

April 27, 2020

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

Re: USACE Permitting for Phase 2 of Purgatory Creek Improvements Project (Wonder World Drive to Johnson Avenue) - Proposal for Supplemental Professional Services (existing contract # 218-307)

Dear Mr. Espinoza:

LAN is pleased to present this proposal to provide supplemental professional services for the USACE permitting of the Phase 2 improvements to Purgatory Creek (from Wonder World Drive to Johnson Avenue). LAN is currently underway to complete the 30% design of the Phase 1 Purgatory Creek Channel Improvements (from Johnson Avenue to the San Marcos River).

The City, LAN, and subconsultants had a pre-application meeting with the US Army Corps of Engineers (USACE) on January 22, 2020 to discuss the permitting requirements for the Purgatory Creek Improvements Project. During this meeting, the USACE confirmed that they considered the Phase 1 and Phase 2 project areas to be a single project and they recommended that they be permitted together.

The scope presented herein represents work that is necessary to include Phase 2 improvements into in the on-going USACE permitting efforts for the Phase 1 Purgatory Creek Channel Improvements Project. The Phase 2 improvements will be described at a conceptual level in the permitting documents which will allow a conditional permit for Phase 2 improvements. The conditional permit will need to be modified once the design for the Phase 2 improvements starts (expected in 2022 or later). This proposal includes the expected effort needed to obtain conditional approval of the conceptual Phase 2 improvements for the Purgatory Creek Improvements Project.

The tasks included for the current Phase 2 permitting effort include:

Task 1: Project Management

Task 2: Phase 2 Permitting

Task 2a: Right of Entry (ROE)

Task 2b: USACE Section 404 permit compliance

Task 2c: USACE Section 7 consultation

Task 2d: USACE Section 106 permit compliance

Task 2e: Compliance with the Antiquities Code of Texas

Hicks & Company will be subcontracted to LAN to perform the compliance tasks for the USACE permits and Antiquities Code of Texas. The Hicks & Company proposal is included as Attachment 1.



**Lockwood, Andrews
& Newnam, Inc.**

A LEO A DALY COMPANY

LAN will provide project management activities, right of entry request and coordination, and task coordination including review of deliverables to the permitting agencies and the City. Project management will include performing monthly project administrative activities. For ROE coordination, LAN will provide a summary of properties necessary for ROE to the City and will coordinate ROE information with the project team as received. LAN will provide coordination of information and review of deliverables for the USACE and Antiquities Code of Texas compliance tasks.

A fee estimate is included as Attachment 2. The budgets presented in the fee sheet include all LAN and subconsultant services necessary to complete the expected USACE permitting requirements for Phase 2 of the Purgatory Creek Improvements project. The total project fee is \$174.7K.

Thank you for the continued opportunity to be part of your team on this important project.

Sincerely,

A handwritten signature in black ink that reads "Jennifer L. Miller". The signature is written in a cursive, flowing style.

Jennifer L. Miller, PE
Project Manager

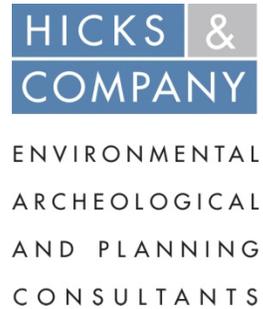
Attachments

- 1 – Hicks & Company Proposal
- 2 – Fee Estimate

CC: Laurie Moyer, PE – City Director of Engineering & CIP
Travis Michel, PE – LAN Project Principal

Attachment 1 - Hicks & Company Proposal

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



April 24, 2020

Jennifer L. Miller, Technical Manager
Lockwood, Andrews & Newnam, Inc.
407 S. Stagecoach Trail, Ste. 207
San Marcos, Texas 78666

RE: Scope of Services for Phase 2 of the City of San Marcos Purgatory Creek Channel Improvement Project

Dear Ms. Miller,

This transmits a proposed Scope of Services and attached fee estimate for work to be performed by Hicks & Company for Phase 2 of the City of San Marcos Purgatory Creek Channel Improvement Project in San Marcos, Texas. This Scope of Services was prepared in response to your email request on March 25, 2020, and a follow-up teleconference meeting on March 26, 2020.

If you have any questions or need further assistance, please contact me at (512) 478-0858 or rfrye@hicksenv.com.

Sincerely,

A handwritten signature in blue ink, which appears to read "Roy G. Frye".

Roy G. Frye
Senior Project Manager
Hicks & Company

Attachments

- Scope of Services
- Project Location Figure
- Fee Estimate

SCOPE OF SERVICES
City of San Marcos Purgatory Creek Channel Improvement Project, Phase 2
April 24, 2020

PROJECT UNDERSTANDING

In an email dated March 25, 2020, and follow-up telephone conference call on March 26, 2020, Jennifer Miller of Lockwood, Andrews, and Newnam, Inc. (LAN) requested a scope of services and fee from Hicks & Company for completion of professional services to support U.S. Army Corps of Engineers (USACE) environmental compliance and permitting requirements for Phase 2 of the proposed Purgatory Creek Channel Improvement Project. Services requested will include those activities and tasks needed to allow the USACE to authorize construction of Phases 1 and 2 as a single and complete project under Section 404 of the Clean Water Act. However, it is the intention of the City of San Marcos to fund and construct Phase 2 after Phase 1 is completed. Services to be covered under this Scope of Services for Phase 2 will be additional to those services identified in the Scope of Services dated May 13, 2019, for the Phase 1 improvements.

This Scope of Services will involve the completion of Tasks and Subtasks listed below along with the inclusion of several assumptions. These Tasks and Subtasks conform to what is presently anticipated given the information that has been provided by LAN and the experience of Hicks & Company acquired with similar projects. Depending on the results of field investigations and resulting consultation with the USACE, modifications in project design, or the acquisition of presently unknown information, additional subtasks may be required or alternative approaches identified that may require modification to this Scope of Services or the need to perform supplemental services.

Services will also include project management, coordination, and communications to ensure overall project efficiency. Quality control/quality assurance reviews will take place for all deliverables prior to submitting to LAN or any of the regulating agencies.

PROJECT DESCRIPTION

Phase 2 of the Purgatory Creek Stream Improvements will complement Phase 1 improvements to reduce the effects of flooding in areas adjacent to the creek and in street crossings within the city limits that are overtopped during storm events (see **Figure 1** provided as an attachment to this Scope of Services). Proposed improvements for Phase 1 were described in the Scope of Services dated May 13, 2019. Proposed improvements for Phase 2 will occur within the Purgatory Creek Watershed between Wonder World Drive and Johnson Avenue and include: 1) the addition of a diversion channel within Reach 4 beginning at Wonder World Drive and extending east approximately 6,090 feet with adjacent detention grading and modification of a creek crossing of the diversion channel on Hunter Road to increase storage capacity and mitigate flood flows; 2) reconfiguration of portions of the stream channel and banks of Purgatory Creek within Reach 2; 3) abandonment and/or rerouting of utility lines to eliminate conflicts with stream function; and 4) acquisition of privately-owned property and drainage easements within designated flood prone areas. Reach 3 would remain largely undisturbed.

Proposed Phase 2 services are more fully described in the tasks listed below.

TASK 1. SECTION 404 PERMIT COMPLIANCE

Upon notice to proceed (NTP) from LAN, Hicks & Company will initiate a process that will lead to regulatory compliance of the proposed project under Section 404 of the Clean Water Act. This process will involve the completion of several subtasks listed below. See **Task 2** for USACE consultation with the

U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) and **Task 3** for consultation under Section 106 of the National Historic Preservation Act (NHPA).

1.1 Delineation of Waters of the U.S., including wetlands. The Phase 2 project area will be evaluated, and site reconnaissance will be conducted, to identify and delineate jurisdictional waters of the U.S. (including wetlands) subject to regulation by the USACE under Section 404 of the Clean Water Act. Research will include use of National Wetland Inventory maps, topographic maps, soil survey reports, and aerial photography as needed or required. Hicks & Company will conduct field investigations of the Phase 2 project area from the Natural Resources Conservation Service (NRCS) Dam #5 downstream to the start of Reach 1: Phase 1. Field investigations will include the Purgatory Creek area between the NRCS Dam #5 and Wonder World Drive and selected areas within Reach 2 through 4 (**Figure 1**). During these investigations Hicks & Company will utilize the routine method of wetland delineation outlined in the *1987 Corps of Engineers Wetlands Delineation Manual* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0)*. Waterbodies will be delineated according to USACE *Regulatory Guidance Letter (RGL) 05-05 Ordinary High Water Mark (OHWM) Identification*. Field activities will focus on waters of the U.S. determination, delineation, and description. Fieldwork will be recorded using hand-held GPS instrumentation with sub-meter accuracy and wetland determination data forms.

1.2 Field-verification of Waters of the U.S., including wetlands, delineation with the USACE. After the completion of **Subtask 1.1**, Hicks & Company will contact the assigned USACE project manager to schedule a field-verification of the WOTUS delineation and receive any information the USACE may provide concerning direction and guidance in pursuit of the Section 404 compliance process. LAN will be included on all communication pertaining to this subtask.

1.3 Stream and wetland functional assessment. A field investigation and assessment of stream and wetland ecological functions for the Phase 2 project area will be conducted using the USACE Texas Rapid Assessment Method (TXRAM). Information collected from this assessment will be used to estimate compensatory mitigation requirements for any wetland or stream impacts based on the conceptual design of the Phase 2 improvements (see **Subtask 1.6** below). Wetland and stream TXRAM data forms for the Phase 2 project area will be completed.

1.4 Preparation of a Preliminary Jurisdictional Determination Report. The results of the determination in **Subtasks 1.1** and **1.2** will be compiled into a Section 404 Preliminary Jurisdictional Determination report to be submitted to LAN and the City for review and approval prior to inclusion in **Subtask 1.5** below. The report will include results of the field investigations and will be accompanied with GIS-based site maps. The general outline of the report will be as follows:

1. Introduction
2. Methods
 - 2.1. Data Review
 - 2.2. Field Delineation
3. Results and Discussion
 - 3.1. General Description of the Project Area
 - 3.1.1. Vicinity
 - 3.1.2. Geology and Topography
 - 3.1.3. Soils
 - 3.1.4. Vegetation
 - 3.1.5. Hydrography

4. Findings

4.1. Description of Potential Waters of the U.S.

5. Conclusion

1.5 Preparation of a Section 404 Individual Permit. Hicks & Company will include all information collected from **Subtasks 1.1 through 1.4** above in the permit application that is currently being prepared for Phase I. Based on consultation with the USACE for the Phase I improvements, an Individual Permit will likely be required, and Phase 1 and Phase 2 would be included together in the permit application as one single and complete project. An application will be prepared and submitted; an on-site and off-site 401(b)(1) alternatives analysis will be completed; and the completed application along with all supporting documentation will be submitted to the USACE, after review by LAN and the City of San Marcos. Based on consultation with the USACE, information pertaining to Phase 2 in this subtask will be developed according to conceptual design.

1.6 Preparation and submittal of a Compensatory Mitigation Plan. Compensatory mitigation requirements by the USACE to offset environmental losses from unavoidable temporary or permanent stream or wetland impacts for the Phase 2 improvements will be estimated based upon conceptual design and included as a discussion in the Compensatory Mitigation Plan that is currently being prepared for Phase 1, if warranted.

1.7 Tier I or Tier II 401 Certification. As required by an Individual Permit, and upon approval by the City of San Marcos, a Tier I checklist or a Tier II 401 Certification Questionnaire and water quality certification documentation will be prepared and submitted. For the purposes of this Scope of Services, hours are included in the fee estimate to incorporate the Phase 2 conceptual improvements with Phase 1 for this task.

1.8 National Environmental Policy Act (NEPA) process and public interest Review. A public notice for the proposed project as required by the USACE for Individual Permits will be prepared and coordinated with the agency. Written responses to public comments (and/or public hearings) will be prepared and submitted along with responses to any USACE questions and comments. For the purposes of this Scope of Services, hours are included in the fee estimate to incorporate the Phase 2 conceptual improvements with Phase 1 proposed improvements for this task.

1.9 Record of agency coordination and consultation. Hicks & Company will maintain an administrative record of consultation with the USACE, USFWS, Texas Parks & Wildlife Department (TPWD), Texas Commission on Environmental Quality (TCEQ), and the Texas Historical Commission (THC). This record will be provided to LAN and the City of San Marcos. For the purposes of this Scope of Services, hours are included in the fee estimate to incorporate the Phase 2 conceptual improvements with Phase 1 for this task.

TASK 2. SERVICES PROVIDED TO ASSIST USACE CONSULTATION WITH THE USFWS UNDER SECTION 7 OF THE ESA

Issuance of a Section 404 Permit by the USACE for this project constitutes a federal action that may affect one or more endangered or threatened species listed by the ESA. Section 7 of the ESA requires that the USACE consult with the USFWS to determine potential impacts and identify associated mitigation measures for the potentially impacted species. To complete this consultation, a Biological Assessment (BA) report will be prepared for the USFWS as supporting documentation for a Biological Opinion (BO) issued by the USFWS that confirms the extent of impacts and lists required mitigation

measures. For the purposes of this Scope of Services, hours are included in the fee estimate to incorporate the Phase 2 conceptual improvements with Phase 1 for this task and the following subtasks.

2.1 Pre-field ecological investigations and coordination. Coordination has already been initiated with the USACE, USFWS, TPWD, and other relevant entities. Hicks & Company will continue to obtain reports and data related to all available ecological investigations pertaining to threatened and endangered species previously conducted in the Phase 1 and Phase 2 project vicinity. If agency meetings are necessary to be conducted in person, they will be scheduled for the same time that the field visit is conducted, if feasible. Shapefiles will be obtained showing existing and proposed channel features and reasonable alternatives to be assessed. A request will be made to the TPWD Texas Natural Diversity Database (TXNDD) for any recorded sensitive species element occurrences for a search area that will include the watersheds of Purgatory Creek and the San Marcos River. This information will be portrayed on GIS-produced maps.

2.2 Field investigations. Field assessments and investigations will be conducted to assess the impact of all project alternatives on the ecological setting, vegetation, wildlife, and threatened and endangered species. Vegetation (species and physiognomy) will be listed, described, and mapped in the field. Wildlife observed will be noted and the presence of any rare and/or listed species documented.

2.3 Biological assessment report preparation. Based on information obtained from **Subtask 2.1** and **Subtask 2.2** above, a BA will be prepared for the USFWS that will include the following tasks:

- a) Summarize investigations performed to date for projects in the vicinity;
- b) Incorporate data acquired from USFWS and TPWD regarding rare and listed species, known habitat on refuge lands, refuge boundary shapefiles, etc.;
- c) Acquire, describe, and map soils and geology data for ecological context;
- d) Perform regional and site-specific habitat assessment for listed plant species;
- e) Perform regional and site-specific habitat assessments for listed invertebrate, insect, and mollusk species as applicable;
- f) Perform regional and site-specific habitat assessment for listed fish species;
- g) Perform regional and site-specific habitat assessment for listed reptile and amphibian species;
- h) Perform regional and site-specific habitat assessment for endangered avian species;
- i) Perform regional and site-specific habitat assessment for endangered mammal species;
- j) Analyze data acquired; quantify direct, indirect and cumulative impacts (effects); analyze avoidance, minimization and mitigation strategies as appropriate; and include results in a BA for submission to and approval by the USFWS;
- k) Address comments, prepare comment response matrices (assume one round per agency), and submit final BA; and
- L) Assist USFWS in drafting BO, if necessary.

TASK 3. COMPLIANCE WITH SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

Issuance of an individual permit by the USACE is subject to requirements of Section 106 of the NHPA. This legislation requires that federal agencies must take into account the effects of a federal undertaking (i.e., federal funding, permits, or approval) on historic resources (including archeological historic resources) listed or eligible for listing in the National Register of Historic Places (NRHP). For the purposes of this Scope of Services, hours are included in the fee estimate to incorporate the Phase 2 conceptual improvements with Phase 1 for this task and the following subtasks.

3.1 USACE coordination. Initial project coordination with the USACE has been conducted for Phase 1 and the area of potential effect (APE) and a scope of work for archeological and historic standing structures investigations has been developed. The APE for Phase 2 archeological and historic standing structures investigations will be developed under this task and Hicks & Company will participate in on-going coordination (i.e., additional teleconferences and letters) with the USACE and the THC as necessary (i.e., discuss new and/or unexpected findings) to facilitate the successful completion of the project. A complete record of meeting minutes will be maintained.

3.2 Research Design/background review – standing structures. It is anticipated that the USACE will require a historic resources survey for non-archeological standing structures within the APE to meet the requirements of Section 106 of the NHPA. Prior to initiating the field survey, Hicks & Company will prepare a research design that will include a desktop background and literature review to identify previously documented and designated historic resources within the project area and establish a historic context for the survey area. Hicks & Company will search the THC Historic Sites Atlas and TxDOT’s Historic Districts & Properties Maps for properties listed in the NRHP, or as State Antiquities Landmarks (SALs), Recorded Texas Historic Landmarks (RTHLs), Official Texas Historical Markers (OTHMs), and cemeteries. Hicks & Company will also coordinate with the City of San Marcos for information on locally designated historic landmarks and districts, as applicable. A research design report will be prepared and submitted to the USACE and THC for review and concurrence.

3.3 Historic resources survey – standing structures. Upon approval of the research design, Hicks & Company will conduct a reconnaissance-level field survey of historic resources within the APE determined by the USACE and THC. It is anticipated that the APE, at a minimum, will include all parcels immediately adjacent to the proposed project area. All historic-age resources (45 years of age or older) within the APE will be photo-documented from the public right of way and evaluated for potential NRHP eligibility based on integrity and significance. For parcels not visible from the public right of way, right of entry will be coordinated to the extent possible. For resources that are recommended NRHP eligible, an assessment of project effects to the resources will be provided.

A portion of the Phase 2 project area is within an area recently surveyed by Hicks & Company historians as part of a large-scale historic resources survey for the City of San Marcos Department of Planning and Development Services and the THC. The final report was submitted June 2019 with the reconnaissance field survey within this area completed between November 2018 and March 2019. Hicks & Company will coordinate the use of this previous survey data for standing structures, as applicable, in the historic resources survey for Phase 2.

3.4 Historic Resources Survey Report – standing structures. Hicks & Company will prepare a historic resources survey report documenting the findings of the reconnaissance field survey. The report will include background research; previously documented and designated historic resources; an historic context statement; and NRHP eligibility recommendations, assessment of effects, and photographs and

survey forms for all inventoried resources. A draft and final report will be provided to the USACE and the THC for review and concurrence.

TASK 4. COMPLIANCE WITH THE ANTIQUITIES CODE OF TEXAS

As the proposed construction will occur on public lands owned or administered by the City of San Marcos (a political subdivision of the State of Texas) the project is subject to the terms of the Antiquities Code of Texas (ACT). This legislation requires political subdivisions of the state to take into account the effects a proposed project will have on historical and archeological resources on public land. For the purposes of this Scope of Services, hours are included in the fee estimate to incorporate the Phase 2 conceptual improvements with Phase 1 for this task and the following subtasks.

4.1 THC coordination. Hicks & Company will schedule a teleconference with the THC to provide initial project coordination, discuss any specific agency concerns, and determine the appropriate level of effort required for the field investigations, in conjunction with guidance from the USACE. Information from this teleconference will also guide the development of the APE and scope of work for archeological investigations for Phase 2. Hicks & Company will participate in on-going coordination (i.e., additional teleconferences and letters) with the THC as necessary (i.e., discuss new and/or unexpected findings) to facilitate the successful completion of the project.

4.2 Desktop background archeological literature and records review. To conduct the background review, Hicks & Company will search site files, records, and maps from the Texas Archeological Research Laboratory (TARL) and the THC, available on the THC’s online Texas Archeological Sites Atlas and Historic Sites Atlas. The review will search the database for all previously recorded archeological surveys and prehistoric and historic sites located in or near the project area. Other resources to be reviewed in the database include properties listed in the NRHP, SALs, RTHLs, cemeteries, OTHMs, and historical maps to trace the development of the project area and help provide temporal data for historical archeological resources encountered during survey efforts.

4.3 Scope of work and Texas Antiquities Permit Application. Hicks & Company will prepare an appropriate scope of work and a Texas Antiquities Permit Application (which authorizes archeological investigations on public land) for submittal to THC for review. The scope of work will reflect the results of the coordination with the THC (and USACE), as well as include the results of the archeological resources background review, maps clearly depicting the project area, and any recommended areas of concern or recommendations made by previous investigations for additional work at known archeological sites. Additionally, the scope of work will discuss the environmental setting of the project, as it relates to the potential to discover intact archeological resources, and provide recommendations on the appropriate level of effort and methods for survey investigations based on the results of the background study and environmental factors.

4.4 Field investigations. Surface investigations will involve an examination of the ground surface and any erosional exposures for evidence of archeological materials and cultural features. Subsurface investigations will involve the excavation of shovel tests to sample shallow (less than one meter deep) soils and backhoe trenches to test deep soils for deeply buried archeological materials. All newly discovered and revisited sites will be explored as much as possible with consideration to project limits. The sites will be assessed for significance so that recommendations can be made for proper management, such as avoidance or additional work. Hicks & Company will complete a Texas Archeological Site Data Form for all newly discovered archeological sites. A detailed plan map of the sites will be produced, and their location will be plotted on U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps and relevant project maps. In addition, if potential historical buildings

and/or standing structures are located within or immediately adjacent to the current project, such areas will be shovel tested as if an archeological site.

4.5 Archeological survey report. Upon completion of the archeological survey, Hicks & Company will prepare a draft report of investigations for review by LAN and the City. The draft report will conform to the Council of Texas Archeologists and THC standards. The report will include the results of the background review and field survey. Specifically, the report will provide the methodology used in the investigations, the presence and condition of previously recorded sites located in and around the project area, a description of archeological/cultural resources encountered during the survey, recommendations for management of those cultural resources, and recommendations for additional investigations, if warranted.

Following review and comment by LAN and the City of San Marcos, Hicks & Company will address all appropriate edits and a draft report will be submitted to the THC and USACE for their review and concurrence. Once the agencies have reviewed the document and provided the results of those reviews to Hicks & Company, revisions will be included in the final report. Hicks & Company will submit copies of the final report to LAN, the City of San Marcos, the USACE, and the THC.

4.6 Curation. As per the requirements of the Texas Antiquities Permit, all paperwork and photographs generated during investigations must be curated at an approved facility. For this project, all materials will be curated at the Center for Archaeological Studies (CAS) in San Marcos, Texas.

DELIVERABLES

This Scope of Services includes the following deliverables:

- 1) **Subtask 1.3** Wetland and stream TXRAM data forms for the Phase 2 project area
- 2) **Subtask 1.4** Preliminary Jurisdictional Determination report that will incorporate information collected, compiled, and evaluated in **Subtasks 1.1–1.2**
- 3) **Subtask 1.5** Application for an Individual Section 404 Permit with supporting documentation including on-site and off-site alternatives analysis for both Phase 1 and Phase 2 project areas
- 4) **Subtask 1.6** Compensatory Mitigation Plan required for a Nationwide or Individual Section 404 Permit
- 5) **Subtask 1.7** Tier 1 or Tier 2 401 Certification
- 6) **Subtask 1.8** Public notice document and written response to public comments
- 7) **Subtask 1.9** Written record of agency coordination
- 8) **Subtask 2.3** Biological Assessment report that will incorporate information collected, compiled and evaluated in **Subtasks 2.1–2.3**
- 9) **Subtask 3.1** Meeting minutes from on-going agency coordination teleconference
- 10) **Subtask 3.2** Research Design prepared for the USACE and THC

- 11) **Subtask 3.4** Historic Resources Survey Report
- 12) **Subtask 4.3** Scope of work and Texas Antiquities Permit application
- 13) **Subtask 4.5** An archeological survey report
- 14) **Subtask 4.6** Curation of paperwork and photographs

SCHEDULE

Work will be completed with deliverables prepared and submitted according to a schedule mutually developed by Hicks & Company and LAN. Work schedules will also be subject to any limitations imposed by state or local governments concerning the Covid-19 virus.

COSTS

The proposed not-to-exceed cost to complete all tasks describe above is \$141,455.87. An itemized fee estimate based on current hourly billing rates for each activity and task is attached.

OVERALL ASSUMPTIONS

We have prepared this Scope of Services and fee estimate 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 Scopes 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 associated fee.

- This Scope of Services does not include tasks associated with USACE permit modifications that are to be completed once Phase 2 enters the design phase. These tasks would be provided under a separate scope of services and budget.
- 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.
- Systematic tree or vegetation survey requiring GPS coordinate information.
- Aerial photographs, design maps, and plans will be provided by LAN in a timely fashion as needed in a GIS-compatible format.
- 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.
- The anticipated tasks proposed by Hicks & Company for archeological services are dependent upon concurrence of the USACE and THC. Should additional archeological investigations be

necessary beyond those specified in this Scope of Services, they would proceed under a separate scope and budget.

- Long-term assessment of stream and wetland ecological functions will utilize TXRAM. The USACE may require five to 10 years of monitoring through functional assessments. Such future functional assessments could be performed under a separate scope of services and budget.
- Project design may involve the services of an experienced fluvial geomorphologist familiar with the natural dynamics of streams in the southwestern U.S., including those in central Texas. Hicks & Company does not provide this service.
- This Scope of Services does not include a Phase I Environmental Site Assessment (ESA). A Phase I ESA could be performed under a separate scope of services and fee estimate, if needed or required.
- Costs are included for estimating projected fees; billing will be based on actual rates.

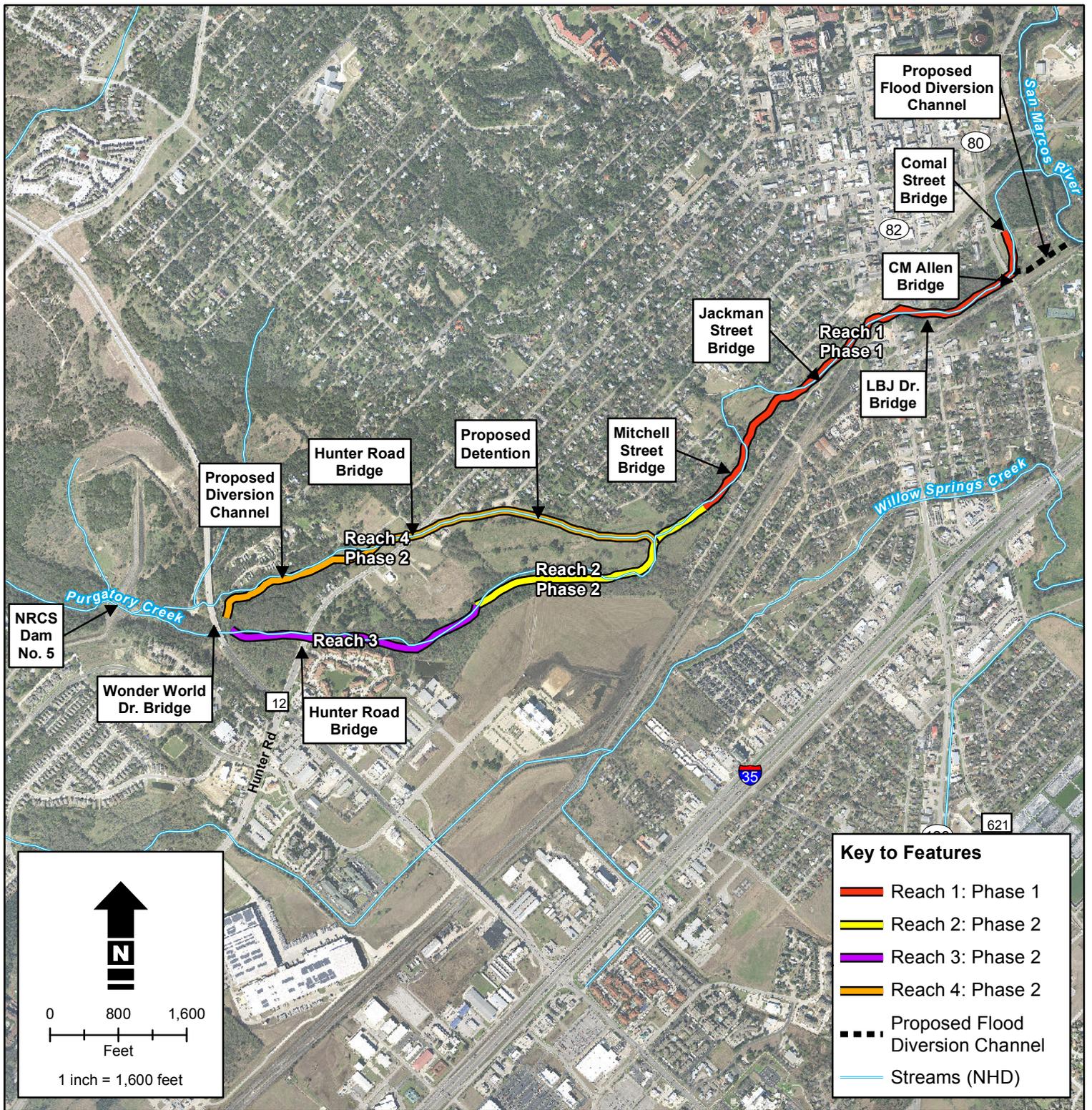
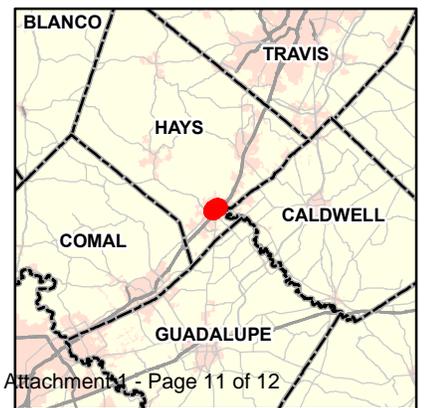


Figure 1

Project Location

Purgatory Creek Channel Improvements Project
 Hays County, TX



HICKS & COMPANY FEE ESTIMATE
City of San Marcos Purgatory Creek Channel Improvement Project, Phase 2
April 24, 2020

Labor	Sr. Prog Mgr	Sr. Env'l Sci II	Env'l Sci II	Env'l Prof III	Env'l Prof II	Env'l Prof I	Env'l Tech I	Total
	\$181.80	\$151.50	\$121.20	\$106.05	\$96.96	\$86.36	\$53.03	
Task 1 Section 404 Permit Compliance								
1.1 Delineation of WOTUS, including wetlands		24	26		24			74.0
1.2 Field-verification of WOTUS with the USACE		8	10					18.0
1.3 Stream and Wetland Functional Assessment		20	8					28.0
1.4 Preliminary Jurisdictional Determination Report		4	48		24			76.0
1.5 Prepare Individual Section 404 Permit		40						40.0
1.6 Prepare Compensatory Mitigation Plan		40						40.0
1.7 Complete Tier 1 or Tier 2 401 Certification		10						10.0
1.8 Prepare Public Notice and Response to Comments		20	20					40.0
1.9 Prepare record of agency coordination and consultation		2						2.0
GIS Support				66				66.0
Project Mgmt/Coordination/Admin - QA/QC	3	18						21.0
Task 1 Labor Hours	3.0	186.0	112.0	66.0	48.0	0.0	0.0	415.0
Task 1 Subtotal	\$ 545.40	\$ 28,179.00	\$ 13,574.40	\$ 6,999.30	\$ 4,654.08	\$ -	\$ -	\$ 53,952.18
Task 2 USACE Consultation with USFWS								
2.1 Pre-field Investigation and Consultation		4	8					12.0
2.2 Field Investigations		12	12					24.0
2.3 Biological Assessment Report Preparation		40	52		8			100.0
GIS Support				40				40.0
Project Mgmt/Coordination/Admin - QA/QC	2	12	3					17.0
Task 2 Labor Hours	2.0	68.0	75.0	40.0	8.0	0.0	0.0	193.0
Task 2 Subtotal	\$ 363.60	\$ 10,302.00	\$ 9,090.00	\$ 4,242.00	\$ 775.68	\$ -	\$ -	\$ 24,773.28
Task 3 Compliance with Section 106 of the NRHP								
3.1 USACE Coordination			8	8	4			20.0
3.2 Research Design/Background Review - Standing Str.				20	2			22.0
3.3 Historic Resources Survey - Standing Structures				16	16			32.0
3.4 Historic Resources Survey Report - Draft and Final				44	8			52.0
GIS Support				8				8.0
Project Mgmt/Coordination/Admin - QA/QC	6	2						8.0
Task 3 Labor Hours	6.0	2.0	8.0	96.0	30.0	0.0	0.0	142.0
Task 3 Subtotal	\$ 1,090.80	\$ 303.00	\$ 969.60	\$ 10,180.80	\$ 2,908.80	\$ -	\$ -	\$ 15,453.00
Task 4 Compliance with the Antiquities Code of Texas								
4.1 Texas Historical Commission Coordination			8		2			10.0
4.2 Archeological Background Study			24					24.0
4.3 Scope of Work and Texas Antiquities Permit Application			12		3			15.0
4.4 Field Investigations			70				94	164.0
4.5 Report			80		4		40	124.0
4.6 Curation			2				20	22.0
GIS Support				16				16.0
Project Mgmt, QA/QC	2	4	4					10.0
Task 4 Labor Hours	2.0	4.0	200.0	16.0	9.0	0.0	154.0	385.0
Task 4 Subtotal	\$ 363.60	\$ 606.00	\$ 24,240.00	\$ 1,696.80	\$ 872.64	\$ -	\$ 8,166.62	\$ 35,945.66
Total Labor Cost								\$ 130,124.12
Direct Costs								
		Unit	Rate	Quantity				
Mileage		Mile	\$0.575	1,850				\$ 1,063.75
Field supplies		Each	\$25.00	4				\$ 100.00
Texas Archeological Site Data Form		Each	\$96.00	8				\$ 768.00
Curation Fee		Each	\$400.00	1				\$ 400.00
Backhoe and Operator		Day	\$1,800.00	5				\$ 9,000.00
Total Direct Costs								\$ 11,331.75
TOTAL COST								\$ 141,455.87

ATTACHMENT 2 - Fee Estimate

TASK ID	TASK DESCRIPTION	Project Principal	Project Manager	Technical Manager	PE V	EIT II	ADMIN II	TOTAL HRS.	TOTAL LAN COSTS	SUBCONSULTANT (at 5% mark-up)	TOTAL COSTS
CONTRACT RATE PER HOUR		\$ 250.00	\$ 200.00	\$ 245.00	\$ 225.00	\$ 130.00	\$ 100.00			Hcks & Company	
1	Project Management										
	Project Management		28	12			12	52	\$ 9,740.00		\$ 9,740.00
	HOURS/EXPENSES SUB-TOTALS	0	28	12	0	0	12	52			
	TOTAL LABOR COSTS	\$ -	\$ 5,600.00	\$ 2,940.00	\$ -	\$ -	\$ 1,200.00				
	% DISTRIBUTION OF STAFF HOURS	0.0%	53.8%	23.1%	0.0%	0.0%	23.1%				
	SUBTOTAL								\$ 9,740.00		\$ 9,740.00
2	Phase 2 Permitting										
a	Rights of Entry							0	\$ -		\$ -
i	Preparing ROE Request		2			4	2	8	\$ 1,120.00		\$ 1,120.00
ii	Coordinating ROE information		2			4	2	8	\$ 1,120.00		\$ 1,120.00
b	Section 404 Permit Compliance (9 deliverables)		8	8	8	16		40	\$ 7,440.00	\$ 56,649.79	\$ 64,089.79
c	Section 7 Consultation (1 deliverable)		4	2		4		10	\$ 1,810.00	\$ 26,011.94	\$ 27,821.94
d	Section 106 Permit Compliance (3 deliverables)		4	2		8		14	\$ 2,330.00	\$ 16,225.65	\$ 18,555.65
e	Compliance with the Antiquities Code of Texas (3 deliverables)		4	2		8		14	\$ 2,330.00	\$ 37,742.94	\$ 40,072.94
	LABOR SUB-TOTALS	0	24	14	8	44	4	94			
	TOTAL LABOR COSTS	\$ -	\$ 4,800.00	\$ 3,430.00	\$ 1,800.00	\$ 5,720.00	\$ 400.00				
	% DISTRIBUTION OF STAFF HOURS	0.0%	25.5%	14.9%	8.5%	46.8%	4.3%				
	SUBTOTAL								\$ 16,150.00	\$ 136,630.33	\$ 152,780.33
	Total Expenses (at 5% mark-up)								\$ 315.00	\$ 11,898.34	\$ 12,213.34
	TOTAL PROJECT COST								\$ 26,205.00	\$ 148,528.66	\$ 174,733.66