

FAC 8434 WATER PUMP FACILITY, FIRE PROTECTION

FY24 SUC:	\$5.83 / KG
Source:	Calculated using R.S. Means CostWorks 2023 Qtr 4 component prices

FAC 8434 WATER PUMP FACILITY, FIRE PROTECTION

Release 2023 Qtr 4

Zip Code Prefix 222

Type MR

UM KG

Design Life 50

Average Size 2924.626969

SUC \$5.83

Adjusted Occurences are the occurrences remaining after subtracting Repair/Replacement Overlaps. Overlap reduction removes a repair when it occurs the same year as a replacement.

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace fire pump / electric motor assembly 100 H.P.	25	2.00 Ea.	\$96,023.93	\$110,702.65	2.0000	2	2	\$221,405.30	\$221,405.30	
Maintenance and repair motor starter, 600 V	3	2.00 Ea.	\$1,402.34	\$1,726.08	16.6667	16	16	\$27,617.35	\$27,617.35	
Replace EMT conduit, 1" diameter	50	1.10 M.L.F.	\$12,384.61	\$14,917.85	1.0000	1	1	\$14,917.85	\$14,917.85	
Replace circuit breaker molded case, 600 V, 3 pole circuit breaker	50	2.00 Ea.	\$9,369.15	\$10,737.08	1.0000	1	1	\$10,737.08	\$10,737.08	
Replace safety switch, heavy duty 30 A	25	2.00 Ea.	\$1,353.26	\$1,612.47	2.0000	2	2	\$3,224.94	\$3,224.94	
Remove and replace fire hydrant	25	2.00 Ea.	\$17,600.98	\$20,307.35	2.0000	2	2	\$40,614.71	\$40,614.71	
Remove and replace post indicator valve	35	1.00 Ea.	\$8,838.81	\$10,159.38	1.4286	1	1	\$10,159.38	\$10,159.38	
Remove and replace 50 HP pump motor	25	2.00 Ea.	\$18,031.24	\$20,599.73	2.0000	2	2	\$41,199.47	\$41,199.47	
Replace gate valve, partial, 2" - 3" valves	20	2.00 Ea.	\$4,246.47	\$4,859.56	2.5000	2	2	\$9,719.11	\$9,719.11	
Rebuild 8" diameter reduced pressure backflow preventer	10	2.00 Ea.	\$2,601.92	\$3,045.08	5.0000	5	5	\$15,225.38	\$15,225.38	
			\$171,852.70	\$198,667.22				MR Subtotal	\$394,820.56	
									MR Per Year	\$7,896.41
									PM Total	\$9,145.87
									Subtotal	\$17,042.28
									Total Per Unit	\$5.83

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UM KG
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Design Life 50
Type PM
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Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Backflow prevention device, up to 4", annualized	2.00	0.67	\$28.03	\$41.86	\$0.00	\$69.89	\$85.25	\$102.01
Fire pump, motor/engine driven, annualized	1.00	69.87	\$190.26	\$4,381.80	\$0.00	\$4,572.06	\$5,905.62	\$7,248.70
Circuit breaker, high voltage air, annualized	2.00	0.94	\$27.66	\$64.95	\$0.00	\$92.61	\$114.86	\$138.50
Switch, interrupt, high voltage, w/ aux fuses, air, annualized	2.00	0.73	\$27.66	\$50.52	\$0.00	\$78.18	\$96.10	\$115.40
Turbine well, annualized	2.00	11.70	\$255.21	\$608.40	\$0.00	\$863.61	\$1,071.65	\$1,292.45
Fire hydrant, annualized	1.00	0.64	\$26.70	\$32.95	\$0.00	\$59.65	\$72.21	\$86.10
Valve, post indicator, annualized	1.00	1.42	\$36.06	\$73.52	\$0.00	\$109.58	\$135.24	\$162.70
						\$5,845.57	\$7,480.93	\$9,145.87

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Modeled Component List

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D40 Fire Protection

Fire Pump Electric Motor	2.0 Ea.
Fire Pump, Engine, annualized	1.0 Each

D50 Electrical

Circuit Breaker, molded case, 600 V, 3 pole	2.0 Ea.
Safety Switch, Heavy Duty	2.0 Ea.

G30 Site Mechanical Utilities

Fire Hydrants	2.0 Ea.
Post Indicator Valve	1.0 Ea.

D30 HVAC

Valves	2.0 Ea.
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Sustainment by Year
CostWorks Release 2023 Qtr 4

