Wade Trim, Inc.
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February 22, 2024

City of Keller
1100 Bear Creek Parkway
Keller, TX 76248

Attention: Rick Hardcopf, PE, Capital Projects Manger
Chad Bartee, PE, City Engineer

Re: 2024 Annual Street Maintenance Project
Proposal for Professional Engineering Services

Dear Rick Hardcopf and Chad 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 ¼ of a percent sales and use tax. The City has budgeted $2,100,000 for the 2024 Street Maintenance Program.

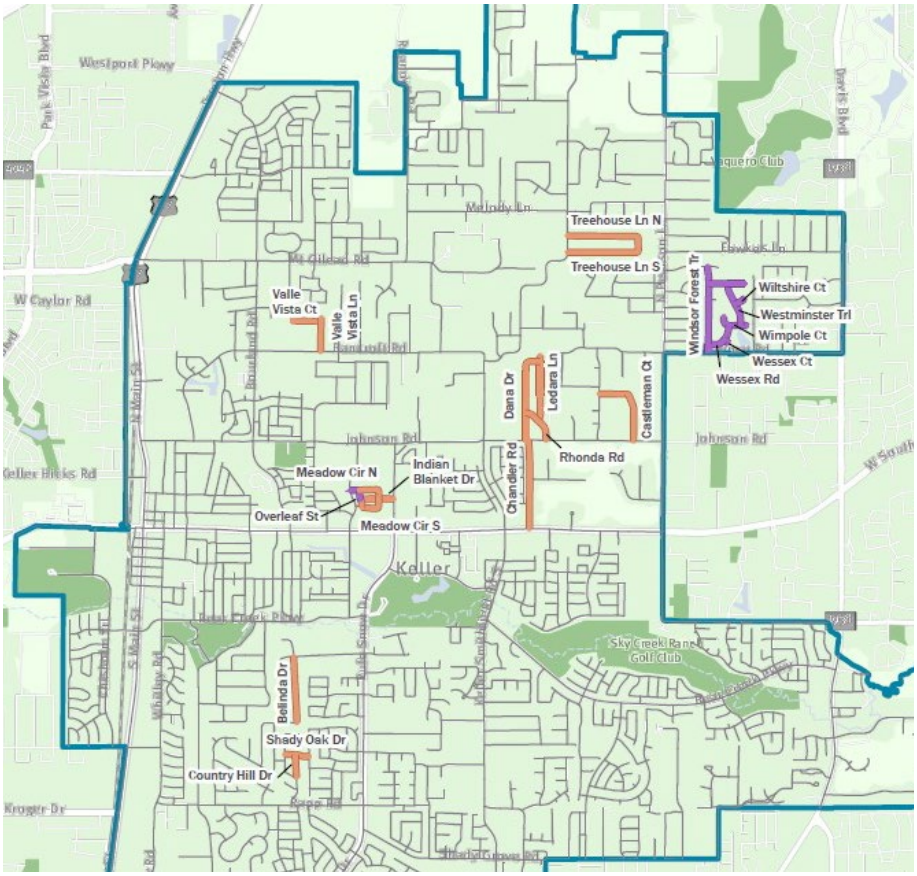

Figure 1: Project overview map

The City has provided Wade Trim with the list of 23 street sections, totaling approximately 31,700 feet (see Attachment A and Figure 1), and the Pavement Management Report to analyze and provide fundable and practical engineering solutions. Street sections have been initially marked as full-depth reconstruction (shown in orange in Figure 1) and mill and overlay (show in purple in Figure 1). Wade Trim will assist the City in selecting the correct balance between full-depth reconstruction street sections and mill and overlay sections, if the budget is such that all the streets cannot be reconstructed.

Wade Trim prepared plans for 7 of the 23 streets, in prior Annual Street Maintenance Projects, a list of the streets can be found in Attachment A. 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. Additionally, utility replacements and adjustments such as water meter and service line replacement, fire hydrant replacement, water valves replacements, proposed water valves, water line adjustments, stormwater line replacements and existing trench line repairs have been identified 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. Similar to past programs, limited GPS data collection will be required. Pre-design survey and subsurface utility engineering will be provided for a limited area. The City will provide Wade Trim the City's most up-to-date Lidar, GIS Data, Aerials, and available existing plans when requested.

Basic Services Scope of Pre-Design Topographic Survey, Geotechnical Investigation and Engineering, Design Engineering and Construction Services

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

1. *Task 100 - Project Management*: This task includes project management functions including preparing for project meetings with the City staff and design team, invoicing, scheduling, communication, and reporting (monthly updates). This task 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 and Subconsultant Coordination:* 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.
        - Wade Trim will assist the City in prioritizing streets for reconstruction and rehabilitation. We will prepare a rough preliminary cost estimate using bid tabulations from the 2022 and 2023 Annual Street Maintenance projects to determine a rough cost per linear foot for full reconstruction and mill/overlay.
    ii. Coordination: Coordinate, communication, scheduling, and invoice review with subconsultants.
    iii. 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.

- Wade Trim will complete measure downs (i.e., rim to invert measurements) on storm system structures where access is available.
- For the streets shown in Attachment A, which have previously had plan sheets assembled, we will verify all data and re-evaluate reconstruction methods.

3. *Task 300 – Pre-Design Topographic Survey:* Provide horizontal and vertical locations of topographic features for the area(s) shown in Figure 2. Provide a Civil 3D 2020 file or XML file with all topographic features and a topographic surface. The topographic features that shall be located include:
   i. Provide ground shots at a minimum of 25 feet on either side of the roadway alignments at 50' intervals to provide one (1) foot contours.
   ii. Other significant grade breaks (walls, ramps, ground slope changes, etc.)

Figure 2: Topographic survey limits for the water line lowering and stormwater replacement in Bluebonnet Hills neighborhood at the intersections of N. Meadow Cricle and Pate Orr Road and S. Meadow Circle and Pate Orr Road

   iii. Fire hydrants, water meters, valves, and blow offs (Provide rim elevations and top nut measure downs for all valves).
   iv. Gas meters and valves.
   v. Power poles, overhead electric lines, telephone, and electrical pedestals.
   vi. Storm Sewer inlets, manholes, and junction boxes with flow-line elevations, rim elevations, size, depth, and type.
   vii. Wastewater manholes with flow-line elevations, cleanouts, rim elevations, size, depth, and type.
   viii. Identify drainage channels, ditches, and swales. Identify culvert sizes and flow lines.
   ix. Show all channel/ditch/creek features, including top of bank, high bank, side slopes, berms, center line of creek and back-slope interceptors. Show limits of riprap and slope paving.

x. Identify brush or tree lines, and tree types and sizes. Comply with local agency requirements for sizes of trees that must be identified. Identify size, specie and location of all individual specimen trees and perimeter location of heavy brush areas.
xi. Locate visible indications of all utilities (gas mains, electric, telephone, cable TV, communication fiber optics, etc.). Locate ROW markers and pipeline markers (provide information from pipeline marker sign).
xii. Roadway features: driveway/ground, back of sidewalk, front of sidewalk, back of curb, gutter, edge of concrete, edge of asphalt, crown of street, mailboxes, signs, and landscaping
xiii. Locate/verify existing property monuments to establish right-of-way and property lines suitable for engineering design. (Not a boundary survey)

4. *Task 400 - Geotechnical Investigation and Engineering*
   i. Field Investigation Services
      - We propose a total of forty-eight (48) borings be drilled along the proposed alignments as shown in Attachment A. Three streets have previously had geotechnical investigation done as a part of prior Annual Street Maintenance Projects; we will not be providing bores on those streets as a part of this scope. The borings will 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.
   ii. 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)

iii. Engineering Analysis and Report
- Data obtained from the field investigation, laboratory tests and 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 to select the desired pavement rehabilitation method for each section of street.

5. *Task 500 - Conceptual Plans (30% Submittal):* This task includes preparation of Plans, Specifications and Estimates (PS&E) package or Maintenance Contracts for the rehabilitation of the various streets. The 30% Submittal will include the following:

i. 30% Conceptual Construction Plans:
- Cover Sheet (including location map) (1 Sheet)
- General Notes (2 – 3 Sheets)
- Existing and Proposed Typical Sections for each street (5 Sheets anticipated)
- Project Overview (4 Sheets anticipated)
- Conceptual Paving Plan Sheets (88 Sheets anticipated)
    - 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).
- Conceptual Utility Plan Sheets (88 Sheets anticipated)
- Sheets anticipated)
    - Indicating water meter and service line replacement, as necessary for each street shown in Attachment A.
    - Indicating utility adjustments, replacements, or installation, as necessary. The following items are proposed utility work in addition to water meter and service line replacements for each street (excluding Chandler Road):
        - Belinda Drive
            - 3 - fire hydrants (includes tee, valve, lead, and hydrant assembly)
            - 2 - remove and replace existing 6-inch valves

- 1 - new 6-inch inline valve
- Remove and replace existing 24-inch CMP cross culvert (no additional topographic survey required, details from 2022 Annual Street Maintenance Project construction plans will be utilized and revised as needed).

- Shady Oak Drive and County Hill Drive
  - 2 - fire hydrants (includes tee, valve, lead, and hydrant assembly)
  - 5 - remove and replace existing 6-inch valves
- Bluebonnet Hills (N. Meadow Circle, S. Meadow Circle, Indian Blanket Drive and Overleaf Drive)
  - 8 - remove and replace existing 6-inch valves
  - 1 - remove existing 6-inch inline valve
  - 6-inch water line lowering at N. Meadow Circle and Pate Orr Road to relocate the water line under existing storm drain and repair existing 33-inch RCP storm drain (existing water line is installed through existing storm drain). See Task 300 for limits of topographic survey, see Special Services 310 for more information.
  - 6-inch water line lowering at S. Meadow Circle and Pate Orr Road to relocate the water line under existing storm drain and repair existing 33-inch RCP storm drain (existing water line is installed through existing storm drain) See Task 300 for limits of topographic survey, see Special Services 310 for more information.

Figure 3: Water line lowering and stormwater replacement in Bluebonnet Hills neighborhood at the intersections of N. Meadow Cricle and Pate Orr Road and S. Meadow Circle and Pate Orr Road

- Valle Vista Lane and Valle Vista Court
  - 2 - fire hydrants (includes tee, valve, lead, and hydrant assembly)
  - 1 - remove and replace existing 6-inch valves
  - Show existing CMP arch pipe on eastside of Valle Vista Lane as shown in Figure 4 (GPS shots on top of the grate inlets, at the outfall and upstream headwall will be taken and measure downs will be verified at the grate inlets, no additional topographic survey will be done)

Figure 4: Existing CMP arch pipe along Valle Vista Lane to be shown on construction plans.

- Dana Drive, Rhonda Road and Ledara Lane
  - 7 - fire hydrants (includes tee, valve, lead, and hydrant assembly)
  - 1 - remove and replace existing 6-inch valves
  - 2 - new inline valve
  - 6 - new inline valves cut in at street intersections
  - Trench line along an existing sanitary sewer on Dana Drive and Rhonda Road has settled. GPS data will be collected in the field and shown on plans and a detail will be provided to address the settlement before reconstruction of the streets
  - Sanitary sewer manholes adjusted to grade will be noted to adjust to grade and new concrete boxouts will be callout on construction plans
- Castleman Court
  - 3 - fire hydrants (includes tee, valve, lead, and hydrant assembly)
  - 2 - remove and replace existing 6-inch valves
  - 1 - new 6-inch inline valve

- N. Treehouse Lane and S. Treehouse Lane
  - 7 - fire hydrants (includes tee, valve, lead, and hydrant assembly)
  - 1 - remove and replace existing 6-inch valves
  - 2 - new inline valve
  - Remove and replace existing 30-inch CMP cross culverts on N. Treehouse Lane (no additional topographic survey required, details from 2022 Annual Street Maintenance Project construction plans will be utilized and revised as needed)
  - Remove and replace existing dual 30-inch CMP skewed-cross culvert on S. Treehouse Lane (no additional topographic survey required, details from 2022 Annual Street Maintenance Project construction plans will be utilized and revised as needed)

Figure 5: Approximate locations of culvert replacements along N. Treehouse Lane and S. Treehouse Lane.

ii. 30% Quality Assurance/Quality Control (QA/QC) Review
iii. Estimates – Opinion of Probable Construction Cost (OPCC)
iv. Meet with the City to review the 30% submittal

6. *Task 600 - Preliminary Plans (60% Submittal):* This task includes preparation of Plans, Specifications and Estimates (PS&E) package for the rehabilitation of the various streets. The 60% Submittal will include the following:
   i. 60% Preliminary Construction Plans:
      - Cover Sheet (1 Sheet)
      - General Notes (2 - 3 Sheets)
      - Quantity Summary (5 Sheets anticipated)
      - Existing and Proposed Typical Sections for each street (5 Sheets anticipated)
      - Project Overview (4 Sheets anticipated)
      - Suggested Sequence of Construction (1 Sheet)
      - Paving Plan Sheets (88 Sheets anticipated)

    - 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
  - Utility Plan Sheets (88 Sheets anticipated)
    - Indicating water meter and service line replacement, as necessary for each street shown in Attachment A
    - Indicating utility adjustments, replacements, or installation, as necessary. Specific scope can be found under Task 500
  - Construction Details
    - City of Keller Standard Details
    - Special Details
  - Traffic Control Details (TxDOT Details)
  - Erosion Control Details (TxDOT Details)

ii. 60% QA/QC and Constructability Reviews
iii. Specifications including technical specifications and front-end documents
iv. Estimates – Opinion of Probable Construction Cost (OPCC)
v. Meet with the City to review the proposed plans for 60% submittals

7. *Task 700 – Pre-Final & Final Plans (90% & 100% Submittals):* This task includes preparation of Plans, Specifications and Estimates (PS&E) package 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 (1 Sheet)
      - General Notes (2 - 3 Sheets)
      - Quantity Summary (5 Sheets anticipated)
      - Existing and Proposed Typical Sections for each street. (5 Sheets anticipated)
      - Project Overview (4 Sheets anticipated)
      - Suggested Sequence of Construction (1 Sheet)
      - Paving Plan Sheets (88 Sheets anticipated)
        - 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
      - Utility Plan Sheets (88 Sheets anticipated)
        - Indicating water meter and service line replacement, as necessary for each street shown in Attachment A
        - Indicating utility adjustments, replacements, or installation, as necessary. Specific scope can be found under Task 500
      - Construction Details
        - City of Keller Standard Details
        - Special Details
      - Traffic Control Details (TxDOT Details)
      - Erosion Control Details (TxDOT Details)
   ii. 90% and 100& QA/QC Reviews
   iii. Specifications including technical specifications and front-end documents.
   iv. Estimates – Opinion of Probable Construction Cost (OPCC)
   v. Meet with the City to review the proposed plans for 90% submittals.

8. *Task 800 – Bid Phase Services:* In this task, Wade Trim will assist the City in bidding the project, including preparing and issuing the bid advertisement using CivCast, issuing the bid documents, and issuing addendums (up to 3). This task also includes reviewing and tabulating

the bids, checking contractor references, and making a recommendation of award. Wade Trim will also compile all addendums and issue a conformed plan set and specifications.

9. *Task 900 –Construction Phase Service*s: 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 twelve (12) months. This task also includes the following:
    i. Up to two (2) site visits during construction, at the request of the City.
    ii. Review up to eight (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 up to two (2) Work Change Orders (as directed).

10. *Task 1000* – 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.

11. *Task 1100* – Expenses: This task includes printing and reproduction expenses and direct expenses as shown in Attachment B – Level of Effort.

Special Services Scope of Subsurface Utility Engineering and CCTV Stormwater System Inspection

To support the Annual Street Maintenance project and the utility work required in the Bluebonnet Hills neighborhood, we propose to provide the following special services as time and materials:

1. *Special Services 310 – Subsurface Utility Engineering:* This task includes Level "B" Subsurface Utility Engineering (SUE) for the green areas shown in Figure 6 and Level "A" SUE which includes up to four (4) potholes. The four quality levels of SUE are as follows:
   Quality Level D (Level "D") – Information derived from existing utility records.
   Quality Level C (Level "C") – Level "D" information supplemented with information obtained by surveying visible above-ground utility features such as valves, hydrants, meters, manhole covers, etc.
   Quality Level B (Level "B") – Two-dimensional (x,y) information obtained through the application and interpretation of non-destructive surface geophysical methods. Also known as "designating" this quality level provides the horizontal position of subsurface utilities within approximately one foot.
   Quality Level A (Level "A") – Three-dimensional (x,y,z) utility information obtained utilizing non-destructive vacuum excavation equipment to expose utilities at critical points which are then tied down by surveying. Also known as "locating", this quality level provides precise horizontal and vertical positioning of utilities.
    i. Level "B" SUE will be performed to locate private franchise utilities and public utilities more accurately, including gas, telecommunications, electric, traffic signals, storm, water, and sanitary sewer within the project area. The utilities will be designated using appropriate surface geophysical methods, marked, and surveyed in the field. The surveyor will procure and work with SUE locating specialist subconsultants to locate and mark available utilities. The surveyor will then survey the Level "B" SUE markings and incorporate the data into the project survey CAD file.

Figure 6: Limits of Level "B" SUE for the water line lowering and stormwater replacement in Bluebonnet Hills neighborhood at the intersections of N. Meadow Cricle and Pate Orr Road and S. Meadow Circle and Pate Orr Road

ii. Level "A" SUE Potholes, provided as requested, per each, maximum of four (4) potholes, assumed depth of 4 feet to 8 feet. Procure and utilize SUE experts with potholing experience and capabilities to execute a maximum of four (4) potholes, as requested by Wade Trim, to determine accurate horizontal and vertical position of the utility in question. Pothole locations will be determined by Wade Trim and subconsultant once the Level "B" SUE deliverable has been reviewed. All designating marks and potholes surveyed using project control point data. Potholes will be executed using nondestructive, vacuum excavation techniques. We have assumed that the test holes will be in areas that are accessible to truck-mounted equipment, and that routine traffic control (cones and free-standing signage, etc.) will be required during the performance of the Level "A" SUE work. Potholes will be marked for survey and backfilled. The surveyor will provide survey location and data of pothole markings. Potholes located within pavement will require coring in addition to test hole excavation. In pavement areas restoration shall be with asphaltic cold mix or other pre-approved methods as required.

iii. Traffic Control Per Day, provided as needed to accommodate requested Level "A" potholes. SUE subconsultant will be responsible for coordinating with the City and submitting the plan as well as any and all safety and compliance requirements.

2. Special Services 320 – CCTV Stormwater System Inspection & Recommendation: Determine the condition of the existing 18-inch Corrugated Metal Pipe (CMP) along Overleaf Drive.
   i. CCTV Stormwater System Inspection: The scope of work for this project involves the CCTV inspection and mapping of approximately 900 linear feet of 18-inch diameter CMP gravity storm drain pipe that runs under Overleaf Street.
      - The standard electronic deliverable (inspection videos, photographs a database including coding information and inspection report) will be submitted to the City at the conclusion of the project.

  - Pipeline Assessment Certification Program (PACP) database with CCTV inspection videos (PACP Coded)
  - PACP pipe rating index & PACP coding information
  - Inspection reports in .PDF format and organized by line segment
- The quantities shown in the fee schedule are estimates only. Actual quantities collected during field operations will be applied to the fee schedule in order to determine final costs.
- Wade Trim and our Subconsultant assumes that all pipes are clean and clear of debris/liquid that could prohibit the successful passage of CCTV inspection equipment. If CES encounters significant debris/liquid, a price for cleaning the pipe(s) will be negotiated and agreed upon or the pipe segment will not be evaluated.
- The pipe access points within the project area will be located and made accessible, by the City. The City shall facilitate physical, safe, and legal access to pipe access points needed for deployment to the pipelines to be inspected. The City shall open sealed, vented, or other non-standard pipe access points and reinstall and/or reseal them as necessary after the inspection is complete. The City shall locate and expose such pipe access points that are not visible, not accessible or are partially or completely covered.
- If through no fault of Wade Trim or our subconsultants operators, cleaning or inspection equipment become lodged in the collection system, the City will provide excavation services to retrieve the equipment at no cost to Wade Trim or our subconsultant or will reimburse our subconsultant for all costs associated with equipment excavation.

Figure 7: Limits of work for CCTV Stormwater System Inspection & Recommendation along Overleaf Street.

ii. Stormwater System Recommendation: Upon review of CCTV footage and inspection report, Wade Trim will prepare a recommendation for repair or replacement option(s), if required.
    - Time and materials required for the special service tasked will only be initiated and billed to the City if by written consent of the City.
    - The deliverables include a recommendation report, and opinion of probably cost for up to two (2) replacement or repair options.

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
- Design of potable water and storm system other than those stated in the scope of services
- Vertical roadway design and major horizontal roadway changes
- Drainage improvements other than those stated in the scope of services
- Hydrologic and Hydraulic design and modeling
- Landscape, irrigation, and/or lighting designs and or modifications
- Preparation of renderings or exhibits

Anticipated Fees

Basic Services		
TASK 100	Project Management	$15,550 (LS)
TASK 200	Project Setup & Subconsultant Coordination	$15,320 (LS)
TASK 300	Pre-Design Topographic Survey (Includes Markup)	$8,290 (LS)
TASK 400	Geotechnical Investigation and Engineering (Includes Markup)	$102,825 (T&M, NTE)
TASK 500	Conceptual Design (30% Submittal)	$67,190 (LS)
TASK 600	Preliminary Design (60% Submittal)	$58,850 (LS)
TASK 700	Pre-Final & Final Design (90% & 100% Submittals)	$45,470 (LS)
TASK 800	Bid Phase Services	$14,150 (LS)
TASK 900	Construction Phase Services	$12,820 (LS)
TASK 1000	Project Completion	$11,780 (LS)
TASK 1100	Expenses	$7,654 (LS)
Special Services (Time & Material, Not to Exceed)		
SS 310	Subsurface Utility Engineering (Includes Markup) Level "B" – $3,473 Level "A" – 4 potholes for $2,001 each Traffic Control for Level "A" – 1 day for $966/day	$12,443 (T&M, NTE)
SS 320	CCTV Stormwater System Inspection & Recommendation (Includes Markup) CCTV Inspection – 15 hours (estimated) Recommendation Report – $5,950	$13,712 (T&M, NTE)
Total Project Anticipated Fee		**$386,054**

LS = Lump Sum, T&M = Time & Materials, NTE = Not to Exceed

We propose to perform these services for a lump sum or time and materials (not to exceed) basis as shown above for a total anticipated project fee of **$386,054** (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 2024 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.

Amanda T. Roddy, PE
Professional Engineer

Shawn W. Keough
Senior Vice President

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cc: Dan De Guzman

ATTACHMENT A
City of Keller
2024 Annual Street Maintenance Project

Street Name	From	To	Street Rehabilitation Activity (Per PCI Report)*	Utility Replacement				On Previous WT Project	Pre-Design Topographic Survey Required	Geotechnical Investigation on Previous Project	Number of Borings	Roadway Characteristics		Anticipated Number of Sheets	Length (ft) Approx.
				Water Meter Box & Service Line Replacement	Fire Hyrant &/or Water Valve Replacement/Installation	Water Line Adjustment	Known Stormwater Line Replacement					Roadside Ditches or Curb & Gutter**	Sidewalk		
Belinda Drive	Misty Oak Lane	Barbara Lane	Full-Depth Reconstruction	YES	YES	NO	YES	YES	NO	YES	---	Roadside Ditches	NO	5	1,800
Castleman Court	Johnson Road	Greenbriar Drive	Full-Depth Reconstruction	YES	YES	NO	NO	YES	NO	YES	---	Roadside Ditches	NO	6	2,100
N. & S. Treehouse Lane	Ottinger Road	Ottinger Road	Full-Depth Reconstruction	YES	NO	NO	YES	YES	YES	YES	---	Roadside Ditches	NO	12	4,700
Indian Blanket Drive	Overleaf Street	Rufe Snow Drive	Full-Depth Reconstruction	YES	YES	NO	NO	YES	YES	NO	2	Curb & Gutter	YES	3	1,000
N. Meadow Circle	Pate Orr Road	Indian Blanket Drive	Full-Depth Reconstruction	YES	YES	YES	YES	NO	YES	NO	2	Curb & Gutter	NO	3	1,100
S. Meadow Circle	Pate Orr Road	Indian Blanket Drive	Full-Depth Reconstruction	YES	YES	YES	YES	NO	YES	NO	2	Curb & Gutter	NO	3	1,000
Overleaf Street	S. Meadow Circle	Indian Blanket Drive	Full-Depth Reconstruction	YES	YES	NO	YES	YES	YES	NO	1	Curb & Gutter	NO	1	200
Chandler Road	Johnson Road	Keller Parkway	Full-Depth Reconstruction	NO	NO	NO	NO	NO	NO	NO	5	Roadside Ditches	NO	7	2,600
Ledara Lane	Rhonda Road	Edge of Pavement	Full-Depth Reconstruction	YES	YES	NO	NO	YES	NO	NO	4	Roadside Ditches	NO	5	2,000
Dana Drive	Johnson Road	Ledara Lane	Full-Depth Reconstruction	YES	YES	NO	NO	NO	NO	NO	5	Roadside Ditches	NO	7	2,700
Rhonda Road	Johnson Road	Dana Drive	Full-Depth Reconstruction	YES	YES	NO	NO	NO	NO	NO	5	Roadside Ditches	NO	3	1,200
Valle Vista Court	Edge of Pavement	Valle Vista Lane	Full-Depth Reconstruction	YES	YES	NO	NO	YES	NO	NO	2	Roadside Ditches	NO	3	900
Valle Vista Lane	Bancroft Road	Edge of Pavement	Full-Depth Reconstruction	YES	YES	NO	NO	YES	NO	NO	2	Roadside Ditches	NO	3	1,100
Shady Oak Drive	Oak Valley Drive	Pheasant Ridge	Full-Depth Reconstruction	YES	YES	NO	NO	NO	NO	NO	2	Curb & Gutter	YES	2	700
Country Hill Drive	Oak Valley Drive	Shady Oak Lane	Full-Depth Reconstruction	YES	YES	NO	NO	NO	NO	NO	2	Curb & Gutter	YES	2	700
Overleaf Street	Indian Blanket Drive	N. Meadow Circle	Mill & Overlay	YES	YES	NO	NO	YES	YES	NO	1	Curb & Gutter	NO	1	300
E. & W. Wimpole Court	Edge of Pavement	Edge of Pavement	Mill & Overlay	YES	NO	NO	NO	NO	NO	NO	2	Curb & Gutter	NO	3	1,000
Wessex Court	Wessex Road	Edge of Pavement	Mill & Overlay	YES	NO	NO	NO	NO	NO	NO	1	Curb & Gutter	NO	1	200
Wessex Road	Windsor Forest Trail	E. Wimpole Court	Mill & Overlay	YES	NO	NO	NO	NO	NO	NO	2	Curb & Gutter	NO	3	1,000
Westminster Trail	Windsor Forest Trail	E. Wimpole Court	Mill & Overlay	YES	NO	NO	NO	NO	NO	NO	3	Curb & Gutter	NO	4	1,400
Wiltshire Court	Westminster Trail	Edge of Pavement	Mill & Overlay	YES	NO	NO	NO	NO	NO	NO	1	Curb & Gutter	NO	1	300
Windsor Forest Trail	Florence Road	Spanish Trail/Edge of Pavement	Mill & Overlay	YES	NO	NO	NO	NO	NO	NO	7	Curb & Gutter	NO	10	3,700
														Total Length of Full Depth Reconstruction	**23,800**
														Total Length of Mill & Overlay	**7,900**
														Total Length of Roadway Rehabilitation	**31,700**

*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.
Additional detail of work can be found in the scope of services

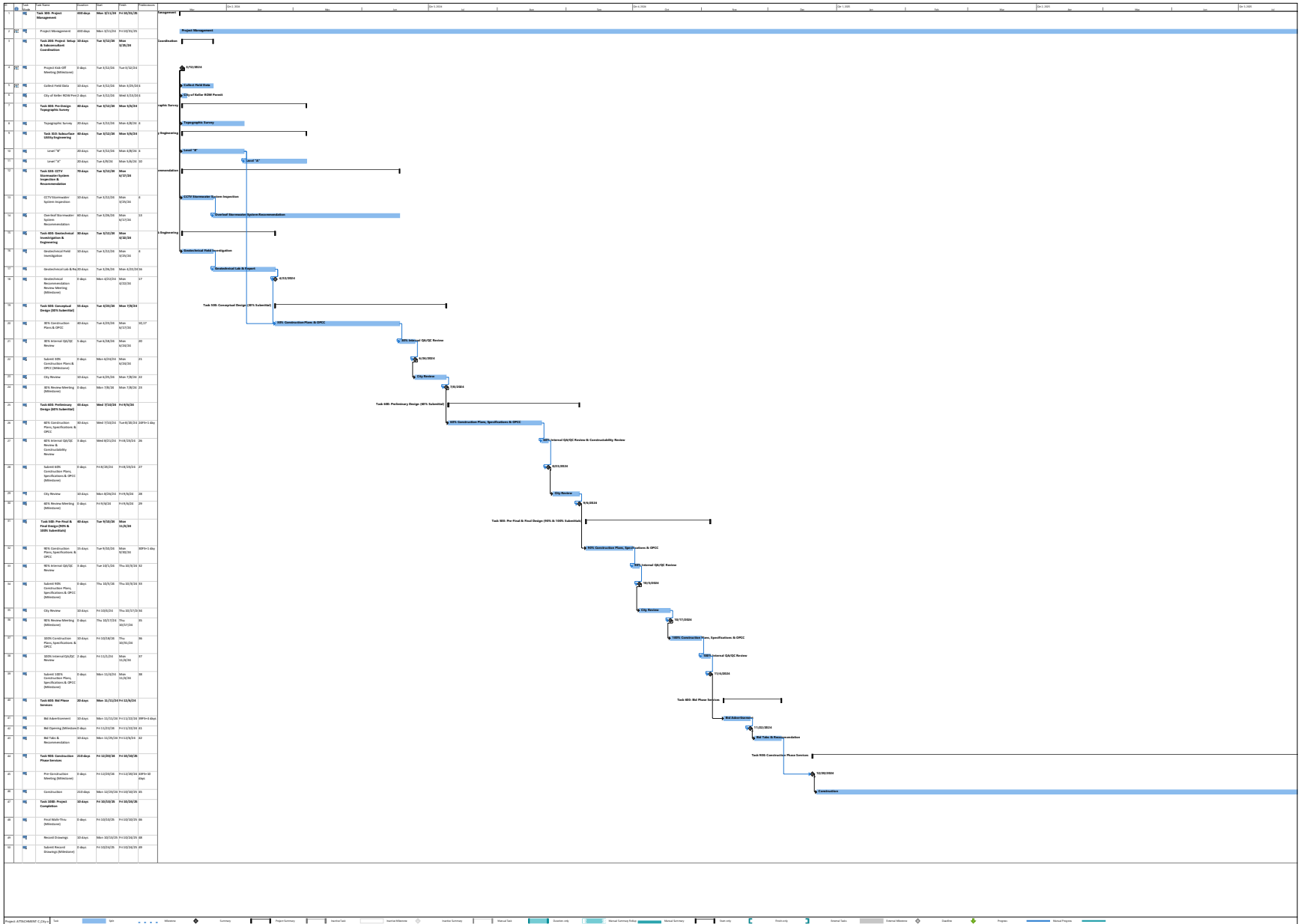
ATTACHMENT B
Level of Effort Spreadsheet
City of Keller Design Services for
2024 Annual Street Maintenance Project

Task No.	Task Description	Labor (hours)						Total Labor Cost	Subconsultant Expense			Total Expense Cost	Task Sub Total	% Complete	Remaining Budget
		Principal	Senior Project Manager	Project Manager/Project Engineer	EIT	Construction Inspector	Administrative		Subconsultant		Reproduction				
	Rate	$250	$245	$180	$120	$145	$90		SBE	Non-SBE					
100.0	**Project Management**	**2**	**10**	**60**	**0**	**0**	**20**	**$15,550**	**$0**	**$0**	**$0**	**$0**	**$15,550**		
100.1	Team Management	2	10	20				$6,550				$0	$6,550		
100.2	Communications and Reporting			40			20	$9,000				$0	$9,000		
200.0	**Project Startup & Subconsultant Coordination**	**0**	**4**	**64**	**22**	**0**	**2**	**$15,320**	**$0**	**$0**	**$0**	**$0**	**$15,320**		
200.1	Preliminary Conference with Client		2	8	2		1	$2,260				$0	$2,260		
200.2	Collect & Review Existing Data			20	8			$4,560				$0	$4,560		
200.3	City of Keller Right-of-Way Permits			8	8		1	$2,490				$0	$2,490		
200.4	Sub Coordination			20				$3,600				$0	$3,600		
200.5	Client Conference/Review Meeting		2	8	4			$2,410				$0	$2,410		
300.0	**Pre-Design Topographic Survey**	**0**	**0**	**0**	**2**	**0**	**0**	**$240**	**$0**	**$7,000**	**$0**	**$7,000**	**$7,240**		
300.1	Pre-Design Topographic Survey							$0		$7,000		$7,000	$7,000		
300.2	Internal Review				2			$240				$0	$240		
310.0	**Subsurface Utility Engineering (T&M, NTE)**	**0**	**0**	**4**	**2**	**0**	**0**	**$960**	**$0**	**$9,985**	**$0**	**$9,985**	**$10,945**		
310.1	Level "B" SUE							$0		$2,185		$2,185	$2,185		
310.2	Level "A" SUE (Assume 4 potholes)							$0		$6,960		$6,960	$6,960		
310.3	Traffic Control (Assume 1 day)							$0		$840		$840	$840		
310.4	Internal Review of Level "B" for pothole locations			4	2			$960				$0	$960		
320.0	**CCTV Stormwater System Inspection & Recommendation (T&M,**	**0**	**2**	**28**	**2**	**0**	**2**	**$5,950**	**$0**	**$6,750**	**$0**	**$6,750**	**$12,700**		
320.1	CCTV Stormwater System Inspection							$0		$6,750		$6,750	$6,750		
320.2	Internal Review			8	2			$1,680				$0	$1,680		
320.3	Recommendation Report		2	20			2	$4,270				$0	$4,270		
400.0	**Geotechnical Investigation and Engineering**	**0**	**2**	**8**	**8**	**0**	**0**	**$2,890**	**$ 86,900**	**$0**	**$0**	**$86,900**	**$89,790**		
400.1	Geotechnical Investigation and Engineering							$0	$ 86,900			$86,900	$86,900		
400.2	Internal Review		2	8	8			$2,890				$0	$2,890		
500.0	**Conceptual Design (30% Submittal)**	**0**	**22**	**106**	**353**	**0**	**4**	**$67,190**	**$0**	**$0**	**$0**	**$0**	**$67,190**		
500.1	Conceptual Design Drawings						4	$360				$0	$360		
500.1.1	Cover Sheet				1			$120				$0	$120		
500.1.2	General Notes				4			$480				$0	$480		
500.1.3	Existing & Proposed Typical Sections				8			$960				$0	$960		
500.1.4	Project Overview				4			$480				$0	$480		
500.1.5	Paving Plan			40	160			$26,400				$0	$26,400		
500.1.6	Utility Plan				40			$4,800				$0	$4,800		
500.2	Site Visits			2	2			$600				$0	$600		
500.3	Data Collection - Field GPS			40	110			$20,400				$0	$20,400		
500.4	Quantity Take-Off and Opinion of Probable Cost			20	20			$6,000				$0	$6,000		
500.5	QA/QC Review		20					$4,900				$0	$4,900		
500.6	Client Conference/Review Meeting		2	4	4			$1,690				$0	$1,690		
600.0	**Preliminary Design (60% Submittal)**	**0**	**42**	**120**	**206**	**8**	**12**	**$58,850**	**$0**	**$0**	**$0**	**$0**	**$58,850**		
600.1	Preliminary Design Drawings						4	$360				$0	$360		
600.1.1	Cover Sheet				1			$120				$0	$120		
600.1.2	General Notes			2	2			$600				$0	$600		
600.1.3	Quantity Summary Sheet			2	10			$1,560				$0	$1,560		
600.1.4	Existing & Proposed Typical Sections				1			$120				$0	$120		
600.1.5	Project Overview				1			$120				$0	$120		
600.1.6	Suggested Sequence of Construction			4	2			$960				$0	$960		
600.1.7	Paving Plan			40	100			$19,200				$0	$19,200		
600.1.8	Utility Plan				40			$4,800				$0	$4,800		
600.1.9	Construction Details Sheets			2	8			$1,320				$0	$1,320		
600.1.10	Traffic Control & Erosion Control Plans/Details			2	5			$960				$0	$960		
600.2	Site Visits			4	4			$1,200				$0	$1,200		
600.3	Specifications		20	40	8		8	$13,780				$0	$13,780		
600.4	Quantity Take-Off and Opinion of Probable Cost			20	20			$6,000				$0	$6,000		
600.5	QA/QC Review		20			8		$6,060				$0	$6,060		
600.6	Client Conference/Review Meeting		2	4	4			$1,690				$0	$1,690		
700.0	**Pre-Final & Final Design (90% & 100% Submittal)**	**0**	**30**	**114**	**128**	**8**	**12**	**$45,470**	**$0**	**$0**	**$0**	**$0**	**$45,470**		
700.1	Final Design Drawings and Specifications						4	$360				$0	$360		
700.1.1	Cover Sheet				1			$120				$0	$120		
700.1.2	General Notes				1			$120				$0	$120		
700.1.3	Quantity Summary Sheet			2	8			$1,320				$0	$1,320		
700.1.4	Existing & Proposed Typical Sections				1			$120				$0	$120		
700.1.5	Project Overview				1			$120				$0	$120		
700.1.6	Suggested Sequence of Construction			2	2			$600				$0	$600		
700.1.7	Paving Plan			40	80			$16,800				$0	$16,800		
700.1.8	Utility Plan			8	20			$3,840				$0	$3,840		
700.1.9	Construction Detail Sheets			2	1			$480				$0	$480		
700.1.10	Traffic Control & Erosion Control Plans/Details				1			$120				$0	$120		
700.2	Site Visits			8	8			$2,400				$0	$2,400		
700.3	Constructability Review					8		$1,160				$0	$1,160		
700.4	Specifications		8	40			8	$9,880				$0	$9,880		
700.5	Quantity Take-Off and Opinion of Probable Cost			8				$1,440				$0	$1,440		
700.6	QA/QC Review		20					$4,900				$0	$4,900		
700.7	Client Conference/Review Meeting		2	4	4			$1,690				$0	$1,690		
800.0	**Bid Phase Services**	**0**	**10**	**56**	**3**	**0**	**14**	**$14,150**	**$0**	**$0**	**$0**	**$0**	**$14,150**		
800.1	Coordinate P&S Reproduction			8			2	$1,620				$0	$1,620		
800.2	Bidding Assistance		8	30			8	$8,080				$0	$8,080		
800.3	Bid Opening		2	4	2			$1,450				$0	$1,450		
800.4	Bid Tabulation			4	1		4	$1,200				$0	$1,200		
800.5	Recommendation of Award			10				$1,800				$0	$1,800		
900.0	**Construction Phase Services**	**0**	**22**	**32**	**10**	**2**	**2**	**$12,820**	**$0**	**$0**	**$0**	**$0**	**$12,820**		
900.1	Notice To Proceed						2	$180				$0	$180		
900.1.1	Preconstruction Conference		2	4	2	2		$1,740				$0	$1,740		
900.1.2	Shop Drawing & Contractor Submittal Review (up to 8)		8	16				$4,840				$0	$4,840		
900.1.3	Site Visits (Up to 2)		8	8	8			$4,360				$0	$4,360		
900.2	Plan Clarifications/Change Orders (Up to 2)		4	4				$1,700				$0	$1,700		
1000.0	**Project Completion**	**0**	**12**	**28**	**22**	**8**	**0**	**$11,780**	**$0**	**$0**	**$0**	**$0**	**$11,780**		
1000.1	Final Inspection		8	8		8		$4,560				$0	$4,560		
1000.2	Record Drawings		4	20	22			$7,220				$0	$7,220		
	Totals	**2**	**156**	**620**	**758**	**26**	**68**	**$251,170**	**$86,900**	**$23,735**	**$0**	**$110,635**	**$361,805**	**#REF!**	**#REF!**

TASK 1100.0	**Printing and Reproduction Expenses**						**Quantity**		**Unit Price**	**Amount**
	Printing - 11 x 17 Plans (Review Sets)	12	Sets		70	Plot/Set	840	N/A	$0.25	$210
	Printing - 11 x 17 Plans (Utility Clearance Sets)	3	Sets		70	Plot/Set	210	N/A	$0.25	$53
	Printing - 11 x 17 Plans (Bidding Sets)	3	Sets		70	Plot/Set	210	N/A	$0.25	$53
	PDF Preparation	19	Sets		325	Plot/Set	6175	N/A	$0.10	$618
	Specifications - 8.5 x 11 Paper Copies	9	Sets		250	Plot/Set	2250	N/A	$0.15	$338
	Total Printing & Reproduction Expenses									**$1,270**

TASK 1100.0	**Direct Expenses**						**Quantity**		**Unit Price**	**Amount**
	Plotting 11 x 17 Paper Plots	8	Sets		70	Plot/Set	560	N/A	$1.00	$560
	Plotting 22 x 34 Paper Plots	1	Sets		70	Plot/Set	70	N/A	$1.50	$105
	Reproduction - 8.5 x 11 Paper Copies	1	Copies		260	Plot/Set	260	N/A	$0.15	$39
	Delivery Service	0	Pkgs		0	Plot/Set	0	N/A	$12.00	$0
	GPS Equipment	4	Trips		40	Hours	160	N/A	$20.00	$3,200
	Auto Expense	50	Trips		80	MI/Plot	4000	N/A	$0.62	$2,480
	Total Direct Expenses									**$6,384**

Project Summary		
Total Hours		1,630
Total Labor		$251,170
Total Expense		$7,654
	Subconsultant	$110,635
15%	Sub Markup	$16,595
	Total Project Cost	**$386,054**


Project Management
Task 000: Project Management
Task 200: Project Setup & Subconsultant Coordination
Project Kick-Off Meeting (Milestone)
Collect Field Data
City of Keller ROW Permit
Task 300: Pre-Design Topographic Survey
Topographic Survey
Task 310: Subsurface Utility Engineering
Level "B"
Level "A"
Task 320: CCTV Stormwater System Inspection & Recommendation
CCTV Stormwater System Inspection
Overland Stormwater System Recommendation
Task 400: Geotechnical Investigation & Engineering
Geotechnical Field Investigation
Geotechnical Lab & Report
4/22/2024
Task 500: Conceptual Design (30% Submittal)
30% Construction Plans & OPCC
30% Internal QA/QC Review
6/26/2024
City Review
7/8/2024
Task 600: Preliminary Design (60% Submittal)
60% Construction Plans, Specifications & OPCC
60% Internal QA/QC Review & Constructability Review
8/23/2024
City Review
9/6/2024
Task 800: Pre-Final & Final Design (90% & 100% Submittals)
90% Construction Plans, Specifications & OPCC
90% Internal QA/QC Review
10/3/2024
City Review
10/17/2024
100% Construction Plans, Specifications & OPCC
100% Internal QA/QC Review
11/4/2024
Task 900: Bid Phase Services
Bid Advertisement
11/22/2024
Bid Take & Recommendation
Task 1000: Construction Phase Services
12/20/2024
Construction