

Facilities Assessment of School Buildings

City of Portland and Portland Public Schools

VOLUME 1

February 28, 2017

Table of Contents

Acknowledgements	3	Locker Room Privacy Accommodations	197
Project Goals	5	Capital Plan	209
Executive Summary	7	Methodology and Basis of Costs	211
Process	13	Twenty Year Capital Plan	213
Existing Conditions Documentation and Findings	15	Capital Plan Detailed Scope of Work	215
Cliff Island Elementary School	17	Cliff Island Elementary School	217
East End Community Elementary School	25	East End Community Elementary School	225
Longfellow Elementary School	35	Longfellow Elementary School	233
Harrison Lyseth Elementary School	45	Harrison Lyseth Elementary School	251
Ocean Avenue Elementary School	53	Ocean Avenue Elementary School	263
Peaks Island Elementary School	63	Peaks Island Elementary School	269
Presumpscot Elementary School	71	Presumpscot Elementary School	283
Reiche Elementary School	79	Reiche Elementary School	295
Riverton Elementary School	89	Riverton Elementary School	307
King Middle School	99	King Middle School	331
Lincoln Middle School	111	Lincoln Middle School	341
Lyman Moore Middle School	125	Lyman Moore Middle School	363
Casco Bay and Portland Arts & Technology High School	135	Casco Bay and Portland Arts & Technology High School	379
Deering High School	147	Deering High School	399
Portland High School	163	Portland High School	421
District Office and Bayside Learning	177	District Office and Bayside Learning	441
Central Kitchen	189	Central Kitchen	453
		General District Items	461
		Appendix - Abbreviations	463

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Project Goals

The goal of this study is to provide building condition evaluations to identify, estimate the cost and prioritize the repair, renovation, or replacement of systems and components of structures, and associated property improvements to facilities owned by Portland Public Schools.

This report shall seek to understand the existing conditions of the subject facilities, identify deficiencies, and recommend improvements as part of a long term capital spending plan.

To accomplish these goals, this study shall:

- Evaluate existing conditions including architectural features, code compliance, the building envelope, structural systems, security, food service equipment, and mechanical, plumbing, fire protection, electrical, communications, and data systems.
- Identify deficiencies to be addressed.
- Provide Recommendations to:
 - Address identified deficiencies
 - Improve Security
 - Improve communications and technology
 - Enhance energy efficiency and identify opportunities for rebates and incentives
 - Maximize cost savings in maintenance and operations costs
 - Improve accessibility
 - Improve locker room facilities privacy
- Establish budgets for the recommendations
- Develop a final report consisting of:
 - Facility Condition Assessment
 - Twenty-Year Capital Plan for each facility to implement the recommendations.

Executive Summary

Introduction

The City of Portland and its Public Schools occupy multiple buildings of different generations ranging in 5 to 149 years of age. Over this period of time, security requirements, technology, sustainability, building codes, and accessibility requirements, have all greatly changed and evolved. All of these have an impact on the ability of a facility to function as it was intended and as it needs to, in order to serve its occupants into the future.

In the Fall of 2016, Portland Public Schools engaged Sebago Technics and its consultants to develop a Comprehensive Facilities Assessment and Capital Spending Plan for the City's seventeen school facilities.

The scope was two-fold:

- Perform a physical assessment of the facilities to identify the deficiencies
- Develop a comprehensive twenty-year Capital Plan for each facility to implement recommended repairs and improvements.

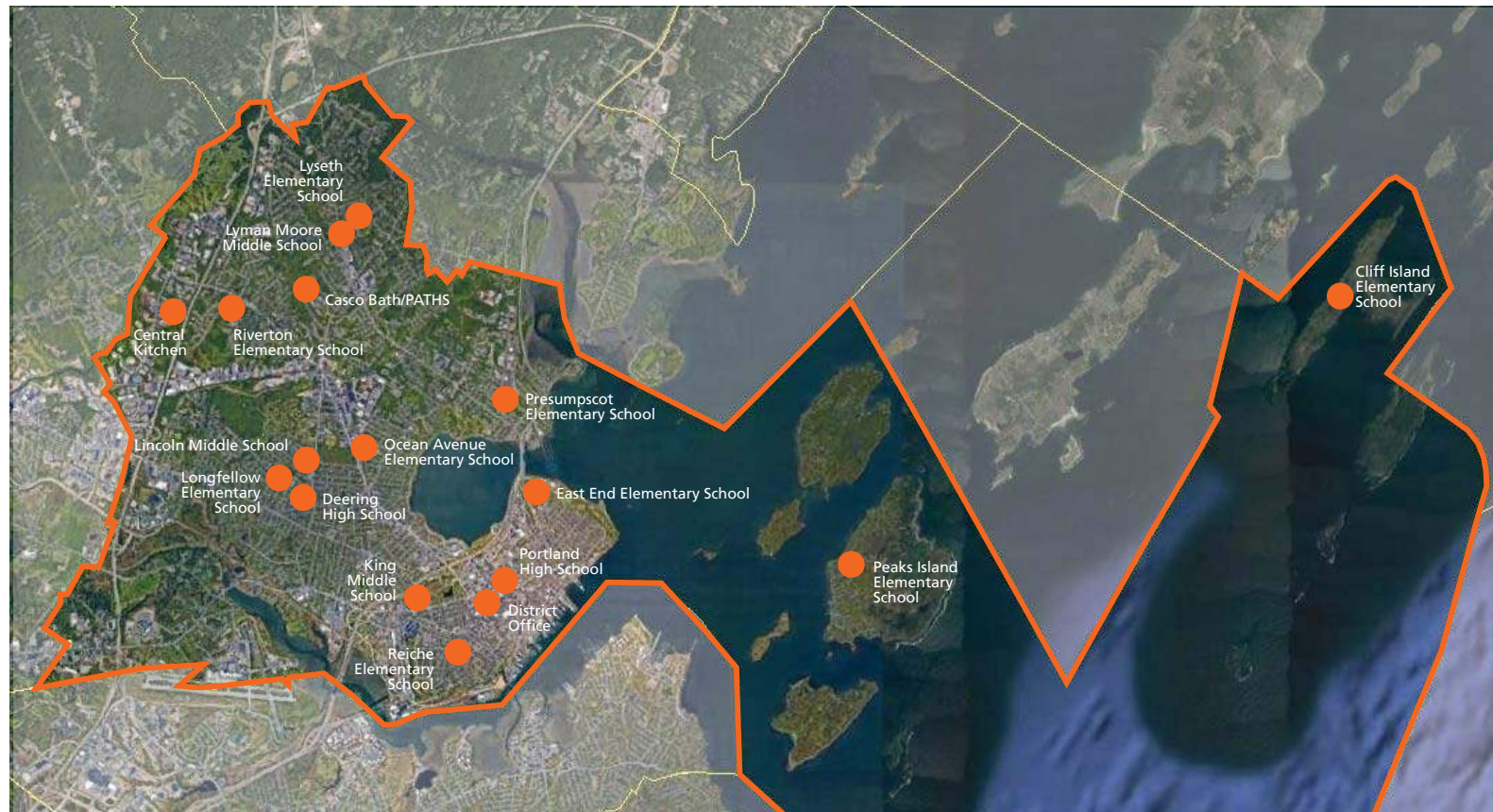
The assessment included evaluations and documentation of the existing conditions of the seventeen buildings included in the study. Our team reviewed the overall condition of the structures and compliance with federal, state, local and accessibility codes. We investigated all components of the structural systems and exterior envelopes to assess rain, air, heat, and vapor control. Furthermore, we evaluated all building systems and utilities including HVAC, automatic temperature controls (ATC), electrical, plumbing, fire protection, communications, security, food service equipment, water and septic systems.

Please note that an existing conditions assessment of the educational program of these facilities was not included in the scope of this study.

The development of the Capital Plan started with a comprehensive analysis of the facility conditions identified in the previous step followed by recommendations to enhance efficiency, achieve cost savings, address critical upgrades and improvements, and improve security and accessibility. Recommended repairs, replacements, modifications, and improvements for each building were prioritized into a phased plan over a twenty-year period, including options for bundling projects to achieve additional savings.

This report focuses on establishing goals for the study, assessing existing building conditions of seventeen facilities, and developing a twenty-year capital plan for the City based on this collective information.

This study is meant to be big picture and is just the starting point for Portland, as the plan will continue to evolve once other stakeholders weigh in during subsequent years, including the Maine Department of Education (MDOE). In addition, since this capital plan was developed for the entire school district, site specific educational programming with each school user group was not included in this assessment.



Portland Schools Aerial View

The goal of the report is to develop a twenty-year capital plan that the City may use to make long term decisions and prepare needs-appropriate Rating Cycle Applications for submission to the MDOE. The preferred solutions are designed to be fluid as factors such as land availability, ongoing building needs, enrollment projections and dates of construction commencement may change over the life of this capital plan.

Following the completion of this study, we recommend that additional due diligence for the individual schools be developed before completion of any Preferred Schematic Design. If the schools are invited into the MDOE Major Capital Improvement program, these issues, as well as many others, will be addressed during that process.

1. For schools slated for renovations and additions, we recommend that:
 - The proposed student population at each school be reviewed, documented and acknowledged by all involved.
 - Multiple-day, educational space programming sessions with groups of users be provided. Users include school and district administration, staff, and faculty.
 - Special education goals and the district-wide educational vision be addressed.
2. For schools slated for renovations and additions OR repairs only, we recommend that:
 - Destructive testing by a licensed contractor of features noted in the individual conditions reports, be performed to understand the extent of the issues needing repair or removal.
 - City-wide or neighborhood forums be provided to discuss building design options and solutions.

Organization

This report is organized into 2 volumes as follows:

- Volume 1
- Participants, Project Goals, Process
 - Existing Conditions Documentation
 - Locker Room Privacy Accommodations
 - Capital Plan

- Volume 2
- Detailed existing conditions documentation

Each section has a short overview followed by narratives, graphics, charts, and other descriptive information. Following is a summary of each section of the report.

Volume 1
Participants, Project Goals, Process

These sections document the goals and objectives for the study, the process by which the study was conducted, and the parties involved.

Existing Conditions Documentation

This section includes graphic summaries and the full existing conditions reports for the six facilities considered in this study. These reports cover the characteristics and physical conditions related to site, building envelope, building interior, structural, mechanical, electrical, plumbing, fire protection food service, security, and code compliance as viewed through existing documentation provided by the school department and during site visits.

Locker Room Privacy Accommodations

This section provides short term and long term recommendations to provide more opportunities for additional privacy in school locker rooms for all students, regardless of sexual preference or gender identity.

Capital Plan

This section includes the proposed Capital Plan and scopes of work for the repairs based on immediate, short term and long term prioritization. The information is intended to aid the City of Portland and Portland Public Schools to incorporate the work into a capital improvement plan.

Volume 2

This volume contains reports for each facility including detailed existing conditions documentation comprising of the site, the building exterior and the building interior, and the structural, fire protection, plumbing, mechanical, electrical, and telecommunication systems.

Existing Conditions Synopsis

Sebago Technics and its consultants conducted site conditions review of the nine (9) elementary schools, three (3) middle schools, three (3) high school, and two (2) Portland School District support buildings located within Portland.

The following facilities were reviewed as part of this report:

	Enrollment	Construction Dates	Building Age	Gross Square Footage
Elementary Schools				
Cliff Island	5	1895, 1997	121 Years	1,017
East End Community	400	2006	10 Years	75,000
Longfellow	325	1952	64 Years	61,600
Lyseth	530	1958, 1965	58 Years	50,600
Ocean Avenue	419	2011	5 Years	70,315
Peaks Island	38	1869, 1950, 1953	147 Years	13,100
Presumpscot	250	1962	54 Years	25,394
Reiche	420	1972	44 Years	91,828
Riverton	426	1975, 2007	41 Years	106,500
Elementary Schools Subtotal	2,813			495,354
Middle Schools				
King	500	1950, 1996	66 Years	89,263
Lincoln	513	1867, 1913, 1962, 1994	119 Years	112,000
Moore	504	1954, 1959, 1996	62 Years	102,000
Middle Schools Subtotal	1,517			303,263
High Schools				
Portland Arts & Technology (PATHS)	900	1975	41 Years	237,000
Deering	943	1923, 1982	93 Years	173,000
Portland	738	1867, 1923, 1990	149 Years	250,580
High Schools Subtotal	2,581			660,580
Other Buildings				
District Office / Bayside Learning	0	1900, 2014	116 Years	56,644
Central Kitchen	0	1998, 2013	18 Years	21,180
Subtotal	0			77,824
TOTAL	6,911			1,537,021

Given the diversity of age and characteristics of construction of the facilities included in this study, there was a variety of general condition levels observed. However, buildings of comparable age or type were found to be in similar condition. For example, buildings built during the 1990’s era are in generally fair to good condition. Buildings among the oldest in the City have several aspects that are either poor or can be considered non-functional (accessibility, toilet rooms, building envelope, paving, MEP). As could be expected, the newest building, the Ocean Avenue Elementary School, is in good to excellent overall condition.

Refer to the individual existing conditions reports for each building in Volume 2 for more detailed information.

Site

The ages of the facilities vary from new construction within the last 6 years (Ocean Avenue Elementary) to century old construction (Lincoln Middle School and Portland High School). The developmental settings also vary from an urban/developed location at five (5) of the locations to a rural/residential setting at the remaining twelve (12) locations. The majority of the structures are brick/masonry construction with the two island schools being of stick construction.

Identified site deficiencies/concerns ranged from aesthetic and minor site amenities such as curb stops at the barrier free spaces at Ocean Avenue Elementary School to life/safety issues such as overhead utility lines which could be in conflict with students/pedestrians/vehicles at Cliff Island School and PATHS and failing structural elements such as the cast in place retaining wall at Portland High School and the access ramp at Reiche School. The cost variance of the corrective measures range from a few thousand dollars for additional signage and/or striping to hundreds of thousands of dollars for rehabilitation of failing pavement within parking lots and removal/reconstruction of failing structural elements as noted above.

A common deficiency noted at all the locations, with the exception of Ocean Avenue, is ADA compliant access and/or parking. Cliff Island and Peaks Island School do not have any designated ADA parking spaces and Lincoln Middle School has no to limited ADA accessible access points into the school. Additional deficiencies include no striped barrier free aisle for barrier free parking spaces, steep grades, and vertical obstructions/obstacles along the accessible route.

Observing student and vehicular circulation at the more urban school settings; Presumpscot, Reiche, King, Portland High, and District Office/Bayside Learning Center; Rectangular Rapid Flashing Beacons may be warranted due to the increased volume of students walking or cycling to school having interactions with vehicular traffic.

Structural Systems

The structural evaluations indicate that none of the buildings have any significant concerns at this time and are in generally good condition – although there are some repairs needed as detailed in the individual reports. Note that future building renovations meeting minimum thresholds could require upgrades to existing structural systems in order to meet current building code requirements as discussed below.

Building Envelope and Exterior

Exterior walls are typically in good to fair condition with noted exceptions. Most of the older masonry veneers are in need of cleaning, repair and either partial or full repointing. Windows and curtainwall systems are often serviceable but require sealant replacement, reglazing to address broken panes or plastic glazing, and hardware repairs. Complete window replacement is needed at some of the oldest schools. Exterior doors and entry systems are in fair condition, with several locations corroded and with problematic hardware.

Roofing conditions vary, with both routine maintenance and whole-roof replacements needed. Some roofs are nearing the end of their useful life, and membrane failures have started to emerge. Routine maintenance of roof drains to keep them clear is critical. Further structural investigations at several facilities is required to address issues with snow drifts.

Building Interior

Interior finishes can be considered in overall fair to good condition. Common needs include minor floor and wall repairs and repainting of gypsum wall board walls, ceilings, interior metal doors & frames and metal stair components. Wood trim and paneling often require refinishing. Replacement of water-damaged acoustical ceiling tiles is universal. Sources of water intrusion either via roof leaks, skylight leaks, ground water or building system piping should be resolved prior to finish repairs.

The casework condition is generally good with minor repairs required. Several schools have casework and sink cabinets that do not fully meet current accessibility standards. Older outdated casework should be replaced.

Interior door hardware condition varies, with some schools in good condition overall and compliant with current codes, while others have original and obsolete non-compliant hardware. Hardware typically requires minor repair and adjustment throughout the district.

Interior stairs often require replacement of worn finishes. Stairs at several schools do not comply with current codes for treads, risers, handrails and guardrails. Report recommendations include applicable modifications.

Toilet rooms are often non-accessible, and facilities at the oldest schools are in very poor condition and have plumbing code, non-compliance issues as well.

Building Systems

Fire protection systems are generally in good condition in the facilities equipped with such systems. Consideration should be given to installing fire protection systems in the buildings that are lacking them.

Plumbing systems are also in good condition, generally requiring only minor maintenance, with the exception of the oldest buildings. Several schools have either obsolete or non-accessible plumbing fixtures that should be replaced.

Mechanical systems district-wide are in fair condition overall. HVAC terminal components and automatic temperature controls are in poor condition for the many buildings. In a number of the buildings, the equipment is considered antiquated and not energy efficient.

Electrical systems are in fair condition typically, with some components at the older elementary schools in poor condition. Exterior lighting is fair to good and upgrading to LED fixtures is recommended for reduced maintenance and higher efficiency. The security and fire alarm systems, while functional, can be considered outdated by today's standards. Parts availability for these older systems will make repairs and maintenance challenging, and replacements are recommended.

Data systems are in fair to good condition and have been upgraded by the district to CAT 6 cabling.

The building system reports typically include recommendations to upgrade systems for greater performance efficiency. Please refer to the individual building reports for further details.

Code Compliance Factors and Thresholds

Code requirements governing modifications to existing buildings vary depending upon the nature of the work. Follows are typical scenarios per the 2009 International Building Code:

- Additions – must comply with the requirements for new construction. The existing building and new addition together must be no less conforming.
- Alterations – should be no less compliant than existing building (with limitations).
- Repairs with permit – Must comply with applicable code at time of the original construction.
- Repairs without permit – These are not subject to requirements of repair projects.

Structural code compliance for seismic and live load requirements are required when:

- The renovation exceeds 50% aggregate area of the building
- 30% of the floor and roof are involved in the structural alteration
- If work triggers one or more of the above, then the structural system must be upgraded to meet 75% of the code standard for new construction.

Note the following codes all have similar thresholds and requirements:

- Fire Code
- Fuel and Gas
- Mechanical and Plumbing
- Property Maintenance
- Sewage Disposal

Existing Conditions Graphic Summary

The existing conditions summary chart below for architectural and engineering evaluation categories provides a consolidated, color-coded view of the primary elements and building systems for each school.

These have been organized in the same school groupings as is consistent throughout this report.

BUILDING COMPONENT/SYSTEM	ELEMENTARY SCHOOLS									MIDDLE SCHOOLS			HIGH SCHOOLS			OTHER	
	Cliff Island	East End Community	Longfellow	Lyseth	Ocean Avenue	Peaks Island	Presumpscot	Reiche	Riverton	King	Lincoln	Moore	Casco Bay/Portland Arts & Tech	Deering	Portland	District Office/Bayside Learning	Central Kitchen
SITE																	
1. Paved Surfaces / Parking Areas	N/A																
2. Landscaping / Play Areas / Athletic Fields																N/A	
3. Stairs / Ramps																	
STRUCTURE																	
1. Visible Foundation																	
2. Floor Structure							N/A										
3. Roof Structure																	
4. Exterior Wall Construction/Exterior Features																	
BUILDING EXTERIOR																	
1. Doors & Entrance Systems																	
2. Window Systems																	
3. Exterior Walls																	
4. Roofing Systems																	
5. Exterior Perimeter & Joint Sealants	N/A																
BUILDING INTERIOR																	
1. Floor Finishes																	
2. Wall Finishes																	
3. Ceiling Finishes																	
4. Doors & Frames																	
5. Stairs & Elevators	N/A						N/A		N/A								N/A
6. Toilet Rooms																	
7. Locker Room Privacy	N/A		N/A	N/A		N/A	N/A									N/A	N/A
8. Casework / Fixed Furniture / Equipment																	N/A
9. Signage	N/A																
10. Accessibility																	

LEGEND	
	Excellent - New
	Good - Functional & Maintained
	Fair - Functions, Service Required
	Poor - Failure Anticipated
	Failed - Not Functional
N/A	Not Applicable (component not present)

BUILDING COMPONENT/SYSTEM	ELEMENTARY SCHOOLS									MIDDLE SCHOOLS			HIGH SCHOOLS			OTHER	
	Cliff Island	East End Community	Longfellow	Lyseth	Ocean Avenue	Peaks Island	Presumpscot	Reiche	Riverton	King	Lincoln	Moore	Casco Bay/Portland Arts & Tech	Deering	Portland	District Office/Bayside Learning	Central Kitchen
FOOD SERVICE	N/A	<div></div>	N/A	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
FIRE PROTECTION	N/A	<div></div>	<div></div>	N/A	<div></div>	N/A	N/A	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
PLUMBING		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1. Piping	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
2. Fixtures	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
MECHANICAL		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1. Heating System	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
2. Cooling System	N/A	<div></div>	N/A	N/A	<div></div>	N/A	N/A	N/A	<div></div>	N/A	N/A	N/A	<div></div>	N/A	<div></div>	<div></div>	N/A
3. Terminal Equipment & Distribution	N/A	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
4. Automatic Temperature Controls (ATC)	N/A	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
ELECTRICAL		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1. Service	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
2. Power	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
3. Interior Lighting	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
4. Exterior Lighting (Building & Site)	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
5. Emergency Lighting	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
6. Fire Detection & Alarms	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
7. Data / Communications	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
8. Technology	N/A	N/A	N/A	N/A	<div></div>	N/A	N/A	N/A	<div></div>	N/A	N/A	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	N/A
SECURITY		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
1. Access Control	N/A	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
2. Supervision, Visibility, Sightlines	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
3. Security Camera System	N/A	<div></div>	N/A	N/A	<div></div>	N/A	N/A	N/A	N/A	N/A	N/A	<div></div>	<div></div>	<div></div>	N/A	<div></div>	N/A

Process

The assessment of the facilities and development of the Capital Plan was conducted with a three-step process:

Step 1: Information Gathering

Building conditions assessments for all seventeen facilities were carried out between during October of 2016. Our team reviewed the overall condition of the structures and compliance with federal, state, local and accessibility codes. We investigated all components of the structural systems and exterior envelopes to assess rain, air, heat, and vapor control. Furthermore, we evaluated all building systems and utilities including mechanical, automatic temperature controls (ATC), electrical, plumbing, fire protection, communications, security, and food service equipment.

- The assessments also included the following:
- Review of available construction drawings and facilities reports as provided by the Town. The completeness of drawings varied from building to building, with some buildings having limited or no existing drawings available.
 - Touring the existing sites and buildings, recording observations and taking photographs.
 - Interviews with head custodial staff for information on building history and current issues.

- The information gathered was presented in three formats in increasing degrees of detail to communicate the existing conditions:
- Existing Conditions Summary
 - Descriptive Narratives
 - Detailed Existing Conditions Facility Matrix including action items, condition levels, and age factors.

Please note that an evaluation of the education program nor educational planning of the existing facilities was included in the scope of this study.

LEGEND					
● Excellent - New					
● Good - Functional & Maintained					
○ Fair - Functions, Service Required					
● Poor - Failure Anticipated					
● Failed - Not Functional					
N/A Not Applicable					
BUILDING					
BUILDING COMPONENT / SYSTEM					
SITE					
1. Paved Surfaces / Parking	○	○	●	○	○
2. Landscaping / Play Areas	○	○	●	○	○
3. Stairs / Ramps	○	○	N/A	○	N/A
STRUCTURE					
1. Doors & Entrance Systems	○	○	○	○	●
2. Window Systems	●	●	○	○	○
3. Exterior Walls	○	○	○	○	○
4. Roofing Systems	○	○	○	○	○
BUILDING INTERIOR					
1. Floor Finishes	○	○	○	○	○
2. Wall Finishes	○	○	○	○	○
3. Ceiling Finishes	○	○	○	○	○
4. Doors & Frames	○	○	○	○	○
5. Stairs & Elevators	○	○	○	○	○
6. Toilet Rooms	○	○	○	○	○
7. Casework / Equipment	○	○	○	○	○
8. Signage	○	○	○	○	○
9. Accessibility	○	○	○	○	○

Existing Conditions Summary

Plumbing Systems Analysis


Presently, the Plumbing Systems serving the building are cold water, hot water, sanitary, waste and vent system, storm drain piping, laboratory waste, vent system, Kitchen waste, vent, and natural gas. Municipal sewer and municipal water service the Building.

The majority of the plumbing systems are original to the building. Portions of the system have been updated as part of building renovation and upgrade projects. The plumbing systems beyond Boiler Room appear to be in good condition. The school plumbing distribution systems could continue to be used with maintenance and replacement of failed components. The copper piping, valves, and insulation are in good condition and can be reutilized in a renovation or addition.


The plumbing fixtures are in good condition. It appears as though most bathroom fixtures are accessible, however, the drinking fountains may not meet current accessibility codes. Current Access Code requires accessible fixtures wherever new plumbing is provided. In terms of the water conservation fixtures, their use is governed by the provisions of the Plumbing and Building Code. Essentially, the code does not require these fixtures to be upgraded, but where new fixtures are installed, as may be required by other codes or concerns, the new fixtures need to be water conserving type fixtures.

Cast iron is used for sanitary and storm drainage. Rainwater from roof areas is collected by interior rain leaders which appear to discharge to a below grade site drainage system. Where visible, the cast iron pipe appears to be in good condition. Smaller pipe sizes appear to be copper. In general, the drainage piping may be reused where adequately sized for the intended new use. Portions of the storm piping are not insulated.


Corrosion Resistant polyethylene piping and mechanical fittings are used for Laboratory waste and vent systems. The Laboratory waste system was directed to an exterior acid neutralization tank, originally. The Staff indicated that the Laboratory waste systems are no longer directed to acid neutralization tank and is now tied into the municipal sanitary drainage system. The types of chemicals being used in the Science



Typical water closet






Typical urinals



Wall fount fountains

Descriptive Narrative

STRUCTURAL									
Exterior Wall Construction									
Observations/ Comments:	a. Brick has been pushed out at building corners and has cracked in multiple locations. These conditions are due to the expansion of the brick veneer under varying moisture and temperature conditions (no control joints provided). Mortar joints of cast stone elements are open in multiple locations.	Repair and Repoint brick veneer at necessary locations.	2	ESL	5				
	b. Concrete spalling has occurred at the precast concrete veneer of the Connector Link columns.	Repair concrete.	2	ESL	5				
BUILDING EXTERIOR									
Windows									
Frame Materials	Aluminum - at end of useful life	Recommend replacement	1	OB	5				
Glazing Type and Color	Single pane, opaque spandrel panel. Glazing putty is failed. Spandrel panels are typically cracked. Three broken window at gym.	Replace broken lites immediately. Remove and replace broken spandrel panels. Remove and replace glazing putty. Consider replacing all windows.	1	OB	5				

Detailed Existing Conditions Facility Matrix

Step 2: Information Analysis

A high level assessment of the deficiencies identified in the previous step was conducted. Using an Existing Conditions Facility Matrix, the Portland Public Schools facilities were evaluated starting with a general overview and then with a focus on specific action items. Particular problems that needed attention were identified, isolated, and prioritized based on a set of evaluation criteria including condition level, age, code compliance, energy and operating efficiency, sustainability, impact on the learning environment, and extending the building life.

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND		QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	EVALUATION CRITERIA							* OPINION OF PROBABLE COST
			COND. LEVEL	AGE FACTOR					ADA / ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATING EFFICIENCY	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE		
Short Term Repairs (Years 2 to 5)																
STRUCTURAL																
Foundations/Drainage:																
Observations/ Comments:	Tiles in cafeteria between column lines were cracked and reportedly need to be replaced often (tripping hazard), suggesting a moisture problem at the slab on grade. Damaged tiles were also observed at slab on grade construction joints; slab shrinkage may also be a contributing factor at these locations.	Recommend moisture testing of the cafeteria slab to determine source and extent of the issue Also recommend video investigation of all underslab piping in this area to determine if there leakage is the cause of the moisture issue	1	ESL	Investigative work										\$6,000	
Additional Observations																
Observations/ Comments:	Grade slopes down to exterior stairs leading to basement, causing potential drainage issues.	Continuous maintenance of drains is essential.	2	ESL	Under Maintenance Budget										\$0	
BUILDING EXTERIOR																
Entrance Door Systems																
Doors and Hardware	Aluminum pulls, exit devices, door closers appear in good condition, (1) motorized door opener at each line of doors No electrified hardware or door access control	Recommend replacing doors and hardware with a new system of electrified door hardware to implement door access control	2	OB	Budget provided by Town										\$23,852	
Fascia, Trim, Soffits &																
Materials	Cementitious soffit material at side entrance (west facade) is cracked and possibly delaminated. This represents a fall hazard.	Remove and replace all loose material.	2	ESL	30 SF										\$2,736	
Exterior Stairs and Ladders																
	Concrete landing at east gymnasium exit have pitted and spalled (potential tripping hazard).	Repair concrete.	1	ESL	60 SF										\$6,840	
	Grade and drainage slopes down to exterior stairs leading to basement locker rooms; combined with wear from athletic cleats, concrete landings have spalled and are deteriorating	Recommend: - repairing concrete landings - Continuous maintenance of drains is essential - adding a roof canopy over the area to divert some of the water away	1	ESL	250 SF concrete 450 SF of standing seam metal roof canopy, (4) pipe columns										\$76,380	

Recommendations Matrix

For each recommended action item, a general scope of work was identified which in turn was used to establish an estimated budget for that item.

Recommended action items were further grouped based on the urgency of the repair or upgrade:

- Immediate (to be addressed within the next year)
- Short Term (to be addressed within the next 5 years)
- Long Term (to be addressed within the next 6 to 20 years)

Step 3: Twenty-Year Capital Plan

The development of the Capital Plan started with a comprehensive analysis of the facility action items identified in the previous step. Recommended repairs, replacements, modifications, and improvements for each building were further prioritized into a phased plan over a twenty-year period, including options for bundling projects to achieve additional savings.

The Capital Plan was organized by building and by five-year increments. For each five-year period, estimated budgets were identified for each building.

The Capital Plan also provides an implementation road map for phasing and sequencing the recommended projects. Access to grant programs, bundling projects by trade, by individual buildings and multiple buildings, and by scheduling were all taken into consideration when scheduling the projects over the ten-year period.

This plan will provide the City of Portland and Portland Public Schools with the schedule and budget information it needs to not only maintain its facilities over the next two decades, but also to methodically upgrade and enhance them to serve the City's citizens into the future.

	Immediate Recommendations		Short Term Recommendations				Long Term Recommendations									
	Year 0 2017		Years 1 - 5 2018 - 2022				Years 6 - 10 2023 - 2027				Years 11 - 15 2028 - 2032		Years 16 - 20 2033 - 2037		TOTALS	
			CIP	CIP (Major Renovation)	Maintenance	City Expense	Sub Total	CIP	CIP (Major Renovation)	Maintenance	City Expense	Sub Total				
Elementary Schools																
Cliff Island	9	\$0	\$218,878	\$0	\$3,752	\$0	\$222,630	\$0	\$0	\$135,519	\$0	\$133,519	\$55,036	\$229,727	\$640,912	
East End Community	17	\$59,600	\$148,869	\$0	\$12,024	\$42,631	\$203,525	\$0	\$0	\$53,571	\$0	\$53,571	\$7,059,340	\$8,092,379	\$15,428,424	
Longfellow	25	\$0	\$3,450,296	\$0	\$40,736	\$941	\$3,491,973	\$0	\$6,378,111	\$0	\$0	\$6,378,111	\$2,628,980	\$2,365,473	\$14,864,537	
Lyeth	43	\$0	\$2,080,855	\$0	\$4,406	\$0	\$2,085,261	\$3,188,500	\$7,593,746	\$58,093	\$0	\$10,840,339	\$1,789,681	\$2,469,917	\$17,185,198	
Ocean Avenue	55	\$0	\$57,780	\$0	\$0	\$0	\$57,780	\$0	\$0	\$13,281	\$0	\$13,281	\$3,674,105	\$6,671,830	\$10,416,996	
Peaks Island	61	\$0	\$808,655	\$0	\$19,065	\$5,440	\$833,160	\$0	\$2,011,217	\$23,916	\$0	\$2,035,133	\$685,344	\$775,595	\$4,329,132	
Presumpscot	75	\$0	\$844,575	\$0	\$17,487	\$0	\$862,062	\$0	\$5,478,512	\$0	\$0	\$5,478,512	\$1,050,202	\$1,033,918	\$8,424,694	
Reiche	87	\$0	\$2,431,435	\$0	\$5,974	\$68,009	\$2,505,418	\$198,668	\$14,090,541	\$0	\$0	\$14,289,209	\$4,356,036	\$2,431,142	\$23,581,805	
Riverton	99	\$1,505	\$1,298,762	\$0	\$11,549	\$68,124	\$1,378,435	\$132,333	\$8,930,255	\$317,158	\$210,031	\$9,589,777	\$2,900,612	\$5,032,593	\$18,502,832	
Elementary Schools Subtotal		\$61,105	\$11,340,105	\$0	\$114,993	\$185,146	\$11,640,344	\$3,519,501	\$44,482,382	\$599,538	\$210,031	\$48,811,452	\$24,159,245	\$29,062,484	\$113,774,530	
Middle Schools																
King	123	\$0	\$1,111,089	\$0	\$75,493	\$196,228	\$1,382,810	\$136,912	\$10,973,498	\$25,625	\$0	\$11,136,035	\$4,030,117	\$2,456,825	\$19,005,787	
Lincoln	133	\$1,500	\$1,606,739	\$0	\$75,478	\$9,005	\$1,691,222	\$0	\$10,555,989	\$0	\$0	\$10,555,989	\$4,556,994	\$4,556,994	\$21,364,239	
Moore	155	\$3,600	\$1,092,471	\$0	\$21,172	\$0	\$1,113,643	\$0	\$10,917,590	\$4,675	\$0	\$10,922,265	\$4,900,750	\$4,900,750	\$21,844,849	
Middle Schools Subtotal		\$5,100	\$3,810,299	\$0	\$172,143	\$205,233	\$4,187,675	\$136,912	\$32,447,077	\$30,300	\$0	\$32,614,289	\$13,489,405	\$11,918,406	\$62,214,875	
High Schools																
Portland Arts & Technology (PATHS)	171	\$66,500	\$5,992,703	\$0	\$76,363	\$0	\$6,069,066	\$0	\$22,182,276	\$0	\$0	\$22,182,276	\$8,303,498	\$2,345,323	\$38,966,663	
Deering	191	\$0	\$6,490,744	\$0	\$31,220	\$0	\$6,521,964	\$1,383,723	\$19,684,741	\$74,544	\$0	\$21,143,008	\$8,250,822	\$7,291,011	\$43,206,805	
Portland	213	\$4,515	\$3,149,159	\$0	\$17,936	\$43,898	\$3,210,993	\$81,804	\$21,713,483	\$48,034	\$0	\$21,843,321	\$13,991,904	\$8,199,137	\$47,249,870	
High Schools Subtotal		\$71,015	\$15,632,606	\$0	\$125,519	\$43,898	\$15,802,023	\$1,465,527	\$63,580,500	\$122,578	\$0	\$65,168,605	\$30,546,224	\$17,835,471	\$129,423,338	
Other Buildings																
District Office / Bayside Learning	233	\$27,083	\$588,555	\$0	\$0	\$0	\$588,555	\$3,360,684	\$0	\$0	\$0	\$3,360,684	\$2,946,547	\$1,177,419	\$8,100,389	
Central Kitchen	245	\$0	\$72,444	\$0	\$28,177	\$0	\$100,621	\$445,518	\$0	\$469,627	\$0	\$915,145	\$452,520	\$408,197	\$1,876,483	
Subtotal		\$27,083	\$660,999	\$0	\$28,177	\$0	\$689,176	\$3,806,202	\$0	\$469,627	\$0	\$4,275,829	\$3,399,067	\$1,585,616	\$9,976,771	
General District Items																
General District Items*	253	\$0	\$6,337,065	\$0	\$0	\$0	\$6,337,065	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,337,065
* Non-building specific items from PPS 5-yr CIP																
TOTAL		\$164,303	\$37,781,074	\$0	\$440,832	\$434,277	\$38,656,183	\$8,928,142	\$140,509,959	\$1,222,043	\$210,031	\$150,870,175	\$71,633,941	\$60,401,977	\$321,726,759	

Capital Plan Overview

Existing Conditions Documentation and Findings

Introduction

The reports for each school are organized into several major categories - general building information, overview, detailed narratives and summary of findings, site analysis, and floor plans.

Please note the reports in this section assess the existing physical building conditions only and do not address any space program concerns.

For more detailed existing conditions documentation, please refer to Volume 2 of this report.

These existing conditions evaluations provide clear and comprehensive information about the current state of the Portland Public school buildings and provide the City of Portland with critical information for prioritizing and budgeting the repair work necessary to maintain and upgrade the facilities.

This information was instrumental for understanding these facilities as a whole, informing the master plan options and recommendations, and determining the scope of work and scheduling of projects for the proposed twenty-year capital plan.

CLIFF ISLAND ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	P.O. Box 8, Church Road, Cliff Island
Serving Grade Levels:	K - 5
Number of Students:	5
Number of Faculty and Staff:	1
Original Construction Date:	1895
Date of Addition(s):	1997
Building Age:	121 Years
Building Footprint:	1,017 Square Feet
Number of Stories:	1
Building Area:	1,017 Gross Square Feet
Total Site Area:	0.1046 Acres (additional garage site 1.1885 Acres)
Zoning Designation:	IR-1 Island Residential

Overview

Cliff Island Elementary, built in 1895, is one of the few remaining one-room schoolhouses in the country. It is the smallest school facility in the Portland Public Schools district.

The building does not have a fire sprinkler system.

The few plumbing fixtures appear to have been updated some time back and are not original vintage. Piping systems appear to be around 1950s vintage.

This building does not have a central heating plant due to its area of 1,017 square feet. Heating is served by a floor mounted (Laser 730) fuel fired heater (similar to a Monitor heater).

Electrical systems are generally at or near the end of their anticipated useful lives.

Site Analysis

The Cliff Island School is located on a 0.1 acre parcel of land within the IR-1 Island Residential zone.

Accessibility

ADA ramp in good condition, access is needed to connect the ramp to the roadway.

Circulation

The school is accessible via Church Road. There is very little vehicle traffic. Children walk or ride bikes to school.

Safety/Security

Overhead electric is dangerously close to playground equipment. There are a number of damaged and fallen trees in close proximity to the building as well as piles of lumber and debris. The grounding rod from the electric box is exposed near the building entry. A concrete foundation is visible on the playground which introduces a tripping hazard.

Recommendations

- Relocate overhead electric away from playground.
- Install fence between playground and Church Road.
- Construct path from ADA ramp to roadway.
- Tree removal.
- Protect grounding rod.
- Remove concrete tripping hazard and cover playground area with wood chips.
- Clean out culvert, install rip rap forebay at inlet side.

Structural System Analysis

Structural System Description:

Wood frame on stone foundation; appears portions may be turn of the century.

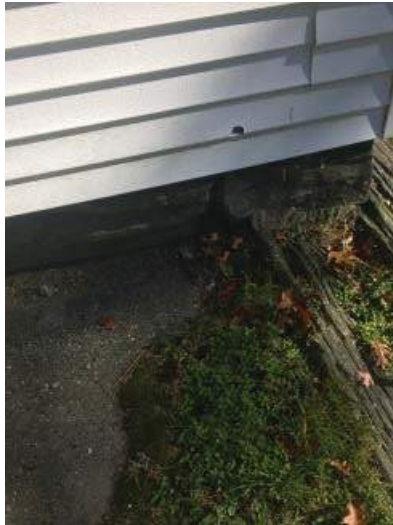
Lateral Framing Resistance System:

Wood sheathing acting as shear walls.

Exterior Wall System Description:

Mix of vinyl and wood clapboards.

CLIFF ISLAND ELEMENTARY SCHOOL



Hole in foundation



High-Low Roof

Fire Protection Analysis

There is not an automatic fire sprinkler system installed.

Recommend installing a NFPA 13 automatic sprinkler system—may require a fire pump and storage

Plumbing Systems Analysis

The building is served by a well pump system, inline filters and does not appear to have a water treatment. The copper piping system appears to be 19 50s or 60s vintage with lead soldered joints. The domestic hot water is served by a 20 gallon electric water heater; age is not determined but a typical electric water heater has a service life of 15 years.

The sanitary system is cast iron within the building and may be cast iron or PVC outdoors to the septic system. The indoor cast iron piping is most likely vintage to the 1950s or 60s and appears in fair to good condition.

The plumbing fixtures appear to be 20 years old or so. The toilets are tank type due to the well pump system.

The existing distribution piping and cast iron sanitary piping is beyond its expected service life of 30 years and should be replaced; especially the copper distribution system which appears to have questionable solder joints. The electric water heater is most likely nearing the end of its expected service life and should be replaced.



Electric Water Heater



Well Pressure Tank

Mechanical Systems Analysis

The building does not have a central heating system other than a floor mounted 40,000 BTU fuel oil heater (Laser 730 --) which is similar to the kerosene Monitor Heater. Previous to the fuel oil heater were electric baseboard strips that have been abandoned in place.

There is no mechanical ventilation for the building other than operable windows. The toilet room did not appear to have a mechanical exhaust fan.

Although teachers at the school stated that the floor mounted Laser 730 heater is all that is used and heats the building comfortably it is recommended to install a central heating system, such as a condensing gas ducted furnace which also provides fresh air from a small energy recovery unit (ERU). The ERU will also provide exhaust air from both bathrooms.



Laser 730 Floor Fuel Fired Heater

CLIFF ISLAND ELEMENTARY SCHOOL



Abandoned Electric Baseboard

Electrical Systems Analysis*Electrical System Distribution*

The school has an overhead 240/120-volt single-phase, 3-wire service terminating at a residential/light-commercial grade Crouse-Hinds load center that appears to be 1980's vintage and is at or near the end of its anticipated useful life. The service entrance cable and main circuit breaker are 200-amp rated, but meter enclosure appears to be rated only 100 amps. The routing of the service entrance cable to the line side of the meter enclosure permits water to infiltrate the cable, potentially causing excessive corrosion within the meter enclosure. The service should be updated with a modern 200-amp rated meter enclosure, service entrance cables routed such that the weatherhead can be mounted vertically, and modern panelboard.

A small shed located behind the building has a very old fuse box. The wiring in the shed appears to be disconnected and no longer in use. We recommend removing any abandoned wiring and equipment. The school is equipped with an electrical inlet mounted to the building exterior and a Reliance 240/120 volt, 10-position manual transfer device to facilitate connecting a portable generator to operate the water system and selected lighting and receptacles.

Based on what can be seen from a visual inspection, branch-circuit wiring appears to be mostly type NM non-metallic sheathed cable (romex). Building wire in conduit and surface metal raceway has been installed in some areas where outlets have been added. Extension cords are in use in some areas due to a lack of appropriately located receptacles. It was noted that in some areas extension cords are located too close to electric baseboard heaters. Receptacles should be added to eliminate the need for extension cords.

It was also noted that electrical cords are routed in close proximity to electric baseboard heaters. In order to avoid damage to the cords, keep electrical cords at least six inches away from electric baseboard heaters.



Service entrance and meter enclosure



Load center



Generator inlet



Generator transfer device



Old fuse panel in shed



Electrical cords routed near baseboard heater

CLIFF ISLAND ELEMENTARY SCHOOL

Interior Lighting

Recessed fluorescent lens troffers utilizing T12 lamps are installed in all interior areas. T12 fluorescent lamps are obsolete and the fixtures are at the end of their anticipated useful lives. We recommend updating the interior lighting to LED fixtures with high performance optics as part of any planned facility renovations.



Typical interior lighting

Exterior Lighting

Exterior lighting consists of incandescent luminaires at building entrances and one two-lamp medium based utility lamp hol Outdoor flood fixture der. The fixtures are in fair condition and are at or near the end of their anticipated useful lives. Outdoor lighting should be updated to provide illumination levels per IES recommendations using LED fixtures with full-cutoff optics.



Outdoor luminaire at entrance



Outdoor flood fixture

Emergency Lighting System

An emergency battery unit with integral incandescent heads is located in the classroom. Incandescent internally-illuminated exit signs are located appropriately to mark exits, but the units are obsolete and one is not currently working. It is not clear whether or not the exits signs have a backup power source. There is No outdoor emergency lighting. We recommend providing outdoor emergency lighting and replacing existing exit signs with LED units that include integral battery backup.



Exit sign



Emergency lighting unit

Fire Alarm System

The fire alarm control panel is an ESL 1500 series conventional zoned control panel. It was noted that the backup batteries are not connected. Smoke detectors are located in all rooms. Manual pull stations are located at exits, but are located higher than permitted by ADA. Occupant notification does not comply with ADA. The system should be updated to a fully addressable ADA compliant fire alarm system.



Fire alarm horn/strobe



Interior of fire alarm control panel

CLIFF ISLAND ELEMENTARY SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service is overhead to utility network interfaces. Telephone handsets are consumer-grade non-system style. Data system service is overhead via telephone lines. The school is not connected to a fiber-optic wide-area network. We recommend providing voice-over-internet-protocol (VOIP) phones that are connected to the district-wide network.

The school is not equipped with a clock System.

Security Systems Analysis

The school has no intrusion alarm or security camera alarm system.



Existing telephone



Data network switch

CLIFF ISLAND ELEMENTARY SCHOOL

SITE ANALYSIS



CLIFF ISLAND ELEMENTARY SCHOOL

FIRST FLOOR PLAN



EAST END COMMUNITY ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	195 North Street, Portland ME 04101
Serving Grade Levels:	K - 5
Number of Students:	400
Number of Faculty and Staff:	54
Original Construction Date:	2006
Date of Addition(s):	None
Building Age:	10 Years
Building Footprint:	50,000 Square Feet
Number of Stories:	2
Building Area:	75,000 Gross Square Feet
Total Site Area:	6.2633 Acres
Zoning Designation:	R3 Residential

Overview

The East End Community School is an elementary school serving Portland’s diverse and growing East End neighborhood, located on the far east end of the Portland peninsula. The school is positioned on a hill overlooking beautiful Casco Bay, offering students and staff views of a picturesque ocean and the prominent Portland skyline.

The school was constructed in 2006 and is home to more than 400 students in grades K-5. With modern educational needs in mind, the school was designed from the ground up to be a warm, welcoming and enriching environment for learning and teaching. Large windows allow natural light to pour in classrooms, solar panels on the roof provide the school with electricity, and three two-story “houses” provide community-like learning spaces for children based on their ages and needs.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25.

Plumbing piping systems and fixtures are comprised of the original 2006 vintage.

The HVAC systems are comprised of the original 2006 vintage systems, most all well within their expected service life.

Electrical systems are generally in good condition and well within their anticipated useful lives, although updates are recommended for the security camera system and outdoor lighting.

Site Analysis

East End Community School is located on a 6.3 acre parcel of land within the R3 residential zone.

Accessibility

Building entrances and ramps are in good condition. An additional ADA parking space is required and the spaces should be painted and signs installed to meet ADA requirements.

Circulation

East End Community School is accessible via North Street or the Eastern Promenade. There is good separation between the bus loop and parent drop off at the street.

Safety/Security

Full fire lane access available; however parking was observed along the fire lane. Observed a parent enter the playground area with children, for student security playground access should be limited.

Recommendations

- Additional ADA space needed. Ada spaces to be painted and signs installed.
- Brick detectable warning panels to be replaced.
- Restrict playground access from the public.
- Enforce parking restrictions.
- Additional parking needed.
- Repair brick sidewalks where heaved from frost. Loam and seed visible edging along brick sidewalk and where necessary along bituminous sidewalk to reduce drop off edge.

Structural System Analysis

Structural System Description (per original drawings, circa 2004):

- Foundations: cast-in-place concrete isolated and strip footings.
- First Floor Slab: 4 in thick concrete slab on grade, reinforced with #3@18.
- Second Floor Slab: 3½ in. thick slab on 1 in. deep, 24 GA form deck with WWR. Slabs bears on steel bar joists that span to steel beams and steel columns.

EAST END COMMUNITY ELEMENTARY SCHOOL

- Roof Construction: 1½ in. metal deck bearing on steel bar joists that span to steel beams and steel columns.

Lateral Force Resisting System (per original drawings, circa 2004):

- Steel Concentric Brace frames.

Exterior Wall System Description:

- 4 in. CMU low with metal panels above both with light gage backup walls.

Structural Conditions and Concerns:

- Cracks in the slab on grades.
- Systematic issue noted at the end of long steel lintels bearing on the CMU, where the CMU block is rotating, crack or both.

Additional Notes:

First Floor Construction: The school's head custodian reported the crack came from the floor settling. He reported the crack in the main lobby started 8 years ago (and have been developing) and the ones at the end of the hallway toward the cafeteria started to developed 4 years ago. He also reported a couple doors that where now hitting at the top jamb. Settling could not be confirmed.

Exterior Wall Construction: The school's head custodian also reported mortar failing with spacer behind visible. We surveyed the outside façade but could not find the condition.

Site Conditions: We noted that some of the nearby sidewalk were uneven (others to comment). We further noted one wood planter wall starting to tip over. Repair (minor).



Chimney



Lintel Condition



Lintel Condition



Cracks in First Floor

Fire Protection Analysis

The 6" sprinkler entrance to 4" riser is supplied by municipal water and has a testable backflow preventer. The sprinkler system is a complete automatic wet system, single riser, with a 4" storz fire department connection. There has been a sprinkler backflow tests performed annually. The piping system is in good condition. There is a sprinkler cabinet with wrench and spare heads.



Automatic Sprinkler Entrance

EAST END COMMUNITY ELEMENTARY SCHOOL

Plumbing Systems Analysis

The 3" water entrance has (2) double check RPS back-flow preventers in parallel. A 3" line off the entrance serves the lawn irrigation system; this system has a booster pump and RPZ backflow protection located in the same mechanical space.

Domestic hot water is generated instantaneously via boilers' tankless coils during the heating season. The DHW is tempered by (2) mixing valves (hi/lo) located in the boiler room. The Bradford White (300MBH input) gas fired condensing DHW maker/storage was replaced in 2013; this DHW unit is used for summer use when boilers are off line.

Plumbing fixtures are in good operating condition and well maintained. The fixtures are low flow type, vitreous china, mostly wall hung. Water coolers are ADA bi-level located in most hallways. Eye wash stations are located in Janitor closet mixing stations.

Plumbing piping consists of copper domestic and PVC sanitary and rainwater and are in very good condition and well insulated. Storm water and sewer are separated systems.

Natural gas services the building.

The existing plumbing systems and fixtures are well maintained and in good condition. At this present time a continued maintenance program would be the only requirement.



Gas Fired Summer DHW



DHW Tempering Valves



Typical Split DX RTU Serving Gym

Mechanical Systems Analysis

The central boiler plant serving the school consists of (2) HB Smith 28HE – 7 sections, 1722 MBH gross output. The burners are dual fuel gas/#2 oil. The #2 oil storage tank is 4,000 gallons above ground and transfers oil to a day tank in the boiler room. Combustion air is supplied thru (2) large louvers ducted high and low within the boiler room, it appears of adequate size to serve the boilers. Hot water boiler injection pumps inject boiler HW into the main building loop which main pumps operate thru VFD controllers lead/lag. The boilers also have blend pumps to prevent low temperature water shock. The boilers and equipment are within their service life 25 to 30 years.

The (6) packaged Trane RTUs (Intellipaks) with DX cooling supply approximately 8,000 cfm each. The supply air provides both ventilation air and heating/cooling based on the conditions in the spaces served. The units' condensing units are integral to the RTU for (4) units and split DX for (2), the gym and cafeteria. The fans have VAV speed control. The RTUs have been maintained well and have about half of their service life left out of a 20 year service life.

Space cooling and heating is accomplished thru the (6) RTUs VAV reheat terminals, fin tube, and CUHs, which have about half of their service life left out of a 20 year service life.

Rooftop exhaust fans serve toiler rooms, janitor closets, and other areas requiring exhaust and have about half of their service life left out of a 20 year service life. Temperature are full DDC electric with graphics front end.

In general most HVAC systems are in or nearing their mid service life with 10 to 15 years expected service life remaining. Other than continued maintenance there are no immediate recommendations.



Building Loop Heating Pumps



Dual Fuel Boilers



Typical Packaged RTU & Typical Exhaust Fan

EAST END COMMUNITY ELEMENTARY SCHOOL

Electrical Systems Analysis

Electrical System Distribution

Primary service originates at a utility pole on North Street and is routed underground in two 5" conduits to a 225-kVA utility-owned padmount transformer located on the northeast side of the building. The secondary service entrance consists of building wire in underground conduit run from the padmount transformer to a 1200-amp, 480/277-volt 3-phase, 4-wire Square D switchboard that is fully utilized. The equipment is in good condition and well within its anticipated useful life.

Square D branch-circuit and distribution panelboards are located appropriately for the current program. Feeders are single conductors in conduit. Based on what can be seen from a visual inspection, branch circuits are a mix of MC cable and single conductors in conduit. The power distribution system is in good condition, well within its anticipated useful life, and offers a reasonable number of available spare circuits.

It was noted that some areas that house electrical panels are also used for storage. Care should be exercised to ensure that 30" wide, 36" deep area in front of each electrical panel is clear of stored materials.



Utility riser pole



Main distribution switchboard



Padmount transformer



Branch-circuit panelboards

Interior Lighting

Classrooms are illuminated by dimmable pendant mounted fixtures with direct/indirect distribution. Recessed fixtures with parabolic diffusers are installed in Offices. Toilet rooms are illuminated by recessed lens troffers and mechanical and storage rooms have a mixture of strip lights and surface mounted wrap-around fixtures. Fixtures in classrooms, offices, toilets, and mechanical and storage rooms all are equipped with T8 fluorescent lamps. Corridors have recessed and surface mounted compact fluorescent fixtures. The gym is illuminated by T5 fluorescent high-bay fixtures. The interior lighting is in good condition and has approximately 10 years of anticipated useful life remaining.



Classroom lighting



Parabolics in office area



Corridor lighting



Gymnasium lighting

EAST END COMMUNITY ELEMENTARY SCHOOL

Exterior Lighting

Site lighting consists of metal Halide “shoe-box” style pole lights. There are also some metal halide bollard fixtures installed along a pedestrian that leads to Eastern Promenade, but these have been abandoned due to failures. Building mounted exterior lighting is a mix of LED and metal halide wall packs. Based on a visual inspection it appears that the existing exterior lighting will provide illumination levels consistent with IES recommendations except where the bollard fixtures are not functioning and at the area in front of the building to the west of the main entrance, where we recommend adding lighting. We recommend updating the exterior lighting to LED with full cutoff optics as the existing metal halide units fail.



Abandoned bollard lights



Typical pole lights



Area to west of main entrance – Additional outdoor lighting is recommended here.



LED full-cutoff wall pack



Metal halide wall pack

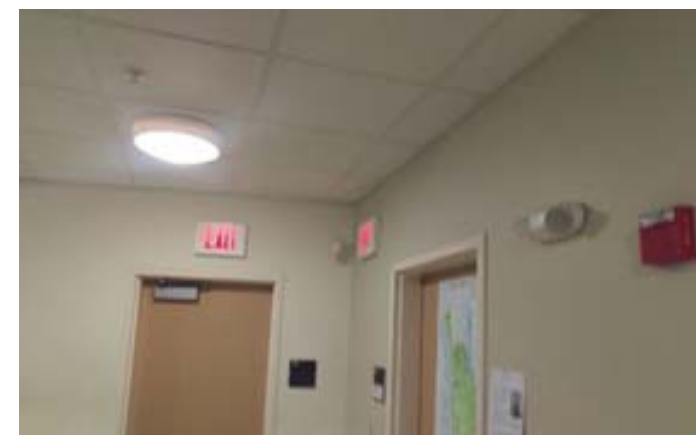
Emergency Lighting System

Emergency battery units with integral and remote heads provide emergency lighting for means of egress. The heads are a mixture of LED and incandescent. Emergency lighting includes the areas at the exterior of exits. The LED emergency lighting units are in good condition and offer more than 10 years of anticipated useful life provided they are properly maintained and batteries are replaced as needed. Incandescent units should be replaced with modern LED units as they fail.

LED illuminated exit signs with integral battery backup are located appropriately to mark means of egress.



Outdoor emergency lighting unit



Emergency battery unit and exit signs

Fire Alarm System

The fire alarm control panel is a 2006 vintage FCI addressable control panel. Alarms are initiated by manual pull stations at building exits, smoke and heat detectors in selected areas, and by activation of the building's sprinkler system. The fire alarm system appears to comply with current codes and standards except that current City of Portland fire alarm standards require smoke detection in egress paths, which this school does not have; existing installations are not required to be updated unless the system is replaced or the facility undergoes major renovations.



Fire alarm control panel



Fire alarm notification in corridor

EAST END COMMUNITY ELEMENTARY SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Data and telephone services originate at the utility riser pole on North Street and are routed to the building underground in four 4" conduits. One conduit is for telephone service, one conduit is for fiber optic data service, one is for cable TV and one is spare.

The school has an NEC analog phone system that is not connected to the district-wide network. Intercommunication is provided by a Dukane intercom system that is not integrated with the telephone system. Classrooms do not have access to outside phone lines. We recommend providing VOIP phones that are connected to the district-wide network.

The school is equipped with a Sapling master clock system that synchronizes satellite clocks. The system is in good condition and within its anticipated useful life.

Telephone and data infrastructure is a Category 6 horizontal cable plant for both voice and data with a fiber optic backbone cable. Network electronics and patch panels are rack mounted in spaces dedicated to telecommunications. WIFI is available throughout.

Projectors on carts are utilized for Audio/visual presentations in classrooms.



Telecommunications utility demarcation



Main Distribution Frame (MDF)

Security Systems Analysis

The school is equipped with a DSC Series PC4020 intrusion alarm control panel. Alarms are initiated by motion detectors. There is no panic alarm system. The system has about 5 years of anticipated useful life remaining. The Intrusion detection system should be updated to a system that is integrated with the district-wide network system.

The school has an analog Honeywell security Camera System. The cameras reported do not work well and the system is not tied to the district-wide DVR recording system. We recommend providing digital cameras that are connected to the district servers.

The Main entrance has a line-of-sight with intercom and electric access control at the main office. There is video intercom between the playground entrance and main office with electric access control.



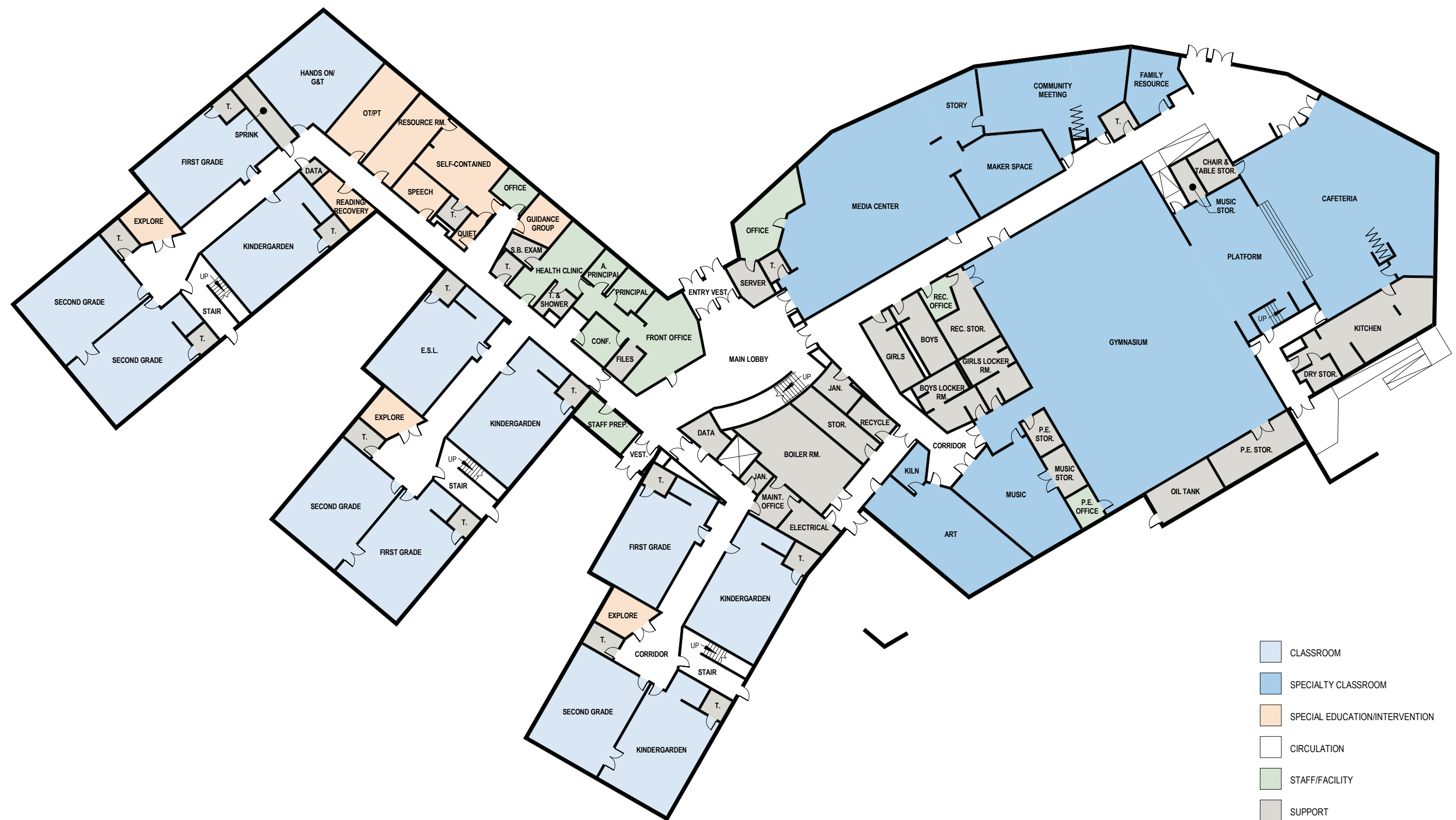
Security keypad

EAST END COMMUNITY ELEMENTARY SCHOOL

SITE ANALYSIS



EAST END COMMUNITY ELEMENTARY SCHOOL
FIRST FLOOR PLAN



EAST END COMMUNITY ELEMENTARY SCHOOL

SECOND FLOOR PLAN



LONGFELLOW ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	432 Stevens Ave, Portland, Maine 04103
Serving Grade Levels:	K - 5
Number of Students:	325
Number of Faculty and Staff:	51
Original Construction Date:	1952
Date of Addition(s):	None
Building Age:	64 Years
Building Footprint:	24,700 Square Feet
Number of Stories:	3
Building Area:	61,600 Gross Square Feet
Total Site Area:	2.3434 Acres
Zoning Designation:	R5 Residential

Overview

Built in 1952, Longfellow Elementary School serves over 300 students in grade levels K through 5.

The sprinkler system installation date is unknown, however, the existing system only provide coverage to hallways with a single riser wet system.

Plumbing systems are vintage to the original building, with recent plumbing fixture upgrades.

HVAC systems are vintage to the original building with most equipment and piping beyond their useful service life. Heating steam is supplied to Longfellow Elementary from the Deering High School’s boiler plant.

Electrical systems are generally at or near the end of their anticipated useful lives.

Site Analysis

Longfellow Elementary School is located on a 2.3 acre parcel of land within the R5 residential zone.

Accessibility

ADA accessibility throughout site is fair, some repairs are needed to conform to standards.

Circulation

Longfellow Elementary School is accessible via Stevens Avenue and faculty parking is accessible via Concord Street West. Buses and parents drop off along Stevens Avenue at front of building.

Safety/Security

The beehive catch basin cover near the basketball court introduces a tripping hazard.

Recommendations

- Repair pavement at Stevens Avenue sidewalk transition to reduce lip to 1/4” or less.
- Install ADA signs at all ADA spaces and repaint spaces to include parking aisle.
- Relocate dumpster out of ADA parking. Install screening around dumpster.
- Install wheel stops where parking is adjacent to ADA ramp.
- Adjust parking lot grade to direct ponding at ADA spaces to the nearest catch basin.
- Pavement overlay needed.
- Repaint parking lines.
- Install additional storage space at load area to avoid storage within the ADA ramp.
- Install School Zone sign on Concord Street West.
- Slope stabilization needed at playground. Reestablish grass areas.
- Install lighting at sides and rear of building.

LONGFELLOW ELEMENTARY SCHOOL

Structural System Analysis

Structural System Description: (partial 1951 drawings available as well as 1994 and 2000 drawings of roof work)

- Foundations:
 - Partial finish basement below the south third of the school: foundation not visible, walls are cast in place concrete.
 - Tall crawl space below the northern two third of the school: sand floor, cast in place concrete foundation walls and cast in place interior concrete columns (18"x18" or 24"x24") bearing on spread footings (visible below the north wing).
- First Floor Construction (per the original drawings): elevated concrete slab, 6 to 6.5" thick. Slab is a two way slab in the north wing, one-way slab to concrete beams in the south wing and two way slab with thickened slab at the column in the center.
- Second Floor Construction Central section only (per the original drawings): 2½ in. concrete slab bearing on steel bar joists spanning to steel beams and columns at the corridor and to masonry at the exterior walls. The corridor is a 6 in. concrete slab spanning to steel beam
- Roof:
 - Wing roofs: not observed due to plastered ceiling. Per 1951 drawing and 1994 reroofing drawings:
 - west end of the wings: original construction of "Kaylo" roof deck supported on structural tee's supported by steel joists. At the south wing the joists bear into the masonry. At the north wing (wider) there joists bear to masonry and to an internal line of steel beams and columns.
 - east end of the wings rebuilt as part of the 1994 work with 1½ in. metal deck bearing on steel joists.
 - Central section roof: 1½ in. metal roof bearing on steel joists spanning to brick walls and steel beams and columns. Additionally there is



Entry Canopy



Retaining Wall



Cast Stone



Cast Stone



Lintel

a layer of steel tie beams to tie the columns to each other and to the outer walls just above the ceiling. The 2000 roof repair drawings show removal of the existing decking and installation of new 1½ in. metal roof deck with joist remained however the existing drawings show steel beam not joist – it is unknown when the joist were installed.

Lateral Force Resisting System:

Unknown - assumed to be outside brick walls.

Exterior Wall System Description:

Mass-masonry/brick with steel beam embedded and steel columns at the longer opening. The façade has a bands of cast stones

Structural Conditions and Concerns:

- Façade, specifically the cast stone bands
- Covering at the roof steel beam
- Entrance canopies in the Poet's garden
- Some of the site features
- Roof not designed for drift



Central Roof Beam Cover

LONGFELLOW ELEMENTARY SCHOOL

Fire Protection Analysis

The 4" sprinkler entrance is supplied by municipal water and does not have a backflow preventer. The sprinkler system cover the hallways only and the stage with an automatic wet system from a single 4" riser; there may be a dry system serving the second floor per documentation at the sprinkler entrance. There is a 4" fire department connection. The piping system appears in good condition however it is an aged system (exact year not known but assuming at least 40 years). Recommend that a new, 100% coverage NFPA 13 sprinkler system be installed.



Sprinkler Entrance



Recent Fixtures Upgrade

Plumbing Systems Analysis

The building is served by a 3" municipal water entrance no backflow preventers.

Domestic hot water is generated by a 65 gallon electric water heater with mfg. date of 2003. There is no master mixing valve to temper the hot water delivered to the building. The original steam to DWH maker/storage unit failed in 2012.

Plumbing fixtures have been recently updated with low flow type, vitreous china, wall hung and floor mount. Water coolers are ADA bi-level located in most hallways.

Plumbing sanitary, vent, and rain water piping consists of cast iron original building. Water distribution piping is copper. Most piping is in fair to good condition, however the 1950s piping systems are beyond their useful life of 30 years. Storm water and sewer exit the building as separated systems.

The existing plumbing systems are in fair to good condition considering the age of the original systems. Replacement plumbing fixtures are in near new condition. The original piping systems are beyond their service life of 30 years but in fair to good condition as witnessed in the crawl space. However these system should be upgraded with new PVC and copper piping systems; the copper piping will have lead free solder, a current code requirement.



3" Water Entrance



Cast Iron Rain Water Piping



Cast Iron Sanitary Piping

Mechanical Systems Analysis

The building is served by the steam boiler plant at Deering High via underground piping. Most all steam and condensate return piping is original to the building, 1952, and is beyond its expected service life of 30 years. Sections of the steam piping is covered with the original asbestos insulation. Maintenance on the steam system has been ongoing as evidence of the recently replaced condensate return pumps, less receiver.

Heating is accomplished by steam to floor mount unit ventilators, convectors, and fintube. All the steam heating and ventilating equipment and ducted systems are well beyond their expected service life.

Ventilation is accomplished via gravity relief ventilators (GRVs), many original to the building. The GRVs relieve air as OA is introduced thru the unit ventilators.

Existing temperature controls are pneumatic and beyond their expected service life. There is some newer DDC electric but it is nearing 20 years old. The existing HVAC systems are simple, comprised mostly of unit ventilators which are generally in fair operating condition given their age. The 65 year old underground steam and condensate return piping is very aged and most likely nearing failure. How and when to replace the equipment depends on whether there are planned building renovations or replace systems as a major HVAC upgrade. The best recommendation is to convert the original building to heating hot water and eliminate the aged steam equipment and steam / condensate piping. Install a hot water heating plant dedicated to Longfellow. All heating and ventilating equipment would need to be replaced/upgraded with new systems at the time of the steam to HW conversion. Also, coordinate the temperature controls DDC electric upgrade at the time of conversion. Basi-

LONGFELLOW ELEMENTARY SCHOOL

cally, there are no intermediate steps with upgrading the HVAC at Longfellow without replacing all the HVAC systems.



Temperature Controls



Original Steam Piping with Asbestos Insulation



Unit Ventilators in Gym



Classroom Unit Ventilators

Electrical Systems Analysis

Electrical System Distribution

The electrical service is an underground utility primary to a utility transformer vault located within the building; the vault is only accessible to utility company personnel and was not inspected during our visit to the school. The secondary feeder from the transformer vault is installed in a wireway and supplies a series of very old fusible switches that have a combined rating of 600 amps at 208/120 volts, 3-phase, 4-wire. The current service entrance arrangement with the utility transformer vault within the building is an obsolete design. The service should be updated to a modern design with a pad mounted utility transformer.

Power is distributed throughout the building via a mixture of fuse and circuit-breaker type Panelboards. Most of the distribution system is very old and has exceeded its anticipated useful life, except for a couple of residential-grade loadcenters that have been added over the years. Power distribution wiring is building wire in conduit. Like the equipment, the wiring has exceeded its anticipated useful life and should be replaced throughout.



An old fuse panel.



Any old circuit breaker panel – a plastic cover has been field fabricated to cover live parts within.



Service disconnect switches



A newer, residential-grade load center

LONGFELLOW ELEMENTARY SCHOOL

Interior Lighting

Most interior areas are illuminated by fluorescent fixtures that utilize T8 lamps. Classrooms and corridors have very old louvered fixtures. Offices, toilets, mechanical and storage rooms are equipped with wraparound style fixtures. The Gym is illuminated by high-bay pendant luminaires. The lighting should be updated to LED fixtures with high-performance optics as part of any planned facility renovations.



Typical classroom lighting



Corridor lighting

Exterior Lighting

Site lighting is provided by utility-owned pole lights. Building-mounted exterior lighting is a mix of LED and metal halide wall packs. The metal halide fixtures should be replaced with LED fixtures as the metal halide units fail. All of the existing fixtures will reach the end of their anticipated useful lives within 20 years.

Emergency Lighting System

Emergency lighting is provided by emergency battery units with integral and remote heads. The heads are a mixture of LED and incandescent. The LED emergency lighting units are in good condition and offer more than 10 years of anticipated useful life provided they are properly maintained and batteries are replaced as needed. Older incandescent units should be replaced with modern LED units as they fail. Outdoor emergency lighting should be provided at building exits. LED illuminated exit signs with integral battery backup are appropriately located to mark means of egress.



An LED emergency light and exit sign



An incandescent emergency lighting unit

Fire Alarm System

The fire alarm control panel is a conventional zoned FCI control panel. Occupant notification does not comply with ADA or current standards in some areas; the classrooms are not equipped with visual notification appliances. The system has exceeded its anticipated useful life and should be updated to a fully addressable system.



Fire alarm control panel



Fire alarm horn/strobe unit

LONGFELLOW ELEMENTARY SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service enters building below grade in what appears to be a 3” conduit. It is not clear where this conduit originates. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via an Atlas Sound paging amplifier.

Data infrastructure is a Category 6 horizontal cable plant. WIFI is available throughout.

The school does not have a clock system. Battery clocks are utilized throughout and a network-connected programmable relay operates program bells.

Projectors on carts are utilized for audio/visual presentations in classrooms.



Paging amplifier



Telephone utility demarcation point



Data network cabinet

Security Systems Analysis

The school is equipped with a DSC intrusion alarm control panel. Alarms are initiated by motion detectors in corridors. There is no panic alarm system. The Intrusion detection system should be updated to a system that is integrated with the district-wide network system.

The school is not equipped with a security camera system, but there is an Aiphone video intercom system in place between the interior of the main entrance vestibule and the office. We recommend providing web-based digital cameras that are connected to the district servers.



Security alarm control panel

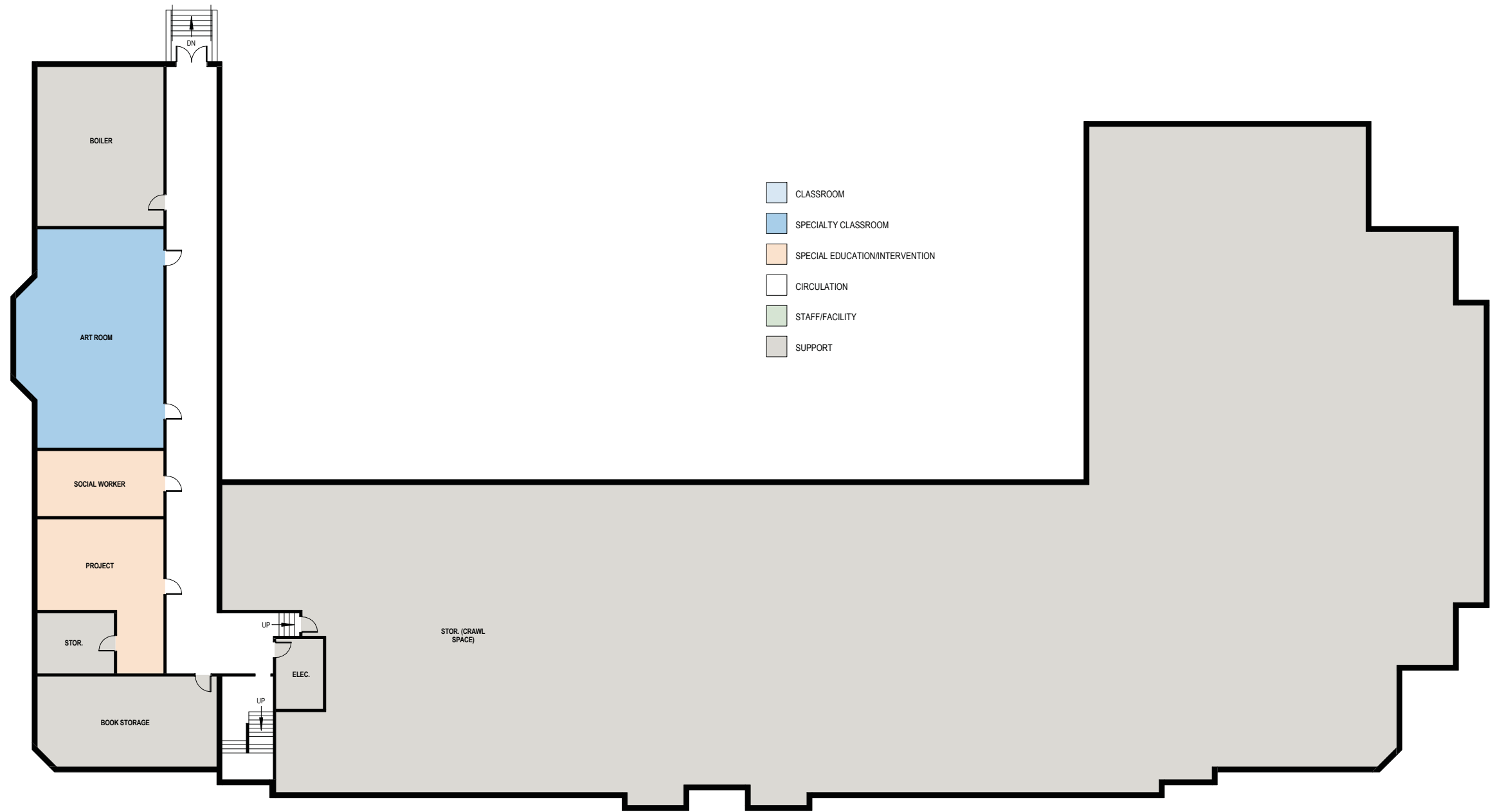


A corridor motion detector

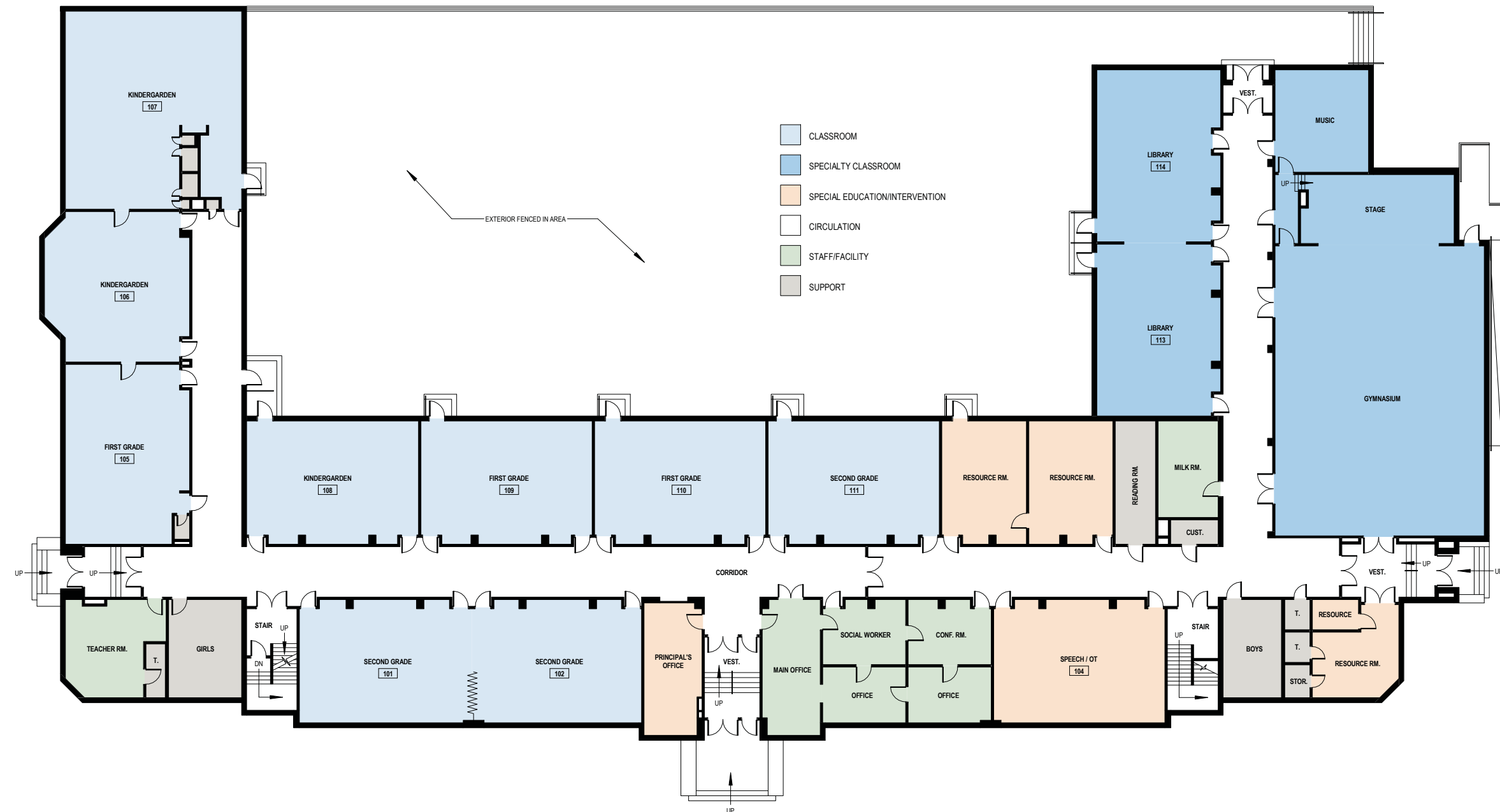
LONGFELLOW ELEMENTARY SCHOOL SITE ANALYSIS



LONGFELLOW ELEMENTARY SCHOOL
BASEMENT FLOOR PLAN



LONGFELLOW ELEMENTARY SCHOOL FIRST FLOOR PLAN



LONGFELLOW ELEMENTARY SCHOOL
SECOND FLOOR PLAN



HARRISON LYSETH ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	175 Auburn Street, Portland, Maine 04103
Serving Grade Levels:	K - 5
Number of Students:	530
Number of Faculty and Staff:	66
Original Construction Date:	1958
Date of Addition(s):	1965
Building Age:	58 Years
Building Footprint:	50,600 Square Feet
Number of Stories:	1
Building Area:	50,600 Gross Square Feet
Total Site Area:	25.1178 Acres (Lyseth & Moore same parcel)
Zoning Designation:	R2 Residential/ROS Recreation Open Space

Overview

Lyseth Elementary school was built in 1958 with additions in 1965. It serves over 500 students in grade levels K through 5 in the North Deering Neighborhood.

The building is not equipped with an automatic fire sprinkler system.

Lyseth domestic water is served by Lyman Moore’s water entrance. Plumbing systems are vintage to the original building, with recent plumbing fixture upgrades.

Heating steam is supplied to Lyseth Elementary from Lyman Moore’s boiler plant. HVAC systems are vintage to the original building with most equipment and piping beyond their useful service life.

Much of the power distribution system is at the end of its anticipated useful life. Some new panelboards have been recently installed to replace obsolete equipment, but they appear to have been connected the old wiring infrastructure.

Most interior lighting fixtures are at the end of their anticipated useful lives.

The fire alarm control panel is obsolete and the system does not comply with current standards for new facilities.

Site Analysis

Lyseth Elementary School is located on a 25.1 acre parcel of land shared with Lyman Moore Middle School within the R2 residential zone and ROS Recreation Open Space zone.

Accessibility

ADA accessibility throughout the site is poor. ADA parking spaces and ramps are not compliant. There are no detectable warning strips on site. The paved surfaces throughout the site are in poor condition and in need of replacement.

Circulation

Lyseth Elementary School and Lyman Moore Middle School are located along Lyseth Moore Drive which is accessible from Auburn Street and Jr Street. There is delineation between bus and parent drop off but the circulation, particularly along the shared access drive, could be improved. More permanent pedestrian ion protection is needed along the parent drop off loop.

Safety/Security

Improved security is needed: Students and faculty were observed entering and existing through multiple entries. A door at the rear of the school was propped open

Recommendations

- Confirm ADA ramp grades at front entry.
- Secure doors as necessary.
- Remove excessive paved area at the rear of the school and replace with an adequate fire lane and green space.
- Remove dirt pile at crosswalk.
- Mill an repave access drive, faculty parking lot, sidewalks and pavements in the service/loading area.
- Replace bituminous curb within interior loop.
- Install wheel stops and paint a parking aisle at ADA parking space that adjoins the sidewalk.
- Replace faded fire lane sign.

HARRISON LYSETH ELEMENTARY SCHOOL

- Reconfigure signage, paint and install curb to improve parent and bus circulation.
- Install sidewalk, curb and guardrail at parent drop off loop.
- Install detectable warning panels at all crosswalks.
- Install screening around dumpsters.
- Delineate public trail and separate with fencing.
- Replace paved site stabilization with retaining walls at rear of school (possibly combine with Portland trail delineation).
- Remove winterberry bush from taste section of sensory garden as these berries are toxic.
- Remove remnants of guardrail at faculty parking lot.
- Relocate bicycle racks closer to main entry.
- Add catch basins to address ponding and erosion issues in loop.
- Adjust existing catch basin covers to grade where applicable.
- Potential stormwater treatment area at the front planting area.

Structural System Analysis

Structural System Description:

Roof is Tectum roof deck spanning to steel bar joists. Joists are supported at interior by CMU walls in double-loaded corridor format. Joists are supported at the exterior by structural steel beams and columns.

Lateral Force Resisting System (LFRS):

Most likely consists of interior CMU bearing walls. However, roofs are generally not well connected to walls, so it's unlikely there is a load path to bring lateral forces from the diaphragm to the walls.

Exterior Wall System Description:

Structural walls consist of brick veneer tied to CMU walls.

Foundation System Description:

Frost protected, shallow foundations assumed.

Structural Conditions and Concerns:

- Drift zones around multi-purpose room have been reinforced with additional framing. Therefore, no concerns at these locations. However, there are two canopies that snow can drift onto, and it is unlikely these canopies have been design for such loads.
- Window and door lintels are rusting. Recommend replacing them in the near future.
- Foundation wall control joint sealants are in poor shape and should be replaced.
- The low roof beyond the far wall of the multi-purpose room does is very flat and does not shed water well. Recommend providing additional materials to improve roof slope and drainage.
- The clerestory windows in the multi-purpose room are susceptible to wind-driven rain and snow. Leaks in these windows can cause damage to the roof structure over time. The beginning signs of rust/corrosion were observed in the roof joists at these locations. Recommend monitoring this area, and replacing any damaged windows or sealants to prevent moisture infiltration.
- The ladders used to access the high roof at the MPR are not anchored to the exterior walls at the top. This creates a potentially unsafe condition.



Poor roof drainage at low roof near MPR



Clerestory windows to MPR - monitor for leaks



Foundation wall sealant to be replaced

Fire Protection Analysis

No existing fire sprinkler system. Recommend a new 100% coverage NFPA 13 sprinkler system be installed.

Plumbing Systems Analysis

Lyseth is served domestic water from Lyman Moore; there is no meter or backflow preventer at Lyseth's entrance.

Domestic hot water is generated by a 40 gallon electric heat pump water heater with mfg. date of 2016. There is an existing DHW tempering valve and pumped recirculation from the building. Plumbing fixtures have been recently updated with low flow type, vitreous china, wall hung and floor mount.

Plumbing sanitary, vent, and rain water piping consists of cast iron original building. Water distribution piping is copper soldered joints. Plumbing piping systems have an expected useful life of 30 years. Storm water and sewer exit the building as separated systems.

The existing plumbing systems are in fair to good condition considering the age of the original systems. The original piping systems are beyond their service life of 30 years and complete replacement is recommended. New piping will be PVC and copper systems; the copper piping will have lead free soldered joints, a current code requirement.

HARRISON LYSETH ELEMENTARY SCHOOL



Recent Fixtures Upgrade

Mechanical Systems Analysis

The building is served by the steam boiler plant at Lyman Moore via underground piping (recently replaced piping). Most all steam and condensate return piping is original to the building, 1960, and is beyond its expected service life of 30 years. Maintenance on the steam system has been ongoing to replace traps and update some controls from manual operation.

Heating is accomplished by steam to floor mount unit ventilators, convectors, and fintube. All the steam heating and ventilating equipment and ducted systems are well beyond their expected service life.

Ventilation is accomplished via gravity relief ventilators (GRVs), many original to the building. The GRVs relieve air as OA is introduced thru the unit ventilators. The gym has a large H&V air handler that also is original to the building and beyond its expected service life.

Existing temperature controls are pneumatic and beyond their expected service life. There is some newer DDC electric but it is nearing 20 years old. The existing HVAC systems are simple, comprised mostly of unit ventilators which are generally in fair operating condition given their age. How and when to replace the equipment depends on whether there are planned building renovations or replace systems as a major HVAC upgrade. The best recommendation is to convert the original building to heating hot water and eliminate the aged steam equipment and steam / condensate piping. Install a hot water heating plant dedicated to Lyseth. All heating and ventilating equipment would need to be replaced/upgraded with new systems at the time of the steam to HW conversion. Also, coordinate the temperature controls DDC electric upgrade at the time of conversion. Basically, there are no intermediate steps with upgrading the HVAC at Lyseth without replacing all HVAC systems.



Temperature Controls



Classroom Unit Ventilator



New Heat Pump Water Heater



Original Steam Piping



H&V Air Handler in Gym Mezzanine

HARRISON LYSETH ELEMENTARY SCHOOL

Electrical Systems Analysis

Electrical System Distribution

The service is supplied by an underground primary in (2) 5" conduits from overhead utility lines to a utility transformer vault located within the building. The secondary feeder from the transformer vault is installed in conduit and terminates at a 1960-vintage, 800-amp, 208Y/120-volt, 3-phase, 4-wire GE switchboard. The school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power out-ages due to blown utility cutouts. The current service entrance arrangement with the utility transformer vault within the building is an obsolete design, and the switchboard has exceeded its anticipated useful life. The service should be updated to a modern design with a pad mounted utility transformer. Further investigation by the utility company is required to determine the cause of shorts due to squirrel activity.

It was also noted that the switchboard is located in a room that is shared with program space. The area in front of the switchboard should be kept clear for a depth of at least 36 inches to provide code-required access to the equipment.

Most branch-circuit panels have been recently updated to modern Square D panelboards. It appears that the new panels were connected to the existing feeders, the conductors of which have exceeded their anticipated useful lives. Four 1960-vintage GE panelboards that are obsolete remain in place. The obsolete GE Panelboards should be updated and the distribution wiring system replaced throughout.

Classrooms generally lack appropriately-located receptacles. We recommend adding receptacles and associated branch circuits throughout to satisfy program needs and eliminate the need for extension cords.



Interior of transformer vault



A recently installed Square D panelboard



Service entrance switchboard



Old louvered fluorescent fixtures.

Interior Lighting

Most classrooms are illuminated by fluorescent lens troffers that utilize T8 lamps, although some very old louvered linear fluorescent luminaires were noted. Three classrooms have been updated to LED. Individually addressable LED fixtures with Acuity Brands N-Light control are installed in one classroom as a test. Offices and corridors are also illuminated by T8 Fluorescent lens troffers, and T8 fluorescent high-bay fixtures are installed in the gym. Incandescent lighting is still in use in the basement mechanical room. Lighting throughout should be updated to LED with high performance optics as part of any planned facility renovations. All existing fixtures will reach the end of their anticipated useful lives within 20 years.



Recently installed LED lighting



An old GE panelboard



A classroom with fluorescent lens troffers



Gym lighting

HARRISON LYSETH ELEMENTARY SCHOOL

Exterior Lighting

Site lighting consists of utility-owned, pole mounted flood lights. Building-mounted exterior lighting is a mixture of LED wall packs and LED downlights installed at canopies. The fixtures are nearly new and in good condition. They will reach the end of their anticipated useful lives within 20 years.



An LED downlight at an entrance canopy



An LED wall pack

Emergency Lighting System

Emergency battery units with integral and remote incandescent heads provide illumination for means of egress. LED illuminated exit signs with integral battery backup are appropriately located to mark means of egress. All existing units will reach the end of their anticipated useful lives within 20 years. We recommend update the emergency lighting units to LED and providing outdoor emergency lighting at building exits.



Emergency lighting unit



Typical exit sign

Fire Alarm System

The fire alarm control panel is an FCI conventional zoned panel. Occupant notification appears generally to have been updated to comply with ADA, but the system is currently in trouble, reportedly due to a defective circuit board in control panel. A replacement circuit board is reportedly on order. We recommend updating the fire alarm throughout to an addressable system.



Typical classroom fire alarm strobe



Typical classroom fire alarm strobe

HARRISON LYSETH ELEMENTARY SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 2" conduit that originates at the utility riser pole and terminates at a backboard located in a custodial/storage room. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via an amplifier. The VOIP phone system is utilized for intercom. The system is relatively new and in good condition.

The school has no central clock system; battery clocks are in use throughout. A network-connected program-mable relay operates program bells.

The data system is served by an overhead fiber optic cable that terminates at the Main Distribution Frame (MDF), which is located in a custodial/storage room and housed in an exposed floor mounted rack. We recommend providing an enclosed cabinet in lieu of exposed rack at the MDF.

WIFI is available throughout the school.



Telephone utility demarcation



Utility riser pole



MDF

Security Systems Analysis

The intrusion alarm system consists of a 2012 vintage Bosch networkable control panel. Alarms are initiated by motion detectors. The system is in good condition but will reach the end of its anticipated useful life within 15 years. The building is not equipped with a panic alarm.

There is no security camera system, but an Aiphone video intercom provides communication with visual imaging and electric access control between the main entrance and the office. There is also an access control keypad at the exterior of the main entrance. We recommend providing digital cameras that are connected to the district servers.



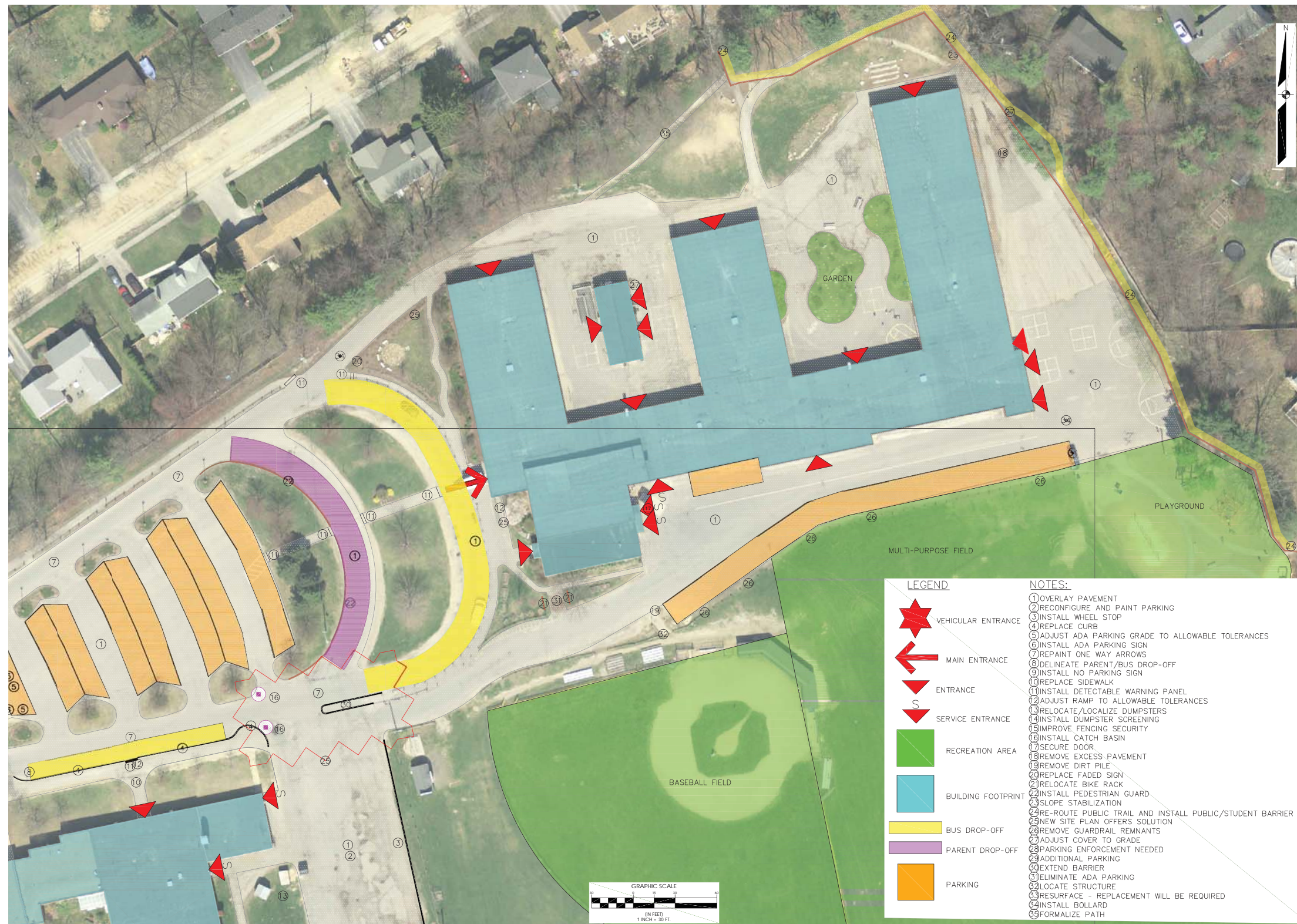
Security system keypad



Video intercom unit at main office

HARRISON LYSETH ELEMENTARY SCHOOL

SITE ANALYSIS



HARRISON LYSETH ELEMENTARY SCHOOL
FIRST FLOOR PLAN



OCEAN AVENUE ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	150 Ocean Avenue, Portland, ME
Serving Grade Levels:	K - 5
Number of Students:	419
Number of Faculty and Staff:	83
Original Construction Date:	2011
Date of Addition(s):	None
Building Age:	5 Years
Building Footprint:	45,051 Square Feet
Number of Stories:	2
Building Area:	70,315 Gross Square Feet
Total Site Area:	11.96 Acres
Zoning Designation:	R5 Residential

Overview

Ocean Avenue Elementary School is the newest school in Portland opening to 440 students in 2011. It has 23 classrooms, including two district-wide, self-contained special education programs.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25.

Plumbing piping systems and fixtures are low flow fixtures original to the building.

The HVAC systems are original to the building with a remaining expected service life of 15+ years for most equipment.

The electrical systems are generally in excellent condition and have at least 15 years remaining in their anticipated useful lives.

The Intrusion Alarm system is not connected to the district-wide network. Updating the system to one that is capable of network access is desirable.

Site Analysis

Ocean Avenue School is located on a 12.0 acre parcel of land within the R5 residential zone.

Accessibility
Overall the site has great ADA access. There are a few missing wheel stops and one location that needs a detectable warning panel.

Circulation
Ocean Avenue School is accessible via Ocean Avenue for parent drop off and via Walton Street for bus drop off. There is a through connection between the two loops via mountable curb for emergency access. The only concern with circulation is the amount of available parking seems to be maxed out.

Safety/Security
No safety concerns.

Recommendations

- Replace missing wheel stop and install one additional.
- Install detectable warning panel at ADA parking ramp.
- Reconfigure parking lot to allow for more spaces.
- Recommend curb around entrance to playground to remediate erosion.
- Adjust grade of pavement and/or sidewalk for ramp at service entrance to be flush.
- Install curbing and catch basin to mitigate ponding at landscape island.

OCEAN AVENUE ELEMENTARY SCHOOL

Structural System Analysis

Structural System Description (per original drawings, circa 2011):

- Foundations: cast-in-place concrete isolated and strip footings.
- First Floor Slab: 4 in. thick concrete slab-on-grade with #3@20.
- Second Floor Slab: 3½ in. 3 in. thick concrete slab on 2 in. metal deck, supported on steel beams spanning to column. Mechanical area near stage is 4 in thick concrete slab on 9/16" metal deck bearing on cold formed joists spanning to cold formed walls.
- Roof Construction: 1½ in metal roof deck bearing on steel beams or joist and spanning to steel columns. In some areas the deck is cellular acoustic type.

Lateral Force Resisting System:

Steel concentric brace frames.

Exterior Wall System Description:

Masonry Veneer with metal stud back up

Structural Conditions and Concerns:

- Mortar at top of chimney



Mortar at top of chimney

Fire Protection Analysis

The 6" sprinkler entrance is supplied by municipal water and has a testable backflow preventer. The sprinkler system is a complete automatic wet system, (2) 4" risers, with a 4" Knox storz w/guard, fire department connection. There has been sprinkler backflow tests performed annually. The piping system is in good condition. There is a sprinkler cabinet with wrench and spare heads.



Sprinkler Entrance

Plumbing Systems Analysis

The building has municipal water, sewer, and storm water services. The 4" water entrance has a double check RPZ backflow preventer that was recently inspected.

Domestic hot water is generated indirectly by boiler water to Cemline DHW maker/storage unit. This unit has an expected service life of 15 years left. DHW is also generated by a separate Cemline DHW maker/storage unit from solar thermal heating water. This unit also has an expected service life of 15 years left.

Plumbing fixtures are in good operating condition and well maintained. The fixtures are low flow type, vitreous china. Water coolers are ADA bi-level (no bottle fill) and are located in most hallways.

Plumbing piping consists of copper domestic and PVC sanitary and rainwater and are in very good condition and well insulated. Storm water and sewer are separated systems.

Natural gas service the building.

The existing plumbing systems and fixtures are well maintained and in very good condition. At this present time, continue with maintenance would be the only requirement.



Water Entrance w/RPZ Backflow Preventer



Domestic Hot Water Makers/Storage

OCEAN AVENUE ELEMENTARY SCHOOL

Mechanical Systems Analysis

The central boiler plant serving the school consists of (2) Superior model 4-X-205 firetube boilers, 1,339 MBH gross output (mfg. 2010). The burners are natural gas. Combustion air is supplied via variable speed supply fan located just inside from the wall louver. Hot water is circulated throughout the building by base mount pumps operate thru VFD controllers with lead/lag operation. The boilers and equipment are within their expected service life 20 years.

The cooling plant serving the limited air conditioning in the building consists of an air cooled 30 ton Trane CGAM 030F (mfg. 2011) chiller mounted at grade outside of the boiler room. Inline chilled water pumps circulate chilled water thru VFD controllers with lead/lag operation to air handlers providing air conditioning to limited spaces.

Space ventilation air is provided to classrooms thru indoor air handlers (AHUs / heating Energy Recovery only) that have VFD fan operation. The classroom displacement ventilation systems have VAV terminals (no reheat) which operate in sequences with the respective AHU fan speed as the VAV terminals modulate. Ventilation air is provided to other spaces such as administration thru air handlers (AHUs/heating & chilled water cooling) that have VAV fan operation. Zone heating and cooling VAV terminals (with reheat) operate in sequence with the respective AHU fan speed as the VAV terminal modulate. Built up indoor AHUs have an expected service life of 25 years.

Space heating is accomplished thru the indoor AHUs (heating/ERU) with VAV reheat terminals, fin tube, radiant ceiling panels and CUHs. Most of this terminal heating equipment has a 15 year expected service life with hydronic radiant ceiling panels at 20 years. Space cooling (limited areas) is accomplished thru the indoor AHUs (Heating/Cooling/ERU) that supply cooling air thru VAV cooling terminals.

Other than the kitchen and dishwasher hoods which have separate exhaust fans, most other areas are exhausted thru the AHUs with energy recovery wheels. EFs have an expected service life of 20 years.

Temperature controls are DDC electric with full graphics front end.

In general most HVAC systems are well within their expected service life where the systems were installed/commissioned in 2011. Other than continued maintenance there are no immediate recommendations.



Heating Plant - (2) Boilers



Cooling Plant—Air Cooled Chiller



Air Handler with Heating & Cooling



Chilled Water Pumps



Air Handler Heating Only—Displacement Ventilation



Heating Pumps

OCEAN AVENUE ELEMENTARY SCHOOL

Electrical Systems Analysis

Electrical System Distribution

The service is underground, with a primary feeder from overhead utility lines terminating at a 500 kVA utility-owned pad-mount transformer. The service entrance conductors from the transformer are building wire in underground conduit and terminate at the main circuit breaker of a 1200-amp, 480/277-volt 3-phase, 4-wire GE main distribution panelboard. Branch-circuit and distribution panels throughout the building are 2011 vintage GE circuit-breaker type panelboards.

Based on what can be seen from a simple visual inspection the feeders and exposed branch-circuit wiring are building wire installed in conduit. We anticipate that concealed branch-circuits wiring is type MC cable. Receptacles throughout the school appear to be located appropriately for the current program.

The service entrance and power distribution equipment and wiring have greater than 20 years remaining in their anticipated useful lives.



Main Distribution Panelboard



A Typical Branch-Circuit Panelboard



An Electrical Room



Utility Pad Mount Transformer

Interior Lighting

Interior areas are illuminated by fixtures of various styles generally utilizing a mixture of linear fluorescent T8 and T5 lamps and compact fluorescent lamps, although the Stage performance lighting is quartz halogen. Classrooms have pendant mounted linear direct/indirect T8 fixtures with daylight responsive dimming. Luminaires in offices are recessed T8 with direct/indirect distribution. Toilets are equipped with T8 wrap-around style fixtures. Mechanical and storage areas have T8 fluorescent strips with wire guards. High-bay fixtures with T5 lamps illuminate the Gym. Corridors are illuminated by decorative compact fluorescent sconces. Compact fluorescent pendant luminaires are used in the Cafetorium and Library. The existing light fixtures will reach the end of their anticipated useful lives within 15 years.



Typical Classroom Lighting



Library Lighting



Gym Lighting



Cafetorium Lighting

OCEAN AVENUE ELEMENTARY SCHOOL

Exterior Lighting

Exterior areas are illuminated by metal halide “shoe-box” style, pole mounted fixtures and building mounted metal halide wall packs. Based on what can be seen from a simple visual inspection, it appears that the exterior lighting system provides illumination levels as recommended by IES. The existing fixtures will reach the end of their anticipated useful lives within 15 years.



Typical Pole Light

Emergency Lighting System

Emergency battery units with integral and remote DC heads and self-diagnostics provide emergency lighting for means of egress. Emergency lighting includes the areas at the exterior of exits. LED illuminated exit signs with integral battery backup are located appropriately to mark means of egress. The emergency lighting units and exit signs are in good condition and offer approximately 15 years of anticipated useful life provided they are properly maintained and batteries are replaced as needed.



An Exit Sign and Emergency Light Heads

Fire Alarm System

The fire alarm control panel is a 2011 vintage Gamewell FCI E3 Series addressable control panel. Alarms are initiated by manual pull stations at building exits, smoke and heat detectors in selected areas, and by activation of the building's sprinkler system. The fire alarm system appears to comply with current codes and standards. The system will reach the end of its anticipated useful life within 15 years.



Typical Pull Station and Notification Appliance



Typical Wall packs



Typical Outdoor Emergency Lighting



Fire Alarm Control Panel

OCEAN AVENUE ELEMENTARY SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Data & telecommunications services enter the building in an underground duct bank that originates at the utility riser pole. The duct bank consists of four 4" conduits: telephone, data, cable television, and spare.

The school is equipped with a Rauland Telecenter Intercom/Paging System as well as Cisco Voice-over-internet-protocol (VOIP) Telephones that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building.

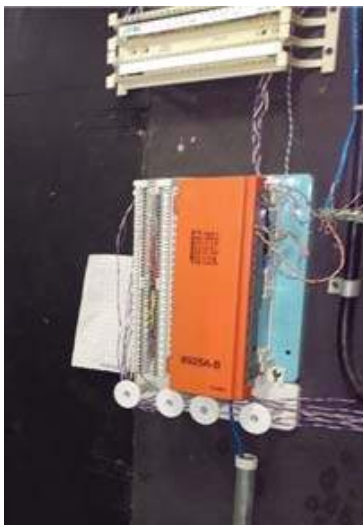
Data infrastructure is a Category 6 horizontal cable plant for both voice and data with a fiber optic backbone cable. Network electronics and patch panels are rack mounted in spaces dedicated to telecommunications. WIFI is available throughout.

A master clock system was installed when the school was constructed, but the original clock system has failed and battery clocks are currently in use.

All classrooms are equipped with ceiling mounted projectors and smart boards.



Main Distribution Frame



Telephone Utility Demarcation

Security Systems Analysis

The intrusion alarm system is controlled by a Honeywell control panel that is not capable of being connected to the district-wide network. Alarms are initiated on the system by motion detectors located in corridors and classrooms. A panic alarm system with activation buttons located at the reception desk in the main office is part of the intrusion alarm/access control system. We recommend providing an intrusion alarm control panel that can be integrated with the district-wide network.

A Lenel access control system with card readers located at all exterior doors provides exterior door monitoring. The system has two control panels, one of which is not currently in use and appears to have been installed to provide expansion capability.

The main office has a clear line of sight to the main entrance. An Aiphone intercom system provides audio communication between the main entrance vestibule interior door and main office.

A security camera system with 8 cameras monitors the grounds behind school. The City is reportedly in the process of replacing the existing cameras with units that will be connected to the district-wide video insight network system.



Main Office Entry Intercom and Access Control and Intrusion Alarm Keypads



Unused Access Control Panel

OCEAN AVENUE ELEMENTARY SCHOOL

SITE ANALYSIS



OCEAN AVENUE ELEMENTARY SCHOOL

FIRST FLOOR PLAN



OCEAN AVENUE ELEMENTARY SCHOOL

SECOND FLOOR PLAN



PEAKS ISLAND ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	4 Church Street, Peaks Island, ME 04108
Serving Grade Levels:	K - 5
Number of Students:	38
Number of Faculty and Staff:	23
Original Construction Date:	1869
Date of Addition(s):	Additions in 1950 and 1953
Building Age:	147 Years
Building Footprint:	10,300 Square Feet
Number of Stories:	2
Building Area:	13,100 Gross Square Feet
Total Site Area:	0.9605 Acres
Zoning Designation:	IR-2 Island Residential

Overview

Peaks Island Elementary School was built in 1869 with additions in 1950 and 1953. It serves a small population of students in grade levels K through 5.

The building does not have a fire sprinkler system.

Most all plumbing fixtures have been upgraded recently to low flow fixtures. Most piping systems are vintage to the 1950s with some upgrades thru repairs.

The steam boiler and condensate return pump are new (2016) and the remaining steam system appears to be vintage 1950s.

Electrical systems are generally at the end of or have exceeded their anticipated useful lives.

There is no intrusion alarm or security camera system.

Site Analysis

Peaks Island School is located on a 1.0 acre parcel of land within the IR-2 Island Residential zone.

Accessibility

Only one ADA accessible entrance. A switch back ADA ramp is recommended at the rear of the school to provide an additional ADA accessible emergency exit. There is no defined parking area as most students and staff walk or bike to the school. At least one ADA parking space is recommended.

Circulation

There is minimal traffic on the island during the school year. There is no bus transportation. A drop-off and pick-up area is designated across the street from the school on Church Avenue.

Safety/Security

Observed smoking on school grounds. Observed multiple gates open around playground area. Recommend gates to be closed during school hours for security.

Recommendations

- Secure playground area.
- Designate at least one parking space for ADA.
- Handrail needed at rock steps at rear of school. Regrade slope or install stairs.
- Install detectable warning panels at crosswalk.
- Install additional school zone signage.
- Install switch back ramp at rear of school for emergency ADA exit.
- Benches at playground need replacement.
- Mulch side slope with woven fabric is bare. Remove fabric and install riprap or other slop stabilization. Remove knot weed.
- Install check dam at gate on Pleasant Avenue to eliminate scour/erosion of footpath.

PEAKS ISLAND ELEMENTARY SCHOOL

Structural System Analysis

Structural System Description:

Access limited to basement areas; exterior brick masonry with wood & timber framing

Lateral Framing Resistance System:

Unreinforced brick masonry, multi wythe

Exterior Wall System Description:

Multi wythe brick masonry construction; gym appeared to be load bearing CMU with brick façade.



Wall in boiler room



Fire escape



Checked wood in basement



Fire escape



Fire escape



Moisture damage at Gym wall



Lintel

Fire Protection Analysis

No fire sprinkler system installed.

Recommend installing a NFPA 13 complete automatic sprinkler system—may require a fire pump and tank.

Plumbing Systems Analysis

The building is served with a 2" municipal water entrance with no backflow preventer. Domestic hot water is provided via (1) electric dual 4500w elements, 40 gallon water heater was installed in 1998; the typical service life for an electric water is 15 years. There is (1) 15 gal electric water heater (recently installed) located in the small kitchen adjacent to the pot sink.

The existing distribution, sanitary and storm water piping systems appear to be 1950s era; although most piping insulation did not have asbestos meaning that either the insulation was replaced or piping and insulation were replaced in different areas of the building. The rain water piping system has been replaced with PVC piping. The storm and sewer are separated systems. Many plumbing fixtures have been upgraded recently with low flow fixtures, including an ADA water cooler with bottle fill.

The existing plumbing systems in general appear mostly vintage (with the exception of fixture upgrades) and appear to be functioning with required maintenance. The distribution piping is beyond its typical useful service life of 30 years. A water distribution piping replacement project would provide a piping system with lead free solder, a current code requirement. The 40 gallon water heater is beyond its useful service life and should be replaced.

PEAKS ISLAND ELEMENTARY SCHOOL



Municipal Water Entrance



Lavatory With Vintage Piping

Mechanical Systems Analysis

The heating plant consists of a new (2014) steam boiler (approx. 650 MBH) and condensate/feed pump unit. Most all steam and condensate return piping appears 1950s vintage, beyond the useful service life of 30 years. Some piping is bare (asbestos removal) while other piping has been reinsulated with fiberglass insulation.

The only ventilation systems in the school are unit ventilators (UVs) that have direct wall louvers for outside air (OA). Roof top gravity ventilators relieve OA brought in thru the UVs. Other than roof top wind turbines serving toilet areas there are no mechanical rooftop exhaust fans. UVs are 1950s vintage and beyond the useful service life of 20 years.

Spaces are heated additionally with fin tube radiation and cast iron radiators, original 1950s vintage.

The temperature controls are partially pneumatic (boiler & UVs) and manual or thermostatic for fintube and CI radiators. The system is beyond its useful service life of 18 years.

The existing HVAC equipment, other than boiler plant are beyond their useful service life and should be replaced. Although the steam boiler is new it is recommended to replace the steam boiler with a hot water boiler to simplify the boiler plant (no HX or condensate pump) for the given size of the building. The building heating would be fin tube radiation throughout with CUHs at vestibules. Building ventilation would be (1 or 2) ERUs to supply fresh air to occupied space and exhaust toilet rooms and other odor producing spaces. The temperature controls should be upgraded at the time of steam to HW conversion, in lieu of its own upgrade project. Heating system conversion can be performed without major building renovations.



Typical Classroom Unit Ventilator



Typical Classroom Fintube Where Installed



Gravity Ventilator and Wind Turbine



Vintage Steam Piping Insulated and None



Cast Iron Radiation



Pneumatic Thermostats

PEAKS ISLAND ELEMENTARY SCHOOL

Electrical Systems Analysis

Electrical System Distribution

The school has a 200-amp, 240/120-volt single-phase, 3-wire overhead service that terminates at a 1950’s vintage fuse panel. The service entrance conductors and fuse panel have exceeded their anticipated useful lives. We recommend upgrading to a 3-phase service.

Branch circuit panels in the school are a 1970’s vintage Cutler Hammer residential-grade load center, two 1960’s vintage or older GE panelboards, and one modern residential-grade Siemens load center. Most of the feeders are very old building wire in conduit. The equipment and wiring are at the end of or have exceeded their anticipated useful lives and should be replaced with modern panelboards and feeders.

Branch-circuit wiring is a mix of old cloth-covered non-metallic sheathed cable (romex), old BX armored cable, modern romex cable, surface metal raceway, and single conductors in conduit. Extension cords are in use in some places due to a lack of appropriately located receptacles. Much of the wiring is over 40 years old and should be replaced. We also recommend adding receptacles and associated branch-circuit wiring to alleviate the need for extension cords, but the power distribution system must be updated as described above in order to facilitate this action.



Service Entrance Panelboard



Old Cutler-Hammer Load Center



Very Old Branch Circuit Wiring



A 1960's vintage panelboard

Interior Lighting

Classroom on the first floor are illuminated by 2011 vintage T8 fluorescent lens troffers; second floor classrooms have old louvered pendant linear fluorescent luminaires retrofitted with T8 lamps. Offices and corridors have a mixture of T8 fluorescent wraparound style luminaires and old louvered pendant linear fluorescent luminaires retrofitted with T8 lamps. The gym is equipped with T8 Fluorescent high-bay fixtures. Old incandescent fixtures retrofitted with self-ballasted compact fluorescent lamps illuminate mechanical and storage rooms. We recommend updating the lighting to LED luminaires with high performance optics as part of any planned facility renovations. All existing fixtures will reach the end of their anticipated useful lives within 15 years.



Typical First Floor Classroom Lighting



Old Louvered Fixtures in First Floor Corridor

Exterior Lighting

Most outdoor luminaires are LED wall packs, although one HID wall pack and a couple of old recessed incandescent fixtures at entrance canopies were noted. There are no pole mounted fixtures. HID and incandescent outdoor luminaires should be updated to LED fixtures with full-cutoff optics. All fixtures will reach the end of their anticipated useful lives within 20 years.



An LED Wall Pack



An HID wall pack

PEAKS ISLAND ELEMENTARY SCHOOL

Emergency Lighting System

Emergency lighting is provided by emergency battery units with integral and remote heads. There is no emergency lighting outdoors at the exterior of exits. Illuminated exit signs with integral battery backup are appropriately located to mark means of egress. We recommend replacing existing units with LED units as they fail and providing emergency lighting at the exterior of exits.



Emergency Battery Unit



An Exit Sign and Newer Emergency Lighting Unit

Fire Alarm System

The fire alarm system has a 4-zone conventional FCI control panel. The control panel is obsolete and does not comply with current standards for new systems. The system should be updated to a fully addressable system.



Fire Alarm Control Panel



Typical Horn/Strobe Unit

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

The telephone service is overhead and enters the basement via an adjacent crawl space. The telephone system is a Nortel Analog system that is approximately 20 years old and at the end of its anticipated useful life. Classrooms are not equipped with telephones. The school is also equipped with a Dukane intercom/paging system that appears to be more than 25 years old. We recommend providing voice-over-internet-protocol (VOIP) telephones that are part of the district-wide network, and providing paging and intercom that are integrated with VOIP phone system.

The data service is a utility fiber-optic cable that enters the building overhead and is routed with the telephone service through a crawlspace and into the basement. Horizontal cabling is category 5 and terminates at a patch panel in the basement. We recommend updating the cable plan to current BICSI standards.

The school has no central clock or functioning bell system.



Telecommunications Backboard



Intercom System Head End

Security Systems Analysis

There is no Intrusion Alarm System. We recommend providing an intrusion alarm system that is connected to the district-wide network. There is no security camera system, but there is an Aiphone video intercom that provides communication with video imaging between the main entrance and office. A web-based security camera system that is part of the district-wide network DVR system is recommended.



Video Intercom at Entrance

PEAKS ISLAND ELEMENTARY SCHOOL
SITE ANALYSIS

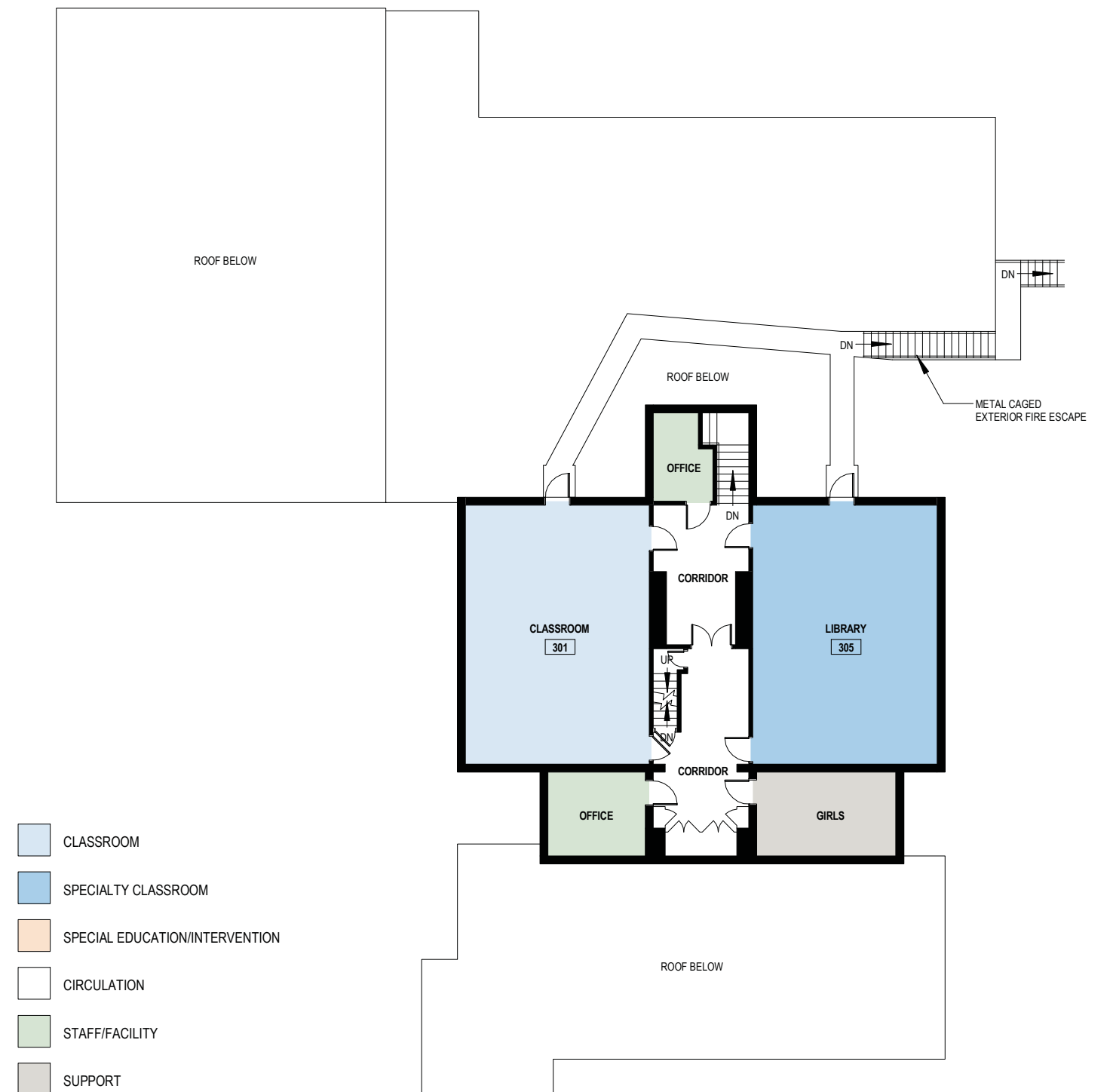


PEAKS ISLAND ELEMENTARY SCHOOL

FIRST FLOOR PLAN



SECOND FLOOR PLAN



PRESUMPSCOT ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	69 Presumpscot Street, Portland, ME
Serving Grade Levels:	PreK - 5
Number of Students:	250
Number of Faculty and Staff:	43
Original Construction Date:	1962
Date of Addition(s):	(3) Portables in 2002
Building Age:	54 Years
Building Footprint:	25,395 Square Feet
Number of Stories:	1
Building Area:	25,394 Gross Square Feet
Total Site Area:	7.0417 Acres
Zoning Designation:	R5 Residential/IM Industrial - Moderate Impact

Overview

Presumpscot Elementary School serves of population of 250 students in grade levels pre-kindergarten through 5. The facility was constructed in 1962 and three portable classroom buildings were added in 2002.

The building is not equipped with a fire sprinkler system.

Plumbing systems are vintage to the original building, with recent plumbing fixture upgrades.

The existing steam boiler plant (boiler replaced in 2012) supplies steam to HVAC systems which are vintage to the original building with most equipment and piping beyond their useful service life.

Electrical systems are generally at or past the end of their anticipated useful lives.

The intrusion alarm system has approximately 8 years remaining in its anticipated useful life, but is not capable of being connected to the district-wide network.

Site Analysis

Presumpscot Elementary School is located on a 7.0 acre parcel of land within the R5 residential zone and IM moderate industrial impact zone.

Accessibility

ADA accessibility throughout the site is poor. ADA parking spaces and ramps are not compliant. There are no detectable warning strips on site. The paved surfaces throughout the site are in poor condition and in need of full depth reconstruction. Paved ramps at doors should have handrails and vertical lip.

Circulation

Presumpscot Elementary School is accessible via Presumpscot Street. Circulation through the staff parking area and bus drop off is a one-way access drive with an exit onto Sherwood Street. Bus and staff parking circulation is poor but could be improved with xyz circulation plan which would also improve fire lane access.

Safety/Security

The chain link fence surrounding the site is in poor condition. The mulch barrier around the playground equipment introduces a trip hazard. Recommend relocating bike racks closer to front entry away from dumpster area and loading zone. There is currently 3/4 fire lane access with modular classrooms reducing the fire lane width at the back of the school.

Recommendations

- Provide ADA compliant route from ADA parking area to building, as none currently exist.
- Relocate bike racks closer to front entry.
- Provide ADA signage at parking stalls.
- Mill/remove existing bituminous pavement and repave bituminous surfaces.
- Improve fire lane access at north and northeast faces of the building.

PRESUMPCOT ELEMENTARY SCHOOL

- General site improvements for ADA compliance at doors.
- Provide one way signage on access to Sherwood Street.

Structural System Analysis

Structural System Description:

- Roof: Tectum planks bearing on steel joists spanning to steel beams and CMU walls. Some Steel columns are used at the high roof (above the gymnasium) - original construction circa 1961 (date on original drawings).
- Ground floor: (per original drawings) 4 in. slab on grade (one area has a crawl space below)

Lateral Load Resisting System (LFRS):

Masonry walls (assumed to be minimally unreinforced)

Exterior Wall Construction:

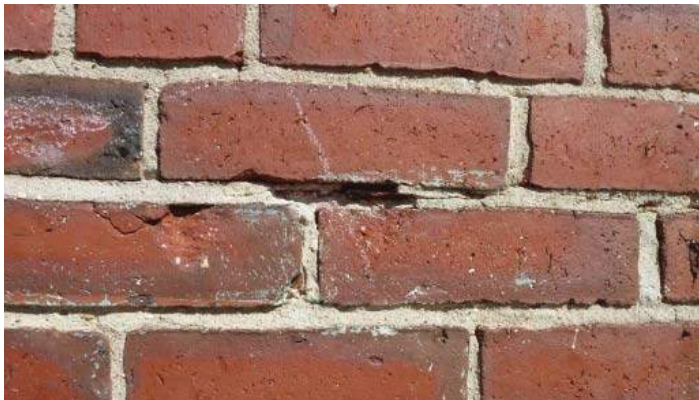
Brick veneer with masonry back up.

Structural Conditions and Concerns:

- The original roof was not design for snow drifts.
- One location was noted as having a beam stopping short of its support.
- One lintel is deflecting and needs replacement.



Brick condition



Brick condition



Lintel condition



Lintel condition



Beam condition



Tectum plank



Tectum plank

Fire Protection Analysis

No complete coverage automatic fire sprinkler system is installed.

Recommend that a new, 100% coverage NFPA 13 sprinkler system be installed.

Plumbing Systems Analysis

The 2" water entrance does not have backflow prevention, there are only isolation valves and a water meter.

Domestic hot water is generated by a 40 gallon electric heat pump water heater with mfg. date of 2003 and is nearing the end of its expected service life of 15 years. There is an existing DHW tempering valve and pumped recirculation throughout the building.

Most all plumbing fixtures have been recently updated with low flow type, vitreous china, wall hung and floor mount. Water coolers with bottle fills have also recently been installed.

Plumbing sanitary, vent, and rain water piping consists of cast iron original to the building. Water distribution piping is copper. All existing piping systems have an expected useful life of 30 years. The storm water and sewer exit the building as separated systems.

The existing plumbing systems are in fair to good condition considering the age of the original 1960's systems. The original piping systems are beyond their service life of 30 years and replacement is recommended. The existing sanitary and distribution systems should be upgraded with new PVC and copper piping systems; the copper piping will have lead free solder, a current code requirement.

PRESUMPCOT ELEMENTARY SCHOOL



Original Water Entrance



Upgraded Lavatory Fixtures



Upgraded Plumbing Fixtures



Electric Water Heater & Mixing Valve



Original Pneumatic Temperature Control Panel



Condensate Pump Unit

Mechanical Systems Analysis

The building is served by a single Hurst steam boiler recently installed in 2112. The boiler is rated at 2,588 #/Hr (2,500,000 BTU/Hr) with dual fuel #2 oil and natural gas. The fuel oil tank is 8,000 gallons. An original condensate boiler feed tank unit has had the duplex pumps replaced over the years. A firetube steam boiler has an expected service life of 30 years.

Most all steam and condensate return piping is original to the building (1960's) and is beyond its expected service life of 30 years. Maintenance on the steam system has been ongoing to replace traps and update some controls from manual operation to thermostatic. Heating is accomplished by steam to floor mount unit ventilators, convectors, fintube, and UHs. All the steam heating and ventilating equipment and ducted systems are well beyond their expected service life of 20-25 years.

Ventilation is accomplished via gravity relief ventilators (GRVs), many original to the building. The GRVs relieve outdoor air (OA) introduced thru the unit ventilators. The gym has a large H&V air handler that also is original to the building and beyond its expected service life.

Existing temperature controls are pneumatic and beyond their expected service life.

The existing HVAC systems are simple, comprised mostly of unit ventilators which are generally in fair operating condition given their age. How and when to replace the equipment depends on whether there are planned building renovations or to replace all systems as a major HVAC upgrade. The best recommendation is to convert the original building to heating hot water and eliminate the aged steam equipment and steam / condensate piping. Install a hot water heating plant based on gas fired condensing boilers. All heating and ventilating equipment would need to be replaced/upgraded with new systems at the time of the steam to

HW conversion. Also, coordinate the temperature controls DDC electric upgrade at the time of conversion. Basically, there are no intermediate steps with upgrading the HVAC systems at Presumpscot without replacing all the HVAC systems at the time of the hot water conversion.



Steam Boiler



Gravity Relief Ventilators

PRESUMPCOT ELEMENTARY SCHOOL

Electrical Systems Analysis

Electrical System Distribution

The utility primary is installed in underground conduits from a riser pole to a utility pad mount transformer. The transformer is closer to the building than current Central Maine Power Co. standards allow and the concrete transformer pad is smaller than CMP's current design standard. The school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts. Further investigation by utility company is required to determine cause of shorts due to squirrel activity, but considering the age of the service, it should be updated to current CMP standards.

The service entrance to the building runs underground in conduit from the pad mount transformer to a 1962 vintage 450-amp, 208/120-volt 3-phase, 4-wire Bulldog Electric switchboard. The service equipment and conductors have exceeded their anticipated useful lives and should be replaced. In the short term, we recommend performing an infrared scan to assess the condition of terminations and contacts.

Branch-circuit panels are a mix of early 1960's vintage ITE panelboards and residential/light commercial grade load centers, which are located in the boiler room and a in a corridor. Based on what can be viewed from a simple walk-through of the facility, most of the feeders appear to be building wire in conduit; the load center that is located in a corridor and supplies the modular classrooms is wired using type SE service entrance cable. We recommend updating the distribution system and wiring throughout.

Receptacles appear to be located appropriately for the current program. Based on what can be seen during a visual inspection, wiring methods used are building wire in conduit and surface metal raceway, as well as type MC cable.



Utility Pad Mount Transformer



An Original Panelboard



Load Center in Corridor – Feeds Modular Classrooms



Service Entrance Switchboard

Interior Lighting

Interior luminaires throughout the school utilize linear T8 fluorescent lamps. The fixtures in most areas are recessed lens troffers, but pendant mounted high-bay fixtures are used in the Gym and mechanical and storage areas have strip lights. We recommend updating the lighting to LED luminaires with high performance optics.



Gym Lighting



Typical Classroom Lighting



Corridor Lighting



Boiler Room Lighting

PRESUMPCOT ELEMENTARY SCHOOL

Exterior Lighting

Outdoor areas are illuminated by a mixture of utility-owned pole mounted flood lights and LED wall packs. Some areas are not illuminated to levels recommended by IES. The wall packs are fairly new and in good condition, but will reach the end of their anticipated useful lives within 20 years. We recommend providing full cut-off LED pole mounted fixtures to provide illumination as recommended by IES.



A Typical LED Wall Pack

Emergency Lighting System

Emergency battery units with integral and remote incandescent heads provide illumination for means of egress. There is no emergency light at the exterior of building exits. Exit signs are appropriately located to mark means of egress, but some of the units are very old and do not have battery backup. All existing units will reach the end of their anticipated useful lives within 20 years. We recommend updating the emergency lighting units to and all exit signs to LED and providing outdoor emergency lighting at building exits.



Emergency Lighting Battery Unit

Fire Alarm System

The fire alarm control panel is a 1980's vintage conventional 4-zone FCI control panel. Occupant notification does not comply with ADA or current standards. Some pull stations are not located as required by current standards. The system has exceeded its anticipated useful life and should be updated to a fully addressable system.



Fire Alarm Control Panel



An Original Exit Sign

PRESUMPCOT ELEMENTARY SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 1" conduit. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via a 2012 vintage amplifier. The VOIP phone system is utilized for intercom. The system is relatively new and in good condition.

The School has an overhead cable television service.

There is no central clock system. Battery clocks are in use throughout the school.

The Main Distribution Frame (MDF) is a wall mounted enclosed cabinet located in a shared space. WIFI network connectivity is available throughout the school. There is an abandoned exposed Category 5 patch panel and some horizontal cabling in a classroom that was once a computer lab. We recommend removing the abandoned Category 5 infrastructure and cabling and provide dedicated equipment spaces to house data networking terminations and equipment.



Main Distribution Frame (MDF)



Abandoned Data Patch Panel

Security Systems Analysis

The intrusion alarm panel is controlled by a 2009 vintage GE security alarm control panel. Motion detectors are located in classrooms and corridors. There is no panic alarm system. The control panel has about 8 years remaining in its anticipated useful life, but is not capable of being connected to the district-wide network. We recommend updating the system to one that is integrated with the district-wide network.

The building is reportedly wired for network security cameras but the cameras were not yet installed at the time of our visit. We recommend providing web-based security cameras connected to the district-wide network.

Access Control keypads are installed at the main entry and the exits at end of corridors. Access control via a fob reader is provided at the entrance to the building from the modular classrooms.



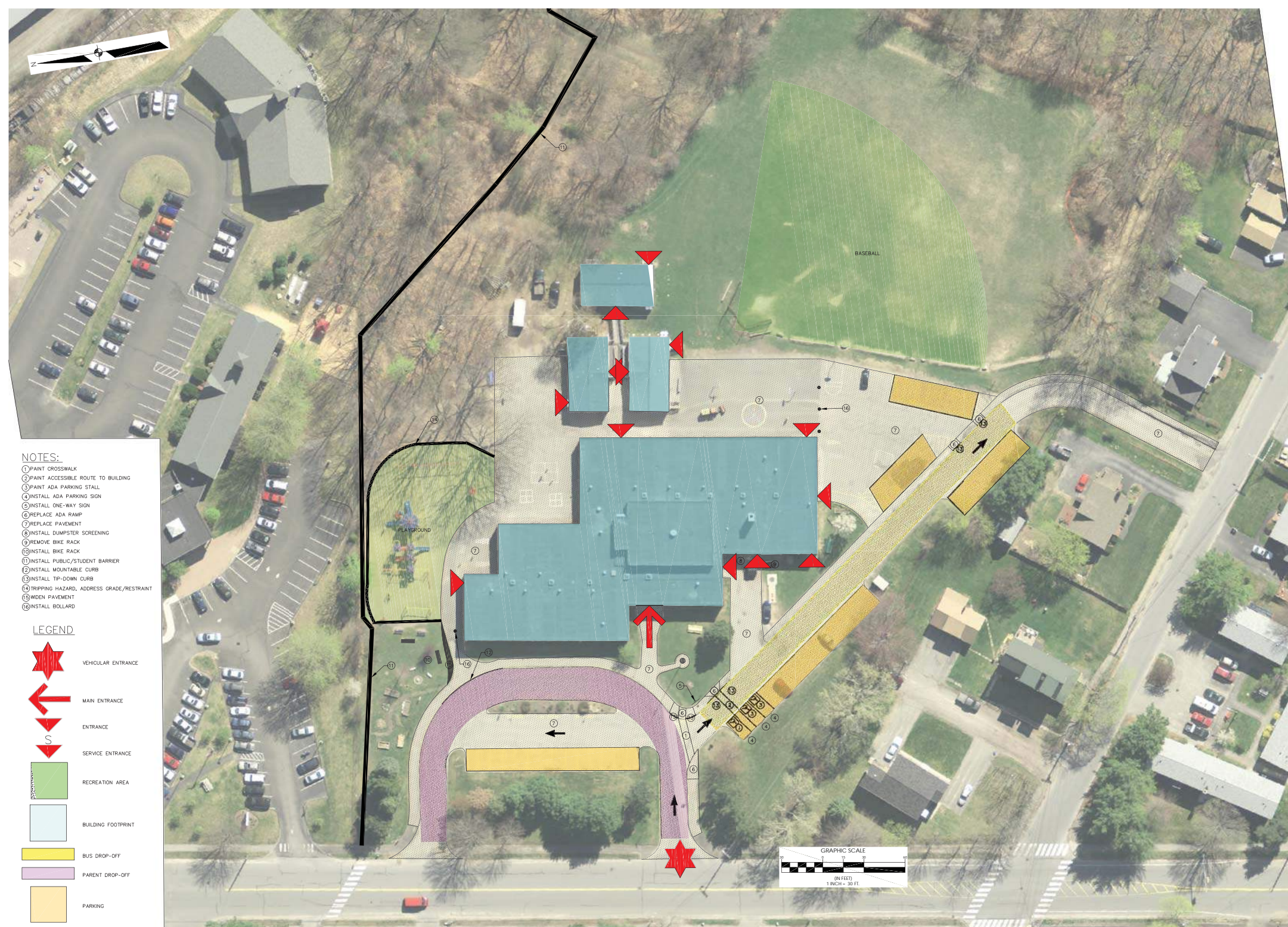
Intrusion Detection Keypad in Main Entrance Vestibule



Typical Access Control Key Pad

PRESUMPCOT ELEMENTARY SCHOOL

SITE ANALYSIS



PRESUMPCOT ELEMENTARY SCHOOL
FIRST FLOOR PLAN



REICHE ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	166 Brackett Street, Portland, ME
Serving Grade Levels:	K -5
Number of Students:	420
Number of Faculty and Staff:	65
Original Construction Date:	1972
Date of Addition(s):	None
Building Age:	44 Years
Building Footprint:	56,704 Square Feet
Number of Stories:	2
Building Area:	91,828 Gross Square Feet
Total Site Area:	5.3386 Acres
Zoning Designation:	R6 Residential

Overview

The Reiche Elementary School was constructed in 1972. Buildings in a four-block area were demolished to make room for the school, which was built according to an open-plan design.

The building also houses a community health clinic, a community swimming pool, a community gym and locker rooms, and other community center facilities

The only existing fire sprinkler system is a deluge system serving the resource area; the rest of the building does not have fire sprinkler coverage. There is an existing standpipe system with hose valve connections also at the resource area.

The majority of the plumbing piping systems are original to the building with some upgrades thru renovations. DHW is a vintage indirect steam heater/storage during the heating season and electric storage heaters for when the boilers are off line. Most plumbing fixtures have been upgraded recently.

With the exception of the boiler plant (2010), the majority of the HVAC equipment is 45 years old and beyond the end of its expected service life or 25 year.

Electrical infrastructure has generally exceeded its anticipated useful life, except for new equipment installed as part of an addition that is currently under construction.

The fire alarm system is at the end of its anticipated useful life and should be updated.

The intrusion alarm and data network cable plants have recently been updated, but some old data cabling and equipment was abandoned in place when the work was completed.

Site Analysis

Reiche Elementary School is located on a 5.3 acre parcel of land within the R6 residential zone.

Accessibility

ADA accessibility at this site is poor. The ADA ramp at the front of the building is in rough shape and is not ADA compliant or structurally sound. The ramp needs replacement. The grades at the building entrance are steeply sloping towards the entrance and do not conform to ADA standards. An ADA parking space is needed in the faculty parking lot.

Circulation

Reiche Elementary School is accessible via Brackett Street and Clark Street. Parents drop off at the street and buses drop off in the bus loop. Vehicular and pedestrian circulation is fair. Flashing pedestrian beacons are recommended on Brackett and Clark Streets.

Safety/Security

The space underneath the ADA ramp behind the planting bed provides a hiding predators or an active shooter situation. The mulch barrier around the playground equipment introduces a trip hazard.

Recommendations

- Grading adjustments needed at front entrance to conform to ADA standards.
- Parking enforcement needed.
- At least one ADA space is needed in the employee parking lot.
- Install flashing pedestrian beacons at crosswalk on Brackett Street and Clark Street. Install crossing sign and bollard at Clark Street.
- Replace concrete sidewalks and ramps that are in poor condition.
- Replace ADA ramp at front entrance.
- Increase width of sidewalks around school to be used as a fire lane.
- Repair damaged sections of decorative fence.

REICHE ELEMENTARY SCHOOL

Structural System Analysis

Structural System Description:
East Section: Two way waffle slab system for elevated floors and roof with post tensioned column strips
West Section & Pool: Steel frame with wide flanged girders and CMU bearing walls, steel joist filler members and tectum roof decking.

Lateral Framing Resistance System:
Combination of multi wythe brick masonry exterior walls, CMU bearing walls and concrete frame action.

Exterior Wall System Description:
East Section: Multi (two) wythe brick masonry vertical ribbons with storefront glazing infills; exposed structural concrete bands

West section: Exterior brick veneer with CMU backup.

Structural Conditions and Concerns:
Ramp in poor condition and should be replaced or removed.



Loading dock



Roof ducts



Ramp



Stair crack

Fire Protection Analysis

The only building sprinkler system coverage is a deluge system that serves the two story open resource area. The 6" sprinkler entrance is located in the boiler room and the deluge valve system control is located in a first floor office adjacent to the open resource room.

It is recommended to install a complete automatic sprinkler system with a new sprinkler entrance.



Deluge Control System for Open Resource Area



Spalling at foundation



Ramp

REICHE ELEMENTARY SCHOOL

Plumbing Systems Analysis

The building has a municipal water service as well as municipal sewer. The 3" water entrance has parallel testable double check backflow preventers that are original to the building. Domestic hot water is provided via indirect water heater/storage is of original vintage and at the end of its useful service life. There is a master DHW mixing valve and recirculation pump that have been upgraded over the years.

The water distribution, rain water piping and sanitary piping throughout the building is mostly original 1970's vintage and appears to be fair to good condition, however, they are at the end of their expected service life of 30 years.

Plumbing fixtures have recently been updated to low flow fixtures in kind.

The natural gas entrance is located at the boiler room serves the boilers and kitchen equipment.

It is recommended to do a complete replacement of all piping systems with PVC piping for storm water and sanitary piping, and copper piping with lead free solder for distribution. The timing of replacement would depend on rate of piping failures or proposed building renovation projects.



Recent Upgraded Plumbing Fixtures



Indirect DHW Tank – Original Vintage



Domestic Water Entrance



Vintage Domestic Plumbing Piping Systems

Mechanical Systems Analysis

The existing central boiler plant consists of (2) Hydro-Therm KN-30 gas fired condensing hot water boilers installed in 2010-11. Each boiler has its own injection pump to supply HW to the building HW loop. The gross heating output per boiler is 2,781,000 BTU/HR. Condensing boilers of this capacity have an expected service life of 25 years. Combustion air is ducted directly to each boiler burner from outdoor.

Heating hot water is circulated throughout the building by (4) constant speed, base mount Taco pumps (2 recently replaced in 2012). Base mount pumps have an expected service life of 25 years.

Heating hot water (HW) is distributed throughout the building by schedule 40 steel piping (welded and threaded fittings) and copper piping systems. The HW distribution system serves indoor and rooftop H&V units, convectors, cabinet unit heaters, duct coils and fin tube. Also served by the HW distribution piping is the DHW heat exchanger (HX) and the swimming pool water HX. The expected service life of the HW distribution piping is 35 years and 25 years for the water to water HX.

Air conditioning cooling is limited to areas with ductless and ducted split DX systems. These systems are within their expected service life of 15-18 years.

Ventilation air is supplied thru original vintage gas fired roof top H & V units and indoor H & V units which operate in sequence with inline or rooftop exhaust fans. Most floor mount H&Vs provide space heating as well as ventilating. The Natatorium H & V units supply 100% OA for ventilation and dehumidification. These units are original to the building and to appear to be operating well given their age. The Typical expected service life for gas fired roof top H & V units is 20 years depending unit case material gauge and paint coating. Typical expected service life for indoor H&Vs is 25 years. Typical expected service life for roof top exhaust fans is 20 years.

The existing HVAC systems in general (with the exception of the boiler plant) are in fair to good operating condition. However, most all H&V units, heating terminal units, ductwork systems, and piping systems are beyond their useful service life.

It is recommended to replace indoor H&V air handlers in kind with new efficient models with VFD fans. Replace existing rooftop H&V units with new high efficiency gas fired H&V units. The H&V unit serving the Natatorium should be replaced with a pool dehumidification air handling unit.

Heating pumps (except recent replacements) are at the end of their useful service life and should be replaced with new efficient pumps that operated thru a VFD.

HVAC piping system (45 years old) should be replaced where these systems are beyond their useful service life. Also Replace HX system serving the swimming pool.

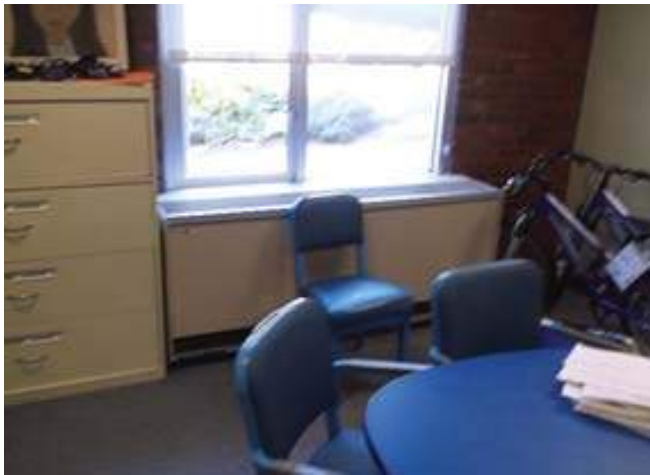
HVAC exhaust fan systems that are beyond their useful service life should be replaced in kind, or a more energy efficient concept would be to replace with ERUs with a new ductwork distribution system if budget allows.

Most all of the BAS pneumatic and DDC electric system is beyond the useful service life and should be replaced with a new BAS. The new DDC system to include all 2-way HW control valves and provide VFD drives for new pumps and fan systems.

REICHE ELEMENTARY SCHOOL



Base Mount Heating Pumps



Floor Mount Unit Ventilator



Cabinet Unit Heater



Pneumatic & DDC Temperature Controls



Vintage Gas Fired H & V Unit Above Resource Rm



Swimming Pool Water HX Unit



Indoor H&V Unit At Gym Storage Room



Split AC Condensing Units

Electrical Systems Analysis

Electrical System Distribution

The service is underground, with a primary feeder in one 5" primary underground conduit from overhead utility lines terminating at a 225kVA pad mount transformer. Current CMP standards require (3) 5" primary conduits for new installations.

The underground service entrance from the utility transformer is building wire installed in conduit and terminates at an early 1970's vintage 600-amp, 480/277-volt, 3-phase, 4-wire GE switchboard. The service entrance conductors and switchboard are at the end of their anticipated useful lives. We recommend updating the secondary service and updating the underground primary to current CMP standards in conjunction with secondary service update.

Panels and dry-type distribution transformers in most of the building are early 1970's vintage GE panelboards that have exceeded their anticipated useful lives. A 30-kVA transformer and panelboard were added in the boiler room in 2010, and a small addition currently in progress includes new panels and distribution transformers to serve the addition. Feeders are building wire in conduit; the wiring has exceeded its anticipated useful life. 1970's vintage equipment and its associated feeder conductors throughout the school should be replaced.

Branch Circuits Some Branch-circuit wiring in crawlspaces is type NM nonmetallic sheathed cable (romex), which would not be permitted by current code for new type I, II, or III construction. Other wiring in the crawlspaces is building wire in conduit. Conduits and cable trays in the crawlspaces are in poor condition due to moisture. Extension cords are in use in many areas due to a lack of appropriately located receptacles. Floor mounted outlets have been disabled and abandoned due to failures. Update branch-circuit wiring throughout as part of any planned renovations to the facility. We

REICHE ELEMENTARY SCHOOL

recommend adding receptacles and associated branch circuits to eliminate the need for extension cords. Power distribution updates recommended above need to be performed in order to facilitate this work.



Typical 1970's Vintage Panelboard



Transformer Installation in Progress in Addition



Service Entrance Switchboard



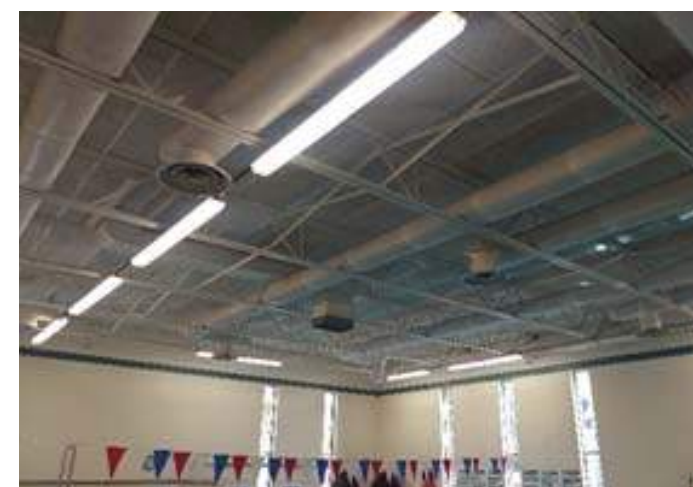
A 1970's Vintage Transformer

Interior Lighting

Most interior areas are illuminated by fluorescent fixtures of various styles that utilize linear T8 lamps, but the boiler room and auditorium performance lighting is incandescent. The fixtures are at or near the end of their anticipated useful lives. We recommend update lighting to LED with high performance optics.



Open Classroom Area Lighting



Natatorium Lighting



Community Room Lighting



Gym Lighting

REICHE ELEMENTARY SCHOOL

Exterior Lighting

Outdoor areas are illuminated by a mixture of utility-owned pole mounted flood fixtures, LED wall packs, and high-intensity discharge (HID) wall packs. Some outdoor areas are not illuminated to levels recommended by IES. All fixtures will reach the end of their anticipated useful lives within 20 years. We recommend providing full-cutoff LED fixtures to provide outdoor illumination levels as recommended by IES.



Typical LED Wall Pack

Emergency Lighting System

Emergency battery units with integral and remote incandescent heads provide illumination for means of egress. There is no emergency light at the exterior of building exits. Illuminated exit signs are appropriately located to mark means of egress. The exit signs are mostly LED, but some older incandescent or compact fluorescent were noted. All units will reach the end of their anticipated useful lives within 20 years. We recommend replacing older units with LED as they fail, and providing outdoor emergency lighting at building exits.



An LED Combination Exit/Emergency Light



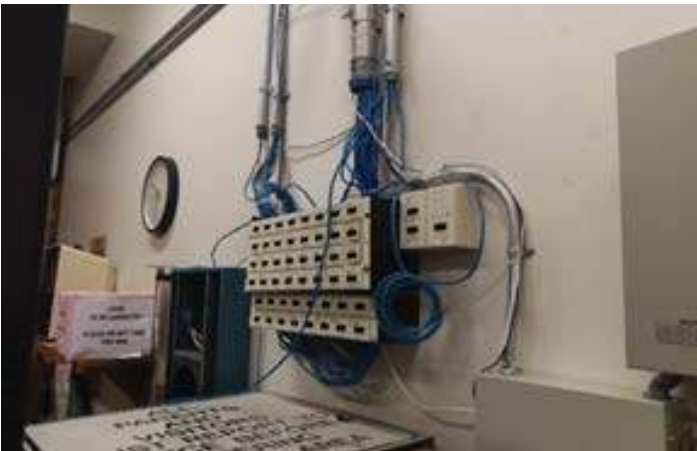
An LED Combination Exit/Emergency Light

Fire Alarm System

The system has an early 1990's vintage conventional zoned FCI control panel that has reached the end of its anticipated useful life. Occupant notification and pull station placement do not comply with current code or ADA in many areas. A sprinkler valve in the boiler room has no tamper switch. The system should be updated to a fully addressable system.



Fire Alarm Control Panel



Abandoned Category 5 Infrastructure at MDF

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 2-1/2" to 3" conduit. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via a Bogen paging amplifier. The system is relatively new and in good condition.

The school has an overhead cable television service.

The school does not have a central clock system; battery clocks are in use throughout. A network-connected programmable relay operates program bells.

The building has an overhead fiber optic entrance that terminates within an enclosure in a second floor classroom. Intermediate distribution frame (IDF) equipment on second floor is located in an open wall mounted rack that is in a room shared with other program functions. Unused Cat 5 infrastructure is abandoned in place at the second floor IDF and other areas. WIFI network connectivity is available throughout the school. Old infrastructure that is no longer in use should be removed. We recommend providing enclosed cabinets to house infrastructure in shared-use areas.

Portable projectors on carts are utilized for audio/visual presentations in classrooms.

REICHE ELEMENTARY SCHOOL



Main Distribution Frame (MDF) with Paging Amplifier



IDF on Second Floor in Shared Space



IDF on Second Floor in Shared Space Fiber Optic Termination in a Classroom

Security Systems Analysis

Intrusion Alarm System Bosch control panel that is integrated with the district-wide network. Motion detectors monitor corridors and entrances. There is no panic alarm system. The system will reach the end of its anticipated useful life within 15 years.

There is no Security Camera System. An Aiphone video intercom provides communication with video imaging between the main entrance and reception, which is equipped electric un-locking control. We recommend adding a security camera system with DVR via the district-wide network.

Access control keypads and electric door strikes were recently added to provide controlled access to the building from the playground area.



Intrusion Alarm Keypad

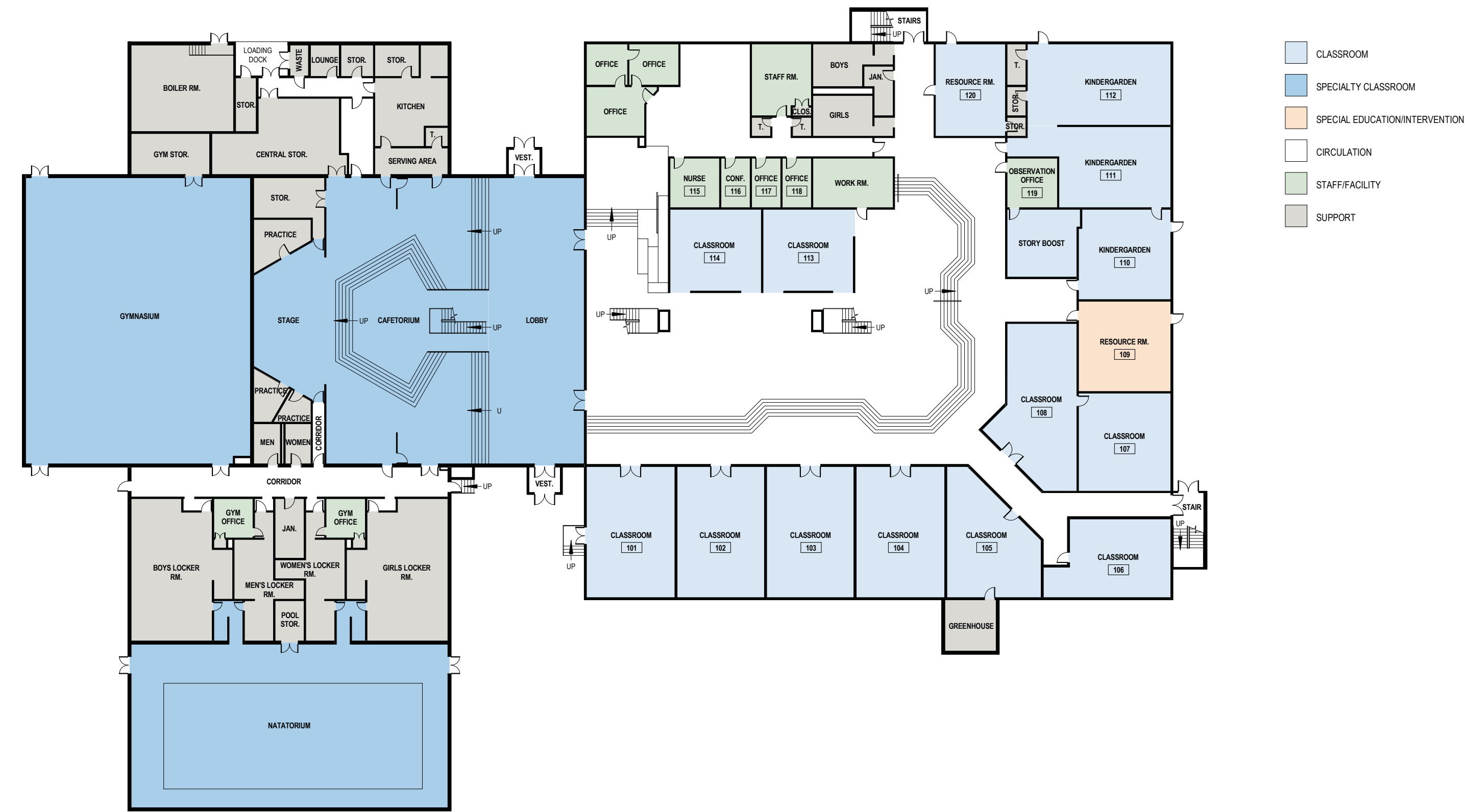


Access Control Keypad at Entrance from Playground

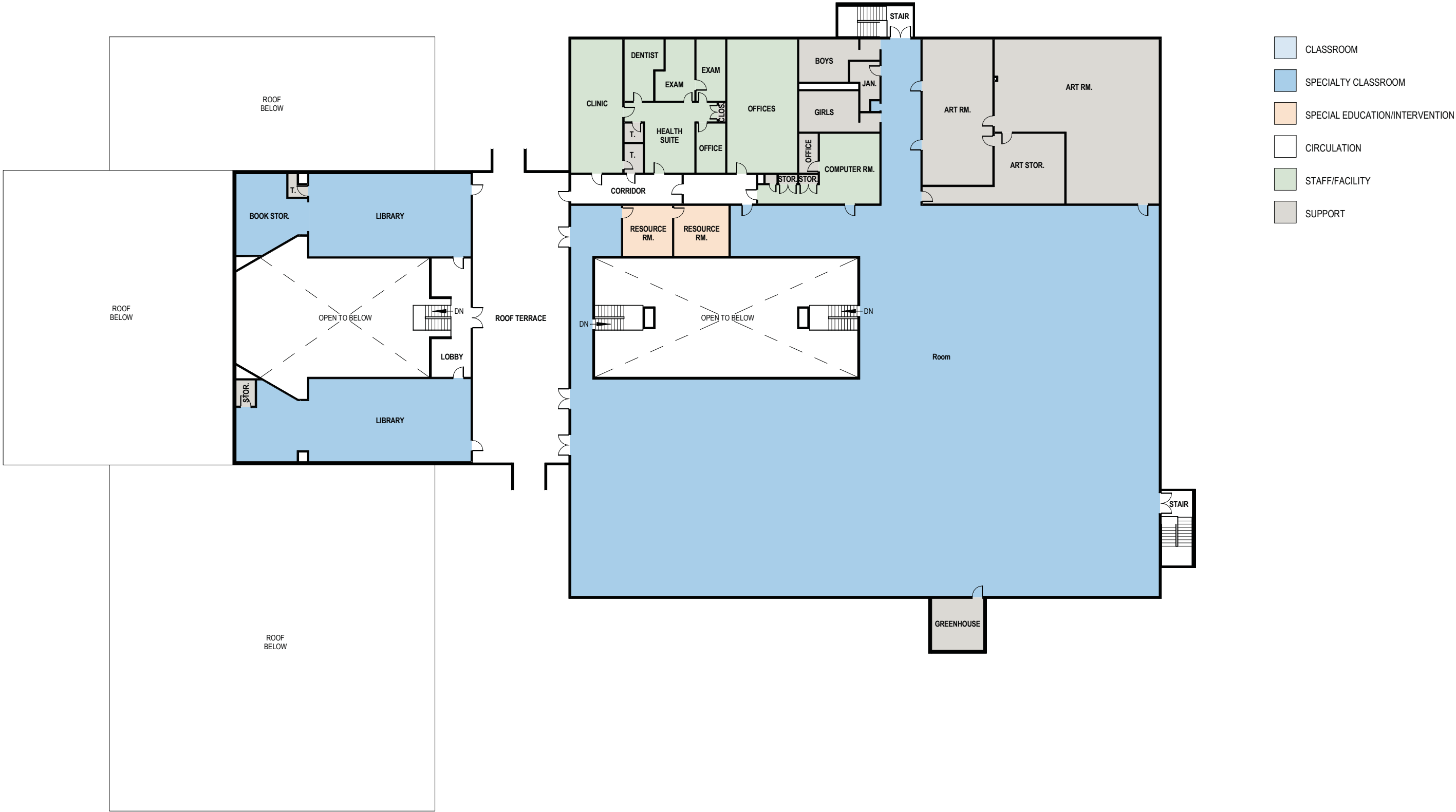
REICHE ELEMENTARY SCHOOL
SITE ANALYSIS



REICHE ELEMENTARY SCHOOL
FIRST FLOOR PLAN



REICHE ELEMENTARY SCHOOL
SECOND FLOOR PLAN



RIVERTON ELEMENTARY SCHOOL



Aerial View



Main Entry

General Building Data

Address:	1600 Forest Avenue, Portland ME 04103
Serving Grade Levels:	PreK - 5
Number of Students:	426
Number of Faculty and Staff:	94
Original Construction Date:	1975
Date of Addition(s):	2007
Building Age:	41 Years
Building Footprint:	106,500 Square Feet
Number of Stories:	1
Building Area:	106,500 Gross Square Feet
Total Site Area:	33.0772 Acres
Zoning Designation:	R3 Residential/B1 Neighborhood Business

Overview

Riverton Elementary School was built in 1975 with an addition added in 2007. It serves a population of 426 students in grade levels Pre-K through 5.

The building has a partial automatic sprinkler system with both wet & dry risers that appear well maintained and in good condition. No backflow protection is installed.

The majority of the plumbing piping systems are original to the building with partial system up-grades during renovation projects. DHW appears to be a vintage indirect HW heater/storage in used during the heating season while electric DHWs are used when boilers are off line. Most plumbing fixtures have been upgraded recently.

With the exception of the boiler plant (replaced in 2014), about 30% of the HVAC equipment is original to the building (40 years old) and beyond the end of its expected service life or 25 year; the remainder of the HVAC equipment is 15 years old or newer.

Site Analysis

Riverton Elementary School is located on a 33.1 acre parcel of land within the R3 residential zone and B1 neighborhood business zone.

Accessibility

ADA accessibility throughout the site is poor. There is no ADA ramp at the front bus loop. There are no detectible warning panels on the site. ADA access to athletic fields is poor. ADA parking is not compliant.

Circulation

Riverton Elementary School is accessible via Forest Avenue. There is good separation between bus and parent drop-off. Principal noted that there are parental confrontations at the pick-up/drop-off area due to access.

Safety/Security

Principal noted that cars park in no parking zones and have blocked emergency vehicle access in the past. Parking enforcement is needed. Observed hopscotch and four square play areas designated within access drive for loading dock.

Recommendations

- Relocate speed table further back from access loop entrance.
- Pavement overlay needed at bus loop and access drive.
- Restripe ADA spaces at front loop and install/replace ADA parking signage.
- Signage needed at parent drop off area or possible reconfiguration.
- Parking enforcement needed.
- Replace faded traffic signs throughout site. Install no parking signs along access road.
- Install detectible warning panels at all crosswalks.
- ADA ramps throughout site need repair or replacement. Need an ADA ramp at front bus loop.
- Replace sidewalk and reduce grades for ADA access to athletic fields.

RIVERTON ELEMENTARY SCHOOL

- Replace concrete at loading dock.
- Reroute loading access around school opposite the playground or restrict child access within loading access drive.
- Install screening around dumpster area.
- Replace fencing at rear baseball diamond and remove dilapidated bleachers.
- Reduce landscape hills to a maximum of 2' high.
- Repair cracks in tennis courts.
- Continue retaining wall to opposite side or stairs at Community Center entrance.
- Place trash and recycle receptacles at front entrance.
- Repair tipped stone bench and repair or replace wood benches.
- Install catch basin or regrade corner of basketball court to eliminate ponding.
- Remove filter fabric and replace with insert at drop off loop catch basin. Install catch basin at lower east corner of parking lot.

Structural System Analysis

Structural System Description:

Typical Roof:

Metal roof deck spanning to steel bar joists. Bar joists supported by CMU/brick bearing walls or structural steel beams and columns. All roofs are EDPM.

Mechanical Penthouse:

Roof is metal roof deck spanning to bar joists, with bar joists supported by perimeter CMU walls. Floor is concrete on form deck, supported by bar joists spanning to structural steel framing.

Mechanical Mezzanine at Community Center:

Roof consists of metal roof deck spanning to bar joists, with bar joists supported by perimeter CMU bearing walls. Floor consists of a concrete topping slab cast on precast plank system (most likely Fili-gree or Hollow-core).

Ground Floor: Cast-in-place slab on grade.

Lateral Force Resisting System (LFRS):

Most likely consists of interior and exterior CMU/brick bearing walls. However, roof is generally not well connected to walls, so it's unlikely there is a load path to bring lateral forces from the diaphragm to the walls.

Exterior Wall System Description:

Structural walls consist of brick veneer tied to CMU walls.

Foundation System Description:

Frost protected, shallow foundations assumed.

Structural Conditions and Concerns:

- There are (4) lintels over entries to the classrooms that span in excess of 25 feet. These lintels carry exterior brick weight, as well as roof weight and snow loads. The end reactions at the lintels due to all of the load are significant, and the bearings beneath the lintels are cracked.
- There are several snow drift zones created by high and low roofs around the building (occurs mostly at low roofs surrounding gymnasium and pool). It's unlikely the roof framing has capacity to resist these loads, since snow drifts were not well accounted for by the design codes at the time of construction.
- In older portions of the building, window and door lintels are rusting. Recommend replacing them in the near future. In newer portions, lintels are galvanized and do not require repairs at this time.
- At one of the exterior building corners at the gymnasium, some of the grading has been swept or washed away. It's likely the foundations at this corner do not have adequate frost protection. Signs of heaving/frost related damage were not observed.
- Recommend repairing the cracks and installing solid/grout filled CMU where possible to prevent future cracks and provide adequate load paths to the foundations.



Bearing cracks at long spanning lintels



Possible loss of foundation protection at Gym



Long spanning lintel

Fire Protection Analysis

The sprinkler entrance is supplied by municipal water and does not have a testable backflow preventer. The sprinkler system is a partial automatic wet & dry system with (2) 4" risers. Original portions of this sprinkler system maybe 40 years old and would require sprinkler head replacement at a minimum. Typical expected service life of sprinkler heads is 25 years. It is recommended to extend the automatic sprinkler system to provide complete coverage for the entire building; a licensed sprinkler contractor will have to determine if the existing sprinkler entrance has adequate capacity to extend the system.



Current Sprinkler Entrance

RIVERTON ELEMENTARY SCHOOL

Plumbing Systems Analysis

The building has a municipal water service as well as municipal sewer. The 3" water entrance has parallel testable single check backflow preventer that appears original to the building. Domestic hot water is provided by an indirect water heater/storage which is beyond its useful service life of 25 years. There is a master DHW mixing valve and recirculation pump that have been upgraded over the years.

The water distribution, rain water piping and sanitary piping throughout the building is mostly original 1976 vintage and appears to be fair to good condition, however, they are at the end of their expected service life of 30 years. Some of these piping systems were modified with new piping during the 2006 renovation project and would not require replacement.

Plumbing fixtures have recently been updated to low flow fixtures in kind.

The natural gas entrance is located at the front side of the school and serves the boilers in the mezzanine.

It is recommended to do a complete replacement of all piping systems (less recent upgrades) with PVC storm and waste piping and copper distribution with lead free soldered joints that meet current Plumbing Code. The timing of replacement would depend on rate of piping failures or proposed building renovation projects. The indirect DHW unit is beyond its expected service life and should be replaced in kind or with condensing gas fired DHW maker/storage units.



Indirect DHW Heater/Storage



Domestic Water Entrance



Upgraded Plumbing Fixtures



Water Cooler w/Bottle Fill

Mechanical Systems Analysis

The existing central boiler plant consists of (2) dual fuel (gas-oil) Hurst Series 200 Scotch Marine Boilers, installed in 2014. The gross heating output per boiler is about 2,500,000 BTU/HR. Hot water firetube boilers of this capacity have an expected service life of 25 years. Combustion air is supplied directly from outdoors thru wall louvers.

Heating hot water is circulated throughout the building by (2) constant speed, base mount Taco pumps (1 recently replaced in 2015). A chilled water pump circulates water to AHUs located in the mechanical mezzanine. Base mount pumps have an expected service life of 25 years. The remaining base mount pump is beyond its expected service life and should be replaced with new lead/lag pumps that meets the energy code efficiency requirements.

Heating hot water (HW) is distributed throughout the building by schedule 40 steel piping (welded and threaded fittings) and copper piping systems. The HW distribution system serves indoor and outdoor (penthouse) H&V units, convectors, cabinet unit heaters, VAV reheat and fin tube. Also served by the HW distribution piping is the indirect DWH and the swimming pool water HX. The expected service life of the HW distribution piping is 30 years and 25 years for the water to water HX.

Chilled water (CHW) is distributed to each of the central AHUs by schedule 40 steel piping (welded and threaded fittings). The expected service life of the CHW distribution piping is 30 years; recommend replacing all the CHW piping at time of chiller replacement.

Packaged rooftop air conditioning units (RTUs) and split AC provide cooling to areas (A & B). The RTUs serve music, computer, & counseling. These systems appear to be within their expected service life of 15-18 years, but will need replacement in the near

RIVERTON ELEMENTARY SCHOOL

future. Air handlers in located in the mechanical mezzanine, area (C), use chilled water to provide cooling to areas such as administration, cafeteria, and special tutoring. Most air handlers in the mezzanine (except 6, 7, & 8) have been replaced over the past 11 years; this style air handler has an expected service life of 25 years.

A condenser-cooled chiller (estimated 30 tons) located in the mechanical mezzanine appears to be original to the building. This unit has a dedicated air handler (condenser), also original to the building, to reject heat to the outdoors. Both units are well beyond their expected service life of 20 years and should be replaced with an air cooled chiller plant.

Ventilation air is supplied thru centrally located H & V and AHU ducted units which operate in sequence with inline or rooftop exhaust fans. The H & V units were replace in 2006 and have an expected service life of 25 years. Most all AHUs (heating & cooling) located in the mezzanine were replaced in 2006 and 2008 and have an expected service life of 25 years. The remaining AHUs in the mezzanine (AHU-6, 7, & 8) are original to the building and beyond their expected service life of 25 years; they should be replaced in kind with new efficient AHU systems. The associated exhaust fans have an expected service life of 25 years. The Natatorium dehumidification ventilation unit was installed around 2003 and has an expected service life of 15 years. It has been stated that this dehumidification unit has not been performing as expected, therefore a replacement unit should be considered, especially where it is nearing the end of its service life.

Much of the ductwork systems and VAV terminals were installed during the 2006 renovation project and is well within its expected service life of 30 years. The remaining ductwork systems are original to the building. Ductwork has an expected service life of 30 years; the remaining ductwork systems should be replaced during upcoming renovation projects where it is beyond its useful service life.

Most all of the building automation system (BAS), both pneumatic and DDC electric is beyond the useful service life and should be replaced with a complete new BAS. The new DDC system should include 2-way HW control valves, a 3-way HW reset valve, and provide VFD drives for new pumps and fan systems.



Recently Installed Firetube Boiler Plant



AHU-8 Original Equipment To Be Replaced



AHU-4 Installed Around 2008



Pool Dehumidification Unit



RTU-1 Serving The 2006 Multipurpose Addition



Existing DDC Controls

RIVERTON ELEMENTARY SCHOOL

Electrical Systems Analysis

Electrical System Distribution

The service is underground, with a primary feeder in two 5" primary underground conduits from overhead utility lines and terminating at a utility-owned pad mount transformer. The underground service entrance from the utility transformer is building wire installed in conduit and terminates at a 2001 vintage 1200-amp, 480/277-volt, 3-phase, 4-wire Siemens panelboard. The service entrance conductors and equipment have approximately 25 years remaining in their anticipated useful lives.

Most panels are 2001 vintage or newer and are a mixture of Siemens panelboards installed during renovations and expansions that occurred between 2001 and 2007, and Square D panelboards that were recently installed to replace old original FPE panelboards. A 1976 vintage FPE fusible-switch type 208/120 volt panelboard and transformer remain in the main electric room, as well as a 1976 vintage transformer and circuit breaker panelboard located in the Mechanical Mezzanine. It was noted that two panels are located in a custodial closet and, as such, do not have adequate clear working clearance in front of them. We recommend replacing the 1976 vintage panelboards and transformers, and relocating custodial items from the closet near gym to provide clear space in front of panels.

There are two 1976 vintage FPE motor control centers located in the Mechanical Mezzanine. These have exceeded their anticipated useful life and should be replaced.

Feeders are building wire in conduit. The wiring to 1976 vintage panelboards, transformers, and motor control centers has exceeded its anticipated useful life and should be updated in conjunction with equipment updates.

Based on what can be seen in a visual inspections, branch circuits are a mixture of building wire in conduit and MC cable. Some abandoned temporary lighting and wiring was observed at an open ceiling in an IDF closet. We recommend removing abandoned temporary lighting and wiring.



Service Entrance Panelboard



A Recently Installed Branch-Circuit Panelboard



A 1976 Vintage Panelboard and Transformer



A 1976 Vintage Motor Control Center



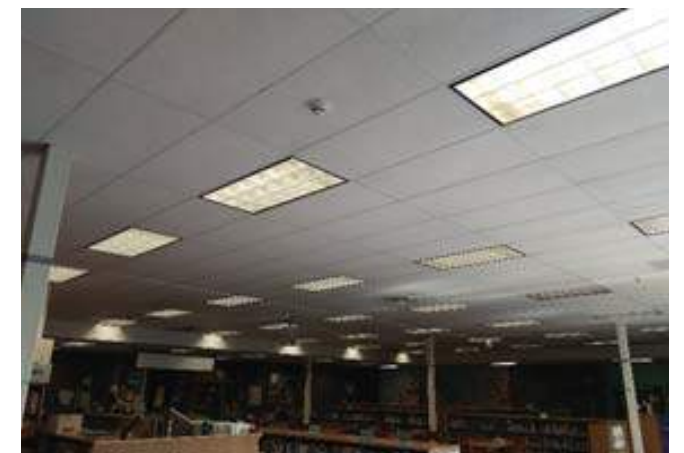
An Incandescent Fixture in the Mezzanine Mechanical Room

Interior Lighting

Most interior areas are illuminated by fluorescent fixtures of various styles that utilize linear T8 lamps, but some auditorium and mechanical room lighting is incandescent. Classrooms and offices have a mixture of recessed lens troffers and luminaires with parabolic diffusers. Corridors are illuminated by recessed lens troffers. The auditorium has a mixture of incandescent downlights and recessed luminaires with parabolic diffusers. The Gym and Natatorium are equipped with pendant mounted high-bay style luminaires. We recommend updating the lighting to LED as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.



Natorium Lighting



Parabolic Luminaires in the Library

RIVERTON ELEMENTARY SCHOOL

Exterior Lighting

Outdoor areas are illuminated by a mixture of utility-owned pole mounted flood fixtures, LED wall packs, and high-intensity discharge (HID) wall packs. Some outdoor areas are not illuminated to levels recommended by IES. All fixtures will reach the end of their anticipated useful lives within 20 years. We recommend providing full-cutoff LED fixtures to provide outdoor illumination levels as recommended by IES.



An LED Wall Pack

Emergency Lighting System

Emergency battery units with integral and remote incandescent heads provide illumination for means of egress. There is no emergency light at the exterior of building exits. LED exit signs with integral battery backup are appropriately located to mark means of egress. All units will reach the end of their anticipated useful lives within 20 years. We recommend replacing older emergency lighting units with LED units as they fail, and providing outdoor emergency lighting at building exits.

Fire Alarm System

The fire alarm system is an addressable system with a Faraday control panel. The system generally complies with current standards and ADA, although some notification circuit power supplies have batteries that have exceeded their anticipated useful life. Any system batteries that are older than five years old should be replaced. The entire system will reach the end of its anticipated useful life within 15 years.



Fire alarm Control Panel and Power Supplies



Current Fire Alarm Annunciator and an Abandoned Adjacent Annunciator



A Notification Power Supply with Old Batteries in a Mechanical Penthouse

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 2" conduit. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Intercom & paging are provided by a 2007 vintage Rauland Telecenter intercommunications system. The phone system is relatively new and in good condition. The intercom system has approximately 10 years remaining in its anticipated useful life.

The school does not have a central clock system; battery clocks are in use throughout.

The data networking and telecommunications cable plant has been updated to Category 6, but the old cables and infrastructure were abandoned in place. The intermediate distribution frames (IDF's) are located in spaces shared with other program uses. WIFI network connectivity is available throughout the school. Abandoned cables and telecommunications infrastructure should be removed. Classrooms are equipped with ceiling mounted projectors for audio/visual presentations.



Telephone Utility Demarcation – Much of this equipment appears to be abandoned in place.

RIVERTON ELEMENTARY SCHOOL

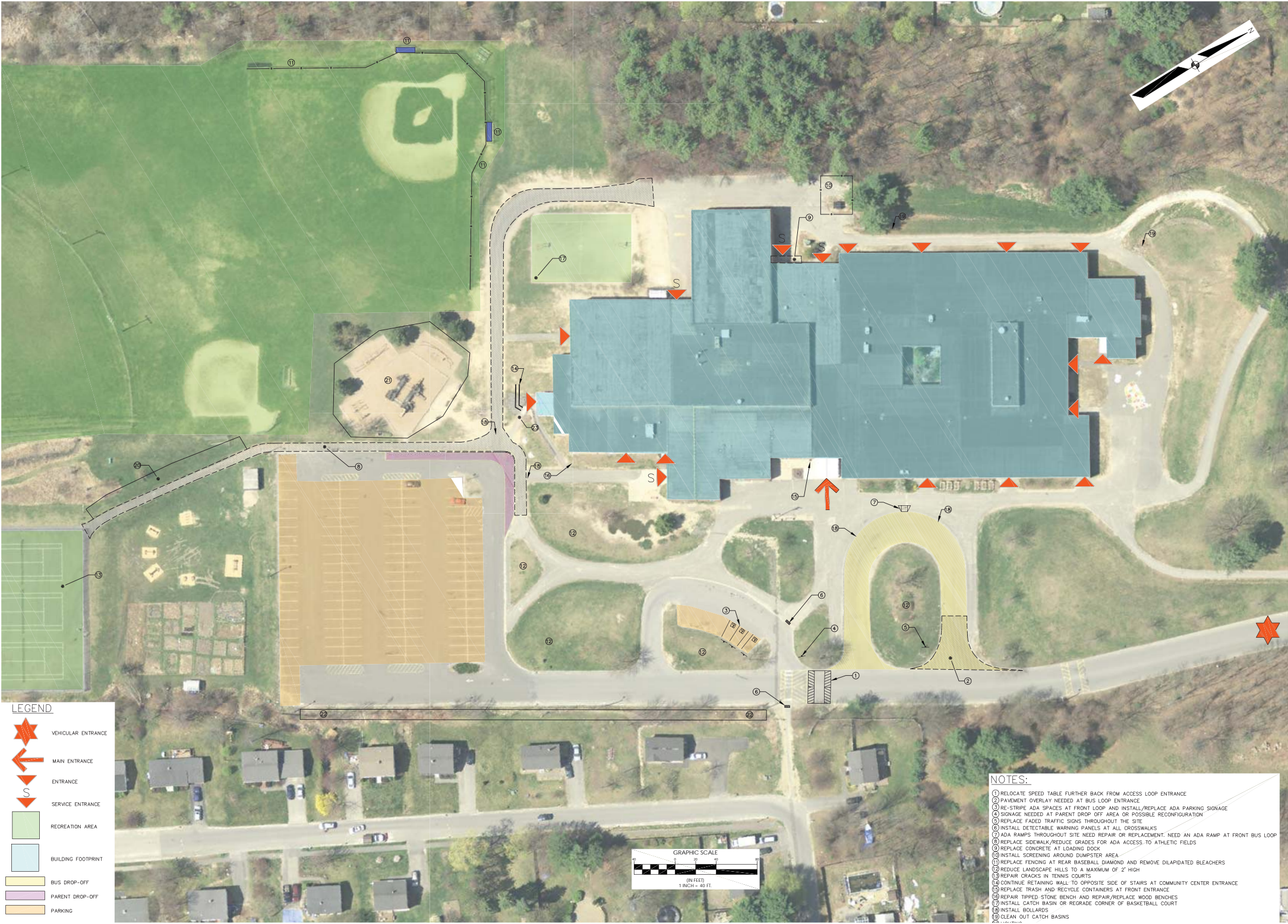
*Abandoned Category 5 Patch Panel & Cable**An IDF***Security Systems Analysis**

The Intrusion Alarm System is controlled by a Bosch control panel that is integrated with the district-wide network. Motion detectors monitor corridors and entrances. There is no panic alarm system. The system will reach the end of its anticipated useful life within 15 years.

There is no security camera system. An Aiphone video intercom provides communication with video imaging between the entrance to the school from the community center and the main office. There is a direct line of site between the main entrance and the office, which is equipped with button to electrically unlock the entrance. We recommend adding a security camera system with DVR via the district-wide network.

*Intrusion Alarm Keypad**An Intrusion Detection Motion Detector*

RIVERTON ELEMENTARY SCHOOL
SITE ANALYSIS



RIVERTON ELEMENTARY SCHOOL
FIRST FLOOR PLAN



KING MIDDLE SCHOOL



Aerial View



Main Entry

General Building Data

Address:	92 Deering Avenue, Portland, ME
Serving Grade Levels:	6 - 8
Number of Students:	500
Number of Faculty and Staff:	75
Original Construction Date:	1950
Date of Addition(s):	1996
Building Age:	66 Years
Building Footprint:	55,297 Square Feet
Number of Stories:	2
Building Area:	89,263 Gross Square Feet
Total Site Area:	20.7226 Acres (includes Hadlock Field)
Zoning Designation:	R5 Residential/ROS Recreational Open Space/B2 Business Community

Overview

King Middle School was originally constructed in 1950 and added on to and renovated in 1996. The school is cited as one of the most racially diverse in the state of Maine: the student body totals 500, represents 22 countries and 29 languages.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25.

Plumbing systems are vintage to the original building and 1996 addition with recent plumbing fixture upgrades.

HVAC systems are vintage to the original building and 1996 addition, with the exception of the boiler plant (1991 circa).

Some of the power distribution system is at the end of its anticipated useful life. The remainder will reach it's the end of its anticipated useful life within 15 years. Most interior lighting fixtures are at the end of their anticipated useful lives. The fire alarm control panel is obsolete and the system does not comply with current standards for new facilities.

Site Analysis

King Middle School is located on a 20.7acre parcel of land which includes Hadlock Stadium within the R5 Residential, ROS Recreational Open Space and B2 Business Community zones.

Accessibility

ADA access throughout the site is in fair condition but there is room for improvement. Adequate ADA parking is needed as well as detectible warning panels an

Circulation

King Middle School is accessible via Deering Avenue and Park Avenue. Based on the number of vehicles parking outside of designated parking areas, parking availability seems to be an issue.

Safety/Security

A flashing pedestrian beacon at the crosswalk by Deering Oaks is necessary due to high vehicle and pedestrian traffic.

Recommendations

- Add ADA spaces with signage at faculty lot and striping and signage at ADA space at front loop.
- Install detectable warning panels.
- Additional parking needed.
- Mill and overlay faculty parking lot.
- Wheel stops needed at building parking.
- Replace faded/vandalized traffic signs.
- Repair concrete sidewalk and ADA ramp at front of building. Repair brick sidewalk and brick ramp.
- Flashing pedestrian beacon needed at crossing by Deering Oaks.
- Install dumpster screening.
- Install pedestrian trash bins.
- Add curbing at dumpster area.
- Install field inlet at front seating area and connect to existing drainage. Clean out field inlet at Fitz/Deering. Replace catch basin cover in grass with beehive cover.
- Install concrete curb at check dam.

KING MIDDLE SCHOOL

Structural System Analysis

Structural System Description:

At new section:

- Roof, joists and metal deck
- Elevated floors, Joists and form

At original construction:

- Access limited: Believed to be concrete slabs and concrete beams or concrete encased steel beams
- In crawlspace below building: Concrete pan joists and concrete beams
- Gym area roof, Tectum decking and steel joists

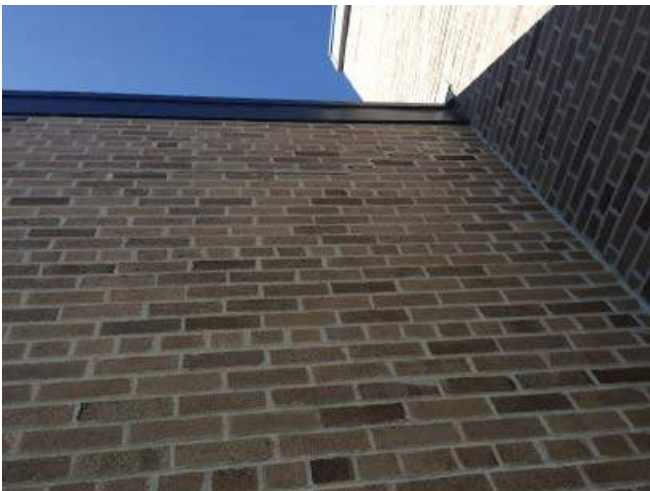
Lateral Framing Resistance System:

Steel braces observed at front section (likely addition)

Original construction- Unknown, possible combination of concrete frame and CMU cores

Exterior Wall System Description:

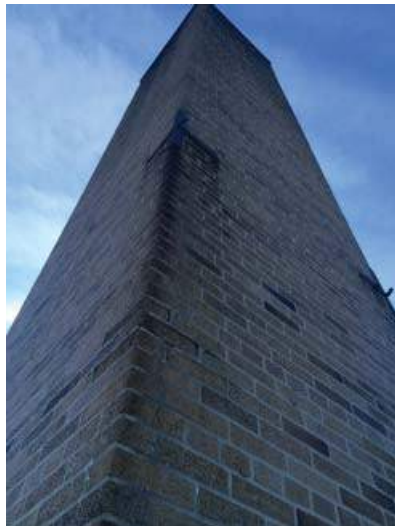
Mixed system: Brick, Kawall, Terracotta/Metal Panel/ Glass Block/EIFS



Wall of Boiler Room



Broken tectum planks



Chimney



Gym Settlement



Tectum planks at Gym



Lintel condition

Fire Protection Systems Analysis

The sprinkler entrance (1996 circa?) is supplied by municipal water and has a testable backflow preventer. The sprinkler system is a complete automatic wet system with (2) 4" risers, with a 4" storz fire department connection. One loop is labelled "Glycol Loop" for freeze protection, however only a portion of the riser actually has a glycol loop. There has been a sprinkler backflow test performed annually. The piping system is in good condition. There is a sprinkler cabinet with wrench and spare heads.

Only action is to maintain and test sprinkler system.



Fire Sprinkler Entrance

KING MIDDLE SCHOOL

Plumbing Systems Analysis

The building is served by a 4" municipal water entrance which splits to (2) 3" lines with RPZ backflow preventers.

Domestic hot water is generated by 40 gallon electric water heaters and a steam to hot water maker storage tank located in crawl space under the gym. (1) Electric water heater is 2003 and the other in the kitchen is a recent installation. Both heaters are within their useful service life of 15 years. The steam to hot water maker is aged and beyond its useful service life of 18 years.

Plumbing fixtures are in good operating condition and well maintained. The fixtures are low flow type, vitreous china, mostly wall hung. Water coolers are ADA bi-level located in most hallways.

Plumbing piping consists of copper domestic and cast iron for the original building, and copper domestic and PVC for sanitary and rainwater for the 1996 addition. Most piping is in good condition and well insulated even though the 1950s piping systems are beyond their useful life of 30 years. Storm water and sewer are separated systems.

Natural gas services the building; entrance is at boiler room.

The existing plumbing systems and fixtures are well maintained and in good condition considering the age of the original systems. Continued maintenance on plumbing systems is required for the 1996 addition and consideration of plumbing piping systems upgrade of the original plumbing systems. The new piping system will have lead free solder, current code requirement. Replacing the steam generated DHW at the gym with a gas fired DHW, or indirect DHW via HW when a steam to HW conversion project is considered.



Steam generated DHW & Storage at Gym



Domestic Water Entrance



Recent Plumbing Fixtures Upgrade



Electric DHW at Kitchen

Mechanical Systems Analysis

The existing central boiler plant consists of (2) Burnham Industrial steam boilers, 6695 MBH gross output, 1991 estimated mfg. date. Fire tube boilers typically have a useful service life of 28 years. The dual fuel burners are supplied by #2 fuel oil stored in a 10,000 gallon underground tank and by utility natural gas. Combustion air is supplied thru (2) large louvers ducted high and low within the boiler room, it appears of adequate size to serve the boilers. Steam is supplied to the original building heating systems and HW is supplied to the 1996 addition as well as 2nd floor C section of the original building. A steam to HW heat exchanger and constant speed base mount heating pumps are located in the boiler room and are vintage to the 1996 addition. The shell and tube HX and the base mount heating pumps have a typical useful service life of 24 years. All other HW appurtenances, e.g. expansion tanks, are vintage to the 1996 addition.

The HW piping system is in good condition and within its useful service life of 30 years. The steam piping system and components are in fair condition but beyond its useful service life of 30 years.

The original building is served by steam to floor mount unit ventilators in classrooms, cast iron radiators at vestibules, and fintube at miscellaneous areas. The larger spaces such as the gym and workout rooms have ducted H&V units, located in the crawl space below gym. Rooftop gravity ventilators provide relief to the UV and H&V units as the supply varying amounts of OA air. All the steam heating and ventilating equipment and ducted systems are well beyond their useful service life.

The 1996 addition is served by HW to (3) rooftop H&V units, (2) rooftop packaged AC units. All the rooftop H&V and AC units have duct heating coils for each zone (e.g. office). The rooftop exhaust fans exhaust from toilet spaces, kitchen hood, and other locations. Space heating in the 1996 addition is via duct heating coils,

KING MIDDLE SCHOOL

fintube radiation, and CUHs. All heating, cooling, and ventilating equipment is original to the 1996 addition and at or near the end of their useful service life.

Temperature controls serving the heating system and equipment is mostly pneumatic with little DDC electric in the boiler room and 1996 addition. The pneumatic control system is aged and beyond its useful service life of 20 years. The DDC electric system is nearing the end of its useful service life if the existing equipment is of 1996 vintage.

The existing HVAC systems in general are poor to good operating condition, however, most all equipment is at or near the end of its useful service life (especially the steam side). How and when to replace the equipment depends on whether there are planned building renovations or replace systems as a major HVAC upgrades. It is recommended to convert the original building to heating hot water which will replace the aged equipment and steam / condensate piping. The most economical approach is to replace all heating and ventilating equipment with new efficient HW systems at the time of the steam to HW conversion. Also coordinate the temperature controls DDC electric upgrade at the time of conversion.



Steam to HW Heat Exchanger



Vintage Pneumatic Temperature Control Panel



Heating Pumps



Steam H&V in Crawl Space by Gym



Packaged AC Unit & Exhaust Fan 1996



Ceiling CUH

Electrical Systems Analysis

Electrical System Distribution

Two 5" underground primary conduits run from a utility riser pole to a 300 kVA utility-owned padmount transformer. The secondary service is building wire in underground conduit from the padmount transformer to three service disconnects located in the main electric room. The service disconnects are two 400-amp fusible switches plus the 800 amp Main circuit breaker of Main Distribution Panel MDP for a total service capacity of 1600 amps at 208/120 volts, 3-phase, 4-wire. The service equipment is 1996 vintage and has about 20 years remaining in its anticipated useful life, but the school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts. We recommend performing infra-red scanning of the service equipment to assess condition of contacts and terminations. Further investigation by the utility company is required to determine the cause of shorts due to squirrel activity.

The grounding electrode system is not properly connected at the domestic water entrance. Rather, a connection is made to an interior water pipe in the boiler room. The National Electrical Code (NEC) requires an underground metal water pipe that is electrically continuous and in contact with the earth for at least 10 feet to be utilized as part of the grounding electrode system for the building. We recommend providing a grounding electrode connection at the water main as required by code, and providing bonding for interior metal piping in accordance with code requirements.

Branch-circuit panels in the school are primarily a mixture of 1950 vintage Trumbull Electric panelboards that have exceeded their anticipated useful life and 1996 vintage Square D panelboards. A New Panelboard was recently added as part of the Health Center project, and a residential-grade Siemens load center is installed in the crawlspace beneath the Fitness Room. It was noted that panel P1A in the boiler room is mounted

KING MIDDLE SCHOOL

higher than allowed by current NEC requirements. The load center located in the crawl space does not have adequate headroom by current code standards.

The anticipated useful life of branch-circuit and distribution panelboards is generally considered to be 30 years, although many environmental factors such as cleanliness, moisture, salt content, and temperature can impact the actual performance life of circuit breakers and electrical equipment. It is very common for electrical equipment to remain operational and in use for significantly longer. The biggest concern regarding older panelboards is whether or not the circuit breakers will operate as designed in the event of a fault in the circuit. While circuit breakers can be tested, the testing is generally more costly than simply replacing the circuit breakers when dealing with branch-circuit and smaller distribution-type devices. The existing Trumbull Electric panelboards should be replaced. We also recommend removing the residential grade panelboard from the crawl space and providing a panelboard located in accordance with NEC to supply the circuits currently fed from the load center. Infra-red scanning of the 1990's and newer panelboards should be performed to assess the condition of contacts and terminations.

A small 2010 vintage Briggs and Stratton single-phase generator that is located on the roof of the mechanical room provides backup power to the UPS at the City's network core rack via a residential/light-commercial grade automatic transfer switch and load center. This equipment is in good condition, but does not offer capacity to serve any building systems other than the data center it currently serves.

There is also a small grid-tied photovoltaic (PV) array mounted to the exterior of the building at the south side of the boiler room. The PV array

connects to the building's wiring system at Panel P1A in the boiler room via an inverter. The PV system has a capacity of 2020 watts at 208-volts 3-phase, 4-wire.

Most of the wiring that can be viewed from a simple walk-through of the facility is building wire in metal conduit. Some old type NM nonmetallic sheathed cable (romex) was noted in the crawlspace. The wiring varies in age as systems have been added and modified over the years. Much branch circuit wiring was updated in 1996, but some 1950's branch circuit wiring that has exceeded its anticipated useful life appears to still be active. Extension cords are in use in some areas due to a lack of appropriately located receptacles. We recommend replacing the 1950's feeder wiring in conjunction with replacement of 1950's vintage panelboards. Type NM cable should be replaced with building wire in conduit or type MC cable as part of any planned renovations to the facility. Receptacles located appropriately for the current program should also be provided.

It was noted that some receptacles near sinks in science labs, in Tech Ed, and in the Kitchen do not appear to have GFCI protection as would be required by current code. GFCI protection as required by current code should be provided in these areas.



Service disconnect switches and MDP



Utility riser pole



Padmount transformer and PV array



Automatic transfer switch and generator-backed load center



Backup generator on roof



1950's vintage panelboard

KING MIDDLE SCHOOL

Interior Lighting

Most interior areas are illuminated by fluorescent fixtures that utilize T8 lamps. The classroom and corridor fixtures are recessed lens troffers, offices have recessed fixtures with parabolic diffusers, the gym has pendant mounted high-bay fixtures, toilet rooms utilize a mix of recessed lens troffers and wraparound style fixtures, and mechanical and storage room are illuminated by strip fixtures. There are also some decorative fixtures that appear to use compact fluorescent lamps in stairways. Performance lighting on the stage is incandescent fixtures controlled by manual dimmers. The lighting should be updated to LED fixtures with high-performance optics as part of any planned facility renovations. LED performance lighting and an architectural dimming system should be provided for the stage.



Typical classroom lighting



Parabolic fixtures in administration areas



Gym light fixtures



Dimmers for controlling performance lights

Exterior Lighting

There are no existing pole lights. Building mounted exterior lighting is primarily LED wall packs with full cutoff optics, but recessed fixtures that appear to utilize HID or compact fluorescent lamps remain at in use at a couple of entrance canopies. It appears that some areas of the site are not illuminated to levels recommended by IES. We recommend providing full-cutoff LED pole lights for the site and adding building mounted full cutoff LED outdoor lighting to provide illumination as recommended by IES.



LED wall packs



Light fixture at an entrance canopy

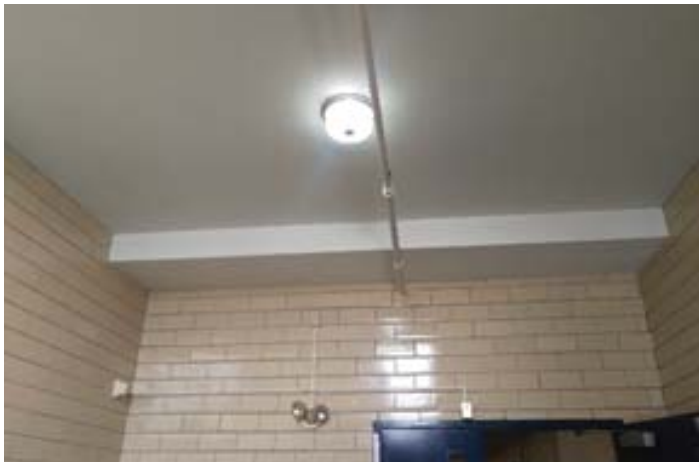
Emergency Lighting System

Emergency battery units with integral and remote heads provide emergency lighting for means of egress. The heads are a mixture of LED and incandescent. There is no emergency lighting at the exterior of exits. The LED emergency lighting units are in good condition and offer more than 10 years of anticipated useful life provided they are properly maintained and batteries are replaced as needed. Older incandescent units should be replaced with modern LED units as they fail. Outdoor emergency lighting should be provided at building exits.

LED illuminated exit signs with integral battery backup are located appropriately to mark means of egress.



Typical exit sign



Incandescent emergency light heads

KING MIDDLE SCHOOL

Fire Alarm System

The fire alarm control panel is a Simplex 4002 series conventional zoned system. Occupant notification is not compliant with current code or ADA except in the Health Center. The system has exceeded its anticipated useful life and should be updated to a fully addressable system.



Fire alarm control panel



Fire alarm annunciator



An old horn/strobe



A modern notification appliance in the Health Center

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service originates at the utility riser pole and is routed to the building underground in a 3" conduit that is shared with the cable television (CATV) entrance. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via an Architectural Acoustics paging amplifier. The VOIP phone system is utilized for intercom. The system is relatively new and in good condition.

The school is equipped with a Dukane master clock, but non-system battery clocks are in use in many areas due to failures. A network-connected programmable relay operates program bells. The clock system is obsolete but the programmable relay that operates the bells is relatively new and reportedly meets the district's need well. We recommend utilizing battery clocks or wireless synchronized clocks over replacing the master clock system.

The school has CATV service that enters the building in a 3" Entrance conduit that is shared with the telephone entrance. The CATV Distribution back-board is located in a room off the Library that is also used for storage.

Fiber optic Data cable enters the building in a 3" Entrance conduit. A city network core is housed in an open rack located in the main electric room. One intermediate distribution frame (IDF) is located in an enclosed wall mounted cabinet in a shared space and one IDF is located in an open wall mounted patch panel in a classroom that appears to have once been a computer lab. Horizontal cabling infrastructure is category 6. Abandoned un-

used Category 5 cabling and infrastructure was noted at the MDF location. Abandoned Cat. 5 infrastructure and cabling should be removed. Dedicated equipment spaces to house IDF's should be provided.

WIFI connectivity is available throughout the school.

Most classrooms utilize projectors on carts for audio/visual presentations.



Utility riser pole



Network core in electric room

KING MIDDLE SCHOOL



IDF in open rack in a classroom



CATV distribution board



IDF in enclosed rack in shared space



Abandoned Category 5 infrastructure

Security System Analysis

The school is equipped with a DSC security alarm system. Alarms are initiated by motion detectors. Access Control keypads are in place at selected entrances. The building is not equipped with a panic alarm. We recommend providing a security alarm control panel that is integrated with the district-wide network.

There is no Security Camera System.

There is intercommunication between the main entrance vestibule and the main office, which has a direct line of sight to the vestibule.

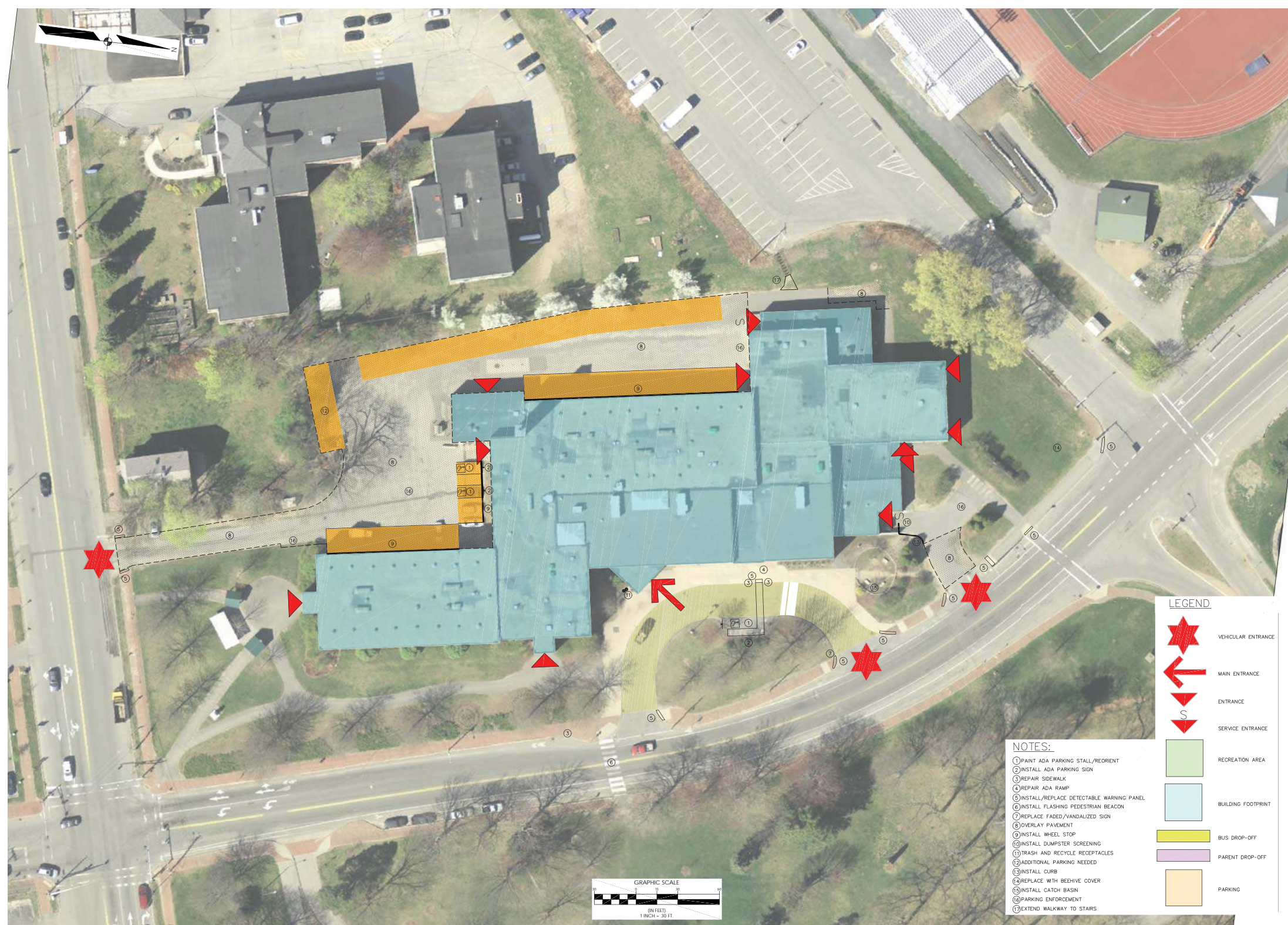


Electric door release at main office



Access control keypad at a secondary entrance

KING MIDDLE SCHOOL SITE ANALYSIS



KING MIDDLE SCHOOL
FIRST FLOOR PLAN



KING MIDDLE SCHOOL
SECOND FLOOR PLAN



LINCOLN MIDDLE SCHOOL



Aerial View



Main Entry

General Building Data

Address:	522 Stevens Avenue, Portland, ME 04103
Serving Grade Levels:	6 - 8
Number of Students:	513
Number of Faculty and Staff:	83
Original Construction Date:	1867
Date of Addition(s):	1913 (13 more classrooms), 1962 (gymnasium), 1994-95 (school renovation)
Building Age:	119 Years
Building Footprint:	33,100 Square Feet
Number of Stories:	4
Building Area:	112,000 Gross Square Feet
Total Site Area:	2.2557 Acres
Zoning Designation:	R5 Residential

Overview

Lincoln Middle School is a middle school in the Deering Center neighborhood. The school is located on Stevens Avenue, which has the unusual distinction of having an elementary school, middle school, two high schools, and a college all situated on it. Lincoln Middle school is divided into houses, 2 for each grade (6,7,8). The students at Lincoln primarily come from three of Portland’s many elementary schools, Riverton, Hall, and Longfellow, which is also located on Stevens Avenue.

Lincoln Middle School was erected in 1897 and opened in 1899 as Deering High School. In 1913 an annex of 18 classrooms was added to the structure due to the increasing number of students enrolling in Deering High School. In 1923 the student body overpopulated Deering so a new Deering High School was built further down Stevens Avenue and the current Deering High School became Deering Junior High. In 1925 Deering decided to change its name and rename it in honor of the 16th President, Abraham Lincoln, so Deering Junior High became Lincoln Junior High School. In 1962 a gymnasium was added to Lincoln in honor of Joseph J. Wagnis, who lost his life while fishing on Sebago Lake. The name of the school was changed to Lincoln Middle School in 1979. In 1994–1995 Lincoln Middle School was renovated and was reopened in 1996.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25. Plumbing systems are vintage to the original building and additions, with recent plumbing fixture upgrades. HVAC systems are vintage to the original building and additions with the exception of the heating plant which had the steam boilers replaced (one replaced 2014). Some of the power distribution system is at the end of its anticipated useful life. The remainder will reach it’s the end of its anticipated useful life within 15 years. Most interior lighting fixtures are at the end of their anticipated useful lives. The fire alarm control panel is obsolete and the system does not comply with current standards for new facilities.

Site Analysis

Lincoln Middle School is located on a 2.3 acre parcel of land within the R5 residential zone .

Accessibility

There is no ADA access at the front of the building. At grade doors are located at the rear of the school. An additional ADA parking space is needed and the existing space needs to be repainted to include a parking aisle and an accessible route to the building.

Circulation

Lincoln Middle School is accessible via Stevens Avenue and Leland Street. Parents drop off at the front along Stevens Avenue and buses drop off at the rear along Leland Avenue. There is good fire lane access around 3/4 of the school. Bike racks are currently located within the fire lane and should be relocated.

Safety/Security

No safety concerns.

Recommendations

- Add 1 ADA parking space and paint parking aisle(s) and accessible route to building.
- Install wheel stops at parking spaces along building.
- Install pedestrian guard at parking space adjoining sidewalk.
- Install “Fire Lane” and “No Parking” signs.
- Install detectable warning panels at crosswalks.
- Install screening around dumpster.
- Repair damaged and sagging chain link fence sections.
- Reestablish green area at athletic fields.
- Install bollards to restrict access through fire lane.
- Relocate bike racks out of fire lane. Install additional racks to accommodate volume.

LINCOLN MIDDLE SCHOOL

- Install curbing and a catch basin at dumpster area to resolve ponding and erosion damage.

Structural System Analysis

The Lincoln Middle School is made up of several buildings and connectors each with different ages and constructions:

- The east building is the oldest (main entrance off Stevens avenue), circa 1899.
- The south-west building, built as an addition to the original building, circa 1919 (reported to have burned and been rebuilt in 1921).
- The north-west building, that houses the cafeteria and the gymnasium, built circa 1962.
- Connector between the east building and south-west building.
- Geodesic dome, built in 2007 by the eighth graders.

Structural System Description:

- East Building:
 - Foundation: granite blocks on rubble/stone (lined with concrete in the north-east corner)
 - Ground floor: expected to be concrete slab-on-grade (not observed/covered with floor finishes)
 - Elevated slab: not visible covered with plastered ceiling.
 - Roof: wood planks bearing on wood joists spanning to 20 in. deep steel beams bearing in the masonry walls. The ceiling is also wood joists spanning to large wood beams hanged from the steel roof beams with steel rods. (reroofing and repaired drawings dated 1999)
- South-west building:
 - Foundation: granite blocks on rubble/stone
 - Ground floor: expected to be concrete slab-on-grade (not observed/covered with floor finishes)
 - Elevated slab: not visible covered with plastered ceiling.
 - Roof: steel metal deck bearing on light gage steel joists spanning to light gage studs walls



Entry roof at ground floor



Entry roof at ground floor



Geodesic dome



Site stair



Stepped cracks

or steel beam/stub columns bearing in the masonry walls. The roof looks to have been raised (light gage construction drawings dated from 1996) The ceiling is wood joists spanning to masonry walls

- North-west building (Gymnasium):
 - Foundation: concrete walls
 - Ground floor: expected to be concrete slab-on-grade (not observed/covered with floor finishes)
 - Elevated slab: not observed, supported by round steel columns.
 - Roof: metal edge gypsum planks bearing on steel joists spanning to steel beam and steel columns
- Connector
 - Unknown – expected to be concrete strip footings
 - Ground floor: expected to be concrete slab-on-grade (not observed/covered with floor finishes)
 - Elevated slab: concrete slab on metal deck spanning to steel beams.
 - Roof: steel deck bearing on steel beam spanning to steel columns and bearing in brick walls.
- Geodesic Dome
 - Not observed – expect not to have foundations
 - Ground floor: expected to be concrete slab-on-grade (not observed/covered with floor finishes)
 - Roof: translucent panels spanning to wood struts connected with metal plates.

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Lateral Force Resisting System:

- East Building: mass-masonry/brick walls.
- South-West Building: mass-masonry/brick walls.
- North-West Building: unknown assume to be CMU shear walls (it is unknown if the CMU is reinforced)
- Connector: no lateral system, expected to rely on the other buildings for lateral resistance.
- Geodesic Dome: dome.

Exterior Wall System Description:

- East Building: mass-masonry/brick walls.
- South-West Building: mass-masonry/brick walls.
- North-West Building: brick veneer with CMU backup walls
- Connector: Curtain wall and brick wall
- Geodesic Dome: the walls (below the dome portions) are there edge of the planters, insulation, and wood siding

Structural Conditions and Concerns:

Cracks in the north-west building west wall.



North canopy



Bell tower

Fire Protection Systems Analysis

The 6" sprinkler entrance is supplied by municipal water and does not have a testable backflow preventer. The sprinkler system is a complete automatic wet & dry system with (2) risers. There was no obvious fire department connection. There is a labelled "Glycol Loop" serving the cold attic area above the gym entrance. The piping system has what appears vintage 1960s serving the wet riser and later, perhaps 1990s for the dry riser. Recommend contacting the Authority Having Jurisdiction as well as a Sprinkler Design Contractor assess current systems.



Fire Sprinkler Entrance – Dry Pipe Left Riser

Plumbing Systems Analysis

The building is served by a 3" municipal water entrance with double RPZ backflow preventers. The entrance piping appears to be ductile iron until after the RPZs, when it transitions to copper.

Domestic hot water is generated by 100 gallon gas fired condensing water heater (summer use) and an indirect steam to hot water maker storage tank (heating season). The gas fired water heater was installed in 2014 and has a useful service life of 15 years. The steam to hot water maker is aged and beyond its useful service life of 18 years.

Plumbing fixtures are in good operating condition and well maintained. The fixtures are low flow type, vitreous china, wall hung and floor mount. Water coolers are ADA bi-level located in most hallways.

Plumbing piping consists of copper domestic and cast iron for the original building, and copper domestic and PVC for sanitary and rainwater for the 1996 addition. Most piping is in good condition and well insulated even though the 1960s piping systems are beyond their useful life of 30 years. Storm water and sewer are separated systems. Natural gas services the building; entrance is at boiler room.

The existing plumbing systems and fixtures are well maintained and in good condition considering the age of the original systems. Continued maintenance on plumbing systems is required for the 1996 addition and consideration of plumbing piping systems upgrade in the 1960s building. A new piping system will have lead free solder, a current code requirement.

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Steam generated DHW & Storage at Gym



Gas Fired Water Heater



Domestic Water Entrance



Recent Plumbing Fixtures Upgrade

Mechanical Systems Analysis

The existing central heating plant consists of (2) gas fired HB Smith steam boilers, (1) 28A S-12 2600 MBH mfg. 2000; (1) 28HE-7 1,700 MBH mfg. 2014. Casts iron boilers typically have a useful service life of 30 years. The boiler feed pump unit appears original to the 1960s addition and is beyond its useful service life of 18 years. The #2 fuel oil storage tank has recently been decommissioned. The boiler Combustion air is supplied via a combustion air supply fan, mfg. 2014, provides combustion and ventilation air to the boilers and gas fired DHW unit. Steam is supplied to the original building heating systems and HW is supplied to the 1996 addition systems. A steam to HW heat exchanger and constant speed base mount heating pumps are located in the boiler room and are vintage to the 1996 addition. The shell and tube HX and the base mount heating pumps have a typical useful service life of 24 years. All other HW appurtenances, e.g. expansion tanks, are vintage to the 1996 addition.

The HW piping system is in good condition and within its useful service life of 30 years. The steam piping system and components are in fair condition but beyond its useful service life of 30 years.

The original building is served by steam to floor mount unit ventilators in classrooms, cast iron radiators, and fintube in miscellaneous areas. The larger spaces such as the gym have ducted H&V units, located in the crawl space below gym. Rooftop gravity ventilators provide relief to the UV and H&V units as the supply varying amounts of OA air. All the steam heating and ventilating equipment and ducted systems are well beyond their useful service life.

The 1996 addition is served by hot water to (3) rooftop H&V units (assuming 1996 mfg. year; vendor cannot confirm where obsolete model). All the rooftop H&V have heating coils as well as duct coils for each zone (class, etc.). The rooftop exhaust fans exhaust from

toilet spaces, kitchen hood, and other locations. Space heating in the 1996 addition is via duct heating coils, fintube radiation, and CUHs. All heating, cooling, and ventilating equipment is original to the 1996 addition and at or near the end of their useful service life.

Temperature controls serving the heating system and equipment is mostly pneumatic with little DDC electric in the boiler room and 1996 addition. The pneumatic control system is aged and beyond its useful service life of 20 years. The DDC electric system is nearing the end of its useful service life if the existing equipment is of 1996 vintage.

The existing HVAC systems in general are fair operating condition, however, most all equipment is at or near the end of its useful service life (especially the steam system). How and when to replace the equipment depends on whether there are planned building renovations or replace systems as a major HVAC upgrade. It is recommended that the boiler feed pump system be replaced soon regardless of scheduling systems upgrades. The best recommendation is to convert the original building to heating hot water which will replace the aged equipment and steam / condensate piping. Steam piping controls and traps have been maintained but piping failures may increase in the near future. It would be most economical to replace all heating and ventilating equipment with new systems at the time of the steam to HW conversion. Also coordinate the temperature controls DDC electric upgrade at the time of conversion.

LINCOLN MIDDLE SCHOOL



Steam to HW Heat Exchanger



Steam H&V Serving the Gym



Typical Roof Top H&V unit



Vintage Pneumatic Temperature Control Panel



GRVs & Exhaust Fans



Boiler Feed Pump System



Heating Pumps



Ceiling CUH

Electrical Systems Analysis*Electrical System Distribution*

The service is supplied by an underground primary in (2) 5" conduits from overhead utility lines to a utility-owned pad mount transformer. The secondary service from the utility transformer runs underground to a 1998-vintage 1600-amp, 208/120-volt, 3-phase, 4-wire GE switchboard located in the main electric room. The switchboard has about 20 years remaining in its anticipated useful life, but the school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts. We recommend performing infra-red scanning of the service equipment to assess condition of contacts and terminations. Further investigation by utility company is required to determine cause of shorts due to squirrel activity.

Panelboards are generally 1998 vintage GE panelboards, although there is a 1960's vintage panelboard in a corridor outside of Tech Ed and a 1970's vintage residential/light commercial grade load center on the stage. The panelboard serving Tech Ed is equipped with a contactor controlled by emergency-stop pushbuttons. We recommend replacing the old panelboard near Tech Ed and the load center on the stage in the short term. All Panels will reach the end of their anticipated useful lives within 15 years.

There is a small grid-tied photovoltaic (PV) array mounted to the exterior of the building at the south side.

The wiring that can be viewed from a simple walk-through of the facility is building wire in metal conduit. Receptacles throughout the school appear to be located appropriately for the current program.

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Utility riser pole



Main circuit breaker at switchboard



Old panelboard near Tech Ed



Old load center on stage

Interior Lighting

Most interior areas are illuminated by fluorescent fixtures that utilize T8 lamps. The classroom, toilet, and corridor fixtures are mostly recessed lens troffers, but the lobby also includes compact fluorescent downlights. Offices have recessed fixtures with parabolic diffusers. The gym is equipped with high-bay style fixtures. Mechanical and storage areas are illuminated by strip fixtures. Assembly performance lighting is incandescent fixtures that are controlled by the circuit breakers of a residential/light commercial grade load center. The lighting should be updated to LED fixtures with high-performance optics as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.



Lobby lighting



Typical classroom lighting

Exterior Lighting

There are no pole mounted site lights. Building mounted exterior lighting is mostly LED wall packs with full-cutoff optics, but some old incandescent fixtures remain at building exits. It appears that some areas of the site are not illuminated to levels recommended by IES. We recommend providing full cut-off LED pole mounted fixtures to provide illumination as recommended by IES. In the short term, old incandescent fixtures should be updated to LED. All existing fixtures will reach the end of their anticipated useful lives within 20 years.



LED wall pack on south wall



Old incandescent fixtures at a secondary entrance canopy

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Emergency Lighting System

Emergency battery units with integral and remote incandescent heads provide emergency lighting for means of egress. There is no emergency light at the exterior of building exits. LED illuminated exit signs with integral battery backup are appropriately located to mark means of egress. Older emergency lighting units should be replaced with modern LED units as they fail. Outdoor emergency lighting should be provided at building exits.



Typical emergency lighting unit and exit sign



Newer emergency lighting unit in electric room

Fire Alarm System

The fire alarm control panel is a 1998 vintage conventional zoned FCI control panel. Occupant notification does not comply with ADA or current standards in some areas; the classrooms are not equipped with visual notification appliances. The system is near the end of its anticipated useful life and should be updated to a fully addressable system within 5 years.



Fire alarm control panel



Fire alarm pull station and horn strobe in lobby

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service originates at the utility riser pole and is routed to the building underground in a 3" conduit. Intercommunication within the building is provided by a 1998 vintage Dukane intercom/paging system. Classrooms do not have access to outside telephone lines. The intercom system is near the end of its anticipated useful life. We recommend providing VOIP phones that are connected to the district-wide network.

The school is equipped with a 1998 vintage Dukane master clock. A network-connected programmable relay operates program bells and resets clocks. The master clock system is functional but obsolete. Battery clocks can be utilized when system clocks fail.

Cable television service originates at the utility riser pole and is routed to the building underground in a 2-1/2" conduit. The signal is distributed throughout the building in coaxial cable via splitters located and the telecommunications Main Distribution Frame (MDF).

Data infrastructure is a Category 6 horizontal cable plant. The school has one MDF and two stacked intermediate distribution frames (IDF's). WIFI is available throughout.

Ceiling mounted Projectors are installed in classrooms.



Telecommunications utility demarcation point



Master clock and paging amplifier



MDF and CATV distribution

LINCOLN MIDDLE SCHOOL

Security System Analysis

The school is equipped with a Bosch intrusion alarm system that is connected to the district-wide network. There is no panic alarm system. The system will reach the end of its anticipated useful life within 15 years.

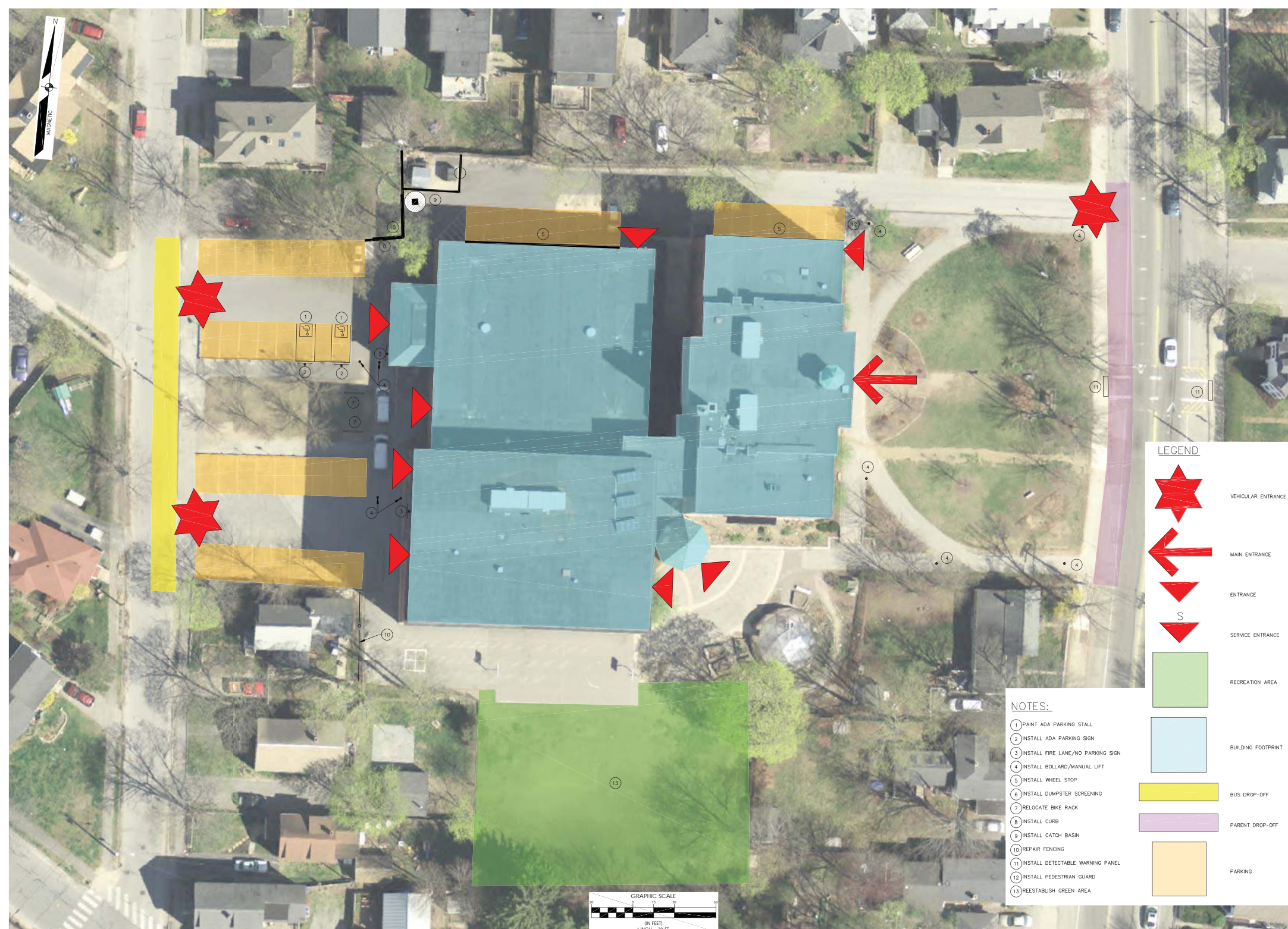
The building is reportedly wired for a security cameras but the cameras are not yet installed. We recommend providing web-based security cameras with DVR via the district-wide network. There is video intercom between the main entrance and main office, with electric lock release in the main office.



Security alarm control panel

LINCOLN MIDDLE SCHOOL

SITE ANALYSIS



LINCOLN MIDDLE SCHOOL
BASEMENT FLOOR PLAN



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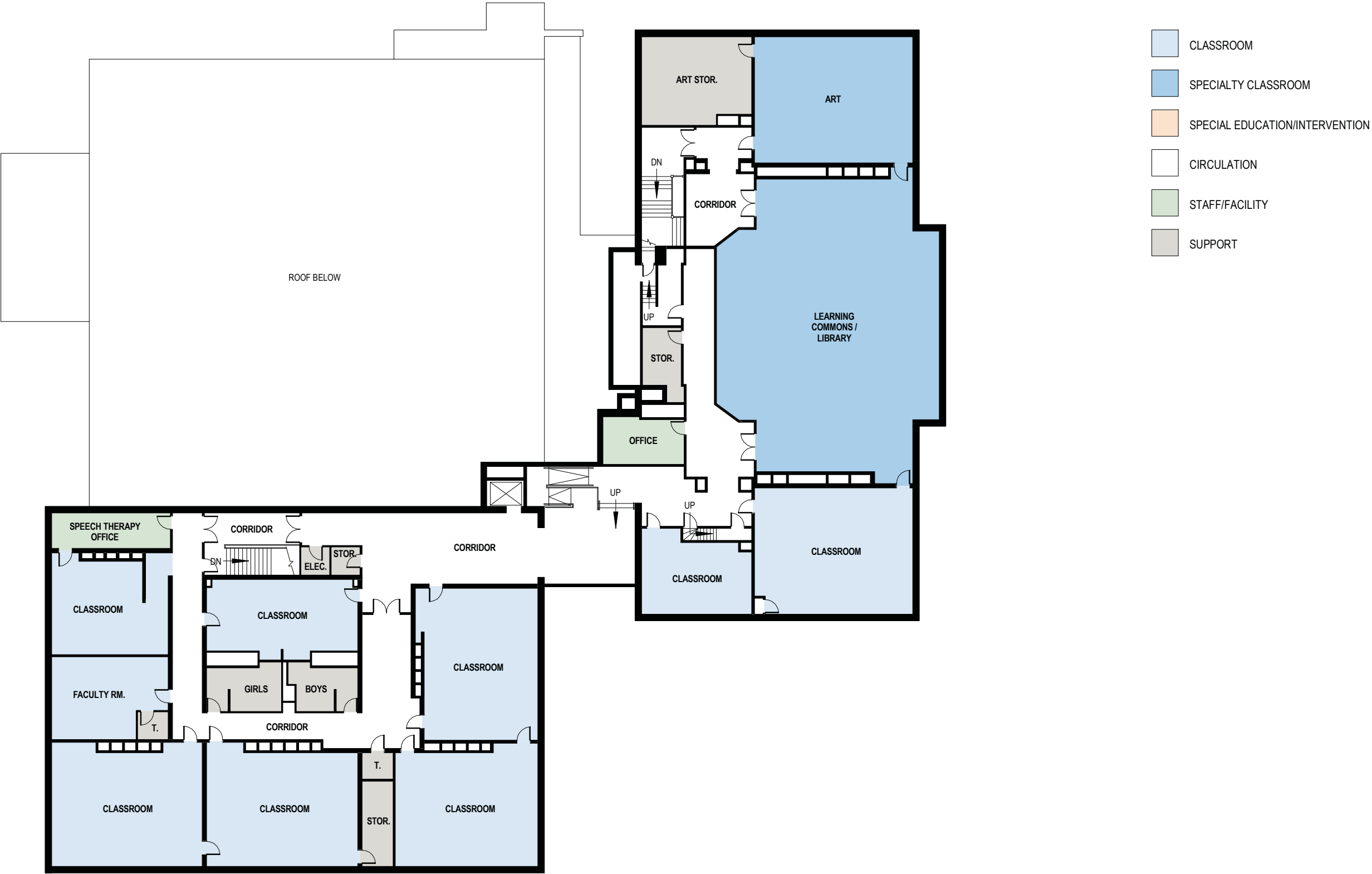
FIRST FLOOR PLAN



LINCOLN MIDDLE SCHOOL
SECOND FLOOR PLAN



LINCOLN MIDDLE SCHOOL
THIRD FLOOR PLAN



LYMAN MOORE MIDDLE SCHOOL



Aerial View



Main Entry

General Building Data

Address:	171 Auburn Street, Portland, Maine 04103
Serving Grade Levels:	6 - 8
Number of Students:	504
Number of Faculty and Staff:	95
Original Construction Date:	1954
Date of Addition(s):	1959, 1996 Additions
Building Age:	62 Years
Building Footprint:	86,000 Square Feet
Number of Stories:	2
Building Area:	102,000 Gross Square Feet
Total Site Area:	25.1178 Acres (Lyseth & Moore same parcel)
Zoning Designation:	R2 Residential/ROS Recreation Open Space

Overview

Lyman Moore Middle School is located in the North Deering neighborhood of Portland. The school serves a diverse community within the Munjoy Hill and Washington Ave. neighborhood, as well as the surrounding area.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25.

Plumbing systems are vintage to the original building and 1954 & 1996 additions, with recent plumbing fixture upgrades installed.

HVAC systems are vintage to the original building and 1954 & 1996 additions, with the exception of the boiler plant (1999 est. age).

The utility electrical service is an obsolete design. Some power distribution equipment has exceeded its anticipated useful life.

Interior lighting fixtures are generally at or near the end of their anticipated useful lives.

The fire alarm control panel is obsolete and the system does not comply with current standards for new facilities.

Site Analysis

Lyman Moore Middle School is located on a 25.1 acre parcel of land shared with Lyseth Elementary School within the R2 residential zone and ROS Recreation Open Space zone.

Accessibility

ADA circulation throughout the site is fair. ADA parking spaces are not compliant. There are no detectible warning strips on site. Ramps require repair.

Circulation

Lyman Moore Middle School and Lyseth Elementary School are located along Lyseth Moore Drive which is accessible from Auburn Street and Jr Street. There is little delineation between bus and parent drop off. Observed parking outside of parking lots. The pavement throughout the site is in poor condition and in need of replacement.

Safety/Security

No safety concerns.

Recommendations

- Mill and repave primary access route and side parking lot.
- Reconfigure side parking lot to improve usage.
- Install wheel stops along parking adjacent to athletic field.
- Replace concrete curbing sections that are in poor condition.
- Adjust parking grades within ADA parking spaces to be less than 2% and repaint spaces to include van accessible parking. Install 1 ADA parking sign per space.
- Repaint arrows along access loop.
- Paint and/or install curbing and signage to better define and separate bus and parent drop off locations.
- Install no parking signs as necessary throughout site to enforce parking in permitted spaces.
- Replace bituminous sidewalk along east side of building.

LYMAN MOORE MIDDLE SCHOOL

- Install detectible warning panels at crosswalks.
- Adjust ramp transitions to 1/4" or less where necessary.
- Relocated dumpsters and install screening.
- Make fence around propane tank at service area more secure.
- Install catch basin or adjust grade at side parking lot to eliminate ponding.

Structural System Analysis

Structural System Description:

Older Construction (Pre 1990s):

- Roofs: Tectum roof deck spanning to steel bar joists, except at gymnasium where roof is metal deck. Joists typically supported by interior CMU bearing walls in double corridor format, and by CMU walls or structural steel beams and columns at exterior. All roofs in these areas are EDPM.
- Floors: Slab on grade, except formed concrete slab over crawl space for a portion of the original building.

Newer Construction (Post 1990s additions):

- Roofs: Metal roof deck spanning to bar joists, with bar joists supported by interior and exterior CMU bearing walls. Walls are laid out in double-corridor format. Roofs in these areas are EDPM held down by gravel ballast.
- Floors: Concrete slab on form deck, supported by bar joists spanning to CMU bearing walls.

Lateral Force Resisting System (LFRS):

Most likely consists of interior and exterior CMU/brick bearing walls. However, roofs and floors are generally not well connected to walls, so it's unlikely there is a load path to bring lateral forces from the diaphragm to the walls.

Exterior Wall System Description:

Structural walls consist of brick veneer tied to CMU walls.

Foundation System Description:

Frost protected, shallow foundations assumed.

Structural Conditions and Concerns:

- There are several snow drift zones created by high and low roofs around the building (occurs mostly at low roofs surrounding gymnasium and pool). It's unlikely the roof framing has capacity to resist these loads, since snow drifts were not well accounted for by the design codes at the time of construction.
- In older portions of the building, window and door lintels are rusting. Recommend replacing them in the near future. In newer portions, lintels are galvanized and do not require repairs at this time.
- At areas of newer construction, the base sealants between the bottom of brick and top of foundation have deteriorated, and should be replaced.
- Roof over the first major addition to the original building is very flat and does not shed water well. Many areas of ponding observed. Recommend adding materials to increase roof slope to the drains.
- Area of poor drainage observed at cafeteria roof (2-3" of ponding water). Recommend improving drainage and roof slope at this location.
- Observed stones from higher ballasted roofs blown onto lower roofs. Ballasted roofs are not permitted by current building code for the City of Portland. Recommend removing the ballasted roofs and replacing with EDPM.



Inadequate roof drainage at Cafeteria roof



Corroded lintel in need of replacement



Inadequate roof drainage at classroom addition



Recommend replacement of roof ballast

Fire Protection Systems Analysis

The 6" sprinkler entrance (1996 circa) is supplied by municipal water and has a testable backflow preventer. The sprinkler system is a complete automatic wet system with 4" riser, with a 4" storz fire department connection. There has been a sprinkler backflow test performed annually. The piping system is in good condition. There is a sprinkler cabinet with wrench and spare heads.

Maintain and test sprinkler systems.

Plumbing Systems Analysis

The building is served by a 4" municipal water entrance with RPZ testable backflow preventer.

Domestic hot water is generated by 40 gallon electric water heaters and a steam to hot water maker storage tank located in the boiler room. The summer use electric water heater is 2003 circa with an expected service life of 15 years. The steam to hot water maker is aged and beyond its useful service life of 18 years.

Plumbing fixtures are in good operating condition and well maintained. Most fixtures are low flow type, vitreous china. Water coolers are ADA bi-level with integral bottle fill.

Plumbing piping consists of copper and cast iron for the original building, and copper and PVC for for the 1996 addition. Most piping is in good condition and well insulated even though the 1950s piping systems are beyond their useful life of 30 years. Storm water and sewer are separated systems.

Natural gas services the building; entrance is at boiler room.

The existing plumbing systems and fixtures are well maintained and in good condition considering the

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age of the original systems. Continued maintenance on plumbing systems is required for the 1996 addition. The 1950s plumbing piping systems are beyond their expected service life and will require complete replacement as they begin to fail. The new copper piping system will have lead free soldered joints, a current code requirement. The steam indirect DHW maker is beyond its expected service life; replace unit with a gas fired DHW.



Steam DHW Maker



Recent Fixture Upgrade



40 Gal Electric Water Heater

Mechanical Systems Analysis

The existing central boiler plant consists of (2) Burnham Industrial steam boilers, 5021 MBH gross output, 1999 estimated mfg. date. Fire tube boilers typically have a useful service life of 28 years. The dual fuel burners are supplied via utility natural gas and #2 fuel above ground storage tank. Combustion air is supplied thru (2) large louvers ducted high and low within the boiler room, it appears of adequate size to serve the boilers. Steam is supplied to the original building heating systems and HW is supplied to the 1996 addition as well as renovated areas in the original building. A steam to HW heat exchanger and constant speed base mount heating pumps are located in the boiler room and are vintage to the 1996 addition. The heating pumps were replaced in 2012 and have a useful service life of 25 years. The HW consists of a propylene glycol solution for freeze protection. The shell and tube HX and the base mount heating pumps have a typical useful service life of 24 years. All other HW appurtenances, e.g. expansion tanks, are vintage to the 1996 addition.

The HW piping system is in very good condition (heating mains were replaced a few years ago due to fitting failures) and within its expected service life of 30 years. The steam piping system and components are in fair

condition but beyond its expected service life of 30 years.

The original building is heated by steam supplied to floor mount unit ventilators in classrooms, convectors at vestibules, and fintube at miscellaneous areas. The 1996 addition/renovation is heated by HW supplied to rooftop H&V units and to CUHs and fintube for space heating. All the steam heating and ventilating equipment and ducted systems are well beyond their useful service life.

Rooftop gravity relief ventilators and exhaust fans provide relief for the UV and H&V units. The original building classroom unit vents (both floor mounted and concealed ducted) supply heating and ventilation to the spaces. The 1996 classroom addition is heated and ventilated by (2) rooftop H&V units which supply air to the classrooms via ductwork. (1) H & V unit serves the gym and (1) H&V unit serves the café/stage. All the 1996 rooftop H&V units have duct heating coils providing heating air to each zone (e.g. office or classroom). The rooftop exhaust fans exhaust from toilet spaces, kitchen hood, and other locations. Heating and ventilating equipment serving the original building is at the end of their expected service life. Heating and ventilating equipment serving the 1996 addition is at or near the end of their expected service life.

Temperature controls serving the heating system and equipment is mixed pneumatic and DDC electric at the 1996 addition. The pneumatic control system is aged and beyond its useful service life of 20 years. The DDC electric system is nearing the end of its useful service life if the existing equipment is of 1996 vintage.

The existing HVAC systems in general are fair to good operating condition, however, most all equipment is at or near the end of its expected service life (especially the steam side). When to replace the equipment depends on whether there are planned

building renovations or replace systems as a major HVAC upgrade. The best recommendation is to convert the original building to heating hot water which will replace the aged equipment and steam & condensate piping. Steam piping controls and traps have been maintained but piping failures are certain. It would be most economical to replace all heating and ventilating equipment with new systems at the time of the steam to HW conversion. Also coordinate the temperature controls DDC electric upgrade at the time of conversion. The steam boilers have about 40% (10 years) expected service life left, therefore when the steam to hot water conversion is schedule new hot water boilers are recommended.



Steam to HW Heat Exchanger

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Vintage Pneumatic Temperature Control Panel



Heating Pumps in Background



Steam UV in Classroom



Rooftop H&V Unit (1996)



Gravity Relief Ventilator

Electrical Systems Analysis

Electrical System Distribution

The electrical service has an underground primary in (2) 4" conduits from overhead utility lines to a utility transformer vault located within the building. The vault was not accessible at the time of our visit as it requires utility company presence to access. The general building vault arrangement is an obsolete design. There are two secondary feeders, one in surface wireway and the other in feeder busway, that run from the transformer vault to two 800-amp 208/120-volt service disconnects, which combine to provide total capacity of 1600 amps. One service disconnect switch is housed in a 1960 vintage switchboard and the other within a 1995 vintage panelboard. The school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts. The 1960 vintage switchboard has exceeded its anticipated useful life, and the 1995 vintage panelboard will reach the end of its anticipated useful life within 20 years. The service should be updated to a modern design with a pad mounted utility transformer; the service equipment should be updated to a single switchboard as part of the service upgrade. Further investigation by utility company is required to determine cause of shorts due to squirrel activity.

Branch-circuit panels throughout the building are a mix of 1960 vintage and 1995 vintage panelboards. Their feeders are building wire in conduit. The 1960 vintage panelboards and their feeder conductors have exceeded their anticipated useful lives and should be replaced. The 1995 vintage panelboards will reach the end of their anticipated useful lives within 10 years, and their feeder conductors will reach the end of their anticipated useful lives within 20 years.

Receptacles appear to be located appropriately for the current program. Some receptacles located

near sinks science rooms do not include GFCI protection. GFCI protection for receptacles should be provided in accordance with current code.



1995 service entrance panelboard



Feeder busway to 1960 switchboard

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Typical 1995 vintage panelboards



1960 vintage panelboard in boiler room

Interior Lighting

Interior areas are illuminated by fluorescent luminaires of various designs that utilize T8 lamps. Classrooms, toilets, and corridors are equipped with recessed lens troffers. Offices have recessed fixtures with parabolic diffusers. Mechanical and storage areas are illuminated by strip fixtures. The Gym is equipped with high-bay style luminaires. Lighting throughout should be updated to LED with high performance optics as part of any planned facility renovations. The fixtures are generally at or near the end of their anticipated useful lives.



Typical classroom lighting

Exterior Lighting

Site Lighting is provided by Pole-mounted lights that are leased from the utility company.

Exterior Building Lighting has been updated to LED wall packs in recent years. Some fixtures are not properly secured and in need of repair or replacement. The building mounted fixtures will reach the end of their anticipated useful lives within 20 years.



A broken wall pack



Typical building mounted lighting

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Emergency Lighting System

Emergency battery units with integral and remote heads provide illumination for means of egress. The light heads are a mixture of LED and incandescent. LED illuminated exit signs with integral battery backup are appropriately located to mark means of egress. All existing units will reach the end of their anticipated useful lives within 20 years. We recommend updating all emergency lighting units to LED and providing outdoor emergency lighting at building exits.

Fire Alarm System

The fire alarm control panel is a 1980's vintage conventional zoned FCI control panel. Occupant notification has been update to comply with ADA requirements in approximately 1/3 of the building, but remaining areas do not comply with current standards. The control panel is obsolete. We recommend updating to a fully addressable system.



An ADA compliant notification appliance



Fire alarm control panel



An obsolete notification appliance

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via a TOA 900 series amplifier. The VOIP phone system is utilized for intercom. The system is relatively new and in good condition.

The school is equipped with a 1995 vintage Dukane master clock. A network-connected programmable elay operates program bells and resets clocks. The master clock system is functional but obsolete. Battery clocks can be utilized when system clocks fail.

The Main Distribution Frame (MDF) and two intermediate distribution frames (IDF's) that service the telecommunications cable plant are located in floor mounted racks within dedicated telecommunications rooms. The cable plant is fairly new and in good condition. WIFI connectivity is available throughout the school.

All classrooms are equipped with projectors. Five rooms are equipped with interactive white boards.



Typical system clock



MDF rack



An IDF rack

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Security System Analysis

The intrusion alarm system consists of a Bosch networkable control panel that is connected to the district-wide network. Alarms are initiated by motion detectors. The system is in good condition but will reach the end of its anticipated useful life within 15 years. The building is not equipped with a panic alarm.

The school is equipped with a Security Camera System consisting of power-over-ethernet (POE) cameras that are connected to district digital video recorder (DVR) servers, which are located at PATHS. The system is web based, but not accessed directly by the Police Department. Most exterior areas are covered, but additional cameras are needed on the west side of the building to the north of the gym.

An Aiphone video intercom provides communication with visual imaging and electric access control between the main entrance and the office. There is also an access control keypad at the exterior of the main entrance.

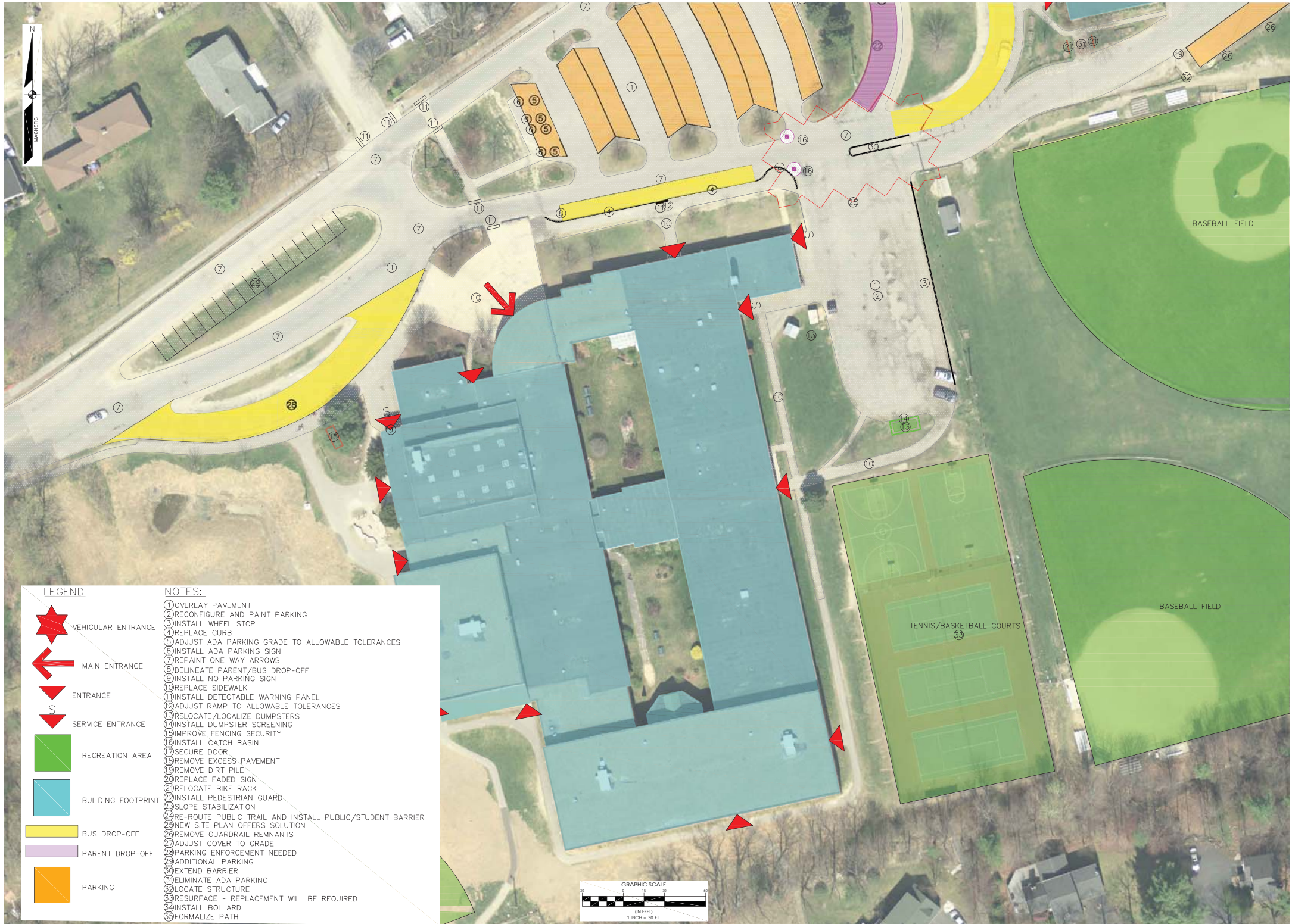


Typical outdoor camera



Intrusion alarm keypad

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SITE ANALYSIS



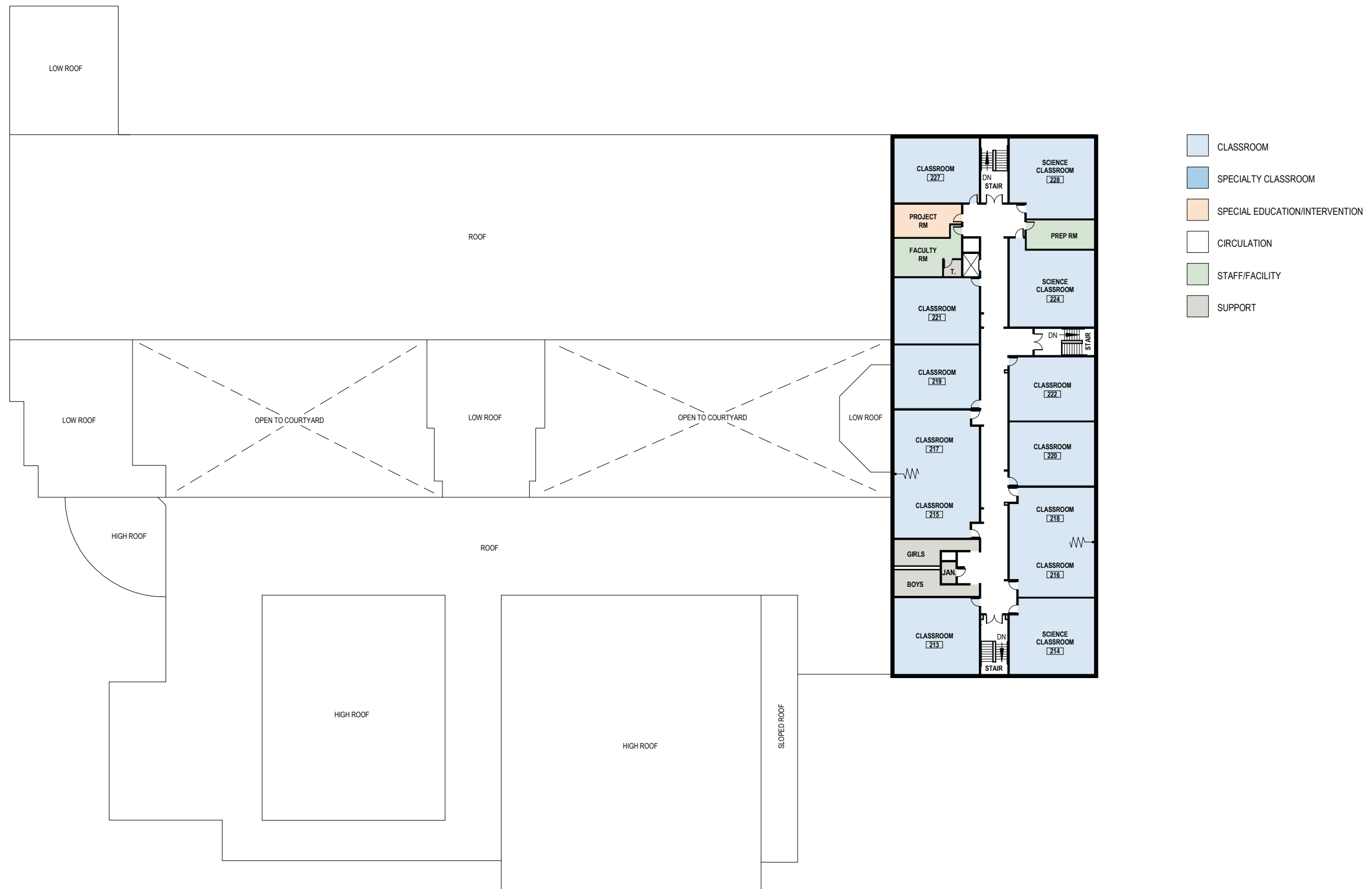
LYMAN MOORE MIDDLE SCHOOL

FIRST FLOOR PLAN



LYMAN MOORE MIDDLE SCHOOL

SECOND FLOOR PLAN



CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL



Aerial View



Main Entry

General Building Data

Address:	196 Allen Ave, Portland, ME 04103
Serving Grade Levels:	9 - 12
Number of Students:	900
Number of Faculty and Staff:	125
Original Construction Date:	1975
Date of Addition(s):	None
Building Age:	41 Years
Building Footprint:	77,000 Square Feet
Number of Stories:	3
Building Area:	237,000 Gross Square Feet
Total Site Area:	30.3039 Acres (Not including Villa Paper Street lots)
Zoning Designation:	R3 Residential / R5 Residential

Overview

PATHS is greater Portland’s career and technical education (CTE) high school. Students have the opportunity to attend PATHS and learn a trade of their choice while still in high school. Students will graduate with a high school diploma from their sending school while potentially having obtained a national certification and college credit in the field of their choice.

Casco Bay High School is a public Expeditionary Learning school. Since the 2005–06 school year, the school has been housed on the site of the Portland Arts and Technology High School on Allen Avenue, in the city’s North Deering neighborhood.

The automatic fire sprinkler system appears original to the building. The sprinkler entrance has a fire pump with (2) main risers, each serving building (A) and (B).

The majority of the plumbing piping systems are original to the building with some upgrades thru renovations. DHW is a vintage indirect steam heater/ storage during heating season and electric operated non heating season. Most plumbing fixtures have been upgraded recently.

The steam boiler plant is original to Building –A & B. Most all HVAC equipment to Building-B is original to the building. HVAC equipment to Building-A has original steam heating systems with some HVAC systems upgraded during recent renovation projects.

Although some newer equipment has been added as part of recent Casco Bay High School modifications, the electrical service equipment and most power distribution equipment, as well as their feeder conductors, are at the end of or have exceeded their anticipated useful lives.

An emergency generator that appears to be original to the building has failed. The failed unit was connected to serve the building’s heating plant, fire pump,

and emergency egress lighting in many areas, and should be immediately replaced.

Except for some recently-renovated areas of CBHS, interior lighting fixtures are generally at or near the end of their anticipated useful lives.

The fire alarm control panel is obsolete and the system does not comply with current standards for new facilities.

CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL

Site Analysis

Casco Bay High School and PATHS is located on a 30.3 acre parcel of land within the R3 and R5 residential zones.

Accessibility

ADA accessibility is fair throughout the site, ADA parking spaces have signs, ramps and crosswalks have detectible warning panels. However, the grades at the ADA ramp at the bus loop appear steeper than allowable and some ADA parking spaces need to be repainted.

Circulation

Casco Bay High School and PATHS is accessible via Allen Avenue. There is good circulation and separation between bus drop off area and parent drop off.

Safety/Security

Observed students entering the parking lot fast and a lack of safe passage through parking lot for pedestrians. Observed low hanging overhead electric along the east side of the access driveway.

Recommendations

- Relocate or raise low hanging overhead electric lines along east access drive.
- Paint crosswalks and install signs in parking lot to improve safe passage of pedestrians.
- Adjust grades of ramp at bus loop to within allowable ADA tolerance.
- Parge truncated dome panel at bus loop.
- Paint ADA spaces as appropriate to meet standards.
- Replace entry.
- Mill and overlay parking lots and east access drive.
- Overlay bituminous sidewalks around front of school.
- Repair and or replace spalling concrete curb sections.
- Install wheel stops at parking adjacent to building near maintenance area.
- Paint parking spaces in maintenance area to better define parking.
- Designate a material storage area and install screening.
- Install School Zone signs on Allen Avenue.
- Relocate and localize dumpsters and install screening.
- Place trash and recycling receptacles in courtyard.
- Install bike rack(s)
- Install lighting in parking lots.
- Install curbing and catch basins along east access drive to mitigate pavement erosion.
- Inventory catch basins and clean where necessary. Replace cover of CB in front grass area with beehive cover.
- Relocate or raise low hanging overhead electric lines along east access drive.
- Paint crosswalks and install signs in parking lot to improve safe passage of pedestrians.
- Adjust grades of ramp at bus loop to within allowable ADA tolerance.
- Parge truncated dome panel at bus loop.

- Paint ADA spaces as appropriate to meet standards.
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- Install bike rack(s)
- Install lighting in parking lots.
- Install curbing and catch basins along east access drive to mitigate pavement erosion.
- Inventory catch basins and clean where necessary. Replace cover of CB in front grass area with beehive cover.

Structural System Analysis

Structural System Description:

Building A

- Roof: Tectum roof deck on bar joists, with joists spanning to steel beams and columns. Roofing is EDPM.
- Second/Third Floor: Concrete slab on form deck spanning to bar joists, with joists supported by steel beams and columns.
- First Floor: Cast-in-place slab on grade.

Building B

- Roof: Tectum roof deck on bar joists, with joists spanning to steel beams and columns. Roofing is EDPM.
- Second Floor: Concrete slab cast on metal cellular deck, supported by steel beams and columns encased in gyp-sum/concrete.
- Elevated Mezzanines: Concrete slab on metal deck spanning to steel beams. Beams are either cantilevered from main building columns or hung/posted from second floor framing.
- Ground Floor: Cast-in-place slab on grade

Lateral Force Resisting System (LFRS):

Building A

No existence of an LRFS could be documented. Perimeter CMU walls will contribute some, however with the amount of openings and breaks due to cantilevered construction, the walls will provide minimal resistance. The roof is generally not well connected to the walls, so it’s unlikely there is a load path to bring lateral forces from the diaphragm to the walls.

Building B

Most likely consists of perimeter CMU walls. However, roof is generally not well connected to walls, so it’s unlikely there is a load path to bring lateral forces from the diaphragm to the walls.

CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL

Exterior Wall System Description:

At Building A, exterior walls consist of brick/CMU walls tied to steel framing. At Building B, exterior walls consist of structural CMU with tied brick veneer.

Foundation System Description:

Frost protected, shallow foundations assumed.

Structural Conditions and Concerns:

- There are several snow drift zones created by high and low roofs around the building (occurs mostly at low roofs surrounding gymnasium and pool). It's unlikely the roof framing has capacity to resist these loads, since snow drifts were not well accounted for by the design codes at the time of construction.
- Lintels at windows and doors, as well as relieving angles at cantilevered construction, are not galvanized and are rusting. Recommend replacing the lintels in the near future. Repairs to relieving angles over large openings and at cantilevered projections will be difficult and expensive. Thus, we recommend monitoring these conditions periodically and performing repairs on a case by case basis.
- Tectum deck in both buildings is not connected to roof structure in either building. The tectum can be pulled off the building during a severe wind uplift event. Without the connections, the tectum also does not provide any bracing for the top chord of the roof joists, which reduces the joist capacities. We recommend adding connections to the roof joists in the near future.



Corroding relieving angle



Corroding relieving angle



Second floor deck corrosion below bay doors



Tectum deck with tie down connections

Fire Protection Systems Analysis

The 6" sprinkler entrance is supplied by municipal water and does not have a testable backflow preventer. The sprinkler system is a complete automatic wet system with (2) 4" risers and a 4" storz fire department connection. A 50 hp electric fire pump was installed to boost municipal water pressure. Expected useful service life for the installed electric fire pump is 25 years.

The sprinkler piping system throughout (except where building renovations required sprinkler piping modifications) is vintage to the original building. The expected useful service life for installed sprinkler piping is 40 years.

It is recommended to provide an allowance to hire a Fire Sprinkler Consultant/Designer to perform an in depth analysis of the existing system. Given the that the system is beyond the useful service life, especially the service entrance and fire pump, and that Hazard occupancies may have change thru renovations, it could require a complete redesign and a complete new NFPA 13 automatic sprinkler system installation.



Fire Sprinkler Entrance With Pump

Plumbing Systems Analysis

The domestic water enters the facility as a 3" service in the boiler room of (B) Building. The service is protected by (3 parallel) RPZ style backflow prevention devices that appear to meet current code requirements.

Domestic hot water for the facility is generated by an Adamson Global Industries vertical hot water maker, also located in the boiler room, which incorporates both a steam heater and an electric immersion heater. During the heating season, the domestic water is heated via the steam boilers and in the off heating season, with the steam boilers off line, electricity is used to heat the water. Electric heater is sized at 36 KW. This heater appears fairly new, not original to the facility and in good overall condition. There are no reported problems with hot water capacity. HW recirc pump operates to maintain temperature setpoint.

Plumbing piping consists of copper and cast iron for the original building, and copper and PVC in areas that had renovations. Storm water and sewer are separated systems.

Natural gas services the building; entrance is at boiler room.

Plumbing fixtures are in good operating condition and well maintained. Most fixtures are low flow type, vitreous china. Water coolers are ADA bi-level with integral bottle fill. Some original fixtures, such as janitor sinks are vintage.

Plumbing sanitary, vent, and rain water piping consists of cast iron original building. Water distribution piping is copper. Most piping is in fair to good condition, however the 1970s piping systems are beyond their useful service life of 30 years.

CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL

Where the original piping systems are beyond their useful service life, it is recommend to replace the piping systems before they start to fail. Install new PVC piping for Sanitary, vent and rainwater piping systems and new copper piping for CW & HW distribution systems; the copper piping will have lead free solder, a current code requirement.



Domestic Water Entrance



Domestic Water Heater & Storage



Recent Fixture Upgrades



Vintage Domestic Water Piping

Mechanical Systems Analysis

Heat for the entire facility is provided by a low pressure steam distribution system. The steam is generated by a pair of HB Smith, 17 section 650 Mills Boilers each sized at 5,333,900 BTU/hr. The boilers are original to the facility, of 1976 vintage, but have recently had new burners installed to fire natural gas, in lieu of oil as originally designed. The expected service life of cast iron boilers is 30 years, assuming annual maintenance. The 20,000 gallon fuel oil tank has recently been abandoned, cleaned, and filled with flowable fill. Condensate is returned from the facility via a system of both above ground and below ground condensate piping to a central Hurst boiler feed tank/pump unit, installed a few years ago to replace the failed feed unit. Combustion air is provide thru louvers and high-low ductwork; it was not determined if the opening sizes meet current code requirements for the existing boiler plant.

Steam heating is provide to buildings A & B via original vintage steam and condensate piping systems. Typical expected service life of heating piping systems is 30 years.

Building B (PATHS) is most all original vintage rooftop and indoor H & V systems that had an expected service life of 20 to 25 years. All other indoor terminal heating (fintube & convectors) and classroom type unit ventilators are original vintage that had an expected service life of 20 years.

Building A (CBHS & PATHS) classroom and trade spaces, and throughout the second and third floor areas, utilize floor mounted unit ventilators and supplemental steam radiation for heating and ventilating, with no mechanical cooling. The China Math and Humanities Classroom (Room 320) on the third floor, is served by a Trane Precedent packaged rooftop HVAC unit, sized at 8 ½ ton, which provides space conditioning throughout. The unit incorporates a DX refrigerant coil for cooling and a duct mounted steam coil, located in the ceiling space of the classroom, for heating. All other

RTUs are sized and configured to provide zoned air conditioning based upon both space function and exposure. The north and south interior functional spaces each have their own unit as do the north-west and southwest perimeter zones. The units are Trane Precedent series, sized at 7 ½ and 8 ½ tons, and the perimeter zone units are sized at 6 and 7 ½ tons. Packaged roof top AC units (RTUs) have and expected service life of 15 to 18 years.

The Tel/Data room (IT Tech) on the third floor is served by, primarily, a recently installed Data Aire split system computer room air conditioner, with i9ts condenser located on the roof above. A second, split system air conditioner, manufactured by Trane, exists in the room and is reported to provide back-up cooling for the space. This latter system appears to be original to the facility. Both systems appear to be sized at 10 tons of cooling.

The second floor Common Space (formerly the Library Suite) is served by several systems, all of which appear to be original to the facility construction. In addition to the split system AC unit, there is a heating and cooling unit ventilator at the exterior wall of the Great Room which provides space ventilation as well as heating, via a unit mounted steam coil, and supplemental cooling via an on board DX coil. Relief air is ducted up to the roof via a centrally located duct chase.

The original unit ventilators continue to provide space heating and ventilation throughout the functional spaces, controlled via pneumatic wall mounted thermostats, relocated to facilitate past renovations. This original ventilating and heating equipment had a service life of 20 years.

The temperature controls for A & B buildings are mostly pneumatic with some DDC electric/pneumatic upgrades; typical expected service life of pneumatic controls is about 20 years.

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Most all HVAC systems, boiler plant, piping distribution systems, and temperature controls are beyond their expected service life with the exception of a few packaged RTUs on building A roof which are anywhere from recent replacements to RTUs at mid-life. It is recommended to replace the existing heating plant, distribution piping systems, H & V equipment, and heating terminals with new hot water heating equipment and piping. Where natural gas already exists at the building a condensing boiler plant with VFD hot water pumps would provide the most efficient heating system. Replace existing UVs and roof top H & V units that serve Building B with new ERUs and low temperature fintube as a cost effective option. New direct fired gas MUA units will provide makeup air to the shop spaces in lieu of MUA units with HW coils that require freeze protection. The building requires complete new DDC electric temperature controls system with graphics that will integrate with City's front end components.



Existing Steam Boilers



Boiler Feed System



Building B AHUs in Penthouses



IT Dedicated AC Unit



DDC & Pneumatic Controls



Typical Class Style UV

Electrical Systems Analysis

Electrical System Distribution

The service is underground, with a primary feeder from overhead utility lines terminating at a utility-owned pad-mount transformer. The service entrance conductors from the transformer are building wire in underground conduit and terminate at a 1976 vintage, 3000-amp, 480/277-volt 3-phase, 4-wire GE fusible switchboard with a ground-fault protected main fusible switch. The switchboard is at the end of its anticipated useful life. We recommend performing an infra-red scan of the service equipment to assess condition of contacts and terminations. In the longer term, the equipment and service entrance conductors should be replaced.

Branch-circuit panels are mostly old GE panelboards. A couple of light-commercial-grade load centers have been added, as well as few modern panelboards in the CBHS area, but the majority of the panelboards have exceed their anticipated useful lives.

The school is equipped with two emergency generators. One is a diesel Cummins unit that was installed in 2010 to serve the Emergency Operations Center (EOC). The other is an 85-kW diesel Pincor unit that appears to be original to the building and has failed. The failed unit was connected to serve the building's heating plant, fire pump, and emergency egress lighting in many areas. Considering that the 85-kW Pincor Generator is essential to operation of life-safety systems in many areas, we recommend immediately replacing it and its associated automatic transfer switch.

Based on what can be seen from a visual inspection, wiring throughout the building appears to be a mixture of building wire in conduit and MC cable, although some type SER cable has also been installed. The wiring varies in age and condition as

CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL

the program has evolved since the building was originally constructed, but most of the wiring in the PATHS area is at the end of its anticipated useful life.

Receptacles appear to be located appropriately for the current program.



Service Entrance Switchboard



A typical Original Panelboard



A Newer Panelboard in the CBHS Area



An Old Panelboard that Once Experienced a Fault



Failed Pincor Generator



2010 Emergency Generator Serving EOC

Interior Lighting

Interiors areas throughout the school are illuminated by various styles of fluorescent fixtures. Installed fixtures include lens troffers, recessed fixtures with parabolic diffusers, recessed high-performance fluorescent fixtures, surface mounted wraparounds, pendant linear luminaires with industrial diffusers, fluorescent high-bay luminaires, and strip fixtures. Most types utilize T8 lamps, although T12 lamps are still in use in some areas. In many Shop areas of PATHS, T8 fluorescent Instant-start ballasts are in use with occupancy sensor control, resulting premature lamp failure. Lighting throughout should be updated to LED with high performance optics as part of any planned facility renovations. Except for some recently-renovated areas of CBHS, the fixtures are generally at or near the end of their anticipated useful lives. All existing fixtures will reach the end of their anticipated useful lives within 20 years.



Recessed Parabolic Fixtures in CBHS Assembly Area



A CBHS Classroom with Recessed High-Performance Luminaires



Industrial Fluorescents at PATHS

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Exterior Lighting

Exterior lighting is a mixture of old HID site pole lights and recently installed LED pole lights and wall packs. The city is currently in the process of replacing old HID pole lighting with LED. Approximately 15 pole light have not yet been updated. We recommend replacing the remaining HID pole lights with LED.



LED Wall Packs

Emergency Lighting System

Emergency lighting is provided by emergency battery units in some areas, but other areas currently have no functioning emergency lighting due to the failed emergency generator. Exterior areas of exits do not have emergency lighting. Exit signs with are appropriately located to mark means of egress, although some units currently have no emergency power source due to the failed emergency generator. All existing units will reach the end of their anticipated useful lives within 20 years. As stated in the "Electrical System Distribution" section of this report, the failed emergency generator should be replaced immediately in order to provide functional emergency lighting for all areas. We also recommend providing emergency lighting at exterior of building exits.



A Combination Exit Sign/Emergency Lighting Unit



An Exit Sign that is Not Currently Working

Fire Alarm System

The fire alarm control panel is a 1980's vintage conventional zoned FCI control panel. The system does not monitor the fire pump, and does not monitor various sprinkler system zones separately. Occupant notification in the shop areas does not comply with current standards. We recommend providing a complete new addressable fire alarm system.



Fire Alarm Control Panel and an Obsolete Strobe



A Newer Notification Appliance

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 2" conduit that originates at the utility riser pole. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging is provided by Atlas Sound amplifiers that are integrated with the VOIP phone system.

Data service is an overhead fiber optic cable that terminates in a storage room on second floor. Intermediate distribution frames (IDF's) are located in shared areas that do not provide adequate space dedicated to telecommunications. In some areas, old data cables were abandoned in place when the cable plant was updated. WIFI is available throughout the school. We recommend provide dedicated spaces to house terminations and equipment and providing cable pathways and infrastructure in accordance with BICSI standards.

Classrooms are equipped with ceiling mounted projectors in classrooms.

CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL



Fiber Optic Entrance Backboard

Security Systems Analysis

The intrusion alarm is a GE system that is not integrated with district-wide network. Separate controls panels are installed in buildings 'A' and 'B'. There is no panic alarm system. The intrusion detection system should be updated to a system that is integrated with the district-wide network system.

Access at the main entrance is controlled by electrically operated door hardware controlled at the main office, which has a direct line of sight to the entrance. Other selected entrances have access control keypads.

The school is equipped with a security camera system that consists of twelve cameras that cover both interior and exterior areas and are connected to the district-wide network. The cameras are web-based but not directly accessed by police. Recorded video can be transmitted via email.



An IDF Where old data cable were abandoned when an update was completed.



An Intrusion Alarm Keypad



An Access Control Keypad

CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL

SITE ANALYSIS



CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL
FIRST FLOOR PLAN



CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL
SECOND FLOOR PLAN



CASCO BAY AND PORTLAND ARTS & TECHNOLOGY HIGH SCHOOL
THIRD FLOOR PLAN



DEERING HIGH SCHOOL



Aerial View



Main Entry

General Building Data

Address:	370 Stevens Avenue, Portland, ME
Serving Grade Levels:	9 - 12
Number of Students:	943
Number of Faculty and Staff:	136
Original Construction Date:	1923
Date of Addition(s):	1982
Building Age:	93 Years
Building Footprint:	67,000 Square Feet
Number of Stories:	4
Building Area:	173,000 Gross Square Feet
Total Site Area:	18.7936 Acres (additional rec fields 6.8154+0.6528)
Zoning Designation:	R5 Residential / ROS Recreation Open Space

Overview

Deering High School was established in 1874 after Deering, Maine seceded from Westbrook, Maine in 1871. It is named after the town of Deering, which was later annexed by the City of Portland in 1898. The first Deering High School building eventually became Longfellow Elementary. The second building was completed in 1889. It burned down in 1921, but was rebuilt in 1923. An addition was constructed in 1982.

The only sprinkler system is a wet system serving the lobby area in the 1982 addition. It was stated by the School Facilities Manager that a new automatic sprinkler system with 100% coverage is planned for installation next year (2017).

Plumbing piping systems are comprised of some original vintage with most from 1970’s and 80’s renovations. Plumbing fixtures have been upgraded recently.

With the exception of the steam boiler plant (replaced new boilers 2014 less the boiler feed pump unit) most all HVAC systems are original to 1970’s and 1980’s era.

Site Analysis

Deering High School and associated athletic fields are located on three parcels of land making up a total of 26.3 acres within the R5 Residential and ROS Recreation Open Space zones.

Accessibility

No primary ADA access. ADA parking is not compliant.

Circulation

Deering High School is accesible via Stevens Avenue and Ludlow Street. Buses drop off along Stevens Avenue (Parent drop off?). Good fire lane access along 3/4 of building.

Safety/Security

Students observed entering through mutiple entrances with no security check.

Recommendations

- Handrail replacement and reconfiguration needed at the rear stairwall nearest the Ludlow Street parking lot.
- Handrail installation needed on stairs at north side of the building.
- Update grade, signage, striping, accessible route, etc. to bring ADA parking into compliance.
- Adjust ADA ramp at rear of building to reduce the ramp lip to 1/4” or less.
- Install detectable warning panels at Ludlow Street parking lot.
- Bollards at rear of building to be replaced.
- Mill and repave parking lot off Ludlow Street and pave “Permit Parking” spaces.
- Replace sidewalk in front of school south of the patio circle.
- Install wheel stops in staff parking lot at building and along grassed/sidewalk at faculty/stu-

DEERING HIGH SCHOOL

- dent parking in rear.
- Install Compact Parking signage as appropriate.
- Consider installing sidewalk along south side of building.
- Install sidewalk connectors from Faculty/Student parking to sidewalk.
- Install catch basin and connect to existing drainage to resolve ponding near dumpsters.
- Adjust catch basin covers in Faculty/Student parking lot to grade and patch pavement.
- Install screening around dumpster. Recommend swapping dumpster and recycle area with facility maintenance parking.
- Re-establish grass area between Deering High School and Longfellow Elementary School.
- Paint flagpole.
- Install additional lighting around building.
- Install splash blocks at down spouts.

Structural System Analysis

Deering high school is comprised of two buildings:

- Original building circa 1922 (with small expansion later extensions). Partial drawings available.
- 1982 Addition containing some classrooms, the gymnasium, the cafeteria, and the library. Partial drawings available.

Structural System Description:

Original building:

- Foundations: expected to be cast in place concrete. Top of perimeter wall visible in several locations around the perimeter. Below the auditorium concrete piers are visible.
- Ground floor slab: Expected to be concrete slab on grade (not visible, covered in floor finishes)
- Elevated slabs: 3½in concrete slab spanning to one way concrete ribs bearing on masonry walls except in the corridors where the slab is a 6 in. one way slab. In some areas (including below the auditorium) the concrete ribs span to concrete beams supported on concrete piers or lally columns.
- Roof construction:

- flat areas: similar to floor construction
- Pitched roofs: wood planks bearing on wood rafters supported by a wood beams and posts. The framing was reinforced at the beam to column connections and with new steam walls.
- Roof over the central portion and above the north wing west end are steel framed (the north wing with trusses)

1982 Addition:

- Foundations: expected to be cast in place concrete. Top of a perimeter wall visible in several locations around the perimeter
- Ground floor slab: Expected to be concrete slab on grade (not visible, covered in floor finishes)
- Elevated slabs: concrete slab on metal deck bearing on bar joists spanning to steel beam and HSS columns.
- Roof construction:
 - Low roof (gymnasium): planks bearing on long-span joists bearing on steel beams and steel columns.
 - High roof: 1½ in metal deck bearing on steel joists spanning to steel beams and columns.

Lateral Framing Resisting System:

- Original building: assumed to be mass masonry walls.
- 1982 Addition: (not observed) assumed to be brace frames.

Exterior Wall System Description:

- Original building: mass masonry/brick walls with some terracotta tiles (covered on the inside with plaster).
- 1982 Addition: brick veneer. Back up varies between CMU and LGMF.

Structural Conditions and Concerns:

- Boiler Chimney



Boiler chimney



Site wall



Site wall



Lintel condition



Site wall



Cast stone condition

DEERING HIGH SCHOOL



Lintel condition



Spalling concrete



Water damage



Exterior column

Fire Protection Systems Analysis

The only building sprinkler system coverage is a wet riser that serves the lobby area in the 1982 addition. The 3" sprinkler entrance is located adjacent to the water entrance located in the basement of the original building (original locker room).

It was stated by the School Facilities Manager that a new automatic sprinkler system with 100% coverage is planned for installation next year (2017).



Fire Sprinkler Entrance



Indirect Steam DWH and Storage Original Bldg

Plumbing Systems Analysis

The building has a municipal water service as well as municipal sewer. The 3" water entrance has a testable double check backflow preventer that appears to be era 1980's. Domestic hot water serving the original building is provided via indirect steam water heater/storage (1960's? era) and end of is useful service life. There is a master DHW mixing valve and recirculation pump. The addition has a (1,000 gal) indirect water heater via boiler water during heating season and (2) 40 gallon electric water heater during summer season. The indirect water heater and (3) mixing valves are 1982 vintage and the electric heaters are 2011 vintage.

The water distribution and sanitary piping throughout the rest of the building is mainly 1970s and 1980's with some vintage and appear to be adequate although at the end of their service life; consideration of complete replacement would depend on rate of piping failures or pending building renovation projects.

Plumbing fixtures have recently been updated to low flow fixtures in kind.

Natural gas entrance located at the boiler room serves the boilers and kitchen equipment.

The existing plumbing systems are mostly in good operating condition and maintained. The original building indirect steam to DHW maker/storage unit is past its useful service life and requires replacement. A new indirect DHW maker/storage (500 gal) unit will include controls and a new dedicated condensate return unit. The addition DHW mixing valves and vertical indirect heater/storage are 35 years old are beyond their useful life and should be replaced before a major failure.

DEERING HIGH SCHOOL



Plumbing Fixture Upgrade



Indirect DWH and storage Addition



DHW Mixing valves Addition

Mechanical Systems Analysis

The heating plant is comprised of (3) new Hurst Firetube Series 500 boilers recently replacing the existing steam boilers in 2014. The new boilers have a gross output of 2,678 MBH per boiler. The fuel source is only natural gas where the fuel oil system has recently been removed. The boiler combustion air is supplied via a Tjernlund variable speed combustion air fan installed around 2011. The boiler feed pump tank unit is beyond its useful service life and is in need of replacement due to ongoing leaks and repair.

The heating plant serves the original building steam unit ventilators, radiation, and indoor AHUs with steam coils. It also serves the 1982 addition steam to heating hot water heat exchanger located in the boiler room. Constant volume lead/lag B&G pumps, appear to be 1982 vintage, circulate the reset hot water (via 3-way mixing valve) throughout the addition. The HW supplies radiant, CUHs, unit ventilators, as well as (2) roof top ERUs that serve the gym and weight room.

Controls serving the heating system and equipment is mostly pneumatic with little DDC electric.

The existing HVAC systems in general are in fair to good operating condition, however most equipment, except the boiler plant, is beyond its useful service life and in need of replacement. How and when to replace the equipment depends on whether there are planned building renovations or replace systems as a major HVAC upgrade. One recommendation is to convert the original building to heating hot water which will replace the aged equipment and steam / condensate piping. Steam piping controls and traps have been maintained but piping failures may increase in the near future. If converting the original building to HW is a potential upgrade in the near future, then it is recom-

mended to not replace the AHUs and terminal equipment where it would have to be replaced in the HW conversion. Also, AHU systems will most likely change to more efficient systems such as ERUs for 100% ventilation air ducted directly to occupied spaces and the space heating by fin tube radiation or other terminal heating units.

Options for the addition upgrades would be to replace systems such as the gym H&V units with a single rooftop unit and combination ERU module with economizer cooling ability and replace the weight room rooftop ERU with new in kind. Both of these systems are in currently in need of repair and beyond their useful service life. Other systems serving the addition locker rooms, cafeteria, admin could have in kind upgrades with OA ventilation brought up to current codes.

Temperature controls are aged and beyond their useful service life and should be replaced with DDC electric controls in the near future. A controls upgrade could be coordinated with the HW conversion project or possibly beforehand if coordinated for future basis of design air handling systems.



New (3) Steam Boilers



Vintage Boiler Feed Pump Unit



ERU Serving Weight Room

DEERING HIGH SCHOOL



AHU Serving Band Room



Vintage Pneumatics Addition



AHU-11 Serving 1st Flr Adjacent to Boiler Rm

Electrical Systems Analysis*Electrical System Distribution*

The building receives underground primary electrical service to a utility transformer vault located in the building. The vault was not accessible at the time of our visit as it requires utility company presence to access, but the current arrangement with a transformer vault located within the building is an obsolete design. The service from the utility transformers is rated 1600 amps at 208/120V 3-phase, 4-wire and terminates at a 1983 vintage GE switchboard located in an electrical room adjacent to the vault.

The existing service entrance switchboard is near the end of its anticipated useful life, but the actual useful life of this type of equipment can vary widely depending upon conditions at a particular site. Considering the age of the switchboard, an infra-red scan of the equipment is recommended in order to assess the condition of its contacts and terminations. In the longer term, we recommend updating the service to a pad mounted utility transformer arrangement and upgrading the service to 480/277V as part of any planned facility renovations; this work should include providing a separate utility electric meter for the leased cellular equipment area in the attic.

Branch-circuit panels throughout the building are primarily a mixture of Square D panelboards that were installed in the Summer of 2016 to replace obsolete panelboards and 1983 vintage GE panelboards that are nearing the end of their anticipated useful life. It appears that the new panels were connected to the existing feeders. A couple of obsolete panelboards remain to be replaced. Light-commercial-grade load centers are in use in the MDF room, the leased cellular phone equipment room in the attic, and the Boiler Room. Some corridor panelboards are mounted higher than would

be permitted by current code.

The anticipated useful life of branch-circuit and distribution panelboards is generally considered to be 30 years, although many environmental factors such as cleanliness, moisture, salt content, and temperature can impact the actual performance life of circuit breakers and electrical equipment. It is very common for electrical equipment to remain operational and in use for significantly longer. The biggest concern regarding older panelboards is whether or not the circuit breakers will operate as designed in the event of a fault in the circuit. While circuit breakers can be tested, the testing is generally more costly than simply replacing the circuit breakers when dealing with branch-circuit and smaller distribution-type devices. The 1983 vintage panels and light-commercial-grade load centers should be replaced with modern panelboards. Panelboards that are mounted higher than permitted by NEC should be relocated.

The 1983 Addition is supplied by a feeder from the main switchboard. The feeder voltage is stepped up to 600V via a 300kVA transformer located in the main electric room, then stepped back down to 208/120V via a second 300kVA transformer located in the 1983 building electric room. We expect this arrangement was chosen in order to allow smaller conduits and wiring to be used for the feeder between the switchboard and the addition electric room. The transformers are at the end of their anticipated useful lives. We recommend deleting the 600V transformers and providing a 480V feeder to the 1983 building as part of the service entrance upgrades recommended above.

A small 2011 vintage Briggs & Stratton 240/120V single phase generator provides backup power to the Data Center via a residential/light-commercial grade combination automatic transfer switch/load center unit. This equipment is in good condition, but does not offer capacity to serve any building systems other than the data center it currently serves.

Based on what can be seen from a visual inspection,

branch-circuit wiring appears to be a mix of building wire in conduit and MC cable. The wiring varies in age and condition. Some very old cloth covered wire in conduit was noted at an open junction box in the attic. It was also noted that extension cords are in use in the boiler room for chemical feed pumps due to the receptacles intended to serve the pumps being improperly located. Abandoned wiring was observed at a wall abutting the electric room and in the attic above the old gymnasium. Any cloth wiring that remains should be updated to modern type THHN/THWN building wire in conduit or MC cable. Abandoned wiring should be removed. Receptacles should be located appropriately to eliminate the need for extension cords.



Typical 1983 vintage branch-circuit panelboards

DEERING HIGH SCHOOL



Typical Square D panelboard installed to replace an obsolete panelboard.



Generator serving data center



A very old, obsolete light switch in attic. Wiring is presumed to be obsolete cloth-covered conductors.



A new panelboard adjacent to an old load center in boiler room.



Combination automatic transfer switch/load center



Old lighting and wiring abandoned in attic above old gym



An obsolete panelboard. Most of these have been replaced, but a couple remain



Junction box in attic containing old cloth-covered wiring as well as modern wiring.



Gym lighting

Interior Lighting

Classroom lighting is primarily a mix of recessed lens troffers and surface mounted wraparound style fluorescent fixtures, but old louvered linear classroom fixtures remain in some rooms. Offices, corridors and toilets are illuminated by a mix of recessed lens troffers and wraparound fluorescent fixtures. Mechanical and storage areas have a mix of fluorescent strips, wraparounds, and industrial fixtures. Fixture in all of these areas utilize T8 lamps. We recommend updating the lighting in all of these areas to LED with high performance optics as part of any planned facility renovations.

Auditorium performance lighting uses modern 2012 vintage LED theatrical fixtures, but the house lights are very old pendant fixtures. Theatrical dimming control is provided by ETC Smartpack dimmers that are relatively new but are not mounted in an appropriate rack. We recommend updating house lighting fixtures and providing a suitable rack for theatrical dimming controls.

The Gym is illuminated by T8 Fluorescent high-bay luminaires. The Illumination level is approximately 17 footcandles average at 3' above the playing surface. The IES recommended illumination level for high-school basketball and volleyball with some spectator capacity is 50 fc average at 3' above the playing surface. The gym lighting should be updated to LED fixtures that provide illumination levels as recommended by IES.

DEERING HIGH SCHOOL

*Wraparound classroom lighting**Obsolete louvered fixtures in fitness room**Classroom with lens troffers**Corridor lighting**Auditorium theatrical dimmers***Exterior Lighting**

Pole-mounted lights are leased from the utility company. Building mounted lighting is mostly LED wall packs with full-cutoff optics, although some HID or compact fluorescent outdoor lighting remains, such as at the main entrance. Some walkways and outdoor areas do not appear to be illuminated to levels recommended by IES. We recommend updating remaining HID or compact fluorescent lighting to LED with full cutoff optics as existing units fail and adding outdoor lighting to provide illumination as recommended by IES.

*Main entrance and wall pack lighting**Combination exit sign/emergency lighting unit with integral LED heads***Emergency Lighting System**

Emergency battery units with integral and remote heads provide emergency lighting for means of egress. The heads are a mixture of LED and incandescent. There is no emergency lighting at the exterior of exits. The LED emergency lighting units are in good condition and offer more than 10 years of anticipated useful life provided they are properly maintained and batteries are replaced as needed. Older incandescent units should be replaced with modern LED units as they fail. Outdoor emergency lighting should be provided at building exits.

LED illuminated exit signs with integral battery backup are located appropriately for most exits, although some exits have signs that are not illuminated in the lower level fitness area. We recommend adding LED illuminated exits with integral battery backup in lower level fitness area.

*Incandescent emergency light heads and non-illuminated exit sign*

DEERING HIGH SCHOOL

Fire Alarm System

The fire alarm control panel is a 1980's vintage conventional zoned panel that is obsolete. Heat detectors protect most areas, although some attic spaces that have no sprinkler protection also have no automatic fire detection. Many manual pull stations are not located as would be required by current code. Occupant notification generally does not comply with ADA or current standards. The system should be updated to a fully addressable system.



Fire alarm control panel



Pull station located too far from exit – a common condition in this building.

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 4" conduit that terminates at the Data Center on the ground floor; it is not clear where this conduit originates at the street. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via a TOA 900 series amplifier. The VOIP phone system is utilized for intercom. The system is relatively new and in good condition.

The school is equipped with a Dukane master clock, but non-system battery clocks are in use in many areas due to satellite clock failures. A network-connected programmable relay operates program bells. The clock system is obsolete but the programmable relay that operates the bells is relatively new and reportedly meets the district's need well. We recommend utilizing battery clocks or wireless synchronized clocks over replacing the master clock system.

Cable (& Service)

Deering High School is one of the core locations on the City's wide area network. The network core and Main Distribution Frame (MDF) are located in the Data Center on the ground floor. Fiber optic data service to the building is installed in an underground 4" conduit that terminates at the MDF; it is not clear where this conduit originates at the street. There are five intermediate distribution frames (IDF's) located throughout the school. Some of the IDF's are located in spaces shared with storage or other program uses, but the terminations and network equipment are housed in enclosed cabinets.

WIFI connectivity is available throughout the school.

Approximately half of classrooms are equipped with ceiling mounted projectors. The remainder utilize projectors on carts. We recommend providing projectors or wall mounted monitors in all classrooms.



MDF



IDF #5 – typical enclosed IDF cabinet



MDF and network core equipment in enclosed cabinets in data center.

DEERING HIGH SCHOOL

Security System Analysis

The intrusion alarm system consists of a 2012 vintage Bosch networkable control panel with alarms initiated by wireless motion detectors. The system is integrated with the district-wide network. The building is not equipped with a panic alarm. The system is in good condition and well within its anticipated useful life. The Data Center has separate keypad for access control. Card readers are in used for access control at some building entrances.

The school is equipped with (20) power-over-ethernet (POE) network cameras that cover both interior and exterior areas. The system is web based and saves approximately 30 days of video to a network Digital Video Recording (DVR) System.

Access control at entrances is provided by (5) video intercom door stations that communicate with (3) network phones located in the Security Office, the Main Office, and the AP Office. Video is saved to the DVR system.



Security keypad at Data Center



Network video phone



Security camera at main entrance



Video intercom and card access at entrance near 1983 addition.

DEERING HIGH SCHOOL
SITE ANALYSIS

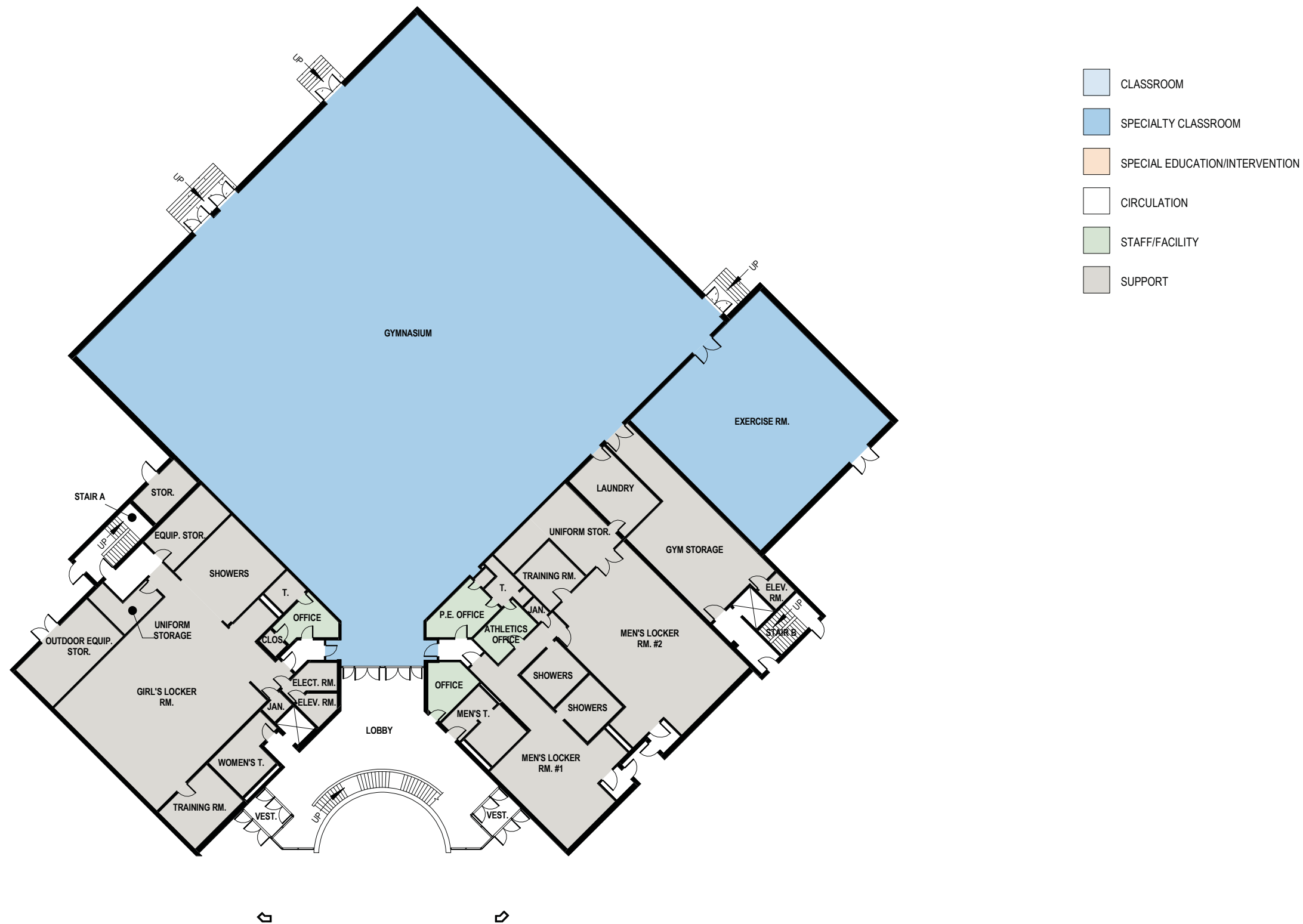


DEERING HIGH SCHOOL

GROUND FLOOR PLAN (ORIGINAL BUILDING)



DEERING HIGH SCHOOL
GROUND FLOOR PLAN (ADDITION)

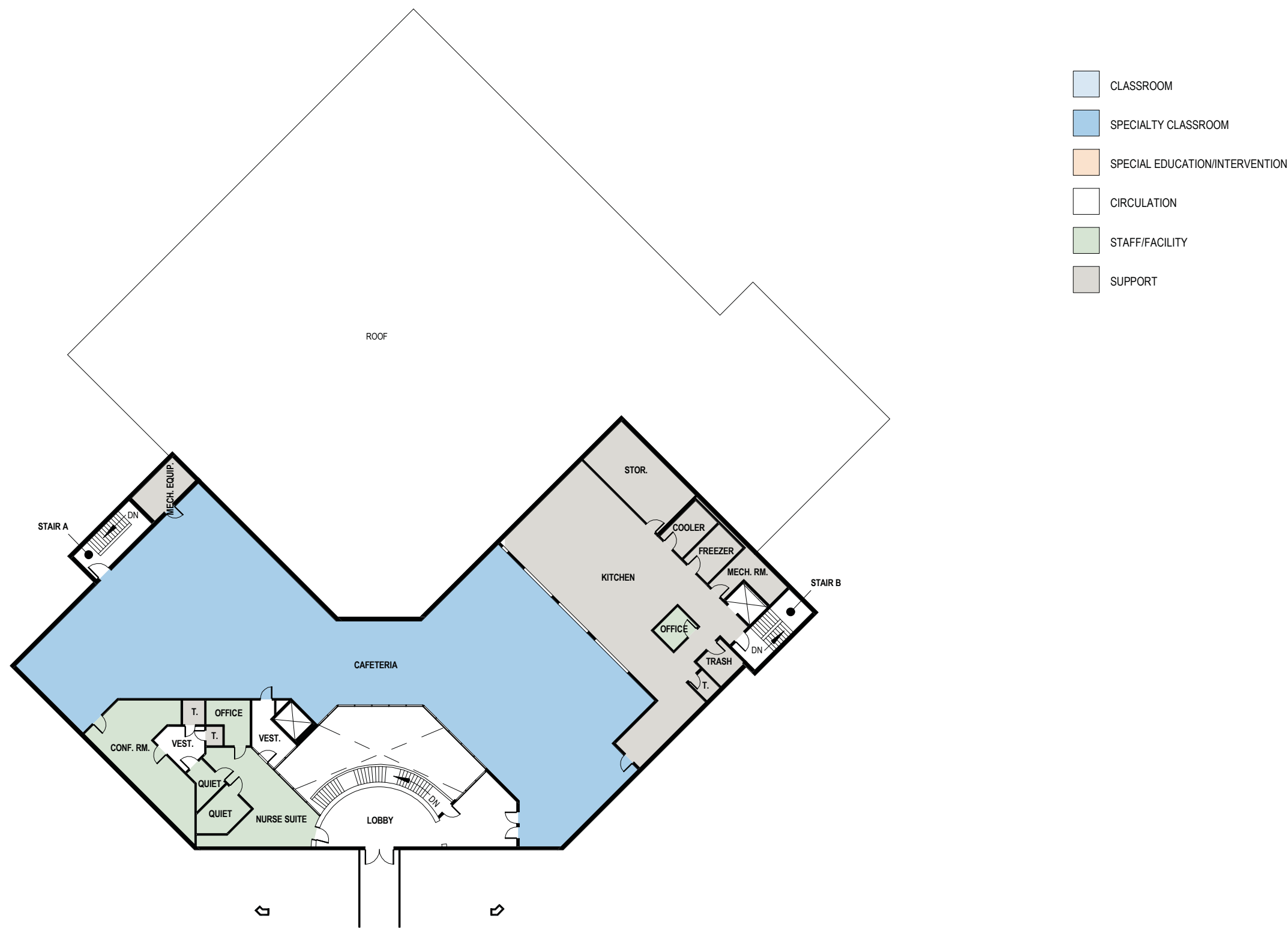


DEERING HIGH SCHOOL

FIRST FLOOR PLAN (ORIGINAL BUILDING)



DEERING HIGH SCHOOL
FIRST FLOOR PLAN (ADDITION)



DEERING HIGH SCHOOL
SECOND FLOOR PLAN (ADDITION)



PORTLAND HIGH SCHOOL



Aerial View



Main Entry

General Building Data

Address:	282 Cumberland Avenue, Portland, ME
Serving Grade Levels:	9 - 12
Number of Students:	738
Number of Faculty and Staff:	85
Original Construction Date:	1867
Date of Addition(s):	Additions 1923, 1990
Building Age:	149 Years
Building Footprint:	64,868 Square Feet
Number of Stories:	5
Building Area:	250,580 Gross Square Feet
Total Site Area:	2.6765 Acres (additional 0.5471 Parking Garage)
Zoning Designation:	B3 Downtown Business

Overview

Established in 1821 originally as a boys’ school, Portland High School claims to be the oldest public high school still operating in the United States. A separate school for girls was added in 1850, and in 1863 the school moved to Cumberland Avenue, its present location. The original school building on that site, which is now the middle wing of the modern school, was originally divided into two by a brick wall running from top to bottom of the building to divide the girls from the boys. Much of the wall has been removed, but its remains can still be seen in the basement. The school was added to the National Register of Historic Places on November 23, 1984.

In 1990 a new annex was opened containing more classrooms, a cafeteria, a theater/auditorium and an athletic facility.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25, the exact age of the system was not determined but believed to have been installed during the 1990 addition.

Plumbing piping systems are comprised of original vintage as well as 1990’s vintage. Plumbing fixtures have been upgraded recently.

With the exception of the hot water boiler plant (replaced boilers 2011) most all HVAC systems are original to 1990 major addition.

Some of the power distribution system is at the end of its anticipated useful life. The remainder will reach it’s the end of its anticipated useful life within 15 years. Most interior lighting fixtures are at the end of their anticipated useful lives.

Site Analysis

Portland High School is located on a 2.7 acre parcel of land within the B3 Downtown Business zone.

Accessibility

ADA accessibility is poor. There is one, possibly 2 poorly defined ADA parking spaces at the single ADA accessible entrance. ADA ramp is not compliant.

Circulation

Portland High School is accessible via Cumberland Avenue and Chestnut Street. Faculty and staff park in the neighboring parking garage and there is a limited amount of visitor parking along the street. Buses drop off on Chestnut Street and parents drop off on Cumberland Avenue.

Safety/Security

The failing railing and retaining wall are a safety concern. The railing is in desperate need of replacement and the retaining wall needs to be replaced or braced to avoid collapse into the building.

Recommendations

- Remodel or replace ADA ramp at entrance with a landing which meets ADA requirements of a minimum of 60” X 60”.
- Define ADA parking space(s), paint and stripe and sign appropriately.
- Delineated pedestrian walkway and parking in alley between PHS and Church.
- Repair or replace spalling concrete curb.
- Enforce no parking rules at loading dock.
- Install trash and recycling receptacles around exterior of school.
- Replace decorative fencing throughout site.
- Replace failed railing and replace or brace leaning retaining wall.
- Install bike rack(s).

PORTLAND HIGH SCHOOL

- Repaint or replace flagpole.
- Patch new pavement to resolve puddling.

Structural System Analysis

Structural System Description:

Accessible structure limited to attic space. Multi wythe brick masonry walls with terracotta flat arch floors spanning to steel or iron beams. Riveted steel or iron trusses noted in some locations in attic. At center spine, steel or iron girders with timber filler beams & wood decking. Evidence of prior fire. Repaired roof decking locations at wood roof area.

Lateral Framing Resistance System:

Unreinforced brick masonry walls at exterior with topped terra cotta floor acting as diaphragms. Historic LFRS may be considered obsolete by modern standards but appropriate based on age of building.

Exterior Wall System Description:

Multi wythe brick masonry walls; probably some structural terra cotta walls; flat brick arches over windows; red brick at central spine/yellow brick elsewhere. Elaborate corbelling and cast stone elements. Terra cotta cornices were likely replaced with GFRC in late 80's renovation (Bid Alternate, appear to currently be in good condition). Steel plate in window surrounds do not appear to have a structural function.



East entry



Retaining wall



Efflorescence



Lintel condition



Steps



Window lintel



Missing rivet



Steps

PORTLAND HIGH SCHOOL

Fire Protection Systems Analysis

The 6" sprinkler entrance (1990 circa?) is supplied by municipal water. The complete automatic sprinkler system is a combination of (2) 4" wet risers, (1) 3" dry riser, and a stand pipe riser. There is a 4" storz fire department connection. Fire sprinkler piping has an expected service life of 40 years and sprinkler heads have an expected service life of 25 years. If it is verified that the existing sprinkler system was installed around 1990 then replacement of the sprinkler heads would be required at this time.



Fire Sprinkler Entrance

Plumbing Systems Analysis

The building has a municipal water service as well as municipal sewer. The 4" water entrance has three testable double check backflow preventers in parallel. It is assumed that the entrance was upgraded during the 1990 addition, however there were major plumbing upgrades in the early 1970's at which time a new 8" sewer was added to the building. The water distribution and sanitary piping throughout the rest of the building is mostly 1970s and 1990's vintage. Typical expected service life for cast iron sanitary and rain water piping systems is 30 years; expected service life for copper HW & CW distribution systems is 30 years as well.

Domestic hot water is generated via (2) indirect 120 gallon super store (HTP mfg.) water heaters installed in 2011. The DHW system has a recirculating system as well as mixing valve stations. Typical expected service life for indirect water heaters is 15 years.

Plumbing fixtures have recently been updated to low flow fixtures in kind.

Natural gas entrance located at the boiler room serves the boilers and kitchen equipment.

The piping systems appear to be adequate although they are at or very near the end of their service life; consideration of complete replacement would depend on rate of piping failures or pending building renovation projects.



Domestic Water Entrance



Gym Drinking Fountain & Cuspidor 1990 circa



Recently Replaced Urinals & Flush Valves



Indirect Water/Storage Heaters

PORTLAND HIGH SCHOOL

Mechanical Systems Analysis

The existing central boiler plant consists of (4) Hydro-Therm KN-30 gas fired condensing hot water boilers installed in 2011, replacing the previous hot water boilers installed around 1989. Each boiler has its own injection pump to supply HW to the building HW loop. The gross heating output per boiler is 2,781,000 BTU/HR. Condensing boilers of this capacity have an expected service life of 25 years. Combustion air is supplied to each boiler from the boiler room via louvers.

Heating hot water is circulated throughout the building by (8) constant speed, base mount Taco pumps (mfg. 1989); each is sized at 310 gpm. Base mount pumps have an expected service life of 25 years.

Heating hot water (HW) is distributed throughout the building with schedule 40 steel piping (Victaulic fittings) and copper piping systems. There are (2) HW systems, (1) serves indoor H & V units, HW coils, and fintube with straight HW, and (1) system serves RTUs with glycol hot water (GHW) providing heating coil freeze protection. A plate and frame heat exchanger (rebuilt in 2014) provides the heat transfer between the plain HW and the GHW. The expected service life of the HW distribution piping is 30 years and 25 years for the water to water HX.

Ventilation air is supplied thru roof top units (RTUs) and indoor heating and ventilation units (H&Vs) in combination with inline or rooftop exhaust fans. Some RTUs and H&Vs provide space heating directly but most provide space heating thru VAV terminals with reheat. Typical expected service life for RTUs is 18 years depending on location, near the ocean environment for example. Typical expected service life for indoor H&Vs is 25 years. Typical expected service life for roof top exhaust fans is 20 years.

Space heating is provided to classrooms thru RTUs and H&V units with VAV terminals and reheat coils. Other spaces such as hallways, bathrooms, and vestibules are

heated by convectors, unit heaters, and fintube. Large spaces such as the gym or auditorium have dedicated single zone RTUs that provide heating. Most all of the terminal heating units have an expected service life of 20 to 25 years.

The building automatic control system (BAS) is comprised of DDC electric from the 1990s with upgrades continuing thru the maintenance program. Vintage hydraulic actuators are failing and leaking and being replaced with modern direct drive Belimo type actuators. The typical expected service life of DDC electric components is 20 years.

The existing HVAC systems in general (with the exception of the boiler plant) are in fair to good operating condition. However, most all RTUs, H&V units, and heating terminals are at the end of their useful service life. Portland Building Facilities personnel stated that the RTU coils are wearing thin from water velocity erosion which contributed to a recent coil failure. Glycol water sampling should be conducted to determine if water quality is causing tubing erosion/corrosion as well.

It is recommended to replace RTUs and H&V air handlers in kind with new efficient models with VFD fans. Other equipment such as VAV and duct coils should be replaced as well where they are at or beyond their useful service life.

Heating pumps are at the end of their useful service life and should be replaced with new efficient pumps that have VFD operation.

HVAC piping system prior to the 1990s addition and renovation should be inspected for leaks and integrity where these systems are beyond their useful service life. Replacement should be considered. HVAC exhaust fan systems that are beyond their useful service life should be replaced in kind as well as the potential to replace with ERUs if the additional cost of minor ductwork modifications is

offset by energy savings.

Most all of the BAS DDC systems is beyond the useful service life (other than components upgraded thru maintenance) and should be replaced with a new BAS. Install all 2-way HW control valves and provide VFD drives for new pumps and fan systems at time of BAS replacement to take full advantage of energy use savings.



Condensing Boiler Plant



Bank of Base Mounted HW Building Pumps



Unit Heater with Hydraulic Valve Actuator



1990s Vintage EF and RTUs



Leaking Actuator and Corroding Solder Joints

PORTLAND HIGH SCHOOL



Indoor H&V Unit with New Actuator

Electrical Systems Analysis

Electrical System Distribution

The service is underground, with a primary feeder from overhead utility lines terminating at a 1000 kVA utility owned pad mount transformer. The underground secondary from the pad mount transformer enters the building in what was once an interior transformer vault and is routed through the building approximately 20 feet before terminating at three 208/120-volt, 3-phase, 4-wire service disconnects located in basement. Service disconnect #1 is an early 1970's vintage 1200-amp GE circuit breaker that has exceeded its anticipated useful life. Service disconnects #2 and #3 are 1990 vintage 1600-amp Westinghouse fusible switches that are near the end of their anticipated useful lives. The ratings of the service disconnects combine to provide a total service capacity of 4400 amps. In the short term, we recommend performing an infrared scan of the service equipment to assess the condition of equipment contacts and terminations. When the equipment is replaced, the new equipment should be located nearest the point of entry of the service conductors.

The service entrance conductors will reach the end of their anticipated useful lives within 15 years. We recommend replacing the service entrance conductors when the service equipment is replaced.

There is also no grounding electrode system connection to the building's water main. The grounding electrode system should be connected to the metal underground domestic water entrance in accordance with code requirements; bonding for interior metal piping should also be provided in accordance with code requirements.

Branch-circuit and distribution panelboards throughout the building are a mix of early 1970's vintage GE panelboards and 1990 vintage Westinghouse panelboards. The 1970's equipment has exceeded its anticipated useful life. All panels will reach the end of their anticipated useful lives within 5 years.

Based on what can be seen from a simple visual inspection the feeders are building wire in conduit. Wiring should be replaced in conjunction with panelboard updates. All power distribution wiring will reach the end of its anticipated useful life within 20 years.

Branch circuit wiring is a mixture of building wire in conduit and surface metal raceway, and MC cable. Extension cords are in use in some areas due to a lack of appropriately located receptacles. We recommend adding receptacles and branch circuits to eliminate the need for extension cords; this work should be done in conjunction with power distribution updates.



Service Disconnect Switches



A Typical 1970's Vintage Panelboard



A 1990 Vintage Distribution Panelboard



Domestic Water Entrance with No Grounding Electrode Connection

Interior Lighting

Most interior areas are illuminated by fluorescent fixtures of various styles that utilize linear T8 lamps. Some corridors have schoolhouse style pendant fixtures that appear to be fitted with medium-base LED lamps. Auditorium house lighting is mix of Metal halide and incandescent recessed downlights. Stage work lights are incandescent. The main office has compact fluorescent downlights and wall sconces, as well as schoolhouse style pendant fixtures.

Most of the interior luminaires are at or near the end of their anticipated useful lives. The main office lighting provides illumination measured at approximately 7 footcandles average during our visit, which is significantly lower than IES recommendations of 30 footcandles for reading. Illumination in the Gym is also lower than IES recommendations, measured at approximately 20 footcandles average during our visit whereas IES recommendations 50 footcandles for high-school competitive play with a small number of spectators. Common area auditorium lighting is controlled only by circuit breakers, and the theatrical dimming racks are obsolete. We recommend updating lighting throughout the school to LED and fixtures with high-performance optics that provide illumination levels per IES recommendations. We also recommend updating the lighting controls throughout the auditorium area.



Main Office lighting

PORTLAND HIGH SCHOOL



Lighting in a Science Lab

Exterior Lighting

Site Lighting is provided by pedestrian-scale pole lights that do not have full-cutoff optics. Building mounted exterior lighting is a mixture of LED wall packs and High-intensity-discharge (HID) wall packs. The HID wall packs and pole lights are obsolete and should be updated to LED fixtures with full-cutoff optics. All existing fixtures will reach the end of their anticipated useful lives within 20 years.



Auditorium Performance and House Lighting



A Pole Light and Wall Pack

Emergency Lighting System

Emergency battery units with integral and remote incandescent heads provide illumination for means of egress. There is no emergency light at the exterior of building exits. LED illuminated exit signs with integral battery backup are appropriately located to mark means of egress. All existing units will reach the end of their anticipated useful lives within 20 years. We recommend updating the emergency lighting units to LED and providing outdoor emergency lighting at building exits.



Typical Emergency Lighting Battery Unit

Fire Alarm System

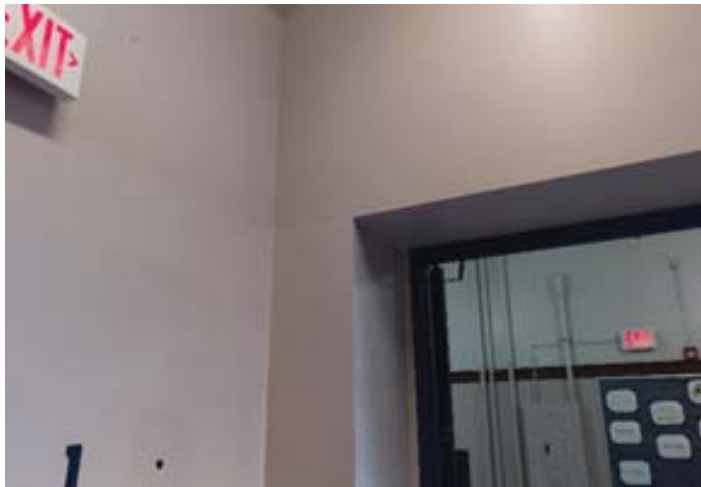
Fire alarm control panel is a recently installed addressable Silent Knight model 5820XL. Occupant notification and sprinkler system monitoring have been updated, but old initiating devices and zone wiring remain. Each old zone is monitored as an addressable point. Many old notification appliance backboxes are open; blank covers should be provided for old notification appliance backboxes. We recommended updating initiating devices and wiring to fully addressable.



A New Notification Appliance Adjacent to an Old Backbox



Gym Lighting



Typical Exit Signs



Fire Alarm Control Panel

PORTLAND HIGH SCHOOL

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is installed in an underground 4" conduit. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers are integrated with the phone system via 2015 vintage Peavey Architectural Acoustics paging amplifiers. The VOIP phone system is utilized for intercom. The system is relatively new and in good condition.

There is no central clock system. Battery clocks are in use throughout the school. A network-connected programmable relay operates program bells.

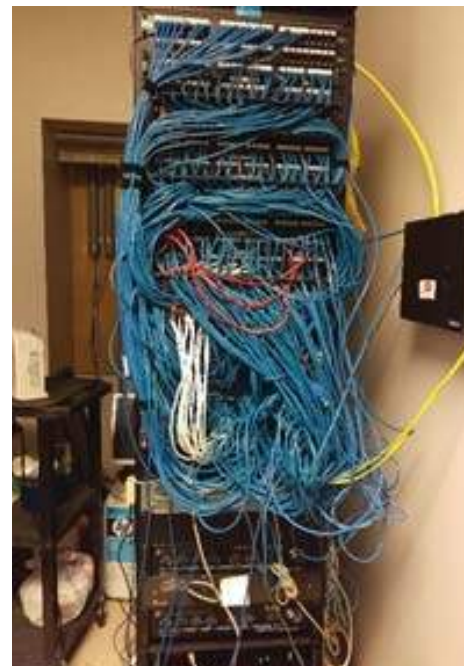
Cable television service to the building is installed in an underground 2" conduit.

The school has a 2012 vintage Category 6 data network cable plant. WIFI network connectivity is available throughout the school. Some network equipment and terminations are housed in open racks in spaces shared with other program uses such as storage. We recommend providing enclosed cabinets to house infrastructure in shared-use areas.

Projectors are installed in classrooms to facility audio/visual presentations.



Telephone Utility Demarcation



An Intermediate Distribution Frame (IDF) with Paging Amplifiers

Security Systems Analysis

The intrusion alarm system is a 2011 vintage Bosch system with wireless motion detectors. The system is integrated with the district-wide network. There is no panic alarm system. The system is in good condition but will likely need to be replaced within 15 years.

The school is equipped with a security camera system consisting of network-connected cameras located at the exterior of building entrances. There are no existing interior cameras. We recommend that interior security cameras be added to monitor high-risk areas and areas not readily visible to staff.



Intrusion Alarm System Keypad

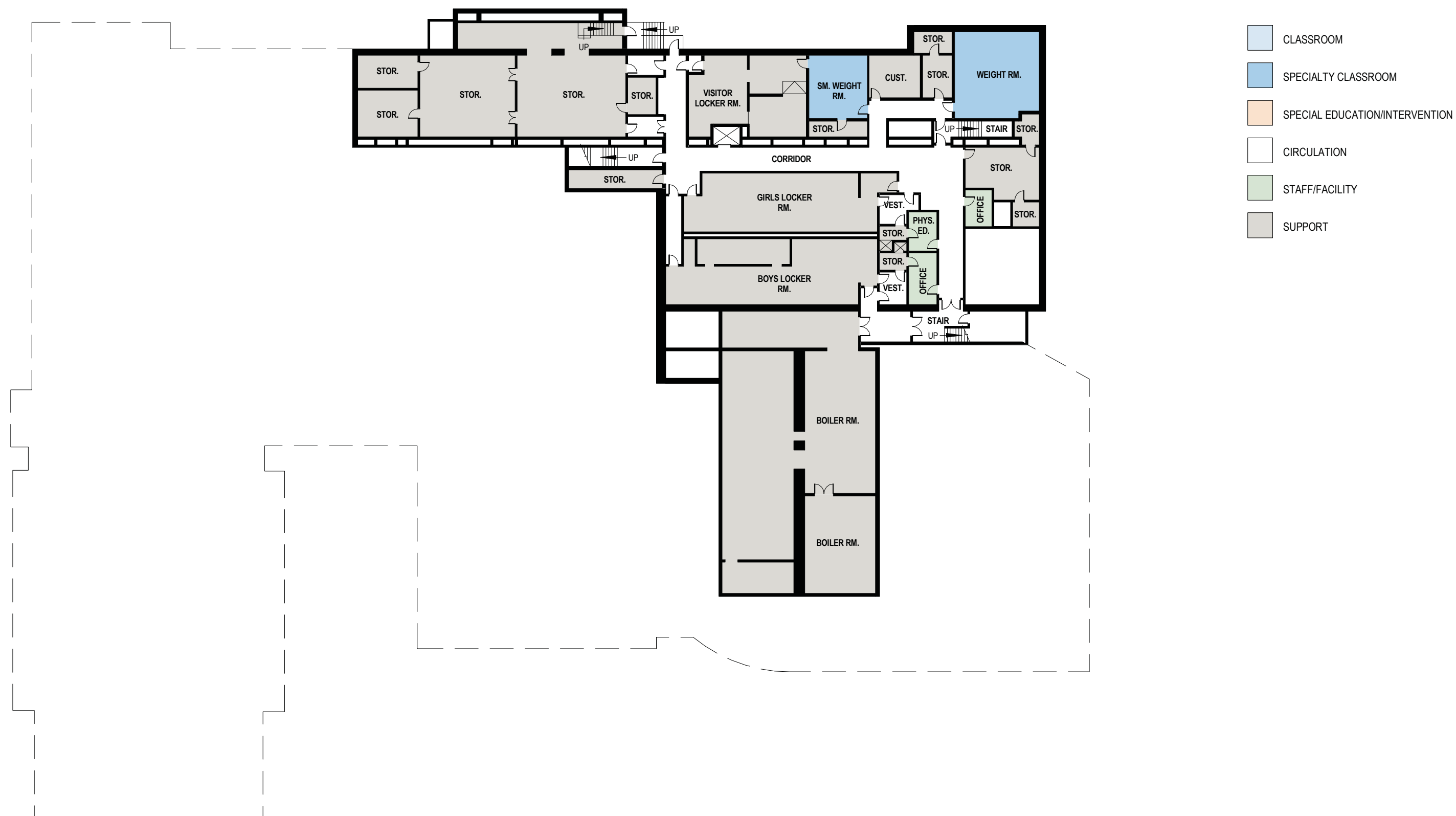


Security Camera at Building Entrance

PORTLAND HIGH SCHOOL
SITE ANALYSIS



PORTLAND HIGH SCHOOL BASEMENT FLOOR PLAN

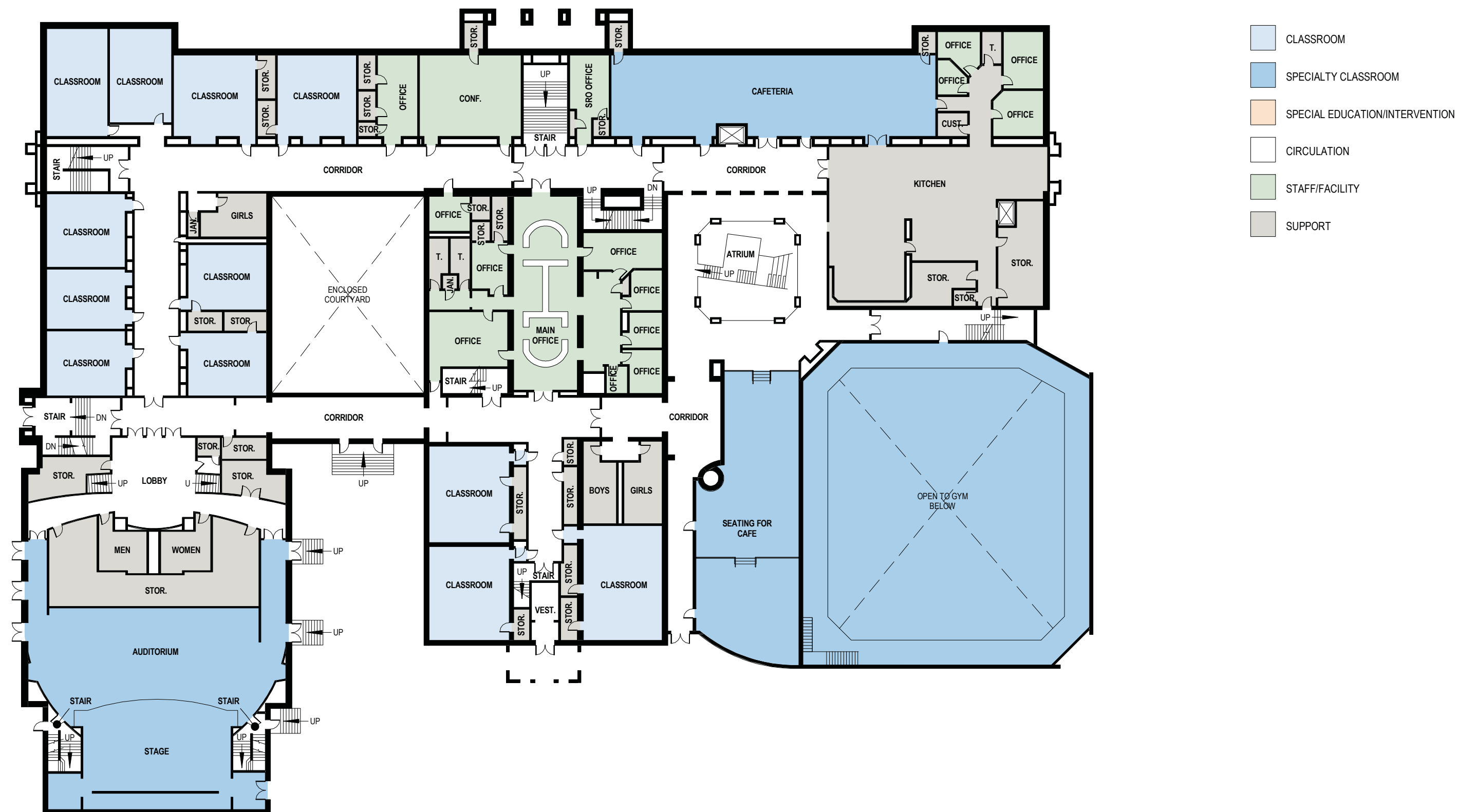


PORTLAND HIGH SCHOOL GROUND FLOOR PLAN

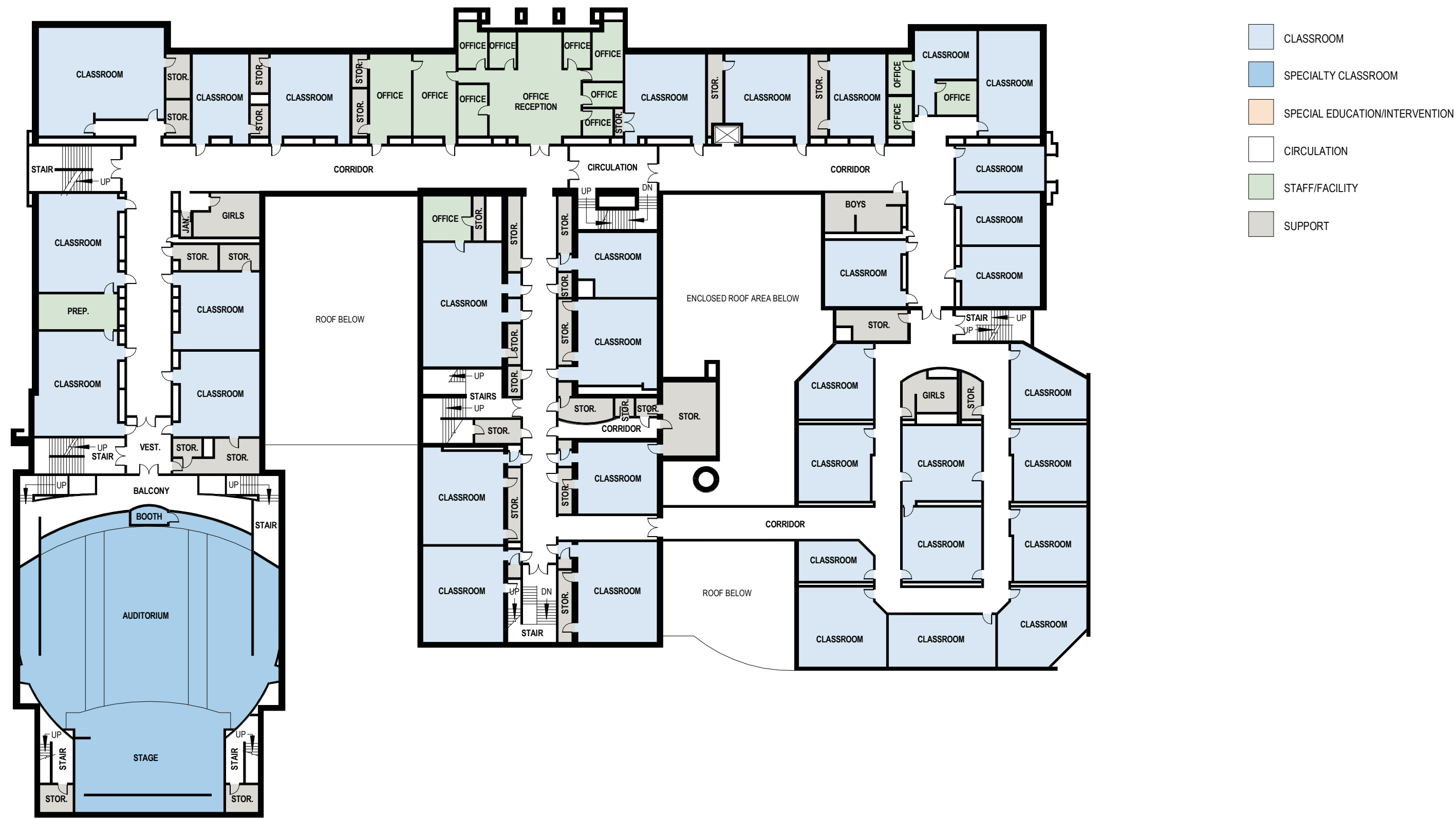


PORTLAND HIGH SCHOOL

FIRST FLOOR PLAN



PORTLAND HIGH SCHOOL
SECOND FLOOR PLAN



PORTLAND HIGH SCHOOL

THIRD FLOOR PLAN



DISTRICT OFFICE AND BAYSIDE LEARNING



Aerial View



Main Entry

General Building Data

Address:	353 Cumberland Avenue, Portland, ME
Serving Grade Levels:	Not applicable
Number of Students:	Not applicable
Number of Faculty and Staff:	Not applicable
Original Construction Date:	1900
Date of Addition(s):	2014
Building Age:	116 Years
Building Footprint:	22,388 Square Feet
Number of Stories:	3
Building Area:	56,644 Gross Square Feet
Total Site Area:	0.5862 Acres
Zoning Designation:	B3 Downtown Business

Overview

The building was originally constructed in 1900 and renovated in 2014. It houses the school district’s administrative offices as well as the Bayside Learning Community, a dedicated learning environment for students in kindergarten through 12th grade who struggle with emotional disabilities or mental health diagnoses.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25.

Plumbing piping systems are comprised of some original vintage with most from 1970’s and 80’s renovations. DHW is a vintage indirect steam heater/storage. Plumbing fixtures have been upgraded recently.

A lot of the existing HVAC equipment original to the 1980s renovations have been upgraded/replaced in 2014. The original steam systems are still functioning with boilers replaced around 1990s(?).

Most of the power distribution system is near the end of its anticipated useful life, and the grounding electrode system for the building does not comply with current code.

Lighting in the Bayside Learning Center is nearly new, but lighting fixtures in the District Office portion of the building are near the end of their anticipated useful lives.

The fire alarm control panel is within its anticipated useful life, but aspects of the overall system do not comply with current standards for new facilities in many areas of the District Office portion of the building.

Updates are recommended for the security system and to protect data networking equipment on the second floor.

Site Analysis

The District Office and Bayside Learning Center are located on a 0.6 acre of land within the B3 Downtown Business zone.

Accessibility

ADA accessibility throughout the site is poor. ADA parking spaces and ramps are not compliant. There are no detectible warning strips on site.

Circulation

District Office and Bayside Learning Center are accessible via Cumberland Avenue, Portland Street and Alder Street.

Safety/Security

The utility pole between Bayside Learning Center and the neighboring building is a safety concern. The pole is heavily loaded with wires and transformers.

Recommendations

- Adjust ramp and/or threshold transition at Bayside Learning Center to meet ADA tolerances.
- Remove any unnecessary wiring at heavily loaded utility pole. Relocated wires and/or add pedestrian protection as needed.
- Install wheel stops in District Office parking area.
- Repaint ADA spaces and aisles at District Office parking area, paint a striped aisle from parking to building.
- Repaint all parking lines.
- Repair or replace sections of sidewalk as necessary.
- Replace ADA ramps on sidewalks and install detectable warning panels.
- Install sign/flasher at access to underground lot.
- Repair chain link fence around District Office parking lot.
- Replace bicycle rack.

DISTRICT OFFICE AND BAYSIDE LEARNING

Structural System Analysis

Structural System Description:

Concrete frame, 2 way flat plates; flared column capitals in some locations; 2 way beam system in other locations.

Parking located under front entry parking/plaza.

Lateral Framing Resistance System:

Assumed frame action and exterior CMU and concrete walls.

Exterior Wall System Description:

EIFS; Metal Panel; some exposed brick and CMU; polished granite.



Chimney



Spalling at foundation



CMU joints



Concrete spalling



Opening in fire wall

Fire Protection Systems Analysis

The 4" sprinkler entrance is supplied by municipal water and does not have a backflow preventer. The sprinkler system is a complete coverage automatic wet system, single 4" riser, with a 4" fire department siamese connection. The piping system appears in good condition with black steel piping serving all floors of the building. The third floor had the sprinkler heads replaced and relocated in 2013 as directed by AHJ. There is a sprinkler cabinet with wrench and spare heads.



Sprinkler Entrance

DISTRICT OFFICE AND BAYSIDE LEARNING

Plumbing Systems Analysis

The building has a municipal water service as well as municipal sewer. The present 2" water entrance does not have a testable double check backflow preventer. Domestic hot water is provided throughout the building with (6) 40 gallon electric water heaters; no central DHW maker.

There is some water distribution and sanitary piping throughout the building pre 1980s vintage, however renovations during the 1980s and 90s have replaced these piping systems as well as a portion of the rain water piping.

Plumbing fixtures have recently been updated to low flow fixtures in kind. Electric water coolers with bottle fills were not observed; there were upright chilled & hot water dispensers throughout. An option to consider is to locate water coolers or bottle fill stations at each floor.

There is a natural gas service to the building which serves the boilers.

The current installed plumbing systems are mostly in good operating condition and maintained. Electric water heaters have piping in the immediate locations without insulation, this piping should be insulated to current code requirements.



Missing pipe insulation at water heater



Water Entrance

Mechanical Systems Analysis

The heating plant is comprised of (3) HB Smith 19A - 5 section steam boilers 1990s to 2000 vintage? The new boilers have a gross output of 431 MBH per boiler. The fuel source is only natural gas where the fuel oil system has recently been removed. The boiler combustion air louver is undersized and non-code compliant. The boiler feed pump tank unit is beyond its useful service life and is in need of replacement due to ongoing leaks and repair. The heating plant serves the building steam unit ventilators, radiation, and indoor AHUs with steam coils. Steam also serves (2) steam to heating hot water heat exchangers, (1) located in first floor AHU-1 mechanical room and (1) located at third floor mechanical room. A single constant volume circulator (1987) serves the third floor HX and a single Taco VFD circulator (2014) serves first floor.

The existing steam supplied HVAC systems, other than HXs above, include to AHU-2 coil, fintube and radiators. The fintube and radiators are undergoing thermostatic control upgrades with either wall or radiator mounted controllers.

The existing hot water HVAC systems include AHU-1 coil, VAV coils, and RTU duct coils.

AHU-1 was upgraded in 2014 to a hot water coil VAV air system with ERU ventilation air serving VAV air terminal throughout the first floor. AHU-2 is a steam coil VAV bypass system serving terminal throughout the second floor. Packaged rooftop air conditioning units serve the 3rd floor with either hot water coils or electric duct coils. RTUs have been replaced in kind in 2014 except RTU-10 which is 1908's vintage and beyond its useful service life.

Most existing exhaust systems are toilet exhaust which have ceiling type exhaust fans venting out through sidewall louvers. Residential range hoods serve cook-top ranges (3) and are not NFPA code compliant with fire suppression.

Controls serving the heating system and equipment was upgraded 2014 & 15 to replace existing pneumatics with DDC electric controllers.

In general the HVAC systems are in good operating condition, with the exception of AHU-2 and RTU-10. AHU-2 is beyond its useful service life in its current condition and should be upgraded with new condensing unit, hot water coil, VAV supply, and ERU ventilation. RTU-10, as mentioned previously, is beyond its useful service life and should be replaced in kind with a hot water duct coil. The steam boiler feed unit is beyond its useful service life and should be replaced in kind. A variable speed combustion air fan should be added to make the current combustion air system code compliant. The steam boilers have about 10 years left expected service life. Where the steam boiler plant will have 10+ years of service life left, it is recommended that to add a steam to HW heat exchanger and convert the remaining steam system and terminal units to HW, this will allow converting to HW boilers in the future with minimal upgrades to the HW system. The existing range exhaust fans should be upgraded to NFPA compliance with fire suppression or remove the hood and range. The second floor front administration (Cumberland Ave side) should have the ductwork zoning completely reworked to supply adequate ventilation and cooling air to the current floor plan.

Controls are mainly recent DDC electric and should continue with upgrades when made available. Some DDC upgrades will be required if the above mentioned rezoning is considered.

DISTRICT OFFICE AND BAYSIDE LEARNING



Upgraded Steam Fintube Wall Thermostat



Gas Converted Boiler Plant



Boiler Feed Pump Unit



AHU-2 Condensing Unit



Non-Compliant Range Hood



RTU-10

Electrical Systems Analysis*Electrical System Distribution*

The electrical service is overhead, originating at three 100-kVA utility-owned transformers located on a pole on Portland Street and terminating at a 1987 vintage, 1200-amp ITE fusible switch located in the second floor electric room. Existing drawings indicate that the main switch is fused at 1,000 amps. The service voltage is 208/120 volts, 3-phase, 4-wire.

The service disconnect switch is near the end of its anticipated useful life, but the actual useful life of this type of equipment can vary widely depending upon conditions at a particular site. Considering the age of the fusible switch, an infra-red scan of the service equipment is recommended in order to assess the condition of its contacts and terminations.

No grounding electrode connection is made at the water main. The National Electrical Code (NEC) requires an underground metal water pipe that is electrically continuous and in contact with the earth for at least 10 feet to be utilized as part of the grounding electrode system for the building. We recommend providing a grounding electrode connection at the water main as required by code.

Panels are primarily a mixture of 1987 vintage ITE panelboards and residential/light-commercial grade load centers manufactured by Square D, GE, and Siemens. An Eaton Panelboard was added in the Bayside Learning Center when that portion of the building was fit up in 2014. Main Distribution Panelboard MDP is fully utilized and missing a portion of its trim cover, leaving conductors within exposed.

The anticipated useful life of branch-circuit and distribution panelboards is generally considered to be 30 years, although many environmental factors such as cleanliness, moisture, salt content, and temperature can impact the actual performance life of circuit break-

ers and electrical equipment. It is very common for electrical equipment to remain operational and in use for significantly longer. The biggest concern regarding older panelboards is whether or not the circuit breakers will operate as designed in the event of a fault in the circuit. While circuit breakers can be tested, the testing is generally more costly than simply replacing the circuit breakers when dealing with branch-circuit and smaller distribution-type devices.

A cover should be provided for the open portion of the MDP. The 1987 panelboards and residential-grade load centers should be replaced as part of any planned renovations to the district office facility.

Existing feeders are building wire in conduit. Branch circuit wiring methods observed are primarily building wire in conduit and type MC metal-clad cable, although some type NM nonmetallic sheathed cable (Romex) was noted on the fourth floor. Type NM cable would not be permitted by current code in a new building of this construction type. The existing type NM cable should be replaced with type MC cable as part of any planned renovations to the facility.

Receptacles in most areas are located appropriately for the current use of the spaces, but it was noted that extension cords are in use in Classroom 149 due to receptacles not being located according to the current furniture layout. Receptacles should be added in Classroom 149 to eliminate the need for extension cords.

DISTRICT OFFICE AND BAYSIDE LEARNING



Service entrance as viewed from roof



Small load center in 3rd floor work room



Missing trim on MDP

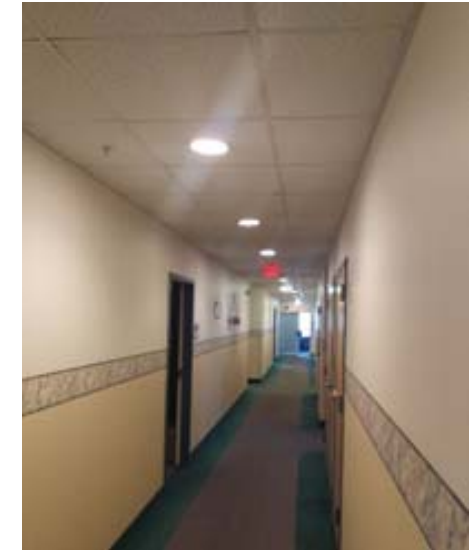


Grounding electrode connection at water main has been cut off.

Interior Lighting

Classrooms are illuminated by 2014 vintage recessed fluorescent fixtures with high-performance optics and T8 lamps. Offices generally have recessed fluorescent fixtures with parabolic diffusers and T8 lamps, but strip fixtures with T12 lamps are installed in a second floor custodial office. Corridors are illuminated by a mixture of downlights with self-ballasted medium-based compact fluorescent lamps, recessed parabolics with T8 lamps, and recessed lens troffers with T8 lamps. Toilets have various recessed and surface mounted luminaires with Linear fluorescent T8 lamps. Mechanical and storage areas have linear fluorescent fixtures, most of which utilize T8 lamps, although some areas utilize T12 lamps.

Lighting in the Bayside Learning Center is almost new and has nearly 20 years of anticipated useful life remaining. The lighting in other areas should be updated to LED as part of any planned renovations to the spaces. Luminaires using T12 lamps should be replaced with LED units as the existing units fail.



Second floor Corridor lighting



Parabolic lighting in district offices



T12 strip lights on 4th floor



Bayside Learning classroom lighting

DISTRICT OFFICE AND BAYSIDE LEARNING

Exterior Lighting

Outdoor lighting consists of building mounted LED full cutoff wall packs, an LED flood, and some decorative LED wall mounted fixtures. High-pressure sodium lighting is used in second floor parking garage. With the exception of the second floor parking garage, the lighting appears to be fairly new and has approximately 15 years of anticipated useful life remaining. The parking garage lighting is obsolete, with one fixture currently not functioning, and should be updated to LED.



Second floor parking garage lighting



Outdoor lighting near District office entrance



Outdoor lighting near District office entrance

Emergency Lighting System

Fluorescent emergency battery ballasts integral to the luminaires provide emergency lighting in the Bayside Learning Center. Emergency battery units with integral and remote heads are in use on other floors. The heads are a mixture of LED and incandescent. There is no emergency lighting at the exterior of exits. LED illuminated exit signs with integral battery backup are in place to mark means of egress. The LED emergency lighting units are in good condition and offer more than 10 years of anticipated useful life provided they are properly maintained and batteries are replaced as needed. Older incandescent units should be replaced with modern LED units as they fail. Provide outdoor emergency lighting at building exits.



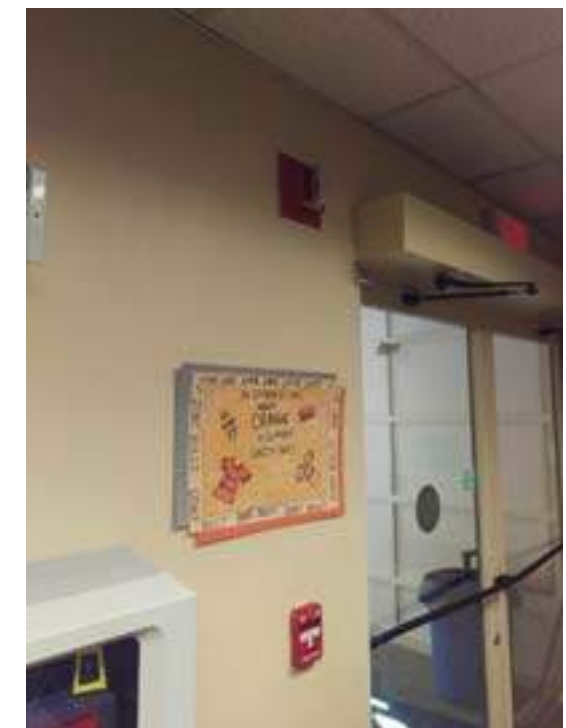
Combination Exit/emergency light with LED heads.



Emergency battery unit with incandescent heads.

Fire Alarm System

The fire alarm control panel is a Silent Knight Model SK5208 conventional zoned control panel. Alarms are initiated by manual pull stations at building exits, smoke and heat detectors in selected areas, and by activation of the building's sprinkler system. Occupant notification is not ADA compliant on the fourth floor and some areas of the third floor. The Fourth floor pull station is not located in the natural path of egress. Existing systems are not required to be updated to current standards unless a change of use or major renovations occur. Any floor plan modifications, however, would require occupant notification to be provided according to current standards for the affected areas. We recommend updating occupant notification and providing a fully addressable system as part of any planned facility renovations.



Pull station and horn/strobe at District Office lobby.

DISTRICT OFFICE AND BAYSIDE LEARNING



Fire alarm control panel

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/Classroom Intercom/Clock Systems

Telephone service to the building is overhead and enters at a backboard located in the main electric room on second floor. Telephones are Cisco Voice-over-internet-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Paging speakers that are integrated with the phone system via amplifiers are installed in corridors. Classrooms in the Bayside Learning Center utilize VOIP phones for intercommunication.

The facility does not have a Clock System.

Cable Television (CATV) Service is overhead and enters at a backboard located in the main electric room on second floor. The entrance cable is not sleeved in conduit where it penetrates the building exterior wall. A conduit sleeve and sealing are recommended for CATV service cable penetration through the building wall.

The building is served by a Time Warner single-mode fiber optic data cable that enters the building at the Main Distribution Frame (MDF), which is located in a dedicated room on the 3rd floor. The entrance cable is not sleeved in conduit where it penetrates the building exterior wall. There are intermediate distribution frames (IDF) on the second and first floors. The second floor IDF is housed in an open rack located in the electric room. Horizontal cabling is a mix of Category 5e and Category 6. It was noted that some old data cabling that is no longer in use is abandoned in place. A conduit sleeve and sealing are recommended for the fiber optic service cable penetration through the building wall. An enclosed cabinet to house the data equipment in electric room should also be provided. Unused abandoned cable should be removed.

WIFI is available throughout the Bayside Learning Center.

Wall mounted monitors are installed in approximately 1/2 of classrooms.



MDF



Telephone utility demarcation



Fiber Optic and CATV entrance cables



Second floor IDF



First floor IDF

DISTRICT OFFICE AND BAYSIDE LEARNING



Abandoned cables in First floor IDF room

Security System Analysis

A GE Networkx NX-8V2 residential-grade security alarm panel serves the District Office. The Bayside Learning has a separate GE NX-8E residential-grade security alarm control panel. Alarms are initiated on the systems by motion detectors and door contacts. The building is not equipped with a panic alarm. We recommend providing commercial grade security alarm panels that are integrated with the district-wide network. Keypads are in use to control access to the building. There are no operational security cameras other than an Aiphone video intercom between main entrance and reception desk to provide controlled access. Abandoned non-functional cameras remain in place in some interior areas. We recommend providing digital cameras connected to district servers.



District office security alarm panel



District Office security keypad



Bayside Learning Center security keypad

DISTRICT OFFICE AND BAYSIDE LEARNING SITE ANALYSIS



DISTRICT OFFICE AND BAYSIDE LEARNING FIRST FLOOR PLAN



DISTRICT OFFICE AND BAYSIDE LEARNING
THIRD FLOOR PLAN



CENTRAL KITCHEN



Aerial View



Main Entry

General Building Data

Address:	92 Waldron Way, Portland, ME
Serving Grade Levels:	Not Applicable
Number of Students:	Not Applicable
Number of Faculty and Staff:	14
Original Construction Date:	1998
Date of Addition(s):	Renovation 2013
Building Age:	18 Years
Building Footprint:	21,180 Square Feet
Number of Stories:	1
Building Area:	21,180 Gross Square Feet
Total Site Area:	2.9506 Acres
Zoning Designation:	IH Industrial High Impact

Overview

The Central Kitchen building was constructed in 1998 and renovated and expanded in 2013. The facility provides meals for the majority of the District’s schools.

The fire protection equipment and system components appear to be compliant, maintained and tested per NFPA 25.

Plumbing piping systems are original to the building except for the kitchen renovation where most waste and distribution piping was replaced. DHW system is new. Plumbing fixtures have been upgraded recently.

Most all HVAC systems are original to the building with the exception to the kitchen which was completely renovated with new hoods, fans, and MUA.

Electrical systems are generally in good condition and adequate for current needs, although lighting updates are recommended for some interior areas to improve efficiency and for exterior lighting.

The fire alarm system is relatively new and complies with current standards.

Updates are recommended for the security system and to protect data networking equipment.

Site Analysis

Central Kitchen is located on a 3.0 acre parcel of land within the IH Industrial High Impact zone.

Accessibility

Based on the total number of parking spaces there should be 2 ADA spaces. A new ADA space should be added and the paint striping needs to be updated to be compliant with standard aisle dimensions.

Circulation

Central Kitchen is accessible via Waldron Way.

Safety/Security

No safety concerns.

Recommendations

- Addition of 1 ADA space to meet requirements. Repaint ADA spaces with compliant aisle dimensions.
- Repair damaged paving sections near loading dock.
- Repair damaged fence section at pond.
- Remove sign from previous owner.

Structural System Analysis

Structural System Description:

Concrete frame, 2 way flat plates; flared column capitals in some locations; 2 way beam system in other locations.

Parking located under front entry parking/plaza.

Lateral Framing Resistance System:

Assumed frame action and exterior CMU and concrete walls.

Exterior Wall System Description:

EIFS; Metal Panel; some exposed brick and CMU; polished granite.

CENTRAL KITCHEN



Entry stoop



Open masonry joints



Slab joints



Wood mezzanine

Fire Protection Systems Analysis

The 6" sprinkler entrance is supplied by municipal water and has a testable backflow preventer. The sprinkler system is a complete automatic wet system, single riser, with fire department connections. There has been a sprinkler backflow tests performed annually. The piping system appears in good condition with black steel piping serving most of the building and galvanized piping in the warehouse area. There is a sprinkler cabinet with wrench and spare heads.



Sprinkler Entrance

Plumbing Systems Analysis

The building has a municipal water service as well as municipal sewer. The 4" water entrance has a testable double check backflow preventer that appears to be vintage. The recent kitchen renovation had new cast iron sanitary piping installed as well as new under slab grease trap system. Floor drains were also replaced. The hot water generation plant, which consists of a boiler and indirect water heater/storage, was included in the renovation along with new cold and hot water distribution. There is a new DHW mixing valve and recirculation pump. The water distribution and sanitary piping throughout the rest of the building is vintage. Plumbing fixtures have recently been updated to low flow fixtures in kind.

A natural gas entrance serves the kitchen equipment, DHW boiler/maker, and heating equipment throughout the building.

The currently installed plumbing systems, most are new from the renovation, are in very good operating condition and should only require maintenance over the short term.



New floor drain

CENTRAL KITCHEN



Updated fixtures



Water heating system



Domestic hot water mixing valve

Mechanical Systems Analysis

There is not a central boiler plant or cooling plant serving the building. Horizontal gas fired unit heaters supply heat throughout the building. The administration area is served by an indoor AHU with gas heat and DX cooling; this systems lacks OA ventilation.

The kitchen is served by a gas fired makeup air unit, (100% OA), and dishwasher and range hood exhaust, as well as gas fire unit heaters.

The currently installed mechanical systems are partially vintage and partially three years old. The vintage units are at the end of their useful service life. The gas fired unit heaters are failing and require replacement. The split AHU that serves the administration needs to be replaced with a new gas fired unit and DX cooling system that provides OA ventilation in combination with a small ERU ventilator. Controls may also be upgraded with DDC electronic as systems are replaced.



Vintage Gas Fired Unit Heater



Vintage Gas Fired Unit Heater

Electrical Systems Analysis

The electrical service and power distribution system appear adequate for the current use of the facility. The systems are generally in good condition, although some unused abandoned equipment remains in place and some apparently inaccurate identification was noted.

Interior lighting fixtures use a mixture incandescent, T12 and T8 fluorescent, and LED light sources, with T8 fluorescent being the most prevalent. The fixtures age and condition. The fixtures are generally appropriate for the areas in which they are installed, but some are older styles that are not as efficient as modern designs. Updates are recommended in the short term for incandescent, T12 fluorescent, and T8 fluorescent that have parabolic diffusers; updating other T8 fixture types to LED is recommended in the long term.

Exterior pole lights and some wall packs utilize high-pressure sodium (HPS) lamps, while other wall packs are LED units that have been recently installed to replace old HPS fixtures that failed. The HPS fixtures are at the end of their anticipated useful life and should be replaced.

The fire alarm system is relatively new, in good condition and generally complies with current standards.

The telecommunications and security systems appear to be adequate for current needs, but the data network terminations and switch are exposed in a shared location and the security system is not capable of being connected to the district wide security network.

Electrical System Distribution

The electrical service consists two 5" underground primary conduits from overhead utility lines to a utility-owned padmount transformer. An 800-amp, 480/277-volt, 3-phase, 4-wire underground second-

CENTRAL KITCHEN

ary service runs from the transformer to the main circuit breaker of Panelboard MDP. The Service entrance to building appears to be (2) 4" conduits.

1998 vintage Cutler Hammer Main Distribution Panelboard (MDP). One circuit breaker is marked "spare" and six others are currently in the off position, but are marked to indicate that they feed utilization equipment such as aeration blowers and chillers. We suspect that some of these circuit breakers are actually unused. As a maintenance item, the MDP circuit breaker identification should be updated to reflect only current equipment.

Branch-circuit panels are generally a mix of late 1990's vintage Cutler Hammer panelboards and 2013 vintage Square D panelboards. There is a residential/light-commercial grade load center in the electric room that appears to be abandoned, as well as an abandoned 75-kVA transformer in the electric room that appears to have once fed a chiller that has been removed. Abandoned equipment and associated wiring should be removed.



Panel MDP



2013 vintage panelboards

Interior Lighting

Process Areas have a mix of recessed food service grade lens troffers and Surface and pendant mounted 8' linear vaportight fixtures with T8 fluorescent lamps. Offices are illuminated mostly by recessed fixtures with parabolic lenses and T8 fluorescent lamps, although there are some incandescent downlights in the entrance lobby and T12 lamps were noted in break room. Corridors have surface and pendant mounted 8' linear vaportight fixtures with T8 fluorescent lamps. Toilets, storage and mechanical rooms are illuminated by fluorescent luminaires with T8 lamps. Receiving and warehouse areas have been updated to LED luminaires with integral occupancy sensors.

We recommend updating fluorescent lighting to modern LED luminaires with high-performance optics. Updates for the office area and brake room are recommended for the short term; updates to other areas that utilize T8 fluorescent luminaires are recommended in the long term.



Parabolic lighting in office area



Vapor-tight T8 fluorescent luminaires



Process area lighting



LED Warehouse area lighting

CENTRAL KITCHEN

Exterior Lighting

Outdoor areas are illuminated by Shoebox style pole mounted fixtures utilizing High-pressure sodium (HPS) lamps, as well as a mixture of LED and metal halide wall packs. The LED wall packs have been installed to replace old high-intensity discharge fixtures that failed. The existing metal halide and HPS fixtures are at or near the end of their anticipated useful life and should be updated to LED fixtures with full-cutoff optics.



Typical pole light



Metal halide wall pack



LED wall packs

Emergency Lighting System

Internally-illuminated LED exit signs with battery backup are appropriately located to mark means of egress. Emergency battery units with integral and remote heads provide emergency lighting for means of egress for interior areas. Many units utilize LED heads, but some older units that are original to the building remain. There is no emergency lighting at the exterior of exits. Outdoor emergency lighting should be added at building exits. Original emergency battery units should be replaced as the units fail.



Typical exit sign



Combination Exit sign/emergency lighting unit

Fire Alarm System

The fire alarm control panel is a 2013 vintage Siemens FC901 addressable control panel. Alarms are initiated by manual pull stations at building exits, smoke and heat detectors in selected areas, and by activation of the building's sprinkler system. The fire alarm system appears to comply with current codes and standards.



Fire alarm control panel and Wireless master box



Fire alarm control panel

CENTRAL KITCHEN

Lightning Protection System

The facility is not equipped with a lightning protection system.

Data/Telephone/ Intercom/Clock Systems

Telephone service to the building is underground in one 4" conduit that originates at the utility riser pole and enters the building at demarcation board in main electric room. Telephones are Cisco Voice-over-inter-net-protocol (VOIP) units that are part of a district-wide network connected to servers located at the Portland Arts and Technology High School (PATHS) building. Cable Television (CATV) Service is provided in one 2" underground conduit with coaxial cable from the utility riser pole to the utility demarcation in main electric room.

The building is not equipped with fiber optic connectivity from the utility. The Data rack is an open type that is located in a small room that is shared with other program uses. WIFI is available throughout the building. It is recommended that an enclosed cabinet be provided to house the data network equipment.

The facility is not equipped with a Clock System.



Telephone and CATV demarcation point



Data rack

Security System Analysis

The Intrusion Alarm System has an ADT Residential-grade security alarm control panel that is not capable of being connected to the district-wide security network. The building is not equipped with a panic alarm. We recommend Providing a commercial grade security alarm panel that is integrated with the district-wide network.

There are no Security Cameras or exterior door monitoring at this facility.



Security alarm control panel

CENTRAL KITCHEN SITE ANALYSIS



CENTRAL KITCHEN
FIRST FLOOR PLAN



Locker Room Privacy Accommodations

Introduction

There is a recent movement towards providing more opportunities for additional privacy in school locker rooms for all students, regardless of sexual preference or gender identity. As part of this study, all of the locker rooms and shower facilities in the school district were reviewed with the goal of providing recommendations to maximize the privacy and safety of all students while using locker room facilities in a two-tiered approach:

- Short term improvements, such as adding privacy curtains or minor changes to improve privacy within existing shower and changing compartments. Short Term recommendations have been included in Years 1 - 5 in the Capital Plan
- Long Term improvements include larger scale alterations such as constructing walls, changing plumbing fixtures, or renovation of locker rooms to convert gang shower areas into individual shower and changing compartments. Long Term recommendations have been included in Years 6 - 10 in the Capital Plan

Locker rooms reviewed in this study were located in the following facilities:

- Reiche Elementary School
- Riverton Elementary School
- King Middle School
- Lincoln Middle School
- Moore Middle School
- Deering High School
- Portland High School

Please note that the following recommendations work within the confines of the existing female and male locker room facilities. The recommendations do not provide for separate non-gender specific locker room facilities.

As part of the long term recommendations where more significant renovations are called for, the addition of ADA compliant toilet facilities where they are lacking have been included in the recommended scope of work to bring the facilities into compliance.

It should be noted that in some instances, the quantity of plumbing fixtures have been reduced to accommodate ADA compliant clearances as well as more private shower and changing compartments. As plans are further developed in the future to make these improvements, the plumbing fixture counts and actual usage should be reviewed with the City's Plumbing Inspector.

REICHE ELEMENTARY SCHOOL

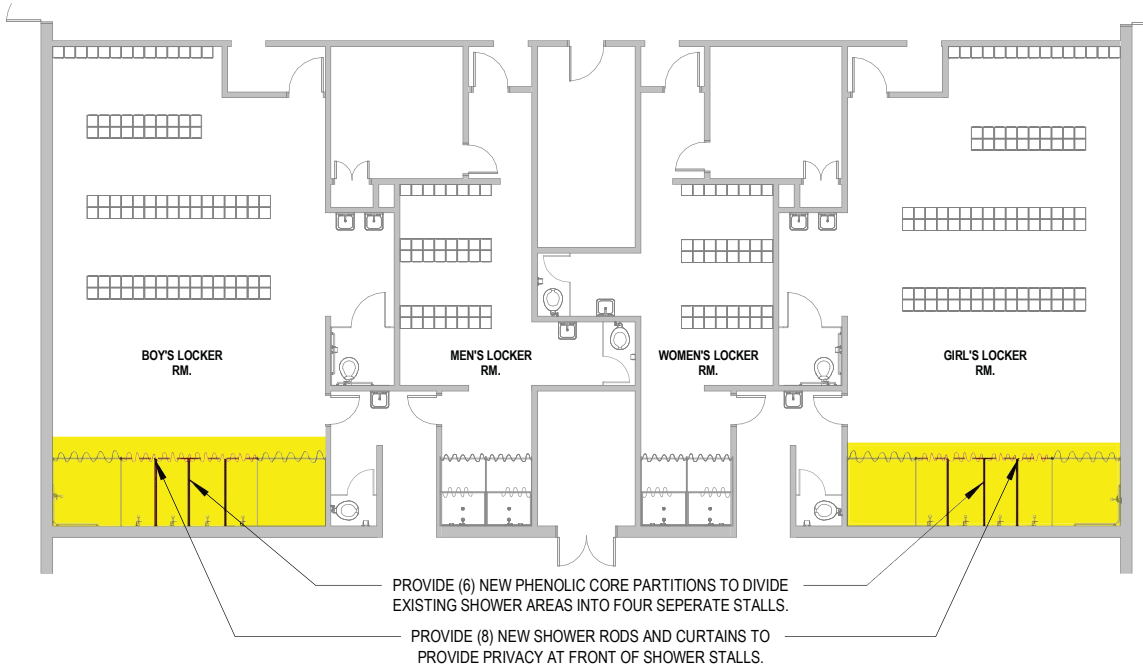
Overview

The existing locker room configurations at Reiche Elementary School offer limited privacy in both the showering and changing areas. However, it is clear that the school has taken steps towards providing private shower and changing areas these locker room areas with the installation of partitions dividing what were previously gang shower areas. In each the boy’s and girl’s locker rooms, the gang shower area has been divided into four large stalls. One stall is a dedicated private changing stall with a curtain. Two stalls are meant to be private shower stalls, however they are missing the dividing curtain between them, as well as in the front of them. The remaining stall is meant to be an ADA compliant stall, but is missing some critical components to make that stall fully accessible. The men’s and women’s locker rooms each have two private shower stalls, each with a private changing stall in front. None of these, however, are ADA accessible. All four locker rooms require short and long-term modifications to offer students privacy while showering and changing, and to make them ADA compliant.

Short Term Recommendations

Subdivide the existing gang showers into individual private shower compartments using compartment partitions and curtains.

Opinion of Probable Cost: \$14,447

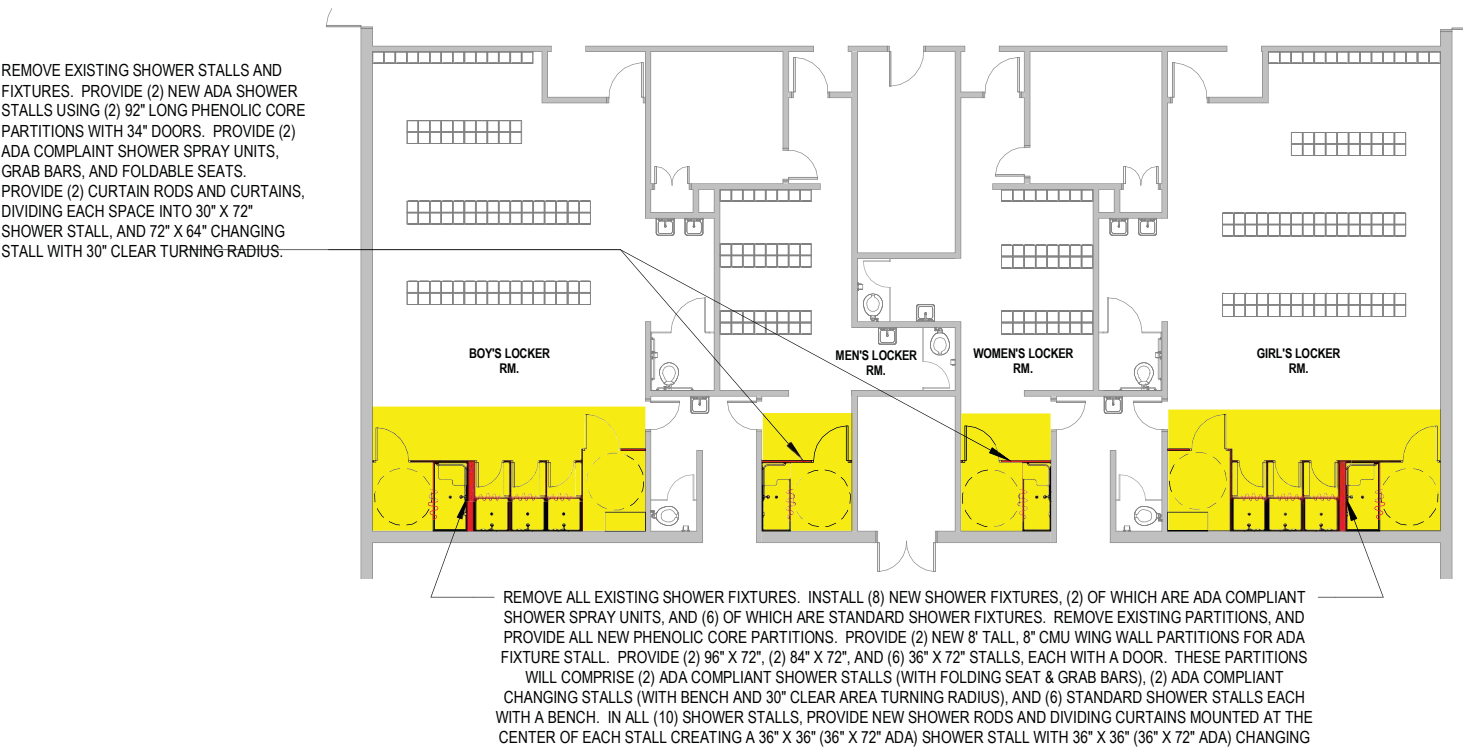


Long Term Recommendations

Renovate gang showers in the Girl’s and Boy’s Locker Rooms to provide individual shower and changing compartments, including ADA-compliant facilities.

Renovate the Women’s and Men’s shower areas to provide ADA-compliant shower and changing compartments.

Opinion of Probable Cost: \$170,877



RIVERTON ELEMENTARY SCHOOL

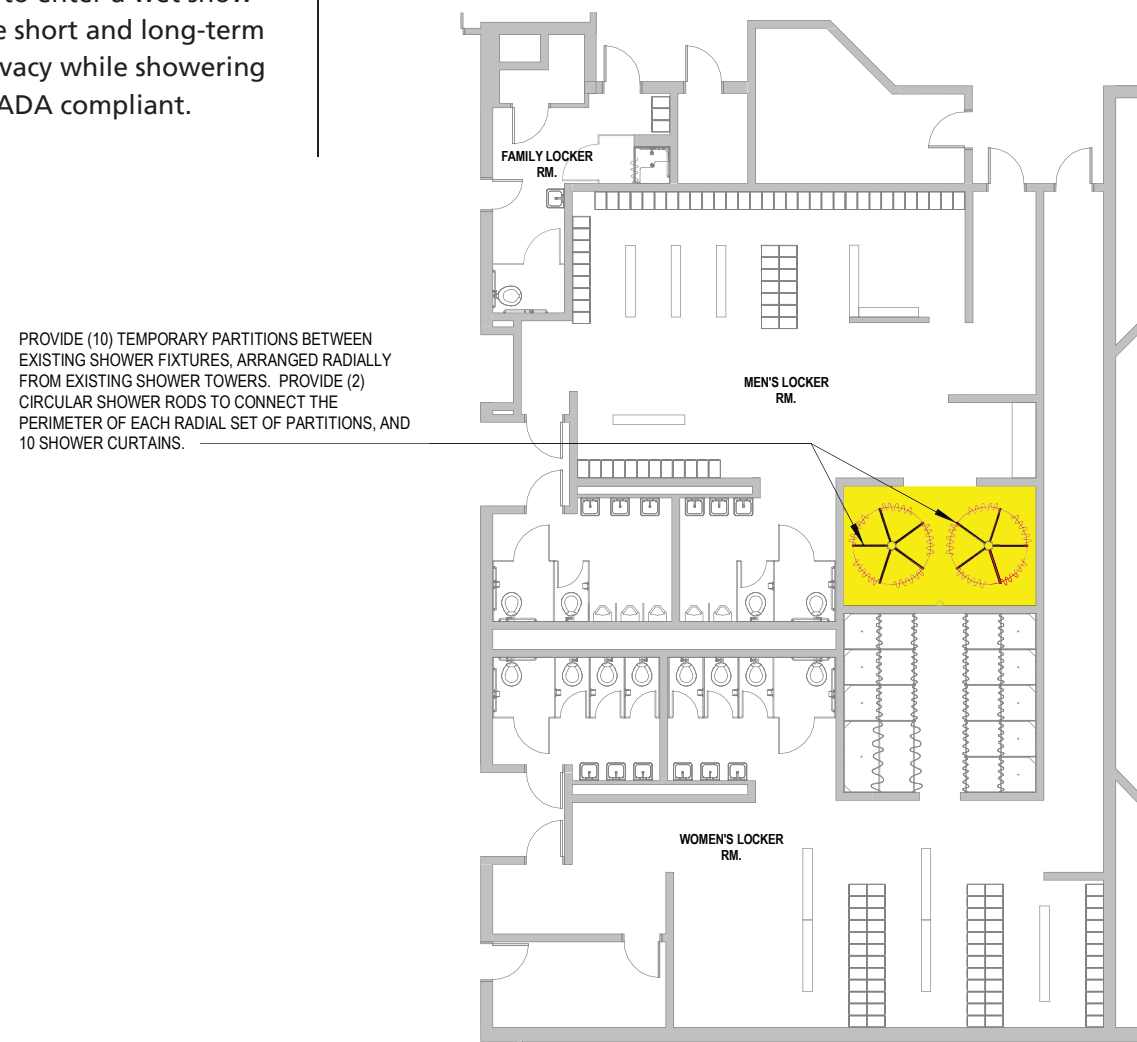
Overview

The existing locker room configurations offer limited or no privacy in both the showering and changing areas in both the men's and women's locker rooms. On the men's side there is a gang shower configuration, which offers no privacy for students and is not ADA accessible. The women's side offers private, partitioned shower stalls with curtains and private changing stalls in front of each shower stall. This provides the desired level of privacy for a shower area. Adjacent to these shower areas are large, open changing areas with a perimeter of lockers and rows of benches at the center. This configuration lacks dry, private areas in which students can change privately without needing to enter a wet shower area. Both locker rooms require short and long-term modifications to offer students privacy while showering and changing, and to make them ADA compliant.

Short Term Recommendations

At the Men's Locker room, install compartment partitions and curtains to provide individual private shower compartments.

Opinion of Probable Cost: \$18,760

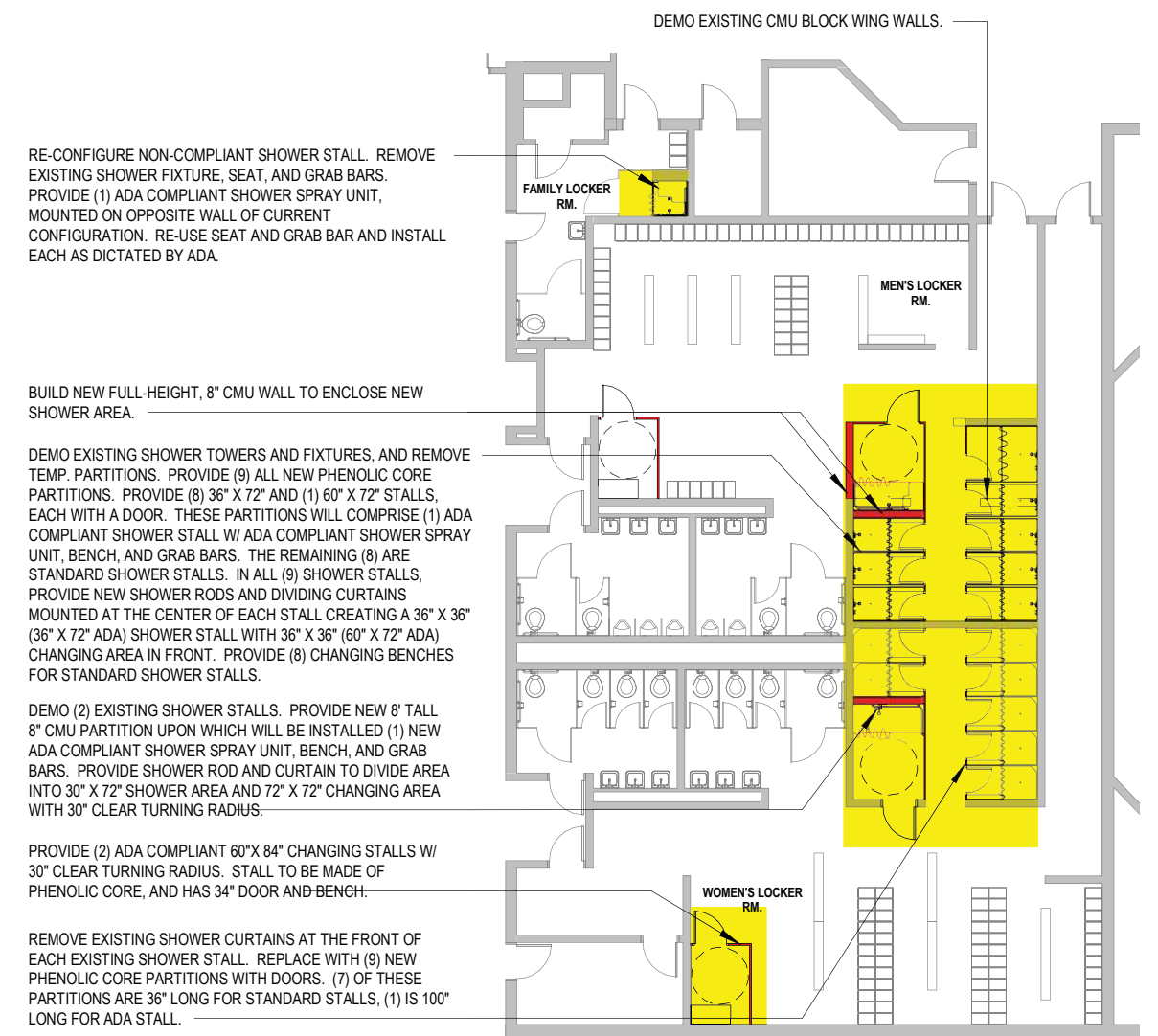


Long Term Recommendations

At the Women's and Men's Locker Rooms, renovate the shower areas to provide individual shower and changing compartments, including ADA-compliant facilities.

Reconfigure the shower in the Family Locker Room to be ADA-compliant.

Opinion of Probable Cost: \$155,106



KING MIDDLE SCHOOL

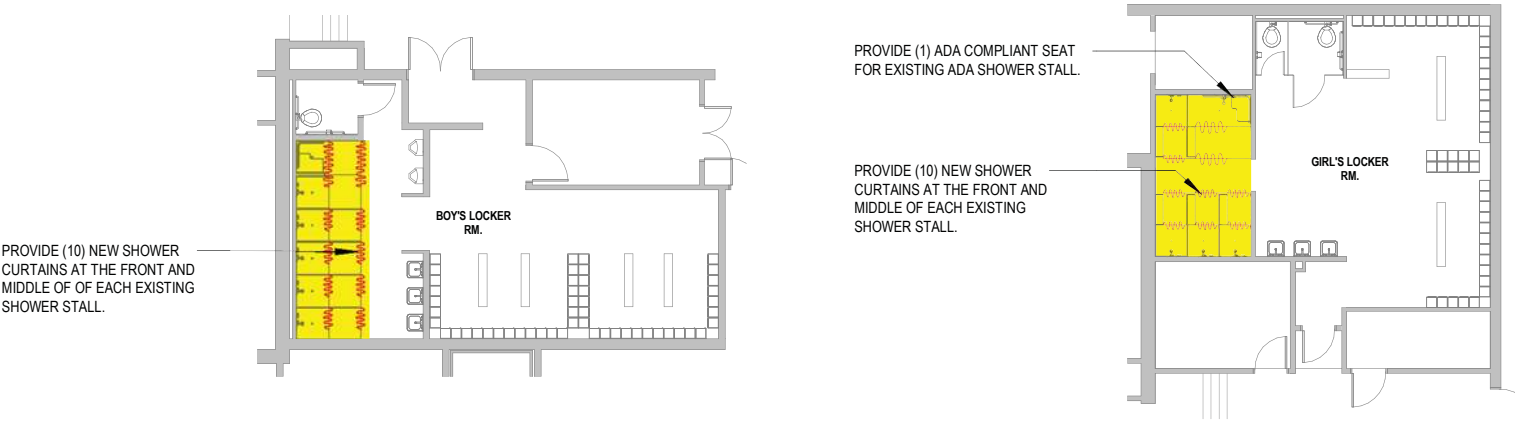
Overview

The existing locker room configurations at King Middle School offer limited privacy in both the showering and the changing areas in the boy’s and girl’s locker rooms. Both locker rooms have private showering and changing partitions in front. However, the shower curtains are missing at all partitions in both locker rooms, thereby negating the privacy of these stalls. Each locker room has a shower stall meant to be ADA compliant, though both are missing some critical components to make each stall fully compliant. Adjacent to these shower areas are large, open changing areas with a perimeter of lockers and rows of benches at the center. This configuration lacks dry, private areas in which students can change privately without needing to enter a wet shower area. Both locker rooms require short-term modifications to offer students privacy while showering and changing, and make these locker room areas private and ADA compliant.

Short Term Recommendations

Install curtains at the existing individual showers and changing compartments.

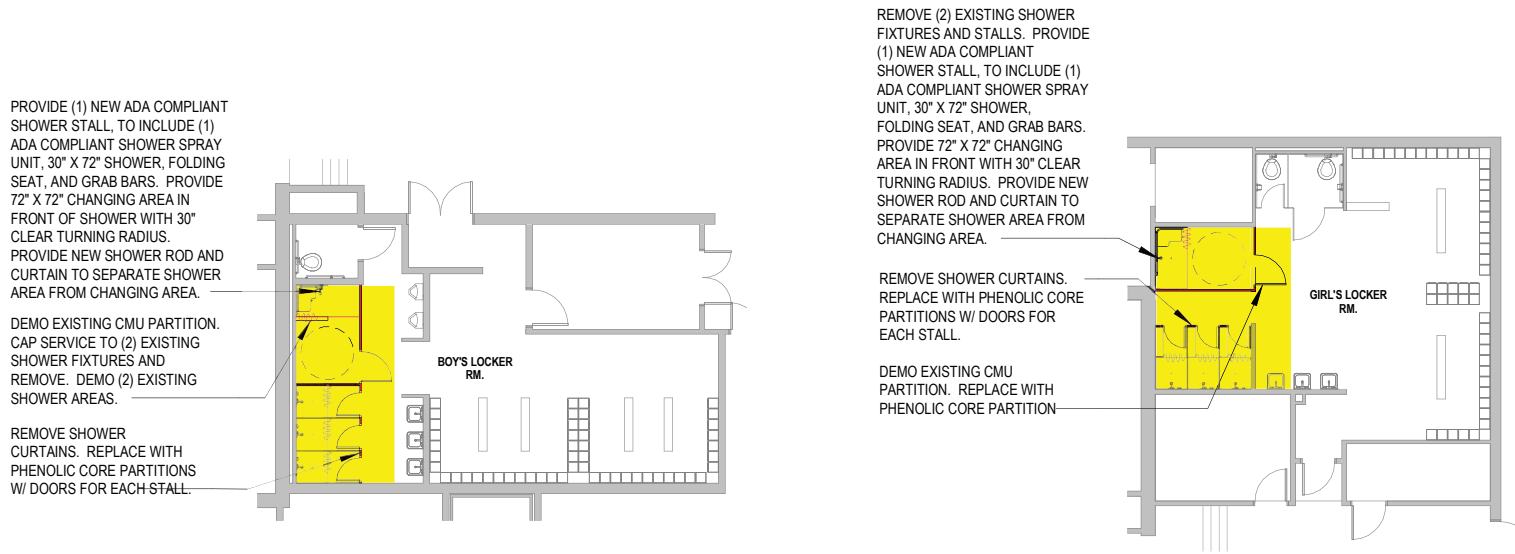
Opinion of Probable Cost: \$14,964



Long Term Recommendations

Renovate shower areas to provide individual private shower and changing compartments, including ADA-compliant facilities.

Opinion of Probable Cost: \$20,453



LINCOLN MIDDLE SCHOOL

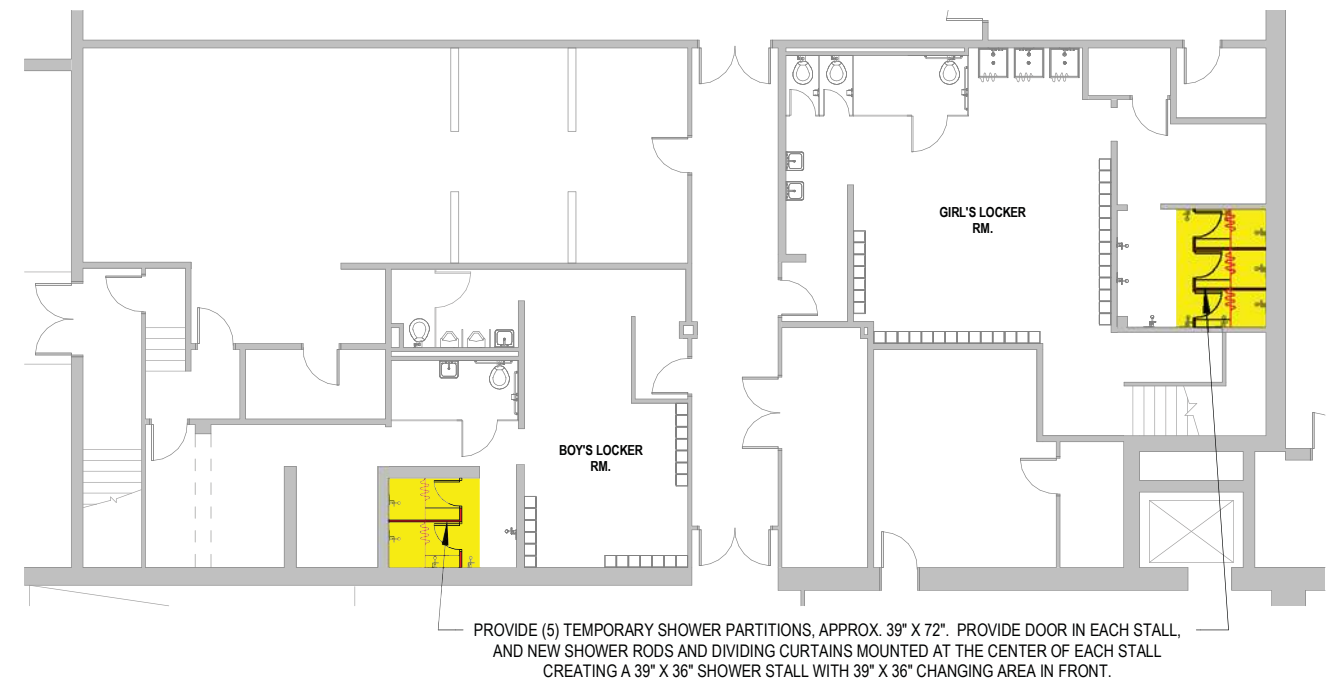
Overview

The existing locker room configurations at Lincoln Middle School offer limited or no privacy in both the showering and changing areas in the boy's and girl's locker rooms. Both locker rooms have gang shower configurations, which offer no privacy for students and are not ADA accessible. The girl's locker room does offer some degree of privacy, having three separate private shower stalls with shower curtains. However, these stalls lack separate changing areas in front of each stall, the addition of which would allow students a private space to change before entering the shower. Also, none of these stalls are ADA compliant. Adjacent to these shower areas are large, open changing areas with a perimeter of lockers and rows of benches at the center. This configuration lacks dry, private areas in which students can change privately without needing to enter a wet shower area. Both locker rooms require short and long-term modifications to offer students privacy while showering and changing, and to make them ADA compliant.

Short Term Recommendations

Subdivide the existing gang showers and shower stalls into individual private compartments using compartment partitions and curtains.

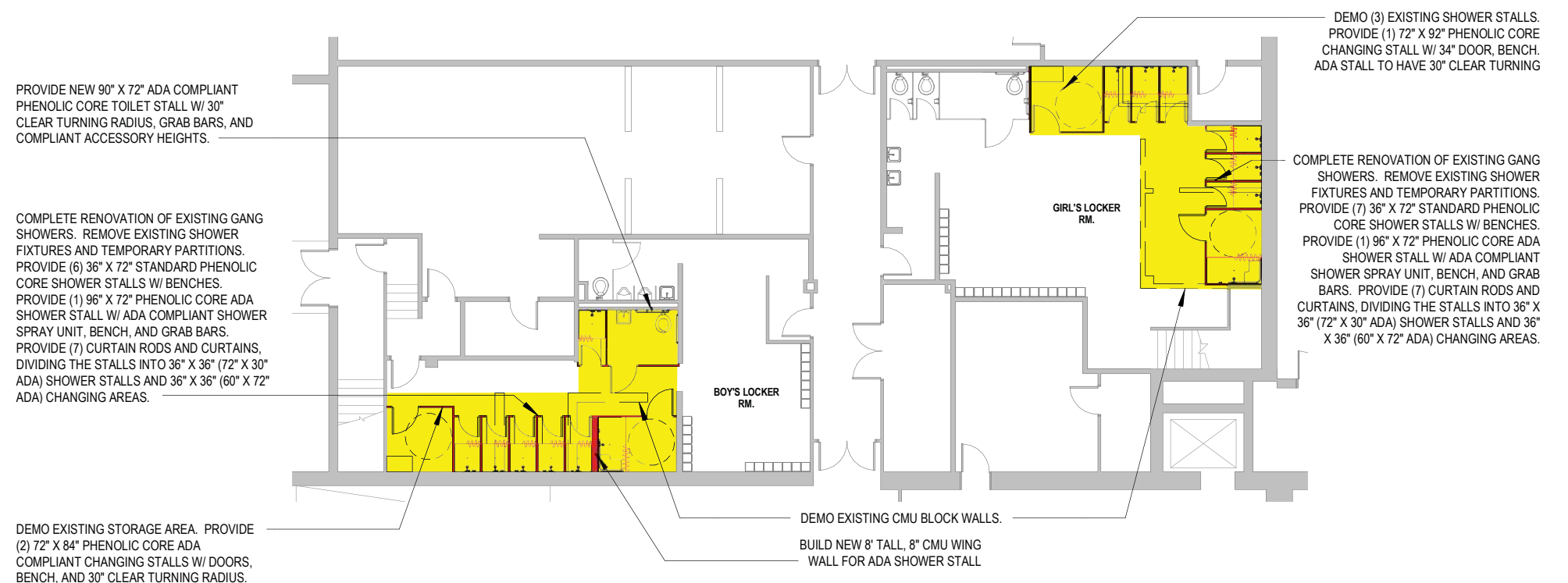
Opinion of Probable Cost: \$16,884



Long Term Recommendations

Renovate gang showers to provide individual private shower and changing compartments, including ADA-compliant facilities.

Opinion of Probable Cost: \$240,599



LYMAN MOORE MIDDLE SCHOOL

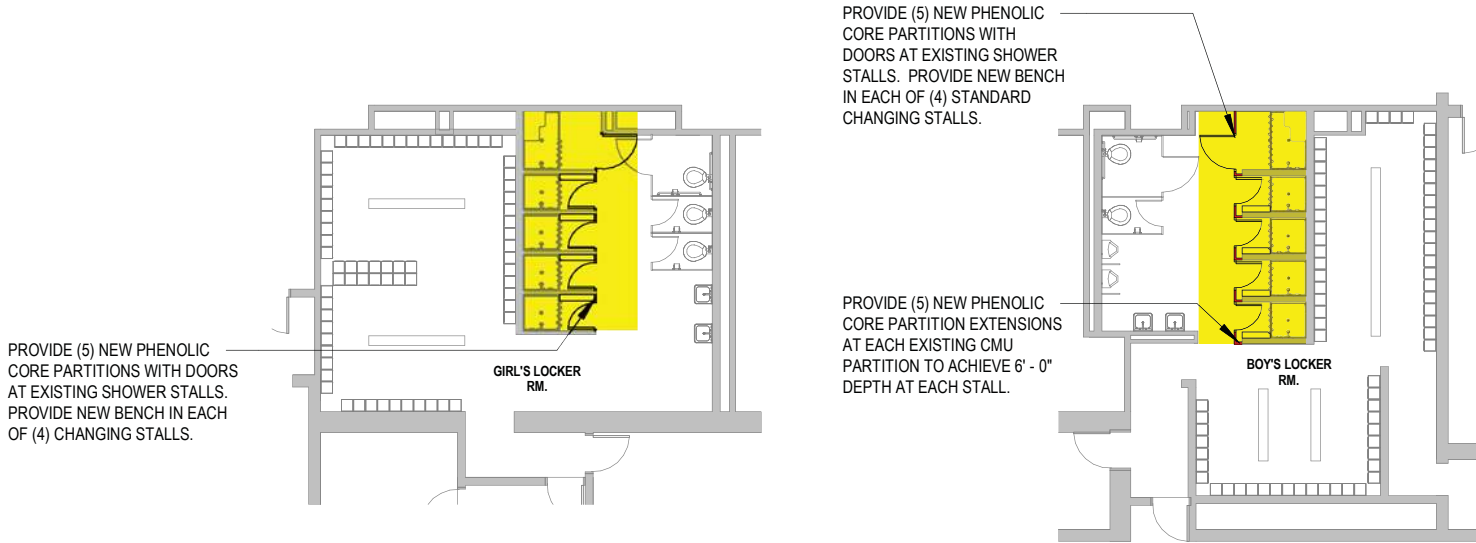
Overview

The existing locker room configurations at Lyman Moore Middle School offers limited privacy in the shower areas but no privacy in the changing areas. Both locker rooms are laid out with open changing areas in the middle of each space and lockers along the perimeter. This set up does not allow students the opportunity to change into their gym clothes in a private setting if so desired. Both shower areas consists of separate CMU shower stalls with curtains. However, neither shower area offers a private changing area directly outside of the stalls. The CMU walls of the shower stalls extend beyond the shower curtain by three feet (+/-) which could easily be used as private changing areas with the addition of a second curtain.

Short Term Recommendations

Provide compartment partitions and doors at existing shower and changing stalls.

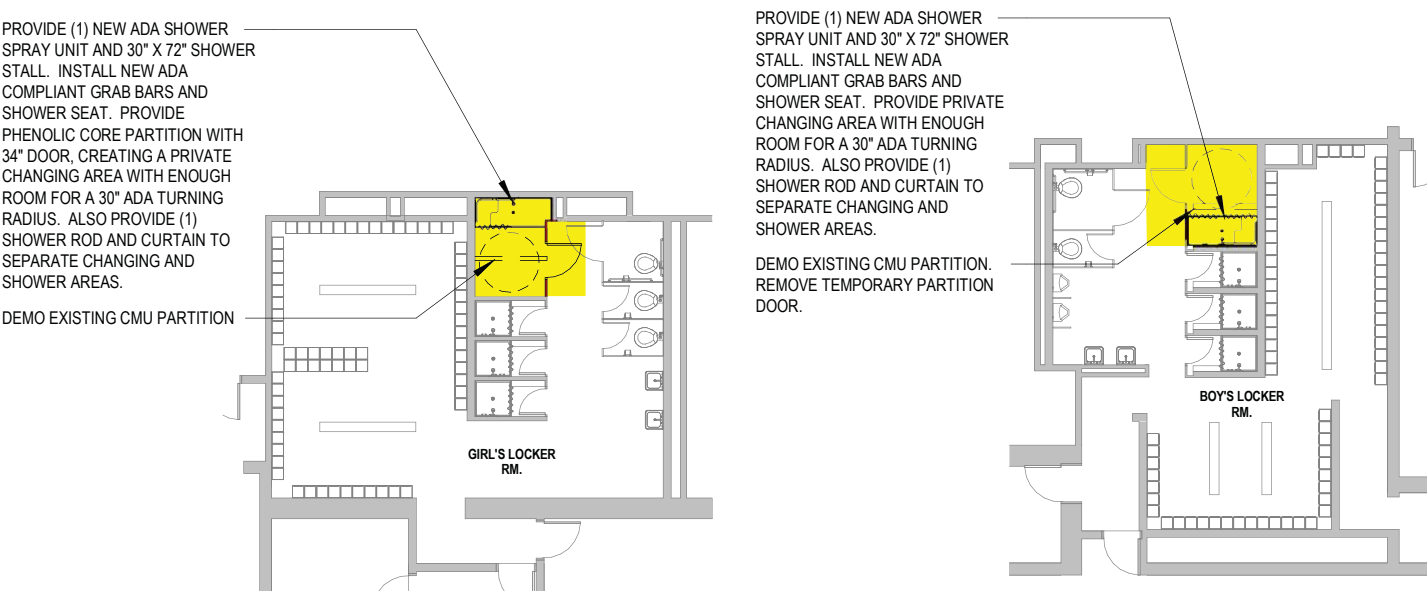
Opinion of Probable Cost: \$29,081



Long Term Recommendations

Limited renovation to provide an ADA-compliant shower and changing compartment in each locker room.

Opinion of Probable Cost: \$27,954



DEERING HIGH SCHOOL

Overview

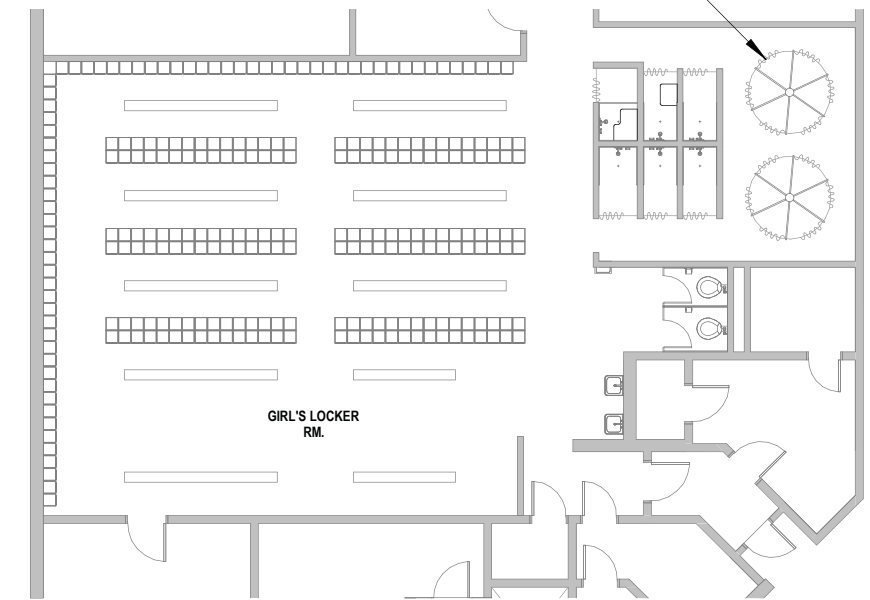
The existing locker room configurations at Deering High School offers limited or no privacy in both the men's and women's changing areas and showers. Both locker rooms are laid out with open changing areas with rows of lockers and benches in the middle of each space and lockers along the perimeter. This set up does not allow students the opportunity to change into their gym clothes in a private setting if so desired. The men's locker room has two separate gang shower areas, one appears to be no longer used for showers. Gang showers offer no privacy for students who wish to shower privately and are also not ADA accessible. The women's shower area has taken steps to offer some level of privacy. The area has been reconfigured to provide separate CMU shower stalls with curtains and the shower pedestals have been redesigned with partitions and curtains to offer some level of privacy while maintaining the existing fixtures. The women's shower area offers an acceptable level of privacy for a short term solution, but, should be reconfigured in the long term to eliminate the shower pedestals and provide separate shower stalls with changing areas.

Short Term Recommendations

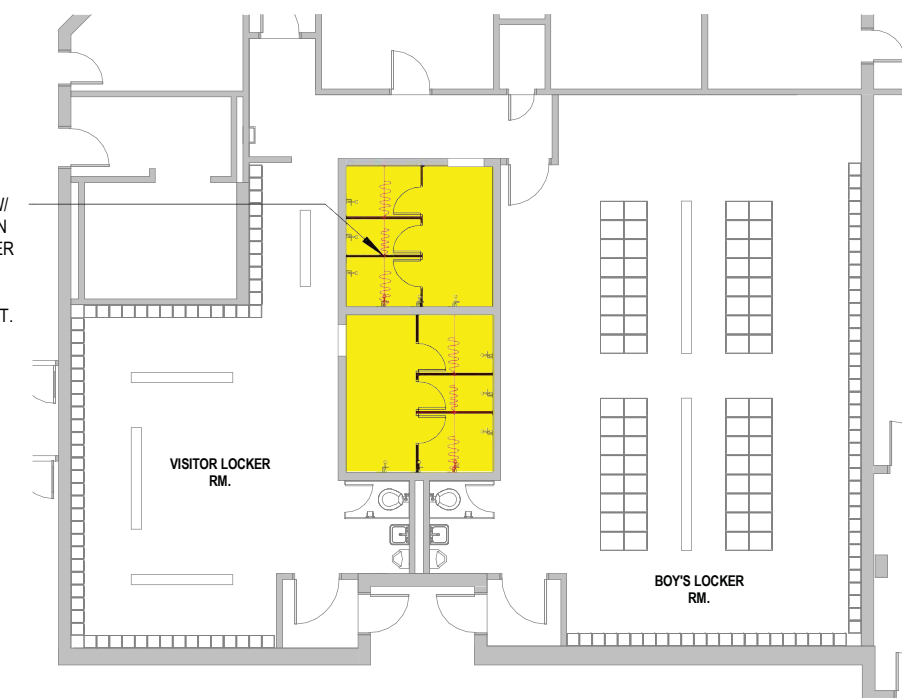
At the Visitor's and Boy's Locker Rooms, subdivide existing gang showers with compartment partitions and curtains to provide individual private shower and changing compartments.

Opinion of Probable Cost: \$16,323

THE SCHOOL HAS ALREADY TAKEN STEPS TOWARDS HELPING MAKE THE GIRL'S LOCKER ROOM MORE PRIVATE. NO TEMPORARY ACTION NEEDED.



PROVIDE (6) TEMPORARY SHOWER PARTITIONS W/ DOORS BETWEEN EXISTING SHOWER FIXTURES IN GANG SHOWER AREAS. PROVIDE (6) NEW SHOWER RODS AND DIVIDING CURTAINS MOUNTED AT THE CENTER OF EACH STALL CREATING A SHOWER STALL WITH SEPERATE CHANGING AREA IN FRONT.

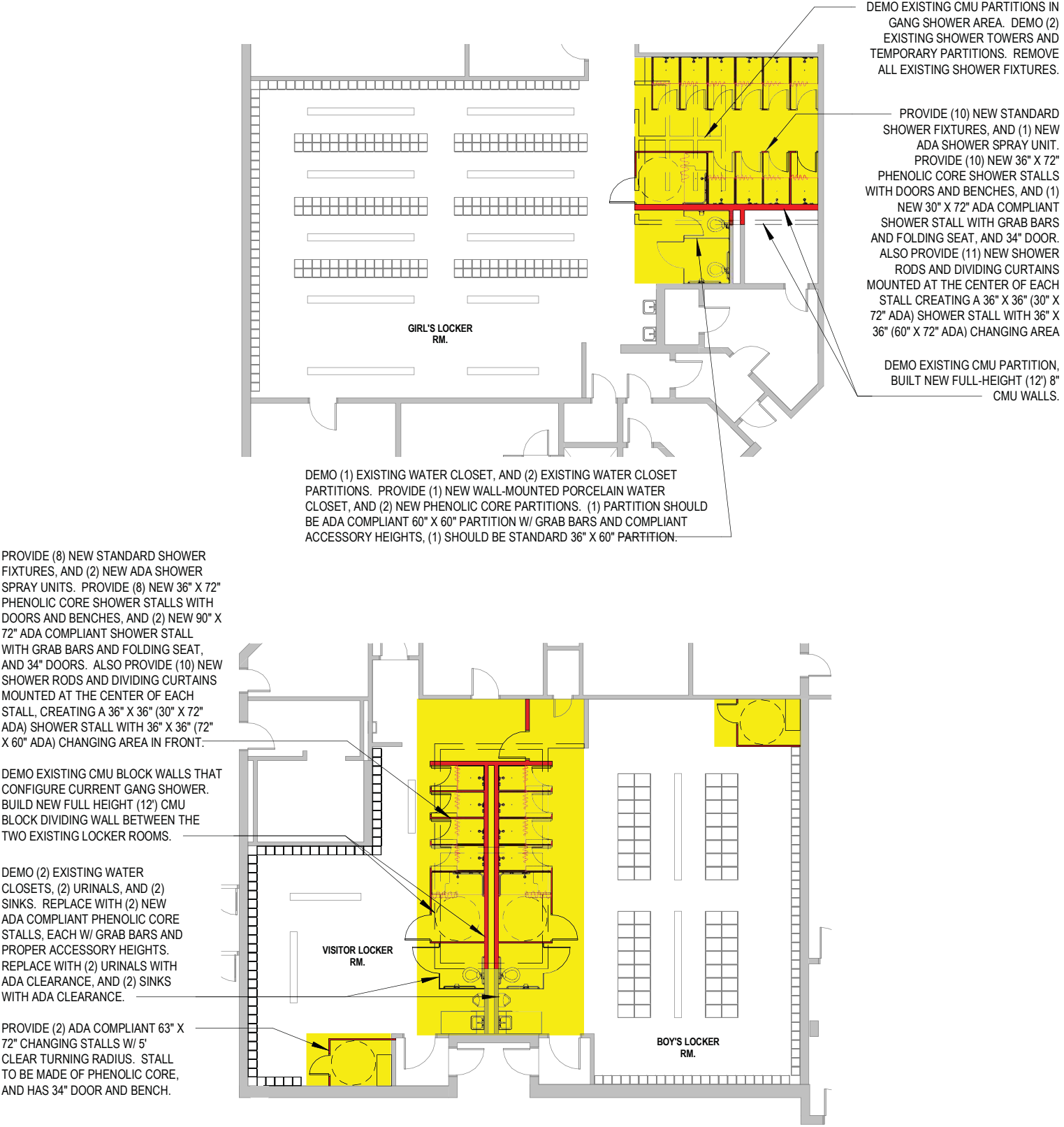


DEERING HIGH SCHOOL

Long Term Recommendations

Renovate the gang showers in all three locker rooms to provide individual private shower and changing compartments, including ADA-compliant facilities.

Opinion of Probable Cost: \$386,116



PORTLAND HIGH SCHOOL

Overview

The existing locker room configurations at Portland High School offer limited or no privacy in both the showering and the changing areas of its three locker rooms. The boy's locker room, as well as the visiting team's locker room both currently have gang shower configurations, which offer no privacy for students and are not ADA accessible. The girl's locker room offers a degree of privacy for students wishing to shower privately by providing separate CMU partitioned shower stalls. However, these stalls are all missing shower curtains, thereby negating the privacy of these stalls. Furthermore, these stalls do not have private changing areas directly in front of each shower stall, which would allow students to change privately before entering the shower stall. Adjacent to these shower areas, each locker room is laid out with open changing areas. These areas have a perimeter of lockers, with rows of benches at the center of each space. This configuration lacks dry, private areas in which students can change privately without needing to enter a wet shower area. All three locker rooms require short and long-term modifications to offer students privacy while showering and changing, and to make them ADA compliant.

Short Term Recommendations

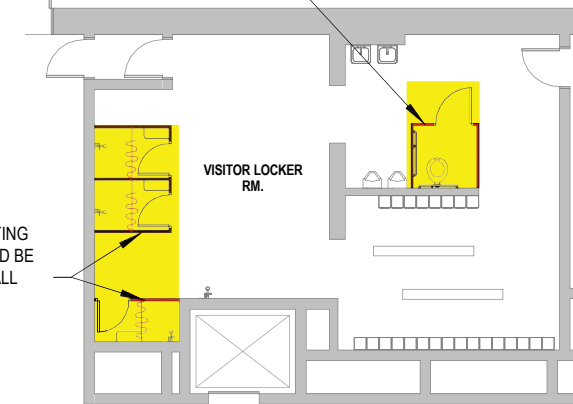
At the Visitor's and Boy's Locker Rooms, subdivide the existing gang showers using compartment partitions to provide individual private shower compartments.

At the Girl's Locker Room, install compartment partition doors and curtains to provide individual private shower compartments.

Opinion of Probable Cost: \$68,233

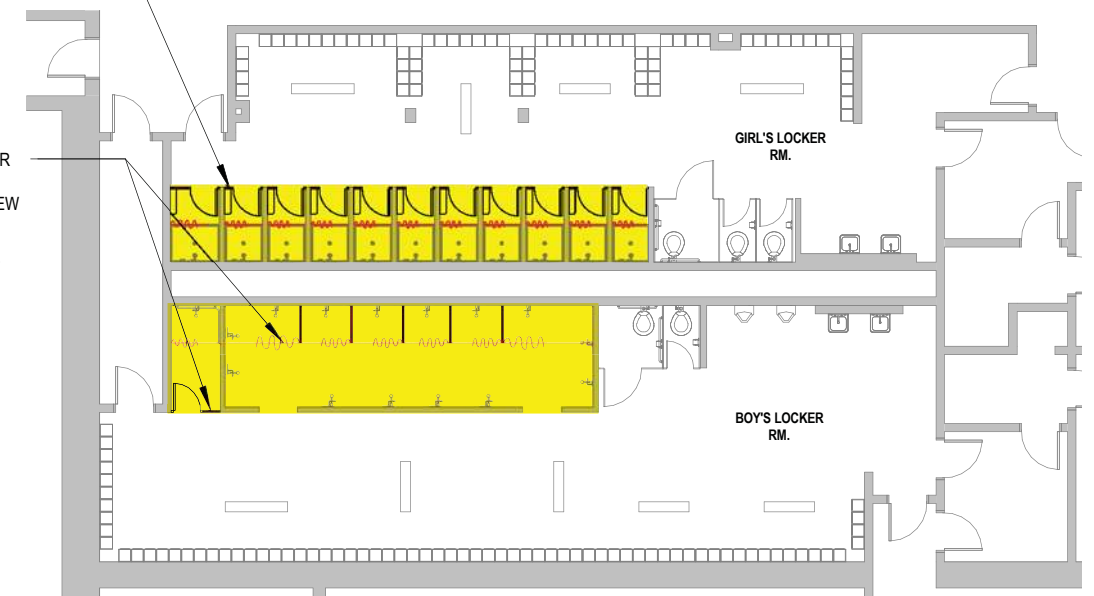
PROVIDE (1) NEW ADA COMPLIANT PARTITION FOR EXISTING TOILET FIXTURE, COMPLETE W/ 5' X 5' CLEAR TURNING AREA, GRAB BARS, AND COMPLIANT ACCESSORY HEIGHTS.

PROVIDE (3) NEW PARTITIONS FOR EXISTING SHOWER FIXTURES. PARTITIONS SHOULD BE LARGE ENOUGH FOR 3' X 3' SHOWER STALL AND 3' X 3' CHANGING AREA IN FRONT W/ CHANGING SEAT.



PROVIDE (11) NEW PARTITIONS FOR EXISTING SHOWER STALLS. ALSO, PROVIDE (11) NEW DIVIDING SHOWER CURTAINS TO SEPERATE SHOWER AREA FROM CHANGING AREA, AS WELL AS A NEW SEAT IN EACH CHANGING AREA.

PROVIDE (6) NEW PARTITIONS FOR EXISTING SHOWER STALL AND GANG SHOWER AREA. PROVIDE DOOR IN PARTITION FOR EXISTING SHOWER STALL, AND (7) NEW DIVIDING SHOWER CURTAINS. EXISTING SHOWER STALL WILL HAVE CHANGING AREA IN FRONT, AND SHOWER AREA BEHIND. GANG SHOWERS WILL ONLY HAVE 3' X 3' SHOWER AREAS, NO CHANGING AREA IN FRONT.



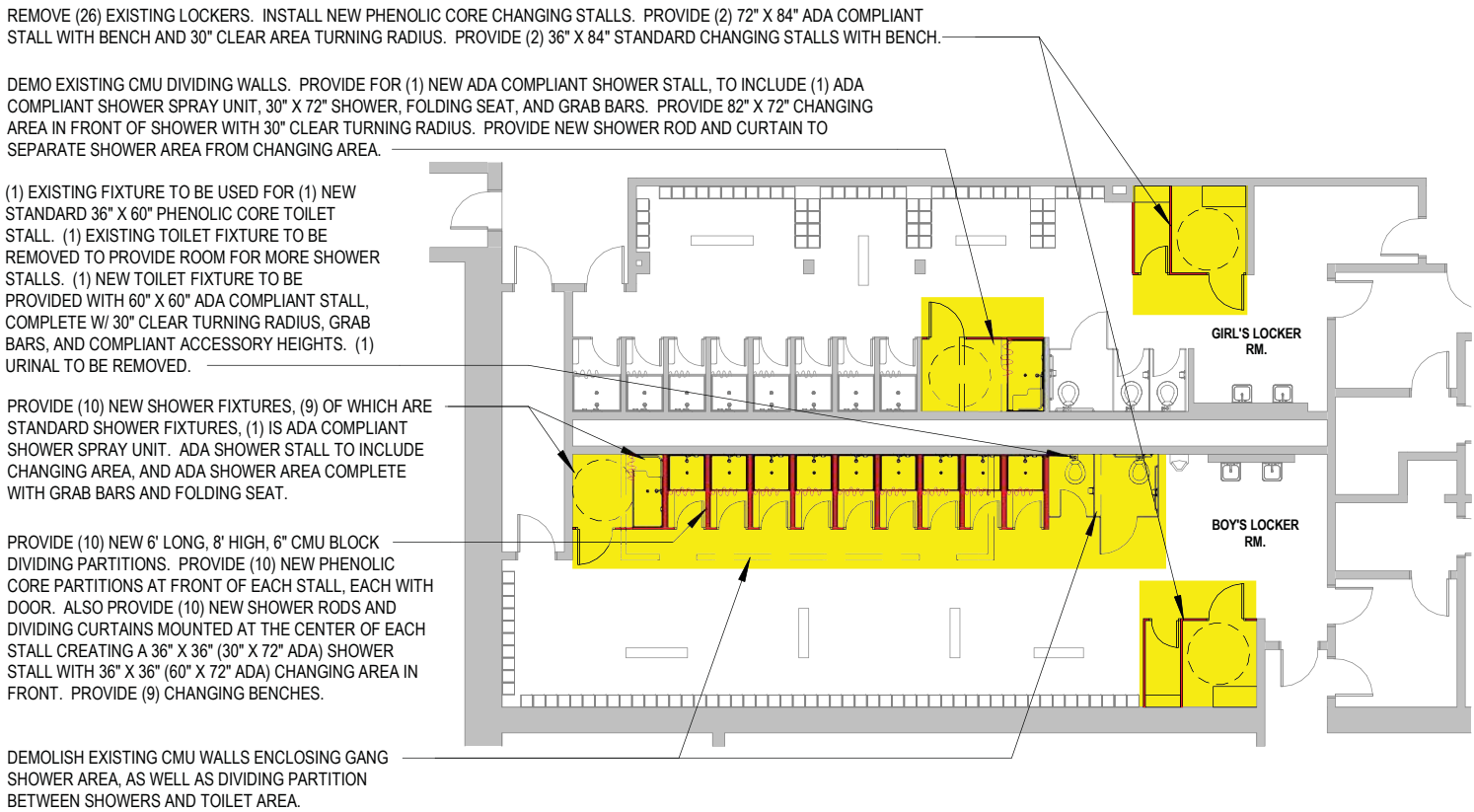
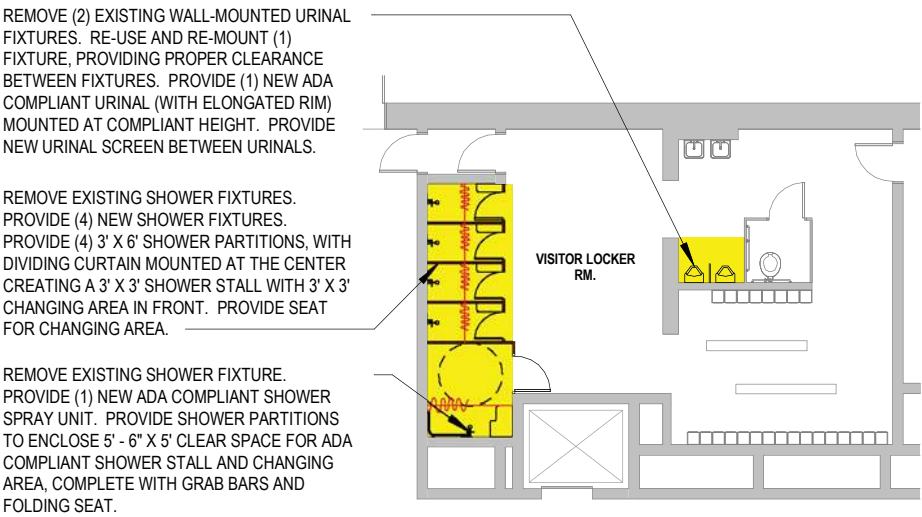
PORTLAND HIGH SCHOOL

Long Term Recommendations

At the Visitor’s and Boy’s Locker Rooms, renovate gang showers to provide individual private shower and changing compartments, including ADA-compliant facilities.

At the Girl’s Locker Room, renovate to provide ADA-compliant shower and changing facilities.

Opinion of Probable Cost: \$210,332



Locker Room Privacy Accommodations - Summary of Costs

BUILDING	SHORT TERM RECOMMENDATIONS (Years 1 - 5)			LONG TERM RECOMMENDATIONS (Years 6 - 10)		
	TRADE COST + 50.5% MARK-UP	Escalation at 24.65%	OPINION OF PROBABLE COST	TRADE COST + 50.5% MARK-UP	Escalation at 55.3%	OPINION OF PROBABLE COST
Reiche Elementary School	\$11,590	\$2,857	\$14,447	\$110,030	\$60,847	\$170,877
Riverton Elementary School	\$15,050	\$3,710	\$18,760	\$99,875	\$55,231	\$155,106
King Middle School	\$12,005	\$2,959	\$14,964	\$13,170	\$7,283	\$20,453
Lincoln Middle School	\$13,545	\$3,339	\$16,884	\$154,925	\$85,674	\$240,599
Moore Middle School	\$23,330	\$5,751	\$29,081	\$18,000	\$9,954	\$27,954
Deering High School	\$13,095	\$3,228	\$16,323	\$248,626	\$137,490	\$386,116
Portland High School	\$54,740	\$13,493	\$68,233	\$135,436	\$74,896	\$210,332
	TOTAL		\$178,692	TOTAL		\$1,211,436

Capital Plan

Introduction

The Capital Plan within this section encompasses the proposed scope of work for a twenty-year period starting in 2017 and ending in 2037. Based on the existing building conditions evaluations, the plan includes projects for repairs and upgrades as well as limited renovations.

The summary matrix on the following page provides an overview of all of the proposed recommendations and projects and their scheduling and sequencing.

For each building, a detailed scope of work is provided, organized in five-year increments over the twenty-year plan period. More detailed information and a break out of individual action items can be found further in this section under Capital Plan Detailed Scope of Work.

The Capital Plan includes the following scope of work:

- Building Envelope and Roof
- Structure
- Walls and Flooring
- Windows and Doors
- Plumbing and Fire Protection
- Heating, Ventilation, and Air Conditioning
- Electrical, Lighting, and Fire Alarm
- Technology Infrastructure
- Security
- Accessibility / ADA Compliance
- Locker Room Privacy Accommodations
- Site

Recommendations have been prioritized according to the following system of ranking:

- | | |
|--|---------------|
| 1. Immediate Items | Year 0 |
| 2. Life Safety, Code, ADA-compliance, Security, Structural | Years 1 - 5 |
| 3. MEP Systems | Years 6 - 10 |
| 4. Interior Finishes | Years 11 - 15 |
| 5. Building Envelopes | Years 16 - 20 |

This plan is intended to assist the City of Portland and the Portland Public School District in identifying, prioritizing, budgeting, and scheduling execution of the work over the plan period. It is anticipated that it will also facilitate strategy discussions and ongoing coordination efforts with the State of Maine Department of Education relative to prioritization of projects and best use of available funding sources.

Methodology and Basis of Costs

The following is a description of the estimating methodology used to develop the Opinion of Probable Costs for individual line item recommended actions detailed within the repair scope of work documents and further used to generate the Capital Plan.

These costs are based on preliminary construction estimates and include hard construction costs for the building and site. Hard construction costs for the building can be defined as the cost of the physical building from the foundation upwards, including all permanent building systems.

“Soft Costs” can also have significant effects on the total amount of a project’s cost. Soft costs include a wide array of items which all contribute to a total school bond required to construct or renovate a building. These costs include (but are not limited to): engineering and design fees, legal and administrative fees, furnishing and equipment not part of the building systems, utility connection charges, and permitting fees. Soft costs can vary greatly from school to school depending on local requirements and also on the amount of furnishings and equipment suitable for re-use in a new or rehabilitated school. In general, these costs can range from 20-30% of construction costs. *Please note that Soft Costs are not included in the Capital Plan.*

Also note that these costs are based on current year (2016) values. Given the relatively volatile market, we cannot forecast the construction inflation for the coming years with any degree of certainty. We hope that these very preliminary construction costs help you understand an order of magnitude budget and potential tax impacts as you consider options for phasing and implementation of your facility upgrades. As stated above, these costs are preliminary construction values.

As the solutions for each phase of the capital plan are further defined and developed, we recommend these construction values be revisited to develop a more detailed estimate relating to the scope and size of your selected capital improvements.

Basis and Assumptions:

- Unit pricing for identified repair line items were established with the cost estimating consultant and factored with estimated quantities to generate opinion of probable costs
- A Design-Bid-Build project delivery process is assumed
- No programmatic changes are included
- No costs for land acquisition are included
- Costs are order of magnitude and have been developed based on square footage

The following are excluded from the opinion of probable costs:

- Architect-Engineering Fees
- Overtime
- Loose furniture and equipment (except where noted)
- Builder’s Risk Insurance

Qualifications and Clarifications:

- Labor costs assume local prevailing wage labor rates; State of Maine listed wages or Federal Davis-Bacon prevailing wages are excluded.
- The following mark-ups are used:

• General Conditions and General Requirements	15.00%
• Insurance and Bond	3.50%
• Building Permit	1.00%
• Contractor’s (CM/GC) Fee	6.00%
• Design Contingency	10.00%
• Estimating Contingency	10.00%
• Construction Contingency	5.00%
- The following escalation contingency markups are applied to recommended action items depending on where they fall within the Capital Plan:

• Escalation Contingency (2016-2017 current budgetary year)	0.00%
• Escalation Contingency using 50-year construction historical average	4.50%
• Escalation Contingency (projects 5 years out)	24.65%
• Escalation Contingency (projects 10 years out)	55.30%
• Escalation Contingency (projects 15 years out)	93.55%
• Escalation Contingency (projects 20 years out)	116.55%
- The opinions of probable cost assume all long-lead items can be pre-purchased to meet schedule requirements.
- Pricing assumes grouping of individual line items is unclear and that multiple smaller contracts may be likely.
- Overall construction costs may be re-evaluated at a later date based on a defined and collective scope.

CAPITAL PLAN

	Immediate Recommendations	Short Term Recommendations					Long Term Recommendations							
	Year 0 2017	Years 1 - 5 2018 - 2022					Years 6 - 10 2023 - 2027					Years 11 - 15 2028 - 2032	Years 16 - 20 2033 - 2037	TOTALS
		CIP	CIP (Major Renovation)	Maintenance	City Expense	Sub Total	CIP	CIP (Major Renovation)	Maintenance	City Expense	Sub Total			
Elementary Schools	Page No.													
Cliff Island	217	\$0	\$218,878	\$0	\$3,752	\$222,630	\$0	\$0	\$133,519	\$0	\$133,519	\$55,036	\$229,727	\$640,912
East End Community	225	\$59,600	\$148,869	\$0	\$12,024	\$203,525	\$0	\$0	\$53,571	\$0	\$53,571	\$7,059,349	\$8,052,379	\$15,428,424
Longfellow	233	\$0	\$3,450,296	\$0	\$40,736	\$3,491,973	\$0	\$6,378,111	\$0	\$0	\$6,378,111	\$2,628,980	\$2,365,473	\$14,864,537
Lyseth	251	\$0	\$2,080,855	\$0	\$4,406	\$2,085,261	\$3,188,500	\$7,593,746	\$58,093	\$0	\$10,840,339	\$1,789,681	\$2,469,917	\$17,185,198
Ocean Avenue	263	\$0	\$57,780	\$0	\$0	\$57,780	\$0	\$0	\$13,281	\$0	\$13,281	\$3,674,105	\$6,671,830	\$10,416,996
Peaks Island	269	\$0	\$808,655	\$0	\$19,065	\$833,160	\$0	\$2,011,217	\$23,916	\$0	\$2,035,133	\$685,244	\$775,595	\$4,329,132
Presumpscot	283	\$0	\$844,575	\$0	\$17,487	\$862,062	\$0	\$5,478,512	\$0	\$0	\$5,478,512	\$1,050,202	\$1,033,918	\$8,424,694
Reiche	295	\$0	\$2,431,435	\$0	\$5,974	\$2,505,418	\$198,668	\$14,090,541	\$0	\$0	\$14,289,209	\$4,356,036	\$2,431,142	\$23,581,805
Riverton	307	\$1,505	\$1,298,762	\$0	\$11,549	\$1,378,435	\$132,333	\$8,930,255	\$317,158	\$210,031	\$9,589,777	\$2,900,612	\$5,032,503	\$18,902,832
Elementary Schools Subtotal		\$61,105	\$11,340,105	\$0	\$114,993	\$185,146	\$3,519,501	\$44,482,382	\$599,538	\$210,031	\$48,811,452	\$24,199,245	\$29,062,484	\$113,774,530
Middle Schools														
King	331	\$0	\$1,111,089	\$0	\$75,493	\$1,382,810	\$136,912	\$10,973,498	\$25,625	\$0	\$11,136,035	\$4,030,117	\$2,456,825	\$19,005,787
Lincoln	341	\$1,500	\$1,606,739	\$0	\$75,478	\$1,691,222	\$0	\$10,555,989	\$0	\$0	\$10,555,989	\$4,558,534	\$4,556,994	\$21,364,239
Moore	363	\$3,600	\$1,092,471	\$0	\$21,172	\$1,113,643	\$0	\$10,917,590	\$4,675	\$0	\$10,922,265	\$4,900,754	\$4,904,587	\$21,844,849
Middle Schools Subtotal		\$5,100	\$3,810,299	\$0	\$172,143	\$205,233	\$136,912	\$32,447,077	\$30,300	\$0	\$32,614,289	\$13,489,405	\$11,918,406	\$62,214,875
High Schools														
Portland Arts & Technology (PATHS)	379	\$66,500	\$5,992,703	\$0	\$76,363	\$6,069,066	\$0	\$22,182,276	\$0	\$0	\$22,182,276	\$8,303,498	\$2,345,323	\$38,966,663
Deering	399	\$0	\$6,490,744	\$0	\$31,220	\$6,521,964	\$1,383,723	\$19,684,741	\$74,544	\$0	\$21,143,008	\$8,250,822	\$7,291,011	\$43,206,805
Portland	421	\$4,515	\$3,149,159	\$0	\$17,936	\$3,210,993	\$81,804	\$21,713,483	\$48,034	\$0	\$21,843,321	\$13,991,904	\$8,199,137	\$47,249,870
High Schools Subtotal		\$71,015	\$15,632,606	\$0	\$125,519	\$15,802,023	\$1,465,527	\$63,580,500	\$122,578	\$0	\$65,168,605	\$30,546,224	\$17,835,471	\$129,423,338
Other Buildings														
District Office / Bayside Learning	441	\$27,083	\$588,555	\$0	\$0	\$588,555	\$3,360,684	\$0	\$0	\$0	\$3,360,684	\$2,946,547	\$1,177,419	\$8,100,288
Central Kitchen	453	\$0	\$72,444	\$0	\$28,177	\$100,621	\$445,518	\$0	\$469,627	\$0	\$915,145	\$452,520	\$408,197	\$1,876,483
Subtotal		\$27,083	\$660,999	\$0	\$28,177	\$689,176	\$3,806,202	\$0	\$469,627	\$0	\$4,275,829	\$3,399,067	\$1,585,616	\$9,976,771
General District Items														
General District Items* * Non-building specific items from PPS 5-yr CIP)	461	\$0	\$6,337,065	\$0	\$0	\$6,337,065	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,337,065
TOTAL		\$164,303	\$37,781,074	\$0	\$440,832	\$434,277	\$8,928,142	\$140,509,959	\$1,222,043	\$210,031	\$150,870,175	\$71,633,941	\$60,401,977	\$321,726,579

- Notes:
- 1. All prices presented here are Opinions of Probable Costs. Refer to Methodology and Basis of Costs earlier in this section for assumptions, exclusions, qualifications, and clarifications used to develop these costs.
 - 2. For a more detailed breakdown of recommendations and associated costs for each building and Plan Year, refer to the Capital Plan Scope of Work for each building later in this section.

Capital Plan Detailed Scope of Work

In order to present the detailed scope of work for greatest ease of use, all of the individual recommended action items from the existing conditions reports have been consolidated to create the following reference documents.

For each building, a detailed scope of work is provided, organized by each year within the twenty-year plan period. The buildings are organized in the same structure and order as the assessment reports within the Existing Conditions Documentation section. Sub-sections for each building (site, building interior, mechanical, etc.) are all titled for clear identification.

There is also a series of Evaluation Criteria - nine aspects for further understanding of the nature of the item and its associated effects. These allow application of additional scrutiny and understanding for deciding the disposition and importance of individual items, as well as for communicating the need to the stakeholders.

Line item opinions of probable costs are indicated and totals for each Plan Year Period for each building are provided. Note that these values are based on sub-contractor trade costs and have been adjusted for construction costs, project costs, and escalation. Please refer to the Methodology and Basis of Costs presented earlier in this section for assumptions, exclusions, qualifications, and clarifications used to develop these values.

Routine MEP/FP maintenance recommendations are not included here but are under the full reports for each individual school. As these items are ongoing requirements, they have not been assigned a specific action priority and don't appear within the capital plan consolidated scopes of work.

CLIFF ISLAND ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

* Note:
All prices presented here are Opinions of Probable Costs. Refer to Methodology and Basis of Costs in the Capital Plan section for assumptions, exclusions, qualifications, and clarifications used to develop these costs.

LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																	0.00%	\$0
Total Year 0																	\$0	

CLIFF ISLAND ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

* Note:
All prices presented here are Opinions of Probable Costs. Refer to Methodology and Basis of Costs in the Capital Plan section for assumptions, exclusions, qualifications, and clarifications used to develop these costs.

LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

															BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
SITE																						
Vehicular & Pedestrian Circulation																						
Pedestrian Ramp Location & Materials	ADA ramp into school is good - wood with rail, rail needs minor repair.	Gravel/defined path from ramp to roadway needed. Repair handrail.	2	ESL	S	100 s.f.@\$20		●		●						\$3,010	24.65%	\$3,752			\$3,752	
Courtyards & Exterior Gathering Spaces																						
Locations, Materials and Characteristics	Exposed grounding rod at entry. Concrete foundation on playground. OHE dangerously close to playground equipment.	OHE to be relocated away from playground. Pathway needed to playground. Wood chips recommended on playground.	0	END	S	OHE reroute: 300 lf @\$100 1 Pole @\$5000 Wood Chips: 3600 s.f.@\$2.50		●								\$66,220	24.65%	\$82,543	\$82,543			
Fencing																						
Locations & Materials	None	Fencing needed between playground and Church Road.	0	OS	S	150 lf@\$50		●								\$11,287	24.65%	\$14,069	\$14,069			
Site Topography																						
Characteristics	Visible ledge.	Provide path from building to playground to avoid tripping hazard.	0	OS	S	250 s.f.@\$20		●								\$7,525	24.65%	\$9,380	\$9,380			
Site Furniture & Accessories																						
Types, Locations, Materials	Teacher informed that the storage shed is infested. Oil tank located at rear of building, no screening.	Eradicate infestation in storage shed and repair/improve security. Add screening around oil tank.	1	END	S	Fence: 40lf @\$100 Replace Shed Door: 1 @\$1000		●								\$7,525	24.65%	\$9,380	\$9,380			
Flagpoles	Proximity to OHE.	Relocate flagpole away from OHE.	1	END	S	1 @ \$5000		●								\$7,525	24.65%	\$9,380	\$9,380			
Site Drainage																						
Ponding	Plugged culvert.	Clean out culvert, install rip rap forebay at inlet side.	1	END	S	1 LS@ \$2500							●			\$3,762	24.65%	\$4,689	\$4,689			
Plantings, Trees and Shrubs																						
Locations, Types and Densities	Number of damaged/failing trees in close proximity to building. Piles of lumber/debris.	Tree removal needed. Protect grounding rod from electrical box	0	OB	S	2 each \$1500		●					●			\$4,515	24.65%	\$5,628	\$5,628			
STRUCTURAL																						
Roof Construction	Roof structured not accessed; based on drawings after framing. High low roof condition likely does not meet current code for snow loading.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift. Shoveling of drifts recommended in the interim.	3	ESL	S	Low roof 120 SF		●								\$2,710	24.65%	\$3,378	\$3,378			
BUILDING EXTERIOR																						
Exterior Doors																						
Frame Materials	A mix of painted wood doors and painted metal doors, both with wood frames. Wood doors and frames are in poor condition	Recommend replacing all doors and frames with thermally broken aluminum framed doors with painted aluminum doors. Front door to be half glass configuration with insulated, clear glazing. Both doors to have ADA / code compliant hardware, aluminum, with crash bar egress devices.	0	OB	S	(2) 36"x84" aluminum exterior doors with thermally broken aluminum frames (1 door to be half glazed with clear, insulated glazing with Low-E coating). (2) aluminum, code/ADA compliant hardware with crash bar egress device.				●		●	●			\$8,280	24.65%	\$10,321	\$10,321			
Glazing Type and Color	Non-insulated single pane windows in the wooden door	Provide clear, insulated glazing with Low-E coating in new doors as described above.	0	OB	S	See above				●		●	●			\$0	24.65%	\$0	\$0			
Door Widths and Clearances	Front door is compliant. Rear door width is good, threshold and swing clearance do not meet ADA requirements.	Clear items away from door to allow for clear ADA approach access. Provide an ADA compliant threshold	0	OB	S	(1) ADA compliant exterior door threshold				●		●	●			\$225	24.65%	\$280	\$280			
Exterior Stairs and Ladders																						
Locations and Materials		Recommend proving an ADA/code compliant, painted metal handrail at front entry stairs.	0	OB	S	A total of 15 linear feet			●	●						\$680	24.65%	\$848	\$848			
BUILDING INTERIOR																						
Main Entrance																						

CLIFF ISLAND ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/in Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Door Hardware	Non-ADA, dated door hardware in poor condition	Door hardware is to be replaced when new exterior main entrance door is installed	0	OB	S	(1) code compliant, aluminum, push/pull hardware with emergency egress crash bar.											\$830	24.65%	\$1,035	\$1,035			
General Purpose Classrooms																							
Sinks (ADA compliance)	Counter mounted sink (Non-ADA)	Provide new plastic laminate casework and sink to meet ADA requirements	0	OB	S	(1) 60"x24" plastic laminate counter with resilient edge banding, at ADA height (1) 30" plastic laminate ADA sink apron (1) 30" base cabinet with drawer (1) stainless steel counter mounted sink with ADA compliant controls (2) 30" plastic laminate wall cabinets											\$5,365	24.65%	\$6,687	\$6,687			
Door Hardware	Aluminum, ADA compliant hardware. No crash bar at exterior door	Provide emergency egress crash bar at exterior door	0	OB	S	(1) aluminum emergency egress crash bar at exterior door											\$755	24.65%	\$941	\$941			
Door Widths and Clearances	Exterior door to ramp: Door width is good, threshold and swing clearance do not meet ADA requirements.	Clear items away from door to allow for clear ADA approach access. Provide an ADA compliant threshold	0	OB	S	(1) ADA compliant exterior door threshold											\$225	24.65%	\$280	\$280			
Toilet Rooms																							
Floor & Base Finish Materials	VCT in poor condition	See below for recommended action	1	END	S	See below for quantities											\$0	24.65%	\$0	\$0			
Wall Finish Materials	Painted GYP walls in good condition	See below for recommended action	3	ESL	S	See below for quantities											\$0	24.65%	\$0	\$0			
Ceiling Finish Materials	2x4 ACT in poor condition	See below for recommended action	1	END	S	See below for quantities											\$0	24.65%	\$0	\$0			
Toilet Partitions	None	See below for recommended action	–	–	S	See below for quantities											\$0	24.65%	\$0	\$0			
Plumbing Fixtures	Floor mounted water closet in fair condition	See below for recommended action	2	ESL	S	See below for quantities											\$0	24.65%	\$0	\$0			
Mirrors	None	See below for recommended action	–	–	S	See below for quantities											\$0	24.65%	\$0	\$0			
Accessories	Toilet paper dispenser in non-ADA location. All other typical accessories are missing	See below for recommended action	0	OB	S	See below for quantities											\$0	24.65%	\$0	\$0			
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	Non-ADA compliant bathroom. No maneuvering clearances, no fixture clearances, no grab bars, and non compliant heights of accessories.	See below for recommended action	0	OB	S	See below for quantities											\$0	24.65%	\$0	\$0			
Door Material (Including Frame & Glazing)	Painted wood door with non-ADA compliant hardware	See below for recommended action	2	ESL	S	See below for quantities											\$0	24.65%	\$0	\$0			
Door Hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	See below for recommended action	0	OB	S	See below for quantities											\$0	24.65%	\$0	\$0			
Door Widths and Clearances	Non-ADA compliant approach clearances.	See below for recommended action			S												\$0	24.65%	\$0	\$0			
Other observations	One of the two bathrooms is not used as a restroom at all, instead its used for storage. The other restroom is in poor condition and is not ADA compliant.	Recommend renovating the two existing bathrooms to provide (1) fully ADA compliant, unisex restroom and (1) storage area. Both spaces to have new finishes complete.	0	OB	S	A total of 100 square feet of interior renovations. Renovations to provide (1) 64 square foot, ADA compliant bathroom; and (1) 36 square foot storage area. Both areas to have quartz tile flooring, painted gyp walls with resilient rubber wall base, and 2x4 ACT ceilings. Bathroom to have (1) floor mounted water closet, (1) wall mounted lav, (1) wall mounted mirror, grab bars, and typical accessories. Renovations to provide (1) 36"x84" wood veneer door in a painted hollow metal frame.											\$18,815	24.65%	\$23,453	\$23,453			
Mechanical and Service Spaces																							

CLIFF ISLAND ELEMENTARY SCHOOL																																																																									
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Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																																																																									
Door Hardware	Door has non-compliant hardware (door knob); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	(1) ADA/code compliant hardware for 36" door											\$755	24.65%	\$941	\$941																																																					
ELECTRICAL																																																																									
Branch Circuits	Based on what can be seen from a visual inspection, branch-circuit wiring appears to be mostly type NM non-metallic sheathed cable (romex). Building wire in conduit and surface metal raceway has been installed in some areas where outlets have been added. Extension cords are in use in some areas due to a lack of appropriately located receptacles. It was noted that in some areas extension cords are located too close to electric baseboard heaters.	Add receptacles to eliminate the need for extension cords. Keep electrical cords at least six inches away from electric baseboard heaters to avoid damage to the cords.	2	ESL	S	Carry \$8,000 + MU's											\$12,040	24.65%	\$15,008	\$15,008																																																					
Life Safety																																																																									
Fire Alarm	The fire alarm control panel is an ESL 1500 series conventional zoned control panel. It was noted that the backup batteries are not connected. Smoke detectors are located in all rooms. Manual pull stations are located at exits, but are located higher than permitted by ADA. Occupant notification doe not comply with ADA.	Update to fully addressable ADA compliant fire alarm system	1	OB	S	Carry \$8,000 + MU's											\$12,040	24.65%	\$15,008	\$15,008																																																					
Emergency Lighting	An emergency battery unit with integral incandescent heads is located in the classroom. Incandescent internally-illuminated exit signs are located appropriately to mark exits, but the units are obsolete and one is not currently working. It is not clear whether or not the exits signs have a backup power source. There is No outdoor emergency lighting.	Provide outdoor emergency lighting as part of any planned renovations to the facility. Replace existing exit signs with LED units that include integral battery backup.	1	OB	S	Carry \$3,000 + MU's											\$4,515	24.65%	\$5,628	\$5,628																																																					
<table><tr><td colspan="15">Total Years 1 - 5</td><td>\$222,630</td><td>\$218,878</td><td>\$0</td><td>\$3,752</td><td>\$0</td></tr></table>																		Total Years 1 - 5															\$222,630	\$218,878	\$0	\$3,752	\$0																																				
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CLIFF ISLAND ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
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															BUDGET								
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
PLUMBING																							
Hot Water System	20 gallon (?) electric water heater	Replace in kind	3	END	L	(1) 20 gal heater.							●	●			\$1,000	55.30%	\$1,553			\$1,553	
Plumbing Fixtures	20 years + vintage	Upgrade with new fixtures (Tank toilet-Lav-kitchenette sink)	2	END	L	(3) fixture values \$1,500 ea.							●	●			\$6,750	55.30%	\$10,483			\$10,483	
Distribution Piping HW & CW	Copper piping appears vintage 10 1950s or 60s showing some corrosion. Most likely solder contains lead material	Replace copper piping with lead free solder and fixtures	2	END	L	Figure lump sum for HW & CW for the 1,017 SF building. \$10k							●	●			\$15,000	55.30%	\$23,295			\$23,295	
MECHANICAL																							
Heating Plant	None--floor mounted Laser 730 fuel fired vented heater rated 87% efficiency.	Replace with condensing LP gas furnace (50MBH).	3	ESL	L	(1) furnace ducted w/controls.							●	●			\$30,000	55.30%	\$46,590			\$46,590	
Air Handling Unit Systems	No--no means of providing ventilation air (OA)	Install small Heat Recovery Ventilator (200 cfm) with electric duct coil to exhaust the toilet room, kitchenette, etc. and provide fresh air to all occupied spaces.		OB	L	(1) ERU w/coil							●	●			\$7,500	55.30%	\$11,648			\$11,648	
Terminal Unit Systems	Existing electric baseboard abandoned.	Remove if verified abandoned	0	OB	L	\$/SF Demo.							●	●			\$2,500	55.30%	\$3,883			\$3,883	
ELECTRICAL																							
Service	Overhead single-phase. The service entrance cable and main circuit breaker are 200-amp rated, but meter enclosure appears to be rated only 100 amps. Routing of of service entrance cable to line side of meter enclosure permits water to infiltrate the cable, potentially causing excessive corrosion within the meter enclosure	Update service to provide 200-amp rated meter enclosure. Replace service entrance cables and route such that weatherhead can be mounted vertically.	1	END	L	Carry complete 200A 240/120V single-phase service entrance and panel							●	●			\$2,700	55.30%	\$4,193			\$4,193	
Wiring	Type SE service entrance cable		2	END	L								●	●									
Equipment	Residential/light-commercial grade Crouse-Hinds loads that appears to be 1980's vintage	Replace load center with modern panelboard.	2	END	L								●	●									
Exterior Building Lighting	Incandesent luminaires at building entrances, and one two-lamp medium based utility lamp holder	Update outdoor lighting to provide illumination levels per IES recommendations using LED fixtures with full-cutoff optics.	1	END	L	Carry \$5,000 + MU's							●	●			\$7,525	55.30%	\$11,686			\$11,686	
Interior Lighting	Recessed fluorescent lens troffers utilizing T12 lamps are installed in all interior areas.	Update lighting to LED with high performance optics as part of any planned facility renovations.	1	OB	L	Carry complete replacement for 1,017 sf							●	●			\$13,000	55.30%	\$20,189			\$20,189	
																	Total Years 6 - 10		\$133,519	\$0	\$0	\$133,519	\$0

CLIFF ISLAND ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND				EVALUATION CRITERIA								BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

BUILDING INTERIOR																			
Main Entrance																			
Entrance Mats	None, a more aggressive broadloom carpet is installed at the front entrance, in good condition	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	60 Square Feet of aggressive grade walk-off mat. 50 Square Feet of mild grade walk-off mat. 50 Square feet of low grade walk-off mat							●	●			\$3,465	93.55%	\$6,707
Ceiling Finish Materials	2x4 ACT in fair condition	Recommend replacing with new 2x4 ACT ceiling complete.	2	ESL	L	A total of 40 square feet							●	●			\$210	93.55%	\$406
General Purpose Classrooms																			
Floor & Base Finish Materials	A mix of VCT and broadloom carpet in good condition	Recommend replacing VCT in the next 2 years with quartz floor tile or an equivalent non-wax finish floor.	1	END	L	A total of 100 square feet							●	●			\$865	93.55%	\$1,674
		Recommend replacing broadloom carpet with carpet tile as part of standard maintenance practice	3	ESL	L	A total of 600 square feet							●	●			\$5,420	93.55%	\$10,490
Ceiling Finish Materials	2x4 ACT in fair condition	Recommend replacing with new 2x4 ACT ceiling complete.	2	ESL	L	A total of 650 square feet							●	●			\$3,425	93.55%	\$6,629
Casework	Mixed casework of wood veneer, plastic laminate, and metal of varying finishes and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	(1) 36" plastic laminate tall cabinet with adjustable shelves, (3) 144" rows of wall mounted shelves on shelving standards (one row with coat hooks (2) 48" wide plastic laminate tall open shelf unit with adjustable shelves, (2) 36" wide wall cabinets, (2) 36" base cabinet with drawers. (2) 24" open base cabinet with adjustable drawers (2) 120"x24" plastic laminate counter with resilient edge							●	●	●		\$11,995	93.55%	\$23,216
Library / Media Center																			
Floor & Base Finish Materials	Broadloom carpet in fair condition	Recommend replacing with carpet tile	3	ESL	L	A total of 75 square feet							●	●			\$680	93.55%	\$1,316
Ceiling Finish Materials	2x4 ACT in fair condition	Recommend replacing with new 2x4 ACT ceiling complete.	2	ESL	L	A total of 75 square feet							●	●			\$395	93.55%	\$765
Administration Office Area																			
Floor & Base Finish Materials	Broadloom carpet in good condition	Recommend replacing broadloom carpet with carpet tile as part of standard maintenance practice	3	ESL	L	A total of 65 square feet							●	●			\$590	93.55%	\$1,142
Ceiling Finish Materials	2x4 ACT in fair condition	Recommend replacing with new 2x4 ACT ceiling complete.	2	ESL	L	A total of 65 square feet							●	●			\$345	93.55%	\$668
Mechanical and Service Spaces																			
Floor & Base Finish Materials	VCT in poor condition with resilient wall base	Recommend replacing VCT in the next 2 years with quartz floor tile or an equivalent non-wax finish floor.	1	END	L	A total of 75 square feet							●	●			\$650	93.55%	\$1,258
Ceiling Finish Materials	2x4 ACT in fair condition	Recommend replacing with new 2x4 ACT ceiling complete.	2	ESL	L	A total of 75 square feet							●	●			\$395	93.55%	\$765

Total Years 11 - 15	\$55,036
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CLIFF ISLAND ELEMENTARY SCHOOL

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Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
STRUCTURAL																			
Foundations / Drainage	Relatively flat site; stone foundation has some holes that should be patched.	Patch stone foundation holes.	3	ESL	L	2 SF							●	●			\$380	116.55%	\$823
Exterior Wall Construction	Mix of vinyl siding and wood clapboards; some holes and loose vinyl siding	Repair vinyl siding	2	ESL	L	15 SF vinyl siding.							●	●			\$115	116.55%	\$249
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Vinyl siding, white, in fair condition. Large areas of siding that need to be replaced due to damage from playground equipment. Small area of painted wood siding in poor condition located on gable end wall above bathroom roof).	Due to buildings close proximity to playground and playground equipment, we recommend replacing all vinyl siding with a more resilient exterior finish material. Replace vinyl siding with resilient fiber cement siding panels complete.	2	ESL	L	A total of 2,600 square feet of fiber cement siding panels							●	●			\$31,305	116.55%	\$67,791
Materials		Remove wood siding and replace with vinyl siding in the short term. Replace complete with fiber cement siding panels, with the rest of the school, in the long term.	0	OB	L	A total of 225 square feet							●	●			\$2,710	116.55%	\$5,869
Windows																			
Frame Materials	Painted wood frame in poor condition. Majority of windows have large areas of failing paint (chipped / peeling) and glazing compound is cracked and chipping away in most windows.	Recommend removing all windows complete and replacing them with fiberglass double hung windows. Each window to have insect screens and insulated glazing with a low-E coating.	2	OB	L	(10) 36"x60" fiberglass double hung windows with insect screens and clear/ insulated glazing with low-E coating. (2) 48"x30" fiberglass fixed windows with clear/ insulated glazing with low-E coating. NOTE: Window sizes are per existing openings							●	●			\$15,355	116.55%	\$33,251
Glazing Type and Color	Single pane, non-insulated	Provide clear, insulated glazing with Low-E coating in new windows as described above.	2	OB	L	See above for quantities							●	●			\$0	116.55%	\$0
Storm Windows and Insect Screens	Aluminum framed storm window systems have been installed over the wood framed windows. In fair condition.	Remove existing and replace as part of the fiberglass window replacement described above.	2	OB	L	See above for quantities							●	●			\$0	116.55%	\$0
	Insect screens on some windows, in fair condition.	Remove existing and replace as part of the fiberglass window replacement described above.	2	OB	L	See above for quantities							●	●			\$0	116.55%	\$0
Window Treatment (Shades or Blinds)	A mix of roller / pull down shades and curtains in varying age and condition	Recommend replacing with roller/pull down shades of consistent finish and condition	2	ESL	L	See above for quantities							●	●			\$0	116.55%	\$0
Fascia, Trim, Soffits & Overhangs																			
Materials	Painted wood fascia boards with painted woof soffit trim at gable ends. Metal fascia along roof eave with vinyl soffit trim. Wood on fascia is in good condition but paint throughout. Metal fascia is in good condition but vinyl soffit trim is falling off the roof in many areas.	Recommend stripping and repainting all wood fascia and soffit trim at gable ends complete.	1	END	L	A total of 100 linear feet							●	●			\$1,505	116.55%	\$3,259
Materials		Recommending replacing vinyl soffit trim with PVC trim boards and soffit vents.	2	ESL	L	A total of 120 linear feet							●	●			\$3,160	116.55%	\$6,843

CLIFF ISLAND ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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CLIFF ISLAND ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/in Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

SEE LEGEND						EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
Roof Assembly & Flashing																		
Flat or Sloped Geometry	Main roof - 6:12 pitch (gable ends) asphalt shingles in good condition Roof over office addition - 5:12 pitch (gable ends) asphalt shingles in good condition Roof over bathroom addition - 3:12 pitch (shed roof) black EPDM in good condition Roof over main entrance - 2:12 pitch (shed roof) sheet metal over plywood deck in poor condition	Remove small main entrance roof complete. Re-build with more robust exterior grade lumber and asphalt shingles. Roof to be a small gable end to move water away from people entering or exiting the building.	1	END	L	(1) 48"x72" gable end roof (3:12 pitch) at main entrance. Roofing to be asphalt shingles. Roof substrate and structure to be exterior grade lumber, painted.										\$1,810	116.55%	\$3,920
Exterior Stairs and Ladders																		
Locations and Materials	Front Entrance: Pressure treated wood stair, landing, and railings all in fair condition. No handrails at front entrance. Rear Entrance: Pressure treated wood ramp, landing, and railings all in fair condition. ADA compliant painted metal handrail at ramp, in poor condition.	Recommend coating pressure treated lumber with an exterior, all weather sealant to further prolong the life expectancy of the wood.	2	ESL	L	A total of 250 square feet										\$755	116.55%	\$1,635
Locations and Materials		Recommend sanding and repainting entire rail at rear entry ramp.	2	END	L	A total of 65 linear feet										\$980	116.55%	\$2,122
FIRE PROTECTION																		
Fire Service	NA	Install NFPA 13 automatic sprinkler system			L	Base on 1,017 GSF										\$45,000	116.55%	\$97,448
SECURITY																		
Secure Entry Vestibule	Vestibule entrance sequence, not a secured entrance due to lack of buzz-in/ video / intercom entry devices or equivalent.	Provide buzz-in/ video / intercom entry devices for a secured entry sequence between exterior door and student occupied areas.	0	OB	L	(1) buzz-in/ video / intercom entry device										\$3,010	116.55%	\$6,518
																Total Years 16 -20	\$229,727	

EAST END COMMUNITY ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Year 0 (Fiscal Year 2017) - Immediate Recommendations																			
STRUCTURAL																			
Exterior Wall Construction	A. Systematic issue noted at the end of long steel lintels bearing on the CMU, where the CMU block is rotating, crack or both.	Evaluate capacity of block, provide adequate bearing.	1	OB	I	8 lintels noted (16 locations). Survey all other windows Lintels vary in lenght from 9 ft to 24ft. Average height of CMU above the lintels is 6ft. Repair (repair to be verify by investigation): reset exisiting lintel (carry shoring or removal/replacement of masonry above access the full lenght of the lintel), rebuild approximately 7.11sq of existing masonry with new grouted masonry at both end of each lintels (16 locations)		●				●	●				\$59,600	0.00%	\$59,600
Total Year 0																		\$59,600	

EAST END COMMUNITY ELEMENTARY SCHOOL

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LEGEND		
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																	BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
SITE																							
Vehicular & Pedestrian Circulation																							
Walkway Materials	Brick, Concrete, Bituminous, Gravel	Brick to be adjusted where heaved from frost. Loam and seed around visible edging (brick) and where large drop (bit.).	2	ESL	S	(700 SF BRICK SIDEWALK @ \$15/sf) (300 SF LOAM & SEED @ \$0.75/sf)		●					●			\$16,141	24.65%	\$20,120				\$20,120	
Curb Cuts & Detectable Warning Strips	Curb cut with panels at front entrance in bus loop.	Brick panels to be replaced.	1	END	S	(200 SF DETECTABLE WARNING PANELS BRICKS@ \$60)		●		●			●			\$18,060	24.65%	\$22,512				\$22,512	
Fencing																							
Locations & Materials	Chain link, some damage	Repair damaged sections	2	ESL	S	Run If (12 FT) and fence height unclear (6 FT), REPLACE 12LF OF 6' HIGH CHAIN LINK FENCE @ \$30/LF							●			\$541	24.65%	\$674			\$674		
STRUCTURAL																							
Exterior Wall Construction	B. Noted a crack in the interior finish of the exterior cafeteria wall.	Repair crack in finishes and monitor if other cracks develop further.	2	ESL	S	10 SF						●	●			\$1,505	24.65%	\$1,876	\$1,876				
Additional Observations	Chimney: there is a CMU chimney on the high roof. The chimney is approximately 4.5ftx4.5ftx11ft tall. The chimney has effervescence, cracks through the blocks and pieces of the cornice falling. The ramp at the loading dock has some spalls at the corner, some crack visible around the post based. Further the railing and nearby bollard had sign of rusting.	Repair the chimney Patch cracks . Paint railing/bollard with protective coating.	2 2 2	ESL ESL ESL	S S S	1 chimney 200 sf surface @ \$25 sf + MU's 1 ramp ~ 6 location crack repairs \$300 to rout & grout + MU's Railing top & mid rail assumed & vert 48" o.c. x 30' run assumed = 90 lf total pipe @ \$10 lf prep & repaint + MU's . Bollard \$150 prep & repaint + MU's = = TOTALS \$6,050 + MU's						●	●			\$9,105	24.65%	\$11,349			\$11,349		
BUILDING EXTERIOR																							
Exterior Wall Cladding																							
Spalling, Staining, Efflorescence	CMU showing large sections of efflorescence and staining.	Power wash areas of staining, investigate long term solution to staining of panel above.	2	ESL	S	Approx. 1,500 SF efflorescence to repair, \$25 sf to demo & replace assumed split or scored face cmu + MU's, DOES NOT CORRECT METAL PANELS ABOVE; 15,000 SF light power washing. @ \$1 sf + MU's = = = TOTALS \$52,500 + MU's						●	●			\$79,015	24.65%	\$98,492	\$98,492				
Spalling, Staining, Efflorescence	CMU showing large sections of staining.	Recommend further investigation into the cause of the staining (possible deterioration of metal panel finish from above?)	2	ESL	S	Budget for investigative study						●	●			\$8,000	24.65%	\$9,972	\$9,972				
Windows																							
Sills	CMU block sills. All sills are stained. Likely, finish of metal panel window is staining block below. Sills are properly flashed, and flashing in good condition. High windows have aluminum sill integral to aluminum window system. In good condition.	Light power wash all CMU sills, investigate long term solution to staining of aluminum window frame above.	2	ESL	S	Approx. 700 LF, 4" (front), 6" (top) CMU sills @ \$2 lf prep & clean = \$1,400 + MU's						●	●			\$2,110	24.65%	\$2,630	\$2,630				
SECURITY																							
Security Camera System	Honeywell analog system	Provide digital cameras connected to district servers	1	END	S	Assume 32 cameras and web-based DVR system	●									\$28,800	24.65%	\$35,899	\$35,899				
																	Total Years 1 - 5		\$203,525	\$148,869	\$0	\$12,024	\$42,632

EAST END COMMUNITY ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
<u>Condition Level</u> 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	<u>Life Cycle (Age Factor)</u> N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	<u>Action Priority</u> I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								* OPINION OF PROBABLE COST	ALLOCATION						
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.		AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
BUILDING EXTERIOR																						
Exterior Doors (not including Main Entry)																						
Materials	Aluminum exterior storefront system. In good condition. HM service doors, paint is faded and chipping.	Refinish and repaint all exterior HM doors and frames.	2	ESL	L	9 (3' x 7") HM doors & frames \$150 ea 3070 prep & repaint + MU's = \$1,350 + MU's							●	●			\$3,160			\$3,160		
Other Observations																						
CMU Block chimney	CMU block veneer chimney. Efflorescence occurring on all sides, possibly due to lack of masonry weeps at bottom. Concrete cap is spalling and failing.	Remove masonry veneer at areas showing signs of efflorescence to discover the cause of the problem and correct the issue. Add masonry weeps at bottom of chimney. Rebuild and reflash concrete cap at top of chimney.	2	ESL	L	Approx. 200 SF of efflorescence to repair @ \$25 sf demo & replace + MU's; Consider 20 LF of 6" tall, 1' wide concrete cap, reflash @ \$75 lf + MU's = = = TOTALS \$6,500 + MU's							●	●			\$15,196			\$15,196		
Foundation insulation	5' section of foundation insulation showing near loading dock behind gym storage.	Recommend protecting insulation board, covering with earth.	2	ESL	L	Cover 5 LF foundation insulation with 6" soil = 1/20 cy material place & compact \$50 + MU's							●	●			\$116			\$116		
ELECTRICAL																						
Site Lighting (type & material)	Metal Halide "shoe-box" pole lights	Update lighting to LED with full cutoff optics as metal halide units fail.	3	ESL	L	Carry (5) LED pole lights							●	●			\$35,098			\$35,098		
																Total Years 6 - 10		\$53,571	\$0	\$0	\$53,571	\$0

EAST END COMMUNITY ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
General Notes																			
Wall Finish Materials	Painted GWB. Large areas of paint peeling, teachers actively cover up large peeled spots, but create more peeled areas in doing so. General scuffs and marks on all GWB.	Patch and repaint all GWB in entire school.	2	END	L	Approx. 58,000 GSF of school needs refinishing and repainting of GWB @ \$2 sf floor area prep & repaint = \$116,000 + MU's							●	●			\$174,580	93.55%	\$337,900
Main Lobby																			
Floor & Base Finish Materials	Terrazzo tile floor, rubber base. Some isolated cracking from building settlement or slab shrinkage. Otherwise in good condition.	Continue maintenance of cracked tile. Short term fix, continue to fill in areas of cracking with mortar. Long term fix, remove cracked tiles to inspect subsurface slab conditions, repair, and then replace tile.	2	ESL	L	Approx. 15 LF of cracking in terrazzo tile, \$10 lf to rout & repair cracks = \$150 + MU's							●	●			\$225	93.55%	\$435
Wall Finish Materials	CMU block, in good condition. GWB in high traffic areas need new coat of paint.	Recommend re-painting as part of standard maintenance practice.	3	ESL	L	Approx. 1,500 sf GWB repainting.							●	●			\$3,390	93.55%	\$6,561
Corridors																			
Floor & Base Finish Materials	First Floor - VCT flooring. In good condition. Rubber base, in good condition. Second floor - VCT flooring. In good condition. No rubber base.	Provide rubber wall base for second floor corridors. CMU block wall has black scuff marks up to 4" from floor (floor polishing).	2	ESL	L	900 lf new rubber base @ \$2.50= \$2,250 + MU's							●	●			\$3,390	93.55%	\$6,561
Wall Finish Materials	CMU up to 3', upper floor CMU walls are scuffed 6" up from floor level. GWB above CMU, paint is peeling away and walls dented, scuffed. Paint on wood trim topping CMU is peeling, wearing away.	Clean CMU walls close to floor. Repaint all GWB. Repaint all wood cap trim in corridors	2	ESL	L	Clean approx. 900 LF along floor, up to 6" from floor, hand cleaning required for 450 sf @ \$3 sf = \$1,350 + MU's See general notes for quantities (patching & repainting GWB), 900 lf run & 6' ht above cmu assumed = 5,400sf @ \$1.50 prep & repaint = \$8,100 + MU's. Approx. 900 LF of 10" wood cap trim to repaint @ \$3 lf prep & repaint = \$2,700 + MU's = = TOTALS \$12,150 + MU's							●	●			\$18,285	93.55%	\$35,391
Stairs and Exits																			
Handrails (height, extensions, profile)	Fully compliant. Main entry stair handrails, paint is chipping and wearing away.	Refinish and repaint main entry stair handrail.	2	ESL	L	Approx 100' handrail, 100' assumed to be total pipe run regardless of rail configuration @ \$10 lf prep & repaint = \$1,000 + MU's							●	●			\$1,505	93.55%	\$2,913
Art Classrooms																			
Floor & Base Finish Materials	Exposed concrete floor. Long crack in floor at entry. Some concrete floor edges not covered by wall base, jagged edge exposed. Rubber base showing wear and tear.	Remove and replace rubber base.	2		L	Approx 150 lf rubber base, \$3 lf remove & replace = \$450 + MU's							●	●			\$680	93.55%	\$1,316
Performing Arts - Stage																			
Floor & Base Finish Materials	Plastic laminated composite panels. Panels showing wear and tear, delamination.	Refinishing, repaint.	2	END	L	Approx. 1100 SF refinish, repaint laminate floor panels. \$5 sf clean-refinish-repaint-seal panels = \$5.500 + MU's							●	●			\$8,280	93.55%	\$16,026

EAST END COMMUNITY ELEMENTARY SCHOOL
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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Stage Accessibility	ADA compliant ramp. Railing paint is worn, chipping away.	Refinish, repaint ramp railing.	2	END	L	Refinish, repaint approx. 70 LF railing. 70' total pipe length regardless of configuration assumed @ \$10 lf prep & repaint = \$700 + MU's							●	●			\$1,055	93.55%	\$2,042
Gymnasium																			
Wall Finish Materials	Painted CMU up to 7'-0", GWB above. GWB protected by wall protection boards, in good condition. Paint on CMU walls beginning to show wear, scuffs, chipping.	Repaint CMU walls.	2	END	L	Approx 2,500 sf cmu repainting; \$2 sf clean prep & repaint w/block filler = \$5,000 + MU's							●	●			\$7,525	93.55%	\$14,565
Acoustical Treatments	None	Consider installing hanging ceiling baffles between joists to help with sound absorption.	-	-	L	Install approx. 140 (2' x 4') hanging acoustic baffles. 1,120 sf total baffle area @ \$20 sf = \$22,400 + MU's							●	●			\$33,715	93.55%	\$65,255
Cafeteria																			
Floor & Base Finish Materials	VCT floor, rubber base. VCT is in good condition, rubber base is showing signs of age, peeling, scuffed.	Replace rubber base.	2	END	L	350 lf rubber base replacement; \$3 lf remove & replace = \$1,050 + MU's							●	●			\$1,580	93.55%	\$3,058
Wall Finish Materials	Painted CMU up to 3', GWB above. GWB has significant areas of peeling paint, chipping, scratching and scuffing.	Patch and repaint all GWB.	2	END	L	Approx. 1000 SF patch and repaint GWB. \$2 sf clean-prep-patch-repaint = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,826
Door Material (Including Frame & Glazing)	Doors are plastic laminate on particle wood core. HM frame, 1/2 lite. Door in good condition, HM frame paint is chipping, peeling	Refinish and repaint HM frame	2	ESL	L	2 double doors HM frames (3' doors); \$75 prep & repaint ea frame x 4 equiv frames = \$300 + MU's							●	●			\$455	93.55%	\$881
Curtainwall	Aluminum curtain wall system. Wood still.	Refinish wood sill.	2	ESL	L	Approx. 20 SF total wood sill refinishing. \$5 sf prep & repaint wide sill = \$100 + MU's							●	●			\$150	93.55%	\$290
Stage Steps	Wood stage steps, 4 risers. Wood showing wear and tear.	Refinish wood stage steps.	2	ESL	L	Refinish approx. 170 SF wood stage steps. \$5 sf prep & varnish & seal stage steps = \$850 + MU's							●	●			\$1,280	93.55%	\$2,477
Kitchen and Servery																			
Wall Finish Materials	Painted CMU up to 3', GWB above. GWB has significant areas of peeling paint, chipping, scratching and scuffing.	Patch and repaint all GWB.	2	END	L	Approx. 1200 SF patch and repaint GWB. \$2 sf prep-patch-repaint = \$2,400 + MU's							●	●			\$3,615	93.55%	\$6,997
Door Material (Including Frame & Glazing)	Doors are plastic laminate on particle wood core and HM. HM frame, 1/2 lite and no lite. Doors in good condition. There is 1 door and frame from the kitchen to the back hall where paint is chipping, wearing away.	Repaint 1 HM door and frame.	3	ESL	L	1 ea 3070 HM door & frame, \$125 prep & repaint + MU's							●	●			\$190	93.55%	\$368
Nurse and Health																			
Privacy Curtains (no. of rest areas)	There is 1 cot in the nurse suite - no privacy curtain.	Install privacy curtain.	3	ESL	L	Install 1 ceiling mounted curtain track, curtain around cot. \$350 track & curtain + MU's							●	●			\$530	93.55%	\$1,026
PLUMBING																			
Hot Water System	(Summer) Bradford White gas fired condensing water heater installed 2013, 300 MBH. (Heating) Off boilers tankless coils.	Expected service life is 15 years; replace.	3	N	L	(1) Gas water heater + MU's							●	●			\$20,000	93.55%	\$38,710

EAST END COMMUNITY ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

MECHANICAL																			
Heating Plant	(2) HB Smith 28HE dual fuel hydronic boilers (1800 MBH)	Maintenance	3	ESL	L	General Note: Replacement cost (less HVAC piping & ductwork) of all HVAC systems (10 years service life left in most cases) \$/SF @ 73K SF. + MU's							●	●			\$2,190,000	93.55%	\$4,238,745
Air Conditioning (Yes/No/Limited)	Yes	Maintenance	3	ESL	L								●	●					
Cooling Plant	NA				L								●	●					
Air Handling Unit Systems	Yes: Packaged and split rooftop units with VAV	Maintenance	3	ESL	L								●	●					
Pumps	Boiler blend pump, Boiler injection to heating loop pump, and main building loop pumps lead/lag (VFD)	Maintenance	3	ESL	L								●	●					
Terminal Unit Systems	VAV w/ reheat, fintube, and CUHs/Uhs	Maintenance	3	ESL	L								●	●					
Exhaust Systems	Kitchen hood, Janitor and toilet roof tops	Maintenance	3	ESL	L								●	●					
Piping System	Black steel, copper, will insulated				L								●	●					
ELECTRICAL																			
Interior Lighting																			
Classrooms	T8 dimmable fluorescent pendant direct/indirect	Interior lighting fixtures will reach the end of their anticipated useful lives in approximately 10 years.	3	ESL	L	Carry complete interior lighting replacement for 72,620 sf							●	●			\$928,900	93.55%	\$1,797,886
Offices	T8 fluorescent parabolics		3	ESL	L								●	●					
Corridors	Compact fluorescent (CF) recessed & surface mount		3	ESL	L								●	●					
Toilets	T8 fluorescent lens troffers		3	ESL	L								●	●					
Mech/Storage	T8 fluorescent strips & wrapaounds		3	ESL	L								●	●					
Assembly	lens troffers, CF pendants, incandescent		3	ESL	L								●	●					
Gym	T5 fluorescent high-bays		3	ESL	L								●	●					
Life Safety																			
Fire Alarm	FCI addressable	The fire alarm system will reach the end of its anticipated useful life within 10 years.	3	ESL	L	Carry complete system replacement for 72,620 sf							●	●			\$136,600	93.55%	\$264,389
Emergency Lighting	Battery units/ halogen & LED DC heads	Replace existing battery units as they fail	2	END	L	allow \$350 per emergency light replacement, re-use existing wiring + MU's Carry replacement of 40 Units							●	●			\$21,070	93.55%	\$40,781
Intercom/Paging System	Dukane intercom	Provide paging and intercom integrated with VOIP phone system.	3	ESL	L	58,000 gsf assumed to be covered, allow \$1 per sf = \$58,000 + MU's							●	●			\$87,290	93.55%	\$168,950

Total Years 11 - 15	\$7,059,349
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EAST END COMMUNITY ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Colored CMU, metal panel. Some very isolated areas where masonry CMU is compromised. Cracking through mortar, blocks that are ready to fall out.	Metal panel is in good condition, no action req'd. Replace areas where CMU is compromised (near cafeteria entrance).	1	END	L	Approx. 20 SF of masonry block replacement, colored cmu split or scored face assumed, \$25 sf demo & replace + MU's							●	●			\$755	116.55%	\$1,635
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Window and door sealants are currently in good condition.	No immediate action required, however the next 10 years will likely see the failure of these sealants.	3	ESL	L	4,500 LF window/door sealant removal, replacement @ \$3.50 lf remove & recaulk = \$15,750 + MU's							●	●			\$23,705	116.55%	\$51,333
Building Joint Sealant	Building sealant is currently in good condition.	No immediate action required, however the next 10 years will likely see the failure of these sealants.	3	ESL	L	2,500 LF building sealant removal, replacement @ \$5 lf remove & recaulk & backer rod = \$12,500 + MU's							●	●			\$18,815	116.55%	\$40,744
Roof Assembly & Flashing																			
Age	10 years (2006), Black EPDM	Budget to replace at end of service life	3	ESL	L	50,000 SF							●	●			\$903,000	116.55%	\$1,955,447
Roof Drains (Covers)	Steel roof drain covers. Generally clean and well-maintained. Covers in the green roof portion need special attention to prevent soil from going down drain.	Continue maintenance. Recommend clearing covers in green roof portion of building.	2	ESL	L	Approx. 4 drains need clearing, and regular maintenance, allow \$250 per drain + MU's to clear surrounding area & provide mesh perimeter drain screen							●	●			\$1,505	116.55%	\$3,259
Exterior Stairs and Ladders																			
Locations and Materials	Concrete ramp at loading dock - isolated areas of cracking, spalling especially around railing posts	Patch and repair cracks and around railing posts.	2	ESL	L	Approx. 10 LF cracking. Patch approx. 10 (4" x 4") post locations. Allow 10 lf crack @ \$10 + \$75 ea post location = \$1,000 + MU's							●	●			\$1,505	116.55%	\$3,259
Other Observations																			
Site walls/storage	CMU block veneer site wall at building rear - block is breaking in areas. Aluminum coping capping wall is damaged. Wall showing efflorescence and staining all around. Wood shed inside site wall showing signs of deterioration.	While not an immediate concern, consider demolishing site wall and wood shed, replace with more permanent outdoor storage shed.	2	ESL	L	Demolish 20 LF CMU veneer wall, assume 10' ht = 200 sf @ \$5 = \$1,000 + MU's; Pour an additional 20 LF concrete foundation, \$180 lf dig & bf & new frost wall = \$3,600 + MU's. Rebuild 10' CMU veneer wall over old and new foundations (40 LF, 10' x 10' shed) = 10' ht assumed = 400 sf veneer on block backup @ \$35 sf = \$14,000 + MU's. Provide properly flashed edges and roof = 40 lf set @ \$20 lf = \$800 + MU's, and 6' x 7' double HM door & frame = \$2,150 per 3070 + \$150 blocking per 3070 & \$125 paint exterior door & frame = \$2,525 per 3070 + MU's. = = TOTALS \$24,250 + MU's							●	●			\$36,500	116.55%	\$79,041

EAST END COMMUNITY ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
PLUMBING																			
Domestic distribution piping	Copper pping	Expect service life-is 30 years-replace in 20	2	END	L	\$/SF @ 70K SF							●	●			\$1,300,000	116.55%	\$2,815,150
Sanitary Waste and Vent System	PVC	Expected service life is 30 years; replace in 20.	3	ESL	L	\$/SF @ 70K SF							●	●			\$735,000	116.55%	\$1,591,643
Storm Drain System	PVC	Expected service life is 30 years; replace in 20.	3	ESL	L	\$/SF @ 70K SF							●	●			\$315,000	116.55%	\$682,133
Plumbing Fixtures	Good operating condtion low flow	Expected service life is 30 years; replace in 20.	3	ESL	L	Figure 100 fixtures use same roughins @500 ea. + MU's							●	●			\$75,000	116.55%	\$162,413
Drinking Fountains / Water Coolers	Yes	Expected service life is 20 years; replace in 10	3	ESL	L	(4) Water Coolers							●	●			\$15,000	116.55%	\$32,483
ELECTRICAL																			
Panels	Square D Panelboards - reasonable number of spare circuits available	Panelboards will need to be replaced within 20 years	3	ESL	L	Carry complete power distribution system replacement for 72620 sf							●	●			\$292,700	116.55%	\$633,842
																	Total Years 16 -20	\$8,052,379	

LONGFELLOW ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	EVALUATION CRITERIA				TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY						SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
SITE																						
Parking																						
Number of Spaces (Regular & ADA)	6 ADA spaces, only 2 compliant, 1 space has a dumpster in it.	Relocate dumpster. Repaint to include parking aisle(s).	2	ESL	S	Repaint 6 ADA stalls @ \$125 = \$725 + MU's		●		●			●			\$1,095	24.65%	\$1,365			\$1,365	
Accessible Parking Signage	Only 1 sign	Install additional signage, 1 per ADA space.	1	END	S	5 ADA sign@ \$350 = \$1,750 + MU's		●		●						\$2,635	24.65%	\$3,285			\$3,285	
Vehicular & Pedestrian Circulation																						
Pedestrian Ramp Location & Materials	Crosswalk/Speed Table at Stevens, concrete with comp. paver. Lip at base of Ramp. Food carts stored on ramp landing	Repair pavement at sidewalk transition to reduce lip to 1/4" or less. Install additional storage space for food carts if needed.	2	ESL	S	Grind 36" lop \$100 + MU's		●		●						\$150	24.65%	\$187			\$187	
DOT School Zone Markings/Signage at Street	No School Zone signage on Concord Street West.	Install School Zone sign.	0	OS	S	\$500 + M U's		●								\$755	24.65%	\$941				\$941
Site Furniture & Accessories																						
Types, Locations, Materials	1 Big Belly Trash between schools, limited lighting	Install lighting at side and rear of building.	2	ESL	S	3 lights @ \$5,000 ea	●									\$22,575	24.65%	\$28,140	\$28,140			
STRUCTURAL																						
Roof Construction	A. Wing roofs do not appear to be design for drifting snow.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift by installing new steel bar joists between the existing joists. Shoveling of drifts recommended in the interim.	3	ESL	S	5,300 SF of roof		●				●				\$39,885	24.65%	\$49,717	\$49,717			
Roof Construction	Central section roof: B. Roof does not appear to be design for drifting snow around high roof.	grandfathered; recommend reinforcing high low roof conditions for drift by installing new steel bar joists between the existing joists. Shoveling of drifts recommended in the interim.	3	ESL	S	2,000 SF of roof \$5 sf + MU's		●				●	●			\$15,050	24.65%	\$18,760	\$18,760			
Roof Construction	Central section roof: A. Some of the steel beams in the roof are covered with a mix for terracotta and concrete potentially for fire proofing (not all the beams are covered). In one location the steel beam bottom flange's cover is cracked and bulging.	Remove the cover (replace with other material if required for fire proofing). Survey rest of the roof for other loose locations.	1	OB	S	1 location		●				●				\$455	24.65%	\$567	\$567			
Exterior Wall Construction	A. Cast stone bands are spalling and their faces have fallen off. In some location reinforcement is visible. The mortar is failing from the cast stone joints	Remove and replace the felled cast stones.	0	OB	S	~1,000 LF		●								\$26,337	24.65%	\$32,829	\$32,829			
Exterior Wall Construction	B. Lintels above mechanical opening are rusting and jacking the surrounding brick.	Remove the existing lintels and replace them with galvanized lintels	1	END	S	~ 70 locations lintel lengths unknown, carry \$125 lf + MU's to demo lintel, provide new w/mason labor, remove 18" brick above & replace & provide flashing		●				●	●			\$75,000	24.65%	\$93,488	\$93,488			
Additional Observation	A. Entry canopies to the poetry garden: the roof finishes are falling off and the structure is heavily corroded.	Remove the canopies.	1	OB	S	7 locations		●								\$15,805	24.65%	\$19,701	\$19,701			
BUILDING EXTERIOR																						
Exterior Wall Cladding																						
Materials	Brick masonry veneer- Precast Concrete. Isolated areas of precast concrete are breaking away, or have already broken away, and have caused damaged to the masonry below or discoloring of the wall below. This represents a fall hazard.	Remove cracked or broken precast concrete and replace with new precast concrete in the same shape to maintained buildings character.	2	ESL	S	A total of 100 linear feet of precast concrete to be replaced.		●				●	●			\$15,000	24.65%	\$18,698	\$18,698			

LONGFELLOW ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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																TRADE COST PLUS		BUDGET				
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
Exterior Doors - Main Entrance																						
Accessible entrance	Front entrance is not accessible	Provide a 12'x5' concrete ramp with code compliant painted metal round pipe rails to allow front entrance to be accessible. Provide chair lift inside front entrance.	0	OB	S	A total of 60 square feet of concrete (ramp). A total of 30 linear feet of painted metal round pipe handrail. (1) ADA chair lift inside main entrance. Ramp dig & bf & foundations & slab & handrails = \$10,000 + MU's; ADA chair lift & lift enclosure & electrical = \$35,000 + MU's = = = TOTALS \$45,000 + MU's				●		●	●			\$67,725	24.65%	\$84,419	\$84,419			
BUILDING INTERIOR																						
General Notes																						
Non-ADA compliant door hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	18 Knobs (typically on service doors), service doors suggests HM, \$500 per leaf minimal modification of leaf t accept hardware = \$9,000 + MU's				●						\$13,545	24.65%	\$16,884	\$16,884			
Sinks (ADA compliance)	Counter mounted sinks with stainless steel gooseneck faucet. Non-ADA (no knee clearance)	Recommend replacement of all non-ADA casework with more resilient plastic laminate casework with resilient edge banding and lockable doors..	0	OB	S	Provide the following in each classroom (25 classrooms): (1) 72" x 24" plastic laminate counter with counter mounted stainless steel sink at ADA height. 150 lf top @ \$90 w/demo = \$13,500 + MU's + sinks @ \$1,500 re-use rough = \$37,500 + MU's; (1) 36" wide ADA sink apron @ \$300 = \$7,500 + MU's; (2) 18" wide base cabinets with lockable doors 75 lf @ \$275 w/demo = \$20,625 + MU's = = = TOTALS \$79,125 + MU's				●		●	●			\$119,085	24.65%	\$148,439	\$148,439			
Main Entrance																						
Door Configuration (Vestibule?)	Vestibule, secured entrance. No ADA push button	Recommend providing ADA push button access	0	OB	S	ADA push button sequence for two double doors. Allow \$2,500 w/new wiring tie-in + MU's			●	●						\$3,765	24.65%	\$4,693	\$4,693			
Main Lobby																						
Ceiling Finish Materials	Painted plaster in good condition. Paint on ceiling in basement peeling and falling off.	Recommend providing 2x4 ACT ceiling in basement to conceal infrastructure and to provide a better acoustic environment in the corridor.	2	END	S	1,400 sf @ \$3.50 = \$4,900 + MU's						●	●		●	\$7,375	24.65%	\$9,193	\$9,193			
Corridors																						
Doors opening into Corridors (rating, closers, hold-opens, swing, widths)	No apparent ratings / No closers / No hold-opens / mix of doors with or without glazing	Recommend installing closers on all doors in corridor and provide safety glazing on all doors. Schedule hardware work with the replacement of the interior doors.	2	OB	S	90 closers @ \$300 = \$27,000 + MU's, door glazing excluded Provide a price for safety glazing on (80) of the doors. Size of glazing to be 24" x 42"		●	●			●	●			\$40,635	24.65%	\$50,652	\$50,652			
Ceiling Finish Materials	Painted plaster - Painted GYP in basement	Replace areas of older / failing plaster with new plaster to match the majority of the corridor.	3	ESL	S	200 square feet of old plaster to be replaced. w/wire lath assumed, \$15 sf demo & replace & paint = \$3,000 + MU's						●	●			\$4,515	24.65%	\$5,628	\$5,628			
Ceiling Finish Materials		Remove peeling paint and provide 2x4 ACT ceiling tile in basement to reduce noise and conceal all exposed pipes and conduits.	2	END	S	A total of 1,400 square feet @ \$5 paint cleanup & new ACT w/grid = \$7,000 + MU's						●	●			\$10,535	24.65%	\$13,132	\$13,132			

LONGFELLOW ELEMENTARY SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
Wall Projecting Objects	Insulated mechanical pipe in basement projecting from wall at about 60" AFF	Provide cane detection at pipe	0	OB	S	(1) painted round metal cane detection devices. \$250 + MU's		●	●							\$380	24.65%	\$474			\$474	
Wall Projecting Objects	Drinking fountains are not located in alcoves and do not have cane detection devices.	Provided painted round metal cane detection devices to either side of the drinking fountain to meet ADA requirements	0	OB	S	(2) painted round metal cane detection devices. Two for each fountain. 4 total @ \$250 = \$1,000 + MU's		●	●							\$1,505	24.65%	\$1,876			\$1,876	
Drinking Fountains	Only one fountain outside of gym area	Provide fountain on each level	0	OB	S	(2) high-low ADA compliant drinking fountains (1 fountain for each floor) with cane detection as described above. \$2,250 ea fountain w/new rough + \$500 for 2 cane detectors = \$2,750 per fountain x 2 = \$5,500 + MU's			●	●						\$8,280	24.65%	\$10,321			\$10,321	
Interior Signage																						
At Code Required Locations?	Some but scattered (Most are on the doors). V	Recommend providing consistent code compliant signage throughout the entire building	0	OB	S	Provide ADA compliant room signage for 50 spaces @ \$75 = \$3,750 + MU's		●	●	●						\$5,645	24.65%	\$7,036			\$7,036	
	Second exit signs are missing above the second set (the exterior doors) of all exits.	Provide second exit sign at each exterior egress door	0	OB	S	(5) illuminated exit signs. \$1,000 w/new wiring = \$5,000 + MU's		●	●	●						\$7,525	24.65%	\$9,380			\$9,380	
Stairs and Exits																						
Handrails (height, extensions, profile)	Clear finish metal handrails. No extensions at the top or bottom of stairs (handrails continue across landings). Round profile and compliant height	Provide round metal handrail at the top and bottom of each stair to provide the required handrail extensions at the top and bottom of each stair.	0	OB	S	14 If total @ \$50 = \$700 + MU's		●	●	●						\$1,055	24.65%	\$1,315			\$1,315	
Ceiling Finish Materials	Painted plaster	Recommend re-painting as part of standard maintenance practice.	3	ESL	S	400 sf @ \$1.50 prep & paint = \$600 + MU's						●	●			\$905	24.65%	\$1,128			\$1,128	
Elevators and Lifts																						
Elevator	None	Provide elevator to allow access to all levels	0	OB	S	Addition for LULA elevator, allow \$1.3M w/addition enclosure + MU's			●	●						\$1,300,000	24.65%	\$1,620,450	\$1,620,450			
General Purpose Classrooms																						
Ceiling Finish Materials	Painted plaster - 2x4 ACT in classrooms in the basement.	Replace 2x4 ACT ceilings with new 2x4 ACT ceilings	2	ESL	S	A total of 2,300 square feet of 2x4 ACT to be replaced in the classrooms, includes new grid @ \$4.50 demo & replace = \$10,350 + MU's						●	●			\$15,580	24.65%	\$19,420	\$19,420			
Kindergarten Toilet Rooms																						
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	The kindergarten toilet rooms are not Accessible; no room for maneuvering clearances and missing grab bars. One kindergarten classroom is missing a designated toilet.	Recommend upgrading toilet rooms in a future renovation. Provide designated bathroom in the one kindergarten room that was missing a bathroom in a future renovation or relocate classroom to another classroom with designated bathroom in the short term.	2	ESL	S	Interior renovation for a 64 square foot ADA compliant bathroom, \$10,000 + MU's			●	●						\$15,050	24.65%	\$18,760	\$18,760			
Door Widths and Clearances	28" clear width door	Provide a door with min. clear width of 36"	1	OB	S	Provide a total of (3) 36"x84" wood veneer doors with painted hollow metal frames, \$1,500 ea w/demo-reframe-new door & hdwr = \$4,500 + MU's			●	●						\$6,775	24.65%	\$8,445	\$8,445			
Art Classrooms																						
Sinks (ADA compliance)	two wall mounted sinks (Non-ADA). One is plastic and the other is china	Replace and provide with sinks that meet ADA requirements. Provide plastic laminate counter and apron with resilient edge banding for a more durable long lasting product.	0	OB	S	(1) 72"x24" plastic laminate counter at ADA height @ \$90 w/demo = \$540, (2) stainless steel 36" wide sinks @ \$1,500 ea & re-use exist rough, (2) 36" wide plastic laminate sink aprons for ADA knee clearance @ \$300 ea = = TOTALS \$4,140 + MU's			●	●						\$6,230	24.65%	\$7,766	\$7,766			

LONGFELLOW ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Ceiling Finish Materials	2x4 ACT	Recommend replacing ceiling in the future with new 2x4 ACT ceiling complete	3	ESL	S	1,200 square feet of 2x4 ACT, includes new grid @ \$4.50 demo & replace = \$5,400 + MU's						●	●			\$8,130	24.65%	\$10,134	\$10,134				
Kilns	Kiln (not enclosed)	Provide a rated, ventilated, and accessible room to keep the kiln in as part of future renovations.	0	OB	S	80 square feet of interior renovation to provide a room constructed of gyp partitions up to roof deck, single wood veneer 36"x84" door, 2x4 ACT ceilings, and VCT flooring. \$125 sf + MU's + \$2,500 to relocate kiln-hood-exhaust-fan thru roof = \$12,500 + MU's		●								\$18,815	24.65%	\$23,453	\$23,453				
Performing Arts - Stage																							
Ceiling Finish Materials	Painted GYP / plaster	Repair, patch, sand, and paint areas of ceiling that are damaged or where the paint is peeling. Recommend re-painting as part of standard maintenance practice.	2	ESL	S	450 sf @ \$1.50 prep & repaint = \$675 + MU's						●	●			\$1,015	24.65%	\$1,265	\$1,265				
Stage Accessibility	Cafetorium Stage is not wheelchair accessible. No chair lift or ramp. Stair access only, stairs are narrow.	Recommend providing access to stage in a future renovation	0	OB	S	Interior renovation to accommodate a chair lift, allow \$25,000 + MU's for lift & stage cut-out-reframe to accommodate				●						\$37,625	24.65%	\$46,900	\$46,900				
Library / Media Center																							
Ceiling Finish Materials	2x4 ACT	Recommend replacing ceiling with new 2x4 ACT ceiling complete	3	ESL	S	1700 square feet @ \$4.50 w/demo-replace = \$7,650 + MU's						●	●			\$11,515	24.65%	\$14,353	\$14,353				
Gymnasium																							
Ceiling Finish Materials	2x2 ACT	Replace all broken ceiling tiles. Recommend replacing ACT ceiling with a more abuse resistant ceiling in future renovations	2	END	S	2500 sf; grid remains; \$3 sf demo-replace tiles only = \$7,500 + MU's. No, provide new grid						●	●			\$11,290	24.65%	\$14,073	\$14,073				
Wall Pads	None	Recommend providing wall pads behind each backstop in future renovations	0	OB	S	A total of 20 linear feet of 6' tall wall pads @ \$8.50 sf =\$1,020 + MU's		●				●	●			\$1,535	24.65%	\$1,913	\$1,913				
Drinking Fountains	None	Recommend providing drinking fountain within Gym area in future renovations	0	OB	S	(1) high-low ADA compliant drinking fountains \$2,250 w/new rough + MU's				●						\$3,390	24.65%	\$4,226	\$4,226				
Teacher Workroom and Staff Areas																							
Ceiling Finish Materials	2x4 ACT	Replace the ceiling complete	3	ESL	S	400 sf @ \$4.50 demo-replace =\$1,800 + MU's						●	●			\$2,710	24.65%	\$3,378	\$3,378				
Casework	Residential grade (wood and plastic laminate) - Non-ADA	Recommend replacement of all non-ADA casework with more resilient plastic laminate casework with resilient edge banding and lockable doors.	0	OB	S	(1) 84"x24" plastic laminate counter with resilient edge banding at ADA height = 7 lf @ \$90 w.demo = \$630, (1) 18" base cabinets with drawer @ \$275 w/demo =\$415, (1) 30" ADA sink apron for knee clearance @ \$300, (1) 24" four drawer base cabinet = 2 lf @ \$275 w/demo = \$550, (1) 36" wall cabinet @ \$125 w/demo = \$375, (1) 36" microwave wall cabinet @ \$100 = \$300, (1) 12" wall cabinet @ \$125 w/demo = \$125 = = TOTALS \$2,695 + MU's				●					\$4,055	24.65%	\$5,055	\$5,055					
Sinks (ADA compliance)	Counter mounted sinks with stainless steel gooseneck faucet. Non-ADA (no knee clearance)	Recommend relocating sink to new plastic laminate counter set at ADA height as described above.	0	OB	S	Relocate existing sink into new casework. See casework notes above \$500 relocate & adjust rough + MU's				●						\$755	24.65%	\$941	\$941				

LONGFELLOW ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
<u>Condition Level</u> 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	<u>Life Cycle (Age Factor)</u> N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	<u>Action Priority</u> I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																TRADE COST PLUS		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Nurse and Health																							
Ceiling Finish Materials	Painted plaster	Replace ceiling with plaster to match the rest of the school.	2	END	S	400 square feet @ \$15 demo & replace w/plaster on metal lath = \$6,000 + MU's											\$9,030	24.65%	\$11,256	\$11,256			
Sinks (ADA compliance)	Wall mounted china sink, non ADA (to high)	Provide sink that meets ADA requirements in future renovations	0	OB	S	(1) wall mounted sink at ADA height in nurses suite bathroom, \$2,000 w/new chair carrier & re-use exist rough + MU's											\$3,010	24.65%	\$3,752	\$3,752			
Door Widths and Clearances	two of the four doors are less then the 32" clear width required	Provide doors with a min. clearance of 36" in future renovations	0	OB	S	(2) 36"x84" wood veneer doors with painted hollow metal frames \$2,000 ea demo-reframe-new door-frame-hdwr = \$4,000 + MU's											\$6,020	24.65%	\$7,504	\$7,504			
Administration Office Area																							
Conference Room	Conference room (Counter mounted sinks with stainless steel gooseneck faucet. Non-ADA (no knee clearance)	Recommend replacement of non-ADA sink with ADA compliant sink and plastic laminate casework	0	OB	S	(1) 72" x 24" plastic laminate counter with counter mounted stainless steel sink at ADA height. 6 lf @ \$90 w/demo + \$1,500 sink re-use rough = \$2,040 + MU's (1) 36" wide ADA sink apron \$300 + MU's (2) 18" wide base cabinets with lockable doors = 3 lf @ \$275 w/demo = \$825 + MU's = = TOTALS \$3,165 + MU's											\$4,765	24.65%	\$5,940	\$5,940			
Student Toilet Rooms																							
Plumbing Fixtures	The water closets are predominately floor mounted vitreous china with manual flush valves. Urinals are wall hung vitreous china with manually operated flush valves. Lavatories are floor mounted semi-circle sinks No ADA compliant fixtures are provided	Recommend providing ADA compliant fixtures in a future renovation	0	OB	S	(4) 60"x60" painted enamel ADA compliant bathroom stalls @ \$1,150 = \$4,600, (2) wall mounted urinals at ADA height \$2,000 w/adjust rough = \$4,000, (4) floor mounted water closets at ADA height @ \$1,250 & re=use rough = \$5,000 = = TOTALS \$13,600 + MU's											\$20,470	24.65%	\$25,516	\$25,516			
Accessories	Missing grab bars required for ADA fixtures	Provide wall mounted stainless steel grab bars	0	OB	S	(4) wall mounted stainless steel grab bar @ \$150 = \$600 + MU's											\$905	24.65%	\$1,128			\$1,128	
Staff Toilets																							
Ceiling Finish Materials	2x4 ACT	Replace with new 2x4 ACT ceiling complete	3	ESL	S	50 sf @ \$5 demo-replace = \$250 + MU's											\$380	24.65%	\$474	\$474			
Accessories	Missing grab bars required for ADA fixtures	Provide wall mounted stainless steel grab bars	0	OB	S	(1) wall mounted stainless steel grab bars @ \$150 + MU's											\$225	24.65%	\$280			\$280	
Door Widths and Clearances	Door width is less than the required min, of 32" clear.	Provide door with a min. clearance of 32" in future renovations	2	END	S	(1) 32"x84" wood veneer door with painted hollow metal frame \$2,000 + MU's demo-reframe-new door & frame w/hdr											\$6,010	24.65%	\$7,491	\$7,491			
Mechanical and Service Spaces																							
Ceiling Finish Materials	Painted GYP	Repair, patch, sand, and paint areas of ceiling that are damaged or where the paint is peeling. Recommend re-painting as part of standard maintenance practice.	2	END	S	50 sf @ \$1.50 = \$75 + MU's											\$115	24.65%	\$143			\$143	
FIRE PROTECTION																							
Type of Sprinkler System	NFPA 13 automatic wet system hallways , stage, dry system (?)	New NFPA 13 automatic system for entire building	2	ESL	S	\$/SF @ 43K SF											\$254,345	24.65%	\$317,041	\$317,041			
PLUMBING																							
Drinking Fountains / Water Coolers	Bubblers at class sinks & ADA cooler in hallway	Upgrade cooler to one with bottle fill	3	ESL	S	\$1,500 + MU's, re-use rough											\$2,260	24.65%	\$2,817			\$2,817	

LONGFELLOW ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																	TRADE COST PLUS 50.5% MARK-UP		ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE					
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
ELECTRICAL																								
Service	Utility XFMR vault in building	Upgrade service - provide padmount XFMR	1	OB	S	Carry complete new service entrance for 42,767 sf							●	●			\$112,000	24.65%	\$139,608	\$139,608				
Panels	mostly past anticipated life, a couple of residential-grade loadcenters have been added	replace throughout	1	OB	S	Carry complete power distribution system replacement for 42,767 sf							●	●			\$172,400	24.65%	\$214,897	\$214,897				
Wiring	Building wiring in conduit. Wiring has exceeded its anticipated useful life.	replace throughout	2	END	S	Carry complete distribution wiring system for 42,767 sf							●	●			\$76,600	24.65%	\$95,482	\$95,482				
Exterior Building Lighting	Mix of LED and metal halide (MH) wall packs	replace MH with LED as MH units fail	2	ESL/END	S	Carry (18) LED wall packs					●	●	●				\$16,200	24.65%	\$20,193	\$20,193				
Life Safety - Fire Alarm	Conventional FCI	Update to addressable ADA compliant	1	OB	S	Carry Complete system for 42,767 sf		●	●								\$80,500	24.65%	\$100,343	\$100,343				
Life Safety - Emergency Lighting	Emergency battery units with integral and remote heads. Heads are a mixture of LED and incandescent. LED illuminated exit signs with integral battery backup.	Replace older units as they fail. Provide outdoor emergency lighting at building exits.	2	ESL	S	Carry replacement of (20) indoor units and addition of (8) outdoor units		●	●								\$22,575	24.65%	\$28,140	\$28,140				
SECURITY																								
Secure Entry Vestibule	Secured entry with buzz-in entry system at second set of doors. Secured vestibule does not enter directly into admin area, allowing visitors to have access to student areas before checking in.	Recommend providing a third set of entry doors between corridor and entrances into admin suite and principles office. Third set of door to be buzz-in to allow access to student areas. Door configuration to match existing vestibule doors	0	OB	S	300 Square Feet of complete interior renovations. Allow \$6,000 interior buzz double doors + \$4,000 floor & ceiling & pint = \$10,000 + MU's	●										\$15,050	24.65%	\$18,760	\$18,760				
Intrusion Alarm System	DSC control panel initiated by motion sensors in corridors	Provide a security alarm control panel that is integrated with the district-wide network.	2	ESL	S	allow \$20,000 + MU's Also include door contacts for 18 openings	●										\$36,875	24.65%	\$45,965	\$45,965				
Security Camera System	None	Provide web-based security camera system with DVR			S	(10) cameras	●										\$10,000	24.65%	\$12,465	\$12,465				
																		Total Years 1 - 5		\$3,491,973	\$3,450,296	\$0	\$40,736	\$941

LONGFELLOW ELEMENTARY SCHOOL

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LEGEND		
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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
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																TRADE COST PLUS 50.5% MARK-UP		ESCALATION		* OPINION OF PROBABLE COST	BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE					
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																								
SITE																								
Parking																								
Paving Materials	Bituminous Pavement in Parking Lot in Poor condition	Recommend pavement overlay. Maintenance will repair as needed until funding is secured	2	END	L	26,000 s.f @\$1.25/sf								●			\$48,913	55.30%	\$75,961.11		\$75,961.11			
Parking Striping Condition	Poor	Repaint parking lines Maintenance will repair as needed until funding is secured	1	END	L	2200 lf @ \$0.50								●			\$1,655	55.30%	\$2,570.22		\$2,570.22			
Site Topography																								
Characteristics	Flat at front. 4:1 slope at rear	Slope stabilization needed.	2	ESL	L	3800 sf @\$1.00								●			\$5,719	55.30%	\$8,881.61		\$8,881.61			
STRUCTURAL																								
Additional Observation	B. Large retaining wall at the back of the poetry garden (1 story wall running between the west ends of the wings). Generally in good condition. A handful of location have large spalling (near or at the location of post bases), one location has reinforcement visible.	Remove the spalls, clean and repair Maintenance will repair as needed until funding is secured	2	END	L	5 locations (1 with rebar exposed)							●	●			\$1,505	55.30%	\$2,337.27		\$2,337.27			
Additional Observation	C. Site: The south steps wing walls are formed with large blocks. The front stone shifted forward and a gap is visible behind it.	Repair Maintenance will repair as needed until funding is secured	1	END	L	1 location (south steps)								●			\$455	55.30%	\$706.62		\$706.62			
Additional Observation	D. Site: Concrete site steps outside the west end of the south wing (basement level). The steps have spalled and cracked and in a couple spots the reinforcement is exposed. Additionally, the wings walls have large spalls at their interface with the building (also exposing reinforcement).	Coat exposed reinforcement with protective concrete and repair concrete. Maintenance will repair as needed until funding is secured	2	END	L	7 repair locations.							●	●			\$3,010	55.30%	\$4,674.53		\$4,674.53			
Additional Observation	E. Site: Access ramp at the north of the building is made up of metal section and of a wood section. The ramp currently sits on asphalt and is subject to frost heaves.	Provide foundation that extends below frost line.	3	ESL	L	1 ramp							●	●			\$1,505	55.30%	\$2,337.27		\$2,337.27			
Additional Observation	F. Site: Main entrance steps (east façade): the concrete side walls have large areas of spoils and some of the joints are opening up.	Repair concrete Maintenance will repair as needed until funding is secured	2	END	L	5 locations							●	●			\$3,765	55.30%	\$5,847.05		\$5,847.05			
Additional Observation	G. Site: Metal flag pole painted white has some rust is coming through the paint.	Clean and repaint with protective coating. Maintenance will repair as needed until funding is secured	2	ESL	L	1 flag pole								●			\$565	55.30%	\$877.45		\$877.45			
PLUMBING																								
Cold Water System	No backflow protection	Install backflow protection per municipal requirements			L	allow \$3,500 + MU's							●	●			\$5,270	55.30%	\$8,184.31		\$8,184.31			
Hot Water System	Electric 65 gallon dual 6,000w elements, 2003 mfg at end of service life (15 years)	replace with new gas fired 100 gal DWH including venting, mix valve, recirc pump	2	END	L								●	●			\$30,100	55.30%	\$46,745.30		\$46,745.30			
Domestic Distribution System	Mostly original copper with lead solder--end of service life	Replace with new copper distribution system with insulaton	2	END	L	Figure \$/SF @ 43K SF							●	●			\$774,000	55.30%	\$1,202,022.00		\$1,202,022.00			
Sanitary Waste and Vent System	Mostly original Cast Iron--end of service life	Replace Sanitary system	2	END	L	Figure \$/SF @ 43K SF							●	●			\$451,000	55.30%	\$700,403.00		\$700,403.00			
Storm Drain System	Mostly original Cast Iron--end of service life	Replace Storm system	2	END	L	Figure \$/SF @ 43K SF							●	●			\$193,500	55.30%	\$300,505.50		\$300,505.50			
Natural Gas	NA	New Natural Gas system			L	3" Piping to mech room (100')							●	●			\$5,000	55.30%	\$7,765.00		\$7,765.00			
MECHANICAL																								
Heating Plant	Steam from Deering High via underground--pumped return: Piping is vintage and most likely failing.	Provide HW gas fired condensing boiler (1600 MBH) plant at time of steam to HW building conversion	2	END	L	Figure (2) 800 MBH Condensing gas boilers & Appurtenances (ET)							●	●			\$390,000	55.30%	\$605,670.00		\$605,670.00			
Air Conditioning (Yes/No/Limited)	None	Provide limited ductless AC at time of steam to HW conversion.	2	END	L	(3) 3 ton units +MU's							●	●			\$22,500	55.30%	\$34,942.50		\$34,942.50			

LONGFELLOW ELEMENTARY SCHOOL
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LEGEND		
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																TRADE COST PLUS		BUDGET									
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION									
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE					
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																											
Air Handling Unit Systems	Unit ventilators	Convert to HW fin tube and ERU ventilation at time of steam to HW building conversion.	2	END	L	Figure \$/SF @ 43K SF for fintube. Figure (3) 5,000 cfm ERU rooftop units. Figure \$/SF for ductwork (uninsulated)							●	●			\$629,000	55.30%	\$976,837.00		\$976,837.00						
Pumps	Steam return pump--replaced pump only	Add HW pumps at time of steam to HW conversion.		N	L	(2) 100 gpm pumps w/VFDs +MU's							●	●			\$25,000	55.30%	\$38,825.00		\$38,825.00						
Terminal Unit Systems	Fin tube & convectors	Replace w/ AHUs above	2	END	L	Price figured with AHUs above.							●	●			\$0	55.30%	\$0.00		\$0.00						
Piping System	Asbestos insulation on steam piping in areas; beyond service life	Replace with HW piping and insulation	2	END	L	\$/SF @ 43K SF							●	●			\$774,000	55.30%	\$1,202,022.00		\$1,202,022.00						
Automatic Temperature Controls	Pneumatic w/some DDC	Replace pneumatic with upgraded DDC; at time of steam toHW conversion.	2	END	L	\$/SF @ 43K SF							●	●			\$193,500	55.30%	\$300,505.50		\$300,505.50						
ELECTRICAL																											
Interior Lighting																											
Classrooms	Old louvered fluorescents	Update lighting to LED with high performance optics as part of any planned facility renovations.Maintenance will repair as needed until funding is secured	2	OB	L	Carry complete interior lighting replacement for 42,767 sf							●	●	●	●	\$547,000	55.30%	\$849,491.00		\$849,491.00						
Offices	T8 fluorescent wraparounds	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	OB	L																			●	●	●	●
Corridors	Old louvered fluorescents	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	3	OB	L																			●	●	●	●
Toilets	T8 fluorescent wraparounds	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L																			●	●	●	●
Mech/Storage	T8 fluorescent wraparounds	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L																			●	●	●	●
Gym	T8 fluorescent high bay pendant luminaires	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L																			●	●	●	●
Total Years 6 - 10																		\$6,378,111	\$0	\$6,378,111	\$0	\$0					

LONGFELLOW ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

BUILDING INTERIOR																			
General Notes																			
Interior doors	A mix of wood veneer doors with stained wood frame and painted metal doors with painted metal frames. Doors are worn and approaching end of life	Recommend replacement of all interior doors and wood frames with new wood veneer doors and painted hollow metal frames	2	END	L	(100) single door 36"x84" (20) double door 72"x84" , \$1,500 per opening w/demo & new lockset & closer = 140 leaves =\$210,000 + MU's							●	●			\$316,050	93.55%	\$611,714.78
Interior Wall Finish Materials	Painted gyp / plaster	Recommend refinishing (repair, patch, sand, and paint) all walls due to areas of wall that are damaged or where the paint is peeling.	1	END	L	Total of all walls for a three level building with a gross square feet of 61,600 @ \$2 sf floor area = \$123,200 + MU's							●	●	●		\$185,420	93.55%	\$358,880.41
Interior wall base	Typically original wood base with resilient rubber wall base applied over it in all rooms except Art and Toilet Rooms. Original wood base is showing signs of heavy wear and tare, resilient base is in fair shape.	Remove wood and resilient base complete. Replace wood trim with more resilient PVC trim.	2	END	L	All interior walls with the exception of the Art room in the ground floor and the Toilet Rooms throughout., allow 65 cents per sf floor area = \$40,040 + MU's							●	●			\$60,260	93.55%	\$116,633.23
Interior Window Sills	Wood window sills in poor condition	Replace all window sills with plastic laminate sill with resilient edge banding	1	END	L	24 linear feet of plastic laminate window sills with resilient edge banding in each room, a total of (30) rooms. 720 lf @ \$20 w/demo = \$14,400 + MU's							●	●			\$21,675	93.55%	\$41,951.96
Main Entrance																			
Entrance Mats	Walk-off carpet in good condition	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	50 Square Feet of aggressive grade walk-off mat. \$17.50 sf recycled rubber matt = \$875 + MU's 150 Square Feet of mild grade walk-off mat. @ \$15 = \$2,250 + MU's 80 Square feet of low grade walk-off mat @ \$10 = \$800 + MU's							●	●			\$5,910	93.55%	\$11,438.81
Main Lobby																			
Floor & Base Finish Materials	appears to be 9x9 vinyl asbestos tile with large areas of tile in rough condition - Wall tile base		2	END	L	200 sf abatement @ \$5 w/prep for new = \$1,000 + MU's, new floor @ \$3.75 = \$750 + MU's, tile base remains							●	●			\$2,635	93.55%	\$5,100.04
Corridors																			
Floor & Base Finish Materials	Levels 1 and 2:appears to be 9x9 vinyl asbestos tile with large areas of tile in rough condition.	Abatement of 9x9 vinyl asbestos tile and replace with quartz floor tile or an equivalent non-wax finish floor.	2	END	L	6700 sf .. Abate & prep for new @ \$5 & \$3.75 sf new + \$0.50 sf new wall base = \$9.25 for 6700 sf =\$61,975 + MU's							●	●	●		\$93,275	93.55%	\$180,533.76
Floor & Base Finish Materials	Basement level: Painted concrete floor in poor condition with no wall base.	Replace painted concrete floor in basement with quartz floor tile or an equivalent non-wax finish floor.	2	END	L	1400 sf .. clean prep for new @ \$.75 & \$3.75 sf new + \$0.50 sf new wall base = \$5 for 1400 sf =\$7,000 + MU's							●	●	●		\$10,535	93.55%	\$20,390.49
Floor & Base Finish Materials		Provide Resilient wall base at lower level corridor walls	0	OB	L	All walls lower corridor = 260 lf @ \$3 = \$780 + MU's							●	●			\$1,175	93.55%	\$2,274.21

LONGFELLOW ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Lockers	Wood cubbies of assorted finishes and condition	Replace assorted cubbies with more resilient plastic laminate cubie systems for a longer lasting product and consistent finish.	2	ESL	L	(1) 48"x96" plastic laminate open cubbie with resilient edge banding. Locate cubbies in corridor outside of each classroom. A total of (25 classrooms)., single height open assumed, no interior divided areas @ \$500 ea = \$12,500 + MU's							●	●			\$18,815	93.55%	\$36,416.43
Stairs and Exits																			
Floor & Base Finish Materials	A mix of what appears to be 9x9 Vinyl Asbestos Tile (in good condition), rubber stair tread, metal stair tread, and VCT. Wall base in wood with resilient base on top.	Abatement of 9x9 vinyl asbestos tile and replace with quartz floor tile or an equivalent non-wax finish floor. Schedule all floor finish renovations to take place at the same time	2	END	L	400 sf abate & prep @ \$5 + \$3.75 sf new floor + \$0.50new wall base = \$9.25 sf = \$3,700 + MU's							●	●			\$5,570	93.55%	\$10,780.74
Floor & Base Finish Materials		Replace metal stair tread with rubber stair tread material at all treads and landings. Schedule all floor finish renovations to take place at the same time	2	OB	L	400 sf @ \$25 demo & replace = \$10,000 + MU's							●	●			\$15,050	93.55%	\$29,129.28
Kindergarten Classrooms																			
Visual Display Surfaces	Tack bar - tack board - chalk board	Replace chalkboard with white boards	3	ESL	L	A total of 24 feet of chalkboard to be replaced. 4' height assumed = 96 sf @ \$30 = \$2,880 + MU's w/demo =								●	●		\$2,830	93.55%	\$5,477.47
Kindergarten Toilet Rooms																			
Ceiling Finish Materials	Painted GYP	Patch, sand, paint large hole in ceiling of each Kindergarten bathroom	2	END	L	Total of 15 sf, allow \$750 + MU's								●	●		\$1,130	93.55%	\$2,187.12
General Purpose Classrooms																			
Floor & Base Finish Materials	Broadloom carpet w/ small areas of what appears to be 9x9 vinyl asbestos tile that appear to be in rough shape	Abatement of 9x9 vinyl asbestos tile and replace with quartz floor tile or an equivalent non-wax finish floor.	2	END	L	230 square feet in each classroom. A total of (20) rooms. \$5 sf abate & prep + \$3.75 sf new floor + \$0.50 sf new base = \$9.25 sf for 4600 sf = \$42,550 + MU's							●	●			\$64,040	93.55%	\$123,949.42
Floor & Base Finish Materials		Replace broadloom carpet with new broadloom carpet as part of standard maintenance practice	3	ESL	L	650 square feet in each classroom. A total of (20) classrooms \$6 sf demo-prep-replace for 13,000 sf = \$78,000 + MU's							●	●			\$117,390	93.55%	\$227,208.35

LONGFELLOW ELEMENTARY SCHOOL

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																		
Casework	Mixed casework of wood veneer, plastic laminate, and metal of varying finishes and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each classroom (a total of 20 classrooms): (1) 36" plastic laminate tall cabinet with adjustable shelves @ \$750 ea, three rows of 144" wall mounted shelves on shelving standards (one row with coat hooks) = 36 lf @ \$20 = \$720 per class, (1) 48" wide plastic laminate tall open shelf unit with adjustable shelves @ \$500 ea, (2) 36" wide wall cabinets = 6 lf @ \$125 = \$725 per class, (4) 60" wide x 36" tall open shelf units with adjustable shelves = 20' book shelf @ \$145 lf = \$2,900 per class , (2) 120"x24" plastic laminate counter with resilient edge banding = 20 lf top @ \$90 w/demo = \$1,800 per class = = = TOTALS \$7,395 per class x 20 = \$147,900 + MU's.										\$222,590	93.55%	\$430,822.95
Visual Display Surfaces	White boards, chalk boards and some rooms have marker board laminate applied over chalk boards	Recommend replacement of all chalkboards, and chalkboard with white board laminate, with better quality white boards	2	OB	L	30 linear feet of chalkboard per classroom. A total of (20) rooms 4' ht assumed = 120 sf per class @ \$30 sf demo + replace = \$72,000 + MU's										\$108,360	93.55%	\$209,730.78
Art Classrooms																		
Floor & Base Finish Materials	VCT - No base at CMU or GYP walls	Provide resilient rubber wall base	0	OB	L	150 lf @ \$2.50 = \$375 + MU's										\$565	93.55%	\$1,093.56
Floor & Base Finish Materials		Recommend replacing VCT floor tile with quartz floor tile or an equivalent non-wax finish floor in future renovations	3	ESL	L	1200 sf @ \$5.75 demo-prep-new floor & wall base = \$6,900 + MU's										\$10,385	93.55%	\$20,100.17
Casework	Mixed casework of wood veneer, plastic laminate, and metal of varying finishes and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	A total of 24 linear feet of plastic laminate tall open shelving units with adjustable shelves, 6 ea 48" wide @ \$500 ea'. (1) 120"x24" plastic laminate counter @ \$90 w/demo = \$900; (2) 36" base cabinets with drawers = 6 lf @ \$375 w/demo = \$1,650; (2) 24" plastic laminate 4 drawer base cabinets = 4 lf @ \$275w.demo = \$1,100 ; (1) 36" plastic laminate tall cabinet with adjustable shelves @ \$750 = = = TOTALS \$7,400 + MU's.										\$11,140	93.55%	\$21,561.47

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Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Performing Arts - Music Rooms																			
Flooring		Replace broadloom carpet with new broadloom carpet as part of standard maintenance practice	3	ESL	L	400 square feet @ \$5 demo & replace = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,825.86
Casework	A mix of wood and plastic laminate casework of varying finishes and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	(4) 36" tall open shelf units with adjustable shelves @ \$500 ea = \$2,000, (1) 96"x24" plastic laminate counter with resilient edge banding = 8 lf @ \$90 w/demo = \$720, (4) 48" open shelf base cabinet = 16 lf @ \$250 demo & replace= \$4,000, (1) 36" tall cabinet with lockable door and adjustable shelves @ \$750, (1) 60"x24" plastic laminate counter with resilient edge banding = 5 lf @ \$90 w.demo = \$450; (2) 30" plastic laminate base cabinets with drawers @ \$275 w/demo = \$1,375 = = = TOTALS \$9,295 + MU's.							●	●	●		\$13,990	93.55%	\$27,077.65
Library / Media Center																			
Flooring		Replace broadloom carpet with new broadloom carpet as part of standard maintenance practice	3	ESL	L	1700 square feet @ \$5 w/demo-prep-replace = \$8,500 + MU's							●	●			\$12,795	93.55%	\$24,764.72
Teacher Workroom and Staff Areas																			
Flooring		Recommend replacing VCT floor tile with quartz floor tile or an equivalent non-wax finish floor in future renovations	3	ESL	L	400 sf @ \$5.25 demo-prep-new vct-new wall base = \$2,100 + MU's							●	●			\$3,160	93.55%	\$6,116.18
Nurse and Health																			
Flooring		Replace broadloom carpet with new broadloom carpet as part of standard maintenance practice	3	ESL	L	400 square feet @ \$5 demo & replace = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,825.86
Casework	Wood of varying finishes and condition	Recommend replacing all casework with lockable casework of consistent finish and condition.	3	ESL	L	(1) 36" wide tall storage cabinet with adjustable shelves \$750 ea, (2) 36" wide by 48" tall open shelving units with adjustable shelves @ \$450 ea = = = TOTALS \$1,650 + MU's							●	●			\$2,485	93.55%	\$4,809.72
Privacy Curtains (no. of rest areas)	One enclosed rest area with no curtains	Provide privacy curtains in cot area.	0	OB	L	(1) ceiling mounted curtain track with curtain. 10 linear feet \$350 + MU's							●	●			\$530	93.55%	\$1,025.82
Administration Office Area																			
Flooring		Replace broadloom carpet with new broadloom carpet as part of standard maintenance practice	3	ESL	L	1,500 sf @ \$5 demo-prep-new = \$7,500 + MU's							●	●			\$11,290	93.55%	\$21,851.80

LONGFELLOW ELEMENTARY SCHOOL
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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
STRUCTURAL																			
Exterior Wall Construction	C. Lintels above long windows are starting to show rust.	Clean and paint	2	ESL	L	~ 25 locations lintel lengths unclear, carry \$10 lf to clean & repaint rusted lintels + MU's						●	●			\$2,633	116.55%	\$5,701.76	
Exterior Wall Construction	D. Some localized area of the brick appears to be missing mortar.	Repoint	2	END	L	1 area below large window at poetry garden (south wing) (~100sq ft)						●	●			\$1,130	116.55%	\$2,447.02	
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Spalling, Staining, Efflorescence	Large amounts of staining due to efflorescence and broken precast concrete	Remove any damaged brick from rusted lintels and replace with new brick. schedule brick replacement with lintel replacement. Remove other areas of cracked brick, resolve any water issues that might have resulted from the cracked brick, and replace with new brick.	2	ESL	L	A total of 300 square feet of cracked brick veneer to be replaced either from settling or rusting lintels @ \$40 sf demo & including new brick material = \$12,000 + MU's						●	●			\$18,060	116.55%	\$39,108.93	
Spalling, Staining, Efflorescence		Recommend re-pointing masonry as part of standard maintenance practice.	3	ESL	L	Total of all exterior walls for a three level building with a gross square feet of 61,600 .. Assuming 20% exterior glazing, this = approx230,000 sf net area if all brick remaining @ \$7.50 =\$1,725,000 + MU's .. May not be financially feasible, suggest masonry study to determine more precisely what actually needs repointing .. A total of 5,600 SF of masonry that needs to be repointed.						●	●			\$63,210	116.55%	\$136,881.26	
Spalling, Staining, Efflorescence		Recommend restoration of precast concrete that remains in good condition as part of standard maintenance practice	3	ESL	L	Total of all exterior walls for a three level building with a gross square feet of 61,600 .. A total of 1,500 square feet						●	●			\$33,865	116.55%	\$73,334.66	
Other	It was noted that the exterior wall is not insulated	Recommend further investiagtion and study to add insulation to the interior side of the exterior wall to improve thermal performance of the envelope	-	-	L	Budget for Study						●	●	●		\$7,000	116.55%	\$15,158.50	
Windows																			
Frame Materials	Aluminum. Windows are reported to have jamming issues and do not operate easily. Damaged window screens throughout.	Replace windows	2	END	L	200 unit windows, assume 15 SF each						●	●	●		\$316,050	116.55%	\$684,406.28	

LONGFELLOW ELEMENTARY SCHOOL

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Louvers																			
Materials	Rusting metal that is peeling away painted finish and isolated areas of crumbling	Remove louvers complete and replace with aluminum louvers. Schedule louver replacement with lintel and masonry replacement.	1	END	L	75 (1' x 4' aluminum louvers, extruded hvac assumed, @ \$40 sf w/demo =\$12,000 + MU's							●	●			\$18,060	116.55%	\$39,108.93
Lintels	Steel lintels. Corrosion with rust scale build up is typical. Several lintels are displaced.	Replace all lintels with galvanized steel lintels. Remove 12 square feet of masonry for lintel replacement. Reflash and replace existing masonry.	1	ESL	L	(75) 5' galvanized steel lintels, assume 4" x 4" lintel @ 6 #/sf =2,250 # @ \$2 material = \$4,500 + MU's; mason labor 375 hours @ \$45 =\$16,875 + MU's; A total of 900 square feet of existing masonry to be removed and replaced for lintel work @ \$25 =\$22,500 + MU's; 375 lf flashing @ \$15 =\$5,625 + MU's = = TOTALS \$49,500 + MU's							●	●			\$74,500	116.55%	\$161,329.75
Exterior Doors - Main Entrance																			
Frame Materials	Wood door and frame (non-accessible front entrance) - Precast concrete around frame	Replace wood door and frame with a thermally broken aluminum entrance system designed to mimic current front entrance to preserve the buildings character	2	ESL	L	200 square feet including three 3'x7' entrance doors, arched transom, and hardware, 140 sf arched transom & sidelites @ \$110 w/demo = \$15,400 + MU's; exterior storefront doors w/panic & closers @ \$2,750 ea w/demo = \$8,250 + MU's .. TOTALS \$23,650 + MU's							●	●			\$35,595	116.55%	\$77,080.97
Exterior Doors (not including Main Entry)																			
Materials	A mix of hollow metal doors with hollow metal frames and wood doors with wood frames. Two accessible entrances, one enters into the basement through the back of the building and the other enters to the main level through the loading dock area. No accessible entrance near the playground.	Replace all wood doors and wood frames with a thermally broken aluminum entrance system designed to mimic current doors to preserve the buildings character Alum finish can mimic previous wood finish. Replace two of the exterior hollow metal doors with painted thermally broken aluminum metal frames and doors.	2	END	L	(3) 72"x84" thermally broken painted aluminum double door and frame, \$5,500 per double door set w/demo - \$16,500 + MU's							●	●			\$24,835	116.55%	\$53,780.19
Lintels	A mix of pre-cast concrete and Steel. Corrosion with rust scale build up is visible on steel lintels.	Replace all lintels with galvanized steel lintels. Remove 12 square feet of masonry for lintel replacement. Reflash and replace existing masonry.	2	ESL	L	(2) 7' galvanized steel lintels (1) 4' galvanized steel lintel, total of 50 square feet of existing masonry to be removed and replaced for lintel work. assume 4" x 4" lintel @ 6 #/lf = 110 # @ \$2 = \$220 lintel material + 18 hours mason labor @ \$45 = \$810 + 50 sf brick @ \$25 = \$1,250 + 11' flashing @ \$15 =\$165 = TOTAL \$2,445 + MU's							●	●			\$3,680	116.55%	\$7,969.04
Fascia, Trim, Soffits & Overhangs																			
Materials	Cementitious soffit material is cracked and likely delaminated.	Remove and repair all loose material. Repaint all soffits.	1	END	L	total 50 sf @ \$10 = \$500 + MU's							●	●			\$755	116.55%	\$1,634.95
Sealants & Expansion Joints																			
Window / louver / Door Perimeter Sealant	Perimeter sealant material unknown. Sealant is failing at all louvers and is aging at all windows	remove and replace all sealant and back rod materials at all louver locations	1	END	L	600 lf @ \$3.50 = \$2,100 + MU's							●	●			\$3,160	116.55%	\$6,842.98

LONGFELLOW ELEMENTARY SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

Roof Assembly & Flashing																		
Flat or Sloped Geometry	Flat w/ sloped steel and tapered insulation	Eliminate ponding from clogged drain	1	END	L	Unclog and clean the area around (3) roof drains @ \$150 = \$450 + MU's						●	●			\$680	116.55%	\$1,472.54
Age	1990 (?)	Replace roof with black EPDM	2	END	L	24,700 SF						●	●			\$446,082	116.55%	\$965,990.57
Roof Drains (Covers)	Roof drains	Replace missing roof drain covers. Clear roof drains of debris and clogs to allow for proper drainage and eliminate roof ponding.	1	END	L	2 roof drain covers @ \$150 = \$300 + MU's						●	●			\$455	116.55%	\$985.30
Roof access	Roof access is thru the custodial closet, up two separate sets of ladders, and thru a sidewall roof hatch in a difficult location. The roof is not easily accessible by any means.	Provide a roof hatch in a more accessible location with a wall mounted ladder.	0	OB	L	(1) roof hatch (1) wall mounted ladder, \$2,500 hatch & 8' wall ladder (only) & safety rail + \$1,000 cut & frame roof opening & flash perimeter + \$1,000 demo old hatch & patch demo area allowance = \$4,500 + MU's; alternating tread ladder to hatch area excluded Provide a price for a wall mounted roof ladder (20' tall)						●	●			\$9,030	116.55%	\$19,554.47
Exterior Stairs and Ladders																		
Locations and Materials	Roof Ladders	None, roof access is poor. Provide roof ladders to both lower roofs and provide proper roof access from the upper level	0	OB	L	(2) exterior galvanized steel roof ladders, 8' height assumed = \$600 ea = \$1,200 + MU's; (1) exterior galvanized steel inclined roof stair (to small upper roof) = 12' height assumed @ \$5,000 + MU's						●	●			\$9,335	116.55%	\$20,214.94
	A mix of concrete and granite exterior stairs in varying condition. Rear concrete stair is cracked, chipping away, and will continue to fail over time. Stairs have a mix of code compliant and non code compliant railings (some of the railings do not extend beyond the bottom of the stair).	Replace concrete stairs at rear entrance with new concrete stairs. Replace concrete landing at front entrance to eliminate ponding. Patch concrete walls on sides of front entrance stairs. Replace non-compliant handrails with compliant handrails at 3 of the exterior stairs. Replace concrete treads completely.	2	OB	L	Front entrance: 200 square feet on concrete landing; 30 square feet of concrete patching, allow \$3,600 + MU's; Rear entrance: Rebuild concrete stairs complete - 10 feet wide, 6 risers / 5 treads / 4' deep landing, w/demo & dig-bf & frost foundation & steps & landing & ground mount rails = \$12,500 + MU's = = = TOTALS \$16,100 + MU's						●	●			\$24,230	116.55%	\$52,470.07

Total Years 16 -20	\$2,365,473
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HARRISON LYSETH ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																	0.00%	\$0
																	Total Year 0	\$0

HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/in Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																TRADE COST PLUS 50.5% MARK-UP		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									* OPINION OF PROBABLE COST	ALLOCATION						
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE		CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE			
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
SITE																							
Parking																							
Curbing Materials & Wheel Stops	Bituminous curb within interior loop in rough shape.	Replace bituminous curb within interior loop. Wheel stop needed at ADA parking space that adjoins walkway.	1	END	S	350lf @ \$5.00/lf 7 wheel stops @ \$250 ea				●			●			\$5,267	24.65%	\$6,565	\$6,565				
Number of Spaces (Regular & ADA)	3 ADA - 1 not compliant	ADA space adjoining walkway needs parking aisle.	2	ESL	S	\$125 restripe + MU's				●						\$200	24.65%	\$249	\$249				
Accessible Parking Signage	Faded Fire Lane Sign. Metal behind wood guardrail post.	Replace fire lane sign.	0	OB	S	\$350 + MU's		●								\$526	24.65%	\$656	\$656				
Vehicular Drop-Off & Pick-Up Areas																							
Car & Bus Separations	Separate at parking but not at access drive. Bus loop has wood guardrail. Parent loop has temporary barricades. Minimal drainage along drive aisles.	Install sidewalk, curb and guardrail at parent drop off loop.	2	ESL	S	Sidewalk: 1200s.f @ \$4.00 Curb: 260lf @ \$5.00 Guardrail: 100lf@\$40		●								\$15,200	24.65%	\$18,947	\$18,947				
Vehicular & Pedestrian Circulation																							
Traffic Markings & Traffic Signage	Lacking	Need more stripping and signage	2	ESL	S	750lf @\$0.50		●					●			\$564	24.65%	\$703	\$703				
Walkway Materials	Bituminous. Breaks in guardrail sections.	Replace bituminous sidewalks. Replace missing guardrail sections.	2	ESL	S	sidewalk: 700s.f.@\$4.00 Guardrail: 80lf@\$40		●					●			\$9,030	24.65%	\$11,256	\$11,256				
Curb Cuts & Detectable Warning Strips	No panels observed	Install detectable warning panels at all crosswalks.	0	OS	S	Qty 6: 1205F@\$60		●		●						\$65,016	24.65%	\$81,042	\$81,042				
Site Topography																							
Characteristics	Generally flat with site stabilization	Need walls at rear where paved	1	END	S	540 s.f. @\$65		●								\$52,825	24.65%	\$65,846	\$65,846				
Site Furniture & Accessories																							
Bicycle Racks	In back , see plan. Where do children enter	Relocate closer to front main entry.	2	ESL	S	2 ea @\$100	●									\$301	24.65%	\$375	\$375				
BUILDING EXTERIOR																							
Exterior Stairs and Ladders																							
Locations and Materials	It was observed that the only ADA access to the playground is through the front entrance which is not in the direct path to the playgrounds.	Recommend providing direct ADA access from the building to the playground in future renovations.	0	OB	S	24' feet of concrete ramp, 60" wide @ \$150 sf w/dig-bf-frost f'dn-slab = \$18,000 + MU's. Provide ADA compliant painted round metal handrail on either side of ramp. 50 lf total @ \$75 for 2 line pipe rail = \$1,500 + MU's = = TOTALS \$19,500 + MU's				●						\$29,350	24.65%	\$36,585	\$36,585				
Windows																							
Glazing Type and Color	Clear insulated glass. A few isolated areas of broken panes	Replace broken window panes complete	2	END	S	(2) 24"x48" areas of clear insulated glass @ \$25 sf reglaze = \$400 + MU's		●				●	●			\$605	24.65%	\$754	\$754				
BUILDING INTERIOR																							
General Notes																							
Non-ADA compliant door hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	Replace 15 Knobs (typically on service doors) with code compliant hardware, suggests HM leaves, \$500 per leaf minimal modification = \$7,500 + MU's			●	●		●	●			\$11,290	24.65%	\$14,073	\$14,073				

HARRISON LYSETH ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

Category	Description and General Comments	Recommended Action	SEE LEGEND			Quantity Info	Evaluation Criteria									BUDGET								
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost Plus 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	Allocation					
																			CIP	CIP (Major Renovation)	Maint.	City Expense		
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
Classroom casework	painted wood in fair condition	Recommend replacing aging wood casework with more resilient plastic laminate casework with resilient edge banding.	2	ESL	S	Provide the following in each classroom (total of 30 rooms) (2) 48" wide tall cabinet units with adjustable shelves and lockable doors @ \$750 ea = \$1,500 per class 12 Linear Feet of fixed shelves (two rows) with coat hooks. @ \$20 = \$240 per class (6) 36" wide wall cabinets with adjustable shelves and lockable doors 18 lf @ \$125 w/demo = \$2,250 per class = = = TOTALS 30 rooms \$119,700 + MU's											\$180,150	24.65%	\$224,557	\$224,557				
Sinks (ADA compliance)	Non ADA sinks in some of the classrooms. Enamel counter mounted sink in plastic laminate counter top.	Recommend replacing all existing sinks with ADA compliant sinks and new casework	0	OB	S	(Total of 25) 24" deep x 60" long plastic laminate counter with resilient edge banding, knee clearance below counter, and stainless steel sink with faucet. 5 lf top \$90 top w,demo = \$450 + \$1,500 sink re-use rough = \$1,950 ea for 25 = \$48,750 + MU's												\$73,370	24.65%	\$91,456	\$91,456			
Main Entrance																								
Door Configuration (Vestibule?)	Vestibule, secured entrance. No ADA push button	Recommend providing ADA push button access	0	OB	S	ADA push button sequence for two double doors. \$2,500												\$3,765	24.65%	\$4,693	\$4,693			
Corridors																								
Wall Projecting Objects	Drinking fountains are not located in alcoves and do not have cane detection devices.	Provide painted round metal cane detection devices to either side of the drinking fountain to meet ADA requirements	0	OB	S	(6) painted round metal cane detection devices. Two for each fountain. \$250 ea = \$1,500 + MU's												\$2,260	24.65%	\$2,817	\$2,817			
Interior Signage																								
Materials	A mix of paper and plastic	Provide consistent code compliant signage throughout the entire building	0	OB	S	Provide ADA compliant room signage for 60 spaces @ \$75 = \$4,500 + MU's												\$6,775	24.65%	\$8,445	\$8,445			
Stairs and Exits																								
Wall Finish Materials	All exit vestibules are missing the second exit sign located above the exterior egress door.	Provide second exit sign at each exterior egress door	0	OB	S	10 illuminated exist signs @ \$1,000 w/nre wiring = \$10,000 + MU's												\$15,050	24.65%	\$18,760	\$18,760			
Art Classrooms																								
Kilns	Kiln (not enclosed)	Provide a rated, ventilated, and accessible room to keep the kiln in as part of future renovations.	0	OB	S	80 square feet of interior renovation to provide a room constructed of gyp partitions up to roof deck, single wood veneer 36"x84" door, 2x4 ACT ceilings, and VCT flooring. \$10,000 + MU's + \$2,500 to relocate kiln-hood-exhaust-fan thru roof = \$12,500 + MU's												\$18,815	24.65%	\$23,453	\$23,453			
Library / Media Center																								
Ceiling Finish Materials	2x4 ACT	Recommend replacing ceiling with 2x4 ACT ceilings.	3	ESL	S	1700 sf & new grid assumed @ \$4.50 demo & replace = \$7,650 + MU's												\$11,515	24.65%	\$14,353	\$14,353			
Gymnasium / Cafetorium																								
Wall Pads	Wall pads located behind backstops in fair condition	Repair wall pads that are falling off the wall	2	ESL	S	20 lf wall pads 6' ht assumed = 120 sf @ \$8.50 = \$1,020 + MU's												\$1,535	24.65%	\$1,913			\$1,913	
Other observations	Second egress is through a storage room and is not code compliant	Add partition and door dividing egress way from occupied area	-	OB	S	8' x 8' gyp partition with 3'x7" wood veneer door. New painted partition & door-frame-hdwr \$2,000 + MU's												\$3,010	24.65%	\$3,752	\$3,752			

HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND									
Condition Level			Life Cycle (Age Factor)			Action Priority			
0 - Failed - Not Functional			N - New / Recent			I - Immediate (Year 0)			
1 - Poor - Failure Anticipated			ESL - w/In Expected Service Life			S - Short Term (Years 1-5)			
2 - Fair - Functions, Service Required			END - Nearing End of Service Life			L - Long Term (Years 6-20)			
3 - Good - Functional & Maintained			OB - Obsolete			N/A - Not Applicable			
4 - Excellent - New									

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				ALLOCATION			
																		CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

Kitchen and Servery		(See Food Service Below)																					
Food Service Equipment	Missing 3-bay sink, hood with fire suppression system, and handwashing stations. All other equipment is in good working order.	Recommend providing 3-bay sink, handwashing stations	2	OB	S												\$17,000	24.65%	\$21,191	\$21,191			
Teacher Workroom and Staff Areas																							
Ceiling Finish Materials	2x4 ACT in fair condition	Recommend replacing ACT ceiling with new 2x4 ACT ceiling	2	ESL	S	2,000 sf, new grid assumed, @ \$4.50 demo & replace new 2x4 ACT = \$9,000 + MU's											\$13,545	24.65%	\$16,884	\$16,884			
Casework	Residential grade plastic laminate casework	Recommend replacement of all casework to meet ADA requirements. Replace with plastic laminate casework with resilient edge banding, adjustable shelves, and lockable doors.	0	OB	S	(2) 36" wall cabinets @ \$125 w/demo = \$725. (2) 36" double door with drawers base cabinet @ \$275 w/demo = \$1,650. (1) 36" ADA sink apron @ \$300. (1) 24" four drawer base cabinet @ \$275 w/demo = \$550. All doors are lockable and all shelves are adjustable. 11 linear feet of counter at ADA height @ \$90 w/demo = \$990 = = TOTALS \$4,215 + MU's.											\$6,345	24.65%	\$7,909	\$7,909			
Student Toilet Rooms																							
Ceiling Finish Materials	2x4 ACT ceilings in fair condition	Recommend replacing ceiling with new 2x4 ACT	2	ESL	S	1,700 sf new grid assumed \$4.50 = \$7,650 + MU's											\$11,515	24.65%	\$14,353	\$14,353			
Staff Toilets																							
Ceiling Finish Materials	2x4 ACT ceiling in fair condition	Recommend replacing ceiling with new 2x4 ACT	2	ESL	S	400 sf of 2x4 ACT ceiling, new grid assumed, \$4.50 w/demo = \$1,800 + MU's											\$2,710	24.65%	\$3,378	\$3,378			
Plumbing Fixtures	The water closets are floor mounted vitreous china with manual flush valves, non-ADA Lavatories are wall hung vitreous china, non-ADA	Recommend providing fixtures that meet ADA requirements	0	OB	S	(9) Floor mounted ADA compliant water closets re-use rough @ \$1,500 = \$13,500 + MU's; (9) Wall mounted ADA compliant Lavatories & adjust rough @ 2,000 = \$18,000 + MU's											\$47,410	24.65%	\$59,097	\$59,097			
Nurse Suite																							
Privacy Curtains (no. of rest areas)	Two chairs for seating.	Consider re-arranging room to provide for resting cot.	0	OB	S	Provide (1) 30" x 72" resting cot, surrounded by ceiling-hung privacy curtain.											\$2,000	24.65%	\$2,493			\$2,493	
Toilet room	Nurse suite has single-user toilet room. Toilet is non-ADA compliant. Fixtures do not have proper clearances. Toilet room does not have 5' turning radius.	Renovate existing toilet room, remove existing wall, and renovate into larger, new single-user toilet room.	0	OB	S	Complete renovation of 75 SF existing toilet room into new, ADA compliant toilet room. Complete with all new fixtures, new 13' long full height (12') wall and wood veneer door w/ HM frame.											\$18,815	24.65%	\$23,453	\$23,453			
Mechanical and Service Spaces																							
Ceiling Finish Materials	2x4 ACT ceiling in poor condition	Recommend replacing ceiling with new 2x4 ACT	2	ESL	S	500 sf new grid assumed \$4.50 = \$2,250 + MU's											\$3,390	24.65%	\$4,226	\$4,226			

HARRISON LYSETH ELEMENTARY SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
FIRE PROTECTION																						
Type of Sprinkler System	None	Install NFPA 13 complete system			S	\$/SF + MU's 50,600 GSF \$3 sf new wet system + \$25,000 water line upgrade + \$15,000 new entry & backflow + MU's		●	●							\$375,000	24.65%	\$467,438	\$467,438			
ELECTRICAL																						
Life Safety																						
Fire Alarm	FCI conventional. System is currently in trouble, reportedly due to a defective circuit board in control panel. Replacement circuit board is reportedly on order.	Update fire alarm throughout to an addressable system	1	OB	S	Carry complete new system for 50,475 sf		●	●							\$132,940	24.65%	\$165,710	\$165,710			
Emergency Lighting	Emergency battery units with integral and remote heads. LED illuminated exit signs with integral battery backup.	Update units to LED. Provide outdoor emergency lighting at building exits.	2	ESL	S	Carry 15 outdoor units and 14 indoor units.		●	●							\$30,000	24.65%	\$37,395	\$37,395			
SECURITY																						
Secure Entry Vestibule	Secured entry with buzz-in entry system at second set of doors. Secured vestibule does not enter directly into admin area, allowing visitors to have access to student areas before checking in.	Recommend providing a secured entry directly into administration area in future renovations. Renovate classroom and conference room directly adjacent to entry vestibule into admin suite. Renovate existing admin suite to accommodate displaced classroom	0	OB	S	2,300 Square Feet of complete interior renovations. \$125 sf = \$287,500 + MU's (includes \$2500 for motorized door operators)	●									\$435,190	24.65%	\$542,464	\$542,464			
Intrusion Alarm System	Bosch control panel. Alarms are initiated by motion detectors.	System will reach the end of its anticipated useful life within 15 years	3	ESL	S	Carry complete system replacement for 50475 sf	●									\$56,214	24.65%	\$70,071	\$70,071			
Security Camera System	N/A	Provide web-based security camera system with DVR			S	Assume 16 Cameras	●									\$14,400	24.65%	\$17,950	\$17,950			
																Total Years 1 - 5		\$2,085,261	\$2,080,855	\$0	\$4,406	\$0

HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/in Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
SITE																						
Parking																						
General Layout Description	Excessive pavement at rear of school. No security lighting. Dirt pile at end of southernmost crosswalk. Observed cars parked along south side of school outside of designated parking area.	Remove excessive pavement at rear of school and replace with adequate fire lane access and green space. Remove dirt pile at crosswalk. Existing CIP Request	2	ESL	L	25,200 s.f. \$1.50										\$56,889	55.30%	\$88,349	\$88,349			
Paving Materials	Bituminous in rough shape, a lot of cracking and ruts	Mill and repave. Existing CIP Request	1	END	L	92,400 s.f. @ \$1.25/sf										\$1,735,265	55.30%	\$2,694,867	\$2,694,867			
Service Area																						
Trash & Recycling Containers (# & Size), Trash Compactor (size)	1-10 yd Solid, 1-5 yd recycle @ service area 1-big belly solar, 1- 55 gallon recycle @ playground Compost area at northeast corner.	Install dumpster screen.	2	ESL	L	10' x 15' exclusive screened area w/8" concrete on 12" gravel & gate & bollards, \$5,750 + MU's										\$8,655	55.30%	\$13,441			\$13,441	
Site Furniture & Accessories																						
Types, Locations, Materials	Several Granite Benches, Remnants from wooden guardrail at edge of south parking lot	Remove remnants of guardrail at south parking lot.	0	OB	L	35 posts at \$30/ea										\$1,580	55.30%	\$2,454			\$2,454	
Site Drainage																						
Ponding	Ponding within loop	Add catch basins to address ponding and erosion issues. CIP - In Progress	2	ESL	L	2 ea @\$1500 (need additional review for pipe run - budget \$10k)										\$19,565	55.30%	\$30,384	\$30,384			
Catch Basins	None within landscaped area, minimal drainage along north side of site.	Adjust covers to grade where applicable. CIP - In Progress	2	ESL	L	3@\$300										\$1,354	55.30%	\$2,103	\$2,103			
STRUCTURAL																						
Foundations / Drainage	Frost protected, shallow foundations.	Most control joint sealants in foundation wall have failed and should be replaced.	2	END	L	Approx. 200 lf of sealant										\$1,505	55.30%	\$2,337			\$2,337	
Additional Observations	Ladders used to access high roof are not anchored to walls at the top.	Add anchorage for top tie backs.	1	END	L	Add (4) steel clip connections with brick anchors										\$1,806	55.30%	\$2,805			\$2,805	
PORTABLE / MODULAR BUILDINGS																						
Portable classrooms	1 residential grade portable classroom unit. Unit has own designated services to the unit. Unit is in poor condition	Recommend replacement of portable classroom.	1	OB	L	(1) 30'x50' modulars,										\$225,000	55.30%	\$349,425	\$349,425			
BUILDING EXTERIOR																						
Exterior Doors (not including Main Entry)																						
Lintels	Steel lintels with isolated signs of rust	Remove rust and repaint lintels. Remove sealant between top of lintel and bottom of masonry to allow for any moisture at the lintels to escape	2	ESL	L	(30) 48" long steel lintel (5) 36" long steel lintel, 135 total lf @ \$10 lf rust prep & repaint = \$1,350 + MU's ; 135 remove sealant @ \$1.50 =\$205 + MU.s										\$2,340	55.30%	\$3,634			\$3,634	
Kindergarten Toilet Rooms																						
	Kindergarten classrooms do not have individual restrooms in each classroom.	Recommend providing individual children's bathrooms in each kindergarten classroom in future renovations	N/A	OB	L	\$10,000 + MU's per toilet room (5) kindergarten classrooms that need toilets.										\$75,250	55.30%	\$116,863		\$116,863		
PLUMBING																						
Sanitary Waste and Vent System	Cast iron, galvanized	Roof vents should terminate 3 ft above roof-- many vents are well below that. Add supported length to vent to stay above snow level plugging vent.	2	ESL	L	\$/SF @ 50K SF +MU's										\$525,000	55.30%	\$815,325		\$815,325		
Hot Water System	New electric 40 gal heatpump water heater.	Replace at end of service life (15 years)	4	N	L	(1) EWH + MU's										\$900	55.30%	\$1,398		\$1,398		

HARRISON LYSETH ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	0 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	1 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	2 - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
Domestic distribution system	Copper piping lead solder	Copper system beyond service life	2	END	L	\$/SF @ 50K SF + MU's						●	●			\$900,000	55.30%	\$1,397,700		\$1,397,700		
Storm Drain System	Cast iron	Cast iron sanitary beyond service life	2	END	L	\$/SF @ 50K SF + MU's						●	●			\$225,000	55.30%	\$349,425		\$349,425		
MECHANICAL																						
Heating Plant	Steam via underground from Lyman Moore. Just replaced steam and condensate to Lyman Moore.	Steam system is vintage (over 50 years). Convert to hot water heating via HX and pumps at steam entrance.	2	END	L	Figure (2) gas condensing boilers (1000 MBH ea.) and appurtenances.						●	●			\$390,000	55.30%	\$605,670		\$605,670		
Air Handling Unit Systems	H & V unit serving gym/café from mezzanine (1960s mfg.)	Unit is past service life. Upgrade with new VFD AHU at time of hot water conversion.	2	END	L	Figure (1) 5,000 cfm H&V unit Figure \$/SF @ 5K SF for insulated ductwork.						●	●			\$100,000	55.30%	\$155,300		\$155,300		
Terminal Unit Systems	Class Unit Vents with steam coils (1960s). OA damper control functions.	Upgrade with new ducted ventilation by DOAS, fintube heating at time of hot water conversion.	2	END	L	Figure (2) 2,500 cfm rooftop ERUs. Figure \$/SF @ 50K SF for uninsulated ductwork.						●	●			\$435,000	55.30%	\$675,555		\$675,555		
Terminal Heating Unit Systems	Convector and Radiators (1960s)	Install HW fintube radiation to provide space heating at time of steam to HW conversion.	2	END	L	Figure 800 ft fintube						●	●			\$100,000	55.30%	\$155,300		\$155,300		
Piping System	Sched 40 steel/black iron, mostly vintage, insulated.	Replace at time of hot water conversion.	2	END	L	\$/SF @ 50K SF						●	●			\$900,000	55.30%	\$1,397,700		\$1,397,700		
Automatic Temperature Controls	Pneumatic controls system. Few leaks. (2) main steam zone valves. Major water hammering issues when main zones valves go from night/day mode.	Replace with DDC electric at time of hot water conversion. Prevent water hammer by opening main valve slowly to reduce initial steam flow.	2	END	L	\$/SF @ 50K SF						●	●			\$260,000	55.30%	\$403,780		\$403,780		
ELECTRICAL																						
Service	Underground primary to utility transformer vault in building. Comments regarding life cycle are based on the general building vault arrangement being an obsolete design. The school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts.	Update to padmount XFMR. Further investigation by utility company is required to determine cause of shorts due to squirrel activity.	2	OB	L	Carry complete new service entrance for 50475 sf						●	●			\$132,200	55.30%	\$205,307		\$205,307		
Distribution System																						
Panels	Mostly recently-installed Square D panelboards. Some obsolete GE panelboards remain	Replace obsolete GE Panelboards	2	OB	L	4 GE panelboards remain						●	●			\$21,521	55.30%	\$33,422			\$33,422	
Wiring	Building wire in conduit. Wiring has exceeded its anticipated useful life.	Replace distribution wiring system throughout.	2	END	L	Carry complete distribution system wiring replacement for 50,475 sf						●	●			\$90,400	55.30%	\$140,391		\$140,391		
Branch Circuits	Classrooms generally lack appropriately-located receptacles	Add receptacles and branch circuits throughout to satisfy program needs Maintenance will repair as needed until funding is secured	1	OB	L	Carry complete new branch-circuit wiring system for 50,475 sf						●	●			\$156,477	55.30%	\$243,009		\$243,009		
Interior Lighting																						
Classrooms	Mostly T8 Fluorescent lens troffers, although some very old louvered linear fluorescent luminaires were noted. 3 classrooms have been updated to LED, individually addressable fixtures with Acuity Brands N-Light control are installed in one classroom as a test	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	END	L							●	●	●								
Offices	T8 Fluorescent lens troffers	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	END	L							●	●	●								
Corridors	T8 Fluorescent lens troffers	Update lighting to LED as part of any planned facility renovations.	2	END	L							●	●	●		\$599,500	55.30%	\$931,024		\$931,024		

HARRISON LYSETH ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								BUDGET							
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations

Toilets	T8 fluorescent	Update lighting to LED as part of any planned facility renovations.			L	Carry complete interior lighting replacement for 46875 sf							●	●	●								
Mech/Storage	Incandescent lighting in basement mechanical room	Update lighting to LED as part of any planned facility renovations.	2	OB	L								●	●	●								
Assembly		Provide LED performance lighting and an architectural dimming system			L								●	●	●								
Gym	T8 fluorescent high bays	Update lighting to LED as part of any planned facility renovations.	2	ESL	L								●	●	●								
Data System (& Service)	Cat 6 - 2" entrance conduit. MDF consists of an exposed floor mounted rack located in a storage room.	Provide enclosed cabinet in lieu of exposed rack at MDF	2	ESL	L	Carry \$10,000 + MU's							●	●			\$15,050	55.30%	\$23,373	\$23,373			
																	Total Years 6 - 10	\$10,840,339	\$3,188,500	\$7,593,746	\$58,093	\$0	

HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

BUILDING INTERIOR																			
General Notes																			
Wall Finish Materials	Painted CMU and GWB	Recommend budgeting for repainting all interior walls towards the end of the 20-year plan period	2	END	L	Base on 50,600 SF of floor area @ \$2 sf including doors & interior trims = \$101,200 + MU's							●	●			\$152,306	93.55%	\$294,788
Interior doors	Wood veneer door with painted hollow metal painted frame. Half glass door, divided into three horizontal single panes. Doors are worn and approaching end of life	Replace all wood veneer door.	2	ESL	L	(110) single door 36"x84" (30) double door 72"x84" ; \$1,750 ea x 170 ea demo & replace w/glazed leaf & lockset & closer = \$297,500 + MU's							●	●			\$447,740	93.55%	\$866,601
Visual Display Surfaces	Tack boards, white board laminate over chalkboards, and projector screen	Replace white board laminate with better quality white boards and remove chalk boards complete	2	ESL	L	(1) 20' x 4' white board with marker tray in each classroom. Total of 30 rooms 80 sf per room @ \$30 w/demo = \$2,400 for 30 rooms = \$72,000 + MU's							●	●	●		\$108,360	93.55%	\$209,731
Main Entrance																			
Entrance Mats	Walk-off carpet in good condition	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	100 Square Feet of aggressive grade walk-off mat. \$17.50 recycled tire rubber = \$1,750 + MU's 200 Square Feet of mild grade walk-off mat. @ \$15 = \$3,000 +MU's 100 Square feet of low grade walk-off mat @ \$10 = \$1,000 + MU's								●	●		\$8,655	93.55%	\$16,752
Special Education Classrooms																			
Wall Finish Materials		Replace partial height cubicle walls with full height acoustic GYP partitions in future renovations.	0	OB	L	60 linear feet of gyp partitions up to roof deck - demo-replace w/sound batt partitions painted \$7,000 + MU's								●			\$10,535	93.55%	\$20,390
Music Rooms																			
Casework	Wood casework in fair condition	Recommend replacing aging wood shelves with more resilient plastic laminate shelving with resilient edge banding.	2	ESL	L	40 linear feet of open adjustable plastic laminate shelving units up to 60" tall @ \$25 w/demo = \$1,000 + MU's							●	●	●		\$1,505	93.55%	\$2,913
Library / Media Center																			
Shelves	Plastic Laminate in good condition	Recommend replacing for a more quality, durable shelf .	3	ESL	L	80 linear feet of tall, single sided, metal shelving product. \$175 lf= \$14,000 + MU's							●	●			\$21,070	93.55%	\$40,781
Workroom / Staff Areas	Connected staff room of the same finishes and condition. Small workspace provided behind the circulation desk made up of folding tables	Recommend providing a separate staff work area in future renovations	—	OB	L	80 square feet of interior renovation to provide a room constructed of gyp partitions up to roof deck, single wood veneer 36"x84" door, 2x4 ACT ceilings, and VCT flooring. \$10,000 + MU's							●	●			\$15,050	93.55%	\$29,129

HARRISON LYSETH ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET				
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																				
Gymnasium / Cafetorium																				
Drinking Fountains	None	Recommend providing drinking fountain in Gym in future renovations	–	OB	L	(1) hi/low drinking fountain with water bottle filler \$2,250 w/new rough + MU's							●			\$3,390	93.55%	\$6,561		
Backstops (quantity, mounting type, manual/motorized)	two wall mounted backstops, manual operation, in fair condition	Recommend replacing backstops.	3	ESL	L	(2) wall mounted, manual operation back stops \$5,000 demo & replace = \$10,000 + MU's						●	●	●		\$15,050	93.55%	\$29,129		
Kitchen and Servery																				
Overhead or Counter Doors	(See Food Service Below) Overhead aluminum coiling doors approaching end of life	Replace overhead doors	2	END	L	(1) 12x6 coiling OH door \$4,250 + MU's w/demo manual op (1) 10x6 coiling OH door \$3,750 + MU's w/demo manual op (1) 5x6 coiling OH door \$2,250 + MU's w/demo manual op						●	●			\$15,430	93.55%	\$29,865		
Administration Office Area																				
Casework	A mix of wood, metal, and plastic laminate in fair condition	Recommend replacing aging wood casework with more resilient plastic laminate casework with resilient edge banding, adjustable shelves, and lockable doors.	3	ESL	L	A total of (8) 36" wall cabinets @ \$125 w/demo = \$3,000, (2) 48" tall cabinets @ \$750 = \$1,500, (4) 36" double door with drawers base cabinets @ \$275 w/demo = \$3,300, and 12 linear feet of counter at ADA height @ \$90 w/demo = \$1,080 = TOTALS \$ 8,880 + MU's.						●	●			\$13,365	93.55%	\$25,868		
Staff Toilets																				
Floor & Base Finish Materials	Ceramic floor tile with glazed block wall base in poor condition	Remove ceramic tile and replace with ceramic floor tile	2	ESL	L	A total of 400 Square Feet of ceramic floor tile \$15.50 w/demo = \$6,200 + MU's						●	●			\$9,335	93.55%	\$18,068		
Student Toilet Rooms																				
Floor & Base Finish Materials	Ceramic floor tile with glazed block wall base in poor condition	Remove ceramic tile and replace with new ceramic tile	2	ESL	L	1,700 sf @ \$15.50 demo-prep-replace = \$26,350 + MU's						●	●			\$39,660	93.55%	\$76,762		
Toilet Partitions	A mix of painted enamel and plastic partitions in varying finish and conditions.	Replace all enamel partitions with plastic partitions to match all new plastic partitions elsewhere in the student restrooms.	2	END	L	A total of 4,000 sf (24) 36" x 60" stalls (4) 60" x 60" stalls ((4) 24" x 48" urinal screens						●	●			\$60,200	93.55%	\$116,517		
Mechanical and Service Spaces																				
Floor & Base Finish Materials	Painted concrete with resilient wall base in fair condition	Recommend removing paint on concrete and provide VCT flooring	3	ESL	L	500 sf @ \$4 demo-prep-new vct-new wall base = \$2,000 + MU's						●	●			\$3,010	93.55%	\$5,826		
																	Total Years 11 - 15		\$1,789,681	

HARRISON LYSETH ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Brick veneer in good condition with isolated areas of damage. Painted aluminum metal cladding with unsealed laps in good condition. Exposed foundation that has been parged, parge is in poor condition. Painted wood paneling in good condition.	Re-parge the exposed foundation along the entire perimeter of the building.	2	ESL	L	Total of 2,000 linear feet of re-parged foundation up to 18" tall @ \$5 = \$10,000 + MU's											\$15,050	116.55%	\$32,591
Spalling, Staining, Efflorescence	Isolated areas of spalling and cracked masonry veneer as the result of rusting lintels.	Remove masonry veneer at areas showing signs of efflorescence to discover the cause of the problem and correct the issue. Remove masonry veneer in area of cracked brick, replace lintel and reflash.	2	ESL	L	Total of 40 Square Feet of efflorescence to be repaired @ \$25 w/re-use brick = \$1,000 + MU's Total of 60 Square Feet of cracked masonry veneer to be repaired @ \$35 w/new veneer = \$1,950 + MU's											\$4,440	116.55%	\$9,615
Spalling, Staining, Efflorescence		Recommend re-pointing masonry as part of standard maintenance practice.	3	ESL	L	50,600 GSF one story masonry veneer building suggests 708,400 sf exterior if 20% glass = 566,720 sf brick @ \$7.50 = \$4,250,400 repointing suggest mason study to determine actual work required A total of 1,400 square feet of masonry to be repointed											\$15,805	116.55%	\$34,226
Other	It was noted that the exterior wall is not insulated	Recommend further investiagtion and study to add insulation to the interior side of the exterior wall to improve thermal performance of the envelope	-	-	L	Budget for Study											\$7,000	116.55%	\$15,159
Fascia, Trim, Soffits & Overhangs																			
Materials	Painted Cementitious soffit material in poor condition, paint is peeling off in many areas.	Remove failing paint and repaint soffits	2	ESL	L	600 sf @ \$5 = \$3,000 + MU's											\$4,515	116.55%	\$9,777
Sealants & Expansion Joints																			
Window / Louver / Door Perimeter Sealant	Perimeter sealant material unknown and is varying in age and condition. Sealant is failing at all louvers.	remove and replace all sealant and back rod materials at all louver locations. Remove sealant between top of lintel (at all lintels) and bottom of masonry to allow for any moisture at the lintels to escape	1	END	L	Total of 500 linear feet of sealant around louvers @ \$5 rout out-new backer rod & sealant = \$2,500 + MU's; Total of 100 linear feet of sealant at lintels above doors @ \$1.50 rout out = \$150 + MU's											\$3,990	116.55%	\$8,640
Roof Assembly & Flashing																			
Age	2012 (4 years), Black EPDM	Budget to replace at end of service life	3	ESL	L	50,600 SF											\$913,836	116.55%	\$1,978,912
Roof Drains (Covers)	Roof drains, some missing roof drain covers	Replace missing roof drain covers	1	END	L	5 roof drain covers @ \$150 = \$750 + MU's											\$1,130	116.55%	\$2,447
Other observations	Painted extruded metal mesh screens over glass block windows at gym clearstory are severely rusting and approaching end of life.	Recommend replacing extruded wire mesh screens and metal flashing below screens complete.	1	END	L	Total of 70 linear feet, 60" tall extruded metal mesh, painted 350 sf @ \$25 demo & replace = \$8,750 + MU's											\$13,170	116.55%	\$28,520

PEAKS ISLAND ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																	0.00%	\$0
																	Total Year 0	\$0

PEAKS ISLAND ELEMENTARY SCHOOL																									
Capital Plan Detailed Scope of Work																									
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LEGEND																									
Condition Level						Life Cycle (Age Factor)						Action Priority													
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								BUDGET										
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Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																									
SITE																									
Fire Department Access																									
Extent of perimeter access (full, 1/2?)		Bituminous on right to ?. Grass open area at rear. Dead tree at fire egress. Fire egress/escape onto steep/shelved grade.	Install switch back at rear for emergency ADA exit.			S	1 ramp @\$10,000					●						\$15,050	24.65%	\$18,760	\$18,760				
Parking																									
Number of Spaces (Regular & ADA)		None	Designate at least one parking space for ADA.	0	OS	S	restripe \$125 and add sign \$350 = \$475 + MU's					●						\$715	24.65%	\$891			\$891		
Vehicular & Pedestrian Circulation																									
Observed Circulation Patterns		Rock steps to gate with worn path.	Rail/Handrail needed. Adjust grades/provide steps.	2	ESL	S	Handrail: 50lf @\$100			●								\$7,525	24.65%	\$9,380			\$9,380		
Curb Cuts & Detectable Warning Strips		No Panels	Install panels at crosswalk.	2	ESL	S	2 panels 40s.f.@\$60			●		●						\$3,612	24.65%	\$4,502					\$4,502
DOT School Zone Markings/Signage at Street		Limited School Zone Signs	Install additional signage.	2	ESL	S	4 ea @\$125/ea			●								\$752	24.65%	\$937					\$937
Site Furniture & Accessories																									
Types, Locations, Materials		No trash bin in play area (not a lot of littler).	Benches need replacement	2	ESL	S	\$750 + MU's								●			\$1,130	24.65%	\$1,409			\$1,409		
Site Drainage																									
Ponding		On Island Avenue - Mulch side slope with woven fabric.	Remove fabric and riprap or other stabilization. Remove knot weed.	1	END	S	Knotweed Removal: Lump sum@\$7,500 Riprap: 60CY@\$125											\$22,575	24.65%	\$28,140	\$28,140				
Other Observations		Erosion at gate near basketball court , runoff from Pleasant.	Check dam at gate to eliminate scour/erosion.	2	ESL	S	2 checkdams @\$150/ea Erosion Blanket: 10SY @ \$10 Loam and Seed: 10SY@\$10								●			\$752	24.65%	\$937	\$937				
STRUCTURAL																									
First Floor Construction		Wood/timber construction viewed from basement; open checks (cracks) in wood beams.	Provide stitch screws to hold cracks closed	2	ESL	S	30 LF Beams							●	●			\$1,810	24.65%	\$2,256			\$2,256		
Roof Construction		A. Roof snow load does not meet current code; high low roof conditions susceptible to drifted snow not included in original design.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift. Shoveling of drifts recommended in the interim.	3	ESL	S	2,500 SF sister new joists to exist for snow load			●				●	●			\$9,785	24.65%	\$12,197	\$12,197				
Exterior Wall Construction		E. Cracking noted interior of boiler room; not apparent if part of current repair program.	Replace inner wythe of brick.	2	END	S	25 SF rebuild							●	●			\$1,505	24.65%	\$1,876			\$1,876		
Additional Observations		Exist fire escape with severely corroded steel; spalling at foundation bearing.	Repair foundations and replace or repair fire escape	1	OB	S	1 fire escape - 40-ft run x 4-ft width, 4-ft x 8-ft landing, (3) sonatube footings							●	●			\$37,625	24.65%	\$46,900	\$46,900				
BUILDING EXTERIOR																									
Exterior Doors - Main Entrance																									
Accessibility		Main entry does not have ADA door open push button.	Recommend providing ADA push button door access.	0	OB	S	ADA push button sequence for double doors. \$2,500 w/new wiring + MU's				●	●						\$3,765	24.65%	\$4,693	\$4,693				
Exterior Doors (not including Main Entry)																									
Door Widths and Clearances		Door widths are typically compliant. Clearances are not provided at one exterior doors. All exterior doors (excluding main entry) are an accessibility issue.	Construct exterior concrete landing and stair for 1 door.	0	OB	S	Construct 5' x 7' x 18" concrete stair at exterior door, 3 risers. Install code compliant guardrail (12 LF) and handrail (17 LF). \$7,500 + MU's				●	●						\$11,290	24.65%	\$14,073	\$14,073				
Exterior Exit Stairs		Wood stairs at rear building exit are deteriorating, rotting. Wood guardrail/railing is non compliant. Concrete pad at landing is in fair condition.	Remove exterior wood steps and railing. Replace with new steel exterior stair system	1	OB	S	Remove existing wood stair. Install steel exterior stair system with compliant guardrail and handrails, 7 risers with 5' x 5'			●				●	●			\$10,535	24.65%	\$13,132	\$13,132				

PEAKS ISLAND ELEMENTARY SCHOOL
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PEAKS ISLAND ELEMENTARY SCHOOL

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Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Door Material (Including Frame & Glazing)	Wood door and frame, typically 1/2 lite. Showing signs of age, worn.	Replace all classroom doors.	2	END	S	Install 6 new wood veneer doors (3' x 7') with painted HM frames. \$1,800 w/demo & new 1/2 glazed door x 2 = \$10,800 + MU's											\$16,255	24.65%	\$20,262	\$20,262			
Door Widths and Clearances	ADA clearances at classroom doors non-compliant.	Re-configure door areas/walls/furniture to achieve proper clearances.	0	OB	S	Reconfigure classrooms entries, 6 (3' doors) when doors are replaced. \$3,500 per entry reconfig & door = \$21,000 + MU's											\$31,605	24.65%	\$39,396	\$39,396			
Art + Music Classroom																							
Ceiling Finish Materials	2x4 and 1x1 ACT Tiles beginning to show signs of aging (sagging, discoloration).	Consider replacing all ceiling tiles within the next 10 years.	2	END	S	800 sf 2 x 4 w/grid @ \$4.50 = \$3,600 + MU's											\$5,420	24.65%	\$6,756	\$6,756			
Sinks (ADA compliance)	1 sink, non-compliant.	Replace with ADA compliant sink	2	OB	S	1 - 3' x 6' island w/ss sink \$375 If island + \$1,550 sink = \$3,800 + MU's											\$5,720	24.65%	\$7,130	\$7,130			
Door Hardware	Hardware generally compliant, however closet door has knob	Replace knob with pull handle on closet door knob	0	OB	S	1 alum handle hdwr set. Dummy trim \$200 + MU's											\$305	24.65%	\$380			\$380	
Door Widths and Clearances	ADA clearance an issue at main door	Re-configure door area for proper pull clearance	0	OB	S	Reconfigure classroom entry, 1 (3' door) when door is replaced. \$3,500 + MU's											\$5,270	24.65%	\$6,569	\$6,569			
Performing Arts - Stage																							
Stage Accessibility	Stage is not accessible - stairs from kitchen are blocked, no ramp. Besides climbing on front of stage from gym, rear entry to stage is through classroom.	Remove existing stair (which is non-compliant to begin with). Reconfigure kitchen space for stage access and provide new code complaint stair and railings/guardrails. Install lift in kitchen for ADA accessibility.	0	OB	S	Remove existing stair \$250. Provide new steel stair with 4 risers, 5'x 5' landing at top and code complaint railings/guardrail. \$6,500; Provide lift in kitchen for ADA accessibility to stage. \$20,000 = = TOTALS \$26,750 + MU's											\$40,260	24.65%	\$50,184	\$50,184			
Gymnasium																							
Wall Pads	None	Add wall pads behind main hoops.	0	OB	S	30 lf wall pads 6' ht \$8.50 sf = \$1,530 + MU's											\$2,305	24.65%	\$2,873			\$2,873	
Door Widths and Clearances	ADA clearance issue at main gym entry (12" min needed on pull side)	Reverse door or move heating unit.	0	OB	S	reverse 1 door swing \$250 + MU's											\$380	24.65%	\$474	\$474			
Library / Media Center																							
Ceiling Finish Materials	Painted plaster.	Recommend patching and repainting plaster ceiling.	2	END	S	Approx. 800 SF \$3sf = \$2,400 + MU's											\$3,615	24.65%	\$4,506	\$4,506			
Administration Office Area																							
Ceiling Finish Materials	2x4 ACT and 1x1 tile.	2x4 ACT showing signs of age, sagging and discoloration. 1x1 tile is obsolete.	2	END	S	250 SF 2x4 ceiling tiles & grid \$4.50 sf = \$1,125 + MU's											\$1,695	24.65%	\$2,113	\$2,113			
Kitchen and Servery																							
Ceiling Finish Materials	2x4 ACT. Tiles beginning to show signs of aging (sagging, discoloration).	Consider replacing all ceiling tiles within the next 10 years.	2	END	S	200sf 2 x 4 %4.50 demo-replace = \$900 + MU's											\$1,355	24.65%	\$1,689	\$1,689			
Food Service Equipment	Coolers, freezers, 3 bay sink all provided. Equipment in good condition. Lacks a hand washing station.	Provide hand-washing station.	0	OB	S	(1) hand washing system. \$2,500 w/new rough + MU's											\$3,765	24.65%	\$4,693	\$4,693			
Mechanical and Service Spaces																							
Ceiling Finish Materials	Exposed concrete. Finish appears to be deteriorating, peeling.	Refinish and repaint ceiling.	2	END	S	Approx. 800 SF \$5 = \$4,000 + MU's											\$6,020	24.65%	\$7,504	\$7,504			
Door Widths and Clearances	Door height is non compliant.	Consider building areaway to mechanical space to achieve proper door height.	0	OB	S	10' x 4' areaway to mech space; frame areaway & alt tread stair = \$6,000 + MU's											\$9,030	24.65%	\$11,256	\$11,256			

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Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Custodial Closets/Classroom Storage																							
Door hardware	Wood door, frame. Has non-compliant door hardware.	Replace doors and frames.	0	OB	S	Install 4 new wood veneer doors (3' x 7') with painted HM frames. \$1,550 w/demo-new hdwr = \$6,200 + MU's											\$9,335	24.65%	\$11,636	\$11,636			
FIRE PROTECTION																							
Type of Sprinkler System	None	Install NFPA 13 complete coverage			S	12,915 gsf @ \$3.50 + \$12,00 bldg entry-backflow + \$20,000 water line upgrade = \$70,745 + MU's .. Fire pump & storage tank excluded, likely cost for f.p. & tank = \$50,000 ..											\$106,475	24.65%	\$132,721	\$132,721			
ELECTRICAL																							
Fire Alarm	4-zone conventional FCI control panel	Update to fully addressable system as part of any planned afacility renovations.	1	ESL	S	12,915 gsf @ \$1.50 =\$19,375 + MU's											\$29,160	24.65%	\$36,348	\$36,348			
SECURITY																							
Sightlines between Main Entry and Main Office	No sightlines.	Re-configure existing single-use bathrooms space to main office/admin, and replace main office/admin area with displaced single-use bathrooms.	0	OB	S	550 Square Feet of complete interior renovations. \$125 sf = \$68,750 + MU's											\$103,470	24.65%	\$128,975	\$128,975			
Intrusion Alarm System	None.	Provide intrusion alarm system			S	Door contacts a (7) openings and (16) motion detectors											\$14,599	24.65%	\$18,197	\$18,197			
Security Camera System	At main entry.	Provide web-based security camera system with DVR			S	Assume (16) cameras											\$14,400	24.65%	\$17,950	\$17,950			
																	Total Years 1 - 5		\$833,160	\$808,655	\$0	\$19,065	\$5,440

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Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Wiring	Single-conductors in conduit - very old		1	OB	L	Carry complete new power distribution wiring for 13,167 sf							●	●			\$23,567	55.30%	\$36,600		\$36,600		
Branch Circuits	Branch-circuit wiring is a mix of old cloth-covered non-metallic sheathed cable (romex), old BX armored cable, modern romex cable, surface metal raceway, and single conductors in conduit. Extension cords are in use due to a lack of appropriately located receptacles	Add receptacles and associated branch-circuit wiring - NOTE: Power distribution must be updated in order to facilitate this action.	1	OB	L	Carry complete new branch-circuit wiring system for 13,167 sf							●	●			\$40,822	55.30%	\$63,397		\$63,397		
Exterior Building Lighting	Mostly LED wall packs, one HID wall pack and a couple of old recessed incandescent fixtures at entrance canopies were noted.	Replace HID and incandescent luminaires All fixtures will reach the end of their anticipated useful lives within 20 years.	2	END	L	Carry (12) LED wall packs							●	●			\$5,400	55.30%	\$8,386			\$8,386	
Interior Lighting																							
Classrooms	2011 vintage T8 fluorescent lens troffers on first floor, old louvered pendant linear fluorescent luminaires retrofitted with T8 lamps on second floor	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	OB	L	Carry complete interior lighting replacement for 13167 sf							●	●			\$168,438	55.30%	\$261,584		\$261,584		
Offices	T8 fluorescent				L								●	●									
Corridors	mixture of T8 fluorescent wraparound and old louvered pendant linear fluorescent luminaires retrofitted with T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	END	L								●	●									
Toilets					L								●	●									
Mech/Storage	Old incandescent fixtures retrofitted with self-ballasted compact fluorescent lamps	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	OB	L								●	●									
Assembly	N/A				L								●	●									
Gym	T8 Fluorescent high bays	Update lighting to LED with high performance optics as part of any planned facility renovations.	3	ESL	L								●	●									
Intercom/Paging System	Dukane - 25+ years old	Provide paging and intercom integrated with VOIP phone system.	1	OB	L	see above for conduit, hardware Owner vendor							●	●									
Phone System (& Service)	Nortel Analog system - 20 +/- years old. Classrooms are not equipped with telephones	Provide VOIP phones	1	OB	L	12,915 gsg \$1 sf tleecomdata conduit = \$12,915 + MU's; VOIP phones Owner vendor hardware							●	●			\$19,440	55.30%	\$30,190		\$30,190		
Data System (& Service)	Overhead fiber optic data service. Cat 5 horizontal cabling.	Provide modern cable plant	1	END	L	Covered in "telecom data cost indicated for phone system infrastructure.							●	●			\$0	55.30%	\$0	\$0			
Total Years 6 - 10																		\$2,035,134	\$0	\$2,011,217	\$23,916	\$0	

PEAKS ISLAND ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
General Notes																			
Wall Finish Materials	Painted GWB, plaster. GWB showing scuffs and dents. Plaster is deteriorating in some locations and chipping away. Wood wainscoting is dented and discolored.	Recommend patching and repainting all walls. Recommend stripping and refinishing all wainscoting throughout school corridors.	2	END	L	Patch, repaint approx. 13,200 GSF of school building walls. \$1.50 = \$19,800 + MU's; Strip and refinish approx. 13,200 GSF of school building wainscoting. \$2.50 = \$33,000 + MU's							●	●			\$79,465	93.55%	\$153,805
Classroom Casework	Stained wood casework. Wood is dented and stained, aged. Heavy wear and tear.	Recommend replacing aging wood casework with more resilient plastic laminate casework with resilient edge banding.	2	ESL	L	Provide the following in each classroom (total of 7 rooms) (2) 48" wide tall cabinet units with adjustable shelves and lockable doors. \$275 If = \$2,200 per room 12 Linear Feet of fixed shelves (two rows) with coat hooks. \$25 If = \$300 per room; (6) 36" wide wall cabinets with adjustable shelves and lockable doors \$275 If w/demo = \$4,950 per room; = = = TOTALS \$7,450 per room x 7 = \$52,150 + MU's							●	●	●		\$7,845	93.55%	\$15,184
Main Entrance																			
Entrance Mats	Loose walk-off carpets.	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule (no existing vestibule, but recommending adding one below). Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	100 Square Feet of aggressive grade walk-off mat. \$17.50 sf 100 Square Feet of mild grade walk-off mat. \$15 sf 100 Square feet of low grade walk-off mat \$10 sf = = = TOTALS \$4,250 + MU's							●	●			\$6,400	93.55%	\$12,387
Corridors																			
Floor & Base Finish Materials	Lower level - VCT w/ rubber base, wood floor w/ wood base. VCT is in good condition. Wood floor showing clear signs of age, damage from use, as well as water damage in areas. Some areas of wood floors are buckled, could present a tripping hazard. Upper level - wood floor with wood base, in same condition as floors on lower level.	Recommend replacing all wood floors and base with VCT and rubber base in future renovations.	2	END	L	Approx. 1,600 SF of wood floor removal, replacement with equal SF of VCT. \$5.75 demo-prep-replace-new base = \$9,200 + MU's							●	●			\$13,850	93.55%	\$26,807
Stairs and Exits																			
Door Material (Including Frame & Glazing)	Wood door, wood frame. Full lite of single-pane glass. Showing signs of heavy wear and tear.	Replace door.	2	END	L	Install 2 new wood veneer doors (3' x 7') with painted HM frames. \$1.850 w/demo & new glazed door x 2 = \$3,700 + MU's							●	●			\$5,570	93.55%	\$10,781

PEAKS ISLAND ELEMENTARY SCHOOL

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			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Kindergarten Classrooms																		
Floor & Base Finish Materials	Wood floor, wood base. Wood floor showing clear signs of age, damage from heavy use. Some areas of wood floors are buckled, could present a tripping hazard.	Recommend replacing all wood floors and base with VCT and rubber base in future renovations.	2	END	L	Approx. 800 SF of wood floor removal, replacement with equal SF of VCT. \$5.75 demo-prep-replace-new base = \$4,600 + MU's										\$6,925	93.55%	\$13,403
Sinks (ADA compliance)	Wood framed island, laminate top, aluminum edge banding. Appears to be compliant, but island has dated and worn finishes.	Consider replacing with any large scale renovation work.	3	ESL	L	1 - 3' x 6' island w/ss sink \$375 If island + \$1,550 sink = \$3,800 + MU's										\$5,720	93.55%	\$11,071
Door Material (Including Frame & Glazing)	Wood Door, wood frame, narrow lite with safety glass. Showing signs of age, worn.	Replace wood veneer door.	2	END	L	Install 2 new wood veneer doors (3' x 7') with painted HM frames. \$1.750 w/demo & new narrow glazed door x 2 = \$3,500 + MU's										\$5,270	93.55%	\$10,200
General Purpose Classrooms																		
Floor & Base Finish Materials	Wood floor, wood base. Wood floor showing clear signs of age, damage from heavy use. Some areas of wood floors are buckled, could present a tripping hazard.	Recommend replacing all wood floors and base with VCT and rubber base in future renovations.	2	END	L	Approx. 4,600 SF of wood floor removal, replacement with equal SF of VCT. \$5.75 sf demo-prep-replace-new base =\$26,450 + MU's										\$39,810	93.55%	\$77,052
Art + Music Classroom																		
Floor & Base Finish Materials	VCT floor, no rubber base	Provide rubber base.	2	OB	L	150 LF rubber base. \$2.50 no demo = \$250 + MU's										\$380	93.55%	\$735
Wall Finish Materials	Carpet	Replace with better acoustic material.	2	OB	L	15 ea 3' x 4' wall mounted tectum \$15 sf = \$2,700 + MU's										\$4,065	93.55%	\$7,868
Visual Display Surfaces	Chalkboard, tackboards.	Replace chalkboard with whiteboard	2	OB	L	Remove existing chalkboard, replace with 15 LF of whiteboard. 60 sf \$30 demo-replace = \$1,800 + MU's										\$2,710	93.55%	\$5,245
Door Material (Including Frame & Glazing)	Wood doors, wood frames. Showing signs of age, worn.	Replace door and frame.	2	END	L	Install 1 new wood veneer door (3' x 7') with painted HM frame. w/demo \$1,550 + MU's										\$2,335	93.55%	\$4,519
Performing Arts - Stage																		
Floor & Base Finish Materials	Wood floor, wood base.	Strip and refinish floor.	2	ESL	L	300 SF wood floor strip & refinish \$5 sf = \$1,450 + MU's										\$2,185	93.55%	\$4,229
Wall Finish Materials	Painted CMU. Paint chipping, peeling away in some areas.	Repaint when gym is repainted.	2	END	L	Approx. 700 SF. \$2 w/filler coat + prep = \$1,400 + MU's										\$2,110	93.55%	\$4,084
Theatrical Lighting	Mix of incandescent and fluorescent bulbs above stage.	Consider upgrading to system with more lighting control.	0	OB	L	40 lf track && stage lighting \$200 lf = \$8,000 + MU's										\$12,040	93.55%	\$23,303
Door Material (Including Frame & Glazing)	Wood door, wood frame. No glazing. Showing signs of age, worn.	Replace wood door and frame.	2	END	L	Install 1 new wood veneer door (3' x 7') with painted HM frame. \$1,550 w/demo + MU's										\$2,335	93.55%	\$4,519

PEAKS ISLAND ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Library / Media Center																			
Floor & Base Finish Materials	Carpet, wood base. Both are old, and very worn.	Replace carpet, strip and refinish wood base	2	END	L	800 SF \$6 w/demo-carpet-refin base = \$4,800 + MU's							●	●			\$7,225	93.55%	\$13,984
Circulation Desk	Wood. Very worn, showing heavy denting and marking. Small desk.	Replace with new larger, plastic laminate circulation desk with resilient edge banding.	2	OB	L	Remove existing, provide 1 new 10' long (L shape, two 5' legs) plastic laminate circulation desk with resilient edge banding. \$375 If w/demo = \$3,750 + MU's							●	●			\$5,645	93.55%	\$10,926
Visual Display Surfaces	Tackboards, Chalkboards.	Replace chalkboards with whiteboards.	2	OB	L	15 If new whiteboard 60 sf \$30 = \$1,800 + MU's							●	●	●		\$2,710	93.55%	\$5,245
Door Material (Including Frame & Glazing)	Wood door, wood frame. Door has narrow lite, safety glazing. Doors showing signs of age, wear and tear	Replace door and frame.	2	END	L	Install 2 new wood veneer doors (3' x 7') with painted HM frames. \$1.750 w/demo & new narrow glazed door x 2 = \$3,500 + MU's							●	●			\$5,270	93.55%	\$10,200
Gymnasium																			
Floor & Base Finish Materials	Wood floor, wood base. Wood floor in fair condition. Base should be removed and replaced due to heavy wear and tear.	Remove, replace wood base with vented rubber base.	2	END	L	250 LF vented rubber base. \$5 If = \$1,250 + MU's							●	●			\$1,885	93.55%	\$3,648
Wall Finish Materials	Painted CMU. Generally, paint is chipping away, deteriorating. CMU is cracking in isolated areas.	Repaint all gym walls. Remove and replace cracked CMU block. Patch cracked mortar between CMU blocks.	2	END	L	Approx 4,000 SF repainting. \$2 prep& filler coat = \$8,000; Remove and replace 15 SF cracked CMU. \$20 sf = \$200; Patch 30 LF of cracked mortar. \$50 crack stich = \$1,500; =v=v= TOTALS \$9,700 + MU's							●	●			\$14,600	93.55%	\$28,258
Backstops (quantity, mounting type, manual/motorized)	4 fixed backstops. One backstop is missing hoop ring. Others are in fair condition.	Replace 1 hoop, maintain other 3.	2	END	L	Install new hoop ring for 1 backstop. \$300 + MU's							●	●	●		\$455	93.55%	\$881
AV and Interactive Systems	Speakers. Clearly the system is dated.	Remove, replace with entirely new AV system for stage performances.	1	END	L	AV system for gym (performing arts) including new sound system. \$35,000 allow + MU's							●	●	●		\$52,675	93.55%	\$101,952
Door Material (Including Frame & Glazing)	Wood door, wood frame. Door has narrow lite with safety glass. HM doors w/ HM frames. Doors showing signs of heavy use.	Replace door and frame.	2	END	L	Install 3 new wood veneer door (3' x 7') with painted HM frame safety glass. \$1,850 w/demo = \$5,550 + MU's							●	●			\$8,280	93.55%	\$16,026
Kitchen and Servery																			
Floor & Base Finish Materials	Wood floor, wood base. Wood floor in fair condition. Base should be removed and replaced due to heavy wear and tear.	Remove, replace wood base with vented rubber base.	2	END	L	75 LF vented rubber base. \$5 If = \$375 + MU's							●	●			\$565	93.55%	\$1,094
Wall Finish Materials	Painted CMU. In fair condition, however should be repainted when gymnasium is repainted.	Repaint CMU walls.	3	ESL	L	repaint 750 sf cmu walls \$2 prep-filler coat = \$1,500 + MU's							●	●			\$2,260	93.55%	\$4,374
Door Material (Including Frame & Glazing)	Wood door, wood frame, not glass lite. Showing signs of heavy use	Replace door and frame.	2	END	L	Install 1 new wood veneer door (3' x 7') with painted HM frame. \$1,550 w/demo + MU's							●	●			\$2,335	93.55%	\$4,519

PEAKS ISLAND ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Administration Office Area																		
Door Material (Including Frame & Glazing)	Wood door, wood frame. Some have no glazing, others have half lite. Doors showing signs of age, wear and tear	Replace door and frame.	2	END	L	Install 3 new wood veneer doors (3' x 7') with painted HM frames. \$1,550 w/demo = \$4,650 + MU's						●	●			\$7,000	93.55%	\$13,549
Student Toilet Rooms																		
Floor & Base Finish Materials	Linoleum Floor, rubber base. Showing clear signs of age, wear and tear. Rubber base peeling from wall.	In OK shape, consider replacing if other renovation work done	2	END	L	Remove existing, replace with approx. 200 SF with ceramic tile. Remove and replace rubber base with 60 LF ceramic tile base. \$15.50 sf demo-new tile & base = \$3,100 + MU's						●	●			\$4,670	93.55%	\$9,039
Door Material (Including Frame & Glazing)	Wood door, wood frame. Showing signs of heavy use, age.	Replace door and frame.	2	END	L	Install 1 new wood veneer door (3' x 7') with painted HM frame. Entry space will need to be reconfigured to accommodate larger door. \$3,500 + MU's						●	●			\$5,270	93.55%	\$10,200
Staff Toilets																		
Floor & Base Finish Materials	Linoleum floor, rubber base. In fair condition, linoleum beginning to show some discoloring.	Replace floor with any large-scale renovation.	3	ESL	L	Remove existing, replace with approx. 200 SF with ceramic tile. Remove and replace rubber base with 100 LF ceramic tile base. \$15.50 sf demo-new tile & base = \$3,100 + MU's						●	●			\$4,670	93.55%	\$9,039
Door Material (Including Frame & Glazing)	Wood door, wood frame. Showing signs of heavy use, age.	Replace door and frame.	2	END	L	Install 2 new wood veneer door (3' x 7') with painted HM frame. \$1,550 w/demo = \$3,100 + MU's						●	●			\$4,670	93.55%	\$9,039
Mechanical and Service Spaces																		
Floor & Base Finish Materials	Exposed concrete, no base. Floor in very poor condition, breaking concrete, tripping hazards throughout.	Refinish concrete floor with epoxy floor coating system.	2	END	L	Apply epoxy floor coating system to existing concrete floor, 800 SF. \$12 sf clean & new floor & base = \$9,600 + MU's						●	●			\$14,450	93.55%	\$27,968
Wall Finish Materials	Painted brick. Paint appears to be chipping, areas of brick deteriorating, spalling.	Replace deteriorating sections of brick, repaint.	2	END	L	Remove, replace 50 SF of spalling brick \$35 = \$1,750. Repaint all brick walls, approx. 1,200 SF \$3 clean & paint = \$3,600 = TOTALS \$ 5,350 + MU's.						●	●			\$8,055	93.55%	\$15,590
Door Material (Including Frame & Glazing)	Painted wood door, wood frame. No glazing. Door is only about 5' tall.	Replace access with areaway to increase door height/access. Replace door and frame.	0	OB	L	Install 1 new HM door (3' x 7') with painted HM frame. \$1,550 w/demo + MU's						●	●			\$2,335	93.55%	\$4,519

Total Years 11 - 15 \$685,244

PEAKS ISLAND ELEMENTARY SCHOOL

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Brick masonry, isolated areas of cracking, isolated areas of spalling. Brick and mortar are showing their age, areas of mortar deteriorating. Glass block, many broken units, universally discolored. Metal panel above window units, in good condition.	Remove and replace spalling brick. Continue repointing efforts around entire brick envelope. Remove glass block. Replace with thermally broken aluminum system.	2	OB	L	Repair approx. 50 LF of mortar cracking. \$50 lf crack stich = \$2,500 + MU's; Remove and replace approx. 30 SF spalling brick. \$35 sf demo-replace = \$1,050 + MU's; Remove approx. 450 SF glass block, replace with 450 SF thermally broken aluminum system. \$85 sf demo-replace = \$38,250 + MU's											\$62,910	116.55%	\$136,232
Spalling, Staining, Efflorescence	Efflorescence is occurring in swatches across the brick envelope, particularly at the chimney.	Remove masonry veneer at areas showing signs of efflorescence to discover the cause of the problem and correct the issue.	2	ESL	L	Total of 550 SF of efflorescence to be repaired. \$35 sf demo-replace new brick = \$19,250 + MU's											\$28,975	116.55%	\$62,745
Windows																			
Storm Windows and Insect Screens	Insect screens. Missing or broken in some locations.	Replace missing or broken insect screens.	2	ESL	L	Install/replace approx. 10 (3' x 2') insect screen.											\$1,085	116.55%	\$2,350
Sills	Mix of aluminum integral to window unit, precast concrete, granite, and brick. All in good condition, however concrete sills at building rear showing staining from nearby trees.	Light pressure wash precast concrete sills at rear where stained.	2	ESL	L	light pressure wash 50 lf precast sill @ \$2 = \$100 + MU's											\$150	116.55%	\$325
Lintels	Steel lintels typically in fair condition. A few lintels are showing considerable rust, corrosion.	Replace a few steel lintels with galvanized lintels. Remove and replace with new brick above lintel to 3 courses. Remove sealant between brick and lintel, which may be trapping water. Refinish, repaint all steel lintels.	2	END-ESL	L	Remove 3 steel lintels, approx. 15 LF. Remove and replace approx 10 SF brick (15LF x 3 brick courses). Provide for required flashing. 090# galv lintels \$2 # mtl = \$180 + 15 mason hours @ \$45 = \$675 + 10 sf brick demo-replace \$25 = \$250 + 15 lf flash @ \$15 = \$225 = = = TOTALS \$1,330 + MU's; Refinish, repaint approx. 250 LF steel lintel. \$10 lf = \$2,500 + MU's											\$5,765	116.55%	\$12,484
Exterior Doors - Main Entrance																			
Frame Materials	Painted wood frame. In fair condition but dated.	Recommend replacement of entrance system with thermally broken aluminum system to improve longevity and energy-efficiency.	2	OB	L	Remove existing entry system. Replace with 6' wide, 10' tall thermally broken aluminum system with double set of 3' doors and insulated glass transom. Storefront transom											\$10,085	116.55%	\$21,839
Exterior Doors (not including Main Entry)																			
Materials	Mix of HM doors and HM frames, and wood doors and wood frames. All exterior doors are in poor condition - wood materials are rotting, and HM materials are rusting.	Recommend replacement of all exterior doors and frames.	2	OB	L	Remove approx. 8 single doors (3' x 7') and frames. Replace with same number of new HM (3' x 7') doors and frames. \$1,550 ea w/demo = \$12,400 + MU's											\$18,665	116.55%	\$40,419

PEAKS ISLAND ELEMENTARY SCHOOL

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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Lintels	Steel lintels typically showing considerable rust, corrosion.	Replace all steel lintels at exterior doors. Remove 3 courses of brick above. Replace with new galvanized steel lintel with proper flashing, replace with new brick above.	2	END	L	Remove approx. 30 LF existing steel lintel and 3 brick courses above (approx. 20 SF brick). Replace with 30 LF new galvanized steel lintel, properly flashed. Replace with 20 SF new brick above. \$180 # lintel @ \$2 # mtl = \$360 + 30 mason hours @ \$45 = \$1,350 + 20 sf brick demo-replace w/new \$35 = \$700 + 30 lf flash \$15 = \$450 = = TOTALS \$2,860 + MU's											\$4,305	116.55%	\$9,322
Fascia, Trim, Soffits & Overhangs																			
Materials	EIFS at main entry. Cracking at edges, discoloration throughout.	Patch and repaint.	2	END	L	patch 20 sf eifs @ \$15, repaint 25 sf @ \$3 = = \$375 + MU's											\$565	116.55%	\$1,224
	Wood soffit overhang at building perimeter, occurs only at main building volume. Paint is chipping, wood is worn.	Refinish and repaint wood soffit overhang.	2	END	L	Refinish and repaint approx. 850 SF wood soffit overhang. \$5 sf = \$425 + MU's											\$640	116.55%	\$1,386
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Sealants around window and door perimeters generally cracking, peeling. Around the building, sealants are approaching the end of their expected life.	Remove and replace sealant at all doors, and windows. Remove sealant at lintels to allow for proper drainage.	2	END	L	Remove and replace approx. 2000 LF sealant. \$3.50 lf = \$7,000 + MU's											\$10,535	116.55%	\$22,814
Building Joint Sealant	Building sealant is generally cracking, peeling. Approaching the end of their expected life.	Remove and replace all building sealants.	2	END	L	Remove and replace approx. 300 LF sealant. \$5 w/backer rod = \$1,500 + MU's											\$2,257	116.55%	\$4,888
Flashing																			
Material	Flashing is not apparent at sills and headers, lintels. Remove sealant in these areas to inspect for presence of flashing and to allow for proper drainage.	Remove sealants at headers, sills, lintels.	2	END	L	Remove approx. 500 LF sealant. \$1.50 lf = \$750 + MU's											\$1,130	116.55%	\$2,447
Roof Assembly & Flashing																			
Age	2011, Black EPDM	Budget for replacement at end of service life	3	ESL	L	10,300 SF											\$186,018	116.55%	\$402,822
Roof Edges and Copings	Flush roof edge. All edges topped with EPDM flashing over roof edging, with a snap on aluminum fascia piece. Fascia on high roof looks new. Fascia around low roofs (east, west, and gym wings) is functional but corroded, stained.	Recommend removing existing fascia, and replacing with new.	2	END	L	replace 600 lf alum fascia, 9" tall flat profile \$20 lf demo-replace = \$12,000 + MU's											\$18,060	116.55%	\$39,109
Roof Drains (Covers)	Mix of aluminum, plastic. One plastic cover is broken.	Replace plastic cover. Remove debris from all.	2	END	L	Remove and replace 1 plastic cover. \$150 + MU's											\$230	116.55%	\$498

PEAKS ISLAND ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA											BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Exterior Stairs and Ladders																			
Locations and Materials	Not all roof areas were accessible. One heavily rusted roof ladder.	Provide roof access ladder to upper roof, and lower Eastern roof. One existing ladder is rusted, dangerous. It should be removed.	2	END	L	Install 2 new 10' roof ladders. \$750 ea x 2 = \$1,500 + MU's Replace 1 existing roof ladder. 10' assumed \$750 + \$100 demo = \$850 + MU's										\$3,540	116.55%	\$7,666	
Exterior Exit Stairs	Rusted metal caged exterior fire escape. Probably dangerous.	Remove.	1	OB	L	Remove rusted roof egress stair 7 chain-link fence, allow \$2,000 + MU's										\$3,010	116.55%	\$6,518	
Exterior Exit Stairs	Rusted railing at exterior concrete step outside gymnasium.	Refinish, repaint steel railing.			L	Refinish 10 lf pipe rail, single line rail assumed \$10 lf = \$100 + MU's										\$235	116.55%	\$509	
																Total Years 16 -20	\$775,595		

PRESUMPCOT ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																\$0	0.00%	\$0.00
																	Total Year 0	\$0

PRESUMPCOT ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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																TRADE COST PLUS 50.5% MARK-UP		ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.		CITY EXPENSE			
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
SITE																							
Building Entrances																							
Connection to accessible route and accessibility	Sidewalk along Presumpscot and Sherwood with internal connections.	Surfaces to be repaved and crosswalks	2	ESL	S	Sidewalk: 5700sf@\$2 Curb: 770lf@\$7.50 ADA Panels: 100s.f@\$60										\$27,357	24.65%	\$34,101	\$34,101				
Parking																							
Number of Spaces (Regular & ADA)	2 ADA - adequate for number of spaces	Shift existing catch basin out of ADA stall, see catch basin notes.	3	ESL	S	allow \$2,000 + MU's dig & bf & relocate & patch pave										\$3,010	24.65%	\$3,752			\$3,752		
Accessible Parking Signage	No Signage	Install Signs	0	OB	S	3 @ \$125										\$564	24.65%	\$703			\$703		
Vehicular & Pedestrian Circulation																							
Observed Circulation Patterns	Observed, pedestrian walking dog on school ground.	Install school zone & limited public access signage.	0	OS	S	6 @ \$200										\$1,806	24.65%	\$2,251			\$2,251		
Traffic Markings & Traffic Signage	Lacking one way signage and delineation of parent/bus parking.	Install signage.	0	OS	S	4 @\$125										\$752	24.65%	\$937			\$937		
Fire Department Access																							
Locations	Could be full 100% if open curb on left side "exit".	Add curb cut and fire lane on north side of school and shift modulars.	3	ESL	S	55LF @ \$40										\$3,311	24.65%	\$4,127	\$4,127				
Site Topography																							
Characteristics	Mulch barrier introduces trip hazard.		1	END	S	250lf @ \$2										\$752	24.65%	\$937			\$937		
Site Furniture & Accessories																							
Bicycle Racks	2- 1 at south side at loading area, 1 at north side.	Recommend relocation of bike racks.	2	ESL	S	allow \$500 + MU's										\$755	24.65%	\$941			\$941		
STRUCTURAL																							
Roof Construction	A. A steel beam does not extend to the bearing wall (supported on block above doorway header).	Repair connections. Perform survey to verify this does not occur at other locations.	1	OB	S	1 location noted (Budget \$2,800 for survey)										\$4,215	24.65%	\$5,254	\$5,254				
Roof Construction	B. Roof does not appear to be design for drifting snow around high roof. Roof is technically grandfathered but we recommend reinforcing the high/low roof conditions	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift by adding intermediate steel bar joist. Shoveling of drifts recommended in the interim.	3	ESL	S	Low roof areas within 15 feet of high low roof conditions (~4,000sq ft), SAY sistering 48" o.c. = 1,040 lf joist using 6 #/lf joist requires 6,240 # joist installed @ \$4 # material & labor = \$24,960 + MU's										\$37,565	24.65%	\$46,825	\$46,825				
Exterior Wall Construction	C. Deflected lintel above the door at the south west entry (brick had not deflected).	Replace lintel	2	END	S	1 location, SAY 4 x 4 lintel x 48" length @ 8#/sf = \$65 lintel material & 4 hours mason @ \$45 = \$245 + MU's										\$370	24.65%	\$461			\$461		
BUILDING EXTERIOR																							
Exterior Doors (not including Main Entry)																							
Lintels	Painted steel - corroding and deflecting	Replace lintels with galvanized steel lintels and through wall flashing	1	END	S	(3) 6' lintels, brick on steel stud assumed, assume ea 4" x 4" x 18' total = 1 lintel for 8" wide block @ 6#/lf for 4" x 4" = 6#/lf = 110# @ \$2 = \$220 galv lintel material + 18 mason hours @ \$45 = \$1,030 + MU's. Remove and replace approx 55 5f brick (108 x 3 brick courses), \$25 sf demo & replace re-using salvaged brick = \$2,700 + MU's. Provide for required flashing, 18 lf @ \$15 = \$270 + MU's.										\$6,020	24.65%	\$7,504			\$7,504		
Sills	Aluminum flashing as part of storefront systems; some splice joints have separated posing a safety hazard	Repair flashing splice joints with mechanical fasteners	2	ESL	S	(5) locations, allow \$100 labor & materials per location = \$500 + MU's										\$755	24.65%	\$941.11	\$941				

PRESUMPSCOT ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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																	TRADE COST PLUS 50.5% MARK-UP		ESCALATION		* OPINION OF PROBABLE COST	BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE						
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																									
BUILDING INTERIOR																									
Interior Signage																									
Materials	Paper	Provide ADA-compliant signage throughout	0	OB	S	(40) sigs @ \$75 = \$3,000 + MU's			●	●						\$4,515	24.65%	\$5,628	\$5,628						
General Purpose Classrooms																									
Casework	Wood with solid surface along windows	Replace with new casework assembly to include base cabinets, upper cabinets and ADA compliant sink	1	END	S	(14) rooms at 20 LF each = 280 lf demo & base w/solid surface top @ \$310 = \$86,780 + MU's; 280 lf wall cab w.demo @ \$125 = \$35,000 + MU's; 14 sinks w/de,o @ \$1,500 re=use exist rough = \$21,000 + MU's = = TOTALS \$142,780 + MU's				●						\$214,885	24.65%	\$267,854	\$267,854						
Door Hardware	Hardware appears to have been recently replaced and is in good condition	Replace storage closet door hardware with ADA-compliant hardware	2	ESL	S	(14) doors @\$500 w/some door leaf modifications to accept hardware = \$7,000 + MU's				●						\$10,535	24.65%	\$13,132	\$13,132						
Art and Music Classrooms																									
Sinks (ADA compliance)	(1) non-ADA sink	Provide new accessible stainless steel sink	1	OB	S	(1) sink \$2,250 including new rough-in + MU's				●						\$3,390	24.65%	\$4,226	\$4,226						
Door Hardware	Hardware appears to have been recently replaced and is in good condition	Replace storage closet door hardware with ADA-compliant hardware	2	ESL	S	(1) door \$500 includes wood leaf modification to accept hardware + MU's				●						\$755	24.65%	\$941	\$941						
Library / Media Center																									
Door Hardware	Hardware appears to have been recently replaced and is in good condition	Replace storage closet door hardware with ADA-compliant hardware	2	ESL	S	(1) door \$500 includes wood leaf modification to accept hardware + MU's				●						\$755	24.65%	\$941	\$941						
Teacher Workroom and Staff Areas																									
Sinks (ADA compliance)	Stainless steel sink, non-ADA compliant	Provide ADA compliant sink in cabinet with knee space	2	ESL	S	(1) sink and cabinet unit, assume 5' with solid surface top = \$310 lf w/demo = \$1,550 + MU's cabinet & \$1,500 sink w/demo & re-sue rough + MU's = TOTALS \$3,050 + MU's				●						\$4,595	24.65%	\$5,728	\$5,728						
Nurse and Health																									
Sinks (ADA compliance)	Wall hung ceramic sink, non-ADA	Replace sink with ADA compliant sink	1	OB	S	(1) sink \$1,500 w/demo 7 re-use existing carrier or wall hanger + MU's				●						\$2,260	24.65%	\$2,817	\$2,817						
Toilet room	in-suite toilet room equipped with toilet fixture only and is non ADA compliant	Gut renovate toilet room to include new fixtures, accessories and finishes	1	OB	S	75 SF, allow \$12,000 demo & reframe w/new finishes floor & ceiling & WC re-use rough & LAV new rough + MU's				●						\$18,060	24.65%	\$22,512	\$22,512						
Staff Toilets																									
Accessories	No grab bars	Provide ADA compliant grab bars	-	OB	S	(1) location \$500 includes new block & wall patch + MU's				●						\$755	24.65%	\$941	\$941						
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	Non compliant, no clearances	Gut renovate toilet room to include new fixtures, accessories and finishes	1	OB	S	75 SF, allow \$12,000 demo & reframe w/new finishes floor & ceiling & WC re-use rough & LAV new rough + MU's				●						\$18,060	24.65%	\$22,512	\$22,512						
FIRE PROTECTION																									
Fire Service	None	Install NFPA 13 complete coverage system			S	25,125 sf @ \$3 + \$12,000 new building entry & backflow & \$20,000 allow water line upgrade + \$25,000 ACT ceiling work = \$132,725 + MU's		●	●							\$199,755	24.65%	\$248,995	\$248,995						
ELECTRICAL																									
Life Safety - Fire Alarm	1980's vintage FCI conventional zoned control panel. Occupant notification generally does not comply with current standards.	Update to fully addressable system.	1	OB	S	Carry complete new system for 25,394 sf \$1.75 sf w/demo + MU's		●	●							\$66,885	24.65%	\$83,372	\$83,372						
Emergency Lighting	Emergency battery units with integral and remote incandescent heads. LED illuminated exit signs with integral battery backup. There is no emergency light at the exterior of building exits.	Replace older units as they fail. Provide outdoor emergency lighting at building exits.	2	END	S	Carry (8) indoor units and (7) outdoor units		●	●							\$14,749	24.65%	\$18,385	\$18,385						

PRESUMPCOT ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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																TRADE COST PLUS		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
SITE																							
Parking																							
General Layout Description	Pavement poor	Recommend rerouting parking and bus drop off. All pavement and sidewalks to be repaved.	1	END	L	Overlay: 56,800 s.f. @\$1.25 Striping: 2000lf @\$0.50								●			\$12,190	55.30%	\$18,931		\$18,931		
Fencing																							
Locations & Materials	North face, chain link, solid but dated/rusty, gap at north side	Repair damaged sections	2	ESL	L	100lf @\$30								●			\$4,515	55.30%	\$7,012		\$7,012		
PORTABLE / MODULAR BUILDINGS																							
Portable classrooms	(3) residential grade portable classroom units. Unit has own designated services to the unit. Unit is in poor condition: deteriorating vinyl siding and plywood skirt, non-code compliant handrails at ramp and connecting deck between units, non-code compliant door hardware	Recommend replacement of portable classrooms.	1	OB	L	(3) 30'x50' modulares,							●	●			\$675,000	55.30%	\$1,048,275		\$1,048,275		
PLUMBING																							
Hot Water System	40 gal electric water heater w/recirc., 2003 mfg.	End of service life	3	ESL	L	Replace WH with recirc pump and Mixing valve + MU's							●	●			\$3,800	55.30%	\$5,901		\$5,901		
Domestic distribution system	Copper piping lead solder	Copper system beyond service life	2	END	L	\$/SF @ 25K SF + MU's							●	●			\$460,000	55.30%	\$714,380		\$714,380		
Sanitary Waste and Vent System	Mostly cast iron 1960's vintage	Beyond service life--replace system	2	END	L	\$/SF @ 25K SF + MU's							●	●			\$300,000	55.30%	\$465,900		\$465,900		
Storm Drain System	Mostly cast iron 1960's vintage	Beyond service life--replace system	2	END	L	\$/SF @ 25K SF + MU's							●	●			\$130,000	55.30%	\$201,890		\$201,890		
MECHANICAL																							
Heating Plant	(1) Hurst CI steam boiler, 2,500 MBH, 2012mfg.	Consider converting steam heating to hydronic via HX and pumps.	2	END	L	Provide (2) Condensing Boilers 700MBH ea. Plus appurtenances \$25,000 ea + MU's							●	●			\$110,000	55.30%	\$170,830		\$170,830		
Air Handling Unit Systems	(1) H & V located in roof mezzanine serves Multipurpose/gym room.	Beyond service life--still operational. Install new HW H&V unit at time of steam to hydronic conversion	2	END	L	Replace AHU w/ERU module 6,000 cfm \$6 cfm w/demo + MU's . Ductwork modifications \$10/SF w/demo + MU's sf area unknown							●	●			\$90,000	55.30%	\$139,770		\$139,770		
Terminal Unit Systems	Steam unit vents are vintage 1960s Aged units still functioning-space relief air via vintage ductwork and gravity vents roof top.	Replace with new ERU HW ventilation ducted system at time of steam to hydronic conversion.	2	END	L	(2) 2,500 cfm rooftop ERUs, \$/SF for ductwork, (600 ft) fintube, (6) CUHs + MU's							●	●			\$400,000	55.30%	\$621,200		\$621,200		
Exhaust Systems	Rooftop exhausters for toilets/miscel. Gravity relief vents work with unit vents OA	Replace exhaust via ERU above at time of steam to hydronic conversion	2	END	L	Exhaust replaced with ERU estimated in above.							●	●			\$0	55.30%	\$0		\$0		
Piping System	Steam piping is original vintage. Appears to be functioning with minimal leaks--however aged.	Replace with new sched 40 steel piping at time of steam to hydronic conversion.	2	END	L	\$/SF @ 25K SF + MU's							●	●			\$490,000	55.30%	\$760,970		\$760,970		
Automatic Temperature Controls	Mostly pneumatics, some DDC electric	System is at end of service life. Replace with new DDC electric at time of steam to hydronic conversion.	2	END	L	25,125 bldg sf suggest \$3 sf new controls budget = \$75,375 + MU's							●	●			\$113,440	55.30%	\$176,172		\$176,172		

PRESUMPCOT ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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																BUDGET								
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	EVALUATION CRITERIA				TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION						
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY						SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																								
ELECTRICAL																								
Service	Underground primary to utility padmount transformer. The transformer is closer to the building than current Central Maine Power Co. standards allow and the concrete transformer pad is smaller than CMP's current design standard. The school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts.	Further investigation by utility company is required to determine cause of shorts due to squirrel activity. Update service entrance to current CMP standards as part of any planned renovation.	2	OB	L	Carry \$40,000 + MU's for new padmount XFMR, metering, utility construction charges, and primary conduits for complete new service entrance						●	●			\$60,200	55.30%	\$93,491		\$93,491				
Wiring	Building wire in underground conduit. The feeder appears to be 1962 vintage and has exceeded its anticipated useful life	Update service entrance as part of any planned renovation.	2	OB	L	Carry complete new service entrance						●	●			\$33,110	55.30%	\$51,420		\$51,420				
Equipment	1962 vintage Bulldog Electric Switchboard. The switchboard has exceeded its anticipated useful life.	Perform infrared scan to assess condition of terminations and contacts. Replace switchboard as part of any planned facility renovations	2	OB	L	Carry complete switchboard replacement						●	●			\$40,447	55.30%	\$62,814		\$62,814				
Distribution System																								
Panels	Panels are a mix of early 1960's vintage ITE panelboard and residential/light commercial grade load centers, which are locate in the boiler room and a in a corridor.	replace throughout	1	OB	L	Carry complete power distribution system replacement for 25,394 sf						●	●			\$102,491	55.30%	\$159,169		\$159,169				
Wiring	Mostly building wiring in conduit that has exceeded its anticipated useful life. The loadcenter that is located in a corridor and supplies the modular classrooms is wired using type SE service entrance cable.	Update distribution system wiring throughout as part of any planned renovations.	2	END	L	Carry complete distribution wiring system replacement for 25,394 sf						●	●			\$45,451	55.30%	\$70,585		\$70,585				
Site Lighting (type & material)	Utility-owned pole mounted flood lights. Some areas are not illuminated to levels recommended by IES.	Provide full cut-off LED pole mounted fixtures to provide illumination as recommended by IES.	2	ESL	L	Carry (7) LED pole lights						●	●			\$63,000	55.30%	\$97,839		\$97,839				
Exterior Building Lighting	LED wall packs	Fixtures will reach the end of their anticipated useful lives within 20 years	3	ESL	L	Carry replacing (10) LED wall packs										\$9,000	55.30%	\$13,977		\$13,977				
Interior Lighting																								
Classrooms	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	END	L	Carry complete interior lighting replacement for 25,394 sf						●	●	●		\$324,852	55.30%	\$504,495		\$504,495				
Offices	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	ESL	L									●	●								●	
Corridors	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations.	2	ESL	L									●	●								●	
Toilets	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations.	2	ESL	L									●	●								●	
Mech/Storage	fluorescent strips with T8 lamps	Update lighting to LED as part of any planned facility renovations.	2	ESL	L									●	●								●	
Gym	T8 fluorescent high bays	Update lighting to LED as part of any planned facility renovations.	2	ESL	L									●	●								●	

PRESUMPCOT ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND				EVALUATION CRITERIA									BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

SITE																			
Service Area																			
Trash & Recycling Containers (# & Size), Trash Compactor (size)	1- 10 yd. solid, no screening	Add screening.	2	ESL	L	10' x 15' exclusive screened area w/8" concrete on 12" gravel & gate & bollards, \$5,750 + MU's										●	\$8,655	93.55%	\$16,752
BUILDING INTERIOR																			
General Notes																			
Wall Finish Materials	Painted CMU and GWB	Recommend budgeting for repainting all interior walls towards the end of the 20-year plan period	2	END	L	Base on 25,395 SF of floor area @ \$2 sf including doors & interior trims = \$50,790 + MU's						●	●				\$76,440	93.55%	\$147,950
Floor Finish Materials	VCT Flooring	Recommend replacement of all VCT floor with non-wax quartz flooring	2	END	L	22,000 SF VCT removal, and replacement with quartz tile @ \$3.75 + \$0.50 base replaced ave + \$1.50 demo & prep = \$104,500 + MU's.						●	●				\$157,275	93.55%	\$304,406
General Purpose Classrooms																			
Visual Display Surfaces	Original tach boards and chalkboards with markerboard overlays installed at a later date	Replace with new tackboards and markerboards	1	OB	L	(20) 16' markerboards (20) 8' markerboards, totals 1,920 sf markerboard w/demo @ \$25 =\$48,000 + MU's; (40) 8' tackboards = 1,280 sf tackboard w/dcemo @ \$20 = \$25,600 + MU's						●	●	●			\$110,770	93.55%	\$214,395
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door with half glazing	Doors are very worn - replace all doors	1	END	L	(30) doors, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$22,500 + MU's						●	●				\$33,865	93.55%	\$65,546
Art and Music Classrooms																			
Casework	Wood with plastic laminate counter tops	Worn and obsolete - recommend replacement	1	OB	L	20 LF base and wall cabinets \$275 base w/plam top & demo + \$125 wall w/demo =\$8,000 + MU's						●	●	●			\$12,040	93.55%	\$23,303
Visual Display Surfaces	tack board only	Provide new markerboards and tackboards	1	OB	L	16' markerboard 64 sf @ \$25 w/demo =\$1,600 + MU's; (2) 8' tackboards 64 sf @ \$20 w/demo =\$1,280 + MU's						●	●	●			\$1,930	93.55%	\$3,736
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door with half glazing	Doors are very worn - replace all doors	1	END	L	(30) doors, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$22,500 + MU's						●	●				\$33,865	93.55%	\$65,546
Library / Media Center																			
Floor & Base Finish Materials	Broadloom carpet (stained) and rubber base	Replace carpet with carpet tiles	1	END	L	840 SF @ \$6 w/demo & new base = \$5,050 + MU's						●	●				\$7,605	93.55%	\$14,719
Shelves	Full height wood shelving - worn out	Provide new wood veneer full height shelving	1	OB	L	65 LF @ \$150 lf w/demo = \$9,750 + MU's						●	●				\$14,675	93.55%	\$28,403
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door with half glazing	Doors are very worn - replace all doors	1	END	L	(2) doors, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$1,500 + MU's						●	●				\$2,260	93.55%	\$4,374

PRESUMPCOT ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																		
Gymnasium / Cafeteria																		
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer doors	Doors are very worn - replace all doors	1	END	L	(1) single door & (2) pair doors = 5 leaves total, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$3,750 + MU's						●	●			\$5,645	93.55%	\$10,926
Door Hardware	Original and in poor condition	Replace door hardware	1	OB	L	(3) single doors (2) pairs doors; 7 total hardware sets @ \$500 includes wood leaf modification to accept hardware = \$3,500 + MU's						●	●			\$5,270	93.55%	\$10,200
Teacher Workroom and Staff Areas																		
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer doors	Doors are very worn - replace all doors	1	END	L	(1) door, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$750 + MU's						●	●			\$1,130	93.55%	\$2,187
Door Hardware	Original and in poor condition	Replace door hardware	1	OB	L	(1) set \$500 includes leaf modification + MU's						●	●			\$755	93.55%	\$1,461
Nurse and Health																		
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door - worn	Replace door	1	END	L	(1) door, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$750 + MU's						●	●			\$1,130	93.55%	\$2,187
Administration Office Area																		
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door - worn	Replace door	1	END	L	(1) door, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$750 + MU's						●	●			\$1,130	93.55%	\$2,187
Student Toilet Rooms																		
Floor & Base Finish Materials	Ceramic tile floor and base - fair condition	Replace floor tile and base	2	END	L	600 SF \$15 sf w/demo & new tile & tile base = \$9,000 + MU's						●	●			\$13,545	93.55%	\$26,216
Wall Finish Materials	Ceramic tile to 6-ft and painted CMU - fair condition	Replace wall tile	2	END	L	875 SF \$17.50 sf w/demo & new backer board & tile = \$15,315 + MU's						●	●			\$23,050	93.55%	\$44,613
Toilet Partitions	Painted metal compartments, corrosion throughout	Replace with solid plastic toilet compartments	2	END	L	(10) stalls @ \$1,250 w/demo = \$12,500 + MU's						●	●			\$18,815	93.55%	\$36,416
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door - worn	Replace door	1	END	L	(2) doors, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$1,500 + MU's						●	●			\$2,260	93.55%	\$4,374
Door Hardware	Compliant, but worn	Replace door hardware	1	END	L	(2) openings @ \$500 includes wood leaf modification = \$1,000 + MU's						●	●			\$1,505	93.55%	\$2,913
Staff Toilets																		
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer door - worn	Replace door	1	END	L	(1) door @ \$500 includes wood leaf modification = \$750 + MU's						●	●			\$1,130	93.55%	\$2,187
Mechanical and Service Spaces																		
Floor & Base Finish Materials	Concrete, no base - stained, some cracking	Reseal floor	2	ESL	L	750 SF @ \$2 includes light shotblast & reseal = \$1,500 + MU's						●	●			\$2,260	93.55%	\$4,374

PRESUMPCOT ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

FOOD SERVICE																		
Ceiling Finish Materials	2x4 ACT	Recommend replacing with washable ACT	1	OB	L	270 SF assumes grid replacement also @ \$4.50 w/demo & replace = \$1,215 + MU's						●	●			\$1,830	93.55%	\$3,542
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood veneer doors	Doors are very worn - replace all doors	1	END	L	(2) doors, re-use frames, \$750 per leaf & 1/2 glazed w/cemo & re-use hardware & reinstall door leaf = \$1,500 + MU's						●	●			\$2,260	93.55%	\$4,374
Door Hardware	Original and in poor condition	Replace door hardware	1	OB	L	(2) doors \$500 each includes leaf modification = \$1,000 + MU's						●	●			\$1,505	93.55%	\$2,913

Total Years 11 - 15	\$1,050,202
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PRESUMPCOT ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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			SEE LEGEND			EVALUATION CRITERIA											BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
STRUCTURAL																			
Roof Construction	C. Handfuls of locations have large openings in the tectum planks and/or missing planks.	Currently covered by plywood. Repair with replacement tectum planks.	2	END	L	3 locations observed. Survey for others. 120 SF							●	●		\$5,420	116.55%	\$11,737	
Roof Construction	D. one area of the roof membrane appears to be delaminated and lifted	No structural repair needed.	2	ESL	L	area to the north east of the higher gym roof) – reported by custodian and observed. Allow \$500 + MU's for roof service call & repair							●	●		\$755	116.55%	\$1,635	
Exterior Wall Construction	A. Light rust at lintels above mechanical openings and doors– paint the lintel to avoid further rusting	Paint lintels with protective coating to avoid further rust.	2	ESL	L	12-18 locations SAY 4' lintel average length = 72 total lf maximum @ \$20 lf = \$1,440 + MU's							●	●		\$2,170	116.55%	\$4,699	
Exterior Wall Construction	B. Minor brick and mortar defects: holes and spalls (one location exposing rebar)	Repair brick and mortar. At location of exposed rebar, coat with protective coating and patch mortar.	2	ESL	L	3 locations, allow \$500 per location = \$1,500 + MU's							●	●		\$2,260	116.55%	\$4,894	
BUILDING EXTERIOR																			
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Type not know; appears to have been recently installed	Recommend budget for sealant replacement towards to the end of the 20-year plan period	3	ESL	L	1,500 LF @ \$3.50 lf rout & reseal = \$5,250 + MU's							●	●		\$7,905	116.55%	\$17,118	
Roof Assembly & Flashing																			
Material, Type, Color	Black EPDM	Recommend replacement of roof at end of service life towards end of 20-year plan period	3	ESL	L	25,395 SF @ \$12 for demo-new epdm-R38 rigid-prot bd-new perimeter blocking & trims-flashing = \$304,740 + MU's							●	●		\$458,635	116.55%	\$993,174	
Skylights																			
Glazing Type	Plastic - one is patched and should be replaces	Replace plastic glazing on one skylight	2	ELS	L	(1) 2'x2' skylight dome, assume outer layer only @ \$50 = \$200 + MU's							●	●		\$305	116.55%	\$660	
																Total Years 16 -20	\$1,033,918		

REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																\$0	0.00%	\$0
																	Total Year 0	\$0

REICHE ELEMENTARY SCHOOL

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																TRADE COST PLUS 50.5% MARK-UP		ESCALATION		* OPINION OF PROBABLE COST	BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE					
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
SITE																								
Building Entrances																								
Connection to accessible route and accessibility	Observed staff propping open loading door and smoking in vehicle on school premises. Steep grades sloping towards school entrance, not ADA compliant.	Grading adjustment needed at front entrance.	2	ESL	S	2700 s.f. @\$15		●		●						\$60,952	24.65%	\$75,977	\$75,977					
Parking																								
Number of Spaces (Regular & ADA)	No ADA parking in Brackett Street lot. 4 ADA in community/pool lot.	At least one ADA space is needed in the faculty parking lot.	2	ESL	S	1 sign@\$125 120LF striping @\$1.00				●						\$368	24.65%	\$459		\$459				
Vehicular & Pedestrian Circulation																								
Observed Circulation Patterns	Observed recess at 8:30, traffic all around.	Install flashing pedestrian beacons.	2	ESL	S	2 each @\$10,000		●								\$30,100	24.65%	\$37,520			\$37,520			
Curb Cuts & Detectable Warning Strips	Need panels at Clark Street crossing				S	2 ea, 40sf@\$60		●		●						\$7,224	24.65%	\$9,005			\$9,005			
DOT School Zone Markings/Signage at Street	No crossing sign at Clark.	Install crossing sign and bollard.	2	ESL	S	2ea @\$125		●								\$376	24.65%	\$469			\$469			
STRUCTURAL																								
Exterior Wall Construction	C. Deflected lintel at loading dock, brick cracking above. Condition should be repaired	Replace lintel, and repair or rebuild brick veneer; repair backup as required.	1	END	S	Estimated area 60 SF Brick 20 LF Lintel 120# lintel 2 galv = \$240 lintel mtl + 20 mason hours \$45 = \$900 = 60 sf brick \$25 demo-replace = \$1,500 + 20 lf flash \$15 = \$300 = = TOTALS \$2,940 + MU's		●				●	●			\$4,425	24.65%	\$5,516		\$5,516				
Additional Observations	Existing entry ramp on Brackett St. side found to be in poor condition; cracked, spalling, exposed rusted reinforcing; spalling at support compromises safety.	New elevator installation was in progress at time of visit. Remove ramp once accessible entrance can be established; alternately replace ramp	0	OB	S	Total ramp length approximately 90 feet x 11 feet Demolish ramp; provide 28-LF of galvanized guardrail with 4" spaced pickets at 2nd floor level, assume 100 SF of grading and asphalt paving		●								\$33,675	24.65%	\$41,976	\$41,976					
BUILDING INTERIOR																								
General Notes																								
Doors and hardware	Generally all doors are worn and hardware is typically non code and ADA compliant. Significant number of doors are not an accessible width of 30-inches	Recommend replacement of all interior doors and hardware with new hollow metal doors and stainless steel hardware	2	END	S	(92) single leaf openings (19) double leaf openings 130 total leaves \$1,550 w/de,o-replace-new hdwr = \$201,500 + MU's				●		●	●			\$303,260	24.65%	\$378,014	\$378,014					
Accessibility	With the exception of one interior ramp, the main level of the first floor is non-accessible due to the split level configuration of the first floor.	Although a new elevator currently under construction will improve accessibility to the second floor, in the long term it is recommended to raise the lower portion of the first floor level so make all one consistent elevation	-	-	S	Assume 12,000 of 4" concrete slab on deck on 3-ft height of LGMF. Include 12,000 SF of carpet tile; include \$100k to adjust main entrance storefront to higher entry grade elevation, include regrading and fill to raise 1600 SF of exterior to new entry grade elevation				●		●	●			\$529,760	24.65%	\$660,346	\$660,346					
Main Entrance																								
Ceiling Finish Materials	Exposed concrete waffle slab, some spalling observed	Remove loose concrete and repair	2	ESL	S	20 SF \$7.50 sf = \$150 + MU's		●				●	●			\$230	24.65%	\$287	\$287					
Interior Signage																								
Materials	Paper signage throughout	Provide plastic code compliant signage throughout	1	OB	S	Assume 100 Signs @ \$75 = \$7,500 + MU's			●	●						\$11,290	24.65%	\$14,073	\$14,073					

REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET																				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN- ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE																	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																																							
Stairs and Exits																																							
Guardrails (height, sphere)	Non-compliant	Replace handrails with painted metal handrails and guardrails	1	OB	S	2 stairs at 2 stories each, assumes 15 lf wall single line rail & 15' central guard rail section per stair x 2 stairs = 30 lf wall rail \$35 = \$1,050 + 30' center guard rail \$125 = \$4,500 = \$5,550 + MU's											\$8,355	24.65%	\$10,415	\$10,415																			
Other	(3) communicating stairs at media center and cafeteria are not code compliant (non-compliant risers, treads, handrails)	Replace (3) 2-story stairs	1	OB	S	(3) 2-story stairs @ \$15,000 ea demo-replace = \$45,000 + MU's												\$67,725	24.65%	\$84,419	\$84,419																		
Locker Rooms																																							
Level of Privacy - Short Term	Fair - some enclosed compartments are available, but not consistent throughout	Provide shower compartment partitions and curtains to subdivide gang showers into individual shower compartments	2	OB	S	Refer to diagrams provided in the Locker Room Privacy Accomodatiions Section of this report.												\$11,590	24.65%	\$14,447					\$14,447														
Locker Area Toilet Rooms																																							
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	Clearances are OK, but no ADA toilet compartments in Men's and Women's locker rooms.	Recommend installing new ADA sized toilet compartment partition and grab bars	1	OB	S	(2) ADA toilet compartments w/grab bars \$1,750 set = \$3,500 + MU's												\$5,270	24.65%	\$6,569					\$6,569														
Student Toilet Rooms																																							
Accessories	No grab bars (no ADA toilet stall)	Provide a set of ADA grab bars in each student toilet room	1	OB	S	(4) locations \$250 ea = \$1,000 + MU's												\$1,505	24.65%	\$1,876	\$1,876																		
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	Student toilet rooms do not have ADA compliant toilet stalls	Recommend converting 2 stalls in each toilet room into 1 ADA stall - at each location, remove 1 toilet, provide solid plastic partition ADA toilet compartment partitions and grab bars noted above	1	OB	S	(4) locations combine 4 into 2 ADA systems \$2,500 for partition-demo WC-patch floor-new grab bars = \$10,000 + MU's												\$15,050	24.65%	\$18,760	\$18,760																		
Staff Toilets																																							
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	Rooms are non-ADA compliant - no clearances and lacking grab bars	Recommend gut renovation of all staff toilets to make fully accessible	1	OB	S	4 locations \$10,000 per room for 2 new walls-demo-WC-LAC accessories-flooring-ceiling = \$40,000 + MU;s												\$60,200	24.65%	\$75,039	\$75,039																		
FIRE PROTECTION																																							
Type of Sprinkler System	Deluge system at open resource area only.	Install new NFPA 13 complete coverage sprinkler system.	3	ESL	S	90,795 gsf @ \$3.50 + \$12,000 bldg entry-backflow + \$20,000 water line upgrade allowance; fire pump & storage tank excluded = \$349,785 + MU's												\$526,430	24.65%	\$656,195	\$656,195																		
ELECTRICAL																																							
Life Safety																																							
Fire Alarm	Early 1990's vintage conventional zoned FCI control panel that has reached the end of its anticipated useful life. Occupant notification and pull station placement do not comply with current code or ADA in many areas. A sprinkler valve in the boiler room has no tamper switch.	Update to fully addressable system.	1	OB	S	Carry complete new system for 88,481 sf												\$166,500	24.65%	\$207,542	\$207,542																		
Emergency Lighting	Emergency battery units with integral and remote incandescent heads. Illuminated exit signs are mostly LED, but some older incandescent or compact fluorescent were noted. There is no emergency light at the exterior of building exits.	Replace older units as they fail. Provide outdoor emergency lighting at building exits. All units will reach the end of their anticipated useful lives within 20 years	2	END	S	Carry (15) outdoor units and (30) indoor units												\$38,378	24.65%	\$47,838	\$47,838																		

REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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TEACHER ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

*** Note:**

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY														CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

SECURITY																							
Security Camera System	None	Provide web-based security camera system with DVR	-	-	S	Assume 32 cameras	●										\$28,800	24.65%	\$35,899	\$35,899			
Intrusion Alarm System	Bosch control panel that is integrated with the district-wide network. Motion detectors monitor corridors and entrances.	System will reach the end of its anticipated useful life within 15 years.	3	ESL	S	Carry complete system replacement for 88,481 sf	●										\$98,500	24.65%	\$122,780	\$122,780			

Total Years 1 - 5																		\$2,505,419	\$2,431,435	\$0	\$5,974	\$68,009
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REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	EVALUATION CRITERIA				AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY																	CIP
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
SITE																						
Vehicular & Pedestrian Circulation																						
Walkway Materials	Bituminous - Good. Brick sidewalks on Brackett in fair condition. Concrete - Poor	Replace concrete sidewalks and ramps. Maintenance will make repairs as needed until funding is secured	2	END	L	65sf @\$12									●	\$1,174	55.30%	\$1,823		\$1,823		
Fencing																						
Locations & Materials	Decorative fence around site, some repairs needed.	Repair fence as needed. Maintenance will make repairs as needed until funding is secured	2	ESL	L	20lf @\$70							●			\$2,107	55.30%	\$3,272		\$3,272		
STRUCTURAL																						
Foundation	B. Some small areas of exposed reinforcing at foundation.	Clean reinforcing, square off area and install repair mortar Maintenance will make repairs as needed until funding is secured	3	END	L	Assume 100 SF \$20 sf + MU's						●	●			\$3,010	55.30%	\$4,675		\$4,675		
Roof Construction	A. Roof snow load does not meet current code; high low roof conditions susceptible to drifted snow not included in original design.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift. Shoveling of drifts recommended in the interim. Maintenance will make repairs as needed until funding is secured	3	ESL	L	Low roof areas within 15 feet of high low roof conditions recommended to be reinforced. Scope unclear, areas unknown Assume 4100 SF						●	●			\$15,430	55.30%	\$23,963		\$23,963		
Exterior Wall Construction	A. Exterior bricks overhang foundation with support by cantilevered brick header course. Condition is susceptible to snow and ice problems; corner support condition is poor and base corner bricks are spalled or missing in many conditions	Supplement support recommended at corner brick conditions. Maintenance will make repairs as needed until funding is secured	2	END	L	At 29 locations; provide 4 LF of galvanized 2x5 steel angle anchored into foundation wall \$150 per location + MU's						●	●			\$6,550	55.30%	\$10,172		\$10,172		
Exterior Wall Construction	B. CMU Stair walls have a horizontal crack one course down from waffle slab roof, likely a result of rotational restraint of roof to wall connection.	Rout and repoint Maintenance will make repairs as needed until funding is secured	2	ESL	L	20 LF each stair 2 stairs assumed 40 total lf cracks 450 stich = \$2,000 + MU's						●	●			\$3,010	55.30%	\$4,675		\$4,675		
BUILDING INTERIOR																						
Locker Rooms																						
Level of Privacy - Long Term	Fair - some enclosed compartments are available, but not consistent throughout	Gut renovate gang showers to provide individual and ADA compliant shower and changing compartments Maintenance will make repairs as needed until funding is secured	2	OB	L	Refer to diagrams provided in the Locker Room Privacy Accomodatiions Section of this report.										\$110,030	55.30%	\$170,877		\$170,877		
Lockers (Material, Vented, ADA)	Painted metal lockers, corroded	Replace lockers Maintenance will make repairs as needed until funding is secured	2	END	L	300 full height 12-inch wide lockers \$250 ea = \$75,000 + MU's						●	●			\$112,875	55.30%	\$175,295	\$175,295			
PLUMBING																						
Hot Water System	(1) Heater/tank (± 500 gal) original vintage (1972), Asbestos insulation	Beyond service life. Install new indirect water heater to match current DHOW demand. Maintenance will make repairs as needed until funding is secured	2	END	L	(1) 500 gal indirect WH storage + MU's						●	●			\$40,000	55.30%	\$62,120		\$62,120		
Domestice distribution system	Copper piping lead solder	Copper distribution system beyond the expected service life of 30 years. Replace with new system. Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @ 89K SF + MU's						●	●			\$1,650,000	55.30%	\$2,562,450		\$2,562,450		
Sanitary Waste and Vent System	Cast iron and PVC -- most vintage	Beyond service life--replace system Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @ 75K SF + MU's						●	●			\$675,000	55.30%	\$1,048,275		\$1,048,275		
Storm Drain System	Cast iron and PVC -- most vintage	Beyond service life--replace system Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @75K SF + MU's						●	●			\$330,000	55.30%	\$512,490		\$512,490		

REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND																					
Condition Level		Life Cycle (Age Factor)		Action Priority																	
0 - Failed - Not Functional		N - New / Recent		I - Immediate (Year 0)																	
1 - Poor - Failure Anticipated		ESL - w/In Expected Service Life		S - Short Term (Years 1-5)																	
2 - Fair - Functions, Service Required		END - Nearing End of Service Life		L - Long Term (Years 6-20)																	
3 - Good - Functional & Maintained		OB - Obsolete		N/A - Not Applicable																	
4 - Excellent - New																					

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET						
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
Natatorium Systems	Boiler heating water to pool water via HX (vintage)	Maintenance will make repairs as needed until funding is secured	2	END	L	Replace HX in kind w/appurtenances + MU's						●	●			\$30,000	55.30%	\$46,590		\$46,590		
MECHANICAL																						
Heating Plant	(2) KN 30 condensing boilers, 2,800 MBH output, est. mfg. (2011), heating hot water, reset mixing valve.	Expected service life of 25 years, replace in 20 years. Maintenance will make repairs as needed until funding is secured	3	ESL	L	(2) 2,800MBH boilers in kind + MU's						●	●			\$240,000	55.30%	\$372,720		\$372,720		
Air Conditioning (Yes/No/Limited)	Limited (split ductless systems) & packaged system for current community second floor.	Replace in kind or other if modified zoning, unit is nearing expected service life of 15 years. Maintenance will make repairs as needed until funding is secured	2	END	L	Figure 5 ton units +MU's						●	●			\$25,000	55.30%	\$38,825		\$38,825		
Air Handling Unit Systems	Roof top H&Vs, (1970s vintage). (3) original units, (1) demolished recently. Serves open resource area. (1) 2nd floor community/band side of building.	Poor or failed condition--replace with new H&V units with ERU for ventilation Maintenance will make repairs as needed until funding is secured	1	END	S	(3) H & V units w/ERU at 5,000 cfm ea. Add \$/SF for ductwork modifications + MU's						●	●			\$450,000	55.30%	\$698,850		\$698,850		
Air Handling Unit Systems	Indoor ducted H&Vs (1970s vintage) serve areas like the GYM & stage. Pool is served by H&V.	All units are beyond the useful service life. Replace with new H&Vs with ERUs for ventil. Replace pool H & V with dehumidification unit. Maintenance will make repairs as needed until funding is secured	1	END	S	(4) 4,000 cfm AHUs H&V w/ERU, \$/SF duct modifications, + MU's						●	●			\$580,000	55.30%	\$900,740		\$900,740		
Pumps	Upgraded/replaced 2012, no VFDs.	Expected service life of 25 years, replace in 20 years w/VFDs Maintenance will make repairs as needed until funding is secured	3	ESL	L	(2) 150 gpm pumps s/VFDs. + MU's						●	●			\$35,000	55.30%	\$54,355		\$54,355		
Terminal Unit Systems	Floor mount Unit Vents with OA and pressure relief via GRV or exhaust fans. Many Uvs appear to have been upgraded from original--but are aged.	Convert to fin tube heat and new ERUs ducted ventilation system only. Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @ 40K SF + MU's						●	●			\$300,000	55.30%	\$465,900		\$465,900		
Terminal Unit Systems	CUHs, some are vintage and some are newer due to small renovation projects over the years.	Replace vintage CUHs with new units. Maintenance will make repairs as needed until funding is secured	2	END	L	(10) CUHs + MU's						●	●			\$37,500	55.30%	\$58,238		\$58,238		
Exhaust Systems	Exhaust fans are mostly vintage.	Replace in kind or rework with new ERU ventilation projects Maintenance will make repairs as needed until funding is secured	2	END	L	Costs absorbed in ERU AHU systems.						●	●			0	55.30%	\$0		\$0		
Piping System	Piping is aged but appears fair to good condition. Pipe insulation is poor or removed at many locations thru the building.	Hydronic piping system is beyond its useful service life; replace w/inuslation Maintenance will make repairs as needed until funding is secured	2	ESL	L	\$/SF @ 88K SF + MU's						●	●			\$1,750,000	55.30%	\$2,717,750		\$2,717,750		
Automatic Temperature Controls	Mostly vintage pneumatics with some DDC electric upgrades.	Replace pneumatics with DDC electric BAS. Maintenance will make repairs as needed until funding is secured	2	END	L	Upgrade DDC system \$/SF + MU's						●	●			\$400,000	55.30%	\$621,200		\$621,200		
Natatorium Systems	H & V units with direct rooftop exhaust (vintage 1970s)	Replace with new dehumidification system with fresh air. Maintenance will make repairs as needed until funding is secured	2	END	L	(1) 9,000 cfm dehumid.						●	●			\$190,000	55.30%	\$295,070		\$295,070		
ELECTRICAL																						
Wiring	(1) 5" primary underground conduit. Current CMP standards require (3) 5" primary conduits for new installations. Service entrance conductors are likely original to the building an, if so, are at the end of their anticipated useful life.	Update secondary service. Update underground primary to current CMP standards in conjunction with secondary service update Maintenance will make repairs as needed until funding is secured	2	END	L	Carry Complete service entrance replacement for 88,481 sf						●	●			\$116,300	55.30%	\$180,614		\$180,614		
Equipment	Early 1970's vintage GE switchboard. The switchboard has exceeded its anticipated useful life.	Replace switchboard. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry replacing existing switchboard with 1600A 480/277V switchboard						●	●			\$115,400	55.30%	\$179,216		\$179,216		

REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

EVALUATION CRITERIA																TRADE COST PLUS 50.5% MARK-UP		ESCALATION		BUDGET				
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY														CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																								
Distribution System																								
Panels	Panels and dry-type distribution transformers in most of the building are early 1970's vintage GE panelboards that have exceeded their anticipated useful life. A 30-kVA transformer and panelboard were added in the boiler room in 2010, and a small addition currently in progress includes new panels and distribution transformers to serve the addition.	Replace 1970's vintage equipment throughout. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry complete power distribution system replacement for 88,481 sf										\$357,100	55.30%	\$554,576		\$554,576				
Wiring	Building wiring in conduit that has exceeded its anticipated useful life.	Update distribution system wiring throughout in conjunction with distribution system equipment updates. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry complete distribution wiring system replacement for 88,481 sf										\$158,400	55.30%	\$245,995		\$245,995				
Branch Circuits	Some Branch-circuit wiring in crawlspaces is type NM nonmetallic sheathed cable (romex), which would not be permitted by current code for new type I, II, or III construction. Other wiring in the crawlspaces is building wire in conduit. Conduits and cable trays in the crawlspaces are in poor condition due to moisture. Extension cords are in use in many areas due to a lack of appropriately located receptacles. Floor mounted outlets have been disabled and abandoned due to failures.	Update branch-circuit wiring throughout as part of any planned renovations to the facility. Add receptacles and associated branch circuits to eliminate the need for extension cords. Power distribution updates recommended above need to be performed in order to facilitate this work. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry complete new branch-circuit wiring system for 88,481 sf										\$274,300	55.30%	\$425,988		\$425,988				
Site Lighting (type & material)	Utility-owned pole mounted flood fixtures. Some outdoor areas are not illuminated to levels recommended by IES,	Provide full-cutoff LED fixtures to provide outdoor illumination levels as recommended by IES. Maintenance will make repairs as needed until funding is secured	2	ESL	L	Carry (3) 20' high LED pole lights										\$27,000	55.30%	\$41,931		\$41,931				
Exterior Building Lighting	Mixture LED wall packs and HID wall packs.	Replace HID units with LED as they fail. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry replacing 22 LED wall packs										\$19,800	55.30%	\$30,749		\$30,749				
Interior Lighting																								
Classrooms	Fluorescent surface and recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry complete interior lighting replacement for 88,481 sf										\$1,131,000	55.30%	\$1,756,443		\$1,756,443				
Offices	Fluorescent surface and recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L																			
Corridors	Various fluorescent fixtures utilizing T8 lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L																			
Toilets	Fluorescent wraparound fixtures with integral occupancy sensors and utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L																			
Mech/Storage	fluorescent strips with T8 lamps in some areas. Boiler room lighting is incandescent.	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L																			
Assembly	Performance lighting consists of (4) 750W incandescent fixtures controlled by dimmers.	Update performance lighting and controls. Maintenance will make repairs as needed until funding is secured	2	OB	L																			

REICHE ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
General Notes																			
Wall Finish Materials	Painted GWB and Concrete	Recommend budgeting for repainting all interior walls towards the end of the 20-year plan period	-	-	L	Base on 91,828 GSF \$ sf floor area = \$183,660 + MU's							●	●			\$276,410	93.55%	\$534,992
Stairs and Exits																			
Floor & Base Finish Materials	VCT, no base - VCT is failing	Replace all flooring at stairs with new rubber flooring and stair treads/risers	1	OB	L	400 SF assumes 600 total sf including risers @ \$25 = \$15,000 + MU's							●	●			\$22,575	93.55%	\$43,694
Kindergarten Classrooms																			
Floor & Base Finish Materials	Broadloom carpet - stained and worn	Replace carpet with carpet tiles	2	END	L	42,000 SF \$6 demo-replace = \$252,000 + MU's							●	●			\$379,260	93.55%	\$734,058
Casework and Cubbies	Painted wood with Formica countertops	Replace with new plastic laminate casework and counters with new stainless steel sinks	1	OB	L	(30) units at 12 LF each \$275 If cabinet & top + \$1,500 sink re-use rough = \$4,800 x 30 = \$144,000 + MU's							●	●			\$216,720	93.55%	\$419,462
General Purpose Classrooms																			
Floor & Base Finish Materials	Broadloom carpet - stained and worn	Replace carpet with carpet tiles	2	END	L	42,000 SF \$6 demo-replace = \$252,000 + MU's							●	●			\$379,260	93.55%	\$734,058
Casework	Painted wood with Formica countertops	Replace with new plastic laminate casework and counters with new stainless steel sinks	1	OB	L	(30) units at 12 LF each \$275 If cabinet & top + \$1,500 sink re-use rough = \$4,800 x 30 = \$144,000 + MU's							●	●	●		\$216,720	93.55%	\$419,462
Art Classrooms																			
Floor & Base Finish Materials	Broadloom carpet - stained and worn	Replace carpet with carpet tiles	2	END	L	42,000 SF \$6 demo-replace = \$252,000 + MU's							●	●			\$379,260	93.55%	\$734,058
Casework	Painted wood with Formica countertops	Replace with new plastic laminate casework and counters with new stainless steel sinks	1	OB	L	(30) units at 12 LF each \$275 If cabinet & top + \$1,500 sink re-use rough = \$4,800 x 30 = \$144,000 + MU's							●	●	●		\$216,720	93.55%	\$419,462
Technology Classroom / Computer Lab																			
Floor & Base Finish Materials	Broadloom carpet - stained and worn	Replace carpet with carpet tiles	2	END	L	800 SF \$6 demo-replace = \$4,800 + MU's							●	●			\$7,225	93.55%	\$13,984
Visual Display Surfaces	Chalkboard with applied markerboard finish	Provide new markerboard	2	OB	L	(1) 16-ft markerboard 64 sf \$30 demo-replace = \$1,920 + MU's							●	●	●		\$2,890	93.55%	\$5,594
Performing Arts - Music Rooms																			
Floor & Base Finish Materials	Broadloom carpet - stained and worn	Replace carpet with carpet tiles	2	END	L	800 SF \$6 demo-replace= \$4,800 + MU's							●	●			\$7,225	93.55%	\$13,984
Natatorium																			
Floor & Base Finish Materials	Ceramic tile pool deck and base - floor is in good condition, but base is failing	Replace ceramic tile base	3/1	ESL	L	285 LF of 4-inch ceramic wall tile base \$15 If demo-replace = \$4,275 + MU's							●	●			\$6,435	93.55%	\$12,455
Door Material (Including Frame & Glazing)	Painted hollow metal doors and frames - corroded	Replace doors and frames with storefront entrances	1	END	L	(3) pairs of storefront entrances, no sidelites or transoms indicated, 6 total leaves \$2,500 demo-replace = \$15,000 + MU's							●	●			\$22,575	93.55%	\$43,694

REICHE ELEMENTARY SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																		
Cafeteria																		
Floor & Base Finish Materials	Worn and stained broadloom carpet and ceramic tile	Replace carpet flooring with rubber flooring	2	END	L	3,100 SF \$1.350 demo-replace = \$41,850 + MU's						●	●			\$62,985	93.55%	\$121,907
Ceiling Finish Materials	Mix of exposed concrete waffle slab and spline type acoustic ceiling tiles	Replace ceiling tiles with new ACT	2	END	L	1,500 SF 2 x 4 assumed \$4.50 = \$6,750 + MU's						●	●			\$10,160	93.55%	\$19,665
Performing Arts - Stage																		
Ceiling Finish Materials	Mix of exposed concrete waffle slab and spline type acoustic ceiling tiles	Replace ceiling tiles with new ACT	2	END	L	700 SF 2 x 4 assumed \$4.50 = \$3,150 + MU's						●	●			\$4,745	93.55%	\$9,184
Administration Office Area																		
Floor & Base Finish Materials	Broadloom carpet (stained and worn) and rubber base	Replace carpet with carpet tiles	1	END	L	3,700 SF \$6 demo-replace = \$22,200 + MU's						●	●			\$33,415	93.55%	\$64,675
Staff Toilets																		
Floor & Base Finish Materials	VCT flooring, ceramic tile base - both in poor condition	Replace with new VCT flooring and rubber base	1	END	L	200 SF total for 4 locations = 800 sf total \$5 demo-replace- new floor & base = \$4,000 + MU's						●	●			\$6,020	93.55%	\$11,652
																Total Years 11 - 15	\$4,356,036	

REICHE ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Spalling, Staining, Efflorescence	Staining and Efflorescence observed on the north elevation of the Community Center	Clean brick masonry	2	ESL	L	4,700 SF \$1.50 = \$7,050 + MU's							●	●			\$10,615	116.55%	\$22,987
Other	It was noted that the exterior wall is not insulated	Recommend further investiagtion and study to add insulation to the interior side of the exterior wall to improve thermal performance of the envelope	-	-	L	Budget for Study						●	●	●			\$7,000	116.55%	\$15,159
Exterior Doors (not including Main Entry)																			
Materials	Mix of aluminum storefront entrances and painted hollow metal doors and frames	Remove corrosion from hollow metal frames and doors, prime and repaint	2	ESL	L	(8) pairs of doors and frames (4) single doors and frames = 20 total leaves w/frames \$225 ea = \$4,500 + MU's							●	●			\$6,775	116.55%	\$14,671
Lintels	Painted steel at Community Center in fair condition	Remove corrosion from steel lintels, prime and repaint	2	ESL	L	(8) 6-ft lintels (4) 3-ft lintels 60 lf total \$10 = \$600 + MU's							●	●			\$905	116.55%	\$1,960
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Type unknown, but appears to have been recently installed.	Recommend budgeting for resealing towards end of plan period when sealant reaches end of expected service life	3	ESL	L	4,500 LF @ \$3.50 grout reseal = \$15,750 + MU's							●	●			\$23,705	116.55%	\$51,333
Building Joint Sealant	Type unknown, but generally in poor condition	Remove existing joint sealant and replace at brick and between concrete panels	2	END	L	400 LF \$5 w/backer rod = \$2,000 + MU's							●	●			\$3,010	116.55%	\$6,518
Flashing																			
Material	Mix of lead coated copper and aluminum flashings where top of brick and windows meet concrete spandrels and pre-cast concrete panels. Flashings are generally in poor condition with loose or missing fasteners, separating splice joints, and bent material	Remove and replace flashings along roof edge and at second floor	2	END	L	2,500 LF \$20 lf demo-replace = \$50,000 + Mu's							●	●			\$75,250	116.55%	\$162,954
Roof Assembly & Flashing																			
Flat or Sloped Geometry	Flat - areas of ponding observed throughout, especially in spaces between roof top duct enclosures	Replacement of entire roof membrane and pitched roof insulation	2	END	L	55,000 SF \$12 sf demo-memb-prot bd-R38-perim flash 7 trim (re-use blocking) = \$660,000 + MU's							●	●			\$993,300	116.55%	\$2,150,991
Decorative Items or Features																			
Types and Locations	Exterior painted metal handrails and guardrails require repainting	Remove corrosion and prime and repaint exterior handrails and guardrails	2	ESL	L	60 LF \$10 = \$600 + MU's, assumes lf given is actual rail lf count regardless of rail configuration Assume 60 LF assembly that includes top rail and mid rail							●	●			\$2,110	116.55%	\$4,569

Total Years 16 -20\$2,431,142

RIVERTON ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
ELECTRICAL																		
Fire Alarm	Faraday addressable control panel. System generally complies with current standards and ADA, although some notification circuit power supplies have batteries that have exceeded their anticipated useful life.	Replace any system batteries that are older than five years old. System will reach the end of its anticipated useful life within 15 years.	2	ESL	I	Carry \$1,000 + MU's for immediate for batteries.		●								\$1,505	0.00%	\$1,505
Total Year 0																	\$1,505	

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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RIVERTON ELEMENTARY SCHOOL										LEGEND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Number of Spaces (Regular & ADA)										ADA - 3 @ Riverton Loop (does not have stripped isle), 3 @ Community Center (no signs with aisle)										Restripe spaces at front loop. Install/replace signs such that each ADA space is signed.												S	3 signs @\$125 150LF @ \$1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

															BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

BUILDING EXTERIOR																								
Exterior Stairs and Ladders																								
Locations and Materials	Roof ladders provide adequate access to all roof areas. Exterior stair at loading dock is non compliant. Concrete stair is less than 3' wide. Rails are non compliant.	Remove existing concrete stair. Replace with new concrete stair.	0	OB	S	Remove existing concrete stair, (15 SF) 6 risers. Replace with new concrete stair, 4' wide (20 SF) 6 risers. Provide 14 LF new compliant handrails and guardrails. Demo existing stair & foundation + new stair foundation w/dig & bf + stairs and landing and handrails = \$7,500 + MU's												\$11,290	24.65%	\$14,073	\$14,073			
BUILDING INTERIOR																								
General Notes																								
Non-ADA compliant door hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	Replace approx. 80 knobs with code compliant hardware. @ \$500 includes leaf rework to accept hardware = \$40,000 + MU's												\$60,200	24.65%	\$75,039	\$75,039			
Single-use student bathrooms	Existing bathroom configurations are not ADA accessible. Rooms are too small.	Recommend renovating all single-use bathrooms for ADA accessibility.	0	OB	S	Complete single-user bathroom renovation, (45 SF/bathroom, 14 bathrooms) convert 14 existing bathrooms into 7 larger ADA compliant bathrooms, replacing all finishes and fixtures. Approx. 650 SF bathroom renovation. \$7,500 per bathroom to enlarge = \$105,000 + MU's; Complete renovation of existing storage space into new ADA compliant bathrooms. Approx 550 SF of renovation converting 6 storage spaces into single-use bathrooms. @ \$10,000 per bathroom = \$60,000 + MU's; Renovation includes the removal of 60 LF 4" block wall, construction of 60 LF block 8" wall interior partitions to underside of roof deck. Includes the removal of 20 existing doors, replacement with 13 new 3' wood veneer doors with HM frames.												\$248,325	24.65%	\$309,537	\$309,537			
Corridors																								
Drinking Fountains	Only 1 drinking fountain in new community center building lobby. Fountain is not located in alcove, and does not have cane detection device.	Verify bottom if leading edge of fountain is exactly 27" A.F.F. If higher, provide painted round metal cane detection devices to either side of the drinking fountain to meet ADA requirements.	0-3	OB-ESL	S	(2) painted round metal cane detection devices. @ \$250 ea = \$500 + MU's												\$755	24.65%	\$941				\$941
Interior Signage																								
Materials	Plastic signage.	Provide consistent code compliant signage throughout the entire building	0	OB	S	Provide ADA compliant room signage for approx 175 spaces. @ \$75 = \$13,125 + MU's												\$19,755	24.65%	\$24,625	\$24,625			
At Code Required Locations?	Typically, signage in original building is not at code required locations. Signs are mounted at the wrong height, on the door, or missing entirely. Second exit signs are missing above the exterior egress doors in most vestibules.	Recommend providing consistent code compliant signage throughout the entire building.	0	OB	S	Provide approx. 8 illuminated exit signs to be mounted above vestibule egress doors. b@ \$1,000 includes new wiring = \$8,000 + MU's												\$12,040	24.65%	\$15,008	\$15,008			

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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RIVERTON ELEMENTARY SCHOOL																								
Capital Plan Detailed Scope of Work																								
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LEGEND																								
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New			Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete			Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable																		
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MAINT.																								
CITY EXPENSE																								
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
General Purpose Classrooms																								
Casework	Wood veneer casework. Typically, casework is in poor condition. Showing considerable denting, scratching, and discoloration.	Recommend replacing aging wood veneer casework with more resilient plastic laminate casework with resilient edge banding.	2	END	S	Provide the following in each room (total of 24 rooms). (2) 48" wide tall cabinet units with adjustable shelves and lockable doors.\$750 ea = \$18,000 + MU's; (4) 36" wide wall cabinets with adjustable shelves and lockable doors. 288 lf @ \$125 demo & replace =\$36,000 + MU's; (4) 36" wide base cabinets with adjustable shelves and lockable doors. 288 lf wplam top @ \$275 demo & replace =\$79,200 + MU's = = = TOTALS \$133,200 + MU's										\$200,470	24.65%	\$249,886	\$249,886					
Sinks (ADA compliance)	Non ADA sinks in most of the classrooms. Stainless steel sink mounted in plastic laminate counter top.	Recommend replacing all existing sinks with ADA compliant sinks and new casework	0	OB	S	(Total of 24) 24" deep x 60" long plastic laminate counter with resilient edge banding, knee clearance below counter, and stainless steel sink with faucet. 120 lf solid surface top @ \$135 w/demo =\$16,200 + MU's; 24 new sinks @ \$1,500 re-use exist rough = \$36,000 + MU's = = = TOTALS \$52,200 + M U's											\$78,565	24.65%	\$97,931	\$97,931				
Art Classrooms																								
Casework	Wood veneer casework. Typically, casework is in poor condition. Showing considerable denting, scratching, and discoloration. Wood flat storage/shelving units, showing considerable denting, scratching, and discoloration.	Recommend replacing aging wood veneer casework with more resilient plastic laminate casework with resilient edge banding. Replace wood flat storage/shelving units with more resilient plastic laminate shelving.	2	END	S	Provide (4) 48" wide tall cabinet units with adjustable shelves and lockable doors. @ \$750 = \$3,000 + MU's; (12) 36" wide wall cabinets with adjustable shelves and lockable doors. 36 lf @ \$125 w/demo = \$4,500 + MU's; (12) 36" wide base cabinets with adjustable shelves and lockable doors. 36 lf plam top cabinet @ \$275 w/demo = \$9,900; (4) 4' wide, 7' tall flat storage/shelving units with open front, adjustable shelves \$600 ea = \$2,400 + MU's = = = TOTALS \$19,800 + MU's											\$29,800	24.65%	\$37,146	\$37,146				
Sinks (ADA compliance)	Two non-ADA sinks in the art room. Stainless steel sink mounted in plastic laminate counter top, base cabinet casework.	Replace 5' x 10' base cabinet casework, replace with new casework with counter mounted ADA sinks.	0	OB	S	Remove existing base cabinet casework, replace with new more resilient plastic laminate casework with resilient edge banding, and two new counter mounted ADA sinks (5' x 10' island); 10 lf @ \$400 = \$4,000 + MUs + \$4,500 sinks and roughs @ \$2,250 ea = = = TOTALS \$8,500 + MUs											\$12,795	24.65%	\$15,949	\$15,949				

RIVERTON ELEMENTARY SCHOOL
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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET								
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	EVALUATION CRITERIA				OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY						CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE										
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
Kilns	Kiln (enclosed by closely abutting furniture).	Remove abutting furniture. Provide a rated, ventilated, and accessible room to keep the kiln in as part of future renovations.	0	OB	S	80 square feet of interior renovation to provide a room constructed of gyp partitions up to roof deck, single wood veneer 36"x84" door, 2x4 ACT ceilings, and VCT flooring. \$6,750 + MU's + \$2,500 to relocate kiln-hood-exhaust-fan thru roof = \$9,250 + MU's		●									\$13,925	24.65%	\$17,358	\$17,358				
Performing Arts - Stage Stage Accessibility	Stage is accessible. Ramp provided at rear of stage (near main lobby). Carpet floor finish on ramp is heavily worn. Railings do not have proper ADA extensions.	Remove ramp carpet, replace with new carpet tile. Remove existing non complaint handrail, replace with new compliant handrail.			S	Remove 250 SF ramp carpet, replace with equivalent SF new carpet tile. @ \$6 sf demo & replace & new base = \$1,500 + MU's; Remove existing handrail, replace with new compliant handrail, approx. 85 LF. Single line pipe wall rail assumed @ \$25 demo & replace = \$2,125 + MU's Assume 50LF new floor mounted hand and guardrail w/ 4" verticals.			●	●							\$5,460	24.65%	\$6,806			\$6,806		
Gymnasium																								
Wall Pads	Wall pads provided for main court hoops. 1 section of wall pad damaged under main hoop. Pads missing under 2 practice hoops.	Replace torn wall pad. Install new wall pads under practice hoops.	0	OB	S	Replace (1) 3' x 5' wall pad. Install approx. 30 LF of 5' high new wall pads under two hoops. \$10 sf for 150 sf new wallpads = \$1,500 + MU's		●									\$2,260	24.65%	\$2,817			\$2,817		
Locker Rooms Level of Privacy - Short Term	No private changing areas in men's LR. Private changing areas provided in women's LR. Wing wall at men's LR entry does not adequately block views from corridor.	Provide shower compartment partitions and curtains at Mens Locker room	0	OB	S	Refer to diagrams provided in the Locker Room Privacy Accomodatiions Section of this report.											\$15,050	24.65%	\$18,760				\$18,760	
(See Food Service Below)																								
Kitchen and Servery Kitchen Bathroom	Poor access (only through office). Much too small for ADA compliance.	Renovate 100 SF area of office and bathroom to accommodate better bathroom access and ADA compliance.	0	OB	S	100 SF complete single-user bathroom renovation. Move & rebuild 20 LF block walls, provide new plumbing fixtures, all new finishes. \$12,000 + MU's				●							\$18,060	24.65%	\$22,512	\$22,512				

RIVERTON ELEMENTARY SCHOOL
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LEGEND									
Condition Level		Life Cycle (Age Factor)		Action Priority					
0 - Failed - Not Functional		N - New / Recent		I - Immediate (Year 0)					
1 - Poor - Failure Anticipated		ESL - w/In Expected Service Life		S - Short Term (Years 1-5)					
2 - Fair - Functions, Service Required		END - Nearing End of Service Life		L - Long Term (Years 6-20)					
3 - Good - Functional & Maintained		OB - Obsolete		N/A - Not Applicable					
4 - Excellent - New									

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																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

Teacher Workroom and Staff Areas																							
Casework	Wood veneer casework. Typically, casework is in poor condition. Showing considerable denting, scratching, and discoloration.	Recommend replacing aging wood veneer casework with more resilient plastic laminate casework with resilient edge banding.	2	END	S	Provide the following in each room (total of 3 rooms). (1) 48" wide tall cabinet units with adjustable shelves and lockable doors. \$750 ea = \$2,250 + MU's; (3) 36" wide wall cabinets with adjustable shelves and lockable doors. 27 lf @ \$125 demo & replace = \$3,375 + MU's; (3) 36" wide base cabinets with adjustable shelves and lockable doors. 27 lf @ \$275 demo & replace = \$7,425 + MU's = = = TOTALS \$13,050 + MU's											\$19,645	24.65%	\$24,487	\$24,487			
Sinks (ADA compliance)	Non ADA sinks in most of the staff rooms. Stainless steel sink mounted in plastic laminate counter top.	Recommend replacing all existing sinks with ADA compliant sinks and new casework	0	OB	S	(Total of 3) 24" deep x 60" long plastic laminate counter with resilient edge banding, knee clearance below counter, and stainless steel sink with faucet. 15 lf @ \$90 demo & replace = \$1,350 + MUs + \$4,500 sinks @ \$1,500 per sink +MUs = = = TOTALS \$5,850 + MUs											\$8,805	24.65%	\$10,975	\$10,975			
Administration Office Area																							
Single-user bathrooms	Two single-user bathrooms lack grab bars.	Install 2 sets of grab bars.			S	(2) full sets of toilet grab bars for ADA compliant bathroom. \$500 includes new blocking & patch = \$1,000 + MU's											\$1,505	24.65%	\$1,876				\$1,876
Student Toilet Rooms (multiple-user)																							
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	ADA compliant toilet stall provided in each locker room. However, grab bars are missing.	Provide (2) sets of toilet grab bars	0	OB	S	(2) full sets of toilet grab bars for ADA compliant bathroom. \$500 includes new blocking & patch = \$1,000 + MU's											\$1,505	24.65%	\$1,876				\$1,876
Door Widths and Clearances	Doors are too narrow, clearance not provided.	Remove and replace existing doors with 36" new wide doors. Reconfigure entry to eliminate privacy issues, and provide proper door clearance.	0	OB	S	Remove (2) existing 30" HM doors and frames. Install (2) new 36" wood veneer doors and HM frames. Reconfigure wing wall and entry walls to eliminate privacy issues and provide proper ADA door clearance (approx. 150 SF complete renovation). Allow \$2,000 per leaf demo & replace & new lockset & closer & reframe door opening & wing wall adjsts = \$4,000 + MU's											\$6,020	24.65%	\$7,504	\$7,504			

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																	BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Staff Toilets																							
Door Widths and Clearances	Clearance not provided at door.	Remove and replace existing doors with new wood veneer doors. Reconfigure entry to eliminate privacy issues, and provide proper door clearance.	0	OB	S	Remove (2) existing 30" HM doors and frames. Install (2) new 36" wood veneer doors and HM frames. Reconfigure wing wall and entry walls to eliminate privacy issues and provide proper ADA door clearance (approx. 150 SF complete renovation). Allow \$2,000 per leaf demo & replace & new lockset & closer & reframe door opening & wing wall adjsuts = \$4,000 + MU's											\$6,020	24.65%	\$7,504	\$7,504			
Portland Public Library Branch																							
Casework	Wood veneer casework. Typically, casework is in poor condition. Showing considerable denting, scratching, and discoloration.	Recommend replacing aging wood veneer casework with more resilient plastic laminate casework with resilient edge banding.	2	END	S	(3) 36" wide wall cabinets with adjustable shelves and lockable doors. 9 lf @ \$125 demo & replace =\$1,125 + MU's; (3) 36" wide base cabinets with adjustable shelves and lockable doors. 9 lf @ \$275 demo & replace =\$2,475 + MU's = = TOTAL \$3,600 + MU's											\$5,420	24.65%	\$6,756				\$6,756
Sinks (ADA compliance)	Stainless steel sink mounted in plastic laminate counter top.	Replace existing sink with ADA compliant sinks and new casework	0	OB	S	(1) 24" deep x 36" long plastic laminate counter with resilient edge banding, knee clearance below counter, and stainless steel sink with faucet. \$90lf top demo & replace + \$1,500 sink demo & replace & re-use exist rough = \$1,770 + MU's											\$2,665	24.65%	\$3,322				\$3,322
Single-user bathroom	Bathroom is too small for ADA clearance. Finishes have reached the end of their expected service life	Renovate bathroom space.	0	OB	S	Complete renovation approx. 100 SF existing single-user bathroom. All new finishes and fixtures. Demolish 6' LF block wall, rebuild wall. \$12,000 + MU's											\$18,060	24.65%	\$22,512				\$22,512
Stairs	Stairs have carpet flooring. Railings are non compliant.	Remove existing handrails. Replace with complaint handrails.			S	Remove existing handrails, install approx 18 LF new ADA compliant handrails, guardrails. Provide for single line pipe wall mounted.											\$815	24.65%	\$1,016				\$1,016
SECURITY																							
Security Camera System	N/A	Provide web-based security camera system with DVR			S	Assume 32 cameras											\$28,800	24.65%	\$35,899	\$35,899			
Intrusion Alarm System	Bosch system connected to district-wide network	The system will reach the end of its anticipated useful life within 15 years	3	ESL	S	Carry complete system replacement for 104,100 sf											\$115,800	24.65%	\$144,345	\$144,345			
Total Years 1 - 5																		\$1,378,435	\$1,298,762	\$0	\$11,549	\$68,124	

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/in Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																	TRADE COST PLUS 50.5% MARK-UP		ESCALATION		* OPINION OF PROBABLE COST	BUDGET			
CATEGORY		DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	SEE LEGEND LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE					
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																									
SITE																									
Parking																									
Paving Materials		Bituminous - Poor	Overlay needed.	2	ESL	L	10,100 sf@\$1.25								●			\$19,000	55.30%	\$29,507	\$29,507				
Vehicular & Pedestrian Circulation																									
Traffic Markings & Traffic Signage		Signs faded and tipping.	Replace faded signs. No parking signs needed along access driveway	2	ESL	L	9ea @\$125								●			\$1,693	55.30%	\$2,629			\$2,629		
Walkway Materials		Sloped curb at sidewalk, 7" drop off sidewalk at north of building.	Adjust grades at sidewalk around north side of building.	2	ESL	L	Sidewalk: 10,000sf@\$3 Curb: 310lf@\$5								●			\$47,482	55.30%	\$73,740	\$73,740				
Service Area																									
Paving Materials		Bituminous with concrete dock - poor.	Replace concrete.	2	ESL	L	200s.f.@\$14								●			\$4,214	55.30%	\$6,544	\$6,544				
Fencing																									
Locations & Materials		Chain link fencing at baseball diamond adjacent to tennis courts failing (dilapidated bleachers in this area to be removed)	Replace fencing at rear baseball diamond. Remove bleachers.	2	ESL	L	Fence: 450lf@\$50 Bleacher: 2 @ \$500								●			\$35,367	55.30%	\$54,925				\$54,925	
Site Furniture & Accessories																									
Types, Locations, Materials		Front of school: granite benches good, no trash cans Community Center: granite benches good (1 tipped backwards), wood benches at rear in need of repair, 1 trash/recycle	Place trash and recycle receptacles near school entrance. Repair tipped bench. Replace/repair wood benches.			L	\$2,500 allowance + MU's								●			\$3,765	55.30%	\$5,847			\$5,847		
Site Drainage																									
Ponding		Ponding in corner of basketball court	Install catch basin or regrade to eliminate ponding.	2	ESL	L	\$2,500 + MU's catch basin w/dig & bf; distance to tie into existing storm unknown possible dry well								●			\$10,000	55.30%	\$15,530	\$15,530				
Catch Basins		Basin at drop off loop has filter fabric.	Remove filter fabric and replace with insert similar to Scarborough HS Basin needed at lower east corner of parking	2	EST	L	1 @\$500 1 basin @\$1500								●			\$3,010	55.30%	\$4,675			\$4,675		
BUILDING INTERIOR																									
Locker Rooms																									
Level of Privacy - Long Term		No private changing areas in men's LR. Private changing areas provided in women's LR. Wing wall at men's LR entry does not adequately block views from corridor.	At Men's Locker room, renovate gang shower area to provide individual and ADA compliant shower and changing compartments. At Women's Locker room, provide shower compartment partitions and doors and ADA compliant shower/changing compartment	0	OB	L	Refer to diagrams provided in the Locker Room Privacy Accomodations Section of this report.											\$99,875	55.30%	\$155,106				\$155,106	
Door Material (Including Frame & Glazing)		Painted HM doors and frames, no lites. Locker room doors showing heavy wear and tear.	Remove and replace single HM doors associated with locker rooms.	2	END	L	Remove (4) existing single doors, replace with (4) new HM single doors with HM frame. Provide new closers. \$1,550 leaf demo & replace & new lockset & closer = \$6,200 + MU's							●	●			\$9,335	55.30%	\$14,497			\$14,497		
PLUMBING																									
Hot Water System		Indirect via boielrs horizontal storage (+500 gal) approximately 1990's vintage.	Beyond its service life or 18 years. Replace in kind Maintenance will repair as needed until funding is secured	2	ESL	L	(1) Indirect water heater + MU's							●	●			\$50,000	55.30%	\$77,650			\$77,650		
Domestice distribution system		Copper piping lead solder	Copper distribution system beyond the expected service life of 30 years. Replace with new system--some upgrades to date. Maintenance will repair as needed until funding is secured	2	END	L	\$/SF @ (figure) 50K SF + MU's							●	●			\$900,000	55.30%	\$1,397,700			\$1,397,700		

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/in Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Sanitary Waste and Vent System	Cast iron and some PVC	Beyond its service life. Some piping has been upgrded thru renovation projects. Maintenance will repair as needed until funding is secured	2	END	L	\$/SF @ (figure) 50K SF + MU's							●	●			\$525,000	55.30%	\$815,325		\$815,325		
Storm Drain System	Cast iron and some PVC	Beyond its service life. Some piping has been upgrded thru renovation projects. Maintenance will repair as needed until funding is secured	2	END	L	\$/SF @ (figure) 50K SF + MU's							●	●			\$225,000	55.30%	\$349,425		\$349,425		
Natatorium Systems	Pool HX via boiler water.	Expected service life of 15 years--replace Maintenance will repair as needed until funding is secured	2	ESL	L	Replace HX in kind w/appurtenances + MU's							●	●			\$50,000	55.30%	\$77,650		\$77,650		

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RIVERTON ELEMENTARY SCHOOL		LEGEND																			
Condition Level		Life Cycle (Age Factor)		Action Priority																	
0 - Failed - Not Functional		N - New / Recent		I - Immediate (Year 0)																	
1 - Poor - Failure Anticipated		ESL - w/In Expected Service Life		S - Short Term (Years 1-5)																	
2 - Fair - Functions, Service Required		END - Nearing End of Service Life		L - Long Term (Years 6-20)																	
3 - Good - Functional & Maintained		OB - Obsolete		N/A - Not Applicable																	
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations

MECHANICAL

Air Conditioning (Yes/No/Limited)	Yes-- (package 20 ton roof top-community), other package roof top units (ACU-1 thru 3) and RTU-1. Indoor AHUs have chilled water cooling. MscI split AC units.	Units are 2001 to 2014 mfg dates, useful service life of 20 years. Replace systems in kind over next 10 - 15 years. Maintenance will repair as needed until funding is secured	3	ESL	L	Figure allowance (10 RTUs) at 25K/unit +MU's											\$380,000	55.30%	\$590,140		\$590,140		
Cooling Plant	Vintage chiller with indoor condenser AHU.	Beyond service life. Replace with 40 ton air cooled chiller Maintenance will repair as needed until funding is secured	1	END	L	(1) 50 ton air cooled											\$180,000	55.30%	\$279,540		\$279,540		
Air Handling Unit Systems	Most indoor AHUs cooling replaced vintage AHUs between 2003-2006 (boiler room mezzanine). Remaining indoor AHUS with cooling are vintage mfg.Penthouse H&V units replaced vintage between 2006-8.	Exising vintage AHUs with cooling are beyond service life and should be replaced with new units. (AHU-6, 7 & 8)?? Maintenance will repair as needed until funding is secured	2	END	L	(4) AHUs (5,000 cfm) w/HW & CHw coils.											\$350,000	55.30%	\$543,550		\$543,550		
Pumps	(1) HW pump recently replaced. Other CHW and HW pumps are aged.	Add new 2nd matched heating pump for lead/lag operation. Replace CHW pumps for lead/lag operation--replace with chiller. Maintenance will repair as needed until funding is secured	2	END	L	Add (1) CHW pump w/Lead/lag											\$25,000	55.30%	\$38,825		\$38,825		
Terminal Unit Systems	Some vintage fintube and CUH heating, other has been upgraded with the 2006 renovations and AHU-VAV replacement.	Vintage units are beyond service life. 2006 renovation unit have an expected service life of 20 years (10 years left) Maintenance will repair as needed until funding is secured	2	ESL	L	\$/SF @ 50K SF											\$375,000	55.30%	\$582,375		\$582,375		
Exhaust Systems	Most exhaust fan units were replaced with the 2006-8 HVAC renovation projects. Some vintage fans remain in service.	Vintage exhaust fans remaining in service are beyond useful service life and should be replace in kind. Maintenance will repair as needed until funding is secured	2	END	L	Replace fans in kind. Figure (10) units.											\$60,000	55.30%	\$93,180		\$93,180		
Piping System	A good portion of the existing HW piping has been modified and replaced during the 2006-8 HVAC renovations upgrade. CHW piping is mainly limited to the boiler room mezzanine	Remaining vintage HVAC piping should be inspected and replaced where beyond service life. CHW piping can be replaced as needed at time of chiller replacement. Maintenance will repair as needed until funding is secured	3	ESL	L	\$/SF @ 40K SF											\$850,000	55.30%	\$1,320,050		\$1,320,050		
Automatic Temperature Controls	Pneumatic vintage and DDC electronic. Many pneumatic actuators have been replaced over the years. DDC replaced pneumatic controls with HVAC equipment during the 2006-8 renovations.	Vintage pneumatics remaining are beyond the useful service life and should be replaced. Replace complete pneumatic controls at time of remaining Indoor AHU and Chiller replacement. Maintenance will repair as needed until funding is secured	2	END	L	55,000 gsf suggest \$3 sf new controls = \$165,000 + MU's											\$248,325	55.30%	\$385,649		\$385,649		
Natatorium Systems	Pool dehumidfyer with OA unit, est. mfg 2004. Continuous operating issues & odors.	service life estimate 15 years -- replace Maintenance will repair as needed until funding is secured	3	ESL	L	(1) 9,000 cfm dehumid.											\$200,000	55.30%	\$310,600		\$310,600		

ELECTRICAL

Distribution System

Panels	Most panels are 2001 vintage or newer and are a mixture of Siemens panelboards installed during renovations and expansions that occurred between 2001 and 2007, and Square D panelboards that were recently installed to replace old original FPE panelboards. A 1976 vintage FPE fusible-switch type 208/120 volt panelboard and transformer remain in the main electric room, as well as a 1976 vintage transformer and circuit breaker panelboard located in the Mechanical Mezzanine. It was noted that two panels are located in a custodial closet and, as such, do not have adequate clear working clearance in front of them.	Replace 1976 vintage panelboards and transformers. Relocate custodial items from closet near gym to provide clear space in front of panels.	2	END	L	Carry Power distribution replacement for20% of 104,100 sf											\$15,000	55.30%	\$23,295			\$23,295	
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RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/in Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Motor Controls	Two 1976 vintage FPE motor control centers are located in the Mechanical Mezzanine. These have exceeded their anticipated useful life.	Replace motor control centers.	1	OB	L	Carry \$22,000 + MU's							●	●			\$33,110	55.30%	\$51,420			\$51,420	
Wiring	Building wire in conduit. The wiring to 1976 vintage panelboards, transformers, and motor control centers has exceeded its anticipated useful life.	Update wiring in conjunction with equipment updates.	2	END	L	Carry power distribution wiring system replacement for 10% of 140,100 sf							●	●			\$18,600	55.30%	\$28,886			\$28,886	
Branch Circuits	Based on what can be seen in a visual inspections, branch circuits are a mixture of building wire in conduit and MC cable. Some abandoned temporary lighting and wiring was observed at an open ceiling in an IDF closet.	Remove abandoned temporary lighting and wiring.	2	ESL	L	Carry \$2,000 + MU's							●	●			\$3,010	55.30%	\$4,675			\$4,675	
Site Lighting (type & material)	Utility-owned pole mounted flood fixtures. Some outdoor areas are not illuminated to levels recommended by IES,	Provide full-cutoff LED fixtures to provide outdoor illumination levels as recommended by IES.	2	ESL	L	Carry (6) 20' high LED pole lights							●	●			\$54,000	55.30%	\$83,862			\$83,862	
Exterior Building Lighting	Mixture LED wall packs and HID wall packs.	Replace HID units with LED as they fail	2	END	L	Carry replacement of (27) LED wall packs							●	●			\$24,300	55.30%	\$37,738			\$37,738	
Emergency Lighting	Emergency battery units with integral and remote incandescent heads. Illuminated exit signs are LED. There is no emergency light at the exterior of building exits.	Replace older units as they fail. Provide outdoor emergency lighting at building exits. All units will reach the end of their anticipated useful lives within 20 years	2	END	L	Carry (15) outdoor units and (30) indoor units		●					●	●			\$38,400	55.30%	\$59,635			\$59,635	
Interior Lighting																							
Classrooms	Mix of recessed grid troffers and parabolics utilizing T8 fluorescent lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L	Carry complete interior lighting replacement for 104,100 sf							●	●	●		\$1,332,000	55.30%	\$2,068,596		\$2,068,596		
Offices	Mix of recessed grid troffers and parabolics utilizing T8 fluorescent lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L								●	●	●								
Corridors	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L								●	●	●								
Toilets	Various fluorescent fixtures utilizing T8 lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L								●	●	●								
Mech/Storage	fluorescent strips with T8 lamps in some areas. Some mechanical room lighting is incandescent.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L								●	●	●								
Assembly	Mix of incandescent downlights and recessed T8 fluorescent fixtures with parabolic diffusers.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L								●	●	●								
Gym	T8 fluorescent high bays	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed until funding is secured	2	ESL	L								●	●	●								
Data System (& Service)	Cable plant has been updated to Category 6, but the old cables and infrastructure were abandoned in place.	Remove abandoned cables and infrastructure	2	ESL	L	Carry \$3000 + MU's							●	●			\$4,515	55.30%	\$7,012	\$7,012			
																	Total Years 6 - 10		\$9,589,777	\$132,333	\$8,930,255	\$317,158	\$210,031

RIVERTON ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
Main Entrance																			
Floor & Base Finish Materials	Main Entry - 6" x 6" ceramic tile floor and tile base. Some tiles are broken, missing. First Grade Entry - VCT tile floor, new. Community Center Entry - 6" x 6" ceramic tile floor and tile base. In good condition.	Replace broken and missing tiles.	2	ESL	L	Replace approx. 4 SF of broken, missing ceramic tile. @ \$35 patch = \$140 + MU's							●	●			\$215	93.55%	\$416
Entrance Mats	Main Entry - Recessed, aggressive grade walk-off mat provided in main entry vestibule. Medium grade walk-off provided in sequence after. No mild-grade walk-off mat provided inside school lobby. First Grade Entry - Proper walk-off sequence provided. Community Center Entry - Proper walk-off sequence provided.	Main entry - provide mild-grade walk off mat in school lobby.	2	ESL	L	Install approx. 200 SF mild-grade walk-off at main entry. @ \$20 sf = \$4,000 + MU's							●	●			\$6,020	93.55%	\$11,652
Corridors																			
Floor & Base Finish Materials	VCT with rubber base, in good condition. Ceramic tile, ceramic base, in good condition. Carpet with rubber base, in fair condition.	Carpet is beginning to show its age, wear and tear. Consider replacing with carpet tile within the next 10 years.	2	END	L	Remove 3,700 SF existing carpet. Replace with equivalent SF of carpet tile. @ \$6 w/demo & replace = \$22,200 + MU's							●	●			\$33,415	93.55%	\$64,675
Wall Projecting Objects	In main entry lobby, wall-mounted defibrillator protrudes further than 4" off wall, and is below 80" in height. Wall-mounted donation bucket has the same issue.	Provide new recessed or semi-recessed defibrillator wall cabinet. Install cabinet in existing wall. Replace donation bucket with slimmer vessel.	0	OB	L	Provide 1 new recessed or semi-recessed defibrillator wall cabinet. Remove approx. 4 SF of existing brick to mount new cabinet. Refinish wall. 1 new donation bucket, 4" or less in protrusion profile. Allow \$1,500 + MU's							●	●			\$2,260	93.55%	\$4,374
Secondary Exits (no stairs)																			
Floor & Base Finish Materials	Typically exposed concrete floors, no base. Concrete floors showing signs of deterioration, staining. Loose walk off mats sometimes provided.	Recommend providing consistent walk-off sequence at secondary entries. Provide aggressive grade walk-off material at all secondary entries to protect floor finishes inside.	2	END	L	Approx. 400 SF new aggressive grade walk-off flooring. @ \$1750 recycled rubber tire matts = \$7,000 + MU's							●	●			\$10,535	93.55%	\$20,390
Door Material (Including Frame & Glazing)	Painted HM door and frame. No lite. Paint on some secondary entry doors are faded, chipping.	Refinish, repaint all secondary entry vestibule doors.	2	ESL	L	Approx. 2 double HM door systems (10' x 10' system including transom and sidelites, 3' doors) to be refinished, repainted. 55 lf ea frame run @ \$7.50 = \$415 + \$125 ea leaf = \$665 ea set x 2 = \$1,330 + MU's							●	●			\$2,005	93.55%	\$3,881
General Purpose Classrooms																			
Floor & Base Finish Materials	Most general purpose classrooms have carpet floors. There are no glaring deficiencies with the finish, however staining and tears indicate that the carpet will be nearing the end of its life soon. Rubber base is dented and scuffed, peeling away from walls in areas.	Replace classroom floor finishes and base within the next 10 years.	2	END	L	Remove approx. 26,000 SF existing carpet & remove, replace approx. 3,700 LF rubber base., replace with equal SF of new carpet tile. @w/demo & replace & new base = \$156,000 + MU's							●	●			\$234,780	93.55%	\$454,417

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Wall Finish Materials	Primary perimeter walls for each classroom node are painted CMU block walls. Dividing walls between classrooms are folding operable walls, extending to ceiling. These operable walls haven't been opened in decades. Some have base cabinets against them, others have been plastered with tackboard and posters.	Remove folding operable walls dividing classrooms with full height GWB partitions.	0	OB	L	Remove approx. 750 LF folding operable walls dividing classrooms. Replace these with equal LF of full height GWB partitions, 6" stud, GWB on either side, acoustically rated, extending to underside of roof deck. 750 sf operable wall demo @ \$5 = \$3,750 + MU's; 900 sf allowance new studs & acoustic insulation & paint = \$9,000 + MU's = TOTALS \$12,750 + MU's							●	●			\$19,190	93.55%	\$37,142
Ceiling Finish Materials	2x4 ACT. Generally, tiles are beginning to sag and become discolored. There are isolated areas of cracking and failing tiles, as well as discoloration from dripping water above.	Replace ceiling tiles as part of building-wide ceiling replacement. Consider a 10 year item.	2	END	L	Remove approx. 26,000 SF existing ACT, replace with equal SF of new ACT. New grid assumed, 2 x 4 square edge assumed @ \$4.50 demo & replace = \$117,000 + MU's							●	●			\$176,085	93.55%	\$340,813
Visual Display Surfaces	Tackboards, whiteboards, chalkboards.	Remove and replace all chalkboards with whiteboards.	0	OB	L	Remove approx. 100 SF chalkboard/classroom (2,400 SF total). Replace with equal SF of whiteboard. @ \$25 demo & replace = \$60,000 + MU's							●	●	●		\$90,300	93.55%	\$174,776
Art Classrooms																			
Wall Finish Materials	Brick, in good condition. Tackable canvas panel on masonry wall, paint is beginning to fade and chip, material is deteriorating. Temporary part height GWB walls.	Remove canvas panel along masonry wall. Replace part-height walls with full height GWB partitions. Provide dividing wall between corridor and art room.	2	END	L	Remove and replace approx. 1000 SF of existing tackable canvas panel with new tackable fabric wrapped wall panel. @ \$20 w/demo & replace = \$20,000 + MU's; Remove approx. 100 LF part-height wall x 4' ht assumed @ \$4 = \$1,600 + MU's; Replace these with equal LF of full height GWB partitions 12' ht assumed = 1,200 sf new 6" stud, GWB on either side, acoustically rated, extending to underside of roof deck + painted @ \$10 sf = \$12,000 + MU's; . Provide 7 LF of full height GWB partition between corridor and art room, 6" stud, GWB on either side, acoustically rated, extending to underside of roof deck. 100 sf @ \$10 sf painted = \$1,200 + MU's Assume 8' ht. (existing) 12' OK							●	●			\$52,375	93.55%	\$101,372

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Door Material (Including Frame & Glazing)	There is no main art room door, open to corridor. Doors to storage room are wood veneer, no glazing, with wood frame. Showing heavy wear and tear.	Provide new door in new GWB wall framed between corridor and art room. Replace 3 existing doors with new doors.	2	END	L	Provide 1 (3' x 7') wood veneer door, HM frame in new GWB wall framed between corridor and art room, length of art open to corridor not know, assume 25' = \$4,650 partition & door + MU's; Remove (3) existing wood doors/frames with partial height wall removal. Replace with (3) new (3' x 7') wood veneer doors with HM frames. \$1,500 ea door demo & replace = \$4,500 + MU's							●	●			\$13,775	93.55%	\$26,662
Technology Classrooms																			
Floor & Base Finish Materials	Carpet floor, rubber base. In fair condition.	Replace floors if corridor (and therefore main library) carpet is replaced.	3	ESL	L	Replace approx. 400 SF carpet with equivalent SF of carpet tile. @ \$6 demo & replace & new base = \$2,400 + MU's							●	●			\$3,615	93.55%	\$6,997
Special Education Classrooms (Large Learning Center)																			
Floor & Base Finish Materials	Carpet floor, rubber base. Carpet is heavily stained throughout. Base is damaged, peeling away from wall.	Replace existing carpet with new carpet tile.	2	END	L	Replace approx. 1,800 SF carpet with equivalent SF of carpet tile. @ \$6 demo & replace & new base = \$10,800 + MU's							●	●			\$16,255	93.55%	\$31,462
Wall Finish Materials	Painted CMU, in good condition. Painted GWB - a few areas where wall was patched and not repainted. Wall panels over CMU walls are heavily damaged, dented. Canvas surface peeling away.	Patch and repaint GWB walls. Remove existing wall panels. Expose and refinish CMU walls behind.			L	Patch and repaint approx. 400 SF GWB partition. @ \$5 sf =\$2,000 + MU's Remove approx. 350 SF wall panel. Repaint same SF CMU behind. \$2.75 sf remove panel 7 paint cmu = \$965 + MU's							●	●			\$4,465	93.55%	\$8,642
Door Material (Including Frame & Glazing)	Painted HM doors and frames, narrow lite with safety glazing. Both sets of main doors are showing heavy wear and tear. Wood veneer doors with HM frame providing access to side rooms, in fair condition.	Remove and replace (2) sets of double doors into learning center room.	2	END	L	Remove (2) existing double doors, replace with (2) new wood veneer double doors with HM frame. Provide new closers. \$1,550 ea set w/new lockset & closer & demo = \$6,200 + MU's							●	●			\$9,335	93.55%	\$18,068
Performing Arts - Stage																			
Floor & Base Finish Materials	Wood floor, vented steel base. In fair condition, but showing signs of wear and tear, denting, chipping.	Replace wood stage floor within the next 10 years. Replace vented steel base with new vented rubber base.	2	END	L	Remove approx. 700 SF wood flooring, replace with equal SF new wood flooring., \$15 demo & replace, assumes furred new floor = \$10,500 + MU's; Remove 150 LF steel base, replace with equal LF new vented rubber base. \$10 demo & replace = \$1,500 + MU's							●	●			\$18,060	93.55%	\$34,955

RIVERTON ELEMENTARY SCHOOL

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Performing Arts - Stage																			
Door Material (Including Frame & Glazing)	Painted HM doors and frames, no lite. Both stage doors are showing heavy wear and tear.	Remove and replace (2) sets of single doors into stage.	2	END	L	Remove (2) existing single (3') doors, replace with (2) new wood veneer single (3') doors with HM frame. Provide new closers. \$1,550 ea set demo & replace & new lockset & closer = \$3,100 + MU's							●	●			\$4,670	93.55%	\$9,039
Performing Arts - Music Rooms																			
Floor & Base Finish Materials	Carpet floor, rubber base. Carpet is heavily stained throughout. Base is damaged, peeling away from wall.	Replace existing carpet with new carpet tile.	2	END	L	Replace approx. 1,100 SF carpet with equivalent SF of new carpet tile. @ \$6 demo & replace & new base = \$6,600 + MU's							●	●			\$9,935	93.55%	\$19,229
Casework	Wood laminate wardrobe. Showing damage from scratching and removed hardware. Delamination at base.	Remove and replace wardrobe.	2	END	L	Provide (1) 48" wide tall cabinet unit with adjustable shelves and lockable doors. \$750 + MU's							●	●			\$1,130	93.55%	\$2,187
Visual Display Surfaces	Tackboards, chalkboards.	Remove and replace chalkboards with whiteboards.	0	OB	L	Remove approx. 40 SF (2 boards) existing chalkboard, replace with equal SF (2 boards) whiteboard. @ \$25 demo & replace = \$1,000 + MU's							●	●	●		\$1,505	93.55%	\$2,913
Door Material (Including Frame & Glazing)	Painted HM doors and frames, narrow lite with safety glazing. Both sets of main doors are showing heavy wear and tear.	Remove and replace (2) sets of double doors into music room.	2	END	L	Remove (2) existing double doors, replace with (2) new wood veneer double doors with HM frame. Provide new closers. @ \$1,550 leaf demo & replace & new lockset & closer = \$6,200 + MU's							●	●			\$9,335	93.55%	\$18,068
Library / Media Center																			
Floor & Base Finish Materials	Carpet floor, rubber base. In fair condition.	Replace floors if corridor carpet is replaced.	3	ESL	L	Replace approx. 5,300 SF carpet with equivalent SF of carpet tile. @ \$6 demo & replace & new base = \$31,800 + MU's							●	●			\$47,860	93.55%	\$92,633
Wall Finish Materials	Brick veneer, in good condition. Partial-height GWB walls for separate reading areas.	Replace all partial-height walls with full-height GWB walls.	0	OB	L	Remove approx. 100 LF part-height wall. Replace these with equal LF of full height GWB partitions, 6" stud, GWB on either side, acoustically rated, extending to underside of roof deck. 1,400 sf @ \$10 painted = \$14,000 wall + \$500 demo = \$14,500 + MU's							●	●			\$21,825	93.55%	\$42,242

RIVERTON ELEMENTARY SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Workroom / Staff Areas	Workroom/Staff areas in back, similar finishes, condition level. Laminate casework in these areas are heavily worn, dated.	If carpet is replaced in library, also replace carpet in workroom areas. Recommend replacing aging veneer casework with more resilient plastic laminate casework with resilient edge banding.	3	ESL	L	Replace approx. 700 SF carpet with equivalent SF of carpet tile. @ \$6 demo & replace & new base = \$4,200 + MU's; (4) 36" wide wall cabinets with adjustable shelves and lockable doors. 12 lf @ \$125 demo & replace =\$1,500 + MU's; (4) 36" wide base cabinets with adjustable shelves and lockable doors. 12 lf @ \$275 demo & replace =\$3,300 + MU's = = = TOTALS \$9,000 + MU's											\$13,545	93.55%	\$26,216
Gymnasium																			
Ceiling Finish Materials	Exposed steel deck, joists. Vestibule areas have 2x4 ACT. Tiles in poor condition, or missing entirely.	Replace areas of 2x4 ACT tile with new tile.	1	END	L	Remove 150 SF existing ACT, replace with equivalent SF of new 2x4 ACT. New grid, \$4.25 sf demo & replace = \$640 + MU's											\$965	93.55%	\$1,868
Backstops (quantity, mounting type, manual/motorized)	2 Main hoops, glass backboards, retractable, motorized. In good condition. 4 practice hoops, retractable, manual. Backboard heavily worn, showing damage.	Replace 4 practice backboards, hoops.	2	END	L	Remove (4) existing backboards, hoops. Replace with (4) new backboards, hoops. \$5,000 ea = \$20,000 + MU's											\$30,100	93.55%	\$58,259
Door Material (Including Frame & Glazing)	Painted HM double doors and frames, narrow lite with safety glazing. Both sets of main doors are showing heavy wear and tear. Office and storage doors are painted HM single doors and frames, showing heavy wear and tear.	Remove and replace double doors associated with gymnasium. Remove and replace single doors associated with gymnasium.	2	END	L	Remove (4) existing double doors, replace with (4) new wood veneer double doors with HM frame. Provide new closers. Remove (3) existing single doors, replace with (3) new wood veneer single doors with HM frame. Provide new closers. \$1,550 per leaf demo & replace & new lockset & closer =11 leaves = \$17,050 + MU's											\$25,665	93.55%	\$49,675
Natatorium																			
Floor & Base Finish Materials	Ceramic tile floor, no base. Tile is showing its age. Areas of broken tile. Discoloration around floor mounted fixtures. Generally speaking, floor appears to be nearing the end of expected service life.	Continue to maintain floor. Replace tile floor within the next ten years.	2	END	L	Replace approx. 5,000 SF ceramic tile pool floor. \$20 sf demo & replace = \$100,000 + MU's											\$150,500	93.55%	\$291,293
Floor Sealants	Floor sealants and control joints are becoming damaged, peeling in some locations.	Replace all floor sealants within the next 5 years.	2	END	L	Remove and replace approx. 400 LF floor sealant. @ \$3.50 lf rout & replace = \$1,400 + MU's											\$2,110	93.55%	\$4,084

RIVERTON ELEMENTARY SCHOOL

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Door Material (Including Frame & Glazing)	Painted HM doors and frames, no lites. Main doors are showing heavy wear and tear. Office door, and doors to locker rooms also showing heavy wear and tear.	Remove and replace main set of double doors to the natatorium. Remove and replace single doors associated with locker room/office access from natatorium.	2	END	L	Remove (1) existing double doors, replace with (1) new HM double door with HM frame. Provide new closers. Remove (5) existing single doors, replace with (5) new HM single doors with HM frame. Provide new closers. \$1,550 leaf demo & replace & new lockset & closer = 7 ea = \$10,850 + MU's											\$16,330	93.55%	\$31,607
Cafetorium																			
Floor & Base Finish Materials	VCT floor, rubber base. VCT floor is well maintained, however is approaching the end of its life. Areas of discoloration, patched tiles. Base is damaged, peeling away from wall.	Recommend replacing VCT floors within the next 10 years. Remove and replace existing rubber base with new.	2	END	L	Remove 3,400 SF existing VCT, replace with equal SF of new VCT & remove and replace approx. 250 LF rubber base with new.. \$5 sf demo-prep-replace & new base = \$17,000 + MU's;											\$25,585	93.55%	\$49,520
Wall Finish Materials	Painted CMU. Paint is wearing away, scuffed from heavy traffic. Wall panels over CMU walls are heavily damaged, dented. Canvas surface peeling away.	Repaint all CMU walls. Remove existing wall panels. Expose and refinish CMU walls behind.	2	ESL	L	Repaint approx. 2,800 SF CMU walls. @ \$2 prep & repaint filler coat = \$5,600 + MU's; Remove approx. 1,000 SF existing wall panel. Repaint 1,000 SF CMU wall behind it. @ \$3 demo-prep-repaint = \$3,000 + MU's											\$12,945	93.55%	\$25,055
Door Material (Including Frame & Glazing)	Painted HM door and frame. Narrow lite glazing. Door showing heavy wear and tear from high traffic. Other doors within cafetorium space should be replaced, also showing heavy wear and tear.	Remove and replace existing doors with new doors.	2	END	L	Remove and replace (5) existing sets of double HM doors and frame with new wood veneer doors with HM frames. Remove and replace (3) existing sets of single HM doors and frames with new wood veneer doors with HM frames. \$1,550 leaf demo & replace & new lockset & closer = 13 leaves = \$20,150 + MU's											\$30,330	93.55%	\$58,704
Kitchen and Servery																			
Ceiling Finish Materials	2x4 ACT. Tile is broken, discolored, and sagging. At the end of its expected service life.	Replace ACT tile.	2	END	L	Remove and replace approx. 1,200 SF 2x4 ACT with new ACT tile. New grid, \$4.25 sf = \$5,100 + MU's											\$7,680	93.55%	\$14,865
Door Material (Including Frame & Glazing)	Painted HM doors and frames, no lites. Doors showing heavy wear and tear from high traffic. Frames beginning to rot near the floor.	Remove and replace existing HM doors with new wood veneer doors.	2	END	L	Remove and replace (1) existing set of double HM doors and frame with new (3') wood veneer doors with HM frame. Remove and replace (9) existing sets of single HM doors and frames with new (3') wood veneer doors with HM frames. \$1,550 leaf demo & replace & new lockset & new closer = 11 leaves = \$17,050 + MU's											\$25,665	93.55%	\$49,675

RIVERTON ELEMENTARY SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Teacher Workroom and Staff Areas																			
Ceiling Finish Materials	2x4 ACT. Tile is broken, discolored, and sagging. At the end of its expected service life.	Replace ACT tile.	2	END	L	Remove and replace approx. 500 SF 2x4 ACT with new ACT tile. New grid, \$4.25 sf = \$2,125 + MU's							●	●			\$3,200	93.55%	\$6,194
Door Material (Including Frame & Glazing)	Painted HM door and frame, no lite. Doors showing heavy wear and tear from high traffic.	Remove and replace existing HM doors with new wood veneer doors.	2	END	L	Remove and replace (1) existing single HM door and frame with new (3') wood veneer door with HM frame. \$1,550 demo & replace & new lockset & closer + MU's							●	●			\$2,335	93.55%	\$4,519
Nurse and Health																			
Privacy Curtains (no. of rest areas)	(1) Resting cot. No privacy curtain.	Install ceiling mounted privacy curtain around cot.	2	ESL	L	Install ceiling mounted privacy curtain around single 3' x 7' cot. \$350 + MU's							●	●			\$530	93.55%	\$1,026
Door Material (Including Frame & Glazing)	Newer wood veneer doors with painted HM frame. Older HM door with painted HM frame.	Replace older HM door and frame.	3	ESL	L	Remove and replace (1) existing single HM door and frame with new (3') wood veneer door with HM frame. \$1,550 demo & replace & new lockset & closer + MU's							●	●			\$2,335	93.55%	\$4,519
Administration Office Area																			
Floor & Base Finish Materials	Mix of VCT and carpet. Rubber base. VCT is in good condition. Carpet is heavily worn, stained.	Replace carpet within the next 10 years.	2	END	L	Replace approx. 3,600 SF carpet with same SF of carpet tile. @ \$6 demo-prep-replace & new base = \$21,600 + MU's							●	●			\$32,510	93.55%	\$62,923
Ceiling Finish Materials	2x4 ACT. Tile is broken, discolored, and sagging. At the end of its expected service life.	Replace ACT tile.	2	END	L	Replace approx. 4,600 SF 2x4 ACT New grid \$4.25 sf = \$19,550 + MU's							●	●			\$29,425	93.55%	\$56,952
Conference Room	Wood veneer casework. Typically, casework is in poor condition. Showing considerable denting, scratching, and discoloration. Non compliant sink	Recommend replacing aging wood veneer casework with more resilient plastic laminate casework with resilient edge banding.	2	END	L	(1) 48" wide tall cabinet units with adjustable shelves and lockable doors. \$750 + MU's; (2) 36" wide wall cabinets with adjustable shelves and lockable doors. 6 lf @ \$125 demo & replace = \$725 + MU's; (2) 36" wide base cabinets with adjustable shelves and lockable doors. 6 lf @ \$275 demo & replace =\$1,650 + MU's; (1) 24" deep x 36" long plastic laminate counter with resilient edge banding, knee clearance below counter, and stainless steel sink with faucet. 3 lf @ \$90 demo & replace = \$270 + 1 sink @ \$1,500 = \$1,770 + MU's = = TOTALS = \$4,895 + MU's							●	●			\$7,370	93.55%	\$14,265

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Door Material (Including Frame & Glazing)	Mostly painted HM doors and HM frames. Some wood veneer doors. Mix of no, narrow, and 1/2 lites. Paint on HM doors and frames beginning to wear away.	Refinish, repaint HM doors and frames.	2	ESL	L	Refinish, repaint approx. (20) single HM doors and frames.\$200 prep & repaint set = \$4,000 + MU's							●	●			\$6,020	93.55%	\$11,652
Student Toilet Rooms (multiple-user)																			
Ceiling Finish Materials	2x4 ACT. Tile is broken, discolored, and sagging. At the end of its expected service life.	Replace ACT tile.	2	END	L	Replace approx. 700 SF 2x4 ACT New grid \$4.25 sf = \$2,975 + MU's							●	●			\$4,480	93.55%	\$8,671
Staff Toilets																			
Floor & Base Finish Materials	Epoxy coated floor, turns up into wall base. Floors typically damaged, discolored, and cracking.	Replace epoxy floor with ceramic tile floor.	2	END	L	Remove and replace approx. 500 SF epoxy floor with equivalent SF tile floor.\$17.50 sf demo=prep=new floor & tile base = \$8,750 + MU's							●	●			\$13,170	93.55%	\$25,491
Portland Public Library Branch																			
Wall Finish Materials	Painted CMU, generally in good condition. Large crack through CMU/mortar near library corner wall.	Remove broken CMU, replace with new CMU, repaint.	2	END	L	10 LF large cracking through CMU block and mortar. Remove and tooth in approx. 20 SF new CMU, repaint. @ \$25 demo & replace = \$500 + MU's							●	●			\$752	93.55%	\$1,455
Ceiling Finish Materials	2x4 ACT. Tile is broken, discolored, and sagging. At the end of its expected service life.	Replace ACT tile.	2	END	L	Replace approx. 3,800 SF 2x4 ACT New grid \$4.25 sf = \$16,150 + MU's							●	●			\$24,310	93.55%	\$47,052
Door Material (Including Frame & Glazing)	Main entry doors - painted HM doors and frames, narrow lites with safety glazing. Other library doors are showing same wear and tear from heavy traffic.	Recommend replacing HM door entry system with aluminum storefront system, aluminum doors. Replace all library HM doors and frames.	2	END	L	Approx 14' x 10' aluminum storefront system with set of double aluminum doors on closers, and with panic hardware.\$15,500 demo exist & new alum sidelite-transom 60 sf @ \$75 + 4 leaves \$2,500 ea = \$15,500 + MU's Remove and replace (1) existing set of double HM doors and frame with new (3') wood veneer doors with HM frame. \$1,550 interior door assumed demo & replace & new lockset & closer = \$1,550 + MU's Remove and replace (4) existing sets of single HM doors and frames with new (3') wood veneer doors with HM frames. \$1,550 interior door assumed demo & replace & new lockset & closer = \$6,200 + MU's OK							●	●			\$34,995	93.55%	\$67,733
Community Center Room																			
Floor & Base Finish Materials	VCT, carpet with rubber base. Carpet showing signs of wearing, staining.	Replace carpet within the next 10 years.	2	END	L	Replace approx. 1,200 SF existing carpet with equivalent SF new carpet tile. @ \$6 sf demo-prep-replace & new base = \$7,200 + MU's							●	●			\$10,840	93.55%	\$20,981

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

			SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
ELECTRICAL																			
Fire Alarm	Faraday addressable control panel. System generally complies with current standards and ADA, although some notification circuit power supplies have batteries that have exceeded their anticipated useful life.	Replace any system batteries that are older than five years old. System will reach the end of its anticipated useful life within 15 years.	2	ESL	L	Carry complete system replacement for 104,100 sf for long term		<div></div>							\$196,000	93.55%	\$379,358		
															Total Years 11 - 15		\$2,900,612		

RIVERTON ELEMENTARY SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Spalling, Staining, Efflorescence	Efflorescence appears to be an issue on the exterior of the pool building. Isolated areas of brick cracking. Areas of staining. Brick mortar on the exterior of the pool building, gym building, interior courtyard, and volume providing roof access is beginning to deteriorate, wear away.	Remove masonry veneer at areas showing signs of efflorescence to discover the cause of the problem and correct the issue. Remove and replace cracked brick. Light pressure-wash brick. Repoint brick.	2	ESL	L	Total of 2,300 Square Feet of efflorescence to be repaired, \$25 sf remove & replace & correct = \$57,500 + MU's; Replace 20 SF brick, 2 separate locations, 40 sf total @ \$25 = \$1,000 + MU's; Light pressure-wash approx. 10,500 SF brick. @ \$1 = \$10,500 + MU's Approx. 10,500 SF brick repointing. @ \$7.50 = \$78,750 + MU's											\$222,365	116.55%	\$481,531
Foundation	Concrete foundation. Parge coat is deteriorating, chipping away.	Re-parge exposed foundation at Kindergarten addition.	2	ESL	L	Approx. 250 SF foundation re-parging. @ \$5 = \$1,250 + MU's											\$1,885	116.55%	\$4,082
Windows																			
Frame Materials	Thermally broken aluminum window units and storefront systems provided in new kindergarten and community center portions of building. All in good condition. Painted HM storefront systems provided for each classroom node. Systems protected by soffit overhang typically in good condition. HM systems with no overhang protection (Public library, admin area) the paint on the HM system frames is worn, chipping away.	Refinish and repaint HM system frames that have no overhang protection.	2	ESL	L	Refinish, repaint (8) 10' x 7' HM storefront system frames. Approx 300 lf HM frame run to be repainted, allow \$7.50 per lf to scrape-pre-repaint = \$2,250 + MU's											\$3,390	116.55%	\$7,341
Lintels	Painted steel lintels. Lintels are good condition, however paint is wearing/chipping away.	Refinish, repaint all lintels.	2	ESL	L	Approx. 275 SF lintel refinishing, repainting @ \$10 lf =\$2,750 + MU's											\$4,140	116.55%	\$8,965

RIVERTON ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																				
Exterior Doors (not including Main Entry)																				
Materials	The remaining exterior doors are all painted HM door and frame. Classroom exterior doors are all full lite doors, in a painted HM system. Typically, these systems occur under overhangs and are well protected. Service doors are also painted HM door and frame, no door lites. These doors are typically in poor condition, showing considerable denting, chipping paint. Riverton Library branch HM doors, paint is fading and chipping.	Replace most exterior HM service doors with new HM doors. Repaint HM door and frame.	2	END	L	5 new double (3' door) HM doors and frames, galv construction w/lockset & closer & weatherseal /demo @ \$2.400 ea leaf =\$24,000 + MU's; 5 new single (3' door) HM doors and frames. galv construction w/lockset & closer & weatherseal /demo @ \$2.400 ea leaf =\$12,000 + MU's; Repaint 1 (10' x 10') HM door and frame system = 40 lf frame members @ \$7.50 = \$300 + MU's											\$54,635	116.55%	\$118,312	
Lintels	Lintels appear to be in good condition. Some lintels show minor rusting, paint chipping.	Refinish and repaint 3 exterior lintels at gym volume.	2	ESL	L	Refinish and repaint approx. 30 LF steel lintels. \$10 lf = \$300 + MU's												\$455	116.55%	\$985
Fascia, Trim, Soffits & Overhangs																				
Materials	Painted cementitious soffit material in poor condition, paint is peeling off in many areas.	Remove failing paint and repaint soffits.	2	ESL	L	Approx 2000 sf @ \$5 = \$10,000 + MU's												\$15,050	116.55%	\$32,591
Sealants & Expansion Joints																				
Window / Door Perimeter Sealant	Window and door perimeter sealants in newer portions of building (comm. center, kindergarten) are in good condition. Sealants on older portions of building are beginning to crack and peel.	Remove sealant between top of lintel and bottom of masonry on all building lintels to allow for proper masonry cavity drainage. Within the next 10 years, remove and replace all window and door perimeter sealants.	2	END	L	Remove approx. 450 SF sealant between lintel, masonry @ \$1.50 per lf = \$675 + MU's; Remove and replace approx. 1,200 LF perimeter sealant. @ \$3.50 to rout & replace = \$4,200 + MU's												\$7,340	116.55%	\$15,895
Building Joint Sealant	Building joint sealant in newer portions of building (comm. center, kindergarten) are in good condition. Building sealants on older portions of building are beginning to crack and peel, deteriorate.	Remove existing building joint sealant, replace with new.	2	END	L	Remove and replace approx. 600 LF building sealant. @ \$3.50 to rout & replace =\$2,100 + MU's												\$3,160	116.55%	\$6,843
Flashing																				
Condition of joints	Flashing in typically good condition. One joint where school building meets pool building, flashing joint is in poor condition.	Address one flashing joint. No Action Required on rest of building.	3	ESL	L	Re-flash 5 LF of pool building masonry to school building roof transition. @ \$50 = \$250 + MU's												\$380	116.55%	\$823
Roof Assembly & Flashing																				
Age	1990s, 2007	Budget for replacement towards end of service life	3	ESL	L	106,500 SF EPDM Roofing @ \$12 demo-epdm-R38-tapers-walkways-flash 7 trim (re-use blocking) = \$1,278,000 + MU's;												\$1,923,390	116.55%	\$4,165,101

RIVERTON ELEMENTARY SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Roof Edges and Copings	No parapet. All edges topped with EPDM flashing over roof edging, with a snap on aluminum fascia piece. Fascia pieces on new building are in good condition. Fascia pieces on old building are corroding, discoloring.	Recommend replacing fascia edging on old building - it is nearing the end of its life, and is unsightly.	2	END	L	Remove and replace 2,300 LF aluminum fascia, blocking behind no work, fascia demo & replace @ \$20 lf = \$4,600 +MU's Assume 9" tall flat profile							●	●			\$6,925	116.55%	\$14,996
Condition of Flashings & Transitions	Flashings and transitions in typically good condition. There are two locations where flashing is damaged.	Replace damaged flashing.	2	END	L	Approx. 40 LF new aluminum flashing installed. @ \$20 = \$800 + MU's							●	●			\$1,205	116.55%	\$2,609
Other Observations																			
Outbuilding at building rear	Brick at outbuilding is spalling, mortar in some locations is wearing away. Aluminum fascia is corroded, stained. Double HM door and frame is heavily worn, dented, and rotting.	Replace spalling brick. Repoint brick. Replace aluminum fascia. Replace doors.			L	Replace approx. 20 SF brick. @ \$35 = \$700 + MU's; Repoint approx.30 SF brick. @ \$7.50 = \$225 + MU's; Remove and replace approx. 70 LF aluminum fascia.@ \$20 (blocking remains) = \$1,400 + MU's; Remove and replace set of double HM doors with new double HM door set. frames included @ \$2,400 leaf = \$4,800 + MU's							●	●			\$10,725	116.55%	\$23,225
ELECTRICAL																			
Distribution System																			
Panels	Most panels are 2001 vintage or newer and are a mixture of Siemens panelboards installed during renovations and expansions that occurred between 2001 and 2007, and Square D panelboards that were recently installed to replace old original FPE panelboards. A 1976 vintage FPE fusible-switch type 208/120 volt panelboard and transformer remain in the main electric room, as well as a 1976 vintage transformer and circuit breaker panelboard located in the Mechanical Mezzanine. It was noted that two panels are located in a custodial closet and, as such, do not have adequate clear working clearance in front of them.	Replace 1976 vintage panelboards and transformers. Relocate custodial items from closet near gym to provide clear space in front of panels.	2	END	L	Carry Power distribution replacement for 80% of 104,100 sf							●	●			\$68,900	116.55%	\$149,203
Total Years 16 -20																	\$5,032,503		

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																	0.00%	\$0
																	Total Year 0	\$0

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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King Middle School

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

Category	Description and General Comments	Recommended Action	SEE LEGEND			Quantity Info	EVALUATION CRITERIA								Trade Cost Plus 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	BUDGET			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.				Aesthetics & Appearance	CIP	CIP (Major Renovation)	Maint.

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

SITE

Parking

Paving Materials

Bituminous - faculty lot poor

Mill and overlay faculty parking lot.

2

ESL

S

31,500 s.f.@\$1.25

Number of Spaces (Regular & ADA)

1 ADA at front in bus loop, no panel at curb cut. Not fully striped. No ADA spaces in Faculty Lot.

Stripe ADA space at front loop. Add ADA spaces at faculty lot.

2

ESL

S

2 each \$125
120lf@\$1

Accessible Parking Signage

Add signage at all ADA spaces with painted chevron.

2

ESL

S

3@\$125
120LF@\$1

Vehicular & Pedestrian Circulation

Traffic Markings & Traffic Signage

Signs faded, some with graffiti.

Replace faded/vandalized signs.

2

ESL

S

4@\$125

Walkway Materials

Concrete

Needs repair.

2

ESL

S

400s.f.@\$6

Curb Cuts & Detectable Warning Strips

No panels at bus loop, panels needed where missing along street sidewalks.

Need panel and crossing at park aisle. Panel needed at crossing to Deering Oaks.

2

ESL

S

8 panels-160s.f.@\$60

Pedestrian Ramp Location & Materials

Concrete ramp at bus loop - poor condition. Brick ramp in need of repair.

Concrete in need of repair at bus loop ramp. Brick sidewalk repair at brick ramp. Need panel and crossing at park aisle. Panel needed at crossing to Deering Oaks.

2

END

S

520 s.f.@\$15

DOT School Zone Markings/Signage at Street

Heavily traveled corridor where children cross.

Flashing pedestrian beacon needed at crossing by Deering Oaks.

0

OS

S

2 @\$10,000

Site Drainage

Ponding

Erosion

Add curbing at dumpster - erosive flows.

2

ESL

S

30lf@\$10

Catch Basins

Observed debris.

Add field inlet at front seating. Clean field inlet basin at (Fitz?)/Deering. Recommend beehive cover in grass.

2

ESL

S

Catch Basin: 1 @\$2500
Beehive: 1@\$200
Cleaning: 1@\$200

STRUCTURAL

Foundations / Drainage

A. Slab settlement was noted based on dip at corner of gymnasium; unknown if settlement in this condition was active. Concern over tripping hazard.

Consult with geotechnical engineer; monitor for additional settlement. Remove portion of floor, apply leveler and replace floor.

2

END

S

10 SF@ \$100 = \$1,000 + MU's

Roof Construction

A. At health classroom, broken tectum noted at interface to higher roof; roof does not appear to be designed for drifted snow.

Replace tectum at low roof condition. Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift. Shovel roofs when excessive snow is present.

2

END (at broken tectum area)

S

10 sf tectum replacement & reinforcement allow \$1000 + MU's

Roof Construction

C. High low roof condition likely does not meet current code for snow loading.

Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift. Shoveling of drifts recommended in the interim.

3

ESL

S

3,500 SF add joists or reinforce, sister 2 x 12 48" o.c. \$1.50 sf = \$5,250 + MU's

Exterior Wall Construction

A. Terra cotta tile elements are spalling at edges.

Replace terracotta tile with metal panels

2

END

S

1,500 SF @ \$15 demo-replace = \$22,500 + MU's

Exterior Wall Construction

B. Some masonry cracking/missing mortar noted. Embedded steel beam at boiler room has caused weakened plane and masonry cracking.

Repoint masonry veneer; rebuild condition at boiler room

2

ESL

S

30 sf at boiler room; 300 lf joint repointing; some cracks extend through thickness of wall.\$5,000 allow + MU's

Additional Observations

Brick masonry chimney at roof has some missing mortar and brick spalling.

Repair areas

2

ESL

S

5 sf masonry repair. \$50 sf = \$250 + MU's

BUILDING EXTERIOR

Windows

Frame Materials

Thermally broken aluminum storefront window system, glass block at egress stairs

Glass block at egress stairs is broken in many places - recommend removing and replacing entirely with storefront window system

1

END

S

900 SF \$85 sf w/demo = \$76,500 + MU's

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
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4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
Roof Assembly & Flashing																						
Other	Roof hatch is located less than 10-feet away from roof edge and not code compliant	Recommend installing safety rail along roof edge at area of roof hatch and adding	2	OB	S	10 LF of galvanized roof mounted safety rail \$125 lf = \$1,250 + MU's		●	●							\$1,885	24.65%	\$2,350	\$2,350			
Exterior Stairs and Ladders																						
Locations and Materials	(5) exterior egress door locations are not ADA compliant with steps down to grade or with non-compliant wood ramp	Provide code compliant ramps and handrails			S	(5) locations: at each, assume 100 SF of concrete ramp and 40 LF of galvanized guardrails \$25,000 per location dig-bf- foundation-ramp slab-rails-gravels x 5 = \$125,000 + MU's			●	●						\$188,125	24.65%	\$234,498	\$234,498			
BUILDING INTERIOR																						
Stairs and Exits																						
Guardrails (height, sphere)	32-inch high guardrails do not meet code required height requirement	Replace with painted metal code compliant guardrails with continuous handrails	1	OB	S	(3) stairs, 2 flights each \$4,000 per stair tower demo-replace wall-hand rails = \$12,000 + MU's			●	●						\$18,060	24.65%	\$22,512			\$22,512	
General Purpose Classrooms																						
Door Widths and Clearances	3' x 7" - lack 12-inch ADA clearance on push side due to 30-inch deep wall	If building undergoes major renovation, recommend widening doorways into 50 rooms	1	OB	S	Demolition and replacement of 3'x10' wall at 50 locations reframe door openings \$250 ea = \$12,500 + MU's; \$1,000 new doors & frames x 50 = \$50,000 + MU's = = = TOTALS = \$62,500 + MU's				●						\$94,065	24.65%	\$117,252	\$117,252			
Family & Consumer Science (Home Ec.)																						
Sinks (ADA compliance)	Sinks are not ADA compliant	Provide (1) ADA compliant sink and work station	2	ESL	S	15 LF of PLAM base cabinets @ \$275 w/demo = \$4,125 + MU's; and (1) ADA sink with knee space = \$1,500 + MU's demo-use exist rough = = = TOTALS \$5,625 + MU's				●						\$8,465	24.65%	\$10,552	\$10,552			
Library / Media Center																						
Circulation Desk	Wood veneer with plastic laminate countertop - not ADA accessible	Replace 4-foot section of circulation desk to make ADA compliant	2	OB	S	4 LF circ desk millwork @ \$500 = \$2000 + MU's				●						\$3,010	24.65%	\$3,752	\$3,752			
Gymnasium																						
Drinking Fountains	Yes - not ADA compliant	Replace drinking fountain with ADA compliant drinking fountain	1	OB	S	(1) drinking fountain \$1,500 use exist rough + \$500 cane protectors = \$2,000 + MU's				●						\$3,010	24.65%	\$3,752			\$3,752	
Door Hardware	Code compliant and in good condition except for 2 sets which are non-compliant	Replace (2) door opening hardware sets	2	ESL	S	(2) door hardware sets \$500 ea = \$1,000 + MU's				●						\$1,505	24.65%	\$1,876			\$1,876	
Locker Rooms																						
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	(1) ADA folding bench seat missing from Girls Locker (1) ADA shower head and control missing from Boys locker room	Provide: (1) ADA folding bench seat at Girls Locker (1) ADA shower head and control at Boys locker room	2	ESL	S	(1) ADA folding bench seat at Girls Locker \$500 + MU's; (1) ADA shower head and control at Boys locker room & tie into exist plumbing & patch \$1,000 + MU's				●						\$2,260	24.65%	\$2,817			\$2,817	
Level of Privacy - Short Term	Private changing areas provided at each individual shower stall, however curtains are missing	Install missing curtains at compartments	2	ESL	S	Refer to diagrams provided in the Locker Room Privacy Accomodations Section of this report.										\$12,005	24.65%	\$14,964			\$14,964	
Locker Area Toilet Rooms																						
Plumbing Fixtures	Ceramic wall mounted sinks and urinals, floor mounted toilets - no ADA sinks	Remove and replace (2) ADA lavatories	2	ESL	S	Remove and replace (2) ADA lavatories \$1,500 ea + \$500 alter existing rough = \$2,000 x 2 = \$4,000 + MU's				●						\$6,020	24.65%	\$7,504			\$7,504	
Nurse and Health																						
Sinks (ADA compliance)	Yes, but not ADA compliant	Provide ADA compliant sink and cabinet unit	2	ESL	S	(1) sink and 30-inch casework unit \$300 lf cabinet & solid surface top + \$2,250 new sink & rough = \$3,000 + MU's				●						\$4,515	24.65%	\$5,628			\$5,628	

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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KING MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

FOOD SERVICE

Food Service Equipment

Generally in good condition; prep tables with wood butcher block tops are obsolete

Replace butcher block prep tables with stainless steel prep tables

2

ESL

S

(2) 6-foot tables \$2,500 per table = \$5,000 + MU's

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KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																TRADE COST PLUS 50.5% MARK-UP		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
BUILDING INTERIOR																							
Locker Rooms																							
Level of Privacy - Long Term	Private changing areas provided at each individual shower stall, however curtains are missing	Renovate to combine two shower stalls into on ADA compliant shower stall and changing area	2	ESL	L	Refer to diagrams provided in the Locker Room Privacy Accomodations Section of this report.											\$13,170	55.30%	\$20,453	\$20,453			
Floor & Base Finish Materials	Painted concrete and rubber base	Base is in poor condition - replace as needed	2	ESL	L	300 LF wall base \$3.50 If demo-replace =\$1,050 + MU's											\$1,580	55.30%	\$2,454			\$2,454	
Locker Area Toilet Rooms																							
Toilet Partitions	Painted metal compartments in poor condition	Replace with solid plastic toilet compartments	2	END	L	(2) ADA toilet compartments @ \$1500 w/demo = \$3,000 + MU's; (1) toilet compartment @ \$1,250 w/demo = \$1,250 + MU's											\$6,400	55.30%	\$9,939			\$9,939	
PLUMBING																							
Hot Water System	Electric Water heaters (40 gal) (Mfg 2003) Boiler rm & kitchen. A steam indirect water heater/storage is located under the gym in the crawl space.	Electric Water heaters service life is 15 years--replace. Replace indirect steam water heater gym crawl space with gas fired storage DHW.	2	END	L	(2) 40 gal electric WH with dual 4500 elements. Gas fired 100 gal 199MBH Commercial w/recirc pump & mixing valve											\$30,000	55.30%	\$46,590	\$46,590			
Domestic Distribution System (1950s bldg)	Cooper with lead solder end of service life.	Replace distribution beyond service life Maintenance will repair as needed to keep it going until funds are secured	2	END	L	\$/SF @ 60K SF											\$900,000	55.30%	\$1,397,700		\$1,397,700		
Sanitary Waste and Vent System (1950s bldg)	Cast iron and PVC	Replace sanditary beyond service life Maintenance will repair as needed to keep it going until funds are secured	2	END	L	\$/SF @ 60K SF											\$450,000	55.30%	\$698,850		\$698,850		
Storm Drain System (1950s bldg)	Cast iron and PVC	Replace storm beyond service life Maintenance will repair as needed to keep it going until funds are secured	2	END	L	\$/SF @ 60K SF											\$270,000	55.30%	\$419,310		\$419,310		
MECHANICAL																							
Heating Plant	(2) Burnham 5L-200-50-0-WLB, 6695MBH (1990's mfg) Steam boilers. Boilers deliver both steam and HW throughout the original building and addition. The steam to hot water HX and pumps are located in the boiler room. Combustion air via high/low wall louvers.	Current boilers are about 15 years old with about 10 years service life left. Convert steam boilers/system serving the original building to HW. Maintenance will repair as needed to keep it going until funds are secured	2	END	L	Replace steam boilers with HW gas condensing boilers (3) 2,000 MBH and appurtenances (e.g. expan tank)											\$475,000	55.30%	\$737,675		\$737,675		
Air Conditioning (Yes/No/Limited)	Limited: Roof top AC-1 Serves Admin. (mfg 1996)	Beyond service life (15 yrs). Replace with upgraded AC (RTU) with VAV reheat.Maintenance will repair as needed to keep it going until funds are secured	2	END	L	Replace 7.5 ton RTU in kind. Figure (6) VAV boxes w/reheat											\$55,000	55.30%	\$85,415		\$85,415		
Air Handling Unit Systems (1950 Original)	indoor H & V air handlers (original vintage) serve Gym, Lockers, Choral areas.	Units are vintage and beyond service life. Replace with rooftop ERUs w HW coils at time of steam to HW conversion. Add ERUs with HW coils to serve remainder of 1950s building. Maintenance will repair as needed to keep it going until funds are secured	2	END	L	Figure (3) 6,000 cfm Roof top ERUs Figure (3) 2,500 cfm Roof top ERUs Figure ducwork (uninsulated) at \$/SF @ 60K SF.											\$645,000	55.30%	\$1,001,685		\$1,001,685		
Air Handling Unit Systems (1996)	Roof top H & V (1996 mfg) serve the 2nd flloor-B classes, Café, and Library.	Units are vintage and near end of service life (5 years left). Recommend upgrading with new H & V units in kind. Maintenance will repair as needed to keep it going until funds are secured	2	END	L	Figure (2) 5,000 cfm roof top H & V units.											\$90,000	55.30%	\$139,770		\$139,770		

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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KING MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

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4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/in Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Pumps	Base mount heating 1996 mfg. Lead/Lag.	Pumps are at end of their service life. Replace with new VFD pumps sized larger at time of steam to HW conversion.Maintenance will repair as needed to keep it going until funds are secured	2	END	L	Figure (2) 300 GPM 60fthd with VFD Base mount										\$45,000	55.30%	\$69,885		\$69,885			
Terminal Unit Systems	Hot water duct coils and fintube 1996 mfg. Steam unit ventilators and fintube original vintage.	Replace steam Uvs and heating fintube, etc. at time of hot water conversion. Replace 1996 existing HW coils Maintenance will repair as needed to keep it going until funds are secured	2	END	L	(1996) Figure (30) 30MBH HW coils (Original) 1000 ft fintube										\$275,000	55.30%	\$427,075		\$427,075			
Exhaust Systems	Mostly via rooftop exhaust fans 1996, roof ventilators for 1950s.	Roof top exhaust fans are nearing their 25 year service life. Replace with new in kind. Maintenance will repair as needed to keep it going until funds are secured	2	ESL	L	Figure (2) 1500 cfm roof fans										\$20,000	55.30%	\$31,060		\$31,060			
Piping System	Steam is 1950s schedule 40 and HW is 1996 sched 40 and copper.	Replace steam piping with HW piping with insulation at time of steam to HW conversion. Maintenance will repair as needed to keep it going until funds are secured	3	END	L	Figure \$/SF @ 60K SF										\$1,300,000	55.30%	\$2,018,900		\$2,018,900			
Automatic Temperature Controls	Some DDC electric (1996) and mostly pneumatic	Upgrade DDC electric at time of hot water conversion. Maintenance will repair as needed to keep it going until funds are secured	2	END	L	Figure \$/SF @ 90K SF										\$475,000	55.30%	\$737,675		\$737,675			
ELECTRICAL																							
Equipment	(2) 400-amp fusible switches, (1) 800 amp Main circuit breaker in Main Distribution Panel MDP. 1996 vintage	Perform infra-red scanning of the service equipment to assess condition of contacts and terminations. Equipment will need to be replaced within 20 years	2	ESL	L	Carry complete replacement for (2) 400A switches and (1) 800A Panelboard.										\$48,160	55.30%	\$74,792	\$74,792				
Distribution System																							
Panels	Panels are primarily a mixture of 1950 vintage Trumbull Electric panelboards that have exceeded their anticipated useful life and 1996 vintage Square D panelboards. A New Panelboard was recently added as part of the Health Center project, and a residential-grade Siemens load center is installed in the crawlspace beneath the Fitness Room. It was noted that panel P1A in the boiler is mounted higher than allowed by current NEC requirements. The load center located in the crawl space does not have adequate headroom by current code standards.	Replace existing Trumbull electric panelboards. Remove the residential grade panelboard from the crawl space and provide a panelboard located in accordance with NEC to supply the circuits currently fed from the load center. Perform infra-red scanning of 1990's and newer panelboards to assess condition of contacts and terminations. Maintenance will repair as needed to keep it going until funds are secured	2	OB	L	Carry complete power distribution system replacement Base on 89,263 SF										\$360,000	55.30%	\$559,080		\$559,080			
Wiring	Most of the wiring that can be viewed from a simple walk-through of the facility is building wire in metal conduit. Some old type NM nonmetallic sheathed cable (romex) was noted in the crawlspace. The wiring varies in age as systems have been added and modified over the years, but the 1950's vintage wiring has exceeded it's anticipated useful life.	Replace feeder wiring in conjunction with replacement of 1950's vintage panelboards. Type NM cable should be replaced with building wire in conduit or type MC cable as part of any planned renovations to the facility Maintenance will repair as needed to keep it going until funds are secured	2	OB	L	Similar to panels above, carry complete wiring replacement for power distribution system for 89,263 sf										\$219,000	55.30%	\$340,107		\$340,107			
Branch Circuits	Some receptacles near sinks in science labs, in Tech Ed, and in the Kitchen do not appear to have GFCI protection as would be required by current code. Much branch circuit wiring was updated in 1996, but some 1950's branch circuit wiring that has exceeded its anticipated useful life appears to still be active. Extension cords are in use in some areas due to a lack of appropriately located receptacles.	Provide receptacles located appropriately for the current program. Provide GFCI protection as required by current code. Update existing 1950's vintage branch-circuit wiring to current standards. All wiring will have reached the end of it's anticipated useful life within 20 years. Maintenance will repair as needed to keep it going until funds are secured	2	OB	L	Carry complete wiring and device replacement for 89,263 sf										\$375,000	55.30%	\$582,375		\$582,375			

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE			50.5% MARK-UP	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
Site Lighting (type & material)	There are no existing pole lights. It appears that some areas of the site are not illuminated to levels recommended by IES.	Provide full-cutoff LED site lighting to provide illumination as recommended by IES. Maintenance will repair as needed to keep it going until funds are secured			L	Carry adding (8) LED pole lights										\$72,000	55.30%	\$111,816		\$111,816		
Exterior Building Lighting	Primarily LED wall packs with full cutoff optics. Recessed fixtures that appear to utilize HID or compact fluorescent lamps remain at a couple of entrance canopies. It appears that some outdoor areas are not illuminated to levels recommended by IES.	Update remaining HID or compact fluorescent lighting to LED with full cutoff optics as units fail. Add outdoor lighting to provide illumination as recommended by IES. All existing outdoor lighting will reach the end of its anticipated useful life within 20 years.	2	END	L	Carry replacing 18 wall packs using LED wall packs.										\$16,500	55.30%	\$25,625			\$25,625	
Interior Lighting																						
Classrooms	Lens troffers with T8 fluorescent lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will repair as needed to keep it going until funds are secured	2	ESL	L	Carry complete interior lighting replacement for 89,263 sf										\$1,040,000	55.30%	\$1,615,120		\$1,615,120		
Offices	Recessed fluorescent with parabolic diffusers and T8 lamps.	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will repair as needed to keep it going until funds are secured	2	ESL	L																	
Corridors	Lens troffers with T8 fluorescent lamps	Update lighting to LED as part of any planned facility renovations.	2	ESL	L																	
Toilets	Mix of recessed lens troffers and wraparound fluorescent fixtures. Fixtures utilize T8 lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed to keep it going until funds are secured	2	ESL	L																	
Mech/Storage	Fluorescent strips with T8 fluorescent lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will repair as needed to keep it going until funds are secured	2	ESL	L																	
Assembly	Performance lighting on stage is incandescent controlled by manualdimmers	Provide LED performance lighting and an architectural dimming system. Maintenance will repair as needed to keep it going until funds are secured	2	OB	L																	
Gym	T8 fluorescent high bay pendant luminaires	Update lighting to LED as part of any planned facility renovations.	2	ESL	L																	
Data System (& Service)	3" Entrance conduit shared with CATV. Cat 6 ISP cable plant. A city network core is housed in an open rack located in the main electric room. One IDF is located in an enclosed wall mounted cabinet in a shared space and one IDF is located in an open wall mounted patch panel in a classroom that appears to have once been a computer lab. Abandoned unused Category 5 cabling and infrastructure was noted at the MDF location.	Remove abandoned Cat. 5 infrastructure and cabling. Provide dedicated equipment spaces to house IDF's.	2	ESL	L										\$10,000	55.30%	\$15,530	\$15,530				
Total Years 6 - 10																\$11,136,035	\$136,912	\$10,973,498	\$25,625	\$0		

KING MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
General Notes																			
Wall Finish Materials	Painted GWB and CMU	Recommend budgeting for repainting all interior walls towards the end of the 20-year plan period	-	-	L	Base on 89,263 GSF @ \$2 per sf floor area =\$178,530 + MU's							●	●			\$268,690	93.55%	\$520,049
Floor & Base Finish Materials	Broadloom carpeting throughout the building is stained and worn and is nearing the end of its expected service life	Recommend replacing carpet with non-wax quartz floor tiles	-	-	L	81,000 SF \$5.75 demo-prep-new flooring = \$465,750 + MU's							●	●			\$700,955	93.55%	\$1,356,698
Ceiling Finish Materials	ACT throughout the building was noted to be sagging, stained, and generally showing wear	Recommend replacement of all ACT ceilings towards the end of the 20-year plan period	-	-	L	81,000 SF 50% 2x2 @ \$6 & 50% 2x4 @ \$4.50 = \$425,250 + MU's							●	●			\$640,005	93.55%	\$1,238,730
Main Entrance																			
Entrance Mats	Loose carpet mat - worn	Replace walk-off mat	1	END	L	100 SF @ \$20 = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,826
Stairs and Exits																			
Ceiling Finish Materials	Painted plaster ceilings - peeling and mildew noted in several locations at original building	Repair and repaint plaster ceilings	2	ESL	L	550 SF \$3 sf = \$1,650 + MU's							●	●			\$2,485	93.55%	\$4,810
General Purpose Classrooms																			
Wall Finish Materials	Peeling of paint of some cracking along exterior walls was noted, possibly due to a moisture issue	Recommend further investigation of moisture problem In addition to repainting noted in General Notes above, remove peeled paint and make repairs to plaster finish	2	ESL	L	2,000 sf patch & repair walls @ \$3 = \$6,000 + MU's							●	●			\$9,030	93.55%	\$17,478
Visual Display Surfaces	Markerboard overlay on original chalk board	Although in fair condition, recommend replacing with new markerboards	2	END	L	(45) 24-ft markerboards 4,320 sf @ \$30 demo-replace = \$129,600 + MU's							●	●	●		\$195,050	93.55%	\$377,519
Science Classrooms																			
Visual Display Surfaces	Marker boards and tack boards	Provide new markerboards			L	(4) 24-ft markerboards 384 sf @ \$30 demo-replace = \$11,520 + MU's							●	●	●		\$17,340	93.55%	\$33,562
Family & Consumer Science (Home Ec.)																			
Visual Display Surfaces	Marker boards and tack boards	Provide new markerboards			L	(1) 24-ft markerboard 96 sf \$30 demo-replace = \$2,880 + MU's							●	●	●		\$4,335	93.55%	\$8,390
Art Classrooms																			
Visual Display Surfaces	Marker boards and tack boards	Provide new markerboards			L	(1) 24-ft markerboard 96 sf \$30 demo-replace = \$2,880 + MU's							●	●	●		\$4,335	93.55%	\$8,390
Library / Media Center																			
Visual Display Surfaces	Limited number of tack boards	Recommend providing markerboard	2	ESL	L	(1) 8-ft markerboard 32 sf \$30 demo-replace = \$960 + MU's							●	●	●		\$1,445	93.55%	\$2,797
Gymnasium																			
Floor & Base Finish Materials	Clear finish wood floor, vented metal base	Refinish Wood Floor	2	ESL	L	4600 SF							●	●	●		\$112,875	93.55%	\$218,470
Backstops (quantity, mounting type, manual/motorized)	(1) manually operated ceiling mounted backstop - good (5) fixed wall mounted backstops - fair	Replace worn out backstops	2	END	L	(4) wall mounted fixed backstops \$4,000 ea = \$16,000 + MU's							●	●	●		\$24,080	93.55%	\$46,607
Visual Display Surfaces	(2) tackboards	Recommend providing markerboard	3	ESL	L	(1) 8-ft markerboard 32 sf \$30 demo-replace = \$960 + MU's							●	●	●		\$1,445	93.55%	\$2,797

KING MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																				
Weight Room / Fitness Room																				
Floor & Base Finish Materials	Clear finish wood floor and sheet vinyl - both in poor condition	Replace vinyl flooring with new sheet vinyl flooring and refinish wood floor	2	ESL	L	1,200 SF Vinyl Flooring \$6.50 demo-replace = \$7,800; 1,200 SF Wood Flooring refinish-sand-seal \$5 = \$6,000; TOTALS \$13,800 + MU's							●	●			\$20,770	93.55%	\$40,200	
Visual Display Surfaces	Obsolete markerboard surface tacked to wall	Provide new tackboards and markerboards	1	OB	L	(2) 8-ft markerboards \$25 = \$1,600; (2) 8-ft tackboards \$15 = \$960; TOTALS \$ 2,560 + MU's							●	●	●		\$3,855	93.55%	\$7,461	
Student Toilet Rooms																				
Toilet Partitions	Painted metal - in poor condition	Replace with solid plastic toilet compartments	1	END	L	(8) ADA toilet compartments \$1,500 w/demo = \$12,000; (20) toilet compartments \$1,250 = \$25,000; TOTALS \$37,000 + MU's							●	●			\$55,685	93.55%	\$107,778	
Staff Toilets																				
Floor & Base Finish Materials	Sheet vinyl flooring and rubber base - worn	Replace flooring with non-wax quartz tile flooring and rubber base	1	END	L	(5) rooms at 75 SF each \$5.75 = \$435 per room x 5 = \$2,175 + MU's							●	●			\$3,275	93.55%	\$6,339	
Mechanical and Service Spaces																				
Other	Access ships ladder in poor condition	Replace with galvanized metal ships ladder	1	OB	L	Ships ladder, 5-ft height \$3,000 + MU's							●	●			\$4,515	93.55%	\$8,739	
FOOD SERVICE																				
Floor Finish & Base Materials	Epoxy painted floor in fair condition	Re-coat floor with epoxy paint	2	END	L	1,000 SF \$2 sf = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,826	
Door Material (Including Frame & Glazing)	Painted hollow metal frame and wood doors - worn	Replace doors	2	END	L	(4) doors \$500 ea demo-replace leaf-frame remains-reinstall salvaged hdwr = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,826	
Door Hardware	Compliant, but worn	Replace hardware sets	2	END	L	(4) door hardware sets (room entry only, no closers or special hdwr) \$500 ea = \$2,000 + MU's							●	●			\$3,010	93.55%	\$5,826	
																	Total Years 11 - 15		\$4,030,117	

KING MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
BUILDING EXTERIOR																		
Exterior Wall Cladding																		
Spalling, Staining, Efflorescence	Some staining noted throughout	Clean isolated areas of brick veneer	2	ESL	L	Assume 500 SF @ \$2.50 = \$1,250 + MU's							●	●			\$1,885 116.55% \$4,082	
Windows																		
Sills	Precast concrete sills - in fair condition with some areas of cracking and open joints	Replace damaged pre-cast sills	2	END	L	Assume 30 LF @ \$50 demo-replace = \$1,500 + MU's							●	●			\$2,260 116.55% \$4,894	
Sills		Repoint joints between pre-cast sills	2	END	L	100 LF \$2.50 = \$250 + MU's							●	●			\$380 116.55% \$823	
Exterior Doors (not including Main Entry)																		
Materials	Original Building: Mix of field painted aluminum entrances (in poor condition) and painted hollow metal doors in either metal or wood frames	Replace doors, frames, and hardware with new aluminum entrances	1	END	L	(4) pairs of doors (11) single doors \$2,500 door-frame-panic hdwr-closer x 19 = \$47,500 + \$1,500 door leaf demo = \$49,000 + MU's							●	●			\$73,745 116.55% \$159,695	
Fascia, Trim, Soffits & Overhangs																		
Materials	Painted GWB ceiling at entry canopy, some paint peeling near window below	Repair GWB and repaint	2	ESL	L	10 SF \$10 sf = \$100 + MU's							●	●			\$150 116.55% \$325	
Sealants & Expansion Joints																		
Window / Door Perimeter Sealant	Sealants were observed in various condition	Recommend removal and replacement of all perimeter sealants	2	END	L	5,000 LF \$3.50 rout & reseal = \$17,500 + MU's							●	●			\$26,340 116.55% \$57,039	
Building Joint Sealant	Sealants were observed in various condition	Recommend removal and replacement of all joint sealants	2	END	L	300 LF w/backer rods route & reseal = \$5 lf = \$1,500 + MU's							●	●			\$2,260 116.55% \$4,894	
Roof Assembly & Flashing																		
Age	60% of roof: 4 years (installed 2012) 40% of roof: 21 years (installed 1995)	Given the age of the older portion of the roof is nearing the end of its expected service life, recommend budgeting for a full roof replace during the plan period	3	ESL/END	L	55,297 SF Black EPDM demo-R38 new system w/perimeter trims 7 flashings-drains-walkways-tapers-crickets (blocking re-used) \$12 sf = \$663,600 + MU's							●	●			\$998,720 116.55% \$2,162,728	
Condition of Flashings & Transitions	Overall in good condition	Replace lead coated copper roof to wall flashing at chimney with new stainless steel flashing	3	ESL	L	50 LF @ \$50 = \$2,500 + MU's							●	●			\$3,765 116.55% \$8,153	
Skylights																		
Curbs	Typical of roof mounted equipment 2 units are located directly adjacent to a building expansion joint and water is collecting between the joint and skylight curb	Recommend roof-to-wall expansion joint detail at this location when new roof is installed	2	ESL	L	60 LF \$50 lf expansion joint & cover assembly \$3,000 + MU's							●	●			\$4,515 116.55% \$9,777	
Exterior Stairs and Ladders																		
Locations and Materials	Roof ladders - rusting and corroding	Remove corrosion, prime and paint	2	ESL	L	(4) 12-ft ladders \$500 per ladder x 4 = \$2,000 + MU's							●	●			\$3,010 116.55% \$6,518	
ELECTRICAL																		
Emergency Power	A small 2010 vintage Briggs and Stratton single-phase generator that is located on the roof of the mechanical room provides backup power to the UPS at the City's network core rack.	The generator will need to be replaced within 20 years	3	ESL	L	Carry 5-kW natural gas genset in outdoor enclosure and 60A ATS							●	●			\$17,500 116.55% \$37,896	

Total Years 16 -20	\$2,456,825
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LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Year 0 (Fiscal Year 2017) - Immediate Recommendations

ELECTRICAL																		
Equipment	1998 vintage GE switchboard	Perform infra-red scanning of the service equipment to assess condition of contacts and terminations.	2	ESL	I	\$Allow 1,500 for infrared scan with report						●	●			\$1,500	0.00%	\$1,500

Total Year 0	\$1,500
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LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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Lincoln Middle School

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget						
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost Plus 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	Allocation			
																		CIP	CIP (Major Renovation)	Maint.	City Expense	

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

SITE

Parking

Number of Spaces (Regular & ADA)	1 ADA at rear - not compliant	Add 1 ADA parking space (for a total of 2). Paint parking aisle and accessible route to building.	2	ESL	S	\$350 ADA sign + \$175 restriping = \$525 + MU's		●		●						\$790	24.65%	\$985			\$985
Vehicular & Pedestrian Circulation																					
Traffic Markings & Traffic Signage	No Fire Lane Signs	Install fire lane/no parking signs	0	OS	S	Quantity unclear (2), allow n + MU's 2 each \$125		●								\$376	24.65%	\$469			\$469
Curb Cuts & Detectable Warning Strips	No panels	Install panels at crosswalk.	0	OS	S	Quantity unclear, 1 at each side of street for 2 total? .. Assume cut out existing pavement and provide detectable warning strip @ 2 locations? CORRECT 2each: 40sf@\$60		●		●						\$7,224	24.65%	\$9,005			\$9,005
Site Furniture & Accessories																					
Bicycle Racks	2 at rear (full)	Relocate racks out of fire lane. Install additional racks as they appear full.	2	ESL	S	Quantities to be relocated? (2) .. Quantities additional (# of bike stall count) Relocate 4@\$100 New: 2@\$750		●								\$2,859	24.65%	\$3,564			\$3,564
Fencing																					
Locations & Materials	Chain link around school. Corner fence/grade attenuation. Sections missing/sagging.	Needs repair.	2	ESL	S	Need lf of repairs (60 FT) needed and fence height (6 FT) .. 60LF\$30							●			\$2,709	24.65%	\$3,377			\$3,377
Site Topography																					
Characteristics	Poor grass cover in play area.	Reestablish green area.	2	ESL	S	Need sf of new lawn area (12, 200) . will assume reseed, aeration, and lawn feeding only with minimal new loam u.n.o. 12,200s.f.@\$0.75							●		●	\$13,770	24.65%	\$17,164	\$17,164		
Site Drainage																					
Ponding	Ponding/drainage needs attention at Dumpster area	Install curbing and catch basin and connect to existing drainage.	1	END	S	Curbin quantity & type? (150 FT BITUMINOUS) .. lf of pipe run to connect to existing storm system (50 FT)? Curb: 150lf@\$10 CB: 1@\$2500 Pipe: 50lf@\$50							●			\$6,500	24.65%	\$8,102	\$8,102		

STRUCTURAL

Roof Construction	A. Some blocking has been added though some is still missing; some joists have been sistered; and a couple of the steel rods for the ceiling have been replaced. Roof layout includes high/low conditions.	Add missing blocking.	3	ESL	S	16 partial lines of blocking. Extent unclear, assume each "partial line of blocking" means one location between adjacent set of roof joists 4' o.c., so am providing 64 total lf of blocking between joist, = 10 bf per location x 16 = 160 bf blocking @ \$5 = \$800 + MU's, increase to 320lf		●				●	●			\$6,025	24.65%	\$7,510	\$7,510		
Roof Construction	B. Flat roof susceptible to drift most likely not designed for drifting.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift by adding new wood joists between existing joists. Shoveling of drifts recommended in the interim.	2	ESL	S	2,500 sq ft of roof, assume sistering @ 48" o.c. = 625 lf sistering assuming 2 x 12 = 1,250 bf sistering @ \$5 bf = \$6,250 + MU's increase to 960lf		●				●	●			\$14,455	24.65%	\$18,018	\$18,018		
Roof Construction	C. The is a wood bell tower on the east end of the roof. The paint on the wood is flaking and the wood appears to be deteriorating.	Repair bell tower and verify that its connections to the main roof structure.	1	END	S	One bell tower, allowance lump sum \$10,000 + MU's						●	●			\$15,050	24.65%	\$18,760	\$18,760		

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET							
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Roof Construction	A. Stains and fasteners are visible in the gypsum planks. Gypsum planks susceptible to moisture.	Verify Integrity by opening roof membrane in selected area and observing top side condition.	2	ESL	S	Open 5 locations & infill & seal after inspectio (correct) n, \$250 per location = \$1,250 + MU's, excludes eng'g analysis							●	●			\$1,885	24.65%	\$2,350	\$2,350			
Roof Construction	B. Flat roof susceptible to drift near higher roof. Most likely not designed for drifting.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift by reinforcing long span joists. Shoveling of drifts recommended in the interim.	2	ESL	S	1,700 sq ft of roof, assume sistering @ 48" o.c. = 425 lf sistering assuming 2 x 12 = 850 bf sistering @ \$5 bf = \$4,250 + MU's, the existing framing is steel bar joists, wood sistering will not work. Carry reinforce the top and bottom chord of all 14 bar joist by welding steel plate to the bottom flange and rods to the top flange.		●					●	●			\$12,795	24.65%	\$15,949	\$15,949			
Roof Construction	A. Flat roof susceptible to drift near higher roof. The age of the design is unknown as is whether the roof was designed for drifting.	Roof is technically grandfathered; recommend investigation if reinforcing is required. Shoveling of drifts recommended in the interim.	3	ESL	S	500 sq ft of roof, assume sistering @ 48" o.c. = 125 lf sistering assuming 2 x 12 = 250 bf sistering @ \$5 bf = \$1,250 + MU's, roof is steel so wood will not work here, assume 160lf of add joist similar to line 116		●					●	●			\$5,780	24.65%	\$7,205	\$7,205			
Roof Construction	Additional connectors/1-story spaces between the east building and the north-west building (houses mechanical spaces): concrete slab spanning to steel beams supported by steel columns or bearing in masonry. Some of the framing is supported by newer lally-columns (past retrofit) unknown if the retrofit was to address drift loads.	Roof is technically grandfathered; recommend reinforcing investigation if reinforcing is required. Shoveling of drifts recommended in the interim.	3	ESL	S	~1,500 sq. ft., assume steel sistering @ 48" o.c. = 315 lf sistering SAY 6 #/lf joists = 1,890 # steel @ \$4 # = \$7,560 + MU's (correct)		●					●	●			\$11,380	24.65%	\$14,185	\$14,185			
Exterior Wall Construction	Additional connectors/1-story spaces between the east building and the north-west building A. Damage brick on the inside noted in one location (north wall just above the foundation wall). The custodian explained that other locations had been repaired (working one room at a time)	Repair brick	2	ESL	S	1 locations noted, scope sf area unclear, for small area< 5 sf, allow \$100 + MU's (correct, small areas, does this overlap with item/line 146?)							●	●			\$150	24.65%	\$187	\$187			
Exterior Wall Construction	South-west building: A. localize spots missing mortar or with broken bricks	Repoint areas/repair bricks	2	ESL	S	10 locations at east façade, 2 locations at west façade (above doors) 3 damage brick (corner and west façade doors), assume < 5 sf per location @ \$20 = 12 locations x 5 = 60 sf @ \$20 = \$1,200 + MU's (correct, all small areas)							●	●			\$1,810	24.65%	\$2,256	\$2,256			
Exterior Wall Construction	North-west building (gym): A. No ties visible between CMU back up wall and framing steel.	Grandfathered in. Recommend tying CMU to steel beam with steel angle at 4ft oc. around gym perimeter.	2	ESL	S	Gymnasium perimeter ~360ft, assume 8 #/lf structural angle with set tabs on cmu side, set tabs into cmu grout & weld to steel continuous @ \$35 lf labor & materials = \$12,600 + MU's (correct)		●					●	●			\$18,965	24.65%	\$23,640	\$23,640			
Exterior Wall Construction	B. The CMU back up wall on the west façade has multiple stepped cracks.	Investigate source of damage and repair cracks.	2	END	S	~100 lf crack stich @ \$50 = \$5,000 + MU's		●					●	●			\$7,525	24.65%	\$9,380	\$9,380			
Exterior Wall Construction	C. Cracks are visible in the brick as well as some brick damage. The parapet at the north façade east end appear to not be tied into the remaining brick.	Repairs cracks and bricks. Tie parapet	2	END S		4 locations (corner and west façade, sf area unknown allow \$250 per location = \$1,000 + MU's; parapet length to tie in unknown, cannot be estimated. 15lf		●					●	●			\$2,635	24.65%	\$3,285	\$3,285			

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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Capital Plan Detailed Scope of Work																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
Exterior Wall Construction	F. North entry: large canopy shows damage on the underside.	Verify damage is not structural. Repair	2	END	S	One canopy, sf area & type of damage unclear, allow \$1,000 + MU's (added photos - 75 SF painted ext GWB to be repaired and painted, 25 LF of metal roof edge replacement)		●				●	●			\$1,885	24.65%	\$2,350	\$2,350			
Exterior Wall Construction	E. West entry is brick with a gable roof with wood siding and shingle roof. The decorative brick pattern is spalling. The wood siding paint at the gable is peeling.	Fix brick and repaint gable face	2	END	S	Brick repair ~10 locations, sf area per location unknown, allow \$250 location = \$2,500 + MU's; Paint ~ gable end, sf area gable repair unknown (50 sf ft), allow 100 sf @ \$5 clean-prep-repaint = \$500 + MU's						●	●			\$4,140	24.65%	\$5,161	\$5,161			
Exterior Wall Construction	Geodesic dome: the walls (below the dome portions) are there edge of the planters, insulation, and wood siding. In several locations the wood is rotting.	Replace rotting panels. Verify the walls are sounds	2	END	S	Area sf of rotted unclear, allow 100 sf (correct) @ \$15 = \$1,500 + MU's		●				●	●			\$2,260	24.65%	\$2,817	\$2,817			
Additional Observations (Site)	A. Entry roof at ground floor: the roof is metal bearing on a frame of HSS steel beam and column. The frame paint is peeling.	Repaint steel to protect it.	2	END	S	1 roof, sf area of steel to be repainted is unclear, allow 100 sf @ \$10 clean-scrape-repaint = \$1,000 + MU's, carry 800 lft of hss section to be painted (HSS varies between 6x6 and 4x4)						●	●			\$24,080	24.65%	\$30,016		\$30,016		
Additional Observations (Site)	B. Cast in Place Concrete Site stairs at south east has large spalls and damage at the base of the railing posts	Repair	2	END	S	1 stair, sf area damage unclear, allowance for total repair \$1,000 + MU's 3cuft						●	●			\$1,505	24.65%	\$1,876			\$1,876	
Additional Observations (Site)	C. Stone coping on site wall (south east): the mortar between the stone is gone.	Repair to prevent further water infiltration	2	END	S	1 wall, ~70lft remove & rest coping stone w/new grout @ \$30 lf = \$2,100 + MU's						●	●			\$3,160	24.65%	\$3,939			\$3,939	
BUILDING EXTERIOR																						
Exterior Doors - Main Entrance																						
Door Widths and Clearances	3' Wood doors, clearance not met. There is a step at the plane of the door. 9" steps are non-compliant, the unnatural height makes them a tripping hazard. Existing center railing not adequate.	Reconfigure entry to make ADA accessible. Install new stairs and ADA compliant ramp, railings.	0	OB	S	Remove entire (approx. 300 SF) granite entry stair area, 11 steps. Increase top landing to 300 SF granite step. Need an additional 14 granite steps (9' between FF at door and exterior grade), approx. 300 SF area of granite steps needed. Remove existing railing, install new railings approx. 75 LF. Add 160 LF ramp at entry, 5' wide. Install new railing approx. 320 LF ... \$1,500 demo existing granite + (250 cubic feet granite @ \$175 = \$43,750) + (75 cy ramp concrete @ \$400 cy = \$30,000) + (1,000 sf ramp concrete slab including area for landings @ \$3.50 = \$3,500) + (395 total lf ground mount handrail <top & mid & posts @ 48" painted steel> @ \$80 = \$31,600) + (550 cy dig & bf ramp foundations & prep granite steps @ \$35 = \$19,250) = = \$129,600 + MU's.				●							\$195,050	24.65%	\$243,130	\$243,130		

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
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4 - Excellent - New		

														BUDGET										
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION						
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
Exterior Stairs and Ladders																								
Locations and Materials	Concrete step at North gym entry is deteriorating, spalling, and cracking. Metal tread rusting, popping up. Stair at West gym entry is deteriorating, spalling, and cracking. Concrete step at West locker room entry is deteriorating, spalling, and cracking.	Replace 1 concrete step at North gym entry. Replace 2 concrete steps at West gym entry. Replace 1 concrete step at West locker room entry.	2	END	S	Replace 1 concrete step at North gym entry (7-3/4" step, 100 SF). Replace 2 concrete steps at West gym entry (7-3/4" steps, 100 SF). Replace 1 concrete step at West locker room entry (7-3/4" step, 50 SF). Precast or c.i.p. steps? .. Horizontal plane dimensions (100 sf or 50 sf) do not match up with number of treads to be repaired or expected width of each tread, please advise. Am assuming precast steps 250 sf total @ \$75 sf = \$18,750 + MU's .. handrails excluded Assume c.i.p. steps. 150 SF total area of just one 7" step (or 'pad') - 2 separate pads. 100 SF total area of c.i.p. steps, 2 x 7" risers (14" total height) - 1 stair. Include 30 LF new handrails.											\$41,015	24.65%	\$51,125	\$51,125				
Roof ladders	Two existing roof ladders are dangerous, rusting. There is no good access to the gymnasium roof besides climbing out a window. Also, there is no easy access to three other roof levels.	Replace 2 existing roof ladders with new OSHA compliant roof ladders. Install three new OSHA compliant roof ladders. Provide enclosed OSHA compliant roof ladder access to gym roof.	0	OB	S	Replace 2 existing 8' roof ladders with new roof ladders @ \$85 vlf demo + replace = \$1,360 + MU's. Install 3 new 8' roof ladders @ \$75 vlf = \$1,800 + MU's. Install new 15' enclosed roof ladder \$165 vlf with cage = \$2,475 + MU's. = = = TOTALS \$5,635 + MU's											\$8,480	24.65%	\$10,570	\$10,570				
BUILDING INTERIOR																								
General Notes																								
Non-ADA compliant door hardware	The vast majority of doors have been outfitted with compliant door hardware. However there are still non-compliant hardware (door knobs) on some doors. Accessible doors need to have a condition that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-conditiond handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	Approx. 20 Knobs (typically on service/storage doors), \$500 per door leaf for new ADA hardware and possible minor reworking of leaf to accept = \$10,000 + MU's											\$15,050	24.65%	\$18,760	\$18,760				
Main Entrance																								
Door Configuration (Vestibule?)	Vestibule. Alum storefront appears to be in good condition. Original wood-framed vestibule storefront showing wear and tear, denting, and chipping. No ADA push button.	Strip and refinish original woodwork. Install ADA push button as part of larger entry renovation work involving accessibility.	2	ESL	S	Approx 50 SF original wood refinishing, \$7.50 sf strip-sand-refinish-seal = \$375 + MU's. Install ADA push button and door entry system, \$2,500 for system w/new wiring + MU's.											\$4,330	24.65%	\$5,397	\$5,397				
Exit Signs	Main entrance missing second exit sign.	Provide Exit sign	0	OB	S	1 exit sign above door, \$350 including wiring in + MU's.											\$530	24.65%	\$661			\$661		
Secondary (lower level) Entrance																								
Exit Signs	No second exit sign above doors	Provide Exit sign	0	OB	S	1 exit sign above door, \$350 including wiring in + MU's.											\$530	24.65%	\$661			\$661		
Corridors																								
Wall Projecting Objects	Two drinking fountains are not located in alcoves, and cannot be detected by cane.	Provided painted round metal cane detection devices to one side of the drinking fountains to meet ADA requirements.	0	OB	S	(2) painted round metal cane detection devices. One set of two for each fountain, allow \$250 ea x 4 = \$1,000 + MU's											\$1,505	24.65%	\$1,876			\$1,876		

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LINCOLN MIDDLE SCHOOL

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

Interior Signage																								
At Code Required Locations?	Generally, signage is provided where needed. However there are a few signs missing from classrooms on the third floor, or have temporary laminated paper signage.	Replace laminated paper signage with code compliant signage.	-	-	S	Install approx. 20 plastic code compliant signs, \$75 each = \$1,500 + MU's			●	●							\$2,260	24.65%	\$2,817	\$2,817				
Stairs and Exits																								
Handrails (height, extensions, profile)	One main stair has fully compliant handrails. The other main stair lacks the 1' handrail extensions at the top and bottom of each railing run. Also, graspable handrail is not continuous, and interrupted by a post at the top and bottom of each stair run. The stair at the rear of the gymnasium/cafeteria needs 1' rail extensions for each side railing, top and bottom of each railing run. Center railing should be replaced with a railing that also has the 1' top and bottom extension. The stair at the side of the gym also lacks the 1' extensions at the top and bottom of each railing run.	Install code compliant center handrails and handrail extensions at rear cafeteria/gym stair. Install code compliant handrail extensions at main stair. Install code compliant handrail extensions a gym side stair.	0	OB	S	Install a total of 25LF of 1' handrail extensions, assume cut existing pipe end & weld extension as required, \$100 if including welding & grinding or \$100 per location = \$2,500 + MU's Install 3 new center railings, approx. 24 LF total, assume toe guard & 4" vertical spacers, \$150 If demo & replace = \$3,600 + MU's == TOTALS \$6,100 + MU's			●	●							\$9,180	24.65%	\$11,443			\$11,443		
Family & Consumer Science (Home Ec.)																								
Stairs	Exit stair through rear of classrooms lacks compliant handrails.	Install compliant handrails.	0	OB	S	Approx 12 lf new handrail; \$30 lf if single line wall pipe rail .. OR .. \$125 lef if ground mount w/toe guard & 4" verticals, please advise Single wall line pipe rail.			●	●							\$903	24.65%	\$1,126			\$1,126		
Art Classrooms																								
Sinks (ADA compliance)	Sinks are mounted in laminate casework countertops. They are not ADA compliant. Gooseneck type faucet with aluminum basin, in good condition.	Remove existing counter and sink, replace with ADA compliant counter and sink.	3	ESL	S	(1) 24" deep x 60" long plastic laminate counter with resilient edge banding, knee clearance below counter, and stainless steel sink with faucet, \$275 If demo & replace cabinet & countertop = \$1,500 + \$1,500 new sink & faucet using existing rough = \$2,875 + MU's				●							\$4,330	24.65%	\$5,397	\$5,397				
Kilns	Kiln in back storage room.	Provide a rated, ventilated, and accessible room to keep the kiln in as part of future renovations.	0	OB	S	80 square feet of interior renovation to provide a room constructed of gyp partitions up to roof deck, single wood veneer 36"x84" door, 2x4 ACT ceilings, and VCT flooring, allow \$125 sf + \$2,500 relocate kiln & new fan thru roof = \$12,500 + MU's		●									\$18,815	24.65%	\$23,453	\$23,453				
Technology Classrooms (Fabrication Lab)																								
Stairs	Railings and guardrails not compliant.	Replace with compliant handrails and guardrails, which have extensions and can pass the 4" ball test.	0	OB	S	Remove existing handrails and guardrails, replace with approx. 35 LF new guardrails with handrails., \$135 lf to demo & replace = \$4,725 + MU's			●	●							\$7,115	24.65%	\$8,869	\$8,869				
Performing Arts - Stage																								
Stage Curtains (fire, proscenium, back of house)	Maroon stage curtain provided. No proscenium. Balcony storage provided at back of stage. Ladder up to balcony storage is unsafe, vertical rails are short. Guardrail at balcony is non-compliant.	Replace ladder up to balcony storage with new, safe ladder. Remove existing guardrail with code-compliant guardrail.	0	OB	S	Remove existing ladder, replace with new 10 ft ladder, \$4,000 for alternating tread ladder & demo existing + MU's. 20 LF code-compliant guardrail, \$80 lf to demo existing & provide new guardrail (top & mid rail & post 48" o.c.) = \$1,600 + MU's == TOTALS \$5,500 + MU's			●	●							\$8,430	24.65%	\$10,508	\$10,508				

LINCOLN MIDDLE SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	EVALUATION CRITERIA						TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY					ADDITIONAL COMMENTS	ENVIRONMENTAL	ENERGY EFFICIENCY	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
Door Widths and Clearances	Door widths are fine, typically 3'. Proper clearance is not provided for stage stair door. Door swings and hits stage. Also, due to occupant load of stage, both stage doors should swing outward. Stage is not provided with guardrail, and stair is not provided with compliant handrails	Re-configure door to swing outward. Provide guardrail at stage. Provide compliant handrails at stairs.	0	OB	S	Remove existing guardrail, provide 10 LF new code compliant guardrail. \$85 w/demo = \$850; Reconfigure 2 existing doors to swing outward. \$200 ea = \$400; Provide 10 LF code compliant handrails for stairs. \$25 = \$250; = = = TOTALS \$1,500 + MU's										\$2,260	24.65%	\$2,817			\$2,817	
Performing Arts - Music Rooms																						
Door Hardware	Main doors are compliant with aluminum pull handles and panic hardware. 1 backroom door still has a doorknob.	Replace doorknob with compliant hardware.	0	OB	S	Replace knob with compliant hardware on 1 door, \$500 to include possible minor reworking of door for hardware + MU's										\$755	24.65%	\$941			\$941	
Gymnasium																						
Drinking Fountains	Provided outside of gym. Non-accessible.	Replace with accessible water fountain.	0	OB	S	Remove existing non accessible drinking fountain. Provide 1 new hi/low drinking fountain with water bottle filler, \$1,500 demo & \$500 modify existing rough + MU's										\$3,010	24.65%	\$3,752			\$3,752	
Door Hardware	Doors provided with pull handles, panic hardware. Doors are on closers, one door on hold open. Compliant.	Replace hardware set with doors.	3	ESL	S	1 hardware set double doors, allow \$2,250 all hardware										\$3,390	24.65%	\$4,226			\$4,226	
Locker Rooms																						
Level of Privacy - Short Term	Gang showers provide no privacy. Girl's shower stalls provide privacy, however the stalls do not have a changing area in front.	Shower shower compartment partitions and curtains to accommodate provite changing area	0	OB	S	Refer to diagrams provided in the Locker Room Privacy Accomodations Section of this report.										\$13,545	24.65%	\$16,884	\$16,884			
Cafeteria																						
Drinking Fountains	Provided outside of gym. Non-accessible.	Replace with accessible water fountain.	0	OB	S	Remove existing non accessible drinking fountain. Provide 1 new hi/low drinking fountain with water bottle filler, \$1,500 demo & \$500 modify existing rough + MU's										\$3,010	24.65%	\$3,752			\$3,752	
Staff Toilets																						
Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	In two staff bathrooms, ADA turning radius is not provided. Three bathrooms are missing grab bars.	Re-configure GWB partitions in two bathrooms to provide proper ADA turning radius. Install 3 sets of ADA grab bars for toilets.	0	OB	S	Remove full-height GWB partition. Install and finish new full-height GWB partition. Install 3 sets of ADA grab bars for toilets, assume 9' wall width x 14' height x 2 rooms, 250 sf demo & new walls = \$2,500 + \$250 per room x 2 patch floor & ceiling = \$500 + \$275 grab bars x 2 = \$550 = = = \$3,550 + MU's,										\$5,345	24.65%	\$6,663	\$6,663			

LINCOLN MIDDLE SCHOOL
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LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

EVALUATION CRITERIA																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY														CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
BUILDING INTERIOR																							
Locker Rooms																							
Level of Privacy - Long Term	Gang showers provide no privacy. Girl's shower stalls provide privacy, however the stalls do not have a changing area in front.	Gut renovation of existing gang shower areas to provide individual shower compartments and changing areas	0	OB	L	Refer to diagrams provided in the Locker Room Privacy Accomodatiions Section of this report.										\$154,925	55.30%	\$240,599		\$240,599			
Floor & Base Finish Materials	Painted concrete floor. Tile floor. Tile base. Concrete floor in good condition. Tile floors and base are in a state of disrepair. Missing and broken tiles, discolored.	Replace tile floors and bases. Maintenance will make repairs to keep systems going until funding is secured	2	END	L	Approx. 2000 SF of existing tile removal, replace with new tile, \$15 sf demo & replace including tile base =\$30,000 + MU's						●	●			\$45,150	55.30%	\$70,118		\$70,118			
Lockers (Material, Vented, ADA)	Painted steel lockers. Vented. No ADA units provided. Lockers are in a state beyond repair.	Replace all lockers.	0	OB	L	Remove existing lockers. Provide approx. 50 new plastic, ADA compliant double tier lockers @ \$135 opng w/demo = \$6,750 + MU's				●		●	●			\$27,150	55.30%	\$42,164		\$42,164			
Locker Area Toilet Rooms																							
Toilet Partitions	Baked enamel toilet partitions. Dented and scuffed in some areas.	No Action Required. Within expected service life. Replace with any large-scale locker room renovation.	3	ESL	L	Remove existing partitions. Replace with approx. 6 new standard size toilet partitions, 2 new ADA toilet partitions, \$1,250 demo & replace standard size, \$1,500 demo & replace ADA size = \$10,500 + MU's						●	●			\$15,805	55.30%	\$24,545		\$24,545			
PLUMBING																							
Domestic CW & HW supply	Copper systems lead solder	Copper system beyond service life.	2	END	L	Replace original systems, \$/SF @ 50K SF										\$950,000	55.30%	\$1,475,350		\$1,475,350			
Sanitary Waste and Vent System	Mostly cast iron & PVC addtion	Cast iron beyond service life.	2	END	L	Replace original systems, \$/SF @ 50K SF										\$525,000	55.30%	\$815,325		\$815,325			
Storm Drain System	Mostly cast iron & PVC addtion	Cast iron beyond service life.	2	END	L	Replace original systems, \$/SF @ 50K SF										\$225,000	55.30%	\$349,425		\$349,425			
MECHANICAL																							
Heating Plant	(2) steam boilers. (1) HB smith 28A-S-12, 2600 MBH, 2000 yr est.; (1) HB Smith GO28HE-7, 1,700MBH 2014 yr. Steam heating to building is limited to original and gym. Hot water conversion to classrooms during renovation. Boiler feed system is aged and in need of upgrade; feed pump replacd. Combustion air fan NEW 2014.	Replace boilers at time of steam to HW condensing boilers.	1	END	L	(Year 6-20) Replace boilers with HW boilers and all apputenances (eg. Expan tank).										\$475,000	55.30%	\$737,675		\$737,675			
Air Handling Unit Systems (Original Buildings)	In indoor H&V units (2) , steam coils, for Gyms	Replace gym H&V units at time of steam to hot water conversion.	2	END	L	Figure (2) at 8,000 cfm each. Add \$/SF for new insulated ductwork @10K SF.										\$300,000	55.30%	\$465,900		\$465,900			
Air Handling Unit Systems (1996 addition)	Rooftop H&V units for classes with HW coils (1996 circa) expected service life of 25 years	Replace Rooftop H & V units at end of service life (5 years) Maintenance will make repairs to keep systems going until funding is secured	2	END	L	Figure (3) at 10,000 cfm each.										\$250,000	55.30%	\$388,250		\$388,250			

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LINCOLN MIDDLE SCHOOL

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/in Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Trade Cost Plus 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Allocation							
																CIP				CIP (Major Renovation)	Maint.	City Expense	

Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations

Pumps	Vintage with heating hot water upgrade (1997?) expected service lifer of 25 years.	Replace with VFD pumps at end of service life (5 years). Add (2) VFD pumps at time of steam to hot water conversion	2	END	L	Figure (2) 100 gpm 70ft for exisitng HW system. Figure (2) 150 gpm 60 ft hd for new hot water conversion											\$52,000	55.30%	\$80,756		\$80,756		
Terminal Unit Systems	HW CUHs/Uhs, steam radiation, VAV w/HW coils-classes at of service life.	Replace at time of steam to HW conversion	3	END	L	Figure (8) CUHs 30 MBH Figure (25) VAVs with HW Figure (6) Uhs 30 MBH Figure 500ft fintube											\$100,000	55.30%	\$155,300		\$155,300		
Exhaust Systems	Toilet/Janitor class wings Gym/Stage Efs at end of service life.	Replace at time of steam to HW conversion	2	END	L	Figure (4) roof Efs at 400 cfm ea.											\$20,000	55.30%	\$31,060		\$31,060		
Piping System	Steam welded/threade 40 (original) black steel 40 and copper 1996 reno.	Steam piping aged--Replace with hot water conversion project.	2	END	L	Figure \$/SF @ 100K SF											\$1,800,000	55.30%	\$2,795,400		\$2,795,400		
Automatic Temperature Controls	Electric DDC and pneumatics	Replace pneumatics to electric DDC	2	END	L	Figure \$/SF @ 100K SF											\$500,000	55.30%	\$776,500		\$776,500		
ELECTRICAL																							
Panels	Panelboards are generally 1998 vintage GE panelboards, although there is a 1960's vintage panelboard in a corridor outside of Tech Ed and a 1970's vintage residential/light commercial grade load center on the stage. The panelboard serving Tech Ed is equipped with a contactor controlled by emergency-stop pushbutttons.	Replace old panelboard near tech ed and loadcenter on stage. All Panels will reach the end of their anticipated useful lives within 15 years Maintenance will make repairs to keep systems going until funding is secured	2	END	L	Carry complete replacement for 103118 sf with 85% needed in the long term											\$285,000	55.30%	\$442,605		\$442,605		
Site Lighting (type & material)	There are no pole mounted site lights. Some areas are not illuminated to levels recommended by IES>	Provide full cut-off LED pole mounted fixtures to provide illumination as recommended by IES.	N/A	N/A	L	Carry (4) LED pole lights, 20 feet high											\$54,000	55.30%	\$83,862		\$83,862		
Exterior Building Lighting	Mostly LED wall packs with full-cutoff optics, but some old incandescent fixtures remain at building exits.	All fixtures will reach the end of their anticipated useful lives within 20 years. Maintenance will make repairs to keep systems going until funding is secured	2	END	L	(10) LED wall packs in the long term											\$9,000	55.30%	\$13,977		\$13,977		
Interior Lighting																							
Classrooms	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.	2	END	L	Carry complete interior lighting replacement fro 95,962 sf																	
Offices	Recessed fluorescent fixtures with parabolic diffusers and T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.	2	ESL	L																		
Corridors	Mostly fluorescent recessed lens troffers utilizing T8 lamps, but lobby also includes compact fluorescent downlights.	Update lighting to LED as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.	2	ESL	L												\$1,118,000	55.30%	\$1,736,254		\$1,736,254		
Toilets	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.	2	ESL	L																		
Mech/Storage	fluorescent strips with T8 lamps	Update lighting to LED as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.	2	ESL	L																		
Assembly	Performance lighting is incandescent fixtures controlled by the circuit breakers of a residential/light commercial grade load center.	Update lighting to LED fixtures controlled by dimmers Maintenance will make repairs to keep systems going until funding is secured	2	OB	L	Carry \$12,000 + MU's											\$18,060	55.30%	\$28,047		\$28,047		

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																	BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Gym	T8 fluorescent high bays	Update lighting to LED as part of any planned facility renovations. All fixtures will reach the end of their anticipated useful lives within 20 years.	2	ESL	L	Carry comple interior lighting replacement for 7,156 sf										\$83,000	55.30%	\$128,899		\$128,899			
Emergency Lighting	Emergency battery units with integral and remote incandescent heads. LED illuminated exit signs with integral battery backup. There is no emergency light at the exterior of building exits.	Replace older units as they fail. Provide outdoor emergency lighting at building exits. Maintenance will make repairs to keep systems going until funding is secured	2	END	L	Carry (8) outdoor units and 40 indoor units										\$33,100	55.30%	\$51,404		\$51,404			
																	Total Years 6 - 10		\$10,555,989	\$0	\$10,555,989	\$0	\$0

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA												BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																				
BUILDING INTERIOR																				
General Notes																				
Interior doors	Older wood doors intermixed throughout the building. These doors are showing their age - denting, scuff marks, and deterioration of wood. Glass panes in these doors could be a safety issue. Also, these doors have wood frames which are also showing heavy wear and tear. Many of these frames have transoms extending to underside of ceiling. In some cases, the glass panes remain, and in others the glass has been removed and infilled. Wood trim surrounds all frame elements. Overall, these doors and frames are nearing the end of their useful life.	While these doors may preserve school character, future large-scale renovations should consider replacing all of these doors with new wood veneer, HM frame doors (to match what many doors have already been replaced to).	2	END	L	Approx. 75 single (36"x84") doors, notes indicate "many" with transoms to 9' + .. Assume 50% with transom & 50 % just door & frame .. \$1,500 demo & replace wood door & frame w/lockset & closer + MU's (40 each) .. \$2,000 + MU's demo & replace wood door & frame w/lockset & closer & transom (35 each) = \$130,000 total + MU's.						●	●			\$195,650	93.55%	\$378,681		
Classroom/Staff room casework	Mix of laminate casework and wood casework. Condition varies widely throughout classrooms, from casework that looks original to the building, to newer looking laminate casework. Typically, casework is showing its age through dents, cracks, discoloration, delamination, and broken hardware.	Recommend replacing aging wood casework with more resilient plastic laminate casework with resilient edge banding.	2	ESL	L	Provide the following in each room (total of 50 rooms). (2) 48" wide tall cabinet units with adjustable shelves and lockable doors, 100 wardrobes @ \$750 = \$75,000 + MU's. (4) 36" wide wall cabinets with adjustable shelves and lockable doors, 600 lf wall cabinet @ \$125 = \$75,000 + MU's, assumes attachment to wall using existing studs, no added blocking behind wall. (4) 36" wide base cabinets with adjustable shelves and lockable doors, 600 lf base & plam countertop @ \$265 = \$159,000 + MU's. Add \$10 lf to demo & dispose existing presumed 1,200 lf base & wall cabinet + \$75 demo & dispose 100 wardrobes = \$19,500 + MU's .. TOTALS ALL = \$328,500 + MU's.						●	●	●		\$591,780	93.55%	\$1,145,390		
Floors	VCT is aging, areas of cracking, discoloration, busted edges. Some areas missing tiles. Terrazzo is showing areas of major cracking and chipping, discoloration and staining. Carpeted areas are typically in better condition, however they still show areas of fraying and staining. Paint on wood base is chipping away, wood is dented and scuffed. Rubber base is scuffed, damaged in high traffic areas, and often peeling away from wall.	Recommend replacement of all VCT, terrazzo, and carpet floors as part of wholesale floor replacement for entire school. Replace all rubber/wood floor bases as part of wholesale floor replacement. Replace VCT and terrazzo and with Quartz tile. Replace carpet floors with new carpet.	2	END	L	Approx. 62,000 SF VCT removal, and replacement with quartz tile @ \$3.75 + \$0.50 base replaced ave + \$1.75 demo & prep (partial terrazzo required more demo \$\$) = \$372,000 + MU's. Approx. 10,500 SF carpet removal, replace with carpet, \$3.25 sf carpet + \$0.50 base new ave + \$1.50 sf demo & prep = \$55,125 + MU's.						●	●			\$642,825		\$642,825		

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Walls	Nearly universally, walls need to be refinished and repainted.	Recommend refinishing, repainting all walls, wood trim, window sills in entire school.	2	END	L	Approx. 54,000 GSF school needs refinishing and repainting of GWB and plaster walls @ \$2 sf floor area prep & repaint = \$108,000+ MU's. Approx. 44,500 GSF school needs repainting of masonry (brick, CMU) walls @ \$2.75 sf floor area filler coat prep & repaint = \$122,375 + MU's. = = = TOTALS \$230,375 + MU's						●	●			\$346,715		\$346,715	
Ceilings	2x4 ACT tiles. Generally, tiles throughout the school are beginning to sag and become discolored. There are isolated areas of cracking and failing tiles, as well as discoloration from dripping water above. Painted GWB. Spots of denting, discoloration.	Replace tiles as part of building-wide ceiling replacement. Consider a 10 year item. Patch and repaint GWB ceilings.	2	END	L	Approx. 75,500 SF 2x4 ACT tile replacement, assume new suspension grid also, \$1 sf demo & disposal + \$3.50 sf new 2 x 4 square edge & suspension = \$264,500 + MU's. Approx. 6,400 SF patch and repaint GWB ceilings @ \$1.50 sf = \$9,600 + MU's OK						●	●			\$412,520	93.55%	\$798,432	
Wainscoting	Painted wood wainscoting up to 5'. Wood trim lining top of wainscoting. Both are showing wear and tear, scuff marks, denting, chipping.	Recommend refinishing and repainting all wood wainscoting.	0	OB	L	Approx. 30,000 GSF of school building that has this wainscoting. Need If run of wainscot, otherwise cannot calculate .. Can be included under 100% wall painting line 236 Approx. 4,500 LF wainscoting.						●	●			\$71,115	93.55%	\$137,643	
Main Entrance																			
Entrance Mats	Loose floor mat.	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	2 areas, approx. 200 Square Feet total of aggressive grade walk-off mat, recycled rubber tire tile @ \$17.50 exterior = \$3,500 + MU's. 2 areas, approx. 300 Square Feet of mild grade walk-off mat, \$15 interior water hog rolll up matt = \$3,000 + MU's. 2 areas, approx. 300 Square feet of low grade walk-off mat @ \$10 sf = \$3,000 + MU's						●	●			\$14,300	93.55%	\$27,678	
Corridors																			
Lockers	Painted metal lockers. Lockers are showing signs of heavy abuse, wear and tear. Dented, scratched, scuffed. Bases are typically discolored from floor cleaning.	Replace all corridor lockers.	2	END	L	Approx. 400 LF of double tier, 1' wide lockers, 800 openings @ \$35 demo & replace per opening = \$108,000 + MU's						●	●			\$162,540	93.55%	\$314,596	
Other Notes	Second floor connector corridor (with large curtain wall) is partially being used for storage. Temporary part-height partitions being used to quarantine storage space in corridor	Remove temporary walls, remove storage materials.	-	-	L	Allowance \$750, If run of temp partitions unknown Approx. 50 LF of 8'-0" high temp partitions.						●	●			\$905	93.55%	\$1,752	

LINCOLN MIDDLE SCHOOL
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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Other Notes	Third floor, there is wood framework which previously housed a double set of doors. Doors have since been removed, however wood framework with transom was saved. The framework/trim is showing its age, wear and tear. Glass panes at transom could be a safety issue.	Restore wood framework and trim. Remove and replace single pane glass with tempered glass.	2	END	L	Approx. 40 SF wood framework/trim restoration @ \$7.50 sf clean-sand-prep-repaint = \$300 + \$350 new glass insert = \$650 + MU's.											\$980	93.55%	\$1,897
Stairs and Exits																			
Tread & Riser Height Uniformity and Nosing Compliance	Tread and riser heights are uniform and compliant. All stairs have compliant nosings. Rubber nosing/treads are showing heavy wear and tear. In some locations, peeling away. Metal nosings are also heavily worn, discolored, rusted. Metal nosing/treads at center stair are heavily worn, dented, discolored.	Replace all rubber nosings/treads. Replace all metal nosings and VCT treads. Replace all metal nosing/treads at center stair.	2	END	L	Remove and replace approx. 75 6' wide (11" tread) rubber nosing/treads (center & side stairs), \$25 sf demo & replace = \$11,250 + MU's Remove and replace approx. 500 LF of metal nosing (other stairs), unclear if these are cast in place nosings, adhered, allow \$10 = \$5,000 + MU's; Remove and replace approx. 50 6' wide (11" tread) metal nosing/treads (center stairs). unclear if these are cast in place nosings, adhered, allow \$25 sf = \$7,500 + MU's = = TOTALS \$23,750 + MU's In both cases, nosing & nosing/tread are adhered.											\$35,745	93.55%	\$69,184
Elevators and Lifts																			
Elevator Finish Materials	Coin-grip PVC flooring. Plastic laminate wall panels. Illuminated polycarbonate mesh gruid ceiling panels. Steel floor base. Door and frame materials are painted HM. Door and frame are heavily scuffed from traffic.	Refinish, repaint elevator HM frame and door.	3	ESL	L	Refinish, repaint 42" x 84" HM frame and HM sliding elevator door.											\$500	93.55%	\$968
General Purpose Classrooms																			
Visual Display Surfaces	Whiteboards, chalkboards, tackboards. Whiteboards typically mounted on top of chalkboards.	Remove all chalkboards, replace with new tackboards.	2	OB	L	Remove & replace approx. 15 LF chalkboard per classroom, approx. 50 classrooms, assume 4' high replacements = \$5 If demo = \$3,750 demo + 3,000 sf @ \$25 markerboard w/map rail = \$78,750 + MU's											\$118,520	93.55%	\$229,395

LINCOLN MIDDLE SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Science Classrooms (Science classrooms may or may not be used as science classrooms, based on classroom rotation) Generally feature the same issues as the general purpose classrooms.																		
Lab Benches	Lab benches made of wood, with black solid surface top. These benches are showing their age, extensive wear and tear, chipping, discoloration. Solid surface tops are also in rough condition. Faucets are corroding onto surface. Rubber bases around bench often peeling or missing entirely.	Remove existing lab benches, replace with new lab benches.	2	END	L	Remove 5 existing lab benches. Install 5 new lab benches, from description, these seem akin to a base cabinet one can sit on and are not movable freestanding (faucets & rubber base indicate fixed) .. presume 5' length each and allow \$7000 lf with solid surface top & demo-replace & new sinks-faucets = 25 lf @ \$700 = \$17,500 + MU's .. please advise if scope understanding incorrect, are sinks and faucets integral to bench and also need reinstallation???										\$40,635	93.55%	\$78,649
Technology Classrooms (Fabrication Lab)																		
Floor & Base Finish Materials	VCT is aging, areas of cracking, discoloration, busted edges. Some areas missing tiles. Ceramic tile is damaged, discolored, and stained. Rubber base is scuffed, damaged in high traffic areas, and often peeling away from wall.	Replace floors and rubber wall bases.	2	END	L	Approx. 2000 SF ceramic floor tile replacement, \$15 sf demo & replace including tile base = \$30,000 + MU's										\$45,150	93.55%	\$87,388
Performing Arts - Stage																		
Floor & Base Finish Materials	Wood floor, wood base. While worn, floors are well-maintained. Area in front of stage with storage doors is worn and dented, discolored.	Continue to maintain wood floors. Strip and refinish front of stage with storage doors.	2	ESL	L	Approx. 180 SF woodwork refinishing, \$5 sf strip-sand-refinish-seal = \$900 + MU's										\$1,355	93.55%	\$2,623
Gymnasium																		
Wall Finish Materials	Painted CMU. Paint is chipping in large pockets. CMU block is also showing extensive cracking, isolated areas where block is failing.	Repair all CMU cracks. Infill failing CMU. Repaint all walls.	2	ESL	L	Patch and repair approx. 50 LF of cracks, \$50 lf for stitch repairs = \$2,500 + MU's. Infill approx. 30 SF of failing CMU, \$20 sf demo & replace = \$600 + MU's. See general notes for painting quantities.										\$4,665	93.55%	\$9,029
Door Material (Including Frame & Glazing)	Wood veneer doors with narrow lites. Painted HM frame. Wood doors are showing extensive wear and tear. Paint on HM frame is chipping off.	Replace doors. Repaint HM frames.	2	END	L	2 (3' doors), \$500 each leaf demo & replace & reinstall hardware = \$1,000 + MU's. Repaint 8 HM frames, \$75 clean-grind-repaint frames = \$600 + MU's = = = TOTALS \$1,600 + MU's										\$2,410	93.55%	\$4,665
Grilles	2 grilles. Both are dirty, staining wall above and below.	Replace grilles.	2	END	L	Remove existing grilles, replace 2 new (5' x 5') grilles, \$750 ea demo & replace = \$1,500 + MU's										\$2,260	93.55%	\$4,374

LINCOLN MIDDLE SCHOOL
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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Administration Office Area																			
Floor & Base Finish Materials	Carpet floor, rubber base. Both in fair condition. Painted wood base, scuffed and dented.	Refinish, repaint wood base in conference room.	2	ESL	L	Refinish, repaint 50 LF 8" high wood base.							●	●			\$1,000	93.55%	\$1,936
Reception / Waiting (location, no. of seats)	No seating, standing only.	Provide chairs for guests.	0	OB	L	Provide (3) chairs.							●	●			\$600	93.55%	\$1,161
Nurse and Health																			
Floor & Base Finish Materials	Linoleum floor is discolored, deteriorating, and peeling away. There is a mix of wood base and rubber base. Paint on wood base is chipping away, wood is dented and scuffed. Rubber base is scuffed, damaged in high traffic areas, and often peeling away from wall.	Replace all linoleum floors. Replace all floor bases as part of wholesale floor replacement.	2	END	L	Approx. 400 SF linoleum floor replacement, \$1.50 demo & prep for new + \$4.50 linoleum + \$0.50 base ave area = \$6.50 = \$2,600 + MU's							●	●			\$3,915	93.55%	\$7,577
Student Toilet Rooms																			
Floor & Base Finish Materials	Linoleum floor is discolored, deteriorating, and peeling away. Tile floors and base are in a state of disrepair. Missing and broken tiles, discolored. There is a mix of wood base and rubber base. Paint on wood base is chipping away, wood is dented and scuffed. Rubber base is scuffed, damaged in high traffic areas, and often peeling away from wall.	Replace linoleum floors. Replace tile floors. Replace all floor bases.	2	END	L	Replace approx. 430 SF linoleum floors with ceramic tile, \$15sf w/demo & prep & ceramic tile w/tile base = \$6,450 + MU's							●	●			\$9,710	93.55%	\$18,794
Toilet Partitions	Baked enamel toilet partitions. Dented and scuffed in some areas.	No Action Required. Within expected service life. Replace with any large-scale locker room renovation.	3	ESL	L	Remove existing partitions. Replace with approx. 8 new urinal divider partitions, 14 new ADA toilet partitions, and 8 new standard toilet partitions, \$1,000 urinal partition demo & replace + \$1,250 standard toilet partition demo & replace + \$1,500 ADA partition demo & replace = \$39,000 + MU's							●	●			\$58,695	93.55%	\$113,604
Staff Toilets																			
Floor & Base Finish Materials	Linoleum floor is discolored, deteriorating, and peeling away. Tile floors and base are in good condition.	Replace linoleum floors and rubber base.	2	END	L	Remove approx. 200 SF Linoleum, replace with approx. 200 SF new ceramic tile on floor, \$15sf w/demo & prep + \$13 sf ceramic tile w/tile base =\$3,000 + MU's							●	●			\$4,515	93.55%	\$8,739
Wall Finish Materials	Painted GWB. Dented and chipping areas, particularly at outer corner areas. Scuffed, marked, showing wear and tear from heavy traffic, abuse. Ceramic tile up to 4' above floor in some.	Patch and repaint all GWB. Install tile up to 4' along walls with no tile protection.	3	ESL	L	Approx. 300 SF new tile 4' up bathroom walls, demo gyp + new tile backer board + tile wainscot = \$17.50 sf = \$5,250 + MU's. See general notes for repainting quantities.							●	●			\$7,910	93.55%	\$15,310
Mirrors	Wall-mounted mirrors provided, missing in 1 staff bathroom.	Provide 1 wall-mounted mirror.	3	ESL	L	1 (18" x 30") wall-mounted mirror = \$100 + MU's							●	●			\$150	93.55%	\$290

LINCOLN MIDDLE SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Door Material (Including Frame & Glazing)	Wood veneer doors, no lites. Painted HM frames. 1 original wood door with wood frame and trim is showing its age - denting, scuff marks, deterioration of wood.	Replace 1 door	3	ESL	L	Remove existing door, install 1 (3' x 7') wood veneer door and painted HM frame, \$1,500 demo & replace door & frame include lockset and closer + MU/s											\$2,260	93.55%	\$4,374
Mechanical and Service Spaces																			
Ceiling Finish Materials	Exposed concrete deck. Painted.	Repaint concrete deck.	2	END	L	Repaint approx. 3000 SF concrete deck, \$2 sf prep-repaint = \$6,000 + MU's											\$9,030	93.55%	\$17,478
Door Material (Including Frame & Glazing)	Wood and metal doors with HM frames. All are in relatively poor condition.	Replace doors and frames.	2	END	L	Replace 4 existing doors and frames with 4 new HM doors and frames, \$1,500 door & frame demo & replace including lockset & closer = \$6,000 + MU's Change to (20) existing doors.											\$45,150	93.55%	\$87,388
																	Total Years 11 - 15	\$4,558,534	

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Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Brick, Glass Block, Granite Block, CMU block (at lower level entry). Brick seems to be in fair condition. Isolated areas of cracking, spalling brick. It should be noted that the exterior brick is in the process of being repointed. Repointed brick looks good, although gymnasium brick needs repointing as well. Glass block is broken, failing in numerous areas. Granite block and CMU appear to be in good condition.	Continue work repointing brick. Patch isolated cracking, replace spalled brick. Recommend removal of all glass block, replace with functional and energy efficient system. Remove staining on CMU block with light pressure wash. Repoint brick around Gym.	2	ESL	L	Remove approx. 1,200 SF of 12" x 12" glass block, replace with thermally broken aluminum window system. Will assume lintels already in place above glass block in good condition u.n.o., \$75 sf demo & replace glass block with alum window system + MU's. Approx. 10,000 SF of gymnasium brick needs repointing - confirm that this is not under current scope of work. Will exclude u.n.o. Nevermind note about lintels - glass block lintels quantified below. Price 10,000 SF of brick repointing											\$112,875	116.55%	\$244,431
Spalling, Staining, Efflorescence	Efflorescence does not appear to be an issue. Brick spalling in isolated areas. Large areas of brick staining under exterior vents and grilles.	Light pressure wash of brick in areas of staining.	2	ESL	L	Replace 30 SF spalled brick, particularly at outside corners, \$25 sf demo & replace + MU's.											\$2,935	116.55%	\$6,356
Windows																			
Frame Materials	Painted aluminum. Paint is fading, staining. Broken seals at glass units.	Replace all windows over long term	2	END	L	Replace 50 (4'-8'-6" (34 SF)) windows @ \$70 + MU's all windows Replace 100 (4' x 11' (44 SF)) windows Replace 120 (4' x 10' (40 SF)) windows = = = TOTALS 10,900 sf @ \$70 = \$763,000 + MU's .. Existing blocking re-used Confirmed to replace all windows, include new blocking											\$1,148,315	116.55%	\$2,486,676
Storm Windows and Insect Screens	Lower level windows next to playground have protection screens, metal grilles. Showing age, rusting, wear and tear. No insect screens.	Replace protection grilles. Recommend adding insect screens to all windows.	2	END	L	Replace 17 (4' x 4') steel protection grilles, allow \$500 per grill demo & replace + MU's\. Install 270 (4' x 4') insect screens, allow \$150 per insect screen + MU's = = = TOTALS \$49,000 + MU's											\$73,745	116.55%	\$159,695

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
Sills	Granite sills - covered in red dust from repointing. Brick sills in good condition. Precast concrete sills at glass block openings are stained, spalling in some locations.	Pressure wash granite sills. Replace precast concrete sills (as part of glass block replacement).	2	END	L	Clean 500 LF of granite sill, allow \$2.50 per sf with sill 12" total depth assumed = \$1,250 + MU's. Remove and replace 200 LF of precast concrete till, allow \$50 lf demo & replace = \$1,000 + MU's; = = = TOTALS \$2,250 + MU's										\$3,390	116.55%	\$7,341
Lintels	Painted steel lintels. Heavy rusting on lintels associated with glass block. Other lintels show minor rusting, paint chipping.	Replace lintels in openings where glass block occurs (along with glass block replacement). Exterior lintels occurring at the gymnasium	2	END-ESL	L	Approx. 300 LF of steel lintel needs replacement, assume 2 ea 4" x 4" back to back angels = 1										\$57,415	116.55%	\$124,332
Exterior Doors - Main Entrance																		
Glazing Type and Color	Clear, single pane	Replace with energy efficient insulated glazing.	0	OB	L	Remove and replace approx. 75 SF (5 panes) of insulated glazing, assumes new perimeter glass										\$3,390	116.55%	\$7,341
Exterior Doors (not including Main Entry)																		
Materials	Lower level entry, aluminum storefront system. Appears to be in good condition. Other exterior doors are generally service doors, painted HM doors and frames. HM doors and frames at building rear are in rough condition, and have dated hardware. Paint chipping, and rust is showing. Gymnasium side entry is an aluminum system, showing signs of heavy wear and dated hardware.	Replace aluminum storefront system (rear side of gymnasium). Replace HM doors and frames at building rear.	2	END-ESL	L	Replace aluminum storefront system, 3 (3' doors), 10' high system (glass transom) at gym side entry, 100 sf total area, 60 sf door leaf & 40 sf sidelite-transom = \$85 sf demo & replace sidelite & transom + \$2,800 demo & replace each storefront entry door = \$11,800 + MU's. Replace 7 (3' door) HM doors and frames at rear of building, \$2,500 per door/frame demo & replace = \$17,500 + MU's. = = = TOTALS \$29,300 + MU's										\$44,100	116.55%	\$95,499
Fascia, Trim, Soffits & Overhangs																		
Materials	Copper fascia looks good. The gymnasium addition has a painted wood fascia. The paint on the wood fascia at the gym perimeter is chipping, peeling away. This includes the paint on the fascia board at the two canopies attached to the gym, and the low roof adjacent to gym side entry. As well as the fascia on the "dunce cap" canopy lower entry. Both gym canopies have deteriorating, chipping, discolored EIFS. Looks like it is already a hazard (falling pieces) Wood soffit paneling at main entry canopy. Beautiful woodwork, showing signs of weathering, discoloration.	Refinish and repaint fascia board wood at gym and canopy perimeters. Replace EIFS at canopies. Refinish wood soffit paneling at main entry.	2	ESL	L	Refinish/repaint approx. 600 LF (9" tall fascia board), 450 sf area @ \$3.50 sf clean-pre-repaint = \$1,725 + MU's; Replace approx. 200 SF EIFS, \$20 sf demo & replace, assumes some flashing & barrier wrap work behind = \$4,000 + MU's. Refinish approx. 150 SF wood soffit paneling, \$5 sf clean-sand-refinish = \$750 + MU's = = = TOTALS \$6,475 + MU's										\$9,745	116.55%	\$21,103
Sealants & Expansion Joints																		
Window / Door Perimeter Sealant	Contractors on site who were repointing brick noted that in previous repointing efforts, contractors failed to remove existing sealant around windows, and covering sealant with mortar. Current repointing involves removing door and window sealant and replacing with new sealant. Sealants around doors and grilles showing signs of deterioration, cracking, failure.	All window sealants will be replaced when windows are replaced. Replace sealants around all exterior doors and grilles.	2	END	L	Approx 400 lf sealant, \$3.50 lf to rout out & replace = \$1,400 + MU's.										\$2,110	116.55%	\$4,569

LINCOLN MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY		DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
				COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																				
Building Joint Sealant		Building sealant around gymnasium volume and canopies is deteriorating, breaking away.	Reseal building joints in rear of building.	2	END	L	Approx 200 lf sealant \$5 lf to rout out & replace & backer rod = \$1,000 + MU's.						●	●			\$1,505		\$1,505	
Roof Assembly & Flashing																				
Material, Type, Color		EPDM, black over main building volumes. Appears to be in good condition. Maintenance staff noted they haven't had issues lately. Repairs were made a few years ago to gymnasium roof, which was leaking in places. No current issues. Dunce cap roof is standing seam metal roof, appears to be in good condition. Rear building volume adjacent to cafeteria/gymnasium is asphalt shingle, appear to be in good condition.	Budget for replacement at end of service life	3	ESL	L	33,100 SF						●	●			\$597,786	116.55%	\$1,294,506	
Roof Drains (Covers)		Mix of plastic and steel roof drain covers. Noted one drain on cafeteria roof where cover is missing.	Replace roof drain cover.	3	ESL	L	Replace 1 steel drain roof cover, \$150 + MU's						●	●			\$225	116.55%	\$487	
Gutters and Downspouts																				
Locations and Materials		Gutters, downspouts located at lower entry "dunce cap". Appears to be in fair condition, although paint is fading and is showing areas of rust.	Refinish and repaint.	2	ESL	L	Refinish, repaint 50 LF gutter, 10 LF downspout, assume 15" average gutter or downspout width/circumference dimension =75 total sf area @ \$5 sf clean-scrape-prep-repaint = \$375 + MU's						●	●			\$565	116.55%	\$1,224	
Splash Block or Tied to Storm Drainage		Doesn't appear to be either	Add splashblock.	-	-	L	Install new splash block Price (1) new splashblock						●	●			\$565	116.55%	\$1,224	
Decorative Items or Features																				
Types and Locations		Steel structure of "Dunce cap" lower entry canopy, paint on structure beneath canopy is chipping away and peeling, steel is rusting. Decorative spiral columns supporting "dunce cap" columns, paint is chipping, fading.	Refinish and repaint steel structure beneath "dunce cap". Refinish and repaint decorative spiral columns.			L	Refinish, repaint approx. 400 SF steel structure beneath "dunce cap" canopy, \$6 sf clean-scrape-prep-repaint = \$2,400 + MU's. Refinish, repaint 5 spiral columns, 18" diameter, 10' high. (5' circumference x 10' x 5 columns = 250 SF), \$6 sf clean-scrape-prep-repaint = \$1,500 + MU's = = TOTALS \$3,900 + MU's						●	●			\$5,870	116.55%	\$12,711	

LINCOLN MIDDLE SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																				
Other Observations																				
Brick repointing at roof chimney	It appears that during repointing efforts at roof chimney, masons covered building sealant with mortar. Also, mortar drippings were left on roof, items penetrating roof.	Remove mortar and sealant, reseal. Remove leftover mortar drippings.	2	ESL	L	400 If sealant @ \$5 clean & reseal = \$2000 + MU's							●	●			\$3,010	116.55%	\$6,518	
Wood cupola feature	Wood boards that compose the wood cupola on the roof are deteriorating, and paint is chipping off.	Rebuild cupola.	1	END	L	300 sf refinishing & repainting, \$7.50 sf due to height on roof = \$2,250 + MU's; excludes replacing deteriorating wood boards. Recommending demolishing and completely rebuilding wood cupola. Approx. 100 SF. Eight-sided cupola. Approx. 15 feet tall, with decorative done top. Cupola sides are wood slat vents.	1						●	●			\$37,625	116.55%	\$81,477	
																	Total Years 16 -20		\$4,556,994	

LYMAN MOORE MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Year 0 (Fiscal Year 2017) - Immediate Recommendations																			
ELECTRICAL																			
Exterior Building Lighting	LED wall packs. Some fixtures are not properly secured.	Repair or replace fixtures that are not properly secured. All fixtures will reach the end of their anticipated useful lives within 20 years	2	ESL	I	Carry replacement of (4) LED wall packs in the immediate						●	●			\$3,600	0.00%	\$3,600	
																Total Year 0		\$3,600	

LYMAN MOORE MIDDLE SCHOOL

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																TRADE COST PLUS 50.5% MARK-UP		ESCALATION		* OPINION OF PROBABLE COST	BUDGET ALLOCATION			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE					
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
SITE																								
Parking																								
Paving Materials	Bituminous - pavement at parking in front of building good. Pavement along primary route and parking lot side of building- Poor	Mill and repave primary route and parking lot at side of building.	1	END	S	47,000 s.f. @ \$1.25								●		\$88,418	24.65%	\$110,213	\$110,213					
Parking Striping Condition	Good, White/ Faint Arrows	Repaint arrows around access loop.	2	ESL	S	200sf@\$2		●								\$400	24.65%	\$499	\$499					
Number of Spaces (Regular & ADA)	4 ADA, only 1 sign, non compliant grades, no van accessible parking	Adjust parking grades to be less than 2% within ADA parking. Repaint to include van accessible aisle.	1	END	S	1400 s.f. @\$4 stiping: 250 lf@\$0.50				●						\$8,616	24.65%	\$10,740	\$10,740					
Accessible Parking Signage	Only 1 sign	Install 1 ADA sign per space.	2	ESL	S	\$350 + MU's				●						\$526	24.65%	\$656	\$656					
Vehicular Drop-Off & Pick-Up Areas																								
Locations	No separation	Further investigate and study: Paint and/or install curbing and signage to better define and separate bus and parent drop off locations.	2	ESL	S	Budget for additional study		●								\$10,000	24.65%	\$12,465	\$12,465					
Car & Bus Separations	No strong delineation from cars and buses, only 1 sign																							
Vehicular & Pedestrian Circulation																								
Traffic Markings & Traffic Signage	Need better signage for no parking spaces	Install no parking signs	2	ESL	S	8@\$125		●		●						\$1,505	24.65%	\$1,876	\$1,876					
Walkway Materials	Bituminous, walk along east side in poor condition	Replace walkway on east side of building.	2	ESL	S	3000s.f@\$2.50		●		●			●			\$11,287	24.65%	\$14,069	\$14,069					
Curb Cuts & Detectable Warning Strips	No panels on site	Install detectible warning panels at crosswalks.	0	OS	S	3000s.f@\$2.50		●		●						\$11,287	24.65%	\$14,069	\$14,069					
Pedestrian Ramp Location & Materials	Bituminous and concrete - Fair	Adjust transitions to 1/4" or less where applicable.	2	ESL	S	Mill and Overlay 200s.f. @\$5		●		●						\$1,505	24.65%	\$1,876	\$1,876					
Service Area																								
Loading Dock or Leveler	1 at front (still used?), no markings at entrance to not block	Install no parking sign.	2	ESL	S	\$350 + MU's		●								\$526	24.65%	\$656	\$656					
Site Furniture & Accessories																								
Types, Locations, Materials	Propane @ loading	Make fence more secure	2	ESL	S	50lf@\$50		●	●							\$3,762	24.65%	\$4,689	\$4,689					
Site Drainage																								
Ponding	Evidence of ponding at side parking lot.	Install catch basin or adjust grade to drain.	2	ESL	S	1cb@\$2500 pave adjust: 100s.f@\$4							●			\$4,364	24.65%	\$5,440	\$5,440					
STRUCTURAL																								
Exterior Wall Construction	Brick veneer tied to CMU walls.	Replace corroded lintels	2	END	S	Approx. (25) lintels, 100 lf +/-						●	●			\$35,000	24.65%	\$43,628	\$43,628					
Exterior Wall Construction		Replace base sealants at areas of newer construction	2	END	S	Approx. 600 lf						●	●			\$1,450	24.65%	\$1,807			\$1,807			
BUILDING EXTERIOR																								
Exterior Stairs and Ladders																								
Locations and Materials		Replacing handrails, or provide missing handrails, to meet required extensions beyond the bottom of the stair.	2	END	S	A total of 45 linear feet of replaced painted round pipe handrail. Single line wall pipe rail assumed @ \$30 demo & replace = \$1,350 + MU's			●	●						\$2,035	24.65%	\$2,537			\$2,537			

LYMAN MOORE MIDDLE SCHOOL
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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Locations and Materials	Concrete ADA ramp. Handrail mounted to ramp has come loose	Replace handrail mounted to ramp	2	ESL	S	A total of 40' of painted round metal handrail mounted to ramp double line ground mount rail assumed @ \$80 demo & replace = \$3,200 _+ MU's Correct, provide double line ground mount rail.				●	●						\$4,820	24.65%	\$6,008			\$6,008	
Other Observations																							
	(2) interior courtyards are not accessible	Recommend providing accessible ramp to each courtyard	3	ESL	S	(2) 18'x5' concrete ramps @ 1450 sf with a total of 72 linear feet of painted round metal handrail @ \$75 (36 linear feet per ramp), \$13,500 per ramp dig-bf-12" gravel-foundation-slab-ground mount rails x 2 ramps + \$72' rails @ \$75 = \$5,400 = \$32,800 + MU's				●	●						\$49,365	24.65%	\$61,533	\$61,533			
BUILDING INTERIOR																							
Corridors																							
Wall Projecting Objects	Drinking fountains are not located in alcoves and do not have cane detection devices.	Provided painted round metal cane detection devices to either side of the drinking fountain to meet ADA requirements	0	OB	S	(5) painted round metal cane detection devices. Two for each fountain. 10 total @ \$250 = \$2,500 + MU's				●							\$3,765	24.65%	\$4,693			\$4,693	
Science Classrooms																							
Sinks (ADA compliance)	Stainless steel counter mounted sink, varying quantities in each classroom. Each classroom had one ADA compliant sink with the exception of one classroom. Sinks had stainless steel goose neck faucets. All in good condition	Recommend providing ADA compliant sink in the one remaining classroom.	N/A	OB	S	(1) counter mounted stainless steel sink at ADA height. See above for counter quantities \$2,250 w/new rough + MU's				●							\$3,390	24.65%	\$4,226			\$4,226	
Art Classrooms																							
Casework	A mix of plastic laminate, wood veneer, and metal in varying age and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	S	Provide the following in the (2) Art rooms: (1) 20'x2' Plastic Lam counter at ADA height @ \$90 demo-replace = \$1,800 ea room; (4) 48" double door base cab with drawers 16 lf @ \$275 demo-replace =\$4,400 ea room; (1) 48" ADA sink apron \$400 ea room (2) 12'x2' butcher block wood counter tops 24 lf @ \$100 = \$2,400 ea room (12) 3 tier metal locker base cabs, vented \$500 ea = \$6,000 per room (2)36" tall storage cabinet \$900 ea = \$1,800 per room (2) 36" open shelf tall storage \$750 ea = \$1,200 per room (2) 48" open shelf tall storage \$900 ea = \$1,800 per room = = TOTALS \$19,800 per room x 2 = \$39,600 + MU's				●		●	●				\$59,600	24.65%	\$74,291	\$74,291			
Gymnasium																							
Wall Pads	Wall pads located at walls below backstops in good shape.	Recommend adding more wall pads at wall behind backstop in front of equipment storage room.	3	ESL	S	10 lf wall pad 6' ht assumed = 60 sf @ \$8.50 = \$510 + MU's		●									\$770	24.65%	\$960			\$960	

LYMAN MOORE MIDDLE SCHOOL

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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																TRADE COST PLUS		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Weight Room / Fitness Room																							
Door Hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	1	OB	S	replace one (1) door knob with ADA compliant hardware, \$500 assumes wood door w/modifications + MU's											\$755	24.65%	\$941		\$941		
Locker Rooms																							
Level of Privacy - Short Term	Moderate level of privacy. Semi private showers (curtains) but no private changing area directly in front of showers.	Recommend providing private changing / drying areas directly in front of shower stalls	0	OB	S	Refer to diagrams provided in the Locker Room Privacy Accomodations Section of this report.											\$23,330	24.65%	\$29,081	\$29,081			
Nurse and Health																							
Other Observations	Restroom in nurses suite is non-ADA due to size and missing grab bars.	Recommend providing an ADA compliant bathroom in the nurses suite.	0	OB	S	Interior renovation of 250 square feet to reconfigure the bathroom and exam area to provide an ADA compliant restroom and lay down / cot area. Construction to consist of metal stud gyp partition extending to underside of deck, (2) wood veneer HM frame door, Carpet tile floor, 2x4 ACT ceiling, wall mounted sink and floor mounted water closet, ADA grab bars \$150 sf = \$37,500 + MU's											\$56,440	24.65%	\$70,352	\$70,352			
ELECTRICAL																							
Life Safety																							
Fire Alarm	1980's vintage conventional zoned FCI control panel. Occupant notification has been update to comply with ADA requirements in approximately 1/3 of the building, but remaining areas do not comply with current standards.	Udate to fully addressable system.	1	OB	S	Carry complete new system for 104,424 sf											\$196,000	24.65%	\$244,314	\$244,314			
Emergency Lighting	Emergency battery units with integral and remote heads. Heads are a mixture of LED and incandescent. LED illuminated exit signs with integral battery backup.	Replace older units as they fail. Provide outdoor emergency lighting at building exits.	2	ESL	S	Carry replacement of (45) indoor emergency lighting units and addition of (14) outdoor units.											\$45,000	24.65%	\$56,093	\$56,093			
SECURITY																							
Secure Entry Vestibule	None	Recommend providing a secured entry directly into administration area in future renovations. Renovate / reconfigure reception area of main office and renovate portion of main lobby to create a secured entry sequence that brings visitors into main office before entering into student occupied areas.	0	OB	S	800 Square Feet of complete interior renovations. \$125 sf = \$100,000 + MU's											\$150,500	24.65%	\$187,598	\$187,598			
Intrusion Alarm System	Bosch system connected to district-wide network	System will reach the end of its anticipated useful life within 15 years.	3	ESL	S	Carry Complete system replacement for 104,424 sf											\$94,000	24.65%	\$117,171	\$117,171			
Security Camera System	POE cameras connected to district DVR servers, which are located at PATHS	Add exterior cameras to cover the outdoor area at the west side of the building north of the gym	2	ESL	S	16 cameras											\$25,000	24.65%	\$31,163	\$31,163			
Total Years 1 - 5																		\$1,113,643	\$1,092,471	\$0	\$21,172	\$0	

LYMAN MOORE MIDDLE SCHOOL
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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

			SEE LEGEND			EVALUATION CRITERIA										BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
BUILDING INTERIOR																						
Locker Rooms																						
Level of Privacy - Long Term	Moderate level of privacy. Semi private showers (curtains) but no private changing area directly in front of showers.	In addition to modifications made in the short term Years 1 - 5, provide ADA compliant shower and changing compartment Maintenance will make repairs as needed until funding is secured	0	OB	L	Refer to diagrams provided in the Locker Room Privacy Accomodations Section of this report.										\$18,000	55.30%	\$27,954		\$27,954		
Ceiling Finish Materials	Painted GWB / plaster with isolated areas of damage or failing paint.	Repaint, patch, sand, and paint isolated areas of ceiling damage and failing paint (specifically above shower stalls). Maintenance will make repairs as needed until funding is secured	2	ESL	L	A total of 80 square feet in each of the two locker rooms @ \$2.75 epoxy paint = \$220 + MU's										\$335	55.30%	\$520		\$520		
Shower Configuration (Gang, Stalls)	CMU shower stalls with shower curtains and one ADA stall. Composite shower bases are in poor condition.	Clean shower stall bases of all residue and stain as part of standard maintenance practice	2	ESL	L	(8) 36"x36" stalls (2) 60"x36" stalls 102 sf total area @ \$5 = \$510 + MU's										\$770	55.30%	\$1,196			\$1,196	
PLUMBING																						
Domestic distribution piping	Copper pping lead solder (1950s)	Copper system beyond service life--replace Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @ 70K SF										\$1,300,000	55.30%	\$2,018,900		\$2,018,900		
Sanitary Waste and Vent System	Cast Iron (1950s) and PVC	Cast iron sanitary beyond service life--replace. Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @ 70K SF										\$750,000	55.30%	\$1,164,750		\$1,164,750		
Storm Drain System	Cast Iron (1950s) and PVC	Cast iron sanitary beyond service life Maintenance will make repairs as needed until funding is secured	2	END	L	\$/SF @ 70K SF										\$325,000	55.30%	\$504,725		\$504,725		
MECHANICAL																						
Heating Plant	(2) Burnham Industrial 5,021 MBH Gross Output steam boilers, 1991 est. mfg. Provides steam to Lyseth; steam and hot water to Moore. The HX and original pumps were installed during the 96 renovation. Condensate return pumps are in good condition. Boiler feed system appears older than the 96 renovation date.	Convert boiler plant from steam to hot water. Maintenance will make repairs as needed until funding is secured	1	END	L	Figure (2) 2,700 MBH gas condensing boilers with appurtenances (exp tank, etc)										\$475,000	55.30%	\$737,675		\$737,675		
Air Handling Unit Systems (1996 Addition)	Roof top H&V units 1996 mfg. Assumed 5,000 cfm. Each (2) units 1996 class wing addition, (1) café, (1) gym.	Units are nearing their usefull service life (5 yeaaars left) Replace in kind. Maintenance will make repairs as needed until funding is secured	2	END	L	(5) 5,000 cfm rooftop H & V units.										\$225,000	55.30%	\$349,425		\$349,425		
Pumps	7 1/2 hp hot water pumps to the building were replaced in 2012.	The expected service life of a base mount pump is 25 years. Add (2) 150 gpm pumps w/VFDs to serve original building at time of steam to HW conversion. Replace existng (2) 7 1/2 HP pumps with VFD pumps. Maintenance will make repairs as needed until funding is secured	3	ESL	L	Figure (4) 175 gpm pumps w/VFDs										\$78,000	55.30%	\$121,134		\$121,134		
Terminal Unit Systems Heating	Convective heating units and CUHs are mostly HW units.	CUHs and convective units at end of expected service life of 20 years- replace units. Maintenance will make repairs as needed until funding is secured	2	END	L	Figure (20) units at \$2,500 ea.										\$70,000	55.30%	\$108,710		\$108,710		
Terminal Unit Systems Classes (Addtion 1996)	Reheat duct coils serving classrooms from H&V rooftop unit.	Reheat duct coils are at the end of their expected service life. Replace coils in kind. Maintenance will make repairs as needed until funding is secured	2	END	L	Figure (35) 14 x12 duct coils										\$50,000	55.30%	\$77,650		\$77,650		

LYMAN MOORE MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																TRADE COST PLUS 50.5% MARK-UP		ESCALATION	* OPINION OF PROBABLE COST		ALLOCATION			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE			
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																								
Terminal Unit Systems Unit ventilators (original building side)	Floor mount (steam) and ducted (HW) unitventilators are end of expected service life of 20 years.	New rooftop ERU units with HW coils to provide classroom ventilation. Install system at time of steam to HW conversion. Assume (4) 2,500 cfm units. Install fintube to classrooms for heating. Maintenance will make repairs as needed until funding is secured	2	END	L	(4) Rooftop ERUs 2,500 cfm. \$/SF @ 70K SF for uninsulated ductwork. Figure 800 ft fintube										\$175,000	55.30%	\$271,775		\$271,775				
Exhaust Systems	Roof top toilet power exhausters and unit ventilators relief hoods	Nearing end of service life--remove and incorporate as part of the new ERU ventilation at time of steam to HW conversion. Maintenance will make repairs as needed until funding is secured	2	END	L	No price--ductwork modification figured in above.										\$0	55.30%	\$0		\$0				
Piping System (HW for 1996 Reno)	Piping mains were replaced in 2012 due to victaulic fitting failure.	No Actrion Required for recently replaced mains. Replace copper runouts to coils. Maintenance will make repairs as needed until funding is secured	3	ESL	L	Figure \$/SF @ 15K SF for insulated for runnouts to HW coils.										\$150,000	55.30%	\$232,950		\$232,950				
Piping System (Steam original Bldg)	Steam piping is original to the 1950's buildings. This piping is beyond is expected service life of 30 years.	Replace steam piping with HW piping system at time of steam to HW conversion. Maintenance will make repairs as needed until funding is secured	2	END	L	Figure \$/SF @ 70K SF --pipe with insulation.										\$1,200,000	55.30%	\$1,863,600		\$1,863,600				
Automatic Temperature Controls	Vintage pneuymatics and some DDC electric.	Pneumatics are end of service life- replace complete system for original building and 1996 addition at time of steam to HW conversion. Maintenance will make repairs as needed until funding is secured	2	END	L	Figure \$/SF @ 104K SF.										\$520,000	55.30%	\$807,560		\$807,560				
ELECTRICAL																								
Service	Underground primary to utility transformer vault in building. The vault was not accessible at the time of our visit as it requires utility company presence to access. Comments regarding life cycle are based on the general building vault arrangement being an obsolete design. The school has had repeated issues with squirrels shorting the overhead utility primary, resulting in power outages due to blown utility cutouts.	Update to padmount transformer. Further investigation by utility company is required to determine cause of shorts due to squirrel activity. Maintenance will make repairs as needed until funding is secured	2	OB	L	Carry complete new service entrance for 104,424 sf										\$85,000	55.30%	\$132,005		\$132,005				
Equipment	(1) 1995 vintage 800A panelboard and (1) 1960 vintage switchboard	Update to a single switchboard as part of service upgrade Maintenance will make repairs as needed until funding is secured	2	END	L	Carry new 1600A, 208/120V 3-phase switchboard										\$54,000	55.30%	\$83,862		\$83,862				
Panels	Mix of 1960 vintage and 1995 vintage panelboards	Replace 1960 vintage panelboards. All panels will reach the end of their anticipated useful lives within 10 years. Maintenance will make repairs as needed until funding is secured	2	END	L	Carry complete power distribution system replacement fo 104,424 sf										\$339,000	55.30%	\$526,467		\$526,467				
Branch Circuits	Receptacles appear to be located appropriately for the current program. Some receptacles located near sinks science rooms do not include GFCI protection.	Provide GFCI protection for receptacles in accordance with current code.	2	ESL	L	\$2,000 + MU's										\$3,010	55.30%	\$4,675			\$4,675			
Exterior Building Lighting	LED wall packs. Some fixtures are not properly secured.	All fixtures will reach the end of their anticipated useful lives within 20 years Maintenance will make repairs as needed until funding is secured	2	ESL	L	Carry replacement of (20) in the long term										\$18,000	55.30%	\$27,954		\$27,954				
Interior Lighting																								
Classrooms	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	END	L																			

LYMAN MOORE MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																	BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
Offices	Recessed fluorescent fixtures with parabolic diffusers and T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L	Carry complete interior lighting replacement for 104,424 sf						●	●			\$1,216,000	55.30%	\$1,888,448		\$1,888,448		
Corridors	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L							●	●									
Toilets	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L							●	●									
Mech/Storage	fluorescent strips with T8 lamps	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L							●	●									
Assembly		Maintenance will make repairs as needed until funding is secured			L							●	●									
Gym	T8 fluorescent high bays	Update lighting to LED as part of any planned facility renovations. Maintenance will make repairs as needed until funding is secured	2	ESL	L							●	●									
																	Total Years 6 - 10	\$10,922,265	\$0	\$10,917,590	\$4,675	\$0

LYMAN MOORE MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

BUILDING INTERIOR																			
General Notes																			
Interior wall base finish material	Resilient rubber base is in fair condition and should be replaced in 11-20 years	Replace all resilient rubber wall base with new resilient rubber base through out the entire building	3	ESL	L	New resilient rubber wall base for a 102,000 GSF two story building @ \$0.50 per sf floor = \$51,000 + MU's							●	●			\$76,755	93.55%	\$148,559
Wall Finish Materials		Budget for repainting entire interior, including doors and frames	2	ESL	L	Base on 102,000 GSF							●	●			\$307,020	93.55%	\$594,237
Main Entrance / Main Lobby																			
Entrance Mats	(3) large lay down walk-off mats in good condition	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby. Schedule work with secured entry vestibule renovation	3	ESL	L	150 Square Feet of aggressive grade walk-off mat. \$17.50 recycled rubber matt = \$2,625 + MU's 250 Square Feet of mild grade walk-off mat. \$15 sf = \$3,750 + MU's 1,000 Square feet of low grade walk-off mat @ \$10 = \$10,000 + MU's = TOTALS \$16,375 + MU's							●	●			\$24,645	93.55%	\$47,700
Ceiling Finish Materials	2x2 ACT in good condition	Recommend replacing 2x2 ACT ceiling system complete.	3	ESL	L	1,300 sf 2 x 2 @ \$6 demo & replace = \$7,800 + MU's							●	●			\$11,740	93.55%	\$22,723
Corridors																			
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	15,000 sf @ \$4.50 demo-replace = \$67,500 + MU's							●	●			\$101,590	93.55%	\$196,627
Lockers	Double tier metal lockers, vented, and ADA compliant. Lockers are in fair condition	Recommend replacing lockers with new double tier painted metal vented lockers	3	ESL	L	500 If lockers double tier \$135 opng demo-replace =\$135,000 + MU's							●	●			\$203,175	93.55%	\$393,245
Doors opening into Corridors (rating, closers, hold-opens, swing, widths)	Most doors opening into corridors have closers but no hold opens (wood stops are used). Swings and widths are compliant.	Remove wood stops and provided hold opens at doors that are intended to remain open	0	OB	L	Provide magnetic closers for a total of (40) doors) quantity unclear A total of 40 doors							●	●			\$15,050	93.55%	\$29,129
Stairs and Exits																			
Floor & Base Finish Materials	VCT with resilient rubber wall base	Replace damaged floor tile (isolated areas around floor catches at doors).	1	END	L	30 sf @ \$7.50 =\$225 + MU's							●	●			\$340	93.55%	\$658
Ceiling Finish Materials	2x4 ACT in fair condition. Painted GYP under stair landings and stringers	Recommend replacing with new 2x4 ACT ceiling complete. Repaint GYP ceilings.	2	ESL	L	Paint 1,000 sf allowance \$1.50 pre-repaint = \$1,500 + MU's .. 700 sf ACT @ \$4.50 demo-replace = \$3,150 + MU's							●	●			\$7,000	93.55%	\$13,549
Handrails (height, extensions, profile)	Painted round metal handrails in fair condition. Heights, extensions, and profile are all compliant.	Recommend repainting handrails as part of standard maintenance practice	2	ESL	L	180 If single line pipe rail assumed @ \$10 = \$1,800 + MU's Correct, single line pipe rail wall mounted.							●	●			\$2,710	93.55%	\$5,245
General Purpose Classrooms																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber wall base	Recommend replacing broadloom carpet with new carpet tile	3	ESL	L	An average of 800 square feet in each carpeted classroom (total of 17 classrooms) @ \$6 sf demo-prep-replace = \$81,600 + MU's							●	●			\$122,810	93.55%	\$237,699

LYMAN MOORE MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Wall Finish Materials	A mix of painted GYP, painted CMU, and some classrooms have operable partitions in fair condition (some used frequently and some not used at all)	Recommend replacing operable wall finishes with white board finish.	3	ESL	L	A total of 180 linear feet of operable wall finishes to be replaced with white board finish, 4' ht assumed = 720 sf @ \$30 demo-replace = \$21,600 + MU's Correct, 4' height							●	●			\$32,510	93.55%	\$62,923
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	An average of 800 square feet in each classroom (total of 35 classrooms) \$4.50 sf demo-replace = \$126,000 + MU's							●	●			\$189,630	93.55%	\$367,029
Casework	A mix of plastic laminate, wood veneer, and metal in varying age and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in each classroom (35 classrooms): (2) 36" tall cabinet \$750 ea = \$1,500 per class; (4) 36" Tall open book shelves \$600 ea = \$2,400 per class; (6) 36"x48" open book shelves 18 lf @ \$150 w/demo = \$2,700 per class = = TOTALS \$231,000 + MU's							●	●			\$347,655	93.55%	\$672,886
Visual Display Surfaces	Tack board, white board, and laminate white board surface installed over chalk board.	Remove laminate white board material and chalk board behind with white board.	2	OB	L	Provide (1) 20' of wall mounted white board in each classroom (35 classrooms), 4' ht assumed @ \$30 demo-replace = \$84,000 + MU's							●	●	●		\$126,420	93.55%	\$244,686
Science Classrooms																			
Floor & Base Finish Materials	VCT with resilient rubber wall base in fair condition	Recommend replacing VCT floor with new VCT	3	ESL	L	7,500 sf vct demo-replace w/wall base @ \$5.25 = \$39,375 + MU's							●	●			\$59,260	93.55%	\$114,698
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	7,500 sf @ \$4.50 demo-replace = \$33,750 + MU's							●	●			\$50,795	93.55%	\$98,314
Casework	A mix of plastic laminate w/ science counter tops and a variety of plastic laminate, metal, and wood casework.	Recommend replacing all casework in science labs to match the plastic laminate casework with "science tops" in the labs on the second floor	3	ESL	L	A total of 350 linear feet of phenolic counter tops on level 1 only. Level 2 is OK as is. \$150 lf demo-replace tops only = \$52,500 + MU's								●			\$79,015	93.55%	\$152,934
Visual Display Surfaces	Tack board, white board, and laminate white board surface installed over chalk board.	Remove laminate white board material and chalk board behind with white board.	2	OB	L	Provide (1) 20' of wall mounted white board in each classroom (2 classrooms) 4' ht assumed, 80 sf total @ \$30 demo-replace = \$2,400 + MU's							●	●	●		\$3,615	93.55%	\$6,997
Science Prep Rooms																			
Floor & Base Finish Materials	VCT with resilient rubber wall base in fair condition	Recommend replacing VCT floor.	3	ESL	L	300 sf vct demo-replace w/wall base @ \$5.25 = \$1,575 + MU's							●	●			\$2,370	93.55%	\$4,587

LYMAN MOORE MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	300 sf @ \$4.50 demo-replace = \$1,350 + MU's							●	●			\$2,035	93.55%	\$3,939
Life Science (Home Ec.)																			
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	1,800 sf @ \$4.50 demo-replace = \$8,100 + MU's							●	●			\$12,190	93.55%	\$23,594
Art Classrooms																			
Floor & Base Finish Materials	VCT with resilient rubber wall base. Floor shows areas of previous patch jobs. Base is in fair condition	Recommend replacing VCT floor with new VCT floor to provide a uniform floor finish and condition.	2	ESL	L	3,000 sf vct demo-replace w/wall base @ \$5.25 = \$15,750 + MU's							●	●			\$23,705	93.55%	\$45,881
Ceiling Finish Materials	2x4 ACT in poor condition. Tiles are sagging and many tiles are damaged	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	3,000 sf @ \$4.50 demo-replace = \$13,500 + MU's							●	●			\$20,320	93.55%	\$39,329
Visual Display Surfaces	Chalk board, tack board, and white board	Replace chalk board with white board	1	OB	L	48" x 120" 40 sf @ \$30 demo-replace = \$1,200 + MU's							●	●			\$1,810	93.55%	\$3,503
Other Observations	Wood top, metal base work stations (4) are heavily worn and beat up.	Recommend replacing work stations with new work stations of better quality material	2	END	L	4 ea 60" x 60" work stations 20 lf @ \$350 = \$7,000 + MU's							●	●			\$10,535	93.55%	\$20,390
Technology Classrooms																			
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	1,300 sf @ \$4.50 demo-replace = \$5,850 + MU's							●	●			\$8,805	93.55%	\$17,042
Special Education Classrooms																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber base in fair condition	Recommend replacing broadloom carpet with new carpet tile	3	ESL	L	2,400 sf @ \$6 demo-replace = \$14,400 + MU's							●	●			\$21,675	93.55%	\$41,952
Ceiling Finish Materials	2x4 ACT in poor condition. Tiles are sagging and many tiles are damaged	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	4,600 sf @ \$4.50 demo-replace = \$20,700 + MU's							●	●			\$31,155	93.55%	\$60,301
Casework	A mix of plastic laminate, wood veneer, and metal in varying age and condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in each classroom (8 classrooms): (2) 36" tall cabinet \$750 ea = \$1,500 per room; (3) 36" Tall open book shelves \$600 ea = \$1,800 per room; (4) 36"x48" open book shelves \$150 lf for 16 lf = \$2,400 per room; = = = TOTALS \$45,600 + MU's							●	●	●		\$68,630	93.55%	\$132,833
Visual Display Surfaces	Tack boards and white boards. White boards are older and shown stain from markers that wont erase easily.	Recommend replacing white boards	2	ESL	L	Provide a total of (5) 20' wall mounted white boards 4' ht assumed, 400 sf @ \$30 demo-replace = \$12,000 + MU's							●	●	●		\$18,060	93.55%	\$34,955
Cafetorium																			
Flooring		Recommend repainting gaming lines.	2	ESL	L	(1) full basketball court (3) racquetball courts Allowance 1,000 lf game lines @ \$5 lf w/masking = \$5,000 + MU's							●	●			\$7,525	93.55%	\$14,565
Backstops (quantity, mounting type, manual/motorized)	(2) ceiling mounted backstops, fixed, in fair condition (dated)	Recommend replacing backstops.	3	ESL	L	(2) ceiling mounted, fixed, backstops \$5,000 ea w/demo = \$10,000 + MU's							●	●			\$15,050	93.55%	\$29,129
Door Material (Including Frame & Glazing)	A mix of wood veneer door and painted metal door, all in painted hollow metal frames. A mix of flush doors, narrow lites, and half glass. All glazing in gym area is wired safety glass.	Metal doors and hollow metal frames need to be repainted	2	ESL	L	(4) single 36"x84" painted metal doors with hollow metal frames and narrow lites. \$125 ea door & frame repaint = \$500 + MU's							●	●			\$755	93.55%	\$1,461

LYMAN MOORE MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Performing Arts - Stage																			
Wall Finish Materials	Painted CMU and operable partition with acoustic treatment. Operable wall separates stage from auditorium to allow for band and chorus practice.	Recommend replacing operable wall finishes with acoustic fabric finish.	3	ESL	L	500 sf assumed to be area of opening x 2 = 1,000 sf fabric required @ \$12 demo-replace = \$12,000 + MU's											\$18,060	93.55%	\$34,955
Theatrical Lighting	Minimal, single row of incandescent lights	Recommend providing functional theatrical lights.	0	OB	L	(2) 10' ceiling mounted light poles with theatrical lighting @ \$200 lf = \$4,000 + MU's											\$6,020	93.55%	\$11,652
Performing Arts - Music Rooms																			
Floor & Base Finish Materials	A mix of broadloom carpet and rubber slip-resistant ramp finish with resilient rubber wall base	Recommend replacing broadloom carpet with new carpet tile	3	ESL	L	1500 sf @ \$6 demo-prep-replace = \$9,000 + MU's											\$13,545	93.55%	\$26,216
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	1,500 sf @ \$4.50 demo-replace = \$6,750 + MU's											\$10,160	93.55%	\$19,665
Other Observations	Paint on metal guardrail and handrail at ramp is failing in several areas.	Remove failing paint and re-paint railings complete	2	ESL	L	A total of 35 linear feet of metal round handrail to be sanded and painted. Double line pipe guard rail assumed for 85 total lf pipe @ \$10 lf = \$850 + MU's											\$1,280	93.55%	\$2,477
Library / Media Center																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber base in fair condition	Recommend replacing broadloom carpet with new carpet tile	3	ESL	L	3300 sf @ \$6 demo-prep-replace = \$19,800 + MU's											\$29,800	93.55%	\$57,678
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	3,600 sf @ \$4.50 demo-replace = \$16,200 + MU's											\$24,385	93.55%	\$47,197
Gymnasium																			
Acoustical Treatments	Painted tectum panels hi up on wall behind backstops in good condition.	Recommend re-painting all tectum panels	3	ESL	L	1200 sf @ \$1.75 prep-repaint = \$2,100 + MU's											\$3,160	93.55%	\$6,116
Other observations	Temporary plywood partition in gym equipment storage room.	Recommend replacing with permanent GYP partition.	2	OB	L	Replace with a total of 13' linear feet of metal stud gyp wall construction extending to underside of rood deck. \$7 sf demo-replace 14' ht assumed = 185 sf = \$1,295 + MU's unpainted											\$1,950	93.55%	\$3,774
Weight Room / Fitness Room																			
Floor & Base Finish Materials	VCT with resilient rubber wall base. Flooring is showing heavy wear and tare but is well maintained.	Recommend replacing with sheet rubber athletic flooring.	3	ESL	L	1000 sf @ \$13 demo-prep-replace = \$13,000 + MU's											\$19,565	93.55%	\$37,868
Ceiling Finish Materials	Painted GYP ceiling in good condition	Recommend re-painting as part of standard maintenance practice	3	ESL	L	1000 sf @ \$1.75 prep-repaint = \$1,750 + MU's											\$2,635	93.55%	\$5,100
Kitchen and Servery	(See Food Service Below)																		
Ceiling Finish Materials	Painted GYP / plaster ceiling and areas of 2x4 ACT in fair condition.	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	400 sf @ \$4.50 demo-replace = \$1,800 + MU's											\$2,710	93.55%	\$5,245
Door Material (Including Frame & Glazing)	Painted metal doors with painted hollow metal frames. All doors in kitchen area are flush. Paint is peeling and failing in most areas.	Recommend replacing metal doors and hollow metal frames with wood veneer doors in painted hollow metal frames.	2	ESL	L	(4) single 36"x84" wood veneer door with narrow lites. \$1,750 w/narrow lites demo-replace = \$7,000 + MU's											\$10,535	93.55%	\$20,390

LYMAN MOORE MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Teacher Workroom and Staff Areas																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber base in fair condition	Recommend replacing broadloom carpet with new carpet tile	3	ESL	L	1100 sf @ \$6 demo-prep-replace = \$6,600 + MU's						●	●			\$9,935	93.55%	\$19,229	
Wall Finish Materials	A mix of painted GYP and painted CMU	Repair, patch, sand, and paint GYP wall finish in teachers work room 225 on the second floor.	2	ESL	L	A total of 90 linear feet of gyp walls to be refinished x 10 ht & both sides assumed = 1,800 sf refinish area @ \$1.50 prep-refinish = \$2,700 + MU's						●	●			\$4,065	93.55%	\$7,868	
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	1100 sf @ \$4.50 demo-replace = \$4,950 + MU's						●	●			\$7,450	93.55%	\$14,419	
Casework	Plastic laminate in varying condition (dated). Casework located in admin suite is in good condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in (3) staff rooms): (1) 48"x36" open book shelfl \$150 lf = \$600 per room; (1) 48" tall open book shelf \$600 per room; (1) 36" tall cabinet \$750 per room; (1) 36" ADA sink apron \$300 per room; (1) 48" double door base cab w/ drawers @ \$275 w/demo = \$1,100 per room; (1) 84"x24" counter at ADA height @ \$90 w/demo = \$630 per room; (1) stainless steel counter mounted sink \$1,500 re-use exist rough for sinkper room; = = = TOTALS \$5,480 per room x 3 = \$16,440 + MU's						●	●			\$24,745	93.55%	\$47,894	
Nurse and Health																			
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	400 sf @ \$4.50 demo-replace = \$1,800 + MU's						●	●			\$2,710	93.55%	\$5,245	
Administration Office Area																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber base in fair condition	Recommend replacing broadloom carpet with new carpet tile	3	ESL	L	1700 sf @ \$6 demo-prep-replace = \$10,200 + MU's						●	●			\$15,355	93.55%	\$29,720	
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	1700 sf @ \$4.50 demo-replace = \$7,650 + MU's						●	●			\$11,515	93.55%	\$22,287	
Conference Room	Conference room area but does not appear to be currently used as a conference room	Recommend renovating / reconfiguring portion of main office suit to accommodate conference room.	0	OB	L	Interior renovation of 900 square feet to accommodate conference room. Construction to consist of acoustic rated gyp walls, 2x2 ACT ceiling, resilient wall base, carpet tile, wood veneer single door (36"x84"). \$125 sf = \$112,500 + MU's						●	●			\$169,315	93.55%	\$327,709	
Student Toilet Rooms																			
Floor & Base Finish Materials	Ceramic floor tile with no base in fair condition. A few areas of patched or missing floor tile. Each bathroom appears to have an area where a water closet was removed and a fastened cover plate was installed over the exposed plumbing line. One bathroom had the cover	Recommend replacing floor finish with porcelain tile and providing porcelain tile wall base.	2	END	L	1700 sf @ \$15.50 demo-prep-replace-tile base = \$26,350 + MU's						●	●			\$39,660	93.55%	\$76,762	

LYMAN MOORE MIDDLE SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Floor & Base Finish Materials		Areas where the fastened cover plate was installed at removed water closet (specifically the one that was missing) should be infilled and patched in to match floor finish).	1	OB	L	30 sf @ \$15 = \$450 + MU's							●	●			\$680	93.55%	\$1,316
Wall Finish Materials	Glazed block CMU in poor condition. Several areas of chipped finish, patch jobs, and cracked glazing. Wall finish approaching end of life	Add ceramic tile wainscoting covering broken glazed block	2	END	L	300 sf @ \$15 = \$4,500 + MU's							●	●			\$6,775	93.55%	\$13,113
Ceiling Finish Materials	2x4 ACT with several water stains and visible sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	1700 sf 2 x 4 ACT @ \$4.50 demo-replace-tile base = \$7,650 + MU's							●	●			\$11,515	93.55%	\$22,287
Toilet Partitions	Enamel paint metal partitions in fair condition	Recommend replacing toilet partition with new metal partitions painted with enamel paint.	3	ESL	L	A total of (22) 26"x60" stalls \$1,250 ea; (5) 60"x120" ADA stalls \$1,750 ea; (1) 60"x60" ADA stalls \$1,500 ea; TOTAL\$37,750 + MU's							●	●			\$56,815	93.55%	\$109,965
Staff Toilets																			
Ceiling Finish Materials	2x4 ACT in fair condition. Tiles are sagging	Recommend replacing with new 2x4 ACT ceiling complete	2	ESL	L	300 Square Feet of 2x4 ACT ceiling system @ \$4.50 = \$1,350 + MU's							●	●			\$2,035	93.55%	\$3,939
Mechanical and Service Spaces																			
Floor & Base Finish Materials	VCT with resilient rubber wall base	Replace VCT floor.	3	ESL	L	1350 sf @ \$5 demo-prep-replace-tile new base = \$6,750 + MU's							●	●			\$10,160	93.55%	\$19,665
Ceiling Finish Materials	2x4 ACT ceiling in fair condition	Recommend replacing 2x4 ACT ceiling complete.	3	ESL	L	1350 Square Feet of 2x4 ACT ceiling system @ \$4.50 = \$6,075 + MU's							●	●			\$9,145	93.55%	\$17,700

Total Years 11 - 15	\$4,900,754
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LYMAN MOORE MIDDLE SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND																		
Condition Level			Life Cycle (Age Factor)			Action Priority												
0 - Failed - Not Functional			N - New / Recent			I - Immediate (Year 0)												
1 - Poor - Failure Anticipated			ESL - w/In Expected Service Life			S - Short Term (Years 1-5)												
2 - Fair - Functions, Service Required			END - Nearing End of Service Life			L - Long Term (Years 6-20)												
3 - Good - Functional & Maintained			OB - Obsolete			N/A - Not Applicable												
4 - Excellent - New																		
			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
BUILDING EXTERIOR																		
Exterior Wall Cladding																		
Materials	Brick masonry veneer and precast concrete. Condition varies; original building has isolated areas of efflorescence and damaged masonry, the addition is in good condition with isolated areas of damage.	Recommend re-pointing masonry as part of standard maintenance practice.	3	ESL	L	102,600 GSF two story masonry veneer building, financially unfeasible, suggest mason study to determine exact repairs needed 2,750 SF of area needs to be repointed						●	●			\$31,040	116.55%	\$67,217
Spalling, Staining, Efflorescence	Isolated areas of spalling and cracked masonry veneer as the result of rusting lintels. Isolated areas of efflorescence.	Remove masonry veneer at areas showing signs of efflorescence to discover the cause of the problem and correct the issue. Remove masonry veneer in area of cracked brick, replace lintel and reflash.	2	ESL	L	A total of 300 Square Feet of exterior masonry to be removed (due to rusted lintels or efflorescence) back to substrate, reflash, and replaced with new brick to match existing. @ \$35 demo & replace = \$10,500 + MU's						●	●			\$15,805	116.55%	\$34,226
Other Observations	Exterior painted metal column enclosures at front entrance are showing signs of normal wear and tear as well as signs of rust.	Grind away all rust, fill and sand smooth and dents or deformations in the column wrap and repaint enclosure complete.	2	ESL	L	(5) 24" diameter x 144' " assumed, not ' (5) 24" diameter x 96' " assumed, not ' 6 30 total sf area @ \$12 = \$7,560 + MU's Correct, inches not feet						●	●			\$11,380	116.55%	\$24,643
Windows																		
Frame Materials	Storefront framing, aluminum operable windows, and Insulated panel system (Kalwall). Varying age and condition. Paint on metal frames is failing	Painted metal frames in the original building should be sanded and painted with the appropriate exterior grade paint.	2	ESL	L	A total of 5,600 square feet of painted steel exterior frames to be sanded and repainted @ \$10 = \$56,000 + MU's						●	●			\$84,280	116.55%	\$182,508
Frame Materials		Budget for window replacement	2	END	L	Budget from PPS CIP						●	●			\$250,000	116.55%	\$541,375
Glazing Type and Color	Insulated panels, clear insulated glass. Insulated panels are in fair condition.	Replace damaged panels in the insulated panel wall system (Kalwall panels)	2	ESL	L	A total of 60 Square Feet of insulated panel (Kalwall) @ \$30 demo & replace = \$1,800 + MU's						●	●			\$2,710	116.55%	\$5,869
Storm Windows and Insect Screens	Insect screens at a few windows only. Appears to be missing from all other windows	Recommend replacing / providing insect screens to all operable windows.	2	ESL	L	A total of 180 operable windows that need insect screens. Typical operable sash size is 48"x48" \$160 ea screen = \$28,800 + MU's						●	●			\$43,345	116.55%	\$93,864
Sills	Aluminum sheet metal. Paint is failing on the flashing	Recommend removing paint and providing exterior paint and primer intended for aluminum	2	ESL	L	A total of 700 linear feet of painted metal sill to be sanded and painted @ \$10 lf = \$7,000 + MU's						●	●			\$10,535	116.55%	\$22,814

LYMAN MOORE MIDDLE SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Exterior Doors - Main Entrance																			
Frame Materials	Painted storefront frames and metal doors in poor condition. Frames and doors are rusting and paint is failing due to the rust.	Replace storefront system complete with aluminum framing system.	2	ESL	L	A total of 450 Square Feet of aluminum framing with two sets of double doors 72"x84" = 370 sf sidelites 7 transoms \$80 sf w/demo-replace & \$2,750 ea door w/demo-replace-panic hdwr-closer = \$40,600 + MU's											\$61,105	116.55%	\$132,323
Exterior Doors (not including Main Entry)																			
Materials	Metal doors in hollow metal frames. Paint is failing on all of the doors and frames.	Replace all exterior doors with thermally broken painted aluminum frames and painted aluminum doors	2	END	L	(9) 36"x84" aluminum exterior doors and frame (11) 72"x84" aluminum exterior double doors and frame These numbers exclude doors at the mechanical area and main entrance \$2,750 per door w/demo-replace-panic hdwr-closer =\$85,250 + MU's											\$128,305	116.55%	\$277,844
	Doors to mechanical area are rusting through and should be replaced much sooner than the rest of the exterior doors.	Replace exterior metal doors and HM frames in mechanical room area and replace with aluminum doors and frames complete.	1	END	L	(3) 36"x84" aluminum exterior doors and frame (2) 72"x84" aluminum exterior double doors and frame \$2,750 ea door demo-replace-panic hdwr-closer = \$19,250 + MU's											\$28,975	116.55%	\$62,745
Lintels	lintels over doors and windows appear to be in good shape. Lintels over louvers are rusting and are in poor	Remove rust and repaint lintels above louvers.	2	ESL	L	140 lf @ \$10 = \$1,400 + MU's											\$2,110	116.55%	\$4,569
Overhead or Coiling Doors	(1) Overhead insulated section door with vision panels in poor condition. Door is dented from truck damage, one of the vision panels is broken, weather stripping along perimeter is failing, and rubber gasketing at vision panels is failing.	Recommend replacing overhead sectional door	2	END	L	(1) 96"x96" overhead sectional insulated door with vision panels, elect op assumed re-used, \$2,250 demo & replace + MU's Correct, electrical operation. New door, not re-used											\$3,390	116.55%	\$7,341
Fascia, Trim, Soffits & Overhangs																			
Materials	Painted Cementitious soffit material in fair condition. Staining from previously removed wasps nests is visible.	Clean all residue from old wasps nests. Recommend repainting.	2	ESL	L	100 sf @ \$5 = \$500 + MU's											\$755	116.55%	\$1,635
Materials	Decorative wall tile used at the soffit of the auditorium entrance, in fair condition.	Clean all decorative tile and replace cracked tile with new tile to match.	2	ESL	L	100 sf @ \$5 = \$500 + MU's											\$755	116.55%	\$1,635
Materials	Wood fascia under new metal roof edge in poor condition.	Remove failing paint and repaint with exterior grade paint.	2	END	L	A total of 600 linear feet along perimeter of the original building @ \$3.50 = \$2,100 + MU's											\$3,160	116.55%	\$6,843
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Original building: Perimeter sealant material unknown and is varying in age and condition. Sealant is failing at all louvers. Addition: Sealant around windows and doors appear to be in good condition	remove and replace all sealant and back rod materials at all louver locations.	1	END	L	A total of 500 linear feet of sealant at louvers @ \$3.50 rout & recaulk =\$1,750 + MU's											\$2,635	116.55%	\$5,706

LYMAN MOORE MIDDLE SCHOOL

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

Building Joint Sealant	Building joint sealant located in the addition portion of the exterior only. Condition of joint sealant is fair and showing signs of deterioration. Material unknown	remove and replace all sealant and back rod materials at building joints in the "addition" areas.	2	END	L	A total of 500 linear feet of building joint sealant @ \$5 rout & reseal w/backer rod = \$2,500 + MU's							●	●		\$3,765	116.55%	\$8,153
Roof Assembly & Flashing													●	●				
Flat or Sloped Geometry	Majority of the roof is flat with sloped steel and tapered insulation. One small area of sloped roof over Gym storage.	Budget for roof replacement (black EPDM) at end of service life	2	ESL	L	86,000 SF							●	●		\$1,553,160	116.55%	\$3,363,368
Roof Drains (Covers)	Roof drains, some missing roof drain covers. Areas around some roof drain have collected debris and hindering free flow of water into the drains.	Replace missing roof drain covers. Clear areas around roof drains of collected debris to allow for free flow of water into the drain. Replace roof drain covers completely in areas of ballasted roof.	1	END	L	10 roof drain covers @ \$150 = \$1,500 + MU's							●	●		\$2,260	116.55%	\$4,894
Other Observations	Small portion of Kalwall system is to close to the low roof and could cause water entry issue from snow build up.	Recommend raising the sills of the Kalwall unit to a minimum of 18" above the finish roof surface.	3	ESL	L	(2) 48"x96" areas of Kalwall, allowance \$10,000							●	●		\$15,050	116.55%	\$32,591
	Low roof by loading dock has been, and still is, a problem by being to low and allowing kids easy access to the roof.	Install an anti-climbing device along the roof edge along the loading dock stairs. Devices like "Climb Prevention Rollers" are recommended.	0	OB	L	20 linear feet of climb prevention rollers installed along roof edge.							●	●		\$2,000	116.55%	\$4,331
Exterior Stairs and Ladders																		
Locations and Materials	A mix of concrete stairs and concrete stairs with recessed metal nosing.	Recommend repairing damaged concrete stairs and replacing / providing recessed metal stair nosing.	2	END	L	A total of 300 Square Feet of concrete stairs to be repaired, scope unclear, allow \$5,000 + MU's Demo damaged stair treads and provide new form work, and pour new concrete treads / risers. A total of (8) 10' long treads with 7" risers A total of (3) 8' long treads with 7" risers A total of (1) 26' long tread with 7" riser Provide new metal recessed nosings at new stair treads.							●	●		\$8,355	116.55%	\$18,093

Total Years 16 -20	\$4,904,587
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CASCO BAY & PORTLAND ARTS & TECHNOLOGY
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA											BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Year 0 (Fiscal Year 2017) - Immediate Recommendations																			
ELECTRICAL																			
Emergency Power	The school is equipped with two emergency generators. One is a diesel Cummins unit that was installed in 2010 to serve the Emergency Operations Center. The other is an 85kW diesel Pincor unit that appears to be original and has failed. The failed unit was connected to serve the building's heating plant, fire pump, and emergency egress lighting in many areas.	Replace failed 85 kW generator and associated automatic transfer switch	0	OB	I	Carry complete replacement of 85 kW diesel genset and ATS										\$66,500	0.00%	\$66,500	
																	Total Year 0	\$66,500	

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LEGEND																			
Condition Level		Life Cycle (Age Factor)		Action Priority															
0 - Failed - Not Functional		N - New / Recent		I - Immediate (Year 0)															
1 - Poor - Failure Anticipated		ESL - w/In Expected Service Life		S - Short Term (Years 1-5)															
2 - Fair - Functions, Service Required		END - Nearing End of Service Life		L - Long Term (Years 6-20)															
3 - Good - Functional & Maintained		OB - Obsolete		N/A - Not Applicable															
4 - Excellent - New																			

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				ALLOCATION			
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
SITE																						
Parking																						
General Layout Description	Observed a need for pedestrian safe passage in lot. Observed students parking in limited parking. ADA spaces don't have passage. Observed low lying OHE along East side of site. Observed parents parking in bus drop-off. No lighting.	Paint crosswalks and install signs in parking lot. Relocate/raise OHE. Install lighting in parking lot.	2	ESL	S	# crosswalks proposed (3); # signs required (5); definition OHE (Overhead Electric ~200-ft); # (7) & height lights (20 FT) cross walk: 150sf@\$2 signs: 5each @\$125 Lights: 7 ea@\$6000 Overhead Elec: 200 lf@\$100	●									\$94,702	24.65%	\$118,046	\$118,046			
Paving Materials	Bituminous Asphalt - Poor in parking areas, at loading docks and along east access roadway.	Mill and overlay bituminous in poor condition.	2	END	S	(54,000 SF) 54,000 s.f. @\$1.25							●			\$101,587	24.65%	\$126,628	\$126,628			
Vehicular & Pedestrian Circulation																						
Walkway Materials	Concrete - Good, Bituminous - poor at front	Overlay walks around front of school.	2	ESL	S	(1250 SF) 1250s.f. @\$1.25							●			\$2,350	24.65%	\$2,929	\$2,929			
Curb Cuts & Detectable Warning Strips	Truncated domes observed.	Truncated dome panel to be parged.	2	ESL	S	Parge & clean truncated dome allow \$125 + MU's				●						\$190	24.65%	\$237	\$237			
Pedestrian Ramp Location & Materials	Ramp at bus loop not ADA compliant.	Adjust grades to allowable ADA slopes.	2	ESL	S	sf scope area (120 SF) & grade 120@\$20				●						\$3,612	24.65%	\$4,502	\$4,502			
Service Area																						
Paving Materials	Poor pavement at drive to maintenance/loading area. Curb and Drainage recommended	Replace pavement drive to maintenance area. Install curbing and catch basins.	2	ESL	S	Overlay: 52,000sf@\$1.25 Curb: 370 @\$10 CB:2ea @\$2500 Pipe: 220 lf @\$50							●			\$127,473	24.65%	\$158,895	\$158,895			
Site Furniture & Accessories																						
Bicycle Racks	None observed.	Install bike rack(s).	0	OB	S	SAY 50 total with 25 each side of double rack @ \$50 space = \$2,500 + MU's							●			\$3,762	24.65%	\$4,689			\$4,689	
STRUCTURAL																						
Roof Construction	At Building A and B, Tectum roof deck spanning to bar joists, with joists supported by structural steel frame. All roofs are EDPM.	Install clip connections to tie down Tectum roof deck at Building B	2	END	S	Approx 50,000 sf of roof, provide 3,000 conns, allow \$30 per clip labor & material = \$9,000 + MU's		●				●	●			\$13,545	24.65%	\$16,884	\$16,884			
Exterior Wall Construction	Brick veneer. Veneer is tied to steel frame at Building A and is tied to CMU walls at Building B.	Replace corroded loose lintels at small openings. At Building A, monitor corroding relieving angles at large openings and major cantilever projections. Repair/replace on case-by-case basis.	2	END	S	Approx. 55-60 lintels, 250 lf of lintel +/-, assume 1 ea 4" x 4" lintel angle @ 6 #/lf = 1,500 # galv lintel = \$3,000 lintel material + 250 mason hours @ \$45 = \$14,250 + MU's						●	●			\$21,450	24.65%	\$26,737	\$26,737			
BUILDING EXTERIOR																						
Exterior Wall Cladding																						
Materials	Brick masonry at chimney over building B is failing and needs to be replaced.	Rebuild brick chimney over building B complete. Will require new brick masonry, precast cap, and sealant / flashing.	1	END	S	Size of chimney is 4'x3' and is 4' high, 60 sf total area @ \$40 sf demo & replace brick = \$2,400 + \$750 precast cap + \$700 base flashing + \$300 cap flashing = \$4,150 + MU's		●				●	●			\$6,245	24.65%	\$7,784			\$7,784	
Exterior Doors (not including Main Entry)																						
Materials		Replace all exterior metal doors, including the two double doors in the penthouses (one double door in each penthouse), with thermally broken painted aluminum frame and door	2	ESL	S	(10) single 36"x84" door (5) double 72"x84" door, HM door & frame demo & replace @ \$2,500 per opening = \$50,000 + MU's						●	●			\$75,250	24.65%	\$93,799	\$93,799			

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				ALLOCATION				
																			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Door Hardware	Push pull hardware with the exception of three doors with non code compliant door knobs; accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	2	OB	S	A total of 4 knobs on exterior doors, allow \$500 per door, assume HM door leaf accepts new hew without leaf modification = \$2,000 + MU's											\$3,010	24.65%	\$3,752	\$3,752			
Exterior Stairs and Ladders																							
Locations and Materials		Concrete stair: Provide new handrails complete with code compliant handrails	0	OB	S	A total of 24 linear feet of painted metal round handrail at ADA and code compliant heights, wall mount single line pipe rail assumed @ \$30 = \$720 + MU's No, typical painted metal rail, mounted to the concrete stair at each posts of the rail.											\$1,085	24.65%	\$1,352	\$1,352			
BUILDING INTERIOR																							
General Notes																							
Interior doors	A mix of wood veneer doors in painted hollow metal frames and painted metal doors in painted hollow metal frames. Wood veneer doors are in good condition. Painted metal doors and hollow metal frames are in poor to fair condition and are approaching end of life.	Replace all painted metal doors/ hollow metal frames with new wood veneer doors/ painted hollow metal frames complete.	2	ESL	S	(220) wood veneer single door 36"x84", \$1,250 ea demo & replace includes lockset & closer = \$275,000 + MU's; (35) wood veneer double door 72"x84", \$2,500 ea demo & replace includes lockset & closer = \$87,500 + MU's = = \$362,500 + MU's all doors & frames											\$545,565	24.65%	\$680,047	\$680,047			
Non-ADA compliant door hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	Replace 90 Knobs with code compliant hardware, assume wood s.c. doors (not HM leaves) @ \$500 ea includes minor leaf modification to accept hdwr = \$45,000 + MU's											\$67,725	24.65%	\$84,419	\$84,419			
Main Entrance / Main Lobby (same space)																							
General		Budget for construction of new entrance, not including items noted below	0		S												\$750,000	24.65%	\$934,875	\$934,875			
Entrance Mats	two 6'x4' recessed walk off mats in good condition	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	S	160 Square Feet of aggressive grade walk-off mat, recycled rubber tile @ \$17.50 =v \$2,800 + MU's ... 350 Square Feet of mild grade walk-off mat, \$15 sf interior roll up water hog = \$5,250 + MU's ... 200 Square feet of low grade walk-off mat @ \$10 = \$2,000 + MU's = = = \$10,050 TOTAL + MU's											\$15,125	24.65%	\$18,853			\$18,853	
Ceiling Finish Materials	2x2 ACT w/ tegular tiles. Tiles are showing signs of aging.	Recommend replacing 2x2 ACT tiles with new 2x2 ACT ceiling system complete	3	ESL	S	A total of 1,700 square feet @ \$6 sf demo-replace grid & tiles = \$10,200 + MU's											\$15,355	24.65%	\$19,140			\$19,140	
Corridors																							
Wall Projecting Objects	Drinking fountains are not located in alcoves and do not have cane detection devices.	Provided painted round metal cane detection devices to either side of the drinking fountain to meet ADA requirements	0	OB	S	(5) painted round metal cane detection device, allow \$250 per each device = \$1,250 + MU's											\$1,885	24.65%	\$2,350			\$2,350	
Drinking Fountains	ADA compliant fountains, with water bottle filling unit, on each floor. Non-ADA compliant fountains in lab areas of building B	Provide ADA compliant fountains on each level of building B	0	OB	S	(4) high-low ADA compliant drinking fountains (2 fountains for each open lab area, both levels, in building B) with cane detection as described above, allow \$2,750 ea including new rough & cane detectors = \$11,000 + MU's											\$16,555	24.65%	\$20,636			\$20,636	

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CASCO BAY & PORTLAND ARTS & TECHNOLOGY									
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LEGEND									
Condition Level			Life Cycle (Age Factor)			Action Priority			
0 - Failed - Not Functional			N - New / Recent			I - Immediate (Year 0)			
1 - Poor - Failure Anticipated			ESL - w/In Expected Service Life			S - Short Term (Years 1-5)			
2 - Fair - Functions, Service Required			END - Nearing End of Service Life			L - Long Term (Years 6-20)			
3 - Good - Functional & Maintained			OB - Obsolete			N/A - Not Applicable			
4 - Excellent - New									

																	BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY														CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
Interior Signage	Materials	Provide consistent code compliant signage throughout the entire building	0	OB	S	Provide ADA compliant room signage for 160 spaces @ \$75 = \$12,000 + MU's				●	●					\$18,060	24.65%	\$22,512	\$22,512					
Kindergarten Classrooms (CTE)	Door Widths and Clearances	Door going into large office swings into path of egress causing a clearance issue	Recommend providing a new door that swings into the space and not into the path of egress.	2	OB	S	one 3'x7' hollow metal door to swing in correct direction, assume existing frame not predrilled for reverse swing & new HM frame required; \$1,550 demo-replace including lockset & closer + MU's				●	●					\$2,335	24.65%	\$2,911			\$2,911		
CTE Programs - Lab Spaces (Computer Tech, Textiles, Healthcare, Mech & Arch Drafting, Multi-Media Studio) All Located in Building A																								
Casework		Replace all dated casework for the simulation kitchen in the healthcare lab. Replace with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves. New casework to meet ADA requirements			S	Provide the following in kitchen sim lab: solid surface countertops for assumed wet areas typical; (5) 36" double door base cabinet, (4) 24" three drawer base cabinet, (2) 44"x2' counter at ADA height (1) 36" ADA sink apron .. 23 If base cabinet & solid top w/demo exist @ \$300 If = \$6,900 + MUs .. 44' solid top workstation & demo exist @ \$130 = \$5,720 + MU's .. 3' ADA sink apron solid top & demo exist @ \$140 +U's = \$420; (7) 36" wall mounted cabinets 21 If \$125 w/demo = \$2,625; (4) 24" wall mounted cabinets 8 If \$125 w/demo = \$1,000; = = = TOTALS \$16,665 + MU's No, plastic laminate counter tops as called out in the description of recommended work.						●	●	●			\$145,925	24.65%	\$181,896	\$181,896				
Toilet rooms	Single user non ADA toilet rooms located off of each locker room area.	Recommend providing ADA compliant bathrooms in future renovations	1	OB	S	Interior renovations for (2) 64 square foot ADA compliant bathrooms, assume demo 2 perimeter walls-gut existing area, reframe 2 walls of perimeters, new door & floor & ceiling finishes, WC-LAV, accssys = \$10,000 per room x 2 = \$20,000 + MU's				●							\$30,100	24.65%	\$37,520	\$37,520				

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
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1 - Poor - Failure Anticipated	ESL - w/in Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																TRADE COST PLUS		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
CTE Programs - Lab Spaces (Machine Tech, Automotive, Auto Collision, Welding, Marine Tech, Carpentry, HVAC, Plumbing, Masonry) All Located in Building B																							
Toilet rooms	Individual uni-sex restrooms located at each open lockers area. Restrooms are non-ADA with painted CMU, sealed concrete, and exposed structure finishes. Doors are compliant push/pull hardware lockable from the interior.	Recommend providing ADA compliant bathrooms with new finishes in future renovations	1	OB	S	(8) 64 square feet of interior renovations to provide ADA compliant restrooms. Construction to include 8" CMU block walls, stained concrete floors, 2x4 ACT ceilings, (1) wood veneer door 36"x84", (1) floor mounted water closet, (1) wall mounted ADA hand wash sink, floor drain, grab bars and accessories. \$10,000 per room x 8 = \$80,000 + MU's											\$120,400	24.65%	\$150,079	\$150,079			
Art Classrooms																							
Sinks (ADA compliance)	stainless steel counter mounted sinks with stainless steel goose neck faucets. Sinks are not at ADA height.	Replace and provide with sinks that meet ADA requirements			S	Provide (3) stainless steel counter mounted sinks. One in each of the three classrooms.											\$9,030	24.65%	\$11,256	\$11,256			
Music Lab - CTE																							
Sinks (ADA compliance)	Plastic floor mounted sink, non-ADA	Replace with ADA compliant sink	3	OB	S	(1) wall mounted ADA compliant sink-use exist rough @ \$1,500 w/demo + MU's											\$2,260	24.65%	\$2,817	\$2,817			
Library / Media Center																							
Sinks (ADA compliance)	Stainless steel counter mounted sink in plastic laminate counter and casework. Not at ADA height and no knee clearance	Recommend replacing with ADA height counter and counter mounted stainless steel sink.	0	OB	S	Provide the following: (1) 48"x24" solid surface counter at ADA height 4 lf \$135 w/demo = \$540; (1) 48" ADA sink apron \$400; (1) Stainless steel counter mounted sin \$1,500 re-use exist rough = = = TOTALS \$2,440 + MU's											\$3,675	24.65%	\$4,581	\$4,581			
Teacher Workroom and Staff Areas																							
Sinks (ADA compliance)	Stainless steel counter mounted sink with stainless steel fixtures (non-ADA because of height and knee clearance)	Recommend replacing base cabinet casework and counter complete to allow for an ADA compliant sink.	0	OB	S	(4) 36" wall mounted cabinets @ \$125 w/demo = \$1,500; (2) 72"x24" ADA height counters @ \$90 w/demo = \$1,080; (3) 36" base cabinet with drawer @ \$275 w/demo = \$2,475; (1) 36" ADA sink apron @ \$300; (1) stainless steel counter mounted sink @ \$1,500 w/demo & re-use rough = TOTAL \$6,855 + MU's											\$10,320	24.65%	\$12,864	\$12,864			

CASCO BAY & PORTLAND ARTS & TECHNOLOGY

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LEGEND																								
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New						Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete						Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable												
EVALUATION CRITERIA																								
BUDGET																								
CATEGORY		DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
				COND. LEVEL	LIFE CYCLE	ACTION PRIORITY														CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																								
Staff Toilets		Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)	Non compliant. Missing critical maneuvering clearances, as well as grab bars. Sinks do not provide proper ADA knee clearance.	Remove non-compliant stalls and fixtures, install new ADA compliant stalls and fixtures, and grab bars.	0	OB	S	In (1) staff bathroom, remove wall-mounted porcelain urinal and cap service. Remove existing toilet partition and counter with mounted porcelain sink. Install new 5' x 5' ADA compliant phenolic toilet partition with 34" door. Install ADA grab bars. Install new wall-mounted porcelain sink with proper ADA clearances. In (1) staff bathroom, remove wall-mounted porcelain toilet fixture and cap service. Remove existing toilet partition and counter with mounted porcelain sink. Install new 5' x 5' ADA compliant phenolic toilet partition with 34" door. Install ADA grab bars. Install new wall-mounted porcelain sink with proper ADA clearances.										\$18,000	24.65%	\$22,437	\$22,437			
Door Material (Including Frame & Glazing)		Painted metal doors in hollow metal frames. Finish on metal doors are approaching end of life.	Repaint HM doors and frames.	2	ESL	S	Repaint (2) 3' x 7' single HM doors and frames.											\$500	24.65%	\$623	\$623			
FIRE PROTECTION																								
Type of Sprinkler System		NFPA 13 automatic wet system, (2) 4"risers, 50 hp fire pump	Entrance beyond service life of 20 years, heads service life 25 years, and piping system service life 40 years, fire pump servicial life is 25 years. Recommend replacement of vintage (1976) automatic system, newer or recent sprinkler work and piping could remain. Requires new sprinkler design.	2	END	S	Figure New Entrance with 50 hp fire pump (2) risers at minimum. Add \$5k for in depth sprinkler system assessment.											\$142,000	24.65%	\$177,003	\$177,003			
PLUMBING																								
Sanitary Waste and Vent System		Mostly cast iron, 8" sanitary exits near maintenance room. Kitchen has grease interceptor. Much of the sanitary piping from floor drains in the garage is corroded from salt drippings.	Replace sanitary floor drain piping serving auto garage floor drains to gas trap. Most sanitary is beyond useful life.	1	END	S	(S) Figure \$/SF @ 160K SF + MU's											\$1,700,000	24.65%	\$2,119,050	\$2,119,050			
Sanitary Waste and Vent System				1	END	S	(I) Figure \$50K garage corroded piping											\$75,000	24.65%	\$93,488	\$93,488			
ELECTRICAL																								
Fire Alarm		1980's vintage conventional zoned FCI control panel. The system does not monitor the fire pump, and does not monitor various sprinkler system zones separately. Occupant notification in the shop areas does not comply with current standards.	Provide a complete addressable fire alarm system.	1	OB	S	237,000 gsf area suggest \$1.25 sf budget w/demo = \$296,250 + MU's											\$445,860	24.65%	\$555,764	\$555,764			
Emergency Lighting		Emergency lighting is provided by emergency battery units in some areas, but other areas currently have no functioning emergency lighting due to the failed emergency generator. Exterior areas of exits do not have emergency lighting.	Replace failed emergency generator. Provide emergency lighting at exterior of building exits.	0	OB	S	Carry \$30,000 + MU's in addition to emergency generator replacement above											\$45,150	24.65%	\$56,279	\$56,279			
SECURITY																								
Intrusion Alarm System		GE system that is not integrated with district-wide network. Separate controls panels are installed in buildings 'A' and 'B'.	Intrusion detection system should be updated to a system that is integrated with the district-wide network system.	2	ESL	S	Assume door contacts on 20 openings and 60 motion detectors											\$233,800	24.65%	\$291,432	\$291,432			
Total Years 1 - 5																		\$6,069,066	\$5,992,703	\$0	\$76,363	\$0		

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/in Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	EVALUATION CRITERIA				TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY						SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
PLUMBING																							
Cold Water System	(3) RPZ backflow preventers	Replace Maintenance will reapi as needed until funding is secured	3	ESL	L	(3) 2" RPZs + MU's							●	●			\$15,000	55.30%	\$23,295		\$23,295		
Domestic Distribution System	Mostly original copper with lead solder--end of service life	Replace with new copper distribution system for 75% of building Maintenance will reapi as needed until funding is secured	2	END	L	Figure \$/SF @160 K SF +MU's							●	●			\$2,880,000	55.30%	\$4,472,640		\$4,472,640		
Storm Drain System	Mostly cast iron, 10" storm exits near kitchen.	Camera Inspection Maintenance will reapi as needed until funding is secured	3	ESL	L	Scope 500 ft.							●	●			\$3,750	55.30%	\$5,824		\$5,824		
MECHANICAL																							
Heating Plant	(2) HB Smith 17 section 650 Mills steam boilers, 5,400 MBH ea, 1976 mfg. Gas only burners upgraded recently. New Hurst boiler feed system in 2013.	Boilers are at the end of their service life (35 years). Although boilers have been operating well due to maintenance and rebuild, failure is anticipated. Recommend converting entire steam heating system to hot water. Maintenance will reapi as needed until funding is secured	2	END	L	Replace with Hot Water Condensing Boilers (3) 3,500MBH ea.							●	●			\$490,000	55.30%	\$760,970		\$760,970		
Air Conditioning (Yes/No/Limited)	Limited to Building "A", 6 packaged rooftop units (4 to 8.5 ton), 3 split units (4 to 5 ton), and data air unit serving IT wih Trane split backup (10 tons).	Most units are in decent operating condtion. Unit mfg dates range from recent to about 11 years old with a service life of 18 years. Replace in 6 to 10 years. Maintenance will reapi as needed until funding is secured	3	ESL	L	Figure (6) 7.5 ton packaged RTU replacements. Figure (3) 5 ton split AHU replacements. Figure (1) 10 ton data air unit for IT.							●	●			\$375,000	55.30%	\$582,375		\$582,375		
Air Handling Unit Systems "B" building	(2) 40 hp fan H & V units (25,000 cfm +) in roof top penthouses, original 1976 vintage. Units are fitted with high voltage electrostatic air cleaners. Units serve primarily vetilation for Auto-shop area and building trades area.	Units are beyond service life and should be replaced with new ventilation systems. Maintenance will reapi as needed until funding is secured	2	END	L	Replace with (4) Direct fired gas MUA units, 15,000 cfm ea. Figure supply ductwork for at \$/SF for 100K SF.							●	●			\$1,200,000	55.30%	\$1,863,600		\$1,863,600		
Air Handling Unit Systems "A" building	Several vintage indoor AHUs serve offices and meeting rooms, these units had split DX cooling added at a later date.	Units are beyond service life and should be replaced with new indoor split DX or packaged roof top units. Time replacement with steam to hot water conversion. Maintenance will reapi as needed until funding is secured	2	END	L	This is covered in air conditioning above.							●	●			\$0	55.30%	\$0		\$0		
Terminal Unit Systems Uvs	Most class areas have vintage wall mounted steam unit ventilators (UVs).	Units are beyond service life and should be replaced with new UV s or via new ventilation and heating design. Time replacement with steam to hot water conversion. Maintenance will reapi as needed until funding is secured	2	END	L	Figure \$15/SF for 100K SF to convert to Hot Water ERU ventilation.							●	●			\$750,000	55.30%	\$1,164,750		\$1,164,750		
Terminal Unit Systems Other	Steam radiation heating at rooms with (UV s), most all is vintage.	Units are beyond service life. Time replacement with steam to hot water conversion. Maintenance will reapi as needed until funding is secured	2	END	L	Figure HW fintube radiation for 100K SF.							●	●			\$450,000	55.30%	\$698,850		\$698,850		
Exhaust Systems	Mostly roof top exhaust fans vintage to building. Fune exhaust is recent from science lab renovation.	Beyond service life of 20 years. Maintenance will reapi as needed until funding is secured	2	END	L	Figure (10) 2,000 cfm rooftop fans.							●	●			\$75,000	55.30%	\$116,475		\$116,475		
Piping System	Steam piping is vintage to building.	Aged piping and is mostl likely corroding with weakend wall thickness. Replace at time of steam to water conversion. Maintenance will reapi as needed until funding is secured	2	END	L	Figure hydronic piping \$/SF for 200K SF.							●	●			\$2,400,000	55.30%	\$3,727,200		\$3,727,200		
Automatic Temperature Controls	Mostly pneumatic and vintage--littl DDC electric	Beyond service life of 20 years. Time with steam to water conversion. Maintenance will reapi as needed until funding is secured	2	END	L	Figure \$/SF for 200K SF							●	●			\$900,000	55.30%	\$1,397,700		\$1,397,700		

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	ALLOCATION		
																		CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																					
ELECTRICAL																					
Wiring	Building wire in underground conduit	Maintenance will reair as needed until funding is secured	2	END	L	Carry replacement of Service entrance for 210,000 sf						●	●			\$180,000	55.30%	\$279,540		\$279,540	
Equipment	1976 vintage GE fusible switchboard with ground-fault protected main fusible switch.	Perform infra-red scanning of the service equipment to assess condition of contacts and terminations. Maintenance will reair as needed until funding is secured	2	END	L	Carry complete replacement of 3000A 480/277V switchboard						●	●			\$273,000	55.30%	\$423,969		\$423,969	
Distribution System																					
Panels	Mostly old GE panelboards containing circuit breakers that are at the end of their anticipated useful life. A couple of light-commercial-grade loadcenters have been added, as well as few modern panelboards in the CBHS area.	Although circuit breakers that fit into the existing panelboards remain available, it would likely be more cost effective to update the existing original panelboards in their entirety rather than replacing on the circuit breakers within them. Maintenance will reair as needed until funding is secured	1	END	L	Carry complete replacement for 210,000 sf						●	●			\$846,000	55.30%	\$1,313,838		\$1,313,838	
Wiring	Based on what can be seen from a visual inspection, the wiring appears to be a mixture of buidling wire in conduit and MC cable, although some type SER cable has also been installed.	Maintenance will reair as needed until funding is secured	3	ESL	L	Carry complete distribution wiring system replacement for 210,000 sf						●	●			\$376,000	55.30%	\$583,928		\$583,928	
Site Lighting (type & material)	The city is in the process of replacing old HID pole lighting with LED. Approximately 15 pole light have not yet been updated	Replacing remaining HID pole lights with LED. Maintenance will reair as needed until funding is secured	2	OB	L	Carry 15 Pole lights						●	●			\$67,700	55.30%	\$105,138		\$105,138	
Interior Lighting																					
Classrooms	Various fluorescent fixture types utilizing T8 lamps.	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will reair as needed until funding is secured	2	ESL	L	Carry complete replacement fo 210,000 sf						●	●			\$2,686,000	55.30%	\$4,171,358		\$4,171,358	
Offices	Various fluorescent fixture types utilizing T8 lamps.	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will reair as needed until funding is secured	2	ESL	L							●	●								
Corridors	Various fluorescent fixture types utilizing T8 lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will reair as needed until funding is secured	2	ESL	L							●	●								
Toilets	Various fluorescent fixture types utilizing T8 lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will reair as needed until funding is secured	2	ESL	L							●	●								
Mech/Storage	T12 fluorescent are still in use in some areas.	Update lighting to LED as part of any planned facility renovations. Maintenance will reair as needed until funding is secured	2	ESL	L							●	●								
Shops	T8 fluorescent Instant-start ballasts are in use with occupancy sensor control, resulting premature lamp failure.	Update lighting to LED Maintenance will reair as needed until funding is secured	1	END	L							●	●								
Data System (& Service)	Data service is overhead fiber optic to a storage room on second floor. IDF's are located in shared areas that do not provide adequate space dedicated to telecommunications.	Provide dedicated spaces to house terminations and equipments. Provide Pathways and infrastructure lin accordance with BICSI standards.	2	ESL	L	Carry complete replacement for 210,000 sf						●	●			\$316,050	55.30%	\$490,826		\$490,826	
Total Years 6 - 10																	\$22,182,276	\$0	\$22,182,276	\$0	\$0

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
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			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

BUILDING INTERIOR																			
General Notes																			
Interior wall base finish material	Resilient rubber base, original to the building. Base is in poor condition and is approaching end of life.	Replace all resilient rubber wall base with new resilient rubber base through out the entire building	2	END	L	New resilient rubber wall base for a 237,000 GSF three story building .. SAY 400 sf average room size = 590 rooms = 80 lf perimeter base per room x 590 rooms =47,200 lf total base @ \$3 lf demo & replace = \$141,600 .. CHECK @ \$0.50 per sf floor area = \$118,500 OKAY .. allow \$140,000 + MU's											\$210,700	93.55%	\$407,810
Temporary Partitions	There are a few areas with temporary partitions that stop at the bottom side of the finish ceilings. These partitions do not offer any acoustic rating and should be replaced.	Replace all temporary wall partitions with full height gyp partitions that extend to the underside of roof deck or floor deck to provide an acoustically treated environment.	0	OB	L	A total of 400 linear feet of temp partitions to be replaced with full height acoustically rated gyp partitions, \$9.00 sf demo-replace-paint-reinstall ACT = \$36,000 + MU's											\$52,675	93.55%	\$101,952
Wall Finish		Budget for repainting entire interior, including doors and frames	2	ESL	L	Base on 237,000 SF											\$713,370	93.55%	\$1,380,728
Ceiling Finish Materials	2x4 ACT ceilings	Recommend replacing 2x4 ACT ceiling with new 2x4 ACT ceiling system complete	3	ESL	L	New 2x4 ACT ceiling through out, for a 237,000 GSF three story building (with the exception of 98,600 square feet where either the ceiling is new, the ceiling is a different product, or there is no ceiling / building B), 138,400 net sf area @ \$4.50 demo-replace grid & square edge tiles = \$622,800 + MU's .. ADD \$50,000 suspend & reinstall ceiling light = = TOTALS \$672,800 + MU's											\$1,012,565	93.55%	\$1,959,820
Corridors																			
Ceiling Finish Materials	2x2 ACT w/ tegular tiles. Tiles are showing signs of aging.	Recommend replacing 2x2 ACT tiles with new 2x2 ACT ceiling system complete	3	ESL	L	A total of 13,200 square feet @ \$6 sf demo-replace grid & tiles = \$79.200 + MU's											\$119,200	93.55%	\$230,712
Doors opening into Corridors (rating, closers, hold-opens, swing, widths)	It is likely the doors are rated. Doors have closers / No hold-opens / mix of flush doors and half glazed doors with safety glazing	Provide hold opens for all doors with closers to eliminate the need for wood floor stops	3	ESL	L	30 doors (over 3 floors) magnetic hold opens											\$35,000	93.55%	\$67,743
Stairs and Exits																			
Tread & Riser Height Uniformity and Nosing Compliance	Tread and riser height is compliant. Painted metal tread pan risers are rusting and causing the paint to fail in some areas, specifically in building B	Building B: Remove rust and repair stair risers. Provide a new coat of finish paint complete.	2	ESL	L	A total of 600 square feet of stair risers to be repainted @ \$7.50 sf (tread work excluded) = \$4,500 + MU's											\$6,775	93.55%	\$13,113

CASCO BAY & PORTLAND ARTS & TECHNOLOGY

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Guardrails (height, sphere)	Height is compliant. Rails are painted metal round pipe. Paint is worn off the rail in most locations	Remove paint from rails and provide new painted finish complete	2	ESL	L	A total of 350 linear feet of interior round metal rail @ \$10 If clean-prep-repaint ≈\$3,500 + MU's						●	●			\$5,270	93.55%	\$10,200	
Handrails (height, extensions, profile)	Height is compliant. Rails are painted metal round pipe. Paint is worn off the rail in most locations	Remove paint from rails and provide new painted finish complete	2	ESL	L	A total of 350 linear feet of interior round metal rail , , \$10 If clean-prep-repaint = \$3,500 + MU's						●	●			\$5,270	93.55%	\$10,200	
Elevators and Lifts																			
Elevator Finish Materials	All finishes of elevator cab, frame, and door are in poor condition and should be replaced or refinished. Plastic laminate panel wall finish, raised profile rubber flooring, painted frame and door, and stainless steel control panel	Replace all finishes complete; 2'x7' plastic laminate panels, raised profile rubber flooring, remove all paint on metal doors / frames and repaint. Replace elevator controls with new panel and new finishes.	2	END	L	Provide new finishes complete for a 42"x60" elevator cab. Finishes: Plastic laminate phenolic panels, raised profile rubber flooring, painted aluminum control panel cover, and painted door frame and door, allow \$10,000 + MU's						●	●			\$15,050	93.55%	\$29,129	
Other	Budget for Engineering for Freight Elevator at Stair 2	Budget for Engineering for Freight Elevator at Stair 2	-	-	L	From PPS CIP (2019)						●	●			\$250,000	93.55%	\$483,875	
Kindergarten Classrooms (CTE)																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber base in varying condition	Replace carpet and resilient rubber base in the two offices and storage room with new broadloom carpet and resilient base.	2	ESL	L	750 square feet of broadloom carpet, allow \$6 sf demo-prep-replace & new base = \$4,500 + MU's						●	●			\$6,775	93.55%	\$13,113	
General Purpose Classrooms																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber wall base all in varying finishes and condition.	Replace aged carpet with new broadloom carpet	2	ESL	L	A total of 9,000 square feet, \$6 sf demo-prep-replace & new base = \$54,000 + MU's						●	●			\$81,270	93.55%	\$157,298	
Wall Finish Materials	A mix of painted gyp and exposed brick masonry	Repair, patch, sand, and paint isolated areas of damaged GYP wall.	3	ESL	L	25 square feet in each classroom (30 classrooms), 750 sf @ \$5 sf patch only = \$3,750 + MU's .. Paint excluded, paint to corner length of wall unknown A total of 500 square feet of wall area to be painted per classroom (total of 30 classrooms).						●	●			\$23,705	93.55%	\$45,881	

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Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Casework	A mix of painted metal with plastic laminate counters (dated) and wood casework of varying finishes and conditions	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each classroom (30 classrooms): (8) 36"x48" open book shelves, 24 lf to be replaced = \$150 If demo & replace = \$3,600 x 30 = \$108,000 + MU's; (2) 144"x24" counter, 24' to be replaced = \$90 If demo & replace = \$2,160 x 30 =\$64,800 + MU's (2) 36" tall wardrobe cabinet; \$750 ea = \$1,500 x 30 = \$45,000 + MU's = = = TOTALS \$217,800 + MU's											\$327,790	93.55%	\$634,438
CTE Programs - Lab Spaces (Computer Tech, Textiles, Healthcare, Mech & Arch Drafting, Multi-Media Studio) All Located in Building A																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT with resilient rubber wall base	Replace aged carpet with new broadloom carpet	2	ESL	L	A total of 3,500 square feet @ \$6 sf demo-prep-replace & new base = \$21,000 + MU's											\$31,605	93.55%	\$61,171
Wall Finish Materials	Painted GYP and exposed brick masonry	Repair, patch, sand, and paint isolated areas of damaged GYP wall.	3	ESL	L	A total of 100 square feet @ \$5 sf patch gyp = \$500 + MU's, paint excluded distance to corners unknown A total of 2,000 square feet of wall area to be painted.											\$3,765	93.55%	\$7,287
Casework	A mix of painted metal with plastic laminate counters (dated) and wood casework of varying finishes and conditions	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each CTE classroom (6 classrooms): (8) 36" double door base cabinet, (8) 36" three drawer base cabinet, (2) 288"x24" counter at ADA height, (1) 36" ADA sink apron (1) 36" tall wardrobe cabinet .. 288 demo exist & base cabinet w/plam top @ \$275 =\$79,200 + MU's .. 144 If demo exist & new workstation plam countertop @ \$90 =\$12,960 + MU's .. 18 If demo & new ADA sink apron @ \$100 = \$1,800 + MU's .. 6 ea short wardrobe cabinets & demo exist @ \$500 ea = \$3,000 + MU.s = = = TOTALS \$96,960 +											\$145,925	93.55%	\$282,438
Visual Display Surfaces	A mix of white board, tack boards, and smart boards. A few areas with white board laminate panels	Replace white board laminate panels with better quality white boards	0	OB	L	(6) 6' wall mounted white boards, 4' ht assumed, \$30 sf demo & replace =\$4,320 + MU's Yes, 4' high											\$6,505	93.55%	\$12,590

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CASCO BAY & PORTLAND ARTS & TECHNOLOGY						LEGEND															
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						3 - Good - Functional & Maintained		OB - Obsolete		N/A - Not Applicable											
4 - Excellent - New																					
						SEE LEGEND			EVALUATION CRITERIA										BUDGET		
Category	Description and General Comments		Recommended Action		Cond. Level	Life Cycle	Action Priority	Quantity Info		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																					
Lockers (Material, Vented, ADA)		Separate male and female private locker areas in the healthcare lab. Tall, single, vented metal lockers in fair condition	Recommending replacing lockers.		3	ESL	L	A total of 22 linear feet of new metal lockers, tall single units, ventilated, 22 lockers 72" demo & replace @ \$300 = \$6,600 + MU's								●	●		\$9,935	93.55%	\$19,229
CTE Programs - Lab Spaces (Machine Tech, Automotive, Auto Collision, Welding, Marine Tech, Carpentry, HVAC, Plumbing, Masonry) All Located in Building B																					
Floor & Base Finish Materials		A mix of sealed concrete with painted floor lines and VCT with resilient rubber wall base. All floors are in varying condition, rubber wall base is in poor condition.	Strip sealed concrete to remove all chemical stains, oil stains, paint stains and other stains noticeable throughout both levels. Repaint fading floor lines.		2	ESL	L	A total of 65,300 square feet, unclear how many sf is concrete & how many sf is VCT, cannot be estimated 65,300 square feet of concrete								●	●		\$132,675	93.55%	\$256,792
Floor & Base Finish Materials			Replace all damaged floor drain covers.		2	ESL	L	(3) 18"x18" steel floor drain cover @ \$150 ea = \$450 + MU's								●	●		\$600	93.55%	\$1,161
Floor & Base Finish Materials			Replace all VCT floors with new VCT.		2	ESL	L	A total of 3,200 square feet @ \$4.75 demo & prep & replace = \$15,200 + MU's								●	●		\$680	93.55%	\$1,316
Floor & Base Finish Materials			Repair damaged CMU wall in masonry lab. Remove broken CMU units and replace with new 12" units.		1	END	L	30 Square Foot area @ \$25 = \$750 + MU's								●	●		\$1,130	93.55%	\$2,187
Lockers (Material, Vented, ADA)		Scattered areas of uni-sex locker rooms open to the lab areas (not used for full undressing). Tall vented metal locker units in fair condition.	Recommending replacing lockers.		3	ESL	L	A total of 120 linear feet of new metal lockers, tall single units, ventilated, 120 ea @ \$300 demo & replace 72" ht = \$36,000 + MU's								●	●		\$54,180	93.55%	\$104,865
Other observations		Large open lab areas have limited access to natural light	Recommend considering providing natural light via solar tubes at level two and light wells in level 1 in future renovations		—	OB	L	Level 2: (25) solar tubes @ \$1,000 ea = \$25,000 + MU's Level 1: (8) 72"x72" light wells @ (\$500 roof dome + 120 sf framed downlight @ \$10) = \$1,700 ea x 8 = \$13,600 + MU's								●	●		\$20,470	93.55%	\$39,620
Art Classrooms																					
Casework		A mix of painted metal with plastic laminate counters (dated) and wood casework of varying finishes and conditions	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.		2	ESL	L	Provide the following in each Art classroom (3 classrooms): (8) 36" double door base cabinet 24 lf \$275 =\$6,600 per room; (8) 36" three drawer base cabinet 24 lf \$275 = \$6,600 per room; (2) 288"x24" counter at ADA height 48 lf \$90 w/demo =\$4,320 per room; (1) 36" ADA sink apron \$300 per room; (1) 36" tall wardrobe cabinet \$750 per room; \$18,570 per room x 3 = TOTALS \$55,710 + MU's								●	●		\$83,845	93.55%	\$162,282
Visual Display Surfaces		White boards and tack boards of varying condition. Some areas have white board laminate.	Replace white board laminate with better quality wall mounted white board		2	ESL	L	(2) 6' wall mounted white board 4' ht assumed =48 sf \$30 demo-replace = \$1,440 + MU's								●	●	●	\$2,170	93.55%	\$4,200

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Other observations	Art room on level 2 has no natural light, limited storage, poor condition of finishes, and limited privacy (Art room also acts as corridor to allow students access to classrooms located on other side of Art class).	Renovate large Art room, dark room, and storage room to allow Art room to have access to natural light, more adequate storage, privacy from corridor, and better finishes.	2	OB	L	Interior renovation of 4,000 square feet. Renovation to consist of GYP walls, VCT floors, 2x4 ACT ceiling, (5) 36"x84" wood veneer door with painted hollow metal frame, allow \$75 sf (MEP with minor ceiling hvac & electrical room adjusts) = \$300,000 + MU's							●	●			\$451,500	93.55%	\$873,878
Special Education Classrooms																			
Floor & Base Finish Materials	Broadloom carpet with resilient rubber wall base. Carpet is worn and stained	Replace carpet with new broadloom carpet in the near future.	2	ESL	L	9,000 square feet @ \$6 sf demo-prepreplace & new base = \$54,000 + MU's							●	●			\$81,270	93.55%	\$157,298
Wall Finish Materials	Painted GYP and exposed brick masonry	Repair, patch, sand, and paint wall finishes in a few isolated areas.	2	ESL	L	An average of 1,000 square feet per classroom (6 classrooms)							●	●			\$15,805	93.55%	\$30,591
Casework	A mix of painted metal with plastic laminate counters (dated) and wood casework of varying finishes and conditions	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each Special Education classroom (6 classrooms): (2) 36" double door base cabinet with drawer 6 lf \$275 w/demo = \$1,650 per room; (2) 24" four drawer base cabinet 4 lf \$275 w/demo \$1,100 per room; (1) 120"x24" counter at ADA height 10 lf \$90 w/demo = \$900 per room; (1) 36" tall wardrobe cabinet \$750 per room; \$4,400 per room x 6n = TOTALS \$26,400 + MU's							●	●			\$39,735	93.55%	\$76,907
Visual Display Surfaces	White board laminate panel mounted to wall	Replace with quality whiteboard	1	OB	L	4' x 6' white board (3) = 72 sf @ \$30 demo & replace = \$2,160 + MU's							●	●	●		\$3,250	93.55%	\$6,290
Other observations	About half of the rooms do not have access to natural light	Recommend providing natural lights to all instructional areas in future renovations.	0	OB	L	Provide (4) solar tubes to the instructional area on the 3rd floor that has no natural light @ \$1,000 ea = \$4,000 + MU's							●	●	●		\$6,020	93.55%	\$11,652
Dance Studio - Stage (CTE)																			
Floor & Base Finish Materials	A mix of VCT, broadloom carpet, and sheet vinyl dance flooring. All with resilient rubber base. All floor finishes and wall base are in fair condition.	Replace carpet in office with new broadloom carpet. Remove and re-use sheet vinyl flooring; reinstall correctly with welded seams to eliminate wrinkles in performance floor.	2	ESL	L	150 square feet of broadloom carpet @ \$6 sf demo-prep-replace=new base = \$900 + MU's							●	●			\$1,355	93.55%	\$2,623
Floor & Base Finish Materials		Remove and re-use sheet vinyl flooring; reinstall correctly with welded seams to eliminate wrinkles in performance floor.	2	ESL	L	2,800 square feet of sheet vinyl flooring, \$5.75 sf demo-prep-replace with new base = \$16,100 + MU's (RE-USE vinyl flooring? .. NO) No, provide new vinyl flooring.							●	●			\$24,230	93.55%	\$46,897

CASCO BAY & PORTLAND ARTS & TECHNOLOGY

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Wall Finish Materials	Painted GYP and exposed brick masonry	Repair, patch, sand, and paint wall finishes	2	ESL	L	A total of 80 square feet @ \$5 = \$400 + MU's, paint excluded, distance to corners unknown A total of 1,600 square feet of paint										\$4,820	93.55%	\$9,329
Performance floor area accessibility	Accessible through practice room which is accessible from ramp in doorway	Recommend providing a ramp along the entire front edge of the performance area	3	ESL	L	40 foot long ramp, 4 feet deep, and finished with sheet vinyl performance floor, wood framed & with guardrail facing audience side = \$5,750 + MU's										\$8,655	93.55%	\$16,752
Music Lab - CTE																		
Floor & Base Finish Materials	A mix of VCT and broadloom carpet with resilient wall base	replace carpeted areas with broadloom carpet.	2	ESL	L	2,000 square feet of broadloom carpet @ \$6 sf demo-pre-replace-new base = \$12,000 + MU's										\$18,060	93.55%	\$34,955
Casework	A mix of wood and metal casework. Wood veneer slat wall in large practice room in rough condition	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each Special Education classroom (6 classrooms): (1) 48"x72" open mail slot cubie, 6 cubbies \$1,000 ea w/demo = \$6,000; (1) 24"x72" Plastic lam. counter, 36' plm workstation top @ \$90 w/demo = \$3,240; (3) 36" Tall open book case, width unknown, assume 5', 90 lf @ \$150 w/demo = \$13,500; (5) 36" tall cabinet, width unknown, assume storage wardrobe \$750 w/demo = \$22,500; (1) 30 linear feet of wood veneer slat wall assume 8' ht @ \$20 sf = \$4,800 x 6 \$28,800 = = TOTALS \$74,040 + MU's Yes, assumption of 5' width is correct. Yes, assumption of storage wardrobe is correct.										\$111,430	93.55%	\$215,673
Library / Media Center																		
Floor & Base Finish Materials	Broadloom carpet and resilient rubber base in poor condition	Replace carpet with new broadloom carpet in the near future.	2	ESL	L	2,100 square feet @ \$6 demo-prep-replace & new base = \$12,600 + MU's										\$18,965	93.55%	\$36,707
Circulation Desk	Plastic laminate FFE desks in varying finishes and conditions	Recommend replacing with plastic laminate circulation desk with resilient edge banding	3	ESL	L	Provide (1) circulation desk: (1) 120"x30" work surface (1) 24" book drop off base cab (1) 24" base cabinet with drawer (1) 24" four drawer base cabinet, 16' total length ADA compliant @ \$360 lf w/demo = \$5,760 + MU's										\$8,670	93.55%	\$16,781

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Kitchen and Servery	(See Food Service Below)																		
Floor & Base Finish Materials	A mix of quarry tile, broadloom carpet, and VCT with resilient rubber base	RegROUT quarry tile	2	ESL	L	A total of 3,200 square feet clean & regROUTing @ \$1.50 sf = \$4,800 + MU's							●	●			\$7,225	93.55%	\$13,984
Lockers (Material, Vented, ADA)	uni-sex locker area open to the serving areas (not used for full undressing). Tall vented metal locker units in fair condition.	Recommending replacing lockers,	3	ESL	L	A total of 35 linear feet of new metal lockers, tall single units, ventilated, 35 ea 72" ht @ \$300 w/demo = \$10,500 + MU's							●	●			\$15,805	93.55%	\$30,591
Teacher Workroom and Staff Areas																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT all of varying finishes and condition. Resilient wall base throughout of poor condition.	Recommend replacing the older and more aged carpet in a few of the staff areas on level 1 with new broadloom carpet.	2	ESL	L	1,500 square feet of broadloom carpet @ \$6 sf demo-prep-replace & new base = \$9,000 + MU's							●	●			\$13,545	93.55%	\$26,216
Ceiling Finish Materials	a mix of 2x2 and 2x4 ACT ceiling in fair condition	Recommend replacing 2x2 and 2x4 ACT tiles with new 2x2 and 2x4 ACT ceilings complete in the near future	3	ESL	L	A total of 750 square feet of 2x2 ACT ceiling and a total of 650 square feet of 2x4 ACT ceiling., assume new grid, 2x2 @ \$6 sf w/demo & 2x4 @ \$4.25 w/demo = \$7,265 + MU's Yes, provide new grid							●	●			\$10,935	93.55%	\$21,165
Casework	A mix of plastic laminate, wood, and metal casework of varying age, finishes, and condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each staff room (2) rooms: (5) 36" tall cabinet, assume storage wardrobe \$750 w/demo = \$3,750 per room; (2) 48"x72" open mail slot cubie @ \$1,000 ea = \$2,000 per room; (1) 24"x72" Plastic lam. Counter @ \$90 w/demo = \$540 per room; (2) 36" base cabinets with drawer @ \$275 w/demo = \$1,650 per room; (1) 18"x24" counter at ADA height @ \$90 w/demo = \$1,620 per room; (2) 24" four drawer base cabinet @ \$275 w/demo = \$1,100 per room; (1) ADA sink apron @ \$300 ea = \$300 per room = = = \$10,960 per room x 2 = = TOTALS \$21,920 + MU's							●	●			\$32,990	93.55%	\$63,852

CASCO BAY & PORTLAND ARTS & TECHNOLOGY

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Nurse and Health																		
Floor & Base Finish Materials	A mix of VCT, broadloom carpet, and resilient rubber wall base all in fair condition	Recommend replacing all flooring with VCT.	2	ESL	L	200 square feet of VCT @ \$5 demo-prep-replace & new base = \$1,000 + MU's						●	●			\$1,505	93.55%	\$2,913
Sinks (ADA compliance)	Stainless steel counter mounted sink with stainless steel fixtures (non-ADA because of height and knee clearance)	Recommend replacing non-ADA compliant sink with resilient plastic laminate casework with resilient edge banding, lockable doors, adjustable shelves, and meets current ADA requirements.	2	ESL	L	(1) 8"x24" counter at ADA height @ \$90 w/demo = \$630 + MU's (note 84" assumed, NOT 84"); (1) 24" base cabinets with drawer @ \$275 w/demo = \$550 + MU's; (1) 24" four drawer base cabinet @ \$275 w/demo = \$550 + MU's; (1) 36" ADA sink apron w/demo @ \$300 + MU's; (1) stainless steel counter mounted sink w/demo @ \$1,500 + MU's = TOTALS \$3,530 + MU's Correct, dimension is supposed to be 84 inches.						●	●			\$5,315	93.55%	\$10,287
Privacy Curtains (no. of rest areas)	Pull privacy curtain in good shape. Rest area is located within the nurses office offering little privacy.	Recommend providing a private rest area with privacy curtain separate from the nurses office in future renovations	3	OB	L	64 square feet of interior renovation. Construction consists of GYP walls extending to deck, 2x4 ACT ceiling, VCT floor, (1) wood veneer 36"x84" door, (1) 120" long privacy curtain and tack mounted to the ceiling, assume \$75 sf w/MEP minimal readjustment in ceiling = \$4,800 + MU's						●	●			\$7,225	93.55%	\$13,984
Administration Office Area																		
Floor & Base Finish Materials	A mix of broadloom carpet and VCT of varying finishes and condition. Resilient rubber wall base throughout in poor condition.	Recommend replacing the older and more aged carpet in a few of the staff areas on level 1 and 2 with new broadloom carpet.	2	ESL	L	2,000 square feet of broadloom carpet @ \$6 demo-prep-replace-new base = \$12,000 + MU's						●	●			\$18,060	93.55%	\$34,955
Ceiling Finish Materials	a mix of 2x2 and 2x4 ACT ceiling in fair condition	Recommend replacing 2x2 and 2x4 ACT tiles with new 2x2 and 2x4 ACT ceilings complete in the near future	3	ESL	L	A total of 400 square feet of 2x2 ACT ceiling and a total of 400 square feet of 2x4 ACT ceiling, assume new grid, 2x2 @ \$6 sf w/demo & 2x4 @ \$4.25 w/demo = \$4,100 + MU's Correct, provide new grid						●	●			\$6,170	93.55%	\$11,942
Casework	A mix of plastic laminate, wood, and metal casework of varying age, finishes, and condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each office (8) rooms: (2) 36" tall cabinet, assume wardrobe cabinet @ \$750 = \$12,000 + MU's						●	●			\$18,060	93.55%	\$34,955
Mechanical and Service Spaces																		
Wall Finish Materials	Painted gyp and exposed brick masonry	Repair, patch, sand, and paint wall finishes	2	ESL	L	A total of 80 square feet @ \$5 patch gyp = \$400 + MU's, masonry excluded & paint excluded						●	●			\$605	93.55%	\$1,171

Total Years 11 - 15\$8,303,498

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Brick masonry veneer in good condition.	Recommend re-pointing masonry as part of standard maintenance practice.	3	ESL	L	Budget											\$100,000	116.55%	\$216,550

CASCO BAY & PORTLAND ARTS & TECHNOLOGY

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
Window Treatment (Shades or Blinds)	A mix of blinds, curtains, and shades in varying conditions and finishes	Consider replacing all window treatment with pull down window shades of consistent finishes.	3	OB	L	See above for quantities . 6,110 sf total window treatment demo & replace @ \$7.50 sf =\$45,825 + MU's						●	●			\$68,970	116.55%	\$149,355
Exterior Doors - Main Entrance																		
Frame Materials	Aluminum, original to the building.	Replace all existing aluminum framed exterior entrances with thermally broken painted aluminum storefront systems.	2	OB	L	(1) 20'-4"x8'-4" Aluminum storefront system with two 72"x84" double door NOTE: window size and quantities closely matches existing window configuration, 90 sf sidelite & transom demo & replace \$85 sf + 4 ea door demo & replace @ \$2,500 = = \$17,650 + MU's						●	●			\$26,565	116.55%	\$57,527
Exterior Doors (not including Main Entry)																		
Materials	Aluminum (part of aluminum storefront system) and stand alone metal doors in varying condition.	Replace all existing aluminum framed exterior entrances with thermally broken painted aluminum storefront systems.	2	OB	L	(1) 11'-4"x21'-0" Aluminum storefront system with one 72"x84" double door (1) 10'-0"x8'-4" Aluminum storefront system with one 72"x84" double door (1) 20'-4"x8'-4" Aluminum storefront system with two 72"x84" double door NOTE: window size and quantities closely matches existing window configuration, 330 sf sidelite & transom demo & replace @ \$85 sf + 8 doors demo & replace @ \$2,500 = = \$48,050 + MU's						●	●			\$72,315	116.55%	\$156,598
Fascia, Trim, Soffits & Overhangs																		
Materials	Cementitious soffit material in good condition	Recommend re-painting as part of standard maintenance practice.	3	ESL	L	A total of 5,000 square feet, \$3 sf clean-prep-repaint = \$15,000 + MU's						●	●			\$22,575	116.55%	\$48,886
Sealants & Expansion Joints																		
Window / Door Perimeter Sealant	Perimeter sealant material unknown and is varying in age and condition. Sealant is failing at all windows and storefronts.	remove and replace all sealant and back rod materials at windows and curtainwalls	1	END	L	A total of 4,000 linear feet of perimeter sealant @ \$3.50 lf rout out & recaulk =\$14,000 + MU's						●	●			\$21,070	116.55%	\$45,627
Building Joint Sealant	A mix of older building joint sealant material unknown and is varying in age and condition with newer building joint sealant. Newer sealant is in good condition but isolated areas of old sealant is showing signs of failing.	Consider replacing all of the "older" building joint sealant. Schedule sealant replacement with work needed to replace sealant around windows and curtainwalls	2	ESL	L	Approx 800 lf sealant, assuming deeper & wider for expansion or brick joint & backing rod required, \$5 lf to rout out & replace = \$4,000 + MU's. Brick joint width with backing rod						●	●			\$6,020	116.55%	\$13,036

CASCO BAY & PORTLAND ARTS & TECHNOLOGY
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

Exterior Stairs and Ladders																		
Locations and Materials	1 metal roof ladder, 1 metal exterior egress stair at building B, 1 concrete stair at building B. All of varying condition. Stairs have a mix of code compliant and non code compliant railings (some of the railings do not extend beyond the bottom of the stair).	<u>Roof ladder:</u> Remove rust and provide new exterior paint finish.	2	ESL	L	(1) 14' wall mounted steel roof ladder, approx 60 lf ladder piping clean-prep-repaint @ \$10 lf = \$600 + MU's						●	●			\$905	116.55%	\$1,960
Locations and Materials		<u>Exterior egress stair:</u> Provide missing handrail at masonry wall, provide 2' hand rail extension at currently installed handrail. Recommend replacing stair complete due to heavy amount of rust and corrosion of steel.	1	END	L	A total of 30 linear feet of painted metal round handrail at ADA and code compliant heights, wall mount single pipe rail assumed, \$30 lf = \$900 + MU's; (1) 5'x20' exterior grade metal egress stairs, wall mounted with perforated steel treads, \$15,000 + MU's. Yes, wall mount single pipe rail						●	●			\$23,930	116.55%	\$51,820
Total Years 16 -20																	\$2,345,323	

DEERING HIGH SCHOOL
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			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																	0.00%	\$0
Total Year 0																	\$0	

DEERING HIGH SCHOOL
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DEERING HIGH SCHOOL																							
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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Trade Cost Plus 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	Budget Allocation			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	CIP				CIP (Major Renovation)	Maint.	City Expense	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
SITE																							
Parking																							
General Layout Description	Observed parking enforcement walking lot. Linear at back. Bollards to be replaced. Observed parking in fire lane	Replace bollards.	1	END	S	4 ea \$600		●					●			\$3,612	24.65%	\$4,502	\$4,502				
Paving Materials	Bituminous. Parking lot of Ludlow Street, Poor. Permit parking signs outside of paved lot.	Mill and repave parking lot off Ludlow Street. Pave permit parking spaces.	1	END	S	Overlay: 12500s.f.@\$1.25 New Spaces: 500 s.f. @\$4							●			\$26,525	24.65%	\$33,063	\$33,063				
Number of Spaces (Regular & ADA)	5 at faculty parking, not compliant 1 at Ludlow Street lot no aisle, not compliant	Update grade, signage, striping, accessible route, etc. to bring spaces into compliance.	1	END	S	signage: 3 @\$125 Striping: 200lf@\$1 grade change will depend on severity of non-compliance		●		●						\$865	24.65%	\$1,078		\$1,078			
Size of Spaces	8' X 18', if compact spaces sign them	Sign compact spaces as appropriate.	2	ESL	S	10 @\$125							●			\$1,881	24.65%	\$2,345		\$2,345			
Vehicular & Pedestrian Circulation																							
Observed Circulation Patterns	Worn path along south side of building.	Consider installing sidewalk.	2	END	S	1770s.f.@\$2.5		●								\$6,659	24.65%	\$8,300	\$8,300				
Walkway Materials	Brick, Pavers, Concrete as noted on plans. Faculty/Student parking does not have connectors to sidewalk. Observed Peds using drive aisle as opposed to sidewalk. Brick sidewalk in front of school, south of the circle in poor condition.	Handrails needed at stairwell nearest the Ludlow Street parking. Brick sidewalk in front of school, south of the circle needs replacement.	1	END	S	Concretewalk: 2600 s.f. @\$14 Handrails: 50lf@\$100		●								\$41,400	24.65%	\$51,605	\$51,605				
Curb Cuts & Detectable Warning Strips	Curb cuts and panels on Stevens Avenue - Good. No panels at Ludlow Street lot.	Install panels at Ludlow Street lot.	0	OS	S	4 panels: 80s.f.@\$60		●		●						\$28,896	24.65%	\$36,019	\$36,019				
Pedestrian Ramp Location & Materials	No ADA access along front of building. Lip on ramp on parking lot off Ludlow Street	Adjust ramp to reduce lip to 1/4" or less.	2	ESL	S	50s.f.@\$24		●		●						\$1,806	24.65%	\$2,251	\$2,251				
Courtyards & Exterior Gathering Spaces																							
Locations, Materials and Characteristics	Bare area between Deering HS and Longfellow ES.	Re-establish grass.	2	ESL	S	Loam and Seed: 1550s.f@\$0.75							●			\$1,748	24.65%	\$2,179		\$2,179			
Site Furniture & Accessories																							
Types, Locations, Materials	Granite benches, various trash cans in courtyard, good trash can coverage at doors. Limited lighting.	Additional lighting.	2	ESL	S	4 ea @\$6000	●									\$36,120	24.65%	\$45,024	\$45,024				
Flagpoles	Front (poor)	Pole needs to be painted.	2	ESL	S	1 @ \$500									●	\$752	24.65%	\$937		\$937			
Site Drainage																							
Ponding	Various, Ponding at dumpsters	Install catch basin and connect to existing drainage.	1	OB	S	Catch Basin: 1@\$3000 Curb: 60lf @\$10 Pipe: 70lf@\$50							●			\$10,685	24.65%	\$13,319	\$13,319				
Catch Basins	Sags at basins within parking.	Adjust cover to grade and patch pavement.	2	ESL	S	3each @\$750							●			\$3,386	24.65%	\$4,221	\$4,221				
STRUCTURAL																							
First Floor Construction	B. Spalls on the underside of the concrete slab (some are link to penetrations) some with exposed rebar.	Coat exposed rebar with protective coating. Patch concrete	2	END	S	30 locations, allow \$150 ea = \$4,500 +MU's										\$6,775	24.65%	\$8,445		\$8,445			
First Floor Construction	D. Water damage in north wall first floor	Verify water did not damage structure. Repair.	2	END	S	1 location quantity damage unknown, allow \$1,500 + MU's OK						●	●			\$2,260	24.65%	\$2,817		\$2,817			
First Floor Construction	E. Exterior round steel column (with channels) at north wing south face: paint is peeling at the top and bottom (rust)	Paint columns	2	END	S	1 location quantity column ht & diameter unknown, allow 12" diameter & 14' ht = 90 sf prep-repaint @ \$10 = \$900 + MU's OK						●	●			\$1,355	24.65%	\$1,689		\$1,689			

DEERING HIGH SCHOOL
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS	ESCALATION	* OPINION OF PROBABLE COST	BUDGET					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE			50.5% MARK-UP	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Roof Construction	Original building: C. At the access to the attic (either side of the central roof/art classes) the concrete slab is exposed. Cracks where noted in the slab of the south one.	Repair Cracks	2	END	S	10lf							●	●			\$305	24.65%	\$380	\$380			
Roof Construction - Pitched Roofs	A. Some water stains in wood framing by the door (not currently wet) and water damage at flat roof section (room beyond cell tower)	Monitor for moisture. Repair damage area	3	ESL	S	5 locations, assume 30sq.ft per areax5locations = 150sq. ft. 3 locations unfinished (attic area), 2 locations finish (plaster)							●	●			\$3,615	24.65%	\$4,506	\$4,506			
Roof Construction	Above the roof are large square parapets (the parapets become terracotta through the attic space). No cracks are visible but there are reports of leaks in hard driven rain (localized items issues noted below).	Re-point parapet	3	ESL	S	~3,500 sq. ft. @ \$7.50 = \$26,250 + MU's							●	●			\$39,510	24.65%	\$49,249	\$49,249			
Roof Construction	A. At the south most parapet/chimney, we observed small spalls in the cast stone, exposing rebar.	Coat expose rebar with protective coating. Patch concrete	2	END	S	2 locations @ \$150 ea = \$300 + MU's							●	●			\$455	24.65%	\$567	\$567			
Roof Construction	B. There is a smaller square chimney, above the north roof. The chimney is missing mortar and has a handful of damage brick.	Re-point/repair.	2	END	S	1 chimney, dimensions & ht unclear chimney is 2'-8" by 1'-4" by 11ft							●	●			\$1,355	24.65%	\$1,689	\$1,689			
Exterior Wall Construction - Original Building	A. Localized brick issues noted including damage brick, spalls, bulge and cracks	Repair brick	2	OB	S	20 locations, size of damaged areas & categorization of different damages per area unclear, allow \$500 ea location = \$10,000 + MU's OK							●	●			\$15,050	24.65%	\$18,760	\$18,760			
Exterior Wall Construction - Original Building	B. Cast stone band has some spalls and loose sections some exposing rebar	Remove loose sections, coat rebar with protective coat and patch.	2	OB	S	10 locations (mostly on south face), size of damaged areas unclear, allow \$750 ea = \$7,500 + MU's OK							●	●			\$11,290	24.65%	\$14,073	\$14,073			
Exterior Wall Construction - Original Building	C. Decorative stone at the entrances have some small spalls/cracks and mortar missing	Patch/Repair	2	END	S	7 locations, size of areas unclear, allow \$500 ea = \$3,500 + MU's OK							●	●			\$5,270	24.65%	\$6,569	\$6,569			
Exterior Wall Construction - Original Building	D. Lintel rusting and in the creating in some locations cracking/jacking of the brick	At location with no jacking, clean lintel and paint with protective coating. At location with jacking, remove and replace lintels.	2	END	S	25 locations replacement total lf lintels unclear, cannot be estimated 125lf, 30 locations coating only total lf of lintels unclear, cannot be estiamted. 450lf (is there overlap with item 155)							●	●			\$86,540	24.65%	\$107,872	\$107,872			
Exterior Wall Construction - 1982 Addition	A. Where the overhang steps back, steel lintels are visible. The lintels are showing signs of rust (also noted at door overhang on north east face)	Paint lintels with protective coating	2	ESL	S	7 locations total lf of lintels unclear, cannot be estimated 185lf							●	●			\$2,785	24.65%	\$3,472	\$3,472			
Exterior Wall Construction - 1982 Addition	B. At the stairs tower the CMU backup wall stepped cracks.	Monitor cracks to see if they develop further. Repair if they expends	2	ESL	S	10 locations no repairs required, total lf of cracks unknown assume 150lf							●	●			\$11,290	24.65%	\$14,073	\$14,073			
Exterior Wall Construction - 1982 Addition	C. Localize brick issues noted: (1) step crack at north façade, missing mortar at tall column wraps, chipped brick.	Repair brick/mortar	2	END	S	4 locations, total lf cracks unknown, scope of repairs and areas unclear, 15 lf of crack and 30sq ft of repointing							●	●			\$1,470	24.65%	\$1,832	\$1,832			
Exterior Wall Construction - 1982 Addition	D. At brick movement joint the caulking is falling out	Replace caulking	2	OB	S	4 locations total lf caulk required unclear assume 35lf (is this already covered by line 176?)							●	●			\$185	24.65%	\$231	\$231			
Interior Partitions - Original Construction	A. In isolated location we noted cracking in the interior masonry	Repair cracks	2	END	S	7 locations total lf cracks unknown assume 50lf per locations							●	●			\$26,340	24.65%	\$32,833	\$32,833			

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																TRADE COST PLUS		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Additional Observation	Site Feature: Entry features at street (brick walls on concrete foundations spalls, crack and effervescent observed in the brick.	Repair brick	2	END	S	3 entry features, 20 repair locations entry feature meaning unclear added photo (3 sets of 2), sf areas & types of repairs unclear, carry 400sq.ft. of cleaning, 10 brick replacement, and 150sq ft of repointing.										\$11,400	24.65%	\$14,210	\$14,210				
Additional Observation	Site Feature: Concrete site walls and stairs: cracks and spalls observed in discrete locations, some exposing reinforcement. Additional spoils noted at base of post	Coat reinforcement with protective coating and path concrete	2	END	S	10 locations # locations w/exposed rebar and total sf affected areas unclear. 3 location with exposed rebar, approximately 30 sq. ft of concrete to replace.										\$1,130	24.65%	\$1,409			\$1,409		
Additional Observation	A. Boiler Chimney: Mass masonry/brick chimney. Numerous cracks are visible in the mortar between the brick. Four steel ring have already been installed but do not appear to be enough.	Further investigate chimney, rebuilding most likely require	1	OB	S	1 chimney size & ht & scope unclear rebuilt Assumed Repair (repair to be verify by investigation) removing existing chimney down to roof level and rebuilding, chimney is 12ft round by 60ft tall.										\$63,210	24.65%	\$78,791	\$78,791				
BUILDING INTERIOR																							
General Notes																							
Ceiling Finish Materials	A majority of the ceiling finish throughout the school (both buildings) is 2x4 ACT and is in fair condition. Isolated areas of 2x2 ceilings are in a variety of age and condition, refer to the following specific areas and notes in the report for descriptions and recommended actions	Replace 2x4 ACT ceilings with new 2x4 ACT ceilings complete	2	ESL	S	Total of 90% of all ceilings for a four story building with a gross square feet of 173,000 155,700 sf @ \$4.25 demo-replace = \$661,725 + MU's										\$995,900	24.65%	\$1,241,389	\$1,241,389				
Interior doors	A mix of painted wood and painted metal doors with a mix of painted wood frames and painted hollow metal frames. Doors in the original building are dated and approaching end of life.	Original Building (building A): Recommend replacement of all interior doors and wood frames in the original building with new wood veneer doors and painted hollow metal frames	2	END	S	(275) single door 36"x84" (40) double door 72"x84" \$1,550 per door-frame w/demo-replace-new lockset & closer =355 @ \$1,550 = \$550,250 + MU's										\$828,130	24.65%	\$1,032,264	\$1,032,264				
Non-ADA compliant door hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware. Door knobs are found on doors in both the original and addition buildings	0	OB	S	110 Knobs to be replaced with ADA/Code compliant, aluminum hardware \$500 ea includes wood leaf modification = \$55,000 + MU's										\$82,775	24.65%	\$103,179	\$103,179				
Main Entrance -Addition (building B)																							
Door Configuration (Vestibule?)	Vestibule, non-secured entrance. No ADA push button	Recommend providing ADA push button access at each entrance.	0	OB	S	(2) ADA push button sequence for two double doors. \$5,000 w/new wiring + MU's										\$7,525	24.65%	\$9,380	\$9,380				
		Recommend creating a secured entry into building B by providing a sequence of lock / buzz-in entry devices	0	OB	S	(2) Buzz-in intercom entry devices @ \$1,500 w/door hdwr upgrade = \$3,000 + MU's										\$4,515	24.65%	\$5,628	\$5,628				
Door Hardware	Aluminum, ADA/Code compliant hardware. One set of vestibule doors have a crash bar, the other set does not and requires one	Provide crash bar egress hardware at set of vestibule doors where it is missing.	0	OB	S	(1) set of aluminum crash bar exit device for a total of three 36" doors. @ \$550 ea = \$1,650 + MU's										\$2,485	24.65%	\$3,098	\$3,098				
Corridors (building B)																							
Doors opening into Corridors (rating, closers, hold-opens, swing, widths)	It is likely the doors are rated. Doors have closers and hold opens (with the exception of classroom doors) mix of flush doors and half glazed doors with safety glazing	Provide closers at classroom doors	0	OB	S	A total of (10) closers for single 36" doors. @ \$300 = \$3,000 + MU's										\$4,515	24.65%	\$5,628	\$5,628				

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	50.5% MARK-UP			CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Drinking Fountains	No drinking fountains in corridors	Provide ADA compliant fountains on each level of building B	0	OB	S	(2) high-low ADA compliant drinking fountains with metal pipe cane detection devices on either side of the drinking fountain. \$2,250 fountain & new rough + \$500 cane detectors = \$2,750 x 2 = \$5,500 + MU's											\$8,280	24.65%	\$10,321			\$10,321	
Science Classrooms (building A)																							
Sinks (ADA compliance)	Sinks provided in labs. Non-ADA because of height and lack of knee clearance	Provided sinks that meet ADA requirements when casework is replaced as described above.	0	OB	S	(1) ADA sink required in each lab (A total of 10 labs) \$2,000 ea new sink & re-use rough but adjust as req'd = \$20,000 + MU's											\$30,100	24.65%	\$37,520	\$37,520			
Family & Consumer Science																							
Casework	A mix of residential grade kitchen casework, plastic laminate, and wood casework of varying age and condition. Not at ADA height and no knee clearance.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves. Casework to all meet ADA requirements.	0	OB	S	(1) plastic laminate 120"x48" peninsula type counter (mirrored casework layout on each side). @ \$450 = \$4,500; (2) 36" three drawer base cabinet @ \$275 lf w/demo-plam top assumed = \$1,650; (2) 36" ADA sink apron @ \$300 = \$600; (2) 24" Base cabinet with drawer @ \$275 lf w/demo-plam top = \$1,100; (2) 24" open shelf base cabinet @ \$250 lf w/demo & plam top = \$1,000; (2) 24" wall cabinet @ \$125 lf w/demo = \$500; (2) 36" open shelf wall cabinet @ \$115 w/demo = \$690; (1) 48"x36" open shelf book case @ \$150 w/demo = \$600 =											\$16,015	24.65%	\$19,963	\$19,963			
Art Classrooms																							
Sinks (ADA compliance)	Sinks provided but are non-ADA because of height and lack of knee clearance	Provided sinks that meet ADA requirements when casework is replaced as described above.	0	OB	S	(1) ADA sink required per Art room (2 rooms) \$2,000 sink & re-use exist rough but modify as req'd = \$4,000 + MU's											\$6,020	24.65%	\$7,504	\$7,504			
Kilns	Kiln (not enclosed)	Provide a rated, ventilated, and accessible room to keep the kiln in as part of future renovations.	0	OB	S	80 square feet of interior renovation to provide a room constructed of gyp partitions up to roof deck, single wood veneer 36"x84" door, 2x4 ACT ceilings, and quartz floor tile. @ \$125 sf = \$10,000 + \$2,500 relocate kiln-hood-fan = \$12,500 + MU's											\$18,815	24.65%	\$23,453	\$23,453			
Other observations	Both Art rooms have an "upper" level that is currently used by students. Upper levels contain areas of low ceilings, non-code compliant rails at each stair, and the entire upper level is not accessible.	Recommend providing code compliant railings to each stair. Railings to be painted round metal hand rails with required extensions beyond top and bottom of stairs.	0	OB	S	A total of 18 linear feet of round metal hand rail, single line wall rail assumed @ \$30 demo & replace = \$540 + MU's											\$815	24.65%	\$1,016	\$1,016			
Other observations		Recommend providing chair lift to make upper levels accessible to all students.	0	OB	S	(2) chairlifts - 36"x48" painted metal w/ slip resistant floor finish @ \$25,000 mea + \$7,500 enclosure & trims = \$32,500 es x 2 = \$65,000 + MU's											\$97,825	24.65%	\$121,939	\$121,939			

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/in Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Library / Media Center Sinks (ADA compliance)		Stainless steel counter mounted sink, Non-ADA	Recommend replacing sink and casework with ADA compliant casework and sink configuration. Plastic laminate finish to match other plastic laminate casework in the same room.	0	OB	S	Provide the following in two rooms: (1) Plastic laminate 96" counter with resilient edge banding, at ADA height @ \$90 w/demo = \$720 per room; (1) 36" ADA sink apron \$300 per room; (2) 30" Base cabinet with drawer 5 lf \$275 w/demo =\$1,375 per room; (1) stainless steel counter mounted sink \$1,500 & re-use exist rough per room; = = = TOTALS \$ 3,895 per room x 2 = \$7,790 + MU's										\$11,725	24.65%	\$14,615	\$14,615			
Gymnasium Drinking Fountains		(2) recessed water fountains, Non-ADA, dated and in poor condition.	Recommend removing current drinking fountains and replacing them with current, ADA compliant drinking fountain. Patch wall where original drinking fountains were located.	0	OB	S	(1) hi/low drinking fountain with water bottle filler \$1,500 & re-use existing rough-in; - Patch 36 square foot area of CMU block wall with CMU block and painted to match wall. \$20 sf = \$720 lump; TOTALS \$2,220 + MU's										\$3,345	24.65%	\$4,170	\$4,170			
Bleachers		Wood telescoping bleachers in fair condition and working order. Obvious signs of wear and tear, recommending replacing in future renovations.	Recommend replacing bleachers complete in the next 20 years with a more resilient bleacher (plastic seats) and ADA grab bars in center walkways.	3	ESL	S	(2) 90 foot retractable bleachers (elec. Motor) with plastic seats and center aisle hand rails. Each set of bleachers to have 12 rows of bench seating; 600 total seats assumed @ \$190 per seat =\$114,000 + MU's										\$171,570	24.65%	\$213,862	\$213,862			
Locker Rooms Level of Privacy - Short Term		Low level of privacy. Gang configuration of both showers. Mens room has no private shower stalls, womens gang shower has been renovated with private CMU shower stalls with curtains and modified shower pedestals with partitions and curtains. No privacy in changing areas.	At the shower areas in the Visitors Locker Room and Boy's Locker Room, provide partitions to sub-divide gang shower rooms into individual shower and changing compartments	0	OB	S	Refer to diagrams provided in the Locker Room Privacy Accomodatiions Section of this report.										\$13,095	24.65%	\$16,323	\$16,323			
Staff Toilets Accessibility (maneuvering clearances, fixture clearances, grab bars, accessory heights)		Some staff toilets are ADA compliant due to accessories, fixture heights, and room size; but most are not.	Recommend providing (2) centrally located staff toilets on each floor that meet all ADA and code requirements	0	OB	S	A total of (7) interior renovations of 64 square feet to provide ADA compliant staff bathrooms. Finishes to be painted gyp walls, quartz tile floors, rubber wall base, and 2x4 ACT ceilings. Each staff toilet to have wall mounted mirrors, grab bars, and ADA compliant fixtures. \$10,000 ea 64 sf bath complete x 7 = \$70,000 + MU's										\$105,350	24.65%	\$131,319	\$131,319			
FIRE PROTECTION																							
Apparent Rated Corridor Construction		It is likely the existing construction provides some inherent rating. Any renovations significant enough to trigger a code requirement to make the corridor ratings fully compliant would likely also trigger sprinkler protection for the building, in which case the corridors would not require any rating.	Recommend providing sprinkler system	-	-	S	173,000 sf @ \$3.50 (older const) + \$12,000 backflow & bldg entry + \$20,000 allow water main upgrade = \$637,500 + MU's										\$959,440	24.65%	\$1,195,942	\$1,195,942			
MECHANICAL																							
Pumps (Original Building)		Steam condensate return units and boiler feed tank, pumps, controls	Replace boiler feed tank, pumps, and conttols at end of service life-may fail. Install new HW pumps at time of steam to HW conversion.	1	END	S	Replace current boiler feed with new unit (9,000 #/hr steam boilers)										\$30,000	24.65%	\$37,395	\$37,395			

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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DEERING HIGH SCHOOL																							
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<div><div><div><div>LEGEND</div><div><div>Condition Level</div><div>0 - Failed - Not Functional</div><div>1 - Poor - Failure Anticipated</div><div>2 - Fair - Functions, Service Required</div><div>3 - Good - Functional & Maintained</div><div>4 - Excellent - New</div></div><div><div>Life Cycle (Age Factor)</div><div>N - New / Recent</div><div>ESL - w/In Expected Service Life</div><div>END - Nearing End of Service Life</div><div>OB - Obsolete</div><div>N/A - Not Applicable</div></div><div><div>Action Priority</div><div>I - Immediate (Year 0)</div><div>S - Short Term (Years 1-5)</div><div>L - Long Term (Years 6-20)</div><div>N/A - Not Applicable</div></div></div></div></div>																							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Pumps (Original Building)			1	END	S	Install (years 1-5) (2) 300 gpm pumps with VFDs + MU's										\$40,000	24.65%	\$49,860	\$49,860				
Air Handling Unit Systems (1981 Asddition)	1981 Addition (Hot Water): Gym roof top ERUs were not operating. The wheels are plugged with debris and rusty and at end of service life. All indoor H & V units as well are at end of service life.	1981: Repair and cleanERUs and recommission to operate (year 0) Requires replacement (Years 1-5) Rplace all indoor H & V (AHU) units.	1	END	L	Figure (2) rooftop ERVs at 2,500 cfm each with hot water coils. Figure (4) indoor AHUs at 10,000 cfm each with HW coils. \$/SF @ 20K SF for ductwork										\$750,000	24.65%	\$934,875	\$934,875				
ELECTRICAL																							
Fire Alarm	The fire alarm control panel panel is a 1980's vintage conventional zoned panel that is obsolete. Heat detectors protect most areas, although some attice spaces that have no sprinkler protection also have no automatic fire detection. Many manual pull stations are not located as would be requried by current current code. Occupant notification generally does not comply with ADA or current standards.	Update to fully addressable system.	1	OB	S	Carry complete system for 138,818 sf										\$261,000	24.65%	\$325,337	\$325,337				
Emergency Lighting	Emergency battery units with integral and remote heads. Heads are a mixture of LED and incandescent. LED illuminated exit signs with integral battery backup are located appropriately for most exits, although some exits have signs that are not illuminated in the lower level fitness area.	Replace older units as they fail. Provide outdoor emergency lighting at building exits. Add LED illuminated exits with integral battery backup in lower level fitness area.	2	ESL	S	Carry \$25,000 + MU's										\$37,625	24.65%	\$46,900	\$46,900				
Interior Lighting - Gym	T8 Fluorescent high-bays. Illumination level is approximately 17 footcandles average at 3' above the playing surface. IES recommended illumination level for high-school basketball and volleyball with some spectator capacity is 50 fc average at 3' above the playing surface.	Update lighting to LED that provides illumination levels as recommended by IES.	2	ESL	S	Carry 42 LED high-bay										\$63,000	24.65%	\$97,839	\$97,839				
SECURITY																							
Secure Entry Vestibule	Secured entry with buzz-in entry system at second set of doors. Secured vestibule does not enter directly into admin area, allowing visitors to have access to student areas before checking in.	Recommend providing a third set of entry doors between corridor and entrances into admin suite and principles office. Third set of door to be buzz-in to allow access to student areas. Door configuration to match existing vestibule doors	0	OB	S	300 Square Feet of complete interior renovations. \$125 sf = \$37,500 + MU's										\$56,440	24.65%	\$70,352	\$70,352				
Intrusion Alarm System	2012 vintage bosch with wireless motion detectors. System is integrated with district-wide network.	System will reach the end of its anticipated useful life within 15 years	3	ESL	S	Carry complete system replacement for 138,818 sf										\$154,500	24.65%	\$192,584	\$192,584				
Total Years 1 - 5																							
\$6,521,963																							
\$6,490,744																							
\$0																							
\$31,220																							
\$0																							

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																	TRADE COST PLUS 50.5% MARK-UP		ESCALATION		* OPINION OF PROBABLE COST	BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE						
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																									
BUILDING INTERIOR																									
Locker Rooms																									
Floor & Base Finish Materials	Ceramic wall tile in varying age and condition. Ceramic wall base in poor condition.	Remove all wall base and replace with ceramic wall base complete.	2	END	L	All walls in a 4,600 square foot, single level, area; allowance \$10,000 demo-replace + MU's							●	●			\$15,050	55.30%	\$23,373			\$23,373			
Floor & Base Finish Materials		Repair, patch, sand, and paint areas of damaged CMU block spread out around the locker room area.	2	ESL	L	Total of 600 square feet \$2 filler coat							●	●			\$1,810	55.30%	\$2,811			\$2,811			
Lockers (Material, Vented, ADA)	A variety of single tier and double tier painted metal lockers with extruded metal mesh doors. Lockers are rusting, dented, and several doors have been broken and replaced with plywood doors. All lockers are in poor condition.	Recommend removing and replacing all lockers complete. Replace with single tier and double tier, vented metal lockers with sloped tops. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	1	2	L	Assume: (309) five tier lockers (119) double tier lockers							●	●			\$58,160	55.30%	\$90,322		\$90,322				
Level of Privacy - Long Term	Low level of privacy. Gang configuration of both showers. Mens room has no private shower stalls, womens gang shower has been renovated with private CMU shower stalls with curtains and modified shower pedestals with partitions and curtains. No privacy in changing areas.	Renovate existing gang shower areas to provide individual shower stalls, changing areas, and ADA compliant toilet compartment Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	0	OB	L	Refer to diagrams provided in the Locker Room Privacy Accomodatlions Section of this report.											\$248,626	55.30%	\$386,116		\$386,116				
Locker Area Toilet Rooms																									
Toilet Partitions	A mix of plastic laminate phenolic panels and enamel painted metal stalls. Phenolic panels are in good condition, metal panels are in fair condition with a few dents and scratches.	Recommend replacing stalls with new toilet compartments (phenolic) during the gang shower and gang changing area renovations to match finishes throughout the locker rooms.	3	ESL	L	(1) 36"x60" toilet stall - phenolic \$1,150; (2) 60"x60" ADA compliant toilet stalls - phenolic \$1,650 x 2 = \$3,300; TOTALS \$4,450 + MU's							●	●			\$6,700	55.30%	\$10,405			\$10,405			
PLUMBING																									
Water Service	Municiple Water Supply w/Single Check Testable Backflow	Upgrade Backflow Protection to current municiple requirements	2	END	L	Replace with Compliant RPZs Figure (2) 2" + MU's							●	●			\$10,500	55.30%	\$16,307			\$16,307			
Hot Water System	Generated via Boilers via steam to DHW maker & storage. Miscel electric 40 gal. DHW units for summer use	Upgrade with 80 gallon condensing gas fired DHW Maker/storage in original building. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	1	END	L	Replace with gas fired unit. + MU's							●	●			\$10,000	55.30%	\$15,530		\$15,530				
Domestic Distribution System	Mostly original copper with lead solder--end of service life	Replace with new copper distribution system with insulatoin Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	Figure \$/SF @ 140K SF							●	●			\$2,400,000	55.30%	\$3,727,200		\$3,727,200				
Sanitary Waste and Vent System	Cast iron and PVC	Replace in original building Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	3	ESL	L	\$/SF @ 140K SF							●	●			\$1,470,000	55.30%	\$2,282,910		\$2,282,910				
Storm Drain System	Cast iron and PVC	Replace in original building Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	3	ESL	L	\$/SF @ 140K SF							●	●			\$630,000	55.30%	\$978,390		\$978,390				
MECHANICAL																									
Air Handling Unit Systems (Original Building)	Original Building: Indoor AHUs operating H & V units only with economizer cooling.	Replace indoor H & V (AHU) units with new HW units. Replace Exhaust Fans Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	(6) 15,000 cfm indoor AHUs with HW coils and economizer--no AC. \$/SF @ 130K SF for ductwork							●	●			\$1,785,000	55.30%	\$2,772,105		\$2,772,105				
Pumps (1981 Additon)	Original vintage pumps, reset water via 3-way valve	Replace Pumps with new VFD pumps.	2	END	L	Figure (2) 120 gpm pumps							●	●			\$37,500	55.30%	\$58,238			\$58,238			
Terminal Unit Systems & Air Systems	Fintube, CUHs, & Classroom Unit Ventialtors at end of service life.	Replace systems with fintube and CUHs--ventilation thru ducted AHUs listed above.	2	END	L	\$/SF @ 190K SF (\$3/SF ?) + MU's							●	●			\$855,000	55.30%	\$1,327,815	\$1,327,815					

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	0 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/in Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																	TRADE COST PLUS		BUDGET					
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE		
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																								
Exhaust Systems	EFs operating but vintage. All system are at end of service life.	Replace EFs.	2	END	L	Figure (6) 1,000 cfm Efs. + MU's							●	●			\$36,000	55.30%	\$55,908	\$55,908				
Piping System	1981 addition is satisfactory. Original school steam and condensate piping is vintage with steam trap and manual control valve maintenance.	Steam heating sytem serving original building and underground to Longfellow is at end of service life--underground near failure. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	Install new HW piping in the original building. \$/SF @ 130K SF No underground to Longfellow + MU's							●	●			\$2,340,000	55.30%	\$3,634,020		\$3,634,020			
Automatic Temperature Controls	Mostly pneuematics. Aged system w/air leaks	Replace controls with new electric DDC system Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	\$/SF @ 190K SF (\$3/SF ?) + MU's							●	●			\$855,000	55.30%	\$1,327,815		\$1,327,815			
ELECTRICAL																								
Service	Underground primary to utility transformer vault in building. The vault was not accessible at the time of our visit as it requires utility company presence to access. Comments regarding life cycle are based on the general building vault arrangement being an obsolete design.	Update service to padmount transformer arrangement. Upgrade service to 480/277V as part of any planned facility renovations. This work should include Providing a separate utility electric meter for the leased cellular equipment area in the attic. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through		OB	L	Carry Complete new service with padmount transformer for 138,818 sf							●	●			\$182,500	55.30%	\$283,423		\$283,423			
Wiring	Building wire in conduit	Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	3	ESL	L								●	●										
Equipment	1983 vintage GE switchboard	As a maintenance item, perform infra-red scanning of the service equipment to assess condition of contacts and terminations. Switchboard will need to be replaced within 10 years. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	Carry complete replacement for 1600A 480/277V switchboard							●	●			\$181,000	55.30%	\$281,093		\$281,093			
Distribution System	1983 Addition feeder voltage is stepped up to 600V via a 300kVA transformer located in the main electric room, then stepped back down to 208/120V via a second 300kVA transformer located in the 1983 building electric room.	Delete 600V transformers and provide a 480V feeder to the 1983 building as part of service entrance upgrades recommended above. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	3	END	L	Carry complete power distribution system for 138,818 sf							●	●			\$560,000	55.30%	\$869,680		\$869,680			
Panels	Panels are primarily a mixture of Square D panelboards that were installed in the Summer of 2016 to replace obsolete panelboards and 1983 vintage GE panelboards that are nearing the end of their anticipated useful life. It appears that the new panels were connected to the existing feeders. A couple of obsolete panelboards remain to be replaced. Light-commercial-grade loadcenters are in use in the MDF room, cellular phone equipment room, and Boiler Room. Some corridor panelboards are mounted higher than would be permitted by current code.	1983 vintage panels and light-commercial-grade load centers should be replaced with modern panelboards. Panelboards that are mounted higher than permitted by NEC should be relocated. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L								●	●										
Branch Circuits	Based on what can be seen from a visual inspection, branch-circuit wiring appears to be a mix of building wire in conduit and MC cable. The wiring varies in age an condition. Some very old cloth covered wire in conduit was noted at an open junction box in the attic. It was also noted that extension cords are in use in the boiler room for chemical feed pumps due to the receptacles intended to serve the pumps being improperly located. Abandoned wiring was observed at a wall abutting the electric room and in the attic above the old gymnasium.	Any cloth wiring that remains should be updated to modern type THHN/THWN building wire in conduit or MC cable. Receptacles should be located appropriately to eliminate the need for extension cords. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	Carry \$400,000 allowance + MU's							●	●			\$602,000	55.30%	\$934,906		\$934,906			

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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DEERING HIGH SCHOOL

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		LEGEND														BUDGET						
		Condition Level	Life Cycle (Age Factor)		Action Priority											TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
		0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete		I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable														CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Exterior Building Lighting	Building mounted lighting is mostly LED wall packs with full-cutoff optics, although some HID or compact fluorescent outdoor lighting remains, such as at the main entrance. Some walkways and outdoor areas do not appear to be illuminated to levels recommended by IES.	Update remaining HID or compact fluorescent lighting to LED with full cutoff optics as units fail. Add outdoor lighting to provide illumination as recommended by IES. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	Carry 27 LED wall packs											\$24,300	55.30%	\$37,738		\$37,738		
Interior Lighting																							
Classrooms	Primarily a mix of recessed lens troffers and surface mounted wraparound style fluorescent fixtures. Old louvered linear classroom fixtures remain in some rooms. Fixtures utilize T8 lamps.	Update lighting to LED with high performance optics as part of any planned facility renovations. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	END	L	Carry complete interior lighting replacement for 126,500 sf											\$1,618,000	55.30%	\$2,512,754		\$2,512,754		
Offices	Mix of recessed lens troffers and wraparound flourescent fixtures. Fixtures utilize T8 lamps.	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	ESL	L																		
Corridors	Mix of recessed lens troffers and wraparound fluorescent fixtures. Fixtures generally utilize T8 lamps, although some stairway fixtures have been updated to LED.	Update lighting to LED as part of any planned facility renovations. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	ESL	L																		
Toilets	Mixed fluorescent fixtures utilizing T8 lamps.	Update lighting to LED as part of any planned facility renovations. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	ESL	L																		
Mech/Storage	Mix of fluorescent strips, wraparounds, and industrial fixtures.	Update lighting to LED as part of any planned facility renovations. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	ESL	L																		
Assembly	Performance lighting is 2012 vintage LED, but house lights are very old pendant fixtures. Theatrical dimming control is provided by ETC Smartpack dimmers that are relatively new but are not mounted in an appropriate rack.	Update house lighting fixtures. Provide suitable rack for theatrical dimming controls. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	2	OB	L																		
Emergency Power	A small Briggs & Stratton 240/120V single phase generator provides backup power to the Data Center.	The generator will need to be replaced within 20 years. Maintenance will monitor and repair as needed to keep it going until major renovations funds come through	3	ESL	L	Carry 5-kW natural gas genset in outdoor enclosure and 60A ATS											\$17,500	55.30%	\$27,178		\$27,178		
Total Years 6 - 10																		\$21,143,008	\$1,383,723	\$19,684,741	\$74,544	\$0	

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

BUILDING INTERIOR																		
General Notes																		
Typical Interior Wall Finish Materials	Original Building (building A): Painted gyp / plaster in poor condition Addition (building B): Painted CMU block, painted gyp, and exposed brick veneer. All in a varying condition, refer to the following specific areas and notes in the report for descriptions and recommended actions	Recommend refinishing (repair, patch, sand, and paint) all walls due to areas of wall that are damaged or where the paint is peeling. Only in the original building.	1	END	L	Total of all walls for a four story building with a gross square feet of 173,000 @ \$2.50 sf floor area (more extensive patching req'd) = \$432,500 prep-patch-repaint + MU's										\$650,915	93.55%	\$1,259,846
Visual Display Surfaces (chalkboards)	Both buildings: A majority of the instructional spaces have chalkboards or chalkboard covered with whiteboard laminate in poor condition.	Remove all chalkboards and chalkboards with whiteboard laminate complete. Replace with wall mounted whiteboards.	2	OB	L	(21) 10' wall mounted whiteboard (15) 12' wall mounted whiteboard (30) 15' wall mounted whiteboard 3,360 total sf @ \$30 demo-replace =\$100,800 + MU's										\$151,705	93.55%	\$293,625
Interior window sills in addition building (building B)	Plastic laminate window sills are in poor condition. Laminate is peeling and has been chipped away.	Replace all window sills in building B with plastic laminate sills with resilient edge banding.	2	END	L	Building B: A total of 280 linear feet @ \$20 demo-replace = \$5,600 + MU's										\$8,430	93.55%	\$16,316
Main Entrance - Original Building (building A)																		
Entrance Mats		To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	150 Square Feet of aggressive grade walk-off mat. @ \$17.50 recycled rubber = \$2,625 + MU's 200 Square Feet of mild grade walk-off mat. @ \$15 sf = \$3,000 + MU's 150 Square feet of low grade walk-off mat @ \$10 = \$1,500 + MU's										\$10,725	93.55%	\$20,758
Door Configuration (Vestibule?)	Vestibule, secured entrance. No ADA push button	Recommend providing ADA push button access	0	OB	L	ADA push button sequence for two double doors. \$2,500 w/new wiring + MU's										\$3,765	93.55%	\$7,287
Main Entrance -Addition (building B)																		
Entrance Mats		To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	3	ESL	L	(2 entrances) 100 Square Feet of aggressive grade walk-off mat. Assume 100 sf per entrance @ \$17.50 recycled rubber = \$3,500 + MU's both entries; 75 Square Feet of mild grade walk-off mat. Assume 75 sf per entrance @ \$15 \$2,250 + MU's both entries; 100 Square feet of low grade walk-off mat. Assume 100 sf per entrance @ \$10 = \$2,000 + MU's both entries Correct, each square footage is multiplied by 2 for the two entrances.										\$11,665	93.55%	\$22,578
Main Lobby - Original Building (building A)																		
Display Cases	Four tall glass display cases trimmed in stained wood. Display cases are in fair condition. Wood trim shows signs of scratches and dents.	Sand down and refinish wood trim on all four display cases.	2	ESL	L	(4) 2'x4'x7" wood and glass display cases, extent of glass vs wood unclear, assume 50% surface area wood to be reworked = 115 sf wood @ \$7.50 = \$865 + MU's Correct										\$1,305	93.55%	\$2,526

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND																		
Condition Level			Life Cycle (Age Factor)			Action Priority												
0 - Failed - Not Functional			N - New / Recent			I - Immediate (Year 0)												
1 - Poor - Failure Anticipated			ESL - w/In Expected Service Life			S - Short Term (Years 1-5)												
2 - Fair - Functions, Service Required			END - Nearing End of Service Life			L - Long Term (Years 6-20)												
3 - Good - Functional & Maintained			OB - Obsolete			N/A - Not Applicable												
4 - Excellent - New																		
			SEE LEGEND						EVALUATION CRITERIA								BUDGET	
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN- ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																		
Corridors (building A)																		
Floor & Base Finish Materials	A mix of VCT and porcelain floor tile, all with painted wood base	Replace VCT in some classrooms with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	A total of 9,500 square feet @ \$5.75 sf demo-replace-new wall base = \$54,625 + MU's						●	●			\$82,210	93.55%	\$159,117
Floor & Base Finish Materials		Sand and repaint wood trim complete.	2	ESL	L	All walls in corridors on all levels; sf area wood surface unclear, cannot be estimated 2,700 linear feet of "picture rail" wood trim.						●	●			\$20,320	93.55%	\$39,329
Lockers	Single tier, vented, metal lockers with separate book cubbie above and sloped tops. Lockers are in fair condition. Locker bases and lockers at the ends of rows are in poor shape.	Recommend replacing with painted metal lockers complete.	3	ESL	L	All lockers on each floor. A total of 900 linear feet @ \$300 opng x 900 = \$270,000 + MU's						●	●			\$406,350	93.55%	\$786,490
Corridors (building B)																		
Floor & Base Finish Materials	A mix of VCT and porcelain floor tile, all with resilient rubber wall base	Replace VCT in some classrooms with quartz floor tile or an equivalent non-wax finish floor.	3	ESL	L	A total of 1,200 square feet @ \$5.75 demo-replace-new base = \$6,900 + MU's						●	●			\$10,385	93.55%	\$20,100
Stairs and Exits (building A)																		
Handrails (height, extensions, profile)	Painted wood rail in fair condition. Missing handrails or extensions in some areas.	Recommend stripping down and re-staining wood handrails. Recommend providing missing handrails and or extensions using painted round metal handrail at required heights	0	OB	L	A total of 30 linear feet of painted round metal handrail. scabbed onto existing for extensions; refinish wood rail excluded; @ \$35 cut-weld-finish rails = \$1,050 + MU's Correct						●	●			\$1,580	93.55%	\$3,058
General Purpose Classrooms (building A)																		
Floor & Base Finish Materials	A mix of VCT and broadloom carpet with painted wood base. VCT is in varying age and condition. Wood wall base is in poor condition.	Replace VCT in some classrooms with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	An average of 750 square feet in each classroom. A total of (30) classrooms with VCT flooring to be replaced @ \$4.50 demo-replace-new base = \$101,250 + MU's						●	●			\$152,385	93.55%	\$294,941
Floor & Base Finish Materials		Replace broadloom carpet in some classrooms with carpet tile.	2	ESL	L	A total of 3,500 square feet @ \$6 demo-replace = \$2,100 + MU's						●	●			\$3,160	93.55%	\$6,116
Casework	A variety of wood, metal, and plastic laminate casework. All in varying condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in each of the (30) classrooms: (4) 48"x84" open shelf units \$600 ea = \$2,400 per class; (1) 36" tall cabinet width unknown allow \$750 per room (12 linear feet) of 4 rows of adjustable shelves on shelving standards. \$20 lf = \$960 per room; (3) 48"x36" open shelf units @ \$150 = \$1,800 per room = = TOTALS \$177,300 + MU's The width is 36". "Tall" cabinets are 84" tall and the width is 36"						●	●			\$266,840	93.55%	\$516,469
General Purpose Classrooms (building B)																		
Floor & Base Finish Materials	VCT with resilient rubber wall base, all in good condition	Replace VCT in classrooms with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	A total of 4,500 square feet @ \$5.75 demo-replace-new base = \$25,875 + MU's						●	●			\$38,945	93.55%	\$75,378

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Casework	A mix of metal and plastic laminate casework in varying condition and size.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each classroom (9 rooms) in building B (1) 36" tall cabinet width unknown allow \$750 per room (2) 36" tall open shelves width unknown allow \$750 per room (2) 48"x48" open shelf cabinet \$600 ea = \$1,200 per room; \$2,20 per room x 9 = \$31,050 + MU's <													

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA												BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																				
Science Prep Rooms (building A)																				
Floor & Base Finish Materials	VCT with painted wood base.	Replace VCT in some classrooms with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	A total of 1,700 square feet @ \$5.75 demo-replace-reinstall salvaged base =\$9,775+ MU's							●	●		\$14,715	93.55%	\$28,481		
Casework	A mix of Plastic laminate and wood science casework with lab quality black laminate on most flat surfaces, wood counters on others. Varying condition of casework	Recommend replacing all casework in science prep rooms complete. Replace with plastic laminate casework and black phenolic countertops on all flat surfaces.	2	ESL	L	Provide the following in each of the (5) prep rooms: (3) 36" tall storage cabinets \$1,250 = \$3,750 per room; (1) 120" counter at ADA height @ \$175 epoxy resin = \$1,750 per room; (1) 36" ADA sink apron @ \$600 per room; (1) 24" four drawer base cabinet @ \$425 epoxy resin top = \$850 per room; (2) 30" base cabinet with drawer 5 lf @ \$425 = \$2,125 per room; (2) 36" wall cabinets 6 lf @ \$425 = \$2,550 per room; (2) 24" wall cabinets 4 lf @ \$425 = \$1,700 per room; == = TOTALS \$ \$13,325 per room x 5 = \$66,625 + MU's							●	●		\$100,270	93.55%	\$194,073		
Family & Consumer Science																				
Floor & Base Finish Materials	VCT with resilient wall base in fair condition.	Replace VCT in some classrooms with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	A total of 500 square feet @ \$5.75 demo-replace-new base = \$2,875+ MU's							●	●		\$4,330	93.55%	\$8,381		
Floor & Base Finish Materials		Recommend replacing wall base with resilient rubber wall base on all walls.	2	ESL	L	110 lf @ \$3 demo-replace-new base = \$330+ MU's							●	●		\$500	93.55%	\$968		
Floor & Base Finish Materials		Recommend patch/sand/and repainting gyp ceiling complete.	2	ESL	L	100 sf @ 1.75 = \$175 + MU's							●	●		\$265	93.55%	\$513		
Visual Display Surfaces	A mix of whiteboards and tackboards in varying age and condition	Recommend replacing whiteboard with 12' wall mounted whiteboard	1	OB	L	1 ea 12' x 4' wall mount whiteboard @ \$30 demo-replace = \$1,440 + MU's							●	●		\$2,170	93.55%	\$4,200		
Art Classrooms																				
Floor & Base Finish Materials	A mic of VCT and painted wood floors, all with painted wood base. Wood floors are warped and do not provide a level / uniform surface. Floors in varying age and condition	Replace VCT with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	2000 square feet @ \$5.75 demo-replace-re-use salvaged base = \$11,500+ MU's							●	●		\$17,310	93.55%	\$33,504		
Floor & Base Finish Materials		Recommend removing wood floors complete and replacing with a solid / level substrate with a finish of quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	1300 square feet @ \$11.50 demo-level substrate-new floor-re-use salvaged base = \$14,950+ MU's							●	●		\$22,500	93.55%	\$43,549		
Casework	A variety of wood, metal, and plastic laminate casework. All in varying condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in each of the two art classrooms : (1) 96" counter at ADA height @ \$90 w/demo = \$720 per room; (1) 36" ADA sink apron @ \$300 per room; (2) 30" base cabinet with drawer 5 lf @ \$275 w/demo =\$1,375 per room; == TOTALS \$2,395 x 2 = \$4,790 + MU's							●	●		\$7,210	93.55%	\$13,955		
Technology Classrooms																				
Floor & Base Finish Materials	Broadloom carpet with rubber base in good condition	Recommend replacing broadloom carpet with carpet tile.	3	ESL	L	1100 sf @ \$6 demo-replace = \$6,600 + MU's							●	●		\$9,935	93.55%	\$19,229		

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Special Education Classrooms																			
Floor & Base Finish Materials	A mix of VCT and broadloom carpet with painted wood base. VCT is in varying age and condition. Wood wall base is in poor condition.	Replace VCT with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	3000 square feet @ \$5.75 demo-replace-new base = \$17,250+ MU's							●	●			\$25,965	93.55%	\$50,255
Floor & Base Finish Materials		Replace broadloom carpet with carpet tile.	2	ESL	L	2,000 sf @ \$6 = \$12,000 + MU's							●	●			\$18,060	93.55%	\$34,955
Casework	A variety of wood, metal, and plastic laminate casework. All in varying condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in each of the (8) classrooms: (4) 48"x84" open shelf units \$600 = \$2,400 per room; (1) 36" tall cabinet \$750 per room; (12 linear feet) of 4 rows of adjustable shelves on shelving standards. 48 lf @ \$20 = \$960 per room; (3) 48"x36" open shelf units \$500 = \$1,500 per room; = = = TOTALS \$5,610 per room x 8 = \$44,880 + MU's							●	●			\$67,545	93.55%	\$130,733
Performing Arts - Auditorium																			
General	Budget for general renovations and upgrades		-	-	L	Budget							●	●			\$500,000	93.55%	\$967,750
Floor & Base Finish Materials	Broadloom carpet with painted exposed concrete under the seating areas. Painted wood base board in good condition	Repaint exposed concrete floors under seating areas of both main level and balcony.	1	END	L	3800 square feet prep & repaint @ \$2 = \$7,600+ MU's							●	●			\$11,440	93.55%	\$22,142
Seating Type	Folding auditorium seats with wood arms and fabric backing / seating. Chair finish is in fair condition	Recommend replacing seats complete with folding, auditorium style seats with wood arms and fabric backing and seat.	3	ESL	L	All seats in a total area of 3,800 square feet quantity seats unknown A total of 739 seats							●	●			\$389,270	93.55%	\$753,432
Performing Arts - Stage																			
Floor & Base Finish Materials	Wood paneled stage flooring system, with vented wood base.	Repaint floors complete.	2	END	L	1900 square feet strp-prep-repaint-seal @ \$6 = \$11,400+ MU's							●	●			\$17,160	93.55%	\$33,213
Ceiling Finish Materials	Painted plaster ceilings in poor / failing condition.	Recommend removing all peeling paint complete and then patch, sand, paint all ceilings and trim above the stage.	1	OB	L	1900 square feet patch-prep-repaint @ \$3 = \$5,700 + MU's							●	●			\$8,580	93.55%	\$16,607
Performing Arts - Music Rooms																			
Floor & Base Finish Materials	A mix of broadloom carpet and VCT all with resilient rubber wall base. Flooring in varying condition and age.	Replace VCT with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	800 square feet @ \$5.75 demo-replace-new base = \$4,600+ MU's							●	●			\$6,925	93.55%	\$13,403
Floor & Base Finish Materials		Recommend replacing broadloom carpet with carpet tile.	3	ESL	L	1900 square feet @ \$6 demo-replace-new base = \$11,400+ MU's							●	●			\$17,160	93.55%	\$33,213
Casework	A variety of wood, metal, and plastic laminate casework. All in varying condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	(2) 36" tall cabinets \$750 = \$1,500; 40 linear feet of adjustable wall shelves on shelving standards \$20 lf = \$800; (8) 48" double door tall storage cabinets \$750 = \$6,000; = = = TOTALS \$8,300 + MU's							●	●			\$12,495	93.55%	\$24,184
Library / Media Center																			
Floor & Base Finish Materials		Recommend replacing VCT tile in storage room with quartz floor tile or an equivalent non-wax finish floor.	2	END	L	5100 square feet @ \$5.75 demo-replace-new base = \$29.325 + MU's							●	●			\$44,135	93.55%	\$85,423

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Workroom / Staff Areas	Library has work room of similar finish and condition of main library space	Similar recommendations of finishes as stated above	3	ESL	L	A total of 300 square feet of floor and ceiling finishes @ \$12 sf combo floor & ceiling = \$3,600 + MU's						●	●			\$5,420	93.55%	\$10,490	
Gymnasium																			
Floor & Base Finish Materials	Transparent finish wood floor in good condition - Wood base (not vented) base is in poor condition. Areas of recessed walk-off mat in good condition	Remove wood base complete and replace with resilient vented cove base.	1	END	L	A total of 480 square feet of wood base replaced w/vented vinyl base \$9 sf combo floor & ceiling = \$4,320 + MU's						●	●			\$6,505	93.55%	\$12,590	
Wall Finish Materials	Painted CMU block with isolated areas of damage	Recommend patching damaged areas of CMU and replacing with CMU block / paint to match existing.	2	ESL	L	A total of 100 square feet of patch-repair-replace existing cmu and other finishes interior @ \$20 sf = \$2,000 + MU's						●	●			\$3,010	93.55%	\$5,826	
Cafeteria																			
Floor & Base Finish Materials	VCT with resilient rubber wall base. VCT tile has signs of multiple patch jobs and does not have a consistent finish.	Recommend replacing VCT floor with new VCT floor to provide a uniform floor finish and resolve areas of failed tile.	2	ESL	L	5,600 sf @ \$5 w/demo-floor-new base = \$28,000 + MU's						●	●			\$37,625	93.55%	\$72,823	
Kitchen and Servery	(See Food Service Below)																		
General	Budget for Upgrades / Renovations		-	-	L	Budget						●	●			\$500,000	93.55%	\$967,750	
Floor & Base Finish Materials	A mix of VCT with resilient wall base, quarry tile floor with quarry tile wall base, and raw concrete floor with no wall base. All floors are in fair condition, grout lines on quarry tile are dirty and stained.	Recommend regrouting floor tiles and wall base as part of standard maintenance practice.	3	ESL	L	2000 sf \$1.50 sf = \$3,000 + MU's						●	●			\$4,515	93.55%	\$8,739	
Floor & Base Finish Materials		Recommend replacing VCT floor with new VCT floor to provide a uniform floor finish and resolve areas of failed tile.	3	ESL	L	350 sf @ \$5.25 = \$1,840 + MU's						●	●			\$2,770	93.55%	\$5,361	
Teacher Workroom and Staff Areas																			
Floor & Base Finish Materials	A mix of VCT, broadloom carpet, carpet tile, and painted wood floor. Wall base is a mix of painted wood base or resilient rubber wall base. Broadloom carpet and VCT are in fair condition, wood base is in fair condition.	Replace VCT with quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	1000 sf @ \$5.75 sf w/demo-new ceiling = \$5,750 + MU's						●	●			\$8,655	93.55%	\$16,752	
Floor & Base Finish Materials		Recommend replacing broadloom carpet with carpet tile.	2	ESL	L	1300 sf @ \$6 sf w/demo-new flooring-base = \$7,800 + MU's						●	●			\$11,739	93.55%	\$22,721	
Floor & Base Finish Materials		Recommend removing wood floors complete and replacing with a solid / level substrate with a finish of quartz floor tile or an equivalent non-wax finish floor.	2	ESL	L	550 sf @ \$15 sf w/demo-new sub-floor-floor-base = \$8,250 + MU's						●	●			\$11,740	93.55%	\$22,723	

DEERING HIGH SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																				
Casework	A variety of wood, metal, and plastic laminate casework. All in varying condition.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	3	ESL	L	Provide the following in (8) staff rooms): (1) 48"x36" open book shelf \$450 per room; (1) 48" tall open book shelf \$600 per room; (1) 36" tall cabinet \$750 per room; (2) 48" double door base cab w/ drawers \$275 lf x8 = \$2,200 per room; (1) 96"x24" counter at ADA height \$90 w/demo = \$720 per room; (4) 24" wall cabinets 8 lf \$125 =\$1,000 per room; TOTALS \$5,720 per room x 8 =\$45,760 + MU's											\$68,870	93.55%	\$133,298	
Nurse and Health																				
Floor & Base Finish Materials	Broadloom carpet with resilient rubber wall base. Carpet is in fair condition and showing heavy signs of wear and tear.	Recommend replacing broadloom carpet with carpet tile.	2	ESL	L	1400 sf @ \$6 sf w/demo-new flooring-base = \$8,400 + MU's												\$12,645	93.55%	\$24,474
Staff Toilets																				
Floor & Base Finish Materials	VCT with painted wood base.	Replace VCT in some classrooms with quartz floor tile or an equivalent non-wax finish	2	ESL	L	800 sf @ \$5.75 sf w/demo-new ceiling = \$4,600 + MU's												\$6,925	93.55%	\$13,403
Mechanical and Service Spaces																				
Floor & Base Finish Materials	A mix of VCT and painted exposed concrete, all with resilient rubber wall base. VCT is in good condition, painted concrete floor is in poor condition.	Recommend removing all paint from concrete floor, infilling areas of damaged or cracked floor with cementitious self leveler, and providing a floor finish of quartz tile or an equivalent non-waxable finish floor.	2	END	L	1700 sf @ \$13 sf w/repairs-new flooring= \$22,100 + MU's												\$33,260	93.55%	\$64,375

Total Years 11 - 15	\$8,250,822
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DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA												BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST		
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																				
BUILDING EXTERIOR																				
Exterior Wall Cladding																				
General	Budget for general masonry restoration		-	-	L	Budget						●	●			\$400,000	116.55%	\$866,200		
Materials	A mix of brick masonry veneer, pre-cast concrete, and granite. Main façade of the school appears to be in great shape while the rest of the schools is in varying condition and age.	Recommend re-pointing masonry as part of standard maintenance practice.	3	ESL	L	Total of all exterior walls for a four level building with a gross square feet of 173,000, total sf area masonry unclear, suggest mason study to determine actual sf areas needing repointing & other repairs A total of 3,000 square feet of masonry to be repointed.						●	●			\$33,865	116.55%	\$73,335		
Materials		Clean and repoint masonry in specific areas ahead of standard maintenance routine. These areas show heavy signs of dirt / stain build up and deteriorating grout. Specifically the upper half (above the first metal banding) of the masonry chimney stack and the brick veneer directly perpendicular to the chimney. As well as a few isolated areas outside of the band and chorus rooms.	2	ESL	L	A total of 2,600 square feet @\$2 sf clean + \$8 sf repoint = \$10 sf clean & repoint = \$26,000 + MU's						●	●			\$39,130	116.55%	\$84,736		
Materials		Recommend restoration of precast concrete that remains in good condition as part of standard maintenance practice	3	ESL	L	Total of all exterior walls for a four level building with a gross square feet of 173,000m total sf of affected precast unknown, suggest mason study for repair recommendations A total of 600 square feet of precast to be restored						●	●			\$13,545	116.55%	\$29,332		
Materials		Remove cracked or broken precast concrete and replace with new precast concrete in the same shape to maintained buildings character.	2	ESL	L	A total of 80 linear feet of precast concrete to be replaced. Assume this means window sills, no indication of precast profile given, allow \$50 lf = \$4,000 + MU's It's a variety of precast. Some are window sills and some are ornate building details, such as trim that runs along the perimeter of the building.						●	●			\$6,020	116.55%	\$13,036		
Spalling, Staining, Efflorescence	Isolated areas of spalling and efflorescence located on original building (building A) only. Masonry veneer on building B appears to be in good condition.	Remove masonry veneer at areas showing signs of efflorescence to discover the cause of the problem and correct the issue. Remove masonry veneer in area of cracked brick, replace lintel and reflash.	2	ESL	L	A total of 1,000 Square Feet of exterior masonry to be removed (due to efflorescence) back to substrate, reflashed, and replaced with new brick to match existing. \$35 sf demo-new brick + allowance of 100 lf @ \$15 lf brick flashing = \$36,500 + MU's Include the allowance in the price.						●	●			\$54,935	116.55%	\$118,962		

DEERING HIGH SCHOOL
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LEGEND		
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
Windows																		
Frame Materials	Budget for general window replacements		2	END	L	Budget						●	●			\$750,000	116.55%	\$1,624,125
Frame Materials	A mix of painted aluminum windows, aluminum storefront systems, and wood framed exterior windows. Aluminum framed windows are in good condition. Wood framed windows are in poor / failing condition.	Replace wood framed windows complete with thermally broken aluminum framed windows of the same size and operation.	2	END	L	(4) 36"x36" thermally broken aluminum framed windows (20) 36"x72" thermally broken aluminum framed windows (3) 48"x48" thermally broken aluminum framed windows; \$80 sf demo-replace-limited reblocking & interior jamb repairs for 444 sf windows = \$35,520 + MU's						●	●			\$53,460	116.55%	\$115,768
Operable Sash Type and Sash Hardware	A mix of double hung and hopper windows. Its been noted several times that windows do not operate easily as originally designed.	Adjust, maintain, operable windows to allow for easy open/close operation without jamming	2	ESL	L	All operable windows in both buildings complete, quantity windows unclear, cannot be estimated 250 operable windows (double hung) and average of 4'x6' window size						●	●			\$94,065	116.55%	\$203,698
Storm Windows and Insect Screens	No storm windows. Insect screens only provided to operable windows long the ground floor.	Provide insect screens at all operable windows throughout school	1	OB	L	All operable windows in both buildings complete, quantity & size unclear, cannot be estimated 250 operable windows (double hung) and average of 4'x6' window size						●	●			\$90,300	116.55%	\$195,545
Window Treatment (Shades or Blinds)	A mix of window blinds and shades in varying finishes, age, and condition.	Recommend replacing all shades with new shades to allow for a continuous	3	ESL	L	all exterior windows complete, sf area for window treatment unclear 300 operable windows (total of both buildings) (double hung) and average of 4'x6' window size						●	●			\$108,360	116.55%	\$234,654
Exterior Doors (not including Main Entry)																		
Materials	A mix of painted metal doors and painted wood doors all in varying age and condition. Wood doors are obsolete.	Replace all wood doors and heavily damaged metal doors with thermally broken painted aluminum frames and painted aluminum doors.	1	OB	L	(4) 36"x84" thermally broken aluminum framed doors. (3) 72"x84" thermally broken aluminum framed doors 10 total leaves \$2,500 ea w/demo						●	●			\$37,625	116.55%	\$81,477
Lintels	Steel lintels, isolated areas of corrosion with rust scale build up is visible on steel lintels.	Replace all lintels with galvanized steel lintels. Remove 12 square feet of masonry for lintel replacement. Reflash and replace existing masonry.	2	ESL	L	(2) 7' galvanized steel lintels (4) 4' galvanized steel lintel A total of 50 square feet of existing masonry to be removed and replaced for lintel work. Assume 4 x 4 lintel 6#/lf =200 # lintel @ \$2 material = \$400 + 33 hours mason labor \$45 hr = \$1,485 + 50 sf brick \$25 demo-replace = \$750 = = TOTALS \$2,635 + MU's						●	●			\$3,965	116.55%	\$8,586
Fascia, Trim, Soffits & Overhangs																		
Materials	Painted cementitious soffit material is showing signs of water damage and paint failure.	Remove and repair all loose material. Repaint all soffits.	2	ESL	L	A total of 2,100 square feet @ \$7.50 including lose materials = \$15,750 + MU's						●	●			\$23,705	116.55%	\$51,333

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND																		
Condition Level			Life Cycle (Age Factor)			Action Priority												
0 - Failed - Not Functional			N - New / Recent			I - Immediate (Year 0)												
1 - Poor - Failure Anticipated			ESL - w/In Expected Service Life			S - Short Term (Years 1-5)												
2 - Fair - Functions, Service Required			END - Nearing End of Service Life			L - Long Term (Years 6-20)												
3 - Good - Functional & Maintained			OB - Obsolete			N/A - Not Applicable												
4 - Excellent - New																		
			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																		
Sealants & Expansion Joints																		
Window / Door Perimeter Sealant	Perimeter sealant material unknown. Sealant is failing at most louver and window locations in both buildings	Remove and replace all failing sealant and backrods complete.	1	END	L	3700 lf @ \$3.50 rout & reseal = \$12,950 + MU's						●	●			\$19,490	116.55%	\$42,206
Building Joint Sealant	Building joint sealant material unknown. Sealant is aging at all conditions	Recommend removing and replacing building joint sealant and backrods complete as part of standard maintenance practice.	2	ESL	L	500 lf @ \$5 rout & reseal & backer rods = \$2,500 + MU's						●	●			\$3,765	116.55%	\$8,153
Roof Assembly & Flashing																		
Material, Type, Color	Original Building (building A): Dark colored asphalt shingles in fair condition. Areas of black EPDM in good condition. Dark colored standing seam metal roof in good condition. Addition Building (building B): Black EPDM in good condition	Recommend replacing asphalt shingle roofs, metal standing seam roof, and EPDM roofs (on both buildings).	3	ESL	L	Asphalt shingles (18,000 SF) @ \$4.50 demo-new ice & water-felt-shingles-trims but blocking re-used = \$81,000 + MU's; Metal standing seam (6,000 SF) @ \$12 demo-100% ice & water-standing seam & trims but blocking re-used = \$72,000 + MU's EPDM (46,000 SF) @ \$12 demo-new system & R38 w/trims, but blocking re-used = \$552,000 + MU's Yes, re-use blocking						●	●			\$1,061,025	116.55%	\$2,297,650
Roof Edges and Copings	Original Building (building A): EPDM / brick masonry knee walls up to 36" with sheet metal caps. Unsealed laps in good condition Addition Building (building B): Sheet metal. Unsealed laps in good condition	Original Building (building A): Recommend replacing EPDM on knee wall and sheet metal cap when roofing replacement work takes place	3	ESL	L	Entire perimeter of original building (Building A) roof edge. sf or lf knee wall area unclear & lf sheet metal wall cap unclear, cannot be estimated 1,400 linear feet of 30" tall knee wall with sheet metal wall cap.						●	●			\$68,480	116.55%	\$148,293
Gutters and Downspouts																		
Locations and Materials	Open faced, copper downspouts, one located on each end of roof over side entrances. A total of (4) copper downspouts. Downspouts are dented and damaged near bottom	Recommend replacing copper downspouts with new copper downspouts at each side door entrance.	2	ESL	L	(4) 14' copper, open faced downspouts. @ \$35 lf demo-replace = \$1,960 + MU's						●	●			\$2,950	116.55%	\$6,388
Exterior Stairs and Ladders																		
Locations and Materials	A mix of concrete and granite exterior stairs in varying condition. Stairs have a mix of code compliant and non code compliant railings (some of the railings do not extend beyond the bottom of the stair).	Replacing handrails, or provide missing handrails, to meet required extensions beyond the bottom of the stair.	0	OB	L	A total of 80 linear feet of replaced painted round pipe handrail. Presume this means ground mounted double line pipe rail @ \$85 demo & replace = \$6,800 + MU's Correct						●	●			\$10,235	116.55%	\$22,164
	Maine entrance is not accessible due to lack of exterior ramp.	Recommend providing a5' wide by 14' long by 14" tall exterior concrete ramp at main entrance. Provide a chair lift inside the main vestibule to allow for access to the main level.	0	OB	L	(1) 60" x 168" x 14" tall concrete ramp. dig-bf-foundations-slab-ground mount hrails-gravel backfill-patfch c.i.p. ramp \$12,000 + MU's (1) chair lift at interior of main vestibule \$25,000 + \$7.500 enclosure & trims = \$32,500 + MU's						●	●			\$66,975	116.55%	\$145,034

DEERING HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
MECHANICAL																			
Heating Plant	The Steam boiler plant was replaced in 2014 with (3) Hurst Firetube Series 500 boilers. Gross output is 2,678 MBH per boiler. Existing breeching was reused. Combustion air supplied via combustion air fan (VFD). A steam to hot water convertor supplies hot water to the 1981 additon via vertical inline pumps. Steam heating supplies the original building. Heating hot water and domestic CW piping serves the 1981 additon via underground piping.	Replace exisitng steam boielers with (2) 3,500MBH condensing hot water boilers at time of building steam to hot water conversion.	4	N	L	(2) 3,500 MBH condensing boilers & Appurtenances + MU's									\$425,000	116.55%	\$920,338		
																	Total Years 16 -20	\$7,291,011	

PORTLAND HIGH SCHOOL
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
ELECTRICAL																		
Service	Underground primary from overhead utility lines to 1000 kVA utility owned padmount transformer. Underground secondary from padmount transformer to (3) service disconnects located in basement. There is no grounding electrode system connection to the water main.	Connect the grounding electrode system to the metal underground domestic water entrance in accordance with code requirements. Provide bonding for interior metal piping in accordance with code requirements.	2	ESL	I	Carry \$3,000 + MU's										\$4,515	0.00%	\$4,515
																	Total Year 0	\$4,515

PORTLAND HIGH SCHOOL
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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

SITE																						
Building Entrances																						
Connection to accessible route and accessibility	Main entrance is not accessible due to monumental stair case	Provide elevator addition at main entry of the building	-	-	S	Assume: 1. 3-stop passenger elevator 2. 40-ft tall addition, 20'x20' footprint, exterior walls on 3 sides 3. Brick veneer with 150 SF precast decorative panels, 200 SF storefront entrance/windows 4. EPDM roof 5. 400 SF light renovations to provide connection to main corridor at first floor											\$376,250	24.65%	\$468,996	\$468,996		
Parking																						
General Layout Description	Staff parking in garage. Pedestrian circulation conflict behind the Church with vehicular parking.	Delineate pedestrian walk and parking along alley.			S	Striping: 120lf@\$1											\$180	24.65%	\$224	\$224		
Number of Spaces (Regular & ADA)	No ADA, possibly 2 but signage is unclear - no striping	Paint and stripe ADA parking.	1	END	S	Sign: 2ea @\$125 Striping: 120lf@\$1											\$557	24.65%	\$694			\$694
Vehicular & Pedestrian Circulation																						
Walkway Materials	Brick, Concrete	Make repairs			S	1300 s.f. @\$14											\$27,391	24.65%	\$34,143	\$34,143		
Curb Cuts & Detectable Warning Strips		Add detectable warning strips			S	2each: 120sf@\$60											\$21,672	24.65%	\$27,014			\$27,014
Service Area																						
Loading Dock or Leveler	Concrete Dock, Vehicle Parked in dock area	Make repairs			S	2each @\$125											\$376	24.65%	\$469			\$469
Trash & Recycling Containers (# & Size), Trash Compactor (size)	No external				S	2each @\$100											\$301	24.65%	\$375			\$375
Fencing																						
Locations & Materials	Metal - Poor/damaged	Make repairs			S	300lf@\$30											\$13,545	24.65%	\$16,884			\$16,884
Site Drainage																						
Ponding					S	Raise CB grade;2 @\$750											\$2,257	24.65%	\$2,813	\$2,813		
STRUCTURAL																						
Foundations / Drainage	A. Stone entry steps have shown evidence of movement.	Reset entry risers	2	ESL	S	All entries except south connector. about 65, 8 foot treads to reset assuming 75 percent reset											\$25,680	24.65%	\$32,010	\$32,010		
Foundations / Drainage	D. Entry cast stone spalled and effloresced.	Replace cast stone elements and provide appropriate flashing.	2	OB	S	4 stones; see picture											\$6,020	24.65%	\$7,504	\$7,504		
Foundations / Drainage	E. Elevated pediment at newer south entry constructed of cast stone' stones appear to be separating.	Remove and reset; replace connections.	2	END	S	Say 6' stone x 16 wide, two sides											\$3,765	24.65%	\$4,693	\$4,693		
Foundations / Drainage	F. Cast stone header/soffit beam at south entry/red brick building spalled with exposed steel reinforcing.	Shore roof and replace cast stone element. Provide appropriate flashing.	1	END	S	6 foot header beam, shore-demo-replace-flash allow \$3,000 + MU's											\$4,515	24.65%	\$5,628	\$5,628		
Foundations / Drainage	G. Retaining wall at areaway, building north, east side severely displaced and rotated; steel railings failed from corrosion and wall movement.	Replace retaining wall and railings	1	OB	S	Estimated 95 feet by 6 foot tall. w/dig-bf retained side-demo-replace wall=gard rail along wall top, assume doweled into existing footing to remain = \$27,500 + MU's Increase budget to \$300k											\$451,500	24.65%	\$562,795	\$562,795		
Foundations / Drainage	H. Areaway at connector in poor condition with displaced stone surround.	Replace with new anchored stones or concrete	2	END	S	75 feet reset; see picture											\$11,290	24.65%	\$14,073	\$14,073		

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION					
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																							
Roof Construction	1. Two truss stitch rivets noted missing; recommend that bolts be utilized to replace missing rivets. Not part of primary connections and thus likely minimal impact on connection capacities.	Replace two missing rivets with high strength bolts.	2	ESL	S	2 bolt locations \$250 ea drill & bolt = \$500 + MU's							●	●			\$755	24.65%	\$941			\$941	
Roof Construction	2. High low roof condition may not meet current code for snow loading.	Investigate if roof was reinforced in prior renovations	3	ESL	S	Budget \$50K for investigative work and engineering and \$400k for structural upgrades							●	●			\$450,000	24.65%	\$560,925	\$560,925			
Exterior Wall Construction	B. Efflorescence noted at exterior walls, particularly at attic. Unclear if moisture drive from exterior is causing or if efflorescence is active.	Monitor condition; consider sealing brick masonry with breathable sealer.	2	ESL	S	Say 1650 lf x 80 feet tall x 70% sealing = 92,400 sf							●	●			\$139,065	24.65%	\$173,345	\$173,345			
BUILDING INTERIOR																							
General Notes																							
Stair Railings	Short stair runs throughout building typically lack proper ADA hand/guardrails.	Remove existing hand/guardrails. Install new ADA compliant rails.	0	OB	S	Approx. 50 LF/floor, or 250 LF total new ADA compliant hand/guardrails.; If single line pile rail vs lf floor mount guard rail unclear .. Assume 50% each = 125 lf wall rail \$35 w/demo + 125 lf floor mount guard rail \$150 w/demo & 4" spacers = \$23,125 + MU's OK - 50% each.				●	●						\$34,805	24.65%	\$43,384	\$43,384			
Corridors																							
Lockers	Painted metal double-tier lockers. Lockers are typically dented, scratched, and nearing the end of their expected service life.	Replace all lockers with ADA compliant double tier plastic lockers.	2	END	S	Remove and replace existing metal lockers with approx. 700 ADA compliant double tier plastic lockers. 1,400 openings @ \$135 demo-replace = \$189,000 + MU's					●						\$284,445	24.65%	\$354,561	\$354,561			
Drinking Fountains	Provided at each level. Typically provided in niche. Fountain on basement level is not located in alcove, and does not have cane detection device.	Verify bottom if leading edge of fountain is exactly 27" A.F.F. If higher, provide painted round metal cane detection devices to either side of the drinking fountain to meet ADA requirements.	0-3	OB-ESL	S	(2) painted round metal cane detection devices. \$250 ea = \$500 + MU's					●						\$755	24.65%	\$941			\$941	
Interior Signage																							
Materials	Plastic signage.	Provide consistent code compliant signage throughout the entire building. Basement level is lacking ADA compliant interior signage.	0	OB	S	Provide plastic ADA compliant room signage for 45 spaces. \$75 ea = \$3,375 + MU's				●	●						\$5,080	24.65%	\$6,332	\$6,332			
Family & Consumer Science (Home Ec.)																							
Casework	Plastic laminate casework. Typically showing wear and tear. Scuff marks, dents, and delamination. Counter mounted sinks not at ADA height and no knee clearance.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves. Casework to all meet ADA requirements.	0	OB	S	(2) plastic laminate 96"x48" peninsula type counter with (4) 24" base cabinets and drawer above (mirrored casework layout on each side) \$425 lf 16 lf = \$6,800;. (4) 36" ADA sink apron \$300 ea = \$1,200; (4) 24" Base cabinet with drawer 8 lf \$275 = \$2,200; (20) 24" base cabinets 40 lf \$275 = \$11,000; (20) 24" wall cabinets 40 lf \$125 = \$5,000; = = = TOTALS \$26,200 + MU's					●	●	●	●			\$39,435	24.65%	\$49,156	\$49,156			
Stairs	Auxiliary room with washer and dryer is not accessible due to stairs. Accessible hand/guardrails not provided.	Move washer and dryer to accessible space. Install hand/guardrails.	0	OB	S	Move (1) washer and (1) dryer. \$1,000 w/new vent & hookup; Install 12 LF hand/guard rails. Assume 6' single line pipe wall rail \$25 & 6' ground mount guard rail \$75 = \$600; = = TOTALS \$1,600 + MU's Assume 12 LF single line pipe wall rail.					●						\$2,050	24.65%	\$2,555			\$2,555	

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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PORTLAND HIGH SCHOOL																																				
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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Trade Cost Plus 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	Budget																	
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance				CIP	CIP (Major Renovation)	Maint.	City Expense														

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
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1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
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																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																						
Teacher Workroom and Staff Areas																						
Sinks (ADA compliance)	Non-ADA sink provided.	Remove existing sink, replace with new counter and ADA compliant sink.	0	OB	S	Remove existing. Install new 36" long, 24" deep plastic laminate counter with resilient edge banding \$90 lf w/demo = \$270, and counter mounted ADA compliant stainless steel sink \$1,550 re-use rough = = = TOTALS \$1,810 + MU's.				●						\$2,725	24.65%	\$3,397	\$3,397			
Nurse and Health																						
Other	(1) in-suite single use toilet room, non-ADA compliant	Gut renovation of toilet room to be ADA compliant, including all finishes, toilet, lavatory and accessories	1	OB	S	75 SF \$5,000 walls remain + MU's				●							\$7,525	24.65%	\$9,380	\$9,380		
Atrium																						
Water Fountain	Recessed water fountains provided in atrium outside of gym. Fountains are dated, leaking, and not ADA accessible.	Remove existing water fountains, replace with ADA compliant water fountains.	0	OB	S	Remove existing non accessible drinking fountain. Provide 1 new hi/low drinking fountain with water bottle filler. Install (2) cane detection devices on sides of new water fountain. \$1,500 re-use rough + \$500 detectors = \$2,000 + MU's				●							\$3,010	24.65%	\$3,752		\$3,752	
Loading Dock																						
Ramp	Ramp lacks ADA railing extensions.	Provide proper handrails and guardrails at loading dock ramp.	0	OB	S	Remove existing hand/guard rails. Provide approx. 45 LF new, compliant painted steel guardrails/handrails. Wall single line rail vs ground mount double line rail unclear Provide 50 LF ground mount handrail and guardrail. Provide 25 LF single line wall mount rail.				●							\$6,585	24.65%	\$8,208		\$8,208	
ELECTRICAL																						
Life Safety																						
Fire Alarm	Fire alarm control panel is a recently installed addressable Silent Knight model 5820XL. Occupant notification and sprinkler system monitoring have been updated, but old initiating devices and zone wiring remain. Each old zone is monitored as an addressable point. Many old notification appliance backboxes are open.	Provide blank covers for old notification appliance backboxes. Update initiating devices and wiring to fully addressable as part of any major facility renovations.	2	ESL	S	Carry 35% of complete fire alarm system for 250,580 sf		●	●								\$165,000	24.65%	\$205,673	\$205,673		
Emergency Lighting	Emergency battery units with integral and remote incandescent heads. LED illuminated exit signs with integral battery backup. There is no emergency light at the exterior of building exits.	Replace older units as they fail. Provide outdoor emergency lighting at building exits.	2	END	S	Carry (10) outdoor units and (100) indoor units		●	●								\$67,725	24.65%	\$84,419	\$84,419		

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PORTLAND HIGH SCHOOL

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/in Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	EVALUATION CRITERIA						TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY						SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

SECURITY

Secure Entry Vestibule	Secured entry with buzz-in entry system at second set of doors. Secured vestibule does not enter directly into admin area, allowing visitors to have access to student areas before checking in.	Recommend providing additional HM storefront system with double doors separating lobby from student corridor. Provide secure entry system to either side of student corridor.	0	OB	S	Provide new 15' wide x 15' tall HM interior storefront system with set of secure double entry doors. 185 HM glazed sidelite-transom \$65 = \$12,025; doors \$3,000 ea wired for security = \$6,000 = = = TOTALS \$18,025 + MU's	●										\$27,130	24.65%	\$33,818	\$33,818				
Security Camera System	Network cameras at entrances.	Provide interior security cameras	3	ESL	S	Assume 48 cameras	●										\$45,000	24.65%	\$56,093	\$56,093				
Intrusion Alarm System	2011 vintage bosch with wireless motion detectors. System is integrated with district-wide network.	System will need to be replaced within 15 years	3	ESL	S	Carry full system replacement for 250580 sf	●										\$275,308	24.65%	\$343,171	\$343,171				
																	Total Years 1 - 5		\$3,210,993	\$3,149,159	\$0	\$17,936	\$43,898	

PORTLAND HIGH SCHOOL
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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	1 - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	5 - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
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																BUDGET							
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP				CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
BUILDING INTERIOR																							
General Notes																							
Interior Doors	Typically, interior wood doors and frames throughout school are showing considerable wear and tear and are dated.	Replace all interior doors within the next 10 years.	2	END	L	Replace existing single doors with 425 new wood veneer doors, HM frames. Replace existing double doors with 85 new wood veneer doors, HM frames. \$1,550 w/demo per leaf = 595 ea = \$922,250 + MU's							●	●			\$1,387,990	55.30%	\$2,155,548		\$2,155,548		
Locker Rooms																							
Level of Privacy - Long Term	Girls LR has separate shower stalls. Privacy curtains are missing. No ADA accessible stall. Boy's LR has gang shower configuration. Both LRs lack accessible shower stall.	Renovate gang shower area to provide individual and ADA compliant shower and changing compartments	0	OB	L	Refer to diagrams provided in the Locker Room Privacy Accomodatiions Section of this report.											\$135,436	55.30%	\$210,332		\$210,332		
Lockers (Material, Vented, ADA)	Painted metal lockers. A mix of types, including double tier and 6 tier. Typically vented. Lockers are not ADA compliant. Lockers are damaged and dented.	Remove all existing lockers, replace with new.	0	OB	L	Provide approx. 150 new plastic lockers, mix of double and 6 tier, vented, and 8 of which must be ADA accessible.				●							\$96,394	55.30%	\$149,700		\$149,700		
Wall Finish Materials	Painted CMU. Paint is chipping in large portions. Also cracking, discolored.	Repaint all CMU walls.	2	END	L	Approx. 3,600 SF CMU repainting. \$2 sf prep-filler coat = \$7,200 + MU's						●	●				\$10,840	55.30%	\$16,835		\$16,835		
Ceiling Finish Materials	Painted GWB. Ceilings are cracked, showing areas where ceiling was previously patched. Discolored in some locations, and even a few areas of mold growth.	Refinish and repaint all GWB locker room ceilings.	2	END	L	Approx. 2,600 SF GWB repainting. \$1.50 sf prep-repaint = \$3,900 + MU's						●	●				\$5,870	55.30%	\$9,116		\$9,116		
PLUMBING																							
Hot Water System	(2) HTP 119 gal super store, indirect via boiler water, 2011 mfg.	Service life 15 years. Replace in 10 years	3	ESL	L	(2) indirect 119 gall						●	●				\$15,000	55.30%	\$23,295		\$23,295		
Sanitary Waste and Vent System	cast iron and PVC	Inspect cast iron for leaks-failures. Replace CI sanitary over 30 years old-end of service life	2	END	L	Estimated 60K sf @ \$/SF						●	●				\$630,000	55.30%	\$978,390		\$978,390		
Storm Drain System	cast iron and PVC	Inspect cast iron for leaks-failures. Replace CI sanitary over 30 years old-end of service life	2	END	L	Estimated 60K sf @ \$/SF						●	●				\$250,000	55.30%	\$388,250		\$388,250		
Drinking Fountains / Water Coolers	ADA cooler with bottle fill -- some older fountains (one by ticket both)	Complete updating fixtures	2	END	L	Figure (3) coolers						●	●				\$12,000	55.30%	\$18,636			\$18,636	
MECHANICAL																							
Heating Plant	(4) Hydrotherm KN-30 condensing gas boilers, 3,000MBH output, 2011 est. mfg. HX for glycol HW was rebuilt in 2013.	Expected seervice life of 25 years. Replace in 20 years.	3	ESL	L	(4) Boilers + MU's						●	●				\$200,000	55.30%	\$310,600		\$310,600		
Air Conditioning (Yes/No/Limited)	Limited, SnyderGeneral roof top HVAC-1 & 2 units with DX R22, serves auditorium and library (?confirm), est. 1989 mfg. _ ton ?	Units are beyond the useful service life of 20 years. Showing rust and age. Replace with new high efficiency units.	2	END	L	RTUS AC + MU's						●	●				\$100,000	55.30%	\$155,300		\$155,300		
Air Handling Unit Systems	Rooftop H&V units, McQuay 8 (?) units, est.mfg 1989	Units are beyond the useful service life of 25 years. Showing rust and age. Replace with new high efficiency units. HW coils are thin and failing in these units--replace units to upgrade in lieu of coil change.	2	END	L	Replace rooftop H & V units + MU's						●	●				\$375,000	55.30%	\$582,375		\$582,375		
Air Handling Unit Systems	Indoor H&V units, est. mfg1989	Units are beyond the useful service life of 25 years.	2	END	L	Replace H & V units + MU's						●	●				\$280,000	55.30%	\$434,840		\$434,840		

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/in Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

															TRADE COST PLUS 50.5% MARK-UP		ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE	
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																							
Pumps	Hydronic pumps P-1 thru P-8 main building loop pumps mfg. 1989-90. Glycol heating loop and water heating loop.	Replace with high efficiency VFD pumps. (2) lead/lag for glycol and (2) for water.	2	END	L	Replace pumps +MU's							●	●			\$60,000	55.30%	\$93,180		\$93,180		
Terminal Unit Systems	Mostly VAV with heating coils, est. 1989 mfg.	Beyond useful service life (15-18 years), replace especially where potential heating coil erosion.	2	END	L	Reeplace VAV units +MU's							●	●			\$125,000	55.30%	\$194,125		\$194,125		
Terminal Unit Systems	Fintube in areas, hallways, CUHs in vestibules	End of service life	2	END	L	Replace Heating Terminals +MU's							●	●			\$150,000	55.30%	\$232,950		\$232,950		
Exhaust Systems	Most rooftop Efs appear est. 1989 mfg.	End of service life	2	END	L	Replace EF s in kind							●	●			\$75,000	55.30%	\$116,475		\$116,475		
Piping System	Mostly 1990s upgraded, some 1970s vintage. Vintage steam piping system has been removed.	Inspect aged piping for leaks or failure. Some sweated copper piping showing corrosion and leaks. Expected service life of 30 years.	3	ESL	L	Replace HW piping systems \$/SF + MU's							●	●			\$4,500,000	55.30%	\$6,988,500		\$6,988,500		
Automatic Temperature Controls	Aged DDC electric (1990s) and newer DDC	Upgrade DDC system-replace all hydraulic actuators with new direct drive. End of service life	1	END	L	Replace with upgraded DDC \$/SF + MU's							●	●			\$1,200,000	55.30%	\$1,863,600		\$1,863,600		
ELECTRICAL																							
Wiring	Building wire in conduit. The service entrance conduits enter the building in what was once an interior transformer vault and are routed through the building approximately 20 feet to the service disconnects. NEC requires the service disconnects to be located "nearest the point of entrance of the service conductors".	The service entrance conductors will reach the end of their anticipated useful lives within 15 years. We recommend replacing the service entrance conductors when the service equipment is replaced.	3	END	L	Carry \$35,000 + MU's							●	●			\$52,675	55.30%	\$81,804		\$81,804		
Equipment	Service disconnect #1 is an early 1970's vintage GE circuit breaker that has exceeded its anticipated useful life. Service disconnects #2 and #3 are 1990 vintage Westinghouse fusible switches that are near the end of their anticipated useful lives.	Perform an infrared scan to assess the condition of equipment contacts and terminations. When the equipment is replaced, the new equipment should be located nearest the point of entry of the service conductors	2	END	L	Carry complete replacement of equipment: \$73,500 + MU's							●	●			\$110,618	55.30%	\$171,789		\$171,789		
Distribution System																							
Panels	Paneboards are a mix of early 1970's vintage GE panelboards and 1990 vintage Westinghouse panelboards. The 1970's equipment has exceeded its anticipated useful life.	All panels will reach the end or their anticipated useful lives within 5 years	2	END	L	Carry complete power distribuion system replacement for 250,580 sf							●	●			\$769,000	55.30%	\$1,194,257		\$1,194,257		
Wiring	Building wire in conduit.	Replace wiring in conjunction with panelboard updates. All power distribution wiring will reach the end of its anticipated useful life within 20 years	2	END	L	Carry complete system replacement for 250,580 sf							●	●			\$685,000	55.30%	\$1,063,805		\$1,063,805		
Branch Circuits	Mixture of building wire in conduit and surface metal raceway, and MC cable. Extension cords are in use in some areas due to a lack of appropriately located receptacles.	Add receptacles and branch circuits to eliminate the need for extension cords. This work should be done in conjunction with power distribution updates.	2	END	L	Carry Devices and branch circuit wiring installation for 15% of 250,580 sf							●	●			\$128,000	55.30%	\$198,784		\$198,784		
Site Lighting (type & material)	Pedestrian-scale pole lights. Fixtures do not have full-cutoff optics.	Update site lighting to LED with full-cutoff optics.	2	END	L	Carry replacement of (2) 12' high pole lights							●	●			\$9,030	55.30%	\$14,024			\$14,024	
Exterior Building Lighting	Mixture LED wall packs and HID wall packs.	Replace HID units with LED as they fail All fixtures will reach the end of their anticipated useful lives within 20 years.	2	END	L	Carry (11) LED wall packs							●	●			\$9,900	55.30%	\$15,375			\$15,375	
Interior Lighting																							
Classrooms	Fluorescent recessed lens troffers utilizing T8 lamps	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	END	L								●	●									
Offices	Main office has compact fluorescent downlights and wall sconces. Illumination is lower than IES recommendations, measured at approximately 7 footcandles average during our visit.	Update lighting to LED with high performance optics as part of any planned facility renovations.	2	ESL	L								●	●									

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

																BUDGET									
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION							
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE						
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																									
Corridors	Various fluorescent fixtures utilizing T8 lamps, Schoolhouse style pendant fixtures that appear to be fitted with medium-base LED lamps are used in some areas.	Update lighting to LED as part of any planned facility renovations.	2	ESL	L	Carry complete interior lighting replacement for 241,580 sf							●	●		\$2,545,000	55.30%	\$3,952,385		\$3,952,385					
Toilets	Fluorescent fixtures utilizing T8 lamps	Update lighting to LED as part of any planned facility renovations.	2	ESL	L								●	●											
Mech/Storage	fluorescent strips with T8 lamps	Update lighting to LED as part of any planned facility renovations.	2	ESL	L								●	●											
Assembly	Auditorium house lighting is mix of Metal halide and incandescent recessed downlights. Stage work lights are incandescent. Common area auditorium lighting is controlled only by circuit breakers. Theatrical dimming racks are obsolete.	Update lighting and controls throughout auditorium area	2	OB	L								●	●											
Gym	T8 fluorescent high bays Illumination is lower than IES recommendations, measured at approximately 20 footcandles average during our visit.	Update lighting to LED and provide illumination levels per IES recommendations.	2	ESL	L	Carry complete interior lighting replacement for 9,000 sf							●	●		\$94,815	55.30%	\$147,248		\$147,248					
Data System (& Service)	Category 6 2012 vintage cable plant. Some equipment and terminations are housed in open racks in spaces shared with other program uses such as storage.	Provide enclosed cabinets to house infrastructure in shared-use areas.	2	ESL	L	Carry \$35,000 + MU's							●	●		\$52,675	55.30%	\$81,804	\$81,804						
Total Years 6 - 10																\$21,843,322	\$81,804	\$21,713,483	\$48,034						

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
General Notes																			
Corridor Floor & Base Finish Materials	Terrazzo floor and base. Floor showing extensive cracking and chipping.	Recommend installing quartz tile over terrazzo.	2	END	L	Approx. 35,000 SF (corridor) terrazzo. \$4.50 prep-new quartz & base = \$157,500 + MU's Approx. 5,800 SF (corridor) VCT, no work indicated Replace approx. 5,800 SF (corridor) VCT with new quartz tile and rubber base.							●	●			\$298,140	93.55%	\$577,050
Classroom Ceilings	Typically 2x4 ACT tile. Ceilings generally showing considerable wear and tear. Missing and chipping tiles, discolored tiles.	Remove 110,000 SF 2x4 ACT ceiling tile, replace with new within the next 10 years	2	END	L	Remove 110,000 SF 2x4 ACT ceiling tile, replace with new 2x4 ACT ceiling tile. \$4.50 demo-replace = \$495,000 + MU's							●	●			\$744,975	93.55%	\$1,441,899
Classroom Floor & Base Finish Materials	Approx. 75% VCT, other 25% is carpet. Typically, flooring materials are in fair shape. However flooring is beginning to show some wear and tear.	Replace all classroom flooring materials within the next 15 years.	3	ESL	L	Approx. 110,000 SF VCT and carpet removal, replacement with equivalent SF of quartz tile. \$5.25 demo-prep-floor = \$577,500 + MU's							●	●			\$869,140	93.55%	\$1,682,220
Base Finish Materials	Rubber base is typically showing considerable wear and tear.	Replace rubber base in the next 5 years.	2	END	L	Approx. 110,000 GSF of classroom space to replace existing rubber base with new, \$0.50 per sf floor area = \$55,000 + MU's							●	●			\$82,775	93.55%	\$160,211
Wall Finish Materials	Typically painted plaster or GWB. Typically plaster is chipping, crumbling. GWB is dented and scuffed.	Patch and repaint all classroom walls.	2	END	L	Approx. 110,000 GSF classroom wall patching and repainting. \$2 sf floor area = \$220,000 + MU's							●	●			\$331,100	93.55%	\$640,844
Visual Display Surfaces	Tackboards, whiteboards, chalkboards.	Tackboards and whiteboards in fair condition. Chalkboards are obsolete and should be removed and replaced with whiteboards.	0	OB	L	Remove approx. 20 LF 5' tall chalkboard in 90 classrooms, replace with equal LF of whiteboard. 9000 sf \$30 demo-replace = \$270,000 + MU's							●	●			\$406,350	93.55%	\$786,490
Window Sills	Wood window sills. Showing considerable wear and tear, denting, and discoloration.	Refinish all wood window sills.	2	END	L	Refinish approx. 3,000 lf 10" wide wood window sills. \$5 lf = \$15,000 + MU's							●	●			\$22,575	93.55%	\$43,694
Main Entrance																			
Floor & Base Finish Materials	Terrazzo floor and base. Generally in fair condition.	Recommend repairing minor chips, cracks.	2	ESL	L	Repair approx. 5 LF cracking terrazzo. \$35 sf = \$175 + MU's							●	●			\$265	93.55%	\$513
Entrance Mats	Loose floor mats.	To preserve interior finishes it is our recommendation to replace with more robust walk-off carpet sequence at the main entrance. Provide an area of aggressive grade walk-off material at the exterior of the vestibule. Provide a mild grade walk-off mat product as finish floor in the vestibule. Provide an area of low grade walk-off carpet in the main lobby.	2	END	L	100 Square Feet of aggressive grade walk-off mat. \$17.50 sf 100 Square Feet of mild grade walk-off mat. \$15 sf 300 Square feet of low grade walk-off mat. \$10 sf = = TOTALS\$6,250 + MU's							●	●			\$9,410	93.55%	\$18,213

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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			SEE LEGEND			EVALUATION CRITERIA											BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Corridors																			
Wall Finish Materials	Basement Level - Painted brick, CMU. Paint is typically peeling in significant chunks. Ground - Painted GWB/plaster, brick. First, Second, Third - Painted plaster	Repaint all corridor masonry walls in basement. Remaining walls, recommend patching and re-painting as part of standard maintenance practice.	2	END	L	Approx. 6,800 SF masonry wall repainting. \$2 sf prep-filler coat = \$13,600 + MU's						●	●			\$20,470	93.55%	\$39,620	
Ceiling Finish Materials	All levels - Painted GWB. Isolated areas where mold is visible on the basement level only. On the third floor, paint is peeling away in significant chunks.	Remove mold growth on GWB basement ceilings. Repaint entire 3rd floor ceiling. Remaining ceilings - recommend patching and re-painting as part of standard maintenance practice.	1-2	END	L	Remove approx. 10 SF mold growth on basement ceiling. Patch and repaint approx. 8,100 SF GWB ceiling. \$1.75 prep-repaint ceiling =\$14,175 + \$250 mold = \$14,425 + MU's						●	●			\$21,710	93.55%	\$42,020	
Stairs and Exits																			
Floor & Base Finish Materials	Floor landings are typically VCT, showing heavy wear and tear. Treads and intermediate landings are rubber with textured grip surface. This surface is also wearing heavily. Rubber base, heavily scuffed and damaged, peeling from wall. Rubber riser protection is showing heavy scuffing and marks from traffic.	Recommend replacing stair floor finishes within the next 10 years.	2	END	L	Replace approx. 2,800 SF VCT with quartz tile. \$5.25 demo-replace = \$14,700; Approx 5,200 SF new textured rubber stair tread \$25 w/demo = \$130,000; Approx. 4,000 LF new rubber riser protection, 2000 sf \$15 = \$30,000; Approx. 2,000 LF new rubber wall base. \$3 demo-replace = \$6,000; = = = TOTALS \$180,700 + MU's						●	●			\$271,955	93.55%	\$526,369	
Guardrails (height, sphere)	Guardrails compliant at main stairs.	Guardrails need to be refinished, repainted.	2	END	L	Refinish, repaint approx. 500 LF guardrail and handrail. \$10 lf rail =\$5,000 + MU's; scope of single line pipe rail vs ground mount guard rail unclear Consider 50% each - single line pipe rail vs. ground mount guard rail.						●	●			\$15,050	93.55%	\$29,129	
Elevators and Lifts																			
Elevator Finish Materials	Painted HM frame and sliding doors, in fair condition. Painted panel wall board, typically scratched and scuffed. Stainless steel control panel. Carpet floor, stained and worn from heavy traffic. Metal wall base is dented and scuffed, and missing in some locations.	Remove and replace floor and base finish materials in both elevators. Refinish and repaint panel wall boards in both elevators.	2	END	L	Remove approx. 80 SF elevator carpet. Replace with rubber tread flooring. Remove 60 LF existing metal base, replace with new. Refinish and repaint 600 SF panel wall board. \$7,500 + MU's						●	●			\$11,290	93.55%	\$21,852	

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

General Purpose Classrooms																				
Casework	Wood casework is typically built into wall. Existing casework is typically dented, discolored, and showing heavy wear and tear. Non built-in casework is in a similar condition.	Recommend refinishing existing built-in casework. Also, recommend replacing aging (non built-in) casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each room (total of 90 classrooms). Refinish approx. 200 SF wood casework (built-in). \$7.50 sf = \$1,500 per room; Provide: (2) 48" wide tall cabinet units with adjustable shelves and lockable doors. 8 If \$275 w/demo = \$2,200 per room; (4) 36" wide wall cabinets with adjustable shelves and lockable doors. 12 If \$125 w/demo = \$1,500 per room; (4) 36" wide base cabinets with adjustable shelves and lockable doors. 12 If \$275 w/demo = \$3,300 per room = = \$8,500 per room x 90 = TOTALS \$765,000 + MU's											\$1,151,325	93.55%	\$2,228,390	
Science Classrooms																				
Lab Benches	Wood lab benches with lab quality black phenolic tops in poor condition. Lab benches sometimes have wood cabinets beneath. These lab benches are in poor condition, showing considerable wear and tear, denting, discoloration, and staining.	Recommend replacing all lab benches in science labs complete. Replace with wood benches with black phenolic tops.	2	ESL	L	total (12) Science Classrooms: (2) double sided lab benches, each 24' long and 48" wide, with 24" base cabinets with 24" single swing door cabinets (with adj shelves) and (4) 24" wide stacked drawers, cont's trough at the center & water-gas service running horiz @ trough w/cont's high shelf above. \$550 If w/epoxy resin top for 48 lf per class = \$26,400 per room; (1) 24' long row of base cabinets with 24" single swing door cabinets and (4) 24" wide stacked drawers, 24 lf per class \$425 If w/epoxy resin top = \$10,200 per class; 3 sinks (1-ADA), \$1,550 ea re-use rough = \$4,650 per class; Above, 24' long wall-mounted cabinets, 24" wide with adjustable shelves. 24 lf \$185 lf = \$4,440 per class; (1) 36" wide 96" tall casework shelf with adjustable shelves from bottom to top, \$1,500 ea room = = \$47,190 per room x 12 = \$566,280 + MU's												\$852,255	93.55%	\$1,649,540
Fume Hoods	Fume hoods built into casework, provided in each science classroom.	Remove existing casework, replace fumehoods.	2	END	L	Provide the following in each of the (12) Science Classrooms: (1) 72" wide 96" tall casework shelf \$1,500 per room, 24" countertop with built-in fume hood above and double door base cabinet below \$7,500 hood & cabinet per room = \$9,000 per room x 12 = = TOTALS \$108,000 + MU's												\$162,540	93.55%	\$314,596

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Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Science Prep Rooms																			
Casework	Large 14' tall original wood casework, 20' long on each prep room side. Casework has a row of base cabinets, as well as two rows of swinging glass doors with adjustable shelves. Casework also has sliding wood ladders for top shelf access.	Refinish all original casework.	2	ESL	L	Approx. (12) pieces of casework in (6) prep rooms. Allow 500 sf per casework x 12 total pcs = 6,000 sf @ \$5 = \$30,000 + MU's						●	●	●		\$45,150	93.55%	\$87,388	
Art Classrooms																			
Casework	Wood casework is typically built into wall. Existing casework is typically dented, discolored, and showing heavy wear and tear. Other casework is a mix of plastic laminate islands and base cabinets, wood tables, and metal shelving units.	Recommend refinishing existing built-in casework. Also, recommend replacing aging (non built-in) casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	ESL	L	Provide the following in each room (total of 4 classrooms). Refinish approx. 200 SF wood casework (built-in) \$5 = \$1,000 per room; Provide: (4) 48" wide tall cabinet units with adjustable shelves and lockable doors \$750 ea = \$3,000 per room; (8) 36" wide wall cabinets with adjustable shelves and lockable doors 24 lf \$125 =\$3,000 per room; (8) 36" wide base cabinets with adjustable shelves and lockable doors 24 lf \$275 = \$6,600 per room; (4) 22' long base storage counter with 10' of vertical storage slots, and remaining 12' with (2) 36" wide base cabinets 88 lf \$300 = \$26,400 per room; 8 counter mounted ADA sinks \$1,550 re-use rough = \$12,400 per room; = = \$52,400 per room x 4 rooms =\$209,600 + MU's						●	●			\$315,450	93.55%	\$610,553	
Storage Rooms																			
Storage Rooms	Four art storage rooms each have existing plywood storage shelves along side and back walls, some with plastic laminate countertops and base cabinets below. Storage shelves and casework typically in poor condition, heavily worn unfinished materials.	Remove existing shelving and casework, recommend replacing with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	END	L	Provide the following in each room (total of 4 storage rooms): Install 30 LF casework, with (10) 36" wide base cabinets with adjustable shelves and lockable doors , plam countertop, \$275 lf and 30 LF open wall cabinets with adjustable shelves \$125 lf = \$12,000 + MU's						●	●			\$18,060	93.55%	\$34,955	
Technology Classroom																			
Floor & Base Finish Materials	Carpet floor, rubber base. Both are in poor condition. Carpet is fraying, worn, and stained. Rubber base is peeling from wall.	Replace carpet and rubber base.	2	END	L	Approx. 415 SF removal of existing carpet, replacement with carpet tile. \$6 sf demo-replace = \$2,490 + MU's						●	●			\$3,750	93.55%	\$7,258	

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																		
Casework	Wood laminate base cabinets, topped with plastic laminate countertop. Casework showing wear and tear, denting, discoloration, and deterioration of finishes.	Recommend replacing aging casework with more resilient plastic laminate casework with resilient edge banding, lockable doors, and adjustable shelves.	2	END	L	Provide (2) 18 LF of plastic laminate countertop with resilient edge banding. Countertop shall have (4) clear 30"locations for chairs. These clear space should be bookended and alternated by (5) 20" plastic laminate base cabinets with adjustable shelves and lockable doors. 17.70 lf base \$275 + 18.30 lf top \$90 = \$6,515 + MU's						●	●			\$9,810	93.55%	\$18,987
Performing Arts - Auditorium																		
Floor & Base Finish Materials	Carpet, exposed concrete. Area in front of stage shows plywood subfloor, with carpet currently being installed over top. Existing carpet on stair aisles between seating sections, typically showing some staining and wear and tear.	Continue carpet installation. Remove existing carpet installed on aisles between seating sections and at balcony seating, replace with new. Refinish concrete flooring below stepped seating sections, paint all.	2	END	L	Remove approx. 2,000 SF existing carpet in aisle and balcony seating, replace with equivalent SF new carpet. \$7.50 sf cut up area demo-replace = \$15,000 + refinish approx. 3,500 SF concrete, paint \$2 sf = \$7,000 = = = TOTALS \$22,000 + MU's						●	●			\$33,110	93.55%	\$64,084
Wall Finish Materials	Painted plaster. Wood trim accent pieces all around. Paint on plaster walls is peeling in large sections.	Refinish, repaint all painted plaster walls.	2	END	L	Approx. 15,000 SF plaster patching and repainting. \$3 patch & repaint = \$45,000 + MU's						●	●			\$67,725	93.55%	\$131,082
Ceiling Finish Materials	Painted plaster. Paint on plaster walls is peeling in large sections.	Refinish, repaint all painted plaster ceilings.	2	END	L	Approx. 8,000 SF plaster patching and repainting. \$3 patch 7 repaint = \$24,000 + MU's						●	●			\$36,120	93.55%	\$69,910
Seating Type	Fixed seating, with folding seat. Seats have wood arms with fabric backing/seating. All seating is dated but functional. Areas of staining on fabric.	Replace seating within 20 years.	3	ESL	L	Remove, replace approx. 480 fixed auditorium seating, replace with new fixed folding seating units.\$375 ea = \$180,000 + MU's						●	●			\$270,900	93.55%	\$524,327
Performing Arts - Stage																		
Floor & Base Finish Materials	Main stage has wood floors, side rooms have VCT. Both floors are in poor condition.	Remove and replace floors.	1	END	L	Replace approx. 300 SF VCT flooring with quartz tile. \$5.25 demo-replace = \$1,575; Replace approx. 1,800 SF wood stage flooring. \$10 sf demo-replace = \$18,000; = = = TOTALS \$ \$19,575 + MU's						●	●			\$29,465	93.55%	\$57,030
Wall Finish Materials	Painted GWB, plaster. Locations where plaster is crumbling and GWB is dented. Paint typically peeling away.	Patch and repaint painted GWB, plaster walls	2	END	L	Approx. 8,000 SF plaster/GWB patching and repainting. \$3 = \$24,000 + MU's						●	●			\$36,120	93.55%	\$69,910
Library / Media Center																		
Floor & Base Finish Materials	Carpet floor, wood trim base. Carpet in fair condition, wood base is dented, chipped.	Refinish wood base, provide rubber wall protection base.	2	ESL	L	Approx. 350 LF 8" wood base refinishing. \$5 = \$1,750 + MU's; Approx. 350 LF rubber base installation. \$3 demo-replace = \$1,050 + MU's						●	●			\$4,215	93.55%	\$8,158
Wall Finish Materials	Wood wainscot paneling up to 6' AFF. Painted plaster walls above.	Patch and repaint plaster walls above.	2	END	L	Patch and repaint plaster, approx. 4,500 SF. \$3 = \$13,500 + MU's						●	●			\$20,320	93.55%	\$39,329

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			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																		
Circulation Desk	Wood circulation desk. Clearly aged, showing considerable wear and tear.	Refinish wood circulation desk.	2	ESL	L	Refinish circulation desk, 24" x 120" top, x 48" tall. 100 sf \$5 = \$500 + MU's						●	●			\$755	93.55%	\$1,461
Workroom / Staff Areas	Staff/backrooms have a mix of carpet and VCT floors with rubber base. Carpet in poor condition. VCT flooring material is in fair shape. However flooring is beginning to show some wear and tear. Typically 2x4 ACT tile. Ceilings generally showing considerable wear and tear. Missing and chipping tiles, discolored tiles. Staff noted desire that backroom space be converted into video production room with greenscreen.	Replace all classroom flooring materials within the next 20 years. Replace all 2x4 ACT tile. Complete renovation of space into video production room.	3 2	ESL END	L	See general notes for quantities. See general notes for quantities. Complete renovation of 800 SF space into full video production room, complete with new lighting, camera equipment, and greenscreen \$200 sf =\$160,000 + MU's						●	●			\$240,800	93.55%	\$466,068
Gymnasium																		
Floor & Base Finish Materials	Wood floor, vented wood cove base. Both are well-maintained and in fair condition.	Replace with wood sports floor and ventilated base	2	END	L	9300 SF						●	●			\$185,000	93.55%	\$358,068
Ceiling Finish Materials	2x2 ACT ceiling. Numerous stained and broken/displaced tiles. Clearly these tiles are replaced on a regular basis, as can be seen from color variations in the ceiling tile grid.	Remove 2x2 ACT tile. Paint exposed structure and deck above.	1	END	L	Remove approx. 10,000 SF Refinish, repaint approx. 10,000 SF exposed structure and deck above. \$4 sf demo & paint = \$40,000 + MU's						●	●			\$60,200	93.55%	\$116,517
Acoustical Treatments	None	Recommend removing ACT ceiling (described above) and providing hanging acoustic baffles between roof joists for acoustic absorption.	2	OB	L	Provide approx. (150) 2'x4'x1.5" Armstrong soundsoak baffles. \$150 ea = \$22,500 + MU's						●	●			\$33,865	93.55%	\$65,546
Weight Room / Fitness Room																		
Floor & Base Finish Materials	Main weight room - Foam athletic flooring, in good condition. Small weight room - Carpet, in very poor condition. Staining, fraying, deterioration. Rubber base is typically heavily damaged, or missing entirely.	Replace carpet in small weight room with more resilient athletic flooring.	1	END	L	Approx. 400 SF existing carpet, replace with same SF 2'x2' interlocking rubber tile flooring. Install 200 LF new rubber base. \$12 sf demo-replace floor + \$3 demo-replace base = \$5,400 + MU's						●	●			\$8,130	93.55%	\$15,736
Ceiling Finish Materials	Painted exposed concrete.	Repaint exposed concrete ceiling	3	ESL	L	Repaint approx. 1,200 SF exposed concrete ceiling. \$3 sf = \$3,600 + MU's						●	●			\$5,420	93.55%	\$10,490
Visual Display Surfaces	Chalkboard in small weight room.	Remove chalkboard, replace with whiteboard.	0	OB	L	Remove chalkboard, replace with 6' long, 3' high whiteboard. 18 sf \$30 demo-replace = \$540 + MU's						●	●			\$815	93.55%	\$1,577
Cafeteria																		
Wall Finish Materials	Painted plaster and GWB, painted CMU.	Patch and repaint GWB and plaster walls. Repaint CMU walls.	2	END	L	Approx. 1,000 SF repaint CMU \$2 prep-filler coat = \$2,000 + MU's Approx. 1,800 SF patch and repaint plaster, GWB. \$2.50 sf = \$4,500 + MU's						●	●			\$9,785	93.55%	\$18,939
Kitchen and Servery	(See Food Service Below)																	
Floor & Base Finish Materials	Quarry tile and base, VCT, carpet. Tile and tile base in good condition. VCT is in fair condition, however flooring is beginning to show some wear and tear. Carpet is in poor condition.	Replace carpet within the next 5 years. Replace VCT within the next 20 years.	1-3	END-ESL	L	Approx. 250 SF carpet removal, replacement with carpet tile. \$6 sf = \$1,500 + MU's; Approx. 1,600 SF VCT removal, replacement with quartz tile \$5.25 sf = \$8,400 + MU's						●	●			\$14,900	93.55%	\$28,839

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND				EVALUATION CRITERIA								BUDGET			
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Teacher Workroom and Staff Areas																		
Ceiling Finish Materials	2x2 ACT tile.	Remove ACT ceiling tile, replace with new within the next 10 years.	2	END	L	Remove 3,000 SF 2x2 ACT ceiling tile, replace with new 2x2 ACT ceiling tile. \$6 sf = \$18,000 + MU's						●	●			\$27,090	93.55%	\$52,433
Nurse and Health																		
Floor & Base Finish Materials	VCT flooring - good condition Rubber base - poor condition	Replace rubber base	2	END	L	150 LF \$3 = \$450 + MU's						●	●			\$680	93.55%	\$1,316
Ceiling Finish Materials	2 x 4 ACT - Poor condition	Replace ACT Ceiling	1	END	L	485 sf \$4.50 = \$2,185 + MU's						●	●			\$3,290	93.55%	\$6,368
Student Toilet Rooms																		
Wall Finish Materials	Mix of ceramic tile, painted plaster and GWB. Painted plaster and GWB is dotted with holes, uneven areas, paint chipping.	Patch and repaint plaster and GWB bathroom walls.	2	END	L	Approx. 5,800 SF plaster/GWB patching, repainting. \$2.50 sf ave =\$6,250 + MU's						●	●			\$9,410	93.55%	\$18,213
Ceiling Finish Materials	2x4 ACT tile. Typically showing it's age, staining, sagging.	Remove ACT ceiling tile, replace with new within the next 10 years.	2	END	L	Remove 2,500 SF 2x4 ACT ceiling tile, replace with new 2x4 ACT ceiling tile. \$4.50 =\$11,250 + MU's						●	●			\$16,935	93.55%	\$32,778
Mechanical and Service Spaces																		
Other	Boiler room abatement	Boiler room abatement	-	-	L	Budget from PPS CIP (2020)						●	●			\$60,000	93.55%	\$116,130
Atrium																		
Floor & Base Finish Materials	Ceramic tile floor and base. Numerous broken and chipped tiles (both floor and base). No wall base provided, resulting in wear and tear along walls.	Repair broken ceramic tile. Install rubber floor base.	2	ESL	L	Repair approx 75 SF ceramic floor tile, base. \$15 = \$1,125; Approx. 300 LF rubber base \$2.50 = \$750 = = TOTALS \$1,875 + MU's						●	●			\$2,825	93.55%	\$5,468
Stairs	Atrium has compliant hand/guardrails. However paint is chipping away.	Refinish, repaint hand/guardrails	2	ESL	L	Refinish, repaint approx. 220 LF guard/handrails. \$10 = \$2,200 + MU's , assumes If given is actual pipe rail If count regardless of rail configuration Assume railing configuration which considers a top rail, and parallel midrail 1' below, with extensions at the top and bottom connecting these two rails. Consider vertical post to top rail every 3 lineal feet. Lineal feet describes length of such rails detailed above, not LF of actual railing.						●	●			\$9,935	93.55%	\$19,229
Sealants	Sealant at column bases deteriorating, peeling away.	Remove, replace sealant.	1	END	L	150 lf sealant rout-replace \$3.50 = \$525 + MU's						●	●			\$795	93.55%	\$1,539
Loading Dock																		
Ceiling Finish Materials	2x4 ACT ceiling. In poor shape.	Remove, replace ACT ceiling.	2	END	L	Approx. 1,700 SF 2x4 ACT ceiling replacement. \$4.50 =\$7,650 + MU's						●	●			\$11,515	93.55%	\$22,287

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget				
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost		
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																				
Classroom G01																				
Tread Finish	Existing rubber treads heavily worn, deteriorating.	Replace rubber treads.	2	END	L	Replace (6) 11" rubber treads, rubber nosings, and 7-3/4" risers. Tread & riser width unclear, assume 36" = 30 sf total area @ \$30 demo-replace = \$900 + MU's Assume 60" tread & riser width.											\$2,260	93.55%	\$4,374	
3rd Floor Lecture Hall																				
Windows	3' x 6' double hung vinyl windows. Wood 2x4s screwed to frame to prevent students from opening windows.	Replace existing windows with new non-operable fiberglass windows.	2	END	L	Remove (5) existing 3' x 6' vinyl windows, replace with new fixed fiberglass windows. 90 sf \$70 demo-replace = \$6,300 + MU's											\$9,485	93.55%	\$18,358	
Acoustic Wall Panels	Existing corrugated and perforated metal wall acoustic panels showing heavy denting.	Remove existing acoustic wall panel. Replace with new	2	END	L	Remove 1,700 SF acoustic wall paneling, replace with equal SF new resilient acoustic wall panels with perforated metal face and acoustic core. Mount these panels 5' AFF, close to ceiling to prevent damage. \$25 sf demo-replace-ptrim = \$42,500 + MU's											\$63,965	93.55%	\$123,804	
Side Storage Rooms	Plaster walls and ceilings in serious state of deterioration. Find source of moisture.	Remove all plaster finishes, replace with GWB. Investigate to find moisture.	1	END	L	Renovate 70 SF storage space, complete. Investigate and resolve moisture problems. \$2,500 allowance + MU's											\$3,765	93.55%	\$7,287	
Basement Storage																				
Abandoned Space at Basement Level	Existing storage/sprinkler room space in a state of total disrepair.	If abandoned space is to be used, space must be completely gutted and renovated.	0	OB	L	Approx. 3,800 SF complete interior gutting, renovation. \$50 vanilla style space w/electrical included = \$190,000 + MU's											\$285,950	93.55%	\$553,456	
																	Total Years 11 - 15		\$13,991,904	

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Mix of yellow and red clay brick masonry; limited area of cracking	Repair areas of cracked brick veneer and replace damaged face brick	2	ESL	L	200 sf \$35 demo-replace = \$7,000 + MU's							●	●			\$10,535	116.55%	\$22,814
Materials	Pre-cast concrete horizontal bands and window sills	Repoint joints on horizontal bands and sills	2	ESL	L	1200 lf \$3.50 lf = \$5,250 + MU's							●	●			\$7,905	116.55%	\$17,118
Materials	Significant deterioration of pre-cast concrete pediment at the east entry	Replace pre-cast concrete pediment	1	OB	L	100 sf \$75 demo-replace = \$7,500 + MU's							●	●			\$11,290	116.55%	\$24,448
Materials	Pre-cast concrete stair sidewalls at west side entrances were observed to have open joints	Repoint pre-cast joints	2	ESL	L	100 lf \$3.50 lf = \$350 + MU's							●	●			\$530	116.55%	\$1,148
Materials	Pre-cast concrete stair sidewalls at east entrance have open joints and significantly displaced pre-cast pieces, and disintegration of pre-cast pieces	Recommend reconstruction of precast concrete sidewalls at this entry	1	END	L	100 sf allow \$2,500 + MU's							●	●			\$3,765	116.55%	\$8,153
Materials	Budget for general masonry repairs	Budget for general masonry repairs	-	-	L	Budget							●	●			\$500,000	116.55%	\$1,082,750
Spalling, Staining, Efflorescence	Brick and precast decorative elements are stained and dirty with age	Recommend cleaning of exterior masonry and precast concrete	2	ESL	L	77000 sf \$1.50 = \$115,500 + MU's							●	●			\$173,830	116.55%	\$376,429
Windows																			
Frame Materials	Aluminum double-hung window units	Budget for window replacements	2	ESL	L	Budget							●	●			\$750,000	116.55%	\$1,624,125
Frame Materials	Cast Iron (?) intermediate piers between windows at courtyard of Central Wing are corroded	Remove corrosion, prime and paint metal piers	2	ESL	L	45 piers @ 10 sf ea = 450 sf \$10 sf = \$4,500 + MU's							●	●			\$6,775	116.55%	\$14,671
Frame Materials	Large wood framed window assemblies at 2nd and 3rd floors at the west elevations are in poor condition with deterioration and rot	Replace with painted aluminum storefront assemblies	1	END	L	2 assemblies 130 sf ea @ \$85 sf demo-replace = \$22,100 + MU's							●	●			\$33,265	116.55%	\$72,035
Lintels	Steel lintels - many are corroded and significantly deflecting. Temporary measures of sealing the gap between the top of lintel and bottom of brick above is causing damming of water issues within the exterior wall	Recommend replacement of lintels with new galvanized steel lintels	1	END	L	54 - 10' lintels = 3,240 # galv lintel \$2 # = \$6,480 + 540 mason hours \$45 = \$24,300 _ 350 sf brick demo-replace \$25 = \$8,750 + 540 lf flash \$15 = \$8,100 = = TOTALS \$547,630 + MU's							●	●			\$71,685	116.55%	\$155,234
Exterior Doors (not including Main Entry)																			
Materials	Painted hollow metal frames and doors in good condition	Repaint doors and frames	2	ESL	L	3 pairs \$150 w/prep = \$450 + MU's							●	●			\$670	116.55%	\$1,451
Materials	Painted wood frames and painted hollow metal doors at the east and west sides of the Auditorium are in poor condition.	Replace (6) pairs of doors with aluminum storefront entrance doors and hardware with clerestory windows	1	END	L	6 pairs 70 sf ea = 180 sf transom \$85 demo & replace +12 ea \$2,500 door demo-replace = \$45,300 + MU's							●	●			\$68,176	116.55%	\$147,635
Materials	Painted wood frames, doors, and clerestory windows at west and east entrances (3) total are in poor condition	Replace (3) assemblies with painted aluminum storefront, exit doors and hardware	1	END	L	3 assmblys 80 sf ea = 180 sf transom \$85 demo & replace +3 ea \$2,500 door demo-replace = \$22,800 + MU's							●	●			\$34,315	116.55%	\$74,309
Gym Entrance	Aluminum Storefront entrance and doors - corrosion observed throughout	Replace with new aluminum storefront system, pair of doors, and entry door hardware	1	END	L	130 sf = 90 sf sidelite-transom \$85 w/demo + 2 doors \$2,500 ea = \$12,650 + MU's							●	●			\$19,040	116.55%	\$41,231
Overhead or Coiling Doors	(1) coiling overhead door in good conditional; lintel is rusting	Clean, prime and paint lintel over cooling overhead door	2	ESL	L	20 LF \$7.50 lf = \$150 + MU's							●	●			\$230	116.55%	\$498
Fascia, Trim, Soffits & Overhangs																			
Materials	Portico ceiling at south entry is stained with mildew	Power wash and repaint ceilings	2	ESL	L	250 SF \$5 sf = \$1,250 + MU's							●	●			\$1,885	116.55%	\$4,082

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Perimeter sealants observed to be in various states of condition	Recommend removing and replacing all perimeter sealants	2	END	L	16000 lf \$3.50 grout-reseal = \$56,000 + MU's							●	●			\$84,280	116.55%	\$182,508
Flashing																			
Material	Metal flashing at intermediate level ledge and at roof cornice below parapet is in fair condition; most splice joints are open and are separating	Recommend replacing flashing with aluminum flashing	1	END	L	3000 lf x 12" width \$20 demo-replace = \$60,000 + MU's							●	●			\$90,300	116.55%	\$195,545
Roof Assembly & Flashing																			
Material, Type, Color	Black EPDM. Roof material is in poor condition. Sealed and lapped edges are aging and beginning to crack. Membrane is not adhered in a few locations. Fasteners are showing through membrane however they are not yet penetrating it. Debris on roof, and there is clearly a bird issue with the sheer volume of bird waste on the roof. There are many locations where insulation is soft	Recommend replacing entire roof.	2	END	L	68000 sf roof replace \$13 sf demo-memb-prot be-R38-walkways-perim trim & flash & new blocking= \$884,000 + MU's							●	●			\$1,330,420	116.55%	\$2,881,025
Roof Drains (Covers)	Steel roof drain covers. Many are broken or missing.	Replace missing or broken roof drain covers.	2	END	L	10 covers. \$150 = \$1,500 + MU's							●	●			\$2,260	116.55%	\$4,894
Skylights																			
Type (unit or glazed)	Pyramidal polycarbonate skylights. (2) 20' x 16', (1) 40' x 40'. All skylights are glazed. Polycarbonate glazing is cracking and heavily clouded. Sealants around framing are deteriorating, peeling.	Recommend replacing panels on two smaller skylights entirely. It appears that work has been completed recently on the larger skylight, however only at the center of the skylight. Recommend completing work at perimeter. Remove and replace all sealants.	2	END	L	Approx. 2,300 SF skylight replacement, polycarbonate panels and sealants only. \$125 sf demo-replace = \$287,500 + MU's							●	●			\$432,690	116.55%	\$936,990
Exterior Stairs and Ladders																			
Granite Steps	Sealant between treads and risers is failing in most locations	Reseal joints between granite steps	1	END	L	900 LF \$3.50 =\$3,150 + MU's							●	●			\$4,745	116.55%	\$10,275
Granite Steps	Granite steps in general are in fair condition; several pieces observed to be cracked	Replace cracked granite steps	2	ESL	L	30 lf granite steps 12" x 6" profile assumed = 15 cf @ \$225 cf w/demo =\$3,375 + MU's							●	●			\$5,080	116.55%	\$11,001
Concrete Steps	Cracking and disintegration of concrete steps at the Gym Entrance	Concrete restoration at concrete Gym Entry steps	2	ESL	L	100 SF \$15 \$1,500 + MU's							●	●			\$2,260	116.55%	\$4,894
Metal Stairs	(3) sets of metal stairs at east side of the Auditorium are open risers with metal grating treads and landings; handrails are non-ADA compliant	Replace metal stairs, landings, and handrails with new exterior metal stairs and handrails	2	END	L	(3) sets of stairs and handrails, 1 flight each, galv assumed, allow \$15,000 w/demo = \$45,000 + MU's							●	●			\$67,625	116.55%	\$146,442
Stair Railings	All metal stair railings observed to have varying degrees of rust and corrosion	Remove corrosion, prime and repaint	2	ESL	L	450 lf, assume 450 lf actual lf rail to be painted, not 450 lf unknown rail configuration, \$10 lf = \$4,500 + MU's Assume railing configuration which considers a top rail, and parallel midrail 1' below, with extensions at the top and bottom connecting these two rails. Consider vertical post to top rail every 3 lineal feet. (Lineal feet above describes length of such rails detailed above, not LF of actual railing.)							●	●			\$20,320	116.55%	\$44,003

PORTLAND HIGH SCHOOL
Capital Plan Detailed Scope of Work

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			SEE LEGEND			EVALUATION CRITERIA											BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Guardrail	Metal guardrail along areaways at north elevation are rusted and corroded	Remove corrosion, prime and repaint	2	ESL	L	110 lf, assume 110 lf actual lf rail to be painted, not 110 lf unknown rail configuration, \$10 lf = \$1,100 + MU's Assume railing configuration which considers a top rail, and parallel midrail 1' below, with extensions at the top and bottom connecting these two rails. Consider vertical post to top rail every 3 lineal feet. (Lineal feet above describes length of such rails detailed above, not lf of actual railing.)										\$4,970	116.55%	\$10,763	
Auditorium Exit Doors	(3) exterior exits at the west side of the Auditorium have one step down are not ADA compliant	Provide concrete ramp and painted metal handrails	2	OB	L	(3) locations with 60 SF concrete ramp and 20 LF painted metal handrails each \$175 sf dig-bf-frost f'dn-slab-rails = 180 sf \$175 sf = \$31,500 + MU's										\$47,410	116.55%	\$102,666	
																Total Years 16 -20	\$8,199,137		

DISTRICT OFFICE & BAYSIDE LEARNING

Capital Plan Detailed Scope of Work

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Year 0 (Fiscal Year 2017) - Immediate Recommendations

ELECTRICAL																		
Service	Overhead from (3) 100 kVA pole mounted utility-owned transformers to fusible switch located in second floor electric room. No grounding electrode connection is made at the water main.	Provide a grounding electrode connection at the water main as required by code.	2	ESL	I	Carry \$5,000 + MU's						●	●			\$7,525	0.00%	\$7,525
Equipment	1200A ITE fusible switch. Existing drawings indicate 1000 amp fuses.	Perform infra-red scanning of the service equipment to assess condition of contacts and terminations.	2	END	I							●	●			\$2,258	0.00%	\$2,258
Exterior Building Lighting	LED full cutoff wall packs, an LED flood, and some decorative LED wall mounted fixtures. High-pressure sodium lighting is used in second floor parking garage.	Update parking garage lighting to LED.	2	ESL	I	8 fixtures. 9' +/- clg ht						●	●			\$17,300	0.00%	\$17,300

Total Year 0	\$27,083
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DISTRICT OFFICE & BAYSIDE LEARNING
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																			
SITE																			
Building Entrances																			
Connection to accessible route and accessibility	Sidewalks. Thresholds at Community Center do not meet tolerances. Utility pole hazard	Adjust ramp and/or threshold transition to meet ADA tolerances. Remove any unnecessary wiring/move/add protection at utility pole.	1	ESL	S	suggest \$3,000 allowance + MU's; relocate pole allowance \$5,000 + MU's			●	●							\$12,040	24.65%	\$15,008
Parking																			
Curbing Materials & Wheel Stops		Wheel stops needed where wall ends.	2	ESL	S	5each @\$250		●									\$1,881	24.65%	\$2,345
Number of Spaces (Regular & ADA)	2 ADA with signs, faded markings. Observed 5 cars with ADA Placards.	Stripe Aisle to building. Repaint ADA spaces and aisles.	2	ESL	S	Restripe Lot: 250LF@\$1 ADA Striping: 5each @\$120		●		●							\$1,280	24.65%	\$1,596
Vehicular & Pedestrian Circulation																			
Walkway Materials	Brick. Cumberland crosswalk/sidewalk rough condition. Guy connection at Alder & Portland creates paving hazard.	Some Repair Needed.	2	ESL	S	1550 S.f. @\$14		●		●							\$32,658	24.65%	\$40,708
Curb Cuts & Detectable Warning Strips	No Panels	Panels needed at crosswalks.	1	ESL	S	5 panels: 100 s.f. @\$60		●		●							\$45,150	24.65%	\$56,279
Pedestrian Ramp Location & Materials	Concrete - Poor, narrow	Replace ramps.	1	END	S	4 RAMPS @ 250 SF, DETECTABLE WARNING PANELS NEEDED.		●		●							\$1,505	24.65%	\$1,876
Service Area																			
Loading Dock or Leveler	Shared loading / dumpster screening. Loading at angle.	Underground lot access at Alder could use sign/flasher.	2	ESL	S	allow \$5,000 for flashing signage + MU's		●									\$7,525	24.65%	\$9,380
Fencing																			
Locations & Materials	Chain Link	Repairs Needed	0	END	S	30lf @\$30							●				\$1,354	24.65%	\$1,688
Site Furniture & Accessories																			
Bicycle Racks	1 - Damaged	Needs replacement.	0	OS	S	1each @\$750							●				\$1,128	24.65%	\$1,406
STRUCTURAL																			
Foundations / Drainage	Building surrounded by City sidewalks; some minor foundation spalling noted.	Patch repair spalls	2	ESL	S	say 20 sf patch repairs @ \$20 = \$400 + MU's Assume 100 SF						●	●				\$3,010	24.65%	\$3,752
Second Floor Construction	A. Prior slab repairs at boiler room have spalled, other areas of exposed reinforcing	Remove loose concrete, clean reinforcing, patch with repair mortar	2	ESL	S	10 SF @ \$35 = \$350 + MU's						●	●				\$530	24.65%	\$661
Roof Construction	B. High low roof conditions susceptible to drifted snow likely not included in original design.	Roof is technically grandfathered; recommend reinforcing high low roof conditions for drift. Shoveling of drifts recommended in the interim.	3	ESL	S	1,900 SF reinforce with steel beams attached to existing columns, 350 lf joist @ 4 #/lf = 1,400 # @ \$2.75 # labor & mtl = \$3,850 + MU's						●	●				\$5,795	24.65%	\$7,223

DISTRICT OFFICE & BAYSIDE LEARNING

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																			
Exterior Wall Construction	A. CMU joints with missing or failing mortar; some isolated spalling of CMU blocks	Repoint masonry joints; replace blocks with spalling in kind	2	ESL	S	200 lf joints @ \$1.50 = \$300 + MU's; 10 blocks @ \$20 sf = \$200 + MU's = TOTAL \$500 + MU's							●	●			\$755	24.65%	\$941
Exterior Wall Construction	B. EIFS located at street level, particularly at building Bayside learning entrance, damage from snow clearing/pedestrians	Repair EIFS or replace with durable material such as a thin masonry veneer	2	ESL	S	20 sf repair @ \$20 = \$400 + MU's							●	●			\$605	24.65%	\$754
Exterior Wall Construction	C. Exposed masonry at ally/up high- Open joints and moisture infiltration	Repoint and seal or cover with other materials similar to rest of building.	2	ESL	S	400 sf @ \$10 = \$4,000 + MU's							●	●			\$6,020	24.65%	\$7,504
Exterior Wall Construction	D. Granite joints at front of building have loose in missing mortar	Rake and Repoint	2	ESL	S	300 lf @ \$1.50 = \$450 + MU's							●	●			\$680	24.65%	\$848
Exterior Wall Construction	E. Parged section of concrete and masonry with apparent spalling; minor concrete spalling	Patch repairs	2	ESL	S	30 sf @ \$20 = \$600 + MU's							●	●			\$905	24.65%	\$1,128
Fire Resistance	Non-combustible/concrete construction; at second floor mechanical room appeared duct had been removed through gypsum fire wall (2 layers on one side, one on other)	Fill gypsum hole	0	OB	S	10 sf @ \$10 = \$100 + MU's							●	●			\$150	24.65%	\$187
Additional Observations	Painted chimney- Cracked with minor displacement.	Remove upper outer course and rebuild.	2	END	S	64 sf @ \$35 = \$2,240 + MU's							●	●			\$3,375	24.65%	\$4,207
BUILDING INTERIOR																			
General Notes																			
Non-ADA compliant door hardware	Mix of doors with compliant hardware and non-compliant hardware (door knobs); accessible doors need to have a shape that is easy to operate with one hand and that does not require tight grasping, tight pinching, or twisting of the wrist to operate. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles are acceptable designs.	Recommend replacement of all non-compliant door hardware with functioning, code compliant hardware.	0	OB	S	Replace 9 Knobs (typically on service doors) with code compliant hardware, \$500 per leaf assumes exist leaf minimal work only rework to accept hdwr = \$4,500 + MU's					●						\$6,775	24.65%	\$8,445
Interior Signage																			
At Code Required Locations?	Provided for classrooms and other rooms and offices, fairly consistently on the lower level. Other two levels do not have consistent interior signage.	Provide signage where missing.	0	OB	S	Provide approx. 200 ADA compliant signs throughout building @ \$75 = \$15,000 + MU's				●	●						\$22,575	24.65%	\$28,140
Stairs and Exits																			
Guardrails (height, sphere)	Guardrails are non compliant in some locations, particularly where rail turns a corner. In these locations, the guardrail would not pass the sphere test.	Replace guardrail with new compliant guardrail and continuous handrail.	0	OB	S	Approx. 400 lf compliant guardrail with continuous handrail, \$150 lf w.demo = \$60,000 + MU's				●	●						\$90,300	24.65%	\$112,559

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																			
Therapy/Break Kitchen/Craft Room																			
Sinks (ADA compliance)	Stainless steel sink with gooseneck faucet mounted in plastic laminate counter. Not at ADA height.	Remove section of counter and sink. Replace with ADA compliant counter and new counter mounted sink.	0	OB	S	Remove 30" section of existing laminate countertop. Replace with ADA compliant plastic laminate counter with resilient edge banding, new counter mounted sink, \$90 If countertop w/demo = \$2,700 + MU's .. \$1,500 sink w/demo & re-use existing rough w/\$500 modification of rough === TOTALS \$4,700 + MU's											\$7,075	24.65%	\$8,819
Mechanical and Service Spaces																			
Stairs	Concrete stair into mechanical space are in a state of disrepair. No handrails/guardrail provided.	Demolish existing concrete stair, replace with new cast in place concrete stair, new railing/guardrail.	0	OB	S	Demolish existing (4'x6' total area) concrete stair (3 risers, 4' x 4' top landing). Replace with new cast in place concrete stair (5'x6' total area, 3 risers, 4' x 4' top landing), new compliant railing/guardrail. .. no new foundation required, presumed new steps rest on existing slab and will be doweled into slab .. \$2,750 w/demo-new stair & guardrail + MU's											\$4,140	24.65%	\$5,161
Office spaces (2nd, 3rd floors)																			
Sinks (ADA compliance)	Employee break rooms do not have ADA counters or sinks.	Replace existing counters, casework, and sinks.	0	OB	S	Approx. (15) 36" wall cabinets @ \$125 w/demo = \$5,625 + MU's; (10) 36" double door with drawers base cabinet @ \$275 w/demo = \$8,250 + MU's; (4) 36" ADA sink apron @ \$300 ea = \$1,200 +MU's; (5) 24" four drawer base cabinet @ \$275 w/demp = \$2,750 + MU's; All doors are lockable and all shelves are adjustable. 11 linear feet of counter at ADA height @ \$90 = \$990 w/demo + MU's == TOTALS \$18,815 + MU's											\$28,320	24.65%	\$35,301
FIRE PROTECTION																			
Cross Connection Prevention	None	Upgrade entrance	3	ESL	S	\$12,000 new entry + MU's											\$18,060	24.65%	\$22,512
ELECTRICAL																			
Life Safety																			
Fire Alarm	Silent Knight Model SK5208 conventional zoned control panel. Occupant notification is not ADA compliant on the fourth floor and some areas of the third floor. Fourth floor pull station is not located in the natural path of egress.	Update occupant notification and provide fully addressable system as part of any planned afacility renovations.	2	ESL	S	Carry 42, 094 sf @ \$1.25 + MU's											\$79,200	24.65%	\$98,723

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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations																		
Emergency Lighting	Fluorescent battery ballasts integral to luminaire on first floor. Emergency battery units with integral and remote heads on other floors. Heads are a mixture of LED and incandescent. There is no emergency lighting at the exterior of exits. LED illuminated exit signs with integral battery backup.	Replace older units as they fail. Provide outdoor emergency lighting at building exits.	2	ESL	S	\$350 per interior unit + \$1,000 exterior egress unit w/new wiring + MU's ?? Carry 30 indoor & 4 outdoor.		●	●							\$21,800	24.65%	\$27,174
SECURITY																		
Intrusion Alarm System	GE Networx NX-8V2 residential-grade security alarm panel serves the District Office. Bayside Learning has a separate GE NX-8E residential-grade security alarm control panel	Provide commercial grade security alarm panels integrated with the district-wide network.	2	ESL	S	allow \$15,000 for commercial panels & rerouting wiring to cabinet + MU's ??? YES	●									\$22,575	24.65%	\$28,140
Security Camera System	No operational camera system other then video intercom at main entrance described below. Abandoned non-functional cameras remain in place in some interior areas.	Provide digital cameras connected to district servers	0	OB	S	Assume 32 cameras and 8 exterior cameras	●									\$45,000	24.65%	\$56,093
																Total Years 1 - 5		\$588,555

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			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																		
PLUMBING																		
Water Service	Municipal 2" less backflow protection	upgrade backflow protection			L	\$3,500 backflow + MU's						●	●			\$5,270	55.30%	\$8,184
Hot Water System	(6) electric 40 gallon water heaters throughout building. Copper piping insulated mostly--bare at most recent water heater replacements.	Insulate piping at recent water heater replacements.	0	OB	L	allow \$500 per heater = \$4,000 + MU's						●	●			\$6,020	55.30%	\$9,349
Drinking Fountains / Water Coolers	None in building	Install drinking fountain or water cooler at each occupied floor	0	OB	L	3 floors @ \$2,750 ea w/new rough & floor cane detectors = \$8,250 + MU's						●	●			\$12,420	55.30%	\$19,288
MECHANICAL																		
Heating Plant	(3) HB Smith 19A 5 section steam boilers, estimated mfg date 1990's to 2000 est. Burners converted to Nat Gas in 2015. Combustion air fan installed. Boiler feed is aged. Boilers have 10 years expected service life	Replace steam boilers with new HW boilers with steam to HW conversion (Years 1-5). Replace boiler feed unit (year 0).	3	END	L	(1) boiler feed unit based on 1,400 #/hr steam.						●	●			\$20,000	55.30%	\$31,060
Heating Plant	(3) HB Smith 19A 5 section steam boilers, estimated mfg date 1990's to 2000 est. Burners converted to Nat Gas in 2015. Combustion air fan installed. Boiler feed is aged. Boilers have 10 years expected service life	Replace steam boilers with new HW boilers with steam to HW conversion (Years 1-5). Replace boiler feed unit (year 0).	3	END	L	(2) new 700MBH condensing gas boilers with appurtenances (exp tank, etc.)						●	●			\$180,000	55.30%	\$279,540
Air Conditioning (Yes/No/Limited)	Yes: Packaged DX cooling RTUs with hydronic duct coils for units replaced in 2014. AHUs have DX cooling coils (HV-1) 1st floor has new DX coil and condensing unit in 2014. HV-1 and RTU-10 are vintage.	Replace HV-2 DX coil and Cond. Unit and replace RTU-10 in kind. Rework RTU-10 ductwork and zoning to match layout of rooms--poorly zoned currently.	1	END	L	Replace HV-2 steam coil with HW coil (21 SF area) and replace DX coil & new roof condensing unit (20 tons). Replace RTU-10 in kind &.2 Ton Moldify ductwork \$/SF at 2,000 SF.						●	●			\$175,000	55.30%	\$271,775
Air Handling Unit Systems	(2) main vintage indoor AHUs (HV-1 & 2) provide heating & cooling to the 1st and 2nd floors. HV-1 has been overhauled. Overhaul HV-2.	Replace parts as required to refurbish to new working condition (e.g. Bearings)	2	END	L	Allow (\$5 K) + MU's						●	●			\$8,000	55.30%	\$12,424
Pumps	Pumps at (2) steam to hydronic convertors for AHU VAVs and RTU duct coils. Pumps at AHU HX new in 2014. Pump at existing HX serving 3rd fl is vintage 1980's est.	Replace pump under maintenance	2	END	L	Allow (\$10 K) + MU's						●	●			\$15,000	55.30%	\$23,295
Terminal Unit Systems	Fintube and Unit Heaters (Steam).	Replace steam fintube & Unit heaters with new HW fintube & Uhs	2	END	L	Figure \$3/SF @40K SF +MU's						●	●			\$60,000	55.30%	\$93,180
Exhaust Systems	Toilet exhaust via inline fans to sidewall vents and several range hood non NFPA 96 compliant hoods.	Range hoods should be code compliant with suppression--or remove ranges. Replace toilet exhaust fans & ductwork	0	OB	L	(2) small Range hoods with EF figure \$20K. Toilet E Fans & Ductwork figure \$15K.						●	●			\$55,000	55.30%	\$85,415
Piping System	Steam piping at boilers uninsulated. Other areas throughout building have stretches of pipe insulation missing and badly damaged.	Steam piping system at end of service life--replace all steam with new HW piping system.	0	OB	L	Figure \$/SF @ 30K SF. +MU's						●	●			\$675,000	55.30%	\$1,048,275
Automatic Temperature Controls	Mostly electric DDC updated within past 3 years. Manual control of fintube etc.	Complete updating controls to all DDC.	2	END	L	Figure \$3.5/SF @ 25K SF.						●	●			\$132,000	55.30%	\$204,996

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			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations

ELECTRICAL																		
Distribution System																		
Panels	Panels are primarily a mixture of 1987 vintage ITE panelboards a and residential-grade loadcenters manufactured by Square D, GE, and Siemens. An Eaton Panelboard was added in the Bayside Learning Center. Main Distribution Panelboard MDP is fully utilized and missing a portion of its trim cover, leaving conductors within exposed.	Provide cover for MDP. The 1987 panelboards and residential-grade loadcenters should be replaced as part of any planned renovations to the facility.	2	END	L	Carry complete power distribution system replacement for 42,094 sf										\$169,600	55.30%	\$263,389
Wiring	Feeders are building wire in conduit. Branch circuit wiring methods observed include primarily building wire in conduit and type MC metal-clad cable. Some type NM nonmetallic sheathed cable (Romex) was noted on the fourth floor.	The existing type NM cable should be replaced with type MC cable as part of any planned renovations to the facility.	2	ESL	L	Carry complete branch circuit wiring replacement for 75% of 42,094 sf										\$86,700	55.30%	\$134,645
Branch Circuits	Receptacles in most areas are located appropriately for the current use of the spaces, but it was noted that extension cords are in use in Classroom 149 due to receptacles not being located according to the current furniture layout.	Add receptacles in Classroom 149 as required to eliminate the need for extension cords.	2	ESL	L	Carry \$5,000 + MU's										\$7,525	55.30%	\$11,686
Interior Lighting																		
Classrooms	Recessed fluorescent fixtures with high-performance optics and T8 lamps.		3	N	L	Carry complete interior lighting replacement for 42,094 sf										\$538,400	55.30%	\$836,135
Offices	Mostly recessed fluorescent fixtrure with parabolic diffusers ans T8 lamps. Strip fixtures with T12 lamps are installed in second floor custodial office.	Update lighting to LED as part of any planned renovations	2	ESL	L													
Corridors	Mixture of downlights with self-ballasted medium-based compact fluorescent lamps, recessed parabolics with T8 lamps, recessed lens troffers with T8 lamps	Update lighting to LED as part of any planned renovations	2	ESL	L													
Toilets	Recessed and surface mounted luminaires with Linear fluorescent T8 lamps	Update lighting to LED as part of any planned renovations	2	ESL	L													
Mech/Storage	Linear fluorescent. Some areas utilize T12 lamps	Update lighting to LED as part of any planned renovations	2	ESL	L													
Cable (& Service)	Overhead CATV service to second floor electrical room. The entrance cable is not sleeved in conduit where it penetrates the building exterior wall.	Provide sleeve and sealing for cable	2	ESL	L	Carry \$2,000 + MU's										\$3,010	55.30%	\$4,675
Data System (& Service)	IDF on 2nd floor is Cat 5e and is housed in an open rack located in the electric room	Provide enclosed cabinet to house data equipment in electric room.	2	ESL	L	allow \$10,000 for cabinet & rerouting wiring to cabinet + MU's ??? Yes										\$15,050	55.30%	\$23,373

Total Years 6 - 10	\$3,360,684
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
BUILDING INTERIOR																			
General Notes																			
General design notes	Budget for 2nd floor renovation	Budget for 2nd floor renovation	-	-	L	Budget from PPS CIP							●	●			\$65,000	93.55%	\$125,808
Main Entrance																			
Ceiling Finish Materials	GWB soffits, 2x2 ACT. In good condition.	Replace isolated stained tiles as part of standard maintenance practice.	3	ESL	L	150 sf 2x2 @ \$3.25 w/demo., grid remains = \$490 + MU's							●	●			\$740	93.55%	\$1,432
Main Lobby																			
Ceiling Finish Materials	2x2 ACT. In good condition.	Replace isolated stained tiles as part of standard maintenance practice.	3	ESL	L	300 sf 2x2 @ \$3.25 w/demo., grid remains = \$975 + MU's							●	●			\$1,470	93.55%	\$2,845
Corridors																			
Floor & Base Finish Materials	Mix of carpet, VCT. Both have rubber base material. Carpet and rubber base on lower level corridor floors in fair condition. Carpet on second floor is heavily worn and stained. VCT and rubber base on third floor above is nearing the end of its service life.	Replace carpet within the next 10 years. Replace VCT within the next 10 years.	2	END	L	Remove and replace approx. 3,800 SF existing carpet with new carpet tile, \$6 sf demo-prep-replace = \$22,800; Remove and replace approx. 5,000 SF existing VCT tile with new quartz tile, @ \$5.75 demo-prep-replace = \$28,750; Remove and replace approx. 2,500 LF existing base with new base @ \$3 demo & replace = \$7,500 === TOTALS \$59,050 + MU's							●	●			\$88,870	93.55%	\$172,008
Elevators and Lifts																			
Elevator Finish Materials	Painted steel frame, doors. Showing scratches from heavy use.	Refinish, repaint steel frame and doors.	2	ESL	L	Refinish, repaint approx. 4' x 7' frame, 4' x 7' sliding door, \$250 clean-prep-repaint							●	●			\$380	93.55%	\$735
Quiet Rooms																			
Floor & Base Finish Materials	Carpet floor, rubber base	Base is peeling away or missing in numerous locations.	2	END	L	Replace rubber base, approx. 100 LF @ \$3 w/demo = \$300 + MU's							●	●			\$455	93.55%	\$881
Wall Finish Materials	Painted GWB. These rooms have particularly beat up walls. Holes and large dents in many locations, finish paint peeling away.	Patch and repaint all walls. Provide wainscoting up to 4' AFF for wall protection.	2	END	L	Patch and repaint approx. 2,000 SF GWB wall @ \$2 = 4,000 + MU's							●	●			\$6,020	93.55%	\$11,652
Nurse and Health																			
Casework	Plastic laminate base cabinets, counters. Laminate is peeling, counter supports are unfinished.	Recommend replacement of all casework to meet ADA requirements. Replace with plastic laminate casework with resilient edge banding, adjustable shelves, and lockable doors.	2	END	L	(5) 36" wall cabinets @ \$125 w/demo = \$1,875 + MU's; (2) 36" double door with drawers base cabinet @ \$310 w/demo w/solid surface (wet area) top = \$1,860 + MU's; (1) 36" ADA sink apron = \$300; (2) 24" four drawer base cabinet @ \$275 w/demo = \$1,100 + MU's. All doors are lockable and all shelves are adjustable. 11 linear feet of counter at ADA height @ \$90 w/demo = \$990 + MU's === TOTALS \$6,125 + MU's							●	●			\$9,220	93.55%	\$17,845

DISTRICT OFFICE & BAYSIDE LEARNING

Capital Plan Detailed Scope of Work

* Note:
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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA										BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Sinks (ADA compliance)	Stainless steel sink with gooseneck faucet mounted in plastic laminate counter. Not at ADA height.	Remove section of counter and sink. Replace with ADA compliant counter and new counter mounted sink.	0	OB	L	(1) 36" ADA counter with mounted sink (provided with casework above).							●	●			\$0	93.55%	\$0
Privacy Curtains (no. of rest areas)	1 resting cot, no privacy curtain.	Install ceiling mounted privacy curtain around cot.	2	ESL	L	Install ceiling mounted privacy curtain around single 3' x 7' cot. \$350 + MU's							●	●			\$530	93.55%	\$1,026
Student Toilet Rooms																			
Floor & Base Finish Materials	Vinyl/VCT floors are in a state of disrepair. Staining, not easy to clean, and peeling from floor/base.	Replace vinyl/VCT floors with ceramic tile.	2	END	L	Remove approx. 200 SF vinyl/VCT flooring, replace with ceramic tile @ \$15 w/demo-prep-replace & tile base = \$3,000 + MU's							●	●			\$4,515	93.55%	\$8,739
Wall Finish Materials	Vinyl wainscoting up to 3', painted GWB above. Some toilet rooms don't have this wainscoting. Vinyl wainscoting is already peeling, probably not a permanent solution.	Remove vinyl wainscoting. Install ceramic tile to 4' AFF in all toilet rooms.	2	END	L	Install approx. 400 SF ceramic tile up to 4' AFF as toilet room wall protection @ \$17.50 w/demo-tile backer bd-ceramic & tile base = \$7,000 + MU's							●	●			\$10,535	93.55%	\$20,390
Mirrors	Missing.	Provide wall mounted mirrors in all bathrooms.	0	OB	L	Install (4) 18" x 30" wall mounted mirrors @ \$100 = \$400 + MU's							●	●			\$605	93.55%	\$1,171
Door Material (Including Frame & Glazing)	Wood veneer door with narrow lite, painted HM frame. Toilet room doors are showing heavy wear and tear.	Replace wood veneer door with new wood veneer door, refinish and repaint HM frames.	2	END	L	Replace (4) wood veneer doors with new wood veneer doors @ \$500 w/demo-replace-reinstall hdwr-paint; refinish and repaint (4) HM frames @ \$75 = = TOTALS \$2,300 + MU's							●	●			\$3,465	93.55%	\$6,707
Staff Toilets																			
Floor & Base Finish Materials	Vinyl/VCT floors are in a state of disrepair. Staining, not easy to clean, and peeling from floor/base.	Replace vinyl/VCT floors with ceramic tile.	2	END	L	Remove approx. 120 SF vinyl/VCT flooring, replace with ceramic tile @ \$15 w/demo-prep-replace & tile base = \$1,800 + MU's							●	●			\$2,710	93.55%	\$5,245
Wall Finish Materials	Wood wainscoting up to 3', painted GWB above. Wood wainscoting is dented, paint is chipping, probably not a permanent solution.	Remove wood wainscoting. Install ceramic tile to 4' AFF in staff toilet rooms.	2	END	L	Install approx. 300 SF ceramic tile up to 4' AFF as toilet room wall protection @ \$17.50 w/demo-tile backer bd-ceramic & tile base = \$5,250 + MU's							●	●			\$7,905	93.55%	\$15,300
Plumbing Fixtures	Floor mounted porcelain toilets. Porcelain sinks mounted in plastic laminate counter. Countertop is peeling, showing damage from moisture.	Replace laminate counters and sinks with wall mounted porcelain sink fixture	2	END	L	Replace (2) laminate counters and sinks with wall mounted porcelain sink fixtures @\$2,000 each w/demo-new wall hanger w/block & patch gyp, re-use rough-new sink & fitting + MU's = \$4,000 + MU's							●	●			\$6,020	93.55%	\$11,652
Mechanical and Service Spaces																			
Floor & Base Finish Materials	Mix of VCT, exposed concrete floor. VCT is in very poor shape.	Remove VCT flooring.	0	END	L	Remove 200 SF VCT flooring, leave as exposed concrete, \$2 sf w/demo-prep-reseal conc = \$400 + MU's							●	●			\$605	93.55%	\$1,171
Other Spaces																			
Attic (Roof Access)	The fourth floor (attic space) is currently only used for roof access. However the space was previously finished and clearly used for occupancy. Any effort to upgrade this floor would involve a total gut renovation of the entire floor. Floor, wall, and ceiling finishes are all in a state of disrepair. Stairs and doors are non compliant. Fixtures are broken, casework is destroyed. Exterior windows are boarded up.	Demo 2,500 SF, renovate entire floor. All new finishes, new stairs, doors, casework, fixtures, etc..	0	OB	L	Approx 2,500 sf @ \$150 intense gut-refinish-partitions-doors MEP to space, possible code upgrade to floor loading = \$375,000 + MU's	REVIEW WITH SCHOOL						●	●			\$564,375	93.55%	\$1,092,348
Office spaces (2nd, 3rd floors)																			

DISTRICT OFFICE & BAYSIDE LEARNING
Capital Plan Detailed Scope of Work

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DISTRICT OFFICE & BAYSIDE LEARNING

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

Floor & Base Finish Materials	Typically carpet with rubber base. Carpet is nearing the end of its useful life.	Replace carpet with new carpet tile within the next 10 years.	2	END	L	Approx. 41,500 SF existing carpet removal, replacement with carpet tile @ \$6 w/demo-prep-replace & new base = \$249,000 + MU											\$374,475	93.55%	\$724,796
Ceiling Finish Materials	2x2 ACT. ACT is beginning to show its age, discolor, and sag.	Replace all 2x2 ACT tiles within the next 10 years.	2	END	L	Approx. 41,500 SF 2x2 ACT tile @ \$6 w/demo & new grid & tiles =\$249,000 + MU's											\$374,475	93.55%	\$724,796

Total Years 11 - 15

\$2,946,547

DISTRICT OFFICE & BAYSIDE LEARNING

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

BUILDING EXTERIOR																			
Exterior Wall Cladding																			
Materials	Painted CMU, in good condition. Only isolated areas of chipping paint. Corrugated metal wall panel, surface fastened. Isolated areas of deteriorating paint, broken end closures. Precast concrete panels, isolated areas of cracking, particularly at outside corners. Mortar wearing away in locations. EIFS showing cracking at edges, deterioration at corners, and denting. Exposed structural concrete. Showing widespread staining and minor cracking. Parge coat deteriorating in many areas. Exterior wood paneling (alley side). Paint is wearing away. Exterior wood attic paneling is showing heavy staining. Painted brick, showing heavy staining, deteriorating paint. Brick chimney showing significant cracking.	Painted CMU - minor areas to touch up. Provide regular maintenance for metal panel. Repoint precast concrete panels. Patch areas of deteriorating EIFS and repaint. Patch cracking concrete, light pressure wash areas of staining. Re-parge concrete, and repaint. Refinish, repaint exterior wood paneling. Remove existing sections of cracking brick and mortar, and replace. Remove existing paint on brick, repaint.	2	ESL	L	Approx. 15 SF CMU painting @ \$2 filler coat = \$30 + MU's; Approx. 500 SF of repointing large 2' x 3' precast concrete panels @ \$3 sf = \$1,500 + MU's; Approx. 2,500 SF of patching, repainting EIFS @ \$5 sf = \$12,500 + MU's; Patch approx. 50 LF minor concrete cracking @ \$15 crack stich = \$750 + MU's; Light pressure wash and parge approx. 2,000 SF concrete, repaint all \$5 sf = \$10,000 + MU's; Refinish, repaint approx. 600 SF exterior wood paneling @ \$5 = \$3,000 + MU's; Remove and replace 50 SF of cracking brick, mortar and replace @ \$25 sf = \$1,250 + MU's; Remove and repaint 500 SF brick @ \$30 sf = \$1,500 + MU's == TOTALS \$30,530 + MU's											\$45,950	116.55%	\$99,505
Windows																			
Sills	Concrete sills below alley-side windows, showing heavy staining. Painted aluminum sill	Light pressure wash concrete sills.			L	Light pressure wash approx 10 LF 6" concrete sill @ \$2 = \$20 + MU's											\$30	116.55%	\$65
Lintels	Painted steel lintels. On alley side, lintels are showing heavy rusting, paint chipping away.	Remove existing lintels and 3 courses of brick above, replace with new lintel and brick.	2	END	L	Remove 14 LF existing lintel and 10 SF brick above. Provide new galvanized steel lintel properly flashed, new brick above. Assume 120 # galv lintel @ \$2 mtl + 14 hrs mason labor @ \$45 + 10 sf brick remove-replace @ \$30 = \$1,270 + MU's											\$1,915	116.55%	\$4,147
Exterior Doors - Main Entrance																			
Frame Materials	School main entry - Painted aluminum thermally broken system, in fair condition. Bottom edge of aluminum system of abutting door 'sidelite' is broken. Office main entry - Aluminum thermally broken system, in good condition.	School main entry - Isolated repair of existing aluminum system. Remove and replace bottom and side mullion cover pieces and infill panel.	2	ESL	L	Remove and replace 5 LF existing aluminum system mullion covers and 4 SF infill panel, replace with new, allow \$500 + MU's											\$755	116.55%	\$1,635
Exterior Doors (not including Main Entry)																			
Overhead or Coiling Doors	Overhead door at garage is in poor condition.	Replace overhead door.	2	END	L	Remove existing 8' x 10' overhead door, provide and install new door, assume elect op .. Allow \$2,250 + MU's OK											\$3,390	116.55%	\$7,341
Fascia, Trim, Soffits & Overhangs																			
Materials	Overhang at school main entry. Wood construction, paint is chipping and peeling away.	Refinish wood, repaint overhang.	2	END	L	Refinish, repaint approx. 175 SF wood overhang @ \$5 = \$875 + MU's											\$1,320	116.55%	\$2,858

DISTRICT OFFICE & BAYSIDE LEARNING

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

			SEE LEGEND				EVALUATION CRITERIA									BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

Sealants & Expansion Joints																		
Window / Door Perimeter Sealant	Sealants around door and window perimeters are aged and cracking. In some locations, peeling away entirely.	Remove and replace existing sealant.	2	END	L	Approx. 1,800 LF sealant removal, replacement @ \$3.50 lf rout & replace = \$6,300 + MU's						●	●			\$9,485	116.55%	\$20,540
Building Joint Sealant	Sealants between materials transitions, corners, and around foundation are aged and cracking. In some locations, peeling away entirely.	Remove and replace existing sealant.	2	END	L	Approx. 1,500 LF building sealant removal, replacement @ \$5 w/backer rod required = \$7,500 + MU's						●	●			\$11,290	116.55%	\$24,448
Roof Assembly & Flashing																		
Material, Type, Color	TPO, white.	Budget for replacement at end of service life	3	ESL	L	22,388 SF						●	●			\$404,327	116.55%	\$875,570
Roof Drains (Covers)	Multiple roof drain covers are either damaged, missing, or clogged.	Replace and clean all roof drain covers.	1	ESL	L	Replace and clear approx. 5 roof drains, roof drain covers, allow \$150 ea = \$750 + MU's						●	●			\$1,130	116.55%	\$2,447
Roof Ponding	Multiple roof locations where TPO membrane is bubbling up, causing roof ponding in numerous locations. Roof substrate is crunching. Roof mechanical pads to not have crickets at edges, so some ponding is occurring at roof mechanical equipment platforms.	More extensive roofing investigation required. Likely TPO will need to be removed in multiple locations to examine the subsurface. Likely replacement/reinstallation of tapered insulation. Remove TPO membrane around roof mechanical equipment where ponding is occurring, install tapered insulation crickets at edges.	2	END	L	Approx. 3,500 SF roof needs further investigation, removal of TPO membrane and likely removal/reinstallation of tapered installation, roof crickets, allow \$10 sf demo-replace membrane w/tapers & flashing = \$35,000 + MU's						●	●			\$52,675	116.55%	\$114,068
Gutters and Downspouts																		
Splash Block or Tied to Storm Drainage	No splash block at gutter termination.	Provide splash block at gutter termination	0	OB	L	Install (1) splashblock on roof at gutter termination, \$250 + MU's						●	●			\$380	116.55%	\$823
Exterior Stairs and Ladders																		
Locations and Materials	Exterior roof ladder to high roof. Ladder is old, rusted, and not safe.	Remove existing rusty roof ladder, replace with new.	1	END	L	Remove existing ladder, replace with new 14' roof ladder, \$1,200 w/demo + MU's						●	●			\$1,810	116.55%	\$3,920
Locations and Materials	Exterior metal roof stair is old, rusted, and not safe.	Remove existing metal roof stair unit. Replace with new.	1	END	L	Remove existing metal roof stair unit. Replace with new stair unit. New stair to have 5 risers, 4' x 5' top landing, compliant railings and guardrail, \$5,500 w/demo + MU's						●	●			\$8,280	116.55%	\$17,930
Locations and Materials	Dilapidated metal roof egress stair attached to alley side of building.	Remove metal egress stair.	0	OB	L	Remove dilapidated metal roof egress stair on side of building, \$650 demo only + MU's						●	●			\$980	116.55%	\$2,122

Total Years 16 -20	\$1,177,419
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CENTRAL KITCHEN

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

			SEE LEGEND			EVALUATION CRITERIA										BUDGET		
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	COND. LEVEL	LIFE CYCLE	ACTION PRIORITY	QUANTITY INFO	SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST
Year 0 (Fiscal Year 2017) - Immediate Recommendations																		
																\$0	0.00%	\$0
Total Year 0																		\$0

CENTRAL KITCHEN
Capital Plan Detailed Scope of Work

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CENTRAL KITCHEN

Capital Plan Detailed Scope of Work

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LEGEND

Condition Level

0 - Failed - Not Functional

1 - Poor - Failure Anticipated

2 - Fair - Functions, Service Required

3 - Good - Functional & Maintained

4 - Excellent - New

Life Cycle (Age Factor)

N - New / Recent

ESL - w/In Expected Service Life

END - Nearing End of Service Life

OB - Obsolete

Action Priority

I - Immediate (Year 0)

S - Short Term (Years 1-5)

L - Long Term (Years 6-20)

N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE				CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

SITE

Parking

Paving Materials

Bituminous - Good, small areas of failed paving

Repair paving as necessary

2

ESL

S

(5800 SF), shim gravel and patch 3" thickness 5800S.F. @\$1.50

CENTRAL KITCHEN

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

																BUDGET						
CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA								TRADE COST PLUS 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	ALLOCATION				
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.				AESTHETICS & APPEARANCE	CIP	CIP (Major Renovation)	MAINT.	CITY EXPENSE
Years 6 - 10 (Fiscal Years 2023 - 2027) - Long Term Recommendations																						
MECHANICAL																						
Air Handling Unit Systems	Administration AHU (4 years service life left)---Lack of fresh air (OA).	Replace Admin AHU with 5 ton split DX, gas heat with OA ventilation...replace ductwork (2,000 SF)	2	END	L	Replace AHU with ductwork \$/SF + MU's							●	●			\$80,000	55.30%	\$124,240	\$124,240		
Terminal Unit Systems	Gas fired unit heaters	Replace with new horizontal condensing gas fired Uhs (Figure 10 @ 120 MBH)	1	END	L	(10) heaters w/gas piping + MU's							●	●			\$120,000	55.30%	\$186,360	\$186,360		
Exhaust Systems	No central exhaust for toilets	Install (1) 500 CFM rooftop fan	1	OB	L	(1) EF ductwork + MU's							●	●			\$10,000	55.30%	\$15,530	\$15,530		
Automatic Temperature Controls	Limited to T stats for Uhs and AHU -- MUA has DDC	Add DDC for AHU and EF (25 DDC points)	2	OB	L	DDC upgrade \$/SF + MU's							●	●			\$45,000	55.30%	\$69,885	\$69,885		
ELECTRICAL																						
Site Lighting (type & material)	Shoebox style pole mounted fixtures utilizing High-pressure sodium lamps.	Update site lighting to LED fixtures that utilize full cutoff optics	2	END	L	Carry 3 pole lights							●	●			\$27,000	55.30%	\$41,931			\$41,931
Exterior Building Lighting	Mixture of LED and metal halide wall packs	Update building mounted lighting to LED fixtures as metal halide units fail	2	END	L	Carry (5) wall packs							●	●			\$4,500	55.30%	\$6,989			\$6,989
Interior Lighting																						
Process Areas	Mix of recessed food service grade lens troffers and Surface and pendant mounted 8' linear vaportight fixtures with T8 fluorescent lamps.		3	ESL	L	Carry complete interior lighting replacement for 21,180 sf							●	●			\$270,900	55.30%	\$420,708			\$420,708
Toilets	Fluorescent with T8 lamps	Update to modern LED luminaires with high-	3	ESL	L								●	●								
Mech/Storage	Fluorescent with T8 lamps in mechanical rooms. Receiving and warehouse areas have been updated to LED with occupancy sensors.	Update areas with fluorescent luminaires to LED.	3	ESL	L								●	●								
Data System (& Service)	Building is not equipped with fiber optic connectivity from the utility. Data rack is open type in a shared location.	Provide enclosed cabinet to house data equipment.	2	ESL	L	Carry complete telecommunications infrastructure for 21,180sf							●	●			\$31,876	55.30%	\$49,503	\$49,503		
Total Years 6 - 10																		\$915,145	\$445,518	\$0	\$469,627	\$0

CENTRAL KITCHEN
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria									Budget			
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Building Interior																			
General Notes																			
Interior Walls	Painted CMU and GWB	Recommend repaint all CMU and GWB Walls	2	ESL	L	Base on (1) story at 21,180 SF footprint; \$2 sf floor area prep & repaint = \$42,360 + MU's							●	●			\$63,755	93.55%	\$123,398
Main Entrance																			
Wall Finish Materials	Painted GWB and fiberglass wall panels	Repaint walls	2	ESL	L	80 SF @ \$1.50 sf prep & repaint + MU's							●	●			\$180	93.55%	\$348
Door Hardware	Stainless steel, non-ADA compliant exterior pull hardware	Replace exterior door pull hardware	2	OB	L	(1) pair of door pulls @ \$150 ea x 2 = \$300 + MU's				●							\$455	93.55%	\$881
Main Lobby / Reception																			
Wall Finish Materials	Painted GWB	Repaint walls	2	ESL	L	200 SF @ \$1.50 prep & repaint + MU's							●	●			\$530	93.55%	\$1,026
Interior Signage																			
Materials	None	Provide ADA compliant signage	-	-	L	25 Signs @ \$75 ea + MU's				●							\$2,825	93.55%	\$5,468
Locker Room																			
Ceiling Finish Materials	2x4 ACT - numerous stained tiles	Replace ACT ceiling	1	END	L	150 SF tiles & grid; \$4.25 per sf demo & replace + MU's							●	●			\$960	93.55%	\$1,858
Lockers	Painted metal vented lockers - worn	Replace lockers with vented solid plastic lockers	1	END	L	(20) full height 6" wide lockers; \$275 ea locker demo & replace = \$5,500 + MU's							●	●			\$8,280	93.55%	\$16,026
Door Material (Including Frame & Glazing)	Hollow metal frame and wood veneer doors - corrosion at bottom of frames and door leafs are worn	Repaint frames and replace wood veneer doors	1	END	L	(2) doors; \$125 grind & repaint frame + \$300 new door leaf & reinstall hdwr & \$50 paint door leaf = \$475 x 2 door = \$950 + MU's							●	●			\$1,430	93.55%	\$2,768
Staff Room																			
Door Material (Including Frame & Glazing)	Hollow metal frame and wood veneer doors - corrosion at bottom of frames and door leafs are worn	Repaint frames and replace wood veneer doors	1	END	L	(2) doors; \$125 grind & repaint frame + \$300 new door leaf & reinstall hdwr & \$50 paint door leaf = \$475 x 2 doors = \$950 +							●	●			\$1,430	93.55%	\$2,768
Administration Office Area																			
Door Material (Including Frame & Glazing)	Painted hollow metal frames and mix of hollow metal and wood veneer doors	Repaint frames and doors	2	ESL	L	(4) frames, (2) doors; \$75 prep & repaint door leaf & \$75 prep & repaint frame = \$450 + MU's							●	●			\$680	93.55%	\$1,316
Staff Toilets																			
Floor & Base Finish Materials	VCT flooring and rubber base - both are stained and worn	Replace VCT flooring and rubber base	1	END	L	300 SF, \$5 demo-prep-new floor & base = \$1,500 + MU's							●	●			\$2,260	93.55%	\$4,374
Toilet Partitions	Painted metal toilet partitions in poor condition and corrosion	Replace toilet partitions with solid plastic toilet compartments	1	END	L	(4) stalls @ \$1,250 demo & replace = \$5,000 + MU's; (2) ADA stalls @ \$1,500 demo & replace = \$3,000 + MU's							●	●			\$12,040	93.55%	\$23,303
Accessories	Accessible toilet compartments missing grab bars	Provide ADA grab bars	1	OB	L	(2) ADA Stalls @ \$400 set w/new wall blocking & patch = \$800 + MU's				●							\$1,205	93.55%	\$2,332

CENTRAL KITCHEN

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
0 - Failed - Not Functional	N - New / Recent	I - Immediate (Year 0)
1 - Poor - Failure Anticipated	ESL - w/In Expected Service Life	S - Short Term (Years 1-5)
2 - Fair - Functions, Service Required	END - Nearing End of Service Life	L - Long Term (Years 6-20)
3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
4 - Excellent - New		

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET			
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST	
Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations																			
Receiving																			
Wall Finish Materials	Painted GWB - areas of holes and damage	Patch holes in walls and repaint	2	ESL	L	120 SF@ \$10 sf = \$1,200 + MU's, no new blocking behind damage provided							●	●			\$1,810	93.55%	\$3,503
Wall Finish Materials	Fiberglass wall panels - some damaged panels	Replace damaged fiberglass wall panels	2	ESL	L	150 SF @ \$17.50 sf demo & replace + MU's							●	●			\$3,950	93.55%	\$7,645
Storage Rooms																			
Floor Finish Materials	Mix of sealed and unsealed concrete floors	Seal all concrete floors	2	ESL	L	6,000 SF @ \$2 sf includes light shot blast to clean + MU's							●	●			\$18,060	93.55%	\$34,955
Staging Area																			
Floor Finish Materials	Epoxy flooring and base in fair condition	Recoat epoxy flooring and base	2	END	L	600 SF @ \$12 sf to clean & recoat + MU's							●	●			\$10,840	93.55%	\$20,981
Wall Finish Materials	Fiberglass wall panels - some areas of wear	Replace worn out fiberglass wall panels	2	END	L	150 SF @ \$17.50 sf demo & replace + MU's							●	●			\$3,950	93.55%	\$7,645
Door Material (Including Frame & Glazing)	Hollow metal doors and frames - paint is worn	Repaint doors and frames	2	ESL	L	(2) pairs of doors, 3070 assumed, \$150 prep & repaint 3070 + MU's							●	●			\$455	93.55%	\$881
Wash Area																			
Floor Finish Materials	Epoxy flooring and base in fair condition	Recoat epoxy flooring and base	2	ESL	L	1,100 SF @ \$12 sf clean & recoat + MU's							●	●			\$19,870	93.55%	\$38,458
Prep Areas																			
Floor Finish Materials	Epoxy flooring and base in fair condition	Recoat epoxy flooring and base	2	ESL	L	3,000 SF @ \$12 sf clean & recoat + MU's							●	●			\$54,180	93.55%	\$104,865
Service Corridor and Hose Wash Area																			
Floor Finish Materials	Epoxy flooring and base in fair condition	Recoat epoxy flooring and base	2	ESL	L	500 SF @ \$12 sf clean & recoat + MU's							●	●			\$9,030	93.55%	\$17,478
Wall Finish Materials	Fiberglass wall panels - some damage with holes	Replace damaged fiberglass wall panels	2	ESL	L	250 SF @ \$17.50 sf demo & replace + MU's							●	●			\$6,585	93.55%	\$12,745
Other	Corrosion on (1) exposed steel column	Remove corrosion from column, prime, and repaint	2	ESL	L	40 SF @ \$10 sf scrape-prep-repaint = \$400 + MU's							●	●			\$605	93.55%	\$1,171
Walk-in Cooler and Freezer																			
Floor & Base Finish Materials	Sealed concrete floor - fair condition, stained	Reseal concrete floors	2	ESL	L	2,600 SF @ \$2 includes light shotblast & seal + MU's							●	●			\$7,830	93.55%	\$15,155
Door Material (Including Frame & Glazing)	Plastic doors with painted stl angle frame - some corrosion on frame	Prep and repaint steel angle door frame	2	ESL	L	40 LF assumes 12" total width @ \$10 sf scrape-pre-repaint + MU's							●	●			\$605	93.55%	\$1,171
																	Total Years 11 - 15	\$452,520	

CENTRAL KITCHEN
Capital Plan Detailed Scope of Work

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LEGEND		
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Category	Description and General Comments	Recommended Action	See Legend			Quantity Info	Evaluation Criteria										Budget		
			Cond. Level	Life Cycle	Action Priority		Security	Health & Safety	Code Compliance	ADA/ Accessibility	Sustain - Ability	Extending Bldg. Life	Operation & Maintenance	Impact on Learn. Env.	Aesthetics & Appearance	Trade Cost + 50.5% Mark-Up	Escalation	* Opinion of Probable Cost	
Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																			
Building Exterior																			
Exterior Wall Cladding																			
Spalling, Staining, Efflorescence	Areas of mildew on north elevation	Power wash clean north elevation	2	ESL	L	8,500 SF @ 1.50 per sf = \$12,750 + MU's							●	●			\$19,190	116.55%	\$41,556
Exterior Doors - Main Entrance																			
Frame Materials	Painted hollow metal door and frame - some corrosion noted on door and frame	Remove corrosion and repaint door and frame	2	ESL	L	(1) pair of doors and frame @ \$250 per 3070 remove hdwr & scrape-grind & paint = \$500 + MU's							●	●			\$755	116.55%	\$1,635
Exterior Doors (not including Main Entry)																			
Materials	Painted hollow metal doors and frames - paint is worn	Repaint exterior doors and frames	2	ESL	L	(11) doors and frames @ \$150 per 3070 prep & repaint = \$1,650 + MU's							●	●			\$2,485	116.55%	\$5,381
Sealants & Expansion Joints																			
Window / Door Perimeter Sealant	Material unknown. Joint sealant is in good condition.	At end of service life, remove and replace all sealants	3	ESL	L	500 LF @ \$3.50 per lf remove & recaulk = \$1,750 + MU's							●	●			\$2,635	116.55%	\$5,706
Exterior Stairs and Ladders																			
Locations and Materials	Exterior metal handrails/guardrails are corroded	Remove corrosion, prime, and repaint handrails/guardrails	2	ESL	L	50 LF assumes single line wall rail @ \$10 lf prep & repaint = \$500 + MU's							●	●			\$755	116.55%	\$1,635
Other Observations																			
Shed	There is a dilapidated wood shed with cooking grill on the north side of the building; presence of the shed is causing mildew on adjacent metal wall panels	Remove shed in its entirety	1	OB	L	No foundation removal included; allowance of \$750 demo & disposal + MU's							●	●			\$1,130	116.55%	\$2,447

CENTRAL KITCHEN

Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level 0 - Failed - Not Functional 1 - Poor - Failure Anticipated 2 - Fair - Functions, Service Required 3 - Good - Functional & Maintained 4 - Excellent - New	Life Cycle (Age Factor) N - New / Recent ESL - w/In Expected Service Life END - Nearing End of Service Life OB - Obsolete	Action Priority I - Immediate (Year 0) S - Short Term (Years 1-5) L - Long Term (Years 6-20) N/A - Not Applicable

CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET		
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATION & MAINTENANCE	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	TRADE COST + 50.5% MARK-UP	ESCALATION	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations

ELECTRICAL																		
Life Safety																		
Fire Alarm	2013 vintage Siemens FC901 control panel. System complies with ADA and current codes and standards.	Fire alarm system will need to be replaced within 20 years	3	ESL	L	Carry complete system replacement for 21,180 sf		●	●							\$39,900	116.55%	\$86,403
Emergency Lighting	Emergnecy battery units with integral and remote heads. Many units utilize LED heads, but some older units that are original to the building remain. There is no emergency lighting at the exterior of exits.	Replace older units as they fail. Provide outdoor emergency lighting at building exits.	2	ESL	L	Carry \$9,000 + MU's		●	●							\$13,545	116.55%	\$29,332
Service	Uderground Primary from overhead utility lines to utility-owned padmount transformer. Underground secondary from transformer to main circuit breaker of Panelboard MDP.	Service entrance and equipment will need to be replaced in approximately 20 years	3	ESL	L	Carry complete replacement for 800A 480/277V 3-phase service						●	●			\$55,400	116.55%	\$119,969
Wiring	(2) 5" primary conduits. Service entrance to building appears to be (2) 4" conduits.		3	ESL	L							●	●					
Equipment	1998 vintage Cutler Hammer Main Distribution Panelboard (MDP). One circuit breaker is marked "spare and six others are currently in the off position, but are marked to indicate that they feed utilization equipment such as aeration blowers and chillers. We suspect that some of these circuit breakers are actually unused.	As a maintenance item, the MDP circuit breaker identification should be updated to reflect only current equipment.	2	ESL	L	Carry \$1,000 + MU's						●	●			\$1,505	116.55%	\$3,259
Panels	Branch-circuit panels are generally a mix of late 1990's vintage Cutler Hammer panelboards and 2013 vintage Square D panelboards. There is a loadcenter in the electric room that appears to be abandoned, as well as an abandoned 75-kVA transformer in the electric room that appears to have once fed a chiller that has been removed.	Remove abandoned equipment and associated wiring as a maintenance item. Approximately 60% of panels will need to be replaced within 20 years.	2	ESL	L	Carry 60% of value for complete power distribution system replacement for 21,180 sf						●	●			\$51,200	116.55%	\$110,874

Total Years 16 -20	\$408,197
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GENERAL DISTRICT ITEMS
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATING EFFICIENCY	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	* OPINION OF PROBABLE COST

Year 0 (Fiscal Year 2017) - Immediate Recommendations

																\$0
																\$0

Total Year 0 \$0

Years 1 - 5 (Fiscal Years 2018 - 2022) - Short Term Recommendations

Equipment - Administration																
District Phone System	From PPS SIP (Fiscal Year 2018)	District Phone System			S	Budget from PPS CIP (2018)										\$225,000
High School Devices	From PPS SIP (Fiscal Year 2018)	High School Devices			S	Budget from PPS CIP (2018)										\$890,000
High School Devices	From PPS SIP (Fiscal Year 2019)	High School Devices			S	Budget from PPS CIP (2019)										\$890,000
Network Switches	From PPS SIP (Fiscal Year 2019)	Network Switches			S	Budget from PPS CIP (2019)										\$55,000
Elementary School Devices	From PPS SIP (Fiscal Year 2020)	Elementary School Devices			S	Budget from PPS CIP (2020)										\$100,000
Network Switches	From PPS SIP (Fiscal Year 2020)	Network Switches			S	Budget from PPS CIP (2020)										\$100,000
High School Devices	From PPS SIP (Fiscal Year 2020)	High School Devices			S	Budget from PPS CIP (2020)										\$890,000
High School Devices	From PPS SIP (Fiscal Year 2021)	High School Devices			S	Budget from PPS CIP (2021)										\$890,000
Elementary School Devices	From PPS SIP (Fiscal Year 2021)	Elementary School Devices			S	Budget from PPS CIP (2021)										\$100,000
Network Switches	From PPS SIP (Fiscal Year 2021)	Network Switches			S	Budget from PPS CIP (2021)										\$100,000
Elementary School Devices	From PPS SIP (Fiscal Year 2022)	Elementary School Devices			S	Budget from PPS CIP (2022)										\$55,000
Network Switches	From PPS SIP (Fiscal Year 2022)	Network Switches			S	Budget from PPS CIP (2022)										\$65,000
Facilities - School HVAC																
Energy Management Control Upgrades	From PPS SIP (Fiscal Year 2018)	Energy Management Control Upgrades			S	Budget from PPS CIP (2018)										\$50,000
Facilities - School Maintenance																
Engineering for Roofs	From PPS SIP (Fiscal Year 2018)	Engineering for Roofs			S	Budget from PPS CIP (2018)										\$40,000
Pave Multiple School Campuses	From PPS SIP (Fiscal Year 2018)	Pave Multiple School Campuses			S	Budget from PPS CIP (2018)										\$500,000
Major Capital School Construction	From PPS SIP (Fiscal Year 2018)	Major Capital School Construction			S	Budget from PPS CIP (2018)										\$40,000
Pave Multiple School Campuses	From PPS SIP (Fiscal Year 2019)	Pave Multiple School Campuses			S	Budget from PPS CIP (2019)										\$250,000
Pave Multiple School Campuses	From PPS SIP (Fiscal Year 2020)	Pave Multiple School Campuses			S	Budget from PPS CIP (2020)										\$250,000
Engineering for Roofs	From PPS SIP (Fiscal Year 2021)	Engineering for Roofs			S	Budget from PPS CIP (2021)										\$25,000
Vehicles - Transportation																
Replacement School Bus	From PPS SIP (Fiscal Year 2018)	Replacement School Bus			S	Budget from PPS CIP (2018)										\$164,000
Replacement School Bus	From PPS SIP (Fiscal Year 2019)	Replacement School Bus			S	Budget from PPS CIP (2019)										\$150,000
Replacement School Bus	From PPS SIP (Fiscal Year 2022)	Replacement School Bus				Budget from PPS CIP (2022)										\$508,065

Total Years 1 - 5 \$6,337,065

Years 6 - 10 (Fiscal Years 2023 - 2027) - Short Term Recommendations

																\$0
																\$0

Total Years 6 - 10 \$0

Years 11 - 15 (Fiscal Years 2028 - 2032) - Long Term Recommendations

																\$0
																\$0

Total Years 11 - 15 \$0

GENERAL DISTRICT ITEMS
Capital Plan Detailed Scope of Work

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LEGEND		
Condition Level	Life Cycle (Age Factor)	Action Priority
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3 - Good - Functional & Maintained	OB - Obsolete	N/A - Not Applicable
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CATEGORY	DESCRIPTION AND GENERAL COMMENTS	RECOMMENDED ACTION	SEE LEGEND			QUANTITY INFO	EVALUATION CRITERIA									BUDGET
			COND. LEVEL	LIFE CYCLE	ACTION PRIORITY		SECURITY	HEALTH & SAFETY	CODE COMPLIANCE	ADA/ ACCESSIBILITY	SUSTAIN - ABILITY	EXTENDING BLDG. LIFE	OPERATING EFFICIENCY	IMPACT ON LEARN. ENV.	AESTHETICS & APPEARANCE	* OPINION OF PROBABLE COST

Years 16 - 20 (Fiscal Years 2033 - 2037) - Long Term Recommendations																
																\$0
																\$0
Total Years 16 - 20																\$0

Appendix - Abbreviations

ACT	Acoustic Ceiling Tile
ADA	American's with Disabilities Act
BTUH	British Thermal Units per Hour
CCTV	Closed Circuit Television Camera
CFH	Cubic Feet per Hour
CIP	Capital Improvement Plan
CMU	Concrete Masonry Unit
CPT	Carpet
EIFS	Exterior Insulated Finish System
GFI	Ground Fault Interrupter
GPM	Gallons per Minute
GSF	Gross Square Feet
GWB	Gypsum Wall Board
HVAC	Heating, Ventilation, Air Conditioning
IGU	Insulated Glass Unit
IP	Internet Protocol
LCC	Lead Coated Copper
LF	Linear Feet
LFRS	Lateral Framing Resistance System
LGMF	Light Gauge Metal Framing
LULA	Limited Use/Limited Access Lift
NFPA	National Fire Protection Association
OHE	Overhead Electrical
PIV	Post Indicator Valve
PPS	Portland Public Schools
PSF	Pounds per Square Foot
SF	Square Feet
VCT	Vinyl Composition Tile

