

Providence - Mount Pleasant High School / Evolutions HS

June 2017

434 Mt. Pleasant Avenue, Providence, RI 02908





Introduction

Mount Pleasant High School / Evolutions HS, located at 434 Mt. Pleasant Avenue in Providence, Rhode Island, was built in 1938. It comprises 298,200 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.

Mount Pleasant High School / Evolutions HS serves grades 9 - 12, has 75 instructional spaces, and has an enrollment of 960. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Mount Pleasant High School / Evolutions HS is 1,315 with a resulting utilization of 73%.

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 Mount Pleasant High School / Evolutions HS the 5-year need is \$43,859,079. 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 Mount Pleasant High School / Evolutions HS



Providence - Mount Pleasant High School / Evolutions HS

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 Mount Pleasant High School / Evolutions HS campus, identified by discipline and building.

<u>Site</u>

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
	Pre-cast Concrete Panel Exterior Wall
	Steel Exterior Windows
	Aluminum Exterior Windows
	Wood Exterior Doors
	Steel Exterior Entrance Doors

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

01 - Main Building:	EPDM Roofing	
or main banaing.	Let Divi Mooning	

Interior

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

01 - Main Building:	Steel Interior Doors		
	Wood Interior Doors		
	Overhead Interior Coiling Doors		
	Interior Door Hardware		
	Suspended Acoustical Grid System		
	Suspended Acoustical Ceiling Tile		
	Adhered Acoustical Ceiling Tiles		
	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		



Providence - Mount Pleasant High School / Evolutions HS

01 - Main Building:	Athletic/Sport Flooring
---------------------	-------------------------

Mechanical

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

01 - Main Building:	400 MBH Cast Iron Water Boiler
	8,500 MBH Cast Iron Boiler
	750 MBH Copper Tube Boiler
	96 GPM Steam to Water Heat Exchanger
	Steam Condensate Receiver, Tank and Pump
	250 MBH Steam Unit Heater
	Radiant Steam Heater
	DDC Heating System Controls
	Electronic Heating System Controls
	1 Ton Ductless Split System
	Window Units
	1,000 CFM Energy Recovery Unit
	5 HP VFD
	5 HP Pump
	2-Pipe Steam Hydronic Distribution System
	2-Pipe Cold Water Hydronic Distribution System
	Ductwork
	15 Ton DX Gas Roof Top Unit
	Wall Exhaust Fan
	Laboratory Fume Hood
	Small Roof Exhaust Fan
	•

Plumbing

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

01 - Main Building:	1,000 Gallon Water Storage Tank
	250 Gallon Water Storage Tank
	2" Backflow Preventers
	4" Backflow Preventers
	Gas Piping System
	80 Gallon Electric Water Heater
	9.4 GPM Instant Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain



Providence - Mount Pleasant High School / Evolutions HS

01 - Main Building:	Restroom Lavatories			
	Showers			
	Toilets			
	Urinals			
	Sump Pump			
	275 Gallon Above Ground Fuel Oil Storage Tank			

Electrical

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

01 - Main Building:	150 kW Emergency Generator
	Solar Panels
	Automatic Transfer Switch
	1,200 Amp Switchgear
	2,000 Amp Switchgear
	3 KVA Transformer
	45 KVA Transformer
	500 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 277/480 100A
	Panelboard - 277/480 225A
	Panelboard - 277/480 400A
	Building Mounted Lighting Fixtures
	Light Fixtures

M*A*P*P*S ©, Jacobs 2017 6



Providence - Mount Pleasant High School / Evolutions HS

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	-	-	\$269,456	\$1,377,467	\$472,319	\$2,119,242	6.82 %
Roofing	-	-	\$188,457	-	-	\$188,457	0.61 %
Structural	-	-	-	-	-	\$0	0.00 %
Exterior	-	\$4,191,451	\$1,764,180	\$2,501,928	-	\$8,457,559	27.22 %
Interior	-	-	\$3,445,585	\$2,443,849	\$2,805,927	\$8,695,361	27.99 %
Mechanical	-	\$225,149	\$13,252	\$200,283	-	\$438,685	1.41 %
Electrical	-	\$148,239	\$4,910	\$53,265	\$170,936	\$377,350	1.21 %
Plumbing	-	-	-	\$10,464	\$26,112	\$36,577	0.12 %
Fire and Life Safety	\$4,381,536	-	-	-	-	\$4,381,536	14.10 %
Technology	-	-	\$5,009,798	-	-	\$5,009,798	16.12 %
Conveyances	-	-	\$104,247	-	-	\$104,247	0.34 %
Specialties	-	-	\$197,115	\$949,993	\$114,319	\$1,261,427	4.06 %
Total	\$4,381,536	\$4,564,839	\$10,997,000	\$7,537,250	\$3,589,613	\$31,070,239	

^{*}Displayed totals may not sum exactly due to mathematical rounding

The building systems with the most need include:

Interior	-	\$8,695,361
Exterior	-	\$8,457,559
Technology	-	\$5,009,798

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

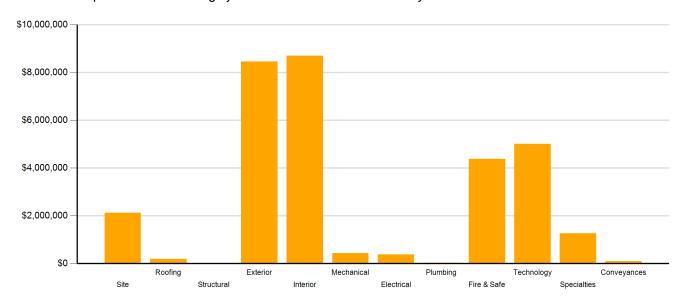


Figure 2: System Deficiencies



Providence - Mount Pleasant High School / Evolutions HS

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

Category	1	2	3	4	5	Total
Acoustics	-	-	\$547,609	\$36,747	-	\$584,357
Barrier to Accessibility	-	-	\$404,061	\$567,104	-	\$971,165
Capital Renewal	-	\$4,564,839	\$4,793,208	\$6,204,395	\$2,823,144	\$18,385,587
Code Compliance	\$4,283,023	-	-	-	-	\$4,283,023
Educational Adequacy	\$98,513	-	\$125,866	\$380,006	\$766,469	\$1,370,855
Functional Deficiency	-	-	\$199,694	-	-	\$199,694
Hazardous Material	-	-	-	\$348,998	-	\$348,998
Technology	-	-	\$4,911,645	-	-	\$4,911,645
Traffic	-	-	\$14,915	-	-	\$14,915
Total	\$4,381,536	\$4,564,839	\$10,997,000	\$7,537,250	\$3,589,613	\$31,070,239

^{*}Displayed totals may not sum exactly due to mathematical rounding

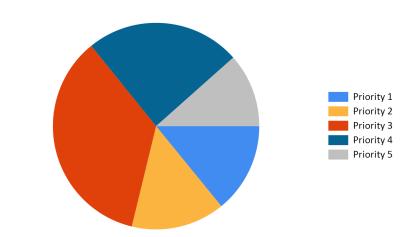


Figure 3: Current deficiencies by priority

M*A*P*P*S ©, Jacobs 2017



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	\$2,119,242	\$0	\$0	\$0	\$217,674	\$0	\$217,674	\$2,336,916
Roofing	\$188,457	\$0	\$0	\$0	\$0	\$0	\$0	\$188,457
Structural	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Exterior	\$8,457,559	\$0	\$0	\$0	\$0	\$240,329	\$240,329	\$8,697,888
Interior	\$8,695,361	\$0	\$0	\$0	\$0	\$2,689,096	\$2,689,096	\$11,384,460
Mechanical	\$438,685	\$0	\$0	\$0	\$13,711	\$5,142,895	\$5,156,606	\$5,595,291
Electrical	\$377,350	\$0	\$0	\$0	\$15,108	\$0	\$15,108	\$392,458
Plumbing	\$36,577	\$0	\$0	\$0	\$74,673	\$3,510,681	\$3,585,354	\$3,621,931
Fire and Life Safety	\$4,381,536	\$0	\$0	\$0	\$0	\$884,673	\$884,673	\$5,266,209
Technology	\$5,009,798	\$0	\$0	\$0	\$0	\$0	\$0	\$5,009,798
Conveyances	\$104,247	\$0	\$0	\$0	\$0	\$0	\$0	\$104,247
Specialties	\$1,261,427	\$0	\$0	\$0	\$0	\$0	\$0	\$1,261,427
Total	\$31,070,239	\$0	\$0	\$0	\$321,166	\$12,467,674	\$12,788,840	\$43,859,079

^{*}Displayed totals may not sum exactly due to mathematical rounding

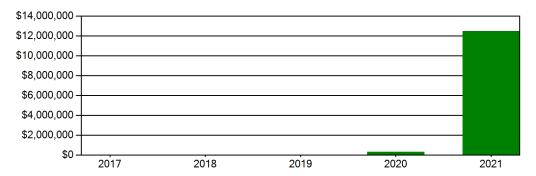


Figure 4: Life Cycle Capital Renewal Forecast



Facility Condition Index (FCI)

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



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

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

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is \$107,352,000. For planning purposes, the total 5-year need at the Mount Pleasant High School / Evolutions HS is \$43,859,079 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Mount Pleasant High School / Evolutions HS facility has a 5-year FCI of 40.86%.

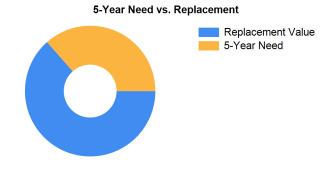


Figure 5: 5-Year FCI

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.



Providence - Mount Pleasant High School / Evolutions HS

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 1,612 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 Mount Pleasant High School / Evolutions HS cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be \$1,458,000.



Summary of Findings

The Mount Pleasant High School / Evolutions HS comprises 298,200 square feet and was constructed in 1938. Current deficiencies at this school total \$31,070,239. Five year capital renewal costs total \$12,788,840. The total identified need for the Mount Pleasant High School / Evolutions HS (current deficiencies and 5-year capital renewal costs) is \$43,859,079. The 5-year FCI is 40.86%.

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
Mount Pleasant High School / Evolutions HS Totals	298,200	1938	\$31,070,239	\$12,788,840	\$43,859,079	40.86%

^{*}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 Re	quire Replacement	Capital Renewal	5,000 SF	3	\$133,614	19223
Note:	Concrete sidewalks are deteriorated. They are spalled and cra	cked with rebar visible in places.				
Traffic Signage Is R	equired	Traffic	2 Ea.	3	\$5,966	22032
Note:	Add school zone signs on Mt Pleasant Ave					
Traffic Signage Is R	equired	Traffic	3 Ea.	3	\$8,949	22033
Note:	Replace crosswalk signage on Mt Pleasant Ave					
Asphalt Paving Req	uires Replacement	Capital Renewal	70 CAR	4	\$302,790	19221
Note:	Asphalt roads have been patched several times and but are st	ill showing signs of cracks and we	ear.			
Asphalt Paving Req	uires Replacement	Capital Renewal	100 CAR	4	\$432,557	19222
Note:	Parking lots are weathered, cracked, and spalled.					
Asphalt Paving Req	uires Replacement	Capital Renewal	115 CAR	4	\$497,441	53516
Note:	Add additional visitor, student parking per SBA.					
Backstops Require	Replacement	Educational Adequacy	1 Ea.	4	\$37,288	28562
Note:	Backstops Require Replacement					
Site Drainage Requ	ires Regrading	Capital Renewal	5,400 SF	4	\$107,390	53515
Note:	Regrade and reseed lawn area per SBA.					
School has insufficie	ent baseball fields.	Educational Adequacy	1 Ea.	5	\$273,448	28323
Note:	School has insufficient baseball fields.					
School has insufficie	ent softball fields.	Educational Adequacy	1 Ea.	5	\$198,871	28367
Note:	School has insufficient softball fields.					
		Sub Total for System	10 item	s	\$1,998,316	
Electrical						
Deficiency		Category	Qty UoM	Priority	Repair Cost	ID
The Ground Mounte	ed Lighting Requires Replacement	Capital Renewal	1 Ea.	5	\$2,409	19224
Note:	Uplighting is needed at the flagpole.					
		Sub Total for System	1 item	s	\$2,409	
	Sub To	tal for School and Site Level	11 item	s	\$2,000,724	
Building: 0	1 - Main Building					
•	a zanamg					
Site						
Deficiency		Category	Qty UoM		Repair Cost	ID
The Room Signage	Is Not ADA Compliant With Raised Letters And Braille	Barrier to Accessibility	1 Ea.	3	\$120,927	53514
Note:	Replace deteriorated or inadequate signage per SBA.					
		Sub Total for System	1 item	S	\$120,927	
Roofing						
Deficiency		Category	Qty UoM	Priority	Repair Cost	ID
Drains And Piping A	Are Needed To Eliminate Ponding	Functional Deficiency	31 Ea.	3	\$186,442	53507
Note:	Add new roof drainage per SBA.					
Modified Membrane	Has Holes That Should Be Repaired	Capital Renewal	24 Ea.	3	\$2,015	19241
Note:	The gym teacher reported four leaks in the gym ceiling. The as auditorium, the library, the greenhouse, and the towers.	ssessment team observed eight o	other areas with	evidence of	roof leaks: in th	ie
		Sub Total for System	2 item	s	\$188,457	
Exterior						
Deficiency		Category	Qty UoM	Priority	Repair Cost	ID
The Aluminum Wind	dow Requires Replacement	Capital Renewal	16,119 SF	2	\$2,991,036	19226
The Steel Window F	Requires Replacement	Capital Renewal	5,040 SF	2	\$1,182,161	19227
The Wood Exterior	Door Requires Replacement	Capital Renewal	2 Door	2	\$18,254	19225
Note:	Exterior wood doors are aged and weathered and should be re	eplaced.				





Deficiency		Category	Qty UoM	Priority	Repair Cost	ID
The Brick Exterior R	equires Repointing	Capital Renewal	40,000 SF Wall	3	\$1,764,180	53502
Note:	Repoint brick and repair structural cracks in stair towers per SBA.					
	Exterior Requires Repair	Capital Renewal	1,000 LF	4	\$2,501,928	19240
Note:	Cast stone is cracked and some is falling off of the building.					
		Sub Total for System	5 items	i	\$8,457,559	
Interior						
Deficiency		Category	Qty UoM	Priority	Repair Cost	ID
Classroom Entry Do	ors Provide Insufficient Sound Isolation	Acoustics	60 Ea.	3	\$547,609	27826
Note:	All Classrooms					
The Acoustical Ceilin	ng Tiles Require Replacement	Capital Renewal	17,710 SF	3	\$175,390	19228
Note:	Ceiling tiles are heavily stained.					
The Ceramic Tile Flo	poring Requires Replacement	Capital Renewal	11,364 SF	3	\$334,624	19230
Note:	Ceramic tile floor is cracked and worn with missing tile pieces.					
The Interior Door Ha	ardware Requires Replacement	Barrier to Accessibility	52 Door	3	\$178,888	19235
Note:	Non-compliant door hardware should be replaced.					
The Vinyl Composition	on Tile Requires Replacement	Capital Renewal	175,614 SF	3	\$2,209,073	19229
Note:	Linoleum flooring should be replaced.					
Adhered Acoustical	Ceiling Tile Requires Replacement	Capital Renewal	50,625 SF	4	\$601,965	19246
Note:	Adhered tiles are aged and stained.					
Ceiling Grid Require	s Replacement	Capital Renewal	17,710 SF	4	\$230,326	19244
Note:	Ceiling grid is stained and should be replaced.					
Interior Toilet Partition	on Requires Replacement	Capital Renewal	105 Ea.	4	\$503,513	53513
Note:	Toilet partition replacement per SBA.					
	Require Replacement	Capital Renewal	1,620 SF	4	\$16,212	
•	r Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	200 SF	4	\$6,255	
	1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND le area (measurement unit - each)	Hazardous Material	147 Ea.	4	\$45,973	Rollup
	1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND le area (measurement unit - linear feet)	Hazardous Material	3,440 LF	4	\$86,066	Rollup
	1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND e area (measurement unit - square feet)	Hazardous Material	19,660 SF	4	\$204,950	Rollup
	1978 in base layer(s)) -large areas(> 10 sq. ft.)of peeling/damage & dults only (measurement unit - each)	Hazardous Material	8 Ea.	4	\$2,502	Rollup
	1978 in base layer(s)) -large areas(> 10 sq. ft.)of peeling/damage & dults only (measurement unit - linear feet)	Hazardous Material	130 LF	4	\$3,253	Rollup
Room Is Excessively	y Reverberant	Acoustics	1,500 SF	4	\$36,747	27827
Note:	Gym					
Room Lighting Is Ina	adequate Or In Poor Condition.	Educational Adequacy	1,225 SF	4	\$47,246	Rollup
Stair Treads Require	e Replacement	Capital Renewal	2,000 LF	4	\$91,737	53504
Note:	Correct stair tread overlays per SBA.					
The Handrails In The	e Stair Area Are Not ADA Compliant	Barrier to Accessibility	4,000 LF	4	\$567,104	53503
Note:	Correct non-compliant hand rails at stairs and interior ramps per SBA	۸.				
Interior Walls Requir	re Repainting (Bldg SF)	Capital Renewal	224,555 SF	5	\$1,626,938	Rollup
Room lacks appropr	iate sound control.	Educational Adequacy	200 SF	5	\$7,044	Rollup
The Concrete Flooring	ng Requires Repair Or Repainting	Capital Renewal	70,950 SF	5	\$591,706	19231
Note:	Concrete floor finish is old and worn.					
The Gypsum Board	Ceilings Require Repainting	Capital Renewal	126,500 SF	5	\$580,239	Rollup
		Sub Total for System	23 items	i	\$8,695,361	
Mechanical						
Deficiency		Category	Qty UoM	Priority	Repair Cost	ID
	Replacement (SF Basis)	Capital Renewal	7,500 SF	2	-	53506





Mechanical					
Deficiency	Category	Qty UoM	Priority	Repair Cost	ID
Steam Heat Exchanger Requires Replacement	Capital Renewal	2 Ea.	2	\$104,247	19239
Note: Waste heat reclaim heat exchangers on the condensate reciever to	ank are not functional.				
Component Insulation Deteriorated And Requires Replacement	Functional Deficiency	375 LF	3	\$13,252	53508
Note: Correct uninsulated steam piping per SBA.					
Lab lacks an appropriate fume hood.	Educational Adequacy	9 Ea.	4	\$200,283	Rollup
	Sub Total for System	4 items		\$438,685	
Electrical					
Deficiency	Category	Qty UoM	Priority	Repair Cost	ID
Generator Requires Replacement	Capital Renewal	1 Ea.	2	\$135,521	19238
Note: Engine damage prevents emergency generator operation.					
The Panelboard Requires Replacement	Capital Renewal	2 Ea.	2	\$12,718	19237
Note: The panels are extremely old, missing cover plates, and/or the brea	akers are inaccessible.				
Location: Janitor's office					
The Mounted Building Lighting Requires Replacement	Capital Renewal	3 Ea.	3	\$4,910	19232
Note: Fixtures are damaged at doors 2, 4, and 9.					
Stage Lighting Requires Replacement	Capital Renewal	1 Ea.	4	\$53,265	53509
Note: Replace stage lighting per SBA.					
Remove Abandoned Equipment	Capital Renewal	6 Ea.	5	\$21,853	19236
Note: Remove vacuum system and associated appurtenances in the med on the 4th floor.	chanical room and the pneu	ımatic control pane	el, air handl	ing unit, and rad	diators
Room Has Insufficient Electrical Outlets	Educational Adequacy	292 Ea.	5	\$146,675	Rollup
	Sub Total for System	6 items		\$374,941	
Plumbing					
Deficiency	Category	Qty UoM	Priority	Repair Cost	ID
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	3 Ea.	4	\$10,464	
Note: Handwashing sinks in the cafeteria are missing.	Ouphui Nellewai	o Lu.	7	ψ10,404	10200
Room lacks a drinking fountain.	Educational	10 Ea.	5	\$11,162	Rollun
Toom done a drinking roundin.	Adequacy	10 Lu.	Ü	Ψ11,102	rtonup
Room lacks a private shower area.	Educational Adequacy	1 Ea.	5	\$10,360	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	3 Ea.	5	\$4,590	Rollup
	Sub Total for System	4 items		\$36,577	
Fire and Life Safety					
Deficiency	Category	Qty UoM	Priority	Repair Cost	ID
Emergency Exit Signage Requires Replacement	Educational Adequacy	105 Ea.	1	\$98,513	53510
Note: Replace existing exit signs per SBA.					
Install Fire Sprinklers (NFPA 13)	Code Compliance	298,200 SF	1	\$4,283,023	53391
Note: Install sprinkler system, building wide.					
	Sub Total for System	2 items		\$4,381,536	
Technology					
Deficiency	Category	Qty UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	17 Ea.	3	\$98,153	Rollup
Technology: Auditorium AV/Multimedia system is inadequate.	Technology	1 Room	3	\$364,865	23999
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	864 Ea.	3	\$450,347	23998
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	79 Ea.	3	\$1,729,458	24002
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1 Ea.	3	\$21,892	24003
Technology: Instructional spaces do not have local sound reinforcement.	Technology	80 Ea.	3	\$416,988	24007





Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	8	Ea.	3	\$46,703	23995
Technology: Intermediate Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	\$49,622	23989
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$41,282	23988
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$41,282	23990
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$41,282	23991
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$41,282	23992
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	\$41,282	23993
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	\$26,687	23987
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	7	Ea.	3	\$36,486	23994
Technology: Main Telecommunications Room ground system is inadequate or non-existent	Technology	1	Ea.	3	\$7,297	23984
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	\$55,042	23983
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	\$9,903	23985
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	693	Ea.	3	\$325,094	23997
Technology: Network system inadequate and/or near end of useful life	Technology	3	Ea.	3	\$25,019	24005
Technology: Network system inadequate and/or near end of useful life	Technology	75	Ea.	3	\$390,926	24006
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	298,220	SF	3	\$559,594	24004
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	\$8,340	23986
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	6	Ea.	3	\$31,274	23996
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	85	Ea.	3	\$141,776	24000
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	\$7,923	24001
	Sub Total for System	26	items		\$5,009,798	
Conveyances						
Deficiency	Category		UoM	Priority	Repair Cost	ID
The Access Is Not ADA Compliant And Requires A Platform Lift	Barrier to Accessibility	2	Ea.	3	\$104,247	53505
Note: Add lift at stage and teacher dining per SBA.	Sub Total for System	1	items		\$104,247	
Specialties						
Deficiency	Category	Qtv	UoM	Priority	Repair Cost	ID
Auditorium Seating Requires Replacement	Capital Renewal	125		3	\$169,401	
Note: Replace auditorium seating per SBA.						
Room has insufficient writing area.	Educational Adequacy	6	Ea.	3	\$27,714	Rollup
Replace Cabinetry In Classes/Labs	Capital Renewal	25	Room	4	\$306,695	19242
Note: Cabinetry is worn with peeling laminate.						

M•A•P•P•S ©, Jacobs 2017 18





Deficiency	Category	Qty UoM	Priority	Repair Cost	ID
Separate Student Kitchen Stations Are Required	Educational Adequacy	1 Ea.	4	\$3,772	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	1,016 Ea.	4	\$548,110	53511
Walk In Cooler/Freezer Is Required	Educational Adequacy	1 Ea.	4	\$91,417	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	10 Ea.	5	\$86,605	Rollup
The room lacks a washer and/or dryer.	Educational	2 Ea.	5	\$27,714	Rollup

Adequacy Sub Total for System 8 items \$1,261,427 Sub Total for Building 01 - Main Building 82 items \$29,069,514 **Total for Campus** 93 items \$31,070,239



Mount Pleasant High School / Evolutions HS - Life Cycle Summary Yrs 1-5 Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Parking Lot Pavement	Asphalt		65	CAR	\$217,674	4
		Sub Total for System	1	items	\$217,674	
		Sub Total for Building -	1	items	\$217,674	
Building: 01 - Main Build	ling					
Exterior						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Entrance Doors	Steel - Insulated and Painted		37	Door	\$240,329	5
		Sub Total for System	1	items	\$240,329	
Interior						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Interior Swinging Doors	Steel			Door	\$294,719	5
Resilient Flooring	Rubber Tile Flooring		11,363	SF	\$214,861	5
Interior Swinging Doors	Wood		467	Door	\$2,179,516	5
		Sub Total for System	3	items	\$2,689,096	
Mechanical						
Uniformat Description	LC Type Description		Otv	UoM	Renair Cost	Remaining Life
Decentralized Heating Equipment	Unit Heater Steam/HW (250 MBH)			Ea.	\$13,711	4
Exhaust Air	Wall Exhaust Fan			Ea.	\$37,944	5
Decentralized Heating Equipment	Radiant Heater - Radiator Steam			Ea.	\$1,568,709	5
Heat Generation	Boiler - Cast Iron (8500 MBH)			Ea.	\$1,310,654	5
Heat Generation	Boiler - Cast Iron - Water (400 MBH)			Ea.	\$31,636	5
Facility Hydronic Distribution	2-Pipe Steam System (Hot)		281,200		\$2,193,952	5
		Sub Total for System		items	\$5,156,605	•
Electrical					**, **,	
	107 8 17		0.		D : 0 :	5
Uniformat Description	LC Type Description			UoM	•	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	Out Tatal for Ourton		Ea.	\$15,108	4
D		Sub Total for System	1	items	\$15,108	
Plumbing						
Uniformat Description	LC Type Description			UoM	-	Remaining Life
Plumbing Fixtures	Refrigerated Drinking Fountain			Ea.	\$74,673	4
Plumbing Fixtures	Lavatories		1	Ea.	\$3,220	5
	: Kitchen single bowl sink			_	04.407	_
Building Support Plumbing System Supplementary Components	Sump Pump		1	Ea.	\$1,467	5
Domestic Water Piping	Domestic Water Piping System (Bldg.SF)		298,200	SF	\$2,428,515	5
Fuel Storage Tanks	Above Ground Fuel Oil StorageTank (275 Gal)		2	Ea.	\$962	5
Plumbing Fixtures	Mop/Service Sinks		6	Ea.	\$15,647	5
Plumbing Fixtures	Classroom Lavatories		74	Ea.	\$203,657	5
Plumbing Fixtures	Urinals		37	Ea.	\$49,775	5
Plumbing Fixtures	Toilets		92	Ea.	\$265,589	5
Plumbing Fixtures	Restroom Lavatories		90	Ea.	\$289,781	5
Plumbing Fixtures	Showers		16	Ea.	\$123,172	5
Plumbing Fixtures	Showers		16	Ea.	\$123,172	5
Domestic Water Equipment	Water Heater - Electric - 80 gallon		1	Ea.	\$5,724	5
		Sub Total for System	13	items	\$3,585,352	
Fire and Life Safety						
Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		298,200	SF	\$884,673	5
		Sub Total for System	1	items	\$884,673	
	Sub Total for	Building 01 - Main Building	25	items	\$12,571,164	
	Total for: Mount Pleasant F	ligh School / Evolutions HS	26	items	\$12,788,838	



Supporting Photos



Asphalt Parking



Patched Roadway



Site Aerial



Deteriorated Sidewalk





Front Elevation



Building Signage



Mt. Pleasant Street



Auditorium Elevation



Cafetria / Large Gym Exterior



Exterior Finishes





Weathered Exterior Wood Doors



Aged Steel Frame Windows



Worn Linoleum Flooring



Worn And Missing Tiles



Peeling Concrete Floor Finish



Peeling Ceiling Paint





Pneumatic Control Panel



Abandoned AHU



Abandoned Vacuum System



Aged Electrical Panel



Heat Exchangers



Worn And Peeling Cabinets







Peeling Wall Paint



Stained Ceiling Grid And Tiles



Aged And Stained Ceiling Tiles



Radiator Cabinets



Boilers and Boiler Control Panel



Auditorium





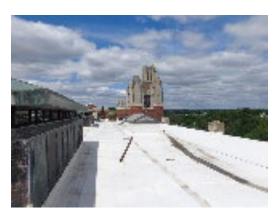
Dual Electrical Service Entrance



Typical Classroom



Building Entrance



Roof



Fire Alarm Control Panel



Cafeteria

M•A•P•P•S ©, Jacobs 2017 26



Providence - Mount Pleasant High School / Evolutions HS



Typical Hallway Radiator



Small Gymnasium



North Elevation



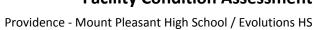
East Elevation



West Elevation



Building Plaque







Roof Equipment



Solar Panels



Hallway Finishes



South Elevation



Small Boiler



Library

M*A*P*P*S ©, Jacobs 2017 28



Providence - Mount Pleasant High School / Evolutions HS



Restroom Finishes