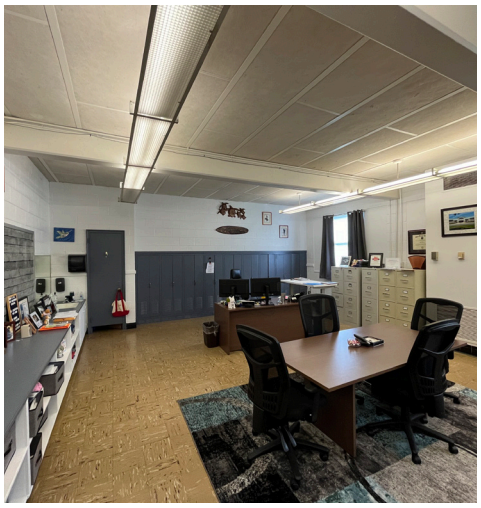


SCHOOL BOARD OFFICE

16261 Richmond Turnpike, Bowling Green, Virginia 22427

Facility Condition Assessment

Caroline County Public Schools

April 4, 2024

RRMM ARCHITECTS

TABLE OF CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION ONE

Overview

Caroline County Public Schools

OVERVIEW

Purpose

RRMM Architects is pleased to present this Facility Condition Assessment to Caroline County Public Schools. The overall purpose of this assessment is to document the present condition of the School Board Office to assist Caroline County Public Schools ("CCPS") in forecasting funding requirements to address deficiencies, upgrades, renovations and/or replacement. RRMM Architects was asked to produce an assessment for the School Board Office in order to provide CCPS a summary of current school and site deficiencies with a method to forecast future costs pertaining to potential upgrades, replacement, renovations and/or building additions.

Methodology

RRMM Architects assembled a highly-experienced team of design professionals that have experience working together on many projects over many years for this assessment. Our team includes:

RRMM Architects, Prime Consultant and Team Leader, Richmond, VA;

VHB, Inc., Civil Engineers, Richmond, VA;

Speight, Marshall & Francis, Structural Engineers, Richmond, VA;

Thompson Consulting Engineers, Mechanical, Electrical, and Plumbing Engineers, Glen Allen, VA;

Foodservice Consultants Studio, Foodservice Consultants, Richmond, VA.

This study is built around the following primary components:

1. Assessment of the condition of all building systems and site features.
2. Assessment of each facility in comparison to modern standards for safety, security, energy conservation, accessibility and code compliance.

Limits of this Study

This assessment is focused on a physical inspection of the existing building (interior and exterior) and site conditions to include the areas or building systems noted below;

- Exterior Site Conditions
- Exterior Building Envelope
- Interior Finishes
- ADA Accessibility Compliance
- Building Code and Safety/Security (OSHA) Concerns
- Roofing System
- Mechanical Systems
- Electrical Systems
- Plumbing Systems
- Structural Assessment

- Fire Protection System Assessment
- Food Service (Kitchen) Assessment
- Hazardous Materials Assessment

Physical inspections were limited to analyzing the condition of building systems, components and/or elements that were visible. Destructive investigation was not a part of this assessment.

Basis for Recommendations / How to use this Study

It is important to note that our evaluations and recommendations offered herein involve professional judgment, practical experience, and generally-accepted design industry practices. However, the consideration of renovating or maintaining buildings can be a complex and tedious undertaking. The various systems within a building are inter-connected; therefore, a decision or recommendation on one system can easily have a "ripple" effect on other systems. We also want to emphasize that our recommendations are not complete without active and thorough discussions with you as our client, to make sure we carefully consider the values and priorities of Caroline County Public Schools.

Assessment Format

Following this Overview are individual sections that focus on the condition of the School Board Office. Each section is divided into the following areas:

Introduction

The introduction (and executive summary) includes a brief description of the facility, its age and a brief summary of the primary concerns at the facility.

Civil Assessment (Site and Outdoor Facilities)

An overview of the existing site and outdoor facilities conditions.

Architectural Assessment

This assessment reviews the physical condition of the exterior and interior of each school structure and evaluates the condition of building systems, materials and finishes.

ADA (Americans with Disabilities Act) Compliance

As part of this assessment, we conducted a limited visual observation for ADA compliance. It should be noted that the limited observations described herein do not comprise a full ADA Compliance Survey, but only a general comparison of the existing facility to the requirements of the 2010 ADA Standards for Accessible Design requirements for altered and new construction.

Building Code and Safety/Security (OSHA) Concerns

This assessment evaluates those items that are most deficient in comparison to modern building standards, that are considered reasonably achievable, and that have the most detrimental impact on health, safety or accessibility if not remedied. Building Code "compliance" is a subjective consideration since most existing facilities are "grandfathered" due to their compliance at the time of their original construction.

This assessment also evaluates building conditions that create and/or potentially create safety/security concerns relative to OSHA regulations and standards.

Roof Systems Assessment

This assessment investigates the roof assemblies and their condition. This includes materials, performance, active leaks (if any) and remaining life.

Mechanical Systems Assessment

This assessment evaluates the types of heating, ventilating and cooling systems that are operating within the school. The study evaluates these components based on age and condition and describes shortcomings and/or recommendations compared to the current building code requirements.

Electrical Systems Assessment

This assessment evaluates the electrical service to the building and power distribution throughout, the interior and exterior lighting needs, energy conservation and the emergency power and fire alarm systems. This study also includes intercom and clock systems, surveillance systems and provides information on compliance with fire alarm code requirements.

Plumbing Systems Assessment

The plumbing evaluation focuses on the domestic water service and plumbing components distributed throughout the facility. This evaluation also includes domestic hot water equipment and sanitary systems.

Structural Assessment

This assessment provides a visual structural survey of the existing building structure based on the structural components and as-built drawings provided by CCPS.

Fire Protection System Assessment

An overview of the existing fire protection (fire alarm and sprinkler) system conditions.

Food Service (Kitchen) Assessment

This assessment evaluates the age and condition of the kitchen equipment and kitchen/equipment finishes relative to code compliance.

Hazardous Materials Assessment

A hazardous materials assessment was not completed as a part of this study. A copy of a previously completed Hazardous Materials Assessment or AHERA Report was not provided to the design/evaluation team for review.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION TWO

Executive Summary

Caroline County Public Schools

EXECUTIVE SUMMARY

Snapshot Overview

The overall objective of this assessment is to document the present condition of the School Board Office to assist Caroline County Public Schools (CCPS) in forecasting funding requirements to address deficiencies, upgrades, renovations and/or replacement. A physical review and analysis of the existing site and building conditions was performed with the overall condition snapshot of significant building systems, equipment and/or issues identified in the table below.

Summary

As summarized in the table below, the Facility Condition Assessment completed for the School Board Office indicates the school is overall in **poor to fair condition** and identified several exterior and interior concerns along with ADA and code compliance issues that should be considered in further detail for performance by the school system.

	OVERALL CONDITION				
ASSESSED AREA	**Very Poor**	**Poor**	**Fair**	**Good**	**Excellent**
Civil Assessment			N/A		
Architectural Assessment (Exterior)			✖		
Architectural Assessment (Interior)			✖		
ADA Compliance			✖		
Code Compliance (and Safety/Security)			✖		
Roof Systems Assessment		✖			
Mechanical Systems Assessment			✖		
Electrical Systems Assessment			✖		
Plumbing Systems Assessment			✖		
Structural Assessment			✖		
Fire Protection System Assessment				✖	
Food Service (Kitchen) Assessment			✖		
Hazardous Materials Assessment			N/A		
TOTALS	**0**	**7**	**4**	**0**	**0**

An " ✖ " positioned on the line between two overall condition ratings (i.e. poor and fair) indicates the overall assessed area condition is between ratings. Typically, this reveals an equal split in the ranking of several systems or components within an assessed area. In this case, the overall condition is always accounted for in the lesser of the two overall condition totals at the bottom of the matrix.

Overall Condition Rankings

The overall purpose of this section is to provide greater clarity as to the rating categories (i.e. Excellent, Good, Fair, Poor and Very Poor) used above to categorize building assets or systems for Caroline County Public Schools. Each rating category identifies the level of maintenance, deficiency, upgrade, renovation and/or replacement required per building asset or system. The below rating categories were used by the assessor to represent the general condition of each building asset or system.

CONDITION RANKINGS		
5	EXCELLENT	**New or Like-New Condition** (no issues to report; normal scheduled maintenance required)
4	GOOD	**Good Condition** (no reported issues/concerns; minimal minor repairs needed)
3	FAIR	**Average Wear for Building Age** (some functional challenges; minor/major repairs needed)
2	POOR	**Worn from Use** (functional challenges; major repairs needed; close to end of life cycle)
1	VERY POOR	**Extremely Worn or Damaged** (immediate replacement required; system unsafe)
N/A	N/A	**Not Applicable**

Excellent

System is in "like new" condition and operating as designed.

- No defects
- As new condition and appearance

Works that:

- can be reasonably deferred beyond 10 years and reassessed at a future date.

Good

System is operating as designed with minor maintenance and/or remedial work recommended. Newer system and well maintained and/or little or no observed items of concern requiring attention in the near future.

- Minor defects
- Superficial wear and tear
- Some deterioration to finishes
- Major maintenance not required

Works that:

- have minimal effect on the operational functionality of the system
- are likely to need attention if not properly maintained in 6-10 years.

Fair

System is aging with noteworthy corrective action required. Older item and/or some observed items of concern requiring attention, repair or replacement in the near future.

- Average condition
- Defects are evident
- Worn finishes require maintenance
- Services are functional but need attention
- Significant deferred maintenance work exists

Works that:

- affect the operational functionality of the system
- are likely to lead to serious deterioration and higher future repair costs if not addressed between 3-6 years.

Poor

System replacement and/or major corrective action is required. Projects requiring immediate action to provide safety and protection to people and/or protection against costly damage. Numerous items of concern observed and/or general overall deterioration of the system requiring attention, repair or replacement in the near future.

- Significant defects are evident
- Functional challenges exist
- Potential structural problems
- Inferior appearance
- Major repairs are needed
- Components fail frequently

Works needed to:

- Meet maintenance and/or code related statutory obligation and due diligence requirements
- Prevent serious disruption of building activities and/or may incur higher costs if not addressed within 1-3 years.

Very Poor

Immediate system replacement is required. Projects requiring immediate action to provide safety and protection to people and/or protection against costly damage. Significant overall deterioration of the system requiring attention, repair or replacement immediately.

- Badly deteriorated
- Structural problems
- Inferior appearance
- Major defects are evident
- Components fail frequently
- Not operational or viable

Works needed to:

- Meet maintenance and/or code related statutory obligation and due diligence requirements
- Ensure the health and safety of building occupants and users
- Prevent serious disruption of building activities and/or may incur higher costs if not addressed within 0-1 year.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION THREE

Assessments

Caroline County Public Schools

CONDITION ASSESSMENT

Introduction

The School Board Office, originally built as an elementary school, was constructed in 1959 (approximately 65 years old) and comprises approximately 36,235 square feet while situated on an approximately 24.0 acre site shared with the School Board Office and athletic (baseball) stadium complex.

Below is a breakdown of operational functions currently housed within the building structure:

Original Building (1959)

The original 1959 school structure totaling approximately 36,235 square feet (shown below in blue) houses major functions to include an administration office suite, twenty (20) classroom spaces, a cafetorium (w/ stage), kitchen and various support spaces (i.e. offices, workrooms, restrooms, storage and mechanical/electrical).

Original Building (Blue) 1959

Civil Assessment

A civil (site) assessment was not completed as a part of this Facility Condition Assessment. Based on the age and projected future use of the School Board Office, the school division indicated the completion of a civil (site) assessment was not required.

THIS PAGE INTENTIONALLY LEFT BLANK

Architectural Assessment

Exterior

The building is generally in poor to fair condition.

The exterior brick and block masonry walls are in fair condition with significant deterioration to the exterior façade elements including mortar deterioration at window sills, damaged/cracking concrete sills, general exterior caulking failure, exposed/rusted lintels and frames, exterior dirt/algae growth, building envelope openings and damaged loading dock elements. The steel lintels at several masonry openings are exposed with extensive rust and should be sanded and painted to prevent further expansion and cracking of brick masonry. The exterior brick and block masonry has some staining and dirt build-up due primarily to roof water runoff over the years. These extensive envelope deficiencies allow significant water penetration which can cause further deterioration of building materials and unhealthy indoor conditions.

PHOTO AE.01
MORTAR DETERIORATION @ WINDOW SILLS

Condition: Poor
Quantity: Approx. 140 LF

PHOTO AE.02
DAMAGED CONCRETE SILLS

Condition: Poor
Quantity: Approx. 50 LF

PHOTO AE.03
EXTERIOR CAULKING FAILURE
(SIDEWALK TO BUILDING)

Condition: Poor
Quantity: Approx. 240 LF

PHOTO AE.04
EXTERIOR CAULKING FAILURE (LOUVERS)

Condition: Poor
Quantity: Approx. 300 LF

PHOTO AE.05
EXTERIOR CAULKING MISSING (DOOR FRAMES)

Condition: Poor
Quantity: Approx. 210 LF

PHOTO AE.06
EXPOSED/RUSTED STEEL LINTELS

Condition: Poor
Quantity: See Structural

PHOTO AE.07
EXTERIOR CANOPY/SOFFIT FRAME RUSTED

Condition: Fair
Quantity: See Structural

PHOTO AE.08
EXTERIOR DIRT / ALGAE GROWTH

Condition: Fair
Quantity: Approx. 36,235 SF

PHOTO AE.09
BUILDING ENVELOPE OPENINGS AT PREVIOUS PENETRATIONS

Condition: Poor
Quantity: (2) Locations

PHOTO AE.10
DAMAGED MASONRY FACADE

Condition: Poor
Quantity: Approx. 185 SF

PHOTO AE.11
DAMAGED/MISSING METAL SOFFIT PANELING

Condition: Poor
Quantity: (2) Locations

PHOTO AE.11
WINDOW CAULKING

Condition: Fair
Quantity: Approx. 1,178 LF

THIS PAGE INTENTIALLY LEFT BLANK

Interior

Overall, the building's interior appears to be in poor to fair condition. Main corridors have flooring materials consisting of terrazzo in fair condition. General classroom spaces have flooring materials consisting of vinyl composition tile (VCT) in poor to fair condition. Typical ceilings throughout the school are acoustical ceiling tile (ACT) in the corridors with gypsum panel ceilings in the classrooms. Acoustical ceilings are showing signs of their age and beginning to sag in numerous areas. General classroom casework is in poor condition. Typical corridor walls are painted CMU with ceramic tile wainscoting. Numerous areas of the ceramic tile wainscot are cracked, damaged, and/or delaminated and in need of replacement or repair. Painted wall finishes throughout are typically in fair condition with isolated areas in need of maintenance. Exterior windows show signs of water infiltration and need interior caulking.

Group toilets and single toilets have ceramic floor tile which appears to generally be in fair condition with limited areas in need of repair. The walls are ceramic tile in the group toilets and appear to be in fair condition. The ceilings are either exposed structure roof deck or gypsum panel ceilings in fair condition. Sinks and toilet compartments are in fair to good condition.

The floors of the administrative areas are vinyl composition tile (VCT) that are in fair condition. The walls are painted concrete masonry unit (CMU) and are in fair condition. The ceilings are gypsum panel ceilings and are in fair condition.

The kitchen and serving areas have flooring materials consisting of terrazzo flooring with ceramic tile kitchen walls and tile base and are in fair condition. The ceilings are a non-porous acoustical ceiling tile (ACT) and is in fair condition (see Food Service (Kitchen) Assessment).

PHOTO AI.01
TYPICAL CORRIDOR FLOORING (TERRAZZO)

Condition: Fair
Quanitity: Approx. 10,900 SF

PHOTO AI.02
TYPICAL CLASSROOM FLOORING (VCT)

Condition: Fair
Quanitity: Approx. 20,240 SF

PHOTO AI.03
TYPICAL ACOUSTICAL TILE CEILINGS (ACT) @ CORRIDOR

Condition: Fair
Quanitity: Approx. 10,900 SF

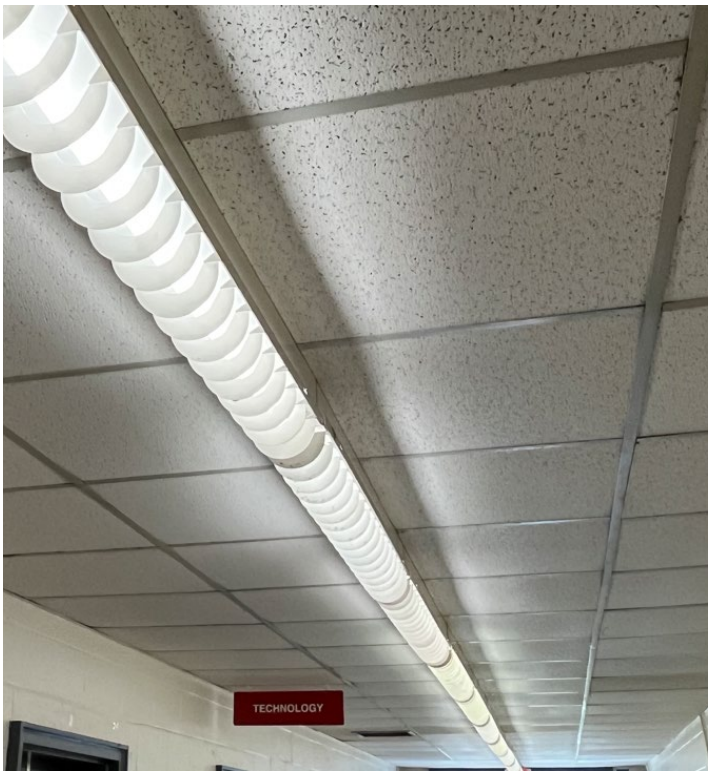


PHOTO AI.04
TYPICAL GYPSUM PANEL CEILINGS @ CLASSROOMS

Condition: Fair
Quanitity: Approx. 19,460 SF

PHOTO AI.05A
TYPICAL CLASSROOM CASEWORK

Condition: Poor / Fair
Quanitity: (20) Classrooms

PHOTO AI.05B
TYPICAL CLASSROOM CASEWORK

Condition: Poor / Fair
Quanitity: (20) Classrooms

PHOTO AI.06
RUSTING (PEELING) INTERIOR LOUVERS

Condition: Very Poor
Quanitity: (108) Locations

PHOTO AI.07A
DAMAGED WALL TILE

Condition: Poor
Quanitity: Approx. 1,560 SF

PHOTO AI.07B
DAMAGED WALL TILE

Condition: Poor
Quanitity: Approx. 1,560 SF

PHOTO AI.08
WATER INFILTRATION @ WINDOWS

Condition: Poor / Fair
Quanitity: Approx. 270 LF

PHOTO AI.09
WATER INFILTRATION @ EXTERIOR WALLS

Condition: Poor / Fair
Quanitity: Approx. 350 SF

PHOTO AI.10
DAMAGED WINDOW PANES

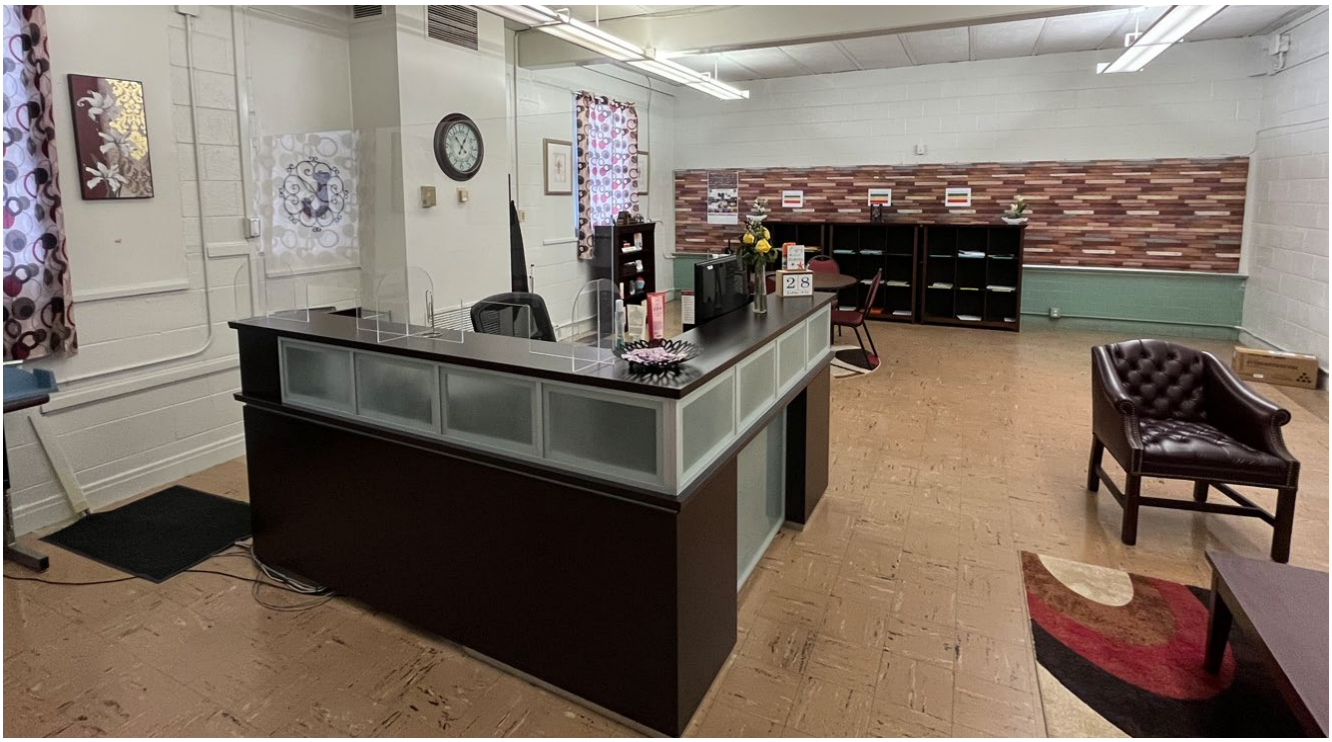
Condition: Fair
Quanitity: (1) Location

PHOTO AI.11A
INTERIOR DOOR FRAMES

Condition: Fair
Quanitity: Approx. 105 Door Frames

PHOTO AI.11B
INTERIOR DOORS

Condition: Fair
Quanitity: Approx. 105 Door Frames



PHOTOS AI.12 & AI.13
ADMINISTRATION & OFFICE SPACES

PHOTOS AI.14 & AI.15
CAFETERIA & STAGE

PHOTOS AI.16 & AI.17
KITCHEN & SERVING LINES

PHOTOS AI.18 & AI.19
GROUP RESTROOMS

PHOTO AI.20
MEETING SPACE

THIS PAGE INTENTIONALLY LEFT BLANK

ADA (Americans with Disabilities Act) Compliance

A limited ADA Compliance Assessment of the School Board Office (built in 1959) was conducted as part of the Facility Condition Assessment. The following requirements to provide additional accessible accommodations for students, staff and visitors were noted:

1. Replace existing doorknobs with code compliant hardware.
2. Provide adequate/proper maneuvering clearances on pull and push sides of manual swinging doors.
3. Install compliant wall mounted drinking fountains.
4. Provide clear floor space at countertop sinks with knee and toe clearance.
5. Upgrade individual and group restrooms to meet accessibility standards.
6. Install accessible direction and room signage throughout the building.
7. Install compliant wall mounted devices (i.e. AED's, pencil dispensers, etc.).
8. Install compliant panic exit door hardware.
9. Provide compliant handrails with compliant extensions at interior stairs and exterior stair/ramp.

PHOTO AA.01
DOOR HARDWARE - OPERABLE PARTS
(ADAAG 309.4)

Condition: Fair
Quantity: (20) Locations

PHOTO AA.02
MANUEVERING CLEARANCES -CLASSROOMS (ADAAG 404.2.4.1)

Condition: Fair
Quantity: Approx. (20) Locations

PHOTO AA.03
DRINKING FOUNTAINS - PROTRUSION LIMITS (ADAAG 307.2)

Condition: Fair
Quantity: (2) Locations

PHOTO AA.04
CASEWORK SINKS - CLEAR FLOOR SPACE
(ADAAG 606.2)

Condition: Poor / Fair
Quantity: Approx. (20) Locations

PHOTO AA.05
INDIVIDUAL TOILET ROOM(S) - DOOR CLEAR WIDTH AND GRAB BARS
(ADAAG 404.2, 604.5, & 609)

Condition: Fair
Quantity: Approx. 600 SF

PHOTO AA.06
GROUP TOILET ROOM(S) - DOOR CLEAR WIDTH AND GRAB BARS (ADAAG 404.2, 604.5, & 609)

Condition: Fair
Quantity: Approx. 555 SF

PHOTO AA.07A
BUILDING SIGNAGE - LOCATION & HEIGHT (ADAAG 216 & 703)

Condition: Poor
Quantity: Approx. 105 Signs

PHOTO AA.07B
BUILDING SIGNAGE - LOCATION & HEIGHT
(ADAAG 216 & 703)

Condition: Poor
Quantity: Approx. 105 Signs

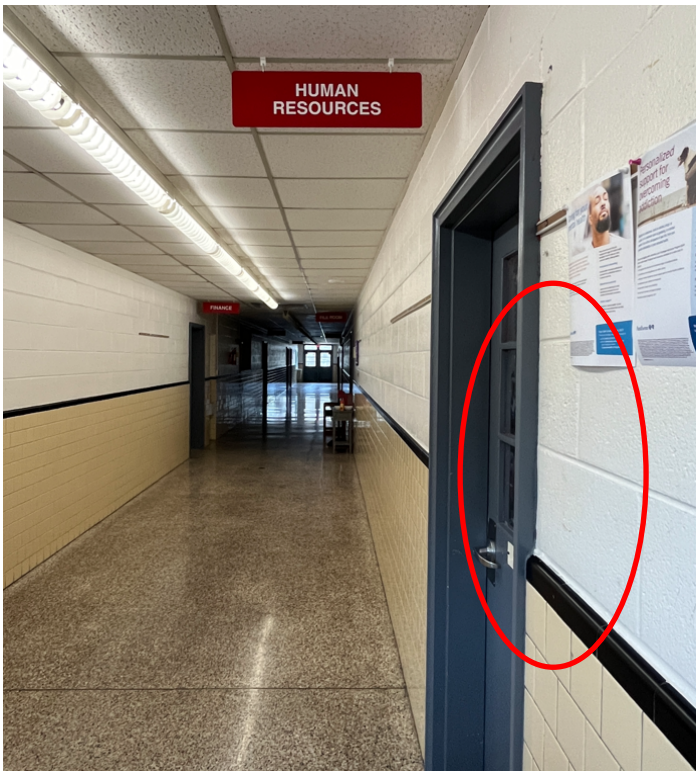


PHOTO AA.08
ADDITIONAL DEVICES - PROTRUSION LIMITS
(ADAAG 307.2)

Condition: Poor
Quantity: (2) Additional Devices

PHOTO AA.09
PANIC EXIT DOOR HARDWARE

Condition: Poor
Quantity: Approx. (1) Location

PHOTO AA.10
HANDRAILS EXTENSIONS AT INTERIOR STAIRS (ADAAG 505.10)

Condition: Fair
Quantity: Approx. 20 LF

PHOTO AA.11
HANDRAILS AT INTERIOR STAGE STAIRS (ADAAG 505.10)

Condition: Fair
Quantity: Approx. 48 LF

PHOTO AA.12
HANDRAIL EXTENSIONS AT EXTERIOR STAIR AND RAMP (ADAAG 505.10)

Condition: Fair
Quantity: Approx. 16 LF

THIS PAGE INTENTIONALLY LEFT BLANK

Building Code Compliance (and Safety/Security) Assessment

A limited Building Code Compliance and Safety/Security assessment of the School Board Office (built in 1959) was conducted as part of the Facility Condition Assessment. The following code compliance and safety/security concerns were noted during our site visit.

1. Provide proper exit discharge route requirements.
2. Missing guards / lenses on lighting fixtures.
3. Use of multi-plug adapters and extension cords.
4. Improperly stored materials in mechanical rooms and around/on equipment.
5. Inspection of duplex outlet and wiring that appears to have caught fire.

PHOTO AB.01
EXIT DISCHARGE ROUTE REQUIREMENTS (NFPA 101 & OSHA 1910)
Ensure Straight & Level Walkways, Guardrails for Fall Hazards and Adequate Capacity of Exit Route

Condition: Poor / Fair
Quantity: Approx. (5) Locations

PHOTO AB.02
FLOURESCENT LIGHT GUARDS (OSHA)

Condition: Fair
Quantity: Approx. 1,328 SF (Support Rooms)

PHOTO AB.03A
USE OF MULTI-PLUG ADAPTERS
(NFPA 11.1.3)

Condition: Poor
Quantity: Multiple - Classrooms / Offices

PHOTO AB.03B
USE OF MULTI-PLUG ADAPTERS
(NFPA 11.1.3)

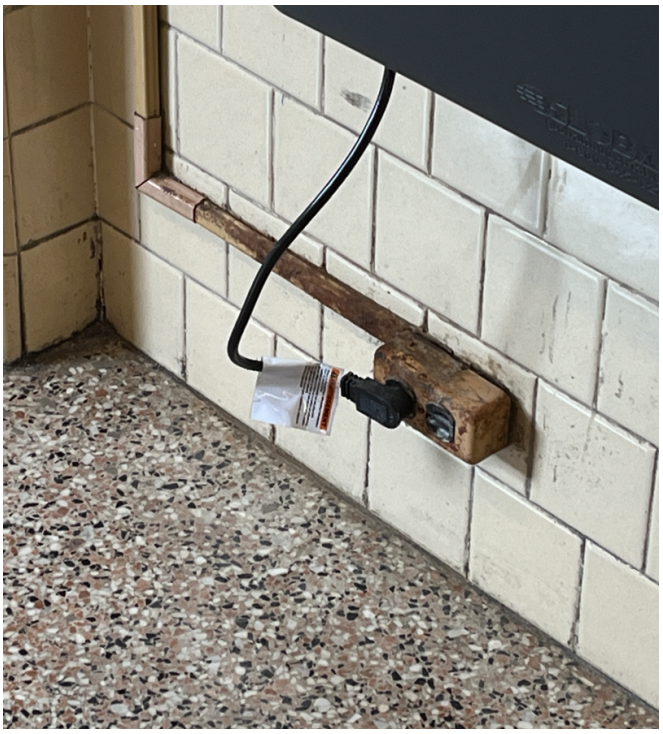
Condition: Poor
Quantity: Multiple - Classrooms / Offices

PHOTO AB.04
IMPROPERLY STORED MATERIALS AROUND MECHANICAL / ELECTRICAL EQUIPMENT

Condition: Poor
Quantity: Boiler Room

PHOTO AB.05
INSPECT/RE-WIRE DUPLEX OUTLET
(FIRE HAZARD)

Condition: Poor
Quantity: (1) Duplex Outlet



Roof Systems Assessment

Overall, the roof is in poor condition.

The overall roof consists of a single type roofing system: standing seam metal (SSM) roof.

A standing seam metal (SSM) roof is a durable roofing system constructed with long panels running vertically from the roof's ridge down to the eaves with panels that have raised interlocking seams connecting them side by side. SSM roofs allow for thermal movement, meaning the panels can expand and contract with temperature changes without compromising the integrity of the roof.

The sloped standing seam metal panel roof is showing significant evidence of deterioration. There are numerous panels showing oxidation (rust) that will continue to degrade the panels over time. Panel joints and seams have been maintained with sealers over the years and are starting to show sealant cracking and deterioration in numerous areas. The oxidation of the panels and deteriorated sealant will allow moisture to penetrate the roof resulting in eventual failure of the roof system. This deterioration is consistent with the roof's age, as the typical life of standing seam metal panel roofs is 40 to 50 years.

Based on the year the school was built (1959) and the roofs' current condition, it seems likely that the original roof totaling approximately 36,955 square feet has not been replaced since the building was built 65 years ago. With an average life expectancy of 40-50 years for similar roofing systems, it appears that the current roofing system has surpassed its average life span and should be considered for replacement.

Additional significant issues were discovered during our inspection consisting of roof gutter debris build up, improperly sealed ridge caps, deteriorated/rusted gutters and downspouts as well as signs of water infiltration identified within the building.

PHOTO AR.01A
STANDING SEAM METAL PANEL ROOF

Condition: Poor
Quantity: 36,955 SF

PHOTO AR.01AB
STANDING SEAM METAL PANEL ROOF

Condition: Poor
Quantity: 36,955 SF

PHOTO AR.02A
RIDGE CAP SEALANT FAILURE

Condition: Poor
Quantity: Approx. 110 LF

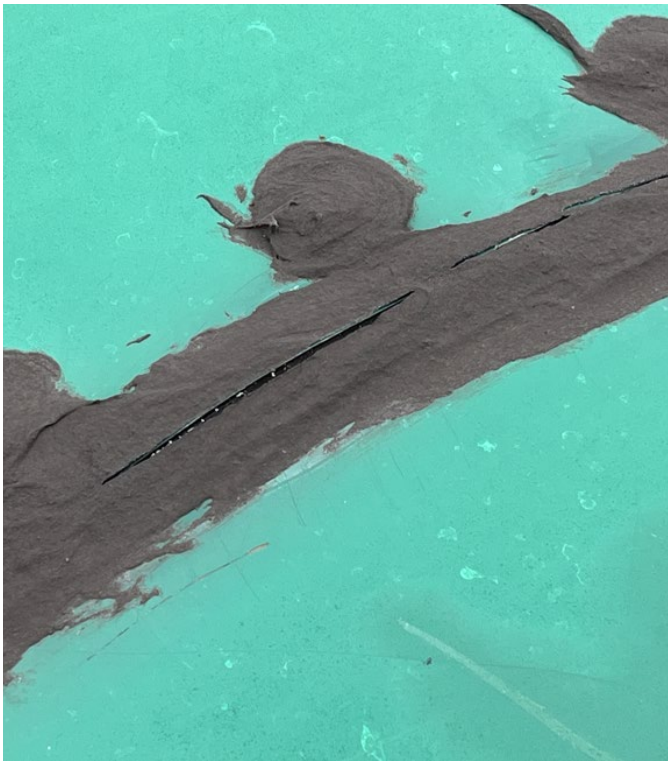


PHOTO AR.02B
RIDGE CAP SEALANT FAILURE

Condition: Poor
Quantity: Approx. 110 LF

PHOTO AR.03
RIDGE END FLASHING

Condition: Poor
Quantity: (6) Locations

PHOTO AR.04
DEBRIS BUILD UP (GUTTER)

Condition: Poor / Fair
Quantity: Approx. 1,320 LF

PHOTO AR.05A
RUSTED OR MISSING DOWNSPOUTS

Condition: Poor
Quantity: Approx. (25) Location

PHOTO AR.05B
RUSTED OR MISSING DOWNSPOUTS

Condition: Poor
Quantity: Approx. (25) Location

PHOTO AR.06A
RUSTED OR LEAKING GUTTERS

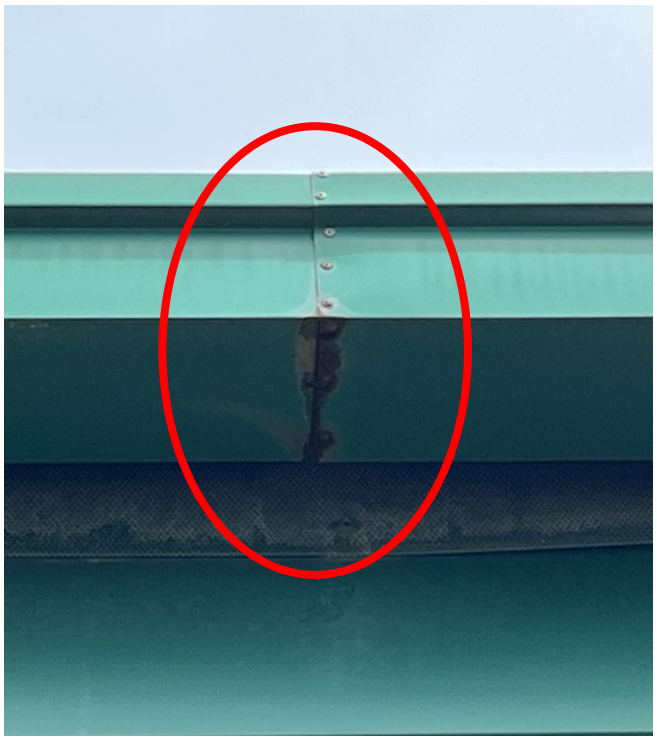
Condition: Poor
Quantity: Approx. 950 LF

PHOTO AR.06B
RUSTED OR LEAKING GUTTERS

Condition: Poor
Quantity: Approx. 950 LF

PHOTO AR.06C
RUSTED OR LEAKING GUTTERS

Condition: Poor
Quantity: Approx. 950 LF



THIS PAGE INTENTIONALLY LEFT BLANK

Mechanical Systems Assessment

Overall, the mechanical system is in fair condition.

The original building was constructed in the 1950's with several renovations having taken place since. A 2009 renovation saw the replacement of the central heating plant and it associated pumps and piping with single zone packaged exterior wall mounted Bard style heat pump units.

Central heating for the building used to be provided by a natural gas fired boiler. Two (2) heating hot water pumps distributed water around the addition. All the boilers, pumps, mechanical room piping, and associated accessories are all abandoned in place and in poor condition.

Decentralized HVAC equipment provides air conditioning and ventilation for the entire building. Every office has a single zone packaged exterior wall mounted Bard style heat pump unit that were installed in 2009. The cafeteria is heated and cooled by four (4) packaged exterior wall mounted Bard style heat pump units. The older Bard units are in fair condition but will likely need to be replaced within the next five years. There are a few admin offices that have PTAC units that are in fair condition. The kitchen is served by a mini-split system that is in fair condition. The ductless mini split showed signs of condensation running down the wall, so the condensate pan and condensate drains need to be cleaned in case of a clog. are in good condition. There are roof-mounted exhaust fans serving the group toilets and the restrooms in the offices. These exhaust fans are in fair condition.

Terminal heating equipment provides heat for entrances of the building and in the kitchen. Wall mounted electric cabinet unit heaters are surface mounted in the vestibules. Ceiling hung electric unit heaters provide heating to the kitchen. The terminal heating equipment is in poor condition.

Ductwork and air terminals. There is minimal ductwork in this building. There is only one office Bard style unit that has a duct connection. There is exhaust ductwork running down the corridor serving the office restrooms. The ductwork is in fair condition. Air terminals are clean and in good condition.

Piping and pipe insulation is original to the building and in poor condition. It has all been abandoned in place in favor of air-cooled HVAC equipment.

Building Controls. The building utilizes a building automation system with direct digital controls. Each Bard style unit has a stand-alone thermostat. It is assumed that the BAS system was installed in the 2009 renovation. The Honeywell BAS system is in working order.

PHOTO M.01
HOT WATER EXPANSION TANKS

Condition: Abandoned
Quantity: (4) Tanks

PHOTO M.02
DUCTWORK IN CLASSROOM

Condition: Good
Quantity: Approx. 26 LF

PHOTO M.03A
OFFICE AIR TERMINAL

Condition: Fair
Quantity: Approx. 36,235 SF

PHOTO M.03B
CAFETERIA AIR TERMINAL

Condition: Fair
Quantity: Approx. 36,235 SF

PHOTO M.04
SPLIT SYSTEM CASSETTE

Condition: Fair
Quantity: (2)

PHOTO M.05
ADMIN AREA PTAC

Condition: Fair
Quantity: (4)

PHOTO M.06
KITCHEN HOOD

Condition: Fair
Quantity: See Kitchen Section

PHOTO M.07
CLASSROOM BARD UNIT

Condition: Fair
Quantity: (28)

PHOTO M.08
CABINET UNIT HEATER

Condition: Poor
Quantity: (6)

PHOTO M.09
EXHAUST FAN

Condition: Poor
Quantity: (4)

PHOTO M.10
OUTDOOR CONDENSING UNITS

Condition: Fair
Quantity: (2)

PHOTO M.11
BOILER

Condition: Abandoned
Quantity: (1) Boiler

PHOTO M.12
KITCHEN DUCTLESS MINI SPLIT

Condition: Fair
Quantity: (1)

Overall Recommendations:

1. All of the hydronic equipment is abandoned in place and in poor condition. All of the equipment should be removed, and the mechanical rooms could be converted to storage rooms.

2. The terminal heating equipment appears in operable physical condition but are near the end of their expected life and should be considered for replacement or removal.

3. The general heating, cooling, and ventilation system for the offices are in fair condition. The Bard style units are near the end of their life and should be considered for replacement in the next five years.

4. The exhaust fans were installed in 1992 and should be considered for replacement in the next five years as well.

5. The ductless mini split condensation pan and drain should be inspected for clogs.

Electrical Systems Assessment

Overall, the electrical system is in poor to fair condition.

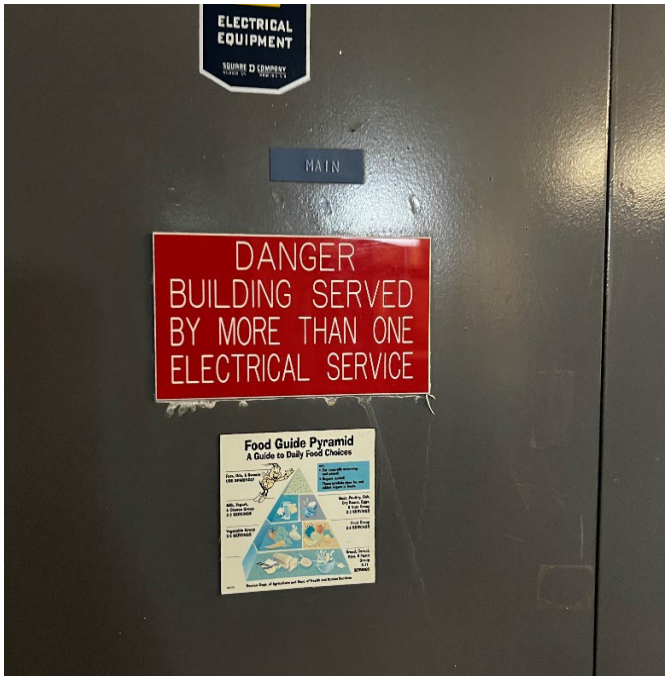
Power distribution relies on a 480V 1200A switchboard, which was installed in 1993, and a 208V MDP that is part of the original building infrastructure. Unfortunately, the original equipment in the building is in very poor condition and should be replaced. While the switchboard and electrical equipment added in 1993 are in fair condition, they have been discontinued and finding replacement parts may be challenging. Therefore, it is recommended that all electrical equipment in the building be replaced.

PHOTO E.01
ELECTRICAL SWITCHBOARD (480V)

Condition: Fair
Quantity: (1) Electrical Room

PHOTO E.02
ELECTRICAL SERVICE
ENTRANCE PANEL

Condition: Poor
Quantity: (1) Electrical Room



The remainder of the electrical gear throughout the facility has either remained original to the facility, been replaced, or been added for additions/renovations. Spot renovations in this building will end up more costly than a completely replacement. It is cost and time efficient that the entire electrical gear that is original to the building as well as the equipment added during renovations be replaced as well as all associated wiring in an overall system overall.

PHOTO E.03
EXISTING PANELS

Condition: Poor
Quantity: Approx. 36,235 SF

Upon inspection, it was determined that the facility has a 150Kw standby emergency generator, which seems to have been installed within the past 25 years. However, it is noticeable that the generator is nearing the end of its expected service life, which is also 25 years. During the site survey, we were not able to find any transfer switches within the building, making it difficult to confirm whether the generator is currently connected to any system or equipment.

PHOTO E.04
GENERATOR

Condition: Poor / Fair
Quantity: (1)

Interior lighting consists of a mixture of fixture types and lamp types, none seemed to be LED. The controllability is very limited and doesn't meet the current energy code, namely the International Energy Conservation Code (IECC). They consume much higher levels of energy, thus costing more to operate, and they provide marginal lighting levels in many locations in the building. Lighting controls are manual type only. There are no daylight harvesting or automatic lighting controls, which are also now required per the IECC.

Emergency egress lighting is predominately provided by emergency wall packs, none of the tested ones worked. Emergency wall pack light fixtures are still installed throughout the school despite a generator on site.

All florescent light fixtures should be replaced with efficient LED light fixtures and the existing battery-operated wall pack should be removed. Additionally, the associated occupancy sensing, dimming, and daylight harvesting lighting controls should be replaced/added to reduce energy usage of the building. The incandescent exit signs should be upgraded, as applicable, to LED type and supplemental signs added where needed.

PHOTO E.05
LIGHTING

Condition: Poor / Fair
Quantity: Approx. 36,235 SF

PHOTO E.06
RECEPTACLE

Condition: Very Poor
Quantity: See Code Compliance

PHOTO E.07
EXISTING PANEL

Condition: Very Poor
Quantity: Multiple throughout

PHOTO E.08
EXIT SIGN

Condition: Poor
Quantity: Multiple throughout

Exterior building mounted lighting consists predominately of wall mounted light fixtures. These have been replaced withing the last 15 years and are in fair to good condition and do not need to be replaced.

Parking lot lighting consists of pole mounted luminaires provided by the power company and they are distributed around the school. These fixtures are not full cutoff fixtures and do not provide adequate lighting levels. Due to the age of these fixtures, associated high energy consumption, and lack of coverage, it is recommended that they be replaced with LED, full cutoff type fixtures and supplemental light fixtures be added.

PHOTO E.09
PARKING LOT LIGHT FIXTURES (TYPICAL)

Condition: Poor
Quantity: throughout parking lot

The **fire alarm system** has been updated in 2020 according to the building engineer, upon inspection this system utilized and older FACP but is still in good condition and does not need to be replaced.

PHOTO E.10
FIRE ALARM CONTROL PANEL

Condition: Good
Quantity: (1)

Wiring devices consist of devices original to the building and newer devices added overtime. There are areas where a water source is present and the receptacles are not GFCI protected as seen below. Both existing conditions related to grounding and ground-fault protection do not comply with current NEC requirements and associated devices should be replaced. There also appears to be a lack of power outlets within rooms as there are multiple power strips throughout the areas. Additionally, outlets should be provided to avoid the use of power strips. It is advisable to replace all of the devices and associated wiring.

Local means of disconnects appear to be original to installation of equipment. Most of the mechanical equipment has been replaced withing the last 30 years, however most disconnects were observed to be In poor condition and except for a few that were recently installed, all should be replaced.

PHOTO E.11
POWER STRIP

Condition: Poor
Quantity: See Safety Compliance

PHOTO E.12
DISCONNECT

Condition: Poor
Quantity: Approx. 36,235 SF

The **intercom/clock system** is not currently functioning in multiple places. A new clock system should be installed to standardize the clocks across the building.

PHOTO E.13
SYSTEM CLOCK (TYPICAL)

Condition: Poor / Fair
Quantity: Approx. 36,235 SF

The **data/phone/CATV/AV** systems have been upgraded, supplemented, and extended as necessary to support the use of space as an office space, however there are many instances with poor cabling and many ports did not seem to be operational.

The **closed-circuit security camera (CCTV) system** was not present in this building, very few devices observed, and they did not seem to be functional. A new system should be installed.

The **security** system consists of card reader but only seemed present at the main entrances.

Overall Recommendations

1. The existing service entrance equipment should be replaced.

2. All panelboards associated with the service and associated wiring should be replaced.

3. The existing generator should be connected properly and stand by, and life safety load should be separated.

4. All existing interior non-LED light fixtures should be upgraded to LED light fixtures that conform to the current version of the IECC.

5. It is recommended that existing toggle switch lighting controls be replaced with code compliant lighting controls consisting of dimming, occupancy sensing, and daylight harvesting controls as mentioned above.

6. All parking lot light fixtures, building and pole mounted, should be replaced with LED light fixtures that conform to the IECC and local zoning ordinances.

7. It is recommended that the clock system be replaced with a wireless clock system that is standard for all rooms.

8. It is recommended that all data outlets be properly installed, mounted and upgraded for additional capacity if needed.

9. It is recommended that the CCTV system be added/replaced in its entirety. The replacement system should meet the current cloud-based system standards of the school system.

10. During a part of any major renovation, the existing sound system should be upgraded with permanent cabling, outlets, and equipment installed for more robust capabilities as are currently typically installed in middle school facilities in Virginia.

THIS PAGE INTENTIONALLY LEFT BLANK

Plumbing Systems Assessment

Overall, the plumbing system is in fair condition.

Domestic Water service enters the building in the mechanical room and is then distributed throughout the building. The mechanical room is being used as a storage room and was cluttered to the point where the exact location of the domestic service entrance could not be located, so the condition could not be assessed. There are three (3) natural gas water heaters. One (1) serves the kitchen, one (1) serves one wing of the school and one (1) serves the other wing. The water heaters are in fair condition. The exposed domestic piping in the water heater closets showed signs of corrosion and were not insulated. It is recommended that the piping be replaced and insulated. The recirculation pump and hot water heater accessories appeared in fair condition and should be considered for replacement in five to ten years. The flue duct connected to the water heater is in poor condition.

Sanitary drain piping is below the floor slab and general condition could not be determined. All the sanitary piping is original to the building and is at or near the end of its expected life. The kitchen two and three-compartment sinks were not connected to the sanitary system via an indirect waste connection per VPC 802.1. It is recommended to provide a floor sink and route the kitchen two and three-compartment sinks to that floor sink to comply with current code. The kitchen sanitary drain piping is below the floor slab and its general condition could not be determined; however, it is original to the building and is at or near the end of its expected life.

The gutter and drainage system are in poor condition and full of debris. The gutters should be cleaned regularly during the fall to prevent the buildup of leaves and debris. Portion of the horizontal gutter showed signs of damage and rust.

Plumbing Fixtures. Water closets are floor mounted white vitreous china with manual flush valves. The water closets appeared in poor condition. The lavatories in gang restrooms are countertop style white vitreous china with automatic valves. The lavatories in gang restrooms appeared in fair condition. The lavatories in single restrooms are wall mounted white vitreous china with manual vales. These lavatories were in poor condition. The sinks in the offices are countertop style white vitreous china with a mixture of faucet styles. A portion of the sinks are 2-compartment sinks. The rest are single compartment sinks. The office sinks appeared in fair condition. The exterior exposed hose bibbs were showing signs of corrosion. The gas piping distributed throughout the kitchen is in fair condition. The kitchen 2 and 3-compartment sinks are stainless steel sinks with manual faucets. They appeared in good condition.

PHOTO P.01
OFFICE 2-COMPARTMENT SINK

Condition: Fair
Quantity: See Architectural - Interior

PHOTO P.02
OFFICE SINK

Condition: Fair
Quantity: See Architectural - Interior

PHOTO P.03
DOMESTIC WATER HEATER

Condition: Fair
Quantity: (3)

PHOTO P.04
DOMESTIC WATER PIPING AND WATER HEATER ACCESSORIES

Condition: Poor / Fair
Quantity: Approx. 36,235 SF

PHOTO P.05
SINGLE RESTROOM LAVATORY

Condition: Poor / Fair
Quantity: See ADA Compliance

PHOTO P.06
WATER CLOSET

Condition: Poor / Fair
Quantity: See ADA Compliance

PHOTO P.07
URINAL

Condition: Poor
Quantity: See ADA Compliance

PHOTO P.08
GANG RESTROOM LAVATORY

Condition: Fair
Quantity: See ADA Compliance

PHOTO P.09
KITCHEN SINK AND SANITARY DRAIN PIPING

Condition: Good, drain piping needs to be connected to floor sink via an indirect connection.
Quantity: (3)

Recommendations:

1. The plumbing systems are at or near the end of their life and should be considered for replacement within the next five (5) years.

2. The sanitary piping below the kitchen and slab was inaccessible and should be scoped with a camera to determine the condition. The piping is original to the building and is at or near the end of its expected life expectancy. The grease interceptor should be cleaned and inspected to determine the condition.

3. The domestic water distributed throughout the building is original to the building and is at or near the end of its life and should be considered for replacement within the next five (5) years, as the exposed portions are showing signs of corrosion.

4. The two and three-compartment sinks in the kitchen should be connected to the sanitary system via an indirect waste receptacle such as a floor sink to comply with current code.

5. The exterior hose bibbs should be replaced, as they are showing signs of corrosion.

6. The gutter system should be replaced and cleaned regularly to prevent the buildup of debris.

Structural Assessment

Overall, the structural system is in poor to fair condition.

School Board Office is a single-story building constructed in approximately 1959 in Milford, Caroline County, Virginia.

The structure is primarily concrete masonry unit (CMU) bearing wall construction. The roof is metal deck supported by steel framing. The exterior façade is brick masonry veneer. The building is assumed to be supported by shallow concrete footing foundations with slab-on-grade floors.

Interior structural issues include cracked masonry walls (Photo S.01A), cracked masonry walls at intersections (Photo S.01B), cracked masonry at window and doors (Photos S.01C) and cracked masonry at framing bearing (Photo S.01D). Hairline cracks and spalling of concrete beams supporting the roof framing was also observed (Photo S.02).

Exterior structural issues include cracked brick veneer (Photo S.03), corroded steel framing at entries (Photo S.04), and corroded steel lintels at windows, doors and louvers (Photo S.05). At the loading dock, damaged brick veneer and CMU and corroded steel columns were observed (Photo S.06).

The masonry wall cracking is most likely due to the natural movement of the building over time, the assumed unreinforced masonry construction, and the lack of control joints in the masonry. Cracked and spalling of concrete beams is most likely due to improper detailing of shear reinforcing within the concrete. Deteriorated brick veneer should be removed and replaced. The corroded steel columns, lintels and framing should be scraped clean, primed, and painted with rust inhibiting paint. Lintels that are delaminating should be replaced in kind. The damaged loading dock brick veneer and CMU wall should be replaced.

PHOTO S.01A
INTERIOR CMU WALL CRACKING
AT STAIR STEP CRACKS

Condition: Poor
Quantity: Approx. 1,710 LF (Repoint)
Approx. 2,269 SF (Replace)

PHOTO S.01B
INTERIOR CMU WALL CRACKING
AT STAIR STEP CRACKS

Condition: Poor
Quantity: Approx. 1,710 LF (Repoint)
Approx. 2,269 SF (Replace)

PHOTO S.01C
INTERIOR CMU WALL CRACKING
AT STAIR STEP CRACKS

Condition: Poor
Quantity: Approx. 1,710 LF (Repoint)
Approx. 2,269 SF (Replace)

PHOTO S.01D
INTERIOR CMU WALL CRACKING
AT STAIR STEP CRACKS

Condition: Poor
Quantity: Approx. 1,710 LF (Repoint)
Approx. 2,269 SF (Replace)

PHOTO S.02
INTERIOR BEAM CRACKING AND SPALLING

Condition: Fair
Quantity: Approx. 240 LF

PHOTO S.03
EXTERIOR BRICK VENEER CRACKS

Condition: Poor / Fair
Quantity: See Architectural - Exterior

PHOTO S.04
EXTERIOR CORRODED STEEL AT ENTRIES

Condition: Fair
Quantity: Approx. 16 LF

PHOTO S.05
EXTERIOR CORRODED STEEL LINTELS

Condition: Poor
Quantity: Approx. 460 LF

PHOTO S.06
EXTERIOR LOADING DOCK - DAMAGED MASONRY AND CORRODED COLUMNS

Condition: Poor
Quantity: See Architectural - Exterior

Fire Protection System Assessment

Overall, the fire protection system is in fair to good condition.

The Central Office is not protected with a fire suppression (sprinkler) system. Major renovations may require the need for a full NFPA fire suppression (sprinkler) system. It is recommended that the fire protection system be upgraded to provide adequate fire suppression coverage throughout the building.

PHOTO FS.1
MAIN CORRIDOR(S) - SPRINKLER SYSTEM

Condition: Not Applicable
Quantity: None

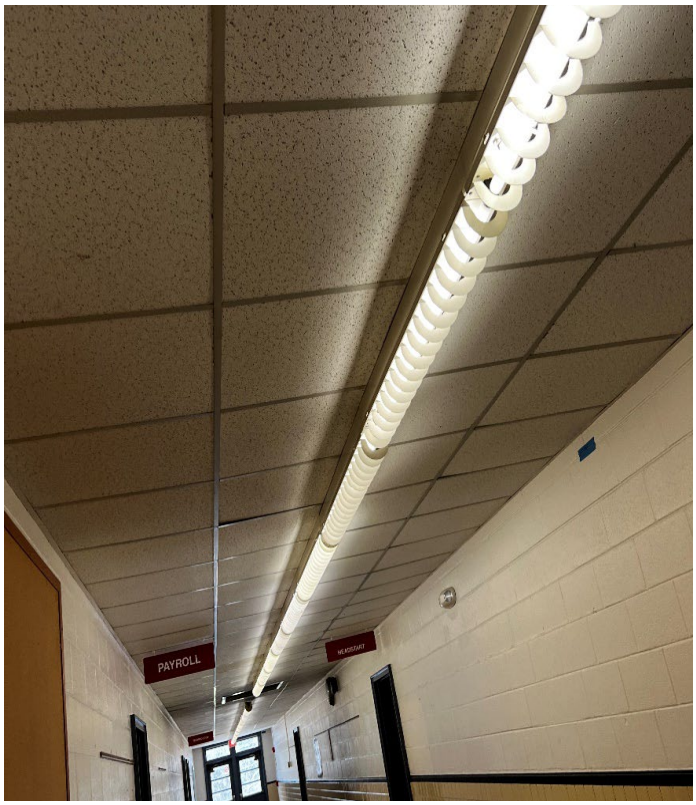


PHOTO FS.2
GENERAL OFFICE - SPRINKLER SYSTEM

Condition: Not Applicable
Quantity: None

PHOTO FS.3
FIRE ALARM DEVICES

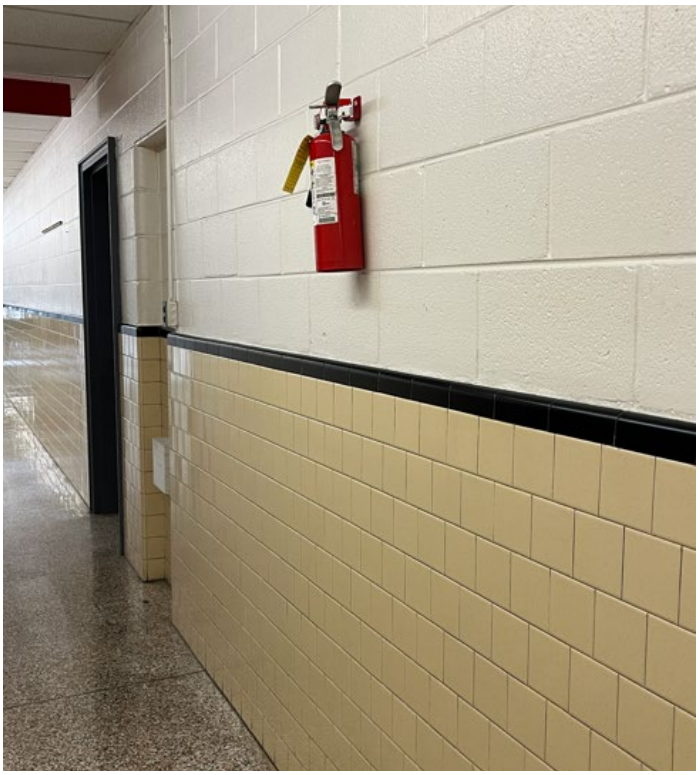
Condition: Good
Quantity: Approx. 36,235 SF

PHOTO FS.4
ILLUMINATED EXIT SIGNS

Condition: Good
Quantity: Approx. 36,235 SF

PHOTO FS.5
FIRE EXTINGUISHERS

Condition: Good
Quantity: Approx. 36,235 SF



THIS PAGE INTENTIONALLY LEFT BLANK

Food Service (Kitchen) Assessment

The overall condition of the kitchen and serving areas is poor to fair. The school was opened in 1959 and is now used as the administration building. The kitchen, while not used every day to feed students, is still used for staff, school board events and meetings. The issues noted are mostly related to the age and finishes of some of the equipment (kitchen equipment finishes that are no longer code compliant). The issues are enumerated below and accompanied by an explanation of the issue and which code is impacted.

List of Codes & Best Practices Referenced

The following codes and best practices are referenced in the General Issues Discussion below:

1. Americans with Disabilities Act (ADA)
2. Commonwealth of Virginia Board of Health Food Regulations
3. International Mechanical Code
4. National Electrical Code
5. ServSafe® Manager Training (a nationally-recognized certification provided by the National Restaurant Association and taught in conjunction with local environmental health service divisions)
6. Virginia Mechanical Code

Relevant excerpts, as well as links to the codes in their entirety (where applicable), can be found in the Appendix located at the end of this section.

General Issues Discussion

- Loading Dock: Is truck height with steps but no ramp to ease delivery of product to the kitchen.

- Insect Fan: The existing one is old and ill-fitted to the receiving door. There are old screen doors also. *Virginia Food Regulations require outer openings of a food establishment be protected against the entry of insects {Refer to §12 VAC 5-421-2930}*

- Ceilings and Walls: This kitchen facility includes exposed utilities—for example, pipes and electrical wiring—on the wall and ceiling surfaces, which makes cleaning these surfaces difficult. The walls and floor are very worn and there is a missing ceiling tile also. There are many surface mounted heaters, split systems and fans in the space. *Virginia Food Regulations require all non-food contact surfaces, such as walls and ceilings, to be smooth, non-porous, and easily cleanable. Exposed utility lines along surfaces should be minimized. {See §12 VAC 5-421-2810, §12 VAC 5-421-2820, §12 VAC 5-421-2860}*

- Handsinks: The kitchen does not have a sufficient number of hand sinks in the kitchen. There is only one serving this entire kitchen. *Virginia Food Regulations require facilities to have hand sinks located throughout the prep, cooking, and dishroom areas so that hand sinks are readily accessible to employees. {See §12 VAC 5-421-2230 and §12 VAC 5-421-2280}.*

- Walk-In Coolers/Freezer: The walk-in coolers and freezers area in poor condition and small in capacity. The freezer was built where the dishroom originally was located. There is ice buildup in the freezer and the product is very poorly organized.

- Equipment: Many of the pieces of equipment are very worn and rusty, and therefore difficult to clean.

- Mop Sink: The mop sink is wall mounted making it nearly impossible to dump the soiled water from the mop bucket after the kitchen is cleaned.

- Exhaust Hood: The exhaust hood is old and no longer code compliant for various reasons:
    - The hood is undersized for the operation. *International Mechanical Code requires a minimum overhang of six inches on all sides of the equipment underneath. {See §507.12}.*
    - *The hood appears to be "short-circuit", meaning the make-up replacement air is introduced internally in the hood. These hoods fail to capture and contain effluent adequately and are no longer code compliant. {See §506.3.1.2}*
    - *There is cooking equipment that is not located under the hood as required.*

- Employee Lockers/Restrooms: The kitchen did not have an ADA-compliant restroom and the space is very worn and cramped. There are no employee lockers. *{See §404.2.3 and §404.2.4}.*

- Serving Areas: Some of the holding and serving equipment has been replaced recently. Lights have been added above the serving counter though are located too far from the surface of the food to actually provide heat from above. There are no food shields over most of the food wells.

Although the school kitchen is grandfathered and not required to comply with many of the above-mentioned codes and best practices until equipment is replaced or the facility is renovated, many of the cited conditions create employee hazards and/or food handling safety issues and expose the School Division to undue liability. The kitchen has not been well maintained since it has not been used regularly in over two years. **If the school plans to serve students again, the kitchen must be brought up to code and fully renovated.**

Code Compliance Issues

- The exhaust hood appears to be short circuit
- There is only one hand sink in the kitchen
- There are a few exposed utilities
- The employee restroom is not ADA compliant
- There is a window in the store room which allows heat and light to enter the room
- The 2 bowl prep sink and 3 bowl pot sink both have direct connected drains which do not comply with the Virginia Department of Health Code.

- Use of banned refrigerants – Refrigerants classified as “High Global Warming Potential Refrigerants” such as R134a, R410A, R407C, may be banned from use as of January 1, 2024 under Section 608 of the Clean Air Act

PHOTO K.1
THE FREEZER IS VERY DISORGANIZED AND THERE APPEARS TO BE A CARTON THAT WAS RECEIVED ON 2/19/20.

PHOTO K.2
THE WINDOW IN THE STORAGE ROOM LETS IN HEAT AND LIGHT WHICH MAY PREVENT THE TEMPERATURE TO BE KEPT BELOW THE REQUIRED 72 DEGREES.

PHOTO K.3
SURFACE MOUNTED HEATERS AND FANS ARE DIFFICULT TO KEEP CLEAN.

PHOTO K.4
COOKING EQUIPMENT SHOULD BE LOCATED UNDER AN EXHAUST HOOD

Recommended Equipment for Replacement / Minimum Suggestions for Improvement

Based on its age and condition, the following kitchen equipment is recommended for replacement;

- Refer to Deferred Maintenance schedule for list of equipment to be replaced.
- Estimated full kitchen renovation costs are contingent upon the future utilization as an elementary school.

Appendix – Excerpts and Links – Codes & Best Practices

Applicable excerpts from the Americans with Disabilities Act, Commonwealth of Virginia Board of Health Food Regulations, ServSafe Manager, and Virginia Mechanical Code.

Americans with Disabilities Act

§403.5.2 Clear Width at Turn

Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

EXCEPTION: Where the clear width at the turn is 60 inches (1525 mm) minimum compliance with 403.5.2 shall not be required.

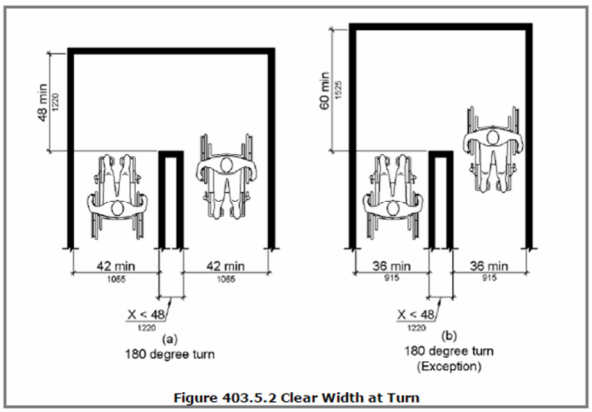


Figure 403.5.2 Clear Width at Turn

§404.2.3 Clear Width.

Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

§404.2.4 Maneuvering Clearances.

Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

§404.2.4.1 Swinging Doors and Gates.

Swinging doors and gates shall have maneuvering clearances complying with Table 404.2.4.1.

404.2.4.1 Maneuvering Clearances at Manual Swinging Doors and Gates (text version)

Type of Use		Minimum Maneuvering Clearance	
Approach Direction	Door or Gate Side	Perpendicular to Doorway	Parallel to Doorway (beyond latch side unless noted)
From front	Pull	60 inches (1525 mm)	18 inches (455 mm)
From front	Push	48 inches (1220 mm)	0 inches (0 mm)1
From hinge side	Pull	60 inches (1525 mm)	36 inches (915 mm)
From hinge side	Pull	54 inches (1370 mm)	42 inches (1065 mm)
From hinge side	Push	42 inches (1065 mm)2	22 inches (560 mm)3
From latch side	Pull	48 inches (1220 mm)4	24 inches (610 mm)
From latch side	Push	42 inches (1065 mm)4	24 inches (610 mm)

1. Add 12 inches (305 mm) if closer and latch are provided.
2. Add 6 inches (150 mm) if closer and latch are provided.
3. Beyond hinge side.
4. Add 6 inches (150 mm) if closer is provided.

Commonwealth of Virginia Board of Health Food Regulations 12 VAC 5-421

§12 VAC 5-421-1060. Nonfood-contact surfaces.

Nonfood-contact surfaces of equipment that are exposed to splash, spillage, or other food soiling or that require frequent cleaning shall be constructed of a corrosion-resistant, nonabsorbent, and smooth material.

§12 VAC 5-421-1210. Ventilation hood systems, drip prevention.

Exhaust ventilation hood systems in food preparation and warewashing areas including components such as hoods, fans, guards, and ducting shall be designed to prevent grease or condensation from draining or dripping onto food, equipment, utensils, linens, and single-service and single-use articles.

§12 VAC 5-421-1950. Use of laundry facilities.

A. Except as specified in subsection B of this section, laundry facilities on the premises of a food establishment shall be used only for the washing and drying of items used in the operation of the establishment.
B. Separate laundry facilities located on the premises for the purpose of general laundering such as for institutions providing boarding and lodging may also be used for laundering food establishment items.

§12 VAC 5-421-1460. Manual warewashing, sink compartment requirements.

A. Except as specified in subsection C of this section, a sink with at least three compartments shall be provided for manually washing, rinsing, and sanitizing equipment and utensils.

§12 VAC 5-421-1470. Drainboards.

Drainboards, utensil racks, or tables large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation shall be provided for necessary utensil holding before cleaning and after sanitizing.

§12 VAC 5-421-2230. Handwashing Lavatory

A. Except as specified in subsection B of this section, at least one handwashing lavatory, or the number of handwashing lavatories necessary for their convenient use by employees in areas specified under §12 VAC 5-421-2280, and not fewer than the number of handwashing lavatories required by law shall be provided.

§12 VAC 5-421-2280. Handwashing sinks, location.

A handwashing sink shall be located:

A. To be readily accessible for use by employees in food preparation, food dispensing, and warewashing areas; and
B. In, or immediately adjacent to, toilet rooms.

§12 VAC 5-421-2520. Backflow prevention.

A. Except as specified in subsections B, C, and D of this section, a direct connection may not exist between the sewage system and a drain originating from equipment in which food, portable equipment, or utensils are placed.
B. Subsection A of this section does not apply to floor drains that originate in refrigerated spaces that are constructed as an integral part of the building.
C. If allowed by law, a warewashing machine may have a direct connection between its waste outlet and a floor drain when the machine is located within five feet (1.5 meters) of a trapped floor drain and the machine outlet is connected to the inlet side of a properly vented floor drain trap.
D. If allowed by law, a warewashing or culinary sink may have a direct connection.

§12 VAC 5-421-2600. Outdoor storage surface.

An outdoor storage surface for refuse, recyclables, and returnables shall be constructed of nonabsorbent material such as concrete or asphalt and shall be smooth, durable, and sloped to drain.

§12 VAC 5-421-2790. Indoor areas; surface characteristics.

A. Except as specified in subsection B of this section, materials for indoor floor, wall, and ceiling surfaces under conditions of normal use shall be:
    1. Smooth, durable, and easily cleanable for areas where food establishment operations are conducted.

§12 VAC 5-421-2810. Floors, walls, and ceilings - cleanability.

Except as specified under 12VAC5-421-2840 and except for anti-slip floor coverings or applications that may be used for safety reasons, floors, floor coverings, walls, wall coverings, and ceilings shall be designed, constructed, and installed so they are smooth and easily cleanable.

§12 VAC 5-421-2820. Floors, walls, and ceilings, utility lines.

A. Utility service lines and pipes shall not be unnecessarily exposed.
B. Exposed utility service lines and pipes shall be installed so they do not obstruct or prevent cleaning of the floors, walls, or ceilings.
C. Exposed horizontal utility service lines and pipes may not be installed on the floor.

§12 VAC 5-421-2860. Wall and ceiling coverings and coatings.

A. Wall and ceiling covering materials shall be attached so that they are easily cleanable.
B. Except in areas used only for dry storage, concrete, porous blocks, or bricks used for indoor wall construction shall be finished and sealed to provide a smooth, nonabsorbent, easily cleanable surface.

§12 VAC 5-421-2930. Outer openings, protected.

A. Except as specified in subsections B through E of this section, outer openings of a food establishment shall be protected against the entry of insects and rodents by:
    1. Filling or closing holes and other gaps along floors, walls and ceilings;
    2. Closed, tight-fitting windows; and
    3. Solid self-closing, tight-fitting doors.
B. Subsection A of this section does not apply if a food establishment opens into a larger structure, such as a mall, airport, or office building, or into an attached structure, such as a porch, and the outer openings from the larger or attached structure are protected against the entry of insects and rodents.
C. Exterior doors used as exits need not be self-closing if they are:
    1. Solid and tight-fitting;

2. Designated for use only when an emergency exists, by the fire protection authority that has jurisdiction over the food establishment; and
3. Restricted so they are not used for entrance or exit from the building for purposes other than the designated emergency exit use.

D. Except as specified in subsections B and E of this section, if the windows or doors of a food establishment, or of a larger structure within which a food establishment is located, are kept open for ventilation or other purposes of this section, the openings shall be protected against the entry of insects and rodents by:
   1. 16 mesh to 1-inch (16 mesh to 25.4mm) screens;
   2. Properly designed and installed air curtains to control flying insects; or
   3. Other effective means.

§12 VAC 5-421-3080. Lighting, intensity.

The light intensity shall be:

1. At least 10 foot candles (108 lux) at a distance of 30 inches (75 cm) above the floor, in walk-in refrigeration units and dry food storage areas and in other areas and rooms during periods of cleaning;
2. At least 20 foot candles (215 lux):
   a. At a surface where food is provided for consumer self-service such as buffets and salad bars or where fresh produce or packaged foods are sold or offered for consumption;
   b. Inside equipment such as reach-in and under-counter refrigerators;
   c. At a distance of 30 inches (75 cm) above the floor in areas used for handwashing, warewashing, and equipment and utensil storage, and in toilet rooms; and
3. At least 50 foot candles (540 lux) at a surface where a food employee is working with food or working with utensils or equipment such as knives, slicers, grinders, or saws where employee safety is a factor.

§12 VAC 5-421-3340. Storage, separation.

Poisonous or toxic materials shall be stored so they cannot contaminate food, equipment, utensils, linens, and single-service and single-use articles by:

1. Separating the poisonous or toxic materials by spacing or partitioning;
2. Locating the poisonous or toxic materials in an area that is not above food, equipment, utensils, linens, and single-service or single-use articles. This subsection does not apply to equipment and utensil cleaners and sanitizers that are stored in warewashing areas for availability and convenience if the materials are stored to prevent contamination of food, equipment, utensils, linens, and single-service and single-use articles;

International Mechanical Code

SECTION 507 COMMERCIAL KITCHEN HOODS

§507.2 Where required.

A Type I or Type II hood shall be installed at or above all commercial cooking appliances in accordance with Sections 507.2.1 and 507.2.2.

§507.2.1 Type I hoods.

Type I hoods shall be installed where cooking appliances produce grease or smoke as a result of the cooking process. Type I hoods shall be installed over medium-duty, heavy-duty and extra-heavy-duty cooking appliances. Type I hoods shall be installed over light-duty cooking appliances that produce grease or smoke.

Exception: A Type I hood shall not be required for an electric cooking appliance where an approved testing agency provides documentation that the appliance effluent contains 5 mg/m3 or less of grease when tested at an exhaust flow rate of 500 cfm (0.236 m3/s) in accordance with Section 17 of UL 710B

§507.2.2 Type II hoods.
Type II hoods shall be installed above dishwashers and appliances that produce heat or moisture and do not produce grease or smoke as a result of the cooking process, except where the heat and moisture loads from such appliances are incorporated into the HVAC system design or into the design of a separate removal system. Type II hoods shall be installed above all appliances that produce products of *combustion* and do not produce grease or smoke as a result of the cooking process. Spaces containing cooking appliances that do not require Type II hoods shall be provided with exhaust at a rate of 0.70 cfm per square foot (0.00033 m^3/s). For the purpose of determining the floor area required to be exhausted, each individual *appliance* that is not required to be installed under a Type II hood shall be considered as occupying not less than 100 square feet (9.3 m^2). Such additional square footage shall be provided with exhaust at a rate of 0.70 cfm per square foot [.00356 $m^3/(s \bullet m^2)$].

§507.12 Canopy size and location.
The inside lower edge of canopy-type Type I and II commercial hoods shall overhang or extend a horizontal distance of not less than 6 inches (152 mm) beyond the edge of the top horizontal surface of the appliance on all open sides. The vertical distance between the front lower lip of the hood and such surface shall not exceed 4 feet (1219 mm).

Exception: The hood shall be permitted to be flush with the outer edge of the cooking surface where the hood is closed to the appliance side by a noncombustible wall or panel.

SECTION 509 FIRE SUPPRESSION SYSTEMS

§509.1 Where required.
Commercial cooking appliances required by Section 507.2.1 to have a Type I hood shall be provided with an *approved* automatic fire suppression system complying with the *International Building Code* and the *International Fire Code.*

ServSafe® Manager

ServSafe® Manager excerpts are from *ServSafe® Manager 6th Edition*, ©2012, National Restaurant Association Educational Foundation

Virginia Mechanical Code

§506.3.1.2 Makeup air ducts.
Makeup air ducts connecting to or within 18 inches (457 mm) of a Type I hood shall be constructed and installed in accordance with Sections 603.1, 603.3, 603.4, 603.9, 603.10 and 603.

Hazardous Materials Assessment

A hazardous materials assessment was not completed as a part of this Facility Condition Assessment. Based on the year the School Board Office was built, it is presumed that hazardous materials were utilized in the construction of the school.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION FOUR

Deferred Maintenance Schedule

Caroline County Public Schools

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: School Board Office *(As of April 2024)*
Gross Square Feet: 36,235

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
SITE IMPROVEMENTS (Civil Assessment)																					
C.1	No Civil (Site) Assessment Completed																				
SUBTOTAL SITE IMPROVEMENTS					$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING EXTERIOR (Architectural Exterior Assessment)																					
AE.01	Remove/Replace Mortar at Sill Joint	140	LF	$ 16.46	$ 2,304			$ 2,535													
AE.02	Repair/Replace Precast Concrete Sills	50	LF	$ 68.69	$ 3,434			$ 3,778													
AE.03	Provide Exterior Control Joint Caulk at Sidewalks	240	LF	$ 4.56	$ 1,094			$ 1,204													
AE.04	Remove/Replace Caulking at Louvers	300	LF	$ 4.23	$ 1,270			$ 1,397													
AE.05	Provide/Replace Caulking at Door Frames	210	LF	$ 4.23	$ 889			$ 978													
AE.06	Clean/Prep/Paint Steel Lintels	SEE STRUCTURAL																			
AE.07	Clean/Prep/Paint Metal Frames/Decking @ Canopies and Soffits	SEE STRUCTURAL																			
AE.08	Perform Exterior Building Cleaning	36,235	SF	$ 0.14	$ 4,912				$ 5,600												
AE.09	Seal Openings in Building Envelope @ Previous Penetrations	2	EA	$ 150.00	$ 300			$ 330													
AE.10	Remove/Replace Damaged Masonry Façade	185	SF	$ 77.36	$ 14,312			$ 15,743													
AE.11	Repair/Replace Damaged Metal Panel	2	EA	$ 2,250.00	$ 4,500			$ 4,950													
AE.12	Remove/Replace Exterior Window Caulking	1,178	SF	$ 4.23	$ 4,983						$ 5,980										
SUBTOTAL BUILDING EXTERIOR					$ 37,998	$ -	$ -	$ 30,913	$ 5,600	$ -	$ 5,980	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING INTERIOR (Architectural Interior Assessment)																					
AI.01	Remove/Replace Terrazzo Flooring	10,900	SF	$ 31.59	$ 344,288						$ 413,146										
AI.02	Remove/Replace VCT Flooring	20,240	SF	$ 8.30	$ 167,981				$ 191,498												
AI.03	Remove/Replace Acoustical Ceilings	10,900	SF	$ 9.82	$ 107,046						$ 128,455										
AI.04	Remove/Replace Gypsum Panel Ceilings	19,460	SF	$ 9.42	$ 183,313						$ 219,976										
AI.05	Remove/Replace Classroom Casework	120	LF	$ 461.23	$ 55,348				$ 63,096												
AI.06	Replace Rusted Interior Louvers	108	EA	$ 54.63	$ 5,900	$ 5,900															
AI.07	Remove/Replace Damaged Ceramic Wall Tile	1,560	SF	$ 16.90	$ 26,364			$ 29,000													
AI.08	Remove/Replace Interior Sill Caulking	270	LF	$ 8.47	$ 2,286				$ 2,606												
AI.09	Clean/Repair/Seal @ Exterior Walls Water Infiltration	350	SF	$ 2.61	$ 914				$ 1,041												
AI.10	Replaced Damaged Window Pane	1	EA	$ 376.91	$ 377				$ 430												
AI.11	Prep/Paint Interior Doors & Frames	105	EA	$ 242.80	$ 25,494						$ 30,593										
AI.12	Demo/Replace Group Toilet Room Finishes	555	SF	$ 87.23	$ 48,413					$ 56,643											
AI.13	Demo/Replace Single Toilet Room Finishes	600	SF	$ 122.69	$ 73,614					$ 86,128											
SUBTOTAL BUILDING INTERIOR					$ 1,041,336	$ 5,900	$ -	$ 29,000	$ 258,671	$ 142,771	$ 792,170	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ADA COMPLIANCE (ADA Compliance Assessment)																					
AA.01	Provide Compliant Door Hardware	16	EA	$812.50	$ 13,000				$ 14,820												
AA.02	Provide Maneuvering Clearances at Doors	20	EA	$ 3,406.25	$ 68,125					$ 79,706											
AA.03	Provide Proper Clearances at Drinking Fountains	2	EA	$ 4,524.39	$ 9,049				$ 10,316												
AA.04	Install Accessible Sink In Classrooms	20	EA	$ 3,012.50	$ 60,250				$ 68,685												
AA.05	Upgrade Individual Restroom(s) Accessibility	600	SF	$ 104.83	$ 62,898					$ 73,591											
AA.06	Upgrade Group Restroom(s) Accessibility	555	SF	$ 104.83	$ 58,181					$ 68,071											
AA.07	Install Accessible Room Signage (Type/Height)	105	EA	$ 108.45	$ 11,387			$ 12,526													

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: School Board Office *(As of April 2024)*
Gross Square Feet: 36,235

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
AA.08	Install Compliant Wall Mounted Devices (AED, etc.)	2	EA	$ 661.24	$ 1,322			$ 1,455													
AA.09	Install Compliant Panic Exit Door Hardware	1	EA	$ 1,265.25	$ 1,265			$ 1,392													
AA.10	Provide Accessible Compliant Handrail Extensions at Interior Stairs	20	LF	$ 233.47	$ 4,669					$ 5,463											
AA.11	Provide Accessible Compliant Handrails at Stage Stairs	48	LF	$ 233.47	$ 11,207					$ 13,112											
AA.12	Provide Accessible Compliant Handrail Extensions at Exterior Stair and Ramp	16	LF	$ 233.47	$ 3,736					$ 4,371											
SUBTOTAL ADA COMPLIANCE					**$ 305,089**	$ -	$ -	**$ 15,372**	**$ 93,821**	**$ 244,314**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING CODE COMPLIANCE (Building Code Compliance & Safety/Security Concerns Assessments)																					
AB.01	Exit Discharge Route Requirements (All Other Doors)	5	EA	$ 4,375.00	$ 21,875			$ 24,063													
AB.02	Provide/Reinstall Light Guards in Mechanical/Electrical	1,328	SF	$ 0.71	$ 940				$ 1,072												
AB.03	Remove Multi-Plug Adapters from Classrooms and Offices	1	LS	$ 300.00	$ 300																Annual Operating Expense
AB.04	Remove Stored Materials from Boiler Room	1	LS	$ 500.00	$ 500																Annual Operating Expense
AB.05	Inspect/Re-Wire Duplex Outlet	1	EA	$ 316.54	$ 317			$ 348													
SUBTOTAL BUILDING CODE COMPLIANCE					**$ 23,932**	$ -	$ -	**$ 24,411**	**$ 1,072**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ROOFING SYSTEM (Roofing System Assessment)																					
AR.01	Remove/Replace Standing Seam Metal Panel Roof	36,955	SF	$ 51.21	$ 1,892,466			$ 2,081,712													
AR.02	Remove/Replace Sealant at Ridge Caps	INCLUDED IN ITEM AR.01																			
AR.03	Repair Flashing at Ridge Ends	INCLUDED IN ITEM AR.01																			
AR.04	Clean Debris from Gutters	1,320	LF	$ 1.43	$ 1,889		$ 1,983														
AR.05	Remove/Replace Rusted or Missing Downspouts	INCLUDED IN ITEM AR.01																			
AR.06	Remove/Replace Rusted or Leaking Gutters	INCLUDED IN ITEM AR.01																			
SUBTOTAL ROOFING SYSTEM					**$ 1,894,354**	$ -	**$ 1,983**	**$ 2,081,712**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
MECHANICAL SYSTEM (Mechanical System Assessment)																					
M.1	Replace Air Terminals at Bard Units	36,235	SF	$ 0.97	$ 35,148						$ 42,178										
M.2	Replace Split System Cassette Units	2	EA	$ 4,974.04	$ 9,948						$ 11,938										
M.3	Replace PTAC Units	4	EA	$ 1,231.83	$ 4,927						$ 5,913										
M.4	Replace External Bard Units	28	EA	$ 15,675.00	$ 438,900						$ 526,680										
M.5	Replace Terminal Heaters	6	EA	$ 2,543.00	$ 15,258			$ 16,784													
M.6	Replace Exhaust Fans	4	EA	$ 1,418.00	$ 5,672			$ 6,239													
M.7	Replace Outside Condensing Units	2	EA	$ 1,974.39	$ 3,949						$ 4,739										
M.8	Replace Split System Cassette Unit (Kitchen)	1	EA	$ 4,974.04	$ 4,974						$ 5,969										
M.9	Remove Abandoned Equipment	1,865	SF	$ 0.98	$ 1,828						$ 2,193										
SUBTOTAL MECHANICAL SYSTEM					**$ 520,604**	$ -	$ -	**$ 23,023**	$ -	$ -	**$ 599,609**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ELECTRICAL & TECHNOLOGY SYSTEMS (Electrical & Technology Systems Assessment)																					
ET.1	Replace Existing Electrical Switchboard	1	LS	$401,659.22	$ 401,659						$ 481,991										
ET.2	Replace Existing Entrance Equipment	1	LS	$30,000.00	$ 30,000			$ 33,000				$ 36,900									
ET.3	Replace All Original Panelboards & Disconnects	36,235	SF	$12.00	$ 434,820			$ 478,302													
ET.4	Replace Emergency Generator	1	LS	$194,848.71	$ 194,849				$ 222,128												
ET.5	Replace All Interior Non-LED Lighting	36,235	SF	$6.50	$ 235,528			$ 129,540	$ 134,251												
ET.6	Replace All Lighting Controls	36,235	SF	$2.00	$ 72,470			$ 39,859	$ 41,308												

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: School Board Office *(As of April 2024)*
Gross Square Feet: 36,235

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
ET.7	Replace all Parking Lot and Pole Mounted Lights	8	EA	$7,000.00	$ 56,000			$ 61,600													
ET.8	Replace Existing Clock System	36,235	SF	$2.50	$ 90,588				$ 103,269.75												
ET.9	Replace Existing Data Devices and Cabling	36,235	SF	$2.50	$ 90,588						$ 108,705										
ET.10	Replace CCTV System	36,235	SF	$2.50	$ 90,588						$ 108,705										
ET.11	Replace Sound System	1	EA	$30,000.00	$ 30,000						$ 36,000										
SUBTOTAL ELECTRICAL & TECHNOLOGY SYSTEMS					**$ 1,727,088**	$ -	$ -	**$ 742,301**	**$ 500,956**	$ -	**$ 735,401**	**$ 36,900**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
PLUMBING SYSTEM (Plumbing System Assessment)																					
P.1	Remove/Replace Domestic Water Heaters	3	EA	$ 4,785.00	$ 14,355					$ 16,795											
P.2	Remove/Replace Domestic Water Piping	36,235	SF	$ 5.12	$ 185,523					$ 217,062											
P.3	Remove/Replace Lavatories	SEE ADA COMPLIANCE																			
P.4	Remove/Replace Water Closets	SEE ADA COMPLIANCE																			
P.5	Remove/Replace Urinals	SEE ADA COMPLIANCE																			
P.6	Add Indirect Connection For Kitchen Sinks	3	EA	$ 3,127.53	$ 9,383				$ 10,696												
SUBTOTAL PLUMBING SYSTEM					**$ 209,261**	$ -	$ -	$ -	**$ 10,696**	**$ 233,857**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
STRUCTURAL SYSTEM (Structural System Assessment)																					
S.1A	Remove/Repoint Interior CMU Joint	1,710	LF	$ 27.87	$ 47,650			$ 52,415													
S.1B	Remove/Replace Interior CMU	2,269	SF	$ 55.41	$ 125,715			$ 138,287													
S.2	Concrete Beam Patch	240	LF	$ 20.08	$ 4,819				$ 5,494												
S.3	Remove/Replace Exterior Brick	150	SF	$ 77.36	$ 11,604			$ 12,764													
S.4	Clean/Prime/Paint Exterior Steel	16	LF	$ 8.13	$ 130				$ 148												
S.5	Clean/Prime/Paint Window Lintels	460	LF	$ 8.13	$ 3,742			$ 4,116													
S.6A	Repair Dock CMU	SEE ARCHITECTURAL - EXTERIOR (ITEM AE.10)																			
S.6B	Replace Loading Dock Brick	SEE ARCHITECTURAL - EXTERIOR (ITEM AE.10)																			
S.6C	Clean/Prime/Paint Loading Dock Columns	50	SF	$ 8.13	$ 407			$ 447													
SUBTOTAL STRUCTURAL SYSTEM					**$ 194,067**	$ -	$ -	**$ 208,029**	**$ 5,642**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
FIRE PROTECTION SYSTEM (Fire Suppression System Assessment)																					
FS.1	Add Sprinkler System	36,235	SF	$ 6.18	$ 223,932						$ 268,719										
SUBTOTAL FIRE SUPPRESSION SYSTEM					**$ 223,932**	$ -	$ -	$ -	$ -	$ -	**$ 268,719**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
FOOD SERVICE (Food Service (Kitchen) Assessment)																					
K.1	Full Kitchen Renovation	1	EA	$ 950,000	$ 950,000				$ 1,083,000										$ 1,368,000		Future Utilization as School would require a Full Kitchen Renovation
SUBTOTAL FOOD SERVICE					**$ 950,000**	$ -	$ -	$ -	**$ 1,083,000**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,368,000**	$ -	
HAZARDOUS MATERIALS (Hazardous Materials (HAZMAT) Assessment)																					
HM.1	Not Applicable (Allowance)	36,235	SF	$ 6.50	$ 235,528						$ 282,633										
SUBTOTAL HAZARDOUS MATERIALS					**$ 235,528**	$ -	$ -	$ -	$ -	$ -	**$ 282,633**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
TOTAL ESTIMATED PROJECT COSTS PER CATEGORY						**$ 5,900**	**$ 1,983**	**$ 3,154,762**	**$ 1,959,457**	**$ 620,942**	**$ 2,684,511**	**$ 36,900**	$ -	$ -	$ -	$ -	$ -	$ -	**$ 1,368,000**	$ -	

TOTAL ESTIMATED DEFERRED MAINTENANCE COSTS - YEARS 2024 THRU 2025 *(USED TO CALCULATE FCI)* ***$ 3,162,645***

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: School Board Office *(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company through December 2024)*
Gross Square Feet: 36,235

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
SITE IMPROVEMENTS (Civil Assessment)																					
C.1	No Civil (Site) Assessment Completed																				
SUBTOTAL SITE IMPROVEMENTS					$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING EXTERIOR (Architectural Exterior Assessment)																					
AE.01	Remove/Replace Mortar at Sill Joint	140	LF	$ 16.46	$ 2,304			$ 2,535													
AE.02	Repair/Replace Precast Concrete Sills	50	LF	$ 68.69	$ 3,434			$ 3,778													
AE.03	Provide Exterior Control Joint Caulk at Sidewalks	240	LF	$ 4.56	$ 1,094			$ 1,204													
AE.04	Remove/Replace Caulking at Louvers	300	LF	$ 4.23	$ 1,270			$ 1,397													
AE.05	Provide/Replace Caulking at Door Frames	210	LF	$ 4.23	$ 889			$ 978													
AE.06	Clean/Prep/Paint Steel Lintels	SEE STRUCTURAL																			
AE.07	Clean/Prep/Paint Metal Frames/Decking @ Canopies and Soffits	SEE STRUCTURAL																			
AE.08	Perform Exterior Building Cleaning	36,235	SF	$ 0.14	$ 4,912				$ 5,600												
AE.09	Seal Openings in Building Envelope @ Previous Penetrations	2	EA	$ 150.00	$ 300			$ 330													
AE.10	Remove/Replace Damaged Masonry Façade	185	SF	$ 77.36	$ 14,312			$ 15,743													
AE.11	Repair/Replace Damaged Metal Panel	2	EA	$ 2,250.00	$ 4,500			$ 4,950													
AE.12	Remove/Replace Exterior Window Caulking	1,178	SF	$ 4.23	$ 4,983						$ 5,980										
SUBTOTAL BUILDING EXTERIOR					$ 37,998	$ -	$ -	$ 30,913	$ 5,600	$ -	$ 5,980	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING INTERIOR (Architectural Interior Assessment)																					
AI.01	Remove/Replace Terrazzo Flooring	10,900	SF	$ 31.59	$ 344,288						$ 413,146										
AI.02	Remove/Replace VCT Flooring	20,240	SF	$ 8.30	$ 167,981				$ 191,498												
AI.03	Remove/Replace Acoustical Ceilings	10,900	SF	$ 9.82	$ 107,046						$ 128,455										
AI.04	Remove/Replace Gypsum Panel Ceilings	19,460	SF	$ 9.42	$ 183,313						$ 219,976										
AI.05	Remove/Replace Classroom Casework	120	LF	$ 461.23	$ 55,348				$ 63,096												
AI.06	Replace Rusted Interior Louvers	108	EA	$ 54.63	$ 5,900	$ 5,900															
AI.07	Remove/Replace Damaged Ceramic Wall Tile	1,560	SF	$ 16.90	$ 26,364			$ 29,000													
AI.08	Remove/Replace Interior Sill Caulking	270	LF	$ 8.47	$ 2,286				$ 2,606												
AI.09	Clean/Repair/Seal @ Exterior Walls Water Infiltration	350	SF	$ 2.61	$ 914				$ 1,041												
AI.10	Replaced Damaged Window Pane	1	EA	$ 376.91	$ 377				$ 430												
AI.11	Prep/Paint Interior Doors & Frames	105	EA	$ 242.80	$ 25,494						$ 30,593										
AI.12	Demo/Replace Group Toilet Room Finishes	555	SF	$ 87.23	$ 48,413					$ 56,643											
AI.13	Demo/Replace Single Toilet Room Finishes	600	SF	$ 122.69	$ 73,614					$ 86,128											
SUBTOTAL BUILDING INTERIOR					$ 1,041,336	$ 5,900	$ -	$ 29,000	$ 258,671	$ 142,771	$ 792,170	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ADA COMPLIANCE (ADA Compliance Assessment)																					
AA.01	Provide Compliant Door Hardware	16	EA	$812.50	$ 13,000				$ 14,820												
AA.02	Provide Maneuvering Clearances at Doors	20	EA	$ 3,406.25	$ 68,125					$ 79,706											
AA.03	Provide Proper Clearances at Drinking Fountains	2	EA	$ 4,524.39	$ 9,049				$ 10,316												
AA.04	Install Accessible Sink In Classrooms	20	EA	$ 3,012.50	$ 60,250				$ 68,685												
AA.05	Upgrade Individual Restroom(s) Accessibility	600	SF	$ 104.83	$ 62,898					$ 73,591											
AA.06	Upgrade Group Restroom(s) Accessibility	555	SF	$ 104.83	$ 58,181					$ 68,071											
AA.07	Install Accessible Room Signage (Type/Height)	105	EA	$ 108.45	$ 11,387			$ 12,526													

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: School Board Office *(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company through December 2024)*
Gross Square Feet: 36,235

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
AA.08	Install Compliant Wall Mounted Devices (AED, etc.)	2	EA	$ 661.24	$ 1,322			$ 1,455													
AA.09	Install Compliant Panic Exit Door Hardware	1	EA	$ 1,265.25	$ 1,265			$ 1,392													
AA.10	Provide Accessible Compliant Handrail Extensions at Interior Stairs	20	LF	$ 233.47	$ 4,669					$ 5,463											
AA.11	Provide Accessible Compliant Handrails at Stage Stairs	48	LF	$ 233.47	$ 11,207					$ 13,112											
AA.12	Provide Accessible Compliant Handrail Extensions at Exterior Stair and Ramp	16	LF	$ 233.47	$ 3,736					$ 4,371											
SUBTOTAL ADA COMPLIANCE					**$ 305,089**	$ -	$ -	**$ 15,372**	**$ 93,821**	**$ 244,314**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING CODE COMPLIANCE (Building Code Compliance & Safety/Security Concerns Assessments)																					
AB.01	Exit Discharge Route Requirements (All Other Doors)	5	EA	$ 4,375.00	$ 21,875			$ 24,063													
AB.02	Provide/Reinstall Light Guards in Mechanical/Electrical	1,328	SF	$ 0.71	$ 940				$ 1,072												
AB.03	Remove Multi-Plug Adapters from Classrooms and Offices	1	LS	$ 300.00	$ 300																Annual Operating Expense
AB.04	Remove Stored Materials from Boiler Room	1	LS	$ 500.00	$ 500																Annual Operating Expense
AB.05	Inspect/Re-Wire Duplex Outlet	1	EA	$ 316.54	$ 317			$ 348													
SUBTOTAL BUILDING CODE COMPLIANCE					**$ 23,932**	$ -	$ -	**$ 24,411**	**$ 1,072**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ROOFING SYSTEM (Roofing System Assessment)																					
AR.01	Remove/Replace Standing Seam Metal Panel Roof	36,955	SF	$ 51.21	$ 1,892,466			$ 2,081,712													
AR.02	Remove/Replace Sealant at Ridge Caps	INCLUDED IN ITEM AR.01																			
AR.03	Repair Flashing at Ridge Ends	INCLUDED IN ITEM AR.01																			
AR.04	Clean Debris from Gutters	1,320	LF	$ 1.43	$ 1,889		$ 1,983														
AR.05	Remove/Replace Rusted or Missing Downspouts	INCLUDED IN ITEM AR.01																			
AR.06	Remove/Replace Rusted or Leaking Gutters	INCLUDED IN ITEM AR.01																			
SUBTOTAL ROOFING SYSTEM					**$ 1,894,354**	$ -	**$ 1,983**	**$ 2,081,712**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
MECHANICAL SYSTEM (Mechanical System Assessment)																					
M.1	Replace Air Terminals at Bard Units	36,235	SF	$ 0.97	$ 35,148						$ 42,178										
M.2	Replace Split System Cassette Units	2	EA	$ 4,974.04	$ 9,948						$ 11,938										
M.3	Replace PTAC Units	4	EA	$ 1,231.83	$ 4,927						$ 5,913										
M.4	Replace External Bard Units	28	EA	$ 15,675.00	$ 438,900						$ 526,680										
M.5	Replace Terminal Heaters	6	EA	$ 2,543.00	$ 15,258			$ 16,784													
M.6	Replace Exhaust Fans	4	EA	$ 1,418.00	$ 5,672			$ 6,239													
M.7	Replace Outside Condensing Units	2	EA	$ 1,974.39	$ 3,949						$ 4,739										
M.8	Replace Split System Cassette Unit (Kitchen)	1	EA	$ 4,974.04	$ 4,974						$ 5,969										
M.9	Remove Abandoned Equipment	1,865	SF	$ 0.98	$ 1,828						$ 2,193										
SUBTOTAL MECHANICAL SYSTEM					**$ 520,604**	$ -	$ -	**$ 23,023**	$ -	$ -	**$ 599,609**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ELECTRICAL & TECHNOLOGY SYSTEMS (Electrical & Technology Systems Assessment)																					
ET.1	Replace Existing Electrical Switchboard	1	LS	$401,659.22	$ 401,659						$ 481,991										
ET.2	Replace Existing Entrance Equipment	1	LS	$30,000.00	$ 30,000			$ 33,000				$ 36,900									
ET.3	Replace All Original Panelboards & Disconnects	36,235	SF	$12.00	$ 434,820			$ 478,302													
ET.4	Replace Emergency Generator	1	LS	$194,848.71	$ 194,849				$ 222,128												
ET.5	Replace All Interior Non-LED Lighting	COMPLETED (SUMMER 2024)																			
ET.6	Replace All Lighting Controls	COMPLETED (SUMMER 2024)																			

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: School Board Office *(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company through December 2024)*
Gross Square Feet: 36,235

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
ET.7	Replace all Parking Lot and Pole Mounted Lights	8	EA	$7,000.00	$ 56,000			$ 61,600													
ET.8	Replace Existing Clock System	36,235	SF	$2.50	$ 90,588				$ 103,270												
ET.9	Replace Existing Data Devices and Cabling	36,235	SF	$2.50	$ 90,588						$ 108,705										
ET.10	Replace CCTV System	36,235	SF	$2.50	$ 90,588						$ 108,705										
ET.11	Replace Sound System	1	EA	$30,000.00	$ 30,000						$ 36,000										
SUBTOTAL ELECTRICAL & TECHNOLOGY SYSTEMS					**$ 1,419,090**	$ -	$ -	$ 572,902	$ 325,397	$ -	$ 735,401	$ 36,900	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
PLUMBING SYSTEM (Plumbing System Assessment)																					
P.1	Remove/Replace Domestic Water Heaters	3	EA	$ 4,785.00	$ 14,355					$ 16,795											
P.2	Remove/Replace Domestic Water Piping	36,235	SF	$ 5.12	$ 185,523					$ 217,062											
P.3	Remove/Replace Lavatories	SEE ADA COMPLIANCE																			
P.4	Remove/Replace Water Closets	SEE ADA COMPLIANCE																			
P.5	Remove/Replace Urinals	SEE ADA COMPLIANCE																			
P.6	Add Indirect Connection For Kitchen Sinks	3	EA	$ 3,127.53	$ 9,383				$ 10,696												
SUBTOTAL PLUMBING SYSTEM					**$ 209,261**	$ -	$ -	$ -	$ 10,696	$ 233,857	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
STRUCTURAL SYSTEM (Structural System Assessment)																					
S.1A	Remove/Repoint Interior CMU Joint	1,710	LF	$ 27.87	$ 47,650			$ 52,415													
S.1B	Remove/Replace Interior CMU	2,269	SF	$ 55.41	$ 125,715			$ 138,287													
S.2	Concrete Beam Patch	240	LF	$ 20.08	$ 4,819				$ 5,494												
S.3	Remove/Replace Exterior Brick	150	SF	$ 77.36	$ 11,604			$ 12,764													
S.4	Clean/Prime/Paint Exterior Steel	16	LF	$ 8.13	$ 130				$ 148												
S.5	Clean/Prime/Paint Window Lintels	460	LF	$ 8.13	$ 3,742			$ 4,116													
S.6A	Repair Dock CMU	SEE ARCHITECTURAL - EXTERIOR (ITEM AE.10)																			
S.6B	Replace Loading Dock Brick	SEE ARCHITECTURAL - EXTERIOR (ITEM AE.10)																			
S.6C	Clean/Prime/Paint Loading Dock Columns	50	SF	$ 8.13	$ 407			$ 447													
SUBTOTAL STRUCTURAL SYSTEM					**$ 194,067**	$ -	$ -	$ 208,029	$ 5,642	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
FIRE PROTECTION SYSTEM (Fire Suppression System Assessment)																					
FS.1	Add Sprinkler System	36,235	SF	$ 6.18	$ 223,932						$ 268,719										
SUBTOTAL FIRE SUPPRESSION SYSTEM					**$ 223,932**	$ -	$ -	$ -	$ -	$ -	$ 268,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
FOOD SERVICE (Food Service (Kitchen) Assessment)																					
K.1	Full Kitchen Renovation	1	EA	$ 950,000	$ 950,000			$ 1,045,000													Future Utilization as School would require a Full Kitchen Renovation
SUBTOTAL FOOD SERVICE					**$ 950,000**	$ -	$ -	$ 1,045,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
HAZARDOUS MATERIALS (Hazardous Materials (HAZMAT) Assessment)																					
HM.1	Not Applicable (Allowance)	36,235	SF	$ 6.50	$ 235,528						$ 282,633										
SUBTOTAL HAZARDOUS MATERIALS					**$ 235,528**	$ -	$ -	$ -	$ -	$ -	$ 282,633	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
TOTAL ESTIMATED PROJECT COSTS PER CATEGORY						**$ 5,900**	**$ 1,983**	**$ 4,030,363**	**$ 700,899**	**$ 620,942**	**$ 2,684,511**	**$ 36,900**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	

TOTAL ESTIMATED DEFERRED MAINTENANCE COSTS - YEARS 2024 THRU 2026 ***(USED TO CALCULATE FCI)*** ***$ 4,038,246***

SECTION FIVE

Facility Condition Index

Caroline County Public Schools

FACILITY CONDITION INDEX (AS OF APRIL 2024)

Overview

A Facility Condition Index (FCI) is utilized to objectively measure and evaluate the current condition of a school or building in order to make one of two types of comparisons on the condition of that one building with:

- Other buildings within the same school division; or
- Against the same building at another point in time in the past.

The FCI provides a measure of the deferred maintenance costs for a building typically developed from the completion of a comprehensive Facility Condition Assessment (FCA).

Purpose

An FCI calculation provides an Owner with the means for comprehensively evaluating and defining the appropriate distribution of available funding to each school or building within a portfolio based on needs. The primary value of an FCI calculation for a school division, can be identified as:

- To assist in prioritizing resource allocation decisions amongst the schools or buildings within a school division, particularly with limited budgets that are not adequate to address the deferred maintenance in all the schools or buildings.
- To determine the annual reinvestment to prevent further accumulation of deferred maintenance.
- To assist in tracking continual deterioration of a single or multiple school(s) or building(s) despite efforts made to reduce the deferred maintenance items.
- A mechanism to monitor changing conditions over time.
- A means to demonstrate the level of effort, due diligence and responsible stewardship to various stakeholders.

Some limitations of the Facility Condition Index (FCI) as a measure, are listed below:

- It is often used as a snapshot in time to compare assets or as an index which quantifies the adequacy of appropriated/budgeted funds over a longer period of time.
- The standard FCI formula does not include a weighting system to prioritize the importance of each deferred maintenance item associated with each system or each deferred maintenance item within the school or building.
- The FCI does not comprise operational maintenance costs.

Formula

The FCI formula can be summarized as the ratio of all the Deferred Maintenance costs divided into the Current Replacement Cost for the school or building.

$$\textit{Facility Condition Index (FCI) Value} = \frac{\textit{Total Deferred Maintenance Costs}}{\textit{Total Current School/Building Replacement Cost}}$$

Definitions:

Total Deferred Maintenance Costs represents the total dollar value of deferred maintenance deficiencies identified in "Poor and Very Poor" condition within the comprehensive facilities condition assessment completed for the school/building and its integral building systems and equipment. Deferred Maintenance can be defined as unperformed maintenance, repairs and/or replacement of equipment or systems due to a lack of resources or a perceived low priority and deferral of the activity resulting in a progressive deterioration of the school/building condition or performance. The Total Deferred Maintenance Costs for each school/building are identified within the Deferred Maintenance Schedule (Section 4) of this report.

Total Current School/Building Replacement Cost represents the total dollar value to replace the school/building with the cost of replacement defined as the requirement to duplicate the external building envelope and internal building systems and components along with site enhancements to provide the same level of functionality based upon current local construction costs (i.e. labor and material costs). The Total Current School/Building Replacement Cost is calculated by multiplying the current school/building size in square feet by the current cost per square foot for new building construction for schools/buildings of similar type and size based on figures obtained from Downey & Scott and the Virginia Department of Education (VDOE) for new construction.

Condition Measure

The measure of the condition of a school(s) or building(s) is typically organized into a five-tiered condition ranking scale, as follows:

Condition Ranking	FCI Rating	Condition Description
Excellent	0.0 – 5.0%	Only normal scheduled maintenance is required.
Good	5.1 – 10.0%	Minimal minor repairs needed; School/Building functions as designed.
Fair	10.1 – 25.0%	Minor and major repairs needed; Some functional challenges.
Poor	25.1 – 50.0%	Major repairs needed; Regular operational and functional challenges; Does not meet all building codes.
Very Poor	>50.0%	Significant major repairs or replacement needed to restore function; Systems unsafe.

Calculation

Total Deferred Maintenance Costs = *$ 3,162,645*

Represents the total dollar value of deferred maintenance deficiencies identified within the Deferred Maintenance Schedule (Section 4) of this report as "Total Hard Construction Costs".

Total Current School/Building Replacement Cost = *$13,406,950*

Represents the total dollar value to replace the school/building calculated by multiplying the current school/building size in square feet (36,235 SF) by the current cost per square foot for new construction of a similar school/building ($370 SF).

School Board Office - Facility Condition Index (FCI)

$$\textbf{23.59\%} = \frac{\$\ 3,162,645}{\$13,406,950}$$

THIS PAGE INTENTIONALLY LEFT BLANK

FACILITY CONDITION INDEX (AS OF DECEMBER 2024)

Overview

A Facility Condition Index (FCI) is utilized to objectively measure and evaluate the current condition of a school or building in order to make one of two types of comparisons on the condition of that one building with:

- Other buildings within the same school division; or
- Against the same building at another point in time in the past.

The FCI provides a measure of the deferred maintenance costs for a building typically developed from the completion of a comprehensive Facility Condition Assessment (FCA).

Purpose

An FCI calculation provides an Owner with the means for comprehensively evaluating and defining the appropriate distribution of available funding to each school or building within a portfolio based on needs. The primary value of an FCI calculation for a school division, can be identified as:

- To assist in prioritizing resource allocation decisions amongst the schools or buildings within a school division, particularly with limited budgets that are not adequate to address the deferred maintenance in all the schools or buildings.
- To determine the annual reinvestment to prevent further accumulation of deferred maintenance.
- To assist in tracking continual deterioration of a single or multiple school(s) or building(s) despite efforts made to reduce the deferred maintenance items.
- A mechanism to monitor changing conditions over time.
- A means to demonstrate the level of effort, due diligence and responsible stewardship to various stakeholders.

Some limitations of the Facility Condition Index (FCI) as a measure, are listed below:

- It is often used as a snapshot in time to compare assets or as an index which quantifies the adequacy of appropriated/budgeted funds over a longer period of time.
- The standard FCI formula does not include a weighting system to prioritize the importance of each deferred maintenance item associated with each system or each deferred maintenance item within the school or building.
- The FCI does not comprise operational maintenance costs.

Formula

The FCI formula can be summarized as the ratio of all the Deferred Maintenance costs divided into the Current Replacement Cost for the school or building.

$$\textit{Facility Condition Index (FCI) Value} = \frac{\textit{Total Deferred Maintenance Costs}}{\textit{Total Current School/Building Replacement Cost}}$$

Definitions:

Total Deferred Maintenance Costs represents the total dollar value of deferred maintenance deficiencies identified in "Poor and Very Poor" condition within the comprehensive facilities condition assessment completed for the school/building and its integral building systems and equipment. Deferred Maintenance can be defined as unperformed maintenance, repairs and/or replacement of equipment or systems due to a lack of resources or a perceived low priority and deferral of the activity resulting in a progressive deterioration of the school/building condition or performance. The Total Deferred Maintenance Costs for each school/building are identified within the Deferred Maintenance Schedule (Section 4) of this report.

Total Current School/Building Replacement Cost represents the total dollar value to replace the school/building with the cost of replacement defined as the requirement to duplicate the external building envelope and internal building systems and components along with site enhancements to provide the same level of functionality based upon current local construction costs (i.e. labor and material costs). The Total Current School/Building Replacement Cost is calculated by multiplying the current school/building size in square feet by the current cost per square foot for new building construction for schools/buildings of similar type and size based on figures obtained from Downey & Scott and the Virginia Department of Education (VDOE) for new construction.

Condition Measure

The measure of the condition of a school(s) or building(s) is typically organized into a five-tiered condition ranking scale, as follows:

Condition Ranking	FCI Rating	Condition Description
Excellent	0.0 – 5.0%	Only normal scheduled maintenance is required.
Good	5.1 – 10.0%	Minimal minor repairs needed; School/Building functions as designed.
Fair	10.1 – 25.0%	Minor and major repairs needed; Some functional challenges.
Poor	25.1 – 50.0%	Major repairs needed; Regular operational and functional challenges; Does not meet all building codes.
Very Poor	>50.0%	Significant major repairs or replacement needed to restore function; Systems unsafe.

Calculation

Total Deferred Maintenance Costs = *$ 4,038,246*

Represents the total dollar value of deferred maintenance deficiencies identified within the Deferred Maintenance Schedule (Section 4) of this report as "Total Hard Construction Costs".

Total Current School/Building Replacement Cost = *$13,406,950*

Represents the total dollar value to replace the school/building calculated by multiplying the current school/building size in square feet (36,235 SF) by the current cost per square foot for new construction of a similar school/building ($370 SF).

School Board Office - Facility Condition Index (FCI)

(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company)

$$\textbf{30.12\%} = \frac{\$\ 4{,}038{,}246}{\$13{,}406{,}950}$$

THIS PAGE INTENTIONALLY LEFT BLANK


RRMM
ARCHITECTS