

**PROFESSIONAL SERVICES
SUPPLEMENTAL AGREEMENT # 1
FOR
2019 PFLUGERVILLE TRANSPORTATION BOND PROJECTS:
PICADILLY DRIVE
ROYSTON LANE
CENTRAL COMMERCE DRIVE**

**STATE OF TEXAS §
 §
COUNTY OF TRAVIS §**

This Supplemental Agreement No. 1_ to a contract for Professional Services is made by and between the City of Pflugerville, Texas ("City") and Halff Associates, Inc. ("Consultant"). City and Consultant may be referred to herein singularly as "Party" or collectively as the "Parties."

WHEREAS, the City and Consultant executed an Agreement for Professional Services ("Agreement") on the ____ day of June, 2019 for the 2019 Pflugerville Transportation Bond Project BUILD Application ("Project") in the amount of \$ 39,810.00 ; and

WHEREAS, the City and Consultant desire to enter into a Supplemental Agreement # 1 for Professional Services for the Project in the amount of \$ 353,677.00, on the 26 day of June, 2019 to add Schematic professional design services to the Agreement; and

WHEREAS, it has become necessary to amend the Agreement to modify the provisions for the Scope of Services, Work Schedule, and Compensation; and

WHEREAS, it is necessary for the City to amend its agreements from time to time to comply with changes in state law relating to contracts of municipalities.

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

I.

Article II. Term shall be amended by changing the term of the Agreement to terminate on July 5, 2020, with the ratification and incorporation of the remaining terms of the Agreement.

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

Article III. Work Schedule and Exhibit A, shall be amended as set forth in the attached addendum to Exhibit A.

Article IV. Compensation to Consultant and Exhibit A (Fee Schedule), shall be amended by increasing by \$353,677.00 the amount payable under the Agreement for a total of \$ 393,487.00, as shown by the attached Addendum to Exhibit A (Fee Schedule).

2.

Except as amended hereby and as previously amended as indicated above, the terms of the Agreement shall remain unchanged and in full force and effect.

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

**CITY OF
PFLUGERVILLE**

CONSULTANT

(Signature)



(Signature)

Printed Name: Sereniah Breland

Printed Name: Dan Franz

Title: City Manager

Title: Public Works Team Leader

Date: _____

Date: 6/12/19

APPROVED AS TO FORM:



Charles E. Zech

City Attorney

DENTON NAVARRO ROCHA BERNAL & ZECH, P.C.

EXHIBIT A

Engineering Services

PROPOSED PROJECT DESCRIPTION/SCOPE OF SERVICES For 2019 PFLUGERVILLE TRANSPORTATION BOND PROJECTS:

PICADILLY DRIVE ROYSTON LANE CENTRAL COMMERCE DRIVE CITY OF PFLUGERVILLE, TEXAS

PROJECT DESCRIPTION

The proposed Scope of Services delineates the items that Halff Associates, Inc. (Engineer) will provide to the City of Pflugerville (City) for the project development of three roadways as part of the 2019 Pflugerville Transportation Bond program. These three roadways are Picadilly Drive (Central Commerce to IH35 frontage road), Royston Lane (Grand Avenue Parkway to Central Commerce) and Central Commerce (City limits to Picadilly Drive). The initial phase of this contract will consist of Preliminary Design Schematic for each of the roadways, environmental analyses, preliminary geotechnical analyses, traffic counts and projections and Subsurface Utility Engineering (SUE). The intent of the schematic level of design is to submit to the Texas Department of Transportation (TxDOT) for federal funding consideration. It is anticipated at the completion of schematic, the Engineer will then work with the City on the formal design for 100% Plans, Specifications and Estimates (PS&E) completion level during the next phase of plan development. The preliminary design schematic services are separated into the following Tasks and described in more detail below:

- Task 1: Project Management and Coordination
- Task 2: Survey
- Task 3: SUE
- Task 4: Schematic Design
- Task 5: Environmental Document Preparation
- Task 6: Geotechnical Analysis
- Task 7: Public Involvement

TASK 1: PROJECT MANAGEMENT & COORDINATION

1.1 Progress Meetings, Reports, and Monthly Invoicing

For the work performed, Engineer will prepare Monthly Invoices billed as a percentage complete per task and Progress Reports. These Reports will include:

- Tasks completed during the reporting period & planned for upcoming periods.
- Issues encountered and recommended actions to address them.
- Overall Project status and development progress, including a tabulation of Tasks showing percentage complete, and supporting documentation
- Engineer will provide meeting minutes for City meetings anticipated at milestone submission and any TxDOT which the Engineer attends for permitting of the project.
- Engineer will prepare a design schedule and associated updates. Updates to the schedule may be a result of review time by the City, TxDOT, or other jurisdictional entity.

1.2 Coordination and administration of work products

- Coordination - Engineer shall designate one Texas Registered Professional Engineer as the Project Manager responsible for Project management, coordination, and communications.
- Administration - Engineer will manage Project activities (including subconsultants), direct the project team/staff, attend meetings with City staff, handle deliverables, and keep records of project communications / files.

TASK 2: FIELD SURVEY

2.1 Survey Control

- Halff shall assure compliance and adherence to all rules, regulations and policies as set forth by the Texas Board of Professional Land Surveyors and Texas Society of Professional Surveyors Manual of Practice for Surveying.
- Halff will recover existing or establish new survey control sufficient to complete the project. Final Horizontal coordinates will be provided in the Texas State Plane Coordinate System, Central Zone (4203) in US Survey Feet on the NAD83 (2011) datum. Halff will provide QA/QC of established survey control.
- Vertical positions should be provided on NAVD88 datum Determine apparent right-of—way based on plat research. Legal lot lines will not be established.

2.2 Right-of-Way Verification

- Obtain and review deeds/plats pertaining to adjacent properties identified from Travis Central Appraisal District records.
- Locate existing ROW/boundary monumentation and property corners.

- Perform calculations and analysis to re-establish existing ROW/boundary lines.
- Provide the overall survey DGN file to the City and illustrate all survey information on the schematic.

2.3 Topographic Survey (ROW to ROW)

- Perform field survey of the streets, will include top back of curb, gutter elevation, and centerline of street.
- Obtain spot elevations on driveways at the first joint back from the street edge.
- Obtain break lines and spot elevations sufficient for 1—ft contour intervals.
- Obtain line and grade on handicap ramps, crosswalks, and sidewalks.
- Field tie above ground visible improvements.
- Behind curbs, tie visible utility locations, including ties to above-ground features, such as power poles, valves, and other features to the right-of-way line (i.e. edges of pavement, curbs and gutter, sidewalks every 50 feet, building corners etc.) either found by our surveyors or located for us by utility companies and/or other agencies. One-call will be notified prior to acquisition of survey. Half shall not be liable for utilities not identified as part of the one-call at the time of survey. Note: does NOT include tying irrigation heads; irrigation heads are often below the grass and not readily visible/locatable.
- Provide spot elevations at center point of manhole covers and access vaults outside of pavement.
- Process field collected data for field survey.
- Perform quality control for survey requirements.
- Extract spot elevations and break lines into DTM.
- Extract and prepare triangulated irregular network into DTM.
- Load 1-foot contour information.
- Driveway and street/county road data - collect type of surface (asphalt, concrete, seal coat, gravel, dirt, etc.), with or without culvert, type of culvert pipe, size, length, with or without Safety End Treatment (SET) for a distance of 50' beyond the existing roadway ROW.
- Picadilly – extend limits for storm inlets, manholes and pipe sizes to Gilleland Creek.

TASK 3: SUBSURFACE UTILITY ENGINEERING (SUE)

- Provide SUE quality level 'B' designating along the project limits of Picadilly Drive, Royston Lane and Central Commerce. SUE limits will not exceed 50-ft outside the limits of the ROW.

Deliverables:

- CAD reference file of utility locations

TASK 4: SCHEMATIC DESIGN

4.1 Roadways (Picadilly Drive, Royston Lane, Central Commerce)

- Existing and Proposed Typical Section Updates
- Roadway Plan and Profiles
- Horizontal Alignment

- Proposed pedestrian improvements will be investigated for allocation of both sides of the roadway at the schematic level. If pedestrian facilities are not able to be accommodated for reasons such as limited ROW, drainage impacts or other items which the City deems, the Engineer will determine the best suitable side of the roadway for pedestrian facilities.

- Preliminary Construction Sequence (typical sections only)

4.2 Storm Sewer Design (30% design including preliminary sizing)

- Prepare Preliminary Drainage Report using City of Pflugerville Drainage Design Criteria
- Engineer will perform a hydrologic and hydraulic analysis of tributaries of Gilleland Creek crossing Picadilly Drive and Royston Lane using Atlas 14 rainfall to determine the capacities of the existing culverts. Engineer will analyze the existing culverts for replacement (if necessary) to pass the 100 year storm event without overtopping the roadway.
- The existing Royston ditch is anticipated to be incorporated underground however since within the ROW, analysis of that existing ditch for preliminary storm sizing is not included in this proposal. A hydrologic and hydraulic analyses of the existing roadside channel along Royston Lane is excluded from this proposal and is anticipated to be incorporated into a future Supplement as part of the formal PS&E.
- Engineer will preliminary size the proposed storm sewer culverts for each of the roadways within the limits of the project. The preliminary storm facility analysis will be limited to culvert crossing and ditch design within the limits of the ROW for the purposes of the schematic. Preliminary storm drain within the proposed road sections is not included in this proposal and will require a Supplement for completion.

4.3 Pavement Marking Design

- Engineer will develop overview pavement markings for the project. These overview markings will depict lane configurations and striping necessary for the project. Engineer will show on the schematic the proposed pavement marking layout.

4.4 Quantities and Preliminary Cost Estimates

Engineer will calculate quantities for each of the following as necessary to provide and Engineer's estimate of probable cost:

- Roadway
- Drainage improvements (percentage based on road improvements)
- Removal
- Pavement Marking
- Illumination

TASK 5: ENVIRONMENTAL DOCUMENTATION

The City is proposing to seek Federal funding for the proposed regional roadway improvements. For Federal funding consideration the follow task items have been identified based on certain assumptions. It is assumed that TxDOT will administer the Federal funding mechanisms for the program. If TxDOT or a regulatory agency requires additional information other than that specified in the tasks identified, then a supplemental services agreement will be required.

5.1 Categorical Exclusion (CE) Documentation

Because federal transportation funds may be used for the proposed project, an environmental review and appropriate documentation is required in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality (CEQ) Regulations, 23 Code of Federal Regulations (CFR) Part 771, and 43 Texas Administrative Code (TAC) Chapter 2. This scope of work and fee estimate are based on the assumption that the proposed improvements would meet the requirements of 23 CFR 771.117, Categorical Exclusions. The environmental process will follow current guidance published by TxDOT regarding CE determinations. In the event it is determined by TxDOT that a CE is not the appropriate level of documentation for the project, Halff will notify the Client and a supplemental scope of work will be prepared to allow completion of other suitable documentation. The following tasks are anticipated to be necessary to receive a CE determination from TxDOT.

5.2 Project Scoping

The purpose of this task is to provide scoping documentation to the TxDOT Austin District office to initiate the CE process and identify the technical studies that will be required for the project. Halff will obtain digital environmental information available from appropriate local, state, and federal agencies. Data collected through this task will be stored in Geographic Information System (GIS) format. Halff shall complete a Scope Development Tool (SDT) and submit to TxDOT. The following resources will be preliminarily addressed in the SDT:

- Air Quality
- Cultural Resources
- Community Impacts

- Biological Resources
- Water Resources
- Hazardous Materials
- Traffic Noise
- Section 4(f) & Section 6(f)
- Parks and Wildlife Code, Chapter 26
- Natural Resources Code, Chapter 183
- Indirect Impact Analysis
- Cumulative Impacts
- Public Involvement

5.3 Site Visit

A preliminary site visit of the project area will be performed to document existing conditions. This task includes taking on-site photographs of existing conditions. It is assumed the Client will provide right-of-entry for the project corridor and the project area will be accessible.

5.4 Technical Reports

The purpose of this task is to prepare resource agency coordination requests and technical reports for resources that require additional assessment as defined in the SDT and Project Scope form. These technical reports will be used by TxDOT to initiate resource/regulatory agency coordination and to obtain feedback/approval from agencies, as applicable. This project is anticipated to require the following technical reports as further described in Tasks 5.4.1 through 5.4.5.

- Biological Evaluation Form and Tier I Site Assessment
- Water Resources Technical Report
- Historic PCR
- Archeological Background Study
- Hazardous Materials Initial Site Assessment (ISA)
- Traffic Noise Analysis Technical Report

The technical reports will be submitted to the TxDOT Austin District and revised in accordance with comments received during up to two rounds of review.

5.4.1 *Biological Investigations*

This task includes an assessment of the project's compliance with the following federal and state regulatory requirements.

- Endangered Species Act of 1973
- Migratory Bird Treaty Act and Golden Eagle Protection Act
- Fish and Wildlife Coordination Act
- Farmland Protection Policy Act
- Executive Order on Invasive Species
- Executive Memorandum on Environmentally and Economically Beneficial Landscaping

- Texas Parks and Wildlife Department (TPWD) Coordination per Memorandum of Understanding (MOU) (reissued 2013)

An assessment will be conducted for vegetation and protected habitat impacts in accordance with the 2013 MOU between TxDOT and the TPWD. The analysis shall consider vegetation/land cover found in the project area as compared to TPWD's Ecological Mapping Systems of Texas (EMST). Associated mapping and a Biological Evaluation Form will be completed. This task will include a review of current species lists from the TPWD and the United States Fish and Wildlife Service (USFWS), and a search request from the Texas Natural Diversity Database (TXNDD). Conclusions will be made, based on general observations from the visual survey and the literature review and database search, regarding whether preferred habitat or designated critical habitat for any listed species is present within the project area, whether any listed species is likely to occur, and whether there is a potential effect to listed species.

5.4.2 *Water Resources Investigations*

This task includes preparing a Water Resources Technical Report to document compliance with the following:

- Section 404 of the Clean Water Act: Waters of the United States
- Section 401 of the Clean Water Act: Water Quality Certification
- Executive Order 11990, Wetlands
- Rivers and Harbors Act of 1899, Section 10
- Section 303(d) of the Clean Water Act
- Section 402 of the Clean Water Act: Texas Pollutant Discharge and Elimination System (TPDES), Construction General Permit
- Section 402 of the Clean Water Act: TPDES, Municipal Separate Storm Sewer System (MS4)
- Floodplain requirements

A jurisdictional determination of waters of the United States, including wetlands, will be made within the existing ROW and any proposed temporary or permanent easements for the project. This determination will include delineation of the boundaries and ordinary high water mark of jurisdictional waters within the ROW.

5.4.3 *Historical Studies Project Coordination Request*

Half shall complete a Non-Archeological Historic Resources PCR form for the proposed project, which will be sent to TxDOT for review. The PCR form will provide information regarding the potential for the presence of historic-age properties in the project's Area of Potential Effects (APE). A review of the Texas Historical Commission's (THC) online Historic Sites Atlas will be conducted to identify previously recorded historic sites within the APE. The PCR form will also include attachments with maps of the proposed project limits and the project APE.

5.4.4 *Archeological Background Study*

Halff will engage a professional archeologist to conduct an archeological background study for the project corridor. An archival records review will include the following sources:

- Texas Historical Commission's Historic Sites Atlas
- National Register of historic Places
- TxDOT's online maps of Historic Properties and Districts
- General Land office (GLO) maps and notes on environmental data and information on occupied areas in the nineteenth and early-twentieth centuries.
- Additional background research will be conducted using historical documents (including county histories, gazetteers, and historic journals) and maps, aerial photography, soils and geology maps, and any other relevant materials.

Based on this review, the Background Study shall identify and plot on a map the areas that require field investigation to evaluate the project's effects on archeological resources (including cemeteries) and shall identify the areas in which the proposed project would have no effect on archeological resources and cemeteries. The Background Study shall identify any areas where field investigations are recommended.

5.4.5 Hazardous Materials Initial Site Assessment Technical Report

Halff shall perform a Hazardous Materials ISA for potential hazardous materials impacts. The ISA shall determine the potential for encountering hazardous materials in the study area, including possible environmental liability, increased handling requirements (e.g. soil or groundwater), and potential construction worker health and safety issues. The performance of the hazardous materials ISA will be sufficient to satisfy TxDOT's current standards. The ISA shall include the following:

- Determine the appropriate project-specific level of inquiry for the ISA. Consider the project design and right-of-way requirements, including project excavation requirements, anticipated additional right-of-way acquisition, and the demolition or modification of structures.
- Produce and submit to TxDOT a completed ISA using TxDOT's ISA format. The completed ISA shall include, when applicable, full copies of list search reports, including maps depicting locations, photographs, recommendations, and any other supporting information gathered to complete the ISA.

Should the findings of the ISA conclude that additional investigation, special considerations, or other commitments from TxDOT or the project sponsor are required during project development, Halff shall review those findings with the Client and TxDOT.

Deliverables:

Electronic versions of the following documents:

- SDT
- Biological Evaluation Form and Tier I Site Assessment

- Water Resources Technical Report
- Historical Studies PCR
 - Archeological Background Study
 - Hazardous Materials ISA

EXCLUSIONS/LIMITATIONS

- Technical reports for the following: carbon monoxide (CO) Traffic Air Quality Analysis (TAQA), mobile source air toxics (MSAT) analysis, community impacts analysis, noise analysis, Section 4(f)/6(f) impacts analysis, indirect impacts, and cumulative impacts, public involvement.
- Effort to obtain right-of-entry from public or private land owners to allow for the completion of environmental services.
- Public meetings, public hearing, and noise wall workshops.
- Threatened or endangered species surveys, preparation of a Biological Assessment or consultation with the USFWS for a Biological Opinion under the Endangered Species Act.
- Preparation of a U.S. Army Corps of Engineers (USACE) Section 404 permit application, Preconstruction Notification (PCN), or mitigation plan.
- Effort to obtain an Antiquities Permit from the THC, preparation of a Historical Studies research design, performing a reconnaissance survey or intensive surveys (i.e., on the ground or archival research for historic structures/districts and shovel testing/deep trenching for archeological sites), evaluation of National Register of Historic Places (NRHP) eligibility for any resources, evaluation of effects on NRHP-eligible or -listed sites, development of mitigation plans, or Section 4(f) evaluations.
- Phase I Environmental Site Assessments performed in accordance with applicable American Society for Testing and Materials (ASTM) standards or any surveys/investigations involving sampling and laboratory analysis (e.g., hazardous materials sampling and analysis, asbestos surveys, and lead-based paint surveys).
- Preparation of additional resource reports not explicitly identified herein.
- Preparation of an Environmental Assessment (EA).
- Preparation of an Environmental Impact Statement (EIS).

TASK 6: GEOTECHNICAL ANALYSIS

- See attached scope of services to be performed by Raba Kistner Consultants, Inc.

TASK 7: PUBLIC INVOLVEMENT

7.1 Public Meetings

- Attend one (1) City of Pflugerville Public meeting for City staff support of presentation of the report findings and address specific analysis questions that the council may have.
- Halff will provide up to four (4) color exhibits for use at the Public Meetings

PROJECT DELIVERABLES:

- Monthly progress reports and invoices
- Survey Information
- Preliminary Schematic Design Plans
- Preliminary Utility Conflict Analysis
- Environmental Document Submittals for the project
- Existing and Proposed Traffic County estimates
- Draft Geotechnical Report
- Engineers opinion of probable costs

ITEMS EXCLUDED FROM THE SCOPE OF SERVICES

1. Public meetings other than those specified in this proposal.
2. Design of water quality or detention ponds
3. Design, analysis and preparation of profiles for any utilities or storm drain facilities outside of elements listed in this proposal.
4. Design of roadway illumination and electrical
5. Design of landscaping, irrigation, or hardscape (enhanced flatwork) facilities
6. Environmental services or permitting other than that specified in this proposal
7. Design of noise abatement facilities
8. Design of public and franchised utility relocations
9. Preparing/submitting a Stormwater Pollution Prevention Plan (SWPPP)
10. Preparing property parcels for acquisition
11. Property acquisition or negotiations
12. Filing fees, permit fees
13. Investigation and preparation of any grant or funding agreements
14. Traffic Signal Warrants, Analysis or Design
15. Coordination with FEMA, TCEQ, City of Austin, or Travis County other than items currently included in this proposal.

16. Technical reports for the following: carbon monoxide (CO) Traffic Air Quality Analysis (TAQA), mobile source air toxics (MSAT) analysis, community impacts analysis, noise analysis, Section 4(f)/6(f) impacts analysis, indirect impacts, and cumulative impacts, public involvement.
17. Effort to obtain right-of-entry from public or private land owners to allow for the completion of environmental services.
18. Threatened or endangered species surveys, preparation of a Biological Assessment or consultation with the USFWS for a Biological Opinion under the Endangered Species Act.
19. Preparation of a U.S. Army Corps of Engineers (USACE) Section 404 permit application, Preconstruction Notification (PCN), or mitigation plan.
20. Effort to obtain an Antiquities Permit from the THC, preparation of a Historical Studies research design, performing a reconnaissance survey or intensive surveys (i.e., on the ground or archival research for historic structures/districts and shovel testing/deep trenching for archeological sites), evaluation of National Register of Historic Places (NRHP) eligibility for any resources, evaluation of effects on NRHP-eligible or -listed sites, development of mitigation plans, or Section 4(f) evaluations.
21. Phase I Environmental Site Assessments performed in accordance with applicable American Society for Testing and Materials (ASTM) standards or any surveys/investigations involving sampling and laboratory analysis (e.g., hazardous materials sampling and analysis, asbestos surveys, and lead-based paint surveys).
22. Preparation of additional resource reports not explicitly identified herein.
23. Preparation of an Environmental Assessment (EA).
24. Preparation of an Environmental Impact Statement (EIS).
25. Preparation, submission, and attendance of a Design Summary Report (DSR) and Design Concept Conference.
26. Preparation of any Utility Conflict Analysis and documentation of existing private utility ownership.
27. Coordination with any private utility company.

Any additional services required beyond those specifically identified in this proposal are excluded from the scope of services to be provided under this agreement. A scope and commensurate fee for any required additional services would be negotiated and provided under a separate supplemental agreement.

PROJECT TASK	PROJECT MANAGER	PROJECT ENGR III (PE)	EIT	CADD/GIS TECH I	SURVEY MGR (RPLS)	SUE/SURVEY TECH	SURVEY CREW (2-MAN)	CONTRACT ADMIN	MGR ENVIRON SCIENTIST	SR ENVIRON SCIENTIST	JR ENVIRON SCIENTIST	EXPENSES	TOTALS
2019 TRANSPORTATION BOND PROJECTS													
Project Management													
Progress meetings, Reports, and Monthly Invoicing	24							9	8	10			\$9,405
Coordination and administration of work products	24	16											\$8,200
Subtotal	48	16	0	0	0	0	0	9	8	10	0	\$ -	\$17,605
Survey-all tasks													
Picadilly					10	32	58						\$15,950
Royston					9	24	30						\$10,005
Central Commerce					9	32	50						\$14,365
Subtotal	0	0	0	0	28	88	138	0	0	0	0	\$ -	\$40,320
SUE													
Level B				54	40	110	156	6					\$53,820
Subtotal	0	0	0	54	40	110	156	6	0	0	0	\$ -	\$53,820
SCHEMATIC DESIGN													
Roadway Horizontal- Picadilly	2	8	12	18									\$0
P&P- Picadilly (0.5 mi)	8	20	54	72									\$4,640
Sections - Picadilly	2	2	4	8									\$17,090
2D Storm Design - Picadilly	2	6	16	24									\$1,900
H&H analysis- Picadilly													\$5,220
H&H - Hydrologic model	8	16	32										\$7,960
H&H - Hydraulic model/Culvert & Channel Analysis (Ex & Prop)	16	24	48										\$12,840
H&H - Technical memo	8	8	24										\$5,720
Signing and Striping - Picadilly	2	8	16	18									\$5,060
Quantities and Cost Estimate - Picadilly	8	10	24										\$6,070
Roadway Horizontal- Royston Lane	2	8	12	18									\$4,640
P&P- Royston (0.6 mi)	8	20	54	72									\$17,090
Sections - Royston	2	2	4	8									\$1,900
2D Storm Design - Royston	2	6	16	24									\$5,220
H&H analysis- Royston													\$7,960
H&H - Hydrologic model	8	16	32										\$12,840
H&H - Hydraulic model/Culvert & Channel Analysis (Ex & Prop)	16	24	48										\$5,720
H&H - Technical memo	8	8	24										\$5,720
Signing and Striping - Royston	2	8	16	18									\$5,060
Quantities and Cost Estimate - Royston	8	10	24										\$6,070
Roadway Horizontal- Central Commerce	2	8	12	18									\$4,640
P&P- Central Commerce (0.4 mi)	8	24	60	80									\$19,100
Sections - Central Commerce	2	2	4	8									\$1,900
2D Storm Design - Central Commerce	2	4	12	16									\$3,770
Signing and Striping - Central Commerce	2	12	20	32									\$7,370
Quantities and Cost Estimate - Central Commerce	8	10	24										\$6,070
Subtotal	136	264	592	434	0	0	0	0	0	0	0	\$ -	\$175,850
ENVIRONMENTAL													
Scoping and Pre-project coordination				4					2	12	4		\$0
Site visit										6	6		\$2,992
BEF/Tier Site Assessment									1	12	32		\$1,476
Water Tech Report									1	24	40		\$4,962
Historic PCR									1	4	12		\$7,554
													\$1,914

PROJECT TASK	PROJECT MANAGER	PROJECT ENGR III (PE)	EIT	CADD/GIS TECH I	SURVEY MGR (RPLS)	SUE/ SURVEY TECH	SURVEY CREW (2-MAN)	CONTRACT ADMIN	MGR ENVIRON SCIENTIST	SR ENVIRON SCIENTIST	JR ENVIRON SCIENTIST	EXPENSES	TOTALS
Arch Background Study									1	4		\$ 2,500.00	\$3,334
Hazmat ISA									1	20	40	\$ 1,000.00	\$7,930
													\$0
Subtotal	0	0	0	4	0	0	0	0	7	82	134	\$ 3,500.00	\$30,162
GEOTECHNICAL -all locations													
Geotech report												\$ 31,300.00	\$31,300
													\$0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	\$ 31,300.00	\$31,300
PUBLIC INVOLVEMENT													
Public Meeting (1)	4	4	4										\$2,020
Exhibit Preparation	1	1	8	16									\$2,600
													\$0
Subtotal	5	5	12	16	0	0	0	0	0	0	0	\$	\$4,620
TOTAL HOURS	189	285	604	508	68	198	294	15	15	92	134	2402	
PERCENT OF TOTAL LABOR (hours)	8%	12%	25%	21%	3%	8%	12%	1%	1%	4%	6%	100%	
TOTAL ESTIMATED FEE	\$ 42,525.00	\$ 49,875.00	\$ 63,420.00	\$ 43,180.00	\$ 15,300.00	\$ 23,760.00	\$ 49,980.00	\$ 1,275.00	\$ 3,150.00	\$ 14,352.00	\$ 12,060.00	\$ 34,800.00	\$353,677

[Delivery by Email: dFranz@Halff.com]



Proposal No. PAA19-067-00
May 17, 2019

8100 Cameron Road
Ste. B-150
Austin, TX 78754
www.rkci.com

Mr. Dan Franz, P.E., CFM
Public Works Team Leader
Halff Associates, Inc.
9500 Amberglen Blvd., Bldg. F, Suite 125
Austin, Texas 78729

P 512.339.1745 F 512.339.6174
TBPE Firm F-3257

**RE: Proposal for Geotechnical Engineering Study
City Pflugerville Pavements - Picadilly Drive, Central Commerce Drive, and Royston Lane
Pflugerville, Texas**

Dear Mr. Franz:

RABA KISTNER Consultants Inc. (RKCI) is pleased to submit this proposal for Geotechnical Engineering Services for the above referenced project. The broad objectives of our study will be to determine soil conditions at the site and to develop pavement design recommendations and construction guidelines for the reconstruction of selected pavements in the City of Pflugerville, Texas. Described in this proposal are:

- our understanding of pertinent project characteristics;
- our proposed scope for field and laboratory study;
- our proposed scope for engineering evaluation and reporting;
- our tentative project schedule; and
- our lump sum study cost.

Project Description

Under consideration in this study is the reconstruction of three roadway segments within the City of Pflugerville, which include Picadilly Drive, Central Commerce Drive, and Royston Lane. The existing asphalt paved roadways will be designed in accordance with the City of Pflugerville Engineering Design Manual and Construction Standards. Full depth reconstruction is expected on the asphalt pavement sections. Based on information provided by the Client, the following segment of roadways are being considered in the scope of services.

Proposed Roadway	Street Classification	Segment Length (lineal ft)	Project Boundaries
Picadilly Drive	Major Industrial Collector	3,100	Between North Interstate 35 Frontage Road and Central Commerce Drive
Central Commerce Drive	Major Industrial Collector	1,800	Between Picadilly Drive and Royston Lane
Royston Lane	Major Industrial Collector	3,100	Between Central Commerce Drive and Grand Avenue Parkway

Field Study

Based on the site plans provided, RKCI will conduct the following drilling scheme in order to assess subsurface conditions at each site as presented on the attached preliminary Boring Location Maps.

Proposal No. PAA19-067-00
 May 17, 2019

Proposed Roadway	Number of Borings	Depth, ft	Total Depth, ft
Picadilly Drive	8	10	80
Central Commerce Drive	5	10	50
Royston Lane	8	10	80

Samples will be taken using conventional Shelby-tube and split-spoon sampling techniques. If limestone is encountered shallower than the above targeted completion depths borings will terminate at auger refusal into limestone. No boring shall terminate shallower than 5 ft. The borings will be located in the field utilizing a recreation grade hand-held GPS device. Our scope of service does not include surveying in the boring location. The boring will be backfilled utilizing auger cuttings generated during drilling activities and existing asphalt surfaces will be patched with similar covering.

Samples collected will be retained in our laboratory for 30 days after submittal of the final geotechnical report.

Laboratory Testing

Upon completion of the subsurface exploration, a testing program will be designed to define the strength and classification characteristics of the subgrade soils. The laboratory testing program is anticipated to include moisture content tests, Atterberg Limits (plasticity) tests, and grain size analyses. However, the actual type and number of laboratory tests will be based on the subsurface conditions encountered in the borings. The laboratory testing will be performed in general accordance with applicable ASTM standards. To determine the strength characteristics of the subgrade soils, resilient modulus test will be performed.

Engineering Reports

The results of the field and laboratory phases of the study will be reviewed by our staff of engineers and geologists. The results of our review, together with the supporting field and laboratory data, will be presented in three separate geotechnical engineering reports. The Geotechnical Engineering Reports will include the following information and recommendations, if applicable:

- A summary of the field and laboratory sampling and testing program,
- A boring location map, and boring logs;
- A review of general site conditions including descriptions of the site, the subsurface stratigraphy, groundwater conditions, and the presence and condition of fill materials, if encountered.
- Flexible and rigid pavement thickness recommendations, to include an option for roller compacted concrete (RRC), if applicable.

The final report will be reproduced in an electronic copy delivered via PDF.

Tentative Project Schedule

Based on our present workload and weather permitting, we anticipate that we could begin the field exploration phase of this study within 5 to 7 working days of receiving your written authorization, provided the site is accessible to our truck-mounted drill rig, all utilities have been located, and City of Pflugerville

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permits have been issued. The field exploration phase for each street if drilled simultaneously is expected to take approximately 5 to 7 business days to complete. Laboratory testing phase is expected to take 7 to 10 business days to complete. Engineering analyses and preparation of the engineering reports is expected to take an additional two to three weeks to complete. Average reporting time from start to finish is expected to be approximately 5-1/2 weeks. We will be pleased to provide the design team with verbal design information as the data becomes available, once drilling has been completed.

Project Cost

The total lump sum cost for the scope of services outlined herein is as follows:

Base Scope of Geotechnical Services	Estimate
Geotechnical Report for Picadilly Drive	\$11,050.00
Geotechnical Report for Central Commerce Drive	\$9,200.00
Geotechnical Report for Royston Lane	\$11,050.00
TOTAL:	\$31,300.00

Prior to issuing a final geotechnical report, a draft report will be issued for the City of Pflugerville’s review and comments.

Should unusual soil conditions be encountered in the field that indicates the desirability of significantly broadening the scope of the study, we will contact you to receive authorization before proceeding with any additional work. Additional services will be billed on a unit basis in accordance with our standard fees as indicated on the attached Schedule of Fees for Professional Services.

If available, we request that the Client provide RKCI with a recent plat of the project site, a drawing illustrating existing and proposed construction locations, and preliminary site grading plans prior to the start of our field exploration services. Also, it is our understanding that the Client will provide access to all boring locations for a conventional, truck-mounted drilling rig and that the Client will provide underground utility clearance. RKCI will assist in locating underground utilities, provided the Client submits documentation of existing utility locations. RKCI will take all precautions to prevent damage to property; however, RKCI cannot be responsible for tire rutting, or damage of landscaping.

It should be noted that our study scope and project cost does not include professional time and travel expenses for participation in design team meetings. Furthermore, our estimate does not include professional time for plan review to determine whether the drawings comply with the intent of the geotechnical recommendations.

Acceptance

We appreciate the opportunity of submitting this contract and look forward to working with you in the development of this project, which will be carried out in accordance with this letter and the following attachments:

<u>Attachment</u>	<u>Description</u>
I	Standard Terms and Conditions
II	Schedule of Fees

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Please return one signed copy of this letter proposal to provide written authorization for our firm to complete work on the services outlined herein. Our invoices are due and payable upon receipt at P.O. Box 971037, Dallas, Texas 75397-1037.

RKCI considers the data and information contained in this proposal to be proprietary. This statement of qualifications and any information contained herein shall not be disclosed and shall not be duplicated or used in whole or in part of any purpose other than to evaluate this proposal.

Very truly yours,

RABA KISTNER CONSULTANTS, INC.

Accepted
By:

Signature

Yvonne G. Thomas
Yvonne Garcia Thomas, P.E.
Vice President

Typed or Printed Name

YGT: tlc

- Attachments: I Standard Terms and Conditions
- II Schedule of Fees

Title

Copies Submitted: Above (1)

Date

2019 Pflugerville Trans. Bond Projects PROPOSED SCHEMATIC SCHEDULE

PROJECT TASKS	2019										2020				
	APR	MAY	JUN	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	
NTP			↓												
PROJECT MANAGEMENT															
SURVEY															
SURVEY VERIFICATION															
SUE															
TRAFFIC ANALYSIS															
GEOTECH															
SCHEMATIC DESIGN															
QA/QC															
CITY REVIEW															
ENVIRONMENTAL															
PUBLIC MEETING															