Facility Condition Assessment

Central Falls - Central Falls Senior High School | *June 2017*

24 Summer Street, Central Falls, RI 02864

Introduction

Central Falls Senior High School, located at 24 Summer Street in Central Falls, Rhode Island, was built in 1927. It comprises 112,641 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.

Central Falls Senior High School serves grades 9 - 12, has 57 instructional spaces, and has an enrollment of 664. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Central Falls Senior High School is 693 with a resulting utilization of 96%.

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 Central Falls Senior High School the 5-year need is $18,895,863. 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 Central Falls Senior 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 Central Falls Senior 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
	E.I.F.S. Exterior Wall
	Aluminum Exterior Windows
	Steel Exterior Entrance Doors

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

01 - Main Building:	Built-Up Roofing With Ballast
	EPDM Roofing

Interior

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

01 - Main Building:	Foldable Interior Partition
	Steel Interior Doors
	Aluminum/Glass Storefront Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Adhered Acoustical Ceiling Tiles
	Painted Ceilings
	Ceramic Tile Wall
	Wood Wall Paneling
	Brick/Stone Veneer
	CMU Wall
	Interior Wall Painting
	Concrete Flooring
	Quarry Tile Flooring
	Wood Flooring

01 - Main Building:	Vinyl Composition Tile Flooring
	Carpet

Mechanical

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

01 - Main Building:	3,060 MBH Cast Iron Steam Boiler
	1,275 MBH Cast Iron Water Boiler
	Gas Heating Unit Vent
	Steam/Hot Water Heating Unit Vent
	Radiant Steam Heater
	10 kW Electric Unit Heater
	Electronic Heating System Controls
	3 Ton Ductless Split System
	3 Ton Inside Air Cooled Condenser
	Window Units
	Make-up Air Unit
	1 HP or Smaller Pump
	2-Pipe Steam Hydronic Distribution System
	2,000 CFM Interior AHU
	10,000 CFM Outdoor AHU
	8,000 CFM Energy Recovery Unit
	Kitchen Exhaust Hoods
	Roof Exhaust Fan
	Fire Sprinkler System

Plumbing

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

01 - Main Building:	100 Gallon Water Storage Tank
	250 Gallon Water Storage Tank
	Gas Piping System
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
	Sump Pump

Electrical

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

01 - Main Building:	1,200 Amp Switchgear
	45 KVA Transformer
	75 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Panelboard - 277/480 600A
	Electrical Disconnect
	Light Fixtures
	Building 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	-	-	$217,598	$61,606	$1,286,023	$1,565,228	9.07 %
Roofing	-	$1,441,890	-	-	-	$1,441,890	8.36 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$139,039	-	$1,699	-	$140,739	0.82 %
Interior	-	-	$2,190,972	$1,869,249	$544,633	$4,604,855	26.69 %
Mechanical	-	$2,164,941	$326,701	$568,693	-	$3,060,335	17.74 %
Electrical	-	$954,311	$9,702	-	$89,328	$1,053,341	6.11 %
Plumbing	-	-	$465,879	$331,398	$44,941	$842,218	4.88 %
Fire and Life Safety	$34,225	-	-	-	-	$34,225	0.20 %
Technology	-	-	$2,322,822	-	-	$2,322,822	13.47 %
Conveyances	-	-	$926,930	-	-	$926,930	5.37 %
Specialties	-	-	$615,703	$602,272	$39,359	$1,257,334	7.29 %
Total	$34,225	$4,700,182	$7,076,307	$3,434,918	$2,004,285	$17,249,917	

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

The building systems with the most need include:

Interior	-	$4,604,855
Mechanical	-	$3,060,335
Technology	-	$2,322,822

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

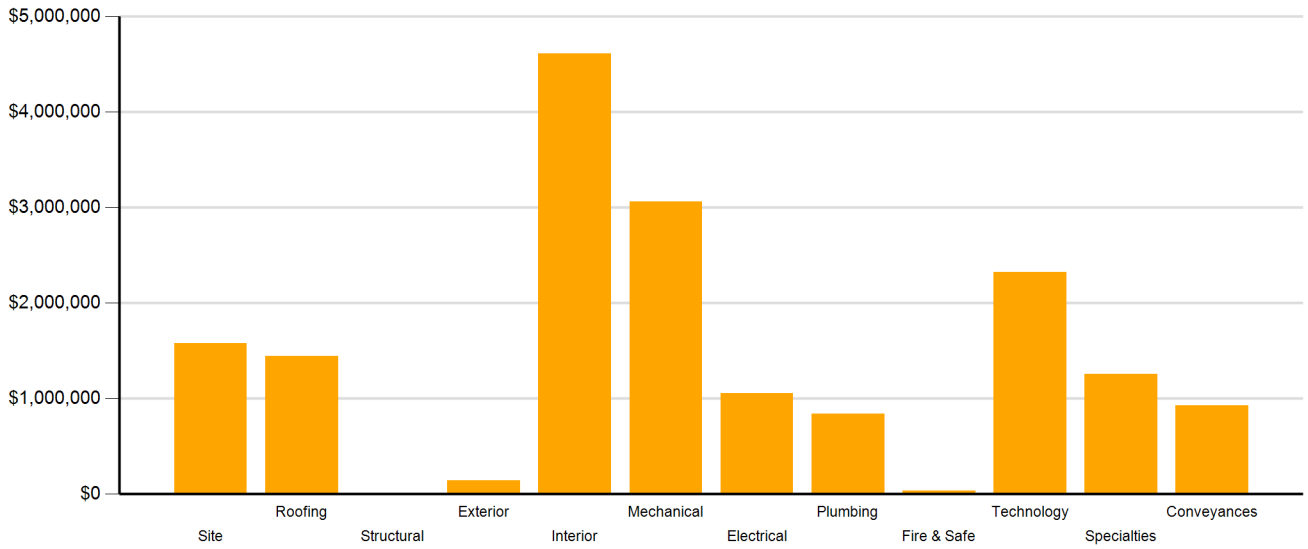

Figure 2: System Deficiencies

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	-	-	$240,579	-	-	$240,579
Barrier to Accessibility	-	-	$926,930	-	-	$926,930
Capital Renewal	-	$4,700,182	$3,357,555	$2,483,941	$493,239	$11,034,917
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	$34,225	-	$88,985	$754,717	$1,511,046	$2,388,973
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$196,260	-	$196,260
Technology	-	-	$2,265,780	-	-	$2,265,780
Traffic	-	-	$196,477	-	-	$196,477
Total	$34,225	$4,700,182	$7,076,307	$3,434,918	$2,004,285	$17,249,917

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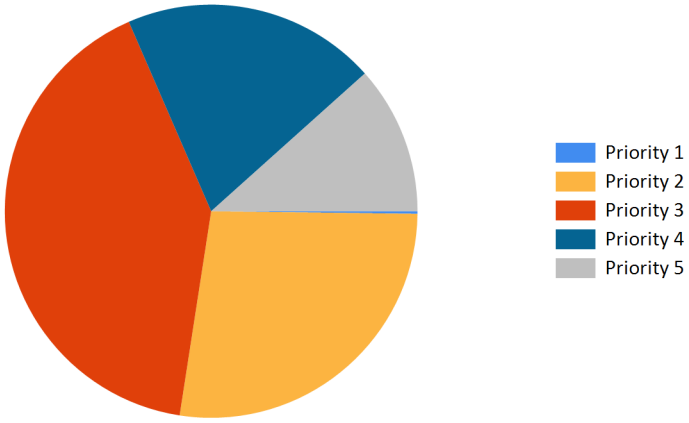

Figure 3: Current deficiencies by priority

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	$1,565,228	$0	$0	$0	$0	$900,875	$900,875	$2,466,103
Roofing	$1,441,890	$0	$0	$0	$0	$0	$0	$1,441,891
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$140,739	$0	$0	$162,669	$0	$0	$162,669	$303,408
Interior	$4,604,855	$0	$0	$70,677	$0	$333,713	$404,390	$5,009,245
Mechanical	$3,060,335	$0	$0	$4,951	$0	$143,955	$148,906	$3,209,242
Electrical	$1,053,341	$0	$0	$0	$0	$0	$0	$1,053,341
Plumbing	$842,218	$0	$0	$0	$0	$0	$0	$842,218
Fire and Life Safety	$34,225	$0	$0	$0	$0	$0	$0	$34,225
Technology	$2,322,822	$0	$0	$0	$0	$0	$0	$2,322,822
Conveyances	$926,930	$0	$0	$0	$0	$0	$0	$926,930
Specialties	$1,257,334	$0	$0	$0	$0	$0	$0	$1,257,335
Total	**$17,249,917**	**$0**	**$0**	**$238,297**	**$0**	**$1,378,543**	**$1,616,840**	**$18,866,757**

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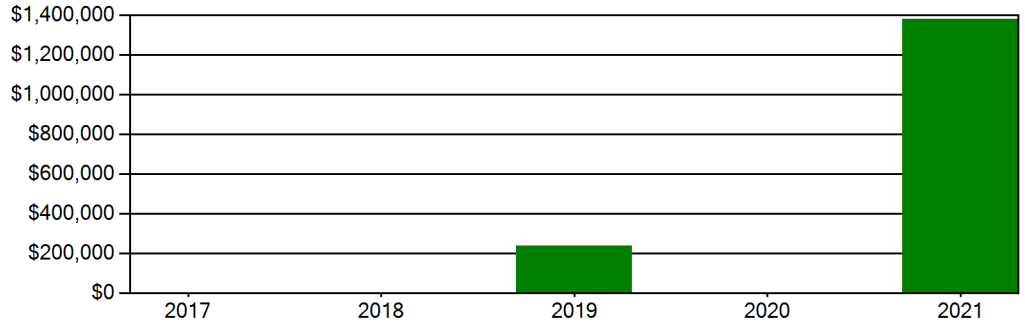
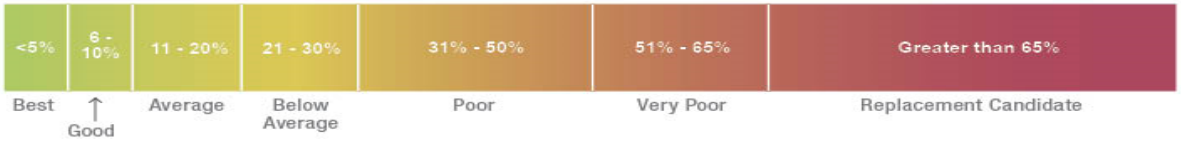


Figure 4: Life Cycle Capital Renewal Forecast

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 $40,766,760. For planning purposes, the total 5-year need at the Central Falls Senior High School is $18,895,863 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Central Falls Senior High School facility has a 5-year FCI of 46.28%.

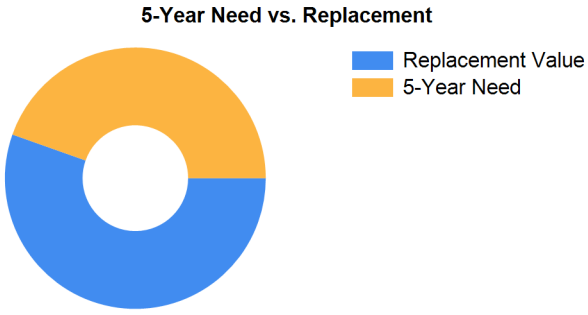


Figure 5: 5-Year FCI

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 552 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 Central Falls Senior High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $0.

Summary of Findings

The Central Falls Senior High School comprises 112,641 square feet and was constructed in 1927. Current deficiencies at this school total $17,279,023. Five year capital renewal costs total $1,616,840. The total identified need for the Central Falls Senior High School (current deficiencies and 5-year capital renewal costs) is $18,895,863. The 5-year FCI is 46.28%.

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
Central Falls Senior High School Totals	112,641	1927	$17,279,023	$1,616,840	$18,895,863	46.28%

**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
Concrete Walks Require Replacement	Capital Renewal	800	SF	3	$21,121	4361
Note: The sidewalks surrounding the school are cracked and pose a tripping hazard.						
Traffic Signage Is Required	Traffic	4	Ea.	3	$196,477	4470
Note: Add school zone speed zone signage along Summer Street and Illinois Street						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$36,840	28418
Note: Backstops Require Replacement						
Fencing Requires Replacement (8' Chain Link Fence)	Capital Renewal	150	LF	4	$13,025	3034
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$64,020	54864
Note: PE / Recess Playfield is Missing and is Needed						
School has insufficient # of tennis courts.	Educational Adequacy	1	Ea.	5	$210,145	28998
Note: School has insufficient # of tennis courts.						
School has insufficient baseball fields.	Educational Adequacy	1	Ea.	5	$270,156	28315
Note: School has insufficient baseball fields.						
School has insufficient football/soccer fields.	Educational Adequacy	1	Ea.	5	$122,798	28185
Note: School has insufficient football/soccer fields.						
School has insufficient softball fields.	Educational Adequacy	1	Ea.	5	$196,477	28357
Note: School has insufficient softball fields.						
School lacks a competition track.	Educational Adequacy	1	Ea.	5	$422,426	28228
Note: School lacks a competition track.						
	Sub Total for System	**10**	**items**		**$1,553,487**	
	Sub Total for School and Site Level	**10**	**items**		**$1,553,487**	

Building: 01 - Main Building

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Exterior Concrete Stairs Require Repair And Repainting	Capital Renewal	150	SF	4	$11,741	1940
Note: The main entrance stairs have worn through on the landing and pose a tripping hazard.						
	Sub Total for System	**1**	**items**		**$11,741**	

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Built-up Roofing With Aggregate Ballast Requires Replacement	Capital Renewal	35,000	SF	2	$1,441,890	2034
Note: This roof has not been resurfaced or replaced in recent years; only a small patch on one side of the 1973 addition was repaired recently and continues to leak. It may have exacerbated the issue by allowing water to leak under the ballast and membrane of the adjacent areas. Where the original building and addition meet shows signs of continuous water damage and leaks.						
	Sub Total for System	**1**	**items**		**$1,441,890**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	20	Door	2	$139,039	1926
Note: Exterior entrance doors are chipped and faded, with rust beginning to take hold.						
Handrail Requires Repainting	Capital Renewal	150	LF	4	$1,699	1939
Note: Exterior and interior handrails have chipped and faded paint.						
	Sub Total for System	**2**	**items**		**$140,739**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Doors Require Replacement	Capital Renewal	124	Door	3	$619,395	1927
Note: Interior doors are chipped, allow air to leak, and often stick.						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	61,953	SF	3	$606,164	1937
Note: Acoustic tiles throughout the facility show signs of roof leaks; they are stained, torn, flaking, and are often bulging out of the grid.						

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Carpet Flooring Requires Replacement	Capital Renewal	11,264	SF	3	$265,484	1931
Note: The carpet throughout the facility and particularly in the library is worn and buckling, creating a tripping hazard.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	56,320	SF	3	$699,929	1930
Note: The majority of the VCT in the facility is chipped, faded, and worn, with numerous cracks across the floors (particularly in the hallways).						
Adhered Acoustical Ceiling Tile Requires Replacement	Capital Renewal	5,632	SF	4	$66,162	1935
Note: The adhered ceiling tiles, particularly in the boys locker room, are falling off of the ceiling or are otherwise deficient.						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	610	LF	4	$12,565	Rollup
Ceiling Grid Requires Replacement	Capital Renewal	61,953	SF	4	$796,026	1934
Note: The grid system is original to the 1973 building in many places, and is stained and buckling.						
Glazing Putty is Broken or Deteriorating	Hazardous Material	920	LF	4	$18,951	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	180	Ea.	4	$55,616	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	192	LF	4	$4,746	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	5,240	SF	4	$53,968	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	2,579	SF	4	$26,562	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 - each)	Hazardous Material	11	Ea.	4	$3,399	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	40	LF	4	$989	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	17,109	SF	4	$651,920	Rollup
The Concrete Flooring Requires Replacement	Capital Renewal	11,264	SF	4	$158,881	1929
Note: Concrete floor is chipped and worn, particularly in the boys and girls locker rooms.						
Wall/ceiling materials - large areas (> 10 sq. ft.) of damage & area in active use - children	Hazardous Material	1,770	SF	4	$18,230	Rollup
Wall/ceiling materials -large areas (> 10 sq. ft.) of damage & area in active use-adults only	Hazardous Material	120	SF	4	$1,236	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	21	Ea.	5	$47,915	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	58,211	SF	5	$416,672	Rollup
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	$3,480	Rollup
The Gypsum Board Ceilings Require Repainting	Capital Renewal	16,896	SF	5	$76,567	Rollup
	Sub Total for System	**22**	**items**		**$4,604,855**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Boiler HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$369,075	2005
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	112,641	SF	2	$940,613	2037
Note: System is corroded and leaking.						
The Steam/Hot Water Radiant Heater Requires Replacement	Capital Renewal	147	Ea.	2	$822,699	1999
Note: Corrosion at connections and fins are clogged.						
The Window AC Unit Component Requires Replacement	Capital Renewal	9	Ea.	2	$32,554	2000
Note: Condenser fins are collapsed.						
The Make Up Air Equipment Requires Replacement	Capital Renewal	5	Ea.	3	$86,122	2003
Note: Blower shaft is bent and heat exchangers are rusted.						
Unit Ventilators Are Excessively Noisy	Acoustics	4	Ea.	3	$27,495	2008
Unit Ventilators Are Excessively Noisy	Acoustics	31	Ea.	3	$213,085	4647
Note: All classrooms						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	112,641	SF	4	$502,735	2149
Note: Numerous retrofit systems. All are inadequate.						
Lab lacks an appropriate fume hood.	Educational Adequacy	3	Ea.	4	$65,957	Rollup
	Sub Total for System	**9**	**items**		**$3,060,335**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Switchgear Is Needed Or Requires Replacement	Capital Renewal	2	Ea.	2	$149,627	1995
Note: Breakers are cracking and replacement parts are no longer manufactured.						

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Lighting Fixtures Require Replacement	Capital Renewal	112,641	SF	2	$725,071	2035
Note: Low efficiency units with water damage and rust.						
The Panelboard Requires Replacement	Capital Renewal	5	Ea.	2	$31,413	1993
Note: Panels are aged and cracking.						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$27,190	1994
Note: Breakers are aged and cracked.						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$21,010	2016
Note: Breakers no longer manufactured.						
The Mounted Building Lighting Requires Replacement	Capital Renewal	6	Ea.	3	$9,702	2038
Note: Existing lighting is broken and lighting is insufficient for parking lots and common areas.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	180	Ea.	5	$89,328	Rollup
	Sub Total for System	**7**	**items**		**$1,053,341**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Sump Pump Requires Replacement	Capital Renewal	1	Ea.	3	$1,570	2006
Note: Trash is piled around screen.						
The Sanitary Sewer Piping Requires Replacement	Capital Renewal	750	LF	3	$126,495	2014
Note: Drains are backing up and some areas appear to have collapsed.						
The Showers Plumbing Fixtures Require Replacement	Capital Renewal	41	Ea.	3	$337,814	2004
Note: Fixtures are corroded and drains are rusted.						
The Classroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	47	Ea.	4	$138,442	2002
Note: Fixtures and connections are old and corroded.						
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	9	Ea.	4	$25,120	2001
Note: Sinks are stained, corroded, and connections are leaking.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	21	Ea.	4	$167,836	1996
Note: Units are non-functional.						
Room lacks a drinking fountain.	Educational Adequacy	3	Ea.	5	$3,308	Rollup
Room lacks a private shower area.	Educational Adequacy	2	Ea.	5	$20,470	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	14	Ea.	5	$21,163	Rollup
	Sub Total for System	**9**	**items**		**$842,218**	

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	3	Ea.	1	$34,225	Rollup
	Sub Total for System	**1**	**items**		**$34,225**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	10	Ea.	3	$57,042	Rollup
Technology: Auditorium AV/Multimedia system is inadequate.	Technology	1	Room	3	$360,473	4172
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	480	Ea.	3	$247,181	4165
Technology: Campus wireless infrastructure inadequate.	Technology	60	Ea.	3	$86,513	4167
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	46	Ea.	3	$994,904	4168
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	1	Ea.	3	$5,768	4162
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$49,024	4161
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$5,150	4164

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$7,209	4160
Technology: Network system inadequate and/or near end of useful life	Technology	15	Ea.	3	$77,244	4159
Technology: Number of current, up to date, network switch ports are insufficient to support campus technology.	Technology	196	Ea.	3	$100,932	24942
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	112,641	SF	3	$208,821	4166
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$58,706	4169
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$58,706	4171
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$5,150	4163
	Sub Total for System	**15**	**items**		**$2,322,822**	

Conveyances

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Existing Building Elevator Is Not ADA Compliant	Barrier to Accessibility	3	Stop	3	$926,930	1938
Note: The passenger elevator door is less than 3' wide; it is unlikely a wheelchair could easily access the elevator. It also does not go to the third floor.						
	Sub Total for System	**1**	**items**		**$926,930**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Auditorium Seating Requires Replacement	Capital Renewal	436	Ea.	3	$583,760	1943
Note: The seats in the auditorium appear to be worn and should be replaced.						
Room has insufficient writing area.	Educational Adequacy	7	Ea.	3	$31,943	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	1,130	Ea.	4	$602,272	1932
Note: The lockers are old, dented, rusting, and generally worn.						
Room lacks an appropriate refrigerator.	Educational Adequacy	3	Ea.	5	$25,669	Rollup
The room lacks a washer and/or dryer.	Educational Adequacy	1	Ea.	5	$13,690	Rollup
	Sub Total for System	**5**	**items**		**$1,257,334**	
	Sub Total for Building 01 - Main Building	**73**	**items**		**$15,696,431**	
	Total for Campus	**83**	**items**		**$17,249,917**	

Buildings with no reported deficiencies

P-01 - Portable 01

Central Falls Senior 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	37	CAR	$122,415	5
Parking Lot Pavement	Asphalt	29	CAR	$95,947	5
Pedestrian Pavement	Sidewalks - Concrete	11,232	SF	$229,578	5
Playfield Areas	HS Athletic Components	1	Ea.	$452,935	5
	Sub Total for System	**4**	**items**	**$900,875**	
	Sub Total for Building -	**4**	**items**	**$900,875**	

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	E.I.F.S. - Bldg SF basis	7,885	SF	$162,669	3
	Sub Total for System	**1**	**items**	**$162,669**	

Interior

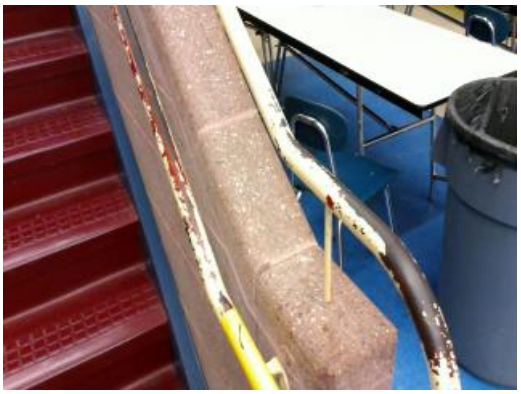
Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings	16,896	SF	$70,677	3
Interior Operable Partitions	Foldable partition (Bldg SF)	2,800	SF Wall	$323,427	5
Wall Paneling	Wood Panel wall	1,127	SF	$10,286	5
	Sub Total for System	**3**	**items**	**$404,390**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Decentralized Heating Equipment	Unit Heater Electric (10 KW)	2	Ea.	$4,951	3
Exhaust Air	Kitchen Exhaust Hoods	8	Ea.	$127,713	5
Decentralized Cooling	Condenser - Inside Air Cooled (3 ton)	2	Ea.	$16,242	5
	Sub Total for System	**3**	**items**	**$148,906**	
	Sub Total for Building 01 - Main Building	**7**	**items**	**$715,964**	
	Total for: Central Falls Senior High School	**11**	**items**	**$1,616,839**	

Supporting Photos

Site Aerial



Worn Cafeteria Handrail

2010 AHU

Worn Concrete Floor

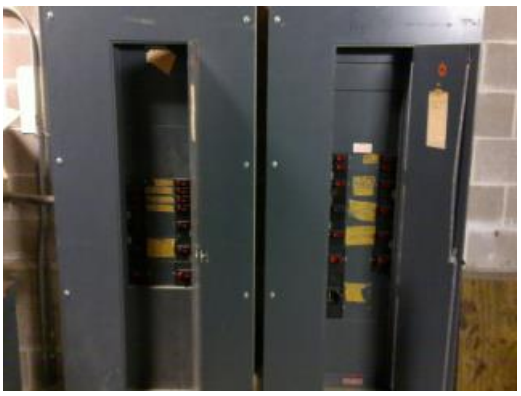

Aged Panelboard


Girls Locker Room


Fire Panel


Hole In Wall

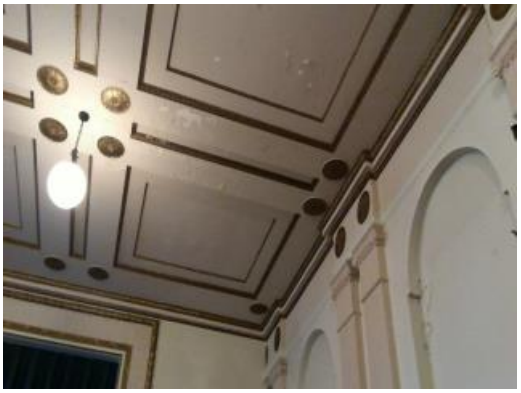

Chipped And Separating VCT


Aged Panelboards


Typical 1927 Classroom


Typical Science Classroom


Cracking And Peeling Painted Walls


Cracked Ceiling In Auditorium


Non-Functional Drinking Fountains

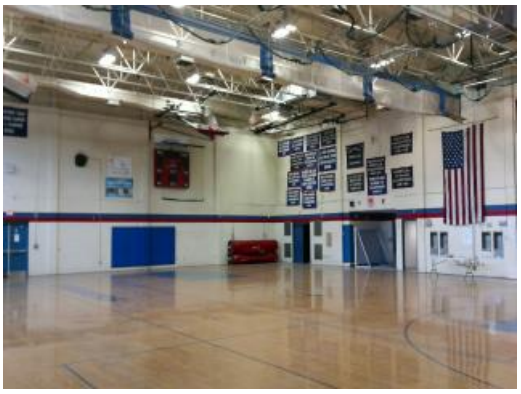

Library


1927 Building And 1973 Addition


Worn Concrete At Main Entrance Stairs


Auditorium


Typical 1973 Classroom


Gymnasium


Buckled Carpet In Library


Cracks In VCT


Non-Compliant Elevator Door


Worn Interior Door


Stained Grid System


Main Entrance


Typical Worn Lockers

Door Frame Separated From Wall

Typical Boys Restroom

Faded Exterior Doors

Hole In Gypsum Board Ceiling

Cracked Sidewalk

Fin Tube Heater

Stained And Broken Ceiling Tiles

Water Ponding On Roof

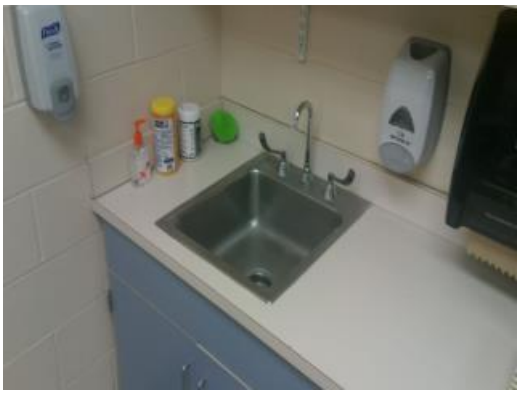
Failing Adhered Ceiling Tiles

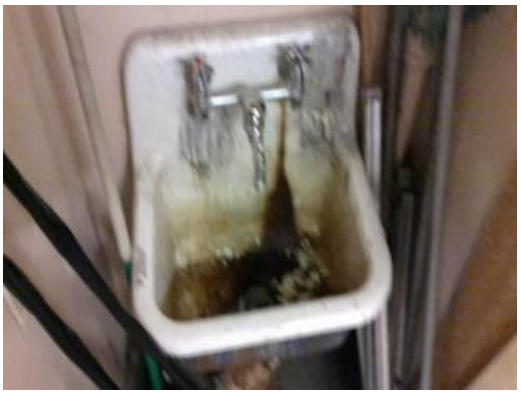
HVAC Controls For New Units

Cafeteria

Cafeteria AHU


Ponding On Roof


Classroom Lavatory


Corroded Mop Sink


1965 Boiler


Rusted Make-Up Air Unit