

FAC 1443 Operations Supply Building

RUC: \$109.02 SF

Source: USACE PAX Newsletter 3.2.2 dated 20 Mar 09
CC 44110 Low Bay
Deflated to FY-09 using Appendix C
In V12, Tri-Service and USACE PAX Newsletter values were updated while
all other values were inflated only.

SUC: \$2.44 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
follows:

FAC 1443-Operations Supply Building
CostWorks 2008 Quarter 2

Design Life= 45
Average S.F= 8,791

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

Terminal Cutoff is the removal of a single task occurrence if that task occurs
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 brick wall - 1st floor	25	1 Bric	1,652.000	S.F.	61,124.00	74,273.92	2008 Qtr 2	1	1	\$ 74,273.92
Replace brick wall - 2nd floor	75	2 Bric	16.520	C.S.F.	33,793.15	40,549.83	2008 Qtr 2	0	0	\$ -
Repair 8" concrete block wall - 1st floor	25	1 Bric	3,151.000	S.F.	63,209.06	76,884.40	2008 Qtr 2	1	1	\$ 76,884.40
Replace 8" concrete block wall - 1st floor	60	2 Bric	31.510	C.S.F.	31,348.35	37,735.43	2008 Qtr 2	0	0	\$ -
Replace 8" concrete block wall - 2nd floor	60	2 Bric	29.190	C.S.F.	30,975.55	37,319.42	2008 Qtr 2	0	0	\$ -
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	1 Carp	22.000	Ea.	2,529.12	2,996.40	2008 Qtr 2	2	2	\$ 5,992.80
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	1 Carp	22.000	Ea.	9,649.20	11,285.78	2008 Qtr 2	0	0	\$ -
Replace glass - 1st floor (1% of glass)	1	1 Carp	1.320	S.F.	11.95	14.02	2008 Qtr 2	45	45	\$ 630.83
Repair 12' x 12' steel roll-up door	10	1 Carp	3.000	Ea.	2,497.83	2,893.62	2008 Qtr 2	4	4	\$ 11,574.48
Refinish 12' x 12' steel roll-up door	5	1 Pord	3.000	Ea.	506.49	616.62	2008 Qtr 2	9	9	\$ 5,549.58
Replace 12' x 12' steel roll-up door	35	2 Carp	3.000	Ea.	9,975.81	11,548.65	2008 Qtr 2	1	1	\$ 11,548.65
Repair steel, painted, door	14	1 Carp	2.000	Ea.	1,164.88	1,372.72	2008 Qtr 2	3	2	\$ 2,745.44
Refinish 3'-0" x 7'-0" steel, painted, door	4	1 Pord	2.000	Ea.	65.82	80.62	2008 Qtr 2	11	11	\$ 886.82
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	2.000	Ea.	1,064.16	1,240.08	2008 Qtr 2	1	0	\$ -
Replace tempered glass - (3% of glass)	1	1 Carp	1.260	S.F.	24.32	28.93	2008 Qtr 2	45	45	\$ 1,301.83
Debris removal by hand & visual inspection metal steep roofing	1	2 Rofc	8.791	M.S.F.	156.04	188.13	2008 Qtr 2	45	45	\$ 8,465.73
Total metal panel replacement metal steep roofing	30	2 Rofc	87.910	Sq.	58,225.43	69,230.00	2008 Qtr 2	1	1	\$ 69,230.00
Minor finish repairs - (2% of roof area) metal steep roofing	5	2 Rofc	175.820	S.F.	476.47	566.14	2008 Qtr 2	9	9	\$ 5,095.26
Flashing replacement - (2 S.F. per sq. repaired) metal steep roofing	5	2 Rofc	3.500	S.F.	50.54	60.66	2008 Qtr 2	9	9	\$ 545.90
Minor replacement - (2.5% of roof area) metal steep roofing	20	2 Rofc	219.775	S.F.	1,964.79	2,334.01	2008 Qtr 2	2	2	\$ 4,668.02
Repair steel painted interior door	14	1 Carp	3.000	Ea.	503.25	594.42	2008 Qtr 2	3	2	\$ 1,188.84
Refinish 3'-0" x 7'-0" steel painted interior door	4	1 Pord	3.000	Ea.	148.20	182.46	2008 Qtr 2	11	11	\$ 2,007.06
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	3.000	Ea.	2,812.62	3,269.88	2008 Qtr 2	0	0	\$ -
Safety glass repl., (3% of glass) steel painted interior door	1	1 Carp	1.890	S.F.	32.00	38.05	2008 Qtr 2	45	45	\$ 1,712.06
Repair solid core wood door interior	11	1 Carp	6.000	Ea.	1,006.50	1,188.84	2008 Qtr 2	4	3	\$ 3,566.52
Refinish 3'-0" x 7'-0" solid core wood door interior	4	1 Pord	6.000	Ea.	253.32	311.88	2008 Qtr 2	11	11	\$ 3,430.68
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	6.000	Ea.	2,200.20	2,550.72	2008 Qtr 2	1	1	\$ 2,550.72
Repair 5/8" drywall - (2% of walls)	20	1 Carp	1,918.000	S.F.	3,049.62	3,663.38	2008 Qtr 2	2	2	\$ 7,326.76
Refinish drywall	8	1 Pord	1,918.000	S.F.	1,150.80	1,419.32	2008 Qtr 2	5	5	\$ 7,096.60
Replace 5/8" drywall	75	2 Carp	1,918.000	S.F.	4,277.14	5,159.42	2008 Qtr 2	0	0	\$ -
Replace carpet	8	2 Tilf	80.780	S.Y.	3,645.60	4,211.87	2008 Qtr 2	5	5	\$ 21,059.35
Refinish concrete floor finished	25	2 Cefi	77.310	C.S.F.	27,015.21	32,523.54	2008 Qtr 2	1	1	\$ 32,523.54
Replace vinyl floor	18	1 Tilf	37.000	S.Y.	1,766.75	2,157.10	2008 Qtr 2	2	2	\$ 4,314.20
Replace acoustic tile ceiling, fire-rated	20	1 Carp	8.290	C.S.F.	3,342.11	3,970.91	2008 Qtr 2	2	2	\$ 7,941.82
Refinish sheetrock ceiling	20	1 Pord	2.310	C.S.F.	290.30	358.72	2008 Qtr 2	2	2	\$ 717.44
Replace sheetrock ceiling	40	2 Carp	2.310	C.S.F.	827.74	1,010.65	2008 Qtr 2	1	1	\$ 1,010.65

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Terminal Cutoff is the removal of a single task occurrence if that task occurs
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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
Repair sheetrock ceiling - (2% of ceilings)	20	1 Carp	0.050	C.S.F.	17.46	21.31	2008 Qtr 2	2	2	\$ 42.63
Check / minor repairs drinking fountain	1	1 Plum	2.000	Ea.	75.16	94.68	2008 Qtr 2	45	45	\$ 4,260.60
Repair internal leaks drinking fountain	4	1 Plum	2.000	Ea.	70.28	86.86	2008 Qtr 2	11	11	\$ 955.46
Correct water pressure drinking fountain	2	1 Plum	2.000	Ea.	64.42	81.00	2008 Qtr 2	22	22	\$ 1,782.00
Replace refrigerant drinking fountain	2	1 Plum	2.000	Ea.	31.68	37.72	2008 Qtr 2	22	22	\$ 829.84
Repair drain leak drinking fountain	4	1 Plum	2.000	Ea.	45.26	54.06	2008 Qtr 2	11	11	\$ 594.66
Replace fountain drinking fountain	10	2 Plum	2.000	Ea.	2,011.68	2,387.14	2008 Qtr 2	4	4	\$ 9,548.56
Replace washer in spud connection lavatory, vitreous china	7	1 Plum	10.000	Ea.	240.10	283.30	2008 Qtr 2	6	6	\$ 1,699.80
Replace washer in faucet lavatory, vitreous china	2	1 Plum	10.000	Ea.	98.50	122.90	2008 Qtr 2	22	22	\$ 2,703.80
Replace faucets lavatory, vitreous china	10	1 Plum	10.000	Ea.	1,234.90	1,490.60	2008 Qtr 2	4	4	\$ 5,962.40
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	10.000	Ea.	270.40	335.70	2008 Qtr 2	22	22	\$ 7,385.40
Replace lavatory, vitreous china	35	2 Plum	10.000	Ea.	5,301.90	6,357.00	2008 Qtr 2	1	1	\$ 6,357.00
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	6.000	Ea.	424.44	498.36	2008 Qtr 2	4	4	\$ 1,993.44
Rebuild flush valve tankless water closet	20	1 Plum	6.000	Ea.	791.88	960.06	2008 Qtr 2	2	2	\$ 1,920.12
Unplug clogged line tankless water closet	5	1 Plum	6.000	Ea.	1,009.56	1,261.08	2008 Qtr 2	9	9	\$ 11,349.72
Replace tankless water closet	35	2 Plum	6.000	Ea.	3,288.00	3,890.16	2008 Qtr 2	1	1	\$ 3,890.16
Replace tankless flush valve	25	1 Plum	6.000	Ea.	1,257.00	1,472.22	2008 Qtr 2	1	1	\$ 1,472.22
Replace wax ring gasket tankless water closet	5	1 Plum	6.000	Ea.	657.42	823.20	2008 Qtr 2	9	9	\$ 7,408.80
Replace flush valve diaphragm urinal	7	1 Plum	3.000	Ea.	212.22	249.18	2008 Qtr 2	6	6	\$ 1,495.08
Rebuild flush valve urinal	20	1 Plum	3.000	Ea.	395.94	480.03	2008 Qtr 2	2	2	\$ 960.06
Unplug line urinal	5	1 Plum	3.000	Ea.	336.42	419.73	2008 Qtr 2	9	9	\$ 3,777.57
Replace wall-hung urinal	35	2 Plum	3.000	Ea.	2,524.89	3,019.71	2008 Qtr 2	1	1	\$ 3,019.71
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
Resolder joint pipe & fittings, copper	10	1 Plum	2.000	Ea.	65.70	80.90	2008 Qtr 2	4	4	\$ 323.60
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
Replace pipe and fittings, copper 2"	25	2 Plum	16.000	L.F.	652.96	785.76	2008 Qtr 2	1	1	\$ 785.76
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
Remove old insulation & replace with new, pipe 1-1/2", wall 1"	15	1 Plum	16.000	L.F.	123.36	150.08	2008 Qtr 2	3	2	\$ 300.16
Drain and flush water heater, electric, 120 gallon	7	1 Plum	1.000	Ea.	226.43	283.04	2008 Qtr 2	6	6	\$ 1,698.24
Check operation water heater, electric, 120 gallon	3	1 Plum	1.000	Ea.	1.98	2.48	2008 Qtr 2	15	15	\$ 37.20

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Replace water heater, electric, 120 gallon	15	2 Plum	1.000	Ea.	9,192.45	10,543.79	2008 Qtr 2	3	2	\$ 21,087.58
Unclog main drain pipe & fittings, cast iron	10	1 Plum	1.000	Ea.	35.62	44.41	2008 Qtr 2	4	4	\$ 177.64
Replace pipe & fittings, cast iron	40	2 Plum	16.000	L.F.	670.40	811.20	2008 Qtr 2	1	1	\$ 811.20
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	16.000	L.F.	947.20	1,171.04	2008 Qtr 2	1	1	\$ 1,171.04
General maintenance & repair drain: roof, scupper, area	1	1 Plum	3.000	Ea.	85.05	107.01	2008 Qtr 2	45	45	\$ 4,815.45
Replace drain: roof, scupper, area	40	1 Plum	3.000	Ea.	1,195.02	1,404.42	2008 Qtr 2	1	1	\$ 1,404.42
Replace fan & motor, propeller exh., 4700 CFM exhaust fan	15	Q20	2.000	Ea.	2,787.26	3,252.70	2008 Qtr 2	3	2	\$ 6,505.40
Repair single zone rooftop unit, 25 ton	10	Q6	0.500	Ea.	12,910.55	14,961.45	2008 Qtr 2	4	4	\$ 59,845.78
Replace single zone rooftop unit, 25 ton	15	Q7	1.000	Ea.	34,098.40	39,677.60	2008 Qtr 2	3	2	\$ 79,355.20
Repair fan coil unit, 1 ton	10	1 Stpi	1.000	Ea.	369.22	441.02	2008 Qtr 2	4	4	\$ 1,764.08
Replace fan coil unit, 1 ton	15	Q5	1.000	Ea.	1,098.30	1,295.56	2008 Qtr 2	3	2	\$ 2,591.12
Minor repairs to fire alarm control panel	5	1 Elec	1.000	Ea.	107.84	130.97	2008 Qtr 2	9	9	\$ 1,178.73
Maintenance and inspection fire alarm control panel	0.5	1 Elec	1.000	Ea.	30.54	38.17	2008 Qtr 2	90	90	\$ 3,435.30
Replace fire alarm control panel	15	1 Elec	1.000	Ea.	2,615.62	3,107.84	2008 Qtr 2	3	2	\$ 6,215.68
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 sprinkler head	20	1 Plum	80.000	Ea.	5,094.40	6,276.80	2008 Qtr 2	2	2	\$ 12,553.60
Replace fire alarm bell, 6"	20	1 Elec	4.000	Ea.	569.12	686.04	2008 Qtr 2	2	2	\$ 1,372.08
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 safety switch gen., 2 pole	8	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	5	5	\$ 178.15
Maintenance and inspection safety switch, 2 pole	1	1 Elec	1.000	Ea.	28.50	35.63	2008 Qtr 2	45	45	\$ 1,603.35
Maintenance and repair motor starter, up to 600 V	5	1 Elec	4.000	Ea.	683.00	830.00	2008 Qtr 2	9	9	\$ 7,470.00
Maintenance and inspection motor starter, up to 600 V	0.5	1 Elec	4.000	Ea.	152.68	191.40	2008 Qtr 2	90	90	\$ 17,226.00
Replace starter motor starter, up to 600 V	18	1 Elec	4.000	Ea.	2,112.72	2,521.64	2008 Qtr 2	2	2	\$ 5,043.28
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	81.000	Ea.	8,065.98	9,726.48	2008 Qtr 2	4	4	\$ 38,905.92
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	81.000	Ea.	2,060.64	2,525.58	2008 Qtr 2	4	4	\$ 10,102.32
Maintenance and repair receptacles and plugs	20	1 Elec	90.000	Ea.	2,798.10	3,485.70	2008 Qtr 2	2	2	\$ 6,971.40
Replace receptacle/plug receptacles and plugs	20	1 Elec	90.000	Ea.	4,748.40	5,797.80	2008 Qtr 2	2	2	\$ 11,595.60
Maintenance and repair wiring devices, switches	10	1 Elec	23.000	Ea.	715.07	890.79	2008 Qtr 2	4	4	\$ 3,563.16
Replace switch wiring devices, switches	15	1 Elec	23.000	Ea.	1,177.83	1,434.05	2008 Qtr 2	3	2	\$ 2,868.10
Check and repair manual pull station	10	1 Elec	3.000	Ea.	207.63	254.61	2008 Qtr 2	4	4	\$ 1,018.44
Replace manual pull station	15	1 Elec	3.000	Ea.	377.22	455.67	2008 Qtr 2	3	2	\$ 911.34
Repair smoke detector	10	1 Elec	22.000	Ea.	840.18	1,034.00	2008 Qtr 2	4	4	\$ 4,136.00
Check operation smoke detector	1	1 Elec	22.000	Ea.	250.80	314.60	2008 Qtr 2	45	45	\$ 14,157.00

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Replace smoke detector	15	1 Elec	22.000	Ea.	4,170.10	4,993.78	2008 Qtr 2	3	2	\$ 9,987.56
					\$485,457.74	\$581,229.54				
									MR Subtotal	\$ 815,186.54
									MR Per Year	\$ 18,115.26
									PM Per Year	\$ 4,031.35
									Subtotal	\$ 22,146.61
									Total Per Unit	\$ 2.52

CostWorks 2009 Quarter 1 - FAC 1443-Operations Supply Building

Qty	Assembly Number	Description	Total In-House	Total Incl. O&P	Zip Code Prefix	Type	Release
3.000	B2035 410 1950	Door, overhead, electric, roll up, to 24' high x 25' w	720.48	870.36	200	FMR	2008 Qtr 2
8.000	B2035 225 1950	Door, emergency egress, swinging, annualized	396.08	460.08	200	FMR	2008 Qtr 2
3.000	C1025 110 1950	Fire doors, swinging, annualized	74.67	89.58	200	FMR	2008 Qtr 2
3.000	D2015 100 1950	Urinals, annualized	38.79	48.45	200	FMR	2008 Qtr 2
6.000	D2015 100 2950	Toilet (vacuum breaker type), annualized	77.58	96.90	200	FMR	2008 Qtr 2
10.000	D2015 100 4950	Lavatories, annualized	246.80	300.80	200	FMR	2008 Qtr 2
2.000	D2015 800 1950	Drink fountain, annualized	99.00	118.72	200	FMR	2008 Qtr 2
1.000	D3045 120 1950	Fan coil unit, annualized	215.71	266.60	200	FMR	2008 Qtr 2
4.000	D3045 160 1950	VAV Boxes, annualized	245.24	304.00	200	FMR	2008 Qtr 2
1.000	D3045 210 1950	Fan, axial, up to 5,000 CFM, annualized	70.55	86.20	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	D4015 100 1950	Backflow prevention device, up to 4", annualized	18.89	23.42	200	FMR	2008 Qtr 2
1.000	D4015 150 1950	Extinguishing system, wet pipe, annualized	806.79	983.35	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
1.000	D5015 280 1950	Motor control center, over 400 A, annualized	53.91	64.15	200	FMR	2008 Qtr 2
			\$3,329.16	\$4,031.35			

FAC 1443 Sustainment by Year - Terminal Cutoff Applied

