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May 9, 2023

John Espinoza, PE, CFM
City of San Marcos
630 E Hopkins
San Marcos, Texas 78666

RE: Purgatory Creek Improvement Project Supplemental Services

Dear Mr. Espinoza:

LAN is pleased to present this proposal to provide supplemental professional engineering services in support of furthering the Purgatory Creek Channel Improvement project. The attached scope of services includes a comprehensive task list and description of the tasks to be performed including: project management, FEMA CLOMR Submittal, supplemental field survey, easement acquisition, and supplemental environmental permitting services. The proposed tasks will be completed on a time and material basis not to exceed \$825,756.35. It is estimated that these tasks will be completed in 16 months following notice to proceed. Please contact me with any questions or concerns you have regarding the attached proposal.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Laura Casset', is written over a blue horizontal line.

Laura Casset, PE, CFM, CPESC
Regional Stormwater Manager

Attachments

- 1 - Scope of Services
- 2 - Fee Estimate
- 3 - Estimated Project Schedule
- 4 - Standard Rate Schedule
- 5 - McGray & McGray Proposal for Survey Services
- 6 - Hicks & Company Proposal for Environmental Services

Lockwood, Andrews
& Newnam, Inc.

A LEO A DALY COMPANY

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lan-inc.com

**ATTACHMENT 1
CITY OF SAN MARCOS
PURGATORY CREEK IMPROVEMENTS
PERMITTING AND EASEMENT ACQUISITION SERVICES
SCOPE OF SERVICE**

PROJECT UNDERSTANDING

Lockwood Andrews & Newnam, Inc. (LAN or the Consultant) has been tasked with providing permitting and easement acquisition services for the Purgatory Creek Phase 1 and Phase 2 Improvements. Phase 1 consists of approximately 5,200 linear feet along Purgatory Creek from Johnson Avenue to the San Marcos River. Phase 2 consists of approximately 3,000 linear feet of bypass channel from downstream of NRCS Dam No.2 to the confluence with Purgatory Creek upstream of Mitchell Dr. crossing. Phase 2 also includes excavation of floodplain between the bypass and natural channel to increase valley storage and reduce peak storm discharges. The improvement is located on FEMA Flood Insurance Rate Map (FIRM) panel; 48209C0477F effective 09/02/2005. The map shows Flood Hazard Zones existing within the property.

The scope includes a detailed flood study and Hydrology & Hydraulics (H&H) analysis to support the submittal of a Conditional Letter of Map Revision (CLOMR) to FEMA that reflects Phase 1 and Phase 2 Purgatory Creek Channel Improvements. The purpose of the CLOMR is to request FEMA's comment on a proposed project that would affect effective special flood hazard areas (SFHA). Once the project is constructed, a request to revise the effective SFHA will be made through the letter of map revision (LOMR) process. The task will update the existing condition and existing floodplain and evaluate the proposed improvements impacts to the FEMA Effective Flood Hazard Zone. After the flood study and H&H analysis have been completed, LAN will prepare and submit a detailed flood study report with map exhibits, models, and CLOMR request to the City of San Marcos and FEMA for review and approval. Additional survey data will be collected to support easement acquisition and design of the Phase 1 project area. Supplemental environmental permitting services will be provided to further support the USACE coordination. And lastly, easement acquisition services will be provided in support of the City to acquire the necessary easements to support the Phase 1 and Phase 2 improvements. This project scope includes tasks as follows:

Task A: Project Management

1. Project Management and QA/QC: This task consists of effort associated with project administration, project planning, coordination with City staff, coordination and supervision of the project team including subconsultants, and quality management so that project milestones and deliverables meet schedule and budget constraints. A Project Work Plan, Project Schedule, and QA/QC Plan will be developed at the beginning of the project and refined throughout the project life as needed. This task assumes 16-month project duration; if unforeseen delays occur LAN can provide extended Project Management as an additional service. Upon a Notice to Proceed, a Project Kick-off Meeting will be conducted to discuss project scope of services.

Deliverables Task A

Submittal Item:	Submittal Description:
Monthly Status Report	LAN will provide a monthly status report, including a brief summary of work completed and an updated project schedule. One Electronic copy, in PDF format of the documents.
Project Schedule	LAN will develop a project schedule in Microsoft Project format showing baseline schedule and critical path tasks. The project schedule will be updated monthly and submitted with the monthly report/invoice package.

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Task B: FEMA CLOMR Submittal

The flood risk mitigation from the Purgatory Channel Improvement Project will result in a measurable change to the FEMA regulatory floodplain. A Conditional Letter of Map Revision (CLOMR) will be drafted for the purpose of communicating to FEMA the City's intent to alter the floodplain.

Task B.1: Flood Study

1. Hydrology Models

The FEMA effective HEC-HMS hydrology model of Purgatory Creek was the baseline for the Purgatory Creek Channel Improvements Project 30% design hydrologic and hydraulic (HH) analysis. The existing and proposed conditions flood studies of Purgatory Creek included in the drainage report for the 30% design submittal for Purgatory Creek Channel Improvements will serve as the baseline model for this study. The existing (and proposed) hydrology model does not update or modify any other portions of the Purgatory Creek effective model. Consistent with the hydrology reflected in the 30% design submittal, the hydrology will reflect Atlas 14 flows for drainage basins draining to Purgatory Creek within the Phase 1 and Phase 2 area and pre-Atlas 14 flows upstream of the NRCS Dam No.2 on Purgatory Creek. The hydrology model will include runoff calculated for the 0.2, 1.0, 2.0, 4.0, and 10% annual chance (500-year, 100-year, 50-year, 25-year, and 10-year, respectively) storm events to satisfy requirements of the City and FEMA.

The project will include four study conditions, 1) Existing (Effective FEMA), 2) Revised Existing conditions, 3) Phase 1 improvements and 4) Phase 1 and 2 improvements. Hydrologic runs will be included that reflect improvements of the Phase 1 area alone and the Phase 1 and Phase 2 improvements together. The Phase 2 proposed conditions model will include considerations for increased valley storage to mitigate runoff.

2. Hydraulic Models

LAN will use the HEC-RAS hydraulic model from the Purgatory Creek Channel Improvement 30% design submittal as the basis of this analysis. LAN will determine the existing 10, 25, 50, 100, and 500-year storm water surface elevations (WSEs) and floodplain extents across the project area limits. LAN will refine the proposed conditions HEC-RAS hydraulic model of Purgatory Creek within the Phase 1 and Phase 2 project limits based on the 30% design. The improvements include vegetation, upgrade of low water crossings to bridges, and riffle/run/pool sequence along the Purgatory Creek pilot channel. The model will also include floodplain modifications in Phase 2 to increase valley storage. Hydraulic runs will be included that reflect improvements of the Phase 1 area alone and the Phase 1 and Phase 2 improvements together. Note, proposed modifications to property within the existing "AE" Flood Hazard Zone and Floodway must result in ZERO rise to the effective Water Surface Elevations (WSEs) because there are existing bridges and structures within the effective zones.

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3. Flood Study Report

LAN will prepare a Flood Study Report with map exhibit(s) and models for review by the City of San Marcos and FEMA. The report will discuss the hydrologic and hydraulic modeling of existing conditions prepared for this study. The report will include the proposed improvements within Phases 1 and 2 of the Purgatory Creek project to mitigate water surface elevation increases within the floodplain and floodway. The report will also address FEMA requirements of the floodplain modifications based on the detailed study for inclusion as supporting documentation for Letter of Map Change submittal. In addition, the report will include documentation from Hicks & Company required to meet Endangered Species Act (ESA) compliance.

LAN will attend one meeting with the City of San Marcos, to discuss the study report findings prior to submittal to the City and FEMA. Report exhibits will include comparison of the existing conditions floodplain to the Phase 1 improvements alone and a separate exhibit illustrating the comparison of existing conditions to the Phase 1 and Phase 2 area together.

Deliverables Task B.1

Submittal Item:	Submittal Description:
HEC-HMS Existing Cond. Model Results	Electronic copy of model with report copy.
HEC-HMS Proposed Cond. Model Results	Electronic copy of model with report copy.
HEC-RAS Existing Cond. Models Results	Electronic copy of model with report copy.
HEC-RAS Proposed Cond. Models Results	Electronic copy of model with report copy.
Flood Study Report, Draft	Electronic in PDF format
Flood Study Report, Final	Electronic in PDF format

Task B.2: FEMA CLOMR Submittal

1. CLOMR Forms & Submittal Package

The Conditional Letter of Map Revision (CLOMR) submittal package will include the final flood study report of the hydrologic and hydraulic models defining the detailed study of the existing and proposed 100-year floodplain through the Phase 1 and Phase 2 project site boundaries. The submittal package will also include the required FEMA MT-2 forms, annotated FIRM, map exhibits, models, and ESA documents.

LAN will submit the CLOMR package to the City of San Marcos for review and signature. The City will return the CLOMR with Floodplain Administrator signature. LAN will prepare an electronic submittal for FEMA. **NOTE: FEMA requires payment of the review fee on submittal of and before acceptance of CLOMR submittal. Currently the FEMA review fee for a CLOMR is \$6,500 if submitted electronically. This fee is the responsibility of the Client upon request by LAN and is not included in LAN estimated reimbursable expenses.** Submittal of the payment will be requested and verified during FEMA submittal.

It is assumed that the project does not have federal funding. Federal funding causes additional requirements with the preparation of the CLOMR document which are not reflected in this scope but can be provided as an additional service.

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2. Submittal Coordination

LAN will coordinate with the City of San Marcos Floodplain Administrator and Project Manager, FEMA, and the FEMA Review Contractor throughout the review and approval process to ensure that all requirements are adequately addressed. Up to two rounds of comments from FEMA will be addressed. Should additional rounds of review be required this can be provided as an additional service.

Deliverables Task B.2

Submittal Item:	Submittal Description:
FEMA MT-2 Forms, Draft	PDF for review and signature by Client
CLOMR Submittal, City Review & Signature	Submittal Package and support documentation for review and approval.
CLOMR Submittal, FEMA	Electronic Submittal with documentation
Revised FEMA Submittal	Electronic Response to Comments

Task C: Field Survey

Field survey will be provided by subconsultant McGray & McGray Land Surveyors, Inc. in accordance with their attached proposal to support easement acquisition and final design. Survey will include the following for the project area as defined in McGray & McGray's attached proposal. The surveyor will obtain right of entry required to complete the survey tasks.

- a. Survey Manhole locations and information: Location and elevation (rim and invert information) of existing manholes with direction of pipes.
- b. Bathometric Survey: Provide a bathometric survey for an area specified in attached proposal.
- c. Supplemental Road Survey: provide a supplemental topographic design survey locating visible and accessible visible features, including but not limited to pavement marking, edge of pavement, curbs, gutters, driveways, ramps, sidewalks, signs, fences, utility valves, water meters, manholes, hydrants, clean-outs, inlets, utility poles, guy anchors, overhead lines and other surface utility features for the project area.
- d. Boundary and easement location: Provide plats and descriptions for the proposed easement. Plats will be prepared as outlined in the City of San Marcos Checklist for Acquisition Survey Exhibits.

Task D: Easement Acquisition

The Phase 1 channel improvements will require easement acquisition on up to 35 parcels. Ten of those 35 parcels located on the west bank of Purgatory Creek, just downstream of the Jackman Street crossing, may be avoided or may simply require temporary construction easements. These parcels are excluded from the following easement acquisition services. The Phase 2 channel improvements will require easement acquisition on 4 parcels. LAN proposes to support the City with easement acquisition services for up to 29 parcels as follows:

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1. Site visit: ROW Consultant (LAN) will visit project site prior to initiation of negotiations with landowners. Assumes one site visit per parcel.
2. Easement Acquisition Related Communication
 - a. Maintain status reports of all parcel and project activities and provide monthly to City.
 - b. Provide schedule of all areas of work indicating anticipated start and end dates.
 - c. Hold monthly status update meetings with internal LAN staff and city personnel, via Teams or other virtual communication technology. Status meetings with internal LAN staff only, to be held as needed.
3. File Management
 - a. Review City provided documents and create individual parcel files identifying ownership of each parcel.
 - b. Documents will be forwarded to the City as they are generated or received by LAN. Project and parcel files will be kept electronically in the LAN database.
 - c. Maintain records of all payments including check number, amount, and date paid, etc.
 - d. Maintain copies of all correspondence and contacts with property owners.
 - e. Quality assurance and quality control of all documents, including review of outside submittals.
 - f. Coordinate with City as needed for forms approval.
 - g. Electronic Project close-out and upload to City.
4. Initial and Update Appraisal Service
 - a. Appraisers will be selected in coordination with the City and using a City approved appraisal firm. LAN will contract with the appraiser directly.
 - b. LAN ROW agents will review completed reports for accuracy.
 - c. After review by LAN, reports will be provided to the City for administrative review and approval of values.
 - d. LAN will make requests to the appraiser for appraisal updates as needed. Update of appraisal for special commissioners hearing will be handled by City of San Marcos legal department or legal consultant.
5. Negotiations: One appraisal and one offer will be completed per parcel. Revised offers and appraisals may be required in the event of design or ownership changes and can be provided as an additional service.
 - a. Prepare Notice of Intent (NOI) and submit to Landowner at the onset of project. NOI includes copy of the Texas Landowners' Bill of Rights (LBOR) and field notes, and is sent by Certified Mail-Return Receipt Requested (CMRRR).
 - b. Analyze appraisal reports and confirm City's approved value prior to making offer for each parcel.
 - c. Secure preliminary title commitment and 5-year sales data from the title company that will be providing title insurance.

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- d. Secure updated title commitment within 30 days of closing and as needed periodically. The charges from the Title Company for the preliminary title commitments will be paid by the City and are not included in the Consultant's Exhibit B, negotiated fee schedule.
- e. Analyze title commitment to determine potential title problems. Propose methods to cure title deficiencies.
- f. The curative services necessary to provide clear title to the City are the responsibility of LAN and are included in the negotiated fee schedule for this service. LAN will identify how each encumbrance is resolved in Schedules B & C on the Title Commitment. LAN may consult City legal counsel to advise on incurable title exceptions and seek sign off on those exceptions in the title policy. Note: The Consultant's curative services do not include cost/expenses that qualify as payment of incidental expenses to transfer real property interests to the City.
- g. Prepare the initial offer letter, purchase agreement, instruments of conveyance, and any other documents required or requested by City on forms provided by the City. Offers are sent by certified and regular mail if needed in lieu of in person offer meetings. Revised offers are prepared as required by design or ownership changes. All offers and revised offers are to be approved by City staff prior to mail out.
- h. Contact each property owner or owner's designated representative, to present the written offer in person where practical, and deliver appraisal report and required brochures. Maintain follow-up contacts and secure the necessary signed purchaser agreement upon acceptance of the offer for the closing.
- i. Provide a copy of the appraisal report for the subject property exclusively to the property owner or authorized representative at the time of the offer.
- j. An additional copy of the appraisal must be sent under separate cover and mailed via certified mail whether an in-person offer is made or not.
- k. Respond to property owner inquiries verbally and/or in writing within two business days. Maintain a negotiator log for each property owner to record all communications.
- l. Maintain parcel files of original documentation related to the purchase of the real property or property interests. Electronic copies are acceptable unless the document is an original instrument.
- m. Advise property owner or authorized representative on the Counteroffer process, if requested. Transmit to City any written counteroffer from property owners including supporting documentation and recommendation within 2 business days of receipt of counteroffer with acceptable supporting documentation.
- n. Submit property owner signed purchase agreements to City personnel within 2 business days of receipt, for City approval and signatures.
- o. LAN will provide closing services in conjunction with the Title Company and, if feasible, will attend closings or coordinate remote closings. City will be responsive for obtaining any necessary certified court documents or for recording same which are not handled at the closing of the parcel.
- p. LAN will electronically deliver funding requests and closing documents for execution, to the City and City will deliver the signed documents and funds to the Title Company prior to the agreed closing date.

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- q. Title company will record all original instruments immediately after closing with the Hays County Clerk's Office. The cost of recording fees and filing fees are paid by the City and are not included in the negotiated fee schedule. The title company will provide all original recorded documents directly to the City after closing.:
- r. LAN will prepare final offer letter and forward to the City to mail out. It is understood that the City will take the next steps to request updated Title Commitment from title Company and pursue eminent domain (if applicable). Update of appraisal for condemnation purposes will be handled by the City or Condemning Attorney (if applicable).

Task E: Supplemental Environmental Permitting Services

The following supplemental environmental permitting services are in response to requests from the City following the project status meeting held with federal and state regulatory agencies on February 27, 2023. These services have not been addressed in the previous Scopes of Services included in the Subconsultant Agreement dated December 4, 2019 (SOW dated May 13, 2019); Contract Modification #1 executed July 3, 2020 (SOW dated April 24, 2020); Contract Modification #2 executed May 16, 2022 (SOW dated March 2, 2022), but have been identified as a result of additional planning information provided by the City of San Marcos, changes in regulations by the Texas Commission on Environmental Quality (TCEQ), and newly acquired aquatic resource information that was not previously available.

Services identified in the tasks below entail the completion of an environmental constraints evaluation for a trail system conceptually identified within the Phase 2 project area that appears to be approximately 5,000 linear feet (0.95 mile) in length; preparation of a geological assessment exemption pursuant to the COSM Land Development Code (SMLDC); coordination with appropriate floodplain administration officials with the Federal Emergency Management Agency (FEMA), Hays County, and the COSM to ensure floodplain regulatory compliance and associated requirements for USACE permitting; revision of the Alternatives Analysis required by the USACE; and revision of the Biological Assessment required for consultation with the U.S Fish and Wildlife Service (USFWS). The proposed trail system begins near Dutton Drive and the Purgatory Creek Apartments located at 1951 Hunter Road, San Marcos, Texas, extending north and northeast along the Purgatory Creek riparian corridor, south of the creek, for approximately 5,000 linear feet (0.95 mile) to just west of the southern terminus of Gravel Street. Environmental services are more fully described in the attached proposal provided by Hicks & Company. An abbreviated list of tasks is as follows:

1. Delineation of Waters of the U.S.
2. Investigation of the Potential Occurrence of Threatened or Endangered Species
3. Investigation of Cultural Resources
4. Geological Assessment Waiver Request
5. Environmental Compliance with Floodplain Regulations to support the CLOMR document to be prepared by LAN
6. Revision of the Alternatives Analysis
7. Submission of Tier II 401 Certification Pursuant to New Rules
8. Revision of the Biological Assessment

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Note, the supplemental environmental permitting services exclude metal detection to support Section 106 Archaeology compliance. Metal detection services can be provided as an additional service if required by the Texas Historical Commission (THC) following their review of the CLOMR and incorporated ESA documents.

Proposal Assumptions & Clarifications

- This scope of services and associated fee has been developed on a time and materials basis. Costs are included for estimating projected fees; billing will be based on actual rates.
- This proposal excludes the following tasks but can be provided as an additional service:
 - Consultant's expert witness testimony for trial.
 - Easement acquisition revised offers as needed for redesign, new ownership, etc.
 - Negotiating Possession and Use Agreements for easement acquisition services.
 - Preparation of construction plans and specifications.
 - National Environmental Policy Act (NEPA) documentation including a Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS).
 - Geologic Assessment.
 - Systematic tree or vegetation survey requiring GPS coordinate information.
 - Phase I Environmental Site Assessment (ESA).
- The following Easement Acquisition pass through expenses are not included in fee schedule:
 - Title company fees for closing costs, title commitments, and title insurance.
 - Incidental expenses required to transfer real property to the City (e.g. Lender processing fees for Partial Release of Lien and Lienholder Consents).
 - Recording fees and fees related to obtaining certified court documents or copies of recorded documents.
 - Revised offers and appraisal updates.
- Proposal assumptions in support of the supplemental environmental services:
 - This Scope of Services assumes that the project will be self-mitigating with respect to potential adverse impacts to WOTUS and consequently, completion of a stream and wetland functional assessment using the USACE Texas Rapid Assessment Method (TXRAM) for reference reaches will not be required. However, if the USACE does not approve the design plan to be self-mitigating, then a stream and wetland functional assessment can be prepared under a separate scope of work and fee.
 - As the COSM has indicated it will not apply for a TPWD Marl, Sand, Gravel, Shell, and Mudshell Permit until the final design is completed, then associated coordination with the TPWD involving planning for and conducting required public involvement is not included in this Scope of Services.
 - Additional archeological surveys beyond those described in this Scope of Services that may be required by the THC, FEMA, and/or the USACE will be prepared under a separate scope of services and fee estimate.
 - If substantial changes occur in the project boundary or design plans to require reevaluations after field investigations have been completed, additional services will be supplemental to this Scope of Services.

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City Responsibilities

- The City will provide to LAN all data in the City's possession relating to LAN's services on the Project. LAN will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the City.
- The City will give prompt notice to LAN whenever the City observes or becomes aware of any development that affects the scope or timing of LAN Scope of Services.
- The City will examine information submitted by LAN and render in writing or otherwise provide comments and decisions in a timely manner, no more than 30 days.
- The City will obtain all necessary right-of-entries from required landowners if access is initially denied to LAN or its subcontractors.
- The City shall designate a single representative to have authority to issue instruction, receive information, interpret, and define city policies and make decisions with respect to Consultant's activities.
- The City will attend meetings with Consultant, provide feedback, and participate in the services to the extent necessary to allow Consultant to perform the services requested.
- Review fees and fees associated with permitting (CLOMR), review, and approval will be paid directly by the City.
- The following are City responsibilities needed to support Easement Acquisitions activities. Note, a quarter of the properties identified for easement acquisition have complex title issues that may require engagement with City staff and potential for additional fees.
 - Provide all necessary City Approved Conveyance Documents within 10 days of notice to proceed.
 - Process and issue all payments of approved purchase prices for each parcel, and incidental expense involved in the transfer of property to the City in accordance with state law.
 - Provide final approval for all appraisals and counteroffers within 30 days of submission to City.
 - Pay pass-through costs charged by the title company for preliminary Title Commitments, update title commitments and title insurance for all parcels assigned in the Work Authorization.
 - Process all condemnation parcels through the City Attorney's office or third-party designee.

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Time of Performance

An estimated schedule is shown in Attachment 3.

The FEMA review and coordination is estimated to take 7 months in duration from initial FEMA CLOMR submittal date.

Easement acquisition services may not begin until survey is complete. It is assumed that survey will take 3 months to complete. It is assumed that appraisals will take 3 months to acquire. Once appraisals are acquired it is assumed that easement acquisition will be complete within 8 months assuming cooperation by property owners and the City.

It is assumed that the environmental supplemental services will take 7 months to complete.

This scope and fee will be in effect provided notice to proceed is received by September 24, 2023. Should the notice to proceed be delayed beyond that date, LAN reserves the right to amend the fees.

ATTACHMENT 2: PURGATORY CREEK IMPROVEMENTS

PERMITTING AND EASEMENT ACQUISITION SERVICES

FEE ESTIMATE

TASK ID	TASK DESCRIPTION	Project Principal	Sr. Project Manager	Quality Manager/ Technical Specialist	Sr. Engineer	Engineer	Engineer In Training	CAD Technician	Sr. ROW Agent	Administrative Assistant	TOTAL HRS.	SUBCONSULTANT SERVICES & EXPENSES	TOTAL COSTS	
	CONTRACT RATE PER HOUR	\$ 330.00	\$ 310.00	\$ 285.00	\$ 250.00	\$ 190.00	\$ 125.00	\$ 120.00	\$ 230.00	\$ 115.00				
A	Project Management													
1.	Project Management (16 Month Project Duration)	12	148	16						42	218		\$ 59,230.00	
Subtotal Project Management													\$ 59,230.00	
B	FEMA CLOMR Submittal													
B.1	Flood Study													
1.	Hydrology Models			8	8	40					56		\$ 11,880.00	
2.	Hydraulic Models			8	16		40	8			72		\$ 12,240.00	
3.	Flood Study Report		2	8	16		16				42		\$ 8,900.00	
B.2	FEMA CLOMR Submittal													
1.	CLOMR Forms & Submittal Package		1	4	8	8	20				41		\$ 7,470.00	
2.	Submittal Coordination			8		10	12				30		\$ 5,680.00	
Subtotal FEMA CLOMR Submittal													\$ 46,170.00	
C	Field Survey													
	Field Survey (McGray & McGray)													
	- Survey Manhole locations and information to support future design phases											\$ 4,626.00		
	- Bathometric Survey to support future design phases											\$ 4,154.00		
	- Supplemental Road Survey to support future design phases											\$ 30,258.00		
	- Boundary and Easement Location to support Easement Acquisition											\$ 44,618.00		
	LAN Subconsultant Markup (5%)												\$ 4,182.80	
	Desktop & Field Verification of Supplemental Field Survey to Support Final Design		2	4	16			2					\$ 6,000.00	
Subtotal Field Survey													\$ 83,656.00	\$ 10,182.80
D	Easement Acquisition													
	LAN Easement Acquisition Services (Up to 29 parcels)	4	50	12			20	20	1508	174	1788		\$ 391,990.00	
	Pass Through Expenses:													
	- Appraisal (29 parcels at \$4,500 Each)											\$ 130,500.00	\$ -	
	- Mileage (29 parcels, 168 miles per parcel, \$0.655 per mile)											\$ 3,191.16	\$ -	
	- Lien Release / Consent Fees (39 parcels, actual cost + 10%, \$100/Parcel)											\$ 2,900.00	\$ -	
	- Misc. (Postage, Courier, etc.) (39 parcels, actual cost + 10%, \$100/Parcel)											\$ 2,900.00	\$ -	
Subtotal Easement Acquisition													\$ 139,491.16	\$ 391,990.00
E	Supplemental Environemntal Permitting Services													
	Supplemental Environemntal Permitting Services (Hicks & Company)											\$ 84,072.75	\$ -	
	LAN Subconsultant Markup (5%)												\$ 4,203.64	
	LAN GIS Mapping, Exhibits, & Alternatives Evaluation to Support Environmental Permitting		4	8		12		8					\$ 6,760.00	
Subtotal Supplemental Environmental Permitting Services													\$ 84,072.75	\$ 10,963.64
	HOURLY SUBTOTAL	16	207	76	64	70	108	38	1508	216	2247			
	TOTAL LABOR COSTS	\$ 5,280.00	\$ 64,170.00	\$ 21,660.00	\$ 16,000.00	\$ 13,300.00	\$ 13,500.00	\$ 4,560.00	\$ 346,840.00	\$ 24,840.00				
	% DISTRIBUTION OF STAFF HOURS	0.7%	9.2%	3.4%	2.8%	3.1%	4.8%	1.7%	67.1%	9.6%				
	SUBTOTAL												\$ 307,219.91	\$ 518,536.44
TOTAL PROJECT COST (Easement Acquistition & Permitting)														\$ 825,756.35

Attachment 3: Project Schedule

ID	Task Name	Duration	Start	Finish	Timeline																											
					er	Aug	Sep	4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter									
								Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan									
1	Purgatory Creek Permitting & Easement Acquisition	351 days	Sat 8/26/23	Fri 12/27/24																												
2	Notice to Proceed	1 day	Sat 8/26/23	Sat 8/26/23																												
3	Task A: Project Management	350 days	Sun 8/27/23	Thu 12/26/24																												
4	Subconsultant Contracting	10 days	Mon 8/28/23	Fri 9/8/23																												
7	Task B.1: Flood Study	30 days	Mon 8/28/23	Fri 10/6/23																												
8	Task B.2: FEMA CLOMR Submittal	151 days	Mon 10/9/23	Mon 5/6/24																												
9	Submittal Package Preparation	10 days	Mon 10/9/23	Fri 10/20/23																												
10	Submit CLOMR to FEMA	1 day	Mon 10/23/23	Mon 10/23/23																												
11	FEMA Review & Coordination	7 mons	Tue 10/24/23	Mon 5/6/24																												
12	Task C: Field Survey	90 days	Mon 9/11/23	Fri 1/12/24																												
13	Task D: Easement Acquisition	250 days	Mon 1/15/24	Fri 12/27/24																												
14	Appraisals	90 days	Mon 1/15/24	Fri 5/17/24																												
15	Easement Acquisition Coordination	8 mons	Mon 5/20/24	Fri 12/27/24																												
16	Task E: Environmental Permitting Services	7 mons	Mon 9/11/23	Fri 3/22/24																												

Project: Purgatory Creek Permitting & Easements
Date: Tue 5/9/23

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone	

Attachment 4
Hourly Rate Schedule

Classification	Rate
Project Principal	\$330
Sr. Project Manager	\$310
Project Manager	\$240
Quality Manager/Technical Specialist	\$285
Sr. Engineer	\$250
Engineer	\$190
Engineer In Training	\$125
Sr. GIS Analyst II	\$185
Sr. GIS Analyst I	\$135
GIS Analyst	\$110
Sr. Designer	\$175
Designer	\$155
CAD Technician	\$120
Sr. Project Coordinator	\$195
Project Coordinator	\$135
Administrative Assistant	\$110

McGRAY & McGRAY LAND SURVEYORS, INC.

3301 HANCOCK DRIVE, SUITE 6
AUSTIN, TEXAS 78731
[512] 451-8591 FAX [512] 451-8791

TRANSMITTAL

TO:	LAN Attn: Laura M. Casset, PE 8911 N. Capital of Texas Hwy. Bldg. 2, Ste. 2300 Austin, TX 78759	DATE:	May 1, 2023
PHONE:	(512) 338-4212	FROM:	Patsy Trevino for Chris Conrad
EMAIL:	LMCasset@lan-inc.com	RE:	Second Revised Proposal for Additional Surveying Services for the Purgatory Creek Channel Improvement Project, City of San Marcos, Texas

WE ARE SENDING YOU X Attached Under separate cover the following items:

COPIES

DESCRIPTION

1 Second Revised Proposal

☐ For Your Approval

☒ For Your Information

☐ As Requested

☐ For Review and Comment

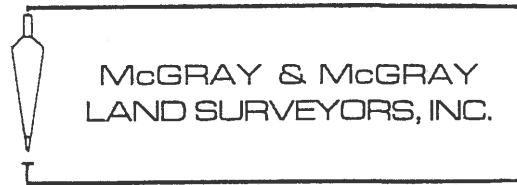
REMARKS: Thank you,
Chris

TBPELS Survey Firm #10095500

SENT VIA: ☐ Delivery Service ☐ FedEx ☐ Mail ☐ Fax ☒ Email ☐ Other:

If you received this message incomplete or illegible, or if enclosures are not as noted, please notify us at once

May 1, 2023



Laura M. Casset, PE, CFM, CPESC
LAN
8911 N. Capital of Texas Hwy
Building 2, Suite 2300
Austin, TX 78759
(512) 338-4212

VIA EMAIL
LMCasset@lan-inc.com

RE: Second Revised Proposal for Additional Surveying Services for Purgatory Creek Channel Improvement Project, City of San Marcos, Texas

Dear Ms. Casset:

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

Area to Survey:

- A. Exhibit "A": Survey Manhole locations and information;
- B. Exhibit "B": Bathometric Survey;
- C. Exhibit "C": Supplemental Road Survey;
- D. Exhibit "D": Supplemental Road Survey;
- E. Exhibit "E"; Boundary Survey for Easement Locations

Scope of Services:

1. Locate existing manholes and obtain the rim and invert information along with direction of pipes. Search for additional manholes as directed on Exhibit "A".
2. Perform a bathometric survey of the area as designated in "RED" on Exhibit "B";
3. Provide a supplemental topographic design survey locating visible and accessible visible features, including but not limited to pavement marking, edge of pavement, curbs, gutters, driveways, ramps, sidewalks, signs, fences, utility valves, water meters, manholes, hydrants, clean-outs, inlets, utility poles, guy anchors, overhead lines and other surface utility features for the areas as designated in "RED" on Exhibits "C & D". *LAN will coordinate with One Call to identify utilities within the project area and within the right-of-way boundaries.*
4. Provide 35 plats and descriptions for the proposed easements as defined in Exhibit "E". Plats will be prepared as outlined in the City of San Marcos Checklist for Acquisition Survey Exhibits.

Fees:

Manhole Survey – Exhibit “A” (Non-Taxable):

2 Man Crew:	16 hrs @	\$165.00 /hr.= \$	2,640.00
2 Man RTK Crew:	4 hrs @	\$215.00 /hr.= \$	860.00
Field Coordinator:	0.5 hrs @	\$98.00 /hr.= \$	49.00
Sr. Survey Technician:	2 hrs @	\$98.00 /hr.= \$	196.00
Survey Technician:	8 hrs @	\$92.00 /hr.= \$	736.00
RPLS:	1 hrs @	\$145.00 /hr.= \$	145.00
TOTAL = \$			4,626.00

Bathometric Survey – Exhibit “B” (Non-Taxable):

2 Man Crew:	10 hrs @	\$165.00 /hr.= \$	1,650.00
Field Coordinator:	1 hrs @	\$98.00 /hr.= \$	98.00
Sr. Survey Technician:	2 hrs @	\$98.00 /hr.= \$	196.00
Survey Technician:	10 hrs @	\$92.00 /hr.= \$	920.00
Bathometric Survey Equipment:	1 day @	\$1,000.00 /day= \$	1,000.00
RPLS:	2 hrs @	\$145.00 /hr.= \$	290.00
TOTAL = \$			4,154.00

Supplemental Design Topographic Survey – Exhibits “C & D” (Non-Taxable):

2 Man Crew:	80 hrs @	\$165.00 /hr.= \$	13,200.00
2 Man RTK Crew:	10 hrs @	\$215.00 /hr.= \$	2,150.00
Field Coordinator:	6 hrs @	\$98.00 /hr.= \$	588.00
Sr. Survey Technician:	40 hrs @	\$98.00 /hr.= \$	3,920.00
Survey Technician:	100 hrs @	\$92.00 /hr.= \$	9,200.00
RPLS:	6 hrs @	\$145.00 /hr.= \$	870.00
Project Manager:	2 hrs @	\$165.00 /hr.= \$	330.00
TOTAL = \$			30,258.00

Boundary Survey for Easements – Exhibit “E” (Taxable*):

2 Man Crew:	300 hrs @	\$165.00 /hr.= \$	49,500.00
2 Man RTK Crew:	50 hrs @	\$215.00 /hr.= \$	10,750.00
Field Coordinator:	21 hrs @	\$98.00 /hr.= \$	2,058.00
Sr. Survey Technician:	250 hrs @	\$98.00 /hr.= \$	24,500.00
Survey Technician:	800 hrs @	\$92.00 /hr.= \$	73,600.00
RPLS:	60 hrs @	\$145.00 /hr.= \$	8,700.00
Project Manager:	20 hrs @	\$165.00 /hr.= \$	3,300.00
TOTAL = \$			172,408.00

Previously Authorized Funds = \$ -127,790.00

TOTAL = \$ 44,618.00

Summary:

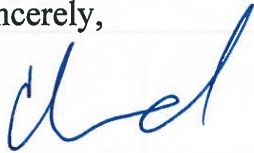
Manhole Survey Total \$	4,626.00
Bathometric Survey Total \$	4,154.00
Supplemental Design Topographic Survey Total \$	30,258.00
Boundary Survey Total \$	44,618.00
TOTAL \$	83,656.00

*Taxable boundary services are non-taxable due to the receipt of a Texas Sales and Use Tax Exemption Certificate for this project.

Once we receive notice to proceed, we will visit with you to establish a schedule for this project.

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

Sincerely,



Chris I. Conrad, RPLS
Vice President
TBPELS Survey Firm #10095500

Authorized to Proceed by:

Signature

Date

Print Name

Title

CIC:JDW:pft
Encl.

EXHIBIT "B"

Bathometric survey

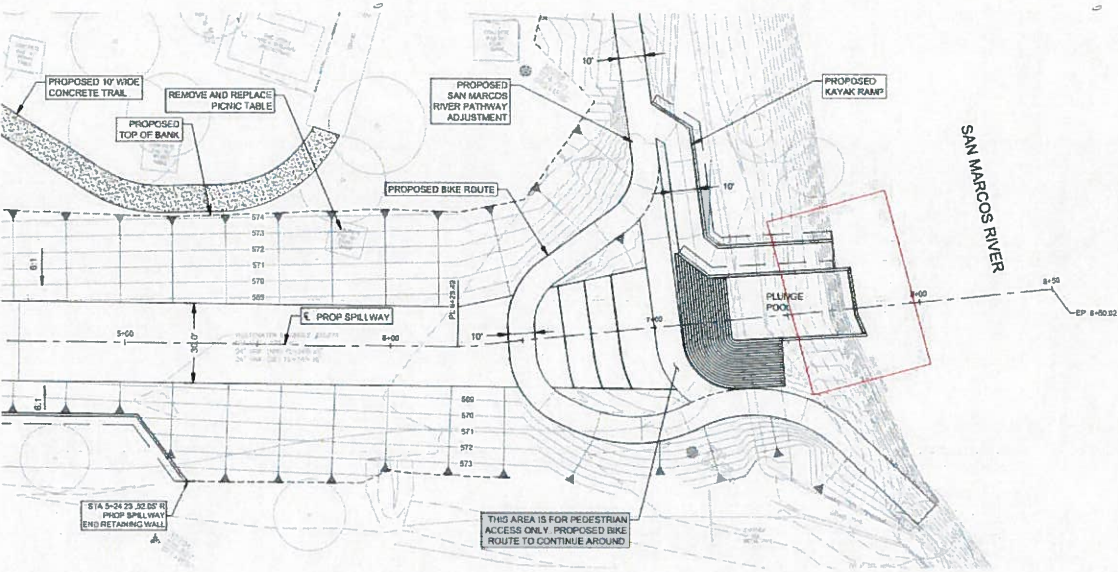


EXHIBIT "C"

Full Topo for roadway and intersections.

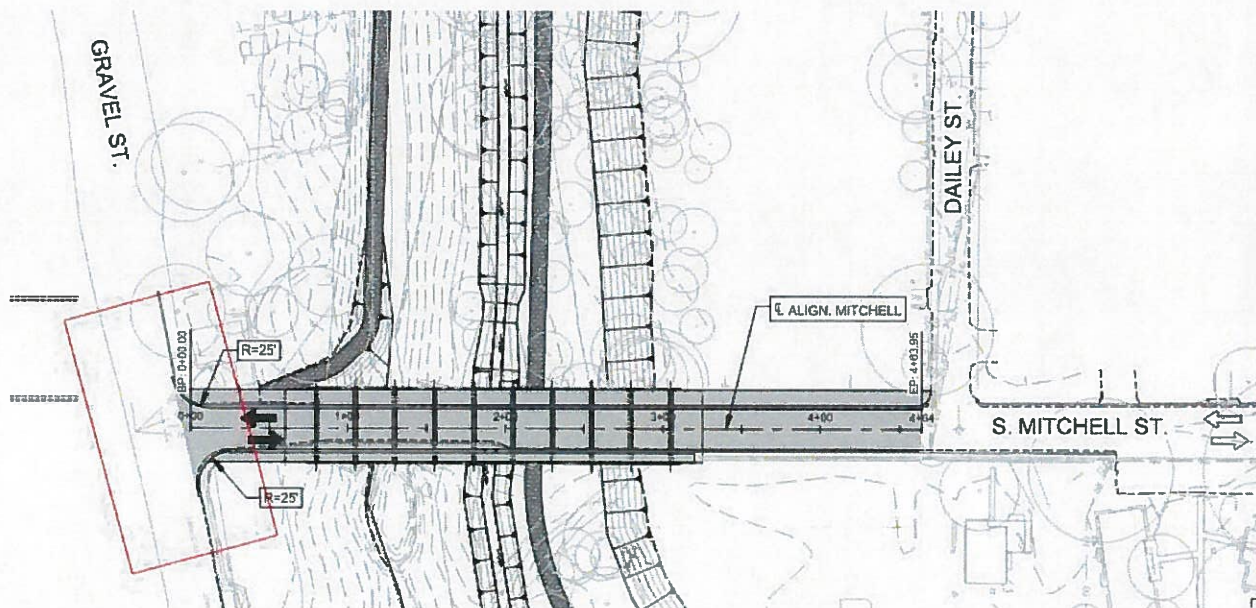
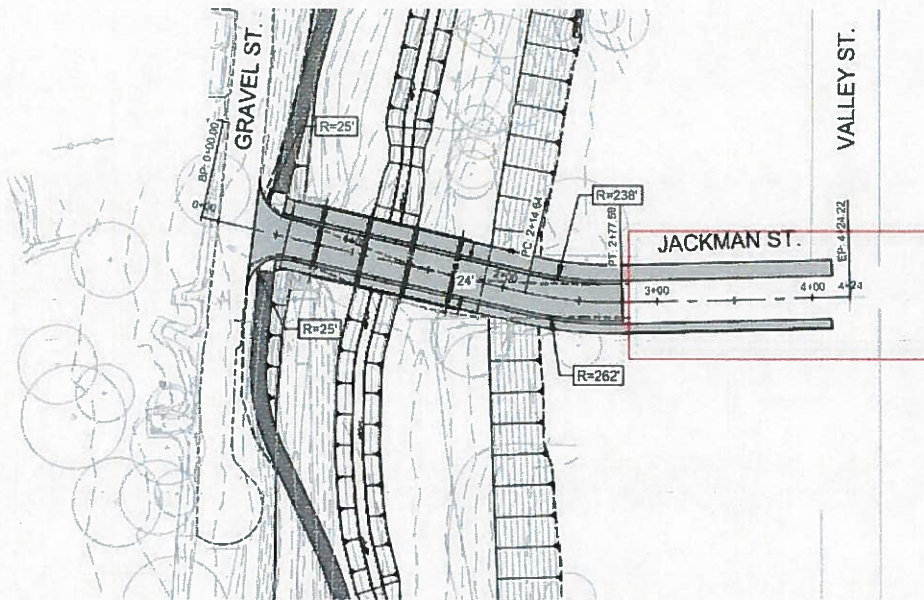
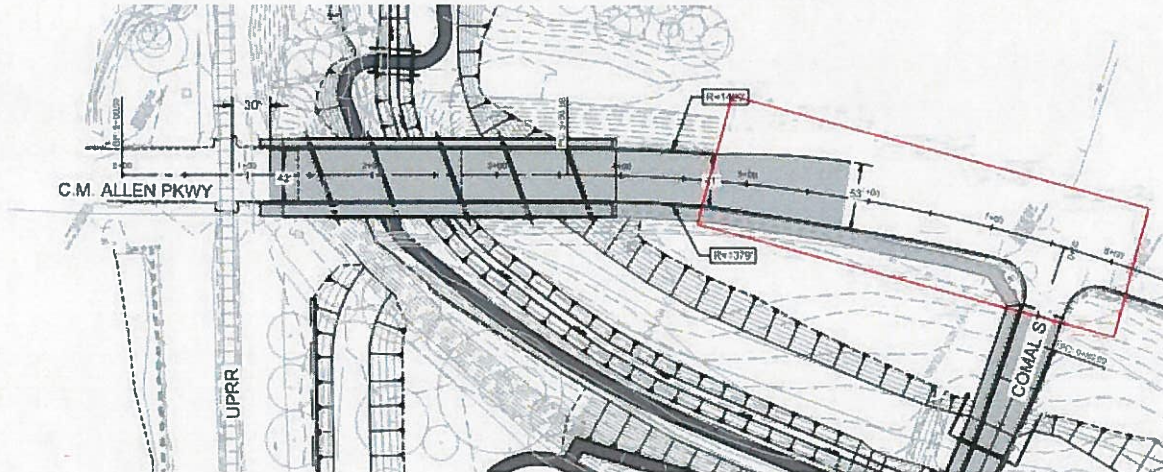
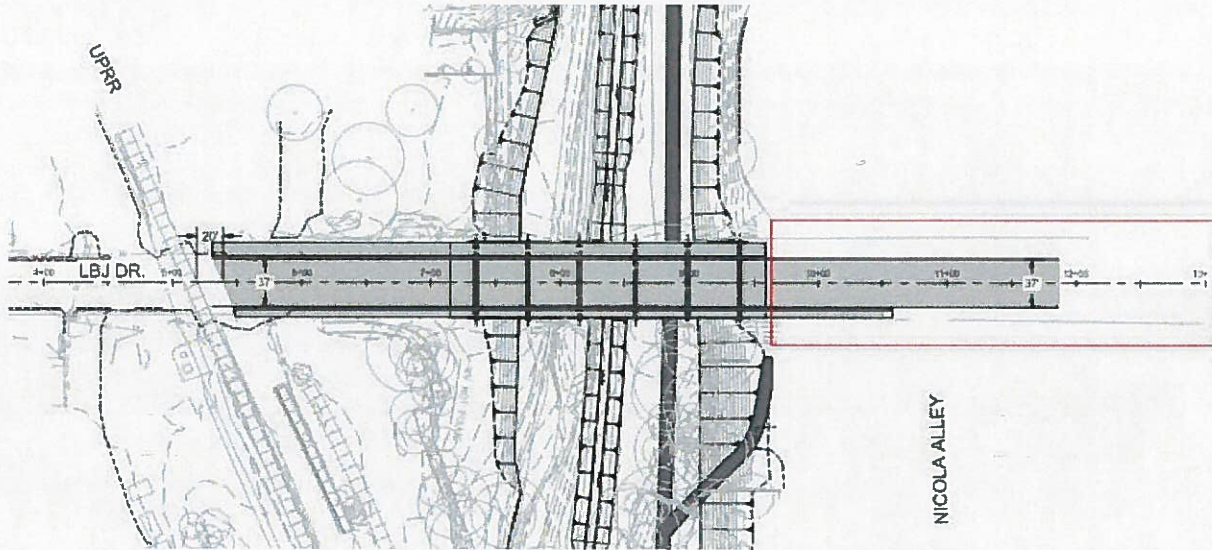


EXHIBIT "D"



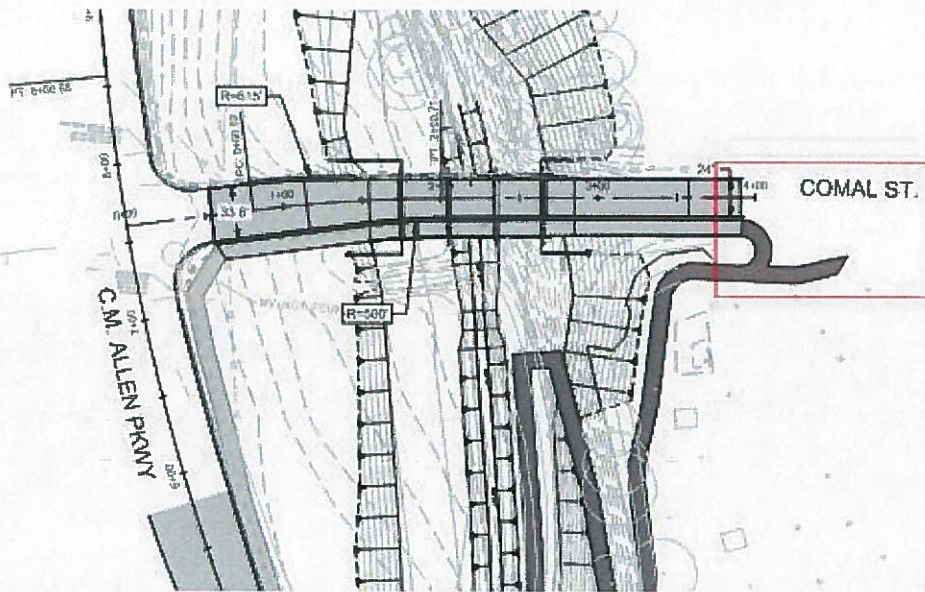
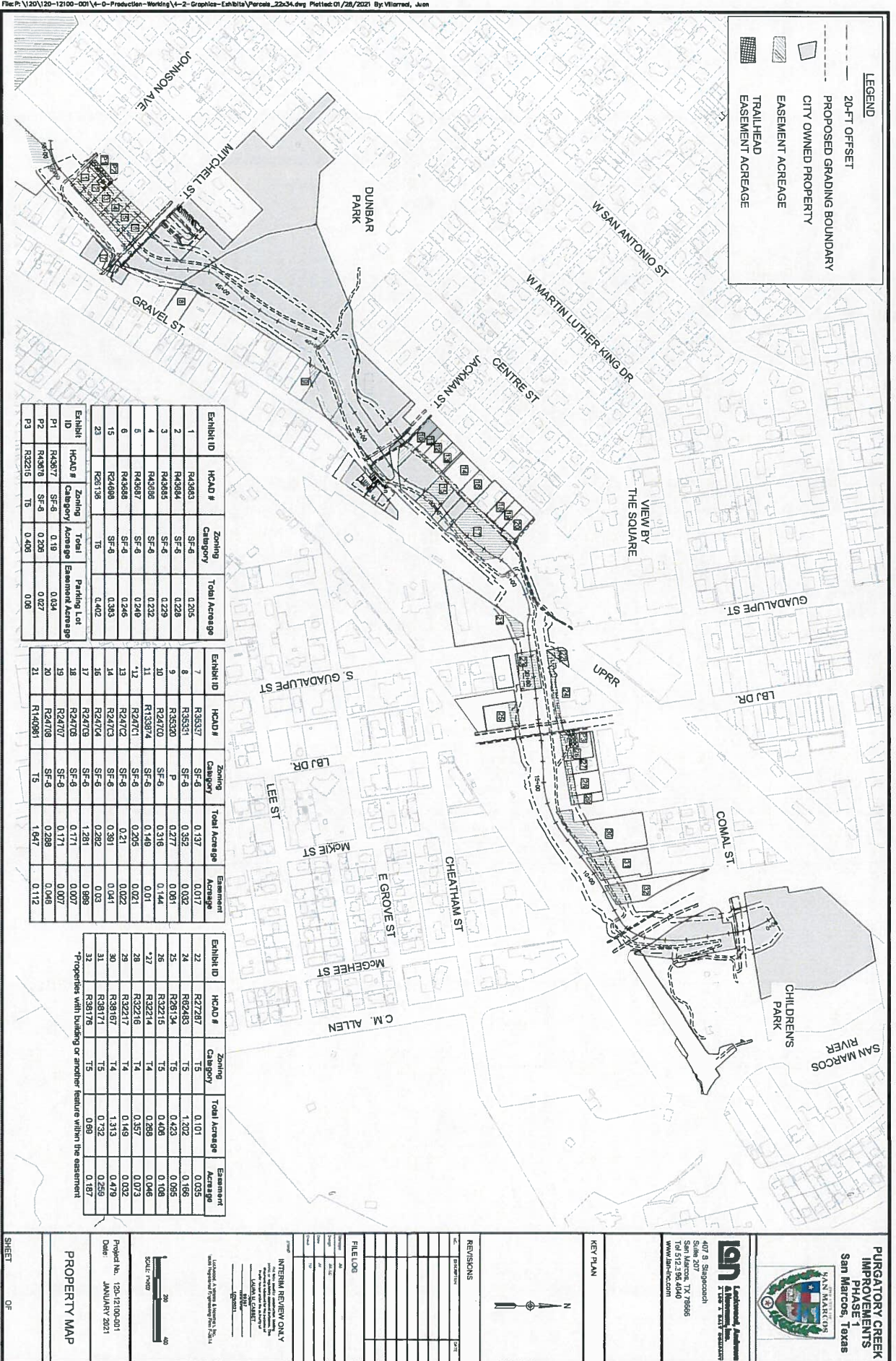


EXHIBIT "E"



1504 WEST 5TH STREET AUSTIN, TEXAS 78703 TEL: 512 / 478.0858 FAX: 512 / 474.1849

April 28, 2023

Laura Casset, P.E.
Lockwood, Andrews & Newnam, Inc.
8911 N. Capital of Texas Hwy, Building 2, Suite 2300
Austin, TX 78759

RE: Scope of Additional Services for the City of San Marcos Purgatory Creek Channel Improvements Project

Dear Ms. Casset,

This letter transmits a Scope of Services and attached fee estimate to Lockwood, Andrews & Newnam, Inc. (LAN) for work to be performed by Hicks & Company for the City of San Marcos Purgatory Creek Channel Improvements Project including the Phase 2 proposed trail system, coordination with the Federal Emergency Management Agency (FEMA), associated Endangered Species Act (ESA) compliance, and additional regulatory requirements identified for U.S. Army Corps of Engineers (USACE) permitting. This Scope of Services was prepared in response to a request by John Espinoza of the City of San Marcos based on discussions during and after a meeting with federal and state agencies on February 27, 2023.

We hope this Scope of Services adequately addresses this request. If you have any questions or need further assistance, please contact me at (325) 665-0523 or jleclair@hicksenv.com.

Sincerely,



Julie LeClair
Ecology Program Manager

Attachments:

Scope of Services
Fee Estimate
Freese & Nichols Proposal for Mussel Recovery and Relocation

SCOPE OF ADDITIONAL SERVICES

City of San Marcos Purgatory Creek Channel Improvements Project

April 28, 2023

PROJECT UNDERSTANDING

This Scope of Additional Services (Scope of Services) is submitted in response to a request by John Espinoza, City of San Marcos (COSM), based on discussions during and after a project status meeting on the City of San Marcos Purgatory Creek Channel Improvements Project Phases 1 and 2 with federal and state regulatory agencies on February 27, 2023. These services have not been addressed in the previous Scopes of Services included in the Subconsultant Agreement dated December 4, 2019 (SOW dated May 13, 2019); Contract Modification #1 executed July 3, 2020 (SOW dated April 24, 2020); Contract Modification #2 executed May 16, 2022 (SOW dated March 2, 2022), but have been identified as a result of additional planning information provided by the City of San Marcos, changes in regulations by the Texas Commission on Environmental Quality (TCEQ), and newly acquired aquatic resource information that was not previously available.

Services identified in the tasks below entail the completion of an environmental constraints evaluation for a trail system conceptually identified within the Phase 2 project area that appears to be approximately 5,000 linear feet (0.95 mile) in length; preparation of a geological assessment exemption pursuant to the COSM Land Development Code (SMLDC); coordination with appropriate floodplain administration officials with the Federal Emergency Management Agency (FEMA), Hays County, and the COSM to ensure floodplain regulatory compliance and associated requirements for USACE permitting; revision of the Alternatives Analysis required by the USACE; and revision of the Biological Assessment required for consultation with the U.S Fish and Wildlife Service (USFWS). The proposed trail system begins near Dutton Drive and the Purgatory Creek Apartments located at 1951 Hunter Road, San Marcos, Texas, extending north and northeast along the Purgatory Creek riparian corridor, south of the creek, for approximately 5,000 linear feet (0.95 mile) to just west of the southern terminus of Gravel Street. Environmental services are more fully described in the tasks below.

Task 1. Delineation of Waters of the U.S.

Specific work will include background research as well as field investigation to identify and map waters of the U.S. (WOTUS) subject to federal regulation under Section 404 of the Clean Water Act within and along the proposed alignment of the proposed trail and its construction corridor. These designated areas will be initially reviewed and desktop data sources will be evaluated to determine the potential existence of WOTUS including wetlands identified in standard data sources. Research will include use of maps and data layers from a variety of sources including the National Wetland Inventory (NWI), National Hydrography Dataset (NHD), topographic maps, Natural Resource Conservation Service (NRCS) soil survey, and aerial photography. Using the results of these efforts, Hicks & Company will conduct a field investigation to identify WOTUS. This will include a field survey conducted as per USACE protocol to identify and map the ordinary high water marks (OHWMs) that define the limits of the WOTUS. If wetlands are encountered, they will be defined utilizing the routine method of wetland delineation outlined in the *Field Guide for Wetland Delineation - 1987 Corps of Engineers Manual* and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region*. All of the fieldwork will be conducted using Global Positioning System (GPS) technology, wetland determination forms, and protocol utilized by the USACE as needed or required. Boundaries of WOTUS

will be delineated on-site by using a hand-held GPS instrument with sub-meter accuracy. GPS coordinates of the boundaries of any identified WOTUS will be downloaded for generating maps and associated digital shapefiles which will be provided to LAN for integration with the engineering design data to allow quantification and comparison of the spatial extent of potential impacts of the possible trail features. A summary report will be prepared that documents the results of this evaluation. This task assumes that the proposed trail will not impact WOTUS and that coordination with the USACE will not be required. If impacts to WOTUS are anticipated, additional evaluation and coordination with the USACE can be completed under a separate scope of services and fee estimate.

Task 2. Investigation of the Potential Occurrence of Threatened or Endangered Species

The designated trail alignment corridor will be investigated to assure compliance with the federal Endangered Species Act (ESA). Information previously acquired from U.S. Fish and Wildlife Service (USFWS) and Texas Parks & Wildlife Department (TPWD) databases will be reviewed to determine county occurrence and the nearest known locations of potentially occurring species that are listed as threatened or endangered, species that are proposed for listing, and species that are candidates for listing. Habitat requirements for potentially occurring species will be evaluated through field investigation and research of information contained on maps and aerial photography. Based on information provided from the database searches and field evaluations, a determination will be made as to the likelihood of impacts and whether additional investigations or studies would be needed. This information will be included in a summary report that may be used to update or supplement previous project evaluations and coordinate with the USFWS as needed or required.

Task 3. Investigation of Cultural Resources

Because the proposed trail project will be constructed by COSM, a political subdivision of the State of Texas, the project is subject to the Antiquities Code of Texas (ACT). An archeological desktop background investigation will be completed to identify potential archeological constraints for the project site. The investigation will include any necessary client coordination and compilation of data including the identification of occurring geology and soils, historical maps, aerial photography, and researching the online Texas Archeological Sites Atlas for previously recorded archeological sites and archeological surveys within/adjacent to the proposed project area. This data will be used to prepare a coordination letter to the Texas Historical Commission (THC) detailing background findings to ensure compliance with the ACT. Based on the results of this review, Hicks & Company will make recommendations in the coordination letter as to the need, if any, for further archeological investigations (i.e., field surveys) and/or agency coordination.

For the purposes of this Scope of Services, it is assumed that the THC will require a field survey performed according to standards established by the Council of Texas Archeologists (CTA) and the THC. This will include the preparation of an application to conduct the survey with a scope of work that will be submitted to the THC. Field surveys will include a 100-percent intensive pedestrian archeological survey of the proposed trail corridor. The pedestrian survey will be supplemented with shovel testing and backhoe trench excavations at locations that have been determined, through the pedestrian survey and background review, to have the potential to contain intact, deeply buried, cultural deposits warranting State Antiquities Landmark (SAL) designation. Any newly documented sites within the area will be assessed for SAL designation. As per CTA and THC standards, a minimum of six subsurface tests will be placed in all discovered archeological sites to evaluate subsurface components and determine site boundaries within the project area. Following survey, a report will be prepared for the client and the

THC detailing the results of the investigations. The report will address all requirements necessary to achieve regulatory clearance for construction to proceed, including SAL recommendations for all documented sites, and, if necessary, avoidance strategies.

This Scope of Services does not include any additional archeological investigations (such as site significance testing, data recovery, or metal detection) that might be recommended by the THC subsequent to the survey and coordination and acceptance of the technical report. If recommended by the THC, these services can be arranged under a separate scope of services and fee estimate.

Task 4. Geological Assessment

The proposed trail system lies over the Transition Zone of the Edwards Aquifer that is regulated by the Edwards Aquifer Protection Rules and the SMLDC. Pursuant to Section 6.3.2.1C of the SMLDC as amended on September 1, 2020, “a waiver for a geological assessment for sites that do not warrant an assessment within the transition zone may be obtained from the Responsible Official if the property is located within the Geologic Assessment Exemption Zone.” Hicks & Company will coordinate with the appropriate city officials to determine the process for submitting a geologic assessment waiver for the Phase 2 proposed trail and prepare documentation as needed or required.

Task 5. Environmental Compliance with Floodplain Regulations

The USACE indicated during the Project Coordination Meeting of February 27, 2023, that FEMA would be the lead federal planning agency for the project. However, FEMA guidance (FEMA Instruction 108-1-1, Instruction on Implementation of the Environmental Planning and Historic Preservation Responsibilities and Program Requirements, Chapter 3.3 Involving Other Agencies) indicates that FEMA involvement as a lead agency would be for proposed actions that are solely funded, planned or approved by FEMA, or where multiple federal agencies are involved in the same proposed action. This task will involve necessary coordination with FEMA and local floodplain officials to clarify the review and approval process of environmental documentation with respect to floodplain regulatory compliance, including preparing documentation required for Endangered Species Act (ESA) compliance.

Task 6. Revision of the Alternatives Analysis

The USACE has reviewed a submitted analysis of project alternatives and has provided review comments. In response to these review comments, the alternative analysis must be revised and resubmitted for additional USACE review. This task covers alternatives analysis revision and preparation, additional permit processing, and assumes preparation for and attendance at one additional USACE meeting to address other information that may be required by the USACE.

Task 7. Submission of Tier II 401 Certification Pursuant to New Rules

As required by the USACE Individual Permit, and upon approval by the City of San Marcos, a Tier II 401 Certification Questionnaire and water quality certification documentation will be prepared and submitted according to the new Texas Commission on Environmental Quality (TCEQ) guidance documentation revised October 5, 2021. This documentation will incorporate information developed from the project alternative analysis process, as well as best management strategies for water quality protection.

Task 8. Revision of the Biological Assessment

Subtask 8.1 Field Investigations

In order to supplement previous evaluations of threatened and endangered species and update the Biological Assessment (BA) required for FEMA compliance and USACE Section 404 permitting, a freshwater mussel survey will be conducted to update the potential presence of species that are federal and state threatened, endangered, candidates for listing or other species that have been proposed for listing to determine the occurrence of any of these species in Purgatory Creek and within the vicinity of the proposed location of the Purgatory Creek high flow outfall channel at the San Marcos River. Any mussels that are encountered will be relocated. The survey will be subcontracted by Freese & Nichols (FNI) aquatic biologists under a permit issued by the USFWS and will be assisted by Hicks & Company biologists (see attached FNI proposal).

Subtask 8.2 Biological Assessment Report Preparation

The BA that is currently being prepared for the USFWS will be revised and updated to include results of the research conducted on the natural history and occurrence in Hays County of potentially occurring freshwater mollusks that are federal and state listed as endangered, threatened, candidates for listing or proposed for listing and on the results of the mussel survey conducted in **Subtask 8.1**, above. The BA revision will include shapefiles provided by LAN showing existing and proposed channel features including the outfall location and any associated construction coffer dams at the San Marcos River. Completion of this task will incorporate results of the mussel field survey.

DELIVERABLES

This Scope of Services includes the following deliverables:

1. Digital shapefiles will be provided for the boundary of any WOTUS that are identified within the trail corridors (**Task 1**);
2. A summary report will be prepared and submitted that documents the results of the WOTUS evaluation (**Task 1**);
3. A summary report will be prepared and submitted that documents the results of the evaluation of potentially occurring federal and state threatened and endangered species (**Task 2**);
4. A coordination letter will be prepared for submittal to the THC (**Task 3**);
5. Preparation and submittal of an archeological survey permit application to the THC (**Task 3**);
6. Preparation and submittal of an archeological survey report (**Task 3**);
7. Preparation of a Request for Waiver of a Geological Assessment for the proposed Phase 2 trail (**Task 4**);
8. Preparation of documentation required for ESA compliance (**Task 5**);
9. Revised Alternatives Analysis to be submitted to the USACE (**Task 6**);
10. Documentation required for Tier II 401 Certification (**Task 7**);
11. Preparation and submittal of a mussel survey report to the TPWD (**Subtask 8.1**); and
12. Updated BA report to include information from the mussel survey (**Subtask 8.1**).

SCHEDULE

Work will be completed with deliverables prepared and submitted according to a schedule mutually developed by Hicks & Company and LAN.

OVERALL ASSUMPTIONS

This Scope of Services and fee estimate has been prepared as accurately as possible with the current level of knowledge of the project and based on the assumptions included herein. Hicks & Company assumes relevant requested materials will be provided by LAN in a timely manner and submittals for review, comment, and/or signature will be addressed and returned as quickly as possible.

This Scope of Services and fee estimate does not include costs associated with the assumptions listed below. If needed or required, such services would be performed under a supplemental scope of services and fee estimate.

1. Rights of entry will be provided by and coordinated with LAN. When rights of entry cannot be obtained, investigations will be performed through the use of aerial photography, existing desktop data sources, and visually, from city- or county-owned property and/or public rights of way in order to achieve task elements requiring offsite information.
2. This Scope of Services does not include the preparation of National Environmental Policy Act (NEPA) documentation including a Categorical Exclusion (CE), Environmental Assessment (EA), or Environmental Impact Statement (EIS).
3. This Scope of Services does not include the completion of a Geologic Assessment.
4. This Scope of Services does not include systematic tree or vegetation survey requiring GPS coordinate information.
5. This Scope of Services does not include a Phase I Environmental Site Assessment (ESA).
6. If project effects on sedimentation transport to or within the San Marcos River is required for federal or state agency environmental compliance, such an evaluation would be prepared by LAN and/or the COSM.
7. This Scope of Services assumes that the project will be self-mitigating with respect to potential adverse impacts to WOTUS and consequently, completion of a stream and wetland functional assessment using the USACE Texas Rapid Assessment Method (TXRAM) for reference reaches will not be required. However, if the USACE does not approve the design plan to be self-mitigating, then a stream and wetland functional assessment can be prepared under a separate scope of work and fee.
8. As the COSM has indicated it will not apply for a TPWD Marl, Sand, Gravel, Shell, and Mudshell Permit until the final design is completed, then associated coordination with the TPWD involving planning for and conducting required public involvement is not included in this Scope of Services.
9. Additional archeological surveys beyond those described in this Scope of Services that may be required by the THC, FEMA, and/or the USACE will be prepared under a separate scope of services and fee estimate.
10. Aerial photographs, design maps, and plans will be provided by LAN in a timely fashion as needed in a GIS-compatible format.

11. If substantial changes occur in the project boundary or design plans to require reevaluations after field investigations have been completed, additional services will be supplemental to this Scope of Services.
12. Costs are included for estimating projected fees; billing will be based on actual rates.

HICKS & COMPANY ENVIRONMENTAL/ARCHEOLOGICAL CONSULTANTS

City of San Marcos Purgatory Creek Channel Improvements Project

Additional Services

Fee Estimate - April 28, 2023

LABOR	Sr Envl Scientist II \$148.32	Sr Envl Scientist I \$136.46	Envl Scientist II \$121.62	Envl Prof III \$97.89	Envl Prof II \$91.96	Envl Prof I \$86.03	Envl Staff I \$74.16	Envl Tech I \$68.23	TOTAL
Task 1. Identification and Mapping of WOTUS									
Pre-field Preparation for WOTUS determination		4		2					6.0
Field Investigation for WOTUS determination		8		8					16.0
Data Analysis and Documentation		8		12					20.0
GIS/Graphics Support			6						6.0
Project Management/Coordination	1	2							3.0
Task 1 Labor Hours	1.0	22.0	6.0	22.0	0.0	0.0	0.0	0.0	51.0
Task 1 Subtotal	\$ 148.32	\$ 3,002.12	\$ 729.72	\$ 2,153.58	\$ -	\$ -	\$ -	\$ -	\$ 6,033.74
Task 2. Investigation of Threatened/Endangered Species									
Database Review & Update		1		7					8.0
Field Evaluation to Determine Suitable Habitat		2		2					4.0
Preparation of Summary Documentation		6		8					14.0
GIS/Graphics Support			3						3.0
Project Management/Coordination		2							2.0
Task 2 Labor Hours	0.0	11.0	3.0	17.0	0.0	0.0	0.0	0.0	31.0
Task 2 Subtotal	\$ -	\$ 1,501.06	\$ 364.86	\$ 1,664.13	\$ -	\$ -	\$ -	\$ -	\$ 3,530.05
Task 3. Investigation of Cultural Resources									
Conduct Background Research			8						8.0
Prepare THC Coordination Letter		1	16						17.0
Prepare THC Permit Application		1	18						19.0
Conduct Field Survey			50				50		100.0
Report Preparation		4	60				20		84.0
GIS/Graphics Support			32						32.0
Curation			4				20		24.0
Project Management/Coordination		6	8						14.0
Task 3 Labor Hours	0.0	12.0	196.0	0.0	0.0	0.0	90.0	0.0	298.0
Task 3 Subtotal	\$ -	\$ 1,637.52	\$ 23,837.52	\$ -	\$ -	\$ -	\$ 6,674.40	\$ -	\$ 32,149.44
Task 4. Geological Assessment Waiver Request									
Preparation & Submittal of Exemption Waiver	6	2	2						10.0
Project Management/Coordination		1							1.0
Task 4 Labor Hours	6.0	3.0	2.0	0.0	0.0	0.0	0.0	0.0	11.0
Task 4 Subtotal	\$ 889.92	\$ 409.38	\$ 243.24	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,542.54
TASK 5. Environmental Compliance with Floodplain Regulations									
Coordination w/FEMA & Local Floodplain Officials	20	20							40.0
Project Management/Coordination		2							2.0
Task 5 Labor Hours	20.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	42.0
Task 5 Subtotal	\$ 2,966.40	\$ 3,002.12	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,968.52
TASK 6. Revision of the Alternatives Analysis									
Revision of the Alternatives Analysis	12	12							24.0
USACE Followup Coordination	6	8							14.0
Project Management/Coordination	2	4							6.0
Task 6 Labor Hours	20.0	24.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0
Task 6 Subtotal	\$ 2,966.40	\$ 3,275.04	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,241.44

HICKS & COMPANY ENVIRONMENTAL/ARCHEOLOGICAL CONSULTANTS
City of San Marcos Purgatory Creek Channel Improvements Project
Additional Services
Fee Estimate - April 28, 2023

LABOR	Sr Envl Scientist II \$148.32	Sr Envl Scientist I \$136.46	Envl Scientist II \$121.62	Envl Prof III \$97.89	Envl Prof II \$91.96	Envl Prof I \$86.03	Envl Staff I \$74.16	Envl Tech I \$68.23	TOTAL
Task 7. Tier II 401 Certification									
Completion of Tier II Questionnaire		2		16					18.0
Coordination with TCEQ/USACE		4		2					6.0
Project Management/Coordination		2		2					4.0
Task 7 Labor Hours	0.0	8.0	0.0	20.0	0.0	0.0	0.0	0.0	28.0
Task 7 Subtotal	\$ -	\$ 1,091.68	\$ -	\$ 1,957.80	\$ -	\$ -	\$ -	\$ -	\$ 3,049.48
Task 8. Biological Assessment (BA) Report Revision									
Mussel Survey Assistance (Subtask 8.1)		12		8		8			28.0
BA Report Preparation (Subtask 8.2)		8		40					48.0
GIS/Graphics Support			4						4.0
Project Management/Coordination		5							5.0
Task 8 Labor Hours	0.0	25.0	4.0	48.0	0.0	8.0	0.0	0.0	85.0
Task 8 Subtotal	\$ -	\$ 3,411.50	\$ 486.48	\$ 4,698.72	\$ -	\$ 688.24	\$ -	\$ -	\$ 9,284.94
Total Category Hours	47.0	127.0	211.0	107.0	0.0	8.0	90.0	0.0	590.0
Total Category Cost	\$ 6,971.04	\$ 17,330.42	\$ 25,661.82	\$ 10,474.23	\$ -	\$ 688.24	\$ 6,674.40	\$ -	\$ 67,800.15
TOTAL LABOR									\$ 67,800.15
DIRECT EXPENSES									
Freese & Nichols Subcontractor Services	Unit	Rate	Quantity						TOTAL
Mileage (80 miles for each of 9 vehicle trips)	mile	\$0.655	720						\$ 10,305.00
Backhoe Rental	day	\$2,000.00	2						\$ 4,000.00
Curation	each	\$836.00	1						\$ 836.00
Field supplies (GPS Rental)	day	\$110.00	6						\$ 660.00
TOTAL DIRECT EXPENSES									\$ 16,272.60
TOTAL COST									\$ 84,072.75

November 18, 2022

Julie LeClair and Roy Frye
Hicks & Company
1504 W 5th Street, Suite 200
Austin, TX 78703

RE: Scope of Work for Mussel Recovery and Relocation in the San Marcos River and Purgatory Creek

Freese and Nichols, Inc. (FNI) is pleased to submit the following in response to a request from Hicks & Company for a freshwater mussel recovery and relocation scope and fee on Purgatory Creek and the San Marcos River. This proposal is in support of the Purgatory Creek Channel Improvements Project in San Marcos, Texas. The scope includes development of an Aquatic Resource Recovery Plan (ARRP), an approved stocking/relocation permit, and a one-day field survey. Coordination with Texas Parks and Wildlife (TPWD) to achieve the necessary permit is also included along with final reporting.

Work will be done under TPWD scientific collection permit, #1006-756 and only after an approved ARRP and stocking/relocation permit are received from TPWD.

Scope of Work

After issuance of a Notice to Proceed, FNI will coordinate with TPWD to receive the necessary permissions to perform the mussel survey. Access, safety, and schedule will be coordinated with Hicks & Company staff. This effort will be limited to the areas identified in the KMZ files sent by Julie LeClair on 11/2/2022 – perennial sections of Purgatory Creek and the proposed outfall location on the San Marcos River. The impact areas will involve channel reconstruction along Purgatory Creek, with a new overflow channel and outfall on the San Marcos River upstream of the Rio Vista Dam. FNI is aware of the presence of listed species in the general area and we will ensure handling and/or disturbance of listed species will be avoided.

Three FNI biologists will travel to the site to conduct a mussel recovery and relocation around the Purgatory Creek and San Marcos River impact areas. The survey will be conducted by wading in Purgatory Creek and with certified divers using SCUBA or a surface-supplied air system on the San Marcos River. Samplers will systematically search for and remove any live mussels occurring within the proposed survey area which will include direct impact areas, a 10-meter lateral buffer zone, and upstream and downstream buffers (to be approved by TPWD). Additional personnel support is expected from Hicks & Company for a combined team of at least 5 people to perform wade sampling and SCUBA diver safety support.

Purgatory Creek and the San Marcos River (above Rio Vista) are considered Group 5 Streams – perennial waterbodies in which mussels are known to occur, but presence or diversity have not been confirmed within the project footprint. Based on newly released mussel sampling protocols from TPWD/USFWS for Group 5 Streams, a 5-person hour qualitative survey will be utilized for each location. The survey area including buffers will be divided into 5 tactile hand sampling survey reaches and sampling will begin at one end of the project area and continue in 1 person-hour segments until all segments have been surveyed. At the end of each 1 person-hour search period, collected live mussels will be placed in mesh bags and held underwater until the end of the survey. Following the search period, mussels will be identified, enumerated, and representative photos will be taken of each species. The field work at both

locations is expected to be completed in one day. At the end of each search period, any live mussels collected will be carried in mesh bags to a suitable relocation site and placed in areas of suitable substrate and habitat. Water quality measurements including dissolved oxygen will be taken with a Hydrotech Compact DS®.

A report will be drafted after the survey and will be provided to Hicks & Company for one round of review and comment within three weeks of survey completion. The final report, addressing edits, will be delivered to Hicks and Company within one week after receipt of comments, and copies of the report will be sent to TPWD after final approval.

The deliverables will be TPWD approval of an ARRP, receipt of a TPWD stocking/relocation permit, mussel recovery and relocation field survey, and a final report. The final report will include:

- Results from the mussel recovery and relocation (sampling methods and personnel, numbers and sizes mussel species and voucher photographs of each species)
- Water quality data
- Map(s) showing sampling and relocation sites

Fee Estimate

A not-to-exceed fee of **\$10,305** is proposed for the work, and a task breakdown is included in the table below.

Task	Labor	Expenses	Total
1. Project Management	\$641	\$0	\$641
2. ARRP Creation and Approval with Stocking/Relocation Permit	\$1,032	\$0	\$1,032
3. Mussel Recovery and Relocation Field Effort	\$5,405	\$905	\$6,310
4. Analysis and Reporting	\$2,322	\$0	\$2,322
Total	\$9,400	\$905	\$10,305

Schedule

TPWD requests 30 days to approve and issue the ARRP based on the mussel survey plan. FNI can begin work as soon as needed to permit the survey effort and can accommodate the project schedule to perform the survey in advance of project construction.

Thank you for the opportunity to assist Hicks & Company.



Respectfully,

Aaron Petty

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