

ENGINEER'S OPINION OF PROBABLE COST (EOPC)



PROJECT: Raw Water Level Control Structure - YRCP
SGM NO.:
DATE: 5-Nov-24
EOPC LEVEL: Design Level
PREPARED BY: Chad Paulson, PE
CHECKED BY:
PURPOSE: Estimated cost for WTP raw water level control structure

CONSTRUCTION ITEMS	UNIT	QUANTITY	UNIT COST	TOTAL COST	% OF (a)	
Tie-in to existing 36" RCP	EA	2	\$ 1,200	\$ 2,400	1.8%	
36" transision couplings (RCP to C900)	EA	2	\$ 4,000	\$ 8,000	6.0%	
36" Plug Valve with Electric Actuator	EA	1	\$ 34,000	\$ 34,000	25.4%	
Pre-cast structure, 8 ft. manhole w/ lid	EA	1	\$ 20,000	\$ 20,000	14.9%	
manhole raise	EA	3	\$ 3,000	\$ 9,000	6.7%	
Electrical service (from pre--treatr)	LS	1	\$ 20,000	\$ 20,000	14.9%	
control equipment - level device	LS	1	\$ 6,500	\$ 6,500	4.9%	
36" Megaflange	EA	1.0	\$ 10,000	\$ 10,000	7.5%	
36" DIP	LF	30.0	\$ 250	\$ 7,500	5.6%	
36" uniflange adaptor	EA	1.0	\$ 3,000	\$ 3,000	2.2%	
bypass pumping	day	2.0	\$ 1,500	\$ 3,000	2.2%	
Pothole Investigations	EA	2.00	\$ 1,500	\$ 3,000	2.2%	
Restoration/revegetation	LS	1.00	\$ 7,500	\$ 7,500	5.6%	
SUBTOTAL OF CONSTRUCTION ITEMS:				\$ 133,900	(a)	
OTHER CONSTRUCTION COSTS	UNIT	QUANTITY	UNIT COST	ESTIMATED COST	% OF (a)	% Range
Bonds/insurance	%	2.0%		\$ 2,700	2.0%	1.5% - 3% of (a)
Management/Superintendent	%	10.0%		\$ 13,400	10.0%	3% - 10% of (a)
Labor - Misc., General	%	15.0%		\$ 20,100	15.0%	5% - 15% of (a)
Mobilization	%	10.0%		\$ 13,400	10.0%	2% - 10% of (a)
Permits	%	1.0%		\$ 1,300	1.0%	1% - 5% of (a)
Traffic Control	%	0.0%		\$ -	0.0%	1% - 5% of (a)
Constrution Surveying	%	1.0%		\$ 1,300	1.0%	1% - 5% of (a)
Overhead and Profit	%	10.0%		\$ 13,400	10.0%	5% - 10% of (a)
Subsistence	%	0.0%		\$ -	0.0%	1% - 10% of (a)
Geotechnical - material testing	%	0.0%		\$ -	0.0%	1% - 15% of (a)
Contingencies	%	10.0%		\$ 13,400	10.0%	5% - 30% of (a)
SUBTOTAL OF OTHER CONSTRUCTION COSTS:				\$ 79,000	(b)	
EOPC (a) + (b) = (c)				\$ 212,900	(c)	
OTHER PROJECT COSTS	UNIT	QUANTITY	UNIT COST	ESTIMATED COST	% OF (c)	% Range
Concept Development	%	0.0%	%	\$ -	0.0%	1% - 3% of (c)
Survey	%	0.0%	%	\$ -	0.0%	1% - 2% of (c)
SUE Engineering	%	0.0%	%	\$ -	0.0%	1% - 2% of (c)
Detailed Design Engineering	%	0.0%	%	\$ -	0.0%	8% - 15% of (c)
Constrution Engineering	%	10.0%	%	\$ 21,300	10.0%	5% - 25% of (c)
Geotechnical engineering / D&C	%	0.0%	%	\$ -	0.0%	0.5% - 1% of (c)
As-built and GIS Update	%	0.3%	%	\$ 600	0.3%	
SUBTOTAL OF OTHER PROJECT COSTS:				\$ 21,900	(d)	
EOPCC (c) + (d) =				\$ 234,800	(e)	
Project Contingency				\$ 35,220	15%	
EOPCC Total Project Estimate =				\$ 270,020		

NOTES:

- Unit prices and total costs are based on Present Value dollars. Adjustments should be made for years beyond the present year if actual construction occurs in a future year. Special consideration should be given to market conditions, which are extremely volatile at present.
- This EOPC was prepared on the basis of SGM's experience and qualifications and represents SGM's judgment as a professional generally familiar with the industry. However, since SGM has no control over the cost of labor, materials, equipment, or services furnished by others, over contractor's methods of determining prices, or over competitive bidding or market conditions, SGM cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from SGM's EOPC.
- Estimates are consistent with an AACE Class 4 construction cost estimate, which are typically accurate between a range of -20% to -10% and +20% to +30%.
- Assumes part-time field construction observation
- City to integrate gate controls into existing system, based on desired WL in Raw Pump wet well for pump operation and free drain of BW ponds.
- Need to pothole at 36" RCP raw water line for size and OD.
- Need to be able to stop water flow to proposed vault. Assume can use inflatable plug in upstream MH.
- Need to pothole upstream manhole to confirm 5 ft diameter.
- WTP can be offline for 1 day (and typically is on Wednesday in the fall). Any further flow interruption will require bypass pumping at 3500 GPM from upstream manhole down to Raw Water Splitter at WTP