ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS

Client: **City of Pasadena**
Project: **Jefferson Park Stormwater Capture Project**
Status: **Feasibility Cost Estimate**

Prepared by: **JN**
Checked by: **PN, EH**
Date **9/15/2026**

Description	Qty	Unit	Unit Price	Total
Miscellaneous				**$1,187,634**
Mobilization / Demobilization (5% of Costs)	1	LS	$1,163,634	$1,163,634
Traffic Control	30	DAY	$800	$24,000
Storm Drain Diversion and Pretreatment				**$994,451**
Temporary Diversion	1	EA	$20,000	$20,000
Diversion Structure (including excavation and shoring)	1	EA	$110,000	$110,000
Actuated Valve and Vault	1	EA	$118,820	$118,820
Pretreatment Unit	1	EA	$126,000	$126,000
Dry Wells (0.775 in/hr infiltration rate)	6	EA	$80,341	$482,046
Inlet Piping (24-in RCP) @8-foot depth (including delivery, install, earthwork, and shoring)	30	LF	$291	$8,726
Inlet Piping (12-in RCP) @18 foot depth (including delivery, install, earthwork, and shoring)	212	LF	$359	$76,180
Inlet Piping (24-in DIP) @8 foot depth (including delivery, install, earthwork, and shoring)	5	LF	$431	$1,941
Flow Meter with Manhole (including delivery, install, earthwork, and shoring)	1	EA	$50,738	$50,738
Site Preparation and Demolition				**$34,215**
Asphalt Pavement Removal and Replacement	3,190	SF	$7	$22,333
Concrete Sidewalk Removal and Replacement	235	SF	$40	$9,400
Clearing and Grubbing	2,614	SF	$0.68	$1,777
Fence Removal	47	LF	$15	$705
Underground Storage System (7.70 AF)				**$8,637,983**
Underground Infiltration Gallery Precast Structures	368,953	CF	$15	$5,534,298
Gravel Bedding	1,397	CY	$35	$48,912
Excavation	27,251	CY	$30	$817,527
Backfill and Compaction	4,097	CY	$40	$163,884
Hauling	23,154	CY	$35	$810,382
Shoring	15,756	SF	$80	$1,260,480
Pipe Connection to Underground Storage System	1	EA	$2,500	$2,500
Electrical Service, Controls, Instrumentation				**$770,000**
Electrical Service, Controls, Instrumentation	1	LS	$750,000	$750,000
Mobilization	1	LS	$20,000	$20,000
Landscape and Site Improvements				**$7,017,850**
Planting and Irrigation				**$2,067,500**
Irrigation System - New Equipment - Shrub Planting	25,000	SF	$12	$300,000
Irrigation System - New Equipment - Turf	94,000	SF	$4	$376,000
Irrigation System - Adjustment of Existing	1	EA	$50,000	$50,000
Planting	25,000	SF	$18	$450,000
Turf grass planting	94,000	SF	$9	$846,000
Shade Trees - 48" Box	3	EA	$3,500	$10,500
90 Day Plant Establishment Period	1	LS	$35,000	$35,000
Paving				**$362,750**
Concrete Mow Curb	1,100	LF	$35	$38,500
Concrete Paving	8,300	SF	$30	$249,000
Driveway Apron	350	SF	$35	$12,250
Decomposed Granite Paving	4,500	SF	$14	$63,000
Fences and Walls				**$251,500**
Low Fencing	1,000	LF	$65	$65,000
Low Fencing Gate	4	EA	$3,000	*$12,000*

CRAFTWATER

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Description	Qty	Unit	Unit Price	Total
Softball Field Tall Screen Fencing	250	LF	$166	$41,500
Softball and Basketball Field Tall Fencing	420	LF	$225	$94,500
Concrete Seat Walls	110	LF	$350	$38,500
Site Amenities				**$4,336,100**
Basketball court	1	EA	$259,000	$259,000
Splashpad	1	EA	$1,000,000	$1,000,000
Restroom improvements	1	EA	$200,000	$200,000
Playground surfacing	10,000	SF	$56	$560,000
Playground equipment	1	EA	$700,000	$700,000
Nature play area	5,000	SF	$30	$150,000
Fitness Equipment	12	EA	$10,000	$120,000
Softball Infield	10,000	SF	$18	$180,000
Pet Waste Bag Dispenser - Pole Mount	4	EA	$750	$3,000
Interpretive Signage	7	EA	$4,200	$29,400
Monument Signage	2	EA	$5,000	$10,000
Shade Structure at Playground	2	EA	$236,000	$472,000
Shade Structure at Bleachers	2	EA	$57,000	$114,000
Drinking Fountain	3	EA	$7,400	$22,200
Sandstone Seating Boulders	12	EA	$2,000	$24,000
Picnic Table	5	EA	$5,000	$25,000
ADA Picnic Table	5	EA	$5,500	$27,500
Sports field lighting	1	EA	$200,000	$200,000
Relocation of existing lighting	1	EA	$200,000	$200,000
Litter Receptacle	8	EA	$5,000	$40,000
SUBTOTAL				**$18,642,133**
			25% Contingency	$4,660,534
			*i=4% Escalation per year of Subtotal, used compound amount factor: (1+i)^n	$3,166,526
* Assuming mid point of construction is in 2028			**Total Construction Costs**	**$26,470,000**
Soft Costs				**$5,544,000**
			Pre-Design, Design, and Construction Support (7.5%)	$1,986,000
			Community Outreach during Design	$50,000
			Environmental Planning and Permitting (0.5%)	$133,000
			Agency Project Management during Design (1%)	$265,000
			Agency Project Management during Construction (1.5%)	$398,000
			Community Outreach during Construction	$50,000
			Construction Management (10% of construction)	$2,647,000
			Construction Surveying	$15,000
			GRAND TOTAL	**$32,014,000**

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	Description	Qty	Unit	Unit Price	Total
	Assumptions and Exclusions				
1	This is a rough order of magnitude preliminary opinion of probable construction costs only. Actual costs may vary.				
2	The unit cost data is derived from inhouse sources, recent bids on similar construction, and RSMeans current construction cost data.				
3	This opinion of cost is based on the project program and plans made available at the time of preparation.				
4	Material prices are based on current quotations and do not include escalation.				
5	This opinion of cost assumes that all improvements will be constructed at one time.				
6	Quantity take offs were performed when possible and parametric estimates and allowances are used for items that cannot be quantified at this stage of the design.				
7	All unit costs take into account sales tax, general conditions, bonding and insurance, and subcontractor and general contractor overhead and profit.				
8	Where applicable, unit costs include the cost of freight.				
9	Irrigation improvements are limited to components removed for installation of the subsurface storage unit within the field.				
	The following are excluded:				
1	Environmental clearances and permits				
2	Hazardous spoil disposal, if encountered				
3	Property and Right of Way acquisition or easements				
4	Legal and accounting fees				
5	Plan check, building permit fees				
6	Utility Connection Fees				
7	Testing and inspection				
8	Fire and all risk insurance				
9	Removal of unforeseen underground obstructions				
10	Relocation of unforeseen subsurface utilities				
11	Signage and wayfinding				
12	Additional fill or import				
13	Loose furniture and equipment				
14	Utility connection fees				
15	Tel/data system				
16	Construction contingency				
17	Work done after business hours				
18	Design, engineering and consulting fees other than those specifically listed in the above estimate				
	Items that may affect the cost estimate:				
1	Modifications to the scope of work included in this estimate				
2	Unforeseen sub-surface conditions				
3	Restrictive technical specifications or excessive contract conditions				
4	Any other non-competitive bid situations				
5	Bids delayed beyond the projected schedule				