

Building Information Report

Report for Location: Patrick Henry Elementary School

Date Printed: Friday, March 10, 2006

Project: Arlington Public Schools

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Building Name: Patrick Henry Elementary School
Building Type: Elementary
Address: 701 South Highland Street
Arlington VA 22204

Contact Name: Lisa Piehota
Contact Phone: (703) 228-5820
Contact Position: Principal

Occupant Response: Interview
Individual Interviewed: Lisa Piehota
Ind. Interviewed Position: Principal

Year Construction: 1974

Drawing Availability: Fire Escape, Orig Plans
Grade Levels: Preschool, K-5
'05-'06 Enrollment: 341 Students
Building Area: 61,488 SF
Number Floors: 1, partial basement
Sprinklers?: Yes
Replacement Cost: \$200.00 per SF
Total Replace. Cost: \$12,297,600
No.Of Relocatables: 0

Assessment Costs by Priority:

High	\$1,670,165
Medium	\$318,226
Low	\$18,081
Total Assessed Cost:	\$2,006,471
FCI:	0.16

Descriptive Comments

The property has one building containing a total of 61,488 sf. The building is a one story, poured-in-place concrete structure with a two classroom lower level. It sits on a parcel of approximately 6 acres. The building was constructed in phases; original construction was in 1974 with the last major renovations occurring in 1993.

The building is a slab-on-grade with cast-in-place reinforced load bearing exterior walls, interior columns, and upper floor framing. The main roof over the common area is flat and is framed with open-web steel joists and metal deck. The roofing in this area consist of BUR with stone ballast covering system. The Classroom roofs are pitched and constructed of metal decking with lightweight concrete fill on open-web steel joists. The roofing on these areas are covered with standing seam metal roofing panels.

The exterior walls are a cast-in-place reinforced concrete with some decorative concrete block. The entrance doors are metal with full glass panel, set in metal frames. The service doors are generally painted hollow metal doors with a glazing panel. The windows have aluminum frames with double-glazed fixed sections and awning units.

Building electrical service is 1600 amps at 277/480V. The electric meter is installed in the electrical room and circuit breaker panels are located in each building wing. There is a diesel powered 20KVA emergency generator located outside on the west side of the building. The generator serves fire protection systems, emergency lighting, and security systems. The fuel tank is located above ground, directly below the generator. Interior lighting is typically hanging or flush mounted fluorescent fixtures.

Powered by:



CT2000

Building plumbing supply and distribution piping are copper. The water meter is located in an exterior vault. Sanitary piping within the building is PVC and cast iron. Domestic hot water is provided by a gas-fired, 100 MBtu water heater.

Heating and cooling are provided by a water-source heat pump system, which is served by a set of Cleaver Brooks 700 series boilers for supplemental heat and a BAC cooling tower for heat rejection.

The entire building has a fire sprinkler system.

Requested Space Considerations

Construct new Cafeteria space. Recommended 10,000 SF of additional space at an estimated cost of \$2,600,000. Request by school reviewed and in agreement with Space Analysis.

Construct new Auditorium space. Recommended 12,000 SF of additional space at an estimated cost of \$3,400,000. Request by school subject to review by APS. Model Elementary Program does not require an Auditorium. Space Analysis does identify the gymnasium as being too small

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B3030-00-3C Correct Deteriorated or Inadequate Roof Drainage by Demo & Replace (High)	B3030 Roof Drainage	High	Def Maint	\$0.87	61488	BLDG SF	\$53,372
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Total Cost for B30 Roofing \$53,545

C30 Interior Finishes

CorrectionName	Subsystem Name	AreaName	Correction Notes	Reason	Priority	Category	UnitCost	Quantity	UOM	Cost
C3030-00-1C Correct Deteriorated Suspended Acoustical Ceiling by Demo & Replace	C3030 Ceiling Finishes			Damage/Wear	High	Def Maint	\$2.41	40000	BLDG SF	\$96,320

Total Cost for C30 Interior Finishes \$96,320

D30 HVAC

CorrectionName	Subsystem Name	AreaName	Correction Notes	Reason	Priority	Category	UnitCost	Quantity	UOM	Cost
D3040-00-2C Correct Deteriorated HVAC Distribution System by Demo & Replace (Median)	D3040 HVAC Distribution	Building Wide	Correction is focused mainly on piping issues. School is experiencing leaks in various areas throughout the building. Several valves in the boiler room show high level of wear. Much of the piping appears to be original from 1974, while the individual w	Damage/Wear	Medium	Def Maint	\$3.92	61500	BLDG SF	\$241,080
D3060-00-2C Correct Deteriorated Controls & Instrumentation System by Demo & Replace (Median)	D3060 HVAC Instrumentation & Controls	Building Wide	Current BAS system has been problematic for years according to staff. Large temperature fluctuations were evident in multiple Areas during the walkthrough. It was listed as required replacement in the 2002 study as well.	Damage/Wear	High	Ed Adeq- infra	\$6.08	61500	BLDG SF	\$373,674

Total Cost for D30 HVAC \$614,754

D50 Electrical

CorrectionName	Subsystem Name	AreaName	Correction Notes	Reason	Priority	Category	UnitCost	Quantity	UOM	Cost
D5010-00-2C Correct Deteriorated or Inadequate Building Electrical System by Demo & Replace (Median)	D5010 Electrical Service & Distribution	Other	MDP and Main Disconnect Switch need replaced due to age and wear.	Damage/Wear	High	Def Maint	\$8.65	61500	BLDG SF	\$532,098

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CorrectionName	Subsystem Name	AreaName	Correction Notes	Reason	Priority	Category	UnitCost	Quantity	UOM	Cost
D5010-00-8C Correct Inadequate Power Outlets by Add New (Median)	D5010 Electrical Service & Distribution	Classroom	Currently, most classrooms do not have enough outlets to meet teachers' needs. Many classrooms had fully loaded power-strips in them, along with several that had 20' heavy-duty extension cords run to areas of the classrooms.	Functionality	High	Ed Adeq-Infra	\$0.48	21000	BLDG SF	\$9,996
D5030-00-2C Correct Deteriorated or Inadequate Fire Alarm System by Demo & Replace (Median)	D5030 Fire Alarm System	Building Wide	Current system has been giving the staff problems such as false alarms and an inability to reset the system after an alarm has been triggered.	Damage/Wear	High	Def Maint	\$4.82	61500	BLDG SF	\$296,184
D5032-00-8C Correct Deteriorated or Inadequate Clock System by Demo & Replace (High)	D5032 Clock & Program Systems	Building Wide	Currently there is no central clock system in the school. Clocks are various battery powered units.	Functionality	Medium	Ed Adeq-Infra	\$1.22	61500	BLDG SF	\$74,907
D5033-00-2C Correct Deteriorated or Inadequate Intercom System by Demo & Replace (Median)	D5033 Intercom Systems	Building Wide	Current system does not integrate with the telephone system and does not allow for one-on-one conversation between office and single teacher. Principal specifically noted this as a drawback for efficiency.	Functionality	Low	Ed Adeq-Infra	\$0.29	61500	BLDG SF	\$18,081
E20 Furnishings										\$931,266
Total Cost for D50 Electrical										\$44,763
CorrectionName	Subsystem Name	AreaName	Correction Notes	Reason	Priority	Category	UnitCost	Quantity	UOM	Cost
E2010-00-1C Correct Deteriorated or Inadequate Chalk & Marker Boards by Demo & Replace	E2010 Fixed Furnishings			Environmental Improvements	High	Def Maint	\$0.73	61488	BLDG SF	\$44,763
G20 Site Improvements										\$44,763
Total Cost for E20 Furnishings										\$44,763
CorrectionName	Subsystem Name	AreaName	Correction Notes	Reason	Priority	Category	UnitCost	Quantity	UOM	Cost
G2010-00-2C Correct Deteriorated Roadways by Patch & Repair & Overlay (Median)	G2010 Roadways	Parking Lot	Due to the increased traffic in this parking lot work should be scheduled	Damage/Wear	High	Def Maint	\$15.19	10000	SQFT	\$151,900
G2040-00-4C Correct Poor Grading by Regrade & Reseed	G2040 Site Development	Athletic Field		Damage/Wear	Medium	Def Maint	\$0.35	5900	SQFT	\$2,065
G2050-00-2C Correct Deteriorated or Inadequate Landscaping by Total Replacement	G2050 Landscaping	Grounds	Remove overgrown vegetation.	Damage/Wear	High	Def Maint	\$0.52	1000	SQYD	\$518
Total Cost for G20 Site Improvements										\$154,483

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Total for: Patrick Henry Elementary School \$2,006,471

Total Assessment Cost for Selection: \$2,006,471

Assessment Summary by Priority

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Ten Year Life Cycle Cost Report by System

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Task Type: Replacement

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
A10 Foundations										
A20 Basement Construction										
B10 Superstructure										
E20 Exterior Enclosure							\$155,325.69			
B30 Roofing										
C10 Interior Construction										
C20 Stairs										
C30 Interior Finishes	\$51,073.10						\$85,491.22			
D10 Conveying										
D20 Plumbing										\$32,392.81
D30 HVAC			\$380,965.02		\$247,489.17		\$415,016.19			\$415,322.15
D40 Fire Protection										
D50 Electrical			\$566,273.93		\$961,016.43	\$21,565.45				\$143,453.89
E10 Equipment										
E20 Furnishings							\$102,695.33			\$84,452.69
F10 Special Construction										
F20 Selective Demolition										
G10 Site Preparation										
G20 Site Improvements			\$4,460.95			\$169,507.66		\$5,171.46		
G30 Site Civil Mech Utilities										
G40 Site Electrical Utilities										
G90 Other Site Construction										
H10 Additional Space Requirements										
Z10 General Requirements										
TOTALS	\$51,073.10		\$951,699.90		\$1,208,505.61	\$191,093.11	\$758,528.44	\$5,171.46		\$675,621.56