



September 3, 2024

Grant Watanabe, P.E.
 Director of Public Works & Engineering Services
 City of Fair Oaks Ranch
 7286 Dietz Elkhorn
 Fair Oaks Ranch, TX 78015

Re: Proposal for Engineering Services
 Ammann Rd Reconstruction

Dear Mr. Watanabe,

STV, Inc. (STV) is pleased to submit this not to exceed lump sum fee proposal for engineering services to the City of Fair Oaks Ranch for the above referenced project. Included in this fee proposal, STV will have the following subconsultants:

- STV Survey for topographic and field survey services (Attachment C).
- STV SUE for underground utility locates and Level A utility investigation services (Attachment D)
- HVJ Associates for geotechnical and pavement design services (Attachment E).
- SWCA Environmental Consultants for environmental clearance and permitting services (Attachment F).

Project Understanding

This project includes the design, bid, construction and close-out phase services for Ammann Rd from West City Limits to East City Limits.

Project Tasks

The scope of services is listed in Attachment A.

Project Duration and Proposed Fee *

| Task | Task Duration (Calendar Days) * |
|--------------------------------------|--|
| <u>Base Services</u> | |
| Topographic Survey / Data Collection | 40 days from Notice to Proceed (NTP) |
| 30% Schematic Design Phase | 50 days from completion of Topographic Survey |
| 90% Design Phase | 90 days from approval of 30% schematic design phase |
| 100% Design and Bid Phases | 30 days for 100% submittal from approval of 90% design and 30 days for bid advertising |
| Construction Phase | Estimated 360 days (12 months) |
| <u>Supplemental Services</u> | |
| ENVIRONMENTAL | Estimated 180 days (6 months) |
| SURVEY | TBD |
| SUE | TBD |

* Schedule subject to change based on review time and utility coordination

Engineering Services Fee Proposal
 City of Fair Oaks Ranch
 Ammann Rd Reconstruction
 September 3, 2024

The attached Fee Estimate is summarized below:

| Task | Task Fee |
|--|---------------------|
| <u>Base Services</u> | |
| 30% Schematic Design Phase | \$297,130 |
| 90% & 100% Design Phase | \$331,060 |
| Construction Phase & Project Close-Out | \$88,555 |
| Base Services Subtotal | \$716,745 |
| <u>Supplemental Services</u> | |
| ENVIRONMENTAL | \$15,345.00 |
| SURVEY | \$1,200.00 |
| SUE | \$17,327.50 |
| Supplemental Services Subtotal | \$33,872.50 |
| TOTAL | \$750,617.50 |

Project Scope Exclusions

Please note that this fee proposal only includes the tasks and fees for the work described above and listed in Attachment A. A separate fee proposal can be developed for other services as needed per City of Fair Oaks Ranch request.

We look forward to working with you on this important project. If you have any questions or comments, please feel free to contact me at 210.798.2309.

Sincerely,
 STV, Inc.



TBPE Firm No. F-204
 Jaime Aguilar, P.E.
 Vice President / Area Manager

- Attachments: Attachment "A" – Scope of Services
 Attachment "B" – Engineering Service Fee Breakdown
 Attachment "C" – STV Survey
 Attachment "D" – STV SUE
 Attachment "E" – HVJ Associates
 Attachment "F" – SWCA Environmental Consultants

ATTACHMENT A

**ATTACHMENT A
SCOPE OF WORK
AMMANN ROAD FROM WEST CITY LIMITS TO EAST CITY LIMITS
SERVICES TO BE PROVIDED BY CONSULTANT**

The City of Fair Oaks Ranch (CITY) is proposing to reconstruct Ammann Road between the west city limits and the east city limits, approximately 2.17 miles in length (PROJECT). The work to be performed by **STV, Inc.** (CONSULTANT) under this work authorization will consist primarily of the preparation of plans, specifications, & estimate (PS&E) and bidding documents for the preliminary and final design, and construction phase services. Deliverables will include Preliminary Design Schematic (30% submittal), Final Design (90% submittal), Final Contract Documents (100% construction drawings, specifications, and probable cost of construction), any required permits, and preparing record drawings.

The STV, Inc. team will be working together with sub-consultants to produce the final deliverables for the PROJECT. STV Survey will provide field survey services, STV SUE will perform underground utility locates and Level A quality utility investigations, HVJ Associates will perform the soil borings for the geotechnical report including geotechnical investigations and pavement design, and SWCA Environmental Consultants will provide the environmental clearance and permitting services.

Project Description

The PROJECT will include the reconstruction of approximately 2.17 miles of Ammann Road to include a full-depth reconstruction of the mainlanes, the addition of 2-foot shoulders on both sides of the roadway, drainage improvements to two culvert crossings and at-grade existing low water crossings, and utility adjustments as needed. Existing Right-of-Way (ROW) is approximately 40-feet. No additional ROW for the project is anticipated.

Governing Specifications and Manuals

General

The CONSULTANT will design the deliverables to meet the criteria set by the latest versions of the TxDOT CAD Standards and the latest version of the TxDOT Specifications for Construction and Maintenance of Highways, Streets, and Bridges for each engineering discipline. Cost estimates will be derived using the latest month version of the TxDOT Average Low Bid Unit Prices.

The design standards to be used in all phases will be the latest version of the TxDOT Roadway Design Manual, and the American Association of State Highway and Transportation Officials (“AASHTO”) Green Book and Roadside Design Guide as appropriate. The pavement section will be designed to meet applicable TxDOT pavement design criteria.

Proposed SW3P design will meet the criteria set forth by the latest version of the latest version of the TxDOT Stormwater Pollution Prevention Plan (SW3P) Guidance Manual.

A. ENVIRONMENTAL STUDIES

1. ENVIRONMENTAL SERVICES

- a. Perform desktop research to obtain readily available, digital environmental constraints information from appropriate local, state, and federal agencies. Prepare desktop analysis summary report with potential findings and recommendations.

2. ASSUMPTIONS

- a. The scope of services described herein includes the following assumptions. If after further review of the proposed project these assumptions are determined invalid, or if any changes to the project’s scope of work occur rendering these assumptions invalid, then additional environmental services may be required. Additional required services would be performed under supplemental agreement.
 - The proposed project will occur within existing ROW and public utility easements.
 - The proposed project will involve 5 acres or more of ground disturbance and 5,000 or more cubic yards of earth moving and require coordination with THC.

3. EXCLUSIONS

- a. The following items are specifically excluded from this scope of services. If these services are determined necessary after the initial project evaluation, then the services would be performed under supplemental agreement
 - USACE coordination, including Section 404 permitting and/or mitigation.
 - Archeological survey and/or historic structure survey, including application for an Antiquities Permit and/or preparation of historic research design.
 - Field surveys for federal and state-listed threatened and endangered species.
 - USFWS and TPWD coordination/consultation.
 - Phase I Environmental Site Assessment or other hazardous materials review.
 - Landscape Details: No landscape features at subdivision entrance locations will be

included for the roadway ROW corridor. The CONSULTANT will identify conflicts with existing irrigation. A note in the plans will inform the contractor that reconstruction of these items will be the responsibility of the contractor and will be considered a Lump Sum item.

B. TOPOGRAPHIC AND PLANIMETRIC SURVEY DATA

1. SURVEY SERVICES

The CONSULTANT will obtain the services of a Registered Professional Land Surveyor to perform field surveys. All survey services will comply with the latest revision of the Professional Land Surveying Practice Act of the State of Texas and will be accomplished under the direct supervision of a currently licensed State of Texas Registered Professional Land Surveyor.

- a. Gather ownership and deed information of adjacent properties for basefiles.
- b. Research plats, right of way maps, deeds, platted easements, and survey for fence corners, monuments, iron pins, and other ROW markers within the project limits and within the ROW. Analyze data collected to establish the existing ROW.
- c. Establish project control for the site in NAD 83 (HARN '93) horizontal datum, Texas State Plane Coordinate System South Central Zone surface coordinates and NAVD '88 (GEOID 12B) for the vertical datum.
- d. Perform topographic survey of site. CONSULTANT will include, but not limit to, the following features in the topographic basemaps:
 - Pavement Edges
 - Concrete Curbs
 - Driveways
 - Sidewalks
 - Pedestrian Ramps
 - Handrails
 - Fences
 - Street Signs
 - 8" or larger trees (size, type, and canopy in basefiles)
 - Ground Boxes
 - Fire Hydrants
 - Manholes
 - Manhole Invert Elevations
 - Valves
 - Meters
 - Utility Poles

- Mailboxes
 - Boulders along ROW (size in basefiles)
 - Storm Sewer Systems
 - Culvert Crossings
 - Headwalls
- e. Contact Texas811 and locate any visible utility markups.
- f. Prepare and submit Right of Entries to City where entry needed by Survey team, estimated up to 8 property owners. CITY will coordinate with property owners to obtain signatures.

2. **DELIVERABLES**

- a. Planimetric Basefiles (MicroStation OpenRoadsDesigner or MicroStation V8i SS10)
- b. Triangular Irregular Network (TIN) Files
- c. Survey Control Layouts (to be included in PS&E submittals)

C. SUBSURFACE UTILITY ENGINEERING (SUE)

1. **SUE SERVICES**

- a. Utility Investigations: Utilizing non-destructive surface geophysical techniques and reference to established survey control.
 - Designate Quality Level B
- b. Compile “Record Drawings” information from plans, plats, and other location data provided by the utility companies.
- c. Coordinate with Surveyor to tie utility locates positions
- d. Correlate utility owner records with designating data and resolve discrepancies using professional judgement.
- e. Create color-coded composite utility basefile with legend including utility owner names, quality level, utility size, utility locate type, and current utility company point of contact. Basefile to include scalable linestyles depicting size, type, and quality level [e.g., 4” G (D)]

2. **DELIVERABLES**

- a. Existing Utility Layouts
- b. Designated Quality Level Basefiles

D. UTILITY COORDINATION

1. **UTILITY COORDINATION SERVICES**

- a. Utility Coordination Meetings: The CONSULTANT will coordinate and attend up to four (4) utility coordination meetings with existing and near future utility owners within the project limits. These meetings will serve to determine scope of utility relocations and minimize utility

conflicts through design where reasonable and adequate information is provided.

- Technical assistance and meeting exhibits will be developed for each meeting.
 - Verification Letters: Obtain from each utility owner stating that the provided information is correct.
- b. Proposed Utility Alignment Review: The CONSULTANT will review proposed alignments from utility owners to verify no additional conflicts are present. Constructability and conformance to utility regulations is the responsibility of each utility company.

2. DELIVERABLES

- a. Utility Conflict Matrix
- b. Utility Tracking Report

E. GEOTECHNICAL INVESTIGATION (HVJ)

1. ENGINEERING SERVICES

- a. Field Reconnaissance and Exploration: The CONSULTANT will conduct four (4) pavement cores/bores at a depth max of 10-feet and two (2) cores/bores at culvert crossings at a depth max of 25-feet. Samples will be obtained at 2-foot intervals using appropriate method for soil type. Core/bore locations to be coordinated with the CITY. Continuous rock coring is not included in the scope of work.
- Visual Condition Survey: Utilized to determine core/boring locations.
 - Mark Core/Boring Locations and Call In Locates
 - Schedule and Direct Pavement Coring and Drilling Operations
 - Provide Traffic Control: Assure to meet appropriate requirements.
 - Data Collection: Existing pavement thickness will be measured for each layer, stabilizer additives will be checked for in aggregate base and subgrades, sample of aggregates and subgrades will be obtained for testing.
 - Laboratory Testing
 - Laboratory Program: Laboratory testing will be performed on recovered samples selected by the CONSULTANT to aid in soil classification and to measure engineering properties.

2. DELIVERABLES

- a. Geotechnical Analysis Report
- b. Pavement Report
 - Pavement Section Recommendations: The CONSULTANT will provide up to three (3) different recommendations. Different subgrade stabilization methods and/or surface materials will be analyzed.

F. PRELIMINARY SCHEMATIC DESIGN PHASE

1. ENGINEERING SERVICES

a. PROJECT ADMINISTRATION AND COORDINATION

1. Prepare monthly invoices and Progress Reports.
2. Update Project Schedule
3. Monthly Status Report of Decisions/Agreements made and unresolved or pending issues
4. Attend Project Kick-Off Meeting
5. Attend monthly coordination meetings with CITY
6. Perform QC/QA (Schematic, 90%, and 100%)
7. Comment resolution meetings (Schematic and 90%)

b. SCHEMATIC DESIGN OUTLINE

- Develop Base Maps
- Analyze Existing Conditions
- Schematic Alternatives
 - Up to three (3) low-water crossing alternative designs
 - The Engineer shall develop geometric design schematics based on the conceptual schematics.
 - The geometric schematic plan view shall contain the following design elements:
 1. Calculated roadway alignments for main lanes and cross streets at intersections.
 2. Horizontal curve data shown in tabular format
 3. Pavement edges, curb lines, sidewalks for all roadway improvements
 4. Typical sections of existing and proposed roadways
 5. Existing and proposed major utilities
 6. Existing property lines and respective property ownership information
 7. Existing ROW and easement
 8. ROW and easements requirements adequate for preparation of ROW maps
 9. Waters of the US (WOUS)
 10. Lane lines, shoulder lines, and direction of traffic flow arrows indicating the number of lanes on all roadways
 - The geometric schematic profile view shall contain the following design elements:
 1. Calculated profile grade and vertical curve data including “K” values
 2. Existing ground line profiles
- Cross Sections for Preferred Alternative
 - Every 100 feet and at culvert locations in conjunction with the Geometric Schematic

- Will be utilized for earthwork volumes and cost estimates
- c. Preliminary Hydrology and Hydraulics Report for the PROJECT limits to conform to the criteria set by the latest version of the TxDOT Hydraulic Design Manual.

d. DELIVERABLES

- Schematic Scroll including vertical profile (24" tall paper) (per alternative)
- OPCC (per alternative)
- Cross Section Scroll (24" tall paper) (per alternative)
- Preliminary Hydrology and Hydraulics Report
- Preliminary Geotechnical Report
- Preliminary Environmental Studies Report
- KMZ File to view on Google Earth (per alternative)
- Utility Conflict Matrix

G. FINAL PS&E DESIGN PHASE

1. ENGINEERING SERVICES

a. PROJECT ADMINISTRATION AND COORDINATION

- The CONSULTANT will incorporate comments from the schematic design phase submittal.
- The CONSULTANT will coordinate with joint bid utility owners and include proposed utility plans within the design deliverable.

b. ROADWAY DESIGN

- General Plan Sheets: The CONSULTANT will prepare 11"x17" format General Plan Sheets that include:
 - Title Sheet
 - Index of Sheets
 - General Notes
 - Project Layout Sheets (1" = 100')
- Typical Sections: The CONSULTANT will prepare existing and proposed typical sections. All typical sections will show pertinent information such as pavement section, right of way, travel lane widths, shoulder widths, border widths, centerline, side slopes, and/or retaining walls. Plan sheets will be in 11"x17" format.
- Roadway Plan Sheets: The CONSULTANT will prepare 11"x17" format sheets for the following roadway pertinent items:
 - Roadway Quantity Summary
 - Removal Layouts (1" = 50')
 - Horizontal Alignment Data Sheet
 - Roadway Plan & Profile Layouts (1" = 50' Horizontal & 1" = 10' Vertical)

- Cross Street Plan & Profile Layouts (1" = 50' Horizontal & 1" = 10' Vertical)
- Driveway Profile Sheets (1" = 50' Horizontal & 1" = 10' Vertical)
- Intersection Layouts (1" = 50')
- Miscellaneous Detail Sheets
- Applicable Standards
- Traffic Control Plan: The CONSULTANT will prepare the following pertinent TCP 11"x17" format sheets in accordance with the most recent version of the Texas Manual of Uniform Traffic Control Devices (TMUTCD). The plan layouts will identify construction phasing work areas and notations for construction phasing, staging, and traffic handling.
 - TCP Quantity Summary
 - TCP Sequence of Construction/Narrative
 - TCP Layouts (1" = 50')
 - TCP Detour Layouts (1" = 100')
 - Applicable Standards
- Cross Sections: The CONSULTANT will prepare 11"x17" format cross section sheets at a rate of 100' along the proposed centerline. Cross sections will include cross streets, driveways, and critical locations. Utilities and storm sewer will be illustrated in the cross sections to the closest approximation (1" = 10')

c. DRAINAGE DESIGN

- Hydraulic Design: The CONSULTANT will prepare the following 11"x17" format plan sheets
 - Drainage Area Maps (1" = 100')
 - Roadside Ditch Layouts (1" = 50')
 - Drainage Calculation Sheets
- Hydrologic Design: The CONSULTANT will prepare the following 11"x17" format exterior drainage plan sheets
 - Culvert Layouts (1" = 50')
 - Culvert Hydraulic Data Sheets
- Miscellaneous Drainage Details
- Drainage Quantity Summary
- Applicable Standards
- Edwards Aquifer Contributing Zone Plan (CZP)
 - The eastern limit of the roadway falls within the Edwards Aquifer Contributing Zone.
 - CONSULTANT will prepare a CZP in accordance with Title 30 Texas

Administrative Code Chapter 213 and submit to Texas Commission of Environmental Quality (TCEQ) to confirm both the quantity and quality of water within the aquifer is protected.

e. SIGNING AND STRIPING

- Signing and Striping: The CONSULTANT will prepare the following 11"x17" format plan sheets
 - Signing & Striping Quantity Summary
 - Small Sign Quantity Summary
 - Signing & Striping Layouts (1" = 50')
 - Applicable Standards

f. ENVIRONMENTAL & STORM WATER POLLUTION PREVENTION PLAN (SWP3)

- Environmental: The CONSULTANT will prepare the following 11"x17" format plan sheets
 - Environmental Permits, Issues and Commitments (EPIC)
- SW3P: The CONSULTANT will prepare the following 11"x17" format sheets
 - SW3P Narrative
 - SW3P Layouts (1" = 50')
- SW3P Quantity Summary
- Applicable Standards

g. DELIVERABLES

- Final Plan Sets (11"x17")
- Opinion of Probably Construction Cost (OPCC)
- Construction Schedule
- Unit Bid Pricing Form
- Schematic Review Comment Response Matrix

H. BID PHASE

1. ENGINEERING SERVICES

- a. Pre-Bid Meeting: The CONSULTANT will attend meeting and furnish construction documents to prospective bidders.
- b. Bidder Questions: The CONSULTANT will respond to questions during the bidding process.
 - Develop Addenda, as required.
- d. Bid Review: The CONSULTANT will review bids and provide summary of bid tabulations and provide recommendation based on low bidder.
 - Provide electronic versions (i.e., PDF) of construction plans to awarded contractor.

I. CONSTRUCTION PHASE

1. CONSTRUCTION SERVICES

- a. The CONSULTANT will provide Construction Phase Services for the Ammann Road Reconstruction project. Change orders due to unexpected field conditions or changes due to Contractor or CITY request will be considered additional services and will be addressed with a supplemental agreement. The following items are considered construction phase services.
- Centerline Staking: One-time staking of proposed centerline for project survey control.
 - Attend pre-construction meeting.
 - Monthly Progress Meetings: Construction meetings to include Site Observation Visits (assume 12 meetings within the assumed 12-month construction period).
 - Prepare Construction Site Observation Reports: One report per progress meeting.
 - Review Applicable Required Shop Drawings
 - Review and Respond to Requests-for-Information (RFI's)
 - Review Contractor Monthly Pay Estimates
 - Final Approval Site Visit and Report
 - Prepare As-Built Record Plan Set (electronic document)

J. SUPPLEMENTAL SERVICES

1. ENVIRONMENTAL SERVICES

- a. Perform a cultural resources records review to determine the probability of significant cultural resources located within the project area of potential effects (APE) in accordance with Section 106 of the National Historic Preservation Act (36 CFR 800) and the Antiquities Code of Texas (13 TAC 26).
- b. Historical: Conduct a review of the National Register of Historic Places (NRHP) and the Texas Historic Sites Atlas online listings for the presence of previously designated historic properties within the project APE and vicinity.
- c. Archeological: Conduct a review of the records at the Texas Archeological Research Laboratory and the Texas Archeological Sites Atlas to identify recorded archeological sites within the project APE and vicinity. As a political subdivision of the State, Fair Oaks Ranch must notify the Texas Historical Commission (THC) prior to commencing any project on public land that will involve 5 or more acres of ground disturbance; 5,000 or more cubic yards of earth moving; will occur in a historic district; or will affect a recorded archeological site. The project is anticipated to exceed 5 acres of ground disturbance and 5,000 cubic yards of earth moving; therefore, CONSULTANT will coordinate the proposed project with THC.

- d. Conduct a desktop review to determine the potential for federally listed threatened and endangered species to occur within the project area in accordance with the Endangered Species Act of 1973. CONSULTANT will review the lists of currently protected species for Kendall and Comal Counties from the Texas Parks and Wildlife Department (TPWD) and the U.S. Fish and Wildlife Service (USFWS) and perform a search of the Texas Natural Diversity Database (TXNDD) records.
- e. Perform a field survey of the project area and vicinity to verify information obtained through desktop research and to document any additional environmental constraints, including an assessment of suitable habitat capable of supporting identified listed species, if necessary, and identifying potential jurisdictional waters of the U.S., including wetlands, within the project area that would require a U.S. Army Corps of Engineers' (USACE) Section 404 permit.
- f. Prepare an Environmental Report documenting environmental constraints and field survey findings within the project area, which will consist of a table summarizing the identified environmental constraints, field findings, and likely regulatory requirements or permitting issues, as well as maps displaying environmental constraints and field findings

2. SURVEY SERVICES

- a. Prepare, coordinate, and execute Right of Entry (ROE) agreements for adjacent property owners.

3. SUE SERVICES

- a. Testholes: Total of five (5) testholes (Quality Level A) of varying depths will be executed for identified conflicts. Additional test holes will be considered supplemental services.
- b. Deliverables:
 - Test Hole Exhibits

DESIGN SCHEDULE *

| Task | Task Duration (Calendar Days) |
|------------------------------------|--|
| Topographic Survey/Data Collection | 40 days from Notice to Proceed (NTP) |
| 30% Schematic Design Phase | 50 days from completion of Topographic Survey |
| 90% Design Phase | 90 days from approval of 30% schematic design phase |
| 100% Design and Bid Phases | 30 days for 100% submittal from approval of 90% design and 30 days for bid advertising |
| Construction Phase | Estimated to be 360 days (12 months) |
| <u>Supplemental Services</u> | |
| ENVIRONMENTAL | Estimated to be 180 days (6 months) |
| SURVEY | TBD |
| SUE (QL A & QL B) | TBD |

*Schedule subject to change based on review time and utility coordination.

ATTACHMENT B

Ammann Road :
Level of Effort Summary for PS&E and Construction Phase Services

| Phase | STV | STV (EPP) | STV (SUE) | STV (Survey) | HVJ | SWCA | Total |
|--|---------------------|--------------------|--------------------|--------------------|--------------------|-------------------|---------------------|
| 1.0 Project Administration | \$41,885.00 | | | | | | \$41,885.00 |
| 2.0 Project Design Criteria | \$13,940.00 | | | | | | \$13,940.00 |
| A) Environmental Studies | | \$4,140.00 | | | | | \$4,140.00 |
| B) Surveying Services | | | | \$74,645.00 | | | \$74,645.00 |
| C) Subsurface Utility Engineering (SUE) Services | \$28,380.00 | | | | | | \$28,380.00 |
| D) Utility Coordination | \$14,280.00 | | | | | | \$14,280.00 |
| E) Geotechnical Investigation | \$5,600.00 | | | | \$33,240.00 | | \$38,840.00 |
| F) Preliminary Schematic Design Phase (30% Design) | \$81,020.00 | | | | | | \$81,020.00 |
| G) Final PS&E Design (90% & 100% Design) | \$331,060.00 | | | | | | \$331,060.00 |
| H) Bid Phase Services | \$13,440.00 | | | | | | \$13,440.00 |
| I) Construction Phase Services | \$75,115.00 | | | | | | \$75,115.00 |
| Total Basic Services | | | | | | | \$716,745.00 |
| SUPPLEMENTAL SERVICES | | | | | | | |
| J) Environmental Specified Supplemental Services | | \$13,440.00 | | | | \$1,905.00 | \$15,345.00 |
| J) Survey Specified Supplemental Services | | | | \$1,200.00 | | | \$1,200.00 |
| J) SUE Specified Supplemental Services | | | \$17,327.50 | | | | \$17,327.50 |
| Total Optional Services | | | | | | | \$33,872.50 |
| Total w/Additional Services | \$604,720.00 | \$17,580.00 | \$17,327.50 | \$75,845.00 | \$33,240.00 | \$1,905.00 | \$750,617.50 |

Exhibit 2A

Ammann Road :
Estimated Level of Effort for PS&E, Bid, and Construction Phase Services

| POSITION DESCRIPTION | PIC | Project Manager/QAQC | Sr. Civil Engineer | Project Engineer | Senior CADD Tech | BIT | Env. Manager | Senior Biologist | Cultural Specialist | Field Biologist | GIS Analyst (Env) | Project Assistant | Sub/Consultant Fee Lump Sum | Non-Labor Cost | Total Labor hrs. | Cost |
|---|--|----------------------|--------------------|------------------|------------------|-------------|--------------|------------------|---------------------|-----------------|-------------------|-------------------|-----------------------------|----------------|------------------|-------------|
| BILLABLE LABOR RATES (Per Contract) | | | | | | | | | | | | | | | | |
| | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | | |
| 1) Project Administration and Coordination | | | | | | | | | | | | | | | | |
| 1 a.1 | Prepare Monthly Invoices and Progress Reports (Assumes 12 Invoice Submittals plus 12 construction phase) | | 12 | | 12 | | | | | | | 24 | | | 36 | \$5,160.00 |
| 1 a.2 | Update Project Schedule | | 2 | | | | | | | | | | | | 14 | \$2,980.00 |
| 1 a.3 | Monthly Status Report of Decisions/Agreements made and unresolved or pending issues | | 2 | | 12 | | | | | | | | | | 14 | \$2,900.00 |
| 1 a.4 | Attend Project Kick-Off Meeting | | 2 | 2 | 2 | | | | | | | 1 | | | 7 | \$1,265.00 |
| 1 a.5 | Attend Monthly Coordination Meeting With City | | 12 | | 12 | | | | | | | 0 | | | 24 | \$4,960.00 |
| 1 a.6 | Perform Kick-Off (Schematic, 50% - 100%) | | 64 | 32 | | | | | | | | | | | 96 | \$20,480.00 |
| 1 a.7 | Comment Resolution Meetings (Schematic and 50%) | | 9 | 9 | 12 | | | | | | | 0 | | | 30 | \$5,700.00 |
| | Total Hours | 0 | 103 | 43 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | | | 221 | |
| | HOURS SUB-TOTALS | 0 | 103 | 43 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | | | 221 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Project Administration and Coordination | \$0.00 | \$22,660.00 | \$8,600.00 | \$8,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$2,625.00 | \$0.00 | \$0.00 | | \$41,885.00 |
| 2) Project Design Criteria | | | | | | | | | | | | | | | | |
| H.1.a | Project Specifications and Contract Documents | | 12 | 16 | 48 | | | | | | | 4 | | | 80 | \$13,940.00 |
| | Total Hours | 0 | 12 | 16 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | 80 | |
| | HOURS SUB-TOTALS | 0 | 12 | 16 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | 80 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Project Design Criteria | \$0.00 | \$2,640.00 | \$3,200.00 | \$7,680.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$420.00 | \$0.00 | \$0.00 | | \$13,940.00 |
| 3) Environmental Studies | | | | | | | | | | | | | | | | |
| 1.a | Desktop Research for Local, State, and Federal Agencies with analysis summary report | | | | | | 4 | 8 | | 16 | 8 | | | | 36 | \$4,140.00 |
| | Total Hours | 0 | 0 | 0 | 0 | 0 | 4 | 8 | 0 | 16 | 8 | 0 | | | 36 | |
| | HOURS SUB-TOTALS | 0 | 0 | 0 | 0 | 0 | 4 | 8 | 0 | 16 | 8 | 0 | | | 36 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Environmental Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,380.00 | \$1,280.00 | \$0.00 | \$1,440.00 | \$750.00 | \$0.00 | \$0.00 | | \$4,140.00 |
| 4) Surveying Services | | | | | | | | | | | | | | | | |
| 1.a-f | Survey Services (STV) | | | | | | | | | | | | \$74,645.00 | | 0 | \$74,645.00 |
| | Total Hours | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| | HOURS SUB-TOTALS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Surveying Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$74,645.00 | \$0.00 | | \$74,645.00 |
| 5) Subsurface Utility Engineering (SUE) Services | | | | | | | | | | | | | | | | |
| 1.a-e & 2.a-b | SUE Level D & Utility Maps (S1V) | | 2 | 8 | 24 | 120 | 60 | | | | | | | | 214 | \$28,380.00 |
| | Total Hours | 0 | 2 | 8 | 24 | 120 | 60 | 0 | 0 | 0 | 0 | 0 | | | 214 | |
| | HOURS SUB-TOTALS | 0 | 2 | 8 | 24 | 120 | 60 | 0 | 0 | 0 | 0 | 0 | | | 214 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Subsurface Utility Engineering | \$0.00 | \$440.00 | \$1,600.00 | \$3,840.00 | \$15,000.00 | \$7,500.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | \$28,380.00 |
| 6) Utility Coordination | | | | | | | | | | | | | | | | |
| 1.a | Utility Coordination Meetings, Minutes, Exhibits, Verification Letters | | 1 | 4 | 16 | 8 | | | | | | 4 | | | 33 | \$5,000.00 |
| 1.b | Proposed Utility Alignment Review | | 1 | 4 | 12 | | | | | | | | | | 17 | \$2,940.00 |
| 2.a | Utility Conflict Matrix | | | 2 | 16 | | | | | | | 2 | | | 20 | \$3,170.00 |
| 2.b | Utility Conflict Report | | | 2 | 16 | | | | | | | 2 | | | 20 | \$3,170.00 |
| | Total Hours | 0 | 2 | 12 | 60 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | | | 90 | |
| | HOURS SUB-TOTALS | 0 | 2 | 12 | 60 | 8 | 0 | 0 | 0 | 0 | 0 | 8 | | | 90 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Utility Coordination | \$0.00 | \$440.00 | \$2,400.00 | \$9,600.00 | \$1,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$840.00 | \$0.00 | \$0.00 | | \$14,280.00 |
| 7) Geotechnical Investigation | | | | | | | | | | | | | | | | |
| 1.a & 2.a-b | Geotech Investigation (H/V) Sub-Consultant Coordination For Geotechnical Services | | 2 | 8 | 16 | 8 | | | | | | | \$33,240.00 | | 0 | \$33,240.00 |
| | Total Hours | 0 | 2 | 8 | 16 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | | | 34 | |
| | HOURS SUB-TOTALS | 0 | 2 | 8 | 16 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | | | 34 | - |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$105.00 | | | | - |
| | TOTAL - Geotechnical Services | \$0.00 | \$440.00 | \$1,600.00 | \$2,560.00 | \$1,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$33,240.00 | \$0.00 | | \$38,840.00 |

Exhibit 2A

Ammann Road :

Estimated Level of Effort for PS&E, Bid, and Construction Phase Services

| POSITION | PIC | Project Manager/QAQC | Sr. Civil Engineer | Project Engineer | Senior CADD Tech | BIT | Env. Manager | Senior Biologist | Cultural Specialist | Field Biologist | GIS Analyst (Env) | Project Assistant | Sub/Consultant Fee | Non-Labor Cost | Total Labor hrs. | Cost |
|---|--|----------------------|--------------------|------------------|------------------|--------------|--------------|------------------|---------------------|-----------------|-------------------|-------------------|--------------------|----------------|------------------|--------------|
| DESCRIPTION | | | | | | | | | | | | | | | | |
| BILLABLE LABOR RATES (Per Contract) | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | | |
| F) Preliminary Schematic Design Phase (30% Design) | | | | | | | | | | | | | | | | |
| 1. b | Schematic Design Layout | | | | | | | | | | | | | | 0 | \$0.00 |
| | Develop up to 3 low water crossing alternatives | 24 | | 90 | 80 | 160 | | | | | | | | | 354 | \$49,680.00 |
| | Cross Sections for each preferred alternative | 8 | | 12 | 20 | 40 | | | | | | | | | 80 | \$11,160.00 |
| 1. c | Preliminary Hydrology and Hydraulics Report | 8 | 24 | 60 | 16 | 16 | | | | | | | | | 124 | \$20,160.00 |
| | | | | | | | | | | | | | | | | |
| | Total Hours | 0 | 40 | 24 | 162 | 116 | 216 | 0 | 0 | 0 | 0 | 0 | | | 558 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| | HOURS SUB-TOTALS | 0 | 40 | 24 | 162 | 116 | 216 | 0 | 0 | 0 | 0 | 0 | | | 558 | |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | |
| | TOTAL - Preliminary Schematic Design | \$0.00 | \$8,800.00 | \$4,800.00 | \$25,920.00 | \$14,500.00 | \$12,500.00 | \$7,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | \$81,620.00 |
| G) Final PS&E Design (90% & 100% Design) | | | | | | | | | | | | | | | | |
| 1. b | Final Design | | | | | | | | | | | | | | | |
| | Develop General Plan Sheets | 8 | | 24 | 60 | 32 | | | | | | | | | 124 | \$17,100.00 |
| | Develop Preliminary Typical Sections (Exist/Prop) | 6 | | 12 | 48 | 24 | | | | | | | | | 90 | \$12,240.00 |
| | Develop Roadway/Pav & Profile Sheets | 24 | 40 | 120 | 240 | 120 | | | | | | | | | 544 | \$17,440.00 |
| | Develop Traffic Control Plans | 24 | | 80 | 120 | 60 | | | | | | | | | 304 | \$43,080.00 |
| | Develop Cross Sections | 16 | | 80 | 80 | | | | | | | | | | 176 | \$26,320.00 |
| 1. c | Drainage Design | | | | | | | | | | | | | | | |
| | Drainage Area Maps, Ditch Profiles, Calculation Sheets | 16 | | 60 | 80 | 48 | | | | | | | | | 204 | \$29,120.00 |
| | Develop Project Layout Sheets (6 Sheets) | 8 | | 16 | 32 | 16 | | | | | | | | | 72 | \$10,320.00 |
| | Prepare existing and proposed typical sections, (6 sheets) | 3 | | 6 | 24 | 12 | | | | | | | | | 45 | \$6,120.00 |
| | Outlet Layout and Hydraulic Data Sheets | 16 | | 40 | 32 | 24 | | | | | | | | | 112 | \$16,520.00 |
| | Drainage Details and Standards | 2 | | 8 | 8 | 16 | | | | | | | | | 24 | \$3,720.00 |
| | Drainage Summary Sheets | 2 | | 16 | 8 | 16 | | | | | | | | | 42 | \$6,000.00 |
| | Edwards Aquifer CZP | 8 | | 48 | 8 | 60 | | | | | | | | | 124 | \$17,940.00 |
| | Prepare Miscellaneous Roadway Details | 8 | | 24 | 16 | 40 | | | | | | | | | 88 | \$12,600.00 |
| 1. e | Signing & Striping Sheets | 12 | 24 | 48 | 60 | 80 | | | | | | | | | 224 | \$32,820.00 |
| 1. f | SWPPP | 12 | | 24 | 48 | 48 | | | | | | | | | 132 | \$18,480.00 |
| | | | | | | | | | | | | | | | | |
| | Total Hours | 0 | 165 | 64 | 606 | 864 | 616 | 0 | 0 | 0 | 0 | 0 | | | 2315 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| | HOURS SUB-TOTALS | 0 | 165 | 64 | 606 | 864 | 616 | 0 | 0 | 0 | 0 | 0 | | | 2315 | |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | |
| | TOTAL - Final PS&E Design | \$0.00 | \$36,300.00 | \$12,800.00 | \$96,960.00 | \$108,000.00 | \$77,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | | \$331,060.00 |
| H) Bid Phase Services | | | | | | | | | | | | | | | | |
| 1. a | Prepare agenda, coordinate with City, and Attend Pre-Bid Meeting | 4 | | 8 | | | | | | | | 2 | | | 14 | \$2,370.00 |
| 1. b | Respond to Contractor questions, develop Addenda | 4 | 12 | 16 | | | | | | | | 2 | | | 34 | \$6,050.00 |
| 1. d | Develop Final Bid Tab Summary and Recommendation | 2 | 8 | 16 | | | | | | | | 4 | | | 30 | \$5,020.00 |
| | | | | | | | | | | | | | | | 0 | \$0.00 |
| | Total Hours | 0 | 10 | 20 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | | | 78 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| | HOURS SUB-TOTALS | 0 | 10 | 20 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | | | 78 | |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | |
| | TOTAL - Bid Phase Services | \$0.00 | \$2,200.00 | \$4,000.00 | \$6,400.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$840.00 | \$0.00 | \$0.00 | | \$13,440.00 |
| CONSTRUCTION PHASE SERVICES | | | | | | | | | | | | | | | | |
| I) Construction Phase Services | | | | | | | | | | | | | | | | |
| 1. a | Construction Services | | | | | | | | | | | | | | | |
| | Prepare Agenda, Coordinate with City, Attend Pre-Construction Meeting, develop Minutes | 4 | | 8 | | | | | | | | 1 | | | 13 | \$2,955.00 |
| | Attend Monthly Construction Progress Meeting (Assume 12 Meetings) | 24 | | 36 | | | | | | | | 12 | | | 72 | \$12,300.00 |
| | Periodic Site Visits (Assume 12 Visits) | 8 | | 24 | | 8 | | | | | | 4 | | | 40 | \$6,800.00 |
| | Review Shop Drawings, Product Data Submittals | 4 | | 8 | | 32 | | | | | | 4 | | | 44 | \$6,160.00 |
| | Answer RFIs (Assume 2 RFIs per month for 12 months) | 12 | | 48 | | | | | | | | 6 | | | 60 | \$10,320.00 |
| | Review Monthly Pay Estimates | 12 | | 8 | | 24 | | | | | | 6 | | | 42 | \$6,270.00 |
| | Perform Final Inspection | 8 | | 16 | | 40 | | | | | | 4 | | | 16 | \$3,040.00 |
| | Create Report Drawings | 4 | | 24 | | 40 | | | | | | 4 | | | 60 | \$8,440.00 |
| | Up to 4 Field Alterations | 4 | | 24 | | 80 | | | | | | 4 | | | 148 | \$19,720.00 |
| | | | | | | | | | | | | | | | | |
| | Total Hours | 0 | 80 | 0 | 172 | 80 | 144 | 0 | 0 | 0 | 0 | 19 | | | 495 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| | HOURS SUB-TOTALS | 0 | 80 | 0 | 172 | 80 | 144 | 0 | 0 | 0 | 0 | 19 | | | 495 | |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | |
| | TOTAL - Construction Services | \$0.00 | \$17,600.00 | \$0.00 | \$27,520.00 | \$10,000.00 | \$18,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,995.00 | \$0.00 | \$0.00 | | \$75,115.00 |
| TOTAL PROJECT SUMMARY | | | | | | | | | | | | | | | | |
| | HOURS SUB-TOTALS | 0 | 416 | 195 | 1178 | 1196 | 1036 | 4 | 8 | 0 | 16 | 8 | 64 | 0 | 4121 | |
| | BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | \$105.00 | 4121 | |
| | TOTAL PROJECT FOR BASIC SERVICES | \$0.00 | \$91,520.00 | \$39,000.00 | \$188,480.00 | \$149,000.00 | \$129,500.00 | \$700.00 | \$1,280.00 | \$0.00 | \$1,440.00 | \$720.00 | \$107,885.00 | \$0.00 | | \$716,745.00 |

Exhibit 2A

Ammann Road :

Estimated Level of Effort for PS&E, Bid, and Construction Phase Services

| POSITION DESCRIPTION | PIC | Project Manager/QAQC | Sr. Civil Engineer | Project Engineer | Senior CADD Tech | EIT | Env. Manager | Senior Biologist | Cultural Specialist | Field Biologist | GIS Analyst (Env) | Project Assistant | Sub/Consultant Fee | Non-Labor Cost | Total Labor hrs. | Cost |
|---|----------|----------------------|--------------------|------------------|------------------|----------|--------------|------------------|---------------------|-----------------|-------------------|-------------------|--------------------|----------------|------------------|-------------|
| BILLABLE LABOR RATES (Per Contract) | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | Lump Sum | | | |
| SUPPLEMENTAL SERVICES | | | | | | | | | | | | | | | | |
| J) Environmental Specified Supplemental Services | | | | | | | | | | | | | | | | |
| 1.a-c Desktop Cultural Resources Review and THC Coordination - SUPPLEMENTAL | | | | | | | 4 | | | | | 2 | \$1,905.00 | | 6 | \$2,815.00 |
| 1.d Desktop Review of Biological and Waters - SUPPLEMENTAL | | | | | | | 4 | 6 | | | 6 | | | | 16 | \$2,200.00 |
| 1.e Field Investigation - SUPPLEMENTAL | | | | | | | 6 | 14 | | | 2 | | | | 22 | \$3,470.00 |
| 1.f Environmental Summary Report - SUPPLEMENTAL | | | | | | | 4 | 16 | | 32 | 6 | | | | 60 | \$5,660.00 |
| Total Hours | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 36 | 0 | 32 | 16 | 2 | | | 104 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| HOURS SUB-TOTALS | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 36 | 0 | 32 | 16 | 2 | \$1,905.00 | \$0.00 | 104 | - |
| BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | | |
| TOTAL - Environmental Optional Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$3,150.00 | \$5,760.00 | \$0.00 | \$2,880.00 | \$1,440.00 | \$210.00 | \$1,905.00 | \$0.00 | | \$15,345.00 |
| J) Survey Specified Supplemental Services | | | | | | | | | | | | | | | | |
| J.2.a Prepare and Submit RCE - SUPPLEMENTAL | | | | | | | | | | | | | \$1,200.00 | | 0 | \$1,200.00 |
| Total Hours | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| HOURS SUB-TOTALS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$1,200.00 | \$0.00 | 0 | - |
| BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | | |
| TOTAL - Survey Optional Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,200.00 | \$0.00 | | \$1,200.00 |
| J) SUE Specified Supplemental Services | | | | | | | | | | | | | | | | |
| J.3.a-b SUE Level A Test Holes (sp to 5) - SUPPLEMENTAL | | | | | | | | | | | | | \$17,327.50 | | 0 | \$17,327.50 |
| Total Hours | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| SUMMARY | | | | | | | | | | | | | | | | |
| HOURS SUB-TOTALS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | \$17,327.50 | \$0.00 | 0 | - |
| BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | | |
| TOTAL - SUE Optional Services | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$17,327.50 | \$0.00 | | \$17,327.50 |
| TOTAL PROJECT SUPPLEMENTAL SUMMARY | | | | | | | | | | | | | | | | |
| HOURS SUB-TOTALS | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 36 | 0 | 32 | 16 | 2 | \$20,432.50 | | 104 | \$33,872.50 |
| BILLABLE RATE PER HOUR | \$250.00 | \$220.00 | \$200.00 | \$160.00 | \$125.00 | \$125.00 | \$175.00 | \$160.00 | \$125.00 | \$90.00 | \$90.00 | \$105.00 | | | 104 | |
| TOTAL PROJECT FOR BASIC SERVICES | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$3,150.00 | \$5,760.00 | \$0.00 | \$2,880.00 | \$1,440.00 | \$210.00 | \$20,432.50 | \$0.00 | | \$33,872.50 |

ATTACHMENT C

STV, Inc. EXHIBIT 2A Project Estimate

Fair Oaks Ranch - Ammann Road Ammann Road (East of Boerne, Texas)

| Tasks | Classification | Hours | Rate | Cost | Totals |
|--|-----------------------|------------|-----------------|-----------------|-----------------|
| Project Management | Project Manager | 8 | \$225.00 | \$1,800 | \$1,800 |
| Project Management | RPLS | 24 | \$200.00 | \$4,800 | \$4,800 |
| Analyze Boundary | RPLS | 32 | \$200.00 | \$6,400 | \$6,400 |
| Analyze Easements (platted) | RPLS | 4 | \$200.00 | \$800 | \$800 |
| Review | RPLS | 16 | \$200.00 | \$3,200 | \$3,200 |
| Texas811 | Sr. CAD Technician | 4 | \$130.00 | \$520 | \$520 |
| Research Deeds/Sketch | Sr. CAD Technician | 32 | \$130.00 | \$4,160 | \$4,160 |
| Research Easements (platted) | Sr. CAD Technician | 6 | \$130.00 | \$780 | \$780 |
| Prepare Topographic Survey | Sr. CAD Technician | 32 | \$130.00 | \$4,160 | \$4,160 |
| Manhole Details and Review | Sr. CAD Technician | 4 | \$130.00 | \$520 | \$520 |
| Field Check | Sr. CAD Technician | 16 | \$130.00 | \$2,080 | \$2,080 |
| Stake R.O.W. (11,500 feet @ 100-ft intervals) Checks/Calcs | Sr. CAD Technician | 16 | \$130.00 | \$2,080 | \$2,080 |
| Professional Office Staff Subtotal | | 194 | | | \$31,300 |
| Set Horizontal Control | 2-man Survey Party | 20 | \$165.00 | \$3,300 | \$3,300 |
| Look for Monuments | 2-man Survey Party | 40 | \$165.00 | \$6,600 | \$6,600 |
| Topographic Survey (11,500 linear feet) | 2-man Survey Party | 80 | \$165.00 | \$13,200 | \$13,200 |
| Tree Survey | 2-man Survey Party | 10 | \$165.00 | \$1,650 | \$1,650 |
| Manhole Inverts | 2-man Survey Party | 10 | \$165.00 | \$1,650 | \$1,650 |
| Stake R.O.W. (11,500 feet @ 100-ft intervals) | 2-man Survey Party | 40 | \$165.00 | \$6,600 | \$6,600 |
| Field Work Subtotal | | 200 | | | \$33,000 |
| Professional Services Total | | | | \$64,300 | \$64,300 |
| Direct or Reimbursable Costs | Note | Rate | \$64,300 | | |
| Deeds | | 0 | \$1.00 | \$0.00 | |
| Postage & Delivery | | 0 | \$0.55 | \$0.00 | |
| Mileage | | 3500 | \$0.67 | \$2,345.00 | |
| Per Diem | | 40 | \$50.00 | \$2,000.00 | |
| Lodging | | 40 | \$150.00 | \$6,000.00 | |
| Monument materials | | 0 | \$3.50 | \$0.00 | |
| | | | | | \$10,345 |
| Coordinate ROE (up to 8) | Sr. CAD Technician | 4 | \$130.00 | \$520.00 | \$520 |
| Coordinate ROE (up to 8) | Administrative Assist | 8 | \$85.00 | \$680 | \$680 |
| Supplemental Subtotal | | 12 | | | \$1,200 |
| Total Base Services | | | | | \$74,645 |
| Total Supplemental Services | | | | | \$1,200 |

ATTACHMENT D

| ATTACHMENT "B" - FEE SCHEDULE | | | | | | | | | |
|---|--------------|---------------|---------------------|---------------------|--------------------|--------------|------------|------------------|--------------------|
| Ammann Road THs - QLA - STV SA | | | | | | | | | |
| SUE Services | | | | | | | | | |
| STV, Inc. | | | | | | | | | |
| 6/12/2024 | | | | | | | | | |
| SUE QUALITY LEVEL "A" | LABOR CLASS. | ENGINEER/RPLS | Sr. PROJECT MANAGER | SUE PROJECT MANAGER | FIELD CREW MANAGER | UTILITY TECH | CADD TECH | CLERICAL SUPPORT | TOTAL HOURS |
| LABOR COSTS | | | | | | | | | |
| Records Research | | \$260.00 | \$220.00 | \$165.00 | \$165.00 | \$130.00 | \$130.00 | \$95.00 | |
| Production/Review of QL"A" Deliverables | | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 5.0 |
| Project Meetings / Safety Orientation | | 1.0 | 0.0 | 5.0 | 0.0 | 0.0 | 10.0 | 0.0 | 16.0 |
| Permit Coordination/Acquisition | | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 3.0 |
| Contract Administration | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 3.0 |
| | | 0.0 | 2.0 | 5.0 | 3.0 | 5.0 | 10.0 | 1.0 | 27.0 |
| SUBTOTAL HOURS | | 1.0 | 2.0 | 5.0 | 3.0 | 5.0 | 10.0 | 1.0 | 27.0 |
| SUBTOTAL DOLLARS | | \$260.00 | \$440.00 | \$825.00 | \$495.00 | \$650.00 | \$1,300.00 | \$95.00 | \$4,065.00 |
| Locating (Quality Level "A" - Test Holes) | | | | | | | | | |
| 0 feet to 5.00 feet | | | 3 | \$ 1,300.00 | per hole | | | | \$3,900.00 |
| over 5.00 feet to 8.00 feet | | | 2 | \$ 1,600.00 | per hole | | | | \$3,200.00 |
| over 8.00 feet to 11.00 feet | | | 0 | \$ 1,900.00 | per hole | | | | \$0.00 |
| over 11.00 feet to 14.00 feet | | | 0 | \$ 2,200.00 | per hole | | | | \$0.00 |
| Greater than 15 ft (per foot) | | | 0 | \$ 300.00 | per hole | | | | \$0.00 |
| Depths over 15 feet are an additional cost of \$200 per foot. | | | | | | | | | |
| Designating (2-Man Crew & Equipment) - Quality Level B | | | 2.5 | \$ 195.00 | per hour | | | | \$487.50 |
| Mob-Demob Fee | | | 1 | \$ 1,000.00 | each | | | | \$1,000.00 |
| Survey of QL"A" | | | | | | | | | |
| Surveying ((2-Man Crew, GPS Equipment & Processing) | | | 0.5 | \$ 1,950.00 | per day | | | | \$975.00 |
| SUBTOTAL DOLLARS | | | | | | | | | \$9,562.50 |
| TOTAL ESTIMATED QUALITY LEVEL "A" FEE | | | | | | | | | \$13,627.50 |
| DIRECT EXPENSES | | | | | | | | | |
| Miscellaneous Items | | | | | | | | | |
| Asphalt/Concrete Coring & Pavement Repair | | | 1 | \$ 600.00 | each | | | | \$600.00 |
| Permitting | | | | | | | | | |
| PERMIT | | | 1 | \$ 600.00 | each | | | | \$600.00 |
| Traffic Control | | | | | | | | | |
| Single Lane Closure - Daily Rate (Includes Warning Signs & Cones, Arrow Board, Delivery & Pickup) | | | 1 | \$ 2,500.00 | each | | | | \$2,500.00 |
| TOTAL ESTIMATED DIRECT EXPENSE DOLLARS | | | | | | | | | \$3,700.00 |
| TOTAL LUMP SUM FEE | | | | | | | | | \$17,327.50 |

ATTACHMENT E



June 5, 2024

Mr. Jaime Aguilar, P.E.
STV, Inc.
12500 San Pedro Ave #450
San Antonio, TX 78216

Re: Geotechnical Investigation
Amman Road Reconstruction
City of Fair Oaks Ranch, Texas
Owner: City of Fair Oaks Ranch
HVJ Proposal No. SG 24 10225

Dear Mr. Aguilar:

HVJ South Central Texas, M&J, Inc., (HVJSCTx) appreciates the opportunity to provide geotechnical services for the above referenced project and is pleased to submit this proposal for providing the requested services. The proposal outlines the scope of the projects, approach and our fee for providing the study.

Project Description

The project will involve reconstruction of approximately 2.2 mile segment of Ammann Road in the City of Fair Oaks Ranch, Texas. The project limits extend from approximately 0.35-mile east of the intersection of Ammann Road and Livy Love Lane to the intersection of FM 3351 and Ammann Road. We understand that the pavement within the project corridor currently has an overall condition index below 40 (i.e., being categorized to be in a very poor condition). Therefore, pavement reconstruction is planned to increase the lifespan of the pavements and minimize maintenances due to recent high traffic volume.

As a part of the proposed improvements, full depth reconstruction will be performed with the addition of 4 feet wide shoulders on both directions. The project will also involve drainage improvements at a low water crossing.

This proposal will encompass a geotechnical engineering study to aide in the development of pavement design for the above reference street and low water crossing.

Pavement Design

HVJSCTx will perform a geotechnical investigation. Utilizing the subsurface and laboratory information from that study, HVJSCTx will design two HMAC pavement section alternatives including subgrade stabilization (if necessary) to achieve a 20-year design life. The reconstruction HMAC cross section design alternatives to be analyzed include the following: 1) new flexible pavement section with HMAC surface, and 2) new flexible pavement section with HMAC surface and HMAC base. HVJSCTx will estimate the 20-year equivalent single axle wheel loads (ESALs) based on discussions with STV and City operations staff. If City of Fair Oaks does not have any

Mr. Jaime Aguilar, P.E.
 HVJ Proposal No. SG 24 102
 June 5, 2024

guidelines, the ESAL and design values will be considered from Appendix 10-A ~ City of San Antonio Pavement Design Standards based on the provided street classifications. The flexible pavement designs and HMAC overlay designs will be developed using the AASHTO 1993 Pavement Design software, DARWin – Design and Rehabilitation in Windows.

The pavement design report will include the following:

- Flexible pavement thickness design recommendations for two alternative pavement designs.
- Subgrade stabilization, if determined necessary will be recommended by the Project Geotechnical Engineer based on PVR calculations and lime series testing.

Geotechnical Investigation

The location, depth and number of borings were selected by HVJSCTx in consultation with STV. Summary of proposed boring numbers and depths are presented in the following table:

| Structure | Proposed Boring Number | Depth/Boring (ft.) | Total Depth (ft.) |
|----------------------|------------------------|--------------------|-------------------|
| Pavement | 4 | 10 | 40 |
| Low Water Crossing | 2 | 25 | 50 |
| Total Footage | | | 90 |

The borings will be advanced using a truck-mounted drilling rig. Soil samples will be obtained semi-continuously to a depth of 10 feet using thin-wall tubes in cohesive soils and the split spoon sampler in cohesionless soils. Field tests in soil strata will include hand pocket penetrometer tests for cohesive soil and Standard Penetration Tests (SPT) for cohesionless soil. Continuous rock coring is not included in our scope of work.

All retrieved soil samples will be visually examined, properly sealed in plastic bags or aluminum foil, and transported to the HVJSCTx laboratory for further examinations. If groundwater is encountered during drilling, the depth of the groundwater will be measured. All completed borings will be backfilled with bentonite chips and will topped with a single lift of asphalt to match existing grade where applicable.

Dynamic Cone Penetration (DCP) test will be performed on the subgrade at 2 boring locations. Two (2) bulk samples will be collected from a) low water crossing area to perform particle size analyses and b) unpaved areas to perform California Bearing Ratio (CBR) and lime-pH series.

HVJSCTx will perform appropriate laboratory tests on soil samples recovered from the borings. Laboratory testing will include moisture content, liquid limit, plastic limit, percent passing No. 200 sieve, and sulfate content tests. In addition, grain size distribution, CBR and lime-pH series will be performed on bulk samples.

Reporting

A Geotechnical Investigation and Pavement Design report for the study will be prepared by engineers specializing in soil mechanics and pavement design after reviewing available pavement information, geological, boring, and laboratory data. We are planning to submit one (1) combined report for the given 6 sites. In general, the following items will be included in the report:

Mr. Jaime Aguilar, P.E.
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- Site Vicinity/Topographic map,
- Geology map,
- Soils map,
- Plan of borings,
- Boring logs,
- Laboratory test results summary,
- Potential Vertical Rise (PVR),
- Groundwater conditions,
- Generalized subsurface conditions,
- Recommendations for Culvert, and
- Pavement Design Report under a separate appendix.

Schedule

We propose to start field work within two weeks after receiving a written notice to proceed and upon receipt of the City's approval. Drilling will take one (1) week to complete. A report summarizing our findings and conclusions will take approximately 4 to 6 weeks after completion of fieldwork. Work schedule may be altered if inclement weather occurs for an extended period of time.

Fee

Based on the scope of work outlined, a Lump Sum fee of \$33,240.00 is proposed. A breakdown of the fee is included at the end of this proposal. Should the project configuration change significantly, additional work may be required. HVJSCTx will recommend such additional work when and if it is deemed necessary. If project delays occur due to the street cut permit process, the client will be notified of expected delays.

Insurance

Insurance certificates verifying HVJSCTx's general liability, auto, worker compensation, and errors and omissions insurance coverage will be provided upon request.

Invoice

Invoices will be submitted at the end of each month based on the work completed. Our credit terms are 30-day net.

Conditions

The following assumptions were made in developing the scope and fee estimate for this project:

- HVJSCTx will coordinate with One-Call to locate underground utilities.
- City will provide Right of Entry Permits, if necessary.
- HVJSCTx will coordinate with the City for permits and traffic control.
- We understand fees for permits will be waived by the City.
- STV will provide an electronic site plan to develop a Plan of Borings.

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June 5, 2024

- If needed, the elevations, and locations of the borings (in latitude/longitude or state plane northing/easting) will be surveyed by others. Otherwise, HVJSCTx will include elevation and location information on the boring logs by handheld GPS.
- As-built drawings and/or underground drainage locations will be provided to HVJSCTx prior to marking boring locations.
- HVJSCTx will prepare two alternative flexible pavement reconstruction designs with HMAC surface. Additional design sections will be considered additional services.
- City of Fair Oaks Ranch/COSA standard construction specifications will be assumed and HVJSCTx is not providing nor writing any construction specifications, special specifications, or special provisions. HVJSCTx is not providing any AutoCAD drawings or cost estimates, or life cycle costs.
- No travel for site meetings or conferences are included and it is assumed that all communications can be via telephone conference calls or emails.
- No Bid & Award Phase or Construction Phase services are included in this estimate

Sample Retainage

Soil samples will be retained in our laboratory for 30 days following submittal of the draft geotechnical report.

If this proposal meets with your approval, please send us a task order and written notice to proceed prior to start our field investigation or please sign and complete the indicated spaces below and forward a copy of the proposal to us.

Sincerely,
HVJ SOUTH CENTRAL – M&J Inc.
TBPE Firm Reg. No. F-18091

Golam Kibria

Golam Kibria, Ph.D., P.E.
Vice President of Operations

GK/mm
Agreed to this _____ day of _____, 20_____

By: _____

Title: _____

Firm: _____

Phone No.: _____

Date to Start Work: _____

Mr. Jaime Aguilar, P.E.
 HVJ Proposal No. SG 24 102
 June 5, 2024

| Geotechnical Investigation | | | | | |
|--|----|------|------------|------------------|--------------------|
| Amman Road Reconstruction | | | | | |
| HVJ South Central Texas M&J, Inc. | | | | | |
| HVJ SCTx Proposal No. SG 24 10225 | | | | | |
| Geotechnical Field Investigation - Drilling and Soil Sampling | | | | | |
| Mobilization/Demobilization | 1 | @ | \$850.00 | per mobilization | \$850.00 |
| Drilling & Sampling - Soil Drilling | 90 | @ | \$30.00 | per foot | \$2,700.00 |
| Shelby Tube (Thin Wall) | 10 | @ | \$20.00 | each | \$200.00 |
| Standard Penetration Tests (SPT) - assuming 6 per boring | 28 | @ | \$20.00 | each | \$560.00 |
| Backfilling Soils/Bentonite | 90 | @ | \$12.00 | per foot | \$1,080.00 |
| Driller Standby time | 2 | @ | \$180.00 | per hour | \$360.00 |
| Logging | 20 | hr @ | \$85.00 | per hour | \$1,700.00 |
| Staking, Utility Clearance, permit Coordination | 8 | hr @ | \$85.00 | per | \$680.00 |
| Traffic Control | 2 | @ | \$2,000.00 | per day | \$4,000.00 |
| Off Duty Law Enforcement Officer | 16 | hr @ | \$95.00 | per hour | \$1,520.00 |
| DCP | 2 | @ | \$400.00 | each | \$800.00 |
| Support Truck | 2 | @ | \$125.00 | each | \$250.00 |
| | | | | Sub Total | \$14,700.00 |
| Laboratory Testing - Standard | | | | | |
| Moisture Content | 26 | @ | \$25.00 | each | \$650.00 |
| Atterberg Limits | 14 | @ | \$80.00 | each | \$1,120.00 |
| #200 Sieve Analysis | 14 | @ | \$55.00 | each | \$770.00 |
| Grain Size Distribution | 2 | @ | \$230.00 | each | \$460.00 |
| Unconfined Compressive Strength Tests-Soil | 2 | @ | \$65.00 | each | \$130.00 |
| California Bearing Ratio (CBR) | 1 | @ | \$550.00 | each | \$550.00 |
| Lime-pH Series (Tex-121-E) | 1 | @ | \$175.00 | each | \$175.00 |
| Sulfate | 4 | @ | \$70.00 | each | \$280.00 |
| | | | | Sub Total | \$4,135.00 |
| Geotechnical Engineering & Reporting | | | | | |
| Project Manager | 4 | hr @ | \$185.00 | hr | \$740.00 |
| Professional Engineer III | 10 | hr @ | \$140.00 | hr | \$1,400.00 |
| Engineer In Training I | 32 | hr @ | \$115.00 | hr | \$3,680.00 |
| Administrative Assistant III | 2 | hr @ | \$50.00 | hr | \$100.00 |
| | | | | Sub-Total | \$5,920.00 |
| Pavement Design Services | | | | | |
| Senior Engineer | 7 | hr @ | \$185.00 | hr | \$1,295.00 |
| Professional Engineer III | 24 | hr @ | \$140.00 | hr | \$3,360.00 |
| Engineer In Training I | 32 | hr @ | \$115.00 | hr | \$3,680.00 |
| Administrative Assistant III | 3 | hr @ | \$50.00 | hr | \$150.00 |
| | | | | | \$8,485.00 |
| | | | | TOTAL | \$33,240.00 |

ATTACHMENT F



ENVIRONMENTAL CONSULTANTS

Sound Science. Creative Solutions.®

4949 N Loop 1604 W
Bldg 2, Suite 235
San Antonio, Texas 78249
Tel 210.877.2847 Fax 210.877.2848
www.swca.com

August 29, 2022

Amy Stubbs Esguerra
CP&Y, Inc.
12500 San Pedro, Suite 450
San Antonio, Texas 78759

Submitted electronically via email to: aesguerra@cpyi.com

Re: Proposal to Provide Cultural Resources Services for the City of Fair Oaks Capital Improvements Project, Kendall and Comal Counties, Texas (P73474)

Dear Ms. Esguerra,

SWCA Environmental Consultants (SWCA) is pleased to submit this scope of work and cost estimate to CP&Y, Inc. (CP&Y) to conduct a cultural resources desktop review in support of the City of Fair Oaks Capital Improvements Project (project) located in Comal and Kendall Counties, Texas.

SWCA offers these services on a time and materials basis, not to exceed the agreed-upon compensation cap, per the following scope of services. If you find the scope of services, terms, and costs of this proposal to be acceptable, please respond to the email in which this document is attached with a notice to proceed. We look forward to the opportunity to work with you on this project. If you require further information or clarification on elements of our scope of work, please feel free to contact me at (737) 236-4468 or via email at cshelton@swca.com.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Shelton". The signature is fluid and cursive.

Christopher Shelton
Cultural Resources Team Lead

Attachment: Scope of Work and Cost Estimate

SCOPE OF WORK

It is SWCA's understanding that the proposed project is receiving funding from the City of Fair Oaks, a political subdivision of the State of Texas. The Antiquities Code of Texas (ACT) requires political subdivisions to notify the Texas Historical Commission (THC) of ground-disturbing activity on publicly owned or maintained lands. SWCA will produce a consultation letter for Fair Oaks Capital Improvements Project. If the THC finds that the proposed project activities can proceed without field studies, this documentation will satisfy the ACT. It is SWCA's understanding that the project will not receive federal funding, occur on federal land, or require federal permitting and will therefore not be subject to Section 106 of the National Historic Preservation Act.

TASK 1: CULTURAL RESOURCES DESKTOP REVIEW AND AGENCY CONSULTATION

SWCA will conduct a thorough background cultural resources literature and records search for the proposed project and surrounding area. SWCA will review the Texas Archeological Sites Atlas (Atlas) online database for any previously recorded surveys and historic or prehistoric archaeological sites located in, or immediately adjacent to, the project area. If needed, an SWCA archaeologist will physically examine site files, records, and maps files housed at the Texas Archeological Research Laboratory and the Texas Historical Commission (THC) Library. In addition to identifying previously recorded archaeological sites, the Atlas review will include the following types of information: National Register of Historic Places (NRHP) properties, State Antiquities Landmarks (SAL), Official Texas Historical Markers, Recorded Texas Historic Landmarks, cemeteries, and local neighborhood surveys. SWCA will also review the Texas Department of Transportation's Texas Historic Overlay, a mapping/geographic information system (GIS) database with historic maps and resource information covering most portion of the state. Other critical factors that SWCA will examine include the level of previous disturbances from residential and commercial development, types of soils present, and any obvious standing structures greater than 49 years in age that appear on U.S. Geological Survey (USGS) topographic maps. Together this information task will allow SWCA to identify any areas within the property that have the potential to contain significant, undocumented cultural resources and evaluate archaeological potential, prior to performing fieldwork.

SWCA will complete the background literature review and request consultation with the THC within ten business days of receiving notice to proceed. Once the formal background review and literature search is complete, SWCA will make professional recommendations for the proposed project for CP&Y review. At present the project does not fall within the jurisdiction of any Federal (National Historical Preservation Act), however, it is SWCA's understanding that the project is receiving funding from the City of Fair Oaks, a political subdivision of the State of Texas, and as such an ACT permit may be required. However, the proposed project is expected to occur entirely within an existing right-of-way. As such, depending on the results of agency consultation, a cultural resource survey of the proposed project area may not be required. The proposed desktop analysis is meant to provide CP&Y with cultural resource data to aid project planning and identify potential risks associated with cultural resources determined to be present on the property. Should it be determined that significant cultural resources are likely located on the property, recommendations may include an alteration to the project design or an intensive cultural resources survey. In the event that a US Army Corps of Engineers Nationwide Permit is required for the project, additional agency consultation and cultural resource investigations may be warranted. The cost associated with a cultural resources survey are not included with this scope.

COST ESTIMATE

SWCA offers the scope of work described herein on a time and materials basis, not to exceed the agreed-upon compensation cap, per the scope of work and the terms listed in the current Services Agreement between SWCA and CP&Y. SWCA can provide the scope of work, in consideration of the assumptions, for an estimated cost of **\$1,905**.

ASSUMPTIONS

- The scope of work may be subject to change following the background literature review and initial consultation with the THC. Any additional costs resulting from a change in the scope of work will require a Change Order.

Table 1. Summary Budget for the City of Fair Oaks Capital Improvements Project Cultural Resources Desktop Review

| TASK | DESCRIPTION | TIMELINE | COST |
|--------|--------------------------------------|---|---------|
| Task 1 | Cultural Resources Background Review | SWCA will complete the cultural resources Background Review and request THC consultation within two (2) weeks of NTP. | \$1,905 |

2022 LABOR CATEGORIES AND BILLING RATES

Principals & Project Management Staff

| | | | |
|---------------------------|----------|--------------------------|-----------|
| Project Manager III..... | \$92.00 | Project Manager IX..... | \$153.00 |
| Project Manager IV..... | \$102.00 | Project Manager X..... | \$171.00 |
| Project Manager V..... | \$112.00 | Project Manager XI..... | \$187.00 |
| Project Manager VI..... | \$123.00 | Project Manager XII..... | \$205.00 |
| Project Manager VII..... | \$133.00 | Principal-in-Charge..... | \$285-398 |
| Project Manager VIII..... | \$143.00 | | |

Consulting Services

| Cultural Resources | Air Quality | Technical Writing/Editing | |
|-------------------------|------------------------|----------------------------|-----------|
| Environmental Resources | Landscape Architecture | Training/Facilitating | |
| Paleontology | Ecological Restoration | Graphics/Media Production | |
| Scientific Resources | Disaster Recovery | | |
| Planning Resources | GIS/CADD Resources | | |
| Specialist I..... | \$69.00 | Specialist IX..... | \$153.00 |
| Specialist II..... | \$81.00 | Specialist X..... | \$171.00 |
| Specialist III..... | \$92.00 | Specialist XI..... | \$187.00 |
| Specialist IV..... | \$102.00 | Specialist XII..... | \$205.00 |
| Specialist V..... | \$112.00 | Subject Matter Expert..... | \$210-324 |
| Specialist VI..... | \$123.00 | | |
| Specialist VII..... | \$133.00 | Technician I..... | \$48.00 |
| Specialist VIII..... | \$143.00 | Technician II..... | \$57.00 |

Administrative

| | | | |
|-------------------------|---------|--------------------------|----------|
| Administrative I..... | \$42.00 | Administrative VI..... | \$101.00 |
| Administrative II..... | \$53.00 | Administrative VII..... | \$113.00 |
| Administrative III..... | \$66.00 | Administrative VIII..... | \$125.00 |
| Administrative IV..... | \$77.00 | Administrative IX..... | \$138.00 |
| Administrative V..... | \$89.00 | | |

Direct expenses are subject to a 15% administrative markup and subcontractor expenses are subject to a 20% administrative markup. These rates do not apply to depositions or testimonies at administrative hearings and trials. Such activities fall under our Expert Witness rates, which vary by state.

A communication/data fee is invoiced at a rate of 3% of labor to cover such expenses (i.e.: cell phones, data plans, faxes, etc.).

Overtime is invoiced at 1.2 times standard rates.

Per Diem is billed at the GSA rate in place at the time of billing. Mileage is billed at the IRS mileage rate in place at the time of billing.