

Per Jim Hall 1/7/08 Cost to Date

Phase 1 -- Dec 26 to Jan 6				
Bypass pumping, slide-rail shaft, 96-inch manhole, 48-inch bypass sewer, manhole cone				
Work	Quant	Unit	Unit Price	Item Total
MOORE Constr.				
Godwin Pumps	1	LS	\$50,000	\$50,000
Equipment	1	LS	\$35,000	\$35,000
Labor	1	LS	\$27,000	\$27,000
Material	1	LS	\$50,000	\$50,000
MRP Services (CCTV, MH entries, and pump watch)	1	LS	\$35,000	\$35,000
Markup (estimated)	20.00%			\$39,400
Phase 1 Total				\$236,400

Phase 2 -- Jan 4 to Feb 4				
60-inch bore and jack under RR, jacking pit, large dia MH, connection to existing MHs, street resurfacing, continued flow bypass, erosion control, inlets, 48-inch MH on sanitary sewer.				
T/M Contract Work	Quant	Unit	Unit Price	Item Total
60-inch Bore & Jack Casing	100	LF	\$500	\$50,000
HDPE Carrier Pipe & Grout	100	LF	\$250	\$25,000
Drill Crew	7	day	\$6,740	\$47,180
Jacking Pit	1	LS	\$15,000	\$15,000
84-inch MH and connect	1	LS	\$50,000	\$50,000
Connect to existing MH	1	LS	\$10,000	\$10,000
48-inch MH	1	EA	\$4,000	\$4,000
Inlets & Leads	2	EA	\$1,000	\$2,000
Street Resurfacing	1900	SF	\$35	\$66,500
Continued Flow Bypass	50	day	\$4,500	\$225,000
Abandon exist 48-inch	47	CY	\$200	\$9,400
Erosion Control	1	LS	\$2,000	\$2,000
Prime Contr Markup on Bore	1	LS	\$44,000	\$44,000
Subtotal				\$550,080
Moore Exc. Markup @ 17.85%	17.85%			\$98,189
Phase 2 Total				\$648,269
50% Contingency on Contract				\$324,135
Construction Management (12%)				\$77,792
Total Construction Phase				\$1,050,196
Design (10%)				\$64,827
Project Life				\$1,115,023

\$795/hr for 8 t
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Phase 3 -- ? To ?				
Lining 48-inch brick sewer between 3rd and 1st				
T/M Contract Work	Quant	Unit	Unit Price	Item Total
CIPP lining 1.1" thick	430	LF	\$600	\$258,000
Flow Diversion	10	day	\$4,500	\$45,000
Re-establish connections	5	EA	\$500	\$2,500
Adjust MH for insertion	1	LS	\$1,000	\$1,000
Clean & Video Inspect	430	LS	\$3	\$1,290
Point Repair	1	EA	\$5,000	\$5,000
Manhole at 2nd	1	EA	\$20,000	\$20,000
Phase 3 Total				\$332,790
50% Contingency on Contract				\$166,395
Construction Management (12%)				\$39,935
Total Construction Phase				\$539,120
Design (10%)				\$33,279
Project Life				\$572,399

Total of Phase II & III Contract + Contingency

\$1,471,589

HIGH

Engineer's Estimate Checklist for Optimal Confidence

Project Name/Number: SE 1st & Oak Emergency Sewer Replacement Engineer: Joe Dvorak, P.E

Level of Effort to prepare this estimate: _____

Items included in this estimate: _____

Items excluded in this estimate: _____

Project Scope

- Is the project scope clearly understood and well defined?
Are pay items identified according to project specifications?
Are materials and quantities accurate for execution of the job?
Is the extent of street resurfacing understood and accounted for?
Is utility coordination and/or relocation, and potential project delay, understood and accounted for in this estimate?
Are environmental and soil conditions understood, and are the extent and methods of any required disposal accounted for in this estimate?
Has Traffic Control been estimated according to project-specific conditions?
Are project-specific mobilization costs understood and accounted for in this estimate?
Have known extra work items, or force account items, been accounted for?

Comments: Project is an emergency that will be constructed on a force-account basis. The project scope is understood to the best of our ability at this time and enough to direct the contractor to construct a permanent solution.

Project Schedule

- Have availability and delivery time of important materials and equipment been checked?
Has the contract time been determined with/by the Construction Manager?
Have contract time cost impacts been accounted for in this estimate?
Have construction season cost impacts been accounted for in this estimate?
Are schedule constraints and/or schedule acceleration requirements understood, well defined, and accounted for in this estimate?
Have unusual work time requirements (ie 24 hr work or limited street closure times) been accounted for in this estimate?

Comments: The emergency nature makes it difficult to precisely know the length of the contract. Reasonable estimate is 60 days. We're assuming bypass will continue for that long.

Quality Assurance

- Are quantity take-off calculations and back-up information documented?
Are unit prices verified with vendors and sources documented?
Are historical unit costs adjusted (to midpoint of construction) from projects of similar scale, similar site and similar construction conditions?
Have non-standard items been estimated "bottom-up"?
Is a contingency in this estimate? If so, describe: 30% contingency
Are "plug" estimates used? If so, describe:
Was this estimate checked? (quantities and costs)

Comments: Estimate used historical unit costs from a similar project. Estimate was checked by Design Engineers and Construction Manager.

Bidding Environment

- Is this project directed to the sheltered market and is this accounted for in this estimate?
Has the time/season of advertising been factored into the estimate?
Are circumstances known that would limit the bidding pool and is this accounted for?

Comments: _____

Implementation Procedures for Capital Projects

- Does the project construction estimate agree with the current budget?
If "No", has a Trend Alert been prepared?

Comments: _____