

FAC 3104 BIOSAFETY LEVEL 4 LABORATORY

FY22 SUC: \$21.73 / SF
Source: Calculated using R.S. Means CostWorks 2021 Qtr 3 component prices

FAC 3104 BIOSAFETY LEVEL 4 LABORATORY

SUC \$21.73

Release 2021 Qtr 3
Zip Code Prefix 222
Type MR

UM SF
Design Life 30
Average Size 650.0

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
Repair 3'-0" x 7'-0" steel sliding door steel painted	14	4.00 Ea.	\$214.62	\$259.00	2.1429	2	2	\$518.00	\$518.00
Refinish 3'-0" x 7'-0" steel sliding door steel painted	4	4.00 Ea.	\$210.34	\$259.15	7.5000	7	7	\$1,814.02	\$1,814.02
Replace wire glass (3% of glass) steel painted interior door	1	4.00 S.F.	\$169.65	\$196.89	30.0000	30	30	\$5,906.57	\$5,906.57
Replace epoxy flooring	15	4.50 C.S.F.	\$5,055.97	\$6,050.09	2.0000	2	2	\$12,100.18	\$12,100.18
Repair gypsum board ceiling - (2% of ceilings)	20	4.50 C.S.F.	\$1,629.79	\$2,000.81	1.5000	1	1	\$2,000.81	\$2,000.81
Replace faucet washer sink, laboratory	2	2.00 Ea.	\$25.55	\$31.83	15.0000	15	15	\$477.48	\$477.48
Replace faucets sink, laboratory	10	2.00 Ea.	\$363.45	\$437.51	3.0000	3	3	\$1,312.53	\$1,312.53
Inspect / clean shower head shower, terrazzo	3	1.00 Ea.	\$49.39	\$61.77	10.0000	10	10	\$617.71	\$617.71
Replace mixing valve barrel shower, terrazzo	2	1.00 Ea.	\$282.59	\$332.32	15.0000	15	15	\$4,984.79	\$4,984.79
Replace mixing valve shower, terrazzo	10	1.00 Ea.	\$275.88	\$335.56	3.0000	3	3	\$1,006.67	\$1,006.67
Replace terrazzo shower surface	30	1.00 Ea.	\$1,294.04	\$1,558.12	1.0000	1	1	\$1,558.12	\$1,558.12
Inspect and clean shower head emergency shower station	3	1.00 Ea.	\$49.39	\$61.77	10.0000	10	10	\$617.71	\$617.71
Replace shower emergency shower station	25	1.00 Ea.	\$941.97	\$1,129.12	1.2000	1	1	\$1,129.12	\$1,129.12
Inspect and clean spray heads, emergency eye wash	3	1.00 Ea.	\$49.39	\$61.77	10.0000	10	10	\$617.71	\$617.71
Replace eye wash station, emergency eye wash	25	1.00 Ea.	\$1,114.34	\$1,325.00	1.2000	1	1	\$1,325.00	\$1,325.00
Resolder joint pipe & fittings, copper	10	4.00 Ea.	\$178.37	\$221.12	3.0000	3	3	\$663.35	\$663.35
Inspect for leaks steam converter, domestic hot water	1	1.00 Ea.	\$6.77	\$8.46	30.0000	30	30	\$253.90	\$253.90
Replace steam converter, domestic hot water	20	1.00 Ea.	\$3,500.15	\$4,018.40	1.5000	1	1	\$4,018.40	\$4,018.40
Clean floor drain w/o bucket	4	2.00 Ea.	\$234.63	\$293.44	7.5000	7	7	\$2,054.06	\$2,054.06
General maintenance pipe & fittings, industrial gas	2	0.25 M.L.F.	\$9.23	\$11.55	15.0000	15	15	\$173.21	\$173.21
Resolder joint pipe & fittings, oxygen	12	4.00 Ea.	\$288.44	\$356.83	2.5000	2	2	\$713.66	\$713.66
Replace pipe and fittings, oxygen	25	140.00 L.F.	\$3,629.30	\$4,370.74	1.2000	1	1	\$4,370.74	\$4,370.74
General maintenance pipe & fittings, compressed air	2	0.25 M.L.F.	\$9.23	\$11.55	15.0000	15	15	\$173.21	\$173.21
Check and adjust 3/4 H.P. compressor	1	1.00 Ea.	\$84.73	\$106.02	30.0000	30	30	\$3,180.57	\$3,180.57
Replace 3/4 H.P. compressor	25	1.00 Ea.	\$2,316.86	\$2,720.07	1.2000	1	1	\$2,720.07	\$2,720.07
Replace fan & motor, propeller exhaust, 375 CFM exhaust fan	15	2.00 Ea.	\$1,164.60	\$1,381.28	2.0000	2	2	\$2,762.57	\$2,762.57
Repack gate valve gland, 3/8" - 1-1/2" valves	10	2.00 Ea.	\$55.69	\$66.62	3.0000	3	3	\$199.86	\$199.86
Replace gate valve, partial, 3/8" - 1-1/2" valves	20	2.00 Ea.	\$793.00	\$923.88	1.5000	1	1	\$923.88	\$923.88
Repair circulator pump, 1/12 - 3/4 H.P.	5	1.00 Ea.	\$98.13	\$115.73	6.0000	6	6	\$694.39	\$694.39

Description	Frequency	Qty Unit	Total In-House	Total Incl OP	Design Life/Frequency	Occurrences in Design Life	Adjusted Occurrences	Life Cost	Adjusted Cost
Repair damaged pipe insulation, fiberglass 2"	5	2.00 Ea.	\$48.01	\$58.68	6.0000	6	6	\$352.06	\$352.06
Repair damaged pipe insulation, fiberglass 3"	5	2.00 Ea.	\$53.28	\$65.14	6.0000	6	6	\$390.86	\$390.86
Rebuild 4" diameter reduced pressure backflow preventer	10	1.00 Ea.	\$664.67	\$779.78	3.0000	3	3	\$2,339.35	\$2,339.35
Inspect sprinkler system	1	1.00 Ea.	\$34.33	\$42.93	30.0000	30	30	\$1,287.86	\$1,287.86
Replace sprinkler head	20	6.00 Ea.	\$513.14	\$631.14	1.5000	1	1	\$631.14	\$631.14
Maintenance and repair motor starter, up to 600 V	5	1.00 Ea.	\$279.64	\$337.60	6.0000	6	6	\$2,025.59	\$2,025.59
Maintenance and inspection motor starter, up to 600 V	0.5	1.00 Ea.	\$53.98	\$67.63	60.0000	60	60	\$4,057.80	\$4,057.80
Maintenance and repair breaker, enclosed, 240 V, 2 pole	25	6.00 Ea.	\$430.58	\$539.45	1.2000	1	1	\$539.45	\$539.45
Maintenance and repair safety switch general, 2 pole	8	2.00 Ea.	\$81.29	\$101.84	3.7500	3	3	\$305.53	\$305.53
Replace 4-pin receptacle	20	12.00 Ea.	\$1,755.01	\$2,086.21	1.5000	1	1	\$2,086.21	\$2,086.21
Replace lamps (2 lamps), 4', 34 W energy saver	10	6.00 Ea.	\$151.28	\$189.47	3.0000	3	3	\$568.42	\$568.42
Maintenance and repair electrical service ground	25	0.15 M.L.F.	\$13.18	\$16.47	1.2000	1	1	\$16.47	\$16.47
Maintenance and inspection generator, diesel, 750 KW	0.08	0.01 Ea.	\$0.65	\$0.81	375.0000	375	375	\$304.34	\$304.34
Replace diesel generator component, 750 KW	25	0.01 Ea.	\$2,279.67	\$2,611.03	1.2000	1	1	\$2,611.03	\$2,611.03
Maintenance and repair transfer switch	5	0.01 Ea.	\$3.57	\$4.31	6.0000	6	6	\$25.85	\$25.85
Replace transfer switch	18	0.01 Ea.	\$262.93	\$301.00	1.6667	1	1	\$301.00	\$301.00
Maintenance and repair voice/data outlet	10	4.00 Ea.	\$205.17	\$256.23	3.0000	3	3	\$768.70	\$768.70
Replace glove box gloves	5	4.00 Ea.	\$1,523.75	\$1,777.94	6.0000	6	6	\$10,667.66	\$10,667.66
Replace fume hood sash	20	4.00 Ea.	\$4,984.04	\$5,719.37	1.5000	1	1	\$5,719.37	\$5,719.37
Remove and replace darkroom dryer fan	10	1.00 Ea.	\$355.92	\$411.90	3.0000	3	3	\$1,235.71	\$1,235.71
Remove and replace darkroom dryer heating element	15	1.00 Ea.	\$171.40	\$200.96	2.0000	2	2	\$401.92	\$401.92
			\$37,961.00	\$44,906.29					
								MR Subtotal	\$95,524.60
								MR Per Year	\$3,184.15
								PM Total	\$10,940.62
								Subtotal	\$14,124.77
								Total Per Unit	\$21.73

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SUC \$21.73

Release 2021 Qtr 3
Zip Code Prefix 222
Type PM

UM SF
Design Life 30
Average Size 650.0

Description	Qty	Labor Hours	Bare Mat	Bare Labor	Bare Equip	Bare Total	Total In-House	Total Incl OP
Fire doors, sliding, annually	4.00	1.66	\$40.40	\$58.23	\$0.00	\$98.63	\$120.14	\$143.67
Valve, butterfly, above 4", annually	1.00	0.17	\$5.86	\$8.37	\$0.00	\$14.23	\$17.33	\$20.72
Valve, check, above 4", annually	1.00	0.26	\$5.86	\$12.95	\$0.00	\$18.81	\$23.29	\$28.05
Oxygen monitor, annualized	1.00	5.00	\$399.34	\$251.09	\$0.00	\$650.43	\$765.69	\$900.92
Air handling unit, 3 thru 24 tons, annually	1.00	0.80	\$99.58	\$40.53	\$0.00	\$140.11	\$162.23	\$189.32
Fan coil unit, annually	1.00	1.46	\$42.46	\$73.56	\$0.00	\$116.03	\$142.34	\$170.78
Air filter, electrostatic, annually	4.00	8.72	\$40.64	\$440.50	\$0.00	\$481.14	\$617.36	\$755.60
Fan, axial, up to 5,000 CFM, annually	2.00	1.25	\$11.73	\$62.55	\$0.00	\$74.28	\$94.22	\$114.74
Hood and blower, annually	2.00	2.85	\$84.92	\$142.72	\$0.00	\$227.65	\$278.96	\$334.51
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., annualized	1.00	3.41	\$61.67	\$206.15	\$0.00	\$267.82	\$335.84	\$406.94
Steam humidification system, annualized	1.00	2.54	\$25.78	\$152.41	\$0.00	\$178.19	\$226.50	\$276.09
Dehumidifier, desiccant wheel, annualized	1.00	5.06	\$73.30	\$253.73	\$0.00	\$327.03	\$410.47	\$497.59
Backflow prevention device, up to 4", annually	2.00	0.67	\$26.79	\$39.65	\$0.00	\$66.44	\$81.01	\$96.92
Switchboard, annualized	1.00	0.70	\$3.99	\$46.10	\$0.00	\$50.09	\$64.32	\$78.75
Switch, interrupt, high voltage, w/ aux fuses, air, annualized	2.00	0.73	\$30.31	\$47.66	\$0.00	\$77.97	\$95.30	\$114.14
Motor control center, over 400 A, annualized	1.00	0.39	\$23.20	\$25.90	\$0.00	\$49.10	\$59.19	\$70.44
Emergency diesel or gas generator, up to 15 KVA, annually	1.00	1.49	\$111.35	\$87.54	\$0.00	\$198.89	\$236.29	\$279.25
Dishwasher, steam, annualized	3.00	14.20	\$343.80	\$484.38	\$0.00	\$828.18	\$1,007.87	\$1,204.76
Oven, convection, gas / electric, annualized	4.00	44.97	\$165.02	\$1,530.88	\$0.00	\$1,695.90	\$2,171.67	\$2,655.69
Vacuum, annualized	1.00	1.23	\$20.51	\$41.86	\$0.00	\$62.37	\$76.98	\$92.62
De-ionization, annualized	1.00	4.01	\$1,124.55	\$195.50	\$0.00	\$1,320.05	\$1,491.16	\$1,718.49
Reverse osmosis system, annualized	1.00	3.73	\$182.28	\$181.05	\$0.00	\$363.33	\$435.87	\$517.53
						\$7,492.86	\$9,141.89	\$10,940.62

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Modeled Component List

CostWorks Release 2021 Qtr 3

C30 Interior Finishes	
Epoxy Flooring	4.5 C.S.F.
D20 Plumbing	
Shower, Terrazzo	1.0 Ea.
Emergency Shower Station	1.0 Ea.
Emergency Eye Wash	1.0 Ea.
Steam Converter, Domestic Hot Water	1.0 Ea.
D30 HVAC	
Exhaust Fan, propeller exh., 4700 CFM	2.0 Ea.
D40 Fire Protection	
Backflow Preventer	1.0 Ea.
Sprinkler System, Fire Suppression, sprinkler head	6.0 Ea.
D50 Electrical	
Generator, Diesel, 750 KW	0.01 Ea.
Transfer Switch	0.01 Ea.
G30 Site Mechanical Utilities	
Reverse Osmosis System, annualized	1.0 Each

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Sustainment by Year
CostWorks Release 2021 Qtr 3

