

FAC 3131 SHIP AND MARINE RDTE FACILITY

FY22 SUC: \$6.15 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3
component prices

FAC 3131 SHIP AND MARINE RDTE FACILITY

SUC \$6.15

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 55
Average Size 24000.0

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
Refinish concrete steps	3	400.00 S.F.	\$644.61	\$796.04	18.3333	18	18	\$14,328.66	\$14,328.66
Refinish fire escape stair and platform	7	2.00 Flight	\$1,125.61	\$1,359.52	7.8571	7	7	\$9,516.64	\$9,516.64
Replace fire escape stair and platform	25	2.00 Flight	\$13,769.23	\$16,698.75	2.2000	2	2	\$33,397.49	\$33,397.49
Repair 8" concrete block wall, 1st floor	25	88.00 S.F.	\$2,130.90	\$2,606.84	2.2000	2	2	\$5,213.69	\$5,213.69
Point and refinish painted concrete block wall, 1st floor	25	44.00 C.S.F.	\$20,670.19	\$25,511.43	2.2000	2	2	\$51,022.86	\$51,022.86
Point and refinish painted concrete block wall, 2nd floor	25	44.00 C.S.F.	\$24,212.63	\$29,900.56	2.2000	2	2	\$59,801.11	\$59,801.11
Replace aluminum siding, 1st floor	35	13.20 C.S.F.	\$7,713.36	\$9,288.48	1.5714	1	1	\$9,288.48	\$9,288.48
Refinish aluminum siding, 1st floor	20	52.80 C.S.F.	\$9,558.78	\$11,797.30	2.7500	2	2	\$23,594.61	\$23,594.61
Replace aluminum siding, 2nd floor	35	13.20 C.S.F.	\$9,450.43	\$11,445.59	1.5714	1	1	\$11,445.59	\$11,445.59
Refinish aluminum siding, 2nd floor	20	52.80 C.S.F.	\$14,824.99	\$18,345.94	2.7500	2	2	\$36,691.88	\$36,691.88
Refinish steel louver, 1st floor	5	2.00 Ea.	\$194.07	\$240.81	11.0000	11	11	\$2,648.93	\$2,648.93
Refinish steel louver, 2nd floor	5	2.00 Ea.	\$275.02	\$341.47	11.0000	11	11	\$3,756.18	\$3,756.18
Replace glass - 1st floor. (1% of glass) - alum. window	1	29.76 S.F.	\$358.84	\$421.75	55.0000	55	55	\$23,196.09	\$23,196.09
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	6.48 S.F.	\$78.13	\$91.83	55.0000	55	55	\$5,050.76	\$5,050.76
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	48.00 Ea.	\$6,947.36	\$8,285.23	2.7500	2	2	\$16,570.46	\$16,570.46
Replace glass - 2nd floor (1% of glass) - alum. window fixed	1	6.48 S.F.	\$688.13	\$849.34	55.0000	55	55	\$46,713.55	\$46,713.55
Repair 2'-0" x 3'-0" aluminum window - 2nd floor	20	48.00 Ea.	\$9,183.33	\$11,061.88	2.7500	2	2	\$22,123.76	\$22,123.76
Repair steel, painted, door	14	5.00 Ea.	\$3,125.37	\$3,720.03	3.9286	3	3	\$11,160.09	\$11,160.09
Refinish 3'-0" x 7'-0" steel, painted, door	4	5.00 Ea.	\$207.00	\$254.33	13.7500	13	13	\$3,306.31	\$3,306.31
Replace 3'-0" x 7'-0" steel, painted, door	45	5.00 Ea.	\$3,525.32	\$4,098.66	1.2222	1	1	\$4,098.66	\$4,098.66
Repair 12' x 12' steel roll-up door	10	3.00 Ea.	\$2,027.69	\$2,406.65	5.5000	5	5	\$12,033.25	\$12,033.25
Refinish 12' x 12' steel roll-up door	5	3.00 Ea.	\$610.34	\$747.57	11.0000	11	11	\$8,223.24	\$8,223.24
Rebuild flush valve for a urinal	20	6.00 Ea.	\$1,082.60	\$1,304.74	2.7500	2	2	\$2,609.49	\$2,609.49
Unplug line urinal	5	6.00 Ea.	\$870.43	\$1,088.57	11.0000	11	11	\$11,974.24	\$11,974.24
Replace wall-hung urinal	35	6.00 Ea.	\$5,813.18	\$7,014.64	1.5714	1	1	\$7,014.64	\$7,014.64
Replace washer in spud connection lavatory, vitreous china	7	12.00 Ea.	\$197.55	\$240.96	7.8571	7	7	\$1,686.72	\$1,686.72
Replace washer in faucet lavatory, vitreous china	2	12.00 Ea.	\$154.62	\$192.62	27.5000	27	27	\$5,200.79	\$5,200.79
Replace faucets lavatory, vitreous china	10	12.00 Ea.	\$2,180.71	\$2,625.06	5.5000	5	5	\$13,125.32	\$13,125.32
Clean out strainer and P trap lavatory, vitreous china	2	12.00 Ea.	\$418.43	\$523.29	27.5000	27	27	\$14,128.96	\$14,128.96

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Replace faucet washer sink, iron enamel	2	2.00 Ea.	\$25.55	\$31.83	27.5000	27	27	\$859.46	\$859.46
Clean trap sink, iron enamel	3	2.00 Ea.	\$17.14	\$21.44	18.3333	18	18	\$385.87	\$385.87
Replace faucets sink, iron enamel	10	2.00 Ea.	\$363.45	\$437.51	5.5000	5	5	\$2,187.55	\$2,187.55
Unstop sink, iron enamel	2	2.00 Ea.	\$83.64	\$104.60	27.5000	27	27	\$2,824.33	\$2,824.33
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	2.00 Ea.	\$1,273.40	\$1,515.02	1.5714	1	1	\$1,515.02	\$1,515.02
Check / minor repairs drinking fountain	1	3.00 Ea.	\$146.65	\$183.40	55.0000	55	55	\$10,086.88	\$10,086.88
Replace refrigerant drinking fountain	2	3.00 Ea.	\$98.05	\$114.81	27.5000	27	27	\$3,099.81	\$3,099.81
Inspect and clean shower head emergency shower station	3	3.00 Ea.	\$148.18	\$185.31	18.3333	18	18	\$3,335.64	\$3,335.64
Replace shower emergency shower station	25	3.00 Ea.	\$2,825.90	\$3,387.35	2.2000	2	2	\$6,774.69	\$6,774.69
Inspect and clean spray heads, emergency eye wash	3	3.00 Ea.	\$148.18	\$185.31	18.3333	18	18	\$3,335.64	\$3,335.64
Replace eye wash station, emergency eye wash	25	3.00 Ea.	\$3,343.02	\$3,974.99	2.2000	2	2	\$7,949.98	\$7,949.98
Overhaul water heater, gas / oil, 70 gallon	5	2.00 Ea.	\$327.40	\$409.45	11.0000	11	11	\$4,503.98	\$4,503.98
Clean & service water heater, gas / oil, 70 gallon	1	2.00 Ea.	\$393.23	\$491.78	55.0000	55	55	\$27,047.77	\$27,047.77
Replace water heater, gas / oil, 70 gallon	12	2.00 Ea.	\$6,630.33	\$7,694.81	4.5833	4	4	\$30,779.24	\$30,779.24
Inspect / check pump / motor operation, lubricate circulation pump, 1/12 HP	0.5	2.00 Ea.	\$16.06	\$20.08	110.0000	110	110	\$2,208.65	\$2,208.65
Replace pump / motor assembly circulation pump, 1/12 HP	10	2.00 Ea.	\$2,201.15	\$2,579.99	5.5000	5	5	\$12,899.95	\$12,899.95
Insp/chk pump/mtr oper, lub, chk align circulation pump, 3 HP	0.5	2.00 Ea.	\$25.94	\$32.44	110.0000	110	110	\$3,568.51	\$3,568.51
Remove old meter, install new water meter 8"	25	2.00 Ea.	\$28,937.01	\$33,469.96	2.2000	2	2	\$66,939.93	\$66,939.93
Unclog main drain pipe & fittings, cast iron	10	1.00 Ea.	\$46.17	\$57.74	5.5000	5	5	\$288.68	\$288.68
Replace pipe & fittings, cast iron, 4"	40	16.00 L.F.	\$1,071.15	\$1,285.72	1.3750	1	1	\$1,285.72	\$1,285.72
Unclog floor drain, PVC	20	4.00 Ea.	\$191.18	\$239.10	2.7500	2	2	\$478.19	\$478.19
Rebuild 4" diameter reduced pressure backflow preventer	10	1.00 Ea.	\$664.67	\$779.78	5.5000	5	5	\$3,898.92	\$3,898.92
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	54.00 Ea.	\$4,618.23	\$5,680.23	2.7500	2	2	\$11,360.47	\$11,360.47
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
Replace fire pump / electric motor assembly 100 H.P.	25	1.00 Ea.	\$44,139.08	\$50,910.34	2.2000	2	2	\$101,820.68	\$101,820.68
Repair 15 KV primary transformer, dry	15	1.00 Ea.	\$257.71	\$311.64	3.6667	3	3	\$934.92	\$934.92
Maintenance and inspection primary transformer, dry	0.5	2.00 Ea.	\$81.29	\$101.84	110.0000	110	110	\$11,202.72	\$11,202.72
Maintenance and repair rectifier, up to 600 V	2	1.00 Ea.	\$686.80	\$818.18	27.5000	27	27	\$22,090.87	\$22,090.87
Maintenance and repair motor starter, up to 600 V	5	8.00 Ea.	\$2,237.11	\$2,700.78	11.0000	11	11	\$29,708.63	\$29,708.63
Maintenance and repair motor starter, 600 V	3	4.00 Ea.	\$2,755.13	\$3,384.14	18.3333	18	18	\$60,914.50	\$60,914.50

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Maintenance and repair secondary transformer, dry	10	4.00 Ea.	\$929.76	\$1,113.07	5.5000	5	5	\$5,565.33	\$5,565.33
Maintenance and inspection lighting panel, indoor	3	8.00 Ea.	\$325.15	\$407.37	18.3333	18	18	\$7,332.69	\$7,332.69
Maintenance and inspection circuit breaker, molded case, 600 V, 2 pole	0.33	4.00 Ea.	\$129.55	\$162.31	166.6667	166	166	\$26,943.82	\$26,943.82
Maintenance and inspection circuit breaker, molded case, 600 V, 3 pole	0.33	2.00 Ea.	\$64.78	\$81.16	166.6667	166	166	\$13,471.91	\$13,471.91
Replace circuit breaker enclosed, 240 V, 1 pole circuit breaker	50	32.00 Ea.	\$16,366.38	\$19,435.11	1.1000	1	1	\$19,435.11	\$19,435.11
Maintenance and repair breaker, enclosed, 240 V, 2 pole	25	12.00 Ea.	\$861.15	\$1,078.90	2.2000	2	2	\$2,157.80	\$2,157.80
Maintenance and repair safety switch general, 2 pole	8	5.00 Ea.	\$203.22	\$254.61	6.8750	6	6	\$1,527.64	\$1,527.64
Maintenance and inspection safety switch, 2 pole	1	5.00 Ea.	\$203.22	\$254.61	55.0000	55	55	\$14,003.40	\$14,003.40
Replace safety switch, 240 V, 2 pole	25	5.00 Ea.	\$1,958.02	\$2,386.80	2.2000	2	2	\$4,773.59	\$4,773.59
Maintenance and repair receptacles and plugs	20	132.00 Ea.	\$5,576.13	\$6,961.50	2.7500	2	2	\$13,922.99	\$13,922.99
Maintenance and repair contactors and relays	3	12.00 Ea.	\$3,039.64	\$3,747.98	18.3333	18	18	\$67,463.71	\$67,463.71
Maintenance and repair wiring devices, switches	10	54.00 Ea.	\$2,281.15	\$2,847.88	5.5000	5	5	\$14,239.42	\$14,239.42
Replace fluorescent light fixture ballast, 80 W	10	65.00 Ea.	\$8,103.45	\$9,830.42	5.5000	5	5	\$49,152.10	\$49,152.10
Replace lamps (2 lamps), 4', 34 W energy saver	10	65.00 Ea.	\$1,638.91	\$2,052.63	5.5000	5	5	\$10,263.15	\$10,263.15
Replace metal halide ballast, 175 W	10	25.00 Ea.	\$3,712.11	\$4,457.52	5.5000	5	5	\$22,287.62	\$22,287.62
Replace metal halide fixture lamp, 175 W	5	25.00 Ea.	\$1,249.68	\$1,528.84	11.0000	11	11	\$16,817.26	\$16,817.26
Repair smoke detector	10	27.00 Ea.	\$1,522.46	\$1,882.28	5.5000	5	4	\$9,411.40	\$7,529.12
Check operation smoke detector	1	27.00 Ea.	\$437.24	\$547.80	55.0000	55	55	\$30,129.20	\$30,129.20
Replace smoke detector	15	27.00 Ea.	\$7,674.41	\$9,165.47	3.6667	3	3	\$27,496.42	\$27,496.42
Check and repair manual pull station	10	3.00 Ea.	\$263.09	\$323.49	5.5000	5	4	\$1,617.45	\$1,293.96
Replace manual pull station	15	3.00 Ea.	\$610.40	\$734.82	3.6667	3	3	\$2,204.47	\$2,204.47
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	11.0000	11	11	\$2,005.02	\$2,005.02
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	110.0000	110	110	\$5,951.45	\$5,951.45
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.6667	3	3	\$7,175.76	\$7,175.76
Replace fire alarm bell, 6"	20	6.00 Ea.	\$1,169.77	\$1,411.65	2.7500	2	2	\$2,823.31	\$2,823.31
Replace EMS, Three Phase, 5 Meters	15	2.00 Ea.	\$31,604.92	\$36,799.58	3.6667	3	3	\$110,398.74	\$110,398.74
Replace EMS, Mech, BTU, 3 Meters, 3 Duct Sensors, 3 Space Sensors	20	2.00 Ea.	\$34,275.44	\$40,061.35	2.7500	2	2	\$80,122.70	\$80,122.70
Maintenance and repair of general wiring lightning protection system	1	2.00 M.L.F.	\$193.45	\$239.65	55.0000	55	55	\$13,180.92	\$13,180.92
Maintenance and repair lightning ground rod	1	4.00 Ea.	\$351.56	\$439.15	55.0000	55	53	\$24,153.17	\$23,274.88
Replace lightning ground rod	25	4.00 Ea.	\$904.36	\$1,121.16	2.2000	2	2	\$2,242.32	\$2,242.32

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Maintenance and repair computer ground system	4	1.00 Ea.	\$21.59	\$27.05	13.7500	13	13	\$351.68	\$351.68
Replace computer ground system	50	0.88 M.L.F.	\$1,641.91	\$2,005.39	1.1000	1	1	\$2,005.39	\$2,005.39
Maintenance and inspection generator, diesel, 750 KW	0.08	1.00 Ea.	\$64.78	\$81.16	687.5000	687	687	\$55,754.24	\$55,754.24
Replace diesel generator component, 750 KW	25	1.00 Ea.	\$227,966.93	\$261,102.57	2.2000	2	2	\$522,205.15	\$522,205.15
Replace lamp emergency lighting fixture	2	12.00 Ea.	\$656.27	\$790.51	27.5000	27	27	\$21,343.71	\$21,343.71
Maintenance and repair exit light	20	12.00 Ea.	\$446.42	\$552.04	2.7500	2	2	\$1,104.08	\$1,104.08
Replace lamp exit light	5	12.00 Ea.	\$202.16	\$239.56	11.0000	11	11	\$2,635.18	\$2,635.18
Repair joint pipe and fittings, PVC	10	4.00 Ea.	\$605.17	\$752.00	5.5000	5	5	\$3,759.99	\$3,759.99
Replace pipe, 4" pipe and fittings, PVC	30	16.00 L.F.	\$1,305.42	\$1,606.15	1.8333	1	1	\$1,606.15	\$1,606.15
Unclog 4" - 12" diameter main drain per L.F.	10	80.00 L.F.	\$303.29	\$379.29	5.5000	5	5	\$1,896.47	\$1,896.47
Replace floor drain with bucket	40	4.00 Ea.	\$8,642.86	\$9,919.47	1.3750	1	1	\$9,919.47	\$9,919.47
General maintenance & repair drain: roof, scupper, area	1	6.00 Ea.	\$221.93	\$277.54	55.0000	55	55	\$15,264.81	\$15,264.81
Replace drain: roof, scupper, area	40	6.00 Ea.	\$4,721.59	\$5,474.16	1.3750	1	1	\$5,474.16	\$5,474.16
Insp/chk pump/mtr oper, lub, chk align, rainwater sump pump	1	2.00 Ea.	\$23.90	\$29.89	55.0000	55	55	\$1,643.79	\$1,643.79
Replace rainwater sump pump / motor assembly	20	2.00 Ea.	\$1,264.86	\$1,494.18	2.7500	2	2	\$2,988.36	\$2,988.36
Repair boiler, gas, 2000 MBH	7	1.00 Ea.	\$5,785.82	\$6,733.75	7.8571	7	7	\$47,136.22	\$47,136.22
Replace boiler, gas, 2000 MBH	30	1.00 Ea.	\$39,838.14	\$46,620.21	1.8333	1	1	\$46,620.21	\$46,620.21
Replace metal flue, all fuel SS, 20" diameter metal flue / chimney	15	40.00 L.F.	\$11,613.17	\$13,486.16	3.6667	3	3	\$40,458.47	\$40,458.47
Repair cooling tower, 50 ton	10	2.00 Ea.	\$2,489.34	\$2,963.94	5.5000	5	4	\$14,819.68	\$11,855.74
Replace cooling tower, 50 ton	15	2.00 Ea.	\$32,066.17	\$36,931.02	3.6667	3	3	\$110,793.06	\$110,793.06
Repair water cooled chiller, 50 ton, reciprocating	10	2.00 Ea.	\$91,041.79	\$105,264.10	5.5000	5	5	\$526,320.52	\$526,320.52
Replace chiller, water cooled 50 ton, reciprocating	20	2.00 Ea.	\$105,350.37	\$122,756.80	2.7500	2	2	\$245,513.60	\$245,513.60
Replace fan coil, DX 5 ton, with heat	10	8.00 Ea.	\$23,407.95	\$27,495.45	5.5000	5	5	\$137,477.25	\$137,477.25
Replace roof mounted exhaust fan, 800 CFM exhaust fan	20	4.00 Ea.	\$6,936.12	\$8,112.45	2.7500	2	2	\$16,224.91	\$16,224.91
Replace 12' x 12' steel roll-up door	35	3.00 Ea.	\$8,110.75	\$9,626.60	1.5714	1	1	\$9,626.60	\$9,626.60
Debris removal and visual inspection of built-up roofing	0.5	12.00 M.S.F.	\$451.92	\$551.20	110.0000	110	110	\$60,632.21	\$60,632.21
Non-destructive moisture inspection of built-up roofing	5	12.00 M.S.F.	\$1,402.27	\$1,710.35	11.0000	11	11	\$18,813.82	\$18,813.82
Minor BUR membrane repairs, 2% of roof area	1	2.40 Sq.	\$1,161.93	\$1,378.82	55.0000	55	55	\$75,835.37	\$75,835.37
BUR flashing repairs, 2 S.F. per sq. repaired	1	120.00 S.F.	\$419.93	\$509.87	55.0000	55	55	\$28,042.78	\$28,042.78
Minor BUR membrane replacement, 25% of roof area	15	30.00 Sq.	\$24,143.65	\$28,659.40	3.6667	3	3	\$85,978.21	\$85,978.21
Total BUR roof replacement	28	120.00 Sq.	\$93,558.01	\$110,637.89	1.9643	1	1	\$110,637.89	\$110,637.89
Replace Roof edges, aluminum, duranodic, .050" thick, 6" face	25	130.00 L.F.	\$4,858.52	\$5,683.85	2.2000	2	2	\$11,367.69	\$11,367.69
Replace aluminum downspout, 3" x 4", .024" thick	25	120.00 L.F.	\$950.12	\$1,150.28	2.2000	2	2	\$2,300.57	\$2,300.57
Replace galvanized smoke hatch single unit 4' x 4'	40	4.00 Ea.	\$8,779.15	\$10,069.70	1.3750	1	1	\$10,069.70	\$10,069.70

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Repair steel painted interior door	14	5.00 Ea.	\$1,467.26	\$1,707.82	3.9286	3	3	\$5,123.46	\$5,123.46
Refinish 3'-0" x 7'-0" steel painted interior door	4	5.00 Ea.	\$262.93	\$323.93	13.7500	13	13	\$4,211.11	\$4,211.11
Replace 3'-0" x 7'-0" steel painted interior door	60	5.00 Ea.	\$6,090.17	\$7,060.42	0.9167	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	9.00 Ea.	\$2,641.07	\$3,074.08	5.0000	5	5	\$15,370.38	\$15,370.38
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	9.00 Ea.	\$390.28	\$479.25	13.7500	13	12	\$6,230.21	\$5,750.96
Replace 3'-0" x 7'-0" solid core wood door, interior	40	9.00 Ea.	\$4,404.85	\$5,092.29	1.3750	1	1	\$5,092.29	\$5,092.29
Repair concrete steps	15	160.00 S.F.	\$3,656.01	\$4,232.11	3.6667	3	3	\$12,696.32	\$12,696.32
Repair metal steps	15	160.00 S.F.	\$14,741.79	\$17,137.13	3.6667	3	3	\$51,411.39	\$51,411.39
Refinish metal steps	9	160.00 S.F.	\$391.43	\$478.98	6.1111	6	6	\$2,873.88	\$2,873.88
Repair 4" x 4" thin set ceramic tile - (2% of walls)	10	160.00 C.S.F.	\$131,350.50	\$158,281.70	5.5000	5	5	\$791,408.50	\$791,408.50
Refinish concrete floor finished	25	96.00 C.S.F.	\$40,495.42	\$48,641.30	2.2000	2	2	\$97,282.61	\$97,282.61
Replace vinyl sheet flooring	18	1,650.00 S.Y.	\$150,671.23	\$180,379.04	3.0556	3	3	\$541,137.12	\$541,137.12
Replace rubber tile floor	18	260.00 S.Y.	\$50,446.59	\$59,531.28	3.0556	3	3	\$178,593.84	\$178,593.84
Replace acoustic tile ceiling, fire-rated	20	144.00 C.S.F.	\$75,488.92	\$88,975.60	2.7500	2	2	\$177,951.19	\$177,951.19
Replace flush valve diaphragm tankless water closet	10	12.00 Ea.	\$314.64	\$390.43	5.5000	5	5	\$1,952.15	\$1,952.15
Rebuild flush valve tankless water closet	20	12.00 Ea.	\$2,165.21	\$2,609.49	2.7500	2	2	\$5,218.97	\$5,218.97
Unplug clogged line tankless water closet	5	12.00 Ea.	\$2,620.74	\$3,277.52	11.0000	11	11	\$36,052.74	\$36,052.74
Replace tankless water closet	35	12.00 Ea.	\$15,434.65	\$17,861.94	1.5714	1	1	\$17,861.94	\$17,861.94
Replace tankless flush valve	25	12.00 Ea.	\$3,026.58	\$3,553.33	2.2000	2	2	\$7,106.65	\$7,106.65
Replace wax ring gasket for tankless water closet	5	12.00 Ea.	\$1,698.23	\$2,121.92	11.0000	11	11	\$23,341.09	\$23,341.09
Replace flush valve diaphragm for a urinal	7	6.00 Ea.	\$157.32	\$195.22	7.8571	7	7	\$1,366.51	\$1,366.51
Repair circulator pump, 1 H.P.	5	1.00 Ea.	\$98.36	\$116.02	11.0000	11	8	\$1,276.18	\$928.13
Replace circulator. pump, 1 H.P.	15	1.00 Ea.	\$5,768.48	\$6,613.79	3.6667	3	3	\$19,841.37	\$19,841.37
Repair terminal reheat, 36" x 36" coil	10	4.00 Ea.	\$651.76	\$815.10	5.5000	5	5	\$4,075.51	\$4,075.51
Replace terminal reheat, 36" x 36" coil	15	4.00 Ea.	\$13,769.87	\$16,001.01	3.6667	3	3	\$48,003.04	\$48,003.04
Repair computer room air conditioner, air cooled, 5 ton	10	2.00 Ea.	\$8,554.17	\$10,192.47	5.5000	5	5	\$50,962.37	\$50,962.37
Replace computer room air conditioner, air cooled, 5 ton	20	2.00 Ea.	\$76,422.69	\$87,596.02	2.7500	2	2	\$175,192.04	\$175,192.04
Repair single zone rooftop unit, 5 ton	10	2.00 Ea.	\$4,745.80	\$5,699.58	5.5000	5	5	\$28,497.90	\$28,497.90
Replace single zone rooftop unit, 5 ton	15	2.00 Ea.	\$17,001.16	\$20,188.20	3.6667	3	3	\$60,564.60	\$60,564.60
Repair central station A.H.U., 16,000 CFM	10	2.00 Ea.	\$3,005.64	\$3,492.07	5.5000	5	4	\$17,460.35	\$13,968.28
Replace central station A.H.U., 16,000 CFM	15	2.00 Ea.	\$133,879.30	\$154,090.16	3.6667	3	3	\$462,270.47	\$462,270.47
			\$1,856,599.40	\$2,182,500.89				MR Subtotal	\$6,647,330.98
								MR Per Year	\$120,738.13
								PM Total	\$26,974.55
								Subtotal	\$147,712.68
								Total Per Unit	\$6.15

FAC 3131 SHIP AND MARINE RDTE FACILITY

SUC \$6.15

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 55

Type PM

Average Size 24000.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Door, emergency egress, swinging, annualized	5.00	1.30	\$72.96	\$53.75	\$0.00	\$126.71	\$150.13	\$177.20
Door, overhead, electric, roll up, to 24' high x 25' wide, annualized	3.00	12.21	\$122.88	\$506.43	\$0.00	\$629.31	\$793.53	\$963.89
Fire doors, swinging, annualized	5.00	1.96	\$71.61	\$72.79	\$0.00	\$144.39	\$173.39	\$205.97
Elevator, cable, electric, passenger / freight, annually	2.00	16.22	\$3,036.90	\$1,362.18	\$0.00	\$4,399.08	\$5,111.42	\$5,975.61
Urinals, annualized	6.00	1.37	\$37.91	\$68.72	\$0.00	\$106.63	\$131.04	\$157.34
Toilet (vacuum breaker type), annualized	12.00	2.12	\$101.30	\$106.78	\$0.00	\$208.08	\$250.24	\$297.47
Lavatories, annualized	12.00	4.18	\$71.58	\$248.44	\$0.00	\$320.02	\$401.71	\$486.98
Drink fountain, annualized	3.00	1.86	\$62.18	\$93.83	\$0.00	\$156.00	\$190.37	\$227.84
Water heater, gas, to 120 gal., annualized	2.00	3.44	\$117.28	\$173.56	\$0.00	\$290.83	\$354.63	\$424.29
Boiler, hot water, oil, gas, or comb. fired, 500 -1000 MBH, annualized	1.00	17.38	\$77.34	\$1,057.20	\$0.00	\$1,134.54	\$1,459.44	\$1,788.20
Water cooling tower, up to 50 tons, annualized	2.00	9.10	\$52.57	\$546.22	\$0.00	\$598.79	\$767.92	\$939.67
Chiller, recip., water cooled, up to 50 tons, annualized	2.00	15.89	\$54.59	\$960.29	\$0.00	\$1,014.88	\$1,308.43	\$1,604.71
Air handling unit, 3 thru 24 tons, annualized	2.00	4.12	\$448.88	\$207.92	\$0.00	\$656.80	\$764.06	\$893.77
Air handling unit, computer room, annualized	2.00	6.83	\$254.77	\$343.59	\$0.00	\$598.36	\$726.92	\$868.21
Air filter, electrostatic, annualized	2.00	15.20	\$20.32	\$766.47	\$0.00	\$786.79	\$1,018.76	\$1,251.75
Fan, axial, up to 5,000 CFM, annualized	4.00	4.98	\$46.91	\$250.20	\$0.00	\$297.11	\$376.87	\$458.96
Controls, central system, electro/pneumatic, annualized	1.00	1.92	\$70.77	\$115.41	\$0.00	\$186.18	\$227.88	\$273.12
Air compressor, centrifugal, to 40 H.P., annually	1.00	0.86	\$50.04	\$51.54	\$0.00	\$101.58	\$122.05	\$145.02
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
Fire pump, motor/engine driven, annually	1.00	3.24	\$74.81	\$192.94	\$0.00	\$267.75	\$333.12	\$402.22
Switchboard, annualized	2.00	1.40	\$7.98	\$92.20	\$0.00	\$100.18	\$128.64	\$157.50
Circuit breaker, high voltage air, annually	6.00	2.82	\$90.93	\$186.48	\$0.00	\$277.41	\$342.45	\$412.04
Transformer, dry type 500 KVA and over, annually	2.00	1.54	\$30.31	\$101.53	\$0.00	\$131.84	\$165.33	\$200.33
Panelboard, 225 A and above, annualized	8.00	3.53	\$185.58	\$232.06	\$0.00	\$417.64	\$505.82	\$603.28
Motor control center, over 400 A, annualized	2.00	0.78	\$46.39	\$51.80	\$0.00	\$98.19	\$118.37	\$140.87
Fire alarm annunciator system, annually	1.00	2.73	\$170.11	\$161.62	\$0.00	\$331.73	\$397.23	\$471.23
Emergency diesel or gas generator, over 15 KVA, annualized	1.00	16.15	\$86.09	\$953.12	\$0.00	\$1,039.21	\$1,333.75	\$1,632.60
Power stablizer, annualized	1.00	0.62	\$9.28	\$36.78	\$0.00	\$46.06	\$58.02	\$70.44
Light, emergency, hardwired system, annualized	12.00	3.00	\$92.79	\$177.16	\$0.00	\$269.95	\$332.37	\$399.44
Crane, electric bridge, over 15 tons, annualized	3.00	24.80	\$972.95	\$870.09	\$0.00	\$1,843.04	\$2,201.37	\$2,608.34
Hoist, pneumatic, annually	4.00	5.24	\$614.26	\$184.18	\$0.00	\$798.44	\$915.12	\$1,062.51
Water flow meter, turbine, annually	4.00	1.18	\$75.85	\$57.12	\$0.00	\$132.97	\$157.69	\$186.21
Pump, reciprocating displacement, annualized	2.00	2.92	\$34.10	\$141.10	\$0.00	\$175.20	\$220.94	\$268.39
						\$18,465.57	\$22,536.47	\$26,974.55

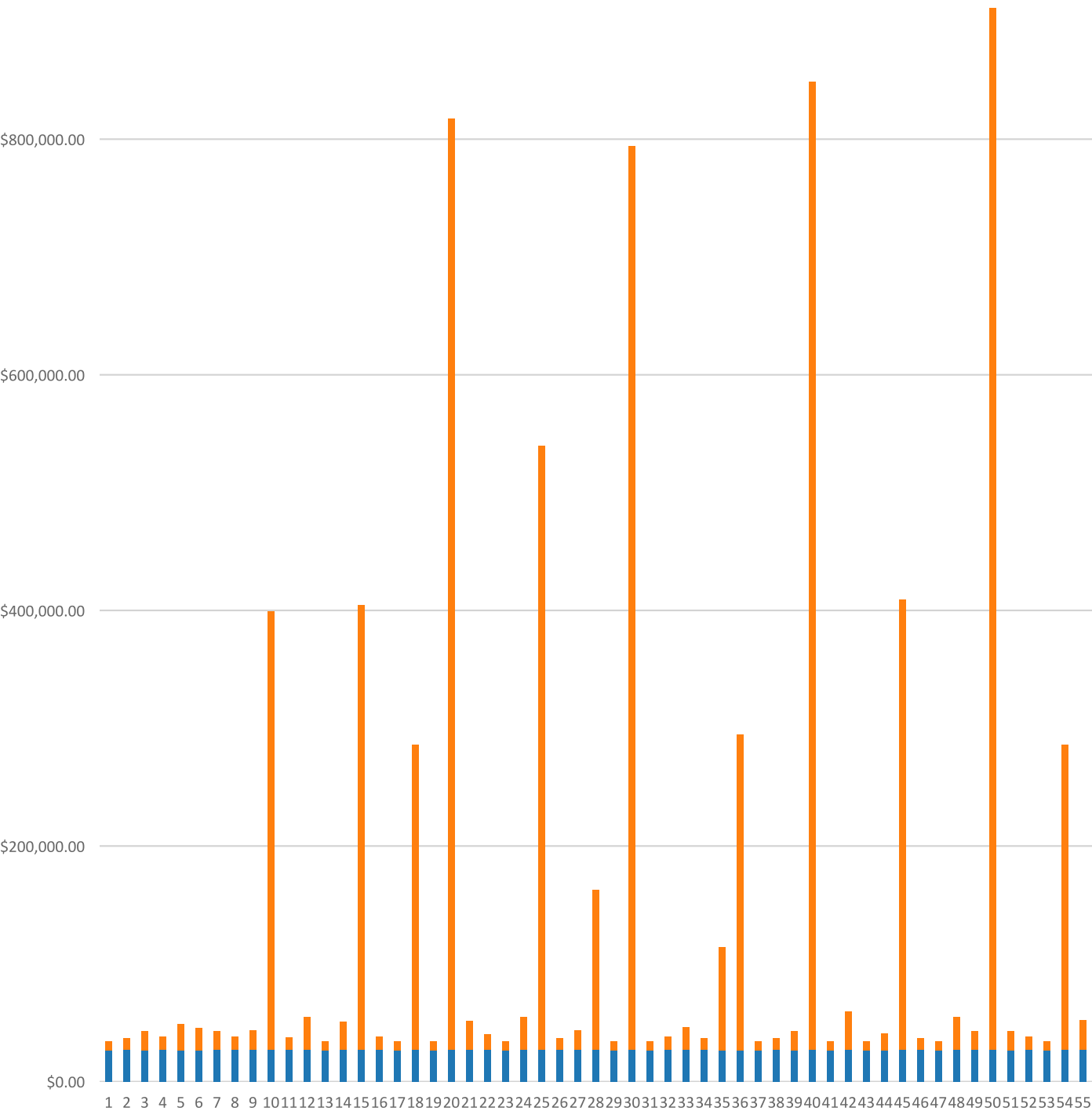
FAC 3131 SHIP AND MARINE RDTE FACILITY

Modeled Component List CostWorks Release 2021 Qtr 3

B20 Exterior Enclosure	
Aluminum Siding, 1st floor	13.2 C.S.F.
Aluminum Siding, 2nd floor	13.2 C.S.F.
Steel, Painted	5.0 Ea.
Steel Single, Roll-Up	3.0 Ea.
D20 Plumbing	
Urinal	6.0 Ea.
Sink, Iron Enamel	2.0 Ea.
Emergency Shower Station	3.0 Ea.
Emergency Eye Wash	3.0 Ea.
Water Heater, Gas / Oil, 70 Gallon	2.0 Ea.
Circulation Pump, 1/12 HP	2.0 Ea.
Floor Drain With Bucekt	4.0 Ea.
Drain: Roof, Scupper, Area	6.0 Ea.
Rainwater Sump Pump	2.0 Ea.
Tankless Water Closet	12.0 Ea.
D40 Fire Protection	
Backflow Preventer	1.0 Ea.
Sprinkler System, Fire Supression, sprinkler head	54.0 Ea.
Sprinkler System, Fire Supression , 3" backflow preventer	1.0 Ea.
Fire Pump Electric Motor	1.0 Ea.
D50 Electrical	
Load Center, 100 A, maintenance & inspection	8.0 Ea.
Circuit Breaker, molded case, 240 V, 1 pole	32.0 Ea.
Safety Switch, General Duty, 240 V, 2 pole	5.0 Ea.
Smoke Detector	27.0 Ea.
Manual Pull Station	3.0 Ea.
Fire Alarm Control Panel	1.0 Ea.
Fire Alarm Bell	6.0 Ea.
Lightning Ground Rod	4.0 Ea.
Computer Ground System	0.88 M.L.F.
Generator, Diesel, 750 KW	1.0 Ea.
D30 HVAC	
Boiler, Gas, 2000 MBH	1.0 Ea.
Metal Flue / Chimney, 6" diameter	40.0 L.F.
Cooling Tower, 50 ton	2.0 Ea.
Chiller, Water Cooled, Reciprocating, 50 ton	2.0 Ea.
Fan Coil, DX Air Conditioner W/ Heat, 5 ton	8.0 Ea.
Exhaust Fan, roof mounted exhaust fan, 800 CFM exhaust	4.0 Ea.
Circulator Pump, 1 H.P.	1.0 Ea.
Terminal Reheat Coil, 36" x 36"	4.0 Ea.
Computer Room A/C Units, Air Cooled, 5 ton	2.0 Ea.
Single Zone Air Conditioner, 5 ton	2.0 Ea.
Central Station Air Conditioning Air Handling Unit, 16,000 CFM	2.0 Ea.
B30 Roofing	
Built-Up Roofing	120.0 Sq.
C10 Interior Construction	
Steel Painted Interior Doors	5.0 Ea.
Solid Core Interior Doors	9.0 Ea.
Fire Doors, Swinging, annualized	5.0 Each
C30 Interior Finishes	
Concrete, Finished	96.0 C.S.F.

Vinyl Sheet	1650.0 S.Y.
Rubber Tile	260.0 S.Y.
Acoustic Tile, fire-rated	144.0 C.S.F.
E10 Equipment	
Crane, Electric, over 15 ton, annualized	3.0 Each

FAC 3131 SHIP AND MARINE RDTE FACILITY
Sustainment by Year
CostWorks Release 2021 Qtr 3



PM Cost
MR Cost