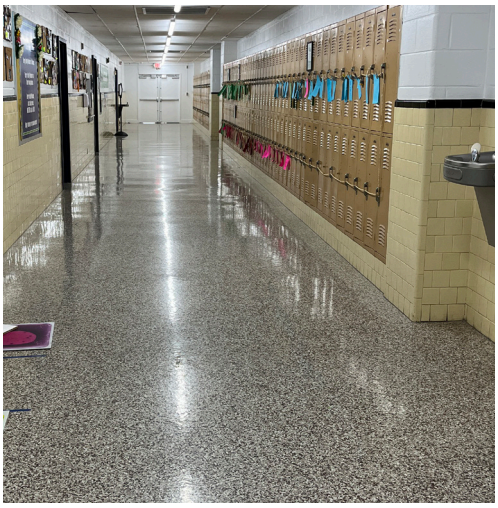

OLD LADYSMITH ELEMENTARY SCHOOL (LOTUS ACADEMY)

7278 Ladysmith Road, Ruther Glen, Virginia 22546

Facility Condition Assessment

Caroline County Public Schools

April 2, 2024

RRMM ARCHITECTS

TABLE OF CONTENTS

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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 Old Ladysmith Elementary School (currently housing the Lotus Academy) 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 Old Ladysmith Elementary School 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 Old Ladysmith Elementary School. 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.

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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 Old Ladysmith Elementary School 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 Old Ladysmith Elementary School indicates the school is overall in **poor condition** and identified numerous 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	N/A				
Fire Protection System Assessment				✖	
Food Service (Kitchen) Assessment	N/A				
Hazardous Materials Assessment	N/A				
TOTALS	**0**	**8**	**1**	**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.

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SECTION THREE

Assessments

Caroline County Public Schools

CONDITION ASSESSMENT

Introduction

Old Ladysmith Elementary School was originally constructed in 1968 with one significant building addition and/or renovation completed over the last 56 years and comprises approximately 43,763 square feet while situated on an approximately 16.9 acre site.

Below is a breakdown of academic and operational functions currently housed within the school structure as a result of the additions and/or renovations experienced over the years.

Original Building (1968)
The original 1968 school structure totaling approximately 39,121 square feet (shown below in green) currently houses most major functions to include the dining/kitchen area, main gymnasium (w/ stage) and locker rooms, library/multi-purpose room, teacher's workrooms, twenty (20) general classrooms, a computer/specialty classroom and various support spaces (i.e. offices, restrooms, storage and mechanical/electrical).

Building Addition (Post-1992)
After 1992, one (1) building addition totaling approximately 4,642 square feet (shown below in purple) incorporated approximately four (4) general classrooms and various support spaces (i.e. offices, restrooms, storage and mechanical/electrical).

Lotus Academy
The Lotus Academy occupies approximately 5,100 square feet of the original 1968 school structure which has been recently updated to incorporate new finishes (i.e. VCT tile, carpet, paint and acoustical ceiling tile) along with new light fixtures.

Original Building (Green) 1968 Building Addition (Purple) Post-1992

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 Old Ladysmith Elementary School, the school division indicated the completion of a civil (site) assessment was not required.

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Architectural Assessment

Exterior

The building is generally in poor condition.

The exterior brick masonry and EIFS walls are in poor condition with significant deterioration to the exterior façade elements including brick delamination, masonry cracks, mortar deterioration, cracked precast window sills and surrounds, general exterior caulking failure, expansion/control joint caulking failure, exposed/rusted lintels, canopy deterioration, exterior doors/frames, exterior windows/frames, rusted downspouts, damaged metal soffits panels, rusted metal louvers and conduit, exterior dirt/algae growth, building envelope openings, grade erosion and damaged building coverings. 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 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.

Additionally, there is significant deterioration to the concrete stairs, sidewalks and pathways around both sides and the rear of the building.

PHOTO AE.01
BRICK DELAMINATION

Condition: Fair / Good
Quantity: Approx. 80 SF

PHOTO AE.02
MASONRY CRACKS

Condition: Fair / Good
Quantity: Approx. 125 SF

PHOTO AE.03A
MORTAR DETERIORATION

Condition: Poor / Fair
Quantity: Approx. 2,250 LF

PHOTO AE.03B
MORTAR DETERIORATION

Condition: Poor / Fair
Quantity: Approx. 2,250 LF

PHOTO AE.04A
PRECAST WINDOW SILLS (CRACKED)

Condition: Poor / Fair
Quantity: Approx. 32 LF

PHOTO AE.04B
PRECAST WINDOW SURROUNDS (CRACKED)

Condition: Poor / Fair
Quantity: Approx. 32 LF

PHOTO AE.05A
EXTERIOR CAULKING FAILURE (WINDOWS)

Condition: Poor
Quantity: Approx. 1,272 LF

PHOTO AE.05B
EXTERIOR CAULKING FAILURE (WINDOWS)

Condition: Poor
Quantity: Approx. 1,272 LF

PHOTO AE.06
EXTERIOR CAULKING FAILURE (DOORS)

Condition: Poor
Quantity: Approx. 372 LF

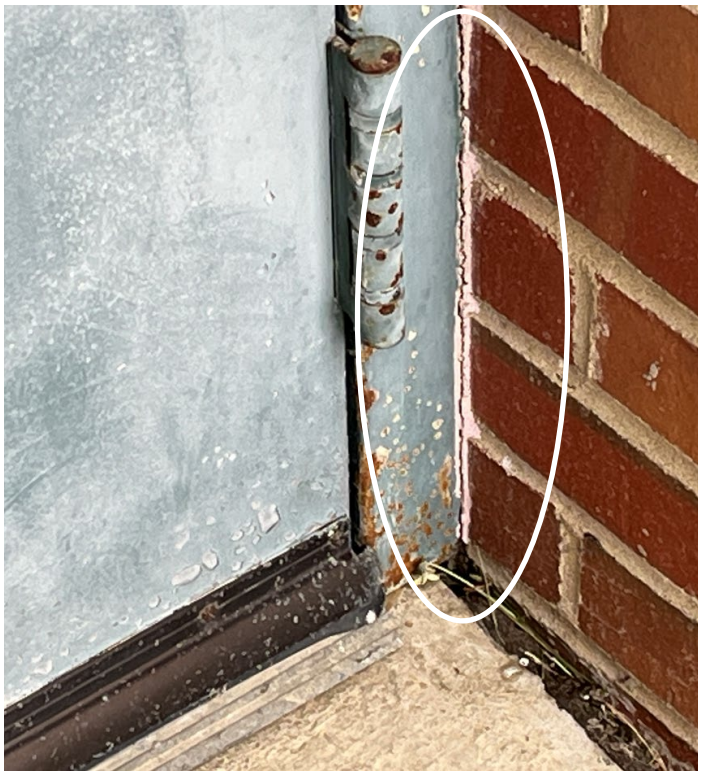


PHOTO AE.07
EXTERIOR CAULKING FAILURE (SILLS)

Condition: Poor
Quantity: Approx. 420 LF

PHOTO AE.08A
EXTERIOR CAULKING FAILURE
(CONTROL JOINTS)

Condition: Poor
Quantity: Approx. 140 LF

PHOTO AE.08B
EXTERIOR CAULKING FAILURE
(CONTROL JOINTS)

Condition: Poor
Quantity: Approx. 140 LF

PHOTO AE.09A
EXPOSED/RUSTED STEEL LINTELS

Condition: Poor
Quantity: Approx. 442 LF

PHOTO AE.09B
EXPOSED/RUSTED STEEL LINTELS

Condition: Poor
Quantity: Approx. 442 LF

PHOTO AE.10A
EXTERIOR CANOPY DETERIORATION
(RUSTING STRUCTURAL STEEL)

Condition: Poor
Quantity: Approx. (7) Canopies

PHOTO AE.10B
EXTERIOR CANOPY DETERIORATION
(SPALLING CONCRETE & EXPOSED REBAR)

Condition: Poor
Quantity: Approx. (7) Canopies

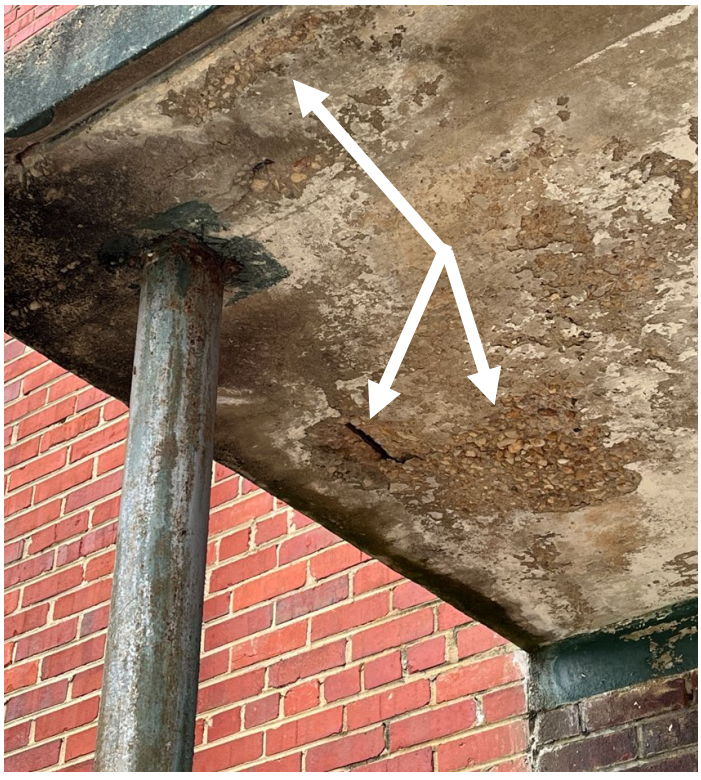


PHOTO AE.10C
EXTERIOR CANOPY DETERIORATION
(SPALLING CONCRETE)

Condition: Poor
Quantity: Approx. (7) Canopies

PHOTO AE.10D
EXTERIOR CANOPY DETERIORATION

Condition: Poor
Quantity: Approx. (7) Canopies

PHOTO AE.11A
EXTERIOR DOORS & FRAMES
(RUSTED / DETERIORATED)

Condition: Poor
Quantity: Approx. (26) Doors & Frames

PHOTO AE.11B
EXTERIOR DOORS & FRAMES
(DETERIORATED)

Condition: Poor
Quantity: Approx. (26) Doors & Frames

PHOTO AE.11C
EXTERIOR DOORS & FRAMES
(BROKEN DOOR GLASS)

Condition: Poor
Quantity: Approx. (26) Doors & Frames

PHOTO AE.11D
EXTERIOR DOORS & FRAMES
(RUSTED FRAMES)

Condition: Poor
Quantity: Approx. (26) Doors & Frames

PHOTO AE.12A
EXTERIOR WINDOWS & FRAMES
(RUSTED FRAMES)

Condition: Poor
Quantity: Approx. 2,070 SF

PHOTO AE.12B
EXTERIOR WINDOWS & FRAMES
(BROKEN WINDOW GLASS)

Condition: Poor
Quantity: Approx. 2,070 SF

PHOTO AE.12C
EXTERIOR WINDOWS & FRAMES
(MISSING MULLION / TRIM)

Condition: Poor
Quantity: Approx. 2,070 SF

PHOTO AE.12D
EXTERIOR WINDOWS & FRAMES
(MISSING MULLION / TRIM))

Condition: Poor
Quantity: Approx. 2,070 SF

PHOTO AE.13A
CONCRETE SIDEWALK / STAIR REPAIRS

Condition: Poor / Fair
Quantity: Approx. 4,085 SF

PHOTO AE.13B
CONCRETE SIDEWALK / STAIR REPAIRS

Condition: Poor / Fair
Quantity: Approx. 4,085 SF

PHOTO AE.13C
CONCRETE SIDEWALK / STAIR REPAIRS

Condition: Poor / Fair
Quantity: Approx. 4,085 SF

PHOTO AE.13D
CONCRETE SIDEWALK / STAIR REPAIRS

Condition: Poor / Fair
Quantity: Approx. 4,085 SF

PHOTO AE.14A
DOWNSPOUTS (RUSTED & LEAKING)

Condition: Poor
Quantity: See Roof Section

PHOTO AE.14B
DOWNSPOUTS (RUSTED & LEAKING)

Condition: Poor
Quantity: See Roof Section

PHOTO AE.15
METAL SOFFIT PANEL DAMAGE

Condition: Fair
Quantity: (1) Location

PHOTO AE.16
EXTERIOR SURFACE METAL CONDUIT (RUSTED)

Condition: Poor / Fair
Quantity: Approx. 35 LF

PHOTO AE.17
EROSION / PONDING WATER @ HVAC UNIT

Condition: Poor
Quantity: Approx. (2) Locations

PHOTO AE.18
SEAL EXPOSED BUILDING ENVELOPE

Condition: Fair
Quantity: (1) Location

PHOTO AE.19
MECHANICAL LOUVERS (UNDERSIZED)

Condition: Poor / Fair
Quantity: Approx. (13) Louvers

PHOTO AE.20
EXTERIOR JOINT FAILURE
(SIDEWALK TO EXTERIOR WALL)

Condition: Poor
Quantity: Approx. 612 LF

PHOTO AE.21A
EXTERIOR BUILDING CLEANING

Condition: Poor / Fair
Quantity: Approx. 43,763 SF

PHOTO AE.21B
EXTERIOR BUILDING CLEANING

Condition: Poor / Fair
Quantity: Approx. 43,763 SF

PHOTO AE.22A
STAND-ALONE STORAGE BUILDING

Condition: Poor / Fair
Quantity: Approx. 4,000 SF

PHOTO AE.22B
STAND-ALONE STORAGE BUILDING
Condition: Poor / Fair
Quantity: Approx. 4,000 SF

Interior

Overall, the school interior appears to be in poor to fair condition. Original building interior finishes are in poor to fair condition. A small portion of the original building (approximately 5,100 square feet) has been recently updated to incorporate new flooring, wall and ceiling finishes along with upgraded light fixtures and are in fair to good condition.

Main corridors have flooring materials consisting of a combination of terrazzo, vinyl composition tile (VCT) and quarry tile in fair condition. General offices and classrooms have flooring materials consisting of vinyl composition tile (VCT) in poor to fair condition. Typical ceilings throughout the school are either acoustical ceiling tile (ACT) or exposed gypsum roof deck ceilings and are in poor to fair condition. Acoustical ceilings are damaged and beginning to sag in numerous areas while the gypsum roof deck shows signs of mold and damage in specific areas. General classroom casework is in poor to fair condition. Painted wall finishes throughout are typically in poor to fair condition with mid-height ceramic tile wainscotting throughout the corridors. Numerous areas (i.e., windows, sills, toilets, etc.) are in need of interior caulking with signs of water infiltration at exterior windows.

Group toilets have quarry floor tile which appears to generally be in poor to fair condition with areas in need of repair. Single toilets in classrooms have ceramic floor tile and appear to be in poor to fair condition with limited areas in need of repair. The walls are a combination of painted concrete masonry unit (CMU) and/or ceramic wall tile wainscotting which appear to be in poor to fair condition. The ceilings are acoustical ceiling tile (ACT) or gypsum roof deck and are in poor to fair condition. Acoustical ceilings are damaged and beginning to sag in numerous areas while the gypsum roof deck shows signs of mold and damage in specific areas. Sinks and toilet compartments are in poor to fair condition.

The gymnasium has rubber tile flooring in fair condition. The gymnasium walls are painted concrete masonry unit (CMU) and are in fair to good condition. The ceilings are exposed (open) structure with painted concrete deck and are in generally fair condition. The gymnasium stage is in fair condition showing signs of normal wear to the wood flooring and painted concrete masonry unit (CMU) finishes. The ceiling is an exposed (open) structure with painted concrete deck in fair condition. The exposed (open) ceiling supports stage curtains and lighting systems in fair condition.

The multi-purpose room/library (with recent updated finishes) consists of carpet flooring and painted CMU masonry walls. The painted concrete masonry unit (CMU) and gypsum roof deck along with carpet flooring appear to be in good condition with limited areas of needed repair. The casework and library shelving are in good condition.

The main kitchen and serving areas (utilized for storage) have flooring materials consisting of quarry tile with painted concrete masonry unit (CMU) kitchen walls and quarry tile wall base and are in poor condition.

PHOTO AI.01
MAIN CORRIDOR

PHOTO AI.02A
TYPICAL CORRIDOR FLOORING (TERRAZZO)

Condition: Fair
Quantity: Approx. 2,509 SF

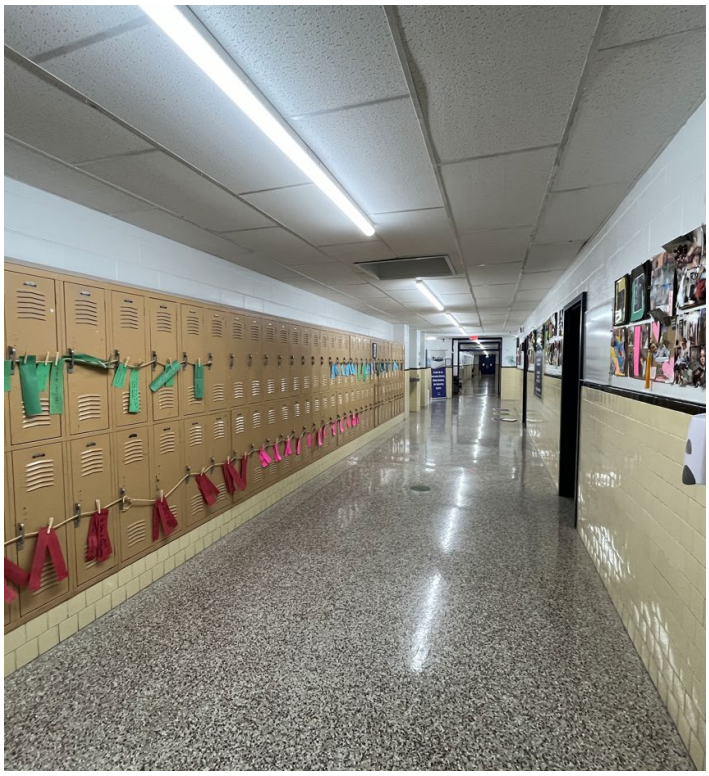


PHOTO AI.02B
TYPICAL CORRIDOR FLOORING (CRACKING TERRAZZO)

Condition: Fair
Quantity: Approx. 2,509 SF

PHOTO AI.03
TYPICAL CORRIDOR FLOORING (VCT)

Condition: Fair
Quantity: Approx. 3,671 SF

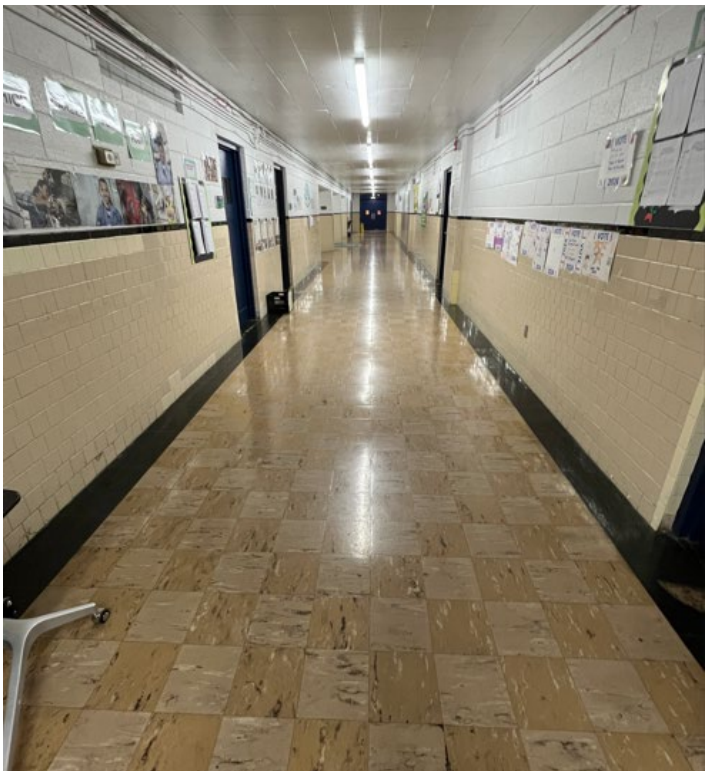


PHOTO AI.04A
TYPICAL CLASSROOM FLOORING (VCT)
(TILE CORNERS CUPPING)

Condition: Poor / Fair
Quantity: Approx. 34,005 SF

PHOTO AI.04B
TYPICAL CLASSROOM FLOORING (VCT)
(TILE CORNERS CUPPING)

Condition: Poor / Fair
Quantity: Approx. 34,005 SF

PHOTO AI.04C
TYPICAL CLASSROOM FLOORING (VCT)
(DAMAGED TILE)

Condition: Poor / Fair
Quantity: Approx. 34,005 SF

PHOTO AI.05
UPDATED CLASSROOM FLOORING (CARPET)

Condition: Fair / Good
Quantity: Approx. 2,678 SF

PHOTO AI.06A
TYPICAL ACOUSTICAL CEILINGS (GYPSUM)
(DAMAGED W/ MOLD GROWTH)

Condition: Poor / Fair
Quantity: Approx. 20,494 SF

PHOTO AI.06B
TYPICAL ACOUSTICAL TILE CEILINGS (ACT)
(SAGGING TILES)

Condition: Poor / Fair
Quantity: Approx. 23,269 SF

PHOTO AI.06C
WATER INFILTRATION & MOLD GROWTH
(ACT CEILINGS)

Condition: Poor / Fair
Quantity: Approx. 23,269 SF

PHOTO AI.06D
WATER INFILTRATION (ACT CEILINGS)

Condition: Poor / Fair
Quantity: Approx. 23,269 SF

PHOTO AI.06E
WATER INFILTRATION (ACT CEILINGS)

Condition: Poor / Fair
Quantity: Approx. 23,269 SF

PHOTO AI.07
TYPICAL CLASSROOM CASEWORK

Condition: Poor / Fair
Quantity: See ADA Compliance Section

PHOTO AI.08A
PAINTED WALL FINISHES (INTERIOR)

Condition: Poor / Fair
Quantity: Approx. 40,673 SF

PHOTO AI.08B
PAINTED WALL FINISHES (INTERIOR)

Condition: Poor / Fair
Quantity: Approx. 40,673 SF

PHOTO AI.08C
PAINTED WALL FINISHES (INTERIOR)

Condition: Poor / Fair
Quantity: Approx. 40,673 SF

PHOTO AI.09A
CERAMIC TILE WAINSCOTTING
(CORRIDORS)

Condition: Poor / Fair
Quantity: Approx. 3,090 SF

PHOTO AI.09B
CERAMIC TILE WAINSCOTTING
(CORRIDORS)

Condition: Poor / Fair
Quantity: Approx. 3,090 SF

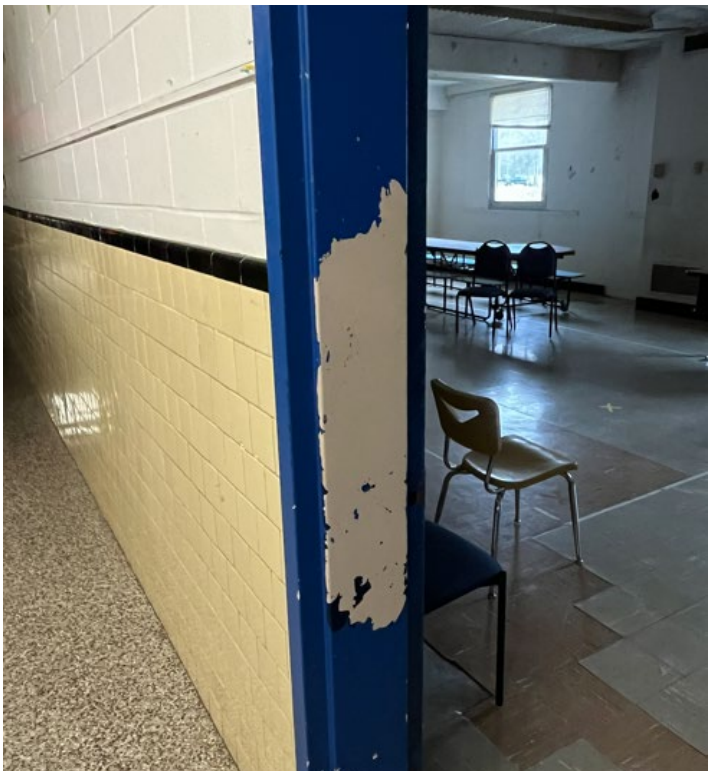


PHOTO AI.10A
INTERIOR DOOR FRAMES (PEELING PAINT)

Condition: Poor / Fair
Quantity: Approx. 43,673 SF (84 Frames)

PHOTO AI.10B
INTERIOR DOOR FRAMES (RUSTED)

Condition: Poor / Fair
Quantity: Approx. 43,673 SF (84 Frames)

PHOTO AI.11
INTERIOR DOORS

Condition: Poor / Fair
Quantity: Included in Item AI.10A

PHOTO AI.12A
TYPICAL GROUP TOILET ROOMS

Condition: Poor / Fair
Quantity: Approx. 1,346 SF

PHOTO AI.12B
TYPICAL GROUP TOILET ROOMS

Condition: Poor / Fair
Quantity: Approx. 1,346 SF

PHOTO AI.13A
TYPICAL SINGLE TOILET ROOMS

Condition: Poor / Fair
Quantity: Approx. 225 SF

PHOTO AI.13B
TYPICAL SINGLE TOILET ROOMS

Condition: Poor / Fair
Quantity: Approx. 225 SF

PHOTO AI.14
INTERIOR RESTROOM WINDOWS (DARKENED)

Condition: Poor / Fair
Quanitity: Approx. (4) Windows

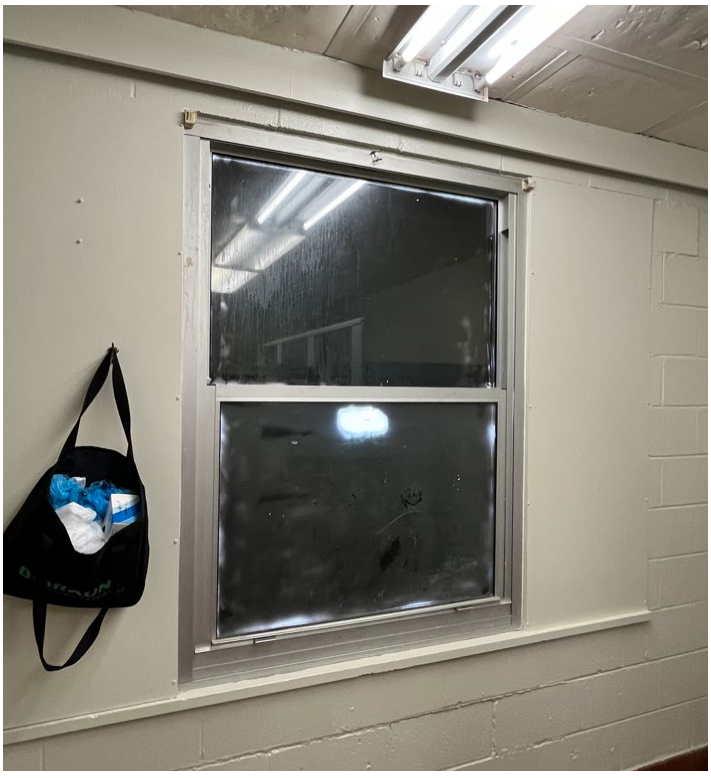
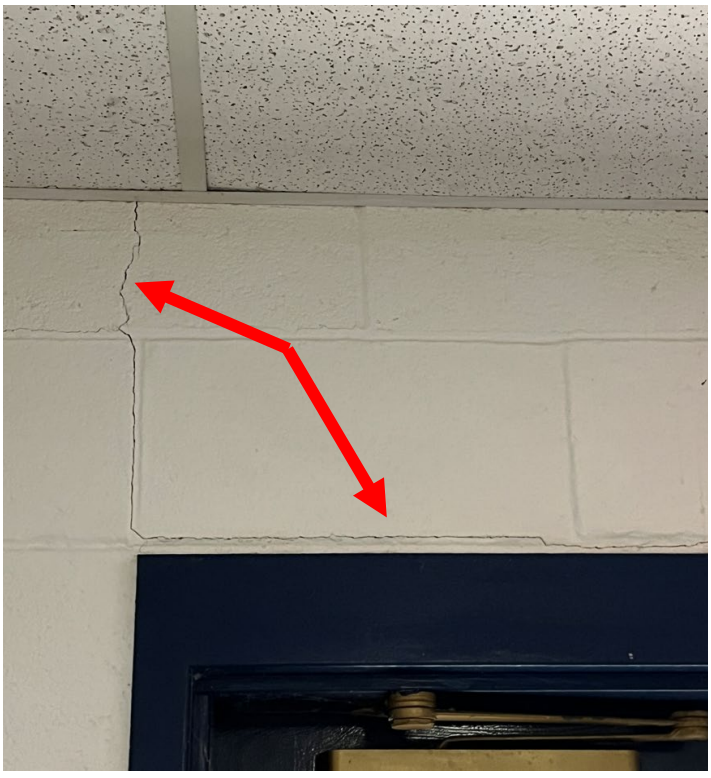


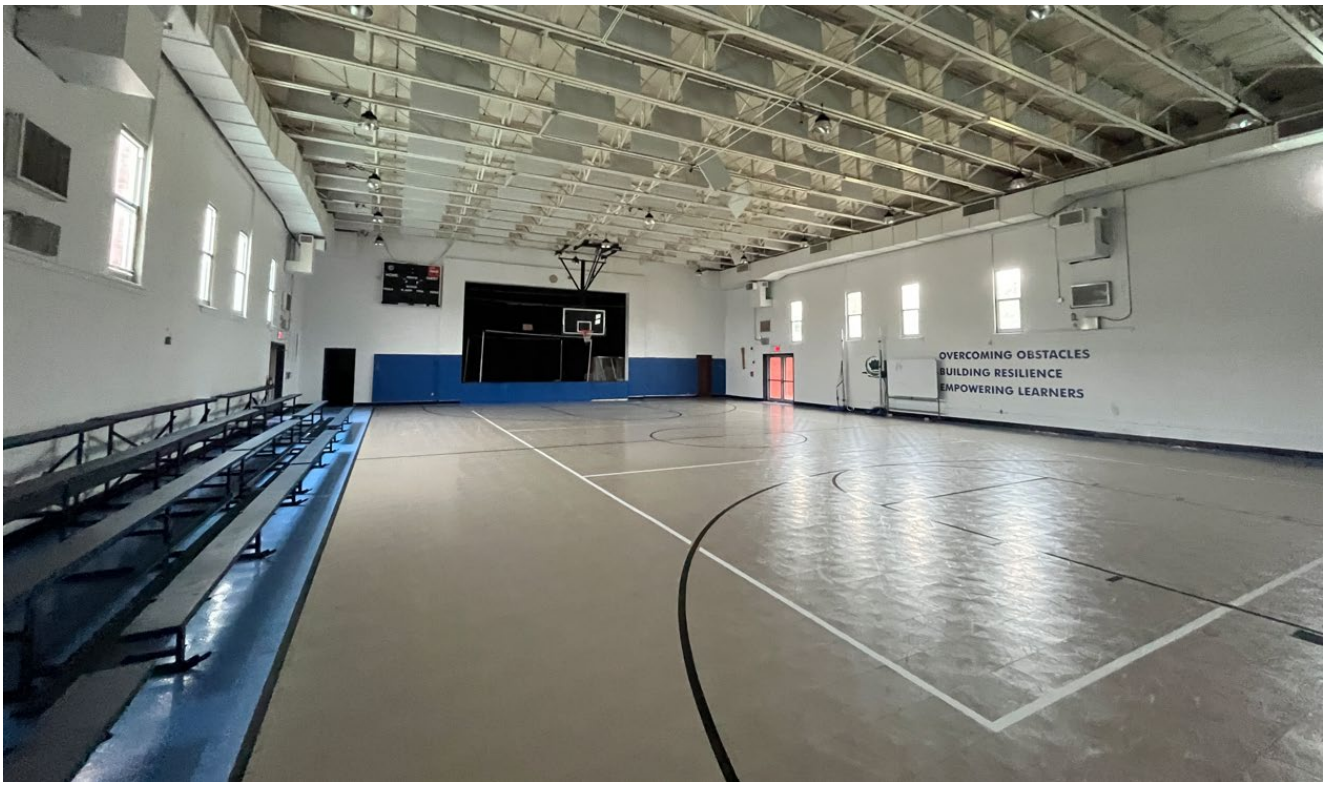
PHOTO AI.15
WINDOW BLINDS (CLASSROOMS)

Condition: Poor / Fair
Quanitity: Approx. 43,763 SF (80 Blinds)

PHOTO AI.16
CONCRETE MASONRY UNIT (CMU) CRACKING

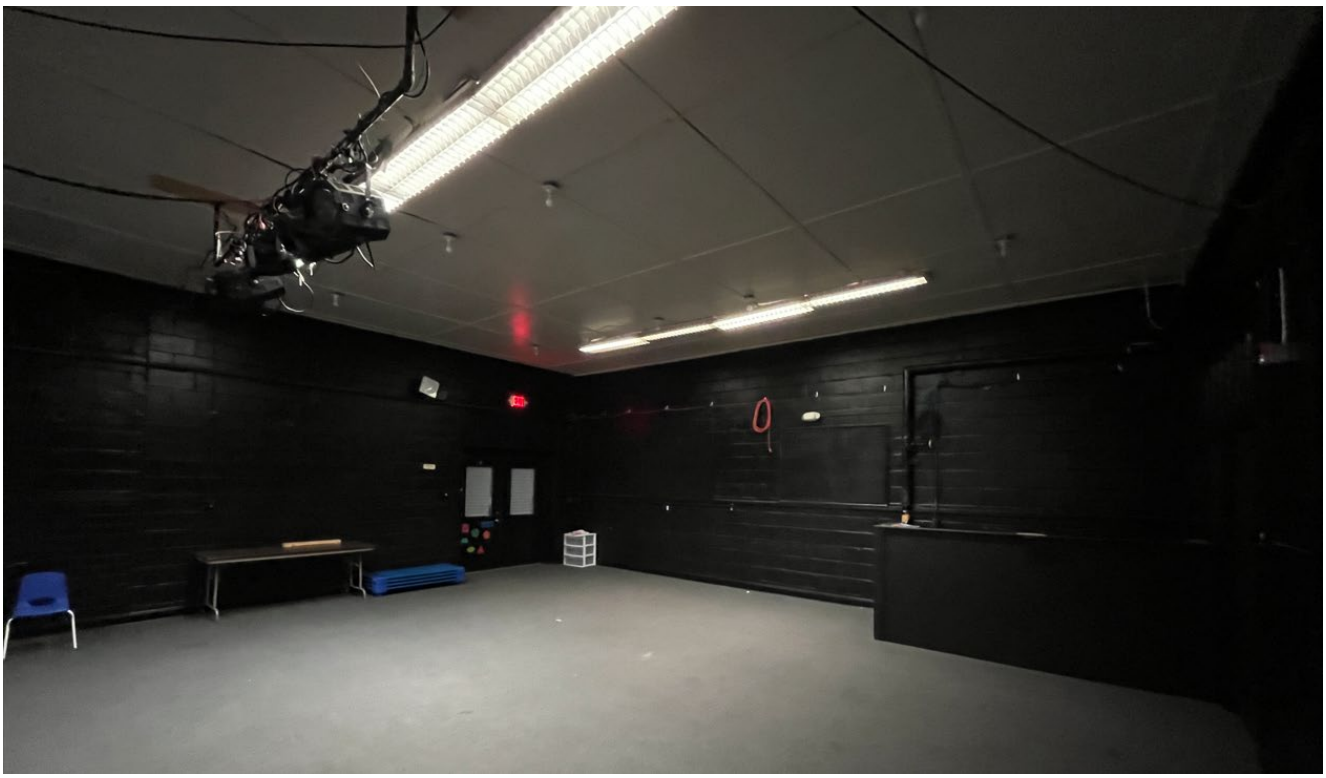
Condition: Fair
Quanitity: Approx. 45 LF





PHOTOS AI.17 & AI.18
GYMNASIUM & GYM STAGE

PHOTOS AI.19 & AI.20
MULTI-PURPOSE ROOM / LIBRARY



PHOTOS AI.21 & AI.22
THEATRE & STAGE

PHOTOS AI.23 & AI.24
GENERAL CLASSROOMS

ADA (Americans with Disabilities Act) Compliance

A limited ADA Compliance Assessment of Old Ladysmith Elementary School (built in 1968) 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. Provide handrails with extensions (top and bottom) at stage stairs.
2. Provide accessible egress and maneuvering clearances on pull and push sides of manual swinging doors.
3. Install compliant door hardware.
4. Install compliant wall mounted drinking fountains.
5. Install compliant wall mounted additional service features (i.e., AED's, dispensers, etc.).
6. Install accessible direction and room signage throughout the building.
7. Install signage indicating the location of accessible toilets.
8. Provide casework sinks with code compliant knee and toe clearances.
9. Install pipe wrap which is missing on accessible sinks.
10. Upgrade individual and group restrooms to meet accessibility standards.
11. Replace classroom casework faucets with code compliant hardware.
12. Remove stored materials to provide accessible route within clinic.
13. Provide new handrails with extensions (top and bottom) at exterior stairs.

PHOTO AA.01
HANDRAILS EXTENSIONS @ STAGE STAIRS (ADAAG 505.10)

Condition: Fair
Quantity: Approx. 12 LF

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

Condition: Poor / Fair
Quantity: Approx. (10) Locations

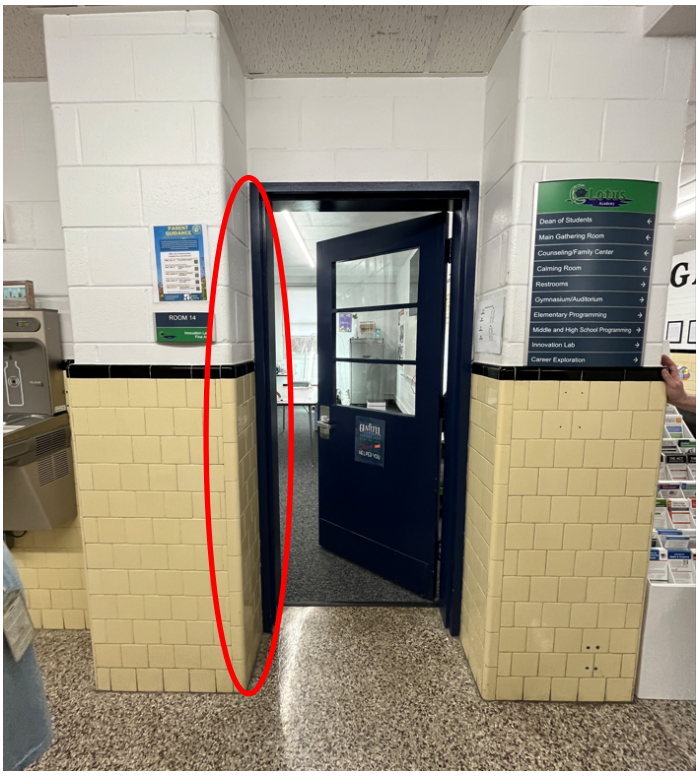


PHOTO AA.03
DOOR HARDWARE - NON-COMPLIANT
(ADAAG 404.2)

Condition: Poor / Fair
Quantity: Approx. (84) Doors

PHOTO AA.04
DRINKING FOUNTAINS - PROTRUSION LIMITS (ADAAG 307.2)

Condition: Fair / Good
Quantity: Approx. (3) Locations

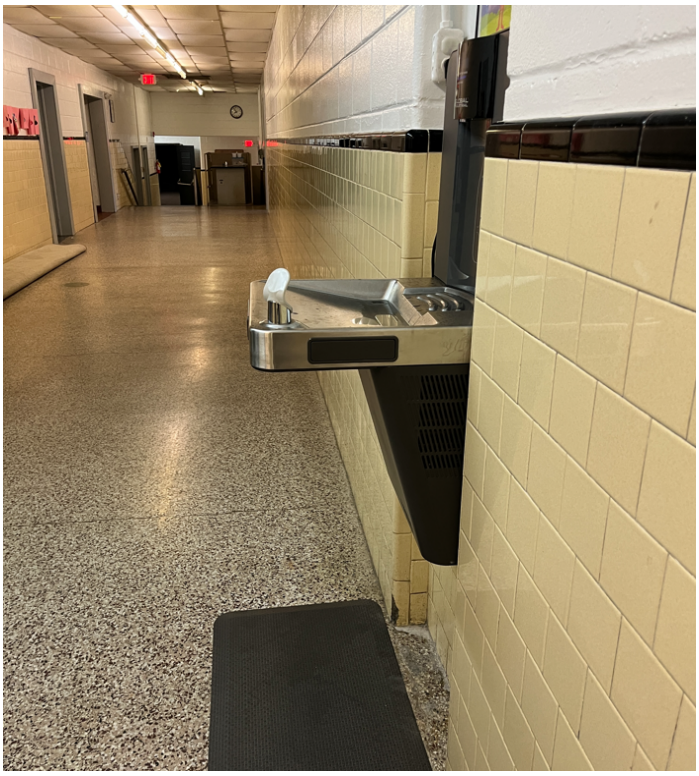


PHOTO AA.05
AED DEVICE - PROTRUSION LIMITS (ADAAG 307.2)

Condition: Poor / Fair
Quantity: (1) Location

PHOTO AA.06
BUILDING SIGNAGE - LOCATION & HEIGHT
(ADAAG 216 & 703)

Condition: Poor / Fair
Quantity: Approx. 84 Signs

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

Condition: Poor / Fair
Quantity: Approx. (6) Locations

PHOTO AA.08
CASEWORK SINKS - KNEE AND TOE CLEARANCE (ADAAG 606)

Condition: Poor / Fair
Quantity: Approx. (12) Sinks

PHOTO AA.09
LAVATORIES & SINKS - EXPOSED PIPES (ADAAG 606.5)

Condition: Poor
Quantity: Approx. (16) Sinks

PHOTO AA.10
INDIVIDUAL TOILET ROOM(S) - GRAB BARS, PATH OF TRAVEL, CLEARANCES & FIXTURES (ADAAG 309.4, 604.3, 604.5, 606.5 & 609.3)

Condition: Poor / Fair
Quantity: Approx. (15) Restrooms

PHOTO AA.11
GROUP TOILET ROOM(S) - GRAB BARS, PATH OF TRAVEL, CLEARANCES & FIXTURES (ADAAG 309.4, 604.3, 604.5, 606.5 & 609.3)

Condition: Poor / Fair
Quantity: Approx. (6) Restrooms

PHOTO AA.12
CLASSROOM CASEWORK FAUCETS
(ADAAG 309.4 & 606.4)

Condition: Fair
Quantity: Approx. (12) Sink Faucets

PHOTO AA.13
STORED MATERIALS - CLINIC
(ADAAG 302, 402 & 403)

Condition: Fair
Quantity: (1) Location

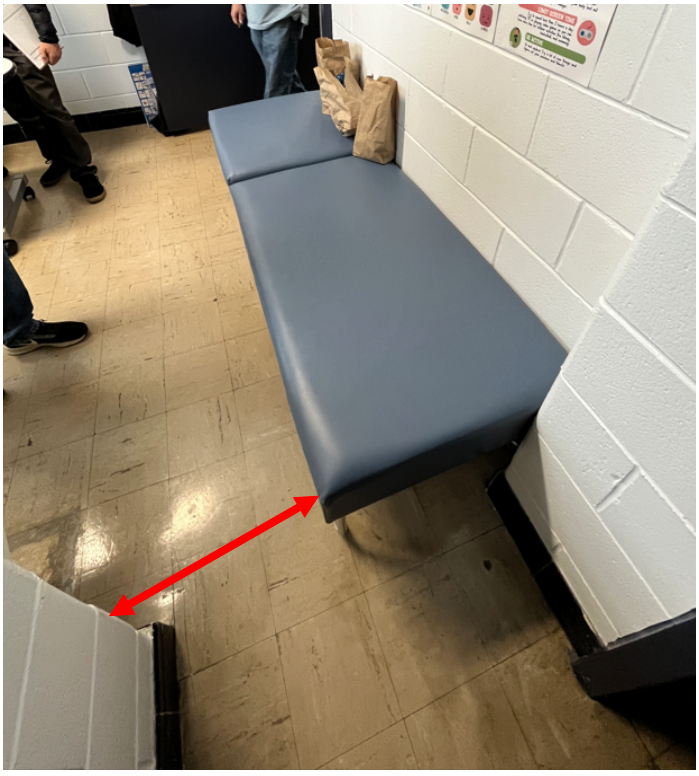


PHOTO AA.14
HANDRAILS @ EXTERIOR STAIRS
(ADAAG 505)

Condition: Poor
Quantity: Approx. 60 LF

Building Code Compliance (and Safety/Security) Assessment

A limited Building Code Compliance and Safety/Security assessment of Old Ladysmith Elementary School (built in 1968) 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. Unsecured electrical panels.
3. Stored items around electrical panel boards and within panelboard clearances.
4. Improper use of extension cords.
5. Install protective coverings over fluorescent light fixtures.
6. Install illuminated fire exit sign in proper location.
7. Install operable/adequate light fixtures at exterior canopies.
8. Door push hardware possible to be chained together as trap hazard.

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. (6) Locations

PHOTO AB.02
UNSECURED ELECTRICAL PANELS

Condition: Fair / Good
Quantity: Multiple (School-Wide)

PHOTO AB.03
PROPER ELECTRICAL PANEL CLEARANCE
(NEC 110-26)

Condition: Fair / Good
Quantity: (1) Location

PHOTO AB.04
USE OF EXTENSION CORDS
(NFPA 11.1.5)

Condition: Fair
Quantity: (1) Location

PHOTO AB.05
FLOURESCENT LIGHT GUARDS (OSHA)

Condition: Fair
Quantity: Approx. (10) Light Fixtures

PHOTO AB.06
IMPROPER ILLUMINATED EXIT SIGN LOCATION (OSHA 1910.37 & NFPA 101)

Condition: Poor
Quantity: (1) Location

PHOTO AB.07
INADEQUATE/INOPERABLE LIGHTING @ EXTERIOR EXIT CANOPY (OSHA 1910.37)

Condition: Poor
Quantity: Approx. (6) Locations

PHOTO AB.08
PANIC EXIT DOOR HARDWARE (TRAP HAZARD)

Condition: Fair
Quantity: Approx. (6) Double Doors

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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 life expectancy for this type of roof is 40 to 50 years.

Based on the year the school was built (1968) and the roofs' current condition, it seems likely that the original roof totaling approximately 39,121 square feet has not been replaced since the building was built 56 years ago. With an average life expectancy of 40-50 years for similar roofing systems, it appears the current roofing system has surpassed its average life span and should be considered for replacement. The Post-1992 standing seam metal roof (approximately 32 years old) appears fair in condition with limited oxidation and rust.

Additional significant issues were discovered during our inspection consisting of deteriorated/rusted gutters and downspouts as well as signs of water infiltration identified within the building.

PHOTO AR.01A
STANDING SEAM METAL (SSM) ROOF
(ORIGINAL BUILDING)

Condition: Poor / Fair
Quantity: Approx. 39,121 SF

PHOTO AR.01B
PANEL RUST/DETERIORATION - SSM ROOF

Condition: Poor / Fair
Quantity: Approx. 39,121 SF

PHOTO AR.01C
PANEL RUST/DETERIORATION - SSM ROOF

Condition: Poor / Fair
Quantity: Approx. 39,121 SF

PHOTO AR.01D
PANEL RUST/DETERIORATION - SSM ROOF

Condition: Poor / Fair
Quantity: Approx. 39,121 SF

PHOTO AR.01E
DETERIORATED CAULKING REPAIRS - SSM ROOF

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.01F
DETERIORATED CAULKING REPAIRS - SSM ROOF

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02A
RUSTED GUTTERS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02B
RUSTED GUTTERS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02C
RUSTED GUTTERS & DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02D
RUSTED GUTTERS & DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02E
RUSTED DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02F
DETERIORATED DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02G
MISSING DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02H
CLOGGED/OVERFLOWING DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.02I
CLOGGED/OVERFLOWING DOWNSPOUTS

Condition: Poor
Quantity: Approx. 39,121 SF

PHOTO AR.03A
WALL FLASHING DETERIORATION

Condition: Poor
Quantity: Approx. 39,121 SF

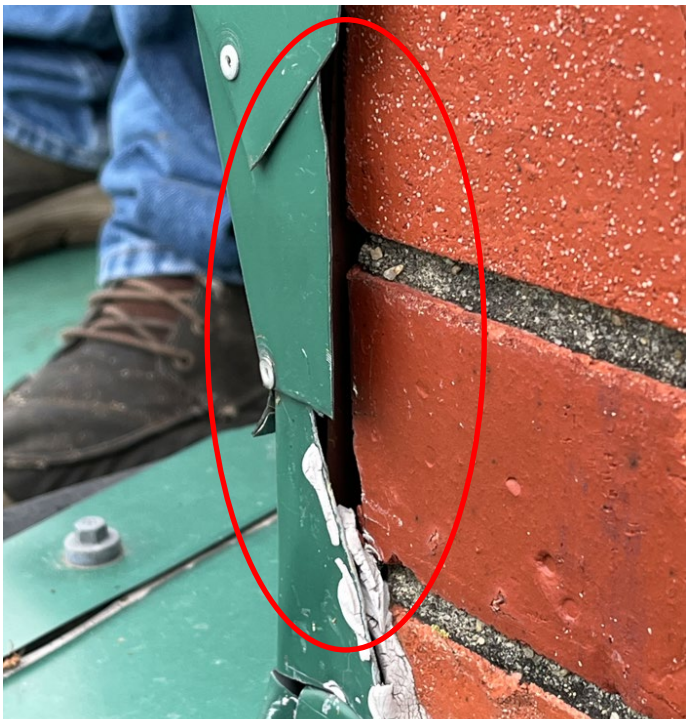

PHOTO AR.03B
WALL FLASHING DETERIORATION

Condition: Poor
Quantity: Approx. 39,121 SF

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Mechanical Systems Assessment

Overall, the mechanical system is in poor condition.

The original building was constructed in 1968 with several renovations having taken place. Air conditioning was added to the building during a 1976 renovation. This saw the installation of packaged cooling only rooftop units to serve classroom spaces. 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 two boiler plants. One consisted of one (1) natural gas fired boiler. Three (3) heating hot water pumps distributed water around the addition. The other boiler room is in the basement of the building and provided heating water to the original portion of the building via one (1) boiler. 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 classroom has a single zone packaged exterior wall mounted Bard style heat pump units that were installed in 2009. The gymnasium 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 is an existing AHU in a mechanical mezzanine that was abandoned in place that used to serve the gymnasium. The admin offices have PTAC units that are in fair condition. There is no cafeteria or kitchen in this building. The kitchen was converted to storage for the theater and the kitchen hood was abandoned in place. One group toilet was recently renovated and is served by two (2) ductless mini-split system heat pumps. These mini-splits are in good condition. There are roof-mounted exhaust fans serving the renovated group toilets. These exhaust fans are in good condition. There is one set of group toilets that does not have an exhaust fan connection. This will need to be added to be code compliant.

Terminal heating equipment provides heat for entrances of the building and in the older group toilets. Wall mounted electric cabinet unit heaters are surface mounted in the vestibules. Wall mounted electric unit heaters provide heating to the group toilets. The terminal heating equipment is in fair condition.

Ductwork and Air Terminals. There is minimal ductwork in this building. There are only two classroom Bard style units that have duct connections. The gymnasium Bard style units have minimal supply ductwork connections. There is additional ductwork in the gym connected to the abandoned AHU. The ductwork is in fair condition. Air terminals in the renovated portion of the building are clean and in good condition. The air terminals in the rest of the building are showing signs of rust and/or mold and need to be replaced.

Piping and pipe insulation is original to the building and in poor condition and likely contains asbestos. 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 2000 renovation. The Siemens BAS system is in working order.

PHOTO M.01
HOT WATER PUMPS & PIPING

Condition: Abandoned
Quantity: (3)

PHOTO M.02
DUCTWORK IN CLASSROOM

Condition: Fair
Quantity: Approx. 2,010 SF

PHOTO M.03
RENOVATED CLASSROOM AIR TERMINAL

Condition: Good
Quantity: Approx. 12,135 SF

PHOTO M.04
GYMNASIUM DUCTWORK

Condition: Fair
Quantity: Approx. 4,500 SF

PHOTO M.05
OLD CLASSROOM AIR TERMINALS

Condition: Poor
Quantity: Approx. 27,090 SF

PHOTO M.06
ADMIN AREA PTAC

Condition: Fair
Quantity: (4)

PHOTO M.07
KITCHEN HOOD

Condition: Abandoned
Quantity: (1)

PHOTO M.08
OLD CLASSROOM BARD UNIT

Condition: Poor
Quantity: Approx. (12) Units

PHOTO M.09
CABINET UNIT HEATER

Condition: Poor / Fair
Quantity: (5)

PHOTO M.010
GYMNASIUM AHU

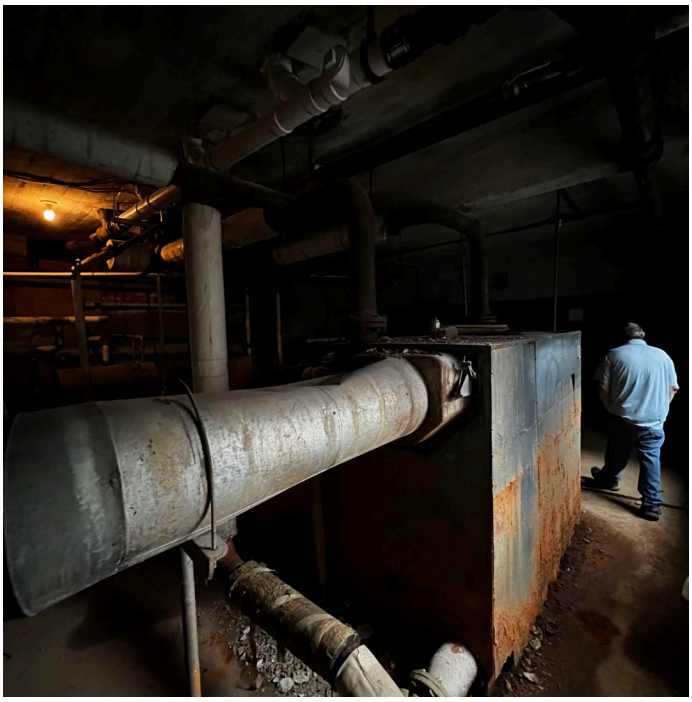
Condition: Abandoned
Quantity: (1)

PHOTO M.11
GROUP TOILET MINI SPLIT

Condition: Good
Quantity: (2)

PHOTO M.12
BOILER

Condition: Abandoned
Quantity: (2)



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 recently renovated classroom Bard style units are in good condition and have most of their expected life in them.

3. 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.

4. The general heating, cooling, and ventilation system for the unrenovated classroom wings are not ideal. The air terminals and sensors are in poor condition. The Bard style units are near the end of their life and should be considered for replacement.

Electrical Systems Assessment

Overall, the electrical system is in poor condition.

Power distribution is provided via a 480V-3 Phase-1600A service via a Square D switchboard that was dated 1991. This switchboard is in fair condition but due to its age, and difficulty acquiring parts, it is advisable that the switchboard be replaced with a newer model.

PHOTO E.01
ELECTRICAL SWITCHBOARD (480V)

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. There is a section of the building that has been updated in 2016 and electrically on the surface, that section does not need any renovation, however the entire rest of the building's electrical system is in extremely poor condition in many places and should be replaced in it's entirely as well as all associated wiring.

PHOTO E.02A
EXISTING PANELS

Condition: Poor
Quantity: Approx. 43,763 SF

PHOTO E.02B
EXISTING PANELS

Condition: Poor
Quantity: Approx. 43,763 SF

PHOTO E.03
LIGHT FIXTURES (INCANDESCENT)

Condition: Poor
Quantity: Approx. 43,763 SF

PHOTO E.04
EXIT SIGN (INCANDESCENT)

Condition: Good
Quantity: Approx. 43,763 SF

Interior lighting consists of a mixture of fixture types and lamp types, some have been converted to LED in 2016, but most of the light in the building needs to be replaced because it is in very poor condition. While the existing renovated fixtures are functional, the entire rest of the lighting should be replaced. 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 poor lighting levels in areas of the building. Lighting controls are manual type only in many areas. There are no daylight harvesting or automatic lighting controls, which are also now required per the IECC.

The facility currently does not have a generator and emergency lighting is done by emergency wall packs. Most emergency wall packs were not installed correctly and many of them did not work.

All non-LED light fixtures should be replaced with efficient LED light fixtures and the existing battery-operated wall pack should be replaced. 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.

Exterior building mounted lighting consists predominately of wall mounted fluorescent light fixtures. These fixtures are currently functional, but all non-LED fixtures should be replaced with LED.

PHOTO E.05
EXTERIOR LIGHT FIXTURES (TYPICAL)

Condition: Good
Quantity: (20)

Parking lot lighting consists of (1) single pole mounted HID luminaires provided by the power company that appears to be in poor condition and should be replaced and several new should be added.

The **fire alarm system** main control panel is a Notifier NFS-320 series and contains peripheral equipment. The system consists of wall mounted audio/visual devices, manual pull stations located at most exit passages, but there were a few areas that were supposed to have notification devices that did not. Additional peripheral devise should be added throughout the building. The existing fire alarm control panel is functional and does not need to be replaced.

PHOTO E.06
FIRE ALARM CONTROL PANEL

Condition: Good
Quantity: (1)

Wiring devices consist of devices original to the building and newer devices added overtime. Many devices throughout the building were in poor condition and the overall condition requires an overall of the system. There are areas where a water source is present, and the receptacles are not GFCI. Existing conditions related to some ground-fault protections do not comply with current NEC requirements and associated devices should be replaced. There also appears to be a lack of power outlets within areas as there are multiple power strips throughout. Additional outlets should be provided to avoid the use of power strips.

Local means of disconnects appear to be original to installation of equipment. Most of the mechanical equipment has been replaced since the building was original along with associated disconnects, and a few are in fair condition, but the overall system is in poor condition due to age and is due for replacement.

PHOTO E.07
DISCONNECTS

Condition: Very Poor
Quantity: Approx. 43,763 SF

The **intercom/clock system** is not functioning properly in many places, as most of the clocks were displaying a different type. The existing system is currently a functional system that controls all intercommunications and clock scheduling throughout the facility. The system is in fair condition and does not need to be replaced in near future. Most of the clocks throughout the corridors are clocks. However, some classrooms utilize battery operated clocks that are not compatible with the clock system. It is recommended that the clock system be replaced with a newer system and standardized clocks be located throughout the school.

PHOTO E.08
CLOCK (TYPICAL)

Condition: Fair
Quantity: Approx. 43,763 SF

The **data/phone/CATV/AV** systems have been upgraded in some rooms but are in poor condition in remainder of the building.

The **closed-circuit security camera (CCTV) system** has been updated and is in good condition, more devices can be added for better coverage if needed.

PHOTO E.09
ANALOG CAMERA

Condition: Fair / Good
Quantity: Approx. 43,763 SF

A **security** system was not present for this building.

The **gymnasium sound system** was not present.

Overall Recommendations

1. The existing switchboard should be replaced with new equipment.

2. All panelboards associated with the service should be replaced due to the age of the panelboards.

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

4. 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.

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

6. The existing fire alarm system can remain, but several associated peripheral equipment should be added.

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 most existing data cabling be replaced, and devices added as needed for each space us.

9. The CCTV system is in good condition and can remain.

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

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Plumbing Systems Assessment

Overall, the plumbing system is in poor condition.

Domestic Water service enters the building in the basement mechanical room. There is no backflow preventer protecting the water supply. The pressure reducing valve shows signs of age. There is visible corrosion and rust. The pipe insulation on the domestic piping in the mechanical rooms shows age and signs of moisture damage. There are two (2) gas fired hot water heaters. One serves the west wing of the building and is located in the basement. The second water heater provides domestic hot water to the east wing and is located in the mechanical room in the addition. The domestic hot water heaters were recently replaced, but do not have recirculation pumps. Recirculation pumps will need to be added to comply with VPC 607.2.1. All the domestic cold water and hot water piping distributed around the building is original and is beyond its expected life.

Sanitary drain piping is below the floor slab and the general condition could not be determined. All the sanitary piping is original to the building and is beyond its expected life. The renovated group toilets are located above the basement and all sanitary piping has been recently replaced with PVC pipe.

Plumbing Fixtures. The water closets in the renovated group toilets appeared in good condition and are floor mounted white vitreous china with automatic flush valves. The water closets in the rest of the group toilets are in poor condition and are white vitreous china with manual flush valves. The lavatories in gang bathrooms are wall mounted white vitreous china with manual faucets and additional floor supports. The lavatories in the unrenovated restrooms appear in poor condition. The lavatories in the classrooms are countertop mounted cultured stone with manual faucets and appeared in fair condition. The water coolers throughout the building were in good condition.

PHOTO P.01
HOT WATER HEATER

Condition: Good
Quantity: (1)

PHOTO P.02
HOT WATER HEATER

Condition: Good
Quantity: (1)

PHOTO P.03
CLASSROOM LAVATORY

Condition: Poor / Fair
Quantity: (30)

PHOTO P.04
LAVATORY DOMESTIC PIPING

Condition: Poor
Quantity: 500 lf

PHOTO P.5
WATER COOLER

Condition: Good
Quantity: (4)

PHOTO P.6
GROUP TOILET LAVATORY

Condition: Poor
Quantity: (6)

PHOTO P.7
GROUP TOILET LAVATORY DOUBLE SINK

Condition: Poor
Quantity: (2)

PHOTO P.8
WATER CLOSET

Condition: Poor
Quantity: (34)

PHOTO P.9
URINAL

Condition: Poor
Quantity: (4)

PHOTO P.10
RENOVATED WATER CLOSET

Condition: Good
Quantity: 650 SF

PHOTO P.11
RENOVATED LAVATORY

Condition: Good
Quantity: 650 sf

PHOTO P.12
RENOVATED WATER CLOSET

Condition: Good
Quantity: 650 sf

Recommendations

1. The plumbing systems not serving the renovated group toilet are at or near the end of their life and should be considered for replacement within the next several years. The electric water coolers and hot water heaters are in good condition and should be considered for replacement in fifteen (15) years.

2. Recirculation pumps will need to be added to the domestic hot water loops to comply with VPC 607.2.1.

3. The domestic water and sanitary piping (below the slab) was inaccessible. However, based on the age of the piping, the domestic and sanitary piping systems are beyond their estimated useful life.

Structural Assessment

A structural assessment was not completed as a part of this Facility Condition Assessment. Based on the age and projected future use of the Old Ladysmith Elementary School, the school division indicated the completion of a structural assessment was not required. Although a structural assessment was not completed, specific items typically noted within a structural assessment were noted in the architectural exterior and interior assessments.

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Fire Protection System Assessment

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

Old Ladysmith Elementary School is not protected with a fire suppression (sprinkler) system and does not have wall mounted fire extinguishers located throughout the corridors. Fire alarm pull stations are located adjacent to exterior exit doors and appear to be in working order. 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 school.

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

Condition: Not Applicable
Quantity: None

PHOTO FS.2
GENERAL CLASSROOMS - SPRINKLER SYSTEM

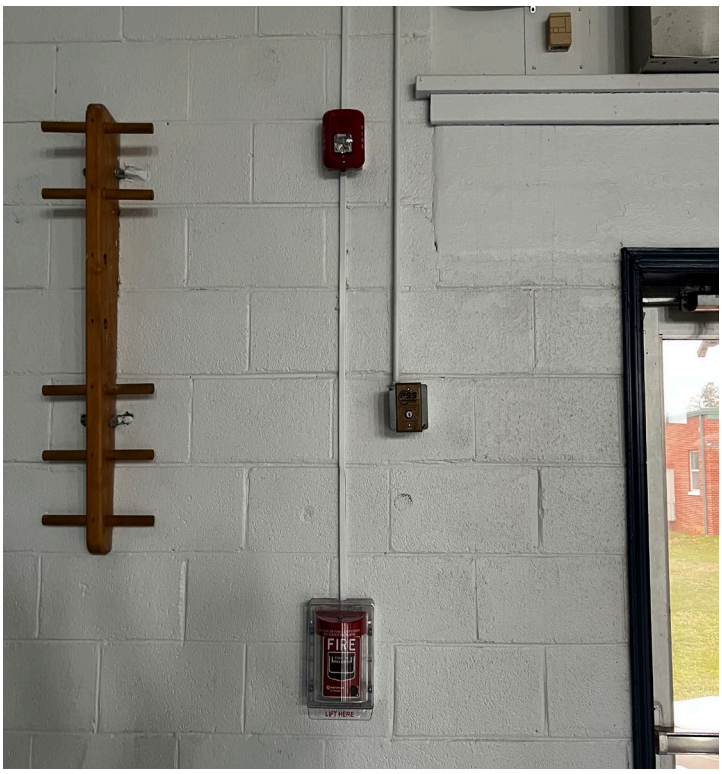
Condition: Not Applicable
Quantity: None

PHOTO FS.3
MAIN GYMNASIUM - SPRINKLER SYSTEM

Condition: Not Applicable
Quantity: None

PHOTO FS.4
FIRE ALARM SYSTEM

Condition: Good
Quantity: Approx. 43,763 SF



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Food Service (Kitchen) Assessment

A food service (kitchen) assessment was not completed as a part of this Facility Condition Assessment. Based on the age and projected future use of the Old Ladysmith Elementary School, the school division indicated the completion of a food service (kitchen) assessment was not required.

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Hazardous Materials Assessment

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

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SECTION FOUR

Deferred Maintenance Schedule

Caroline County Public Schools

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: Old Ladysmith Elementary School - Lotus Academy *(As of April 2024)*
Gross Square Feet: 43,763

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	Repair/Replace Damaged Exterior Brick Units	80	SF	$ 77.36	$ 6,189						$ 7,427										
AE.02	Repair Brick Masonry Cracks	125	SF	$ 77.36	$ 9,670						$ 11,604										
AE.03	Repair/Repoint Mortar Joints @ Brick	2,250	LF	$ 16.46	$ 37,035			$ 40,739													
AE.04	Repair/Replace Precast Sill Units	32	LF	$ 68.69	$ 2,198			$ 2,418													
AE.05	Remove/Replace Exterior Caulk (Windows)	1,272	LF	$ 4.23	$ 5,381			$ 5,919													
AE.06	Remove/Replace Exterior Caulk (Doors)	372	LF	$ 4.23	$ 1,574			$ 1,731													
AE.07	Remove/Replace Exterior Caulk (Precast Sills)	420	LF	$ 4.23	$ 1,777			$ 1,954													
AE.08	Remove/Replace Exterior Caulk (Control Joints)	140	LF	$ 4.23	$ 592		$ 622														
AE.09	Clean/Prep/Paint Steel Lintels	442	LF	$ 8.13	$ 3,595		$ 3,775														
AE.10	Remove/Replace Exterior Canopies	7	EA	$ 9,250.00	$ 64,750			$ 71,225													
AE.11	Remove/Replace Exterior Doors/Frames & Hardware	26	EA	$ 5,178.49	$ 134,641			$ 148,105													
AE.12	Remove/Replace Exterior Windows/Frames	2,070	SF	$ 129.54	$ 268,148			$ 294,963													
AE.13	Remove/Replace Concrete Sidewalks	4,085	SF	$ 16.46	$ 67,239			$ 73,963													
AE.14	Remove/Replace Downspouts	SEE ROOF SECTION																			
AE.15	Repair/Replace Damaged Metal Panel	1	EA	$ 2,250.00	$ 2,250					$ 2,633											
AE.16	Remove/Replace Rusted Metal Conduit	35	LF	$ 7.32	$ 256				$ 292												
AE.17	Repair Erosion & Install Condensate Line	2	EA	$ 725.00	$ 1,450			$ 1,595													
AE.18	Seal Opening in Building Envelope @ Piping Penetration	1	EA	$ 125.02	$ 125				$ 143												
AE.19	Remove/Replace Louvers Beneath Windows	13	EA	$ 278.66	$ 3,623				$ 4,130												
AE.20	Remove/Replace Building Perimter Caulk Joint	612	LF	$ 4.56	$ 2,791			$ 3,070													
AE.21	Perform Exterior Building Cleaning	43,763	SF	$ 0.14	$ 6,127				$ 6,985												
SUBTOTAL BUILDING EXTERIOR					**$ 619,409**	$ -	**$ 4,397**	**$ 645,680**	**$ 11,549**	**$ 2,633**	**$ 19,031**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING INTERIOR (Architectural Interior Assessment)																					
AI.01	Remove/Replace Terrazzo Corridor Flooring	2,509	SF	$ 31.59	$ 79,249					$ 92,722											
AI.02	Remove/Replace VCT Corridor Flooring	3,671	SF	$ 31.59	$ 115,952				$ 132,186												
AI.03	Remove/Replace VCT Classroom Flooring	34,005	SF	$ 8.30	$ 282,222			$ 155,222	$ 160,867												
AI.04	Remove/Replace Carpet Classroom Flooring	2,678	SF	$ 9.10	$ 24,370							$ 29,975									
AI.05	Remove/Replace Acoustical Ceilings	20,494	SF	$ 9.82	$ 201,266			$ 110,697	$ 114,722												
AI.06	Remove/Replace Classroom Casework	SEE ADA COMPLIANCE SECTION																			
AI.07	Clean/Prep/Paint Interior Walls	40,673	SF	$ 3.18	$ 129,340			$ 71,137	$ 73,724												
AI.08	Remove/Replace Damaged Ceramic Tile Wainscoting	3,090	SF	$ 16.90	$ 52,221				$ 59,532												
AI.09	Patch/Prep/Paint Walls and Door Frames	43,763	EA	$ 3.33	$ 145,731			$ 160,304													
AI.10	Remove/Replace Group Toilet Room Finishes	1,346	SF	$ 57.24	$ 77,042				$ 87,828												
AI.11	Remove/Replace Single Toilet Room Finishes	225	SF	$ 48.20	$ 10,845				$ 12,363												
AI.12	Remove/Replace Restroom Windows	4	EA	$ 864.97	$ 3,460			$ 3,806													
AI.13	Remove/Replace Interior Window Blinds	43,763	SF	$ 0.57	$ 24,945				$ 28,437												
AI.14	Remove/Repoint CMU Joint	45	LF	$ 27.87	$ 1,254					$ 1,467											

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: Old Ladysmith Elementary School - Lotus Academy *(As of April 2024)*
Gross Square Feet: 43,763

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
AI.15	Remove/Replace Rubber Tile Flooring (Gymnasium)	4,918	SF	$ 31.59	$ 155,340						$ 186,408										
SUBTOTAL BUILDING INTERIOR					**$ 1,303,238**	$ -	$ -	**$ 501,166**	**$ 669,658**	**$ 94,189**	**$ 186,408**	**$ 29,975**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ADA COMPLIANCE (ADA Compliance Assessment)																					
AA.01	Install Handrail Extensions at Interior Stairs	12	LF	$ 233.47	$ 2,802				$ 3,194												
AA.02	Provide Accessible Maneuvering Clearances at Doors	10	EA	$ 3,406.25	$ 34,063				$ 38,831												
AA.03	Provide Compliant Door Hardware	84	EA	$812.50	$ 68,250			$ 75,075													
AA.04	Provide Proper Clearances at Drinking Fountains	3	EA	$ 4,524.39	$ 13,573					$ 15,881											
AA.05	Install Compliant AED Devices	1	EA	$ 224.61	$ 225			$ 247													
AA.06	Install Accessible Room Signage (Type/Height)	84	EA	$ 108.45	$ 9,110			$ 10,021													
AA.07	Install Accessible Directional Signage (Type/Height)	6	EA	$ 108.45	$ 651				$ 742												
AA.08	Install Accessible Casework Sinks	12	EA	$ 2,937.19	$ 35,246			$ 38,771													
AA.09	Install Compliant Sink Pipe Wrap	16	EA	$ 108.45	$ 1,735			$ 1,909													
AA.10	Upgrade Individual Restroom(s) Accessibility	15	EA	$ 11,687.50	$ 175,313				$ 199,856												
AA.11	Upgrade Group Restroom(s) Accessibility	6	SF	$ 38,937.50	$ 233,625				$ 266,333												
AA.12	Remove/Replace Sink Knob Faucets w/ Compliant Hardware	12	EA	$ 531.25	$ 6,375				$ 7,268												
AA.13	Remove Stored Materials from Restroom Accessible Path	1	EA	$ 100.00	$ 100																Annual Operating Expense
AA.14	Install Handrails w/ Extensions at Exterior Stairs	60	LF	$ 233.47	$ 14,008			$ 15,409													
SUBTOTAL ADA COMPLIANCE					**$ 595,075**	$ -	$ -	**$ 141,431**	**$ 516,223**	**$ 15,881**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING CODE COMPLIANCE (Building Code Compliance & Safety/Security Concerns Assessments)																					
AB.01	Exit Discharge Route Requirements (All Other Doors)	6	EA	$ 4,375.00	$ 26,250			$ 28,875													
AB.02	Secure Electrical Panels Throughout Building	1	LS	$ 350.00	$ 350																Annual Operating Expense
AB.03	Provide Proper Electrical Panel Clearance	1	EA	$ 100.00	$ 100																Annual Operating Expense
AB.04	Remove Extension Cords from Corridors	1	EA	$ 75.00	$ 75																Annual Operating Expense
AB.05	Install Protective Light Guards / Coverings	10	EA	$ 593.67	$ 5,937				$ 6,768												
AB.06	Install Illuminated Exit Signs	1	EA	$ 139.56	$ 140			$ 154													
AB.07	Install Operable Exterior Light Fixtures @ Canopies	6	EA	$ 134.81	$ 809			$ 890													
AB.08	Update Door Hardware to Prevent Trap Hazard	6	EA	$ 1,265.25	$ 7,592				$ 8,654												
SUBTOTAL BUILDING CODE COMPLIANCE					**$ 41,252**	$ -	$ -	**$ 29,918**	**$ 15,422**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ROOFING SYSTEM (Roofing System Assessment)																					
AR.01	Remove/Replace Standing Seam Metal Panel Roof	39,121	SF	$ 51.21	$ 2,003,386			$ 2,203,725													
AR.02	Remove/Replace Gutters & Downspouts	INCLUDED IN ITEM AR.01																			
AR.03	Remove/Replace Deteriorated Wall Flashing	INCLUDED IN ITEM AR.02																	$ -		
SUBTOTAL ROOFING SYSTEM					**$ 2,003,386**	$ -	$ -	**$ 2,203,725**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
MECHANICAL SYSTEM (Mechanical System Assessment)																					
M.1	Demolition of Abandoned Equipment	1,584	SF	$ 0.98	$ 1,552				$ 1,770												
M.2	Remove/Replace Ductwork (Classroom)	2,010	SF	$ 8.61	$ 17,306					$ 20,248											
M.3	Remove/Replace Ductwork (Gymnasium)	4,500	SF	$ 8.61	$ 38,745					$ 45,332											
M.4	Replace Air Terminals	27,090	SF	$ 0.97	$ 26,277			$ 28,905													
M.5	Replace PTAC Units	1	EA	$ 1,231.83	$ 1,232				$ 1,404												

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: Old Ladysmith Elementary School - Lotus Academy *(As of April 2024)*
Gross Square Feet: 43,763

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
M.6	Replace External Bard Units	12	EA	$ 15,675.00	$ 188,100			$ 206,910													
M.7	Replace Terminal Heating Equipment	5	EA	$ 2,543.00	$ 12,715			$ 13,987													
SUBTOTAL MECHANICAL SYSTEM					**$ 285,928**	**$ -**	**$ -**	**$ 249,802**	**$ 3,174**	**$ 65,580**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
ELECTRICAL & TECHNOLOGY SYSTEMS (Electrical & Technology Systems Assessment)																					
ET.1	Replace Existing Switchboard	1	EA	$401,659.22	$ 401,659			$ 441,825													
ET.2	Replace Existing Panelboards	43,763	SF	$12.00	$ 525,156			$ 577,672													
ET.3	Replace All Interior Non-LED Lighting	43,763	SF	$6.50	$ 284,460		$ 298,682														
ET.4	Replace All Lighting Controls	43,763	SF	$2.00	$ 87,526		$ 91,902														
ET.5	Replace All Parking Lot and Pole Mounted Lights	10	EA	$7,000.00	$ 70,000			$ 77,000													
ET.6	Replace Fire Alarm Peripheral Equipment	43,763	SF	$1.50	$ 65,645				$ 74,835												
ET.7	Replace Electrical Disconnects & Wiring	43,763	SF	$ 7.89	$ 345,181	$ 345,181															
ET.8	Replace Existing Clock System	43,763	SF	$2.50	$ 109,408			$ 120,348													
ET.9	Replace Existing Data Devices and Cabling	43,763	SF	$2.50	$ 109,408			$ 120,348													
ET.10	Replace Gym Sound System	1	LS	$30,000.00	$ 30,000					$ 35,100											
SUBTOTAL ELECTRICAL & TECHNOLOGY SYSTEMS					**$ 2,028,441**	**$ 345,181**	**$ 390,585**	**$ 1,337,193**	**$ 74,835**	**$ 35,100**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
PLUMBING SYSTEM (Plumbing System Assessment)																					
P.1	Complete Plumbing System Renewal	43,763	SF	$ 17.80	$ 778,981			$ 856,880													
SUBTOTAL PLUMBING SYSTEM					**$ 778,981**	**$ -**	**$ -**	**$ 856,880**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
STRUCTURAL SYSTEM (Structural System Assessment)																					
S.1	No Structural Assessment Completed																				
SUBTOTAL STRUCTURAL SYSTEM					**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
FIRE PROTECTION SYSTEM (Fire Suppression System Assessment)																					
FS.1	Add Sprinkler System	43,763	SF	$ 6.18	$ 270,455					$ 316,433											
FS.2	Add Wall Mounted Fire Extinguishers in Corridors	43,763	SF	$ 0.08	$ 3,282		$ 3,446														
SUBTOTAL FIRE SUPPRESSION SYSTEM					**$ 273,738**	**$ -**	**$ 3,446**	**$ -**	**$ -**	**$ 316,433**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
FOOD SERVICE (Food Service (Kitchen) Assessment)																					
K.1	No Food Service (Kitchen) Assessment Completed																				
SUBTOTAL FOOD SERVICE					**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
HAZARDOUS MATERIALS (Hazardous Materials (HAZMAT) Assessment)																					
HM.1	Not Applicable (Allowance)	43,763	SF	$ 6.50	$ 284,460					$ 332,818											
SUBTOTAL HAZARDOUS MATERIALS					**$ 284,460**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 332,818**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
TOTAL ESTIMATED PROJECT COSTS PER CATEGORY						**$ 345,181**	**$ 398,428**	**$ 5,965,795**	**$ 1,290,861**	**$ 862,632**	**$ 205,439**	**$ 29,975**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	

TOTAL ESTIMATED DEFERRED MAINTENANCE COSTS - YEARS 2024 THRU 2026 *(USED TO CALCULATE FCI)* ***$ 6,709,404***

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: Old Ladysmith Elementary School - Lotus Academy *(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company through December 2024)*
Gross Square Feet: 43,763

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	Repair/Replace Damaged Exterior Brick Units	80	SF	$ 77.36	$ 6,189						$ 7,427										
AE.02	Repair Brick Masonry Cracks	125	SF	$ 77.36	$ 9,670						$ 11,604										
AE.03	Repair/Repoint Mortar Joints @ Brick	2,250	LF	$ 16.46	$ 37,035			$ 40,739													
AE.04	Repair/Replace Precast Sill Units	32	LF	$ 68.69	$ 2,198			$ 2,418													
AE.05	Remove/Replace Exterior Caulk (Windows)	1,272	LF	$ 4.23	$ 5,381			$ 5,919													
AE.06	Remove/Replace Exterior Caulk (Doors)	372	LF	$ 4.23	$ 1,574			$ 1,731													
AE.07	Remove/Replace Exterior Caulk (Precast Sills)	420	LF	$ 4.23	$ 1,777			$ 1,954													
AE.08	Remove/Replace Exterior Caulk (Control Joints)	140	LF	$ 4.23	$ 592		$ 622														
AE.09	Clean/Prep/Paint Steel Lintels	442	LF	$ 8.13	$ 3,595		$ 3,775														
AE.10	Remove/Replace Exterior Canopies	7	EA	$ 9,250.00	$ 64,750			$ 71,225													
AE.11	Remove/Replace Exterior Doors/Frames & Hardware	26	EA	$ 5,178.49	$ 134,641			$ 148,105													
AE.12	Remove/Replace Exterior Windows/Frames	2,070	SF	$ 129.54	$ 268,148			$ 294,963													
AE.13	Remove/Replace Concrete Sidewalks	4,085	SF	$ 16.46	$ 67,239			$ 73,963													
AE.14	Remove/Replace Downspouts	SEE ROOF SECTION																			
AE.15	Repair/Replace Damaged Metal Panel	1	EA	$ 2,250.00	$ 2,250					$ 2,633											
AE.16	Remove/Replace Rusted Metal Conduit	35	LF	$ 7.32	$ 256				$ 292												
AE.17	Repair Erosion & Install Condensate Line	2	EA	$ 725.00	$ 1,450			$ 1,595													
AE.18	Seal Opening in Building Envelope @ Piping Penetration	1	EA	$ 125.02	$ 125				$ 143												
AE.19	Remove/Replace Louvers Beneath Windows	13	EA	$ 278.66	$ 3,623				$ 4,130												
AE.20	Remove/Replace Building Perimter Caulk Joint	612	LF	$ 4.56	$ 2,791			$ 3,070													
AE.21	Perform Exterior Building Cleaning	43,763	SF	$ 0.14	$ 6,127				$ 6,985												
SUBTOTAL BUILDING EXTERIOR					**$ 619,409**	$ -	$ 4,397	$ 645,680	$ 11,549	$ 2,633	$ 19,031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING INTERIOR (Architectural Interior Assessment)																					
AI.01	Remove/Replace Terrazzo Corridor Flooring	2,509	SF	$ 31.59	$ 79,249					$ 92,722											
AI.02	Remove/Replace VCT Corridor Flooring	3,671	SF	$ 31.59	$ 115,952				$ 132,186												
AI.03	Remove/Replace VCT Classroom Flooring	34,005	SF	$ 8.30	$ 282,222			$ 155,222	$ 160,867												
AI.04	Remove/Replace Carpet Classroom Flooring	2,678	SF	$ 9.10	$ 24,370							$ 29,975									
AI.05	Remove/Replace Acoustical Ceilings	20,494	SF	$ 9.82	$ 201,266			$ 110,697	$ 114,722												
AI.06	Remove/Replace Classroom Casework	SEE ADA COMPLIANCE SECTION																			
AI.07	Clean/Prep/Paint Interior Walls	40,673	SF	$ 3.18	$ 129,340			$ 71,137	$ 73,724												
AI.08	Remove/Replace Damaged Ceramic Tile Wainscoting	3,090	SF	$ 16.90	$ 52,221				$ 59,532												
AI.09	Patch/Prep/Paint Walls and Door Frames	43,763	EA	$ 3.33	$ 145,731			$ 160,304													
AI.10	Remove/Replace Group Toilet Room Finishes	1,346	SF	$ 57.24	$ 77,042				$ 87,828												
AI.11	Remove/Replace Single Toilet Room Finishes	225	SF	$ 48.20	$ 10,845				$ 12,363												
AI.12	Remove/Replace Restroom Windows	4	EA	$ 864.97	$ 3,460			$ 3,806													
AI.13	Remove/Replace Interior Window Blinds	43,763	SF	$ 0.57	$ 24,945				$ 28,437												
AI.14	Remove/Repoint CMU Joint	45	LF	$ 27.87	$ 1,254					$ 1,467											

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: Old Ladysmith Elementary School - Lotus Academy *(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company through December 2024)*
Gross Square Feet: 43,763

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
AI.15	Remove/Replace Rubber Tile Flooring (Gymnasium)	4,918	SF	$ 31.59	$ 155,340						$ 186,408										
SUBTOTAL BUILDING INTERIOR					**$ 1,303,238**	$ -	$ -	**$ 501,166**	**$ 669,658**	**$ 94,189**	**$ 186,408**	**$ 29,975**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ADA COMPLIANCE (ADA Compliance Assessment)																					
AA.01	Install Handrail Extensions at Interior Stairs	12	LF	$ 233.47	$ 2,802				$ 3,194												
AA.02	Provide Accessible Maneuvering Clearances at Doors	10	EA	$ 3,406.25	$ 34,063				$ 38,831												
AA.03	Provide Compliant Door Hardware	84	EA	$812.50	$ 68,250			$ 75,075													
AA.04	Provide Proper Clearances at Drinking Fountains	3	EA	$ 4,524.39	$ 13,573					$ 15,881											
AA.05	Install Compliant AED Devices	1	EA	$ 224.61	$ 225			$ 247													
AA.06	Install Accessible Room Signage (Type/Height)	84	EA	$ 108.45	$ 9,110			$ 10,021													
AA.07	Install Accessible Directional Signage (Type/Height)	6	EA	$ 108.45	$ 651				$ 742												
AA.08	Install Accessible Casework Sinks	12	EA	$ 2,937.19	$ 35,246			$ 38,771													
AA.09	Install Compliant Sink Pipe Wrap	16	EA	$ 108.45	$ 1,735			$ 1,909													
AA.10	Upgrade Individual Restroom(s) Accessibility	15	EA	$ 11,687.50	$ 175,313				$ 199,856												
AA.11	Upgrade Group Restroom(s) Accessibility	6	SF	$ 38,937.50	$ 233,625				$ 266,333												
AA.12	Remove/Replace Sink Knob Faucets w/ Compliant Hardware	12	EA	$ 531.25	$ 6,375				$ 7,268												
AA.13	Remove Stored Materials from Restroom Accessible Path	1	EA	$ 100.00	$ 100																Annual Operating Expense
AA.14	Install Handrails w/ Extensions at Exterior Stairs	60	LF	$ 233.47	$ 14,008			$ 15,409													
SUBTOTAL ADA COMPLIANCE					**$ 595,075**	$ -	$ -	**$ 141,431**	**$ 516,223**	**$ 15,881**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
BUILDING CODE COMPLIANCE (Building Code Compliance & Safety/Security Concerns Assessments)																					
AB.01	Exit Discharge Route Requirements (All Other Doors)	6	EA	$ 4,375.00	$ 26,250				$ 29,925												
AB.02	Secure Electrical Panels Throughout Building	1	LS	$ 350.00	$ 350																Annual Operating Expense
AB.03	Provide Proper Electrical Panel Clearance	1	EA	$ 100.00	$ 100																Annual Operating Expense
AB.04	Remove Extension Cords from Corridors	1	EA	$ 75.00	$ 75																Annual Operating Expense
AB.05	Install Protective Light Guards / Coverings	10	EA	$ 593.67	$ 5,937				$ 6,768												
AB.06	Install Illuminated Exit Signs	1	EA	$ 139.56	$ 140			$ 154													
AB.07	Install Operable Exterior Light Fixtures @ Canopies	6	EA	$ 134.81	$ 809			$ 890													
AB.08	Update Door Hardware to Prevent Trap Hazard	6	EA	$ 1,265.25	$ 7,592				$ 8,654												
SUBTOTAL BUILDING CODE COMPLIANCE					**$ 41,252**	$ -	$ -	**$ 1,043**	**$ 45,347**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
ROOFING SYSTEM (Roofing System Assessment)																					
AR.01	Remove/Replace Standing Seam Metal Panel Roof	39,121	SF	$ 51.21	$ 2,003,386			$ 2,203,725													
AR.02	Remove/Replace Gutters & Downspouts	INCLUDED IN ITEM AR.01																			
AR.03	Remove/Replace Deteriorated Wall Flashing	INCLUDED IN ITEM AR.02																	$ -		
SUBTOTAL ROOFING SYSTEM					**$ 2,003,386**	$ -	$ -	**$ 2,203,725**	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
MECHANICAL SYSTEM (Mechanical System Assessment)																					
M.1	Demolition of Abandoned Equipment	1,584	SF	$ 0.98	$ 1,552				$ 1,770												
M.2	Remove/Replace Ductwork (Classroom)	2,010	SF	$ 8.61	$ 17,306					$ 20,248											
M.3	Remove/Replace Ductwork (Gymnasium)	4,500	SF	$ 8.61	$ 38,745					$ 45,332											
M.4	Replace Air Terminals	27,090	SF	$ 0.97	$ 26,277			$ 28,905													
M.5	Replace PTAC Units	1	EA	$ 1,231.83	$ 1,232				$ 1,404												

DEFERRED MAINTENANCE SCHEDULE (2024 - 2038)

School Name: Old Ladysmith Elementary School - Lotus Academy *(Amended – Reflects Deferred Maintenance Items Completed by the McClure Company through December 2024)*
Gross Square Feet: 43,763

	Item Description	Qty	Units	Unit Rate	Item Cost	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	Notes
M.6	Replace External Bard Units	12	EA	$ 15,675.00	$ 188,100			$ 206,910													
M.7	Replace Terminal Heating Equipment	5	EA	$ 2,543.00	$ 12,715			$ 13,987													
SUBTOTAL MECHANICAL SYSTEM					**$ 285,928**	**$ -**	**$ -**	**$ 249,802**	**$ 3,174**	**$ 65,580**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
ELECTRICAL & TECHNOLOGY SYSTEMS (Electrical & Technology Systems Assessment)																					
ET.1	Replace Existing Switchboard	1	EA	$401,659.22	$ 401,659			$ 441,825													
ET.2	Replace Existing Panelboards	43,763	SF	$12.00	$ 525,156			$ 577,672													
ET.3	Replace All Interior Non-LED Lighting	COMPLETED (SUMMER 2024)																			
ET.4	Replace All Lighting Controls	COMPLETED (SUMMER 2024)																			
ET.5	Replace All Parking Lot and Pole Mounted Lights	10	EA	$7,000.00	$ 70,000			$ 77,000													
ET.6	Replace Fire Alarm Peripheral Equipment	43,763	SF	$1.50	$ 65,645				$ 74,835												
ET.7	Replace Electrical Disconnects & Wiring	43,763	SF	$ 7.89	$ 345,181	$ 345,181															
ET.8	Replace Existing Clock System	43,763	SF	$2.50	$ 109,408			$ 120,348													
ET.9	Replace Existing Data Devices and Cabling	43,763	SF	$2.50	$ 109,408			$ 120,348													
ET.10	Replace Gym Sound System	1	LS	$30,000.00	$ 30,000					$ 35,100											
SUBTOTAL ELECTRICAL & TECHNOLOGY SYSTEMS					**$ 1,656,455**	**$ 345,181**	**$ -**	**$ 1,337,193**	**$ 74,835**	**$ 35,100**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
PLUMBING SYSTEM (Plumbing System Assessment)																					
P.1	Complete Plumbing System Renewal	43,763	SF	$ 17.80	$ 778,981			$ 856,880													
SUBTOTAL PLUMBING SYSTEM					**$ 778,981**	**$ -**	**$ -**	**$ 856,880**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
STRUCTURAL SYSTEM (Structural System Assessment)																					
S.1	No Structural Assessment Completed																				
SUBTOTAL STRUCTURAL SYSTEM					**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
FIRE PROTECTION SYSTEM (Fire Suppression System Assessment)																					
FS.1	Add Sprinkler System	43,763	SF	$ 6.18	$ 270,455					$ 316,433											
FS.2	Add Wall Mounted Fire Extinguishers in Corridors	43,763	SF	$ 0.08	$ 3,282		$ 3,446														
SUBTOTAL FIRE SUPPRESSION SYSTEM					**$ 273,738**	**$ -**	**$ 3,446**	**$ -**	**$ -**	**$ 316,433**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
FOOD SERVICE (Food Service (Kitchen) Assessment)																					
K.1	No Food Service (Kitchen) Assessment Completed	FULL KITCHEN RENOVATION (SEE NOTE)						$ 1,000,000													Future Utilization as School would require a Full Kitchen Renovation Estimated at $1M
SUBTOTAL FOOD SERVICE					**$ -**	**$ -**	**$ -**	**$ 1,000,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
HAZARDOUS MATERIALS (Hazardous Materials (HAZMAT) Assessment)																					
HM.1	Not Applicable (Allowance)	43,763	SF	$ 6.50	$ 284,460					$ 332,818											
SUBTOTAL HAZARDOUS MATERIALS					**$ 284,460**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 332,818**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	
TOTAL ESTIMATED PROJECT COSTS PER CATEGORY						**$ 345,181**	**$ 7,843**	**$ 6,936,920**	**$ 1,320,786**	**$ 862,632**	**$ 205,439**	**$ 29,975**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	

TOTAL ESTIMATED DEFERRED MAINTENANCE COSTS - YEARS 2024 THRU 2026 *(USED TO CALCULATE FCI)* ***$ 7,289,944***

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 = *$ 6,709,404*

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 = *$16,192,310*

Represents the total dollar value to replace the school/building calculated by multiplying the current school/building size in square feet (43,763 SF) by the current cost per square foot for new construction of a similar school/building ($370 SF).

Old Ladysmith Elementary School (Lotus Academy) - Facility Condition Index (FCI)

$$\textbf{41.44\%} = \frac{\$\ 6{,}709{,}404}{\$16{,}192{,}310}$$

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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.
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- 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.

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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 = *$ 7,289,944*

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 = *$16,192,310*

Represents the total dollar value to replace the school/building calculated by multiplying the current school/building size in square feet (43,763 SF) by the current cost per square foot for new construction of a similar school/building ($370 SF).

Old Ladysmith Elementary School (Lotus Academy) - Facility Condition Index (FCI)

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

$$\textbf{45.02\%} = \frac{\$\ 7,289,944}{\$16,192,310}$$

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ARCHITECTS