

FAC 7447 MWR STORAGE BUILDING

FY22 SUC:	\$3.13 / SF
Source:	Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 7447 MWR STORAGE BUILDING

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 45
Average Size 3800.0

SUC \$3.13

Adjusted Occurrences 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 aluminum siding, 1st floor	35	19.00 C.S.F.	\$11,102.57	\$13,369.78	1.2857	1	1	\$13,369.78	\$13,369.78
Refinish aluminum siding, 1st floor	20	19.00 C.S.F.	\$3,439.71	\$4,245.24	2.2500	2	2	\$8,490.48	\$8,490.48
Repair steel, painted, door	14	10.00 Ea.	\$6,250.74	\$7,440.06	3.2143	3	3	\$22,320.17	\$22,320.17
Refinish 3'-0" x 7'-0" steel, painted, door	4	10.00 Ea.	\$414.00	\$508.66	11.2500	11	11	\$5,595.29	\$5,595.29
Replace 3'-0" x 7'-0" steel, painted, door	45	1.00 Ea.	\$705.06	\$819.73	1.0000	1	1	\$819.73	\$819.73
Repair 12' x 24' aluminum double roll-up door	10	2.00 Ea.	\$4,843.91	\$5,611.38	4.5000	4	4	\$22,445.50	\$22,445.50
Debris removal, by hand and visual inspection, metal panel roofing	1	9.04 M.S.F.	\$205.92	\$251.16	45.0000	45	45	\$11,302.37	\$11,302.37
Minor metal roof finish repairs, 2% of roof area, metal panel roofing	5	76.00 S.F.	\$265.47	\$318.51	9.0000	9	9	\$2,866.62	\$2,866.62
Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing	1	3.62 S.F.	\$66.15	\$80.15	45.0000	45	45	\$3,606.91	\$3,606.91
Minor metal roof panel replacement, 2.5% of roof area	20	95.00 S.F.	\$1,085.62	\$1,289.35	2.2500	2	2	\$2,578.70	\$2,578.70
Total metal roof panel replacement	30	38.00 Sq.	\$32,115.57	\$38,038.62	1.5000	1	1	\$38,038.62	\$38,038.62
Clean & service water heater, gas / oil, 70 gallon	1	1.00 Ea.	\$196.62	\$245.89	45.0000	45	45	\$11,065.00	\$11,065.00
Unclog main drain pipe & fittings, cast iron	10	1.00 Ea.	\$46.17	\$57.74	4.5000	4	4	\$230.95	\$230.95
Replace pipe & fittings, cast iron, 4"	40	8.00 L.F.	\$535.58	\$642.86	1.1250	1	1	\$642.86	\$642.86
Unclog floor drain, PVC	20	1.00 Ea.	\$47.80	\$59.77	2.2500	2	2	\$119.55	\$119.55
Unclog 4" - 12" diameter PVC main drain per L.F.	10	2.00 L.F.	\$7.58	\$9.48	4.5000	4	4	\$37.93	\$37.93
Replace pipe, 4" pipe and fittings, PVC	30	8.00 L.F.	\$652.71	\$803.07	1.5000	1	1	\$803.07	\$803.07
General maintenance & repair drain: roof, scupper, area	1	1.00 Ea.	\$36.99	\$46.26	45.0000	45	45	\$2,081.56	\$2,081.56
Replace drain: roof, scupper, area	40	3.00 Ea.	\$2,360.80	\$2,737.08	1.1250	1	1	\$2,737.08	\$2,737.08
Replace roof mounted exhaust fan, 2000 CFM exhaust fan	20	1.00 Ea.	\$2,670.72	\$3,107.25	2.2500	2	2	\$6,214.50	\$6,214.50
Maintenance and repair explosionproof industrial heater	2	2.00 Ea.	\$405.39	\$473.69	22.5000	22	22	\$10,421.13	\$10,421.13
Maintenance and inspection explosionproof industrial heater	0.5	2.00 Ea.	\$157.70	\$197.57	90.0000	90	90	\$17,781.26	\$17,781.26
Repair single zone rooftop unit, 5 ton	10	1.00 Ea.	\$2,372.90	\$2,849.79	4.5000	4	4	\$11,399.16	\$11,399.16
Replace single zone rooftop unit, 5 ton	15	1.00 Ea.	\$8,500.58	\$10,094.10	3.0000	3	3	\$30,282.30	\$30,282.30
Repair central station A.H.U., 1300 CFM	10	1.00 Ea.	\$498.49	\$594.57	4.5000	4	3	\$2,378.29	\$1,783.72
Replace central station A.H.U., 1300 CFM	15	1.00 Ea.	\$9,533.60	\$11,033.44	3.0000	3	3	\$33,100.31	\$33,100.31
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	45.0000	45	45	\$1,931.79	\$1,931.79

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace sprinkler head	20	36.00 Ea.	\$3,078.82	\$3,786.82	2.2500	2	2	\$7,573.64	\$7,573.64
Maintenance and inspection motor starter, up to 600 V	0.5	2.00 Ea.	\$107.96	\$135.26	90.0000	90	90	\$12,173.41	\$12,173.41
Replace starter motor starter, up to 600 V	18	2.00 Ea.	\$1,610.62	\$1,916.15	2.5000	2	2	\$3,832.30	\$3,832.30
Maintenance and inspection lighting panel, indoor	3	1.00 Ea.	\$40.64	\$50.92	15.0000	15	15	\$763.82	\$763.82
Repair 8" concrete block wall - (2% of walls) painted	25	9.20 C.S.F.	\$10,024.82	\$12,036.87	1.8000	1	1	\$12,036.87	\$12,036.87
Repair channel frame wire mesh wall - (2% of walls)	20	4.20 C.S.F.	\$4,587.33	\$5,461.93	2.2500	2	2	\$10,923.87	\$10,923.87
Repair steel painted interior door	14	3.00 Ea.	\$880.36	\$1,024.69	3.2143	3	3	\$3,074.08	\$3,074.08
Refinish 3'-0" x 7'-0" steel painted interior door	4	3.00 Ea.	\$157.76	\$194.36	11.2500	11	11	\$2,137.95	\$2,137.95
Replace 3'-0" x 7'-0" steel painted interior door	60	3.00 Ea.	\$3,654.10	\$4,236.25	0.7500	0	0	\$0.00	\$0.00
Replace flush valve diaphragm tankless water closet	10	1.00 Ea.	\$26.22	\$32.54	4.5000	4	4	\$130.14	\$130.14
Rebuild flush valve tankless water closet	20	1.00 Ea.	\$180.43	\$217.46	2.2500	2	2	\$434.91	\$434.91
Replace tankless water closet	35	1.00 Ea.	\$1,286.22	\$1,488.50	1.2857	1	1	\$1,488.50	\$1,488.50
Replace tankless flush valve	25	1.00 Ea.	\$252.22	\$296.11	1.8000	1	1	\$296.11	\$296.11
Replace wax ring gasket for tankless water closet	5	1.00 Ea.	\$141.52	\$176.83	9.0000	9	9	\$1,591.44	\$1,591.44
Replace washer in spud connection lavatory, vitreous china	7	1.00 Ea.	\$16.46	\$20.08	6.4286	6	6	\$120.48	\$120.48
Replace washer in faucet lavatory, vitreous china	2	1.00 Ea.	\$12.88	\$16.05	22.5000	22	22	\$353.14	\$353.14
Replace faucets lavatory, vitreous china	10	1.00 Ea.	\$181.73	\$218.76	4.5000	4	4	\$875.02	\$875.02
Clean out strainer and P trap lavatory, vitreous china	2	1.00 Ea.	\$34.87	\$43.61	22.5000	22	22	\$959.37	\$959.37
Replace lavatory, vitreous china	35	1.00 Ea.	\$672.57	\$808.22	1.2857	1	1	\$808.22	\$808.22
Replace faucet washer sink, service/utility	2	1.00 Ea.	\$12.78	\$15.92	22.5000	22	22	\$350.15	\$350.15
Replace faucets sink, service/utility	10	1.00 Ea.	\$181.73	\$218.76	4.5000	4	4	\$875.02	\$875.02
Overhaul water heater, gas / oil, 70 gallon	5	1.00 Ea.	\$163.70	\$204.73	9.0000	9	9	\$1,842.54	\$1,842.54
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	14.00 Ea.	\$1,004.68	\$1,258.72	2.2500	2	2	\$2,517.43	\$2,517.43
Maintenance and repair breaker, enclosed, 240 V, 2 pole	25	4.00 Ea.	\$287.05	\$359.63	1.8000	1	1	\$359.63	\$359.63
Maintenance and repair safety switch, 3 pole safety switch, heavy duty	8	2.00 Ea.	\$81.29	\$101.84	5.6250	5	5	\$509.21	\$509.21
Maintenance and repair receptacles and plugs	20	28.00 Ea.	\$1,182.82	\$1,476.68	2.2500	2	2	\$2,953.36	\$2,953.36
Replace receptacle/plug receptacles and plugs	20	28.00 Ea.	\$2,014.76	\$2,483.51	2.2500	2	2	\$4,967.01	\$4,967.01
Maintenance and repair wiring devices, switches	10	14.00 Ea.	\$591.41	\$738.34	4.5000	4	4	\$2,953.36	\$2,953.36
Replace wiring devices, switches	15	14.00 Ea.	\$915.29	\$1,137.11	3.0000	3	3	\$3,411.32	\$3,411.32
Replace fluorescent light fixture ballast, 80 W	10	15.00 Ea.	\$1,870.03	\$2,268.56	4.5000	4	2	\$9,074.23	\$4,537.12
Replace lamps (2 lamps), 4', 34 W energy saver	10	15.00 Ea.	\$378.21	\$473.68	4.5000	4	4	\$1,894.74	\$1,894.74

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace fluorescent fixture, lay-in, recess mtd, 2' x 4', two 40 W	20	15.00 Ea.	\$3,411.56	\$4,161.23	2.2500	2	2	\$8,322.45	\$8,322.45	
Replace high pressure sodium ballast, 250 W	10	8.00 Ea.	\$1,550.79	\$1,838.81	4.5000	4	4	\$7,355.23	\$7,355.23	
Replace high pressure sodium fixture lamp, 250 W	10	8.00 Ea.	\$445.26	\$540.78	4.5000	4	4	\$2,163.12	\$2,163.12	
Check operation smoke detector	1	8.00 Ea.	\$129.55	\$162.31	45.0000	45	45	\$7,304.05	\$7,304.05	
Replace smoke detector	15	8.00 Ea.	\$2,273.90	\$2,715.70	3.0000	3	3	\$8,147.09	\$8,147.09	
Check and repair manual pull station	10	5.00 Ea.	\$438.48	\$539.15	4.5000	4	3	\$2,156.61	\$1,617.45	
Replace manual pull station	15	5.00 Ea.	\$1,017.34	\$1,224.71	3.0000	3	3	\$3,674.12	\$3,674.12	
Maintenance and inspection annunciation panel	0.5	1.00 Ea.	\$43.18	\$54.10	90.0000	90	90	\$4,869.37	\$4,869.37	
Replace annunciation panel	15	1.00 Ea.	\$1,126.52	\$1,354.55	3.0000	3	3	\$4,063.66	\$4,063.66	
Replace fire alarm bell, 6"	20	1.00 Ea.	\$194.96	\$235.28	2.2500	2	2	\$470.55	\$470.55	
Maintenance and repair electrical service ground	25	1.40 M.L.F.	\$123.04	\$153.70	1.8000	1	1	\$153.70	\$153.70	
Maintenance and repair lightning ground rod	1	1.00 Ea.	\$87.89	\$109.79	45.0000	45	45	\$4,940.42	\$4,940.42	
			\$135,026.41	\$160,957.10				MR Subtotal	\$401,891.73	
									MR Per Year	\$8,930.93
									PM Total	\$2,981.02
									Subtotal	\$11,911.95
									Total Per Unit	\$3.13

FAC 7447 MWR STORAGE BUILDING

SUC \$3.13

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 45

Type PM

Average Size 3800.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	10.00	2.60	\$145.92	\$107.49	\$0.00	\$253.41	\$300.25	\$354.39
Door, overhead, electric, roll up, to 24' high x 25' wide, annualized	2.00	8.14	\$81.92	\$337.62	\$0.00	\$419.54	\$529.02	\$642.60
Fire doors, swinging, annualized	2.00	0.78	\$28.64	\$29.12	\$0.00	\$57.76	\$69.36	\$82.39
Toilet (vacuum breaker type), annualized	1.00	0.18	\$8.44	\$8.90	\$0.00	\$17.34	\$20.85	\$24.79
Lavatories, annualized	1.00	0.35	\$5.96	\$20.70	\$0.00	\$26.67	\$33.48	\$40.58
Fan coil unit, annualized	1.00	3.34	\$113.23	\$168.27	\$0.00	\$281.50	\$343.31	\$410.77
Unit heater, gas radiant, annualized	2.00	2.02	\$2.93	\$101.31	\$0.00	\$104.25	\$134.93	\$165.77
Package unit, air cooled, 3 thru 24 ton, annualized	1.00	2.40	\$176.92	\$144.48	\$0.00	\$321.41	\$382.45	\$452.33
Backflow prevention device, over 4", annualized	1.00	0.49	\$13.40	\$29.51	\$0.00	\$42.91	\$53.10	\$63.97
Extinguishing system, wet pipe, annually	1.00	3.82	\$54.09	\$227.30	\$0.00	\$281.39	\$354.98	\$431.29
Switchboard, annualized	1.00	0.70	\$3.99	\$46.10	\$0.00	\$50.09	\$64.32	\$78.75
Panelboard, 225 A and above, annually	1.00	0.44	\$23.20	\$29.01	\$0.00	\$52.21	\$63.23	\$75.41
Light, emergency, wet cell, annualized	2.00	0.78	\$68.05	\$45.58	\$0.00	\$113.63	\$134.11	\$157.99
						\$2,022.10	\$2,483.40	\$2,981.02

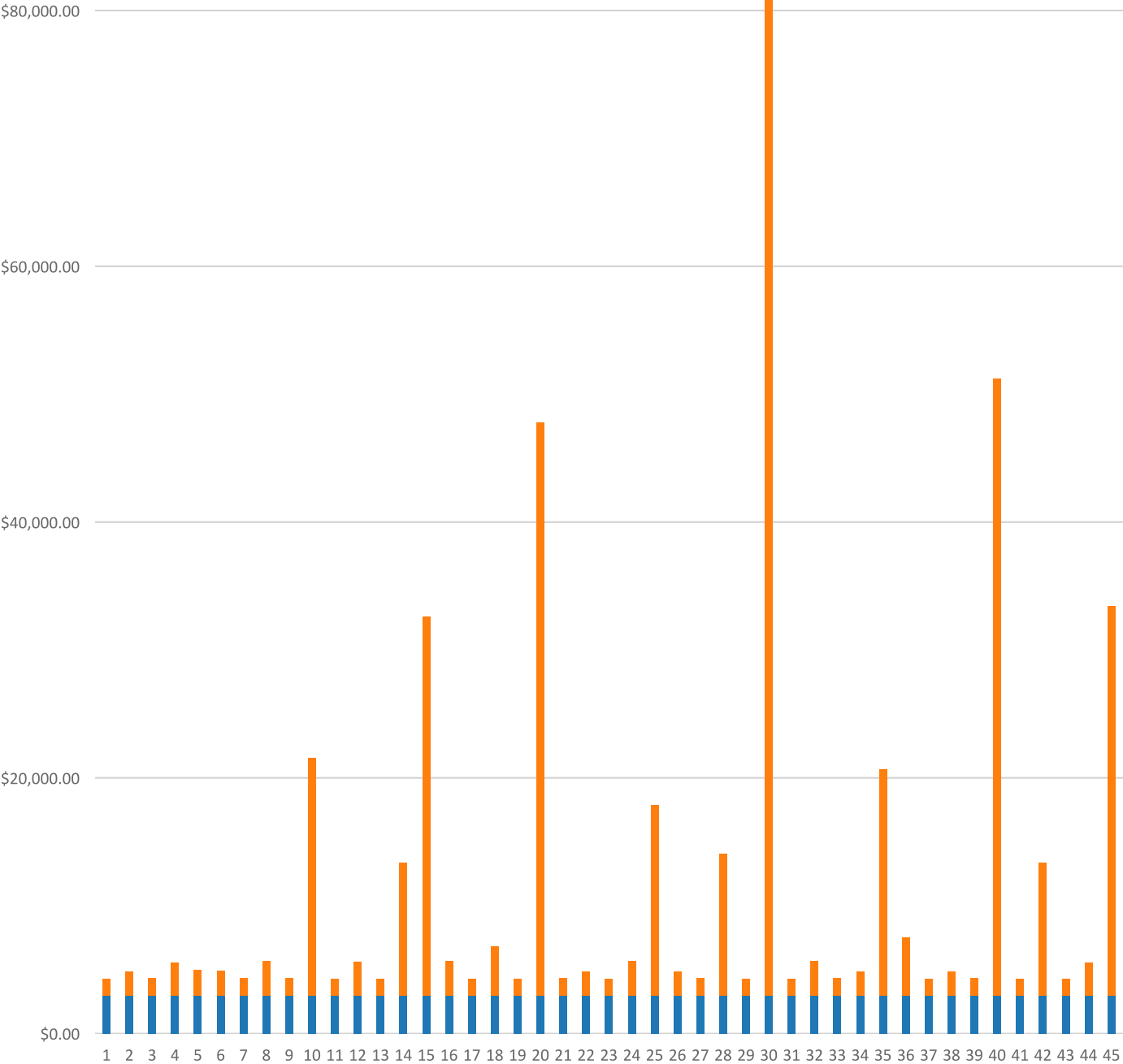
FAC 7447 MWR STORAGE BUILDING

Modeled Component List

CostWorks Release 2021 Qtr 3

B20 Exterior Enclosure		
Aluminum Siding, 1st floor	19.0 C.S.F.	
Steel, Painted	1.0 Ea.	
B30 Roofing		
Metal Steep Roofing	38.0 Sq.	
D20 Plumbing		
Drain: Roof, Scupper, Area	3.0 Ea.	
Tankless Water Closet	1.0 Ea.	
Lavatory, Vitreous China	1.0 Ea.	
D30 HVAC		
Exhaust Fan, roof mounted exhaust fan, 2000 CFM exhaust	1.0 Ea.	
Single Zone Air Conditioner, 5 ton	1.0 Ea.	
Central Station Air Conditioning Air Handling Unit, 1300 CFM	1.0 Ea.	
D40 Fire Protection		
Sprinkler System, Fire Suppression, sprinkler head	36.0 Ea.	
D50 Electrical		
Motor Starter, Up To 600 V	2.0 Ea.	
Load Center, 100 A, maintenance & inspection	1.0 Ea.	
Fluorescent Lighting Fixture	15.0 Ea.	
Smoke Detector	8.0 Ea.	
Manual Pull Station	5.0 Ea.	
Annunciation Panel	1.0 Ea.	
Fire Alarm Bell	1.0 Ea.	
C10 Interior Construction		
Steel Painted Interior Doors	3.0 Ea.	
Fire Doors, Swinging, annualized	2.0 Each	

FAC 7447 MWR STORAGE BUILDING
Sustainment by Year
CostWorks Release 2021 Qtr 3



PM Cost
MR Cost