

ALTERNATIVE 2 - NEW WATER PLANT - COST ESTIMATE

Alternative 2A - New Water Plant at Sarawak Family Park. Larger Size Watermains to Provide Fire Flows. Booster Station and Water Standpipe at Mount Pleasant Drive.

| WATERMAINS | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------|-------------|----------|---------------------|
| Item | Description | Length (m) | Size | Cost (\$/m) | Unit | Total Cost |
| 1 a) | 300 mm dia. watermain on Grey Road 1 from Indian River to Grey Road 17A and on Grey Road 17 A to Mount Pleasant Road | 1,800 | 300 mm | \$600 | m | \$1,080,000 |
| 1 b) | 200 mm dia. watermain on Grey Road 1 south of Grey Rd 17 A | 1,300 | 200 mm | \$500 | m | \$650,000 |
| 1 c) | 200 mm dia. watermain on 30th Street West and Edmonstone Street | 1,600 | 200 mm | \$400 | m | \$640,000 |
| 1 d) | 300 mm dia. watermain from Booster Station to Range Road and then south on Range Road and Gale Street to 16th Street West and then south to Grey Road 17B | 4,200 | 300 mm | \$500 | m | \$2,100,000 |
| 1 e) | 200 mm dia. Watermain on Nicols Gully Road and Youngs Drive to Atkins Street (Pottawatomie Village) | 850 | 200 mm | \$400 | m | \$340,000 |
| 1 f) | 150 mm dia. Watermain on Mount Pleasant Drive | 270 | 150 mm | \$300 | m | \$81,000 |
| SUBTOTAL - WATERMAINS | | | | | | \$4,891,000 |
| Note - watermain cost per m above includes restoration and allowance for fittings, hydrants and service stubs. Does not include watermain replacement costs in Pottawatomie Village. | | | | | | |
| NEW WATER PLANT, BOOSTER STATION AND RESERVOIR | | | | | | |
| Item | Description | Length (m) | Size | Cost (\$/m) | Unit | Total Cost |
| 2 a) | New water treatment plant and water intake from Georgian Bay at Sarawak Family Park. Minimal clearwell volume as main water storage (including fire flow storage) provided at Mount Pleasant Drive. Assume water standpipe storage at Mount Pleasant Drive. | | | | Lump Sum | \$2,810,000 |
| | 200 m of 400 mm dia marine intake at \$1,700/m - \$340,000 | | | | | |
| | 15 m by 15 m water plant building. Includes footing, walls, roofs etc and insulation, building services etc. - \$1,000,000 | | | | | |
| | Pall membrane treatment units for minimum 6 l/s (503 cmd) capacity plus 50% reserve treatment capacity - \$570,000 | | | | | |
| | Backup Generator (external) - \$80,000 | | | | | |
| | Electrical supply, panels, controls and SCADA etc - \$220,000 | | | | | |
| | Low lift pumping equipment and piping, valves etc. - \$100,000 | | | | | |
| | High lift pumping equipment and piping, valves etc. - \$100,000 | | | | | |
| | UV Disinfection equipment - \$100,000 | | | | | |
| | Chlorination equipment, chlorine and turbidity analyzers - \$80,000 | | | | | |
| | General site work and yard piping for chlorine contact time - \$220,000 | | | | | |
| 2 b) | Booster Station at Mount Pleasant Road. Features three, 35 l/s fire and peak flow pumps from standpipe and two 6 l/s maximum day flow pumps. All VFD controlled. Features electrical, flow measurement and SCADA control. | | | | Lump Sum | \$440,000 |
| | Pumps, flow meters, pressure gauges and other instrumentation - \$120,000 | | | | | |
| | Pumping station building including walls, roof, floor etc and building services - \$100,000 | | | | | |
| | Piping, valves and other mechanical - \$60,000 | | | | | |
| | Backup generator (external) - \$80,000 | | | | | |
| | Electrical supply, panels, controls etc - \$80,000 | | | | | |
| 2 c) | Glass fused to steel water storage standpipe. 24 m height by 8 m diameter. Includes valve chamber and foundation. | | | | Lump Sum | \$1,600,000 |
| | Steel standpipe - \$1,300,000 | | | | | |
| | Standpipe concrete foundation - \$70,000 | | | | | |
| | Sitework, site piping and valve chamber - \$180,000 | | | | | |
| | Land acquisition - \$50,000 | | | | | |
| 2 d) | Pressure Reducing Valve Chamber - Not Required | | | | Lump Sum | \$0 |
| SUBTOTAL OF WATER PLANT, BOOSTER STATION AND STANDPIPE | | | | | | \$4,850,000 |
| TOTAL OF WATERMAINS, WATER PLANT, BOOSTER STATION AND STANDPIPE | | | | | | \$9,741,000 |
| Allowance for Contingencies and Engineering (20% of above) | | | | | | \$1,948,200 |
| TOTAL COST ESTIMATE | | | | | | \$11,689,200 |