

CLARK ELEMENTARY SCHOOL 1000 BELMONT AVENUE CHARLOTTESVILLE, VIRGINIA

ECS PROJECT NO. 46:6713

FOR

CITY OF CHARLOTTESVILLE - FACILITIES DEVELOPMENT

NOVEMBER 4, 2021





Geotechnical • Construction Materials • Environmental • Facilities

November 4, 2021

Mr. Josh Bontrager City of Charlottesville - Facilities Development 305 4th Street NW Charlottesville, Virginia, 22903

ECS Project No. 46:6713

Reference: Facility Condition Assessment Report for Clark Elementary School, 1000 Belmont Avenue, Charlottesville, Virginia

Dear Mr. Bontrager:

ECS Mid-Atlantic, LLC is pleased to provide the results of our Facility Condition Assessment (FCA) for the referenced property. The scope of the FCA was performed in general accordance with ASTM and industry guidelines and items contained within the ECS Proposal No. 46:7239-FP, dated June 12, 2020. We understand that our work is being performed under the City of Charlottesville Purchase Order Number 4500313133.

It has been our pleasure to be of service to you on this project. Should you have any questions or comments with regard to the findings and recommendations, please feel free to contact us at your convenience.

Respectfully,

ECS Mid-Atlantic, LLC

Br mge

Donald M. Goglio Project Manager DGoglio@ecslimited.com 703-471-8400

Middad H. Dyle

Michael G. Doyle, AIA Principal Architect mdoyle@ecslimited.com 703-471-8400

14026 Thunderbolt Place, Suite 100, Chantilly, Virginia 20151 • T: 703-471-8400 • F: 703-834-5527 • ecslimited.com

## **Project Summary**

Construction System	Good	Fair	Poor	Action	Immediate	Over Term Years 1-20
<u>3.2.1</u> Topography	Х			None		
<u>3.2.2</u> Storm Water Drainage	х	х		PROVIDE ADDITIONAL STUDY AND DESIGN BUILD SOLUTION FOR DRAINAGE ON WEST SIDE OF SITE		\$10,000
3.2.3 Access and Egress	Х			None		
<u>3.2.4</u> Paving, Curbing, and Parking	х	х		Repair		\$10,000
3.2.5 Flatwork		Х		Replace		\$10,000
<u>3.2.6</u> Landscaping and Appurtenances	Х			None		
<u>3.2.7</u> Recreational Facilities		х		Replace		\$30,000
<u>3.2.8</u> Special Utility Systems		NA		None		
3.3.1 Foundation	х			None		
3.3.2 Building Frame	х			None		
3.3.3 Building Exteriors		Х		Repair		\$180,000
3.3.4 Exterior Doors	Х			None		
3.3.5 Exterior Windows	Х	Х		Replace		\$125,000
3.3.6 Roofing Systems	Х	Х		Replace		\$280,000
<u>3.4.1.1</u> Supply and Waste Piping	Х			None		
<u>3.4.1.2</u> Domestic Hot Water Production		х		Replace		\$4,800
3.4.2.1 Equipment	Х	Х		Replace		\$349,500
<u>3.4.2.2</u> Distribution System	х			None		
3.4.2.3 Control Systems	Х			None		
<u>3.4.3.1</u> Service and Metering	х	х		Replace		\$30,000
3.4.3.2 Distribution	Х			None		
<u>3.5</u> VERTICAL TRANSPORTATION SYSTEMS	Х			Refurbish		\$150,000
<u>3.6.1</u> Sprinklers and Suppression Systems	х			None		
3.6.2 Alarm Systems	х			None		
3.6.3 Security and Other Systems	Х			None		
3.7.1 Interior Finishes	Х			None		
<u>3.8</u> Accessibility (ADA) Compliance	Х			None		
5.1 MOISTURE AND MOLD	Х			None		
Totals					\$0	\$1,179,300

Summary	Today's Dollars	\$/Square Feet
Immediate Repairs	\$0	\$0.00

	Today's Dollars	\$/Square Feet	\$/Square Feet/Year
Replacement Reserves, today's dollars	\$1,179,300.00	\$21.59	\$1.08
Replacement Reserves, w/20, 2.5% escalation	\$1,272,211.03	\$23.29	\$1.16

# TABLE OF CONTENTS

# PAGE

1.0	EXECU	ITIVE SUM	MMARY 1
	1.1	BACKG	ROUND 1
	1.2	METHC	DOLOGY 1
	1.3	PROPE	RTY DESCRIPTION
	1.4	OPINIC	DNS OF COST
	1.5	COST T	ABLES         6
		Immed	liate Repair Cost
		Capital	Reserve Schedule
2.0	PURPO	OSE AND	SCOPE
	2.1	SCOPE	OF SERVICES
	2.2	Deviati	ons from Guide (ASTM E2018-15)
	2.3	ASSESS	SMENT PROCEDURES    12
	2.4	DEFINI	TIONS
		2.4.1	Partial List of ASTM Definitions
3.0	SYSTE	M DESCR	IPTION AND OBSERVATIONS 15
	3.1	PROPE	RTY DESCRIPTION
		3.1.1	Property Location
		3.1.2	Construction History
		3.1.3	Current Property Improvements 15
	3.2	SITE CO	ONDITIONS         15
		3.2.1	Topography
		3.2.2	Storm Water Drainage
		3.2.3	Access and Egress 17
		3.2.4	Paving, Curbing, and Parking 17
		3.2.5	Flatwork
		3.2.6	Landscaping and Appurtenances
		3.2.7	Recreational Facilities
		3.2.8	Special Utility Systems
	3.3	STRUC	TURAL FRAME AND BUILDING EXTERIOR
		3.3.1	Foundation
		3.3.2	Building Frame



8.0		<b>FIONS A</b>	ND QUALIFICATIONS	66
7.0	FACILIT	Y COND	ITION INDEX (FCI)	65
6.0	RECOM	MENDA	TIONS AND OPINIONS OF COST	63
	5.1	MOISTL	JRE AND MOLD	62
5.0	ADDITIC	ONAL CO	DNSIDERATIONS	62
	4.2	INTERVI	EW SUMMARY	61
	4.1	DOCUM	IENTATION REVIEW	61
4.0	DOCUM			61
	3.8	Accessi	oility (ADA) Compliance	56
		3.7.1	Interior Finishes	
	3.7		DR BUILDING COMPONENTS	
		3.6.3	Security and Other Systems	
		3.6.2	Alarm Systems	
	5.0	3.6.1	Sprinklers and Suppression Systems	
	3.6		ETY AND FIRE PROTECTION	
	3.5	VERTICA	AL TRANSPORTATION SYSTEMS	
			3.4.3.2 Distribution	
		5.4.5	3.4.3.1 Service and Metering	
		3.4.3	3.4.2.3 Control Systems         Electrical Systems	
			3.4.2.2 Distribution System	
			3.4.2.1 Equipment	
		3.4.2	HVAC Systems	
			3.4.1.2 Domestic Hot Water Production	
			3.4.1.1 Supply and Waste Piping	
		3.4.1	Plumbing Systems	36
	3.4	PLUMBI	ING, MECHANICAL, AND ELECTRICAL SYSTEMS	36
		3.3.6	Roofing Systems	33
		3.3.5	Exterior Windows	31
		3.3.4	Exterior Doors	30
		3.3.3	Building Exteriors	27



# TABLE OF APPENDICES

Appendix I: SITE MAP AND AERIAL PHOTOGRAPH Appendix II: FIRE SPRINKLER INSPECTION Appendix III: ELEVATOR CERTIFICATES Appendix IV: RS MEANS ESTIMATE FOR FACILITY CONDITION INDEX (FCI) Appendix V: SITE PHOTOGRAPHS Appendix VI: RESUMES



## **1.0 EXECUTIVE SUMMARY**

### 1.1 BACKGROUND

ECS Mid-Atlantic, LLC (ECS) performed a Facility Condition Assessment (FCA) in general conformance with ASTM guidelines and general scope items contained within the ECS Proposal 46:7239-FP dated June 12, 2020 for the Clark Elementary School property in Charlottesville, Virginia - hereinafter known as the Property.

The FCA was conducted by ECS in response to the authorization of our Proposal by Ms. Susan Dyer on November 23, 2020. The report was completed and reviewed by the following team members:

William R. Pratt, P.E.	Principal Engineer
	Phone: 703-471-8400
	E-mail: wpratt@ecslimited.com
Michael G. Doyle, AlA	Principal Architect
	Phone: 703-471-8400
	E-mail: mdoyle@ecslimited.com
Donald M. Goglio	Project Manager
	Phone: 703-471-8400
	E-mail: DGoglio@ecslimited.com

## Reliance

This report is provided for the exclusive use of City of Charlottesville - Facilities Development. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance.

## **1.2 METHODOLOGY**

ECS observations and historical property data provided by the owner were utilized to determine the effective age of the property components. Various factors including exposure to weather elements, system manufacturer quality, level of maintenance, and usage determine the effective age of property components. Depending on the impact of these various factors, the effective age of property components can reduce the Remaining Useful Life (RUL) of a property component. The general requirements of the owner to address facility needs were requested to be prioritized based on the RUL and type of property component. The following Priorities were established by the Owner as follows:

## Priority 1: Immediately Critical Items (Year 0)



Items in this Priority category include physical deficiencies that require immediate action as a result of (i) existing or potentially unsafe conditions, (ii) significant negative conditions impacting tenancy, (iii) material building code violations or Title II American with Disabilities Act (ADA) items.



## Priority 2: Critical Items (Year 0-1)

Items in this Priority category include physical deficiencies that require immediate action as a result of (i) poor or deteriorated condition of critical element or system, or (ii) a condition that is left "as is," with an extensive delay in addressing same, would result in or contribute to critical element or system failure within one year.

## Priority 3: Near Term Items (Years 2-5)

Items in this category include physical deficiencies that require near term action as a result of (i) poor or deteriorated condition of critical element or system, or (ii) a condition that is left "as is," with an extensive delay in addressing same, would result in or contribute to critical element or system failure within two to five years.

## Priority 4: Reserve Items (Years 5-20)

Items in this Priority category include Capital Reserves for recurring probable expenditures, which are not classified as operational or maintenance expenses, which should be annually budgeted for in advance. Capital reserves are reasonably predictable both in terms of frequency and cost. However, they may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within an estimated time period. A component method has also been included within this report as well.

Reserve items excludes systems or components that are estimated to expire after the reserve term and that are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that were not deemed to have a material affect on the use were also excluded. Costs that are caused by acts of God, accidents or other occurrences that are typically covered by insurance, rather than reserved funds, are also excluded.

Replacement costs were solicited from ownership/property management, ECS' discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by ownership's or property management's maintenance staff were also considered.

ECS's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the evaluation period. Additional information concerning systems or components respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Capital Reserve Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Needs Cost Estimates.

## **1.3 PROPERTY DESCRIPTION**

Clark Elementary School, located at 1000 Belmont Avenue, in Charlottesville, Virginia, consists of a Three-story building. The building totals approximately 54,635 square feet. Parking is provided with At-grade parking with asphalt pavement. The School building was reportedly constructed in 1930.



SURVEY INFORMATION		
Date of Assessment	July 22, 2021	
Assessor	William R. Pratt, P.E.	
Weather Conditions	Sunny   82	
Property Contact	Josh Bontrager, Project Manager for the City of Charlottesville - Facilities Development	

SITE INFORMATION		
Land Area	3.08 acres	
Major Cross Streets	Monticello Road	
Pavement - Parking	At-grade parking with asphalt pavement	
Number of Parking Spaces	32	
Number of Accessible Spaces	One	
Number of Van Accessible Spaces	One	
Pedestrian Sidewalks	Concrete sidewalks	

BUILDING INFORMATION		
Building Type	School	
Number of Buildings	One	
Building Height	Three-story	
Square Footage	54,635	
Year Constructed	1930	
Year Remodeled	1958 and 1987	

BUILDING CONSTRUCTION		
Foundation	Assumed shallow spread footings	
Structural System	Brick masonry and concrete masonry unit bearing walls with interior steel columns and steel roof framing	
Roof	Single-ply sheet membrane	
Exterior Finishes	Brick veneer	



BUILDING CONSTRUCTION		
Windows	Aluminum frame double-pane, wood framed single-pane operable window	
Entrance	Metal doors with glass	

	BUILDING SYSTEMS
HVAC System	Central plant HVAC system with supplemental heating/cooling equipment
Domestic Hot Water	Gas domestic water heater
Water Distribution	Copper
Sanitary Waste Line	PVC and cast iron
Electrical Service	3-phase, 4-wire, 2,000 amps
Branch Wiring	Copper
Elevators	One passenger elevator
Fire Suppression System	Wet sprinkler system and fire extinguishers with automated fire alarm system with alarm bell, strobe, and pull down stations

	UTILITY SERVICE PROVIDERS
Water	Charlottesville Water
Sewer	Charlottesville Public Utilities - Wastewater
Electric	Dominion Virginia Power
Natural Gas	City of Charlottesville

## **1.4 OPINIONS OF COST**

The opinions of cost are provided in the attached reserve replacement table and a summary of immediate repairs included in this report. The reserve replacement table covers capital expenditure items only. Items less than \$1,000 in cost have been excluded, except for immediate repairs, ADA or safety issues. Please refer to section 6.0 of this report for a detailed explanation on how these costs are derived.



# **1.5 COST TABLES**



## Immediate Repair Cost

ltem	Quantity	Unit	Unit Cost	Replacement Percent	Immediate Total
Total Repair Cost					\$0.00

														Capita	al Reserv	e Schedule												
tem	EUL	EFF AGE	RUL	Quantity	v Unit	Unit Cost	Cycle Replace	Replace Percent		Year 2 2022	3	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year Year 8 9 2028 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	Year 18 2038	Year 19 2039	Year 20 2040	Total Cost
.2.2 Storm Wa	iter D	Draina	ge																									
ROVIDE DDITIONAL TUDY AND DESIGN BUILD BUILD OR DRAINAGE DN WEST IDE OF SITE			1	1	LS	\$10,000.00	\$10,000	100%	\$10,000																			\$10,000
.2.4 Paving, Cu	urbin	ig, and	l Parki	ng																								
SPHALT PAVEMENT REPAIRS	20	18	2	1	LS	\$10,000.00	\$10,000	100%		\$7,000					\$1,000				\$1,000					\$1,000				\$10,000
.2.5 Flatwork																												
REPAIR CONCRETE VALKS AND TEPS AS NEEDED	25	24	1	2	Allow	\$5,000.00	\$10,000	100%	\$5,000									\$5,000										\$10,000
.2.7 Recreatio	nal F	acilitie	es																									
REPLACE PLAYGROUND QUIPMENT	20	15	5	1	EA	\$20,000.00	\$20,000	100%					\$20,000															\$20,000
RESURFACE BASKETBALL COURT	20	10	10	1	LS	\$10,000.00	\$10,000	100%									\$10,000											\$10,000
.3.3 Building E	xteri	iors																										
REPOINT BRICKWORK ND REPAIR TONE SILLS	20	19	1	1	LS	\$75,000.00	\$75,000	100%	\$75,000																			\$75,000
REPLACE SEALANTS	12	11	1	1	LS	\$30,000.00	\$30,000	100%	\$30,000																			\$30,000
REPAIR CORNICE	30	29	1	1	LS	\$75,000.00	\$75,000	100%	\$75,000																			\$75,000
.3.5 Exterior V	Vindo	ows																										
REPLACE VINDOWS	20	19	1	125	EA	\$1,000.00	\$125,000	100%	\$125,000																			\$125,000
.3.6 Roofing S	yster	ns																										

ltem		EFF AGE	RUL	Quantity	Unit	Unit Cost	Cycle Replace	Replace Percent		Year 2 2022	Year 3 2023	4	Year 5 2025	Year 6 2026	Year 7 2027	8	Year 9 2029	Year 10 2030	Year 11 2031	Year 12 2032	Year 13 2033	Year 14 2034	Year 15 2035	Year 16 2036	Year 17 2037	18	Year 19 2039	Year 20 2040	Total Cost
REPLACE SINGLE-PLY ROOFING SYSTEM	15 1	14	1	20,000	SF	\$14.00	\$280,000	100%	\$280,000																				\$280,000
3.4.1.2 Domest	tic Hot V	Water	r Prod	luction																									
REPLACE WATER HEATERS	12 1	11	1	2	EA	\$1,200.00	\$2,400	200%	\$1,200					\$1,200							\$1,200					\$1,200			\$4,800
3.4.2.1 Equipm	nent																												
REPLACE BOILERS	20 1	19	1	3	EA	\$25,000.00	\$75,000	100%	\$75,000																				\$75,000
REPLACE AIR HANDLERS	15 1	10	5	4	EA	\$10,000.00	\$40,000	100%					\$20,000		\$20,000														\$40,000
REPLACE WATER SOURCE HEAT PUMPS	20 1	19	1	65	EA	\$2,500.00	\$162,500	100%	\$32,500											\$32,500	\$32,500	\$32,500	\$32,500						\$162,500
REPLACE PACKAGE UNITS	20 7	7	13	2	EA	\$20,000.00	\$40,000	100%													\$40,000								\$40,000
REPLACE COOLING TOWER	18 1	17	1	1	EA	\$30,000.00	\$30,000	100%	\$30,000																				\$30,000
REPLACE SPACE HEATERS	20 1	15	5	2	EA	\$1,000.00	\$2,000	100%					\$1,000										\$1,000						\$2,000
3.4.3.1 Service	and Me	eterin	ıg																										
REPLACE GENERATOR AND TRANSFER SWITCH	25 5	5	20	1	EA	\$30,000.00	\$30,000	100%																			:	\$30,000	\$30,000
3.5 VERTICAL T	RANSPO	ORTA	TION	SYSTEMS																									
MODERNIZE ELEVATOR SYSTEM	40 3	39	1	1	LS	\$150,000.00	\$150,000	100%	\$150,000																				\$150,000
Total (Uninflate	ed)								\$888,700.00	\$7,000.00	\$0.00	\$0.00	\$41,000.00	\$1,200.00	\$21,000.00	\$0.00	\$0.00	\$10,000.00	\$5,000.00	\$33,500.00	\$73,700.00	\$32,500.00	\$33,500.00	\$0.00	\$1,000.00	\$1,200.00	\$0.00	\$30,000.00	\$1,179,300.00
Inflation Factor	r (2.5%)								1.0	1.025	1.051	1.077	1.104	1.131	1.16	1.189	1.218	1.249	1.28	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.56	1.599	
Total (inflated)									\$888,700.00	\$7,175.00	\$0.00	\$0.00	\$45,256.33	\$1,357.69	\$24,353.56	\$0.00	\$0.00	\$12,488.63	\$6,400.42	\$43,954.90	\$99,118.3	\$44,801.61	\$47,334.62	\$0.00	\$1,484.51	\$1,825.94	\$0.00	\$47,959.51	\$1,272,211.03
Evaluation Peri	iod:								20																				

		EFF					Cycle	Replace	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	
Item	EUL	AGE I	RUL	Quantity Un	it Uni	it Cost	Replace	Percent	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Total Cost
# of Square F	eet:								54,635																				
Reserve per S	Square F	eet pe	r year	(Uninflated)					\$1.08																				
Reserve per S	Square F	eet pe	r year	(Inflated)					\$1.16																				

#### 2.0 PURPOSE AND SCOPE

### 2.1 SCOPE OF SERVICES

This Facility Condition Assessment (FCA) was conducted in general accordance with items and terminology requested by the Owner herein and ASTM E 2018-15, "Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process".

The primary purpose of a FCA is to note construction deficiencies and to identify components which appear to exhibit less than expected service life or which have been poorly maintained. The assessment is not intended to develop detailed remedial plans for identified problems. The services are qualitative in nature and do not include engineering calculations or design. Photographic documentation of our observations is attached.

The following building systems were observed in accordance with ASTM E 2018-15:

- Site Conditions
- Structural Frame and Building Envelope
- Plumbing, Mechanical and Electrical Systems
- Vertical Transportation Systems
- Life Safety and Fire Protection
- Interior Elements
- ADA Considerations
- Building Code Violations

#### Out of Scope Items

Environmental issues and concerns are considered to be outside of the ASTM scope of services for a Facility Condition Assessment. Although properties may have possible environmental contamination, including, but not limited to radon, mold, lead based paint, asbestos, lead piping, PCB's or volatile chemicals, these issues and concerns should be addressed by an Environmental Assessment, as defined by ASTM Guidelines. ECS recommends that properties be studied by a qualified environmental assessor who can appropriately access, identify, and quantify issues related to environmental safety concerns.

ECS is providing a Facility Condition Assessment consistent with commercial and customary practices and the ASTM E-2018, current at the time the services are provided. The parties expressly acknowledge and agree that ECS is not providing a Reserve Study, which is subject to the National Reserve Study Standards and requires much more detail than a typical Facility Condition Assessment.

## 2.2 Deviations from Guide (ASTM E2018-15)

ASTM E2018-15 requires that any deviations from the Guide be noted within the report. ECS reduced the cost threshold from \$3,000 to \$1,000 to allow for smaller items needing repair, replacement or refurbishment. Therefore items with costs less than \$1,000 are typically not included in this report unless related to life, safety or accessibility items.



ECS interviewed personnel associated with the Clark Elementary School facility and other government agencies based upon availability. These individuals are identified in Section 4.2. Information obtained from the interviews are included in the applicable sections of this report.

## 2.3 ASSESSMENT PROCEDURES

The FCA included site reconnaissance, limited interviews with property management, and inquiries or attempted inquiries with the local building and fire departments. Operational testing of building systems or components was not conducted. During the FCA, ECS conducted observations of the following facility features: site development systems; building structure systems; building exterior systems; building interior systems; roof systems; mechanical systems; electrical systems; plumbing systems; and life and fire safety systems.

This report is intended for review as a complete document. Therefore, interpretations and conclusions drawn from the review of any individual section are the sole responsibility of the User.

## **2.4 DEFINITIONS**

**Fair**, adj - the property or component is functional but will likely require immediate maintenance or repairs during the duration of the term.

**Good**, adj - the property or component is functional and should continue to provide its intended service with continued routine maintenance through the duration of the term.

**Poor**, adj - the property or component is not functional. Immediate or near term repairs are required to bring the component back into service or replacement is expected during the duration of the term.

## 2.4.1 Partial List of ASTM Definitions

**de minimis condition** - a physical deficiency that is not material to the conclusions of the report.

**deferred maintenance**, n - physical deficiencies that could have been remedied with routine maintenance, normal operating maintenance, etc., excluding de minimis conditions that generally do not present a material physical deficiency to the subject property.

**easily visible**, adj - describes items, components, and systems that are conspicuous, patent, and which may be observed visually during the walk-though survey without: intrusion, relocation or removal of materials, exploratory probing, use of special protective clothing, or use of any equipment (hand tools, meters of any kind, telescope instruments, stools, ladders, lighting devices, etc.).

**effective age**, n - the estimated age of a building component that considers actual age as affected by maintenance history, location, weather conditions, and other factors. Effective age may be more or less than actual age.

**expected useful life (EUL)**, n - the average amount of time in years that an item, component or system is estimated to function without material repair when installed new and assuming routine maintenance is practiced.



**immediate cost**, n - opinions of costs that require immediate action as a result of any of the following: (1) material existing or potentially unsafe conditions, (2) material building or fire code violations, (3) physical deficiencies that if left uncorrected would be expected to result in or contribute to critical element or system failure within on year or will result most probably in significant escalation of its remedial cost.

**observation**, n - the visual survey of items, systems, conditions, or components that are readily accessible and easily visible during a walk-through survey of the subject property.

**observe**, v - to conduct an observation pursuant to this guide within the context of easily visible and readily accessible.

**obvious**, adj - plain, evident, and readily accessible; a condition easily visible or fact not likely to be ignored or overlooked by a field observer when conducting a walk-through survey or that which is practically reviewable and would be understood easily by a person conducting the FCA.

opinions of costs, n - opinion of costs that may be encountered in correction of physical deficiencies.

**physical deficiency**, n - a conspicuous defect or deferred maintenance of a subject property's material systems, components, or equipment as observed during the completion of the FCA. - This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous minor repairs, normal operating maintenance, etc., and excludes de minimis conditions that generally do not present material physical deficiencies of the subject property.

**Point of Contact (POC)**, n - owner, owner's agent, or user-identified person or persons knowledgeable about the physical characteristics, maintenance, and repair of the subject property.

**practically reviewable**, adj - describes information that is provided by the source in a manner and form that, upon review, yields information relevant to the subject property without the need for significant analysis, measurements, or calculations. Records or information that feasibly cannot be retrieved by reference to the location of the subject property are not generally considered practically reviewable.

**primary commercial real estate improvements**, n - the site and building improvements that are of fundamental importance with respect to the commercial real estate. This definition specifically excludes ancillary structures, that may have been constructed to provide support uses such as maintenance sheds, security booths, utility garages, pool filter and equipment buildings, etc.

**property**, n - the site improvements, which are inclusive of both site work and buildings.

**readily accessible**, adj - describes areas of the subject property that are promptly made available for observation by the field observer at the time of the walk-through survey and do not require the removal or relocation of materials or personal property, such as furniture, floor, wall, or ceiling coverings; and that are safely accessible in the opinion of the field observer.

**readily available**, adj - describes information or records that are easily and promptly provided to the consultant upon making a request in compliance with an appropriate inquiry and without the need for the consultant to research archive files.



**reasonably ascertainable**, adj - describes information that is publicly available, as well as readily available, provided to the consultant's offices from either its source or an information research/ retrieval service within reasonable time, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.

**remaining useful life (RUL)**, n - a subjective estimate based upon observations, or average estimates of similar items, components, or systems, or a combination thereof, of the number of remaining years that an item, component, or system is estimated to be able to function in accordance with its intended purpose before warranting replacement. Such period of time is affected by the initial quality of an item, component, or system, the quality of the initial installation, the quality and amount of preventive maintenance exercised, climatic conditions, extent of use, etc.

**representative observations**, n - observations of a reasonable number of samples of repetitive systems, components, areas, etc., which are conducted by the field observer during the walk-through survey. The concept of representative observations extends to all conditions, areas, equipment, components, systems, buildings, etc., to the extent that they are similar and representative of one another.

**routine maintenance**, n - a repair that does not require specialized equipment, profession services, or contractors, but rather can be corrected within budget and skill set of typical property maintenance staff.

**short term cost**, n - opinions of costs to remedy physical deficiencies, such as deferred maintenance, that may not warrant immediate attention, but require repairs or replacements that should be undertaken on a priority basis in addition to routine preventive maintenance.

**technically exhaustive**, adj - describes the use of measurements, instruments, testing, calculations, exploratory probing or discovery, or other means to discover, or a combination thereof, or troubleshoot physical deficiencies or develop architectural or engineering findings, conclusions, and recommendations, or combination thereof.



## **3.0 SYSTEM DESCRIPTION AND OBSERVATIONS**

## **3.1 PROPERTY DESCRIPTION**

The Property contains a Three-story School building.

## 3.1.1 Property Location

The Property is located at 1000 Belmont Avenue in Charlottesville, Virginia.

	Surrounding Properties
North	Belmont Avenue
East	Residential properties
South	Monticello Avenue
West	Residential properties

A Site Location Map and Aerial View are included in Appendix I.

## **3.1.2 Construction History**

We understand that the building was constructed approximately 91 years ago in 1930.

## 3.1.3 Current Property Improvements

The School building, located at 1000 Belmont Avenue, in Charlottesville, Virginia, consists of a Three-story building. The building totals approximately 54,635 square feet. Parking is provided with At-grade parking with asphalt pavement.

## **3.2 SITE CONDITIONS**

## 3.2.1 Topography

TOPOGRAPHY								
ltem	Description	Condition						
Slope of the property	The property generally slopes to the southeast	Good						
Adjoining Properties	Generally down slope	Good						

## Comments

The property is generally level and slopes to the southeast. The adjoining properties are located down gradient from the property.



#### 3.2.2 Storm Water Drainage

	STORM WATER DRAINAGE	
ltem	Description	Condition
Storm Water Collection System	Municipal	Good/Fair
Storm Water (Retention) Pond		N/A
Storm Water Filtration Structure		N/A
Pavement Drainage	Sheet flow	Good
Landscape Drainage	Sheet flow	Good
Sump Pumps		N/A

## Comments

The storm water collection system is a municipal system. Drainage on the west side of the building and site was limited with reported ponding of water on the pavement. We recommend an allowance to provide an additional study to design and build a drainage solution on the west side of the building and site.

## Photographs



Storm water drainage on west side of building and site - note ponding reported and deterioration



Storm water drainage on west side of building and site - note ponding reported and deterioration



## Recommendations

		EFF			
Cost Recommendation	EUL	AGE	RUL	Year	Cost
PROVIDE ADDITIONAL STUDY AND DESIGN BUILD SOLUTION FOR DRAINAGE ON WEST SIDE OF SITE	-	-	1	1	\$10,000
Total					\$10,000

#### 3.2.3 Access and Egress

	SITE ACCESS AND EGRESS	
ltem	Description	Condition
Entrance Aprons	Asphalt	Good
Fire Truck Access	North, west, and south sides of the property	Good
Easements		N/A

#### Comments

Vehicular access to the site is located on the north side of the property. The entrance apron is constructed of asphalt and was observed to be in generally good condition. Fire truck access is available on the north, west, and south sides of the building.

## 3.2.4 Paving, Curbing, and Parking

	PARKING	
ltem	Description	Condition
Striping	Painted	Fair
Quantity of Parking Spaces	32	Good
Quantity of Loading Spaces		N/A
Arrangement of Spaces	Perpendicular	Good
Site Circulation	2-way aisles	Good
Lighting		N/A
Accessible Spaces	One	Poor



	PARKING											
ltem	Description	Condition										
Accessible Aisles	One	Fair										

SURFACE PAVEMENT		
ltem	Description Cond	
Pavement Surface	At-grade parking with asphalt pavement	Fair
Drainage	Sheet flow	Good
Repair History	Patching observed	Fair
Concrete Curbs and Gutters	Perimeter	Good
Dumpster Pad	Concrete	Fair
Asphalt Curbs		N/A
Fire Lane Painting	Belmont Ave.	Good

## Comments

Asphalt-paved drive lanes and parking areas are located on the southwest side of the site which also provides access to the site. The asphalt pavement was observed to be in generally fair condition with minor cracks observed on the pavement. Striping was in fair condition. The expected useful life of asphalt pavement is 20 years. We have provided allowances to repair the cracked areas of asphalt pavement.



## Photographs



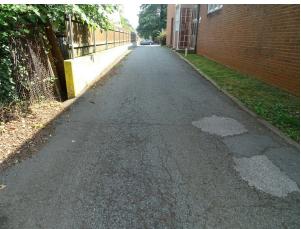


Asphalt parking located at southwest end of site

Asphalt parking - note cracking



Asphalt parking - note cracking



Asphalt pavement - note cracking





Asphalt parking - note minor cracking and deterioration

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
ASPHALT PAVEMENT REPAIRS	20	18	2	2	\$7,000
				7	\$1,000
				12	\$1,000
				17	\$1,000
Total					\$10,000

#### 3.2.5 Flatwork

SIDEWALKS			
Item	Item Description Cond		
Walkways	Concrete sidewalks	Fair	
Patios	Concrete	Good	
Steps	Concrete	Good	
Landings	Concrete	Good	
Handrails	Steel tube	Good	
Ramps	Concrete	Good	
Curb Ramps	Concrete	Good	



#### Comments

At the perimeter of the building, concrete sidewalks sidewalks of undetermined thickness are provided. Regularly spaced control joints were observed. The concrete sidewalks were generally in fair condition.

The steps and ramps were observed to be in generally fair condition. The handrails adjacent to the steps and ramps were observed to be in generally good condition. There is a concrete patio on the northeast side of the building. The patio was generally in fair condition.

#### Photographs



Typical concrete sidewalk - note cracking

Typical concrete sidewalk - note cracking



Typical concrete sidewalk - note cracking

Typical concrete steps



#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPAIR CONCRETE WALKS AND STEPS AS NEEDED	25	24	1	1 11	\$5,000 \$5,000
Total					\$10,000

## 3.2.6 Landscaping and Appurtenances

LANDSCAPING		
ltem	Item Description	
Trees	Located throughout the site	Good
Planting Beds	Located at east side of the building	Good
Lawn Areas	Located on east side of the building	Good
Irrigation System		N/A
Monumental Sign	Brick/wood	Good
Landscape Lighting		N/A
Retaining Walls	Brick	Good
Fences and Gates	Chain link	Good
Dumpster Area	Located at southwest end of the building	Good
Fountains		N/A

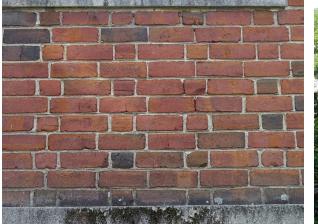
#### Comments

The landscaping consists generally of mature trees, various shrubs, and grassed areas around the site. The landscaping was observed to be in generally good condition.

A brick retaining wall is located at the southwest end of the site. The retaining wall was generally in good condition and appeared to be well maintained. The expected useful life of the brick retaining wall is 25 years given the maintained condition.



## Photographs





Retaining wall at southwest side of the building - note efflorescence

Typical fencing



Typical landscaping

## **3.2.7 Recreational Facilities**

BASKETBALL COURT		
Item	Description	Condition
Playing Surface	Asphalt	Fair
Fencing		N/A
Lighting		N/A



PLAYGROUND		
Item	Description	Condition
Playing Surface	Wood mulch	Good
Fencing		N/A
Equipment	Plastic	Fair
Lighting		N/A

SOFTBALL FIELD			
ltem	Description	Condition	
Playing Surface	Grass	Good	
Fencing	Chain link	Fair	
Equipment		N/A	
Lighting		N/A	

## Comments

#### Basketball Court

The basketball court was located on the east side of the property. The surface was in fair condition. The expected useful life of the asphalt surface is approximately 20 years. We recommend an allowance be provided to resurface the basketball court.

#### <u>Playground</u>

A playground is located on the south side of the property. The playground consisted of various plastic play equipment and was located on a mulched play surface. The playground equipment was in good condition and was reportedly replaced in 2006. Mulching of the playground when required is considered a maintenance item. The expected useful life of playground equipment is 15 to 20 years with proper maintenance. An allowance for replacement of the equipment is included later in the study period.

## <u>Softball Field</u>

The softball is located at the east side of the property. The softball field was in good condition.



## Photographs





Playground area at center of building

Playground area at center of building



Basketball court and softball field at east side of the property

#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE PLAYGROUND EQUIPMENT	20	15	5	5	\$20,000
RESURFACE BASKETBALL COURT	20	10	10	10	\$10,000
Total					\$30,000



## 3.2.8 Special Utility Systems

ltem	Description	Condition
Water Well		N/A
Lift Station		N/A
Septic Field		N/A
Solar Power		N/A
Wind Power		N/A

#### Comments

The Property does not contain special utility systems.

## **3.3 STRUCTURAL FRAME AND BUILDING EXTERIOR**

#### 3.3.1 Foundation

FOUNDATION		
Item	Description	Condition
Load Bearing Support	Assumed shallow spread footings	Good
Basement		N/A
Crawl Space		N/A

#### Comments

The foundation of the building includes Assumed shallow spread footings. Large cracks were not observed in the exterior walls. The foundation system appeared to provide adequate structural support to the building. The foundation was generally in good condition.

#### 3.3.2 Building Frame

BUILDING FRAME				
ltem	Description	Condition		
Floor Framing	Concrete	Good		
Roof Framing	Steel trusses	Good		
Columns	Steel	Good		
Load Bearing Walls	СМՍ	Good		
Balconies		N/A		



BUILDING FRAME		
ltem	Description	Condition
Decks		N/A

## Comments

The structure of the building consists of brick masonry and concrete masonry unit bearing walls. There are interior steel columns supporting structural steel and metal diaphragm roof framing for the low slope roofing system. The structural frame of the building was generally in good condition.

## Photographs



Structure framing

## **3.3.3 Building Exteriors**

EXTERIOR FINISHES		
ltem	Description	Condition
Masonry	Deterioration of mortar joints observed	Fair
Glass Store Front		N/A
Glass Curtain Wall		N/A
Metal		N/A
Concrete	Precast stone	Fair
Wood Siding		N/A
Accent/Trim	Precast stone cornice	Fair
Covered Soffits	Painted gypsum	Good



EXTERIOR FINISHES			
ltem	Description	Condition	
Awnings	Precast stone	Good	
Paint		Good	
Sealants	Various	Fair	

## Comments

The primary exterior of the building consists of Brick veneer with precast stone accents and columns. Stone cornice work is located at the upper elevations of the eastern portion (original construction) of the building. The building exteriors were generally in fair condition with some deterioration observed. The expected useful life of mortared joints is approximately 20 years before re-pointing is required. Some deterioration of mortar joints was observed. We recommend re-pointing of the deteriorated mortar joints.

The precast stone cornice and accent pieces were observed to be in fair condition with chips, cracks, and deterioration of the joints. We recommend repairing the precast stone early in the report period.

Exterior sealants are located around the window and door frames. The expected useful life of exterior sealants is approximately 10 to 12 years before replacement is needed. The exterior sealants were generally in fair condition. We recommend that the exterior sealants be replaced.

## Photographs



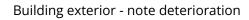
Building exterior north side of the

Building exterior - note deterioration





Building exterior - note deterioration





Concrete steps east side of the building



Building exterior - note deterioration





Building exterior - note deterioration

Building exterior - note deterioration

### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPOINT BRICKWORK AND REPAIR STONE SILLS	20	19	1	1	\$75,000
REPLACE SEALANTS	12	11	1	1	\$30,000
REPAIR CORNICE	30	29	1	1	\$75,000
Total					\$180,000

### 3.3.4 Exterior Doors

DOORS			
ltem	Description	Condition	
Main Entrance Doors	Metal doors with glass	Good	
Personnel Doors	Steel	Good	
Door Hardware	Varies	Good	
Accessibility Controls		N/A	
Overhead/Roll-up Doors		N/A	

#### Comments

The main entrances are located at the north and east portions of the building and consist of Metal doors with glass. The main entrance doors were generally in good condition.



Personnel doors are located throughout the building. The personnel doors were generally in good condition. It also appeared that some of the doors had been replaced over time. Exterior doors typically have an expected useful life of 20 to 30 years.

# Photographs



Typical entrance doors

Typical personnel door



Typical personnel door

#### **3.3.5 Exterior Windows**

WINDOWS			
ltem	Description	Condition	
Window Frame	Wood framed and aluminum framed	Fair	



WINDOWS		
Item	Description	Condition
Glass Pane	Single-pane and double-pane	Good
Operation		Fair
Screen		N/A
Exterior Header	Varies	Good
Exterior Sill	Precast stone	Good
Gaskets or Glazing	Varies	Fair

### Comments

The window system for the building primarily consists of wood framed single-pane operable window units. Some of the older window units were observed to be damaged and it was reported that the windows were drafty and caused temperature control issues in some of the classrooms. The windows have a typical expected useful life of 25 years. Replacement of windows has been included in the study period.

# Photographs



Typical exterior window

Typical exterior window - note sill cracking







Typical exterior window

Typical exterior window - note gasket damaged

# Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE WINDOWS	20	19	1	1	\$125,000
Total					\$125,000

# 3.3.6 Roofing Systems

ROOFING			
ltem	Description	Condition	
Single-Ply Sheet Membrane	Patching and ponding observed	Fair	
Parapet Walls	Varies	Good	
Cap Flashing/Coping	Metal coping	Fair	
Insulation	Rigid	Good	
Substrate/Deck	Diaphram	Good	
Slope/Pitch	Ponding observed	Good	
Drainage	Internal drains	Good	
Plumbing Vents	Clamped flashing	Good	
Exhaust Vents	Counter flashed	Good	
Equipment Curbs	Counter flashed	Good	



ROOFING		
ltem	Description	Condition
Pitch Pockets		N/A
Skylights		N/A
Flashing	Metal	Good
Expansion Joints		N/A
Roof Age	Reportedly replaced in 2006	Fair
Warranty		N/A

#### Comments

The main roofing system consists of an single-ply membrane roofing system. The roofing system was reportedly replaced in 2006 and leaks were not reported. Patching and ponding of the roofing system was observed. The expected useful life of a single-ply membrane roofing system is typically 15 years. We recommend replacing the roofing system later in the report period.

Drainage for the roofing system is provided by internal drains with overflow scuppers. Roofing penetrations included plumbing vents and exhaust vents throughout the roofing system.

### Photographs



Single-ply membrane roofing system looking north



Single-ply membrane roofing system addition







Typical parapet wall

Single-ply membrane roofing system - note ponding



Single-ply membrane roofing system addition - note patching



Typical internal drain





Typical internal drain

Typical plumbing penetration

### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE SINGLE-PLY ROOFING SYSTEM	15	14	1	1	\$280,000
Total					\$280,000

# 3.4 PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS

# 3.4.1 Plumbing Systems

# 3.4.1.1 Supply and Waste Piping

PLUMBING - WATER SUPPLY SYSTEM			
ltem	Description	Condition	
Piping Material	Copper	Good	
Pipe Insulation	Fiberglass	Good	
Water Shut-offs	Various	Good	
Water Flow and Pressure		Good	

PLUMBING - WASTE SUPPLY SYSTEM			
Item Description Condition			
Piping Material	PVC and cast iron	Good	



PLUMBING - WASTE SUPPLY SYSTEM			
ltem	Description	Condition	
Vertical Vent Stacks	PVC and cast iron	Good	
Clean-outs	PVC and cast iron	Good	

### Comments

### Water Lines

The main water supply lines inside the building are Copper. The expected useful life of Copper piping is approximately 40 years. The water supply pipes were generally in good condition.

#### Waste Lines

The waste lines in the building are PVC and cast iron. The expected useful life of PVC and cast iron waste line is approximately 50 years. The waste lines were generally in good condition and it was observed that some pipes had been replaced over time.

### 3.4.1.2 Domestic Hot Water Production

HOT WATER PRODUCTION		
Item	Description	Condition
Heating Equipment	Gas domestic water heater	Fair
Water Storage	In water heater	Good
Circulation Pumps		Good

#### Comments

Domestic hot water to the building is provided by two Gas domestic water heaters. Both Gas domestic water heaters are located in the mechanical room on the east side of the building. One water heater was manufactured by A.O. Smith and reportedly installed in 1997, the other by State, installed in December 2015. The expected useful life of a Gas domestic water heater is approximately 12 to 15 years with proper maintenance. We recommend the Gas domestic water heaters be replaced during the study period.



# Photographs



Gas domestic water heaters

# Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE WATER HEATERS	12	11	1	1	\$1,200
				6	\$1,200
				13	\$1,200
				18	\$1,200
Total					\$4,800

# 3.4.2 HVAC Systems

# 3.4.2.1 Equipment

EQUIPMENT			
ltem	Description	Condition	
Boilers	Located in mechanical room	Fair	
Chillers		N/A	
Cooling Towers	Located on roof	Fair	
Fan Coil Units		N/A	
Heat Exchangers		N/A	
Radiators		N/A	



EQUIPMENT			
ltem	Description	Condition	
Variable Air Volume (VAV) Boxes		N/A	
Condensing Units	Fujitsu	Good	
Air Handlers	Located in mechanical room and throughout the building	Good	
Package Units	Located on roof	Good	
Ceiling Fans		N/A	
Exhaust Fans	Various	Good	
Split System	Fujitsu	Good	
Water Source Heat Pumps (WSHP)	Located throughout the building	Good	
Space Heaters (wall or ceiling mounted)	Located in mechanical room	Good	
Air Conditioners (Window)		N/A	

# Comments

The building is served by a Central plant HVAC system with supplemental heating/cooling equipment and includes a cooling tower, boilers, package units, air handlers, fan coil units, and water source heat pumps.

# <u>Boilers</u>

There are two Fulton Boilers located in the mechanical room servicing the central plant system. The Fulton boilers were manufactured in 2002. There is on Patterson Kelly boiler servicing the perimeter heating also manufactured in 2002. The boilers have an expected useful life of 15 years with proper maintenance. The boilers were generally in fair condition. We recommend replacing the boilers during the report period.

# Cooling Tower

The cooling tower is located on the roof on the east side of the building. The Evapco cooling tower was installed in 2004 and was in good condition. Cooling towers have a typical expected useful life of approximately 18 years. The cooling tower should be replaced during the study period.

#### Air Handlers

Three of the air handlers are located in the mechanical room on the north side of the building and two of the units are located at the northwest corner of the building exterior. The units in the mechanical



room were manufactured by Trane in 2014 and were in good condition. The expected useful life of air handlers is 15 years with proper maintenance. We recommend that the air handlers be replaced during the report period.

### Rooftop Package Units

Two package units are located on the roof above the gymnasium. The two Trane roof top units were installed in 2010. The AAON roof top unit above the original building was manufactured in 2013. The expected useful life of package units is 15 years with proper maintenance. We recommend that the units be replaced during the report period.

### Water Source Heat Pumps (WSHP)

There are approximately 65 WSHP units located throughout the building. The typical expected useful life of the water source heat pumps is 20 years and they were recently replaced in 2014 and 2015 with a few older units installed in 1987. We recommend a scheduled replacement of the units at the beginning for the older units and near the end of the term.

#### Space Heaters

Two ceiling mounted space heaters were located in the mechanical room. The space heaters were in good condition. Replacement of the space heaters is included during the study period.

### Split System Heat Pump

A Fujitsu system was installed in 2017. The system was in good condition.

The City of Charlottesville self performs the mechanical service for the equipment.

# Photographs



Boilers located in mechanical room

Boiler located in mechanical room





Cooling tower located on roof

Typical air handler



Typical water source heat pump



Typical water source heat pump





Typical water source heat pump

Typical package unit

# Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE BOILERS	20	19	1	1	\$75,000
REPLACE AIR HANDLERS	15	10	5	5 7	\$20,000 \$20,000
REPLACE WATER SOURCE HEAT PUMPS	20	19	1	1 12 13 14 15	\$32,500 \$32,500 \$32,500 \$32,500 \$32,500
REPLACE PACKAGE UNITS	20	7	13	13	\$40,000
REPLACE COOLING TOWER	18	17	1	1	\$30,000
REPLACE SPACE HEATERS	20	15	5	5 15	\$1,000 \$1,000

Total

\$349,500



## 3.4.2.2 Distribution System

HVAC DISTRIBUTION				
Item Description Condi				
Ducts	Sheet metal	Good		
Return Air	Sheet metal	Good		

### Comments

The distribution system includes ducted supply and plenum return. Exposed ductwork was observed in limited locations within the building and was in generally good condition.

## 3.4.2.3 Control Systems

HVAC CONTROL SYSTEMS			
ltem	Description	Condition	
Thermostats	Various	Good	
Variable Frequency Drives		N/A	
Energy Management System		N/A	

### Comments

The thermostats are located throughout the interior spaces. The thermostats were observed to be in generally good condition.

# 3.4.3 Electrical Systems

#### 3.4.3.1 Service and Metering

SERVICE AND METERING			
Item	Description	Condition	
Service Entrance	North side	Good	
Master (House) Meter	Located in the main electrical room	Good	
Emergency Power	Gas generator	Fair	
Transfer Switch	Kohler	Fair	



#### Comments

Electricity is provided to the building by Dominion Virginia Power. The main electrical entrance is located on the north utility room of the building and provides 2,000 amp, 3-phase, 4-wire service.

An emergency power generator is located at the west side of the building at the exterior enclosure near the mechanical room. A typical expected useful life of 25 years. Based on the age of the emergency generator and typical replacement schedule, we recommend replacing the emergency generator during the report period.

The emergency back up power generator transfer switch was manufactured by Kohler and is located in the main mechanical room. The transfer switch installation date was unknown with an expected useful life of 25 years with proper maintenance. The transfer switch should be replaced in conjunction with the generator.

#### Photographs



Emergency power transfer switch

#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE GENERATOR AND TRANSFER SWITCH	25	5	20	20	\$30,000
Total					\$30,000



# 3.4.3.2 Distribution

ELECTRICAL DISTRIBUTION SYSTEM					
Item Description Condition					
Electrical Sub-panels	Various	Good			
Branch Wiring	Copper	Good			
GFCI Devices		Good			
Building Transformers	Pad mounted	Good			
Sub-Meters		N/A			

### Comments

Power is distributed by copper wire from circuit breaker panels located throughout the building. The expected useful life of sub-panels is 50 years with proper maintenance. The circuit breaker panels were observed to be in generally fair condition with minor rust observed on the surface of some panels. It appeared that some panels had been replaced over time, but some were original to construction.

ELEVATORS			
ltem	Description	Condition	
Quantity	One passenger elevator	Good	
Capacity	2,100 pounds	Good	
Manufacturer and Type	Dover - hydraulic	Good	
Maintenance Contractor	KONE	Good	
Date of Last Maintenance Inspection	2/25/2021	Good	
Cab Finishes	Enamel	Fair	
Elevator Certificates	Located in Facilities Maint. Ofc.	Good	
Door Sensors	Operable	Good	
Speed	120 feet per minute	Good	
Floor Leveling	Operable	Good	
Control System	Operable	Good	
Fire Recall System	Operable	Good	

# **3.5 VERTICAL TRANSPORTATION SYSTEMS**



ELEVATORS				
Item Description Cond				
Lighting	Operable	Good		
Equipment Room		Good		

### Comments

The elevator finishes and controls system are located on the north side of the building. The last annual inspection was performed on February 25, 2021 by E&F Elevator Inspections and Consulting, Inc. and monthly maintenance is provided by KONE. The inspection reports are include in appendix of this report.

### Photographs



Elevator at north side of the building

#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
	LOL		KOL	ieai	CUSL
MODERNIZE ELEVATOR SYSTEM	40	39	1	1	\$150,000
Total					\$150,000



# **3.6 LIFE SAFETY AND FIRE PROTECTION**

### 3.6.1 Sprinklers and Suppression Systems

SPRINKLER AND SUPPRESSION SYSTEMS		
Item	Description	Condition
Sprinkler System (wet)	Automatic	Good
Sprinkler Heads	Various	Good
Date of Last Inspection (sprinkler system)	4/5/2021	Good
Sprinkler Pump		N/A
Fire Extinguishers	Throughout building	Good
Date of Last Inspection (Fire Extinguishers)	July 2021	Good
Fire Standpipes		Good
Fire Department Connections	Located on east side of building	Good
Hose Cabinets		N/A
Fire Hydrants	At street	Good

# Comments

The fire suppression system is a Wet sprinkler system and fire extinguishers. The fire suppression system was observed but not tested. The sprinklers are connected to the fire alarm. The sprinkler risers are located in the sprinkler room.

Sprinkler heads are located throughout the building. The sprinkler heads were generally in good condition.

Fire extinguishers were observed throughout the building including in mechanical rooms. The fire extinguishers were observed to have recent inspection tags issued by Fire Solutions in July of 2021. These devices are required to be inspected annually. Replacement of the fire extinguishers is considered routine maintenance.

Fire hydrants are located at the building exterior. The fire hydrants were observed to be in good condition.



# Photographs



Fire sprinkler system located in main utility room



Typical fire sprinkler head



Typical fire extinguisher

# 3.6.2 Alarm Systems

ALARM SYSTEMS		
ltem	Description	Condition
Public Address System	Located at main office	Good
Central Fire Alarm Control Panel	Located at main office	Good
Automatic Notification	Monitored	Good



ALARM SYSTEMS		
ltem	Description	Condition
Bells	Located throughout the building	Good
Strobes	Located throughout the building	Good
Exit Signs	Located throughout the building	Good
Exit Lights	Located throughout the building	Good
Pull Stations	Located throughout the building	Good
Smoke Detectors	Located throughout the building	Good

#### Comments

The fire alarm system was observed but not tested. A fire control pane is located in the Main Office. The fire control panel was observed to be in good condition. Emergency exit signs and lighting, pull stations, fire extinguishers, smoke detectors, and alarm bells and strobes are located throughout the building.

### Photographs



Fire alarm control panel

Typical fire alarm pull station





Typical fire alarm bell and strobe

Typical exit sign



Typical smoke detector

# 3.6.3 Security and Other Systems

SECURITY AND OTHER SYSTEMS		
ltem	Description	Condition
Security Cameras	Various	Good
Alarm System	Motion detectors	Good
Access Control		Good
Security Fencing		N/A
Lightning Protection		N/A
Roof Anchors		N/A



# Comments

The building is monitored by a motion detector security system with alarms. The security system was reported to be in good condition.

### Photographs



Security camera

# **3.7 INTERIOR BUILDING COMPONENTS**

### 3.7.1 Interior Finishes

MAIN OFFICE		
ltem	Description	Condition
Floor Finishes	Carpet and vinyl tile	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Suspended acoustical tile, painted gypsum board	Good
Lighting	Fluorescent fixtures	Good
Accessories	Millwork	Good

RESTROOMS		
ltem	Description	Condition
Floor Finishes	Ceramic tile	Good
Wall Finishes	Ceramic tile, painted gypsum	Good



RESTROOMS		
ltem	Description	Condition
Ceiling Finishes	Suspended acoustical tile	Good
Fixtures	Toilets, wall hung lavatories	Good
Accessories	Partitions, grab bars, mirrors, soap and paper dispensers	Good
Ventilation	Exhaust fans	Good
Lighting	Fluorescent fixtures	Good
Doors	Metal	Good
Door Hardware	Operable	Good

CORRIDORS		
Item	Description	Condition
Floor Finishes	Vinyl tile	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Suspended acoustical tile and painted gypsum	Good
Lighting	Fluorescent fixtures	Good
Doors	Wood, metal	Good
Door Hardware	Operable	Good

STAIRS		
ltem	Description	Condition
Location	East and west ends of the building	Good
Enclosure	Unknown	Good
Framing Support	Steel	Good
Treads	Vinyl	Good
Risers	Vinyl	Good
Nosing	Vinyl	Good
Handrails	Steel tube	Good
Lighting	Fluorescent	Good
Pressurized Stairwells		N/A
Doors	Wood	Good



STAIRS		
ltem	Description Condition	
Door Hardware	Operable	Good

KITCHEN		
ltem	Description	Condition
Floor Finishes	Vinyl tile	Good
Wall Finishes	Painted CMU	Good
Ceiling Finishes	Suspended acoustical tile	Good
Counters	Stainless	Good
Sink	Stainless	Good
Cabinets	Stainless	Good
Appliances	Stainless	Good
Stove/Range	Commercial gas	Good
Exhaust Vent/Hood	Commercial	Good
Refrigerator	Stainless commercial	Good
Dishwasher	Stainless commercial	Good
Microwave Oven	Stainless commercial	Good

UTILITY ROOMS/ MECHANICAL ROOMS		
ltem	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted gypsum board/ CMU	Good
Ceiling Finishes	Unfinished	Good
Janitor Sink Area	Unfinished	Good
Lighting	Fluorescent fixtures	Good

CAFETERIA			
Item Description Cor			
Floor Finishes	Vinyl tile	Fair	
Wall Finishes	Painted CMU/gypsum	Good	



CAFETERIA				
Item Description Cond				
Ceiling Finishes	Good			
Lighting Fluorescent fixtures Go				
Accessories	Folding tables	Good		

CLASSROOMS			
Item Description		Condition	
Floor Finishes	Vinyl tile and/or wood	Good	
Wall Finishes	Painted gypsum board/ painted CMU	Good	
Ceiling Finishes	Suspended acoustical tile	Good	
Lighting	Fluorescent fixtures	Good	
Doors	Wood/metal	Good	
Door Hardware	Operable	Good	

LIBRARY		
ltem	Condition	
Floor Finishes	Carpet	Good
Wall Finishes	Painted gypsum board/ painted CMU	Good
Ceiling Finishes	Painted gypsum & acoustical ceiling tile	Good
Lighting	Fluorescent fixtures	Good
Doors	Wood/metal	Good
Door Hardware	Operable	Good

# Comments

The interior building areas include a main office, restrooms, corridors, classrooms, a kitchen, a cafeteria, a library, and mechanical/utility spaces. We understand that the interiors are largely original to construction.

The finishes in the main office include carpet and vinyl tile floors, painted plaster and/or gypsum board walls, and painted plaster and/or gypsum board and suspended acoustical ceiling tile ceilings. The finishes in the main office were observed to be in generally good condition.



Restrooms are located throughout the building as accessed from corridors and are also located in classrooms. The finishes in the restrooms include ceramic tile, ceramic tile and painted gypsum board walls, and suspended acoustical tile ceilings. The restrooms were observed to be in generally good condition.

The finishes in the corridors include vinyl tile floors, painted plaster and/or gypsum board walls, and painted plaster and/or gypsum board and suspended acoustical ceiling tile ceilings. The finishes in the corridors were observed to be in generally good condition.

The finishes in the kitchens include vinyl tile floors, painted plaster and/or gypsum board walls, and suspended acoustical tile ceilings. The finishes in the kitchens were observed to be in generally good condition.

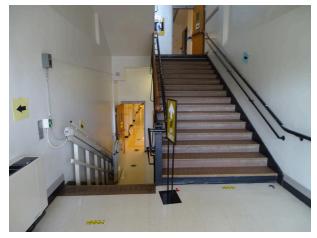
The utility and mechanical rooms were generally unfinished, with concrete floors and CMU walls. Some utility rooms had painted gypsum board walls.

The finishes in the cafeteria area consisted of vinyl tile flooring, painted CMU and plaster and/or gypsum board walls, and painted plaster and/or gypsum board and suspended acoustical ceiling tile ceilings. The finishes were generally in good to fair condition. It was reported that the cafeteria occasionally floods which appears to be having a negative impact on the vinyl tile flooring.

The classrooms consist of vinyl tile flooring and/or wood flooring, painted plaster and/or gypsum board walls, and painted plaster and/or gypsum board and suspended acoustical ceiling tile ceilings. The finishes were generally in good condition.

The finishes in the library consist of carpet flooring, painted CMU and painted gypsum board walls, and painted gypsum and acoustical tile ceilings. The finishes in the library were generally in good condition.

# Photographs

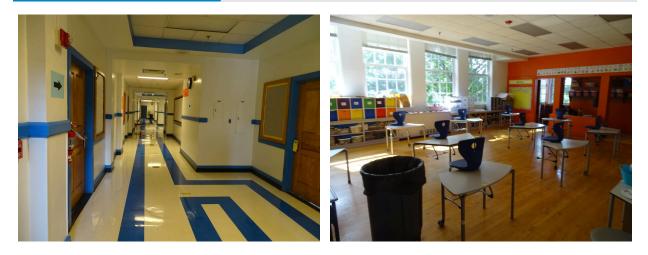




Interior finishes of stair area

Interior finishes of stair area





Interior finishes of corridor area

Interior finishes of library area

# 3.8 Accessibility (ADA) Compliance

### Comments

Facilities, including site features and buildings, completed and occupied after January 26, 1992 are required to comply fully with the Americans with Disabilities Act (ADA). Facilities constructed after this date must be maintained and operated to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Existing facilities constructed prior to this date are held to the lesser standard of complying with the extent allowed by structural feasibility and the financial resources available, or a reasonable accommodation must be made. Title III, for the purposes of the ECS scope of work is to address public accommodations. ECS will note work that shall remove architectural barriers in existing facilities, including communication barriers, that are structural in nature, where such removal is readily achievable and able to be carried out without much difficulty or expense.

The Clark Elementary School property is considered by the City of Charlottesville - Facilities Development to be within "areas of public accommodations" or a "commercial facility" and is therefore is subject to compliance with Title III of the ADA.

The parking area serving the property has a total of approximately 32 parking spaces. Of the parking spaces, One are accessible with One being van accessible. Accessibility requires that 2 accessible parking space be provided in parking areas with a total of 26 to 50 spaces. One in six of the accessible parking spaces are required to be van accessible. A minimum of a 60-inch wide access aisle is required to be provided for every two accessible parking spaces. Accessible aisles were observed to be provided. The number of parking spaces provided does not meet accessibility requirements.

Un	Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	ltem	Yes/ No	Comments	
Α.	History			



Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	ltem	Yes/ No	Comments
1.	Has an ADA Survey been completed for this property?	Yes	EMG report dated November 2, 2005
2.	Have any ADA improvements been made to the property since original construction?	Yes	installation of chair lift
3.	Has building ownership/management reported any ADA complaints or litigation?	No	not reported
В.	Parking		
1.	Does the required number of standard ADA-designated spaces appear to be provided?	No	One out of the 32 are accessible.
2.	Does the required number of van-accessible designated spaces appear to be provided?	Yes	1 out of the One accessible spaces are van accessible
3.	Are accessible spaces part of the shortest accessible route to an accessible building entrance?	Yes	
4.	Is a sign with the International Symbol of Accessibility at the head of each space?	Yes	
5.	Does each accessible space have an adjacent access aisle?	Yes	
6.	Do parking spaces and access aisles appear to be relatively level and without obstruction?	Yes	
С.	Exterior Accessible Route		
1.	ls an accessible route present from public transportation stops and municipal sidewalks in the property?	Yes	
2.	Are curb cut ramps present at transitions through curbs on an accessible route?	Yes	
3.	Do curb cut ramps appear to have the proper slope for all components?	Yes	
4.	Do ramps on an accessible route appear to have a compliant slope?	Yes	
5.	Do ramps on an accessible route appear to have a compliant length and width?	Yes	



Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	ltem	Yes/ No	Comments
6.	Do ramps on an accessible route appear to have a compliant end and intermediate landings?	Yes	
7.	Do ramps on an accessible route appear to have compliant handrails?	Yes	
D.	Building Entrances		
1.	Do a sufficient number of accessible entrances appear to be provided?	Yes	
2.	If the main entrance is not accessible, is an alternate accessible entrance provided?	N/A	
3.	Is signage provided indicating the location of alternate accessible entrances?	N/A	
4.	Do doors at accessible entrances appear to have compliant clear floor area on each side?	Yes	
5.	Do doors at accessible entrances appear to have compliant hardware?	Yes	
6.	Do doors at accessible entrances appear to have complaint opening width?	Yes	
7.	Do pairs of accessible entrance doors in series appear to have the minimum clear space between them?	N/A	
8.	Do thresholds at accessible entrances appear to have compliant height?	Yes	
E.	Interior Accessible Routes and Amenities		
1.	Does an accessible route appear to connect with all public areas inside the building?	Yes	
2.	Do accessible routes appear free of obstructions and/or protruding objects?	Yes	
3.	Do ramps on accessible routes appear to have compliant slope?	N/A	
4.	Do ramps on accessible routes appear to have compliant length and width?	N/A	
7.	Are adjoining public areas and areas of egress identified with accessible signage?	Yes	



Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	ltem	Yes/ No	Comments
8.	Do public transaction areas have an accessible, lowered counter section?	Yes	
9.	Do public telephones appear mounted with an accessible height and location?	N/A	
10.	Are publicly-accessible swimming pools equipped with an entrance lift?	N/A	
F.	Interior Doors		
1.	Do doors at interior accessible routes appear to have compliant clear floor area on each side?	Yes	
2.	Do doors at interior accessible routes appear to have compliant hardware?	Yes	
3.	Do doors at interior accessible routes appear to have compliant opening force?	Yes	
4.	Do doors at interior accessible routes appear to have a compliant clear opening width?	Yes	
G.	Elevators		
1.	Are hallway call buttons configured with the "UP" button above the "DOWN" button?	Yes	
2.	Is accessible floor identification signage present on the hoistway sidewalls?	Yes	
Н.	Toilet Rooms		
1.	Do publicly-accessible toilet rooms appear to have a minimum compliant floor area?	Yes	
2.	Does the lavatory appear to be mounted at a compliant height and with compliant knee area?	Yes	
3.	Does the lavatory faucet have compliant handles?	Yes	
4.	Is the plumbing piping under lavatories configured to protect against contact?	Yes	
5.	Are grab bars provided at compliant locations around the toilet?	Yes	



Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	ltem	Yes/ No	Comments
6.	Do toilet stall doors appear to provide the minimum compliant clear width?	N/A	
7.	Do toilet stalls appear to provide the minimum compliant clear floor area?	N/A	
8.	Do urinals appear to be mounted at a compliant height and with compliant approach width?	N/A	
9.	Do accessories and mirrors appear to be mounted at a compliant height?	Yes	



### **4.0 DOCUMENT REVIEW**

### 4.1 DOCUMENTATION REVIEW

ECS requested relevant documentation from Josh Bontrager, to gain insight into the subject property's physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions. ECS' review of documents submitted does not include commenting on the accuracy of such documents or their preparation, methodology, or protocol.

#### 4.2 INTERVIEW SUMMARY

ECS was escorted through the property by Josh Bontrager and Keith Nordstrom who provided information about the property.



# **5.0 ADDITIONAL CONSIDERATIONS**

## 5.1 MOISTURE AND MOLD

### Comments

If present, evidence of mold and moisture issues are noted in the interior section of the report.



## 6.0 RECOMMENDATIONS AND OPINIONS OF COST

The opinion of cost are based upon approximate quantities, costs, and published information, and they include labor, material, design fees, and appropriate overhead, general conditions, and profit. A detailed analysis of quantities for cost estimating purposes is not included. The opinion of cost to repair, replace, or upgrade the improvements are considered typical for the marketplace. No contractors have provided pricing. The actual cost of repairs may vary from our opinions. ECS has not included contingency funds in our opinions. Amounts indicated represent today's dollars. ECS offers the following comments relative to Immediate and Capital Reserves criteria:

### Immediate Issues

Physical deficiencies that require immediate action as a result of (i) existing or potentially unsafe conditions, (ii) significant negative conditions impacting tenancy, (iii) material building code violations, (iv) poor or deteriorated condition of critical element or system, or (v) a condition that is left "as is," with an extensive delay in addressing same, would result in or contribute to critical element or system failure within one year.

ECS has also included physical deficiencies inclusive of deferred maintenance that may not warrant immediate attention, but requiring repairs or replacements that should be undertaken on a priority basis, taking precedence over routine preventative maintenance work within a zero to one year time frame. Included are such physical deficiencies resulting from improper design, faulty installation, and/ or substandard quality of original systems or materials. Components or systems that have realized or exceeded their Expected Useful Life (EUL) that may require replacement to be implemented within a zero to one year time frame are also included.

# **Capital Reserves**

Capital Reserves are for recurring probable expenditures, which are not classified as operational or maintenance expenses, which should be annually budgeted for in advance. Capital reserves are reasonably predictable both in terms of frequency and cost. However, they may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within an estimated time period. A component method has also been included within this report as well.

Capital Reserves excludes systems or components that are estimated to expire after the reserve term and that are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that were not deemed to have a material affect on the use were also excluded. Costs that are caused by acts of God, accidents or other occurrences that are typically covered by insurance, rather than reserved funds, are also excluded.

Replacement costs were solicited from ownership/property management, ECS' discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by ownership's or property management's maintenance staff were also considered.



ECS's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the evaluation period. Additional information concerning systems or components respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Capital Reserve Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Needs Cost Estimates.



# 7.0 FACILITY CONDITION INDEX (FCI)

In accordance with our proposal add alternate, ECS determined the Facility Condition Index (FCI) value for the Clark Elementary School building. ECS determined the FCI value in accordance with industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO). The FCI calculation methodology consists of dividing the total cost of Maintenance, Repair, and Replacement Deficiencies of the Facility by the Current Replacement Value of the Facility. FCI values and condition of the buildings based on the industry accepted interpretation of FCI values with ratings: good (under 0.05), fair (0.05 to 0.10), and poor (over 0.10).

Based on our Facility Condition Assessment, the total repair and replacement costs for the Clark Elementary School is \$1,179,300. The replacement construction cost value obtained from the RS MEANS square foot estimator application is \$7,375,476.60. Please see attached documentation from RS MEANS program output as an appendix to the report. The calculated FCI value is determined to be 0.16. In accordance with the industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO), the condition of Academic Commons is rated as poor.

The letter rating for the school buildings is based on the FCI values with the ratings system provided by you referenced from the City of Alexandria as follows : A (under 0.10), B (0.11 to 0.20), C (0.21 to 0.40), D (0.41 to 0.60), and F (0.61 to 1.00+).

The letter rating for the Clark Elementary School was determined to be B.



### **8.0 LIMITATIONS AND QUALIFICATIONS**

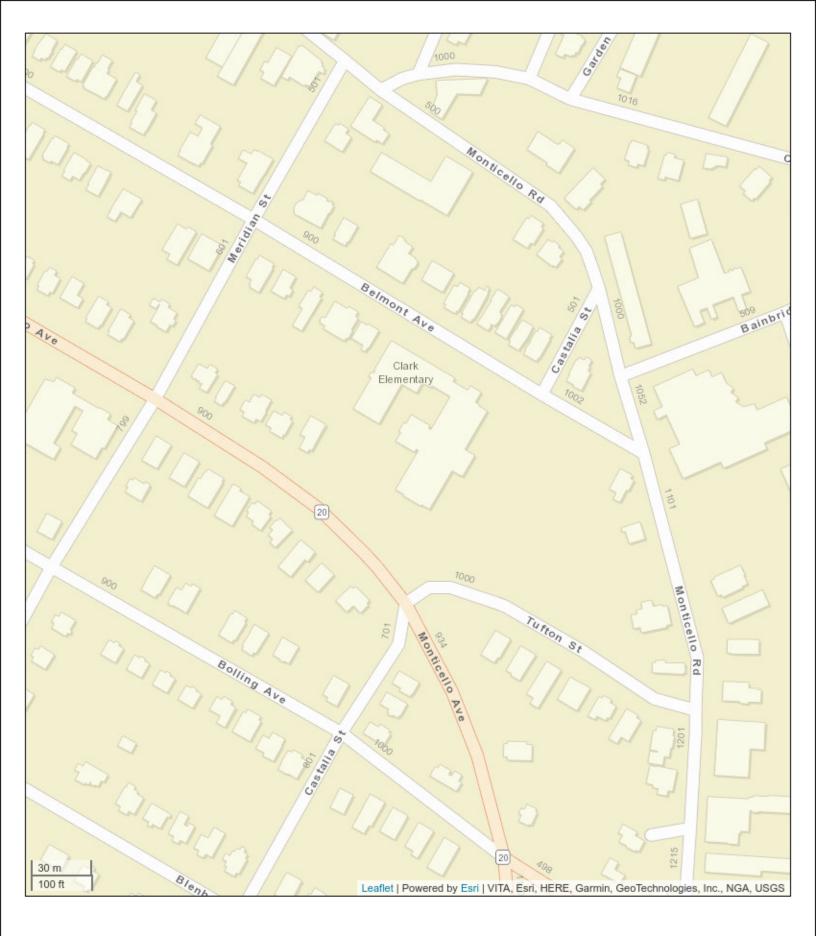
ECS's FCA cannot wholly eliminate the uncertainty regarding the presence of physical deficiencies and the performance of a property's building systems. Preparation of a FCA in accordance with ASTM E 2018-15 "Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process" is intended to reduce, but not eliminate, the uncertainty regarding the potential for component or system failure and cannot reduce the potential that such component or system may not be initially observed.

This FCA was prepared recognizing the inherent subjective nature of ECS's opinions as to such issues as workmanship, quality of original installation, and estimating the remaining useful life of any given component or system. It should be understood that ECS's suggested remedy may be determined under time constraints, formed without the aid of engineering calculations, testing, exploratory probing, the removal of materials, or design. Furthermore, there may be other alternate or more appropriate schemes or methods to remedy the physical deficiency. ECS's opinions are generally formed without detailed knowledge from individuals familiar with the component's or system's performance.

The opinions ECS expresses in this report were formed utilizing the degree of skill and care ordinarily exercised by a prudent professional in the same community under similar circumstances. ECS assumes no responsibility or liability for the accuracy of information contained in this report which has been obtained from the Client or the Client's representatives, from other interested parties, or from the public domain. The conclusions presented represent ECS' professional judgment based on information obtained during the course of this assignment. ECS's evaluations, analyses and opinions are not representations regarding the design integrity, structural soundness, or actual value of the property. Factual information regarding operations, conditions and test data provided by the Client or their representative has been assumed to be correct and complete. The conclusions presented are based on the data provided, observations made, and conditions that existed specifically on the date of the assessment.



# Appendix I: SITE MAP AND AERIAL PHOTOGRAPH



Location



Location

# Appendix II: FIRE SPRINKLER INSPECTION

## INSPECTION AND TESTING FORM OF WATER BASED FIRE PROTECTION SYSTEMS

#### **1. PROPERTY INFORMATION**

Ingenuity for life

SIEMENS

Name of property: <u>Clark Elementary (4433-22902-00016)</u> Address: Description of property: Name of property representative: <u>City of Charlottesville (30548899), Jason Davis (434-964-6771) davisja@charlottesville.org</u> Address: <u>315 4th St NW, Charlottesville, VA 22903</u> Phone: <u>434-962-3643</u> Fax: <u>434-970-3026</u> E-mail: <u>staplesk@charlottesville.org</u>

#### 2. TESTING INFORMATION

Testing Organization: <u>SIEMENS</u> Organization License No.: Address: <u>5106 Glen Alden Drive</u>, Richmond, VA 23231 Phone: <u>804-222-6680</u> Fax: <u>None</u> E-mail: <u>None</u> Start Date/Time: <u>Completion Date/Time</u>: <u>\$.5.21</u> Contract Info: <u>City of CVille Sprinkler (2600105673)</u> Notification Number: <u>5102050594</u> Inspection Type: <u>Quarterly</u>

NOTES: 1) All questions are to be answered Yes, No, or Not Applicable (NA). Explain all No answers in Parts 6, 7, or 8 of this form.
 2) Inspection, Testing, and Maintenance are to be performed with water supplies (including fire pumps) in service, unless the impairment procedures of NFPA 25 are followed.

#### 3. GENERAL INFORMATION (TO BE COMPLETED BY OWNER) Is the building fully sprinklered?

Has the occupancy classification and hazard of contents remained the same since last inspection?	
Are all fire protection systems in service?	
Has the system remained in service without modification since last inspection?	
Have any fire systems, devices or alarms activated since the last inspection?	
If a fire has occurred since the last inspection, have all damaged sprinkler system components been replaced?	

#### 4. INSPECTOR'S SECTION

#### 4.1 Inspections

Control valves in the correct (open or closed) position and free from external leaks?	Yes
Control valves locked, sealed or supervised?	No
Hydraulic nameplate (calculated systems) securely attached and legible?	No
Alarm and/or dry pipe valves free from physical damage, trim valves in appropriate position and no leakage?	Yes
Water flow alarm devices free from physical damage?	Yes
Fire department connections visible, signage, accessible, free from damage, couplings free, and caps in place?	Yes
Gauges in good condition showing normal pressure?	Yes
Adequate heat in areas with wet piping?	Yes
Post indicator valves are provided with a correct wrench and in the normal position?	(NA)
Backflow preventers relief port on RPZ device not discharging?	(NA)
For freezer systems, is the gauge near the compressor reading the same as the gauge near the dry-valve?	(NA)
Pressure Reducing valves are in the open position, not leaking, maintain downstream pressure accordance with the design criteria, good condition, and handwheels not broken?	(NA)
Valve encloser for pre-action, deluge and dry systems are above 40f?	(NA)
4.2 Testing	
Post indicating valves opened until spring or torsion is felt in the rod, then backed off one-quarter turn?	(NA)
Valve supervisory switches indicate movement?	(NA)
Mechanical water flow alarm device passed tests by opening the inspector's test or bypass connection with alarms actuating and flow observed?	(NA)

© Siemens Industry, Inc., Smart Infrastructure Division, 2009-2021. All rights reserved. This report was created by TechAdvance+™, a service of Siemens Industry, Inc.

#### NFPA 25 REPORT



Electrical Waterflow (Vane type, Paddle-type, and Pressure Switch-type) alarm devices passed tests by opening the inspector's test connection or bypass connection with alarm actuating, and flow is observed?	(NA)
Priming level of dry pipe valves correct?	(NA)
Quick opening devices of dry pipe systems passed?	(NA)
Air compressor or nitrogen system in good condition per manufacture maintenance procedure?	(NA)
Low air pressure signal of dry pipe system passed?	(NA)
Main Drain Test water pressure is within 10% reduction in full flow pressure compared to previous test?	(NA)



#### 5. MAIN DRAIN / TRIP TESTS RESULTS

#### 5.1 Report Totals

I	otal Qty	Functionally Tested Qty	Functionally Tested %	Visually Tested Qty	Visually Tested %	Failed Qty	Failed %	%								
	2	0	0%	2	100%	0	0%									

#### 5.2 Report Totals by Type

Total Qty	Functionally Tested Qty	Functionally Tested %	Visually Tested Qty	Visually Tested %	Failed Qty	Failed %	Device or System Type
1	0	0%	1	100%	0	0%	Anti-Freeze Sprinkler Systems
1	0	0%	1	100%	0	0%	Wet Sprinkler Systems

#### 5.3 Report Details by Type

Anti-F	reeze Sprin	kler Systems										
Row	Date	Address	Location	Model W	Vater So	urce Tes	Static	Residua	Restored	d Restore	Visual/	Pass
				S	ource PS	l Pip	PSI	PSI	Static	Time	Functional	Fail
						Size			PSI	(sec)		
1	04/05/21	01:Anti-Freeze	Basement Mechanical Room	Anti-Freeze C	ity 75	NA	NA	NA	NA	NA	Visual	Pass
	prinkler Sys		Leastie a	nd	14/	ater Sou	rce Test	Static	Destaux P	. M	Visual/	Daaa
			1 41	NA	14/	ter Cou	rco Tost	Chatia	D		Manual /	Pass
Row	Date	Address	Location	Model	w	ater Sou	ite iest	Static	Restore 5	s rear	visual/	Pass
Row	Date	Address	Location	Μοάει		urce PSI	Pipe				Functional	
Row	Date	Address	Location	Μοάει				PSI				
<b>Row</b>	04/05/21	01:Wet	Basement Mechanical Room			urce PSI	Pipe	PSI	Time F (sec)			



#### 6. COMMENTS

Address	Location	NFPA Classification	Comment:
01:Anti-Freeze	Basement	Anti-Freeze Sprinkler	New Anti-Freeze as of 8-20-19.
	Mechanical Room		
01:Wet	Basement	Wet Sprinkler	5 year services due 2022.
	Mechanical Room		

#### 7. DEFICIENCIES (ONLY RELATED TO NFPA 25)

A condition that will or has the potential to adversely impact the performance of a system or portion thereof but does not rise to the level of an impairment.

Address	Location	NFPA Classification	Deficiencies:
01:Anti-Freeze	Basement	Anti-Freeze Sprinkler	Lock needed on backflow control valves.
	Mechanical Room		
01:Wet	Basement	Wet Sprinkler	Data plate missing.
	Mechanical Room		

#### 8. IMPAIRMENTS

A condition where a fire protection system or unit or portion thereof is out of order, and the condition can result in the fire protection system or unit not functioning in a fire event.

Address	Location	NFPA Classification	Impairments:
01:Anti-Freeze	Basement	Anti-Freeze Sprinkler	None to report.
	Mechanical Room		
01:Wet	Basement	Wet Sprinkler	None to report.
	Mechanical Room		

#### 9. CERTIFICATION

This Testing Was Performed in Accordance with Applicable NFPA Standards.

I state that the information on this form is correct at the time and place of my inspection and that all equipment tested at this time was left in operational condition upon completion of this inspection except as noted in Parts 6, 7, and 8 above.

Name of Inspector:

Inspector License #:

Signature:	CRAIG BROWN	
-	r .	_

Date: 4.5.21

#### 10. ACCEPTANCE BY OWNER OR OWNER'S REPRESENTATIVE

Name of Owner or Representative:

Signature:

Date:

The owner and/or designated representative acknowledges the responsibility of the operating condition of the component parts at the time of this inspection. Pursuant to the National Fire Protection Association Form 25, Chapter 4, the owner is responsible for proper maintenance and care of the sprinkler system. It is agreed that the inspection service provided by the contractor as prescribed herein is limited to performing a visual inspection and/or routine testing, and any investigation or unscheduled testing, modification, maintenance, repair, etc., of the component parts is not included as part of the inspection only. This inspection meets or exceeds NFPA 25 requirements and or local AHJ requirements. AHJ requirements supersede all other code requirements. The inspector shall not be liable for future defaults or defects in the sprinkler system which are beyond the inspector's control, including, but not limited to, failure from malicious tampering, accidents, lack of proper inspection, material failure or inadequate heating. The inspector can give no assurance, nor will be held liable, with regard to work that may have been previously performed or work performed at a future date by other companies. It is further understood that all information contained herein is provided to the best of the knowledge of the party providing such information.

# Appendix III: ELEVATOR CERTIFICATES

#### **E & F ELEVATOR INSPECTIONS AND CONSULTING, INC. PO BOX 176 CROZIER, VIRGINIA 23039** (804) 784-1945

### CHECKLIST FOR INSPECTION OF HYDRAULIC ELEVATORS

GENERAL NOTES:

(a) See ASME A17.2.1 for detailed code requirements.(b) OK - meets requirements, NG - insert number to identify comment of back of the Checklist, NA - not applicable.

#### Address: Clark Elementary 1000 Belmont Ave. Charlottesville, VA

[ ] Routine inspection and test [X] Periodic inspection and test

[ ] Acceptance inspection and test

Id No: 1

**Our Number: CS108 - 1986** 

[X]	Passenger	Rated Load:	2100
[]	Freight Class	Speed:	120

**Inspected by: Steve Bowers** Signature: QEI NO: E000983 Certifying organization: QEITF

Date: 2/25/21

	ОК	NG	NA		ОК	NG	NA
1. INSIDE OF CAR				2.16 Tanks	Х		
1.1 Door reopening device	X			2.17 Flexible hydraulic hose asemblies			X
1.2 Stop switch	X			2.18 Supply line and shut-off valve	Х		
1.3 Operating control device	X			2.19 Hydraulic cylinder			X
1.4 Car floor and landing sill.	X			2.20 Pressure switch			X
1.5 Car lighting	X			2.21 Governor, overspeed switch & seal			X
1.6 Car emergency signal	X			2.22 Code data plate			X
1.7 Car door or gate	X						
1.8 Door closing force	X			3. TOP OF CAR			
1.9 Power closing of doors and gates	X			3.1 Stop switch	Х		
1.10 Power opening of doors or gates	X			3.2 Car top light and outlet	X		
1.11 Car vision panels and glass car doors			X	3.3 Top of car operating device	Х		
1.12 Car enclosure	X			3.4 Top of car clearance, refuge space	X		
1.13 Emergency exit			X	3.5 Normal terminal stopping device	X		
1.14 Ventilation	X			3.6 Emergency terminal speed limiting	Х		
1.15 Operating device symbols	X			3.7 Anti-creep leveling device	Х		
1.16 Rated load, platform area, data plate	X			3.8 Crosshead data plate	Х		
1.17 Standby power operation			X	3.9 Top emergency exit	Х		
1.18 Restricted opening of doors			X	3.10 Floor number identification	Х		
1.19 Car ride	X			3.11 Hoistway construction	X		
				3.12 Hoistway smoke control	X		
2. MACHINE ROOM				3.13 Pipes, wiring, & ducts	X		
2.1 Access to machine	X			3.14 Windows, projections, recesses, setbacks	X		
2.2 Headroom	X			3.15 Hoistway clearances	X		
2.3 Lighting and receptacles	X			3.16 Multiple hoistway			X
2.4 Enclosure of machinery space	X			3.17 Traveling cables, junction boxes	X		
2.5 Housekeeping	X			3.18 Door and gate equipment	X		
2.6 Ventilation	X			3.19 Car frame and stiles	X		
2.7 Fire extinguisher	X			3.20 Guide rails fastening & equipment	Х		
2.8 Pipes, wiring, and ducts	X			3.21 Governors releasing carrier			X
2.9 Guarding of exposed equipment	X			3.22 Governor rope			X
2.10 Numbering of elevator equipment	X			3.23 Wire rope fastening and hitch plate			X
2.11 Disconnecting means and control	X			3.24 Suspension rope			X
2.12 Controller wiring, fuses, grounding	X			3.25 Slack rope device			X
2.13 Hydraulic power unit	X			3.26 Traveling sheave			X
2.14 Relief valves	X			3.27 Counterweight			X
2.15 Control valve	X			C			

#### CHECKLIST FOR INSPECTION OF HYDRAULIC ELEVATORS

	OK	NG	NA			OK	NG	NA
4. OUTSIDE HOISTWAY				5.	РГГ			
4.1 Car platform guard	X			5.1	Pit access, lighting & stop switch	X		
4.2 Hoistway doors	X			5.2	Bottom clearance and runby	X		
4.3 Vision panels			X	5.3	Plunger and cylinder	X		
4.4 Hoistway door locking device	X			5.4	Car buffer	X		
4.5 Access to hoistway	X			5.5	Normal terminal stopping devices	X		
4.6 Power closing of hoistway doors			X	5.6	Traveling cables	X		
4.7 Sequence operation			X	5.7	Car frame & platform	X		
4.8 Hoistway enclosure	X			5.8	Guiding members	X		
4.9 Elevator parking device			X	5.9	Supply piping	X		
4.10 Emergency doors in blind hoistways			X	5.10	Car safety - including roped-hydraulic			X
4.11 Standby power selection switch			X	5.11	Governor rope tension device			X
				6.	FIREFIGHTERS SERVICE	X		

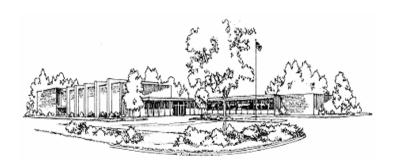
### MAINTENANCE

No violations.

<u>OWNER</u>

# Appendix IV: RS MEANS ESTIMATE FOR FACILITY CONDITION INDEX (FCI)

Estimate Name	Clark Elementary
	City of Charlottesville
	1000 Belmont Avenue
	Charlottesville
	Virginia
	22902
Building Type	School, Elementary with Brick Veneer / Reinforced Concrete
Location	CHARLOTTESVILLE, VA
	2.00
Stories Height	15.00
Floor Area (S.F.)	54,635.00
LaborType	OPN
Basement Included	No
Data Release	Year 2021
Cost Per Square Foot	\$135.00
Total Building Cost	\$7,375,476.60



Date: 2/23/2022

Costs are derived from a building model with basic components. Scope differences and market conditions can cause costs to vary significantly.

**\*\*** Stories entered is outside the range recommended by RSMeans.

Assembly Customization Type :

Added
Partially Swapped
Fully Swapped

		Quantity	% of Total	Cost Per SF	Cost
A Substructure			5.3%	\$5.31	\$290,151.82
A1010	Standard Foundations			\$2.74	\$149,687.83
	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick	1,100.00		\$1.36	\$74,405.10
	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide	1,100.00		\$0.73	\$39,823.30
	Spread footings, 3000 PSI concrete, load 100K, soil bearing capacity 6 KSF, 4' - 6" square x 15" deep	97.13		\$0.65	\$35,459.43
A1030	Slab on Grade			\$2.46	\$134,628.84
	Slab on grade, 4" thick, non industrial, reinforced	27,317.50		\$2.46	\$134,628.84

		Quantity	% of Total	Cost Per SF	Cost
A2010	Basement Excavation			\$0.11	\$5,835.15
	Excavate and fill, 30,000 SF, 4' deep, sand, gravel, or common earth, on site storage	47,805.63		\$0.11	\$5,835.15
B Shell			32.0%	\$32.34	\$1,767,017.87
31010	Floor Construction			\$0.65	\$35,604.10
	Cast-in-place concrete column, 12", square, tied, minimum reinforcing, 150K load, 10'-14' story height, 135 lbs/LF, 4000PSI	660.00		\$0.65	\$35,604.10
B1020	Roof Construction			\$7.33	\$400,585.19
	Roof, concrete, beam and slab, 25'x25' bay, 40 PSF superimposed load, 20" deep beam, 9" slab, 152 PSF total load	27,317.50		\$7.33	\$400,585.19
B2010	Exterior Walls			\$12.60	\$688,319.94
	Brick wall, composite double wythe, standard face/CMU back-up, 8" thick, perlite core fill, 3" XPS	23,100.00		\$12.60	\$688,319.94
B2020	Exterior Windows			\$6.74	\$368,269.25
	Windows, aluminum, awning, insulated glass, 4'-5" x 5'-3"	286.96		\$3.68	\$200,788.64
	Aluminum flush tube frame, for 1/4"glass, 1-3/4"x4", 5'x20' opening, three intermediate horizontals	3,300.00		\$1.34	\$73,327.82
	Glazing panel, insulating, 1" thick units, 2 lites, 1/4" float glass, clear	3,300.00		\$1.72	\$94,152.80
B2030	Exterior Doors			\$0.84	\$45,919.89
	Door, aluminum & glass, with transom, narrow stile, double door, hardware, 6'-0" x $10$ '-0" opening	4.86		\$0.59	\$32,346.83
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening	4.86		\$0.25	\$13,573.06
B3010	Roof Coverings			\$3.93	\$214,855.84
	Roofing, single ply membrane, EPDM, 60 mils, loosely laid, stone ballast	27,317.50		\$0.86	\$47,245.62
	Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive strength, 4" thick, R20	27,317.50		\$1.98	\$108,239.58
	Base flashing, rubber, neoprene, 1/16" thick, 24 ga galv reglet, 24 ga galv counter flashing	1,100.00		\$0.48	\$26,300.67
	Roof edges, aluminum, duranodic, .050" thick, 8" face	1,100.00		\$0.52	\$28,523.22
	Flashing, aluminum, no backing sides, .019"	1,100.00		\$0.08	\$4,546.75
B3020	Roof Openings			\$0.25	\$13,463.66
	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized steel, 165 lbs	4.86		\$0.11	\$6,105.52
	Smoke hatch, unlabeled, galvanized, 2'-6" x 3', not incl hand winch operator	4.86		\$0.13	\$7,358.13
C Interiors			20.3%	\$20.45	\$1,117,502.27

RSMeans data

		Quantity	% of Total	Cost Per SF	Cost
C1010	Partitions			\$3.45	\$188,560.4
	Concrete block (CMU) partition, light weight, hollow, 6" thick, no finish	27,317.50		\$3.45	<b>\$188,560.4</b> 1
C1020	Interior Doors			\$1.55	\$84,593.32
	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	78.05		\$1.55	\$84,593.32
C1030	Fittings			\$1.05	\$57,459.98
	Toilet partitions, cubicles, ceiling hung, painted metal	54.64		\$0.71	\$38,927.82
	Chalkboards, liquid chalk type, aluminum frame & chalktrough	1,092.70		\$0.34	\$18,532.16
C3010	Wall Finishes			\$3.42	\$186,695.22
	2 coats paint on masonry with block filler	54,635.00		\$2.00	\$109,066.76
	2 coats paint on masonry with block filler	23,100.00		\$0.84	\$46,114.07
	Ceramic tile, thin set, 4-1/4" x 4-1/4"	5,463.50		\$0.58	\$31,514.40
C3020	Floor Finishes			\$5.76	\$314,435.35
	Carpet, tufted, nylon, roll goods, 12' wide, 36 oz	5,463.50		\$0.49	\$26,652.20
	Carpet, padding, add to above, 2.7 density	5,463.50		\$0.09	\$4,903.6
	Terrazzo, maximum	5,463.50		\$1.88	\$102,789.2
	Vinyl, composition tile, maximum	32,781.00		\$1.46	\$79,985.3
	Oak strip, sanded and finished, minimum	10,927.00		\$1.44	\$78,936.87
	Underlayment, plywood, 3/8" thick	10,927.00		\$0.39	\$21,168.1
C3030	Ceiling Finishes			\$5.23	\$285,757.9
	Acoustic ceilings, 3/4"mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support	54,635.00		\$5.23	\$285,757.99
D Services			42.2%	\$42.54	\$2,324,141.00
D2010	Plumbing Fixtures			\$6.93	\$378,578.48
	Water closet, vitreous china, bowl only with flush valve, wall hung	54.64		\$3.31	\$180,855.51
	Urinal, vitreous china, wall hung	18.21		\$0.40	\$21,785.07
	Lavatory w/trim, wall hung, PE on CI, 20" x 18"	54.64		\$1.66	\$90,506.98
	Kitchen sink w/trim, countertop, stainless steel, 43" x 22" double bowl	7.28		\$0.31	\$16,891.69
	Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20"	2.43		\$0.19	\$10,555.30
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH	27.92		\$1.06	\$57,983.94
D2020	Domestic Water Distribution			\$0.73	\$39,674.4
	Gas fired water heater, commercial, 100< F rise, 300 MBH input, 278 GPH	2.06		\$0.73	\$39,674.41
D2040	Rain Water Drainage			\$0.89	\$48,642.36

		Quantity	% of Total	Cost Per SF	Cost
	Roof drain, CI, soil, single hub, 5" diam, 10' high	18.21		\$0.81	\$44,190.15
	Roof drain, CI, soil,single hub, 5" diam, for each additional foot add	91.06		\$0.08	\$4,452.21
D3010	Energy Supply			\$9.19	\$502,036.64
	Commercial building heating system, fin tube radiation, forced hot water, 10,000 SF, 100,000 CF, total 2 floors	54,635.00		\$9.19	\$502,036.64
D3050	Terminal & Package Units			\$9.72	\$531,308.98
	Splt sys, air cooled condensing unit, schools and colleges, 20,000 SF, 76.66 ton	54,635.00		\$9.72	\$531,308.98
D4010	Sprinklers			\$2.47	\$134,811.32
	Wet pipe sprinkler systems, steel, light hazard, 1 floor, 50,000 SF	54,635.00		\$2.47	\$134,811.32
D4020	Standpipes			\$0.45	\$24,641.48
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, 1 floor	1.21		\$0.21	\$11,699.05
	Wet standpipe risers, class III, steel, black, sch 40, 4" diam pipe, additional floors	6.07		\$0.24	\$12,942.42
D5010	Electrical Service/Distribution			\$0.79	\$42,899.14
	Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 800 A	1.25		\$0.23	\$12,698.44
	Feeder installation 600 V, including RGS conduit and XHHW wire, 800 A	60.00		\$0.17	\$9,386.70
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 800 A	1.20		\$0.38	\$20,814.00
D5020	Lighting and Branch Wiring			\$8.30	\$453,505.74
	Receptacles incl plate, box, conduit, wire, 8 per 1000 SF, .9 W per SF, with transformer	54,635.00		\$2.43	\$132,910.56
	Wall switches, 2.0 per 1000 SF	54,635.00		\$0.33	\$17,920.28
	Miscellaneous power, 1.2 watts	54,635.00		\$0.25	\$13,593.19
	Central air conditioning power, 4 watts	54,635.00		\$0.51	\$28,066.00
	Fluorescent fixtures recess mounted in ceiling, 1.6 watt per SF, 40 FC, 10 fixtures @32watt per 1000 SF	62,830.25		\$4.78	\$261,015.71
D5030	Communications and Security			\$3.01	\$164,268.57
	Communication and alarm systems, includes outlets, boxes, conduit and wire, sound systems, 12 outlets	0.75		\$0.24	\$13,138.67
	Communication and alarm systems, fire detection, addressable, 100 detectors, includes outlets, boxes, conduit and wire	1.52		\$1.68	\$91,858.13
	Fire alarm command center, addressable with voice, excl. wire & conduit	1.21		\$0.26	\$14,267.02

		Quantity	% of Total	Cost Per SF	Cost
	Communication and alarm systems, includes outlets, boxes,	0.81		\$0.28	\$15,062.94
	conduit and wire, master clock systems, 10 rooms Communication and alarm systems, includes outlets, boxes, conduit and wire, master TV antenna systems, 12 outlets	1.26		\$0.28	\$15,060.88
	Internet wiring, 2 data/voice outlets per 1000 S.F.	32.78		\$0.27	\$14,880.93
D5090	Other Electrical Systems			\$0.07	\$3,773.89
	Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 15 kW	5.77		\$0.07	\$3,773.89
E Equipment & Furnishin			0.3%	\$0.28	\$15,562.07
E1020	Institutional Equipment			\$0.28	\$15,562.07
	Architectural equipment, laboratory equipment, counter tops, stainless steel	60.71		\$0.28	\$15,562.07
E1090	Other Equipment			\$0.00	\$0.00
F Special Construction			0.0%	\$0.00	\$0.00
G Building Sitework			0.0%	\$0.00	\$0.00
Sub Total			100%	\$100.93	\$5,514,375.02
Contractor's Overhead & Pr	rofit		25.0 %	\$25.23	\$1,378,593.76
Architectural Fees			7.0 %	\$8.83	\$482 <i>.</i> 507.81
User Fees			0.0 %	\$0.00	\$0.00
Total Building Cost				\$135.00	\$7,375,476.60

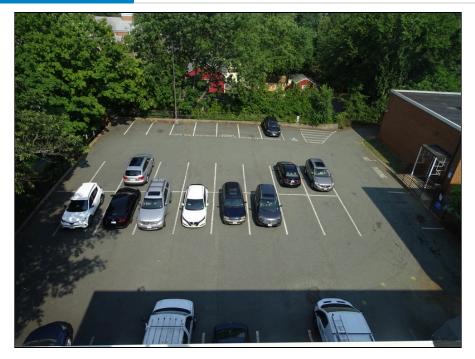
# Appendix V: SITE PHOTOGRAPHS



1 - Clark Elementary School main entrance



2 - Asphalt parking located at southwest end of site



3 - Asphalt parking located at southwest end of site



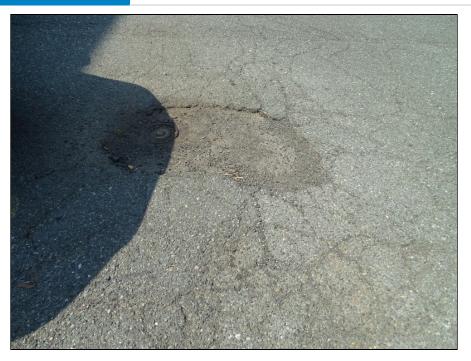
4 - Asphalt parking - note cracking



5 - Asphalt parking - note cracking



6 - Asphalt pavement - note cracking



7 - Asphalt parking - note minor cracking and deterioration



8 - Typical concrete sidewalk - note cracking



9 - Typical concrete sidewalk - note cracking



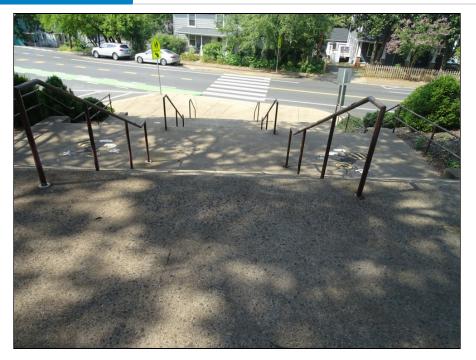
10 - Typical concrete sidewalk - note cracking



11 - Typical concrete sidewalk - note cracking



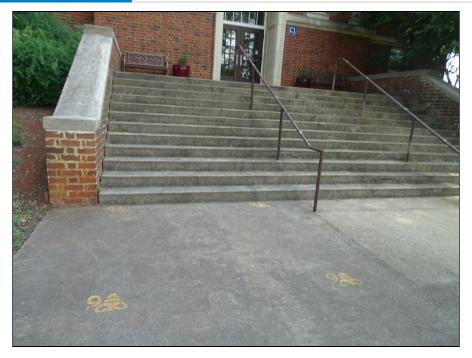
12 - Typical concrete sidewalk - note cracking



13 - Typical concrete steps



14 - Concrete steps east side of the building



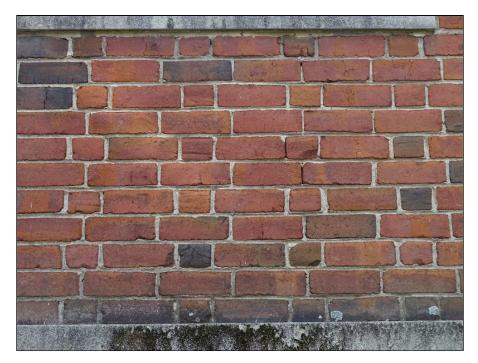
15 - Typical concrete steps



16 - Dumpster area at southwest side of the building



17 - Typical monument



18 - Retaining wall at southwest side of the building - note efflorescence



19 - Typical fencing



20 - Landscaping



21 - Typical landscaping



22 - Typical landscaping



23 - Typical landscaping



24 - Flag poles



25 - Playground area at center of building



26 - Playground area at center of building



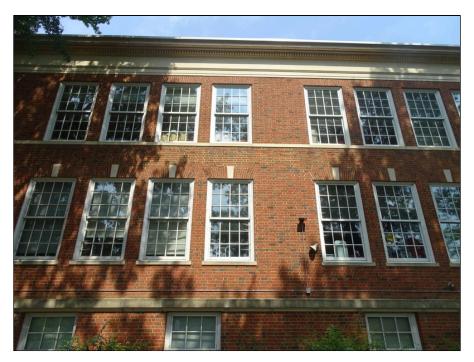
27 - Basketball court and softball field at east side of the property



28 - Playground area



29 - Structure framing



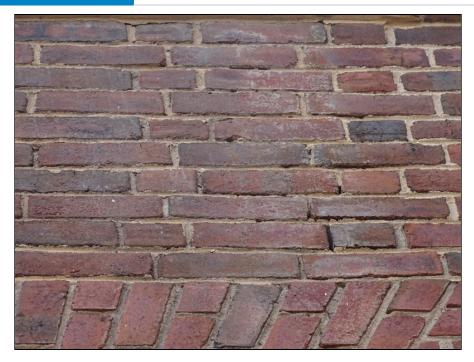
30 - Building exterior east side of the building



31 - Building exterior north side of the



32 - Building exterior - note efflorescence



33 - Building exterior - note deterioration



34 - Building exterior - note deterioration



35 - Building exterior - note deterioration



36 - Building exterior - note deterioration



37 - Building exterior - note deterioration



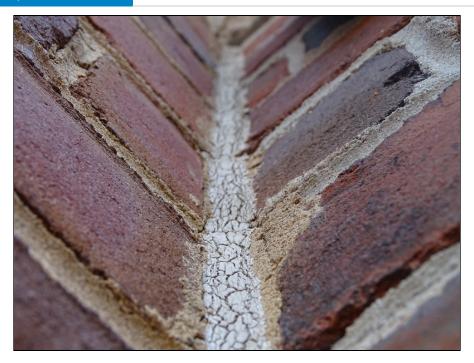
38 - Building exterior - note deterioration



39 - Building exterior - note deterioration



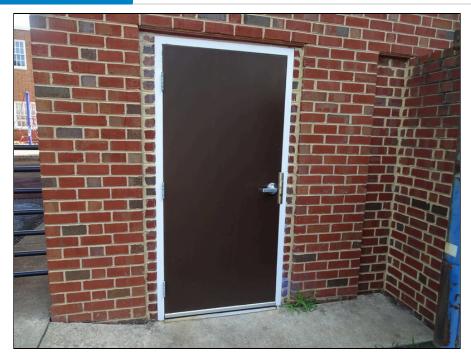
40 - Building exterior - note peeling paint



41 - Building exterior - note deterioration



42 - Typical entrance doors



43 - Typical personnel door



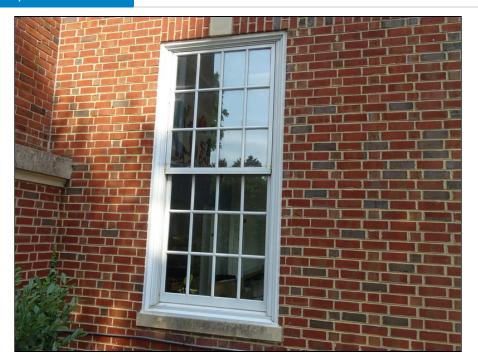
44 - Typical personnel door



45 - Typical exterior window



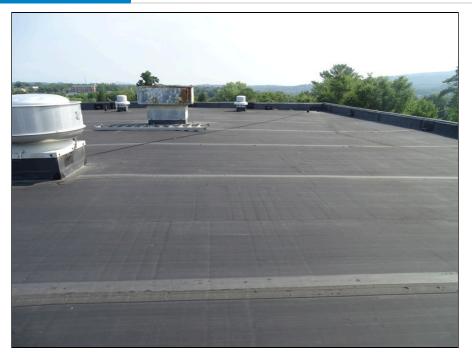
46 - Typical exterior window - note sill cracking



47 - Typical exterior window



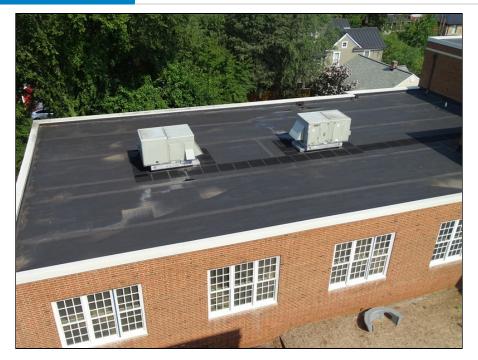
48 - Typical exterior window - note gasket damaged



49 - Single-ply membrane roofing system looking north



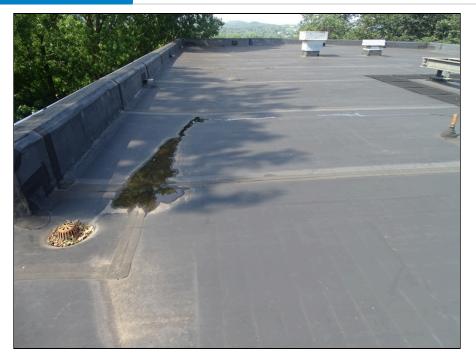
50 - Single-ply membrane roofing system addition



51 - Roofing metal coping



52 - Typical parapet wall



53 - Single-ply membrane roofing system - note ponding



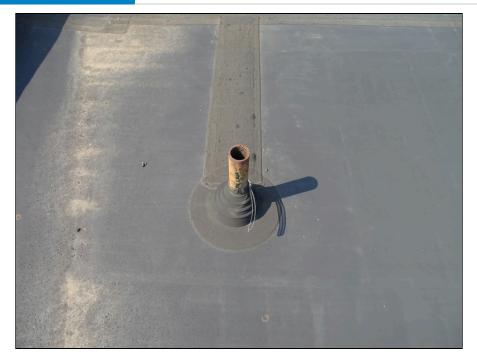
54 - Single-ply membrane roofing system addition - note patching



55 - Typical internal drain



56 - Typical internal drain



57 - Typical plumbing penetration



58 - Gas domestic water heaters



59 - Boilers located in mechanical room



60 - Boiler located in mechanical room



61 - Cooling tower located on roof



62 - Typical air handler



63 - Typical water source heat pump



64 - Typical water source heat pump



65 - Typical water source heat pump



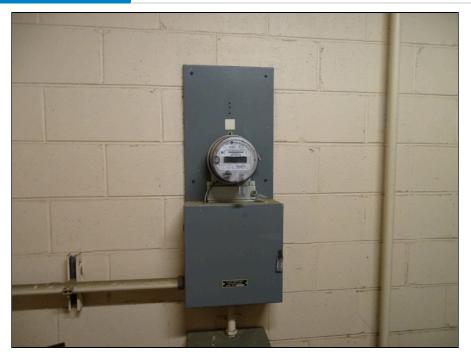
66 - Typical package unit



67 - Typical thermostat



68 - Electrical main switchgear



69 - Electrical meter located in main utility room



70 - Emergency power transfer switch



71 - Typical electrical panel



72 - Elevator at north side of the building



73 - Fire sprinkler system located in main utility room



74 - Typical fire sprinkler head



75 - Typical fire extinguisher



76 - Fire alarm control panel



77 - Typical fire alarm pull station



78 - Typical fire alarm bell and strobe



79 - Typical exit sign



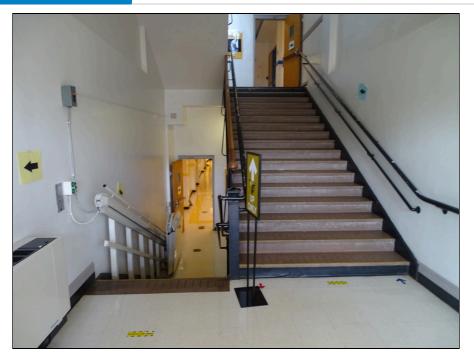
80 - Typical smoke detector



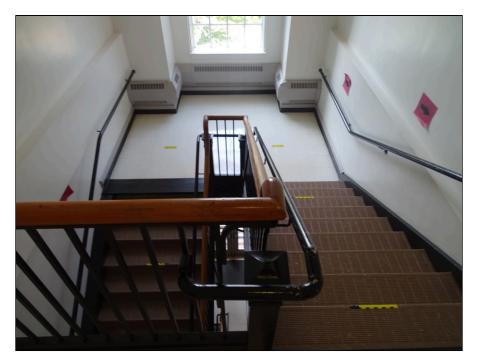
81 - Security camera



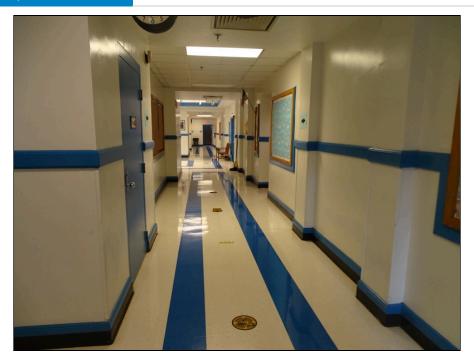
82 - Security alarm



83 - Interior finishes of stair area



84 - Interior finishes of stair area



85 - Interior finishes of corridor area



86 - Interior finishes of corridor area



87 - Interior finishes of library area



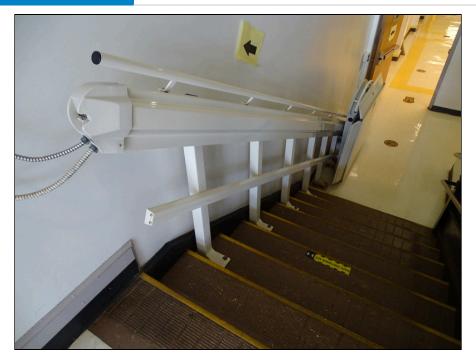
88 - Interior finishes of cafeteria area



89 - Finish deterioration



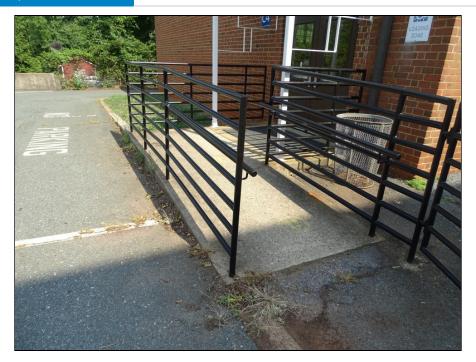
90 - Typical gas meter



91 - Accessible chair lift



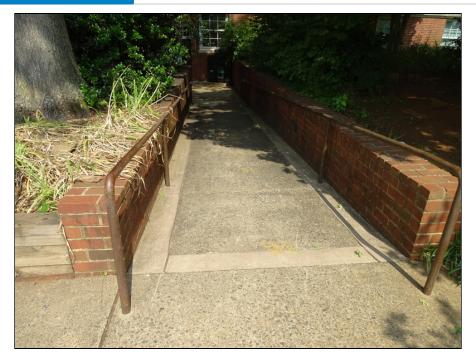
92 - Accessible ramp



93 - Accessible ramp



94 - Accessible ramp - note wall deterioration



95 - Accessible ramp



96 - Accessible parking space



97 - Accessible restroom

# **Appendix VI: RESUMES**

## Principal Architect – Facilities Department

## **EDUCATION**

Bachelor of Architecture, 1987, Architecture, Virginia Polytechnic Institute and State University, Blacksburg, VA

## REGISTRATIONS

Registered Architect: AZ, DC, MD, VA, NC, IL The Leadership in Energy and Environmental Design (LEED) Accredited Professional: 2009

Mr. Doyle serves as a Principal Architect for the Facilities Engineering Group in ECS Chantilly. He has over 25 years of experience in the construction industry, and his expertise includes the Americans with Disabilities Act, Property Condition Surveys, Pre and Post Construction Survey Services, Pavement Assessments, and Third-Party Plan Review. He has worked with numerous government agencies and has significant experience with local government and educational facilities; commercial high-rise buildings; multi-unit, residential, and correctional facilities. Mr. Doyle also has had experience on several high-profile historic projects, including the Jefferson Memorial, the Tivoli Theater, the Tariff Building, The White House, the Court of Appeals in Washington, DC; the Valley Bank Building in Leesburg, Virginia; and the Shenandoah Courthouse at Woodstock, Virginia.

**Property Condition Assessments** - Mr. Doyle has extensive experience performing property condition assessments from small commercial properties, large high rise buildings, to government-owned properties. Mr. Doyle has performed assessment in general accordance with ASTM E 2018, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process. Mr. Doyle also has experience in performing property condition assessments in accordance with lender and specific client requirements. Mr. Doyle has worked with teams of experts in providing detailed reports and simple reserve analysis for properties.

## **RELEVANT PROJECT EXPERIENCE**

**Darien Lake, Darien Center, NY** – Mr. Doyle was the Principal Architect for the property assessment of the Darien Lake amusement park. The property included over 200 buildings including buildings within the park, maintenance and administration buildings, hotel, campground buildings, and sewer treatment center. Ballston Park Apartments, Arlington, VA (2014) -

originally developed in 1938, this complex includes 50 two-story apartment buildings, one three-story apartment building, one single-family residence, and a single-story office/clubhouse. A PCA and a Phase I Environmental Site Assessment was conducted and documented.

**Hyatt House Lodging, Sterling, VA (2014)** - This six-story, 162-room, 98,793-square-foot hotel with surface parking was constructed in 2007 as a Sierra Suites and subsequently converted to a Hyatt House. Recreational facilities include a swimming pool, fitness center, a grill area, and a fire pit. Building systems observed per ASTM E 2018 included site conditions, the structural frame and building envelope; plumbing, mechanical and electrical systems, vertical transportation Systems, life safety and fire protection, and ADA Considerations. A Phase I Environmental Site Assessment was also conducted.

## WHMO Facilities Assessment, Washington, DC (2015) -

This is a privately owned, government-leased facility with a sensitive mission. The structure is believed to be a 1920s vintage building designed as a multi-story car dealership. The government has occupied this space continuously since 1963. Mr. Doyle conducted a survey of the complete facility, identified and documented areas of concerns. He also provide a recommendation for remediation for each area of concern, a Rough Order Magnitude (ROM) cost for remediation, and categorized each area of concern as critical, non-critical or aesthetic.

## ADDITIONAL PROJECT EXPERIENCE

- City of Charlottesville Portfolio, Charlottesville, VA
- Liberty Park, Herndon, VA
- Oakcrest School, McLean, VA
- Signature Flight Support, Arlington, VA
- The Gap, Washington, DC
- Lanham Crossing, Lanham, MD
- ZIM American Headquarters Building, Sulfolk, VA
- The Portrait Building, Washington, DC
- The Aventine of Alexandria, Alexandria, VA



# **DONALD** GOGLIO

CODE COMPLIANCE PROJECT MANAGER



#### CERTIFICATIONS

Master Plumber Master Gasfitter Cross Connection Technician Commercial Building Inspector Commercial Plumbing Inspector Commercial Mechanical Inspector Accessibility Inspector/Plan Reviewer Fire Inspector I and II LEED Green Associate CPR/First Aid Training OSHA 30 hr Training

> Code Compliance Construction Administration Special Inspection Services Condition Assessments Forensic Consultation

### PROFESSIONAL MEMBERHSHIPS

American Wood Council

## USGBC

## EDUCATION

Montgomery College, 1991 Silver Spring, MD YEARS OF EXPERIENCE ECS: <1 Other: 38

#### **PROFESSIONAL PROFILE**

Mr. Goglio has 38 years of construction, mechanical trade, and management experience. He manages code compliance projects, including reviewing plans, providing technical support, and conducting inspections.

#### **PROJECT EXPERIENCE**

**Fort Lee AIT Barracks, Ft. Lee, VA – Quality Control Manager** – The Fort Lee AIT Barracks project is a soldiers' basic combat training facility for over 1,200 Army personnel. The complex is a cohesive development, providing both housing and affiliated functions for soldiers in the AIT program. In addition to housing, the facility includes an outdoor jogging track, physical training pits, and access drivers and parking areas that meet USACE requirements. The project's five-story brick buildings meet DoD Minimum Antiterrorism Standards for Buildings and obtained LEED® Gold certification from the US Green Building Council. The Fort Lee project is part of the Northeast Region Multiple Award Task Order Contract (MATOC).

**Terrapin Row, College Park, MD – Assistant Superintendent** – Terrapin Row is a transformative student housing complex located on the University of Maryland's historic South Campus. The mixed-use community features 1,493 beds across 418 apartments as well as a 489-space parking garage. Terrapin Row boasts ample amenities centered around a college lifestyle, including a swimming pool, volleyball court, outdoor kitchens and fire pits, exterior TVs, a fitness center, bike storage, a cyber cafe and game room, and numerous live-learn spaces. The multi-phase project consists of seven buildings and encompasses a pedestrian and bike-friendly Village Green surrounded by over 11,856 square feet of retail space. The Village Green flows into a grand stairway and amphitheater that opens to a pedestrian plaza to welcome pedestrians towards the main academic centers of campus.

#### The Hartley at the Parks, Washington, DC – Assistant Superintendent

- The Hartley is a 323-unit mixed-use apartment community with a Whole Foods Market as its retail anchor in Northwest DC. This six-story community consists of five stories of wood framing over a one-story concrete podium with 317 apartments and six townhomes. It is a part of The Parks at Walter Reed, a mixed-use master-planned redevelopment of the 66-acre historic Walter Reed Army Medical Center with 2,200 residential units plus office and retail. The Hartley features two interior courtyards: the north courtyard includes pool and amenity space, and the south courtyard includes a Zen Garden. The second-floor amenity space includes a lounge, multi-purpose room, fitness center, and pet spa. The studio, one-, two-, and three-bedroom units feature high-end finishes, including quartz countertops and EnergyStar® appliances.



# **DONALD** GOGLIO

CODE COMPLIANCE PROJECT MANAGER



#### CERTIFICATIONS

Master Plumber Master Gasfitter Cross Connection Technician Commercial Building Inspector Commercial Plumbing Inspector Commercial Mechanical Inspector Accessibility Inspector/Plan Reviewer Fire Inspector I and II LEED Green Associate CPR/First Aid Training OSHA 30 hr Training

### SKILLS

Code Compliance Construction Administration Special Inspection Services Condition Assessments Forensic Consultation

## PROFESSIONAL

#### **MEMBERHSHIPS**

American Wood Council

#### USGBC

#### **EDUCATION**

Montgomery College, 1991 Silver Spring, MD YEARS OF EXPERIENCE

ECS: <1 Other: 38

#### **PROFESSIONAL PROFILE**

Mr. Goglio has 38 years of construction, mechanical trade, and management experience. He manages code compliance projects, including reviewing plans, providing technical support, and conducting inspections.

#### **PROJECT EXPERIENCE**

- Fort Lee AIT Barracks, Ft. Lee, VA
- Terrapin Row, College Park, MD
- The Hartley at the Parks, Washington, DC
- River Point, Washington, DC
- Juniper, Columbia, MD
- The Smith, King of Prussia, PA
- Banner Hill, Baltimore, MD
- Jefferson Square, Baltimore, MD
- Metropolitan at Largo Station, Largo, MD
- The Village at Leesburg, Leesburg, VA
- The Elms at Clarksburg Village, Clarksburg, MD
- Hidden Creek, Gaithersburg, MD
- Paramount, Gaithersburg, MD
- Thayer & Spring, Silver Spring, MD





# William R. Pratt, PE

## Principal Engineer, ECS Mid-Atlantic, LLC Professional-In-Charge

## SELECT PROJECT EXPERIENCE – PCA

City of Charlottesville, VA - 51 Property

- Portfolio including schools, libraries, museums, fire and police stations, and court buildings
- Home Properties 800+ Apartment Units, 4-Property Portfolio to Freddie Mac Standard, Hampton and Virginia Beach, VA
- Boulders Office Park 300,000+ SF, 3-Property Portfolio , Richmond, VA
- Darien Lake Theme Park, Darien Center, NY
- Madison Place Office Building, Alexandria, VA
- King of Glory Lutheran Church, Williamsburg, VA
- Comfort Inn, Charlottesville, VA
- The Wisconsin Building, Washington, DC

SELECT PROJECT EXPERIENCE – CODE COMPLIANCE AND SPECIAL INSPECTIONS

- City Center DC, Washington, DC
- DC Courts Judiciary Square, IDIQ Contract, Washington, DC
- Hilton Garden Inn, Washington, DC
- Waterfront Mall, Washington, DC
- 4<sup>th</sup> Street Reconstruction, Washington, DC
- Sibley Memorial Hospital Addition, Cancer Center, Washington, DC
- Washington Headquarters Services, Arlington, VA
- Walmart #5968-00, Washington, DC
- Progression Place, 7<sup>th</sup> Street, NW, Washington, DC
- National Gallery of Art, Washington, DC
- City Market @ O, Washington, DC



#### **EDUCATION**

Bachelor of Science, 1989, Mechanical Engineering, University of Massachusetts

#### REGISTRATIONS

Professional Engineer: DC, VA, MD

ICC Commercial Building, Plumbing, and Mechanical Inspector

Mr. Pratt serves as Senior Project Engineer for ECS Mid-Atlantic, LLC. Mr. Pratt is responsible as Professional-In-Charge the of the code compliance group and provides supervision of code compliance inspection programs for the local jurisdictions. Additionally, he oversees execution of project management for materials testing, construction property condition assessments.

PROPERTY CONDITION ASSESSMENTS -Bill has extensive experience in performing property condition assessments for a variety of properties and structures. These assessments include evaluation of site improvements, building components, roofing, pavements, electrical systems, mechanical systems, and HVAC systems. He performs assessment in general accordance with ASTM E 2018 - 08, Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process. Bill also has experience in performing property condition assessments that meet with lender and specific client requirements. He works with teams of experts in providing detailed reports and simple reserve analysis for properties.