



Request for City Manager Signature (\$50,000 and higher)

Project Name/Contract Number:	Cross Town Pathway Trails Project	#215-315
Department Contact / Department Name:	Rohit Vij	Engineering & CIP
Date of City Council Approval: (Past or Recent)	September 1, 2015 (Resolution 2015-113R) CIS#3 (September 1, 2020)	
Return Signed Document to:	Rohit Vij	Ext: 8133

Background/Purpose:

A change in service is required to provide design and construction phase services for the I-35 Shared Use Path Connection Project. Scope includes preliminary design, detailed design bid and construction phase services. CIS#4 will be funded from IH 35 Shared Use Path Connection project i.e., C34.

Original Contract Amount: \$197,525.00
 Previous Increase/Decrease: \$177,820.00
 This Increase/Decrease: \$230,730.00
 Revised Contract Amount: \$606,075.00

Funding:

Project Number	Fund	Phase	Dept	GL Account	Amount
C34	General	C019A	13200	50092469-70200	\$100,000.00
C34	General	C020A	13200	50092470-70200	\$130,730.00

Reviewed / Approved:

User Department Director:	Shaun Condor <small>Digitally signed by Shaun Condor DN: cn=Shaun Condor, o=US, ou=City of San Marcos, ou=Engineering and Capital Improvements, email=scondor@sanmarcostx.gov Date: 2024.01.26 10:48:11 -06'00'</small>	Date:	
Purchasing / Contracting POC:		Date:	
Finance Director: (CDBG-DR)		Date:	
Purchasing Manager:		Date:	
Other Depts. as needed			

AUTHORIZATION OF CHANGE IN SERVICE

CONTRACT NUMBER / CONTRACT NAME:	215-315	Cross Town Pathway Trails Project	
CITY REPRESENTATIVE/ DEPARTMENT:	Rohit Vij Engineering & Capital Improvements		
CONTRACTOR:	Recreation Engineering & Planning		
CONTRACT EFFECTIVE DATE:	September 1, 2015	COUNCIL RES. NO:	2015-113R
THIS AUTHORIZATION DATE:	March 5, 2024	AUTHORIZATION NO.:	4

DESCRIPTION OF WORK TO BE ADDED TO OR DELETED FROM SCOPE OF SERVICES:

A change in service is required to provide design and construction phase services for the I-35 Shared Use Path Connection Project. the project will connect two sections of existing shared used paths along the river and underneath I-35 and will include a pedestrian bridge. Scope includes preliminary design, detailed design bid and construction phase services.

Previous Change In Services

CIS#1: Base Surveying; \$13,500.00

CIS#2: Additional Design for Crosstown Trail (TxDOT Requirement); \$82,620.00

CIS#3: Design Coordination with UPRR, TXDOT and Other Regulatory Agencies; \$81,700

Original Contract Amount:	\$ 197,525.00
Previous Increases/Decreases in Contract Amount:	\$ 177,820.00
CURRENT CONTRACT AMOUNT:	\$ 375,345.00
This Increase/Decrease in Contract Amount:	\$ 230,730.00
REVISED CONTRACT AMOUNT:	\$ 606,075.00

CONTRACTOR:

Signature

Gary Lacy / President
Print Full Name / Title (if not in individual capacity)

Date

Jan. 24, 2024

CITY:

Signature

Date

Print Name / Title

City Department Use Only Below This Line (PM, POC, etc.).

Account Number(s):	Amount	Date
#	\$	
#	\$	
#	\$	



Scope of Work for Design Services I-35 Shared Use Path Connection

San Marcos, Texas

***By Recreation Engineering & Planning
February 6, 2024***

Recreation Engineering and Planning (REP) is pleased to provide the following scope of work and fee proposal for professional services to complete design and construction phase engineering for the I-35 Shared Use Path Connection Project. The project is located near downtown San Marcos just upstream of where Interstate 35 crosses the San Marcos River. The project will connect two sections of existing shared use path along the river and will include a pedestrian bridge.

This proposal is being submitted to Rohit Vij, Senior Engineer, Capital Improvements / Engineering, City of San Marcos, as requested.

Based on our understanding of the project and the current needs, the approach outlined below includes estimated pricing to perform the required services for the project. Hours are estimated not to exceed, only actual hours and expenses will be billed. A detailed fee breakdown by task and personnel is attached.

Schedule

The work for this scope is anticipated to begin upon execution of this contract. Survey request and geotechnical request documents will be developed first and delivered to support the required site survey and geotechnical investigations. If a notice to proceed is not received within 6 months of the date of this proposal, REP reserves the right to update rates and fees.

Project Understanding

Concept level plans for the trail connection were completed by REP in 2018 as part of the original crosstown pathway / TxDOT shared use path project. The 2018 connection to I35 was removed from the crosstown pathway project, which was constructed and completed in May of 2022. This scope includes preparation of 90% design plans to be submitted for TxDOT review. This scope includes final design plans and specs, and associated bid tab and construction cost estimate to be used for bidding. This scope includes construction documents and construction phase services. This scope does not include any permit applications or associated permit coordination that may be required. This scope does not include any major design modifications to what is already included in the concept plan resulting from permitting requests or other reasons. If additional services are needed due to a major change in scope, REP will provide a fee estimate to complete the additional services at that time.

REP anticipates the proposed trail project will include a pedestrian bridge, bridge approaches that will likely include significant cut and/or fill, associated abutments and retaining walls, and



connections to the existing trails on either end of the project. REP understands that the trail must be designed to meet TxDOT standards and specifications.

REP understands that REP's original 2015 contract with the City of San Marcos for the Crosstown Trail project will be used, and the work for this scope will be under an amendment to that contract.

Task 1 – Survey and Geotechnical Coordination

A detailed site and bathymetric survey will be required to progress the design. A geotechnical investigation will also be required to inform the design and quantities. REP will prepare a survey request document and soil boring / sediment characterization request document for the survey and geotechnical investigation.

This scope assumes the City will complete or contract with a qualified surveyor to complete the required site and bathymetric survey with sufficient detail to be used for design. It is assumed that the City or a City-contracted qualified surveyor will supply REP with an AutoCAD file in compliance with the survey request document including but not limited to survey points, lines, contours, property boundaries, trees, utilities, and infrastructure, and the file will include a Civil3D existing grade surface. Extensive in-river work should be expected to perform the survey.

This scope assumes the City will contract directly with a local qualified geotechnical firm to complete the geotechnical investigation. It is assumed that the City will supply REP with the full geotechnical investigation report including soil borings, sediment characterization, testing, lab reporting, and recommendations.

REP will review the survey data and the geotechnical report for conformance with the data request documents submitted and coordinate clarifications and adjustments.

Task 1 Fee - \$4,625

Task 2 – Data Review and Basemapping

REP will review existing data relevant to the project including local parcel ownership and boundaries, topographic / bathymetric data, as-built drawings of the I-35 bridge, sidewalks, trails, crossings, underpass, pathway(s), floodplain maps and reports, etc. This scope assumes that the City of San Marcos will supply REP with relevant data including existing site data and as-built drawings for TxDOT and City infrastructure in the project area. This task also includes compiling the existing data into a basemap in AutoCAD Civil3D.

Task 2 Fee - \$5,550

Task 3 – Site Visit

Two REP staff, Principal Engineer and Project Engineer, will travel to San Marcos to investigate the site and meet in-person with City staff and any stakeholders. Field investigations will include a visual assessment of the necessary variables relevant to the project. This includes review of existing infrastructure, bed / bank material, wetlands / sensitive areas, hydraulic gradient, site access, staging, constructability, etc. Aerial imagery will be captured using a DJI Mavic Air 2. We



have estimated two days and one night on site to complete this task. It is assumed that City staff and TxDOT will coordinate and schedule any stakeholder meetings.

Task 3 Fee - \$10,780

Reimbursable Expenses - \$1,900

Task 4 – Preliminary Design (30% Design)

30% Design Plans: REP will develop a preliminary design for the I-35 Shared Use Pathway Connection. The preliminary design will include a refined project layout, dimensions, geometry, elevations, and materials sufficient to refine materials quantities estimates, and allow for review by the City. The design of any trail lighting or electrical is not included. The preliminary design will be developed in AutoCAD software and will be delivered as PDF design plans. One round of review and subsequent revisions is included.

Construction Cost Estimate: Includes development of an estimate of construction materials quantities based on the 30% design. Unit costs will be based on information from recent projects unit and local procurement costs. The cost estimate will be broken out for each project element to be used for project funding and phasing discussions. At the 30% design stage, the cost estimate will be a Class 3 construction cost estimate (AACE classification, expected accuracy range -20% to +30%).

Deliverables: 30% PDF Plans, Preliminary Construction Cost Estimate

Task 4 Fee - \$18,725

Task 5 – Structural Design

Prefabricated Pedestrian Bridge Coordination: This scope assumes the City will contract with a bridge manufacturer/designer separately. This fee includes REP time coordinating with bridge manufacturer/designer. REP will provide bridge design constraints and specifications.

Abutments / Retaining Walls (Sub-Consultant): A sub-consultant to REP will utilize the bridge design and results from the geotechnical investigation to complete structural calculations and develop design and specifications for pedestrian bridge abutments and slope retaining walls. REP will specify the alignments and elevations of trail approach elements and soil retaining walls.

Task 5 Fee - \$36,025

Task 6 - Floodplain Impact Modeling

REP will perform hydraulic analysis to quantify floodplain impacts from the proposed project and provide a no-rise certification if the proposed design meets the requirements. REP will update the proposed conditions model to be consistent with the proposed design, perform an updated floodplain impact hydraulic analysis, and develop a floodplain impact report detailing



the hydraulic analysis performed, and any floodplain impacts as a result of the proposed project. The project will be designed to meet no-rise requirements if possible, and a no-rise certification is included in this task.

For the purposes of this scope, we assume that a 1D HEC-RAS model of the appropriate reach of the San Marcos River is available and represents existing conditions reasonably well. It is assumed that all floodplain analysis will be completed utilizing 1D HEC-RAS. It is assumed that the City will provide REP with the most recent hydraulic model available for the reach.

Deliverables: No-Rise certification, Modeling Results.

Task 6 Fee - \$12,950

Task 7 – 90% Design for TxDOT Submittal

90% Design Plans: REP will develop design plans suitable for submittal to TxDOT for review. It is REP's understanding that this is typically 90%. These plans will include trail alignment, cross section and profile details, pedestrian bridge and foundation details (developed by others), an H&H summary sheet, BMP details, and all materials. The design of any trail lighting or electrical is not included. Multiple reviews by City staff are anticipated during the design process. Structural details for the pedestrian bridge foundation will be completed by a structural sub-consultant.

Construction Cost Estimate: Includes development of TxDOT formatted bid tab with TxDOT spec references, and construction quantities and cost estimate based on the 90% plans.

Deliverables: 90% PDF Plans, Detailed Construction Cost Estimate

Task 7 Fee - \$22,350

Task 8 – Final Design

REP will advance the design based on further analysis and TxDOT and City comments and develop final design plans. The final design will include grades, materials, and design details sufficient for bidding, and allow for final review by TxDOT. This includes design coordination with structural engineer and pedestrian bridge designer / manufacturer. The design of any trail lighting or electrical is not included. The plan set will be developed in AutoCAD Civil3D software and will include plan view sheets, typical profiles, typical sections, and typical details will be developed for project elements.

This task also includes final TxDOT formatted technical specifications and bid tabs for bidding, and a final engineer's opinion of probable costs.

Deliverables: Bid Package including Plan Set, Technical Specifications, Bid Tab, EOPC

Task 8 Fee - \$26,050



Task 9 – Bidding

REP will provide bidding assistance by answering bidder questions, review and approve prospective contractor experience, and attend **one (1) on-site pre-bid meeting** with prospective contractors.

This does not include contract documents (to be provided and administered by the City or TxDOT).

Task 9 Fee - \$13,725

Reimbursable Expenses - \$1,900

Task 10 – Construction Phase Services

REP will provide the following support services during construction.

- Develop conformed construction documents: plan set, specifications, and quantities.
- Attend **one (1) on-site pre-construction meeting** with the City, selected Contractor, and TxDOT representatives.
- Assist in the review of Contractor submittals and develop responses.
- Provide responses to Contractor questions and requests for information (RFI).
- On-site field engineering, inspection/observation, review of materials, etc. Includes **up to five trips to site during construction by REP engineers** to inspect work quality and conformance with design intent and specifications. Site visits to occur during construction of critical elements such as: Path alignment staking, bridge approach alignment and fill placement, concrete formwork for retaining walls, abutments, edge walls, concrete slope paving removal extents, tie in location with existing path(s), stone placement for bank stabilization. Trip duration to vary depending on on-site needs. Cumulative days for all trips include **up to 11 days, inclusive of travel**.
- Aid in quantity/pay request approval/certification.
- Review of contractor change orders and preparation of recommendations.

Deliverables: Conformed Construction Documents

Task 10 Fee - \$54,475

Reimbursable Expenses - \$8,500

Task 11 – Project Management and Coordination

Up to **30** hours of coordination and meetings with representatives from the City and TxDOT. It is anticipated that the City will lead communication with TxDOT and coordinate TxDOT meetings and submittals, and REP will play a supporting role to the City in TxDOT communication. This also includes preparation of invoices and contract communication with the City, coordinating subconsultant work, reviewing work products, etc.



REP will provide responses to TxDOT questions and requests for information on an as-needed basis to support permit submittals up to a total of **40** hours. Additional requests, clarifications, studies, hydraulic analysis, meetings, or rebuttal for TxDOT items in excess of 40 hours will be an additional fee. If necessary, REP can provide a fee estimate to complete additional services at that time.

Task 11 Fee: \$13,175

Total Labor for Tasks 1 – 11: \$218,430

Total Reimbursable Expenses: \$12,300

Total Fee: \$230,730

		REP			Sub-Consultant		
	Name	Gary Lacy, PE	Riley Gelatt, PE	Spencer Lacy			
	Role	President / Principal Engineer	Project Engineer	Project Manager	Structural Engineering		
	Billing Rate	\$ 200.00	\$ 185.00	\$ 185.00	Estimated Not to Exceed Fee		
						Total REP Hrs	Total Fee
San Marcos I35 Trail Connection							
Task 1	Survey and Geotechnical Coordination						
	Survey and Geotechnical Request Documents		5	10		15	\$ 2,775
	Coordination w/ Surveyor and Geotech		5	5		10	\$ 1,850
	TOTAL Task 1	0	10	15		25	\$ 4,625
Task 2	Data Review and Basemapping						
	Data Review		5	10		15	\$ 2,775
	Basemapping		5	10		15	\$ 2,775
	TOTAL Task 2	0	10	20		30	\$ 5,550
Task 3	Site Visit						
	Site Visit w/ Travel	25		25		50	\$ 9,625
	Meetings	3		3		6	\$ 1,155
	TOTAL Task 3	28	0	28		56	\$ 10,780
	Reimbursable Expenses					Expenses:	\$ 1,900
Task 4	Preliminary Design (30% Design)						
	30% Design Plans	10	30	40		80	\$ 14,950
	Construction Cost Estimate	5	5	10		20	\$ 3,775
	TOTAL Task 4	15	35	50		100	\$ 18,725
Task 5	Structural Design						
	Prefabricated Pedestrian Bridge Coordination	2	5	10			\$ 3,175
	Bridge Abutment / Retaining Wall Design	5	5	5	\$ 30,000.00	15	\$ 32,850
	TOTAL Task 5	5	5	5		15	\$ 36,025
Task 6	Floodplain Impact Modeling						
	Floodplain Impact Modeling and Deliverables		35	35		70	\$ 12,950
	TOTAL Task 6	0	35	35		70	\$ 12,950
Task 7	90% Design for TxDOT Submittal						
	90% Design Plans	5	40	40		85	\$ 15,800
	Construction Cost Estimate	5	10	20		35	\$ 6,550
	TOTAL Task 7	10	50	60		120	\$ 22,350
Task 8	Final Design						
	Final IFB Design Plans and Specifications	5	30	40		75	\$ 13,950
	Final IFB Specifications		20	20		40	\$ 7,400
	Bid Tab / Engineers Opinion of Probable Costs	5	10	10		25	\$ 4,700
	TOTAL Task 8	10	60	70		140	\$ 26,050
Task 9	Bidding						
	Bidding Assistance	2	10	10		22	\$ 4,100
	Pre-Bid Meeting (on-site)	25		25		50	\$ 9,625
	TOTAL Task 9	27	10	35		72	\$ 13,725
	Reimbursable Expenses					Expenses:	\$ 1,900
Task 10	Construction Phase Services						
	Conformed IFC Plan Set, Specifications, Bid Tab	5	5	20		30	\$ 5,625
	Pre-construction Meeting	25		25		50	\$ 9,625
	Submittal Reviews		15	20		35	\$ 6,475
	RFI Responses		10	15		25	\$ 4,625
	Site Visits / Field Engineering	25	50	75		150	\$ 28,125
	TOTAL Task 10	55	80	155		290	\$ 54,475
	Reimbursable Expenses					Expenses:	\$ 8,500
Task 11	Project Management and Coordination						
	Coordination/Meetings	10	10	10		30	\$ 5,700
	TxDOT RFI Responses	5	15	20		40	\$ 7,475
	TOTAL Task 11	15	25	30		70	\$ 13,175
						Total Expenses:	\$ 12,300
						TOTAL PROJECT COSTS:	\$ 230,730
Note: The fees are estimated not to exceed. Each item will be billed at the hourly rates.							