

FAC 3904 PROPULSION ENGINE TEST CELL

FY22 SUC:	\$58,873.90 / EA
Source:	Inflated from previous FY using ENR labor and material cost indices to measure actual inflation
Original Source:	Based on multiple FACS and R.S. Means Cost Works 2010 Quarter 1 Component list provided by AEDC/TSDCD , Arnold Air Force Base

FAC 3904 Propulsion Engine Test Cell V13 Sustainment Unit Cost

References:

Real Property Classification System Version 2010-2

FSM Version 12 Database

RS Means CostWorks, 2010

UM= EA

SUSTAINMENT UNIT COST = \$41,763.96

Cost Methodology

The SUC for this FAC was determined using a combination of SUCs for other FACs and RS Means CostWorks for specified facility components. The list of components for each facility was provided by Bill Wendle, Program Section Chief, AEDC/TSDCD, Arnold AFB.

NOTE: At least three of the fifteen in the FAD are inactive. Of the others, 4 should be classified as a different type of facility. They are an electronics building, steam accumulator, exhaust duct, and a dehumidification chamber.

FAC 3904 SUC Calculation

FAC	Description	Quantity	UM	Unit Cost	Total
N/A	CostWorks Components	1	N/A	N/A	\$15,705.56
N/A	Cathodic Protection System	1	EA	\$2,000.00	\$2,000.00
8111	Electrical Power Gen Plant	60	KW	\$15.14	\$908.40
8313	Industrial Waste Water Collection	10	KG	\$0.54	\$5.40
8526	Misc. Paved Surfaces	2500	SY	\$1.49	\$3,725.00
8261	A/C Plant 5 to 25 TN	30	TR	\$74.32	\$2,229.60
8131	Electric Substation	1000	KV	\$17.19	\$17,190.00
	Total Cost				\$41,763.96

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Design Life= 55
UM = EA 1

This spreadsheet was
exported from R. S Means
Sq=100 S.F. M.L.F=1000 | CostWorks

Terminal Cutoff is the removal of a single task occurrence if that task occurs within 10%
of the end of the design life and if the frequency of the task exceeds 20% of the design
life. This prevents scheduling major work near the end of the design life

Description	Frequency	Crew	Qty	Unit	Total In-House	Total Incl. O&P	Type	Release	Occurrences in Design	Adjusted Occurrence	Terminal Cutoff
Rebuild 10" diameter reduced pressure backflow p	10	1 Plum	1,000	Ea.	873.00	1,038.40	FMR	2010 Qtr 1	5	5	\$ 5,192.00
Inspect sprinkler system	1	1 Plum	1,000	Ea.	30.20	37.80	FMR	2010 Qtr 1	55	55	\$ 2,079.00
Replace sprinkler head	20	1 Plum	49,000	Ea.	3,479.00	4,263.00	FMR	2010 Qtr 1	2	2	\$ 8,526.00
Check and repair manual pull station	10	1 Elec	5,000	Ea.	357.50	435.25	FMR	2010 Qtr 1	5	5	\$ 2,176.25
Replace manual pull station	15	1 Elec	5,000	Ea.	884.40	1,053.25	FMR	2010 Qtr 1	3	3	\$ 3,159.75
Maintenance and inspection generator, gasoline, 1	0.08	1 Elec	1,000	Ea.	48.00	60.00	FMR	2010 Qtr 1	687	687	\$ 41,220.00
Replace generator component gasoline, 175 KW	25	2 Elec	1,000	Ea.	92,675.00	106,250.00	FMR	2010 Qtr 1	2	1	\$ 106,250.00
Maintenance and repair transfer switch	5	1 Elec	1,000	Ea.	242.00	294.00	FMR	2010 Qtr 1	11	11	\$ 3,234.00
Maintenance and inspection transfer switch	0.5	1 Elec	1,000	Ea.	30.00	37.50	FMR	2010 Qtr 1	110	110	\$ 4,125.00
Replace transfer switch	18	1 Elec	1,000	Ea.	3,625.15	4,137.73	FMR	2010 Qtr 1	3	2	\$ 8,275.46
Maintenance and repair of general wiring lightning	1	1 Elec	1,000	M.L.F.	73.50	91.00	FMR	2010 Qtr 1	55	55	\$ 5,005.00
Replace lightning protection general wiring system	25	2 Elec	1,000	M.L.F.	7,597.50	9,099.50	FMR	2010 Qtr 1	2	1	\$ 9,099.50
Maintenance and repair special ground system	4	1 Elec	1,000	Ea.	16.05	20.00	FMR	2010 Qtr 1	13	13	\$ 260.00
Replace special ground system	50	2 Elec	1,000	M.L.F.	1,875.00	2,003.00	FMR	2010 Qtr 1	1	0	\$ -
Minor repairs to fire alarm control panel	5	1 Elec	1,000	Ea.	118.85	143.75	FMR	2010 Qtr 1	11	11	\$ 1,581.25
Maintenance and inspection fire alarm control panel	0.5	1 Elec	1,000	Ea.	32.00	40.00	FMR	2010 Qtr 1	110	110	\$ 4,400.00
Replace fire alarm control panel	15	1 Elec	1,000	Ea.	1,930.37	2,314.05	FMR	2010 Qtr 1	3	3	\$ 6,942.15
Minor repairs to annunciation panel	5	1 Elec	1,000	Ea.	118.85	143.75	FMR	2010 Qtr 1	11	11	\$ 1,581.25
Maintenance and inspection annunciation panel	0.5	1 Elec	1,000	Ea.	32.00	40.00	FMR	2010 Qtr 1	110	110	\$ 4,400.00
Replace annunciation panel	15	1 Elec	1,000	Ea.	856.37	1,028.05	FMR	2010 Qtr 1	3	3	\$ 3,084.15
Replace fire alarm bell, 6"	20	1 Elec	25,000	Ea.	4,147.00	4,966.25	FMR	2010 Qtr 1	2	2	\$ 9,932.50
Repair heat detector	10	1 Elec	50,000	Ea.	2,252.50	2,767.50	FMR	2010 Qtr 1	5	5	\$ 13,837.50
Check operation heat detector	1	1 Elec	50,000	Ea.	600.00	752.50	FMR	2010 Qtr 1	55	55	\$ 41,387.50
Replace heat detector	15	1 Elec	50,000	Ea.	7,094.00	8,582.50	FMR	2010 Qtr 1	3	3	\$ 25,747.50
					\$128,788.24	\$149,598.78					

MR Subtotal	\$311,495.76
MR Per Year	\$ 5,663.56
PM Per Year	\$ 10,042.00
Subtotal	\$ 15,705.56
Total Per Unit	\$ 15,705.56

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Description	Qty	Labor Hours	Bare Mat.	Bare Labor	Bare Equip.	Bare Total	Total In-House	Total Incl. O&F	Zip Code	Prefix	Type	Release
Backflow prevention device, up to 4", annualized	1.000	0.33	0.00	17.35	0.00	17.35	21.50	27.00			FMR	2010 Qtr 1
Backflow prevention device, over 4", annualized	1.000	0.49	0.00	25.50	0.00	25.50	32.00	40.00			FMR	2010 Qtr 1
Extinguishing system, wet pipe, annualized	1.000	11.34	147.00	570.00	0.00	717.00	870.00	1,075.00			FMR	2010 Qtr 1
Extinguishing system, deluge / preaction, annualized	1.000	11.57	147.00	585.00	0.00	732.00	885.00	1,075.00			FMR	2010 Qtr 1
Fire pump, electric motor driven, annualized	1.000	47.74	116.00	2,400.00	0.00	2,516.00	3,100.00	3,875.00			FMR	2010 Qtr 1
Extinguishing system, CO2, annualized	1.000	9.47	187.00	475.00	0.00	662.00	795.00	975.00			FMR	2010 Qtr 1
Extinguishing system, dry chemical, annualized	1.000	5.61	187.00	283.00	0.00	470.00	555.00	670.00			FMR	2010 Qtr 1
Fire alarm annunciator system, annualized	1.000	11.05	137.00	555.00	0.00	692.00	840.00	1,025.00			FMR	2010 Qtr 1
Crane, electric bridge, over 15 tons, annualized	2.000	16.66	124.00	720.00	0.00	844.00	1,030.00	1,280.00			FMR	2010 Qtr 1
			\$1,045.00	\$5,630.85	\$0.00	\$6,675.85	\$8,128.50	\$10,042.00				