverables submitted in the reporting period; and overall status, including a physical percent complete and a financial percent complete by scope task and overall.
2. Invoices are to be submitted on a monthly basis. The Engineer will prepare each invoice in the format provided by HCTRA. When directed by HCTRA, the Engineer shall modify the information and/or format. Hard copies of the invoice shall be delivered to HCTRA, via email until further notice from HCTRA. For Time and Materials contracts and/or contingency work, certified timesheets shall be submitted with the invoice.
3. The Engineer shall also submit a copy of the month's progress report with each invoice.

E. Correspondence.

1. The Engineer shall prepare a letter of transmittal to accompany each document submitted. At a minimum, the letter of transmittal shall include the date, Project name, Project limits and contract number.
2. The Engineer will upload its drawings in Computer-Aided Design and Drafting (CADD) format as directed by HCTRA.
3. At the completion of the Project, the Project CADD files will be submitted to HCTRA.

F. Project Schedule.

1. HCTRA will provide an overall milestone schedule for the Project. The Engineer will adhere to the Design Schedule provided by HCTRA, where only HCTRA is authorized to modify the Project schedule. The Engineer, by accepting this scope agrees to meet the Project schedule.

APPENDIX B

MAXIMUM RAW SALARY RATES

JOB CLASSIFICATION	Maximum Raw Salary Rate
Principal Engineer	\$110.00
Project Manager	\$90.00
Senior Engineer	\$81.00
Project Engineer	\$70.00
Graduate Engineer (EIT)	\$38.50
Registered Professional Land Surveyor	\$0.00
3 Person Survey Crew	\$0.00
Senior CADD Technician	\$51.00
CADD Technician	\$33.00
Senior GIS Technician	\$36.00
GIS Technician	\$0.00
Resident Engineer (RE)	\$63.00
Construction Observer	\$55.00
Two-Man Designating Crew	\$0.00
Vacuum Excavation Truck with 2 Technicians	\$0.00
Record Keeper	\$26.50
Administrative Assistant	\$40.00
Clerical	\$31.00
Note: Maximum Raw Salary Rates shown above are effective for the first year of the approved contract and are subject to an annual escalation rate of 4% effective on the contract anniversary date. Loaded labor rates are to be based on 3.00 multiplier x raw labor rate (up to maximum).	
Maximum Reimbursable Expense	
Mileage	Per mile
Car Rental	Each
Airfare	Each
Lodging	Each
Copies (Up to 11" x 17")	Each
Rental Car Fuel	Per Gallon
Permits	Each
	IRS Approved Rate
	At cost
	At cost
	At cost
	\$0.
	At cost
	At cost

ORDER OF COMMISSIONERS COURT
Authorizing an Agreement with KCI Technologies, Inc.

The Commissioners Court of Harris County, Texas, met in regular session at its regular term at the Harris County Administration Building in the City of Houston, Texas, on _____, with all members present except _____.

A quorum was present. Among other business, the following was transacted:

ORDER AUTHORIZING AN AGREEMENT
WITH KCI TECHNOLOGIES, INC.
TO PERFORM TOLLING ENGINEERING AND INSPECTION SERVICES

Commissioner _____ introduced an order and moved that Commissioners Court adopt the order. Commissioner _____ seconded the motion for adoption of the order. The motion, carrying with it the adoption of the order, prevailed by the following vote:

	Yes	No	Abstain
Judge Lina Hidalgo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Rodney Ellis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Adrian Garcia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Tom S. Ramsey, P.E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. R. Jack Cagle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The County Judge thereupon announced that the motion had duly and lawfully carried and that the order had been duly and lawfully adopted. The order adopted follows:

IT IS ORDERED that:

1. The Harris County Judge is authorized to execute on behalf of Harris County an agreement in an amount not to exceed **\$1,000,000** with KCI Technologies, Inc. to provide tolling engineering and inspection services. The Agreement is incorporated by reference and made a part of this order for all intents and purposes as though set out in full word for word.
2. All Harris County officials and employees are authorized to do any and all things necessary or convenient to accomplish the purposes of this order.