Training Center



Built in 1989 the facility is collocated at the Lee Center and is used for training purposes. The facility is a steel frame brick building and is shared with other city entities. Roofing consists of EPDM and metal panel construction. There is one vehicle bay for fire station vehicles .

DRAFT REPORT



Exterior conditions

Interior conditions



Roof conditions

Site conditions

Facility Outlook The following charts depict the life cycle costs and FCI values over a 30 year outlook, including a six year building renovations improvement project cost matrix.

Lee Center 1 inch equals 85 feet





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RENOVATION COST MATRIX

Alexandria Fire Department - Alexandria, Virginia

		CAPI	TAL IMF	ROVEM	ENTS - SI	X YEAI	R OUTL	OOK					
BASE YEAR	ESTIMAT	ш						SIX YE	AR OUTLO	DOK	Sec. 19		
Divisiont Description	Priority				Total \$	2009	2010	2011	2012	2013	2014	Defered	Remarks
invidingent instatu	1-5	NN	aty Unit S	Subtotal \$	ESCALATED	1.00	1.03	1.06	1.09	1.12	1.15	and the second	
	the second second		A STATE OF STATE	And the second	\$ 13,106	- 5	- 5	. 8	- 5	\$ 13,106	- 5		
Provide additional visual devices to fire alarm system	4				\$ 9,701					\$ 10,866			
Add visual devices		SF 6	650 \$ 2.92	\$ 9,701									
Sitework	2				\$ 2,000					\$ 2,240			
Miscellaneous Site improvements.		-			6								
2		SF 2	955 \$ 0.68	\$ 2,000									

Notes: Cost estimate shows the following: Cost estimate shows the following: Base Year Costs Distribution of costs Differences are due to rounding. Priority Rating 1 - 5 5 - Life safety & building security. 4 - Building exterior & primary systems. 3 - Building exterior & primary systems. 2 - Supplemental systems. 1 - Noncritical systems.













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DRAFT REPORT



Built in 1978 the facility is located on Wheeler Ave and has very limited parking at the rear of the facility. The facility is a prefabricated metal building and is shared with other city entities. Roofing consists of built-up construction. There are 2 maintenance bays in the facility to provide maintenance on fire station vehicles.

DRAFT REPORT



Poor exterior conditions

New lift equipment installation



Poor window conditions

Poor exterior finishes

Facility Outlook The following charts depict the life cycle costs and FCI values over a 30 year outlook, including a six year building renovations improvement project cost matrix.

Shops 1 inch equals 80 feet





FCI PERCENTAGE OF REPLACEMENT



VEHICLE MAINTENANCE SHOP FCI/LIFE CYCLE CHART

NUMBER OF YEARS PROJECTED

NOTE:

1. Facility Condition Index is the ratio of costs to renovate or repair vs. to replace with new as calculated below.

(FCI) = Deferred Maintenance + Capital Renewal

Current Replacement Value

2. Life cycle costs are based upon the value to replace the system that once the life of that system is over. Example: 20 year life span of a roof system and the cost to replace it in 20 years. VEILE MAINTENANCE SHOP



RENOVATION COST MATRIX

Alexandria Fire Department - Alexandria, Virginia

CAPITAL IMPROVEMENTS - SIX YEAR OUTLOOK																
BASE YE	EAR ESTI	MAT	E						Contraction of the		SIX YI	EAR OUTLO	DOK			Constant of the second s
Project Description	Priority		SCALES -	A starting		and the second	Total \$		2009	2010	2011	2012	2013	2014	Defered	Remarks
	1 - 5	UM	Qty	Unit \$	Sub	ototal \$	ESCALATE	2	1.00	1.03	1.06	1.09	1.12	1.15		
	10 STORES						\$ 331,23	5 \$	133,552	\$ 51,469	5 -	\$ -	5 -	\$ 146,213	5 -	
Penair Exterior Equalore Water Panatration							6 27 42			¢ 00.050			1			
Power Wash Exterior Surfaces		SE	6 150	\$ 0.75	¢	1 612	\$ 21,43	°		\$ 28,258	1				1	
Repair Metal Siding		SE	6 150	\$ 3.21	¢.	4,013						1				
Paint and Seal	1	SE	6 150	\$ 0.50	\$	3 075						1	1		1	
Replace Exterior Windows	4	0.	0,100	ф 0.00	4	5,015	\$ 8.26			\$ 8.512	1			1		
Demo	1	FA	8	\$ 50.00	\$	400	\$ 0,20	1		\$ 0,012		1			1	
New Windows	1	FA	8	\$ 983.02	8	7 864										
Replace Exterior Doors	4		0	¢ 000.02	Ψ	1,004	\$ 14.27	1		\$ 14 699						
Demo		FA	4	\$ 250.00	\$	1 000	v 14,27	1		ψ 14,000	1					
New Exterior Doors	1	FA	4	\$ 331776	\$	13 271					1					
Replace Overhead Doors	4	1		• •,••••••	*	10,271	\$ 29.04	3					1			
Demo		FA	4	\$ 577.00	\$	2 308	÷ 10,04	1				1				
New Exterior OH Doors		FA	4	\$ 668367	\$	26 735		1			1		1			
Paint interior walls/ceilings	3		-	• •,••••.•	Ψ	20,100	\$ 10.48	7						\$11 745 47		
Walls		SE	6 150	\$ 0.82	\$	5.018	• 10,40	1						\$11,743.47		
Ceilings	1	SE	6 150	\$ 0.89	8	5,010										
Boolace Air bandling Unite	2		0,100	• 0.00	Ψ	5,405	6 34 40	-	2			1				
Domo	3	OF	6 150	¢ 0.76	¢	4.040	≱ 21,40	1			1	1		\$22,131.79		
New Aichandling Units		SF	6,150	\$ 0.15 ¢ 0.74	Ð	4,013					1					
Peologo Controls		SF	0,150	φ 2.74	Ф	10,875	E 00 1E					1	1	007 700 04	1	
Domo	3	OF	6 150	¢ 0.75	C	1.040	\$ 20,15	1					1	\$27,726.04		
Now Controlo		SF	6,150	\$ U.75 ¢ 2.50	\$	4,613					1		1			
Replace Light Einthree with Ensern Efficient Open	2	SF	0,150	φ 3.50	Þ	21,544	E CA 44				1			007 001 00		
Replace Light Fixtures with Energy Enclent Ones	3	OF	6 160	¢ 0.75	æ	4.040	\$ 04,11	1						\$67,964.00		
Now Light Eixtures		SF	6 150	\$ 0.75 \$ 0.69	\$	4,613					1	1		1	1	
Realace Exit Lights	6	3F	0,150	φ 9.00	Э	59,504	¢ 104		1 946				1			
Replace Lan Lights	5		0		æ	450	ə 1,04	• •	1,040			1				
Demo		EA	6	\$ 75.00	Ð	450							1			
New Exit Lights		EA	0	\$ 232.64	\$	1,396										
Replace panels.	0	-		e 75.00			\$ 6,30					1	1	\$ 6,489.00		
Demo Maria Datala		EA	4	\$ 75.00	\$	300		1			1		1		1	
New Panels		EA	4	\$ 1,500.00	\$	6,000	¢ 4.00						1			
Provide 30 AMP receptacies	2	1.54	00	¢ 045.00			⇒ 4,90	ا ۷					1	\$ 5,341.00		
New 30 AMP receptacies		EA	20	\$ 245.00	\$	4,900										
Replace fire alarm system	5						\$ 17,05	2 \$	17,052						ł .	
Demo	1	EA	6	\$ 75.00	\$	450							1			1
New fire alarm system		SF	6,150	\$ 2.70	\$	16,602					1	1				
Provide additional receptacles	2	-	00				\$ 4,30	0				1		\$ 4,816.00		
New Receptacies		EA	20	\$ 215.00	\$	4,300						1				
Install lift equipment	2		1.000 100000000000000000000000000000000				\$ 114,65	4 \$	114,654							Started in 2009
Lift Equipment		SF	6,150	\$ 18.64	\$ 1	114,654										

Notes:

Cost estimate shows the following:

Project Elements.

Base Year Costs.

Distribution of costs

Differences are due to rounding.

Priority Rating 1 - 5

5- Life safety & building security.

4- Building exterior & primary systems.

3- Buiding interior finishes and secondary systems.

2- Supplemental systems.

1- Noncritical systems.



























































































































































Burn Building



Built in 1982 the facility is utilized for multi jurisdiction fire training purposes. The facility is a concrete frame with CMU infill. Roofing consists of metal panel construction. A large chimney structure is adjacent to the structure and is a potential liability and serves no functional purpose to the facility.

DRAFT REPORT



Burn finish conditions

Large adjacent chimney



Roofing conditions

Interior conditions

Facility Outlook The following charts depict the life cycle costs and FCI values over a 30 year outlook, including a six year building renovations improvement project cost matrix.

Burn Building





FCI PERCENTAGE OF REPLACEMENT



2. Life cycle costs are based upon the value to replace the system that once the life of that system is over. Example: 20 year life span of a roof system and the cost to replace it in 20 years.

FIFESTATION BURN BUILDING



Alexandria Fire Department - Alexandria, Virginia

	C	API	TAL	IMP	RON	/EMEN	TS	S - SIX YI	EA	ROU	TL	OOK						The state of the s
BASE YEAR	ESTIMA	TE			C. C. S.				1	11-11-11	1:37	ALC: MARKED	SIX YI	EAR OUTL	OOK		Sector Sector	all the second second
Project Decoription	Priority		Non-Section	1月19月1			T	Total \$		2009	RE	2010	2011	2012	2013	2014	Defered	Remarks
Project Description	1 - 5	UM	Qty	Un	nit \$	Subtotal \$		ESCALATED	1.1	1.00	100	1.03	1.06	1.09	1.12	1.15		The second second
				I AL	N. C. E.			\$ 247,373	5	134,203	\$	81,887	\$ -	5 -	5 -	\$ 31,283	5 -	
		T						e 50.005		50 005								
Masonry/Conc Repair	4	05	4 400	æ	0.75	E 2.00/		\$ 50,385	3	50,385	1							
Power Wash Exterior Surfaces		SF	4,400	9 6	0.75	\$ 3,300					1							
Patch and Point Masonry		SF	4,400	Ð	0.90	\$ 4,312	2		1		{			}	1	1	1	1
Repair Masonry/Conc		SF	2,500	Φ	17.11	\$ 42,773	5	e 44.040	a.	11 016		1			1	1		
Replace Exterior Doors	4	50	4	¢ ~	260.00	E 4.000		\$ 11,010	₽	11,010	1			1			1	1
Demo		EA	4	D 2	200.00	\$ 1,000	5		1		1							
New Exterior Doors		EA	4	\$ 2,0	503.69	\$ 10,010		¢ 27.790	c	27 780	1							
Replace Exterior Windows	4	EA	36	¢	50.00	¢ 1.900	2	φ <u>21,100</u>	l°.	21,100								
Demo		EA	36	ф С 7	721.68	\$ 25.080	0					1			1 .			
New Windows		LEA	30	\$ 1	121.00	\$ 25,960	, ,	\$ 16.095	ł		2	16 568			1	1		1
Stair restoration	4	CE.	4 400	9	3 66	¢ 16.09	۲	\$ 10,005	1		1	10,500			1			
Stails	2	SF	4,400	\$	5.00	φ 10,00.	5	¢ 63.416	1		2	65 310						1
Interior renovation	3	CE.	4 400	¢.	14 41	¢ 63 414		\$ 05,410	1		1	00,010						
Restore Interior	4	1 31	4,400	Φ	14.41	\$ 05,410		\$ 27.947	1							\$ 27.947		
Demo	-	OF.	4 400	\$	1 75	¢ 7.70	•	ψ 27,041	1		1					0 21,011		
Demo		05	4,400	ę	1.70	\$ 7,700	7		1			3				1		
New Root		SF	4,400	Э	4.60	\$ 20,24	٢.	¢ 07.407	1	07 107	1			1	1	1	1	1
Electrical work	3	OF	4 400	C	C 40	¢ 07.40	-	\$ 27,107	13	27,107				1				1
Repair Electrical		SF	4,400	\$	6.10	\$ 27,10	<i>'</i>	6 47.046		17.015						1		
Replace Heat monitoring equipment	2	0.5	4 400		0.40		;	\$ 17,915	Þ	17,915							1	
Demo		SF	4,400	\$	0.10	\$ 44	0		1						1		1	1
New Heat monitoring equipment		SF	4,400	Ф	3.97	\$ 17,47	5	e 0.070	1						1	0 0 000	1	1
Sitework	2						- 3	\$ 2,979			1					\$ 3,330		1
Miscellaneous Site improvements.		00	4 400	æ	0.09	¢ 0.07	~		1		1		1	1	1	1	1	1
		SF	4,400	Э	0.68	\$ 2,97	9								1			
		1	-		-	CALL CONTRACTOR	_		_					1			1	1

Notes:

Cost estimate shows the following:

Project Elements.

Base Year Costs.

Distribution of costs

Differences are due to rounding.

Priority Rating 1 - 5

5- Life safety-& building security.

4- Building exterior & primary systems.

3- Building interior finishes and secondary systems.

2- Supplemental systems.

1- Noncritical systems.

FIRE STATION FACILITIES

Alexandria Fire Department - Alexandria, Virginia

Opinion Of Probable Cost

The basis for this Opinion Of Probable Cost was established using the following assumptions to provide estimates for the Fire Station Facilities, Alexandria, Virginia.

The PACES (Parametric Cost Engineering System) estimating software was selected for this Project because it provides estimates based on cost models for many types of facilities and sitework systems where very little, if any, design information exists. Each model contains a set of parameters that allow the model to be "customized" to fit the specific requirements of the proposed project. PACES uses the model equations together with parametric information to calculate a detailed estimate of the construction costs for the project.

The Estimates are based on the best available information regarding the anticipated scope of the project. Changes in the cost elements are likely to occur as a result of new information and data collected during the design and engineering process. Major changes should be documented in the form of a memorandum to the administrative record file with an explanation of significant differences.

The quantity survey for this project is detailed as possible and indicative of the levels of design and documentation available, and does not indicate a higher degree of accuracy than is actually possible. Where quantities are not available, assumptions have been made based on the historical information from a similar type or other recently estimated project(s).

The pricing used reflects the probable construction costs for the scheduled time period of the project. This estimate assumes a competitive bid situation, and is an opinion of probable costs based on fair market value, and is not a prediction of the anticipated low bid. This estimate assumes no control over the cost of labor and materials, the General Contractor's or any subcontractor's method of determining price or competitive bidding and market conditions.

This opinion of probable cost of construction is made on the basis of the experience, qualifications, and best judgment of the Cost Estimator. There can be no guarantee that proposals, bid or actual construction costs will not vary from this or subsequent estimates. This estimate was prepared in accordance with generally accepted cost estimating practices and standards.

Based on the criteria for Project Definition and Estimating Methodologies, the Fire Station estimates would be considered Stochastic, Order of Magnitude, or a Study, where project engineering has yet to be developed. Stochastic estimates are prepared for any number of strategic business planning purposes, such as but not limited to assessment of initial viability, evaluation of alternate schemes, project screening, project location studies, evaluation of resource needs and budgeting, and long range capital planning.





































































Fire Department Expenditures by Program (p. 14-4)

	FY 2008	FY 2009	FY 2010	% Change
All Funds Expenditures By Program	Actual	Approved	Proposed	2009-2010
Leadership & Management Support Services	\$1,532,733	\$2,015,139	\$2,244,867	11.4%
Fire Emergency Services	\$15,712,388	\$15,754,185	\$15,751,463	0.0%
Emergency Medical Services	\$7,165,740	\$7,044,630	\$7,380,302	4.8%
Fire Communications	\$1,580,475	\$1,620,663	\$1,891,462	16.7%
Emergency Management	\$928,637	\$677,592	\$561,078	-17.2%
Logistics	\$773,872	\$773,555	\$794,134	2.7%
Information Technology	\$595,656	\$654,212	\$661,570	1.1%
Training	\$1,586,962	\$1,865,901	\$1,848,967	-0.9%
Special Operations	\$940,013	\$1,218,612	\$1,183,966	-2.8%
Vehicle Operations and Maintenance	\$1,007,686	\$911,564	\$930,108	2.0%
Vehicle & Mobile Computer Replacement	\$306,177	\$1,037,500	\$1,368,555	31.9%
Total All Funds Expenditures	\$32,130,339	\$33,573,553	\$34,616,472	3.11%
General Fund Expenditures	\$30,958,279	\$31,997,278	\$32,709,142	2.2%



Mar. 24 Work Session

Fire Department FTEs by Program (p. 14-4)

0.0% -20.4% 0.0% 7.4% 0.0% 1.7% 30.8% 0.0% 0.0% 0.0% 0.0% 2.0% % Chg 2009-2010 14.5 123.0 61.0 17.0 3.9 2.2 4.0 14.9 7.5 4.0 0.0 252.0 Proposed FY 2010 Approved 247.0 13.5 123.0 60.0 13.0 4.9 2.2 14.9 4.0 0.0 4.0 FY 2009 FY 2008 Actual 60.0 10.5 123.0 14.9 244.0 13.0 4.9 2.2 4.0 4.0 0.0 Leadership & Management Support Services Authorized Positions (FIEs) by Program Vehicle & Mobile Computer Replacement Vehicle Operations and Maintenance **Emergency Medical Services** Emergency Management **Fire Emergency Services** Information Technology **Fire Communications** Special Operations Total **FIEs** Logistics **Training**

FY 2010 includes the addition of one BMS Operations Manager and four Fire Communications staff members



Mar. 24 Work Session

Fire Department Revenues by Program

	FY 2008	FY 2009	FY 2010	% Change
All Funds Revenue by Program	Actual	Approved	Proposed	2009-2010
Leadership & Management Support Services	\$122,366	\$2,500	\$2,500	0.0%
Fire Emergency Services	\$241,028	\$323,166	\$323,166	0.0%
Emergency Medical Services	\$1,687,387	\$2,077,166	\$2,079,102	0.1%
Fire Communications	\$0	\$0	\$0	0.0%
Emergency Management	\$219,332	\$47,943	\$47,943	0.0%
Logistics	\$0	\$0	\$0	0.0%
Information Technology	\$0	\$0	\$0	0.0%
Training	\$0	\$0	\$0	0.0%
Special Operations	\$27,323	\$53,000	\$54,000	1.9%
Vehicle Operations and Maintenance	\$0	\$0	\$0	0.0%
Vehicle & Mobile Computer Replacement	\$425,960	\$1,037,500	\$1,368,555	31.9%
Total All Funds Revenues	\$2,723,396	\$3,541,275	\$3,875,266	9.4%
Special Revenues	\$1,172,060	\$1,576,275	\$1,907,330	21.0%
General Fund Revenues	\$1,551,336	\$1,965,000	\$1,967,936	0.1%
Cine of Along and				

City of Alexandria

Mar. 24 Work Session

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Fire Department

Proposed FY 2010 Increases (p. 14-17 & 14-18)

Adjustments to Maintain Ourrent Services

Activity	Adjustment	FTEs	Amount
Ambulance Billing Services Facility & Equipment Maintenance Vehicle Operations & Maintenance EMSIncident Response Other Activities	Contract Services HVAC Maintenance & Improvements Fuel, Parts & Materials Medical Supplies Operating Supplies		\$20,800 \$20,805 \$15,455 \$4,721 \$8,500
Dis	cretionary Supplementals		
EMSIncident Response Communications Call Taking & Dispatch	EMSOperations Manager Emergency Communications Technicians	1.0 4.0	\$179,994 \$300,856
Departmental Total		5.0	\$551,131



Mar. 24 Work Session