

FAC 7386 CEREMONIAL HALL

FY22 SUC:	\$3.41 / SF
Source:	Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 7386 CEREMONIAL HALL
SUC \$3.41

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 50

Type MR

Average Size 12363.0

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
Clean & service water heater, gas / oil, 70 gallon	1	1.00 Ea.	\$196.62	\$245.89	50.0000	50	50	\$12,294.44	\$12,294.44
Replace water heater, gas / oil, 70 gallon	12	1.00 Ea.	\$3,315.17	\$3,847.40	4.1667	4	4	\$15,389.62	\$15,389.62
Inspect / check pump / motor operation, lubricate circulation pump, 1/12 HP	0.5	2.00 Ea.	\$16.06	\$20.08	100.0000	100	100	\$2,007.87	\$2,007.87
Replace pump / motor assembly circulation pump, 1/12 HP	10	2.00 Ea.	\$2,201.15	\$2,579.99	5.0000	5	5	\$12,899.95	\$12,899.95
Unclog floor drain, PVC	20	1.00 Ea.	\$47.80	\$59.77	2.5000	2	2	\$119.55	\$119.55
General maintenance & repair drain: roof, scupper, area	1	1.00 Ea.	\$36.99	\$46.26	50.0000	50	50	\$2,312.85	\$2,312.85
Replace drain: roof, scupper, area	40	1.00 Ea.	\$786.93	\$912.36	1.2500	1	1	\$912.36	\$912.36
Repair boiler, gas, 2000 MBH	7	1.00 Ea.	\$5,785.82	\$6,733.75	7.1429	7	7	\$47,136.22	\$47,136.22
Replace boiler, gas, 2000 MBH	30	1.00 Ea.	\$39,838.14	\$46,620.21	1.6667	1	1	\$46,620.21	\$46,620.21
Replace metal flue, all fuel SS, 6" diameter metal flue / chimney	15	1.00 L.F.	\$129.05	\$149.45	3.3333	3	3	\$448.36	\$448.36
Repair cooling tower, 50 ton	10	1.00 Ea.	\$1,244.67	\$1,481.97	5.0000	5	4	\$7,409.84	\$5,927.87
Replace cooling tower, 50 ton	15	1.00 Ea.	\$16,033.09	\$18,465.51	3.3333	3	3	\$55,396.53	\$55,396.53
Repair water cooled chiller, 50 ton, reciprocating	10	0.50 Ea.	\$22,760.45	\$26,316.03	5.0000	5	5	\$131,580.13	\$131,580.13
Replace chiller, water cooled 50 ton, reciprocating	20	1.00 Ea.	\$52,675.18	\$61,378.40	2.5000	2	2	\$122,756.80	\$122,756.80
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	50.0000	50	50	\$2,146.43	\$2,146.43
Replace sprinkler head	20	60.00 Ea.	\$5,131.37	\$6,311.37	2.5000	2	2	\$12,622.74	\$12,622.74
Rebuild double check 3" backflow preventer sprinkler system	1	1.00 Ea.	\$710.41	\$851.09	50.0000	50	50	\$42,554.69	\$42,554.69
Maintenance and repair motor starter, up to 600 V	5	4.00 Ea.	\$1,118.56	\$1,350.39	10.0000	10	10	\$13,503.92	\$13,503.92
Replace starter motor starter, up to 600 V	18	4.00 Ea.	\$3,221.24	\$3,832.30	2.7778	2	2	\$7,664.59	\$7,664.59
Maintenance and inspection lighting panel, indoor	3	4.00 Ea.	\$162.58	\$203.69	16.6667	16	16	\$3,258.97	\$3,258.97
Maintenance and repair breaker, molded case, 480 V, 1 pole	20	84.00 Ea.	\$6,028.07	\$7,552.29	2.5000	2	2	\$15,104.58	\$15,104.58
Replace circuit breaker molded case, 480 V, 1 pole circuit breaker	50	84.00 Ea.	\$46,056.26	\$53,651.23	1.0000	1	1	\$53,651.23	\$53,651.23
Maintenance and repair quartz fixture	10	30.00 Ea.	\$1,754.18	\$2,106.58	5.0000	5	5	\$10,532.89	\$10,532.89
Replace 1500 W quartz lamp	10	30.00 Ea.	\$1,603.81	\$1,920.16	5.0000	5	5	\$9,600.81	\$9,600.81
Replace fluorescent light fixture ballast, 80 W	10	44.00 Ea.	\$5,485.41	\$6,654.44	5.0000	5	5	\$33,272.19	\$33,272.19
Replace lamps (2 lamps), 4', 34 W energy saver	10	44.00 Ea.	\$1,109.42	\$1,389.47	5.0000	5	5	\$6,947.37	\$6,947.37
Repair smoke detector	10	26.00 Ea.	\$1,466.08	\$1,812.57	5.0000	5	4	\$9,062.83	\$7,250.26
Check operation smoke detector	1	26.00 Ea.	\$421.05	\$527.51	50.0000	50	50	\$26,375.73	\$26,375.73
Replace smoke detector	15	26.00 Ea.	\$7,390.17	\$8,826.01	3.3333	3	3	\$26,478.03	\$26,478.03
Check and repair manual pull station	10	3.00 Ea.	\$263.09	\$323.49	5.0000	5	4	\$1,617.45	\$1,293.96
Replace manual pull station	15	3.00 Ea.	\$610.40	\$734.82	3.3333	3	3	\$2,204.47	\$2,204.47
Minor repairs to fire alarm control panel	5	1.00 Ea.	\$149.71	\$182.27	10.0000	10	10	\$1,822.75	\$1,822.75

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Maintenance and inspection fire alarm control panel	0.5	1.00 Ea.	\$43.18	\$54.10	100.0000	100	100	\$5,410.41	\$5,410.41
Replace fire alarm control panel	15	1.00 Ea.	\$1,953.46	\$2,391.92	3.3333	3	3	\$7,175.76	\$7,175.76
Replace fire alarm bell, 6"	20	26.00 Ea.	\$5,069.01	\$6,117.16	2.5000	2	2	\$12,234.32	\$12,234.32
Maintenance and repair of general wiring lightning protection system	1	1.00 M.L.F.	\$96.72	\$119.83	50.0000	50	50	\$5,991.33	\$5,991.33
Maintenance and repair lightning ground rod	1	1.00 Ea.	\$87.89	\$109.79	50.0000	50	50	\$5,489.36	\$5,489.36
Replace lamp emergency lighting fixture	2	60.00 Ea.	\$3,281.37	\$3,952.54	25.0000	25	25	\$98,813.49	\$98,813.49
Maintenance and repair exit light	20	60.00 Ea.	\$2,232.10	\$2,760.19	2.5000	2	2	\$5,520.38	\$5,520.38
Replace lamp exit light	5	60.00 Ea.	\$1,010.79	\$1,197.81	10.0000	10	10	\$11,978.08	\$11,978.08
Replace lighting fixture exit light	20	60.00 Ea.	\$11,462.09	\$13,785.64	2.5000	2	2	\$27,571.28	\$27,571.28
Repair 8" concrete block wall, 1st floor	25	930.00 S.F.	\$22,519.78	\$27,549.60	2.0000	2	2	\$55,099.21	\$55,099.21
Replace 8" concrete block wall, 1st floor	60	93.06 C.S.F.	\$110,355.61	\$133,366.86	0.8333	0	0	\$0.00	\$0.00
Replace glass - 1st floor (1% of glass) - alum. window fixed	1	1.00 S.F.	\$12.06	\$14.17	50.0000	50	50	\$708.58	\$708.58
Repair 2'-0" x 3'-0" aluminum window - 1st floor	20	14.00 Ea.	\$2,026.31	\$2,416.53	2.5000	2	2	\$4,833.05	\$4,833.05
Repair steel, painted, door	14	4.00 Ea.	\$2,500.30	\$2,976.02	3.5714	3	3	\$8,928.07	\$8,928.07
Refinish 3'-0" x 7'-0" steel, painted, door	4	4.00 Ea.	\$165.60	\$203.46	12.5000	12	12	\$2,441.58	\$2,441.58
Replace 3'-0" x 7'-0" steel, painted, door	45	4.00 Ea.	\$2,820.26	\$3,278.92	1.1111	1	1	\$3,278.92	\$3,278.92
Repair 12' x 12' steel roll-up door	10	4.00 Ea.	\$2,703.58	\$3,208.87	5.0000	5	5	\$16,044.34	\$16,044.34
Refinish 12' x 12' steel roll-up door	5	2.00 Ea.	\$406.90	\$498.38	10.0000	10	10	\$4,983.78	\$4,983.78
Replace 12' x 12' steel roll-up door	35	2.00 Ea.	\$5,407.17	\$6,417.73	1.4286	1	1	\$6,417.73	\$6,417.73
Minor thermoplastic membrane repairs, 2% of roof area	1	2.50 Sq.	\$811.10	\$965.12	50.0000	50	50	\$48,255.98	\$48,255.98
Flashing repairs, 2 S.F. per sq. repaired, modified bitumen/thermoplastic	1	5.00 S.F.	\$19.27	\$23.06	50.0000	50	50	\$1,152.88	\$1,152.88
Total roof replacement, modified bituminous / thermoplastic	25	124.00 Sq.	\$78,582.38	\$93,256.63	2.0000	2	2	\$186,513.26	\$186,513.26
Repair steel painted interior door	14	7.00 Ea.	\$2,054.17	\$2,390.95	3.5714	3	3	\$7,172.84	\$7,172.84
Refinish 3'-0" x 7'-0" steel painted interior door	4	7.00 Ea.	\$368.10	\$453.50	12.5000	12	12	\$5,442.05	\$5,442.05
Replace 3'-0" x 7'-0" steel painted interior door	60	7.00 Ea.	\$8,526.24	\$9,884.58	0.8333	0	0	\$0.00	\$0.00
Repair solid core wood door, interior	11	15.00 Ea.	\$4,401.78	\$5,123.46	4.5455	4	4	\$20,493.84	\$20,493.84
Refinish 3'-0" x 7'-0" solid core wood door, interior	4	15.00 Ea.	\$650.47	\$798.75	12.5000	12	11	\$9,584.94	\$8,786.20
Replace 3'-0" x 7'-0" solid core wood door, interior	40	15.00 Ea.	\$7,341.41	\$8,487.15	1.2500	1	1	\$8,487.15	\$8,487.15
Repair 5/8" drywall - (2% of walls)	20	95.00 S.F.	\$159.16	\$193.66	2.5000	2	2	\$387.31	\$387.31
Refinish drywall	4	4,750.00 S.F.	\$2,949.66	\$3,628.57	12.5000	12	12	\$43,542.88	\$43,542.88
Replace 5/8" drywall	75	4,750.00 S.F.	\$11,070.39	\$13,547.98	0.6667	0	0	\$0.00	\$0.00
Refinish concrete floor finished	25	123.00 C.S.F.	\$51,884.76	\$62,321.67	2.0000	2	2	\$124,643.34	\$124,643.34
Repair gypsum board ceiling - (2% of ceilings)	20	0.20 C.S.F.	\$72.44	\$88.92	2.5000	2	2	\$177.85	\$177.85
Replace flush valve diaphragm tankless water closet	10	12.00 Ea.	\$314.64	\$390.43	5.0000	5	5	\$1,952.15	\$1,952.15
Rebuild flush valve tankless water closet	20	12.00 Ea.	\$2,165.21	\$2,609.49	2.5000	2	2	\$5,218.97	\$5,218.97

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost	
Unplug clogged line tankless water closet	5	12.00 Ea.	\$2,620.74	\$3,277.52	10.0000	10	10	\$32,775.22	\$32,775.22	
Replace tankless water closet	35	12.00 Ea.	\$15,434.65	\$17,861.94	1.4286	1	1	\$17,861.94	\$17,861.94	
Replace tankless flush valve	25	12.00 Ea.	\$3,026.58	\$3,553.33	2.0000	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	10.0000	10	10	\$21,219.17	\$21,219.17	
Replace flush valve diaphragm for a urinal	7	6.00 Ea.	\$157.32	\$195.22	7.1429	7	7	\$1,366.51	\$1,366.51	
Rebuild flush valve for a urinal	20	6.00 Ea.	\$1,082.60	\$1,304.74	2.5000	2	2	\$2,609.49	\$2,609.49	
Unplug line urinal	5	6.00 Ea.	\$870.43	\$1,088.57	10.0000	10	10	\$10,885.68	\$10,885.68	
Replace wall-hung urinal	35	6.00 Ea.	\$5,813.18	\$7,014.64	1.4286	1	1	\$7,014.64	\$7,014.64	
Replace washer in spud connection lavatory, vitreous china	7	12.00 Ea.	\$197.55	\$240.96	7.1429	7	7	\$1,686.72	\$1,686.72	
Replace washer in faucet lavatory, vitreous china	2	12.00 Ea.	\$154.62	\$192.62	25.0000	25	25	\$4,815.55	\$4,815.55	
Replace faucets lavatory, vitreous china	10	12.00 Ea.	\$2,180.71	\$2,625.06	5.0000	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	25.0000	25	25	\$13,082.37	\$13,082.37	
Replace lavatory, vitreous china	35	12.00 Ea.	\$8,070.89	\$9,698.65	1.4286	1	1	\$9,698.65	\$9,698.65	
Replace faucet washer sink, iron enamel	2	2.00 Ea.	\$25.55	\$31.83	25.0000	25	25	\$795.80	\$795.80	
Clean trap sink, iron enamel	3	2.00 Ea.	\$17.14	\$21.44	16.6667	16	16	\$342.99	\$342.99	
Replace faucets sink, iron enamel	10	2.00 Ea.	\$363.45	\$437.51	5.0000	5	5	\$2,187.55	\$2,187.55	
Unstop sink, iron enamel	2	2.00 Ea.	\$83.64	\$104.60	25.0000	25	25	\$2,615.12	\$2,615.12	
Replace sink, P.E.C.I. sink, iron enamel kitchen	35	2.00 Ea.	\$1,273.40	\$1,515.02	1.4286	1	1	\$1,515.02	\$1,515.02	
Check / minor repairs drinking fountain	1	4.00 Ea.	\$195.53	\$244.53	50.0000	50	50	\$12,226.52	\$12,226.52	
Repair internal leaks drinking fountain	4	4.00 Ea.	\$180.32	\$225.51	12.5000	12	12	\$2,706.14	\$2,706.14	
Correct water pressure drinking fountain	2	4.00 Ea.	\$167.29	\$209.21	25.0000	25	25	\$5,230.23	\$5,230.23	
Replace refrigerant drinking fountain	2	4.00 Ea.	\$130.73	\$153.08	25.0000	25	25	\$3,826.92	\$3,826.92	
Repair drain leak drinking fountain	4	4.00 Ea.	\$135.66	\$162.14	12.5000	12	10	\$1,945.66	\$1,621.39	
Replace fountain drinking fountain	10	4.00 Ea.	\$5,124.62	\$6,058.24	5.0000	5	5	\$30,291.18	\$30,291.18	
Overhaul water heater, gas / oil, 70 gallon	5	1.00 Ea.	\$163.70	\$204.73	10.0000	10	10	\$2,047.26	\$2,047.26	
			\$622,895.55	\$740,779.43				MR Subtotal	\$1,685,888.79	
									MR Per Year	\$33,583.10
									PM Total	\$8,622.87
									Subtotal	\$42,205.97
									Total Per Unit	\$3.41

FAC 7386 CEREMONIAL HALL

SUC \$3.41

Release 2021 Qtr 3

UM SF

Zip Code Prefix 222

Design Life 50

Type PM

Average Size 12363.0

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	\$58.37	\$43.00	\$0.00	\$101.37	\$120.10	\$141.76
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	4.00	2.48	\$82.90	\$125.10	\$0.00	\$208.00	\$253.82	\$303.79
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	1.00	4.55	\$26.29	\$273.11	\$0.00	\$299.40	\$383.96	\$469.83
Chiller, recip., air cooled, over 25 tons, annualized	1.00	12.89	\$91.50	\$775.28	\$0.00	\$866.78	\$1,108.51	\$1,354.82
Fan coil unit, annualized	2.00	6.68	\$226.46	\$336.54	\$0.00	\$563.01	\$686.62	\$821.55
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	4.00	1.76	\$92.79	\$116.03	\$0.00	\$208.82	\$252.91	\$301.64
Motor control center, over 400 A, annualized	4.00	1.56	\$92.79	\$103.60	\$0.00	\$196.39	\$236.75	\$281.75
Light, emergency, hardwired system, annualized	30.00	7.50	\$231.97	\$442.89	\$0.00	\$674.87	\$830.93	\$998.59
						\$5,667.73	\$7,113.48	\$8,622.87

FAC 7386 CEREMONIAL HALL
Modeled Component List
CostWorks Release 2021 Qtr 3

D20 Plumbing

Water Heater, Gas / Oil, 70 Gallon	1.0 Ea.
Circulation Pump, 1/12 HP	2.0 Ea.
Drain: Roof, Scupper, Area	1.0 Ea.
Tankless Water Closet	12.0 Ea.
Urinal	6.0 Ea.
Lavatory, Vitreous China	12.0 Ea.
Sink, Iron Enamel	2.0 Ea.
Drinking Fountain	4.0 Ea.

D30 HVAC

Boiler, Gas, 2000 MBH	1.0 Ea.
Metal Flue / Chimney, 6" diameter	1.0 L.F.
Cooling Tower, 50 ton	1.0 Ea.
Chiller, Water Cooled, Reciprocating, 50 ton	1.0 Ea.

D40 Fire Protection

Sprinkler System, Fire Supression, sprinkler head	60.0 Ea.
Sprinkler System, Fire Supression , 3" backflow preventer	1.0 Ea.

D50 Electrical

Motor Starter, Up To 600 V	4.0 Ea.
Load Center, 100 A, maintenance & inspection	4.0 Ea.
Circuit Breaker, molded case, 480 V, 1 pole	84.0 Ea.
Quartz Lamp 1500 W, replace lamp	30.0 Ea.
Smoke Detector	26.0 Ea.
Manual Pull Station	3.0 Ea.
Fire Alarm Control Panel	1.0 Ea.
Fire Alarm Bell	26.0 Ea.
Exit Light	60.0 Ea.

B20 Exterior Enclosure

Concrete Block, 1st floor	93.06 C.S.F.
Steel, Painted	4.0 Ea.
Steel Single, Roll-Up	2.0 Ea.

B30 Roofing

Modified Bituminous / Thermoplastic	124.0 Sq.
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C10 Interior Construction

Steel Painted Interior Doors	7.0 Ea.
Solid Core Interior Doors	15.0 Ea.

C30 Interior Finishes

Drywall	4750.0 S.F.
Concrete, Finished	123.0 C.S.F.

FAC 7386 CEREMONIAL HALL
Sustainment by Year
CostWorks Release 2021 Qtr 3

