

FAC 4423 Hazardous Materials Storage Installation

RUC: \$149.90 SF

Source: USACE PAX Newsletter 3.2.2 dated 20 Mar 09
 CC 44135
 Deflated to FY-09 using Appendix C of newsletter
 In V12, Tri-Service and USACE PAX Newsletter values were updated
 while all other values were inflated only.

SUC: \$5.16 SF

Source: Cost Works model, inflated to FY-09 using Green Book Table 5-6 (O&M
 less DHP)
 In V12, values were inflated only.

Model follows:

Chart: A chart showing relative annual sustainment requirements
 appears below:

FAC 4423-Hazardous Materials Storage, Installation
CostWorks 2008 Quarter 2

Design Life= 45
Average S.F= 1,127

C.S.F=100 S.F; MSF=1000 S.F
Sq=100 S.F; M.L.F=1000 L.F

This spreadsheet was
exported from R.S Means
CostWorks

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within 10% of the end of the design life and if the frequency of the task exceeds
20% of the design life. This prevents scheduling major work near the end of the
design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Repair 8" concrete block wall - 1st floor	25	1 Bric	149.300	S.F.	2,994.96	3,642.92	2008 Qtr 2	1	1	\$ 3,642.92
Replace 8" concrete block wall - 1st floor	60	2 Bric	14.930	C.S.F.	14,853.41	17,879.72	2008 Qtr 2	0	0	\$ -
Replace 8" concrete block wall - 2nd floor	60	2 Bric	16.120	C.S.F.	17,106.06	20,609.42	2008 Qtr 2	0	0	\$ -
Waterproof concrete block wall - 2nd floor	10	G8	16.120	C.S.F.	7,354.43	8,391.43	2008 Qtr 2	4	4	\$ 33,565.71
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	0.200	Ea.	22.99	27.24	2008 Qtr 2	2	2	\$ 54.48
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	2.000	Ea.	877.20	1,025.98	2008 Qtr 2	0	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	0.120	S.F.	1.09	1.27	2008 Qtr 2	45	45	\$ 57.35
Repair 12' x 12' steel roll-up door	10	1 Carp	0.100	Ea.	83.26	96.45	2008 Qtr 2	4	4	\$ 385.82
Refinish 12' x 12' steel roll-up door	5	1 Pord	1.000	Ea.	168.83	205.54	2008 Qtr 2	9	9	\$ 1,849.86
Replace 12' x 12' steel roll-up door	35	2 Carp	1.000	Ea.	3,325.27	3,849.55	2008 Qtr 2	1	1	\$ 3,849.55
Repair steel, painted, door	14	1 Carp	0.100	Ea.	58.24	68.64	2008 Qtr 2	3	2	\$ 137.27
Refinish 3'-0" x 7'-0" steel, painted, door	4	1 Pord	1.000	Ea.	32.91	40.31	2008 Qtr 2	11	11	\$ 443.41
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	1.000	Ea.	532.08	620.04	2008 Qtr 2	1	0	\$ -
Replace tempered glass - (3% of glass)	1	1 Carp	0.630	S.F.	12.16	14.46	2008 Qtr 2	45	45	\$ 650.92
Debris removal by hand & visual inspection shingles	1	2 Rofc	1.127	M.S.F.	20.00	24.12	2008 Qtr 2	45	45	\$ 1,085.30
Install new shingles over existing shingles	20	2 Rofc	11.270	Sq.	1,992.42	2,364.00	2008 Qtr 2	2	2	\$ 4,727.99
Removal and replacement of shingles shingles	40	2 Rofc	11.270	Sq.	2,852.44	3,412.33	2008 Qtr 2	1	1	\$ 3,412.33
Minor asphalt shingle repair - (2% of roof area) shingles	5	2 Rofc	0.225	S.F.	0.78	0.93	2008 Qtr 2	9	9	\$ 8.38
Flashing repairs - (2 S.F. per sq. repaired) shingles	5	2 Rofc	0.450	S.F.	5.25	6.26	2008 Qtr 2	9	9	\$ 56.30
Repair steel painted interior door	14	1 Carp	0.100	Ea.	16.78	19.81	2008 Qtr 2	3	2	\$ 39.63
Refinish 3'-0" x 7'-0" steel painted interior door	4	1 Pord	1.000	Ea.	49.40	60.82	2008 Qtr 2	11	11	\$ 669.02
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	1.000	Ea.	937.54	1,089.96	2008 Qtr 2	0	0	\$ -
Safety glass repl., (3% of glass) steel painted interior door	1	1 Carp	0.630	S.F.	10.67	12.68	2008 Qtr 2	45	45	\$ 570.69
Repair solid core wood door interior	11	1 Carp	0.200	Ea.	33.55	39.63	2008 Qtr 2	4	3	\$ 118.88
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	2.000	Ea.	84.44	103.96	2008 Qtr 2	11	11	\$ 1,143.56
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	2.000	Ea.	733.40	850.24	2008 Qtr 2	1	1	\$ 850.24
Refinish drywall	12	1 Pord	760.000	S.F.	456.00	562.40	2008 Qtr 2	3	3	\$ 1,687.20
Repair 5/8" drywall - (2% of walls)	20	1 Carp	15.200	S.F.	24.17	29.03	2008 Qtr 2	2	2	\$ 58.06
Replace carpet	12	2 Tilf	10.000	S.Y.	451.30	521.40	2008 Qtr 2	3	3	\$ 1,564.20
Refinish concrete floor finished	25	2 Cefi	9.950	C.S.F.	3,476.93	4,185.87	2008 Qtr 2	1	1	\$ 4,185.87
Replace vinyl floor	18	1 Tilf	0.005	S.Y.	0.24	0.29	2008 Qtr 2	2	2	\$ 0.58
Replace acoustic tile ceiling, fire-rated	20	1 Carp	0.900	C.S.F.	362.84	431.10	2008 Qtr 2	2	2	\$ 862.20
Refinish sheetrock ceiling	20	1 Pord	0.420	C.S.F.	52.78	65.22	2008 Qtr 2	2	2	\$ 130.44
Replace sheetrock ceiling	40	2 Carp	0.420	C.S.F.	150.50	183.75	2008 Qtr 2	1	1	\$ 183.75
Check / minor repairs drinking fountain	1	1 Plum	1.000	Ea.	37.58	47.34	2008 Qtr 2	45	45	\$ 2,130.30
Repair internal leaks drinking fountain	4	1 Plum	1.000	Ea.	35.14	43.43	2008 Qtr 2	11	11	\$ 477.73

FAC 4423-Hazardous Materials Storage, Installation
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20% of the design life. This prevents scheduling major work near the end of the
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Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences in Design Life	Adjusted Occurrences	Terminal Cutoff
Correct water pressure drinking fountain	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	22	22	\$ 891.00
Replace refrigerant drinking fountain	2	1 Plum	1.000	Ea.	15.84	18.86	2008 Qtr 2	22	22	\$ 414.92
Repair drain leak drinking fountain	4	1 Plum	1.000	Ea.	22.63	27.03	2008 Qtr 2	11	11	\$ 297.33
Replace fountain drinking fountain	10	2 Plum	1.000	Ea.	1,005.84	1,193.57	2008 Qtr 2	4	4	\$ 4,774.28
Inspect and clean spray heads, emergency eye wash	3	1 Plum	1.000	Ea.	37.80	47.44	2008 Qtr 2	15	15	\$ 711.60
Replace eye wash station, emergency eye wash	25	2 Plum	1.000	Ea.	573.92	695.88	2008 Qtr 2	1	1	\$ 695.88
Inspect and clean shower head emergency shower station	3	1 Plum	1.000	Ea.	37.80	47.44	2008 Qtr 2	15	15	\$ 711.60
Replace shower emergency shower station	25	2 Plum	1.000	Ea.	726.39	873.58	2008 Qtr 2	1	1	\$ 873.58
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	2.000	Ea.	48.02	56.66	2008 Qtr 2	6	6	\$ 339.96
Replace washer in faucet lavatory, vitreous china	2	1 Plum	2.000	Ea.	19.70	24.58	2008 Qtr 2	22	22	\$ 540.76
Replace faucets lavatory, vitreous china	10	1 Plum	2.000	Ea.	246.98	298.12	2008 Qtr 2	4	4	\$ 1,192.48
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	2.000	Ea.	54.08	67.14	2008 Qtr 2	22	22	\$ 1,477.08
Replace lavatory, vitreous china	35	2 Plum	2.000	Ea.	1,060.38	1,271.40	2008 Qtr 2	1	1	\$ 1,271.40
Replace faucet washer sink, iron enamel	2	1 Plum	1.000	Ea.	9.79	12.19	2008 Qtr 2	22	22	\$ 268.18
Clean trap sink, iron enamel	3	1 Plum	1.000	Ea.	6.60	8.25	2008 Qtr 2	15	15	\$ 123.75
Replace faucets sink, iron enamel	10	1 Plum	1.000	Ea.	123.49	149.06	2008 Qtr 2	4	4	\$ 596.24
Unstop sink sink, iron enamel	2	1 Plum	1.000	Ea.	32.21	40.50	2008 Qtr 2	22	22	\$ 891.00
Replace sink, P.E.C.I. sink, iron enamel	35	2 Plum	1.000	Ea.	552.72	657.69	2008 Qtr 2	1	1	\$ 657.69
Replace flush valve diaphragm tankless water closet	10	1 Plum	2.000	Ea.	141.48	166.12	2008 Qtr 2	4	4	\$ 664.48
Rebuild flush valve tankless water closet	20	1 Plum	2.000	Ea.	263.96	320.02	2008 Qtr 2	2	2	\$ 640.04
Unplug clogged line tankless water closet	5	1 Plum	2.000	Ea.	336.52	420.36	2008 Qtr 2	9	9	\$ 3,783.24
Replace tankless water closet	35	2 Plum	2.000	Ea.	1,096.00	1,296.72	2008 Qtr 2	1	1	\$ 1,296.72
Replace tankless flush valve	25	1 Plum	2.000	Ea.	419.00	490.74	2008 Qtr 2	1	1	\$ 490.74
Replace wax ring gasket tankless water closet	5	1 Plum	2.000	Ea.	219.14	274.40	2008 Qtr 2	9	9	\$ 2,469.60
Replace flush valve diaphragm urinal	7	1 Plum	1.000	Ea.	70.74	83.06	2008 Qtr 2	6	6	\$ 498.36
Rebuild flush valve urinal	20	1 Plum	1.000	Ea.	131.98	160.01	2008 Qtr 2	2	2	\$ 320.02
Unplug line urinal	5	1 Plum	1.000	Ea.	112.14	139.91	2008 Qtr 2	9	9	\$ 1,259.19
Replace wall-hung urinal	35	2 Plum	1.000	Ea.	841.63	1,006.57	2008 Qtr 2	1	1	\$ 1,006.57
Inspect / check pump / motor operation, lub. circulation pump, 1/12 HP	0.5	1 Plum	1.000	Ea.	6.19	7.72	2008 Qtr 2	90	90	\$ 694.80
Replace pump / motor assembly circulation pump, 1/12 HP	10	2 Plum	1.000	Ea.	736.33	863.29	2008 Qtr 2	4	4	\$ 3,453.16
Replace pipe and fittings, copper 3/4"	20	2 Plum	16.000	L.F.	283.52	343.68	2008 Qtr 2	2	2	\$ 687.36
Remove old insulation & replace with new, pipe 3/4", wall 1"	15	1 Plum	16.000	L.F.	112.16	136.64	2008 Qtr 2	3	2	\$ 273.28
Drain and flush water heater, electric, 120 gallon	7	1 Plum	0.500	Ea.	113.22	141.52	2008 Qtr 2	6	6	\$ 849.12
Check operation water heater, electric, 120 gallon	3	1 Plum	0.500	Ea.	0.99	1.24	2008 Qtr 2	15	15	\$ 18.60
Replace water heater, electric, 120 gallon	15	2 Plum	0.500	Ea.	4,596.23	5,271.90	2008 Qtr 2	3	2	\$ 10,543.79
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	4	4	\$ 177.64

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Replace pipe & fittings, cast iron	40	2 Plum	8.000	L.F.	335.20	405.60	2008 Qtr 2	1	1	\$ 405.60
Unclog floor drain, PVC	20	1 Plum	1.000	Ea.	37.09	45.87	2008 Qtr 2	2	2	\$ 91.74
Repair joint pipe and fittings, PVC	10	1 Plum	1.000	Ea.	115.94	144.14	2008 Qtr 2	4	4	\$ 576.56
Replace pipe, 4" pipe and fittings, PVC	30	2 Plum	8.000	L.F.	473.60	585.52	2008 Qtr 2	1	1	\$ 585.52
Repair single zone rt. unit, 5 ton	10	2 Stpi	0.500	Ea.	964.86	1,157.28	2008 Qtr 2	4	4	\$ 4,629.12
Replace single zone rt. unit, 5 ton	15	Q5	1.000	Ea.	7,276.88	8,588.60	2008 Qtr 2	3	2	\$ 17,177.20
Replace sprinkler head	20	1 Plum	12.000	Ea.	764.16	941.52	2008 Qtr 2	2	2	\$ 1,883.04
Inspect sprinkler system	1	1 Plum	1.000	Ea.	26.55	32.89	2008 Qtr 2	45	45	\$ 1,480.05
Rebuild double check 3" backflow preventer sprinkler system	5	1 Plum	1.000	Ea.	598.06	715.83	2008 Qtr 2	9	9	\$ 6,442.47
Replace fire alarm bell, 6"	20	1 Elec	1.000	Ea.	142.28	171.51	2008 Qtr 2	2	2	\$ 343.02
Repair failed breaker, 3 pole circuit breaker	10	1 Elec	1.000	Ea.	342.23	400.69	2008 Qtr 2	4	4	\$ 1,602.76
Maintenance and inspection C.B., 3 pole circuit breaker	0.33	1 Elec	1.000	Ea.	22.91	28.50	2008 Qtr 2	136	136	\$ 3,876.00
Replace C.B. molded case, 600 V, 3 pole circuit breaker	50	1 Elec	1.000	Ea.	3,157.74	3,611.55	2008 Qtr 2	0	0	\$ -
Maintenance and inspection lighting panel, indoor	3	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	15	15	\$ 534.45
Maintenance and repair motor starter, 600 V	3	1 Elec	2.000	Ea.	1,074.38	1,306.06	2008 Qtr 2	15	15	\$ 19,590.90
Maintenance and inspection motor starter, 600 V	0.25	1 Elec	2.000	Ea.	76.34	95.70	2008 Qtr 2	180	180	\$ 17,226.00
Replace starter motor starter, 600 V	18	2 Elec	2.000	Ea.	6,061.50	7,137.90	2008 Qtr 2	2	2	\$ 14,275.80
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	8.000	Ea.	796.64	960.64	2008 Qtr 2	4	4	\$ 3,842.56
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	8.000	Ea.	203.52	249.44	2008 Qtr 2	4	4	\$ 997.76
Maintenance and repair receptacles and plugs	20	1 Elec	30.000	Ea.	932.70	1,161.90	2008 Qtr 2	2	2	\$ 2,323.80
Replace receptacle/plug receptacles and plugs	20	1 Elec	30.000	Ea.	1,582.80	1,932.60	2008 Qtr 2	2	2	\$ 3,865.20
Maintenance and repair wiring devices, switches	10	1 Elec	7.000	Ea.	217.63	271.11	2008 Qtr 2	4	4	\$ 1,084.44
Replace switch wiring devices, switches	15	1 Elec	7.000	Ea.	358.47	436.45	2008 Qtr 2	3	2	\$ 872.90
Check and repair manual pull station	10	1 Elec	1.000	Ea.	69.21	84.87	2008 Qtr 2	4	4	\$ 339.48
Replace manual pull station	15	1 Elec	1.000	Ea.	125.74	151.89	2008 Qtr 2	3	2	\$ 303.78
Repair smoke detector	10	1 Elec	2.000	Ea.	76.38	94.00	2008 Qtr 2	4	4	\$ 376.00
Check operation smoke detector	1	1 Elec	2.000	Ea.	22.80	28.60	2008 Qtr 2	45	45	\$ 1,287.00
Replace smoke detector	15	1 Elec	2.000	Ea.	379.10	453.98	2008 Qtr 2	3	2	\$ 907.96

\$99,593.46 \$118,456.01

MR Subtotal \$ 221,376.49
MR Per Year \$ 4,919.48
PM Per Year \$ 1,088.81
Subtotal \$ 6,008.29

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Total Per Unit \$ 5.33

CostWorks 2009 Quarter 1 - FAC 4423-Hazardous Materials Storage, Installation

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code Prefix	Type	Release
1.000	B2035 410 1950	Door, overhead, electric, roll up, to 24' high x 25' w	240.16	290.12	200	FMR	2008 Qtr 2
3.000	B2035 225 1950	Door, emergency egress, swinging, annualized	148.53	172.53	200	FMR	2008 Qtr 2
1.000	C1025 110 1950	Fire doors, swinging, annualized	24.89	29.86	200	FMR	2008 Qtr 2
1.000	D2015 100 1950	Urinals, annualized	12.93	16.15	200	FMR	2008 Qtr 2
2.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	25.86	32.30	200	FMR	2008 Qtr 2
2.000	D2015 100 4950	Lavatories, annualized	49.36	60.16	200	FMR	2008 Qtr 2
1.000	D2015 800 1950	Drink fountain, annualized	49.50	59.36	200	FMR	2008 Qtr 2
1.000	D3045 160 1950	VAV Boxes, annualized	61.31	76.00	200	FMR	2008 Qtr 2
1.000	D3055 210 1950	Package unit, air cooled, 3 thru 24 ton, annualized	207.71	251.03	200	FMR	2008 Qtr 2
1.000	D5015 220 1950	Circuit breaker, high voltage air, annualized	26.98	33.59	200	FMR	2008 Qtr 2
1.000	D5015 260 1950	Panelboard, 225 A and above, annualized	56.96	67.71	200	FMR	2008 Qtr 2
			\$904.19	\$1,088.81			

FAC 4423 Sustainment by Year - Terminal Cutoff Applied

