

FAC 4411 Covered Storage Building, Depot

RUC: \$133.00 SF

Source: Source: Tri-Service FAC 4411 from *Tri-Service Facility Unit Costs for Military Construction* version prepared November 13, 2009

SUC: \$1.36 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 4411 Covered Storage Building, Depot
CostWorks 2008 Quarter 2

Design Life= 45
Average S.F= 38,662

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 8" concrete block wall - 1st floor	25	1 Bric	944.100	S.F.	18,938.65	23,036.04	2008 Qtr 2	1	1 \$	23,036.04
Replace 8" concrete block wall - 1st floor	60	2 Bric	94.400	C.S.F.	93,915.73	113,050.61	2008 Qtr 2	0	0 \$	-
Replace 8" concrete block wall - 2nd floor	60	2 Bric	87.400	C.S.F.	92,746.26	111,740.90	2008 Qtr 2	0	0 \$	-
Replace glass - 1st flr. (1% of glass)	1	1 Carp	0.700	S.F.	6.34	7.43	2008 Qtr 2	45	45 \$	334.53
Repair 3' x 4' aluminum window - 1st floor	20	1 Carp	12.000	Ea.	2,820.36	3,301.68	2008 Qtr 2	2	2 \$	6,603.36
Replace 3' x 4' aluminum window - 1st floor	50	1 Carp	12.000	Ea.	9,011.64	10,427.16	2008 Qtr 2	0	0 \$	-
Repair 12' x 12' steel roll-up door	10	1 Carp	7.000	Ea.	5,828.27	6,751.78	2008 Qtr 2	4	4 \$	27,007.12
Refinish 12' x 12' steel roll-up door	10	1 Pord	7.000	Ea.	1,181.81	1,438.78	2008 Qtr 2	4	4 \$	5,755.12
Replace 12' x 12' steel roll-up door	35	2 Carp	7.000	Ea.	23,276.89	26,946.85	2008 Qtr 2	1	1 \$	26,946.85
Repair steel, painted, door	14	1 Carp	3.000	Ea.	1,747.32	2,059.08	2008 Qtr 2	3	2 \$	4,118.16
Refinish 3'-0" x 7'-0" steel, painted, door	8	1 Pord	3.000	Ea.	98.73	120.93	2008 Qtr 2	5	5 \$	604.65
Replace 3'-0" x 7'-0" steel, painted, door	45	1 Carp	3.000	Ea.	1,596.24	1,860.12	2008 Qtr 2	1	0 \$	-
Debris removal and visual inspection built-up roofing	1	2 Rofc	38.600	M.S.F.	1,132.52	1,364.51	2008 Qtr 2	45	45 \$	61,402.95
Non-destructive moisture inspection built-up roofing	5	2 Rofc	38.600	M.S.F.	3,504.11	4,238.28	2008 Qtr 2	9	9 \$	38,144.52
Minor membrane repairs - (2% of roof area) built-up roofing	5	G5	7.700	Sq.	2,652.80	3,134.21	2008 Qtr 2	9	9 \$	28,207.87
Flashing repairs - (2 S.F. per sq. repaired) built-up roofing	5	2 Rofc	15.400	S.F.	51.74	61.60	2008 Qtr 2	9	9 \$	554.40
Minor membrane replacement - (25% of roof area) built-up roofing	20	G5	96.600	Sq.	57,421.94	68,497.13	2008 Qtr 2	2	2 \$	136,994.26
Total roof replacement built-up roofing	28	G1	386.600	Sq.	220,663.55	261,322.27	2008 Qtr 2	1	1 \$	261,322.27
Repair steel painted interior door	14	1 Carp	7.000	Ea.	1,174.25	1,386.98	2008 Qtr 2	3	2 \$	2,773.96
Refinish 3'-0" x 7'-0" steel painted interior door	8	1 Pord	7.000	Ea.	345.80	425.74	2008 Qtr 2	5	5 \$	2,128.70
Replace 3'-0" x 7'-0" steel painted interior door	60	1 Carp	7.000	Ea.	6,562.78	7,629.72	2008 Qtr 2	0	0 \$	-
Repair solid core wood door interior	11	1 Carp	14.000	Ea.	2,348.50	2,773.96	2008 Qtr 2	4	3 \$	8,321.88
Refinish 3'-0" x 7'-0" solid core wood door interior	12	1 Pord	14.000	Ea.	591.08	727.72	2008 Qtr 2	3	3 \$	2,183.16
Replace 3'-0" x 7'-0" solid core wood door interior	40	1 Carp	14.000	Ea.	5,133.80	5,951.68	2008 Qtr 2	1	1 \$	5,951.68
Repair 8" concrete block wall - (2% of walls) painted	25	1 Bric	4.300	C.S.F.	4,348.20	5,220.29	2008 Qtr 2	1	1 \$	5,220.29
Refinish concrete block wall painted	8	1 Pord	218.000	C.S.F.	21,183.06	25,752.34	2008 Qtr 2	5	5 \$	128,761.70
Replace 8" concrete block wall painted	75	2 Bric	218.000	C.S.F.	234,962.58	282,569.42	2008 Qtr 2	0	0 \$	-
Repair 5/8" drywall - (2% of walls)	20	1 Carp	88.900	S.F.	141.35	169.80	2008 Qtr 2	2	2 \$	339.60
Refinish drywall	12	1 Pord	44.400	S.F.	26.64	32.86	2008 Qtr 2	3	3 \$	98.57
Replace 5/8" drywall	75	2 Carp	44.400	S.F.	99.01	119.44	2008 Qtr 2	0	0 \$	-
Replace carpet	12	2 Tilf	343.600	S.Y.	15,506.67	17,915.30	2008 Qtr 2	3	3 \$	53,745.91
Refinish concrete floor finished	25	2 Cefi	341.100	C.S.F.	119,193.98	143,497.36	2008 Qtr 2	1	1 \$	143,497.36
Replace vinyl floor	18	1 Tilf	161.100	S.Y.	7,692.53	9,392.13	2008 Qtr 2	2	2 \$	18,784.26
Acoustic tile repairs - (2% of ceilings)	9	1 Carp	0.600	C.S.F.	268.01	319.00	2008 Qtr 2	5	5 \$	1,595.01
Replace acoustic tile ceiling, fire-rated	20	1 Carp	30.900	C.S.F.	12,457.34	14,801.10	2008 Qtr 2	2	2 \$	29,602.20
Repair sheetrock ceiling - (2% of ceilings)	20	1 Carp	0.200	C.S.F.	69.85	85.25	2008 Qtr 2	2	2 \$	170.51
Refinish sheetrock ceiling	20	1 Pord	14.500	C.S.F.	1,822.22	2,251.71	2008 Qtr 2	2	2 \$	4,503.41
Replace sheetrock ceiling	40	2 Carp	14.500	C.S.F.	5,195.79	6,343.90	2008 Qtr 2	1	1 \$	6,343.90
Check / minor repairs drinking fountain	1	1 Plum	2.000	Ea.	75.16	94.68	2008 Qtr 2	45	45 \$	4,260.60

FAC 4411 Covered Storage Building, Depot
CostWorks 2008 Quarter 2

Design Life= 45
Average S.F= 38,662

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 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
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	8.000	Ea.	192.08	226.64 2008 Qtr 2		6	6 \$	1,359.84
Replace washer in faucet lavatory, vitreous china	2	1 Plum	8.000	Ea.	78.80	98.32 2008 Qtr 2		22	22 \$	2,163.04
Replace faucets lavatory, vitreous china	10	1 Plum	8.000	Ea.	987.92	1,192.48 2008 Qtr 2		4	4 \$	4,769.92
Clean out strainer and P trap lavatory, vitreous china	2	1 Plum	8.000	Ea.	216.32	268.56 2008 Qtr 2		22	22 \$	5,908.32
Replace lavatory, vitreous china	35	2 Plum	8.000	Ea.	4,241.52	5,085.60 2008 Qtr 2		1	1 \$	5,085.60
Replace faucet washer sink, iron enamel	2	1 Plum	2.000	Ea.	19.58	24.38 2008 Qtr 2		22	22 \$	536.36
Clean trap sink, iron enamel	3	1 Plum	2.000	Ea.	13.20	16.50 2008 Qtr 2		15	15 \$	247.50
Replace faucets sink, iron enamel	10	1 Plum	2.000	Ea.	246.98	298.12 2008 Qtr 2		4	4 \$	1,192.48
Unstop sink sink, iron enamel	2	1 Plum	2.000	Ea.	64.42	81.00 2008 Qtr 2		22	22 \$	1,782.00
Replace sink, P.E.C.I. sink, iron enamel	35	2 Plum	2.000	Ea.	1,105.44	1,315.38 2008 Qtr 2		1	1 \$	1,315.38
Replace flush valve diaphragm tankless water closet	10	1 Plum	5.000	Ea.	353.70	415.30 2008 Qtr 2		4	4 \$	1,661.20
Rebuild flush valve tankless water closet	20	1 Plum	5.000	Ea.	659.90	800.05 2008 Qtr 2		2	2 \$	1,600.10
Unplug clogged line tankless water closet	5	1 Plum	5.000	Ea.	841.30	1,050.90 2008 Qtr 2		9	9 \$	9,458.10
Replace tankless water closet	35	2 Plum	5.000	Ea.	2,740.00	3,241.80 2008 Qtr 2		1	1 \$	3,241.80
Replace tankless flush valve	25	1 Plum	5.000	Ea.	1,047.50	1,226.85 2008 Qtr 2		1	1 \$	1,226.85
Replace wax ring gasket tankless water closet	5	1 Plum	5.000	Ea.	547.85	686.00 2008 Qtr 2		9	9 \$	6,174.00
Replace flush valve diaphragm urinal	7	1 Plum	2.000	Ea.	141.48	166.12 2008 Qtr 2		6	6 \$	996.72
Rebuild flush valve urinal	20	1 Plum	2.000	Ea.	263.96	320.02 2008 Qtr 2		2	2 \$	640.04
Unplug line urinal	5	1 Plum	2.000	Ea.	224.28	279.82 2008 Qtr 2		9	9 \$	2,518.38
Replace wall-hung urinal	35	2 Plum	2.000	Ea.	1,683.26	2,013.14 2008 Qtr 2		1	1 \$	2,013.14
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	32.000	L.F.	567.04	687.36 2008 Qtr 2		2	2 \$	1,374.72
Replace pipe and fittings, copper 2"	25	2 Plum	16.000	L.F.	652.96	785.76 2008 Qtr 2		1	1 \$	785.76
Repair damaged pipe insulation, fiberglass 2"	5	Q14	2.000	Ea.	36.92	45.06 2008 Qtr 2		9	9 \$	405.54
Repair damaged pipe insulation, fiberglass 3/4"	5	Q14	4.000	Ea.	62.88	76.72 2008 Qtr 2		9	9 \$	690.48
Replace pipe insulation, fiberglass 2"	5	Q14	1.900	M.L.F.	14,110.24	17,231.29 2008 Qtr 2		9	9 \$	155,081.61
Replace pipe insulation, fiberglass 3/4"	5	Q14	0.800	M.L.F.	5,031.26	6,129.04 2008 Qtr 2		9	9 \$	55,161.36
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

FAC 4411 Covered Storage Building, Depot
CostWorks 2008 Quarter 2

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.										
Design Life= 45 Average S.F= 38,662 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										
Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Release	Occurrences In Design Life	Adjusted Occurrences	Terminal Cutoff
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 floor drain, PVC	20	1 Plum	1.000	Ea.	37.09	45.87	2008 Qtr 2	2	2 \$	91.74
Unclog main drain pipe, PVC	10	1 Plum	1.000	M.L.F.	35.62	44.41	2008 Qtr 2	4	4 \$	177.64
Repair joint pipe and fittings, PVC	10	1 Plum	2.000	Ea.	231.88	288.28	2008 Qtr 2	4	4 \$	1,153.12
Replace pipe, 4" pipe and fittings, PVC	30	2 Plum	800.000	L.F.	47,360.00	58,552.00	2008 Qtr 2	1	1 \$	58,552.00
General maintenance & repair drain: roof, scupper, area	1	1 Plum	10.000	Ea.	283.50	356.70	2008 Qtr 2	45	45 \$	16,051.50
Replace drain: roof, scupper, area	40	1 Plum	10.000	Ea.	3,983.40	4,681.40	2008 Qtr 2	1	1 \$	4,681.40
Replace roof mounted exhaust fan, 8500 CFM exhaust fan	20	Q20	2.000	Ea.	5,238.96	6,101.28	2008 Qtr 2	2	2 \$	12,202.56
Repair single zone rooftop unit, 60 ton	10	Q6	1.000	Ea.	39,670.17	46,952.35	2008 Qtr 2	4	4 \$	187,809.40
Replace single zone rooftop unit, 60 ton	15	Q7	0.500	Ea.	35,405.00	41,446.30	2008 Qtr 2	3	2 \$	82,892.60
Maintenance and repair standard suspended heater	2	1 Elec	2.000	Ea.	185.18	217.34	2008 Qtr 2	22	22 \$	4,781.48
Maintenance and inspection standard suspended heater	0.5	1 Elec	2.000	Ea.	124.92	156.16	2008 Qtr 2	90	90 \$	14,054.40
Replace heater standard suspended heater	15	1 Elec	2.000	Ea.	1,450.80	1,699.34	2008 Qtr 2	3	2 \$	3,398.68
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
Replace sprinkler head	20	1 Plum	406.000	Ea.	25,854.08	31,854.76	2008 Qtr 2	2	2 \$	63,709.52
Replace fire alarm bell, 6"	20	1 Elec	6.000	Ea.	853.68	1,029.06	2008 Qtr 2	2	2 \$	2,058.12
Maintenance and repair safety switch, 3 pole safety switch, heavy duty	8	1 Elec	2.000	Ea.	57.00	71.26	2008 Qtr 2	5	5 \$	356.30
Maintenance and inspection safety switch, 3 pole, heavy duty	1	1 Elec	2.000	Ea.	57.00	71.26	2008 Qtr 2	45	45 \$	3,206.70
Replace safety switch, heavy duty	25	2 Elec	2.000	Ea.	1,160.96	1,361.42	2008 Qtr 2	1	1 \$	1,361.42
Repair switchgear 1200 A mainframe	5	1 Elec	1.000	Ea.	1,694.09	1,975.10	2008 Qtr 2	9	9 \$	17,775.90
Maintenance and inspection switchgear, mainframe	1	1 Elec	1.000	Ea.	45.81	57.01	2008 Qtr 2	45	45 \$	2,565.45
Replace switchgear 1200 A mainframe	20	3 Elec	1.000	Ea.	4,052.28	4,808.24	2008 Qtr 2	2	2 \$	9,616.48
Maintenance and repair motor starter, up to 600 V	5	1 Elec	2.000	Ea.	341.50	415.00	2008 Qtr 2	9	9 \$	3,735.00
Maintenance and inspection motor starter, up to 600 V	0.5	1 Elec	2.000	Ea.	76.34	95.70	2008 Qtr 2	90	90 \$	8,613.00
Replace starter motor starter, up to 600 V	18	1 Elec	2.000	Ea.	1,056.36	1,260.82	2008 Qtr 2	2	2 \$	2,521.64
Replace fluor. ballast for fluorescent lighting fixture, 80 W	10	1 Elec	580.000	Ea.	57,756.40	69,646.40	2008 Qtr 2	4	4 \$	278,585.60
Replace lamps (2 lamps) fluorescent lighting fixture, 80 W	10	1 Elec	580.000	Ea.	14,755.20	18,084.40	2008 Qtr 2	4	4 \$	72,337.60
Maintenance and repair receptacles and plugs	20	1 Elec	174.000	Ea.	5,409.66	6,739.02	2008 Qtr 2	2	2 \$	13,478.04
Replace receptacle/plug receptacles and plugs	20	1 Elec	174.000	Ea.	9,180.24	11,209.08	2008 Qtr 2	2	2 \$	22,418.16
Maintenance and repair wiring devices, switches	10	1 Elec	44.000	Ea.	1,367.96	1,704.12	2008 Qtr 2	4	4 \$	6,816.48
Replace switch wiring devices, switches	15	1 Elec	44.000	Ea.	2,253.24	2,743.40	2008 Qtr 2	3	2 \$	5,486.80
Check and repair manual pull station	10	1 Elec	4.000	Ea.	276.84	339.48	2008 Qtr 2	4	4 \$	1,357.92
Replace manual pull station	15	1 Elec	4.000	Ea.	502.96	607.56	2008 Qtr 2	3	2 \$	1,215.12
Repair smoke detector	10	1 Elec	77.000	Ea.	2,940.63	3,619.00	2008 Qtr 2	4	4 \$	14,476.00
Check operation smoke detector	1	1 Elec	77.000	Ea.	877.80	1,101.10	2008 Qtr 2	45	45 \$	49,549.50
Replace smoke detector	15	1 Elec	77.000	Ea.	14,595.35	17,478.23	2008 Qtr 2	3	2 \$	34,956.46

FAC 4411 Covered Storage Building, Depot
CostWorks 2008 Quarter 2

Design Life= 45
Average S.F= 38,662

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
-------------	-----------	------	-----	------	----------------	-----------------	---------	----------------------------	----------------------	-----------------

\$1,307,639.33 \$1,566,716.09

MR Subtotal \$ 2,364,732.67

MR Per Year \$ 52,549.61

PM Per Year \$1,893.88

Subtotal \$ 54,443.49

Total Per Unit \$ 1.41

CostWorks 2008 Quarter 2 - FAC 4411 Covered Storage Building, Depot

Qty	Description	Bare Total	Total In-House	Total Incl. O&P	Zip Code Prefix	Type	Release
8.000	VAV Boxes, annualized	401.20	490.48	608.00	200	FMR	2008 Qtr 2
1.000	Crane, electric bridge, up to 5 ton, annualized	125.11	152.92	186.81	200	FMR	2008 Qtr 2
3.000	Door, emergency egress, swinging, annualized	129.24	148.53	172.53	200	FMR	2008 Qtr 2
21.000	Fire doors, swinging, annualized	418.95	522.69	627.06	200	FMR	2008 Qtr 2
2.000	Urinals, annualized	20.78	25.86	32.30	200	FMR	2008 Qtr 2
2.000	Drink fountain, annualized	80.24	99.00	118.72	200	FMR	2008 Qtr 2
5.000	Toilet (vacuum breaker type), annualized	51.95	64.65	80.75	200	FMR	2008 Qtr 2
1.000	Panelboard, 225 A and above, annualized	49.28	56.96	67.71	200	FMR	2008 Qtr 2
		\$1,276.75	\$1,561.09	\$1,893.88			

FAC 4411 Sustainment by Year - Terminal Cutoff Applied

