

FAC 1444 MISCELLANEOUS OPERATIONS SUPPORT BUILDING

FY22 SUC:	\$3.64 / SF
Source:	Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 1444 MISCELLANEOUS OPERATIONS SUPPORT BUILDING

SUC \$3.64

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.

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 55

Type MR

Average Size 5599.0

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace metal stair railing, interior	45	14.00 L.F.	\$601.38	\$703.92	1.2222	1	1	\$703.92	\$703.92
Repair 5/8" drywall - (2% of walls)	20	40.00 S.F.	\$67.01	\$81.54	2.7500	2	2	\$163.08	\$163.08
Refinish drywall	4	2,000.00 S.F.	\$1,241.96	\$1,527.82	13.7500	13	13	\$19,861.66	\$19,861.66
Replace 5/8" drywall	75	2,000.00 S.F.	\$4,661.22	\$5,704.41	0.7333	0	0	\$0.00	\$0.00
Refinish concrete floor finished	25	13.15 C.S.F.	\$5,547.03	\$6,662.85	2.2000	2	2	\$13,325.69	\$13,325.69
Replace vinyl tile flooring	18	480.00 S.Y.	\$23,713.67	\$29,121.62	3.0556	3	3	\$87,364.86	\$87,364.86
Terrazzo floor repairs - (2% of floors)	15	2.52 S.F.	\$40.99	\$49.08	3.6667	3	3	\$147.24	\$147.24
Replace terrazzo floor	75	1.26 C.S.F.	\$1,960.62	\$2,341.09	0.7333	0	0	\$0.00	\$0.00
Replace carpet	8	50.00 S.Y.	\$2,750.82	\$3,176.85	6.8750	6	6	\$19,061.07	\$19,061.07
Repair gypsum board ceiling - (2% of ceilings)	20	0.02 C.S.F.	\$7.97	\$9.78	2.7500	2	2	\$19.56	\$19.56
Refinish gypsum board ceiling, up to 12' high	20	1.10 C.S.F.	\$142.00	\$175.54	2.7500	2	2	\$351.08	\$351.08
Repair 8" concrete block wall, 1st floor	25	69.60 S.F.	\$1,685.35	\$2,061.78	2.2000	2	2	\$4,123.55	\$4,123.55
Replace 8" concrete block wall, 1st floor	60	6.96 C.S.F.	\$8,253.55	\$9,974.57	0.9167	0	0	\$0.00	\$0.00
Replace 8" concrete block wall, 2nd floor	60	6.45 C.S.F.	\$8,168.05	\$9,887.08	0.9167	0	0	\$0.00	\$0.00
Replace clay brick wall, 2nd floor	75	4.63 C.S.F.	\$10,460.95	\$12,727.85	0.7333	0	0	\$0.00	\$0.00
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	2.28 S.F.	\$27.49	\$32.31	55.0000	55	55	\$1,777.12	\$1,777.12
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	8.00 Ea.	\$1,157.89	\$1,380.87	2.7500	2	2	\$2,761.74	\$2,761.74
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	38.00 Ea.	\$18,549.00	\$21,983.92	1.1000	1	1	\$21,983.92	\$21,983.92
Repair steel, painted, door	14	3.00 Ea.	\$1,875.22	\$2,232.02	3.9286	3	3	\$6,696.05	\$6,696.05
Refinish 3'-0" x 7'-0" steel, painted, door	4	3.00 Ea.	\$124.20	\$152.60	13.7500	13	13	\$1,983.78	\$1,983.78
Replace 3'-0" x 7'-0" steel, painted, door	45	3.00 Ea.	\$2,115.19	\$2,459.19	1.2222	1	1	\$2,459.19	\$2,459.19
Repair 12' x 12' steel roll-up door	10	1.00 Ea.	\$675.90	\$802.22	5.5000	5	5	\$4,011.08	\$4,011.08
Replace 12' x 12' steel roll-up door	35	1.00 Ea.	\$2,703.58	\$3,208.87	1.5714	1	1	\$3,208.87	\$3,208.87
Minor thermoplastic membrane repairs, 2% of roof area	1	1.00 Sq.	\$324.44	\$386.05	55.0000	55	55	\$21,232.63	\$21,232.63
Flashing repairs, 2 S.F. per sq. repaired, modified bitumen/thermoplastic	1	18.00 S.F.	\$69.36	\$83.01	55.0000	55	55	\$4,565.41	\$4,565.41
Membrane replacement-(25% of roof area),modified bitum/thermoplastic	20	14.00 Sq.	\$10,969.93	\$13,099.90	2.7500	2	2	\$26,199.79	\$26,199.79
Total roof replacement, modified bituminous / thermoplastic	25	56.00 Sq.	\$35,488.82	\$42,115.90	2.2000	2	2	\$84,231.79	\$84,231.79
Repair steel painted interior door	14	6.00 Ea.	\$1,760.71	\$2,049.38	3.9286	3	3	\$6,148.15	\$6,148.15
Refinish 3'-0" x 7'-0" steel painted interior door	4	6.00 Ea.	\$315.51	\$388.72	13.7500	13	13	\$5,053.33	\$5,053.33
Replace 3'-0" x 7'-0" steel painted interior door	60	6.00 Ea.	\$7,308.21	\$8,472.50	0.9167	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	2.00 Ea.	\$586.90	\$683.13	5.0000	5	5	\$3,415.64	\$3,415.64

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	2.00 Ea.	\$86.73	\$106.50	13.7500	13	12	\$1,384.49	\$1,277.99
Replace 3'-0" x 7'-0" solid core wood door, interior	40	2.00 Ea.	\$978.85	\$1,131.62	1.3750	1	1	\$1,131.62	\$1,131.62
Repair concrete steps	15	0.70 S.F.	\$16.00	\$18.52	3.6667	3	3	\$55.55	\$55.55
Replace concrete steps	100	7.00 S.F.	\$374.21	\$456.35	0.5500	0	0	\$0.00	\$0.00
Replace flush valve diaphragm tankless water closet	10	5.00 Ea.	\$131.10	\$162.68	5.5000	5	5	\$813.40	\$813.40
Rebuild flush valve tankless water closet	20	5.00 Ea.	\$902.17	\$1,087.29	2.7500	2	2	\$2,174.57	\$2,174.57
Unplug clogged line tankless water closet	5	5.00 Ea.	\$1,091.98	\$1,365.63	11.0000	11	11	\$15,021.98	\$15,021.98
Replace tankless water closet	35	5.00 Ea.	\$6,431.11	\$7,442.48	1.5714	1	1	\$7,442.48	\$7,442.48
Replace tankless flush valve	25	5.00 Ea.	\$1,261.08	\$1,480.55	2.2000	2	2	\$2,961.10	\$2,961.10
Replace wax ring gasket for tankless water closet	5	5.00 Ea.	\$707.60	\$884.13	11.0000	11	11	\$9,725.45	\$9,725.45
Replace flush valve diaphragm for a urinal	7	2.00 Ea.	\$52.44	\$65.07	7.8571	7	7	\$455.50	\$455.50
Rebuild flush valve for a urinal	20	2.00 Ea.	\$360.87	\$434.91	2.7500	2	2	\$869.83	\$869.83
Unplug line urinal	5	2.00 Ea.	\$290.14	\$362.86	11.0000	11	11	\$3,991.41	\$3,991.41
Replace wall-hung urinal	35	2.00 Ea.	\$1,937.73	\$2,338.21	1.5714	1	1	\$2,338.21	\$2,338.21
Replace washer in spud connection lavatory, vitreous china	7	6.00 Ea.	\$98.78	\$120.48	7.8571	7	7	\$843.36	\$843.36
Replace washer in faucet lavatory, vitreous china	2	6.00 Ea.	\$77.31	\$96.31	27.5000	27	27	\$2,600.39	\$2,600.39
Replace faucets lavatory, vitreous china	10	6.00 Ea.	\$1,090.36	\$1,312.53	5.5000	5	5	\$6,562.66	\$6,562.66
Clean out strainer and P trap lavatory, vitreous china	2	6.00 Ea.	\$209.22	\$261.65	27.5000	27	27	\$7,064.48	\$7,064.48
Replace lavatory, vitreous china	35	6.00 Ea.	\$4,035.45	\$4,849.33	1.5714	1	1	\$4,849.33	\$4,849.33
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$12.78	\$15.92	27.5000	27	27	\$429.73	\$429.73
Clean trap sink, iron enamel	3	1.00 Ea.	\$8.57	\$10.72	18.3333	18	18	\$192.93	\$192.93
Replace faucets sink, iron enamel	10	1.00 Ea.	\$181.73	\$218.76	5.5000	5	5	\$1,093.78	\$1,093.78
Unstop sink, iron enamel	2	1.00 Ea.	\$41.82	\$52.30	27.5000	27	27	\$1,412.16	\$1,412.16
Replace sink, P.E.C.I. sink, iron enamel kitchen	10	1.00 Ea.	\$636.70	\$757.51	5.5000	5	5	\$3,787.55	\$3,787.55
Drain and flush water heater, electric, 120 gallon	7	1.50 Ea.	\$441.57	\$552.23	7.8571	7	7	\$3,865.62	\$3,865.62
Check operation water heater, electric, 120 gallon	3	0.50 Ea.	\$1.29	\$1.62	18.3333	18	18	\$29.10	\$29.10
Replace water heater, electric, 120 gallon	15	0.50 Ea.	\$7,316.29	\$8,368.44	3.6667	3	3	\$25,105.33	\$25,105.33
Inspect / check pump / motor operation, lubricate circulation pump, 1/12 HP	0.5	1.00 Ea.	\$8.03	\$10.04	110.0000	110	110	\$1,104.33	\$1,104.33
Replace pump / motor assembly circulation pump, 1/12 HP	10	1.00 Ea.	\$1,100.58	\$1,290.00	5.5000	5	5	\$6,449.98	\$6,449.98
Unclog main drain pipe & fittings, cast iron	10	1.00 Ea.	\$46.17	\$57.74	5.5000	5	5	\$288.68	\$288.68
General maintenance & repair drain: roof, scupper, area	1	1.00 Ea.	\$36.99	\$46.26	55.0000	55	55	\$2,544.13	\$2,544.13
Replace drain: roof, scupper, area	40	1.00 Ea.	\$786.93	\$912.36	1.3750	1	1	\$912.36	\$912.36
Repair boiler, gas, 250 MBH	7	1.00 Ea.	\$2,031.05	\$2,390.45	7.8571	7	7	\$16,733.15	\$16,733.15
Replace boiler, gas, 250 MBH	30	1.00 Ea.	\$9,398.04	\$11,210.13	1.8333	1	1	\$11,210.13	\$11,210.13
Repair reciprocating chiller, air cooled, 20 ton	10	1.00 Ea.	\$39,678.05	\$45,847.57	5.5000	5	3	\$229,237.83	\$137,542.70

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace chiller, air cooled, 20 ton	20	1.00 Ea.	\$37,401.85	\$43,802.06	2.7500	2	2	\$87,604.12	\$87,604.12	
Replace fan coil, DX 10 ton, with heat	10	2.00 Ea.	\$10,281.35	\$12,084.20	5.5000	5	5	\$60,420.99	\$60,420.99	
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	55.0000	55	55	\$2,361.08	\$2,361.08	
Replace sprinkler head	20	16.00 Ea.	\$1,368.36	\$1,683.03	2.7500	2	2	\$3,366.06	\$3,366.06	
Rebuild double check 3" backflow preventer sprinkler system	1	1.00 Ea.	\$710.41	\$851.09	55.0000	55	55	\$46,810.15	\$46,810.15	
Maintenance and repair motor starter, up to 600 V	5	2.00 Ea.	\$559.28	\$675.20	11.0000	11	11	\$7,427.16	\$7,427.16	
Maintenance and inspection motor starter, up to 600 V	0.5	2.00 Ea.	\$107.96	\$135.26	110.0000	110	110	\$14,878.62	\$14,878.62	
Replace starter motor starter, up to 600 V	18	2.00 Ea.	\$1,610.62	\$1,916.15	3.0556	3	3	\$5,748.45	\$5,748.45	
Maintenance and repair incandescent lighting fixtures	10	2.00 Ea.	\$137.73	\$163.97	5.5000	5	5	\$819.85	\$819.85	
Replace incandescent lighting fixture lamp	5	2.00 Ea.	\$22.96	\$27.74	11.0000	11	11	\$305.09	\$305.09	
Replace fluorescent light fixture ballast, 80 W	10	35.00 Ea.	\$4,363.40	\$5,293.30	5.5000	5	5	\$26,466.52	\$26,466.52	
Replace lamps (2 lamps), 4', 34 W energy saver	10	35.00 Ea.	\$882.49	\$1,105.26	5.5000	5	5	\$5,526.31	\$5,526.31	
Replace metal halide ballast, 175 W	10	20.00 Ea.	\$2,969.69	\$3,566.02	5.5000	5	5	\$17,830.10	\$17,830.10	
Replace metal halide fixture lamp, 175 W	5	20.00 Ea.	\$999.74	\$1,223.07	11.0000	11	11	\$13,453.81	\$13,453.81	
Repair smoke detector	10	12.00 Ea.	\$676.65	\$836.57	5.5000	5	4	\$4,182.84	\$3,346.28	
Check operation smoke detector	1	12.00 Ea.	\$194.33	\$243.47	55.0000	55	55	\$13,390.76	\$13,390.76	
Replace smoke detector	15	12.00 Ea.	\$3,410.85	\$4,073.54	3.6667	3	3	\$12,220.63	\$12,220.63	
Check and repair manual pull station	10	4.00 Ea.	\$350.79	\$431.32	5.5000	5	4	\$2,156.61	\$1,725.28	
Replace manual pull station	15	4.00 Ea.	\$813.87	\$979.76	3.6667	3	3	\$2,939.29	\$2,939.29	
Replace fire alarm bell, 6"	20	2.00 Ea.	\$389.92	\$470.55	2.7500	2	2	\$941.10	\$941.10	
			\$302,501.19	\$359,059.96				MR Subtotal	\$951,312.86	
									MR Per Year	\$17,253.13
									PM Total	\$3,148.88
									Subtotal	\$20,402.01
									Total Per Unit	\$3.64

FAC 1444 MISCELLANEOUS OPERATIONS SUPPORT BUILDING

SUC \$3.64

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 55

Type PM

Average Size 5599.0

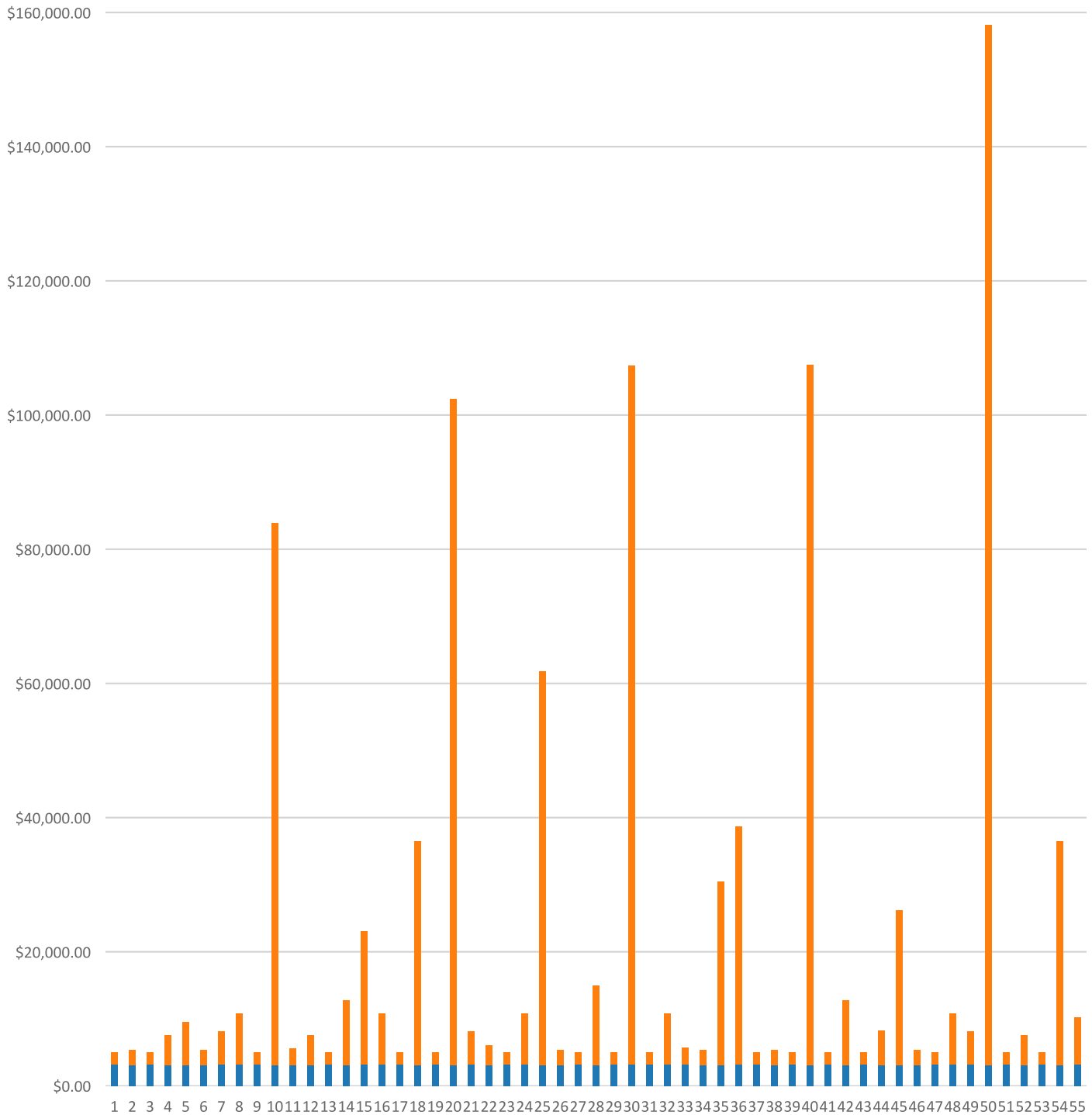
Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, overhead, electric, roll up, to 24' high x 25' wide, annualized	1.00	4.07	\$40.96	\$168.81	\$0.00	\$209.77	\$264.51	\$321.30
Door, emergency egress, swinging, annualized	4.00	1.04	\$58.37	\$43.00	\$0.00	\$101.37	\$120.10	\$141.76
Fire doors, swinging, annualized	2.00	0.78	\$28.64	\$29.12	\$0.00	\$57.76	\$69.36	\$82.39
Drink fountain, annualized	2.00	1.24	\$41.45	\$62.55	\$0.00	\$104.00	\$126.91	\$151.90
Urinals, annualized	2.00	0.46	\$12.64	\$22.91	\$0.00	\$35.54	\$43.68	\$52.45
Toilet (vacuum breaker type), annualized	5.00	0.89	\$42.21	\$44.49	\$0.00	\$86.70	\$104.27	\$123.95
Lavatories, annualized	6.00	2.09	\$35.79	\$124.22	\$0.00	\$160.01	\$200.86	\$243.49
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, up to 4", annualized	1.00	0.33	\$13.40	\$19.82	\$0.00	\$33.22	\$40.50	\$48.46
Extinguishing system, wet pipe, annualized	1.00	11.34	\$68.24	\$678.37	\$0.00	\$746.61	\$956.95	\$1,170.70
Panelboard, 225 A and above, annualized	1.00	0.44	\$23.20	\$29.01	\$0.00	\$52.21	\$63.23	\$75.41
Hoist / winch, chain / cable, electric, annualized	1.00	1.65	\$153.56	\$58.01	\$0.00	\$211.57	\$244.33	\$284.76
						\$2,120.16	\$2,617.14	\$3,148.88

FAC 1444 MISCELLANEOUS OPERATIONS SUPPORT BUILDING

Modeled Component List CostWorks Release 2021 Qtr 3

C20 Stairs	
Metal Interior Stair Railing	14.0 L.F.
Concrete Steps	7.0 S.F.
C30 Interior Finishes	
Drywall	2000.0 S.F.
Concrete, Finished	13.15 C.S.F.
Vinyl	480.0 S.Y.
Terrazzo	1.26 C.S.F.
Carpet	50.0 S.Y.
B20 Exterior Enclosure	
Concrete Block, 1st floor	6.96 C.S.F.
Concrete Block, 2nd floor	6.45 C.S.F.
Aluminum Window, Fixed, 1st floor	38.0 Ea.
Steel, Painted	3.0 Ea.
Steel Single, Roll-Up	1.0 Ea.
B30 Roofing	
Modified Bituminous / Thermoplastic	56.0 Sq.
C10 Interior Construction	
Steel Painted Interior Doors	6.0 Ea.
Solid Core Interior Doors	2.0 Ea.
Fire Doors, Swinging, annualized	2.0 Each
D20 Plumbing	
Tankless Water Closet	5.0 Ea.
Urinal	2.0 Ea.
Lavatory, Vitreous China	6.0 Ea.
Sink, Iron Enamel	1.0 Ea.
Water Heater, Electric, 120 Gallon	0.5 Ea.
Circulation Pump, 1/12 HP	1.0 Ea.
Drain: Roof, Scupper, Area	1.0 Ea.
D30 HVAC	
Boiler, Gas, 250 MBH	1.0 Ea.
Chiller, Air Cooled, Reciprocating, 20 ton	1.0 Ea.
Fan Coil, DX Air Conditioner W/ Heat, 10 ton	2.0 Ea.
D40 Fire Protection	
Sprinkler System, Fire Supression, sprinkler head	16.0 Ea.
Sprinkler System, Fire Supression , 3" backflow preventer	1.0 Ea.
D50 Electrical	
Motor Starter, Up To 600 V	2.0 Ea.
Smoke Detector	12.0 Ea.
Manual Pull Station	4.0 Ea.
Fire Alarm Bell	2.0 Ea.
E10 Equipment	
Hoist/Winch, Chain/Cable, annualized	1.0 Each

FAC 1444 MISCELLANEOUS OPERATIONS SUPPORT BUILDING
Sustainment by Year
CostWorks Release 2021 Qtr 3



PM Cost
MR Cost