

AMENDMENT No. 4 to
PROFESSIONAL SERVICES AGREEMENT
for
Windhaven Parkway at KCS Railroad

The Professional Services Agreement for Windhaven Parkway at KCS Railroad entered into by the City of Lewisville, Texas (“City”), and Bridgefarmer & Associates, Inc. (“Consultant”), on April 27, 2010, as amended (the “PSA”), is hereby amended to include additional professional services and additional compensation in connection with the project at Windhaven Parkway at KCS Railroad, hereinafter called Project.

I. PROJECT.

The Project, including additional scope of work items as authorized herein, shall involve:

- A. The design of new location paving, drainage, retaining walls, signing and pavement marking for approximately 1,200 feet of Windhaven Parkway in the City of Lewisville. The street will be a four-lane divided, consisting of 25 feet of pavement width in each direction and a median width of 25 feet wide, all measured back of curb to back of curb.
- B. The design of a railroad bridge over Windhaven Parkway, approximately 100 feet in length; and temporary and permanent railroad tracks covering a total length of approximately 2,700 track feet.

II. SERVICES. The Consultant will perform the following services as part of the Project:

- A. Preparation of construction plans suitable for review, permitting, bidding, construction, inspection and record keeping.
- B. Preparation of technical specifications required for bidding and construction of the project.
- C. Engage the services of a sub-consultant to perform subsurface borings, testing and recommendations for retaining wall and bridge design.
- D. Engage the services of a sub-consultant to perform the surveying needed for the design of the project and construction staking.
- E. Coordinate with the City of Lewisville and KCS Railroad in the preparation of Exhibit “A” documents for the railroad agreement.
- F. Assist the City through the bidding/construction/closure phase of the project.

A more detailed description of all services involved in the Project is contained in Attachment "A", which is hereby included in this Amendment No. 4 to Professional Services Agreement for Windhaven Parkway at KCS Railroad ("Amendment") by reference. These services include the additional services authorized by this Amendment, which are outlined more specifically in Attachment "B," which is included in this Amendment by reference.

III. ADDITIONAL COMPENSATION.

The Consultant agrees to perform the additional services authorized by this Amendment for the amounts stated; and the City agrees to make payments in amounts stated. The total fee agreed to for all additional services is **\$290,035.00**. A breakdown of fees for the additional services is included in Attachment "B", which is hereby included in this Amendment by reference.

The total maximum fee for all services under the PSA will increase from **\$735,142.00** to **\$1,025,177.00**.

Invoices shall be submitted by cover letter from the project engineer. The letter shall certify that the invoice properly represents work actually done. The City reserves the right to request additional justification prior to payment of any invoice. If satisfactory justification is not received, the City reserves the right to amend the invoice or to refuse to make payment without incurring penalty or interest. Invoices shall be based on percentage of work completed per identifiable unit of work. The City agrees to make prompt payments for all approved invoices and agrees to pay a charge of 10 percent per annum for approved invoices not paid within 30 days from the date of approval.

IV. INSURANCE. The Consultant agrees to maintain insurance throughout the term of the contract, in accordance with Attachment "D". All Certificates of Insurance shall be kept current and shall be forwarded to the Purchasing Division of the City by cover letter from the Consultant. Insurance certificate must be received and approved prior to commencement of work. The Consultant shall also review and forward certificates covering sub-consultants.

V. REUSE OF DOCUMENTS. All documents, including drawings and specifications prepared by the Consultant as part of this Project, are instruments of service in respect of the Project. They are not intended or represented to be suitable for reuse by the City or others on extensions of the Project or on any other project. Any reuse without written verification or adaptation by the Consultant for the specific purpose intended will be at City's sole risk and without liability or legal exposure to the Consultant from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting therefrom. Any such verification or adaptation will entitle the Consultant to further compensation at rates to be agreed upon the City and the Consultant.

- VI. OWNERSHIP OF DOCUMENTS.** Original documents, plans, designs, reports and survey notes developed in connection with services performed hereunder belong to, and remain the property of the City, in consideration of which it is mutually agreed that the City will use them solely in connection with the Project, save with the express consent of the Consultant. The Consultant shall retain reproducible copies or electronic files of such documents for at least five (5) years and shall furnish copies to the City for reimbursable costs, if so requested.
- VII. INDEMNIFICATION. THE CONSULTANT AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY, ITS OFFICERS, AGENTS AND EMPLOYEES, HARMLESS AGAINST ANY AND ALL CLAIMS, LAWSUITS, JUDGMENTS, COSTS AND EXPENSES FOR PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE OR OTHER HARM FOR WHICH RECOVERY OF DAMAGES IS SOUGHT, SUFFERED BY ANY PERSON OR PERSONS, THAT IS CAUSED BY OR RESULTS FROM ANY NEGLIGENT ACT OR OMISSION, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY CONSULTANT, ITS AGENT, EMPLOYEE, CONSULTANT UNDER CONTRACT, OR ANY OTHER ENTITY OVER WHICH THE CONSULTANT EXERCISES CONTROL, IN THE PERFORMANCE OF THIS AGREEMENT; EXCEPT THAT THE INDEMNITY AND DEFENSE PROVIDED FOR IN THIS PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY RESULTING FROM THE SOLE NEGLIGENCE OR FAULT OF THE CITY, ITS OFFICERS, AGENTS, EMPLOYEES OR SEPARATE CONSULTANTS OR CONTRACTORS, AND IN THE EVENT OF JOINT AND CONCURRING NEGLIGENCE OR FAULT OF THE CONSULTANT AND THE CITY, RESPONSIBILITY AND INDEMNITY, IF ANY, SHALL BE APPORTIONED IN ACCORDANCE WITH THE LAW OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE CITY UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW. THE DUTY TO DEFEND SHALL NOT APPLY IN THE CASE OF A CLAIM BASED WHOLLY OR PARTLY ON THE NEGLIGENCE OF, FAULT OF, OR BREACH OF CONTRACT BY THE CITY, ITS AGENTS OR EMPLOYEES, OR OTHER ENTITY (EXCLUDING THE CONSULTANT OR ITS AGENT, EMPLOYEE, CONSULTANT UNDER CONTRACT, OR ANY OTHER ENTITY OVER WHICH THE CONSULTANT EXERCISES CONTROL) OVER WHICH THE CITY EXERCISES CONTROL, IN WHICH INSTANCE THE CITY'S REASONABLE ATTORNEY'S FEES SHALL BE REIMBURSED BY CONSULTANT IN PROPORTION TO THE CONSULTANT'S LIABILITY. THE PROVISIONS OF THIS PARAGRAPH ARE SOLELY FOR THE BENEFIT OF THE PARTIES HERETO AND NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY OTHER PERSON OR ENTITY.**
- VIII. TERMINATION.** This Agreement may be terminated without cause at any time prior to completion of the Consultant's services by the City, or by the Consultant with cause, upon

seven days written notice to the City at the address of record. Termination shall release each party from all obligations of this Agreement, except as specified in Paragraphs V, VI and VII above. Upon notice of termination, the Consultant shall prepare and submit to City a final invoice within 15 days.

- IX. TIME OF COMPLETION.** An amended project schedule, shown in Attachment “C” is hereby included in this Professional Services Agreement by reference. The Consultant agrees to perform the services in accordance with the schedule, to the extent over which the Consultant has control.
- X. INDEPENDENT CONTRACTOR.** Consultant shall be considered an independent contractor and not an agent, servant, employee, or representative of the City in the performance of the services. No term or provision herein or act of the City shall be construed as changing that status.
- XI. CONFIDENTIAL INFORMATION.** To the extent allowed by law, the City will safeguard and keep from release any documents marked “proprietary” or information not generally available to the public. However, the City will, if required, comply with all requirements of the Texas Public Information Act with regard to any documents in its possession at the time of a request made under that Act.
- XII. GOVERNING LAW AND VENUE.** This Amendment and the PSA it amends are governed by the laws of the State of Texas. Exclusive venue for any dispute arising out of this Amendment or the PSA it amends is in Denton County, Texas.
- XIII. ARBITRATION.** In the event of a dispute which may arise under this Amendment or the PSA it amends, the City does not agree to arbitration.
- XIV. PROTECTION OF RESIDENT WORKERS.** Protection of Resident Workers: The City of Lewisville actively supports the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, employers may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The employer must verify the identity and employment eligibility of anyone to be hired, which includes completing the Employment Eligibility Verification Form (I-9). The Consultant and any subcontractor hired by the Consultant shall establish appropriate procedures and controls so no services under the Contract Documents will be performed by any worker who is not legally eligible to perform such services or employment. The City reserves the right to audit consultant’s or subcontractor’s employment records to verify the existence of a completed Employment Eligibility Verification Form (I-9) for every worker performing services under the Contract Documents. The audit will be at the City’s expense.
- XV. IMMIGRATION REFORM AND CONTROL ACT (8 U.S.C. §1324a).** The City of Lewisville supports the Immigration Reform and Control Act (IRCA) which is a

comprehensive scheme prohibiting the employment of unauthorized aliens in the United States. The Consultant shall submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that it has not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Consultant shall ensure that its Subcontractors submit a declaration signed under penalty of perjury of the laws of the State of Texas stating that they have not been found in violation of IRCA by the United States Attorney General or Secretary of Homeland Security in the preceding five (5) years. The Consultant and its Subcontractors shall at all times during the term of the contract with the City comply with the requirements of IRCA and shall notify the City within fifteen (15) working days of receiving notice of a violation of IRCA. The City may terminate a contract with the Consultant if the City determines that (a) the Consultant or its Subcontractors have been untruthful regarding IRCA violations in the preceding five (5) years; (b) if the Consultant fails to ensure that its Subcontractors submit the aforementioned declaration; or (c) the Consultant or its Subcontractors fail to timely notify the City of an IRCA violation.

XVI. ADA COMPLIANCE. All goods and services provided to the City must be compliant with the Americans with Disabilities Act ("ADA") and all regulations promulgated pursuant to the ADA. Consultant will be required to certify compliance, if applicable.

XVII. SUCCESSORS AND ASSIGNS. The City and Consultant each binds itself and its partners, successors, executors, administrators and assigns to the other party of this Amendment and to partners, successors, executors, administrators and assigns of each other in party in respect to all covenants of this Agreement. Neither the City nor the Consultant shall assign, sublet or transfer its interest in this Amendment without the written consent of the other. Nothing herein shall be construed as giving any right or benefits hereunder to anyone other than the City and the Consultant.

XVIII. TEXAS GOVERNMENT CODE CHAPTER 2270. Pursuant to Texas Government Code Chapter 2270, Consultant affirms that execution of this Amendment serves as written verification that Consultant: (1) does not boycott Israel, as defined by Texas Government Code Section 808.001; and (2) will not boycott Israel during the term of the PSA.

XIX. TEXAS GOVERNMENT CODE CHAPTER 2252. Pursuant to Texas Government Code Chapter 2252, Subchapter F, Consultant affirms, by executing this Amendment, that is it not identified on a list created by the Texas Comptroller of Public Accounts as a company known to have contracts with or provide supplies or services to Iran, Sudan, or a foreign terrorist organization.


XX. PERFORMANCE: In compliance with Texas Local Government Code 271.904, the Contractor agrees to perform the services outlined herein with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license; and to perform the services outlined herein as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer, under the schedule as referenced in Section IX of this Agreement.

XXI. CLOSURE. By signature below, the parties to this Agreement hereby bind themselves to the terms stated herein, including all attachments referred to herein.

CITY OF LEWISVILLE, TEXAS
Approved by the Lewisville City
Council _____

Bridgefarmer & Associates, Inc.

By: _____
Donna Barron, City Manager

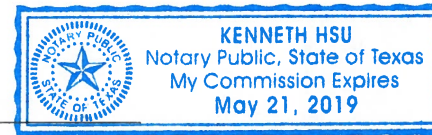
By: 
Mansoor Ahsan, P.E. Chief Executive Officer

Attest: _____
Julie Worster
City Secretary

Attest: 

Date: _____

Date: 03/19/2019



CITY OF LEWISVILLE
151 West Church Street
Lewisville, Texas 75057

Bridgefarmer & Associates, Inc.
2350 Valley View Lane
Dallas, Texas 75234

APPROVED AS TO FORM:

Lizbeth Plaster, City Attorney

Date: _____

AMENDMENT No. 4
ATTACHMENT “A” SERVICES

Windhaven Parkway at KCS Railroad

This Attachment “A” further defines the services to be performed by Bridgefarmer & Associates, Inc. in conjunction with the preparation of construction plans for Windhaven Parkway new location four-lane divided roadway under a proposed railroad bridge at KCS Railroad. Services include the following:

- Project Management
- Design Survey & Construction Staking
- Geotechnical Investigations
- Roadway
- Drainage
- Traffic
- **Bridge Design**
- Railroad Coordination
- **Construction Services**
- Miscellaneous

II.A. SURVEYING

1. Right-of-Entry. The Survey Consultant shall secure right-of-entry (short of litigation) as required for the project.
2. Survey Standards. Vertical benchmarks shall be established such that all points of construction shall be within 300 feet of a benchmark. Benchmarks should not be subject to loss during construction. Fire hydrants and similar appurtenances are not to be used for benchmarks. The City shall furnish one or more benchmarks for this project. The surveyor shall establish temporary benchmarks throughout the length of the project.
3. Topographic survey will include:
 - a. Railroad cross sections at 100 ft spacing (approximately 2000 lf)
 - b. Windhaven Parkway cross sections at 50 ft spacing (approximate 1400 lf).
 - c. Cross section will a minimum of 25 ft beyond right-of-way
 - d. Locate drainage structure along existing Windhaven
 - e. Locate existing drainage ditch and drainage structure at SH 121
 - f. Coordinate with Dig Tess to locate utilities
 - g. Prepare Microstation V8 topographic file, points file and DTM
 - h. Pump Station Site and 30’ utility easement adjacent
 - i. Left turn lane at Cookie lane intersection
4. Existing property corners, iron pins, etc. shall be tied to into established existing rights-of-way. Prior to surveying on private property, the survey shall obtain oral

permission from the property owners and/or tenant. If permission cannot be obtained, the City will assist or other arrangements worked out.

5. During the construction phase, the Survey Consultant shall provide construction staking for use by the contractor. Clearing limits, offset line and grade stakes for pavement back of curb (two rough cut and one final grade), storm drain, including appurtenances, relocation of the City 16" water line, pump station site, and relocation of the 16 inch and 24 inch Upper Trinity water line crossings shall be set. A minimum of five (5) days notice must be given before staking. Any lost or destroyed stakes will be replaced at the Contractor's expense. The Survey Consultant shall also verify by survey, line and grade of the proposed improvements by periodic checks sufficient to assure the City that the improvements are constructed in accordance with the plans and specifications.

Construction staking will include:

- a. Verify and reset control
- b. Stake construction limits
- c. Stake temporary and permanent railroad tracks
- d. Rough cut/fill stakes for paving
- e. Line and grade stakes for storm drain
- f. Final cut/fill stakes for paving
- g. Line and grade stakes for City 16" water line relocation
- h. Location and grade stakes for pump station site (driveway, utilities, structures, building, fence, walls, landscaping and irrigation)
- i. Left turn lane at Cookie Lane intersection
- j. Line and grade stakes for Upper Trinity 16" & 24" water line crossings

6. Preparation of Final Plat

The survey sub-consultant shall prepare a final plat for the proposed pump station site and adjacent right-of-way dedication to be submitted for formal City approval. The final plat shall be submitted in accordance with regulations, policies, and standards of the City.

7. Construction, Slope, and Wall Maintenance Easements

The survey consultant shall field locate and establish of parent/easement tracts (3 owners), prepare exhibits and metes and bounds for six (6) easements (3 owners) and stake during construction.

8. The survey consultant will perform four (2) SUE test holes required to horizontally and vertically locate the existing 16" water line to be relocated and four (4) SUE test holes required to horizontally and vertically locate the existing Upper Trinity Regional Water District (UTRWD) lines.

II. B GEOTECHNICAL INVESTIGATION.

The Consultant shall determine the location of proposed soil borings for bridge design, embankment settlement analysis, retaining walls and slope stability, and along storm sewer alignment, and pavement analysis. Once the general location and depth of borings is reviewed by the City and recommendations are made, the Consultant shall perform soil borings (field work), soil testing and prepare the soil borings in accordance with standard procedures. The Consultant shall prepare a geotechnical report to include soil boring location, soil boring logs, signed, sealed and dated for insertion into plans, lab test results, design capacity curves including skin friction and point bearing for piling, drilled shaft and spread footing foundations.

1. Bridge Borings - Subsurface conditions will be explored by drilling and sampling, and performing cone penetration tests at 3 boring locations. This task will include:
2. Drilled Shaft Bridge Foundations - Provide a geotechnical report that provides recommended drilled shaft resistance design values if a new bridge is selected as the preferred alternative. This task will include:
 - a. Laboratory testing to evaluate soil and rock compressive strength
 - b. Provide recommended end bearing and skin friction resistance values for design of drilled shafts.
 - c. Provide recommended lateral earth pressures and drainage requirements for bridge abutment vertical walls.
3. Report - Prepare a geotechnical report that presents results of field and laboratory test results and geotechnical recommendations. Four copies of a draft report will be submitted for review and comments. Four copies of a final report will be submitted that incorporates review comments.
4. Report – Perform concrete pavement, earthwork and sub-grade analysis and prepare a Pavement Design Report that presents results of field and laboratory test results and geotechnical recommendations. Three copies of a final report will be submitted, unless otherwise requested.
5. Geotechnical Tasks Not Included - The following tasks are not included in the geotechnical scope of services.
 - a. Obtaining permission to access roadway or railroad right-of-ways.
 - b. Drilling borings within 25 feet of active railroad tracks at top of cut slopes.

II. C. ROADWAY DESIGN

1. Roadway Design. The Consultant shall provide the design of a four-lane divided (two in each direction) facility with standard curb, including a left turn lane at Cookie Lane. The design shall be consistent with the City of Lewisville design standards.

The Consultant shall provide Geometric Design consisting of Horizontal and Vertical Alignment and Grading Design consisting of Typical Sections and Design Cross Sections.

2. Develop Roadway Plan-Profile Sheets. The Consultant shall provide roadway plan and profile drawings using CADD standards as required by the City. The drawings shall consist of a planimetric file of existing features and files of the proposed improvements. The roadway base map shall contain line work that depicts existing surface features obtained from the schematic drawing. Existing major subsurface and surface utilities shall be shown. Existing and proposed right-of-way lines shall be shown.

The plan view shall contain the following design elements:

- a. Calculated roadway centerlines and horizontal control points shall be shown. The alignments shall be calculated using GEOPAK.
- b. Pavement edges for all improvements.
- c. Lane and pavement width dimensions.
- d. Geometry.
- e. Sidewalks along both sides of roadway
- f. Proposed structure locations, lengths and widths.
- g. Direction of traffic flow on all roadways. Lane lines and/or arrows indicating the number of lanes shall also be shown.
- h. ROW lines and easements.
- i. Begin/end superelevation transitions and cross slope changes.
- j. Limits of riprap, block sod, and seeding.
- k. Existing utilities and structures.
- l. Benchmark information.
- m. Radii callouts, curb location, CTB, guard fence, crash safety items and Americans with Disabilities Act Accessibility Guidelines (ADAAG) compliance items.

The profile view shall contain the following design elements:

- n. Calculated profile grade. Vertical curve data, including “K” values shall be shown.
- o. Existing ground profile at left and right right-of-way lines and proposed profile at left and right top of curb and along the proposed centerline of the Windhaven Parkway.

- p. Calculated vertical clearances at the KCS grade separation, taking into account the appropriate superelevation rate, superstructure depth and required clearance.
- 3. Typical Sections: Typical sections shall be required for all proposed and existing roadways and structures, including a left turn lane at Cookie Lane. Typical sections shall include width of travel lanes, shoulders, outer separations, border widths, curb offsets, and ROW. The typical section shall also include PGL, centerline, pavement design, side slopes, sodding/seeding limits, station limits, common proposed/existing structures including retaining walls, riprap, etc.
- 4. Cross Sections and Earthwork Quantities. The Consultant shall develop an earthwork analysis to determine cut and fill quantities and provide final design cross sections at 50 feet intervals, including a left turn lane at Cookie Lane. Cross sections shall be delivered in standard GEOPAK format on sheets and electronic files. The Consultant shall provide all criteria and input files used to generate the design cross sections. Cross sections and quantities shall consider existing pavement removals.
- 5. Pavement Design. The Consultant shall incorporate the pavement design provided by the City into the project design
- 6. Pedestrian Facilities. The Consultant shall coordinate with the City to incorporate pedestrian and bicycle facilities, if required. All pedestrian facilities must be designed in accordance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG), Public Right-of-Way Accessibility Guidelines (PROWAG), the Texas Accessibility Standards (TAS), and the AASHTO Guide for the Development of Bicycle Facilities.
- 7. Traffic Control Plan. The Consultant shall prepare Traffic Control Plans (TCP), including a left turn lane at Cookie Lane. These plans shall also be prepared in accordance with the Texas Manual on Uniform Traffic Control Devices for Streets and Highways (latest edition).
 - a. The Consultant shall provide a written narrative of the construction sequencing and work activities per phase and determine the existing and proposed traffic control devices (regulatory signs, warning signs, guide signs, route markers, construction pavement markings, barricades, flag personnel, etc.) to be used to handle traffic during each construction sequence.
 - b. The Consultant shall design temporary drainage to replace existing drainage disturbed by construction activities or to drain detour pavement. The Consultant shall show horizontal and vertical location of culverts and required cross sectional area of culverts.

8. Retaining Walls. All permanent retaining walls shall be mechanically stabilized earth retaining walls where feasible. The railroad underpass abutment walls are anticipated to be drilled shaft walls. The Consultant shall provide layouts, elevations, quantity estimate, summary of quantities, typical cross sections, structural details and calculations for all retaining walls within the project.

Temporary retaining walls are anticipated to be sheet pile walls. The Consultant shall provide layouts, elevations, quantity estimate, summary of quantities, typical cross sections, structural details and calculations for all retaining walls within the project.

Retaining wall panel aesthetics will be selected by the City from Consultant provided options and shall be incorporated into design details. The specific requirements for each item are as follows:

Layout Plan

- a. Designation of reference line
- b. Beginning and ending retaining wall stations
- c. Offset from reference line
- d. Horizontal curve data
- e. Total length of wall
- f. Indicate face of wall
- g. All wall dimensions and alignment relations (alignment data as necessary)
- h. Soil core hole locations

Elevation:

- i. Top of wall elevations
- j. Existing and finished ground line elevations
- k. Limits of measurement for payment
- l. Type, limits and anchorage details of railing (If applicable)

II. D. DRAINAGE DESIGN

1. Hydrologic Studies, Discharges. Perform hydraulic analysis and drainage design as outlined below:
 - a. Delineate drainage areas on USGS maps and/or existing mapping and plans.
 - b. Review existing plans of development along the that will impact drainage areas or runoff coefficient calculations.
 - c. Determine design year and 100-year runoff discharges to proposed drainage structures, as required by the design, using either the rational method for

drainage areas less than 200 acres or TR55 for drainage areas greater than 200 acres.

2. **Hydraulic Design and Documentation.** The Consultant shall prepare hydraulic design of all major drainage structures (culverts and storm sewers) and submit to the City for review. This submission will include the overall drainage plan, structure layout, and hydraulic computations. All hydraulic design will be in accordance with the City's hydraulic criteria, except where variances are permitted in writing by the City.
3. **Storm Drain Layout and Design.** The Consultant shall develop design details that minimize the interference with the passage of traffic or incur damage to the roadway and local property. The Consultant shall provide layouts, drainage area maps, and design of all drainage components. The Consultant shall design all conventional storm drainage in conformance with the City hydraulic criteria and specific program guidance provided by the City. Storm drain design shall be performed using WinStorm 3.0 or GEOPAK Drainage. Cross drainage design shall be performed using HY-8 or HEC RAS.

The Consultant shall perform the following:

- a. Identify areas requiring trench protection, excavation, shoring and de-watering.
 - b. Prepare drainage area maps.
 - c. Prepare plan/profile sheets for storm drain systems and outfall ditches.
 - d. Select standard details from City list of standards for items such as inlets, manholes, junction boxes and end treatment, etc.
 - e. Prepare details for non-standard inlets, manholes and junction boxes.
 - f. Prepare drainage details for outlet protection, outlet structures and utility accommodation structures.
 - g. Identify pipe strength requirements.
 - h. Prepare drainage facility quantity summaries.
 - i. Identify potential utility conflicts and design to avoid existing utilities wherever possible.
 - j. Take into consideration pedestrian facilities, utility impacts, driveway grades, retaining wall and concrete traffic barrier drainage impacts.
 - k. Identify existing ground elevation profiles at the ROW lines on storm sewer plan and profile sheets.
4. **Pump Stations.** Due to elevations at the project location, a pump station is required for this project. The Consultant will design a pump station of adequate size and power to pump flow from the Windhaven underpass at KCS Railroad to a

gravity storm sewer system. Consultant will prepare all required plans, details and specifications for the pump station including pump size and type, monitoring system, and power supply.

5. Storm Water Pollution Prevention Plans (SW3P). The Consultant shall develop SW3P, on separate sheets from but in conformance with the traffic control plan, to minimize potential impact to receiving waterways. The SW3P shall include text describing the plan, quantities, type, phase and locations of erosion control devices and any required permanent erosion control measures.
6. Temporary drainage facilities. The Consultant shall develop plans for all temporary drainage facilities necessary to allow staged construction of the project and to conform with the phasing of adjacent construction projects without significant impact to the hydraulic capacity of the area.
7. Layout, Structural Design and Detailing of Drainage Features, where standard details cannot be used.

The Consultant shall perform layout, structural design and detailing for the following:

- a. Storm Sewers: New or modified storm sewers; inlets; manholes; trunk lines.
- b. Subsurface drainage at bridges and/or retaining walls.
- c. Outfall channels within existing ROW
- d. Bridge deck drainage systems, including internal drainage piping within the bents where required on structures.
- e. The Consultant shall prepare drawings, specifications and details for a flood warning system, signs and signals, including monitoring system. The proposed signs shall be illustrated and numbered on plan sheets. Sign foundation shall be selected from City standards. Flood warning system will alert drivers not to proceed if water reaches a prescribed depth within the limits of the underpass.

The Consultant shall use standard details where practical.

II.E. SIGNING AND PAVEMENT MARKINGS

1. Signing. The Consultant shall prepare drawings, specifications and details for all signs, including a left turn lane at Cookie Lane. The Consultant shall coordinate with the City for overall temporary, interim and final signing strategies and placement of signs outside contract limits. Large guide signs are not anticipated for this project. The Consultant shall also designate the shields to be attached to guide signs. The proposed signs shall be illustrated and numbered on plan sheets. Sign foundation shall be selected from City standards.

2. Pavement Markings. The Consultant shall detail permanent and temporary pavement markings and channelization devices on plan sheets, including a left turn lane at Cookie Lane. The Consultant shall coordinate with the City for overall temporary, interim, and final pavement marking strategies. Pavement markings shall be selected from the latest City standards.

II.F. BRIDGE DESIGN

All railroad bridge structures shall be designed for E 80 loading.

1. Prepare Bridge Layouts. The Consultant shall prepare Bridge Layout plans and elevations in accordance with the latest edition of the City's Bridge Design Manual, Bridge Division Operation and Planning Manual, and Bridge Detailer's Manual. In addition, railroad structure design will be in accordance with applicable KCS and American Railway Engineering and Maintenance of Way Association requirements. The Consultant shall coordinate with the City and KCS Railroad to obtain approval of the proposed bridge structure.
2. Final Design Calculations and Details. The Consultant shall make final design calculations and final detail drawings, per structure, in accordance with standard requirements of the City. All bridge design shall be in conformance with the latest edition of the City's Bridge Design Manual, Bridge Division Operation and Planning Manual, Bridge Detailer's Manual, and AASHTO Standard Specifications for Highway Bridges. The Consultant's designer and checker shall both check all calculations and initial each page. The Consultant shall be prepared to submit for review all structural design calculations and quantity calculations at the 90% submittal.

II.G. RAILROAD COORDINATION

The Consultant will coordinate with the City and KCS Railroad for the development of the railroad agreement. The Consultant shall coordinate to determine agreement requirements, develop layouts and exhibits for the railroad agreements and submit to the City and KCS for review and comments for all work in the railroad right-of-way.

II.H. SPECIFICATIONS AND BID DOCUMENTS

1. Estimate. The Consultant shall independently develop and report quantities in standard City bid format compatible to the City system at the 60, 90 percent and final PS&E submittals.
2. Specifications. The Consultant shall prepare technical specifications required for bidding and constructing the project. Only specifications amending or supplementing COG specification need be furnished. The Consultant shall

- identify necessary standard specifications, special specifications, special provisions and the appropriate reference items.
3. Bid Documents for Roadway and Pump Station. The City will prepare the bid documents for the Roadway and Pump Station portion of the project. The Consultant will assist the City by addressing technical questions and preparing draft addenda for issuance by the City.
 4. Bid Documents for Bridge. The Consultant will prepare the bid documents for the Railroad Bridge which will be let as a separate contract from the roadway portion of the project. The bridge bid documents will be prepared as required for bidding by Railroad approved contractors.
 5. Bid Documents for City 16 inch Water Line Relocation and the Upper Trinity Water Line Crossings. The Consultant will provide City with required information for their preparation of bid documents for 16 inch Water Line Relocation and the Upper Trinity Water Line Crossings which will be let as a separate contract from the roadway portion of the project.

II.I. PROJECT MANAGEMENT

1. Collect Data. The Consultant shall collect, review and evaluate data including “as-built plans”, right of way maps, SUE mapping, existing cross sections, existing planimetric mapping, environmental documents, documents for existing and proposed developments in the project vicinity, utility plans and documents.
2. Field Reconnaissance. The Consultant shall conduct field reconnaissance and collect data including a photographic record of notable existing features.
3. Design Criteria. The Consultant shall develop project specific design criteria (typical sections, drainage criteria, geometric criteria, etc.)
4. Meeting Attendance. The Consultant shall attend coordination meetings with the City and submittal review meetings.
5. Prepare Monthly Progress Reports. Reports will include progress documentations.
6. Administration. Invoicing, meeting minutes, documentation of correspondence, coordination with sub-consultants, maintain project schedule.
7. Consultant shall investigate utility owners as needed within project limits, coordinate with the utility companies, provide proposed Windhaven Pkwy plans to utility owners and the City, and attend one utility coordination meeting. Includes coordination with Upper Trinity Regional Water District.

II.J. CONSTRUCTION SERVICES

1. Construction. The Consultant will continue to assist the City on an as needed basis during the construction phase of this project. Items shall continue to support with responses to requests for information, review of shop drawings, *review and or assistance with submittals, review of temporary shoring plans, periodic site visits during construction, attending one preliminary and one final walk thru per phase, attending pump start-up operations, reviewing wall mock panels and checking construction workmanship, attending monthly construction progress meeting during bridge construction*, and evaluation of change orders. Inspection is not included in this scope of work with the exception of Item II.J 3. The consultant will provide additional support during the construction of the 16" water line relocation, the pump station site and the Upper Trinity Water Line Crossings.
2. As-builts. The Consultant shall prepare as-built plans, incorporating all changes provided by the Contractor and known variations to provide the City the best possible set of record drawings. The final record drawing shall be furnished on mylar, of the same specification as provided for in the Agreement and on cd.
3. Bridge Inspection. The Consultant will provide *inspection during construction of key bridge components, as well as* a complete bridge inspection after the completion of the bridge construction by a Railroad approved contractor. ~~Bridge inspection during construction not included.~~

II.K. PERMITTING

Plan review and inspection will be necessary from the Texas Department of Licensing and Regulation (TDLR).

1. Railroad Insurance will be purchased by the Consultant
2. TDLR – The Consultant will prepare applications to the TDLR, or engage the services of a state approved Contract Provider, for code review of sidewalks and ramps. Consultant will pay required fees for filing and plan review.
3. After construction the Consultant will notify TDLR or the Contract Provider of the completion date. Consultant will address any questions or issues by TDLR as a result of review and inspection. Consultant will pay required fees for inspection.

II.L. MISCELLANEOUS

Miscellaneous services not provided for herein and not generally associated with a project of this type will be paid for under an amendment to this Agreement for an additional fee.

Amendment No. 2 additional miscellaneous services include:

1. Investigation of gravity storm system alternative.
2. Design of Relocation for 16" Water Line.

The 16" water line relocation shall be designed in accordance with the City standard specifications, construction standards, and water and sewer regulations ordinance. The state department of health, Texas Commission on Environmental Quality (TCEQ), and the Environmental Protection Agency regulations and specifications will be followed, where required.

The 16 inch water line relocation shall be installed within the city street right-of-way and connect with the existing 16" water line within an easement that is contiguous to the right-of-way. Consultant will prepare a separate plan set for the water line relocation. Plan submittals will be prepared for 60% and 90% complete plans and final signed and sealed plans. City comments will be dispositioned and addressed. Quantities will be provided to the City.

3. Landscaping and Irrigation plans for Windhaven Pkwy and pump station site

Consultant will prepare landscaping and irrigation plans, and specifications for grass, trees and plantings located within the Windhaven Parkway right-of-way and the pump station site. Irrigation plans shall illustrate connection to main water line through a separate irrigation meter. Irrigation systems shall be designed to prevent off-site drainage nuisance. Irrigation plans shall be designed by licensed irrigator using City requirements for irrigation systems.

4. Pump Station Construction Plans and Site Plan

Bridgefarmer shall prepare construction plans and a pump station engineering site plan, signed and sealed by a state-licensed professional civil engineer, to be submitted in accordance with city regulations, policies, and standards. The pump station engineering site plan shall include a cover sheet, a copy of the final plat and applicable construction drawings. An overall pump station site layout shall be included showing general information such as building location, zoning, and

setbacks for reference purposes. Tasks required for design and preparation of the pump station construction plans and site plan include:

- a. Develop alternatives for pump station layout
- b. Design driveway, grading, retaining walls, screening wall, fence, site drainage
- c. Design structural elements for pump house foundation
- d. Provide dimensions, layout, specifications for pre-cast pump house
- e. Design of fire protection including fire hydrants and related devices
- f. Design electric requirements for pump house
- g. Landscape and irrigation plans

Amendment No. 3 additional miscellaneous services include:

5. Design for Relocation of 16" and 24" Upper Trinity Water Line Crossings

The 16" and 24" water line relocations shall be designed in accordance with the Texas Commission on Environmental Quality (TCEQ) requirements,, NCTCOG Standards, the City of Lewisville standard specifications and regulations, and UTRWD requirements.

The 16 inch and 24 inch water line relocations shall be installed to lower the lines to cross underneath the proposed Windhaven Parkway, within an existing 45' UTRWD Easement. The water line relocations will follow the same general alignment as the existing lines, or will be parallel with a slight offset to allow for constructability. The Consultant shall submit 60%, 90% and 100% plans and meet with UTRWD as needed to obtain plan approval. Coordination with Denton County FWSD 1-A (Castle Hills) will be performed as well to generate acceptable construction sequencing specifications. A cost estimate shall be submitted with the plans at each milestone. The construction services for these water line relocations will be part of the construction package for the 16" City of Lewisville water line relocations, which are included as part of the existing scope for this project including bid documents, construction staking and construction administration.

Amendment No. 4 additional miscellaneous services include:

6. Revisions to 100% Exhibit 'A' plans as directed by KCS

Prior to KCS approval of the Exhibit "A" plans, the consultant shall make revisions to previously submitted 100% plan sheets, as directed by KCS, and resubmit for approval.

AMENDMENT No. 4
ATTACHMENT “B” COMPENSATION

Windhaven Parkway at KCS Railroad

This Attachment “B” further defines the basis of compensation to the Engineer for the services rendered.

III.A. Basic Fee Services – The basic fee for the services as described in Attachment “A” Items II.C through II.I, II.L.1, II.L.2 and II.L.5 will be **\$588,163** which includes printing and direct costs normally associated with production of these services and reproduction of up to fifteen (15) sets of plans for review purposes.

The basis of compensation for Basic Fee Services shall be as follows:

1. \$133,403 for Conceptual Design Phase (30% submittal)
2. \$153,403 for Preliminary Design Phase (60% submittal)
3. \$150,403 for Final Design Phase (90% submittal)
4. \$150,954 for Final Design Phase (100% complete)

Additions to Basic Fee Services from Amendment No. 3 to Amendment No. 4 include bridge design revisions to accommodate requests from KCS, which total **\$154,687**.

III. B Special Services – Proposed Special Services include bridge inspection services to be performed during bridge construction, and additional construction phase services. Total Special Services includes \$113,900 for the original agreement, \$11,613 for Amendment No.1 dated August 9, 2011, \$126,153 for Amendment No. 2 dated April 15, 2013, and \$135,348 for Amendment No. 4, for a total of **\$387,014**.

Additions to Special Fee Services from Amendment No. 3 to Amendment No. 4 is **\$135,348**.

III. C Miscellaneous Services – \$50,000 was approved as part of Amendment No. 2 dated April 15, 2013.

The total maximum fee for all services provided is **\$1,025,177**.

ATTACHMENT B
Summary of Manhours by Classification
ADDITIONAL WORK FOR WINDHAVEN PARKWAY AT KCS RAILROAD
Bridgefarmer & Associates, Inc.
February 18, 2019

Work Description	EST. No.	UNITS	BASIS OF ESTIMATE										TOTAL					Contract Hourly Rates CHR w/fee			
			MANHOURS/UNIT										MANHOURS								
			Project Mgr	Senior Eng	Design Engr	Jr Eng (EIT)	CADD Tech	Admin Cncl	Project Mgr	Senior Eng	Design Engr	EIT	CADD Tech	Admin Clerical							
Project Management Meetings & Coordination	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Management (hours)																\$0					
Roadway Design NO NEW WORK	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Roadway (hours)																\$0					
Drainage NO NEW WORK	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Drainage (hours)																\$0					
Traffic NO NEW WORK	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Traffic (hours)																\$0					
Bridge Design Additional work required by KCS	1	Hrly	83.0	789.0	41.0	0.0	208.0	0.0	83.0	789.0	41.0	0.0	208.0	0.0	0.0	\$154,687.00					
B&A Total Bridge (hours)									83	789	41	0	208	0		\$154,687					
Railroad Coordination NO NEW WORK	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Railroad Coordination (hours)									0	0	0	0	0	0	0	\$0					
Specifications and Bid Documents Bid Documents Preparation	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Specification and Bid Documents (hours)									0	0	0	0	0	0	0	\$0					
Additional Construction Phase Services Bridge Inspector	1	Hrly	0.0	400.0	0.0	0.0	0.0	0.0	0.0	400.0	0.0	0.0	0.0	0.0	0.0	\$60,000.00					
B&A Total Special Services (hours)									0.0	400.0	0.0	0.0	0.0	0.0	0.0	\$60,000.00					
Additional Construction Phase Services Submittals & Shop Drawing Review	1	Hrly	0.0	100.0	40.0	0.0	0.0	0.0	0.0	100.0	40.0	0.0	0.0	0.0	0.0	\$19,840.00					
Temporary Shoring Review	1	Hrly	40.0	8.0	0.0	0.0	0.0	0.0	40.0	8.0	0.0	0.0	0.0	0.0	0.0	\$600.00					
Railroad Coordination	1	Hrly	0.0	120.0	0.0	0.0	0.0	0.0	0.0	120.0	0.0	0.0	0.0	0.0	0.0	\$7,600.00					
Site Visits	1	Hrly	0.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0	36.0	0.0	0.0	0.0	0.0	\$18,000.00					
Construction Coordination Meetings	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$4,356.00					
Special Wall & Pump Station Coordination	1	Hrly	0.0	40.0	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	0.0	\$6,000.00					
Walk Thru's	1	Hrly	16.0	16.0	0.0	0.0	0.0	0.0	16.0	16.0	0.0	0.0	0.0	0.0	0.0	\$4,960.00					
Record Drawings	1	Hrly	12.0	48.0	0.0	0.0	56.0	0.0	68	336	76	0	56	0		\$13,992.00					
B&A Total Construction Services (hours)									68	336	76	0	56	0		\$75,348					
Miscellaneous - Upper Trinity Water Line Design Research Plans, Design Standards	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Analyze Existing System	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Design & Prepare Plans for UT Water Line Lowering	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Consultation for Constructability	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Evaluate Constructability and Cost Effectiveness	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Plan Review	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Plan Modifications	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Writeup for Construction Sequencing	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Miscellaneous (Erosion Control, Cost Opinions, etc.)	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
Edit Plans per Client Review Comments	1	Hrly	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	\$0.00					
B&A Total Upper Trinity Water Line Design (hours)									151.0	1,125.0	117.0	-	264.0	0		\$0					
Project Totals:																					
													9%					1,657			
													68%					7%	100%		
													8.4					62.5	6.5	14.7	
													-					-	-	-	
																		SUBTOTAL			\$290,035

ATTACHMENT B
Summary of Manhours by Classification
ADDITIONAL WORK FOR WINDHAVEN PARKWAY AT KCS RAILROAD
Bridgefarmer & Associates, Inc.
February 18, 2019

Work Description	EST. No.	UNITS	BASIS OF ESTIMATE										TOTAL						Contract Hourly Rates CHR w/fee
			MANHOURS/UNIT										MANHOURS						
			Project Mgr	Senior Eng	Design Engr	Jr Eng (EIT)	CADD Tech	Admin Circ'l	Project Mgr	Senior Eng	Design Engr	EIT	CADD Tech	Admin Clerical					
ORIGINAL CONTRACT																			
SUMMARY OF PROJECT DIRECT LABOR & EXPENSE COSTS:																			
Bridgefarmer Direct Labor	Manage	Survey	Geotech	Roadway	Drainage	Sign/Mark	Bridge	RR	Specs	Constr	By Firm	% By Firm	DBE Total= 7.69%						
	\$26,807			\$61,111	\$35,897	\$5,392	\$106,340	\$62,197	\$37,497		\$335,240	74.64%	PRIME TOTAL BASIC SERVICES \$335,240						
SPECIAL SERVICES									\$4,000		\$4,000								
Plotting, Printing, and Outside Reproduction									\$200		\$200								
Postage, Handling, Photos and Project Office Supplies									\$379		\$379								
Local Travel									\$200		\$200								
Courier Services									\$200		\$200								
Subconsultant - ARS Design Survey		\$14,758									\$14,758	3.29%	DBE						
Subconsultant - ARS Construction Staking		\$46,498									\$46,498	10.35%	DBE						
Subconsultant - GEOTEL											\$19,800	4.41%	DBE						
Bridge Inspection - Bridgefarmer							\$5,000				\$5,000								
TDLR Plan Review Fee											\$445						TOTAL SPECIAL SERVICES		
TDLR Project Filing Fee											\$175						\$93,900		
TDLR Inspection Fee											\$445								
Railroad Insurance											\$2,000						TOTAL CONSTR SERVICES		
Construction Services											\$20,000						\$20,000		
SUBTOTALS	\$26,807	\$61,256	\$19,800	\$61,111	\$35,897	\$5,392	\$111,340	\$62,197	\$45,341		\$20,000						TOTAL	\$449,140	
BRIDGEFARMER TEAM TOTAL BUDGET:																			
PREVIOUSLY AMENDED - Amendment Nos. 1, 2 & 3																			
SUMMARY OF PROJECT DIRECT LABOR & EXPENSE COSTS:																			
Bridgefarmer Direct Labor	Manage	Survey	Geotech	Roadway	Drainage	Sign/Mark	Bridge	RR	Specs	Constr	Misc	By Firm	% By Firm	DBE Total= 8.39%					
	\$5,822	\$0	\$0	\$7,644	\$14,512	\$716	\$0	\$0	\$3,088	\$3,968	\$112,486	\$148,236	51.83%	PRIME TOTAL BASIC SERVICES \$148,236					
SPECIAL SERVICES																			
Plotting, Printing, and Outside Reproduction																			
Postage, Handling, Photos and Project Office Supplies												\$0							
Local Travel												\$0							
Courier Services												\$0							
Bridgefarmer - Pump Station Construction Plans and Site Plans											\$47,632								
Subconsultant - ARS - Additional Topo Survey & Easement Prep		\$11,613									\$11,613	4.06%	DBE						
Subconsultant - ARS - Prepare Plat & Construction Staking		\$18,651									\$18,651	6.52%	DBE						
Subconsultant - ARS - Prepare Construction Slope, & Maintenance Easements		\$12,487									\$12,487	4.37%	DBE						
Subconsultant - ARS - Additional Survey Limits (to Cookie Lane) & Add'l Const Staking		\$3,031									\$3,031	1.06%	DBE						
Subconsultant - SUE (ARS Engineers)											\$10,171	3.56%	DBE						
Subconsultant - GEOTEL											\$5,343	1.87%	DBE						
Subconsultant - Berkenbile - Landscaping and Irrigation			\$5,343								\$19,155	6.70%	DBE						
Subconsultant - Gerard - Pump House Electrical											\$7,515	2.63%	DBE						
Bridge Inspection - Bridgefarmer																	TOTAL SPECIAL SERVICES		
TDLR Plan Review Fee																	\$135,598		
TDLR Project Filing Fee																			
TDLR Inspection Fee																	TOTAL CONSTR SERVICES		
Railroad Insurance																	\$2,168		
Construction Services																			
SUBTOTALS	\$15,993	\$45,782	\$5,343	\$7,644	\$14,512	\$716	\$0	\$0	\$3,088	\$6,136	\$186,788	\$286,002					TOTAL	\$286,002	
BRIDGEFARMER TEAM TOTAL BUDGET:																			

ATTACHMENT B
Summary of Manhours by Classification
ADDITIONAL WORK FOR WINDHAVEN PARKWAY AT KCS RAILROAD
Bridgefarmer & Associates, Inc.
February 18, 2019

Work Description	EST. No.	UNITS	BASIS OF ESTIMATE										TOTAL					Contract Hourly Rates CHR w/fee
			MANHOURS/UNIT										MANHOURS					
			Project Mgr	Senior Eng	Design Engr	Jr Eng (EIT)	CADD Tech	Admin Circd	Project Mgr	Senior Eng	Design Engr	EIT	Tech	CADD	Admin Clerical			
ADDITIONAL WORK - Amendment No. 4																		
SUMMARY OF PROJECT DIRECT LABOR & EXPENSE COSTS:																		
Bridgefarmer Direct Labor	Manage \$0	Survey \$0	\$0	\$0	\$0	\$0	\$0	\$154,887	Bridge	RR	Specs	Constr	Misc		By Firm \$154,887	53.33%	DBE Total= 0.00%	
SPECIAL SERVICES																	PRIME	
Plotting, Printing, and Outside Reproduction															\$0		TOTAL BASIC SERVICES	
Postage, Handling, Photos and Project Office Supplies															\$0		\$154,887	
Local Travel															\$0			
Courier Services															\$0			
Bridgefarmer - Pump Station Construction Plans and Site Plans															\$0		DBE	
Subconsultant - ARS - Additional Topo Survey & Easement Prep															\$0		DBE	
Subconsultant - ARS - Prepare Plat & Construction Staking															\$0		DBE	
Subconsultant - ARS - Prepare Construction, Slope, & Maintenance Easements															\$0		DBE	
Subconsultant - ARS - Additional Survey Limits (to Cookie Lane) & Addtl Const Staking															\$0		DBE	
Subconsultant - ARS (ARS Engineers)															\$0		DBE	
Subconsultant - SUE (ARS Engineers)															\$0		DBE	
Subconsultant - GEOTEL															\$0		DBE	
Subconsultant - Berkenbile - Landscaping and Irrigation															\$0			
Subconsultant - Gerard - Pump House Electrical															\$0			
Bridge Inspection - Bridgefarmer												\$60,000			\$0		TOTAL SPECIAL SERVICES	
TDLR Plan Review Fee															\$0		\$60,000	
TDLR Project Filing Fee															\$0			
TDLR Inspection Fee															\$0			
Railroad Insurance															\$0			
Construction Services												\$75,348			\$75,348		TOTAL CONSTR SERVICES	
SUBTOTALS	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$154,887	\$0	\$0	\$0	\$135,348	\$0	\$0	\$290,035		TOTAL \$290,035	
BRIDGEFARMER TEAM TOTAL BUDGET:																		
UPDATED TOTALS																		
TOTAL BASIC & MISCELLANEOUS SERVICES \$638,163																		
TOTAL SPECIAL & CONSTRUCTION SERVICES \$387,014																		
SUBTOTALS	\$42,800	\$107,038	\$25,143	\$68,755	\$50,409	\$6,108	\$266,027	\$62,197	\$48,429	\$161,494	\$186,788	\$1,025,177	TOTAL \$1,025,177					
BRIDGEFARMER TEAM TOTAL BUDGET:																		

AMENDMENT No. 4
ATTACHMENT “C” TIME OF COMPLETION

Windhaven Parkway at KCS Railroad

The Engineer agrees to perform its services in accordance with the schedule below, to the extent over which the Engineer has control. The City agrees to review plans and other submittals and to arrange meetings in a timely manner.

IV.A. Commencement of Work - The City agrees to issue written authorization to proceed as soon as practical after approval by the Lewisville City Council. The Consultant agrees to commence work in accordance with the Agreement within ten (10) working days following receipt of a written authorization.

IV.B. Time Line - The following items of work shall be completed within the time line indicated.

Bridge Plans

100% final plans have been submitted. *Submittal of revised 100% plan sheets within 30 days of the date of this amendment.*

Roadway, Drainage, Pump Station, Retaining Wall Plans

1. Completion/furnishing 30% conceptual plans and estimates of probable cost, sufficient to allow general approval of street alignment and to confirm the preliminary construction cost estimate: 60 calendar days from date of written authorization.
2. Completion/furnishing 60% preliminary plans and estimate for forwarding to utility companies to plan adjustments, and final plat for the pump station and adjacent ROW dedication: 120 calendar days from date of written authorization, exclusive of City review time.
3. Completion/furnishing 90% final plans, specifications, bid quantities, and construction cost estimate and right-of-way and easement documents: 180 calendar days from date of written authorization, exclusive of City review time.
4. Completion/furnishing 100% final plans, specifications, bid quantities, and construction cost estimate: 210 calendar days from date of written authorization, exclusive of City review time.
5. Bidding and construction services shall correspond to City’s schedule and construction time.
6. Closure: 60 calendar days from the date of construction completion.

16" Water line Relocation Plans

1. Completion/furnishing 60% preliminary plans and estimate for forwarding to utility companies to plan adjustments: 45 calendar days from date of written authorization, exclusive of City review time.
2. Completion/furnishing 90% final plans, specifications, bid quantities, and construction cost estimate: 90 calendar days from date of written authorization, exclusive of City review time.
3. Completion/furnishing 100% final plans, specifications, bid quantities, and construction cost estimate: 120 calendar days from date of written authorization, exclusive of City review time.
4. Bidding and construction services shall correspond to City's schedule and construction time.

Closure: 60 calendar days from the date of construction completion.

16" & 24" Upper Trinity Regional Water District Water Line Relocation Plans

1. Completion/furnishing 60% final plans, specifications, bid quantities, and construction cost estimate: 45 calendar days from date of written authorization, exclusive of City review time.
2. Completion/furnishing 90% final plans, specifications, bid quantities, and construction cost estimate: 90 calendar days from date of written authorization, exclusive of City review time.
3. Completion/furnishing 100% final plans, specifications, bid quantities, and construction cost estimate: 120 calendar days from date of written authorization, exclusive of City review time.
4. Subsequent scheduling will be according to that provided for the City of Lewisville 16" water line relocation plans, without modification.

AMENDMENT No. 4
**ATTACHMENT “D” INSURANCE REQUIREMENTS FOR PROFESSIONAL
SERVICES PROJECTS/CONSULTANTS**

Windhaven Parkway at KCS Railroad

Services for non-construction projects. Consultants or other professionals including: Accountants, Attorneys, Veterinarians, and Medical Doctors.

Vendor shall procure and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by the vendor, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Vendor’s bid.

A. MINIMUM SCOPE OF INSURANCE

Coverage shall be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage “occurrence” form CG 00 01 (10 01). **“Claims Made” form is unacceptable except for professional liability.**
2. Workers’ Compensation insurance as required by the Labor Code of the State of Texas, including Employers’ Liability Insurance.
3. Automobile Liability – as required by the State of Texas, covering all owned, hired, or non-owned vehicles. Automobile Liability is only required if vehicle(s) will be used under this contract. Coverage not required for delivery services.
4. Professional Liability Insurer, and / or Errors and Omissions.

B. MINIMUM LIMITS OF INSURANCE

Vendor shall maintain throughout contract limits not less than:

1. Commercial General Liability: \$500,000 per occurrence/\$1,000,000 aggregate for bodily injury, personal injury and property damage. Policy will include coverage for:
 - a. Premises – Operations
 - b. Broad Form Contractual Liability
 - c. Products and Completed Operations
 - d. Personal Injury
 - e. Broad Form Property Damage
 - f. If applicable, Explosion Collapse and Underground (XCU) Coverage, Fire Damage, and Medical Expense.

NOTE: The aggregate loss limit applies to each project.

2. Workers' Compensation and Employer's Liability: Workers' Compensation Statutory limits as required by the Labor Code of the State of Texas and Employer's Liability minimum limits of \$500,000 per injury, \$500,000 per occurrence, and \$500,000 per occupational disease.
3. Automobile Liability - \$500,000 Combined Single Limit. Limits can only be reduced if approved by the HR Director or designee.
4. Professional Liability and /or Errors and Omissions - \$500,000 per occurrence. \$1,000,000 Aggregate.

C. DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductible or self-insured retentions must be declared to and approved by the City.

D. OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain the following provisions:

1. General Liability and Automobile Liability Coverages
 - a. The City, its officers, officials, employees, boards/commissions and volunteers are to be added as "Additional Insured" as respects liability arising out of activities performed by or on behalf of the vendor, products and completed operations of the vendor, premises owned, occupied or used by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers. It is understood that the business auto policy under "Who is an Insured" automatically provides liability coverage in favor of the City. The coverage shall include defense of claims against the City as additional insured.
 - b. The vendor's insurance coverage shall be primary and non-contributory insurance as respects the City, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, employees or volunteers shall be excess of the vendor's insurance and shall not contribute with it.
 - c. Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, its officers, officials, employees, Boards and Commissions or volunteers.
 - d. The vendor's insurance shall apply separately to each insured against whose claim is made or suit is brought, except to the limits of the insured's liability.
2. Waiver of Subrogation – All coverages except Professional Liability
Each insurance policy required by this exhibit shall waive all rights of subrogation against the City, its officers, officials, employees, and volunteers for losses arising from work performed by the vendor for the City.

3. Notice of Cancellation - All Coverages

Each insurance policy required by this exhibit shall be endorsed to state that coverage shall not be suspended, voided, canceled or non-renewed by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given the City, or ten (10) days prior written notice for non-payment of premium.

4. Professional Liability and / or Errors and Omissions

“Claims made” policy is acceptable coverage which must be maintained during the course of the project and up to two (2) years after completion and acceptance of the project by the City.

E. ACCEPTABILITY OF INSURERS

The City prefers that Insurance be placed with insurers with an A.M. Best’s rating of no less than **A-:VI, or, A or better** by Standard and Poors. Professional Liability carriers will need to be approved by the HR Director or designee.

F. VERIFICATION OF COVERAGE

Contractor shall furnish the City with certificates of insurance affecting coverage required. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Certificates of Insurance must be provided on forms approved by the Texas Department of Insurance. City will not accept Memorandums of Insurance or Binders as proof of insurance. The City reserves the right to require complete, certified copies of all required insurance policies at any time.

G. HOLD HARMLESS AND INDEMNIFICATION

THE CONSULTANT/CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY, ITS OFFICERS, AGENTS AND EMPLOYEES, HARMLESS AGAINST ANY AND ALL CLAIMS, LAWSUITS, JUDGMENTS, COSTS AND EXPENSES FOR PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE OR OTHER HARM FOR WHICH RECOVERY OF DAMAGES IS SOUGHT, SUFFERED BY ANY PERSON OR PERSONS, THAT MAY ARISE OUT OF OR BE OCCASIONED BY CONSULTANT’S/CONTRACTOR’S BREACH OF ANY OF THESE TERMS AND CONDITIONS OR BY ANY NEGLIGENT OR STRICTLY LIABLE ACT OR OMISSION OR INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY, CONSULTANT/CONTRACTOR, ITS OFFICERS, AGENTS, EMPLOYEES OR SUBCONTRACTORS, IN THE PERFORMANCE OF THIS AGREEMENT; EXCEPT THAT THE INDEMNITY PROVIDED FOR IN THE PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY RESULTING FROM THE SOLE NEGLIGENCE OR FAULT OF THE CITY, ITS OFFICERS, AGENTS, EMPLOYEES OR SEPARATE CONTRACTORS, AND IN THE EVENT OF JOINT AND CONCURRING NEGLIGENCE OR FAULT OF THE CONSULTANT/CONTRACTOR AND THE CITY, RESPONSIBILITY AND INDEMNITY, IF ANY, SHALL BE APPORTIONED IN ACCORDANCE WITH THE LAW OF THE STATE OF TEXAS, WITHOUT WAIVING ANY GOVERNMENTAL IMMUNITY AVAILABLE TO THE CITY UNDER TEXAS LAW AND WITHOUT WAIVING ANY DEFENSES OF THE PARTIES UNDER TEXAS LAW AND THE CITY’S REASONABLE

ATTORNEY'S FEES SHALL BE REIMBURSED IN PROPORTION TO THE CONSULTANT'S LIABILITY. THE PROVISIONS OF THIS PARAGRAPH ARE SOLELY FOR THE BENEFIT OF THE PARTIES HERETO AND NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY OTHER PERSON OR ENTITY.