Facility Condition Assessment

Westerly - Westerly High School | *June 2017*

23 Ward Avenue, Westerly, RI 02891

Introduction

Westerly High School, located at 23 Ward Avenue in Westerly, Rhode Island, was built in 1937. It comprises 227,838 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.

Westerly High School serves grades 9 - 12, has 60 instructional spaces, and has an enrollment of 851. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Westerly High School is 1,100 with a resulting utilization of 77%.

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 Westerly High School the 5-year need is $18,247,342. 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.

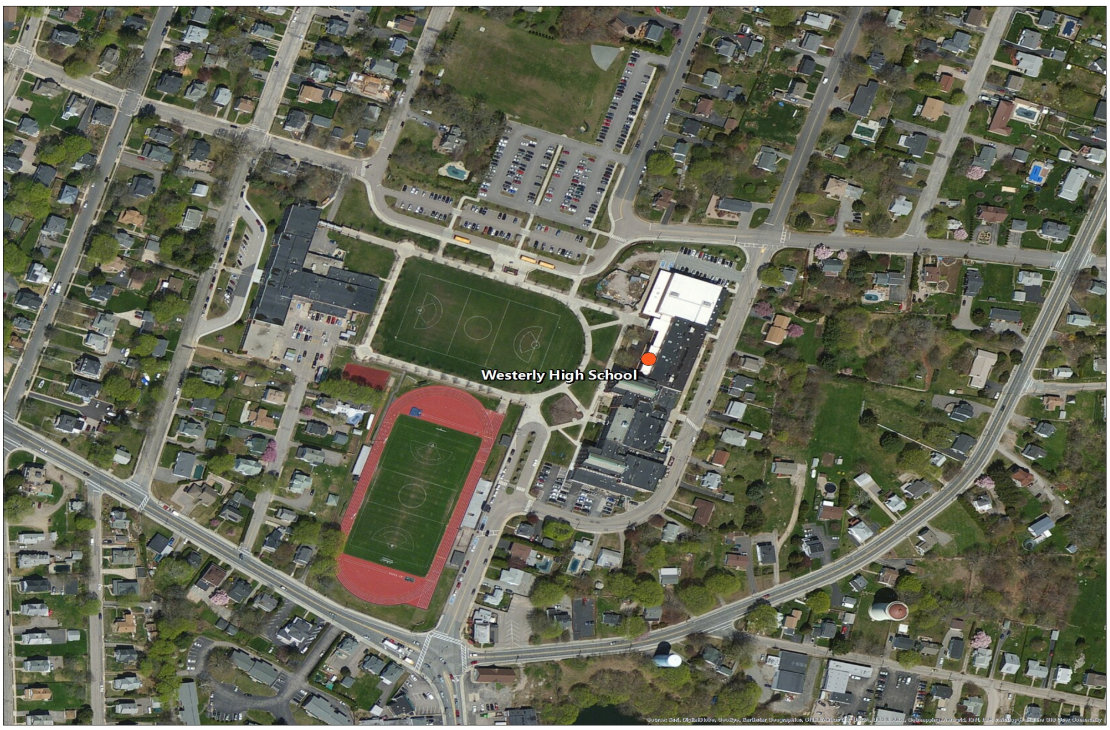

Figure 1: Aerial view of Westerly High School

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 Westerly 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
	Aluminum Exterior Windows
	Steel Exterior Entrance Doors
	Storefront Entrance Doors
	Wood Exterior Doors
	Overhead Exterior Utility Doors
02 - Field Light Shed:	CMU Exterior Wall
	Vinyl Siding Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
03 - New Bleachers/Press Box:	Metal Panel Exterior Wall
	Aluminum Exterior Windows
	Steel Exterior Entrance Doors
04 - Concession Stand:	CMU Exterior Wall
	Steel Exterior Entrance Doors

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

01 - Main Building:	Slate Roofing
	EPDM Roofing
02 - Field Light Shed:	Composition Shingle Roofing
03 - New Bleachers/Press Box:	EPDM Roofing
04 - Concession Stand:	Composition Shingle Roofing

Interior

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

01 - Main Building:	Steel Interior Doors
	Aluminum/Glass Storefront Interior Doors
	Wood Interior Doors
	Overhead Interior Coiling Doors

01 - Main Building:	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Vinyl/Fabric Wall Covering
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Rubber Tile Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
	Carpet
02 - Field Light Shed:	Wood Ceilings
	CMU Wall
	Interior Wall Painting
	Concrete Flooring
03 - New Bleachers/Press Box:	Wood Interior Doors
	Interior Door Hardware
	Painted Ceilings
	Vinyl/Fabric Wall Covering
	Vinyl Composition Tile Flooring
04 - Concession Stand:	Wood Ceilings
	Interior Wall Painting
	Concrete Flooring

Mechanical

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

01 - Main Building:	400 MBH Cast Iron Water Boiler
	750 MBH Copper Tube Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	20 kW Electric Unit Heater
	20 MBH Steam Unit Heater
	250 MBH Steam Unit Heater
	Radiant Water Heater
	DDC Heating System Controls
	1 Ton Ductless Split System
	5 Ton Heat Pump
	2-Pipe Hot Water Hydronic Distribution System

01 - Main Building:	1 HP or Smaller Pump
	5 HP Pump
	25 HP Pump
	VAV Boxes / Terminal Device
	2,000 CFM Interior AHU
	5,000 CFM Outdoor AHU
	Ductwork
	Kitchen Exhaust Hoods
	Roof Exhaust Fan
	Fire Sprinkler System
03 - New Bleachers/Press Box:	20 kW Electric Unit Heater
04 - Concession Stand:	Kitchen Exhaust Hoods

Plumbing

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

01 - Main Building:	250 Gallon Water Storage Tank
	4" Backflow Preventers
	Gas Piping System
04 - Concession Stand:	40 Gallon Electric Water Heater
01 - Main Building:	Domestic Water Piping System
04 - Concession Stand:	Domestic Water Piping System
01 - Main Building:	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
04 - Concession Stand:	Lavatories
	Restroom Lavatories
	Toilets
01 - Main Building:	Air Compressor (1 hp)
	550 Gallon Above Ground Fuel Oil Storage Tank

Electrical

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

01 - Main Building:	
	480v Switch
	Automatic Transfer Switch
	1,200 Amp Switchgear
	3,000 Amp Switchgear
	600 Amp Switchgear

01 - Main Building:	225 KVA Transformer
	45 KVA Transformer
	500 KVA Transformer
	75 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 120/240 225A
	Panelboard - 277/480 100A
	Panelboard - 277/480 225A
	Panelboard - 277/480 400A
	Panelboard - 400+ Amps
	Electrical Disconnect
	Building Mounted Lighting Fixtures
	Light Fixtures
02 - Field Light Shed:	Panelboard - 120/208 400A
	Light Fixtures
03 - New Bleachers/Press Box:	Panelboard - 120/208 100A
	Light Fixtures
04 - Concession Stand:	Panelboard - 120/240 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	-	-	-	$497,857	$520,429	$1,018,287	13.65 %
Roofing	-	-	$41	-	-	$41	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	-	-	-	$0	0.00 %
Interior	-	-	$16,693	$808,893	$1,364,108	$2,189,694	29.36 %
Mechanical	-	$1,263,625	-	$109,929	-	$1,373,554	18.42 %
Electrical	-	$76,749	-	-	$104,188	$180,937	2.43 %
Plumbing	-	$3,688	$237,674	$31,472	$39,811	$312,646	4.19 %
Fire and Life Safety	$91,267	-	-	-	-	$91,267	1.22 %
Technology	-	-	$2,237,782	-	-	$2,237,782	30.00 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$18,253	$10,755	$25,669	$54,678	0.73 %
Total	$91,267	$1,344,062	$2,510,444	$1,458,906	$2,054,205	$7,458,885	

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

The building systems with the most need include:

Technology	-	$2,237,782
Interior	-	$2,189,694
Mechanical	-	$1,373,554

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

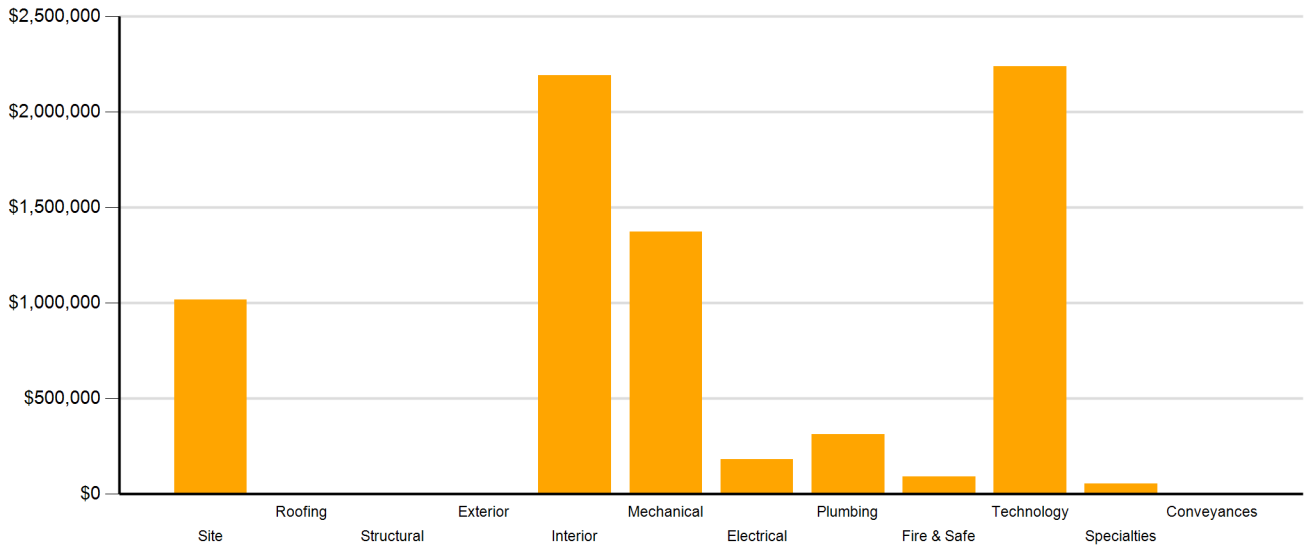

Figure 2: System Deficiencies

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	-	-	-	$315,479	-	$315,479
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$1,344,062	$254,408	$501,694	$1,360,589	$3,460,753
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	$91,267	-	$35,366	$184,983	$693,616	$1,005,232
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$456,750	-	$456,750
Technology	-	-	$2,220,670	-	-	$2,220,670
Traffic	-	-	-	-	-	$0
Total	$91,267	$1,344,062	$2,510,444	$1,458,906	$2,054,205	$7,458,885

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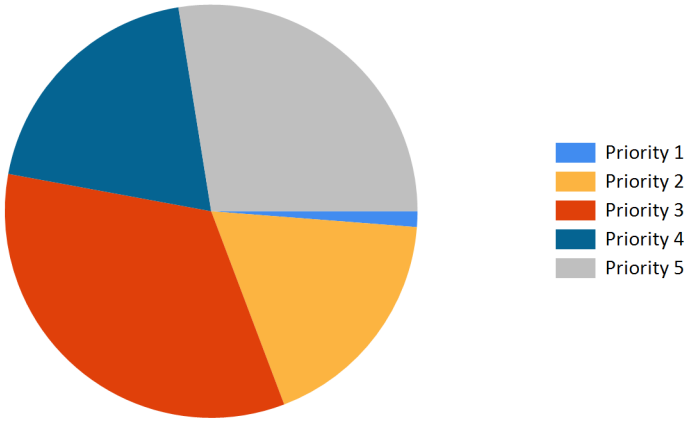

Figure 3: Current deficiencies by priority

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	$1,018,287	$0	$0	$3,630,646	$0	$510,990	$4,141,636	$5,159,923
Roofing	$41	$0	$0	$0	$0	$0	$0	$41
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$0	$0	$0	$33,293	$0	$0	$33,293	$33,293
Interior	$2,189,694	$0	$971,660	$11,550	$1,010,965	$2,016,056	$4,010,231	$6,199,925
Mechanical	$1,373,554	$0	$0	$141,159	$1,380,275	$78,062	$1,599,496	$2,973,050
Electrical	$180,937	$0	$0	$0	$0	$69,059	$69,059	$249,996
Plumbing	$312,646	$0	$0	$0	$0	$59,019	$59,019	$371,665
Fire and Life Safety	$91,267	$0	$0	$0	$0	$0	$0	$91,267
Technology	$2,237,782	$0	$0	$0	$0	$0	$0	$2,237,782
Conveyances	$0	$0	$0	$0	$0	$285,209	$285,209	$285,209
Specialties	$54,678	$0	$0	$0	$0	$590,383	$590,383	$645,061
Total	**$7,458,885**	**$0**	**$971,660**	**$3,816,648**	**$2,391,240**	**$3,608,778**	**$10,788,326**	**$18,247,211**

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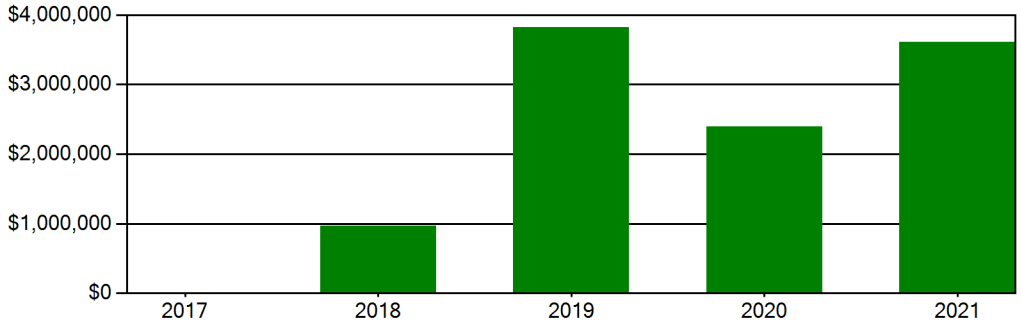
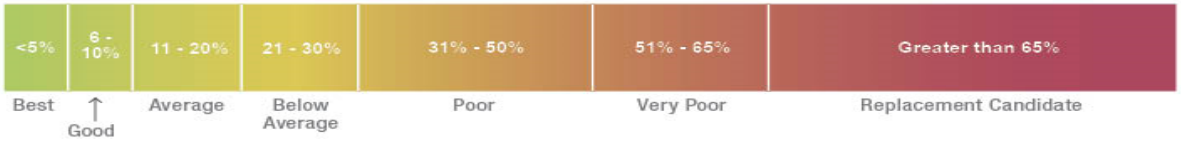


Figure 4: Life Cycle Capital Renewal Forecast

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 $82,021,680. For planning purposes, the total 5-year need at the Westerly High School is $18,247,342 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Westerly High School facility has a 5-year FCI of 22.25%.

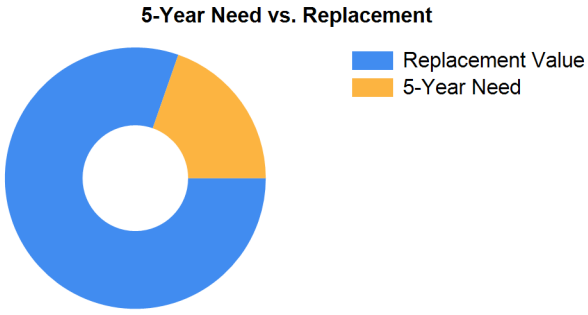


Figure 5: 5-Year FCI

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 1,232 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 Westerly High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $1,796,145.

Summary of Findings

The Westerly High School comprises 227,838 square feet and was constructed in 1937. Current deficiencies at this school total $7,459,016. Five year capital renewal costs total $10,788,326. The total identified need for the Westerly High School (current deficiencies and 5-year capital renewal costs) is $18,247,342. The 5-year FCI is 22.25%.

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
Westerly High School Totals	227,838	1937	$7,459,016	$10,788,326	$18,247,342	22.25%

**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.

LEA Feedback

As part of the assessment process, LEAs were given several opportunities to provide feedback on the data. Jacobs performed a thorough review of the comments provided relating to the Facilities Condition Assessment. Based on information provided, some adjustments were made to improve or refine the dataset. In other situations, enough information was not provided, item was out of scope, or evidence provided by assessment team did not align with the feedback and no adjustment was made. Finally, deficiency priorities, costs, and educational space/technology standards are consistent throughout the state.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Paving Requires Replacement	Capital Renewal	64	CAR	4	$210,319	2105
Note: Asphalt in the faculty, employee and visitors parking areas should be replaced.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28625
Note: Backstops Require Replacement						
Concrete Sidewalks Require Repair	Capital Renewal	150	LF	4	$259,209	2108
Note: Cracking in concrete walkways.						
School has insufficient # of tennis courts.	Educational Adequacy	1	Ea.	5	$161,597	29054
Note: School has insufficient # of tennis courts.						
School has insufficient baseball fields.	Educational Adequacy	1	Ea.	5	$207,745	28333
Note: School has insufficient baseball fields.						
School has insufficient softball fields.	Educational Adequacy	1	Ea.	5	$151,087	28376
Note: School has insufficient softball fields.						
	Sub Total for System	**6**	**items**		**$1,018,287**	
	Sub Total for School and Site Level	**6**	**items**		**$1,018,287**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Roof Drains Require Cleaning	Capital Renewal	1	Ea.	3	$41	2188
Note: The roof drain on the east side is clogged and needs to be cleaned.						
	Sub Total for System	**1**	**items**		**$41**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Rubber Flooring Requires Replacement	Capital Renewal	100	SF	3	$1,946	1944
Note: Seam in rubber tiled floor failing.						
Location: 1st W103 Science Room						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	100	SF	3	$2,797	2033
Note: The ceramic tile floor in the 2010 girl's locker room is severely cracked.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	1,000	SF	3	$11,950	2032
Location: Hallway staircase						
Asbestos 9x9 Tile is Present. Limited Areas of Lifting or Broken Tiles Exist	Hazardous Material	140	SF	4	$4,159	Rollup
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	775	Ea.	4	$230,247	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	950	LF	4	$22,579	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	17,000	SF	4	$168,353	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas (> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - square feet)	Hazardous Material	3,100	SF	4	$30,700	Rollup
Paint (probable pre-1978 in base layer(s)) -large areas(> 10 sq. ft.)of peeling/damage & area in active use-adults only (measurement unit - linear feet)	Hazardous Material	30	LF	4	$713	Rollup
Room Is Excessively Reverberant	Acoustics	10,800	SF	4	$251,341	27977
Location: Gym						
Room Is Excessively Reverberant	Acoustics	2,756	SF	4	$64,138	27978
Location: Cafeteria						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	944	SF	4	$35,970	Rollup
The Plaster Ceilings Require Replacement	Capital Renewal	100	SF	4	$693	1945
Note: Cafeteria ceiling requires repair where plywood is located.						
Interior Doors Require Repainting	Capital Renewal	9	Door	5	$633	2031
Location: Steel hallway doors on first floor						

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Walls Require Repainting	Capital Renewal	219,464	SF Wall	5	$1,347,491	2030
Room lacks appropriate sound control.	Educational Adequacy	300	SF	5	$10,439	Rollup
The Concrete Flooring Requires Repair Or Repainting	Capital Renewal	100	SF	5	$792	1948
Note: Crack in concrete outside of boy's locker room.						
The Exposed Ceilings Require Repainting	Capital Renewal	400	SF	5	$4,753	1947
Note: Formerly boiler room and now pump room outside of auditorium has paint flaking from the ceiling. Recommend to remove old paint and repaint.						
	Sub Total for System	**18**	**items**		**$2,189,694**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Electric Unit Heater Requires Replacement	Capital Renewal	3	Ea.	2	$12,683	2213
Location: Stair F, Floor 123						
Electric Unit Heater Requires Replacement	Capital Renewal	3	Ea.	2	$12,683	2319
Location: Stair F, Floors 1-3						
Outdoor Air Handler HVAC Component Required Replacement	Capital Renewal	5	Ea.	2	$742,732	2194
Note: Reznor units are breaking down and should be replaced. Unit on the middle roof has had fuses removed. Side panel is open which causes potential bird/rodent problem and heat loss.						
Outdoor Air Handler HVAC Component Required Replacement	Capital Renewal	3	Ea.	2	$445,639	2195
Note: Trane units are breaking down.						
Steam/HW Unit Heater Requires Replacement	Capital Renewal	6	Ea.	2	$17,600	1923
Location: Locker Rooms						
The Steam/Hot Water Radiant Heater Requires Replacement	Capital Renewal	6	Ea.	2	$32,288	2204
Note: Original to building; recommend replacing.						
Lab lacks an appropriate fume hood.	Educational Adequacy	5	Ea.	4	$109,929	Rollup
	Sub Total for System	**7**	**items**		**$1,373,554**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$5,051	1925
Note: Replace original panel; equipment is obsolete.						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$40,009	2316
Note: Panels outdated and should be updated to newer equipment.						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$20,202	2317
Note: Electrical panels in kitchen are outdated and obsolete.						
Remove Abandoned Equipment	Capital Renewal	2	Ea.	5	$6,920	2190
Note: Remove abandoned electrical equipment in attic and HVAC equipment on roof.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	196	Ea.	5	$97,268	Rollup
	Sub Total for System	**5**	**items**		**$169,449**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Showers Plumbing Fixtures Require Replacement	Capital Renewal	30	Ea.	3	$237,674	1922
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	6	Ea.	4	$16,102	2318
Note: Mop sinks are beginning to fail per custodians.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	2	Ea.	4	$15,370	1924
Note: Water fountains in locker rooms no longer work.						
Location: Locker Rooms						
Room lacks a drinking fountain.	Educational Adequacy	9	Ea.	5	$9,925	Rollup
Room lacks a private shower area.	Educational Adequacy	1	Ea.	5	$10,235	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	13	Ea.	5	$19,651	Rollup
	Sub Total for System	**6**	**items**		**$308,958**	

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	8	Ea.	1	$91,267	Rollup
	Sub Total for System	**1**	**items**		**$91,267**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	3	Ea.	3	$17,113	Rollup
Technology: Auditorium AV/Multimedia system is in need of minor improvements.	Technology	1	Room	3	$99,031	3677
Technology: Classroom AV/Multimedia systems are in need of improvements.	Technology	90	Ea.	3	$891,278	3671
Technology: Instructional spaces do not have local sound reinforcement.	Technology	90	Ea.	3	$445,639	3669
Technology: Intermediate Telecommunications Room ground system meets current industry standards/best practices.	Technology	1	Ea.	3	$6,932	3661
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$25,352	3664
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$17,429	3660
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$17,429	3663
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$17,429	3665
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$17,429	3666
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$17,429	3667
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$17,429	3668
Technology: Main Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$44,366	3662
Technology: Main Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$22,579	3659
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	180	Ea.	3	$80,215	3672
Technology: Network system inadequate and/or near end of useful life	Technology	10	Ea.	3	$79,225	3676
Technology: Special Space AV/Multimedia system is inadequate.	Technology	2	Ea.	3	$112,895	3673
Technology: Special Space AV/Multimedia systems are in need of minor improvements.	Technology	8	Room	3	$158,450	3670
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	90	Ea.	3	$142,605	3674
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,526	3675
	Sub Total for System	**20**	**items**		**$2,237,782**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	4	Ea.	3	$18,253	Rollup
Work Tables Are Required	Educational Adequacy	3	Ea.	4	$10,755	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	3	Ea.	5	$25,669	Rollup
	Sub Total for System	**3**	**items**		**$54,678**	
	Sub Total for Building 01 - Main Building	**61**	**items**		**$6,425,423**	

Building: 02 - Field Light Shed

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Branch Wiring Requires Replacement	Capital Renewal	500	SF	2	$1,857	2440

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	500	SF	2	$3,095	2441
Note: Update incandescent lights to LED.						
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$6,536	2313
Note: Panelboard is outdated.						
	Sub Total for System	**3**	**items**		**$11,488**	
	Sub Total for Building 02 - Field Light Shed	**3**	**items**		**$11,488**	

Building: 04 - Concession Stand

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Electric Water Heater Requires Replacement	Capital Renewal	1	Ea.	2	$3,688	2315
	Sub Total for System	**1**	**items**		**$3,688**	
	Sub Total for Building 04 - Concession Stand	**1**	**items**		**$3,688**	
	Total for Campus	**71**	**items**		**$7,458,885**	

Buildings with no reported deficiencies

03 - New Bleachers/Press Box

Westerly 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
Roadway Pavement	Asphalt		650	CAR	$2,150,538	3
Parking Lot Pavement	Asphalt		247	CAR	$817,205	3
Playfield Areas	HS Athletic Components		1	Ea.	$452,935	3
Fences and Gates	Fencing - Chain Link (4 Ft)		2,000	LF	$129,295	3
Fences and Gates	Fencing - Chain Link (8 Ft)		1,200	LF	$80,673	3
Pedestrian Pavement	Sidewalks - Concrete		25,000	SF	$510,990	5
		Sub Total for System	**6**	**items**	**$4,141,636**	
		Sub Total for Building -	**6**	**items**	**$4,141,636**	

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Entrance Doors	Wood		4	Door	$33,293	3
		Sub Total for System	**1**	**items**	**$33,293**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Door Supplementary Components	Door Hardware		29	Door	$90,982	2
Interior Swinging Doors	Wood		191	Door	$880,678	2
Interior Swinging Doors	Steel		1	Door	$4,282	3
Wood Flooring	Wood Flooring - All Types		27,500	SF	$912,431	4
Carpeting	Carpet		4,529	SF	$98,534	4
Resilient Flooring	Vinyl Composition Tile Flooring		175,741	SF	$2,016,056	5
		Sub Total for System	**6**	**items**	**$4,002,963**	

Mechanical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Decentralized Cooling	Ductless Split System (1 Ton)		10	Ea.	$141,159	3
Decentralized Heating Equipment	Heating Unit Vent - Steam/Hot water		80	Ea.	$1,353,184	4
Decentralized Heating Equipment	Unit Heater Steam/HW (250 MBH)		8	Ea.	$27,091	4
Exhaust Air	Roof Exhaust Fan		15	Ea.	$78,062	5
		Sub Total for System	**4**	**items**	**$1,599,496**	

Electrical

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Electrical Service	Switchgear - Main Dist Panel (1200 Amps)		1	Ea.	$69,059	5
		Sub Total for System	**1**	**items**	**$69,059**	

Plumbing

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain		8	Ea.	$59,019	5
		Sub Total for System	**1**	**items**	**$59,019**	

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		1,200	Ea.	$590,383	5
		Sub Total for System	**1**	**items**	**$590,383**	
		Sub Total for Building 01 - Main Building	**15**	**items**	**$6,639,422**	

Building: 02 - Field Light Shed

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	500	SF	$3,304	3
	Sub Total for System	**1**	**items**	**$3,304**	
	Sub Total for Building 02 - Field Light Shed	**1**	**items**	**$3,304**	

Building: 04 - Concession Stand

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	600	SF	$3,964	3
	Sub Total for System	**1**	**items**	**$3,964**	
	Sub Total for Building 04 - Concession Stand	**1**	**items**	**$3,964**	
	Total for: Westerly High School	**23**	**items**	**$10,788,327**	

Supporting Photos

Site Aerial

Main Building - Mop Sink

Main Building - Obsolete Panelboard

Cracked Concrete Walkway

Cracked Asphalt Paving

Building 02 - Exterior

Building 03 - Gypsum Ceiling

Main Building - Electrical Equipment In Attic

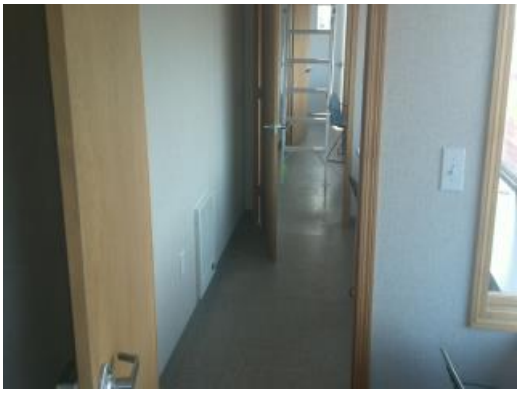
Main Building - Clogged Roof Drain

Main Building - Outdoor Air Handler


Main Building - Abandoned Equipment


Main Building - Original Radiant Heater

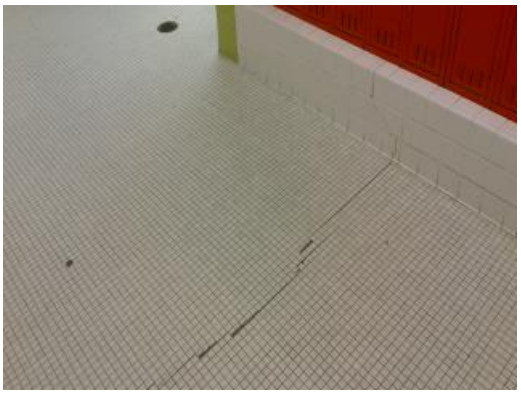

Main Building - Outdoor Air Handler


Building 03 - Interior Wood Doors


Building 04 - Exterior


Main Building - Worn Interior Metal Doors


Building 03 - Roofing


Main Building - Cracked Ceramic Tile Floor

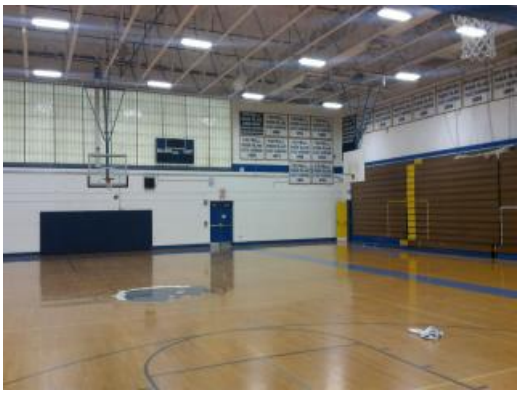

Main Building - Paint Peeling


Main Building - Wood Shop


Main Building - Damaged VCT


Main Building - Curling Floor Seam

Main Building - 1996 Plaque


Main Building - Gymnasium


Main Building - Abandoned Restroom

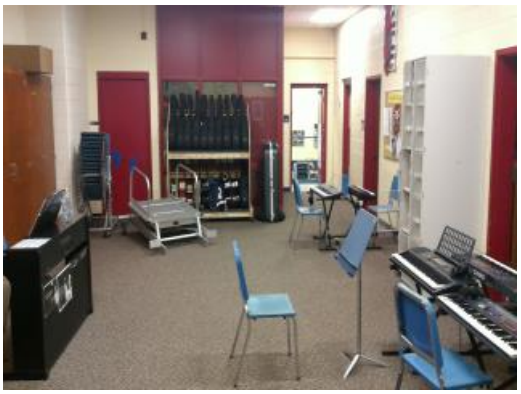

Main Building - Cafeteria

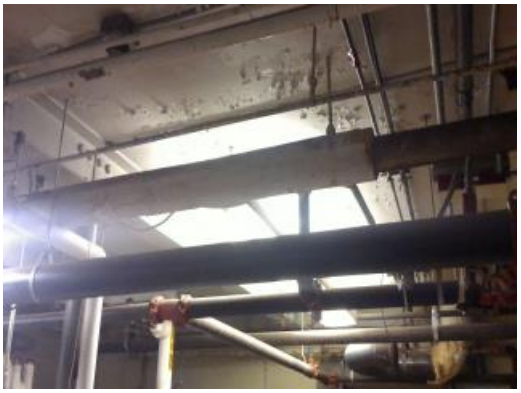

Main Building - Kitchen


Main Building - Gymnasium


Main Building - Cafeteria Ceiling


Main Building - Crack In Concrete Floor


Main Building - Music Room


Main Building - Damaged Ceiling In Boiler Room


Main Building - Science Classroom


Building 04 - Back Bathroom Area

Main Building - Auditorium

Building 04 - Back Bathroom ADA

Site - Signage

Building 04 - Concession Stand

Building 03 - Announcer Box

Building 03 - Press Box


Building 03 - VCT Flooring


Site - Elevation


Main Building - Electric Unit Heater


Main Building - Aged Panelboard


Building 02 - Exterior


Main Building - Library

Building 02 - Outdated Panelboard

Building 03 - Exterior Steel Door

Main Building - Building Signage

Main Building - Auditorium Seating

Building 03 - Exterior Door