Exeter-West Greenwich

LEA Summary

Exeter-West Greenwich totals 309,120 square feet and consists of the school type(s) detailed below. School(s) were visited three times during the Statewide Facilities Assessment by teams of specialists in March 2016. This report provides LEA summary findings for the statewide assessment program.

School Type by Count

School Type	SqFt
Pre-K	17,800
Elementary School	116,520
Middle School	57,400
High School	117,400
Total:	**309,120**

Demographics

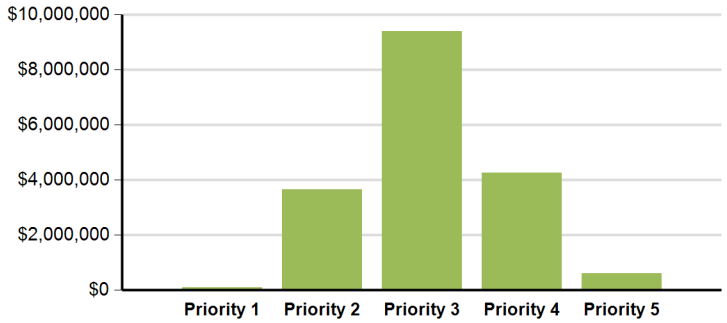
Enrollment is projected to decrease by 10% over the next 10 years in Exeter-West Greenwich. The total LEA enrollment at 5 school(s) is 1,615 students with a total capacity of 2,260 as reported by the LEA. Utilization is calculated by dividing enrollment by capacity, resulting in 71.5% utilization at Exeter-West Greenwich.

71.5 % Utilization

Educational Program Space Analysis

In Exeter-West Greenwich there are 160 instructional spaces; of these spaces 7.5% meet or exceed the space size standards. Of the total current deficiencies identified, $1,000,492 are related to the educational program space assessment. Addressing these identified deficiencies will improve the learning environment and bring the school(s) in the district closer to 21st century learning facilities.

Total Current Deficiencies



Five Year Need Summary

The current deficiencies total $18,004,959, with 52.2% categorized as Priority 3 and another 23.6% as Priority 4. The building systems with the highest current deficiency costs are Technology and Interior.

The projected life cycle need in Years 1 through 5 is $20,325,859. It is anticipated that the majority of the need will occur in Year 5. School(s) with the greatest need are represented in the adjacent table and make up 85.7% of the combined 5-Year need at Exeter-West Greenwich.

School(s) with Greatest Need	Combined 5-Year Need
Exeter-West Greenwich Regional High School	$12,984,063
Metcalf School	$12,819,943
Exeter-West Greenwich Regional Junior High	$7,028,344

Five Year Facility Condition Index (FCI)

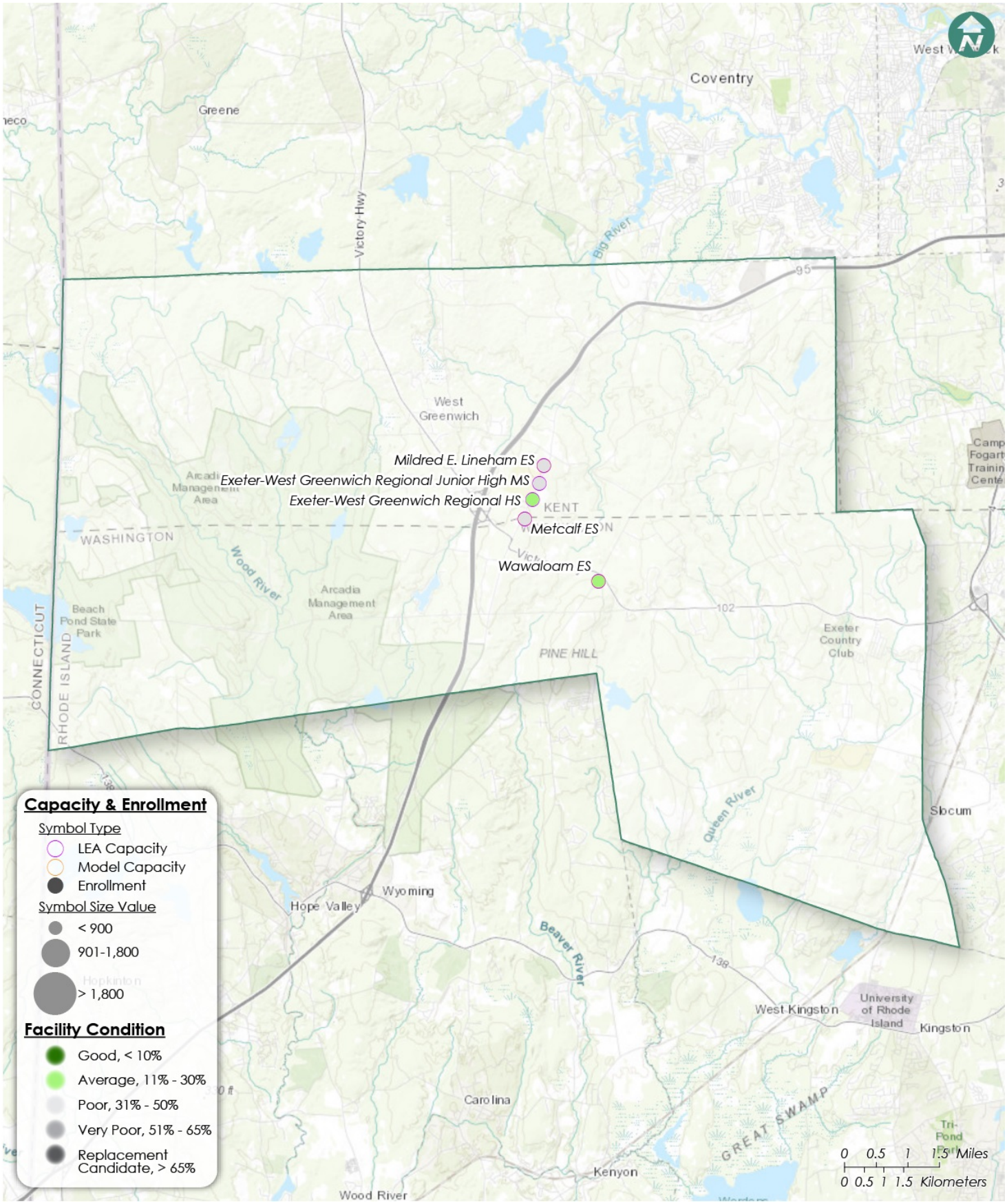
For master planning purposes, the total current deficiencies, less new construction, and the first 5 years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-Year FCI was calculated by dividing the 5-Year need by the total replacement cost. The 5-Year need is $38,330,818 with a district replacement value of $108,232,400. The resulting 5-Year FCI is 35.4%.

5-Year FCI Ranges

LEA Summary Data

Gross SqFt	Avg Year Built	Current Deficiencies (Less New Construction)	Life Cycle Year 1-5 Total	Total 5-Year Need (Year 1-5 + Current Defs)	5-Year FCI
309,120	1970	$18,004,959	$20,325,859	$38,330,818	35.4%

Exeter-West Greenwich



Facility Condition Assessment

Exeter-West Greenwich - Exeter-West Greenwich Regional High School | *June 2017*

931 Nooseneck Hill Road, West Greenwich, RI 02818

Introduction

Exeter-West Greenwich Regional High School, located at 931 Nooseneck Hill Road in West Greenwich, Rhode Island, was built in 1990. It comprises 117,400 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Exeter-West Greenwich Regional High School serves grades 9 - 12, has 53 instructional spaces, and has an enrollment of 508. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Exeter-West Greenwich Regional High School is 650 with a resulting utilization of 78%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Exeter-West Greenwich Regional High School the 5-year need is $12,984,063. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

Figure 1: Aerial view of Exeter-West Greenwich Regional High School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Exeter-West Greenwich Regional High School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	CMU Exterior Wall
	E.I.F.S. Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
02 - Building-02:	Vinyl Siding Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
03 - Building-03:	Metal Panel Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
04 - Building-04:	CMU Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
05 - Greenhouse:	Clear Polycarbonate Exterior Wall
	Steel Exterior Entrance Doors
06 - Tennis Storage:	Wood Siding Exterior Wall
	Wood Exterior Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	Single Ply Roofing
02 - Building-02:	Composition Shingle Roofing
03 - Building-03:	Metal Steep Slope Roofing
04 - Building-04:	Composition Shingle Roofing
05 - Greenhouse:	Clear Polycarbonate Roofing
06 - Tennis Storage:	Composition Shingle Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Wood Wall Paneling
	Interior Wall Painting
	Concrete Flooring
	Quarry Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Carpet
	Athletic/Sport Flooring
02 - Building-02:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet
03 - Building-03:	Painted Ceilings
	Interior Wall Painting
	Concrete Flooring
04 - Building-04:	Exposed Metal Structure Ceiling
	CMU Wall
	Concrete Flooring
05 - Greenhouse:	Concrete Flooring
06 - Tennis Storage:	Wood Ceilings
	Wood Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	8,375 MBH Steel Tube Boiler
	Radiant Water Heater

01 - Main Building:	3 kW Electric Unit Heater
	12 MBH Steam Unit Heater
	20 MBH Steam Unit Heater
	Pneumatic Heating System Controls
	Window Units
	Make-up Air Unit
	50 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	Ductwork
	Roof Exhaust Fan
	Fire Sprinkler System
02 - Building-02:	400 MBH Copper Tube Boiler
	12 MBH Steam Unit Heater
	DDC Heating System Controls
	1 Ton Ductless Split System
	2 Ton Thru-Wall A/C
	1 HP or Smaller Pump
	2-Pipe Hot Water Hydronic Distribution System
	2,000 CFM Interior AHU
	Ductwork
	Roof Exhaust Fan
04 - Building-04:	20 MBH Gas Unit Heater
	Window Units
	5 HP Pump
05 - Greenhouse:	100 MBH Copper Tube Boiler
	Supply Fan

Plumbing

The plumbing systems for the building(s) at this campus include:

02 - Building-02:	100 Gallon Water Storage Tank
04 - Building-04:	2,000 Gallon Water Storage Tank
01 - Main Building:	Gas Piping System
	200 Gallon Electric Water Heater
	30 Gallon Electric Water Heater
02 - Building-02:	Gas Piping System
	30 Gallon Electric Water Heater
04 - Building-04:	Gas Piping System
01 - Main Building:	Domestic Water Piping System
02 - Building-02:	Domestic Water Piping System
04 - Building-04:	Domestic Water Piping System
01 - Main Building:	Classroom Lavatories
	Mop/Service Sinks

01 - Main Building:	Non-Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
02 - Building-02:	Lavatories
	Mop/Service Sinks
	Restroom Lavatories
	Toilets
04 - Building-04:	Mop/Service Sinks
01 - Main Building:	Air Compressor (2 hp)
05 - Greenhouse:	275 Gallon Above Ground Fuel Oil Storage Tank

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	1,600 Amp Switchgear
	30 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 277/480 400A
	Building Mounted Lighting Fixtures
	Light Fixtures
02 - Building-02:	Panelboard - 120/208 225A
	Electrical Disconnect
	Light Fixtures
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
04 - Building-04:	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Light Fixtures
05 - Greenhouse:	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$52,030	$1,244,238	-	$1,296,268	22.24 %
Roofing	-	$67,947	-	-	-	$67,947	1.17 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	-	-	-	$0	0.00 %
Interior	-	-	$1,204,111	$372,060	$343,383	$1,919,555	32.93 %
Mechanical	-	-	$170,160	$109,189	-	$279,349	4.79 %
Electrical	$1,403	-	-	-	$5,915	$7,318	0.13 %
Plumbing	-	-	-	-	$56,525	$56,525	0.97 %
Fire and Life Safety	$22,663	-	-	-	-	$22,663	0.39 %
Technology	-	-	$1,984,984	-	-	$1,984,984	34.06 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$27,196	$124,123	$42,493	$193,812	3.33 %
Total	$24,066	$67,947	$3,438,481	$1,849,610	$448,317	$5,828,421	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$1,984,984
Interior	-	$1,919,555
Site	-	$1,296,268

The chart below represents the building systems and associated deficiency costs.

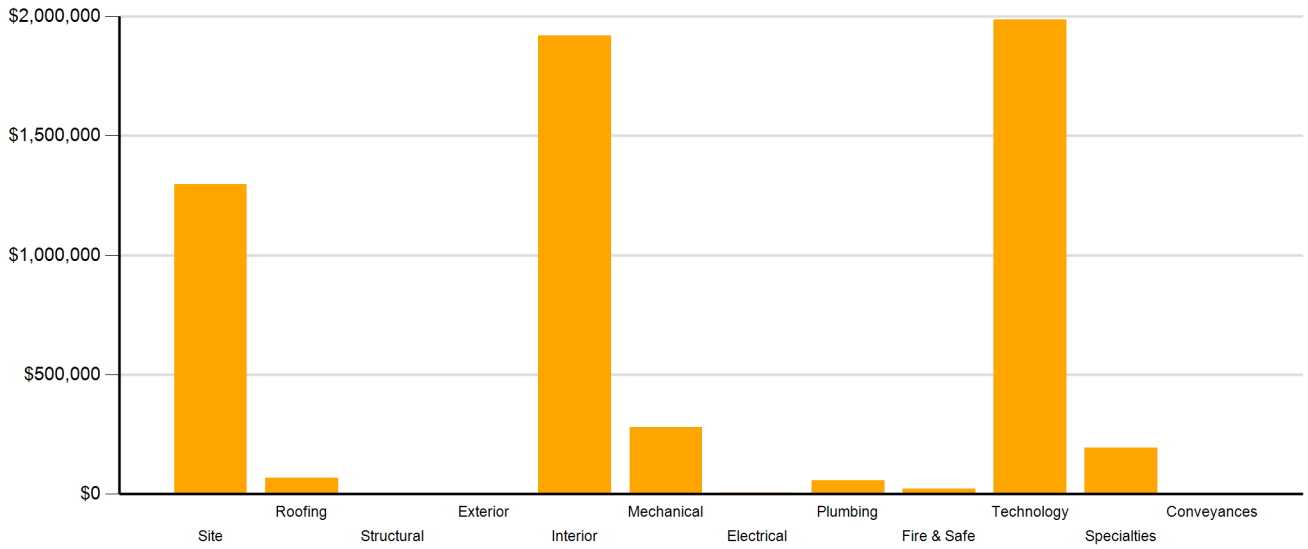


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$170,160	-	-	$170,160
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$67,947	$1,249,343	$1,654,844	$329,804	$3,301,938
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	$24,066	-	$157,508	$149,440	$117,569	$448,582
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$45,326	$944	$46,270
Technology	-	-	$1,854,671	-	-	$1,854,671
Traffic	-	-	$6,799	-	-	$6,799
Total	$24,066	$67,947	$3,438,481	$1,849,610	$448,317	$5,828,421

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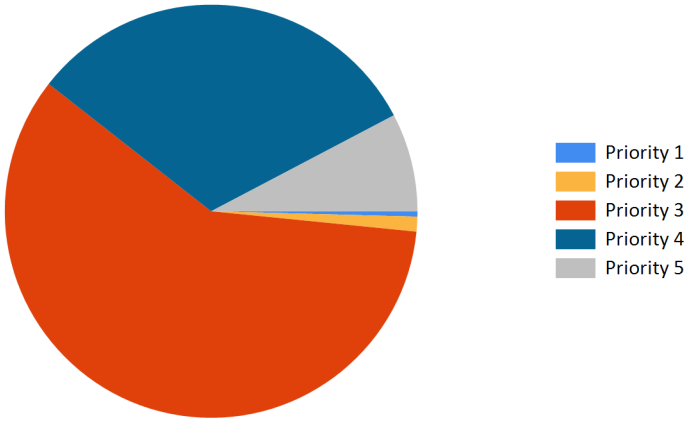


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$1,296,268	$0	$0	$156,961	$0	$0	$156,961	$1,453,229
Roofing	$67,947	$0	$0	$0	$0	$0	$0	$67,947
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$0	$0	$0	$0	$0	$0	$0	$0
Interior	$1,919,555	$0	$0	$12,949	$13,690	$1,197,118	$1,223,757	$3,143,312
Mechanical	$279,349	$0	$0	$204,849	$1,573,712	$1,301,098	$3,079,659	$3,359,008
Electrical	$7,318	$0	$0	$0	$4,478	$962,364	$966,842	$974,160
Plumbing	$56,525	$0	$0	$0	$0	$736,639	$736,639	$793,165
Fire and Life Safety	$22,663	$0	$0	$312,444	$0	$21,103	$333,547	$356,210
Technology	$1,984,984	$0	$0	$0	$0	$0	$0	$1,984,984
Conveyances	$0	$0	$0	$0	$0	$285,209	$285,209	$285,209
Specialties	$193,812	$0	$0	$0	$0	$367,563	$367,563	$561,375
Total	**$5,828,421**	**$0**	**$0**	**$687,203**	**$1,591,880**	**$4,871,094**	**$7,150,177**	**$12,978,598**

**Displayed totals may not sum exactly due to mathematical rounding*

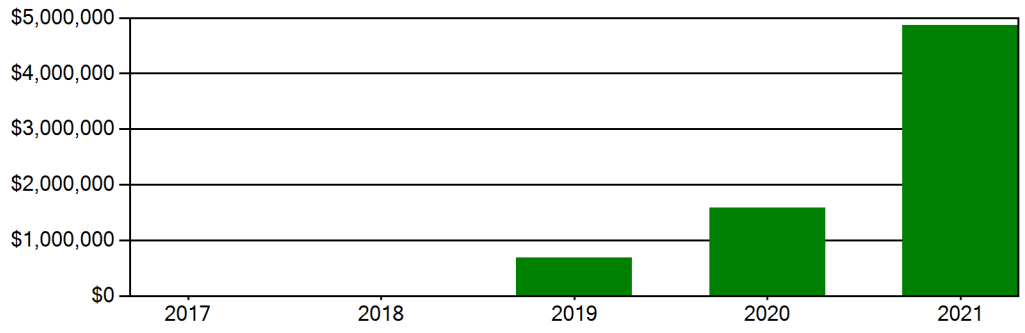
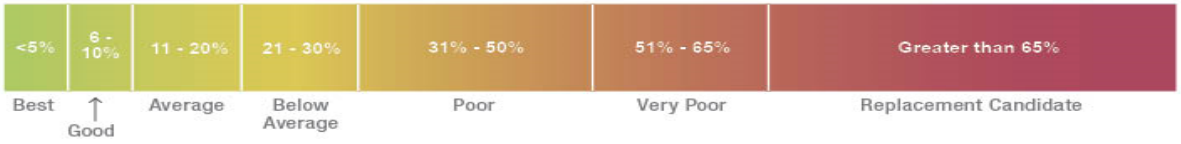


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $42,278,400. For planning purposes, the total 5-year need at the Exeter-West Greenwich Regional High School is $12,984,063 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Exeter-West Greenwich Regional High School facility has a 5-year FCI of 30.70%.

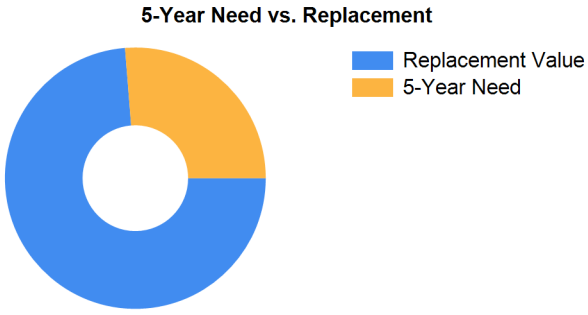


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 573 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Exeter-West Greenwich Regional High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $0.

Summary of Findings

The Exeter-West Greenwich Regional High School comprises 117,400 square feet and was constructed in 1990. Current deficiencies at this school total $5,833,886. Five year capital renewal costs total $7,150,177. The total identified need for the Exeter-West Greenwich Regional High School (current deficiencies and 5-year capital renewal costs) is $12,984,063. The 5-year FCI is 30.70%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Exeter-West Greenwich Regional High School Totals	117,400	1990	$5,833,886	$7,150,177	$12,984,063	30.70%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Concrete Walks Require Replacement	Capital Renewal	1,000	SF	3	$20,302	2481
Note: Concrete pedestrian walkways are chipped and broken.						
Parking Or Roadway Curbs Require Replacement	Capital Renewal	330	LF	3	$24,929	2479
Note: Concrete and asphalt curbs are damaged and require replacement.						
Traffic Signage Is Required	Traffic	3	Ea.	3	$6,799	4483
Note: Add speed limit signs on campus						
Asphalt Paving Requires Replacement	Capital Renewal	327	CAR	4	$1,074,601	2475
Note: Parking lot has substantial cracking in asphalt paving.						
Asphalt Paving Requires Replacement	Capital Renewal	43	CAR	4	$141,308	2476
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28477
Note: Backstops Require Replacement						
	Sub Total for System	**6**	**items**		**$1,296,268**	
	Sub Total for School and Site Level	**6**	**items**		**$1,296,268**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Single-Ply Membrane Roof Covering Requires Replacement	Capital Renewal	5,330	SF	2	$67,947	2499
Note: Facilities director and Principal complain of leaks that may be the result of aged roofing.						
	Sub Total for System	**1**	**items**		**$67,947**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	26,650	SF	3	$239,072	2466
Note: Tiles are stained and broken.						
The Carpet Flooring Requires Replacement	Capital Renewal	34,112	SF	3	$737,150	2483
Note: Carpet is worn, torn, and buckling.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	20,000	SF	3	$227,890	2482
Note: VCT is cracked and separating.						
Ceiling Grid Requires Replacement	Capital Renewal	26,650	SF	4	$313,954	2526
Note: Grid is rusted and needs to be replaced.						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	315	SF	4	$11,922	Rollup
The Wood Flooring Requires Repair	Capital Renewal	600	SF	4	$858	2520
Note: Floor requires refinishing.						
Location: Stage						
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$2,266	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	50,000	SF	5	$328,143	Rollup
Room lacks appropriate sound control.	Educational Adequacy	300	SF	5	$10,368	Rollup
The Gypsum Board Ceilings Require Repainting	Capital Renewal	400	SF	5	$1,662	Rollup
	Sub Total for System	**10**	**items**		**$1,873,284**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Unit Ventilators Are Excessively Noisy	Acoustics	27	Ea.	3	$170,160	4675
Note: All classrooms						
Lab lacks an appropriate fume hood.	Educational Adequacy	5	Ea.	4	$109,189	Rollup
	Sub Total for System	**2**	**items**		**$279,349**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room last power shut-off valves for utilities	Educational Adequacy	1	Ea.	1	$1,403	Rollup

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	12	Ea.	5	$5,915	Rollup
	Sub Total for System	**2**	**items**		**$7,318**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks a drinking fountain.	Educational Adequacy	5	Ea.	5	$5,477	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	34	Ea.	5	$51,049	Rollup
	Sub Total for System	**2**	**items**		**$56,525**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks shut-off valves for utilities. (International Fuel Gas Code, Section 409.6)	Educational Adequacy	2	Ea.	1	$22,663	Rollup
	Sub Total for System	**1**	**items**		**$22,663**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	23	Ea.	3	$130,313	Rollup
Technology: Auditorium AV/Multimedia system is in need of minor improvements.	Technology	1	Room	3	$94,430	3347
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	144	Ea.	3	$67,989	3329
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	96	Ea.	3	$45,326	3333
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	96	Ea.	3	$45,326	3337
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	52	Ea.	3	$491,033	3339
Technology: Instructional spaces do not have local sound reinforcement.	Technology	52	Ea.	3	$245,517	3338
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3331
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3335
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3326
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3330
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3334
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	3327
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	104	Ea.	3	$44,193	3340
Technology: Network system inadequate and/or near end of useful life	Technology	8	Ea.	3	$60,435	3345
Technology: Network system inadequate and/or near end of useful life	Technology	43	Ea.	3	$203,023	3346
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	106,600	SF	3	$181,191	3342
Technology: Special Space AV/Multimedia system is inadequate.	Technology	2	Ea.	3	$107,650	3341
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3328

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3332
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3336
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	78	Ea.	3	$117,848	3343
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,177	3344
	Sub Total for System	**23**	**items**		**$1,984,984**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	6	Ea.	3	$27,196	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	254	Ea.	4	$124,123	2528
Note: Boys and girls locker room lockers are rusted and some are missing doors.						
Room lacks an appropriate refrigerator.	Educational Adequacy	5	Ea.	5	$42,493	Rollup
	Sub Total for System	**3**	**items**		**$193,812**	
	Sub Total for Building 01 - Main Building	**44**	**items**		**$4,485,882**	

Building: 02 - Building-02

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	160	Ea.	4	$45,326	Rollup
Wall/ceiling materials - area < 9 sq. ft. AND NOT in children-accessible area	Hazardous Material	100	SF	5	$944	Rollup
	Sub Total for System	**2**	**items**		**$46,270**	
	Sub Total for Building 02 - Building-02	**2**	**items**		**$46,270**	
	Total for Campus	**52**	**items**		**$5,828,421**	

Buildings with no reported deficiencies

03 - Building-03

04 - Building-04

06 - Tennis Storage

Exeter-West Greenwich Regional High School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fences and Gates	Fencing - Chain Link (8 Ft)		700	LF	$47,060	3
Fences and Gates	Fencing - Chain Link (4 Ft)		1,700	LF	$109,901	3
		Sub Total for System	**2**	**items**	**$156,960**	
		Sub Total for Building -	**2**	**items**	**$156,960**	

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Flooring Treatment	Concrete Floor - Finished		1,066	SF	$13,880	5
Suspended Plaster and	Painted ceilings		79,550	SF	$332,763	5
Wall Paneling	Wood Panel wall		1,066	SF	$9,729	5
Wall Painting and Coating	Painting/Staining (Bldg SF)		55,534	SF	$366,932	5
Resilient Flooring	Vinyl Composition Tile Flooring		25,838	SF	$296,407	5
		Sub Total for System	**5**	**items**	**$1,019,711**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
HVAC Air Distribution	Ductwork (Bldg.SF)		106,600	SF	$1,567,144	4
Decentralized Heating Equipment	Unit Heater Electric (3 KW)		1	Ea.	$1,263	4
Heating System Supplementary Components	Controls - Pneumatic (Bldg.SF)		106,600	SF	$720,051	5
Air Distribution	Make-up Air Unit		9	Ea.	$143,095	5
Facility Hydronic Distribution	Pump - 50HP - (Ea.)		2	Ea.	$114,369	5
Exhaust Air	Roof Exhaust Fan		11	Ea.	$57,245	5
Water-Based Fire-Suppression	Fire Sprinkler System (Bldg.SF)		10,000	SF	$190,139	5
		Sub Total for System	**7**	**items**	**$2,793,307**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Electrical Service	Transformer (30 KVA)		2	Ea.	$14,063	5
Power Distribution	Panelboard - 120/208 400A		13	Ea.	$81,570	5
Lighting Fixtures	Light Fixtures (Bldg SF)		106,600	SF	$633,402	5
Power Distribution	Panelboard - 120/208 100A		9	Ea.	$43,637	5
Power Distribution	Panelboard - 120/208 225A		9	Ea.	$52,193	5
Electrical Service	Switchgear - Main Dist Panel (1600 Amps)		1	Ea.	$82,102	5
Power Distribution	Panelboard - 277/480 400A		2	Ea.	$35,575	5
		Sub Total for System	**7**	**items**	**$942,542**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Mop/Service Sinks		15	Ea.	$38,646	5
Plumbing Fixtures	Classroom Lavatories		41	Ea.	$111,479	5
Plumbing Fixtures	Restroom Lavatories		32	Ea.	$101,793	5
Plumbing Fixtures	Showers		34	Ea.	$258,590	5
Plumbing Fixtures	Toilets		24	Ea.	$68,450	5
Plumbing Fixtures	Urinals		8	Ea.	$10,633	5
Plumbing Fixtures	Non-Refrigerated Drinking Fountain		8	Ea.	$81,760	5
		Sub Total for System	**7**	**items**	**$671,350**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		106,600	SF	$312,444	3
		Sub Total for System	**1**	**items**	**$312,444**	

Conveyances

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Elevators	Hydraulic (Passenger Elev)		1	Ea.	$285,209	5

Conveyances

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
	Note: Shared with Junior High School					
		Sub Total for System	**1**	**items**	**$285,209**	

Specialties

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Casework	Lockers		406	Ea.	$199,746	5
Casework	Fixed Cabinetry		15	Room	$167,817	5
		Sub Total for System	**2**	**items**	**$367,563**	
		Sub Total for Building 01 - Main Building	**30**	**items**	**$6,392,126**	

Building: 02 - Building-02

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings		1,080	SF	$4,518	5
Wall Painting and Coating	Painting/Staining (Bldg SF)		7,200	SF	$47,573	5
Carpeting	Carpet		5,760	SF	$125,316	5
		Sub Total for System	**3**	**items**	**$177,406**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Decentralized Cooling	Ductless Split System (1 Ton)		2	Ea.	$28,232	3
Decentralized Cooling	Thru-Wall AC (2 Ton)		24	Ea.	$169,939	3
Decentralized Heating Equipment	Unit Heater Steam/HW (12 MBH)		1	Ea.	$2,388	4
Decentralized Heating Equipment	Unit Heater Steam/HW (12 MBH)		11	Ea.	$26,270	5
Exhaust Air	Roof Exhaust Fan		3	Ea.	$15,612	5
Facility Hydronic Distribution	Pump - 1HP or Less (Ea.)		2	Ea.	$15,257	5
		Sub Total for System	**6**	**items**	**$257,698**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)		5	Ea.	$6,893	5
		Sub Total for System	**1**	**items**	**$6,893**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Electric - 30 gallon		1	Ea.	$1,867	5
		Sub Total for System	**1**	**items**	**$1,867**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		7,200	SF	$21,103	5
		Sub Total for System	**1**	**items**	**$21,103**	
		Sub Total for Building 02 - Building-02	**12**	**items**	**$464,967**	

Building: 03 - Building-03

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings		1,200	SF	$5,020	3
Wall Painting and Coating	Painting/Staining (Bldg SF)		1,200	SF	$7,929	3
		Sub Total for System	**2**	**items**	**$12,948**	
		Sub Total for Building 03 - Building-03	**2**	**items**	**$12,948**	

Building: 04 - Building-04

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Acoustical Suspended Ceilings	Ceiling Exposed Metal Structure		1,200	SF	$13,690	4
		Sub Total for System	**1**	**items**	**$13,690**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Decentralized Cooling	Window Units		2	Ea.	$6,678	3
Decentralized Heating Equipment	Unit Heater Gas (20 MBH)		1	Ea.	$2,917	4

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Hydronic Distribution	Pump - 5HP	2	Ea.	$19,060	5
	Sub Total for System	**3**	**items**	**$28,654**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	3	Ea.	$4,478	4
Power Distribution	Panelboard - 120/208 225A	1	Ea.	$5,799	5
Lighting Fixtures	Light Fixtures (Bldg SF)	1,200	SF	$7,130	5
	Sub Total for System	**3**	**items**	**$17,407**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Potable-Water Storage Tanks	Water Storage Tank - 2,000 Gallon	1	Ea.	$60,845	5
Plumbing Fixtures	Mop/Service Sinks	1	Ea.	$2,576	5
	Sub Total for System	**2**	**items**	**$63,421**	
	Sub Total for Building 04 - Building-04	**9**	**items**	**$123,172**	
	Total for: Exeter-West Greenwich Regional High School	**55**	**items**	**$7,150,174**	

Supporting Photos

Site Aerial

Main Building - Gymnasium

Library Shared With Junior High

Music Room Shared With Junior High


Main Building - East Elevation


Main Building - Science Lab


Main Building - Cafeteria


Main Building - Gymnasium


Main Building - Northeast Elevation


Main Building - West Elevation

Site - Cracked Asphalt Pavement

Choir Room Shared With Junior High

Site - Marquee

Main Building - Window AC Unit

Main Building - Damaged Gypsum Board Ceiling

Main Building - Electric Water Heater


Main Building - Damaged Interior Wall


Main Building - Worn And Bubbling Carpet

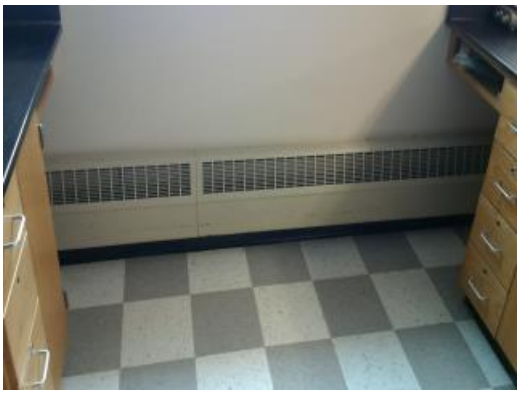

Main Building - Kitchen Hood

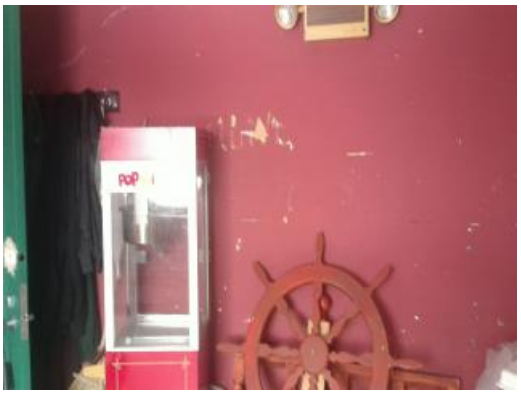

Main Building - Make-up Air Unit


Main Building - Make-up Air Unit


Main Building - Boys Locker Room Lockers


Main Building - Radiant Heaters


Main Building - Radiant Heaters


Main Building - Chipped Wall Paint


Main Building - Unit Heater


Main Building - Window Unit


Main Building - Compressor


Main Building - Cracked VCT


Main Building - Hot Water Pumps


Main Building - Electric Unit Heater


Main Building - Hot Water Storage Tanks


Main Building - Fan Coil


Main Building - Boilers

Main Building - Rusted Ceiling Grid

Main Building - Damaged Acoustical Ceiling Tiles

Main Building - Exhaust Fan

Building 02 - Rear Elevation

Building 02 - Water Heater

Building 02 - Pumps


Building 02 - Boiler - Domestic Water


Building 02 - Mop Sink


Building 02 - Front Elevation


Building 02 - Toilet


Building 02 - Hot Water Unit Heater


Building 02 - Electronic Alarm System


Building 02 - Lavatory


Building 02 - Unit Ventilator


Building 02 - Typical Restroom Finish


Building 02 - Air Handling Unit


Building 03 - Exterior Elevation


Building 04 - Pump House


Building 04 - Concession Stand


Building 04 - Pumps


Building 04 - Panelboard


Building 04 - Mop Sink


Building 04 - Radiator


Building 04 - Typical Light Fixture


Building 04 - Domestic Water Storage Tank


Greenhouse - Exterior


Tennis Storage - Exterior


Elevation


Main Building - Radiant Baseboards


Main Building - Classroom Unit Heater


Main Building - Dishwasher Exhaust


Main Building - Ducted Ceiling Hung Unit Heater

Facility Condition Assessment

Exeter-West Greenwich - Exeter-West Greenwich Regional Junior High | *June 2017*

930 Nooseneck Hill Road, West Greenwich, RI 02817

Introduction

Exeter-West Greenwich Regional Junior High, located at 930 Nooseneck Hill Road in West Greenwich, Rhode Island, was built in 1990. It comprises 57,400 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Exeter-West Greenwich Regional Junior High serves grades 7 - 8, has 25 instructional spaces, and has an enrollment of 290. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Exeter-West Greenwich Regional Junior High is 350 with a resulting utilization of 83%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Exeter-West Greenwich Regional Junior High the 5-year need is $7,028,344. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

Figure 1: Aerial view of Exeter-West Greenwich Regional Junior High

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Exeter-West Greenwich Regional Junior High campus, identified by discipline and building.

Site

The site level systems for this campus include:

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	CMU Exterior Wall
	E.I.F.S. Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	Single Ply Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Wood Wall Paneling
	Interior Wall Painting
	Concrete Flooring
	Vinyl Composition Tile Flooring
	Carpet
	Athletic/Sport Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	Radiant Water Heater
	3 kW Electric Unit Heater
	12 MBH Steam Unit Heater
	20 MBH Steam Unit Heater

01 - Main Building:	DDC Heating System Controls
	5 Ton D/X Fan Coil
	Window Units
	Make-up Air Unit
	2-Pipe Hot Water Hydronic Distribution System
	5,000 CFM Outdoor AHU
	Ductwork
	Kitchen Exhaust Hoods
	Wall Exhaust Fan
	Fire Sprinkler System

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	500 Gallon Water Storage Tank
	200 Gallon Electric Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	4,000 Amp Switchgear
	600 Amp Distribution Panel
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Electrical Disconnect
	Light Fixtures
	Canopy Mounted Lighting Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	-	-	-	$0	0.00 %
Roofing	-	$109,760	-	-	-	$109,760	3.52 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	-	-	-	$0	0.00 %
Interior	-	-	$313,340	-	-	$313,340	10.06 %
Mechanical	-	$610,459	$78,962	$2,660	-	$692,081	22.21 %
Electrical	$1,403	$251,292	-	-	-	$252,695	8.11 %
Plumbing	-	-	-	$5,118	$9,698	$14,816	0.48 %
Fire and Life Safety	$27,188	-	-	-	-	$27,188	0.87 %
Technology	-	-	$1,697,389	-	-	$1,697,389	54.48 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	-	-	$8,499	$8,499	0.27 %
Total	$28,591	$971,511	$2,089,692	$7,778	$18,197	$3,115,768	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$1,697,389
Mechanical	-	$692,081
Interior	-	$313,340

The chart below represents the building systems and associated deficiency costs.

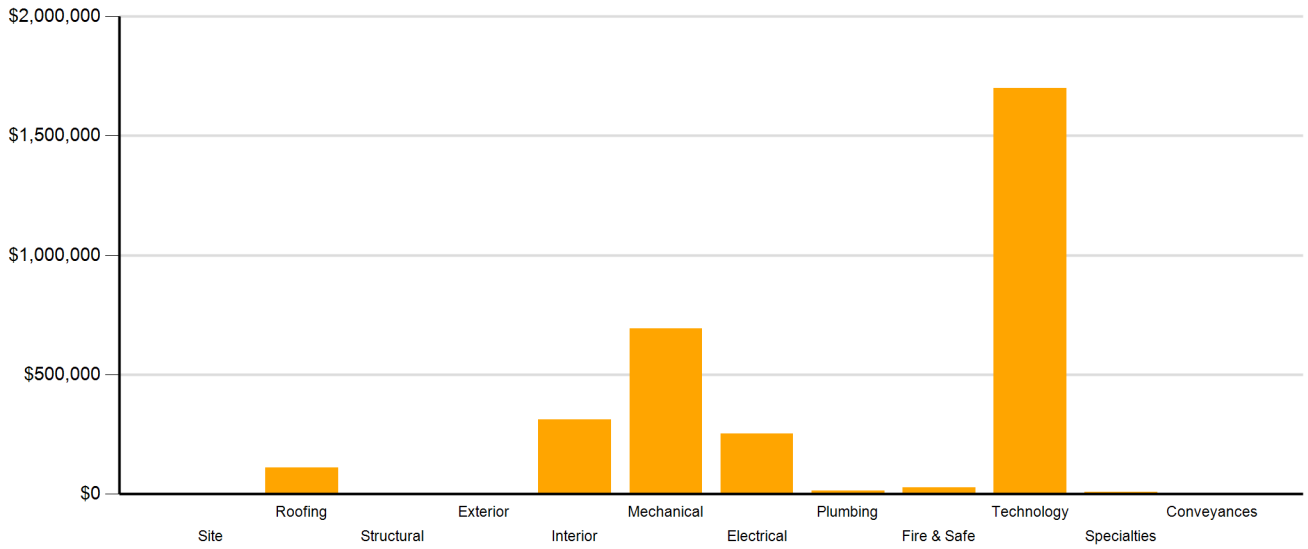


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	-	-	$0
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	$15,857	$971,511	$392,302	$7,778	-	$1,387,448
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	$12,734	-	$90,652	-	$18,197	$121,583
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	-	-	$0
Technology	-	-	$1,606,737	-	-	$1,606,737
Traffic	-	-	-	-	-	$0
Total	$28,591	$971,511	$2,089,692	$7,778	$18,197	$3,115,768

**Displayed totals may not sum exactly due to mathematical rounding*

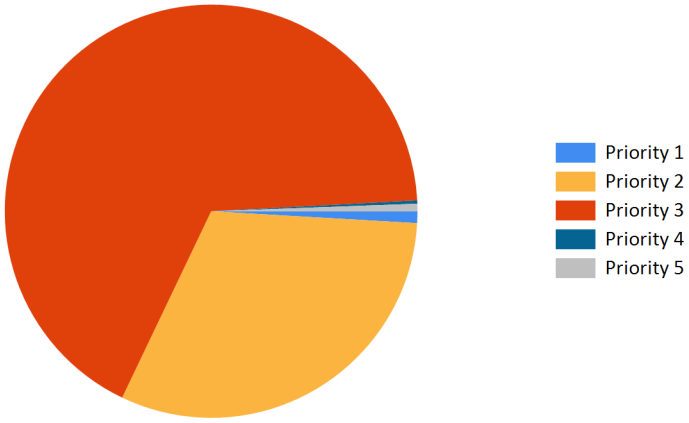


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$0	$0	$0	$0	$0	$0	$0	$0
Roofing	$109,760	$0	$0	$0	$0	$0	$0	$109,760
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$0	$0	$0	$0	$0	$214,417	$214,417	$214,417
Interior	$313,340	$0	$0	$0	$360,298	$1,152,418	$1,512,716	$1,826,057
Mechanical	$692,081	$0	$0	$0	$1,033,986	$3,339	$1,037,325	$1,729,406
Electrical	$252,695	$0	$0	$0	$0	$155,933	$155,933	$408,628
Plumbing	$14,816	$0	$0	$0	$0	$457,853	$457,853	$472,669
Fire and Life Safety	$27,188	$0	$0	$168,239	$0	$0	$168,239	$195,427
Technology	$1,697,389	$0	$0	$0	$0	$0	$0	$1,697,389
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$8,499	$0	$0	$0	$0	$364,611	$364,611	$373,110
Total	**$3,115,768**	**$0**	**$0**	**$168,239**	**$1,394,284**	**$2,348,571**	**$3,911,094**	**$7,026,862**

**Displayed totals may not sum exactly due to mathematical rounding*

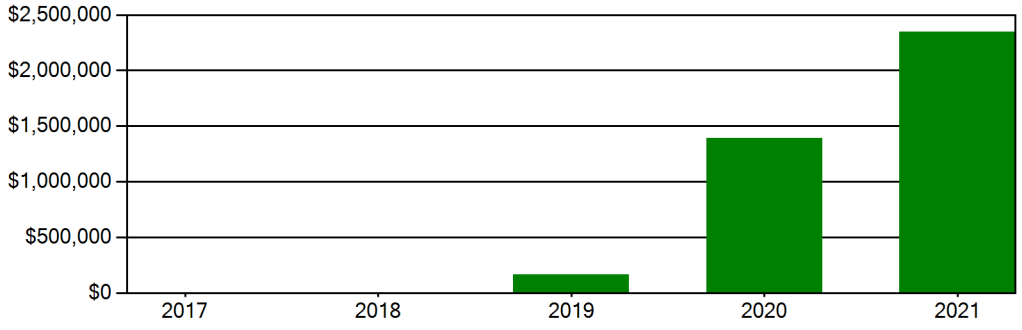
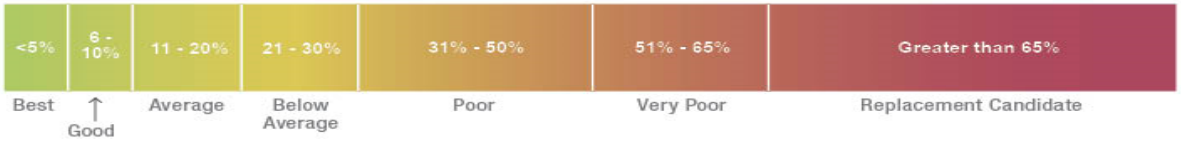


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $18,942,000. For planning purposes, the total 5-year need at the Exeter-West Greenwich Regional Junior High is $7,028,344 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Exeter-West Greenwich Regional Junior High facility has a 5-year FCI of 37.10%.

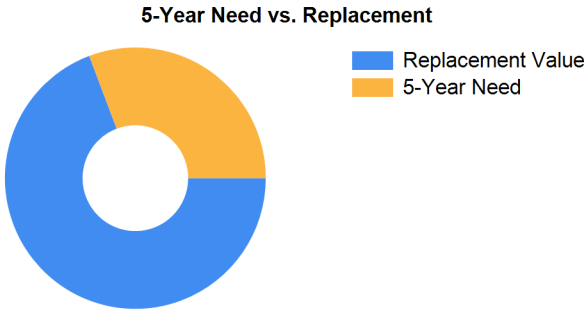


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 302 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Exeter-West Greenwich Regional Junior High cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $764,478.

Summary of Findings

The Exeter-West Greenwich Regional Junior High comprises 57,400 square feet and was constructed in 1990. Current deficiencies at this school total $3,117,250. Five year capital renewal costs total $3,911,094. The total identified need for the Exeter-West Greenwich Regional Junior High (current deficiencies and 5-year capital renewal costs) is $7,028,344. The 5-year FCI is 37.10%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Exeter-West Greenwich Regional Junior High Totals	57,400	1990	$3,117,250	$3,911,094	$7,028,344	37.10%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Single-Ply Membrane Roof Covering Requires Replacement	Capital Renewal	8,610	SF	2	$109,760	2504
Note: Roof leaks reported by school administration.						
	Sub Total for System	**1**	**items**		**$109,760**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Carpet Flooring Requires Replacement	Capital Renewal	14,500	SF	3	$313,340	2525
Note: Carpet is worn, torn, and wrinkling.						
	Sub Total for System	**1**	**items**		**$313,340**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Electric Unit Heater Requires Replacement	Capital Renewal	1	Ea.	2	$1,255	2916
Outdoor Air Handler HVAC Component Required Replacement	Capital Renewal	4	Ea.	2	$566,577	2921
Steam/HW Unit Heater Requires Replacement	Capital Renewal	5	Ea.	2	$11,860	2917
Steam/HW Unit Heater Requires Replacement	Capital Renewal	11	Ea.	2	$30,767	2918
The Make Up Air Equipment Requires Replacement	Capital Renewal	5	Ea.	3	$78,962	2920
Exhaust Fan Ventilation Requires Replacement	Capital Renewal	1	Ea.	4	$2,660	2923
	Sub Total for System	**6**	**items**		**$692,081**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room last power shut-off valves for utilities	Educational Adequacy	1	Ea.	1	$1,403	Rollup
Switchgear Is Needed Or Requires Replacement	Capital Renewal	2	Ea.	2	$229,445	2924
The Electrical Disconnect Requires Replacement	Capital Renewal	12	Ea.	2	$21,847	2925
	Sub Total for System	**3**	**items**		**$252,695**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	2	Ea.	4	$5,118	2915
Room lacks a drinking fountain.	Educational Adequacy	2	Ea.	5	$2,191	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	5	Ea.	5	$7,507	Rollup
	Sub Total for System	**3**	**items**		**$14,816**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Kitchen Exhaust Hood	Capital Renewal	1	Ea.	1	$15,857	2922
Room lacks shut-off valves for utilities. (International Fuel Gas Code, Section 409.6)	Educational Adequacy	1	Ea.	1	$11,332	Rollup
	Sub Total for System	**2**	**items**		**$27,188**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	16	Ea.	3	$90,652	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	48	Ea.	3	$22,663	3351
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	48	Ea.	3	$22,663	3355
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	96	Ea.	3	$45,326	3359
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	196	Ea.	3	$92,541	3363
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	52	Ea.	3	$491,033	3366

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Instructional spaces do not have local sound reinforcement.	Technology	52	Ea.	3	$245,517	3365
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3349
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3353
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3357
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3348
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3352
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3356
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3360
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	3361
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	104	Ea.	3	$44,193	3367
Technology: Network system inadequate and/or near end of useful life	Technology	8	Ea.	3	$60,435	3370
Technology: Network system inadequate and/or near end of useful life	Technology	26	Ea.	3	$122,758	3371
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	57,400	SF	3	$97,565	3369
Technology: Special Space AV/Multimedia system is inadequate.	Technology	2	Ea.	3	$107,650	3368
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3350
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3354
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3358
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3362
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	42	Ea.	3	$63,457	3364
	Sub Total for System	**25**	**items**		**$1,697,389**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks an appropriate refrigerator.	Educational Adequacy	1	Ea.	5	$8,499	Rollup
	Sub Total for System	**1**	**items**		**$8,499**	
	Sub Total for Building 01 - Main Building	**42**	**items**		**$3,115,768**	
	Total for Campus	**42**	**items**		**$3,115,768**	

Exeter-West Greenwich Regional Junior High - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Utility Doors	Overhead		1	Door	$36,792	5
Exterior Wall Veneer	E.I.F.S. - Bldg SF basis		8,610	SF	$177,625	5
		Sub Total for System	**2**	**items**	**$214,417**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)		54,530	SF	$360,298	4
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System		14,350	SF	$170,198	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles		14,350	SF	$129,604	5
Suspended Plaster and	Painted ceilings		43,050	SF	$180,081	5
Wall Paneling	Wood Panel wall		2,870	SF	$26,194	5
Flooring Treatment	Concrete Floor - Finished		14,500	SF	$188,792	5
Resilient Flooring	Vinyl Composition Tile Flooring		22,760	SF	$261,097	5
Athletic Flooring	Athletic/Sport Flooring		5,740	SF	$196,452	5
		Sub Total for System	**8**	**items**	**$1,512,716**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Water-Based Fire-Suppression	Fire Sprinkler System (Bldg.SF)		10,000	SF	$190,139	4
HVAC Air Distribution	Ductwork (Bldg.SF)		57,400	SF	$843,847	4
Decentralized Cooling	Window Units		1	Ea.	$3,339	5
		Sub Total for System	**3**	**items**	**$1,037,325**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Power Distribution	Distribution Panels (600 Amps)		3	Ea.	$87,388	5
Lighting Fixtures	Canopy Mounted Fixtures (Ea.)		8	Ea.	$11,028	5
Note:	Entrances only					
Power Distribution	Panelboard - 120/208 100A		2	Ea.	$9,697	5
Power Distribution	Panelboard - 120/208 225A		5	Ea.	$28,996	5
Power Distribution	Panelboard - 120/208 400A		3	Ea.	$18,824	5
		Sub Total for System	**5**	**items**	**$155,933**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Showers		22	Ea.	$167,323	5
Plumbing Fixtures	Non-Refrigerated Drinking Fountain		6	Ea.	$61,320	5
Plumbing Fixtures	Classroom Lavatories		14	Ea.	$38,066	5
Plumbing Fixtures	Toilets		17	Ea.	$48,486	5
Plumbing Fixtures	Urinals		5	Ea.	$6,645	5
Plumbing Fixtures	Restroom Lavatories		21	Ea.	$66,802	5
Facility Potable-Water Storage Tanks	Water Storage Tank - 500 Gallon		2	Ea.	$69,211	5
		Sub Total for System	**7**	**items**	**$457,852**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		57,400	SF	$168,239	3
		Sub Total for System	**1**	**items**	**$168,239**	

Specialties

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry		15	Room	$167,817	5
Casework	Lockers		400	Ea.	$196,794	5
		Sub Total for System	**2**	**items**	**$364,611**	
		Sub Total for Building 01 - Main Building	**28**	**items**	**$3,911,094**	
		Total for: Exeter-West Greenwich Regional Junior High	**28**	**items**	**$3,911,094**	

Supporting Photos

Site Aerial

Art Classroom

Cafeteria

Typical Classroom


Restroom Fixtures And Finishes

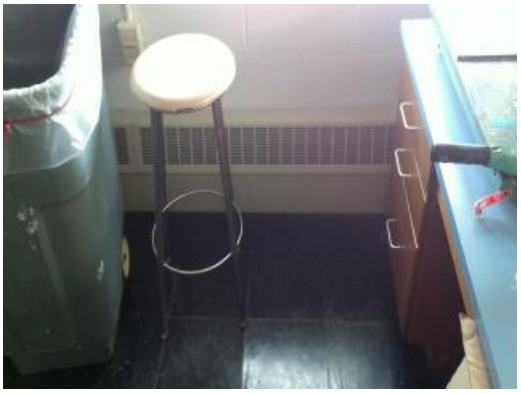

Science Classroom


Gymnasium


Locker Room


Kitchen Sink


Make-up Air Unit


Radiant Heater


Typical Toilet Fixture


Classroom Lavatory


Restroom Lavatories


Make-up Air Unit


Electrical Panels


Worn Classroom Carpet


Stained Mop Sink


Fire Alarm Panel


Typical Urinal Fixture


Non-Refrigerated Drinking Fountain


Main Electrical Service

Marquee


Elevation

Facility Condition Assessment

Exeter-West Greenwich - Metcalf School | *June 2017*

30 Nooseneck Hill Road, Exeter, RI 02822

Introduction

Metcalf School, located at 30 Nooseneck Hill Road in Exeter, Rhode Island, was built in 1967. It comprises 76,220 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Metcalf School serves grades 3 - 6, has 48 instructional spaces, and has an enrollment of 447. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Metcalf School is 760 with a resulting utilization of 59%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Metcalf School the 5-year need is $12,819,943. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

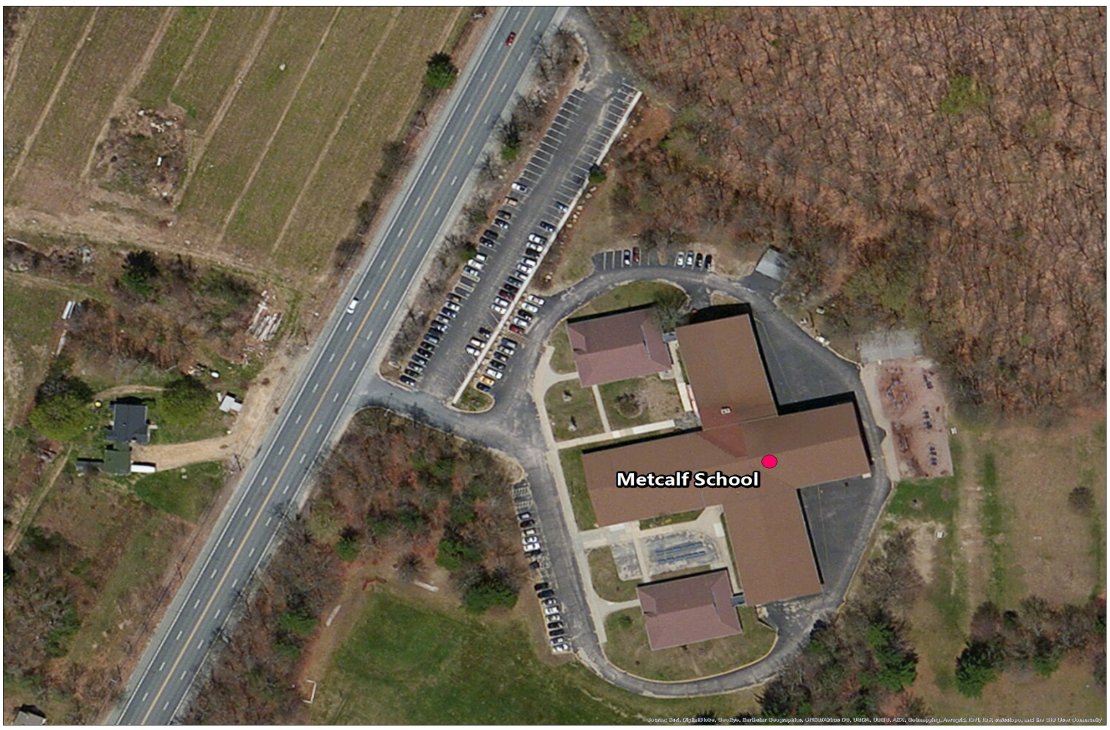


Figure 1: Aerial view of Metcalf School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Metcalf School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Wood Siding Exterior Wall
	Brick Exterior Wall
	Storefront / Curtain Wall
	Storefront Entrance Doors
02 - Building 02:	Brick Exterior Wall
	CMU Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
02 - Building 02:	Composition Shingle Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Wood Wall Paneling
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Quarry Tile Flooring
	Ceramic Tile Flooring
	Wood Flooring

01 - Main Building:	Vinyl Composition Tile Flooring
	Carpet
02 - Building 02:	Door Hardware
	Interior Wall Painting
	Concrete Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	2,400 MBH Steel Tube Boiler
	Steam/Hot Water Heating Unit Vent
	Fin Tube Water Radiant Heater
	Radiant Water Heater
	12 MBH Steam Unit Heater
	Pneumatic Heating System Controls
	2 Ton Ductless Split System
	Window Units
	Make-up Air Unit
	1 HP or Smaller Pump
	10 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	Ductwork
	Kitchen Exhaust Hoods
	Wall Exhaust Fan

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	10,000 Gallon Water Storage Tank
	Gas Piping System
	100 Gallon Gas Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
	Air Compressor (2 hp)
	550 Gallon Above Ground Fuel Oil Storage Tank

01 - Main Building:	15,000 Gallon Underground Fuel Oil Storage Tank

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	100 kW Emergency Generator
	Automatic Transfer Switch
	75 KVA Transformer
	400 Amp Distribution Panel
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 120/240 100A
	Panelboard - 277/480 100A
	Panelboard - 277/480 225A
	Electrical Disconnect
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
	Light Fixtures
02 - Building 02:	Panelboard - 120/208 225A
	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$19,264	$738,632	-	$757,896	13.22 %
Roofing	-	$877,288	$633	-	-	$877,921	15.32 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$44,899	-	$19,830	-	$64,729	1.13 %
Interior	-	-	$710,611	$626,842	$9,179	$1,346,632	23.50 %
Mechanical	-	$729,821	$93,191	$21,277	-	$844,288	14.73 %
Electrical	-	$133,529	-	-	$5,915	$139,444	2.43 %
Plumbing	-	-	$26,990	$212,383	$6,823	$246,197	4.30 %
Fire and Life Safety	$44,608	-	-	-	-	$44,608	0.78 %
Technology	-	-	$1,400,012	-	-	$1,400,012	24.43 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$9,065	-	-	$9,065	0.16 %
Total	$44,608	$1,785,536	$2,259,765	$1,618,965	$21,917	$5,730,791	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$1,400,012
Interior	-	$1,346,632
Roofing	-	$877,921

The chart below represents the building systems and associated deficiency costs.

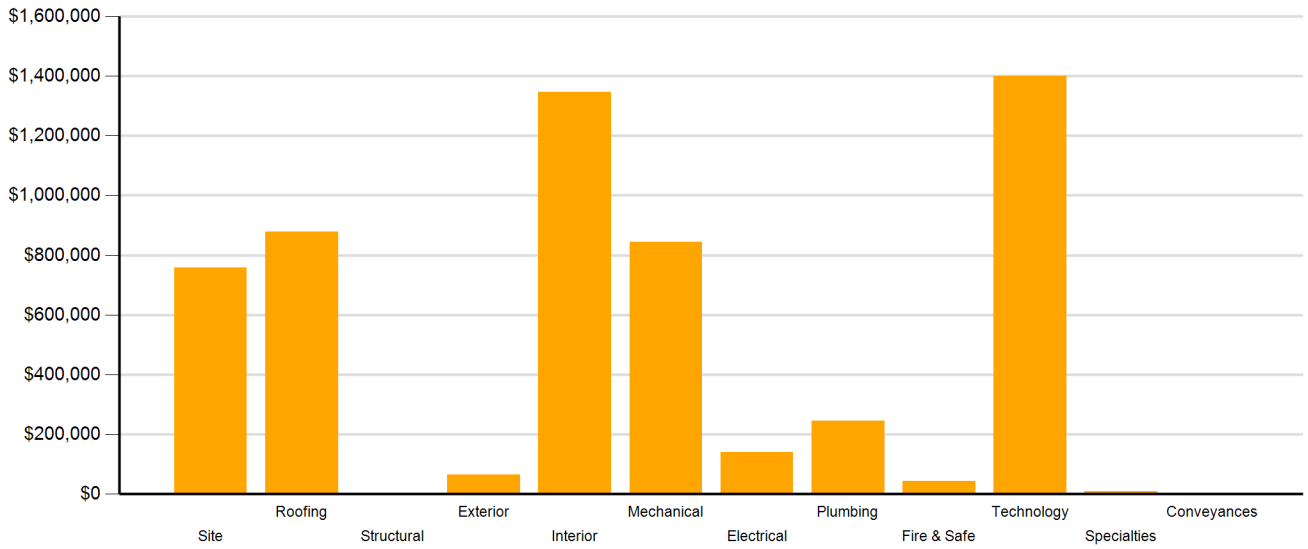


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	-	-	$0
Barrier to Accessibility	-	-	-	$14,731	-	$14,731
Capital Renewal	$44,608	$1,785,536	$845,400	$1,485,176	-	$4,160,720
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$60,057	$60,196	$21,917	$142,171
Functional Deficiency	-	-	-	$2,833	-	$2,833
Hazardous Material	-	-	-	$56,029	-	$56,029
Technology	-	-	$1,349,020	-	-	$1,349,020
Traffic	-	-	$5,288	-	-	$5,288
Total	$44,608	$1,785,536	$2,259,765	$1,618,965	$21,917	$5,730,791

**Displayed totals may not sum exactly due to mathematical rounding*

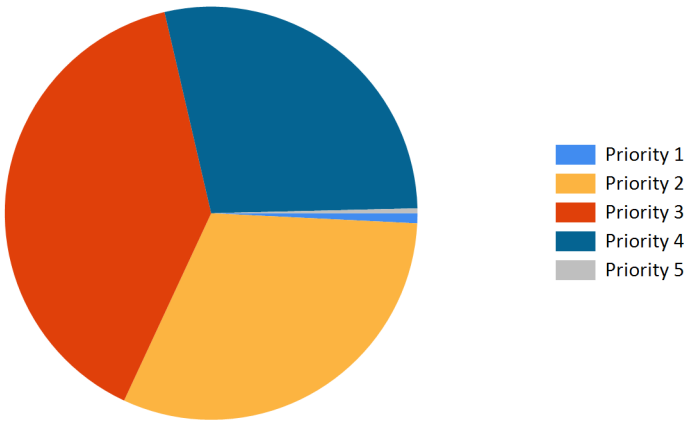


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$757,896	$0	$0	$0	$0	$44,588	$44,588	$802,484
Roofing	$877,921	$0	$0	$0	$0	$0	$0	$877,921
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$64,729	$0	$0	$0	$0	$80,001	$80,001	$144,730
Interior	$1,346,632	$0	$0	$0	$565,661	$1,204,968	$1,770,629	$3,117,261
Mechanical	$844,288	$0	$0	$0	$0	$1,444,996	$1,444,996	$2,289,284
Electrical	$139,444	$0	$0	$0	$0	$19,417	$19,417	$158,861
Plumbing	$246,197	$0	$0	$0	$1,632,945	$858,449	$2,491,394	$2,737,591
Fire and Life Safety	$44,608	$0	$0	$221,056	$0	$0	$221,056	$265,665
Technology	$1,400,012	$0	$0	$0	$0	$0	$0	$1,400,012
Conveyances	$0	$0	$0	$0	$0	$285,209	$285,209	$285,209
Specialties	$9,065	$0	$0	$0	$0	$730,129	$730,129	$739,194
Total	**$5,730,791**	**$0**	**$0**	**$221,056**	**$2,198,606**	**$4,667,757**	**$7,087,419**	**$12,818,210**

**Displayed totals may not sum exactly due to mathematical rounding*

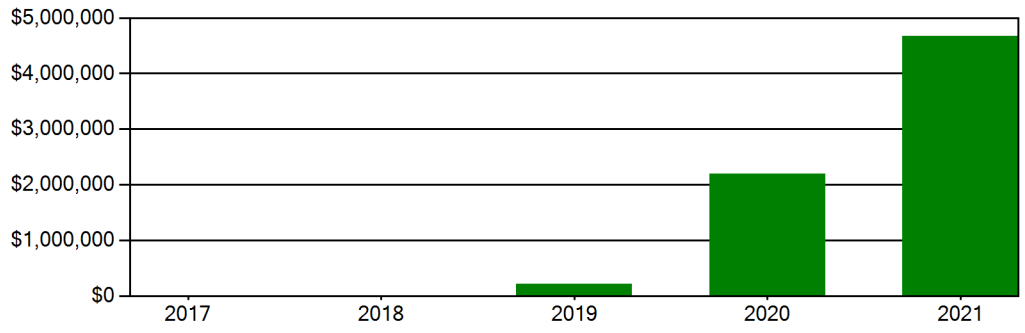
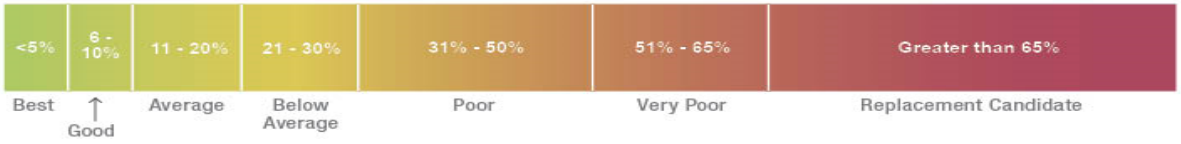


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $26,677,000. For planning purposes, the total 5-year need at the Metcalf School is $12,819,943 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Metcalf School facility has a 5-year FCI of 48.05%.

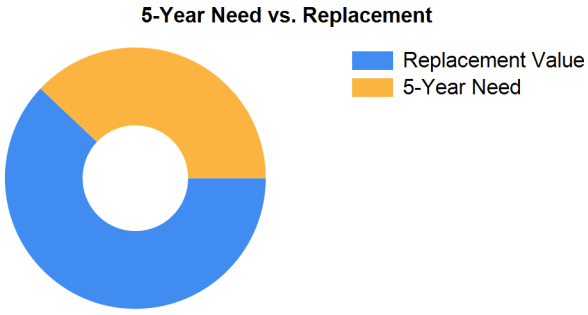


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 476 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Metcalf School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $497,448.

Summary of Findings

The Metcalf School comprises 76,220 square feet and was constructed in 1967. Current deficiencies at this school total $5,732,524. Five year capital renewal costs total $7,087,419. The total identified need for the Metcalf School (current deficiencies and 5-year capital renewal costs) is $12,819,943. The 5-year FCI is 48.05%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Metcalf School Totals	76,220	1967	$5,732,524	$7,087,419	$12,819,943	48.05%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Crosswalk Requires Repainting	Traffic	1	Ea.	3	$755	4489
Note: Repaint crosswalk on campus leading from teacher parking lot to school building						
Parking Or Roadway Curbs Require Replacement	Capital Renewal	85	LF	3	$6,421	2693
Note: Replace asphalt curbing.						
Parking Or Roadway Curbs Require Replacement	Capital Renewal	100	LF	3	$7,554	2694
Traffic Signage Is Required	Traffic	2	Ea.	3	$4,533	4487
Note: Add signs to change driveway behind school to one-way						
Asphalt Paving Requires Replacement	Capital Renewal	92	CAR	4	$302,334	2691
Note: Roadway paving is worn and cracking.						
Asphalt Paving Requires Replacement	Capital Renewal	120	CAR	4	$394,349	3003
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28475
Note: Backstops Require Replacement						
Fencing Requires Replacement (4' Chain Link Fence)	Capital Renewal	168	LF	4	$10,788	2697
Note: Fence is rusted.						
	Sub Total for System	**8**	**items**		**$755,063**	
	Sub Total for School and Site Level	**8**	**items**		**$755,063**	

Building: 01 - Main Building

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Play Area Requires ADA Access	Functional Deficiency	1	Ea.	4	$2,833	2762
Note: Playground has no ADA access.						
	Sub Total for System	**1**	**items**		**$2,833**	

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	30,168	SF	2	$854,625	2758
Note: Shingles are lifting off of roof.						
The Metal Downspouts Require Installation or Replacement	Capital Renewal	10	LF	3	$633	2764
Location: South wing						
	Sub Total for System	**2**	**items**		**$855,257**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	1,508	SF	2	$44,899	3004
The Exterior Requires Painting (Bldg SF)	Capital Renewal	1,500	SF	4	$19,830	2777
Note: Repaint exterior wood.						
	Sub Total for System	**2**	**items**		**$64,729**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Doors Require Replacement	Capital Renewal	68	Door	3	$311,428	2759
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	44,498	SF	3	$399,183	2757
Note: Stained and damaged ceiling tiles.						
Ceiling Grid Requires Replacement	Capital Renewal	44,498	SF	4	$524,215	2669
Light Deterioration or Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	96	SF	4	$2,720	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	38	Ea.	4	$10,765	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	1,526	LF	4	$34,584	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	843	SF	4	$7,960	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	842	SF	4	$31,867	Rollup

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Handrails In The Stair Area Are Not ADA Compliant	Barrier to Accessibility	60	LF	4	$14,731	2760
Note: Stairwells do not have proper handrail extension at top and bottom of the stair.						
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$2,266	Rollup
Room lacks appropriate sound control.	Educational Adequacy	200	SF	5	$6,912	Rollup
	Sub Total for System	**11**	**items**		**$1,346,632**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Ductwork Requires Replacement (SF Basis)	Capital Renewal	10,000	SF	2	$146,022	2665
Note: Original ductwork in library and gym should be replaced.						
Replace Unit Vent	Capital Renewal	28	Ea.	2	$470,425	2661
Note: Original heating units.						
Steam/HW Unit Heater Requires Replacement	Capital Renewal	24	Ea.	2	$56,930	2663
The Steam/Hot Water Radiant Heater Requires Replacement	Capital Renewal	11	Ea.	2	$56,444	2662
Large HVAC Circulating Pump Requires Replacement	Capital Renewal	2	Ea.	3	$30,021	2664
Note: Original heating hot water pumps should be replaced.						
The Make Up Air Equipment Requires Replacement	Capital Renewal	4	Ea.	3	$63,170	2677
Note: Original units						
Exhaust Fan Ventilation Requires Replacement	Capital Renewal	8	Ea.	4	$21,277	2668
	Sub Total for System	**7**	**items**		**$844,288**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Distribution Panel Requires Replacement	Capital Renewal	1	Ea.	2	$25,496	2676
Note: Original Federal Pacific equipment should be replaced.						
The Electrical Transformer Requires Replacement	Capital Renewal	1	Ea.	2	$10,450	2670
Note: Original Federal Pacific equipment should be replaced.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$11,879	2671
Note: Original Federal Pacific equipment should be replaced.						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$19,264	2672
Note: Original Federal Pacific equipment should be replaced.						
The Panelboard Requires Replacement	Capital Renewal	5	Ea.	2	$28,801	2673
Note: Original Federal Pacific equipment should be replaced.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$7,649	2674
Note: Original Federal Pacific equipment should be replaced.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$6,232	2675
Note: Original Federal Pacific equipment should be replaced.						
The Panelboard Requires Replacement	Capital Renewal	2	Ea.	2	$23,758	2901
Room Has Insufficient Electrical Outlets	Educational Adequacy	12	Ea.	5	$5,915	Rollup
	Sub Total for System	**9**	**items**		**$139,444**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Showers Plumbing Fixtures Require Replacement	Capital Renewal	2	Ea.	3	$15,109	2660
Note: Original shower fixtures.						
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	9	Ea.	3	$11,881	2657
Note: Original urinal fixtures.						
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	5	Ea.	4	$50,756	2658
The Classroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	6	Ea.	4	$16,204	2659
Note: Kitchen sinks are original.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	3	Ea.	4	$7,677	2653
Note: Original mop sink.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	5	Ea.	4	$36,639	2654
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	32	Ea.	4	$101,108	2655
Note: Original restroom lavatories are leaking and should be replaced.						

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks a drinking fountain.	Educational Adequacy	3	Ea.	5	$3,286	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	3	Ea.	5	$3,537	Rollup
	Sub Total for System	**9**	**items**		**$246,197**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Kitchen Exhaust Hood	Capital Renewal	1	Ea.	1	$15,857	2666
Note: Original kitchen exhaust hood has no fire suppression and should be replaced.						
Replace Kitchen Exhaust Hood	Capital Renewal	1	Ea.	1	$15,857	2667
Wall Pack Lighting Requires Replacement	Capital Renewal	12	Ea.	1	$12,895	2678
Note: Battery backup lights are original and should be replaced.						
	Sub Total for System	**3**	**items**		**$44,608**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	9	Ea.	3	$50,992	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	24	Ea.	3	$11,332	3402
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	48	Ea.	3	$22,663	3406
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	1	Ea.	3	$472	3411
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	1	Ea.	3	$472	3416
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	46	Ea.	3	$434,376	3418
Technology: Instructional spaces do not have local sound reinforcement.	Technology	46	Ea.	3	$217,188	3421
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3404
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3409
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,288	3414
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$37,394	3403
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$44,948	3408
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$44,948	3413
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,394	3398
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$4,721	3407
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$4,721	3412
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$4,721	3417
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	3399
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	3401
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	92	Ea.	3	$39,094	3419

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Network system inadequate and/or near end of useful life	Technology	6	Ea.	3	$45,326	3422
Technology: Network system inadequate and/or near end of useful life	Technology	28	Ea.	3	$132,201	3423
Technology: Special Space AV/Multimedia system is inadequate.	Technology	2	Ea.	3	$107,650	3420
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3400
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3405
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3410
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,721	3415
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	69	Ea.	3	$104,250	3424
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,177	3425
	Sub Total for System	**29**	**items**		**$1,400,012**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	2	Ea.	3	$9,065	Rollup
	Sub Total for System	**1**	**items**		**$9,065**	
	Sub Total for Building 01 - Main Building	**74**	**items**		**$4,953,065**	

Building: 02 - Building 02

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	800	SF	2	$22,663	2763
Note: Shingles are deteriorating.						
	Sub Total for System	**1**	**items**		**$22,663**	
	Sub Total for Building 02 - Building 02	**1**	**items**		**$22,663**	
	Total for Campus	**83**	**items**		**$5,730,791**	

Metcalf School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Playfield Areas	ES Playgrounds		1	Ea.	$44,588	5
		Sub Total for System	**1**	**items**	**$44,588**	
		Sub Total for Building -	**1**	**items**	**$44,588**	

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet		26,000	SF	$565,661	4
Interior Swinging Doors	Wood		51	Door	$235,155	5
Interior Door Supplementary Components	Door Hardware		141	Door	$442,359	5
Tile Wall Finish	Ceramic Tile wall		3,771	SF	$83,891	5
Wall Painting and Coating	Painting/Staining (Bldg SF)		41,381	SF	$273,419	5
Flooring Treatment	Concrete Floor - Finished		754	SF	$9,817	5
Suspended Plaster and	Painted ceilings		30,922	SF	$129,349	5
Interior Swinging Doors	Steel		6	Door	$25,692	5
		Sub Total for System	**8**	**items**	**$1,765,342**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
HVAC Air Distribution	Ductwork (Bldg.SF)		15,000	SF	$220,517	5
Note:	New addition ductwork					
Heating System Supplementary Components	Controls - Pneumatic (Bldg.SF)		75,420	SF	$509,440	5
Decentralized Heating Equipment	Radiant Heater - Radiator Water		22	Ea.	$113,654	5
Decentralized Cooling	Window Units		6	Ea.	$20,033	5
Facility Hydronic Distribution	2-Pipe Water System (Hot)		75,420	SF	$581,352	5
		Sub Total for System	**5**	**items**	**$1,444,996**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wiring Devices	Electrical Disconnect		8	Ea.	$14,664	5
		Sub Total for System	**1**	**items**	**$14,664**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Gas Piping System (BldgSF)		75,420	SF	$1,632,945	4
Plumbing Fixtures	Lavatories		7	Ea.	$22,267	5
Plumbing Fixtures	Classroom Lavatories		21	Ea.	$57,099	5
Fuel Storage Tanks	Underground Fuel Oil StorageTank (15,000 Gal)		1	Ea.	$161,618	5
Note:	12,000 gallons					
Domestic Water Equipment	Water Heater - Gas - 100 Gallon		2	Ea.	$10,644	5
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)		75,420	SF	$606,821	5
		Sub Total for System	**6**	**items**	**$2,491,395**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		75,420	SF	$221,056	3
		Sub Total for System	**1**	**items**	**$221,056**	

Conveyances

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Elevators	Hydraulic (Passenger Elev)		1	Ea.	$285,209	5
		Sub Total for System	**1**	**items**	**$285,209**	

Specialties

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Casework	Lockers		438	Ea.	$215,490	5

Specialties

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Casework	Fixed Cabinetry		46	Room	$514,639	5
		Sub Total for System	**2**	**items**	**$730,129**	
		Sub Total for Building 01 - Main Building	**24**	**items**	**$6,952,790**	

Building: 02 - Building 02

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Entrance Doors	Steel - Insulated and Painted		1	Door	$6,417	5
Exterior Utility Doors	Overhead		2	Door	$73,584	5
		Sub Total for System	**2**	**items**	**$80,001**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)		800	SF	$5,286	5
		Sub Total for System	**1**	**items**	**$5,286**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Light Fixtures (Bldg SF)		800	SF	$4,753	5
		Sub Total for System	**1**	**items**	**$4,753**	
		Sub Total for Building 02 - Building 02	**4**	**items**	**$90,041**	
		Total for: Metcalf School	**29**	**items**	**$7,087,418**	

Supporting Photos

Site Aerial


Typical Classroom


Southeast Elevation


Damaged Asphalt Curbs


Art Room


Gymnasium


Cracked Asphalt Roadway


Parking Area

Dedication Plaque


Library


Cafeteria


Site Lighting


Restroom Fixtures And Finishes


West Elevation


Music Classroom


Typical Science Classroom


Band Room


North Elevation


Damaged Concrete Curbs


Cafetorium


Rusted Fencing


Hallway Finishes


Library


Worn Asphalt Paving

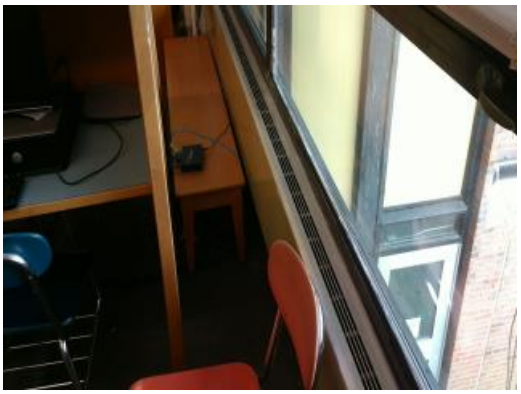

Shingle Roof


Original Corroded Mop Sink


Federal Pacific Panelboard


Rusting Ceiling Grid


Original Kitchen Sink


Original Radiant Heater


Aged Non-Refrigerated Drinking Fountain


Original Battery Backup Lights


No ADA Playground Access


Original Kitchen Exhaust Hood

Ceiling Grid Missing Pieces


Federal Pacific Transformer


Original Shower Fixture


Classroom Lavatory


Original Unit Heater


Emergency Lighting

Worn Kitchen Door

Damaged Refrigerated Drinking Fountain

Original Heating Hot Water Pumps

Original Restroom Lavatories

Sagging Ceiling Tiles

Original Urinal Fixtures


Original Heating Unit


Missing Downspouts


Original Make-up Air Unit

Deteriorating Shingle Roof


Building 02 Exterior


Site Generator

Playground Equipment

Facility Condition Assessment

Exeter-West Greenwich - Mildred E. Lineham School | *June 2017*

859 Nooseneck Hill Road, West Greenwich, RI 02817

Introduction

Mildred E. Lineham School, located at 859 Nooseneck Hill Road in West Greenwich, Rhode Island, was built in 1951. It comprises 17,800 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Mildred E. Lineham School serves grades PK - PK, has 7 instructional spaces, and has an enrollment of 57. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Mildred E. Lineham School is 120 with a resulting utilization of 48%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Mildred E. Lineham School the 5-year need is $2,437,042. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

Figure 1: Aerial view of Mildred E. Lineham School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Mildred E. Lineham School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	E.I.F.S. Exterior Wall
	Steel Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	EPDM Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Adhered Acoustical Ceiling Tiles
	Ceramic Tile Wall
	Interior Wall Painting
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	400 MBH Cast Iron Water Boiler
	Radiant Water Heater
	12 MBH Steam Unit Heater
	DDC Heating System Controls
	Pneumatic Heating System Controls

01 - Main Building:	Window Units
	1 HP or Smaller Pump
	2-Pipe Steam Hydronic Distribution System
	5 Ton DX Gas Roof Top Unit
	Roof Exhaust Fan

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	1,000 Gallon Water Storage Tank
	Gas Piping System
	30 Gallon Electric Water Heater
	Domestic Water Piping System
	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Toilets
	Urinals
	2,000 Gallon Above Ground Fuel Oil Storage Tank

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	400 Amp Distribution Panel
	Panelboard - 120/240 100A
	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	-	$34,750	$69,827	$104,577	8.93 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$6,417	-	-	-	$6,417	0.55 %
Interior	-	-	$66,587	$4,061	-	$70,648	6.03 %
Mechanical	-	$199,716	-	$96,783	-	$296,500	25.31 %
Electrical	-	$105,765	-	-	$3,970	$109,735	9.37 %
Plumbing	-	-	$1,329	$42,369	$5,514	$49,212	4.20 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$525,156	-	-	$525,156	44.83 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$9,127	-	-	$9,127	0.78 %
Total	$0	$311,898	$602,198	$177,964	$79,312	$1,171,372	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$525,156
Mechanical	-	$296,500
Electrical	-	$109,735

The chart below represents the building systems and associated deficiency costs.

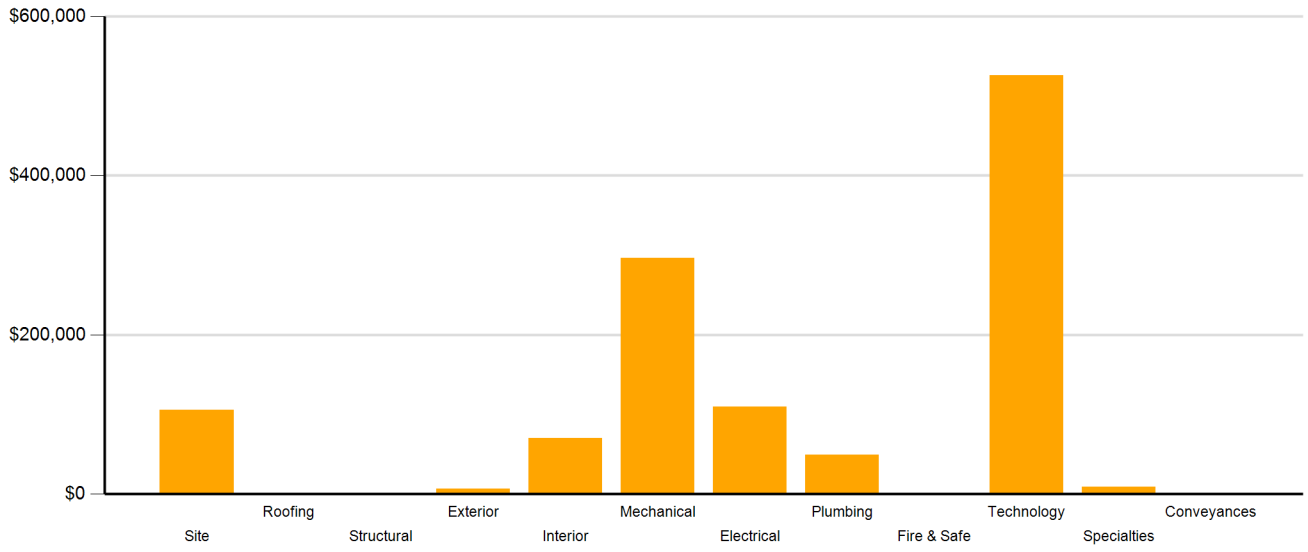


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$66,587	-	-	$66,587
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$311,898	$1,329	$145,573	-	$458,801
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$43,352	$28,329	$79,312	$150,992
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$4,061	-	$4,061
Technology	-	-	$490,930	-	-	$490,930
Traffic	-	-	-	-	-	$0
Total	$0	$311,898	$602,198	$177,964	$79,312	$1,171,372

**Displayed totals may not sum exactly due to mathematical rounding*

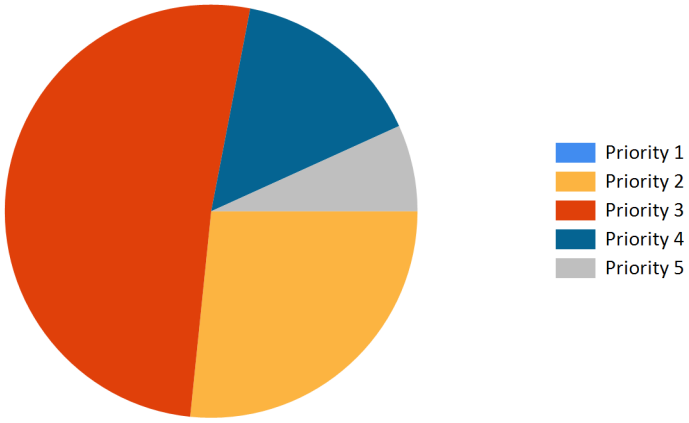


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$104,577	$0	$0	$99,256	$0	$16,352	$115,608	$220,186
Roofing	$0	$0	$0	$0	$0	$225,068	$225,068	$225,068
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$6,417	$0	$0	$220,330	$0	$190,377	$410,707	$417,124
Interior	$70,648	$0	$0	$105,850	$173,567	$231,164	$510,581	$581,229
Mechanical	$296,500	$0	$0	$0	$0	$0	$0	$296,500
Electrical	$109,735	$0	$0	$0	$0	$0	$0	$109,735
Plumbing	$49,212	$0	$0	$0	$0	$1,867	$1,867	$51,079
Fire and Life Safety	$0	$0	$0	$0	$0	$0	$0	$0
Technology	$525,156	$0	$0	$0	$0	$0	$0	$525,156
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$9,127	$0	$0	$0	$0	$0	$0	$9,127
Total	**$1,171,372**	**$0**	**$0**	**$425,436**	**$173,567**	**$664,828**	**$1,263,831**	**$2,435,203**

**Displayed totals may not sum exactly due to mathematical rounding*

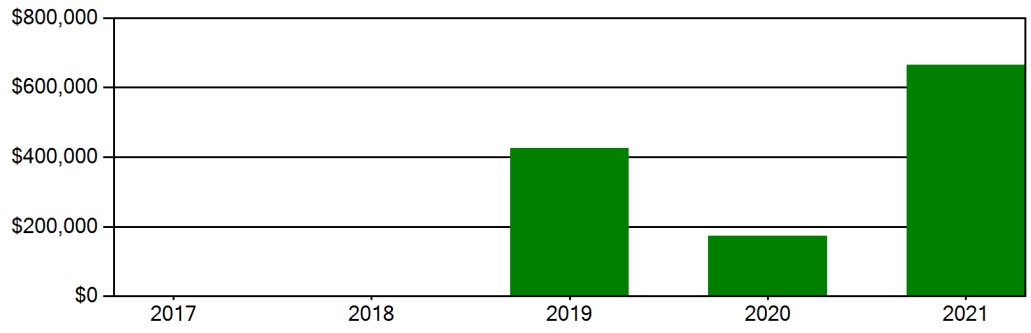
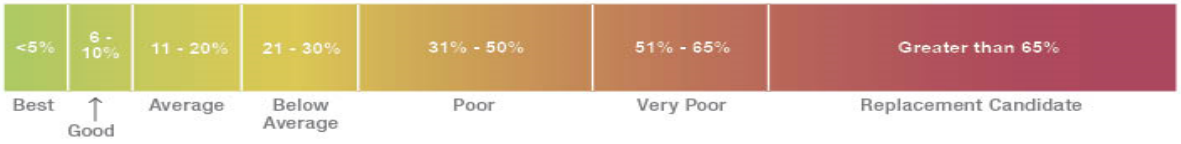


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $6,230,000. For planning purposes, the total 5-year need at the Mildred E. Lineham School is $2,437,042 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Mildred E. Lineham School facility has a 5-year FCI of 39.09%.

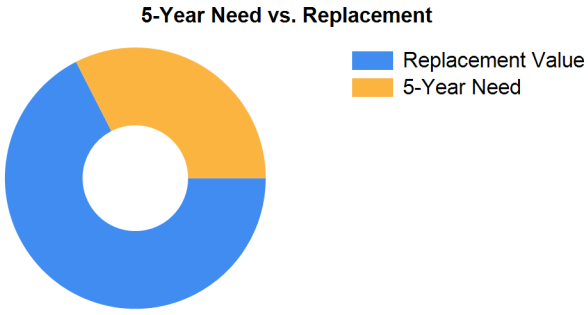


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 99 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Mildred E. Lineham School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $459,270.

Summary of Findings

The Mildred E. Lineham School comprises 17,800 square feet and was constructed in 1951. Current deficiencies at this school total $1,173,211. Five year capital renewal costs total $1,263,831. The total identified need for the Mildred E. Lineham School (current deficiencies and 5-year capital renewal costs) is $2,437,042. The 5-year FCI is 39.09%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Mildred E. Lineham School Totals	17,800	1951	$1,173,211	$1,263,831	$2,437,042	39.09%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28473
Note: Backstops Require Replacement						
Fencing Requires Replacement (4' Chain Link Fence)	Capital Renewal	100	LF	4	$6,421	1021
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28739
Note: Exterior Basketball Goals are Required						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$64,020	54892
Note: PE / Recess Playfield is Missing and is Needed						
	Sub Total for System	**4**	**items**		**$104,577**	
	Sub Total for School and Site Level	**4**	**items**		**$104,577**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	1016
Note: Connecting corridor east side door does not close properly.						
	Sub Total for System	**1**	**items**		**$6,417**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation	Acoustics	8	Ea.	3	$66,587	4709
Note: All classroom						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	4	Ea.	4	$1,141	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	128	LF	4	$2,921	Rollup
	Sub Total for System	**3**	**items**		**$70,648**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Cast Iron Water Boiler Requires Replacement	Capital Renewal	2	Ea.	2	$62,510	1012
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	17,800	SF	2	$137,206	1816
Note: Original to building						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	8,900	SF	4	$36,667	1826
Note: Controls are approximately half DDC, half pneumatic. School has been having issues and all should be replaced.						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	8,900	SF	4	$60,117	4500
	Sub Total for System	**4**	**items**		**$296,500**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	17,800	SF	2	$105,765	1014
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$3,970	Rollup
	Sub Total for System	**2**	**items**		**$109,735**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	1	Ea.	3	$1,329	1017
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	1	Ea.	4	$7,377	1018
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	11	Ea.	4	$34,991	1015
Room lacks a drinking fountain.	Educational Adequacy	5	Ea.	5	$5,514	Rollup
	Sub Total for System	**4**	**items**		**$49,212**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	6	Ea.	3	$34,225	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	96	Ea.	3	$45,633	3375
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	10	Ea.	3	$199,646	3377
Technology: Instructional spaces do not have local sound reinforcement.	Technology	5	Ea.	3	$23,767	3376
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	3373
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$50,197	3372
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	15	Ea.	3	$6,417	3378
Technology: Network system inadequate and/or near end of useful life	Technology	2	Ea.	3	$15,211	3383
Technology: Network system inadequate and/or near end of useful life	Technology	6	Ea.	3	$28,521	3384
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	17,800	SF	3	$30,460	3380
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$54,190	3379
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	3374
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	12	Ea.	3	$18,253	3381
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	3382
	Sub Total for System	**14**	**items**		**$525,156**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	2	Ea.	3	$9,127	Rollup
	Sub Total for System	**1**	**items**		**$9,127**	
	Sub Total for Building 01 - Main Building	**29**	**items**		**$1,066,794**	
	Total for Campus	**33**	**items**		**$1,171,372**	

Mildred E. Lineham School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Roadway Pavement	Asphalt		30	CAR	$99,256	3
Pedestrian Pavement	Sidewalks - Concrete		800	SF	$16,352	5
		Sub Total for System	**2**	**items**	**$115,607**	
		Sub Total for Building -	**2**	**items**	**$115,607**	

Building: 01 - Main Building

Roofing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Low-Slope Roofing	EPDM - Rubber Roofing Material		17,800	SF	$225,068	5
		Sub Total for System	**1**	**items**	**$225,068**	

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	E.I.F.S. - Bldg SF basis		10,680	SF	$220,330	3
Exterior Operating Windows	Steel - Windows per SF		890	SF	$190,377	5
Note:	Basement windows					
		Sub Total for System	**2**	**items**	**$410,707**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)		16,020	SF	$105,850	3
Resilient Flooring	Vinyl Composition Tile Flooring		15,130	SF	$173,567	4
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles		16,910	SF	$152,725	5
Carpeting	Carpet		2,314	SF	$50,344	5
Acoustical Suspended Ceilings	Ceilings - Adhered acoustical tiles		890	SF	$9,651	5
Interior Swinging Doors	Wood		4	Door	$18,444	5
Note:	Half height doors					
		Sub Total for System	**6**	**items**	**$510,580**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Electric - 30 gallon		1	Ea.	$1,867	5
		Sub Total for System	**1**	**items**	**$1,867**	
		Sub Total for Building 01 - Main Building	**10**	**items**	**$1,148,222**	
		Total for: Mildred E. Lineham School	**12**	**items**	**$1,263,830**	

Supporting Photos

Site Aerial

Window Unit

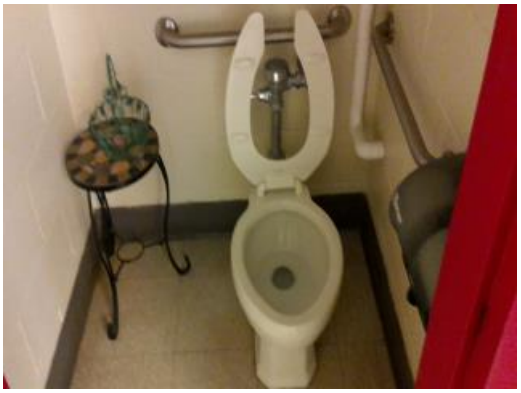
Typical Fluorescent Lighting

North Elevation


Typical Classroom


Building Mounted Lighting


Exterior Finishes


Typical Toilet Fixture


Library


Janitor Sink


Fuel Tank


Radiant Wall Heater


Aged Boiler


Fire Panel


Typical Urinal Fixture


Entry Unit Heater


Unit Heater

Restroom Finishes


Refrigerated Drinking Fountain

Marquee

Baseboard Heater


Gym

Typical Lavatory Fixture

Front Elevation

Exterior Door Not Closing Properly

Battery Operated Emergency Lighting

Facility Condition Assessment

Exeter-West Greenwich - Wawaloam School | *June 2017*

100 Victory Highway, Exeter, RI 02822

Introduction

Wawaloam School, located at 100 Victory Highway in Exeter, Rhode Island, was built in 1951. It comprises 40,300 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Wawaloam School serves grades KG - 2, has 27 instructional spaces, and has an enrollment of 313. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Wawaloam School is 380 with a resulting utilization of 82%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Wawaloam School the 5-year need is $3,061,427. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

Figure 1: Aerial view of Wawaloam School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Wawaloam School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	E.I.F.S. Exterior Wall
	Metal Panel Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	EPDM Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Interior Demountable Partitions
	Steel Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Vinyl/Fabric Wall Covering
	Interior Wall Painting
	Quarry Tile Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	400 MBH Cast Iron Steam Boiler
	1,275 MBH Cast Iron Water Boiler
	Radiant Water Heater
	12 MBH Steam Unit Heater
	DDC Heating System Controls
	Pneumatic Heating System Controls
	5 Ton Condensing Unit
	Window Units
	5 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	2,000 CFM Interior AHU
	Ductwork
	Roof Exhaust Fan
	4'x6' Ventilator/Relief Vent

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	52 Gallon Electric Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Air Compressor (5 hp)

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	800 Amp Switchgear
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$12,181	$227,386	$5,807	$245,375	11.43 %
Roofing	-	-	-	$724	-	$724	0.03 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$415,697	-	-	-	$415,697	19.37 %
Interior	-	-	$222,599	$86,950	$3,480	$313,029	14.58 %
Mechanical	-	$93,138	-	$276,495	-	$369,633	17.22 %
Electrical	-	-	-	-	$3,970	$3,970	0.18 %
Plumbing	-	-	$1,255	-	$33,338	$34,593	1.61 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$758,979	-	-	$758,979	35.36 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$4,563	-	-	$4,563	0.21 %
Total	$0	$508,835	$999,578	$591,556	$46,595	$2,146,564	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$758,979
Exterior	-	$415,697
Mechanical	-	$369,633

The chart below represents the building systems and associated deficiency costs.

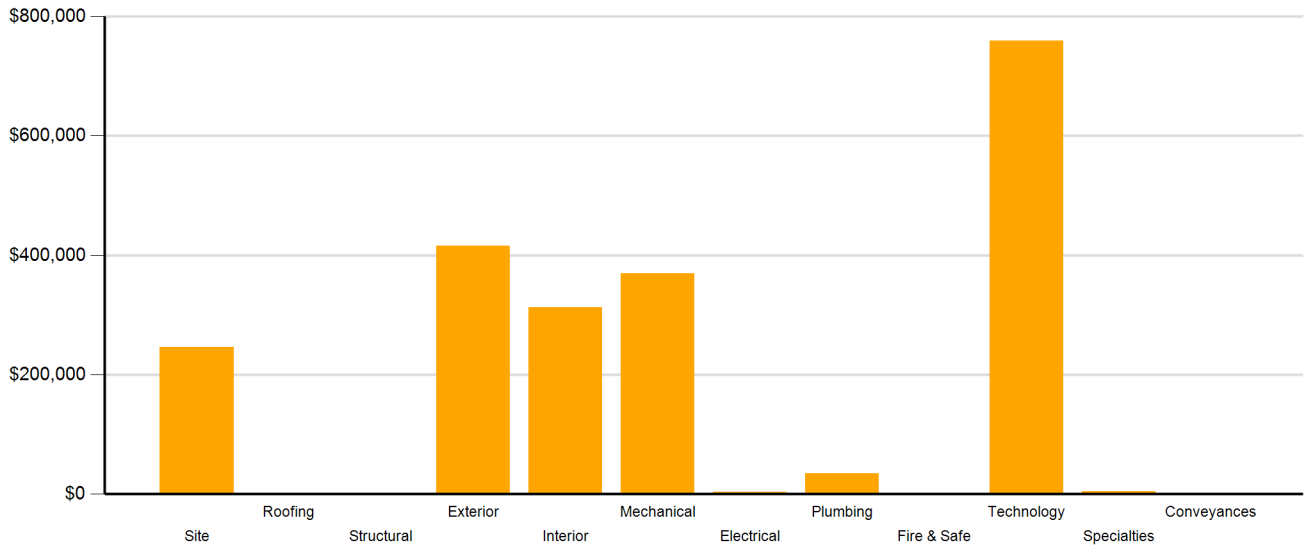


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$183,114	$47,844	-	$230,958
Barrier to Accessibility	-	-	$1,255	-	-	$1,255
Capital Renewal	-	$508,835	$51,667	$502,416	-	$1,062,917
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$50,197	$28,329	$46,595	$125,121
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$12,968	-	$12,968
Technology	-	-	$713,346	-	-	$713,346
Traffic	-	-	-	-	-	$0
Total	$0	$508,835	$999,578	$591,556	$46,595	$2,146,564

**Displayed totals may not sum exactly due to mathematical rounding*

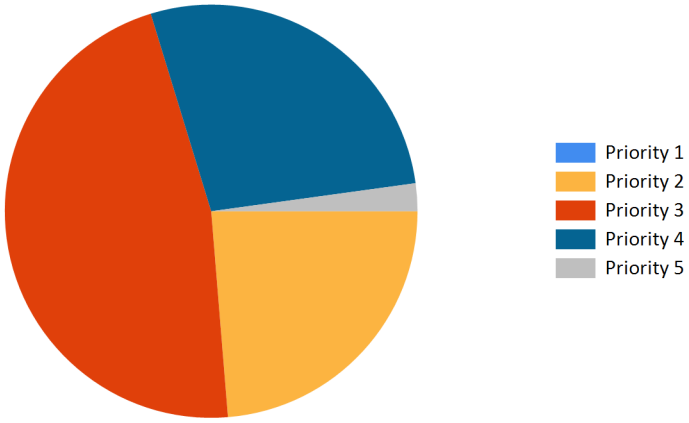


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$245,375	$0	$0	$162,118	$0	$0	$162,118	$407,493
Roofing	$724	$0	$0	$0	$0	$0	$0	$724
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$415,697	$0	$0	$0	$0	$54,152	$54,152	$469,849
Interior	$313,029	$247,637	$0	$0	$0	$33,716	$281,353	$594,382
Mechanical	$369,633	$0	$0	$0	$0	$0	$0	$369,633
Electrical	$3,970	$0	$0	$25,374	$0	$239,457	$264,831	$268,801
Plumbing	$34,593	$0	$0	$32,765	$0	$0	$32,765	$67,358
Fire and Life Safety	$0	$0	$0	$118,119	$0	$0	$118,119	$118,119
Technology	$758,979	$0	$0	$0	$0	$0	$0	$758,979
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$4,563	$0	$0	$0	$0	$0	$0	$4,563
Total	**$2,146,564**	**$247,637**	**$0**	**$338,376**	**$0**	**$327,325**	**$913,338**	**$3,059,902**

**Displayed totals may not sum exactly due to mathematical rounding*

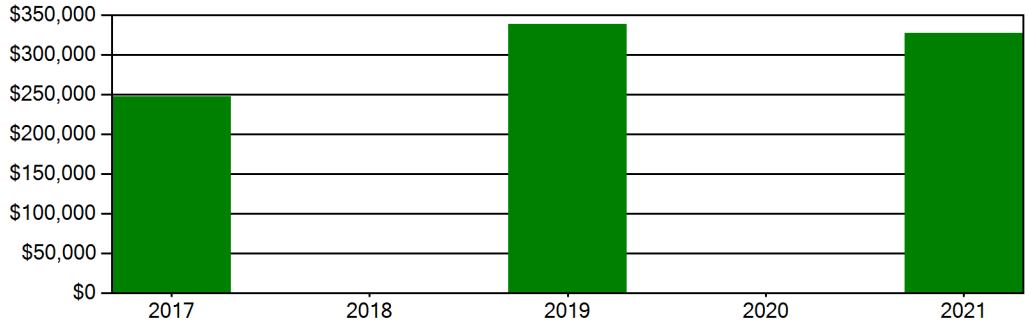
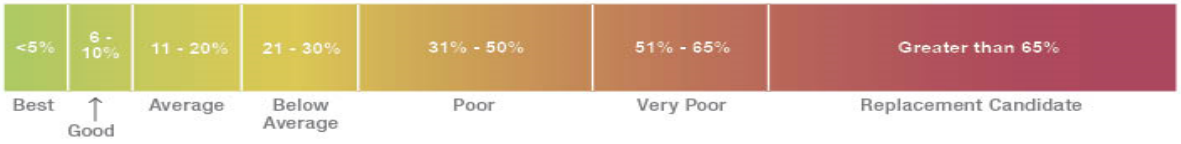


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $14,105,000. For planning purposes, the total 5-year need at the Wawaloam School is $3,061,427 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Wawaloam School facility has a 5-year FCI of 21.69%.

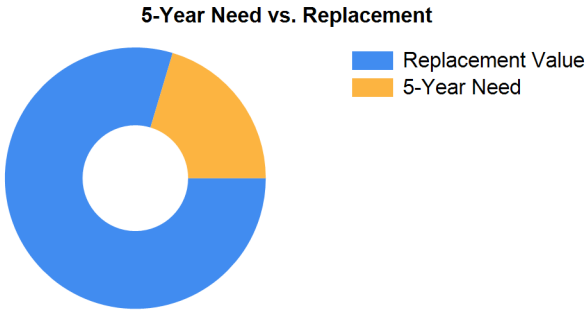


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 224 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Wawaloam School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $181,440.

Summary of Findings

The Wawaloam School comprises 40,300 square feet and was constructed in 1951. Current deficiencies at this school total $2,148,089. Five year capital renewal costs total $913,338. The total identified need for the Wawaloam School (current deficiencies and 5-year capital renewal costs) is $3,061,427. The 5-year FCI is 21.69%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Wawaloam School Totals	40,300	1951	$2,148,089	$913,338	$3,061,427	21.69%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Concrete Walks Require Replacement	Capital Renewal	600	SF	3	$12,181	964
Asphalt Paving Requires Replacement	Capital Renewal	68	CAR	4	$199,057	967
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28474
Note: Backstops Require Replacement						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28740
Note: Exterior Basketball Goals are Required						
	Sub Total for System	**4**	**items**		**$245,375**	
	Sub Total for School and Site Level	**4**	**items**		**$245,375**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Canopies Require Painting	Capital Renewal	60	SF	4	$724	998
Note: Columns, soffit and fascia at canopy on north entrance need paint						
	Sub Total for System	**1**	**items**		**$724**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The EIFS Exterior Requires Replacement (Bldg SF)	Capital Renewal	20,150	SF	2	$415,697	985
	Sub Total for System	**1**	**items**		**$415,697**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Classroom Entry Doors Provide Insufficient Sound Isolation	Acoustics	22	Ea.	3	$183,114	4745
Note: All classroom						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	3,442	SF	3	$39,486	980
Note: Corridor VCT in1998 addition needs replacing						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	17	Ea.	4	$4,849	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	200	LF	4	$4,563	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	374	SF	4	$3,556	Rollup
Room Is Excessively Reverberant	Acoustics	1,500	SF	4	$13,048	4746
Note: Gym						
Room Is Excessively Reverberant	Acoustics	4,000	SF	4	$34,796	4747
Note: Cafeteria						
The Stone/Quarry Flooring Requires Replacement	Capital Renewal	574	SF	4	$26,139	978
Note: Quarry tile in original boys and girls toilet rooms						
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	$3,480	Rollup
	Sub Total for System	**9**	**items**		**$313,029**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Steam/HW Unit Heater Requires Replacement	Capital Renewal	32	Ea.	2	$76,421	961
Steam/HW Unit Heater Requires Replacement	Capital Renewal	7	Ea.	2	$16,717	963
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	20,150	SF	4	$121,328	1840
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	20,150	SF	4	$136,107	1841
Note: Replace pneumatic controls with new DDC controls.						
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	2	Ea.	4	$19,060	954
	Sub Total for System	**5**	**items**		**$369,633**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	8	Ea.	5	$3,970	Rollup
	Sub Total for System	**1**	**items**		**$3,970**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Restroom Grab Bars Are Not ADA Compliant	Barrier to Accessibility	2	Ea.	3	$1,255	979
Note: Girls toilet rooms missing grab bars only						
Room lacks a drinking fountain.	Educational Adequacy	21	Ea.	5	$23,159	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	10	Ea.	5	$10,179	Rollup
	Sub Total for System	**3**	**items**		**$34,593**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	8	Ea.	3	$45,633	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	72	Ea.	3	$34,225	3388
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	23	Ea.	3	$218,660	3392
Technology: Instructional spaces do not have local sound reinforcement.	Technology	22	Ea.	3	$104,577	3391
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	3386
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$50,197	3385
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	100	Ea.	3	$42,781	3389
Technology: Network system inadequate and/or near end of useful life	Technology	1	Ea.	3	$7,606	3396
Technology: Network system inadequate and/or near end of useful life	Technology	13	Ea.	3	$61,795	3397
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	40,300	SF	3	$68,964	3393
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$54,190	3390
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	3387
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	34	Ea.	3	$51,718	3394
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	3395
	Sub Total for System	**14**	**items**		**$758,979**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	$4,563	Rollup
	Sub Total for System	**1**	**items**		**$4,563**	
	Sub Total for Building 01 - Main Building	**35**	**items**		**$1,901,190**	
	Total for Campus	**39**	**items**		**$2,146,564**	

Wawaloam School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Parking Lot Pavement	Asphalt		32	CAR	$105,873	3
Roadway Pavement	Asphalt		17	CAR	$56,245	3
		Sub Total for System	**2**	**items**	**$162,118**	
		Sub Total for Building -	**2**	**items**	**$162,118**	

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Operating Windows	Aluminum - Windows per SF		320	SF	$54,152	5
	Note: Original building; (20) 4x4					
		Sub Total for System	**1**	**items**	**$54,152**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)		37,479	SF	$247,637	1
Suspended Plaster and	Painted ceilings		8,060	SF	$33,716	5
		Sub Total for System	**2**	**items**	**$281,352**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)		17	Ea.	$25,374	3
Lighting Fixtures	Light Fixtures (Bldg SF)		40,300	SF	$239,457	5
		Sub Total for System	**2**	**items**	**$264,831**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain		4	Ea.	$29,510	3
Domestic Water Equipment	Water Heater - Electric - 52 gallon		1	Ea.	$3,255	3
	Note: 52 gallon electric water heater					
		Sub Total for System	**2**	**items**	**$32,765**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		40,300	SF	$118,119	3
		Sub Total for System	**1**	**items**	**$118,119**	
		Sub Total for Building 01 - Main Building	**8**	**items**	**$751,219**	
		Total for: Wawaloam School	**10**	**items**	**$913,336**	

Supporting Photos

Site Aerial

Hallway Finishes

Music Classroom

Exterior Finishes


Computer Lab


Original Boiler


Art Classroom


Compressor


Cafeteria


North Elevation


Hot Water Distribution Pump


Sidewalk At North Entrance


AHU In Gymnasium

Plaque


Separating VCT Flooring


Typical Restroom Fixtures

Chipped EIFS Wall

Restroom Finishes

Gymnasium

Urinals

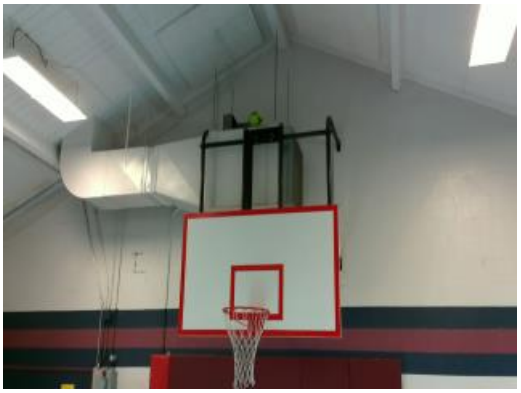
Ductwork For Exhaust

Front Elevation


Unit Heater


LED Lights


Playground


Gym Exhaust

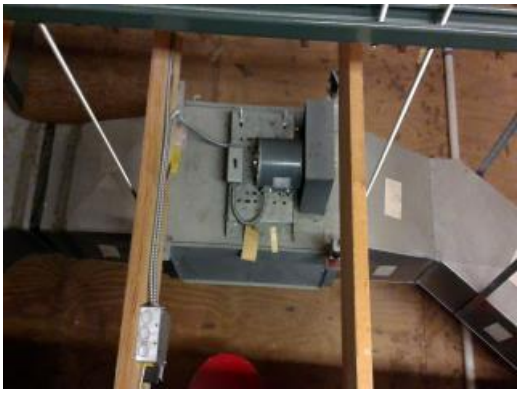

Cracked Asphalt Paving


Cafeteria Exposed Ceiling


New LED Parking Lights


Broken Quarry Tile Flooring


Older Building Lights


Exhaust System Ventilator For New Wing 4X


Blocked Vent


West Elevation


Refrigerated Drinking Fountain


Missing Grab Bars


Typical Classroom

Battery Operated Emergency Light


Office Air Handler With DX Coil And Heating Coil


Classroom Lavatory


Toilet


Art Room


Weathered Asphalt