

**FAC 1443 OPERATIONS SUPPLY BUILDING**

FY22 SUC:	\$3.45 / SF
Source:	Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

**FAC 1443 OPERATIONS SUPPLY BUILDING**

SUC \$3.45

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 45

Type MR

Average Size 8244.0

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 washer in spud connection lavatory, vitreous china	7	6.00 Ea.	\$98.78	\$120.48	6.4286	6	6	\$722.88	\$722.88
Replace washer in faucet lavatory, vitreous china	2	6.00 Ea.	\$77.31	\$96.31	22.5000	22	22	\$2,118.84	\$2,118.84
Replace faucets lavatory, vitreous china	10	6.00 Ea.	\$1,090.36	\$1,312.53	4.5000	4	4	\$5,250.13	\$5,250.13
Clean out strainer and P trap lavatory, vitreous china	2	6.00 Ea.	\$209.22	\$261.65	22.5000	22	22	\$5,756.24	\$5,756.24
Replace lavatory, vitreous china	35	6.00 Ea.	\$4,035.45	\$4,849.33	1.2857	1	1	\$4,849.33	\$4,849.33
Replace faucet washer sink, iron enamel	2	1.00 Ea.	\$12.78	\$15.92	22.5000	22	22	\$350.15	\$350.15
Clean trap sink, iron enamel	3	1.00 Ea.	\$8.57	\$10.72	15.0000	15	15	\$160.78	\$160.78
Replace faucets sink, iron enamel	10	1.00 Ea.	\$181.73	\$218.76	4.5000	4	4	\$875.02	\$875.02
Unstop sink, iron enamel	2	1.00 Ea.	\$41.82	\$52.30	22.5000	22	22	\$1,150.65	\$1,150.65
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	1.00 Ea.	\$636.70	\$757.51	1.2857	1	1	\$757.51	\$757.51
Check / minor repairs drinking fountain	1	2.00 Ea.	\$97.76	\$122.27	45.0000	45	45	\$5,501.93	\$5,501.93
Repair internal leaks drinking fountain	4	2.00 Ea.	\$90.16	\$112.76	11.2500	11	11	\$1,240.31	\$1,240.31
Correct water pressure drinking fountain	2	2.00 Ea.	\$83.64	\$104.60	22.5000	22	22	\$2,301.30	\$2,301.30
Repair 8" concrete block wall, 1st floor	25	2,475.00 S.F.	\$59,931.67	\$73,317.49	1.8000	1	1	\$73,317.49	\$73,317.49
Replace steel louver, 1st floor	40	2.00 Ea.	\$970.63	\$1,141.20	1.1250	1	1	\$1,141.20	\$1,141.20
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	1.32 S.F.	\$15.92	\$18.71	45.0000	45	45	\$841.79	\$841.79
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	22.00 Ea.	\$3,184.21	\$3,797.40	2.2500	2	2	\$7,594.79	\$7,594.79
Repair steel, painted, door	14	2.00 Ea.	\$1,250.15	\$1,488.01	3.2143	3	3	\$4,464.03	\$4,464.03
Refinish 3'-0" x 7'-0" steel, painted, door	4	2.00 Ea.	\$82.80	\$101.73	11.2500	11	11	\$1,119.06	\$1,119.06
Replace 3'-0" x 7'-0" steel, painted, door	45	2.00 Ea.	\$1,410.13	\$1,639.46	1.0000	1	1	\$1,639.46	\$1,639.46
Replace tempered glass - (3% of glass) steel painted door	1	1.26 S.F.	\$28.47	\$34.02	45.0000	45	45	\$1,530.95	\$1,530.95
Repair 12' x 12' steel roll-up door	10	6.00 Ea.	\$4,055.37	\$4,813.30	4.5000	4	4	\$19,253.20	\$19,253.20
Replace 12' x 12' steel roll-up door	35	6.00 Ea.	\$16,221.50	\$19,253.20	1.2857	1	1	\$19,253.20	\$19,253.20
Non-destructive moisture inspection of built-up roofing	5	8.40 M.S.F.	\$981.59	\$1,197.24	9.0000	9	9	\$10,775.19	\$10,775.19
Total BUR roof replacement	28	84.00 Sq.	\$65,490.60	\$77,446.52	1.6071	1	1	\$77,446.52	\$77,446.52
Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing	1	3.50 S.F.	\$64.05	\$77.60	45.0000	45	45	\$3,492.16	\$3,492.16
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
Safety glass replacement, (3% of glass) steel painted interior door	1	1.89 S.F.	\$34.05	\$40.59	45.0000	45	45	\$1,826.64	\$1,826.64
Repair solid core wood door, interior	11	3.00 Ea.	\$880.36	\$1,024.69	4.0909	4	4	\$4,098.77	\$4,098.77

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace 3'-0" x 7'-0" solid core wood door, interior	40	3.00 Ea.	\$1,468.28	\$1,697.43	1.1250	1	1	\$1,697.43	\$1,697.43
Repair 5/8" drywall - (2% of walls)	20	1,918.00 S.F.	\$3,213.30	\$3,909.82	2.2500	2	2	\$7,819.64	\$7,819.64
Refinish concrete floor finished	25	67.00 C.S.F.	\$28,262.43	\$33,947.58	1.8000	1	1	\$33,947.58	\$33,947.58
Replace vinyl tile flooring	18	37.00 S.Y.	\$1,827.93	\$2,244.79	2.5000	2	2	\$4,489.58	\$4,489.58
Repair gypsum board ceiling - (2% of ceilings)	20	0.05 C.S.F.	\$18.11	\$22.23	2.2500	2	2	\$44.46	\$44.46
Refinish gypsum board ceiling, up to 12' high	20	2.31 C.S.F.	\$298.21	\$368.64	2.2500	2	1	\$737.28	\$368.64
Replace gypsum board ceiling, up to 12' high	40	2.31 C.S.F.	\$857.70	\$1,053.25	1.1250	1	1	\$1,053.25	\$1,053.25
Replace acoustic tile ceiling, fire-rated	20	8.29 C.S.F.	\$4,345.86	\$5,122.28	2.2500	2	2	\$10,244.55	\$10,244.55
Replace flush valve diaphragm tankless water closet	10	4.00 Ea.	\$104.88	\$130.14	4.5000	4	4	\$520.57	\$520.57
Rebuild flush valve tankless water closet	20	4.00 Ea.	\$721.74	\$869.83	2.2500	2	2	\$1,739.66	\$1,739.66
Replace tankless water closet	35	4.00 Ea.	\$5,144.88	\$5,953.98	1.2857	1	1	\$5,953.98	\$5,953.98
Replace tankless flush valve	25	4.00 Ea.	\$1,008.86	\$1,184.44	1.8000	1	1	\$1,184.44	\$1,184.44
Replace flush valve diaphragm for a urinal	7	2.00 Ea.	\$52.44	\$65.07	6.4286	6	6	\$390.43	\$390.43
Rebuild flush valve for a urinal	20	2.00 Ea.	\$360.87	\$434.91	2.2500	2	2	\$869.83	\$869.83
Unplug line urinal	5	2.00 Ea.	\$290.14	\$362.86	9.0000	9	9	\$3,265.70	\$3,265.70
Replace wall-hung urinal	35	2.00 Ea.	\$1,937.73	\$2,338.21	1.2857	1	1	\$2,338.21	\$2,338.21
Replace refrigerant drinking fountain	2	2.00 Ea.	\$65.37	\$76.54	22.5000	22	22	\$1,683.85	\$1,683.85
Repair drain leak drinking fountain	4	2.00 Ea.	\$67.83	\$81.07	11.2500	11	9	\$891.76	\$729.62
Replace fountain drinking fountain	10	2.00 Ea.	\$2,562.31	\$3,029.12	4.5000	4	4	\$12,116.47	\$12,116.47
Inspect and clean spray heads, emergency eye wash	3	1.00 Ea.	\$49.39	\$61.77	15.0000	15	15	\$926.57	\$926.57
Replace eye wash station, emergency eye wash	25	1.00 Ea.	\$1,114.34	\$1,325.00	1.8000	1	1	\$1,325.00	\$1,325.00
Resolder joint pipe & fittings, copper	10	2.00 Ea.	\$89.19	\$110.56	4.5000	4	4	\$442.24	\$442.24
Replace pipe and fittings, copper 3/4"	20	16.00 L.F.	\$416.86	\$502.12	2.2500	2	2	\$1,004.24	\$1,004.24
Replace pipe and fittings, copper 2"	25	16.00 L.F.	\$983.75	\$1,170.32	1.8000	1	1	\$1,170.32	\$1,170.32
Remove old insulation & replace with new, pipe 3/4", wall 1"	15	16.00 L.F.	\$133.73	\$165.15	3.0000	3	3	\$495.46	\$495.46
Remove old insulation & replace with new, pipe 1-1/2", wall 1"	15	16.00 L.F.	\$147.41	\$181.67	3.0000	3	3	\$545.00	\$545.00
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
Replace water heater, gas / oil, 70 gallon	12	1.00 Ea.	\$3,315.17	\$3,847.40	3.7500	3	3	\$11,542.21	\$11,542.21
Inspect / check pump / motor operation, lubricate circulation pump, 1/12 HP	0.5	1.00 Ea.	\$8.03	\$10.04	90.0000	90	90	\$903.54	\$903.54
Replace pump / motor assembly circulation pump, 1/12 HP	10	1.00 Ea.	\$1,100.58	\$1,290.00	4.5000	4	4	\$5,159.98	\$5,159.98
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	16.00 L.F.	\$1,071.15	\$1,285.72	1.1250	1	1	\$1,285.72	\$1,285.72

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Unclog floor drain, PVC	20	1.00 Ea.	\$47.80	\$59.77	2.2500	2	2	\$119.55	\$119.55
Repair joint pipe and fittings, PVC	10	1.00 Ea.	\$151.29	\$188.00	4.5000	4	4	\$752.00	\$752.00
Replace pipe, 4" pipe and fittings, PVC	30	16.00 L.F.	\$1,305.42	\$1,606.15	1.5000	1	1	\$1,606.15	\$1,606.15
General maintenance & repair drain: roof, scupper, area	1	4.00 Ea.	\$147.95	\$185.03	45.0000	45	45	\$8,326.26	\$8,326.26
Replace drain: roof, scupper, area	40	4.00 Ea.	\$3,147.73	\$3,649.44	1.1250	1	1	\$3,649.44	\$3,649.44
Repair fan coil unit, 1 ton	10	2.00 Ea.	\$770.05	\$926.19	4.5000	4	3	\$3,704.76	\$2,778.57
Replace fan coil unit, 1 ton	15	2.00 Ea.	\$2,441.21	\$2,853.53	3.0000	3	3	\$8,560.59	\$8,560.59
Replace fan & motor, propeller exhaust, 4700 CFM exhaust fan	15	2.00 Ea.	\$4,079.71	\$4,751.29	3.0000	3	3	\$14,253.87	\$14,253.87
Repair single zone rooftop unit, 25 ton	10	1.00 Ea.	\$47,397.42	\$54,623.55	4.5000	4	3	\$218,494.20	\$163,870.65
Replace single zone rooftop unit, 25 ton	15	1.00 Ea.	\$51,343.17	\$59,585.52	3.0000	3	3	\$178,756.56	\$178,756.56
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	45.0000	45	45	\$1,931.79	\$1,931.79
Replace sprinkler head	20	45.00 Ea.	\$3,848.53	\$4,733.53	2.2500	2	2	\$9,467.06	\$9,467.06
Maintenance and repair motor starter, up to 600 V	5	4.00 Ea.	\$1,118.56	\$1,350.39	9.0000	9	9	\$12,153.53	\$12,153.53
Maintenance and inspection motor starter, up to 600 V	0.5	4.00 Ea.	\$215.92	\$270.52	90.0000	90	90	\$24,346.83	\$24,346.83
Replace starter motor starter, up to 600 V	18	4.00 Ea.	\$3,221.24	\$3,832.30	2.5000	2	2	\$7,664.59	\$7,664.59
Maintenance and inspection lighting panel, indoor	3	1.00 Ea.	\$40.64	\$50.92	15.0000	15	15	\$763.82	\$763.82
Maintenance and repair safety switch general, 2 pole	8	6.00 Ea.	\$243.87	\$305.53	5.6250	5	5	\$1,527.64	\$1,527.64
Maintenance and inspection safety switch, 2 pole	1	6.00 Ea.	\$243.87	\$305.53	45.0000	45	45	\$13,748.80	\$13,748.80
Maintenance and repair receptacles and plugs	20	45.00 Ea.	\$1,900.95	\$2,373.24	2.2500	2	2	\$4,746.47	\$4,746.47
Replace receptacle/plug receptacles and plugs	20	45.00 Ea.	\$3,238.00	\$3,991.35	2.2500	2	2	\$7,982.70	\$7,982.70
Maintenance and repair wiring devices, switches	10	23.00 Ea.	\$971.60	\$1,212.99	4.5000	4	4	\$4,851.95	\$4,851.95
Replace wiring devices, switches	15	23.00 Ea.	\$1,503.69	\$1,868.10	3.0000	3	3	\$5,604.31	\$5,604.31
Replace fluorescent light fixture ballast, 80 W	10	8.00 Ea.	\$997.35	\$1,209.90	4.5000	4	4	\$4,839.59	\$4,839.59
Replace lamps (2 lamps), 4', 34 W energy saver	10	16.00 Ea.	\$403.42	\$505.26	4.5000	4	4	\$2,021.05	\$2,021.05
Replace metal halide ballast, 175 W	10	16.00 Ea.	\$2,375.75	\$2,852.82	4.5000	4	4	\$11,411.26	\$11,411.26
Replace metal halide fixture lamp, 175 W	5	16.00 Ea.	\$799.80	\$978.46	9.0000	9	9	\$8,806.13	\$8,806.13
Repair smoke detector	10	22.00 Ea.	\$1,240.53	\$1,533.71	4.5000	4	3	\$6,134.84	\$4,601.13
Replace smoke detector	15	22.00 Ea.	\$6,253.22	\$7,468.16	3.0000	3	3	\$22,404.49	\$22,404.49
Check and repair manual pull station	10	3.00 Ea.	\$263.09	\$323.49	4.5000	4	3	\$1,293.96	\$970.47
Replace manual pull station	15	3.00 Ea.	\$610.40	\$734.82	3.0000	3	3	\$2,204.47	\$2,204.47
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	9.0000	9	9	\$1,640.47	\$1,640.47
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	90.0000	90	90	\$4,869.37	\$4,869.37
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.0000	3	3	\$7,175.76	\$7,175.76
Replace fire alarm bell, 6"	20	4.00 Ea.	\$779.85	\$941.10	2.2500	2	2	\$1,882.20	\$1,882.20
Maintenance and repair standard suspended heater	2	6.00 Ea.	\$657.28	\$775.67	22.5000	22	22	\$17,064.72	\$17,064.72

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Replace heater standard suspended heater	15	6.00 Ea .	\$3,728.86	\$4,333.60	3.0000	3	3	\$13,000.79	\$13,000.79
			\$371,253.98	\$440,842.00				MR Subtotal	\$970,950.73
								MR Per Year	\$21,576.68
								PM Total	\$6,824.20
								Subtotal	\$28,400.88
								Total Per Unit	\$3.45

## FAC 1443 OPERATIONS SUPPLY BUILDING

SUC \$3.45

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 45

Type PM

Average Size 8244.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	3.00	0.78	\$43.78	\$32.25	\$0.00	\$76.02	\$90.08	\$106.32
Door, overhead, manual, up to 24' high x 25' wide, annualized	6.00	13.18	\$71.27	\$545.04	\$0.00	\$616.31	\$786.95	\$961.15
Fire doors, swinging, annualized	3.00	1.18	\$42.96	\$43.67	\$0.00	\$86.64	\$104.03	\$123.58
Urinals, annualized	2.00	0.46	\$12.64	\$22.91	\$0.00	\$35.54	\$43.68	\$52.45
Toilet (vacuum breaker type), annualized	4.00	0.71	\$33.77	\$35.59	\$0.00	\$69.36	\$83.41	\$99.16
Lavatories, annualized	6.00	2.09	\$35.79	\$124.22	\$0.00	\$160.01	\$200.86	\$243.49
Drink fountain, annualized	2.00	1.24	\$41.45	\$62.55	\$0.00	\$104.00	\$126.91	\$151.90
VAV Boxes, annualized	2.00	1.87	\$19.21	\$112.77	\$0.00	\$131.98	\$167.73	\$204.44
Fire dampers, annualized	2.00	2.31	\$18.30	\$139.20	\$0.00	\$157.50	\$201.09	\$245.59
Fan, axial, up to 5,000 CFM, annualized	1.00	1.24	\$11.73	\$62.55	\$0.00	\$74.28	\$94.22	\$114.74
Centrifugal, w/ reduction gear, over 1 H.P., annualized	1.00	1.28	\$11.73	\$63.87	\$0.00	\$75.60	\$95.93	\$116.86
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
Air conditioning, split system, DX air cooled, over 10 tons, annualized	1.00	3.57	\$176.92	\$215.84	\$0.00	\$392.77	\$475.22	\$566.51
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
Circuit breaker, high voltage air, annualized	1.00	0.47	\$15.16	\$31.08	\$0.00	\$46.24	\$57.08	\$68.67
Panelboard, 225 A and above, annualized	1.00	0.44	\$23.20	\$29.01	\$0.00	\$52.21	\$63.23	\$75.41
Motor control center, over 400 A, annualized	1.00	0.39	\$23.20	\$25.90	\$0.00	\$49.10	\$59.19	\$70.44
Central clock systems, annualized	1.00	1.32	\$12.11	\$78.22	\$0.00	\$90.33	\$115.01	\$140.29
Light, emergency, dry cell, annualized	8.00	2.85	\$276.31	\$169.90	\$0.00	\$446.21	\$524.81	\$617.23
Hydraulic lift, loading dock, annualized	3.00	4.90	\$73.92	\$166.84	\$0.00	\$240.76	\$298.20	\$359.34
Hoist, pneumatic, annualized	1.00	1.31	\$153.56	\$46.05	\$0.00	\$199.61	\$228.78	\$265.63
Hoist / winch, chain / cable, electric, annualized	2.00	3.30	\$307.13	\$116.01	\$0.00	\$423.14	\$488.66	\$569.53
						\$4,628.84	\$5,684.96	\$6,824.20



# FAC 1443 OPERATIONS SUPPLY BUILDING

## Modeled Component List CostWorks Release 2021 Qtr 3

### D20 Plumbing

Lavatory, Vitreous China	6.0 Ea.
Sink, Iron Enamel	1.0 Ea.
Tankless Water Closet	4.0 Ea.
Urinal	2.0 Ea.
Drinking Fountain	2.0 Ea.
Emergency Eye Wash	1.0 Ea.
Water Heater, Gas / Oil, 70 Gallon	1.0 Ea.
Circulation Pump, 1/12 HP	1.0 Ea.
Drain: Roof, Scupper, Area	4.0 Ea.

### B20 Exterior Enclosure

Steel Louver, 1st floor	2.0 Ea.
Steel, Painted	2.0 Ea.
Steel Single, Roll-Up	6.0 Ea.

### B30 Roofing

Built-Up Roofing	84.0 Sq.
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### C10 Interior Construction

Solid Core Interior Doors	3.0 Ea.
Fire Doors, Swinging, annualized	3.0 Each

### C30 Interior Finishes

Concrete, Finished	67.0 C.S.F.
Vinyl	37.0 S.Y.
Gypsum Wall Board	2.31 C.S.F.
Acoustic Tile, fire-rated	8.29 C.S.F.

### D30 HVAC

Fan Coil, 1 ton	2.0 Ea.
Exhaust Fan, propeller exh., 4700 CFM	2.0 Ea.
Single Zone Air Conditioner, 25 ton	1.0 Ea.
Standard Suspended Heater	6.0 Ea.
VAV Box	2.0 Each

### D40 Fire Protection

Sprinkler System, Fire Suppression, sprinkler head	45.0 Ea.
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### D50 Electrical

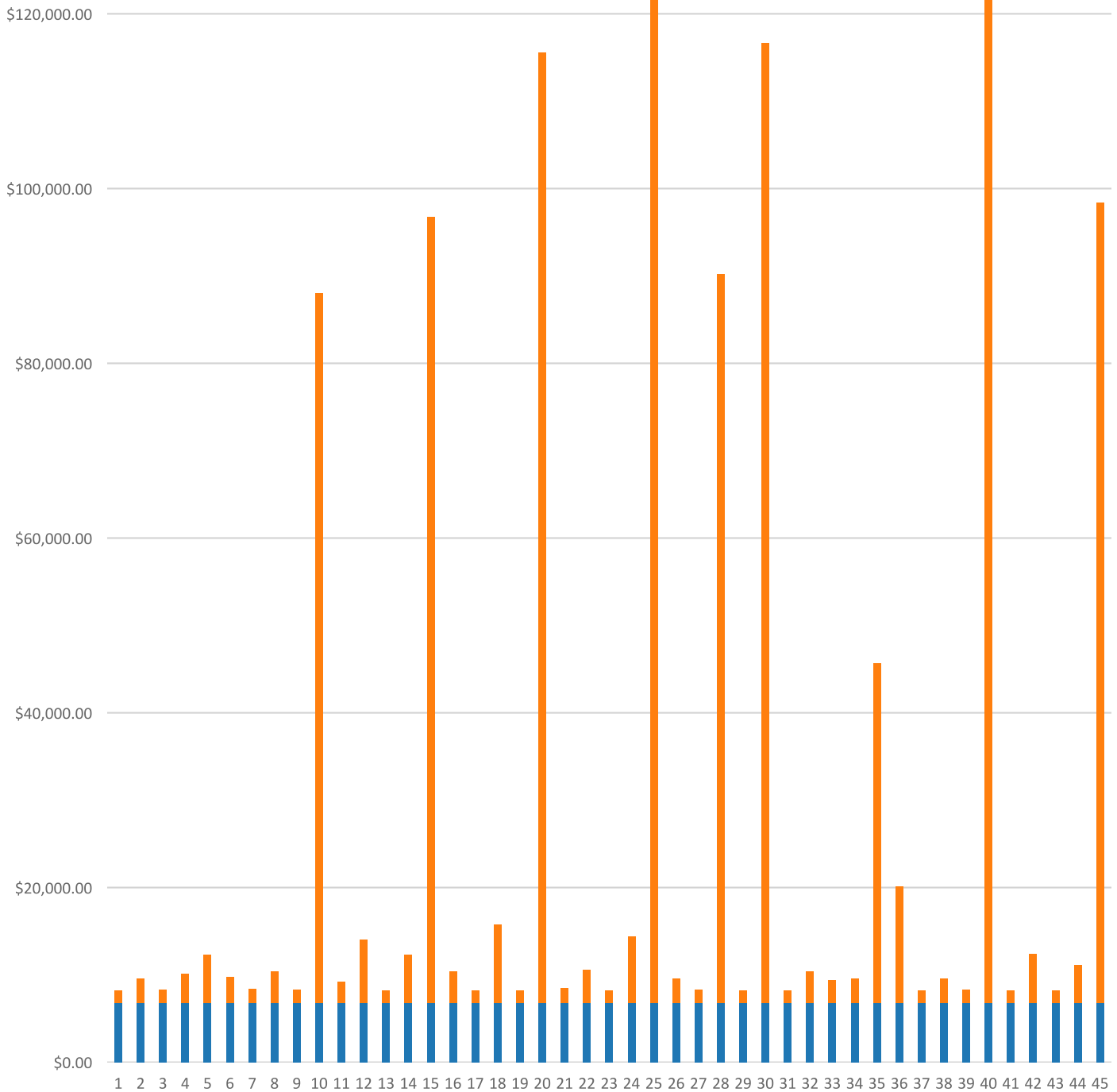
Motor Starter, Up To 600 V	4.0 Ea.
Load Center, 100 A, maintenance & inspection	1.0 Ea.
Smoke Detector	22.0 Ea.
Manual Pull Station	3.0 Ea.
Fire Alarm Control Panel	1.0 Ea.
Fire Alarm Bell	4.0 Ea.

### E10 Equipment

Hydraulic Lift, Loading Dock, annualized	3.0 Each
Hoist, pneumatic, annualized	1.0 Each
Hoist/Winch, Chain/Cable, annualized	2.0 Each



FAC 1443 OPERATIONS SUPPLY BUILDING  
Sustainment by Year  
CostWorks Release 2021 Qtr 3



PM Cost  
MR Cost