

FAC 2121 MISSILE MAINTENANCE/ASSEMBLY BUILDING

FY22 SUC: \$3.99 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 2121 MISSILE MAINTENANCE/ASSEMBLY BUILDING
Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 31
Average Size 11383.0

SUC \$3.99

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 plaster ceiling | 75 | 259.60 S.Y. | \$15,850.75 | \$19,419.28 | 0.4133 | 0 | 0 | \$0.00 | \$0.00 |
| Replace fire pump / electric motor assembly 100 H.P. | 25 | 1.00 Ea. | \$44,139.08 | \$50,910.34 | 1.2400 | 1 | 1 | \$50,910.34 | \$50,910.34 |
| Rebuild double check 3" backflow preventer sprinkler system | 1 | 1.00 Ea. | \$710.41 | \$851.09 | 31.0000 | 31 | 31 | \$26,383.90 | \$26,383.90 |
| Repair clay brick wall, 1st floor | 25 | 520.00 S.F. | \$22,347.84 | \$27,427.12 | 1.2400 | 1 | 1 | \$27,427.12 | \$27,427.12 |
| Point and refinish painted concrete block wall, 1st floor | 25 | 32.50 C.S.F. | \$15,267.75 | \$18,843.67 | 1.2400 | 1 | 1 | \$18,843.67 | \$18,843.67 |
| Replace aluminum siding, 2nd floor | 35 | 25.90 C.S.F. | \$18,542.90 | \$22,457.64 | 0.8857 | 0 | 0 | \$0.00 | \$0.00 |
| Refinish aluminum siding, 2nd floor | 20 | 25.90 C.S.F. | \$7,272.11 | \$8,999.24 | 1.5500 | 1 | 1 | \$8,999.24 | \$8,999.24 |
| Replace glass - 1st floor (1% of glass) - alum. window fixed | 1 | 1.00 S.F. | \$12.06 | \$14.17 | 31.0000 | 31 | 31 | \$439.32 | \$439.32 |
| Repair 2'-0" x 3'-0" aluminum window - 1st floor | 20 | 18.00 Ea. | \$2,605.26 | \$3,106.96 | 1.5500 | 1 | 1 | \$3,106.96 | \$3,106.96 |
| Replace 2'-0" x 3'-0" aluminum window - 1st floor | 50 | 18.00 Ea. | \$8,786.37 | \$10,413.44 | 0.6200 | 0 | 0 | \$0.00 | \$0.00 |
| Repair 3'-9" x 5'-5" steel frame window - 2nd floor. | 20 | 33.00 Ea. | \$11,381.25 | \$13,472.75 | 1.5500 | 1 | 1 | \$13,472.75 | \$13,472.75 |
| Refinish 3'-9" x 5'-5" steel frame window - 2nd floor. | 5 | 33.00 Ea. | \$4,891.05 | \$6,074.27 | 6.2000 | 6 | 6 | \$36,445.61 | \$36,445.61 |
| Replace 3'-9" x 5'-5" steel frame window - 2nd floor. | 45 | 33.00 Ea. | \$56,213.55 | \$64,865.38 | 0.6889 | 0 | 0 | \$0.00 | \$0.00 |
| Finish new 3'-9" x 5'-5" steel frame window - 2nd floor. | 45 | 33.00 Ea. | \$4,541.24 | \$5,639.27 | 0.6889 | 0 | 0 | \$0.00 | \$0.00 |
| Replace glass - 2nd floor (1% of glass) - steel frame window | 1 | 6.60 S.F. | \$700.88 | \$865.07 | 31.0000 | 31 | 31 | \$26,817.04 | \$26,817.04 |
| Refinish 12' x 24' steel double roll-up door | 5 | 4.00 Ea. | \$1,631.44 | \$1,998.31 | 6.2000 | 6 | 6 | \$11,989.84 | \$11,989.84 |
| Replace 12' x 24' steel double roll-up door | 35 | 4.00 Ea. | \$21,628.66 | \$25,670.94 | 0.8857 | 0 | 0 | \$0.00 | \$0.00 |
| Repair steel, painted, door | 14 | 8.00 Ea. | \$5,000.59 | \$5,952.05 | 2.2143 | 2 | 2 | \$11,904.09 | \$11,904.09 |
| Replace 3'-0" x 7'-0" steel, painted, door | 45 | 8.00 Ea. | \$5,640.51 | \$6,557.85 | 0.6889 | 0 | 0 | \$0.00 | \$0.00 |
| Debris removal and visual inspection of built-up roofing | 0.5 | 2.60 M.S.F. | \$97.91 | \$119.43 | 62.0000 | 62 | 62 | \$7,404.48 | \$7,404.48 |
| Non-destructive moisture inspection of built-up roofing | 5 | 2.60 M.S.F. | \$303.82 | \$370.58 | 6.2000 | 6 | 6 | \$2,223.45 | \$2,223.45 |
| Minor BUR membrane repairs, 2% of roof area | 1 | 0.50 Sq. | \$242.07 | \$287.26 | 31.0000 | 31 | 31 | \$8,904.91 | \$8,904.91 |
| BUR flashing repairs, 2 S.F. per sq. repaired | 1 | 1.00 S.F. | \$3.50 | \$4.25 | 31.0000 | 31 | 31 | \$131.72 | \$131.72 |
| Minor BUR membrane replacement, 25% of roof area | 15 | 6.70 Sq. | \$5,392.08 | \$6,400.60 | 2.0667 | 2 | 2 | \$12,801.20 | \$12,801.20 |
| Place new BUR membrane over existing | 20 | 14.00 Sq. | \$6,789.90 | \$8,005.06 | 1.5500 | 1 | 1 | \$8,005.06 | \$8,005.06 |
| Total BUR roof replacement | 28 | 114.00 Sq. | \$88,880.11 | \$105,105.99 | 1.1071 | 1 | 1 | \$105,105.99 | \$105,105.99 |
| Debris removal, by hand and visual inspection, metal panel roofing | 1 | 6.00 M.S.F. | \$136.70 | \$166.74 | 31.0000 | 31 | 31 | \$5,168.90 | \$5,168.90 |

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| Minor metal roof finish repairs, 2% of roof area, metal panel roofing | 5 | 121.40 S.F. | \$424.06 | \$508.78 | 6.2000 | 6 | 6 | \$3,052.70 | \$3,052.70 |
| Metal roof flashing replacement, 2 SF/sq repaired, metal panel roofing | 1 | 2.40 S.F. | \$43.92 | \$53.21 | 31.0000 | 31 | 31 | \$1,649.63 | \$1,649.63 |
| Minor metal roof panel replacement, 2.5% of roof area | 20 | 151.70 S.F. | \$1,733.57 | \$2,058.88 | 1.5500 | 1 | 1 | \$2,058.88 | \$2,058.88 |
| Total metal roof panel replacement | 30 | 30.50 Sq. | \$25,776.97 | \$30,531.00 | 1.0333 | 1 | 1 | \$30,531.00 | \$30,531.00 |
| Repair steel painted interior door | 14 | 11.00 Ea. | \$3,227.97 | \$3,757.20 | 2.2143 | 2 | 2 | \$7,514.41 | \$7,514.41 |
| Refinish 3'-0" x 7'-0" steel painted interior door | 4 | 11.00 Ea. | \$578.44 | \$712.65 | 7.7500 | 7 | 7 | \$4,988.55 | \$4,988.55 |
| Replace 3'-0" x 7'-0" steel painted interior door | 60 | 11.00 Ea. | \$13,398.38 | \$15,532.91 | 0.5167 | 0 | 0 | \$0.00 | \$0.00 |
| Replace insulating glass (3% of glass) fully glazed wooden doors | 1 | 0.06 S.F. | \$3.40 | \$3.95 | 31.0000 | 31 | 31 | \$122.36 | \$122.36 |
| Repair fully glazed wood door | 10 | 2.00 Ea. | \$586.90 | \$683.13 | 3.1000 | 3 | 3 | \$2,049.38 | \$2,049.38 |
| Refinish 3'-0" x 7'-0" fully glazed wood door | 4 | 2.00 Ea. | \$140.71 | \$174.38 | 7.7500 | 7 | 7 | \$1,220.63 | \$1,220.63 |
| Replace 3'-0" x 7'-0" fully glazed wood door | 40 | 2.00 Ea. | \$2,277.72 | \$2,647.81 | 0.7750 | 0 | 0 | \$0.00 | \$0.00 |
| Repair solid core wood door, interior | 11 | 1.00 Ea. | \$293.45 | \$341.56 | 2.8182 | 2 | 2 | \$683.13 | \$683.13 |
| Refinish 3'-0" x 7'-0" solid core wood door, interior | 4 | 1.00 Ea. | \$43.36 | \$53.25 | 7.7500 | 7 | 7 | \$372.75 | \$372.75 |
| Replace 3'-0" x 7'-0" solid core wood door, interior | 40 | 1.00 Ea. | \$489.43 | \$565.81 | 0.7750 | 0 | 0 | \$0.00 | \$0.00 |
| Repair concrete steps | 15 | 43.00 S.F. | \$982.55 | \$1,137.38 | 2.0667 | 2 | 2 | \$2,274.76 | \$2,274.76 |
| Refinish metal stair railing, interior | 7 | 22.00 S.F. | \$32.15 | \$39.64 | 4.4286 | 4 | 4 | \$158.58 | \$158.58 |
| Replace metal stair railing, interior | 45 | 22.00 L.F. | \$945.03 | \$1,106.16 | 0.6889 | 0 | 0 | \$0.00 | \$0.00 |
| Repair 8" concrete block wall - (2% of walls) painted | 25 | 1.50 C.S.F. | \$1,634.48 | \$1,962.53 | 1.2400 | 1 | 1 | \$1,962.53 | \$1,962.53 |
| Refinish concrete block wall painted | 4 | 75.60 C.S.F. | \$7,629.45 | \$9,290.35 | 7.7500 | 7 | 7 | \$65,032.43 | \$65,032.43 |
| Repair 5/8" drywall - (2% of walls) | 20 | 7.90 S.F. | \$13.24 | \$16.10 | 1.5500 | 1 | 1 | \$16.10 | \$16.10 |
| Replace carpet | 8 | 26.40 S.Y. | \$1,452.43 | \$1,677.37 | 3.8750 | 3 | 3 | \$5,032.12 | \$5,032.12 |
| Refinish concrete floor finished | 25 | 101.60 C.S.F. | \$42,857.65 | \$51,478.71 | 1.2400 | 1 | 1 | \$51,478.71 | \$51,478.71 |
| Replace vinyl tile flooring | 18 | 11.50 S.Y. | \$568.14 | \$697.71 | 1.7222 | 1 | 1 | \$697.71 | \$697.71 |
| Acoustic tile repairs - (2% of ceilings) | 9 | 0.40 C.S.F. | \$363.08 | \$421.97 | 3.4444 | 3 | 3 | \$1,265.91 | \$1,265.91 |
| Replace acoustic tile ceiling, fire-rated | 20 | 21.60 C.S.F. | \$11,323.34 | \$13,346.34 | 1.5500 | 1 | 1 | \$13,346.34 | \$13,346.34 |
| Check / minor repairs drinking fountain | 1 | 2.00 Ea. | \$97.76 | \$122.27 | 31.0000 | 31 | 31 | \$3,790.22 | \$3,790.22 |
| Repair internal leaks drinking fountain | 4 | 2.00 Ea. | \$90.16 | \$112.76 | 7.7500 | 7 | 7 | \$789.29 | \$789.29 |
| Correct water pressure drinking fountain | 2 | 2.00 Ea. | \$83.64 | \$104.60 | 15.5000 | 15 | 15 | \$1,569.07 | \$1,569.07 |
| Replace refrigerant drinking fountain | 2 | 2.00 Ea. | \$65.37 | \$76.54 | 15.5000 | 15 | 15 | \$1,148.08 | \$1,148.08 |
| Repair drain leak drinking fountain | 4 | 2.00 Ea. | \$67.83 | \$81.07 | 7.7500 | 7 | 6 | \$567.48 | \$486.42 |
| Replace fountain drinking fountain | 10 | 2.00 Ea. | \$2,562.31 | \$3,029.12 | 3.1000 | 3 | 3 | \$9,087.35 | \$9,087.35 |

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| Inspect and clean spray heads, emergency eye wash | 3 | 1.00 Ea. | \$49.39 | \$61.77 | 10.3333 | 10 | 10 | \$617.71 | \$617.71 |
| Replace eye wash station, emergency eye wash | 25 | 1.00 Ea. | \$1,114.34 | \$1,325.00 | 1.2400 | 1 | 1 | \$1,325.00 | \$1,325.00 |
| Replace washer in spud connection lavatory, vitreous china | 7 | 7.00 Ea. | \$115.24 | \$140.56 | 4.4286 | 4 | 4 | \$562.24 | \$562.24 |
| Replace washer in faucet lavatory, vitreous china | 2 | 7.00 Ea. | \$90.19 | \$112.36 | 15.5000 | 15 | 15 | \$1,685.44 | \$1,685.44 |
| Replace faucets lavatory, vitreous china | 10 | 7.00 Ea. | \$1,272.08 | \$1,531.29 | 3.1000 | 3 | 3 | \$4,593.86 | \$4,593.86 |
| Clean out strainer and P trap lavatory, vitreous china | 2 | 7.00 Ea. | \$244.09 | \$305.26 | 15.5000 | 15 | 15 | \$4,578.83 | \$4,578.83 |
| Replace lavatory, vitreous china | 35 | 7.00 Ea. | \$4,708.02 | \$5,657.55 | 0.8857 | 0 | 0 | \$0.00 | \$0.00 |
| Replace faucet washer sink, iron enamel | 2 | 1.00 Ea. | \$12.78 | \$15.92 | 15.5000 | 15 | 15 | \$238.74 | \$238.74 |
| Clean trap sink, iron enamel | 3 | 1.00 Ea. | \$8.57 | \$10.72 | 10.3333 | 10 | 10 | \$107.19 | \$107.19 |
| Replace faucets sink, iron enamel | 10 | 1.00 Ea. | \$181.73 | \$218.76 | 3.1000 | 3 | 3 | \$656.27 | \$656.27 |
| Unstop sink, iron enamel | 2 | 1.00 Ea. | \$41.82 | \$52.30 | 15.5000 | 15 | 15 | \$784.53 | \$784.53 |
| Replace sink, P.E.C.I. sink, iron enamel kitchen | 10 | 1.00 Ea. | \$636.70 | \$757.51 | 3.1000 | 3 | 3 | \$2,272.53 | \$2,272.53 |
| Inspect / clean shower head fiberglass | 3 | 2.00 Ea. | \$98.79 | \$123.54 | 10.3333 | 10 | 10 | \$1,235.42 | \$1,235.42 |
| Replace mixing valve barrel shower, fiberglass | 2 | 2.00 Ea. | \$565.18 | \$664.64 | 15.5000 | 15 | 15 | \$9,969.58 | \$9,969.58 |
| Replace mixing valve shower, fiberglass | 10 | 2.00 Ea. | \$551.76 | \$671.11 | 3.1000 | 3 | 3 | \$2,013.33 | \$2,013.33 |
| Replace shower and fittings, fiberglass | 20 | 2.00 Ea. | \$1,933.28 | \$2,312.32 | 1.5500 | 1 | 1 | \$2,312.32 | \$2,312.32 |
| Replace flush valve diaphragm tankless water closet | 10 | 8.00 Ea. | \$209.76 | \$260.29 | 3.1000 | 3 | 3 | \$780.86 | \$780.86 |
| Rebuild flush valve tankless water closet | 20 | 8.00 Ea. | \$1,443.47 | \$1,739.66 | 1.5500 | 1 | 1 | \$1,739.66 | \$1,739.66 |
| Unplug clogged line tankless water closet | 5 | 8.00 Ea. | \$1,747.16 | \$2,185.01 | 6.2000 | 6 | 6 | \$13,110.09 | \$13,110.09 |
| Replace tankless water closet | 35 | 8.00 Ea. | \$10,289.77 | \$11,907.96 | 0.8857 | 0 | 0 | \$0.00 | \$0.00 |
| Replace tankless flush valve | 25 | 8.00 Ea. | \$2,017.72 | \$2,368.88 | 1.2400 | 1 | 1 | \$2,368.88 | \$2,368.88 |
| Replace wax ring gasket for tankless water closet | 5 | 8.00 Ea. | \$1,132.15 | \$1,414.61 | 6.2000 | 6 | 6 | \$8,487.67 | \$8,487.67 |
| Replace flush valve diaphragm for a urinal | 7 | 4.00 Ea. | \$104.88 | \$130.14 | 4.4286 | 4 | 4 | \$520.57 | \$520.57 |
| Rebuild flush valve for a urinal | 20 | 4.00 Ea. | \$721.74 | \$869.83 | 1.5500 | 1 | 1 | \$869.83 | \$869.83 |
| Unplug line urinal | 5 | 4.00 Ea. | \$580.29 | \$725.71 | 6.2000 | 6 | 6 | \$4,354.27 | \$4,354.27 |
| Replace wall-hung urinal | 35 | 4.00 Ea. | \$3,875.45 | \$4,676.42 | 0.8857 | 0 | 0 | \$0.00 | \$0.00 |
| Replace pipe and fittings, copper 3/4" | 20 | 32.00 L.F. | \$833.73 | \$1,004.24 | 1.5500 | 1 | 1 | \$1,004.24 | \$1,004.24 |
| Replace pipe and fittings, copper 2" | 25 | 16.00 L.F. | \$983.75 | \$1,170.32 | 1.2400 | 1 | 1 | \$1,170.32 | \$1,170.32 |
| Repair damaged pipe insulation, fiberglass 3/4" | 5 | 4.00 Ea. | \$75.76 | \$93.26 | 6.2000 | 6 | 6 | \$559.58 | \$559.58 |
| Repair damaged pipe insulation, fiberglass 2" | 5 | 2.00 Ea. | \$48.01 | \$58.68 | 6.2000 | 6 | 6 | \$352.06 | \$352.06 |
| Replace pipe insulation, fiberglass 3/4" | 5 | 0.03 M.L.F. | \$226.70 | \$278.33 | 6.2000 | 6 | 6 | \$1,669.99 | \$1,669.99 |
| Replace pipe insulation, fiberglass 2" | 5 | 0.01 M.L.F. | \$97.98 | \$119.27 | 6.2000 | 6 | 6 | \$715.61 | \$715.61 |

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| Minor repairs, adjustments water heater, gas / oil, 1150 GPH | 2 | 1.00 Ea. | \$98.31 | \$122.94 | 15.5000 | 15 | 14 | \$1,844.17 | \$1,721.22 |
| Clean & service water heater, gas / oil, 1150 GPH | 2 | 1.00 Ea. | \$586.59 | \$733.59 | 15.5000 | 15 | 15 | \$11,003.87 | \$11,003.87 |
| Replace water heater, gas / oil, 1150 GPH | 20 | 1.00 Ea. | \$41,525.47 | \$47,777.51 | 1.5500 | 1 | 1 | \$47,777.51 | \$47,777.51 |
| Unclog floor drain, PVC | 20 | 1.00 Ea. | \$47.80 | \$59.77 | 1.5500 | 1 | 1 | \$59.77 | \$59.77 |
| Repair joint pipe and fittings, PVC | 10 | 2.00 Ea. | \$302.58 | \$376.00 | 3.1000 | 3 | 3 | \$1,128.00 | \$1,128.00 |
| Replace pipe, 4" pipe and fittings, PVC | 30 | 140.00 L.F. | \$11,422.46 | \$14,053.78 | 1.0333 | 1 | 1 | \$14,053.78 | \$14,053.78 |
| General maintenance & repair drain: roof, scupper, area | 1 | 3.00 Ea. | \$110.96 | \$138.77 | 31.0000 | 31 | 31 | \$4,301.90 | \$4,301.90 |
| Replace drain: roof, scupper, area | 40 | 3.00 Ea. | \$2,360.80 | \$2,737.08 | 0.7750 | 0 | 0 | \$0.00 | \$0.00 |
| Insp/chk pump/mtr oper, lub, chk align, rainwater sump pump | 1 | 1.00 Ea. | \$11.95 | \$14.94 | 31.0000 | 31 | 31 | \$463.25 | \$463.25 |
| Replace rainwater sump pump / motor assembly | 20 | 1.00 Ea. | \$632.43 | \$747.09 | 1.5500 | 1 | 1 | \$747.09 | \$747.09 |
| Replace pipe and fittings, oxygen | 25 | 16.00 L.F. | \$414.78 | \$499.51 | 1.2400 | 1 | 1 | \$499.51 | \$499.51 |
| Replace roof mounted exhaust fan, 8500 CFM exhaust fan | 20 | 4.00 Ea. | \$15,759.33 | \$18,293.66 | 1.5500 | 1 | 1 | \$18,293.66 | \$18,293.66 |
| Repair single zone rooftop unit, 25 ton | 10 | 1.00 Ea. | \$47,397.42 | \$54,623.55 | 3.1000 | 3 | 2 | \$163,870.65 | \$109,247.10 |
| Replace single zone rooftop unit, 25 ton | 15 | 1.00 Ea. | \$51,343.17 | \$59,585.52 | 2.0667 | 2 | 2 | \$119,171.04 | \$119,171.04 |
| Minor repairs to fire alarm control panel | 5 | 1.00 Ea. | \$149.71 | \$182.27 | 6.2000 | 6 | 6 | \$1,093.65 | \$1,093.65 |
| Maintenance and inspection fire alarm control panel | 0.5 | 1.00 Ea. | \$43.18 | \$54.10 | 62.0000 | 62 | 62 | \$3,354.45 | \$3,354.45 |
| Replace fire alarm control panel | 15 | 1.00 Ea. | \$1,953.46 | \$2,391.92 | 2.0667 | 2 | 2 | \$4,783.84 | \$4,783.84 |
| Inspect sprinkler system | 1 | 1.00 Ea. | \$34.33 | \$42.93 | 31.0000 | 31 | 31 | \$1,330.79 | \$1,330.79 |
| Replace sprinkler head | 20 | 40.00 Ea. | \$3,420.91 | \$4,207.58 | 1.5500 | 1 | 1 | \$4,207.58 | \$4,207.58 |
| Replace fire alarm bell, 6" | 20 | 4.00 Ea. | \$779.85 | \$941.10 | 1.5500 | 1 | 1 | \$941.10 | \$941.10 |
| Maintenance and inspection lighting panel, indoor | 3 | 3.00 Ea. | \$121.93 | \$152.76 | 10.3333 | 10 | 10 | \$1,527.64 | \$1,527.64 |
| Maintenance and repair safety switch, 3 pole safety switch, heavy duty | 8 | 2.00 Ea. | \$81.29 | \$101.84 | 3.8750 | 3 | 3 | \$305.53 | \$305.53 |
| Maintenance and inspection safety switch, 3 pole, heavy duty | 1 | 2.00 Ea. | \$81.29 | \$101.84 | 31.0000 | 31 | 31 | \$3,157.13 | \$3,157.13 |
| Replace safety switch, heavy duty 30 A | 25 | 2.00 Ea. | \$1,152.70 | \$1,380.88 | 1.2400 | 1 | 1 | \$1,380.88 | \$1,380.88 |
| Maintenance and repair motor starter, up to 600 V | 5 | 6.00 Ea. | \$1,677.83 | \$2,025.59 | 6.2000 | 6 | 6 | \$12,153.53 | \$12,153.53 |
| Maintenance and inspection motor starter, up to 600 V | 0.5 | 6.00 Ea. | \$323.88 | \$405.78 | 62.0000 | 62 | 62 | \$25,158.39 | \$25,158.39 |
| Replace starter motor starter, up to 600 V | 18 | 6.00 Ea. | \$4,831.87 | \$5,748.45 | 1.7222 | 1 | 1 | \$5,748.45 | \$5,748.45 |
| Replace fluorescent light fixture ballast, 80 W | 10 | 84.00 Ea. | \$10,472.15 | \$12,703.93 | 3.1000 | 3 | 2 | \$38,111.78 | \$25,407.86 |
| Replace lamps (2 lamps), 4', 34 W energy saver | 10 | 84.00 Ea. | \$2,117.98 | \$2,652.63 | 3.1000 | 3 | 3 | \$7,957.89 | \$7,957.89 |
| Replace fluorescent fixture, lay-in, recess mtd, 2' x 4', two 40 W | 20 | 84.00 Ea. | \$19,104.71 | \$23,302.87 | 1.5500 | 1 | 1 | \$23,302.87 | \$23,302.87 |
| Replace metal halide ballast, 175 W | 10 | 23.00 Ea. | \$3,415.14 | \$4,100.92 | 3.1000 | 3 | 2 | \$12,302.77 | \$8,201.85 |
| Replace metal halide fixture lamp, 175 W | 5 | 23.00 Ea. | \$1,149.71 | \$1,406.53 | 6.2000 | 6 | 6 | \$8,439.21 | \$8,439.21 |

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| Replace metal halide fixture, 175 W | 20 | 23.00 Ea. | \$17,904.80 | \$21,034.36 | 1.5500 | 1 | 1 | \$21,034.36 | \$21,034.36 | |
| Maintenance and repair receptacles and plugs | 20 | 84.00 Ea. | \$3,548.45 | \$4,430.04 | 1.5500 | 1 | 1 | \$4,430.04 | \$4,430.04 | |
| Replace receptacle/plug receptacles and plugs | 20 | 84.00 Ea. | \$6,044.27 | \$7,450.52 | 1.5500 | 1 | 1 | \$7,450.52 | \$7,450.52 | |
| Maintenance and repair wiring devices, switches | 10 | 28.00 Ea. | \$1,182.82 | \$1,476.68 | 3.1000 | 3 | 3 | \$4,430.04 | \$4,430.04 | |
| Replace wiring devices, switches | 15 | 28.00 Ea. | \$1,830.58 | \$2,274.21 | 2.0667 | 2 | 2 | \$4,548.43 | \$4,548.43 | |
| Check and repair manual pull station | 10 | 4.00 Ea. | \$350.79 | \$431.32 | 3.1000 | 3 | 2 | \$1,293.96 | \$862.64 | |
| Replace manual pull station | 15 | 4.00 Ea. | \$813.87 | \$979.76 | 2.0667 | 2 | 2 | \$1,959.53 | \$1,959.53 | |
| Repair smoke detector | 10 | 10.00 Ea. | \$563.88 | \$697.14 | 3.1000 | 3 | 2 | \$2,091.42 | \$1,394.28 | |
| Check operation smoke detector | 1 | 10.00 Ea. | \$161.94 | \$202.89 | 31.0000 | 31 | 31 | \$6,289.60 | \$6,289.60 | |
| Replace smoke detector | 15 | 10.00 Ea. | \$2,842.37 | \$3,394.62 | 2.0667 | 2 | 2 | \$6,789.24 | \$6,789.24 | |
| Repair plaster ceiling - (2% of ceilings) | 12 | 5.10 S.Y. | \$281.41 | \$344.25 | 2.5833 | 2 | 2 | \$688.51 | \$688.51 | |
| | | | \$763,260.11 | \$903,670.56 | | | | MR Subtotal | \$1,196,318.77 | |
| | | | | | | | | | MR Per Year | \$38,590.93 |
| | | | | | | | | | PM Total | \$6,786.70 |
| | | | | | | | | | Subtotal | \$45,377.63 |
| | | | | | | | | | Total Per Unit | \$3.99 |

FAC 2121 MISSILE MAINTENANCE/ASSEMBLY BUILDING

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 31

Type PM

Average Size 11383.0

SUC \$3.99

| Description | Qty | Labor Hours | Bare Mat | Bare Labor | Bare Equip | Bare Total | Total In-House | Total Incl OP |
|---------------------------------------------------------------|------|-------------|----------|------------|------------|------------|----------------|---------------|
| Crane, electric bridge, over 15 tons, annualized | 2.00 | 16.53 | \$648.64 | \$580.06 | \$0.00 | \$1,228.70 | \$1,467.58 | \$1,738.89 |
| Panelboard, 225 A and above, annualized | 3.00 | 1.32 | \$69.59 | \$87.02 | \$0.00 | \$156.62 | \$189.68 | \$226.23 |
| Extinguishing system, deluge / preaction, annually | 1.00 | 4.12 | \$54.09 | \$244.92 | \$0.00 | \$299.01 | \$377.89 | \$459.48 |
| Air compressor, gas engine powered, annualized | 1.00 | 16.57 | \$170.86 | \$991.12 | \$0.00 | \$1,161.98 | \$1,476.41 | \$1,799.37 |
| Controls, central system, electro/pneumatic, annualized | 1.00 | 1.92 | \$70.77 | \$115.41 | \$0.00 | \$186.18 | \$227.88 | \$273.12 |
| Package unit, water cooled, 3 thru 24 ton, annualized | 1.00 | 2.40 | \$176.92 | \$144.48 | \$0.00 | \$321.41 | \$382.45 | \$452.33 |
| VAV Boxes, annualized | 4.00 | 3.74 | \$38.42 | \$225.54 | \$0.00 | \$263.95 | \$335.46 | \$408.88 |
| Water heater, gas, to 120 gal., annualized | 1.00 | 1.72 | \$58.64 | \$86.78 | \$0.00 | \$145.42 | \$177.31 | \$212.14 |
| Drink fountain, annualized | 2.00 | 1.24 | \$41.45 | \$62.55 | \$0.00 | \$104.00 | \$126.91 | \$151.90 |
| Showers, annualized | 2.00 | 0.46 | \$25.78 | \$27.22 | \$0.00 | \$53.00 | \$63.75 | \$75.78 |
| Toilet (vacuum breaker type), annualized | 8.00 | 1.42 | \$67.53 | \$71.18 | \$0.00 | \$138.72 | \$166.83 | \$198.31 |
| Urinals, annualized | 4.00 | 0.91 | \$25.27 | \$45.81 | \$0.00 | \$71.09 | \$87.36 | \$104.89 |
| Fire doors, swinging, annualized | 8.00 | 3.14 | \$114.57 | \$116.46 | \$0.00 | \$231.03 | \$277.43 | \$329.55 |
| Door, overhead, manual, up to 24' high x 25' wide, annualized | 2.00 | 4.39 | \$23.76 | \$181.68 | \$0.00 | \$205.44 | \$262.32 | \$320.38 |
| Door, emergency egress, swinging, annualized | 1.00 | 0.26 | \$14.59 | \$10.75 | \$0.00 | \$25.34 | \$30.03 | \$35.44 |
| | | | | | | \$4,591.88 | \$5,649.27 | \$6,786.70 |

FAC 2121 MISSILE MAINTENANCE/ASSEMBLY BUILDING

Modeled Component List CostWorks Release 2021 Qtr 3

| | |
|-----------------------------------------------------------|--------------|
| C30 Interior Finishes | |
| Plaster | 259.6 S.Y. |
| Carpet | 26.4 S.Y. |
| Concrete, Finished | 101.6 C.S.F. |
| Vinyl | 11.5 S.Y. |
| Acoustic Tile, fire-rated | 21.6 C.S.F. |
| D40 Fire Protection | |
| Fire Pump Electric Motor | 1.0 Ea. |
| Sprinkler System, Fire Suppression, 3" backflow preventer | 1.0 Ea. |
| Sprinkler System, Fire Suppression, sprinkler head | 40.0 Ea. |
| B20 Exterior Enclosure | |
| Aluminum Siding, 2nd floor | 25.9 C.S.F. |
| Aluminum Window, Fixed, 1st floor | 18.0 Ea. |
| Steel Frame, Operating, 2nd floor | 33.0 Ea. |
| Steel Double, Roll-Up | 4.0 Ea. |
| Steel, Painted | 8.0 Ea. |
| B30 Roofing | |
| Built-Up Roofing | 114.0 Sq. |
| Metal Steep Roofing | 30.5 Sq. |
| C10 Interior Construction | |
| Steel Painted Interior Doors | 11.0 Ea. |
| Fully Glazed Wooden Doors | 2.0 Ea. |
| Solid Core Interior Doors | 1.0 Ea. |
| Concrete Block, Painted | 75.6 C.S.F. |
| Fire Doors, Swinging, annualized | 8.0 Each |
| C20 Stairs | |
| Metal Interior Stair Railing | 22.0 L.F. |
| D20 Plumbing | |
| Drinking Fountain | 2.0 Ea. |
| Emergency Eye Wash | 1.0 Ea. |
| Lavatory, Vitreous China | 7.0 Ea. |
| Sink, Iron Enamel | 1.0 Ea. |
| Shower, Fiberglass | 2.0 Ea. |
| Tankless Water Closet | 8.0 Ea. |
| Urinal | 4.0 Ea. |
| Water Heater, Gas / Oil, 1150 GPH | 1.0 Ea. |
| Drain: Roof, Scupper, Area | 3.0 Ea. |
| Rainwater Sump Pump | 1.0 Ea. |
| D30 HVAC | |
| Exhaust Fan, roof mounted exhaust fan, 8500 CFM exhaust | 4.0 Ea. |
| Single Zone Air Conditioner, 25 ton | 1.0 Ea. |
| VAV Box | 4.0 Each |
| D50 Electrical | |
| Fire Alarm Control Panel | 1.0 Ea. |
| Fire Alarm Bell | 4.0 Ea. |
| Load Center, 100 A, maintenance & inspection | 3.0 Ea. |
| Safety Switch, Heavy Duty | 2.0 Ea. |
| Motor Starter, Up To 600 V | 6.0 Ea. |
| Fluorescent Lighting Fixture | 84.0 Ea. |
| Metal Halide Fixture | 23.0 Ea. |
| Manual Pull Station | 4.0 Ea. |
| Smoke Detector | 10.0 Ea. |

E10 Equipment

Crane, Electric, over 15 ton, annualized

2.0 Each

FAC 2121 MISSILE MAINTENANCE/ASSEMBLY BUILDING
Sustainment by Year
CostWorks Release 2021 Qtr 3

