

FAC 1717 ORGANIZATIONAL CLASSROOM

FY24 SUC: \$4.67 / SF
Source: Calculated using R.S. Means CostWorks 2023 Qtr 4 component prices

FAC 1717 ORGANIZATIONAL CLASSROOM

SUC \$4.67

Release 2023 Qtr 4
Zip Code Prefix 222
Type MR

UM SF
Design Life 50
Average Size 5114.762703

Adjusted Occurences 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
Repair clay brick wall, 1st floor	25	2,363.00 S.F.	\$106,923.70	\$131,426.37	2.0000	2	2	\$262,852.74	\$262,852.74
Waterproof clay brick wall, 1st floor	10	19.60 C.S.F.	\$5,066.14	\$6,009.59	5.0000	5	5	\$30,047.93	\$30,047.93
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	6.00 S.F.	\$78.90	\$92.64	50.0000	50	50	\$4,632.15	\$4,632.15
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	18.00 Ea.	\$2,813.64	\$3,352.89	2.5000	2	2	\$6,705.77	\$6,705.77
Replace 2'-0" x 3'-0" aluminum window - 1st floor	50	18.00 Ea.	\$12,195.73	\$14,315.45	1.0000	1	1	\$14,315.45	\$14,315.45
Repair steel, painted, door	14	3.00 Ea.	\$2,107.00	\$2,502.58	3.5714	3	3	\$7,507.73	\$7,507.73
Refinish 3'-0" x 7'-0" steel, painted, door	4	3.00 Ea.	\$138.16	\$169.19	12.5000	12	12	\$2,030.26	\$2,030.26
Replace 3'-0" x 7'-0" steel, painted, door	45	3.00 Ea.	\$2,751.33	\$3,185.78	1.1111	1	1	\$3,185.78	\$3,185.78
Replace tempered glass - (3% of glass) steel painted door	1	0.09 S.F.	\$2.86	\$3.37	50.0000	50	50	\$168.59	\$168.59
Non-destructive moisture inspection, modified bituminous/thermoplastic	5	3.83 M.S.F.	\$483.91	\$590.22	10.0000	10	10	\$5,902.24	\$5,902.24
Minor thermoplastic membrane repairs, 2% of roof area	1	1.50 Sq.	\$486.82	\$581.34	50.0000	50	50	\$29,066.85	\$29,066.85
Flashing repairs, 2 S.F. per sq. repaired, modified bitumen/thermoplastic	1	1.50 S.F.	\$5.92	\$7.10	50.0000	50	50	\$355.15	\$355.15
Membrane replacement-(25% of roof area),modified bitum/thermoplastic	20	10.00 Sq.	\$8,474.68	\$10,119.25	2.5000	2	2	\$20,238.50	\$20,238.50
Total roof replacement, modified bituminous / thermoplastic	25	54.50 Sq.	\$37,166.78	\$44,118.84	2.0000	2	2	\$88,237.68	\$88,237.68
Repair 8" concrete block wall - (2% of walls) painted	25	0.30 C.S.F.	\$343.47	\$413.13	2.0000	2	2	\$826.26	\$826.26
Repair steel painted interior door	14	2.00 Ea.	\$557.98	\$651.36	3.5714	3	3	\$1,954.09	\$1,954.09
Refinish 3'-0" x 7'-0" steel painted interior door	4	2.00 Ea.	\$115.30	\$141.75	12.5000	12	12	\$1,701.05	\$1,701.05
Replace 3'-0" x 7'-0" steel painted interior door	60	2.00 Ea.	\$2,559.10	\$2,967.83	0.8333	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	8.00 Ea.	\$2,231.91	\$2,605.46	4.5455	4	4	\$10,421.83	\$10,421.83
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	8.00 Ea.	\$352.12	\$433.90	12.5000	12	11	\$5,206.83	\$4,772.92
Replace 3'-0" x 7'-0" solid core wood door, interior	40	8.00 Ea.	\$4,532.40	\$5,232.78	1.2500	1	1	\$5,232.78	\$5,232.78
Repair 5/8" drywall - (2% of walls)	20	154.00 S.F.	\$257.32	\$314.47	2.5000	2	2	\$628.93	\$628.93
Replace 5/8" drywall	75	7,700.00 S.F.	\$18,193.69	\$22,342.12	0.6667	0	0	\$0.00	\$0.00
Refinish concrete floor finished	25	4.30 C.S.F.	\$1,791.28	\$2,161.26	2.0000	2	2	\$4,322.52	\$4,322.52
Replace vinyl tile flooring	18	27.00 S.Y.	\$1,379.41	\$1,697.54	2.7778	2	2	\$3,395.07	\$3,395.07
Ceramic tile floor repairs - (2% of floors)	15	0.10 C.S.F.	\$67.40	\$84.04	3.3333	3	3	\$252.13	\$252.13
Replace 2" x 2" thin set ceramic tile floor	50	6.40 C.S.F.	\$8,547.52	\$10,302.62	1.0000	1	1	\$10,302.62	\$10,302.62
Acoustic tile repairs - (2% of ceilings)	9	0.80 C.S.F.	\$739.03	\$859.78	5.5556	5	5	\$4,298.92	\$4,298.92

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace acoustic tile ceiling, fire-rated	20	15.50 C.S.F.	\$8,074.38	\$9,543.31	2.5000	2	2	\$19,086.62	\$19,086.62
Replace flush valve diaphragm tankless water closet	10	6.00 Ea.	\$163.58	\$203.14	5.0000	5	5	\$1,015.68	\$1,015.68
Rebuild flush valve tankless water closet	20	6.00 Ea.	\$1,151.29	\$1,387.61	2.5000	2	2	\$2,775.23	\$2,775.23
Unplug clogged line tankless water closet	5	6.00 Ea.	\$1,379.57	\$1,726.99	10.0000	10	10	\$17,269.90	\$17,269.90
Replace tankless water closet	35	6.00 Ea.	\$8,499.33	\$9,829.92	1.4286	1	1	\$9,829.92	\$9,829.92
Replace tankless flush valve	25	6.00 Ea.	\$1,621.46	\$1,903.31	2.0000	2	2	\$3,806.61	\$3,806.61
Replace wax ring gasket for tankless water closet	5	6.00 Ea.	\$894.99	\$1,119.32	10.0000	10	10	\$11,193.21	\$11,193.21
Replace flush valve diaphragm for a urinal	7	3.00 Ea.	\$81.79	\$101.57	7.1429	7	7	\$710.98	\$710.98
Rebuild flush valve for a urinal	20	3.00 Ea.	\$575.64	\$693.81	2.5000	2	2	\$1,387.61	\$1,387.61
Unplug line urinal	5	3.00 Ea.	\$457.93	\$573.24	10.0000	10	10	\$5,732.45	\$5,732.45
Replace wall-hung urinal	35	3.00 Ea.	\$3,262.56	\$3,924.14	1.4286	1	1	\$3,924.14	\$3,924.14
Replace faucets lavatory, vitreous china	10	10.00 Ea.	\$1,954.72	\$2,351.21	5.0000	5	5	\$11,756.07	\$11,756.07
Clean out strainer and P trap lavatory, vitreous china	2	10.00 Ea.	\$368.19	\$460.91	25.0000	25	25	\$11,522.67	\$11,522.67
Replace lavatory, vitreous china	35	10.00 Ea.	\$7,187.23	\$8,634.06	1.4286	1	1	\$8,634.06	\$8,634.06
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$13.45	\$16.77	25.0000	25	25	\$419.23	\$419.23
Clean trap sink, iron enamel	3	1.00 Ea.	\$9.01	\$11.27	16.6667	16	16	\$180.39	\$180.39
Replace faucets sink, iron enamel	10	1.00 Ea.	\$195.47	\$235.12	5.0000	5	5	\$1,175.61	\$1,175.61
Check / minor repairs drinking fountain	1	1.00 Ea.	\$51.52	\$64.50	50.0000	50	50	\$3,225.00	\$3,225.00
Repair internal leaks drinking fountain	4	1.00 Ea.	\$47.77	\$59.80	12.5000	12	12	\$717.56	\$717.56
Replace refrigerant drinking fountain	2	1.00 Ea.	\$35.41	\$41.43	25.0000	25	25	\$1,035.74	\$1,035.74
Repair drain leak drinking fountain	4	1.00 Ea.	\$29.10	\$35.19	12.5000	12	10	\$422.27	\$351.89
Replace fountain drinking fountain	10	1.00 Ea.	\$1,620.81	\$1,904.30	5.0000	5	5	\$9,521.51	\$9,521.51
Drain and flush water heater, electric, 120 gallon	7	1.00 Ea.	\$309.15	\$387.00	7.1429	7	7	\$2,709.00	\$2,709.00
Check operation water heater, electric, 120 gallon	3	1.00 Ea.	\$2.72	\$3.40	16.6667	16	16	\$54.40	\$54.40
Unclog floor drain, PVC	20	1.00 Ea.	\$50.45	\$63.16	2.5000	2	2	\$126.31	\$126.31
Repair boiler, gas, 250 MBH	7	1.00 Ea.	\$2,758.88	\$3,222.41	7.1429	7	7	\$22,556.86	\$22,556.86
Replace boiler, gas, 250 MBH	30	1.00 Ea.	\$9,616.21	\$11,488.35	1.6667	1	1	\$11,488.35	\$11,488.35
Repair fan coil unit, 5 ton	10	1.00 Ea.	\$639.33	\$756.63	5.0000	5	4	\$3,783.16	\$3,026.53
Replace fan coil unit, 5 ton	15	1.00 Ea.	\$2,905.57	\$3,367.34	3.3333	3	3	\$10,102.03	\$10,102.03
Replace roof mounted exhaust fan, 8500 CFM exhaust fan	20	1.00 Ea.	\$4,297.06	\$4,984.96	2.5000	2	2	\$9,969.92	\$9,969.92
Repair circulator pump, 1/12 - 3/4 H.P.	5	1.00 Ea.	\$103.47	\$122.05	10.0000	10	10	\$1,220.52	\$1,220.52
Repair single zone rooftop unit, 5 ton	10	1.00 Ea.	\$2,705.41	\$3,236.70	5.0000	5	5	\$16,183.52	\$16,183.52
Replace single zone rooftop unit, 5 ton	15	1.00 Ea.	\$8,703.79	\$10,346.16	3.3333	3	3	\$31,038.49	\$31,038.49
Inspect sprinkler system	1	1.00 Ea.	\$36.17	\$45.28	50.0000	50	50	\$2,264.22	\$2,264.22
Replace sprinkler head	20	24.00 Ea.	\$2,103.55	\$2,595.65	2.5000	2	2	\$5,191.29	\$5,191.29
Maintenance and repair motor starter, up to 600 V	5	3.00 Ea.	\$788.46	\$958.48	10.0000	10	10	\$9,584.82	\$9,584.82

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Replace starter motor starter, up to 600 V	18	3.00 Ea.	\$2,523.07	\$3,002.24	2.7778	2	2	\$6,004.48	\$6,004.48	
Maintenance and inspection lighting panel, indoor	3	2.00 Ea.	\$84.69	\$106.10	16.6667	16	16	\$1,697.64	\$1,697.64	
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	21.00 Ea.	\$1,592.65	\$1,995.36	2.5000	2	2	\$3,990.71	\$3,990.71	
Maintenance and repair incandescent lighting fixtures	10	8.00 Ea.	\$538.67	\$643.58	5.0000	5	3	\$3,217.90	\$1,930.74	
Replace incandescent lighting fixture lamp	5	8.00 Ea.	\$102.72	\$123.63	10.0000	10	10	\$1,236.30	\$1,236.30	
Replace incandescent lighting fixture	20	8.00 Ea.	\$1,117.70	\$1,355.67	2.5000	2	2	\$2,711.35	\$2,711.35	
Replace fluorescent light fixture ballast, 80 W	10	32.00 Ea.	\$3,347.40	\$4,127.71	5.0000	5	5	\$20,638.53	\$20,638.53	
Replace lamps (2 lamps), 4', 34 W energy saver	10	32.00 Ea.	\$847.54	\$1,061.41	5.0000	5	5	\$5,307.03	\$5,307.03	
Repair smoke detector	10	10.00 Ea.	\$580.10	\$718.33	5.0000	5	4	\$3,591.63	\$2,873.30	
Check operation smoke detector	1	10.00 Ea.	\$170.01	\$213.00	50.0000	50	50	\$10,649.82	\$10,649.82	
Replace smoke detector	15	10.00 Ea.	\$3,025.52	\$3,612.18	3.3333	3	3	\$10,836.55	\$10,836.55	
Repair heat detector	10	6.00 Ea.	\$375.62	\$462.31	5.0000	5	5	\$2,311.57	\$2,311.57	
Check operation heat detector	1	6.00 Ea.	\$102.01	\$127.80	50.0000	50	50	\$6,389.89	\$6,389.89	
Replace heat detector	15	6.00 Ea.	\$1,062.64	\$1,300.95	3.3333	3	3	\$3,902.86	\$3,902.86	
Check and repair manual pull station	10	3.00 Ea.	\$269.65	\$332.24	5.0000	5	4	\$1,661.20	\$1,328.96	
Replace manual pull station	15	3.00 Ea.	\$626.27	\$755.29	3.3333	3	3	\$2,265.87	\$2,265.87	
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.42	\$182.60	10.0000	10	10	\$1,825.95	\$1,825.95	
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$45.50	\$57.01	100.0000	100	100	\$5,701.02	\$5,701.02	
Replace fire alarm control panel	15	1.00 Ea.	\$2,196.12	\$2,675.47	3.3333	3	3	\$8,026.42	\$8,026.42	
Replace fire alarm bell, 6"	20	2.00 Ea.	\$361.21	\$439.54	2.5000	2	2	\$879.09	\$879.09	
Replace EMS, Three Phase, 5 Meters	15	1.00 Ea.	\$14,235.56	\$16,617.08	3.3333	3	3	\$49,851.25	\$49,851.25	
Replace EMS, Mech, BTU, 3 Meters, 3 Duct Sensors, 3 Space Sensors	20	1.00 Ea.	\$15,519.60	\$18,189.23	2.5000	2	2	\$36,378.45	\$36,378.45	
Replace lamp emergency lighting fixture	2	2.00 Ea.	\$108.99	\$131.71	25.0000	25	25	\$3,292.75	\$3,292.75	
Replace emergency lighting fixture	20	2.00 Ea.	\$1,149.61	\$1,359.75	2.5000	2	2	\$2,719.49	\$2,719.49	
Maintenance and repair exit light	20	4.00 Ea.	\$153.96	\$190.68	2.5000	2	2	\$381.36	\$381.36	
Replace lamp exit light	5	4.00 Ea.	\$65.39	\$77.75	10.0000	10	10	\$777.54	\$777.54	
Maintenance and repair receptacles and plugs	20	44.00 Ea.	\$1,937.90	\$2,419.20	2.5000	2	2	\$4,838.40	\$4,838.40	
Maintenance and repair wiring devices, switches	10	14.00 Ea.	\$616.61	\$769.75	5.0000	5	5	\$3,848.73	\$3,848.73	
Maintenance and repair building structure ground	7	0.25 M.L.F.	\$23.07	\$28.83	7.1429	7	7	\$201.81	\$201.81	
			\$345,988.10	\$416,157.57				MR Subtotal	\$976,942.21	
									MR Per Year	\$19,474.40
									PM Total	\$4,424.28
									Subtotal	\$23,898.68
									Total Per Unit	\$4.67

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SUC \$4.67

Release 2023 Qtr 4

UM SF

Zip Code Prefix 222

Design Life 50

Type PM

Average Size 5114.762703

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	4.00	1.04	\$67.05	\$45.93	\$0.00	\$112.99	\$133.47	\$157.31
Fire doors, swinging, annualized	4.00	1.57	\$62.66	\$61.82	\$0.00	\$124.49	\$149.30	\$177.25
Urinals, annualized	3.00	0.68	\$19.89	\$36.49	\$0.00	\$56.38	\$69.32	\$83.25
Toilet (vacuum breaker type), annualized	6.00	1.06	\$53.13	\$56.77	\$0.00	\$109.90	\$132.24	\$157.24
Lavatories, annualized	10.00	3.48	\$77.92	\$218.00	\$0.00	\$295.92	\$369.12	\$446.21
Drink fountain, annualized	1.00	0.62	\$37.44	\$33.14	\$0.00	\$70.58	\$84.27	\$99.82
Boiler, hot water, oil, gas, or comb. fired, up to 120 MBH, annualized	1.00	12.53	\$88.55	\$793.52	\$0.00	\$882.07	\$1,128.98	\$1,380.32
Fan coil unit, annualized	2.00	6.68	\$163.94	\$357.52	\$0.00	\$521.46	\$645.11	\$776.96
VAV Boxes, annualized	3.00	2.80	\$32.64	\$176.58	\$0.00	\$209.22	\$265.45	\$323.32
Panelboard, 225 A and above, annualized	2.00	0.88	\$44.00	\$60.83	\$0.00	\$104.83	\$127.48	\$152.33
Light, emergency, hardwired system, annualized	6.00	1.50	\$53.88	\$94.65	\$0.00	\$148.53	\$182.31	\$218.78
Package unit, air cooled, 3 thru 24 ton, annualized	1.00	2.40	\$166.98	\$151.73	\$0.00	\$318.71	\$380.92	\$451.49
						\$2,955.07	\$3,667.97	\$4,424.28

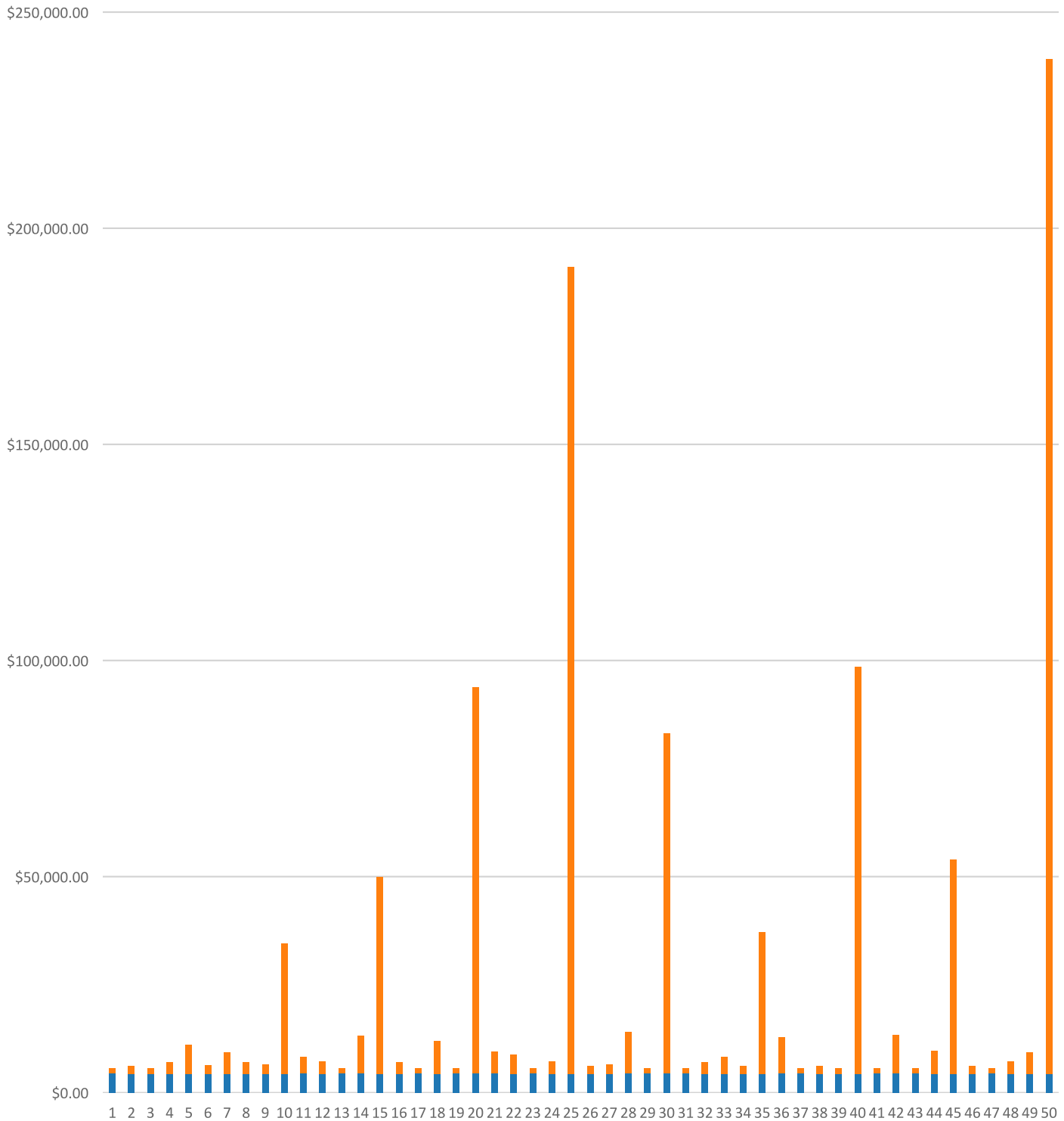
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Modeled Component List

CostWorks Release 2023 Qtr 4

B20 Exterior Enclosure		
Clay Brick, 1st floor		19.6 C.S.F.
Aluminum Window, Fixed, 1st floor		18.0 Ea.
Steel, Painted		3.0 Ea.
B30 Roofing		
Modified Bituminous / Thermoplastic		54.5 Sq.
C10 Interior Construction		
Steel Painted Interior Doors		2.0 Ea.
Solid Core Interior Doors		8.0 Ea.
Fire Doors, Swinging, annualized		4.0 Each
C30 Interior Finishes		
Drywall		7700.0 S.F.
Concrete, Finished		4.3 C.S.F.
Vinyl		27.0 S.Y.
Acoustic Tile, fire-rated		15.5 C.S.F.
D20 Plumbing		
Tankless Water Closet		6.0 Ea.
Urinal		3.0 Ea.
Lavatory, Vitreous China		10.0 Ea.
Drinking Fountain		1.0 Ea.
D30 HVAC		
Boiler, Gas, 250 MBH		1.0 Ea.
Fan Coil, 5 ton		1.0 Ea.
Exhaust Fan, roof mounted exhaust fan, 8500 CFM exhaust		1.0 Ea.
Single Zone Air Conditioner, 5 ton		1.0 Ea.
VAV Box		3.0 Each
D40 Fire Protection		
Sprinkler System, Fire Suppression, sprinkler head		24.0 Ea.
D50 Electrical		
Motor Starter, Up To 600 V		3.0 Ea.
Load Center, 100 A, maintenance & inspection		2.0 Ea.
Incandescent Lighting Fixtures		8.0 Ea.
Smoke Detector		10.0 Ea.
Heat Detector		6.0 Ea.
Manual Pull Station		3.0 Ea.
Fire Alarm Control Panel		1.0 Ea.
Fire Alarm Bell		2.0 Ea.
Emergency Lighting Fixture		2.0 Ea.

FAC 1717 ORGANIZATIONAL CLASSROOM
Sustainment by Year
CostWorks Release 2023 Qtr 4



PM Cost
MR Cost