Facility Condition Assessment

Scituate - Scituate Middle School & High School | *June 2017*

94 Trimtown Road, North Scituate, RI 02857

Introduction

Scituate Middle School & High School, located at 94 Trimtown Road in North Scituate, Rhode Island, was built in 1956. It comprises 187,166 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.

Scituate Middle School & High School serves grades 6-12, has 67 instructional spaces, and has an enrollment of 804. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Scituate Middle School & High School is 1,075 with a resulting utilization of 75%.

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 Scituate Middle School & High School the 5-year need is $23,675,821. 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 Scituate Middle School & 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 Scituate Middle School & 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
	Glass Block Exterior Wall
	Metal Panel Exterior Wall
	Stucco Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
02 - Storage:	Metal Panel Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
03 - Public Works:	Metal Panel Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
04 - Pump House:	CMU Exterior Wall
	Steel Exterior Entrance Doors

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

01 - Main Building:	Single Ply Roofing
	Canopy Roofing
02 - Storage:	Metal Steep Slope Roofing
03 - Public Works:	Metal Steep Slope Roofing
04 - Pump House:	Composition Shingle Roofing

Interior

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

01 - Main Building:	Foldable Interior Partition
	Steel Interior Doors

01 - Main Building:	Wood Interior Doors
	Overhead Interior Coiling 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
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Rubber Tile Flooring
	Carpet
	Athletic/Sport Flooring
03 - Public Works:	Steel Interior Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Interior Wall Painting
	Concrete Flooring
	Carpet
04 - Pump House:	Non-Painted Plaster/Gypsum Board Ceiling
	CMU Wall
	Concrete Flooring

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
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	250 MBH Steam Unit Heater
	400 MBH Steam Unit Heater
	Radiant Water Heater
	DDC Heating System Controls
	1 Ton Ductless Split System
	Window Units
	10,000 CFM Energy Recovery Unit

01 - Main Building:	4,000 CFM Energy Recovery Unit
	1 HP or Smaller Pump
	5 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	2,000 CFM Interior AHU
	2,000 CFM Outdoor AHU
	10,000 CFM Outdoor AHU
	Ductwork
	Laboratory Fume Hood
	Large Roof Exhaust Fan
	Supply Fan
	Fire Sprinkler System
03 - Public Works:	320 MBH Gas Unit Heater
	Roof Exhaust Fan
04 - Pump House:	36 MBH Steam Unit Heater
	75 HP Pump

Plumbing

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

01 - Main Building:	250 Gallon Water Storage Tank
	500 Gallon Water Storage Tank
	2" Backflow Preventers
03 - Public Works:	Gas Piping System
01 - Main Building:	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
	Sump Pump
	10,000 Gallon Above Ground Fuel Oil Storage Tank
04 - Pump House:	275 Gallon Above Ground 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
	1,200 Amp Switchgear

01 - Main Building:	112.5 KVA Transformer
	500 KVA Transformer
	800 Amp Distribution Panel
	Panelboard - 120/208 100A
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Electrical Disconnect
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
	Light Fixtures
02 - Storage:	Panelboard - 120/208 225A
	Light Fixtures
03 - Public Works:	Panelboard - 120/208 225A
	Light Fixtures
04 - Pump House:	Electrical Disconnect
	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	-	-	$89,141	$28,329	$161,597	$279,068	3.32 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	-	-	$9,982	$9,982	0.12 %
Interior	-	-	$43,068	$211,789	$8,176	$263,033	3.13 %
Mechanical	-	$1,484,345	$570,538	$253,221	-	$2,308,104	27.48 %
Electrical	$5,649	$58,335	$85,563	-	$119,104	$268,650	3.20 %
Plumbing	-	-	$479,156	$22,132	$76,845	$578,133	6.88 %
Fire and Life Safety	$1,799,991	-	-	-	-	$1,799,991	21.43 %
Technology	-	-	$2,656,675	-	-	$2,656,675	31.63 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$18,253	$147,596	$68,450	$234,299	2.79 %
Total	$1,805,640	$1,542,679	$3,942,395	$663,066	$444,154	$8,397,935	

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

The building systems with the most need include:

Technology	-	$2,656,675
Mechanical	-	$2,308,104
Fire and Life Safety	-	$1,799,991

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

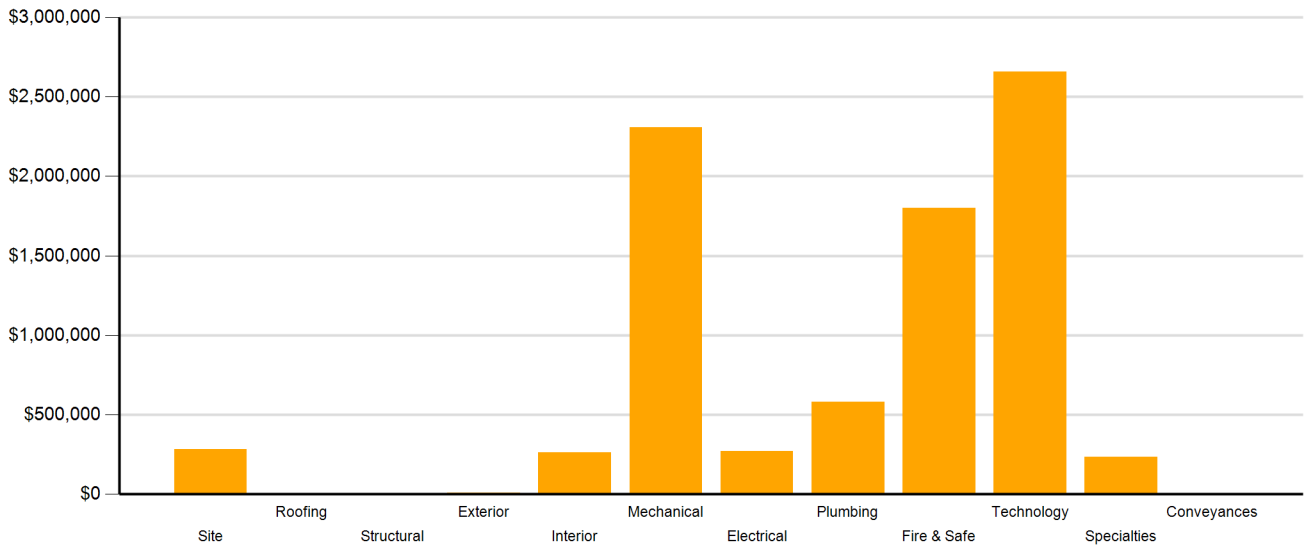

Figure 2: System Deficiencies

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	-	-	$475,871	-	-	$475,871
Barrier to Accessibility	-	-	$42,781	-	-	$42,781
Capital Renewal	-	$1,542,679	$574,110	$335,006	$11,313	$2,463,108
Code Compliance	$1,754,358	-	-	-	-	$1,754,358
Educational Adequacy	$51,282	-	$120,929	$243,920	$432,841	$848,972
Functional Deficiency	-	-	$85,563	-	-	$85,563
Hazardous Material	-	-	-	$84,141	-	$84,141
Technology	-	-	$2,554,000	-	-	$2,554,000
Traffic	-	-	$89,141	-	-	$89,141
Total	$1,805,640	$1,542,679	$3,942,395	$663,066	$444,154	$8,397,935

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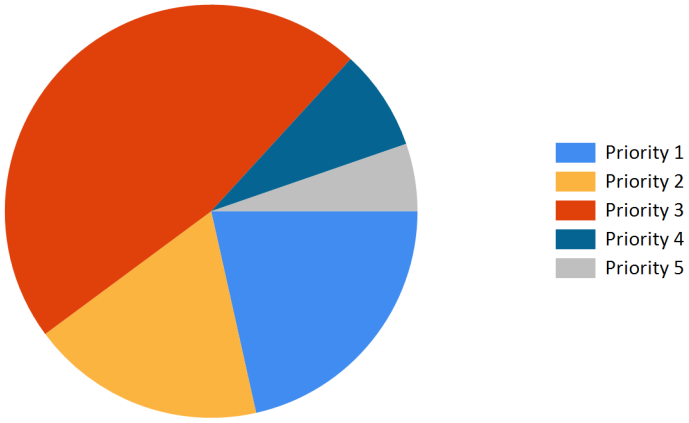

Figure 3: Current deficiencies by priority

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	$279,068	$0	$0	$0	$0	$1,552,632	$1,552,632	$1,831,700
Roofing	$0	$0	$0	$0	$1,411,785	$57,042	$1,468,827	$1,468,827
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$9,982	$0	$0	$0	$1,907,126	$914,501	$2,821,627	$2,831,609
Interior	$263,033	$0	$0	$33,037	$4,732,172	$3,237,924	$8,003,133	$8,266,166
Mechanical	$2,308,104	$0	$0	$0	$77,649	$380,455	$458,104	$2,766,208
Electrical	$268,650	$0	$0	$0	$138,117	$104,577	$242,694	$511,344
Plumbing	$578,133	$0	$0	$0	$0	$163,638	$163,638	$741,771
Fire and Life Safety	$1,799,991	$0	$0	$0	$0	$0	$0	$1,799,991
Technology	$2,656,675	$0	$0	$0	$0	$0	$0	$2,656,675
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$234,299	$0	$0	$0	$0	$556,888	$556,888	$791,187
Total	**$8,397,935**	**$0**	**$0**	**$33,037**	**$8,266,849**	**$6,967,657**	**$15,267,543**	**$23,665,478**

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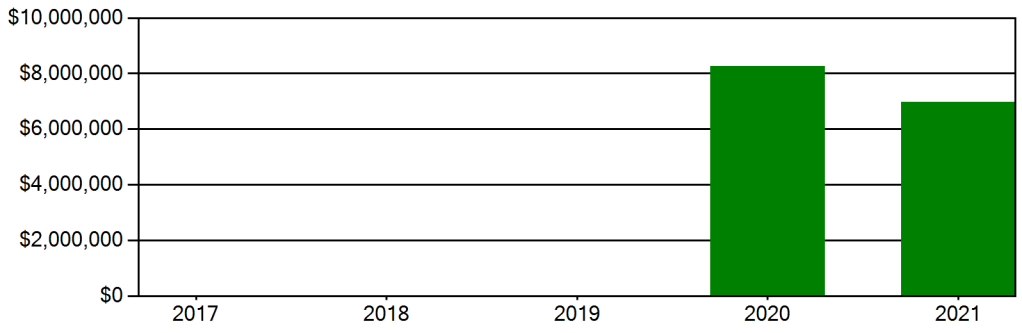
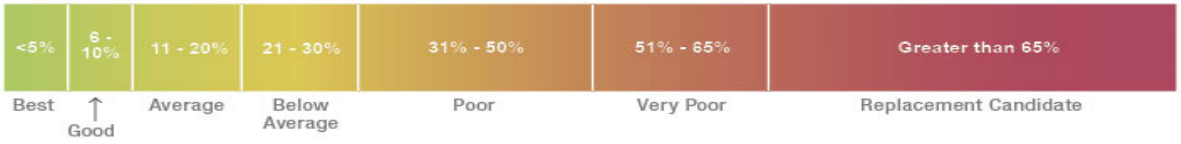


Figure 4: Life Cycle Capital Renewal Forecast

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 $67,379,760. For planning purposes, the total 5-year need at the Scituate Middle School & High School is $23,675,821 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Scituate Middle School & High School facility has a 5-year FCI of 35.12%.

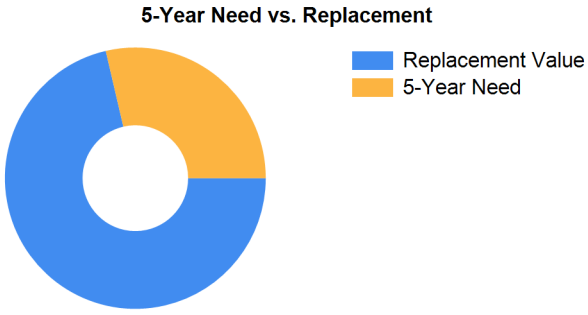


Figure 5: 5-Year FCI

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 1,012 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 Scituate Middle School & High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $1,336,306.

Summary of Findings

The Scituate Middle School & High School comprises 187,166 square feet and was constructed in 1956. Current deficiencies at this school total $8,408,278. Five year capital renewal costs total $15,267,543. The total identified need for the Scituate Middle School & High School (current deficiencies and 5-year capital renewal costs) is $23,675,821. The 5-year FCI is 35.12%.

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
Scituate Middle School & High School Totals	187,166	1956	$8,408,278	$15,267,543	$23,675,821	35.12%

**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
New Sidewalk Is Required	Traffic	600	SF	3	$13,598	9291
Note: Install sidewalks from parking lot to crosswalk at NW corner of school property (6' wide)						
Traffic Signage Is Required	Traffic	2	Ea.	3	$75,544	9310
Note: Add flashing beacons to school zone speed limit signs.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28581
Note: Backstops Require Replacement						
School has insufficient # of tennis courts.	Educational Adequacy	1	Ea.	5	$161,597	29042
Note: School has insufficient # of tennis courts.						
	Sub Total for System	**4**	**items**		**$279,068**	
	Sub Total for School and Site Level	**4**	**items**		**$279,068**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Soffit Requires Repainting	Capital Renewal	3,000	SF	5	$9,982	4541
Location: NE corner						
	Sub Total for System	**1**	**items**		**$9,982**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Existing Door Hardware Is Not ADA Compliant	Barrier to Accessibility	15	Door	3	$42,781	4543
Note: Lever handle is less than 34" above the floor in middle school classrooms 401-420.						
Location: Middle school classrooms 401-420						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	25	SF	3	$287	4545
Note: Joint cover is lifted and flooring is damaged.						
Location: Outside Room 209						
Caulking - significant areas of broken pieces &/or deteriorating caulk	Hazardous Material	585	LF	4	$11,123	Rollup
Light Deterioration or Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	702	SF	4	$20,022	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	113	Ea.	4	$32,229	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	74	LF	4	$1,688	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	271	SF	4	$2,576	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	6	Ea.	4	$1,711	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	172	LF	4	$3,924	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	1,035	SF	4	$9,840	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	3,350	SF	4	$127,648	Rollup
Wall/ceiling materials - area < 9 sq. ft. AND in children-accessible area	Hazardous Material	23	SF	4	$219	Rollup
Wall/ceiling materials - large areas (> 10 sq. ft.) of damage & area in active use - children	Hazardous Material	85	SF	4	$808	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	3	Ea.	5	$6,845	Rollup
Classroom Doors Lack Appropriate Signs	Capital Renewal	7	Ea.	5	$1,331	4540
Note: Rooms 154, 401, 402, 404, 405, 411, 412 have no room number signs.						
Location: Rooms 154, 401, 402, 404, 405, 411, 412						
	Sub Total for System	**15**	**items**		**$263,033**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Air Handler HVAC Component Requires Replacement	Capital Renewal	4	Ea.	2	$172,548	4551
Note: AHUs are aged, obsolete, and should be replaced.						

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Fin Tube Water Radiant Heater Requires Replacement	Capital Renewal	117	Ea.	2	$195,990	4552
Note: Fin tube radiation is outdated, deteriorating, and should be replaced.						
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	144,756	SF	2	$1,115,807	4553
Note: Hot water piping is original to 1956. Water is not treated and is highly corrosive. Damage can be seen at pumps.						
Energy Recover Unit Requires Replacement	Capital Renewal	4	Ea.	3	$94,667	53522
Note: Per RGB Architects in LEA Review - The units that service the gym are currently not working.						
Unit Ventilators Are Excessively Noisy	Acoustics	50	Ea.	3	$317,248	19723
Note: All classrooms						
Unit Ventilators Are Excessively Noisy	Acoustics	25	Ea.	3	$158,624	19724
Note: All classrooms						
Exhaust Fan Ventilation Requires Replacement	Capital Renewal	2	Ea.	4	$5,355	4542
Note: Greenhouse supply fans.						
Lab lacks an appropriate fume hood.	Educational Adequacy	4	Ea.	4	$87,943	Rollup
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	3	Ea.	4	$28,589	4549
Note: Pump bodies are showing signs of corrosion and poor seals. According to the building manager the water quality is very poor.						
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	6	Ea.	4	$45,770	4557
Note: Pump bodies are showing signs of corrosion and poor seals. According to the building manager the water quality is very poor.						
The Chemistry Lab Fume Hood(s) Require Replacement	Capital Renewal	3	Ea.	4	$85,563	4539
Note: Fume hoods are outdated, obsolete, and should be replaced.						
	Sub Total for System	**11**	**items**		**$2,308,104**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room last power shut-off valves for utilities	Educational Adequacy	4	Ea.	1	$5,649	Rollup
The Distribution Panel Requires Replacement	Capital Renewal	2	Ea.	2	$58,335	4554
Location: Old electrical room						
The Electrical Receptacles Are Inadequate And More are Needed	Functional Deficiency	150	Ea.	3	$85,563	4558
Note: Inadequate receptacles throughout building. More are needed.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	240	Ea.	5	$119,104	Rollup
	Sub Total for System	**4**	**items**		**$268,650**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Emergency Eyewash Requires Replacement	Capital Renewal	1	Ea.	3	$4,753	53532
Note: Identified as a high priority item by RGB Architects in LEA Review - Replace HS Shop eye wash						
Sump Pump Requires Replacement	Capital Renewal	2	Ea.	3	$2,898	4550
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	50,000	SF	3	$402,294	4548
Note: Domestic hot water piping in high school appears to be original to the building. According to the building manager, water has high pH levels which can lead to premature failure.						
Water Storage Tank Requires Replacement	Capital Renewal	2	Ea.	3	$69,211	4556
Note: Tanks appear to be original to 1956 install and should be replaced.						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	3	Ea.	4	$22,132	4547
Note: Water fountains in the boy's locker room, girl's locker room, and hallway outside of auxiliary gym are non-functional.						
Room lacks a drinking fountain.	Educational Adequacy	8	Ea.	5	$8,822	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	45	Ea.	5	$68,022	Rollup
	Sub Total for System	**7**	**items**		**$578,133**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Code Allowances	Code Compliance	1	Ea.	1	$2,500	53615
Note: Per LEA review feedback & 5 year CIP - Fire marshal comments modifications (detectino in science room storage, detection in bathrooms (office), emergency lighting stage music room). Refer to fire code deficiencies cited in fire marshal letter dated August 26, 2016.						
Fire Code Allowances	Code Compliance	1	Ea.	1	$23,302	53616
Note: Per LEA review feedback and 5-year CIP - Windows for rescue in science wing. Refer to fire code deficiencies cited in fire marshal letter dated August 26, 2016.						

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Install Fire Sprinklers (NFPA 13)	Code Compliance	131,966	SF	1	$1,728,556	53530
Note: High priority item identified by RGB Architects - Modifications required to address Fire Marshal citations						
Room lacks shut-off valves for utilities. (International Fuel Gas Code, Section 409.6)	Educational Adequacy	4	Ea.	1	$45,633	Rollup
	Sub Total for System	**4**	**items**		**$1,799,991**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	18	Ea.	3	$102,675	Rollup
Technology: Auditorium AV/Multimedia system is inadequate.	Technology	1	Room	3	$332,744	18462
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	96	Ea.	3	$45,633	18461
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	176	Ea.	3	$83,661	18474
Technology: Campus wireless infrastructure inadequate.	Technology	35	Ea.	3	$46,584	18463
Technology: Campus wireless infrastructure inadequate.	Technology	25	Ea.	3	$33,274	18475
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	30	Ea.	3	$598,939	18464
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$19,965	18466
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	20	Ea.	3	$399,293	18476
Technology: Instructional spaces do not have local sound reinforcement.	Technology	31	Ea.	3	$147,358	18468
Technology: Instructional spaces do not have local sound reinforcement.	Technology	21	Ea.	3	$99,823	18479
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	2	Ea.	3	$10,648	18458
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	3	Ea.	3	$15,972	18472
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$45,253	18455
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$45,253	18469
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18470
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18471
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$24,338	18454
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$24,338	18456
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$4,753	18457
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	18453
Technology: Main Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$29,281	18452
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	1	Ea.	3	$428	18460
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	40	Ea.	3	$17,113	18473
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	144	Ea.	3	$61,605	18465

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	144	Ea.	3	$61,605	18477
Technology: Network system inadequate and/or near end of useful life	Technology	48	Ea.	3	$228,167	18467
Technology: Network system inadequate and/or near end of useful life	Technology	16	Ea.	3	$76,056	18478
Technology: Network system inadequate and/or near end of useful life	Technology	2	Ea.	3	$15,211	53537
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$4,753	18459
	Sub Total for System	**30**	**items**		**$2,656,675**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	4	Ea.	3	$18,253	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	300	Ea.	4	$147,596	4555
Note: Lockers are dented with broken doors.						
Location: Locker rooms						
Room lacks an appropriate refrigerator.	Educational Adequacy	8	Ea.	5	$68,450	Rollup
	Sub Total for System	**3**	**items**		**$234,299**	
	Sub Total for Building 01 - Main Building	**75**	**items**		**$8,118,867**	
	Total for Campus	**79**	**items**		**$8,397,935**	

Buildings with no reported deficiencies

02 - Storage

03 - Public Works

04 - Pump House

Scituate Middle School & 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)	1,200	LF	$80,673	5
Playfield Areas	HS Athletic Components	1	Ea.	$452,935	5
Note:	Football field				
Roadway Pavement	Asphalt	58	CAR	$191,894	5
Parking Lot Pavement	Asphalt	250	CAR	$827,130	5
	Sub Total for System	**4**	**items**	**$1,552,633**	
	Sub Total for Building -	**4**	**items**	**$1,552,633**	

Building: 01 - Main Building

Roofing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Low-Slope Roofing	Single Ply	110,000	SF	$1,411,785	4
Canopy Roofing	Canopies	1,000	SF	$57,042	5
	Sub Total for System	**2**	**items**	**$1,468,827**	

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Window Wall	Storefront / Curtain Wall (Bldg SF)	23,656	SF	$1,907,126	4
Exterior Wall Veneer	Stucco - Bldg SF basis	9,098	SF	$304,391	5
Exterior Wall Veneer	Metal Panel - Bldg SF basis	1,820	SF	$173,027	5
Exterior Operating Windows	Aluminum - Windows per SF	300	SF	$50,767	5
Exterior Entrance Doors	Steel - Insulated and Painted	43	Door	$275,940	5
Exterior Utility Doors	Overhead	3	Door	$110,376	5
	Sub Total for System	**6**	**items**	**$2,821,627**	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System	145,573	SF	$1,726,569	4
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	145,573	SF	$1,314,760	4
Resilient Flooring	Vinyl Composition Tile Flooring	147,392	SF	$1,690,843	4
Interior Swinging Doors	Wood	145	Door	$668,578	5
Interior Coiling Doors	Overhead	4	Door	$147,168	5
Interior Door Supplementary Components	Door Hardware	230	Door	$721,579	5
Suspended Plaster and	Painted ceilings	36,393	SF	$152,234	5
Tile Wall Finish	Ceramic Tile wall	500	SF	$11,123	5
Wall Paneling	Wood Panel wall	9,098	SF	$83,035	5
Wall Painting and Coating	Painting/Staining (Bldg SF)	135,975	SF	$898,434	5
Flooring Treatment	Concrete Floor - Finished	18,197	SF	$236,928	5
Tile Flooring	Ceramic Tile	1,821	SF	$48,901	5
Wood Flooring	Wood Flooring - All Types	1,820	SF	$60,386	5
Note:	Stage and band room				
Resilient Flooring	Rubber Tile Flooring	9,098	SF	$169,962	5
Note:	Ramps and locker rooms				
Carpeting	Carpet	1,820	SF	$39,596	5
	Sub Total for System	**15**	**items**	**$7,970,095**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Decentralized Cooling	Window Units	5	Ea.	$16,694	4
Decentralized Heating Equipment	Unit Heater Steam/HW (250 MBH)	18	Ea.	$60,955	4
Note:	Cabinet unit heater				
Air Distribution	Energy Recovery Unit (10,000 CFM)	1	Ea.	$35,075	5
Decentralized Heating Equipment	Radiant Heater - Radiator Water	5	Ea.	$25,830	5
Exhaust Air	Roof Exhaust Fan - Large	20	Ea.	$277,870	5
Exhaust Air	Roof Exhaust Fan - Large	3	Ea.	$41,680	5
	Sub Total for System	**6**	**items**	**$458,105**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Electrical Service	Switchgear - Main Dist Panel (1200 Amps)	2	Ea.	$138,117	4
Packaged Generator Assemblies	Emergency Generator (100 KW)	1	Ea.	$104,577	5
	Sub Total for System	**2**	**items**	**$242,694**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Backflow Preventers - 2 in. (Ea.)	1	Ea.	$3,921	5
Plumbing Fixtures	Showers	21	Ea.	$159,717	5
	Sub Total for System	**2**	**items**	**$163,638**	

Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Lockers	950	Ea.	$467,386	5
Casework	Fixed Cabinetry	8	Room	$89,502	5
	Sub Total for System	**2**	**items**	**$556,889**	
	Sub Total for Building 01 - Main Building	**35**	**items**	**$13,681,874**	

Building: 03 - Public Works

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	5,000	SF	$33,037	3
	Sub Total for System	**1**	**items**	**$33,037**	
	Sub Total for Building 03 - Public Works	**1**	**items**	**$33,037**	
	Total for: Scituate Middle School & High School	**40**	**items**	**$15,267,544**	

Supporting Photos


Exterior Finishes

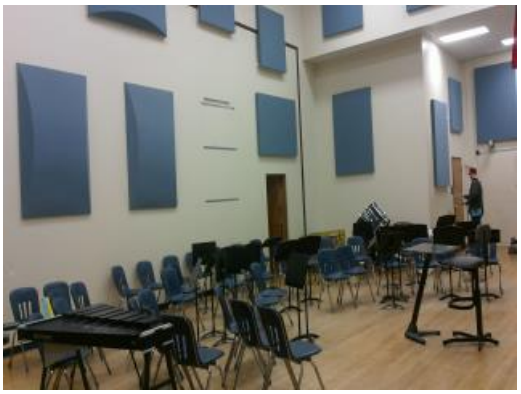

Science Classroom


Exterior Brick

Plaque


South Elevation


Typical Restroom Lavatories


Band Classroom


Site Aerial


Senior High Cafeteria


Main Gymnasium


Art Classroom


Typical Middle School Classroom


Lobby


Typical Senior High Classroom


Middle School Cafeteria


Music Classroom

Greenhouse

Band Room

Library

Hallway Finishes

Northwest Elevation

Auditorium


Toilet Partitions


Art Room


Library


Auxiliary Gymnasium


East Elevation


Plaque


Lab Fume Hood Exhaust


Outdated Fume Hood


Greenhouse Fans


Worn Soffit Paint


Lifted Joint Cover With Damaged VCT


Non-Compliant Door Hardware


Damaged Canopy Roof Edge


Damaged Canopy Roof Edge


Damaged Drinking Fountains


Non-Functional Drinking Fountain


Corroded Pumps


Non-Functional Drinking Fountain


Aged Air Handler


Corroded Pumps


Typical Deteriorating Radiant Heater


Typical Aged Radiant Heater


Damaged Lockers


Aged Distribution Panel

Building Exterior

Dented Lockers