

Project Design and Construction Cost Workshop

City Council November 17, 2026

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Capital Improvement Projects

CIP Project Process:

- Initial budget development
  - Start with high level construction cost estimate
  - Professional Services – generally plugged in at 20% of construction cost – includes survey, easement acquisition services, preliminary engineering report, design, bid, construction phase services
  - Land or Easement Acquisition cost estimated separately

Capital Improvement Projects

Project Execution

- Selection of design professional
- Scoping meeting
  - *Overall scope (e.g. design a new water main along FM 3009)*
  - *Need to balance known and anticipated needs*
- Task Order Scope and Fee Proposal
- Negotiation
  - *Level of effort*
  - *Deliverables*
  - *Additional or supplemental services*

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Capital Improvement Projects

Task Order Scope and Fee Proposal

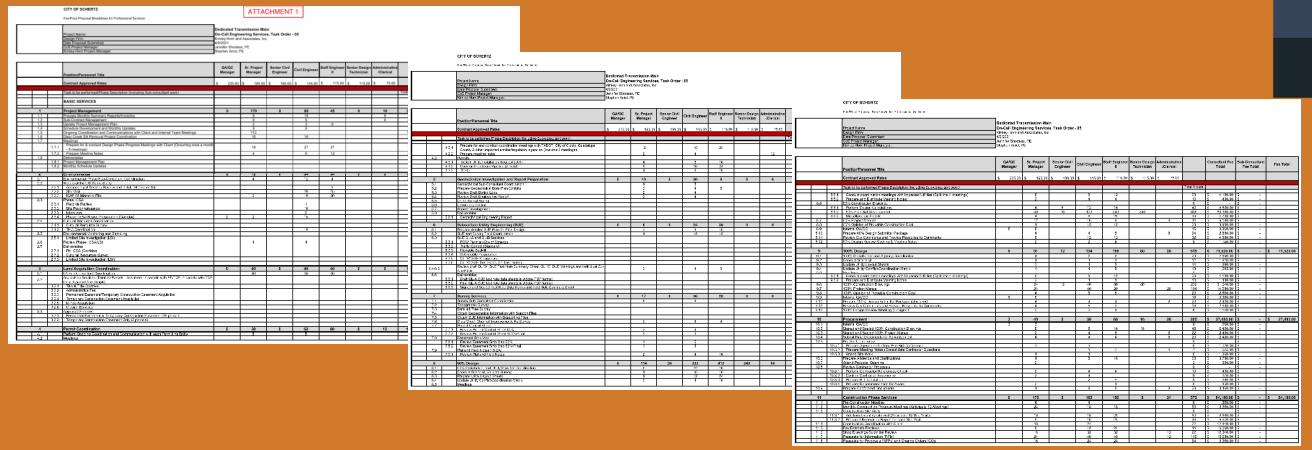
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FEE AND BILLING

Consultant will perform the above outlined basic scope of services, including reimbursable project expenses and sub-consultant services, for a lump sum fee of **$1,030,7050**. Supplemental engineering design and sub-consultant supporting services in the amount of $340,920 have been included in this scope and fee proposal in the event additional design tasks are required. The total fee for basic and supplemental services reflective of the scope of services presented within this proposal is a lump sum amount not to exceed **$1,371,705**. Should supplemental services be required, Kimley-Horn will coordinate with necessary sub-consultants to obtain a proposal for submittal to the City, and will begin work upon formal authorization to proceed.

Task	Description of Service	Amount	Basis of Compensation
	BASIC SERVICES		
1	Project Management	$ 54,190.00	[Lump Sum]
2	Environmental	$ 48,310.00	[Lump Sum]
3	Land Acquisition Coordination	$ 253,000.00	[Lump Sum]
4	Permit Coordination	$ 26,500.00	[Lump Sum]
5	Geotechnical Investigation and Report Preparation	$ 44,655.00	[Lump Sum]
6	Subsurface Utility Engineering (SUE)	$ 90,705.00	[Lump Sum]
7	Survey Services	$ 180,535.00	[Lump Sum]
8	60% Design	$ 136,720.00	[Lump Sum]
9	100% Design	$ 71,525.00	[Lump Sum]
10	Procurement	$ 27,485.00	[Lump Sum]
11	Construction Phase Services	$ 84,180.00	[Lump Sum]
12	Record Drawing Preparation	$ 7,380.00	[Lump Sum]
13	Reimbursable Project Expenses	$ 5,600.00	[Lump Sum]
	Total Compensation (BASIC SERVICES)	**$ 1,030,785.00**	**[Lump Sum]**
	SUPPLEMENTAL SERVICES		
S-1	Supplemental Design Services	$ 75,760.00	[Lump Sum]
S-2	Environmental	$ 59,400.00	[Lump Sum]
S-3	Land Acquisition Coordination	$ 156,200.00	[Lump Sum]
S-4	Geotechnical	$ 12,860.00	[Lump Sum]
S-5	Subsurface Utility Engineering (SUE)	$ 15,810.00	[Lump Sum]
S-6	Survey	$ 20,890.00	[Lump Sum]
	Total Compensation (SUPPLEMENTAL SERVICES)	**$ 340,920.00**	**[Lump Sum]**
	Total Compensation (BASIC + SUPPLEMENTAL SERVICES)	**$ 1,371,705.00**	**[Lump Sum]**

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	QA/QC Manager	Sr. Project Manager	Senior Civil Engineer	Civil Engineer	Staff Engineer II	Senior Design Technician	Administrative /Clerical		Consultant Fee Total	Sub-Consultant Fee Total	Fee Total
	$ 225.00	$ 195.00	$ 180.00	$ 145.00	$ 115.00	$ 115.00	$ 75.00				
								Total Hours			
Guadalupe		12		18	24			54	$ 7,710.00	$ -	
		2		4			12	18	$ 1,870.00	$ -	
								0	$ -	$ -	
		4		8	16			28	$ 3,780.00	$ -	
		8		16	24			48	$ 6,640.00	$ -	
		4		8	16			28	$ 3,780.00		
Geotechnical Investigation and Report Preparation	**0**	**10**	**0**	**20**	**8**	**0**	**0**	**38**	**$ 5,770.00**	**$ 38,885.00**	**$ 44,655.00**
Geotechnical Sub-Consultant Coordination		4		8				12	$ 1,940.00	$ -	
Prepare Geotechnical Bore Plan/Exhibits		2		4	8			14	$ 1,890.00	$ -	
Review Draft Boring Logs		2		4				6	$ 970.00	$ -	
Review Draft Engineering Report		2		4				6	$ 970.00	$ -	
Geotechnical Boring								0	$ -	$ 18,280.00	
Laboratory Testing								0	$ -	$ 10,215.00	
Report Development								0	$ -	$ 10,390.00	
Deliverables								0	$ -	$ -	
Geotechnical Engineering Report								0	$ -	$ -	
Subsurface Utility Engineering (SUE)	**0**	**8**	**0**	**24**	**36**	**0**	**0**	**68**	**$ 9,180.00**	**$ 81,525.00**	**$ 90,705.00**
Prepare detailed SUE Plan for Final Design		2		8	16			26	$ 3,390.00	$ -	
SUE and Survey Field Coordination		4		12	12			28	$ 3,900.00	$ -	
SUE QL-A and QL-B Services								0	$ -	$	

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Capital Improvement Projects

Project Execution

- Task Order Agreement Authorization
  - Administrative if less than $100k and within budget
  - Council authorization required if over $100k
    - Base Agreement Amount authorized plus contingency for not to exceed (NTE) amount
- Task Order Amendments
  - Administratively authorized if within (NTE) amount
  - Council authorization required if over NTE amount

Capital Improvement Projects

Project Execution continued

- Project Design
  - Topographic and Boundary Survey
  - Project Design (30%/60%/90%/Final)
  - Easement or ROW Acquisition, if needed
  - Opinion of Probable Construction Cost (OPCC) (Update CIP budget if needed)
- Construction Bid
  - Contract typically awarded by Council to the lowest responsible bidder
  - Base contract plus contingency for not to exceed (NTE) amount
- Construction
  - Contract Change Orders
    - Administratively authorized if within (NTE) amount
    - Council authorization required if over NTE amount

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Capital Improvement Projects

Common Task Order Amendment Causes

- Unforeseen or changing site conditions – unknown utilities and conflicts, degradation of road surface, etc.
- Design changes made by another entity (e.g. TxDOT, CRWA)
- Addition of tasks not previously included
- Project scope additions (e.g. traffic signal addition)
- Easement or land acquisition challenges
- Construction phase issues

Common Construction Change Order Causes

- Material changes
- Increased quantities needed
- Unforeseen site conditions (most commonly utility conflicts)
- Additional project elements (traffic signal addition, additional electrical or communication controls)

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Capital Improvement Projects

Project Variations that Impact Professional Service Fees

Complexity

Simple

Street resurfacing – slurry seal

Short wastewater extension

Complex

Wastewater Lift Station, water storage tank

Street reconstruction addressing drainage issues

Size/scale

Small

1,500-ft wastewater extension

3,000 sf parking area expansion

Large

19,000-ft wastewater extension

3 mil gallon water storage tank

Land or Easement Acquisition Needs

Project within existing right of way

Easements required across developed private property

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Capital Improvement Projects
Sample Projects

2023 SPAM Resurfacing (Ashley Place and Beck St.)	
Professional Services Consultant	In house
Original Professional Services Design Fee	NA
Construction Contractor	Intermountain Slurry
Original Construction Contract	$190,000
Not to Exceed Construction Contract Authorized	$195,000
Change Order 1	$1,616
Revised Not to Exceed Construction Contract Authorized	$196,616
Final Construction Cost Paid	$196,616

2023
- Simple
- Small
- No land needs

Corbett Elevated Storage Tank	
Professional Services Consultant	Ford/Unintech
Original Prof Svcs Design Fee	$227,186
Professional Services Amendments 1 and 2 for easement acquisition services	$15,865
Revised Prof Svcs Design Fee	$243,051
Construction Contractor	Landmark Structures
Original Construction Contract	$4,682,000
Not to Exceed Construction Contract Authorized	$5,150,200
Change Orders 1 - 7	$46,516
Final Construction Cost Paid	$4,728,516

2013-2021
- Complex
- Large
- Easement acquisitions

Design Fee as percentage of construction cost = 5%

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Capital Improvement Projects

Sample Projects

Tri County Parkway Reconstruction	
Professional Services Consultant	Halff
Original Prof Svcs Design Fee	$368,292
Not to Exceed Prof Svcs Design Fee Authorized	$390,000
Professional Svcs Design Fee Amendment	none
Final Prof Svcs Design Fee (amnt paid)	$368,292
Construction Contractor	Texas Sterling
Original Construction Contract	$4,524,164
Not to Exceed Construction Contract Authorized	$4,900,000
Change Order 1	$169,953
Final Construction Cost (amnt paid)	$4,694,117
Prof Svcs Design Fee as % of final construction cost	8%

2021-2023

- Complex – reconstruction in heavily developed area
- Mid-size
- No land needs

Design Fee as percentage of construction cost = 8%

Pedestrian Routes and Bike Lanes	
Professional Services Consultant	Ford/Unintech
Original Prof Svcs Design Fee	$99,018
Professional Svcs Design Fee Amendments 1 and 2 for ROW acquisition svcs and design of addl proj. elements	$36,843
Revised Prof Svcs Design Fee	$135,861
Final Prof Svcs Design Fee (amnt paid)	$134,041
Construction Contractor	D&S Concrete
Original Construction Contract	$1,256,961
Construction cost increases	$54,636
Revised Construction Contract Amount	$1,311,597
Final Construction Cost (amnt paid)	$1,307,008

2018-2022

- Fairly simple but Grant funded
- Mid-size
- ROW acquisition

Design Fee as percentage of construction cost = 10%

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16 projects evaluated (2013-2026):

- Number of professional service fee amendments: none – 2 (8 had none, 5 had 1, 3 had 2)
- Number of construction change orders: none – 7
- Design Fee as percentage of construction cost: 1% - 16% (average = 8%)
  - ⬆ Complexity = ⬆ fee %
  - ⬆ Project size (construction cost) = ⬇ fee %

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DISCUSSION



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