

September 28, 2022

City of Keller 1100 Bear Creek Parkway Keller, TX 76248

Attention: Mr. Chad Bartee, PE

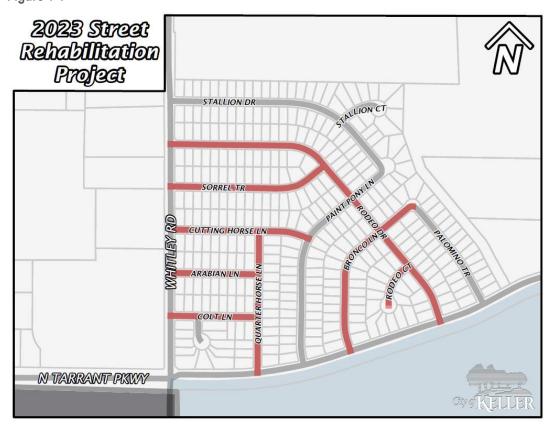
City Engineer

Re: 2023 Annual Street Maintenance Project Proposal for Professional Engineering Services

Dear Mr. Bartee:

The City of Keller has established an Annual Street Maintenance Program which contains a project to rehabilitate residential streets using a pavement management system. Streets are assigned a Pavement Condition Index (PCI) using many variables and are priority-based to maximize available funding. This project was funded by the Street Improvement Fund which was establish after the voter's approval of a $\frac{1}{4}$ of a percent sales and use tax. The City has budgeted \$2,100,000 for the 2023 Street Maintenance Program.

Figure 1-1



The City has provided Wade Trim with the list of 8 street sections, totaling approximately 7,250 feet (see Attachment A and Figure 1-1), and the Pavement Management Report to analyze and provide fundable and practical engineering solutions. Street sections may require some curb and gutter replacement, sections of sidewalk replaced, and construction of barrier free ramps in compliance with Texas Accessibility Standards (TAS), and driveway approaches may need repairs or replacement, as directed by the City.

In support of this program, Wade Trim proposes to provide design services, preparation of construction drawings, specifications, maintenance contracts, bid phase services, and limited construction management assistance. Limited GPS data collection will be required; however, survey and subsurface utility engineering will not be required. The City will provide Wade Trim the City's most up-to-date Lidar, GIS Data, Aerials, and available existing plans when requested.

Scope of Design Engineering & Construction Services

With the above understanding, we propose to provide the following services:

- 1. Task 100 Project Management: This task includes project management functions including conducting meetings with City staff. This includes conducting a project start-up meeting with City staff, and up to two (2) public meetings, if requested by the City.
- 2. Task 200 Project Setup, Coordination & Geotechnical Investigation: This task includes preliminary conference with the City, collecting and reviewing existing data, and geotechnical investigation.
 - i. Project Setup: Conduct a preliminary kick off meeting with the City before starting design. Collect and review existing data such as record drawings, Utility GIS data, and other information provided by the City.
 - ii. Coordination: Coordinate with franchise utilities serving the area to minimize conflict during design and construction.
 - iii. Geotechnical Investigation/Engineering
 - Field Investigation Services
 - We propose a total of twenty (20) borings be drilled along the proposed alignments. The borings will generally be spaced at approximately 400 feet and will be drilled to depths of about 10 feet below the existing pavement grade as per City of Keller's Requirements. An initial summary of project roadway segments, each segment's length, and estimated number of borings are shown in Attachment A.
 - The existing pavement at each boring location will be cored at half the boring locations utilizing a wet-rotary, hand-operated core-drill. The borings will be drilled and sampled using a truck-mounted drilling rig. Conventional tube or split-barrel (standard penetration test) samples will be collected as appropriate for the soils encountered. Bedrock strata, if encountered will be tested in-place using the Texas Cone Penetration Test.
 - The recovered pavement and subsurface samples will be preserved and labeled as to the appropriate boring number and depth in the field. These materials will be described in further detail in the laboratory by a staff geologist or engineer. Groundwater, if observed, will be recorded during and at the completion of drilling. After final groundwater observations, the borings will be backfilled with the excavated cuttings and the pavements patched with commercially available cold mix asphalt patch.
 - Assumptions/Conditions

- Landowner permission, right(s) of entry, permits, easements or other access authorization required to perform our proposed services
- Access for the drilling equipment and crew to each boring location.
- Wade Trim's subconsultant will contact DigTess/Texas One Call (Texas 811) and Keller's Water Department for general subsurface utility clearing within the easements. Locating and marking any private non-franchise subsurface utilities or other structures or items which might be damaged during the field exploration program is not part of this scope. These services can be provided by third-party vendor for an additional fee. Wade Trim and our subconsultant will not be responsible for damage to utilities that are not clearly marked.
- Laboratory Investigation Services
 - Selected laboratory testing of the recovered samples will be performed to evaluate soil index properties, strength and volume change potential characteristics of the subsurface materials, and to provide data for analysis and development of recommendations for pavement design and pavement subgrade preparation. These tests may include but may not be limited to the following:
 - Moisture Content
 - Atterberg Limits
 - Percent Passing No. 200 mesh sieve
 - Soluble Sulfate
 - Lime/Cement Series
 - Overburden Swell Test (Cohesive Soils)
- Engineering Analysis and Report
 - Data obtained from the field investigation, laboratory tests and past experience will be used in the engineering analysis and development of recommendations. Information to be provided is as follows:
 - A plan sheet indicating the approximate location of each boring.
 - A log of each boring with the boring number, depth of each stratum, material description, soil classification with laboratory test results, and groundwater information.
 - A discussion of subsurface soil and groundwater conditions.
 - A brief discussion of the site geology.
 - Estimates of soil movement related to settlement and expansive soils.
 - Roadway subgrade stabilization and pavement section recommendations.
 - Earthwork recommendations, including material type(s), compaction, and backfill requirements.
 - Electronic copy of a geotechnical investigation report for each roadway.
- iv. Wade Trim will review the geotechnical recommendation with the City to verify the results and make a final decision.

- 3. Task 300 Conceptual Plans (30% Submittal): This task includes data collection during a site visit of each street with City staff. Wade Trim will collect needed data, as directed by the City, using a GPS system to establish coordinates for beginning and ending points, as well as document areas of concern. The City will provide Lidar, Utility GIS, aerial data, contract documents and details. The data collected will be used to prepare 30% conceptual submittal including the following:
 - i. 30% Conceptual Construction Plans:
 - Cover Sheet (including location map)
 - General Notes
 - Existing and Proposed Typical Sections
 - Project Overview
 - Conceptual Paving Plan Sheets
 - Indicating pavement, sidewalk, curb and gutter, and driveway replacement, as necessary for each street.
 - TAS barrier free ramp detail will be included in plan set (no detailed design provided).
 - Indicating water meter and service line replacement, as necessary for each street.
 - ii. 30% Quality Assurance/Quality Control (QA/QC) Review
 - iii. Estimates Opinion of Probable Cost (OPCC)
 - iv. Meet with the City to review the 30% submittal.
- 4. Task 400 Preliminary Plans (60% Submittal): This task includes preparation of Plans, Specifications and Estimates (PS&E) package or Maintenance Contracts for the rehabilitation of the various streets. The 60% Submittal will include the following:
 - i. 60% Preliminary Construction Plans:
 - Cover Sheet
 - General Notes
 - Quantity Summary
 - Existing and Proposed Typical Sections
 - Project Overview
 - Paving Plan Sheets
 - Showing pavement, sidewalk, curb and gutter, and driveway replacement, as necessary for each street.
 - Showing water meter and service line replacement, as necessary for each street.
 - Construction Details
 - Traffic Control Details
 - Erosion Control Details
 - ii. 60% QA/QC and Constructability Reviews
 - iii. Specifications
 - iv. Estimates Opinion of Probable Cost (OPCC)
 - v. Meet with the City to review the proposed plans for 60% submittals.
- 5. Task 500 Pre-Final & Final Plans (90% & 100% Submittals): This task includes preparation of Plans, Specifications and Estimates (PS&E) package or Maintenance Contracts for the rehabilitation of the various streets. The 90% and 100% Submittals will include the following:
 - i. 90% Pre-Final and 100% Final Construction Plans
 - Cover Sheet
 - General Notes
 - Quantity Summary
 - Existing and Proposed Typical Sections

- Project Overview
- Paving Plan Sheets
 - Showing pavement, sidewalk, curb and gutter, and driveway replacement, as necessary for each street.
 - Showing water meter and service line replacement, as necessary for each street.
- Construction Details
- Traffic Control Details
- Erosion Control Details
- ii. OA/OC Review
- iii. Specifications
- iv. Estimates Opinion of Probable Cost (OPCC)
- v. Meet with the City to review the proposed plans for 90% submittals.
- Task 600 Bid Phase Services: In this task, Wade Trim will assist the City in bidding the project, including preparing and issuing the bid advertisement, issuing the bid documents, and issuing addendums (up to 3). This task also includes reviewing and tabulating the bids and making a recommendation of award.
- 7. Task 700 Construction Phase Services: This task includes preparing and issuing the Notice of Award and Notice to Proceed documents. Wade Trim will also assist in the preconstruction meeting with the City, Contractor, and utility companies. The anticipated duration of construction is six (6) months. This task also includes the following:
 - i. Up to two (2) site visits during construction, at the request of the City.
 - ii. Review shop drawings and up to 8 contractor submittals.
 - iii. Plan clarifications and responses to Contractor questions on an as needed basis.
 - iv. Review and provide recommendations to the City for change in work that will impact the contract price or schedule.
 - v. Prepare and issue Work Change Orders (as directed).
- 8. Task 800 Project Completion: This task includes one (1) site visit for final inspection, at the request of the City. Wade Trim will also develop and provide record drawings for each street upon provision of red line drawings by the City.
- 9. Task 900 Expenses: This task includes printing and reproduction expenses and direct expenses as shown in Attachment B Level of Effort.

Deliverables

Conceptual Design (30% Submittal)

- Three (3) printed, half-sized copies of construction plans
- Three (3) printed copies of specifications
- Three (3) printed copies of OPCC
- PDF of construction plans, specifications & OPCC

Preliminary Design (60% Submittal)

- Three (3) printed, half-sized copies of construction plans
- Three (3) printed copies of specifications
- Three (3) printed copies of OPCC
- PDF of construction plans, specifications & OPCC

Pre-final Design (90% Submittal)

- Three (3) printed, half-sized copies of construction plans
- Three (3) printed copies of specifications
- Three (3) printed copies of OPCC
- PDF of construction plans, specifications & OPCC

Final Design (100% Submittal)/Bidding Documents

- Three (3) printed, half-sized copies of construction plans
- Three (3) printed copies of specifications in comb bindings
- Three (3) printed copies of OPCC
- PDF of construction plans, specifications & OPCC

Conformed Construction Documents

- Three (3) printed, half-sized copies of construction plans
- Three (3) printed copies of specifications in comb bindings
- PDF of construction plans, & specifications
- Copy of CAD files upon request

Assumptions

- City will provide Lidar, Utility GIS data, aerial data, contract documents, record drawings and details.
- City will identify locations of sidewalk, concrete valley gutter, curb and gutter, driveway, water meter services and water service line replacements needed for each street.

Exclusions/Additional Services

Wade Trim will provide additional services on a time and material basis in accordance with our current schedule of rates and charges (or negotiated fee). Services not identified in this proposal shall be discussed as they arise. The following Exclusions are not included in our Project Scope:

- Changes in Project Scope.
- Traffic impact and/or signalization studies.
- Value engineering revisions unless input is received during design, plan changes requested after obtaining permits, or during construction.
- Hydraulic modeling or water flow test of existing water systems.
- Environmental assessments and permitting.
- Preparation of permits and applications.
- Effort and expenses required to change, adjust, or modify the construction documents after receipt of approval of the preliminary plan.
- Effort and expenses related to drafting legal descriptions, drawings, or exhibits required to modify existing or create new easements.
- Design of sanitary sewer, storm sewer or potable water.
- Vertical roadway design and major horizontal roadway changes.
- Drainage improvements.
- Landscape, irrigation, and/or lighting designs and or modifications.
- Preparation of renderings or exhibits.

Fees

TASK 100	Project Management	\$14,600.00
TASK 200	Project Setup, Coordination & Geotechnical Investigation (Includes	\$34,147.50
	Markup)	
TASK 300	Conceptual Design (30% Submittal)	\$44,750.00
TASK 400	Preliminary Design (60% Submittal)	\$45,400.00
TASK 500	Pre-Final & Final Design (90% & 100% Submittals)	\$38,800.00
TASK 600	Bid Phase Services	\$14,150.00
TASK 700	Construction Phase Services	\$11,700.00
TASK 800	Project Completion	\$10,800.00
TASK 900	Expenses	\$7,652.50
Total Project	Fotal Project Fee	

We propose to perform these services for a lump sum fee (Not to Exceed) in the amount of \$220,000.00 (see Attachment B – Level of Effort).

Schedule

Wade Trim is prepared to begin work immediately upon receiving Authorization to Proceed and plan to complete the bid documents for late 2023 construction (see Attachment C - Schedule).

Invoicing Procedures

All effort and cost will be invoiced monthly for our effort to date. Payment of invoices is expected within 30 days. Any disputes in the invoice amount shall immediately be brought to the attention of Wade Trim. Wade Trim reserves the right to stop work when accounts receivable exceeds 60 days. All deliverables are the property of Wade Trim until payment obligations are met.

Please feel free to contact our office if you have any questions regarding this Proposal. We appreciate the opportunity to provide these services to the City of Keller.

Very truly yours,

Wade Trim, Inc.

Shawn Keough Senior Vice President Amanda T. Roddy, PE Professional Engineer

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COK 2023 Annual Street Maintenance Proposal (2022-09-28).docx

cc: Kenneth Tillman, PE

ATTACHMENT A City of Keller

2023 Annual Street Maintenance Project

Street Name	From	То	Street Rehabilitation Activity	Water Meter Box &	Number of	Roadway Character	Length (ft)			
			(Per PCI Report)*	Service Line Replacement	Borings	Roadside Ditches or Curb & Gutter**	Sidewalk	Approx.		
Arabian Lane	Whitley Road	Quarter Horse Lane	Full-Depth Reconstruction	YES	2	Curb & Gutter	NO	520		
Bronco Lane	Palomino Trail	North Tarrant Parkway	Full-Depth Reconstruction	YES	3	Curb & Gutter	YES	1100		
Colt Lane	Whitley Road	Quarter Horse Lane	Full-Depth Reconstruction	YES	1	Curb & Gutter	NO	520		
Cutting Horse Lane	Whitley Road	Paint Pony Lane	Full-Depth Reconstruction	YES	3	Curb & Gutter	NO	820		
Quarter Horse Lane	Cutting Horse Lane	North Tarrant Parkway	Full-Depth Reconstruction	YES	2	Curb & Gutter	NO	850		
Rodeo Court	Rodeo Drive	End of Pavement	Full-Depth Reconstruction	YES	1	Curb & Gutter	YES	300		
Rodeo Drive	Whitley Road	North Tarrant Parkway	Full-Depth Reconstruction	YES	5	Curb & Gutter	YES	2200		
Sorrel Trail	Whitley Road	Rodeo Drive	Full-Depth Reconstruction	YES	2	Curb & Gutter	NO	940		
Total Length of Roadway Rehabilitation										

^{*}Street Rehabilation Activity to be confirmed by geotechnical investigation and report.

^{**} Curb and gutter, concrete valley gutter, and driveway approach replacement as needed for drainage/ponding concerns.

ATTACHMENT B Level of Effort Spreadsheet City of Keller Design Services for 2023 Annual Street Maintenance Project

	2023 Annual Street Maintenance Project														
		Labor (hours)					Subconsultant Expense			ense	4				
Task No.	Task Description	Principal	Senior Project	Project	EIT	Construction	Administrative	Total Labor Cost	Subcon	sultant	Daniel d	Total Expense	Task Sub Total	% Complete	Remaining
	Rate	-	Manager	Engineer		Inspector			SBE		Reproduction	Cost			Budget
100.0	Project Management	\$250 20	\$245 0	\$145 60		\$145 0	\$90 10		\$0.00	Non-SBE \$0.00	\$0.00	\$0	\$14,600		
100.1	Team Management	20		20			10	\$8,800	\$0.00	\$0.00	\	\$0			
100.2	Communications and Reporting			40				\$5,800				\$0	\$5,800		
200.0	Project Startup, Coordination & Geotechnical Investigation	0	6	48		4	1	\$12,700	\$ 18,650	\$0	\$0	\$18,650	\$31,350		
200.1	Preliminary Conference with Client Collect & Review Existing Data		2	8 20				\$1,890 \$3,860				\$0	\$1,890 \$3,860		
200.2	City of Keller Right-of-Way Permit			8			1	\$2,210				\$0	40,000		
200.4	Geotechnical Investigation/Engineering		2	8	8	4		\$3,190	\$ 18,650			\$18,650	\$21,840		
200.5	Client Conference/Review Meeting		2	4	4			\$1,550				\$0	\$1,550		
300.0	Conceptual Design (30% Submittal)	0	22	102	151	42	4	\$44,750	\$0.00	\$0.00	\$0	\$0			
300.1 300.1.1	Conceptual Design Drawings Cover Sheet	-			1		4	\$360 \$120		-		\$0			
300.1.2	General Notes				4			\$480				\$0			
300.1.3	Location Map(s) & Exhibit				4			\$480				\$0	Ψ100		
300.1.4 300.2	Paving Design (w/ Water Service Replacment) Site Visits			40	80	2		\$15,400 \$820				\$0	\$15,400 \$820		
300.2	Data Collection - Field GPS			40	40	40		\$16,400				\$0	\$16,400		
300.4	Quantity Take-Off and Opinion of Probable Cost			16				\$4,240	ı			\$0			
300.5	QA/QC Review		20					\$4,900				\$0	4 1,000		
300.6	Client Conference/Review Meeting		2	4	4			\$1,550				\$0	\$1,550		
400.0 400.1	Preliminary Design (60% Submittal) Preliminary Design Drawings	0	42	116	136	8	9	\$45,400 \$90	\$0.00	\$0.00	\$0	\$0 \$0			
400.1	Cover Sheet	 			1		1	\$90 \$120				\$0	700		
400.1.2	General Notes			2	2			\$530				\$0	\$530		
400.1.3	Quantity Summary Sheet Paving Plan Sheets (Typical Sections & Plan Sheets)	\vdash		2 40	10			\$1,490 \$15,400				\$0 \$0			
400.1.4 400.1.5	Construction Details Sheets			40	80			\$15,400 \$530				\$0	\$15,400		
400.1.6	Traffic Control Plans/Details			2	5			\$890				\$0	\$890		
400.2	Site Visits			4	4			\$1,060				\$0	¥ - 1,		
400.3	Specifications Overtity Take Off and Opinion of Brobable Cost		20	40			8	\$12,380				\$0	Ţ.=,000		
400.4 400.5	Quantity Take-Off and Opinion of Probable Cost QA/QC Review		20	20	20	8		\$5,300 \$6,060				\$0	40,000		
400.6	Client Conference/Review Meeting		2	4	4	Ü		\$1,550				\$0			
500.0	Pre-Final & Final Design (90% & 100% Submittal)	0	30	110	112	8	10	\$38,800	\$0.00	\$0.00	\$0	\$0	\$38,800		
500.1	Final Design Drawings and Specifications						2	\$180				\$0	ų.00		
500.1.1 500.1.2	Cover Sheet General Notes				1			\$120 \$120				\$0	\$120 \$120		
500.1.3	Paving Plan Sheets (Typical Sections & Plan Sheets)	1		40	80			\$15,400				\$0	\$15,400		
500.1.4	Quantity Summary Sheet			8	16			\$3,080				\$0	\$3,080		
500.1.5	Construction Detail Sheets			2	2			\$530				\$0			
500.1.6 500.2	Traffic Control Plans/Details Site Visits	-		8	1 8			\$120 \$2,120		-		\$0	\$120 \$2,120		
500.3	Constructability Review				J	8		\$1,160				\$0			
500.4	Specifications		8	40			8	\$8,480				\$0			
500.5	Quantity Take-Off and Opinion of Probable Cost QA/QC Review		00	8				\$1,160				\$0	\$1,160 \$4,900		
500.6 500.7	Client Conference/Review Meeting		20	4	3			\$4,900 \$1,430				\$0 \$0			
600.0	Bid Phase Services	0	18	56	3	0	14	\$14,150	\$0	\$0	\$0	\$0			
600.1	Coordinate P&S Reproduction	·	10	8			2	\$1,340	\$0	Ψυ	40	\$0			
600.1	Bidding Assistance		16	30	_		8	\$8,990				\$0	\$8,990		
600.1 600.1	Bid Opening Bid Tabulation		2	4	2		4	\$1,310 \$1,060				\$0	\$1,310 \$1,060		
600.1	Recommendation of Award			8	'		4	\$1,000				\$0			
600.1	Notice of Award			2				\$290				\$0			
700.0	Construction Phase Services	0	22	32	10	2	2	\$11,700	\$0	\$0	\$0	\$0	\$11,700		
700.1	Notice To Proceed						2	\$180				\$0	\$180		-
700.1.1 700.1.2	Preconstruction Conference Shop Drawing & Contractor Submittal Review (up to 8)	 	2	16	2	2		\$1,600 \$4,280		 		\$0 \$0	\$1,600 \$4,280		
700.1.2	Site Visits (Up to 2)		8	8	8			\$4,080				\$0			
700.2	Plan Clarifications/Change Orders		4	4				\$1,560				\$0			
800.0	Project Completion	0	12	28	22	8	0	\$10,800	\$0	\$0	\$0	\$0	\$10,800		
800.1	Final Inspection		8	8		8		\$4,280				\$0	\$4,280		
800.2	Record Drawings		4	20				\$6,520				\$0	\$6,520		
	Totals	20	152	552	464	72	50	\$192,900.00	\$18,650.00	\$0.00	\$0.00	\$18,650.00	\$211,550.00 Project Summary	#REF!	#REF!
TASK 900.0	Printing and Reproduction Expenses	I					Quantity	1	Unit Price	Amount					1,31
1 ASK 900.0	Printing - 11 x 17 Plans (Review Sets)	12	Sets		70	Plot/Set	840	N/A	\$0.25	\$210.00			Total Hours Total Labor		\$192,900.0
	Printing - 11 x 17 Plans (Utility Clearance Sets)	3	Sets		70	Plot/Set	210	N/A	\$0.25	\$52.50			Total Expense		\$7,652.5
	Printing - 11 x 17 Plans (Bidding Sets)	3	Sets		70	Plot/Set	210	N/A	\$0.25	\$52.50			450/	Subconsultant	\$18,650.0
	PDF Preparation Specifications - 8.5 x 11 Paper Copies	19 9	Sets Sets		325 250	Plot/Set Plot/Set	6175 2250	N/A N/A	\$0.10 \$0.15	\$617.50 \$337.50			15%	Sub Markup Total Project Cost	\$2,797.5 \$222,000.0
	Total Printing & Reproduction Expenses	9	Jelo		230	1 101/361	2200	IN/A	ψ0.10	\$1,270.00			L	. J.ui i roject oust	Ψ=22,000.0
	Total Filling & Neproduction Expenses									φ1,210.00					
TASK 900.0	Direct Expenses						Quantity		Unit Price	Amount					
	Plotting 11 x 17 Paper Plots	8	Sets		70	Plot/Set	560	N/A	\$1.00	\$560.00					
	Plotting 22 x 34 Paper Plots	1	Sets		70	Plot/Set	70	N/A	\$1.50	\$105.00					
	Reproduction - 8.5 x 11 Paper Copies	1	Copies		250	Plot/Set	250	N/A N/A	\$0.15 \$12.00	\$37.50					
	Delivery Service GPS Equipment	0 4	Pkgs Trips		0 40	Plot/Set Hours	0 160	N/A N/A	\$12.00 \$20.00	\$0.00 \$3,200.00					
	Auto Expense	50	Trips		80	MI/Plot	4000	N/A	\$0.62	\$2,480.00					
	Total Direct Expenses									\$6,382.50					
	•														

