PROFESSIONAL SERVICES SUPPLEMENTAL AGREEMENT # 5 FOR WEISS LANE

STATE OF TEXAS § SCOUNTY OF TRAVIS §

FIRM: LJA Engineering, Inc. ("Consultant")

ADDRESS: 5316 Highway 290 West, Suite 150 Austin, Texas 78735

This Supplemental Agreement No.5 to a contract for Professional Services is made by and between the City of Pflugerville, Texas, hereinafter called the "City," and LJA Engineering, Inc., hereinafter called the "Consultant."

WHEREAS, the City and Consultant executed an Agreement for Professional Services, hereinafter called the "Original Agreement," on the 15th day of July, 2015 for the Weiss Lane project in the amount of \$852,286.95; and

WHEREAS, the Original Agreement has been amended by the following supplemental agreements numbered 1 through 4, respectively: (1) 1st day of February, 2016 in the amount of \$641,296.00 for additional design and PS&E services; (2) 12th day of April, 2016 for no additional compensation, but for additional SUE services; (3) 25th day of May, 2016 in the amount of \$112,875.00 for additional design and PS&E services; and (4) 10th day of November, 2016 in the amount of \$108,541.00 for additional utility and PS&E services, collectively referred to as the "Prior Supplemental Agreements"; and

WHEREAS, it has become necessary to amend the Original Agreement, as amended by the Prior Supplemental Agreements, to modify the provisions for the Scope of Services and Compensation; and

WHEREAS, except for the amendments made herein, the Agreement and Prior Supplemental Agreements, hereinafter collectively referred to as the "Agreement," shall remain in full force and effect.

NOW, THEREFORE, premises considered, the City and the Consultant agree that said Agreement is amended as follows:

Article III. Scope of Services and Exhibit A, shall be amended as set forth in the attached addendum to Exhibit A.

Article IV. Compensation to Consultant and Exhibit C (Fee Schedule), shall be amended by increasing the amount payable under the Agreement by \$449,069.00 for a total Agreement compensation amount of \$2,164,067.95, as shown by the attached Addendum to Exhibit C (Fee Schedule).

EXECUTED and **AGREED** to as of the dates indicated below.

CITY OF PFLUGERVILLE

CONSULTANT

(Signature)

(Signature)

| Printed Name: | Brandon E. Wade | Printed Name: | Jeff Collins, PE |
|---------------|-----------------|---------------|-----------------------------|
| Title: | City Manager | Title: | Executive Vice President |
| Date: | | Date: | 02/20/17 |

APPROVED AS TO FORM:

George Hyde City Attorney Denton Navarro Rocha Bernal Hyde & Zech, P.C.

Exhibit A - Scope of Services Supplemental #5

SERVICES TO BE PROVIDED BY THE ENGINEER

 Roadway:
 Weiss Lane

 County:Travis
 Schematic & PS&E: from E. Pecan Street to Cele Road

General Supplemental Work Description:

The addition of Bridge Inspection to supplement City of Pflugerville Inspection staff for the Weiss Lane Roadway Construction.

The addition of surveying services.

The addition of Construction Materials Testing for the Weiss Lane Roadway Project.

ON-SITE BRIDGE INSPECTION

The Engineer will:

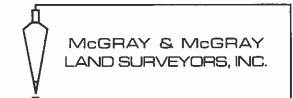
Monitor bridge construction activities and inspect work of the contractor as it is performed. Weekly progress reports will be provided showing work performed and items inspected. Work will be performed on a Time and Materials basis.

SPECIALTY SERVICES

- See Attached Scopes for McGray & McGray Land Surveyors, Inc. Surveying Services
 - Provide 1 ROW plat and description. Provide 1 PUE plat and description.
 - Provide ROW staking
- See Attached Scope for Rodriguez Engineering Laboratories, LLC. Construction Materials Testing Services
 - Construction Material Testing for Weiss Lane Corridor

NOT INCLUDED IN THIS SCOPE

• Water and Wastewater Line Installation Inspection for the Weiss Lane corridor.



January 10, 2017

Brian Young, P.E. LJA Engineering, Inc. 5316 Highway 290 West, Ste. 150 Austin, TX 78735 (512) 439-4700

VIA EMAIL byoung@ljaengineering.com

RE: Fifth Proposal for Additional Surveying Services for the Weiss Lane Road Improvements Project, City of Pflugerville, Texas

Dear Mr. Young:

We appreciate the opportunity to present you with this fifth proposal for the above referenced project. The following represents our understanding of the scope of services and our fee proposal follows.

Right-of-Way Mapping:

• Stake the proposed ROW line at a 100' interval across the HL Weiss tract and the Hames R. Bohls tract.

Right-of-Way Mapping (Non-taxable*) Fee:

These surveying services will be provided at a lump sum rate of \$2,500.00.

(*Non-taxable due to the receipt of a Texas Sales and Use Tax Resale Certificate)

We will proceed as soon as we receive notice to proceed. We estimate it will take approximately 1 to 2 weeks (weekends and holidays excluded) from notice to proceed to complete this project, weather and circumstances beyond our control permitting. Please let us know if we need to accelerate this schedule.

Thank you for including us on this project. We look forward to the opportunity to work with you. If you think we have omitted any service you require or misinterpreted your request, please let me or Chris Conrad know.

Sincerely,

Judith J. McGray, RPLS President TBPLS Firm #10095500 Authorized to Proceed by:

Signature

Date

JJM:ClC:klr

Print Name

Title



January 9, 2017

Brian Young, P.E. LJA Engineering, Inc. 5316 Highway 290 West, Ste. 150 Austin, TX 78735 (512) 439-4700

VIA EMAIL byoung@ljaengineering.com

RE: Fourth Proposal for Additional Surveying Services for the Weiss Lane Road Improvements Project, City of Pflugerville, Texas

Dear Mr. Young:

We appreciate the opportunity to present you with this fourth proposal for the above referenced project. The following represents our understanding of the scope of services and our fee proposal follows.

Right-of-Way Mapping:

- Provide 1 plat and description for proposed ROW.
- Provide 1 plat and description for proposed public utilities easements.

Fees:

Right-of-Way Mapping (Non-taxable*):

These surveying services will be provided on a parcel basis of \$2,200.00 for a total of \$4,400.00.

*(Non-taxable due to the receipt of a Texas Sales and Use Tax Resale Certificate)

Mr. Young January 9, 2017 Page 2 of 2

We will proceed as soon as we receive notice to proceed. We estimate it will take approximately 1 to 2 weeks (weekends and holidays excluded) from notice to proceed to complete this project, weather and circumstances beyond our control permitting. Please let us know if we need to accelerate this schedule.

Thank you for including us on this project. We look forward to the opportunity to work with you. If you think we have omitted any service you require or misinterpreted your request, please let me or Chris Conrad know.

Sincerely, Undella

Judith J. McGray, RPL President TBPLS Firm #10095500 Authorized to Proceed by:

Signature

Date

Print Name

Title

JJM:CIC:klr



February 16, 2017

Brian Young, P.E. LJA Engineering, Inc. 5316 Highway 290 West, Suite 150 Austin, Texas 78735

RE: Cost Estimate for Construction Materials Testing Weiss Lane Roadway Improvements Project Pflugerville and Travis County, Texas

Dear Mr. Young:

Enclosed is our proposed cost estimate for performing the construction materials testing for the subject project. We propose to handle this work for a total estimated fee of \$270,289.00. Any additional testing will be charged using the attached fee schedule. The on-site inspector should coordinate the testing by calling our office at least 24 hours in advance, you will be charged for actual tests performed. If you have any questions regarding the estimate, please do not hesitate to call.

We look forward to working with you on this project.

Respectfully Submitted,

Jose Melendez, P. E.

13809 Turbine Drive · Austin, TX 78728 (512) 251-4454 · Fax (512) 251-1380 E-mail: rodriguezlab@aol.com Registered Texas Engineering Firm F-1563

Weiss Lane Roadway Improvements Project Construction Materials Testing Pflugerville and Travis County, Texas

SCOPE OF WORK

The following scope of services will be provided as requested by the client or the client's representative, Rodriguez Engineering Laboratories (REL) understands that the project has particular specification requirements; therefore, qualified staff is assigned to meet the needs defined in those specifications. REL will provide construction materials sampling and testing services on an as-needed basis; including both laboratory and filed testing of soils, base, concrete, and hot-mix materials, using ASTM or TxDOT testing methods. The testing frequency will be based on the current TxDOT Guide Schedule of Sampling and Testing or as requested by the City of Pflugerville/Travis County representative. The on-site inspector should coordinate the materials testing by calling REL's office at least 24-hours in advance.

The scope of work for the construction materials testing to be performed by REL at the above referenced project will include but not limited to the following tests:

Soils and Base Testing:

Rodriguez

Engineering

Laboratories, LLC

 Perform soils testing as required by project specifications or as requested by the on-site inspector for liquid limit, plasticity index, gradation, moisture/density relations, Texas triaxial, wet ball mill, bar linear shrinkage, soil-lime compression, CTB testing, resistivity of soils, organic content, soil pH, pH/lime series, PI/lime series, deleterious materials, sulfate content of soils, in-place density, thickness determination, pulverization gradation, etc.

Hot Mix Asphaltic Concrete Testing:

- Perform asphaltic mixture testing as required by project specifications or as requested by the onsite inspector for voids in mineral aggregates, lab molded density, maximum theoretical specific gravity, gradation, asphalt content, boil test, indirect tensile strength, moisture content, draindown test, hamburg wheel-tracking test, overlay test, thickness, in-place air voids, etc.
- Test HMAC pavement as required by project specifications or as requested by the on-site inspector during installation for segregation profile, joint density, thermal profile, ride quality test, etc.
- Test HMAC aggregate as required by project specifications or as requested by the on-site inspector for L.A. abrasion, magnesium sulfate soundness, SAC, micro-deval, sand equivalent, etc. Hveem stability will be tested if needed.
- Review mix design of HMAC as requested.

Microsurfacing Mixture Testing:

- Test microsurfacing aggregate as required by project specifications or as requested by the onsite inspector for magnesium sulfate soundness, gradation, crushed face count, acid insoluble, SAC, sand equivalent, etc.
- Obtain a minimum of one binder and tack-coat sample per project/source if not pre-approved by CST/M&P before use.

Weiss Lane Roadway Improvements Project Construction Materials Testing Pflugerville and Travis County, Texas

SCOPE OF WORK

Seal Coat Testing:

Engineering

Laboratories, LLC

Rodriguez

• Perform seal-coat aggregate testing as required by project specifications or as requested by the on-site inspector for gradation, LA abrasion, magnesium sulfate soundness, SAC, pressure slake, freeze thaw, unit weight, absorption, angularity, deleterious material, decantation, flakiness index, etc.

Portland Cement Concrete Testing:

- Perform PCC testing as required by project specifications or as requested by the on-site inspector for compressive strength (two 7-days and two 28-days cylinders), slump, air content, temperature test, etc.
- Perform concrete aggregate testing as required by project specifications or requested by the onsite inspector for gradation, decantation, deleterious materials, L.A. abrasion, magnesium sulfate soundness, sand equivalent, organic impurities, fineness modulus, acid insoluble residue, etc.
- Review mix design of concrete as requested.

(BASE BID)

Rodriguez Engineering

Laboratories, LLC

| | (DASE DID) | | | | | |
|-------------------|---|--------------|-----------|-------------|---------|-----------|
| | | | ted Costs | 6 | | |
| | Description | Quantity l | Jnit | Cost/Unit | | Total |
| PFLUGER C8 Ite | m DR-04: RC PIPE CL (III)(18 IN), Trench Backf | ill (6 | 6,693 LF) | | | |
| Tech Time | | 72 hr | ′s \$ | 55.00 | \$ | 3,960.00 |
| Moisture Density | / Curve (TEX 114-E) | 8 ea | а \$ | 253.00 | \$ | 2,024.00 |
| Atteberg Limits (| TEX- 104, 105 & 106-E) | 8 ea | a \$ | 71.00 | \$ | 568.00 |
| | EX-110 & 111-E) | 8 ea | a \$ | 71.00 | \$ | 568.00 |
| | es (Nuclear Gauge Tex-115-E) | 160 ea | a \$ | 39.00 | \$ | 6,240.00 |
| Vehicle | (| 36 ea | | 50.00 | \$ | 1,800.00 |
| Volliolo | | | | Sub-Total = | \$ | 15,160.00 |
| | | | | | | , |
| PELUGER C8 Ite | m DR-05: RC PIPE CL (III)(24 IN), Trench Backfi | ill (3 | ,255 LF) | | | |
| Tech Time | | | | 55.00 | \$ | 1,980.00 |
| | / Curve (TEX 114-E) | 4 ea | | 253.00 | \$ | 1,012.00 |
| - | TEX- 104, 105 & 106-E) | 4 ea | | 71.00 | \$ | 284.00 |
| Sieve Analysis (T | | 4 ea | | 71.00 | \$ | 284.00 |
| 5 | | 78 ea | | 39.00 | \$ | 3,042.00 |
| | es (Nuclear Gauge Tex-115-E) | 18 ea | | 50.00 | Ψ \$ | 900.00 |
| Vehicle | | TO 66 | φ κ | Sub-Total = | | 7,502.00 |
| | | | | Sub-10tal - | φ | 7,502.00 |
| PFLUGER C8 Ite | m DR-06: RC PIPE CL (III)(30 IN), Trench Backfi | ill (3 | ,523 LF) | | | |
| Tech Time | | 38 hr | | 55.00 | \$ | 2,090.00 |
| | / Curve (TEX 114-E) | 4 ea | | 253.00 | \$ | 1,012.00 |
| - | TEX- 104, 105 & 106-E) | 4 ea | | 71.00 | \$ | 284.00 |
| Sieve Analysis (T | | 4 ea | | 71.00 | \$ | 284.00 |
| | es (Nuclear Gauge Tex-115-E) | 85 ea | | 39.00 | \$ | 3,315.00 |
| Vehicle | S (Nuclear dauge rex 110 L) | 19 ea | | 50.00 | \$ | 950.00 |
| venicie | | 10 00 | γ φ | Sub-Total = | \$ | 7,935.00 |
| | | | | ous rotai | Ψ | 1,000.00 |
| PFLUGER C8 Iter | m DR-07: RC PIPE CL (III)(36 IN), Trench Backfi | ill (1 | .,034 LF) | | | |
| Tech Time | | 12 hr | 's \$ | 55.00 | \$ | 660.00 |
| Moisture Density | / Curve (TEX 114-E) | 2 ea | a \$ | 253.00 | \$ | 506.00 |
| | ТЕХ- 104, 105 & 106-Е) | 2 ea | a \$ | 71.00 | \$ | 142.00 |
| Sieve Analysis (T | | 2 ea | a \$ | 71.00 | \$ | 142.00 |
| 5 (| s (Nuclear Gauge Tex-115-E) | 24 ea | | 39.00 | \$ | 936.00 |
| Vehicle | | 6 ea | | 50.00 | \$ | 300.00 |
| Volliolo | | | | Sub-Total = | \$ | 2,686.00 |
| | | | | | , | _, |
| PFLUGER C8 Iter | m DR-08: RC PIPE CL (III)(42 IN), Trench Backfi | (1 | .70 LF) | | | |
| Tech Time | | 4 hr | | 55.00 | \$ | 220.00 |
| | v Curve (TEX 114-E) | 1 ea | | 253.00 | \$ | 253.00 |
| - | TEX- 104, 105 & 106-E) | 1 ea | | 71.00 | \$ | 71.00 |
| Sieve Analysis (T | | 1 ea | | 71.00 | \$ | 71.00 |
| | s (Nuclear Gauge Tex-115-E) | 6 ea | | 39.00 | \$ | 234.00 |
| | S (NUCLEAL GAUGE LEV-TTO-E) | 0 ea 2 ea | | 50.00 | Ф \$ | 100.00 |
| Vehicle | | 2 88 | ιψ | Sub-Total = | Ф \$ | 949.00 |
| | | | | Sub-10(a) = | φ | 949.00 |

13809 Turbine Drive · Austin, TX 78728 (512) 251-4454 · Fax (512) 251-1380 E-mail: rodriguezlab@aol.com Registered Texas Engineering Firm F-1563

| | Fetim | ated Cost | ·c | | |
|--|--------------|-----------|-----------------|---------|-------------|
| Description | Quantity | | .s Cost/Unit | | Total |
| PFLUGER SD3 Item RW-03: EMBANKMENT | (40,419 CY) | onic | 0030 0111 | | TOtal |
| | (40,419 01) | hrs \$ | 55.00 | \$ | 5,940.00 |
| Tech Time | | | 253.00 | Ψ \$ | |
| Moisture Density Curve (TEX 114-E) | 12 (| | | | 3,036.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | 12 (| | 71.00 | \$ | 852.00 |
| Sieve Analysis (TEX-110 & 111-E) | 12 0 | | 71.00 | \$ | 852.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | 240 (| | 39.00 | \$ | 9,360.00 |
| Vehicle | 54 6 | ea \$ | 50.00 | \$ | 2,700.00 |
| | | | Sub-Total = | \$ | 22,740.00 |
| TxDOT 260 Item RW-05: LIME TRT (EXIT MATL) (8") | (151,406 SY) | | | | |
| Tech Time | 120 | hrs \$ | 55.00 | \$ | 6,600.00 |
| Moisture Density Curve (TEX 113-E) | 10 6 | | 253.00 | \$ | 2,530.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | 10 6 | | 71.00 | \$ | 710.00 |
| Field Gradation of Lime-Soil (TEX-101-E) | 20 6 | | 20.00 | \$ | 400.00 |
| | 202 | | 39.00 | ↓ \$ | 7,878.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | | | | | |
| Thickness Determination (TEX-140-E) | 152 0 | | 18.00 | \$ | 2,736.00 |
| Sulfate Content (TEX-145-E) | 14 0 | | 95.00 | \$ | 1,330.00 |
| Organic Content (TEX-148-E), 7 tests | 14 h | | 55.00 | \$ | 770.00 |
| Stabilization Ability of Lime by Soil pH (TEX-121-E, Part III) | 10 € | | 270.00 | \$ | 2,700.00 |
| Project Engineer | 8 h | hrs \$ | 115.00 | \$ | 920.00 |
| Vehicle | 60 6 | ea \$ | 50.00 | \$ | 3,000.00 |
| | | | Sub-Total = | \$ | 29,574.00 |
| PFLUGER SD4 Item RW-06: FLEXIBLE BASE (12") | (9,999 SY) | | | | |
| PFLUGER SD4 Item RW-07: FLEXIBLE BASE (18") | (144,360 SY) | | | | |
| Tech Time | 120 ł | nrs \$ | 55.00 | \$ | 6,600.00 |
| Moisture Density Curve (TEX 113-E) | 4 6 | | 253.00 | \$ | 1,012.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | 15 6 | | 71.00 | \$ | 1,065.00 |
| | 15 e | | 71.00 | \$ | 1,065.00 |
| Sieve Analysis (TEX-110 & 111-E) | | | | | |
| In-Place Densities (Nuclear Gauge Tex-115-E) | 606 € | | 39.00 | \$ | 23,634.00 |
| Base Thickness Determination (TEX-140-E) | 155 e | | 18.00 | \$ | 2,790.00 |
| Sample Preparation (TEX-101-E) | 4 k | | 55.00 | \$ | 220.00 |
| TxDOT Triaxial Classification (TEX-117-E) | 4 6 | | 1,265.00 | \$ | 5,060.00 |
| Wet Ball Mill (TEX-116-E) | 4 e | ea \$ | 220.00 | \$ | 880.00 |
| Vehicle | 60 e | ea \$ | 50.00 | \$ | 3,000.00 |
| | | | Sub-Total = | \$ | 45,326.00 |
| PFLUGER SD1 Item RW-09: HMAC TY C PG76-22 (2") | (108,799 SY) | | | | |
| Tech Time | 27 h | nrs \$ | 55.00 | \$ | 1,485.00 |
| Asphalt Content by Extraction (Tex-210-F) | 54 e | | 161.00 | \$ | 8,694.00 |
| Gradation of Aggregate from Extraction (Tex-200-F) | 54 e | | 71.00 | \$ | 3,834.00 |
| | | | 1 1.00 | \$ | 0,004.00 |
| Voids in Mineral Aggregates (VMA) (Tex-207-F) | 54 e | | - | | 2 2 4 0 0 0 |
| Specimen Molding by TGC (Tex-206-F), 3 per set | 54 s | | 60.00 | \$ | 3,240.00 |
| Bulk Density of Compacted Specimens (Tex-207-F, Part I), 3 per | | | 60.00 | \$ | 3,240.00 |
| Hveem Stability (Tex-208-F), 3 per set | 54 s | set \$ | 60.00 | \$ | 3,240.00 |

Rodriguez Engineering

Laboratories, LLC

| | | Cost Estimate | | | | |
|-----------|---|-------------------|------|-------------|----|-----------|
| Rodri | guez Construction | Materials Testing | | | | |
| | ineering | | | | | |
| | boratories, LLC | | | | | |
| | | | | | | |
| 2 | | Estimated (| Cost | S | | |
| | Description | Quantity Unit | | Cost/Unit | | Total |
| PFLUGE | R SD1 Item RW-09: HMAC TY C PG76-22 (2") | | | | | |
| Maximu | m Theoretical Specific Gravity (Tex 227-F), Bag | 54 ea | \$ | 50.00 | \$ | 2,700.00 |
| Hambur | g Wheel Tracker (Tex 242-F) | 1 ea | \$ | 500.00 | \$ | 500.00 |
| Obtainin | g Field-Cut Specimens | 54 cores | \$ | 93.50 | \$ | 5,049.00 |
| Bulk De | nsity of Core Specimens (Tex-207-F, Part I) | 54 cores | \$ | 24.00 | \$ | 1,296.00 |
| Vehicle | | 18 ea | \$ | 50.00 | \$ | 900.00 |
| | | | | Sub-Total = | \$ | 34,178.00 |
| PFLUGE | R SD1 Item RW-10: HMAC TY B PG64-22 (4") | (108,799 SY) | | | | |
| Tech Tin | | 27 hrs | \$ | 55.00 | \$ | 1,485.00 |
| | Content by Extraction (Tex-210-F) | 54 ea | \$ | 161.00 | \$ | 8,694.00 |
| | on of Aggregate from Extraction (Tex-200-F) | 54 ea | \$ | 71.00 | \$ | 3,834.00 |
| | Mineral Aggregates (VMA) (Tex-207-F) | 54 ea | \$ | - | \$ | _ |
| | en Molding by TGC (Tex-206-F), 3 per set | 54 set | \$ | 60.00 | \$ | 3,240.00 |
| | nsity of Compacted Specimens (Tex-207-F, Part I), 3 p | ber 54 set | \$ | 60.00 | \$ | 3,240.00 |
| | Stability (Tex-208-F), 3 per set | 54 set | \$ | 60.00 | \$ | 3,240.00 |
| | m Theoretical Specific Gravity (Tex 227-F), Bag | 54 ea | \$ | 50.00 | \$ | 2,700.00 |
| | g Wheel Tracker (Tex 242-F) | 1 ea | \$ | 500.00 | \$ | 500.00 |
| | g Field-Cut Specimens | 54 cores | \$ | 93.50 | \$ | 5,049.00 |
| | nsity of Core Specimens (Tex-207-F, Part I) | 54 cores | \$ | 24.00 | \$ | 1,296.00 |
| Vehicle | | 18 ea | \$ | 50.00 | \$ | 900.00 |
| Venicie | | 10 00 | Ŧ | Sub-Total = | \$ | 34,178.00 |
| | | | | | · | |
| PFLUGE | R C5 Item RW-17: CONCRETE DRIVEWAY | (2,058 SY) | | | | |
| Tech Tin | ne | 35 hrs | \$ | 55.00 | \$ | 1,925.00 |
| Concrete | e Cylinder Compressive Strength (Tex-418-A) | 28 ea | \$ | 25.50 | \$ | 714.00 |
| Slump (1 | Гех-415-А) | 7 ea | \$ | - | \$ | - |
| Entraine | d Air (Tex-416-A or Tex-414-A) | 7 ea | \$ | - | \$ | - |
| Concrete | e Temperature (Tex-422-A) | 7 ea | \$ | - | \$ | - |
| Vehicle | | 14 ea | \$ | 50.00 | \$ | 700.00 |
| | | | | Sub-Total = | \$ | 3,339.00 |
| TxDOT 4 | 16 Item TR-01: DRILL SHAFT (TRF SIG POLE) (24 IN | ICH) (42 LF) | | | | |
| | 16 Item TR-02: DRILL SHAFT (TRF SIG POLE) (30 IN | | | | | |
| | 16 Item TR-03: DRILL SHAFT (TRF SIG POLE) (36 IN | | | | | |
| | 16 Item TR-04: DRILL SHAFT (TRF SIG POLE) (48 IN | | | | | |
| Tech Tim | | 25 hrs | \$ | 55.00 | \$ | 1,375.00 |
| | e Cylinder Compressive Strength (Tex-418-A) | 20 ea | \$ | 25.50 | \$ | 510.00 |
| | Fex-415-A) | 5 ea | \$ | | \$ | - |
| | d Air (Tex-416-A or Tex-414-A) | 5 ea | \$ | - | \$ | - |
| | e Temperature (Tex-422-A) | 5 ea | \$ | - | \$ | - |
| Vehicle | | 10 ea | \$ | 50.00 | \$ | 500.00 |
| V CHILDIC | | 10 00 | | Sub-Total = | \$ | 2,385.00 |
| | | | | | | , |

| | Estimated C | osts | |
|--|---------------|-------------|----------------|
| Description | Quantity Unit | Cost/Unit | Total |
| Item BR-01: CEM STABIL BKFL | (961 CY) | - | |
| Tech Time | 10 hrs | \$ 55.00 | \$ 550.00 |
| Moisture Density Curve (TEX 120-E) | 2 ea | \$ 253.00 | \$ 506.00 |
| Sieve Analysis (TEX-110 & 111-E) | 2 ea | \$ 71.00 | \$ 142.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | 2 ea | \$ 71.00 | \$ 142.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | 10 ea | \$ 39.00 | \$ 390.00 |
| Vehicle | 5 ea | \$ 50.00 | \$ 250.00 |
| | | Sub-Total = | \$ 1,980.00 |
| Item BR-02: DRILL SHAFT (36 IN) | (1,796 LF) | | |
| Tech Time | 95 hrs | \$ 55.00 | \$ 5,225.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | 76 ea | \$ 25.50 | \$ 1,938.00 |
| Slump (Tex-415-A) | 19 ea | \$- | \$ - |
| Entrained Air (Tex-416-A or Tex-414-A) | 19 ea | \$- | \$ - |
| Concrete Temperature (Tex-422-A) | 19 ea | \$- | \$ - |
| Vehicle | 38 ea | \$ 50.00 | \$ 1,900.00 |
| | | Sub-Total = | \$ 9,063.00 |
| Item BR-03: CL C CONC (ABUT) | (311.8 CY) | | |
| Tech Time | 40 hrs | \$ 55.00 | \$ 2,200.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | 32 ea | \$ 25.50 | \$ 816.00 |
| Slump (Tex-415-A) | 8 ea | \$ - | \$ - |
| Entrained Air (Tex-416-A or Tex-414-A) | 8 ea | \$ - | \$ - |
| Concrete Temperature (Tex-422-A) | 8 ea | \$- | \$ - |
| Vehicle | 16 ea | \$ 50.00 | \$ 800.00 |
| | | Sub-Total = | \$ 3,816.00 |
| Item BR-04: REINF CONC SLAB | (32,591 SF) | | |
| Tech Time | 100 hrs | \$ 55.00 | \$ 5,500.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | 80 ea | \$ 25.50 | \$ 2,040.00 |
| Slump (Tex-415-A) | 20 ea | \$ | \$ - |
| Entrained Air (Tex-416-A or Tex-414-A) | 20 ea | \$ - | \$ - |
| Concrete Temperature (Tex-422-A) | 20 ea | \$ - | \$ - |
| Vehicle | 20 ea | \$ 50.00 | \$ 1,000.00 |
| | | Sub-Total = | \$ 8,540.00 |
| Item BR-05: APPROACH SLAB | (433.8 CY) | | |
| Tech Time | 50 hrs | \$ 55.00 | \$ 2,750.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | 40 ea | \$ 25.50 | \$ 1,020.00 |
| Slump (Tex-415-A) | 10 ea | \$ - | \$ - |
| Entrained Air (Tex-416-A or Tex-414-A) | 10 ea | \$ - | \$ - |
| Concrete Temperature (Tex-422-A) | 10 ea | \$ - | \$ - |
| Vehicle | 20 ea | \$ 50.00 | \$ 1,000.00 |
| | | Sub-Total = | \$ 4,770.00 |

Rodriguez Engineering

Laboratories, LLC

| \mathcal{A} | E | stimated | d Cost | S | | |
|--|-----------|-----------|----------|---------------|---------|----------|
| Description | | itity Uni | | Cost/Unit | | Total |
| Item BR-16: DRILL SHAFT (18 IN) | (144 LF) | , | | · · · · · | | |
| Tech Time | (/ | 5 hrs | \$ | 55.00 | \$ | 275.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | | 4 ea | \$ | 25.50 | \$ | 102.00 |
| Slump (Tex-415-A) | | 1 ea | \$ | | \$ | - |
| Entrained Air (Tex-416-A or Tex-414-A) | | 1 ea | \$ | _ | \$ | - |
| Concrete Temperature (Tex-422-A) | | 1 ea | \$ | - | \$ | - |
| | | 2 ea | Ψ \$ | 50.00 | \$ | 100.00 |
| Vehicle | | 2 60 | Ψ | Sub-Total = | Ψ \$ | 477.00 |
| | | | | 305-10tai - | Ψ | 477.00 |
| Item BR-17: CL C CONC (CAP) | (34.6 CY) | | | | | |
| Tech Time | | 10 hrs | \$ | 55.00 | \$ | 550.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | | 8 ea | \$ | 25.50 | \$ | 204.00 |
| Slump (Tex-415-A) | | 2 ea | \$ | _ | \$ | - |
| Entrained Air (Tex-416-A or Tex-414-A) | | 2 ea | \$ | - | \$ | - |
| Concrete Temperature (Tex-422-A) | | 2 ea | \$ | - | \$ | - |
| Vehicle | | 4 ea | \$ | 50.00 | \$ | 200.00 |
| Venicie | | 4 60 | Ψ | Sub-Total = | \$ | 954.00 |
| | | | | 305-10tal - | Ψ | 334.00 |
| Item BR-18: CL C CONC (COLUMN) | (4.8 CY) | | | | | |
| Tech Time | | 5 hrs | \$ | 55.00 | \$ | 275.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | | 4 ea | \$ | 25.50 | \$ | 102.00 |
| Slump (Tex-415-A) | | 1 ea | \$ | - | \$ | - |
| Entrained Air (Tex-416-A or Tex-414-A) | | 1 ea | \$ | _ | \$ | - |
| Concrete Temperature (Tex-422-A) | | 1 ea | \$ | _ | \$ | - |
| Vehicle | | 2 ea | \$ | 50.00 | \$ | 100.00 |
| Veniele | | | | Sub-Total = | \$ | 477.00 |
| | | | | | | |
| PFLUGER W4 Item W-15: 30" STEEL ENCASEMENT | (927 LF) | | | | | |
| Tech Time | | 12 hrs | \$ | 55.00 | \$ | 660.00 |
| Moisture Density Curve (TEX 114-E) | | 2 ea | \$ | 253.00 | \$ | 506.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | | 2 ea | \$ | 71.00 | \$ | 142.00 |
| Sieve Analysis (TEX-110 & 111-E) | | 2 ea | \$ | 71.00 | \$ | 142.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | | 24 ea | \$ | 39.00 | \$ | 936.00 |
| Vehicle | | 6 ea | \$ | 50.00 | \$ | 300.00 |
| | | | | Sub-Total = | \$ | 2,686.00 |
| | (40715) | | | | | |
| PFLUGER W4 Item W-16: 14" STEEL ENCASEMENT | (127 LF) | | | | | |
| PFLUGER W4 Item W-17: 16" STEEL ENCASEMENT | (97 LF) | | <i>•</i> | | | |
| Tech Time | | 6 hrs | \$ | 55.00 | \$ | 330.00 |
| Moisture Density Curve (TEX 114-E) | | 1 ea | \$ | 253.00 | \$ | 253.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | | 1 ea | \$ | 71.00 | \$ | 71.00 |
| Sieve Analysis (TEX-110 & 111-E) | | 1 ea | \$ | 71.00 | \$ | 71.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | | 8 ea | \$ | 39.00 | \$ | 312.00 |
| Vehicle | | Зеа | \$ | 50.00 | \$ | 150.00 |
| | | | | Sub-Total = | \$ | 1,187.00 |

13809 Turbine Drive · Austin, TX 78728 (512) 251-4454 · Fax (512) 251-1380 E-mail: rodriguezlab@aol.com Registered Texas Engineering Firm F-1563

Rodriguez Engineering

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| | Estimated | Cost | S | |
|---|---------------|-------|-------------|-----------------|
| Description | Quantity Unit | | Cost/Unit | Total |
| PFLUGER W2 Item W-18: 4" DR-18 PVC WATER LINE | (139 LF) | | | |
| PFLUGER W2 Item W-19: 6" DR-18 PVC WATER LINE | (183 LF) | | | |
| PFLUGER W2 Item W-20: 8" DR-18 PVC WATER LINE | (24 LF) | | | |
| PFLUGER W2 Item W-21: 12" DR-18 PVC WATER LINE | (45 LF) | | | |
| Tech Time | 12 hrs | \$ | 55.00 | \$ 660.00 |
| Moisture Density Curve (TEX 114-E) | 2 ea | \$ | 253.00 | \$ 506.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | 2 ea | \$ | 71.00 | \$ 142.00 |
| Sieve Analysis (TEX-110 & 111-E) | 2 ea | \$ | 71.00 | \$ 142.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | 20 ea | \$ | 39.00 | \$ 780.00 |
| Vehicle | 6 ea | \$ | 50.00 | \$ 300.00 |
| | | | Sub-Total = | \$ 2,530.00 |
| PFLUGER W2 Item W-22: 16" DR-18 PVC WATER LINE | (7,364 LF) | | | |
| Tech Time | 80 hrs | \$ | 55.00 | \$ 4,400.00 |
| Moisture Density Curve (TEX 114-E) | 8 ea | \$ | 253.00 | \$ 2,024.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | 8 ea | \$ | 71.00 | \$ 568.00 |
| Sieve Analysis (TEX-110 & 111-E) | 8 ea | \$ | 71.00 | \$ 568.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | 196 ea | \$ | 39.00 | \$ 7,644.00 |
| Vehicle | 40 ea | \$ | 50.00 | \$ 2,000.00 |
| | | | Sub-Total = | \$ 17,204.00 |
| PFLUGER W2 Item W-23: 16" DR-18 RJ PVC WATER LINE | (2,198 | 3 LF) | | |
| Tech Time | 24 hrs | \$ | 55.00 | \$ 1,320.00 |
| Moisture Density Curve (TEX 114-E) | Зеа | \$ | 253.00 | \$ 759.00 |
| Atteberg Limits (TEX- 104, 105 & 106-E) | Зеа | \$ | 71.00 | \$ 213.00 |
| Sieve Analysis (TEX-110 & 111-E) | 3 ea | \$ | 71.00 | \$ 213.00 |
| In-Place Densities (Nuclear Gauge Tex-115-E) | 59 ea | \$ | 39.00 | \$ 2,301.00 |
| Vehicle | 12 ea | \$ | 50.00 | \$ 600.00 |
| | | | Sub-Total = | \$ 5,406.00 |

Total Estimated Fee (BASE BID) = \$ 265,042.00

Rodriguez Engineering Laboratories, LLC

(ADD ALTERNATE 1 BID)

Rodriguez Engineering

Laboratories, LLC

| | Estimated Co | sts | |
|--|---------------|-------------|----------------|
| Description | Quantity Unit | Cost/Unit | Total |
| TxDOT 416 Item ALT1-01: DRILL SHAFT (TRF SIG POLE) (24 INCH) | (36 LF) | | |
| TxDOT 416 Item ALT1-02: DRILL SHAFT (TRF SIG POLE) (30 INCH) | (24 LF) | | |
| TxDOT 416 Item ALT1-03: DRILL SHAFT (TRF SIG POLE) (36 INCH) | (14 LF) | | |
| TxDOT 416 Item ALT1-04: DRILL SHAFT (TRF SIG POLE) (48 INCH) | (110 LF) | | |
| Tech Time | 25 hrs | 55.00 | \$ 1,375.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | 20 ea 🛛 S | 25.50 | \$ 510.00 |
| Slump (Tex-415-A) | 5 ea 🖇 | | \$ - |
| Entrained Air (Tex-416-A or Tex-414-A) | 5 ea 🛛 S | - | \$ - |
| Concrete Temperature (Tex-422-A) | 5 ea 🖇 | - | \$ - |
| Vehicle | 10 ea 🖇 | 50.00 | \$ 500.00 |
| | | Sub-Total = | \$ 2,385.00 |

Total Estimated Fee (ADD ALTERNATE 1 BID) = \$ 2,385.00

(ADD ALTERNATE 2 BID)

| | Estimated C | ost | 6 | |
|--|---------------|-----|-------------|----------------|
| Description | Quantity Unit | | Cost/Unit | Total |
| PFLUGER Item ALT2-1: ONCOR STREET LIGHT FOUNDATION | (57 EA) | | | |
| Tech Time | 30 hrs | \$ | 55.00 | \$ 1,650.00 |
| Concrete Cylinder Compressive Strength (Tex-418-A) | 24 ea | \$ | 25.50 | \$ 612.00 |
| Slump (Tex-415-A) | 6 ea | \$ | - | \$ - |
| Entrained Air (Tex-416-A or Tex-414-A) | 6 ea | \$ | - | \$ - |
| Concrete Temperature (Tex-422-A) | 6 ea | \$ | - | \$ - |
| Vehicle | 12 ea | \$ | 50.00 | \$ 600.00 |
| | | | Sub-Total = | \$ 2,862.00 |

Total Estimated Fee (ADD ALTERNATE 2 BID) = \$ 2,862.00

Total Estimated Fee (BASE BID + ADD ALTERNATE 1 & 2 BID) = \$ 270,289.00

Rodriguez Engineering Laboratories, LLC

Weiss Lane Roadway Project Pflugerville and Travis County, Texas FEE SCHEDULE

| Rodriguez Engineering Laboratories, LLC | Unit | Fees |
|---|------------|------------|
| 1. Field Technician (2 hr. minimum) | D | 000 00 |
| 1.1 Soil Technician | Per hr | \$55.00 |
| 1.2 Concrete Technician TxDOT or ACI Grade I | Per hr | \$55.00 |
| 1.3 Asphalt Technician | | 000 00 |
| 1.3.1 TxDOT Certified Technician (Level IA & IB) | Perhr | \$55.00 |
| 1.3.2 TxDOT Certified Technician (Level II) | Per hr | \$75.00 |
| 1.4 Senior Field Inspector | Perhr | \$75.00 |
| 1.5 Structural Steel Technician | Dealer | ¢00.00 |
| 1.5.1 CWI | Per hr | \$90.00 |
| 1.5.2 NDT Level II | Per hr | \$90.00 |
| 1.6. Bolting Inspection | Per hr | \$90.00 |
| 1.7 NICET Level III | Per hr | \$90.00 |
| 2. Field Testing Equipment (2 hr. minimum, technician time not included) | | |
| 2.1 Vehicle | | 050.00 |
| 2.1.1 Vehicle (Whitin 50 miles from our office) | Per day | \$50.00 |
| 2.1.2 Vehicle (More than 50 miles from our office) | Per mile | \$0.54 |
| 2.2 Dye Penetrant – Magnetic Particle Supplies | | At Cos |
| 2.3 Ultrasonic Testing Equipment | Per hr | \$23.00 |
| 2.4 Concrete Coring Equipment | Per hr | \$39.00 |
| 2.4.1 Concrete Core Bit Charges | | |
| 2.4.1.1 3 inch diameter core | Per inch | \$4.50 |
| 2.4.1.2 4 inch diameter core | Per inch | \$5.50 |
| 2.4.1.3 6 inch diameter core | Per inch | \$7.70 |
| 2.5 Heavy Falling Weight Deflectometer (20 Test-points minimum, Technician time not included) | Test Point | \$20.00 |
| 2.6 Profilograph Testing (Technician time not included) | Day | \$400.00 |
| 3. Testing of Soils and Base Materials | | |
| 3.1 Bulk Sample Pick-Up | | |
| 3.1.1 Inside the City of Austin ETJ (2 hrs or less tech time) | Per Trip | \$110.00 |
| 3.1.2 Outside the City of Austin ETJ (2 hrs Minimum) | Per hr | \$55.00 |
| 3.2 Field Nuclear Density [Without Technician Time (3 Minimum)] | Per ea | \$39.00 |
| 3.3 Sample Preparation (TEX-101-E) | Per ea | \$68.00 |
| 3.4 Natural Moisture Content (TEX-103-E) | Per ea | \$20.00 |
| 3.5 Sieve Analysis (TEX-110-E) | Per ea | \$71.00 |
| 3.6 Atterberg Limits (Liquid and Plastic Limits) (TEX-104-E, TEX-105-E, TEX-106-E) | Per ea | \$71.00 |
| 3.7 Percent Passing No. 200 Sieve (TEX-111-E) | Per ea | \$46.00 |
| 3.8 Bar Linear Shrinkage of Soils (TEX-107-E) | Per ea | \$60.00 |
| 3.9 Moisture Density Relationship (ASTM D 698) Standard Proctor Compaction Test) | Per ea | \$253.00 |
| 3.10 Moisture Density Relationship (ASTM D 1557) (Modified Proctor Compaction Test) | Per ea | \$253.00 |
| 3.11 Moisture Density Relationship (TEX-113-E) Compaction Test | Per ea | \$253.00 |
| 3.12 Moisture Density Relationship (TEX-114-E, Part I) Compaction Test | Per ea | \$253.00 |
| 3.13 Moisture Density Relationship (TEX-114-E, Part II) Compaction Test | Per ea | \$280.00 |
| 3.14 Texas Triaxial Compression Test on Base Material TEX- 117E, Part II; Including the | | |
| 3.15 Molding, Curing and Testing 9 Specimens | Per ea | \$1,265.00 |
| 3.3 Sample Preparation (TEX-101-E) | Per ea | \$55.00 |
| 3.5 Sieve Analysis (TEX-110-E) | Per ea | \$71.00 |
| 3.6 Atterberg Limits (TEX-104-E, TEX-105-E, TEX-106-E) | Per ea | \$71.00 |
| 3.8 Bar Linear Shrinkage of Soils (TEX-107-E) | Per ea | \$60.00 |
| 3.11 Moisture Density Relationship (TEX-113-E) Compaction Test | Per ea | \$253.00 |
| 3.16 Wet Ball Mill (TEX-116-E) | Per ea | \$220.00 |

Rodriguez Engineering Laboratories, LLC

Weiss Lane Roadway Project Pflugerville and Travis County, Texas FEE SCHEDULE

| Rodriguez Engineering Laboratories, LLC | Unit | Fees |
|---|-----------|----------|
| 3.17 Permeability/Conductivity of Silt or Clay (ASTM D 5084) | Per ea | \$425.00 |
| 3.18 Sample Remolding | Per ea | \$58.00 |
| 3.19 Soil Specific Gravity (TEX-108-E) | Per ea | \$68.00 |
| 3.20 Soil Lime Compression Test (TEX-121-E), per specimen | Per ea | \$74.00 |
| 3.21 Resistivity of Soils (TEX-129-E) | Per ea | \$99.00 |
| 3.22 Lime Series Curve (ASTM D 4318) | Per point | \$99.00 |
| 3.23 Stabilization Ability of Lime by Soil pH (TEX-121-E Part III) up to 6 Points | Per Each | \$270.00 |
| 3.24 Field Gradation of Lime Soil (1.75, 0.75, No 4 Sieve), in addition to technician time | Per Point | \$20.00 |
| 3.25 Soluble Sulfate Content (TEX-145-E) | Per ea | \$95.00 |
| 3.26 pH of Soils (TEX-128-E) | Per ea | \$65.00 |
| 3.27 Hydrometer Analysis (ASTM D 422) (Without mechanical sieve analysis) | Per ea | \$104.00 |
| 3.28 Thickness Determination (Tex-140-E), in addition to technician time | Per ea | \$18.00 |
| 4. Testing of Concrete and Aggregates | | |
| 4.1 Sample Pick-Up | | |
| 4.1.1 Inside the City of Austin ETJ (2 hrs or less tech time) | Per Trip | \$110.00 |
| 4.1.2 Outside the City of Austin ETJ (2 hrs Minimum) | Perhr | \$55.00 |
| 4.2 Aggregate Gradation (TEX-401-A) | Per ea | \$71.00 |
| 4.3 Specific Gravity of Aggregate | Per ea | \$55.00 |
| 4.4 Absorption of Aggregate | Per ea | \$36.00 |
| 4.5 Unit Weight of Aggregate | Per ea | \$36.00 |
| 4.6 Abrasion Test (TEX-410-A) | Per ea | \$242.00 |
| 4.7 Decantation (TEX-406-E) | Per ea | \$33.00 |
| 4.8 Organic Impurities, Tex-408-A | Per ea | \$50.00 |
| 4.9 Soundness, Sodium or Magnesium, 5 cycles (Tex-411-A) | Per ea | \$355.00 |
| 4.0 Concrete Cylinder Compressive Strength (TEX-418-A) | Per ea | \$25.50 |
| 4.10 Concrete Cyminder Compressive Strength (12X-410-X) 4.11 Beam Flexural Strength (TEX-420-A or TEX 448-A) | Per ea | \$38.50 |
| 4.11 Beam Plexular Strength (TEX-420-A 0) TEX 440-A) 4.12 Coarse Aggregate Angularity | Per ea | \$74.00 |
| 4.12 Coarse Aggregate Angularity 4.13 Fine Aggregate Angularity | Per ea | \$74.00 |
| | Per ea | \$74.00 |
| 4.14 Flat, Elongated Particles | Per ea | \$66.00 |
| 4.15 Deleterious Materials (Clay Lumps/Friable Part I) | Per ea | \$75.00 |
| 4.16 Crushed Face Count | Per ea | \$86.00 |
| 4.17 Sand Equivalent (Clay Content), Tex-203-F | Felea | \$00.00 |
| 5. Testing of HMAC and Liquid Asphalt | | |
| 5.1 Bag Sample Pick-up From Source, Project, or Field Office | Per Trip | \$110.00 |
| 5.1.1 Inside the City of Austin ETJ (2 hrs or less tech time) | Per hr | \$55.00 |
| 5.1.2 Outside the City of Austin ETJ (2 hrs Minimum) | rei III | \$33.00 |
| 5.2 Obtaining Field-cut Specimens | Der ee | \$93.50 |
| 5.2.1 0" to 6" Depth & 6" Ø, including patching & sample Preparation, 3 minimum) | Per ea | \$93.50 |
| 5.2.2 > 6" to 10" Depth & 6" Ø, including patching & sample Preparation, 3 minimum) | Per ea | \$104.50 |
| 5.2.3 > 10" to 14" Depth & 6" Ø, including patching & sample Preparation, 3 minimum) | Per ea | \$137.50 |
| 5.2.4 > 14" Depth & 6" Ø, including patching & sample Preparation, 3 minimum) | | \$137.50 |
| plus \$5 per inch beyond 14" | Davias | |
| 5.3 Specimen Molding by TGC, Tex-206-F (3 per set) | Per ea | \$60.00 |
| 5.4 Specimen Molding by SGC, Tex-241-F (3 per set) | Per ea | \$85.00 |
| 5.5 Bulk Density of Compacted Specimens, Tex-207-F, Part I (3 per set) | Per ea | \$60.00 |
| 5.6 Hveem Stability, Tex-208-F (3 per set) | Per ea | \$60.00 |
| 5.7 Asphalt Content by Extraction, Tex-210-F | Per ea | \$161.00 |
| 5.8 Asphalt Content by Ignition Oven, Tex-236-F | Per ea | \$161.00 |
| 5.9 Gradation of Aggregate from Extraction or Ignition, Tex-200-F | Per ea | \$71.00 |

Rodriguez Engineering Laboratories, LLC

Weiss Lane Roadway Project Pflugerville and Travis County, Texas FEE SCHEDULE

| Rodriguez Engineering Laboratories, LLC | Unit | Fees |
|---|----------|----------|
| 5.10 Maximum Theoretical Specific Gravity, Rice Method (TEX-227-F) | | ¢50.00 |
| 5.10.1 Bag Sample, Rice | Per ea | \$50.00 |
| 5.10.2 Core Sample, Rice | Per ea | \$60.00 |
| 5.11 Bulk Density of Core Specimens (Tex-207-F, Part I) | Per ea | \$24.00 |
| 5.12 Bulk Density of Core Specimens (Vacuum Method) (Tex-207-F, Part I & VI) | Per ea | \$60.00 |
| 5.13 Sand Equivalent, Tex-203-F | Per ea | \$86.00 |
| 5.14 Micro Deval Abrasion (Tex-461-A) | Per ea | \$220.00 |
| 5.15 Indirect Tensile Strength, Tex-226-F (Molding Not Included) | Per ea | \$65.00 |
| 5.16 Residue by Evaporation | Per ea | \$135.00 |
| 5.17 Boiling Stripping Test (Tex-530-C) | Per ea | \$100.00 |
| 5.18 Hamburg Wheel Tracker (Tex-242-F) | Per ea | \$500.00 |
| 5.19 Hamburg Wheel Tracker (Tex-242-F) (Molded by Client) | Per ea | \$350.00 |
| 5.20 Cantabro Loss (Tex-245-F) (Molding Not Included) | Per ea | \$100.00 |
| 5.21 Abson Recovery, Tex-211-F (Extraction Not Included) | Per ea | \$214.00 |
| 5.22 Storage Stability (24 Hrs) | Per ea | \$100.00 |
| 5.23 Density of Emulsified Asphalt (ASTM D6937) | Per ea | \$65.00 |
| 5.24 Demulsibility (Anionic or Cationic Emulsions) | Per ea | \$65.00 |
| 5.25 Viscosity (Brookfield or Saybolt) | Per ea | \$55.00 |
| 5.26 Penetration | Per ea | \$57.00 |
| 5.27 Ductility | Per ea | \$91.00 |
| 5.28 Float Test | Per ea | \$75.00 |
| 5.29 Elastic Recovery | Per ea | \$75.00 |
| 5.30 Cement Mix | Per ea | \$65.00 |
| 5.31 Softening Point (Ring and Ball) | Per ea | \$91.00 |
| 5.32 Absolute Viscosity (Cutback Asphalt or Coal Tars) | Per ea | \$57.00 |
| 5.33 Residue by Distillation (Cutback or Emulsified Asphalts) | Per ea | \$135.00 |
| 5.34 Breaking Index (Asphalt Emulsions) | Per ea | \$85.00 |
| 5.35 Sieve Test | Per ea | \$40.00 |
| 6. Geotechnical Services | | |
| 6.1 Mobilization/Demobilization (Whitin 50 miles from our office), 2-Man Crew with Rig | Per ea | \$250.00 |
| 6.2 Mobilization/Demobilization, 2-Man Crew with Rig (More than 50 miles from our office) | Per mile | \$3.20 |
| 6.3 Vehicle (Water Truck, Pick-Up, etc.) | | |
| 6.3.1 Vehicle (Whitin 50 miles from our office) | Per day | \$50.00 |
| 6.3.2 Vehicle (More than 50 miles from our office) | Per mile | \$0.56 |
| 6.4 Technician (Drilling Support) | | |
| 6.4.1 Helper, Engineering Technician (Mobilization/Demobilization) | Per hr | \$55.00 |
| 6.4.2 Logger, Senior Engineering Technician (Portal to Portal) | Per hr | \$75.00 |
| 6.5 Drilling | | |
| 6.5.1 Auger or Wash Borings, Soil (Add \$3.00/LF for drilling deeper than 50 ft) | Per LF | \$15.00 |
| 6.5.2 Auger or Coring, Soft Rock | Per LF | \$20.00 |
| 6.5.3 Rock Coring | Per LF | \$22.50 |
| 6.6 Grout/Bentonite Backfill | Per LF | \$4.50 |
| 6.7 Undisturbed Shelby Tube Sample | Per ea | \$25.00 |
| 6.8 Standard Penetration Test | Per ea | \$45.00 |
| 6.9 Texas Cone Penetration Test | Per ea | \$45.00 |
| 6.10 Dynamic Cone Penetrometer (Without Technician time) | Per ea | \$125.00 |
| 6.11 Unconsolidated/Consolidated Undrained Triaxial (Multiple Stage) | Per ea | \$515.00 |
| 6.12 Consolidated Drained Triaxial (Multiple Stage) | Per ea | \$750.00 |
| 6.13 Organic Content Determination | Per ea | \$95.00 |

Weiss Lane Roadway Project Pflugerville and Travis County, Texas FEE SCHEDULE

| Rodriguez Engineering Laboratories, LLC | Unit | Fees |
|--|---------|----------|
| 6.14 Consolidation Test | Per ea | \$525.00 |
| 6.15 California Bearing Ratio (CBR) Test | Per ea | \$485.00 |
| 6.16 Dry Unit Weight Test | Per ea | \$35.00 |
| 6.17 Unconfined Compressive Strength Test | Per ea | \$55.00 |
| 6.18 Traffic Control (Safety Cones and Signs) | Per day | \$250.00 |
| 6.19 Traffic Control (Single Moving Lane Closure) | Per day | \$880.00 |
| 6.20 Flagging Services (Incl. Equipment, Set-up, Two-man Crew) | Per day | \$980.00 |
| 6.21 Patching Bores/Cores | Per ea | \$25.00 |
| 6.22 Bulk Sample (Triaxial, Proctor, etc) | Per hr | \$55.00 |
| 6.23 Cut & Excavate Test Pit on Pavement, Approx. 18"x18", Inc. Sampling | Per ea | \$200.00 |
| 6.24 Standby Time (Drill Rig and Crew) | Per hr | \$195.00 |
| 7. Engineering Consultation | | |
| 7.1 Principal | Per hr | \$145.00 |
| 7.2 Senior Project Manager | Per hr | \$130.00 |
| 7.3 Project Manager | Per hr | \$115.00 |
| 7.4 Project Engineer | Per hr | \$115.00 |
| 7.5 Senior Geologist | Per hr | \$106.00 |
| 7.6 Laboratory Manager | Per hr | \$106.00 |
| 7.7 Graduate Engineer | Per hr | \$85.00 |
| 7.8 Senior Engineering Technician | Per hr | \$75.00 |
| 7.9 Secretary/Clerical | Per hr | \$48.00 |
| 8. Outside Services (Reimbursables) | | At Cost |
| 9. Subconsultants | | At Cost |

Ø Minimum call-out charge for technician and equipment is 2 hours. Charges are accrued portal to portal.

Ø The densities test unit rate is based on a minumum of 3 tests per trip.

Ø Transportation charges are applicable for all field testing assignments including sample pick up. but, if the technician is already at the job site, there is no sample pick up charges.

Ø Subconsultants' fees shall be approved previous to work beginning.

Rodriguez Engineering

Laboratories, LLC

EXHIBIT C FEE SCHEDULE - Supplemental #5 Design Services for PS&E - TIME & MATERIAL PROJECT NAME: Weiss Lane PRIME PROVIDER NAME: LJA Engineering, Inc.

| WEISS LANE PROJECT | | | | | | | | | | | | | |
|-----------------------------------|--|------------------------------|--------------------------------|---------------------|--------|-------------------------------|------------------|----------------------|---------------------|--------------|-----------|---------------------|-------------|
| | TASK DESCRIPTION | Senior Project Manager | Senior Engineer/ Planner | Project Engineer | E.I.T. | Senior Engineering Tech | CADD Operator | Sr. Const. Manger | Const. Inspector | Const. Admin | Total | Number of Sheets | Hours/Sheet |
| PROVIDE ON-SITE BRIDGE INSPECTION | | | | | | | | | | | | | |
| | Bridge Construction (313 working days / 21 months) | | | | | | | | | | | N/A | N/A |
| | Contract Admin. (based on 16 hrs/mo.) | | | | | | | | | 336.0 | 336.0 | N/A | N/A |
| | Project Representative (313 working days @ 2 hrs. / day) + 2 hrs. Pre Con. | | | | | | | | 628.0 | | 628.0 | N/A | N/A |
| | Construction Management (8 hours/month) | | | | | | | 168.0 | | | 168.0 | N/A | N/A |
| | | | | | | | | | | | | | |
| HOURS | HOURS SUB-TOTALS | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 168.0 | 628.0 | 336.0 | 1132.0 | | |
| LABOR I | LABOR RATE PER HOUR | | \$175 | \$145 | \$130 | \$110 | \$80 | \$215 | \$145 | \$100 | | | |
| SUBTOT | SUBTOTAL | | \$0 | \$0 | \$0 | \$0 | \$0 | \$36,120 | \$91,060 | \$33,600 | \$160,780 | | |

| TASK DESCRIPTION | Senior Project Manager | Senior Engineer/ Planner | Project Engineer | E.I.T. | Senior Engineering Tech | CADD Operator | GIS Analyst/ Cartography | GIS Technician | Admin | Total Cost Task |
|--|------------------------------|--------------------------------|---------------------|--------|-------------------------------|------------------|-----------------------------|-------------------|-------|-------------------|
| PROVIDE ON-SITE BRIDGE INSPECTION | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 168.0 | 628.0 | 336.0 | \$160,780 |
| | 0 | | 0 | 0 | | 0 | 400 | 628 | 336 | \$100 7 00 |
| SUBTOTAL LABOR EXPENSES | 0 | 0 | 0 | 0 | 0 | 0 | 168 | 628 | 330 | \$160,780 |
| DIRECT EXPENSES | Rate | Quantity | Cost | | | | | | | |
| Meals | \$25.00 | 0 | \$0.00 | | | | | | | \$0 |
| Mileage | \$0.58 | 19000 | \$10,925.00 | | | | | | | \$10,925 |
| Hotel | \$150.00 | 0 | \$0.00 | | | | | | | \$0 |
| Courier Services (Deliveries) | \$30.00 | 0 | \$0.00 | | | | | | | \$0 |
| CADD Plotting (per SQ/FT) | \$1.50 | 0 | \$0.00 | | | | | | | \$0 |
| Photocopies B/W (8.5 X 11) | \$0.10 | 1000 | \$100.00 | | | | | | | \$100 |
| Photocopies B/W (11 X 17) | \$0.15 | 500 | \$75.00 | | | | | | | \$75 |
| Photocopies Color (8.5 X 11) | \$0.75 | 0 | \$0.00 | | | | | | | \$0 |
| Photocopies Color (11 X 17) | \$1.00 | 0 | \$0.00 | | | | | | | \$0 |
| Plots (Color on Bond) | \$2.00 | 0 | \$0.00 | | | | | | | \$0 |
| Court Reporter | \$500.00 | 0 | \$0.00 | | | | | | | \$0 |
| SUBTOTAL DIRECT EXPENSES | | | \$11,100.00 | | | | | | | \$11,100 |
| | | | | | | | | ļļ | | |
| LJA ENGINEERING, INC. TOTAL | | | | | | | | | | \$11,100.00 |
| SUB CONSULTANTS | | | | | | | | | | |
| SURVEYING (MCGRAY & MCGRAY) - PROPOSAL #1 Additional Meets and Bounds (LUMP SUM) | | | | | | | | | | \$4,400.00 |
| SURVEYING (MCGRAY & MCGRAY) - PROPOSAL #2 ROW Staking (LUMP SUM) | | | | | | | | | | \$2,500.00 |
| Construction Materials Testing (REL) - (TIME & MATERIAL) | | | | | | | | | | \$270,289.00 |
| | | | | | | | | | | 4 |
| TOTAL - SUB CONSULTANTS: | | | | | | | | | | \$277,189.00 |
| SUPPLEMENTAL GRAND TOTAL | | | | | | | | ļ | | \$449,069.00 |
| | | | | | | | | | | \$449,069.00 |

Date: 2/16/2017