



CAT OPERATIONS CENTER  
1545 AVON STREET EXT  
CHARLOTTESVILLE, VIRGINIA

ECS PROJECT NO. 46:6713

FOR

CITY OF CHARLOTTESVILLE - FACILITIES DEVELOPMENT

OCTOBER 26, 2021





*"Setting the Standard for Service"*

Geotechnical • Construction Materials • Environmental • Facilities

October 26, 2021

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

ECS Project No. 46:6713

Reference: Facility Condition Assessment Report for CAT Operations Center, 1545 Avon Street Ext,  
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

A handwritten signature in black ink, appearing to read 'Don M. Goglio'.

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A handwritten signature in blue ink, appearing to read 'Michael G. Doyle'.

Michael G. Doyle, AIA  
Principal Architect  
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## Project Summary

Construction System	Good	Fair	Poor	Action	Immediate	Over Term Years 1-20
3.2.1 Topography	X			None		
3.2.2 Storm Water Drainage	X			Replace		\$15,000
3.2.3 Access and Egress	X			None		
3.2.4 Paving, Curbing, and Parking	X	X		Refurbish		\$209,400
3.2.5 Flatwork	X	X		Replace		\$12,000
3.2.6 Landscaping and Appurtenances	X			None		
3.2.7 Special Utility Systems		NA		None		
3.3.1 Foundation	X			None		
3.3.2 Building Frame	X			None		
3.3.3 Building Exteriors - Building A	X			Refurbish		\$15,000
3.3.4 Building Exteriors - Building B	X			Refurbish		\$10,000
3.3.5 Building Exteriors - Building C	X			Refurbish		\$4,000
3.3.6 Building Exteriors - Building D	X			None		
3.3.7 Exterior Doors	X			None		
3.3.8 Exterior Windows	X			Refurbish		\$5,000
3.3.9 Roofing Systems	X	X		Replace	\$1,500	\$145,600
3.4.1.1 Supply and Waste Piping	X			None		
3.4.1.2 Domestic Hot Water Production	X			Replace		\$10,000
3.4.2.1 Equipment	X	X		Replace		\$96,000
3.4.2.2 Distribution System	X			None		
3.4.2.3 Control Systems	X			None		
3.4.3.1 Service and Metering	X			Replace		\$20,000
3.4.3.2 Distribution	X			None		
3.5 VERTICAL TRANSPORTATION SYSTEMS		NA		None		
3.6.1 Sprinklers and Suppression Systems	X			None		
3.6.2 Alarm Systems	X			None		
3.6.3 Security and Other Systems	X			None		
3.7.1 Interior Finishes - Building A	X			None		
3.7.2 Interior Finishes - Building B	X			None		
3.7.3 Interior Finishes - Building C	X			None		
3.7.4 Interior Finishes - Building D	X			None		
3.8 Accessibility (ADA) Compliance	X			None		
5.1 MOISTURE AND MOLD		NA		None		
Totals					\$1,500	\$542,000

Summary	Today's Dollars	\$/Square Feet
Immediate Repairs	\$1,500	\$1,500.00

	Today's Dollars	\$/Square Feet	\$/Square Feet/Year
Replacement Reserves, today's dollars	\$542,000.00	\$542,000.00	\$27,100.00
Replacement Reserves, w/20, 2.5% escalation	\$631,824.32	\$631,824.32	\$31,591.22

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## 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 CAT Operations Center 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:

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### 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

The CAT Operations Center property, located at 1545 Avon Street Ext, in Charlottesville, Virginia, consists of four buildings which are denoted as Building A, Building B, Building C, and Building D. Building sizes and square footages vary; Building A totals approximately 20,822 square feet. Parking is provided with Asphalt and concrete pavements. The buildings were constructed in 2010.

SURVEY INFORMATION	
Date of Assessment	May 27, 2021
Assessor	William R. Pratt, P.E.
Weather Conditions	Clear   78F
Property Contact	Josh Bontrager for City of Charlottesville - Facilities Development

SITE INFORMATION	
Land Area	5.93 acres
Major Cross Streets	Avon Street Ext
Pavement - Parking	Asphalt and concrete pavements
Number of Parking Spaces	59
Number of Accessible Spaces	Three
Number of Van Accessible Spaces	Two
Pedestrian Sidewalks	Concrete sidewalks

BUILDING INFORMATION	
Building Type	Office & bus operations
Number of Buildings	Four
Building Height	One-story
Square Footage	20,822
Year Constructed	2010
Year Remodeled	N/A

BUILDING CONSTRUCTION	
Foundation	Concrete slab-on-grade
Structural System	Concrete masonry unit bearing walls
Roof	Metal, single-ply sheet membrane
Exterior Finishes	Metal, brick veneer
Windows	Ribbon window - double pane
Entrance	Storefront entrance

BUILDING SYSTEMS	
HVAC System	Geothermal central system
Domestic Hot Water	Electric domestic water heater
Water Distribution	Copper
Sanitary Waste Line	PVC
Electrical Service	480Y/277 volt, 3-phase, 4-wire
Branch Wiring	Copper
Elevators	None
Fire Suppression System	Fire extinguishers, sprinklers only in Building B 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

Item	Quantity	Unit	Unit Cost	Replacement Percent	Immediate Total
3.3.9 Roofing Systems					
REPLACE ROOF SAFETY RAILINGS AND LADDERS AS NEEDED	3	EA	\$500.00	100%	\$1,500
Total Repair Cost					\$1,500.00

### Capital Reserve Schedule

[illegible]

City of Charlottesville - Facilities Development  
ECS Project No. 46:6713  
October 26, 2021

	EUL	EFF AGE	RUL	Quantity	Unit	Unit Cost	Cycle Replace	Replace Percent	Year 1 2021	Year 2 2022	Year 3 2023	Year 4 2024	Year 5 2025	Year 6 2026	Year 7 2027	Year 8 2028	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	Year 18 2038	Year 19 2039	Year 20 2040	Total Cost
3.3.5 Building Exteriors - Building C																													
REPLACE BUILDING SEALANTS	12	11	1	2	LS	\$2,000.00	\$4,000	100%	\$2,000										\$2,000										\$4,000
3.3.8 Exterior Windows																													
REPAIR OR REPLACE WINDOW COMPONENTS	20	11	9	5,000	EA	\$1.00	\$5,000	100%									\$2,500							\$2,500					\$5,000
3.3.9 Roofing Systems																													
REPLACE SINGLE-PLY ROOFING SYSTEM AT BUILDING C	15	11	4	4,700	SF	\$14.00	\$65,800	100%				\$65,800																	\$65,800
REPLACE SINGLE-PLY ROOFING SYSTEM AT BUILDING D	15	11	4	5,700	SF	\$14.00	\$79,800	100%				\$79,800																	\$79,800
3.4.1.2 Domestic Hot Water Production																													
REPLACE WATER HEATER	12	11	1	4	EA	\$2,500.00	\$10,000	100%	\$2,500	\$2,500											\$2,500	\$2,500							\$10,000
3.4.2.1 Equipment																													
BUILDING A REPLACE GEOTHERMAL SYSTEM	15	11	4	5	EA	\$15,000.00	\$75,000	100%				\$75,000																	\$75,000
BUILDING B REPLACE ENERGY RECOVERY SYSTEM	15	11	4	1	EA	\$10,000.00	\$10,000	100%				\$10,000																	\$10,000
BUILDING C REPLACE SPLIT SYSTEM	15	11	4	1	EA	\$5,500.00	\$5,500	100%				\$5,500																	\$5,500
BUILDING C REPLACE ELECTRIC HEATER AND CONDENSOR	15	11	4	1	EA	\$5,500.00	\$5,500	100%				\$5,500																	\$5,500
3.4.3.1 Service and Metering																													

City of Charlottesville - Facilities Development  
ECS Project No. 46:6713  
October 26, 2021

## 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 CAT Operations Center 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-through 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 one 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 consists of four buildings which are denoted as Building A, Building B, Building C, and Building D. Building sizes and square footages vary. Parking is provided with at-grade asphalt pavement. The buildings were constructed in 2010.

##### 3.1.1 Property Location

The Property is located at 1545 Avon Street Ext in Charlottesville, Virginia.

Surrounding Properties	
North	School Bus Yard
East	Government properties
South	Undeveloped parcels
West	Avon Street and commercial 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 11 years ago in 2010.

##### 3.1.3 Current Property Improvements

The Office & bus operations buildings, located at 1545 Avon Street Ext, in Charlottesville, Virginia, consists of four buildings. Parking is provided with Asphalt and concrete pavements.

#### 3.2 SITE CONDITIONS

##### 3.2.1 Topography

TOPOGRAPHY		
Item	Description	Condition
Slope of the property	The property generally slopes to the northwest	Good
Adjoining Properties	Located down gradient from the property.	Good

##### Comments

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

### 3.2.2 Storm Water Drainage

STORM WATER DRAINAGE		
Item	Description	Condition
Storm Water Collection System	Retention basins and rainwater harvesting and recycling	Good
Storm Water (Retention) Storage	48,000 gallon capacity underground cistern	Good
Storm Water Filtration Structure	180,000 gallon underground storage	Good
Pavement Drainage	Drop inlets, trench drains, and sheet flow to retention basins	Good
Landscape Drainage	Yard inlets	Good
Sump Pumps		N/A

#### Comments

The storm water collection system includes a rainwater harvesting and recycling system. Harvested rainwater is collected from the roofs of the two largest buildings and is captured in a 48,000 gallon capacity underground cistern. Stormwater quantity and quality control devices include a 180,000 gallon underground storage for infiltration and treatment. The harvested water is reused for the bus washing facilities. The system includes VFDs, pumps, and a UV sanitation system. The typical expected useful life for the cisterns is approximately 50 years and is 15 years for the pumps and associated components. It was reported that the pumps for the stormwater system were replaced in 2016.

## Photographs



Typical storm sewer drop inlet



Typical landscaping

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE STORMWATER MANAGEMENT PUMPS AND ASSOCIATED COMPONENTS	15	5	10	10	\$15,000
Total					\$15,000

### 3.2.3 Access and Egress

SITE ACCESS AND EGRESS		
Item	Description	Condition
Entrance Aprons	Asphalt	Good
Fire Truck Access		Good
Easements		N/A

## Comments

Vehicular access to the site is located on the northwest and southwest sides of the property. The entrance aprons are constructed of asphalt and were observed to be in generally good condition. Fire truck access is available on the north sides of Buildings A and B and on the south sides of Buildings C and D.

## Photographs



Asphalt pavement north side of site at entrance

### 3.2.4 Paving, Curbing, and Parking

PARKING		
Item	Description	Condition
Striping	Painted	Fair
Quantity of Parking Spaces	59 employee parking spaces and 40 bus parking spaces	Good
Quantity of Loading Spaces		N/A
Arrangement of Spaces	Perpendicular parking	Good
Site Circulation	2-way drive aisles	Good
Lighting	Metal halide pole lighting at bus parking	Good
Accessible Spaces	Three	Good
Accessible Aisles	Two	Good

SURFACE PAVEMENT		
Item	Description	Condition
Pavement Surface	Asphalt and concrete pavements	Good
Drainage	Drop inlets, trench drains, and sheet flow to retention basins	Good

SURFACE PAVEMENT		
Item	Description	Condition
Repair History		N/A
Concrete Curbs and Gutters	Cracks and chipping noted	Good
Dumpster Pad	Concrete	Good
Asphalt Curbs		N/A
Fire Lane Painting	Painted curb	Good

### Comments

Asphalt paved drive lanes are located on the northwest side of the site and an asphalt bus parking lot was located at the center of the site. The asphalt pavement had minor cracking at various locations, but was observed to be in generally good condition. Striping and pavement markings were faded, but were still visible. The expected useful life of asphalt pavement is 20 years. We recommend routine maintenance to include crack sealing and seal coating of the asphalt pavement. We are providing an allowance to overlay the asphalt pavement later in the report period.

Concrete paved areas provided access to buildings B, C, and D, and are also located at the perimeter of the bus parking lot. Striping and pavement markings were faded, but were still visible. The concrete paved areas were generally in good condition. Concrete curb and gutters were located throughout the site. Cracked and chipped curb and gutters were observed, but they were generally in good condition. Allowances have been provided to repair concrete curb and gutter sections and concrete driveways over the study period.

### Photographs



Asphalt pavement north side of site



Concrete pavement at center of the site





Concrete pavement at east side of the site



Asphalt pavement at bus parking area

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
MILL, OVERLAY, AND RESTRIPE EXISTING NORTH PARKING AREA	20	11	9	9	\$67,600
MILL, OVERLAY AND RESTRIPE BUS PARKING AREA	20	11	9	9	\$91,800
REPLACE CONCRETE CURB AND GUTTER SECTIONS	30	11	19	3 8 13 18	\$5,000 \$5,000 \$5,000 \$5,000
REPLACE CONCRETE DRIVELANE SECTIONS	30	11	19	3 8 13 18	\$7,500 \$7,500 \$7,500 \$7,500
Total					\$209,400

## 3.2.5 Flatwork

SIDEWALKS		
Item	Description	Condition
Walkways	Concrete sidewalks	Good/Fair

SIDEWALKS		
Item	Description	Condition
Steps	Concrete	Good/Fair
Landings	Concrete	Good/Fair
Handrails	Steel tube	Good
Ramps	Concrete	Good
Curb Ramps	Concrete	Good
Truncated Domes	Inset plastic	Good

### Comments

The site contains concrete sidewalks of undetermined thickness with regularly spaced control joints. The sidewalks and concrete areas were observed to be in good to fair condition. No cracked sections were observed, however, some areas showed spalling and therefore allowances for repair have been included over the duration of the report period.

### Photographs



Typical concrete sidewalk



Concrete sidewalk - note spalling

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE CONCRETE SIDEWALK	25	22	3	3	\$3,000
				8	\$3,000
				13	\$3,000
				18	\$3,000
Total					\$12,000

### 3.2.6 Landscaping and Appurtenances

LANDSCAPING		
Item	Description	Condition
Trees	Various sapling and mature trees and shrubbery	Good
Planting Beds	Includes bioretention areas	Good
Lawn Areas	Surrounding property	Good
Irrigation System		N/A
Landscape Lighting	Pole lights	Good
Retaining Walls	Segmented and stacked stone	Good
Fences and Gates	East side of site	Good
Dumpster Enclosure	Open	N/A

## Comments

The landscaping consists of mature and sapling trees, small shrubs, and grassed areas around the site. The landscaping and bioretention areas were observed to be in generally good condition. Small landscaping retaining walls were located around Building A and appeared to be in good condition. A large retaining wall was located along the north side of the property and was in good condition. The fence on the east side of the bus parking area was observed to be in good condition.



## Photographs



Typical landscaping



Dumpster area

### 3.2.7 Special Utility Systems

Item	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	Concrete slab-on-grade	Good
Basement		N/A
Crawl Space		N/A

## Comments

The foundation of the buildings includes Concrete slab-on-grade. Large cracks were not observed in the exterior walls. The foundation system appeared to provide adequate structural support to the buildings and were generally in good condition.

### 3.3.2 Building Frame

BUILDING FRAME - BUILDING A		
Item	Description	Condition
Floor Framing	Concrete	Good
Roof Framing	Metal deck	Good
Columns	Metal	Good
Balconies		N/A

BUILDING FRAME - BUILDING B		
Item	Description	Condition
Floor Framing	Concrete	Good
Roof Framing	Metal deck	Good
Columns	Metal	Good
Load Bearing Walls	CMU	Good
Balconies		N/A

BUILDING FRAME - BUILDING C		
Item	Description	Condition
Floor Framing	Concrete	Good
Roof Framing	Metal deck	Good
Columns	Metal at exterior	Good
Load Bearing Walls	CMU	Good
Balconies		N/A

BUILDING FRAME - BUILDING D		
Item	Description	Condition
Floor Framing	Concrete	Good
Roof Framing	Metal deck	Good

BUILDING FRAME - BUILDING D		
Item	Description	Condition
Columns		N/A
Load Bearing Walls	CMU	Good
Balconies		N/A

### Comments

The structure of the buildings generally consist of concrete slab on-grade with metal columns, metal roof decks, and Concrete masonry unit bearing walls. The structural frame of the buildings were generally in good condition.

### Photographs



Typical structural framing

### 3.3.3 Building Exteriors - Building A

EXTERIOR FINISHES - BUILDING A		
Item	Description	Condition
Masonry	Brick	Good
Metal Panels	Vertical corrugated panels	Good
Composite Panels	Composite metal panel	Good
Accent/Trim	Metal	Good
Covered Soffits	Metal panel	Good
Sealants	Various	Good

## Comments

The primary exterior of Building A consists of brick veneer and metal panels. Decorative composite panels are located at the exterior walls near the windows. The building exteriors were generally in good condition. The expected useful life of mortared joints is approximately 20 years before re-pointing is required. Deterioration of mortar joints was not observed, but an allowance has been included during the study period for the repointing of joints. Exterior sealants are located around window and door frames, and vertical sealant joints are present in the bricks. Sealants have an expected useful life of 10 years to 12 years before replacement is needed. The sealants were in good condition and an allowance for replacement has been included during the study period.

## Photographs



Building exteriors at Building A



Building exteriors at Building A



Building exteriors at Building A

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPOINT BRICKWORK	20	11	9	9	\$5,000
REPLACE BUILDING SEALANTS	12	11	1	1 11	\$5,000 \$5,000
Total					\$15,000

### 3.3.4 Building Exteriors - Building B

EXTERIOR FINISHES - BUILDING B		
Item	Description	Condition
Masonry		N/A
Metal Panels	Vertical corrugated panels	Good
Composite Panels	Composite metal panel	Good
Accent/Trim	Metal	Good
Covered Soffits	Metal panel	Good
Sealants	Various	Good

## Comments

The primary exterior of Building B consists of metal panels and composite panels. Decorative composite panels are located at the exterior walls near the windows and doors. The building exteriors were generally in good condition. Exterior sealants are located around window and door frames. Sealants have an expected useful life of 10 years to 12 years before replacement is needed. The sealants were in good condition and an allowance for replacement has been included during the study period.



## Photographs



Building exteriors at Building B



Building exteriors at Building B



Building exteriors at Building B

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE BUILDING SEALANTS	12	11	1	1 11	\$5,000 \$5,000
Total					\$10,000

### 3.3.5 Building Exteriors - Building C

EXTERIOR FINISHES - BUILDING C		
Item	Description	Condition
Masonry		N/A
Metal Panels	Vertical corrugated panels	Good
Composite Panels	Composite metal	Good
Accent/Trim	Metal	Good
Covered Soffits	Metal panel	Good
Sealants	Various	Good

#### Comments

The primary exterior of Building C consists of metal panels and composite panels. Decorative composite panels are located at the bus bay walls and soffit and also near the rear exit door. The building exteriors were generally in good condition. Exterior sealants are located around window and door frames. Sealants have an expected useful life of 10 years to 12 years before replacement is needed. The sealants were in good condition and an allowance for replacement has been included during the study period.

#### Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE BUILDING SEALANTS	12	11	1	1 11	\$2,000 \$2,000
Total					\$4,000

### 3.3.6 Building Exteriors - Building D

EXTERIOR FINISHES - BUILDING D		
Item	Description	Condition
Masonry		N/A
Metal Panels	Vertical corrugated panels	Good
Composite Panels	Composite metal	Good
Accent/Trim	Metal	Good

#### EXTERIOR FINISHES - BUILDING D

Item	Description	Condition
Covered Soffits	Metal panel	Good
Sealants	Various	Good

#### Comments

The primary exterior of Building D primarily consists of metal panels. Decorative composite panels are located at the exterior walls near the exit doors. The building exteriors were generally in good condition.

#### Photographs



Building exteriors at Building D

#### 3.3.7 Exterior Doors

##### DOORS

Item	Description	Condition
Main Entrance Doors	Storefront entrance	Good
Personnel Doors	Metal and glass doors located throughout the exteriors	Good
Door Hardware	Varies	Good
Accessibility Controls		N/A
Overhead/Roll-up Doors	Located at Buildings B and D	



## Comments

The main entrances are Storefront entrances at Building A, B, and D. The main entrance doors were generally in good condition. Single door steel and glass doors are located at various exits at each of the buildings and were in good condition. Exterior doors typically have an expected useful life of 20 to 30 years.

Overhead doors are located at Buildings B and D. The operation of the overhead doors was observed to be working well and were generally in good condition.

## Photographs



Entrance to Building A



Entrance to Building C



Personal door



Overhead door

### 3.3.8 Exterior Windows

WINDOWS		
Item	Description	Condition
Window Frame	Aluminum	Good
Glass Pane	Double pane	Good
Operation		N/A
Screen		N/A
Exterior Header	Metal	Good
Exterior Sill	Metal	Good
Gaskets or Glazing	Neoprene	Good

#### Comments

The window system for Building A consists of Ribbon window - double pane window units. Buildings B and C consisted of large picture windows. Building D did not have any windows. The gaskets in the windows were generally in good condition. The expected useful life of gaskets is typically 20 years; allowances have been included during the study period for window repairs as required over the study period.

#### Photographs



Foggy window

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPAIR OR REPLACE WINDOW COMPONENTS	20	11	9	9	\$2,500
				16	\$2,500
Total					\$5,000

### 3.3.9 Roofing Systems

ROOFING		
Item	Description	Condition
Single-Ply Sheet Membrane	Buildings C and D	Fair
Metal	Buildings A and B	Good
Parapet Walls	Metal or membrane wrapped	Fair
Cap Flashing/Coping	Metal	Good
Insulation	Rigid	Good
Substrate/Deck	Steel decking	Good
Slope/Pitch		Good
Drainage	Internal drains, gutters and downspouts,	Good
Plumbing Vents	Varies with condition	Good
Exhaust Vents	Counter flashed	Good
Flashing	Metal	Good

## Comments

The roofs at Buildings A and B consisted of standing seam metal roofs with drainage into gutters and downspouts. The metal roofs were in good condition.

The roofs at Buildings C and D consisted of single-ply membrane roofs with internal drains and overflow scuppers. The roofs were in fair condition with minor deterioration and patching noted. The estimated useful life of single-ply roof membranes is approximately 15 years. Replacement of the roofs at Buildings C and D are included during the study period.

No roof hatch access is provided for Building A . The maintenance crew uses an extension ladder to access.

Buildings B, C, and D all have fiberglass safety railings for the roof hatch access. These railings are deteriorated to a point where they may pose a safety risk. Some railings are not oriented correctly. There was also an issue with one of the access ladders. We recommend replacement of the railings as a safety issue.

### Photographs



Building C roof



Building C roof



Building C roof - plumbing penetration



Building C roof - parapet wall deterioration





Building C roof - internal drainage



Building C roof - patching



Building D roof



Building A roof

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE SINGLE-PLY ROOFING SYSTEM AT BUILDING C	15	11	4	4	\$65,800
REPLACE SINGLE-PLY ROOFING SYSTEM AT BUILDING D	15	11	4	4	\$79,800
REPLACE ROOF SAFETY RAILINGS AND LADDERS AS NEEDED	12	11	1	Immediate	\$1,500

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
Total					\$147,100

### 3.4 PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS

#### 3.4.1 Plumbing Systems

##### 3.4.1.1 Supply and Waste Piping

PLUMBING - WATER SUPPLY SYSTEM		
Item	Description	Condition
Piping Material	Copper	Good
Pipe Insulation	Closed cell foam	Good
Water Shut-offs	Ball valves	Good
Water Flow and Pressure		Good

PLUMBING - WASTE SUPPLY SYSTEM		
Item	Description	Condition
Piping Material	PVC	Good
Vertical Vent Stacks	PVC	Good
Clean-outs	PVC	Good
Ejector Pumps		N/A

#### Comments

##### Water Lines

The main water supply lines inside the buildings are Copper. The expected useful life of Copper piping is approximately 40 years. The water supply pipes were generally in good condition with no issues reported.

##### Waste Lines

The waste lines in the buildings are PVC. The expected useful life of PVC waste line is approximately 50 years. The waste lines were generally in good condition with no issues reported.

### 3.4.1.2 Domestic Hot Water Production

HOT WATER PRODUCTION		
Item	Description	Condition
Heating Equipment	Electric domestic water heater	Good
Water Storage	Located within water heater	Good
Circulation Pumps		N/A

#### Comments

Domestic hot water to the buildings is provided by Electric domestic water heaters.

- The Electric domestic water heater in Building A has a 80 gallon capacity and was manufactured by State.
- The electric domestic water heater in Building B has a 119 gallon capacity and was manufactured by State.
- The electric domestic water heater in Building C has a 119 gallon capacity and was manufactured by State.
- The electric domestic water heater in Building D has a 80 gallon capacity and was manufactured by State.

The expected useful life of a Electric domestic water heater is approximately 12 to 15 years. We recommend the Electric domestic water heaters be replaced during the study period.

#### Photographs



Building A water heater



Building B water heater



Building C water heater



Building D water heater

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE WATER HEATER	12	11	1	1	\$2,500
				2	\$2,500
				13	\$2,500
				14	\$2,500
Total					\$10,000

## 3.4.2 HVAC Systems

### 3.4.2.1 Equipment

EQUIPMENT - BUILDING A		
Item	Description	Condition
Geothermal System	Climate Master with dual pumps	Fair
Heat Exchangers	For well system	Good
Exhaust Fans	Various	Good
Energy Recovery Unit	Semco roof mounted	Good
Unit heater	Located at building entrance	Good



#### EQUIPMENT - BUILDING B

Item	Description	Condition
Geothermal System		N/A
Unit heaters	Trane	Good
Exhaust Fans	Various	Good
Energy Recovery Unit	Semco roof mounted	Good

#### EQUIPMENT - BUILDING C

Item	Description	Condition
Split System	Mitsubishi cassette	Good
Unit heaters	Reznor	Good
Exhaust Fans	Various	Good
Electric heater and condenser	American Standard	Good

#### EQUIPMENT - BUILDING D

Item	Description	Condition
Geothermal System		N/A
Unit heaters	In electric room	Good
Exhaust Fans	Various	Good
Electric heater		N/A

### Comments

Building A is served by a geothermal heat pump system, which includes a unit heater, well heat exchanger, heat pumps, various VFDs, pumps, exhaust fans, and an energy recovery system. There were five Climate Master geothermal heat pump systems that were reportedly in good working condition. The geothermal system heat pumps and associated components is assumed to have an estimated life of 15 years; replacement is included during the study period. The associated geothermal piping and well system has an estimated useful life of 50 years.

Building B did not have a formal HVAC system, but contained a Trane unit heater that was suspended from the parts room ceiling as well as various exhaust fans and a SEMCO energy recovery system that was located on the roof. No deficiencies were reported or noted.

Building C had two Reznor unit heaters- one was located in the restroom and one was located in the oil/ storage room. A Mitsubishi split system was located in the vault and on the roof. An American Standard electric heater was located in the main entrance area and the associated condenser was located at the south side of the building. The building also had various exhaust fans. No deficiencies were reported or noted.

Building D contained various exhaust fans and one unit heater that was located in the electrical room.

Replacement of exhaust fans and unit heaters are considered maintenance items.

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

### Photographs



Building A geothermal heat pump



Building A geothermal heat pump



Building A geothermal heat pump



Building A VFDs



Building B energy recovery system



Building B unit heater



Building C electric heater and thermostat



Building C condenser





Building C split system



Building C unit heater

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
BUILDING A REPLACE GEOTHERMAL SYSTEM	15	11	4	4	\$75,000
BUILDING B REPLACE ENERGY RECOVERY SYSTEM	15	11	4	4	\$10,000
BUILDING C REPLACE SPLIT SYSTEM	15	11	4	4	\$5,500
BUILDING C REPLACE ELECTRIC HEATER AND CONDENSOR	15	11	4	4	\$5,500
Total					\$96,000

### 3.4.2.2 Distribution System

HVAC DISTRIBUTION		
Item	Description	Condition
Plumbing Pipe System	Copper for Geothermal in Building A	Good
Ducts	Sheet metal and spiral metal ducts	Good
Return Air	Sheet metal	Good

## Comments

Building A, the distribution system includes ducted supply and a plenum return. The ductwork was observed to be in generally good condition.

Building B contained ductwork that provided ventilation to the office spaces and kitchenette. The ductwork was observed to be in generally good condition.

Buildings D did not contain ductwork.

Building C contained ductwork for the electric heater that was located in the main entrance room and was in good condition.

### 3.4.2.3 Control Systems

HVAC CONTROL SYSTEMS		
Item	Description	Condition
Thermostats	Various	Good
Variable Frequency Drives	ABB, located in Building A	Good
Energy Management System	NOVAR BAS	Good

## Comments

Thermostats and variable frequency drives were observed to be located in Building A for control of the geothermal system. Buildings B, C, and D contained thermostats for the unit heaters and also NOVAR building automation systems that controlled the exhaust fans, lighting, and heat systems. No issues or deficiencies were observed or reported with the control systems.

### 3.4.3 Electrical Systems

#### 3.4.3.1 Service and Metering

SERVICE AND METERING		
Item	Description	Condition
Service Entrance		Good
Master (House) Meter		Good
Emergency Power	Generator located on south side of Building B	Good
Transfer Switch	Located in Building B	Good

## Comments

Electricity is provided to the buildings by Dominion Virginia Power.

At Building A, C, and D, the main electrical provides 3-phase, 4-wire, 480/277v service.

At Building B, the main electrical provides 3-phase, 4-wire, 480/277v service. The Emergency back up power generator is located on the south side of Building B and provides emergency power to all 4 buildings. A Generac automatic transfer switch is located in Building B. The expected useful life of switchgear is 50 years with proper maintenance. Based on the age of the emergency generator and typical replacement schedule, we recommend replacing the emergency generator during the report period

## Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE GENERATOR	25	11	14	14	\$20,000
Total					\$20,000

### 3.4.3.2 Distribution

ELECTRICAL DISTRIBUTION SYSTEM		
Item	Description	Condition
Electrical Sub-panels	Multiple	Good
Branch Wiring	Copper	Good
GFCI Devices		Good
Building Transformers	Pad/floor mounted	Good

## Comments

Power is distributed by copper wire from circuit breaker panels located throughout the buildings. The expected useful life of sub-panels is 50 years with proper maintenance. The circuit breaker panels were observed to be in generally good condition.

## Photographs



Building A electrical panels



Electric meter

## 3.5 VERTICAL TRANSPORTATION SYSTEMS

ELEVATORS		
Item	Description	Condition
Quantity	None	

### Comments

There are no vertical transportation systems located at any of the buildings.

## 3.6 LIFE SAFETY AND FIRE PROTECTION

### 3.6.1 Sprinklers and Suppression Systems

SPRINKLER AND SUPPRESSION SYSTEMS		
Item	Description	Condition
Sprinkler System (wet)	Located in Building B	Good
Sprinkler Heads	Various	Good
Date of Last Inspection (sprinkler system)	Not available	Good
Fire Extinguishers	Located in all buildings	Good
Date of Last Inspection (Fire Extinguishers)	June 15 2021	Good

SPRINKLER AND SUPPRESSION SYSTEMS		
Item	Description	Condition
Fire Standpipes		N/A
Fire Department Connections	Located at each building	Good
Fire Hydrants	Located at each building	Good

### Comments

The fire suppression system is primarily by fire extinguishers; a sprinkler system was only located in Building B. The fire suppression system was observed but not tested. The sprinklers are connected to the fire alarm and security system. The sprinkler risers are located in the utility closet by the water heater.

Fire extinguishers were observed throughout each of the buildings. The fire extinguishers in Buildings were observed to have recent inspection tags issued in June 2021.. These devices are required to be inspected annually. Replacement of the fire extinguishers is considered routine maintenance.

Fire hydrants are located outside of each of the buildings. The fire hydrants were observed to be in good condition.

### Photographs



Building B sprinkler riser



Sprinkler head





Building A fire extinguisher

### 3.6.2 Alarm Systems

ALARM SYSTEMS		
Item	Description	Condition
Fire Alarm Panel	Located at Building A	Good
Bells	In all buildings	Good
Strobes	In all buildings	Good
Exit Signs	In all buildings	Good
Exit Lights	In all buildings	Good
Pull Stations	In all buildings	Good
Smoke Detectors	In all buildings	Good

#### Comments

The fire alarm system was observed but not tested.

A fire alarm panel, manufactured by Siemens, is located at the entrance to Building A. The fire alarm panel was observed to be in good condition and was reportedly replaced in 2015.

Emergency exit signs and lighting, pull stations, fire extinguishers, smoke detectors, and alarm bells and strobes are located throughout the buildings.

## Photographs



Building A strobe



Building A alarm panel



Building B pull station

### 3.6.3 Security and Other Systems

SECURITY AND OTHER SYSTEMS		
Item	Description	Condition
Security Cameras	Interior and exterior	Good
Access Control	Monitored	Good
Security Fencing		N/A
Lightning Protection	Located on building B	Good

## Comments

The buildings are monitored 24-hours a day by a computerized security system with cameras. Security cameras were observed at locations at the building exteriors. Building A contained security cameras at the interior, and Building C contained a security camera in the vault area. The security system was generally reported to be in good condition.

## Photographs



Building A interior security camera



Building interior security camera

## 3.7 INTERIOR BUILDING COMPONENTS

### 3.7.1 Interior Finishes - Building A

LOBBY		
Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Unfinished	N/A
Lighting	LED light fixtures	Good
Accessories	Reception area	Good
Fountains		N/A

### RESTROOMS

Item	Description	Condition
Floor Finishes	Ceramic tile	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Painted gypsum board	Good
Fixtures	Toilet, wall hung lavatory	Good
Accessories	Grab bars, mirror, soap dispenser, hand dryer	Good
Ventilation	Exhaust fan	Good
Lighting	LED light fixtures	Good
Doors	Metal	Good
Door Hardware	Operable	Good

### CORRIDORS

Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Unfinished	Good
Lighting	LED light fixtures	Good
Doors	Metal	Good
Door Hardware	Operable	Good

### KITCHEN/KITCHENETTES

Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Unfinished	Good
Counters	Laminate	Good
Sink	Stainless	Good
Cabinets	Wood	Good
Appliances		Good
Stove/Range		N/A

KITCHEN/KITCHENETTES		
Item	Description	Condition
Exhaust Vent/Hood		N/A
Refrigerator	Black	Good
Dish Washer	Stainless built-in	Good
Microwave Oven	Countertop	Good

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

MEETING ROOMS		
Item	Description	Condition
Floor Finishes	Carpet	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Suspended acoustical tile	Good
Lighting	Various	Good
Doors	Metal	Good
Door Hardware	Operable	Good

## Comments

The interior common building areas include a lobby, restrooms, corridors, kitchens, and meeting rooms. We understand that the common area interiors were original to construction in 2010.

The finishes in the lobby include unfinished concrete floors, and painted gypsum board walls and unfinished ceilings. The finishes in the lobby were observed to be in generally good condition.

Restrooms for men and women as well as locker rooms were located within the building. The finishes in the restrooms and locker rooms include ceramic tile or unfinished concrete floors, and painted gypsum board walls and ceilings. Ceramic tile floors and walls were located in the shower stalls. The finishes were observed to be in generally good condition.



The finishes in the corridors include unfinished concrete floors, painted gypsum board walls and unfinished ceilings. The finishes in the corridors were observed to be in generally good condition.

The finishes in the kitchen includes unfinished concrete floors, painted gypsum board walls and unfinished ceilings. The finishes in the kitchens were observed to be in generally good condition.

The finishes in the meeting rooms include carpet floors, painted gypsum board walls, and suspended acoustical tile ceilings. The meeting rooms were observed to be in generally good condition.

The finishes in the utility and electric/ mechanical rooms include unfinished concrete floors, painted gypsum board walls and unfinished ceilings. The finishes in the utility rooms were observed to be in generally good condition.

### Photographs



Building A corridor



Building A lockers



Building A office



Building A interior



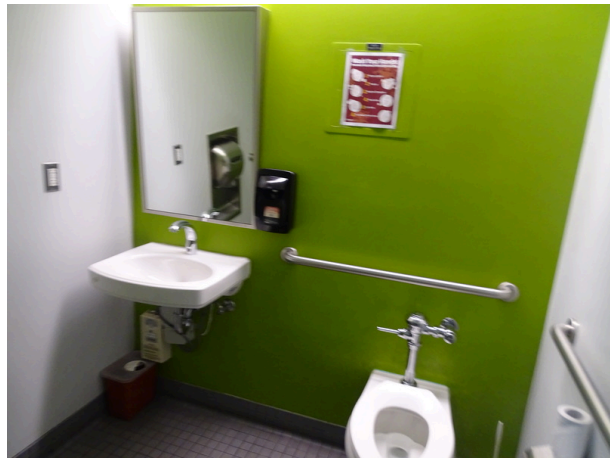
Building A kitchenette



Building A meeting room



Building A lobby



Building A restroom

### 3.7.2 Interior Finishes - Building B

SHOP AREA		
Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted metal	Good
Ceiling Finishes	Painted metal deck	N/A
Lighting	Fluorescent fixtures	Good



#### OFFICES

Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Suspended acoustical tile	Good
Lighting	Fluorescent fixtures	Good
Doors	Metal	Good
Door Hardware	Operable	Good

#### RESTROOMS

Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted CMU/ ceramic tile	Good
Ceiling Finishes	Painted gypsum board	Good
Fixtures	Toilets, wall hung lavatories	Good
Accessories	Partitions, grab bars, mirrors, soap dispensers, hand dryers	Good
Ventilation	Exhaust fan	Good
Lighting	LED light fixtures	Good
Doors	Metal	Good
Door Hardware	Operable	Good

#### KITCHEN/KITCHENETTES

Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted gypsum board	Good
Ceiling Finishes	Suspended acoustical tile	Good
Counters	Laminate	Good
Sink	Stainless	Good
Cabinets	Wood	Good
Appliances		Good
Stove/Range	Slide-in	Good

KITCHEN/KITCHENETTES		
Item	Description	Condition
Refrigerator	Side by side	Good

UTILITY/ ELECTRIC ROOMS		
Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted CMU	Good
Ceiling Finishes		N/A
Janitor Sink Area		Good
Lighting	Fluorescent fixtures	Good

### Comments

The interior areas of the building included the shop area, a utility room, an electric room, offices, and a kitchenette.

The main shop area generally did not have any finishes. The shop area has unfinished concrete floors, painted metal walls, and painted roof deck ceiling. The shop area was generally in good condition.

The restrooms have unfinished concrete floors, painted CMU walls, and painted gypsum board ceilings. Tiled walls were located in the showers. The restroom was generally in good condition.

The office area finishes include unfinished concrete floors, painted gypsum board walls, and suspended acoustical ceiling tiles. The finishes were observed to be in generally good condition.

The finishes in the kitchenette include unfinished concrete floors, painted gypsum board walls and suspended acoustical tile ceilings. The finishes in the kitchens were observed to be in generally good condition.

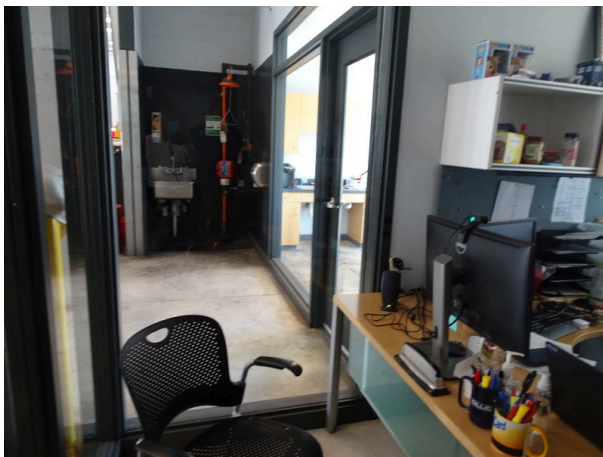
## Photographs



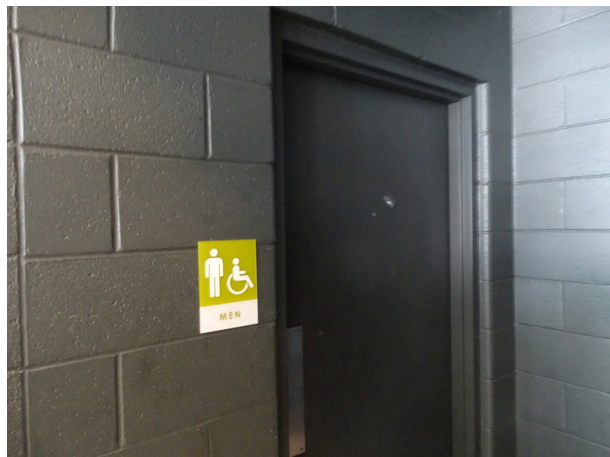
Building B shop area



Building B kitchenette



Building B office



Building B lobby area

### 3.7.3 Interior Finishes - Building C

ENTRANCE AREA, STORAGE AREA, VAULT		
Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted CMU	Good
Ceiling Finishes	Painted gypsum board	Good
Lighting	Fluorescent fixtures	Good

RESTROOMS		
Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted CMU	Good
Ceiling Finishes	Painted gypsum board	Good
Fixtures	Toilet, wall hung lavatory	Good
Accessories	Grab bars, mirror, soap dispenser, hand dryer	Good
Ventilation	Exhaust fan	Good
Lighting	Fluorescent fixtures	Good
Doors	Metal	Good
Door Hardware	Operable	Good

### Comments

The interior common building areas include a entrance area, one restroom, a vault/ office area, storage space, and an electrical/ mechanical room.

Building C generally did not contain finishes. The entrance area, one restroom, a vault/ office area, and storage space contained unfinished concrete floors, painted CMU walls, and painted gypsum board ceilings. The electrical/ mechanical room did not contain any finishes. The finishes were in good condition.

### 3.7.4 Interior Finishes - Building D

BUS BAYS, STORAGE ROOM, AND ELECTRIC ROOM		
Item	Description	Condition
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Painted CMU	Good
Ceiling Finishes		N/A
Lighting	Fluorescent fixtures	Good

### Comments

Building D was generally unfinished; the bus bays had painted CMU walls and a painted metal roof deck, and the floor was unfinished concrete. There were no finishes in the storage area or the electric room.

## Photographs



Building D storage room



Building D bus bay

## 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 CAT Operations Center property, Building A, 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 59 parking spaces. Of the parking spaces, Three are accessible with Two being van accessible. Accessibility requires that 3 accessible parking spaces be provided in parking areas with a total of 51 to 75 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 meets accessibility requirements.



## Photographs



Building A accessible restroom



Accessible parking



Truncated domes at sidewalk entrance

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	Yes/ No	Comments
<b>A.</b>	<b>History</b>		
1.	Has an ADA Survey been completed for this property?	No	
2.	Have any ADA improvements been made to the property since original construction?	No	
3.	Has building ownership/management reported any ADA complaints or litigation?	No	

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	Yes/ No	Comments
<b>B.</b>	<b>Parking</b>		
1.	Does the required number of standard ADA-designated spaces appear to be provided?	Yes	Three out of the 59 are accessible.
2.	Does the required number of van-accessible designated spaces appear to be provided?	Yes	Two out of the Three 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	
<b>C.</b>	<b>Exterior Accessible Route</b>		
1.	Is 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?	N/A	
<b>D.</b>	<b>Building Entrances</b>		
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	



Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	Yes/ No	Comments
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?	Yes	
8.	Do thresholds at accessible entrances appear to have compliant height?	Yes	
<b>E.</b>	<b>Interior Accessible Routes and Amenities</b>		
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	
7.	Are adjoining public areas and areas of egress identified with accessible signage?	Yes	
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	
<b>F.</b>	<b>Interior Doors</b>		
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	

Uniform Abbreviated Screening Checklist for the 2010 Americans with Disabilities Act			
	Item	Yes/ No	Comments
4.	Do doors at interior accessible routes appear to have a compliant clear opening width?	Yes	
<b>G.</b>	<b>Elevators</b>		
1.	Are hallway call buttons configured with the "UP" button above the "DOWN" button?	N/A	
<b>H.</b>	<b>Toilet Rooms</b>		
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	
6.	Do toilet stall doors appear to provide the minimum compliant clear width?	Yes	
7.	Do toilet stalls appear to provide the minimum compliant clear floor area?	Yes	
8.	Do urinals appear to be mounted at a compliant height and with compliant approach width?	Yes	
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.

ECS was provided access to drawings, certificate of occupancy, safety inspection records, and warranty information stored on site.

### **4.2 INTERVIEW SUMMARY**

ECS was escorted through the property by Josh Bontrager and Kevin Childress 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 CAT Operations Center 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 CAT Operations Center building is \$542,000. The replacement construction cost value obtained from the RS MEANS square foot estimator application is \$2,682,714. Please see attached documentation from RS MEANS program output as an appendix to the report. The calculated FCI value is determined to be 0.20. In accordance with the industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO), the condition of CAT Operations Center is rated as poor.

## 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**



**Site Map**  
CAT Operations Center - FCA 2021







Aerial Photograph



## **Appendix II: FIRE EXTINGUISHER INSPECTION**

# Inspection Certificate

*For*

City of Charlottesville CAT  
1545 Avon Street Extended  
Charlottesville, VA 22903

*This Inspection was performed in accordance with applicable Standards. The subsequent pages of this report provide performance measurements, listed ranges of acceptable results, and complete documentation of the inspection. Whenever discrepancies exist between acceptable performance standards and actual test results, notes and/or recommended solutions have been proposed or provided for immediate review and approval.*


*Inspection Date*  
*Jun 15, 2021*

Building: City of Charlottesville CAT  
Contact: Jason Davis  
Title: Maintenance Tech

Company: Fire Solutions  
Contact: Tommy VO  
Title: Technician

# Executive Summary

Generated by: BuildingReports.com

Building Information								
<b>Building:</b> City of Charlottesville CAT			<b>Contact:</b> Jason Davis					
<b>Address:</b> 1545 Avon Street Extended			<b>Phone:</b> 434-964-6771					
<b>Address:</b>			<b>Fax:</b>					
<b>City/State/Zip:</b> Charlottesville, VA 22903			<b>Mobile:</b>					
<b>Country:</b> United States of America			<b>Email:</b> davisja@charlottesville.org					
Inspection Performed By								
<b>Company:</b> Fire Solutions			<b>Inspector:</b> Tommy VO					
<b>Address:</b> 205 Haley Road			<b>Phone:</b> 804-385-3301					
<b>Address:</b>			<b>Fax:</b>					
<b>City/State/Zip:</b> Ashland, Virginia 23005			<b>Mobile:</b> 804-385-3301					
<b>Country:</b> United States			<b>Email:</b> tommyv@firesolutionsinc.com					
Inspection Summary								
Category:	Total Items		Serviced		Passed		Failed/Other	
	Qty	%	Qty	%	Qty	%	Qty	%
Fire	19	100.00%	19	100.00%	19	100.00%	0	0%
<b>Totals</b>	<b>19</b>	<b>100%</b>	<b>19</b>	<b>100.00%</b>	<b>19</b>	<b>100.00%</b>	<b>0</b>	<b>0%</b>
Verification								
		<b>Company:</b> Fire Solutions		<b>Building:</b> City of Charlottesville CAT				
		<b>Inspector:</b> Tommy VO		<b>Contact:</b> Jason Davis				
Fire Solutions Certifications								
Certification Type						Number		
WBENC Certified						2005121836		

# Inspection & Testing

Generated by: BuildingReports.com

Building: City of Charlottesville CAT				
<p><i>The Inspection &amp; Testing section lists all of the items inspected in your building. Items are grouped by Passed or Failed /Other. Items are listed by Category. Each item includes the services performed, and the time &amp; date at which testing occurred.</i></p>				
Device Type	Location	ScanID : S/N	Service	Date Time
<b>Passed</b>				
<b>Fire</b>				
Fire Extinguisher, 10 Lbs, A.B.C.	admin building by front desk 160.01	21196657 G-736570	Inspected	06/15/21 6:42:08 AM
Fire Extinguisher, 10 Lbs, A.B.C.	admin building hall by operations office 160.05	21196656 K-009003	Inspected	06/15/21 6:43:38 AM
Fire Extinguisher, 10 Lbs, A.B.C.	admin building kitchen 160.04	21196654 YP-750321	Inspected	06/15/21 6:47:27 AM
Fire Extinguisher, 10 Lbs, A.B.C.	admin building lobby by bathroom 160.02	21196658 YP-778628	Inspected	06/15/21 6:39:58 AM
Fire Extinguisher, 10 Lbs, A.B.C.	admin building locker room 160.03	21196655 ZW921589	Inspected	06/15/21 6:44:38 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building bay door 160.10	21196549 VV422280	Inspected	06/15/21 6:55:21 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building bay exit 160.09	21196649 SG-546439	Inspected	06/15/21 6:54:42 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building bay main entrance 160.06	21196653 Y592178	Inspected	06/15/21 6:49:39 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building bay tire rack exit 160.11	21196652 BX107446	Inspected	06/15/21 6:59:23 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building front of bays by restrooms 160.07	21196651 F86841377	Inspected	06/15/21 6:51:43 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building parts storage by desk 160.08	21196650 SG-569019	Inspected	06/15/21 6:53:49 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building parts storage rear 160.19	21196648 YE-779485	Inspected	06/15/21 6:52:38 AM
Fire Extinguisher, 10 Lbs, A.B.C.	b building Wall between tire racks 160.12	47001219 Y592190	Inspected	06/15/21 6:58:36 AM
Fire Extinguisher, 10 Lbs, A.B.C.	c building electric room 160.15	21196545 E82763778	Inspected	06/15/21 7:13:02 AM
Fire Extinguisher, 10 Lbs, A.B.C.	c building storage room 160.18	21196546 AP970213	Inspected	06/15/21 7:11:55 AM
Fire Extinguisher, 10 Lbs, A.B.C.	c building wash bay 160.16	21196548 YE-788017	Inspected	06/15/21 7:08:43 AM
Fire Extinguisher, 10 Lbs, A.B.C.	c building wash bay 160.17	21196547 WS-811752	Inspected	06/15/21 7:09:26 AM



Device Type	Location	ScanID : S/N	Service	Date Time
<b><i>Passed</i></b>				
<b>Fire</b>				
Fire Extinguisher, 10 Lbs, A.B.C.	d building gas pump 160.13	21196544 BS913449	Inspected	06/15/21 7:04:15 AM
Fire Extinguisher, 10 Lbs, A.B.C.	d building gas pump 160.14	21196543 ZW904074	Inspected	06/15/21 7:05:05 AM

# Service Summary

Generated by: BuildingReports.com

Building: City of Charlottesville CAT		
The Service Summary section provides an overview of the services performed in this report.		
Device Type	Service	Quantity
<i>Passed</i>		
Fire Extinguisher, 10 Lbs, A.B.C.	Inspected	19
<b>Total</b>		<b>19</b>
<b>Grand Total</b>		<b>19</b>

# Fire Extinguisher Maintenance Report

Generated by: BuildingReports.com

Building: City of Charlottesville CAT					
<i>This report provides details on the Hydrostatic Test and Maintenance/Breakdown dates for fire extinguishers. Items that will need either of these services at any time in the next two years are displayed. Items are grouped together by year for budgeting purposes.</i>					
ScanID	Location	Serial #	Hydro	Breakdown	Mfr Date
<b>Due in 2022</b>					
<b>Hydrostatic Test</b>					
<b>Fire Extinguisher, A.B.C., 10 Lbs</b>					
21196653	b building bay main entrance 160.06	Y592178	10/17/10	01/10/17	10/17/10
47001219	b building Wall between tire racks 160.12	Y592190	10/17/10	10/17/17	10/17/10
Total Fire Extinguisher, A.B.C., 10 Lbs:					<b>2</b>

# Inventory & Warranty Report

Generated by: BuildingReports.com

Building: City of Charlottesville CAT				
<p>The Inventory &amp; Warranty Report lists each of the devices and items that are included in your Inspection Report. A complete inventory count by device type and category is provided. Items installed within the last 90 days, within the last year, and devices installed for two years or more are grouped together for easy reference.</p>				
Device or Type		Category		Quantity
Fire Extinguisher		Fire		19
100.00%				
Type	Qty	Model #	Description	Manufacture Date
<b><i>In Service - 90 Days - 1 Year</i></b>				
<b>Buckeye</b>				
Fire Extinguisher	1	F86841377	A.B.C.	10/17/2020
<b><i>In Service - 2 Years to 3 Years</i></b>				
<b>Buckeye</b>				
Fire Extinguisher	1	10 HI SA80 ABC	A.B.C.	10/17/2018
<b><i>In Service - 5 Years to 10 Years</i></b>				
<b>Amerex</b>				
Fire Extinguisher	1	AB456-13	A.B.C.	10/17/2013
<b>PyroChem</b>				
Fire Extinguisher	1	PPC 10S ABC 1	A.B.C.	10/12/2013
<b>Amerex</b>				
Fire Extinguisher	1	AB456-11	A.B.C.	10/17/2011
<b><i>In Service - 10 Years to 15 Years</i></b>				
<b>Amerex</b>				
Fire Extinguisher	1	AB456-03	A.B.C.	10/17/2010
<b>Ansul</b>				
Fire Extinguisher	1	A10H	A.B.C.	10/17/2010
Fire Extinguisher	1	XA10H	A.B.C.	10/17/2010
<b>Buckeye</b>				
Fire Extinguisher	3	10HISA80ABC	A.B.C.	10/17/2009
<b>Amerex</b>				
Fire Extinguisher	1	AB456-08	A.B.C.	10/17/2008
Fire Extinguisher	1	AB456-08	A.B.C.	10/12/2008
<b>Buckeye</b>				
Fire Extinguisher	1	10HISA80ABC	A.B.C.	10/17/2007
<b>Badger</b>				
Fire Extinguisher	1	10MB-8H-06	A.B.C.	10/17/2006
Fire Extinguisher	1	10MB-8H-06	A.B.C.	08/19/2006
<b><i>In Service - 15 Years to 25 Years</i></b>				

<b>Badger</b>				
Fire Extinguisher	1	10MB8H01	A.B.C.	10/17/2001
<b>Buckeye</b>				
Fire Extinguisher	1	10MB8H01	A.B.C.	10/17/2001
<b>Badger</b>				
Fire Extinguisher	1	10MB8H97	A.B.C.	10/17/1997

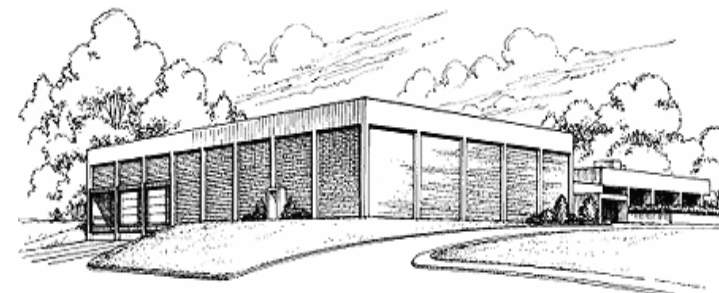


## **Appendix III: RS MEANS ESTIMATE FOR FACILITY CONDITION INDEX (FCI)**

# Square Foot Cost Estimate Report

Date: **10/22/2021**

<b>Estimate Name</b>	<b>CAT Operations Center</b>
	<b>City of Charlottesville</b> 1545 Avon Street Ext Virginia Charlottesville 22902
Building Type	Warehouse with Metal Panel / Rigid Steel
Location	CHARLOTTESVILLE, VA
	1.00
Stories Height	22.00
Floor Area (S.F.)	20,822.00
LaborType	OPN
Basement Included	No
Data Release	Year 2021
Cost Per Square Foot	\$128.84
<b>Total Building Cost</b>	<b>\$2,682,714.30</b>



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

## Assembly Customization Type :

- ⊕ Added
- ⦿ Partially Swapped
- Fully Swapped

		Quantity	% of Total	Cost Per SF	Cost
<b>A Substructure</b>			<b>14.1%</b>	<b>\$13.56</b>	<b>\$282,426.73</b>
<b>A1010</b>	<b>Standard Foundations</b>			<b>\$7.87</b>	<b>\$163,803.80</b>
	Foundation wall, CIP, 4' wall height, direct chute, .148 CY/LF, 7.2 PLF, 12" thick	1,492.00		\$4.85	<b>\$100,920.37</b>
	Strip footing, concrete, reinforced, load 11.1 KLF, soil bearing capacity 6 KSF, 12" deep x 24" wide	1,492.00		\$2.59	<b>\$54,014.88</b>
	Spread footings, 3000 PSI concrete, load 100K, soil bearing capacity 6 KSF, 4' - 6" square x 15" deep	24.29		\$0.43	<b>\$8,868.55</b>
<b>A1030</b>	<b>Slab on Grade</b>			<b>\$5.57</b>	<b>\$116,081.40</b>
	Slab on grade, 5" thick, non industrial, reinforced	20,822.00		\$5.57	<b>\$116,081.40</b>

		Quantity	% of Total	Cost Per SF	Cost
<b>A2010</b>	<b>Basement Excavation</b>			<b>\$0.12</b>	<b>\$2,541.53</b>
	Excavate and fill, 30,000 SF, 4' deep, sand, gravel, or common earth, on site storage	20,822.00		\$0.12	<b>\$2,541.53</b>
<b>B Shell</b>			<b>52.6%</b>	<b>\$50.67</b>	<b>\$1,054,972.68</b>
<b>B1010</b>	<b>Floor Construction</b>			<b>\$3.26</b>	<b>\$67,976.53</b>
	Floor, concrete, slab form, steel joists, joist girder, 1.5" 22 ga metal deck, on columns, 50'x50' bay, 32" deep, 40 PSF superimposed load, 84 PSF total load	2,082.20		\$1.45	<b>\$30,276.27</b>
	Floor, concrete, slab form, steel joists, joist girder, 1.5" 22 ga metal deck, on columns, 50'x50" bay, 40 PSF superimposed load, 84 PSF total load, for columns add	2,082.20		\$0.10	<b>\$2,174.96</b>
	Fireproofing, concrete, 1" thick, 8" steel column, 1 hour rating, 110 PLF	1,029.48		\$1.71	<b>\$35,525.30</b>
<b>B1020</b>	<b>Roof Construction</b>			<b>\$12.84</b>	<b>\$267,298.26</b>
	Roof, steel joists, joist girder, 1.5" 22 ga metal deck, on columns, 50'x50' bay, 40 PSF superimposed load, 59" deep, 64 PSF total load	20,822.00		\$11.79	<b>\$245,548.64</b>
	Roof, steel joists, joist girder, 1.5" 22 ga metal deck, on columns, 50'x50' bay, 40 PSF superimposed load, 59" deep, 64 PSF total load, add for columns	20,822.00		\$1.04	<b>\$21,749.62</b>
<b>B2010</b>	<b>Exterior Walls</b>			<b>\$23.33</b>	<b>\$485,874.31</b>
	Metal facing pnl, textured al, 4' x 8' x 5/16" plywd backing, sgl face, 6" Metal stud, 16" o.c., R-19 insulation	32,167.52		\$23.33	<b>\$485,874.31</b>
<b>B2020</b>	<b>Exterior Windows</b>			<b>\$1.01</b>	<b>\$21,039.57</b>
	Windows, aluminum, sliding, standard glass, 5' x 3'	43.77		\$1.01	<b>\$21,039.57</b>
<b>B2030</b>	<b>Exterior Doors</b>			<b>\$1.32</b>	<b>\$27,495.33</b>
	Door, aluminum & glass, with transom, narrow stile, double door, hardware, 6'-0" x 10'-0" opening	0.69		\$0.22	<b>\$4,622.90</b>
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-0" x 7'-0" opening	2.78		\$0.37	<b>\$7,759.26</b>
	Door, steel 24 gauge, overhead, sectional, electric operator, 12'-0" x 12'-0" opening	4.16		\$0.73	<b>\$15,113.17</b>
<b>B3010</b>	<b>Roof Coverings</b>			<b>\$8.26</b>	<b>\$171,910.46</b>
	Roofing, single ply membrane, EPDM, 60 mils, loosely laid, stone ballast	20,822.00		\$1.73	<b>\$36,011.65</b>
	Insulation, rigid, roof deck, extruded polystyrene, 40 PSI compressive strength, 4" thick, R20	20,822.00		\$3.96	<b>\$82,502.59</b>
	Roof edges, aluminum, duranodic, .050" thick, 6" face	1,492.00		\$1.80	<b>\$37,538.42</b>
	Gravel stop, aluminum, extruded, 4", mill finish, .050" thick	1,492.00		\$0.76	<b>\$15,857.80</b>

		Quantity	% of Total	Cost Per SF	Cost
<b>B3020</b>	<b>Roof Openings</b>			<b>\$0.64</b>	<b>\$13,378.22</b>
	Roof hatch, with curb, 1" fiberglass insulation, 2'-6" x 3'-0", galvanized steel, 165 lbs	1.00		\$0.06	<b>\$1,257.20</b>
	Smoke hatch, unlabeled, galvanized, 2'-6" x 3', not incl hand winch operator	8.00		\$0.58	<b>\$12,121.02</b>
<b>C Interiors</b>			<b>7.1%</b>	<b>\$6.83</b>	<b>\$142,200.45</b>
<b>C1010</b>	<b>Partitions</b>			<b>\$1.97</b>	<b>\$41,061.04</b>
	Concrete block (CMU) partition, light weight, hollow, 6" thick, no finish	599.67		\$0.20	<b>\$4,139.28</b>
	Metal partition, 5/8" fire rated gypsum board face, no base, 3'-5/8" @ 24" OC framing, same opposite face, no insulation	1,066.09		\$0.15	<b>\$3,072.52</b>
	Gypsum board, 1 face only, exterior sheathing, fire resistant, 5/8"	32,167.52		\$1.08	<b>\$22,518.55</b>
	Add for the following: taping and finishing	32,167.52		\$0.54	<b>\$11,330.69</b>
<b>C1020</b>	<b>Interior Doors</b>			<b>\$0.43</b>	<b>\$9,027.04</b>
	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	8.33		\$0.43	<b>\$9,027.04</b>
<b>C2010</b>	<b>Stair Construction</b>			<b>\$1.21</b>	<b>\$25,154.70</b>
	Stairs, steel, grate type w/nosing & rails, 20 risers, with landing	2.00		\$1.21	<b>\$25,154.70</b>
<b>C3010</b>	<b>Wall Finishes</b>			<b>\$1.03</b>	<b>\$21,487.50</b>
	2 coats paint on masonry with block filler	1,199.35		\$0.11	<b>\$2,394.23</b>
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	2,132.17		\$0.06	<b>\$1,186.90</b>
	Painting, interior on plaster and drywall, walls & ceilings, roller work, primer & 2 coats	32,167.52		\$0.86	<b>\$17,906.37</b>
<b>C3020</b>	<b>Floor Finishes</b>			<b>\$1.66</b>	<b>\$34,579.62</b>
	Concrete topping, hardeners, metallic additive, minimum	9,369.90		\$0.41	<b>\$8,562.78</b>
	Concrete topping, hardeners, metallic additive, maximum	9,369.90		\$1.01	<b>\$20,936.29</b>
	Vinyl, composition tile, maximum	2,082.20		\$0.24	<b>\$5,080.55</b>
<b>C3030</b>	<b>Ceiling Finishes</b>			<b>\$0.52</b>	<b>\$10,890.55</b>
	Acoustic ceilings, 3/4" mineral fiber, 12" x 12" tile, concealed 2" bar & channel grid, suspended support	2,082.20		\$0.52	<b>\$10,890.55</b>
<b>D Services</b>			<b>18.0%</b>	<b>\$17.33</b>	<b>\$360,806.45</b>
<b>D2010</b>	<b>Plumbing Fixtures</b>			<b>\$0.59</b>	<b>\$12,217.02</b>
	Water closet, vitreous china, bowl only with flush valve, wall hung	1.39		\$0.22	<b>\$4,595.07</b>
	Urinal, vitreous china, wall hung	0.69		\$0.04	<b>\$830.25</b>
	Lavatory w/trim, wall hung, PE on CI, 18" x 15"	1.39		\$0.11	<b>\$2,333.45</b>

		Quantity	% of Total	Cost Per SF	Cost
	Service sink w/trim, PE on CI,wall hung w/rim guard, 24" x 20"	0.69		\$0.14	<b>\$3,017.06</b>
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH	0.69		\$0.07	<b>\$1,441.19</b>
<b>D2020</b>	<b>Domestic Water Distribution</b>			<b>\$0.23</b>	<b>\$4,786.32</b>
	Gas fired water heater, commercial, 100< F rise, 75.5 MBH input, 63 GPH	0.69		\$0.23	<b>\$4,786.32</b>
<b>D2040</b>	<b>Rain Water Drainage</b>			<b>\$0.79</b>	<b>\$16,362.61</b>
	Roof drain, DWV PVC, 5" diam, 10' high	3.47		\$0.39	<b>\$8,195.63</b>
	Roof drain, steel galv sch 40 threaded, 5" diam piping, for each additional foot add	149.20		\$0.39	<b>\$8,166.98</b>
<b>D3020</b>	<b>Heat Generating Systems</b>			<b>\$4.56</b>	<b>\$94,879.98</b>
	Warehouse ventilization with heat system 24,000 CFM Supply and Exhaust	0.75		\$4.56	<b>\$94,879.98</b>
<b>D3050</b>	<b>Terminal &amp; Package Units</b>			<b>\$0.79</b>	<b>\$16,398.66</b>
	Rooftop, single zone, air conditioner, offices, 3,000 SF, 9.50 ton	2,082.20		\$0.79	<b>\$16,398.66</b>
<b>D4010</b>	<b>Sprinklers</b>			<b>\$3.66</b>	<b>\$76,230.80</b>
	Wet pipe sprinkler systems, grooved steel, black, sch 40 pipe, ordinary hazard, 1 floor, 10,000 SF	20,822.00		\$3.66	<b>\$76,230.80</b>
<b>D4020</b>	<b>Standpipes</b>			<b>\$0.51</b>	<b>\$10,615.89</b>
	Wet standpipe risers, class III, steel, black, sch 40, 6" diam pipe, 1 floor	0.69		\$0.51	<b>\$10,615.89</b>
<b>D5010</b>	<b>Electrical Service/Distribution</b>			<b>\$0.73</b>	<b>\$15,256.00</b>
	Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 200 A	1.00		\$0.11	<b>\$2,351.00</b>
	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	50.00		\$0.08	<b>\$1,699.25</b>
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 400 A	1.00		\$0.54	<b>\$11,205.75</b>
<b>D5020</b>	<b>Lighting and Branch Wiring</b>			<b>\$3.37</b>	<b>\$70,094.56</b>
	Receptacles incl plate, box, conduit, wire, 5 per 1000 SF, .6 watts per SF	20,822.00		\$0.58	<b>\$12,016.38</b>
	Wall switches, 1.0 per 1000 SF	10,411.00		\$0.11	<b>\$2,242.53</b>
	Miscellaneous power, to .5 watts	20,822.00		\$0.12	<b>\$2,440.34</b>
	Central air conditioning power, 3 watts	2,082.20		\$0.05	<b>\$950.94</b>
	Fluorescent fixtures recess mounted in ceiling, 0.8 watt per SF, 20 FC, 5 fixtures @32 watt per 1000 SF	18,739.80		\$1.89	<b>\$39,419.17</b>
	Fluorescent fixtures recess mounted in ceiling, 2.4 watt per SF, 60 FC, 15 fixtures @ 32 watt per 1000 SF	2,082.20		\$0.63	<b>\$13,025.20</b>
<b>D5030</b>	<b>Communications and Security</b>			<b>\$2.11</b>	<b>\$43,964.61</b>

		Quantity	% of Total	Cost Per SF	Cost
<b>E Equipment &amp; Furnishin E1030</b>	Communication and alarm systems, fire detection, addressable, 100 detectors, includes outlets, boxes, conduit and wire	0.69		\$2.02	<b>\$42,009.77</b>
	Fire alarm command center, addressable without voice, excl. wire & conduit	0.69		\$0.09	<b>\$1,954.84</b>
	<b>Vehicular Equipment</b>		<b>1.6%</b>	<b>\$1.54</b>	<b>\$32,164.78</b>
	Architectural equipment, dock boards, heavy duty, 5' x 5', aluminum, 5000 lb capacity	4.16		\$0.23	<b>\$4,789.06</b>
	Architectural equipment, dock levelers, hydraulic, 7' x 8', 10 ton capacity	4.16		\$1.31	<b>\$27,375.72</b>
<b>E1090</b>	<b>Other Equipment</b>			<b>\$0.00</b>	<b>\$0.00</b>
<b>F Special Construction F1020</b>	<b>Integrated Construction</b>		<b>6.6%</b>	<b>\$6.40</b>	<b>\$133,196.60</b>
	Special construction, air curtain, shipping & receiving, 12' high x 12' wide	49.97		\$6.40	<b>\$133,196.60</b>
<b>G Building Sitework</b>			<b>0.0%</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Sub Total</b>			<b>100%</b>	<b>\$96.33</b>	<b>\$2,005,767.70</b>
<b>Contractor's Overhead &amp; Profit</b>			<b>25.0 %</b>	<b>\$24.08</b>	<b>\$501,441.93</b>
<b>Architectural Fees</b>			<b>7.0 %</b>	<b>\$8.43</b>	<b>\$175,504.67</b>
<b>User Fees</b>			<b>0.0 %</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Building Cost</b>				<b>\$128.84</b>	<b>\$2,682,714.30</b>



## **Appendix IV: SITE PHOTOGRAPHS**



1 - Building A Overview



2 - Building B Overview



3 - Building C Overview



4 - Asphalt pavement north side of site at entrance





5 - Asphalt pavement north side of site



6 - Asphalt pavement at bus parking area



7 - Asphalt pavement at bus parking area



8 - Concrete pavement at center of the site





9 - Concrete pavement at center of the site



10 - Concrete pavement at east side of the site





11 - Concrete pavement at south side of the site



12 - Concrete pavement at west side of the site



13 - Typical concrete sidewalk



14 - Concrete curb - note damage





15 - Concrete sidewalk - note spalling



16 - Concrete curb - note damage





17 - Typical storm sewer drop inlet



18 - Typical storm sewer drop inlet



19 - Typical storm sewer drop inlet



20 - Stormwater management system





21 - Dumpster area



22 - Typical landscaping





23 - Pole mounted lighting



24 - Pole mounted light



25 - Typical structural framing



26 - Typical structural framing



27 - Typical structural framing

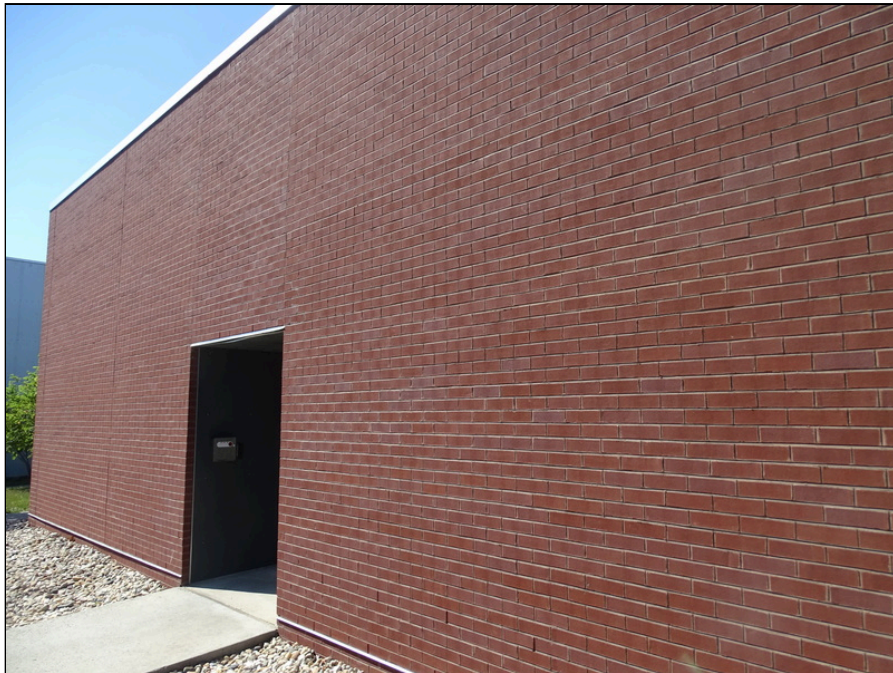


28 - Typical structural framing





29 - Building exteriors at Building A



30 - Building exteriors at Building A



31 - Building exteriors at Building A



32 - Building exteriors at Building A





33 - Building exteriors at Building B



34 - Building exteriors at Building B





35 - Building exteriors at Building B



36 - Building exteriors at Building D



37 - Entrance to Building A



38 - Entrance to Building C



39 - Personal door



40 - Overhead door





41 - Foggy window



42 - Typical gas meter



43 - Building A roof



44 - Building A roof





45 - Roof safety railing



46 - Building B roof





47 - Building B roof



48 - Building B roof



49 - Building B roof



50 - Building B roof





51 - Building B roof



52 - Building C roof



53 - Building C roof



54 - Building C roof - plumbing penetration





55 - Building C roof - parapet wall deterioration



56 - Building C roof - internal drainage





57 - Building C roof - patching



58 - Building D roof



59 - Building D water lines



60 - Building A water heater



61 - Building B water heater



62 - Building C water heater





63 - Building D water heater



64 - Building A geothermal heat pump





65 - Building A geothermal heat pump



66 - Building A geothermal heat pump



67 - Building A energy recovery system



68 - Building A VFDs





69 - Building B energy recovery system



70 - Building B unit heater



71 - Building C electric heater and thermostat



72 - Building C condenser





73 - Building C split system



74 - Building C unit heater



75 - Building D NOVAR BAS



76 - Building A ductwork



77 - Building B ductwork



78 - Building A thermostat





79 - Building B thermostat



80 - Building C thermostat





81 - Building D thermostat



82 - Typical building A transformer



83 - Building A electrical panels



84 - Electric meter





85 - Building B Generator



86 - Transformer



87 - Building B sprinkler riser



88 - Sprinkler head





89 - Building A fire extinguisher



90 - Building A strobe



91 - Building A alarm panel



92 - Building B pull station





93 - Building B FDC



94 - Building C fire hydrant



95 - Building C fire extinguisher



96 - Typical smoke detector





97 - Typical exit sign



98 - Typical emergency light



99 - Building A interior security camera



100 - Building interior security camera



101 - Building A corridor



102 - Building A lockers





103 - Building A office



104 - Building A interior





105 - Building A kitchenette



106 - Building A meeting room



107 - Building A lobby



108 - Building A restroom



109 - Building A restroom

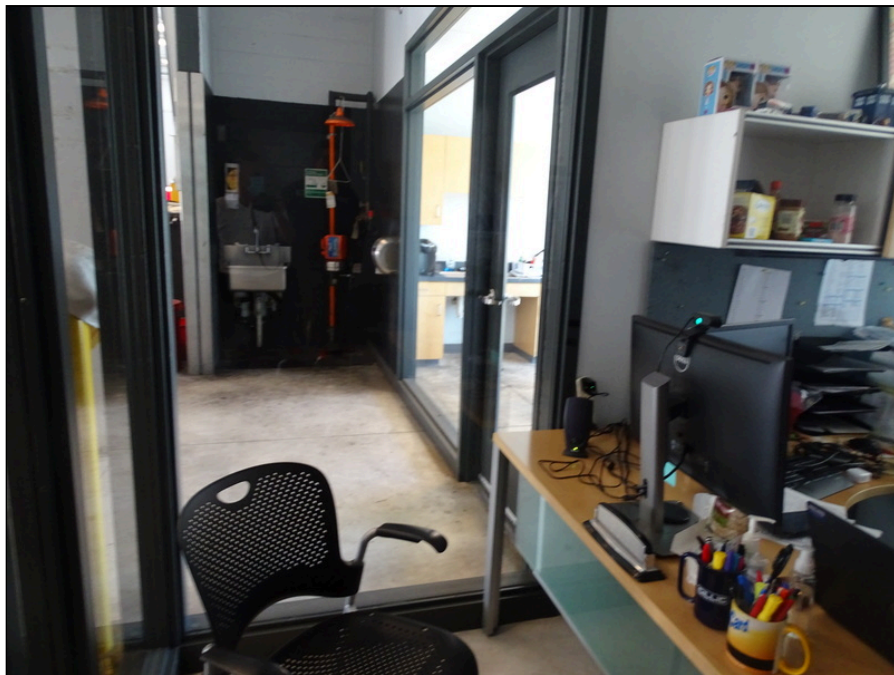


110 - Building B shop area





111 - Building B kitchenette

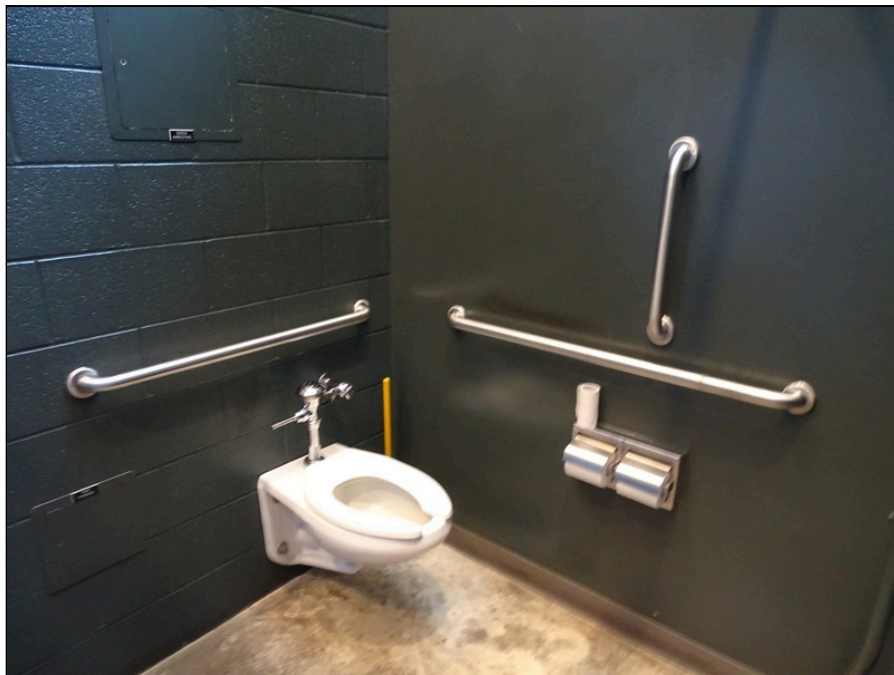


112 - Building B office





113 - Building B lobby area



114 - Building B restroom



115 - Building D storage room



116 - Building D bus bay





117 - Building A accessible restroom



118 - Accessible parking



119 - Truncated domes at sidewalk entrance



120 - Water leakage



## **Appendix V: RESUMES**



## William R. Pratt, PE

*Senior Project Engineer, ECS Mid-Atlantic, LLC*  
*Professional-In-Charge*

### 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 the Professional-In-Charge 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 construction materials testing, 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.

### 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



# Michael G. Doyle, AIA

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## *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, Suffolk, VA
- The Portrait Building, Washington, DC
- The Aventine of Alexandria, Alexandria, VA



# DONALD GOGLIO

## CODE COMPLIANCE PROJECT MANAGER

### 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.

### CERTIFICATIONS

WSSC Master Plumber

WSSC Master Gasfitter

WSSC Cross Connection Technician  
Certification

CPR/First Aid Training

OSHA 30 hr Training

ICC Certified Commercial Building  
Inspector

ICC Certified Commercial Plumbing  
Inspector

ICC Certified Commercial  
Mechanical Inspector

LEED Green Associate

### SKILLS

Code Compliance

Construction Administration

Special Inspection Services

Condition Assessments

Forensic Consultation

### PROFESSIONAL MEMBERSHIPS

American Wood Council

USGBC

### EDUCATION

Montgomery College, 1991,  
Silver Spring, MD

### YEARS OF EXPERIENCE

ECS: <1 Other: 38





# DONALD GOGLIO

## CODE COMPLIANCE PROJECT MANAGER

### 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 – Assistant Superintendent
- Hidden Creek, Gaithersburg, MD
- Paramount, Gaithersburg, MD
- Thayer & Spring, Silver Spring, MD

### CERTIFICATIONS

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WSSC Master Gasfitter

WSSC Cross Connection Technician  
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OSHA 30 hr Training

ICC Certified Commercial Building  
Inspector

ICC Certified Commercial Plumbing  
Inspector

ICC Certified Commercial  
Mechanical Inspector

LEED Green Associate

### SKILLS

Code Compliance

Construction Administration

Special Inspection Services

Condition Assessments

Forensic Consultation

### PROFESSIONAL MEMBERSHIPS

American Wood Council

USGBC

### EDUCATION

Trade Specific (Plumbing), 1991,  
Montgomery College, Silver  
Spring, MD

### YEARS OF EXPERIENCE

ECS: <1 Other: 38

