

# COUNTY OF LOUDOUN



## BOARD OF SUPERVISORS

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### **March 2, 2016 BUDGET WORK SESSION SUPPLEMENTAL PACKET**

- Board Questions Response Supplemental Packet #1 – LCPS Questions
- Budget Question Database as of 03/02/2016



Loudoun County, Virginia

www.loudoun.gov

Office of the County Administrator  
1 Harrison Street, S.E., 5th Floor,  
P.O. Box 7000, Leesburg, VA 20177-7000  
Telephone (703) 777-0200 Fax (703) 777-0325

**MEMORANDUM**

**DATE:** March 2, 2016  
**TO:** Loudoun County Board of Supervisors  
**FROM:** Caleb Weitz, Office of the County Administrator  
**RE:** **Board Questions Response - Supplemental Packet #1: Loudoun County Public Schools Questions**  
**CC:** Board Aides, Tim Hemstreet, Senior Executive Team, Erin McLellan, Operating Budget Staff, Capital Budget Staff

County staff received questions from Supervisors Umstattd, Volpe, Letourneau, Higgins and Randall for the Loudoun County Public Schools (LCPS). The information below lists the question responses from LCPS staff to the Board member questions for responses received from LCPS to date. As shown in the table of contents below, this information is grouped by Board member.

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FY17 Board of Supervisor Questions

Item Number	Board Member	Staff Assignment	Date of Request
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4	Randall	Burden	2/24/2016
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What is the estimated dollar amount to fund the following items?

- a. Full Day Kindergarten as proposed by Dr. Williams and the Loudoun County School Board for 75% of eligible students.
- b. Teacher and employee pay raises and benefits.
- c. Restore all Middle School Dean positions.

A. To achieve approximately 75% the cost is \$9.7m. B. The cost of teacher and employee pay raises and benefits is \$32.4m, \$18.5m in salaries and \$13.9m in benefits. C. The cost to restore middle school deans is \$.7m.

5	Randall	Burden	2/24/2016
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What is the estimated student population (public school) in the year 2020?

The student enrollment projection for FY 2020 is 83,337.

6	Volpe	Lewis	2/24/2016
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Please provide a list of all public schools, when they were built, and what, if any renovations have been provided at each school and in what year(s).

See attached.

Loudoun County Public Schools School Listing Construction Year / Renovation-Repair / Square Feet				
Elementary Schools	Year Built	Year of Addition(s) / Partial Renovation(s)	Year Full Renovation	Square Feet
1 Aldie	1928	1950, 1965		14,717
2 Algonkian	1987			66,743
3 Arcola	2006			90,051
4 Ashburn	1990			77,830
5 Ball's Bluff	1994			77,272
6 Banneker	1944	1958, 1961, 1962, 1987		20,228
7 Belmont Station	2003			84,142
8 Buffalo Trails	2010			102,141
9 Cardinal Ridge	2014			105,951
10 Catoctin	1965	1972, 1982, 1998		72,696
11 Cedar Lane	1998			83,932
12 Cool Spring	1987			66,743
13 Countryside	2002			84,142
14 Creighton's Corner	2007			90,051
15 Discovery	2013			100,465
16 Dominion Trail	1996			77,830
17 Emerick	1966			55,220
18 Evergreen Mill	1997			77,272
19 Forest Grove	2001			77,033
20 Frances Hazel Reid	2003			84,142
21 Frederick Douglass	2011			100,477
22 Guilford	1965	1973, 1999		64,044
23 Hamilton	1948	1961, 1963, 1974, 1985, 2003		37,303
24 Hillsboro	1962	1965, 1989, 2006		16,113
25 Hillside	1997			77,272
26 Horizon	1999			83,892
27 Hutchison Farm	2001			84,038
28 John W. Tolbert, Jr.	2000			84,038
29 Kenneth Culbert	2007			87,219
30 Leesburg	1978			58,797
31 Legacy	2004			90,051
32 Liberty	2007			90,051
33 Lincoln	1922	1936, 1938, 1940, 1961, 1973, 1984, 1989		21,468
34 Little River	1999			84,038
35 Lovettsville	1972	1997, 2002		70,896
36 Lowes Island	1996			77,272
37 Lucketts	1968	1971, 2000		39,333
38 Madison's Trust (Opens 2016)	2016			105,757
39 Meadowland	1997			56,709
40 Middleburg	1928	1945, 1959, 1974		15,129
41 Mill Run	1999			84,038
42 Moorefield Staion	2013			100,465
43 Mountain View	2002			84,142
44 Newton-Lee	2004			90,051
45 Pinebrook	2004			90,051
46 Potowmack	1994			77,272
47 Rolling Ridge	1973	1975, 2007	2006	76,050
48 Rosa Lee Carter	2006			90,051
49 Round Hill	1998			86,238
50 Sanders Corner	1994			77,830
51 Seldens Landing	2000			94,601
52 Sterling	1962	1973, 1999		66,025
53 Stuart W. Weller	2007			90,051
54 Sugarland	1973	1994, 2007	2006	76,050
55 Sully	1967	1999		59,254
56 Sycolin Creek	2006			84,142
57 Waterford	1961	1964, 1999		21,351

2/26/2016

Loudoun County Public Schools  
School Listing  
Construction Year / Renovation-Repair / Square Feet

Middle Schools	Year Built	Year of Addition(s) / Partial Renovation(s)	Year Full Renovation	Square Feet
1 Belmont Ridge	2003			158,341
2 Blue Ridge	1969	1993, 1999, 2001, 2007		143,413
3 Eagle Ridge	1999			160,408
4 Farmwell Station	1993			161,436
5 Harmony	2000			157,248
6 Harper Park	1999			156,700
7 J. Lupton Simpson	1974	1993, 1999, 2001, 2007		157,031
8 J. Michael Lunsford	2010			177,880
9 Mercer	2002	2014		171,508
10 River Bend	2000			161,952
11 Seneca Ridge	1975	1993, 1999, 2001, 2007		155,872
12 Smart's Mill	2002			160,058
13 Sterling	1969	1993, 1999, 2001, 2007		152,392
14 Stone Hill	2005			168,780
15 Trailside	2013			175,064

High Schools	Year Built	Year of Addition(s) / Partial Renovation(s)	Year Full Renovation	Square Feet
1 Briar Woods	2003			251,915
2 Broad Run	1966	1970, 1979, 1993, 2003, 2015		244,405
3 Dominion	2001			245,703
4 Freedom	2003	2015		264,894
5 Heritage	2000			245,703
6 John Champe	2011			275,574
7 Loudoun County	1953	1957, 1965, 1975, 1989, 1995, 2006, 2015		222,077
8 Loudoun Valley	1961	1970, 1975, 1988, 1996, 2015		214,477
9 Park View	1975	1996, 1998, 2002, 2003, 2014, 2015		238,554
10 Potomac Falls	1997			227,835
11 Riverside	2014			275,386
12 Rock Ridge	2014			283,422
13 Stone Bridge	2000	2015		243,910
14 Tuscarora	2009			279,426
15 Woodgrove	2009			251,915

2/26/2016

7 Volpe Lewis 2/24/2016

Please provide a list of both CIP and CAPP proposed items to be performed at each school in the County for FY17-FY22. Include in this list what monetary percentage expenditures will be per school.

See attached.

## PERCENTAGE OF TOTAL CAPP FUNDING

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SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Administration Building - Repair asphalt, seal coat and restripe		\$76,250					\$117,000	0.1%
Administration Building - Replace Board Room dimmer system		\$40,750						
Aldie Elementary - Replace entire EPDM roof	\$153,750						\$1,318,500	1.7%
Aldie Elementary - Mill and pave all asphalt surfaces		\$230,000						
Aldie Elementary - Replace wood floors		\$304,500						
Aldie Elementary - Replace clock and bell system			\$18,500					
Aldie Elementary - Replace heating fuel tank				\$70,000				
Aldie Elementary - Replace windows throughout school					\$456,750			
Aldie Elementary - Replace fire alarm system						\$85,000		
Algonkian Elementary - Replace exterior doors and hardware			\$72,000				\$619,000	0.8%
Algonkian Elementary - Replace fire alarm system			\$122,000					
Algonkian Elementary - Replace windows				\$385,000				
Algonkian Elementary - Repair asphalt, seal coat and restripe					\$40,000			
Arcola Elementary - Rebuild chiller		\$67,000					\$117,750	0.1%
Arcola Elementary - Repair asphalt, seal coat and restripe			\$50,750					
Ashburn Elementary - Replace classroom clock system	\$15,500						\$2,198,500	2.8%
Ashburn Elementary - Repave all asphalt surfaces		\$420,000						
Ashburn Elementary - Replace entire EPDM roof		\$1,039,500						
Ashburn Elementary - Replace walk-in refrigerator/freezer		\$67,000						
Ashburn Elementary - Replace water heater		\$34,000						
Ashburn Elementary - Replace boilers					\$162,500			
Ashburn Elementary - Replace generator						\$60,000		
Ashburn Elementary - Replace windows						\$400,000		
Ball's Bluff Elementary - Replace chiller		\$153,000					\$1,590,500	2.0%

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Ball's Bluff Elementary - Replace entire EPDM roof			\$1,095,750					
Ball's Bluff Elementary - Repave bus loop				\$245,750				
Ball's Bluff Elementary - Replace clock and bell system				\$46,000				
Ball's Bluff Elementary - Repair asphalt, seal coat and restripe						\$50,000		
Banneker Elementary - Repave all asphalt surfaces except track and play courts	\$180,000						\$548,500	0.7%
Banneker Elementary - Replace heating fuel tank	\$100,000							
Banneker Elementary - Replace interior and exterior doors and hardware		\$81,250						
Banneker Elementary - Replace boilers			\$152,250					
Banneker Elementary - Replace generator					\$35,000			
Belmont Ridge Middle - Repair asphalt, seal coat and restripe			\$122,000				\$318,000	0.4%
Belmont Ridge Middle - Replace Auditorium folding partition doors				\$196,000				
Belmont Station Elementary - Rebuild chiller	\$66,000						\$116,750	0.1%
Belmont Station Elementary - Repair asphalt, seal coat and restripe			\$50,750					
Blue Ridge Middle - Replace light fixtures in gyms	\$35,000						\$1,562,000	2.0%
Blue Ridge Middle - Replace main switchgear and selective panel boards	\$225,000							
Blue Ridge Middle - Replace Auditorium folding partition doors		\$192,000						
Blue Ridge Middle - Repave all asphalt surfaces except track			\$765,000					
Blue Ridge Middle - Replace chiller					\$195,000			
Blue Ridge Middle - Replace original wood gym floors					\$150,000			
Briar Woods High - Resurface track		\$73,000					\$885,250	1.1%
Briar Woods High - Replace exterior door closers		\$20,500						
Briar Woods High - Repave bus loop			\$355,250					
Briar Woods High - Resurface tennis courts			\$36,500					
Briar Woods High - Repair asphalt, seal coat and restripe						\$150,000		

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Briar Woods High - Replace track						\$250,000		
Broad Run High - Replace entire EPDM roof	\$1,100,000						\$2,350,000	3.0%
Broad Run High - Replace original windows	\$900,000							
Broad Run High - Replace roof top units		\$60,000						
Broad Run High - Resurface tennis courts					\$40,000			
Broad Run High - Replace chillers						\$250,000		
Buffalo Trail Elementary - Repair asphalt, seal coat and restripe				\$56,000			\$56,000	0.1%
C.S. Monroe Technology Center - Replace generator		\$50,750					\$336,750	0.4%
C.S. Monroe Technology Center - Replace main switchgears and selective panel boards			\$230,000					
C.S. Monroe Technology Center - Repair asphalt, seal coat and restripe				\$56,000				
Catoctin Elementary - Replace exhaust fans and corridor A/C unit	\$18,250						\$86,250	0.1%
Catoctin Elementary - Replace clock system		\$18,000						
Catoctin Elementary - Repair asphalt, seal coat and restripe						\$50,000		
Cedar Lane Elementary - Replace dishwasher		\$34,500					\$1,086,250	1.4%
Cedar Lane Elementary - Replace fire alarm system		\$111,750						
Cedar Lane Elementary - Repave all asphalt surfaces			\$500,000					
Cedar Lane Elementary - Replace carpet throughout school			\$65,000					
Cedar Lane Elementary - Replace chiller						\$180,000		
Cedar Lane Elementary - Replace fence at mechanical equipment area						\$25,000		
Cedar Lane Elementary - Upgrade HVAC controls						\$170,000		
Cool Spring Elementary - Replace oven	\$16,250						\$696,250	0.9%
Cool Spring Elementary - Repave all asphalt surfaces except track and play courts		\$300,000						
Cool Spring Elementary - Replace windows			\$380,000					
Countryside Elementary - Rebuild chiller						\$72,000	\$552,000	0.7%

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Countryside Elementary - Repave all asphalt surfaces						\$480,000		
Creighton's Corner Elementary - Repair asphalt, seal coat and restripe			\$50,750				\$50,750	0.1%
Discovery Elementary - Repair asphalt, seal coat and restripe				\$56,000			\$56,000	0.1%
Dominion High - Repair and repaint all PE and athletic training room lockers	\$37,250						\$1,272,500	1.6%
Dominion High - Replace exterior door closers	\$20,250							
Dominion High - Repave all asphalt surfaces			\$1,100,000					
Dominion High - Resurface tennis courts					\$40,000			
Dominion High - Resurface track					\$75,000			
Dominion Trail Elementary - Repave all asphalt surfaces		\$458,000					\$2,083,750	2.6%
Dominion Trail Elementary - Replace boilers			\$142,250					
Dominion Trail Elementary - Replace water heater			\$30,500					
Dominion Trail Elementary - Replace chiller				\$160,000				
Dominion Trail Elementary - Replace entire EPDM roof				\$1,170,000				
Dominion Trail Elementary - Replace clock and bell system						\$45,000		
Dominion Trail Elementary - Replace walk-in refrigerator/freezer						\$78,000		
Douglass School - Replace EPDM roof over gym	\$147,250						\$477,250	0.6%
Douglass School - Replace HVAC in Cottage	\$25,500							
Douglass School - Repair asphalt, seal coat and restripe				\$203,000				
Douglass School - Repair exterior masonry and windows				\$101,500				
Eagle Ridge Middle - Replace Auditorium dimmer system				\$101,500			\$1,518,000	1.9%
Eagle Ridge Middle - Replace fire alarm system				\$228,500				
Eagle Ridge Middle - Repave all asphalt surfaces except track					\$840,000			
Eagle Ridge Middle - Replace Auditorium folding partition doors					\$198,000			
Eagle Ridge Middle - Replace Gym A/C units					\$150,000			

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Emerick Elementary - Replace fire alarm system	\$101,500						\$1,398,500	1.8%
Emerick Elementary - Upgrade HVAC controls	\$70,000							
Emerick Elementary - Replace Main Office A/C unit	\$20,250							
Emerick Elementary - Repave all asphalt surfaces except basketball court			\$300,000					
Emerick Elementary - Replace clock system				\$18,500				
Emerick Elementary - Replace entire EPDM roof				\$888,250				
Evergreen Mill Elementary - Repave all asphalt surfaces	\$450,000						\$2,339,250	3.0%
Evergreen Mill Elementary - Replace dishwasher	\$34,000							
Evergreen Mill Elementary - Replace fire alarm system	\$101,500							
Evergreen Mill Elementary - Upgrade HVAC controls		\$150,000						
Evergreen Mill Elementary - Replace boilers				\$152,250				
Evergreen Mill Elementary - Replace Main Office A/C unit				\$27,500				
Evergreen Mill Elementary - Replace water heater				\$35,500				
Evergreen Mill Elementary - Replace chiller					\$170,000			
Evergreen Mill Elementary - Replace entire EPDM roof						\$1,193,500		
Evergreen Mill Elementary - Replace fence at mechanical equipment area						\$25,000		
Facilities Services - Repair asphalt, seal coat and restripe			\$135,500				\$200,500	0.3%
Facilities Services - Replace fire alarm system						\$65,000		
Farmwell Station Middle - Replace fire alarm system	\$203,000						\$4,402,000	5.6%
Farmwell Station Middle - Replace Auditorium folding partition doors	\$190,000							
Farmwell Station Middle - Repave all asphalt surfaces except track		\$800,000						
Farmwell Station Middle - Replace Main Office & Computer Lab A/C units			\$76,250					
Farmwell Station Middle - Replace clock and bell system				\$45,750				
Farmwell Station Middle - Replace entire EPDM and metal roof				\$3,000,000				

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Farmwell Station Middle - Replace walk-in refrigerator/freezer				\$87,000				
Forest Grove Elementary - Repave all asphalt surfaces except bus loop						\$250,000	\$365,000	0.5%
Forest Grove Elementary - Replace fire alarm system						\$115,000		
Frances Hazel Reid Elementary - Repair asphalt, seal coat and restripe	\$45,000						\$597,000	0.8%
Frances Hazel Reid Elementary - Rebuild chiller						\$72,000		
Frances Hazel Reid Elementary - Repave all asphalt surfaces						\$480,000		
Frederick Douglass Elementary - Repair asphalt, seal coat and restripe				\$52,000			\$52,000	0.1%
Freedom High - Resurface tennis courts	\$30,500						\$1,498,250	1.9%
Freedom High - Replace exterior door closers		\$20,500						
Freedom High - Resurface track		\$147,250						
Freedom High - Repave all asphalt surfaces					\$1,300,000			
Guilford Elementary - Repave all asphalt surfaces except Kindergarten lot			\$235,500				\$725,000	0.9%
Guilford Elementary - Upgrade domestic hot water system			\$81,250					
Guilford Elementary - Replace classroom cabinets, sinks and fixtures				\$101,500				
Guilford Elementary - Replace Computer Lab A/C units				\$20,250				
Guilford Elementary - Replace fire alarm system				\$106,500				
Guilford Elementary - Replace chiller						\$180,000		
Hamilton Elementary - Replace heating fuel tank			\$68,000				\$418,000	0.5%
Hamilton Elementary - Repave all asphalt surfaces					\$350,000			
Harmony Middle - Repave all asphalt surfaces					\$820,000		\$1,450,000	1.8%
Harmony Middle - Replace carpet throughout school					\$150,000			
Harmony Middle - Replace Gym A/C units					\$150,000			
Harmony Middle - Replace Auditorium dimmer system						\$105,000		
Harmony Middle - Replace fire alarm system						\$225,000		

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Harper Park Middle - Replace Auditorium dimmer system		\$86,250					\$1,034,000	1.3%
Harper Park Middle - Replace dishwasher		\$34,500						
Harper Park Middle - Replace fire alarm system		\$213,250						
Harper Park Middle - Repave all asphalt surfaces except track and play courts			\$700,000					
Heritage High - Resurface tennis courts		\$32,500					\$2,100,250	2.7%
Heritage High - Replace door hardware			\$177,750					
Heritage High - Resurface track					\$75,000			
Heritage High - Rebuild elevator						\$100,000		
Heritage High - Repave all asphalt surfaces						\$1,300,000		
Heritage High - Replace Auditorium dimmer system						\$115,000		
Heritage High - Replace fire alarm system						\$300,000		
Hillsboro Elementary - Repave all asphalt surfaces		\$250,000					\$550,000	0.7%
Hillsboro Elementary - Replace entire EPDM roof				\$300,000				
Hillside Elementary - Replace fire alarm system	\$101,500						\$2,359,750	3.0%
Hillside Elementary - Replace dishwasher	\$34,000							
Hillside Elementary - Repave all asphalt surfaces		\$450,000						
Hillside Elementary - Replace Main Office A/C unit		\$27,500						
Hillside Elementary - Upgrade HVAC controls			\$155,000					
Hillside Elementary - Replace boilers				\$152,250				
Hillside Elementary - Replace water heater				\$35,500				
Hillside Elementary - Replace chiller					\$170,000			
Hillside Elementary - Replace entire EPDM roof						\$1,209,000		
Hillside Elementary - Replace fence at mechanical equipment area						\$25,000		

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Horizon Elementary - Replace stage stairs and treads in Multi-Purpose Room	\$25,000						\$591,250	0.7%
Horizon Elementary - Replace dishwasher		\$34,500						
Horizon Elementary - Replace fire alarm system		\$111,750						
Horizon Elementary - Upgrade HVAC controls					\$165,000			
Horizon Elementary - Repair asphalt, seal coat and restripe						\$50,000		
Horizon Elementary - Replace chiller						\$180,000		
Horizon Elementary - Replace fence at mechanical equipment area						\$25,000		
Hutchison Farm Elementary - Repave all asphalt surfaces						\$480,000	\$595,000	0.8%
Hutchison Farm Elementary - Replace fire alarm system						\$115,000		
J.L. Simpson Middle - Repave all asphalt surfaces		\$650,000					\$1,301,250	1.6%
J.L. Simpson Middle - Replace exterior roof fascia panels		\$50,000						
J.L. Simpson Middle - Replace walk-in refrigerator/freezer		\$86,250						
J.L. Simpson Middle - Repair exterior masonry			\$61,000					
J.L. Simpson Middle - Replace Auditorium folding partition doors			\$194,000					
J.L. Simpson Middle - Replace main switchgear and selective panel boards					\$260,000			
J.M. Lunsford Middle - Repair asphalt, seal coat and restripe			\$71,000				\$141,000	0.2%
J.M. Lunsford Middle - Rebuild chiller					\$70,000			
J.W. Tolbert Elementary - Replace fire alarm system				\$127,000			\$597,000	0.8%
J.W. Tolbert Elementary - Repave all asphalt surfaces					\$470,000			
John Champe High - Resurface tennis courts		\$32,500					\$883,750	1.1%
John Champe High - Repair asphalt, seal coat and restripe			\$86,250					
John Champe High - Resurface track					\$75,000			
John Champe High - Rebuild chiller						\$75,000		
John Champe High - Replace turf field						\$615,000		

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Kenneth Culbert Elementary - Repair asphalt, seal coat and restripe				\$56,000			\$56,000	0.1%
Leesburg Elementary - Replace main switchgear and selective panel boards	\$188,000						\$963,750	1.2%
Leesburg Elementary - Replace all chalkboards with whiteboards			\$30,000					
Leesburg Elementary - Repave all asphalt surfaces				\$345,750				
Leesburg Elementary - Replace windows					\$400,000			
Legacy Elementary - Repair asphalt, seal coat and restripe					\$50,000		\$50,000	0.1%
Liberty Elementary - Repair asphalt, seal coat and restripe			\$50,750				\$50,750	0.1%
Lincoln Elementary - Repave all asphalt surfaces			\$200,000				\$265,000	0.3%
Lincoln Elementary - Replace decking, skirting and shingle roofs at both Cottages					\$65,000			
Little River Elementary - Replace fire alarm system			\$114,000				\$579,000	0.7%
Little River Elementary - Repave all asphalt surfaces				\$465,000				
Loudoun County High - Replace Main Gym A/C units	\$139,000						\$2,378,750	3.0%
Loudoun County High - Replace main sprinkler pump and controls	\$60,000							
Loudoun County High - Replace older sections of EPDM roof	\$1,015,000							
Loudoun County High - Repave all asphalt surfaces except for stadium area and rear student lot		\$350,000						
Loudoun County High - Replace classroom clock system		\$15,500						
Loudoun County High - Replace windows in original section	\$507,500							
Loudoun County High - Resurface track			\$74,000					
Loudoun County High - Replace boilers					\$177,750			
Loudoun County High - Resurface tennis courts						\$40,000		
Loudoun Valley High - Replace classroom clock system	\$28,000						\$165,500	0.2%
Loudoun Valley High - Replace warmers	\$25,500							
Loudoun Valley High - Resurface track				\$74,000				
Loudoun Valley High - Resurface tennis courts					\$38,000			

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Lovettsville Elementary - Replace ballasted roof sections	\$116,750						\$787,000	1.0%
Lovettsville Elementary - Replace main switchgear and selective panel boards					\$155,250			
Lovettsville Elementary - Repave all asphalt surfaces						\$415,000		
Lovettsville Elementary - Replace fire alarm system						\$100,000		
Lowes Island Elementary - Replace Main Office A/C unit	\$25,500						\$2,064,250	2.6%
Lowes Island Elementary - Replace boilers			\$142,250					
Lowes Island Elementary - Replace water heater			\$30,500					
Lowes Island Elementary - Repave all asphalt surfaces				\$460,000				
Lowes Island Elementary - Replace chiller				\$158,000				
Lowes Island Elementary - Replace entire EPDM roof					\$1,170,000			
Lowes Island Elementary - Replace walk-in refrigerator/freezer						\$78,000		
Lucketts Elementary - Replace main switchgear and selective panel boards		\$196,500					\$1,085,500	1.4%
Lucketts Elementary - Replace clock and bell system			\$20,500					
Lucketts Elementary - Replace fire alarm system			\$101,500					
Lucketts Elementary - Replace exterior doors and hardware				\$61,000				
Lucketts Elementary - Repave all asphalt surfaces					\$300,000			
Lucketts Elementary - Replace windows throughout school						\$406,000		
Meadowland Elementary - Repave all asphalt surfaces	\$400,000						\$634,000	0.8%
Meadowland Elementary - Replace all chalkboards with whiteboards	\$30,000							
Meadowland Elementary - Replace oven	\$16,250							
Meadowland Elementary - Replace main switchgear and selective panel boards		\$187,750						
Mercer Middle - Repair asphalt, seal coat and restripe						\$75,000	\$75,000	0.1%
Middleburg Community Charter School - Repair exterior masonry		\$20,000					\$295,000	0.4%

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Middleburg Community Charter School - Repave all asphalt surfaces						\$275,000		
Mill Run Elementary - Replace damaged doors and frames			\$10,000				\$596,800	0.8%
Mill Run Elementary - Replace fire alarm system			\$121,800					
Mill Run Elementary - Repave all asphalt surfaces				\$465,000				
Moorefield Station Elementary - Repair asphalt, seal coat and restripe				\$56,000			\$56,000	0.1%
Mountain View Elementary - Repave all asphalt surfaces						\$480,000	\$495,000	0.6%
Mountain View Elementary - Replace damaged concrete sidewalks, curbs and gutters	\$15,000							
Newton-Lee Elementary - Repair asphalt, seal coat and restripe					\$50,000		\$50,000	0.1%
Park View High - Replace fire alarm system	\$215,000						\$2,086,250	2.6%
Park View High - Resurface tennis courts		\$32,500						
Park View High - Replace both main switchgears and selective panel boards			\$360,000					
Park View High - Repave all asphalt surfaces				\$1,150,000				
Park View High - Replace Auditorium folding partition doors				\$253,750				
Park View High - Resurface track						\$75,000		
Pinebrook Elementary - Repair asphalt, seal coat and restripe					\$50,000		\$50,000	0.1%
Potomac Falls High - Rebuild hydraulic elevator	\$90,000						\$3,471,750	4.4%
Potomac Falls High - Replace fire alarm system	\$223,250							
Potomac Falls High - Replace bathroom partitions		\$40,750						
Potomac Falls High - Replace chiller			\$233,500					
Potomac Falls High - Replace boilers				\$177,750				
Potomac Falls High - Replace water heaters				\$70,000				
Potomac Falls High - Repair asphalt, seal coat and restripe					\$100,000			
Potomac Falls High - Replace entire EPDM roof					\$2,084,500			
Potomac Falls High - Replace clock and bell system						\$70,000		

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Potomac Falls High - Replace track						\$250,000		
Potomac Falls High - Replace walk-in refrigerator/freezer						\$92,000		
Potomac Falls High - Resurface tennis courts						\$40,000		
Potowmack Elementary - Repave all asphalt surfaces	\$450,000						\$1,886,500	2.4%
Potowmack Elementary - Replace carpet throughout school		\$65,000						
Potowmack Elementary - Replace chiller			\$155,000					
Potowmack Elementary - Replace entire EPDM roof			\$1,095,750					
Potowmack Elementary - Replace clock and bell system				\$45,750				
Potowmack Elementary - Replace walk-in refrigerator/freezer				\$75,000				
River Bend Middle - Repave trail and bridge abutment		\$40,750					\$1,462,250	1.9%
River Bend Middle - Replace Auditorium dimmer system			\$96,500					
River Bend Middle - Replace carpet throughout school					\$150,000			
River Bend Middle - Replace Gym A/C units					\$150,000			
River Bend Middle - Replace fire alarm system						\$225,000		
River Bend Middle - Repave all asphalt surfaces except track and play court						\$800,000		
Riverside High - Repair asphalt, seal coat and restripe						\$150,000	\$265,000	0.3%
Riverside High - Resurface tennis courts						\$40,000		
Riverside High - Resurface track						\$75,000		
Rock Ridge High - Repair asphalt, seal coat and restripe					\$150,000		\$263,000	0.3%
Rock Ridge High - Resurface tennis courts					\$38,000			
Rock Ridge High - Resurface track					\$75,000			
Rolling Ridge Elementary - Repave all asphalt surfaces		\$400,000					\$400,000	0.5%
Rosa Lee Carter Elementary - Rebuild chiller	\$66,000						\$122,000	0.2%
Rosa Lee Carter Elementary - Repair asphalt, seal coat and restripe				\$56,000				

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Round Hill Center - Replace door hardware		\$25,000					\$206,250	0.3%
Round Hill Center - Repair asphalt, seal coat and restripe			\$40,500					
Round Hill Center - Replace T12 light fixtures			\$50,750					
Round Hill Center - Replace fire alarm system						\$90,000		
Round Hill Elementary - Replace dishwasher		\$34,500					\$1,041,250	1.3%
Round Hill Elementary - Replace fire alarm system		\$111,750						
Round Hill Elementary - Repave all asphalt surfaces			\$460,000					
Round Hill Elementary - Upgrade HVAC controls			\$160,000					
Round Hill Elementary - Replace carpet throughout school				\$70,000				
Round Hill Elementary - Replace chiller						\$180,000		
Round Hill Elementary - Replace fence at mechanical equipment area						\$25,000		
Sanders Corner Elementary - Replace water heater	\$30,500						\$1,956,750	2.5%
Sanders Corner Elementary - Replace chiller	\$150,000							
Sanders Corner Elementary - Repave all asphalt surfaces		\$450,000						
Sanders Corner Elementary - Replace fire alarm system		\$109,750						
Sanders Corner Elementary - Replace entire EPDM roof			\$1,095,750					
Sanders Corner Elementary - Replace clock and bell system				\$45,750				
Sanders Corner Elementary - Replace walk-in refrigerator/freezer				\$75,000				
Seldens Landing Elementary - Replace fire alarm system				\$127,000			\$597,000	0.8%
Seldens Landing Elementary - Repave all asphalt surfaces except track					\$470,000			
Seneca Ridge Middle - Replace EPDM roof over Science Labs, Gyms & Auditorium		\$661,000					\$1,114,250	1.4%
Seneca Ridge Middle - Replace walk-in refrigerator/freezer			\$88,250					
Seneca Ridge Middle - Repair asphalt, seal coat and restripe					\$60,000			
Seneca Ridge Middle - Replace Auditorium dimmer system						\$105,000		

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Seneca Ridge Middle - Replace Auditorium folding partition doors						\$200,000		
Smart's Mill Middle - Replace Auditorium dimmer system			\$35,500				\$101,500	0.1%
Smart's Mill Middle - Repair asphalt, seal coat and restripe				\$66,000				
Staff Training Center - Repair exterior masonry	\$25,500						\$165,750	0.2%
Staff Training Center - Replace asbestos floor tile in hallways and Multi-Purpose Room	\$59,000							
Staff Training Center - Repair and/or replace plaster on interior walls		\$35,500						
Staff Training Center - Repair asphalt, seal coat and restripe			\$45,750					
Sterling Elementary - Replace entire EPDM roof		\$898,250					\$1,711,000	2.2%
Sterling Elementary - Replace stage lighting		\$10,250						
Sterling Elementary - Replace fire alarm system			\$101,500					
Sterling Elementary - Repave all asphalt surfaces except play courts			\$300,000					
Sterling Elementary - Replace classroom cabinets, sinks and fixtures				\$101,500				
Sterling Elementary - Replace clock and bell system				\$45,750				
Sterling Elementary - Replace windows in original section				\$253,750				
Sterling Middle - Replace Auditorium folding partition doors	\$190,000						\$1,305,000	1.7%
Sterling Middle - Repave all asphalt surfaces except track				\$770,000				
Sterling Middle - Replace chiller					\$195,000			
Sterling Middle - Replace original wood gym floors						\$150,000		
Steuart Weller Elementary - Repair asphalt, seal coat and restripe				\$56,000			\$56,000	0.1%
Stone Bridge High - Repair damaged split face block at patio and loading dock	\$42,000						\$2,570,750	3.3%
Stone Bridge High - Replace stage curtains	\$28,000							
Stone Bridge High - Resurface tennis courts		\$32,500						
Stone Bridge High - Repave all asphalt surfaces		\$1,250,000						

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Stone Bridge High - Replace door hardware			\$177,750					
Stone Bridge High - Replace fire alarm system			\$253,750					
Stone Bridge High - Replace Auditorium dimmer system			\$121,750					
Stone Bridge High - Rebuild elevator				\$95,000				
Stone Bridge High - Replace chiller					\$240,000			
Stone Bridge High - Replace boilers						\$181,000		
Stone Bridge High - Replace hot water heaters						\$74,000		
Stone Bridge High - Resurface track						\$75,000		
Stone Hill Middle - Rebuild chiller	\$66,000						\$137,000	0.2%
Stone Hill Middle - Repair asphalt, seal coat and restripe		\$71,000						
Sugarland Elementary - Replace damaged concrete sidewalks, curbs and gutters	\$12,000						\$362,000	0.5%
Sugarland Elementary - Repave all asphalt surfaces except loading dock parking lot					\$350,000			
Sully Elementary - Repair asphalt, seal coat and restripe	\$235,000						\$777,500	1.0%
Sully Elementary - Replace oven	\$16,250							
Sully Elementary - Replace all chalkboards with whiteboards		\$30,000						
Sully Elementary - Replace walk-in refrigerator/freezer			\$88,250					
Sully Elementary - Upgrade domestic hot water system			\$81,250					
Sully Elementary - Replace Computer Lab A/C units				\$20,250				
Sully Elementary - Replace fire alarm system				\$106,500				
Sully Elementary - Replace chiller						\$200,000		
Sycolin Creek Elementary - Rebuild chiller	\$66,000						\$122,000	0.2%
Sycolin Creek Elementary - Repair asphalt, seal coat and restripe				\$56,000				
Trailside Middle - Repair asphalt, seal coat and restripe					\$50,000		\$50,000	0.1%
Transportation - Repair asphalt in bus lots			\$330,000				\$330,000	0.4%

**PERCENTAGE OF TOTAL CAPP FUNDING**

SCHOOLS	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	TOTAL CAPP FUNDING PER LOCATION	PERCENTAGE OF TOTAL CAPP FUNDING
Tuscarora High - Resurface tennis courts		\$30,500					\$970,250	1.2%
Tuscarora High - Repair asphalt, seal coat and restripe		\$253,750						
Tuscarora High - Rebuild chiller				\$71,000				
Tuscarora High - Replace turf field					\$615,000			
Union Street - Replace two A/C units	\$15,250						\$81,500	0.1%
Union Street - Preserve exterior of original, historic schoolhouse by abating lead paint, repairing and re-painting		\$40,750						
Union Street - Repair asphalt, seal coat and restripe			\$25,500					
Waterford Elementary - Replace clock system					\$18,500		\$68,500	0.1%
Waterford Elementary - Repair asphalt, seal coat and restripe						\$50,000		
Woodgrove High - Repair asphalt, seal coat and restripe		\$253,750					\$972,250	1.2%
Woodgrove High - Resurface tennis courts		\$32,500						
Woodgrove High - Rebuild chiller				\$71,000				
Woodgrove High - Replace turf field					\$615,000			
<b>TOTALS:</b>	\$8,992,500	\$12,688,000	\$13,973,050	\$14,224,500	\$14,424,250	\$14,660,500	\$78,962,800	100.0%

**LOUDOUN COUNTY PUBLIC SCHOOLS  
 SCHOOL BOARD ADOPTED FY 2017 - FY 2022 CAPITAL IMPROVEMENT PROGRAM**

**PROJECTS TO BE FUNDED IN FY 2017 (JULY 1, 2016 - JUNE 30, 2017)**

PROJECT DESCRIPTION	TOTAL \$	OPEN SY	LOCATION
ELEMENTARY SCHOOL (ES-28) <sup>A</sup> - Preliminary Design & Construction Funding	\$38,770,000	2018-19	JOHN CHAMPE HS SITE/DULLES SOUTH AREA
ELEMENTARY SCHOOL (ES-31) <sup>B</sup> - Construction Funding	\$36,355,000	2018-19	TBD/DULLES NORTH AREA
ELEMENTARY SCHOOL 3-CLASSROOM ADDITION (6 SCHOOLS)	\$16,320,000	2018-19	TBD/DULLES NORTH AREA (3 SCHOOLS) & DULLES SOUTH AREA (3 SCHOOLS)
MIDDLE SCHOOL (MS-7) - Preliminary Design & Construction Funding	\$60,820,000	2019-20	BRADDOCK ROAD SITE/DULLES SOUTH AREA
HIGH SCHOOL (HS-9) - Preliminary Design Funding	\$12,505,000	2020-21	TBD/DULLES SOUTH AREA
HIGH SCHOOL (HS-11) <sup>C</sup> - Preliminary Design & Construction Funding	\$118,825,000	2019-20	BRAMBLETON SITE/DULLES NORTH AREA
LOUDOUN COUNTY HS NAVAL JROTC FACILITY RENEWAL <sup>D</sup>	\$3,130,000	2018-19	LOUDOUN COUNTY HS
CS MONROE CENTER/DOUGLASS SCHOOL PROGRAM STUDIES <sup>D</sup>	\$1,750,000		
EIGHT (8) MODULAR CLASSROOMS <sup>E</sup>	\$1,480,000	2017-18	JOHN CHAMPE HS
EIGHT (8) MODULAR CLASSROOMS	\$1,480,000	2017-18	TBD/DULLES NORTH & DULLES SOUTH AREAS
<b>TOTAL</b>	<b>\$291,435,000</b>		

**PROJECTS TO BE FUNDED IN FY 2018 (JULY 1, 2017 - JUNE 30, 2018)**

PROJECT DESCRIPTION	TOTAL \$	OPEN SY	LOCATION
ELEMENTARY SCHOOL 3-CLASSROOM ADDITION (6 SCHOOLS)	\$17,055,000	2019-20	TBD - VARIOUS (6 SCHOOLS)
HIGH SCHOOL (HS-9) - Construction Funding	\$112,525,000	2020-21	TBD/DULLES SOUTH AREA
CS MONROE CENTER/DOUGLASS SCHOOL PROJECTS - Preliminary Design Funding	\$1,750,000	TBD	
<b>TOTAL</b>	<b>\$131,330,000</b>		

**PROJECTS TO BE FUNDED IN FY 2019 (JULY 1, 2018 - JUNE 30, 2019)**

PROJECT DESCRIPTION	TOTAL \$	OPEN SY	LOCATION
ELEMENTARY SCHOOL (ES-23) - <i>Preliminary Design Funding</i>	\$4,370,000	2021-22	ARCOLA CENTER SITE/DULLES NORTH AREA
BRIAR WOODS HS MODULAR CLASSROOMS (10) REMOVAL	\$280,000	2018	BRIAR WOODS HS
CS MONROE CENTER/DOUGLASS SCHOOL PROJECTS - <i>Construction Funding</i>	TBD	TBD	
<b>TOTAL</b>	<b>\$4,650,000</b>		

**PROJECTS TO BE FUNDED IN FY 2020 (JULY 1, 2019 - JUNE 30, 2020)**

PROJECT DESCRIPTION	TOTAL \$	OPEN SY	LOCATION
ELEMENTARY SCHOOL (ES-23) - <i>Construction Funding</i>	\$39,300,000	2021-22	ARCOLA CENTER SITE/DULLES NORTH AREA
<b>TOTAL</b>	<b>\$39,300,000</b>		

**PROJECTS TO BE FUNDED IN FY 2021 (JULY 1, 2020 - JUNE 30, 2021)**

PROJECT DESCRIPTION	TOTAL \$	OPEN SY	LOCATION
LOVETTSVILLE ES BUS/VISITOR PARKING	\$660,000	2022-23	LOVETTSVILLE ES
HIGH SCHOOL STADIUM SYNTHETIC TURF & TRACK RESURFACE	\$2,265,000	2022-23	BRIAR WOODS HS
DIVISION SECURITY IMPROVEMENTS	\$9,570,000	PHASED	
<b>TOTAL</b>	<b>\$12,495,000</b>		

**PROJECTS TO BE FUNDED IN FY 2022 (JULY 1, 2021 - JUNE 30, 2022)**

PROJECT DESCRIPTION	TOTAL \$	OPEN SY	LOCATION
ELEMENTARY SCHOOL FACILITY RENOVATIONS - <i>Preliminary Design Funding</i>	\$5,280,000	2024-25	TBD
HIGH SCHOOL STADIUM SYNTHETIC TURF & TRACK RESURFACE	\$7,110,000	2023-24	DOMINION HS, FREEDOM HS, HERITAGE HS
<b>TOTAL</b>	<b>\$12,390,000</b>		

**TOTAL, PROJECTS TO BE FUNDED IN FY 2017 - FY 2022**

	TOTAL \$
<b>TOTAL</b>	<b>\$491,600,000</b>

**CAPITAL PROJECTS FOR DISCUSSION AND/OR PLACEMENT, FUNDING FISCAL YEAR TO BE DETERMINED**

<b>PROJECT DESCRIPTION</b>	<b>TOTAL</b>	<b>OPEN SY</b>	<b>LOCATION</b>
DIVISION FACILITY RENOVATIONS	TBD	TBD	TBD
HIGH SCHOOL PRESS BOX REPLACEMENT	TBD	TBD	DOMINION HS, HERITAGE HS, LOUDOUN COUNTY HS, PARK VIEW HS, POTOMAC FALLS HS
HIGH SCHOOL WEIGHT ROOM EXPANSION	TBD	TBD	DOMINION HS, HERITAGE HS, POTOMAC FALLS HS
SCHOOL WALKING TRACKS	TBD	TBD	TBD
TRANSPORTATION SATELLITE & WASH/FUEL FACILITY	TBD	TBD	DULLES SOUTH AREA
TRANSPORTATION WASH/FUEL FACILITY	TBD	TBD	EASTERN LOUDOUN AREA
VALLEY SERVICE CENTER RENOVATION/KENNETH W. CULBERT ES BUS PARKING	TBD	TBD	VALLEY SERVICE CENTER & KENNETH W. CULBERT ES

§ - PROJECT COSTS ARE CALCULATED WITH AVERAGE SITE WORK. SHOULD A SCHOOL SITE HAVE ATYPICAL GEOTECHNICAL CONSTRAINTS, ADDITIONAL FUNDING MAY BE REQUIRED.

**A** - IT IS REQUESTED THAT BOTH PRELIMINARY DESIGN AND CONSTRUCTION FUNDING BE APPROPRIATED IN FY 2017 FOR ES-28 TO PROVIDE ENROLLMENT RELIEF AND OPEN IN FALL 2018. PROJECT COST INCLUDES \$500,000 FOR THE PLACEMENT OF A TRAFFIC SIGNAL AT THE INTERSECTION OF NORTHSTAR BOULEVARD AND CONEJO WAY, TO BE INSTALLED PRIOR TO THE OPENING OF ES-28.

**B** - THE BOARD OF SUPERVISORS, WITH APPROVAL OF THE FY 2016 BUDGET, APPROPRIATED PRELIMINARY DESIGN FUNDING FOR ES-31 [\$1,915,000]. THE CONSTRUCTION FUNDS FOR ES-31 [\$36,355,000] ARE TO BE APPROPRIATED WITH ADOPTION OF THE FY 2017 BUDGET.

**C** - THE BOARD OF SUPERVISORS, WITH APPROVAL OF THE FY 2016 BUDGET, APPROPRIATED ADVANCED EARTHWORK FUNDING FOR HS-11 [\$3,045,000]. THE REMAINING PROJECT FUNDS FOR HS-11 [\$118,825,000] ARE TO BE APPROPRIATED WITH ADOPTION OF THE FY 2018 BUDGET. IT IS REQUESTED THAT BOTH PRELIMINARY DESIGN AND CONSTRUCTION FUNDING BE APPROPRIATED IN FY 2017 FOR HS-11 TO PROVIDE ENROLLMENT RELIEF AND OPEN IN FALL 2019, RATHER THAN FALL 2020.

**D** - THE SCHOOL BOARD ANTICIPATES TOWN OF LEESBURG CASH PROFFER CONTRIBUTIONS BEING UTILIZED IN WHOLE OR PART FOR PROJECT FUNDING AND COMPLETION.

**E** - FUNDING FOR PROJECT INCLUDED IN SCHOOL BOARD'S FY 2015 FUND BALANCE REQUEST TO THE BOARD OF SUPERVISORS.

SY - SCHOOL YEAR

TBD - TO BE DETERMINED

ALL NEW SCHOOL BUILDING PROJECT COSTS REFLECT TWO-STORY DESIGN.

ALL PROJECT COSTS REFLECT SUSTAINABLE DESIGN PRACTICES.

8 Volpe Lewis 2/24/2016

From my understanding, a consultant has been hired by LCPS to survey each of the schools and provide an "inventory" of repairs/renovations needed. Please advise of the status of this survey and when the report will be complete. If the report is complete, please provide a copy.

Architecture, Inc. was retained by the Division of Construction Services at LCPS in late spring of 2015 to conduct Phase 1 of the Facility Assessment Study of school facilities including structures constructed prior to 1980 as well as others. Over the course of the summer of 2015, Architecture, Inc. and our civil, structural, mechanical and electrical engineers, along with school division staff, have undertaken a review of twenty-two (22) Loudoun County Public Schools facilities. These included sixteen (16) elementary schools, five (5) middle schools and one (1) high school. It was decided that due to their age and scores from the 2003 study they are the facilities most in need of renovation and possible additions.

Phase 1 Study was issued on November 2, 2015, and a copy is attached.  
 Phase 2 will be performed in the summer of 2016 and be issued in November 2016.  
 Phase 3 will be performed in the summer of 2017 and be issued in November 2017.

	Phase 1	Phase 2	Phase 3	Total
ES	16	21	19	56
MS	5	4	6	15
HS	1	4	6	11
Total	22	29	31	82

Madison's Trust ES, Loudoun Valley HS, Riverside HS, Broad Run HS and Rock Ridge HS are not scheduled to be included in the study due to recent construction or renovation.

See attached.

9 Letourneau Lewis 2/24/2016

In prior budget years I asked about LCPS providing trash disposal services for all County and school facilities. It was stated at the time that it would actually be more expensive to contract this service. Please provide the total cost break out for this service including staffing and capital costs as well as the costs for this to be contracted out.

Based upon contract collection costs for neighboring school systems, we were able to calculate an estimated contracted cost for refuse and recycling collection for Loudoun County Public Schools and County of Loudoun facilities to compare with our budgeted FY17 costs of retaining this service in-house. In-house refuse collection service saves approximately \$629,000 per year.

FY17 Budget Estimates – In-house Collection

Fuel	\$ 30,000
Truck Maintenance (\$10K per truck X 5 trucks)	\$ 50,000
Truck Depreciation (\$27K per truck X 5 trucks, not in budget)	\$135,000
LCPS Recycling (LCPS pickup)	\$ 9,000
Personnel (4 FTE) (Classified 11, step 10)	<u>\$296,000</u>
Total In-House	\$520,000

Contracted Collection Service Estimate

LCPS Refuse Collection	\$ 350,000
County Refuse Collection	\$ 146,000
LCPS & County Tipping Fees	\$ 430,000
LCPS Recycling Collection	<u>\$ 223,000</u>
Total Contract Costs	\$1,149,000

10 Letourneau Burden 2/24/2016

**What is the average pay increase in your proposed salary scale? Be sure to include the increase that is realized by moving up a step from one year to the next. It appears that in addition to increasing the salaries at each step, there would be an increase seen by moving up a step as well.**

There are up to 3 variables affecting pay increases.

1. A mandated 1% VRS salary shift is included to all pay scales resulting in an average \$542 pay increase. Note that the 1% increase is then deducted from the employee's paycheck and paid to VRS.
2. The move up a step for all pay scales results in an average \$1073 pay increase.
3. Affecting teachers only, the pay scale adjustment results in an additional average \$859 pay increase.

11 Letourneau Burden 2/24/2016

**Does the quoted 2.2% average salary increase factor in the increase that is being used to fix the “sag” in the salary scale?**

No. The 2.2% is solely the average step increase before any teacher scale adjustment. The average percentage increase of the additional teacher scale adjustment is 1.3%.

12 Letourneau Hough 2/24/2016

**What is the LCPS turnover rate for teachers? What percentage left for Fairfax? Arlington? Prince William?**

The LCPS attrition rate for licensed positions (teachers, counselors, librarians, etc.) was 8.27% for the 2014-2015 school year.

Of the total number of licensed employees that left LCPS during that time period, 2.8% indicated accepting a position in Fairfax, 0.2% indicated accepting a position in Arlington, and 1.1% indicated accepting a position in Prince William.

It is important to note that this data is collected from separation forms. Employees who are leaving employment may choose not to disclose the reason, or they may have multiple reasons and characterize the reason differently (e.g. moving/relocation). Exiting employees also may indicate a family reason but later decide to accept other employment. Exit data is helpful and monitored but should be interpreted with caution.

13 Letourneau Hough 2/24/2016

**For the current school year, how many teachers did we gain from Fairfax? Arlington? Prince William? What percent of the experienced teachers hired into the system do each of these represent?**

The total number of experienced new teachers hired for 15-16 is 364.

LCPS hired 54 teachers with experience from Fairfax. This represents 14.8% of the experienced teachers hired for 15-16.

LCPS hired 18 teachers with experience from Prince William. This represents 4.9% of the experienced teachers hired for 15-16.

LCPS hired 6 teachers with experience from Arlington. This represents 1.6% of the experienced teachers hired for 15-16.

The number of experienced Virginia teachers LCPS hires tends to be higher in years in which the budget is adopted earlier or there is not a reconciliation. This is because Virginia school divisions cannot hire individuals under contract in neighboring school divisions without a release after early June. Earlier budget finalization and position release results in a longer period of time for principals to hire experienced Virginia teachers.

14 Randall Lewis 2/23/2016

**When ES-23 or ES-31 is built, it is projected there will be 682 seats available in 2018. When both schools are built in 2021, there will be 1,423 seats available. This equates to more than a school and a half. Why the need for two elementary schools in Dulles North?**

The total available seats referenced does represent the overall availability of capacity in the greater Dulles North planning district. However, it does not represent the need for enrollment relief for the smaller planning zones feeding certain schools that are experiencing significant growth. The value shown is not a true accounting excess capacity given many factors that contribute to the need for new schools. First, the values associated with the individual schools indicate that the excess capacity for a particular school is or may not be proximate to the students in need of seats. In 2018-19, 682 seats remain available but the capacity is spread across seven schools and their respective attendance zones. It should also be noted that Special Education, Full Day Kindergarten and other regional programs are underrepresented in these schools given the critical enrollment pressures in the region. Additional school such as ES 31 and ES 23 will enable these programs to be assigned and better serve the students closer to home. Additionally, the Total Design Capacity is indicated for ES 31 and ES 23 at 928 as a place holder pending attendance zone changes that will occur in the Fall of the year prior to the opening of the school. This value will then be replaced with the Program Capacity based upon program assignments. As the schools come on line and boundary lines are redrawn, the values that are being interpreted as "excess capacity" will better reflect the actual conditions.

15 Randall Lewis 2/23/2016

**In Dulles South, the critical need is the middle school (MS-7) and high school (HS-9). Please give the status of land acquisition for HS-9.**

Staff is working with the School Board to narrow the sites under consideration for HS-9.

16 Randall Lewis 2/23/2016

**The county has completed a land inventory before for LCPS. What is the process for this inventory and what staffing do you request?**

In 2010, LCPS staff worked with counterparts at the County to develop a vacant land inventory of parcels suitable for County and public school uses. LCPS Staff continues to monitor available sites and work with County Staff to identify sites that may become available. At this time, no additional staffing is anticipated.

17 Randall Lewis 2/23/2016

**When ES-28 is accelerated to open in 2018, 782 seats will be available. Can a boundary adjustment in Dulles South elementary schools meet the need?**

No, ES-28 is needed to provide enrollment relief, primarily to Buffalo Trail ES which is projected to have 1,604 elementary students by fall 2018. The excess capacity identified is not proximate to the students in need of seats.

18 Randall Lewis 2/23/2016

**Please give your expectations of the Boundary Line Adjustment Central Loudoun Area Elementary School Attendance Zones. Will this adjustment have an impact on the Dulles North and Dulles South elementary schools?**

The current central Loudoun attendance zone review process will have no impact on either Dulles North or Dulles South elementary schools.

19 Randall Lewis 2/23/2016

**Buffalo Trail Elementary is the largest elementary school in Loudoun County. This school has been an overflow school for years. What is the true boundary for Buffalo Trail? When Madison Trust Elementary opens in Dulles North fall 2016, will the enrollment numbers decline?**

The adopted attendance zone for Buffalo Trail Elementary School can be found on the LCPS web page, under the Planning Division of Support Services. (<http://www.lcps.org/Page/1100>). Buffalo Trail will receive enrollment relief with the opening of ES 28 in the fall of 2018. Buffalo Trail will not receive relief from Madison's Trust Elementary School when it opens in the fall of 2016.

20 Umstatted Lewis 2/26/2016

**A turf question for County and LCPS staff: is it possible or legal to write school bond questions in such a way that a new high-school slated to get 2 turf fields could be provided with one turf field and the other turf field could be dedicated to one of the schools without any turf fields? A broader question is: can new schools be built with fewer amenities so that older schools can be provided with some amenities? Whose decision would this be? County staff in writing bond language or LCPS?**

Answer provided by County.

21 Higgins Burden 2/26/2016

Please list the overall salary increases for all LCPS employees for fiscal years 2012 through 2016?

- a. Please provide a break out of the salary increases by category including teachers
- b. Please also include the salary increase for teachers by step amount and indicate the year in which the increase was made.
- c. What is the percentage of these increases (year over year) from fiscal year 2012 through fiscal year 2016.
- d. Please provide a listing of salary increases for MA +10 from fiscal year 2012 through fiscal year 2016.
- e. I would like to see the increases broken out by increases to the total wage and benefits package and the amount that ends up on salary and wages only.

a.

	FY12	FY13*	FY14*	FY15*	FY16*	FY17*
Teacher	3.0%	2.3%	2.0%	3.0%	2.5%	3.5%
Auxiliary	3.0%	2.3%	2.0%	1.6%	2.5%	2.6%
Classified	3.0%	1.5%	2.0%	2.9%	2.5%	2.4%
Administrator	3.0%	1.5%	2.0%	2.8%	2.5%	2.0%
*Does not include mandatory VRS 1% as those funds are deducted from employees' pay.						

b.

	FY12	FY13*	FY14*	FY15*	FY16*	FY17*
Teacher	\$ -	\$ -	\$ -	\$ -	\$ 1,552	\$ 1,567
*Does not include mandatory VRS 1% as those funds are deducted from employees' pay.						

c.

	FY12	FY13*	FY14*	FY15*	FY16*	FY17*
Teacher	0.0%	0.0%	0.0%	0.0%	2.5%	2.2%
*Does not include mandatory VRS 1% as those funds are deducted from employees' pay.						

d.

	FY12	FY13*	FY14*	FY15*	FY16*	FY17*
MA+10 Teacher	\$ 1,667	\$ 1,500	\$ 1,651	\$ 4,414	\$ 1,708	\$ 2,897
	3.0%	2.3%	2.0%	3.0%	2.5%	3.5%
FY12 was a COLA increase of 3% - the first raise employees had seen since FY09						
FY13 was a COLA increase of \$1500 per employee						
FY14 was a COLA increase of 2% per employee						
FY15 was a restructuring of all salary scales						
FY16 was a step increase only						
FY17 is a restructuring of teacher salary scale only with step increases for all others						
*Does not include mandatory VRS 1% as those funds are deducted from employees' pay.						

- e. There are no increases that would fall into the benefits package category. For reference though, health insurance premium increases are provided for the same time frame. This is important as pay increases help offset these premium increases.

Health Premiums	FY12	FY13	FY14	FY15	FY16	FY17
	10.0%	8.0%	10.0%	10.0%	9.0%	8.0%

22 Higgins Burden 2/26/2016

Please provide the following cost analysis for each of the following elementary schools: Lincoln, Waterford, Hamilton, Aldie, Banneker

- a. Capital Costs (including the debt service for each school)
- b. Operation and Maintenance
- c. Pupil Transportation
- d. Administration, Attendance, Health (\* please include the actual salaries and benefits per employee not hypothetical FTE's at the schools)
- e. Technology
- f. Instruction
- g. Facilities

Costs aren't broken out by state category at the school level, however we have attached what these small schools cost for FY17. See attached.

**Aldie**

Projected Enrollment	137	
		Potential Savings
	FTE	Cost
Classroom teachers*	-	-
TA	(1.00)	(47,723)
TRT	(0.50)	(46,303)
Principal	(0.50)	(67,152)
Secretary	(0.76)	(53,347)
Counselor	(0.30)	(27,782)
Librarian	(0.50)	(46,303)
Library Assistant	-	
Health Clinic Assistant	(1.0)	(55,187)
Technology Assistant	-	
Reading	(0.5)	(46,303)
Head Custodian	(1.0)	(57,431)
Custodian	(0.5)	(26,960)
	(6.56)	(474,492)
O&M (utilities/ins/supplies)		(141,000)
<i>Total Potential Savings</i>	<u>\$</u>	<u>(615,492)</u>

0.06%

**Question 23**  
**% overall budget**

\*Staffing standards may require increases in receiving school.

**Hamilton**

Projected Enrollment	169	
		Potential Savings
	FTE	Cost
Classroom teachers*	-	-
TRT	(0.5)	(46,303)
Principal	(1.0)	(134,304)
Secretary	(1.0)	(70,194)
Counselor	(0.3)	(27,782)
Librarian	(0.5)	(46,303)
Library Assistant	-	
Reading	(0.5)	(46,303)
Health Clinic Assistant	(1.0)	(55,187)
Technology Assistant	-	
Head Custodian	(1.0)	(57,431)
Custodian	(1.0)	(53,920)
	<u>(6.8)</u>	<u>(537,727)</u>
O&M (utilities/ins/supplies)		<u>(199,000)</u>
<i>Total Potential Savings</i>	<u>\$</u>	<u>(736,727)</u>

0.07%

**Question 23**  
**% overall budget**

\*Staffing standards may require increases in receiving school.

**Banneker**

Projected Enrollment	161	
		Potential Savings
	FTE	Cost
Classroom teachers*	-	-
TRT	(0.5)	(46,303)
Principal	(0.5)	(67,152)
Secretary	(1.0)	(70,194)
Counselor	(0.3)	(46,303)
Librarian	(0.5)	(46,303)
Library Assistant	-	
Reading	(0.5)	(46,303)
Health Clinic Assistant	(1.0)	(55,187)
Technology Assistant	-	
Head Custodian	(1.0)	(58,576)
Custodian	(1.0)	(53,920)
	(6.3)	(490,241)
O&M (utilities/ins/supplies)		(82,300)
<i>Total Potential Savings</i>	<u>\$</u>	<u>(572,541)</u>

0.05%

**Question 23**  
**% overall budget**

\*Staffing standards may require increases in receiving school.

Note: CAPP FY17-22 \$548,500 (FY17 \$280,000)

**Waterford**

Projected Enrollment	162	
		Potential Savings
	FTE	Cost
Classroom teachers*	-	-
TRT	(0.5)	(46,303)
Principal	(0.5)	(67,152)
Secretary	(1.0)	(70,194)
Librarian	(0.5)	(46,303)
Counselor	(0.3)	(46,303)
Library Assistant	-	
Reading	(0.5)	(46,303)
Health Clinic Assistant	(1.0)	(55,187)
Technology Assistant	-	
Head Custodian	(1.0)	(57,431)
Custodian	(1.0)	(53,920)
	<u>(6.3)</u>	<u>(489,096)</u>
O&M (utilities/ins/supplies)		<u>(104,000)</u>
<i>Total Potential Savings</i>	<u>\$</u>	<u>(593,096)</u>

0.06%

**Question 23**  
**% overall budget**

\*Staffing standards may require increases in receiving school.

**Total Net Savings (2,517,855)**

23 Higgins Burden 2/26/2016

Please provide a percentage breakdown for the cost of each of these schools as a percentage of the overall LCPS budget.

Overall the percentage is 0.2% of the total budget. Percentage breakdown by school is provided in question 22.

24 Higgins Hough 2/26/2016

**Given recent news reports relating to fragmented systems for checking the backgrounds of educators, what programs and processes exist within LCPS to review/corroborate data reflecting teacher misconduct in other states or jurisdictions?**

LCPS requires both FBI fingerprint checks conducted through the Virginia State Police and Child Protective Services checks for residences in the last five years. Both of these are specified in Virginia Code. It is practice within LCPS not to allow individuals to begin work until fingerprints are cleared. While most fingerprints are cleared within 24 hours, there are times that this can cause a delay of several weeks. LCPS also requires one or more reference checks prior to hiring.

The application for employment also includes the background questions regarding whether or not candidates have ever been convicted of a crime other than a minor traffic violation, whether or not candidates have ever been asked to resign, whether or not candidates have been discharged or refused contract renewal, whether or not candidates have been convicted of a felony or of any offense involving the sexual molestation, physical or sexual abuse or rape of a child, whether or not candidates have been convicted of a crime of moral turpitude, physical or sexual abuse or neglect of a child, sexual assault, use or possession of drugs, or obscenity or related offenses, whether or not candidates have any criminal charges pending, and whether or not candidates have ever had a CPS finding. Any affirmative responses require investigation. The fingerprint results, CPS results, and reference check are independent sources.

If Virginia Department of Education (VDOE) staff become aware of a licensure action in another state prior to issuance or during the validity of a Virginia license, VDOE staff notifies us if they have a record that the individual may be an LCPS employee. LCPS does not have access to the National Association of State Directors of Teacher Education and Certification (NASDTEC) Clearinghouse and does depend on VDOE for that data.

25 Higgins Hough 2/26/2016

**What type of background checks does LCPS require? In a recent USA Today article the Commonwealth of Virginia received a D rating on the ability and processes for conducting background checks and sharing disciplinary actions for teachers in the state.**

See response to Question 24 concerning LCPS background checks.

The recent USA Today article awarded the most points for states who had centralized background check processes (i.e. fingerprint checks and other background checks are done at the state level for licensure rather than at the local level for employment). Virginia's laws require the checks to be done locally for employment rather than at the state level for licensure. Therefore, the state lost a large number of points in the ranking system.

Additionally, the state lost some points according to the authors' methodology for what they determined was some incomplete information online about teacher disciplinary action and some teacher misconduct not shared with other states. The state scored well in the area of mandatory reporting laws because Virginia has laws that require school divisions to report certain types of misconduct to the state as well as mandatory educator reporting laws (e.g. suspected child abuse, etc.). The link to the article, including a section on methodology of grading states, is included below.

<http://www.usatoday.com/topic/f4cd5d76-8c46-4d69-8a8f-85dfd6f6fc5c/investigations/>

26 Higgins Burden 2/26/2016

Similar to the reallocation process for the Department of Instruction in the current budget proposal, has LCPS undertaken review of potential cost savings/financial efficiencies for each department that would assist in funding new requests in this year's proposed budget?

Yes, reviews were performed by each department.

27 Higgins Burden 2/26/2016

Please provide the amount of additional fees paid by parents under the following scenarios for the following schools: Heritage High School, Tuscarora High School, Loudoun County High School, Loudoun Valley High School, and Woodgrove High School.

- a. One Student, playing three sports\*, in three AP classes, one driver to school
- b. Two Students, each playing two (four sports total)\*, in two AP classes each (four AP classes total), one driver

	Heritage	Tuscarora	Loudoun County	Loudoun Valley	Woodgrove
<u>1 student</u>					
3 sports	450.00	450.00	450.00	450.00	450.00
3 AP classes	249.00	249.00	249.00	249.00	249.00
1 driver-parking pass	200.00	200.00	200.00	200.00	200.00
	899.00	899.00	899.00	899.00	899.00
<u>2 students</u>					
4 sports	1,200.00	1,200.00	1,200.00	1,200.00	1,200.00
4 AP classes	664.00	664.00	664.00	664.00	664.00
1 driver-parking pass	200.00	200.00	200.00	200.00	200.00
	2,064.00	2,064.00	2,064.00	2,064.00	2,064.00

28 Higgins Burden 2/26/2016

Since families are required to pay to see their children play high school athletics in the Loudoun County Public Schools system, please also include the cost of a season pass (admission fees) for each of the scenarios outlined above.

<u>Season Pass</u>					
Family plan	250.00	250.00	250.00	250.00	250.00
Single	100.00	100.00	100.00	100.00	100.00

29 Higgins Burden 2/26/2016

**Where do these fees go? What department/entity within LCPS expends these funds?**

Fees (AP test, athletic and parking) are considered revenue to the School Operating Fund. The AP test fees collected are paid to the College Board. Athletic fees offset a small portion of the costs of stipends and equipment and other items for the athletic programs that reside in the School Operating Fund. \$25 of the parking fee remains at the school and is revenue to the School's Activity Fund; the remainder is a revenue to the School Operating fund. Season passes and admission tickets are revenue to the School's Activity Fund which funds the athletic programs at that school.

30 Higgins Burden 2/26/2016

1. The FY17 Cost Per Pupil (CPP) by State Category for Loudoun is \$13,334

- a. Instruction - \$10,718
- b. Operation and Maintenance – \$1,018
- c. Pupil Transportation - \$768
- d. Administration, Attendance & Health - \$468
- e. Technology - \$321
- f. Facilities - \$41

2. Please provide a comparison of these costs by category listed above for Arlington, Alexandria, Fairfax, Chesterfield and Prince William counties.

The FY17 cost per pupil by state category is not available for the comparison school districts. However, the following districts have provided their FY17 cost per pupil: Arlington County - \$18,893; Alexandria City - \$17,263; Fairfax - \$14,465.

31 Higgins Burden 2/26/2016

Please list all "off budget" funds (including: buses, turf fields, OPEB, Health Care, Broad Run High School renovations, Potomac Falls renovations) received by LCPS from the BOS since 2012.

LCPS and County Staff will each review this question and provide input regarding separate or joint responses from LCPS and County Staff. A response will be provided by LCPS staff after consultation with County Staff.

32 Higgins Hough 2/26/2016

How many new teachers were hired by LCPS in the two previous fiscal years?

For the 13-14 school year, LCPS hired 633 new teachers.

For the 14-15 school year, LCPS hired 712 new teachers.

For the 2015-2016 school year, LCPS hired 714 new licensed employees.

33 Higgins Hough 2/26/2016

How many of these new hires were previously teaching in other jurisdictions?  
Please list these jurisdictions.

See attached.

2013-2014 School Year: Total Number of Licensed New Hires with Experience Immediately Prior in Other Jurisdictions. Date Range: October 1, 2013- September 30, 2014.

Albermarle	2
Alexandria	7
Arlington	3
Campbell	1
Charlottesville City	1
Chesapeake	2
Chesterfield	1
Clarke	2
Culpeper	2
Cumberland	1
Fairfax	57
Fauquier	2
Frederick	12
Henrico	1
Madison	1
Manassas City	4
Montgomery	2
Newport News	1
Page	1
Prince Edward	1
Prince William	8
Roanoke	4
Rockingham	2
<b>Total Number of Licensed New Hires with Experience Immediately Prior in a Virginia School Division</b>	<b>118</b>
Total Number of Licensed New Hires with Experience Immediately Prior in Another State	132
<b>Total Number of Licensed New Hires with Experience</b>	<b>250</b>
Total Number of Licensed New Hires with No Previous Experience	383
<b>Total Number of Licensed New Hires</b>	<b>633</b>

2014-2015 School Year: Total Number of Licensed New Hires with Experience Immediately Prior in Other Jurisdictions. Date Range: October 1, 2014- September 30, 2015

Albermarle	3
Alexandria	1
Arlington	7
Augusta	1
Charlottesville City	1
Fairfax	68
Fauquier	4
Frederick	5
Greeneville	2
Hampton City	3
Harrisonburg City	1
Henrico	3
Manassas City	3
Mathews	1
Middlesex	1
Montgomery	2
Norfolk City	1
Northhampton	2
Prince William	13
Richmond	1
Roanoke	2
Rockingham	2
Shenandoah	1
Spotsylvania	1
Stafford	1
Staunton City	1
Virginia Beach City	1
Warrant	2
Warren	8
Williamsburg James City	1
York	1
<b>Total Number of Licensed New Hires with Experience Immediately Prior in a Virginia School Division</b>	<b>144</b>
Total Number of Licensed New Hires with Experience Immediately Prior in Another State	129
<b>Total Number of Licensed New Hires with Experience</b>	<b>273</b>
Total Number of Licensed New Hires with No Previous Experience	439
<b>Total Number of Licensed New Hires</b>	<b>712</b>

2015-2016 School Year: Total Number of Licensed New Hires with Experience Immediately Prior in Other Jurisdictions. Date Range: October 1, 2015- September 30, 2016

Albermarle	1
Alexandria	4
Arlington	6
Buena Vista City	1
Caroline	1
Chesterfield City	1
Fairfax	57
Fauquier	2
Frederick	9
Hampton City	1
Henrico	1
Lancaster	3
Louisa	1
Manassas City	5
Manassas Park	3
Newport News	2
Portsmouth	1
Prince William	18
Richmond	2
Roanoke	2
Rockbridge	1
Rockingham	1
Shenandoah	3
Spotsylvania	1
Stafford	3
Virginia Beach City	6
Warren	7
Winchester	2
Wise	1
York	1
<b>Total Number of Licensed New Hires with Experience Immediately Prior in a Virginia School Division</b>	<b>147</b>
Total Number of Licensed New Hires with Experience Immediately Prior in Another State	217
<b>Total Number of Licensed New Hires with Experience</b>	<b>364</b>
Total Number of Licensed New Hires with No Previous Experience	350
<b>Total Number of Licensed New Hires</b>	<b>714</b>

34 Higgins Burden 2/26/2016

**Are schools with turf fields charging/renting these fields to other schools or outside groups? If so, what are the rental fees and where do these fees go? What departments/entities within LCPS expends these funds?**

Schools having (artificial) turf athletic playing fields do not charge other LCPS schools for use of the artificial turf athletic fields. Artificial turf athletic fields are rented to outside organizations, as governed by School Board Regulation 6-29, at the rate of \$125.00 per hour with a two-hour minimum. Custodial and Supervisory fees are also applied to the rental by an outside organization at the rate of \$40.00 per hour, with a two-hour minimum.

Rental fees collected for use of the artificial turf athletic fields by outside organizations is divided: twenty-percent (20%) returned to the host school; eighty-percent (80%) placed into General Revenue.

35 Higgins Burden 2/26/2016

**How many Loudoun County students attend Thomas Jefferson High School? What is Loudoun County's cost per pupil including transportation costs?**

For FY17, there are 277 students projected to attend Thomas Jefferson High School. The CPP is based on Fairfax's cost per pupil excluding transportation as Fairfax does not provide transportation to TJ for out-of-county students. For students accepted after July 2014, capital costs are allowed in the cost per pupil calculation. The breakdown is as follows:

<u>Pre-2014</u>	<u>Post 2014</u>
63 students	214 students
\$11,845 CPP	\$13,919 CPP

Transportation costs for LCPS have been estimated at about \$400,000 annually.

36 Higgins Lewis 2/26/2016

**Assuming the BOS is unable to address moving funding forward in the CIP for all of the six schools requested by LCPS, what contingencies has LCPS made should this scenario prevail? (Trailers, boundary adjustments)**

The *School Board Adopted CIP FY2017-2022* list of projects identified the schools based upon the need to address enrollment. On Tuesday, February 23, 2016, the School Board took action to prioritize the projects for consideration by the Board of Supervisors. It should be noted that the FY2017 project list includes eight (8) modular classrooms to be located in the Dulles North and/or Dulles South planning area to address the growth in enrollment. These projects have not been specifically identified in terms of location which may be determined by changes in growth patterns or project timelines.

37 Higgins Burden 2/26/2016

Regarding inflation figures used in the LCPS budget presentation, what are the projections for each year? Please cite the sources for these figures.

	Actual	Adjusted for Inflation
2009	\$ 9,202	\$ 9,202
2010	\$ 8,231	\$ 8,014
2011	\$ 6,898	\$ 6,512
2012	\$ 7,294	\$ 6,755
2013	\$ 7,566	\$ 6,869
2014	\$ 7,578	\$ 6,749
2015	\$ 8,033	\$ 7,154
2016	\$ 8,549	\$ 7,391
2017	\$ 8,946	\$ 7,596
U.S. Bureau of Economic Analysis through 2015 Data for 2016 through 2017 extrapolated using linear regression modeling.		

38 Higgins Burden 2/26/2016

On restoration for technology assistants what activities are not able to be completed with current staffing?

With a part-time technology assistant in building there are times when no one is available to support and maintain hardware and network problems. As more content shifts to digital resources the lack of support can equate to lost instructional time.

39 Higgins Burden 2/26/2016

Please provide the history of funding for middle school deans for the prior two fiscal years.

The staffing for Middle School Deans for the budget, current year and prior two fiscal years is as follows:

FY17	46	\$3.5m
FY16	38	\$2.7m
FY15	27	\$1.9m
FY14	43	\$2.9m

40 Higgins Lewis 2/26/2016

What are LCPS busing/transportation expenses as compared to neighboring counties and school systems? (Fairfax, Prince William, Clarke and also Chesterfield)

State Report 2014-2015 VDOE Operational Costs

LCPS:	\$ 50,224,354
Fairfax:	\$ 138,009,588
Prince William:	\$ 47,082,363
Clarke:	\$ 1,059,758
Chesterfield:	\$ 28,170,762

State Report 2014-2015 VDOE Cost per Pupil

LCPS:	\$ 1,037.67
Fairfax:	\$ 953.09
Prince William:	\$ 791.93
Clarke:	\$ 930.43
Chesterfield:	\$ 637.32

41 Higgins Lewis 2/26/2016

What are the per gallon fuel costs budgeted vs. actual for gasoline and diesel in FY16, FY15, FY14, FY12.

FY16 Budgeted - \$3.48	Actual (YTD) - \$1.66
FY15 Budgeted - \$3.65	Actual - \$2.36
FY14 Budgeted - \$3.69	Actual - \$3.20
FY13 Budgeted - \$3.38	Actual - \$3.27
FY12 Budgeted - \$3.25	Actual - \$3.15

42 Higgins Lewis 2/26/2016

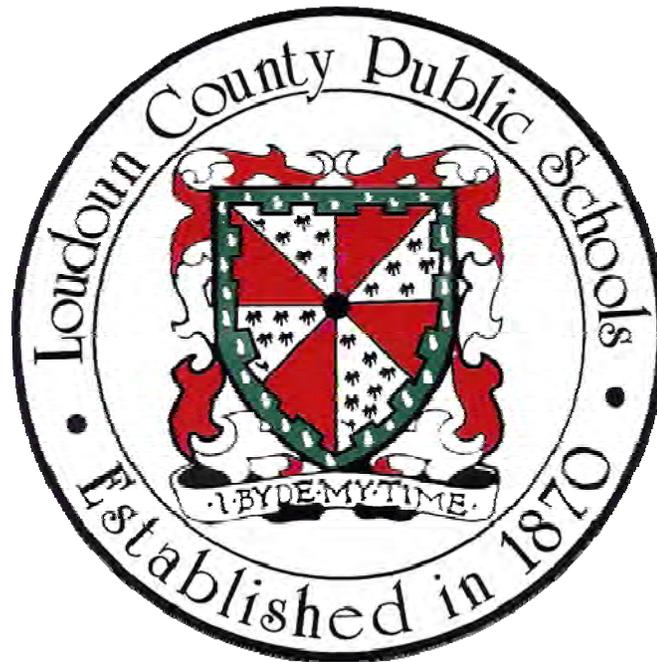
What are the budgeted/projected fuel costs for gasoline and diesel for FY17?

Diesel -	\$4,168,408
Gasoline -	\$1,096,799

43 Higgins Burden 2/26/2016

In the January 7, 2016 proposed budget presentation (slide 17) a chart was provided illustrating the growth in population for English Language Learners, Special Education and Economically Challenged students for one period from FY2009 through FY2016. Please provide these statistics on a year-by-year basis for the same period.

	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
ELL	4,362	4,741	4,828	4,634	5,234	5,824	6,517	7,178
SPED	5,698	6,263	6,288	6,918	7,309	7,700	8,056	8,685
F&R	6,456	8,102	10,052	9,553	10,285	12,379	11,582	13,509
Total Enrollment	57,010	60,111	63,214	65,663	68,299	70,865	73,455	75,755



# LOUDOUN COUNTY PUBLIC SCHOOLS FACILITY ASSESSMENT STUDY

November 2, 2015

**FINAL**

Prepared by  
**architecture** incorporated  
Reston, Virginia

**LOUDOUN COUNTY PUBLIC SCHOOLS  
 FACILITY ASSESSMENT STUDY  
 November 2015**

**EXECUTIVE SUMMARY**

In 2003 Loudoun County Public Schools commissioned a Facility Assessment Study of all school facilities. The schools at that time were assessed and graded over six (6) major categories: Site, Structure, Mechanical Plant, Safety, Educational Adequacy and Educational Environment. Not unexpected, all of the schools built before 1980 ended up at the bottom of the rankings. Now wanting to revisit the evaluation and ranking of LCPS school facilities to determine their need for renovation and modernization, a new Facility Assessment Study was commissioned.

Architecture, Inc. was retained in late spring of 2015 to conduct the Facility Assessment Study of school facilities including structures constructed prior to 1980 as well as others. Over the course of the past few months, Architecture, Inc. and our civil, structural, mechanical and electrical engineers, along with school division staff, have undertaken a review of twenty-two (22) Loudoun County Public Schools facilities. These included sixteen (16) elementary schools, five (5) middle schools and one (1) high school. It was decided that due to their age and scores from the 2003 study they are the facilities most in need of renovation and possible additions.

The consultant team evaluated these facilities based on the attached score sheet. The score sheet is comprised of 50 areas that were evaluated and scored over four (4) major categories:

- Site & Exterior Envelope (25%)
- Interior Environment, Safety and ADA Accessibility (25%)
- Plan and Program Adequacy (15%)
- Mechanical and Electrical Systems (35%)

It should be noted that the higher weighting for the last category can be attributed to many of those areas directly affecting those above it - i.e. lighting levels, heating and cooling, emergency lighting, security and fire alarm systems.

The Facility Assessment Study is divided into two groups with schools listed in alphabetical order. Group I contains elementary schools and Group II includes middle and high schools. Each of the facilities identified in the Facility Assessment Study includes a brief history listing basic data that is unique to the school. This information includes: when the school opened; the square footage of the facility; date(s) of previous addition and renovation projects; as well as the school's capacity and current enrollment.

The Facility Assessment Study contains two (2) sections for each facility: the assessment report and the assessment score sheet. The report provides a narrative for the various assessment categories including detailed information regarding each facility's condition. The score sheet provides a numerical assessment for each of the fifty evaluation areas based upon a one (1) to five (5) score; with five (5) being the best score. The score sheet also provides an overall facility score out of a possible 250 points.

One of the fundamental concepts of the Facility Assessment Study was to compare existing facilities against the standards utilized for the prototypical design for new elementary, middle and high schools. In this regard, the evaluation for the plan and program adequacy is based upon elements included in LCPS' current prototypical design standards. Despite the fact that the Facility Assessment Study indicates a number of items that could be addressed at each facility, it is readily apparent from the field surveys that all of the surveyed schools are well maintained.

It is hoped that this new Facility Assessment Study will give the School Board a valuable tool in prioritizing the schools most in need of renovation in upcoming CIP discussions.

Elementary School Summary	
Middle & High School Summary	
Facility Assessment Study Map	
Aldie Elementary School	<b>1</b>
Algonkian Elementary School	<b>2</b>
Banneker Elementary School	<b>3</b>
Catoctin Elementary School	<b>4</b>
Cool Spring Elementary School	<b>5</b>
Emerick Elementary School	<b>6</b>
Guilford Elementary School	<b>7</b>
Hamilton Elementary School	<b>8</b>
Leesburg Elementary School	<b>9</b>
Lincoln Elementary School	<b>10</b>
Lovettsville Elementary School	<b>11</b>
Lucketts Elementary School	<b>12</b>
Meadowland Elementary School	<b>13</b>
Sterling Elementary School	<b>14</b>
Sully Elementary School	<b>15</b>
Waterford Elementary School	<b>16</b>
Blue Ridge Middle School	<b>17</b>
Farmwell Station Middle School	<b>18</b>
Seneca Ridge Middle School	<b>19</b>
J.L. Simpson Middle School	<b>20</b>
Sterling Middle School	<b>21</b>
Potomac Falls High School	<b>22</b>

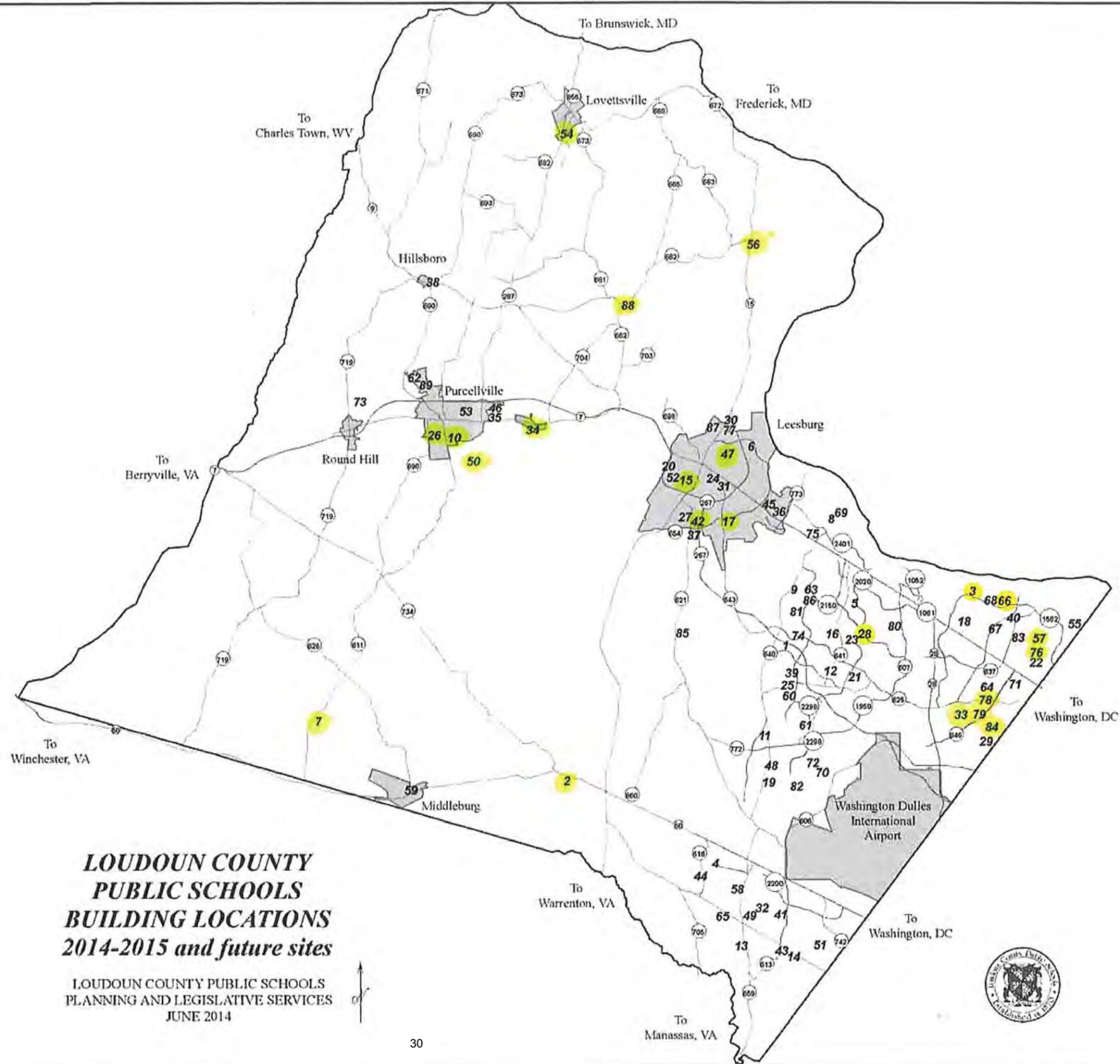
<b>RANK</b>	<b>SCHOOL NAME</b>	<b>YEAR BUILT</b>	<b>CAPACITY</b>	<b>CURRENT ENROLLMENT</b>	<b>SITE &amp; EXTERIOR ENVELOPE</b>	<b>INT. ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>	<b>PLAN &amp; PROGRAM ADEQUACY</b>	<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>	<b>TOTAL</b>
1	ALDIE ES	1928	140	145	30	13	11	24	78
2	BANNEKER ES	1944	260	151	34	13	11	21	79
3	LINCOLN ES	1926	138	125	37	17	9	35	98
4	WATERFORD ES	1965	250	145	35	19	12	39	105
5	CATOCTIN ES	1966	657	520	33	20	15	41	109
6	EMERICK ES	1967	575	525	33	29	24	34	120
7	STERLING ES	1964	526	511	30	28	27	40	125
8	SULLY ES	1968	500	506	37	26	26	38	127
9	LEESBURG ES	1980	628	600	36	23	15	55	129
10	GUILFORD ES	1966	500	600	33	30	26	41	130
11	LUCKETTS ES	1972	261	290	29	37	19	46	131
12	MEADOWLAND ES	1979	535	468	37	24	17	53	131
13	HAMILTON ES	1952	297	178	38	26	22	46	132
14	LOVETTSVILLE ES	1972	600	532	36	47	40	45	168
15	ALGONKIAN ES	1989	750	496	52	46	37	50	185
16	COOL SPRING ES	1987	750	611	51	47	37	52	187

RANK	SCHOOL NAME	YEAR BUILT	CAPACITY	CURRENT ENROLLMENT	SITE & EXTERIOR ENVELOPE	INT. ENVIRONMENT, SAFETY & ADA ACCESSIBILITY	PLAN & PROGRAM ADEQUACY	MECHANICAL & ELECTRICAL SYSTEMS	TOTAL
1	J.L. SIMPSON MS	1976	1178	1040	30	40	25	43	138
2	STERLING MS	1971	1131	1050	40	28	22	48	138
3	BLUE RIDGE MS	1971	1226	1000	40	33	24	44	141
4	SENECA RIDGE MS	1977	1198	1066	42	42	29	41	154
5	FARMWELL STATION MS	1995	1184	1087	51	54	43	60	208
6	POTOMAC FALLS HS	1997	1350	1619	54	56	42	61	213

# FACILITY ASSESSMENT STUDY

## BUILDING DIRECTORY

- |   |                      |
|---|----------------------|
| 1. ADMINISTRATION BUILDING              | 82. STONE HILL MS    |
| 2. ALDIE ES                             | 83. SUGARLAND ES     |
| 3. ALGONKIAN ES                         | 84. SULLY ES         |
| 4. ARCOLA ES                            | 85. SYCOLIN CREEK ES |
| 5. ASHURN ES                            | 86. TRAILSIDE MS     |
| 6. BALL'S BLUFF ES                      | 87. TUSCARORA HS     |
| 7. BANNEKER ES                          | 88. WATERFORD ES     |
| 8. BELMONT RIDGE MS                     | 89. WOODGROVE HS     |
| 9. BELMONT STATION ES                   |                      |
| 10. BLUE RIDGE MS                       |                      |
| 11. BRIAR WOODS HS                      |                      |
| 12. BROAD RUN HS                        |                      |
| 13. BUFFALO TRAIL ES                    |                      |
| 14. CARDINAL RIDGE ES                   |                      |
| 15. CATOCTIN ES                         |                      |
| 16. CEDAR LANE ES                       |                      |
| 17. COOL SPRING ES                      |                      |
| 18. COUNTRYSIDE ES                      |                      |
| 19. CREIGHTON'S CORNER ES               |                      |
| 20. CS MONROE TECHNOLOGY CENTER         |                      |
| 21. DISCOVERY ES                        |                      |
| 22. DOMINION HS & ACADEMY OF SCIENCE    |                      |
| 23. DOMINION TRAIL ES                   |                      |
| 24. DOUGLASS SCHOOL                     |                      |
| 25. EAGLE RIDGE MS                      |                      |
| 26. EMERICK ES                          |                      |
| 27. EVERGREEN MILL ES                   |                      |
| 28. FARMWELL STATION MS                 |                      |
| 29. FOREST GROVE ES                     |                      |
| 30. FRANCES HAZEL REID ES               |                      |
| 31. FREDERICK DOUGLASS ES               |                      |
| 32. FREEDOM HS                          |                      |
| 33. GUILFORD ES                         |                      |
| 34. HAMILTON ES                         |                      |
| 35. HARMONY MS                          |                      |
| 36. HARPER PARK MS                      |                      |
| 37. HERITAGE HS                         |                      |
| 38. HILLSBORO ES                        |                      |
| 39. HILLSIDE ES                         |                      |
| 40. HORIZON ES                          |                      |
| 41. HUTCHISON FARM ES                   |                      |
| 42. J. LUPTON SIMPSON MS                |                      |
| 43. J. MICHAEL LUNSFORD MS              |                      |
| 44. JOHN CHAMPE HS                      |                      |
| 45. JOHN W. TOLBERT, JR. ES             |                      |
| 46. KENNETH W. CULBERT ES               |                      |
| 47. LEESBURG ES                         |                      |
| 48. LEGACY ES                           |                      |
| 49. LIBERTY ES                          |                      |
| 50. LINCOLN ES                          |                      |
| 51. LITTLE RIVER ES                     |                      |
| 52. LOUDOUN COUNTY HS                   |                      |
| 53. LOUDOUN VALLEY HS                   |                      |
| 54. LOVETTSVILLE ES                     |                      |
| 55. LOWES ISLAND ES                     |                      |
| 56. LUCKETTS ES                         |                      |
| 57. MEADOWLAND ES                       |                      |
| 58. MERCER MS                           |                      |
| 59. MIDDLEBURG COMMUNITY CHARTER SCHOOL |                      |
| 60. MILL RUN ES                         |                      |
| 61. MOOREFIELD STATION ES               |                      |
| 62. MOUNTAIN VIEW ES                    |                      |
| 63. NEWTON-LEE ES                       |                      |
| 64. PARK VIEW HS                        |                      |
| 65. PINEBROOK ES                        |                      |
| 66. POTOMAC FALLS HS                    |                      |
| 67. POTOWMACK ES                        |                      |
| 68. RIVER BEND MS                       |                      |
| 69. RIVERSIDE HS                        |                      |
| 70. ROCK RIDGE HS                       |                      |
| 71. ROLLING RIDGE ES                    |                      |
| 72. ROSA LEE CARTER ES                  |                      |
| 73. ROUND HILL ES                       |                      |
| 74. SANDERS CORNER ES                   |                      |
| 75. SELDENS LANDING ES                  |                      |
| 76. SENECA RIDGE MS                     |                      |
| 77. SMART'S MILL MS                     |                      |
| 78. STERLING ES                         |                      |
| 79. STERLING MS                         |                      |
| 80. STEUART W. WELLER ES                |                      |
| 81. STONE BRIDGE HS                     |                      |



## LOUDOUN COUNTY PUBLIC SCHOOLS BUILDING LOCATIONS 2014-2015 and future sites

LOUDOUN COUNTY PUBLIC SCHOOLS  
PLANNING AND LEGISLATIVE SERVICES  
JUNE 2014



# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Aldie Elementary School  
23269 Meetinghouse Lane  
Aldie, VA 20105  
Loudoun County Public Schools

**Date:** August 20, 2015



**HISTORY:**

Aldie Elementary School was built in 1928 and renovated in 1950, then again in 1965. In 1950 a two-level, four classroom addition along the back of the building was built. In 1965 a single level addition was executed which included one classroom, administrative areas as well as a media center at the front of the building. There is a 2,100 sf out building behind the school that was originally used as an Agricultural Shop.

The 14,717 sf school's capacity is 140 students and current enrollment is 145.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 78 out of a possible 250. The main building is 88 years old and is showing signs of aging. There are several areas where decay is evident: wood rot at exterior door frames and wood stairs; single pane double hung windows that are inoperable; masonry mortar deterioration throughout the building's shell, as well as mechanical and accessibility challenges.

Below are details of the above noted findings:

**Rotting door frame**



**Deteriorating mortar**



**Window mounted A/C units**



**Non-ADA compliant exit**



**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Stage
  - Egress at grade
  - Elevator to access all levels
- Needed to meet LCPS facility standards:
  - Adequate storage in classrooms
  - Dedicated toilet rooms for 2<sup>nd</sup> grade classrooms
  - Faculty lounge
  - Dedicated gym space with storage and PE office
  - Dedicated art space
  - Clinic sink
  - Kitchen office, lockers, walk-in freezer/cooler and quarry tile floors
  - Janitor's office
- Additional recommendations:
  - Ability for administrative office to have clear visibility for security purposes
  - Mediate noise from centrally located multi-purpose room
  - Control moisture and mold at lower level crawl space

FACILITY ASSESSMENT STUDY SCORE SHEET				78				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>30</b>	
ADEQUATE PARKING			X				3	
PARKING LOTS - CONDITION			X				3	
SIDEWALKS - CONDITION		X					2	
ADEQUATE BUS QUEUING				X			4	
ADEQUATE PARENT DROP-OFF				X			4	
ATHLETIC PLAY AREAS				X			4	
LANDSCAPING			X				3	
MASONRY - CONDITION		X					1	
WINDOWS	SINGLE GLAZED DOUBLE HUNG WOOD WINDOWS	X					1	
EXPOSED STEEL	RUSTED AND PAINT PEELING		X				2	
ROOFING			X				2	
OVERALL AESTHETICS	DATED WITH LITTLE CHARACTER ON THE EXTERIOR	X					1	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>13</b>	
WALLS / WAINSCOTS	PAINTED CMU	X					1	
FLOORING	WOOD, CARPET AND VCT	X					1	
CEILING	ACT	X					1	
DOORS & HARDWARE	ORIGINAL WOOD DOORS AND HARDWARE	X					1	
MARKER & TACK BOARDS	CHALKBOARDS NOT CONVERTED TO MARKER BOARDS	X					1	
CASEWORK	NON ADA SINKS	X					1	
EXTERIOR ACCESSIBILITY	FRONT ENTRY RAMP	X					1	
INTERIOR ACCESSIBILITY	ACCESS TO LOWER LEVEL ONLY VIA STAIR	X					1	
SPRINKLER SYSTEM	NONE	X					1	
EGRESS ADEQUACY	MINIMAL		X				2	
ADMIN VISIBILITY / SECURITY ENTRANCE		X					1	
CLASSROOM ENVIRONMENT	TIGHT AND INFLEXIBLE	X					1	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>11</b>	
PLAN ORGANIZATION	4TH AND 5TH GRADES ON LOWER LEVEL	X					1	
PLAN CIRCULATION			X				3	
ADMIN SUITE /CLINIC	CROWDED WITH LIMITED VISIBILITY	X					1	
CAFETERIA/STAGE & KITCHEN		X					1	
GYM & ATHLETICS	NO DEDICATED GYM	X					1	
MEDIA CENTER	TIGHT - ONLY ENOUGH ROOM FOR ONE CLASS	X					1	
RESTROOMS	NON ADA COMPLIANT	X					1	
STAFF FACILITIES	NON ADA COMPLIANT	X					1	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	NO DEDICATED ART/MUSIC SPACE	X					1	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>24</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	AHU INSTALLED 1965 (USEFUL LIFE 20 YRS.) - WINDOW AC UNITS	X					1
HEATING BOILERS / FUEL TANK	STEAM BOILER INSTALLED 1965	X					1
PUMPS	PUMP RECENTLY REPLACED - CONDENSATE PUMP ORIGINAL		X				2
UNIT / CABINET HEATERS / FANS	ORIGINAL (1965); SOME NEWER REPLACEMENTS		X				2
ATC / EMS	ORIGINAL PNEUMATIC - COMPRESSOR HAS BEEN REPLACED	X					1
DOMESTIC WATER HEATERS	WATER HEATER REPLACED 2004 (USEFUL LIFE 15 YRS.)		X				2
MAIN SERVICE - ELECTRIC		X					1
GENERATOR		X					1
PANELS / BREAKERS		X					1
INTERIOR LIGHTING				X			3
INTERIOR POWER		X					1
EMERGENCY LIGHTING		X					1
SITE LIGHTING		X					1
FIRE ALARM & SECURITY			X				2
DATA / TECH / SOUND			X				2
<b>TOTAL (out of 250 points)</b>						<b>78</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Algonkian Elementary School  
20196 Carter Court  
Sterling, Virginia 20165  
Loudoun County Public Schools

**Date:** October 22, 2015



## HISTORY:

Algonkian Elementary School opened in 1989.

The 66,743 sf school's capacity is 750 students and current enrollment is 496.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 185 out of a possible 250. Overall, the floor plan is effectively incorporates a circulation loop as well as two educational courtyards. All casework is original and in good condition. Chalkboards need to be converted to marker boards in all classrooms. The roof is original and is in good condition. The insulated glass in many exterior windows is beginning to fog. The gym is in good condition but lacks retractable bleachers as well as wireless microphones for the PA system. The building does not include a full sprinkler system. Additionally, the 1<sup>st</sup> grade, 2<sup>nd</sup> grade and special education classrooms lack dedicated toilets. The building also lacks a security vestibule.

Below are details of the above noted findings:

**Double-pane window glass fogging at many locations**



**Chalkboards not converted to marker boards**



**Non-ADA compliant group restrooms**



**Group restrooms lack urinal screens**



**ADA compliant lavatories located in corridors adjacent to group restrooms**



**Ramp from serving line to kitchen lacks painted safety color**



**Kitchen lacks a locker / laundry room**



**Civil**

Overall, the site is in very good condition. Pavements and sidewalks are in good condition and parking is more than adequate. Some curb locations have peeling paint, but the curbs and gutters exhibit no deterioration. Parent drop off is inadequate with cars stacking onto Algonkian Parkway. Site lighting is adequate.

Below are details of the above noted site findings:

**Curb paint peeling in some locations**



**Structural**

Building structure is in very good condition, with no structural issues observed.

**Sprinkler/Plumbing**

The building is provided with a limited area sprinkler system. The water heater and storage tank are Lochinvar. The water heater was replaced in 2003, and the storage tank was recently replaced. Flush valves are predominantly manual type. Faucets are predominantly manual and metering type.

**Mechanical**

The building HVAC is served by a Trane Series R air-cooled chiller located in the mechanical courtyard with associated pumps, Lochinvar Copper Fin II gas-fired boilers with associated pumps, chilled water rooftop air conditioning units, and two-pipe air terminals with hot water coils. The chiller was replaced in 2008. The heating boiler was replaced in 2003. The majority of air handling equipment appears to be original, though some units have been replaced over time, and the equipment appears to be in fair condition. The pneumatic automatic temperature controls appear to be original. The building does not have a cooling tower.

**Electrical**

Main Electrical Service – The main electrical service consist of a 480V-3Ø 750 kVA Dominion Power company transformer and a Square-D 480V-3Ø-6000A switchboard.

Generator – The building has liquid propane gas 30A generator with a 100A manual transfer switch. The generator is located in the mechanical room and the above ground liquid propane tank is located in the mechanical courtyard.

Panelboards and Breakers – The panelboards and breakers in the building consist of Square-D equipment. The Square-D equipment is original. Additional panelboards were installed for classroom computer use.

Interior Lighting – Interior lighting consists of fluorescent Prismatic Troffer light fixtures with T8 lamps. Overall the lighting in the school is in good condition.

Interior Power – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building as well as devices that have been added via surface raceway during renovations. Power distribution appears adequate in most cases.

Emergency Lighting – Power for emergency lighting is achieved via wall mounted battery pack fixtures and an original white light circuit tapped ahead of the original main gear disconnect.

Site Lighting – Building mounted lights consist of HID type. They generally provide adequate lighting coverage at doorways and egress pathways around the building.

Fire Alarm & Security – The building has a Pyrotronics Fire Alarm System with little room to expand. The building has Aiphone, Silent Knight Intrusion Detection, Stanley Wi-Q wireless access control, and coaxial CCTV cameras. The CCTV cameras provide coverage throughout the building interior. Exterior CCTV cameras are located on building corners and provide limited viewing of the parking, bus/parent drop, and playground areas.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland Telecenter. The building has Verizon service for telephone and internet and the phone system is Nortel Legacy. The clock system is antiquated. Classrooms have interactive white boards and A/V input panels.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Stage
- Needed to meet LCPS facility standards:
  - Chalkboards converted to marker boards
  - Dedicated toilet rooms in 1<sup>st</sup>, 2<sup>nd</sup> and special ed classrooms
  - Security vestibule
  - Kiln relocated adjacent to art room
  - Gym bleachers
  - Kitchen locker area

**Civil**

- No major areas of concern.

**Structural**

- No concerns.

**Sprinkler/Plumbing**

- The building is not provided with full sprinkler coverage.

**Mechanical**

- Packaged rooftop equipment utilizes R-22 refrigerant.
- Original packaged rooftop equipment is at or near the end of their useful service life.
- Pneumatic automatic temperature controls are outdated and lack the capability to efficiently control the systems.

**Electrical**

- Existing emergency egress lighting should be addressed to provide adequate coverage, including egress lighting at exit doors.
- Upgrade lighting systems and power.
- A DAS (Distributed Antenna System), sometimes referred to as BDA, added to provide adequate range of public safety radio systems in the school. This system is LCPS standard for new construction.
- Upgrade intercom/telephone system (VoIP).
- Update/replace wireless tone and time system.
- Replace generator and ATS. Locate new generator in mechanical yard. Larger generator is required to bring school current to LCPS standard. Will require larger LPG tank.

FACILITY ASSESSMENT STUDY SCORE SHEET				185				
ELEVATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>52</b>	
ADEQUATE PARKING					X		5	
PARKING LOTS- CONDITION					X		5	
SIDEWALKS - CONDITION				X			4	
ADEQUATE BUS QUEUING				X			4	
ADEQUATE PARENT DROP-OFF	BACKS UP ONTO ALGONKIAN PKWY.		X				3	
ATHLETIC PLAY AREAS					X		5	
LANDSCAPING					X		5	
MASONRY - CONDITION					X		5	
WINDOWS	INSUL. GLASS FOGGED IN MANY WINDOWS		X				3	
EXPOSED STEEL					X		5	
ROOFING				X			4	
OVERALL AESTHETICS				X			4	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>46</b>	
WALLS / WAINSCOTS	WALLS GOOD, NO WAINSCOT				X		4	
FLOORING					X		5	
CEILING				X			4	
DOORS & HARDWARE				X			4	
MARKER & TACK BOARDS	VERY FEW MARKER BOARDS		X				3	
CASEWORK	GOOD CONDITION BUT DATED			X			4	
EXTERIOR ACCESSIBILITY					X		5	
INTERIOR ACCESSIBILITY			X				3	
SPRINKLER SYSTEM	NONE	X					1	
EGRESS ADEQUACY					X		5	
ADMIN VISIBILITY / SECURITY ENTRANCE				X			4	
CLASSROOM ENVIRONMENT				X			4	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>37</b>	
PLAN ORGANIZATION					X		5	
PLAN CIRCULATION					X		5	
ADMIN SUITE / CLINIC				X			4	
CAFETERIA & KITCHEN				X			4	
GYM & ATHLETICS				X			4	
MEDIA CENTER				X			4	
RESTROOMS				X			4	
STAFF FACILITIES			X				3	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	KILN IN MECH. ROOM			X			4	

MECHANICAL & ELECTRICAL SYSTEMS								50
CHILLERS	AIR COOLED, ON GROUND IN EQUIP. COURTYD.			X				3
COOLING TOWER	N/A	X						1
AIR HANDLING EQUIPMENT / RTU'S	MIX OF ORIGINAL & REPLACED UNITS			X				3
HEATING BOILERS / FUEL TANK	2002			X				3
PUMPS				X				3
UNIT / CABINET HEATERS / FANS				X				3
ATC / EMS	PNEUMATIC CONTROLS	X						1
DOMESTIC WATER HEATERS	2002, NEW STORAGE TANK				X			4
MAIN SERVICE - ELECTRIC	SQ. D, 6,000A, 750 KVA TRS.					X		5
GENERATOR	INDOOR LP GAS GEN. W/ 100A MANUAL TRANSFER SWITCH		X					2
PANELS / BREAKERS						X		5
INTERIOR LIGHTING	T8				X			4
INTERIOR POWER						X		5
EMERGENCY LIGHTING			X					2
SITE LIGHTING			X					2
FIRE ALARM & SECURITY			X					2
DATA / TECH / SOUND			X					2
<b>TOTAL (out of 250 points)</b>								185

## ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Banneker Elementary School  
35231 Snake Hill Road  
Middleburg, VA 20117  
Loudoun County Public Schools

**Date:** August 20, 2015



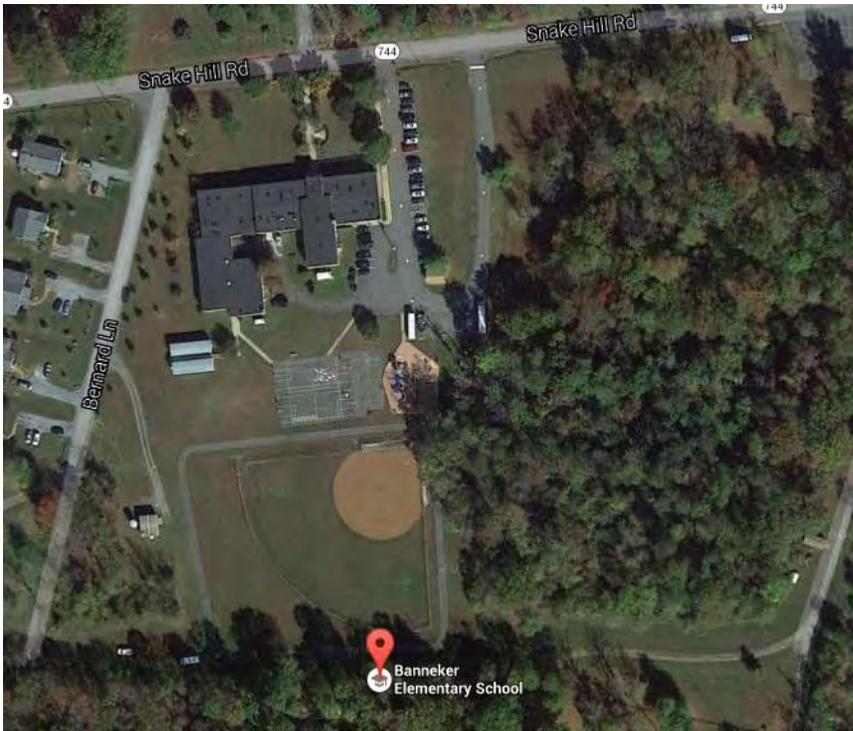
### **HISTORY:**

Nineteen acres of land in St. Louis was purchased in the early 1940's to build what is now Banneker Elementary School. The need for this school arose during many years of increasingly overcrowded conditions at the historically African American two-room schoolhouse in Middleburg and the one room school in St. Louis. Often the school in Middleburg had an enrollment of over 100, and the St. Louis school ranged from sixty to seventy-two.

On March 31, 1948, the children and faculty of the Middleburg, St. Louis, and Mountville schools, with an approximate enrollment of 185 students, entered Banneker Elementary School for the first time. The fireproof building consisted of six classrooms, a multi-purpose room, a clinic and a kitchen. Used desks and tables were supplied for the classrooms and the P.T.A., with the help of some benevolent friends, equipped the kitchen and the multi-purpose room.

Children from Bull Run School in Aldie were admitted to Banneker a few years after the school opened its doors. When the enrollment increased, the school board added three more classrooms, enlarged the kitchen, and converted a classroom to an office. In 1960, enrollment increased again when local elementary school, Willisville, was closed. Children were transported to Banneker and five additional classrooms were added to the school.

The 20,228 sf school's capacity is 260 students and current enrolment is 151.



**CONDITION OF SCHOOL:**

**Architecture**

The facility received an overall score of 79 out of a possible 250. The school's original structure is 71 years old and showing signs of its age. Structure masonry mortar deterioration and expansion joint rot are evident around the building. Windows in the building were replaced in the late 80's and two trailers are used as classrooms on site.

Below are additional findings and noteworthy areas in the school:

**Chalkboards converted to marker boards**



**Classrooms need storage**



**Original classroom casework**



**Makeshift classroom shelving at windows**



**Kitchen office**



**Multi-purpose room hosts gym, cafeteria, stage, PE and janitorial offices**



**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Media center checkout counter
  - Front entry
  - Stage
  - Hardware
  - Drinking fountains
  - Exit doors
- Needed to meet LCPS facility standards:
  - Book storage
  - Dedicated toilet rooms: special ed, 1<sup>st</sup> grade, 2<sup>nd</sup> grade
  - Security vestibule
  - Dedicated gym space with storage and PE office
  - Dedicated music space
  - Dedicated art space
  - Kiln relocated to art storage
  - Kitchen office, lockers, walk-in freezer/cooler and quarry tile floors
  - Janitor's office
- Additional recommendations:
  - Ability for administrative office to have clear visibility for security purposes
  - Office accessibility from corridor
  - Resource room accessibility from corridor

FACILITY ASSESSMENT STUDY SCORE SHEET				79				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>34</b>	
ADEQUATE PARKING			X				3	
PARKING LOTS - CONDITION			X				3	
SIDEWALKS - CONDITION		X					2	
ADEQUATE BUS QUEUING				X			4	
ADEQUATE PARENT DROP-OFF				X			4	
ATHLETIC PLAY AREAS				X			4	
LANDSCAPING	VARIED TEXTURES AND SPECIES - WELL KEPT			X			4	
MASONRY - CONDITION	MISSING MORTAR	X					2	
WINDOWS	1987 ALUMINUM DOUBLE GLAZED			X			4	
EXPOSED STEEL	RUSTED AND PAINT PEELING	X					1	
ROOFING			X				2	
OVERALL AESTHETICS	1940'S - VERY DATED	X					1	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>13</b>	
WALLS / WAINSCOTS	CMU AND GLAZED CMU WAINSCOT	X					1	
FLOORING	VCT, CARPET AND WOOD	X					1	
CEILING	OLD AND DISCOLORED ACT AND GRID	X					1	
DOORS & HARDWARE	ORIGINAL WOOD DOORS AND HARDWARE	X					1	
MARKER & TACK BOARDS	CHALKBOARDS CONVERTED TO MARKER BOARDS	X					1	
CASEWORK	ORIGINAL WOOD CASEWORK	X					1	
EXTERIOR ACCESSIBILITY	SIDE DOOR ADA ACCESS	X					1	
INTERIOR ACCESSIBILITY	1987 GROUP TOILETS RENOVATED, INTERIOR RAMP	X					1	
SPRINKLER SYSTEM	NONE	X					1	
EGRESS ADEQUACY	SEVERAL DOORS W/O RAMPS		X				2	
ADMIN VISIBILITY / SECURITY ENTRANCE	NO CORRIDOR VISIBILITY FROM OFFICE	X					1	
CLASSROOM ENVIRONMENT	NO GENERAL STORAGE FOR BOOKS. ALL ITEMS ARE STACKED HIGH IN CLASSROOMS - 2 CLASSROOM TRAILERS ON SITE	X					1	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>11</b>	
PLAN ORGANIZATION	POOR ACCESS TO MULTIPLE SPACES WHERE YOU HAVE TO GO THRU ONE SPACE TO GET TO ANOTHER VS. DIRECT ACCESS FROM CORRIDOR	X					1	
PLAN CIRCULATION	L - SHAPED		X				2	
ADMIN SUITE /CLINIC	NO CONFERENCE AREA	X					1	
CAFETERIA/STAGE & KITCHEN	OLD EQUIPMENT, EXTERIOR FREEZER	X					1	
GYM & ATHLETICS	SAME SPACE AS CAFETERIA	X					1	
MEDIA CENTER	NO LARGER THAN A CLASSROOM W/ OLD CASEWORK. OFFICE SEPARATION DOES NOT GO TO CEILING	X					1	
RESTROOMS	ALL TOILET ROOMS ARE NON ADA COMPLIANT AND ONLY ONE EWC AT ADULT HEIGHT		X				2	
STAFF FACILITIES	LIMITED - NO WORK SURFACE OR LOUNGE	X					1	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	COMPUTER LAB SHARES SPACE W/ RESOURCE RM	X					1	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>21</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	WINDOW AC'S; AHU REPLACED 1989 (USEFUL LIFE 20 YRS.)	X					1
HEATING BOILERS / FUEL TANK	(2) STEAM BOILERS PRE-1958	X					1
PUMPS	FO PUMP, CONDENSATE PUMP ORIGINAL	X					1
UNIT / CABINET HEATERS / FANS	ORIGINAL (1958), SOME REPLACEMENTS	X					1
ATC / EMS	ORIGINAL, MIX OF MANUFACTURERS	X					1
DOMESTIC WATER HEATERS	WATER HEATER REPLACED 2011 (USEFUL LIFE 15 YRS.)			X			3
MAIN SERVICE - ELECTRIC		X					1
GENERATOR		X					1
PANELS / BREAKERS		X					1
INTERIOR LIGHTING		X					1
INTERIOR POWER		X					1
EMERGENCY LIGHTING		X					1
SITE LIGHTING		X					1
FIRE ALARM & SECURITY			X				2
DATA / TECH / SOUND			X				2
<b>TOTAL (out of 250 points)</b>						<b>79</b>	

## ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Catoctin Elementary School  
311 Catoctin Circle, SW  
Leesburg, VA 20175  
Loudoun County Public Schools

**Date:** August 10, 2015



### **HISTORY:**

Catoctin Elementary School was built in 1966 for approximately one million dollars and was the first school using a circular design to be constructed in Loudoun County. The school was named after the beautiful Catoctin mountain range rising west of the town of Leesburg.

The initial construction contained two circular classroom pods of ten classrooms each, a library, an administrative area, clinic, teachers' lounge, kitchen, and multi-purpose room to serve as a cafeteria and an auditorium. The building was designed to accommodate 600 students in first through seventh grades; however, when the school opened in 1972, the school began serving students in kindergarten through fifth grades.

With the increased enrollment and the introduction of the kindergarten program, a bond referendum enabled the county to build an addition to Catoctin Elementary, which opened during the 1974-75 school year. This new addition contained four kindergarten classrooms and ten regular classrooms at a reported cost of \$600,000. Subsequently there have been two other additions to the school, one for the Media Center in 1982 and one for the Gym in 1998.

The 72,696 sf school's capacity is 657 students and current enrollment is 520.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 109 out of a possible 250. In most classrooms, chalkboards need to be converted to marker boards. All windows in the school are original, single pane glass except for the media center. Terrazzo flooring throughout corridors is cracked. Inadequate construction joints on the exterior of the gym addition have caused significant cracking. Additionally, the EPDM roof has drainage issues and the roof ladder does not have a safety pole.

Below are details of the above noted findings:

**Gym addition brick cracking**



**Gym addition brick cracking**



Window and panel aged and poorly insulated



Cracking terrazzo floor



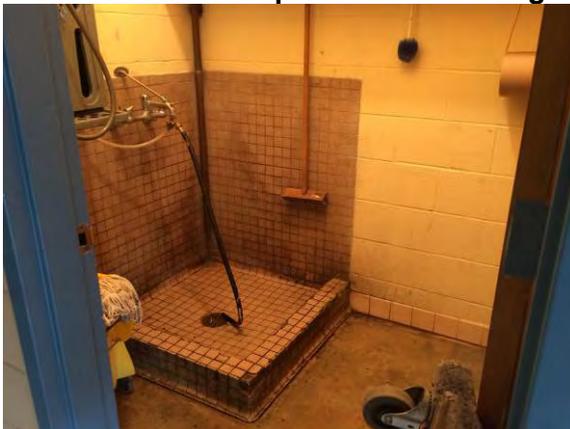
Chalkboards not converted to marker boards



Non-acoustic partition



Janitor closet mop sink deteriorating



Significant heat gain in corridors to pods 1 & 2



**Civil**

The site is generally in good to very good condition. New asphalt pavement overlay being applied to the parking lots during the survey. The bus loop is in fair to average condition. Curbs and sidewalks appear to be mostly original and are in fair to good condition. Landscaping is above average with significant plantings at the entrance and a butterfly garden near the entrance to the western parking lot. Athletic/play areas are ample and in good condition. Additionally, the multi-purpose courts recently received a seal coat.

Below are details of the above noted findings:

**Front entry landscaping**



**Bus loop**



**Parking lot repairs**



**Multi-purpose field with track**



**Softball field / multi-purpose courts**



**Playground / multi-purpose courts**



**Structural**

The structure is a combination of steel framed and masonry bearing walls, while the pods are solely steel framed. The interior bearing walls are in good condition. Roof drainage is of concern and needs further investigation.

Below are details of the above noted findings:

**Cracking terrazzo floor**



**Multi-purpose room eaves rusting and paint chipping**



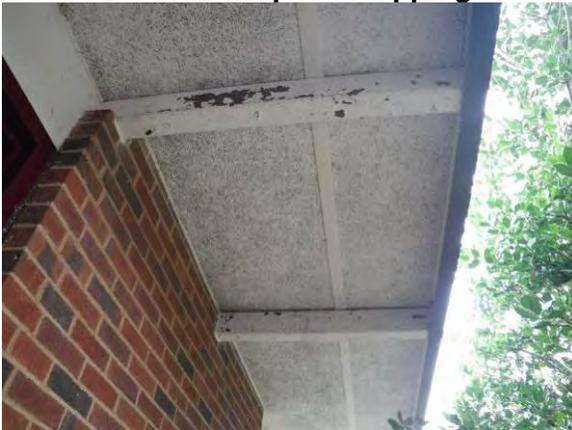
**Roof dunnage  
rusted and paint chipping**



**Inadequate roof drainage**



**Main front building eaves  
rusted and paint chipping**



**Front canopy deck  
rusted and deteriorating**



**Classroom pod eaves  
rusted and paint chipping**



**Sprinkler/Plumbing**

The electric water heaters appear to be in fair condition. Flush valves are predominantly manual and automatic type. Faucets are predominantly manual type.

**Mechanical**

Original round classroom pods are served by split system unit ventilators for cooling, electric convectors for heat and packaged rooftop air conditioning units for outside air. The multipurpose room is served by split system air conditioning units. The remainder of the building is served by packaged rooftop air conditioning units. It appears that the majority of the building utilizes electric heat.

The age of the equipment ranges from a few years to approximately 25 years. As to be expected, the condition of the equipment ranges as widely as the age. The temperature control system is pneumatic.

**Electrical**

Main Electrical Service – The main electrical service consist of a 480V-3Ø power company pad mounted transformer and an replacement Siemens, 480V-3Ø-1200 switchboard with a main breaker. The distribution section has spare and space only breaker positions.

Generator – The building does have a natural gas generator. Generator provides power for emergency lighting, the fire alarm panel system and other equipment. The generator is rated at 480V-3Ø-46KW. The generator system has two ATS devices for life safety equipment and non safety equipment

Panelboards and Breakers – The panelboards and breakers in the building consist of Siemens and Eaton Cutler-Hammer equipment. The Siemens equipment replaced the original equipment during an electrical upgrade. The Cutler-Hammer equipment was added in during the computer power and data upgrades. Siemens and Cutler Hammer do have spares and space for addition breakers. Shock hazard information is not affixed to electrical equipment.

Interior Lighting – Interior lighting consist T8 fluorescent and CFLs some limited incandescent lights for the stages. Light is adequate. Some fixtures are not working. Some lenses are damaged and stained.

Interior Power – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power. The TVSS or SPD devices are located for the computer power panelboards. Siemens and Cutler Hammer equipment as noted above does have capacity for additional circuits (spares and add-ons). The building has lots of exposed electrical conduits within the building in corridors and teaching spaces.

Emergency Lighting – The gas generator provide power for emergency lighting. Some lights fixtures used for emergency lighting were not working. In general, emergency lighting is adequate. The building does have a couple of battery lights.

Site Lighting – Building mounted metal halide, LED and fluorescent lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide round cylinder downlights. Lighting levels in the parking lots would appear to be adequate except in the front driving loop.

Fire Alarm & Security – The building has a Notifier (non-voice) Fire Alarm System with room to expand. The building has AiPhones, Radionics Intrusion, Y-Q wireless access control, coaxial and

IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland TC. Nortel phone system is in the MDF room. The clock system is controlled by the American Time clock controller. Classrooms have overhead projectors, smart boards and AV input panels. The stage is equipped with an older sound system and simple incandescent dimming controls with dimmable lights.

### **AREAS TO BENEFIT BY RENOVATION:**

#### **Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks except Pod 1 and Pod 2
  - Gym addition restrooms – missing 18” vertical grab bars
  - Stages
  - Signage
  - Egress at grade
- Needed to meet LCPS facility standards:
  - Designated PE office and storage
  - Book storage

#### **Civil**

- Parking, bus queuing and parent drop-off – further investigation required as principal was unavailable to speak while surveying
- Bus loop – seal coat or overlay

#### **Structural**

- Roof dunnage steel – clean and paint
- Roof drainage – too few drains; further investigation needed
- Canopy roof deck – replacement needed
- Exposed steel at eaves – clean and paint

#### **Sprinkler/Plumbing**

- Sprinkler coverage – only found in the most recent gym addition

#### **Mechanical**

- Much of the mechanical equipment utilizes R-22 refrigerant.
- The major mechanical units that have not recently been replaced are at or near the end of their useful service life.
- Pneumatic controls are outdated and lack the capability to efficiently control the systems.
- Physical building constraints (such as structure height) limit the types and/or costs of systems available for this facility.
- Electric heat is generally more expensive than natural gas.

#### **Electrical**

- Light fixtures that are not working should be fixed.
- Light fixtures with cracked or stained lenses should be replaced.
- Additional pole lighting may be required in the loop parking or front drop off area.
- Upgrade lighting systems and power.
- Spare parts for the Rauland TC do not exist.

FACILITY ASSESSMENT STUDY SCORE SHEET						109					
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE				
		1	2	3	4	5					
<b>SITE &amp; EXTERIOR ENVELOPE</b>											<b>33</b>
ADEQUATE PARKING				X							3
PARKING LOTS - CONDITION	PARKING LOTS WERE RECEIVING MILL, OVERLAY AND SEAL COAT				X						4
SIDEWALKS - CONDITION				X							3
ADEQUATE BUS QUEUING	SMALL LOOP - ADEQUACY IS DEPENDENT ON THE NUMBER OF BUSES			X							3
ADEQUATE PARENT DROP-OFF	NOT MUCH STACKING BUT CIRCULATION APPEARS ACCEPTABLE			X							3
ATHLETIC PLAY AREAS	SOCCER FIELD WITH TRACK AND SOFTBALL - GOOD CONDITION					X					4
LANDSCAPING	NICE LANDSCAPING AT ENTRANCE. NICE CANOPY TREES AROUND SITE					X					4
MASONRY - CONDITION				X							3
WINDOWS	ORIGINAL SINGLE GLAZED EXCEPT FOR THE MEDIA CENTER AND GYM	X									1
EXPOSED STEEL	EAVES RUSTING AND PAINT PEELING, ENTRY CANOPY TO BUS LOOP - MULTIPLE AREAS OF RUST IN DECK		X								2
ROOFING	SIGNIFICANT SIGNS OF PONDING - DRAIN LAYOUT IS INEFFECTIVE, ALL ROOFS ARE EPDM AND GYM HAS STONE BALLAST, ROOF LADDER DOES NOT HAVE SAFETY BAR			X							2
OVERALL AESTHETICS		X									1
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>											<b>20</b>
WALLS / WAINSCOTS	PAINTED CMU W/ CT TILE BASE AND SOME AREAS GLAZED CMU			X							3
FLOORING	CRACKS IN FLOOR THROUGHOUT- NO SIGNS OF SETTLEMENT BUT CRACKS LIKELY IN SOG AS WELL	X									1
CEILING	TECTUM AND ACT GRID		X								2
DOORS & HARDWARE		X									1
MARKER & TACK BOARDS	SOME CHALKBOARDS STILL REMAIN		X								2
CASEWORK	UPDATED IN POD 1 AND 2		X								2
EXTERIOR ACCESSIBILITY			X								2
INTERIOR ACCESSIBILITY	POD STAGES NOT ADA COMPLIANT	X									1
SPRINKLER SYSTEM	NONE	X									1
EGRESS ADEQUACY			X								2
ADMIN VISIBILITY / SECURITY ENTRANCE	NO CORRIDOR VISIBILITY FROM OFFICE	X									1
CLASSROOM ENVIRONMENT			X								2

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>15</b>	
PLAN ORGANIZATION	DISJOINTED AND ISOLATED PODS	X					1
PLAN CIRCULATION	LONG CORRIDORS TO PODS ARE MAGNETS FOR SOLAR HEAT GAIN	X					1
ADMIN SUITE /CLINIC	VERY COMPARTMENTALIZED	X					1
CAFETERIA/STAGE & KITCHEN	EQUIPMENT IS WORN, EXTERIOR FREEZER		X				2
GYM & ATHLETICS	1998 ADDITION - GOOD CONDITION				X		4
MEDIA CENTER	NEW CASEWORK			X			3
RESTROOMS	MAIN BUILDING, POD 1 AND 2 NON ADA COMPLIANT / POD 3 AND GYM MISSING 18" VERT GRAB BARS	X					1
STAFF FACILITIES		X					1
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)		X					1
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>41</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP AND SPLIT SYSTEM UNIT VENTILATORS		X				2
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	N/A	X					1
UNIT / CABINET HEATERS / FANS		X					1
ATC / EMS	PNEUMATICS	X					1
DOMESTIC WATER HEATERS	ELECTRIC			X			3
MAIN SERVICE - ELECTRIC	UPGRADED WITH SPARE 480V-3P-1200AMP				X		4
GENERATOR	NATURAL GAS, 480V-3P-46KW			X			3
PANELS / BREAKERS	NEW DUE TO UPGRADE WITH SPARES AND SPACES				X		4
INTERIOR LIGHTING	OLDER FLOURESCENT WITH PLASTIC LENSES, 32W T8 LAMPS. SEVERAL LENSES ARE DAMAGED			X			3
INTERIOR POWER	POWER UPGRADES IN GOOD SHAPE				X		4
EMERGENCY LIGHTING	LIGHTS ON GENERATOR AND BATTERY LIGHTS			X			3
SITE LIGHTING	MH / LED/ FLOURESCENT - COULD USE A LITTLE MORE IN FRONT DRIVING AREA			X			3
FIRE ALARM & SECURITY	NOTIFIER WITH SPARE CAPACITY / BOSCH RADIONICS / Y-Q			X			3
DATA / TECH / SOUND	DATA / INTERCOM / SMART BOARDS / COULD NOT FIND STAGE SOUND / CANNOT GET SPARE PARTS FOR INTERCOM. EQUIPMENT APPEARS TO FUNCTION WELL				X		3
<b>TOTAL (out of 250 points)</b>						<b>109</b>	



**ARCHITECT'S  
FACILITY ASSESSMENT REPORT**

**Project:** Cool Spring Elementary School  
501 Tavistock Drive SE  
Leesburg, VA 20175  
Loudoun County Public Schools

**Date:** October 23, 2015



**HISTORY:**

Cool Spring Elementary School opened in 1987.

The 66,743 sf school's capacity is 750 students and current enrollment is 611.



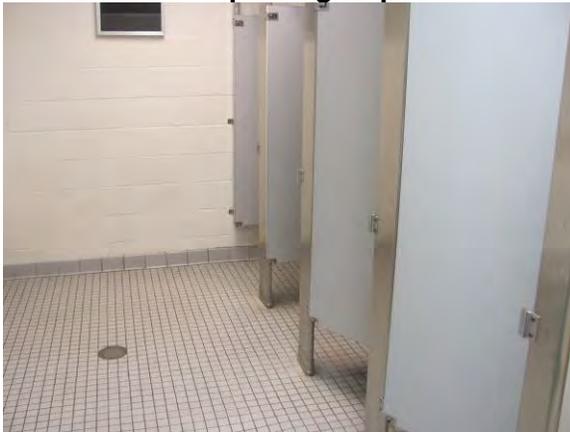
**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 187 out of a possible 250. Overall, the floor plan is effective incorporating a circulation loop as well as two educational courtyards. All casework is original and in good condition. Chalkboards have been converted with marker board overlays in all classrooms. The roof is original and is in good condition. Gymnasium is in good condition but lacks retractable bleachers and a scoreboard. The building does not include a full sprinkler system. Additionally, the 1<sup>st</sup> grade, 2<sup>nd</sup> grade and special education classrooms lack dedicated toilets. The building also lacks a security vestibule.

Below are details of the above noted findings:

**Non-ADA compliant group restrooms**



**Group restrooms lack urinal screens**



**ADA compliant lavatories are located in corridors adjacent to group restrooms**



**Gym lacks bleachers and scoreboard**



**Kitchen lacks locker / laundry room**



**Ramp from serving line to kitchen lacks painted safety color**



**Civil**

Overall, the site is in good condition. Pavements are in fair condition and exhibit cracking due to age. Sidewalks are in good condition, and parking is adequate. Some curb locations have peeling paint but the curbs and gutters exhibit no deterioration. Site lighting is adequate.

Below are details of the above noted site findings:

**Peeling curb paint**



**Structural**

Building structure is in very good condition, with no structural issues observed.

**Sprinkler/Plumbing**

The building is provided with a limited area sprinkler system. The water heater and storage tank are Lochinvar. The water heater was replaced in 2003, and the storage tank was recently replaced. Flush valves are predominantly manual type. Faucets are predominantly manual and metering type.

**Mechanical**

The building HVAC is served by a Trane Series R air-cooled chiller located in the mechanical courtyard with associated pumps, Lochinvar Copper Fin II gas-fired boilers with associated pumps, chilled water rooftop air conditioning units, and two-pipe air terminals with hot water coils.

The chiller was replaced in 2008. The heating boiler was replaced in 2003. The majority of air handling equipment appears to be original, though some units have been replaced over time, and the equipment appears to be in fair condition. The original automatic temperature controls were replaced in 2009 with Trane Tracer Summit BCU. The building does not have a cooling tower.

### **Electrical**

**Main Electrical Service** – The main electrical service consist of a 480V-3Ø 1000 kVA NOVEC power company transformer and a Square-D 480V-3Ø-2000A switchboard.

**Generator** – The building has 30A LPN gas generator with a 70A automatic transfer switch. The generator is located in the mechanical room and the LPG (Liquid Petroleum Gas) tank is located above ground in the mechanical yard.

**Panelboards and Breakers** – The panelboards and breakers in the building consist of Square-D equipment. The Square-D equipment is original. Additional panelboards were installed for classroom computer use.

**Interior Lighting** – Interior lighting consists of fluorescent Prismatic Troffer light fixtures with T8 lamps. Overall the lighting in the school is in good condition.

**Interior Power** – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building as well as devices that have been added via surface raceway during renovations. Power distribution appears adequate in most cases.

**Emergency Lighting** – Power for emergency lighting is achieved via wall mounted battery pack fixtures and an original white light circuit tapped ahead of the original main gear disconnect.

**Site Lighting** – Building mounted lights consist of HID type. They generally provide adequate lighting coverage at doorways and egress pathways around the building.

**Fire Alarm & Security** – The building has a Notifier Fire Warden 100 Fire Alarm System. The building has Aiphone, Intrusion Detection, Stanley Wi-Q wireless access control, and coaxial CCTV cameras. The CCTV cameras provide coverage throughout the building interior. Exterior CCTV cameras are located on building corners and provide limited viewing of the parking, bus/parent drop, and playground areas.

**Data / Tech / Sound** – Building has cabled and wireless Ethernet throughout the building. The intercom system is outdated. The building has Verizon service for telephone and internet and the phone system is Nortel Legacy. The clock system is outdated. Classrooms have interactive white boards and A/V input panels.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Stage
- Needed to meet LCPS facility standards:
  - Dedicated toilet rooms in 1<sup>st</sup>, 2<sup>nd</sup> and special ed classrooms
  - Security vestibule
  - Kiln relocation adjacent to art room
  - Gym bleachers
  - Kitchen locker area

**Civil**

- Mill and overlay pavement

**Structural**

- No concerns.

**Sprinkler/Plumbing**

- The building is not provided with full sprinkler coverage.

**Mechanical**

- Packaged rooftop equipment utilizes R-22 refrigerant.
- Original packaged rooftop equipment is at or near the end of their useful service life

**Electrical**

- Existing emergency egress lighting should be addressed to provide adequate coverage, including egress lighting at exit doors.
- Upgrade lighting systems and power.
- A DAS (Distributed Antenna System), sometimes referred to as BDA, added to provide adequate range of public safety radio systems in the school. This system is LCPS standard for new construction.
- Upgrade intercom/telephone system (VoIP).
- Update/replace wireless tone and time system.
- Replace generator and ATS. Locate new generator in mechanical yard. Larger generator is required to bring school current to LCPS standard. Will require larger LPG tank.

FACILITY ASSESSMENT STUDY SCORE SHEET							187
ELEVATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>							51
ADEQUATE PARKING					X		5
PARKING LOTS- CONDITION				X			4
SIDEWALKS - CONDITION				X			4
ADEQUATE BUS QUEUING				X			4
ADEQUATE PARENT DROP-OFF				X			4
ATHLETIC PLAY AREAS				X			4
LANDSCAPING				X			4
MASONRY - CONDITION					X		5
WINDOWS				X			4
EXPOSED STEEL					X		5
ROOFING				X			4
OVERALL AESTHETICS				X			4
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							47
WALLS / WAINSCOTS				X			4
FLOORING					X		5
CEILING					X		5
DOORS & HARDWARE				X			4
MARKER & TACK BOARDS	MARKER BDS. RETROFITTED OVER CHALK BDS.			X			4
CASEWORK				X			4
EXTERIOR ACCESSIBILITY				X			4
INTERIOR ACCESSIBILITY			X				3
SPRINKLER SYSTEM		X					1
EGRESS ADEQUACY					X		5
ADMIN VISIBILITY / SECURITY ENTRANCE				X			4
CLASSROOM ENVIRONMENT				X			4
<b>PLAN &amp; PROGRAM ADEQUACY</b>							37
PLAN ORGANIZATION					X		5
PLAN CIRCULATION					X		5
ADMIN SUITE / CLINIC				X			4
CAFETERIA & KITCHEN				X			4
GYM & ATHLETICS	GYM; NO SCOREBOARD, NO BLEACHERS			X			4
MEDIA CENTER					X		5
RESTROOMS			X				3
STAFF FACILITIES			X				3
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)				X			4

MECHANICAL & ELECTRICAL SYSTEMS								52
CHILLERS	AIR COOLED, ON GROUND IN EQUIP. COURTYD.					X		4
COOLING TOWER	N/A	X						1
AIR HANDLING EQUIPMENT / RTU'S				X				3
HEATING BOILERS / FUEL TANK	2000			X				3
PUMPS			X					2
UNIT / CABINET HEATERS / FANS				X				3
ATC / EMS	TRANE TRACER SUMMIT					X		5
DOMESTIC WATER HEATERS				X				3
MAIN SERVICE - ELECTRIC						X		5
GENERATOR			X					2
PANELS / BREAKERS						X		5
INTERIOR LIGHTING				X				3
INTERIOR POWER						X		5
EMERGENCY LIGHTING			X					2
SITE LIGHTING			X					2
FIRE ALARM & SECURITY			X					2
DATA / TECH / SOUND			X					2
<b>TOTAL (out of 250 points)</b>								<b>187</b>

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Emerick Elementary School  
440 South Nursery Avenue  
Purcellville, VA 20132  
Loudoun County Public Schools

**Date:** August 11, 2015



**HISTORY:**

In 1967 Emerick Elementary School was built across the street from what was then the Purcellville Grade School. When construction was complete, the teachers and students carried their books, desks and chairs from the Grade School across the street to the new Emerick Elementary School. The original Purcellville Grade School building currently serves as the Loudoun Valley Community Center. In 1972, five years after Emerick's original construction, the building was expanded.

The 55,200 sf. school's capacity is 575 students and current enrollment is 525.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 120 out of a possible 250. Restroom sinks and classroom entry doors are non-ADA compliant and chalkboards need to be converted to marker boards.

Below are details of the above noted findings:

**Panels cover functioning windows in classroom**



**Non-ADA compliant classroom entry doors in 1972 addition**



**Non-ADA compliant restroom sinks**



**Chalkboards not converted to marker boards**



**Civil**

The site is generally in good condition. The parking lot was recently re-sealed and is in good condition. Curbs and sidewalks are in average condition, with minor cracking. Mature trees surround the site, but landscaping on the property was very sparse. Emerick has less athletic play areas than other sites visited. The site does not have a softball field, but does have a small soccer field and a track.

Below are details of the above noted findings:

**Bus loop / front entry**



**Bus loop / parking lot**



**Bus loop**



**Multi-purpose field / track**



**Multi-purpose court adjacent to parking lot**



**Multi-purpose court behind building**



**Structural**

The interior bearing walls are in good condition. There is cracking in the floors throughout the building, however, there is no apparent differential settlement, nor they do not appear to have changed in years.

Exterior walls and lintels appeared to be in good condition as well, with only a few needing touch up paint. Steel framed canopy structures in the kindergarten rooms also appeared to be in good condition. Above the front entry there appears to be a long span condition. Additionally, there is a large crack at what appears to be a bearing condition in the multipurpose room. The condition of the roof framing was not visible, thus the condition could not be determined.

**Cracking floor tile**



**Abandoned concrete pads on roof**



**Entry brick cracking****Sprinkler/Plumbing**

The electric water heaters appear to be in fair to good condition. Flush valves are predominantly manual type and faucets are predominantly metering and manual type.

**Mechanical**

The heating system consists of two oil-fired, steel, fire tube hot water boilers and associated pumps. Systems serving the classrooms consist of packaged rooftop air conditioning units utilizing a combination of VAV boxes with hot water coils and/or hot water finned tube radiation on perimeter walls. The multipurpose room is served by a split system air handler with hot water heating coil. The age of the rooftop equipment varies from a few years to approximately 20 years. Six of the rooftop units are approximately 3-5 years old and appear to be in good condition. The remaining five units are approximately 18-20 years old and appear to be in poor condition.

The temperature controls system appears to be a culmination of Trane DDC, Siebe/Barber Coleman DDC, and pneumatics.

**Electrical**

Main Electrical Service – The main electrical service consist of a 208V-3Ø power company transformer and a Square-D NEMA-3R, 208V-3Ø-3000 Amp main breaker, outdoor mounted switchboard. The distribution section has spare capacity and space only breaker positions available per the drawings.

Generator – The building does not have a generator. Power for emergency lighting is achieved through a feed circuit breaker in the main switchboard and through equipment batteries and battery ballasts.

Panelboards and Breakers – The panelboards and breakers in the building consist of older and newer Square D equipment. The older Square D equipment is original and newer Square D equipment was added in during the power and data upgrades and additions. There is capacity to add breakers in all of the Square D equipment. Shock hazard information is affixed to electrical equipment.

Interior Lighting – Interior lighting consist T8 fluorescent, CFL, metal halide and some limited incandescent. Lighting is adequate; however several fixtures are not working. Broken lenses were noted in a couple of light fixtures when on site.

Interior Power – The school interior power is broken up into the following sections: Mechanical, Lighting, General / Mechanical receptacle power and computer power. TVSS or SPD devices are used on computer power panelboards. The old and new equipment as noted above does have capacity for additional circuits (spares and add-ons).

Emergency Lighting – Power for emergency lighting is achieved through feed equipment batteries, battery packs and battery ballast. In general, emergency lighting is adequate.

Site Lighting – Current incandescent lights mounted on the building as well as a few metal halide wall lights will provide satisfactory lighting at doorways and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide shoe boxes and should also be adequate with quantity and distribution of pole mounted lights.

Fire Alarm & Security – The building has a Notifier (non-voice) Fire Alarm System with a little room to expand. The building has iPhones, Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building. Data / Tech / Sound – The building is well equipped with cabled and wireless Ethernet, a Bogen Quantum intercom system, Nortel phone systems in the MDF room, and a Simplex clock system. Classrooms have smart boards and AV input panels. The building's stage is equipped with a PA sound system and dimmable lights.

**AREAS TO BENEFIT BY RENOVATION:****Architecture**

- Needed to meet ADA requirements:
  - Restrooms and toilet rooms
  - Casework with integral sinks except Pod 1 and Pod 2
  - Administration front counter
  - Gym addition restrooms – missing 18” vertical grab bars
  - Ramp or lift for stage
  - Signage
  - Egress at grade
- Needed to meet LCPS facility standards:
  - Book storage
  - Toilet rooms in 1<sup>st</sup> grade and 2nd grade classrooms
  - Dedicated storage for art and music
  - PE office
  - Clinic sink

**Civil**

- Parking – additional parking would accommodate overnight bus parking and prevent teachers from parking across the street at Community Center site
- Athletic play areas

**Structural**

- The crack at the multipurpose room beam bearing is a concern that requires additional investigation. This significant crack may be indicative of distress in the facade. One hypothesis is that the façade is tied “tight” to the roof structure and the differential thermal movement between the two is causing the crack. The framing above the bearing condition could not be investigated, but nothing appeared to be sagging.

**Sprinkler/Plumbing**

- Sprinkler coverage is only in the 1997 addition at the south end of the building; no apparent sprinkler coverage in the rest of the structure

**Mechanical**

- The older equipment utilizes R-22 refrigerant.
- The older rooftop units have reached or are quickly approaching the end of their useful service life.

**Electrical**

- Installation of a generator; currently the building does not have one.
- Broken light fixtures to be replaced/repared.
- Upgrade lighting systems and power.
- Improvement to outdoor switch board work area. Currently the switch board cannot be worked on in wet weather due to lack of enclosure.

FACILITY ASSESSMENT STUDY SCORE SHEET			120				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>						<b>33</b>	
ADEQUATE PARKING	PARKING IS INADEQUATE FOR FACULTY/STAFF. PRINCIPAL NOTED THAT TEACHERS PARK AT THE COMMUNITY CENTER ACROSS THE STREET	X					1
PARKING LOTS - CONDITION	RECENTLY RECEIVED A SEAL COAT			X			4
SIDEWALKS - CONDITION			X				3
ADEQUATE BUS QUEUING	ONLY 5 BUSES AND A SPECIAL EDUCATION BUS			X			4
ADEQUATE PARENT DROP-OFF	PRINCIPAL NOTED CARS DO NOT BACK UP ONTO PUBLIC STREET IN FRONT OF SCHOOL			X			3
ATHLETIC PLAY AREAS	NO SOFTBALL FIELD, SMALL SOCCER FIELD & SMALL TRACK	X					2
LANDSCAPING	MINIMAL LANDSCAPING ON SITE	X					2
MASONRY - CONDITION				X			4
WINDOWS	ORIGINAL SINGLE GLAZED	X					2
EXPOSED STEEL	LINTELS - RUSTED AND PAINT PEELING			X			3
ROOFING				X			3
OVERALL AESTHETICS		X					2
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>						<b>29</b>	
WALLS / WAINSCOTS	GLAZED BLOCK WAINSCOT			X			3
FLOORING				X			3
CEILING				X			3
DOORS & HARDWARE		X					2
MARKER & TACK BOARDS	SOME CHALKBOARDS NOT CONVERTED TO MARKER BOARDS	X					2
CASEWORK	OLD AND WORN	X					2
EXTERIOR ACCESSIBILITY				X			3
INTERIOR ACCESSIBILITY	1972 ADDITION CLASSROOM ENTRY - NON ADA COMPLIANT			X			3
SPRINKLER SYSTEM	ONLY IN 1997 ADDITION	X					2
EGRESS ADEQUACY				X			3
ADMIN VISIBILITY / SECURITY ENTRANCE		X					1
CLASSROOM ENVIRONMENT	1 TRAILER	X					2
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>24</b>	
PLAN ORGANIZATION				X			3
PLAN CIRCULATION	NO LOOP	X					2
ADMIN SUITE /CLINIC		X					2
CAFETERIA/STAGE & KITCHEN		X					2
GYM & ATHLETICS	NO OFFICE					X	5
MEDIA CENTER				X			4
RESTROOMS	NON ADA COMPLIANT	X					2
STAFF FACILITIES		X					2
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)		X					2

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>34</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP, VAV BOXES		X				2
HEATING BOILERS / FUEL TANK	OIL-FIRED FIRE TUBE, HOT WATER		X				2
PUMPS	BASE MOUNTED		X				2
UNIT / CABINET HEATERS / FANS		X					1
ATC / EMS	PNEUMATICS AND DIRECT DIGITAL FROM MULTIPLE MANUFACTURERS	X					1
DOMESTIC WATER HEATERS	ELECTRIC		X				2
MAIN SERVICE - ELECTRIC	OUTSIDE / 208V-3P-3000 AMP SWITCHBOARD		X				2
GENERATOR	NO GENERATOR	X					1
PANELS / BREAKERS	OLD AND NEW / POWER UPGRADES WITH SPACES			X			3
INTERIOR LIGHTING	FLUORESCENT T8, CFL AND MH			X			3
INTERIOR POWER	OLD AND NEW POWER UPGRADES WITH SPACES			X			3
EMERGENCY LIGHTING	BATTERIES, BATTERY BALLASTS WITH TAP AHEAD OF SERVICE		X				2
SITE LIGHTING	MH IN PARKING LOT AND INCANDESCENT ON BUILDING. GOOD COVERAGE.		X				2
FIRE ALARM & SECURITY	NOTIFIER FA, CCTV CAMERAS, Y-Q ACCESS CONTROL, INTRUSION			X			3
DATA / TECH / SOUND	NORTEL, A-PHONE, BATTERY CLOCKS, SIMPLEX CLOCK CONTROL, DUKANE INTERCOM, DATA UPGRADE			X			3
<b>TOTAL (out of 250 points)</b>						<b>120</b>	



# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Guilford Elementary School  
600 W. Poplar Road  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** August 4, 2015



## **HISTORY:**

Guilford Elementary was built in 1966 and serves children in kindergarten through fifth grades. The school is nestled in a well-maintained community and is the hub of social activities for its families.

Guilford was renovated in the fall of 1999, and was completed in the summer of 2000. New heating and cooling systems were installed as well as new windows, outside doors and ceiling tiles. A new gym, four classrooms and a set of bathrooms were also added during this renovation.

The 64,044 sf school's capacity is 500 students and current enrollment is 600.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 130 out of a possible 250. The original structure is 49 years old and the addition is 15 years old. In 2014 a new roof was installed and a fascia update was completed. Overall, the floor plan is effective and incorporates a circulation loop. There are two larger entrances to the school, but it is unclear which is to be used as the “main entry.” Original 1966 casework is showing wear and chalkboards in classrooms need to be converted to marker boards. Also, the kitchen needs a quarry tile floor to meet LCPS facility standards.

Below are details of the above noted findings:

**Aggregate staining and cracked sealant on façade**



**Worn classroom casework**



**Chalkboards not converted to marker boards**



**Worn classroom casework**



**Library casework**



**Kitchen VCT flooring**



**Civil**

Although additional parking has been recently added, overall, the site is in fair to poor condition. Pavements and sidewalks are in fair condition, but need to be updated for improved accessibility. Additionally, curbs and gutters are in poor condition with significant deterioration. While the athletic/play areas are in fair condition, there is opportunity to improve landscaping design. The site has two modular learning centers.

Below are additional findings and noteworthy areas of the site:

**Main entrance lacking ground cover**



**Poorly maintained landscaping**



**Curbs and gutters deteriorating and spalling**



**Poor drainage/stabilization causing erosion near modular learning center**



**Play area asphalt cracking**



**Non-ADA compliant sidewalks**



**Structural**

Interior bearing walls are in good condition, but exterior lintels need to be cleaned and painted. There are no control joints in the exterior corner masonry walls at the gymnasium and some hairline cracks are starting to appear.

Below are details of the above noted findings:

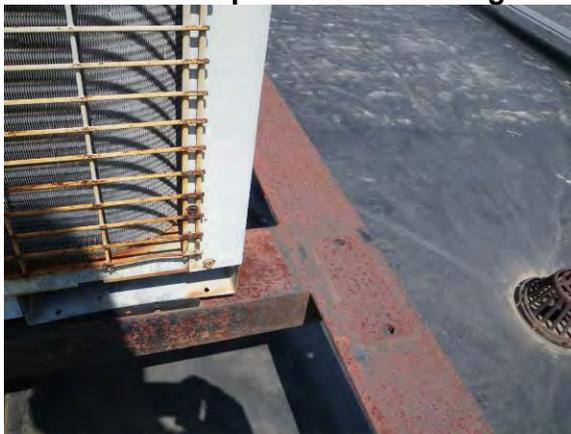
**Exposed steel**



**Old and worn vibration isolators**



**Corroded exposed steel dunnage**



**Kindergarten precast awnings**



### **Sprinkler/Plumbing**

The electric water heater appears to be new and in excellent condition. Flush valves are predominantly manual type and faucets are predominantly manual and metering type.

### **Mechanical**

The heating system consists of two gas-fired, fire tube hot water boilers and associated pumps. Central cooling equipment consists of a packaged, air-cooled chiller located on the roof with associated pumps. Four-pipe unit ventilators serve the classrooms and indoor air handlers with hot water heating and DX cooling (condensing units on the roof) serve the multipurpose room. All equipment appears to be approximately 15 years old and in fair condition.

### **Electrical**

Main Electrical Service – The main electrical service consists of 480V-3Ø-1,200A service gear fed from the power company pad mounted transformer. The distribution section has spare capacity and space only breaker positions. A 500kVA transformer transforms the voltage down to 120/208V and feeds the original main service gear and the cottages.

Generator – The building does not have a generator. Emergency lighting is provided by battery wall packs and a tap ahead of the main disconnect on the original main gear.

Guilford Elementary School  
August 4, 2015  
Page 5

Panelboards and Breakers – Panelboards and breakers throughout have been upgraded, added, and retrofitted for the most part. Some gear that is original to the building construction still remains and is antiquated.

Interior Lighting – Interior lighting consists of T8 fluorescent, CFL, and some limited incandescent. Light levels are adequate. However, several fixtures are not working. There is no automated lighting control present, such as occupancy sensors.

Interior Power – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building as well as devices that have been added via surface raceway during renovations. Power distribution appears adequate in most cases.

Emergency Lighting – Power for emergency lighting is achieved via wall mounted battery pack fixtures and an original white light circuit tapped ahead of the original main gear disconnect.

Site Lighting – Building mounted lights consist of HID type. They generally provide adequate lighting coverage at doorways and egress pathways around the building (though no longer code compliant). No parking lot lighting is present.

Fire Alarm & Security – The building has a Pyrotronics (non-voice) Fire Alarm System with little room to expand. The building has AiPhone, Silent Knight intrusion, Stanley Wi-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland Telecenter. Nortel phone system is in the MDF room. The clock system is antiquated American Time system. Classrooms have interactive white boards and A/V input panels. The stage is equipped with a new sound system and existing dimmable lights.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Stage
- Needed to meet LCPS facility standards:
  - Kiln relocation to art storage space
  - PE office
  - Music storage
- Additional recommendations:
  - Additional classroom space: two modular learning centers currently accommodate overage

**Civil**

- Parent drop off – very limited on-site queuing, causing backups on Sterling Blvd; administration's largest civil concern
- Pavements – show signs of failure and need repair
- Lighting – limited lighting in parking areas
- Sidewalks/curbs – original curbs deteriorating and lack appropriate accessibility provisions
- Athletic Facilities – limited playground equipment; large cracks in the asphalt multipurpose court; no track

**Structural**

- Exposed steel lintels and dunnage steel – cleaning and painting
- Cooling tower dunnage – cold galvanizing and painting
- Base isolators on cooling tower – replacement needed due to corrosion and malfunction

**Sprinkler/Plumbing**

- School does not have full sprinkler coverage; only in the gym and two classroom addition

**Mechanical**

- The chiller utilizes R-22 refrigerant.
- All mechanical systems are quickly approaching the end of their useful service life.
- It appears that untempered outside air is ducted directly to the unit ventilators. This can commonly cause humidity and indoor air quality issues.

**Electrical**

- The building does not have a generator.
- Existing gear is antiquated and should be replaced.
- Light fixtures that are not working should be fixed.
- Existing emergency egress lighting should be addressed to provide adequate coverage, including egress lighting at exit doors.
- Pole lights should be added to the parking lots to increase light levels at night.
- There is no automated lighting control.
- Upgrade lighting systems and power.
- Replacement parts for several of the low-voltage systems, such as fire alarm and intercom, are difficult to locate.

FACILITY ASSESSMENT STUDY SCORE SHEET				130				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>33</b>	
ADEQUATE PARKING	SEEMS ADEQUATE. RECENTLY ADDED +/- 11 SPACES		X				3	
PARKING LOTS - CONDITION	POOR/NO LIGHTING IN PARKING AREAS. SOME CURBS ARE IN BAD SHAPE AT FRONT BUS LOOP	X					2	
SIDEWALKS - CONDITION	MOSTLY ORIGINAL WALKS; FAIR AMOUNT OF CRACKING; NOT FULLY ADA COMPLIANT		X				2	
ADEQUATE BUS QUEUING	ONLY RUNNING +/- 5 BUSES			X			4	
ADEQUATE PARENT DROP-OFF	VERY SHORT QUEUING THAT SPILLS ONTO PUBLIC STREET	X					1	
ATHLETIC PLAY AREAS	NO TRACK, LIMITED PLAYGROUND		X				2	
LANDSCAPING	LANDSCAPING NOT WELL MAINTAINED		X				2	
MASONRY - CONDITION	MINOR CRACKING IN EXTERIOR FAÇADE			X			4	
WINDOWS	DOUBLE GLAZED			X			3	
EXPOSED STEEL	LINTELS AND DUNNAGE RUSTED AND PAINT PEELING			X			3	
ROOFING	NEW ROOF AND FASCIA				X		5	
OVERALL AESTHETICS	LACK OF MAIN ENTRY IDENTIFICATION	X					2	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>30</b>	
WALLS / WAINSCOTS	RUBBER WAINSCOT BASE IN LIEU OF QUARRY TILE		X				2	
FLOORING	TERRAZZO AND FRITZ TILE HALLS, CARPET BEING REPLACED			X			3	
CEILING				X			3	
DOORS & HARDWARE	RECENTLY REPLACED				X		4	
MARKER & TACK BOARDS	CHALKBOARDS RECENTLY COVERED WITH MARKER SURFACE			X			3	
CASEWORK	OLD AND WORN	X					1	
EXTERIOR ACCESSIBILITY					X		4	
INTERIOR ACCESSIBILITY	TOILET ROOMS AND OLD GROUP RESTROOMS ARE NON ADA COMPLIANT		X				2	
SPRINKLER SYSTEM	ONLY IN 2000 ADDITION		X				2	
EGRESS ADEQUACY				X			3	
ADMIN VISIBILITY / SECURITY ENTRANCE		X					1	
CLASSROOM ENVIRONMENT			X				2	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>26</b>	
PLAN ORGANIZATION				X			3	
PLAN CIRCULATION					X		4	
ADMIN SUITE /CLINIC		X					1	
CAFETERIA & KITCHEN	KITCHEN DOES NOT HAVE QUARRY TILE FLOOR, NO LOCKER ROOM			X			3	
GYM & ATHLETICS	STORAGE BEING USED AS OFFICE				X		4	
MEDIA CENTER	OFFICE CASEWORK NEEDS UPGRADING, NEW CARPET AND CASEWORK IN MEDIA				X		4	
RESTROOMS	NO URINAL DIVIDERS, NON ADA COMPLIANT		X				2	
STAFF FACILITIES				X			3	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	KILN LOCATED IN ELECTRICAL ROOM, NO STORAGE FOR MUSIC INSTRUMENTS		X				2	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>41</b>	
CHILLERS	AIR COOLED		X				2
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	UNIT VENTILATORS, SPLIT SYTEMS, PACKAGED ROOFTOP		X				2
HEATING BOILERS / FUEL TANK	GAS-FIRED, FIRE TUBE, HOT WATER		X				2
PUMPS	BASE MOUNTED		X				2
UNIT / CABINET HEATERS / FANS			X				2
ATC / EMS	DIRECT DIGITAL, TRANE		X				2
DOMESTIC WATER HEATERS	GAS-FIRED				X		4
MAIN SERVICE - ELECTRIC	480V-1,200A - THERE ARE NEC VIOLATIONS PRESENT			X			3
GENERATOR	NO GENERATOR INSTALLED	X					1
PANELS / BREAKERS	MOST GEAR RETROFITTED; SOME ORIGINAL REMAINS			X			3
INTERIOR LIGHTING	MOSTLY T8 FIXTURES; SOME HID TYPE			X			3
INTERIOR POWER	ADDITIONAL CIRCUITS ADDED VIA RACEWAY			X			3
EMERGENCY LIGHTING	MINIMAL BATT. PACKS; UTILIZES WHITE LIGHT CKT.		X				2
SITE LIGHTING	NO LOT LIGHTING; ONLY BUILDING MOUNTED	X					1
FIRE ALARM & SECURITY	F/A SYSTEM NOT CODE COMPLIANT IN ALL CASES				X		4
DATA / TECH / SOUND	IWBs, INT., SOUND, DATA IN GOOD COND.				X		4
<b>TOTAL (out of 250 points)</b>						<b>130</b>	

## ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Hamilton Elementary School  
54 S Kerr Street  
Hamilton, VA 20158  
Loudoun County Public Schools

**Date:** August 11, 2015



### **HISTORY:**

In 1922, Hamilton Elementary School was built on over eleven acres. The original structure contained four classrooms and bathrooms were housed in the basement. Over the next 84 years, the school went through five major renovations to become the 37,303 sf building that it is today.

In 1951, the first of many renovations added auditorium space, a first grade classroom and relocated the bathrooms to the first floor. Twelve years later, in 1963, five acres of adjoining land were purchased by LCPS and the original four classroom structure was torn down. A new Hamilton Elementary School was built alongside the auditorium and first grade classroom remaining from the 1951 addition.

In 1975, six new classrooms were built to accommodate the need for Kindergarten classrooms in all Loudoun County elementary schools and growing enrollment numbers. A library with an office, storage room and resource room was also built at this time.

In 2002, Phase I of a major modernization and expansion of Hamilton Elementary began. Most of the structure was gutted to allow for the following: replacement of the HVAC; electrical and lighting systems; replacement of moveable interior walls with masonry walls; replacement of exterior walls on the east wing, and replacement of all windows. Also during this renovation, a multipurpose room was completed, classroom bathrooms were removed and the computer lab was upgraded and outfit with new computers.

Phase II of the renovation project took place during the summer of 2004 with the removal of the stage in the old cafeteria and conversion of this space to three resource rooms. Finally, new HVAC, electrical and lighting systems were installed in the north wing of the facility where the kitchen, cafeteria and resource rooms are located.

The 37,303 sf school's capacity is 297 students and current enrollment is 178.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 132 out of a possible 250. The media center has no natural lighting and has worn bookcases. All classrooms also have worn case work and most chalkboards to be converted to be marker boards. The roof is EPDM and ballasted with drainage issues. Additionally, the roof ladder needs a safety pole.

Below are details of the above noted findings:

**Chalkboards not converted to marker boards**



**Worn media center casework**



**No kitchen office**



**Worn classroom casework**



**Civil**

The site is generally in good condition. Asphalt, curbs and sidewalks are in fair to good condition. Mature hardwood trees are found around the site; however there is opportunity in landscaping design and maintenance. The site has two little league fields which are in excellent condition, a small soccer field and a track.

Below are details of the above noted findings:

**Front entry / bus loop**



**Parking lot / parent drop-off area**



Track and small soccer field



Softball / little league field



Playground / basketball courts



New access road from Elementary Drive



**Structural**

The interior bearing walls are in good condition. Both lintels and dunnage steel were in good condition, but need to be cleaned and painted. The roof screen steel was all galvanized and in good condition.

Below are details of the above noted findings:

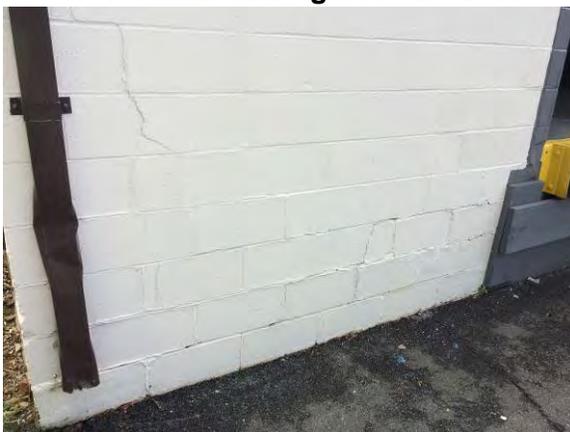
**Corroded steel lintels**



**Corroded exposed dunnage steel**



**Cracked loading dock CMU**



### **Sprinkler/Plumbing**

The oil-fired water heater appears to be in fair condition. Flush valves are predominantly manual type. Faucets are predominantly manual type.

### **Mechanical**

The heating system consists of two oil-fired, cast iron hot water boilers and associated pumps. Systems serving the classrooms consist of packaged rooftop air conditioning units in conjunction with fan powered VAV boxes incorporating hot water heating coils. The multipurpose room and gym are served by single zone rooftop air conditioning units. The age of most of the major equipment is approximately 12 years. It appears to be in fair condition.

### **Electrical**

Main Electrical Service – The main electrical service consist of a three 208-3Ø-100 KVA power company pole mounted transformers with and underground secondary service. The main switchboard is Cutler Hammer 208V-3P-1600 switchboard with a 1600 main breaker, CT compartment and breaker distribution section. This switchboard was installed in 2003. The distribution section has spare and space only breaker positions.

Generator – The building does have a propane generator located on the roof. Generator provides power for emergency lighting, the fire alarm panel system and other equipment. The generator is

rated at 208V-3Ø-35KW. The generator system has two ATS devices for life safety equipment and non-safety equipment.

Panelboards and Breakers – The panelboards and breakers in the building consist of Square-D and Eaton Cutler-Hammer equipment. The Square-D equipment is original. The Cutler-Hammer equipment was added in during the power and data upgrades and addition. The Square-D equipment does have some capacity to add breakers. The Cutler-Hammer equipment also has spares and space for addition breakers. Shock hazard information is affixed to electrical equipment.

Interior Lighting – Interior lighting consist T8 fluorescent, CFL, metal halide and some limited incandescent. Light is adequate. Some fixtures are not working. Light fixture lenses are good condition.

Interior Power – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power. TVSS or SPD devices are used on the switchboard and the computer power panelboards. All of the new equipment as noted above does have capacity for additional circuits (spares and add-ons).

Emergency Lighting – The gas generator provide power for emergency lighting. Some lights fixtures used for emergency lighting were not working. In general, emergency lighting is adequate.

Site Lighting – Building mounted metal halide, CFL lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide shoe box lights. Lighting levels in the parking lots would appear to be adequate except in the drive leaving the site.

Fire Alarm & Security – The building has an Edwards EST2 (non-voice) Fire Alarm System with room to expand. The building has AiPhones, Ademco Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is a Dukane Star Call. Nortel phone system is in the MDF room. Battery clocks are use in the building. National Time clock control is used in the building. The library has a media AV system. Classrooms have smart boards and AV input panels. The stage is equipped with a newer sound system and wall mounted Bose speakers. The cafeteria has a TOA wall amp and new Peavey wall mounted speakers.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Stage
  - Exit doors
- Needed to meet LCPS facility standards:
  - Dedicated toilet rooms for K – 2<sup>nd</sup> grade and special ed classrooms
  - Media center office
  - Dedicated gym with storage and office
  - Dedicated spaces for art and music
  - Kiln relocation adjacent to art room
  - Kitchen office, lockers, walk-in freezer/cooler and quarry tile floors
- Additional recommendations:
  - Safety pole on roof ladder and top rung adjustment

**Civil**

- Traffic flow – designated areas for bus and parent traffic.
  - Possible resolution - restricting parent traffic to Elementary Drive and bus traffic to S. Kerr Street

**Structural**

- Lintels & exposed steel – clean and paint

**Sprinkler/Plumbing**

- The building is not provided with full sprinkler coverage

**Mechanical**

- The mechanical equipment utilizes R-22 refrigerant.
- It is anticipated that the rooftop equipment will reach the end of its useful service life within the next five years.

**Electrical**

- Light fixtures that are not working should be fixed.
- The driving area leaving the site may need addition pole lights or luminaries added to raise light levels.
- Upgrade lighting systems and power.
- Replacement parts for the Edwards fire alarm system are hard to get if they are still available.
- Spare parts for the Dukane Star Call do not exist.
- The generator located on roof is hard to access for maintenance and repairs.

FACILITY ASSESSMENT STUDY SCORE SHEET						132				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE			
		1	2	3	4	5				
<b>SITE &amp; EXTERIOR ENVELOPE</b>						<b>38</b>				
ADEQUATE PARKING				X			3			
PARKING LOTS - CONDITION			X				3			
SIDEWALKS - CONDITION			X				3			
ADEQUATE BUS QUEUING	PRINCIPAL NOTED THAT BUS LOOP ACCOMMODATES ALL OF THE BUSES				X		4			
ADEQUATE PARENT DROP-OFF	LONG ACCESS ROAD PROVIDES STACKING AREA			X			4			
ATHLETIC PLAY AREAS	2 VERY NICE LITTLE LEAGUE FIELDS ON THE SITE, SMALL SOCCER FIELD AND TRACK				X		4			
LANDSCAPING			X				3			
MASONRY - CONDITION			X				3			
WINDOWS	DOUBLE GLAZED		X				3			
EXPOSED STEEL	SOME LINTELS RUSTED AND PAINT PEELING		X				3			
ROOFING			X				3			
OVERALL AESTHETICS		X					2			
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>						<b>26</b>				
WALLS / WAINSCOTS	TILE WAINSCOT		X				3			
FLOORING	CORRIDOR VCT	X					2			
CEILING			X				3			
DOORS & HARDWARE		X					2			
MARKER & TACK BOARDS	CHALKBOARDS NOT CONVERTED TO MARKER BOARDS	X					2			
CASEWORK			X				3			
EXTERIOR ACCESSIBILITY		X					2			
INTERIOR ACCESSIBILITY		X					2			
SPRINKLER SYSTEM	NONE	X					1			
EGRESS ADEQUACY	EXTERIOR DOOR C1 - NON ADA COMPLIANT	X					1			
ADMIN VISIBILITY / SECURITY ENTRANCE			X				3			
CLASSROOM ENVIRONMENT		X					2			
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>22</b>				
PLAN ORGANIZATION			X				2			
PLAN CIRCULATION			X				2			
ADMIN SUITE /CLINIC			X				2			
CAFETERIA/STAGE & KITCHEN	NO OFFICE, NO LOCKERS		X				2			
GYM & ATHLETICS					X		5			
MEDIA CENTER	NO OFFICE		X				2			
RESTROOMS			X				2			
STAFF FACILITIES				X			3			
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)		X					2			

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>46</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP, VAV BOXES		X				2
HEATING BOILERS / FUEL TANK	OIL-FIRED, CAST IRON, HOT WATER		X				2
PUMPS	BASE MOUNTED			X			3
UNIT / CABINET HEATERS / FANS				X			3
ATC / EMS	DIRECT DIGITAL, INVENSYS		X				2
DOMESTIC WATER HEATERS	OIL-FIRED		X				2
MAIN SERVICE - ELECTRIC	208V-3P-1200 AMP / POLE MOUNTED TRANSFORMERS				X		4
GENERATOR	GENERATOR LP / LOCATED ON ROOF/ LIFE SAFETY AND OTHERS			X			3
PANELS / BREAKERS	208V / 120 PANELS / SPARE AVAILABLE / PANELS OLD AND NEW/ DATA POWER UPGRADES			X			3
INTERIOR LIGHTING	FLOURESCENT T8, CFL AND METAL HALIDE			X			3
INTERIOR POWER	COMPUTER POWER UPGRADES / AMPLE RECEPTACLES				X		4
EMERGENCY LIGHTING	ON GENERATOR, BATTERIES AND BATTERY BALLASTS METAL HALIDE POLE LIGHTS AND BUILDING LIGHTS.				X		4
SITE LIGHTING	COVERAGE IS ADEQUATE BUT LIGHT LEVELS MAY BE A LITTLE LOW				X		3
FIRE ALARM & SECURITY	EDWARDS ES2 (OLD) PARTS NOT AVAILABLE, Y-Q, ADEMCO INTRUSION, CCTV, APHONE			X			3
DATA / TECH / SOUND	DATA UPGRADES. WIRELESS DUKANE, STAGE SOUND, NORTEL, A-PHONE, SMART BOARDS, BATTERY CLOCKS, NATIONAL TIME CLOCK CONTROL, DUKANE INTERCOM				X		3
<b>TOTAL (out of 250 points)</b>						<b>132</b>	

## ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Leesburg Elementary School  
323 Plaza Street  
NE Leesburg, VA 20176  
Loudoun County Public Schools

**Date:** August 10, 2015



### **HISTORY:**

Leesburg Elementary opened its doors in the fall of 1980. The school contains twenty-eight classrooms and a cottage which accommodates the Head Start program.

On September 23, 2005, Leesburg Elementary School was one of 295 schools in the United States to be named a No Child Left Behind Blue Ribbon School for 2005.

In 2007 – 2008, LES was honored again by the Virginia Board of Education as a “Title I Distinguished School” for maintaining full state accreditation under the commonwealth’s Standards of Learning program for two consecutive years.

In 2010, LES earned the Governor's Award for Educational Excellence, an award which recognizes school which meet all state and federal achievement benchmarks for at least two consecutive years and achieve applicable excellence goals for elementary reading.

The 58,797 sf school's capacity is 628 students and current enrollment is 600 students.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 129 out of a possible 250. The original structure is 37 years old and the floor plan is inefficient, lacking a clean circulation loop. In all classrooms, casework is worn and chalkboards have not been converted to marker boards. Additionally, storage to accommodate supplies for before and after care is currently being stored in cabinets in the cafeteria.

The roof is ballasted EPDM and the roof ladder does not have a safety pole. There is one trailer on site, but it appears to not be used.

Below are details of the above noted findings:

**Media center**



**Chalkboards not converted to marker boards**



**Worn classroom casework**



**Before and after care storage in cafeteria**



**Non-ADA compliant group restroom sinks**



**Movable partitions**



**Civil**

The site is generally in good condition. The asphalt in the bus loop and parking lot were in fair to good condition. Curbs and sidewalks appeared to be mostly original and are also in fair to good condition. Landscaping is above average with many mature hardwoods surrounding the school. Athletic/play areas are adequate and are in good condition; although, the site did not have a track.

Below are details of the above noted findings:

**Building entry**



**Bus loop and parking**



**Peeling fire lane paint**



**Softball field**



**Playground / basketball courts**



**Erosion adjacent to bus loop**



**Structural**

The interior bearing walls are in good condition. There are cracks in a number of floor slabs; however cracks do not appear to be recent, nor are there signs of differential movement. The parapet tile band is showing signs of age. Additionally, cracking mortar joints are in need of repair and all exterior lintels need to be cleaned and painted.

Below are details of the above noted findings:

**Flooring – cracked**



**Kindergarten door- not weather proof**



**Cooling tower - welds need to be galvanize painted**



**Cooling tower- condensation drip line has created a depression in the ground. If allowed to continue, this may undermine adjacent footings**



**Lintel rusted and paint peeling**



**Breezeway roof deck not attached to supporting steel**



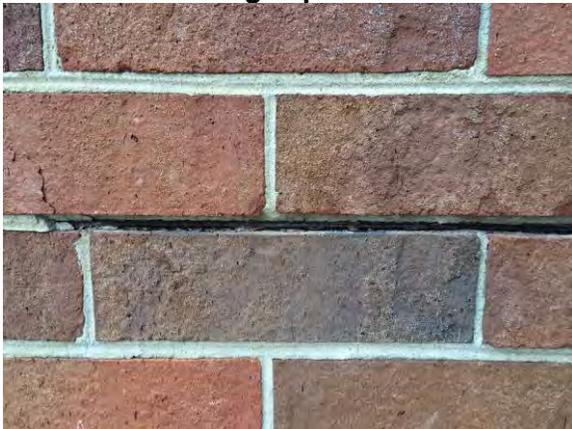
**Façade crack; lintel rusted and paint peeling**



**Dryrotting EJs and CJ joints**



**Wire reinforcing exposed at door D9**



**Sprinkler/Plumbing**

The electric water heater appears to be in fair to good condition. Flush valves are predominantly manual type. Automatic type wash basins are provided at each gang toilet.

**Mechanical**

The heating system consists of two gas-fired, pulse type hot water boilers and associated pumps. Central cooling equipment consists of a water-cooled chiller and associated pumps located in the mechanical room with cooling tower in the mechanical yard. Classrooms are served by rooftop air handling units and fan powered VAV boxes. Kitchen, cafeteria and multipurpose room are served by packaged rooftop air conditioning units with gas heat exchangers. The age of all equipment appears to be approximately 12 years. Apart from the cooling tower, the major equipment appears

to be in good condition, although the drain pans within the rooftop air handlers are exhibiting moderate corrosion and it could be expected that the gas furnaces within the packaged rooftop units are showing some signs of age. The cooling tower appears to be in fair to poor condition.

### **Electrical**

**Main Electrical Service** – The main electrical service consist of a 480V-3Ø power company pad mounted transformer and a Westinghouse 480V-3Ø-2000 switchboard with main breaker. The distribution section has space only breaker positions.

**Generator** – The building does have a diesel generator with base tank. Generator provides power for emergency lighting, the fire alarm panel system and other equipment. The generator is rated at 480V-3Ø-20KW. The generator system has one ATS device for life safety equipment and non-safety equipment

**Panelboards and Breakers** – The panelboards and breakers in the building consist of Westinghouse, GE and Siemens equipment. The Westinghouse equipment is original. The GE equipment was added in during the power and data upgrades. The Siemens equipment was had during HVAC renovation. The capacity to add breakers in Westinghouse equipment is limited due to lack of space and unavailability of breakers. If space was available, breaker would have to come from a different manufacturer. The GE and Siemens equipment does have spares and space for addition breakers. Shock hazard information is not affixed to electrical equipment.

**Interior Lighting** – Interior lighting consist T8 fluorescent, CFL, and some limited incandescent. Light is adequate. Some fixtures are not working.

**Interior Power** – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power. The TVSS or SPD devices could not be located for the computer power panelboards. The new equipment as noted above does have capacity for additional circuits (spares and add-ons).

**Emergency Lighting** – The gas generator provide power for emergency lighting. Some lights fixtures used for emergency lighting were not working. In general, emergency lighting is adequate.

**Site Lighting** – Building mounted metal halide lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide shoe box lights. Lighting levels in the parking lots would appear to be adequate.

**Fire Alarm & Security** – The building has a Edwards ST2 (non-voice) Fire Alarm System with room to expand. Spare parts are not available for the fire alarm panel. The building has AiPhones, Honeywell Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

**Data / Tech / Sound** – Building has cabled and wireless Ethernet throughout the building. The intercom system is small floor rack Rauland TC5. Spare parts are not available for the Rauland TC5. Nortel phone system is in the MDF room. The clock system is controlled by American Time clock controller. Classrooms have smart boards and AV input panels. The stage is equipped with an older sound system and simple dimmable lights. The building does have a CATV system distribution.

**AREAS TO BENEFIT BY RENOVATION:****Architecture**

- Needed to meet full ADA compliance
  - Restrooms and toilet rooms
  - Administration front counter
  - Signage
  - Stage
- Needed to meet LCPS facility standards:
  - Dedicated toilet rooms for special ed classrooms
  - Media center office
  - Dedicated gym space
  - Acoustical wall panels in cafeteria
- Additional recommendations:
  - Dedicated space for guidance office
  - Fixed wall construction to replace movable wall partitions
  - Covered walkway to north wing to be enclosed for security purposes
  - Before and after school care storage solution which does not impede cafeteria use

**Civil**

- Pavement – showing signs of wear; seal coat recommended
- Fire lane curbs – repaint
- Parking – insufficient for visitors, volunteers and faculty
- Athletic Play Areas – no track

**Structural**

- Breezeway roof deck -- currently not connected to the supporting steel at one end of the structure. This deck must be welded or screwed to the supporting steel or a wind could cause it to lift off the structure and damage adjacent property or hurt someone. **This should be fixed prior to any scheduled renovation work.**
- Exterior lintels – clean and paint
- Cooling tower welds – paint with cold galvanizing paint
- Cooling tower condensation line – relocate to prevent further soil erosion at tower foundations and adjacent school

**Sprinkler/Plumbing**

- Sprinkler is a limited area sprinkler system. The building is not provided with full sprinkler coverage.

**Mechanical**

- The chiller utilizes R-22 refrigerant.
- The cooling tower appears to be quickly approaching the end of its useful service life.

**Electrical**

- Light fixtures that are not working should be fixed.
- Main switchboard breakers may be hard to find if needed for expansion.
- Upgrade lighting systems and power.
- Replacement parts for the Edwards EST2 fire alarm system are hard to get.
- Spare parts for the Rauland TC5 do not exist.
- Shock hazard information should be affixed to all electrical equipment (switchboards, panelboards, transformers, transfer switches, motor starters and disconnects).

FACILITY ASSESSMENT STUDY SCORE SHEET				129				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>36</b>	
ADEQUATE PARKING	PRINCIPAL NOTED THAT THEY USE ALL AVAILABLE SPACE AND MORE IS NEEDED FOR VOLUNTEERS/VISITORS		X				2	
PARKING LOTS - CONDITION				X			3	
SIDEWALKS - CONDITION	MOSTLY ORIGINAL / FIRE LANE PAINT IS PEELING AND NEEDS TO BE POWER WASHED			X			3	
ADEQUATE BUS QUEUING	GENEROUS BUS LOOP - ONLY 3 BUSES					X	5	
ADEQUATE PARENT DROP-OFF	GENEROUS LOOP WITH LONG ENTRY FROM THE PUBLIC STREET FOR STACKING				X		4	
ATHLETIC PLAY AREAS				X			3	
LANDSCAPING	NICE LANDSCAPING AROUND BUILDING / NOTED BARE SPOTS UNDER CANOPY TREES				X		4	
MASONRY - CONDITION	TRUSS WIRE EXPOSED AT D9			X			3	
WINDOWS	DOUBLE GLAZED - BUT FOGGING	X					1	
EXPOSED STEEL	LINTELS NEED CLEANING AND PAINT. COOLING TOWER NEEDS GALVINIZING TOUCH UP. STEEL BREEZEWAY DECK TIE DOWNS ARE BROKEN - NEED REPAIR		X				2	
ROOFING	ROOF LADDER NO SAFETY BAR, BALLASTED		X				2	
OVERALL AESTHETICS					X		4	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>23</b>	
WALLS / WAINSCOTS				X			3	
FLOORING	ADMIN CARPET NEEDS CLEANING		X				2	
CEILING				X			3	
DOORS & HARDWARE			X				2	
MARKER & TACK BOARDS	CHALKBOARDS NOT CONVERTED TO MARKER BOARDS	X					1	
CASEWORK	OLD AND WORN	X					1	
EXTERIOR ACCESSIBILITY			X				2	
INTERIOR ACCESSIBILITY	NON ADA COMPLIANT SIGNAGE	X					1	
SPRINKLER SYSTEM	NONE	X					1	
EGRESS ADEQUACY			X				2	
ADMIN VISIBILITY / SECURITY ENTRANCE				X			3	
CLASSROOM ENVIRONMENT	1 TRAILER		X				2	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>15</b>	
PLAN ORGANIZATION			X				2	
PLAN CIRCULATION		X					1	
ADMIN SUITE /CLINIC	NO SINK IN CLINIC		X				2	
CAFETERIA & KITCHEN	LAUNDRY IN TRASH ROOM		X				2	
GYM & ATHLETICS	NO ADA ACCESS TO STAGE, NO PE STORAGE		X				2	
MEDIA CENTER			X				2	
RESTROOMS	NON ADA COMPLIANT FOR STAFF AND STUDENTS	X					1	
STAFF FACILITIES		X					1	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	NO MUSIC STORAGE, KILN IN BOILER ROOM		X				2	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>							<b>55</b>	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
CHILLERS	WATER-COOLED				X		4
COOLING TOWER	CENTRIFUGAL FORCED DRAFT	X					1
AIR HANDLING EQUIPMENT / RTU'S	ROOFTOP AIR HANDLERS AND PACKAGED EQUIPMENT, VAV BOXES			X			3
HEATING BOILERS / FUEL TANK	GAS-FIRED PULSE TYPE HOT WATER			X			3
PUMPS	BASE MOUNTED				X		4
UNIT / CABINET HEATERS / FANS				X			3
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	GAS-FIRED			X			3
MAIN SERVICE - ELECTRIC	480V-3P-2000 AMP				X		4
GENERATOR	DIESEL CUMMINS 480V-3P-20 KW, LIGHTS AND FACE				X		4
PANELS / BREAKERS	WESTINGHOUSE/SIEMENS PANELS HAVE SPARES NOT MUCH ROOM TO GROW				X		4
INTERIOR LIGHTING	FLUORESCENT WATT T8, MH-SINGLE SWITCH , NO MOTION DETECTORS			X			3
INTERIOR POWER	LIGHTING, HVAC, 120 GENERAL & 120 CPU				X		4
EMERGENCY LIGHTING	EMERGENCY LIGHTING IS ON GENERATOR				X		4
SITE LIGHTING	MH PARKING POLE WITH FLOOD LIGHTS, BUILDING WALL CANOPY, LIGHT SPILLAGE TOO HIGH, LIGHT LEVELS MAY NOT BE HIGH ENOUGH OVERALL		X				2
FIRE ALARM & SECURITY	EDWARDS ST 2 WITH ROOM TO GROW, CANNOT GET PARTS, Y-Q, HONEYWELL INSTRUSION, CCTV SYSTEM, APHONE			X			3
DATA / TECH / SOUND	DATA UPGRADE CA1-5/E/NORTEL PHONES/ RAULAND INTERCOM TC5 - CANNOT GET PARTS/ CCTV CAMERAS/CATV/YQ DOOR ACCESS SOME DOORS/ MULTI-PURPOSE ROOM - SOUND SYSTEM - OLD EQUIPMENT				X		3
<b>TOTAL (out of 250 points)</b>							<b>129</b>

## ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Lincoln Elementary School  
18048 Lincoln Road  
Purcellville, VA 20132  
Loudoun County Public Schools

**Date:** August 11, 2015



### **HISTORY:**

The original Lincoln School was built in 1909 and served both elementary and high school students. The school was very well equipped for the time, with a chemistry lab, tennis and basketball courts and athletic fields.

As overcrowding became an issue, the old Lincoln School was remodeled in 1916. Ten years later, the school building burned down and a one story brick building was built on the site. High school students remained in this building until 1955, when the new Loudoun County High School opened. The Lincoln High School became Lincoln Elementary School at that time.

In 1974 the first cottage was built to provide space for kindergarten classes, and in 1989 another cottage was added to become the fifth grade classroom.

The 21,468 sf. School's capacity is 138 students and current enrollment is 125.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 98 out of a possible 250. The two story structure is showing signs of aging and there are several areas where decay is evident. Specifically, wood rot at roof eaves and masonry mortar deterioration exist around the building. Resource rooms and guidance offices are in the basement and have minimal natural light. The school is currently utilizing two modular building as classrooms. The roof and windows were replaced within the last 10 years; however cracking was noted on the parapet.

Below are details of the above noted findings:

**Cracking parapet**



**Faux brick (plastic) and wood rot at multipurpose room clerestory**



**Old and worn casework**



**Stage used by media center**



**Chalkboards converted to marker boards**



**Classroom storage**



**Civil**

The site is generally in good to very good condition. The asphalt in the bus loop and parking lot were in fair to good condition. Curbs and sidewalks were also in fair to good condition. Landscaping is above average with many mature hardwoods at the front of the school. Athletic/play areas are ample and are in good condition; although, the site did not have a track.

**Building entry**



**Bus loop**



**Parent drop-off turnaround at end of parking lot**



**Playground / basketball courts**



**Large athletic field**



**Outdoor classroom**



**Structural**

The structure is a combination of steel, wood, masonry and concrete framing. The original center structure is wood framing and many areas, specifically the high eaves, showed signs of deterioration, repairs and modifications. The most significant issue was a lolly column added in the storage room in the basement to support the wood floor. The framing in this area was modified to accommodate ongoing MEP upgrades. No signs of structural distress, like sagging floors, were observed, however considering the age of the building, further inspection is recommended.

Below are details of the above noted findings:

**Toe-nailed wood framing with no joist hangers**



**Spalling brick façade; lintels rusted and paint peeling**



**Foundation settlement cracks**



**Severely corroded lintel**



**Shear crack at lintel bearing end**



**Deteriorating eave framing**



**Masonry deterioration at chimney**



**Pieced together wood framing due to MEP upgrades**



**Sprinkler/Plumbing**

The electric hot water heaters appear to be in good condition. Flush valves are predominantly manual type. Faucets are predominantly automatic type.

**Mechanical**

Packaged rooftop heat pump units serving the building appear to be only several years and in excellent condition. The multipurpose room is served by two split system air conditioners with condensing units that appear to be in fair and good condition.

**Electrical**

**Main Electrical Service** – The building has an electrical service fed from a single pole with three 50 KVA pole mounted transformer to provide one 208V-3Ø-150 KVA service. The 208V electrical service is underground. The building switchboard (GE) use for the 208V electrical service is 1200 amps and is a fused switchboard. The 208V service switchboard does not have a main disconnect and uses six fused switches and they are all used. The emergency service is a tap ahead of the main panelboard.

**Generator** – The building does not have a generator. The emergency service is a tap ahead of the main panelboard. Walk-thru lighting is powered by battery packs and the tapped electrical service.

**Panelboards and Breakers** – The panelboards and breakers in the building consist of GE and Cutler Hammer equipment. The GE equipment is original. The Cutler Hammer equipment was added in during the power and data upgrades and renovations. The capacity to add breakers in GE equipment is limited due to lack of space. The Cutler Hammer equipment does have spares and space for addition breakers. Shock hazard information is affixed to electrical equipment.

**Interior Lighting** – Interior lighting consist of LED light fixtures at recently replaced all of the fluorescent lights. The LED interior lighting is adequate.

**Interior Power** – The school interior power is broken up into Lighting, Mechanical, and computer power. TVSS or SPD devices could not be located. The new equipment as noted above does have capacity for additional circuits (spares and add-ons). The building power conduits are mostly MC cabling for branch circuits with EMT conduits use for feeder circuits.

**Emergency Lighting** – Power for emergency lighting is achieve through a tap ahead of the main electrical service with battery packs and battery lights. In general, egress emergency lighting is adequate.

**Site Lighting** – Building mounted LED downlights cover most exits and sidewalks from the building. The front side of the building does not have any building pole mounted lights to cover the parking and driving areas. The power company has installed one pole light or cobra head light fixture in one corner of the parking lot away from the street. Lighting levels in the parking lots would be low due to low quantity of pole lights.

**Fire Alarm & Security** – The building has a new Notifier (non-voice) Fire Alarm System with a little room to expand. The building has Aiphones, DSC Intrusion, Y-Q wireless access control, mostly coaxial CCTV cameras with some IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

**Data / Tech / Sound** – Building has cabled and wireless Ethernet throughout the building. The intercom system is Dukane Care Hawk. Nortel phone system is in the MDF room. The clocks are

wireless and battery type clocks. Classrooms have smart boards and AV input panels. The stage is equipped with newer sound system in very good condition.

### **AREAS TO BENEFIT BY RENOVATION:**

#### **Architecture**

- Needed to meet full ADA compliance:
  - Toilet rooms and classroom sinks
  - Elevator to the lower level
  - Egress at grade
- Needed to meet LCPS compliance:
  - Dedicated toilet rooms for 2<sup>nd</sup> grade classrooms
  - Dedicated gym space with storage
  - Larger media center space with storage
  - Dedicated art and music spaces with storage
  - Faculty lounge
  - Clinic sink
  - Kitchen office, lockers, walk-in freezer/cooler and quarry tile floors
  - Janitor's office
- Additional recommendations:
  - Ability for administrative office to have clear visibility for security purposes
  - Mediate noise from centrally located multi-purpose room

#### **Civil**

- No major areas of concern.

#### **Structural**

- Wood framing – repaired and replaced; especially at roof eaves at the multi-purpose room
  - Further investigation of lally column added in storage room to support basement floor is recommended. The framing in this area was modified to accommodate ongoing MEP system upgrades
- Exterior steel lintels - cleaned and painted
  - East side exterior lintels – repaired/replaced due to significant corrosion
  - Basement door lintel – repaired/replaced due to shear crack
- Brick face – continued shearing could lead to long-term distress in structure

#### **Sprinkler/Plumbing**

- The building is not provided with full sprinkler coverage.

#### **Mechanical**

- There does not appear to be any mechanical ventilation of the multipurpose room.
- A diverter valve has been installed in the clothes dryer vent allowing the warm moist, lint laden air to be discharged within the building.

#### **Electrical**

- The building does not have a generator. A generator would help the operation of the building if installed.
- Outside lighting is not adequate. Pole lights should be added to the parking lots to increase light levels at night.
- Upgrade lighting systems and power.

FACILITY ASSESSMENT STUDY SCORE SHEET			98				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>37</b>
ADEQUATE PARKING	PRINCIPAL NOTED THAT DAILY PARKING IS ADEQUATE			X			3
PARKING LOTS - CONDITION				X			3
SIDEWALKS - CONDITION				X			3
ADEQUATE BUS QUEUING	LONG BUS LOOP FOR ONLY 2 BUSES				X		4
ADEQUATE PARENT DROP-OFF	PRINCIPAL NOTED THAT QUEUING REMAINS ONSITE. TURNAROUND REQUIRED AT END OF PARKING LOT, BUT AISLE IS GENEROUS					X	4
ATHLETIC PLAY AREAS	LARGE MULTI-PURPOSE FIELD, TENNIS COURT, NO SOFTBALL FIELD - BUT ADEQUATE SPACE FOR ONE			X			3
LANDSCAPING	MATURE TREES AND LANDSCAPING SURROUND SCHOOL				X		4
MASONRY - CONDITION	BRICK FACES SPALLING	X					2
WINDOWS	DOUBLE GLAZED			X			3
EXPOSED STEEL	LINTELS NEED CLEANING AND PAINT. IN ONE CASE THE LINTEL NEEDS REPLACEMENT			X			3
ROOFING	EAVES AT HIGH GABLED ROOF ARE DETERIORATED - SOME WOOD FASCIA PIECES ARE ROTTED AND PAINT IS PEELING				X		3
OVERALL AESTHETICS		X					2
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>17</b>
WALLS / WAINSCOTS			X				2
FLOORING		X					1
CEILING				X			4
DOORS & HARDWARE		X					1
MARKER & TACK BOARDS			X				2
CASEWORK	OLD AND WORN	X					1
EXTERIOR ACCESSIBILITY		X					1
INTERIOR ACCESSIBILITY		X					1
SPRINKLER SYSTEM	NONE	X					1
EGRESS ADEQUACY		X					1
ADMIN VISIBILITY / SECURITY ENTRANCE		X					1
CLASSROOM ENVIRONMENT	UNDERSIZED	X					1
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>9</b>
PLAN ORGANIZATION		X					1
PLAN CIRCULATION		X					1
ADMIN SUITE /CLINIC		X					1
CAFETERIA/STAGE & KITCHEN		X					1
GYM & ATHLETICS	NO DEDICATED GYM	X					1
MEDIA CENTER	UNDERSIZED AND NO STORAGE OR OFFICE	X					1
RESTROOMS		X					1
STAFF FACILITIES	TEACHER'S LOUNGE/WORKROOM IN BASEMENT	X					1
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	ART AND MUSIC UNDERSIZED AND NO STORAGE	X					1

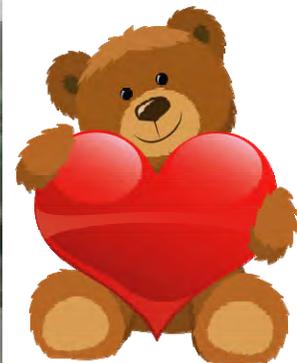
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>35</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP			X			4
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	N/A	X					1
UNIT / CABINET HEATERS / FANS		X					1
ATC / EMS	DIRECT DIGITAL, TRANE		X				2
DOMESTIC WATER HEATERS	ELECTRIC			X			3
MAIN SERVICE - ELECTRIC	208V-3P-1200 AMP - 6 HANDS OR DISCONNECTS AND ALL ARE USED		X				2
GENERATOR	NO GENERATOR	X					1
PANELS / BREAKERS	CPU POWER UPGRADE / SOME PANELS HAVE SPACE AND SPARE			X			3
INTERIOR LIGHTING	RECENTLY CHANGED TO LED				X		4
INTERIOR POWER	WIRING IN CONDUIT AND MC, 208V AND 120V, APPEARS TO BE ADEQUATE			X			3
EMERGENCY LIGHTING	BATTERY BALLAST AND BATTERY PACK	X					1
SITE LIGHTING	ONE POWE COMPANY POLE. DOES NOT COVER PARKING LOT. MANY BUILDING MOUNTED LIGHTS	X					1
FIRE ALARM & SECURITY	NEW NOTIFIER FACP, CCTV, A-PHONE, ACCESS CONTROL AND INTRUSION			X			3
DATA / TECH / SOUND	DATA URGRADES, SMARTBOARDS, STAGE SOUND SYSTEM			X			3
<b>TOTAL (out of 250 points)</b>						<b>98</b>	



**ARCHITECT'S  
FACILITY ASSESSMENT REPORT**

**Project:** Lovettsville Elementary School  
49 S. Loudoun Street  
Lovettsville, VA 20180  
Loudoun County Public Schools

**Date:** July 28, 2015



**HISTORY:**

The current school building was opened in September 1973. From 2002 to 2004, Lovettsville Elementary School underwent major renovations, during which eight classrooms were added as well as a technology lab, gymnasium, and media center.

The 70,896 sf school's capacity is 600 students and current enrollment is 532.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 168 out of a possible 250. The building has undergone significant renovations in its 43 year history. The building does not include a full sprinkler system with only limited building areas served by the fire suppression system. The EPDM roof has some areas which include rock ballast and a number of roof areas are losing elasticity. The roof ladder is missing a safety pole and the top rung is too short.

Below are details of the above noted findings:

**Roof screens rusted and paint peeling**



**Kitchen cabinet paint scratched**



**VCT puckering at corner of room**



**Cracking terrazo floor**



**Civil**

The site is generally in good condition. New asphalt pavement overlay has been recently completed in the bus loop area and a seal coat was recently applied to the parking lot. Curbs and sidewalks are in fair condition; however some spalling is evident due to poor construction techniques. Landscaping at the front entry is in good condition and there are some mature hardwoods surrounding the site. Athletic/play areas are in good condition and the site is located next to a county park with two baseball fields.

Below are details of the above noted findings:

**Bus loop was recently repaved**



**Curb and gutter deterioration at parent drop-off**



**Spalling concrete at curb ramp**



**Landscaping at school entry**



**Parking lot recently seal coated**



**Large track and large athletic / play areas**

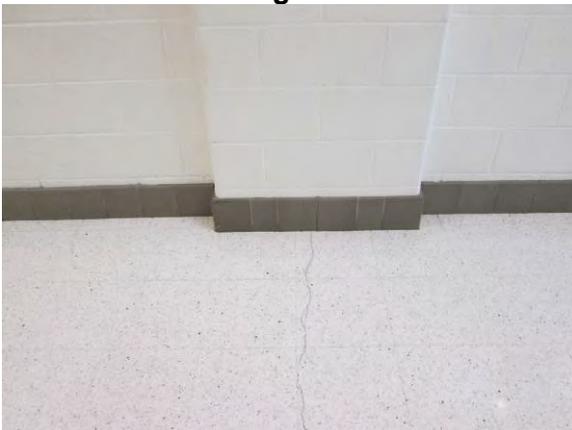


**Structural**

The interior bearing walls and exterior walls are in good condition. Overall, lintels are in good condition; however a number of them need to be cleaned and painted. Cracks exist in flooring throughout the structure; however there are no signs of recent movement, or differential settlement.

Below are details of the above noted findings:

**Cracking tile floor**



**Mortar corrosion and exposed wire**



Entrance canopy columns



Lintels rusted and peeling paint



### **Sprinkler/Plumbing**

The propane-fired water heater appears to be in fair condition. Flush valves and faucets appear to be in good condition and are predominantly automatic type. Propane piping is in fair to poor condition with areas of significant corrosion.

### **Mechanical**

Heating and cooling equipment consists of packaged, rooftop air conditioning units with propane heat exchangers. Shutoff type VAV boxes allow for temperature control within each classroom. The rooftop units are approximately 13 years old and appear to be in overall fair condition. However, the propane furnaces are showing significant signs of their age.

### **Electrical**

Main Electrical Service – The main electrical service consist of a 480V-3Ø power company pad mounted transformer and an 1973 Westinghouse 480V-3Ø-2000 switchboard with dual main breakers. The distribution sections have space only breaker positions.

Generator – The building does have a gas generator. Generator provides power for emergency lighting, the fire alarm panel system and other equipment. The generator is rated at 480V-3Ø-100KW. The generator system has two ATS devices for life safety equipment and non-safety equipment

Panelboards and Breakers – The panelboards and breakers in the building consist of Westinghouse and Eaton Cutler-Hammer equipment. The Westinghouse equipment is original. The Cutler-Hammer equipment was added in during the power and data upgrades. The capacity to add breakers in Westinghouse equipment is limited due to lack of space and unavailability of breakers. If space was available, breaker would have to come from a different manufacturer. The Cutler-Hammer equipment does have spares and space for addition breakers. Shock hazard information is affixed to electrical equipment.

Interior Lighting – Interior lighting consist LED, T8 fluorescent, CFL, metal halide and some limited incandescent. Light is adequate. Some fixtures are not working.

Interior Power – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power. The TVSS or SPD devices could not be located for the computer power panelboards. The new equipment as noted above does have

capacity for additional circuits (spares and add-ons).

Emergency Lighting – The gas generator provides power for emergency lighting. Some lights fixtures used for emergency lighting were not working. In general, emergency lighting is adequate.

Site Lighting – Building mounted metal halide lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide shoe box lights with cutoff shields where needed. Lighting levels in the parking lots would appear to be adequate.

Fire Alarm & Security – The building has a Siemens Pyrotronics MXL-IQ (non-voice) Fire Alarm System with room to expand. The building has AiPhones, Radionics Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland TC5. Nortel phone system is in the MDF room. The clock system is controlled by the Rauland clock controller built into the intercom rack. Classrooms have smart boards and AV input panels. The stage is equipped with an older sound system and recessed slot dimmable lights.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - 18” vertical grab bar in toilet rooms
  - ADA stalls
  - Administration front counter
- Needed to meet LCPS facility requirements:
  - Dedicated toilet rooms for 1<sup>st</sup>, 2<sup>nd</sup> and special ed classrooms
  - Roof screens – recommend considering replacement when roof system is replaced

**Civil**

- Sidewalks/curbs – spalling concrete
- Bus queuing – the principal noted that the buses double-up on the bus loop
- Parking – based on our discussion with the principal, this was the most significant site issue; parking is adequate for faculty but not for volunteers/visitors

**Structural**

- Lintels – a few need to be cleaned and painted

**Sprinkler/Plumbing**

- Limited area sprinkler system; no full building coverage

**Mechanical**

- Rooftop units utilize R-22 refrigerant.
- The propane furnaces within the rooftop units are likely at or near the end of their useful service life.
- RTU-1 was observed to be operating with a heavy vibration.

**Electrical**

- Light fixtures that are not working should be fixed.
- Main switchboard breakers may be hard to find if needed for expansion.
- Upgrade lighting systems and power.
- Replacement parts for the Siemens Pyrotronics fire alarm system are hard to get.
- Spare parts for the Rauland TC5 do not exist. T

FACILITY ASSESSMENT STUDY SCORE SHEET				168				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>36</b>	
ADEQUATE PARKING	SITE IS VERY SHORT ON PARKING. SHOULDERS ON S. LOUDOUN ST. ARE INADEQUATE FOR PARKING	X					1	
PARKING LOTS - CONDITION	RECENT MILL, OVERLAY ON BUS LOOP, SEAL COAT			X			3	
SIDEWALKS - CONDITION	SIGNIFICANT AMOUNT OF SPALLING CONCRETE		X				2	
ADEQUATE BUS QUEUING	BUSES DOUBLE UP IN BUS LOOP	X					1	
ADEQUATE PARENT DROP-OFF				X			3	
ATHLETIC PLAY AREAS	SIGNIFICANT PLAY AREAS ON SITE/ADJOINS PARK				X		4	
LANDSCAPING				X			3	
MASONRY - CONDITION					X		4	
WINDOWS	DOUBLE GLAZED				X		4	
EXPOSED STEEL	LITTLE CORROSION VISIBLE- ALL PAINTED				X		4	
ROOFING	ROOF SCREENS ARE ALL BADLY RUSTING. SOME ROOF AREAS STILL HAVE BALLAST. ROOF LADDER LACKING SAFETY BAR					X	3	
OVERALL AESTHETICS					X		4	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>47</b>	
WALLS / WAINSCOTS					X		4	
FLOORING	CRACKS IN CONCRETE SLAB TELEGRAPHING THRU FRITZ TILE			X			3	
CEILING	MINOR WATER SPOTS				X		4	
DOORS & HARDWARE					X		4	
MARKER & TACK BOARDS					X		4	
CASEWORK						X	5	
EXTERIOR ACCESSIBILITY						X	5	
INTERIOR ACCESSIBILITY					X		4	
SPRINKLER SYSTEM		X					2	
EGRESS ADEQUACY					X		4	
ADMIN VISIBILITY / SECURITY ENTRANCE					X		4	
CLASSROOM ENVIRONMENT						X	4	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>40</b>	
PLAN ORGANIZATION					X		4	
PLAN CIRCULATION						X	5	
ADMIN SUITE /CLINIC					X		4	
CAFETERIA & KITCHEN					X		4	
GYM & ATHLETICS						X	5	
MEDIA CENTER						X	5	
RESTROOMS	ALL ADA TOILETS MISSING 18" VERT BRAB BAR				X		4	
STAFF FACILITIES						X	4	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)						X	5	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>45</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP DX EQUIPMENT, PROPANE HEAT		X				2
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	N/A	X					1
UNIT / CABINET HEATERS / FANS		X					1
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	PROPANE WATER HEATER			X			3
MAIN SERVICE - ELECTRIC	GOOD CONDITION & NOT MUCH SPARE CAPACITY			X			3
GENERATOR	NATURAL GAS - 480V - GOOD CONDITION				X		4
PANELS / BREAKERS	GOOD CONDITION WITH SOME SPARE CAPACITY. SPARE PARTS ARE HARD TO GET FOR THE OLDER EQUIPMENT					X	4
INTERIOR LIGHTING	GOOD CONDITION, T8, CFL, MH & INCANDESCENT			X			3
INTERIOR POWER	GOOD CONDITION WITH SOME SPARE CAPACITY				X		4
EMERGENCY LIGHTING	ON GENERATOR AND APPEARS ADEQUATE				X		4
SITE LIGHTING	GOOD COVERAGE, GOOD CONDITION & MOSTLY MH.				X		4
FIRE ALARM & SECURITY	SYSTEMS APPEAR TO BE IN GOOD CONDITION. SPARE PARTS MAY BE HARD TO GET			X			3
DATA / TECH / SOUND	GOOD CONDITION. SOUND SYSTEM SPARE PARTS MAY BE HARD TO GET			X			3
<b>TOTAL (out of 250 points)</b>						<b>168</b>	

## ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Lucketts Elementary School  
14550 James Monroe Highway  
Leesburg, VA 20176  
Loudoun County Public Schools

**Date:** July 28, 2015



### **HISTORY:**

The land for the first Lucketts School was purchased in 1912 for the sum of \$625. In 1916 the original school opened with seven rooms and served as the grade and high school. This structure was closed in 1971 and converted into the Lucketts Community Center.

The Lucketts Elementary School built in 1972 included an administrative area, eight classrooms, a library, kitchen and cafeteria, multi-purpose room, conference, activity and storage rooms. A six classroom addition was constructed in 2000 to increase the school's capacity.

The 39,333 sf school's capacity is 261 students and current enrollment is 290.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 131 out of a possible 250. All casework in the building is original and showing wear. Chalkboards were recently converted to marker boards in all classrooms. The roof is ballasted EPDM and has drainage issues. The roof ladder does not have a safety pole. Brick spalling and aggregate fascia cracking exists on the exterior of the building.

Below are details of the above noted findings:

**Brick spalling**



**Non-ADA compliant exit**



**Aggregate fascia cracking**



**Roof drainage and flashing issues**



**Worn classroom casework**



**Chalkboards converted to marker boards**



**Civil**

The site is in average to good condition. Pavement is in fair condition with no major cracks or failures. Concrete sidewalks at the main entrance and north side of the building were recently replaced and others on site are in average condition for their age. Athletic play areas and landscaping are in very good condition, however landscaping is somewhat sparse.

The site is located adjacent to the Lucketts Community Center to the north and a PRCS park facility to the south. The Principal noted the site is served by a well and on-site treatment facility with which they have had no water supply or quality issues. LCPS Facilities staff have installed a fence around the pump controls and noted that the treatment facility is now maintained by Loudoun Water.

Below are details of the above noted findings:

**New sidewalks at main entry**



**Bus drop-off at front of school**



**Parent drop-off on north side of building**



**Playground on north side of building**



**Structural**

The interior bearing walls are in good condition; however the exterior walls show signs of age and weathering. Specifically, there is cracking at the front entry columns. The exposed steel around various areas of the building is rusting and the paint is peeling off.

Below are details of the above noted findings:

**Courtyard column exposed at base**



**Courtyard column exposed at base**



Front entry columns and brick feature



Front entry columns and brick feature cracking



Front entry columns and brick feature rusted and paint peeling



Exposed steel rusted and paint peeling



### **Sprinkler/Plumbing**

The electric hot water heater appears to be in good condition. Flush valves are predominantly manual type. Faucets are predominantly metering type.

### **Mechanical**

Packaged rooftop DX units serving the original building appear to be only several years old and in good condition. The individual packaged rooftop units serving the newer 6-classroom addition appear to be approximately 15 years old and in fair condition.

### **Electrical**

Main Electrical Service – The main electrical service consists of a 480V-3Ø-500 KVA power company transformer and an 1972 ITE 480V-3Ø-1600 Amp pump breaker. The distribution section has spare capacity and space only breaker positions for future breakers.

Generator – The building does not have a generator. Power for emergency lighting is achieved through a feed circuit tapped ahead of the main switchboard and through batteries and battery ballasts.

Panelboards and Breakers – The panelboards and breakers in the building consist of ITE equipment, Square D equipment and Siemens equipment. The ITE equipment is original. The Square D equipment was added in during the power and data upgrades. Siemens equipment may have been added with the last addition. The capacity to add breakers in ITE equipment is limited due to lack of space and unavailability of breakers. If space was available, breaker would have to come from a different manufacturer. The Square-D and Siemens equipment does have spares and space for addition breakers. Shock hazard information is affixed to electrical equipment.

Interior Lighting – Interior lighting consist LED, T8 fluorescent, T5 fluorescent, CFL, and some limited incandescent. Lighting is adequate. Several fixtures are not working.

Interior Power – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power with TVSS or SPD devices. The new equipment as noted above does have capacity for additional circuits (spares and add-ons).

Emergency Lighting – Power for emergency lighting is achieved through a feed circuit tapped ahead of the main switchboard and through battery ballasts. Several light fixtures used for emergency lighting were not working. In general, emergency lighting is adequate.

Site Lighting – Building mounted LED lights provide good lighting coverage at doorways and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide flood lights. Lighting levels in the parking lots are low due to low quantity of pole lights.

Fire Alarm & Security – The building has a Simplex (non-voice) Fire Alarm System with a little room to expand. The building has AiPhones, Honeywell Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Dukane. Nortel phone system is in the MDF room. The clock system is controlled by the Simplex clock controller. Classrooms have smart boards and AV input panels. The stage is equipped with a new sound system and existing dimmable lights.

**AREAS TO BENEFIT BY RENOVATION:****Architecture**

- Needed for ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Stage
  - Courtyard access and exit doors
- Needed for LCPS compliance:
  - Dedicated toilet rooms for K – 2<sup>nd</sup> grade classrooms
  - Dedicated gym space with storage and PE office
  - Dedicated art and music spaces
  - Kiln relocated adjacent to art room
  - Quarry tile floor in kitchen
- Additional recommendations:
  - Safety pole on roof ladder and top rung adjustment

**Civil**

- Traffic flow and parking
  - Parent drop-off - poor circulation and insufficient stacking; north parking spaces used for afternoon parent pick-up; cars back up onto Route 15
  - Limited parking due to use of spaces for the parent drop-off

**Structural**

- Steel columns
  - At courtyard roof structure - exposed and corroding; continued corrosion can lead to the loss of structural integrity and failure.
  - At main entry roof structure – corroded at base; supporting brick elements are cracked; continued corrosion can lead to the loss of structural integrity and failure.
- Exposed steel should be cleaned and painted

**Sprinkler/Plumbing**

- The building does not have full sprinkler coverage.

**Mechanical**

- The classrooms located within the original construction are served by multi-zone units. While these units appear to be in good condition, multi-zone units generally result in higher energy costs than other, more advanced systems.
- The units serving the newer 6-classrooms utilize R-22. It is anticipated that these units will reach the end of their useful life within the next 5 years.

**Electrical**

- The building does not have a generator.
- Light fixtures that are not working should be fixed.
- Pole lights should be added to the parking lots to increase light levels at night.
- Upgrade lighting systems and power.
- Replacement parts for the Simplex fire alarm system are hard to get.
- Spare parts for the Dukane intercom are hard to get.

FACILITY ASSESSMENT STUDY SCORE SHEET			131				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>						29	
ADEQUATE PARKING	PARKING LOST TO PARENT DROP OFF AREA		X				2
PARKING LOTS- CONDITION	PARKING LOTS, SIDEWALK, FRONT ENTRY & NORTH SIDE RECENTLY REPLACED			X			3
SIDEWALKS - CONDITION				X			3
ADEQUATE BUS QUEUING					X		4
ADEQUATE PARENT DROP-OFF	POOR CIRCULATION - BACKS UP ONTO RTE 15	X					1
ATHLETIC PLAY AREAS	SIGNIFICANT PLAY AREAS ON SITE/ADJOINS PARK				X		4
LANDSCAPING	GOOD CONDITION - BUT SPARSE			X			3
MASONRY - CONDITION	BRICK FACE SPALLING IN MULTIPLE AREAS		X				2
WINDOWS	SINGLE GLAZED	X					1
EXPOSED STEEL	SIGNIFICANT RUST AND PAINT PEELING		X				2
ROOFING	ROOF ACCESS LADDER MISSING SAFETY BAR, THRUWALL FLASHING PULLING AWAY AT MULTIPLE LOCATIONS	X					1
OVERALL AESTHETICS	LACK OF ENTRY IDENTIFICATION			X			3
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>						37	
WALLS / WAINSCOTS	PAINT AND TILE			X			3
FLOORING	TERRAZZO HALLS, VCT CLASSRMS, CPT. ADMIN			X			3
CEILING	RECENTLY REPLACED				X		4
DOORS & HARDWARE	INTERIOR ARE NEW, EXTERIOR ARE WORN				X		4
MARKER & TACK BOARDS				X			3
CASEWORK	WORN		X				2
EXTERIOR ACCESSIBILITY	NO PUSH PAD AT MAIN ENTRY			X			3
INTERIOR ACCESSIBILITY	COURTYARD AND STAGE NOT ADA ACCESSIBLE			X			3
SPRINKLER SYSTEM	NONE	X					1
EGRESS ADEQUACY					X		4
ADMIN VISIBILITY / SECURITY ENTRANCE	ADEQUATE VISIBILITY, NO SECURITY ENTRY				X		4
CLASSROOM ENVIRONMENT				X			3
<b>PLAN &amp; PROGRAM ADEQUACY</b>						19	
PLAN ORGANIZATION				X			3
PLAN CIRCULATION				X			3
ADMIN SUITE / CLINIC	NO SINK IN CLINIC			X			3
CAFETERIA & KITCHEN	NEEDS STORAGE		X				2
GYM & ATHLETICS	GYM IS UNDERSIZED	X					1
MEDIA CENTER			X				2
RESTROOMS	NO ADA STALL IN BOYS, NO URINAL PARTITIONS		X				2
STAFF FACILITIES	NO WORK AREA IN ADDITION		X				2
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	ART/MUSIC SHARE ROOM, NO STORAGE, KILN IN MECHANICAL ROOM	X					1

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>46</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP, MULTI-ZONE FOR CR'S			X			3
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	N/A	X					1
UNIT / CABINET HEATERS / FANS				X			3
ATC / EMS	DIRECT DIGITAL, TRANE				X		4
DOMESTIC WATER HEATERS	ELECTRIC				X		4
MAIN SERVICE - ELECTRIC	480V-3P-1600 AMP				X		4
GENERATOR	BUIDING DOES NOT HAVE A GENERATOR	X					1
PANELS / BREAKERS	SERVERAL PANELBOARDS HAVE SOME SPARE CAPACITY			X			3
INTERIOR LIGHTING	LED, T8, T5, MH, CFL, INCANDESCENT. SEVERAL FIXTURES NOT WORKING			X			3
INTERIOR POWER	OLDER EQUIPMENT DOES NOT HAVE MANY SPARES. PART ARE HARD TO GET			X			3
EMERGENCY LIGHTING	BUILDING HAS SOME EMERGENCY LIGHTING. SOME EMERGENCY LIGHTING DID NOT APPEAR TO BE WORKING			X			3
SITE LIGHTING	BUIDING MOUNTED LIGHTS (GOOD). PARKING LOTS LIGHTING (POOR)				X		4
FIRE ALARM & SECURITY	SYSTEMS IN GOOD CONDITION, OLD, EXPANDABLE AND SPARE PARTS COULD BE AN ISSUE IN FUTURE			X			3
DATA / TECH / SOUND	SYSTEM IN GOOD CONDITION. INTERCOM SPARE PARTS MAY BE HARD TO GET				X		4
<b>TOTAL (out of 250 points)</b>						<b>131</b>	



# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Meadowland Elementary School  
729 Sugarland Run Drive  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** August 5, 2015



**HISTORY:**

Meadowland Elementary School was built in 1979.

The 56,709 sf school's capacity is 535 students and current enrollment is 468.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 131 out of a possible 250. The floor plan is inefficient and does not have a clean circulation loop. All classrooms have original, worn casework and chalkboards need to be converted to marker boards. A number of lintels have rust and peeling paint. Additionally, the CMU color on the façade is leaching onto the brick below it. The roof is ballasted EPDM and the roof ladder does not have a safety pole.

Below are details of the above noted findings:

**Lintles rusted and paint peeling**



**CMU color leaching onto brick below**



**Inefficient use of space in restroom**



**Old and worn casework**



**Movable partitions no longer used**



**Chalkboards not converted to markerboards**



**Civil**

The site is generally in fair to good condition. Pavements are in poor condition with a number of areas where the asphalt is failing. Curbs and sidewalks are in fair condition; however accessibility at kiss-and-ride is poor. Athletic/play areas are in good condition and appear to be adequate, assuming completion of new playground equipment. There is opportunity in landscaping design on site.

Below are details of the above noted findings:

**Asphalt failing at bus loop**



**Asphalt failing at service area**



**Parking area asphalt cracking;  
parking spaces only 8' wide**



**Grade difference between building and  
kiss-and-ride non-ADA compliant**



**Asphalt failing at front bus loop**



**Concrete settlement at kiss-and-ride area**



**Structural**

The interior bearing walls are in good condition; however there are a number of cracks in the flooring. The cracks do not appear to be recent and there is no differential settlement.

A number of exterior lintels need to be cleaned and painted. Additionally, there are no control joints in the exterior corner masonry walls some hairline cracks are starting to appear.

Below are details of the above noted findings:

**Cracked flooring**



**Cooling tower steel**



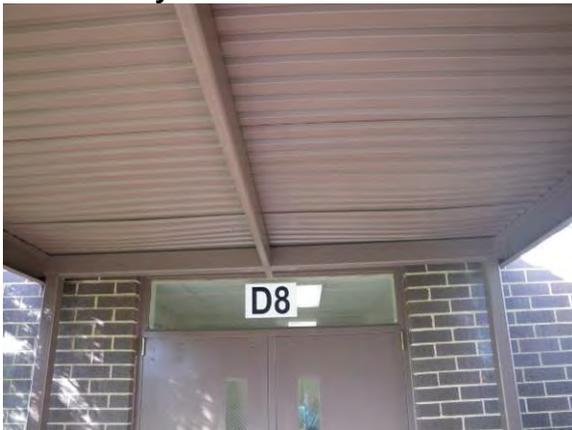
**Courtyard expansion joint lacks caulk**



**Mortar deterioration and exposed wire**



**Breezeway deck disconnected at seam**



**Breezeway and kindergarten courtyard masonry damaged**



**Shed masonry joint issues repaired with caulk and not mortar**



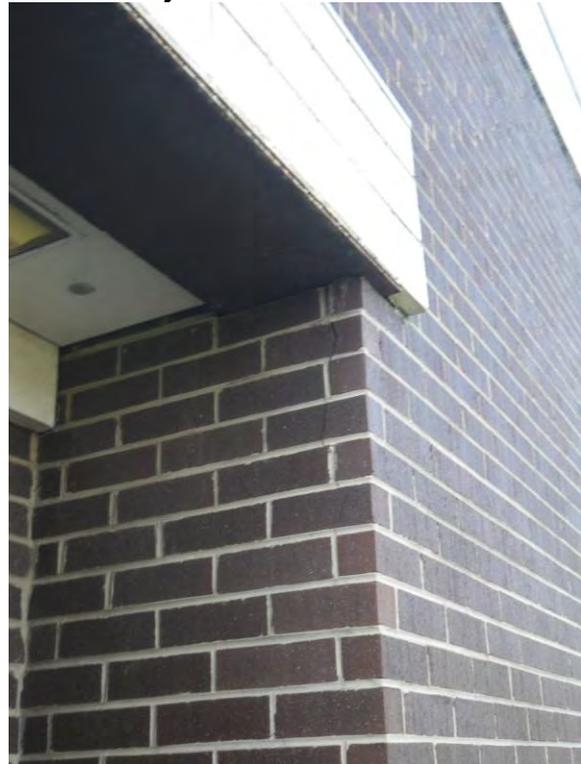
**Façade cracks due to lack of control joints and thermal movement**



**Corroded bolts at basketball backboards require replacement**



**Façade at lintel bearing cracking due to lack of control joints and thermal movement**



### **Sprinkler/Plumbing**

The electric water heater appears to be in fair to good condition. Flush valves are predominantly manual type. Automatic type wash basins are provided at each gang toilet.

### **Mechanical**

The heating system consists of two gas-fired, pulse type hot water boilers and associated pumps. Central cooling equipment consists of a water-cooled chiller and associated pumps located in the

mechanical room with cooling tower in the mechanical yard. Classrooms are served by rooftop air handling units and fan powered VAV boxes. Kitchen, cafeteria and multipurpose room are served by packaged rooftop air conditioning units with gas heat exchangers. Aside from the newer cooling tower, the age of all equipment appears to be approximately 12 years. The major equipment appears to be in good condition, although the drain pans within the rooftop air handlers are exhibiting moderate corrosion and it could be expected that the gas furnaces within the packaged rooftop units are showing some signs of age.

### **Electrical**

**Main Electrical Service** – The main electrical service consists of 480V-3Ø-2,000A service gear fed from the power company pad mounted transformer. The distribution section has limited spare capacity. Several step-down transformers transform the voltage down to 120/208V and feed 208V distribution gear located in the main electrical room.

**Generator** – The building has a 20kW Cummins diesel outdoor genset. The generator serves a limited number of loads, such as the fire alarm system and emergency lighting.

**Panelboards and Breakers** – Panelboards and breakers throughout that are original are in good condition. Panelboards and breakers have been added for low-voltage and HVAC upgrades. The gear that has been added is in good condition.

**Interior Lighting** – Interior lighting consists predominately of 2'x4' recess mounted T8 fluorescent type fixtures. Light levels are adequate and fixtures are in fair to good condition. However, several fixtures are not working. There is no automated lighting control present, such as occupancy sensors.

**Interior Power** – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building as well as devices that have been added via surface raceway during renovations. Power distribution appears adequate in most cases.

**Emergency Lighting** – Power for emergency lighting is achieved via lighting fixtures connected to the emergency generator.

**Site Lighting** – Building mounted lights consist of HID type. They generally provide adequate lighting coverage at doorways and egress pathways around the building (though not compliant per current code). Parking lot lighting consists of HID fixtures that are aimed above the horizontal, which is not dark-sky compliant.

**Fire Alarm & Security** – The building has an Edwards EST-2 Fire Alarm System in new condition. The building has AiPhone, intrusion, Stanley Wi-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

**Data / Tech / Sound** – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland. Nortel phone system is in the MDF room. The clock system is antiquated American Time system. Classrooms have interactive white boards and A/V input panels. The stage is equipped with a new sound system and existing dimmable lights.

## **AREAS TO BENEFIT BY RENOVATION:**

### **Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Signage
  - Stage
- Needed to meet LCPS facility standards:
  - Chalkboards converted to marker boards
  - Dedicated toilets in kindergarten, 2<sup>nd</sup> and special ed classrooms
  - Enclosed media center with office
  - Dedicated gym space with storage and PE office
  - Dedicated guidance room
  - Clinic sink
  - Cafeteria acoustical wall panels
  - Kiln relocated to art storage
  - Movable wall partitions converted to fixed CMU walls
- Additional recommendations:
  - North wing to be enclosed for security purposes

### **Civil**

- Pavements – numerous areas of failure
- Sidewalks/curbs – sidewalks have settled and need to be replaced
- Landscaping
- Kiss-and-ride - accessibility and location
- Parking - 8' parking spaces near front of building
- Pedestrian Safety - crosswalks and sidewalks in surrounding community

### **Structural**

- Basketball Backboards - corroded bolts need to be replaced
- Exposed steel lintels - clean and paint
- Breezeway - deck seam repair
- Brick masonry - cracks due to lack of control joints
- Cooling tower steel – cleaned and painted with cold galvanizing paint

### **Sprinkler/Plumbing**

- Sprinkler is a limited area sprinkler system. The building is not provided with full sprinkler coverage.

### **Mechanical**

- The chiller utilizes R-22 refrigerant.

### **Electrical**

- Egress lighting at exit doors should be addressed.
- There is no automated lighting control.
- Upgrade lighting systems and power.
- There is a considerable amount of exposed conduit and surface raceway in the corridors. While code compliant and safe, these are unsightly and are not aesthetically suitable.

FACILITY ASSESSMENT STUDY SCORE SHEET			131				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>						<b>37</b>	
ADEQUATE PARKING	SEEMS ADEQUATE			X			4
PARKING LOTS - CONDITION	SURFACE ASPHALT SHOULD BE REPLACED NEAR TERM	X					2
SIDEWALKS - CONDITION	MOSTLY ORIGINAL, SOME CRACKING AND SETTLEMENT, LACK OF X-WALKS AND FRONTAGE SIDEWALKS ARE A SIGNIFICANT ISSUE	X					2
ADEQUATE BUS QUEUING	ONLY RUNNING +/- 6 BUSES.				X		5
ADEQUATE PARENT DROP-OFF	ACCEPTABLE LENGTH, BUT OCCURS FAR AWAY FROM BUILDING.		X				3
ATHLETIC PLAY AREAS	NEW PLAYGROUND TO BE INSTALLED NEXT WEEK			X			4
LANDSCAPING	TREES ALONG FRONT CAUSE VISIBILITY ISSUES		X				3
MASONRY - CONDITION	MINOR CRACKING IN EXTERIOR FAÇADE		X				3
WINDOWS	DOUBLE GLAZED - BUT FOGGING	X					2
EXPOSED STEEL	METAL PANELS BELOW WINDOWS AND LINTELS ARE RUSTING AND PAINT PEELING		X				3
ROOFING	ROCK BALLAST ON EPDM, ACCESS LADDER NO SAFETY BAR, INSUFFICIENT OSHA CLEARANCE TO WALL	X					2
OVERALL AESTHETICS				X			4
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>						<b>24</b>	
WALLS / WAINSCOTS	NO WAINSCOT		X				3
FLOORING	CRACKING TERRAZZO	X					2
CEILING			X				3
DOORS & HARDWARE	ALL WOOD DOORS PAINTED W/ NEW HARDWARE	X					2
MARKER & TACK BOARDS		X					1
CASEWORK	WORN AND NON ADA COMPLIANT	X					1
EXTERIOR ACCESSIBILITY			X				2
INTERIOR ACCESSIBILITY	NO ADA COMPLIANT SIGNAGE, NO ADA STAGE ACCESS	X					1
SPRINKLER SYSTEM	NONE	X					1
EGRESS ADEQUACY			X				3
ADMIN VISIBILITY / SECURITY ENTRANCE			X				3
CLASSROOM ENVIRONMENT		X					2

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>17</b>	
PLAN ORGANIZATION			X				2
PLAN CIRCULATION	LOOP CIRCULATION GOES THRU MEDIA CENTER	X					1
ADMIN SUITE /CLINIC	CLINIC DOES NOT HAVE A SINK			X			3
CAFETERIA & KITCHEN	HAS LOCKER ROOM			X			3
GYM & ATHLETICS	SHARED SPACE WITH CAFETERIA		X				2
MEDIA CENTER	NOT ENCLOSED, CURRENTLY PART OF LOOP CIRCULATION, WORN CASEWORK		X				2
RESTROOMS	NO URINAL SCREENS, ADULT TOILETS NOT ADA COMPLIANT, GROUP TOIL. SINKS IN ALCOVE - DATED	X					1
STAFF FACILITIES		X					1
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	NO INSTRUMENT STORAGE, KILN IN BOILER ROOM, RACEWAY ON FLOOR IN COMP. LAB		X				2
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>53</b>	
CHILLERS	WATER-COOLED			X			4
COOLING TOWER	CENTRIFUGAL FORCED DRAFT			X			3
AIR HANDLING EQUIPMENT / RTU'S	ROOFTOP AIR HANDLERS AND PACKAGED EQUIPMENT, VAV BOXES			X			3
HEATING BOILERS / FUEL TANK	GAS-FIRED PULSE TYPE HOT WATER			X			3
PUMPS	BASE MOUNTED				X		4
UNIT / CABINET HEATERS / FANS				X			3
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	GAS-FIRED			X			3
MAIN SERVICE - ELECTRIC	480V-3P-2000A - GOOD CONDITION BUT ANTIQUATED			X			3
GENERATOR	20kW DIESEL - NO LONGER CODE COMPLIANT	X					2
PANELS / BREAKERS	FPE AND SIEMENS PANELBOARDS WITH SPARES AND SPACES SIEMENS EQUIPMENT			X			3
INTERIOR LIGHTING	FLUORESCENT T8,CLF, METAL HALIDE AND INCANDESCENT, SIMPLE STAGE DIMMING			X			3
INTERIOR POWER	INTERIOR POWER IS ADEQUATE WITH COMPUTER POWER UPGRADES			X			3
EMERGENCY LIGHTING	EMERGENCY LIGHTING ON THE GENERATOR				X		4
SITE LIGHTING	NOT DARK SKY - LIMITED CONTROLLABILITY	X					2
FIRE ALARM & SECURITY	EDWARDS EST2, Y-Q, CCTV, REGENCY INTRUSION, CANNOT GET SPARE PARTS FOR THE EST2			X			3
DATA / TECH / SOUND	DATA UPGRADES, AMERICAN TIME CONTROLLER, IWBS, INT., RAULAND INTERCOM, STAGE SOUND, DATA IN GOOD COND.					X	4
<b>TOTAL (out of 250 points)</b>						<b>131</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Sterling Elementary School  
200 W Church Road  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** August 4, 2015



**HISTORY:**

Sterling Elementary School was built in 1964.

The 66,025 sf school's capacity is 526 students and current enrollment is 511.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 125 out of a possible 250. The floor plan combines both an "H" and a loop circulation pattern. Classrooms have worn casework and chalkboards which have not been converted to marker boards. The roof is ballasted EPDM and the roof ladder does not have a safety pole. Original single pane windows remain in the 1962 portion of the building, but all others are dual pane. One modular learning center is currently being used on site.

Below are details of the above noted findings:

**Brick spalling**



**Worn casework**



**Walk-in freezer located at loading dock**



**Stage lacks handrails**



**Exposed wiremold in corridor**



**Exposed conduit in corridor**



**Civil**

The site is generally in fair condition. Pavements are showing signs of failure with several cracks extending into the base course. Curbs and sidewalks are in fair condition, with some cracked and lacking accessibility ramps. Landscaping design and maintenance is below average, particularly the baseball field on site. The property is lacking a track, suitable playground equipment, as well as an appropriate sized dirt infield. One modular learning center provides additional space for supplemental programs like preschool, student after care, etc.

Below are details of the above noted findings:

**Cracking asphalt**



**Damaged asphalt at front of school**



**Open sidewalk seams at asphalt/gutter pan interface**



**Non-ADA compliant frontage trail**



**Significant cracking in front parking lot asphalt**



**Plentiful greenspace, but lacking substantial playground, track, small ballfield**



**Structural**

The interior bearing walls are in good condition; however there is one diagonal crack in a classroom which needs further investigation. On the exterior of the building, there are a number of cracks in the façade in the courtyard. There are no control joints in the exterior corner masonry walls, but no additional cracking was visible.

Below are details of the above noted findings:

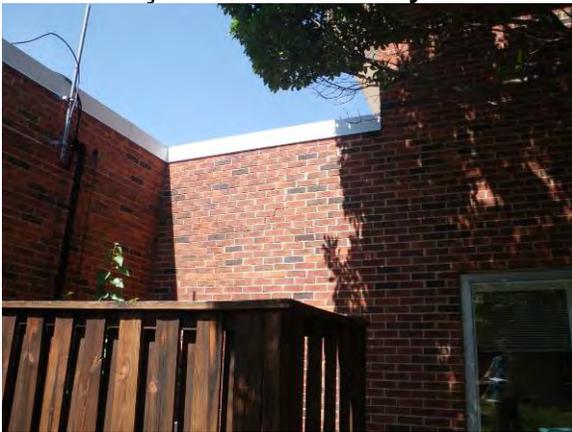
**Cracking bearing wall at rear east-west corridor classroom near courtyard**



**Bearing wall crack viewed from corridor**



**Façade crack in courtyard**



**Façade crack in north east corner of courtyard**



**Precast awnings cutoff at kindergarten doors**



**Sprinkler/Plumbing**

The gas water heater in the main mechanical room appears to be in fair to poor condition. The electric water heater serving the addition appears to be in fair condition. Flush valves are predominantly manual type. Faucets are predominantly metering type.

**Mechanical**

The heating system consists of two gas-fired, cast iron hot water boilers and associated pumps. Central cooling equipment consists of a water-cooled chiller and associated pumps located in the mechanical room with cooling tower in the mechanical yard adjacent to the loading dock area. The majority of classrooms are served by a central dual duct air handling unit and local mixing boxes. The multi-purpose room and administration area are served by independent air handlers. The addition located on the east side of the building is served by packaged rooftop air conditioning units and packaged unit ventilators.

Aside from the newer cooling tower, ductwork, and the dual duct mixing boxes located in each classroom, the age of all equipment appears to be approximately 15 years. The major equipment appears to be in fair condition except that the dual duct air handler appears to be in fair to poor condition. The mixing boxes and associated ductwork appear to be original construction while the cooling tower appears to be new.

**Electrical**

Main Electrical Service – The main electrical service consists of 480V-3Ø-1,600A service gear fed from the power company pad mounted transformer. The distribution section has adequate spare capacity and is in good condition. Step down transformers are utilized to derive 208V service.

Generator – The building does not have an emergency generation system.

Panelboards and Breakers – Panelboards and breakers throughout, except in the area of renovation and addition, are original are antiquated and in poor condition. Other panelboards and breakers have been added for renovation and addition work, low-voltage systems, and HVAC upgrades. The gear that has been added is in good condition.

Interior Lighting – Interior lighting consists predominately of 2'x4' recess mounted T8 fluorescent type fixtures, compact fluorescent fixtures (gymnasium), and a limited number of incandescent fixtures. Light levels are adequate and fixtures are in fair to good condition. However, several fixtures are not working. Many classrooms have occupancy sensors installed.

Interior Power – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building as well as devices that have been added via surface raceway during renovations. Power distribution appears adequate in most cases.

Emergency Lighting – Emergency lighting consists of wall mounted battery pack fixtures located throughout the building.

Site Lighting – Building mounted lights consist of HID type predominately. They generally provide adequate lighting coverage at doorways and egress pathways around the building (though not compliant per current code). Parking lot lighting consists of HID fixtures that are not dark-sky compliant.

Fire Alarm & Security – The building has a Notifier AFP-200 Fire Alarm System. The building has iPhone, intrusion, Stanley Wi-Q wireless access control, coaxial and IP CCTV cameras. The

CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland Telecenter. Nortel phone system is in the MDF room. The clock system is an antiquated Simplex 2350 system. Classrooms have interactive white boards and A/V input panels.

### **AREAS TO BENEFIT BY RENOVATION:**

#### **Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms for 1964 portion of building
  - 18” vertical grab bars in gym bathrooms
  - Signage
  - Stage
- Needed to meet full ADA compliance:
  - Dedicated PE office and storage
  - Cafeteria acoustical panels
  - Kitchen office, lockers and walk-in freezer/cooler

#### **Civil**

- Pavements – showing signs of failure and cracking
- Sidewalks/curbs – improve accessibility; joint seal between curb and sidewalks; gutter pan interface with asphalt
- Landscaping
- Other – school administration’s largest civil concern is the lack of appropriate playground equipment

#### **Structural**

- No concerns.

#### **Sprinkler/Plumbing**

- Sprinkler is provided only in the newer construction on the east side of the building. The building is not provided with full sprinkler coverage.

#### **Mechanical**

- The chiller utilizes R-22 refrigerant.
- The dual duct system is outdated, inefficient, and in fair to poor condition.

#### **Electrical**

- Egress lighting at exit doors should be addressed.
- Lighting levels in teaching spaces are marginal and should be further considered for replacement.
- Gear and devices that are original to the primary building construction should be considered for replacement.
- Upgrade lighting systems and power.

FACILITY ASSESSMENT STUDY SCORE SHEET				125				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>30</b>	
ADEQUATE PARKING	PARKING SEEMS PLENTIFUL					X	5	
PARKING LOTS - CONDITION	ASPHALT NEEDS REPAIRS FOR SOME DEEP CRACKS		X				2	
SIDEWALKS - CONDITION	MOSTLY ORIGINAL, ADA ACCESSIBILITY ISSUES, POOR TRAIL		X				2	
ADEQUATE BUS QUEUING	APPEARS TO BE ADEQUATE FOR CURRENT # OF BUSES				X		4	
ADEQUATE PARENT DROP-OFF	USES LOT TO THE EAST WHICH HAS ACCEPTABLE QUEUING			X			3	
ATHLETIC PLAY AREAS	LACKING SOME PLAYGROUND EQUIPMENT		X				2	
LANDSCAPING	MINIMAL LANDSCAPING IN FRONT	X					1	
MASONRY - CONDITION				X			3	
WINDOWS	SINGLE GLAZED	X					1	
EXPOSED STEEL				X			3	
ROOFING			X				2	
OVERALL AESTHETICS			X				2	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>28</b>	
WALLS / WAINSCOTS				X			3	
FLOORING				X			3	
CEILING	RECENTLY REPLACED				X		4	
DOORS & HARDWARE	RECENTLY REPLACED				X		4	
MARKER & TACK BOARDS		X					1	
CASEWORK	NON ADA COMPLIANT		X				2	
EXTERIOR ACCESSIBILITY				X			3	
INTERIOR ACCESSIBILITY			X				2	
SPRINKLER SYSTEM	NONE	X					1	
EGRESS ADEQUACY				X			3	
ADMIN VISIBILITY / SECURITY ENTRANCE		X					1	
CLASSROOM ENVIRONMENT		X					1	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>27</b>	
PLAN ORGANIZATION				X			3	
PLAN CIRCULATION	MODIFIED LOOP PLAN			X			3	
ADMIN SUITE /CLINIC			X				2	
CAFETERIA & KITCHEN	NO ACOUSTICAL PANELS ON WALLS, COOLER OUTSIDE		X				2	
GYM & ATHLETICS						X	5	
MEDIA CENTER						X	5	
RESTROOMS			X				2	
STAFF FACILITIES			X				2	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)				X			3	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>40</b>	
CHILLERS	WATER COOLED	X					1
COOLING TOWER	AXIAL FORCED DRAFT CROSSFLOW, NEW					X	5
AIR HANDLING EQUIPMENT / RTU'S	INDOOR AIR HANDLERS, MIXING BOXES, PACKAGED ROOFTOP	X					1
HEATING BOILERS / FUEL TANK	GAS-FIRED, CAST IRON HOT WATER		X				2
PUMPS	BASE MOUNTED	X					1
UNIT / CABINET HEATERS / FANS		X					1
ATC / EMS	DIRECT DIGITAL, TRANE		X				2
DOMESTIC WATER HEATERS	GAS AND ELECTRIC		X				2
MAIN SERVICE - ELECTRIC	480V-3P-500 KVA POWER COMPANY TRANSFORMER WITH 480V-3P-1600 AMP MAIN SWITCHBOARD					X	4
GENERATOR	BUILDING DOES NOT HAVE A GENERATOR	X					1
PANELS / BREAKERS	SQUARE-D AND CUTLER HAMMER WITH TVSS, SPARE BREAKER AND SPACES IN PANELBOARDS			X			3
INTERIOR LIGHTING	FLUORESCENT T8, CLF, METAL HALIDE, INCANDESCENT, SIMPLE STAGE DIMMING			X			3
INTERIOR POWER	SQUARE-D AND CUTLER HAMMER, SPARES AND SPACES IN BOTH TYPES, LIGHTING, MECHANICAL, GENERAL RECEPTACLE AND COMPUTER POWER			X			3
EMERGENCY LIGHTING	BATTERY LIGHTS AND BATTERY BALLASTS, MAY NEED MORE LIGHTS ON BATTERY			X			3
SITE LIGHTING	PARKING LOT AND BUILDING EGRESS PATHWAYS APPEAR TO BE LIGHTED WELL WITH POLE AND WALL MOUNTED METAL HALIDE LIGHTS			X			3
FIRE ALARM & SECURITY	NOTIFIER, CCTV, Y-Q, INTRUSION			X			3
DATA / TECH / SOUND	RAULAND INTERCOM, SIMPLEX TIME CONTROLLER, IWBs, INT., STAGE SOUND, DATA IN GOOD CONDITION		X				2
<b>TOTAL (out of 250 points)</b>						<b>125</b>	



# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Sully Elementary School  
300 Circle Drive  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** August 4, 2015



**HISTORY:**

Sully Elementary School was built in 1968.

The 59,294 sf school's capacity is 500 students and current enrollment is 506.



www.archinc.com  
tel 703.476.3900  
fax 703.264.0733  
reston, virginia 20191  
suite 101  
1902 campus commons drive  
architecture incorporated

**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 127 out of a possible 250. There are two primary entrances to the school and it is unclear which is to be used as the "Main Entry." A new roof and fascia were installed this year. The floor plan is effective and organized with a clean circulation loop. The 1968 portion of the school has original, worn casework in all room types as well as chalkboards which are not covered to marker boards. Two modular learning centers are on site to provide additional classrooms.

Below are details of the above noted findings:

**Cracking terrazzo floor**



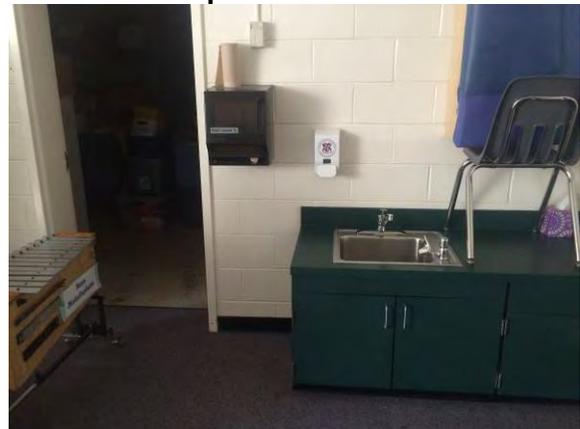
**Non-ADA compliant water fountains**



**Cracking wainscot and CMU**



**Non-ADA compliant classroom casework**



**Chalkboards not converted to marker boards**



**Civil**

The site is generally in fair condition. New asphalt pavement overlay has been recently completed in the bus loop area. Curbs and sidewalks are mostly original and are in fair condition. Landscaping is above average with many mature trees. Athletic/play areas are ample and in good condition. Some athletic play areas which are shared with the softball league are not in as good condition as the other facilities. There are two modular learning centers on site.

Below are details of the above noted findings:

**Recently repaved asphalt at bus loop;  
original curbs and sidewalks**



**Concrete curbs deteriorating at  
front drop off area**



**Asphalt parking area repaired after damaged during roofing work**



**Asphalt cracking at service side of building**



**Site accessibility requires repairs**



**Playground well used by community**



**Structural**

The interior bearing walls are in good condition; however exterior lintels need to be cleaned and painted. There are no control joints in the exterior masonry walls which caused cracking at the corners of the rear classrooms and gym walls due to thermal movement. Additionally, settlement at the corners of the gym was observed. The exterior door at the stage does not function properly and light is visible around the edges due to settlement.

Below are details of the above noted findings:

**Mortar deterioration and exposed wire**



**Courtyard through-wall A/C units allow moisture in**



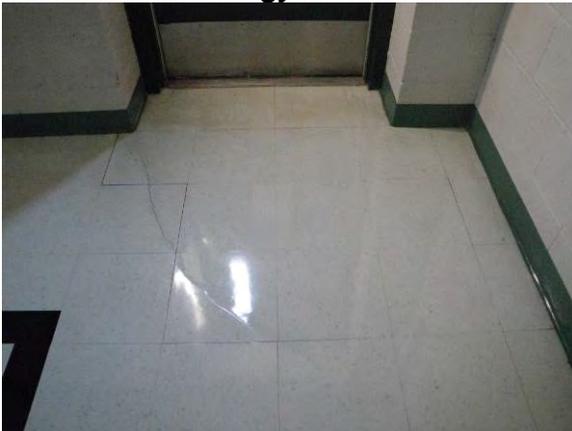
**Crack at end of lintel caused by settlement in corner of gym**



**Crack at end of lintel caused by settlement in corner of gym**



**Floor crack caused by settlement in corner of gym**



**Floor crack caused by settlement in corner of gym**



**Courtyard lintel rusted and paint peeling**



**Precast awning rotation causing façade cracks**



**Precast awning rotation causing façade cracks**



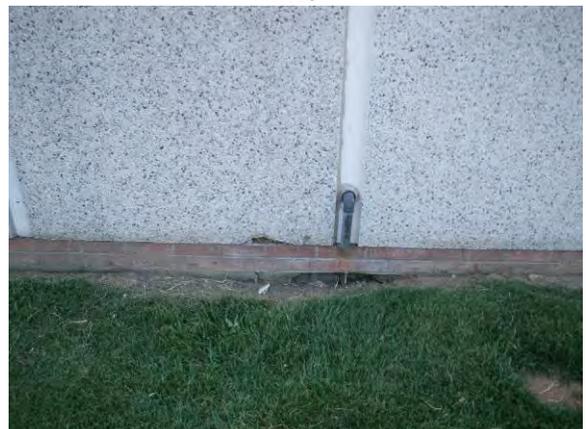
**Precast awning rotation causing façade cracks**



**Façade cracks due to lack of control joints and thermal movement**



**Façade damage due to leaking condensation line**



**Sprinkler/Plumbing**

The electric water heater appears to be in fair condition. Flush valves are predominantly manual type. Faucets are predominantly metering type. The domestic water pressure pump appears to be new and in excellent condition.

**Mechanical**

The heating system consists of two gas-fired, fire tube hot water boilers and associated pumps. Central cooling equipment consists of a packaged, air-cooled chiller located on the roof with associated pumps. Four-pipe unit ventilators serve the classrooms and indoor air handlers with hot water heating and DX cooling (condensing units on the roof) serve the multipurpose room. All equipment appears to be approximately 15 years old and in fair condition.

**Electrical**

Main Electrical Service – The main electrical service consists of 480V-3Ø-1,200A service gear fed from the power company pad mounted transformer. The distribution section has spare capacity and space only breaker positions. A 500kVA transformer transforms the voltage down to 120/208V and feeds the original main service gear and the cottages.

Generator – The building does not have a generator. Emergency lighting is provided by battery wall packs and a tap ahead of the main disconnect on the original main gear.

Panelboards and Breakers – Panelboards and breakers throughout have been upgraded, added, and retrofitted for the most part. Some gear that is original to the building construction still remains and is antiquated.

Interior Lighting – Interior lighting consists of T8 fluorescent, CFL, and some limited incandescent. Light levels are adequate. However, several fixtures are not working. There is no automated lighting control present, such as occupancy sensors.

Interior Power – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building as well as devices that have been added via surface raceway during renovations. Power distribution appears adequate in most cases.

Emergency Lighting – Power for emergency lighting is achieved via wall mounted battery pack fixtures and an original white light circuit tapped ahead of the original main gear disconnect.

Site Lighting – Building mounted lights consist of HID and LED type. They generally provide good lighting coverage at doorways and egress pathways around the building (though no longer code compliant). No parking lot lighting is present.

Fire Alarm & Security – The building has a Pyrotronics (non-voice) Fire Alarm System with little room to expand. The building has AiPhone, Silent Knight intrusion, Stanley Wi-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Dukane. Nortel phone system is in the MDF room. The clock system is antiquated. Classrooms have interactive white boards and A/V input panels. The stage is equipped with a new sound system and existing dimmable lights.

**AREAS TO BENEFIT BY RENOVATION:****Architecture**

- Needed to meet full ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Media center checkout counter

- Front entry
- Stage
- Exit doors
- Needed to meet LCPS facility standards:
  - Dedicated PE office and storage space
  - Security vestibule
  - Quarry tile floor in kitchen
  - Acoustical wall panels in cafeteria

### **Civil**

- Pavements – showing signs of failure
- Sidewalks/curbs – accessibility
- Landscaping
- Parking lot lighting
- Parent drop-off queuing

### **Structural**

- Precast concrete awnings – causing cracking in exterior brick façade; movement of awnings is likely continuous
- Gym corner settlement – appears to have stopped, but should be monitored
  - Mortar joint - repair needed above lintel; no real structural concern at this time
  - Stage door – not functioning properly due to settlement which damaged frame
  - Exterior masonry - may be affected by thermal movement due to lack of control joints in this area
- Through-wall A/C units in the courtyard – protrude beyond brick face; units have been caulked, but decay is evident and risk of water leaking is high
- Lintels – clean and paint

### **Sprinkler/Plumbing**

- Sprinkler coverage is provided only in the gym and two classroom addition. The building is not provided with full sprinkler coverage.

### **Mechanical**

- The chiller utilizes R-22 refrigerant.
- All mechanical systems are quickly approaching the end of their useful service life.
- It appears that untempered outside air is ducted directly to the unit ventilators. This can commonly cause humidity and indoor air quality issues.

### **Electrical**

- The building does not have a generator.
- Existing original gear is antiquated and should be replaced.
- Light fixtures that are not working should be fixed.
- Existing emergency egress lighting should be addressed to provide adequate coverage, including egress lighting at exit doors.
- Pole lights should be added to the parking lots to increase light levels at night.
- Upgrade lighting systems and power.
- Replacement parts for several of the low-voltage systems, such as fire alarm and intercom, are difficult to locate.
- There is no automated lighting control.

FACILITY ASSESSMENT STUDY SCORE SHEET			127				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>37</b>
ADEQUATE PARKING	INADEQUATE		X				2
PARKING LOTS - CONDITION	SIDE PARKING LOT IN TOTAL FAILURE DUE TO ROOFING WORK. BUS LOOP IN EXCELLENT CONDITION. PARKING AREAS NEED LIGHTING		X				2
SIDEWALKS - CONDITION	MOSTLY ORIGINAL, NON ADA COMPLIANT RAMPS, SOME CRACKING		X				2
ADEQUATE BUS QUEUING	ONLY RUNNING 3 BUSES FOR +/- 30 KIDS					X	5
ADEQUATE PARENT DROP-OFF	TYPICALLY QUES ONTO PUBLIC STREET	X					1
ATHLETIC PLAY AREAS	REALLY GOOD PLAY AREA; ONE BACKSTOP IS DATED				X		4
LANDSCAPING	MATURE TREES NEED SOME PRUNING				X		4
MASONRY - CONDITION	KINDERGARTEN CANOPIES - CRACKED				X		4
WINDOWS	DOUBLE GLAZED			X			3
EXPOSED STEEL	LINTELS NEED CLEANING AND PAINT			X			3
ROOFING	NEW ROOF AND FASCIA					X	5
OVERALL AESTHETICS	LACK OF MAIN ENTRY IDENTIFICATION		X				2
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>26</b>
WALLS / WAINSCOTS	WAINSCOT TILE EXCESSIVE RANDOM CRACKING	X					1
FLOORING	TERRAZZO AND FRITZ TILE HALLS, CARPET WORN			X			3
CEILING				X			3
DOORS & HARDWARE	MEDIA CENTER DOORS WORN, ALL OTHERS RECENTLY REPLACED			X			3
MARKER & TACK BOARDS	NO MARKER BOARDS	X					1
CASEWORK	NEED REPLACEMENT		X				2
EXTERIOR ACCESSIBILITY				X			3
INTERIOR ACCESSIBILITY	TOILETS AND OLD GROUP RESTROOMS ARE NON ADA COMPLIANT		X				2
SPRINKLER SYSTEM	ONLY IN GYM ADDITON	X					1
EGRESS ADEQUACY				X			3
ADMIN VISIBILITY / SECURITY ENTRANCE		X					1
CLASSROOM ENVIRONMENT				X			3

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>26</b>	
PLAN ORGANIZATION				X			3
PLAN CIRCULATION					X		4
ADMIN SUITE /CLINIC		X					1
CAFETERIA & KITCHEN	NO LOCKER ROOM			X			3
GYM & ATHLETICS	STORAGE ROOM BEING USED AS OFFICE				X		4
MEDIA CENTER	OFFICE CASEWORK NEEDS REPLACEMENT. NEW CARPET AND CASEWORK IN MEDIA CENTER					X	4
RESTROOMS	NO URINAL DIVIDERS, NON ADA COMPLIANT		X				2
STAFF FACILITIES				X			3
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	KILN LOCATED IN BOILER ROOM, NO STORAGE FOR MUSIC INSTRUMENTS		X				2
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>38</b>	
CHILLERS	AIR COOLED		X				2
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	UNIT VENTILATORS, SPLIT SYTEMS, PACKAGED ROOFTOP		X				2
HEATING BOILERS / FUEL TANK	GAS-FIRED, FIRE TUBE, HOT WATER		X				2
PUMPS	BASE MOUNTED		X				2
UNIT / CABINET HEATERS / FANS			X				2
ATC / EMS	DIRECT DIGITAL, TRANE		X				2
DOMESTIC WATER HEATERS	GAS AND ELECTRIC			X			3
MAIN SERVICE - ELECTRIC	480V-1,200A; THERE ARE NEC VIOLATIONS PRESENT			X			3
GENERATOR	LACKING GENERATOR						
PANELS / BREAKERS	MOST GEAR RETROFITTED; SOME ORIGINAL REMAINS			X			3
INTERIOR LIGHTING	MOSTLY T8 FIXTURES; SOME HID TYPE		X				2
INTERIOR POWER	ADDITIONAL CIRCUITS ADDED VIA RACEWAY			X			3
EMERGENCY LIGHTING	MINIMAL BATT. PACKS; UTILIZES WHITE LIGHT CKT.		X				2
SITE LIGHTING	NO LOT LIGHTING; ONLY BUILDING MOUNTED	X					1
FIRE ALARM & SECURITY	F/A SYSTEM NOT CODE COMPLIANT IN ALL CASES				X		4
DATA / TECH / SOUND	IWBs, INT., SOUND, DATA IN GOOD CONDITION				X		4
<b>TOTAL (out of 250 points)</b>						<b>127</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Waterford Elementary School  
15513 Loyalty Road  
Waterford, VA 20197  
Loudoun County Public Schools

**Date:** July 28, 2015



**HISTORY:**

Waterford Elementary School was built in 1965.

The 24,794 sf school's capacity is 250 students and current enrollment is 145.



www.archinc.com  
tel 703.476.3900  
fax 703.264.0733  
reston, virginia 20191  
suite 101  
1902 campus commons drive  
architecture incorporated

**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 105 out of a possible 250. The floor plan is “L” shaped and effective. Classrooms are lacking storage, specifically wall racks for backpack organization. The media center has worn casework, is on the smaller side and does not have an office. Art and music are currently conducted in the two trailers on site. Within the last 5 years a new roof was installed, but the roof ladder lacks a safety pole.

Below are details of the above noted findings:

**Lintel rusted; brick mortar deteriorating**



**Classroom doors, storage and ceiling**



**Chalkboards converted to marker boards**



**Old and worn casework**



**Civil**

The site is generally in good to very good condition. New asphalt pavement overlay has been recently completed in the bus loop area and a seal coat was recently applied to the parking lot. Curbs and sidewalks appeared to be mostly original and are in fair to good condition. Landscaping is above average with many mature hardwoods at the front of the school. Athletic/play areas are ample and are in good condition; although, the site did not have a track.

Below are details of the above noted findings:

**Building entry**



**Bus loop and parent drop-off entry**



**Parent drop-off end of parking lot turn-around**



**Softball / multi-purpose field**



**Playground / basketball courts**



**Parking lot recently seal coated**



**Structural**

The interior bearing walls are in good condition; however the exterior walls are showing signs of weathering. Mortar needs to be re-pointed and some of the exposed steel needs to be cleaned and painted.

Below are details of the above noted findings:

**Mechanical roof opening infilled with wood framing**



**Mechanical roof opening infilled with wood framing**



**Electrical room peeling paint**



**Mortar joint condition**



**Corroded lintel**



**Sprinkler/Plumbing**

The electric water heater appears to be in good condition. Flush valves are predominantly manual type. Faucets are predominantly metering type.

## **Mechanical**

The heating system consisting of a single cast iron, oil-fired, hot water boiler and associated pumps appears to be in good condition. Cooling equipment consists of packaged, rooftop air conditioning units. Units serving the original building appear to have been recently replaced and are in good condition. The units serving the three classroom addition on the east side of the building are approximately 15 years and appear to be in fair condition.

## **Electrical**

**Main Electrical Service** – The building has three electrical services. Two of the electrical service fed from a single pole with three 50 KVA pole mounted transformer to provide one 208V-3Ø service to the existing building and one 208V-3Ø service to the cottages. The third electrical service is in the addition and is also fed from three 50 KVA pole mounted transformers for a 480V-3Ø service. The 208V electrical services are overhead and the 480V electrical service is underground. The panelboard use for the cottage electrical service is 200 amps. The building switchboard use for the 208V electrical service is 1200 amps. The main panelboard used for the 480V is sized for 225 amps. The two 208V service panels have very little spare capacity. The 480V service panelboard has space but appears to be at load capacity as connected to building equipment and transformer.

**Generator** – The building does have a Detroit Diesel generator (208V-3Ø-35 KVA). The generator has a small belly or base fuel tank. The generator appears to provide standby power for the walk-thru lighting and fire alarm panel. Walk-thru lighting in the addition is powered by battery packs during power outages.

**Panelboards and Breakers** – The panelboards and breakers in the building consist of Westinghouse and GE equipment. The Westinghouse equipment is original. The GE equipment was added in during the power and data upgrades and renovations. The capacity to add breakers in Westinghouse equipment is limited due to lack of space and unavailability of breakers. If space was available, breaker would have to come from a different manufacturer. The GE equipment does have spares and space for addition breakers. Shock hazard information is not affixed to electrical equipment.

**Interior Lighting** – Interior lighting consist fluorescent, T8 fluorescent. Light is adequate. Several fixtures are not working. Several fixtures have crack lenses.

**Interior Power** – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power. TVSS or SPD devices could not be located. The new equipment as noted above does have capacity for additional circuits (spares and add-ons).

**Emergency Lighting** – Power for emergency lighting is achieve through a diesel generator system for the existing building and battery packs in the addition. Classrooms do not appear to have emergency lighting. In general, egress emergency lighting is adequate.

**Site Lighting** – Building mounted CFLs, Metal Halide, and recessed canopy lights cover most exits from the building. The front of the building does not have any building mounted lights. There are only three older type decorative metal halide pole lights covering the front of the building and driving area. Lighting levels in the parking lots would be low due to low quantity of pole lights.

**Fire Alarm & Security** – The building has an EST 2 (non-voice) Fire Alarm System with a little room to expand. The building has iPhones, Honeywell Intrusion, Y-Q wireless access control, mostly

coaxial CCTV cameras with some IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Dukane Care Hawk. Nortel phone system is in the office MDF room. The clock system is controlled by the Simplex clock controller. Some clocks are controlled by the simplex controller and other clocks are just battery clocks. Classrooms have smart boards and AV input panels. The stage is equipped with a sound system in very good condition and simple dimmable lights.

### **AREAS TO BENEFIT BY RENOVATION:**

#### **Architecture**

- Needed to meet ADA compliance:
  - Restrooms and toilet rooms
  - Casework with integral sinks
  - Administration front counter
  - Media center checkout counter
  - Front entry
  - Stage
  - Drinking fountains
  - Exit doors
- Needed to meet LCPS facility standards:
  - Book storage
  - Security Vestibule
  - Administration office with toilet room and conference room
  - Clinic with sink and toilet
  - Media center office
  - Dedicated gym space, gym storage and PE office
  - Music storage
  - Art storage and kiln
  - Kitchen office, lockers and walk-in freezer/cooler
  - Janitor's office
- Additional Recommendations:
  - Ability for administrative office to have clear visibility for security purposes

#### **Civil**

- No major areas of concern

#### **Structural**

- Wood framing in in mechanical room – verify with code
- Corroded roof deck in electrical room – clean and repaint exposed lintels

#### **Sprinkler/Plumbing**

- Sprinkler is a limited area sprinkler system. The building is not provided with full sprinkler coverage.

#### **Mechanical**

- Older rooftop units utilize R-22 refrigerant and are quickly approaching the end of their useful service life.
- Heating systems utilizing fuel oil are less efficient than other fuel sources.

**Electrical**

- The building does not have generator power in the addition.
- Battery packs are used for emergency lighting in the addition.
- Light fixtures that are not working should be fixed.
- Outside lighting is not adequate. Pole lights should be added to the parking lots to increase light levels at night.
- The building electrical services should be combined into one electrical service. This might prevent any ground issues that might be cause due to the two electrical services being on opposite ends of the building.
- Upgrade lighting systems and power.
- Replacement parts for the EST 2 fire alarm system are hard to get.
- Shock hazard information should be affixed to all electrical equipment (switchboards, panelboards, transformer, transfer switch, motor starters and disconnects).

FACILITY ASSESSMENT STUDY SCORE SHEET			105				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>						<b>35</b>	
ADEQUATE PARKING				X		4	
PARKING LOTS - CONDITION	RECENT MILL, OVERLAY ON BUS LOOP AND SEAL COAT			X		4	
SIDEWALKS - CONDITION			X			3	
ADEQUATE BUS QUEUING			X			3	
ADEQUATE PARENT DROP-OFF				X		4	
ATHLETIC PLAY AREAS				X		4	
LANDSCAPING	MANY MATURE HARDWOODS			X		4	
MASONRY - CONDITION	INADEQUATE FLASHING ABOVE WINDOW LINTELS		X			2	
WINDOWS	SINGLE GLAZED	X				1	
EXPOSED STEEL	STEEL AND DECK IN MECHANICAL RM CORRODED	X				1	
ROOFING	ROOF LADDER NO SAFETY BAR		X			2	
OVERALL AESTHETICS			X			3	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>						<b>19</b>	
WALLS / WAINSCOTS	TILE WAINSCOT		X			2	
FLOORING	TERRAZZO HALLS, VCT CLASSROOMS			X		3	
CEILING			X			2	
DOORS & HARDWARE	VERY WORN - NEEDS REPLACEMENT	X				1	
MARKER & TACK BOARDS			X			2	
CASEWORK	VERY WORN - NEEDS REPLACEMENT	X				1	
EXTERIOR ACCESSIBILITY		X				1	
INTERIOR ACCESSIBILITY		X				1	
SPRINKLER SYSTEM	NONE	X				1	
EGRESS ADEQUACY			X			2	
ADMIN VISIBILITY / SECURITY ENTRANCE	NO SECURITY VESTIBULE	X				1	
CLASSROOM ENVIRONMENT			X			2	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>12</b>	
PLAN ORGANIZATION			X			2	
PLAN CIRCULATION			X			2	
ADMIN SUITE /CLINIC		X				1	
CAFETERIA & KITCHEN	KITCHEN UNDERSIZED, NO OFFICE, NO LOCKER RM, EXTERIOR COOLER	X				1	
GYM & ATHLETICS		X				1	
MEDIA CENTER	VERY SMALL, NO CHECK OUT COUNTER, NO OFFICE OR CONFERENCE ROOM, NO SMART BOARD		X			2	
RESTROOMS	GROUP TOILETS NO ADA STALL AND NO URINAL SCREENS	X				1	
STAFF FACILITIES	NO TEACHERS LOUNGE OR WORK ROOM	X				1	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)	COMPUTER LAB OVER HEATED AND CONDUIT ON FLOOR, ALL OTHERS ARE IN TRAILERS	X				1	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>39</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP			X			4
HEATING BOILERS / FUEL TANK	OIL-FIRED CAST IRON HOT WATER		X				3
PUMPS	BASE MOUNTED, END SUCTION		X				3
UNIT / CABINET HEATERS / FANS	MOSTLY ORIGINAL	X					1
ATC / EMS	DIRECT DIGITAL, TRANE		X				3
DOMESTIC WATER HEATERS	ELECTRIC		X				3
MAIN SERVICE - ELECTRIC	THREE SMALL SERVICES (2 @ 208V AND 1 @ 480V)		X				2
GENERATOR	SMALL DIESEL ONLY @ 208V, DOES NOT APPEAR TO COVER THE ADDITION		X				2
PANELS / BREAKERS	PANELS APPEAR TO HAVE LITTLE CAPACITY AND OLDER PARTS ARE HARD TO GET		X				2
INTERIOR LIGHTING	INCANDESCENT, CFL, T8 AND MH LAMPS. OLDER FIXTURES. MINOR DAMAGE TO SOME FIXTURES		X				2
INTERIOR POWER	GOOD CONDITION WITH LITTLE SPARE CAPACITY		X				3
EMERGENCY LIGHTING	SEVERAL EMERGENCY LIGHTS ARE CONNECTED TO THE GENERATOR. SEVERAL FIXTURES APPEARED NOT TO BE WORKING. COULD NOT LOCATE 120 VOLT EMERGENCY LIGHTING IN THE ADDITION		X				2
SITE LIGHTING	POOR - INADEQUATE AND SEVERAL FIXTURES NOT WORKING	X					1
FIRE ALARM & SECURITY	SYSTEMS APPEAR ADEQUATE FOR THE BUILDING			X			3
DATA / TECH / SOUND	GOOD CONDITION			X			3
<b>TOTAL (out of 250 points)</b>						<b>105</b>	



# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Blue Ridge Middle School  
551 East A Street  
Purcellville, VA 20132  
Loudoun County Public Schools

**Date:** August 11, 2015



Blue Ridge Middle School, Bulldogs



### HISTORY:

Blue Ridge Middle School opened in 1971 and serves grades six through eight. The structure underwent a major expansion and renovation in 2005 to accommodate growing enrollment. During this renovation, the design of the front of the building was updated to look like the new middle schools in Loudoun County.

The 143,413 sf school's capacity is 1,226 students and current enrollment is 1,000.



www.archinc.com  
tel 703.476.3900  
tel 703.264.0733  
reston, virginia 20191  
suite 101  
1902 campus commons drive  
architecture incorporated

**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 141 out of a possible 250. The exterior walls in the original structure are in fair condition with some brick mortar cracked or missing. Lintels are also showing signs of corrosion and need to be repainted. In classrooms, most chalkboards still need to be converted to marker boards. PE locker rooms are worn and shower areas are currently being used as storage. Roof is EPDM and appears to have been installed within the last 5 years.

Below are details of the above noted findings:

**Chalkboards not converted to marker boards**



**Old and worn media center casework**



**Outdated Tech Ed casework**



**Outdated Tech Ed casework**



**Work movable partition in cafeteria**



**Hallway visibility compromised by ramp wall**



**Civil**

The site is generally in fair to good condition. The asphalt in the bus loop and parking lot were in fair to good condition. Curbs and sidewalks are in average condition for their age. A few mature trees are located at the front of the site, but overall there is opportunity in landscaping design. An outdoor classroom is located in a wooded area on the west side of building. Athletic/play areas included a softball/baseball field, three soccer fields and a track. All of which were in good condition.

Below are details of the above noted findings:

**Landscaping at front of school**



**Bus loop and front entry to school**



**Parent drop-off**



**Softball / multi-purpose field**



**Soccer field with track**



**Outdoor classroom**



**Structural**

The interior bearing walls and exterior walls are in good condition; however a few lintels need to be re-painted. The steel framed, covered basketball court was in good condition, but needs to be cleaned and painted. There was no evidence of ponding on this roof.

Below are details of the above noted findings:

**Façade crack due to canopy connection likely caused by thermal movement**



**Loading dock column moisture damage**



**Exterior basketball court deck paint peeling**



**Sprinkler/Plumbing**

The main gas-fired water heater appears to be in fair condition. Electric water heaters located throughout the building appear to be in good condition. Flush valves are predominantly automatic type. Faucets are predominantly metering type.

**Mechanical**

The building is served by a combination of packaged rooftop air conditioning units with gas heat and two-pipe unit ventilators with a chilled water coil and electric heat. An air cooled chiller and associated pumps provide chilled water to the unit ventilators. The rooftop units serving the science wing, art wing, and limited other areas have been replaced or installed more recently. However, the vast majority of equipment appears to be approximately 15 years old and in fair condition.

**Electrical**

Main Electrical Service – The main electrical service consist of a 480V-3Ø power company pad mounted transformer and a FPE 480V-3Ø-4000 switchboard (original) with bolted pressure switch. The distribution sections have two small space only positions available. The switchboard has one power tap to provide expansion for power upgrades and building addition.

Generator – The building has gas generator. Generator provides power for emergency lighting and the fire alarm panel system. The generator is rated at 480V-3Ø-30KW. The generator system has an ATS device for life safety equipment and the fire alarm system. The generator is in good condition and is located indoors. The generator has a very long exhaust pipe that extends through an exterior wall. The room does not appear to have enough ventilation accommodate the generator.

Panelboards and Breakers – The panelboards and breakers in the building consist of FPE (Federal Pacific), GE and Siemens equipment. The FPE equipment is original. The GE and Siemens equipment was added in during the power and data upgrades, additions. The capacity to add breakers in FPE equipment is limited due to lack of space and unavailability of breakers. The GE and Siemens equipment does have spares and space for addition breakers. Shock hazard information is affixed to most electrical equipment.

Interior Lighting – Interior lighting consist T8 fluorescent, CFL, metal halide and some limited incandescent. Stage theatrical lighting system is use in the auditorium. The theatrical lighting systems does have some age on it. The dimming panel is an older system with limited or no spare parts available. The system appears to be in fair condition. The dimming cabinet door is being held closed with silver duct tape. The theatrical lighting units range from poor condition to good condition. Overall the lighting in the school is adequate. Some fixtures are not working. Some light fixtures have crack lenses or discolored lenses.

Interior Power – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power base on power upgrades and building additions. The TVSS or SPD devices are use in various panelboard. The new equipment as noted above does have capacity for additional circuits (spares and add-ons).

Emergency Lighting – The gas generator provides power for emergency lighting. Some lights fixtures used for emergency lighting were not working. In general, emergency lighting is adequate. The addition appears to have battery packs in some light fixtures.

Site Lighting – Building mounted metal halide and CLF lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide cobra heads and flood lights. Lighting levels in the parking lots would appear to be adequate except in the bus loop and parking area. This area does not have any pole mounted lights. Two wall mount flood lights near the bus loop are pointed down to the ground and cannot adequately light the bus loop area. The site has a covered court area attached to the building for outside activities. The covered area does not have any exterior or security lighting.

Fire Alarm & Security – The building has a new Notifier (non-voice) Fire Alarm System with room to expand. The building has AiPhones, Radionics Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building. This building has DAS or distributive antenna system for extending the range of radio and wireless communication signals.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland TC5. Nortel phone system is in the MDF room. The clock system is controlled by a Sapling wireless controller and Rauland clock and bell schedule controller built into the intercom rack. Classrooms have ceiling mounted projectors, smart boards and AV input panels. The stage is equipped with an older sound system and older theatrical dimming system.

## **AREAS TO BENEFIT BY RENOVATION:**

### **Architecture**

- Needed to meet full ADA compliance:
  - 18" vertical grab bar in restrooms
- Needed to meet full LCPS facilities standards:
  - Trash enclosure
- Additional recommendations:
  - Roof access ladder safety pole and top rung adjustment
  - Ability for administrative office to have clear visibility around ramp walls

### **Civil**

- Parking – more spaces are needed to accommodate bus drivers, faculty, volunteers and visitors in the lot as buses are parked at the school overnight
- Parking lot traffic flow -- vehicles turning left out of the lot back up cars in the lot; principal spoke to Transportation about posting a sign restricting left turns
- Asphalt -- parking lot and bus loop resurfaced last year, but appeared to be damaged by heavy equipment
- Curbs – water is ponding and seeping through the seam between the curb & gutter at the pavement at parent drop-off location

### **Structural**

- Cracked façade at loading dock canopy
- Cracked loading dock column and surrounding concrete -- sealant against moisture needed

### **Sprinkler/Plumbing**

- None noted

### **Mechanical**

- The majority of equipment utilizes R-22 refrigerant.
- Most of the rooftop equipment is quickly approaching the end of their useful service life.
- It appears that untempered outside air is ducted directly to the unit ventilators. This can commonly cause humidity and indoor air quality issues.
- Unit ventilators incorporate electric heat. Gas is available at the site.

### **Electrical**

- Light fixtures that are not working should be fixed.
- Damage or discolored lenses should be replaced.
- The main switchboard breakers may be hard to find if needed for replacement.
- Lighting in the bus loops should be added.
- Lighting in the covered area should be added.
- Upgrade lighting systems and power.
- Replacement parts for the Rauland TC5 do not exist.
- Spare parts for the Lehigh dimming system could not be found online.
- More ventilation should be provided for the room housing the generator or remove the generator and installed a new generator outside.

FACILITY ASSESSMENT STUDY SCORE SHEET			141				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>40</b>
ADEQUATE PARKING	PRINCIPAL NOTED THERE IS ENOUGH PARKING FOR FACULTY, BUT NOT ENOUGH FOR VOLUNTEERS/VISITORS - BUS DRIVERS USE MOST OF NEW PARKING LOT		X				2
PARKING LOTS - CONDITION	GOOD CONDITION; PRINCIPAL NOTED THEY WERE PAVED LAST YEAR. PARKING LOT APPEARED TO HAVE MANY YEARS OF WEAR			X			3
SIDEWALKS - CONDITION				X			3
ADEQUATE BUS QUEUING	PRINCIPAL NOTED THE BUS LOOP WORKS WELL				X		4
ADEQUATE PARENT DROP-OFF	CARS QUE AROUND BUILDING. PRINCIPAL NOTED CONGESTION CONCERNS IN DROP-OFF AREA AT FRONT OF SCHOOL. MAY WORK BETTER TO DIVERT CARS AWAY FROM SMALL DROP-OFF LOOP				X		4
ATHLETIC PLAY AREAS	GENEROUS ATHLETIC PLAY AREAS				X		4
LANDSCAPING				X			3
MASONRY - CONDITION				X			3
WINDOWS	DOUBLE GLAZED			X			3
EXPOSED STEEL	COVERED BASKETBALL COURT JOISTS NEED REPAINTING			X			3
ROOFING	NEW ROOF, HATCH AND SAFETY BAR					X	5
OVERALL AESTHETICS				X			3
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>33</b>
WALLS / WAINSCOTS		X					1
FLOORING				X			3
CEILING				X			3
DOORS & HARDWARE				X			3
MARKER & TACK BOARDS		X					2
CASEWORK & LOCKERS				X			3
EXTERIOR ACCESSIBILITY		X					2
INTERIOR ACCESSIBILITY		X					2
SPRINKLER SYSTEM	FULLY					X	5
EGRESS ADEQUACY				X			3
ADMIN VISIBILITY / SECURITY ENTRANCE					X		4
CLASSROOM ENVIRONMENT	3 TRAILERS	X					2

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>24</b>	
PLAN ORGANIZATION				X			3
PLAN CIRCULATION				X			3
ADMIN SUITE /CLINIC				X			3
CAFETERIA / KITCHEN / AUDITORIUM	KITCHEN - NO LOCKERS			X			3
GYM & ATHLETICS			X				2
MEDIA CENTER	OLD CASEWORK		X				2
RESTROOMS	MISSING 18" VERT. GRAB BARS			X			3
STAFF FACILITIES				X			3
DEDICATED SPACES (ART/MUSIC/SCIENCE/ COMPUTER LAB/TECH ED)	TECH ED - NEEDS UPDATING		X				2
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>44</b>	
CHILLERS	AIR COOLED			X			3
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	UNIT VENTILATORS AND PACKAGED ROOFTOP			X			3
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	BASE MOUNTED		X				2
UNIT / CABINET HEATERS / FANS			X				2
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	GAS AND ELECTRIC			X			3
MAIN SERVICE - ELECTRIC	480V-3P-4000A, SOME SPACE, ORIGINAL			X			3
GENERATOR	INDOOR, ONAN, GAS - 480V-3P-30KW /AREA INDOORS IS NOT VENTED FOR FRESH AIR FOR THE GENERATOR		X				2
PANELS / BREAKERS	NEWER AND OLDER PANELBOARDS WITH SPARES AND SPACES. SOME PANELS HAVE OPEN SPACES THAT NEED TO BE COVERED				X		3
INTERIOR LIGHTING	FLUORESCENT, CFL, METAL HALIDE, STAGE DIMMING SYSTEM			X			3
INTERIOR POWER	POWER UPGRADES IN FAIR SHAPE			X			3
EMERGENCY LIGHTING	INDOOR FLUORESCENTS ON GEN, BATTERY BALLASTS MY BE USED IN THE ADDITION			X			3
SITE LIGHTING	BUS LOOP DOES NOT HAVE ANY POLE LIGHTS, COVERED AREA DOES NOT HAVE ANY LIGHTING, PARKING LOT POLES WITH FLOOD AND COBRA HEADS. LIGHT COVERAGE IS INADEQUATE		X				2
FIRE ALARM & SECURITY	COAXIAL AND IP CCTV CAMERAS, Y-Q, FA UPGRADES, APHONE, INTRUSION			X			3
DATA / TECH / SOUND	COMPUTER UPGRADES, SAPLING WIRELESS, CLOCK CONTROLLER, RAULAND TC5, AUD SOUND SYSTEM, AV AND MEDIA					X	4
<b>TOTAL (out of 250 points)</b>						<b>141</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Farmwell Station Middle School  
44281 Gloucester Parkway  
Ashburn, Virginia 20147  
Loudoun County Public Schools

**Date:** October 23, 2015

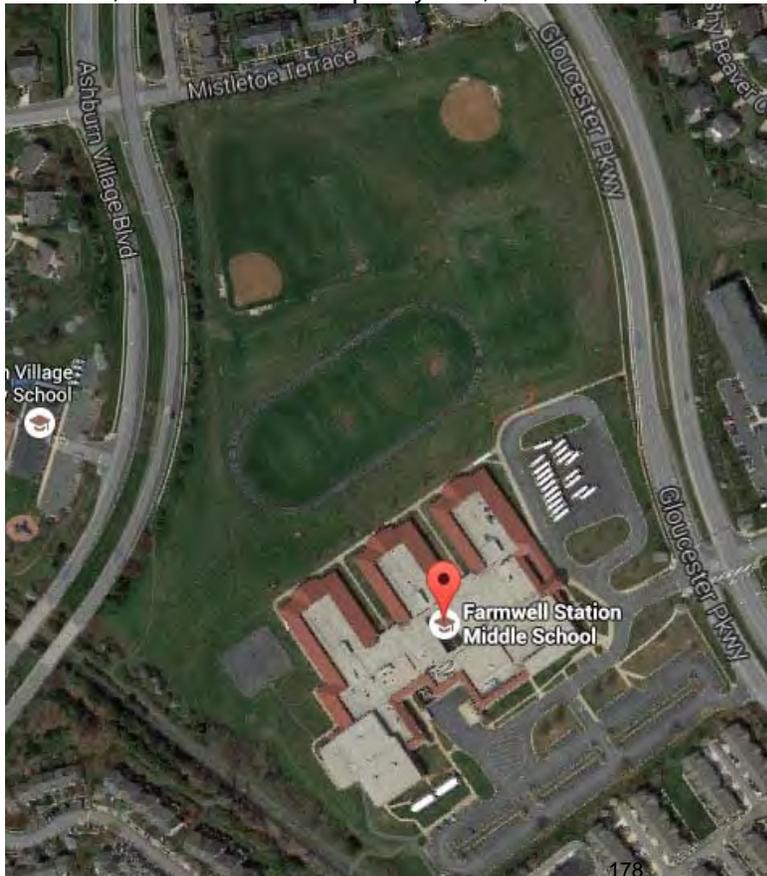


Farmwell Station Middle School, Falcons

**HISTORY:**

Farmwell Station Middle School opened in 1995 and serves grades six through eight.

The 161,436 sf school's capacity is 1,184 and current enrollment is 1,087.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 208 out of a possible 250. Overall, the floor plan is effective with good circulation and separate classroom wings for each grade (house) within the school. All casework is original and in good condition, but a small number of locations have peeling laminate. Classroom chalkboards need to be converted to marker boards. Additionally, restrooms are ADA compliant except for lacking vertical 18" grab bars. The membrane roof is in fair condition and the metal roof areas are experiencing some gutter and downspout difficulties. The roof ladder does not have a safety pole. Administration area has good oversight of main entry and parking lot.

Below are details of the above noted findings:

**Chalkboards not converted to marker boards**



**Hanging and wall mounted sound deadening panels in cafeteria**



**Wall mountings for sinks in group toilet slightly loose**



**Civil**

Overall, the site is in very good condition. Pavements and sidewalks are in good condition and parking is adequate. Some curb locations have peeling paint, but the curbs and gutters exhibit no deterioration. Landscaping includes a small number of bare grass in the lawn, but overall is in good condition. Traffic patterns are challenging due to shared bus and parent drop-off routes from Gloucester Parkway causing back-ups. Athletic/play areas are per facility standards. Site ADA ramps are outdated. Site lighting is adequate.

Below are details of the above noted findings:

**Curb paint peeling in some locations**



**Structural**

Building structure is in very good condition, with no structural issues observed.

**Sprinkler/Plumbing**

The building is provided with full sprinkler coverage.

The water heater and storage tank are Lochinvar. Heater was replaced in 2005 and the storage tank is original. Flush valves are predominantly manual type. Faucets are predominantly manual type.

**Mechanical**

The building HVAC is served by a Trane water-cooled centrifugal chiller with associated pumps, an Evapco cooling tower located in the mechanical courtyard with associated pumps, Cleaver Brooks gas-fired watertube boilers with associated pumps, chilled water rooftop air conditioning units with hot water coils, and two-pipe air terminals with hot water coils.

The majority of the HVAC equipment appears to be original. Scaling and corrosion are present on the cooling tower, and the remainder of the equipment appears to be in fair condition. The Andover Infinity automatic temperature controls are original.

**Electrical**

Main Electrical Service – The main electrical service consist of a 480V-3Ø 750 kVA Dominion Power company transformer and a Square-D 480V-3Ø-3000A switchboard.

Generator – The building has 100A natural gas generator with a 225A automatic transfer switch. The generator is located in the mechanical room.

Panelboards and Breakers – The panelboards and breakers in the building consist of Square-D equipment. The Square-D equipment is original.

Interior Lighting – Interior lighting consists of mainly florescent prismatic troffer light fixtures with T8 lamps. Overall the lighting in the school is in good condition.

Interior Power – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the original building. Power distribution appears adequate in most cases.

Emergency Lighting – Power for emergency lighting is achieved via generator on various lighting fixtures emergency circuits.

Site Lighting – Building mounted lights consist of High Pressure Sodium type. They generally provide adequate lighting coverage at doorways and egress pathways around the building.

Fire Alarm & Security – The building has a Notifier Fire Alarm System that was new in 2011. The building has Aiphone, Intrusion Detection, Stanley Wi-Q wireless access control, and coaxial CCTV cameras. The CCTV cameras provide coverage throughout the building interior. Exterior CCTV cameras are located on building corners and provide limited viewing of the parking, bus/parent drop, and playground areas.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is outdated. The building has Verizon service for telephone and internet and the phone system is Nortel Legacy. The clock system is outdated. Classrooms have interactive white boards and A/V input panels.

### **AREAS TO BENEFIT BY RENOVATION:**

#### **Architecture**

- Needed to meet full ADA compliance:
  - 18” vertical grab bar in restrooms and toilet rooms
- Needed to meet full LCPS facility standards:
  - Chalkboards converted to marker boards
- Additional recommendations:
  - Safety pole on roof ladder
  - Assess loose restroom sinks and re-caulk

#### **Civil**

- Upgrade site ADA ramps to current standards.

#### **Structural**

- No concerns.

#### **Sprinkler/Plumbing**

- None noted.

#### **Mechanical**

- Packaged rooftop equipment utilizes R-22 refrigerant.
- Original equipment is at or near the end of their useful service life.

#### **Electrical**

- Upgrade lighting systems and power.
- Existing emergency egress lighting should be addressed to provide adequate coverage, including egress lighting at exit doors.
- A DAS (Distributed Antenna System), sometimes referred to as BDA, added to provide adequate range of public safety radio systems in the school. This system is LCPS standard for new construction.
- Upgrade intercom/telephone system (VoIP).
- Update/replace wireless tone and time system.

FACILITY ASSESSMENT STUDY SCORE SHEET			208				
ELEVATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>						51	
ADEQUATE PARKING					X	5	
PARKING LOTS- CONDITION				X		4	
SIDEWALKS - CONDITION				X		4	
ADEQUATE BUS QUEUING	CHALLENGES W/ BUS & PARENT QUEUING	X				2	
ADEQUATE PARENT DROP-OFF			X			3	
ATHLETIC PLAY AREAS					X	5	
LANDSCAPING					X	5	
MASONRY - CONDITION					X	5	
WINDOWS					X	5	
EXPOSED STEEL					X	5	
ROOFING			X			3	
OVERALL AESTHETICS					X	5	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>						54	
WALLS / WAINSCOTS					X	5	
FLOORING				X		4	
CEILING				X		4	
DOORS & HARDWARE				X		4	
MARKER & TACK BOARDS	NO MARKER BOARDS		X			3	
CASEWORK				X		4	
EXTERIOR ACCESSIBILITY					X	5	
INTERIOR ACCESSIBILITY					X	5	
SPRINKLER SYSTEM					X	5	
EGRESS ADEQUACY					X	5	
ADMIN VISIBILITY / SECURITY ENTRANCE					X	5	
CLASSROOM ENVIRONMENT					X	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						43	
PLAN ORGANIZATION					X	5	
PLAN CIRCULATION					X	5	
ADMIN SUITE / CLINIC					X	5	
CAFETERIA & KITCHEN					X	5	
GYM & ATHLETICS					X	5	
MEDIA CENTER					X	5	
RESTROOMS				X		4	
STAFF FACILITIES					X	5	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)				X		4	

MECHANICAL & ELECTRICAL SYSTEMS				60	
CHILLERS	ORIGINAL, R123 REFRIGERANT		X	2	
COOLING TOWER	ORIGINAL, CORROSION & BUILD-UP NO BASIN		X	2	
AIR HANDLING EQUIPMENT / RTU'S			X	3	
HEATING BOILERS / FUEL TANK	ORIGINAL, CLEAVER BROOKS		X	3	
PUMPS			X	3	
UNIT / CABINET HEATERS / FANS			X	3	
ATC / EMS	ANDOVER INFINITY		X	3	
DOMESTIC WATER HEATERS	HEATER 2001, STORAGE TANK 1995		X	3	
MAIN SERVICE - ELECTRIC				X	5
GENERATOR				X	5
PANELS / BREAKERS				X	5
INTERIOR LIGHTING				X	5
INTERIOR POWER			X		4
EMERGENCY LIGHTING				X	5
SITE LIGHTING			X		3
FIRE ALARM & SECURITY			X		3
DATA / TECH / SOUND			X		3
<b>TOTAL (out of 250 points)</b>				<b>208</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Seneca Ridge Middle School  
98 Seneca Ridge Drive  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** August 5, 2015



Seneca Ridge Middle School, Thunderbolts

### **HISTORY:**

Seneca Ridge Middle School was built in 1977 and serves grades six through eight.

The 155,872 sf school's capacity is 1,198 students and current enrollment is 1,066.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 154 out of a possible 250. One third of the building has original windows from 1977 which need to be updated. Lintels are showing corrosion and need to be re-painted. The majority of the roof is white EPDM, but about 1/3 of the roof is still ballasted EPDM. The roof ladder does not have a safety pole. On the interior of the building, additional storage is a large concern, specifically in the band room and PE area. Currently, boys and girls showers in the PE locker rooms are being used for storage and overall are very worn. Also of note: most chalkboards have not been converted to marker boards.

Below are details of the above noted findings:

**Chalkboards not converted to marker boards**



**Outdated Tech Ed casework**



**Old and worn media center casework**



**Inadequate band room storage conflicts with sprinkler heads**



**Worn movable partition in cafeteria**



**Media center AV rack blocking door**

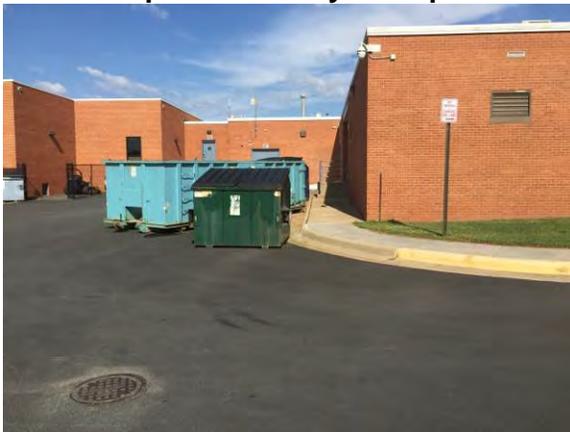


**Civil**

Overall, the site is generally in good condition. Pavements have been recently replaced in the front of the school and are in good condition. Sidewalks and curbing are also in good condition with a few areas needing repair/replacement. Landscaping is limited, but well maintained. There is one area, however, which has poor drainage near the accessibility ramp which causes mulch washout under the picnic tables. Additionally, the site has four modular learning centers for additional classroom space.

Below are details of the above noted findings:

**Dumpsters directly on asphalt**



**Trail leading to school narrow and bound by guardrail, rusty chain link fence**



**Mulch washout caused by poor drainage at ramp**



**Narrow trail with vegetation encroachment**



**Overgrown stormwater management**



**Front entrance drainage caused by grading problems and poorly functioning downspouts/gutters**



**Structural**

The interior bearing walls are in good condition. On the exterior, there are no control joints in the masonry walls which caused both hairline and large cracking. The roof showed signs of ponding and further investigation is required.

Below are details of the above noted findings:

**Roof ponding**



**Roof ponding**



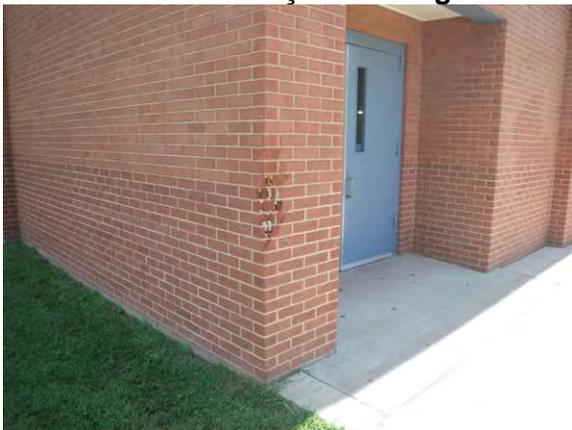
**Repaired settlement crack**



**Façade cracks due to lack of control joints and thermal movement**



**Auditorium façade damaged**



### **Sprinkler/Plumbing**

The main gas-fired water heater appears to be in fair condition. Electric water heaters located throughout the building appear to be in good condition. Flush valves are predominantly automatic type. Faucets are predominantly metering type.

### **Mechanical**

The building is served by packaged rooftop air conditioning units with gas heat. Individual classroom temperature control is provided through a zone damper (VVT) system to control the flow of heat or cooling to the space. The rooftop units serving the science wing, art wing, and limited other areas have been replaced or installed more recently. However, the vast majority of equipment appears to be approximately 15 years old and in fair condition.

### **Electrical**

**Main Electrical Service** – The main electrical service consists of 480V-3Ø-4,000A service gear fed from the power company pad mounted transformer. The service gear appears original to building construction and is antiquated. Step down transformers located throughout the building are utilized to derive 120/208V services.

**Generator** – The building has an indoor Detroit Diesel 30kW natural gas genset that provides a limited amount of emergency power, including fire alarm and emergency lighting.

**Panelboards and Breakers** – Panelboards and breakers throughout have been upgraded, in general, over the course of multiple renovation projects. There is a limited amount of existing original gear that remains and is antiquated.

**Interior Lighting** – Interior lighting consists of T8 fluorescent, CFL, and some limited incandescent. Light levels are adequate, and the majority of lighting was upgraded approximately fifteen (15) years ago. However, some original antiquated lighting remains in limited areas. Automated control of lighting (occupancy sensors) is very limited.

**Interior Power** – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the building as well as devices that have been added via surface raceway during renovations. Power distribution throughout appears adequate.

**Emergency Lighting** – Power for emergency lighting is achieved via wall mounted battery pack fixtures, battery ballasts, and light fixtures fed by the emergency generator.

**Site Lighting** – Building mounted lights consist of HID and CFL type. They generally provide good lighting coverage at doorways and egress pathways around the building (though no longer code compliant). Parking lot lighting is via HID type fixtures that appear to be full cutoff type.

**Fire Alarm & Security** – The building has a Notifier Onyx Fire Alarm System, which was installed during the summer of 2015. The system is new and appears code compliant. The building has iPhones, Radionics intrusion, Stanley Wi-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

**Data / Tech / Sound** – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland Telecenter V. Nortel phone system is in the MDF room. The clock system is Sapling wireless. Classrooms have interactive white boards and A/V input panels. The stage is equipped with a new sound system and existing dimmable lights.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - 18” vertical grab bar in restrooms
- Needed to meet full LCPS facility standards:
  - Trash enclosure
- Additional recommendations:
  - Safety pole on roof ladder and top rung adjustment
  - Ability for administrative office to have clear visibility around ramp walls

**Civil**

- Sidewalks/curbs – minor repairs needed
- Trail system – maintenance
- Parent drop off – adequate, but causing concern in community
- Athletic facilities – minor amount of standing water on the dirt infield
- Grading/Drainage – mulch washout in outdoor café, drainage issue between front entry and canopy
- Stormwater Management – overgrown; coordinate with County General Services
- Dumpsters – concrete slabs needed
- Other – school administration’s largest civil concern is the entry trail and desire to create outdoor learning behind the modular learning centers

**Structural**

- Roof – significant ponding
- Exposed steel lintels – clean and paint

**Sprinkler/Plumbing**

None noted.

**Mechanical**

- The majority of equipment utilizes R-22 refrigerant.
- Most of the rooftop equipment is quickly approaching the end of their useful service life.

**Electrical**

- Existing original gear, including the stage lighting system, is antiquated and should be replaced.
- Light fixtures that are not working should be fixed.
- Emergency egress lighting at exit doors should be addressed.
- Upgrade lighting systems and power.
- Replacement parts for several of the low-voltage systems, such as intercom and public address, are difficult to locate.

FACILITY ASSESSMENT STUDY SCORE SHEET				154				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							42	
ADEQUATE PARKING	APPEARS ADEQUATE			X			4	
PARKING LOTS - CONDITION	PAVING IN GOOD CONDITION. OVERLAY WAS DONE LAST YEAR			X			4	
SIDEWALKS - CONDITION	TRAIL AND FENCING ALONG PRIVATE SITE ENTRY IN POOR CONDITION		X				3	
ADEQUATE BUS QUEUING	APPEARS TO BE ADEQUATE FOR CURRENT # OF BUSES			X			4	
ADEQUATE PARENT DROP-OFF	ADEQUATE LENGTH, BUT STILL AN ISSUE W/ COMMUNITY		X				3	
ATHLETIC PLAY AREAS	SOME PONDING OF WATER ON DIRT INFIELD NOTED			X			4	
LANDSCAPING	IN GOOD SHAPE; COULD USE MORE AT FRONT		X				3	
MASONRY - CONDITION				X			4	
WINDOWS	ORIGINAL WINDOWS IN VERY POOR CONDITION		X				3	
EXPOSED STEEL	NO SIGNIFICANT CONCERNS OBSERVED			X			4	
ROOFING	WHITE EPDM FOR MOST, (1) AREA BLACK EPDM AND (2) STILL HAVE ROCK BALLAST SYSTEM, SIGNIFICANT AREAS OF PONDING OBSERVED			X			3	
OVERALL AESTHETICS			X				3	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							42	
WALLS / WAINSCOTS			X				3	
FLOORING			X				3	
CEILING				X			4	
DOORS & HARDWARE	OLD DOORS, NEW HARDWARE		X				3	
MARKER & TACK BOARDS		X					1	
CASEWORK & LOCKERS	VERY WORN CASEWORK, NEW LOCKERS			X			4	
EXTERIOR ACCESSIBILITY				X			4	
INTERIOR ACCESSIBILITY				X			4	
SPRINKLER SYSTEM	FULLY				X		5	
EGRESS ADEQUACY				X			4	
ADMIN VISIBILITY / SECURITY ENTRANCE				X			4	
CLASSROOM ENVIRONMENT	WORN, BUT ALL COMPONENTS AVAILABLE		X				3	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							29	
PLAN ORGANIZATION			X				3	
PLAN CIRCULATION			X				3	
ADMIN SUITE /CLINIC			X				3	
CAFETERIA / KITCHEN / AUDITORIUM	NO LOCKERS, WASH/DRY IN FOOD STORAGE		X				3	
GYM & ATHLETICS / AUX GYM		X					2	
MEDIA CENTER	NEW CARPET, WORN CASEWORK AT PERIMETER			X			4	
RESTROOMS	MISSING 18" VERTICAL GRAB BARS			X			4	
STAFF FACILITIES			X				3	
DEDICATED SPACES (ART/MUSIC/SCIENCE/ COMPUTER LAB/TECH ED)				X			4	

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>41</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP W/ GAS HEAT, ZONE DAMPERS		X				2
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	N/A	X					1
UNIT / CABINET HEATERS / FANS			X				2
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	GAS-FIRED	X					1
MAIN SERVICE - ELECTRIC	POWER COMPANY 480V-3P TRANSFORMER AND A REPLACEMENT SIEMENS SWITCHBOARD, 480V-3P-4000 AMP				X		4
GENERATOR	DETROIT DIESEL 480V-3P, ONE ATS, LIGHTS AND FIRE ALARM SYSTEM. GENERATOR APPEARS TO BE ORIGINAL			X			3
PANELS / BREAKERS	ORIGINAL, UPGRADE PANELS, ORIGINAL WITH SPARE CAPACITY AND UPGRADE PANELS WITH SPARE CAPACITY			X			3
INTERIOR LIGHTING	MOSTLY FLUORESCENT, OLDER FIXTURES, T8 32W, THEATRICAL STAGE LIGHTING, STAGE DIMMING SYSTEM AND SOME METAL HALIDE. SEVERAL LIGHT FIXTURE LENSES ARE DAMAGED			X			3
INTERIOR POWER	LIGHTING, MECHANICAL, GENERAL RECEPTACLES AND COMPUTER POWER IS PROVIDED WITH SPARES AND SPACES ON MANY PANELBOARDS			X			3
EMERGENCY LIGHTING	EMERGENCY LIGHTING INSIDE IS ON GENERATOR AND APPEARS TO BE ADEQUATE			X			3
SITE LIGHTING	SITE LIGHTING CONSISTS OF POLE MOUNTED AND BUILDNG MOUNTED METAL HALIDE LIGHT FIXTURES			X			3
FIRE ALARM & SECURITY	NOTIFIER FACP (REPLACEMENT), CCTV (COAX AND IP), APHONE, RADIONICS INTRUSION, Y-Q			X			3
DATA / TECH / SOUND	DATA UPGRADES, AV, THEATRICAL SOUND SYSTEM, IWBS, RAULAND TC5 INT, SAPLING WIRELESS CLOCKS, AV, MEDIA RETRIEVAL, ALL GOOD CONDITION				X		4
<b>TOTAL (out of 250 points)</b>						<b>154</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** J.L. Simpson Middle School  
490 Evergreen Mill Road, SE  
Leesburg, VA 20175  
Loudoun County Public Schools

**Date:** August 10, 2015



J.L Simpson Middle School, Mustangs

**HISTORY:**

J.L. Simpson Middle School was built in 1976 and serves grades six through eight.

The 157,031 sf school's capacity is 1,178 students and current enrollment is 1,040.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 138 out of a possible 250. Student locker areas were recently upgraded to provide more storage. Classroom chalkboards need to be converted to marker boards and casework is worn. The roof is EPDM with ballast and the roof ladder does not have a safety pole.

Below are details of the above noted findings:

**Chalkboards not converted to marker boards**



**Old and worn media center casework**



**Outdated family & consumer science casework**



**Art room being used for special ed lacks toilet**



**Outdated tech ed casework**



**Civil**

The site is generally in fair to good condition. Asphalt in the bus loop and parking lot were in fair to good condition. Curbs and sidewalks are generally in average condition; although, some were in poor condition showing signs of failure. There are a few mature trees at the front of the site; however large trees adjacent to the building need pruning and/or removal. Athletic/play areas were abundant; although there is opportunity to better maintain softball/baseball fields. The site did not have an asphalt track and landscaping is average compared to other sites.

Below are details of the above noted findings:

**Bus loop and front entry**



**Landscaping at front entry**



**Soccer fields**



**Softball field**



**Parking lot / parent drop-off**



**Overgrown pear trees**



**Structural**

The interior bearing walls are in good condition. Hallway floors have cracking and differential settlement in some areas; although movement appears to have stopped. On the exterior of the building, spalling is occurring on brick faces. While this is not a current structural issue, continued deterioration could lead to concern. Also of note are the apparent ponding and drainage issues on the ballasted roof. Further investigation is required.

Below are details of the above noted findings:

**Dark stones indicate inadequate flow to drains causing ponding on roof**



**Cracking floor in computer and tech ed labs**



**Classroom corridor flooring between addition and original building displays differential settlement**



**Façade lacks control joints - mortar joint at relieving angle needs repair**



**Brick faces spalling; continued deterioration could become structural issue**



**Exterior lintels rusted and paint peeling**



**Sprinkler/Plumbing**

The main gas-fired water heater appears to be in fair condition. Electric water heaters located throughout the building appear to be in good condition. Flush valves are predominantly automatic type. Faucets are predominantly metering type.

**Mechanical**

The building is served by packaged rooftop air conditioning units with gas heat. Individual classroom temperature control is provided through a zone damper (VVT) system to control the flow of heat or cooling to the space. The rooftop units serving the science wing, art wing, and limited other areas have been replaced or installed more recently. However, the vast majority of equipment appears to be approximately 15 years old and in fair condition.

**Electrical**

**Main Electrical Service** – The main electrical service consist of a 480V-3Ø power company pad mounted transformer and a Square-D 480V-3Ø-4000 switchboard with bolted pressure switch. The distribution sections does not have any spares or spaces. The switchboard has two power taps to provide expansion for power upgrades and building addition.

**Generator** – The building does have a gas generator. Generator provides power for emergency lighting and the fire alarm panel system. The generator is rated at 480V-3Ø-33KW. The generator system has on ATS device for life safety equipment and the fire alarm system.

**Panelboards and Breakers** – The panelboards and breakers in the building consist of Square-D and Siemens equipment. The Square-D equipment is original. The Siemens equipment was added in during the power and data upgrades and additions. The capacity to add breakers in Square-D equipment is limited due to lack of space and unavailability of breakers. The Siemens equipment does have spares and space for addition breakers. Shock hazard information is affixed to most electrical equipment.

**Interior Lighting** – Interior lighting consist T8 fluorescent, CFL, metal halide and some limited incandescent. Stage theatrical lighting system is use in the auditorium. The theatrical lighting system showing signs of age. The dimming panel is an older system with limited or no spare parts available. The system appears to be in good condition. The theatrical lighting units range from poor condition to good condition. Overall the lighting in the school is adequate. Some fixtures are not working. Some light fixtures have crack lenses or discolored lenses.

**Interior Power** – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power base on power upgrades and building additions. The TVSS or SPD devices could not be located for the computer power panelboards. The new equipment as noted above does have capacity for additional circuits (spares and additions).

**Emergency Lighting** – The gas generator provide power for emergency lighting. Some lights fixtures used for emergency lighting were not working. In general, emergency lighting is adequate. The addition appears to have battery packs in some light fixtures.

**Site Lighting** – Building mounted metal halide and CFL lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted metal halide cobra heads. Lighting levels in the parking lots would appear to be adequate. Two light poles near the front parking lot and entry have been damaged by heavy

equipment hitting the poles near the bases.

Fire Alarm & Security – The building has a Notifier (non-voice) Fire Alarm System with room to expand. The building has iPhones, Intrusion, Y-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland TC5. Nortel phone system is in the MDF room. The clock system is controlled by a Primex wireless controller and Rauland clock controller built into the intercom rack. Classrooms have ceiling mounted projectors, smart boards and AV input panels. The stage is equipped with an older sound system and theatrical dimming system.

### **AREAS TO BENEFIT BY RENOVATION:**

#### **Architecture**

- Needed to meet full ADA compliance:
  - 18” vertical grab bar in restrooms and toilet rooms
- Needed to meet full LCPS facility standards:
  - Trash enclosure
- Additional recommendations:
  - Roof ladder safety pole and top rung adjustment

#### **Civil**

- Parking – insufficient parking for volunteers, visitors and faculty
- Bus queuing – insufficient space for all buses to queue at one time
- Exiting parking lot – left turning traffic slows release of cars and jams traffic

#### **Structural**

- Roof ponding – further investigation is required
- Exposed steel lintels – clean and paint
- Brick face shearing – could become structural concern if not addressed

#### **Sprinkler/Plumbing**

- None noted

#### **Mechanical**

- The majority of equipment utilizes R-22 refrigerant
- Most of the rooftop equipment is quickly approaching the end of their useful service life.

#### **Electrical**

- Light fixtures that are not working should be fixed.
- Damage or discolored lenses should be replaced.
- The damage light poles in the parking should be replaced.
- Spare parts for the Lehigh dimming system may be hard to find.
- The main switchboard breakers may be hard to find if needed for replacement.
- Upgrade lighting systems and power.
- Replacement parts for the Rauland TC5 do not exist.

FACILITY ASSESSMENT STUDY SCORE SHEET			138				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>30</b>
ADEQUATE PARKING	PRINCIPAL NOTED THAT TEACHERS PARK ALONG TOLBERT DUE TO LACK OF ONSITE PARKING. PARENTS PARK ON GRASS AREAS AROUND BUILDING FOR BACK-TO-SCHOOL NIGHT AND OTHER BIG EVENTS	X					1
PARKING LOTS - CONDITION				X			3
SIDEWALKS - CONDITION	ORIGINAL SIDEWALKS HAVE BEEN REPLACED IN SOME AREAS. SOME ORIGINAL SIDEWALKS ARE IN POOR SHAPE			X			3
ADEQUATE BUS QUEUING	TWO BELLS REQUIRED TO LOAD BUSES IN THE AFTERNOON	X					1
ADEQUATE PARENT DROP-OFF	NEW PLAN (TO BE IMPLEMENTED THIS YEAR) TO WEAVE PARENTS THROUGH THE AISLES OF PARKING LOT SHOULD ELIMINATE STACKING ONTO EVERGREEN MILL RD.		X				2
ATHLETIC PLAY AREAS	NUMEROUS SOFTBALL & SOCCER FIELDS. SOFTBALL INFIELDS NOT WELL MAINTAINED				X		4
LANDSCAPING	NICE LANDSCAPED AREAS AT FRONT OF SCHOOL. MATURE/OVERGROWN TREES ON SIDE OF BUILDING			X			3
MASONRY - CONDITION	BRICK FACE SPALLING IN MULTIPLE AREAS	X					2
WINDOWS	DOUBLE GLAZED			X			3
EXPOSED STEEL	SOME LINTELS NEED CLEANING AND PAINT			X			3
ROOFING	BALLASTED ROOF SHOWS SIGNS OF PONDING / ROOF HATCH - SHORT LADDER , NO SAFETY BAR	X					2
OVERALL AESTHETICS				X			3
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>40</b>
WALLS / WAINSCOTS				X			3
FLOORING				X			3
CEILING				X			3
DOORS & HARDWARE		X					2
MARKER & TACK BOARDS		X					2
CASEWORK & LOCKERS					X		4
EXTERIOR ACCESSIBILITY					X		4
INTERIOR ACCESSIBILITY				X			3
SPRINKLER SYSTEM	FULLY					X	5
EGRESS ADEQUACY					X		4
ADMIN VISIBILITY / SECURITY ENTRANCE					X		4
CLASSROOM ENVIRONMENT				X			3

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>25</b>	
PLAN ORGANIZATION				X			3
PLAN CIRCULATION				X			3
ADMIN SUITE /CLINIC				X			3
CAFETERIA / KITCHEN / AUDITORIUM	NO LOCKERS AND NO WASHER/DRYER			X			3
GYM & ATHLETICS			X				2
MEDIA CENTER	OUT DATED BOOKCASES		X				2
RESTROOMS				X			3
STAFF FACILITIES				X			3
DEDICATED SPACES (ART/MUSIC/SCIENCE/ COMPUTER LAB/TECH ED)				X			3
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>43</b>	
CHILLERS	N/A	X					1
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	PACKAGED ROOFTOP W/ GAS HEAT, ZONE DAMPERS		X				2
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	N/A	X					1
UNIT / CABINET HEATERS / FANS			X				2
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	GAS-FIRED		X				2
MAIN SERVICE - ELECTRIC	ORIGINAL GEAR, NO SPARE OR SPACE TO GROW, TAPPED TWICE WITH DISCONNECTS		X				2
GENERATOR	NATURAL GAS, 480V-3P-83 KW			X			3
PANELS / BREAKERS	ORIGINAL, UPGRADE PANELS, ORIGINAL WITH SPARE CAPACITY AND UPGRADE PANELS WITH SPARE CAPACITY				X		3
INTERIOR LIGHTING	MOSTLY FLUORESCENT, OLDER FIXTURES, T8 32W, THEATRICAL STAGE LIGHTING, STAGE DIMMING SYSTEM AND SOME METAL HALIDE. SEVERAL DAMAGED LIGHT FIXTURE LENSES				X		3
INTERIOR POWER	OLDER SQUARE D PANELS, COMPUTER POWER UPGRADE PANELS, SEIMENS PANELS FROM ADDITIONS AND MECHANICAL UPGRADES. OLDER PANELS HAVE VERY FEW SPARES OR SPACES. NEWER PANELS HAVE SPARES AND SPACES					X	3
EMERGENCY LIGHTING	GENERATOR AND BATTERY					X	4
SITE LIGHTING	MH GOOD COVERAGE					X	4
FIRE ALARM & SECURITY	NOTIFIER NEW, CCTV, A-PHONE, Y-Q, INTRUSION DATA UPGRADE, PROJECTOR WHITE BOARDS, RAULAND TC5 WITH PROGRAM CLOCL CONTROLER, AV, MEDIA RETRIEVAL, OLDER PA SYSTEM IN THE AUDITORIUM, PRIMEX WIRELESS CLOCKS, CANNOT GET PARTS FOR TC5					X	4
DATA / TECH / SOUND						X	4
<b>TOTAL (out of 250 points)</b>						<b>138</b>	

**ARCHITECT'S  
FACILITY ASSESSMENT REPORT**

**Project:** Sterling Middle School  
201 W. Holly Avenue  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** August 4, 2015



Sterling Middle School Pioneers

**HISTORY:**

Sterling Middle School was built in 1971, serves grades six through eight and has undergone a number of renovations since opening. In 2001, a gym and classrooms were built to accommodate growing enrollment. Sterling underwent large renovations again in 2005 and 2007, to provide more classroom space and an art department, respectively.

The 152,392 sf school's capacity is 1,131 students and current enrollment is 1,050.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 138 out of a possible 250. Most chalkboards need to be converted to marker boards and original casework is worn in all classrooms. The movable partition in the cafeteria is also showing signs of age. Another area of concern is the poor hallway visibility at the ramp on the second floor. Also, the PE department would benefit from additional storage and a locker room upgrade as locker rooms are showing wear and showers are currently being used as storage. On the exterior of the building, the majority of the roof is EPDM ballasted.

Below are details of the above noted findings:

**Mortar deterioration and exposed wire; improper ventilation**



**Hallway visibility compromised by ramp wall**



**Chalkboards not converted to marker boards**



**Old and worn casework**



**Worn movable partition in cafeteria**



**Outdated tech ed casework**



**Civil**

The site is generally in good to fair condition; however pavements are beginning to show signs of failure. Overall, curbs and sidewalks are average condition, but there is some deterioration due to salting near the front bus loop. Landscaping is average and there are a number of large, mature trees on site. Athletic/play areas are adequate and in good condition. Additionally, the asphalt track is in good condition and has recently been repaved.

Below are details of the above noted findings:

**Damaged curbs in front of school**



**Asphalt cracking**



**Concrete sidewalks in front of school deteriorating from snow loading and high salt concentrations**



**Poor drainage at sidewalk may result in settlement**



**Structural**

The interior bearing walls are in good condition. Some exterior lintels need to be cleaned and painted. There are no control joints in the exterior masonry walls which caused cracking due to thermal movement. Some settlement at the loading dock was observed and a new ramp which appears to have been built over the existing sidewalk was recently completed.

Below are details of the above noted findings:

**Lintels rusting and paint peeling**



**Settlement at loading dock slab**



**New loading dock appears to be built on existing sidewalk – monitor for settlement**



**Basketball court roof corroded and paint peeling**



**Court area being painted without cleaning rust and old paint; ineffective method for protecting framing**



**Façade crack due to lack of control joints and thermal movement**



**Façade lacks control joints**



### **Sprinkler/Plumbing**

The main gas-fired water heater appears to be in fair condition. Electric water heaters located throughout the building appear to be in good condition. Flush valves are predominantly automatic type. Faucets are predominantly metering type.

### **Mechanical**

The building is served by a combination of packaged rooftop air conditioning units with gas heat and two-pipe unit ventilators with a chilled water coil and electric heat. An air cooled chiller and associated pumps provide chilled water to the unit ventilators. The rooftop units serving the science wing, art wing, and limited other areas have been replaced or installed more recently. However, the vast majority of equipment appears to be approximately 15 years old and in fair condition.

### **Electrical**

**Main Electrical Service** – The main electrical service consists of 480V-3Ø-4,000A service gear fed from the power company pad mounted transformer. The service gear was installed during the summer of 2015 and is in new condition and has ample spare capacity. Step down transformers located throughout the building are utilized to derive 120/208V services.

**Generator** – The building has an indoor Onan 45kW natural gas genset that provides a limited amount of emergency power, including fire alarm and emergency lighting.

**Panelboards and Breakers** – Panelboards and breakers throughout have been upgraded, in general, over the course of multiple renovation projects. There is a limited amount of existing original gear that remains and is antiquated.

**Interior Lighting** – Interior lighting consists of T8 fluorescent, CFL, and some limited incandescent. Light levels are adequate, and the majority of lighting was upgraded approximately fifteen (15) years ago. However, some original antiquated lighting remains in limited areas. Automated control of lighting (occupancy sensors) is very limited.

**Interior Power** – The school interior power consists of feeds to mechanical gear, kitchen equipment, receptacles and other miscellaneous loads. The receptacles consist of both devices that are original to the building as well as devices that have been added via surface raceway during renovations. Power distribution throughout appears adequate.

**Emergency Lighting** – Power for emergency lighting is achieved via wall mounted battery pack fixtures, battery ballasts, and light fixtures fed by the emergency generator.

**Site Lighting** – Building mounted lights consist of HID and CFL type. They generally provide good lighting coverage at doorways and egress pathways around the building (though no longer code compliant). Parking lot lighting is via HID type fixtures that are not dark-sky compliant.

**Fire Alarm & Security** – The building has a Notifier Onyx Fire Alarm System, which was installed during the summer of 2015. The system is new and appears code compliant. The building has iPhones, Radionics intrusion, Stanley Wi-Q wireless access control, coaxial and IP CCTV cameras. The CCTV cameras provide good coverage around and throughout the building.

**Data / Tech / Sound** – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland Telecenter V. Nortel phone system is in the MDF room. The clock system is Sapling wireless. Classrooms have interactive white boards and A/V input panels. The stage is equipped with a new sound system and existing dimmable lights.

## **AREAS TO BENEFIT BY RENOVATION:**

### **Architecture**

- Needed to meet full ADA compliance:
  - 18” vertical grab bar in restrooms and toilet rooms
- Needed to meet full LCPS facility standards:
  - Dedicated toilet rooms for special ed classrooms
  - Trash enclosure
- Additional recommendations:
  - Ability for administrative office to have clear visibility around ramp walls
  - Gas pipes servicing 2005 classroom addition are climbable to gain access to roof; enclose

### **Civil**

- Pavements – showing signs of failure
- Sidewalks/curbs – some showing failure at front of school

### **Structural**

- Lintels – clean and paint to protect from corrosion
- Loading dock ramp – monitor for settlement
- Exterior basketball court framing – reassess recent painting methods; re-sealing maybe necessary

### **Sprinkler/Plumbing**

- None noted.

### **Mechanical**

- The majority of equipment utilizes R-22 refrigerant. .
- Most of the rooftop equipment is quickly approaching the end of their useful service life.
- It appears that untempered outside air is ducted directly to the unit ventilators. This can commonly cause humidity and indoor air quality issues.
- Unit ventilators incorporate electric heat. Gas is available at the site.

### **Electrical**

- Existing original gear, including the stage lighting system, is antiquated and should be replaced. Light fixtures that are not working should be fixed.
- Interior lighting has no automated control.
- Pole lights are not dark-sky type and should be considered for replacement.
- Emergency egress lighting at exit doors should be addressed.
- Upgrade lighting systems and power.
- Replacement parts for several of the low-voltage systems, such as intercom and public address, are difficult to locate.

FACILITY ASSESSMENT STUDY SCORE SHEET			138				
EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>40</b>
ADEQUATE PARKING	NO REPORTED ISSUES			X			4
PARKING LOTS - CONDITION	GENERALLY ASPHALT IN FAIR CONDITION. SOME CURB AREAS IN FRONT HAVE BEEN DAMAGED BY SNOWPLOWS		X				2
SIDEWALKS - CONDITION	AVERAGE OVERALL, BUT ESPECIALLY POOR IN FRONT OF SCHOOL		X				2
ADEQUATE BUS QUEUING	ADEQUATE QUEUING FOR +/- 20 BUSES			X			4
ADEQUATE PARENT DROP-OFF	NO REPORTED ISSUES			X			4
ATHLETIC PLAY AREAS	FIELDS IN GOOD SHAPE; NEW ASPHALT TRACK JUST INSTALLED			X			4
LANDSCAPING	LOUDOUN WATER WILL IMPACT LANDSCAPING ALONG S. BLVD.			X			3
MASONRY - CONDITION	MINOR CRACKING IN EXTERIOR FAÇADE			X			4
WINDOWS	DOUBLE GLAZED			X			4
EXPOSED STEEL	LINTELS RUSTED AND PAINT PEELING			X			4
ROOFING	ROCK BALLAST ON EPDM, DRAIN BASKETS PLASTIC AND BROKEN, ACCESS LADDER NO SAFETY BAR AND HATCH BROKEN		X				2
OVERALL AESTHETICS				X			3
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>28</b>
WALLS / WAINSCOTS	WAINSCOT ENCAPSULATED WITH PAINT, PANELIZED WALL SYSTEM IN VARIOUS CLASSROOMS		X				2
FLOORING	CARPET WORN, TERRAZZO HALLS, VCT CLASSROOMS			X			3
CEILING	BOTH TILE AND GRID ARE VERY WORN		X				2
DOORS & HARDWARE	WORN		X				2
MARKER & TACK BOARDS	CHALKBOARDS NOT CONVERTED TO MARKER	X					1
CASEWORK & LOCKERS	CASEWORK POOR, LOCKERS NEW		X				2
EXTERIOR ACCESSIBILITY				X			3
INTERIOR ACCESSIBILITY			X				2
SPRINKLER SYSTEM	FULLY			X			3
EGRESS ADEQUACY				X			3
ADMIN VISIBILITY / SECURITY ENTRANCE	LACKS ORGANIZATION, CLINIC RECENTLY UPDATED			X			3
CLASSROOM ENVIRONMENT			X				2

EVALUATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE
		1	2	3	4	5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>						<b>22</b>	
PLAN ORGANIZATION	NOT INTUITIVE AND CONFUSING		X				2
PLAN CIRCULATION	SEVERAL DEAD ENDS		X				2
ADMIN SUITE /CLINIC				X			3
CAFETERIA / KITCHEN / AUDITORIUM	NO LOCKERS, ACCORDION DOORS NEED REPLACEMENT AND ROOM REMOVED FROM SPACE		X				2
GYM & ATHLETICS / AUX GYM			X				2
MEDIA CENTER	NO NATURAL LIGHTING		X				2
RESTROOMS	OLD ARE NON ADA COMPLIANT, NEW ARE MISSING 18" VERT GRAB BARS			X			3
STAFF FACILITIES				X			3
DEDICATED SPACES (ART/MUSIC/SCIENCE/ COMPUTER LAB/TECH ED)	FLOOR MTD RACEWAY IN COMPUTER LAB, MUSIC STORAGE NEEDS REPLACEMENT, TECH ED OUT DATED			X			3
<b>MECHANICAL &amp; ELECTRICAL SYSTEMS</b>						<b>48</b>	
CHILLERS	AIR COOLED			X			3
COOLING TOWER	N/A	X					1
AIR HANDLING EQUIPMENT / RTU'S	UNIT VENTILATORS AND PACKAGED ROOFTOP			X			3
HEATING BOILERS / FUEL TANK	N/A	X					1
PUMPS	BASE MOUNTED		X				2
UNIT / CABINET HEATERS / FANS			X				2
ATC / EMS	DIRECT DIGITAL, TRANE			X			3
DOMESTIC WATER HEATERS	GAS AND ELECTRIC		X				2
MAIN SERVICE - ELECTRIC	480V-3P-4000A, NEW GEAR INSTALLED 06/2015					X	5
GENERATOR	45kW GENSET; NO LONGER CODE COMPLIANT			X			3
PANELS / BREAKERS	SOME GEAR ORIG., OUTDATED; SOME NEWER, GOOD			X			3
INTERIOR LIGHTING	MOSTLY T8 AND HID TYPE; GOOD COND. OVERALL			X			3
INTERIOR POWER	COMP. POWER ADDED; GOOD IN ADD/RENO AREAS			X			3
EMERGENCY LIGHTING	EM. LIGHTING ADEQUATE; SOME CODE ISSUES				X		4
SITE LIGHTING	NOT DARK SKY; LIMITED CONTROLLABILITY. POWER COMPANY LIGHTS		X				2
FIRE ALARM & SECURITY	FIRE ALARM SYSTEM INSTALLED 08/2015				X		4
DATA / TECH / SOUND	DATA UPGRADES, THEATRICAL SOUND SYSTEM, IWBs, RAULAND TC5 INT, SAPLING WIRELESS CLOCKS, AV, MEDIA RETRIEVAL, ALL GOOD COND.					X	4
<b>TOTAL (out of 250 points)</b>						<b>138</b>	

# ARCHITECT'S FACILITY ASSESSMENT REPORT

**Project:** Potomac Falls High School  
98 Seneca Ridge Drive  
Sterling, VA 20164  
Loudoun County Public Schools

**Date:** October 22, 2015



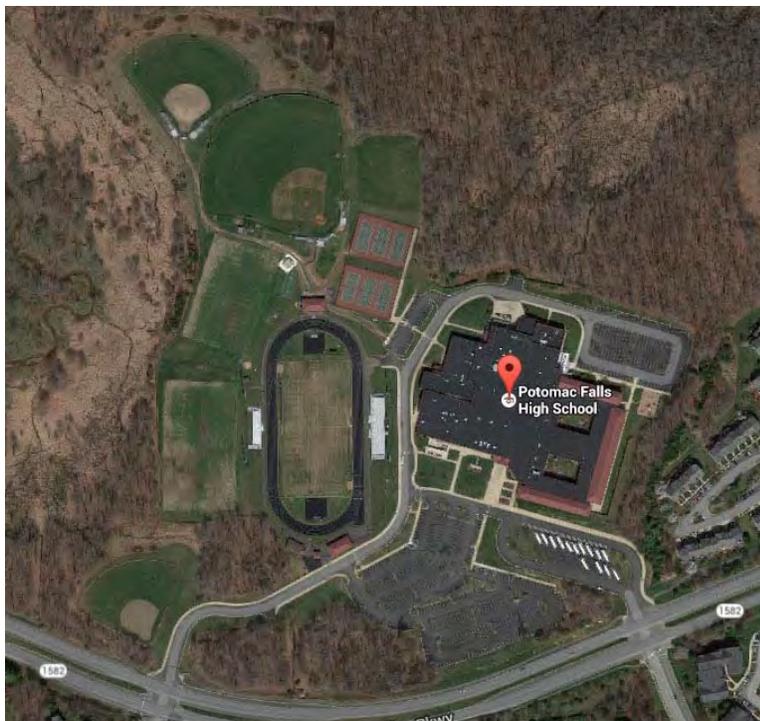
Potomac Falls High School, Panthers



**HISTORY:**

Potomac Falls High School opened in 1997. The school's design has been used for every new high school built in Loudoun County since opening.

The 227,835 sf school's capacity is 1,350 and current enrollment is 1,619.



**CONDITION OF SCHOOL:**

**Architectural**

The facility received an overall score of 213 out of a possible 250. Overall, the floor plan is effective with good circulation. Casework is original and in good condition. The majority of the classrooms have chalkboards which need to be converted to marker boards. Additionally, restrooms are ADA compliant except for lacking vertical 18" grab bars. The membrane roof is in fair condition and the metal roof areas have presented some challenges. The roof ladder does not have a safety pole. Administration area has good oversight of the main entry, but lacks views to the parking lot.

Below are details of the above noted findings:

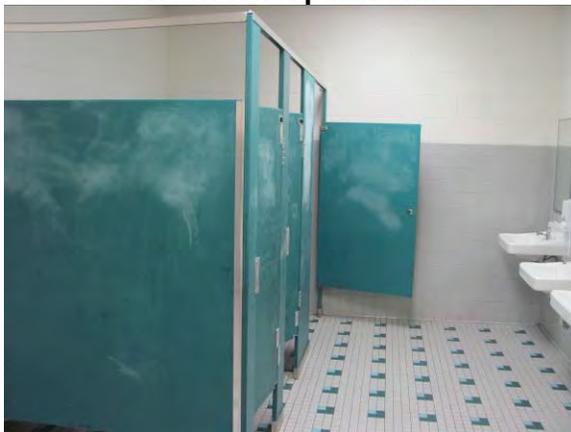
**Chalkboards not converted to marker boards**



**Group restrooms lack urinal screens**



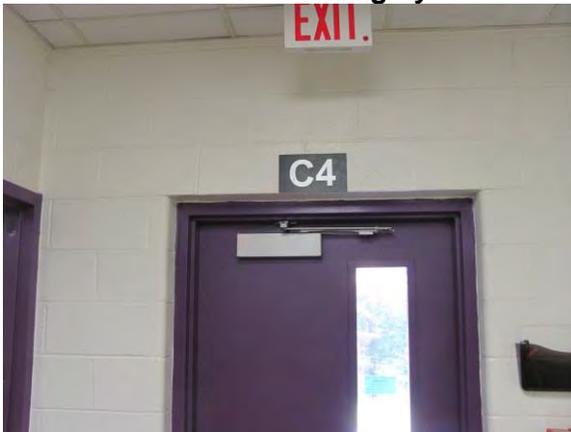
**Worn toilet partitions**



**A few gym lockers have damaged doors**



Kitchen door lacking fly fan



### Civil

Overall, the site is in good condition. Pavements are in very good condition having been milled and overlaid in 2014, and parking is adequate. Sidewalks have a small number of sections that are heaving. Curbs and gutters exhibit no deterioration. Athletic/play areas are abundant. The asphalt track was replaced in 2007 and is in very good condition. Additionally, baseball and softball fields lack press boxes. Site lighting is adequate.

### Structural

Building structure is in very good condition, with no structural issues observed.

### Sprinkler/Plumbing

The building is provided with full sprinkler coverage.

The water heater and storage tank are Lochinvar. Heater appears to be the original unit and the storage tank has been replaced in 2015. Flush valves are predominantly manual type. Faucets are predominantly metering type.

### Mechanical

The building HVAC is served by a Trane air-cooled chiller located in the mechanical courtyard with associated pumps, Lochinvar Copper Fin II gas-fired boilers with associated pumps, packaged rooftop air conditioning units with either gas or hot water heat, and four-pipe fan coil units with a chilled and hot water coils.

The majority of equipment appears to be approximately 15 years old and in fair condition. The automatic temperature controls are Andover Infinity. The building does not have a cooling tower.

### Electrical

Main Electrical Service – The main electrical service consist of a 480V-3Ø 1,500 kVA Dominion Power company transformer and a Square-D 480V-3Ø-9000A switchboard.

Generator – The building has 280 KW natural gas generator. Generator provides power for emergency lighting and the fire alarm panel system. The generator system has a 600A ATS device for life safety equipment and the fire alarm system. The generator is in good condition.

Panelboards and Breakers – The panelboards and breakers in the building consist of Square-D equipment. The Square-D equipment is original.

Interior Lighting – Interior lighting consists of fluorescent Prismatic Troffer light fixtures with T8

lamps. Stage theatrical lighting system is use in the auditorium. The system appears to be in good condition. The theatrical lighting units are in good condition. Overall the lighting in the school is in good condition.

Interior Power – The school interior power is broken up into Mechanical, Lighting, General / Mechanical receptacle power and computer power base on power upgrades and building additions. The TVSS or SPD devices could not be located for the computer power panelboards. The new equipment as noted above does have capacity for additional circuits (spares and add-ons).

Emergency Lighting – Power for emergency lighting is achieved via generator on various lighting fixtures emergency circuits.

Site Lighting – Building mounted metal halide and CFL lights will provide good lighting coverage at doorways, sidewalks and egress pathways around the building. The parking lot lighting appears to be pole mounted high pressure sodium. Lighting levels in the parking lots appear to be adequate.

Fire Alarm & Security – The building has a Notifier (non-voice) Fire Alarm System with room to expand. The building has Aiphone, Intrusion Detection (Updated in 2003), Stanley Wi-Q wireless access control, and coaxial CCTV cameras. The CCTV cameras provide coverage throughout the building interior. Exterior CCTV cameras are located on building corners and provide limited viewing of the parking, bus/parent drop, and campus areas.

Data / Tech / Sound – Building has cabled and wireless Ethernet throughout the building. The intercom system is Rauland TC5. The building has Verizon service for telephone and internet and the phone system is Nortel Legacy. The clock system is controlled by a Primex wireless controller and Rauland clock controller built into the intercom rack. Classrooms have interactive white boards and A/V input panels. The stage is equipped with an older sound system and theatrical dimming system.

**AREAS TO BENEFIT BY RENOVATION:**

**Architecture**

- Needed to meet full ADA compliance:
  - 18” vertical grab bar in restrooms and toilet rooms
- Needed to meet full LCPS facility standards:
  - Chalkboards converted to marker boards
  - Urinal screens
- Additional recommendations:
  - Toilet partitions
  - Gym locker repairs
  - Safety pole on roof ladder
  - Kitchen door fly fan

**Civil**

- Repair heaving sidewalks sections.
- Press boxes for softball and baseball fields.

**Structural**

- No concerns.

**Sprinkler/Plumbing**

- None noted.

**Mechanical**

- Packaged rooftop equipment utilizes R-22 refrigerant.
- Rooftop air handling and packaged units are at or near the end of their useful service life.

**Electrical**

- Upgrade lighting systems and power.
- Existing emergency egress lighting should be addressed to provide adequate coverage, including egress lighting at exit doors.
- A DAS (Distributed Antenna System), sometimes referred to as BDA, added to provide adequate range of public safety radio systems in the school. This system is LCPS standard for new construction.
- Upgrade intercom/telephone system (VoIP).
- Update/replace wireless tone and time system.

FACILITY ASSESSMENT STUDY SCORE SHEET				213				
ELEVATED AREA	REMARKS	CONDITION (5 IS BEST)					SCORE	
		1	2	3	4	5		
<b>SITE &amp; EXTERIOR ENVELOPE</b>							<b>54</b>	
ADEQUATE PARKING					X		5	
PARKING LOTS- CONDITION					X		5	
SIDEWALKS - CONDITION				X			4	
ADEQUATE BUS QUEUING					X		5	
ADEQUATE PARENT DROP-OFF				X			4	
ATHLETIC PLAY AREAS					X		5	
LANDSCAPING				X			4	
MASONRY - CONDITION					X		5	
WINDOWS					X		5	
EXPOSED STEEL					X		5	
ROOFING	METAL ROOF LEAKS & GUTTER ISSUES		X				2	
OVERALL AESTHETICS					X		5	
<b>INTERIOR ENVIRONMENT, SAFETY &amp; ADA ACCESSIBILITY</b>							<b>56</b>	
WALLS / WAINSCOTS					X		5	
FLOORING					X		5	
CEILING				X			4	
DOORS & HARDWARE					X		5	
MARKER & TACK BOARDS	SOME ROOMS LACKING MARKER BOARDS		X				3	
CASEWORK					X		5	
EXTERIOR ACCESSIBILITY					X		5	
INTERIOR ACCESSIBILITY					X		5	
SPRINKLER SYSTEM					X		5	
EGRESS ADEQUACY					X		5	
ADMIN VISIBILITY / SECURITY ENTRANCE	NO SECURE VESTIBULE			X			4	
CLASSROOM ENVIRONMENT					X		5	
<b>PLAN &amp; PROGRAM ADEQUACY</b>							<b>42</b>	
PLAN ORGANIZATION					X		5	
PLAN CIRCULATION					X		5	
ADMIN SUITE / CLINIC					X		5	
CAFETERIA & KITCHEN					X		5	
GYM & ATHLETICS	SOME LOCKER RM. LOCKERS NEED REPAIRS			X			4	
MEDIA CENTER					X		5	
RESTROOMS	TOIL. PARTITIONS SHOWING WEAR			X			4	
STAFF FACILITIES				X			4	
DEDICATED SPACES (ART/MUSIC/COMPUTER LAB)					X		5	

MECHANICAL & ELECTRICAL SYSTEMS								61
CHILLERS	AIR COOLED, ON GROUND, IN EQUIP. COURTYD.			X				3
COOLING TOWER	N/A	X						1
AIR HANDLING EQUIPMENT / RTU'S				X				4
HEATING BOILERS / FUEL TANK	ORIGINAL - 1997		X					3
PUMPS			X					3
UNIT / CABINET HEATERS / FANS				X				4
ATC / EMS	ANDOVER INFINITY			X				4
DOMESTIC WATER HEATERS	NEW STORAGE TANK			X				4
MAIN SERVICE - ELECTRIC	SQ. D, 9000A					X		5
GENERATOR	NAT. GAS W/ ATS (KELLY SVC.), 90TZD100, 1500 KVA					X		5
PANELS / BREAKERS						X		5
INTERIOR LIGHTING	T5			X				4
INTERIOR POWER						X		5
EMERGENCY LIGHTING				X				4
SITE LIGHTING			X					3
FIRE ALARM & SECURITY		X						2
DATA / TECH / SOUND		X						2
<b>TOTAL (out of 250 points)</b>								213

Board Member	Department/ Program	Date Received	Question	Packet Answered
Buffington	CIP - Transportation	2/16/2016	Could staff provide options to accelerate the 690/7 interchange project by one year? It is currently funded between FY 2019-2022. Supervisor Buffington would like it funded between 2018-	2/23 FGOEDC CIP Packet
Higgins	LCPS	2/26/2016	Salary Increases - Please list the overall salary increases for all LCPS employees for fiscal years 2012 through 2016: a. Please provide a break out of the salary increases by category including teachers b. Please also include the salary increase for teachers by step amount and indicate the year in which the increase was made. c. What is the percentage of these increases (year over year) from fiscal year 2012 through fiscal year 2016. d. Please provide a listing of salary increases for MA +10 from fiscal year 2012 through fiscal year 2016. e. I would like to see the increases broken out by increases to the total wage and benefits package and the amount that ends up on salary and wages only.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Western Loudoun Elementary Schools - Please provide the following cost analysis for each of the following elementary schools: Lincoln, Waterford, Hamilton, Aldie, Banneker a. Capital Costs (including the debt service for each school) b. Operation and Maintenance c. Pupil Transportation d. Administration, Attendance, Health (* please include the actual salaries and benefits per employee not hypothetical FTE's at the schools) e. Technology f. Instruction g. Facilities	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Western Loudoun Elementary Schools - Please provide a percentage breakdown for the cost of each of these schools as a percentage of the overall LCPS budget.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Teacher Screening Systems Ensuring Student Safety - Given recent news reports relating to fragmented systems for checking the backgrounds of educators, what programs and processes exist within LCPS to review/corroborate data reflecting teacher misconduct in other states or jurisdictions?	#1- Supplemental - 3/2/2016

Higgins	LCPS	2/26/2016	Teacher Screening Systems Ensuring Student Safety - What type of background checks does LCPS require? In a recent USA Today article the Commonwealth of Virginia received a D rating on the ability and processes for conducting background checks and sharing disciplinary actions for teachers in the state.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Similar to the reallocation process for the Department of Instruction in the current budget proposal, has LCPS undertaken review of potential cost savings/financial efficiencies for each department that would assist in funding new requests in this year's proposed budget?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Please provide the amount of additional fees paid by parents under the following scenarios for the following schools: Heritage High School, Tuscarora High School, Loudoun County High School, Loudoun Valley High School, and Woodgrove High School. One Student, playing three sports*, in three AP classes, one driver to school Two Students, each playing two (four sports total)*, in two AP classes each (four AP classes total), one driver	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Since families are required to pay to see their children play high school athletics in the Loudoun County Public Schools system, please also include the cost of a season pass (admission fees) for each of the scenarios outlined above.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Where do these fees go? What department/entity within LCPS expends these funds?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	The FY17 Cost Per Pupil (CPP) by State Category for Loudoun is \$13,334 Instruction - \$10,718 Operation and Maintenance - \$1,018 Pupil Transportation - \$768 Administration, Attendance & Health - \$468 Technology - \$321 Facilities - \$41 Please provide a comparison of these costs by category listed above for Arlington, Alexandria, Fairfax, Chesterfield and Prince William counties.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Please list all "off budget" funds (including: buses, turf fields, OPEB, Health Care, Broad Run High School renovations, Potomac Falls renovations) received by LCPS from the BOS since 2012.	Pending

Higgins	LCPS	2/26/2016	How many new teachers were hired by LCPS in the two previous fiscal years? How many of these new hires were previously teaching in other jurisdictions? Please list these jurisdictions.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Turf Fields- Are schools with turf fields charging/renting these fields to other schools or outside groups? What are the rental fees? Where do these fees go? What departments/entities within LCPS expends these funds?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Thomas Jefferson High School- How many Loudoun County students attend Thomas Jefferson High School? What is Loudoun County's cost per pupil including transportation costs?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Assuming the BOS is unable to address moving funding forward in the CIP for all of the six schools requested by LCPS, what contingencies has LCPS made should this scenario prevail? (Trailers, boundary adjustments)	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Regarding inflation figures used in the LCPS budget presentation, what are the projections for each year? Please cites the sources for these figures.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	On restoration for technology assistants what activities are not able to be completed with current staffing?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	Please provide the history of funding for middle school deans for the prior two fiscal years.	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	What are LCPS busing/transportation expenses as compared to neighboring counties and school systems? (Fairfax, Prince William, Clarke and also Chesterfield)	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	What are the per gallon fuel costs budgeted vs. actual for gasoline and diesel in FY16, FY15, FY14, FY12?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	What are the budgeted/projected fuel costs for gasoline and diesel for FY17?	#1- Supplemental - 3/2/2016
Higgins	LCPS	2/26/2016	In the January 7, 2016 proposed budget presentation (slide 17) a chart was provided illustrating the growth in population for English Language Learners, Special Education and Economically Challenged students for one period from FY2009 through FY2016. Please provide these statistics on a year-by-year basis for the same period.	#1- Supplemental - 3/2/2016
Letourneau	CIP - LCPS	2/16/2016	Could we accommodate ES-23 within FY19 if we swapped the ES Classroom Additions to FY21? What is the status of a site for this school?	2/23 FGOEDC CIP Packet

Letourneau	CIP - LCPS	2/16/2016	What is the status of a site for ES-31?	2/23 FGOEDC CIP Packet
Letourneau	CIP - LCPS	2/16/2016	Why is \$1.75 million in proffer funding requested for construction at CS Monroe in FY17 with the balance proposed in 2021? Why does the proposed CIP maintain construction funding for FY21 while the LCPS CIP does not request this funding?	2/23 FGOEDC CIP Packet
Letourneau	CIP - LCPS	2/16/2016	Please provide more detailed information on the request for eight modular classrooms at Dulles North and Dulles South High Schools. This is requested separately and in addition to eight modular classrooms at Champe.	2/23 FGOEDC CIP Packet
Letourneau	CIP - LCPS	2/16/2016	How does the requested removal of modular classrooms at Briar Woods work in conjunction with the boundaries to be set for the new HS-11? Would these classrooms be able to be used elsewhere? Are they not projected to be needed again for Dulles North capacity in the future?	2/23 FGOEDC CIP Packet
Letourneau	CIP - Transportation	2/16/2016	In what scenario could funding for the Gum Spring/Evergreen Mills/Belmont Ridge Intersection Improvements be accommodated within the CIP?	2/23 FGOEDC CIP Packet
Letourneau	CIP - Transportation	2/16/2016	What is the estimated cost of widening Evergreen Mills Road to four lanes from Northstar Boulevard to Loudoun County Parkway as recently added to the CTP by the Board? In what scenario could this be accommodated in the CIP?	2/23 FGOEDC CIP Packet
Letourneau	CIP - Transportation	2/16/2016	Arcola Boulevard has been delayed by two years. Why was this project pushed out to full funding in 2020? Could this project be split into two sections (Rt. 50 to Dulles West Parkway and Dulles West Parkway to Evergreen Mills)? If split could the segment between Rt. 50 and Dulles West Parkway happen sooner? What is the status of any existing proffer on this project?	2/23 FGOEDC CIP Packet
Letourneau	CIP - Transportation	2/16/2016	Glascok Road/Dulles West Parkway has been delayed by two years. Why was the project pushed out further in the CIP? Could this segment with the segment of Arcola Boulevard from Rt. 50 to Dulles West Parkway be accommodated earlier in the CIP together? What is the status of any existing proffer on this project?	2/23 FGOEDC CIP Packet
Letourneau	CIP - Transportation	2/16/2016	Braddock/Summerall/Supreme Intersection Improvements are currently slated for local tax funding in FY19. Is there any proffer funding or other fund balance available to accelerate this project?	2/23 FGOEDC CIP Packet

Letourneau	LCPS	2/24/2016	In prior budget years I asked about LCPS providing trash disposal services for all County and school facilities. It was stated at the time that it would actually be more expensive to contract this service. Please provide the total cost break out for this service including staffing and capital costs as well as the costs for this to be contracted out.	#1- Supplemental - 3/2/2016
Letourneau	LCPS	2/24/2016	What is the average pay increase in your proposed salary scale? Be sure to include the increase that is realized by moving up a step from one year to the next. It appears that in addition to increasing the salaries at each step, there would be an increase seen by moving up a step as well.	#1- Supplemental - 3/2/2016
Letourneau	LCPS	2/24/2016	Does the quoted 2.2% average salary increase factor in the increase that is being used to fix the "sag" in the salary scale?	#1- Supplemental - 3/2/2016
Letourneau	LCPS	2/24/2016	What is the LCPS turnover rate for teachers? What percentage left for Fairfax? Arlington? Prince William?	#1- Supplemental - 3/2/2016
Letourneau	LCPS	2/24/2016	For the current school year, how many teachers did we gain from Fairfax? Arlington? Prince William? What percent of the experienced teachers hired into the system do each of these represent?	#1- Supplemental - 3/2/2016
Letourneau	Management and Budget	2/24/2016	What would be the savings in reducing the proposed 3% pay increase to 2.5%?	#1 - 3/01/2016
Letourneau	Board of Supervisors	2/24/2016	If the Board of Supervisors were to add a \$30,000 increase in payroll for each Board office for a total of \$270,000, what would the total cost be to also cover any associated operations and maintenance or benefits?	Withdrawn
Letourneau	Mental Health, Substance Abuse and Developmental Services	2/24/2016	Please provide additional detail and background on the requested CLEAR positions. How many total calls were received in each of the last two fiscal years? of those calls How many were not able to be Answered during business hours?	#1 - 3/01/2016
Letourneau	Sheriff's Office	2/24/2016	Please provide a background on the history of requests for Cooks at the ADC. What is the current staffing level? How many prisoners are they serving? Could the County Central Kitchen and this function be consolidated for any efficiencies?	#1 - 3/01/2016
Letourneau	Fire, Rescue and Emergency Services	2/24/2016	Why is an Administrative Assistant and Payroll Accounts Assistant in Fire and Rescue requested at 1.07 FTE? Why not just 1 FTE?	#1 - 3/01/2016
Letourneau	Mental Health, Substance Abuse and Developmental Services	2/24/2016	How many inmates are on the waitlist for mental health and substance abuse services? How many NGR1 individuals are in custody at any given time?	#1 - 3/01/2016

Letourneau	Family Services	2/24/2016	The EAP Specialist position justification states that without that being filled, \$2,000 in local funding was spent. How much State money was used for the program? Is it anticipated that additional local funds may be lost without this position? How much?	#1 - 3/01/2016
Letourneau	General Services	2/24/2016	Please provide the job description for the Senior Facilities Program Manager position. Is this position actually performing maintenance or just coordinating and providing oversight?	Pending
Letourneau	County Administrator	2/24/2016	Funding is requested for a study of consolidating the ECC. Is there any ballpark on cost to actually consolidate? What are the anticipated benefits?	#1 - 3/01/2016
Letourneau	Economic Development	2/24/2016	Could the Department of Economic Development recommend guidelines for qualifying projects in the fast track process? With these guidelines could the number of projects be reduced and therefore no longer need a Development Process Specialist?	#1 - 3/01/2016
Letourneau	Community Corrections	2/24/2016	Community Corrections is requesting a Surveillance Officer. What is the current caseload in other jurisdictions? Are these state funded positions?	Pending
Letourneau	Fire, Rescue and Emergency Services	2/24/2016	What is the current process and staffing for quality assurance in Fire and Rescue?	#1 - 3/01/2016
Letourneau	Commissioner of the Revenue	2/24/2016	How many DMV select transactions are completed through the Commissioner of the Revenue's Office? What are the costs of offering this service? How much revenue do we see from this?	Pending
Letourneau	Sheriff's Office	2/24/2016	What is the current workload on the Community Policing Officer in Dulles South? How many cases are they handling? How much time is spent in the Brambleton area versus South Riding?	Pending
Letourneau	Sheriff's Office	2/24/2016	Would there be a cost benefit in contracting out security services currently handled by the Executive Detail Deputies?	Pending
Letourneau	Sheriff's Office	2/24/2016	Has there been an increase in Juvenile/Sex Crimes? How many cases are handled by the each year for the past four fiscal years?	#1 - 3/01/2016
Letourneau	Sheriff's Office	2/24/2016	Please explain the need for a sworn position to be handling ADC technology support.	Pending
Letourneau	County Administrator	2/24/2016	Please provide a staffing breakdown and responsibilities within the Public Affairs and Communications Office.	Pending
Letourneau	Transportation and Capital Infrastructure	2/24/2016	Would the Regional Programs Coordinator position in DTCL be replacing the staff currently representing the County at regional meetings?	Pending

Letourneau	Mental Health, Substance Abuse and Developmental Services	2/24/2016	Please describe the need for residential support in Mental Health. Are these positions to address individuals currently on a waitlist? How extensive is the waitlist? How long would someone need to wait for a spot to open up?	#1 - 3/01/2016
Letourneau	Parks, Recreation and Community Services	2/24/2016	What would the cost be to contract out field renovation staff versus hiring within?	Pending
Letourneau	Parks, Recreation and Community Services	2/24/2016	There was a staffing augmentation in Parks and Rec associated with the field improvement initiative. How many positions were added, how are those positions currently being utilized?	Pending
Letourneau	Treasurer	2/24/2016	What has caused the number of approved refunds to be so drastically reduced within the Treasurer's Office?	#1 - 3/01/2016
Letourneau	General Services	2/24/2016	In prior budget years I asked about the fact that LCPS provides trash disposal services for all County and school facilities. Could the County assume responsibility for this service at a reduced cost over the current arrangement?	Pending
Letourneau	Board of Supervisors	2/25/2016	What are the district budgets for the Boards in Fairfax and Prince William Counties?	Pending
Meyer	CIP - Transportation	2/16/2016	In the adopted FY16 budget, Prentice Drive is in the FY 2018-2020 CIP. Can we switch the funding for Prentice Drive to Shellhorn Road?	2/23 FGOEDC CIP Packet
Meyer	CIP - Transportation	2/16/2016	After funding for Prentice Drive is diverted to Shellhorn Road, Shellhorn Road would now have construction funding beginning in FY 2018. What would the construction timeline be with this funding schedule? Is there any possibility to advance the funding or construction schedule earlier than FY 2018?	2/23 FGOEDC CIP Packet
Randall	CIP - LCPS	2/23/2016	When ES-23 or ES-31 is built, it is projected there will be 682 seats available in 2018. When both schools are built in 2021, there will be 1,423 seats available. This equates to more than a school and a half. Why the need for two elementary schools in Dulles North?	#1- Supplemental - 3/2/2016
Randall	CIP - LCPS	2/23/2016	In Dulles South, the critical need is the middle school (MS-7) and high school (HS-9). Please give the status of land acquisition for HS-9.	#1- Supplemental - 3/2/2016
Randall	CIP - LCPS	2/23/2016	The county has completed a land inventory before for LCPS. What is the process for this inventory and what staffing do you require?	#1- Supplemental - 3/2/2016
Randall	CIP - LCPS	2/23/2016	When ES-28 is accelerated to open in 2018, 782 seats will be available. Can a boundary adjustment in Dulles South elementary schools meet the need?	#1- Supplemental - 3/2/2016

Randall	CIP - LCPS	2/23/2016	Please give your expectations of the Boundary Line Adjustment Central Loudoun Area Elementary School Attendance Zones. Will this adjustment have an impact on the Dulles North and Dulles South elementary schools?	#1- Supplemental - 3/2/2016
Randall	CIP - LCPS	2/23/2016	Buffalo Trail Elementary is the largest elementary school in Loudoun County. This school has been an overflow school for years. What is the true boundary for Buffalo Trail? When Madison Trust Elementary opens in Dulles North fall 2016, will the enrollment numbers decline?	#1- Supplemental - 3/2/2016
Randall	CIP - Transportation	2/23/2016	Should the Town of Hillsboro Traffic calming project on Route 9 be moved up to FY 2017 to coincide with sewer and water line installation?	Pending
Randall	CIP - Transportation	2/23/2016	Given that Prince William County has indicated they are taking the Bi-County Park Way off of their County Wide Transportation plan does Northstar from Tall Cedars Parkway to Braddock Road need to be four lanes or is a two lane road sufficient?	Pending
Randall	Planning and Zoning	2/24/2016	How many housing units have been approved to be built as of March 1, 2016? In other words, how many homes county wide are in the "pipeline" to be built? (This question does not include any homes that can be built by-right).	Pending
Randall	Planning and Zoning	2/24/2016	What is the estimated population for the County of Loudoun in the year 2020?	#1 - 3/01/2016
Randall	Management and Budget	2/24/2016	Is it possible to consider the County of Loudoun and Loudoun County Public Schools merging some government responsibilities such as Vehicle Maintenance, Information Technology (Purchasing and Support) and Land Acquisition? Of course, this would happen through attrition, retirement or employee separation and NOT through a reduction in force policy.	Pending
Randall	Revenue	2/24/2016	Please calculate the adjusted tax rates of \$1.15, \$1.16 and \$1.17 using the following criteria.	#1 - 3/01/2016
Randall	Mental Health, Substance Abuse and Developmental Services	2/24/2016	Can you explain the impact on a client who is seeking MHSADS services if they call MHSADS and receive an answering machine vs. a trained clinician answering the call? What is the current call volume and can you compare it to the call volume from FY 2010-2015?	#1 - 3/01/2016
Randall	Planning and Zoning	2/24/2016	Understanding the RGP was adopted in 2001 and has not been revisited in fifteen years, why can't existing county staff fulfill the duties of a hired consultant?	#1 - 3/01/2016

Randall	Community Corrections	2/24/2016	Understanding the case load of the current CCSO officer increased 61% from FY 2014-2015, and understanding the caseload of 71 clients exceeds the Virginia Department of Criminal Justice Services recommendations (which is 60 clients), can we estimate how large this case load will be by FY 2018? Can a part-time person reasonably be expected to manage that caseload?	Pending
Randall	Economic Development	2/24/2016	The Department of Economic Development has been very successful over the past ten years. Why is the Fast Track program being requested by the E.D. Department when it is already staffed in the Department of Planning & Zoning? How will granting this position allow the E.D Department to increase business revenue in Loudoun County?	#1 - 3/01/2016
Randall	Parks, Recreation and Community Services	2/24/2016	Parks Recreation and Community Service Adaptive Recreation Camp Staff (page E-33). This items states that, "customer demand is high for this program." Can PRCS quantify what this statement means and can PRCS provide insight into the number of clients treated in FY 2015-2016 vs FY 2010-2015? Why has this fee increased and is this increase just for clients who are being served in the Adaptive Recreation Program? Are any of these services being subsidized by other funds (private and public)?	#1 - 3/01/2016
Randall	Mental Health, Substance Abuse and Developmental Services	2/24/2016	Mental Health, Substance Abuse and Developmental Services Residential Support (page E-34). Is this enhancement requested because a new group home facility will be opened, or will these additional positions work in group homes that are already at capacity (serving 85 individuals), thus giving MHSADS the opportunity to serve more clients in already existing facilities? If MHSADS plans to open a new group home, are these additional positions still requested if the CIP for a new group home is denied?	#1 - 3/01/2016
Randall	Management and Budget	2/24/2016	This request states enhancement will "enable County Leadership to more fully use and rely on improved performance management and measurement in making data driven resource and policy decisions." Does this mean that decisions will be made using evidence based criteria and if so can this position financially benefit the County of Loudoun by determining inefficiencies in county government? In short, is there an auditing component to this position?	#1 - 3/01/2016

Randall	Library Services	2/24/2016	As this would be the first Loudoun County Library to have expanded hours, can you detail how expanded hours will benefit Sterling and the county as a whole?	Pending
Randall	Non-Profit/Regional/Intgov Org Contributions	2/24/2016	Below is the table that details Loudoun's decreased expenditures to non-profits for the last thirteen years. Is it possible to ESTIMATE how much revenue Loudoun's nonprofits save the county in services and goods? If Loudoun's nonprofit community received a budget increase of \$1,000,000, what increased or expanded services can Loudoun County expect the nonprofits to provide?	Pending
Randall	LCPS	2/24/2016	What is the estimated dollar amount to fund the following items? a. Full Day Kindergarten as proposed by Dr. Williams and the Loudoun County School Board for 75% of eligible students. b. Teacher and employee pay raises and benefits. c. Restore all Middle School Dean positions.	#1- Supplemental - 3/2/2016
Randall	LCPS	2/24/2016	What is the estimated student population (public school) in the year 2020?	#1- Supplemental - 3/2/2016
Randall	Revenue	2/25/2016	What would the tax rate have needed to be set at last year to fully fund the budget for FY16, had the fund balance not been used?	#1 - 3/01/2016
Randall	Revenue	2/25/2016	Would it be possible to put a tax calculator on the website so that a citizen could input their home value and select different tax rate options to project their annual tax bill?	
Umstatted	LCPS	2/11/2016	Cost for step increases for all eligible employees as well as a teacher salary scale adjustment to improve competitiveness	#1 - 3/01/2016
Umstatted	LCPS	2/11/2016	Cost for maintaining or reducing class sizes in the face of 3.8% enrollment growth	#1 - 3/01/2016
Umstatted	LCPS	2/11/2016	Cost for providing full day kindergarten access for 75% of students	#1 - 3/01/2016
Umstatted	LCPS	2/24/2016	Is it possible or legal to write school bond questions in such a way that a new high-school slated to get 2 turf fields could be provided with one turf field and the other turf field could be dedicated to one of the schools without any turf fields? A broader question is: can new schools be built with fewer amenities so that older schools can be provided with some amenities? Whose decision would this be? County staff in writing bond language or LCPS?	Pending

Umstattd	Management and Budget	2/26/2016	Does the Board of Supervisors, without the agreement of the School Board, have the authority to directly donate funds to Catocin ES for the construction of an accessible playground?	Pending
Volpe	CIP - LCPS	2/18/2016	Regarding the installation of synthetic turf at the four remaining high schools, would the Finance Committee review the following options: 1. Scheduling one school each year for installation based on oldest school to newest school by age. 2. Scheduling two schools in one fiscal year and then the other two schools the next year. 3. Scheduling all four schools in one fiscal year earlier than year five or six of the CIP.	FGOEDC CIP Supp Packet
Volpe	LCPS	2/24/2016	Please provide a list of all public schools, when they were built, and what, if any renovations have been provided at each school and in what year(s).	#1- Supplemental - 3/2/2016
Volpe	LCPS	2/24/2016	Please provide a list of both CIP and CAPP proposed items to be performed at each school in the County for FY17-FY22. Include in this list what monetary percentage expenditures will be per school.	#1- Supplemental - 3/2/2016
Volpe	LCPS	2/24/2016	From my understanding, a consultant has been hired by LCPS to survey each of the schools and provide an "inventory" of repairs/renovations needed. Please advise of the status of this survey and when the report will be complete. If the report is complete, please provide a copy.	#1- Supplemental - 3/2/2016