CITY YARD WASH FACILITY AND STORAGE BUILDING
309 4TH STREET NW
CHARLOTTESVILLE, VIRGINIA

ECS PROJECT NO. 46:6713

FOR

CITY OF CHARLOTTESVILLE - FACILITIES DEVELOPMENT

OCTOBER 26, 2021

October 26, 2021

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

ECS Project No. 46:6713

Reference: Facility Condition Assessment Report for City Yard Wash Facility and Storage Building, 309 4th Street NW, 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

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Project Manager
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703-471-8400

Michael G. Doyle, AIA
Principal Architect
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703-471-8400

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			None		
3.2.3 Access and Egress	X			None		
3.2.4 Paving, Curbing, and Parking	X	X		Repair		$15,000
3.2.5 Flatwork		NA		None		
3.2.6 Landscaping and Appurtenances		NA		None		
3.2.7 Recreational Facilities		NA		None		
3.2.8 Special Utility Systems		NA		None		
3.3.1 Foundation	X			None		
3.3.2 Building Frame		X		Repair		$20,000
3.3.3 Building Exteriors		X		Repair		$17,000
3.3.4 Exterior Doors		X		Replace		$16,000
3.3.5 Exterior Windows	X			None		
3.3.6 Roofing Systems		X		Replace		$19,500
3.4.1.1 Supply and Waste Piping	X			None		
3.4.1.2 Domestic Hot Water Production		NA		None		
3.4.2.1 Equipment		X		None		
3.4.2.2 Distribution System	X			None		
3.4.2.3 Control Systems	X			None		
3.4.3.1 Service and Metering	X			None		
3.4.3.2 Distribution		X		Replace		$2,000
3.5 VERTICAL TRANSPORTATION SYSTEMS		NA		None		
3.6.1 Sprinklers and Suppression Systems	X			None		
3.6.2 Alarm Systems		NA		None		
3.7.1 Tenant Spaces	X			None		
3.8 Accessibility (ADA) Compliance		NA		None		
5.1 MOISTURE AND MOLD	X			None		
Totals					$0	$89,500

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

	Today's Dollars	$/Square Feet	$/Square Feet/Year
Replacement Reserves, today's dollars	$89,500.00	$13.77	$0.69
Replacement Reserves, w/20, 2.5% escalation	$92,425.70	$14.22	$0.71

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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 City Yard Wash Facility and Storage Building 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 City Yard Wash Facility and Storage Building property, located at 309 4th Street NW, in Charlottesville, Virginia, consists of two One-story buildings. Based on the information provided during proposal preparation, the buildings total approximately Approximately 6,500 total square feet. Parking is provided with Asphalt and concrete pavements. The Facilities buildings were reportedly constructed in 1977.

SURVEY INFORMATION	
Date of Assessment	May 20, 2021
Assessor	William R. Pratt, P.E.
Weather Conditions	Partly Cloudy | 86F
Property Contact	Project Manager for City of Charlottesville - Facilities Development

SITE INFORMATION	
Land Area	Approximately 0.1 acres
Major Cross Streets	Preston Avenue
Pavement - Parking	Asphalt and concrete pavements
Number of Parking Spaces	N/A
Number of Accessible Spaces	N/A
Number of Van Accessible Spaces	N/A
Pedestrian Sidewalks	N/A

BUILDING INFORMATION	
Building Type	Facilities
Number of Buildings	Two
Building Height	One-story
Square Footage	Approximately 6,500 total
Year Constructed	1977
Year Remodeled	Unknown

BUILDING CONSTRUCTION	
Foundation	Assumed shallow spread footings
Structural System	Concrete masonry unit bearing walls and steel framing
Roof	Metal and asphalt shingle
Exterior Finishes	Metal and Concrete Masonry Unit
Windows	Aluminum frame single pane - operable
Entrance	Metal doors

BUILDING SYSTEMS	
HVAC System	Space heater for Bus Wash Building
Water Distribution	Copper
Sanitary Waste Line	N/A
Electrical Service	3-phase, 4-wire, 200 amps
Branch Wiring	Copper
Elevators	N/A
Fire Suppression System	Fire extinguishers

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
Total Repair Cost					$0.00

Capital Reserve Schedule

Item	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
3.2.4 Paving, Curbing, and Parking																													
REPAIR ASPHALT PAVEMENTS AS NEEDED	20	19	1	1	LS	$5,000.00	$5,000	100%	$5,000																				$5,000
REPAIR CONCRETE PAVEMENTS AS NEEDED	25	24	1	1,000	SF	$10.00	$10,000	100%	$10,000																				$10,000
3.3.2 Building Frame																													
PERFORM STRUCTURAL REPAIRS NOTED IN ADDITIONAL STRUCTURAL STUDY OF WASH BUILDING			1	1	LS	$20,000.00	$20,000	100%	$20,000																				$20,000
3.3.3 Building Exteriors																													
PAINT THE BUILDINGS	7	6	1	6	EA	$2,000.00	$12,000	100%	$4,000							$4,000							$4,000						$12,000
REPAIR METAL EXTERIOR AS NEEDED	50	45	5	1	LS	$5,000.00	$5,000	100%					$5,000																$5,000
3.3.4 Exterior Doors																													
REPLACE OVERHEAD DOORS	20	19	1	8	EA	$2,000.00	$16,000	100%	$16,000																				$16,000
3.3.6 Roofing Systems																													

Item	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
REPAIR METAL ROOFING SYSTEM	50	49	1	1	LS	$7,500.00	$7,500	100%	$7,500																			$7,500
COAT METAL ROOFING SYSTEM OF STORAGE BUILDING	50	49	1	2,000	SF	$6.00	$12,000	100%	$12,000																			$12,000
3.4.3.2 Distribution																													
REPLACE ELECTRICAL PANEL AT BUS WASH BUILDING	40	39	1	1	LS	$2,000.00	$2,000	100%	$2,000																			$2,000
Total (Uninflated)									$76,500.00	$0.00	$0.00	$0.00	$5,000.00	$0.00	$0.00	$4,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$4,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$89,500.00
Inflation Factor (2.5%)									1.0	1.025	1.051	1.077	1.104	1.131	1.16	1.189	1.218	1.249	1.28	1.312	1.345	1.379	1.413	1.448	1.485	1.522	1.56	1.599	
Total (inflated)									$76,500.00	$0.00	$0.00	$0.00	$5,519.06	$0.00	$0.00	$4,754.74	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$5,651.90	$0.00	$0.00	$0.00	$0.00	$0.00	$92,425.70

Evaluation Period:	20
# of Square Feet:	6,500
Reserve per Square Feet per year (Uninflated)	$0.69
Reserve per Square Feet per year (Inflated)	$0.71

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 City Yard Wash Facility and Storage Building facility and other government agencies based upon availability. These individuals are identified in Section 4.2. Information obtained from the interviews are included in the applicable sections of this report.

2.3 ASSESSMENT PROCEDURES

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

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

2.4 DEFINITIONS

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

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

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

2.4.1 Partial List of ASTM Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.0 SYSTEM DESCRIPTION AND OBSERVATIONS

3.1 PROPERTY DESCRIPTION

The Property contains two One-story buildings for Facilities services purposes. There is a Bus Wash Building and a Storage Building.

3.1.1 Property Location

The Property is located at 309 4th Street NW in Charlottesville, Virginia.

Surrounding Properties	
North	Commercial properties
East	4th Street NW
South	Commercial properties
West	Residential properties

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

3.1.2 Construction History

We understand that the buildings were constructed approximately 39 years ago in 1977.

3.1.3 Current Property Improvements

The Facilities buildings, located at 309 4th Street NW, in Charlottesville, Virginia, consists two buildings with associated asphalt and concrete drive lanes. Based on the information provided during proposal preparation, the buildings total Approximately 6,500 total square feet.

3.2 SITE CONDITIONS

3.2.1 Topography

TOPOGRAPHY		
Item	**Description**	**Condition**
Slope of the property	The property generally slopes to the east	Good
Adjoining Properties	Generally down slope from the property	Good

Comments

The property is generally level and slopes to the east. 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	Municipal system	Good
Storm Water (Retention) Pond		N/A
Storm Water Filtration Structure		N/A
Pavement Drainage	Drop inlet	Good
Landscape Drainage		N/A
Sump Pumps		N/A

Comments

The storm water collection system includes a municipal system with a drop inlet located in the parking area.

Photographs

Asphalt pavement - note cracking

3.2.3 Access and Egress

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

Comments

Vehicular access to the site is located on the east and west 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 throughout the facility.

3.2.4 Paving, Curbing, and Parking

PARKING		
Item	**Description**	**Condition**
Striping	Fading observed	Fair
Quantity of Parking Spaces	N/A	N/A
Quantity of Loading Spaces		N/A
Arrangement of Spaces		N/A
Site Circulation	Drive aisles	Good
Lighting		N/A
Accessible Spaces	N/A	N/A
Accessible Aisles		N/A

SURFACE PAVEMENT		
Item	**Description**	**Condition**
Pavement Surface	Asphalt and concrete pavements	Fair
Drainage	Drop inlet	Good
Repair History	Patching noted	Fair
Concrete Curbs and Gutters		N/A

SURFACE PAVEMENT		
Item	**Description**	**Condition**
Dumpster Pad		N/A
Asphalt Curbs		N/A
Fire Lane Painting		N/A

Comments

Asphalt-paved drive lanes are located between the three buildings which also provides access to the site. The asphalt pavement was observed to be in generally fair condition with some cracks observed on the pavement. The expected useful life of asphalt pavement is 20 years. Based on the limited areas of cracking, we recommend an allowance to perform repairs as needed.

There is a concrete pavement section surrounding the gas pumps and canopies and at the entrance to the bus wash facility. The concrete pavement section was cracked in some areas. We recommend an allowance to replace the cracked sections of concrete pavement.

Photographs

Concrete pavement - note cracking

Asphalt pavement and parking - note cracking

Asphalt pavement - note cracking

Asphalt pavement - note cracking

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPAIR ASPHALT PAVEMENTS AS NEEDED	20	19	1	1	$5,000
REPAIR CONCRETE PAVEMENTS AS NEEDED	25	24	1	1	$10,000
Total					$15,000

3.2.5 Flatwork

SIDEWALKS		
Item	**Description**	**Condition**
Walkways	N/A	N/A
Plaza		N/A
Patios		N/A
Steps		N/A
Landings		N/A
Handrails		N/A
Ramps		N/A

Comments

The property does not contain flat work.

3.2.6 Landscaping and Appurtenances

Comments

The property does not contain landscaping.

3.2.7 Recreational Facilities

Comments

The property does not contain recreational facilities.

3.2.8 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	Assumed shallow spread footings	Good
Basement		N/A
Crawl Space		N/A

Comments

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

3.3.2 Building Frame

BUILDING FRAME		
Item	**Description**	**Condition**
Floor Framing	Slab on grade for both buildings	Good
Roof Framing	Structural steel for bus wash building and concrete masonry unit bearing walls for storage building	Good
Columns	Structural steel for bus wash building	Good
Load Bearing Walls	Concrete masonry unit for storage building	Good
Balconies		N/A
Decks		N/A

Comments

The structure of the buildings consists of concrete slab-on-grade for both buildings. The roof framing consists of structural steel for bus wash building. The storage building contained concrete masonry unit bearing walls. The structural framing of the storage building was generally in good condition. The wash building reportedly had an additional structural study performed by others with detailed design recommendations for repairs included in the report. The report is included as an appendix to this report. We recommend an allowance to perform the structural repairs.

Photographs

Structure framing

Structure framing - Storage

Structure framing - Storage

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
PERFORM STRUCTURAL REPAIRS NOTED IN ADDITIONAL STRUCTURAL STUDY OF WASH BUILDING	-	-	1	1	$20,000
Total					$20,000

3.3.3 Building Exteriors

EXTERIOR FINISHES		
Item	**Description**	**Condition**
Metal	Exterior of bus wash building	Fair
Wood Siding	Exterior of storage building	Fair
Concrete Masonry Unit	Sides of storage building	Fair
Paint		Fair

Comments

The exterior of the bus wash building consists of metal. The metal exterior was damaged in some locations and deteriorating at the bottom. We recommend repairs to the metal exterior as needed. The paint on the building exteriors was generally in fair condition. We recommend painting both buildings during the report period as needed.

Photographs

Building exterior bus wash building

Storage Building

Bus Wash Damage 1

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
PAINT THE BUILDINGS	7	6	1	1 8 15	$4,000 $4,000 $4,000
REPAIR METAL EXTERIOR AS NEEDED	50	45	5	5	$5,000
Total					$17,000

3.3.4 Exterior Doors

DOORS		
Item	**Description**	**Condition**
Main Entrance Doors	Metal doors	Fair
Personnel Doors	Located at bus wash building	Fair
Door Hardware		Good
Overhead/Roll-up Doors	Located at bus wash and storage buildings	Fair

Comments

The main entrances are Metal doors. The main entrance doors were generally in fair condition. Steel personnel doors are located at the bus wash building. The personnel doors were generally in fair condition. Exterior doors typically have an expected useful life of 20 to 30 years. We recommend replacing the exterior doors as maintenance items.

Overhead doors are located at the bush wash and storage buildings. The overhead doors were observed to be damaged. The overhead doors were generally in fair condition. We recommend the damaged overhead doors be replaced.

Photographs

Exterior doors at bus wash building

Typical overhead door in bus wash building

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE OVERHEAD DOORS	20	19	1	1	$16,000
Total					$16,000

3.3.5 Exterior Windows

WINDOWS		
Item	**Description**	**Condition**
Window Frame	Aluminum frame	Good
Glass Pane	Single pane	Good
Operation	Operable	Good
Screen		N/A
Exterior Header	CMU	Good
Exterior Sill	CMU	Good
Gaskets or Glazing		Good

Comments

The window system for the facility consists of an Aluminum frame single pane - operable window unit. The expected useful life of gaskets is typically 25 years. The exterior windows were generally in good condition.

3.3.6 Roofing Systems

ROOFING		
Item	**Description**	**Condition**
Asphalt Shingle		N/A
Metal	Located on both buildings	Fair
Insulation	Batts	Fair
Substrate/Deck	Varies	Good
Slope/Pitch	Varies	Good
Drainage	Gutters and downspouts with damage observed to both buildings	Fair

ROOFING		
Item	**Description**	**Condition**
Plumbing Vents		N/A
Skylights	Translucent roof panels	Fair
Flashing	Metal	Fair
Roof Age	Varies	Fair

Comments

The main roofing system consists of metal roofing system over the Maintenance Building and Storage Building. The roofing system replacements are unknown.

Bus Wash Building

The expected useful life of a metal roofing system is typically 50 years, however, the metal roofing system contained translucent panels to allow daylight within the Maintenance Building. This typically reduces the expected useful life of the metal roofing system. Patching and deterioration was observed at the metal roofing system. The roofing system was generally in fair condition. We recommend an allowance for repairs for the metal roofing system.

Storage Building

The expected useful life of a metal roofing system is typically 50 years. The roofing system was generally in fair condition. We recommend an allowance to apply a coating to the the metal roofing system of the Storage Building.

Drainage for the roofing systems is provided by gutters and downspouts. Damage to these items was observed at both buildings. We recommend that the gutters and downspouts be replaced during the scheduled roof replacement.

Photographs

Roofing system of storage building

Roofing system of storage building

Roofing system of storage building - note deterioration

Roofing system of bus wash building - note deterioration

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPAIR METAL ROOFING SYSTEM	50	49	1	1	$7,500
COAT METAL ROOFING SYSTEM OF STORAGE BUILDING	50	49	1	1	$12,000
Total					$19,500

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 for Bus Wash Building	Good
Pipe Insulation		N/A
Water Shut-offs	Ball valves	Good
Water Flow and Pressure		Good
Pressure Pumps		N/A
Pump Controller		N/A

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

Comments

Water Lines
The main water supply lines inside the building are Copper. The expected useful life of Copper piping is approximately 40 years. The water supply pipes were generally in good condition. The water supply is for facility use not domestic use.

Waste Lines
The property does not contain domestic waste lines.

3.4.1.2 Domestic Hot Water Production

HOT WATER PRODUCTION		
Item	**Description**	**Condition**
Heating Equipment		N/A

HOT WATER PRODUCTION		
Item	**Description**	**Condition**
Water Storage		N/A
Circulation Pumps		N/A

Comments

The property does not contain domestic water heater equipment.

3.4.2 HVAC Systems

3.4.2.1 Equipment

EQUIPMENT		
Item	**Description**	**Condition**
Space Heater	located in the Bus Wash Building	Fair

Comments

The Bus Wash building is served by a Space heater for Bus Wash Building.

Space Heater
Space Heater is located within the Bus Wash Building. The space heater installation date and manufacturer were unknown. The expected useful life of a space heater is 15 years with proper maintenance. The space heater was observed to be in fair condition.

Photographs

Space heater located in bus wash building

3.4.2.2 Distribution System

HVAC DISTRIBUTION		
Item	**Description**	**Condition**
Plumbing Pipe System		N/A
Ducts		N/A
Return Air		N/A

Comments

The heating system does not contain plumbing or duct systems.

3.4.2.3 Control Systems

HVAC CONTROL SYSTEMS		
Item	**Description**	**Condition**
Thermostats	Manual thermostat control	Good
Compressor (Pneumatic System)		N/A
Variable Frequency Drives		N/A
Energy Management System		N/A

Comments

The thermostats are manual. The thermostats were observed to be in generally good condition.

3.4.3 Electrical Systems

3.4.3.1 Service and Metering

SERVICE AND METERING		
Item	**Description**	**Condition**
Service Entrance	North sides of bus wash	Good
Master (House) Meter	North sides of bus wash	Good
Emergency Power		N/A
Transfer Switch		N/A

Comments

Electricity is provided to the building by Dominion Virginia Power through a pole mounted transformer. The main electrical entrances are located on the north sides of the bus wash and provides 120/240-volt, single-phase, 3-wire, 200 amps service to the Bus Wash Building..

3.4.3.2 Distribution

ELECTRICAL DISTRIBUTION SYSTEM		
Item	**Description**	**Condition**
Electrical Sub-panels	Panel in bus wash building was labeled as "this panel has a wild leg"	Fair
Branch Wiring	Copper	Good
Bus Ducts		N/A
GFCI Devices		N/A
Building Transformers		N/A
Sub-Meters		N/A
COPALUM Connectors		N/A

Comments

Power is distributed by copper wire from circuit breaker panels located within the buildings. The circuit breaker panels were observed to be in generally fair condition in the bus wash building with breakers missing from the panel. We recommend replacing the circuit breaker panel.

Photographs

Electrical panel in bus wash building

Recommendations

Cost Recommendation	EUL	EFF AGE	RUL	Year	Cost
REPLACE ELECTRICAL PANEL AT BUS WASH BUILDING	40	39	1	1	$2,000
Total					$2,000

3.5 VERTICAL TRANSPORTATION SYSTEMS

Comments

The Property does not contain vertical transportation systems.

3.6 LIFE SAFETY AND FIRE PROTECTION

3.6.1 Sprinklers and Suppression Systems

SPRINKLER AND SUPPRESSION SYSTEMS		
Item	**Description**	**Condition**
Sprinkler System (wet)		N/A
Sprinkler System (dry)		N/A
Sprinkler System (chemical)		N/A
Sprinkler Heads		N/A

SPRINKLER AND SUPPRESSION SYSTEMS		
Item	**Description**	**Condition**
Date of Last Inspection (sprinkler system)		N/A
Sprinkler Pump		N/A
Sprinkler Pump Controller		N/A
Sprinkler Pipe Material		N/A
Jockey Pump		N/A
Fire Extinguishers	Located at each building	Good
Date of Last Inspection (Fire Extinguishers)	June 9, 2021	Good
Gas Pump Shut Off		N/A
Fire Standpipes		N/A
Fire Department Connections		N/A
Hose Cabinets		N/A
Fire Hydrants	Located throughout the site	Good

Comments

The fire suppression system includes Fire extinguishers. The fire suppression system was observed but not tested. The fire extinguishers 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 on the site. The fire hydrants were observed to be in good condition.

3.6.2 Alarm Systems

3.6.2.1 Comments

The property does not contain fire alarm systems.

3.7 INTERIOR BUILDING COMPONENTS

3.7.1 Tenant Spaces

UTILITY AREAS		
Item	**Description**	**Condition**
Floor Finishes	Unfinished concrete	Good
Wall Finishes	Unfinished	Good
Ceiling Finishes	Unfinished	Good
Lighting	Fluorescent fixtures	Good

Comments

The interior common building areas include utility areas and were reportedly original construction.

The finishes in the utility areas include unfinished concrete floors, and unfinished or painted CMU walls and unfinished ceilings. The finishes in the utility areas were observed to be in generally good condition.

Photographs

Interior finishes of storage building

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 property is not considered by the City of Charlottesville - Facilities Development to be within "areas of public accommodations" or a "commercial facility" and is therefore not subject to compliance with Title III of the ADA. The fire station facility does fall under Title II for employee accommodations. If an employee requires accessibility accommodations, the accommodation can be provided on a case by case basis. It was reported that there were no individual employee based at this facility that required accommodations at this time.

4.0 DOCUMENT REVIEW

4.1 DOCUMENTATION REVIEW

ECS requested relevant documentation from you, 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 Chris Woods 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 City Yard Wash Facility and Storage Building 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 City Yard Wash Facility and Storage Building building is $92,000. The replacement construction cost value obtained from the RS MEANS square foot estimator application is $1,707,551.46. Please see attached documentation from RS MEANS program output as an appendix to the report. The calculated FCI value is determined to be 0.05. In accordance with the industry standards and methodology sponsored by The National Association of College and University Business Officers (NACUBO), the condition of City Yard Wash Facility and Storage Building is rated as good.

Appendix I: SITE MAP AND AERIAL PHOTOGRAPH

N
W
E
S

Untitled Map

Untitled Map

Appendix II: ADDITIIONAL STRUCTURAL REPAIR REPORT PREPARED BY OTHERS

CITY OF CHARLOTTESVILLE
PUBLIC WORKS WASH BUILDING
STRUCTURAL CONDITION ASSESSMENT

PREPARED FOR
CITY OF CHARLOTTESVILLE

DMWPV JOB NO. 1704-58
June 9, 2017

By:

DUNBAR MILBY WILLIAMS PITTMAN & VAUGHAN, PLLC
Consulting Structural Engineers
A Professional Corporation with Offices in Richmond and Charlottesville, Virginia
110 THIRD STREET, N.E., CHARLOTTESVILLE, VIRGINIA 22902
PHONE (434) 293-5171 FAX (434) 977-5191

Introduction

As requested, Dunbar Milby Williams Pittman and Vaughan (DMWPV) recently visited the City's Public Works Wash Building to conduct a walk-through visual survey and structural condition assessment. No existing structural documentation for the original construction was available. As such, all information herein is based on field observations and limited measurements of the existing structure. No testing, destructive or nondestructive, of the existing building was performed. The purpose of this survey was to review the general structural condition of the building prior to renovation. A schematic plan with observations summarized is at the end of this report.

We understand that the original building was built in 1977. The building is a 30'x 60' pre-engineered metal building that has been in use as a vehicle wash building. The structural system consists primarily of steel frames spanning 30' spaced at 20' oc. Cold-formed steel z-purlins support the roof deck. Corrugated metal wall panels enclose the walls on both interior and exterior faces. Horizontally spanning cold-formed girts support the wall panels.

City wash building

Structural Condition Assessment -

The grade around the building is nearly flat and asphalt paving surrounds much of the building. The foundations for the building are likely the turned down edge of the interior concrete slab on grade. The slab appears to be in good condition with little evidence of settlement, cracking or other damage.

Interior concrete slab on grade

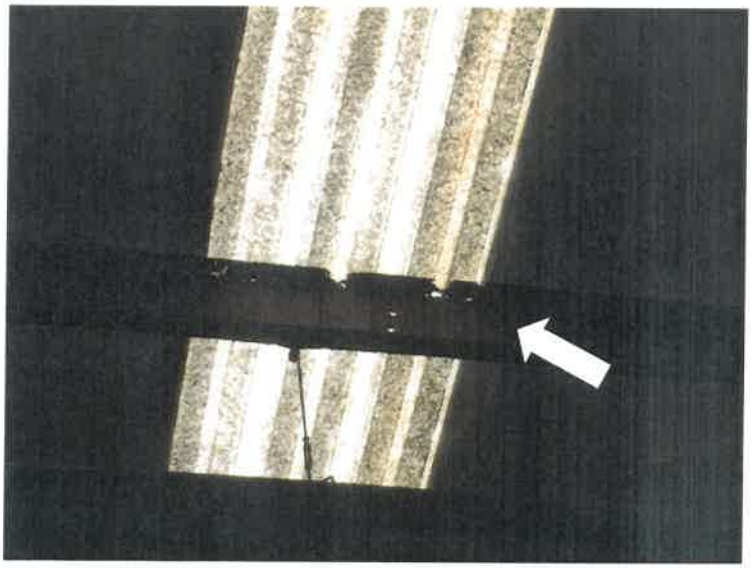
As a wash building, the interior of the building is wet and corrosion of certain building components is an issue. However, in general we found that the structural steel columns, base plates, rod bracing and elevated structural steel components have relatively minor corrosion. It appears that there is little evidence of section loss in these structural steel components. A cleaning and coating repair, particularly near the bottom of the columns, could be implemented to prolong the life of these main structural components. As noted below, corrosion of other minor component elements of the structure is an issue.

Minor surface rust on steel column and base plate

More advanced corrosion of structural steel, but little section loss.

Elevated structural steel with little corrosion.

Corrosion of the cold-formed steel z-purlins that support the roof deck is severe where they cross the skylights. These purlins should be replaced or supplemented with additional purlins. Most of the other purlin areas appear to be ok.



Severely corroded cold-formed z-purlin at skylight

Severely corroded cold-formed z-purlin at skylight

The bases of the interior corrugated metal wall panels are severely corroded. It also appears that the steel clip angles that support the bottoms of the panels are also corroded. The exterior wall panels along the east side and north entry door are similarly damaged. The horizontal girts are concealed from view, but the first girt is at 5' above floor level and we suspect they are in good condition. We recommend replacing the bottom clip angle and the bottom sections of wall panels. Alternatively, these lower sections of these wall panels could be replaced with concrete block for durability.

Severe corrosion and damage to bottom of interior wall panels and supporting clip angles.

Damaged bottom of interior wall panels, but structural steel column in relatively good condition.

Summary

To summarize, the areas of recommended structural repair include:

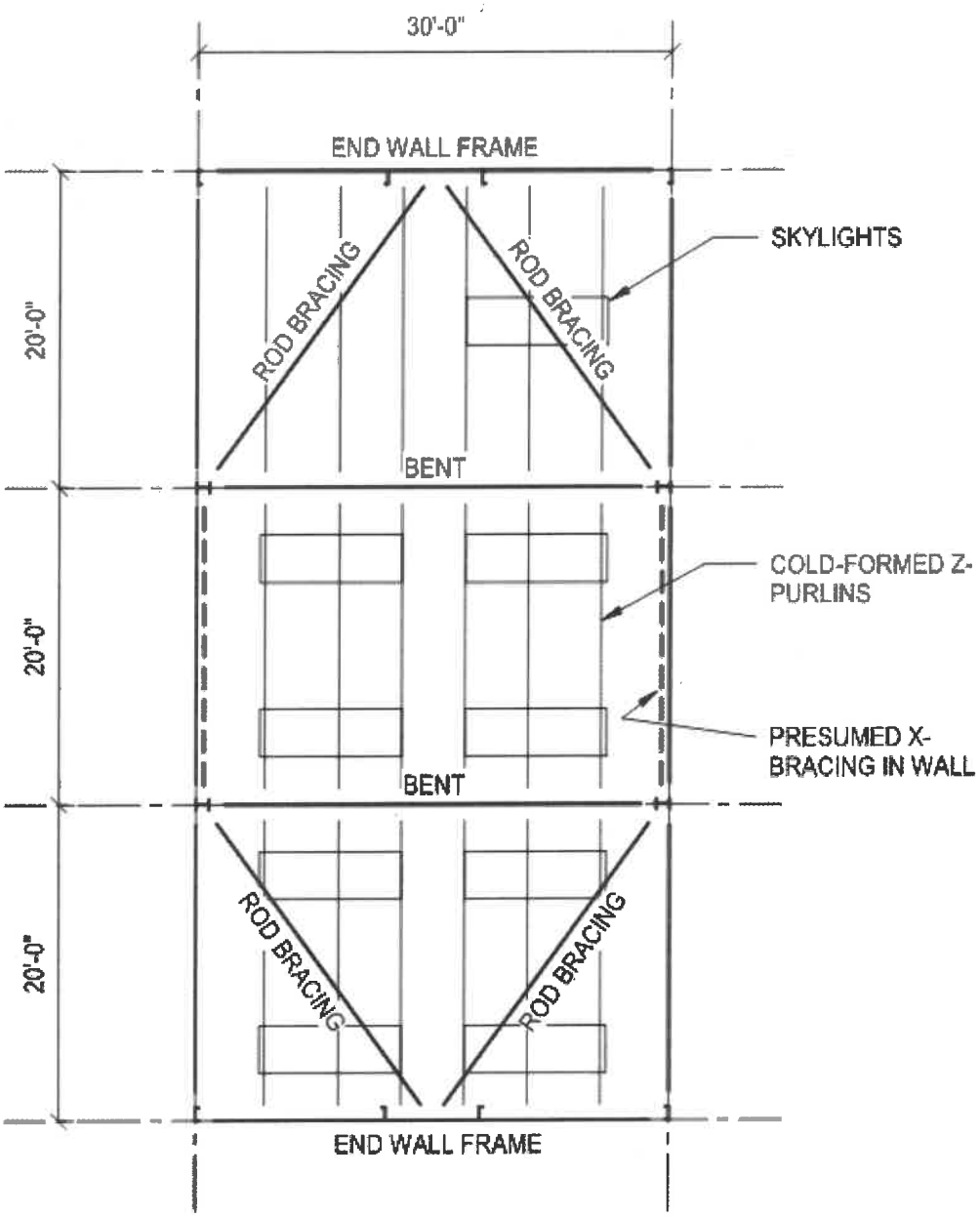
- Bottom sections of the interior corrugated wall panels.
- Bottom clip angles at interior wall panels.
- Selected sections of exterior wall panels.
- Roof purlins at skylights.
- Maintenance of structural steel column bases.

In general, we found that the overall structural condition of the building's major structural components is good. However, corrosion and damage to several of the minor components is a concern. Also, if not addressed, corrosion of the major elements could become an issue. We recommend repair, replacement or construction of alternative more durable elements to address these areas of damage. If the building will continue to be used as a wash building with on-going wet conditions, then corrosion of steel components will be an ongoing maintenance issue.

The observations and recommendations noted in this report are limited by the available access to the structure during a walk-through survey. Please contact us if you have any questions about this report, or if we can assist further.

Very truly yours,

Stephen D. Barber, PE



CITY YARD
WASH BUILDING FRAMING

Appendix III: FIRE EXTINGUISHER INSPECTION

Inspection Certificate

For

City of Charlottesville - City Yard
Wash Facility
309 4th Street North West
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 9, 2021

Building: City of Charlottesville - City Yard Wash Facility
Contact: Jason Davis
Title: Maintenance Tech

Company: Fire Solutions
Contact: Tommy VO
Title: Technician

Executive Summary

Generated by: BuildingReports.com

Building Information

Building: City of Charlottesville - City Yard Wash Facility
Address: 309 4th Street North West
Address:
City/State/Zip: Charlottesville, VA 22903
Country: United States of America

Contact: Jason Davis
Phone: 434-964-6771
Fax:
Mobile:
Email: davisja@charlottesville.org

Inspection Performed By

Company: Fire Solutions
Address: 205 Haley Road
Address:
City/State/Zip: Ashland, Virginia 23005
Country: United States

Inspector: Tommy VO
Phone: 804-385-3301
Fax:
Mobile: 804-385-3301
Email: tommyv@firesolutionsinc.com

Inspection Summary

Category:	Total Items		Serviced		Passed		Failed/Other	
	Qty	%	Qty	%	Qty	%	Qty	%
Fire	1	100.00%	1	100.00%	1	100.00%	0	0%
Totals	**1**	**100%**	**1**	**100.00%**	**1**	**100.00%**	**0**	**0%**

Verification

Company: Fire Solutions
Inspector: Tommy VO

Building: City of Charlottesville - City Yard Wash Facility
Contact: Jason Davis

Fire Solutions Certifications

Certification Type	Number
WBENC Certified	2005121836

Inspection & Testing

Generated by: BuildingReports.com

Building: City of Charlottesville - City Yard Wash Facility

The Inspection & 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 & date at which testing occurred.

Device Type	Location	ScanID : S/N	Service	Date Time
Passed				
Fire				
Fire Extinguisher, 10 Lbs, A.B.C.	1st wash bay wall by door 109.01	49753184 ZW907142	Inspected	06/09/21 2:13:38 PM

Service Summary

Generated by: BuildingReports.com

Building: City of Charlottesville - City Yard Wash Facility

The Service Summary section provides an overview of the services performed in this report.

Device Type	Service	Quantity
Passed		
Fire Extinguisher, 10 Lbs, A.B.C.	Inspected	1
Total		**1**
Grand Total		**1**

Inventory & Warranty Report

Generated by: BuildingReports.com

Building: City of Charlottesville - City Yard Wash Facility

The Inventory & 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.

Device or Type	Category	% of Inventory	Quantity
Fire Extinguisher	Fire	100.00%	1

Type	Qty	Model #	Description	Manufacture Date
In Service - 10 Years to 15 Years				
Amerex				
Fire Extinguisher	1	AB456-08	A.B.C.	08/28/2008

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

Square Foot Cost Estimate Report

Date: **10/22/2021**

Estimate Name	**Facilities Bus Wash-Gas-Storage**
	City of Charlottesville 309 4th Street NW Virginia Charlottesville 22902
Building Type	Car Wash with Metal Panel / Rigid Steel
Location	CHARLOTTESVILLE, VA
	1.00
Stories Height	18.00
Floor Area (S.F.)	6,500.00
LaborType	OPN
Basement Included	No
Data Release	Year 2021
Cost Per Square Foot	$262.70
Total Building Cost	**$1,707,551.46**

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

** **Area, Perimeter entered is outside the range recommended by RSMeans.**

Assembly Customization Type :

- ⊕ Added
- ◐ Partially Swapped
- ● Fully Swapped

		Quantity	% of Total	Cost Per SF	Cost
A Substructure			**7.0%**	**$13.68**	**$88,898.01**
A1010	**Standard Foundations**			**$6.27**	**$40,744.45**
	Foundation wall, CIP, 4' wall height, direct chute, .099 CY/LF, 4.8 PLF, 8" thick	482.00		$4.28	**$27,790.19**
	Strip footing, concrete, unreinforced, load 2.6 KLF, soil bearing capacity 3 KSF, 8" deep x 16" wide	482.00		$1.20	**$7,800.74**
	Spread footings, 3000 PSI concrete, load 50K, soil bearing capacity 6 KSF, 3' - 0" square x 12" deep	32.50		$0.79	**$5,153.53**
A1030	**Slab on Grade**			**$6.68**	**$43,439.89**
	Slab on grade, 5" thick, light industrial, reinforced	6,500.00		$6.68	**$43,439.89**

		Quantity	% of Total	Cost Per SF	Cost
A2010	**Basement Excavation**			**$0.73**	**$4,713.67**
	Excavate and fill, 1000 SF 4' deep sand, gravel, or common earth, on site storage	6,500.00		$0.73	**$4,713.67**
B Shell			**27.2%**	**$53.49**	**$347,670.18**
B1020	**Roof Construction**			**$9.38**	**$60,973.32**
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 15'x20' bay, 18" deep, 40 PSF superimposed load, 60 PSF total load	6,500.00		$6.72	**$43,705.35**
	Roof, steel joists, beams, 1.5" 22 ga metal deck, on columns, 15'x20' bay, 18" deep, 40 PSF superimposed load, 60 PSF total load, add for column	6,500.00		$2.66	**$17,267.97**
B2010	**Exterior Walls**			**$8.45**	**$54,934.10**
	Metal siding, steel, corrugated or ribbed, 26 ga, .0179" thick, galvanized	6,073.20		$4.22	**$27,460.76**
	Metal siding support, 18' building height, 20 PSF wind load, 20' column spacing	6,073.20		$4.23	**$27,473.33**
B2020	**Exterior Windows**			**$7.25**	**$47,139.12**
	Windows, steel, horizontal pivoted, insulated glass, 3' x 3'	48.20		$7.25	**$47,139.12**
B2030	**Exterior Doors**			**$22.17**	**$144,108.33**
	Door, steel 18 gauge, hollow metal, 1 door with frame, no label, 3'-6" x 7'-0" opening	16.25		$7.45	**$48,393.64**
	Door, aluminum & fiberglass, overhead, heavy duty, electric operator, 12'-0" x 12'-0" opening	16.25		$14.73	**$95,714.69**
B3010	**Roof Coverings**			**$6.23**	**$40,515.32**
	Roofing, asphalt flood coat, gravel, base sheet, 3 plies 15# asphalt felt, mopped	6,500.00		$2.64	**$17,180.28**
	Insulation, rigid, roof deck, composite with 2" EPS, 1" perlite	6,500.00		$1.72	**$11,208.02**
	Roof edges, aluminum, duranodic, .050" thick, 6" face	482.00		$1.87	**$12,127.02**
C Interiors			**3.1%**	**$5.99**	**$38,962.90**
C1010	**Partitions**			**$3.39**	**$22,046.70**
	Concrete block (CMU) partition, regular weight, hollow, 8" thick, no finish	3,250.00		$3.39	**$22,046.70**
C1020	**Interior Doors**			**$1.81**	**$11,741.55**
	Door, single leaf, kd steel frame, hollow metal, commercial quality, flush, 3'-0" x 7'-0" x 1-3/8"	10.83		$1.81	**$11,741.55**
C3010	**Wall Finishes**			**$0.80**	**$5,174.65**
	Painting, miscellaneous metal brushwork, exposed metal, primer & 1 coat	6,500.00		$0.80	**$5,174.65**

		Quantity	% of Total	Cost Per SF	Cost
D Services			**62.8%**	**$123.25**	**$801,142.90**
D2010	**Plumbing Fixtures**			**$16.70**	**$108,547.05**
	Water closet, vitreous china, tank type, 2 piece close coupled	27.63		$5.14	**$33,428.46**
	Lavatory w/trim, wall hung, PE on CI, 18" x 15"	27.63		$7.14	**$46,437.63**
	Water cooler, electric, wall hung, wheelchair type, 7.5 GPH	13.81		$4.41	**$28,680.97**
D2020	**Domestic Water Distribution**			**$40.85**	**$265,506.64**
	Gas fired water heater, commercial, 100< F rise, 300 MBH input, 278 GPH	13.81		$40.85	**$265,506.64**
D2040	**Rain Water Drainage**			**$4.24**	**$27,556.94**
	Roof drain, CI, soil,single hub, 3" diam, 10' high	13.81		$3.53	**$22,940.84**
	Roof drain, CI, soil,single hub, 3" diam, for each additional foot add	130.00		$0.71	**$4,616.11**
D3050	**Terminal & Package Units**			**$8.18**	**$53,199.51**
	Rooftop, single zone, air conditioner, offices, 1,000 SF, 3.17 ton	6,500.00		$8.18	**$53,199.51**
D5010	**Electrical Service/Distribution**			**$22.01**	**$143,056.88**
	Overhead service installation, includes breakers, metering, 20' conduit & wire, 3 phase, 4 wire, 120/208 V, 400 A	8.13		$5.88	**$38,203.75**
	Feeder installation 600 V, including RGS conduit and XHHW wire, 200 A	406.25		$2.12	**$13,806.41**
	Switchgear installation, incl switchboard, panels & circuit breaker, 120/208 V, 3 phase, 400 A	8.13		$14.01	**$91,046.72**
D5020	**Lighting and Branch Wiring**			**$29.72**	**$193,164.81**
	Receptacles incl plate, box, conduit, wire, 16.5 per 1000 SF, 2.0 watts per SF	6,500.00		$2.69	**$17,505.15**
	Motor installation, three phase, 200 V, 1-1/2 HP motor size	81.25		$15.62	**$101,562.50**
	Motor installation, three phase, 200 V,30 HP motor size	8.13		$5.14	**$33,436.41**
	Fluorescent fixtures recess mounted in ceiling, 2.4 watt per SF, 60 FC, 15 fixtures @ 32 watt per 1000 SF	6,500.00		$6.26	**$40,660.75**
D5090	**Other Electrical Systems**			**$1.56**	**$10,111.08**
	Generator sets, w/battery, charger, muffler and transfer switch, gas/gasoline operated, 3 phase, 4 wire, 277/480 V, 7.5 kW	8.13		$1.56	**$10,111.08**
E Equipment & Furnishin			**0.0%**	**$0.00**	**$0.00**
E1090	**Other Equipment**			**$0.00**	**$0.00**
F Special Construction			**0.0%**	**$0.00**	**$0.00**
G Building Sitework			**0.0%**	**$0.00**	**$0.00**

	Quantity	% of Total	Cost Per SF	Cost
Sub Total		**100%**	**$196.41**	**$1,276,673.99**
Contractor's Overhead & Profit		**25.0 %**	**$49.10**	**$319,168.50**
Architectural Fees		**7.0 %**	**$17.19**	**$111,708.97**
User Fees		**0.0 %**	**$0.00**	**$0.00**
Total Building Cost			**$262.70**	**$1,707,551.46**

Appendix V: SITE PHOTOGRAPHS

1 - Storage Building

2 - Asphalt pavement and parking - note cracking

3 - Asphalt pavement - note cracking

4 - Asphalt pavement - note cracking

5 - Asphalt pavement - note cracking

6 - Typical drainage in bus wash building

7 - Concrete pavement - note cracking

8 - Building exterior bus wash building

9 - Exterior doors at bus wash building

10 - Typical overhead door in bus wash building

11 - Typical chain link fence

12 - Structure framing

13 - Structure framing - Storage

14 - Structure framing - Storage

15 - Roofing system of storage building

16 - Roofing system of storage building

17 - Roofing system of storage building - note deterioration

18 - Roofing system of bus wash building - note deterioration

19 - Space heater located in bus wash building

20 - Electrical panel in bus wash building

21 - Bus Wash Damage 1

22 - Bus Wash Damage 2

Appendix VI: RESUMES

Michael G. Doyle, AIA

Principal Architect – Facilities Department

Education

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

Registrations

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

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

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

Relevant Project Experience

Darien Lake, Darien Center, NY – Mr. Doyle was the Principal Architect for the property assessment of the Darien Lake amusement park. The property included over 200 buildings including buildings within the park, maintenance and administration buildings, hotel, campground buildings, and sewer treatment center.

Ballston Park Apartments, Arlington, VA (2014) - originally developed in 1938, this complex includes 50 two-story apartment buildings, one three-story apartment building, one single-family residence, and a single-story office/clubhouse. A PCA and a Phase I Environmental Site Assessment was conducted and documented.

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

WHMO Facilities Assessment, Washington, DC (2015) - This is a privately owned, government-leased facility with a sensitive mission. The structure is believed to be a 1920s vintage building designed as a multi-story car dealership. The government has occupied this space continuously since 1963. Mr. Doyle conducted a survey of the complete facility, identified and documented areas of concerns. He also provide a recommendation for remediation for each area of concern, a Rough Order Magnitude (ROM) cost for remediation, and categorized each area of concern as critical, non-critical or aesthetic.

Additional Project Experience

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

DONALD GOGLIO

CODE COMPLIANCE PROJECT MANAGER

CERTIFICATIONS

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

SKILLS

Code Compliance
Construction Administration
Special Inspection Services
Condition Assessments
Forensic Consultation

PROFESSIONAL MEMBERHSHIPS

American Wood Council
USGBC

EDUCATION

Montgomery College, 1991
Silver Spring, MD

YEARS OF EXPERIENCE

ECS: <1 Other: 38

PROFESSIONAL PROFILE

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

PROJECT EXPERIENCE

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

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

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

DONALD GOGLIO

CODE COMPLIANCE PROJECT MANAGER

CERTIFICATIONS

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

SKILLS

Code Compliance
Construction Administration
Special Inspection Services
Condition Assessments
Forensic Consultation

PROFESSIONAL MEMBERHSHIPS

American Wood Council
USGBC

EDUCATION

Montgomery College, 1991
Silver Spring, MD

YEARS OF EXPERIENCE

ECS: <1 Other: 38

PROFESSIONAL PROFILE

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

PROJECT EXPERIENCE

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

William R. Pratt, PE

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

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
- 4th Street Reconstruction, Washington, DC
- Sibley Memorial Hospital Addition, Cancer Center, Washington, DC
- Washington Headquarters Services, Arlington, VA
- Walmart #5968-00, Washington, DC
- Progression Place, 7th Street, NW, Washington, DC
- National Gallery of Art, Washington, DC
- City Market @ O, Washington, DC